VOLUME 2

TECHNICAL

PROPOSAL

March 17, 2021

Re: <u>KGM Gaming, LLC – RFP Proposal for NY Lottery C202017</u>

To Whom It May Concern:

Enclosed and contained within this proposal contains all relative materials being submitted by KGM Gaming, LLC, in regards to the above-captioned matter for consideration and approval.
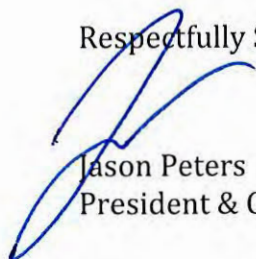
The following individuals may be contacted directly in regards to the materials contained within this proposal:

Jason Peters, President & CFO
KGM Gaming, LLC
4250 Wissahickon Avenue
Philadelphia, PA, 19129
Phone: (267)-238-4913
Email: jpeters@kgmgaming.com

Jason Cohen, Executive Vice President
KGM Gaming, LLC
4250 Wissahickon Avenue
Philadelphia, PA, 19129
Phone: (267)-238-4914
Email: jpeters@kgmgaming.com

This proposal will remain valid at least one hundred and eighty (180) days from the due date of the Proposals.

Respectfully Submitted,

Jason Peters
President & CFO

Enclosures

NEW YORK STATE OF OPPORTUNITY. | **Gaming Commission**

RFP: C202017 – New York Lottery Video Lottery Games

BIDDER ACKNOWLEDGEMENT OF ADDENDUM

Amendment Number: One

Date Issued: February 23, 2021

Summary:

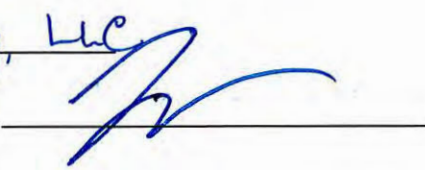The Commission hereby amends the Schedule of Events as follows (changes made in red):

Schedule of Events
The following dates are established for informational and planning purposes. The New York State Gaming Commission reserves the right to adjust this schedule, in its sole discretion.

RFP Issued	February 5, 2021
Bidders' First Questions Due	February 17, 2021, by 3:00 p.m.
Commission Responses to First Questions	February 23,2021
Bidders' Second Questions Due	February 24, 2021, by 3:00 p.m.
Commission Responses to Second Questions	March 1, 2021
Bidders' Third Questions Due	March 3, 2021, by 3:00 p.m.
Commission Responses to Third Questions	March 8, 2021
Primary Bidders' Proposals Due	March 19, 2021, by 3:00 p.m.
Contract Start Date	July 1, 2021

Questions and answers are attached.

By signing below, the bidder attests to receiving and responding to the amendment number indicated above.

FIRM NAME: _KGM Gaming, LLC_

REPRESENTATIVE SIGNATURE: _____

NEW YORK STATE OF OPPORTUNITY. | **Gaming Commission**

RFP: C202017 – New York Lottery Video Lottery Games

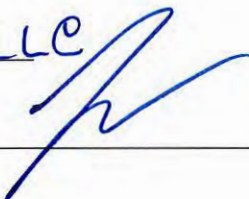## BIDDER ACKNOWLEDGEMENT OF ADDENDUM

Amendment Number: Two

Date Issued: March 1, 2021

Summary:

Questions and answers are attached.

By signing below, the bidder attests to receiving and responding to the amendment number indicated above.

FIRM NAME: *K&M Gaming, LLC*

REPRESENTATIVE SIGNATURE: _____

Attachment 1

NEW YORK STATE OF OPPORTUNITY. | **Gaming Commission**

RFP: C202017 – New York Lottery Video Lottery Games

BIDDER ACKNOWLEDGEMENT OF ADDENDUM

Amendment Number: Three

Date Issued: March 8, 2021

Summary:

Questions and answers are attached.

By signing below, the bidder attests to receiving and responding to the amendment number indicated above.

FIRM NAME: _KGM Gaming, LLC_

REPRESENTATIVE SIGNATURE: _____

NEW YORK STATE OF OPPORTUNITY. | **Gaming Commission**

One Broadway Center, Schenectady, NY 12305
www.gaming.ny.gov

RFP – C202017 New York Lottery Video Lottery Games

DOCUMENT SUBMITTAL CHECKLIST

Submissions Required with Proposal:

Description of Document	RFP	Submittal Requirements	Checklist
Transmittal Letter	§4.2 §4.3	With Proposal	✓
Bidder Acknowledgement of Addendum (Attachment 1)	§1.12	With Proposal, if applicable	✓
Document Submittal Checklist (Attachment 3)	§4.2 §4.3	With Proposal	✓
Contract Form (Appendix B) (incorporates Appendix A)	§2.2	Must be signed—With Proposal	✓
Bidder/Offerer Disclosure/Certification Form (Appendix C)	§1.11	With Proposal	✓
Non-Collusive Bidding Certification (Appendix D)	§1.1	With Proposal	✓
NYS Vendor Responsibility Questionnaire (Appendix E)	§1.14	With Proposal, unless filed online	✓
Encouraging Use of New York State Businesses in Contract Performance (Appendix I)	§2.22	With Proposal	✓
Work Force Employment Staffing Plan (Appendix J-2)	§2.18	With Proposal	✓
MWBE Utilization Plan Form (Appendix J-4) • Proposed Plan	§2.18	Proposed plan, including estimated percentage—With Proposal	✓
Diversity Practices Questionnaire (Appendix K)	§4.2 §4.3	With Proposal	✓
Participation Opportunities for New York State Service-Disabled Veteran Owned Businesses (Appendix L)	§2.19	With Proposal	✓
Vendor Assurance of No Conflict of Interest or Detrimental Effect (Appendix M)	§1.20	With Proposal	✓
Statement on Sexual Harassment (Appendix N)	§1.23	With Proposal	✓

Anti-Discrimination EO 177 Certification (Appendix O)	§1.24	With Proposal		✓
Insurer Qualifications and Insurance Requirements (Appendix P) • Compliance Statement	§2.15	Include a statement of compliance with the insurer qualifications and insurance requirement—With Proposal		✓
Bond Requirements (Appendix Q)	§2.16	With Proposal and upon award (See Appendix Q)		✓
Video Lottery Gaming Application For Agent/Vendor (Appendix S)	§4.2 §4.3	With Proposal		✓
Designation of Proprietary Information (FOIL)	§1.15	With Proposal		✓
Disclosure of Litigation	§1.19	With Proposal		✓
References	§4.2 §4.3	With Proposal		✓
Technical & Pricing Proposals	§4.2 §4.3	Submit Technical and Pricing Proposals Separately as Defined in RFP		✓

Submissions Required Subsequent to Award:

Description of Document	RFP	Submittal Requirements	Checklist
Substitute Form W-9 (Appendix F)	§2.2	Upon notification of award	
Electronic Payment (ePayment) Request (Appendix G)	§2.13	Upon notification of award	
ST-220 Contractor Certification forms (Appendix H) • ST220-TD (submit to DTF) • ST220-CA (submit to Commission)	§2.14	Within seven calendar days of notification of award	
EEO and M/WBE Program Equal Employment Opportunity Policy Statement (Appendix J)	§2.18	Within 72 hours of notice of award	
Workforce Employment Periodic Report (Appendix J-3)	§2.18	Quarterly	
MWBE Utilization Plan Form (Appendix J-4)	§2.18	Within 14 days after notification of award	
MWBE Quarterly Subcontracting/Supplier Activity Report (Appendix J-5)	§2.18	Within 10 days following the end of the previous quarter	
Insurer Qualifications and Insurance Requirements (Appendix P)	§2.15	Upon notification of award provide insurance certificates	

FIRM NAME: _KGM Gaming, LLC_

REPRESENTATIVE SIGNATURE: _____

VIDEO LOTTERY TERMINALS, GAMES, SOFTWARE AND MAINTENANCE
C_____

THIS AGREEMENT made this **17th** day of **March**, 20**21** by and between the NEW YORK STATE GAMING COMMISSION, an executive agency of the State of New York having an office at One Broadway Center, Post Office Box 7500, Schenectady, New York 12301-7500 (the "Commission"), and [Contractor], having an office at [address] (the "Contractor").

WHEREAS the Commission issued a Request for Proposals ("RFP") on February 1, 2021 soliciting proposals from qualified firms to provide a Video Lottery Terminals, Games, Software and Maintenance, and clarified the requirements of the RFP with questions and answers dated February 23, 2021, March 1, 2021 and March 8, 2021 (collectively, the "RFP"); and

WHEREAS the Contractor submitted a Technical Proposal and a Pricing Proposal for Lot 3 (Qualified Electronic Table Games Supplier) dated [**March 17** , 2021] (collectively, the "Proposal"), which was deemed to have met the minimum qualifications by Commission's evaluation team;

WHEREAS Lot 3 allows the Contractor the ability to provide Electronic Table Games Video Lottery Terminals ("ETGs") at licensed facilities in the state of New York (the "licensed Video Lottery Gaming facilities") upon selection by the licensed Video Lottery Gaming facility of a product offered by the Contractor subject the restrictions and requirements contained within the RFP;

NOW, THEREFORE, in consideration of the foregoing and of the mutual promises hereinafter set forth, the parties hereto agree as follows:

1. Scope of Services. The Contractor agrees to provide the Commission with a VLTs, games, software and maintenance in connection with the operation of the video lottery program at licensed Video Lottery Gaming facilities, as more fully set forth in the RFP and the Proposal. Both the RFP and the Proposal are hereby incorporated into this Contract with the same force and effect as if they were fully set forth herein. Nothing in this agreement shall be construed as a guarantee that the Contractor will be selected to provide a specified number or any VLTs.

2. Term. This Contract shall be effective July 1, 2021 through December 31, 2029.

3. Regulations. Contractor agrees to familiarize itself with the regulations issued by the Commission concerning the operation of video lottery gaming within the State and to comply with same.

4. Licensing. Contractor agrees to submit to licensing procedures established by the Commission and recognizes that satisfactory licensing is a condition of successful performance of the Contract. Failure to maintain the required license shall be cause for termination of the Contract.

5. Financial Arrangements.

    a. Compensation. In full consideration for all goods and services specified in the RFP and the Proposal, the Commission agrees to pay, and the Contractor agrees to accept, compensation in accordance with the prices set forth in the Proposal, unless otherwise stated herein. No minimum amount is guaranteed by this Contract and the Contractor shall not have any right to make a claim therefore. Expenditures under this Contract shall not exceed [$XXXXXXX].

i.   For purposes New York State Finance Law and Article 34 of the New York State Tax Law, the goods and services specified in the RFP and the Proposal qualify the Contractor to be considered a "licensed lottery sales agent" a "licensed lottery retailer" or a "retailer" as that term is used in Article 34 of the New York State Tax Law, permitting the compensation for services through the retention of a portion of sales revenue.

ii.   The Commission shall each week utilize video lottery central system reports to calculate the amount of net win and the compensation due and owing to the Contractor consistent with the schedule provided by the Contractor in its Pricing Proposal. Upon verification of amounts, the Commission will direct payment to the Contractor either (a) by the Commission directly or (b) by the Video Lottery Facility from lottery receipts through ACH processing. The Commission understands and agrees that it shall be responsible for the Video Lottery Facility's failure to make payment to Contractor as provided herein and that it shall pay Contractor directly in event of such failure.

iii.   The Contractor shall obtain written affirmation from a Video Lottery Gaming Facility accepting the financial responsibility to reimburse the Commission for all costs exceeding the "Average Base Compensation Rate" as defined within the RFP prior to delivery of any games selected by the licensed Video Lottery Gaming Facility. The Commission will not compensate the Contractor any amount in excess of the Average Base Compensation Rate without proof of such affirmation.

b. Liquidated Damages.

i.   The Commission may, in its discretion, deduct liquidated damages from the compensation otherwise due to the Contractor when the circumstances which

give rise to a claim for liquidated damages exist. There may be occurrences whereby, in its sole judgement, the Commission determines not to assert its right to claim liquidated damages, and such determination shall not be precedential or prejudice the Commission's option to assert such right in the future.

ii. The parties agree that the assessment will be made per occurrence for the liquidated damages described in Section 2.17 of the RFP. The parties further agree that the failures described in Section 2.17 of the RFP may result in loss of revenues to the State of New York far in excess of the amount contained in Paragraph A(4) of Section 2.17 and, therefore, liquidated damages claimed for such failures would not necessarily be limited to damages per occurrence. In that instance, the measure of liquidated damages for failures described in Section 2.17 of the RFP shall be the amount of lost revenue to the State of New York reasonably estimated from historical data. For the purposes of this Contract, lost revenue to the State of New York shall be equal to the portion of net proceeds due to education aid, which shall be calculated as total credits played, less credits won, less promotional credits, less sales agent commissions and less administrative and operating expenses of the Commission applicable to the number of video lottery terminals for a comparable period in question. Damages are assessed when the liquidated damages bear a reasonable proportion to actual losses sustained as a result of Contractor's conduct.

iii. The Commission shall send written notice of such failure to the Contractor within 30 days of the occurrence. Failure to send such notice constitutes a waiver of any and all liquidated damages with regards to the occurrence.

6. Consent. The Commission agrees that its consent to the Contractor's assignment of its interest and obligations under the Contract shall not be withheld unreasonably.

7. <u>Approvals Required</u>. This Contract, and any extension of the term of this Contract or any amendment of the provisions of this Contract, shall not be effective and binding upon the Commission, the State of New York, or the Contractor unless and until approved by the New York State Attorney General and the State Comptroller. The Commission agrees to exercise its best efforts to obtain such approval.

8. <u>Mutual Cooperation</u>. The objectives of this Contract include maximizing the net proceeds to the State of New York from video lottery gaming at reasonable rates of compensation to Contractor through the installation and use of a video lottery terminals, games and software as more fully described in the RFP and the Proposal. The parties agree to cooperate fully and in good faith and to assist each other, to the extent reasonably practicable, in order to accomplish these objectives. Contractor agrees to commit to the level and quality of staffing as specified in its Proposal, and to submit quarterly reports to the Commission specifying current staffing levels, personnel, vacancies and plan for filling vacancies.

9. <u>Contractor's Proprietary Rights</u>. The Commission acknowledges the Contractor's proprietary and intellectual property rights in and to Contractor's hardware, system specifications and details set forth in the Proposal and the software heretofore and hereafter created by Contractor for operation of the system on hardware of both the Contractor and the Commission. The Commission further acknowledges that such rights shall survive the expiration or termination of this Contract and agrees to maintain the confidentiality thereof to the extent allowed by law and to render such reasonable assistance as may be necessary to protect and preserve Contractor's interests therein.

11. <u>Limitation of Contractor's Lobbying Activities.</u> Contractor agrees to abide by all applicable rules, regulations and laws relating to its lobbying activities in New York. In addition, Contractor agrees to provide, during the term of this Contract or any extensions thereof, written notification, updated quarterly, to the Commission specifying the name, business address and

telephone number of any lobbyist, as that term is defined in Section 1-C of the New York State Lobbying Act (New York State Legislative Law Article 1-A) employed or hired to represent the Contractor within the State of New York on Commission issues. Failure to provide this information to the Commission will constitute a material breach of the terms of this Contract and be cause for termination.

12. Communication and Contracts. Contractor shall enter into and maintain only authorized communication in regard to the goods and services provided pursuant to this contract with other contractors supplying goods and services to the Commission in furtherance of video lottery gaming within New York State. Contractor agrees to forego entry into any contracts other than this Contract to perform services or supply goods in furtherance of video lottery gaming in New York State unless otherwise approved in writing by the Commission.

13. Termination and Suspension.

(a) The Commission shall have the right to terminate this Contract for convenience or for any of the following causes:

(i) a material breach by the Contractor of any of the provisions of this Contract;

(ii) a determination by a court of competent jurisdiction that the Contractor is bankrupt or insolvent;

(iii) a good faith determination by the Commission that continuation of the Contract could place the integrity of the Commission in jeopardy; or

(iv) a conviction of the Contractor or any of its directors, officers, or employees of any criminal offense connected to the Contractor's business which, in the sole reasonable opinion of the Executive Director of the Commission, would be prejudicial to public confidence in the New York Lottery or the Commission.

(v) Grounds for Cancellation. Upon the refusal by a person, when called before a grand jury, head of a state department, temporary state commission or other state

agency, or the organized crime task force in the department of law, which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation, concerning any transaction or contract had with the state, any political subdivision thereof, a public authority or with any public department, agency or official of the state or of any political subdivision thereof or of a public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning such transaction or contract.

Such person, and any firm, partnership or corporation of which he is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with the state or any public department, agency or official thereof, for goods, work or services, for a period of five years after such refusal, and to provide also that any and all contracts made with the state or any public department, agency or official thereof, since the effective date of this law, by such person, and by any firm, partnership or corporation of which he is a member, partner, director or officer may be cancelled or terminated by the state without incurring any penalty or damages on account of such cancellation or termination, but any monies owing by the state for goods delivered or work done prior to the cancellation or termination shall be paid.

(b) In the event that the Commission decides to exercise the right to terminate this Contract for cause, the Commission shall give the Contractor written Notice of Intention to Terminate for Cause ("Notice"). Such Notice shall state clearly and specifically the cause for which termination is sought, and the Contractor shall be entitled to a period of thirty (30) days from receipt of such Notice to correct or cure the cause so described to the reasonable satisfaction of the Commission

in which case such Notice shall be deemed withdrawn and a nullity. If termination is sought because of a criminal conviction as described in subparagraph (iv) of Paragraph (a) of this section 14, the cause for termination shall be deemed to be cured if the Contractor causes or obtains the dismissal, resignation, retirement, or other removal of the person convicted of such offense during such thirty (30) day period.

(c) The Commission reserves the right to terminate this Contract in the event it is found that the certification filed by the Contractor in accordance with New York State's State Finance Law § 139-k was intentionally false or intentionally incomplete. Upon such finding, the Commission may exercise its termination right by providing written notice to the Contractor in accordance with the written notice terms of this Contract.

(d) Upon written notice to the Contractor, and a reasonable opportunity to be heard with appropriate Commission officials or staff, the Contract may be terminated by the Executive Director or his or her designee at the Contractor's expense where the Contractor is determined by the Executive Director or his or her designee to be non-responsible or nonresponsible. In such event, the Executive Director or his or her designee may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach.

(e) The Executive Director of the Commission or his or her designee, in his or her sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, when he or she discovers information that calls into question the responsibility of the Contractor. In the event of such suspension, the Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Contractor must comply with the terms of the suspension order. Contract activity may resume at such time as the Executive Director of the Commission or his or her designee issues a written notice authorizing a resumption of performance under the Contract.

15. Conflict of Interest.

(a) The Contractor has provided a form (Vendor Assurance of No Conflict of Interest or Detrimental Effect), signed by an authorized executive or legal representative attesting that the Contractor's performance of the services does not and will not create a conflict of interest with, nor position the Contractor to breach any other contract currently in force with the State of New York, that the Contractor will not act in any manner that is detrimental to any State project on which the Contractor is rendering services.

(b) The Contractor hereby reaffirms the attestations made in its Proposal and covenants and represents that there is and shall be no actual or potential conflict of interest that could prevent the Contractor's satisfactory or ethical performance of duties required to be performed pursuant to the terms of this Contract. The Contractor shall have a duty to notify the Commission immediately of any actual or potential conflicts of interest.

(c) In conjunction with any subcontract under this CONTRACT, the Contractor shall obtain and deliver to the Commission, prior to entering into a subcontract, a Vendor Assurance of No Conflict of Interest or Detrimental Effect form, signed by an authorized executive or legal representative of the subcontractor. The Contractor shall also require in any subcontracting agreement that the subcontractor, in conjunction with any further subcontracting agreement, obtain and deliver to the Commission a signed and completed Vendor Assurance of No Conflict of Interest or Detrimental Effect form for each of its subcontractors prior to entering into a subcontract.

(d) The Commission and the Contractor recognize that conflicts may occur in the future because the Contractor may have existing, or establish new, relationships. The Commission will review the nature of any relationships and reserves the right to terminate this Contract for any reason, or for cause, if, in the judgment of the Commission, a real or potential conflict of interest cannot be cured.

16. <u>Ticket Purchase and Prize Payment Restrictions</u>. No officer or employee of the Contractor or employee of any subcontractor who is directly involved in game development, has access to game terminals, components that could impact game terminal performance or sensitive information regarding game terminals or software, and no person residing in the same household of such officer or employee shall purchase a New York Lottery video lottery ticket or be paid a prize in any New York Lottery video lottery game. The Contractor shall ensure that this requirement is made known to each officer and employee of the Contractor and any subcontractor. "Subcontractor" is defined as those who play a major role in providing video lottery games and who are employed by the Contractor during the life of the Contract.

17. <u>Confidentiality and Non-Disclosure.</u>

(a) For the purposes of this section, "Confidential Information" means any information not generally known to the public, whether oral or written, that the Commission identifies as confidential and discloses to the Contractor so that the Contractor can provide services to the Commission pursuant to this Contract. Confidential Information may include, but is not limited to, operational and infrastructure information relating to: bid documents, plans, drawings, specifications, reports, product information; business and security processes and procedures; personnel and organizational data, and financial statements; information system IP addresses, passwords, security controls, architectures and designs; and such other data, information and images that the Commission deems confidential. The Commission will identify written Confidential Information by marking it with the word "Confidential" and will identify oral Confidential Information as confidential at the time of disclosure to the Contractor.

(b) Confidential Information does not include information that, at the time of Commission's disclosure to the Contractor:

(i) is already in the public domain or becomes publicly known through no act of the Contractor;

(ii) is already known by the Contractor free of any confidentially obligations;

(iii) is information that the Commission has approved in writing for disclosure; or

(iv) is required to be disclosed by the Contractor pursuant to law or applicable professional standards, so long as the Contractor provides the Commission with notice of such disclosure requirement and an opportunity to defend prior to any such disclosure.

(c) The Contractor may use Confidential Information solely for the purposes of providing services to the Commission pursuant to this Contract. The Contractor shall not make copies of any written Confidential Information except as necessary to perform the services required by this Contract, without the express written permission of the Commission. The Commission's disclosure of Confidential Information to the Contractor shall not convey to the Contractor any right or interest in such Confidential Information and the Commission shall retain all right and title to such Confidential Information at all times.

(d) The Contractor shall hold Confidential Information confidential to the maximum extent permitted by law. The Contractor shall safeguard Confidential Information with at least the same level of care and security, using all reasonable and necessary security measures, devices and procedures that the Contractor uses to maintain its own confidential information.

(e) Upon written request by the Commission, the Contractor shall return all written Confidential Information to the Commission.

18. Records Retention. Records required by this Contract to be retained by the Contractor shall be retained for the periods specified in Appendix A, attached hereto. Such records may be retained in their original form or in any other reliable and readily retrievable format, at the option of the Contractor.

19. Notices. All notices required by this Contract shall be sufficient if in writing and sent by certified mail return receipt requested and all other communications shall be sufficient if

communicated in writing to the following addresses or to such other addresses as may be

designated from time to time by the parties in writing:

> (a) As to the Commission:
>
> Executive Director
> New York State Gaming Commission
> One Broadway Center
> Post Office Box 7500
> Schenectady NY 12301-7500
>
> (b) As to the Contractor:
>
> Contact:
> Company Name:
> Address:

20. Liability and Indemnification. The Contractor shall be responsible for all damages to

life and property due to the activities of the Contractor, as well as the activities of the

subcontractors (if any), agents or employees of the Contractor in connection with the performance

of services under this Contract. The Contractor shall indemnify, defend, and save harmless the

Commission and the State of New York, and their officers, employees, agents, assigns and retailers

from and against any and all third party claims, liabilities, losses, damages, costs, or expenses,

including reasonable attorneys' fees, which may be incurred, suffered, or required in whole or in

part by an actual or alleged act or omission of:

> (a) the Contractor, its officers, employees, agents, successors and assigns,
> and/or
>
> (b) a Subcontractor, its officers, employees, agents, successors and assigns.

21. Relationship. The relationship of the Contractor to the Commission arising out of this

Contract shall be that of an independent contractor. The Contractor, in accordance with its status

as an independent contractor, agrees that it will conduct itself consistent with such status, that it

will neither hold itself out as, nor claim to be, an officer or employee of the Commission or the

State of New York, and that it will not make any claim, demand or application for any right or

privilege applicable to an officer or employee of the Commission or the State of New York, including, but not limited to, workers' compensation coverage, unemployment insurance benefits, social security coverage, or retirement membership or credit. All personnel of the Contractor shall be within the employ of the Contractor only or shall be duly contracted subcontractors of the Contractor, which alone shall be responsible for their work, the direction thereof, and their compensation. Nothing in this Contract shall impose any liability or duty on the Commission or the State, of New York on account of any acts, omissions, liabilities or obligations of the Contractor or any person, firm, company, agency, association, corporation, or organization engaged by the Contractor as expert, consultant, independent contractor, specialist, trainee, employee, servant or agent, for taxes of any nature, including, but not limited to, unemployment insurance and workers' compensation insurance, and the Contractor hereby agrees to indemnify and hold harmless the Commission and the State of New York against any such liabilities.

22. Force Majeure. A Force Majeure occurrence is an event or effect that cannot be reasonably anticipated or controlled. As herein used, "Force Majeure" means fire, explosion, action of the elements, governmental interference, rationing or any other cause which is beyond the control of the party affected and which, by the exercise of reasonable diligence, said party is unable to prevent.

Neither the Contractor nor the Commission shall be liable to the other for any delay in or failure of performance under the Contract resulting from this RFP due to a Force Majeure occurrence. Any such delay in or failure of performance shall not constitute a default or give rise to any liability for damages. The existence of such causes of such delay or failure shall extend the period for performance to such extent as determined by the Commission to be necessary to enable complete performance by the Contractor if reasonable diligence is exercised after the cause of delay or failure has been removed.

23. Documents Incorporated. Appendix A, Standard Clauses for New York State Contracts, dated October 2019, the RFP, and the Proposal are hereby incorporated herein and made a part hereof.

24. Order of Precedence. Any conflict between the provisions of this Contract and the documents incorporated herein shall be resolved according to the following order of precedence, from the highest to the lowest:

      (a) Appendix A – Standard Clauses for New York State Contracts;

      (b) Any amendments to the Contract;

      (c) Contract and appendices;

      (d) Request for Proposal and any clarifying responses by the Commission;

      (e) Vendor Proposal and any clarifying responses by the vendor.

25. Miscellaneous Provisions.

(a) A waiver of enforcement of any provision of this Contract shall not constitute a waiver of any other provision of this Contract nor shall it preclude the affected party from subsequently enforcing such provision.

(b) This instrument and the documents incorporated herein represent the entire agreement between the Commission and the Contractor, and no modification thereof shall be binding unless the same is in writing and signed by the parties.

(c) The headings contained in this Contract are intended for ease of reference only and shall not be interpreted to limit or modify any of the provisions of this Contract.

(d) The Contractor shall at all times during the Contract term remain responsible. The Contractor agrees, if requested by the Executive Director of the Commission or his or her designee, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the day and year first above written.

CONTRACTOR

By: _____

Title: *President*

Date: 3/17/21

NEW YORK STATE
GAMING COMMISSION

By: _____

Title: _____

Date: _____

ATTORNEY GENERAL

By: _____

Title: _____

Date: _____

COMPTROLLER
Thomas P. DiNapoli

By: _____

Title: _____

Date: _____

Acknowledgement

ACKNOWLEDGEMENT BY INDIVIDUAL

STATE OF _Pennsylvania_)

) ss.:

COUNTY OF _Philadelphia_)

On this ___17th___ day of ___March___, 20_21_, before me personally came ___JASON PETERS___, to me known and known to me to be the person described in and who executed the foregoing instrument and he/she acknowledged to me that he/she executed the same.

(signature)
Notary Public

Commonwealth of Pennsylvania - Notary Seal
Jessie L. Kingston, Notary Public
Montgomery County
My commission expires July 29, 2023
Commission number 1292329
Member, Pennsylvania Association of Notaries

ACKNOWLEDGEMENT BY UNINCORPORATED ASSOCIATION

STATE OF_____)

) ss.:

COUNTY OF_____)

On this_____ day of_____,20____, before me personally came _____, to me known and known to me to be the person described in and who executed the above instrument, who, being duly sworn by me, did for himself/herself depose and say that he/she is a member of the firm of_____and that he/she executed the foregoing instrument in the firm name of_____, and that he/she had authority to sign same, and he/she did duly acknowledge to me that he/she executed the same as the act and deed of said firm of _____, for the uses and purposes mentioned therein.

_____
Notary Public

ACKNOWLEDGEMENT BY CORPORATION

STATE OF_____)

) ss.:

COUNTY OF_____)

On this_____ day of_____, in the year 20_, before me personally came_____, to me known, who, being by me duly sworn did depose and say that he/she resides in_____; that he/she is the_____ of the_____, the corporation described in and which executed the above instrument; that he/she knows the seal of said corporation; that the seal affixed to said instrument is such a corporate seal, that it was so affixed by the order of the Board of Directors of said corporation, and that he he/she signed his/her name thereto by like order.

_____
Notary Public

Section	Section Title
1.1 A-B	GENERAL INFORMATION
1.2	BACKGROUND INFORMATION
1.3	OBJECTIVE
1.4 A-C	VIDEO LOTTERY GAMING
1.6	SCHEDULE
1.8	BIDDER/CONTRACTOR DIFFERENTIATION
1.9	HEADINGS
1.10	DESIGNATED CONTACTS
1.12	QUESTIONS AND INQUIRIES
1.15	DESIGNATION OF PROPRIETARY INFORMATION
1.16	CLARIFICATION PROCESS
1.17	SITE VISITS AND DEMONSTRATIONS
1.21	NEW YORK STATE PUBLIC OFFICERS LAW
1.22	ETHICS REQUIREMENTS
1.29	STATE'S RESERVED AUTHORITY
2.1	GOVERNING LAW
2.3	LICENSING
2.4	BACKGROUND INVESTIGATIONS
2.7	CONTRACT ELEMENTS
2.8	SEVERABILITY
2.9	TERM OF CONTRACT
2.10	ALL-INCLUSIVE
2.17 A-G	LIQUIDATED DAMAGES
2.23 A-D	SUBCONTRACTOR APPROVAL
2.25 A-F	SUCCESSFUL BIDDER CODE OF CONDUCT
2.33	TECHNOLOGY PROVISIONS
2.34	PATENTED DEVICES, MATERIALS AND PROCESS
2.35	USE OF COPYRIGHTED OR TRADEMARKED MATERIALS
3.0	INTRODUCTION
3.2 A-B	FLOOR ALLOCATION
4.3	GENERAL INFORMATION
5.2	METHOD OF AWARD
5.5	EVALUATION & SELECTION CRITERIA

Response:

KGM Gaming acknowledges that the above informational sections have been reviewed and confirmed.

1.15 DESIGNATION OF PROPRIETARY INFORMATION

During the evaluation process, the content of each Proposal will be held in confidence and details of any Proposal will not be revealed (except as may be required under the New York State Freedom of Information Law ("FOIL") or other State law). FOIL provides for an exemption from disclosure for trade secrets or information the disclosure of which would cause substantial injury to the competitive position of a commercial enterprise. This exception applies both during and after the evaluation process.

If you believe your Proposal contains any such trade secrets or other Confidential Information, you must submit a request with your Proposal to exempt such information from disclosure. Such request must: (a) identify the specific material in the Proposal you believe should be exempt from disclosure; (b) identify the location (section, page number) of such material; and (c) state the reasons why
the information should be exempt from disclosure.

Requests for exemption of the entire contents of a Proposal from disclosure have generally not been found to be meritorious and are discouraged. Please limit any requests for exemption of information from disclosure to bona fide trade secrets or specific information, the disclosure of which would cause a substantial injury to the competitive position of your business.

Upon receipt of proprietary designations, the Commission's legal staff, as directed by the Designated Contacts, will review each designation and communicate with the Bidder in the determination of such designation. The designation shall not become final until accepted by the Commission via formal letter. Once the designation is final, the Bidder will be required to submit a redacted version of the Proposal consistent with the accepted designation. The redacted version will be the material that is released upon a FOIL request.

See below request for exemption of KGM's Appendix S from disclosure under FOIL

KGM
EVOLUTION THROUGH INNOVATION

March 16, 2021

To whom it may concern:

KGM Gaming, LLC in conjunction with its submittal of a response to New York RFP
C202017 – New York Lottery Video Lottery Games would like to request an exemption
under the New York State Freedom of Information Law ("FOIL") the below listed
documents.

1. The entire contents of Appendix S – Video Lottery Gaming Application For
   Agent/Vendor.

2. Appendix S can be found as a stand-alone file included with our submission.

3. This document contains highly sensitive information with respect to the
   company itself and all owners. Being a private company, this is information that
   we don't share in the public domain. Should this information be made public it
   presents a great risk to the business with respect to any ongoing negotiations
   outside the State of New York. It also contains highly personal information of all
   owners and should this information be made public it represents a high
   probability of identity risk and can impact personal relationships.

We respectfully conclude our request by asking for the reassurance that none of the
information contained in Appendix S be released to the public under any circumstance.

Sincerely,

Jason Peters
President

1.19   DISCLOSURE OF LITIGATION AND OTHER INFORMATION

Because the Commission has a strong interest in the Successful Bidder's continuing ability to provide secure, high quality products and services, the Commission requires that a Bidder list and summarize pending or litigation that the Bidder is aware will likely be initiated, administrative or regulatory proceedings or similar matters that could materially affect the Bidder. As part of its disclosure requirement, a Bidder must state whether the Bidder or any of the owners, officers, directors, or partners of such Bidder have ever been convicted of a felony. Failure to disclose any such matter may result in rejection of the Proposal or termination of a Contract. Such disclosures must be included with the Proposal.

This disclosure obligation is a continuing requirement. Any such matter commencing after submission of a Proposal, and with respect to the Successful Bidder after the approval of a Contract, must be disclosed to the Commission within 10 business days in a written statement to the Commission.

KGM Gaming does not have any pending litigation to disclose nor has any of KGM's owners, officers, directors or partners ever been convicted of a felony. KGM will be sure to fulfill its obligation and disclose any such matter commencing after the submission of a Proposal and approval of a Contract within 10 business days in a written statement to the Commission.

1.20   CONFLICTS OF INTEREST

Throughout the procurement process, Bidders must identify and bring to the attention of the Commission, actual or apparent conflicts of interest as knowledge of such conflicts arise, as follows:

A.   Disclose any existing or contemplated relationship with any other person or entity, including relationships with any member, shareholders of five (5) percent or more, parents, subsidiaries, or affiliated businesses, which potential conflict of interest or appearance   of impropriety, relating to other clients/customers of the Bidder or former officers and employees of the Commission, in connection with your rendering services enumerated in this RFP. If a conflict does or might exist, please describe how your business would eliminate or prevent it.
Indicate what procedures will be followed to detect, notify the Commission of, and resolve any such conflicts.

No such conflicts of Interest exist for KGM

B.   The Bidder must disclose whether it, or any of its members, shareholders of five (5) percent or more, parents, subsidiaries, or affiliates have been

the subject of any investigation or disciplinary action by the New York State Joint Commission on Public Ethics or its predecessor State entities (collectively, "JCOPE"), and if so, a brief description must be included indicating how any matter before JCOPE was resolved or whether it remains unresolved.

Neither KGM, nor any of its members, shareholders of five (5) percent or more, parents, subsidiaries, or affiliates have been the subject of any investigation or disciplinary action by the New York State Joint Commission on Public Ethics or its predecessor State entities.

In addition, the Bidder must complete and return with its bid, an Appendix M: Vendor Assurance of No Conflict of Interest or Detrimental Effect Form.

See Completed Appendix M below.

Vendor Assurance of No Conflict of Interest or Detrimental Effect

The Firm offering to provide services pursuant to this [RFP/Contract], as a contractor, joint venture contractor, subcontractor, or consultant, attests that its performance of the services outlined in this [RFP/Contract] does not and will not create a conflict of interest with nor position the Firm to breach any other contract currently in force with the State of New York.

Furthermore, the Firm attests that it will not act in any manner that is detrimental to any State project on which the Firm is rendering services. Specifically, the Firm attests that:

1. The fulfillment of obligations by the Firm, as proposed in the response, does not violate any existing contracts or agreements between the Firm and the State;

2. The fulfillment of obligations by the Firm, as proposed in the response, does not and will not create any conflict of interest, or perception thereof, with any current role or responsibility that the Firm has with regard to any existing contracts or agreements between the Firm and the State;

3. The fulfillment of obligations by the Firm, as proposed in the response, does not and will not compromise the Firm's ability to carry out its obligations under any existing contracts between the Firm and the State;

4. The fulfillment of any other contractual obligations that the Firm has with the State will not affect or influence its ability to perform under any contract with the State resulting from this RFP;

5. During the negotiation and execution of any contract resulting from this RFP, the Firm will not knowingly take any action or make any decision which creates a potential for conflict of interest or might cause a detrimental impact to the State as a whole including, but not limited to, any action or decision to divert resources from one State project to another;

6. In fulfilling obligations under each of its State contracts, including any contract which results from this RFP, the Firm will act in accordance with the terms of each of its State contracts and will not knowingly take any action or make any decision which might cause a detrimental impact to the State as a whole including, but not limited to, any action or decision to divert resources from one State project to another;

7. No former officer or employee of the State who is now employed by the Firm, nor any former officer or employee of the Firm who is now employed by the State, has played a role with regard to the administration of this contract procurement in a manner that may violate section 73(8)(a) of the State Ethics Law; and

8. The Firm has not and shall not offer to any employee, member or director of the State any gift, whether in the form of money, service, loan, travel, entertainment,

hospitality, thing or promise, or in any other form, under circumstances in which it could reasonably be inferred that the gift was intended to influence said employee, member or director, or could reasonably be expected to influence said employee, member or director, in the performance of the official duty of said employee, member or director or was intended as a reward for any official action on the part of said employee, member or director.

Firms responding to this [RFP/Contract] should note that the State recognizes that conflicts may occur in the future because a Firm may have existing or new relationships. The State will review the nature of any such new relationship and reserves the right to terminate the contract for cause if, in its judgment, a real or potential conflict of interest cannot be cured.

Name, Title: Jason Peters, President & CFO, KGM Gaming, LLC

Signature: Date: 3|11|2021

This form must be signed by an authorized executive or legal representative.

2

Vendor Assurance of No Conflict of Interest or Detrimental Effect

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Name, Title: Keith Harper, CEO

Signature: *Keith Harper*   Date: March 15, 2021

This form must be signed by an authorized executive or legal representative.

Vendor Assurance of No Conflict of Interest or Detrimental Effect

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Name, Title: _ALEKSANDRA CHANCEY /CEO_

Signature: _[signature]_   Date: _3/15/21_

This form must be signed by an authorized executive or legal representative.

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Name, Title: *Anthony Tomasello / CEO / owner*

Signature: *A Tomasello*   Date: *3/15/21*

This form must be signed by an authorized executive or legal representative.

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Name, Title:

Carroll H Hynson, Jr. , President

Signature: Date:

Carroll Hynson, Jr.   03/15/2021

This form must be signed by an authorized executive or legal representative.

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Name, Title: STEVE COOPER, GENERAL MANAGER

Signature: _(signature)_

Date: MAR. 15/21

This form must be signed by an authorized executive or legal representative.

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Name, Title:

DHIANNA YEZZI, PRESIDENT

Signature: Date:

3|15|2021

This form must be signed by an authorized executive or legal representative.

This disclosure obligation is a continuing requirement. Any Bidder awarded a contract under this RFP will have an ongoing obligation to inform the al or apparent conflicts of interest.

We comply with this

3.5 VIDEO LOTTERY GAMES

Primary and Qualified Suppliers shall be responsible for developing the finite pools for each of their games and providing such pools to the Central System contractor. All games provided by a Primary or Qualified Supplier must meet the following:

A. Game Play Amount. Games offered shall be based on a price per play, ranging from a minimum of five (5) cents. A maximum ticket price may be set by rule.

    We comply with this.

B. Play Information. Each VLT shall display the price per video lottery ticket and the amount awarded for each possible winning occurrence based upon the price per ticket. Each game must provide a method for players to view payout tables.

    We comply with this.

C. Game Changes. The Commission may require the introduction of new games, game variations, as well as adjustments to the pay tables. Primary and Qualified suppliers shall fully describe their ability to respond to this requirement, including the method and ease by which game changes would be made. Examples of a Primary supplier's game development and implementation process, from concept to availability for testing, shall be described.

    We comply with this

D. Progressive Games. Each VLT shall be able to support progressive games, whereby the jackpot may be influenced by the play at other terminals. VLTs shall be able to receive jackpot size and progressive game status inputs by means of communications from the Central System, which shall process and control all games. A Site Controller will send progressive

jackpot amount updates to all linked progressive VLTs at a specified interval designated by the Commission. Individual VLTs must be able to be configured to scroll a text message on each update, whether the amount changed. VLTs shall use the updates to ensure that their meters are synchronized.

1. Configuration. The Successful Bidder must configure their VLTs to conform to the rules of a particular jackpot (pay table, credit amount, participation percentage, and probability of progressive award must be identical for each game participating in a progressive pool). In addition, all VLTs participating in a progressive pool must draw game sets produced using the same game set generation rules.

    Not Applicable

2. Description. While the Commission is not imposing an artificial limitation on the number of VLTs that participate in a single progressive jackpot pool (no limit to the number of simultaneous progressive pools in operation at a video lottery gaming agent facility) Primary suppliers should describe how progressive games interplay with non-progressive games.

    Not Applicable

E. Payout Percentages. The minimum payout percentage on video lottery games in New York shall be no less than ninety (90) percent stated in Chapter 383 of the Laws of 2001, as amended.

    We comply with this

3.6   VLT Specifications

VLTs of all Primary and Qualified Suppliers shall meet the following specifications:

A. Size and Ergonomics. VLTs must evidence a size and design that will ensure player acceptance. Slant top terminals and upright style terminals shall include seats. Upright style terminals shall include base pedestals or cabinets as well as a seat.

KGM to provide seating along with Electronic Table Games.

Bidders shall provide a description of pedestals, cabinets, and seats, including but not limited to, pictures, sample of materials, etc. to choose from.

B.   User Input Devices. Bidders shall fully explain in detail how players will provide input to the VLT for such functions as selection of games, play amount, pay tables, etc.

KGM will be offering the following ETG games: roulette, baccarat, blackjack, craps, sic-bo, and the big wheel. All games are fully automated and don't require any human dealer assistance to start the game operation. All player input happens at the terminal with the selection of the game and play amount. Pay tables can be viewed in the help screens.

C.   Physical Security. The physical security of VLTs is an important feature. The restriction of access to certain compartments shall be by locks, seals, or otherwise and must be described.

All access to inside areas of any model of the gaming machines and game controllers offered are protected against unauthorized access by covers and or doors which are locked. Delicate areas such as logic boards are locked with a secondary access level. All software access through different game menus on the game are accessible only with a required RFID keys.

D.   Displays.

1.   Rules. The rules of play for each game must be displayed on each VLT. Along with the rules of play, each VLT must display "This is a lottery game and the results are not dependent by elements of skill." The Commission reserves the right to require an edit of any rule of play considered to be incomplete, confusing, misleading or inconsistent with other game rules.

All offered games have help screens, where all game rules are described in detail. "This is a lottery game and the results are not dependent by elements of skill." is also included on help screens along with the rules of each available game.

2.   Play Information. Each VLT shall display the number of credits

played for a game as well as the credits remaining and awarded for the occurrence of each possible winning combination of numbers or symbols. The VLT must also provide and display a maximum play amount limit on a single game for a single outcome.

Player's graphics includes displays meters and current available credits, value of last bet and value of last win. Information about minimal and maximum value of bets per each bet type available is included on help screens.

E.   Self-Diagnostics. Each VLT shall be equipped with self-diagnostics and indicators or lights that enable a video lottery gaming agent to monitor itsoperating status. Each VLT shall also be able to use the self-diagnostics and indicators to report back to the Central System all changes andsecurity issues.

Our gaming machines self-diagnose for operational and security issues all the time. All gaming machines are SAS 6.02 protocol compatible and are transmitting to the connected Central system all requested data about any operational and security issues.

F.   Resistance to Outside Influences. A video lottery gaming terminal shall be able to pass any test required by an approved independent testing laboratory, and withstand, at a minimum, the following tests and resume play without requiring intervention:

Intertek provides UL certification of our gaming machines and tests and confirms compliance with all the requested standards for safe operation listed in the next five points.
UL Reports – See Appendix 1.

1.   Electro-Magnetic Interference. VLTs shall not create electronic noise that affects the integrity or fairness of neighboring VLTs or associated equipment;

2.   Electro-Static Interference. VLTs shall be protected against static discharges. Each VLT's conductive cabinet shall be grounded in such a way that static discharge energy shall not damage or inhibit

the normal operation of the electronics or other components within the VLT;

3. <u>Radio Frequency Interference</u>. A VLT shall not divert from normal operation by the application of Radio Frequency Interference at a frequency range from twenty-seven (27) to one thousand (1,000) megahertz with a field strength of three (3) volts per meter;

4. <u>Magnetic Interference</u>. A VLT shall not be adversely affected by magnetic interference; and

5. <u>Liquid Spills</u>. Liquid spills applied to the exterior of a VLT shall not affect the normal operation of the VLT, the integrity of the material or information stored inside the cabinet, or the safety of the players operating the equipment. If liquids are spilled into a bill acceptor, the acceptor shall reject all inputs and/or generate an error condition.

G. <u>Memory Protection</u>. Should a VLT be interrupted due to loss of power, disconnection from the Central System, or any other type of occurrence, critical memory shall store all data that is vital to the continued operation of the VLT. The games and software and any other pertinent information shall not be destroyed, modified, or lost for a minimum period of seventy-two (72) hours from the occurrence of such failure.

Our Electronic Table Games provide secure copies of critical data, and achieve the ability to restore critical data in such a way that after a loss of power or a disconnection from the Central System or any other failures our Electronic Table Games recover data to the state before the issue occurred.

H. <u>Memory Capacity and Expansion</u>. The memory size of VLTs being proposed, examples of memory available for and consumed by various games, gaming options, and software shall be identified. If memory can be upgraded from the originally delivered amount, this too shall be identified.

KGM Electronic Table Game machines are equipped with 500 GB SSD or HDD SATA hard drives for larger capacity. Drives can be replaced regularly if needed with a HDD or SSD drive.

I. <u>Central System Network Connectivity</u>. The Central System network connectivity specification includes proprietary information and will only be

provided upon the Bidders and Qualified suppliers retuning a signed non-disclosure agreement.

KGM signed a non-disclosure agreement – refer to Appendix

J.   Central System Activation. Game play, bill acceptors, and printers shall be totally inoperable until activated from the Central System. Diagnostic functions shall always be available. The Central System will not enable any VLT for gameplay unless it has been checksum verified against approved software. Such verification shall be made prior to the commencement of each gaming day.

KGM Electronic Table Games support regular procedures of standard Slot Management Systems. We currently have 32 ETG's running at Resorts World NYC. We currently run and support SAS Long Pole 21 procedures and all ETG's run off of their own Random Number Generator and report through SAS.

K.   Safety. Electrical and mechanical parts and design principles, including seating, shall not subject a player to physical hazard or injury. Bidders shall submit proof that the proposed equipment has been inspected and approved (or that approval is pending) for customer safety. Bidders shall certify that all proposed equipment is in compliance with all applicable regulators (e.g., Federal Communications Commission, Occupational Safety and Health Administration, etc.)

UL certifications approve and certifies that all of our Electronic Table Games and associated equipment conform to federal regulations.

L.   Loss of Power. A surge protector must be installed on the line that feeds electrical power to each VLT. The battery backup, or an equivalent, for the electronic meters shall be capable of maintaining accuracy of all accounting records and terminal status reports for a period of one hundred eighty (180) days after power is discontinued from the VLT. A backup device shall be kept within the VLT's locked logic board compartment. No mechanism shall allow the electronic meters to automatically clear without the written approval of the Commission.

Each gaming terminal has a fuse for over current protection and a filter for electromagnetic interference. _We don't have a special surge protector installed besides the ones which are inside of the power suppliers._

As meters are stored in a file on either a HDD or SSD, there is no need for a power backup to ensure its availability for next 180 days after a power loss.

M.   Power Switch. An on/off switch that controls the electrical current used in the operation of each VLT and any associated equipment shall be located in an accessible place within the interior of the VLT.

Our Electronic Table Game terminals and game controllers have a main on/off power switch inside of the cabinet which is secured via a locked door. The main power switch will turn the game on and off. These switches are easily accessible and visible to the eye on inside of the cabinet

N.   Bill Acceptors. Each VLT shall contain a bill acceptor that accepts both redemption tickets generated by the Central System and printed by a VLT and U.S. paper currency in the following dollar denominations: one (1), five (5), ten (10), twenty (20), fifty (50), and one hundred (100).

KGM supports this requirement.

1.   Capacity. Primary and Qualified Suppliers shall identify the total capacity for the bill stacker within each type of VLT proposed. Bill acceptors must be upgraded for the life of the Contract, at the expense of the Primary and Qualified Suppliers, to accommodate new or redesigned U.S. currency.

Bill stacker capacity is 600 bills and/or barcode tickets. We have GLI Certifications for all current bill acceptors and ticket printers.

2.   Operational Capability. Each bill acceptor shall be capable of detecting the entry of legal tender or other Commission-approved cash equivalents, if applicable, and shall provide a method to enable the VLT software to interpret and act appropriately upon both a valid and invalid input. The bill input system shall be constructed in a manner that protects against vandalism, abuse, and/or fraudulent activity.

All of our Bill acceptors are GLI certified and run the most current firmware to ensure that we accept only approved legal tender or other approved cash equivalents. We will reject any unapproved tender or other invalid inputs. Our cabinets have been tested and

3.   <u>Drop Box</u>. Each bill acceptor shall have a secure stacker, or a container known as a drop box into which all accepted bills and redemption tickets shall be deposited. The secure stacker or drop box shall be attached to the VLT in such a manner so that it cannot be easily removed by physical force. The area in which the secure stacker or drop box is located shall be separate from, and accessible independently of, any other compartment of the VLT and shall be secured by two (2) separate locks, the keys to which shall be different from each other. The design, location, and operation of the secure stacker or drop box shall require the written approval of the Commission.

All of our submitted Electronic Table Game cabinets meet all security requirements listed above. Cashboxes are located in a separated area locked with two different locks.

4.   <u>Power Failures</u>. If a power failure occurs during acceptance, the bill acceptor shall either properly credit the bill or return the bill to the player. Each bill acceptor shall perform a self-test at each power up. In the event of a self-test failure, the bill acceptor shall automatically disable itself until the error state has been cleared by an authorized video lottery gaming facility employee. Each bill acceptor shall communicate to the VLT using a bi-directional protocol.

KGM supports this requirement.

O.   <u>Magnetic Stripe Reader</u>. Each VLT shall contain a magnetic stripe reader to accept a magnetic stripe card for the purposes of player tracking.

KGM supports this requirement

P.   <u>Central System Provider Specifications</u>. Central System provider specifications include proprietary information and will only be provided upon the potential Bidders retuning a signed non-disclosure agreement.

KGM agrees to sign upon approval

Q.   Bar Code Reader. Each VLT shall be capable of reading redemption tickets being utilized for additional play.

All of our ETG's have bill acceptors which support these requirements.

R.   Download. All VLTs shall be capable of downloading software from the Central System and shall support general industry accepted credit balance transfers outside of physical cash or ticket insertion or dispensing.

Electronic Table Games are not able to supply this feature.

S.   Logic and Electronics Area. All electronic components that may have the potential to significantly influence the operation of the VLT, such as CPUs; electronics involved in the operation and calculation of game result determinations or involved in the calculation of game displays; components housing display program storage media; and all flash memory devices that affect the game play function of the VLT shall be secured in a separately locked and sealed area. Electronics and wiring specifications should be described and/or diagrams shall be provided including illustration of secured areas.

Games Controllers have logic control boards that are located in the machines in a locked secure area which can only be opened by a secure key which is independent upon secured locks at each different property. These are not accessible from staff. If the logic doors are opened the games will be put out of service.

T.   Currency Compartment. Each currency compartment shall be locked and keyed separately from the main cabinet area and shall be secured as follows:

1.   Access to the currency storage area shall be secured via separately keyed locks and shall be protected by sensors that indicate whenever a door is opened or closed, or a currency stacker is removed; and

All of our Electronic Table Games have a separate secure area where the cash box is located and locked with two different locks for security. Opening and closing of the doors is monitored by a switch and alarmed

2. Access to the currency storage area(s) shall be through two (2) levels of locks (the relevant outer door plus one other door or lock) before the receptacle or currency can be removed.

   We comply to this requirement.

U. <u>Printer Type</u>. Bidders should identify the type of printer used and provide details as to the specifications, including type, size of paper used, parts subject to consumables, and the time required to physically print a redemption ticket once authorized by the Central System.

   Ithaca Epic 950L
   Print width 2.44in / 62mm
   Printer speed 5in/s or 125mm/s
   Dimensions 4.46W x 11.25D x 2.66H (inches) 113.3W x 285.75D x 67.6H (mm)

V. <u>Video Display</u>. Each VLT's display monitor shall conform to the following specifications:

   1. Touch screens shall be accurate and, once calibrated, shall maintain that accuracy for at least the manufacturer's recommended maintenance period;

   We comply with this requirement. Our touch screens don't require any calibration, it is built into the driver software.

   2. A touch screen shall have the capability of being re-calibrated by authorized gaming employees, without having to access the VLT's cabinet interior other than by opening the main door; and

   Our touch screens are designed with the technology that doesn't require calibration.

   3. There shall be no hidden or undocumented buttons or touch points anywhere on the screen, except as provided for by the game rules dictating game play.

   There are no hidden buttons or touchpoints in our software.

For other types of electronic displays, the display method chosen shall always accurately display the outcome to the player and, if a malfunction is detected by the video lottery gaming terminal, the terminal shall "tilt" until cleared by an authorized video lottery gaming employee.

W.   Tower Lights. Each VLT shall have a light located conspicuously on its uppermost surface that automatically illuminates whenever an external door has been opened; a player has won a prize in an amount exceeding the threshold amount for which a redemption ticket can be printed; an error condition has occurred; or the "Call Attendant" condition has been initiated by the player. This requirement may be substituted with an audible alarm and/or a common candle for terminals designed in such a manner as to preclude the positioning of a top mounted light, provided the alarm is designed to activate whenever the interior of the terminal is accessed. In addition to the mechanical light illumination, a VLT shall send an alert to the Central System when the "Call Attendant" condition has been intimated or a threshold amount has been won.

We support this requirement.

X.   Communications Protocol. Each VLT shall be capable of connecting to the Central System via Internet Protocol over Ethernet via minimally certified Category 5 Ethernet cables.   Additionally, capabilities should be implemented for a VLT to automatically attempt to reconnect with the Central System in the event of a loss of communication or a disconnection from the Central System for any reason. A VLT shall be designed to continue to seek reconnection to the Central System every five minutes when a previously connected VLT is powered on.

We support this requirement.

Y.   Game Data Control and Diagnostics. The on-site diagnostics and accounting data shall be controlled by secure access. All games shall be able to display the most recent game history of the last four (4) transactions. Also, the functions to be monitored include, but are not limited to, the following:

1.   When the terminal is ready to accept a transaction;

2.   An out-of-order condition;

3.   Power on; and

4.   Local diagnostic test.

KGM complies with all above

Z.   <u>Site Closing Commands</u>. All VLT's shall prioritize site closing commands from the Central System to disable a VLT and force vouchers out or any other form of patron payment to facilitate adherence to any governing facility hours of operation.

Since our machines are SAS compatible, if a Central System works on SAS protocol, and should a command be received by our machine it will be put it the gaming terminal lockout status and won't be able to play or receive any tickets. We currently have units running at Resorts World NYC through IGT for years with no issues.

AA.   <u>Meter Standards</u>.

1.   <u>Credit meters</u>. Each credit meter shall reflect credits or cash value. Progressives may be added to a credit meter if either:

a.   The credit meter is maintained in the currency amount; or

b.   The progressive meter is incremented to whole credit amounts; or

c.   The prize in the currency amount is converted to credits upon transfer to the player's credit meter in a manner that shall not mislead the player (i.e., make an unqualified statement "wins meter amount" and then rounds down on conversion) or cause accounting imbalances.

KGM will not have any progressives running on our Electronic Table Games, therefore this does not apply.

2.   <u>Collect Meter</u>. Each collect meter shall reflect the number of credits collected by a player. The number of credits collected shall be subtracted from the player's credit meter before it is added to the

collect meter.

We comply with this requirement. Credits are first removed from credit meter on the player's screen and transferred to collect meter.

3. Accounting, Occurrence and Other Meters. Each VLT shall have electronic accounting meters which shall be accessible only by authorized video lottery gaming facility employees. Electronic meters shall be at least eight (8) digits in length. If the meter is being used in dollars and cents, at least eight (8) digits must be used for the dollar amount. The meter shall roll over to zero (0) upon the next occurrence, any time the meter is higher than eight (8) digits and after 99,999,999 has been reached. If the meter is larger than eight (8) digits, the meter shall roll over at 99,999,999 or at another value approved in writing by the Commission. Occurrence meters shall be at least three (3) digits in length and shall roll over to zero (0) upon the next occurrence, and any time the meter is higher than the maximum number of digits for that meter.

    We comply with this. Access to the meter menu is protected by RFID keys.

4. Other Meters. In addition to the required meters noted above, each individual game available for play shall have "Credits Bet" and "Credits Won" meters represented in either credits or currency amounts.

    We comply with this.

5. Meter Capabilities. All meters shall be present and capable of maintaining accuracy of all accounting records and terminal status reports for a period of at least one hundred eighty (180) days after power is discontinued from the VLT. No mechanism should allow the meters to automatically clear without the written approval of the Commission.

    Electronic meters shall comply with the following:

    a. The "cash in" meter shall cumulatively count the total amounts wagered during game play;

b.   The "credit out" meter shall cumulatively count all amounts paid to the player at the end of a game;

c.   The "drop" meter shall maintain a cumulative count of cash equivalents inserted into the video lottery gaming terminal for play;

d.   The "games played" meter shall display the cumulative number of games played since the last RAM clear;

e.   A "cabinet door" meter shall display the number of times the front cabinet door has been opened since the last RAM clear;

f.   The "drop door" meter shall display the number of times the drop door or the bill acceptor door has been opened since the last RAM clear;

g.   The "canceled credit" meter shall reflect the cumulative amounts paid by an attendant that are in excess of the credit limit and residual credits that are collected, if applicable; and

h.   The "progressive occurrence" meter shall count and reflect

the number of times each progressive meter is activated.

This is not supported we will not be running progressives with our ETG's.

BB.   <u>Hardware Controls</u>. Hardware controls may be proposed but shall be approved by the Commission for control of the physical video display, sound, and other purely cosmetic features. No hardware controls shall be installed that alter areas containing critical data and/or communications to the Central System concerning the operation of a game.

We don't have such hardware controls.

CC.   <u>External Doors and Compartment Requirements</u>. The interior of a VLT shall not be accessible when all doors are closed and locked. Doors shall be manufactured of materials suitable for allowing only authorized access to the interior of the cabinet. Doors and their associated hinges shall be capable of withstanding reasonable efforts to gain access to the interior of the VLT and shall leave evidence of tampering if an illegal entry is made. The opening between the cabinet and the door of a locked area shall be designed to resist the entry of objects. All external doors on each video lottery gaming terminal shall always be monitored by door access sensors which shall detect and report all external door openings to both the VLT by the way of an error message and to the Central System. The sensor system shall register a door as being open whenever the door is moved from its fully closed and locked position.

All our gaming machines and game controllers have doors made of steel and are securely locked and monitored by a door switch.

DD.   <u>Alarms</u>. Access to the internal space of each VLT shall be controlled by locked doors. Each VLT must have a security system that temporarily disables all gaming functions when an internal door is open. The VLT must have a tamper resistant audible alarm, initiated upon the detection of tampering. Once an alarm is initiated, the VLT shall send a notification to the Central System

identifying the nature of the alarm and cease all game play, printing, and bill acceptance.

When any of active doors are opened, and audible alarm goes off, the terminal becomes unplayable. There is also a notification as an error for »open doors« which is sent to the connected system over SAS.

Bidders shall identify the type(s) of alarms used and how they are resistant to tampering as well as the process by which the triggering of an audible alarm will occur.

EE.   Component Failure Shutdown. In the event an internal failure should occur on a particular VLT, provisions for disabling that VLT must be executed. Bidders shall identify the specification for internal disabling under these circumstances.

When a bill acceptor or a ticket printer shuts down, the terminal automatically goes out of play and an error is sent to connected system over SAS. Otherwise, the attendant is always able to place the terminal into »Attendant lock« state which will also place the terminal as unplayable. At this point in the message of »game out of service (attendant)« is sent over SAS.

FF.   Open and Close Door Procedures. When a VLT's main door is opened, the device shall cease play, enter an error condition, display an appropriate error message, disable bill acceptance, and either sound an alarm or illuminate the tower light, or both. When a VLT's main door is closed, the device shall automatically return to its original state and display an appropriate error message, until the next game has ended.

We support this

GG.   VLT Identification Requirements. Each VLT shall have a permanent metal identification plate which shall be mounted in a manner that does not permit its removal without leaving evidence of tampering. Such identification plate shall be permanently affixed to a location on the exterior of the cabinet by the manufacturer in a location to be approved in writing by the Commission and shall list, at a minimum, the following information:

1.   The manufacturer;

2.   A unique serial number of least nine alphanumeric characters;

3.   The video lottery gaming terminal model number; and

4.   The date of manufacture.

Serial plates are on all of our Electronic Gaming Terminals, Game Centers and Game Controllers which supports all of the information above.

HH.   Network Control and Security.

1.   There shall be no capacity for remote access or control of any VLT from a remote device without Commission's written approval;

Our ETG terminals are connected into a private network within the casino. We don't all any remote access. All communication between the gaming terminals and game controllers is encrypted.

2.   All communications to and from a VLT shall be encrypted for security coverage. Bidders must comply with the encryption scheme of the Central System. Each Bidder will be required to sign a non-disclosure agreement prior to receiving a copy of this proprietary information; and

3.   VLTs shall not disrupt a communications line by creating line interference or otherwise remaining in transmit mode when no data is to be transmitted.

KGM ETG terminals don't transmit any data over SAS if not asked from a connected system. We would only respond to questions from the central system connected via SAS.

II.   Game Data Security. The integrity of game data and data exchanged between the VLT, Site Controller, and Central System shall always be accurate. Bidders shall fully describe how they will fulfill this requirement.

Game data is exchanged only between gaming terminals and central system and is compliant to all security protocols described in the communication protocol

JJ.   Program Interruption and Resumption. After a program interruption (e.g., power down), the software shall be capable of recovering to the state it was in immediately prior to the interruption. Upon program resumption, the following procedures shall be performed as a minimum requirement:

1.   No communication to an external device shall commence until the program resumption routine, including self-testing, is completed successfully;

We comply with this requirement.

2.   Video lottery gaming terminal control programs shall test themselves for possible corruption due to failure of the program storage media; and

We do comply with this requirement. Integrity checks are performed on boot up and some of them also during operation through our proprietary software (MgCore and AlfaAccountServer app).

3.   The integrity of all critical memory shall be checked.

Integrity check of all data in in the critical memory files and is checked before any writing to the file. The check is made with a CRC check.

KK.   Power Surges. Each VLT shall not be adversely affected, other than through resets, by surges or dips of plus or minus twenty (20) percent of the power supply voltage. It shall be acceptable for the equipment to reset provided no damage to the equipment, or loss or corruption of data is experienced.

Approved via our UL certifications. See UL Certifications attached.

LL.   Error Connections. Each VLT shall be capable of detecting and displaying the following error conditions and illuminating the tower light and/or sounding an audible alarm. Error conditions shall be

cleared either by a video lottery gaming facility employee authorized by the Commission or upon initiation of a new play sequence:

1.   RAM error;

2.   Low RAM battery (for batteries external to the RAM itself) or low power source;

      We don't have RAM batteries.

3.   Currency-in jam;

4.   Program error or authentication mismatch;

5.   Door open (including bill acceptor); and

6.   Power Reset.

All errors and other operation messages are stored in logfiles which are located on the D drive in folder D:\Logfiles\

For games that use error codes, a description of VLT error codes and their meanings shall be affixed in a Commission-approved area of the VLT's interior. Games that do not use error codes shall display meaningful text as to the error conditions.

We comply with this requirement

NN.   Redemption Ticket Printer Standards.

1.   Ticket and Ticket Data. If a VLT utilizes a printer to make payments, the printer shall print the following information on a ticket and provide the same data to the Central System for each redemption ticket printed:

a.   Value of credits in local monetary units in numerical form;

b.   Time of day the ticket was printed in twenty-four (24) hour format reflecting hours and minutes;

c.   Date, in any recognized format, indicating the day, month, and year;

d.   VLT number;

e.   Unique validation number, and/or barcode;

f.   Name of the Video Lottery Gaming Facility; and

g.   Identification of the Central System session.

We comply to all except bullet point »g«. We don't have an identification of the Central System session

2.   Duplicate. The VLT shall retain a duplicate copy of any ticket printed and issued to a player.

All information of printed ticket is stored in our proprietary software named AlfaAccountServer guide (last 35 printed tickets) and in AlfaAccountServer logfile. If we need to increase the period of how many days that we need to store information needs to be increased we

can make those adjustments. The AlfaAccountServer logfiles are periodically deleted so if we need to store this longer than 35 days we can make the adjustments so that the information remains intact longer. We also believe that the VLT has the logic that if a ticket is not fully printed, it can be reprinted in order to meet GLI standards.

3. Validation. A Commission-approved system shall be used to validate the redemption ticket. Ticket information recorded by the Central System shall be retained for at least as long as the ticket is valid at that location, or as otherwise required by the Commission.

4. Location and Design. A printer shall be located in a key-locked area of the VLT requiring the opening of the main door to access but separate from the logic area or the drop box area. Each printer shall be capable of detecting and acting on error conditions including, but not limited to, out of paper/paper low; printer jam/failure; and printer disconnected. A VLT shall be designed to retain information pertaining to the last thirty-five (35) games.

We comply to the above.

In recognition that technological advances may change the design and utilization of components of VLTs over the length the contract, the Commission may approve exceptions to these Specifications in circumstances were such exceptions would result in enhanced products while maintaining all statutory and regulatory requirements of the Video Lottery program. Under no circumstance shall a VLT be placed into service at a Video Lottery Gaming facility that deviates from the proscribed specifications without the prior approval of the Commission.

The Commission reserves the right to modify/update the specifications at any time.

3.7   VLT MAINTENANCE PROGRAM

A Successful Bidder shall be responsible for performance of Field Service necessary in maintaining VLTs in the highest level of operability and appearance, including preventative maintenance to minimize equipment failures. All Suppliers shall fully describe the serviceability of their VLTs, including field repair of

subassemblies. A Successful Bidder will be responsible to ensure that all VLTs are maintained in a state of readiness and shall take positive action when a malfunction is indicated to ensure that an affected VLT is returned to a state of readiness within two (2) hours. In all cases, the Commission reserves the right to determine as to whether a VLT is ready to be activated with the Central System and whether the Supplier responded within the time period specified (see Section 2.17).

When describing the proposed maintenance plan, a Bidder shall provide detail, including but not limited to, the parts return/service policy that will be provided, any applicable parts supply restrictions/turnaround time, etc., that can be reasonably anticipated, space needed at the Video Lottery Gaming Facility, statistical data with regard to serviceability, and a staffing plan for each Video Lottery Gaming Facility.

KGM understands the need for uptime and performance of the VLTs provided in the field and will contract with Aristocrat to maintain the operability of our VLTs. While KGM will support Aristocrat with game installs, game upgrades or any requested game moves, Aristocrat will be responsible for all preventative maintenance and field repair. Aristocrat will manage the VLTs supplied by KGM under the same methods they will manage their own VLTs. KGM will supply a stock of spare parts to be kept onsite at a location controlled by Aristocrat. The purpose of the spare parts stock is so that Aristocrat will be able to immediately respond to any problems with the VLTs in the field and provide the VLT to a state of readiness within the allotted time by the commission. We are not currently witnessing any supply chain issues that will prevent us from supplying the necessary parts. In addition to the parts on hand under Aristocrat, KGM will keep additional parts stock in our warehouse in order to support the additional needs of Aristocrat.

KGM's Director of Service, Service Coordinator and all technical staff will be able to assist all Aristocrat and Image Power personal either remotely or in person to handle any unforeseen issues that arise. Through our partnership with Aristocrat KGM will be able to meet the MBWE requirements by working with staffing companies that will assist in the hiring of technicians as well as transportation companies to deliver our goods to VLT locations. Additionally, the third party that will be hands on with the service will be a MBWE certified company.

3.8 TRAINING OF VLT TECHNICIANS

Each Primary and Qualified Supplier will be required to establish and maintain a certification program for the purpose of training and certifying technicians to service and repair its VLTs, including the installation or repair of component parts

such as video monitors; bill acceptors; monitoring systems; and/or other components and parts that may alter the current or subsequent operation of a VLT.

Each applicant for a VLT vendor's license will be required to provide details of its certification program to the Commission; the criteria for certification; and information concerning the qualifications of the instructors. Each licensed Primary and Qualified Supplier will be required to ensure that its technicians have received sufficient and appropriate training in the service and repair of each of its approved VLT models before any VLT may be placed in operation. Upon request of the Commission, a certified technician, or a licensed supplier employing that technician, will be required to provide satisfactory proof to the Commission of the technician's certification and competence.

KGM will train and certify all the technicians servicing our machines to ensure that they have adequate knowledge of how to install, service and repair our equipment submitted to the NY Lottery. We will provide affidavits of proof of certification from our Director of Service. KGM will also train property staff on how to easily change paper, and adjust simple Bill Acceptor and Ticket Printer jams.

3.9   TRAINING OF COMMISSION AND VIDEO LOTTERY GAMING FACILITY STAFF

Primary and Qualified Suppliers shall propose a training program that will provide the Video Lottery Gaming Facility staff on all aspects of their terminal.

Training

1. Troubleshooting & General Information
    a. RNG Center
    b. PlayStation Errors
    c. RNG Errors
    d. Providing manuals for trouble shooting and repairs
    e. Walking through trouble shooting, game verse computer
    f. Understanding all service manuals page by page

2. Procedures for Activation
    a. PlayStation & Center Wheel
    b. How the center works, all optics and their functions
    c. How to set center options
    d. How to change Bet times
    e. Demo times

f. Changing colors

g. How to understand the ball center and issues that may happen

h. Function of blowers

i. Motors and lift motors

j. How the games connect to the center.

3. Station Overview

a. How the game connects to the center

b. Game functions, replacing touch screens, setting options

c. Setting I/P addresses

d. Installing and setting up BV and printers

e. Connections to station CPU

f. Station CPU and functions

g. Software upgrades and what's involved

h. How to change options once they have been set for casino

4. Preventive Maintenance Procedures

a. How to clean the center property

b. Cleaning terminal

c. BV, Printer, Power Supplies

d. Touch Screens- Non-Abrasive- Covid19

5. Signage & Components

a. How to install signs property to floor units, wall signs etc.

b. How to connect to center so numbers are displayed correctly

c. How to install power and L.E.D lights

d. How to set I/P for sign

6. Provide Service and Software User Manuals

a. Review all service manuals for all games currently approved and installed

b. Review all software manuals for all games currently approved and installed

c. Review GLI approvals and versions approved with Pars

d. Review Par Sheets and option settings

7. Replacement of Parts

a. Review of most common part failures and what to expect

b. How to order replacement parts through KGM

c. **How to return bad parts**

New York Lottery – Training Affidavit

Please allow to form to serve as documentation that I, _____,
on behalf of KGM Gaming, LLC, can confirm that _____ has
received all necessary training to provide installation and maintenance of KGM's gaming and other
related components that are internal to the video slot gaming equipment in New York Lottery
Facilities.

KGM ensures that regular training is made available to each technician, on an as needed basis to
address their knowledge of all gaming equipment. Currently, KGM technicians are trained to
perform service on Alfastreet.

Signed By: Signed By:

_____   _____
_____   _____
Company Representative Name (Print):   Applicant Name (Print):

_____   _____
_____   _____
Signature   Signature

_____   _____
_____   _____
Date   Date

VOLUME 2
APPENDICES

BIDDER/OFFERER DISCLOSURE/CERTIFICATION FORM

CONTRACT/PROJECT DESCRIPTION: <u>New York Lottery Video Lottery Games</u>
CONTRACT/PROJECT NUMBER: <u>#C202017</u>
RESTRICTED PERIOD FOR THIS PROCUREMENT: <u>February 5, 2021 through approval of the Office of the State Comptroller.</u>
PERMISSABLE CONTACTS: <u>Stacey Relation and Alysan Bowers</u>

1. CONTACTS - Contractor affirms that it understands and agrees to comply with the procedures on procurement lobbying restrictions regarding permissible contacts in the restricted period for a procurement contract in accordance with State Finance Law §§ 139-j and 139-k. ☐   I agree

2. BIDDER/OFFERER DISCLOSURE OF PRIOR NON-RESPONSIBILITY DETERMINATIONS Pursuant to Procurement Lobbying Law (SFL §139-j)
    (a) Has any Governmental Entity made a finding of non-responsibility regarding the individual or entity seeking to enter into the Procurement Contract in the previous four years?
        ☐ Yes   ☒ No
    If yes, please answer the following question:
    (b) Was the basis for the finding of non-responsibility due to a violation of State Finance Law §139-j?
        ☐ Yes   ☒ No
    (c) If "Yes" was the basis for the finding of non-responsibility due to the intentional provision of false or incomplete information to a governmental entity?
        ☐ Yes   ☒ No

    If "Yes", please provide details regarding the finding of non-responsibility:
    Governmental Entity:_____
    Date of Finding of Non-Responsibility:_____
    Basis of Finding of Non-Responsibility (attach additional sheets if necessary):_____

3. Has any governmental agency terminated or withheld a procurement contract with the above-named individual or entity due to the intentional provision of false or incomplete information?
        ☐ Yes   ☐ No
    If yes, provide details:
    Governmental Entity:_____
    Date of Termination or Withholding of Contract:_____
    Basis of Termination or Withholding: (add additional pages if necessary)

4. TERMINATION CLAUSE:
Contractor certifies that all information provided to the Agency with respect to State Finance Law §§139 (j) and 139 (k) is complete true and accurate. If found to be in violation of State Finance Law §§139 (j) and 139 (k), the contract will result in termination.
    ☑   I agree

Name of Contractor's Firm/Company: KGM Gaming, LLC

Contractor Address: 4250 Wissahickon Avenue, Philadelphia, PA, 19129

Contractor's signature:
I understand that my signature represents that I am signing and responding to both certifications listed above

Print Name: Jason Peters

Occupation of Person signing this form: President & CFO

Email Address: jpeters@kgmgaming.com

Non-Collusive Bidding Certification
Required By Section 139-D of the State Finance Law

By submission of this bid, bidder and each person signing on behalf of bidder certifies, under penalty of perjury, that to the best of his/her knowledge and belief:

[1] The prices of this bid have been arrived at independently, without collusion, consultation, communication, or agreement, for the purposes of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor;

[2] Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other Bidder or to any competitor; and

[3] No attempt has been made or will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

A BID SHALL NOT BE CONSIDERED FOR AWARD NOR SHALL ANY AWARD BE MADE WHERE [1], [2], [3] ABOVE HAVE NOT BEEN COMPLIED WITH; PROVIDED HOWEVER, THAT IF IN ANY CASE THE BIDDER(S) CANNOT MAKE THE FORGOING CERTIFICATION, THE BIDDER SHALL SO STATE AND SHALL FURNISH BELOW A SIGNED STATEMENT WHICH SETS FORTH IN DETAIL THE REASONS THEREFORE:

[AFFIX ADDEDUM TO THIS PAGE IF SPACE IS REQUIRED FOR STATEMENT.]

Subscribed to under penalty of perjury under the laws of the State of New York, this _11th_ day _March_ , 20_21_ as the act and deed of said corporation.

President & CFO, KGM Gaming, LLC
_____
Title

_____
Signature

NEW YORK STATE OF OPPORTUNITY. | **Gaming Commission**

The submission of the attached Vendor Responsibility Questionnaire is required with your bid.

You must include your ten-digit Vendor ID identifier number issued by New York State. Please insert the Vendor ID number on the top right corner of pages 2-10 of the questionnaire.

If you have previously submitted a New York State Vendor Questionnaire that was signed less than one year ago in connection with another State solicitation or contract, and there are no material changes to that questionnaire, you may submit an Affidavit of No Change along with a copy of the previously completed Vendor Questionnaire.

You are encouraged to complete the questionnaire online. By doing so, you will not be required to complete the questionnaire for future contracts with New York State agencies, so long as you certify the information every six months.

If you are interested in completing the online questionnaire, please visit the following website for additional information:

https://www.osc.state.ny.us/vendrep/

If you have filed your questionnaire online, please sign below and return only this page with your bid.

Complete the below only if you have filed your questionnaire online, otherwise, please complete the attached questionnaire.

Jason Peters for KGM

Contractor Name (print)   Signature

KGM Gaming, LLC   3/11/2021

Company Name   Date

ENCOURANGING USE OF NEW YORK STATE BUSINESSES
IN CONTRACT PERFOMANCE

New York State businesses have a substantial presence in State contacts and strongly contribute to the economies of the state and the nation. In recognition of their economic activity and leadership in doing business in New York State, bidders/proposers for this contract for commodities, services or technology are strongly encouraged and expected to consider New York State businesses in the fulfillment of the requirements of the contract. Such partnering may be as subcontractors, suppliers, protégés or other supporting roles.

Bidders/proposers need to be aware that all authorized users of this contract will be strongly encouraged, to the maximum extend practical and consistent with legal requirements, to use responsible and responsive New York State businesses in purchasing commodities that are of equal quality and functionality and in utilizing services and technology. Furthermore, bidders/proposers are reminded that they much continue to utilize small, minority and women-owned businesses, consistent with current State law.

Utilizing New York State businesses in State contracts will help create more private sector jobs, rebuild New York's infrastructure, and maximize economic activity to the mutual benefit of the contractor and its New York State business partners. New York State businesses will promote the contractor's optimal performance under the contract, thereby fully benefiting the public sector programs that are supported by associated procurements.

Public procurements can drive and improve the State's economic engine through promotion of the use of New York businesses by its contractors. The State therefore expects bidders/proposers to provide maximum assistance to New York businesses in their use of the contract. The potential participation by all kinds of New York businesses will deliver great value to the State and its taxpayers.

Bidders/proposers can demonstrate their commitment to the use of New York State businesses by responding to the question below:

Will New York State Businesses be used in the performance of this contract?   X
                                                                              Yes   No

If yes, identify New York State businesses that will be used and attach identifying information.

Firm Name: KGM Gaming, LLC

Signature _____   Date: 3/16/2021

WORK FORCE EMPLOYMENT STAFFING PLAN

Project/RFP Title **New York Lottery Games C202017** Location of Contract **Schenectady** 12305

Contractor/Firm Name **KGM Gaming, LLC** Address **4250 Wissahickon Avenue, Philadelphia, PA, 19129**

County / Zip / State / Zip

Check applicable categories (1) Staff Estimates include: Contract/Project Staff **X** Total Work Force __ Subcontractors **X**

(2) Type of Contract: Construction Counsultants __ Commodities __ Services/Consultants **X**

Federal Occupational Category	Total Anticipated Work Force										Total Percent Minority Employees	Total Percent Female Employees
	Total Number of Employees		Black (Not of Hispanic Origin)		Hispanic		Asian or Pacific Islander		Native American/ Alaskan Native			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		
Officials/Admin												
Professionals	2	2									0%	50%
Technicians	28	6	2	2	6	2	6	2			59%	17%
Sales Workers												
Office & Clerical		2	1	1							100%	50%
Craft Workers												
Operatives												
Laborers												
Service Workers												
TOTALS	30	10	3	3	6	2	6	2			58%	24%

Company Official's Name **KGM Gaming, LLC** Title **President & CFO**

Company Official's Signature _____ Date **3/16/2021**

Telephone Number **(215) 430- 0388**

Appendix J-4

NEW YORK STATE GAMING COMMISSION
VENDOR/CONTRACTOR'S MINORITY AND WOMEN-OWNED BUSINESS UTILIZATION PLAN FORM
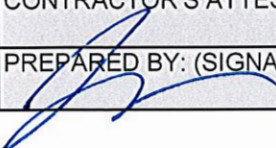
AGENCY NAME *KGM Gaming, LLC*
AGENCY CONTACT *JASON PETERS*
AGENCY PHONE *(215) 430-0388*

CONTRACTOR NAME AND ADDRESS KGM Gaming, LLC 4250 Wissahickon Ave. Philadelphia, PA, 19129	CHECK APPROPRIATE BOX SUPPLIER X CONTRACTOR		DATE SUBMITTED 3/19/2021		TOTAL VALUE OF CONTRACT		
			CONTRACTOR'S FID#		CONTRACT EFFECTIVE DATES		
PROJECT DESCRIPTION New York Lottery VLT Project	GOALS MBE WBE		JOB NUMBER (IF APPLICABLE)		CONTRACT NUMBER		

MWBE SUBCONTRACTOR/SUPPLIER NAME & ADDRESS	CHECK ONE	SUBCONTRACTOR/SUPPLIER TAXPAYER/FEDERAL ID #	MBE (CHECK)	WBE (CHECK)	NYS CERTIFIED (CHECK)	DESCRIPTION OF WORK	$ VALUE OF CONTRACT
Aristocrat Technologies INC 10220 Aristocrat Way, Las Vegas, NV, 89135	SUB X SUP		YES __ NO X	YES __ NO X	YES __ NO X	Management of Service & Support of ETGs	
Image Power 95 West Street, Annapolis, MD, 21401	SUB X SUP		YES X NO	YES X NO	YES X NO	Service & Support of ETGs	
Above & Beyond Talent Acquisition, INC 79A Clermont Ave., Brooklyn, NY, 11205	SUB X SUP		YES X NO	YES X NO	YES X NO	Recruiting and Staffing	
Integrated Staffing 463 Maple Avenue, Sarasota Springs, NY, 12866	SUB X SUP		YES X NO	YES X NO	YES X NO	Recruiting and Staffing	

$ AMOUNT   % OF TOTAL

(A) TOTAL CONTRACT BID AMOUNT:
(B) TOTAL SUBCONTRACTS FOR COMMODITIES AND SERVICES TO MBE'S:
(C) TOTAL SUBCONTRACTS FOR COMMODITIES AND SERVICES TO WBE'S:

CONTRACTOR'S ATTESTATION: MY FIRM PROPOSES TO USE THE MWBE'S LISTED ON THIS FORM.

PREPARED BY: (SIGNATURE OF CONTRACTOR)	PRINT NAME OF CONTRACTOR *JASON PETERS FOR KGM*	TELEPHONE NUMBER *(215) 430-0388*	DATE *3/14/2021*

FOR OFFICE USE ONLY
REVIEWED BY:
DATE:
MWBE FIRMS CERTIFIED:
MWBE FIRMS NOT CERTIFIED:

NOTICE: this report is required pursuant to Executive Law; failure to report will result in noncompliance.

Purchase & Contracts, SDVOB Administrator
Harriman State Office Campus,
Building 12, Room 454, Albany, NY 12240
Phone: (518) 474-2678 | Fax: (518) 457-0620
Labor.sm.SDVOBAdmin@labor.ny.gov

WE ARE YOUR DOL

NEW YORK
STATE OF
OPPORTUNITY. | **Department
of Labor**

SDVOB UTILIZATION PLAN

☒ Initial Plan   ☐ Revised plan   Contract/Solicitation   #_____

INSTRUCTIONS: This Utilization Plan must contain a detailed description of the supplies and/or services to be provided by each NYS **Certified** Service-Disabled Veteran-Owned Business (SDVOB) under the contract. By submission of this Plan, the Bidder/Contractor commits to making good faith efforts in the utilization of SDVOB subcontractors and suppliers as required by the SDVOB goals contained in the Solicitation/Contract. Making false representations or providing information that shows a lack of good faith as part of, or in conjunction with, the submission of a Utilization Plan is prohibited by law and may result in penalties including, but not limited to, termination of a contract for cause, loss of eligibility to submit future bids, and/or withholding of payments. Firms that do not perform commercially useful functions may not be counted toward SDVOB utilization. Attach additional sheets if necessary.

BIDDER/CONTRACTOR INFORMATION		SDVOB Goals In Contract
Bidder/Contractor Name: *KGM Gaming, LLC*	NYS Vendor ID:	6%
Bidder/Contractor Address (Street, City, State and Zip Code): *4250 Wissahickon Ave, Philadelphia, PA 19129*		
Bidder/Contractor Telephone Number: *215-430-0388*	Contract Work Location/Region: *New York State*	
Contract Description/Title: *New York Lottery VLT C202017*		

CONTRACTOR INFORMATION

Prepared by (Signature):	Name and Title of Preparer: *Jason Peters*	Telephone Number: *267-238-4913*	Date: *3/17/21*
Email Address: *jpeters@kgmgaming.com*			

If unable to meet the SDVOB goals set forth in the solicitation/contract, bidder/contractor must submit a request for waiver on the SDVOB Waiver Form.

SDVOB Subcontractor/Supplier Name: *Above & Beyond Staffing*		
Please identify the person you contacted: *Keith Harper*	Federal Identification No.:	Telephone No.: *646-779-5260*
Address: *48 Wall Street, 5th Floor, New York NY 10005*	Email Address: *Keith@A&BTalent.com*	
Detailed description of work to be provided by subcontractor/supplier: *Recruiting and Staffing for VLT Support Service for Aristocrat and Image Power*		
Dollar Value of subcontracts/supplies/services (When $ value cannot be estimated, provide the estimated % of contract work the SDVOB will perform): $_____ or *50*____%		

SDVOB Subcontractor/Supplier Name: *Integrated Staffing*		
Please identify the person you contacted: *Kara Diem*	Federal Identification No.:	Telephone No.: *518-583-7823*
Address: *463 Maple Avenue, Saratoga Springs, NY 12866*	Email Address: *kdiem@integratedstaffingcorp.com*	
Detailed Description of work to be provided by subcontractor/supplier: *Recruiting and Staffing for VLT Support Service for Aristocrat and Image Power*		
Dollar Value of subcontracts/supplies/services (When $ value cannot be estimated, provide the estimated % of contract work the SDVOB will perform): $_____ or *50*____%		

NYS CERTIFIED SDVOB SUBCONTRACTOR/SUPPLIER INFORMATION: The directory of New York State Certified SDVOBs can be viewed at: https://online.ogs.ny.gov/SDVOB/search
Note: All listed Subcontractors/Suppliers will be contacted and verified by the Department of Labor.

FOR Department of Labor USE ONLY				
DOL Authorized Signature:		☐ Accepted	☐ Accepted as Noted	☐ Notice of Deficiency
Name (Please Print):	SDVOB %/$ ____		Date Received:	Date Processed:
Comments:				

ADDITIONAL SHEET

Bidder/Contractor Name:	Contract/Solicitation #_____

SDVOB Subcontractor/Supplier Name:	

Please identify the person you contacted:	Federal Identification No.:	Telephone No.:
Address:	Email Address:	

Detailed Description of work to be provided by subcontractor/supplier:

Dollar Value of subcontracts/supplies/services (When $ value cannot be estimated, provide the estimated % of contract work the SDVOB will perform): $_____ or _____%

SDVOB Subcontractor/Supplier Name:	

Please identify the person you contacted:	Federal Identification No.:	Telephone No.:
Address:	Email Address:	

Detailed Description of work to be provided by subcontractor/supplier:

Dollar Value of subcontracts/supplies/services (When $ value cannot be estimated, provide the estimated % of contract work the SDVOB will perform): $_____ or _____%

SDVOB Subcontractor/Supplier Name:	

Please identify the person you contacted:	Federal Identification No.:	Telephone No.:
Address:	Email Address:	

Detailed Description of work to be provided by subcontractor/supplier:

Dollar Value of subcontracts/supplies/services (When $ value cannot be estimated, provide the estimated % of contract work the SDVOB will perform): $_____ or _____%

SDVOB Subcontractor/Supplier Name:	

Please identify the person you contacted:	Federal Identification No.:	Telephone No.:
Address:	Email Address:	

Detailed Description of work to be provided by subcontractor/supplier:

Dollar Value of subcontracts/supplies/services (When $ value cannot be estimated, provide the estimated % of contract work the SDVOB will perform)): $_____ or _____%

SDVOB Subcontractor/Supplier Name:	

Please identify the person you contacted:	Federal Identification No.:	Telephone No.:
Address:	Email Address:	

Detailed Description of work to be provided by subcontractor/supplier:

Dollar Value of subcontracts/supplies/services (When $ value cannot be estimated, provide the estimated % of contract work the SDVOB will perform): $_____ or _____%

Statement on sexual harassment

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that the bidder has and has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all of its employees. Such policy shall, at a minimum, meet the requirements of section two hundred one-g of the labor law.

Contractor certifies that this statement provided to the Agency with respect to State Finance Law §139 (l) is complete, true and accurate.

Jason Peters
_____
Authorized Signatory

X _____
Signature

President & CFO
_____
Title

KGM Gaming, LLC
_____
Company Name

Anti-Discrimination EO 177 Certification

The New York State Human Rights Law, Article 15 of the Executive Law, prohibits discrimination and harassment based on age, race, creed, color, national origin, sex, pregnancy or pregnancy-related conditions, sexual orientation, gender identity, disability, marital status, familial status, domestic violence victim status, prior arrest or conviction record, military status or predisposing genetic characteristics.

The Human Rights Law may also require reasonable accommodation for persons with disabilities and pregnancy-related conditions. A reasonable accommodation is an adjustment to a job or work environment that enables a person with a disability to perform the essential functions of a job in a reasonable manner. The Human Rights Law may also require reasonable accommodation in employment on the basis of Sabbath observance or religious practices.

Generally, the Human Rights Law applies to:
- all employers of four or more people, employment agencies, labor organizations and apprenticeship training programs in all instances of discrimination or harassment;
- employers with fewer than four employees in all cases involving sexual harassment; and,
- any employer of domestic workers in cases involving sexual harassment or harassment based on gender, race, religion or national origin.

In accordance with Executive Order No. 177, the Bidder hereby certifies that it does not have institutional policies or practices that fail to address the harassment and discrimination of individuals on the basis of their age, race, creed, color, national origin, sex, sexual orientation, gender identity, disability, marital status, military status, or other protected status under the Human Rights Law. 3

Executive Order No. 177 and this certification do not affect institutional policies or practices that are protected by existing law, including but not limited to the First Amendment of the United States Constitution, Article 1, Section 3 of the New York State Constitution, and Section 296(11) of the New York State Human Rights Law.

Contractor:

By: X _____

Name: Jason Peters _____

Title: President & CFO _____

Date: March 11 __, 2021

Appendix P
Insurer Qualifications and Insurance Requirements

Upon notification of award KGM Gaming, LLC agrees to comply with the insurance qualifications and requirements of Appendix P of the RFP. Upon notification of award KGM will provide certificates of insurance as required as part of the RFP.

Bond No. 42BSBFV8382

LITIGATION BOND

KNOW ALL BY THESE PRESENTS: That we, KGM Gaming, LLC   , as Principal (hereinafter referred to as "Principal") and the Hartford Fire Insurance Company, as Surety (hereinafter referred to as "Surety") are held and firmly bound jointly and severally unto the **New York State Gaming Commission**, as Obligee (hereinafter referred to as "Obligee") in the sum of Two Hundred Fifty Thousand and 00/100 Dollars ($250,000.00) to which payment will and truly to be made, we hereby bind ourselves, our successors, and assigns, firmly by these presents.

WHEREAS, the **New York State Gaming Commission**   issued a Request for Proposal (hereinafter referred to as "RFP") dated February 5, 2021 for New York Lottery Video Lottery Games, Contract No.C202017 and in response to the RFP the Principal has submitted a proposal to the Obligee.

WHEREAS, the RFP requires the Principal to submit with its proposal a litigation bond in the amount of Two Hundred Fifty Thousand and 00/100 Dollars ($250,000.00)

NOW, THEREFORE, the condition of this obligation is such that in the event that: (i) Principal brings any legal action against the Obligee (including any individual member thereof or any employees of the Obligee) related to the award of the contract pursuant to the RFP; and (ii) the Obligee is the prevailing party at the conclusion of the litigation, then the Obligee shall have reason to file claim against this bond to recover damages due to such suit brought by the Principal.

This obligation shall remain in full force and effect for two (2) years from the bid submission date; however, the Principal may request and the Obligee may grant (but shall not be required to grant) a release of the bond after six (6) months from the bid submission date in return for a release and covenant not to sue in a form acceptable to the Obligee.

In no event shall the liability of the Surety exceed the penal sum stated herein.

IN WITNESS WHEREOF, the above parties have executed this instrument under their seals this 9th   day of March   , 2021   .

WITNESS:

Jason Cohen, Executive Vice President

Principal KGM Gaming, LLC

BY: Jason Peters, President/CFO

WITNESS

H. Vanessa Lopez

Hartford Fire Insurance Company

BY: Karen Pecora-Barbour   Attorney in Fact

POWER OF ATTORNEY

Direct Inquiries/Claims to:
THE HARTFORD
BOND, T-12
One Hartford Plaza
Hartford, Connecticut 06155
Bond.Claims@thehartford.com
call: **888-266-3488** *or fax:* 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: THE BARBOUR GROUP LLC
Agency Code: 42-631043

X	**Hartford Fire Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
X	**Hartford Casualty Insurance Company**, a corporation duly organized under the laws of the State of Indiana
X	**Hartford Accident and Indemnity Company**, a corporation duly organized under the laws of the State of Connecticut
	Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
	Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
	Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
	Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
	Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, *up to the amount of* Unlimited :

Karen Pecora-Barbour, Hellietchs Vanessa Lopez of WESTMINSTER, Maryland

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 6, 2015 the Companies have caused these presents to be signed by its Senior Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.

John Gray, Assistant Secretary

M. Ross Fisher, Senior Vice President

STATE OF CONNECTICUT
} ss. Hartford
COUNTY OF HARTFORD

On this 5th day of January, 2018, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Senior Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.

Kathleen T. Maynard
Kathleen T. Maynard
Notary Public
My Commission Expires July 31, 2021

CERTIFICATE

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of March 9th, 2021.
Signed and sealed at the City of Hartford.

Kevin Heckman, Assistant Vice President

POA 2018

Mach 15, 2021

Alysan Bowers
Contract Management Specialist II
New York State Gaming Commission
Contract Office, 4th Floor
One Broadway Center
Schenectady, NY 12305

RE: New York Lotter Video Games $1Million Performance Bond
       Bond Letter for C202017

Dear Ms. Bowers:

The Hartford has extended surety bond to KGM Gaming, LLC since 2021 and is willing to support the performance bond requirement for the captioned project, provided a contract is awarded to KGM Gaming, LLC.

The Hartford expressly reserves the right to review the terms and conditions of the contract and bond form, evaluate pertinent underwriting data, and verify the adequacy of project financing prior to the issuance of the aforementioned bond.

Please understand that any arrangement for any bonds is a matter between KGM Gaming, LLC and The Hartford; and we assume no liability to third parties or you if, for any reason, we do not issue requested bonds.

This commitment will expire ninety (90) days from date of this letter.

Very truly yours,

Karen Pecora-Barbour
Attorney-in-Fact

POWER OF ATTORNEY

Direct Inquiries/Claims to:
THE HARTFORD
BOND, T-12
One Hartford Plaza
Hartford, Connecticut 06155
Bond.Claims@thehartford.com
call: **888-266-3488** *or fax:* **860-757-5835**

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name:
Agency Code:

☐	**Hartford Fire Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
☐	**Hartford Casualty Insurance Company**, a corporation duly organized under the laws of the State of Indiana
☐	**Hartford Accident and Indemnity Company**, a corporation duly organized under the laws of the State of Connecticut
☐	**Hartford Underwriters Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
☐	**Twin City Fire Insurance Company**, a corporation duly organized under the laws of the State of Indiana
☐	**Hartford Insurance Company of Illinois**, a corporation duly organized under the laws of the State of Illinois
☐	**Hartford Insurance Company of the Midwest**, a corporation duly organized under the laws of the State of Indiana
☐	**Hartford Insurance Company of the Southeast,** a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, *up to the amount of*

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 6, 2015 the Companies have caused these presents to be signed by its Senior Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.

John Gray, Assistant Secretary

M. Ross Fisher, Senior Vice President

STATE OF CONNECTICUT
COUNTY OF HARTFORD } ss. Hartford

On this 5th day of January, 2018, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Senior Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.

Kathleen T. Maynard
Notary Public
My Commission Expires July 31, 2021

CERTIFICATE

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of

Signed and sealed at the City of Hartford.

Kevin Heckman, Assistant Vice President

POA 2018

Appendix 1

UL Inspection Certifications

Listing Constructional Data Report (CDR)

1.0 Reference and Address

Report Number	102216688NYM-001	Original Issued: 24-Aug-2015	Revised: 30-Sep-2019

Standard(s)	Amusement And Gaming Machines [UL 22:2008 Ed.6 +R:29Oct2014] Safety Of Household And Similar Appliances - Part 1: General Requirements [CSA C22.2#60335-1:2016 Ed.2] Household And Similar Electrical Appliances – Safety – Part 2-82: Particular Requirements For Amusement Machines And Personal Service Machines [CSA E60335-2-82:2013 Ed.3]

Applicant	Alfastreet	Manufacturer1	Pockaj d.o.o
Address	Partizanska cesta 129 A 6210 Sezana	Address	Partizanska cesta 129 A 6210 Sezana
Country	Slovenia	Country	Slovenia
Contact	Mr. Jure Jakofcic Tjasa Luin Peric	Contact	Mr. Jure Jakofcic Tjasa Luin Peric
Phone	+386 5 70 72 130 +386 5 70 72 101	Phone	+386 5 70 72 130 +386 5 70 72 101
FAX	NA	FAX	NA
Email	jure.jakofcic@alfastreet.si tjasa.luin@alfastreet.si	Email	jure.jakofcic@alfastreet.si tjasa.luin@alfastreet.si
Legal Name	Pockaj d.o.o.		

Manufacturer2	KGM Gaming LLC
Address	4250 Wissahickon Avenue
Country	USA
Contact	Mrs. Jessie Kingston
Phone	(267) 238-4924
FAX	NA
Email	jkingston @kgmgaming.com

2.0 Product Description	
Product	Gaming Machine
Brand name	NA
Description	The product covered by this report is an indoor use, cord connected electric gaming machine.
Models	R1SL-M3-23-2, R4M3, R5M3, R6M3, R8M3-23, Rseries, SLM3R/WHEEL, HI-JACK-M3, WIKY, Royal Derby, LUCKY 8, MULTITOUCH, SLM3S/WHEEL, SLM3C/WHEEL, BIG BANG, FELIX T, MULTITOUCH LIVE, ALFA GC, BIG WHEEL.
Model Similarity	R1SL-M3-23-2 is a single playing terminal without the cylinder (wheel), R4M3 features 4 playing terminals with the cylinder (wheel), R8M3-23 following this rule features 8 playing terminals again with the cylinder (wheel). R5M3 features 5 playing terminals again with the cylinder (wheel). R6M3 features 6 playing terminals again with the cylinder (wheel). All Units R4M3, R5M3, R6M3 and R8M3-23 models feature SIGNAGE - an over the cylinder mounted assembly with 2 monitors and LED lighting. The cylinder (wheel) can also be independent from playing terminals – this model is named SLM3R/WHEEL. HI-JACK-M3 features 5 playing terminals without the cylinder (wheel) and a central computer. Model WIKY is a single playing terminal without the wheel. It has touch screen LCD monitor. It needs to be fixed to the floor. Model Royal Derby consists of a server PC that controls the feature in a similar manner as the previously approved SLM3R/WHEEL. Robotic low voltage carriages that drive the mechanical horses utilize camera and displays systems from the SLM3R/WHEEL and other previously approved models to provide live picture and animations. It comes in two variants, the original tall variant and the second shorter variant with the only exception being the height. Model LUCKY 8 is similar to R8M3-23 except for signage. Model MULTITOUCH is similar to LUCKY 8 with the exception of the shape and size; Model MULTITOUCH LIVE is an operator version of the automatic MULTITOUCH model. Models SLM3S/WHEEL and SLM3C/WHEEL are identical to SLM3R/WHEEL with the exception of the wheel game. FELIX T is similar to WIKY model. BIG BANG is a vertical spinning wheel. BIG WHEEL is similar to the BIG BANG with relocated parts. The BIG WHEEL also features an LED matrix display on either one or both sides of the wheel center. Model ALFA GC is a game controller.
Ratings	Voltage: all models 110V, 60Hz Current: R1SL-M3-23-2, SLM3R/WHEEL, WIKY, SLM3S/WHEEL, SLM3C/WHEEL, FELIX T: 2A R4M3, Royal Derby, HI-JACK-M3, MULTITOUCH LIVE, BIG BANG: 8A R5M3, R6M3, Rseries, R8M3-23, LUCKY 8, MULTITOUCH, BIG WHEEL: 10A ALFA GC: 3A
Other Ratings	NA

3.0 Product Photographs

Photo 1 - External view of model R1SL-M3-23-2

Photo 2 - internal view of model R1SL-M3-23-2
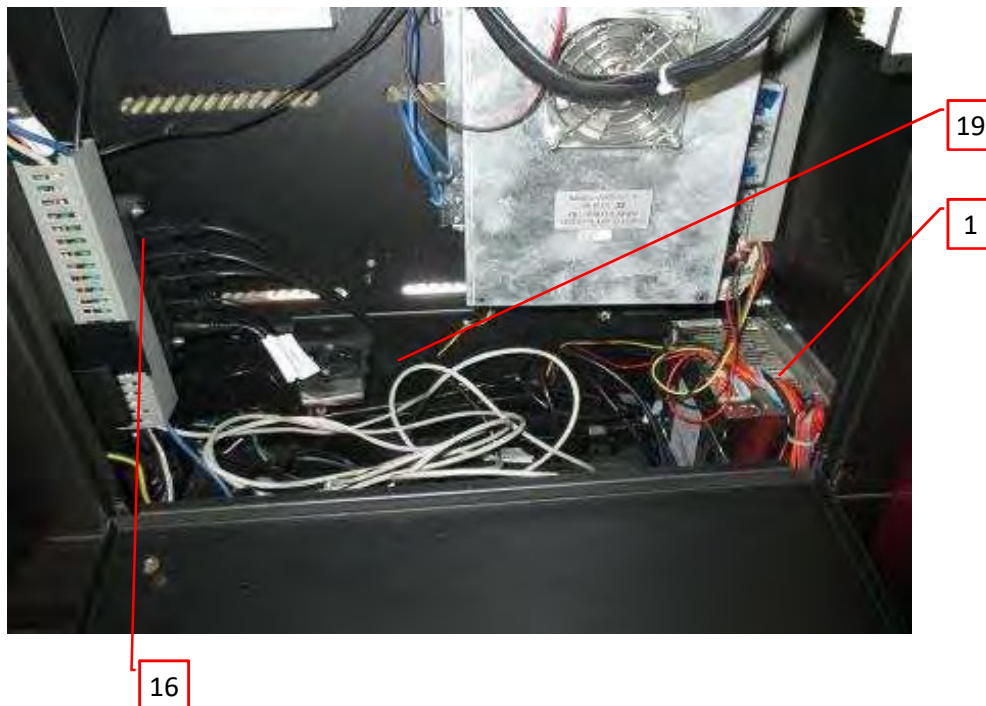
7.0 Illustrations

Illustration 16 - BIG WHEEL (single side), overall dimensions

1670mm [65,7in]

2220mm [87.4in]
2280mm [89,8in]

2350mm [92,5in]
2710mm [106,7in]
400mm [15,7in]

270mm [10,6in]
490mm [19,3in]
700mm [27,6in]
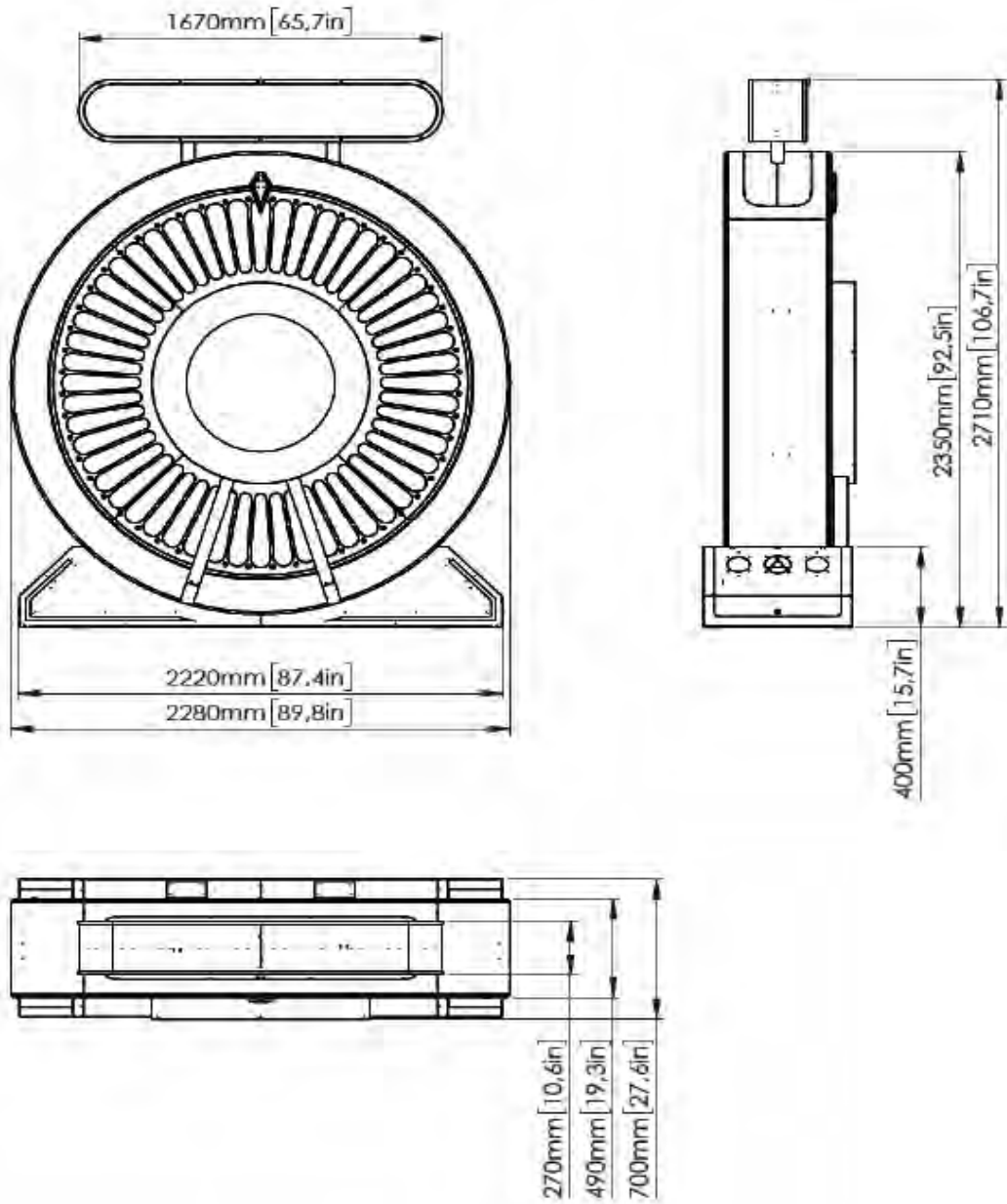
3.0 Product Photographs

Photo 3 - external view of model R4M3 without SIGNAGE

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Photo 4 - external view of model R4M3 with SIGNAGE

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3.0 Product Photographs

Photo 5 - internal view of model R4M3, also represents models: R8M3-23, SLM3R/WHEEL, LUCKY 8, MULTITOUCH, MULTITOUCH LIVE

Photo 6 - internal view of model R4M3, also represents models: R8M3-23, SLM3R/WHEEL and LUCKY 8
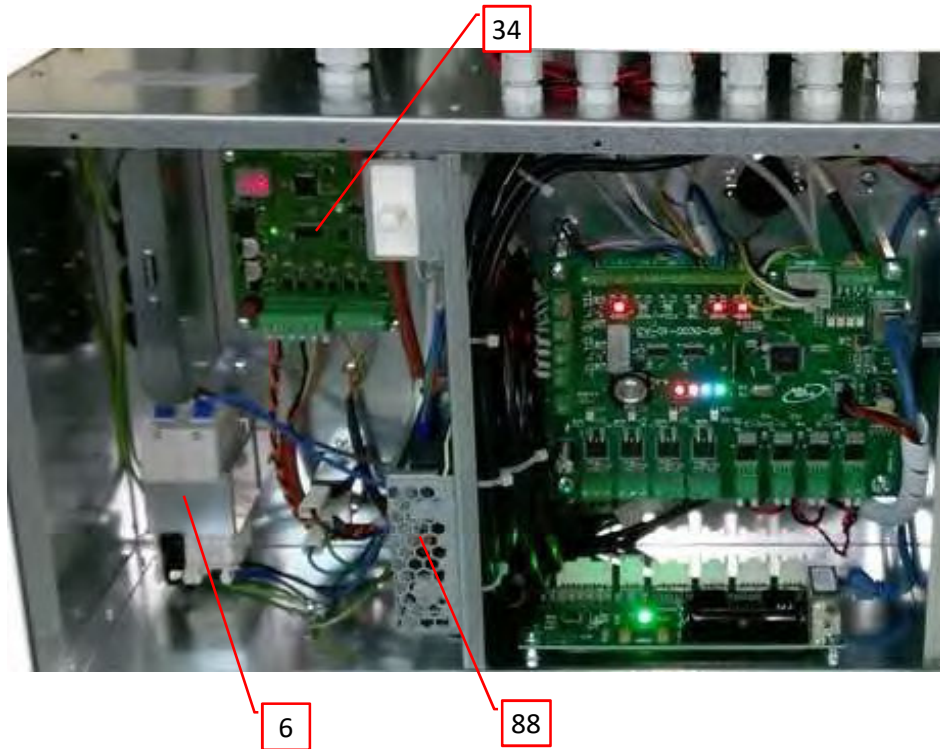
3.0 Product Photographs

Photo 7 - internal view of model R4M3, also represents models: R8M3-23, SLM3R/WHEEL and LUCKY 8

Photo 8 - external view of model R8M3-23 without SIGNAGE

3.0 Product Photographs

Photo 9 - external view of model R8M3-23 with SIGNAGE

Photo 10 - external view of model SLM3R/WHEEL

3.0 Product Photographs

Photo 11 - internal view of model SLM3R/WHEEL
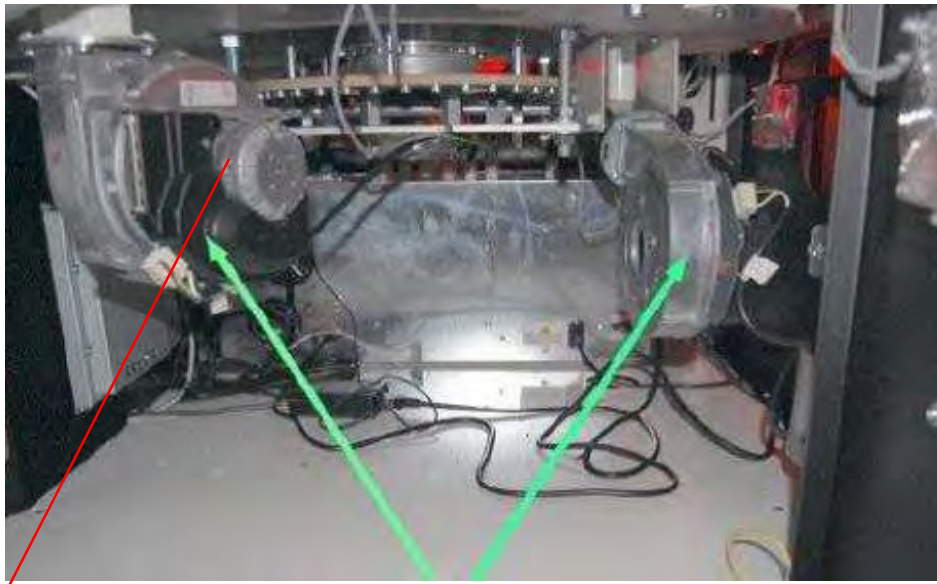
31

Photo 12 - external view of model HI-JACK-M3

3.0 Product Photographs

Photo 13 - external view of model WIKY

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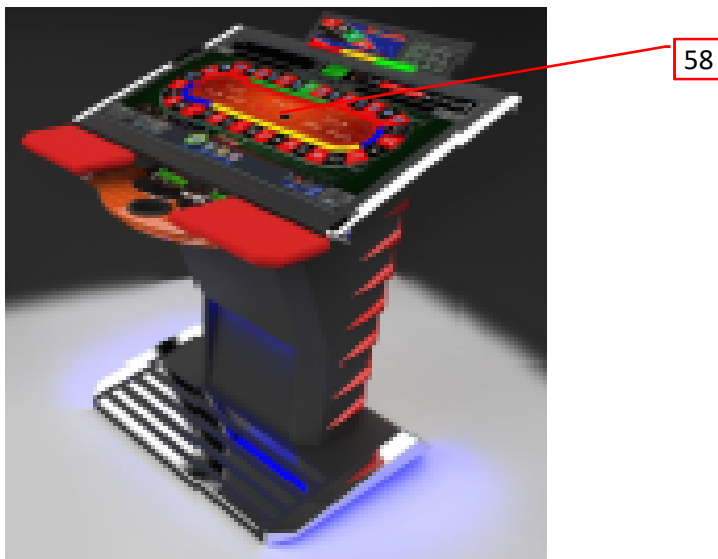
Photo 14- external view of model Royal Derby, Variant 1

3.0 Product Photographs

Photo 15- external view of model Royal Derby, Variant 2
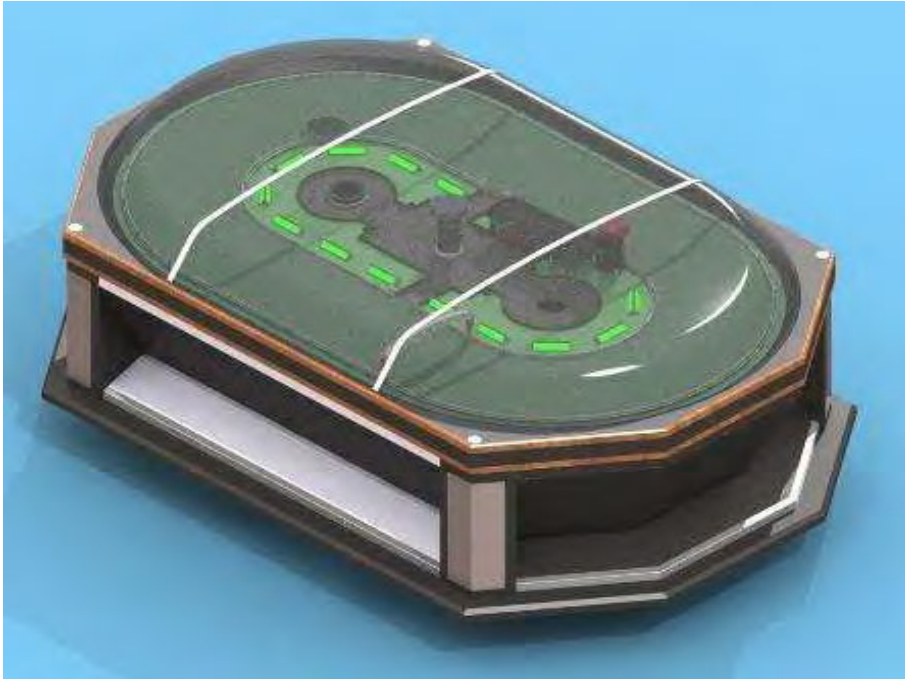
Photo 16- internal view of model Royal Derby (access from service doors); also represents other models
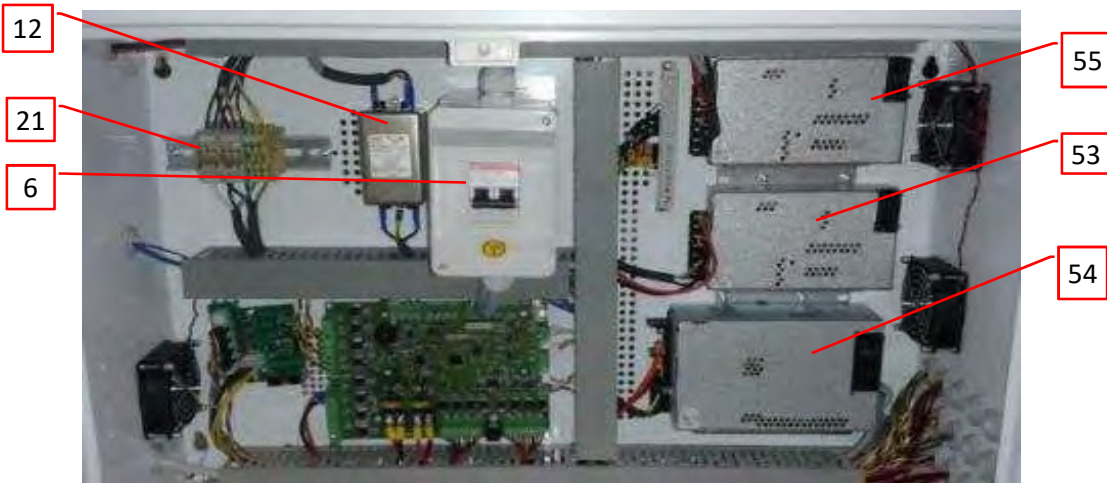
3.0 Product Photographs

Photo 17- internal view of power cord entry, represents several models

Photo 18- Grounding / bonding stud on enclosures, covers and doors, represents several models

3.0 Product Photographs

Photo 19- external view of model LUCKY 8 with and without a signage
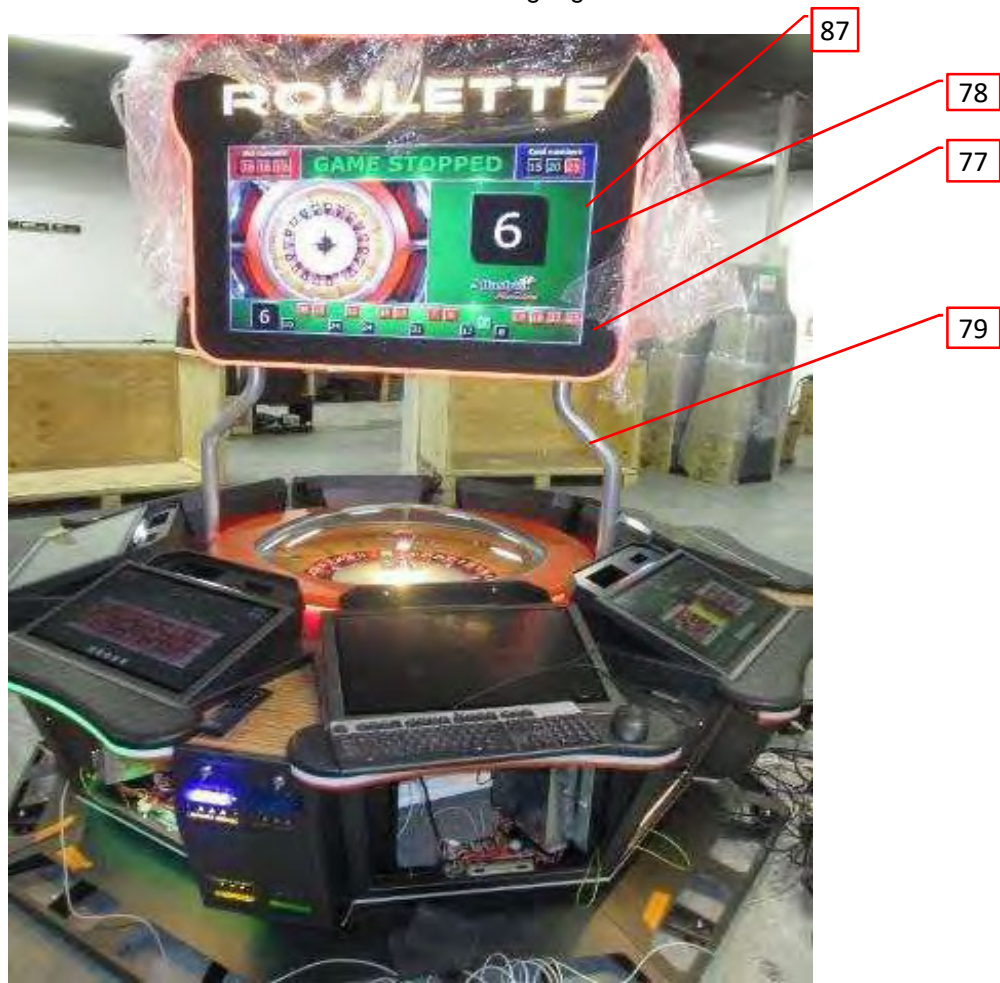
3.0 Product Photographs

Photo 20- internal view of model LUCKY 8
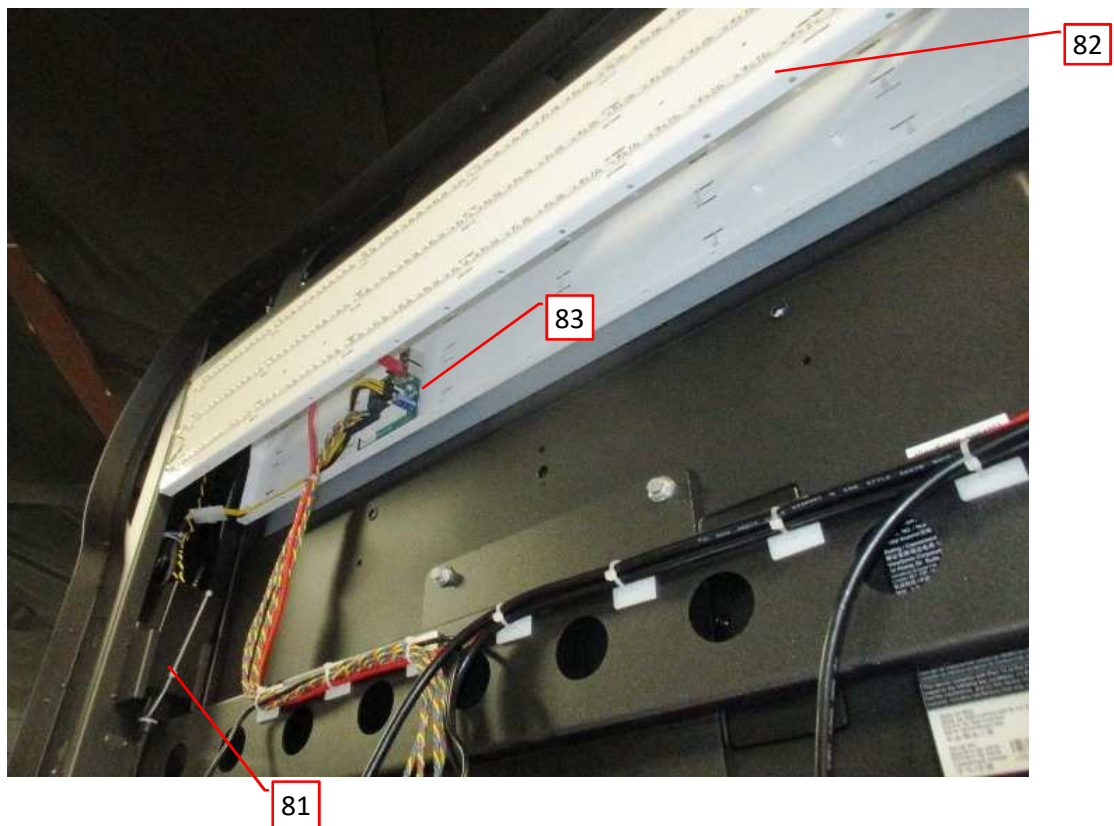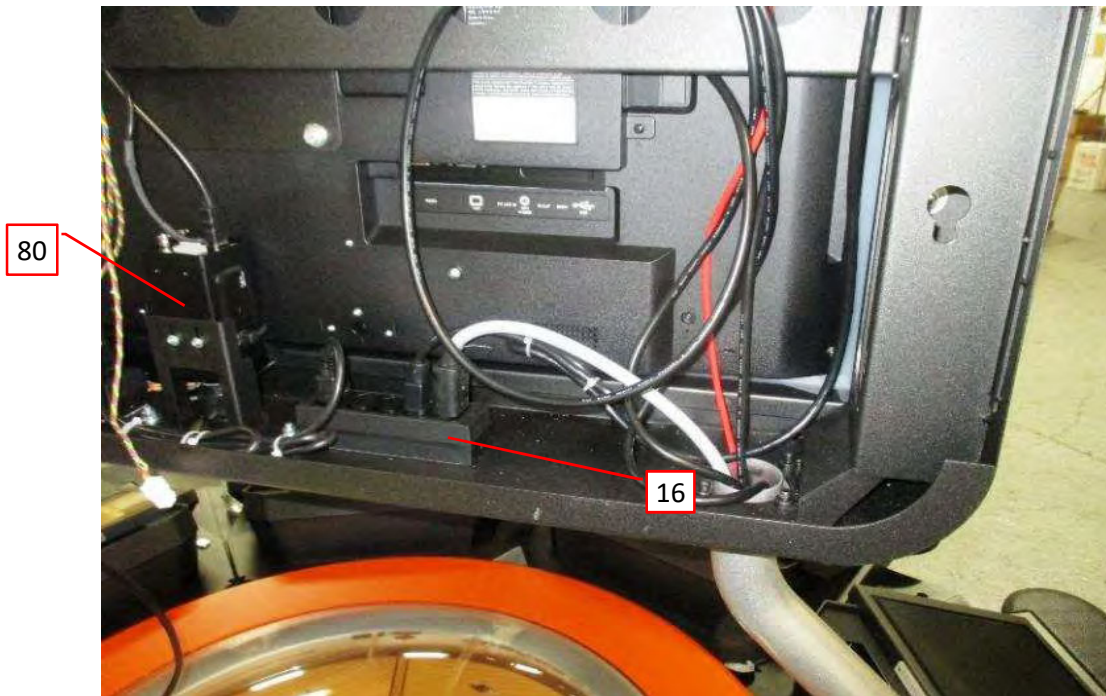
3.0 Product Photographs

Photo 21- signage internal (one monitor removed) of model LUCKY 8
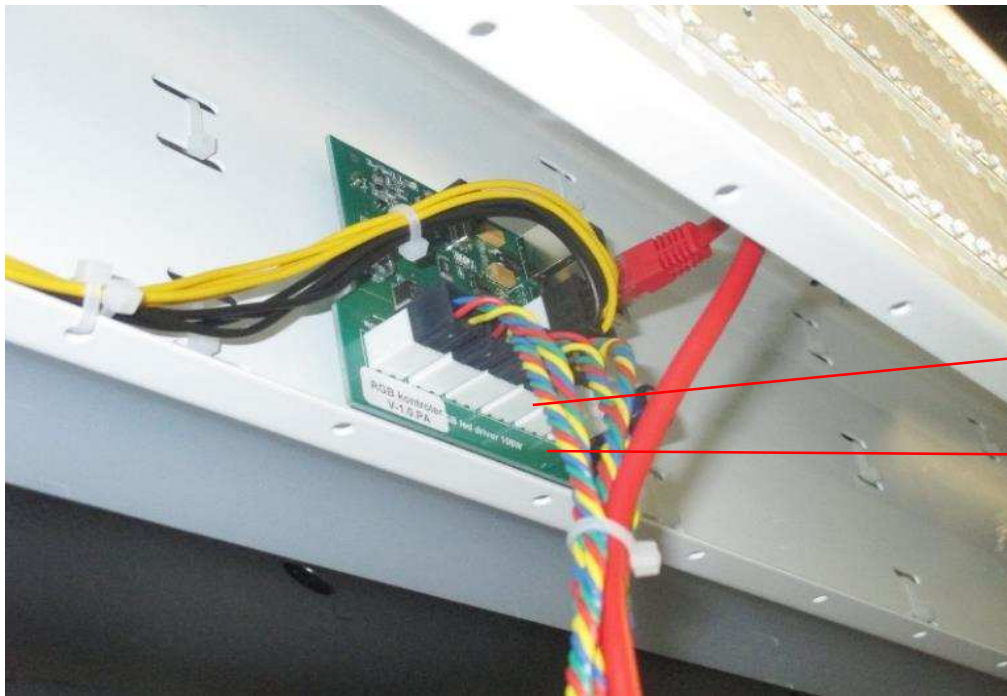
3.0 Product Photographs

Photo 22- MULTITOUCH, MULTITOUCH LIVE External View.

Photo 23- MULTITOUCH, MULTITOUCH LIVE Internal View.
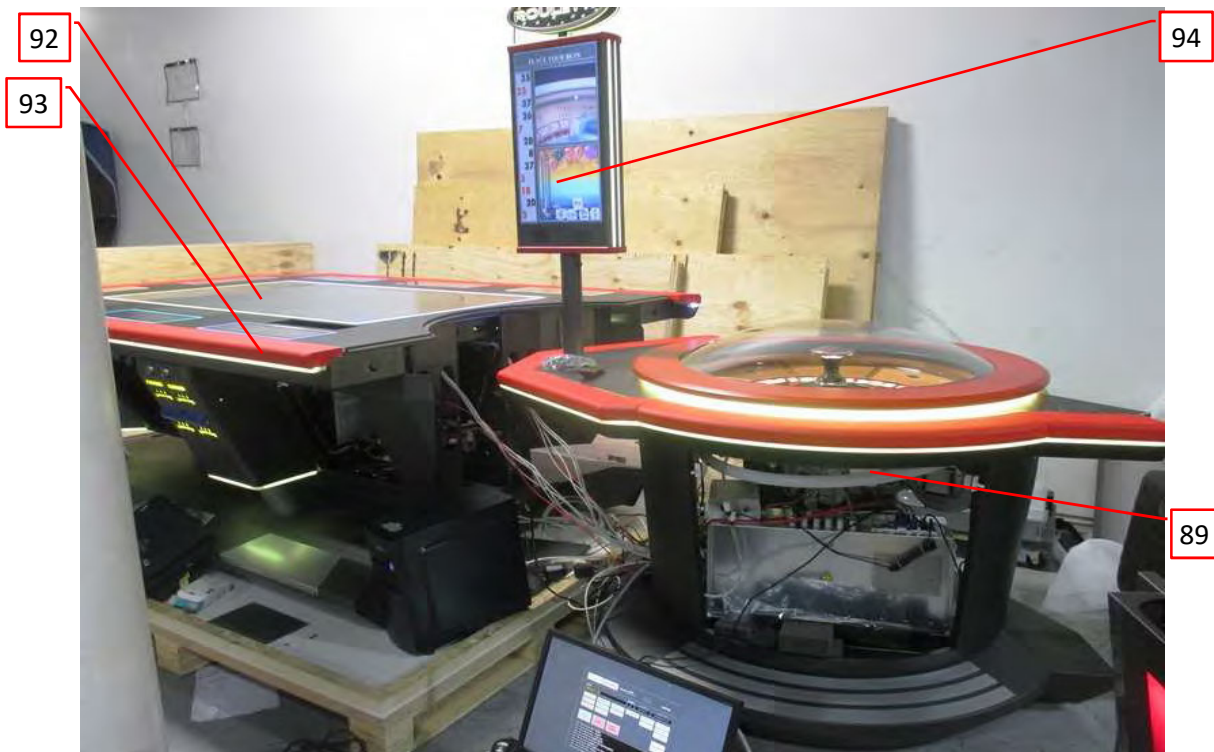
3.0 Product Photographs

Photo 24- MULTITOUCH, MULTITOUCH LIVE Internal View.

Photo 25- SLM3C/WHEEL External View.

3.0 Product Photographs

Photo 26- SLM3C/WHEEL Internal View.
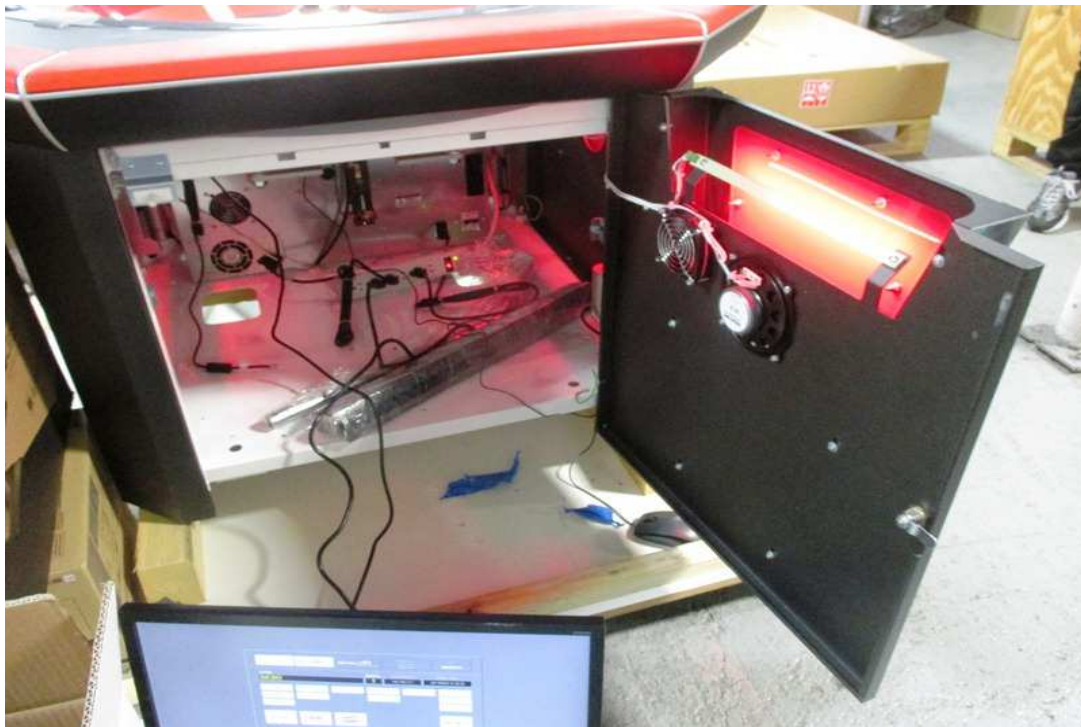
Photo 27- SLM3C/WHEEL Internal View.
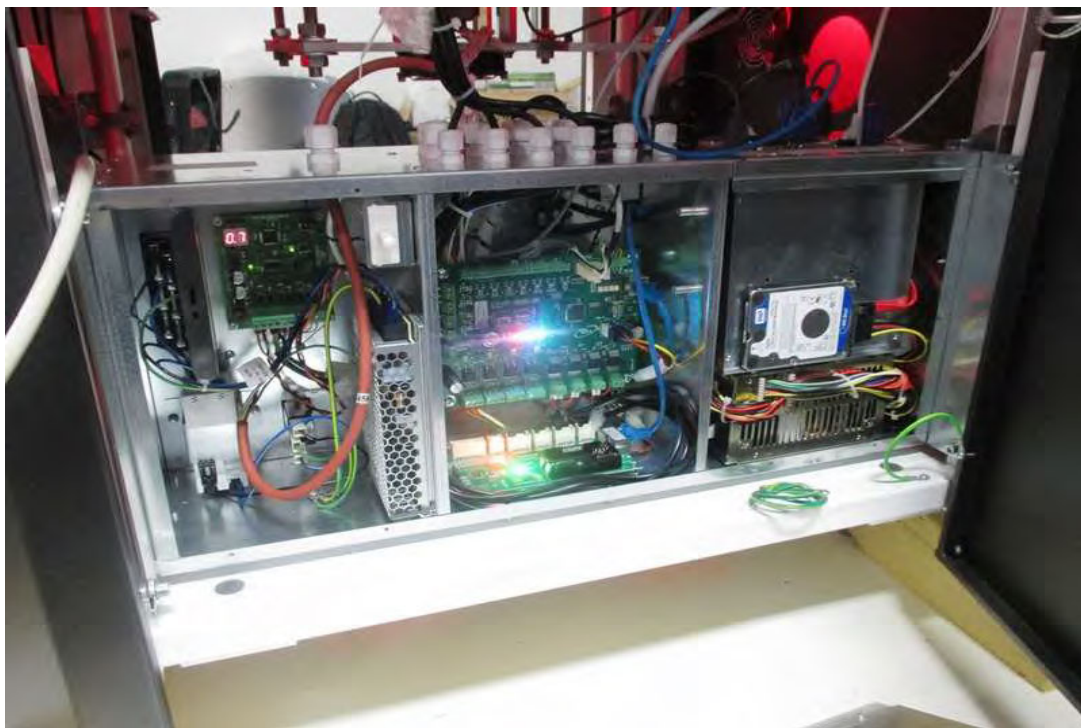
3.0 Product Photographs

Photo 28- BIG BANG front view.

Photo 29- BIG BANG rear internal view.
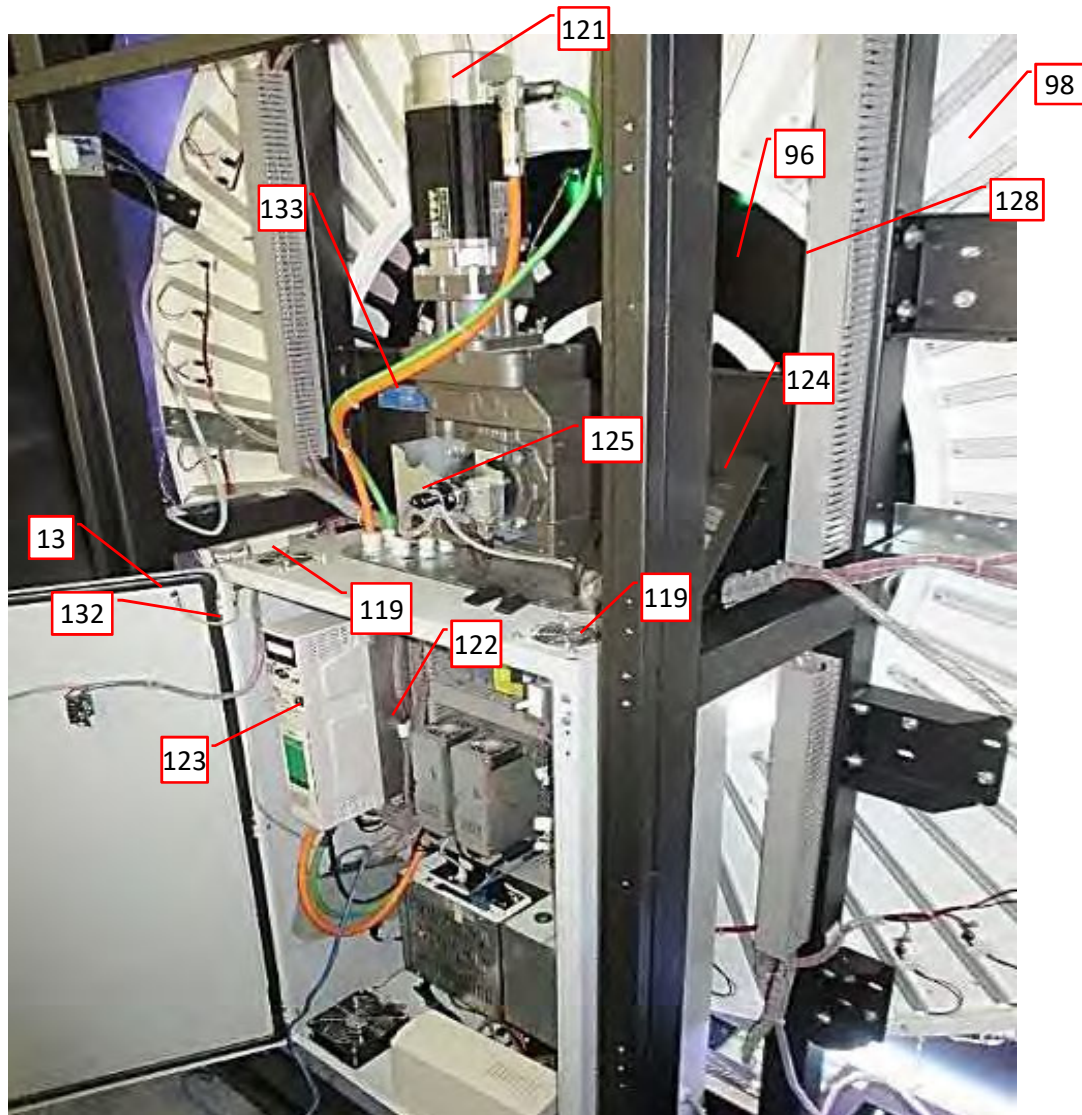
3.0 Product Photographs

Photo 30- BIG BANG rear internal view.
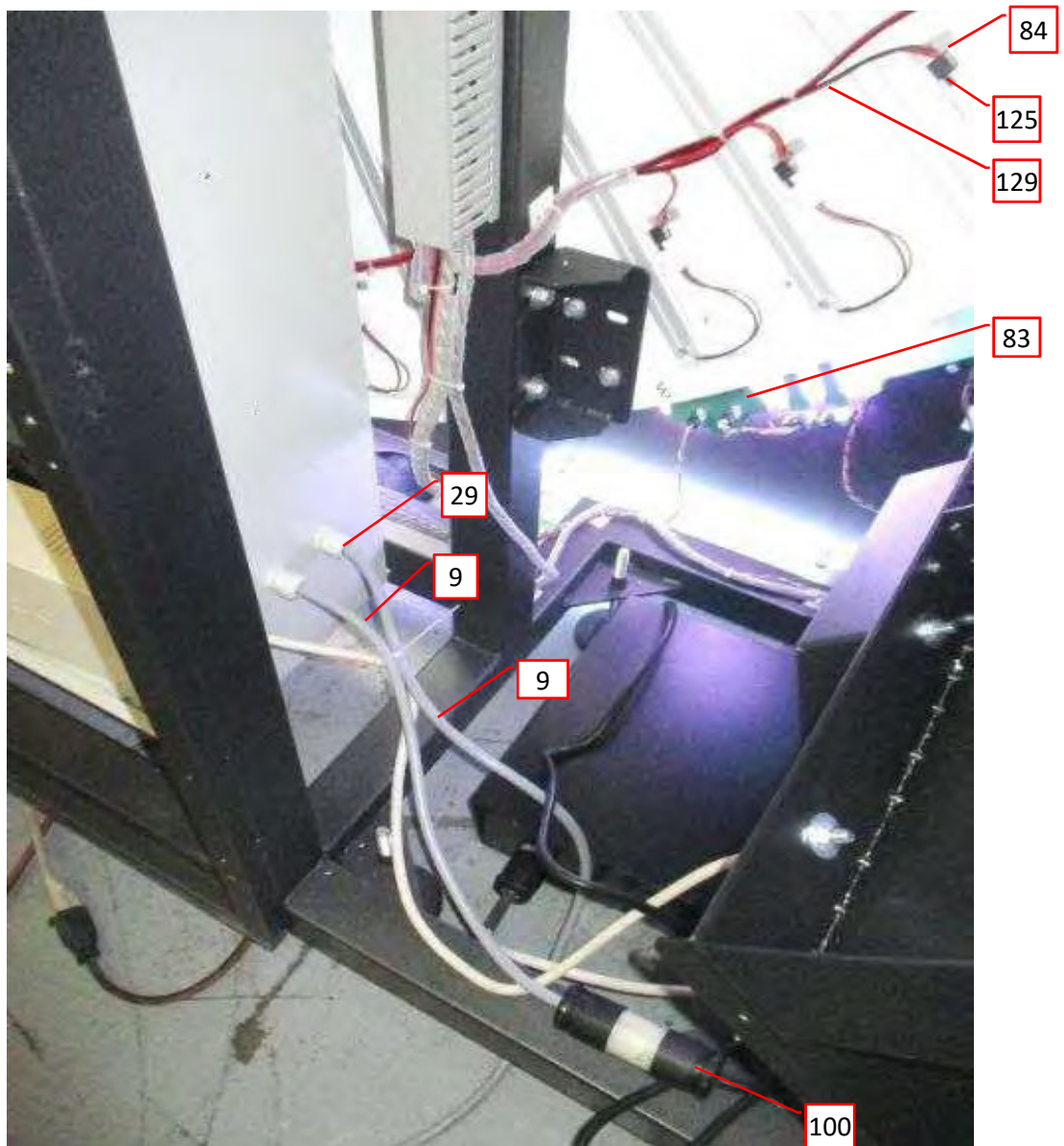
3.0 Product Photographs

Photo 31- BIG BANG rear internal view.
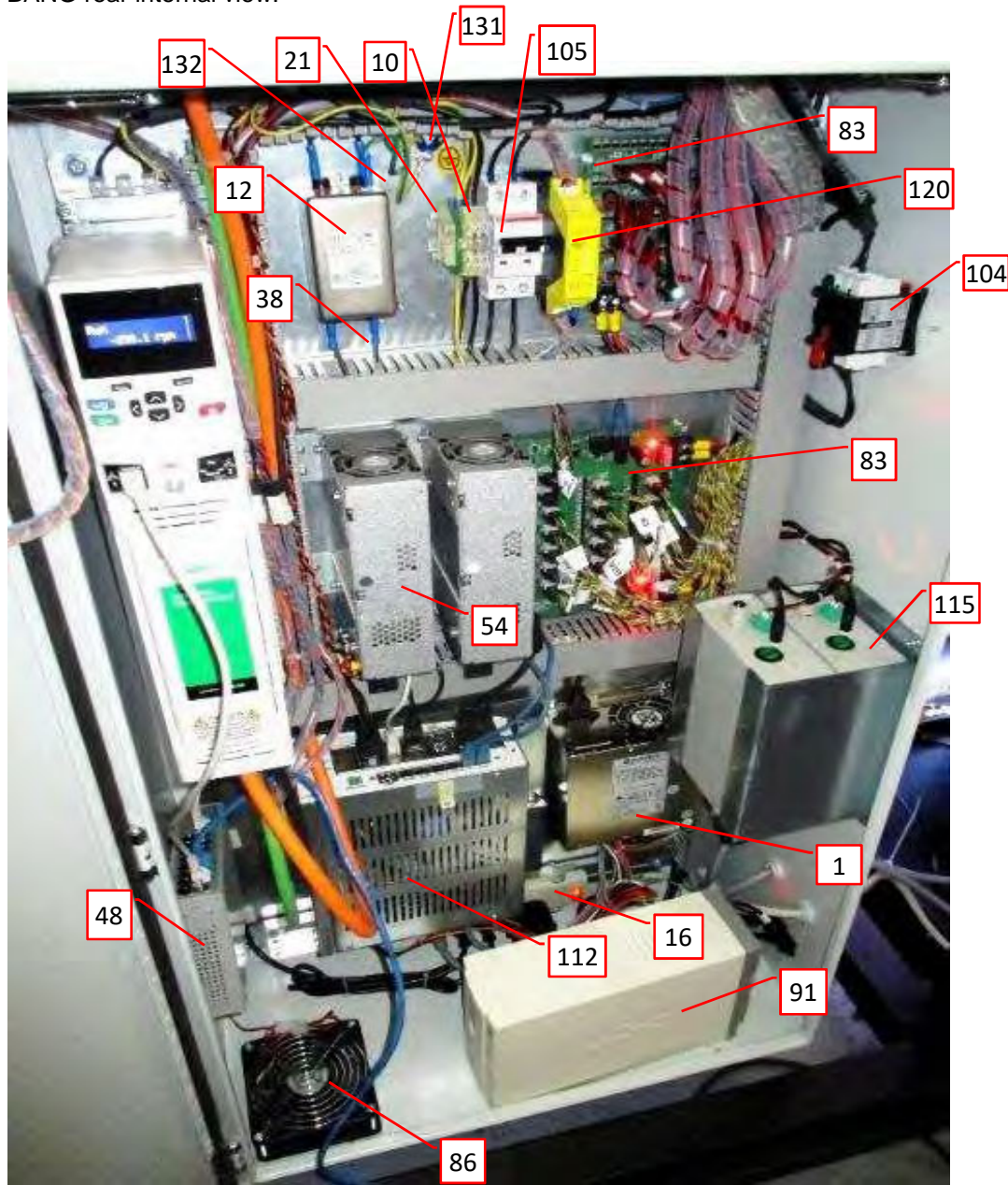
3.0 Product Photographs

Photo 32- FELIX T general view.

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3.0 Product Photographs

Photo 33- FELIX T internal view.
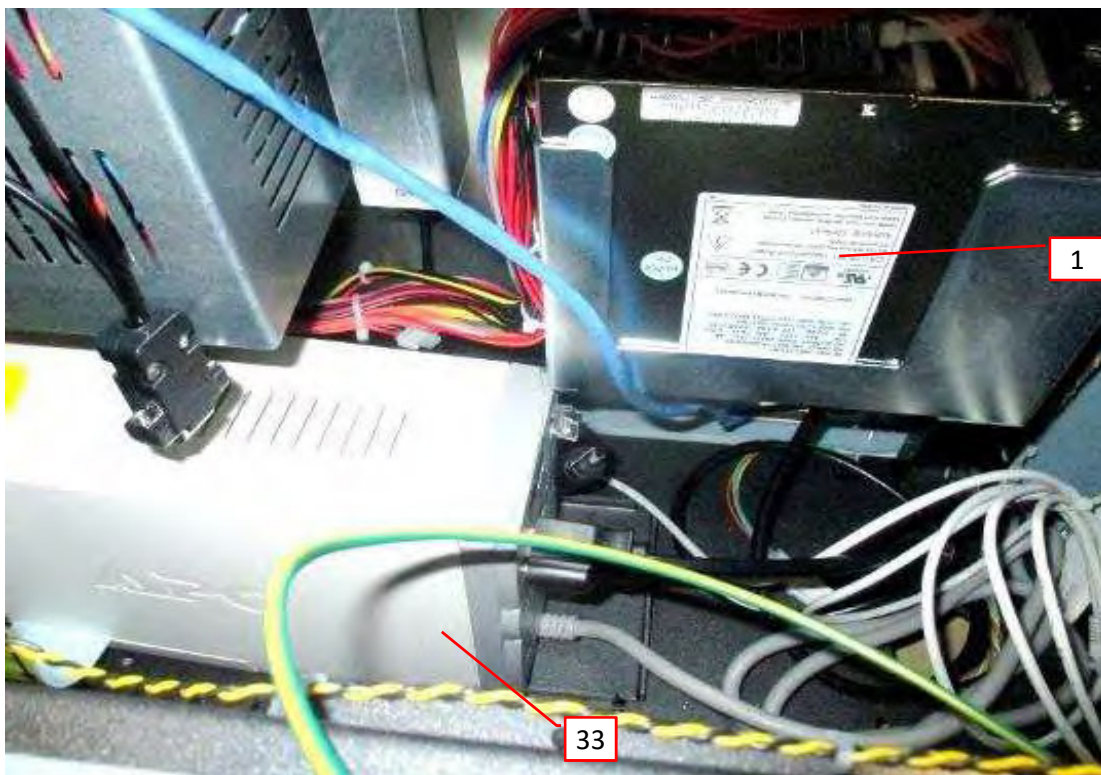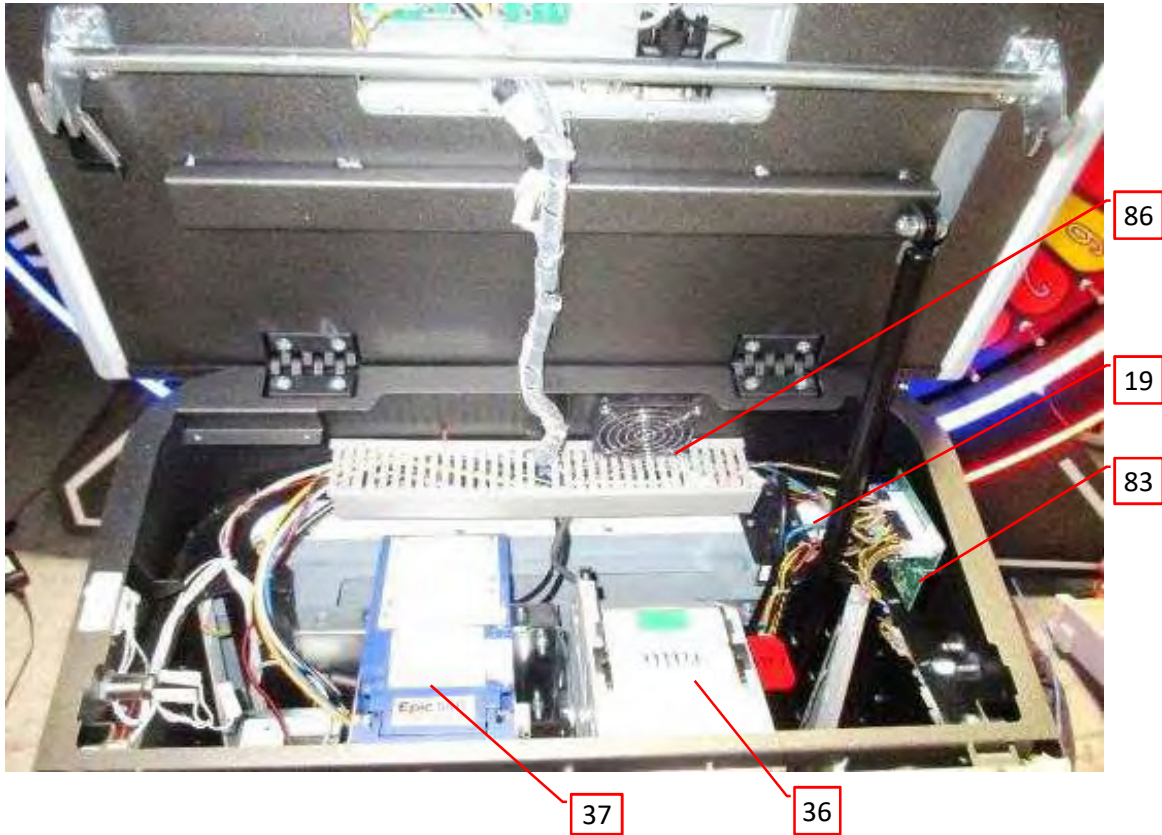
3.0 Product Photographs

Photo 34 - ALFA GC

3.0 Product Photographs

Photo 35 - ALFA GC
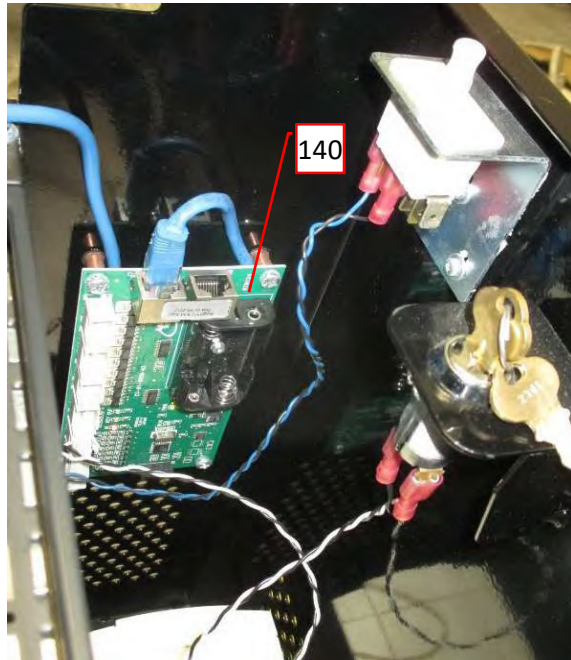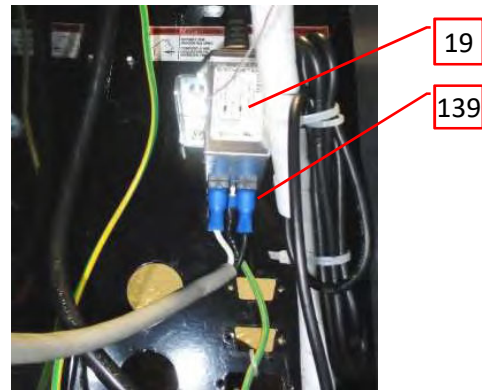
3.0 Product Photographs

Photo 36 - BIG WHEEL Front view
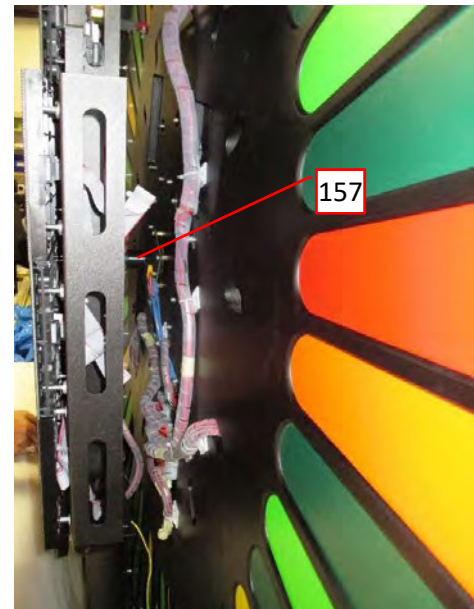
Photo 37 - Power section on BIG WHEEL

3.0 Product Photographs
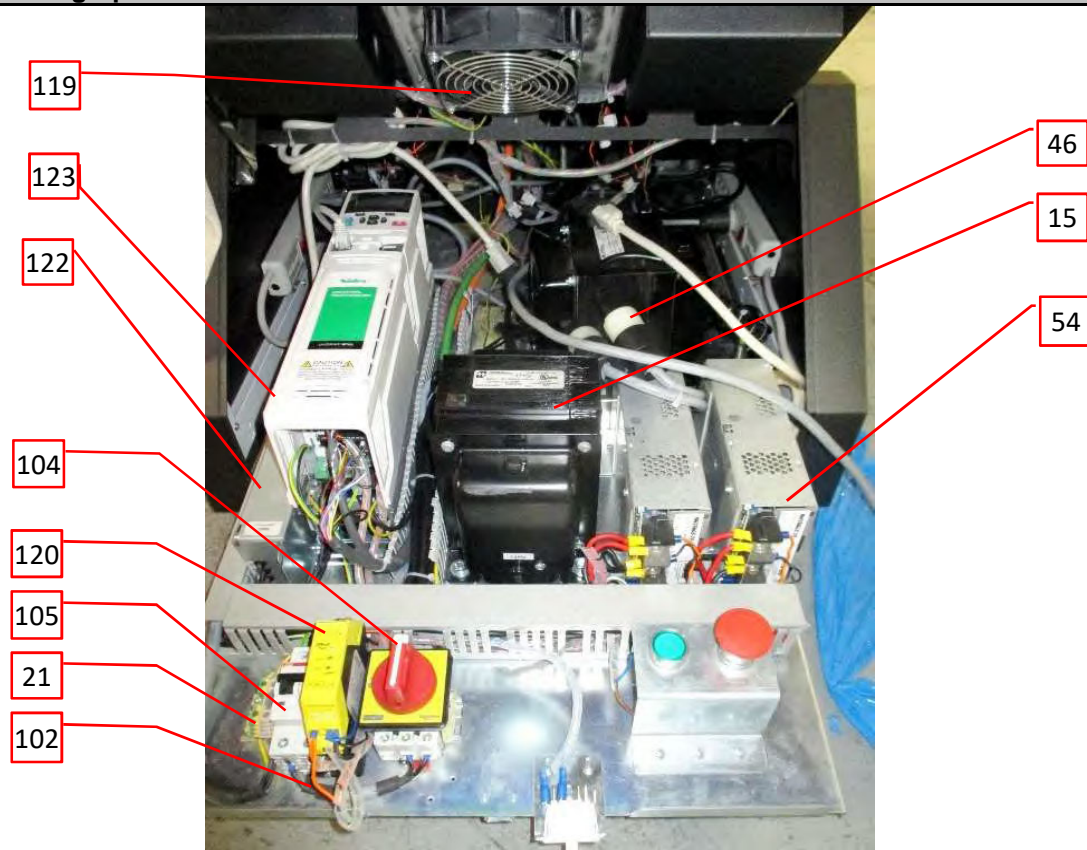
Photo 38 - Computer section
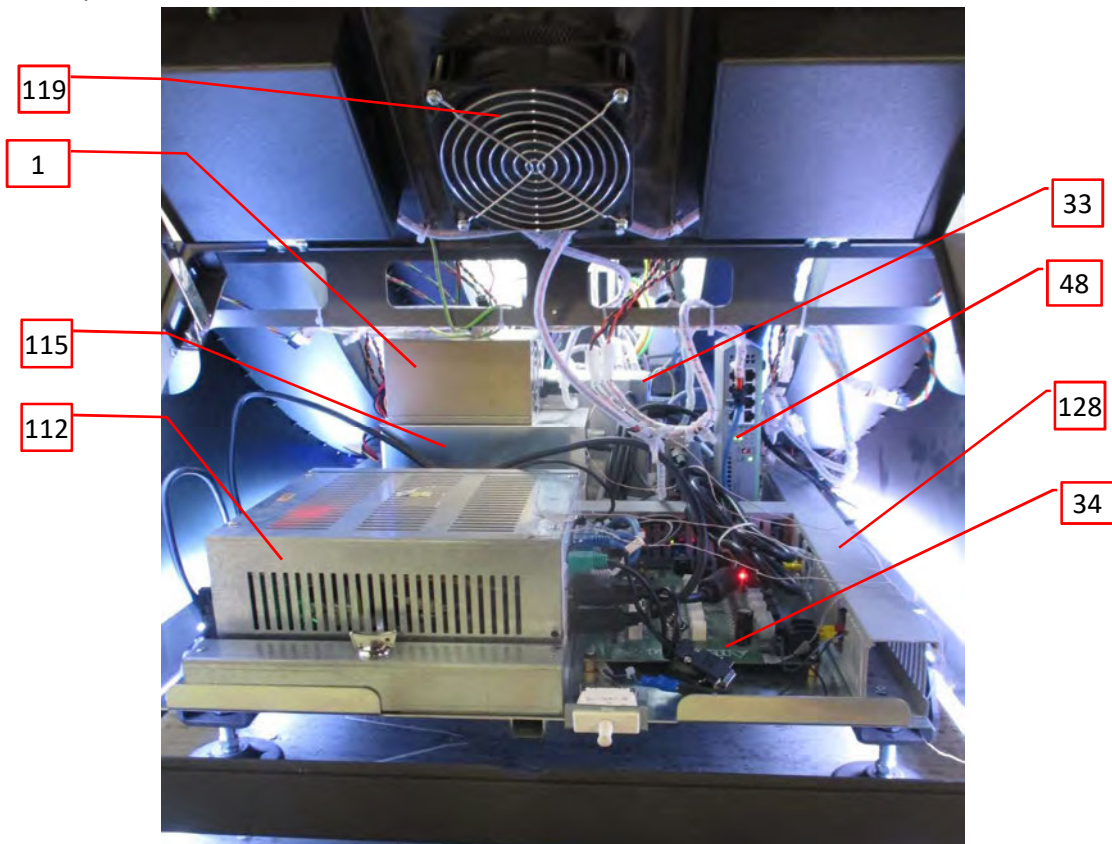
3.0 Product Photographs

Photo 39 - Grounding / bonding stud on computer and power compartment hinged cover
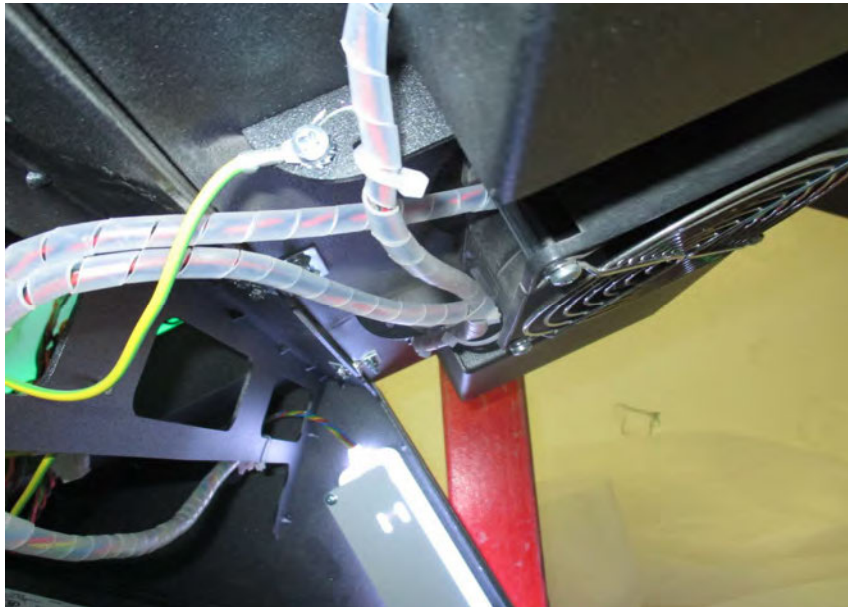
Photo 40 - Rear view of center Display on BIG WHEEL

4.0 Critical Components						
# Photo	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
2, 7, 31, 33, 35, 38	1	[97013] POWER SUPPLY	BICKER (E255816)	BEA-740	Input: 100-240V 47-63Hz 8-4A Output: 3.3/5/12/24V	cURus
				BEA-740-B1		
				BAM		
				BEA-740-B2		
5	3	[6121] POWER ENTRY WITH EMI FILTER (not shown)	SCHURTER	5110.0633.1	250VAC, 6A	cURus
7	4	[75054] SOCKET (not shown)	QUALTEK	742W-15/20	250V, 10A. 4xIEC FEMALE PANEL MOUNT	cURus
7	5	[5079] CONNECTOR CABLES 230V FOR CB-10 (not shown)	CABLEX	IZ13022	AWM, 80°C, 300V, AWG16, VW-1	cURus
5, 6, 16	6	[6076] CIRCUIT BREAKERS	ABB	S 202 – C 16	16A, 480Y/ 277 VAC	cURus
				S 202 – C 30	30A, 480Y/ 277 VAC	cURus
7	7	[75097], AC POWER LEADS (not shown)	VOLEX	17249 10 B1	10A, 125Vac, 65°C, SVT, 1.8m	cULus
7	8	POWER OUTLET STRIPS 6 OUT (not shown)	BELKIN	BSQ601bg08R-dp	125Vac, 15A	cULus
5, 30	9	[6329] CABLE 150 QUATRO (not shown)	LAPP GROUP	OLFLEX 150 3G2,5	AWM 21098, 3X2.5mm2, 600Vac, 90°C	cURus
3	10	[75050] SOCKET STRAIGHT (not shown)	SCHURTER	4732	250V, 10A, IEC Plug E, 70°C	cULus
4	11	POWER CORD (not shown)	Various	Various	125V, 10A, SJT, max 4.6m, nominal OD 10.1mm	UL, CSA
16,31	12	[24250] LINE FILTER	CORCOM	20EP1	20A, 120/250V, 50-60HZ	UL, CSA
6	13	[53101] POWER CABLE 2X IEC MALE-FEMALE (not shown)	SCHAFFNER	IL13-C14-SVT-3100-183	125V, 10A, used as internal wiring	UL, CSA
3, 4, 8, 9, 12,14,15, 38	14	[30] SWITCH 10/100, 16 PORT (Not shown)	TRENDnet	TEG-S16Dg	100-240VAC 50/60Hz, 16 PORT	cULus
			TRENDnet	TEG-S24Dg	100-240VAC 50/60Hz 0.2A, 24 PORT	cULus
			ALLIED TELESIS	AT-FS716L-50	100-240v 50/60HZ 0.5A	cULus
			Various	Various	100-240VAC 50/60Hz 0.5A max, various number of ports.	cULus
7, 37	15	ISOLATING TRANSFORMER	HAMMOND	171G	115V-115V, 1kVA	cULus

4.0 Critical Components

# Photo	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
2, 7, 20, 31, 33, 34	16	[6327] DISTRIBUTION OUTLET	SCHURTER	4747	15A, 250V, 4X IEC FEMALE 1X IEC MALE	cURus
			WIREMOLD	P6	15A, 120 V	UL, CSA
12, 33	17	[93020] POWER SUPPLY (not shown)	LITE-ON	PA-1051-0	Input 100-240V, 50-60Hz 1.5A Output: 12V, 4.16A / 5 A	cULus
				PA-1061-0		
			LITE-ON E132068	PA-1061-81	Input 100-240V, 50-60Hz 1.6A Output: 12V, 5 A	cULus
			LITE-ON E132068	PA-1051-81	Input 100-240V, 50-60Hz 1.5A Output: 12V, 4.16A / 5 A	cULus
			DEE VAN ENTERPRISE CO., LTD. B(E135856)	DSA-42PFB-12 1 120350	Input: 100-240V, 50-60Hz 1.2A Output: DC 12V 3.5A	cULus
			Various	Various	Input 100-240V, 50-60Hz 1.6A Output: 12V max, 5 A max	cULus
2	18	[6263] FUSE (not shown)	ESKA	522.707 – 522.727	5X20, 10A, 250V	cURus
1,2, 13, 33, 35	19	[6324] POWER ENTRY WITH EMI FILTER, FUSE AND SWITCH	SCHURTER	FKH (4304.4044)	125/250VAC 50/60Hz 6A @ 40°C	cURus
			DONG IL TECHNOLOGY LTD. E105227	IP-0622-H2	250V, 6A, Trise 45°C max.	cURus
6	20	[5058] GROUNDING WIRE	CABLEX	5058	14AWG, green or green with yellow stripe	cURus
16,3 1,37	21	GROUNDING TERMINAL	WEIDMULLER	WPE 4	22-10AWG	cURus

4.0 Critical Components

Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
4,9	22	LED LCD MONITOR	SAMSUNG	UE40H5500	100-240V, 50-60Hz, 45W	UL
			NEC (TOP VICTORY ELECTRONICS (TAIWAN) CO LTD) (E242102)	E507Q	100-240V~, 1.7A -0.7A, 50/60Hz	cULus
			PHILIPS	BDL4620QL/00	100-240V, 50-60Hz, 2.5A	cULus
			Viewsonic	CDE4600-L	AC 100–240Vac, 50–60Hz, 88W	cULus
			VIEWSONIC E225115	CDE4302 (VS16174)	[190060] MONITOR 43" CDE4302. Voltage 100-240 VAC +/- 10% Wide Range, 50-60Hz +/-3 Hz Consumption "On" 105W "Off" (Suspend) < 0.5 W	cULus
				CDE4803 (VS16334)	[190061] MONITOR 43" CDE4803. Voltage 100-240 VAC +/- 10% Wide Range, 50-60Hz +/-3 Hz Consumption "On": Max 149 W, 115 W(Default) "Off"(Suspend): ≤ 0.5 W	cULus
1	24	METAL ENCLOSURE R1SL-M3-23-2 WITH ADDONS	MANTA SEŽANA, MIZARSTVO VITOMIR POČKAJ S.P., D-LUKS	FAZA1 (Various model numbers)	Size: 780x900x630mm Materials: - Steel 1,5-2,5mm thickness - MDF/Wood 6-32mm thickness - Plastic 3-10mm thickness	NR
3, 4	25	METAL ENCLOSURE R4M3 WITH ADDONS	MANTA SEŽANA, MIZARSTVO VITOMIR POČKAJ S.P., D-LUKS	FAZA1 (Various model numbers)	Size: 2000x2000x890 Materials: - Steel 1,5-3,5mm thickness - MDF/Wood 6-50mm thickness - Plastic 3-10mm thickness	NR
8, 9	26	METAL ENCLOSURE R8M3 WITH ADDONS	MANTA SEŽANA, MIZARSTVO VITOMIR POČKAJ S.P., D-LUKS	FAZA1 (Various model numbers)	Size: 2770x2770x840 Materials: - Steel 1,5-3,5mm thickness - MDF/Wood 6-50mm thickness - Plastic 3-10mm thickness	NR
12	27	METAL ENCLOSURE HI-JACK-M3 WITH ADDONS	MANTA SEŽANA, MIZARSTVO VITOMIR POČKAJ S.P., D-LUKS	FAZA1 (Various model numbers)	Size: 2600x2000x1800 Materials: - Steel 1,5-3,5mm thickness - MDF/Wood 6-24mm thickness - Plastic 3-10mm thickness	NR

4.0 Critical Components

# Photo	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
10	28	METAL ENCLOSURE SLM3R WHEEL WITH ADDONS	MANTA SEŽANA, MIZARSTVO VITOMIR POČKAJ S.P., D-LUKS	FAZA1 (Various model numbers)	Size: 1100x1100x900 Materials: - Steel 1,5-3,5mm thickness - MDF/Wood 6-50mm thickness - Plastic 3-10mm thickness	NR
5,17 ,30	29	CABLE GLAND	BM Connecting Cables	BM4913 - PG13,5	Clamping range cable Ø 6-12mm. V-2. 90°C	UL
			BM Connecting Cables E171361	BM4909 – PG9	[6083] PG9. Clamping range cable Ø 4-8mm. V-2. 90°C	UR, CSA
				BM4907 – PG7	[6086] PG7. Clamping range cable Ø 3-6,5mm. V-2. 90°C	UR, CSA
3,4, 8,9, 30	30	EAT motor (not shown)	Volkswagen Group	6U0 955 113	12V DC 3A	NR
				6U0 955 711	12V DC 2/3A	NR
11	31	Blower motor	EBMPAPST	RG148/1200-3612	24V, 50W	NR
3, 35, 38	33	UPS	SCHNEIDER / APC	SMT2200	120V – 2200VA	cULus
				SMT1500RM2U	120V – 1500 VA	
				BK500	120V – 500VA	
				SMT1500RM2U C	120V – 1500 VA	cULus
				SMT2200C	120V – 2200VA	UL, CSA
				various	120V – 2200VA max	UL, CSA
6, 20, 21, 30, 31, 33, 38	34	PCB	Various	Various	V-0, 130ºC	UR

4.0 Critical Components

# Photo	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
1,3, 4,8, 9	35	Playing terminal monitor	KORTEK	KT-LS232MCU-03	12Vdc, 4.16A, 23'' FULL HD	NR
				LM230WF3-SLEI	12Vdc, 4.16A, 23'' FULL HD	NR
			ALPHA DISPLAY	LM230WF3	12Vdc, 4.16A, 23'' FULL HD	NR
			BESTECH	BTL230WILA21E3	12Vdc, 4.16A, 23'' FULL HD	NR
			BESTECH	BTL-215WILE21LP	DC 12V 3.3A	NR
				BTL-215WILS21LP		
			ALPHADISPLAY	APD-L2151-OpcBB	DC 12V 3.33A	NR
				APD-A2151-OpcBB		
			KORTEK	KTS215DPE01	DC 12V 4.16A	NR
			ALPHA DISPLAY	APD-L2152-OpcBB-S	DC 12V 3.33A	NR
				APD-L2302-OpcBB	12Vdc, 4.16A, 23'' FULL HD	NR
				APD-L2302-OpcBB-S	12Vdc, 4.16A, 23'' FULL HD	NR
			BESTECH	BTL230WILA21MU	12Vdc, 4.16A, 23'' FULL HD	NR
			BESTECH	WDD235OEAKTU03	12Vdc, 4.16A, 23'' FULL HD	NR
1, 3, 4, 8, 9, 12, 13, 33	36	Bill acceptor (shown on photo 1 only)	MEI	SCN8347	12-28V 10/30/70W standby, accepting, stacking)	NR
				SC8307	12-28V 10/30/70W standby, accepting, stacking)	NR
				CASHFLOW SCN66	12-28V 10/30/70W standby, accepting, stacking)	NR
			JCM	UBA-10-SS	12V (+5%), 1.6 A / 24V (+5%), 1A	NR
				IVIZION	12-24V, 5.4A	NR
12, 33	37	Ticket printer (not shown)	JCM GLOBAL (formerly FUTURE LOGIC)	GEN2 UNIVERSAL	24V DC 2.7A	NR
				GEN3	24V DC 2.7A	NR
				GEN5	24V DC 2.7A	NR
			ITHACA	EPIC 950L	24V DC 2.2A/1.5A	NR
3, 31	38	QUICK CONNECT TERMINAL (not shown)	BM	BM 00191	0,25-1,5mm2 6,3x0,8mm	UL
				BM 00291	1,5-2,5mm2 6,3x0,8mm	
			BM E143070	BM 00392	[6123] 4-6mm2 6,3x0,8mm	cULus

4.0 Critical Components

# Photo	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
12	40	POWER SUPPLY (not shown)	SEASONIC	SSA-0901-12	AC Input 100-240 2A 50/60Hz DC Output 12V 6.67A	cULus
			FSP GROUP E190414	FSP084-DIBAN2	AC Input 100-240V~ 1.3A, 50-60Hz DC Ouput 12.0V 7.0A MAX	cULus
8	41	POWER OUTLET STRIP (not shown)	Various	Various	120V AC, 50/60Hz 15A. May be used in any model.	cULus
1	42	POWER LEADS (not shown)	Various	Various	125V 10A SJT 18AWG/3C. May be used in any model.	cULus
12	43	[75134] SOCKET (not shown)	Schurter	4733	250VAC 60Hz 10A, IEC MALE 90°	cULus
4, 9	44	[75133] SOCKET (not shown)	Schurter	4785 4782.0100 4782.0000	250VAC 60Hz 15A. IEC FEMALE 90°	cULus
3,4, 8,12 ,14, 15	45	[6341] ELECTRIC PLUG (not shown)	Qualtek	Q-710	125VAC 15A	cULus
			International Configurations	5266-X	125VAC 15A	cULus
3,4, 8,12 ,14, 15,3 7	46	[6346] ELECTRIC RECEPTACLE	Qualtek	Q-718	125VAC 20A	cULus
			International Configurations	5369-X	125VAC 20A	cULus
11	47	SOCKET 4XIEC FEMALE PANEL MOUNT (not shown)	K+B	54R01	250V 15A	cURus
31,3 8	48	SWITCH GIGABIT	TRENDnet	TEG-S16Dg	100-240VAC 50/60Hz. 16 PORT	cULus
			TRENDnet	TEG-S24Dg	100-240VAC 50/60Hz 0.2A 24 PORT	cULus
			ALLIED TELESIS	AT-FS716L-50	100-240v 50/60HZ 0.5A	cULus
			various	various	100-240VAC 50/60Hz, 0.5A max, various number of ports	cULus
10	49	[24233] POWER SUPPLY 12V 2,5 A (not shown)	PHIHONG	PSC30U-120V	Input: 100-240V AC 0.8A (max at 120V) Output: 12V DC 2.5A	cULus
14, 15, 16	50	[6047] CRIMP TERMINAL RING FI4mm (not shown)	BM	00219	1,5-2,5mm2 Ø4mm	cULus

4.0 Critical Components

Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
14	51	[98] MONITOR PHILIPS 21,5" LED LCD (not shown)	PHILIPS	226V4LAB	100-240V 25,65W	cULus
14,15	52	INTEL NUC5i5RYK POWER SUPPLY (not shown)	FSP GROUP	FSP065-10AABA	Input: 100-240V 1.5A 50-60Hz Output: 19V DC 3.43A	cULus
				FSP065-REB	Input: 100-240V 1.5A 50-60Hz Output: 19V DC 3.42A	cULus
16	53	[75118] POWER SUPPLY LAMBDA	TDK-Lambda	RWS300B-24	Input: 85-265VAC (47-63Hz) Ouput: 24V, max 12.5A	cULus
16, 31, 37	54	[75119] POWER SUPPLY LAMBDA	TDK-Lambda	RWS600B-24	Input: 85-265VAC (47-63Hz) Ouput: 24V, max 25A	cULus
16	55	[75177] POWER SUPPLY	TDK-Lambda	RWS150B-12	Input: 85-265VAC (47-63Hz) Ouput: 12V, max 13A	cULus
			TDK-Lambda	RWS300B-12	Input: 85-265VAC (47-63Hz) Output: 12V, max 25A	cURus
			MEAN WELL E183223	S-150-12	Input: 88 ~ 132VAC / 176 ~ 264VAC 47 ~ 63Hz Output: 12V DC 12.5A	cURus
				RS-150-12	Input: 88 ~ 132VAC / 176 ~ 264VAC 47 ~ 63Hz Output: 12V DC 12.5A	cURus
				LRS-150-12	Input: 88 ~ 132VAC / 176 ~ 264VAC 47 ~ 63Hz Output: 12V DC 12.5A	cURus
14	56	18.5 MONITOR (not shown)	LG	19M37D	DC 19V 0.8A	NR
14	57	SPEAKERS (not shown)	SONY	HT-CT80	AC 120V 21W	cULus
13	58	[193040] MONITOR	BESTECH	BTL320DUNA21MU	DC 24V 5.0A	NR
			KORTEK	KTS320DPE01	DC 24V 5.0A	NR
			ALPHA DISPLAY	APD-A3204-OpcBA	DC 24V 5.0A	NR
				APD-A3204-OpcBA-S	32" DC 24V 5.0A	NR
13, 33	59	BESTECH 32 POWER SUPPLY (not shown)	ADAPTER TECH	STD-24050	Input: 100-240V 47-63Hz 1.6A Output: 24V 5A	cULus
				ATS160T-P240	Input: 100-240V ~ 50-60Hz 2.2A MAX.; Output: 24V DC 6.6A	cULus
				Various	Input: 100-240V ~ 50-60Hz 2.2A MAX.; Output: 24V DC 6.6A	cULus

4.0 Critical Components

Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
14, 15, 30	60	ISOLATING TRANSFORMER 1500VA (not shown)	HAMMOND	178GT	120-120VAC 1500VA 50/60Hz	cULus
1, 2, 10,13, 32, 35	61	MAIN POWER CABLE USA-IEC (not shown)	SCHURTER	6009.1315	10 A / 125 VAC; 50/60 Hz, SJT, AWG18 min. May be used in models R1SL-M3-23-2, SLM3R/WHEEL and WIKY	cULus
16	62	[6048] CRIMP TERMINAL FORK (not shown)	BM	00220	1.5-2.5mm2 Ø4mm	cULus
16	63	[6035] CRIMP TERMINAL FORK (not shown)	BM	00314	4-6mm2 Ø4mm	cULus
16	64	[6079] CRIMP TERMINAL FORK (not shown)	BM	BM 00320	4-6mm2 Ø4mm	cULus
13,15	65	[75092] STRAIGHT CONNECTOR (not shown)	SCHURTER	4735	15A 250VAC	cULus
14	66	US POWER SUPPLY 5V (not shown)	PHIHONG	PSC15A-050	Input: 100-240V AC 0.5A Output: 5V DC 3A	cULus
14	67	US POWER SUPPLY 9V (not shown)	PHIHONG	PSC15A-090	Input: 100-240V AC 0.5A Output: 9V DC 1.67A	cULus
16	68	POWER CABLE UL 3x1.5 (not shown)	LAPP	Olflex 150 3G1,5	AWM 21098, 3X1.5mm2, 600Vac, 90°C	cURus
13, 33	69	KORTEK 32" POWER SUPPLY (not shown)	FSP GROUP	FSP135-AAAN1	Input: 100-240V AC 2A 50/60Hz Output: 24V DC 5.62A	cULus
14,15	70	[66] MONITOR AOC 54,7CM (not shown)	AOC	E2250SWDAK	100-240V 50/60Hz 1.5A	cCSAus
3,4, 8,12 ,14, 15	71	USA ELECTRIC RECEPTACLE (not shown)	Qualtek	Q-712	125V, 15A	cULus
3,4, 8,12 ,14, 15	72	USA ELECTRIC PLUG 20A (not shown)	Qualtek	Q-716	125V, 20A	cULus

4.0 Critical Components

Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
4, 9	73	USA-BIPOLAR POWER CABLE (not shown)	Qualtek	223020-01	125V, 7A	cULus
13	74	[75105] FUSE (not shown)	Schurter	SP 5x20	4A 250VAC, 0001.1010	cURus
				SPT 5x20	4A 250VAC, 0001.2510	
13	75	[75113] FUSE (not shown)	Schurter	SPT 5x20	5A 250VAC, 0001.2511	cURus
14	76	18.5 MONITOR POWER SUPPLY (not shown)	SHENZHEN HONOR ELECTRONIC	ADS-18SG-19-3	AC 100-240V 50/60Hz	cULus
				ADS-18FSG-19		
			LIEN CHANG ELECTRONIC ENTERPRISE	LCAP42	AC 100-240V 50/60Hz	
				LCAP36-U		
19	77	Enclosure (signage)	various	various	steel, powder coated. thickness 2.3mm. See Illustration 2 for details.	NR
19	78	Panel	EVONIK CYRO L L C (E54671)	ACRYLITE (FF)	94-HB; See Illustration 3 for details.	cURus
19	79	Supporting pole	various	various	Painted steel. Secured with welded plate and 4 screws/nuts combination to enclosure. See illustration 4 for details.	NR
20	80	Camera	Super Circuits	BLK-HDC20HDMI	24Vac/12Vdc, 120mA	NR
				HDC-SD041BS	DC 12V 350mA	NR
20	81	Power supply	LiteOn (E132068)	PA-1051-0	Input 100-240V, 50-60Hz 1.5A; Output: 12V, 4.16A / 5 A; Qty = 3.	cULus
				PA-1061-0	Input 100-240V, 50-60Hz 1.5A; Output: 12V, 5 A	cULus
				PA-1061-81	Input 100-240V, 50-60Hz 1.6A; Output: 12V, 5 A	cULus
			various	various	Input 100-240V, 50-60Hz 1.6A max; Output: 12V, 5 A max	cULus
20, 32	82	LED strip	Video Sistemi d.o.o.	DISXXX163	12V, 0.6A/meter, 7.2W/meter	NR
				DISXXX097	12V, 7.2W/meter	NR
				DISXXX132	12V, 7.2W/meter	NR
			various	Various	12V, 15W max.	NR
21, 30	84	Connector	Molex (E29179, LR19980)	39-01-2046	13A, V-2, 105 ºC	cURus
21	85	[53101] POWER CABLE 2X IEC MALE-FEMALE (not shown)	SCHAFFNER	IL13-C14-SVT-3100-183	125V, 10A, used as internal wiring	UL, CSA

4.0 Critical Components

# Photo	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
20, 31, 33	86	Fan (not shown)	Sunon (E77551)	EE80251S1-0000-A99	12Vdc, 1.7W, V-0 for blade and frame	cURus
				EE80251S1-000U-A99	12Vdc, 1.7W, V-0 for blade and frame	cURus
			various	various	12Vdc, V-0 for blade and frame	cURus
19	87	LED LCD MONITOR	VIEWSONIC (E225115)	CDE4302 (VS16174)	Voltage 100-240 VAC +/- 10% Wide Range, 50-60Hz +/-3 Hz, Consumption On 105W, Off (Suspend) < 0.5 W	cULus
6, 23	88	Power Supply (not shown)	MEAN WELL E183223	LRS-150F-24	Input: 100-240VAC, 50/60Hz Output: 24V DC, 6.5A, 150W.	cURus
3, 4, 8, 9, 23	89	Disc Motor	ELKO	TZF 103 M8 PI 48V	0.11kW, D 24V, 3.9A. Power by NRTL approved 24VDC power supply.	NR
23	90	Power Supply (not shown)	XP POWER	VES90PS24	External Plug-in. Input: 100-240VAC, 50/60Hz Output: 24V DC, 3.75A, 90W.	cULus
23, 31	91	UPS (not shown)	SCHNEIDER / APC	SMT2200RM2U	2200VA 120V	cULus
				SMT2200RM2UC	2200VA 120V	cURus
				various	2200VA max 120V	cULus
23	92	MONITOR	ALPHA DISPLAY	APD-L6501-OPRD	DISPLAY 65". DC 24V 6.6A. Power by NRTL approved 24VDC power supply.	NR
23	93	MONITOR	ALPHA DISPLAY	APB-JL1916-OpcEB	DISPLAY 15,5'' DC 12V 3.33A. Power by NRTL approved 12VDC power supply.	NR
			KORTEK	KTBR15DPE01	DISPLAY 15,5'' DC 12V 3A. Power by NRTL approved 12VDC power supply.	NR
23	94	MONITOR	IIYAMA	XB2481HS	DISPLAY 24". DC 24V 27.9W. Power by NRTL approved 24VDC power supply.	NR
28	95	Base	Various	Various	Metal powder coating, Outside covers 1,5/2mm. Internal supports 2/3/5mm. See Illustration #11 and 12.	NR
29	96	Rotor (wheel surface)	MIZARSTVO Vitomir Počkaj s.p.	Plywood (2002201)	Material: Plywood; Thickness: 36mm; General dimensions: 120x930x36mm. See Illustration 9. Flame spread rate of 150 according to CSA O153-M	CSA

4.0 Critical Components

Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
29	97	Rotor (wheel surface)	MIZARSTVO Vitomir Počkaj s.p.	Acrylite FF (2002202)	Acrylic. See Illustration 9. Flame spread 175 vaccording to ASTM E-84 or 100-145 according tio ULC-S102.2.	UR
29	98	LED Strip holder (Stationary surface)	MANTA SEŽANA d.o.o.	37842	Material: Plain carbon steel, white powder coating; Thickness: 1mm; General dimensions: 950x930x26mm. See Illustration 8.	NR
30	99	AC plug	INTERNATIONAL CONFIGURATIONS (E474924)	5266-X	125V 15A	cULus
30	100	AC socket	INTERNATIONAL CONFIGURATIONS (E474924)	5369-X	125V 20A, mating Item #15 above.	cULus
31,37	102	AC terminal	WEIDMULLER	WDU 4	DIN railing mounted, 4 mm², 800 V, 32 A	UR, CSA
31,37	104	ON/OFF Switch	SCHNEIDER ELECTRIC (E164864)	V01	20A 690V AC 50/60 Hz	UL, CSA
31,37	105	CIRCUIT BREAKERS	ABB	S 202 – C 25	25A, 480Y/ 277 VAC	cURus
				S 202 – C 30	30A, 480Y/ 277 VAC	cURus
31, 34,38	112	Computer	Pockaj - AXIOMTEK	GMB811	DC 3/5/12V, Powered by UL approved power supply	NR
				GMB820		
				MANO861		
				SBC84831		
				GMB830		
			Supermicro	X8SIA		
31,38	115	Audio amplifier	Pockaj	1004563	12VDC/22W input, powered by UL approved power supply	NR
				1004623	12VDC/45W input, powered by UL approved power supply	NR
29,37,38	119	Fan	Sunon (E77551)	EEC0381B2-000U-A99	DC12V 5.1W	cURus
			various	various	DC 12V	cURus
31,37	120	SAFETY RELAY	REER (E318359)	AD SRE3	2 NO – 6 A 240 VAC / 24 VDC	cULus
31	121	BRUSHLESS SERVO MOTOR (E215243)	CONTROL TECHNIQUES	115U2B300CACAA115190	400V, 4.2A, 1.73kW	cURus
29,37	122	EMI filter	MAX FUSS GMBH & CO. KG (Branded NIDEC), (E221999)	3F230-020.290CT (Branded 4200-3230)	3AC 230 + 10% 20 A @ 40 °C	cURus
29, 37	123	Motor controller	NIDEC (E171230)	M700-032 00080 A	8A, 1.5kW, 100 V (100 V - 120 V ± 10%)	cULus
29	124	MONITOR	LILLIPUT	TK970-T	9,7'' DC12V, Powered by UL approved power supply	NR
			ELO TOUCH (E162681)	ET1523L	DC 12V 4.16A, Powered by UL approved power supply	cULus

4.0 Critical Components

# Photo	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
29	125	Rotary joint contacts	JINPAT Electronics Co.,Ltd	LPC-24A-1202	240 VAC/DC max; 2 amps per circuit; Dielectric Strength: ≥500 VAC @50Hz, between each circuit. See Illustration 10.	NR
30	126	Black Connector	Molex (E29179, LR19980)	46992-0410	13A, V-2, 105 °C	cURus
29,37,38	128	Electrical wiring trough	Elettrocanali S.p.a. (E331386)	ECS4060	94-V0	cURus
				ECS6060	94-V0	cURus
30	129	Wire	MEDI KABEL GMBH (E223795)	Various	300V; AWG 18 or 22 or 16; VW-1, FV-2; FT1; Style 1007 or 1569	cULus
			various	Various	300V; AWG 18 or 22 to 16; VW-1, FV-2; FT1; Style 1007 or 1569	cULus
29	130	Welded stud	various	various	Copper plated steel, M4x12 welded stud	NR
31	131	Ground screw	various	various	Zinc plated steel, M4x10 screw	NR
31	132	wire	CABLEX	5058	14AWG, green or green with yellow stripe	cURus
			MEDI KABEL GMBH (E223795)	Various	300V; AWG 18; VW-1, FV-2; FT1; Style 1007 or 1569	cULus
29	133	Nameplate	various	various	metallic, silk screened, riveted.	NR
32	135	[193040] MONITOR	BESTECH	BTL320DUNA21MU	DC 24V 5.0A	NR
			KORTEK	KTS320DPE01	DC 24V 5.0A	NR
			ALPHA DISPLAY	APD-A3204-OpcBA	DC 24V 5.0A	NR
				APD-A3204-OpcBA-S	32'' DC 24V 5.0A	NR
			Alpha Display	APD-A2702-OPcBB-V2-S	27", DC 12V 5.0A	NR
				APD-A2702-OPcBB-V2	27", DC 12V 5.0A	NR
			Kortek	KTS270DPE04	27", DC 12V 5.0A	NR
32	136	Welded stud	various	various	Copper plated steel, M4x12 welded stud	NR
32	137	[5058] GROUNDING WIRE	CABLEX	5058	14AWG, green or green with yellow stripe	cURus
			MEDI KABEL GMBH (E223795)	Various	300V; AWG 18 or 22 or 16; VW-1, FV-2; FT1; Style 1007 or 1569	cURus

4.0 Critical Components

# Photo	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
34	138	Enclosure	various	various	Metallic, painted, 22.5"Dx9.5"Wx20"H, 0.08" thick; with hinged cover; smooth power cord entry opening.	NR
35	139	Crimp connector	BM SPA (E143070)	BM00291	quick disconnect, AWG14-16 ; UL 310, CSA-C22.2 No. 153.	cULus
35	140	PCB (I/O)	various	various	L 94V-0, UL 796	cURus
34	141	Tie wrap	various	various	At least two as a strain relief securing power cord in place.	NR
35	142	Ground wire (not shown)	various	various	Stranded AWG14 yellow/green with ring terminal on each side attached with a lock washer and nut to M4x12 copper plated steel stud. One stud is welded to the cover and the other to the enclosure.	NR
35	143	Ground wire (not shown)	various	various	Stranded AWG14 yellow/green with ring terminal on one side attached with a lock washer and nut to M4x12 copper plated steel stud. Stud is welded to the enclosure; Other wire side is crinpmed to quick disconnect and connected to tab of EMI filter.	NR
34	144	Touchscreen monitor	ELO TOUCH (E162681)	ET1523L	DC 12V 4.16A	cULus
34	145	Power supply	DELTA ELECTRONICS, INC. (E131881)	ADP-50YH	Input: 100-240V~1.5A 50-60Hz; Output: 12V DC 4.16A	cULus
40	146	Power strip	SCHURTER AG (E96454)	4747	Ratings IEC 10 A / 250 VAC; 50 Hz Ratings UL/CSA 15 A / 250 VAC; 60 Hz Allowable Operation Temperature -25 °C to 70 °C	cURus
40	147	Power supply	MEAN WELL (E18322)	RSP-200-5	Inp: 88-264V, 47-63Hz; Outp: 5V, 40A, Isolated SELV	cURus

4.0 Critical Components

# Photo	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]
			MEAN WELL (E183223)	UHP-200A	Inp: 90-264V, 47-63Hz; Outp: 5V, 40A, Isolated SELV	cURus
40	148	Power cord	various	various	Between power strip and power supply. SJT, 18AWG / 3C, 125V 10A	cULus
40	149	Power cord	SCHAFFNER	IL13-C14-SVT-3100-183	Supplying power to power strip. 125V, 10A	UL, CSA
40	150	Power cord	SCHAFFNER	IL13-C14-SVT-3100-183	Routed through tube supporting centarl display frame, providing AC to item 149. 125V, 10A	UL, CSA
			LAPP	Olflex 150 3G1,5	Routed through tube supporting centarl display frame, providing AC to item 149. 1AWM 21098, 3X1.5mm2, 600Vac, 90°C.	cURus
40	151	PCB	Various	Various	V-0, 130ºC	UR
40	152	Dot matrix assembly (not shown)	Video Sistemi d.o.o.	P2.5	Magnetically attached to frame. DC 5V, average 260 W/m². Qty=21 assemblies for 4096 LED total. 94V-0 PCB and enclosure.	NR
40	153	Frame	various	various	Metallic, powder coated; overall dimensions: 29" diameter, 5.5" deep, 0.07" thick - nominal.	NR
36	154	Frame	various	various	Metallic, powder coated; overall dimensions: 86" diameter, 19" deep - nominal.	NR
36	155	Cover	various	various	Metallic, powder coated; overall dimensions: 22.8" long, 16.5" wide, 0.9" thick - nominal. Hinged, covering power compartment and computer compartment of base. Provided with a key lock.	NR
36	156	Support tube	various	various	Metallic, powder coated with key lock; overall dimensions: 0.1" thick - nominal.	NR
36	157	Rotary joint contact	JINPAT Electronics Co.,Ltd	LPR-6H	380VAC/DC, 2 circuits 5A, 4 circuits 15A, Dielectric Strength: ≥500 VAC @50Hz; See Illustration 17 for additional details.	NR
36	158	Rear cover (Not shown)	various	various	Metallic, powder coated; overall dimensions: 45.5" long, 44.9" wide, 0.1" thick - nominal. Screwed in place, On single sided model only, completing enclosure to enclosing all electrical parts).	NR

NOTES:

4.0 Critical Components

#	Photo	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity[3]

1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.

2) "Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.

3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.

5.0 Critical Unlisted CEC Components

No Unlisted CEC components are used in this report.

6.0 Critical Features

Recognized Component - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.

Listed Component - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.

Unlisted Component - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.

Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

Construction Details - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.

1. Spacing - In primary circuits, 1.6 mm minimum spacing are maintained through air and over surfaces of insulating material between current-carrying parts of opposite polarity and between such current-carrying parts and dead-metal parts or low voltage isolated circuits.

2. Mechanical Assembly - Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.

3. Corrosion Protection - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.

4. Accessibility of Live Parts - All uninsulated live parts in primary circuitry are housed within a metal/wood enclosure constructed with no openings other than those specifically described in Sections 4 and 5.

5. Grounding - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed and that that may become energized by a single electrical fault are connected to the grounding lead of the power supply cord.

6. Internal Wiring - Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. All wiring is minimum 24AWG, with a minimum rating of 300V, 90°C.

7. Markings - The product is marked on a labeling system as follows:manufacturer's name, model number, date of manufacture, electrical ratings.

8. Cautionary Markings - The following are required:
-- WARNING / AVERTISSEMENT
SHOCK HAZARD – DO NOT OPEN! Refer servicing to service personnel.
DANGER D'ÉLECTROCUTION – NE PAS OUVRIR! Consulter le personnel de maintenance.
For location of the above marking on the BIG BANG and FELIX T models refer to Illustration no. 13.

- WARNING / AVERTISSEMENT
SUITABLE FOR INDOOR USE ONLY. CONVIENT À UNEUTILISATION EN INTÉRIEUR UNIQUEMENT.

9. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer in English and French.

7.0 Illustrations

Illustration 1 - motor TZF 103 M8

Kabelska uvodnica
prestavljena risana

premer gplega vodnika : 0,280 L2.4
premer izoliranega vodnika : 0,329 mm
št. ovojev tuljave : 475

DEKOR: Elektromotor nebarvan

Manufacturer: ELKO
Model: TZF 103 M8
Technical data: 0.11kW, Y440V, 0.43A, 50 Hz
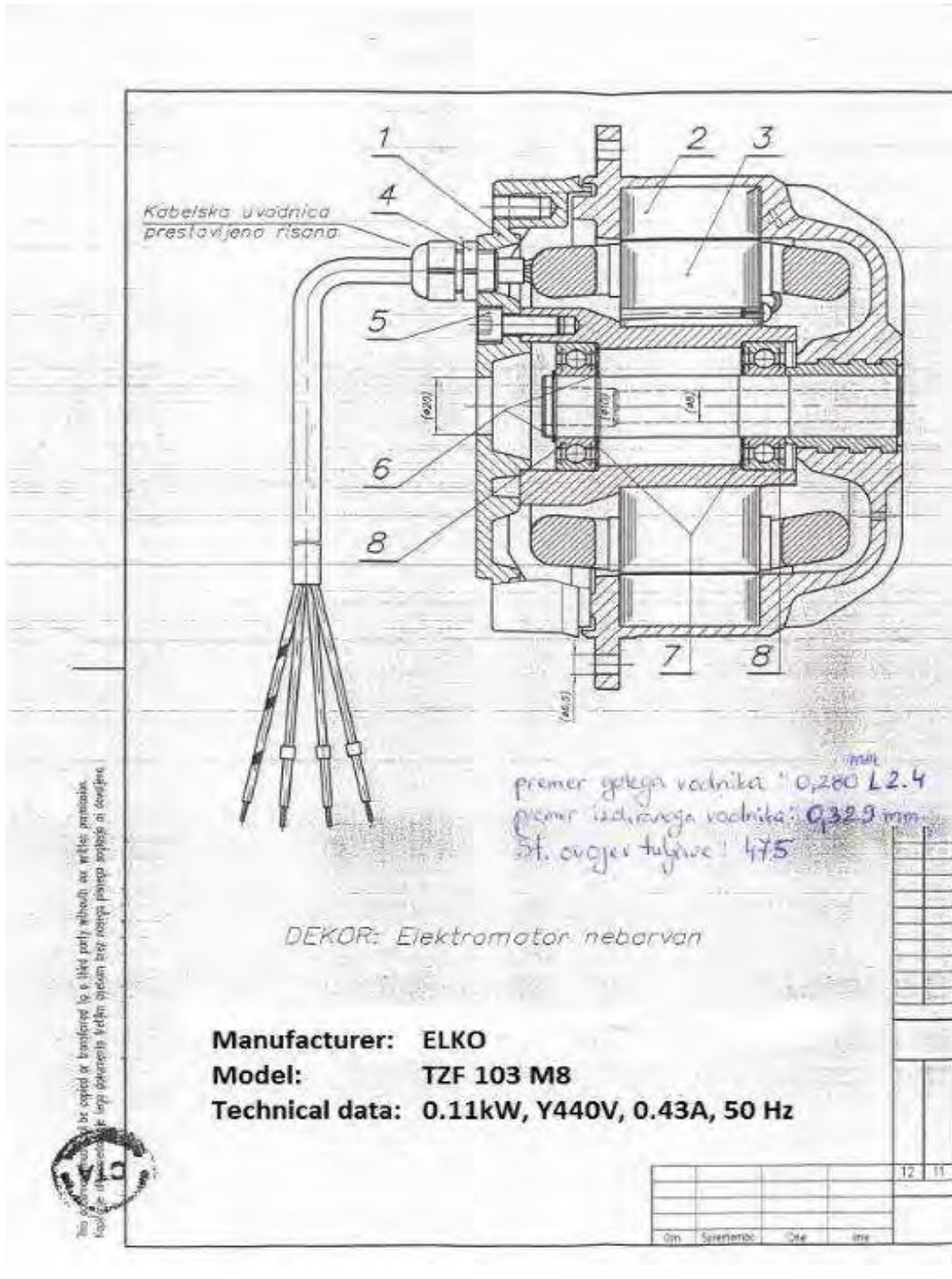
7.0 Illustrations

Illustration 2 - LUCKY 8, Signage enclosure
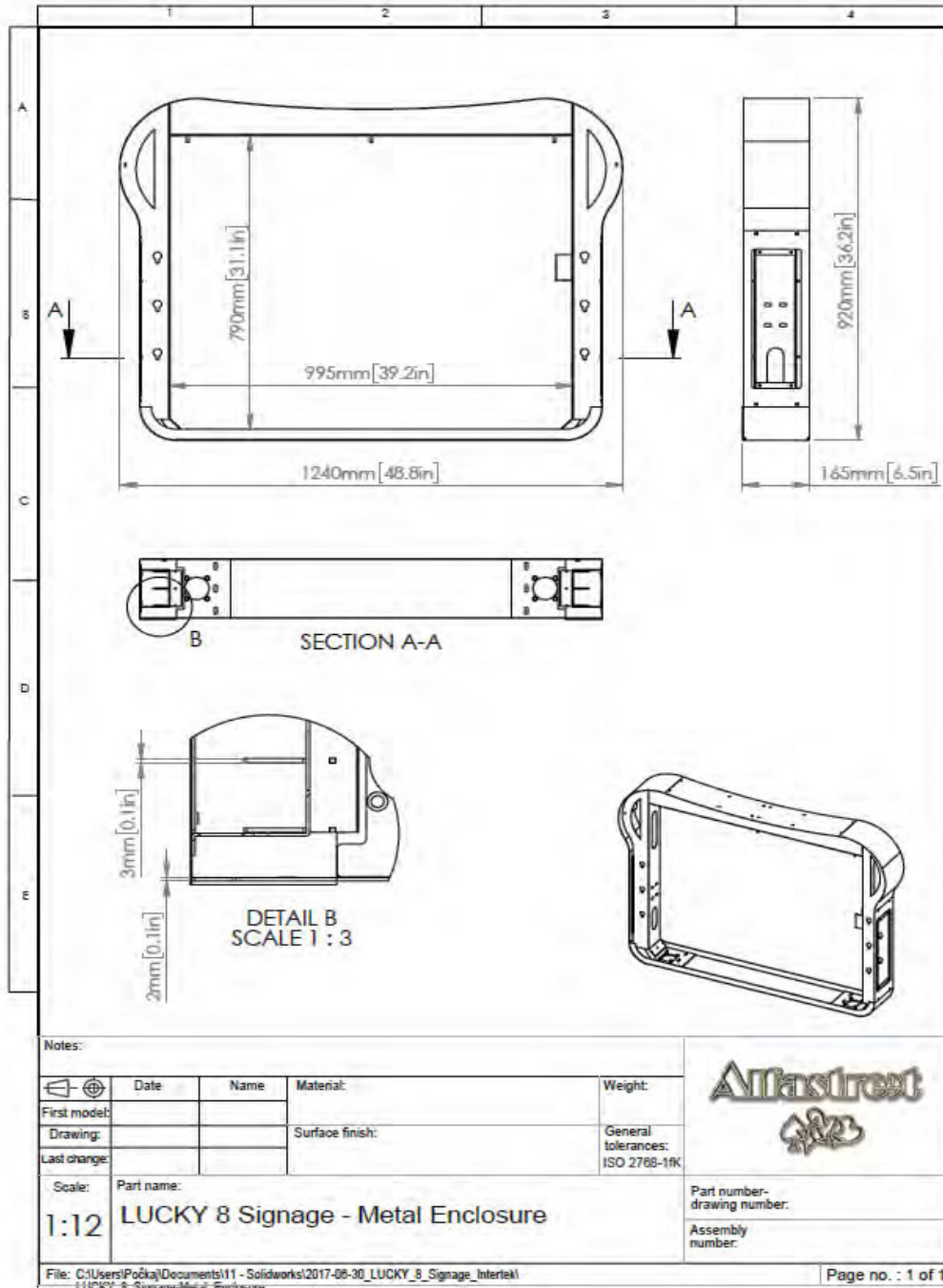
7.0 Illustrations

Illustration 3 - LUCKY 8, Polymeric cover
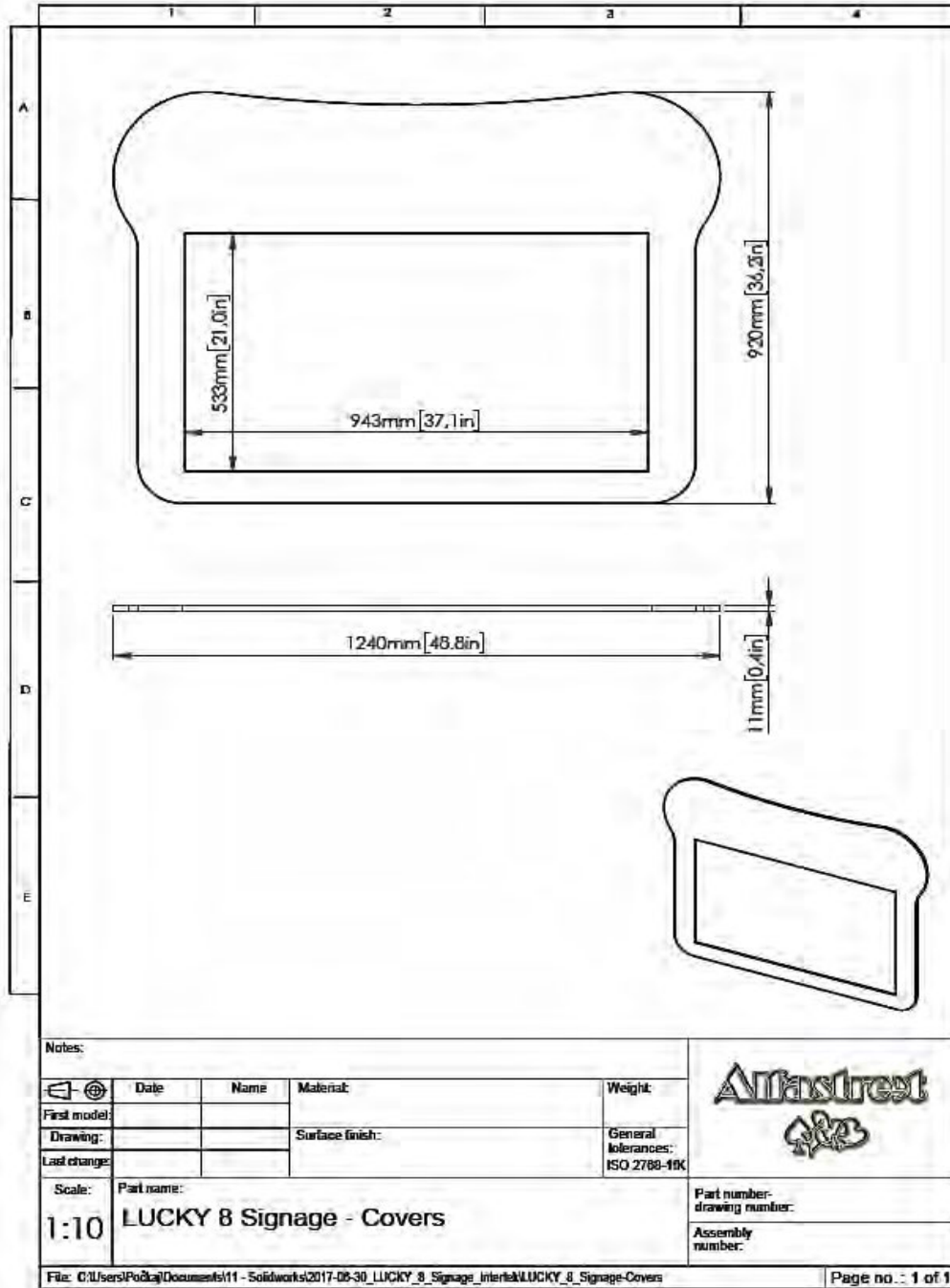
7.0 Illustrations

Illustration 4 - LUCKY 8, Signage supporting poles
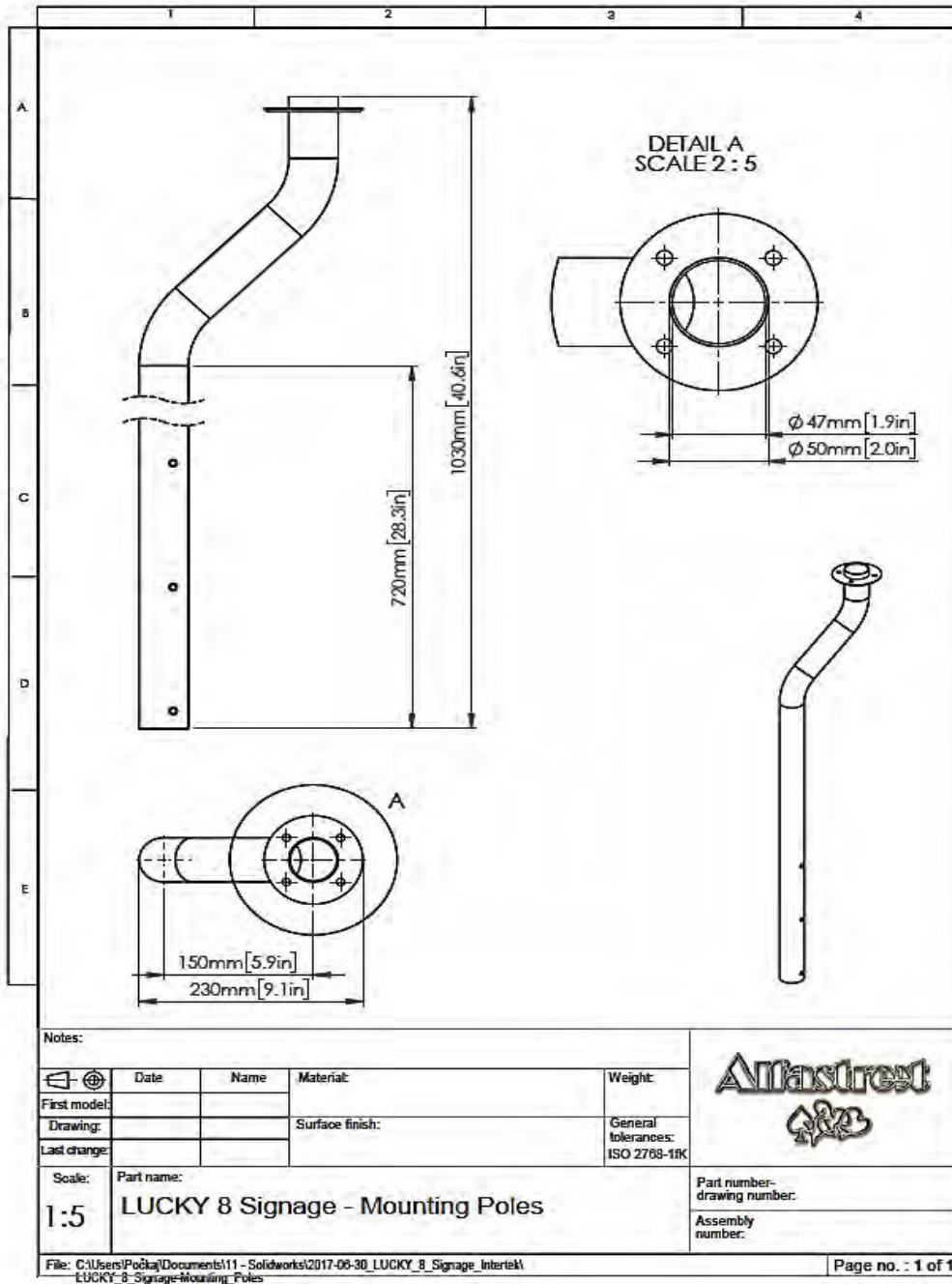
7.0 Illustrations

Illustration 5 - Dimensions MULTITOUCH
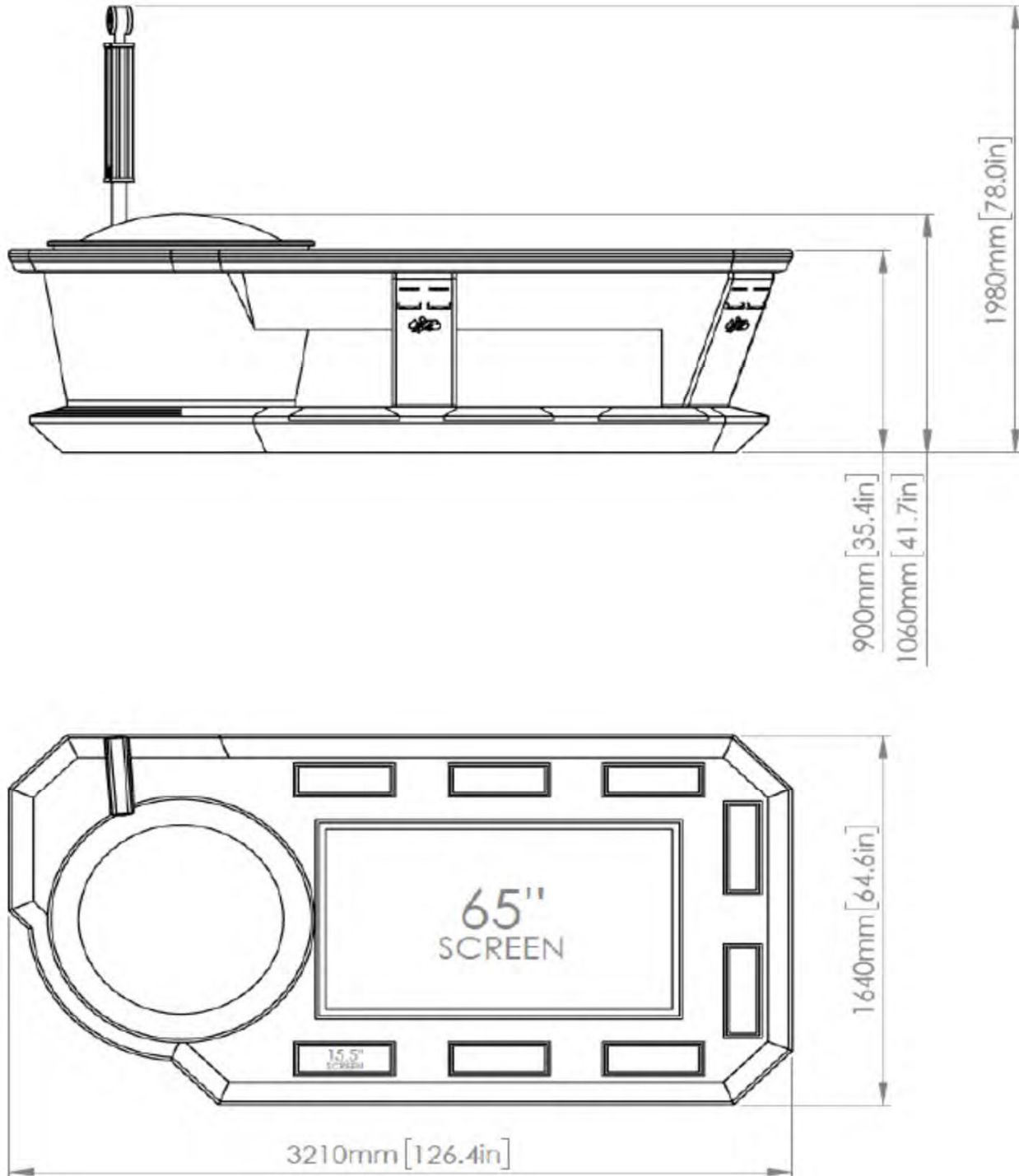
7.0 Illustrations

Illustration 6 - Dimensions SLM3S/WHEEL, SLM3C/WHEEL
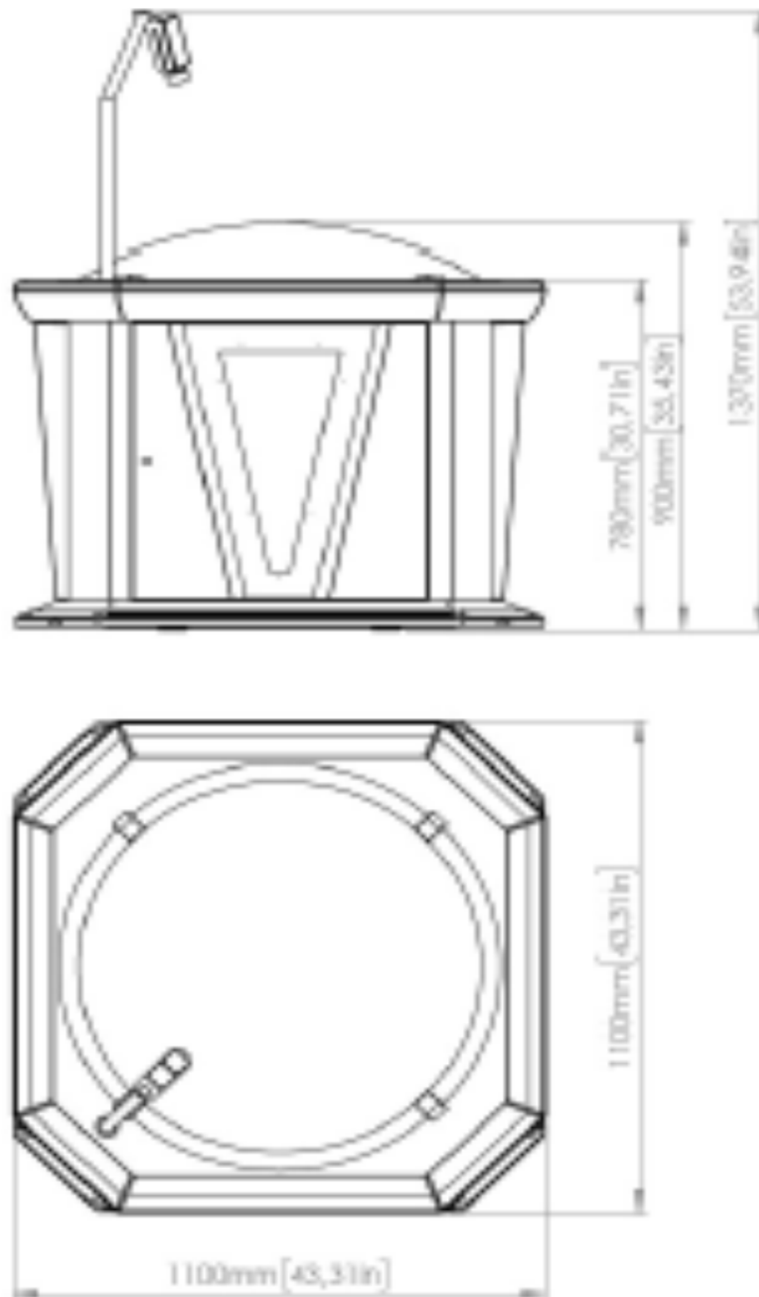
7.0 Illustrations

Illustration 7 - BIG BANG general view
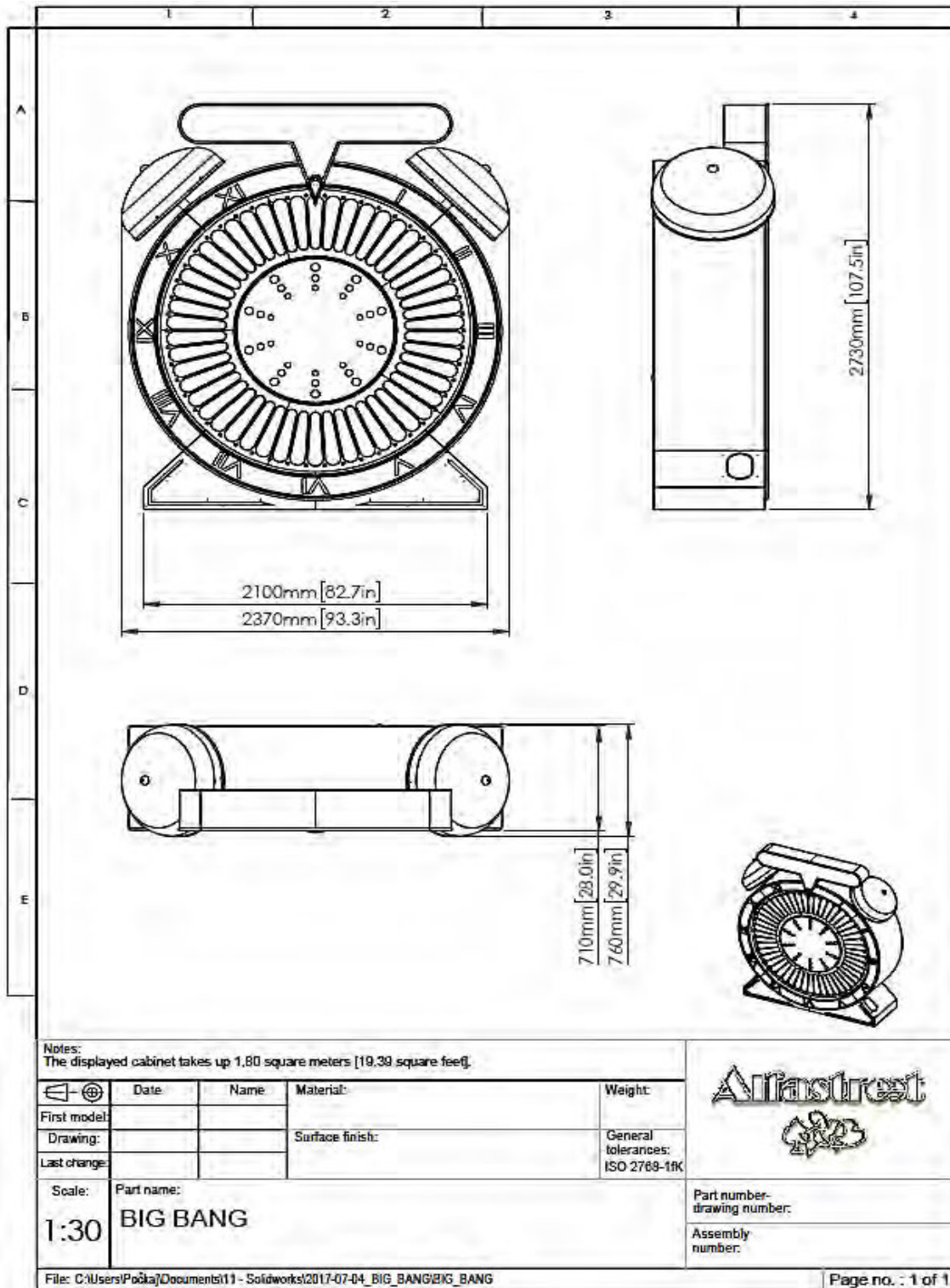
7.0 Illustrations

Illustration 8 - LED Strip holder (Stationary surface), BIG BANG
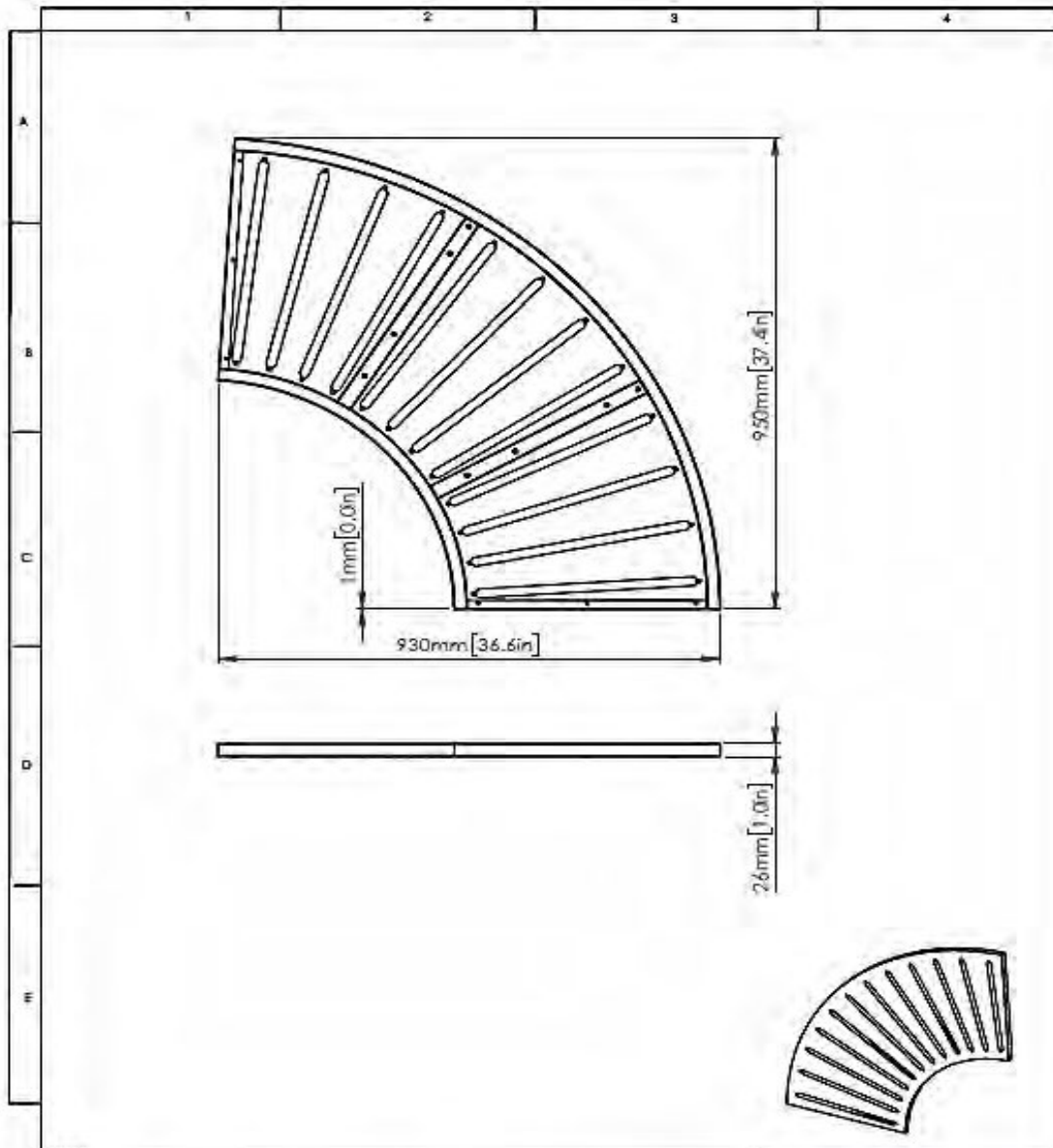
			Material:		Weight:	
First model:	Date	Name	Plain carbon steel			
Drawing:			Surface finish:		General tolerances:	
Last change:			Powder coating		ISO 2768-1fK	
Scale: 1:10	Part name: LED STRIPS HOLDER LEFT 2,5x2,5				Part number-drawing number: 37842	
					Assembly number:	

File: C:\Users\Pocka\Documents\8 – INTERTEK\2015-04-11_BIG_BANG_UL_Inspection\37842

Page no. : 1 of 1

7.0 Illustrations

Illustration 9 - Rotor (wheel surface), BIG BANG

7.0 Illustrations

Illustration 10 - Rotary joint contacts, BIG BANG
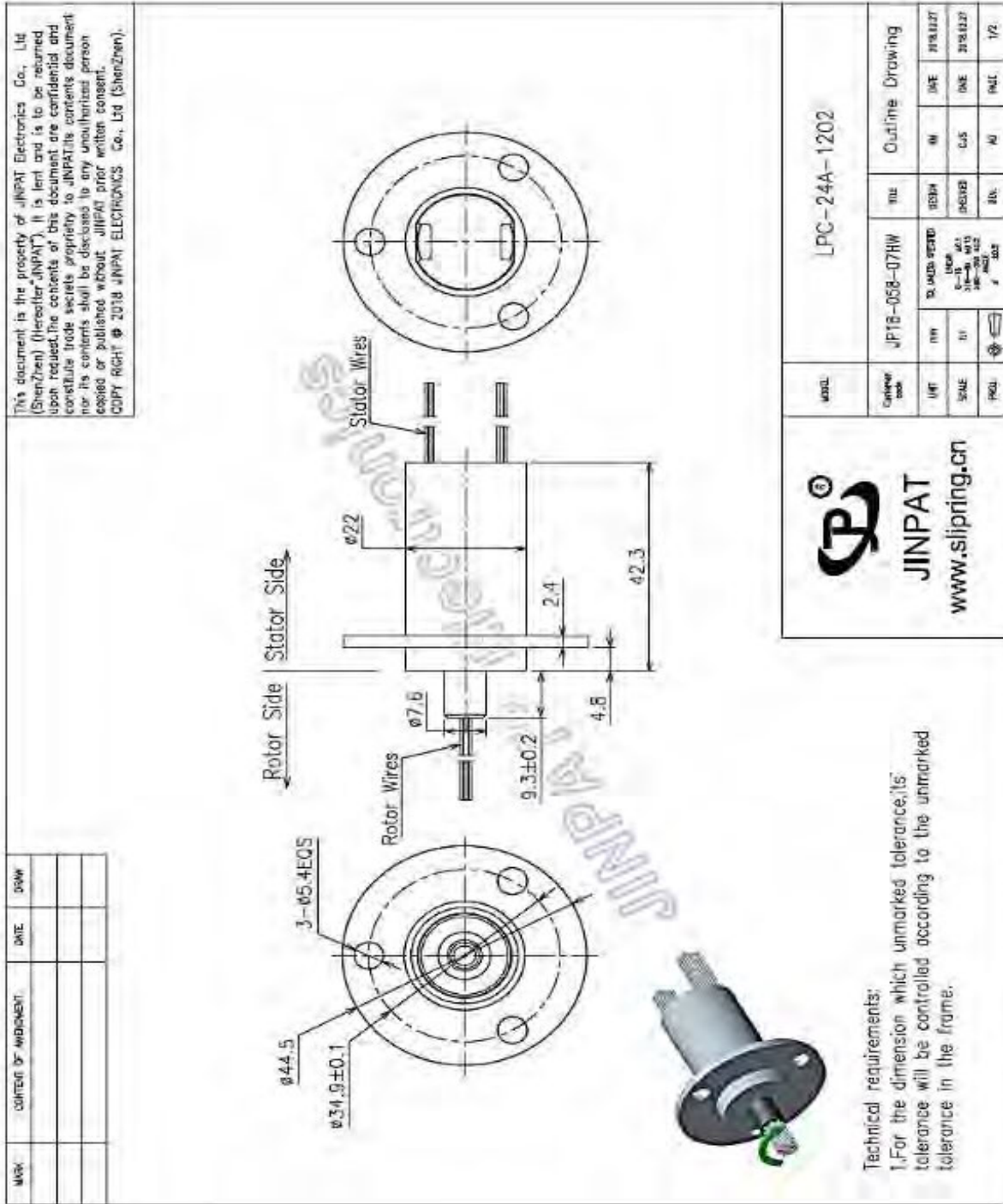
7.0 Illustrations

Illustration 11 - Inside support, BIG BANG

SECTION A-A

Labels in illustration:
- LIGTING PANELS Min. thickness: 1 mm
- HORIZONTAL SUPPORTS Min. thickness: 3 mm
- VERTICAL SUPPORTS Min. thickness: 2 mm
- MOTOR HOLDER Min. thickness: 5 mm
- LIGHTING PANEL HOLDERS Min. thickness: 3 mm
- 2200mm [86.6in]
- 1000mm [39.4in]
- 600mm [23.6in]
- 880mm [34.6in]

Title block:
- Material: Steel
- General tolerances: ISO 2768-1fK
- Scale: 1:25
- Part name: BIG BANG - Inside Supports
- File: BIG_BANG-inside_Supports
- Page no.: 1 of 1

7.0 Illustrations

Illustration 12 - Chassis covers, rear, BIG BANG

TOP SIGN BACK COVER
Min. thickness: 1,5 mm

SIDE COVERS
Min. thickness: 2 mm

BACK COVER PANELS
Min. thickness: 1,5 mm

BACK DOOR
Min. thickness: 1,5 mm

610mm [24.0in]

820mm [32.3in]

1700mm [66.9in]

1070mm [42.1in]

1200mm [47.2in]

630mm [24.8in]

2100mm [82.7in]

Notes:

First model:	Date	Name	Material:	Steel	Weight:	
Drawing:			Surface finish:		General tolerances: ISO 2768-mK	
Last change:						

Scale: 1:20	Part name: BIG BANG – Outside Chassis Covers	Part number-drawing number:
		Assembly number:

File: C:\Users\Potka\Documents\11 - Solidworks\2018-03-30_BIG_BANG_Latest\BIG_BANG-Outside_Chassis_Covers

Page no. : 1 of 1

7.0 Illustrations

Illustration 13 - Chassis, FELIX T
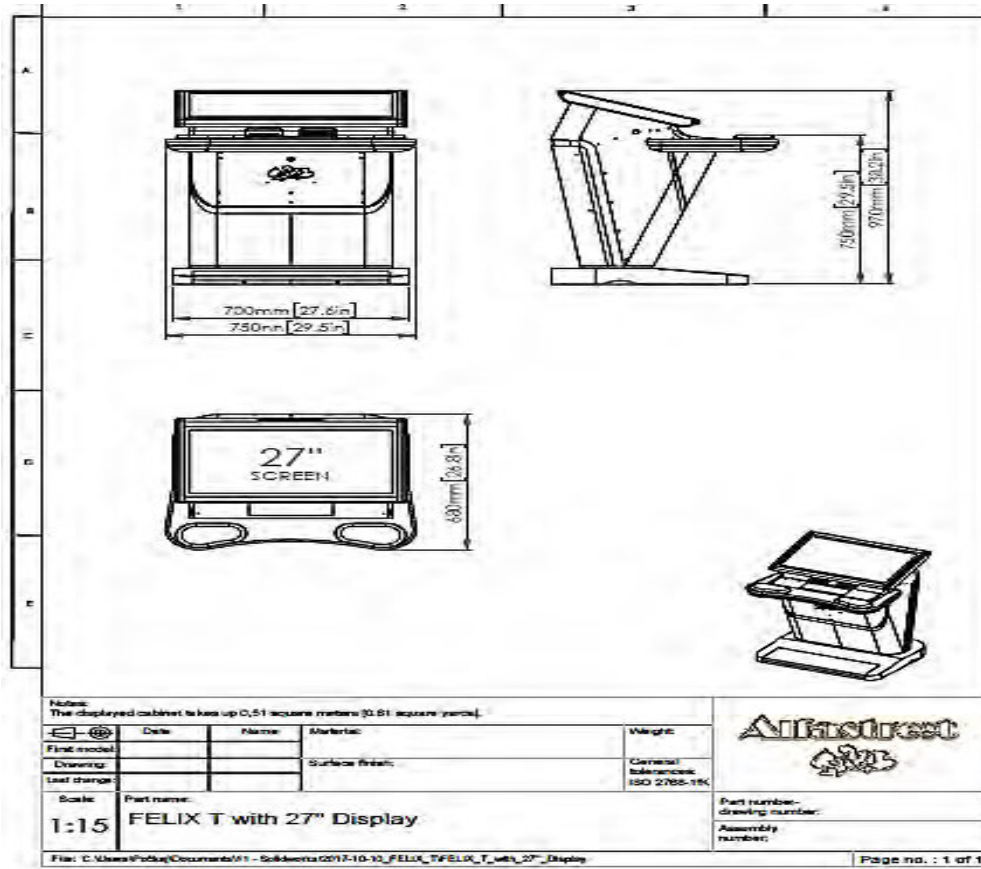
7.0 Illustrations

Illustration 14 - Marking location, BIG BANG and FELIX T (see Section 6)
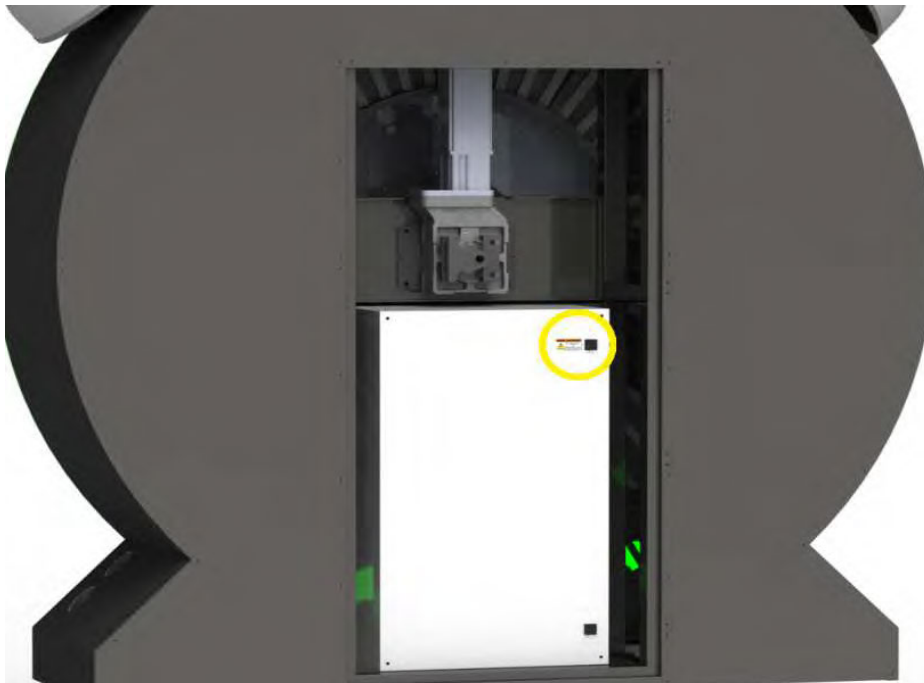
7.0 Illustrations

Illustration 15 - BIG WHEEL (double side), overall dimensions
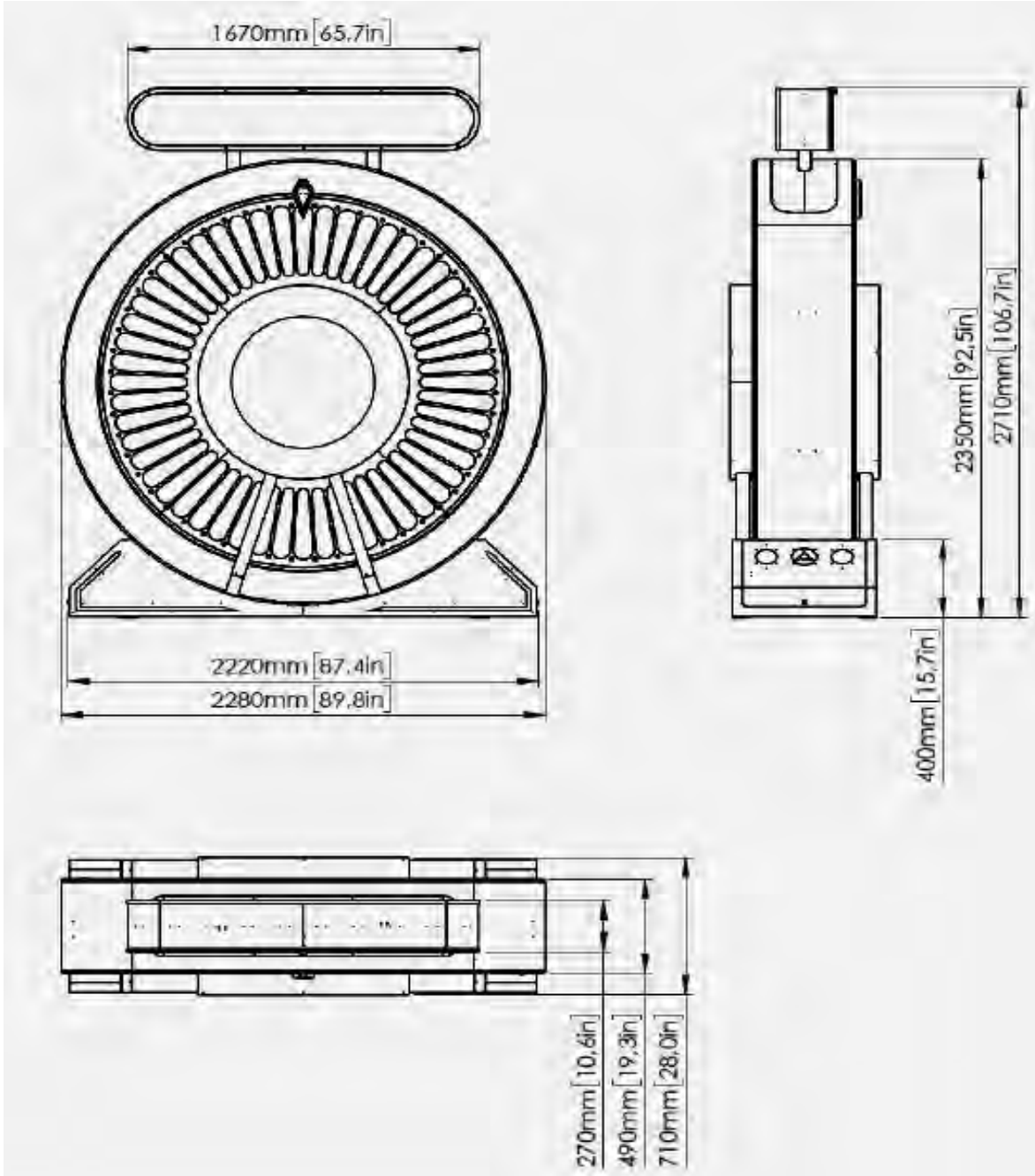
7.0 Illustrations

Illustration 17 - BIG WHEEL, rotary joint

Model: LPR-6H

8.0 Test Summary				
Evaluation Period	08/17/2015-08/24/2015		Project No.	G102216688
Sample Rec. Date	17-Aug-2015	Condition Prototype	Sample ID.	NA
Test Location	4250 Wissahickon Avenue, Philadelphia, PA 19129, USA			
Test Procedure	Testing at Manufacturers Premises (TMP) - Level 1			

Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.

The following tests were performed:

Test Description	UL 22, Issued: 2008/05/30, Ed: 6, Rev: 2014/10/29 Clause		
Starting Current Test	33		
Leakage Current Test	34		
Input Test	35		
Temperature Test	36		
Dielectric Voltage-Withstand Test	37		
Spill Test	38		
Physical Stability Test	39		
Abnormal Operation Tests	41		
Strain Relief Test	43		
Grounding Impedance Test	44		
Tests for Enclosures, Guards, and Maintenance Area Barriers	45		
Secondary Circuit Motor Test	46		

Evaluation Period	1/23/2017 - 2/24/2017		Project No.	G102841620
Sample Rec. Date	23-Jan-2017	Condition Prototype	Sample ID.	NA
Test Location	KGM Gaming LLC, 4250 Wissahickon Avenue, Philadelphia, PA 19129, USA			
Test Procedure	Testing at Manufacturers Premises (TMP) - Level 1			

Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.

The following tests were performed:

Test Description	UL 22, Issued: 2008/05/30, Ed: 6, Rev: 2014/10/29 Clause		
Leakage current	13.1		
Dielectric withstand	13.3		
Abnormal operation	19		
Mechanical strength	21.1		
Residual voltage	22.5		
Internal wiring	23.5		
Bonding	27.5		

8.0 Test Summary			
Evaluation Period	6/29/17 – 7/17/17	Project No.	G103134025
Sample Rec. Date	29-Jun-2017 Condition Prototype	Sample ID.	NA
Test Location	KGM Gaming LLC, 4250 Wissahickon Avenue, Philadelphia, PA 19129, USA		
Test Procedure	Testing at Manufacturers Premises (TMP) - Level 1		

Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.

Due to the previous testing performed as indicated in this report #102216688NYM-001 only the following testing was performed:

Test Description	UL 22, Issued: 2008/05/30, Ed: 6, Rev: 2014/10/29 Clause	CSA C22.2#60335-1:2011 Ed.1], R2016, CSA E60335-2-82 Issued: 2013/03/01 Clause	
Leakage current	34	13.2	
Input	35	10	
Normal temperature	36	11	
Dielectric	37	13.3	
Abnormal temperature	41	19	
Grounding impedance	44	27	

Evaluation Period	September 25th thru September 29th 2017	Project No.	G103241610
Sample Rec. Date	22-Sep-2017 Condition Prototype	Sample ID.	NA
Test Location	KGM Gaming LLC, 4250 Wissahickon Avenue, Philadelphia, PA 19129, USA		
Test Procedure	Testing at Manufacturers Premises (TMP) - Level 1		

Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.

Due to the previous testing performed as indicated in this report #102216688NYM-001 only the following testing was performed:

Test Description	UL 22 Issued: 2008/05/30, Ed: 6, Rev: 2014/10/29 Clause #	CSA C22.2#60335-1:2011 Ed.1 Clause #	CSA E60335-2-82 Issued: 2013/03/01 Clause #
Leakage current	34	13.2	13.2
Input	35	10	10
Normal temperature	36	11	11
Dielectric	37	13.3	13.3
Grounding impedance	44	27	27

Evaluation Period	9-Apr-2018 through 18-Apr-2018	Project No.	G103433202
Sample Rec. Date	9-Apr-2018 Condition Prototype	Sample ID.	NA
Test Location	KGM Gaming LLC, 4250 Wissahickon Avenue, Philadelphia, PA 19129, USA		
Test Procedure	Testing at Manufacturers Premises (TMP) - Level 1		
Due to the previous testing performed as indicated in this report #102216688NYM-001 only the following testing was performed:			

8.0 Test Summary			
Test Description	UL 22:2008 Ed.6 +R:29Oct2014 Clause	CSA C22.2#60335-1:2016 Ed.2 Clause	CSA E60335-2-82:2013 Ed.3 Clause
Starting current	33	9DV	9DV
Leakage	34	13.2	13.2
Input	35	10	10
Temperature	36	11	11
Dielectric voltage withstand	37	13.3	13.3
Stability	39	20	20
Abnormal	41	19	19
Strain relief	43	25.15	25.15
Grounding impedance	44	27	27

Evaluation Period	25-February-2019 ~ 1-March-2019	Project No.	G103816955
Sample Rec. Date	25-Feb-2019	Condition	Prototype	Sample ID.	NA
Test Location	KGM Gaming LLC, 4250 Wissahickon Avenue, Philadelphia, PA 19129, USA		
Test Procedure	Testing at Manufacturers Premises (TMP) - Level 1		

Due to the previous testing performed as indicated in this report #102216688NYM-001 only the following testing was performed:

Test Description	UL 22:2008 Ed.6 +R:29Oct2014 Clause	CSA C22.2#60335-1:2016 Ed.2 Clause	CSA E60335-2-82:2013 Ed.3 Clause
Starting current	33	9DV	9DV
Leakage	34	13.2	13.2
Input	35	10	10
Temperature	36	11	11
Dielectric voltage withstand	37	13.3	13.3
Stability	39	20	20
Abnormal	41	19	19
Grounding impedance	44	27	27

8.0 Test Summary

Evaluation Period	13-September-2019 ~ 30-September-2019		Project No.	G104028912
Sample Rec. Date	25-Feb-2019	Condition Prototype	Sample ID.	NA
Test Location	KGM Gaming LLC, 4250 Wissahickon Avenue, Philadelphia, PA 19129, USA			
Test Procedure	Testing at Manufacturers Premises (TMP) - Level 1			

Due to the previous testing performed as indicated in this report #102216688NYM-001 only the following testing was performed:

Test Description	UL 22:2008 Ed.6 +R:29Oct2014 Clause	CSA C22.2#60335-1:2016 Ed.2 Clause	CSA E60335-2-82:2013 Ed.3 Clause
Starting current	33	9DV	9DV
Input	35	10	10
Temperature	36	11	11
Dielectric voltage withstand	37	13.3	13.3
Stability	39	20	20
Abnormal	41	19	19
Grounding impedance	44	27	27

8.1 Signatures

A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.

Completed by:	Oron Brokman	Reviewed by:	Scott Peterson
Title:	Project engineer	Title:	Staff engineer
Signature:	*Oron Brokman*	Signature:	*signature*

9.0 Correlation Page For Multiple Listings

The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.

BASIC LISTEE	Alfastreet
Address	Partizanska cesta 129 A 6210 Sezana
Country	Slovenia
Product	Gaming Machine

MULTIPLE LISTEE 1	KGM Gaming LLC
Address	4250 Wissahickon Avenue Philadelphia, PA 19129
Country	USA
Brand Name	Alfastreet

ASSOCIATED MANUFACTURER	KGM Gaming LLC
Address	4250 Wissahickon Avenue Philadelphia, PA 19129
Country	USA

MULTIPLE LISTEE 1 MODELS	BASIC LISTEE MODELS
R1SL-M3-23-2, R4M3, R5M3, R6M3, R8M3-23, Rseries, SLM3R/WHEEL, HI-JACK-M3, WIKY, Royal Derby, LUCKY 8, MULTITOUCH, SLM3S/WHEEL, SLM3C/WHEEL, BIG BANG, FELIX T, MULTITOUCH LIVE, ALFA GC	R1SL-M3-23-2, R4M3, R5M3, R6M3, R8M3-23, Rseries, SLM3R/WHEEL, HI-JACK-M3, WIKY, Royal Derby, LUCKY 8, MULTITOUCH, SLM3S/WHEEL, SLM3C/WHEEL, BIG BANG, FELIX T, MULTITOUCH LIVE, ALFA GC

MULTIPLE LISTEE 2	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 2 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 3	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 3 MODELS	BASIC LISTEE MODELS

10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

COMPONENTS
Components used shall be those itemized in this Intertek report covering the product, including any amendments and/or revisions.

LISTING MARK
The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
3) a control number issue by Intertek
4) a product descriptor that identifies the standards used for certification. Example:

For US standards, the words, "Conforms to" shall appear with the standard number along with the word, "Standard" or "Std." Example: "Conforms to ANSI/UL Std. XX."

For Canadian standards, the words "Certified to CAN/CSA Standard CXX No. XX." shall be used, or abbreviated, "Cert. to CAN/CSA Std. CXX No. XX."

Can be used together when both standards are used.

Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use.
The facsimile need not have a control number. A control number will be issued **after signed Certification Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

MANUFACTURING AND PRODUCTION TESTS
Manufacturing and Production Tests shall be performed as required in this Report.

FOLLOW-UP SERVICE
Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.

10.1 Evaluation of Unlisted Components

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

Note to Intertek Follow Up Inspector: The Component Evaluation Center, CEC, will notify you in writing when these components must be selected and sent to the CEC for re-evaluation

Ship the samples to:
Intertek Testing Services NA Inc.
ETL Component Evaluation Center
45000 Helm Street, Suite 150
Plymouth Twp., MI 48170 USA
Attn: Component Evaluation Center
Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

Required Tests
Dielectric Voltage Withstand Test,
Grounding Continuity Test

11.1 Dielectric Voltage Withstand Test

Method

One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.

The test shall be conducted on products, which are fully assembled. Prior to applying the test potential, all switches, contactors, relays, etc., should be closed so that all primary circuits are energized by the test potential. If all primary circuits cannot be tested at one time, then separate applications of the test potential shall be made.

The test voltage specified below shall be applied between primary circuits and accessible dead-metal parts. The test voltage may be gradually increased to the specified value but must be maintained at the specified value for one second or one minute as required.

Test Equipment

The test equipment shall incorporate a transformer with an essentially sinusoidal output, a means to indicate the applied test potential, and an audible and/or visual indicator of dielectric breakdown.
The test equipment shall incorporate a voltmeter in the output circuit to indicate directly the applied test potential if the rated output of the test equipment is less than 500VA.
If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:
1 - a voltmeter in the primary circuit;
2 - a selector switch marked to indicate the test potential; or
3 - a marking in a readily visible location to indicate the test potential for test equipment having a single test potential output.
In cases 2 and 3, the test equipment shall include a lamp or other visual means to indicate that the test potential is present at the test equipment output. All test equipment shall be maintained in current calibration.

Products Requiring Dielectric Voltage Withstand Test:		
Product	**Test Voltage**	**Test Time**
All products covered by this Report.	1000V	60 s
	or	
	1200V	1 s

11.2 Grounding Continuity Test
Method
Each product listed below shall be subjected to a test to determine that there is continuity between accessible dead-metal parts of the product and the grounding pin or blade of the attachment plug.
If all accessible dead metal is connected, only a single test need be performed. A visual or audible device (ohmmeter, buzzer, etc.) may be used to indicate grounding continuity.
Products Requiring Grounding Continuity Test:
All products covered by this Report.

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
15-Sep-2015	B Parikh	2	-	Added Models R5M3, R6M3 and Rseries. Added model similarities and ratings for new models.
G10227440LAX	D Goldstein	4	16a	Added Alternate Distribution Outlet
		4	23a	Added Alternate Monitor
17-Dec-2015	Z. Musial	2	--	Added models WIKY and Royal Derby with their model descriptions and ratings
G102335973NYM	S. Peterson	3	2	Corrected callout no. 17 to no. 16
		3	7	Corrected callout no. 8 to no. 16
		3	13 to 16	Added photos 13 to 16
		4	3, 4, 5, 7, 8, 9, 13, 17, 37	Added (not shown) to the names of items 3, 4, 5, 7, 8, 9, 13, 17 and 37
		4	6	Added number 16 to photo numbers
		4	12, 21	Corrected photo number from 4 to 16. Removed (not shown) from part name
		4	16	Added no. 7 to photo numbers
		4	16, 16a	Merged cells of photos and merged cells of numbers of items 16 and 16a (removed photo no. 2 from item 16a, removed no. 16a of item 16a and removed: DISTRIBUTION OUTLET - alternate)
		4	22, 23, 23a	Merged cells of photos (no. 4) of items 22, 23 and 23a. Removed names of items 22, 23 and 23a ([86] LED LCD MONITOR 40'', [85] LED LCD MONITOR 46'', LED LCD MONITOR 46'' - alternate) and merged their cells. Added name of item 22: LED LCD MONITOR Merged cells of item numbers 22, 23 and 23a (removed numbers 23 and 23a)
		4	35	Added alternate monitors models: BTL-215WILE21LP, BTL-215WILS21LP, APD-L2151-OpcBB, APD-A2151-OpcBB, KTS215DPE01
		4	36	Added photo numbers 3, 4, 8, 9 and 13 Added (shown on photo 1 only) to the name of Item 36
		4	41 to 76	Added components 41 to 76
26-Jan-2017	O. Brokman	1	-	Added Canadian standards: "Safety Of Household And Similar Appliances-Part 1: General Requirements (R2016) [CSA C22.2#60335-1:2011 Ed.1]; CSA E60335-2-82 Issued: 2013/03/01 Household and Similar Electrical Appliances – Safety – Part 2-82: Particular Requirements for Amusement Machines and Personal Service Machines"
G102841620NYM		3	17, 18	New photos.
	S. Peterson	4	29	Changed photo number from "5" to "5, 17".
		4	12, 13	Changed from "UR" to "UL, CSA".
		4	14, 15, 33, 40	Changed from "UL" to "cULus".
		4	16	For Schurter 4747: Changed from "UR" to "cURus".
		4	16	For Wiremold P6: Chaned from "UL" to "UL, CSA".

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
		4	22	For Philips BDL4620QL/00 and Viewsonic CDE4600-L: Changed from "UL" to "cULus".
		4	61	Added "AWG18 min".
		6	7	Deleted "The following markings in French are required: none".
		6	8	Deleted "- WARNING Shock Hazard – Do Not Open. Refer servicing to service personnel." and "- Suitable for Indoor Use Only"
		6	8	Added "WARNING – AVERTISSEMENT" and "ELECTRIC SHOCK HAZARD. – RISQUE DE CHOC ÉLECTRIQUE" and "This equipment is to be serviced by trained personnel only - L'entretien de cette machine doit être réalisé par du personnel formé uniquement." and "WARNING – AVERTISSEMENT" and "SUITABLE FOR INDOOR USE ONLY – CONVIENT À UNE UTILISATION EN INTÉRIEUR UNIQUEMENT".
		6	9	Added "in English and French."
		8	-	Added test block for this project.
		8.1	-	Changed from "Zbigniew Musial" to "O. Brokman" and updated signatures.
4-Apr-2017 G102841620NYM	O. Brokman S. Peterson	1	-	Applicant and Manufacturer: Changed from "Mr. Peter Oliva", "(609) 214-1331", "poliva@KGMgaming.com to "Jessie Kingston", "(267) 238-4924", "jkingston @kgmgaming.com"
		2	-	Models: Changed from "SLM3R WHEEL" to "SLM3R/WHEEL"
		2	-	Model similarity: Changed from "SLM3R WHEEL" and "WIKI" to "SLM3R/WHEEL" and "WIKY"
		2	-	Ratings: Changed from "SLM3R WHEEL" and "WIKI" to "SLM3R/WHEEL" and "WIKY"
		3	-	Photo 5, 6, 7,10, 11: Changed from "SLM3R WHEEL" to "SLM3R/WHEEL"
		3	-	Photo 8, 9: Changed from "R8M3" to "R8M3-23".
		3	-	Photo 13: Changed from "WIKI" to "WIKY".
		4	61	Changed from "SLM3R WHEEL" and "WIKI" to "SLM3R/WHEEL" and "WIKY"
		6	8	Changed from "Suitable for Indoor Use Only", "WARNING – AVERTISSEMENT ELECTRIC SHOCK HAZARD. – RISQUE DE CHOC ÉLECTRIQUE", "This equipment is to be serviced by trained personnel only - L'entretien de cette machine doit être réalisé par du personnel formé uniquement.", "WARNING – AVERTISSEMENT" and "SUITABLE FOR INDOOR USE ONLY – CONVIENT À UNE UTILISATION EN INTÉRIEUR UNIQUEMENT"

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
		9	-	Changed from "Počaj d.o.o" to "Počkaj d.o.o"
21-Apr-2017	O. Brokman	1	-	Applicant and Manufacturer: Changed from "Mr. Peter Oliva", "(609) 214-1331", "poliva@KGMgaming.com to "Jessie Kingston", "(267) 238-4924", "jkingston @kgmgaming.com"
G102841620NYM	S. Peterson	3	-	Photo 5, 6, 7: Changed from "R8M3" to "R8M3-23".
		9	-	Changed from "SLM3R WHEEL" to "SLM3R/WHEEL"
26-Jun-2017	T. Shah	1	-	Added new manufacturer 2 - Pockaj d.o.o.
G102841620NYM	J. Shyu			
30-Jun-2017 G103134025NYM	L. Velez	4	2	Added Alternate: EMERSON M100-011 00024A.
			7	Remove [53102] from Name
			11	Remove [53033] from Name
	T. Shah		17	Added Alternate: LITE-ON PA-1061-81
			19	Added Alternate: DONG IL TECHNOLOGY
			22	Added Alternate: VIEWSONIC CDE4302 and CDE4803
			29	Added Alternate: BM Connecting Cables BM4909 – PG9 and BM4907 – PG7.
			30	Remove 2/ from Technical Data. Added Alternate: 6U0 955 711
			35	Added Alternate: ALPHA DISPLAY APD-L2152-OpcBB-S, APD-L2302-OpcBB and APD-L2302-OpcBB-S. Added Alternate: BESTECH BTL230WILA21MU.
			38	Added Alternate: BM BM 00392
			39	Added Alternate: SCHAFFNER FS33221-11-07-LL.
			40	Added Alternate: FSP GROUP FSP084-DIBAN2
			55	Remove [75120] LAMBDA from Name Added: [75177] To Name Added Alternate: MEAN WELL S-150-12, RS-150-12, LRS-150-12
			58	Remove .62 From Technical Data. Added Alternate: APD-A3204-OpcBA-S
17-Jul-2017 G103134025NYM	O. Brokman	2	-	Models - added "LUCKY 8".
		2	-	Model similarity - added "Model LUCKY 8 is similar to R8M3-23 except for signage."
		2	-	Ratings - added "LUCKY 8".
	J. Shyu	3	19, 20, 21	New photos.
		3	5,6,7	Changed from "also represents models: R8M3-23 and SLM3R/WHEEL" to "also represents models: R8M3-23m, SLM3R/WHEEL and LUCKY 8"
		4	77-86	New item.
		4	16	Added photo no. 20.
		7	2-4	New illustrations.
		8.0	-	Added test block for this project

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
		8.1	-	Added signatures.
		9	-	Added "LUCKY 8" to Basic Listee and Multiple Listee 1.
29-Sep-2017 G103241610NYM	L. Velez S. Peterson	2	-	Models - added "MULTITOUCH Auto, MULTITOUCH Live, SLM3S/WHEEL, SLM3C/WHEEL".
		2	-	Model similarity - added "Models MULTITOUCH Auto and MULTITOUCH Live are similar to LUCKY 8 with the exception of the shape and size. Models SLM3S/WHEEL and SLM3C/WHEEL are identical to SLM3R/WHEEL with the exception of the wheel game."
		2	-	Ratings - added "MULTITOUCH (Live): 8A", "MULTITOUCH (Auto): 10A", "SLM3S/WHEEL, SLM3C/WHEEL: 2A".
		3	5	Changed from "also represents models: R8M3-23m, SLM3R/WHEEL and LUCKY 8" to also represents models: R8M3-23m, SLM3R/WHEEL, LUCKY 8, MULTITOUCH Auto and MULTITOUCH Live.
		3	22-27	Added New Photos.
		4	88-94	Added New Components.
		7	5-6	Added New illustrations.
		8.0	-	Added test block for this project
		8.1	-	Added signatures.
		9	-	Added "MULTITOUCH Auto, MULTITOUCH Live, SLM3S/WHEEL, SLM3C/WHEEL." to Basic Listee and Multiple Listee 1.
11-Oct-2017 G103241610NYM	L. Velez S. Peterson	1	-	Applicant, Manufacturer1: FAX Changed FROM "-" TO "NA".
		9	-	ASSOCIATED MANUFACTURER Address: Changed FROM "Rodik 72 SI-6240 Kozina" TO "Partizanska cesta 129 A 6210 Sezana Slovenia".

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
24-Apr-2018	Oron Brokman	1	-	Standards: Reworded to agree with GSSQ from "UL Standard for Safety Amusement and Gaming Machines, UL 22, Issued: 2008/05/30, Ed: 6, Rev: 2014/10/29" to "Amusement And Gaming Machines [UL 22:2008 Ed.6 +R:29Oct2014]". Changed from "Safety Of Household And Similar Appliances-Part 1: General Requirements (R2016) [CSA C22.2#60335-1:2011 Ed.1]" to "Safety Of Household And Similar Appliances - Part 1: General Requirements [CSA C22.2#60335-1:2016 Ed.2]". Changed from "CSA E60335-2-82 Issued: 2013/03/01 Household and Similar Electrical Appliances – Safety – Part 2-82: Particular Requirements for Amusement Machines and Personal Service Machines" to "Household And Similar Electrical Appliances – Safety – Part 2-82: Particular Requirements For Amusement Machines And Personal Service Machines [CSA E60335-2-82:2013 Ed.3]"
G103433202NYM	Scott Peterson	1	-	Applicant and manufacturer1 changed from "KGM Gaming", "Philadelphia, PA" to "Alfastreet", "Slovenia". Added "Tjasa Luin Peric", "+386 5 70 72 101", "tjasa.luin@alfastreet.si". Added Legal name as "Pockaj d.o.o."
		1	-	Manufacturer2 changed information from "Pockaj d.o.o.", "Slovenia" to "KGM Gaming".
		2	-	Models: Deleted "MULTITOUCH Auto" and "MULTITOUCH Live". Added "MULTITOUCH".
		2	-	Model similarity: Changed from "Models MULTITOUCH Auto and MULTITOUCH Live are " to "Model MULTITOUCH is".
		2	-	Ratinmgs: Deleted "MULTITOUCH Live". Changed from "MULTITOUCH Auto" to "MULTITOUCH" with 10A ratings.
		2	-	Models: Added "BIG BANG" and "FELIX T".
		2	-	Model similarity: Added for BIG BANG and FELIX T.
		2	-	Ratings: Added "Power: BIG BANG: 800W FELIX T: 400W".
		3	5	Changed from "R8M3-23m" to "R8M3-23" and from "MULTITOUCH Auto and MULTITOUCH Live" to "MULTITOUCH".
		3	6, 7	Changed from "R8M3-23m" to "R8M3-23".
		3	28-33	New photos.
		4	1	Added "(E255816)" alternate "BEA-740-B2".
		4	6	Added alternate "S 202 – C 30".
		4	35	Added alternate "Bestech", "WDD235OEAKTU03".
		4	37	Changed from "FUTURE LOGIC" to "JCM GLOBAL (formerly FUTURE LOGIC)". Added alternate GEN5.
		4	45	Added alternate "International Configurations", "5266-X".
		4	46	Added alternate "International Configurations", "5396-X".
		4	81	Added alternate "PA-1061-0" and "PA-1061-81".

12.0 Revision Summary				
The following changes are in compliance with the declaration of Section 8.1:				
Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
		4	82	Added alternate "DISXXX132".
		4	86	Added alternate "EE80251S1-000U-A99".
		4	1, 12, 14, 16, 21, 38, 48, 54, 83, 86, 91	Added photo #31.
		4	9, 30, 60, 83, 84	Added photo #30.
		4	82, 61	Added photo #32.
		4	1, 16, 17, 19, 33, 36, 37, 59, 69, 86, 83	Added photo #33
		4	95 – 97, 99, 100, 102, 104, 105, 111, 112, 115, 119 – 126, 128 – 133, 135 - 137	New parts.
		6	7 - 14	New illustrations.
		8	-	Added test block for this project.
		8.1		Changed signature from "Luis Velez" to "Oron Brokman". Updated signatures.
		9	-	Changed basic listee information from "KGM Gaming" to "Alfastreet", "Slovenia".
		9	-	Changed multiple listee1 and associated manufacturer from "Pockaj d.o.o.", "Slovenia" to "KGM Gaming", "Philadelphia, PA".
		9	-	Model numbers of Multiple listee 1 and Basic listee: Changed from "MULTITOUCH Auto, MULTITOUCH Live" to "MULTITOUCH" and added "BIG BANG, FELIX T"

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
1-Mar-2019	O. Brokman	2	-	Models: Added "MULTITOUCH LIVE, ALFA GC".
G103816955NYM	J. Shyu	2	-	Model similarity: Added "Model MULTITOUCH LIVE is an operator version of the automatic MULTITOUCH model.." and "Model ALFA GC is a game controller.".
		2	-	Ratings: Added for MULTITOUCH LIVE and for ALFA GC models.
		3	5, 22, 23, 24	Added to caption "MULTITOUCH LIVE".
		3	34, 35	New photos.
		4	138 - 144	New parts.
		4	16, 112	Added photo number 34.
		4	1, 19, 33, 61	Added photo number 35.
		4	112	Aldded ternate parts "Supermicro", "X8SIA".
		4	17	Added alternate "LITE-ON", "PA-1051-81" and "DEE VAN ENTERPRISE CO., LTD.", "DSA-42PFB-12 1 120350" and "various", "various".
		4	33	Added alternate p/n "SMT1500RM2UC", "SMT2200C" and "various"
		4	48	Added alternate "various"
		4	59	Added alternate p/n "ATS160T-P240" and various"
		4	81	Added alternate "various", "various".
		4	82	Added alternate "various", "various".
		4	91	Added alternate "SMT2200RM2UC" and "various" as part number. For "SMT2200RM2U" corrected typo from "cURus" to "cULus".
		4	93	Added alternat "Kortek ", "KTBR15DPE01".
		4	128	Added alternate "ECS6060".
		8	-	Added text block for this project
		8.1	-	Updated signatures from "Oron Brokman" and "Scott Peterson" to "Oron Brokman" and "Jack Shyu".
		9	-	Basic Listee and Multiple Listee: Added models "MULTITOUCH LIVE" AND "ALFA GC"
9-May-2019	O. Brokman	3	6	Updated photo.
G103927749NYM		4	6, 88	Added photo number 6.
		4	2	Deleted Emerson Commander, p/n SKA1100037 and its alternate p/n M100-011 00024A.
	S. Peterson	4	39	Deleted Schafner filter p/n FS6512-12-07 (4200-6123) and its alternate Schaffner p/n FS33221-11-07-LL (4200-1001)
		4	32	Deleted ELKO motor, p/n TZF 103 M8.
		4	89	Added photo number 3, 4, 8 and 9.
		5	32	Deleted ELKO motor, p/n TZF 103 M8, insulated coil from CEC and replaced it with "No Unlisted CEC components are used in this report."

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
13-Sep-2019 G10402891NYM	O. Brokman	2	-	Ratings: for ALFA GC, changed from "2A" to "3A".
		3	30	Corrected callout number from "30" to "29".
		4	14	Added alternate "Various", "Various", "100-240VAC 50/60Hz 0.5A max", "cULus".
	S. Peterson	4	22	Added alternate "NEC (TOP VICTORY ELECTRONICS (TAIWAN) CO LTD) (E242102)", "E507Q", "100-240V~, 1.7A -0.7A, 50/60Hz cULus".
		4	80	Added alternate "HDC-SD041BS", "DC 12V 350mA".
		4	86	Added alternate "various", "various", "12Vdc, V-0 for blade and frame", "cURus".
		4	102	Corrected from "WIEDMULLER" to "WEIDMULLER".
		4	112	Added alternate "GMB830".
		4	119	Added alternate "various", "various", "DC 12V", "cURus".
		4	124	Added alternaet "ELO TOUCH (E162681)", "ET1523L", "DC 12V 4.16A, Powered by UL approved power supply", "cULus".
30-Sep-2019 G104028912NYM	O. Brokman *O.B*	2	-	Models: Added for "BIG WHEEL".
		2	-	Model similarity: Added "BIG WHEEL is similar to the BIG BANG with relocated parts. The BIG WHEEL also features an LED matrix display on either one or both sides of the wheel center"
		2	-	Ratings: Added BIG WHEEL and rearranged model numbers order and current ratings for mor concise text.
	S. Peterson	3	36 - 40	New photos.
		3	31	Changed callout number from "14" to "48".
		4	14	Added photo numbers "3, 8, 9,12,14,15" and "(Not shown)". Added "various number of ports." to Various. Added "TRENDnet" "TEG-S16Dg" and "TRENDnet" "TEG-S24Dg" models. Deleted photo number "31".
		4	48	Deleted photo numbers "3,4,8,9,12,14,15". Added photo number "38". Added "ALLIED TELESIS" "AT-FS716L-50" model. For Various model changed from "0.4A max, 24 PORT " to "0.5A max, various number of ports.".
		4	34	Added photo numbers "20, 21, 30, 31, 33, 38"
		4	83	Duplicate of Item #34. Deleted photo numbers "20, 21, 30, 31, 33, 38 " and deleted "83", "PCB", "Various", "Various", V-0, 130ºC".
		4	15,21,46,54,102,104,105,120,122,123,128	Added Photo Number 37
		4	1,14,33,34,48,112,115,119,128	Added Photo Number 38

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
		4	14,33,46,48	Deleted "(Not shown)"
		4	146 - 158	New items.
		4	111	Deleted "BICKER E255816)", "BEA-740", "BEA-740-B1", "BAM", "BEA-740-B2", "Input: 100-240V 47-63Hz 8-4A Output: 3.3/5/12/24V", "cURus".
		7	15 - 17	New Illustrations.
		8.0	-	Added test block.
		8.1	-	Changed from"jack Shyu" to "Scott Peterson". Updated signatures.

This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listee model(s) identified on the correlation page of the Listing Report.

This document is the property of Intertek Testing Services and is not transferable. The certification mark(s) may be applied only at the location of the Party Authorized To Apply Mark.

Applicant:	Alfastreet	**Manufacturer:**	KGM Gaming LLC
Address:	Partizanska cesta 129 A 6210 Sezana	**Address:**	4250 Wissahickon Avenue Philadelphia, PA 19129
Country:	Slovenia	**Country:**	USA
Contact:	Mr. Jure Jakofcic Tjasa Luin Peric	**Contact:**	Mrs. Jessie Kingston
Phone:	+386 5 70 72 130 +386 5 70 72 101	**Phone:**	(267) 238-4924
FAX:	NA	**FAX:**	NA
Email:	jure.jakofcic@alfastreet.si tjasa.luin@alfastreet.si	**Email:**	jkingston @kgmgaming.com

Party Authorized To Apply Mark: Same as Manufacturer
Report Issuing Office: New York Metro

Control Number: *5002167*   **Authorized by:** _____

for L. Matthew Snyder, Certification Manager

Intertek

This document supersedes all previous Authorizations to Mark for the noted Report Number.

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Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

Standard(s):	Amusement And Gaming Machines [UL 22:2008 Ed.6 +R:29Oct2014] Safety Of Household And Similar Appliances - Part 1: General Requirements [CSA C22.2#60335-1:2016 Ed.2] Household And Similar Electrical Appliances – Safety – Part 2-82: Particular Requirements For Amusement Machines And Personal Service Machines [CSA E60335-2-82:2013 Ed.3]
Product:	Gaming Machine
Models:	R1SL-M3-23-2, R4M3, R5M3, R6M3, R8M3-23, Rseries, SLM3R/WHEEL, HI-JACK-M3, WIKY, Royal Derby, LUCKY 8, MULTITOUCH, SLM3S/WHEEL, SLM3C/WHEEL, BIG BANG, FELIX T, MULTITOUCH LIVE, ALFA GC, BIG WHEEL.

LAO

Appendix 2

KGM Service Manuals

ALFA GC

SERVICE MANUAL

Table of Contents

Illustration Index

1. DESCRIPTION

The ALFA GC is a versatile main control unit supporting a variety of games and configurations. It can be connected to either individual playing stations or to machines with multiple playing stations. The size allows the unit to be incorporated in KGM Gaming or third party configurations with ease.

2. TECHNICAL DATA

Model:	ALFA GC
Manufacturer:	KGM Gaming, 4250 Wissahickon Ave, Philadelphia, PA 19129, USA
Power consumption:	300 W
Voltage:	AC 110 V ± 10 %, 60 Hz
Operating temperature:	50 °F - 104 °F
Operating humidity:	10 % - 90 % (RH, non-condensation)
Width:	9 13/16"
Height:	19 11/16"
Length:	22 13/16"
Weight:	89 lbs
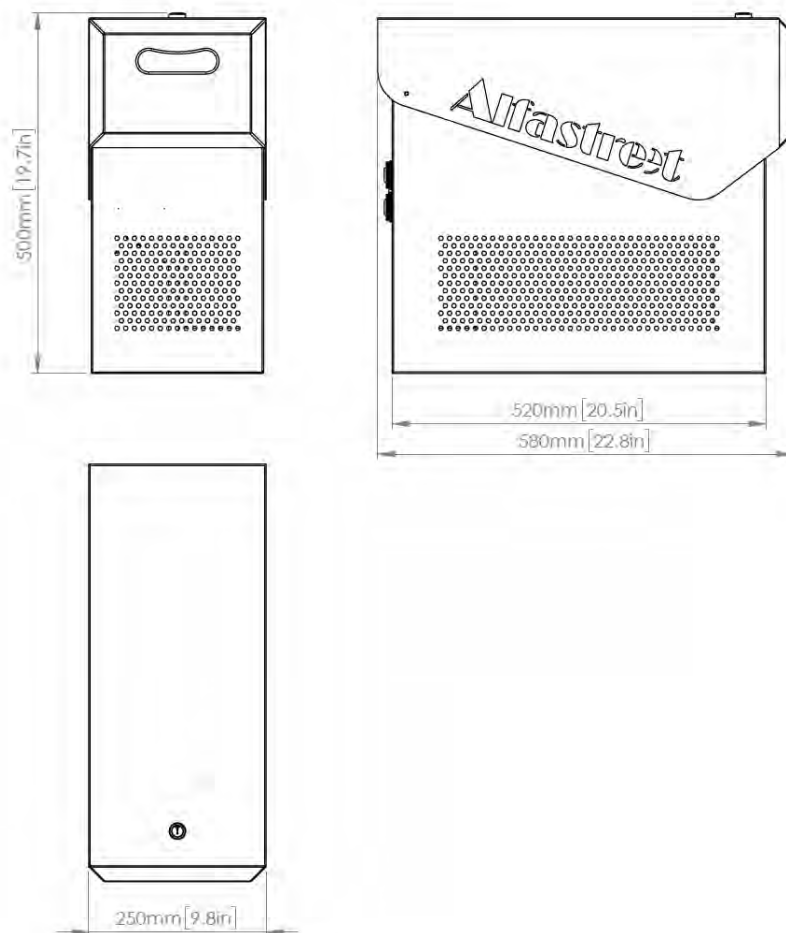
Illustration 1: General dimensions

3. DISCLAIMERS

Warning!
The KGM Gaming ALFA GC manual is intended to provide QUALIFIED TECHNICAL PERSONNEL ONLY with the information necessary to routinely maintain, service, and repair of the Pockaj d.o.o. KGM Gaming cabinet and components. To avoid personal injury or damage the equipment, do not perform any serving other than that contained in this manual. All maintenance procedures which are not included in this manual can only be performed by authorized KGM Gaming service team or KGM Gaming qualified subcontractor. The owner of the machine has to ensure that all service work is performed only be qualified and/or trained personnel.

Note!
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4. REPORT FOR SAFETY AT WORK

In accordance to the act on Safety at Work safety at work is assured where workers implement safety measures, comply to norms, standards and technical regulations and with adequate care, adequate specialist and work training apply the prescribed safety devices and appliances. The device, made in accordance to valid standards and norms, must be fitted with instructions for safe work, testing and maintenance.

Intended use
The gaming machine – KGM Gaming ALFA GC is used as gaming machine or amusement machine in entertainment and gaming establishments.

Description
The gaming machine – KGM Gaming ALFA GC is comprised of:
- a housing
- computer system for managing the machine
- electrical installation with control system

The gaming machine ALFA GC is equipped with a computer managed control system that completely manages the machine independent of the players. The system is completely closed within the device's housing. The machine runs for so long as it is not stopped with the main switch.

Dangers and injuries possible in running the device:
- The device is not firmly fixed.
- The device is not installed in the correct position.
- Danger of falling.
- Danger from electric current.
- Unintentional or automatic switching on.

Measures for preventing dangers and injuries when the machine is running:
- The device must be installed such that sufficient space is allowed for players to move about and safe passage past the device must be assured.
- The floor around the device must always be kept clean and not slippery such that it is not possible for a user of the device to fall on wet or slippery floor.
- Electrical connections can only be made by service staff authorized by the manufacturer or specialist trained persons according to the enclosed diagram.
- The on/off switch must be protected against unintended switching on.

5. GENERAL CONDITIONS FOR USE

Device conditions and documentation

The device must be faultless and with all necessary technical documentation. It must always be in a faultless state that enables safe use. In accordance with legislation on safety at work, the device must be periodically inspected for possible damage or non proper functionality. Possible damaged parts can be considered dangerous for players and must be immediately replaced with new one. A record of inspections should be kept in supervisors office.

The device supervisor must:
- have adequate specialist education for this work
- must be aware of safety at work with means for work and have passed an examination in knowledge of safety at work
- he must be given a copy of instructions for safe work
- he must have adequate health for administering the device (medical certificate)
- new personnel and workers not trained for safe work on the device are forbidden such work
- the work on the device AT OWN RISK is forbidden
- he must have adequate protective clothing and equipment for personal safety at work

Dangers in administration
- danger of falling
- danger of electric current shock

6. INSTRUCTIONS FOR SAFE WORK

Before the start of work the following must be checked:
- protective doors are correctly fixed and locked
- power switch is correctly functioning
- electrical installation is not damaged and free off all defects
- surroundings of the device are clean and not slippery

During the operation

All doors must be closed and locked.

After finishing work

After finishing work the administrator must switch off the device.

Special instructions

The administrator must take care that users do not place drink, cigarettes or other objects and liquids on the device. The ADMINISTRATOR MUST PROVIDE a depositing surface by the device.

7. ELECTRICAL CONNECTION

KGM Gaming ALFA GC gaming machine must be properly connected to a grounded wall socket to supply voltage with cord provided by KGM Gaming and appropriate power connector with a ground wire.

Before the power cord is connected to supply voltage, cord must be inspected for possible damage. Damaged cord can cause electrical shock or improper functioning of the gaming machine.

8. CLEANING MAINTENANCE

Cleaning must only be preformed with the Main Power Switch turned OFF.

It is suggested that a regular cleaning schedule be maintained for the following parts of the machine:

Outside Surfaces

All outside surfaces should be inspected and if necessary cleaned every 90 days, using mild detergents and damp cloth.

In any case, for cleaning do not use:

- Wire or nylon wool scouring brooms
- Furniture polishes
- Alcohol based polishes
- Powder or liquid abrasive cleaners
- Bleach or strong detergents

9. PREVENTIVE ACTIONS

The computer in KGM Gaming ALFA GC machine must be preventive restarted at least every 90 days. This is due to proper functioning of the machine.

KGM Gaming recommends replacing all data storage devices in ALFA GC every 5 years to ensure smooth operation over longer periods of time.

10. GENERAL MACHINE OVERVIEW

In the following illustration you can find the general components of the machine.
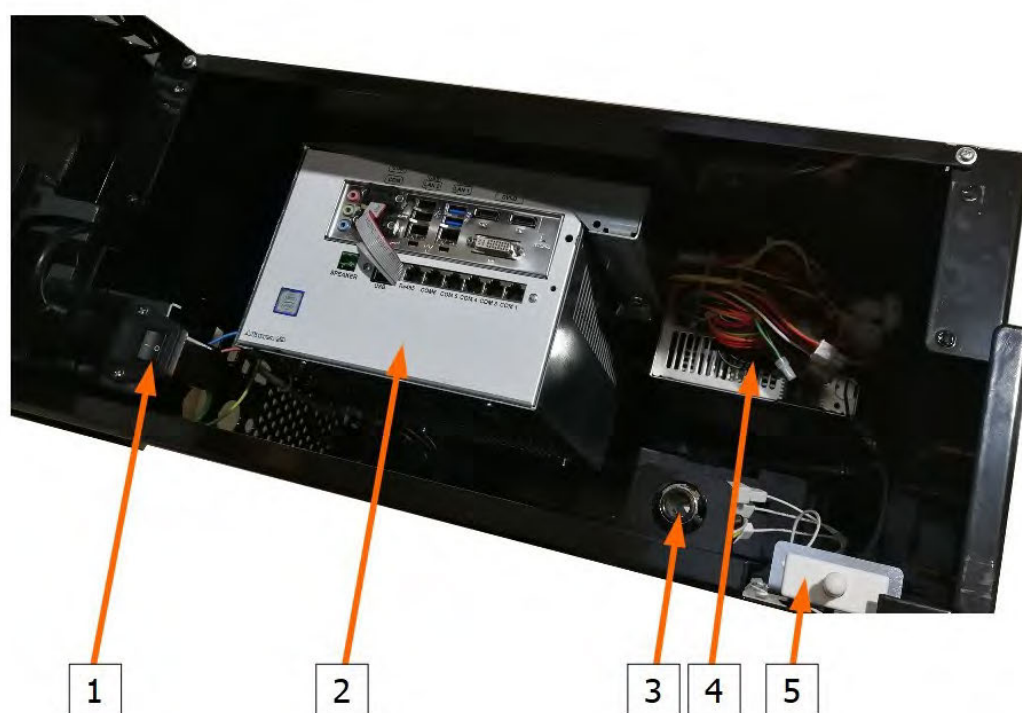
Illustration 2: General machine overview

1. Power switch with EMI filter and fuse
2. Computer
3. Electronic key
4. Power supply
5. Service door switch

10.1.   Opening the service door

To locate and open the service door follow this steps:

STEP 1 Locate the service door and unlock the service door lock.	**STEP 2** Open the service door.

CLOSING THE SERVICE DOOR
Closing the service door can be done following the steps in reverse order. Close the service door and lock it.

11. MAIN PARTS DESCRIPTION

In this chapter, all main electrical parts are described.

11.1. Main Control Unit PC

Main control unit PC can be based on one of the following configurations:

11.1.1. COMPUTER SBC84831

Computer specifications:
- Processor: Intel® Atom™ processor N270 1.6 GHz onboard with FSB 533 MHz
- Chipset: Intel® 945GSE + ICH7M
- System Memory: 1 x 200-pin SO-DIMM supports DDR2-400/533 max. up to 2GB
- BIOS: AMI
- Sandard I/O:
- 6 x RS-232; with +5V/+12V powered
- 4 x USB 2.0
- 2 x SATA-150
- 1 x PS/2 keyboard and mouse
- Ethernet: 2 ports as 10/100/1000Mbps support Wake-on-LAN, RPL/PXE Boot ROM with Realtek RTL8111B
- Digital I/O: 3 channels IN and 5 channels OUT
- Solid State Disk Interface: One CompactFlash Type II Socket
- Audio: AC'97 Codec

11.1.2. COMPUTER MANO861

with Intel i3 processor
Computer specifications:
- LGA1155 socket 3rd Generation Intel®
- Core™ i7/ i5/ i3/, Celeron®, processors
- Intel® H61 chipset
- 2 DDR3-1066/1333 MHz max. up to 4 GB
- 1 PCIe x4 supported
- 3 SATA-300 supported
- 6 USB 2.0 supported
- 6 COM ports supported
- Dual view display, Display: VGA/DVI-D/LVDS

11.1.3.   COMPUTER GMB811

with Intel i3 processor
Computer specifications:
- CPU: Socket LGA 1150 4th Generation Intel® Core™ i7/i5/i3 and Celeron® processor up to TDP 54W (65W option)
- System Memory: DDR3/L 1333/1600 MHz, max. up to 16 GB, 2 x 240-pin Long-DIMM
- Chipset: Intel® H81 PCH
- BIOS: AMI -uEFI BIOS
- Expansion Interface: 1 x PCIe x16 slot, 1 x Full-Size Mini-PCIe (mSATA option)
- USB: 4 x USB 2.0 in rear I/O, 4 x USB 2.0 internal header, 2 x USB 3.0 in rear I/O
- Serial: 4 x simple RS-232 (Tx/Rx) via pin header, 1 x full RS-232 via pin header, 1 x RS-232/422/485 via pin header
- SATA: 2 x SATA III connector (SATADOM supported)
- Audio: Stereo 6W + 6W audio amplifier, 5.1 channel line-out with stacked 3.5 mm jack or HD, Audio as Mic-in/Line out
- Ethernet: 2 x Gigabit Ethernet ports
- Security: TPM 1.2
- Sparkle SN710-2GD3-A5 add-on graphics card

11.1.4.   COMPUTER GMB820

with Intel i3 processor
Computer specifications:
- 6/7th Generation Intel® Core™ i7/i5/i3, Intel® Pentium® processors and Intel® Celeron® processors
- 2 x DDR4 U-DIMM up to 2133 MHz, max. up to 32GB
- 3 x USB 3.0
- 6 x USB 2.0
- 2 x RS-232 DB9
- 4 x RS-232
- 2 x DP++
- 1 x DVI-D

11.1.5.   COMPUTER X8SIA

Computer specifications:
- Intel® Xeon® X3400 / L3400 series,
  Core™ i3 & Pentium® processors
  with LGA 1156 socket
- Intel® 3420 Chipset
- Up to 32GB DDR3 1333/1066/800MHz
  ECC Registered DIMM / 16GB
  Unbuffered DIMM
- Dual Intel® 82574L Gigabit Ethernet
  Controllers
- 6x SATA (3 Gbps) Ports
  RAID 0, 1, 5, 10
- 3 (x8) PCI-E 2.0 (1 in x16 slot)
  1 (x4) PCI-E 2.0 (using x8 slot)
  2 (x1) PCI-E and 1 32-bit PCI slot
- 10x USB (4 rear, 2 on-board, 2 headers)

11.2.   Power supply

Supplies power for computers and peripheral devices.
- POWER SUPPLY BEA-740-B1 450W 24V
- POWER SUPPLY BEA-740 450W 24V (Alternative)
- POWER SUPPLY BEA-740-B2 450W 24V (Alternative)
- POWER SUPPLY BAM 450W 5V,12V,24VDC (alternative)

11.3.   Monitor

Offers access to the control software.
- MONITOR ELOTOUCH 15"

11.4.   Uninterruptible power supply (optional)

Provides stable power delivery to electrical components inside, protects equipment against power surges and acts as a power source for a limited time in case the mains power fails during operation.
- APC BACK-UPS 500VA 230V

12. BASIC PROCEDURES

In this chapter you can find basic procedures like starting the machine, cashbox handling, changing paper, clearing jams in ticket printer, removing bill acceptor, etc..

12.1. Starting the machine

To power up the machine follow this steps:

STEP 1

Make sure the machine is properly connected to a wall socket and power cord is not damaged in any way.

STEP 2

Open the service door. See chapter 10.1 Opening the service door, page 10.

STEP 3

The main power switch can be accessed through the service door.

STEP 3

Put the main switch from position "O" to position "I".

Machine will start.

13. ADVANCED PROCEDURES

In this chapter you will find advanced procedures that require a qualified technician to be performed such as electrical components replacements, etc.

Device should be unplugged from supply, UPS turned off and rotating parts stopped before opening any doors and engaging in major service activities.
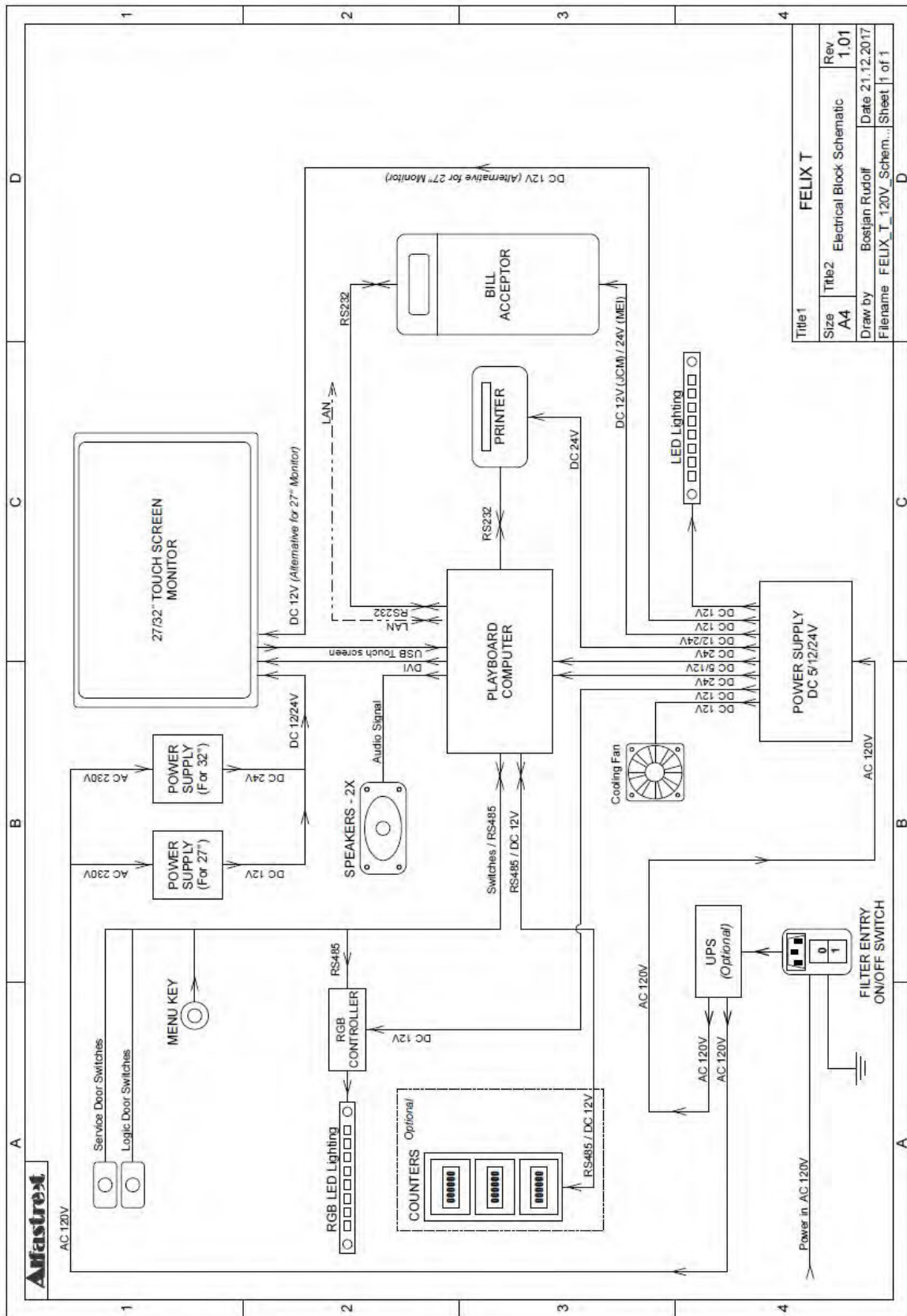
13.1. *Replacing the supply cord*

If the supply cord is showing damage in any way it should be immediately replaced (with the same type of approved supply cord). Replacement of electrical components should always be handled by the manufacturer, its service agents or equally qualified technicians. To do so follow this steps.

STEP 1 Shutdown the machine and disconnect it from the power grid. Shutdown the UPS and disconnect the UPS inputs and outputs.	**STEP 2** Open the service door. See chapter 10.1 Opening the service door, page 10.
	REASSEMBLY To reassemble follow the instructions in reverse order. Route the new cable to the main power switch and connect it. Close the service door, lock it and power on the machine and UPS.
STEP 3 Locate the main power switch and disconnect the supply cord.	

 Supply cord shall not be accessible to the user after installation of the machine or after replacing the supply cord.

14. WIRING

BAR TOP

SERVICE MANUAL

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1. DESCRIPTION

The BAR TOP is a standalone single playboard cabinet. It was developed to offer to players pure excitement and close touch of game. It can supports different types of games and can be connected to different player tracking systems via SAS protocol.

2. TECHNICAL DATA

Model: BAR TOP
Manufacturer: KGM Gaming, 4250 Wissahickon Ave, Philadelphia, PA 19129, USA
Power consumption: 140 W
Voltage: AC 110 V ± 10 %, 60 Hz
Operating temperature: 50 °F - 104 °F
Operating humidity: 10 % - 90 % (RH, non-condensation)
Width: 27 3/16"
Height: 28 3/8" (32 11/16" with player tracking)
Length: 16 15/16" (21 5/8" with player tracking)
Weight: 133 lbs
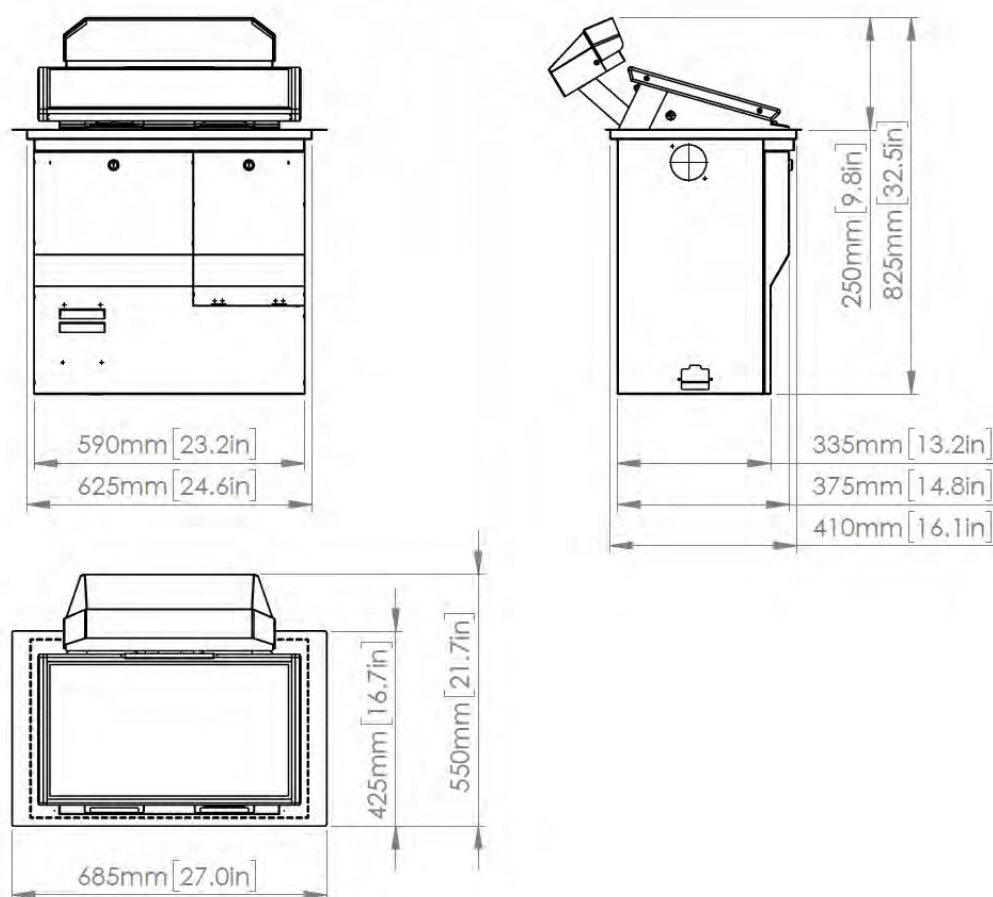
Illustration 1: General dimensions
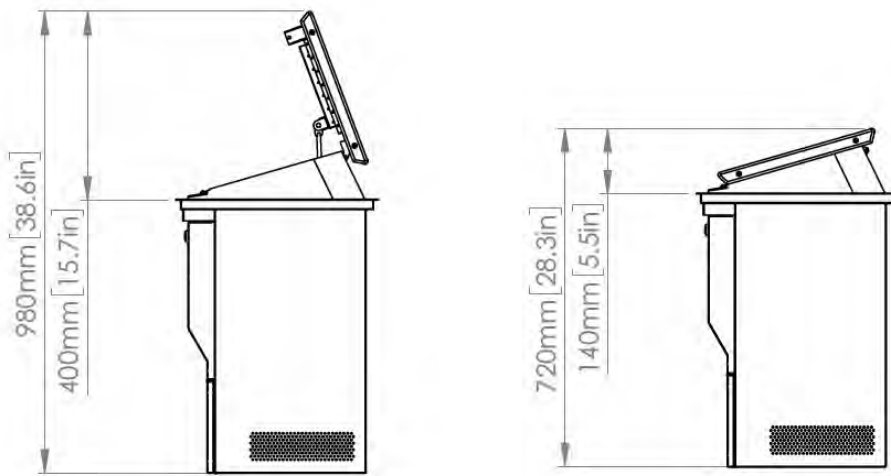
Illustration 2: General dimensions – additional view

3. DISCLAIMERS

Warning!
The KGM Gaming BAR TOP manual is intended to provide QUALIFIED TECHNICAL PERSONNEL ONLY with the information necessary to routinely maintain, service, and repair of the KGM Gaming cabinet and components. To avoid personal injury or damage the equipment, do not perform any serving other than that contained in this manual. All maintenance procedures which are not included in this manual can only be performed by authorized KGM Gaming service team or KGM Gaming qualified subcontractor. The owner of the machine has to ensure that all service work is performed only be qualified and/or trained personnel.

Note!
Information in this document is subject to change without notice and does not represent a commitment on the part of KGM Gaming. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or physical, including photocopying and recording, for any purpose other than the purchasers use without written consent of KGM Gaming.

4. REPORT FOR SAFETY AT WORK

In accordance to the act on Safety at Work safety at work is assured where workers implement safety measures, comply to norms, standards and technical regulations and with adequate care, adequate specialist and work training apply the prescribed safety devices and appliances. The device, made in accordance to valid standards and norms, must be fitted with instructions for safe work, testing and maintenance.

Intended use

The gaming machine – KGM Gaming BAR TOP is used as gaming machine or amusement machine in entertainment and gaming establishments.

Description

The gaming machine – KGM Gaming BAR TOP is comprised of:
- a housing
- playing position with touch screen LCD monitors
- computer system for managing the machine
- electrical installation with control system

The gaming machine BAR TOP is equipped with a computer managed control system that completely manages the machine independent of the players. The system is completely closed within the device's housing. The machine runs for so long as it is not stopped with the main switch.

Dangers and injuries possible in running the device:
- The device is not firmly fixed.
- The device is not installed in the correct position.
- Danger of falling.
- Danger from electric current.
- Unintentional or automatic switching on.

Measures for preventing dangers and injuries when the machine is running:
- It is necessary to firmly fix the device to a concrete floor with anchor screws such
- that the device cannot overturn or move during use.
- The device must be installed such that sufficient space is allowed for players to move about and safe passage past the device must be assured.
- The floor around the device must always be kept clean and not slippery such that it is not possible for a user of the device to fall on wet or slippery floor.
- Electrical connections can only be made by service staff authorized by the manufacturer or specialist trained persons according to the enclosed diagram.
- The on/off switch must be protected against unintended switching on.

5. GENERAL CONDITIONS FOR USE

Device conditions and documentation

The device must be faultless and with all necessary technical documentation. It must always be in a faultless state that enables safe use. In accordance with legislation on safety at work, the device must be periodically inspected for possible damage or non proper functionality. Possible damaged parts can be considered dangerous for players and must be immediately replaced with new one. A record of inspections should be kept in supervisors office.

The device supervisor must:
- have adequate specialist education for this work
- must be aware of safety at work with means for work and have passed an examination in knowledge of safety at work
- he must be given a copy of instructions for safe work
- he must have adequate health for administering the device (medical certificate)
- new personnel and workers not trained for safe work on the device are forbidden such work
- the work on the device AT OWN RISK is forbidden
- he must have adequate protective clothing and equipment for personal safety at work

Dangers in administration
- danger of falling
- danger of electric current shock

6. INSTRUCTIONS FOR SAFE WORK

Before the start of work the following must be checked:
- protective doors are correctly fixed and locked
- power switch is correctly functioning
- electrical installation is not damaged and free off all defects
- surroundings of the device are clean and not slippery

During the operation

All doors must be closed and locked.

After finishing work

After finishing work the administrator must switch off the device.

Special instructions

The administrator must take care that users do not place drink, cigarettes or other objects and liquids on the device. The ADMINISTRATOR MUST PROVIDE a depositing surface by the device.

7. ELECTRICAL CONNECTION

KGM Gaming BAR TOP gaming machine must be properly connected to a grounded wall socket to supply voltage with cord provided by KGM Gaming and appropriate power connector with a ground wire.

Before the power cord is connected to supply voltage, cord must be inspected for possible damage. Damaged cord can cause electrical shock or improper functioning of the gaming machine.

8. CLEANING MAINTENANCE

Cleaning must only be preformed with the Main Power Switch turned OFF.

It is suggested that a regular cleaning schedule be maintained for the following parts of the machine:

Outside Surfaces

All outside surfaces should be inspected and if necessary cleaned every 90 days, using mild detergents and damp cloth.

In any case, for cleaning do not use:

- Wire or nylon wool scouring brooms
- Furniture polishes
- Alcohol based polishes
- Powder or liquid abrasive cleaners
- Bleach or strong detergents

9. PREVENTIVE ACTIONS

The computer in KGM Gaming BAR TOP machine must be preventive restarted at least every 90 days. This is due to proper functioning of the machine.

KGM Gaming recommends replacing all data storage devices in BAR TOP every 5 years to ensure smooth operation over longer periods of time.

10. GENERAL MACHINE OVERVIEW

In the following illustration you can find the general components of the machine.
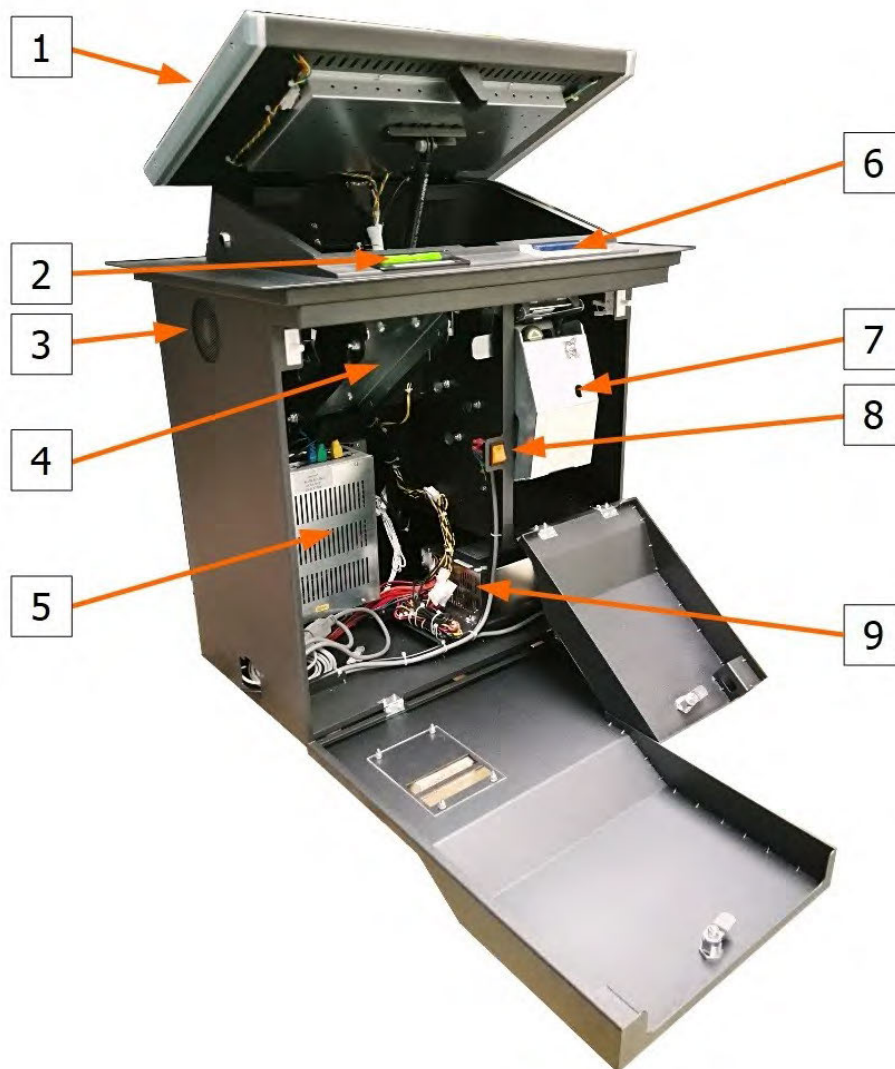
Illustration 3: General machine overview

1. Touchscreen display
2. Ticket printer bezel
3. Cooling fan
4. Ticket printer
5. Playboard computer

6. Bill acceptor bezel
7. Bill acceptor / stacker door
8. Power switch
9. Power supply

10.1.   Opening the service door

To locate and open the service door follow this steps:

STEP 1	STEP 2
STEP 1 Locate the service door and unlock the service door lock.	**STEP 2** Open the service door.

CLOSING THE SERVICE DOOR
Closing the service door can be done following the steps in reverse order. Close the service door and lock it.

10.2.   Opening the screen assembly

To unlock the screen assembly, lift it and gain access to the internal components of the machine follow the provided steps below.

STEP 1 Locate the service door and unlock the service door lock.	**STEP 2** Open the service door.
STEP 3 Locate the screen assembly lock mechanism inside the machine and unlock it.	**STEP 4** Lift the screen assembly upward.

CLOSING THE SCREEN ASSEMBLY

Closing the service door can be done following the steps in reverse order. Close the screen assembly until the screen assembly lock engages, close and lock the service door.

11. MAIN PARTS DESCRIPTION

In this chapter, all main electrical parts are described.

11.1. Playboard PC

Playboard PC is running game software and controlling the machine. It is located behind the screen assembly.

11.1.1. PLAYBOARD COMPUTER SBC84831

Computer specifications:
- Processor: Intel® Atom™ processor N270 1.6 GHz onboard with FSB 533 MHz
- Chipset: Intel® 945GSE + ICH7M
- System Memory: 1 x 200-pin SO-DIMM supports DDR2-400/533 max. up to 2GB
- BIOS: AMI
- Sandard I/O:
- 6 x RS-232; with +5V/+12V powered
- 4 x USB 2.0
- 2 x SATA-150
- 1 x PS/2 keyboard and mouse
- Ethernet: 2 ports as 10/100/1000Mbps support Wake-on-LAN, RPL/PXE Boot ROM with Realtek RTL8111B
- Digital I/O: 3 channels IN and 5 channels OUT
- Solid State Disk Interface: One CompactFlash Type II Socket
- Audio: AC'97 Codec

11.1.2. PLAYBOARD COMPUTER MANO861

with Intel i3 processor
Computer specifications:
- LGA1155 socket 3rd Generation Intel®
- Core™ i7/ i5/ i3/, Celeron®, processors
- Intel® H61 chipset
- 2 DDR3-1066/1333 MHz max. up to 4 GB
- 1 PCIe x4 supported
- 3 SATA-300 supported
- 6 USB 2.0 supported
- 6 COM ports supported
- Dual view display, Display: VGA/DVI-D/LVDS

11.1.3. PLAYBOARD COMPUTER MB-8302A

with Intel i3 processor
Computer specifications:
- Intel 4th generation Intel® Core™ LGA 1150 Socket
- Intel® H81 Express chipset
- 2 x DDR3 1600 MHz / SODIMM up to 4 GB
- HDMI/VGA/DVI-D/24-bit Dual Channel LVDS
- 6 x COM, 8 x USB, LPC, SMBus
- 2 x SATA 6Gb/s 2x SATA 3Gb/s
- 2 x Intel® Giga LAN
- 1 x PCI-Express X16 slot , 1 x PCI-Express X1 slot
- SIM socket support

11.1.4. PLAYBOARD COMPUTER GMB811

with Intel i3 processor
Computer specifications:
- CPU: Socket LGA 1150 4th Generation Intel® Core™ i7/i5/i3 and Celeron® processor up to TDP 54W (65W option)
- System Memory: DDR3/L 1333/1600 MHz, max. up to 16 GB, 2 x 240-pin Long-DIMM
- Chipset: Intel® H81 PCH
- BIOS: AMI -uEFI BIOS
- Expansion Interface: 1 x PCIe x16 slot, 1 x Full-Size Mini-PCIe (mSATA option)
- USB: 4 x USB 2.0 in rear I/O, 4 x USB 2.0 internal header, 2 x USB 3.0 in rear I/O
- Serial: 4 x simple RS-232 (Tx/Rx) via pin header, 1 x full RS-232 via pin header, 1 x RS-232/422/485 via pin header
- SATA: 2 x SATA III connector (SATADOM supported)
- Audio: Stereo 6W + 6W audio amplifier, 5.1 channel line-out with stacked 3.5 mm jack or HD, Audio as Mic-in/Line out
- Ethernet: 2 x Gigabit Ethernet ports
- Security: TPM 1.2
- Sparkle SN710-2GD3-A5 add-on graphics card

11.1.5. PLAYBOARD COMPUTER GMB820

with Intel i3 processor
Computer specifications:
- 6/7th Generation Intel® Core™ i7/i5/i3, Intel® Pentium® processors and Intel® Celeron® processors
- 2 x DDR4 U-DIMM up to 2133 MHz, max. up to 32GB
- 3 x USB 3.0
- 6 x USB 2.0
- 2 x RS-232 DB9
- 4 x RS-232
- 2 x DP++
- 1 x DVI-D

11.2.   Power supply

Supplies power for computers and peripheral devices.
- POWER SUPPLY BEA-740-B1 450W 24V
- POWER SUPPLY BEA-740 450W 24V (Alternative)
- POWER SUPPLY BEA-740-B2 450W 24V (Alternative)
- POWER SUPPLY BAM 450W 5V,12V,24VDC (alternative)

11.3.   Monitor

Displays playboard's software graphics.
- MONITOR BESTECH 27" FULL HD P-CAP
- MONITOR ALPHA DISPLAY 27" TS
- MONITOR KORTEK 27" PCT

11.4.   Bill acceptors

Accepts bills or vouchers and stakes them in the stacker box.
- BILL ACCEPTOR MEI SCN8347 (RS232)
- BILL ACCEPTOR MEI CASHFLOW SCN6607 (Alternative)
- BILL ACCEPTOR JCM UBA-10-SS (RS232) (Alternative)
- BILL ACCEPTOR JCM IVIZION (RS232) (Alternative)

11.5.   Ticket printers

Prints vouchers or receipts.
- PRINTER FUTURE LOGIC GEN2 UNIVERSAL
- PRINTER ITHACA EPIC 950L (Alternative)
- PRINTER FUTURE LOGIC GEN3 EVOLUTION (Alternative)
- PRINTER FUTURE LOGIC GEN5 (Alternative)

12. BASIC PROCEDURES

In this chapter you can find basic procedures like starting the machine, cashbox handling, changing paper, clearing jams in ticket printer, removing bill acceptor, etc..

12.1.   Starting the machine

To power up the machine follow this steps:

STEP 1 Make sure the machine is properly connected to a wall socket and power cord is not damaged in any way.	**STEP 2** Open the service door. See chapter 10.1 Opening the service door, page 11.
STEP 3 The main power switch can be accessed through the service door.	**STEP 3** Put the main switch from position "O" to position "I". **Machine will start.**

12.2.   Removing the cashbox

To remove cashbox from the machine, follow this steps.

STEP 1 Locate the bill door and unlock the bill door lock.	**STEP 2** Open the bill door.
STEP 3 Unlock and remove the optional bill cashbox door.	**STEP 4** Grab the cashbox by the handle and pull it towards yourself.

Installing the cashbox

Installing the cashbox can be done following the reverse order of steps provided above. First insert the cashbox back in the machine – make sure that the blue triangle is pointing upwards. Close and lock the optional bill cashbox door, close and lock the bill door.

12.3.   Changing paper, clearing jams in ticket printer

To gain access to the ticket printer to charge paper or clear jams follow this steps.

STEP 1 Open the screen assembly. See chapter 10.2 Opening the screen assembly, page 12.	**STEP 2** The ticket printer is located just next to the bill acceptor, on the left.

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13. ADVANCED PROCEDURES

In this chapter you will find advanced procedures that require a qualified technician to be performed such as electrical components replacements, etc.

> ⚠️ Device should be unplugged from supply, UPS turned off and rotating parts stopped before opening any doors and engaging in major service activities.

13.1. Replacing the supply cord

If the supply cord is showing damage in any way it should be immediately replaced (with the same type of approved supply cord). Replacement of electrical components should always be handled by the manufacturer, its service agents or equally qualified technicians. To do so follow this steps.

STEP 1 Shutdown the machine and disconnect it from the power grid. Shutdown the UPS and disconnect the UPS inputs and outputs.	**STEP 2** Open the service door. See chapter 10.1 Opening the service door, page 11.
	REASSEMBLY To reassemble follow the instructions in reverse order. Route the new cable to the main power switch and connect it. Close the service door, lock it and power on the machine and UPS.
STEP 3 Locate the main power switch and disconnect the supply cord.	

 Supply cord shall not be accessible to the user after installation of the machine or after replacing the supply cord.

14. WIRING

FELIX T
SERVICE MANUAL

Table of Contents

Illustration Index

1. DESCRIPTION

The FELIX T is a standalone single playboard cabinet. It was developed to offer to players pure excitement and close touch of game. It can supports different types of games and can be connected to different player tracking systems via SAS protocol.

2. TECHNICAL DATA

Model: FELIX T
Manufacturer: KGM Gaming, 4250 Wissahickon Ave, Philadelphia, PA 19129, USA
Power consumption: 140 W
Voltage: AC 110 V ± 10 %, 60 Hz
Operating temperature: 50 °F - 104 °F
Operating humidity: 10 % - 90 % (RH, non-condensation)
Width: 29 1/2" (32 5/16" mm with 32" monitor)
Height: 38 3/16" (38 9/16" with 32" monitor)
Length: 26 3/4" (29 3/8" with 32" monitor)
Weight: 199 lbs
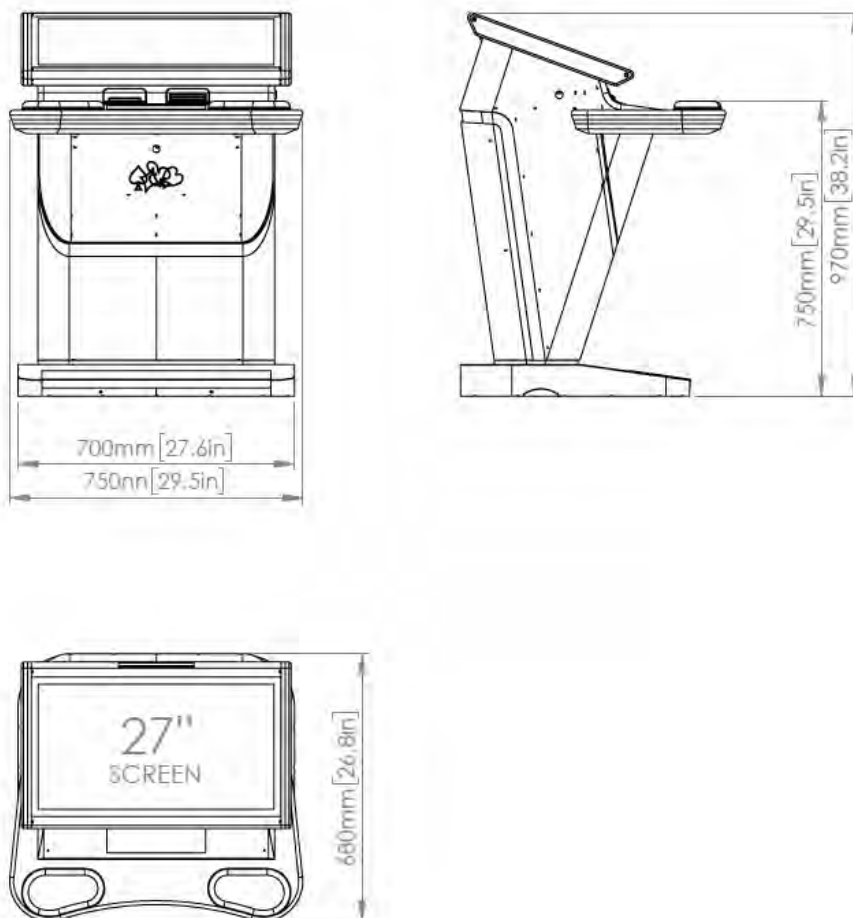
Illustration 1: General dimensions (27" Monitor)
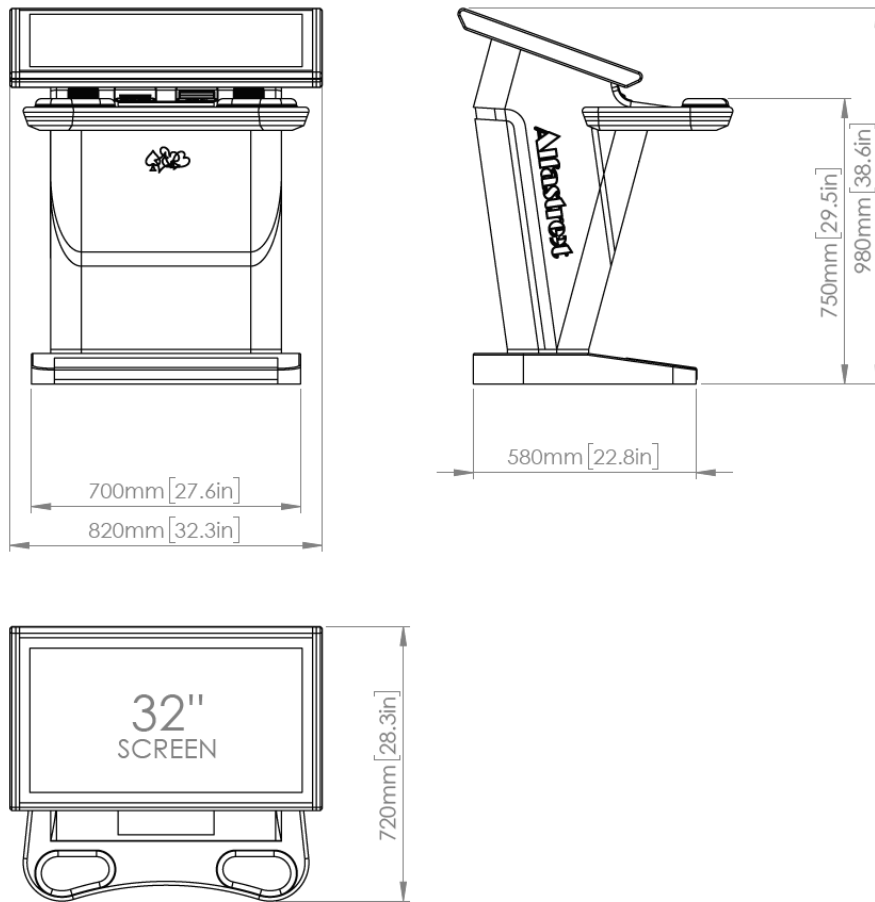
Illustration 2: General dimensions (32" Monitor)

3. DISCLAIMER

Warning!
The KGM Gaming FELIX T manual is intended to provide QUALIFIED TECHNICAL PERSONNEL ONLY with the information necessary to routinely maintain, service, and repair of the KGM Gaming cabinet and components. To avoid personal injury or damage the equipment, do not perform any serving other than that contained in this manual. All maintenance procedures which are not included in this manual can only be performed by authorized KGM Gaming service team or KGM Gaming qualified subcontractor. The owner of the machine has to ensure that all
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Note!
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4. REPORT FOR SAFETY AT WORK

In accordance to the act on Safety at Work safety at work is assured where workers implement safety measures, comply to norms, standards and technical regulations and with adequate care, adequate specialist and work training apply the prescribed safety devices and appliances. The device, made in accordance to valid standards and norms, must be fitted with instructions for safe work, testing and maintenance.

Intended use

The gaming machine – KGM Gaming FELIX T is used as gaming machine or amusement machine in entertainment and gaming establishments.

Description

The gaming machine – KGM Gaming FELIX T is comprised of:
- a housing
- playing position with touch screen LCD monitors
- computer system for managing the machine
- electrical installation with control system

The gaming machine FELIX T is equipped with a computer managed control system that completely manages the machine independent of the players. The system is completely closed within the device's housing. The machine runs for so long as it is not stopped with the main switch.

Dangers and injuries possible in running the device:
- The device is not firmly fixed.
- The device is not installed in the correct position.
- Danger of falling.
- Danger from electric current.
- Unintentional or automatic switching on.

Measures for preventing dangers and injuries when the machine is running:
- It is necessary to firmly fix the device to a concrete floor with anchor screws such
- that the device cannot overturn or move during use.
- The device must be installed such that sufficient space is allowed for players to move about and safe passage past the device must be assured.
- The floor around the device must always be kept clean and not slippery such that it is not possible for a user of the device to fall on wet or slippery floor.
- Electrical connections can only be made by service staff authorized by the manufacturer or specialist trained persons according to the enclosed diagram.
- The on/off switch must be protected against unintended switching on.

5. GENERAL CONDITIONS FOR USE

Device conditions and documentation
The device must be faultless and with all necessary technical documentation. It must always be in a faultless state that enables safe use. In accordance with legislation on safety at work, the device must be periodically inspected for possible damage or non proper functionality. Possible damaged parts can be considered dangerous for players and must be immediately replaced with new one. A record of inspections should be kept in supervisors office.

The device supervisor must:
- have adequate specialist education for this work
- must be aware of safety at work with means for work and have passed an examination in knowledge of safety at work
- he must be given a copy of instructions for safe work
- he must have adequate health for administering the device (medical certificate)
- new personnel and workers not trained for safe work on the device are forbidden such work
- the work on the device AT OWN RISK is forbidden
- he must have adequate protective clothing and equipment for personal safety at work

Dangers in administration
- danger of falling
- danger of electric current shock

6. INSTRUCTIONS FOR SAFE WORK

Before the start of work the following must be checked:
- protective doors are correctly fixed and locked
- power switch is correctly functioning
- electrical installation is not damaged and free off all defects
- surroundings of the device are clean and not slippery

During the operation
All doors must be closed and locked.

After finishing work
After finishing work the administrator must switch off the device.

Special instructions
The administrator must take care that users do not place drink, cigarettes or other objects and liquids on the device. The ADMINISTRATOR MUST PROVIDE a depositing surface by the device.

7. ELECTRICAL CONNECTION

KGM Gaming FELIX T gaming machine must be properly connected to a grounded wall socket to supply voltage with cord and power connector provided by KGM Gaming or equivalent power connector with a ground wire.

Before the power cord is connected to supply voltage, cord must be inspected for possible damage. Damaged cord can cause electrical shock or improper functioning of the gaming machine.

8. CLEANING MAINTENANCE

⚠️ **Cleaning must only be preformed with the Main Power Switch turned OFF.**

It is suggested that a regular cleaning schedule be maintained for the following parts of the machine:

Outside Surfaces

All outside surfaces should be inspected and if necessary cleaned every 90 days, using mild detergents and damp cloth.

In any case, for cleaning do not use:

- Wire or nylon wool scouring brooms
- Furniture polishes
- Alcohol based polishes
- Powder or liquid abrasive cleaners
- Bleach or strong detergents

9. PREVENTIVE ACTIONS

The computer in KGM Gaming FELIX T machine must be preventive restarted at least every 90 days. This is due to proper functioning of the machine.

KGM Gaming recommends replacing all data storage devices in FELIX T every 5 years to ensure smooth operation over longer periods of time.

10. GENERAL MACHINE OVERVIEW

In the following illustration you can find the general components of the machine.

Illustration 3: Machine side view

1. Touchscreen display
2. Left speaker
3. Ticket printer
4. Player tracking (optional)
5. Bill acceptor
6. Service door
7. Tower/win lighting
8. Right speaker
9. Ambient lighting

10.1.   Opening the service door

To locate and open the service door follow this steps:

STEP 1 Locate the service door and unlock the service door lock.	**STEP 2** Open the service door.

CLOSING THE SERVICE DOOR

Closing the service door can be done following the steps in reverse order. Close the service door and lock it.

10.2.   Opening the screen assembly

To unlock the screen assembly, lift it and gain access to the internal components of the machine follow the provided steps below.

⚠️ Since the screen assembly opens upwards and towards the person performing the task make sure that sufficient space is available and the work area is free of obstacles to prevent tripping, etc.

STEP 1 Locate the screen assembly lock on the right side of the machine and unlock it.	**STEP 2** Lift the screen assembly upward.

CLOSING THE SCREEN ASSEMBLY
Closing the service door can be done following the steps in reverse order. Close the screen assembly and lock it in place using the screen assembly lock.

11. INTERNAL COMPONENTS

The internal components of this machine are accessible from behind the screen assembly or from the service door. Components locations are presented depending on access point.

11.1.　Access from behind the screen assembly

To gain access to the components presented in the illustration below you must first open the screen assembly – see chapter 10.2 Opening the screen assembly, page 12.
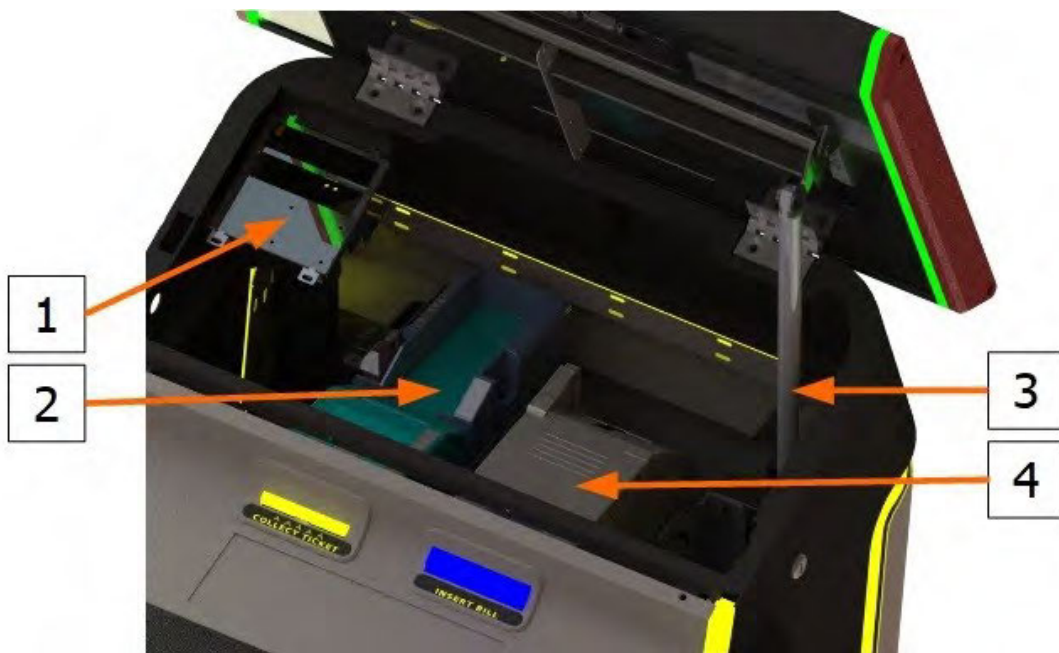
Illustration 4: Internal components (behind screen assembly)

1. Mechanical counters (optional)
2. Ticket printer
3. Gas spring
4. Bill acceptor

11.2.   Access through service door

The other components are accessible from service door.
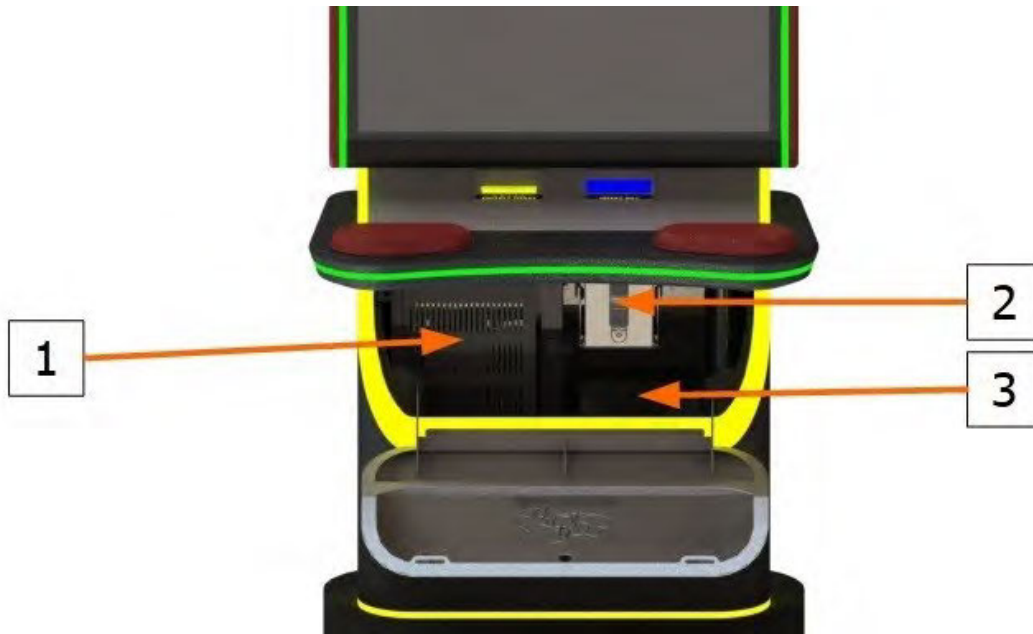
Illustration 5: Internal components (behind service door)

1. Playboard computer
2. Cashbox
3. Power supply

12. MAIN PARTS DESCRIPTION

In this chapter, all main electrical parts are described.

12.1. Playboard PC

Playboard PC is running game software and controlling the machine. It is located behind the screen assembly.

12.1.1. PLAYBOARD COMPUTER SBC84831

Computer specifications:
- Processor: Intel® Atom™ processor N270 1.6 GHz onboard with FSB 533 MHz
- Chipset: Intel® 945GSE + ICH7M
- System Memory: 1 x 200-pin SO-DIMM supports DDR2-400/533 max. up to 2GB
- BIOS: AMI
- Sandard I/O:
- 6 x RS-232; with +5V/+12V powered
- 4 x USB 2.0
- 2 x SATA-150
- 1 x PS/2 keyboard and mouse
- Ethernet: 2 ports as 10/100/1000Mbps support Wake-on-LAN, RPL/PXE Boot ROM with Realtek RTL8111B
- Digital I/O: 3 channels IN and 5 channels OUT
- Solid State Disk Interface: One CompactFlash Type II Socket
- Audio: AC'97 Codec

12.1.2. PLAYBOARD COMPUTER MANO861

with Intel i3 processor
Computer specifications:
- LGA1155 socket 3rd Generation Intel®
- Core™ i7/ i5/ i3/, Celeron®, processors
- Intel® H61 chipset
- 2 DDR3-1066/1333 MHz max. up to 4 GB
- 1 PCIe x4 supported
- 3 SATA-300 supported
- 6 USB 2.0 supported
- 6 COM ports supported
- Dual view display, Display: VGA/DVI-D/LVDS

12.1.3.   PLAYBOARD COMPUTER MB-8302A

with Intel i3 processor
Computer specifications:
- Intel 4th generation Intel® Core™ LGA 1150 Socket
- Intel® H81 Express chipset
- 2 x DDR3 1600 MHz / SODIMM up to 4 GB
- HDMI/VGA/DVI-D/24-bit Dual Channel LVDS
- 6 x COM, 8 x USB, LPC, SMBus
- 2 x SATA 6Gb/s 2x SATA 3Gb/s
- 2 x Intel® Giga LAN
- 1 x PCI-Express X16 slot , 1 x PCI-Express X1 slot
- SIM socket support

12.1.4.   PLAYBOARD COMPUTER GMB811

with Intel i3 processor
Computer specifications:
- CPU: Socket LGA 1150 4th Generation Intel® Core™ i7/i5/i3 and Celeron® processor up to TDP 54W (65W option)
- System Memory: DDR3/L 1333/1600 MHz, max. up to 16 GB, 2 x 240-pin Long-DIMM
- Chipset: Intel® H81 PCH
- BIOS: AMI -uEFI BIOS
- Expansion Interface: 1 x PCIe x16 slot, 1 x Full-Size Mini-PCIe (mSATA option)
- USB: 4 x USB 2.0 in rear I/O, 4 x USB 2.0 internal header, 2 x USB 3.0 in rear I/O
- Serial: 4 x simple RS-232 (Tx/Rx) via pin header, 1 x full RS-232 via pin header, 1 x RS-232/422/485 via pin header
- SATA: 2 x SATA III connector (SATADOM supported)
- Audio: Stereo 6W + 6W audio amplifier, 5.1 channel line-out with stacked 3.5 mm jack or HD, Audio as Mic-in/Line out
- Ethernet: 2 x Gigabit Ethernet ports
- Security: TPM 1.2
- Sparkle SN710-2GD3-A5 add-on graphics card

12.1.5.   PLAYBOARD COMPUTER GMB820

with Intel i3 processor
Computer specifications:
- 6/7th Generation Intel® Core™ i7/i5/i3, Intel® Pentium® processors and Intel® Celeron® processors
- 2 x DDR4 U-DIMM up to 2133 MHz, max. up to 32GB
- 3 x USB 3.0
- 6 x USB 2.0
- 2 x RS-232 DB9
- 4 x RS-232
- 2 x DP++
- 1 x DVI-D

12.2.   Power supply

Supplies power for computers and peripheral devices.
- POWER SUPPLY BEA-740 450W 24V
- POWER SUPPLY BEA-740-B1 450W 24V (Alternative)
- POWER SUPPLY BEA-740-B2 450W 24V (Alternative)
- POWER SUPPLY BAM 450W 5V,12V,24VDC (alternative)

12.3.   Monitor

Two are mounted on each machine and they display playboard's software graphics.
- MONITOR ALPHA DISPLAY 27"
- MONITOR KORTEK 27"
- MONITOR ALPHA DISPLAY 32"
- MONITOR KORTEK 32"

12.4.   Bill acceptors

Accepts bills or vouchers and stakes them in the stacker box.
- BILL ACCEPTOR MEI SCN8347(RS232)
- BILL ACCEPTOR MEI CASHFLOW SCN6607 (Alternative)
- BILL ACCEPTOR JCM UBA-10-SS (RS232) (Alternative)
- BILL ACCEPTOR JCM IVIZION (RS232) (Alternative)

12.5.   Ticket printers
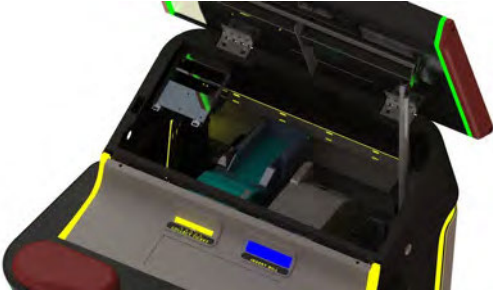
Prints vouchers or receipts.
- PRINTER FUTURE LOGIC GEN5
- PRINTER ITHACA EPIC 950L (Alternative)
- PRINTER FUTURE LOGIC GEN3 EVOLUTION (Alternative)
- PRINTER FUTURE LOGIC GEN2 UNIVERSAL (Alternative)

13. BASIC PROCEDURES

In this chapter you can find basic procedures like starting the machine, cashbox handling, changing paper, clearing jams in ticket printer, removing bill acceptor, etc..
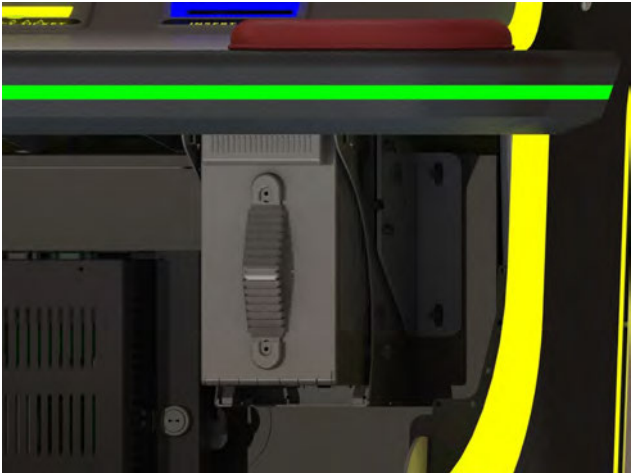
13.1.   Starting the machine

To power up the machine follow this steps:

STEP 1 Make sure the machine is properly connected to a wall socket and power cord is not damaged in any way.	**STEP 2** Open the screen assembly. See chapter 10.2 Opening the screen assembly, page 12.
STEP 3 The main power switch can be accessed through behind the screen assembly.	**STEP 4** Put the main switch from position "O" to position "I". **Machine will start.**

13.2.   *Removing the cashbox*

To remove cashbox from the machine, follow this steps.

STEP 1 Locate the service door and unlock the service door lock.	**STEP 2** Open the service door.
STEP 3 Locate the bill acceptor stacker box.	**STEP 4** Grab the cashbox by the handle and pull it towards yourself.

Installing the cashbox

Installing the cashbox can be done following the reverse order of steps provided above. First insert the cashbox back in the machine – make sure that the blue triangle is pointing upwards. Close and lock the service door.

13.3.   *Changing paper, clearing jams in ticket printer*

To gain access to the ticket printer to charge paper or clear jams follow this steps.
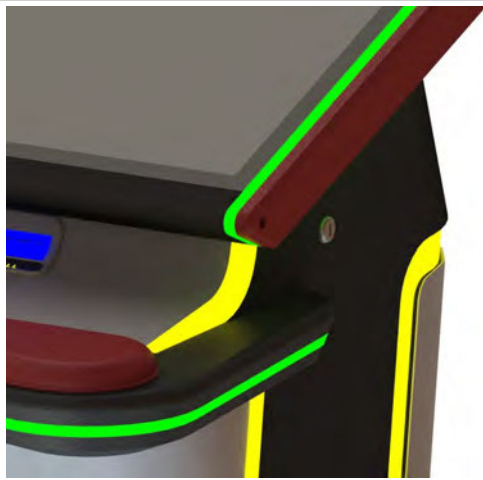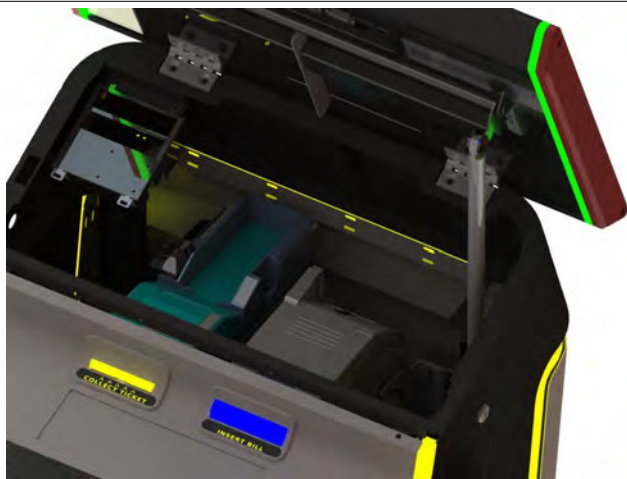
STEP 1 Locate the screen assembly lock on the right side of the machine and unlock it.	**STEP 2** Lift the screen assembly upward.
STEP 3 The ticket printer is located just next to the bill acceptor.	

14. ADVANCED PROCEDURES

In this chapter you will find advanced procedures that require a qualified technician to be performed such as electrical components replacements, etc.

⚠️ Device should be unplugged from supply, UPS turned off and rotating parts stopped before opening any doors and engaging in major service activities.

14.1. Replacing the supply cord

If the supply cord is showing damage in any way it should be immediately replaced (with the same type of approved supply cord). Replacement of electrical components should always be handled by the manufacturer, its service agents or equally qualified technicians. To do so follow this steps.

STEP 1 Shutdown the machine and disconnect it from the power grid. Shutdown the UPS and disconnect the UPS inputs and outputs.	**STEP 2** Open the screen assembly. See chapter 10.2 Opening the screen assembly, page 12.
	REASSEMBLY To reassemble follow the instructions in reverse order. Route the new cable to the main power switch and connect it. Close the screen assembly, lock it and power on the machine and UPS.
STEP 3 Locate the main power switch and unplug the supply cord.	

⚠️ Supply cord shall not be accessible to the user after installation of the machine or after replacing the supply cord.

15. WIRING

LUCKY 8
SERVICE MANUAL

Table of Contents

Illustration Index

1. DESCRIPTION OF THE MACHINE

The KGM Gaming LUCKY 8 machine is completely automated, computer controlled gaming machine. We designed it with player in mind, but in addition to being player friendly it offers best possible overview of the course of the game. Players pay credits in cash or voucher at the machine's own bill acceptors, or pay cash to supervising personnel.

The KGM Gaming LUCKY 8 utilizes a single computer to control all consoles, bill acceptors and mechanics. Such system is less likely to malfunction or fail due to communication breakdown between separate controlling stations. All mechanical and electronic parts that are built into each machine are individually tested by our specialists prior to their assembly. Measuring mechanism and counters meet or exceed European standards.

Dependable proprietary software is run in Windows Embedded in order to facilitate easiest software upgradability and adding special features such like:
 • on line system
 • connecting to an external computer and supervising it
 • coupling of more machines into one system
 • simplified systematical data overview of the current situation and game history

2. TECHNICAL DATA

Model:	LUCKY 8
Manufacturer:	KGM Gaming, 4250 Wissahickon Ave, Philadelphia, PA 19129
Power consumption:	1100 W
Voltage:	AC 110 V ± 10 %, 60 Hz
Operating temperature:	50 °F - 104 °F
Operating humidity:	10 % - 90 % (RH, non-condensation)
Width:	93 11/16"
Height:	36 5/8" (89 3/8" with signage)
Length:	93 11/16"
Weight:	1985 lbs
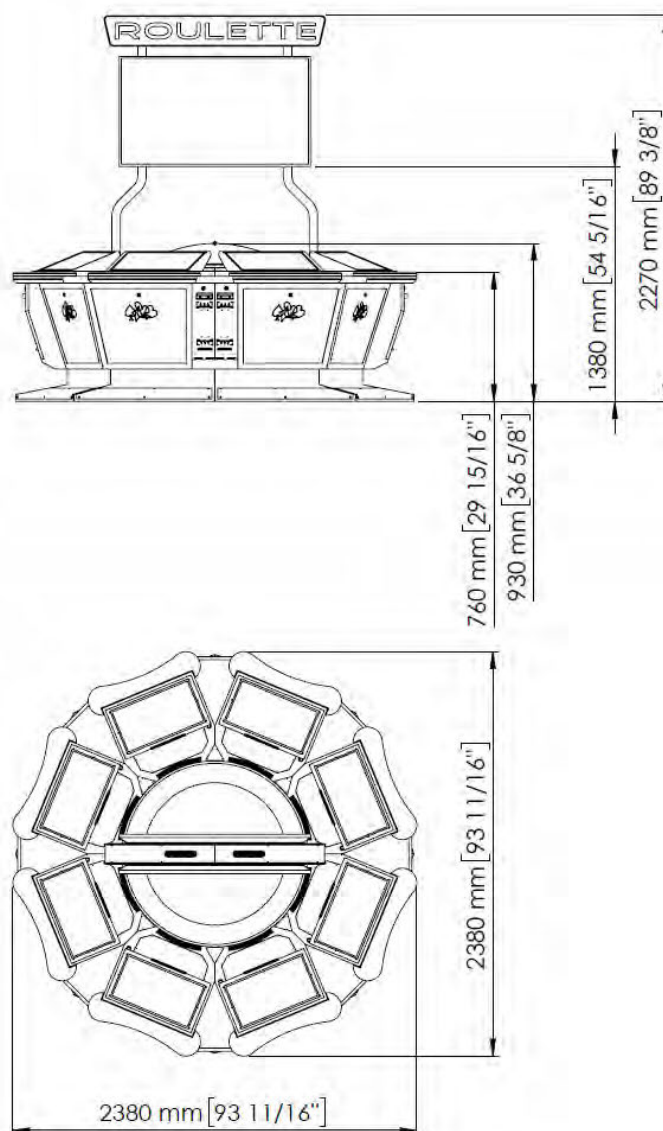
Illustration 1: Dimensions LUCKY 8

3. DISCLAIMERS

Warning!

The KGM Gaming LUCKY 8 manual is intended to provide QUALIFIED TECHNICAL PERSONNEL ONLY with the information necessary to routinely maintain, service, and repair of the KGM Gaming cabinet and components. To avoid personal injury or damage the equipment, do not perform any serving other than that contained in this manual.

Note!

Information in this document is subject to change without notice and does not represent a commitment on the part of KGM Gaming. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or physical, including photocopying and recording, for any purpose other than the purchasers use without written consent of KGM Gaming.

4. REPORT FOR SAFETY AT WORK

In accordance to the act on Safety at Work safety at work is assured where workers implement safety measures, comply to norms, standards and technical regulations and with adequate care, adequate specialist and work training apply the prescribed safety devices and appliances. The device, made in accordance to valid standards and norms, must be fitted with instructions for safe work, testing and maintenance.

Intended use
The gaming machine – KGM Gaming LUCKY 8 is used for entertainment in entertainment establishments and gaming establishments.

Description
The gaming machine – KGM Gaming LUCKY 8 is comprised of:
- a housing
- playing position with touch screen LCD monitors
- computer system for managing the machine
- electrical installation with control system

The gaming machine LUCKY 8 is equipped with a computer managed control system that completely manages the machine independent of the players. The system is completely closed within the device's housing. The machine runs for so long as it is not stopped with the main switch.

Dangers and injuries possible in running the device:
- The device is not firmly fixed.
- The device is not installed in the correct position.
- Danger of falling.
- Danger from electric current.
- Unintentional or automatic switching on.

Measures for preventing dangers and injuries when the machine is running:
- It is necessary to firmly fix the device to a concrete floor with anchor screws such
- that the device cannot overturn or move during use.
- The device must be installed such that sufficient space is allowed for players to move about and safe passage past the device must be assured.
- The floor around the device must always be kept clean and not slippery such that it is not possible for a user of the device to fall on wet or slippery floor.
- Electrical connections can only be made by service staff authorized by the manufacturer or specialist trained persons according to the enclosed diagram.
- The on/off switch must be protected against unintended switching on.

5. GENERAL CONDITIONS FOR USE

Device conditions and documentation
The device must be faultless and with all necessary technical documentation. It must always be in a faultless state that enables safe use. In accordance with legislation on safety at work, the device must be periodically inspected for possible damage or non proper functionality. Possible damaged parts can be considered dangerous for players and must be immediately replaced with new one. A record of inspections should be kept in supervisors office.

The device supervisor must:
• have adequate specialist education for this work
• must be aware of safety at work with means for work and have passed an examination in knowledge of safety at work
• he must be given a copy of instructions for safe work
• he must have adequate health for administering the device (medical certificate)
• new personnel and workers not trained for safe work on the device are forbidden such work
• the work on the device AT OWN RISK is forbidden
• he must have adequate protective clothing and equipment for personal safety at work

Dangers in administration
• danger of falling
• danger of electric current shock

6. ELECTRICAL CONNECTION

KGM Gaming LUCKY 8 gaming machine must be properly connected to a grounded wall socket to supply voltage with cord and power connector provided by KGM Gaming or equivalent power connector with a ground wire.

During the installation of LUCKY 8 the power cord must be routed in a way that is not accessible to the user of the machine. Before the power cord is connected to supply voltage, cord must be inspected for possible damage. Damaged cord can cause electrical shock or improper functioning of the gaming machine.

7. MAINTENANCE PROGRAM

⚠️ **Cleaning must only be preformed with the Main Power Switch turned OFF.**

It is suggested that a regular cleaning schedule be maintained for the following parts of the machine. In any case, for cleaning do not use:
- Wire or nylon wool scouring brooms
- Furniture polishes
- Alcohol based polishes
- Powder or liquid abrasive cleaners
- Bleach or strong detergents

Outside Surfaces
All outside surfaces should be inspected and if necessary cleaned every 90 days, using mild detergents and damp cloth.

Domed Wheel Cover
It is suggested that the Domed Wheel Cover be cleaned every 90 days. Careful consideration should be taken not to scratch the surface. Both inside and outside surfaces should be cleaned.

Ball
The ball should be cleaned or replaced every 90 days. Before replacing the ball inspect the new ball for defects. If a defect is noticed replace the ball. Never use a ball with a defect! Most balls can be recycled by the manufacturer. Please do not discard dirty or defective balls. Return the balls to your KGM Gaming representative.

Illustration 2: Damaged ball on right side

Inside of Wheel

The inside of the wheel should be thoroughly cleaned every 90 days. Clean the entire inside of the wheel, all metal and wood surfaces. Careful consideration should be taken for cleaning each pocket (both bottom and side walls) as well as the outside edge of the wheel where most of the dirt will collect.

Air Filter

The Air Filter located under the Blower Fan should be replaced every 90 days or more often if the machine is located in a dusty environment.

Please contact your KGM Gaming representative for recommended cleaning solutions.

8. PREVENTIVE ACTIONS

All of the computers in KGM Gaming LUCKY 8 machine must be preventive restarted at least every 90 days. This is due to proper functioning of the machine.

KGM Gaming recommends replacing all data storage devices in LUCKY 8 every 5 years to ensure smooth operation over longer periods of time.

9. DESCRIPTION OF MAIN PARTS

Main parts can be divided into two groups, first – playing terminal components group and second – wheel components.

9.1. Playing terminal components description

PLAYBOARD COMPUTERS
As playing terminal computer or main control computer on wheel one of following computer configurations can be used:

PLAYBOARD COMPUTER SBC84831
Computer specifications:
- Processor: Intel® Atom™ processor N270 1.6 GHz onboard with FSB 533 MHz
- Chipset: Intel® 945GSE + ICH7M
- System Memory: 1 x 200-pin SO-DIMM supports DDR2-400/533 max. up to 2GB
- BIOS: AMI
- Standard I/O:
- 6 x RS-232; with +5V/+12V powered
- 4 x USB 2.0
- 2 x SATA-150
- 1 x PS/2 keyboard and mouse
- Ethernet: 2 ports as 10/100/1000Mbps support Wake-on-LAN, RPL/PXE Boot ROM with Realtek RTL8111B
- Digital I/O: 3 channels IN and 5 channels OUT
- Solid State Disk Interface: One CompactFlash Type II Socket
- Audio: AC'97 Codec audio as MIC-in/Line-in/Line-out/speaker-out with Realtek ALC203

PLAYBOARD COMPUTER MANO861
with Intel i3 processor
Computer specifications:
- LGA1155 socket 3rd Generation Intel®
- Core™ i7/ i5/ i3/, Celeron®, processors
- Intel® H61 chipset
- 2 DDR3-1066/1333 MHz max. up to 4 GB
- 1 PCIe x4 supported
- 3 SATA-300 supported
- 6 USB 2.0 supported
- 6 COM ports supported
- Dual view display, Display: VGA/DVI-D/LVDS

PLAYBOARD COMPUTER GMB820
with Intel i3 processor
Computer specifications:
- 6/7th Generation Intel® Core™ i7/i5/i3, Intel® Pentium® processors and Intel® Celeron® processors
- 2 x DDR4 U-DIMM up to 2133 MHz, max. up to 32GB
- 3 x USB 3.0
- 6 x USB 2.0
- 2 x RS-232 DB9
- 4 x RS-232
- 2 x DP++
- 1 x DVI-D

PLAYBOARD COMPUTER GMB811
with Intel i3 processor
Computer specifications:
- CPU: Socket LGA 1150 4th Generation Intel® Core™ i7/i5/i3 and Celeron® processor up to TDP 54W (65W option)
- System Memory: DDR3/L 1333/1600 MHz, max. up to 16 GB, 2 x 240-pin Long-DIMM
- Chipset: Intel® H81 PCH
- BIOS: AMI -uEFI BIOS
- Expansion Interface: 1 x PCIe x16 slot, 1 x Full-Size Mini-PCIe (mSATA option)
- USB: 4 x USB 2.0 in rear I/O, 4 x USB 2.0 internal header, 2 x USB 3.0 in rear I/O
- Serial: 4 x simple RS-232 (Tx/Rx) via pin header, 1 x full RS-232 via pin header, 1 x RS-232/422/485 via pin header
- SATA: 2 x SATA III connector (SATADOM supported)
- Audio: Stereo 6W + 6W audio amplifier, 5.1 channel line-out with stacked 3.5 mm jack or HD, Audio as Mic-in/Line-out
- Ethernet: 2 x Gigabit Ethernet ports
- Security: TPM 1.2

POWER SUPPLY

Supplies power to complete machine.
- POWER SUPPLY BEA-740 450W 24V
- POWER SUPPLY BEA-740-B1 450W 24V (Alternative)
- POWER SUPPLY BAM 450W 5V,12V,24VDC (Alternative)

MONITOR

Touchscreen display is used to show the game to the player.
- MONITOR 21.5" FULL HD BESTECH
- MONITOR 21.5" FULL HD ALPHADISPLAY (Alternative)
- MONITOR 21.5" FULL HD KORTEK (Alternative)

BILL ACCEPTOR

Accepts bills or vouchers and stakes them in the stacker box.
- BILL ACCEPTOR MEI SCN8347(RS232)
- BILL ACCEPTOR JCM UBA-10-SS (RS232) (Alternative)
- BILL ACCEPTOR JCM IVIZION (RS232) (Alternative)

PRINTER

Prints vouchers or receipts.
- PRINTER FUTURE LOGIC GEN2 UNIVERSAL
- PRINTER FUTURE LOGIC GEN3 EVOLUTION (Alternative)
- PRINTER ITHACA EPIC 950L (Alternative)

SWITCH

Connects all of the playing terminals with the wheel.
- SWITCH 10/100, 16 PORT
- SWITCH 10/100/1000, 16 PORT (Alternative)

9.2. *Wheel components description*

MAIN CONTROL COMPUTER
For the main control computer on wheel one the following computers can be used:
- COMPUTER SBC84831
- COMPUTER MANO861 (with Intel i3 processor)
- COMPUTER MB-8302A (with Intel i3 processor)
- COMPUTER GMB811 (with Intel i3 processor)

More detailed description of each one is available in the previous chapter (Playing terminal components description – Playboard computer).

CONTROL BOARD
Co-ordinates orders from/to all components.
- CONTROL BOARD 24V

MOTOR
Spins the wheel.
- DISC MOTOR 48V WITH HOLDER

Lifts the center of the wheel.
- LIFTING MOTOR 12V

Lifts the cover of the wheel (up/down).
- COVER LIFTING MOTOR 24V

BLOWER
Spins the ball in wheel:
- BLOWER 24V

SENSORS
Sensors detects ball positions in different game phases.
- WHEEL RIM OPTICAL SENSOR
- INDIVIDUAL WHEEL POCKET SENSORS
- SENSOR FOR EJECT POSITION

UPS
Ensures smooth operation during power surges and provides a clean power source.

9.3. Optional signage components description

WALL DISPLAY CONTROL UNIT
For the wall display control unit the following computer configuration is used:
- **SUPERMICRO CSE-101i + HDMI GRABBER VDB-500 N1**
  - Single socket H3 (LGA 1150) supports
  - Intel® 4th gen. Core i7/i5/i3, Pentium, Celeron processors
  - Intel® H81 Express Chipset
  - Up to 16GB DDR3 non-ECC 1600MHz SODIMM in 2 sockets
  - Intel Processor Graphics with Display Port, HDMI and DVI-I
  - Dual Gigabit Ethernet LAN ports
  - 2x SATA3 (6Gbps), 2x SATA2
  - 1x PCI-E 2.0 x16 and 1x Mini-PCIe w/ mSATA support
  - 2x USB 3.0 (rear), 5x USB 2.0 (2 rear, 2 headers, 1 type A)
  - HD Audio 7.1 channel
  - 4-pin 12 DC or ATX Power source
  - Audio, 5 COM ports, 1 w/ RS422/485
- **GMB820 BASED COMPUTER**
  - 6/7th Generation Intel® Core™ i7/i5/i3, Intel® Pentium® processors and Intel® Celeron® processors
  - 2 x DDR4 U-DIMM up to 2133 MHz, max. up to 32GB
  - 3 x USB 3.0
  - 6 x USB 2.0
  - 2 x RS-232 DB9
  - 4 x RS-232
  - 2 x DP++
  - 1 x DVI-D

MONITOR
The displays used are as it follows:
- MONITOR 43" FULL HD VIEWSONIC
- MONITOR 46" FULL HD VIEWSONIC
- MONITOR 48' FULL HD VIEWSONIC or equivalent
- MONITOR 50" FULL HD VIEWSONIC or equivalent

HDMI SPLITTER
Splits the wall display control units video signal to both monitor on signage:
- HDMI SPLITTER 1/4

10. COMPONENTS OVERVIEW

In this chapter general components on the LUCKY 8 machines will be presented.

10.1.   Components overview for playing terminals

Each playing terminal is equipped with the following components.

Illustration 3: LUCKY 8 components

1. Wheel
2. Player tracking (optional)
3. Touchscreen display

4. Bill acceptor
5. Ticket printer

10.2.   Number wheel

The upper part of the wheel consists of the following parts.

Illustration 4: Number wheel components

1. Numerical disc   3. Wood stator
2. Illuminated cross   4. Cover switch

10.3.   Wheel

The wheel is the main part of the machine. It contains number disc, ball blowers, main computer and lifting motors.
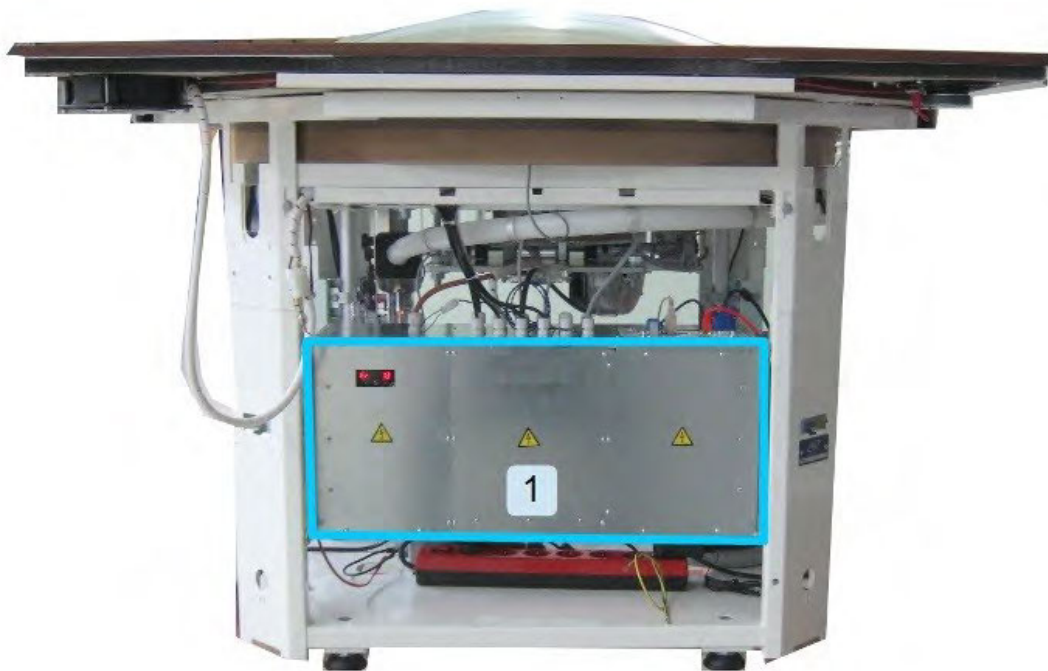
Illustration 5: Wheel - view A

1. Control unit
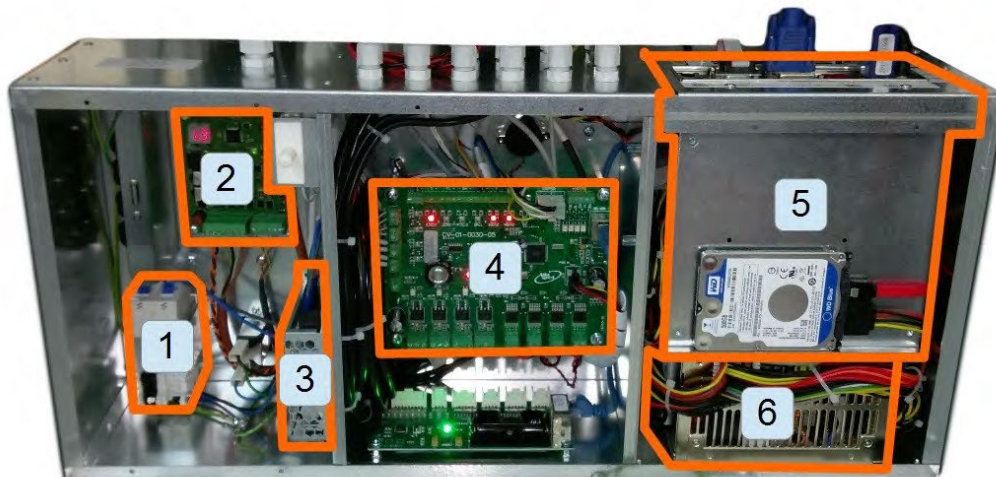
1. Circuit breakers
2. DC motor drive
3. 24V power supply
4. Control board
5. Main control computer
6. Power supply
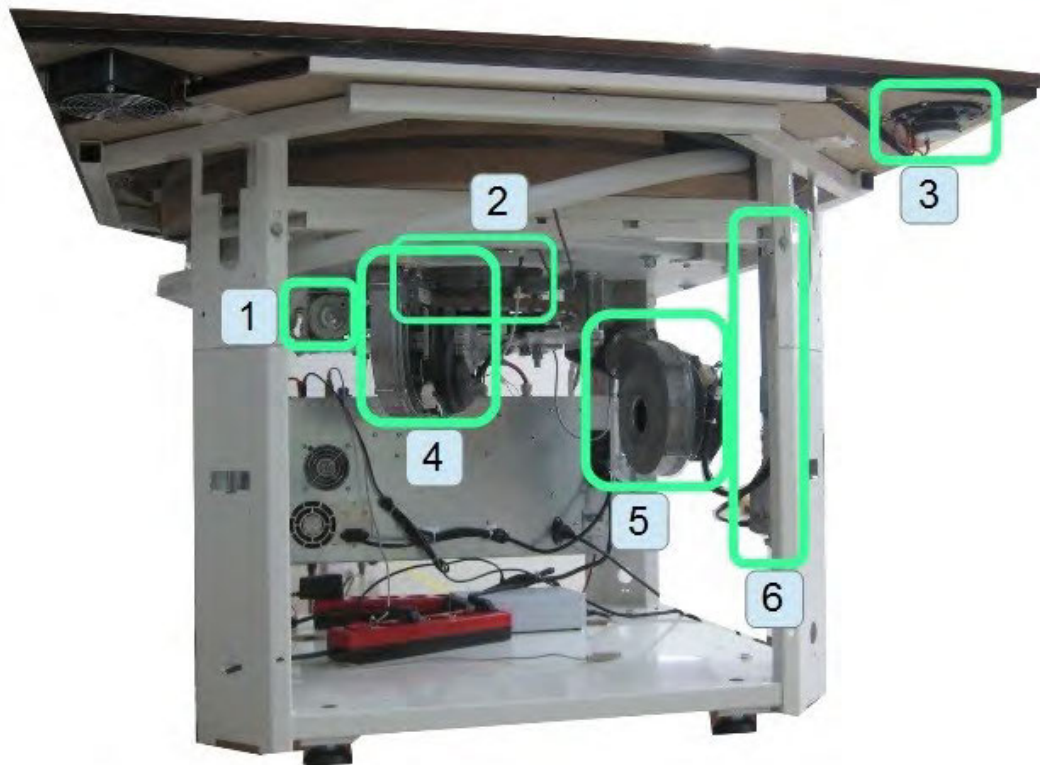
Illustration 6: Wheel - view B

1. Lifting motor for the wheel disc
2. Spinning motor for the wheel disc
3. Speakers (optional)
4. Blower for stopping the ball (optional)
5. Blower for ejecting the ball
6. Lifting motors for the cover

11. BASIC PROCEDURES

In this chapter you can find basic procedures like starting the machine, cashbox handling, changing paper, clearing jams in ticket printer, etc..

11.1.   Starting the machine

To power up the machine follow this steps:

STEP 1

Make sure the machine is properly connected to a wall socket and power cord is not damaged in any way.

STEP 2

Open the service door of the playing terminal 1 and locate with the power switch inside. You can identify playing terminal 1 by the big serial plate.

STEP 3

Put the main switch from position "O" to position "I".

Machine will start.

If the machine doesn't start proceed with additional step 4 (UPS is turned off).

ADDITIONAL STEP 4

Locate the UPS and switch it on.

Machine will start.

11.2.   *Accessing ticket printer*

To gain access to, change paper or clear jams in ticket printer follow this instructions:
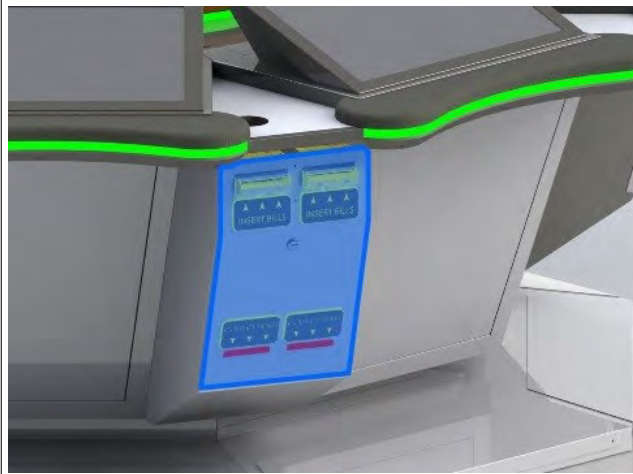
STEP 1 Unlock and open the ticker printer / bill acceptor door.	**STEP 2** Pull the ticket printer out.

REASSEMBLY

To reassemble follow instructions in reverse order. Push the printer to its original position until it locks in place and close the ticker printer / bill acceptor door.

11.3. Accessing bill acceptor

The bill acceptor for each playing terminal is located on the side. To reach the bill acceptor or to change the stacker follow this steps:
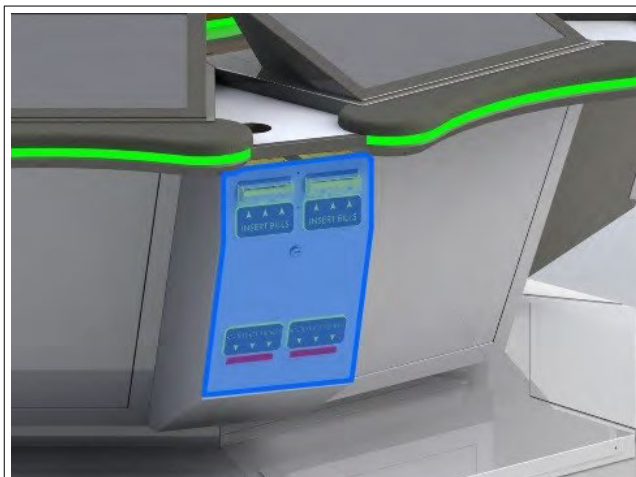
STEP 1 Locate the bill acceptor / ticker printer door, unlock and remove it.	**STEP 2** Stacker can now be removed by grabbing the handle and pulling it out of the machine.
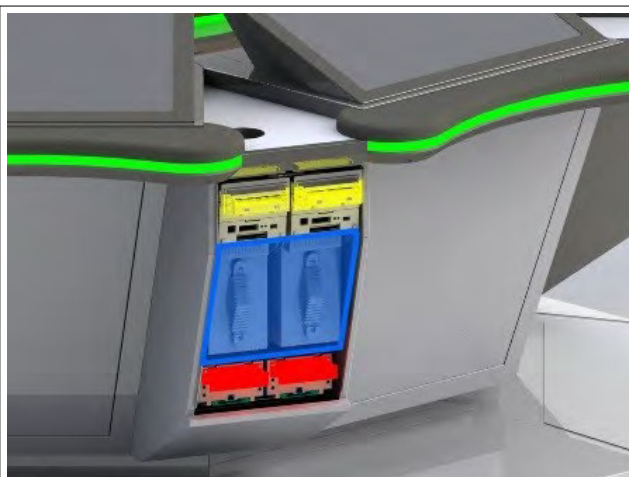
REASSEMBLY

To reassemble follow instructions in reverse order. Insert the stacker and push it in place until it locks. Follow by closing the bill acceptor / ticker printer door.

12. ADVANCED PROCEDURES
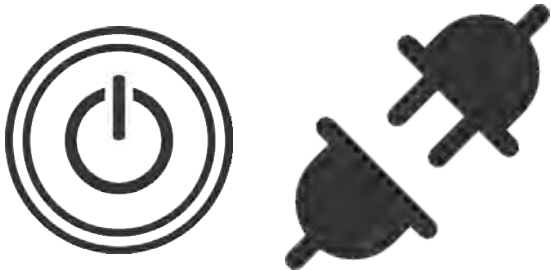
In this chapter you will find advanced procedures that require a qualified technician to be performed such as electrical components replacements, etc.

⚠️ Device should be unplugged from supply, UPS turned off and rotating parts stopped before opening any doors and engaging in major service activities.

12.1. Replacing the supply cord

If the supply cord is showing damage in any way it should be immediately replaced (with the same type of approved supply cord). Replacement of electrical components should always be handled by the manufacturer, its service agents or equally qualified technicians. To replace the supply cord follow this steps.

STEP 1 Shutdown the machine and disconnect it from the power grid. Shutdown the UPS and disconnect the UPS inputs and outputs.	**STEP 2** Open the service door of the playing terminal 1 and locate with the power switch inside. You can identify playing terminal 1 by the big serial plate.

STEP 3	**STEP 4**
Locate the main power switch and remove the front cover.	Disconnect the wires of the supply cord from the terminals. The supply cord can now be removed.

REASSEMBLY

To reassemble follow the instructions in reverse order. Route the new cable to the main power switch and reconnect the power wires. Close the main power switch front cover. Close the service door, lock it, reconnect the UPS inputs and outputs. Power on the machine and UPS.

⚠️ Supply cord shall not be accessible to the user after installation of the machine or after replacing the supply cord.

12.2. Replacing the fuses

The LUCKY 8 has two fuses that double as a main power switch. Both of them are automatic fuses so they can be turned back on if they disengage. The fuses can only be replaced with the same type by the manufacturer, its service agents or equally qualified technicians. In order to replace the fuses follow this steps.

STEP 1 Shutdown the machine and disconnect it from the power grid. Shutdown the UPS and disconnect the UPS inputs and outputs.	**STEP 2** Open the service door of the playing terminal 1 and locate with the power switch inside. You can identify playing terminal 1 by the big serial plate.
STEP 3 Locate the main power switch and remove the front cover.	**STEP 4** Disconnect the wires from the fuses terminals. The fuses can now be removed.

REASSEMBLY

To reassemble follow the instructions in reverse order. Mount the new fuses and reconnect the power wires. Close the main power switch front cover. Close the service door, lock it, reconnect the UPS inputs and outputs. Power on the machine and UPS.

13. WIRING PLAYING TERMINAL
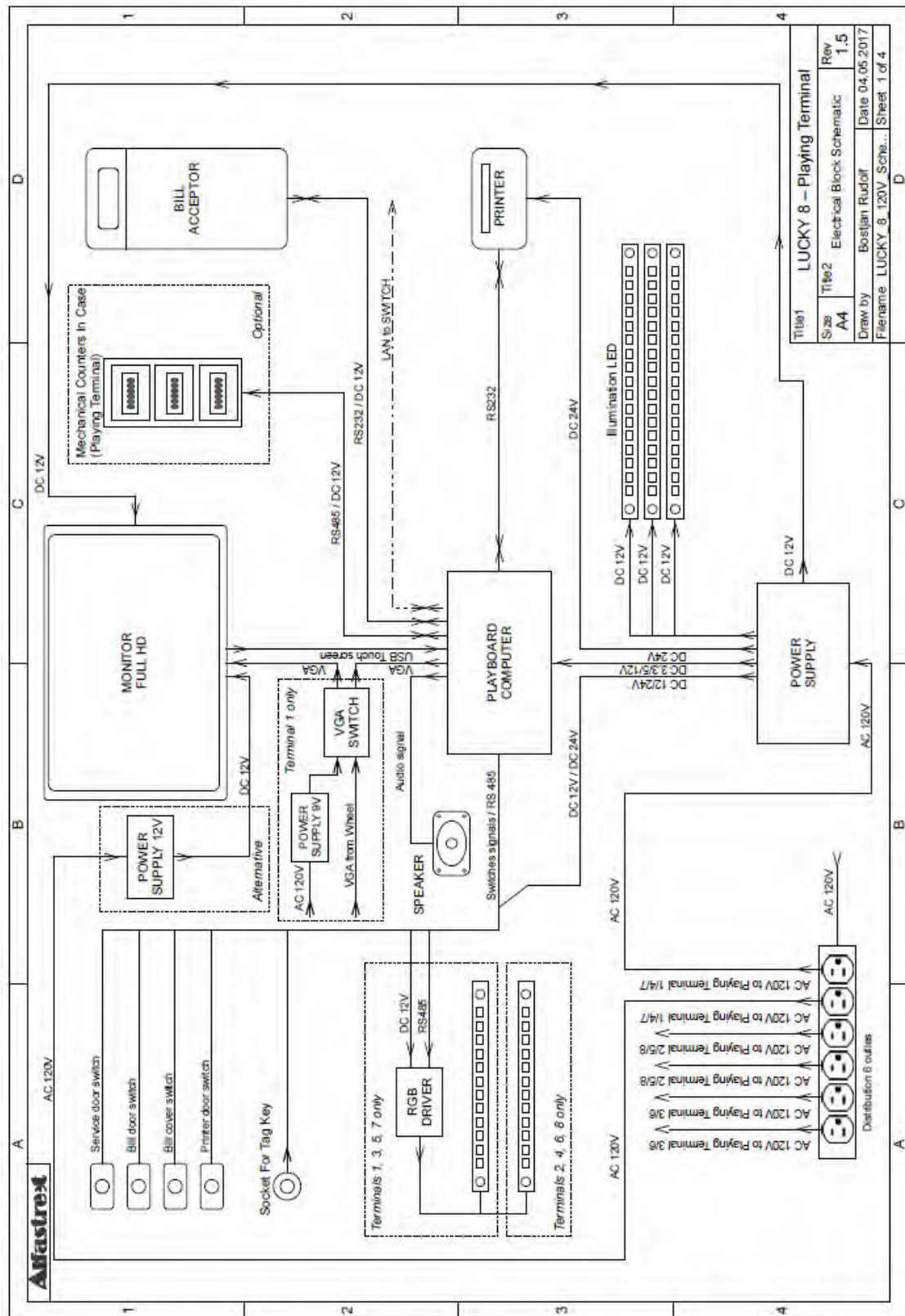
Illustration 7: Wiring - Playing Terminal

14. WIRING WHEEL
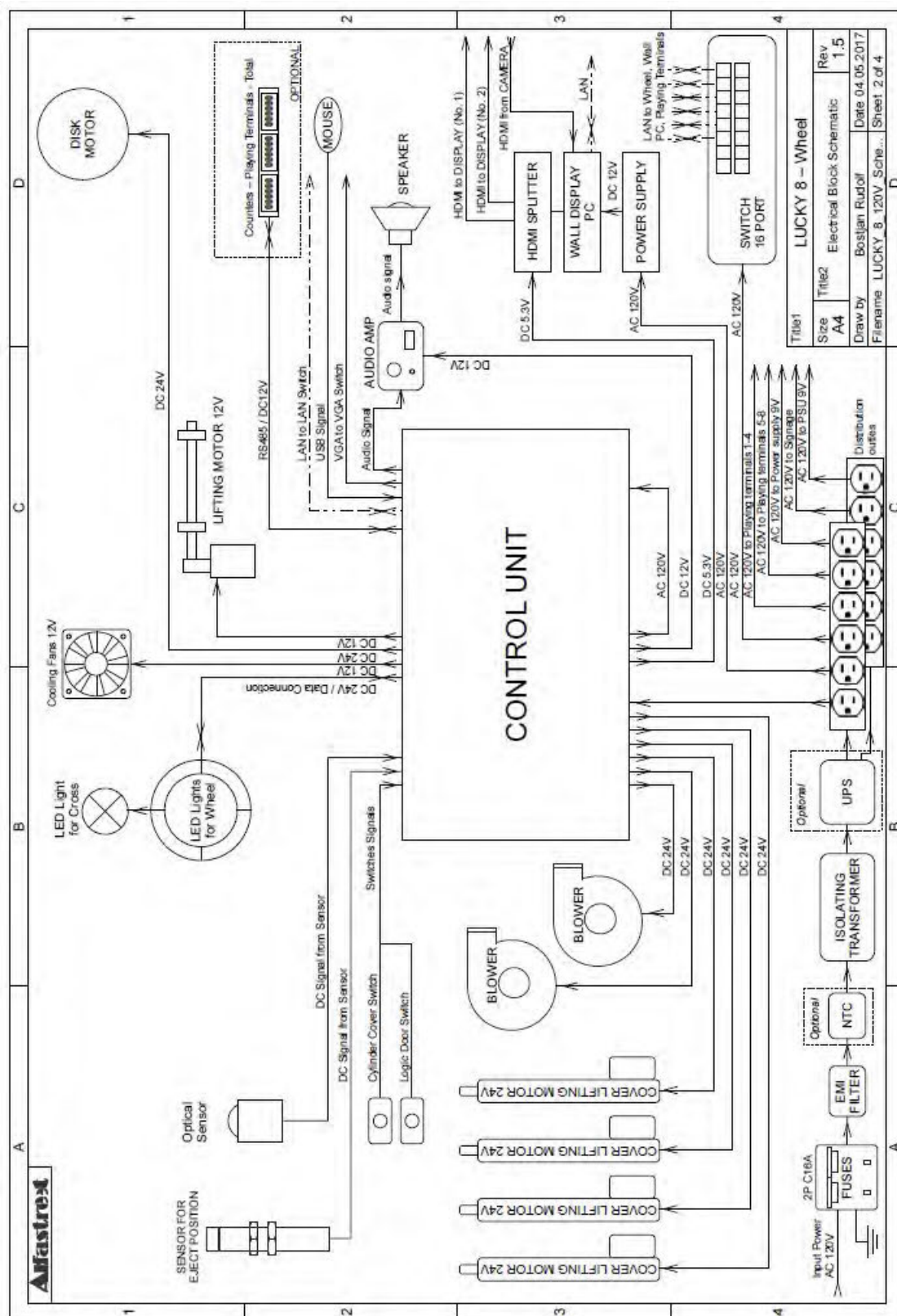
Illustration 8: Wiring - Wheel
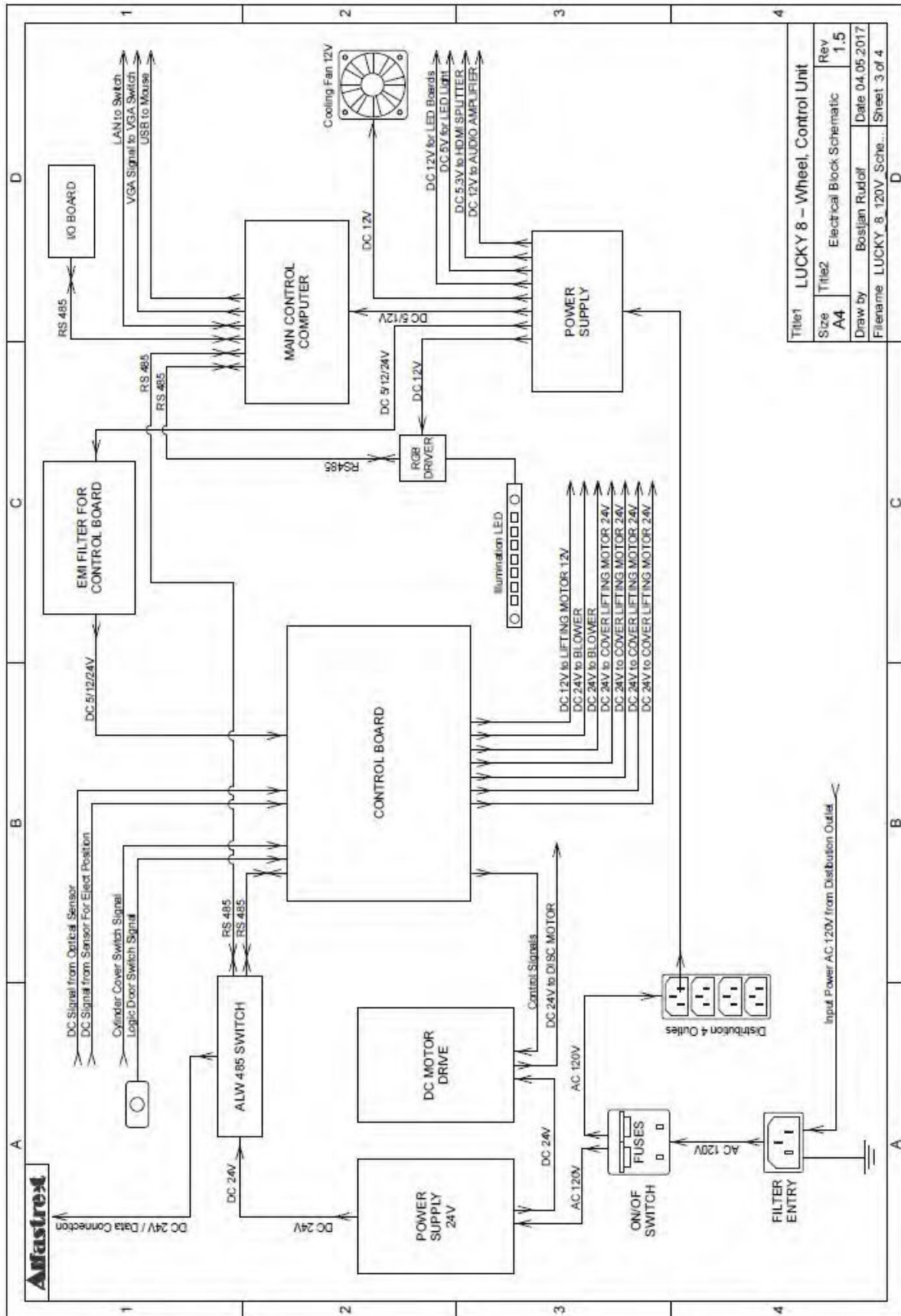
Illustration 9: Wiring - Wheel, Control Unit
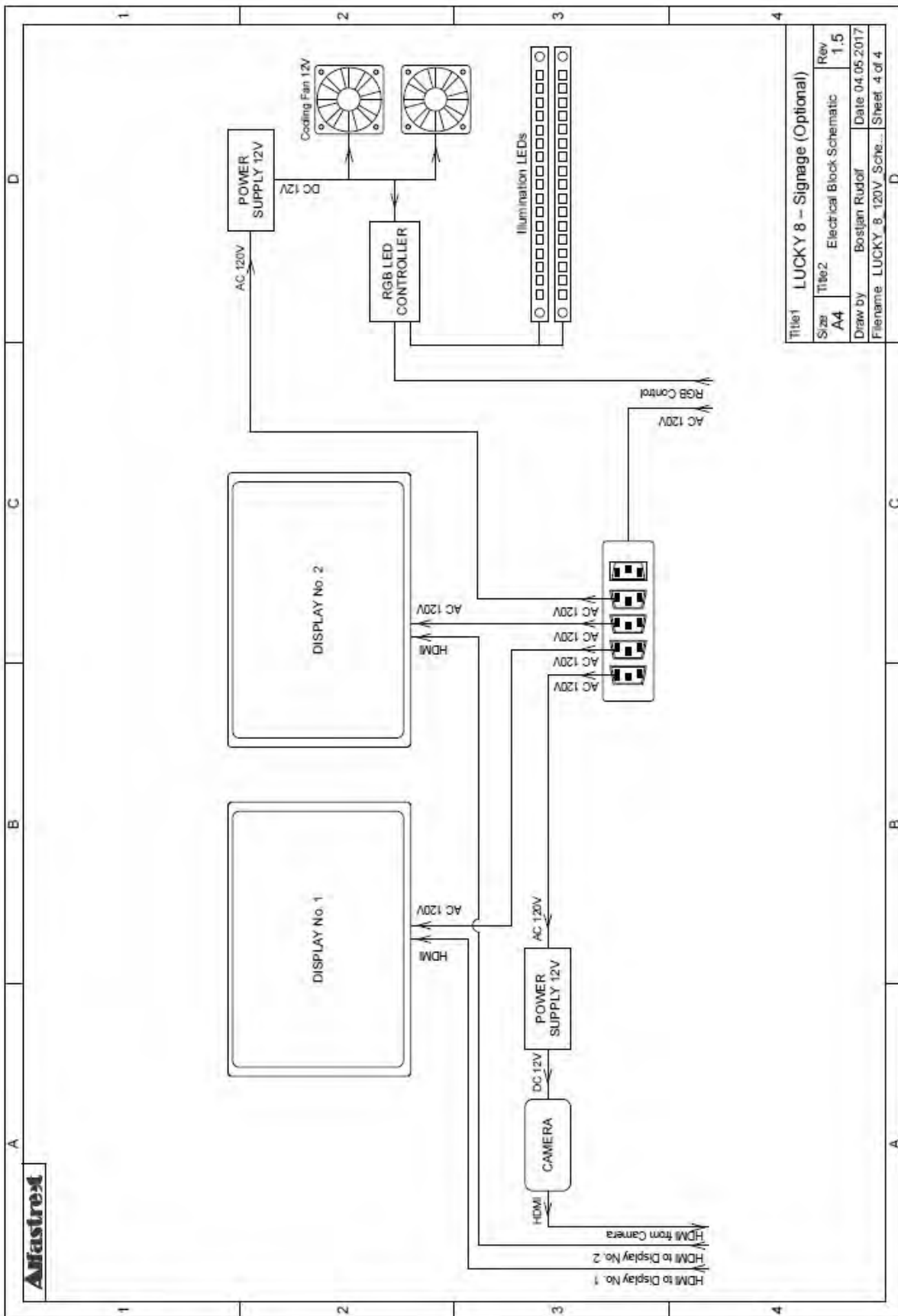
Illustration 10: Wiring - Signage (optional)

R8M3-23

SERVICE MANUAL

Table of Contents

Illustration Index

1. DESCRIPTION OF THE MACHINE

The KGM Gaming R8M3-23 is completely automated, computer controlled gaming machine. We designed it with player in mind, but in addition to being player friendly it offers best possible overview of the course of the game. Players pay credits in cash or voucher at the machine's own bill acceptors, or pay cash to supervising personnel.

The KGM Gaming R8M3-23 utilizes a single computer to control all consoles, bill acceptors and mechanics. Such system is less likely to malfunction or fail due to communication breakdown between separate controlling stations. All mechanical and electronic parts that are built into each machine are individually tested by our specialists prior to their assembly. Measuring mechanism and counters meet or exceed European standards.

Dependable proprietary software is run in Windows Embedded in order to facilitate easiest software upgradability and adding special features such like:
   • on line system
   • connecting to an external computer and supervising it
   • coupling of more machines into one system
   • simplified systematical data overview of the current situation and game history

The KGM Gaming R8M3-23 built-in high level security system will successfully defeat all attempts of unauthorized access, physical and digital. The machine is covered by our worldwide warranty and servicing policy.

2. TECHNICAL DATA

Model:	R8M3-23
Manufacturer:	KGM Gaming, 4250 Wissahickon Ave, Philadelphia, PA 19129
Power consumption:	1100 W
Voltage:	AC 110V +/-10%, 60Hz
Operating temperature:	50 °F – 104 °F
Operating humidity:	10% - 90% non-condensation
Width:	102 3/4" (109 1/16" with keyboards)
Height:	33 7/16" (98 1/16" with signage)
Lenght:	102 3/4" (109 1/16" with keyboards)
Weight:	1985 lbs
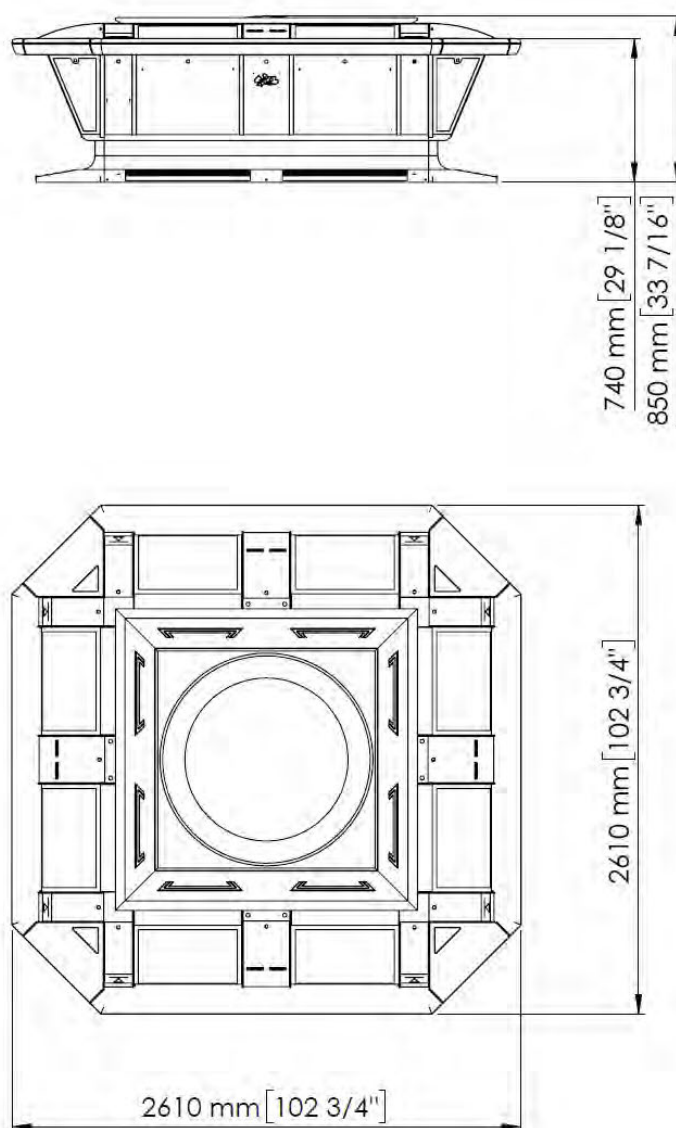
Illustration 1: Dimensions R8M3-23

Illustration 2: R8M3-23 configuration

Illustration 3: R8M3-23 configuration with keyboards

Illustration 4: R8M3-23 configuration with signage

Illustration 5: R8M3-23 configuration with keyboards and signage

3. DISCLAIMERS

Warning!
The KGM Gaming R8M3-23 manual is intended to provide QUALIFIED TECHNICAL PERSONNEL ONLY with the information necessary to routinely maintain, service, and repair of the KGM Gaming cabinet and components. To avoid personal injury or damage the equipment, do not perform any serving other than that contained in this manual.

Note!
Information in this document is subject to change without notice and does not represent a commitment on the part of KGM Gaming. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any purpose other than the purchaser's personnel use without written consent of KGM Gaming.

4. REPORT FOR SAFETY AT WORK

In accordance to the act on Safety at Work safety at work is assured where workers implement safety measures, comply to norms, standards and technical regulations and with adequate care, adequate specialist and work training apply the prescribed safety devices and appliances. The device, made in accordance to valid standards and norms, must be fitted with instructions for safe work, testing and maintenance.

Intended use

The gaming machine - KGM Gaming R8M3-23 is used as gaming machine or amusement machine in entertainment and gaming establishments.

Description

The gaming machine - KGM Gaming R8M3-23 is comprised of:
- a housing
- playing position with touch screen LCD monitors
- computer system for managing the machine
- electrical installation with control system

The gaming machine R8M3-23 is equipped with a computer managed control system that completely manages the machine independent of the players. The system is completely closed within the device's housing. The machine runs for so long as it is not stopped with the main switch.

Dangers and injuries possible in running the device:
- The device is not firmly fixed.
- The device is not installed in the correct position.
- Danger of falling.
- Danger from electric current.
- Unintentional or automatic switching on.

Measures for preventing dangers and injuries when the machine is running:
- It is necessary to firmly fix the device to a concrete floor with anchor screws such
- that the device cannot overturn or move during use.
- The device must be installed such that sufficient space is allowed for players to move about and safe passage past the device must be assured.
- The floor around the device must always be kept clean and not slippery such that it is not possible for a user of the device to fall on wet or slippery floor.
- Electrical connections can only be made by service staff authorized by the manufacturer or specialist trained persons according to the enclosed diagram.
- The on/off switch must be protected against unintended switching on.

5. GENERAL CONDITIONS FOR USE

Device conditions and documentation

The device must be faultless and with all necessary technical documentation. It must always be in a faultless state that enables safe use. In accordance with legislation on safety at work, the device must be periodically inspected for possible damage or non proper functionality. Possible damaged parts can be considered dangerous for players and must be immediately replaced with new one. A record of inspections should be kept in supervisors office.

The device supervisor must:
• have adequate specialist education for this work
• must be aware of safety at work with means for work and have passed an examination in knowledge of safety at work
• he must be given a copy of instructions for safe work
• he must have adequate health for administering the device (medical certificate)
• new personnel and workers not trained for safe work on the device are forbidden such work
• the work on the device AT OWN RISK is forbidden
• he must have adequate protective clothing and equipment for personal safety at work

Dangers in administration
• danger of falling
• danger of electric current shock

6. MAINTANACE PROGRAM

⚠️ **Cleaning must only be preformed with the Main Power Switch turned OFF.**

It is suggested that a regular cleaning schedule be maintained for the following parts of the machine. In any case, for cleaning do not use:

- Wire or nylon wool scouring brooms
- Furniture polishes
- Alcohol based polishes
- Powder or liquid abrasive cleaners
- Bleach or strong detergents

Outside Surfaces

All outside surfaces should be inspected and if necessary cleaned every 90 days, using mild detergents and damp cloth.

Domed Wheel Cover

It is suggested that the Domed Wheel Cover be cleaned every 90 days. Careful consideration should be taken not to scratch the surface. Both inside and outside surfaces should be cleaned.

Ball

The ball should be cleaned or replaced every 90 days. Before replacing the ball inspect the new ball for defects. If a defect is noticed replace the ball. Never use a ball with a defect! Most balls can be recycled by the manufacturer. Please do not discard dirty or defective balls. Return the balls to your KGM Gaming representative.

Illustration 6: Damaged ball on right side

Inside of Wheel

The inside of the wheel should be thoroughly cleaned every 90 days. Clean the entire inside of the wheel, all metal and wood surfaces. Careful consideration should be taken for cleaning each pocket (both bottom and side walls) as well as the outside edge of the wheel where most of the dirt will collect.

Air Filter

The Air Filter located under the Blower Fan should be replaced every 90 days or more often if the machine is located in a dusty environment.

Please contact your KGM Gaming representative for recommended cleaning solutions.

7. PREVENTIVE ACTIONS

The computer of KGM Gaming R8M3-23 machine must be preventive restarted at least every 90 days. This is due to proper functioning of the machine.

KGM Gaming recommends replacing all data storage devices in LUCKY 8 every 5 years to ensure smooth operation over longer periods of time.

8. DESCRIPTION OF MAIN PARTS

Main parts can be divided into three groups, first – playing terminal components group, second – wheel components and third – optional signage components.

8.1.   Playing terminal components description

PLAYBOARD COMPUTERS
As playing terminal computer or main control computer on wheel one of following computer configurations can be used:

PLAYBOARD COMPUTER SBC84831
Computer specifications:
- Processor: Intel® Atom™ processor N270 1.6 GHz onboard with FSB 533 MHz
- Chipset: Intel® 945GSE + ICH7M
- System Memory: 1 x 200-pin SO-DIMM supports DDR2-400/533 max. up to 2GB
- BIOS: AMI
- Standard I/O:
- 6 x RS-232; with +5V/+12V powered
- 4 x USB 2.0
- 2 x SATA-150
- 1 x PS/2 keyboard and mouse
- Ethernet: 2 ports as 10/100/1000Mbps support Wake-on-LAN, RPL/PXE Boot ROM with Realtek RTL8111B
- Digital I/O: 3 channels IN and 5 channels OUT
- Solid State Disk Interface: One CompactFlash Type II Socket
- Audio: AC'97 Codec audio as MIC-in/Line-in/Line-out/speaker-out with Realtek ALC203

PLAYBOARD COMPUTER MANO861
with Intel i3 processor
Computer specifications:
- LGA1155 socket 3rd Generation Intel®
- Core™ i7/ i5/ i3/, Celeron®, processors
- Intel® H61 chipset
- 2 DDR3-1066/1333 MHz max. up to 4 GB
- 1 PCIe x4 supported
- 3 SATA-300 supported
- 6 USB 2.0 supported
- 6 COM ports supported
- Dual view display, Display: VGA/DVI-D/LVDS

PLAYBOARD COMPUTER MB-8302A
with Intel i3 processor
Computer specifications:
- Intel 4th generation Intel® Core™ LGA 1150 Socket
- Intel® H81 Express chipset
- 2 x DDR3 1600 MHz / SODIMM up to 4 GB
- HDMI/VGA/DVI-D/24-bit Dual Channel LVDS
- 6 x COM, 8 x USB, LPC, SMBus
- 2 x SATA 6Gb/s 2x SATA 3Gb/s
- 2 x Intel® Giga LAN
- 1 x PCI-Express X16 slot , 1 x PCI-Express X1 slot
- SIM socket support

POWER SUPPLY
Supplies power to complete machine.
- POWER SUPPLY BEA-740 450W 24V
- POWER SUPPLY BEA-740-B1 450W 24V (Alternative)
- POWER SUPPLY BAM 450W 5V,12V,24VDC (alternative)

MONITOR
Touchscreen display is used to show the game to the player.
- MONITOR 23" FULL HD KORTEK
- MONITOR 23" FULL HD BESTECH (Alternative)

BILL ACCEPTOR
Accepts bills or vouchers and stakes them in the stacker box.
- BILL ACCEPTOR MEI SCN8347(RS232)
- BILL ACCEPTOR JCM UBA-10-SS (RS232) (Alternative)
- BILL ACCEPTOR JCM IVIZION (RS232) (Alternative)

PRINTER
Prints vouchers or receipts.
- PRINTER FUTURE LOGIC GEN2 UNIVERSAL
- PRINTER ITHACA EPIC 950L (Alternative)

SWITCH
Connects all of the playing terminals with the wheel.
- SWITCH 10/100, 16 PORT
- SWITCH 10/100/1000, 16 PORT (Alternative)

8.2.   *Wheel components description*

MAIN CONTROL COMPUTER
For the main control computer on wheel one the following computers can be used:
- PLAYBOARD COMPUTER SBC84831
- PLAYBOARD COMPUTER MANO861 (with Intel i3 processor)
- PLAYBOARD COMPUTER MB-8302A (with Intel i3 processor)

More detailed description of each one is available in the previous chapter.

CONTROL BOARD
Co-ordinates orders from/to all components.
- CONTROL BOARD 24V

MOTOR
Spins the wheel.
- DISC MOTOR 3X220V WITH HOLDER

Lifts the center of the wheel.
- LIFTING MOTOR 12V

Lifts the cover of the wheel (up/down).
- COVER LIFTING MOTOR 24V

BLOWER
Spins the ball in wheel:
- BLOWER 24V

8.3.   *Optional signage components description*

WALL DISPLAY CONTROL UNIT
For the wall display control unit the following computer configuration is used:
- **SUPERMICRO CSE-101i + HDMI GRABBER VDB-500 N1**
  - Single socket H3 (LGA 1150) supports
  - Intel® 4th gen. Core i7/i5/i3, Pentium, Celeron processors
  - Intel® H81 Express Chipset
  - Up to 16GB DDR3 non-ECC 1600MHz SODIMM in 2 sockets
  - Intel Processor Graphics with Display Port, HDMI and DVI-I
  - Dual Gigabit Ethernet LAN ports
  - 2x SATA3 (6Gbps), 2x SATA2
  - 1x PCI-E 2.0 x16 and 1x Mini-PCIe w/ mSATA support
  - 2x USB 3.0 (rear), 5x USB 2.0 (2 rear, 2 headers, 1 type A)
  - HD Audio 7.1 channel
  - 4-pin 12 DC or ATX Power source
  - Audio, 5 COM ports, 1 w/ RS422/485
- **GMB820 BASED COMPUTER**
  - 6/7th Generation Intel® Core™ i7/i5/i3, Intel® Pentium® processors and Intel® Celeron® processors
  - 2 x DDR4 U-DIMM up to 2133 MHz, max. up to 32GB
  - 3 x USB 3.0
  - 6 x USB 2.0
  - 2 x RS-232 DB9
  - 4 x RS-232
  - 2 x DP++
  - 1 x DVI-D

MONITOR
The displays used are as it follows:
- MONITOR 46" FULL HD VIEWSONIC or equivalent
- MONITOR 48' FULL HD VIEWSONIC or equivalent

MOTOR
Spins the rotating sign:
- SIGN SPINNING MOTOR

9. COMPONENTS OVERVIEW

In this chapter general components on the R8M3-23 machine will be presented.

9.1.   Components overview for playing terminals

Each playing terminal is equipped with the following components.

Illustration 7: R8M3-23 components

1. Tower/win light
2. Wheel
3. Ticket printer
4. Electronic key

5. Touchscreen display
6. Keyboard (optional)
7. Bill acceptor

9.2. Number wheel

The upper part of the wheel consists of the following parts.

Illustration 8: Number wheel components

1. Numerical disc
2. Illuminated cross
3. Wood stator

4. Cover switch
5. Sensor LED transmitter

9.3. Wheel

The wheel is the main part of the machine. It contains number disc, ball blowers, main computer and lifting motors.
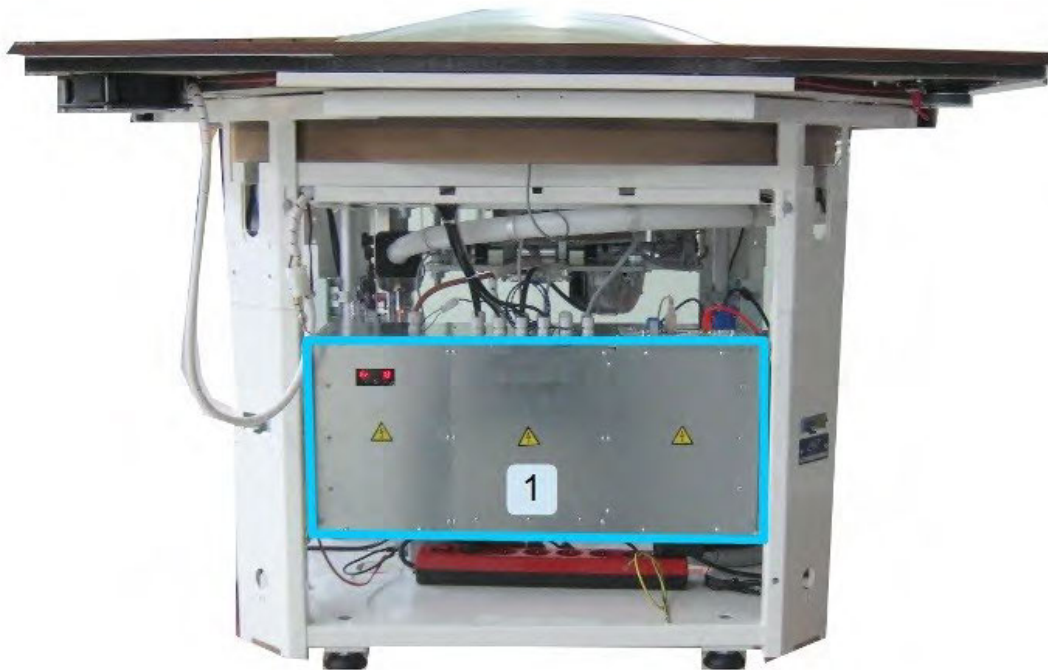
Illustration 9: Wheel - view A

1. Control unit
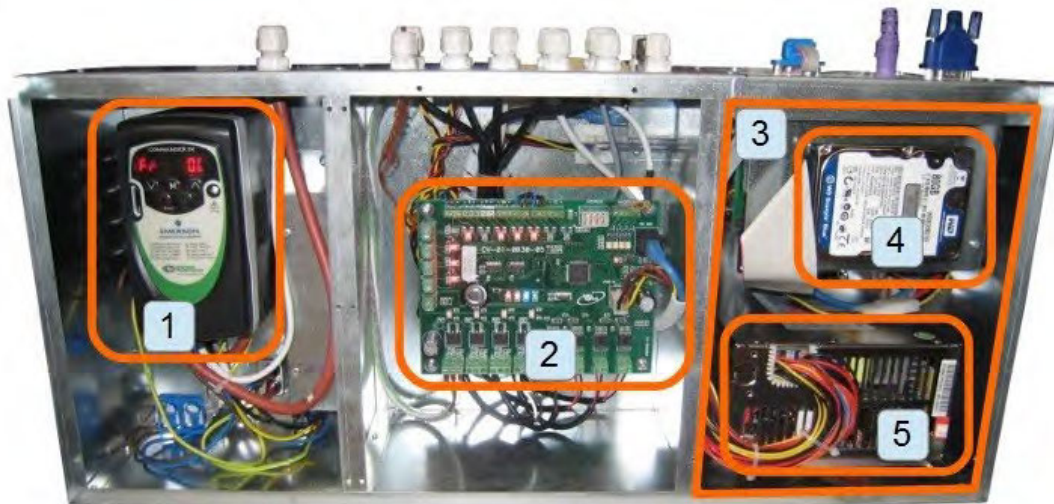
Illustration 10: Control unit

1. Dinverter
2. Control board
3. Control computer

4. Hard drive
5. Power supply
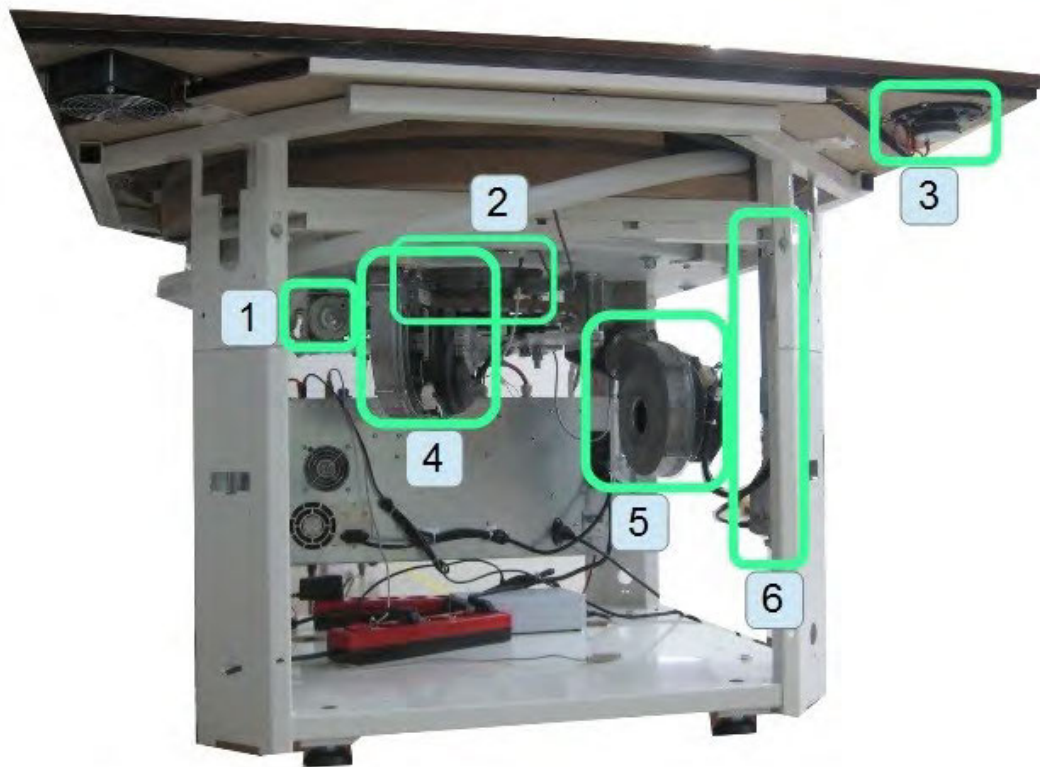
Illustration 11: Wheel - view B

1. Lifting motor for the wheel disc
2. Spinning motor for the wheel disc
3. Speakers (optional)
4. Blower for stopping the ball (optional)
5. Blower for ejecting the ball
6. Lifting motors for the cover

10.   BASIC PROCEDURES

In this chapter you can find basic procedures like starting the machine, cashbox handling, changing paper, clearing jams in ticket printer, etc..

10.1.   Starting the machine

To power up the machine follow this steps:

STEP 1 Make sure the machine is properly connected to a wall socket and power cord is not damaged in any way.	**STEP 2** Open the corner door with the power switch inside.
STEP 3 Put the main switch from position "O" to position "I" (main switch location visible on Illustration 5, page 14). **Machine will start.** *If the machine doesn't start proceed with additional step 4 (UPS is turned off).*	**ADDITIONAL STEP 4** Locate the UPS (location visible on Illustration 6, page 15) and switch it on. **Machine will start.**

10.2.   Accessing ticket printers

Ticket printers are located in center of each pair of playboards. Under one printer cover, printers for left and right playboards are located. To reach printers follow the provided steps:
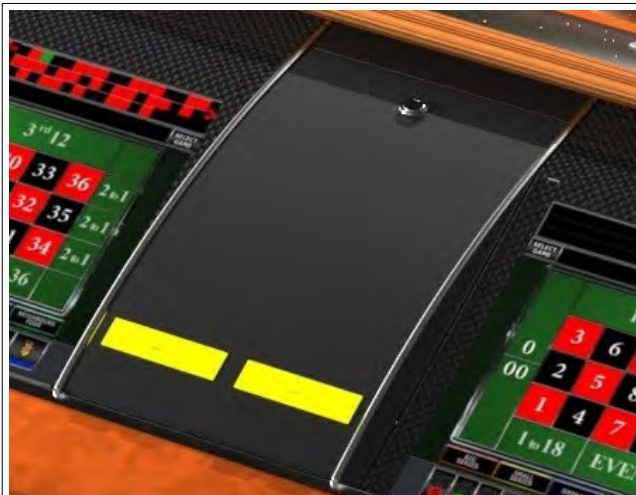
STEP 1
Locate and open the printer cover.

STEP 2
Pull the desired ticket printer towards yourself.
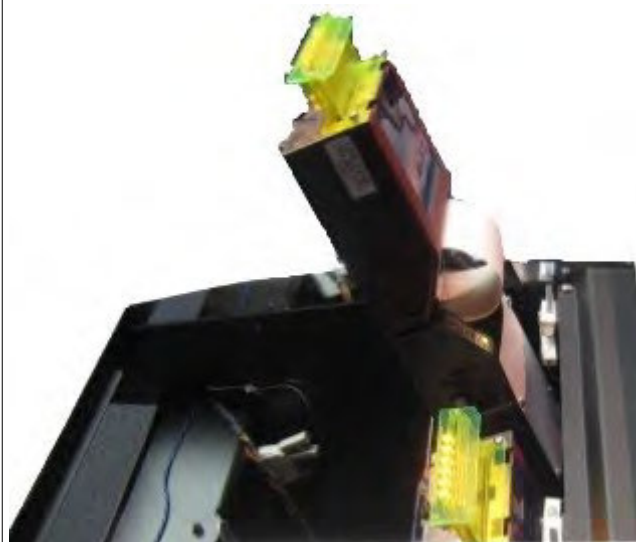
STEP 3
Clearing jams, replacing paper or other activities can now be done.

REASSEMBLY
To reassemble follow instructions in reverse order. Push the printer to its original position until it locks in place and close the ticket printer cover.

10.3.   Accessing bill acceptor

The bill acceptor for each playing terminal is located on the side of the screen. To reach the bill acceptor or to change the stacker follow this steps:

STEP 1 Locate the bill cover and remove it.	**STEP 2** Release the retention clip (red in color) by pushing it to the side and lift the bill acceptor assembly out of the machine.

REASSEMBLY

To reassemble follow instructions in reverse order. Push the bill acceptor assembly back into the machine until the retention clip engages. Follow by closing the bill cover.

11.   ADVANCED PROCEDURES
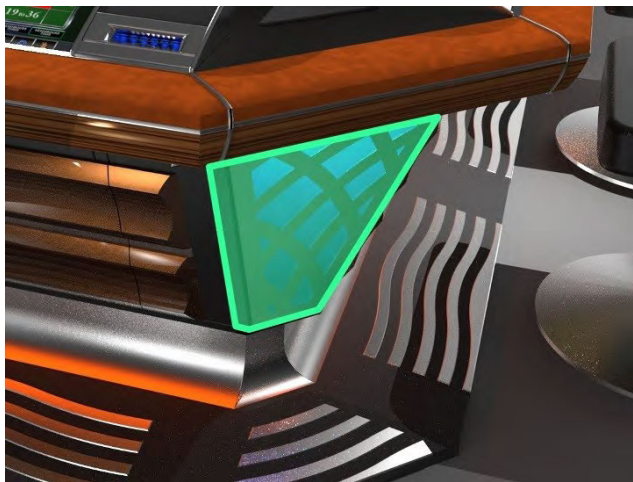
In this chapter you will find advanced procedures that require a qualified technician to be performed such as electrical components replacements, etc.

⚠️ Device should be unplugged from supply, UPS turned off and rotating parts stopped before opening any doors and engaging in major service activities.

11.1.   Replacing the supply cord

If the supply cord is showing damage in any way it should be immediately replaced (with the same type of approved supply cord). Replacement of electrical components should always be handled by the manufacturer, its service agents or equally qualified technicians. To do so follow this steps.

STEP 1 Shutdown the machine and disconnect it from the power grid. Shutdown the UPS and disconnect the UPS inputs and outputs.	**STEP 2** Locate, unlock and open the service door.

REASSEMBLY
To reassemble follow the instructions in reverse order. Route the new cable to the main power switch and connect it. Close the cover, secure it with two screws and power on the machine and UPS.

STEP 3
Locate the main power switch and remove the front cover. Disconnect the wires of the supply cord from the terminals. The supply cord can now be removed.

⚠️ Supply cord shall not be accessible to the user after installation of the machine or after replacing the supply cord.

12. WIRING PLAYING TERMINAL
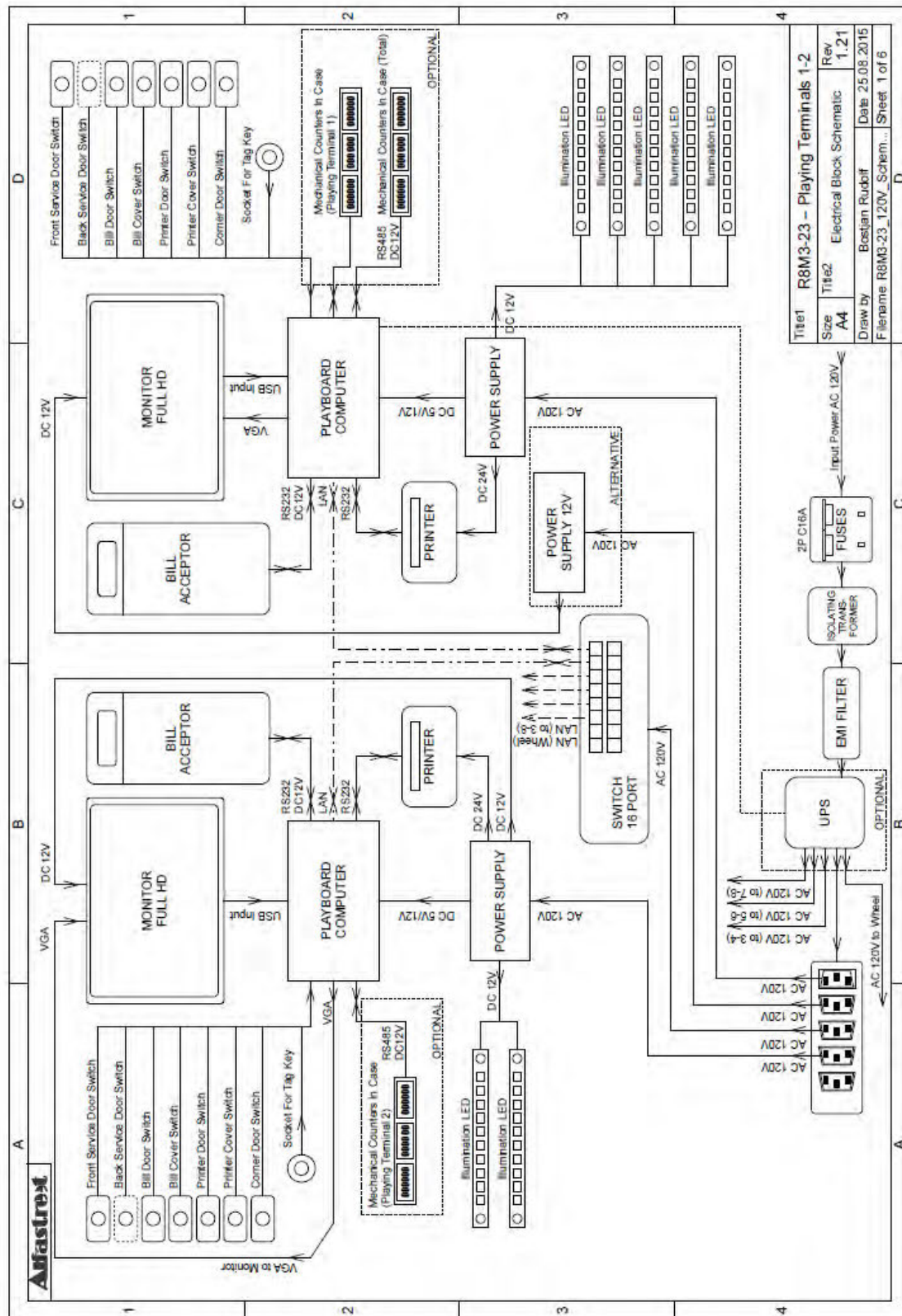
Illustration 12: Wiring - Playing Terminals 1-2
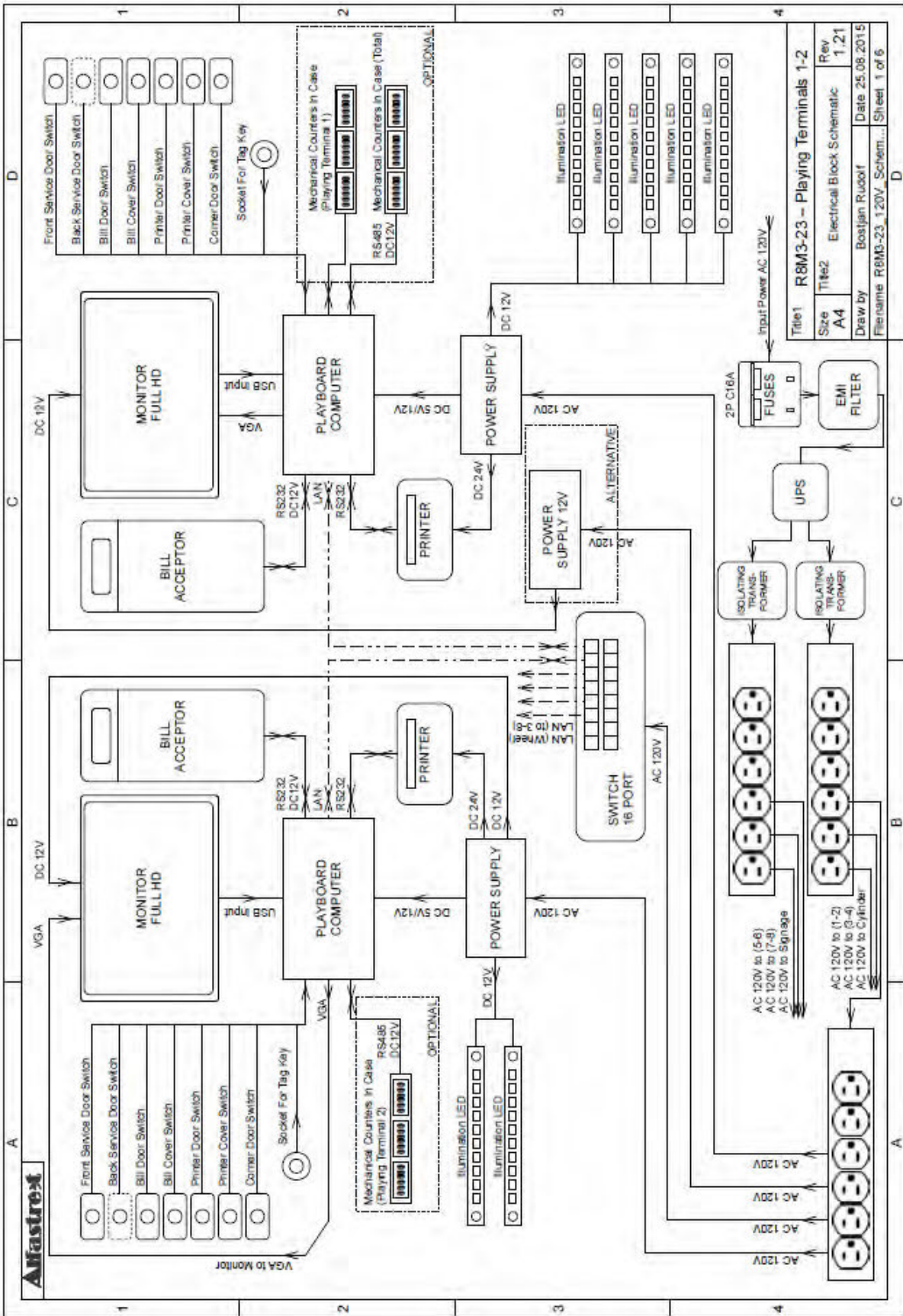
Illustration 13: Wiring - Playing Terminals 1-2 Alternative
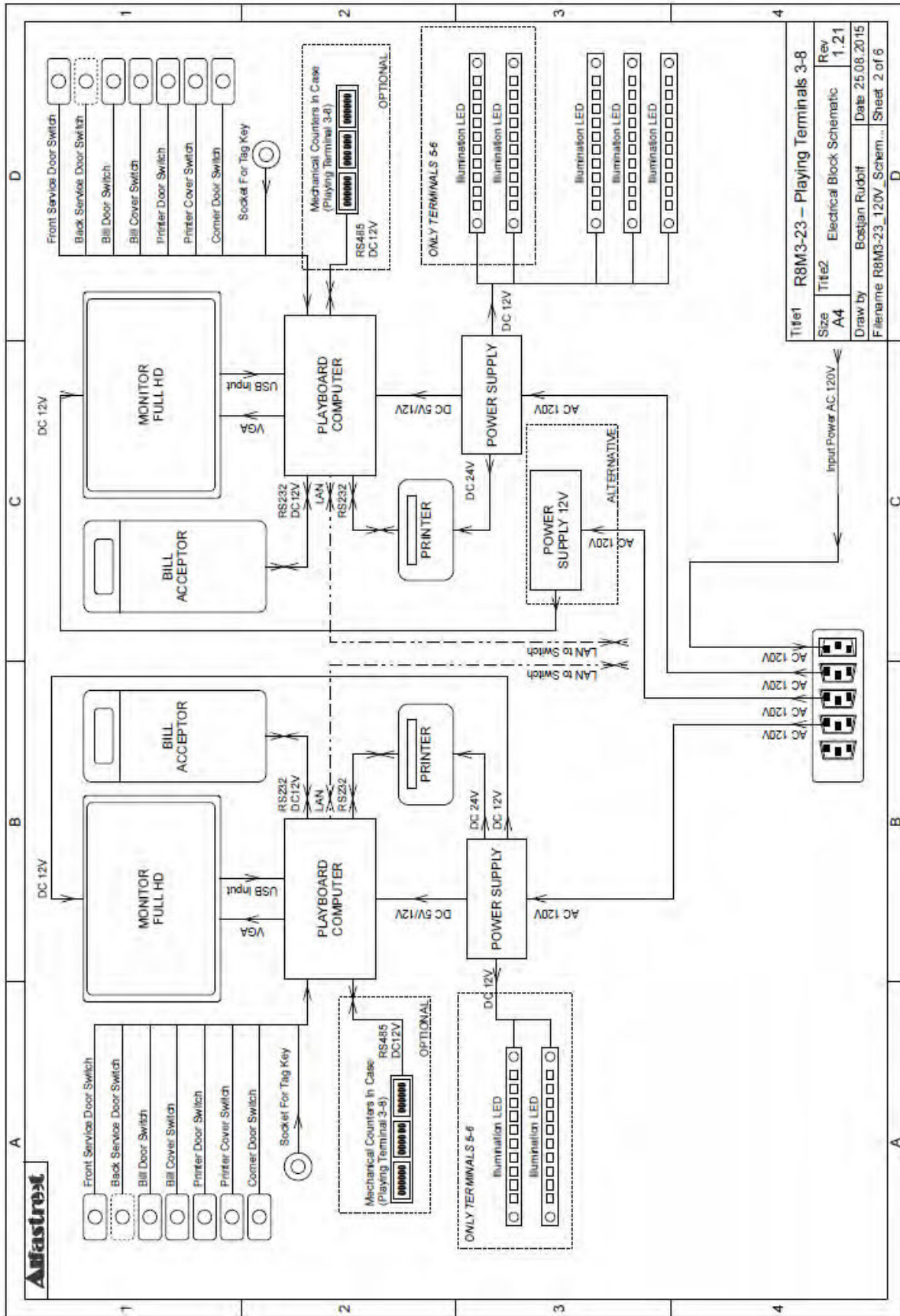
Illustration 14: Wiring - Playing Terminals 3-8

13. WIRING WHEEL
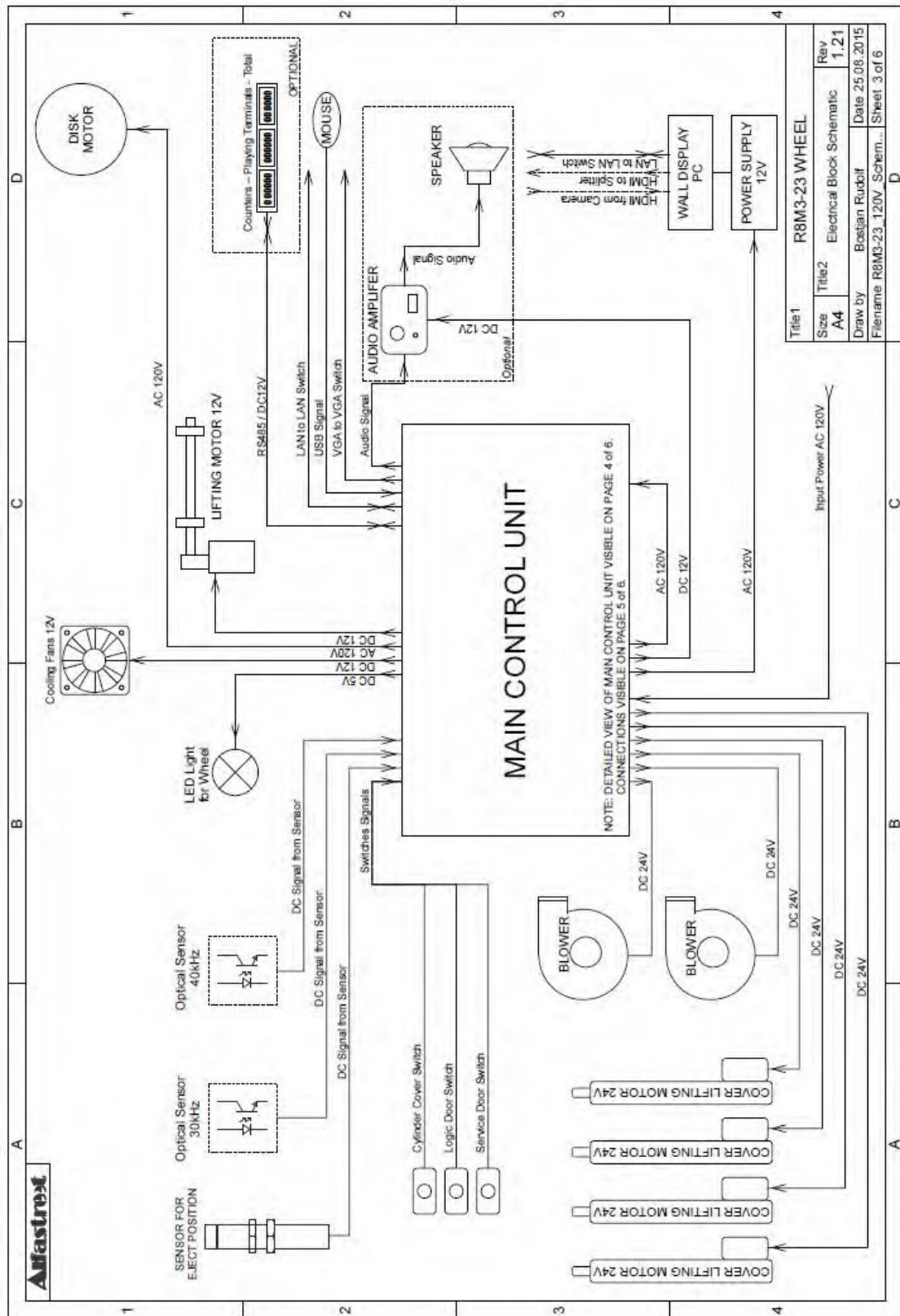
Illustration 15: Wiring - Wheel
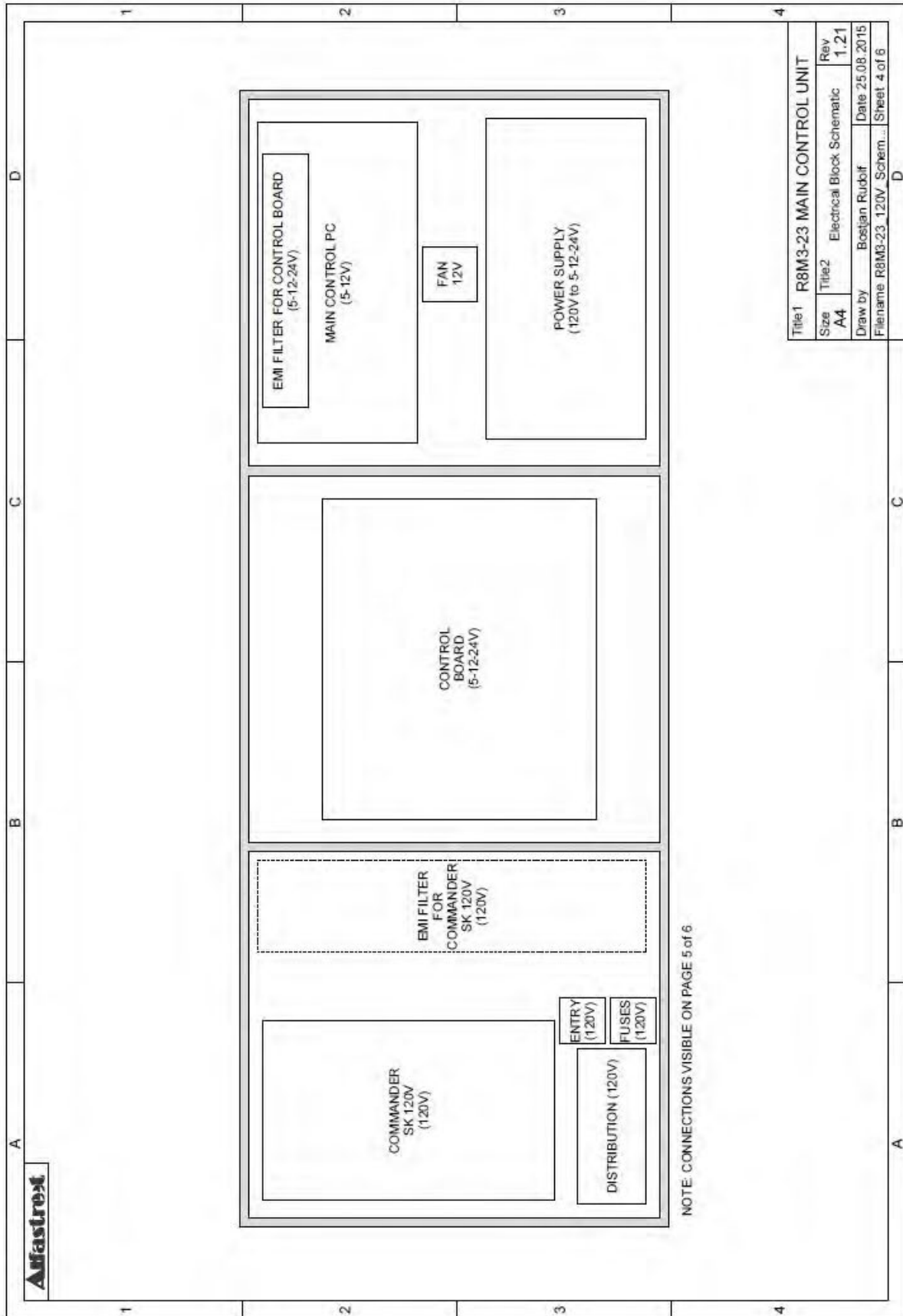
Illustration 16: Wiring - Wheel, Control Unit
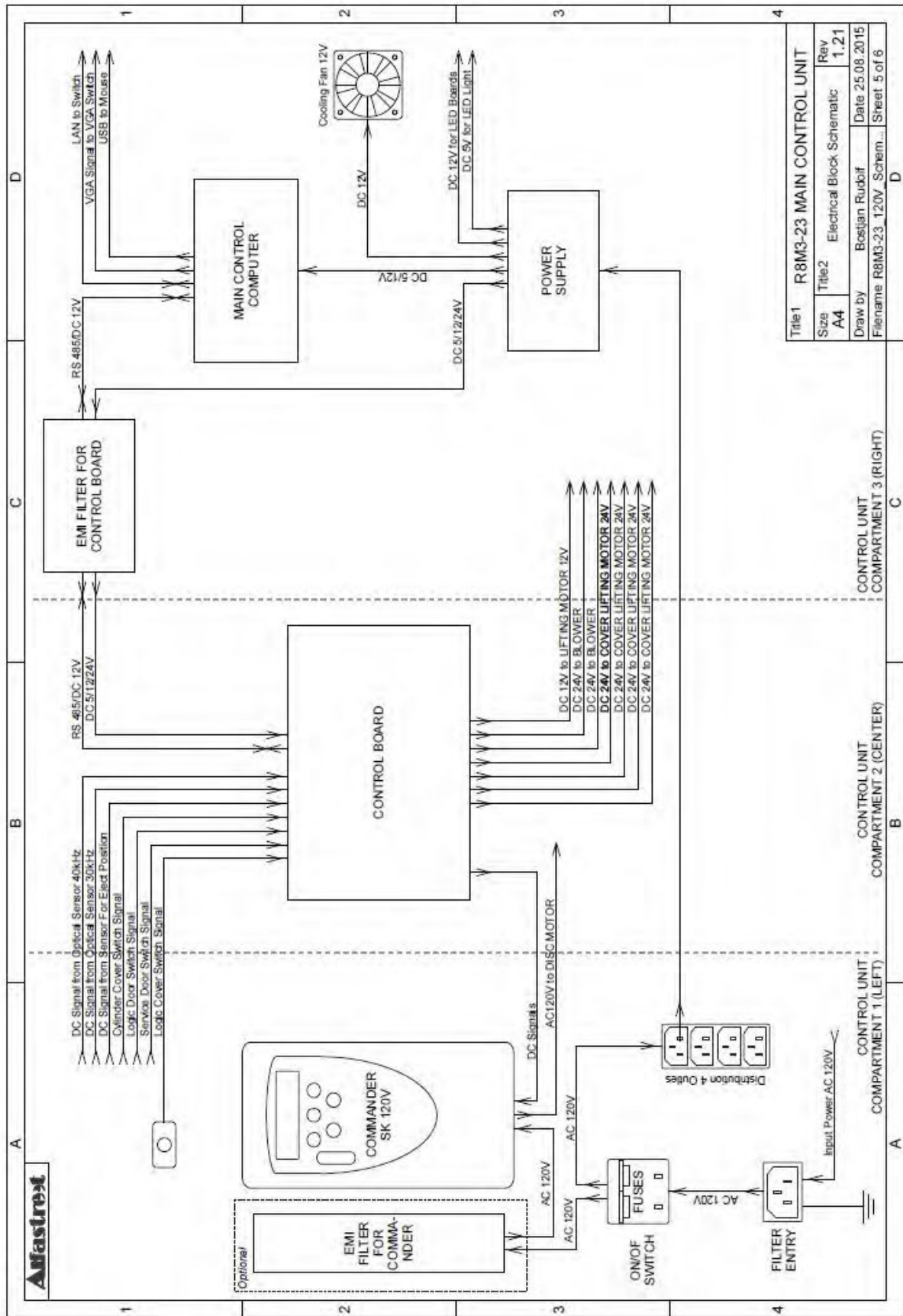
Illustration 17: Wiring - Wheel, Control Unit
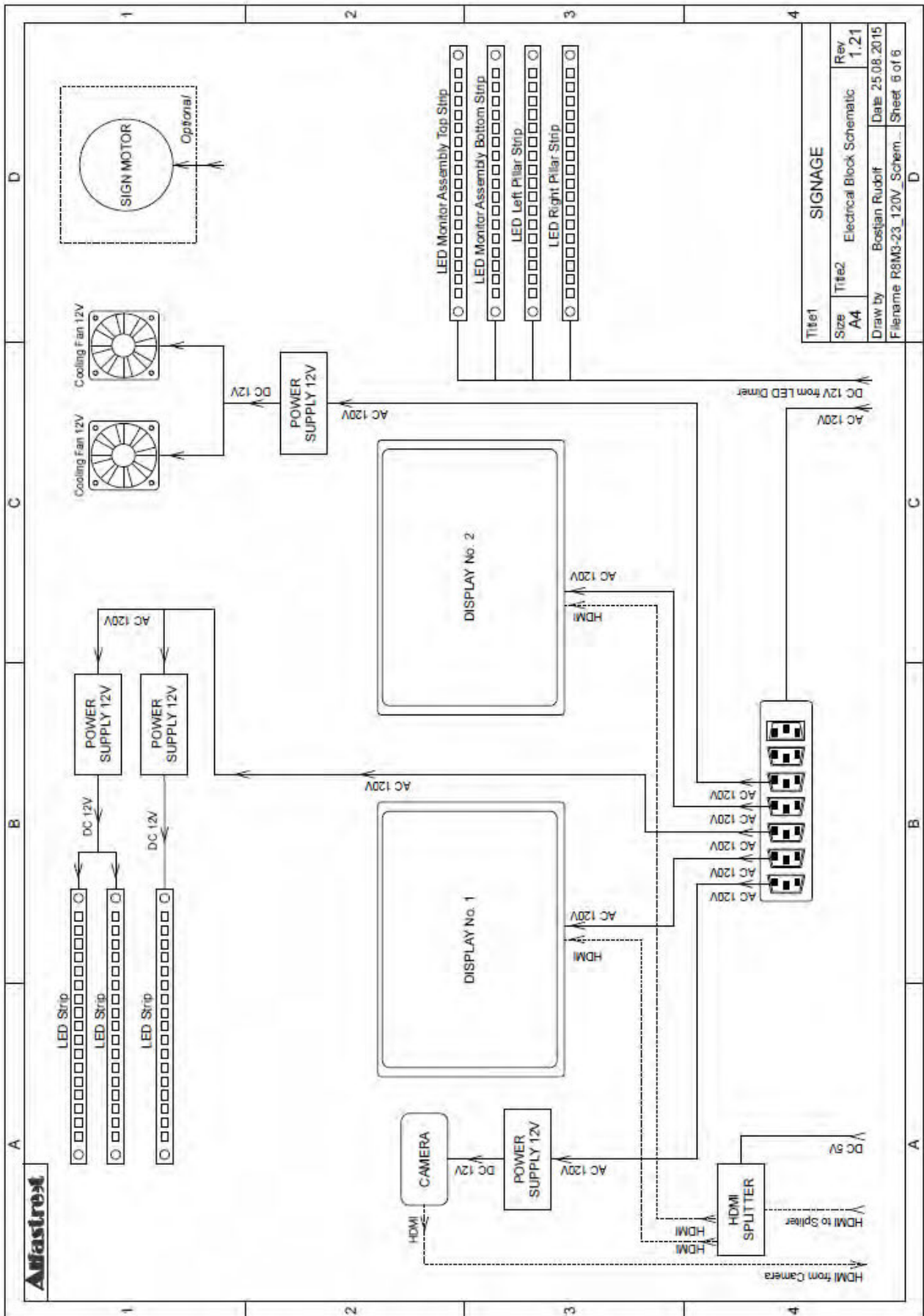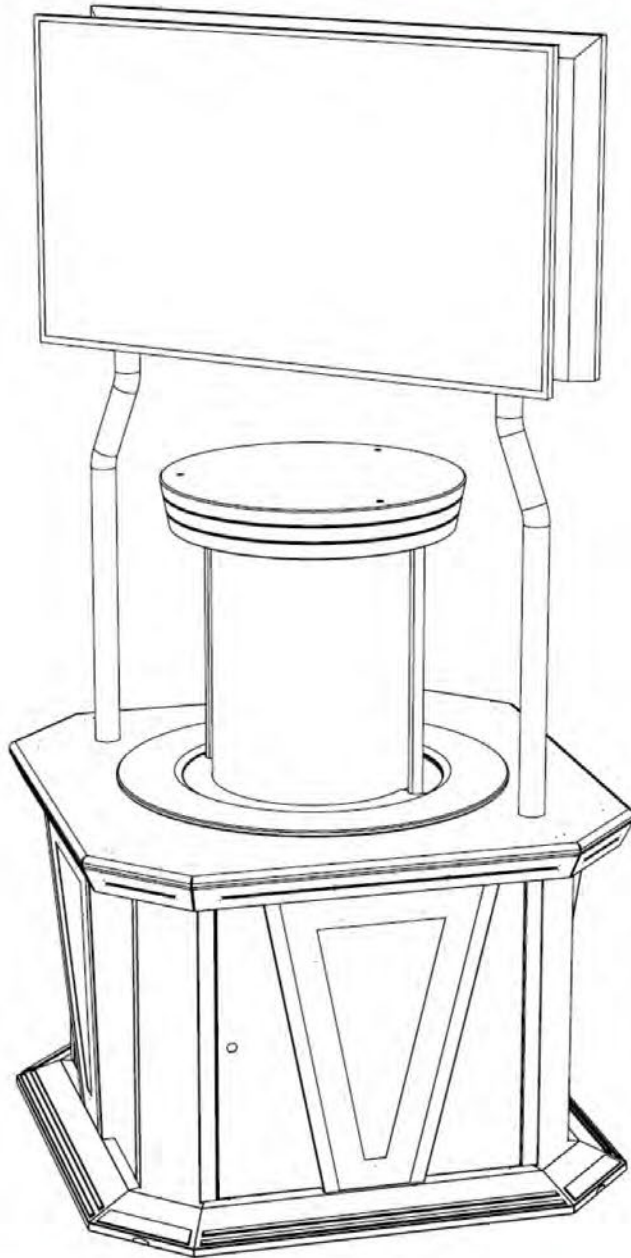
TUMBLER

Technical Manual

Table of Contents

1   INTRODUCTION

We would like to thank you for choosing KGM Gaming, a manufacturer of Premium Gaming Products.

Our line of dice based games including SicBo and Craps now feature *Tumbler*, designed to occupy minimal floor space while maximizing profits. Independent terminals connected to the main control unit can be strategically placed throughout the casino in any desired configuration.

SYMBOL DESCRIPTIONS
This manual may contain two distinctive symbols throughout the chapters.

    This symbol indicates an additional information regarding the chapter topic or highlights an important detail.

    This symbol indicates a warning regarding the chapter topic or highlights an important detail relating to safety.

DISCLAIMERS
- This manual is intended to provide instructions on how to properly operate and maintain the TUMBLER gaming device. Illustrations presented within this manual may features stylized elements which may not accurately represent the components depicted (minor variations may be possible).
- The right to reproduce, distribute, display and make derivative works from this document, or any portion thereof requires approval from KGM Gaming.

2   GENERAL INFORMATION

General information regarding this gaming device, such as warranty and support information, as well as technical data and drawings, is provided within this chapter.

2.1   Support and Warranty

KGM Gaming offers Support that can be reached by either e-mail or telephone:
- info@kgmgaming.com
- 215-430-0388

This gaming device comes with *KGM Gaming Warranty*, please consolidate the sales contract for warranty conditions and warranty period. Additional information regarding the warranty policy can be provided by your KGM Gaming representative.

2.2 Technical Data

Model: TUMBLER

Manufacturer: KGM Gaming
                              4250 Wissahickon Ave
                              Philadelphia, PA 19129
                              USA

Max power consumption: 300 W (1030 BTU/h)

Voltage: AC 110 V ± 10 %, 60 Hz

Operating temperature: 50 °F- 105 °F

Operating humidity: 10 %- 90 % (RH, non-condensation)

Width: 43 5/16"

Length: 43 5/16"

Height: 53 15/16"
                              88 9/16" (with camera)

Footprint: 13.0 ft2

Weight: 500 lbs

2.3 Technical Drawing

2250mm [88 9/16"]

1370mm [53 15/16"]

760mm [29 15/16"]

1100mm [43 5/16"]

1100mm [43 5/16"]
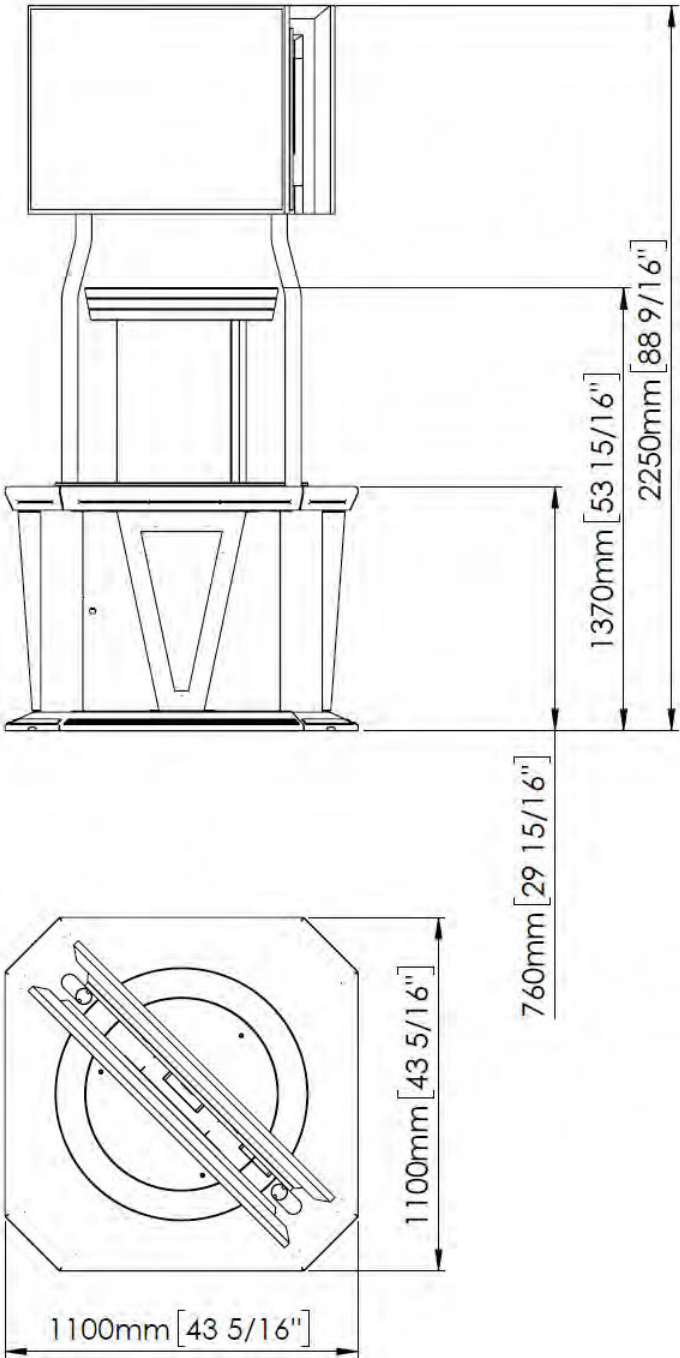
3   SAFETY GUIDELINES

To ensure gaming device compliance with appropriate safety standards, norms and regulations the information provided in this chapter must be followed. Following the guidelines will ensure safety for players, as well as provide a safe working environment for device operators.

Intended use
This gaming device is used for entertainment in various gaming or otherwise entertainment related establishments. The device must be used indoors at all times.

3.1   Device Assembly and Installation

Gaming device will be shipped fully assembled. Final installation must be performed by KGM Gaming technicians or other professional technicians trained by KGM Gaming. Electrical connections must be established according the wiring diagram.

Prior to final assembly the following points should be checked:

- Power source is available, is properly grounded and is capable of supplying maximum (peak) power required - see chapter *3.2 Electrical Connection*.

The following guidelines must also be taken into account:

- When assembled and installed, this gaming device does not require fixed mounting to the floor (e.g. using anchor screws), due to device proportions, overall weight and low center of gravity.
- Gaming device must be position in way to allows players free access to all playing stations with sufficient space to move around the device.
- The nearby environment must be maintained to prevent any hazards for the device users and operators (e.g. floor kept clean, free of obstacles and not slippery)
- Main power cable (if routed outside the device) must be protected using appropriately sized, fixed, cable protector.

3.2 Electrical Connection

Gaming device can only be operated using the approved power cable and power connector provided by the manufacturer. Use of equivalent power connectors may be possible, if approved by the manufacturer. Connection must be established to a properly grounded power socket. The power source must be able to supply the maximum (peak) power required, according to the gaming device specification.

MAX POWER CONSUMPTION	
TUMBLER	300 W

Before first use and periodically during normal operation the following checks must be performed:

- **Integrity of the main power cable** (damage to the insulation, damage caused by mechanical stress, cracks, tears, cuts, exposed wires, sharp bends, proximity to sharp edges or sharp objects, etc.)
- **Integrity of the power connector** (damage to the connector, loose or exposed wires, presence of grounding pins, properly seated connector, etc.)

Operation of the gaming device using a damaged main power cable or power connector is strictly forbidden! Damaged components must be immediately replaced by KGM Gaming technicians or other professional technicians trained by KGM Gaming, to avoid the danger of electric shock or irregular operation of the gaming device.

3.3 Operational Conditions

The gaming device should only be operated under the following conditions:

- Device must be installed and wired properly by KGM Gaming technicians or other professional technicians trained by KGM Gaming.
- Device must be maintained in a faultless state at all times.
- A regular maintenance schedule must be maintained, see chapter *8 MAINTENANCE PROGRAM*.
- Device operators must be familiar with the basic operational procedures described in this manual - see chapter *5 BASIC OPERATIONAL PROCEDURES*.

4   GAMING DEVICE OVERVIEW

Gaming device consists of a touchscreen monitor as the main player input device, as well as credit handling devices located below. Internal component are accessible though various doors.

4.1   General Overview

The gaming device consists of the following general components/assemblies:

1. Top cover
2. Cylindrical cover
3. Service door lock (4x total)
4. Signage display (optional, 2x total)
5. Signage support pillar (optional, 2x total)
6. Service door (4x total)
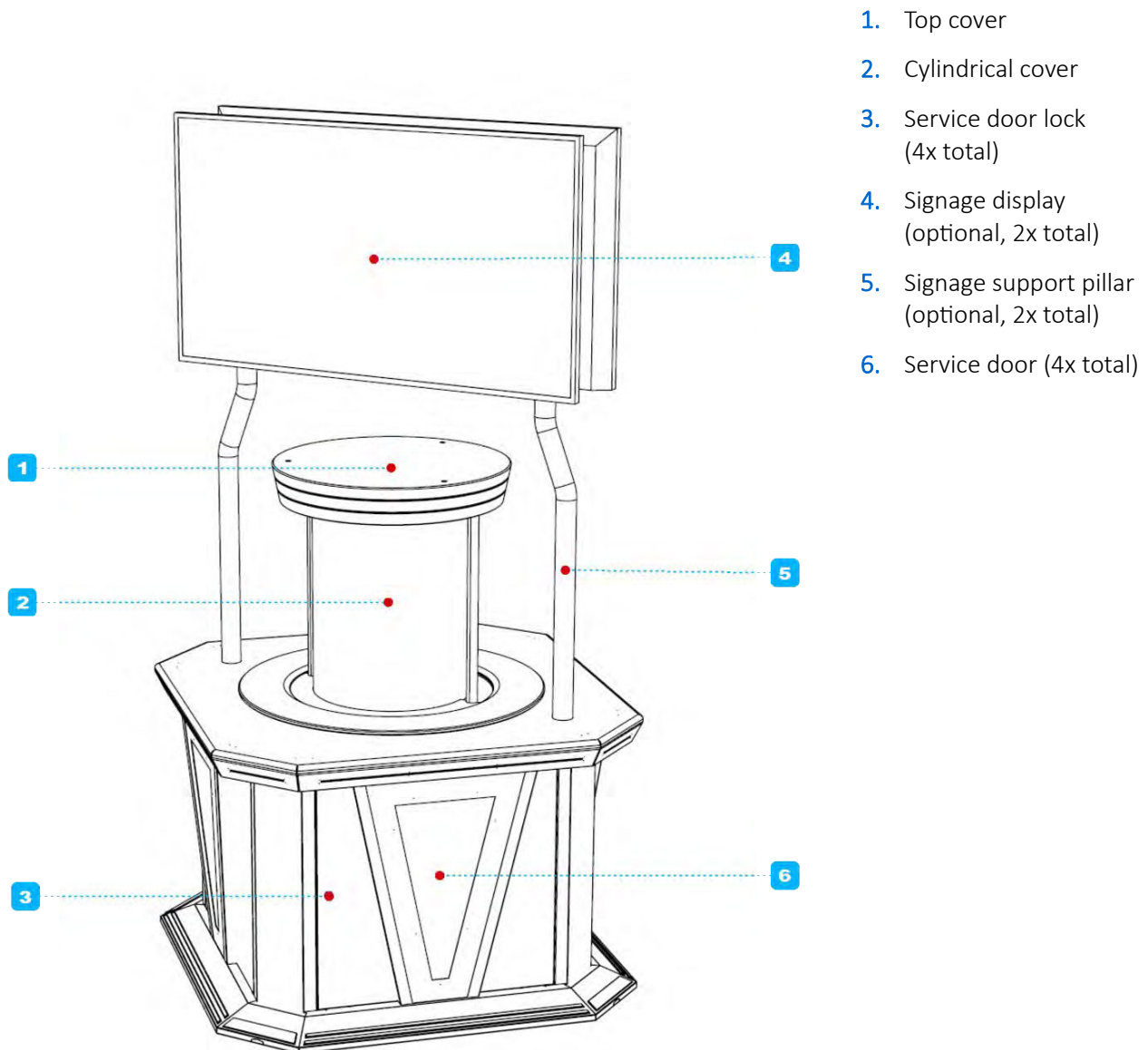
4.2 Internal Overview

Internal components (located behind locked service doors) are positioned as follows.
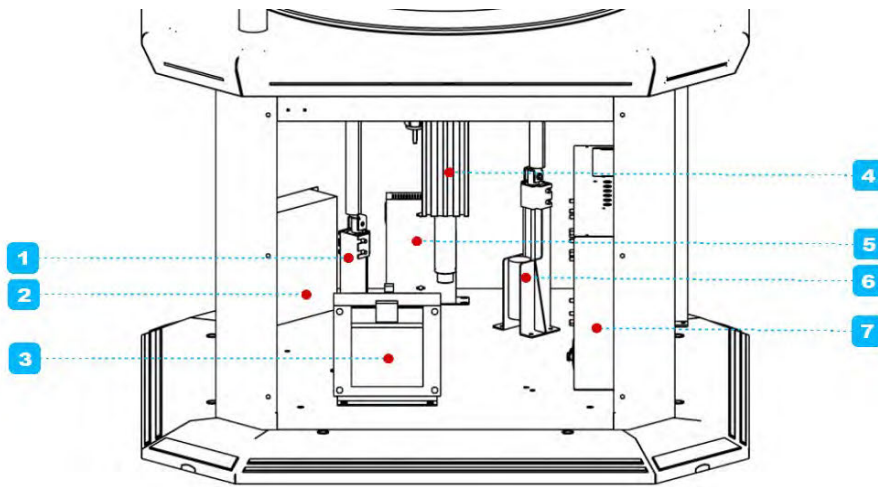
1. Top cover lifting motor (first of 2x total)
2. Main motor controller
3. Isolating transformer
4. Main motor
5. Network switch
6. Top cover lifting motor (second of 2x total)
7. Main control unit box

4.3 Main Control Unit's Overview

Main control unit's components (located behind locked logic door) are positioned as follows.
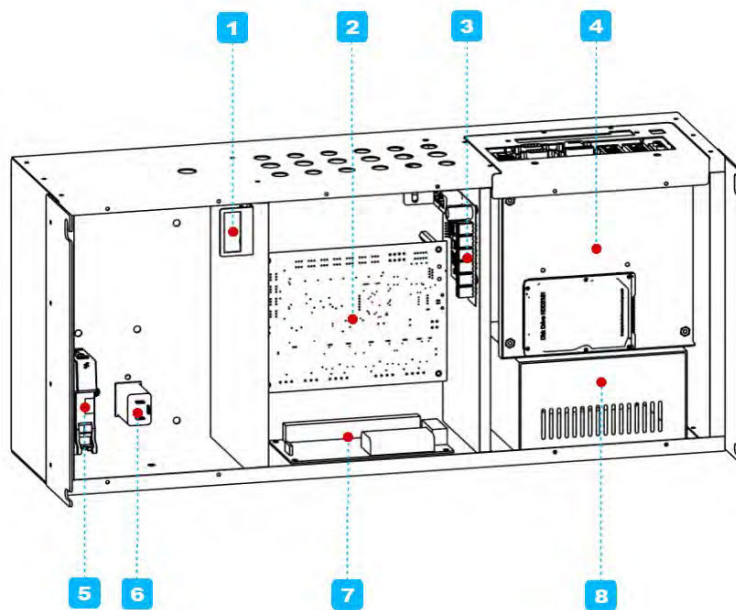
1. Logic door switch
2. Control board
3. RGB LED driver board
4. Main control unit's computer
5. Power main switch
6. Power entry with EMI filter
7. I/O board
8. Main control unit's power supply

5 BASIC OPERATIONAL PROCEDURES

During the normal operation of the gaming device, basic operational procedures will need to be performed. Instructions for various tasks are described within this chapter.

For additional information regarding a specific task please contact KGM Gaming, by either e-mail or telephone:
- info@kgmgaming.com
- 215-430-0388

5.1 Opening the Service Door

In order to open the service door, the following steps should be taken.
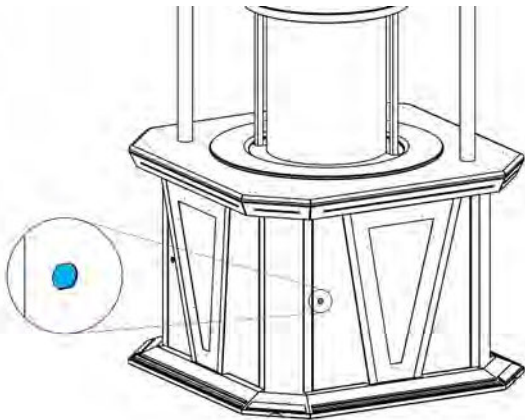
STEP 1: Locate and unlock the service door lock.	STEP 2: Open the service door.
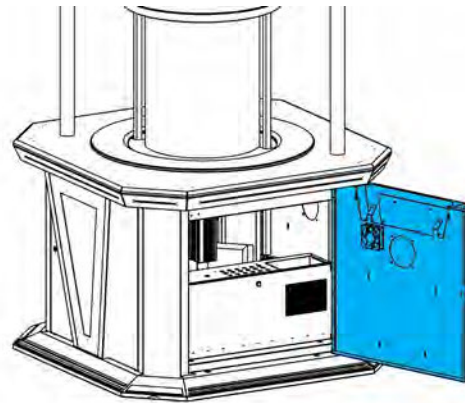
5.2 Opening the Logic Door

In order to open the logic door, the following steps should be taken.
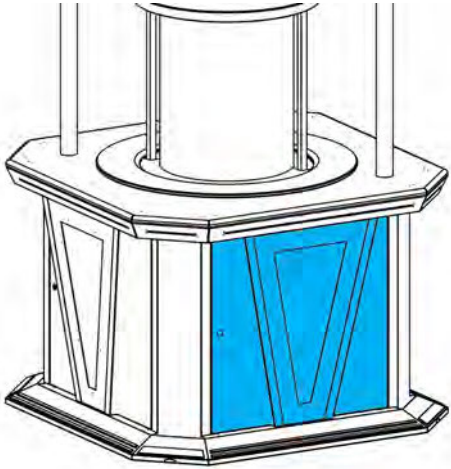
STEP 1: Unlock and open the service door.	STEP 2: Locate the main control unit inside.
STEP 3: Locate and unlock the logic door.	STEP 4: Open the logic door by tilting the cover outwards as shown.
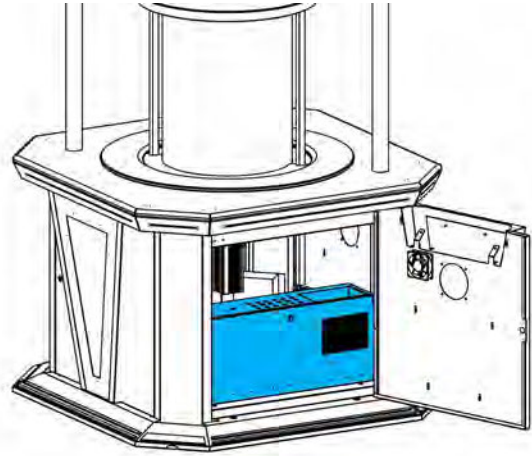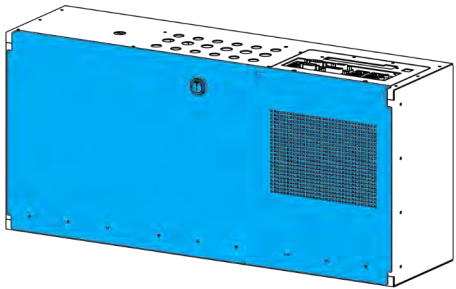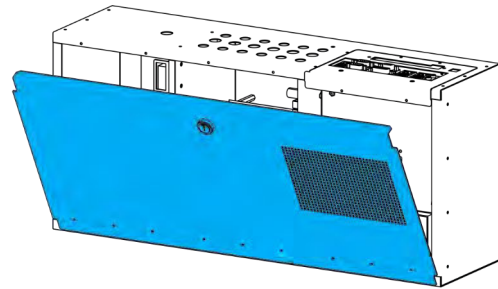
5.3 Starting the Gaming Device

In order to start the gaming device, the following steps should be taken.
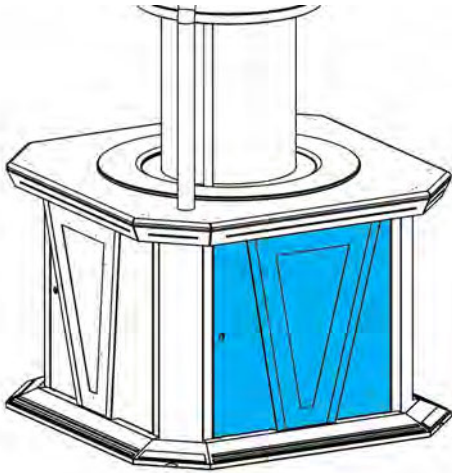
STEP 1: Unlock and open the service door.	**STEP 2**: Locate the main power switch inside.
STEP 3: Turn on the main power switch, the device will start. If it doesn't, proceed to the next step.	**STEP 4**: In the device doesn't start, locate the UPS unit, located near the main power switch.
STEP 5: Press the power button on the UPS unit to switch it on. The device will start.	
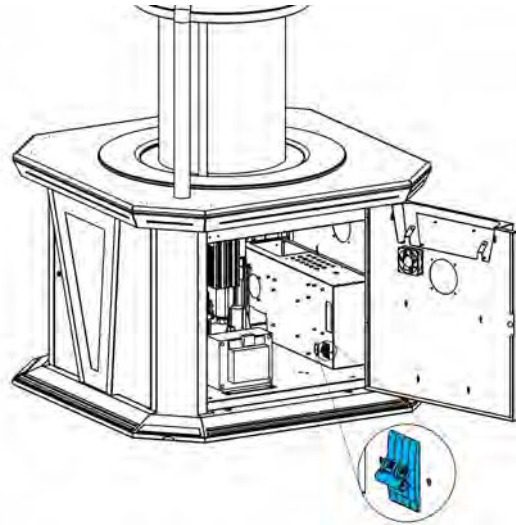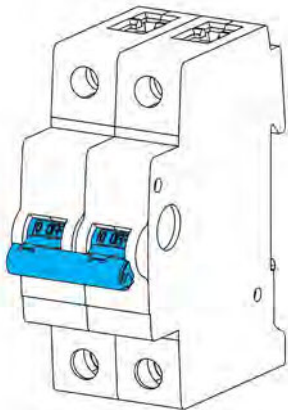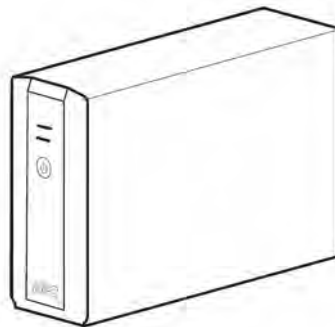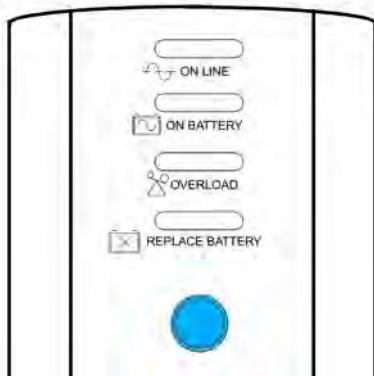
5.4 Opening the Top Cover

In order to open the top cover and gain access to the dice, the following steps should be taken.

STEP 1: Gain access to the SERVICE menu and raise the top cover by holding the OPEN button.	**STEP 2**: Remove the cylindrical cover by raising it slightly and moving it away from the assembly.
STEP 3: The dice inside can now be accessed and various maintenance activities performed.	
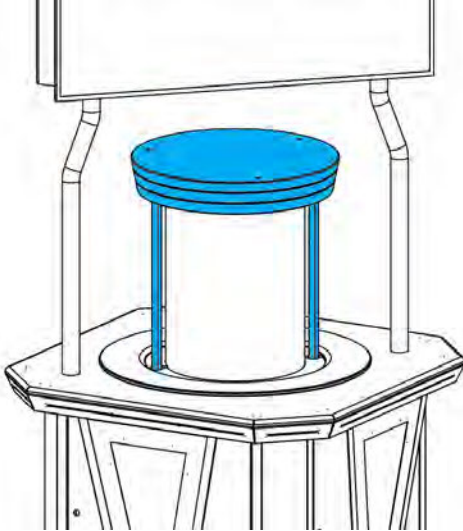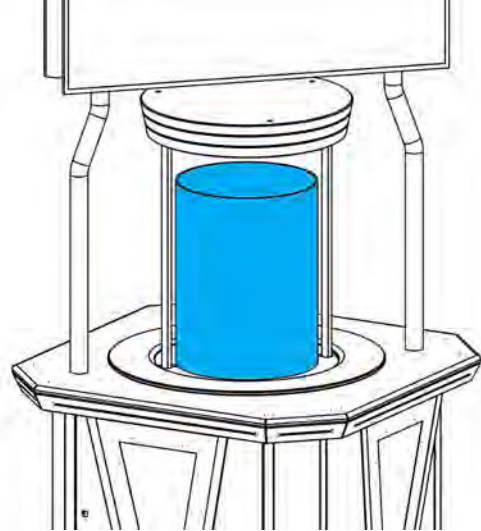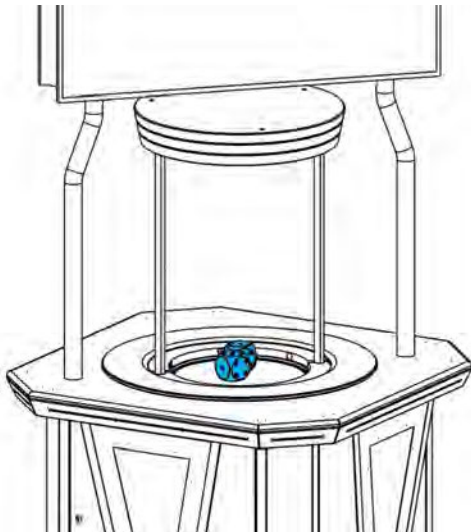
6   INTERNAL COMPONENTS

This chapter holds the information regarding to major internal components, such as descriptions of their functionalities and other relevant information.

MAIN CONTROL UNIT'S POWER SUPPLY

Used to power the computer and/or various components.
- Bicker BEA-740-B1
- Bicker BEA-740-B2
- Bicker BEA-740

MAIN CONTROL UNIT'S COMPUTER

Used to control the tumbler and it's components, as well as run the RNG software.
- Axiomtek GMB811
- Axiomtek GMB820
- Axiomtek MANO861

ISOLATING TRANSFORMER

Used to isolate the device from the power source.
- Hammond 171G
- Hammond 178GT

MOTORS

Used for moving the dice platform, or lifting various assemblies.
- Dunkermotoren XTA3806
- Linear actuator 12V, 1000N, 150mm

FANS

Used for components cooling and airflow.
- Sunon 80x80x25mm 12V

UPS

Used for keeping the main control unit's computer operational in case of power failure.
- APC BK500

6.1   Signage Specific Components

Optional signage features the additional components described below.

DISPLAYS

Used to play wall display graphics and animations.
- Philips BDL4830QL
- Viewsonic CDE4803
- Philips 50BDL3010Q
- Viewsonic CDE5010

POWER SUPPLY

Used to power low voltage accessories.
- Phihong PSC15A-050

7 TECHNICAL INFORMATION

Technical information, such as operating system configurations can be found within this chapter.

7.1 IP Address Configuration

IP addresses for the local (internal) network are set according to the tables presented below.

	IP ADDRESS	SUBNET MASK
Main control unit's computer (SicBo game)	192.168.12.1	255.255.0.0
Main control unit's computer (TaiSai game)	192.168.12.1	255.255.0.0
Main control unit's computer (Craps game)	192.168.20.1	255.255.0.0

8 MAINTENANCE PROGRAM

It is suggested that a regular maintenance should be performed for the following parts of the gaming device. All cleaning tasks should be performed using a:
  • Damp microfiber cloth
  • Optional mild detergents

The following tools and cleaning products may discolor, scratch or otherwise damage the gaming device parts and must be **avoided**:
  • Wire or nylon wool scouring brooms
  • Furniture polishes
  • Alcohol based polishes
  • Powder or liquid abrasive cleaners
  • Bleach or strong detergents

⚠️ Maintenance activities must be performed with the gaming device turned off and with all power sources (including optional UPS) disconnected as well as all moving parts stopped completely.

90 DAYS INTERVAL

  • **OUTSIDE SURFACES** [INSPECT and CLEAN]

All outside surfaces should be inspected and if necessary, cleaned using a damp microfiber cloth and optional mild detergent.

  • **CYLINDRICAL COVER** [INSPECT and CLEAN]

The cylindrical cover should be cleaned. Careful consideration should be taken not to scratch the surface. Both inside and outside surfaces should be cleaned.

  • **DICE** [INSPECT, CLEAN or REPLACE]

The dice should be inspected and cleaned. Damaged dice must replaced, before replacing inspect the new dice for defects. If a defect is noticed replace it. Never use dice with a defects!

  • **DICE PLATFORM** [INSPECT and CLEAN]

Dice platform should be cleaned thoroughly. Clean the entire surface of the platform as well as the static part of the machines, in close proximity to the platform.

  • **PREVENTIVE RESTART** [PERFORM]

The main control unit's computers of KGM Gaming's products, that operate 24/7, must be preventively restarted to ensure a smooth experience for both, the players and the operators.

5 YEARS INTERVAL

  • **DATA STORAGE DEVICES** [REPLACE]

KGM Gaming recommends replacing all data storage devices every 5 years to ensure smooth operation over longer periods of time.

KGM

EVOLUTION THROUGH INNOVATION

WIKY
SERVICE MANUAL

Table of Contents

Illustration Index

1. DESCRIPTION

WIKY is our latest addition to the single terminal family. Advances in technology with a futuristic design and enormous screen, WIKY offers something extra. This model is unique in every way and WIKY will surely be a great hit on your Casino floor.

2. TECHNICAL DATA

Model:	WIKY
Manufacturer:	KGM Gaming, 4250 Wissahickon Ave, Philadelphia, PA 19129, USA
Power consumption:	140 W
Voltage:	AC 110 V ± 10 %, 60 Hz
Operating temperature:	50 °F - 104 °F
Operating humidity:	10 % - 90 % (RH, non-condensation)
Width:	31 1/8"
Height:	40 9/16" (43 11/16" with player tracking)
Length:	26 3/4" (31 7/8" with player tracking)
Weight:	214 Kg
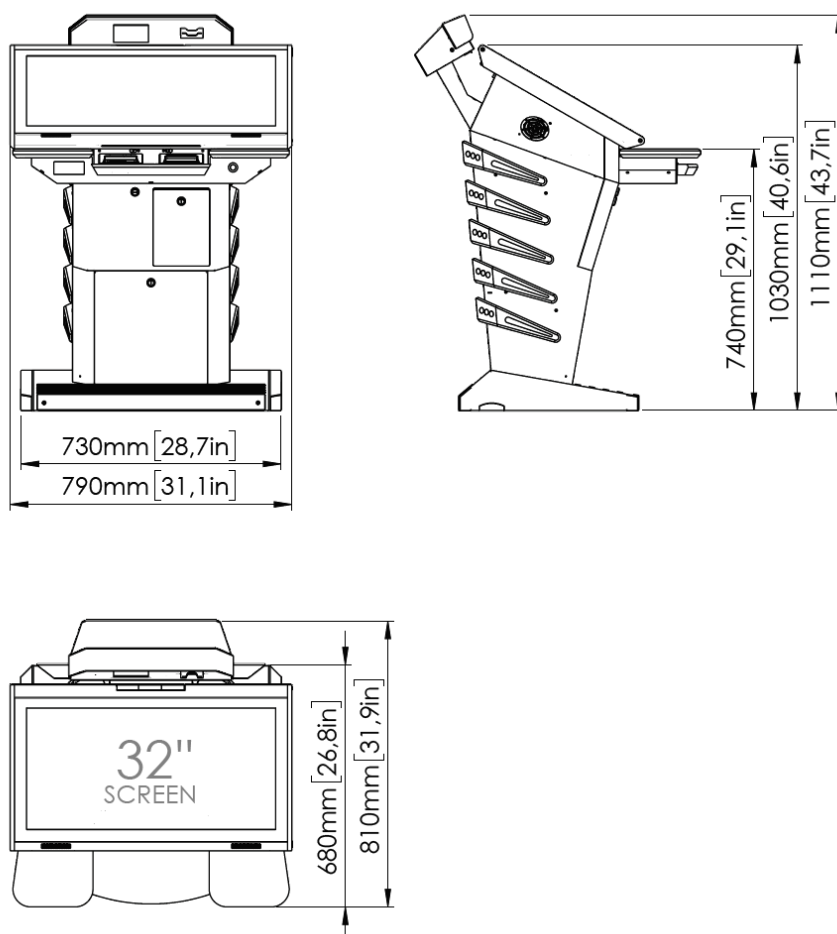
Illustration 1: General dimensions
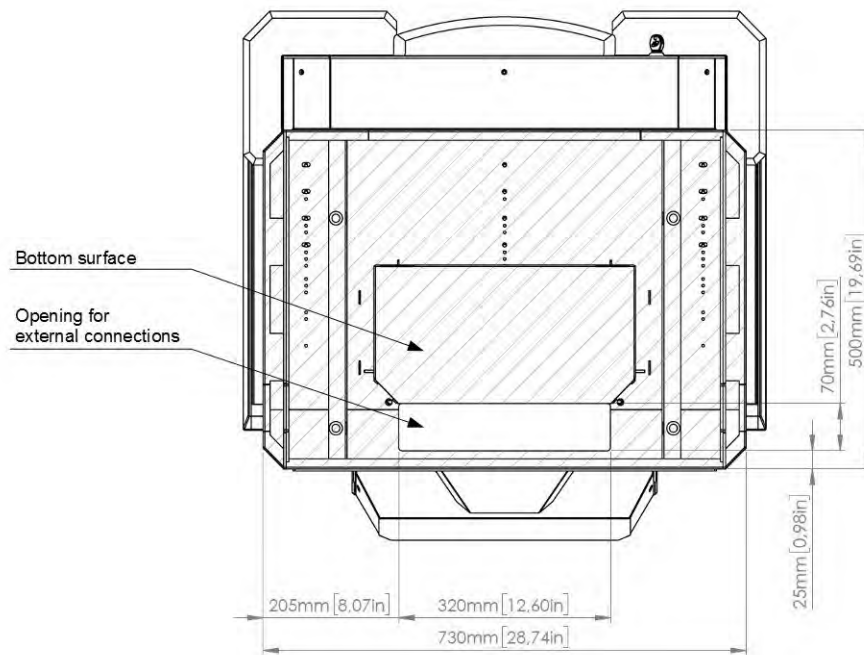
Illustration 2: Base (bottom) dimensions, opening for external connections

3. WARRANTY

Warning!

The KGM Gaming WIKY manual is intended to provide QUALIFIED TECHNICAL PERSONNEL ONLY with the information necessary to routinely maintain, service, and repair of the KGM Gaming cabinet and components. To avoid personal injury or damage the equipment, do not perform any serving other than that contained in this manual. All maintenance procedures which are not included in this manual can only be performed by authorized KGM Gaming service team or KGM Gaming qualified subcontractor. The owner of the machine has to ensure that all service work is performed only be qualified and/or trained personnel.

Note!

Information in this document is subject to change without notice and does not represent a commitment on the part of KGM Gaming. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or physical, including photocopying and recording, for any purpose other than the purchasers use without written consent of KGM Gaming.

4. REPORT FOR SAFETY AT WORK

In accordance to the act on Safety at Work safety at work is assured where workers implement safety measures, comply to norms, standards and technical regulations and with adequate care, adequate specialist and work training apply the prescribed safety devices and appliances. The device, made in accordance to valid standards and norms, must be fitted with instructions for safe work, testing and maintenance.

Intended use
The gaming machine – KGM Gaming WIKY is used as gaming machine or amusement machine in entertainment and gaming establishments.

Description
The gaming machine – KGM Gaming WIKY is comprised of:
- a housing
- playing position with touch screen LCD monitors
- computer system for managing the machine
- electrical installation with control system

The gaming machine WIKY is equipped with a computer managed control system that completely manages the machine independent of the players. The system is completely closed within the device's housing. The machine runs for so long as it is not stopped with the main switch.

Dangers and injuries possible in running the device:
- The device is not firmly fixed.
- The device is not installed in the correct position.
- Danger of falling.
- Danger from electric current.
- Unintentional or automatic switching on.

Measures for preventing dangers and injuries when the machine is running:
- It is necessary to firmly fix the device to a concrete floor with anchor screws such
- that the device cannot overturn or move during use.
- The device must be installed such that sufficient space is allowed for players to move about and safe passage past the device must be assured.
- The floor around the device must always be kept clean and not slippery such that it is not possible for a user of the device to fall on wet or slippery floor.
- Electrical connections can only be made by service staff authorized by the manufacturer or specialist trained persons according to the enclosed diagram.
- The on/off switch must be protected against unintended switching on.

5. GENERAL CONDITIONS FOR USE

Device conditions and documentation

The device must be faultless and with all necessary technical documentation. It must always be in a faultless state that enables safe use. In accordance with legislation on safety at work, the device must be periodically inspected for possible damage or non proper functionality. Possible damaged parts can be considered dangerous for players and must be immediately replaced with new one. A record of inspections should be kept in supervisors office.

The device supervisor must:
- have adequate specialist education for this work
- must be aware of safety at work with means for work and have passed an examination in knowledge of safety at work
- he must be given a copy of instructions for safe work
- he must have adequate health for administering the device (medical certificate)
- new personnel and workers not trained for safe work on the device are forbidden such work
- the work on the device AT OWN RISK is forbidden
- he must have adequate protective clothing and equipment for personal safety at work

Dangers in administration
- danger of falling
- danger of electric current shock

6. INSTRUCTIONS FOR SAFE WORK

Before the start of work the following must be checked:
- protective doors are correctly fixed and locked
- power switch is correctly functioning
- electrical installation is not damaged and free off all defects
- surroundings of the device are clean and not slippery

During the operation

All doors must be closed and locked.

After finishing work

After finishing work the administrator must switch off the device.

Special instructions

The administrator must take care that users do not place drink, cigarettes or other objects and liquids on the device. The ADMINISTRATOR MUST PROVIDE a depositing surface by the device.

7. ELECTRICAL CONNECTION

KGM Gaming WIKY gaming machine must be properly connected to a grounded wall socket to supply voltage with cord and power connector provided by KGM Gaming or equivalent power connector with a ground wire.

Before the power cord is connected to supply voltage, cord must be inspected for possible damage. Damaged cord can cause electrical shock or improper functioning of the gaming machine.

8. CLEANING MAINTENANCE

Cleaning must only be preformed with the Main Power Switch turned OFF.

It is suggested that a regular cleaning schedule be maintained for the following parts of the machine:

Outside Surfaces

All outside surfaces should be inspected and if necessary cleaned every 90 days, using mild detergents and damp cloth.

In any case, for cleaning do not use:

- Wire or nylon wool scouring brooms
- Furniture polishes
- Alcohol based polishes
- Powder or liquid abrasive cleaners
- Bleach or strong detergents

9. PREVENTIVE ACTIONS

All of the computers in KGM Gaming WIKY machine must be preventive restarted at least every 90 days. This is due to proper functioning of the machine.

KGM Gaming recommends replacing all data storage devices in WIKY every 5 years to ensure smooth operation over longer periods of time.

10. GENERAL MACHINE OVERVIEW

Here we can see the general components of the machine in front and side view.
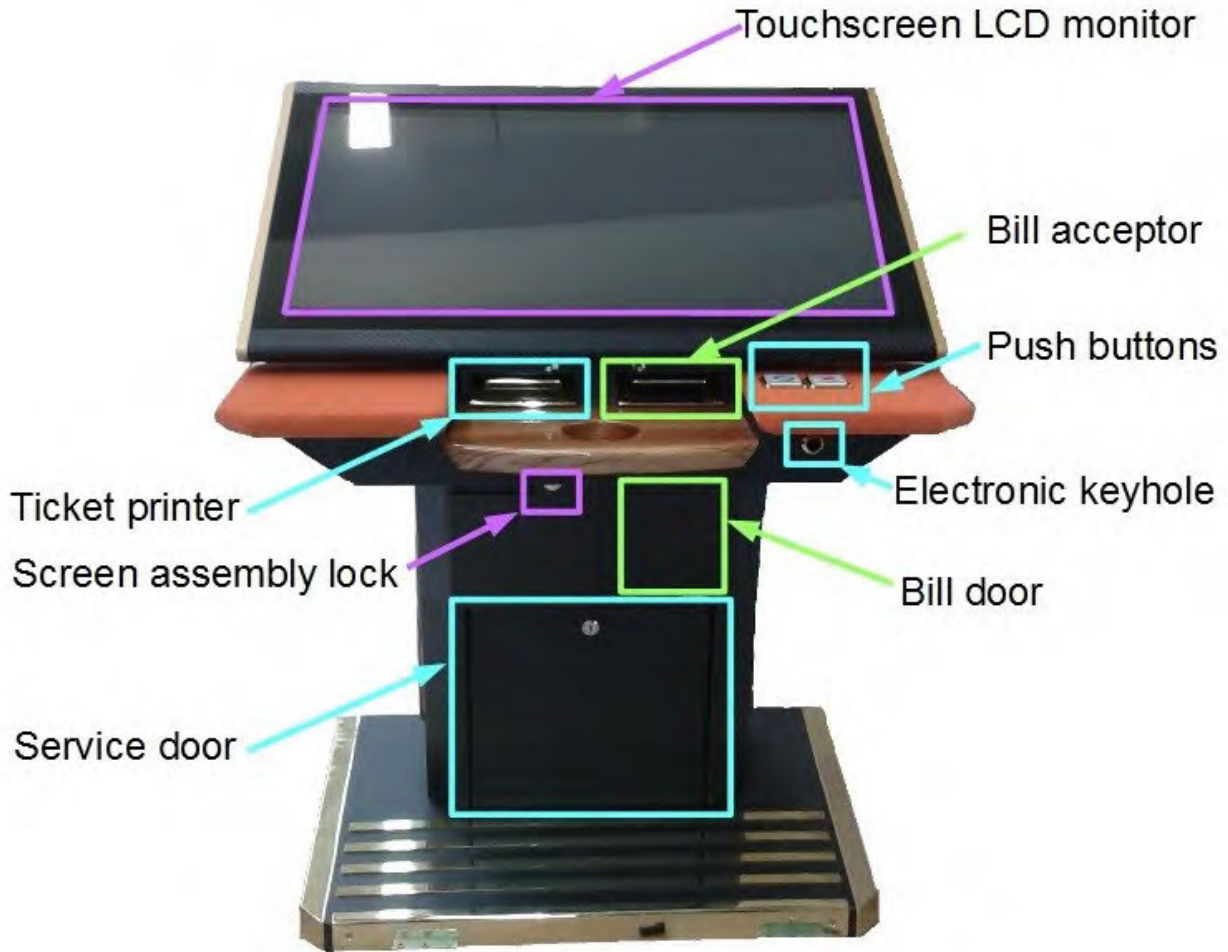
Illustration 3: Machine front view

On the front we can find everything player need to use the machine – touchscreen LCD monitor, ticket printer, bill acceptor and mechanical buttons. Also on the front electronic keyhole, screen assembly lock bill and service door are located.
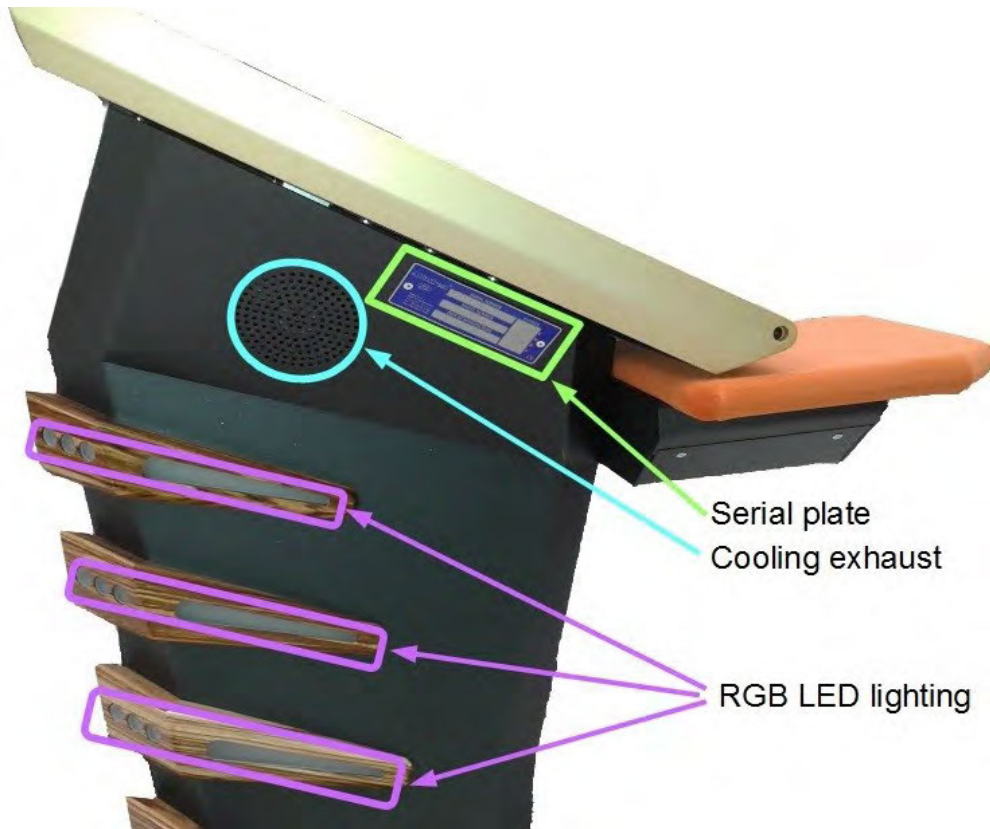
Illustration 4: Machine side view

On the side we can find serial plate with machine specifications and identification numbers, cooling exhaust and decorative RGB LED lighting.

NOTICE:
RGB LED lighting can be mounted on wooden ribs, or directly on metal housing!

RGB LED mounted directly
on metal housing

RGB LED mounted on wooden
ribs

10.1.   Opening the screen assembly

To unlock the screen assembly, lift it and gain access to the internal components of the machine follow the provided steps below.

<table>
<tr>
<td rowspan="2">

READ BEFORE PROCEEDING !

⚠️ THE RELEASE HANDLE MARKED WITH NUMBER 1 IS SPRING LOADED, FOLLOW PROVIDED INSTRUCTIONS.

</td>
<td>

STEP 1
Apply pressure to release mechanism handle (1) with one hand and hold.

</td>
</tr>
</table>
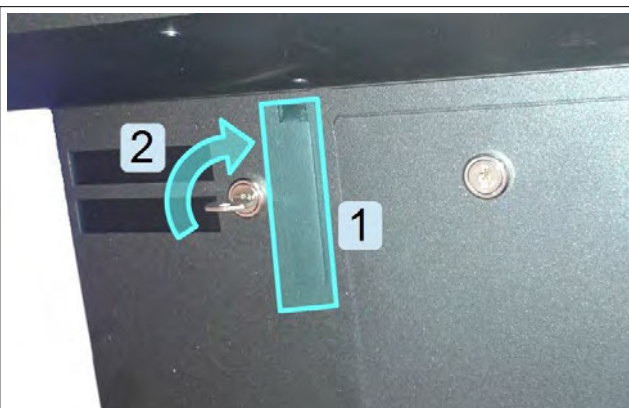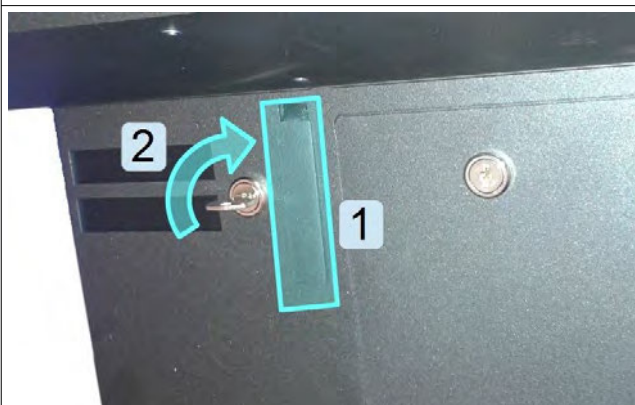
<table>
<tr>
<td>

STEP 2
With the other hand insert the key and unlock (2) while still applying pressure to the handle (1). Some pressure should be expected at this point from the handle since it's spring loaded.

</td>
<td>

STEP 3
Carefully release the handle (3) until the spring decompresses and the handle reaches its final position.

</td>
</tr>
</table>

10.2. Accessing the logic area

In order to access the logic area of the machine follow the steps provided below.
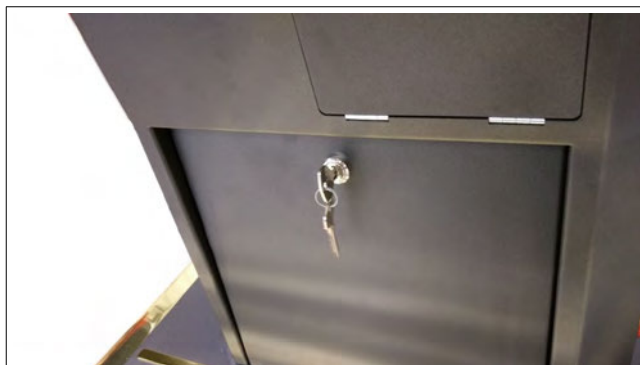
STEP 1
Locate and unlock the service door.
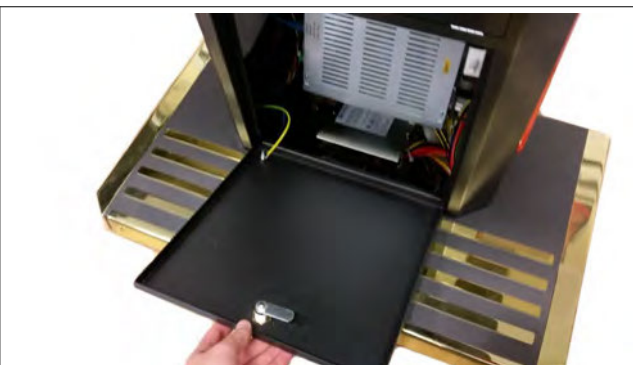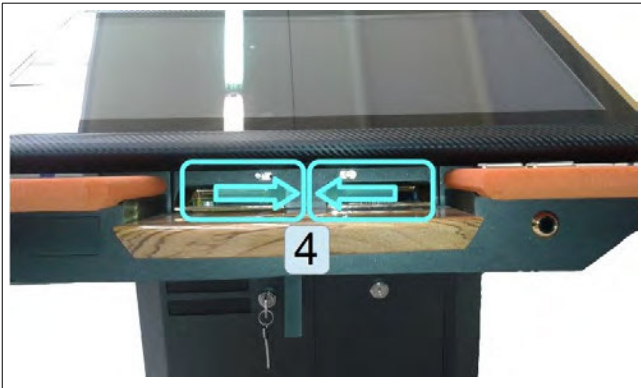
STEP 2
Open the service door.

STEP 3
The playing terminal computer is located in the center.
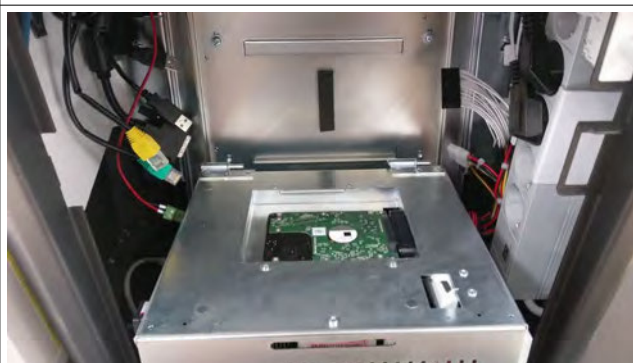
STEP 4
If unlocked, the playing terminal computer can be tilted forward to access the hard drive (hard drive location may vary depending on the computer model).

STEP 4
Locate two release pins beneath the screen. Pull them towards each other (4) to unlock the screen assembly.

STEP 5
Screen assembly can now be opened using upwards motion (5).

Closing the screen assembly
Closing the screen assembly can be done following the reverse order of steps provided above. First lower the screen assembly in its original position (5). The release pins (4) will automatically engage when the screen in pressed down. Press the release handle inside (3) and hold it until you lock the mechanism using the key (2). You can now release the handle (1).

11. INTERNAL COMPONENTS

The majority of internal components are accessible from either top, bottom or back.

11.1.   Internal components (top access)

To access the components from the top you must first open the screen assembly (follow instructions in chapter *10.1 Opening the screen assembly*, page 13).
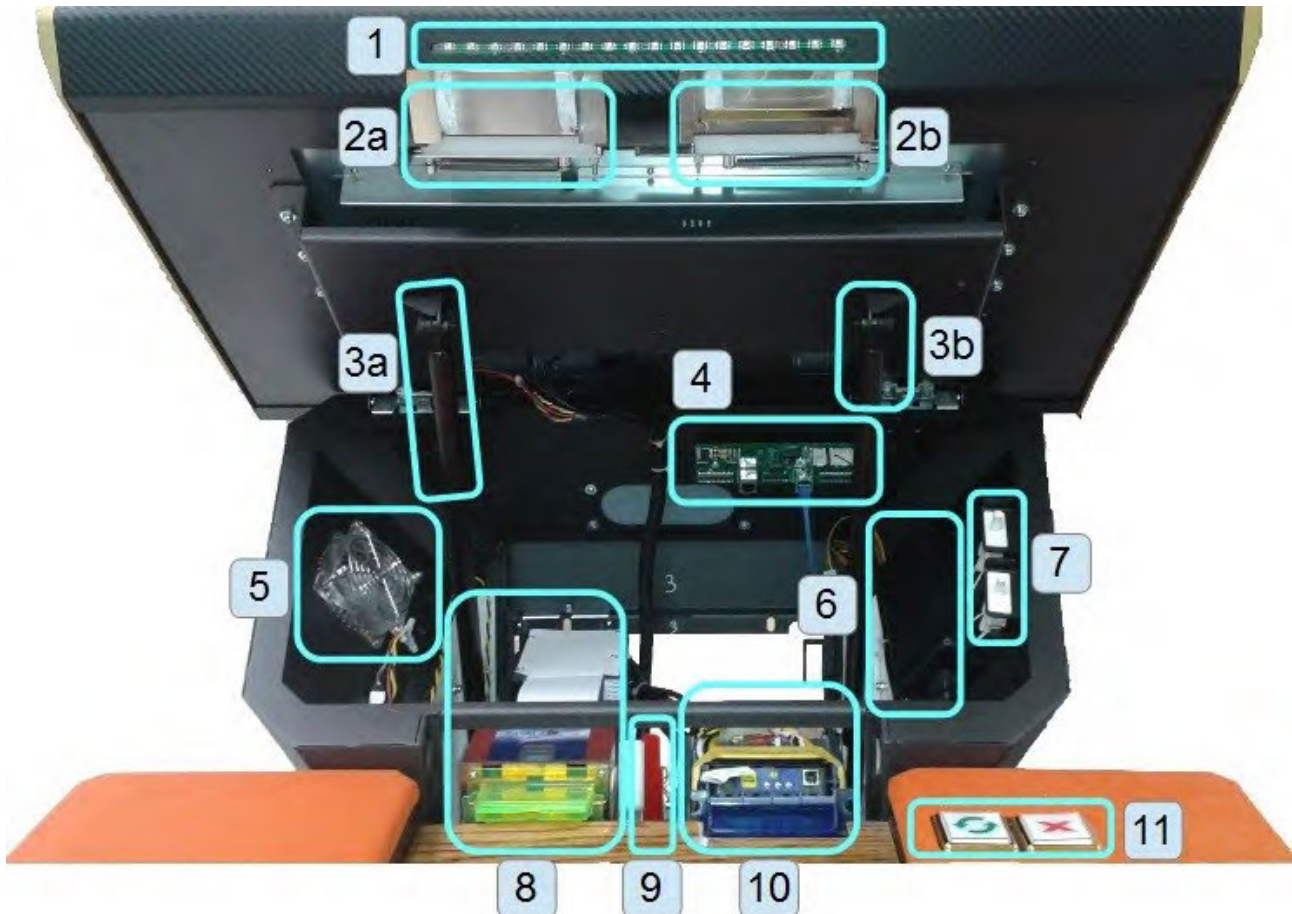
Illustration 5: Internal components (top access)

1. RGB LED strip
2. Screen locking mechanism
   (a-left, b-right)
3. Pneumatic cylinder (a-left, b-right)
4. Keyboard controller
5. Cooling fan
6. Display power adapter
7. Switches
8. Ticket printer
9. Release mechanism for bill acceptor
10. Bill acceptor
11. Keyboard

11.2. Internal components (bottom access)

To access components from the bottom you must first remove service door.
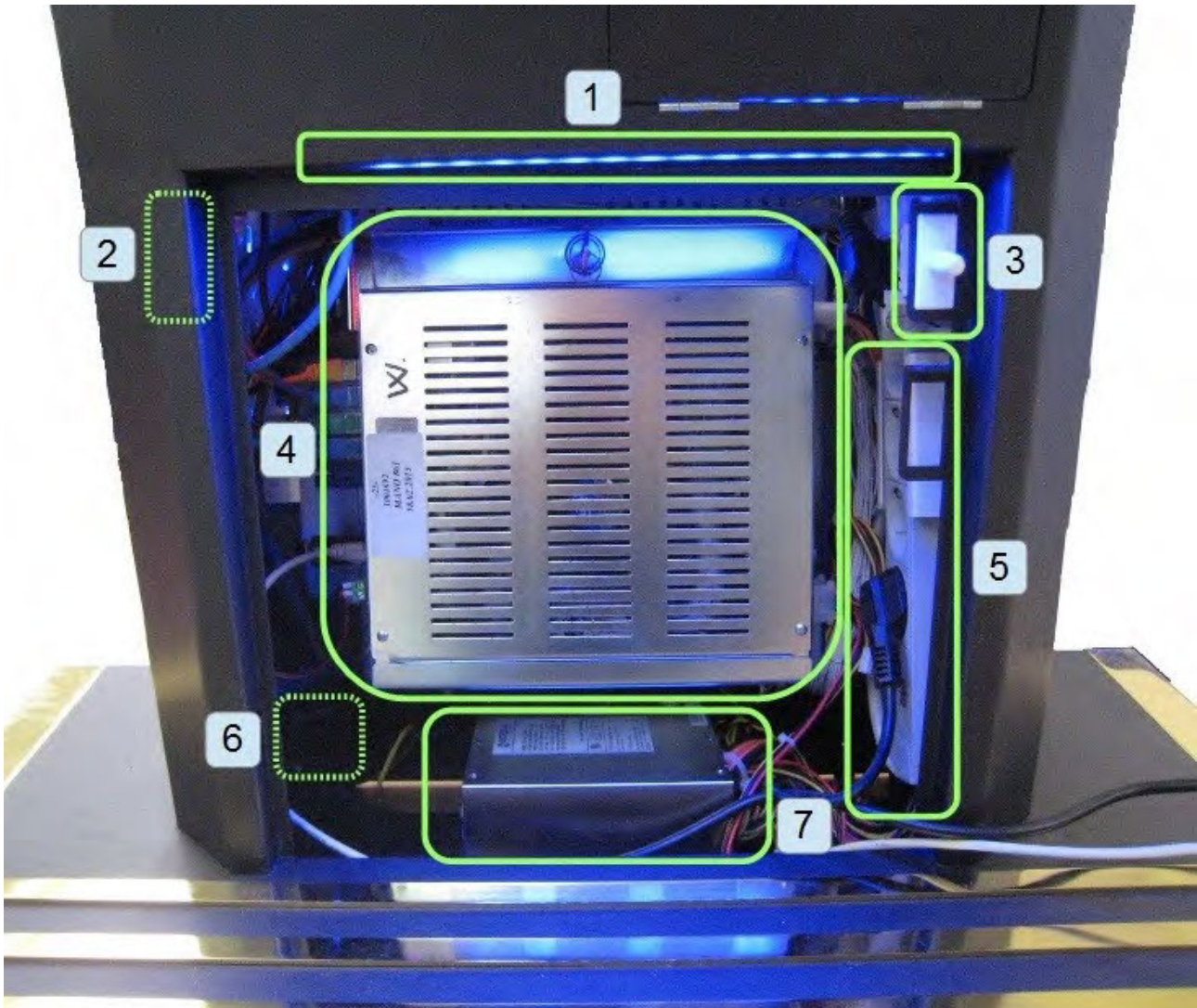
Illustration 6: Internal components (bottom access)

1. RGB LED strip
2. RGB LED controller
3. Service door switch
4. Playboard PC

5. Power strip
6. Main switch
7. Power supply

11.3. Internal components (back access)

To access components from the back access you must remove rear cover.
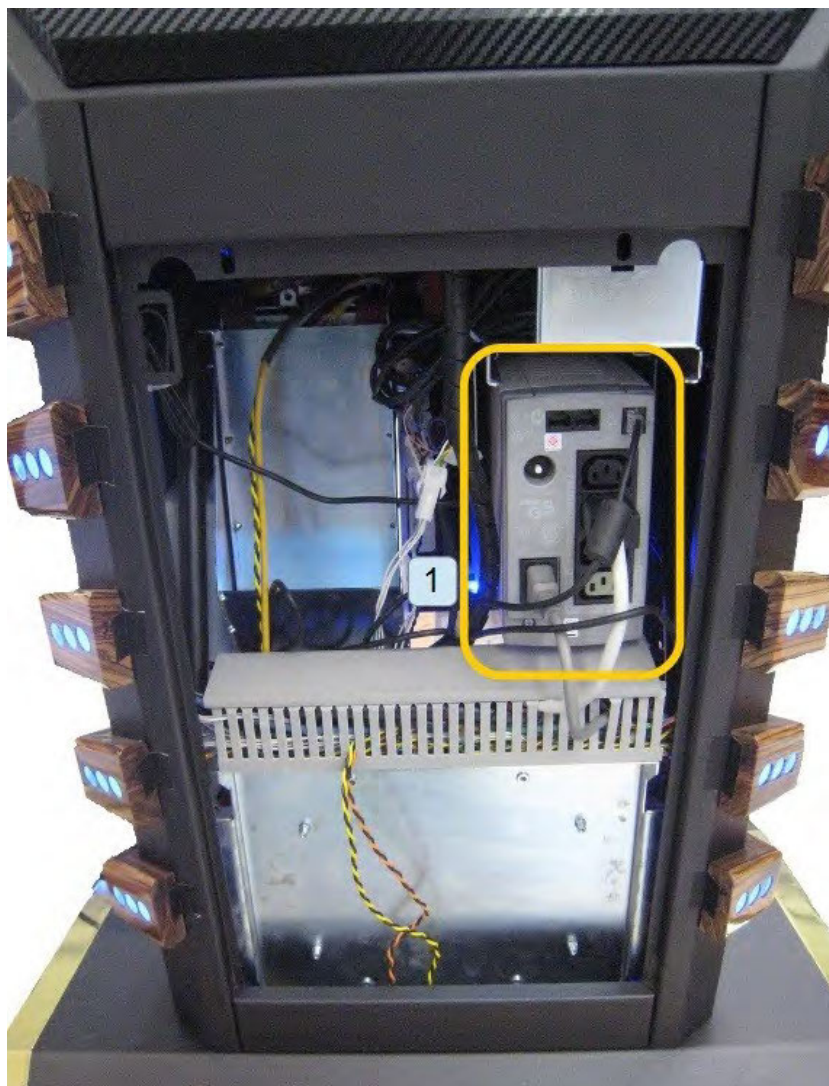
Illustration 7: Internal components (back access)

1. Uninterruptible power supply (UPS)

12. MAIN PARTS DESCRIPTION

In this chapter, all main electrical parts are described.

12.1. Playboard PC

Playboard PC is running game software and controlling the machine. It is located behind service door (see *Illustration 6: Internal components (bottom access),* page 17).
- Axiomtek MANO861
- AeWin MB8302A (Alternative)
- Axiomtek SBC84831 (Alternative)
- Axiomtek GMB811 (Alternative)

12.1.1. Axiomtek SBC84831

Computer specifications:
- Processor: Intel® Atom™ processor N270 1.6 GHz onboard with FSB 533 MHz
- Chipset: Intel® 945GSE + ICH7M
- System Memory: 1 x 200-pin SO-DIMM supports DDR2-400/533 max. up to 2GB
- BIOS: AMI
- Standard I/O:
- 6 x RS-232; with +5V/+12V powered
- 4 x USB 2.0
- 2 x SATA-150
- 1 x PS/2 keyboard and mouse
- Ethernet: 2 ports as 10/100/1000Mbps support Wake-on-LAN, RPL/PXE Boot ROM with Realtek RTL8111B
- Digital I/O: 3 channels IN and 5 channels OUT
- Solid State Disk Interface: One CompactFlash Type II Socket
- Audio: AC'97 Codec audio as MIC-in/Line-in/Line-out/speaker-out with Realtek ALC203

12.1.2. Axiomtek MANO 861 with Intel i3 processor

Computer specifications:
- LGA1155 socket 3rd Generation Intel®
- Core™ i7/ i5/ i3/, Celeron®, processors
- Intel® H61 chipset
- 2 DDR3-1066/1333 MHz max. up to 4 GB
- 1 PCIe x4 supported
- 3 SATA-300 supported
- 6 USB 2.0 supported
- 6 COM ports supported
- Dual view display, Display: VGA/DVI-D/LVDS

12.1.3.   AeWIN MB8302A with Intel i3 processor

Computer specifications:
- Intel 4th generation Intel® Core™ LGA 1150 Socket
- Intel® H81 Express chipset
- 2 x DDR3 1600 MHz / SODIMM up to 4 GB
- HDMI/VGA/DVI-D/24-bit Dual Channel LVDS
- 6 x COM, 8 x USB, LPC, SMBus
- 2 x SATA 6Gb/s 2x SATA 3Gb/s
- 2 x Intel® Giga LAN
- 1 x PCI-Express X16 slot , 1 x PCI-Express X1 slot
- SIM socket support

12.1.4.   Axiomtek GMB811 with Intel i3 processors

Computer specifications:
- CPU: Socket LGA 1150 4th Generation Intel® Core™ i7/i5/i3 and Celeron® processor up to TDP 54W (65W option)
- System Memory: DDR3/L 1333/1600 MHz, max. up to 16 GB, 2 x 240-pin Long-DIMM
- Chipset: Intel® H81 PCH
- BIOS: AMI -uEFI BIOS
- Expansion Interface: 1 x PCIe x16 slot, 1 x Full-Size Mini-PCIe (mSATA option)
- USB: 4 x USB 2.0 in rear I/O, 4 x USB 2.0 internal header, 2 x USB 3.0 in rear I/O
- Serial: 4 x simple RS-232 (Tx/Rx) via pin header, 1 x full RS-232 via pin header, 1 x RS-232/422/485 via pin header
- SATA: 2 x SATA III connector (SATADOM supported)
- Audio: Stereo 6W + 6W audio amplifier, 5.1 channel line-out with stacked 3.5 mm jack or HD, Audio as Mic-in/Line-out
- Ethernet: 2 x Gigabit Ethernet ports
- Security: TPM 1.2

12.2.   Power supply

Supplies power for computers and peripheral devices.
- POWER SUPPLY BEA-740 450W 24V
- POWER SUPPLY BEA-740-B1 450W 24V (Alternative)
- POWER SUPPLY BAM 450W 5V,12V,24VDC (Alternative)

12.3.   Touch screen monitor

It is mounted on each machine and displays playboard's software graphics.
- MONITOR 32" FULL HD BESTECH
- MONITOR 32" FULL HD ALPHADISPLAY (Alternative)
- MONITOR 32" FULL HD KORTEK (Alternative)

12.4.   Bill acceptors

Accepts bills or vouchers and stakes them in the stacker box.
- BILL ACCEPTOR MEI SCN8347(RS232)
- BILL ACCEPTOR MEI SCN6607(RS232) (Alternative)
- BILL ACCEPTOR JCM UBA-10-SS (RS232) (Alternative)
- BILL ACCEPTOR JCM IVIZION (RS232) (Alternative)

12.5.   Ticket printers

Prints vouchers or receipts.
- PRINTER ITHACA EPIC 950L
- PRINTER FUTURE LOGIC GEN2 UNIVERSAL (Alternative)
- PRINTER FUTURE LOGIC GEN5 (Alternative)
- PRINTER FUTURE LOGIC GEN3 EVOLUTION (Alternative)

12.6.   Uninterruptible power supply (optional)

Provides stable power delivery to electrical components inside, protects equipment against power surges and acts as a power source for a limited time in case the mains power fails during operation.
- APC BACK-UPS 500VA 230V (BK500EI)

13. BASIC PROCEDURES

In this chapter you can find basic procedures like starting the machine, cashbox handling, changing paper, clearing jams in ticket printer, etc..

## 13.1.	Starting the machine

To power up the machine follow this steps:

STEP 1 Make sure the machine is properly connected to a wall socket and power cord is not damaged in any way.	**STEP 2** Open the service door
STEP 3 Put the main switch from position "O" to position "I" (main switch location visible on *Illustration 6: Internal components (bottom access)*, page 17). **Machine will start.** *If the machine doesn't start proceed with additional step 4 (UPS is turned off).*	**ADDITIONAL STEP 4** Locate the UPS (location visible on *Illustration 7: Internal components (back access)*, page 18) and switch it on. **Machine will start.**
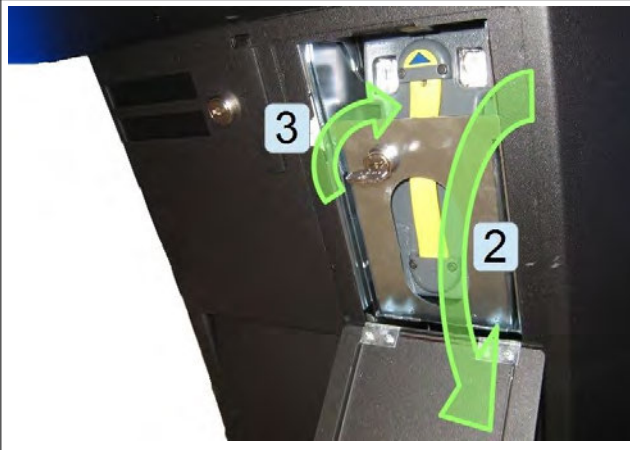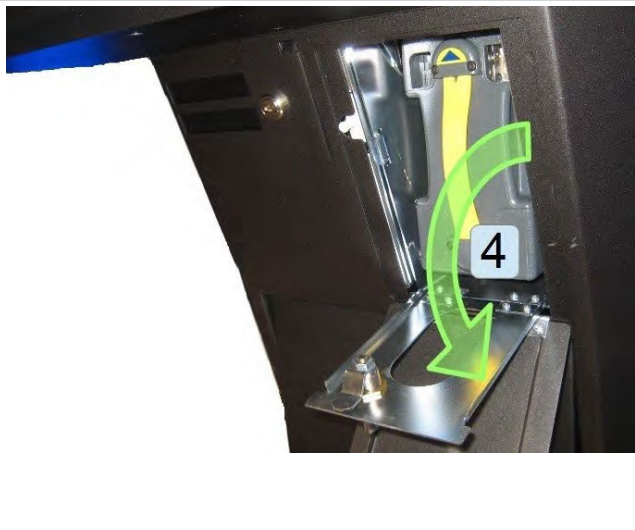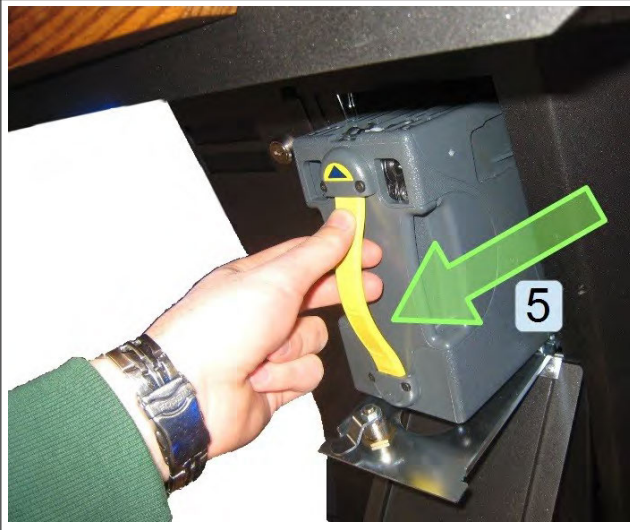
13.2. Removing the cashbox

To remove cashbox from the machine, follow this steps:
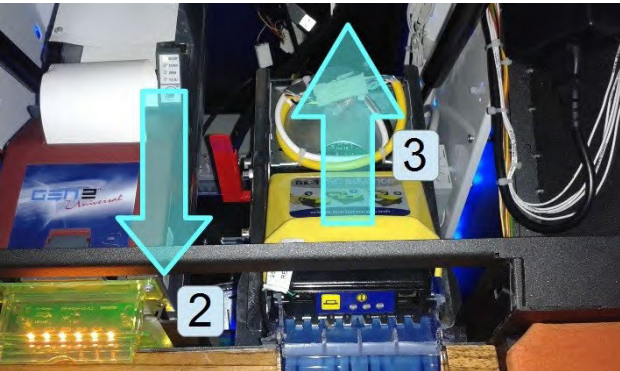
STEP 1 Unlock the bill door (1).	**STEP 2** Open the bill door (2) and unlock the cashbox protection door (3).
STEP 3 Open the cashbox protection door (4).	**STEP 4** Grab the cashbox by the handle and pull it toward yourself (5).

Installing the cashbox

Installing the cashbox can be done following the reverse order of steps provided above. First insert the cashbox back in the machine (5) – make sure that the blue triangle is pointing upwards. Close (4) and lock (3) cashbox protection door and do the same with bill door (2, 1).

13.3.   Removing bill acceptor head

In case that the bill acceptor is jammed or its necessary to inspect or replace the bill acceptor it can be easily removed by following the instructions below.

STEP 1 Follow the steps in chapter *10.1 Opening the screen assembly*, page 13, to open the screen assembly.	**STEP 2** Locate the red retention lever (1) that holds the bill acceptor assembly in place.
STEP 3 Unlock the assembly by pulling the lever towards yourself (2) and tilt the assembly towards the back of the machine (3).	**STEP 4** Locate the bill acceptor release mechanism (4).
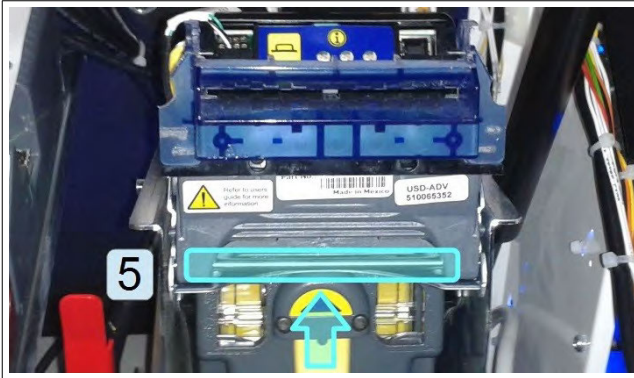
STEP 5	STEP 6
Push the bill acceptor release pin upwards (5) to unlock the mechanism.	Grab the bill acceptor and pull it slightly towards yourself (6) and then upwards (7).
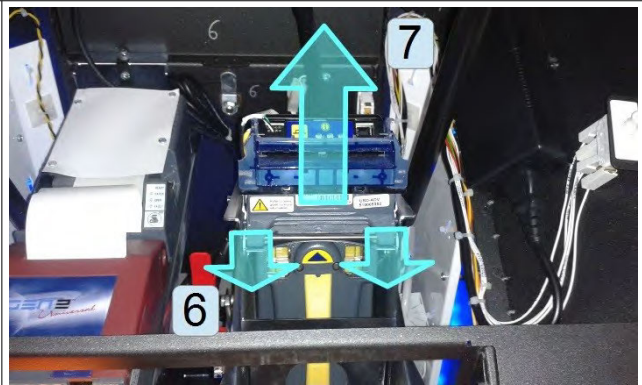
Installing the bill acceptor head

The install the bill acceptor head follow the steps in the following order. First make sure that the bill acceptor assembly is still tilted backwards (3). If its not, locate the red retention lever (1) and pull it towards yourself (2). At this point the bill acceptor assembly can be tilted backwards (3). Place the bill acceptor head to its original position (7, 6), the release pin will automatically engage (5). You can now move the bill acceptor assembly to its original position. The red retention lever will automatically engage as well (2).

13.4.   Opening the bill acceptor head

If a problems presents itself with the bill acceptor inspecting the internals is recommended. To open the bill acceptor head previously removed from the rest of the assembly follow the steps below.
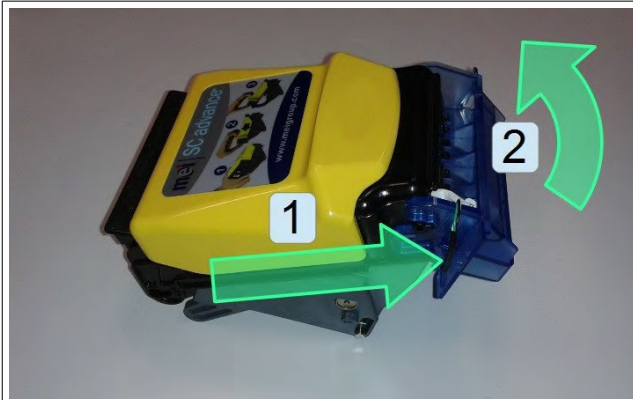
STEP 1
Push the yellow locking cover forward (1) until it reaches the final position and lift it upwards (2).
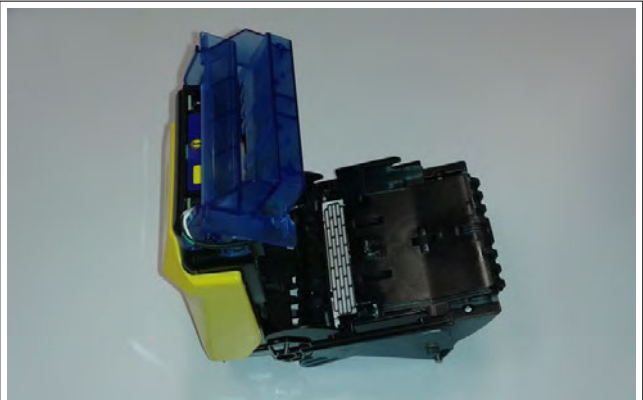
STEP 2
Bill acceptor head opened. Internal sensors are now accessible. Clear any potential jams present in the bill acceptor head.

STEP 3
Inspect the upper sensors and rollers.
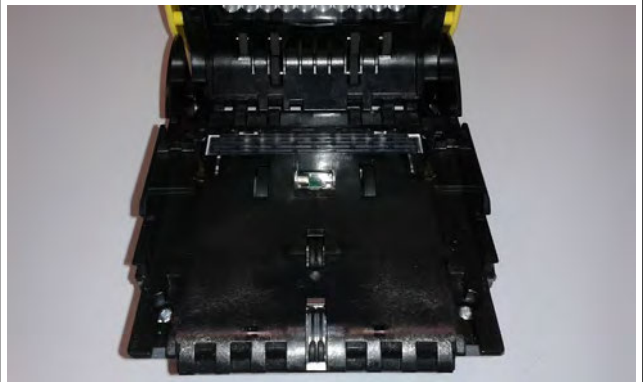
STEP 4
Inspect the lower sensors and rollers.

Note!
If the problem presents itself with the recognition abilities of the bill acceptor head the sensors should be cleaned with isopropyl alcohol.

Closing the bill acceptor head
The close the bill acceptor head follow the steps in reverse order. Close the yellow locking cover, it will automatically lock and position itself in the original position.

13.5. Changing paper, clearing jams in ticket printer

In order to gain access to the ticket printer to change paper or clear jams in necessary to open the screen assembly. The ticket printer is mounted in a fashion that enables unobstructed access to the component. Follow the steps below.

STEP 1 Follow the steps in chapter *10.1 Opening the screen assembly*, page 13, to open the screen assembly.	**STEP 2** Ticket printer is now exposed and can be accessed.

14. ADVANCED PROCEDURES

In this chapter you will find advanced procedures that require a qualified technician to be performed such as electrical components replacements, etc.

⚠️ Device should be unplugged from supply, UPS turned off and rotating parts stopped before opening any doors and engaging in major service activities.

14.1.   Replacing the supply cord

If the supply cord is showing damage in any way it should be immediately replaced (with the same type of approved supply cord). Replacement of electrical components should always be handled by the manufacturer, its service agents or equally qualified technicians. To do so follow this steps.

STEP 1 Shutdown the machine and disconnect it from the power grid. Shutdown the UPS and disconnect the UPS inputs and outputs.	**STEP 2** Locate, unlock and open the service door.
STEP 3 Locate the main power switch and unplug the supply cord.	**REASSEMBLY** To reassemble follow the instructions in reverse order. Route the new cable to the main power switch and connect it. Close the cover, secure it with two screws and power on the machine and UPS.

⚠️ Supply cord shall not be accessible to the user after installation of the machine or after replacing the supply cord.

15. WIRING

Appendix 3

KGM Software Manuals

KGM GAMING SOFTWARE
ALFA ACCOUNT SERVER v5.1.X.X

USER MANUAL

Table of Contents

1 Introduction

Alfa Account Server (AAS) is an application developed by KGM Gaming. It was made to manage everything related to accounting in connected games. It also communicates and operates with bill acceptors and ticket printers. With AAS software all playing station meters can be erased, RAM reset, all SAS system settings set and much more.

The graphics represented in this manual are for illustrative purposes only, variation may be possible. Some settings and parameters may not be available as they can be specifically configured for the customer. For detailed information please contact KGM Gaming via e-mail at info@kgmgaming.com or via phone at 215-430-0388.

2 Accessing Alfa Account Server

In order to access the Alfa Account Server on playing station the following steps must be taken:

- insert the electronic key or turn the menu mechanical lock (depending on playing station configuration),
- open the front door (service door) - needed for access to Configuration menu,
- select the **MENU** button,
- click on **ACCOUNT ACCESS** button,
- Alfa Account Server's **Status tab** will be opened.

Each tab featured in the main menu has its own chapter in this manual. Closing the main menu can be done by clicking **Exit** button.

3 Attendant

Attendant menu can be opened by selecting **Attendant** tab in the main menu. This menu features several operations the attendant can trigger if needed.

BUTTON	DESCRIPTION
Abort handpay	Aborts current handpay procedure.
Attendant handpay	Starts the attendant handpay procedure.
Bill acceptor eject	Ejects bill acceptor (depending on machine configuration).
Register	Starts the registration process to SAS server.
BA Enable	Enables bill acceptor.
Collect credits	Executes payout.
Clear credit	Clears credit (available only if Collect credits button was pressed).
Stacker reset / Reset recycler meters	In Bills meters tab(*5.2 Bills tab*) reset "*In stacker amount*" and "*Bills in stacker*" meters.
Cancel registration	Cancels registration to SAS server.
Exit	Exits menu.

4 Basic Meters

Basic meters tab can be used to retrieve essential meters (bet, win, etc.) of all connected stations in the same network. Stations that are shutdown or disconnected from the network will not be included.

BUTTON	DESCRIPTION
GET METERS	Retrieves essential meters from all active and connected stations and checks Roulette wheel cleaning maintenance interval.
Exit	Exit menu.

Prior to collecting the meters from the connected playing stations, cleaning maintenance intervals will be checked for all the connected Roulette wheels.
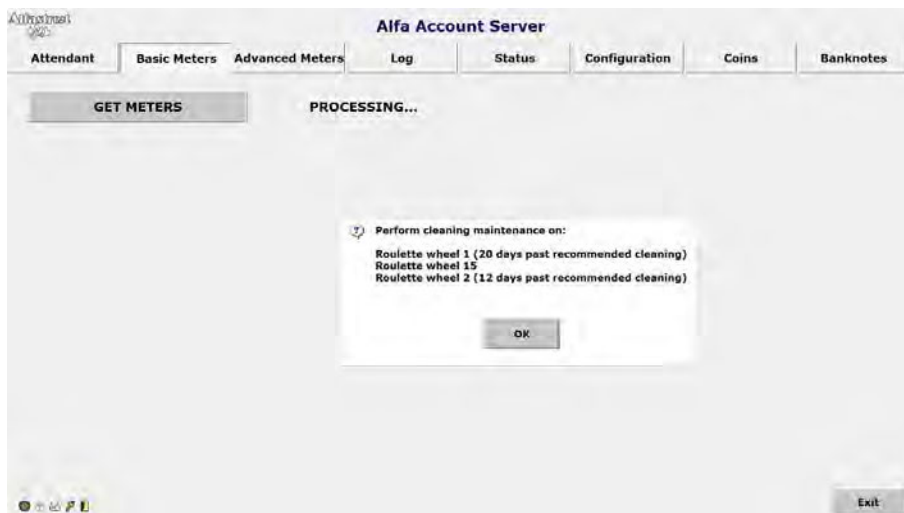
In order to ensure the best experience for the players and uninterrupted operation of the Roulette wheels, KGM Gaming recommends following the provided cleaning maintenance schedule. For instructions on how to perform cleaning maintenance please refer to the KGM Gaming Software ROULETTE AUTO User Manuals. Notification can be cleared by pressing the OK button.

When the basic meters are collected from all the stations, an overview is generated with all the most relevant information, presented in tables, as shown below.
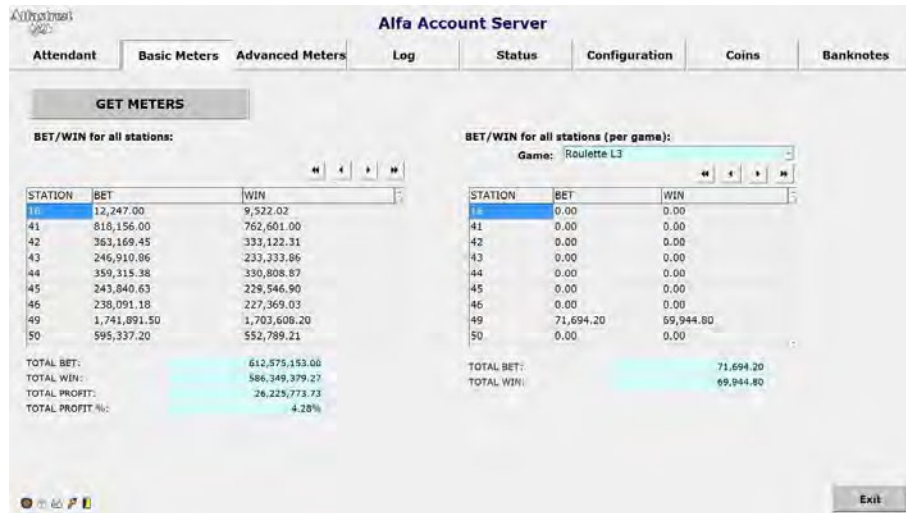
BUTTON	DESCRIPTION
BET/WIN for all stations	
STATION	Station identification number (Station ID).
BET	Total value of bets for the corresponding station.
WIN	Total value of wins for the corresponding station.
TOTAL BET	Combined total values of bets for all listed stations.
TOTAL WIN	Combined total values of wins for all listed stations.
TOTAL PROFIT	Combined profit value for all listed stations.
TOTAL PROFIT %	Combined profit value in percentage for all listed stations.
BET/WIN for all stations (per game)	
Game	Selected game to views meters from.
STATION	Station identification number (Station ID).
BET	Total value of bets placed by the corresponding station in the selected game.
WIN	Total value of win awarded to the corresponding station in the selected game.
TOTAL BET	Combined total value of bets placed by all listed stations in the selected game.
TOTAL WIN	Combined total value of win awarded to all listed stations in the selected game.
Exit	Exit menu.

5 Advanced Meters / Meters

This menu can found under either ''Meters'' or ''Advanced Meters'' name (depending on configuration), regardless of the name however, it always contains the same information. All meters for the playing station are displayed. In case this AAS is configured as ''MASTER'', meters of all connected Alfa Account Servers can be viewed here.
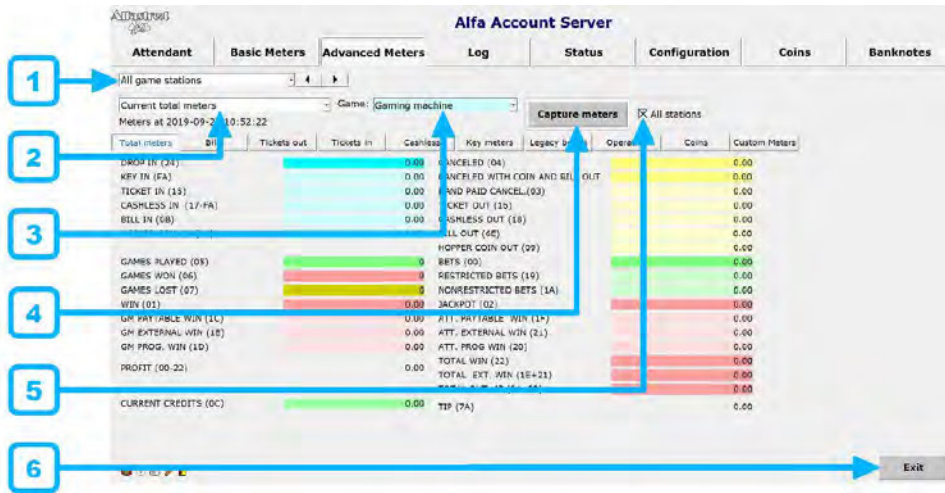
NUMBER	DROP DOWN MENU/BUTTON	DESCRIPTION
1	This drop down menu is only available if Master counters server is enabled (see chapter: *8.3.2 Electronic (Master) tab*).	Define the meters to be displayed: • This playing station (local counters), • Playing station x (counters of x playing station), • All game stations (sum of all playing stations).
2	Second drop-down menu	Select which counters will be displayed: • Current total meters - current meters on playing station, • Total meters at start of the day - meters values at start of this day, • Total user captured meters - values when **Capture meters** button is clicked, • Meter change since start of the day - values changed since start of this day, • Meter change since last capture - values changed since **Capture meters** button was clicked, • Permanent total meters - total meters since the first start of the station.
3	Game drop-down menu	Select which game's meters should be displayed (if there is more than one game available). If ''*Gaming machine*'' is selected, sum of all counters is displayed.
4	Capture meters	Capture current meters values of selected playing station.
5	All stations	Capture current meters values of all playing stations.
6	Exit	Exit menu.

5.1 Total meters tab

Total meters tab features total general meters. Numbers in parentheses represent **SAS code** values (example: SAS code for total **GAMES PLAYED** meter is **05**).

COUNTER	DESCRIPTION
DROP IN (24)	Total in credits.
KEY IN (FA)	Total key in credits.
TICKET IN (15)	Total ticket in credits.
CASHLESS IN (17-FA)	Total cashless in credits.
BILL IN (0B)	Total bill in credits.
HOPPER COIN IN (08)	Total coin hopper in credits.
GAMES PLAYED (05)	Total games played.
GAMES WON (06)	Total games won.
GAMES LOST (07)	Total games lost.
WIN (01)	Total win counter.
GM PAYTABLE WIN (1C)	Total paytable win, not including bonus amounts.
GM EXTERNAL WIN (1E)	Total external bonus win.
GM PROG. WIN (1D)	Total progressive bonus win.
PROFIT (00-22)	Total profit counter.
CURRENT CREDITS (0C)	Current credit counter.
CANCELED (04)	Total payout credit counter.
CANCELED WITH COIN AND BILL OUT	Total payout credit counter including Coin out and Bill out meters.
HAND PAID CANCEL.(03)	Total handpay credit counter.
TICKET OUT (16)	Total ticket payout counter.
CASHLESS OUT (18)	Total cashless payout counter.
BILL OUT (6E)	Total bills paid out to player.
HOPPER COIN OUT (09)	Total payout from coin hopper.
BETS (00)	Total bets played counter.

COUNTER	DESCRIPTION
RESTRICTED BETS (19)	Total restricted bets counter.
NONRESTRICTED BETS (1A)	Total non restricted bets counter.
JACKPOT (02)	Total jackpot credits counter.
ATT. PAYTABLE WIN (1F)	Total attendant paid paytable win, not including external bonus amounts.
ATT. EXTERNAL WIN (21)	Total attendant paid external bonus win.
ATT. PROG WIN (20)	Total attendant paid progressive win.
TOTAL WIN (22)	Total won credits.
TOTAL EXT. WIN (1E+21)	Total external bonus win including total attendant paid external bonus win.
TOTAL OUT+JP (04+02)	Total payout and total jackpot credits counter.
TIP (7A)	Total tip counter.
Exit	Exit menu.

5.2 Bills tab

Bills tab features meters regarding bills and bill acceptor.

COUNTER	DESCRIPTION
TOTAL BILLS AMOUNT	Value of all accepted bills.
TOTAL BILLS ACCEPTED	Number of all bills accepted.
IN STACKER AMOUNT / AMOUNT IN RECYCLER	Value of all bills in stacker/recycler since last reset.
BILLS IN STACKER / BILL IN RECYCLER	Number of all bills in stacker/recycler since last reset.
BILL x	Number of accepted bills of x value.
BILLS/TICKETS REJECTED	Number of bills and/or tickets rejected relating to the bill acceptor/recycler limitations (unable to read and/or recognize inserted bills/tickets).
BILLS/TICKETS RETURNED	Number of bills and/or tickets returned relating to them being rejected due to the software limits or specific parameters configurations in place.
Date/Time	Date and time when the bill was stacked.
Value	Value of stacked bill.
Exit	Exit menu.

5.3 Tickets out tab

Tickets out tab features meters regarding printed tickets.
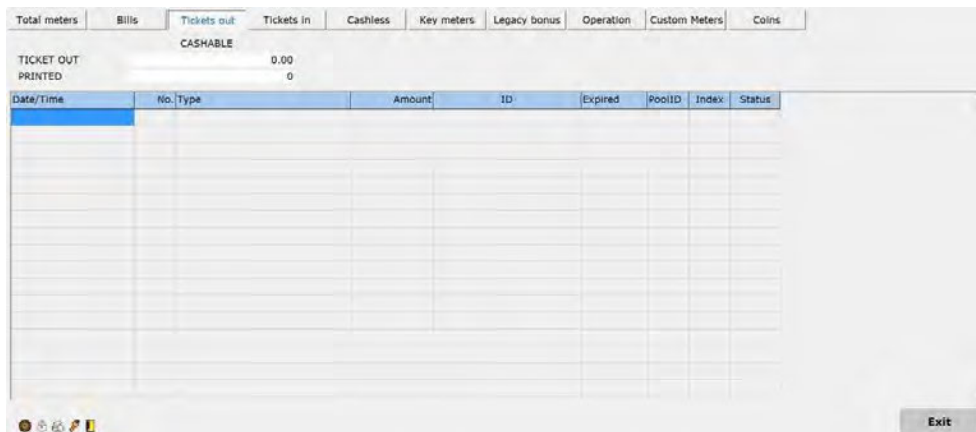
COUNTER	DESCRIPTION
TICKET OUT	Value of printed tickets cashable/restricted.
PRINTED	Number of printed tickets cashable/restricted.
Date/Time	Date and time of printing.
No.	Ticket's number.
Type	Ticket's type.
Amount	Ticket's value.
ID	Ticket's ID.
Expired	Expiration date.
Pool ID	ID of pool.
Index	Index number of ticket.
Status	Status of ticket.
Exit	Exit menu.

5.4 Tickets in tab

Tickets in tab features meters regarding accepted tickets.
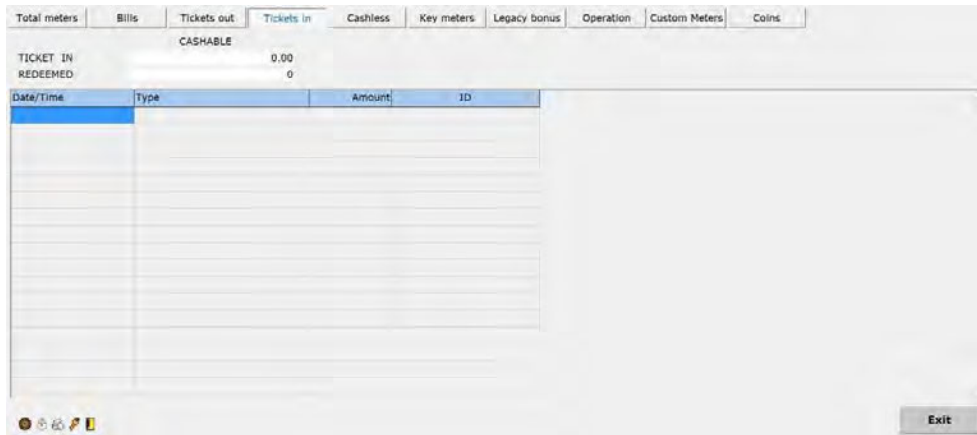
COUNTER	DESCRIPTION
TICKET IN	Value of accepted tickets cashable/restricted/nonrestricted.
REDEEMED	Number of accepted tickets cashable/restricted/nonrestricted.
Date/Time	Date and time of print.
Type	Type of ticket.
Amount	Ticket's value.
ID	Ticket's ID number.
Exit	Exit menu.

5.5 Cashless tab

Cashless tab features meters regarding cashless transactions.
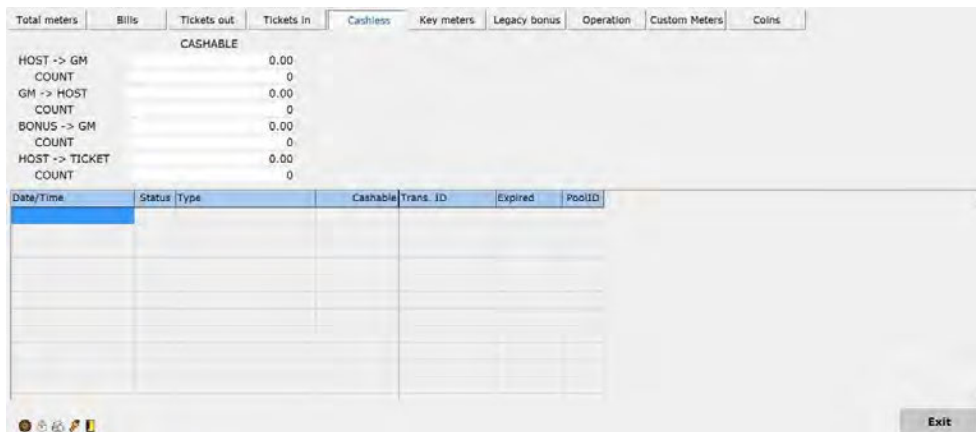
COUNTER	DESCRIPTION
HOST-> GM	Value of transfers from host to playing station cashable/restricted/nonrestricted.
COUNT	Number of transfers cashable/restricted/nonrestricted.
GM-> HOST	Value of transfers from playing station to host cashable/restricted/nonrestricted.
COUNT	Number of transfers cashable/restricted/nonrestricted.
BONUS-> GM	Value of bonus transfers to playing station cashable/nonrestricted.
COUNT	Number of transfers cashable/nonrestricted.
HOST-> TICKET	Value of transfers from host to tickets cashable/restricted.
COUNT	Number of transfers cashable/restricted.
Date/Time	Date and time of transfer.
Status	Status of transfer.
Type	Type of transfer.
Cashable/Restricted/Nonrestricted	Amount of transfer cashable/restricted/nonrestricted.
Trans. ID	ID of transfer.
Expired	Date of expiration.
Pool ID	ID of pool.
Exit	Exit menu.

5.6 Key meters tab

Key meters tab features meters regarding electronic keys.
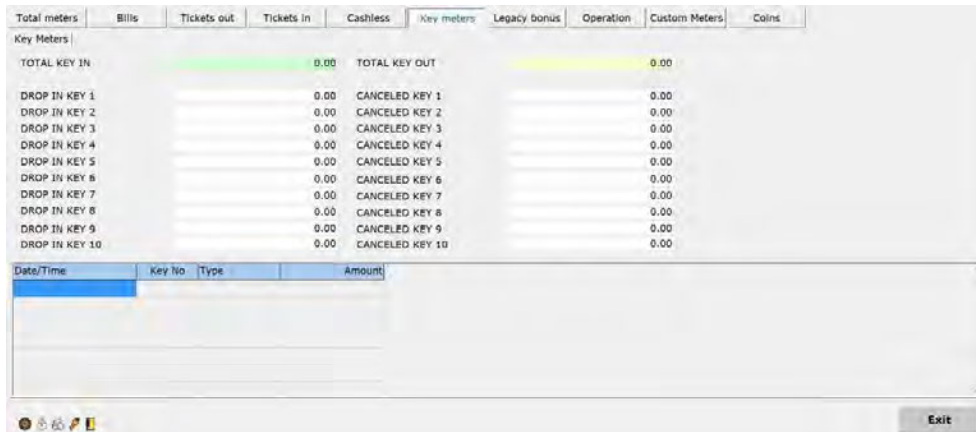
COUNTER	DESCRIPTION
TOTAL KEY IN	Total of credits added with electronic key.
DROP IN KEY x	Total of credits added with electronic key x.
TOTAL KEY OUT	Total of credits paid out with electronic key.
CANCELED KEY x	Total of credits paid out with electronic key x.
Date/Time	Date and time when the electronic key was inserted.
Key No	Key number.
Type	Key type.
Amount	Amount of credits that were added.
Exit	Exit menu.

5.7 Legacy bonus tab

Legacy bonus tab features meters regarding legacy bonus.
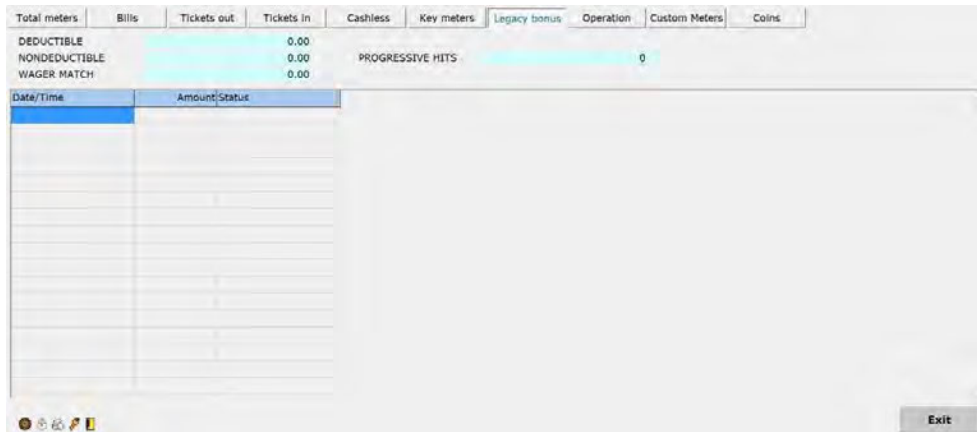
COUNTER	DESCRIPTION
DEDUCTIBLE	Tax status of the legacy bonus award (deductible).
NONDEDUCTIBLE	Tax status of the legacy bonus award (nondeductible).
WAGER MATCH	Tax status of the legacy bonus award (wager match).
PROGRESSIVE HITS	Number of progressive bonus game wins for the current playing terminal. *Only for KGM Gaming (progressive) Bonus Games.*
Date/Time	Date and time of legacy bonus.
Amount	Amount of legacy bonus.
Status	Status of legacy bonus.
Exit	Exit menu.

5.8 Operation tab

Operation tab features meters regarding the operation on the machine.
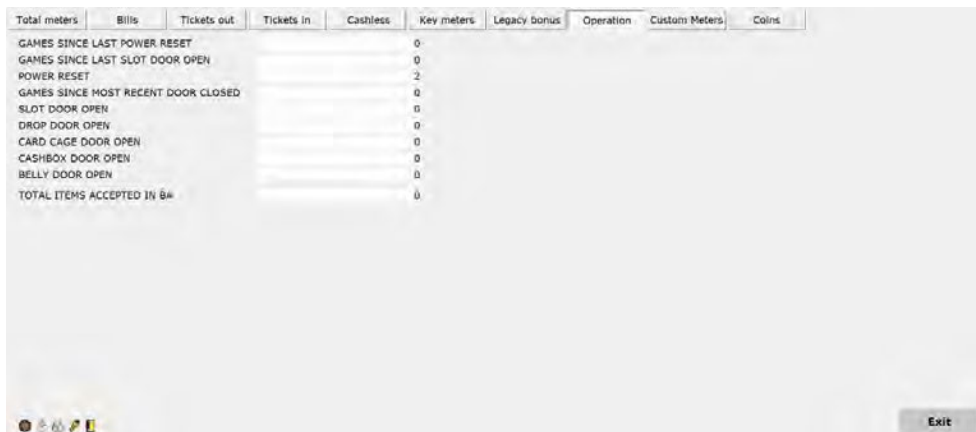
COUNTER	DESCRIPTION
GAMES SINCE LAST POWER RESET	Number of games since last power reset.
GAMES SINCE LAST SLOT DOOR OPEN	Number of games since last door open.
POWER RESET	Number of power resets.
GAMES SINCE MOST RECENT DOOR CLOSED	Number of games since most recent door closed event.
SLOT DOOR OPEN	Number of slot door openings.
DROP DOOR OPEN	Number of drop door openings.
CARD CAGE DOOR OPEN	Number of card cage door openings.
CASHBOX DOOR OPEN	Number of cashbox door openings.
BELLY DOOR OPEN	Number of belly door openings.
TOTAL ITEMS ACCEPTED IN BA	Total number of items accepted in bill acceptor.
Exit	Exit menu.

5.9 Custom Meters tab

Custom meters tab features customer/market specific meters.

COUNTER	DESCRIPTION
COIN IN (00)	Total bets played counter.
COIN OUT (1C)	Total paytable win, not including bonus amounts.
ATTENDANT PAID JACKPOTS (1F)	Total attendant paid paytable win, not including external bonus amounts.
ATTENDANT PAID CANCELLED CREDITS (03)	Total handpay credit counter.
VOUCHER IN (15)	Total ticket in credits.
VOUCHER OUT (16)	Total ticket payout counter.
WAT IN (A0)	Cashable AFT Transfers To Machine
WAT OUT (B8)	Cashable AFT Transfers From Machine
NON-CASHABLE ELECTRONIC PROMOTION IN (A2)	Restricted AFT Transfers To Machine
CASHABLE ELECTRONIC PROMOTION IN (A4)	Non-restricted AFT transfers To Machine
NON-CASHABLE ELECTRONIC PROMOTION OUT (BA)	Restricted AFT Transfers From Machine
CASHABLE ELECTRONIC PROMOTION OUT (BC)	Non-restricted AFT transfers From Machine
COUPON PROMOTION IN (82)	Restricted tickets in
COUPON PROMOTION OUT (88)	Restricted tickets out
MACHINE PAID EXTERNAL BONUS PAYOUT (1E)	Total external bonus win.
ATTENDANT PAID EXTERNAL BONUS PAYOUT (21)	Total attendant paid external bonus win.
ATTENDANT PAID PROGRESSIVE PAYOUT (20)	Total attendant paid progressive win.
MACHINE PAID PROGRESSIVE PAYOUT (1D)	Total progressive bonus win.
Exit	Exit menu.

5.10 Coins tab

Coins tab features meters regarding coins.

COUNTER	DESCRIPTION
COIN IN	Total coins inserted by player.
COIN OUT	Total coins paid to player.
COIN IN BY LEVELS	Total value of accepted coins per specific coin type.
COIN OUT BY LEVELS	Total value of paid out coins per specific coin type.
EMPTIED TO CASHBOX	Total value of all coins transferred/emptied to cashbox.
Exit	Exit menu.

6 Log

In this menu all the events that happened on this playing station can be seen. To move up and down, line by line button < and > can be used. To move up and down, page by page << and >> button can be used.
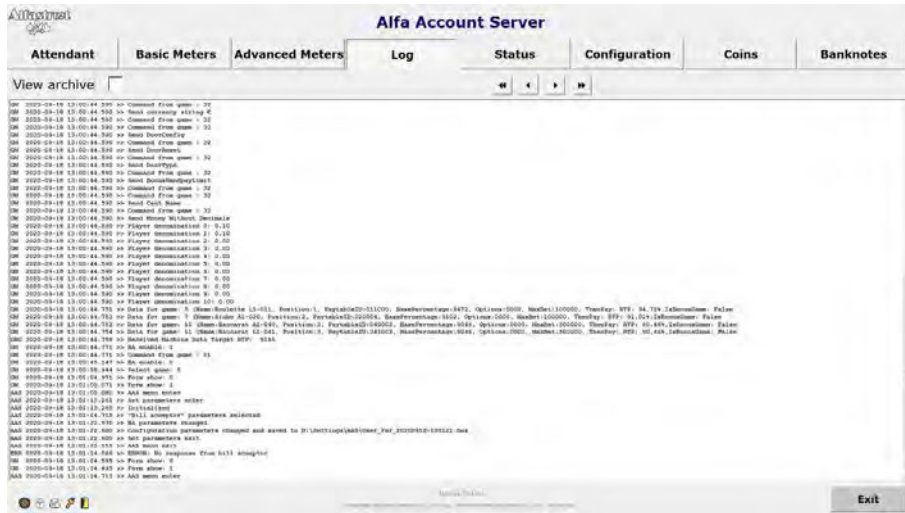
Specific date and time event can be viewed by selecting **View archive** option (followed by desired **date** and **time**). Event can be viewed by clicking **Load** button.
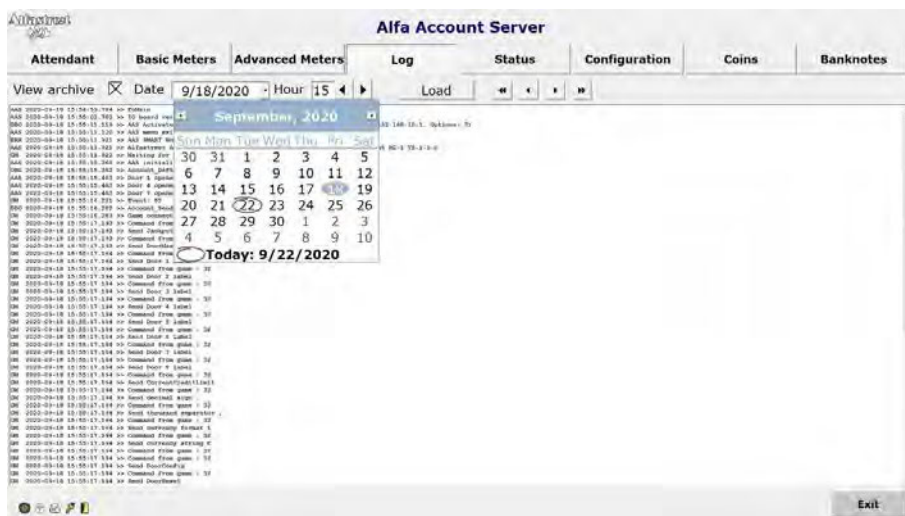
7 Status

This menu offers an overview of all currently implemented settings as well as connected devices, software and firmware.

7.1 TEST

In this menu, all peripheral hardware such as lamps (lights), doors, keys, printer and bill acceptor can be tested and verified. Test menu can be closed by clicking **Done** button.
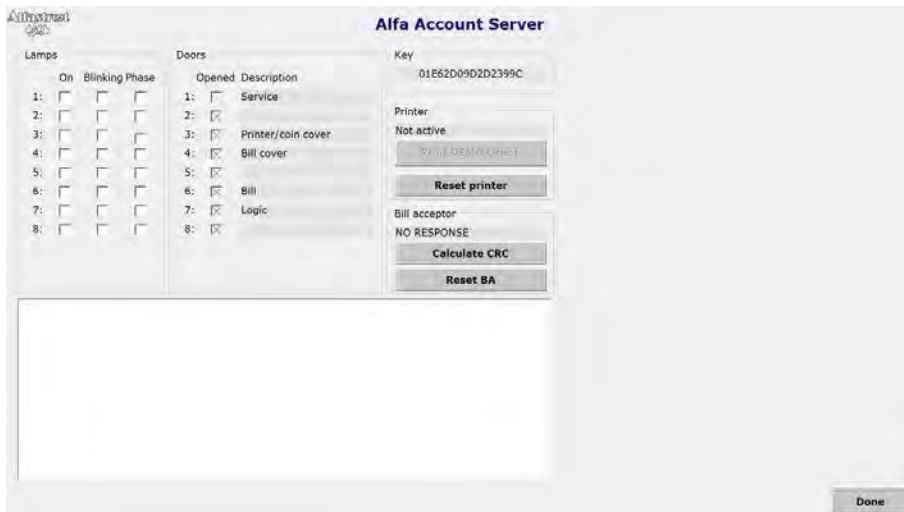
8 Configuration

Configuration menu will only be available if the front door (service door) is opened. All the AAS parameters can be adjusted by pressing the **Set parameters** button.

They are divided into several tabs described in the following chapters. Additionally several operations can be triggered from the configuration menu (described in the table below).

COUNTER	DESCRIPTION
Set parameters	Access to set parameters menu. See the following chapters for detailed descriptions of all available tabs and corresponding parameters.
Load parameters	Load predefined configuration parameters (button visible under specific conditions).
Factory parameters	Load default factory configuration.
Data reset	By clicking this button, all event information displayed in tables within the Meters menu (date, time, status, ID of transaction) of bills, tickets, cashless, key meters, legacy bonus and operations will be erased and SAS will be disabled.
Meter reset	By clicking this button, all meters will be set to zero.
RAM reset	By clicking this button, RAM will be reset (**Data reset** and **meter reset** will be performed).
All stations	If checked, **Meters reset** and **RAM Reset** will affect all connected Alfa Account Servers (this option is active only on ''MASTER'' Alfa Account Server).
Exit	Exit menu.

8.1 Keys tab

In this tab, new and current keys permissions can be checked or defined. If the key inserted is not yet programmed, **Define new key** button will appear. By pressing it, a new key can be programmed (defined).

PARAMETER	DESCRIPTION
Defined	If checked, the corresponding key ID number is already assigned to an electronic key.
Inserted	Currently inserted key is marked with the grey dot under the corresponding ID number.
Meters	If checked, electronic key under corresponding ID number is configured as **meters key**. See the table on the next page for assigned privileges.
Configuration	If checked, electronic key under corresponding ID number is configured as **configuration key**. See the table on the next page for assigned privileges.
Master	If checked, electronic key under corresponding ID number is configured as **master key**. See the table on the next page for assigned privileges.
Password	Electronic key can additional be protected with a password. To do so enter the password in the corresponding window.
Inserted key code	Currently inserted electronic key identification number/code.
Define new key	Defines/programs and assigns the newly inserted electronic key to the next free key ID number.
Done	Exit menu.

KGM Gaming offers 3 presents for the electronic key privileges - **meters**, **configuration** and **master**. Each key can be assigned with one or more presets. The differences between presets are provided in the table below.

ASSIGNED PRIVILEGE / OPERATION	METERS KEY	CONFIGURATION KEY	MASTER KEY
Show meters	X		X
Show log	X	X	X
Status	X	X	X
BA enable/disable	X	X	X
Test hardware	X	X	X
Capture meters			X
Eject BA		X	X
Abort handpay	X	X	X
AFT register/unregister		X	X
Settings			X
RAM reset			X
Attendant cashout	X	X	X
Default configuration			X

When coin hopper or/and RECYCLER bill acceptor is enabled, the additional electronic key presets are used. The differences between **Coins menu** and **Banknotes menu** presets are provided in the table below.

ASSIGNED PRIVILEGE / OPERATION	METERS KEY	CONFIGURATION KEY	MASTER KEY
Coins menu: • View status of the hopper, • Reset hopper, • View status of current cash level and current coin levels, • Automatic refilling (active when in menu) - slower method.	X	X	X
Coins menu: • reset refill meters, • perform coin payouts (not affecting meters), • perform emptying to cashbox.			X
Banknotes menu: • view status of the recycler, • reset recycler, • view status of current cash level and current banknotes levels, • automatic refilling (active when in menu) - slower method.	X	X	X
Banknotes menu: • stacking bills, • adding bills manually - faster method, • removing bills manually.			X

8.2 Door tab

In this tab, all playing station doors can be monitored or defined. Each door can additionally configured for accessing **Configuration menu** (*8 Configuration*) or to perform any kind of reset procedure.

PARAMETER	DESCRIPTION
Active	If checked, the corresponding monitoring door switch is active.
SAS Type	Define the door type: • Undefined, • Slot, • Drop, • CardCage, • CashBox, • Belly.
Description	Define a name for the door that will be displayed once the door is opened: • Service, • Logic, • Corner, • Bill cover, • Bill, • Printer/coin cover, • Printer/coin. A custom name for the door can also be typed in this window using the on screen keyboard.
Config	If checked, this door must be opened to access the **Configuration menu**.
Reset	If checked, this door must be opened to perform any reset procedure (**data reset**, **meters reset**, **RAM reset**).
Opened	Currently opened door is marked with the grey dot under the corresponding ID number.
Done	Exit menu.

8.3 Counters tab

Under this tab both mechanical and electronic (master) counters can be configured and enabled.

8.3.1 Mechanical tab

In this tab, mechanical counters can be enabled and configured. All parameters regarding mechanical counters (physical position, counters counting values) can also be defined in this tab.

PARAMETER	DESCRIPTION
Counter	Physical position of a counter.
Meter ID	Select which value a counter counts: • TOTAL IN - all payins, • TOTAL OUT - all payouts, • JACKPOT - value of paid jackpots, • TOTAL WIN - value of all wins, • HAND PAID CANCELED - total handpay credit counter, • GAMES PLAYED - all games played with bets, • BILL IN - total bill in credits, • TICKET IN - total ticket in credits, • TICKET OUT - total ticket payout counter, • CASHLESS IN - total cashless in credits, • CASHLESS OUT - total cashless payout counter, • GAMES PLAYED - total games played, • TOTAL EXT. WIN - total external bonus win including total attendant paid external bonus win. The available meters may vary, depending on configuration.
Denomination	Mechanical meters denomination. Example for DROP IN counter with 5€ (500¢) inserted Denomination set to: • 1 - DROP IN mechanical counter will increase for 500, • 20 - DROP IN mechanical counter will increase for 25, • 100 - DROP IN mechanical counter will increase for 5.
Mechanical counters show	Define what mechanical counters show: • Nothing - counters are disabled, • Local meters - counter counts data on local playing station, • Master meters - counter counts data on all connected playing stations.

PARAMETER	DESCRIPTION
Pair	Pair playing station with external mechanical counters. Current electronic meters will be set as their initial values. Current mechanical counters state is displayed in **STATUS** menu (*7 Status*) *.
Done	Exit menu.

* The picture below shows current mechanical counters state displayed in **STATUS menu**.

Door status: (11010011) Opened doors: Service, Logic,
Key status: Key 1 (Code 01642647DED99DCB) Master 00000001
Keyboard version: N/A
IO devices statusALFASTREET IO_eK_4.1 - Active - CRC: E30EA30E630E230EE30FA30F630F230F
EXT Counters status: 2_CNT_V6.0 - Ext Counters Active
Bill acceptor status: Not installed - Not Active
Printer status: Not installed - Not active
Account status: SAS disabled VAN Disabled
Game status: MgCore 10.0.1.1 - Connected
GAT status: Enabled Active
Hopper firmware : not detected
EPROM version: N/A

8.3.1.1   Example for mechanical counters

If settings are made as shown below, there are three mechanical counters that count credits on the playing station. First counts **TOTAL IN** credits, second counts **TOTAL OUT** credits, third counts **TOTAL BETS** credits. All three counters have **100 cents denomination**, which means that each counter will make one turn after 100 cents.

Note that if ''Mechanical counters show'' parameter is set to ''NOTHING'', counters will be **disabled**.

If counter 1 is showing: with Denomination set to 100, means TOTAL IN = 30·100 ¢ = 30 €/$/£.

8.3.2 Electronic (Master) tab

In this tab, settings for total meters can be made. This means, that one of connected Alfa Account Servers will be set as master and will be able to collect and display sum of all connected AAS counters. Alfa Account Servers is compatible with all SAS 6.2 electronic meters.

PARAMETER	DESCRIPTION
Master Server enabled	Must be checked only on Alfa Account Server which will be defined as **MASTER** (wheel) and will collect data of all other connected Alfa Account Servers (playing stations).
Max Master clients	Maximum number of connected Alfa Account Servers.
Master Client enabled	Must be checked on all Alfa Account Servers which will be connected to the MASTER Alfa Account Server (**CLIENTS**).
Master Client IDN	Unique client ID number connected to the MASTER Alfa Account Server.
Master Server IP	IP address of Alfa Account Server which is defined as **MASTER**.
Done	Exit menu.

8.3.2.1 Example 1 for electronic counters

If settings are made as shown below, there are 10 Alfa Account Servers (playing stations) configured as clients connected to one Alfa Account Server configured as master (wheel).

In out example master AAS is configured for 10 maximum connected AAS clients:
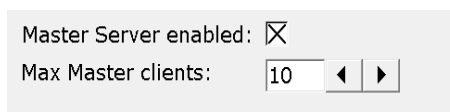
Each connected AAS client must have **unique client ID number** (can be same as Station ID in the MgCore) and **master's IP address**.

In our example below client's Alfa Account server has unique client ID: 69 (playing station with ID number 69) and is connected to maser AAS with IP address 192.168.0.1.
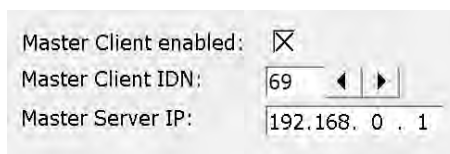
8.3.2.2   Example 2 for electronic and mechanical counters

If settings are made as shown below, there are 10 Alfa Account Servers (playing stations) configured as clients connected to one Alfa Account Server configured as master (wheel), with additional mechanical counters.

In out example master AAS is configured for 10 maximum connected AAS clients:

Master mechanical counters are only configured on master Alfa Account Server (wheel). First counter counts **TOTAL IN** credits, second counter counts **TOTAL OUT** credits and third counter counts **TOTAL BETS** credits, of all connected playing stations.

All three master counters have **100 cents denomination**, which means that each counter will increase by one after 100 cents. **Note that if "Mechanical counters show" parameter is set to "NOTHING", counters will be disabled.**

If counter 1 is showing: with Denomination set to 100, means TOTAL IN = 30·100 ¢ = 30 €/$/£**.**

Each connected AAS client must have **unique client ID number** (can be same as Station ID in the MgCore) and **master's IP address**. In our example below client's Alfa Account server has unique client ID: 69 (playing station with ID number 69) and is connected to maser AAS with IP address 192.168.0.1.

8.4 Game tab

In this tab, settings about the game can be set, denominations, limits, etc.

PARAMETER	DESCRIPTION
Accounting Denomination	Set this value to 0.01, if you want to have SAS accounting in cents (default).
Current Credit In Limit	Max value of added credits. Example: Current Credit In Limit is set to 1.000, current credit on playing station is 800, only 200 credits can be added to the playing station.
Bill In Limit	Credits using bills can be added up to this value.
Ticket In Limit	Credits using tickets can be added up to this value.
Current Credit Limit	Max value of credits allowed on the playing station.
Jackpot Handpay Limit	Bet winnings above this value will automatically results in a handpay. **Winnings from progressive or mistery are excluded from jackpot winnings**.
Bonus Handpay Limit	External bonus (progressive or mistery) winnings above this value will automatically result in a handpay.
Promo (Restricted) Credits	If checked, restricted credits are allowed.
NonRestricted Credits	If checked, non-restricted credits are allowed.
Credit Residuals Allowed	If checked, credit residuals are allowed (for example: 3.33 €/$/£).
Residuals Buffered Until Cashout	If checked, credit residuals are buffered until cashout.
Remote Handpay Reset Allowed	If checked, handpay can be reset remotely.
Jackpot To Credit Limit	Amount of jackpot that can go to credits.
Tip Type	Disable or enable/define (market/customer specific) tips: • NONE, • SWISS, • GERMAN.
Hopper In Limit	Max value of current credits when acceptance of coins by hopper is disabled.
Show Basic meters tab	If checked, **Meters tab** will be divided into Basic Meters and Advanced Meters tabs.
Done	Exit menu.

8.5 Country tab

In this tab, can be set information about destination country and their currency.

PARAMETER	DESCRIPTION
Country	Name of destination country.
Currency Code	Code of Currency (EUR, GBP, etc.).
Currency Name	Name of currency (EURO, POUND, etc.).
Currency Cents Name	Name of cents (CENT, PENNY).
Decimal Separator	Separator used for decimals (1.00)
Thousands Separator	Separator used for thousands (1,000,00)
Currency Code Before Value	If checked the currency code will appear before the value.
Selected Language	Menu language of Alfa Account Server (not including the Set parameters menu): • ENGLISH, • SPANISH.
Done	Exit menu.

8.6 SAS tab

In this tab, all settings about SAS communicating devices can be set.

PARAMETER	DESCRIPTION
SAS Enabled	If checked, SAS is enabled.
GM Serial No.	Serial number of playing station.
Channel 1 Enabled	If checked, Channel 1 is enabled.
Channel 1 GM Address	Playing station ID for channel 1.
Channel 2 Enabled	If checked, Channel 2 is enabled.
Channel 2 GM Address	Playing station ID for channel 2.
Control Channel	Define which SAS channel is Control channel: • 0, • 1, • 2.
Validation Channel	Define which SAS channel is Validation channel: • 0, • 1, • 2.
Bonus Channel	Define which SAS channel is Bonus channel: • 0, • 1, • 2.
Validate Handpay	If checked, handpays are validated.
Validation Type	Define validation type: • Standard - standard protocol is used for ticket validation, • System - system protocol is used for ticket validation, • Enhanced - enhanced protocol is used for ticket validation.

PARAMETER	DESCRIPTION
Meter Accuracy	Number of BDC bytes transmitted for meters report to host: • 4, • 5, • 6, • 7, • 8, • 9.
Legacy Handpay	If checked, Legacy handpay is enabled.
Lock if Offline	Playing station will lock if SAS connection is offline.
Special Flags 1	Additional SAS settings specific configured for clients. For additional information see chapter: *8.6.1 SAS Special Flags* or contact KGM Gaming for additional information.
Special Flags 2	Additional SAS settings specific configured for clients. For additional information see chapter: *8.6.1 SAS Special Flags* or contact KGM Gaming support for additional information.
Enable RTE (Real Time Event)	If checked, exception events (for example: open door) will be reported in real time.
Done	Exit menu.

8.6.1 SAS Special Flags

Special Flags1 and Special Flags2 are additional SAS settings that can be specific configured for clients. Desired settings can be enabled or disabled by placing 0 or 1 in corresponding digit location (from 7 to 0):

- To **enable** desired setting place number: **1**,
- To **disable** desired setting place number: **0**.

Special flags are depended on connected SAS server version and it's configuration.
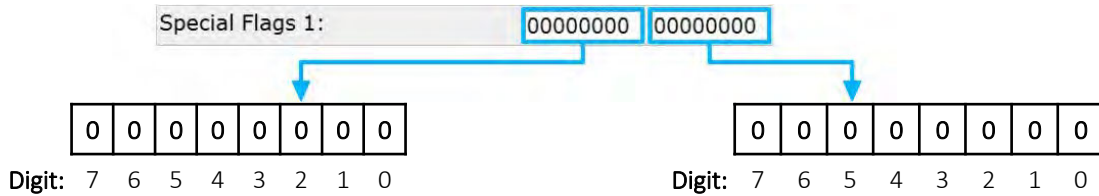
Digit	Description
0	Last game data special event
1	Last game bets special event
2	Controls sending of "Printer paper low" event
3	Payouts data special event
4	Credit in data special event
5	Bally host event
6	Win number reported also when not RTE
7	Win number reported also when game not played

Digit	Description
0	Tips meterd in TrueCoinIn
1	N/A
2	AFT Lock denyed of bets > 0
3	GM Busy reported if bets > 0
4	N/A
5	Win transfers (90) redirected
6	Special LP 72 response
7	Report in A0: 40ms not supported
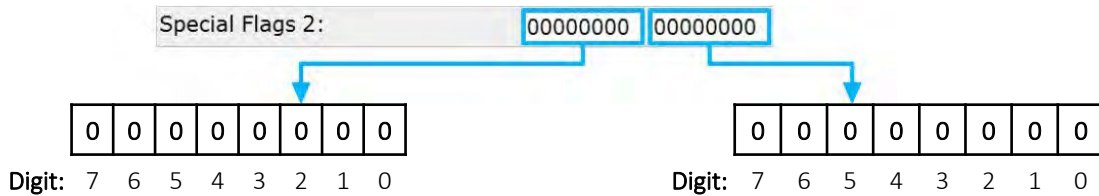
Digit	Description
0	Romunian behavior
1	AFT - meters are incremented after interrogate – transfer code FF
2	KeyMeter incremented when Attendant Jackpot (Bonus) reset
3	Exception 8C is not sent when MG changing game
4	Send Exceptions 67 and 68 also on non-validation channels
5	Do not Send E4 GP Pool (History Data)
6	Send Exception 52 after 94 remote handpay reset
7	Ignore Handpay Amount AFT (Oklahoma, card out when printing ticket)

Digit	Description
0	Send Exception 51 to all channels
1	Send Game Start 7E At No More Bets
2	If Void Return Bet As Win
3	Disable SAS Disconnect Error on CH1
4	Disable SAS Disconnect Error on CH2
5	Don't send Exception 46
6	Don't send Exception 40
7	N/A

8.7 AFT tab

In this tab, all settings about the Advanced Fund Transfer(AFT) can be set.

PARAMETER	DESCRIPTION
AFT Channel	Define on which SAS channel AFT is connected: • 0 - disabled, • 1, • 2.
GM Asset No.	Playing station AFT asset number (defined by Online system).
AFT Transfer Limit	Max value of credit that can be transfer through system.
Partial Transfers	If checked, Partial transfers are allowed. Payout can be transferred all at once or in parts, as player defines (partial).
In-House Transfers	If checked, In-House transfers are allowed. This parameter is required for transferring credits between playing station and host (Online server).
Bonus Transfers	If checked, Bonus transfers are allowed.
Cashout Controllable by Host	If checked, "*Cashout to Host Allowed*" and "*Cashout only to Host*" parameter is controlled by host (online server).
Cashout to Host Allowed	If checked, Cashout to host (online server) is possible. If not checked, Cashout will be done trough alternative options (ticket or handpay).
Cashout only to Host	If checked, Cashout can only be done through cashless system, **printer won't print tickets**.
Done	Exit menu.

8.8 Bill acceptor tab

In this tab, bill acceptor can be enabled and it's denomination channels can be set up.

PARAMETER	DESCRIPTION
Bill Acceptor Type	Define bill acceptor: • no - bill acceptor disabled, • JCM UBA, • GPT VALIDATOR V2.2 (serial), • GBA VALIDATOR (serial), • ICT VALIDATOR (serial), • JCM EBA VALIDATOR, • MEI, • TicketCard, • JCM RECYCLER.
Auto configuration / Code (Only available for MEI Bill Acceptor Type)	Auto configure the bill acceptor (only for MEI).
BA Chan x Denomination	Denomination of selected bill acceptor channel.
Enabled	Define active BA channels for the bill acceptor. Spanish market specific: BA channels are regulated by the selected community.
RC Enabled (Only available for JCM RECYCLER Bill Acceptor Type)	If checked, bill recycler will be able to perform payout.
BIN 1 Denomination (Only available for **JCM RECYCLER** Bill Acceptor Type)	Bill type assigned to BIN 1 (upper compartment) in bill recyclers recycle box: • DENOMINATION 1, • DENOMINATION 2, • DENOMINATION 3, • DENOMINATION 4, • DENOMINATION 5, • DENOMINATION 6, • DENOMINATION 7, • DENOMINATION 8.

PARAMETER	DESCRIPTION
BIN 2 Denomination *(Only available for **JCM RECYCLER** Bill Acceptor Type)*	Bill type assigned to BIN 2 (lower compartment) in bill recyclers recycle box: • DENOMINATION 1, • DENOMINATION 2, • DENOMINATION 3, • DENOMINATION 4, • DENOMINATION 5, • DENOMINATION 6, • DENOMINATION 7, • DENOMINATION 8.
RC Max Payout Value *(Only available for **JCM RECYCLER** Bill Acceptor Type)*	Maximum amount to be paid out with bills.
Done	Exit menu.

8.9 Ticket printer tab

In this tab, all settings regarding ticket printer can be set.

PARAMETER/BUTTON	DESCRIPTION
Ticket Printer Type	Define ticket printer: • no - ticket printer disabled, • FUTURE LOGIC, • ITHACA.
Max Response Retries	Number of response retries before error.
Printer Limit	Maximal amount which can be paid out by a ticket.
Ticket Number	Current ticket number (up to 9999).
Show Validation Number	If yes the validation number will shown.
Ticket Expiration	Number of days before tickets and handpay receipts expire.
Ticket Location	Location of the playing station.
Ticket Addr1	Address 1 of the playing station.
Ticket Addr2	Address 2 of the playing station.
Promotional Ticket Title	Title which is printed on promotional ticket.
Override button	Override the values set by the host (shown as hint).
Ticket Redemption	If checked, ticket redemption is enabled.
Printer As Cashout Device	If checked, printer will be default cashout device.
Print Restricted Ticket	If checked, restricted credit tickets are printed.
Print Receipts	If checked, receipts are printed.
Print ''OFFLINE'' Title	If checked, title ''OFFLINE'' will be printed.
Use Date for Valid Period	If checked, date is used instead of days for ticket valid period.
Force $1,234.56 for Currency	If checked, ticket will be printed with currency code before the amount.

PARAMETER/BUTTON	DESCRIPTION
Lock if Paper Out	If checked, playing station will lock it self when ticket printer is out of paper.
Print ''*Voucher*'' on Receipt	If checked, title ''*Voucher*'' is printed on receipt.
Force MM/DD/YYYY for Date	If checked, MM/DD/YYYY date format is forced.
Use Machine ID	If checked, playing station serial number is printed on ticket, instead of #Asset No.
Ticket Value	(**>X**) The ticket is marked when its value is higher than this.
Total Drop s.z.c.	(**>X**) The ticket is marked when the amount of inserted banknotes, coins or tickets since the credit was zero has exceeded the set value.
Games Played s.z.c	(**<X**) The ticket is marked when the number of games since the credit was zero is lower than the value set.
Value Wagered s.z.c.	(**<X**) The ticket is marked when the value of all stakes since the credit was zero is lower than the value set.
Rel Wager in % of Drop	(**<X**) The Ticket is marked when value of all stakes since the credit was zero related in % of drop in is lower than the value set.
Done	Exit menu.

8.10 Serial ports tab

In this tab, all playing station's serial ports can be configured.

PARAMETER	DESCRIPTION
SAS 1	COM port number where SAS 1 is connected: • 1, • 0.
SAS 2	COM port number where SAS 2 is connected: • 6, • 0.
Bill Acceptor	COM port number where bill acceptor is connected.
Printer	COM port number where ticket printer is connected.
Alfa IO	COM port number where Alfa IO board is connected. If Alfa IO board is connected on USB, ''*On USB*'' must be checked.
GAT	COM port number where GAT is connected.
VAN	COM port number where VAN is connected.
Done	Exit menu.

8.11   Backup tab

In this tab, dedicated backup server can be configured. Playing station backup functionality is only available with **additional software**. For additional information in regards to backup functionality please contact **KGM Gaming**.

PARAMETER	DESCRIPTION
Backup	Enable backup functionality.
Destination path	Backup server destination path. Backup will be saved to these location.
Username	Username used for the backup server.
Password	Password used for the backup server.
Test destination path	Test communication with backup server.
Interval (seconds)	Set backup interval in seconds.
Logs	Include Logs files with a backup.
Data	Include Data files with a backup.
Settings	Include Settings files with a backup.
Lock game if not successful for (minutes)	Lock game if scheduled backup does not complete in predetermined time (set in minutes).
Done	Exit menu.

8.12   GAT Protocol tab

In this tab, Game Authentication Terminal (GAT) can be enabled. This serial communication protocol is mainly use in the field for authenticate computer's software and individual device's firmware.

8.13 Coin hopper tab

In this tab, coin hopper can be configured.

WINDOW/BUTTON	DESCRIPTION
Hopper enabled	If checked the coin hopper will be enabled.
Hopper COM port	COM port assigned to the coin hopper. If set to automatic, COM port will be detected automatically.
Hopper payout enabled	If checked, coin hopper will be able to perform payouts.
Hopper maximum payout value	Maximum amount to be paid out with coin hopper in selected currency.
Hopper maximum capacity	Maximum amount (in currency) at which coin hopper automatically drops at least 10% of its value to the cashbox (max. 1.300,00€).
Maximum sum of coin levels	Maximum number of coins at which coin hopper automatically drops the excess amount of coins to the cashbox.
Hopper accepted coins	Define which coin denominations the coin hopper will be able to accept.
Hopper payout coins	Define which coin denominations the coin hopper will be able to payout.
Exit	Exit menu.

8.14 VAN tab

In this tab, VAN protocol can be configured. Tab is visible only for Dutch market and cannot be used in conjunction with SAS protocol.
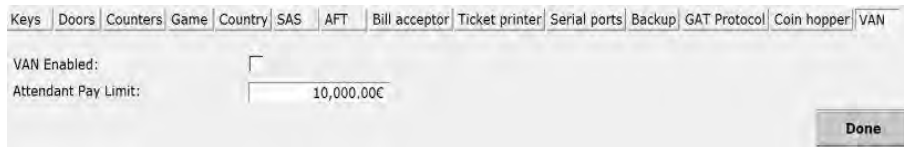
PARAMETER	DESCRIPTION
Van Enabled	Enable VAN protocol.
Attendant Pay Limit	When payout exceed this value, payout is preformed as handpay.
Done	Exit menu.

9 Coins

In this menu, operator can manage the Smart Coin System device.
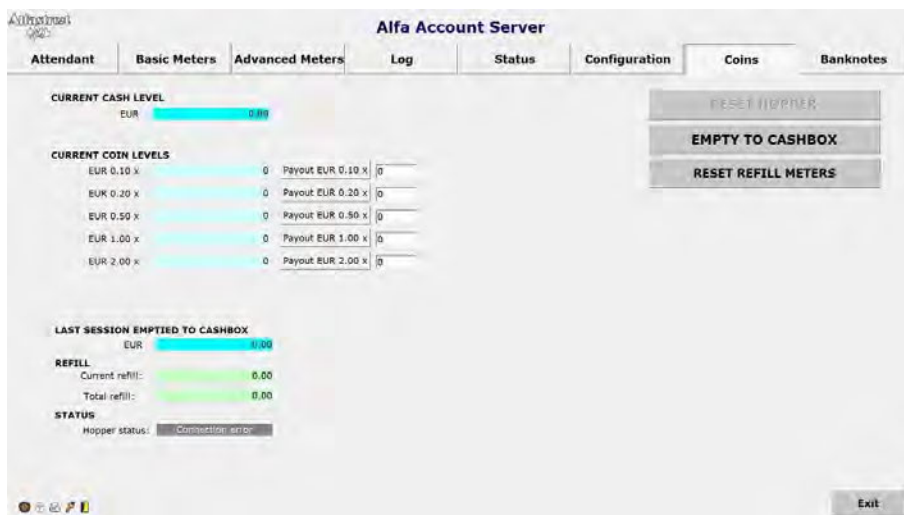
WINDOW/BUTTON	DESCRIPTION
CURRENT CASH LEVEL	Current cash level in the hopper.
CURRENT COINS LEVEL	Current levels of coins in the hopper.
Payout	Payout of specific coin value.
LAST SESSION EMPTIED TO CASHBOX	Amount in EURO that was last emptied to cashbox.
Current refill	Current refill session amount in EURO.
Total refill	Total refill amount in EURO.
Hopper status	Current status of the hopper.
Reset hopper	Reset hopper.
EMPTY TO CASHBOX	Empties hopper to cashbox.
RESET REFILL METERS	Resets Current refill (Refill actual) and Total refill (Refill total) meters.

Exit	Exit menu.

10   Banknotes

In this menu, operator can manage the JCM iPRO-RC device.
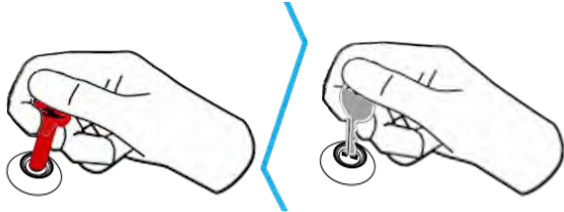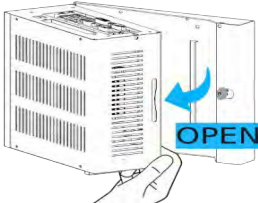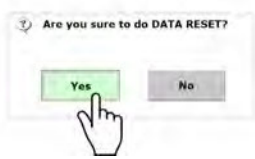
WINDOW/BUTTON	DESCRIPTION
CURRENT CASH LEVEL	Current cash level in the recycler.
CURRENT BANKNOTE LEVELS	Current levels of bills in the recycle box.
Stack x 1 button	Transfer one bill of selected denomination from recycle box to cashbox.
Stack All button	Transfer all bills of the selected denomination from recycle box to cashbox.
Add button	Manually increase the bills count in the recycle box. Bill count will be increased for the entered number. To be used only when bills are inserted in the recycle box.
Remove/Remove All button	Manually decrease the bills count in the recycle box. Bill count will be decreased for the entered number (Remove) or total bill count will be cleared (Remove All). To be used only when bills are removed from the recycle box.
Recycler Version	Firmware version of recycle box.
Recycler Status	Recycle box (BIN 1, BIN 2) status.
BA Status	BA general status.
RESET RECYCLER button	Resets bill recycler.
Exit	Exit menu.

11 Basic operational procedure

In this chapter you can view simple step-by-step guide for all basic operational procedures regarding Alfa Account Server, like resetting and testing ticket printer, preforming simple data, meters, ram reset and much more.
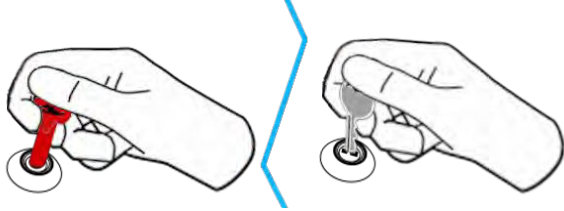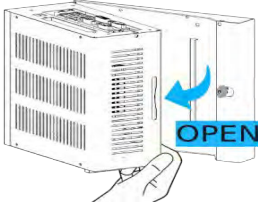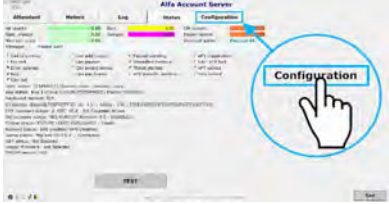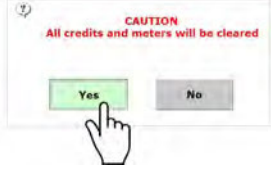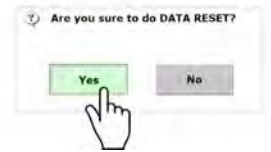
11.1 DATA reset

This chapter provide quick guide for performing **DATA reset**. Before starting these procedure ensure the playing station is not occupied by player and is without any credits. For more information about **DATA reset** see chapter: *3 Attendant*.

STEP 1	STEP 2
STEP 1 Insert the **Master electronic key** or turn the **menu mechanical lock** (depending on configuration). 	**STEP 2** In newly displayed menu click on **Account access**.
STEP 3 Open **logic door**, by unlocking **playing station's PC**. 	**STEP 4** Click on **configuration tab**.
STEP 5 Click on **DATA reset** button. 	**STEP 6** Confirm pop up message: **"Are you sure to do DATA RESET"**, by clicking **YES** button.
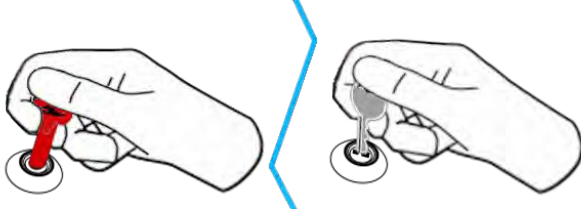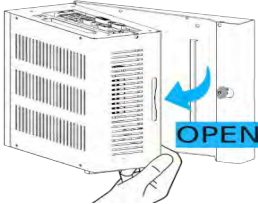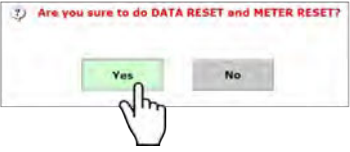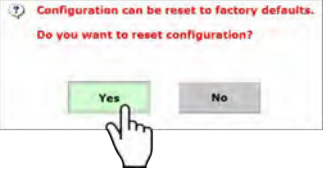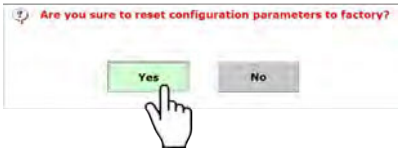
11.2 Meter reset

This chapter provide quick guide for performing **METER reset**. Before starting these procedure ensure the playing station is not occupied by player and is without any credits. For more information about **METER reset** see chapter: *3 Attendant*.

STEP 1 Insert the **Master electronic key** or turn the **menu mechanical lock** (depending on configuration). 	**STEP 2** In newly displayed menu click on **Account access**.
STEP 3 Open **logic door**, by unlocking **playing station's PC**. 	**STEP 4** Click on **configuration tab**.
STEP 5 Click on **Meter reset** button. 	**STEP 6** Confirm pop up message: **"All credits and meters will be cleared"**, by clicking **YES** button.
STEP 7 Confirm pop up message: **"Confirm METER RESET"**, by clicking **YES** button. 	**STEP 8** Confirm pop up message: **"Are you sure to do DATA RESET"**, by clicking **YES** button.
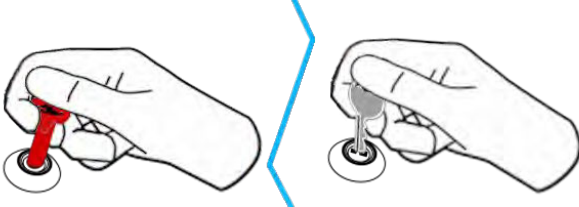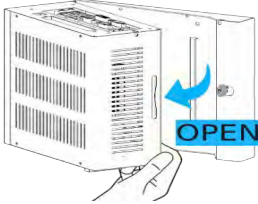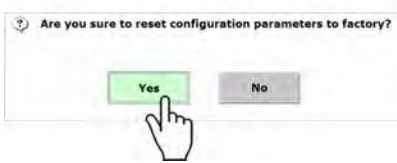
11.3 RAM reset

This chapter provide quick guide for performing **RAM reset** (RAM clear). Before starting these procedure ensure the playing station in not occupied by player and is without any credits. For more information about **RAM reset** see chapter: *3 Attendant*.

STEP 1	STEP 2
Insert the **Master electronic key** or turn the **menu mechanical lock** (depending on configuration).	In newly displayed menu click on **Account access**.
STEP 3	**STEP 4**
Open **logic door**, by unlocking **playing station's PC**.	Click on **configuration tab**.
STEP 5	**STEP 6**
Click on **RAM reset** button.	Confirm pop up message: **"All credits and meters will be cleared"**, by clicking **YES** button.
STEP 7	**STEP 8**
Confirm pop up message: **"Are you sure to do DATA RESET and METER RESET?"**, by clicking **YES** button.	Confirm pop up message: **"Configuration can be reset to factory defaults. Do you want to reset configuration?"**, by clicking **YES** button.
STEP 9	**STEP 10**
Confirm pop up message: **"Are you sure to reset configuration parameters to factory"**, by clicking **YES** button.	Confirm pop up message: **"Reset History"**, by clicking **YES** button.
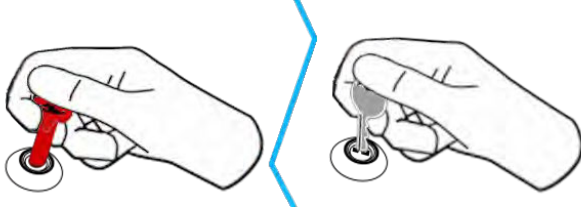
11.4 Factory parameters

This chapter provide quick guide for performing **Factory parameters reset**. Before starting these procedure ensure the playing station in not occupied by player and is without any credits. For more information about **Factory parameters reset** see chapter: *3 Attendant*.

STEP 1	STEP 2
Insert the **Master electronic key** or turn the **menu mechanical lock** (depending on configuration).	In newly displayed menu click on **Account access**.
STEP 3	**STEP 4**
Open **logic door**, by unlocking **playing station's PC**.	Click on **configuration tab**.
STEP 5	**STEP 6**
Click on **RAM reset** button.	Confirm pop up message: "**All credits and meters will be cleared**", by clicking **YES** button.
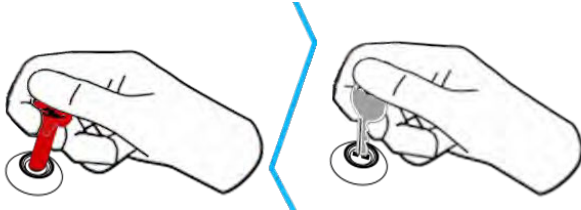
11.5 Reset ticket printer

This chapter provide quick guide for performing **ticket printer reset**. Before starting these procedure ensure the playing station in not occupied by player and is without any credits.

STEP 1	STEP 2
Insert the **Master electronic key** or turn the **menu mechanical lock** (depending on configuration). 	In newly displayed menu click on **Account access**.
STEP 3 Click on **TEST** button. 	**STEP 4** Click on **Reset printer** button.
STEP 5 When reset procedure is started the communication with ticket printer is lost, the following message appears in the console window: **"Printer reset"**. 	**STEP 6** When the communication is reestablished, the following message appears in the console window: **"Printer ready"**.
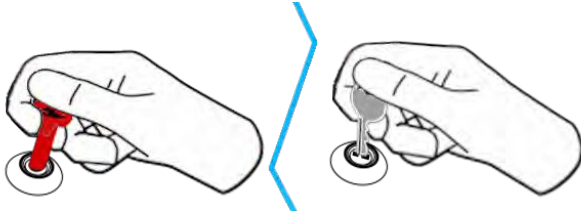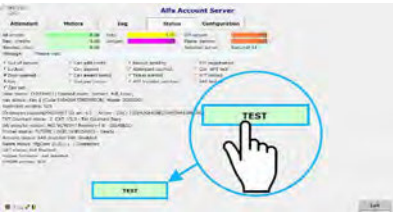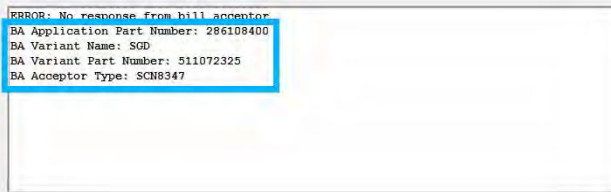
11.6   Print DEMO ticket

This chapter provide quick guide for performing **DEMO ticket print**. Before starting these procedure ensure the playing station in not occupied by player and is without any credits.

STEP 1 Insert the **Master electronic key** or turn the **menu mechanical lock** (depending on configuration). 	STEP 2 In newly displayed menu click on **Account access**.
STEP 3 Click on **TEST** button. 	STEP 4 Click on **Print DEMO ticket** button.
STEP 5 When ticket printing procedure is complete, the following message appears in the console window: **"Printer – Test Ticket printed"**. 	STEP 6 Demo ticket can be collected from printer.

11.7 Reset bill acceptor

In this chapter you can view step-by-step guide for resetting **bill acceptor**. Before preforming these procedure ensure the playing station is not occupied and it is without any credits.

STEP 1	STEP 2
Insert the **Master electronic key** or turn the **menu mechanical lock** (depending on configuration). 	In newly displayed menu click on **Account access**.
STEP 3 Click on **TEST** button. 	**STEP 4** Click on **Reset BA** button.
STEP 5 When reset procedure is started the communication with bill acceptor is lost, the following error message appears in the console window: **"ERROR – No response from bill acceptor"**. 	**STEP 6** When the communication is reestablished, the bill acceptor information is displayed.

12 Activation

Alfa Account Server can be activated either automatically (using Alfa Authorization Server) or manually (using code).

12.1 Automatic activation by server

Alfa Account Server is automatically activated by Alfa Authorization Server that in most cases runs on the main control unit's computer (wheel) in the same network. Alfa Authorization Server requires an activation key to be present, properly configured and valid.

When the Alfa Account Server is launched it will automatically search for the Alfa Authentication Server and activate itself. Once successfully activated the window will close and the software will start normally.

12.2 Manual activation by code

Alfa Account Server also supports an alternative activation method - activation by code. This method is less common and only used for specific configurations. To activate Alfa Account Server in this fashion an Activation Code is required. This code is generated by KGM Gaming and it's tied to the User Code.
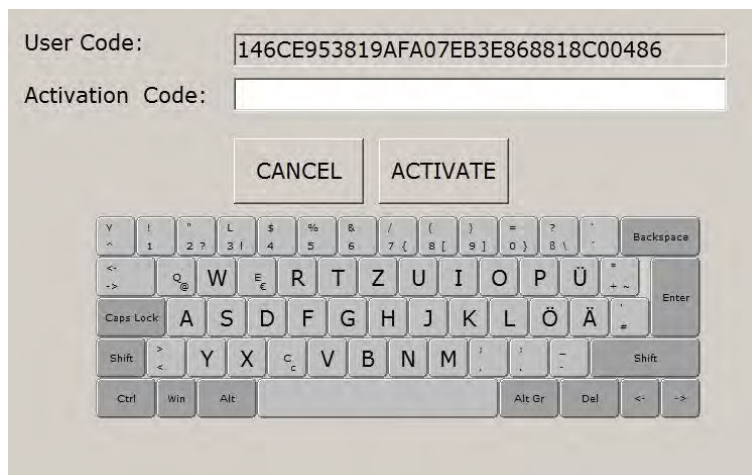
Activation code can be obtained by contacting the KGM Gaming:
Telephone: 215-430-0388
E-Mail: info@kgmgaming.com

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CRAPS AUTO v2.1.8.X

Main Control Unit Software

USER MANUAL

Table of Contents

1 Introduction

This manual was created to describe the **Craps Auto software (RNG)**. The associated application was developed to control and manage Main control units of the Craps wheels/tumblers.

The graphics represented in this manual are for illustrative purposes only, variation may be possible. Some settings and parameters may not be available as they can be specifically configured for the customer. For detailed information please contact KGM Gaming via e-mail at info@kgmgaming.com or via phone at 215-430-0388.

2 RNG summery window

After each RNG restart, a summary window of the Craps settings is visible for a short time (10 seconds).

Description of the RNG summery window (numbered from 1 to 4) can be viewed in the table below:

NUMBER	DESCRIPTION
1	RNG type information (in our case RNG type is configuration as **Auto**).
2	GAME type information (in our case RNG GAME type is configuration as **Craps**).
3	Craps configuration settings: • CB Board Port (valid COM port where control board is connected), • Wheel ID (Main control unit ID number).
4	Button for changing currently configured Craps settings. **The appropriate settings are preset for customer requirements and shouldn't be changed!**
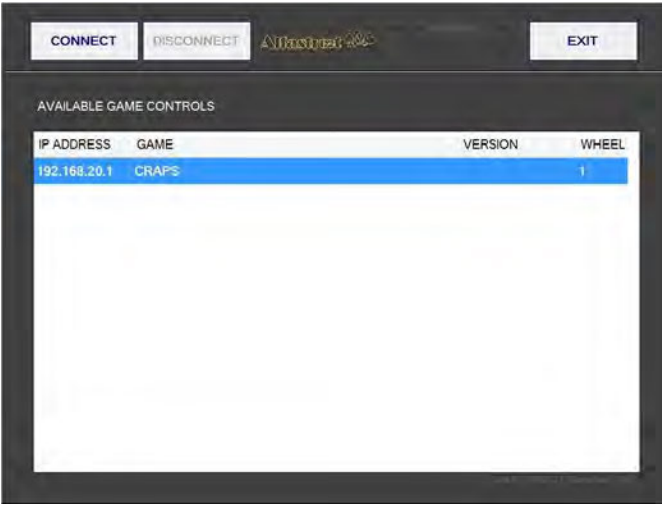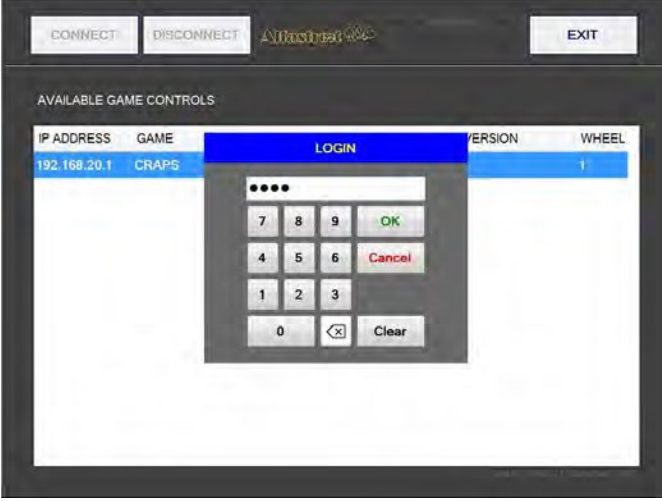
3 Interface Overview

This chapter describe all basic RNG software functionalities like login, changing the Craps parameters, viewing dice statistics, accessing logs and much more.

3.1 Login

There are two ways of accessing the RNG software. Access can be gained either by using a dedicated keyboard, mouse and display connected to the Craps main control unit or through any of the connected playing stations by using the touchscreen display. The second (playing stations) option will require access through the **MgCore Main menu**, for more information see: **KGM Gaming Software - MgCore - User Manual**.

The available control units are visible under the AVAILABLE GAME CONTROLS. Login to desired control unit (Craps) can be accomplished by following the steps below:

STEP 1: Click **CONNECT** button	
STEP 2: Enter the password and select **OK**.	

3.2 Main screen layout

During the operation the main screen will be displayed. The buttons, windows and rows are described in the table below.

BUTTON/WINDOW/ROW	DESCRIPTION
CONNECT	Login and connect to a selected control unit.
DISCONNECT	Logout and disconnect from a selected control unit.
VERSION INFO	Version of the software.
USER	Currently logged in user.
GAME	Name of the game running on the selected control unit.
WHEEL	Wheel ID of a selected control unit.
IP ADDRESS	IP address of a selected control unit.
DATE/TIME	Current date and time.
PHASE	Current game phase.
BET TIME	Remaining time for betting.
CRAPS POINT	Craps game point indicator.
RESULT	Current game result.
START	Start the game.
STOP	Stop the game.
LAST 3 GAMES	Stop the game after 3 more games (rounds).
SHOW MENU	Show the complete menu (see Chapter *3.3 Menu screen layout*).
EVENTS WINDOW	Events regarding the game phases, winning numbers, errors, etc.
CB version	Control board's firmware version.

3.3 Menu screen layout

If the **SHOW MENU** button is selected the layout will change to the menu layout. At this point several new button will be available.

BUTTON	DESCRIPTION
LOG	Opens the **Log** menu (see Chapter *4.1 Log*).
RESULTS	Opens the **Results** menu (see Chapter *4.2 Results*).
STATISTICS	Opens the **Statistics** menu (see Chapter *4.3 Statistics*).
PARAMETERS	Opens the **Parameters** menu (see Chapter *4.4 Parameters*).
ACCESS	Show and manage user accesses (see Chapter *4.5 Access*).
SCHEDULE	Opens the **Schedule** menu (see Chapter *4.6 Schedule*).
STATION STATUS	Opens the connected stations status window (see Chapter *4.7 Station status*).
SERVICE	Opens the **Service** menu (see Chapter *4.8 Service*).
SET DICE	Opens the **Set dice** menu (see Chapter *4.9 Set dice*).
LICENCE	Show and manage licence (see Chapter *4.10 Licence (authorization by server)* or *4.11 Licence (authorization by code)*).
REBOOT	Reboot the control unit (see Chapter *4.12 REBOOT*).
SHUTDOWN	Shutdown the control unit (see Chapter *4.13 SHUTDOWN*).
BACKUP	Opens the **Backup** menu (see Chapter *4.14 Backup*).
HIDE MENU	Hide the menu and return to the main screen.

4 Menus

This chapter describes all available menus that are accessible from the menu screen. Each menu is presented with a brief description and illustration.

4.1 Log

By accessing the Logs menu, all activities on the Craps main control unit can be checked. Date, time, game number, winning dice combination, errors and other information regarding all the processes in the background can be viewed here.

Logs can also be filtered by date, by using **SELECT DATE** option.

4.2 Results

By accessing the Results menu, the complete history of results and voided games can be checked. The current game number, winning dice combination, date and time are provided for each game separately.

4.3 Statistics

In this menu statistics for each dice are displayed (with numbers and winning percentage). Total number of played games and number of void games as well as other counters can also be visible in this menu.

All the available statistic information can be printed, connected printer must be configured as the default printer in Windows.

The printer icon is located in the bottom left corner and can represent the following status:

	PRINTING IS NOT AVAILABLE The printer is not connected and/or not configured as the default printer in Windows.
	PRINTING IS AVAILABLE The printer is properly connected and configured. Simply press the icon to print.

4.4 Parameters

Parameters menu includes all available Craps main control unit settings. The Parameters menu can only be access by opening the main control unit's logic door (see Chapter *7.1 Open the main control unit's logic door*).

4.4.1 Basic tab

In the Basic tab all the important Craps main control unit settings can be set.

PARAMETER/BUTTON	DESCRIPTION
Clone wheel ID	Second ID number of main control unit.
Bet interval	The duration of *"bets are open"* phase. Bets can be placed for a set period of time [seconds].
Start roll interval	Time interval of how much before the *"bets are closed"* event, dice preshake phase starts [seconds].
Separate interval	Time interval between separation maneuvers [seconds].
Read dice interval	Maximum dice read duration. If dice are not read within this time interval, dice separation procedure will be performed (if enabled), followed by an error if unsuccessful [seconds].
Payout interval	Time delay before a new game is started [seconds].
Demo time enabled	If checked, the machine will enter demo mode if players inactivity is detected. See corresponding parameter *Demo time [min]*.
Demo time [min]	Time period before the machine enters demo mode due to players inactivity [minutes].
Tilt Sensor	If checked, tilt sensor functionality will be enabled (tilt sensor must be installed and control board firmware must be v4.1 or greater).
Time synchronization (sec)	Allowed time difference between playing stations and main control unit. If the time difference is higher, times will be synchronized [seconds].
Numbers of boards	Number of connected playing stations (min. 1, max. 198).
You are the shooter enabled	If checked, the you are the shooter functionality will be enabled and participating players will be assigned the shooter role. See corresponding parameter *Shooter countdown time*.

PARAMETER/BUTTON	DESCRIPTION
Shooter countdown time	Time period in which the player assigned as shooter can initiate the throw/shoot, before it is done automatically [seconds].
Shooter Type	Define the dice shooter type: • SHOOT ONLY
Shaking Type	Define the dice shaking maneuver. • PRESHAKE + SHOOT - Default option, dice are shaken until the shoot maneuver is performed. • 1 SHOT - A single shoot maneuver is performed. • 2 SHOTS - Two shoot maneuvers are performed. • 3 SHOTS - Three shoot maneuvers are performed.
Dice separation on undetectable result	If checked, dice separation maneuver will be performed if the result readout is unsuccessful.
Shoot again on undetectable result	If checked, dice shoot maneuver will be performed if the result readout is unsuccessful after the separation maneuver.
SAVE	Save settings.
EXIT	Exit menu.

4.4.2 Sound tab

Sound settings are located in the sound tab.

PARAMETER/BUTTON	DESCRIPTION
Language code	Selected language for the RNG's sounds (announcing winning numbers and game phases).
Volume	Volume adjustment can be made by using the volume slider.
TEST	Test sound levels.
Play Game Specific Sounds	If checked, game specific sounds will be played by the main control unit.
SAVE	Save settings.
EXIT	Exit menu.

4.5 Access

In the Access menu user accounts can be added, managed or removed.

4.5.1 Adding a new user

To add a new user in the Access menu select **ADD NEW**. Confirm this action by clicking **OK**.

Password for the new user should be set. Enter the desired password and click **OK**.

The **NAME** for the account can now be edited, as well as setting and different levels of privileges this account will have. Select which buttons and menus are accessible by clicking on the red squares. Once activated the square will turn green.

Changes must be saved by clicking **SAVE** button.

4.5.2 Editing existing user

Select the existing user from the drop down menu. When selected the user account will appear.

The **NAME** for the account can now be edited, as well as setting the different levels of privileges this account will have. Select which buttons and menus are accessible by clicking on the red squares. Once activated the square will turn green.

Users password can be changed by clicking **SET PASSWORD**.

Changes must be saved by clicking **SAVE** button.

4.5.3 Deleting the user

Select the existing user from the drop down menu. When selected the user account will appear, click **DELETE USER**.

To delete the account. Confirm this action by clicking **OK**.

Changes must be saved by clicking **SAVE** button.

4.6 Schedule

In this menu the schedule for the automatic operation of start and stop command can be set. The schedule is divided into days of the week.

Start and stop commands can be set several days apart. Start command is activated when the button is colored green, stop command is activated when colored red. The configuration above is set to the following schedule:
- Start on Monday at 8:00, stop on Thursday at 22:00,
- Start on Friday at 8:00, stop on Saturday at 23:00,
- Start on Sunday at 8:00, stop at 12:00.

After the scheduled stop command is triggered, the game will stop after 3 more games.

4.7 Station status

In this menu a quick overview of connected playing stations can be seen. Each playing station is represented with a square and a number.

The color of the square presents the status of the playing station (offline, online, credits present, bets placed or error caused by denomination not set correctly). Additional information about each playing station (by clicking on the number square) can be visible in the bottom right corner.

4.8 Service

The Service menu is intended for use in regular wheel/tumbler maintenance and testing/troubleshooting purposes.

4.8.1 Service tab

Service tab features several wheel/tumbler operations that can be triggered.

BUTTON/ROW	DESCRIPTION
MOTOR FUNCTIONS - STOP	If pressed, motor controlling the dice platform will be stopped.
MOTOR FUNCTIONS - READING	If pressed, motor controlling the dice platform will lowered to the dice result readout position.
MOTOR FUNCTIONS - SHAKE	If pressed, motor controlling the dice platform will perform the shaking maneuver.
MOTOR FUNCTIONS - SHOOT	If pressed, motor controlling the dice platform will perform the shooting maneuver.
MOTOR FUNCTIONS - SEPARATION	If pressed, motor controlling the dice platform will perform the separation maneuver.
COVER - OPEN	Open the cover by holding this button.
COVER - CLOSE	Close the cover cover by holding this button.
Dice numbers	Last read dice numbers (dice 1, dice 2, dice 3).
Reader responding	Control response from communication with the dice reader: • **YES** - communication is established and running properly, • **NO** - communication is not established.
Reader error	Last dice reader communication/error code.
Reader version	Reader board's firmware version.
Reader CRC	Reader board's firmware CRC code.
Control board responding	Control response from communicating with the control board: • **YES** - communication is established and running properly, • **NO** - communication is not established.

BUTTON/ROW	DESCRIPTION
Control board error	Last control board error/communication code.
Control board version	Control board's firmware version and its CRC code.
Cover open	Control response from the cover switch: • **YES** - the cover is open, • **NO** - the cover is closed.
EXIT	Exit menu.

4.8.2 System tab

System tab features other possible service operations.

BUTTON/ROW	DESCRIPTION
CHECK OS AND BIOS	Starts the OS and BIOS checking process. This functionality is market/customer specific and must be configured by KGM Gaming beforehand to operate properly.
CHECK SHA	Opens the **SHA check** window (see chapter *4.8.2.1 Check SHA*).
EXIT	Exit menu.

4.8.2.1 Check SHA

Within this window all major files version and SHA values can be checked.

PARAMETER/BUTTON	DESCRIPTION
File name	List of all major file names.
Version	Corresponding version for each major file.
SHA1	SHA1 (Secure Hash Algorithm 1) value for each major file.
HMAC-SHA1 SEED	HMAC-SHA1 SEED (Hash-based Message Authentication Code - Secure Hash Algorithm 1 SEED) value for each major file.
HMAC-SHA1	HMAC-SHA1 (Hash-based Message Authentication Code - Secure Hash Algorithm 1) value for each major file.
EXIT	Exit menu.

4.9 Set dice

Set dice menu contains the information of currently used dice. Each dice side (number) has its own unique tag ID.

4.10 Licence (authorization by server)

By accessing the Licence menu, it is possible to check the authorization server's IP address and the remaining time until the licence expires.

For additional information in regards to activation please contact KGM Gaming:
Telephone: 215-430-0388, E-Mail: info@kgmgaming.com

4.11 Licence (authorization by code)

By accessing the Licence menu, it is possible to check the machine ID, current date and the remaining time until the licence expires. The software can be reactivated by selecting the **ACTIVATE** button.

Reactivating can be done by entering First and the Second activation code, both can be obtain by contacting KGM Gaming: Telephone: **215-430-0388**, E-Mail: info@kgmgaming.com

Newly entered codes can be confirm by selecting the **ACTIVATE** button.

4.12 REBOOT

After selecting the **REBOOT** button, a confirmation window will appear. Confirm the reboot by selecting the **YES** button.

4.13 SHUTDOWN

After selecting the **SHUTDOWN** button, a confirmation window will appear. RNG can be shutdown by clicking the **RNG ONLY** button. The **RNG AND GROUP** button will shutdown the RNG as well as all of the properly configured playing stations in the network (*"Accept shutdown from"* option must be configured in the **MgCore** on each playing station).

4.14 Backup

Backup can either be performed on a USB drive or to a predetermined location/server. Each method has its own tab, description for each one are available in the following chapter.

4.14.1 Copy to USB tab

In these tab the important information like LOG files, Data, Settings and Windows LOG can be backed up to a USB drive. The USB key will be automatically detected (currently displaying E:\). The backup process can be started by selecting the **COPY** button.

4.14.2 Backup to location tab

Scheduled backups to a dedicated server can be configured in these tab. **Backup functionality is only possible with additional KGM Gaming software**. For additional information in regards to backup functionality please contact KGM Gaming.

PARAMETER/BUTTON	DESCRIPTION
Backup	If checked, backup functionality is enabled.
Destination path	Backup server destination path. Backups will be saved to this network location.
Username	Username used for the backup server.
Password	Password used for the backup server.
Stop game on server down after (min)	Define the time period of unsuccessful backup attempt after which the game will lock [minutes].
Interval to copy the files (sec)	Define the backup interval [seconds].
SAVE	Save settings.
EXIT	Exit menu.

5 Maintenance program

⚠️ Cleaning must only be performed with the Main Power Switch turned OFF.

It is suggested that a regular cleaning schedule be maintained for the following parts of the machine.
In any case, for cleaning do **not** use:
- wire or nylon wool scouring brooms,
- furniture polishes,
- alcohol based polishes,
- powder or liquid abrasive cleaners,
- bleach or strong detergents.

Outside Surfaces
All outside surfaces should be inspected and if necessary cleaned every day, using mild detergents and damp cloth.

Cylindrical Cover
It is suggested that the Cylindrial Cover be cleaned every 2 weeks. Careful consideration should be taken not to scratch the surface. Both inside and outside surfaces should be cleaned.

Dice
The dice should be cleaned or replaced according to the cleaning maintenance interval.
Dice should be replaced in case it's surfaces are too worn out (can impact *dice randomness*). Dices can be recycled by the manufacturer.

Illustration 1: Comparison between clean and dirty dice.

Dice Platform
The dice platform should be thoroughly cleaned according to the cleaning maintenance interval.

Item / Interval	Every day	Every 2 weeks	Every 3 months
Outside Surfaces	C		
Cylindrical Cover		C	
Dice		C, I or R	
Dice Platform		C	

C – clean, **I** – inspect, **R** – replace

ℹ️ Please contact your KGM Gaming representative for recommended cleaning solutions.

6 Preventive actions

🔄 The main control unit's computer must be preventive restarted at least every three weeks.
KGM Gaming recommends replacing all data storage devices every 5 years to ensure smooth operation over longer periods of time.

7 Basic operational procedure

In this chapter you can view simple step-by-step guide for all basic operational procedures regarding the RNG.

7.1 Open the main control unit's logic door

This chapter provide a simple step-by-step guide for opening the main control unit's logic door, required for accessing the Parameters menu (see Chapter *4.4 Parameters)*.

STEP 1	STEP 2
Unlock the control unit's door (logic door).	Open the control unit's door (logic door).

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MgCore v10.1.XX.X

USER MANUAL

Table of Contents

1 Introduction

MgCore is an application that runs on all KGM Gaming playing stations and it is responsible for providing played game's logic and graphic elements. This application can support up to 24 simultaneously connected RNGs/Servers (depending on the playing station configuration), where same type of the game can be reintroduced up to 16 times.

The graphics represented in this manual are for illustrative purposes only, variation may be possible. Some settings and parameters may not be available as they can be specifically configured for the customer. For detailed information please contact KGM Gaming via e-mail at info@kgmgaming.com or via phone at 215-430-0388.
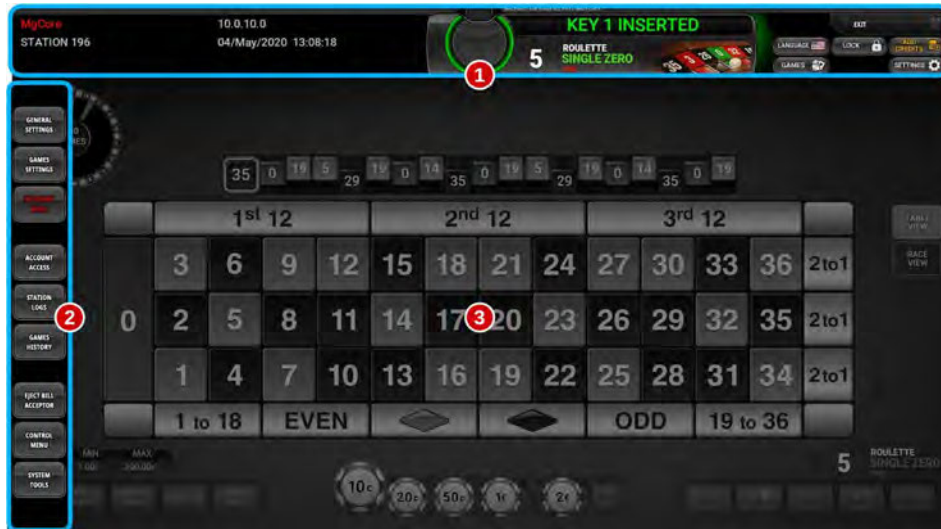
The MgCore application can be divided into three main sections (see image above):

No.	DESCRIPTION
1	Information panel (see Chapter *12.1 Information panel*).
2	Main menu (see Chapter *2 Main menu*).
3	Multi game player's interface (depend on currently selected game): • Roulette game (see Chapter *13 Roulette game*), • SicBo game (see Chapter *14 SicBo game*), • Baccarat (see Chapter *15 Baccarat game*), • Blackjack (see Chapter *16 Blackjack game*), • Big Wheel (see Chapter *17 Big Wheel game),* • *Craps (see Chapter 18 Craps game).*

2 Main menu

In order to access the Main menu, the following steps must be taken:

STEP 1	STEP 2
Insert the **Master electronic key** or turn the **menu mechanical lock** (depending on playing station configuration).	Unlock and open the **SERVICE door** - only required for accessing the **General settings** (see Chapter *3.1 General tab*) or **Game settings** (see Chapter *4 Games settings*).

Description of each button (numbered from 1 to 9) featured in the Main menu, can be viewed in the table below.

No.	BUTTON	DESCRIPTION
1	General settings	Opens the **General settings** menu (see chapter *3 General settings*).
2	Games settings	Opens the **Games settings** menu (see chapter *4 Games settings*).
3	Recovery reset	Start the recovery reset process (see chapter *5 Recovery reset*).
4	Account access	Opens the **Account access** menu (see chapter 6 Account access).
5	Station logs	Opens the **Station logs** menu (see chapter *7 Station logs*).
6	Games history	Opens the **Game history** menu (see chapter *8 Games history*).
7	Eject bill acceptor	Released/eject bill acceptor (see chapter *9 Eject bill acceptor*).
8	Control menu	Opens the **Control menu** (see chapter *10 Control menu*).
9	System tools	Opens the **System tools** menu (see chapter *11 System tools menu*).

Closing the Main menu can be done by removing the inserted electronic key or by turning the menu mechanical lock.

3 General settings

General settings menu can be opened by selecting the **GENERAL SETTINGS** button, located in the Main menu (see Chapter *2 Main menu*). In this menu all the important games layout and playing station settings can be set.

NOTE: This menu is only accessible if the playing station is without any credits. Some settings changes may require to preform the meters reset procedure, for more information see: KGM Gaming Software - Alfa Account Server - User Manual.
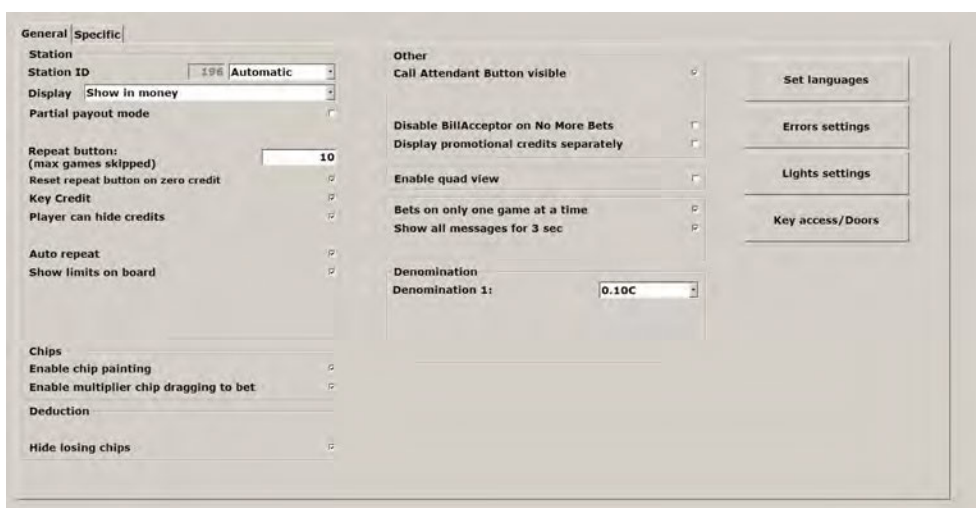

3.1 General tab

All the available parameters and buttons located inside the **General tab** are described In the table below.

PARAMETER/BUTTON	DESCRIPTION
Station - Station ID	Local playing station identification number: • **Automatic -** the station ID is automatically set based on the playing station's IP address (**recommended option**), • **Manual -** the station ID is manually set by the value located in the corresponding window (**station ID should match to the IP address**). Each playing station must have a unique number from 1 to the actual number of the stations in the group.
Station - Display	Type of meters values displayed in the interface panel: • **Show in money -** all meters are displayed in currency, • **Show in credits -** all meters are displayed in credits.
Station - Partial payout mode	If checked, the player can choose the amount of credits to be paid out.
Station - Repeat button (max games skipped)	How many games a player can skip before he cannot longer repeat the last placed bet [0-Disabled, min. 1, max. 99999]. Player can repeat the last bet by selecting the **REPEAT** button (see Chapter *12.4 Common buttons* - **REPEAT** button).
Station - Reset repeat button on zero credit	If checked, the **REPEAT** button is reset when the credit amount reaches zero.
Station - Key Credit	If checked, credits can be added with an **electronic key** or **menu mechanical lock** (see Chapter *12.4 Common buttons* - **ADD CREDITS** button). When using an electronic key, **ADD CREDIT** key privilege must be **enabled** in the **Key access/Doors** menu (see Chapter *3.1.4 Key access/Door menu*).

PARAMETER/BUTTON	DESCRIPTION
Station - Player can hide credits	If checked, slider for dim or completely hide all meters in the information panel is enabled (see Chapter *12.4 Common buttons* - **SETTINGS** button).
Station - Auto repeat	If checked, the **AUTO PLAY** button will be available to the player *(*see Chapter *12.4 Common buttons* - **AUTO PLAY** button).
Station - Show limits on board	If checked, the bet limits widget will be clearly visible to the player (see Chapter *12.2 Bet limits widget*).
Station - Enable remote control server	If checked, the Control Server can access this station remotely to manage various game's limits or this station can participate in a game tournament.
Chips - Enable chip painting	If checked, chips painting is enabled. Already placed chips on betting fields can be drag across adjoining fields.
Chips - Enable multiplier chip dragging to bet	If checked, the multiplier chips can be dragged across the screen.
Deduction - Win transfer delay (0-10 seconds)	Set how long the **WIN** message is displayed, before the winning credits transfer begin [0 - no delay, min. 1, max. 10].
Deduction - Hide losing chips	If checked, the losing chips will be hidden inside the game layout.
Other - Call Attendant Button visible	If checked, **CALL ATTENDAND** button will be visible to the player (see Chapter *12.4 Common buttons* - **CALL ATTENDAND** button).
Other - Eject card button	If checked, the button which ejects the card is enabled.
Other - Disable BillAcceptor on No More Bets	If checked, bill acceptor will be disabled during the *''No More Bets''* phase.
Other - Display promotional credits separately	If checked, promotional credits meters will be separately displayed on the Information panel (see Chapter *12.1 Information panel*).
Enable quad view	If checked, **VIEW** button will be available to the player (see Chapter *12.4 Common buttons* - **VIEW** button).
Group all games in Game selector together	If checked, games of the same type will be displayed in separate rows within the game selection menu.
Bets on only one game at a time	If checked, a player with multiple views enabled (quad view) can only place bets in one game at the time.
Show all messages for 3 sec	If checked, each message will be displayed for 3 seconds.
Force show PIP when entering Dual view	If checked, PIP windows will be shown automatically (if available) when switching into dual game view.
Denomination - Denomination 1 / Denomination X	Define the default denomination values: • Disabled, • 0.01€, • 0.02€, • 0.03€, • 0.05€, • 0.10€, • 0.15€, • 0.20€, • 0.25€, • 0.40€, • 0.50€, • 1.00€, • 2.00€, • 2.50€, • 5.00€, • 10.00€, • 20.00€, • 25.00€, • 50.00€, • 100.00€, • 200.00€, • 250.00€, • 500.00€, • 1,000.00€, • 2,000.00€, • 2,500.00€, • 5,000.00€.
Set languages	Opens the **Set languages** menu (see Chapter *3.1.1 Set languages*).
Errors settings	Opens the **Error settings** menu (see Chapter *3.1.2 Error settings*).
Light settings	Opens the **Light settings** menu (see Chapter *3.1.3 Lights settings*).
Key access/Doors	Opens the **Key access/Doors** menu (see Chapter *3.1.4 Key access/Door menu*).
Save	Save the settings.
Exit	Exit menu.

3.1.1 Set languages

Set languages menu features all the available Main menu and graphical user interface languages. Menu can be opened by selecting the **Set languages** button, located in the **General tab** (see Chapter *3.1 General tab*).
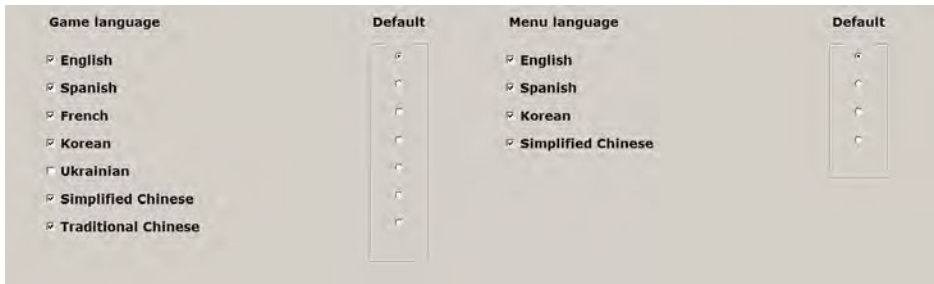
PARAMETER	DESCRIPTION
Game language	Selected languages to be available in the graphical user interface.
Menu language	Selected languages to be available in the Main menu.
Default	The default Game/Menu language.
Save	Save the settings.
Exit	Exit menu.

3.1.2 Error settings

In this menu all of the playing station's error handling settings can be configured. Menu can be opened by selecting the **Errors settings** button, located in the **General tab** (see Chapter *3.1 General tab*).

PARAMETER	DESCRIPTION
Error Settings	List of all available playing station errors: • Bill acceptor malfunction, • Bill jam, • Bill stacker removed, • Bill acceptor disconnected, • Printer out of paper, • Printer jam, • Printer failure, • Printer disconnected, • SAS disconnected, • IO Board error, • Mechanical counters error, • Bill acceptor error, • Printer error, • Error switch Av, • Coin board error, • AAS cannot preform backup, • JACKPOT LOCK • Power reset, • Service door open, • MG cannot perform backup.
Lock	When this checked error occurs (▨), the playing station will lock.
Need Key	If checked (▨), after the error is resolved the electronic key will have to be inserted (or the menu mechanical lock unlocked) to continue the game. Otherwise the station will automatically resume.
Alarm	If checked (▨), an audible and visual alarm will be triggered when the selected error occurs.
Save	Save the settings.
Exit	Exit menu.

3.1.3 Lights settings

In this menu all of the playing station's lights settings can be set and tested. Menu can be opened by selecting the **Lights settings** button, located in the **General tab** (see Chapter *3.1 General tab*).

PARAMETER	DESCRIPTION
Set lights	List of events that can be used as triggers for the Win 1, Win 2, Tower 1, Tower 2 and Tower 3 lights: • **Door** - one or more doors are open, • **Error** - station is in error, • **Attendant** - the call attendant button was pressed, • **Win** - player won a bet, • **Handpay** - station require handpay, • **NoCredit** - station is without any credits, • **TakeTicket** - station printed a ticket, • **Jackpot** - player won a jackpot, • **AttLock** - station is locked by attendant.
Win 1 / Win 2	Assigned light action for Win light 1 or/and light 2 corresponding to an event trigger: • Disabled, • Enable, • Blinking, • Toggle Blinking.
Tower 1 / Tower 2 / Tower 3	Assigned light action for Tower light 1 or/and 2 or/and 3 corresponding to an event trigger: • Disabled, • Enable, • Blinking, • Toggle Blinking.
Test line	Selected trigger event to be tested (**NOTE: Save changes before test**).
Turn ON/OFF	Enable or disable selected tested trigger event.
Ambient light type	Playing station ambient light type: • **Fixed -** ambient light remains the same throughout all the game phases, • **GamePhase -** ambient light changes depending on the current game phase.
Ambient light color	Ambient light color can be defined or chosen from basic available colors. Only applicable if **Ambient light type** parameter is set to **Fixed**.
Ambient light brightness	Brightness level for ambient lights: • 0%, • 25%, • 50%, • 75%, • 100%.
Ambient light blinking speed	Define the ambient light blinking speed: • 0 **-** blinking disabled, • [1 **-** 255] **-** blinking interval (set value multiplied by 40ms. This parameter is only applicable if **Ambient light type** is set to **Fixed**.
Blink when player wins	If checked, ambient light will blink when the player wins.
Save	Save the settings.
Exit	Exit menu.

3.1.4 Key access/Door menu

In this menu privileges for each electronic key can be set. Additionally, other switches and appropriate door numbers can be set. Menu can be opened by selecting the **Key access / Doors** button, located in the **General tab** (see Chapter *3.1 General tab*).

PARAMETER	DESCRIPTION
E-Key Access	List of menus or tasks that can be enabled for each electronic key: • **GENERAL SETTINGS** - selected key can modify parameters inside the **General settings** menu (see Chapter *3 General settings*), • **GAME SETTINGS** - selected key can modify parameters inside the **Game settings** menu (see Chapter *4 Games settings*), • **RECOVERY RESET** - selected key can preform a recovery reset (see Chapter *5 Recovery reset*), • **ACCOUNT ACCESS** - selected key can access the **Account access** menu (see Chapter *6 Account access*), • **GAMES HISTORY** - selected key can access the **Games history** menu (see Chapter *8 Games history*), • **STATION LOG** - selected key can access the **Station logs** menu (see Chapter *7 Station logs*), • **EJECT BILL ACCEPTOR** - selected key can released/eject bill acceptor (see Chapter *9 Eject bill acceptor*), • **CONTROL MENU** - selected key can access the **Control** menu (see Chapter *10 Control menu*), • **SYSTEM TOOLS** - selected key can access the **System tools** menu (see Chapter *11 System tools menu*), • **ADD CREDITS** - selected key can preform add credits task (see Chapter *12.4 Common buttons - **ADD CREDITS** button*), • **VIEW SETTINGS** - selected key can access the **General settings** and **Game settings** menu, but **cannot** make any changes.
K1 / K2 / K3 / K4 / K5 / K6 / K7 / K8 / K9 / K10	Assigned privileges for a specific electronic key: • ▮ The menu is **NOT** accessible or the task **CANNOT** be performed, • ▰ The menu is accessible or the task **CAN** be performed.
Door x	Define the door switch functionality: • Not used, • Button clear, • BigBang handle switch 1, • Button double/restore. • BigBang handle switch 2,
Save	Save the settings.
Exit	Exit menu.

3.2 Specific tab

All the available parameters located inside the **Specific tab** are described In the table below.

PARAMETER	DESCRIPTION
Extra **-** Send SAS Reel Stop On Unplayed Games	If checked, reel stop information (game results) of unplayed games will be reported to the SAS server. For this parameter to work the *"Win number reported also when game not played"* setting must be enabled in the Alfa Account server. For more information see: **KGM Gaming Software - Alfa Account Server - User Manual.**
Extra **-** Disable collect button on restricted credit	If checked, player cannot collect restricted credits (credits obtained through promotional vouchers/coupons).
Extra **-** Disable collect button if station is in error	If checked, player cannot collect credits if station is in error.
Extra **-** Roulette keyboard add value	Value of credits added with a Roulette keyboard.
Extra **-** Collect button	Define the **Collect** button functionality (see Chapter *12.4 Common buttons* - **Collect** button): • **Disabled -** collect button is disabled, • **One click for collect -** collect credits without conformation, • **Ask for confirmation -** confirmation window will appear after the collect button is pressed, • **Hold until no bets are placed -** collect button will be disabled until no bets are placed.
Extra - Allow attendant collect if recovery	If checked, uncontested credits can be collected (with attendant confirmation) while waiting for or during recovery.
Extra **-** Send Jackpot as	Define under which counter the jackpot value will be added: • **Bonus -** Jackpot value will be added to the bonus counter, • **Progressive bonus -** Jackpot value will be added to the progressive bonus counter.
Extra **-** Close help after	Help menu will closes after a specified time of inactivity [min. 1, max. 15 minutes].
Extra **-** CS4 meters	Define which type of meters are stored on the CS4 memory module: • Disabled, • Arcade, • Casino. Arcade and Casino options are applicable for Spanish market only.
Accept shutdown from **-** Remote shutdown enabled	If checked, this function enables RNG to shut down specific playing stations in the same network.

PARAMETER	DESCRIPTION
Accept shutdown from - IP	Enter RNG IP address to be monitored for the shutdown command. Only commands from this specific RNG IP address can shut down this playing station (shut down RNG with **RNG AND GROUP** button). This setting is also applicable when optional UPS shuts down the RNG, because of low battery. All the playing stations configured to receive shutdown commands from that RNG IP address will shut down with RNG, if they are not powered off already. The *''Shutdown all stations''* in **SYSTEM TOOLS** menu is unaffected by this parameter and will always shutdown all the stations in the same network (see Chapter *11 System tools menu*).
Save	Save the settings.
Exit	Exit menu.

4 Games settings

Games settings menu can be opened by selecting the **GAMES SETTING** button, located in the Main menu (see Chapter *2 Main menu*). In this menu all games settings can be set.

NOTE: This menu is only accessible if the playing station is without any credits. Some settings changes may require to preform the meters reset procedure, for more information see: KGM Gaming Software - Alfa Account Server - User Manual.

PARAMETER/BUTTON	DESCRIPTION
Game name	Connected game name.
RNG ID	RNG ID of the connected game [min. 1, max. 20].
RNG type	RNG type of the connected game: • **Auto** - dealer not required for the gameplay, • **Live** - dealer required for the gameplay, • **Auto/Live** - the RNG type can be change during the gameplay.
Default	If checked, the selected game will be set as the default (game at system start-up).
Settings - Set	Opens the **Game settings** menu of the selected game.
Limits Scheduler - Set	Opens the **Limits Scheduler settings** menu of the selected game.
Info - View	Opens the information window with additional information about the selected game (SAS additional ID number, Sequence ID number, paytable ID number, calculated RTP percentage, etc.).
Copy	Copy the selected game configuration.
Paste	Paste the previously copied game configuration.
Remove	Remove the selected game configuration.
Preferred game to add	Game type to be added when the **Add game** button is selected.
Total games: x out of x	Total number of connected games.
[Game name]: x out of x	Number of currently configured game types.
Start with RNG ID	when the **Add game** button is selected, the RNG assignment will start from the set ID number [min. 1, max. 24]. Each additional added game of the same type will be assigned to the next available RNG ID number.
Add game	Add additional game configuration (as set by the *"Preferred game"* and *"Start with RNG ID"* parameters).
Multiview Settings	Opens the **Multiview Settings** menu (see Chapter *4.2 Multiview Settings*).
Activate games	Opens the **Activate games** menu (see Chapter *4.3 Activate games (Authorisation server)*).
Save	Save the settings.

PARAMETER/BUTTON	DESCRIPTION
Exit	Exit menu.

4.1 Scheduler

Scheduler can automatically switch the limits of the selected game for a specific day and time of the week. The Scheduler menu can be opened by selecting the Games Settings - Limits Scheduler - Set button.
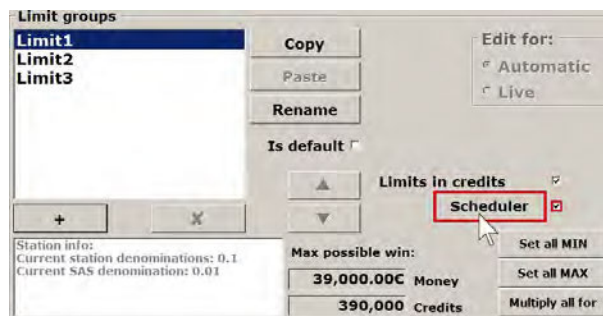
Prior to opening the Scheduler menu, the Scheduler parameter must be enabled.
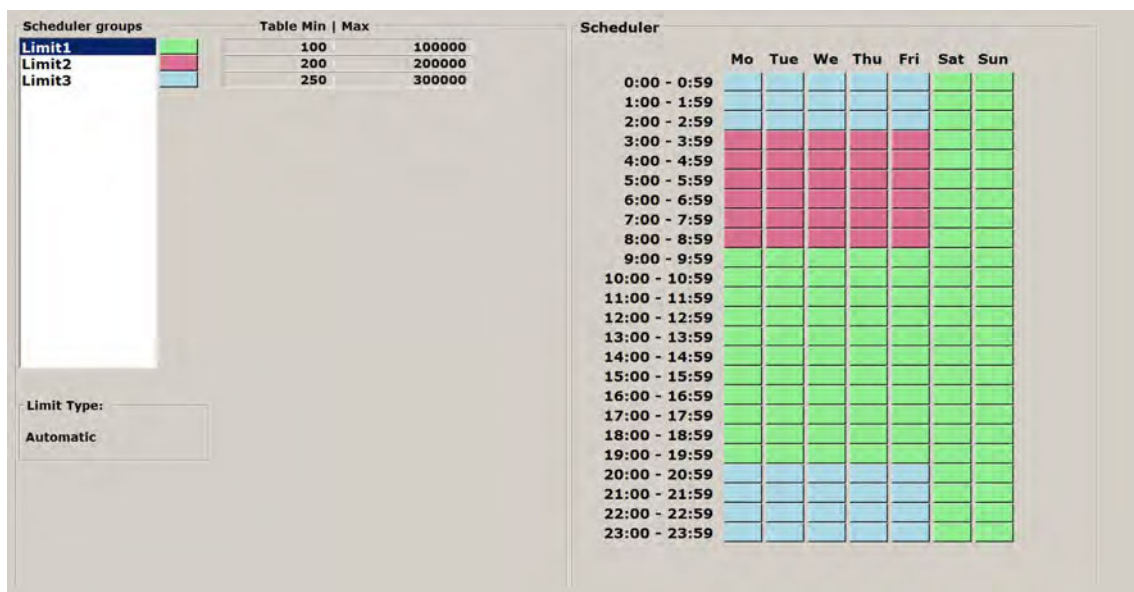
The configuration (in picture above) is set to the following schedule:

- from Monday to Friday - game is played from 00:00 to 02:59 with a limit group Limit3 (■ - light blue),
- from Monday to Friday - game is played from 03:00 to 08:59 with limit group Limit2 (■ - pink),
- from Monday to Friday - game is played from 09:00 to 19:59 with a limit group Limit1 (■ - light green),
- from Monday to Friday - game is played from 20:00 to 23:59 with a limit group Limit3 (■ - light blue),
- from Saturday to Sunday - game is played from 00:00 to 23:59 with a limit group Limit1 (■ - light green).

Scheduler configuration must be saved by selecting the **SAVE** button prior to exiting the menu, by using the **EXIT** button.

4.2 Multiview Settings

Multiview functionality settings are described within this menu, additional information in regards to this functionality is available in chapter *12.7 Multiview*.
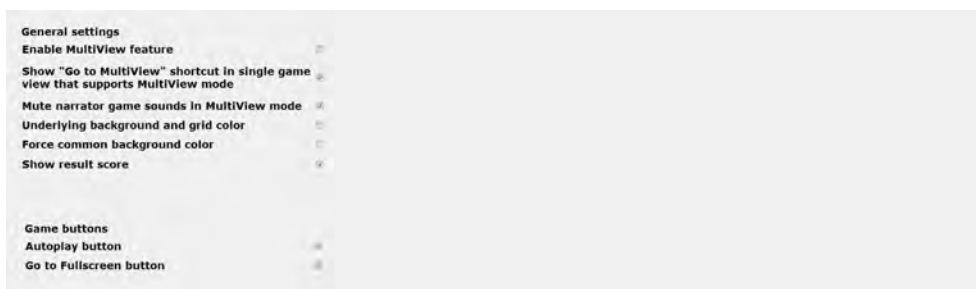
PARAMETER	DESCRIPTION
General settings - Enable MultiView feature	If checked, multiview feature will be enabled for all supported game types.
General settings - Show ''Go go MultiView'' shortcut in single game view that supports MultiView mode	If checked, a button to switch to multiview mode will be available within the fullscreen views for all supported game types.
General settings - Mute narrator game sounds in Multiview mode	If checked, the narrator game sounds will be disabled/muted within the multiview mode.
General settings - Underlying background and grid color	If checked, an underlying background grid color can be manually selected for the multiview mode.
General settings - Force common background color	If checked, a background color for all game instances within the multiview mode can be manually selected.
General settings - Show result score	If checked, game results will be shown for each game instance within the multiview mode.
Game buttons - Autoplay button	If checked, a button to enable autoplay will be available for each game instance within the multiview mode.
Game buttons - Go to Fullscreen button	If checked, a button to switch to fullscreen view will be available for each game instance within the multiview mode.
Save	Save the settings.
Exit	Exit menu.

4.3 Activate games (Authorisation server)

Activate games menu can be opened by selecting the **Activate games** button, located in the Games settings menu (see Chapter *4 Games settings*). In this menu all available and activated games are displayed as well as Authorization server IP address.

For additional information in regards to activation please contact KGM Gaming:

Telephone: 215-430-0388
E-Mail: info@kgmgaming.com

4.4 Activate games (Activation code)

Activate games menu can be opened by selecting the **Activate games** button, located in the Games settings menu (see Chapter *4 Games settings*). In this menu all available and activated games are displayed. Additional games can be activated by selecting the **Enter activation** button.

Activation code can be obtained by contacting the KGM Gaming:

Telephone: 215-430-0388
E-Mail: info@kgmgaming.com

Regarding the activations the displayed station code need to be provided (see image below). The station code can also be captured with the smart device (QR code reader).

Received activation code can be entered by using the on-screen keyboard or directly pasted from the clipboard (see button description in the table below).

BUTTON	DESCRIPTION
Clear	Clear the last typed symbol.
Close	Close the Enter activation window
Copy Station code	Copy station code to the clipboard.
Paste Activation code	Paste Activation code from the clipboard.

After the last letter/digit is entered, the activation process will start automatically.

5 Recovery reset

The **RECOVERY RESET** button is only enabled under the certain conditions, to reset the recovery process (for example an error occur before the winning number is announced).

Recovery process is initiated after the error is resolved, result will be recalled from history and payout will be made if a winning bet was placed.

Recovery process can be cancelled by using the **RECOVERY RESET** button before the error is resolved. The bets that were placed will be cleared and returned to existing credits.

6 Account access

Alfa Account Server (AAS) can be accessed by selecting the **ACCOUNT ACCESS** button, located in the Main menu (see Chapter *2 Main menu*). Detailed description of Alfa Account Server software can be found in **KGM Gaming Software - Alfa Account Server - User Manual**.

7 Station logs

In this menu all events regarding the playing station (door switches, navigating through menus, etc.) can be viewed. Menu can be opened by selecting the **STATION LOGS** button, located in the Main menu (see Chapter *2 Main menu*).

Switching between log pages can be done by using the ◁ or ▷ buttons (currently showing page 61 of 61 pages).

First or last page can be selected with the ◁◁ or ▷▷ button.

To find specific log entry, searching by date and time functionality can be used, by first entering the desired Year, Month, Day, Hour, Minute, Second and selecting the **FIND** button.

Station log menu can be closed by selecting the **EXIT** button, located in the lower right corner of the screen.

8 Games history

In this menu the history (result, placed bets, credit, etc.) of all playing station's games can be viewed. Menu can be opened by selecting the **GAME HISTORY** button, located in the Main menu (see Chapter *2 Main menu*).

Navigating through the saved games information can be done by selecting the following buttons:

◀ - move to the previous game,   ◀◀ - move to the last game,

▶ - move to the next game,   ▶▶ - move to the first game.

Additional search filters can be enabled. To only see games in which the player has participated, the *"Show only played Games"* option must be enabled.

A specific game can be searched by date/time or by game number:

Find by time option requires you to enter the desired **Year**, **Month**, **Day**, **Hour**, **Minute** and **Second**. Search can be initiated by selecting the ✅ (Enter) button or cancelled by selecting the 🔴 (cancel) button.

Find by number option requires you to enter the desired **Internal number** and/or **Control number**. Search can be initiated by selecting the ✅ (Enter) button or cancelled by selecting the 🔴 (cancel) button.

Games history menu can be closed by selecting the **Exit** button, located in the upper right corner of the screen.

9 Eject bill acceptor

If the playing station is equipped with an automatic bill acceptor lift mechanism, it can be released by selecting the **EJECT BILL ACCEPTOR** button, located in the Main menu (see Chapter *2 Main menu*).

Automatic bill acceptor's lift mechanism is only available in the following machine models:
- R1SL-M3-23-2,
- R4M3,
- R5M3,
- R6M3,
- R12M3.

NOTE: This button will **NOT** work if the bill acceptor type is **Recycler**.

10 Control menu

Control menu can be used to remotely connect to the available main control units, located on the same network as the playing station. The list of all available units will be displayed with the IP addresses, game names and wheel ID numbers.
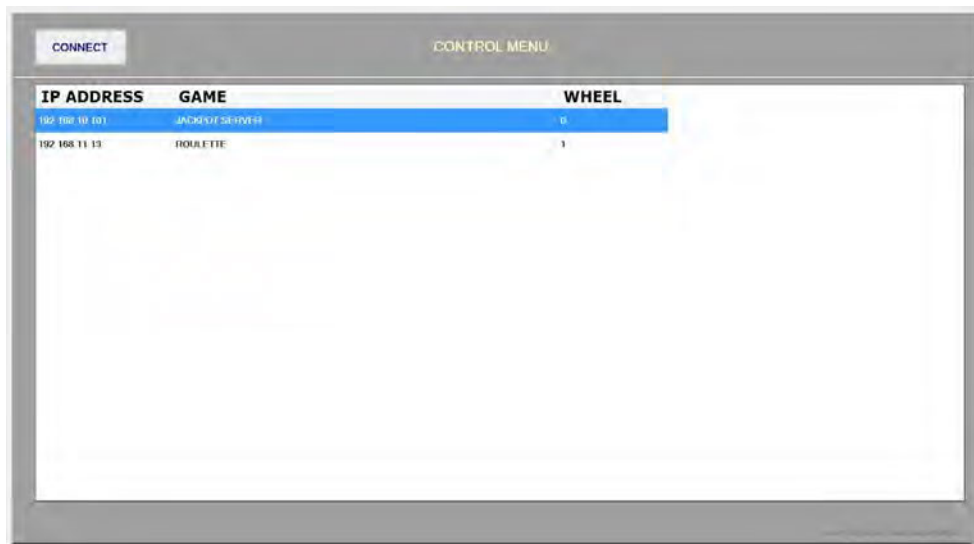
11 System tools menu

System tools menu can be accessed by selecting the **SYSTEM TOOLS** button, located in the Main menu (see Chapter *2 Main menu*).
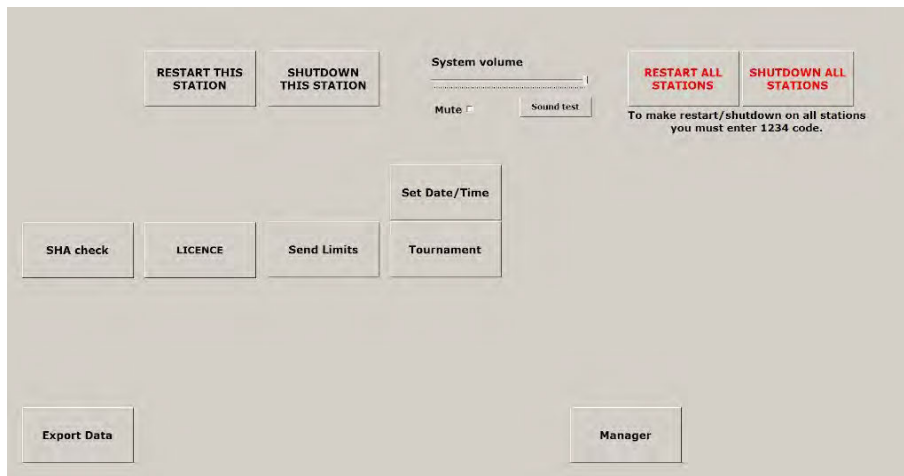
BUTTON/SLIDER	DESCRIPTION
RESTART THIS STATION	Restart current playing station. Confirmation window will appear.
SHUTDOWN THIS STATION	Shut down current playing station. Confirmation window will appear.
System volume	System volume adjustment can be made by using the volume slider. Left side of the slider bar represents low volume, right side represents high volume.
Mute	If checked, all system sounds will be muted.
Sound test	System volume level can be verified by using this button.
RESTART ALL STATIONS	All playing stations in the same network will be restarted. This action requires to enter password.
SHUTDOWN ALL STATIONS	All playing stations in the same network will be shut down. This action requires to enter password.
Check OS and BIOS	Starts the OS and BIOS checking process. *This functionality is market/customer specific and must be configured by KGM Gaming beforehand to operate properly.*
Calibrate monitor	Monitor calibration will be initiated. Available for specific monitor models only.
Set Date/Time	Opens the **Set date/time** menu (see Chapter *11.1 Set Date/Time menu*).
SHA check	Opens the **SHA check** menu (see Chapter *11.2 SHA check menu*).
LICENCE	Opens the **Licence** menu (see Chapter *11.3 Licence menu*).
Send Limits	Remotely connect to the **Control Server**, required for sending current playing station's games limits, to other stations on the same network (see **KGM Gaming Software - Control Server - User Manual**).
Tournament	Remotely connect to the **Control Server**, for starting a new game tournament (see **KGM Gaming Software - Control Server - User Manual**).
Export Data	Opens the **Export data** menu (see Chapter *11.4 Export data menu*).
Update	Opens the **Update** menu (see Chapter *11.5 Update menu*).
Manager	Opens the **Manager** menu (see Chapter *11.6 Manager menu*).
Exit	Exit menu.

11.1 Set Date/Time menu

Date and time can be set within this menu for the current playing station or for all playing stations in the network.
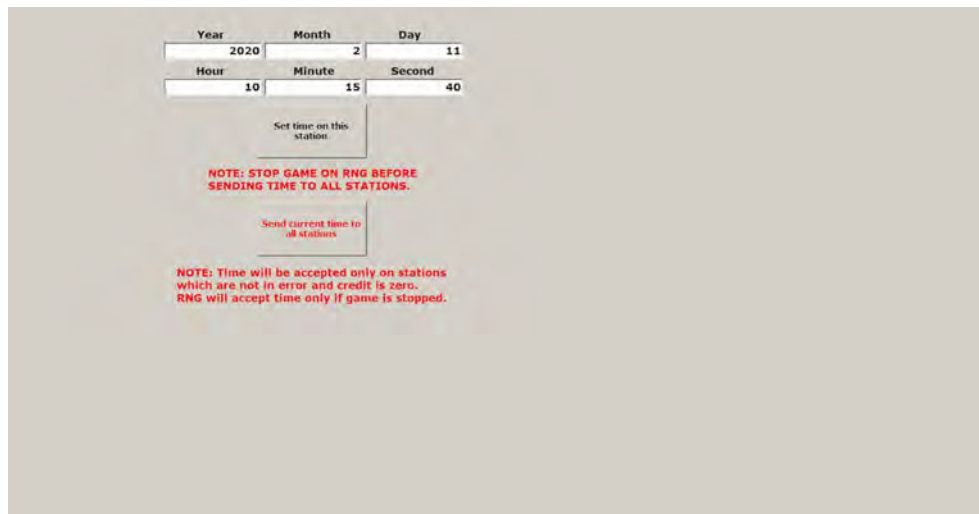
PARAMETER	DESCRIPTION
Year / Month / Day	Enter the current date in the following format YYYY, MM and DD in the appropriate fields.
Hour / Minute / Second	Enter the current time in the following format HH, MM and SS in the appropriate fields.
Set time on this station	The entered date and time will be set on the currently used playing station. Other limitations may apply - **see red text note**.
Send current time to all stations	The entered date and time will be set on all playing stations located on the same network. Confirmation window will appear. Other limitations may apply - **see red text note.**
Exit	Exit menu.

11.2 SHA check menu

In this menu all of the major file's SHA values can be checked.

PARAMETER	DESCRIPTION
File name	List of all major files.
Version	Corresponding version for each major file.
SHA1	SHA1 (Secure Hash Algorithm 1) value for each major file.
HMAC-SHA1 SEED	HMAC-SHA1 SEED (Hash-based Message Authentication Code- Secure Hash Algorithm 1 SEED) value for each major file.
HMAC-SHA1	HMAC-SHA1 (Hash-based Message Authentication Code- Secure Hash Algorithm 1) value for each major file.
Exit	Exit menu.

11.3 Licence menu

In this menu the activation details can be viewed. Activation of the software is handled by an **Authorization server**, located in the same network.

PARAMETER / BUTTON	DESCRIPTION
IP ADDRESS	IP address of authorization server.
KEY CODE	Activation key identification code.
CURRENT TIME	Current time and date (provided by the activation key via the authorization server).
EXPIRED TIME	Expiration time and date. The machine will not be operational once the expiration time and date have been reached.
VALID	Visual indicator of current authorization status: • **Green** - activation key is present, valid, not expired and works properly. • **Red** - activation key is not present, not valid, is expired or doesn't work properly. Error code is also displayed - see error bit table for details.
LICENCE - Activate	Opens the **Enter activation code** window. The activation code can be manually entered here.
RECONFIGURE KEY - Save to file	Saves the authorization key configuration file to an external storage device (root directory). USB flash drive must be plugged into the playing station's PC.
RECONFIGURE KEY - Load from file	Loads the authorization key configuration file from an external storage device (root directory). USB flash drive must be plugged into the playing station's PC.
Exit	Exit menu.

ERROR BIT	DESCRIPTION
00000001	Authorized: • Normal operation without errors.
00000010	Application ID not authorized on activation key.
00000100	IP not authorized on activation key: • IP address requesting authorization not present on the activation key.
00001000	Activation key expired.
00010000	Invalid time on authorization key.
00100000	Wrong product ID on activation key: • Activation key generation not compatible (older - generation 1 or newer - generation 2 activation key present), replace with matching generation activation key.
01000000	Activation key not valid: • Indicating hardware problem, activation key cannot be read and/or written to, • Different vendor key detected, • Empty activation key (not configured).
10000000	Missing activation key: • Activation key not present/detected.

11.3.1.1 Activation key reconfiguration

In order to add support for additional playing station or other changes, the activation key must be reconfigured by KGM Gaming. Follow the provided steps below to do so:

1. Insert the USB flash drive to any available USB port on the playing station.

2. Navigate to the LICENCE menu:
    - Insert the electronic key or turn the menu mechanical lock (depending on station configuration) and open the front door (service door),
    - Press the SYSTEM TOOLS button,
    - Press the LICENCE button.

3. Under the RECONFIGURE KEY press the Save to file button.

4. XXXXXXXX_request.key file will be generated and saved to the USB flash drive (root directory).

5. Send the newly created file to KGM Gaming (info@kgmgaming.com) to update the reconfiguration file.

6. Once the updated reconfiguration file (XXXXXXXX.key) is prepared, copy it to the USB flash drive (root directory) and connect it to any available USB port on the playing station.

7. Navigate to the LICENCE menu.

8. Under the RECONFIGURE KEY select the Load from file button.

9. The updated reconfiguration file will be found and implemented automatically.

11.4 Export data menu

In this menu all important data can be exported to the removable device.
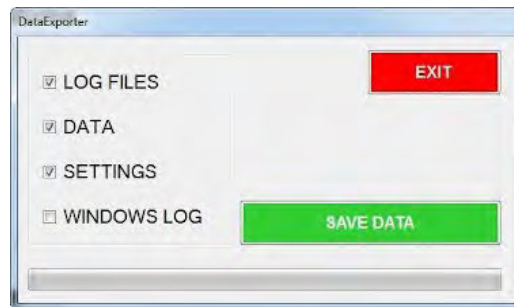
PARAMETER / BUTTON	DESCRIPTION
LOG FILES	If checked, log files will be exported.
DATA	If checked, data files will be exported.
SETTINGS	If checked, settings files will be exported.
WINDOWS LOG	If checked, Windows log will be exported.
Save DATA	Initiate the data export process.
EXIT	Exit menu.

Once the process is initiated, the progress bar will show the progress of the exporting operation.
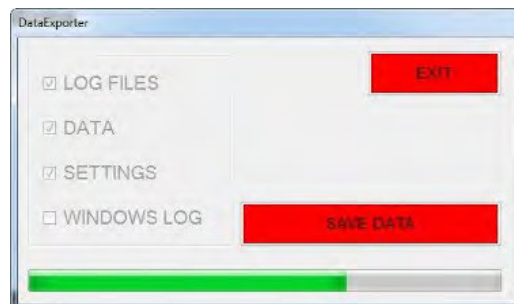
Once the export process is finished a conformation window will appear. Confirm by selecting the **OK** button.
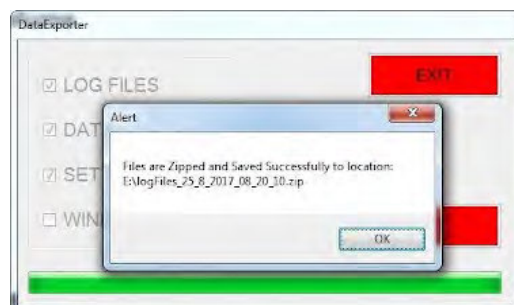
11.5 Update menu

Automatic update utility is client/jurisdiction specific and not be available in all versions of MgCore software.
Automatic update utility will update all playing terminals and main control units on the same network as the current playing terminal. If there is a new version of Multigame, Alfa Account Server or RNG available, KGM Gaming support can prepare special ZIP file, that can be used to auto-update all connected playing terminals and main control units.
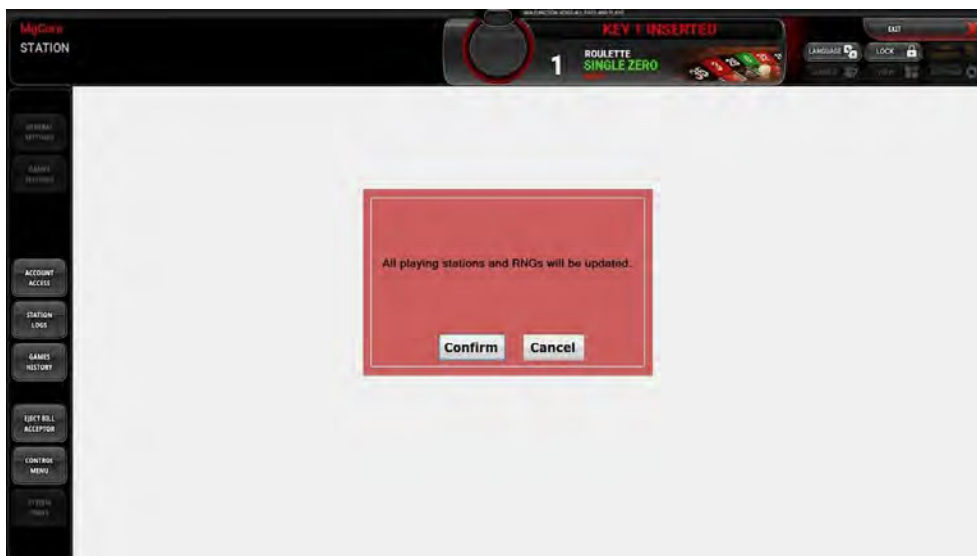
BUTTON	DESCRIPTION
Confirm	Start the automatic update utility.
Cancel	Cancel and return the System menu.
EXIT	Exit menu.

NOTE: In the auto-update process files in folders AAS, Multigame and RNG get deleted and are replaced with new files. If any settings, meters or data don't comply with new application structure, new files are generated (default AAS and MG factory settings are applied, meters and data get reset). All connected playing terminals and main control unit are updated.

To perform the auto-update process in its entirety:
1. Copy **DISTRIBUTION.zip** file (with the new software) to the root directory of any USB storage device.
2. Insert USB device to the computer of any terminal.
3. Insert electronic key.
4. Select **SYSTEM TOOLS**.
5. Press **Update** button, confirm, wait a few seconds to be transferred to the Auto-updater application.
6. In case specific files need to be deleted after the update procedure, select the desired check-boxes.
   If all check boxes are selected or existing settings are not compatible, the playing terminal/main control unit will restore to factory defaults and meters from the playing terminals/main control unit will be deleted.
7. Press **Update** when the update procedure is ready.
8. Wait until the update procedure is finished. All connected playing terminals and main control units will restart.
9. Update procedure is completed, USB device can be removed.

11.6 Manager menu

Manager menu can be used to perform several actions on all connected playing stations and control units. Settings from a current playing station can be sent to all other stations on the same network. Data export and other actions can be performed for a larger number of playing stations.

PARAMETER / BUTTON	DESCRIPTION
Send settings to all stations	Sends settings from the current playing station to all playing stations visible on the list.
Restart all stations	Restarts all playing stations visible on the list.
Export data from all stations	Exports data from all playing stations and main control units visible on the list to the USB storage device inserted in the current playing station's computer.
ID	Playing station or main control unit ID number.
Version	Software versions of playing station or main control unit.
Info	Status of playing station or main control unit.
Exit	Exit menu.

12 Multi game graphics Interface

This chapter provides a brief description and visual representation of the graphic elements and buttons used in all available KGM Gaming games.

12.1 Information panel

Information panel is located at the top of the screen and contains: current credit meters, current and previous betting information, remaining betting time, game information, system messages and game interface buttons.

The windows and buttons in the information panel are as follows:

1. **Credits / Promo / Total bet / bet / last bet / last win meters** - shows current credits, current promo credits, total bet, current bet, last bet and last win amounts in credits or in currency,

2. **Timer** - shows the remaining betting time for the currently selected game, with both the animation and the timer. The green line indicates that the bets can be placed while the red indicates that a bet cannot be placed,

3. **Messages** - information in regards to the system, current game phase or player notifications,

4. **Game** - information in regards to the currently selected game,

5. **Information panel buttons** - player interface buttons.

Buttons in the information panel as well as other buttons on the screen are described in the Chapter *12.4 Common buttons*.

12.2 Bet limits widget

Bet limits widget shows the minimum and the maximum bet on the table and/or given betting fields.

The widget information is as follows:

1. **Min** - shows the minimum bet on the table,

2. **Max** - shows the maximum bet on the table.

12.3 Multiplier chips

Multiplier chips with different denominations are located at the bottom center of the screen. Their values are assigned in the **Multiplier values** parameters (**GAMES SETTINGS** - **Set Limits Scheduler**), for each game separately.

12.3.1 Adjustable fifth multiplier chip

Adjustable fifth chip is an optional betting feature that allows the player to set their own value of the additional fifth multiplier chip.

Adjustable fifth chip feature can be enabled within the **Multiplier values** parameters (**GAMES SETTINGS** - **Set Limits Scheduler**) for currently played game.
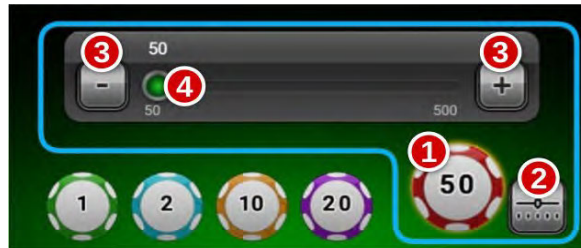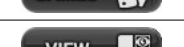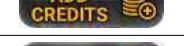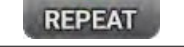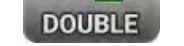
The buttons in the fifth chip widget are as follows:

1. **Fifth chip's value** - fifth chip's multiplier values,

2. **Fifth chip control panel button** - toggle fifth chip control panel. Pressing it when the panel is hidden will show the fifth chip controls. Pressing it while the panel is visible, will close it and confirm any potential changes to the fifth chip value,

3. **+/- buttons** - increase or decrease the fifth chip value, by the value of the lowest available multiplier chip,

4. **Fifth chip's slide** - adjust the fifth chip's value by using the slider. Left side of the slider bar represents lower fifth chip value, right side represents higher fifth chip value.

12.4 Common buttons

During general use or during maintenance, players or/and the attendants can access the following buttons:

BUTTON	DESCRIPTION
COLLECT	**COLLECT** - initiates the payout process.
HELP INFO	**INFO** - opens the information/help menu.
CALL ATTENDANT	**CALL ATTENDANT** - flashes the tower light to call the attendant.
SETTINGS	**SETTINGS** - opens the player's customization options.
LANGUAGE	**CHANGE LANGUAGE** - opens the language selection options.
GAMES	**GAMES** - opens the **Game selection** menu (see Chapter *12.5 Game selection menu*).
VIEW	**VIEW** - opens the **Game view selection** menu (see Chapter *12.6 Game view selection menu*).
LOCK	**LOCK** - lock playing station (Attendant lock).
ADD CREDITS	**ADD CREDITS** - with electronic/mechanical keys add credits.
METERS	**METERS** - with electronic keys access playing station's CS4 memory module meters *(region specific)*.
REPEAT / DOUBLE	**REPEAT/DOUBLE** - double function. It repeats bet from the previous game in a new one, only if no new bets were placed. If new bets were placed, the button transforms into a double-up button. Press it to double all the bets.
ADD CHIP	**ADD CHIP** - when pressed, this button adds a single chip of the currently selected multiplier to each bet on the board. Available for
CLEAR	**CLEAR** - double functionality button. Press it once to clear last bet field. Press it again to clear all the bets.
ERASE	**ERASE** - a toggle button that enables/disables the ERASE, a tool that removes the bet from the selected betting field.
AUTOPLAY	**AUTOPLAY** - when enabled, this function automatically repeats the last played bet on each "*Bets are open*" phase.
PIP	**PIP** - a toggle button that enable/disable the live RNG video stream.

12.5 Game selection menu

The Game selection menu can be opened by selecting the [GAMES] (Games) button, located in the Information panel. In the newly opened menu, the player can scroll through all available games and change the currently played game by simply selecting the new game's icon. The game can be changed at any time, even with the bets are still placed.

In the Game selection menu, all games with the currently placed bets will be displayed with a green bet counter. Additional game's information like a bet, win, last bet and last win amounts may also be provided. Games selection menu can be closed by selecting the ❌ (exit) button, located in the bottom left/right corner of the screen.

12.6 Game view selection menu

The Game view selection menu can be opened by selecting the [VIEW] (View) button, located in the Information panel.

The following game views are available:

Single game view (⬚) - opens a single game view.   **Three game view** (⬚) - Opens three games view.

Two game view (⬚) - opens two games view with a statistic or a live video feed option.   **Quad game view** (⬚) - opens four games view.

Desired selected game can be changed by selecting the new game, from the games selection menu (or button). If the selected game is already on the screen, its location will swap.

If two, three or quad game view is selected, the following buttons will be available under each viewed game:

BUTTON	DESCRIPTION
	Single game view - opens a single game view.
	Games - opens the **Game selection** menu (see Chapter *12.5 Game selection menu*).
	PIP - a toggle button that enable/disable the live RNG video stream.
	AUTOPLAY - When enabled, this function automatically repeats the last played bet on each *"Bets are open"* phase.
	CLEAR - Double functionality button. Press it once to clear last bet field. Press it again to clear all the bets.
	REPEAT/DOUBLE - Double function. It repeats bet from the previous game in a new one, only if no new bets were placed. If new bets were placed, the button transforms into a double-up button. Press it to double all the bets.

12.7 Multiview

An additional view (multiview), can be enabled for supported game types. Multiview requires at least 8 instances of the same game to be available to the player. The default configuration is a grid of 3 by 4, allowing for up up 12 game instances on screen at the same time. Additional game instances (if present) can be viewed by moving up and down using the arrow buttons located in the bottom left and right corners.
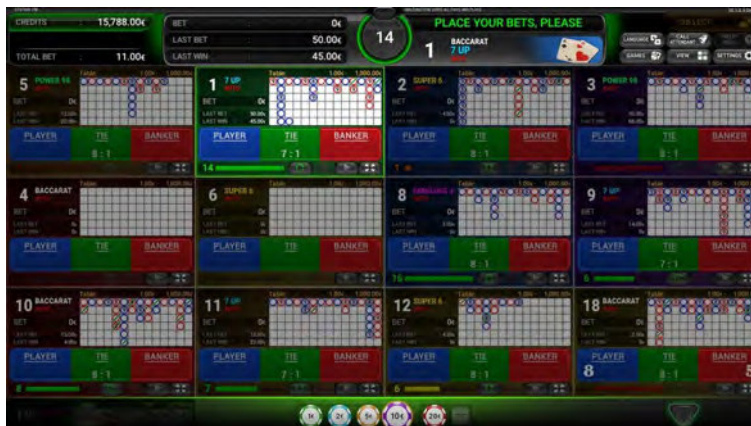
Multiview can be enabled by opening the games selection menu (or GAMES button) and selecting the multiview icon within the game selection menu.
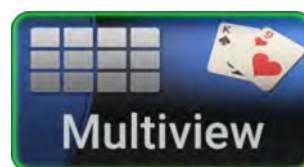
Alternatively a multiview shortcut button may be available within the single game view. It is located in the bottom left corner of the screen, next to table bet limits information.
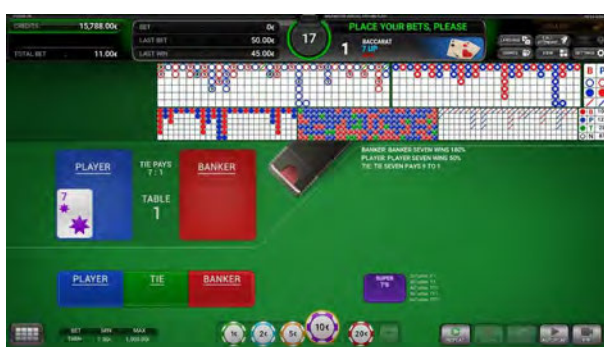
Multiview can be disabled by pressing any fullscreen shortcut (single game view) or by opening the games selection menu (or GAMES button) and selecting any available game.

13   Roulette game

Roulette game is one of the most recognized casino game, since first introduction in 18th century. Its game play is based on chance and does not require any prior knowledge of the game.

Player can chose to play ageist a real-life dealer (slow paced) or playing against computer controlled dealer (more dynamic).

13.1   Game rules

In Roulette game the player goal is to predict on which number the ball spun around opposite revolving wheel will land. Bets can either be placed before the ball is spun or during the time that the ball is spinning, before *"No more bets"* is announced. Player's odds of winning can be increased by placing some additional bets, like predicting number's color, type or approximate number location on the wheel.

13.2   Double zero Roulette game (US)

The Double zero roulette wheel is made up of 38 equal segments, numbered from zero to 36 (18 black numbers, 18 red numbers and two green, zeros). Two zeros are located on the opposite sides of the wheel.

13.2.1   Player's interface and layout

In the player's interface beside placing bets the player can view previous games result and statistics. The widgets and buttons in the player's interface are as follows (numbered from 1 to 10):
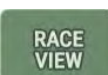
No.	DESCRIPTION
1	Information panel (see Chapter *12.1 Information panel*).
2	Roulette wheel statistic (see Chapter *13.3 Wheel statistics*).
3	Roulette history bar (see Chapter *13.4 History bar*).
4	Roulette layout (betting area).
5	Roulette layout view buttons (see Chapter *13.2.1.1 Roulette layout view*).
6	Roulette table limits (see Chapter *12.2 Bet limits widget*).
7	Roulette predefined bets buttons (See Chapter *13.2.2.3 Predefined bets*).

8	Multiplier chips (see Chapter *12.3 Multiplier chips*).
9	Adjustable multiplier chip (see Chapter *12.3.1 Adjustable fifth multiplier chip*).
10	Multi game common buttons (see Chapter *12.4 Common buttons*).

13.2.1.1 Roulette layout view

In Roulette game the player can choose between two different layouts (depending on the configuration). The available layouts can be changed by selecting the **RACE VIEW** or **TABLE VIEW** buttons (located on the right side of the of the screen).

BUTTON	VIEW	DESCRIPTION
		Table layout is a classic view of the betting board that is most familiar to the majority of players.
		Race layout emphasizes bet types such as Sectors to be utilized as well as Neighbors bet types.

13.2.2 Placing bets and bet types

Placing the bet is as simple as selecting the value chip and clicking on the desired betting field. Alternatively the player can drag the chip to the betting field. Current bet amount is displayed on the chip itself. Chip may visually vary depending on configuration.

13.2.2.1 Inside bet fields

Inside bets can be made on a specific numbers or on their border combinations. An explanation for each bet can be found in the table below.

BET TYPE		PAYOUT	DESCRIPTION
STRAIGHT UP		35 to 1	A bet made on a single number (including 00 and 0).
SPLIT		17 to 1	A bet on any two adjoining numbers (including 00 and 0).
CORNER		8 to 1	A bet on four adjoining numbers that form a square.
STREET		11 to 1	A bet that covers three numbers in a column.
THREE NUMBERS INCLUDING A ZERO OR A DOUBLE ZERO		11 to 1	A three-number bet that involves at least one zero.
FIVE NUMBERS		6 to 1	A bet made on 00-0-1-2-3 numbers.
SIX NUMBERS		5 to 1	A bet that covers two adjacent columns.

Outside bets are specific bets that refer to a group of numbers. Each bet is explained in the table below.
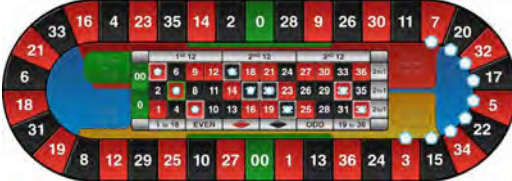
BET TYPE		PAYOUT	DESCRIPTION
DOZEN		1 to 1	A bet that the winning number will be in the chosen dozen: first (1-12), second (13-24), or third (25-36).
COLUMNS		2 to 1	A bet that the winning number will be in the chosen row of 12 numbers, such as 3-6-9-12, down to 36.
LOW/HIGH		2 to 1	A bet that the winning number will be in the chosen range (1 to 18 or 19 to 36).
EVEN/ODD		1 to 1	A bet that the winning number will be of the chosen type (EVEN or ODD).
RED/BLACK		1 to 1	A bet that the winning number will be of the chosen color (RED or BLACK).
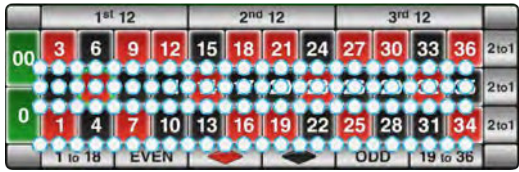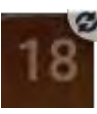
13.2.2.3   Predefined bets

Predefined bets allow an inexperienced player to place advance bets, with one-click button. Different bet buttons can be toggled with the **Change bet type interface** button (⟳). An explanation for each bet can be found in the table below.

BET TYPE		DESCRIPTION
		SECTOR 16-7 - A bet that puts selected chip value on specific section of the wheel (from number 16 to number 7).
		SECTOR 15-8 - A bet that puts selected chip value on specific section of the wheel (from number 15 to number 8).

BET TYPE	DESCRIPTION
	SECTOR 14-9, 13-10 - a bet that puts selected chip value on specific section of the wheel (from number 14 to number 9 and from number 13 to number 10).
	SECTOR 19-33, 20-34 - a bet that puts selected chip value on specific section of the wheel (from number 19 to number 33 and from number 20 to number 34).
	NEIGHBOURS ONE - a bet that puts one selected chip on the left and right side of the straight up bet (number 5).
	NEIGHBOURS TWO - a bet that puts two selected chips on the left and right side of the straight up bet (number 5).

BET TYPE	DESCRIPTION
	NEIGHBOURS THREE - a bet that puts three selected chips on the left and right side of the straight up bet (number 5).
	NEIGHBOURS FOUR - a bet that puts four selected chips on the left and right side of the straight up bet (number 5).
	ROSE - a bet that puts selected chip value on all adjoining fields on the table, in addition to the selected straight up bet (number 5).
	MAX ROUSE - a bet that puts maximum field value on all adjoining fields on the table, in addition to the selected straight up bet (number 5).
	FULL NUMBERS - a bet that puts selected chip value on all fields which are related to the selected straight up bet (number 5).
	MAX FULL NUMBERS - a bet that puts maximum field value on all fields which are related to the selected straight up bet (number 5).
	CROWN NUMBERS - a bet that puts selected chip value on all inner fields which are related to the selected straight up bet (number 5).

BET TYPE	DESCRIPTION
	CROWN DOZEN - a bet that puts selected chip value on all dozen fields which are related to the selected straight up bet (number 5).
	CROWN COLUMN - a bet that puts selected chip value on all column fields which are related to the selected straight up bet (number 5).
	CROWN NEIGHBOURS - a bet that puts six selected chips on the left and right side of the straight up bet (number 5).
	RECAL FROM HISTORY - Recall from history is a feature allowing the player to repeat their bet from any of the last 19 games, by selecting the repeat button ( ). For more information see Chapter *13.4.1 Recall from history feature*.

13.2.3 Paytable

Paytable for the Double zero Roulette game is described in the table below.

13.3 Wheel statistics

Roulette wheel statistic can be seen in the upper left corner of the screen. By clicking on it, player can:

- toggle shown statistics for the last 100, 200 or 500 games,
- view wheel's hot and cold numbers,
- view percentage of winnings color, winning wheel section and winning odd/even numbers.

Detailed history for last 100 games can be viewed by selecting the button.
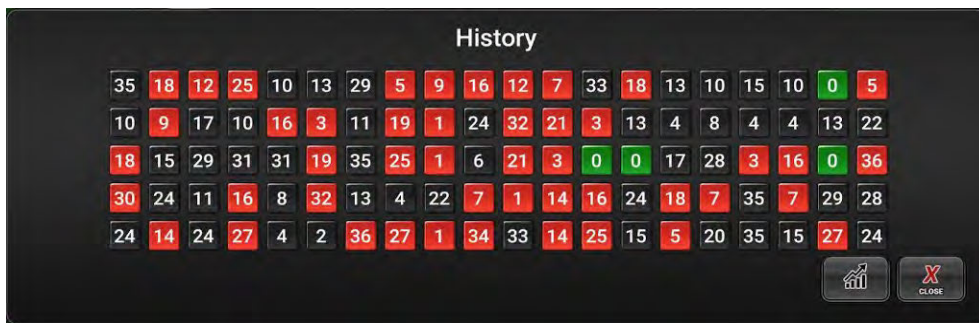
View can be closed by selecting the (close) or the button (return to the statistic panel).

Additionally wheel statistic can be show on betting board:

- **Show possible win** - On the roulette layout display possible win for each placed bet separately,
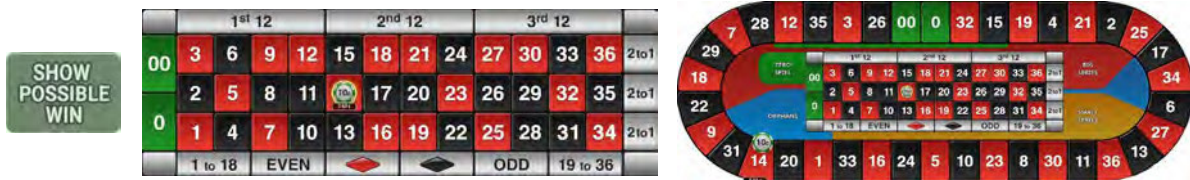
- **Show Hot & Cold** - On the roulette layout display hot and cold numbers, related to last 100, 200 or 500 games,

- **Show statistic** - On the roulette layout display all numbers win count, related to last 100, 200 or 500 games.

13.4   History bar

History bar is displayed above the Roulette betting board and shows the results of last games in order from left (latest) to right (oldest).

13.4.1   Recall from history feature

Recall from history is a feature allowing the player to repeat their bet from any of the last few games. At the beginning of the BETS OPEN phase, a REPEAT symbol (⟳) appears on each result in the HISTRY BAR marking the games that have been played.

If pressed, the marked button will clean any bets placed on the board at the time, and repeat the bets from their respective games.

13.5   Roulette game settings

Roulette game settings can be adjusted within the **GAMES SETTINGS** menu (see Chapter *4 Games settings*).

13.5.1   General tab

Roulette **General tab** can be opened by selecting the **Settings - Set** button of the desired Roulette game.

PARAMETER	DESCRIPTION
Editing game	Currently edited Roulette game.
Game type	Type of connected wheel: • Single zero, • 13-1-00-27-10 (US), • 26-00-0-32 (AS).
Enable race layout	If checked, race layout is enabled.
Default	Set the default game layout: • Table, • Race.
Bet settings - Neighbours mode 2	If checked, any neighbours bet button can be permanently selected before placing the bets. If disabled, neighbours bet buttons are only available after a bet is placed.
Bet settings - Allow Split column bet	If checked, bets can be placed on split columns.
Bet settings - Allow Split dozen bet	If checked, bets can be placed on split dozens.
Bet settings - Opposite even bets allowed	If checked, bets can be placed on opposite bet locations. For example red and black.
Bet settings - Finale bets	If checked, final bets are enabled.

PARAMETER	DESCRIPTION
Bet settings - French rules	If checked, "French rules" are accepted - if winning number is zero, half of the value of bets on simple chances will be returned to the player.
Bet settings - Crown bet	If checked, Crown bet buttons are enabled: • Rose, • Max rose, • Full number, • Max full number, • Crown number, • Crown dozen, • Crown column, • Crown neighbours.
Bet settings - Recall bet from history bar	If enabled, recall bet from history is enabled (see Chapter *13.4 History bar*).
Bet settings - Neighbours on series (ms)	Time interval for the player to be able to place bets on neighbours with the roulette keyboard (in milliseconds).
Promo credits - Disable Outer bets on promo credits	If checked, outer bets are disabled when using promotional credits.
Promo credits - Allow only (x) numbers on promo credits (0-disabled)	Define on how many different single number fields the player can place bets using promo credits [0-Disabled, min. 1, max. 37].
Promo credits - Allow only (x) fields on promo credits (0-disabled)	Define on how many different betting fields the player can place bets using promo credits [0-Disabled].
Communication - Send doors to master	If checked, the status of the station doors is sent to the main control unit (RNG).
Communication - Send bets	If checked, bets are sent to the wall display.
Communication - Send Bets Interval(ms)	Time interval to send bets [milliseconds].
Communication - RAW compatibility mode	If checked, RAW protocol compatibility mode is enabled.
Communication - Protected communication	Enable or disable protected communication. This setting further increases security.
Features - Start button	If checked, start button functionality is enabled. Total game time can be shortened if all the players with credits select the **START** button. After the **START** button has been selected by all the players, the game goes directly into *"Hurry up"* phase. **START** button is only visible if bets are placed.
Features - Enable possible win on layouts	If checked, possible win of currently placed bet can be displayed on the player's interface (see Chapter *13.3 Wheel statistics*).
Features - Enable statistics on layouts	If checked, wheel statistic can be visible on the player's interface (see Chapter *13.3 Wheel statistics*).
Features - Show hot/ cold on layouts	If checked, Hot and Cold numbers can be displayed on the player's interface (see Chapter *13.3 Wheel statistics*).
Features - Use male sounds where applicable	If checked, the male narrator is preferred.
Features - Turn on error light of game stop	If checked, an error illumination event is triggered when the game is stopped.
Features - Jackpot	Selected bonus game: • None • Triple Jackpot • Lucky Number Jackpot
Features - Enable Roll 'n' hit	If checked, Roll 'n' hit sidebet is enabled.
Split bets on race layout - Split combination bets on race view	If checked, combination bets (split, corner, street, etc.) will be shown on race layout.

PARAMETER	DESCRIPTION
Common settings - Show "Add chip" bet button	If checked, **ADD CHIP** button is enabled (see Chapter *12.4 Common buttons* - ADD CHIP button).
Common settings - Play game sounds	If checked, game specific sounds will be played.
Common settings - Play narrator sounds	If checked, narrator sounds will be played.
Common settings - Manual background color	If checked, a custom background color can be selected for the game background.
Video settings - Picture in picture (PIP)	If checked, Picture in picture (PIP) functionality is enabled.
Video settings - Hold pip result	Results/winning will be held for selected time period, in order for the player to be able to see the game results on live video feed [seconds]: • Disabled, • 2, • 4, • 1, • 3, • 5.
Save	Save the settings.
Exit	Exit menu.

13.5.2 Limits Scheduler

Roulette **Limits Scheduler** menu can be opened by selecting the **Limits Scheduler - Set** button of the desired Roulette game.

PARAMETER/BUTTON	DESCRIPTION
Limit groups	A list of configured and available limit groups.
Limit groups - Copy	Copies the limits from the selected limits group.
Limit groups - Paste	Pastes the copied limits to the selected limits group.
Limit groups - Rename	Renames the selected limits group.
Limit groups - Is default	If checked, the currently selected limits group will be enabled and available to the player to switch between.
Limit groups - + (Add)	Adds new limits group.
Limit groups - X (Delete)	Delete selected limits group.
Limit groups - ↑/↓ (Move UP / DOWN)	Moves the selected limits group higher or lower on the Limit groups list.
Limit groups - Separated Live limits	If checked, Limit group is configured for Automatic and Live game types separately.
Limit groups - Edit for	Limit group configuration is applicable for the following game type: • Automatic, • Live.
Limit groups - Limits in credits	If checked, limits are set in credits.
Scheduler	If checked, Scheduler is enabled, the Scheduler menu can be opened by selecting the Scheduler button (see Chapter *4.1 Scheduler*).
Limit groups - Station info	Short summary of station info, including current station's denomination and current SAS denomination.
Limit groups - Max possible win (Money/Credits)	Maximal possible win with the current limits in use, show in actual currency (money) and credits.
Limit groups - Set all MIN	Set all Min fields to the desire value (table - Min and all Bets - Min).

PARAMETER/BUTTON	DESCRIPTION
Limit groups - Set all MAX	Set all Max fields to the desire value (table - Max and all Bets - Max).
Limit groups - Multiply all for	Multiply all Max and Min fields with the desired value.
Table - Min/ Max/ Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of all bets on the table.
Possible win - Max	Maximal Roulette win amount. This parameter may override (lower) existing Roulette limits to ensure no bet can be placed that would, in case of a win, exceed this value.
Multiplier values - Chip 1/2/3/4/5	Define chip multiplier value for each chip separately.
Multiplier values - Adjustable	If checked, fifth chip is adjustable.
Multiplier values - Max value	Maximal value of the fifth chip (Adjustable parameter must be enabled).
Inner bets - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Inner bets.
Outer bets - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Outer bets.
x36 Straight-up bet - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Straight up bets.
x18 Split-number bets - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Split number bets.
x12 Street bet - Columns/Rows - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Street, Columns and Rows bets.
x9 Corner bets - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Corner bets.
x7 Five number bets - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Five number bets.
x6 Six numbers bets - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Six number bets.
x3 Dozen/Column bets - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Dozen and Column bets.
x2 Low/High, Red/Black, Odd/Even - Min-Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Low, High, Red, Black, Odd and Even bets.
x1.5 Split column/split dozen - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of split column and Split dozen bets.
Save	Save the settings.
Exit	Exit menu.

14 SicBo game

SicBo is an ancient Chinese game with three dice inside the wheel or completely enclosed in a glass dome of a dice shaker. On each dice, there are numbers from 1 to 6. Numbers are placed in a way, that sum of numbers on two opposite sides made value of seven.
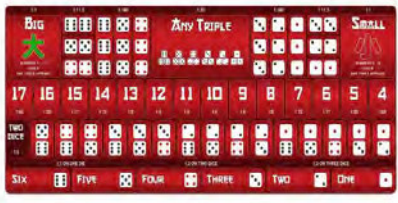
14.1 Game rules

In these game the player's goal is to predict which three numbers will be faced up, when the dice stop rotating/shaking.

Player is also able to place multiple bets at once on specific dice combinations or on sum of all dice.

14.2 Player's interface and layout

In the SicBo game, two different layouts can be used, both are described in the table below.

LAYOUT	DESCRIPTION
	Default layout - in this layout the player can place up to 50 different bets (see Chapter *14.2.1 Default player's interface*). This layout can be enabled by selecting one of the following paytables: • **1** (86.63%), • **5** (91.02%), • **9** (81.37%), • **2** (96.43%), • **6** (94.19%), • **10** (86.67%), • **3** (94.70%), • **7** (79.30%), • **11** (96.53%). • **4** (92.44%), • **8** (85.54%),
	Extended layout - in this layout the player can place up to 104 different bets (see Chapter *14.2.2 Extended player's interface*). This layout can be enabled by selecting one of the following paytables: • **12** (85.15%) • **14** (86.41%) • **13** (92.85%) • **15** (92.50%)

The game's paytable can be selected within the **Game settings** menu (see Chapter *14.5 SicBo game settings*).

NOTE: Before the paytable is change, the casino policy need to be consulted. In particular jurisdiction some paytables may not be allowed or only the one paytables is approved, multiple paytables cannot be used.

Detailed information about individual paytables can be found in Chapter *14.4 Paytables*.

14.2.1 Default player's interface

In this player's interface beside placing bets the player can view previous games result and statistics. The widgets and buttons in the player's interface are as follows (numbered from 1 to 10):
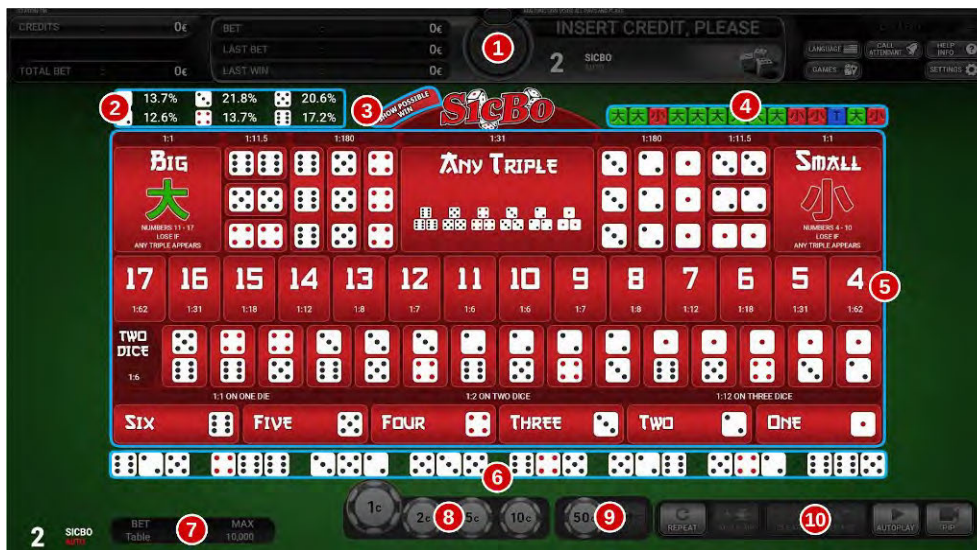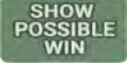
No.	DESCRIPTION
1	Information panel (see Chapter *12.1 Information panel*).
2	Statistic of dice numbers (of all three dice).
3	Toggle possible win in currency, displayed on current betting field:
4	The Big, Small and Tie results overview for the last 14 games.
5	SicBo layout (betting area).
6	Results of the last 8 games.
7	SicBo table limits (see Chapter *12.2 Bet limits widget*).
8	Multiplier chips (see Chapter *12.3 Multiplier chips*).
9	Adjustable multiplier chip (see Chapter *12.3.1 Adjustable fifth multiplier chip*).
10	Multi game common buttons (see Chapter *12.4 Common buttons*).

14.2.2 Extended player's interface

In this player's interface beside placing bets the player can view previous games result and statistics. The widgets and buttons in the player's interface are as follows (numbered from 1 to 10):

No.	DESCRIPTION
1	Information panel (see Chapter *12.1 Information panel*).
2	SicBo layout (betting area).
3	Statistic of dice numbers (of all three dice).
4	Toggle possible win in currency, displayed on current betting field:
5	Results of the last 8 games.
6	The Big, Small and Tie results overview for the last 7 games.
7	SicBo table limits (see Chapter *12.2 Bet limits widget*).
8	Multiplier chips (see Chapter *12.3 Multiplier chips*).
9	Adjustable multiplier chip (see Chapter *12.3.1 Adjustable fifth multiplier chip*).
10	Multi game common buttons (see Chapter *12.4 Common buttons*).

14.3 Placing bets and bet types

Placing the bet is as simple as selecting the value chip and clicking on the desired betting field. Alternatively a player can drag the chip to the betting field. Current bet amount is displayed on the chip itself. Chip may visually vary depending on configuration.

14.3.1 Bet fields

An explanation for each possible bet can be found in the table below.

BET TYPE	DESCRIPTION
	BIG - place a bet on any game result of which summed value is 11, 12, 13, 14, 15, 16 or 17. It is important to note that a bet is not valid if the outcome of the game is any of the three same numbers dice combinations.
	SMALL - place a bet on any game result of which summed value is 4, 5, 6, 7, 8, 9 or 10. It is important to note that a bet is not valid if the outcome of the game is any of the three same numbers dice combinations.
	ANY TRIPLE - bet on any of three same numbers dice combinations.
	EVEN/ODD - bet on even or odd result type.
	DOUBLE DICE - bet on specific two same numbers dice combinations.
	SPECIFIC STRAIGHT TRIPLE - bet on specific three same numbers dice combinations.
	TOTAL SUM COMBINATION - bet on exact dice sum value (from 4 to 17).
	DOMINO COMBINATION - bet on specific two dice numbers.
	SINGLE DIE - bet on specific number on ONE, TWO or THREE dice. Bet outcome depend on how many occurrence of chosen number appear.
	FOUR NUMBER COMBINATION - bet on any three out of four numbers combination.
	DOUBLE NUMBERS WITH SINGLE DICE COMBINATION - bet on specific dice combinations with double numbers included. Available in extended layout only.
	THREE SINGLE DICE COMBINATION - bet on specific dice combinations. Available in extended layout only.

14.4 Paytables

PAYTABLE 1	
RTP: Min = 52.78%, Max = 97.22%, Average = 86.63%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	150 to 1
Any triple	25 to 1
Total sum 4 or 17	50 to 1
Total sum 5 or 16	18 to 1
Total sum 6 or 15	14 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	6 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	3 to 1
Domino combination	6 to 1

PAYTABLE 2	
RTP: Min = 92.59%, Max = 100%, Average = 96.43%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	209 to 1
Any triple	34 to 1
Total sum 4 or 17	68 to 1
Total sum 5 or 16	34 to 1
Total sum 6 or 15	20 to 1
Total sum 7 or 14	13 to 1
Total sum 8 or 13	9 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	7 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1

PAYTABLE 3	
RTP: Min = 87.50%, Max = 97.22%, Average = 94.70%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	205 to 1
Any triple	33 to 1
Total sum 4 or 17	65 to 1
Total sum 5 or 16	33 to 1
Total sum 6 or 15	20 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1

PAYTABLE 4	
RTP: Min = 83.80%, Max = 97.22%, Average = 92.44%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	180 to 1
Any triple	31 to 1
Total sum 4 or 17	62 to 1
Total sum 5 or 16	31 to 1
Total sum 6 or 15	18 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1

PAYTABLE 5 RTP: Min = 81.02%, Max = 97.22%, Average = 91.02%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	180 to 1
Any triple	30 to 1
Total sum 4 or 17	60 to 1
Total sum 5 or 16	30 to 1
Total sum 6 or 15	17 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	6 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	3 to 1
Domino combination	6 to 1

PAYTABLE 6 RTP: Min = 90.28%, Max = 97.22%, Average = 94,19%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	195 to 1
Any triple	32 to 1
Total sum 4 or 17	64 to 1
Total sum 5 or 16	32 to 1
Total sum 6 or 15	19 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8.5 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6.5 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1

PAYTABLE 7 RTP: Min = 52.78%, Max = 97.22%, Average = 79.30%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	8 to 1
Specific straight triple	150 to 1
Any triple	24 to 1
Total sum 4 or 17	50 to 1
Total sum 5 or 16	18 to 1
Total sum 6 or 15	14 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	6 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	3 to 1
Domino combination	5 to 1

PAYTABLE 8 RTP: Min = 70.83%, Max = 97.22%, Average = 85.54%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	10 to 1
Specific straight triple	180 to 1
Any triple	30 to 1
Total sum 4 or 17	50 to 1
Total sum 5 or 16	30 to 1
Total sum 6 or 15	18 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	6 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	10 to 1
Domino combination	5 to 1

PAYTABLE 9	
RTP: Min = 66.67%, Max = 97.22%, Average = 81.37%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	8 to 1
Specific straight triple	150 to 1
Any triple	24 to 1
Total sum 4 or 17	50 to 1
Total sum 5 or 16	30 to 1
Total sum 6 or 15	18 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	6 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	3 to 1
Domino combination	5 to 1

PAYTABLE 10	
RTP: Min = 81.48%, Max = 97.22%, Average = 86.67%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	10 to 1
Specific straight triple	180 to 1
Any triple	30 to 1
Total sum 4 or 17	60 to 1
Total sum 5 or 16	30 to 1
Total sum 6 or 15	18 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	5 to 1

PAYTABLE 11	
RTP: Min = 93.75%, Max = 97.22%, Average = 96.53%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	12 to 1
Specific straight triple	205 to 1
Any triple	34 to 1
Total sum 4 or 17	67 to 1
Total sum 5 or 16	34 to 1
Total sum 6 or 15	20 to 1
Total sum 7 or 14	13 to 1
Total sum 8 or 13	9 to 1
Total sum 9 or 12	7.4 to 1
Total sum 10 or 11	6.5 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1

PAYTABLE 12 RTP: Min = 70.83%, Max = 97.22%, Average = 85.15%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11 to 1
Specific straight triple	180 to 1
Any triple	31 to 1
Even	1 to 1
Odd	1 to 1
Total sum 4 or 17	62 to 1
Total sum 5 or 16	31 to 1
Total sum 6 or 15	18 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1
Four number combination	7 to 1
Double numbers with single dice combination	50 to 1
Three single dice combination	30 to 1

PAYTABLE 13 RTP: Min = 90 %, Max = 97.22 %, Average = 92.85 %	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	12 to 1
Specific straight triple	195 to 1
Any triple	32 to 1
Even	1 to 1
Odd	1 to 1
Total sum 4 or 17	64 to 1
Total sum 5 or 16	32 to 1
Total sum 6 or 15	19 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	9 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6.5 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1
Four number combination	7.1 to 1
Double numbers with single dice combination	64 to 1
Three single dice combination	32 to 1

PAYTABLE 14 RTP: Min = 70.83 %, Max = 97.22 %, Average = 86.41%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	195 to 1
Any triple	32 to 1
Even	1 to 1
Odd	1 to 1
Total sum 4 or 17	64 to 1
Total sum 5 or 16	32 to 1
Total sum 6 or 15	19 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8.5 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6.5 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1
Four number combination	7.5 to 1
Double numbers with single dice combination	50 to 1
Three single dice combination	30 to 1

PAYTABLE 15 RTP: Min = 90 %, Max = 97.22 %, Average = 92.50 %	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	194 to 1
Any triple	32 to 1
Even	1 to 1
Odd	1 to 1
Total sum 4 or 17	64 to 1
Total sum 5 or 16	32 to 1
Total sum 6 or 15	19 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8.5 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6.4 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1
Four number combination	7.1 to 1
Double numbers with single dice combination	64 to 1
Three single dice combination	32 to 1

14.5 SicBo game settings

SicBo game settings can be adjusted within the **GAMES SETTINGS** menu (see Chapter *4 Games settings*).

14.5.1 General tab

SicBo **General tab** can be opened by selecting the **Settings - Set** button of the desired SicBo game.

PARAMETER	DESCRIPTION
Editing game	Currently edited SicBo game.
Game settings - Paytable	Select the desired paytable: • 1 (86.63%), • 6 (94.19%), • 11 (96.53%), • 2 (96.43%), • 7 (79.30%), • 12 (85.15%), • 3 (94.70%), • 8 (85.54%), • 13 (92.85%), • 4 (92.44%), • 9 (81.37%), • 14 (86.41%), • 5 (91.02%), • 10 (86.67%), • 15 (92.50%).
Common settings - Show "Add chip" bet button	If checked, **ADD CHIP** button is enabled (see Chapter *12.4 Common buttons* - ADD CHIP button).
Common settings - Play game sounds	If checked, game specific sounds will be played.
Common settings - Play narrator sounds	If checked, narrator sounds will be played.
Common settings - Manual background color	If checked, a custom background color can be selected for the game background.
Video settings - Picture in picture (PIP)	If checked, Picture in picture (PIP) functionality is enabled.
Video settings - Hold pip result	Results/winning will be held for selected time period, in order for the player to be able to see the game results on live video feed [seconds]: • Disabled, • 2, • 4, • 1, • 3, • 5.
Save	Save the settings.
Exit	Exit menu.

14.5.2 Limits Scheduler

SicBo **Limits Scheduler** settings can be opened by selecting the **Limits Scheduler - Set** button of the desired SicBo game.

PARAMETER/BUTTON	DESCRIPTION
Limit groups	A list of configured and available limit groups.
Limit groups - Copy	Copies the limits from the selected limits group.
Limit groups - Paste	Pastes the copied limits to the selected limits group.
Limit groups - Rename	Renames the selected limits group.
Limit groups - Is default	If checked, the currently selected limits group will be enabled and available to the player to switch between.
Limit groups - + (Add)	Adds new limits group.
Limit groups - X (Delete)	Delete selected limits group.
Limit groups - ↑/↓ (Move UP / DOWN)	Moves the selected limits group higher or lower on the Limit groups list.
Limit groups - Separated Live limits	If checked, Limit group is configured for Automatic and Live game types separately.

PARAMETER/BUTTON	DESCRIPTION
Limit groups - Edit for	Limit group configuration is applicable for the following game type: • Automatic, • Live.
Limit groups - Limits in credits	If checked, limits are set in credits.
Scheduler	If checked, Scheduler is enabled, the Scheduler menu can be opened by selecting the Scheduler button (see Chapter *4.1 Scheduler*).
Limit groups - Station info	Short summary of station info, including current station's denomination and current SAS denomination.
Limit groups - Max possible win (Money/Credits)	Maximal possible win with the current limits in use, show in actual currency (money) and credits.
Limit groups - Set all MIN	Set all Min fields to the desire value (table - Min and all Bets - Min).
Limit groups - Set all MAX	Set all Max fields to the desire value (table - Max and all Bets - Max).
Limit groups - Multiply all for	Multiply all Max and Min fields with the desired value.
Table - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of all bets on the table.
Possible win - Max	Maximal SicBo win amount. This parameter may override (lower) existing SicBo limits to ensure no bet can be placed that would, in case of a win, exceed this value.
Multiplier values - Chip 1/2/3/4/5	Define chip multiplier value for each chip separately.
Multiplier values - Adjustable	If checked, fifth chip is adjustable.
Multiplier values - Max value	Maximal value of the fifth chip (Adjustable parameter must be enabled).
Big, Small, Even, Odd - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Big, Small, Even and Odd bets.
Specific triple bet - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Specific triple bet.
Any triple bet - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Any triple bet.
Single die bet - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Single die bet.
Total sum combination 4 OR 17 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Total sum combination of 4 or 17 bet.
Total sum combination 5 OR 16 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Total sum combination of 5 or 16 bet.
Total sum combination 6 OR 15 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Total sum combination of 6 or 15 bet.
Total sum combination 7 OR 14 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Total sum combination of 7 or 14 bet.
Total sum combination 8 OR 13 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Total sum combination of 8 or 13 bet.

PARAMETER/BUTTON	DESCRIPTION
Total sum combination 9 OR 12 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Total sum combination of 9 or 12 bet.
Total sum combination 10 OR 11 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Total sum combination of 10 or 11 bet.
Double dice bet - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Double dice bet.
Domino combination bet - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Domino combination bet.
Four number combination - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Four number combination bet.
Three dice combination - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Three dice combination bet.
Double numbers with single dice combination - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Double numbers with single dice combination bet.
Save	Save the settings.
Exit	Exit menu.

15   Baccarat game

Baccarat is a card game that has turned into one of the most played and talked about games in the gambling world. Baccarat is a comparing card game played between two hands, the Player and the Banker.

Each baccarat game has three possible outcomes: **Player** (Player hand has the highest point total), **Banker** (Banker hand has the highest point total) and **Tie** (neater the Player nor the Banker hand wins). Depending on the played game variant, additional side bets may be available.

15.1   Game rules

All face cards (Jack, Queen, King) and 10's have **NO** value. Cards less than 10 are counted at face values, Aces are worth 1, suits don't matter. Only single digit values are valid. Any point total that reaches a double digit, drops the left digit.
For example 15 is counted as 5 and 25 is also counted as 5. This rule is valid for all variants of Baccarat described in this manual.

To start the game, the player bets either on Player, Banker, Tie or on one of the side bets (depending on played game variant). Dealer deals from the card shoe and gives two cards to the Player, and two cards to the Banker. First and third cards are dealt to the Player, second and fourth cards are dealt to the Banker. Specific situation is in Baccarat 7UP game variant, where the Player's first card is not dealt, but is a fixed 7. So in this case the first dealt card goes to Banker, second to Player and third to Banker.

When first four cards are dealt, and a point total of the Player or Dealer hand is 8 or 9 (**NATURAL** hand), no more cards are dealt. In the case when the Player or the Banker hand does not reach 8 or 9, the third card rules may apply (additional third card is deal to the Player, to the Banker or both). In this case, the winning hand is the one with the highest point total.

In the outcome of a game where the Player and Banker hand have the same point total, current round is a Tie. Bet on the Player and Banker do not win or lose, only Tie bet wins.

Object of the game is to bet on the hand or side bet, that will ultimately win. Descriptions of all available bets
 can be found in Chapter *15.3 Placing bets and bet types*.

15.2 Player's interface and layout

In the player's interface beside placing bets the player can view scoreboard of previous games result. The widgets and buttons in player's interface are as follows (numbered from 1 to 9):

No.	DESCRIPTION
1	Information panel (see Chapter *12.1 Information panel*).
2	Baccarat trend (see Chapter *15.2.1 Baccarat trend*).
3	Information of currently used game variant.
4	Baccarat layout (betting fields).
5	Additional betting fields for the currently selected game variant (side bets).
6	Baccarat table limits (see Chapter *12.2 Bet limits widget*).
7	Multiplier chips (see Chapter *12.3 Multiplier chips*).
8	Adjustable multiplier chip (see Chapter *12.3.1 Adjustable fifth multiplier chip*).
9	Multi game common buttons (see Chapter *12.4 Common buttons*).

15.2.1 Baccarat trend

Baccarat trend consist of seven main elements: Big Road, Big Eye Road, Small Road, Bead Plate and Cockroach Road displaying game results or patterns, as well as the total game winnings and prediction tables.
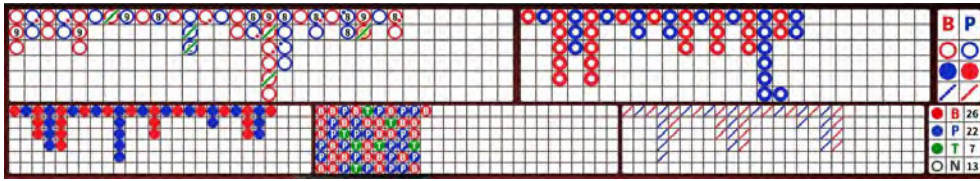
15.2.1.1 Big Road

Big Road (also knows as Main Road) keeps track of Player and Banker wins with details about natural winning, pairs, ties, etc.. Grid is filled up from left to right, with corresponding colored symbols.
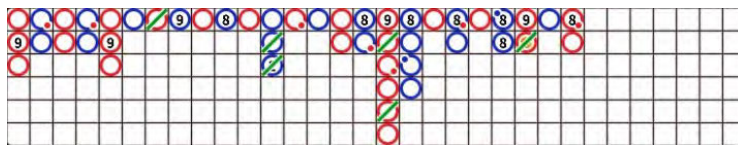
Symbols are as follow:

 - Banker wins

 - Player wins

 - Banker wins with a pair

 - Player wins with a pair

 - Banker wins with a natural 8

 - Banker wins with a natural 9

 - Player wins with a natural 8

 - Player wins with a natural 9

 - Banker wins, Player has a pair

 - Player wins, Banker has a pair

 - Banker wins, followed with a tie

 - Player wins, followed with a tie

 - Banker wins with a natural, next game is a tie

 - Player wins with a natural, next game is a tie

15.2.1.2 Bead Plate

Bead Plate is very similar to Big Eye Road but doesn't offer additional information past just results (banker, player, tie). In the grid Banker's winnings are displayed as: symbol, Player's winnings are displayed as: symbol, and Tie game results are displayed as: symbol.
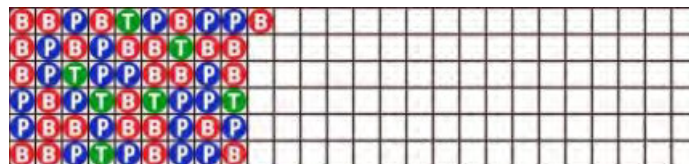
15.2.1.3 Big Eye Road

Big Eye Road (also known as Big Eye Boy) tries to demonstrates predictability ⬤ (presence of a pattern) or disarray ⬤ (lack of a pattern) of the dealing shoe. Blue and red rings do not correspond to Player or Banker in this trend.
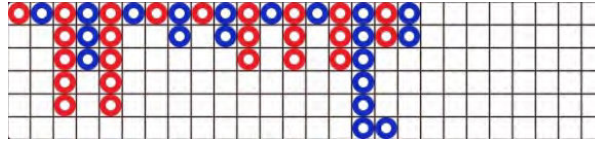
15.2.1.4 Small Road

Small Road is very similar to Big Eye Road but it uses an alternative method trying to demonstrates predictability ⬤ (presence of a "pattern") or disarray ⬤ (lack of a pattern) of the dealing shoe. Blue and red circles do not correspond to Player or Banker in this trend.
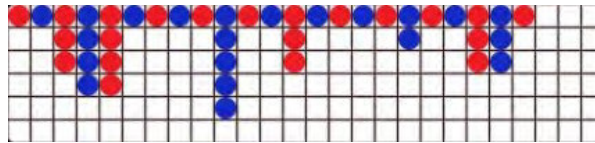
15.2.1.5 Cockroach Road

Cockroach Road (also known as Cockroach Pig) is very similar to Small Road and in turn to Big Eye Road but it uses a third method to demonstrates predictability or disarray of the dealing shoe. Blue and red dashes do not correspond to Player or Banker in this trend.
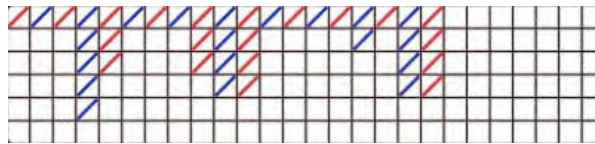
15.2.1.6 Total game winnings table

Total game winnings table displays how many times has the Banker (**B**) or the Player (**P**) won, followed by count of games resulted in a Tie (**T**). Table also displays the number of Natural (**N**) wins.

15.2.1.7 Prediction table

Prediction table is used to predict either Banker (**B**) or Player (**P**) as the winner of the next game based on prediction models of:
- Big Eye Road
- Small Road
- Cockroach Road

15.3 Placing bets and bet types

Placing the bet is as simple as selecting the value chip and clicking on the desired betting field. Alternatively the player can drag the chip to the betting field. Current bet amount is displayed on the chip itself. Chip may visually vary depending on configuration.

15.3.1 No Commission Baccarat

In this game variant the player can place three main bets and two additional side bets (Banker and Player pair).

Explanation for each available bet can be found in the table below.

BET TYPE	DESCRIPTION
BANKER	**Banker** - bet wins if the Banker hand has the highest point total.
PLAYER	**Player** - bet wins if the Player hand has the highest point total.
TIE	**Tie** - bet wins if the Player and Banker hand have the same point total.
BANKER PAIR 11:1	**Banker Pair** - Bet wins if the initial two cards of the Banker hand form a pair.
PLAYER PAIR 11:1	**Player Pair** - Bet wins if the initial two cards of the Player hand form a pair.

15.3.2 Commission Baccarat

This game variant has the same bets as non Commission Baccarat, with exception to **Banker 5% win commission**. Explanation for each available bet can be found in the table below.

BET TYPE	DESCRIPTION
BANKER	**Banker** - bet wins if the Banker hand has the highest point total.
PLAYER	**Player** - bet wins if the Player hand has the highest point total.
TIE	**Tie** - bet wins if the Player and Banker hand have the same point total.
BANKER PAIR 11:1	**Banker Pair** - Bet wins if the initial two cards of the Banker hand form a pair.
PLAYER PAIR 11:1	**Player Pair** - Bet wins if the initial two cards of the Player hand form a pair.

15.3.3 No Commission Super Six Baccarat

This game variant follow the conventional rules of non Commission Baccarat, with additional *"Banker's Hand"* win with a point total of 6.
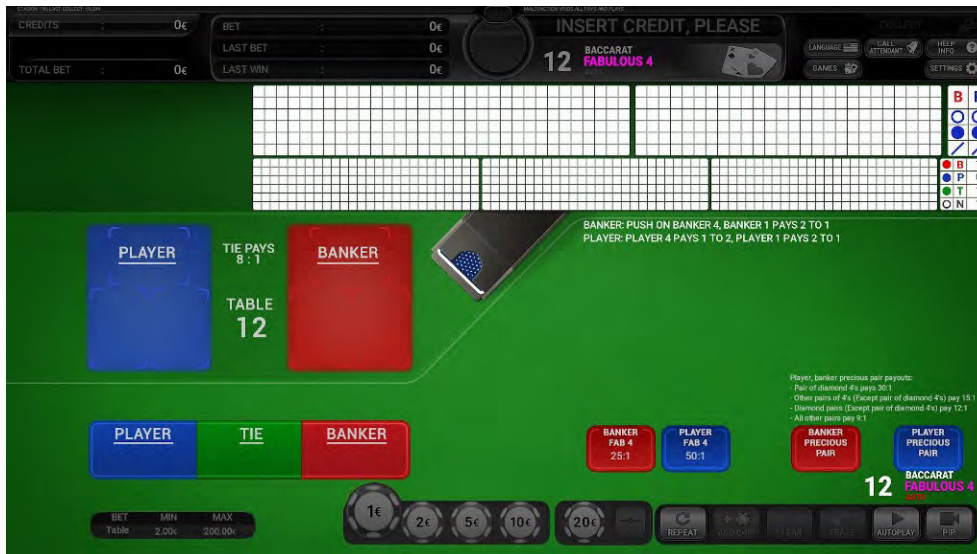

Explanation for each available bet can be found in the table below.

BET TYPE	DESCRIPTION
BANKER	**Banker** - bet wins if the Banker hand has the highest point total.
PLAYER	**Player** - bet wins if the Player hand has the highest point total.
TIE	**Tie** - bet wins if the Player and Banker hand have the same point total.
BANKER PAIR 11:1	**Banker Pair** - Bet wins if the initial two cards of the Banker hand form a pair.
PLAYER PAIR 11:1	**Player Pair** - Bet wins if the initial two cards of the Player hand form a pair.
SUPER SIX 15:1	**Super Six** - Bet wins if the Banker hand wins with a point total of 6.

15.3.4 Commission Super Six Baccarat

This game variant follow the conventional rules of Commission Baccarat (Banker 5% win commission), with additional *"Banker's Hand"* win with a total card count of 6.

Explanation for each available bet can be found in the table below.

BET TYPE	DESCRIPTION
BANKER	**Banker** - bet wins if the Banker hand has the highest point total.
PLAYER	**Player** - bet wins if the Player hand has the highest point total.
TIE	**Tie** - bet wins if the Player and Banker hand have the same point total.
BANKER PAIR 11:1	**Banker Pair** - Bet wins if the initial two cards of the Banker hand form a pair.
PLAYER PAIR 11:1	**Player Pair** - Bet wins if the initial two cards of the Player hand form a pair.
SUPER SIX 15:1	**Super Six** - Bet wins if the Banker hand wins with a point total of 6.

15.3.5 Power 98 Baccarat
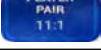
This game variant is played like conventional Commission Baccarat (Banker 5% win commission), with exception of a dice used to randomly increase certain wins.

The dice is rolled before each start of the game. If dice land on **number three**, then the current hand shall be referred as a *"Power Hand"* and is only eligible on a *"Natural hand"* win. In the Baccarat game, *"Natural hand"* win is refereed as The Player or Banker win with a point total of 8 or 9 (no additional cards will be drawn to either hand).

Player can bet on *"Natural hand"* by placing a bet on the Natural 8 or Natural 9 field. In an event of a *"Tie"* all *"Natural hands"* lose.

Explanation for each available bet can be found in the table below.
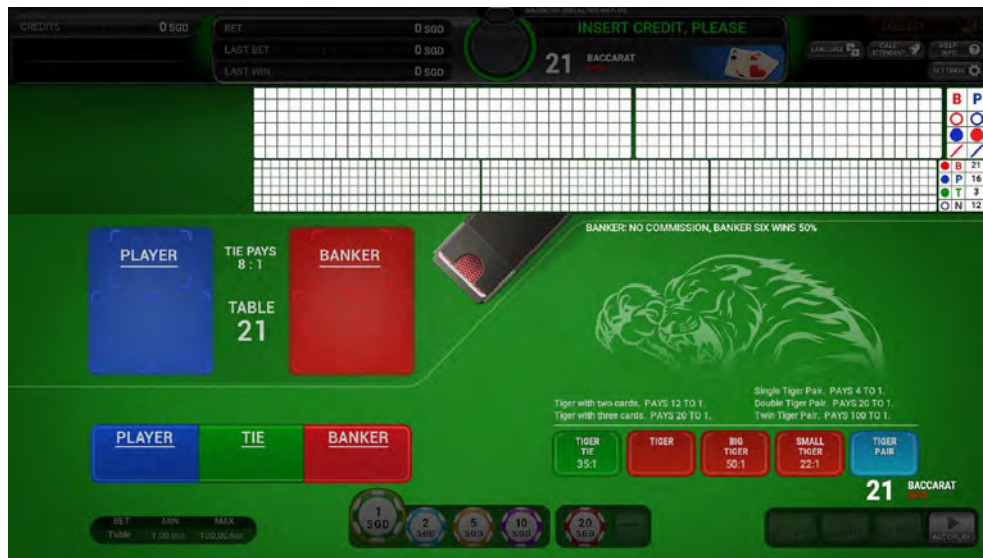
BET TYPE	DESCRIPTION
BANKER	**Banker** - bet wins if the Banker hand has the highest point total.
PLAYER	**Player** - bet wins if the Player hand has the highest point total.
TIE	**Tie** - bet wins if the Player and Banker hand have the same point total.
BANKER PAIR 11:1	**Banker Pair** - Bet wins if the initial two cards of the Banker hand form a pair.
PLAYER PAIR 11:1	**Player Pair** - Bet wins if the initial two cards of the Player hand form a pair.
NATURAL 8 4.5:1	**Natural 8** - Bet wins if the initial two cards of the Player or Banker hand have a point total of 8.
NATURAL 9 4:1	**Natural 9** - Bet wins if the initial two cards of the Player or Banker hand have a point total of 9.

15.3.6 7 Up Baccarat

This game variant is played like conventional Commission baccarat (Banker 5% win commission), except the Player hand always starts with a seven as the first card.

7 UP game variant also feature additional *"Super 7"* side bet, which pays according to the numbers of seven between the Player and the Banker hands (Player's first card is included). Payout for the different seven combination can be seen in Chapter *15.4.6 BACCARAT - 7UP*.

Explanation for each available bet can be found in the table below.

BET TYPE	DESCRIPTION
BANKER	**Banker** - bet wins if the Banker hand has the highest point total.
PLAYER	**Player** - bet wins if the Player hand has the highest point total.
TIE	**Tie** - bet wins if the Player and Banker hand have the same point total.
SUPER 7'S	**Super 7's** - bet wins if the combination of Player and Banker hand consist at least of two, three, four, five or six 7's.

15.3.7 Fabulous four Baccarat

This game variant is played like conventional baccarat with exception of additional *"Banker's and Player's"* win with a total card count of 4 and two additional side bets (Banker and Player precious pair).

Explanation for each available bet can be found in the table below.

BET TYPE	DESCRIPTION
BANKER	**Banker** - bet wins if the Banker hand has the highest point total.
PLAYER	**Player** - bet wins if the Player hand has the highest point total.
TIE	**Tie** - bet wins if the Player and Banker hand have the same point total.
BANKER FAB 4	**Banker FAB 4** - Bet wins if the Banker hand wins with a point total of 4.
PLAYER FAB 4	**Player FAB 4 -** Bet wins if the Player hand wins with a point total of 4.
BANKER PRECIOUS PAIR	**Banker precious pair** - Bet wins if the initial two cards of the Player hand form a precious pair.
PLAYER PRECIOUS PAIR	**Banker precious pair** - Bet wins if the initial two cards of the Banker hand form a precious pair. See additional information below.

Types of precious pairs winnings:
- Pair of Diamond 4's (♦4 + ♦4),
- Other pairs of 4's (except pair of Diamonds 4's). Other pair of 4's can be two cards of 4's of the same suite (♥4 + ♥4) or unsuited 4's cards (♣4 + ♥4),
- Diamond pair (except pair of Diamonds 4's). Diamond pair can consist of two cards of the same face values and Diamond suite (♦K + ♦K),
- Any other pair with the same (♣K + ♣K) or different suits (♣K + ♦K).

15.3.8 No Commission Tiger Baccarat

This game variant follows the conventional rules of no commission Baccarat, with additional *"Tiger"* sidebets.

Explanation for each available bet can be found in the table below.

BET TYPE	DESCRIPTION
BANKER	**Banker** - bet wins if Banker hand has the highest point total.
PLAYER	**Player** - bet wins if Player hand has the highest point total.
TIE	**Tie** - bet wins if both, Player and Banker, hands have the same point total.
TIGER TIE	**Tiger Tie** - bet wins if both, Player and Banker, hands have point total of 6.
TIGER	**Tiger** - bet wins if Banker wins with point total of 6 with either two or three cards.
BIG TIGER	**Big Tiger** - bet wins if Banker wins with point total of 6 with three cards.
SMALL TIGER	**Small Tiger** - bet wins if Banker wins with point total of 6 with two cards.
TIGER PAIR	**Tiger Pair** - bet wins if the first two cards dealt to any of the hands individually form a pair. See additional information below.

Types of Tiger Pair winnings:
- Single Tiger Pair - wins if the first two cards in either of the hands form a pair.
  (Example: Player/Banker ♦7 + ♠7)
- Double Tiger pair - wins if the first two cards in both of the hands form a pair.
  (Example: Banker ♣K + ♦K, Player ♣4 + ♥4)
- Twin Tiger Pair - wins if the first two cards in both hands form a pair and both pairs are of the same value.
  (Banker: ♥5 + ♠5, Player: ♣5 + ♦5).

15.4 Paytables

The chapters below describe the paytables for all available Baccarat game variants.

15.4.1 BACCARAT - No Commission

BACCARAT - No Commission RTP: Min = 85.41%, Max = 98.77%	
WINNING BET	PAYS
Banker wins with point total of 6	0.5 to 1
Banker wins with any other total	1 to 1
Player	1 to 1
Tie	8 to 1
Banker Pair	11 to 1
Player Pair	11 to 1

15.4.2 BACCARAT - Commission

BACCARAT - Commission (5%) RTP: Min = 85.41%, Max = 98.95%	
WINNING BET	PAYS
Banker	0.95 to 1
Player	1 to 1
Tie	8 to 1
Banker Pair	11 to 1
Player Pair	11 to 1

15.4.3 BACCARAT - No commission Super Six

BACCARAT - Super Six No Commission RTP: Min = 85.41%, Max = 98.77%	
WINNING BET	PAYS
Banker wins with point total of 6	0.5 to 1
Banker wins with any other total	1 to 1
Player	1 to 1
Tie	8 to 1
Banker Pair	11 to 1
Player Pair	11 to 1
Super Six	15 to 1

15.4.4 BACCARAT - Commission Super Six

BACCARAT - Super Six Commission (5%) RTP: Min = 85.41%, Max = 98.95%	
WINNING BET	PAYS
Banker	0.95 to 1
Player	1 to 1
Tie	8 to 1
Banker Pair	11 to 1
Player Pair	11 to 1
Super Six	15 to 1

15.4.5 BACCARAT - Power 98

BACCARAT - Power 98 RTP: Min = 86.14%, Max = 96.97%	NO Power Hand	Power Hand
WINNING BET	PAYS	PAYS
Banker wins with any other point total except for point total of 8 or 9	0.95 to 1	0.95 to 1
Banker wins with "Natural 8" or "Natural 9"	0.95 to 1	1 to 1
Player wins with any other point total except for point total of 8 or 9	1 to 1	1 to 1
Player wins with "Natural 8" or "Natural 9"	1 to 1	1.05 to 1
Tie wins with any other point total except for point total of 8 or 9	8 to 1	8 to 1
Tie wins with "Natural 8" or "Natural 9"	8 to 1	10 to 1
Banker Pair wins with any other point total except for point total of 8 or 9	11 to 1	11 to 1
Banker Pair wins with "Natural 8" or "Natural 9"	11 to 1	15 to 1
Player Pair wins with any other point total except for point total of 8 or 9	11 to 1	11 to 1
Player Pair wins with "Natural 8" or "Natural 9"	11 to 1	15 to 1
Natural 8 ("Player" or "Banker" wins with point total of 8)	3.85 to 1	5 to 1
Natural 9 ("Player" or "Banker" wins with point total of 9)	4 to 1	4.25 to 1

15.4.6 BACCARAT - 7UP

BACCARAT - 7UP RTP: Min = 90.95%, Max = 97.48%		
WINNING BET	**PAYS**	
	Point total = 7	Point total ≠ 7
Banker	2.8 to 1	1 to 1
Player	1.5 to 1	1 to 1
Tie	9 to 1	7 to 1
Number of 7's		
WINNING BET	**PAYS**	
Super 7's - Any Two 7's	2 to 1	
Super 7's - Any Three 7's	5 to 1	
Super 7's - Any Four 7's	17 to 1	
Super 7's - Any Five 7's	70 to 1	
Super 7's - Any Six 7's	700 to 1	

15.4.7 BACCARAT - FABULOUS 4

BACCARAT - FABULOUS 4 RTP: Min = 77.23%, Max = 98.46%			
No Power Hand mode		**Banker / Player Precious pair**	
WINNING BET	PAYS	WINNING BET	PAYS
Banker wins with point total of 4	Push	Pair of diamonds 4's	30 to 1
Banker wins with point total of 1	2 to 1	Other pairs of 4's (except pair of diamonds 4's)	15 to 1
Banker wins with any point total except for point total of 4 or 1	1 to 1	Diamonds pairs (except pair of diamonds 4's)	12 to 1
Player wins with point total of 4	0.5 to 1	Any other pairs	9 to 1
Player wins with point total of 1	2 to 1		
Player wins with any point total except for point total of 4 or 1	1 to 1		
Tie	8 to 1		
Banker Fabulous 4	25 to 1		
Player Fabulous 4	50 to 1		

15.4.8 BACCARAT - No commission Tiger

BACCARAT - No commission Tiger RTP: Min = 68.91%, Max = 98.77%	
WINNING BET	PAYS
Banker wins with point total of 6	0.5 to 1
Banker wins with any other total	1 to 1
Player	1 to 1
Tie	8 to 1
Tiger Tie	35 to 1
Tiger (with 2 cards)	12 to 1
Tiger (with 3 cards)	20 to 1
Big Tiger	50 to 1
Small Tiger	22 to 1
Tiger Pair (Single)	4 to 1
Tiger Pair (Double)	20 to 1
Tiger Pair (Twin)	100 to 1

15.5 Baccarat game settings

Baccarat game settings can be adjusted within the **GAMES SETTINGS** menu (see Chapter *4 Games settings*).

15.5.1 General tab

Baccarat **General tab** can be opened by selecting the **Settings - Set** button of the desired Baccarat game.

PARAMETER	DESCRIPTION
Editing game	Currently edited Baccarat game.
Game Server IP	IP address of game server.
Game Server Port	Port of game server.
Protected communication	Enable or disable protected communication. This setting further increases security.
Send bets	If checked, bets are sent to wall display.
Send Bets Interval (ms)	Time interval to send bets (in milliseconds).
Contra betting	If checked, player can place a bet on Banker field and on Player field in the same game.
Move Contra bet	If checked, player can move a bet from the Player field to the Banker field and vice versa.
Common settings - Play game sounds	If checked, game specific sounds will be played.
Common settings - Play narrator sounds	If checked, narrator sounds will be played.
Common settings - Manual background color	If checked, a custom background color can be selected for the game background.
Video settings - Picture in picture (PIP)	If checked, Picture in picture (PIP) functionality is enabled.
Video settings - Hold pip result	Results/winning will be held for selected time period, in order for the player to be able to see the game results on live video feed [seconds]: • Disabled, • 2, • 4, • 1, • 3, • 5.
Save	Save the settings.
Exit	Exit menu.

15.5.2 Limits Scheduler

Baccarat **Limits Scheduler** settings can be opened by selecting the **Limits Scheduler - Set** button of the desired Baccarat game.

PARAMETER/BUTTON	DESCRIPTION
Limit groups	A list of configured and available limit groups.
Limit groups - Copy	Copies the limits from the selected limits group.
Limit groups - Paste	Pastes the copied limits to the selected limits group.
Limit groups - Rename	Renames the selected limits group.
Limit groups - Is default	If checked, the currently selected limits group will be enabled and available to the player to switch between.
Limit groups - + (Add)	Adds new limits group.
Limit groups - X (Delete)	Delete selected limits group.
Limit groups - ↑/↓ (Move UP / DOWN)	Moves the selected limits group higher or lower on the Limit groups list.
Limit groups - Separated Live limits	If checked, Limit group is configured for Automatic and Live game types separately.
Limit groups - Edit for	Limit group configuration is applicable for the following game type: • Automatic, • Live.
Limit groups - Limits in credits	If checked, limits are set in credits.
Scheduler	If checked, Scheduler is enabled, the Scheduler menu can be opened by selecting the Scheduler button (see Chapter *4.1 Scheduler*).
Limit groups - Station info	Short summary of station info, including current station's denomination and current SAS denomination.
Limit groups - Set all MIN	Set all Min fields to the desire value (table - Min and all Bets - Min).
Limit groups - Set all MAX	Set all Max fields to the desire value (table - Max and all Bets - Max).
Limit groups - Multiply all for	Multiply all Max and Min fields with the desired value.
Table - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of all bets on the table.
Possible win - Max	Maximal Baccarat win amount. This parameter may override (lower) existing Baccarat limits to ensure no bet can be placed that would, in case of a win, exceed this value.
Multiplier values - Chip 1/2/3/4/5	Define chip multiplier value for each chip separately.
Multiplier values - Adjustable	If checked, fifth chip is adjustable.
Multiplier values - Max value	Maximal value of the fifth chip (Adjustable parameter must be enabled).
Player - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Player bet.
Banker - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Banker bet.
Tie - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Tie bet.
Player/Banker pair - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Player and Banker pair bets.

PARAMETER/BUTTON	DESCRIPTION
Super Six - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Super Six bet.
Super Seven - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Super Seven bet.
Natural 8/9 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Natural 8 and 9 bets.
Perfect pair - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Perfect pair bet.
Direct number (0-9) - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of direct number bet.
Jackpot - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Jackpot bet.
Player/Banker Precious pairs - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Player and Banker Precious pairs bets.
Player Fab 4 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Player Fabulous 4 bet.
Banker Fab 4 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Banker Fabulous 4 bet.
Tiger Tie - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Tiger Tie bet.
Tiger - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Tiger bet.
Big Tiger - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Big Tiger bet.
Small Tiger - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Small Tiger bet.
Tiger Pair - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Tiger Pair bet.
Save	Save the settings.
Exit	Exit menu.

16 Blackjack game

Blackjack, also known as twenty-one, is the most widely played card game in the world. The game is played between a Player and a Dealer, meaning all players compete against the dealer but not against other players. KGM Gaming Blackjack game is played as Multi-hand Blackjack variant, that allows the player to play up to three hands of Blackjack at once, one after the another. The value of each hand is sum of all values of each card in the hand. Depending on casino requirements the game can be played with 1 to 8 decks of 52 cards, that can be dealt from a shoe (by hand) or automatically by the CardServer computer.

16.1 Game rules

All face cards (Jack, Queen, King) and 10's have a point value of 10. Cards less then 10 are counted at face values. Aces has a point value of 11 unless this value cause the point total of the hand to exceed 21, in this case Ace has a point value of 1. Blackjack is a combination of the first two cards that have a point total of 21 (i.e. an Ace and a ten-valued card).

To start the game, the player must place a bet in the "betting box", for each hand individually. Dealer deals from the card shoe (or CardServer computer deals automatically) and gives a card face up to each player's hand containing a bet and a card face up to himself. The dealer must then deal a second card in a same sequence except to himself.

The goal of the game is to score higher then dealer, by getting 21 points or to come as close as possible to it, but without going over 21 witch is called "too many" or "bust". Before the dealer reveals his last card, the player must play his hand by taking additional cards if he desire. If he busts, he loses. Then the dealer plays his hand. If the dealer busts, he loses to all remaining players. If neither busts, the higher hand total wins. In case of a tie, no one wins, the hand is a "push" and all bets are returned. It is possible for the dealer to lose to some players but still beat other players in the same round. Each dealer must follows strict Blackjack dealer rules when making a decision. The dealer should take cards when his hand is 16 or less and stand or hit on 17 or higher. Most of the time this rule is seen on the blackjack table which might say "Dealer must draw to 16 and stand on all 17's" or "Dealer must draw to 16 and hit on all 17's". For the KGM Gaming Blackjack game, this rule can be set within the CardServer software settings, for more information see: **KGM Gaming Software - CardServer - Main Control Unit Software - User Manual**.

When the dealer's initial first card is an Ace, the player is allowed to make a side bet called "insurance" to guard against the risk that the dealer has a Blackjack (i.e., a ten-value card as his initial second card). Player must bet half the original bet placed on the betting box. The insurance bet pays 2-to-1 if the dealer has a Blackjack. Whenever the dealer has a Blackjack, he wins against all player hands except those that also have a Blackjack (which are a "push").

16.1.1 Player's actions

During the game, a player can make multiple decisions, described in the table below.

BUTTON	DESCRIPTION
HIT	**HIT** - is asking for another card. Player is allowed to hit as many times as he wants, until he busts or has a hand of 21.
2x DOUBLE	**DOUBLE** - is asking to be dealt only one extra card and doubling the original bet. After the player doubles down he automatically stands.
SPLIT	**SPLIT** - in case of initial two cards dealt were a pair or of the same point value, the player may choose to split them and play them as two separate hands.
STAND	**STAND** - is asking for no more cards. The player that stands does not play his hand anymore and this hand is compared to the dealer's hole hand.
SURRENDER	**SURRENDER** - this option provides a chance to surrender half of the original bet in case the player consider his hand as a losing.
INSURANCE YES NO	**INSURANCE** - Insurance is an extra bet offered when the dealer's initial first card is an Ace. This bet costs half of the original bet and protects the player in case the dealer does have a Blackjack. If the dealer has a Blackjack, the player wins this bet. Otherwise, the Insurance bets are lost and the player keep playing.

16.2 Player's interface and layout

In the player's interface beside placing bets the player can view point total of previous hands for both the Player and the Banker. The widgets and buttons in the player's interface are as follows (numbered from 1 to 13):

No.	DESCRIPTION
1	Information panel (see Chapter *12.1 Information panel*).
2	Dealer history (see Chapter *16.4 Dealer history*).
3	History of the player's hands (see Chapter *16.4 Dealer history*).
4	Paytable information for the "Jackpot 777" sidebet (see Chapter *Error: Reference source not found Error: Reference source not found*).
5	Paytable information for the "Poker hands" sidebet (see Chapter *Error: Reference source not found Error: Reference source not found*).
6	Betting area for the first player's hand (see Chapter *16.3.1 Player's betting area*).
7	Betting area for the second player's hand (see Chapter *16.3.1 Player's betting area*).
8	Betting area for the third player's hand (see Chapter *16.3.1 Player's betting area*).
9	Blackjack table limits (see Chapter *12.2 Bet limits widget*).
10	Community cards (see Chapter *16.6 Community cards*)
11	Multiplier chips (see Chapter *12.3 Multiplier chips*).
12	Adjustable multiplier chip (see Chapter *12.3.1 Adjustable fifth multiplier chip*).
13	Multi game common buttons (see Chapter *12.4 Common buttons*).

16.3 Placing bets and bet types

Placing the bet is as simple as selecting the value chip and clicking on the desired betting field. Alternatively a player can drag the chip to the betting field. Current bet amount is displayed on the chip itself. Chip may visually vary depending on configuration.

16.3.1 Player's betting area

Player's betting area is a specific section of the Blackjack layout, where the player is allowed to place his bets. In the Multi-hand Blackjack variant those sections are three. In each player's betting area the player can place up to three bets simultaneously, one basic bet (placed inside a "betting box") and two additional sidebets. To place a bet on one or on both sidebets, at least a minimum bet must be placed on the basic bet. Sidebets enable player to bet, that his two initial cards will form a pair or a combination of his and Dealer's cards will form one of the Poker hand's (see Chapter *16.3.1.2 Poker hands*), or that his hand will be formed of at least one 7's card (see Chapter *16.3.1.1 Jackpot 777*).
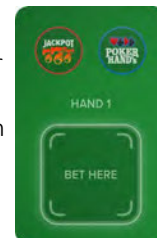
Every time a player place a bet, the **Deal** button will appeared on the screen, but will be only available for a duration of the "Place your bets, please" and "Bets are closing" phase. If this button is selected, the game phase will go directly to the next one, before the countdown reaches zero. This button is only effective when it is selected by all active players (player who placed a bet). This type of gameplay allows players to play a fast paced Blackjack game without wasting time.

16.3.1.1 Jackpot 777

Beside basic bet, a player can place a bet on the sidebet, where he bet on how many 7's he will receive. This sidebet wins if the first Player's card is a number seven. If the second card is also a 7, then the payout depends on whether the two cards are of the same suit (♥7 + ♥7) or not (♣7 + ♥7). If the third card is also a 7 than the payout can be even bigger and depend on suited (♥7 + ♥7 + ♥7) or unsuited cards (♣7 + ♥7 + ♦7).

16.3.1.2 Poker hands

Beside basic bet, a player can also place a bet on the sidebet, where he bet on whether his first cards form a pair ("Player pair") or if Player and Dealer cards form any one of the Poker combinations seen in the table below.

POKER COMBINATION	DESCRIPTION
	Flush - is a poker hand where all five cards are of the same suit, but NOT in sequence.
	Straight - is a poker hand that contains five cards of any suit, in a sequential order.
	Four of a Kind - is a poker hand that contains all four numerically matching cards.
	Straight Flush - is a hand that contains five cards of the same suit, in a sequential order.
	Royal Straight Flush - is an ace-high straight flush and is the highest-ranking standard poker hand.

16.4 Dealer history

Dealer history is displayed in the top left corner of the screen and shows a point total of the last 7 dealer's hands in order from left (latest) to right (oldest).

Detailed history for last rounds can be viewed by selecting the **Show more** button.
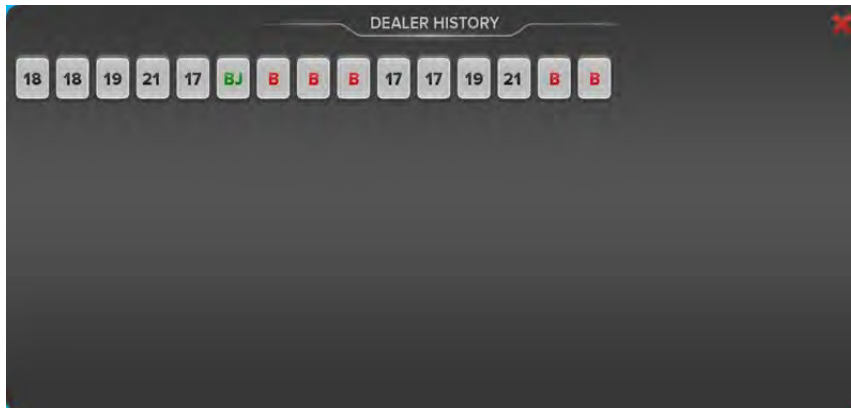
Detail dealer history can be closed by selecting the Close(✖) button.

16.5 Player's hands history

Player's hands history shows the results of each player's hand over the last eight rounds of the game. Results are displayed in the table located in the top right corner of the screen. Example of the Player's hand history can be seen in the image below.
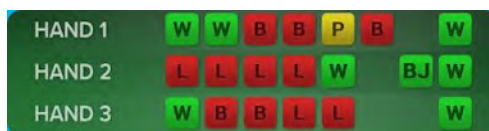
Description for each icon can be found in the table below.

ICON	DESCRIPTION
	Blank - in this game round, the Player's hand was not played.
L	**Lose -** in this game round, the Player's hand lose (he scored lower then dealer).
B	**Bust -** in this game round, the Player's hand bust (point total of the hand exceed 21).
W	**Win -** in this game round, the Player's hand wins (he scored higher then dealer).
BJ	**Blackjack -** in this game round, the Player's hand wins (point total of his initial two cards is 21).
P	**Push -** in this game round, the Player nor the Dealer wins, it is a "Tie", all bets are returned.

16.6 Community cards

Whenever the Blackjack game is played as multiplayer, all players start with the same two initial cards, but afterwards they can made there own decision. Every card after the second Player's card is a community cart and goes to the players who made the same decision.

Depending on the CardServer software settings, all community cars can be seen by players, for more information see: **KGM Gaming Software - CardServer - Main Control Unit Software - User Manual**.

16.7 Paytables

In this chapter an example of paytables can be seen.

MULTI HAND BLACKJACK RTP: Min = 85%, Max = 100%*	
WINNING BET	PAYS
Blackjack	1.5 to 1
Insurance	2 to 1
Win	1 to 1
Tie	Push

Sidebet - JACKPOT 777 RTP: 90.99%	
AMOUNT OF 7's	PAYS
One seven	3 to 1
Two unsuited sevens	50 to 1
Two suited sevens	50 to 1
Three unsuited sevens	100 to 1
Three suited sevens	200 to 1

Sidebet - POKER HANDS RTP: 80.17%	
WINNING HAND	PAYS
Player pair	4 to 1
Flush	10 to 1
Straight	20 to 1
Four of a Kind	100 to 1
Straight Flush	200 to 1

* Maximum payback ratio depends on a number of inter-related settings.

The game's RTP can be changed to the customer requests, by modifying the CardServer's main control unit software settings. For more information see **KGM Gaming Software - CardServer - Main Control Unit software - User Manual**.

16.8 Blackjack game settings

Blackjack game settings can be adjusted within the **GAMES SETTINGS** menu (see Chapter *4 Games settings*).

16.8.1 General settings

Blackjack **General settings** menu can be opened by selecting the **Settings - Set** button of the desired Blackjack game.

PARAMETER	DESCRIPTION
Editing game	Currently edited Blackjack game.
Game Server IP	IP address of game server.
Game Server Port	Port of game server.
Protected communication	Enable or disable protected communication. This setting further increases security.
Round Insurance to Denomination	If checked, insurance value will be rounded up to the lowest chip on selected denomination if half of the bet amount is lower that the lowest chip on selected denomination.
Common settings - Play game sounds	If checked, game specific sounds will be played.
Common settings - Play narrator sounds	If checked, narrator sounds will be played.
Common settings - Manual background color	If checked, a custom background color can be selected for the game background.
Video settings - Picture in picture (PIP)	If checked, Picture in picture (PIP) functionality is enabled.
Video settings - Hold pip result	Results/winning will be held for selected time period, in order for the player to be able to see the game results on live video feed [seconds]: • Disabled, • 2, • 4, • 1, • 3, • 5.
Save	Save the settings.
Exit	Exit menu.

16.8.2 Limits Scheduler

Blackjack **Limits Scheduler** settings can be opened by selecting the **Limits Scheduler - Set** button of the desired Blackjack game.

PARAMETER/BUTTON	DESCRIPTION
Limit groups	A list of configured and available limit groups.
Limit groups - Copy	Copies the limits from the selected limits group.
Limit groups - Paste	Pastes the copied limits to the selected limits group.
Limit groups - Rename	Renames the selected limits group.
Limit groups - Is default	If checked, the currently selected limits group will be enabled and available to the player to switch between.
Limit groups - + (Add)	Adds new limits group.
Limit groups - X (Delete)	Delete selected limits group.
Limit groups - ↑/↓ (Move UP / DOWN)	Moves the selected limits group higher or lower on the Limit groups list.
Limit groups - Separated Live limits	If checked, Limit group is configured for Automatic and Live game types separately.
Limit groups - Edit for	Limit group configuration is applicable for the following game type: • Automatic, • Live.
Limit groups - Limits in credits	If checked, limits are set in credits.
Scheduler	If checked, Scheduler is enabled, the Scheduler menu can be opened by selecting the Scheduler button (see Chapter *4.1 Scheduler*).
Limit groups - Station info	Short summary of station info, including current station's denomination and current SAS denomination.
Limit groups - Set all MIN	Set all Min fields to the desire value (table - Min and all Bets - Min).
Limit groups - Set all MAX	Set all Max fields to the desire value (table - Max and all Bets - Max).
Limit groups - Multiply all for	Multiply all Max and Min fields with the desired value.
Table - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of all bets on the table.
Multiplier values - Chip 1/2/3/4/5	Define chip multiplier value for each chip separately.
Multiplier values - Adjustable	If checked, fifth chip is adjustable.
Multiplier values - Max value	Maximal value of the fifth chip (Adjustable parameter must be enabled).
Bet - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of a main bet.
Sidebet - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of sidebets.
Save	Save the settings.
Exit	Exit menu.

17   Big Wheel game

Big Wheel is a game of chance, played with a large vertically mounted wheel that can be automatically spun around. The wheel is divided into 52 sections, each representing one of six numbers or one of two bonus fields, on which a bet can be placed.

17.1   Game rules

The goal of Big Wheel game is to predict on which number the wheel will stop. The winning number is the one indicated by the pointer at the top of the Big Wheel, and corresponds to one of the following multipliers: x2, x4, x6, x16, x24 and x48. The Player can choose to place bets on one or on all available numbers, including the bonus, for a chance to win.

17.2   Player's interface and layout

The widgets and buttons in the player's interface are as follows (numbered from 1 to 13):

No.	DESCRIPTION
1	Information panel (see Chapter *12.1 Information panel*).
2	Betting field for the number 16.
3	Bonus Lucky wheel feature betting field (see Chapter *17.4 Bonus game*).
4	Betting field for the number 6.
5	Toggle possible win in currency, displayed on current betting field.
6	Betting field for the number 24.
7	Wheel animation showing the current number indicated by the pointer.
8	Betting field for the number 4.
9	Betting field for the number 48.
10	Betting field for the number 2.
11	Big Wheel table limits (see Chapter *12.2 Bet limits widget*).
12	Multiplier chips (see Chapter *12.3 Multiplier chips*).
13	Multi game common buttons (see Chapter *12.4 Common buttons*).

17.3 Placing bets

Placing the bet is as simple as selecting the value chip and clicking on the desired betting field. Alternatively a player can drag the chip to the betting field. Current bet amount is displayed on the chip itself. Chip may visually vary depending on configuration.
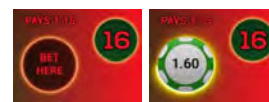
17.4 Bonus game

If the wheel stops on the segment labelled BONUS, it activates the Lucky wheel feature with a special multiplier. A wheel appears on the center of the screen and starts spinning. After a few seconds it stops on one of the 6 segments of the wheel. The number written on the segment represent the winning multiplier. The available payout multipliers for the Lucky wheel feature are x5, x20, x100, x250 and x1000.

Player must place a bet on the bonus field to participate in the Lucky wheel feature game. To activate the bonus feature game, the wheel must stop on one of two bonus fields. If the wheel stops on the Bonus field and there was no bet placed on bonus field, there is no bet returned. The bonus bet amount is fixed but may vary in accordance with the casino policy.

17.5 Paytable

Paytable for the Big Wheel game is described in the table below.

BIG WHEEL RTP = 92.31 %	
WINNING BET	PAYS
Number 2	2 to 1
Number 4	4 to 1
Number 6	6 to 1
Number 16	16 to 1
Number 24	24 to 1
Number 48	48 to 1

BONUS FIELD PAYTABLE	
BONUS FIELD	PAYS
Number 5	5 to 1
Number 20	20 to 1
Number 50	50 to 1
Number 100	100 to 1
Number 250	250 to 1
Number 1000	1000 to 1

17.6 Big Wheel game settings

Big Wheel game settings can be adjusted within the **GAMES SETTINGS** menu (see Chapter *4 Games settings*).

17.6.1 General settings

Big Wheel **General settings** menu can be opened by selecting the **Settings - Set** button of the desired Big Wheel game.

PARAMETER	DESCRIPTION
Editing game	Currently edited Big Wheel game.
Common settings - Play game sounds	If checked, game specific sounds will be played.
Common settings - Play narrator sounds	If checked, narrator sounds will be played.
Common settings - Manual background color	If checked, a custom background color can be selected for the game background.
Video settings - Picture in picture (PIP)	If checked, Picture in picture (PIP) functionality is enabled.
Video settings - Hold pip result	Results/winning will be held for selected time period, in order for the player to be able to see the game results on live video feed [seconds]: • Disabled, • 2, • 4, • 1, • 3, • 5.
Save	Save the settings.
Exit	Exit menu.

17.6.2 Limits Scheduler

Big Wheel **Limits Scheduler** settings can be opened by selecting the **Limits Scheduler - Set** button of the desired Big Wheel game.

PARAMETER/BUTTON	DESCRIPTION
Limit groups	A list of configured and available limit groups.
Limit groups - Copy	Copies the limits from the selected limits group.
Limit groups - Paste	Pastes the copied limits to the selected limits group.
Limit groups - Rename	Renames the selected limits group.
Limit groups - Is default	If checked, the currently selected limits group will be enabled and available to the player to switch between.
Limit groups - + (Add)	Adds new limits group.
Limit groups - X (Delete)	Delete selected limits group.
Limit groups - ↑/↓ (Move UP / DOWN)	Moves the selected limits group higher or lower on the Limit groups list.
Edit for	Limit group configuration is applicable for the following game type: • Automatic, • Live.
Limit groups - Limits in credits	If checked, limits are set in credits.
Scheduler	If checked, Scheduler is enabled, the Scheduler menu can be opened by selecting the Scheduler button (see Chapter *4.1 Scheduler*).
Limit groups - Station info	Short summary of station info, including current station's denomination and current SAS denomination.

PARAMETER/BUTTON	DESCRIPTION
Limit groups - Max possible win (Money/Credits)	Maximal possible win with the current limits in use, show in actual currency (money) and credits.
Limit groups - Set all MIN	Set all Min fields to the desire value (table - Min and all Bets - Min).
Limit groups - Set all MAX	Set all Max fields to the desire value (table - Max and all Bets - Max).
Limit groups - Multiply all for	Multiply all Max and Min fields with the desired value.
Table - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of all bets on the table.
Possible win - Max	Maximal Big Wheel win amount. This parameter may override (lower) existing Big Wheel limits to ensure no bet can be placed that would, in case of a win, exceed this value.
Multiplier values - Chip 1/2/3/4/5	Define chip multiplier value for each chip separately.
Multiplier values - Adjustable	If checked, fifth chip is adjustable.
Multiplier values - Max value	Maximal value of the fifth chip (Adjustable parameter must be enabled).
Number 2 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Number 2 bet.
Number 4 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Number 4 bet.
Number 6 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Number 6 bet.
Number 16 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Number 16 bet.
Number 24 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Number 24 bet.
Number 48 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Number 48 bet.
Bonus field - Max	Maximal allowed bet value of Bonus bet.
Save	Save the settings.
Exit	Exit menu.

18   Craps game

Craps is a game developed in the United States from a simplification of the western European game of hazard.

This fast-paced game is played by making various bets on the outcome of the roll, or a series of rolls, of a pair of dice enclosed in a glass dome of a dice shaker.

On each dice, there are numbers from 1 to 6. Numbers are placed in a way, that sum of numbers on two opposite sides made value of seven.

18.1   Game rules

The game begins with a come-out roll. The player starts the game by placing a bet on the Passline or Don't Pass. One of the players, with credits present and the initial bet on Passline on Don't Pass placed, will be assigned as a Shooter. A notification is displayed on the screen as shown below.

On each following come-out roll the next participating player (based on the playing station's ID number) will be assigned as the Shooter.

After the bets are closed the Shooter is presented with the SHOOT button. Pressing the button will result in shooting the dice. If the button is not pressed in the designated time, the dice will be shot automatically.

Depending on the result of the roll, the player will either win, lose or a Point will be established. If the player wins or loses, the come-out roll is repeated. If a Point is established, the player can make various bets on a series of rolls, until the point is turned off, at which time the come-out roll is repeated. Some sidebets can be waged on in any phase of the game.

18.2 Player's interface and layout

The widgets and buttons in the player's interface are as follows (numbered from 1 to 14):

No.	DESCRIPTION
1	Information panel (see Chapter *12.1 Information panel*).
2	Results history, latest result located on left side.
3	Dice animation window.
4	Craps layout (main betting fields).
5	Predefined bet buttons (see Chapter *18.3.2 Predefined Bet types*).
6	Win condition column. Dice outcomes that will result in a win according to currently placed bets will be animated.
7	Toggles for hardways, place, buy and odds bet types.
8	Craps & Eleven bet field.
9	Craps layout - continued (additional betting fields).
10	Toggle possible win in currency, displayed on current betting fields.
11	Craps limits (see Chapter *12.2 Bet limits widget*).
12	Multiplier chips (see Chapter *12.3 Multiplier chips*).
13	Adjustable multiplier chip (see Chapter *12.3.1 Adjustable fifth multiplier chip*).
14	Multi game common buttons (see Chapter *12.4 Common buttons*).

18.3 Placing bets

Placing the bet is as simple as selecting the value chip and clicking on the desired betting field. Alternatively a player can drag the chip to the betting field. Current bet amount is displayed on the chip itself. Chip may visually vary depending on configuration.
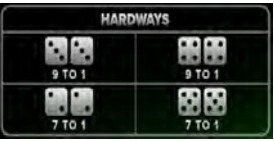
18.3.1 Bet fields

An explanation for each possible bet can be found in the table below.

BET TYPE	DESCRIPTION
PASS LINE	**PASSLINE** - bet wins if on the Come-out roll, a dice total of 7 or 11 is rolled or when the Point has been established, the dice total is equal to the Point. Bet is lost if on the Come-out roll, a dice total of 2,3 or 12 is rolled or when the Point has been established and a dice total of 7 is rolled. Bet is inactive after the Point is established.
PASSLINE ODDS	**Pass Odds -** is an additional bet that can be placed after the Point has been established, but only if the Passline bet has been previously placed. Before placing the bet, set table odds (*"Odds Settings"* parameter) must be taken into account. If set table odds are 3-4-5-6, player can place the maximum bet of: • **Point 4 or 10** - maximum bet of 3 times the Passline bet can be placed, • **Point 5 or 9** - maximum bet of 4 times the Passline bet can be placed, • **Point 6 or 8** - maximum bet of 5 times the Passline bet can be placed. Bet wins if the Passline bet wins and loose if the Passline bet lose. Winnings are paid in the true odds (see Chapter *18.4 Paytable*).
DON'T PASS BAR	**DON'T PASS -** bet wins if on the Come-out roll, a dice total of 2 or 3 is rolled or when the Point has been established, the dice total of 7 is rolled. Bet loses if on the Come-out roll, a dice total of 7 or 11 is rolled or when the Point was established, a dice total equal to the Point is rolled. Depending on the *"Don't Pass / Don't Come Push On"* parameter the bet is pushed when a dice total of 2/12 (BAR 2, BAR12) is rolled, after the Point is established.
DON'T PASS ODDS	**Don't pass odds -** is an additional bet that can be placed after the point has been established, but only if the Don't Pass bet has been previously placed. Before the bet is placed, set table odds (*"Odds Settings"* parameter) must be taken into account. If set table odds are 3-4-5-6, player can place the maximum bet of 6 times the Don't Pass bet. Bet wins if the Don't Pass bet wins and loose if the Don't Pass bet lose. Winnings are paid in the true odds (see Chapter *18.4 Paytable*).
COME	**COME -** is an additional bet that can placed after the Point has been established. Similar to the Passline the bet wins if the dice total of 7 or 11 is rolled immediately after the bet is placed, or after the Come point is established and repeated before the dice total of 7 is rolled. Bet loses if immediately after the bet is placed, the dice total of 2/3/12 is rolled or the dice total of 7 is rolled after the Come point has been established. Bet is inactive if any other dice total is rolled.
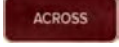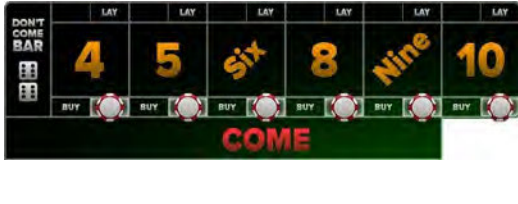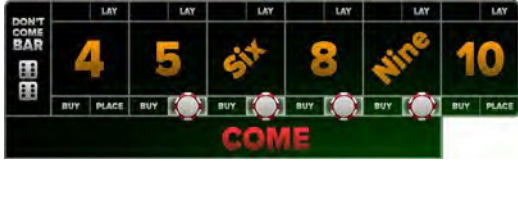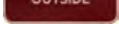
BET TYPE	DESCRIPTION
	Come Odds - is an additional bet that can be placed after the Come bet has been previously placed. Before placing the bet, set table odds (*"Odds Settings"* parameter) must be taken into account. If set table odds are 3-4-5-6, player can place the maximum bet of: • **Point 4 or 10** - maximum bet of 3 times the Come bet can be placed, • **Point 5 or 9** - maximum bet of 4 times the Come bet can be placed, • **Point 6 or 8** - maximum bet of 5 times the Come bet can be placed. Bet wins if the Come bet wins and loose if the Come bet lose. Winnings are paid in the true odds (see Chapter *18.4 Paytable*).
	DON'T COME - is an additional bet that can be placed after the point has been established. Similar to the Don't Pass the bet wins if the dice total of 2 or 3 is rolled immediately after the bet is placed, or after the Come point is established and dice total of 7 is rolled. Bet loses if immediately after the bet is placed, the dice total of 7 or 11 is rolled, or after the Come point has been established a dice total equal to the Come Point is rolled before a dice total of 7 is rolled. Depending on the *"Don't Pass / Don't Come Push On"* parameter the bet is pushed when a dice total of 2 (BAR 2) or 12 (BAR 12) is rolled, after the Point is established.
	Don't Come Odds - is an additional bet that can placed after the Don't Come bet has been previously placed. Before the bet is placed, set table odds (*"Odds Settings"* parameter) must be taken into account. If set table odds are 3-4-5-6, player can place the maximum bet of 6 times the Don't Come bet. Bet wins if the Don't Come bet wins and loose if the Don't Come bet lose. Winnings are paid in the true odds (see Chapter *18.4 Paytable*).
	BIG 6 - bet wins if dice total of 6 is rolled before a 7. Bet is inactive on the Come-out roll and can only be placed after a Point is established.
	BIG 8 - bet wins if dice total of 8 is rolled before a 7. Bet is inactive on the Come-out roll and can only be placed after a Point is established.
	Craps and Eleven (C&R) - bet consist of two half of a bet on a Craps number (dice total of 2, 3 or 12) and the other half on dice total of 11. Bet wins if dice total of 2/3/11/12 come up on the next roll and looses if a dice total of 4/5/6/7/8/9/10 is immediately rolled after the bet has been placed. This bet is valid for one roll only and can be placed at any time in the game. This bet does not depend on the Point.
	Field - bet wins if a dice total of 2/3/4/9/10/11/12 come up on the next roll (note that a dice total of 2 or 12 pays double), and loses if a dice total of 5/6/7/8 is rolled. This bet is valid for one roll only and can be placed only after the Point was established.

BET TYPE	DESCRIPTION
PLACE	**Place -** is an additional bet that can be placed on dice total of 4/5/6/8/9/10. Similar to the Passline bet, the bet wins if placed dice total is rolled before the 7. Bet is inactive on the Come-out roll, unless is specified by player (toggled Place Buy ON/OFF button). Bet is inactive on the Come-out roll, unless is specified by player (toggled Place Buy ON/OFF button). Bet can be increased, decreased or removed at any time of the game, prior to the next roll.
BUY	**Buy -** is an additional bet that can be placed on dice total of 4/5/6/8/9/10, by paying a 5% commission. This bet can be only placed after the Point has been established. Similar to the Passline bet, the bet wins if placed dice total is rolled before the 7. Winnings are paid in the true odds (see Chapter *18.4 Paytable*). Bet is inactive on the Come-out roll, unless is specified by player (toggled Place Buy ON/OFF button). Bet can be increased, decreased or removed at any time of the game, prior to the next roll.
LAY	**Lay -** is an additional bet that can be placed on dice total of 4/5/6/8/9/10, by paying a 5% commission. This bet can be only placed after the Point has been established. Similar to the Don't Pass bet, the bet wins if the dice total of 7 is rolled, before the placed dice total. Winnings are paid in the true odds (see Chapter *18.4 Paytable*). Bet is inactive on the Come-out roll, unless is specified by player (toggled Place Buy ON/OFF button). Bet can be increased, decreased or removed at any time of the game, prior to the next roll.
HARDWAYS 9 TO 1 9 TO 1 7 TO 1 7 TO 1	**Hardways -** bet wins if dice total of 4/6/8/10 is rolled the hardway (2 and 2, 3 and 3, 4 and 4 or 5 and 5), before selected dice total is rolled in any other way, or the dice total of 7 is rolled. Bet is inactive on the Come-out roll, unless is specified by player (toggled Place Buy ON/OFF button). This bet can be placed at any time in the game.
30 TO 1 HORN BET 30 TO 1 15 TO 1 15 TO 1	**Two/Three/Eleven/Twelve -** bet wins if dice total of 2/3/11/12 come up on the next roll. This bet is valid for one roll only. This bet can be placed at any time in the game and does not depend on the Point.
	Horn - place equal amount of bet on dice total of 2, 3, 11 and 12.
7 TO 1 ANY CRAPS 7 TO 1	**Any Craps -** bet wins if dice total of 2,3 or 12 come up on the next roll. This bet is valid for one roll only. This bet can be placed at any time in the game and does not depend on the Point.

BET TYPE	DESCRIPTION
	Seven - bet wins if dice total of 7 come up on the next roll. This bet is valid for one roll only. This bet can be placed at any time in the game and does not depend on the Point.
	Hop - bet on a specific number combination that will come up on the next roll. This bet is valid for one roll only. This bet can be placed at any time in the game and does not depend on the Point.
	Hopping Hardways - bet on a specific pairs of numbers that will come up on the next roll. This bet is valid for one roll only. This bet can be placed at any time in the game and does not depend on the Point.

18.3.2 Predefined Bet types

Predefined bets allow an inexperienced player to place advance bets, with one-click button. An explanation for each bet can be found in the table below.

BET TYPE	DESCRIPTION
	PRESS - this button doubles all the bets on *Field*, *Place* and *Buy* fields that had bets on, won and stayed on the board.
	ACROSS - this button places bets on all *Place* bet fields, except on the one that has an established Point. Optionally (setting dependent), if the bet being placed is a multiplier of five (5, 10, 15, ...), *Place* bets on 6 and 8 will increase by 20% automatically.
	INSIDE - this button places bets on *Place 5, 6, 8* and *9* bet fields, except on the one that has an established Point. Optionally (setting dependent), if the bet being placed is a multiplier of five (5, 10, 15, ...), *Place* bets on 6 and 8 will increase by 20% automatically.
	OUTSIDE - this button place a Place bet on 4, 5, 9 and 10, except on the one that has an established Point.

18.3.3 Down with Odds

Down with Odds pop-up shows-up in two cases:
- when a Place or Buy bet are present on a number and the Come bet goes to the Point,
- when placing a Passline bet on the come-out roll and Buy and Place bets are present on a number ant the Point goes to the number.

Player has the option to chose the amount of odds that are put on the Come bet. Buy and Place bets are taken down. If no action is selected, the window will close and no action will be made on the respective fields.

18.4 Paytable

Paytable for the Craps game is described in the table below.

CRAPS
RTP: Min = 83.33%, Max= 98.64% - 100%*

WINNING BET	PAYS
Passline / Don't pass	1 to 1
Come / Don't Come	1 to 1
Big 6 / 8	1 to 1
Come Odds	
If 6 or 8 is the Point	6 to 5
If 5 or 9 is the Point	3 to 2
If 4 or 10 is the Point	2 to 1
Don't Come Odds	
If 6 or 8 is the Point	5 to 6
If 5 or 9 is the Point	2 to 3
If 4 or 10 is the Point	1 to 2
Craps and eleven (C&E)	
If 2,3 or 12 is rolled	3 to 1
If 11 is rolled	7 to 1
Pass Odds	
If 6 or 8 is the Point	6 to 5
If 5 or 9 is the Point	3 to 2
If 4 or 10 is the Point	2 to 1
Don't Pass Odds	
If 6 or 8 is the Point	5 to 6
If 5 or 9 is the Point	2 to 3
If 4 or 10 is the Point	1 to 2
Field bets	
If 3, 4, 9, 10 or 11 is rolled	1 to 1
If 2 is rolled	2 to 1 or 3 to 1
If 12 is rolled	2 to 1 or 3 to 1
Buy bets (5% Commission)	
Number 4 or 10	2 to 1
Number 5 or 9	3 t o 2
Number 6 or 8	6 to 5

Lay bets (5% Commission)	
Number 4 or 10	1 to 2
Number 5 or 9	2 to 3
Number 6 or 8	5 to 6
Place bets	
Number 4 or 10	9 to 5
Number 5 or 9	7 to 5
Number 6 or 8	7 to 6
Hardways	
If 4 is rolled as pair of twos	7 to 1
If 6 is rolled as pair of threes	9 to 1
If 8 is rolled as pair of fours	9 to 1
If 10 is rolled as pair of fives	7 to 1
One roll bets	
Any Craps (2,3 or 12)	7 to 1
Seven	4 to 1 or 9 to 2
Number 2 or 12	30 to 1
Number 3 or 11	15 to 1
Hop	15 to 1
Hooping Hardaways	30 to 1

* In case Field bet pays 3:1 for result 2 or 12 the max payback ratio equals 100%.

18.5 Craps game settings

Craps game settings can be adjusted within the **GAMES SETTINGS** menu (see Chapter *4 Games settings*).

18.5.1 General settings

Craps **General settings** menu can be opened by selecting the **Settings - Set** button of the desired Craps game.

PARAMETER	DESCRIPTION
Editing game	Currently edited Craps game.
Field Bet Number 2 Payout	Selected payout for the Field bet if the number 2 is rolled: • 2 to 1, • 3 to 1.
Field Bet Number 12 Payout	Selected payout for the Field bet if the number 12 is rolled: • 2 to 1, • 3 to 1.
Any 7 Payout	Selected payout for the Any Seven bet if the number 7 is rolled: • 4 to 1, • 9 to 2.
Don't Pass / Don't Come Push On	Selected barred dice total from winning for the Don't Pass and Don't Come bets, that will result in push: • 2 (Bar 2), • 12 (Bar 12).
Places To Lose Bets Enabled	If checked, Places to lose bets will be enabled.
Big 6 And 8 Bets Enabled	If checked, the Big 6 and Big 8 bet are enabled.
Odds On/Off Enabled	If checked, the Odds on the Come or Don't Come bets can be turn ON/OFF, by selecting the **Odds ON/OFF** button.
Hardways On/Off Enabled	If checked, the Hardways bets can be turn ON/OFF, by selecting the **Hardways ON/OFF** button.
Place, Buy On/Off Enabled	If checked, the Place and Buy bets can be turn ON/OFF, by selecting the **Place Buy ON/OFF** button.
Possible Win Enabled	If checked, the button for displaying possible winnings of the currently placed bet is enabled.
Hop Bets Enabled	If checked, the Hop sidebets are enabled.
Vig Settings - Lay Bet Vig Percent	Selected commission percentage on Lay bet: • 5
Vig Settings - Lay Bet Vig Rounding	Selected rounding of the Lay bet winnings: • Normal, • Up, • Down.
Vig Settings - Lay Bet Vig Calculation Type	Selected commission calculation of Lay bet: • Upfront
Vig Settings - Buy Bet Vig Percent	Selected commission percentage on Buy bet: • 5
Vig Settings - Buy Bet Vig Rounding	Selected rounding of the Buy bet winnings: • Normal, • Up, • Down.

PARAMETER	DESCRIPTION
Vig Settings - Buy Bet Vig Calculation Type	Selected commission calculation of Buy bet: • Upfront
Game Settings - Win Rounding	Selected rounding of the Win bet winnings: • Normal, • Up, • Down.
Game Settings - Down With Odds Enabled	If checked, Down with odds pop-up will show under specific conditions. For additional information see *Chapter 18.3.3 Down with Odds*.
Game Settings - Don't Come/Don't Pass Odds Always ON	If checked, Don't Come Odds and Don't Pass Odds will always be on, meaning the player won't be able switch them off using the odds toggle.
Game Settings - Places 6/8 Rounding to Multiplier of 6	Rounding configuration for *Across* and *Inside* predefined bet types: • Checked: If the chip multiplier of five (5, 10, 15, ...) is selected when betting on *Across* or *Inside* predefined bet types, *Place* bets on *6* and *8* will increase by 20% automatically (from 5 to 6, from 10 to 12, etc.), while the rest of *Place* bets will be equal to selected multiplier. • Unchecked: If betting on *Across* or *Inside* predefined bet types, all *Place* bets will be equal to selected multiplier.
Game Settings - Hardways, Prop. Bets Stay Up After Win	If checked, bets on Hardways sidebets stay up, even if they win
Odds Settings - Odds Settings	Selected table odds: • 3-4-5-6.
Odds Settings - Max Odds 4 And 10	Displayed maximal allowed multiplier of flat bet, for the placed Odds on Point 4 and 10.
Odds Settings - Max Odds 5 And 9	Displayed maximal allowed multiplier of flat bet, for the placed Odds on Point 5 and 9.
Odds Settings - Max Odds 6 And 8	Displayed maximal allowed multiplier of flat bet, for the placed Odds on Point 6 and 8.
Odds Settings - Max Don't Pass / Don't Come Odds	Displayed maximal allowed multiplier of flat bet, for the placed Don't Pass or Don't Come Odds.
Common settings - Play game sounds	If checked, game specific sounds will be played.
Common settings - Play narrator sounds	If checked, narrator sounds will be played.
Common settings - Manual background color	If checked, a custom background color can be selected for the game background.
Video settings - Picture in picture (PIP)	If checked, Picture in picture (PIP) functionality is enabled.
Video settings - Hold pip result	Results/winning will be held for selected time period, in order for the player to be able to see the game results on live video feed [seconds]: • Disabled, • 2, • 4, • 1, • 3, • 5.
Save	Save the settings.
Exit	Exit menu.

18.5.2 Limits Scheduler

Craps **Limits Scheduler** settings can be opened by selecting the **Limits Scheduler - Set** button of the desired Craps game.

PARAMETER/BUTTON	DESCRIPTION
Limit groups	A list of configured and available limit groups.
Limit groups - Copy	Copies the limits from the selected limits group.
Limit groups - Paste	Pastes the copied limits to the selected limits group.
Limit groups - Rename	Renames the selected limits group.
Limit groups - Is default	If checked, the currently selected limits group will be enabled and available to the player to switch between.
Limit groups - + (Add)	Adds new limits group.
Limit groups - X (Delete)	Delete selected limits group.
Limit groups - ↑/↓ (Move UP / DOWN)	Moves the selected limits group higher or lower on the Limit groups list.
Limit groups - Edit for	Limit group configuration is applicable for the following game type: • Automatic, • Live.
Limit groups - Limits in credits	If checked, limits are set in credits.
Scheduler	If checked, Scheduler is enabled, the Scheduler menu can be opened by selecting the Scheduler button (see Chapter *4.1 Scheduler*).
Limit groups - Station info	Short summary of station info, including current station's denomination and current SAS denomination.
Limit groups - Set all MIN	Set all Min fields to the desire value (table - Min and all Bets - Min).
Limit groups - Set all MAX	Set all Max fields to the desire value (table - Max and all Bets - Max).
Limit groups - Multiply all for	Multiply all Max and Min fields with the desired value.
Table - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of all bets on the table.
Multiplier values - Chip 1/2/3/4/5	Define chip multiplier value for each chip separately.
Multiplier values - Adjustable	If checked, fifth chip is adjustable.
Multiplier values - Max value	Maximal value of the fifth chip (Adjustable parameter must be enabled).
Base Table - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Base Table bet.
Pass line/Come - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Pass line and Come bets.
Don't pass/Don't Come - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Don't pass and Don't Come bets.
Field - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Field bet.
Big 6/8 - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Big 6 and Big 8 bets.
Place to win - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Place bets (also known as Place to win bets).
Place to lose - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Place to lose bets.

PARAMETER/BUTTON	DESCRIPTION
Buy - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Buy bets.
Lay - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Lay bets.
Hardways - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Hardways bets.
Horn bet - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Horn bet.
Two/Three/Eleven/Twelve - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Two/Three/Eleven/Twelve bets.
Any craps - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Any craps bet.
Seven - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Seven bet.
Craps and eleven - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of craps and eleven bet.
Hop Bets - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Hop bets.
Hopping Hardways - Min/Max/Ratio 1	Minimal and maximal allowed bet values, as well as the ratio between the two, of Hopping Hardways bets.
Save	Save the settings.
Exit	Exit menu.

KGM GAMING SOFTWARE

ROULETTE AUTO v2.1.X.X

Main Control Unit Software

USER MANUAL

Table of Contents

1 Introduction

This manual was created to describe the **Roulette Auto software (RNG)**. The associated application was developed to control and manage Main control units of the Roulette wheels.

The graphics represented in this manual are for illustrative purposes only, variation may be possible. Some settings and parameters may not be available as they can be specifically configured for the customer. For detailed information please contact KGM Gaming via e-mail at info@kgmgaming.com or via phone at 215-430-0388.

2 RNG summery window

After each RNG restart, a summary window of the Roulette settings is visible for a short time (10 seconds).

Description of the RNG summery window (numbered from 1 to 4) can be viewed in the table below:

NUMBER	DESCRIPTION
1	RNG type information (in our case RNG type is configuration as **Auto**).
2	GAME type information (in our case RNG GAME type is configuration as **Roulette**).
3	Roulette configuration settings: • Wheel port (valid COM port where ALW/ALC Roulette wheel is connected), • CB Board Port (valid COM port where control board is connected), • Roulette zero type (Roulette wheel zero type), • Roulette Type (Roulette operation type), • Wheel ID (Main control unit ID number).
4	Button for changing currently configured Roulette settings. **The appropriate settings are preset for customer requirements and shouldn't be changed!**
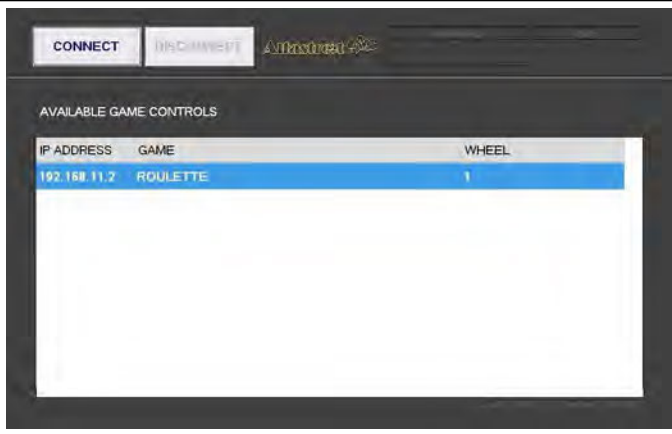
3 Interface Overview

This chapter describe all basic RNG software functionalities like login, changing the Roulette parameters, viewing wheel statistics, accessing logs and much more.

3.1 Login

There are two ways of accessing the RNG software. Access can be gained either by using a dedicated keyboard, mouse and display connected to the Roulette wheel or through any of the connected playing stations by using the touchscreen display. The second (playing stations) option will require access through the **MgCore** Main menu, for more information see: **KGM Gaming Software - MgCore - User Manual**.

The available control units are visible under the AVAILABLE GAME CONTROLS. Login to desired control unit (ROULETTE) can be accomplished by following the steps below:

STEP 1: Click **CONNECT** button	
STEP 2: Enter the password and select **OK**.	

3.2 Main screen layout

During the operation the main screen will be displayed. The buttons, windows and rows are described in the table below.

BUTTON/WINDOW/ROW	DESCRIPTION
CONNECT	Login and connect to a selected control unit.
DISCONNECT	Logout and disconnect from a selected control unit.
VERSION INFO	Version of the software.
USER	Currently logged in user.
GAME	Name of the game running on the selected control unit.
WHEEL	Wheel ID of a selected control unit.
IP ADDRESS	IP address of a selected control unit.
DATE/TIME	Current date and time.
PHASE	Current game phase.
BET TIME	Remaining time for betting.
NMB-DETECT	Time elapsed between no more bets event and ''*read number*'' phase.
SPIN	Number of ball spins between ''no more bets'' event and ''*read number*'' phase.
RESULT	Current game result.
START	Start the game.
STOP	Stop the game.
LAST X GAMES	Stop the game after a specified number of games (rounds). Can be configured within the **Specific tab** (see Chapter *4.5.3 Specific tab*).
INFO	Opens the **Info page** window (see Chapter *3.4 Info page window*).
SHOW/HIDE MENU	Show/hide the complete menu (see Chapter *3.3 Menu screen layout*).
EVENTS WINDOW	Display events related to game phases, winning numbers, errors, etc.

3.3 Menu screen layout

If the **SHOW MENU** button is selected the layout will change to the menu layout. At this point several new button will be available.

BUTTON	DESCRIPTION
LOG	Opens the **Log** menu (see Chapter *4.1 Log*).
RESULTS	Opens the **Results** menu (see Chapter *4.2 Results*).
STATISTICS	Opens the **Statistics** menu (see Chapter *4.3 Statistics*).
PARAMETERS	Opens the **Parameters** menu (see Chapter *4.5 Parameters*).
ACCESS	Show and manage user accesses (see Chapter *4.6 Access*).
JACKPOT	Opens the **Jackpot** menu (see Chapter *4.7 Jackpot*).
SCHEDULE	Opens the **Schedule** menu (see Chapter *4.8 Schedule*).
STATION STATUS	Opens the connected stations status window (see Chapter *4.9 Station status*).
SERVICE	Opens the **Service** menu (see Chapter *4.10 Service*).
LICENCE	Show and manage licence (see Chapter *4.11 Licence (authorization by server)* or *4.12 Licence (authorization by code)*).
METERS	Opens the **Meters** menu. Only available if AAS is present and properly configured.
COUNTERS	Opens the **Counters** menu. Only available if AAS is present and properly configured.
REBOOT	Reboot the control unit (see Chapter *4.13 Reboot*).
SHUTDOWN	Shutdown the control unit (see Chapter *4.14 Shutdown*).
BACKUP	Opens the **Backup** menu (see Chapter *4.15 Backup*).
HIDE MENU	Hide the menu and return to the main screen.

3.4 Info page window

The info page offers a quick overview of the machine (wheel) and current configuration.

EGM Model	SLM3R/WHEEL
Mfg	Pockaj d.o.o., Partizanska cesta 129 A, 6210 Sezana
Game Description	ROULETTE
Main Program ID	RNG 2.1.3.0
Game Personality ID	n/a
Denom	n/a
Min Bet (STAKE)	n/a
Min Bet (Credit)	n/a
Per Terminal Max Bet (STAKE)	n/a
Per Terminal Max Bet (Credit)	n/a
GAME Variation	010400
Machine RTP Base	Average RTP: 97.30%
Base Hold	2.70%
Prog Inc %	n/a
Total RTP %	Average RTP: 97.30%
Total Hold %	2.70%
Type of Signature (Game)	n/a
Signature ID of Program (Game)	n/a
Type of Storage (Game)	n/a
Type of Signature (Main)	SHA-1
Signature ID of Program (Main)	A5846D98E8706DCF5FFEECF2A5EEEA78E17B5E13
Max Win(STAKE)	n/a
Max Win(Credit)	n/a

PARAMETER/BUTTON	DESCRIPTION
EGM Model	Electronic Gaming Machine (EGM) model name.
Mfg	Machine manufacturer and the manufacturer address.
Game Description	Game name.
Main Program ID	Game version.
Game Personality ID	Not applicable.
Denom	Not applicable.
Min Bet (STAKE)	Not applicable.
Min Bet (Credit)	Not applicable.
Per Terminal Max Bet (STAKE)	Not applicable.
Per Terminal Max Bet (Credit)	Not applicable.
GAME Variation	Paytable ID for the current settings.
Machine RTP Base	Average RTP for current game settings.
Base Hold	Average house edge for the current settings.
Prog Inc %	Not applicable.
Total RTP%	Average total RTP for the current settings.
Total Hold%	Average total house edge for the current settings.
Type of Signature (Game)	Not applicable.
Signature ID of Program (Game)	Not applicable.
Type of Storage (Game)	Not applicable.
Type of Signature (Main)	Type of file security verification (Secure Hash Algorithm 1 (SHA-1)).
Signature ID of Program (Main)	SHA-1 value of the main executable file (RNG.exe).
Max Win(STAKE)	Not applicable.
Max Win(Credit)	Not applicable.
EXIT	Exit the menu.

4 Menus

This chapter describes all available menus that are accessible from the menu screen. Each menu is presented with a brief description and illustration.

4.1 Log

By accessing the Log menu, all activities on the Roulette wheel can be checked. Date, time, game number, winning number, errors and other information regarding all the processes in the background can be viewed here.

Logs can also be filtered by date, by using **SELECT DATE** option.

4.2 Results

By accessing the Results menu, the complete history of results and voided games can be checked. The current game number, winning number, date and time are provided for each game separately.

4.3 Statistics

By accessing statistics a full visual representation is available for various metrics. The menu is divided into several tabs.

All the available statistic information can also be printed, connected printer must be configured as the default printer in Windows.

The printer icon is located in the bottom left corner and can represent the following status:

	PRINTING IS NOT AVAILABLE The printer is not connected and/or not configured as the default printer in Windows.
	PRINTING IS AVAILABLE The printer is properly connected and configured. Simply press the icon to print.

4.3.1 Numbers tab

In this tab statistics of winning numbers are displayed - number, winning percentage, number of times. Total number of played and voided games can also be visible in this tab.

Statistic for a specific time period can be set by specifying **DATE FROM** and **DATE TO** parameters.
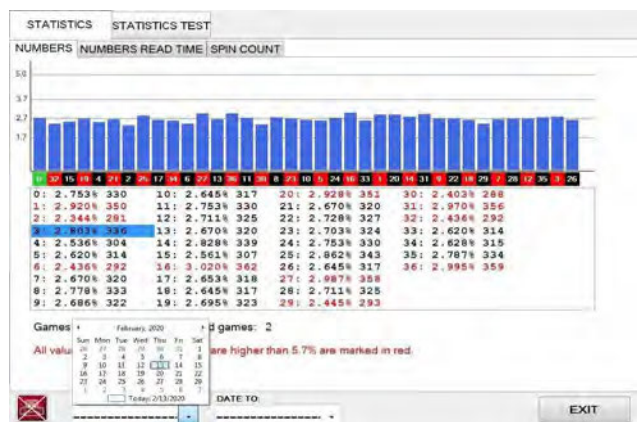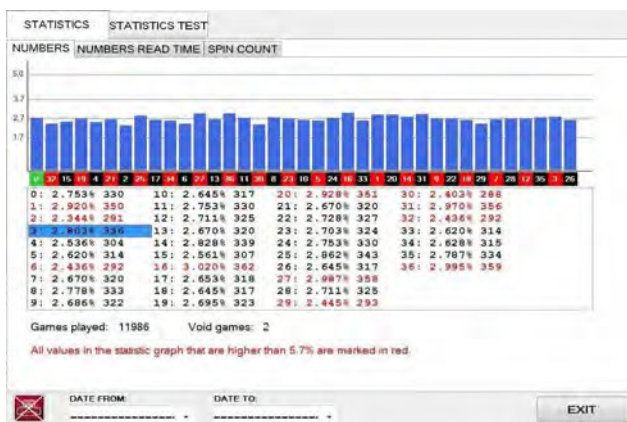
4.3.2 Numbers read time tab

This tab features the statistics of the read times (time between ''*No More Bets*'' event and the ball being detected in the number pocket.

The horizontal axis represents the read time in seconds, the vertical axis represent number of games.The column between 9 and 10 on the read time (horizontal) axis represents number of read times between 9.0 and 9.9 seconds, the others follow the same principle.
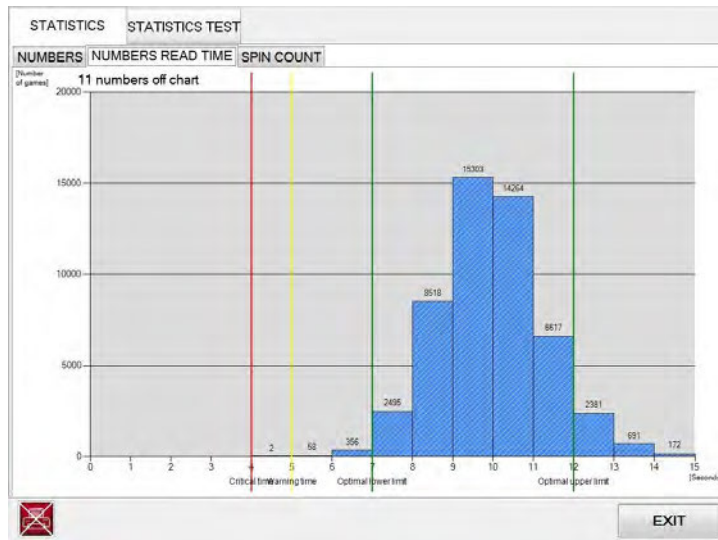
- The green vertical lines represent the optimal read time range. If the read time is outside the optimal limits (lower or higher) and the Automatic calibration parameter is enabled the software will adjust eject and or slowdown blower times to correct the deviation.
- If the read time is below the warning time (represented by the yellow vertical line) a warning will appear and the game will be stopped with the result being accepted as a valid one.
- If the read time is below the critical time (represented by the red vertical line) the game will be voided and stopped.

4.3.3 Spin count tab

This tab features the statistics of the spin counts. The horizontal axis represents the number of spins, the vertical axis represent number of games. The column between 3 and 4 on the spin count (horizontal) axis represents 1 spins made, the others follow the same principle.
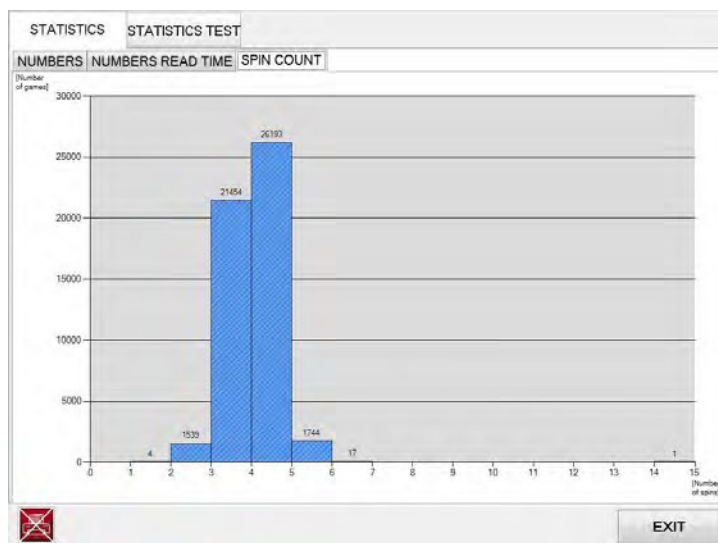
4.4 Statistics test tab

Statistics test tab features different tests to determine if roulette wheel is biased. A biased wheel is a wheel where one or more numbers are likely to win, mainly cause by extended wear and tear.

To prevent wheel biasing a Chi square statistic method is used for testing hypothesis concerning the discrepancy between the observed and the expected wheel result.

Statistics tests can also be filtered by date. Select the **DATE FROM** and **DATE TO** to get the statistics tests within a specific time period.

4.5 Parameters

The Parameters menu includes all available Roulette wheel settings. The Parameters menu can only be edited by opening the wheel logic door (see Chapter *7.1 Open the wheel logic door*).

4.5.1 Basic tab

In the Basic tab all the important Roulette wheel settings can be set.

PARAMETER/BUTTON	DESCRIPTION
Protocol	Method of communication between wheel and playing terminals: • Raw (Unprotected), • Raw (Protected), • Udp, • Raw (Protected) & Udp, • Udp (Protected). **For changes to take effect, the computer must be restarted.**
Clone wheel	Set up to three additional connected wheel IDs: ID1, ID2 and ID3 [0 - Disabled, min. 1, max. 5].
Minimum eject time (dsec)	Minimum blower operation time during the ball eject phase. Automatic random function may be implemented in this setting. Parameter cannot be manually adjusted if ''*Automatic calibration*'' is enabled.
Min. slowdown time (dsec)	Minimum reverse blower operation time during the ball eject phase. Automatic random function may be implemented in this setting. Parameter cannot be manually adjusted if ''*Automatic calibration*'' is enabled.
Bet time (sec)	The duration of ''*bets are open*'' phase. Bets can be placed for a set period of time [seconds].
Eject ball before no more bets (sec)	Define how much time before ''*no more bets*'' event the ball is ejected [seconds].
Demo game time (sec)	The duration of inactivity necessary before the game will switch into demo mode [seconds].

PARAMETER/BUTTON	DESCRIPTION
Resolve if not detect ball (sec)	Time interval before starting with resolve methods if ball is not detected [seconds].
Numbers of stations	Number of connected playing stations (min. 1, max. 198).
Hold ball after result (sec)	Time delay before the ball is retrieved from the wheel to the eject position [seconds].
Result send delay (msec)	Time delay before sending the result (min. 0*, max. 10000) [millisecond]. * In case a wall display with animation video is used the minimum acceptable ''*Result send delay*'' value is 4000 millisecond to ensure proper operation (min. 4000, max. 10000).
Open bets when ball is in eject position	If checked, the next game will only start when the ball is in eject position.
Legacy Hot/Cold calculation (games)	Select the number of games from which Hot and Cold numbers will be calculated: • 0 - Disabled, • 200, • 50, • 500, • 100, • 1000. • 150, Hot and Cold numbers will not be sent until the game count reaches the set number. Only applicable for older version of MgCore/Multigame.
Time synchronization (sec)	Allowed time difference between playing stations and main control unit. If the time difference is higher, times will be synchronized.
Send last game 100, 200, 500 statistic	If checked, the game statistics for the last 100, 200 and 500 games will be sent to the playing terminals.
Allow decision void or continue	If checked, errors such as LAN and/or SAS connection lost during game, ball not detected in either eject position or spinning, will prompt the operator to decide to void or continue the game. If unchecked, the game will be voided on same errors.
Model	Set connected wheel model: • SLM3R/WHEEL, • R6M3-23, • R4M3, • R8M3-23, • R5M3, • R12M3, • R6M3, • R12M3-23.
Hurry up phase (sec)	The duration of ''*hurry up*'' phase before the bets are closed [seconds].
Automatic calibration	If checked, the software will automatically adjust the ''*Minimum eject time (dsec)*'' and ''*Min. slowdown time (dsec)*'' to ensure the ball makes the optimal number of spins before landing on the number.
Number of games for cleaning	Schedule wheel cleaning interval, based on number of games [0 - Disabled, max. 50000].
SAVE	Save settings.
EXIT	Exit menu.

* 1 second = 10 deciseconds = 1000 milliseconds

4.5.2 Security tab

In this tab all the security oriented settings can be set.
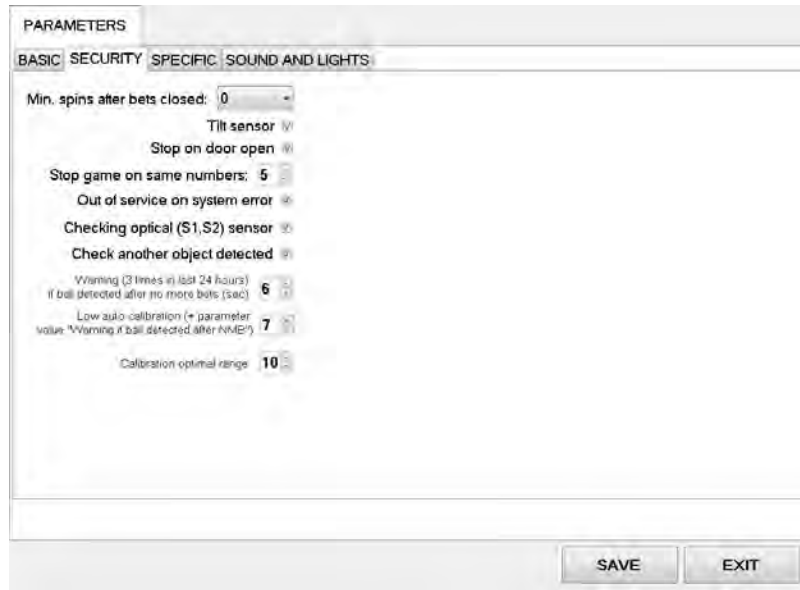
PARAMETER/BUTTON	DESCRIPTION
Min. spins after bets closed	Minimum number of spins after bets are closed: • 0, • 2.
Tilt sensor	If checked, tilt sensor functionality will be enabled (tilt sensor must be installed and control board firmware must be version 4.1 or greater).
Stop on door open	If checked, the game will stop if any of the service doors is opened.
Stop game on same numbers	Game will stopped if the result (winning number) is the same for specified number of consecutive games.
Out of service on system error	If checked, machine will be put out of service on any unexpected system error.
Checking optical (S1,S2) sensor	If checked, S1 sensor and S2 sensor will be checked during different phases of the game for proper operation.
Check another object detected	If checked, game will be stopped if any foreign object is detected inside the wheel (particles covering optical sensors, second ball, etc.).
Warning (3 times in last 24 hours) if ball detected after no more bets (sec)	A warning message is displayed when ball is 3 times in last 24 hours detected after the "*no more bets*" phase, before the set time expires.
Low auto calibration (+parameter value *"warning if ball detected"* after NMB")	A warning message is displayed in an event when after *"no more bets"* phase ball land on the number, before set ball's spins elapse.
Calibration optimal range	Set optimal number of spins before ball land on the number. This parameter is only visible with Automatic calibration enabled (**Basic** parameters tab).
SAVE	Save settings.
EXIT	Exit menu.

4.5.3 Specific tab

Parameters regarding optional UPS and other specific settings can be found in the specific tab.
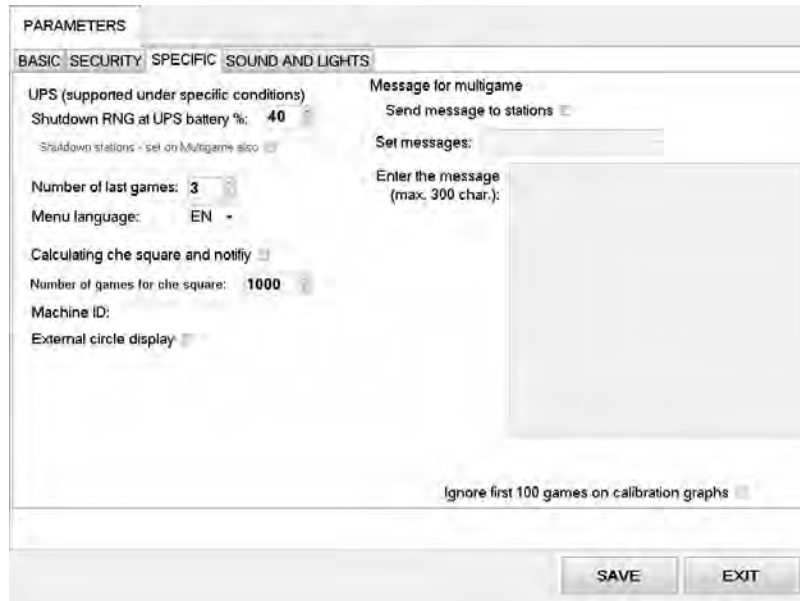
PARAMETER/BUTTON	DESCRIPTION
* Shutdown RNG at UPS battery %	UPS battery level to trigger RNG shutdown. The current game will finish and RNG will shut down when the UPS battery level drops below this value.
* Shutdown stations - set on Multigame also	If checked, the connected playing stations that are properly configured (''Accept shutdown from'' setting) will be shut down.
Number of last games	Manually set the number of games to be played after LAST ''X'' GAMES button is pressed or after the automatic game stop is scheduled (min. 3, max. 10).
Menu language	Selected language for the RNG's graphics user interface: • EN - English, • ES - Spanish.
Calculating chi square and notify	If checked, X numbers of games will be analyzed with chi square method, discrepancies will be notified.
Number of games for chi square	Set number of games to be using in Chi square method. Recommended value: • Single zero roulette 36000 games, • Double zero roulette 37000 games.
Machine ID	Set playing station's name displayed in statistics tests (machine: S/N, name, location, etc.). See Chapter *4.4 Statistics test tab*.
External circle display	Enable support for external circle display.
Send message to stations (only supported on MG 1.0116.0. and higher)	If checked, five different messages can be typed in the ''Enter the message'' window and sent to all the connected playing terminals if the game is stopped.

PARAMETER/BUTTON	DESCRIPTION
Set messages	Select the message to be edited: • Message1 - Auto send, • Message2, • Message3, • Message4, • Message5.
Enter the messages (max. 300 char.) (only supported on MG 1.0116.0. and higher)	A custom message can be typed if *''Send message to stations''* is checked. Message must be saved by clicking the SAVE button. The message will appear on connected playing station only if *''Send message to stations''* option is enabled, the game is stopped and the SEND MESSAGE button clicked, LAST X GAMES button clicked or its stopped automatically by a configured schedule. If the game is stopped with LAST X GAMES button or automatically by a configured schedule the *Message1 - Auto send* will be sent.
Ignore first 100 games on calibration graphs	If checked, calibration graphs will display the statistics only after the first 100 games have passed.
SAVE	Save settings.
EXIT	Exit menu.

* Settings under *UPS (supported under specific conditions)* are driver related and are applied at KGM Gaming prior to dispatch according to customer requirements. This settings should not be changed.

This feature is supported only with specific UPS models. In most cases UPS devices use their own applications to manage backup time and shutdown of gaming machines. For detailed instructions, please contact KGM Gaming.

4.5.4 Sound and lights tab

Sound and light settings are located in the sound and lights tab.

PARAMETER/BUTTON	DESCRIPTION
Language code	Selected language for the RNG's sounds (announcing winning numbers and game phases).
Volume	Volume adjustment can be made using the volume slider.
TEST	Test sound levels.
Enable sound if demo time	If checked, sound will be active if the machine is running in demo time.
Countdown sound	If checked, special countdown (B3) sound effects will be enabled.
Type of countdown sound	Define the type of the countdown sound: • Sound 1, • Sound 2, • Sound 3.
Play sound when win is above (cents)	Minimum win amount to trigger the win sound on RNG [cents]. Disabled (no sound) if set to 0.
Type of win sound	Define the type of the winning sound: • Sound 1, • Sound 2.
Play jackpot sound on wheel display	If checked, a special sound will be played on wheel display (signage) when the jackpot number is being drawn.
RGB LIGHTS	If the machine features RGB lighting it can be set using the provided options: • **DISABLED** - lights will be disabled, • **SELECTED COLOR** - colour and brightness along with optional blinking can be set, • **GAME PHASE** - colour and brightness along with optional blinking can be set for each of the three game phases independently (Bets open, Hurry up, Bets closed).
SAVE	Save settings.
EXIT	Exit menu.

4.6 Access

In the Access menu user accounts can be added, managed or removed.
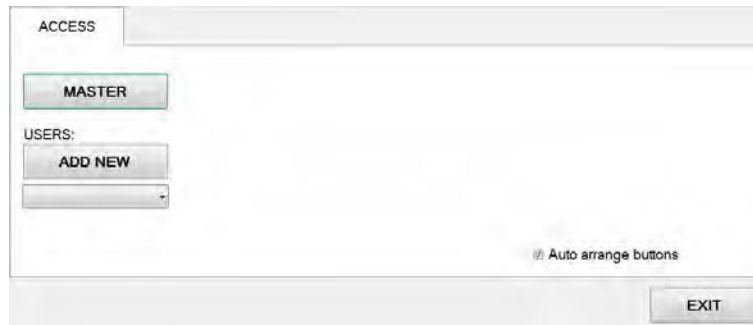
4.6.1 Adding a new user

To add a new user in the Access menu select **ADD NEW**. Confirm this action by clicking **OK**.

Password for the new user should be set. Enter the desired password and click **OK**.

The **NAME** for the account can now be edited, as well as setting the different levels of privileges this account will have. Select which buttons and menus are accessible by clicking on the red squares. Once activated the square will turn green.
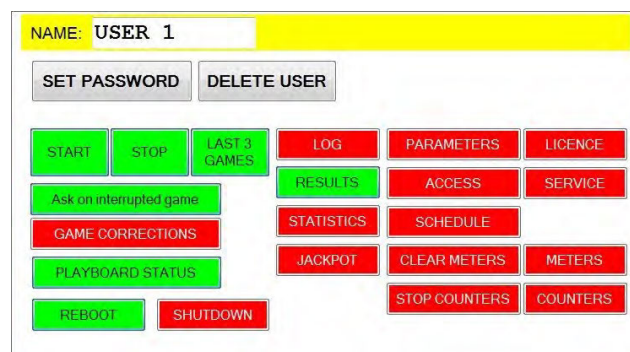
Changes must be saved by clicking **SAVE** button.

4.6.2 Editing existing user

Select the existing user from the drop down menu. When selected the user account will appear.

The **NAME** for the account can now be edited, as well as setting the different levels of privileges this account will have. Select which buttons and menus are accessible by clicking on the red squares. Once activated the square will turn green.

Users password can be changed by clicking **SET PASSWORD**.
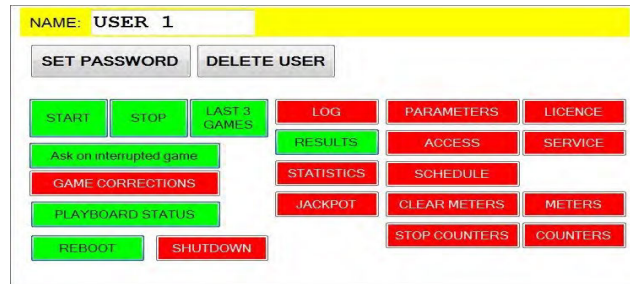
Changes must be saved by clicking **SAVE** button.

4.6.3 Deleting the user

Select the existing user from the drop down menu. When selected the user account will appear click **DELETE USER**.
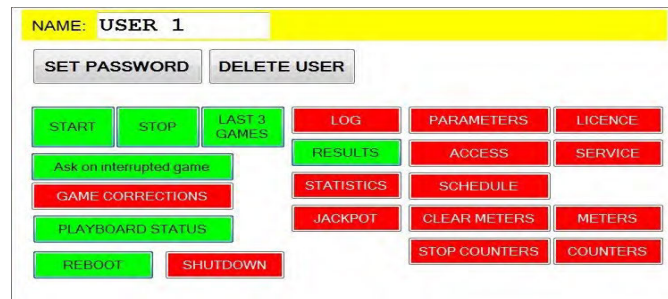
To delete the account. Confirm this action by clicking **OK**.
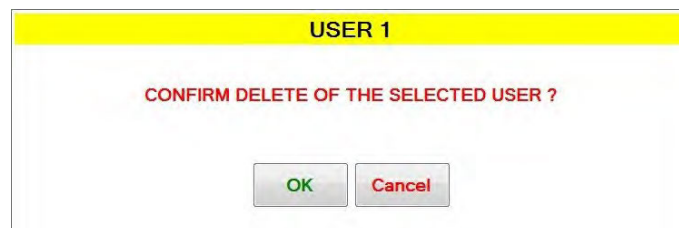
Changes must be saved by clicking **SAVE** button.

4.7 Jackpot

By accessing the jackpot complete log and history of legacy single layer jackpots can be checked. Dates, times, game numbers, playing station ID numbers, winning numbers and other information for each jackpot are provided.

ROW/BUTTON	DESCRIPTION
Since	Time since the last jackpot.
Payed	Total credits paid in jackpots.
Count	Number of jackpots won.
Reload (sum)	Total value of all Jackpot reloads as per Reload initial value parameter (Lucky Number Jackpot). This value does not include the normal hidden to visible transfers after the Jackpot has been awarded.
Visible	Current value of visible jackpot.
Hidden	Current value of hidden jackpot.
JACKPOT RECOVERY	Resolve any potential jackpot payout issue (action only available if any winning player didn't successfully received jackpot payout.
CLEAR LOG	Clear the LOG tab, summary of all the data will be created in the HISTORY tab.
CLEAR HISTORY	Clear the HISTORY tab.
RESET JACKPOT	Clear the current jackpot values (visible and hidden).
JACKPOT SETTINGS	Additional bonus game or jackpot system can be enabled. Only one bonus game can be active at once. • NONE, • LUCKY NUMBER. After changing this parameter, computer may have to be restarted. More information regarding bonus can be found in the **KGM Gaming Bonus Games manuals**.
EXIT	Exit menu.

4.7.1 Winning Jackpots tab

The Winning jackpots tab displays a filtered version of LOG tab, including only the information regarding the jackpot wins. It consists of the following columns.
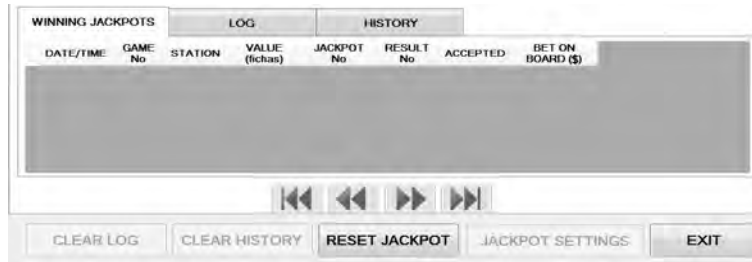
COLUMN	DESCRIPTION
DATE/TIME	Winning jackpot event's date and time.
GAME No	Winning jackpot event's game number.
STATION	Winning jackpot event's corresponding to playing station ID number.
VALUE ($)	Value of the awarded jackpot.
JACKPOT No	Jackpot winning number.
RESULT No	Current game result number.
ACCEPTED	Status of the jackpot participant.
BET ON BOARD ($)	Jackpot participant total board bet value.

4.7.2 Log tab

The LOG tab displays relevant information regarding the current session and jackpots won. It consists of the following columns.
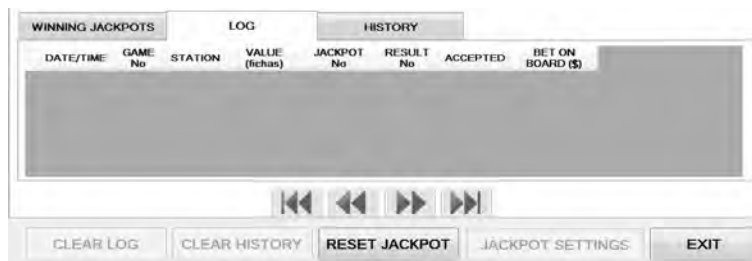
COLUMN	DESCRIPTION
DATE/TIME	Jackpot event's date and time.
GAME No	Jackpot event's game number.
STATION	Jackpot event's corresponding to playing station ID number.
VALUE ($)	Value of the awarded jackpot.
JACKPOT No	Jackpot winning number.
RESULT No	Current game result number.
ACCEPTED	Status of the jackpot participant.
BET ON BOARD ($)	Jackpot participant total board bet value.

4.7.3 History tab

The HISTORY tab will be updated with the summary from the LOG tab when the CLEAR LOG function will be used. It consists of the following columns.

COLUMN/ROW	DESCRIPTION
DATE/TIME	Date and time of the CLEAR LOG operation.
COUNT	Number of awarded jackpots in specific history summary.
VALUE	Total value of awarded jackpots in specific history summary.
RELOAD	Total value of jackpot reloads in specific history summary as per Reload initial value parameter (Lucky Number Jackpot) within the summary.

4.7.4 Jackpot recovery

In case an unexpected error would happen (power outage, local area network disconnect) during jackpot winnings transfers to all the winners the software has built-in jackpot recovery functionality. The recovery process is prepared if one or more winners do not successfully receive their jackpot winnings and must be started manually.

PLAYING STATION COLUMN	DESCRIPTION
/	No activity on any of the connected playing stations was detected during game number where jackpot winning number was drawn.
Void game	The specified game was voided.
No candidate	Activity on any of the connected playing stations was detected (no minimum jackpot participating bets were placed) during game number where jackpot winning number was drawn.
XX (X = Playing station ID number)	Corresponding playing station ID number to a jackpot event.

ACCEPTED COLUMN	DESCRIPTION
No	Jackpot amount was not transferred to specified playing station ID at specified game number - JACKPOT RECOVERY must be performed.
Yes	Jackpot amount was successfully transferred to specified playing station ID at specified game number.
Moved	Jackpot recovery for specified playing station ID and game number was resolved by returning the winning amount to visible jackpot.
Handpayed	Jackpot recovery for specified playing station ID and game number was resolved by the method of handpay.
Not winner	Only with Winner with maximum bet on table parameter enabled. Playing station with placed participating bets and not having highest total table bet or if the proportionally divided jackpot winning amount is less than 0,01 (currency).

ACCEPTED COLUMN	DESCRIPTION
JP reset	Jackpot recovery for specified playing station ID and game number was resolved by the method of Jackpot reset.
/	Jackpot not awarded because of the result number not matching the Jackpot winning number or no candidates for the current game number where jackpot winning number was drawn.

New jackpot accumulation will stop until all winners with payout issues are resolved. Playing stations with issues will have NO status under ACCEPTED column. To start the jackpot recovery process the logic door must be opened, the game stopped, and the **JACKPOT RECOVERY** button pressed.

A window with available actions will appear, select the desirable action - descriptions are available below:

- **MOVE CREDITS TO VISIBLE** - available if some (not all) winners have jackpot winnings transfer issues. Jackpot winning amount for the playing boards with jackpot winnings transfer issues will be returned to the visible jackpot and will not be awarded to the winners,
- **JACKPOT RESET** - available if all winners have jackpot winnings transfer issues. Last jackpot will be reset and the jackpot winning will not be awarded to the winners,
- **JACKPOT HANDPAY** - jackpot winning amounts will be awarded to the winners by the means of handpay - by attendant,
- **CANCEL** - jackpot recovery procedure will be cancelled.

A confirmation windows will appear for every option selected. If any of the jackpot winners successfully connects and accepts the jackpot winning amount during the jackpot recovery process, the process will detect that and adjust the remaining available options.

4.8 Schedule

In this menu the schedule for the automatic operation of start and stop command can be set. The schedule is divided into days of the week.

Start and stop commands can be set several days apart. Start command is activated when the button is coloured green, stop command is activated when coloured red. The configuration above is set to the following schedule:

- start on Monday at 8:00, stop on Thursday at 22:00,
- start on Friday at 8:00, stop on Saturday at 23:00,
- start on Sunday at 8:00, stop at 12:00.

After the scheduled stop command is triggered the game will stop after set number of last games - parameter ''*Number of last games*'' in Parameters menu under **Specific** tab. The number of last games can be adjusted in previously mentioned Chapter *4.5 Parameters*.

4.9 Station status

In this menu a quick overview of connected playing stations can be seen. Each playing station is represented with a square and a number.

The colour of the square presents the status of the playing station (offline, online, credits present, bets placed or error caused by denomination not set correctly). Text colour indicates jackpot status (jackpot disabled, jackpot enabled). Additional information about each playing station (by clicking on the number square) can be visible in the bottom right corner.

4.10 Service

The Service menu is intended for use in regular wheel maintenance and testing/troubleshooting purposes.

4.10.1 Service tab

Service tab features several wheel operations that can be triggered.

BUTTON/ROW	DESCRIPTION
RAISE	Raise the wheels center plate.
EJECT	Eject the ball.
SPEED +	Increase wheel rotation speed.
SPEED-	Decrease wheel rotation speed.
STOP WHEEL	Stop the wheel rotation completely.
SLOWDOWN	Activate the reverse blower to slow down the ball.
EJECT WITH SLOWDOWN	Eject the ball by activating the both blowers (eject and reverse).
Eject ball time (sec)	Informative countdown of *"eject ball before no more bets"* parameter (see Chapter *4.5.1 Basic tab*).
Spins after no more bets (recommended at least 7 spins)	Number of revolutions after ''*bets are closed*'' phase.
OPEN	Open the wheel cover by holding this button.
CLOSE	Close the wheel cover by holding this button.
Number	Last read number.
Set speed	Set wheel rotating speed, can be adjusted with *SPEED +* and *SPEED -* buttons.

BUTTON/ROW	DESCRIPTION
Sensor err code	Error codes from the wheel optical sensors (must be permanently displayed): • 0 - default value, no errors, • 30 - 30kHz sensor malfunction, • 40 - 40kHz sensor malfunction, • 2 - both sensors malfunction. **Error codes displayed briefly do not represent malfunction.**
Ball detected	Control response from the sensor: • **YES** - the ball is detected, • **NO** - the ball is not detected.
Ball in eject pos.	Control response from the ball eject position sensor: • **YES** - the ball is in eject position, • **NO** - the ball is not in eject position.
Cover open	Control response from the wheel cover switch: • **YES** - the wheel cover is open, • **NO** - the wheel cover is closed.
Wheel speed	Current wheel rotating speed.
Control resp.	Control response from communication with the control board: • **YES** - communication is established and running properly, • **NO** - communication is not established.
	Control board communication code.
Ball speed	Measured circumferential ball speed [RPM].
EXIT	Exit menu.

4.10.2 Cleaning tab

Cleaning tab includes cleaning maintenance instructions and all the buttons needed to perform it. KGM Gaming highly recommends following the cleaning maintenance intervals to ensure smooth operation over longer periods of time.
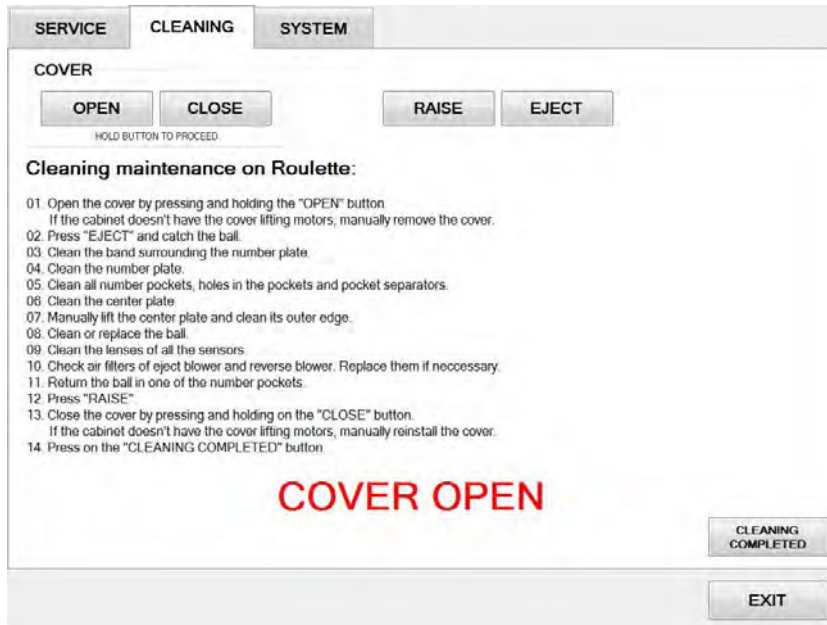
BUTTON/ROW	DESCRIPTION
OPEN	Open the wheel cover by holding this button.
CLOSE	Close the wheel cover by holding this button.
RAISE	Raise the wheels center plate.
EJECT	Eject the ball.
CLEANING COMPLETED	Resets the predetermined cleaning maintenance interval and clears the cleaning notifications in the Alfa Account Server. Should only be used after the cleaning maintenance was completed.
EXIT	Exit menu.

4.10.3 System tab

System tab features other possible service operations.
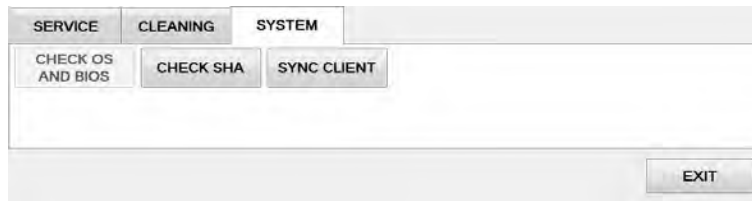
BUTTON/ROW	DESCRIPTION
CHECK OS AND BIOS	Starts the OS and BIOS checking process. This functionality is market/customer specific and must be configured by KGM Gaming beforehand to operate properly.
CHECK SHA	Open the **SHA check** window (see Chapter *4.10.3.1 Check SHA)*.
SYNC CLIENT	Open the **Sync client** window (see Chapter *4.10.3.2 Sync client)*. This functionality is market/customer specific and must be configured by KGM Gaming beforehand to operate properly.
EXIT	Exit menu.

4.10.3.1 Check SHA

Within this window all major files version and SHA values can be checked.

PARAMETER/BUTTON	DESCRIPTION
File name	List of all major file names.
Version	Corresponding version for each major file.
SHA1	SHA1 (Secure Hash Algorithm 1) value for each major file.
HMAC-SHA1 SEED	HMAC-SHA1 SEED (Hash-based Message Authentication Code - Secure Hash Algorithm 1 SEED) value for each major file.
HMAC-SHA1	HMAC-SHA1 (Hash-based Message Authentication Code - Secure Hash Algorithm 1) value for each major file.
EXIT	Exit menu.

4.10.3.2 Sync client

Sync client functionality is market/customer specific and requires a remote backup solution for its operation. Sync client window offers a quick way to set up this functionality locally, additional setup is also required for the remote backup.

PARAMETER/BUTTON	DESCRIPTION
Client ID	Client ID number.
Server IP	Remote server IP address.
Description	Identifying name or description of the local machine.
Status	Current Sync Client status.
SAVE	Save the data to the SyncClient.ini file
EXIT	Exit menu.

4.11 Licence (authorization by server)

By accessing the Licence menu, it is possible to check the authorization server's IP address and the remaining time until the licence expires. Additionally the jackpot activation status is displayed under the Options, Jackpot.

For additional information in regards to activation please contact KGM Gaming:
Telephone: 215-430-0388, E-Mail: info@kgmgaming.com

4.12 Licence (authorization by code)

By accessing the Licence menu, it is possible to check the machine ID, current date and the remaining time until the licence expires. Additionally the jackpot activation status is displayed under the Options, Jackpot.

The software can be reactivated by selecting the **ACTIVATE** button.

Reactivating can be done by entering First and the Second activation code, both can be obtain by contacting KGM Gaming: Telephone: **215-430-0388**, E-Mail: info@kgmgaming.com

Newly entered codes can be confirm by selecting the **ACTIVATE** button.

4.13 Reboot

After selecting the **REBOOT** button, a confirmation window will appear. Confirm the reboot by selecting the **YES** button.

4.14 Shutdown

After selecting the **SHUTDOWN** button, a confirmation window will appear. RNG can be shutdown by selecting the **RNG ONLY** button. The **RNG AND GROUP** button will shutdown the RNG as well as all of the properly configured playing stations in the network (''*Accept shutdown from*'' option must be configured in the **MgCore** on each playing station).

4.15 Backup

Backup can either be performed on a USB drive or to a predetermined location/server. Each method has its own tab, description for each one are available in the following chapter.

4.15.1 Copy to USB tab

In these tab the important information like LOG files, Data, Settings and Windows LOG can be backed up to a USB drive. The USB key will be automatically detected (currently displaying E:\). The backup process can be stared by selecting the **COPY** button.

4.15.2 Backup to location tab

Scheduled backups to a dedicated server can be configured in these tab. **Backup functionality is only possible with additional KGM Gaming software**. For additional information in regards to backup functionality please contact KGM Gaming.

PARAMETER/BUTTON	DESCRIPTION
Backup	If checked, backup functionality is enabled.
Destination path	Backup server destination path. Backups will be saved to this network location.
Username	Username used for the backup server.
Password	Password used for the backup server.
Stop game on server down after (min)	Define the time period of unsuccessful backup attempts after which the game will lock [minutes].
Interval to copy the files (sec)	Define the backup interval [seconds].
SAVE	Save settings.
EXIT	Exit menu.

5 Maintenance program

⚠️ Cleaning must only be performed with the Main Power Switch turned OFF.

It is suggested that a regular cleaning schedule be maintained for the following parts of the machine. In any case, for cleaning do not use:

- wire or nylon wool scouring brooms,
- furniture polishes,
- alcohol based polishes,
- powder or liquid abrasive cleaners,
- bleach or strong detergents.

Outside Surfaces

All outside surfaces should be inspected and if necessary cleaned every day, using mild detergents and damp cloth.

Domed Wheel Cover

It is suggested that the Domed Wheel Cover be cleaned every 2 weeks. Careful consideration should be taken not to scratch the surface. Both inside and outside surfaces should be cleaned.

Ball

The ball should be cleaned or replaced according to the cleaning maintenance interval. Before replacing the ball inspect the new ball for defects. If a defect is noticed replace the ball. Never use a ball with a defect! Most balls can be recycled by the manufacturer. Please do not discard dirty or defective balls. Return the balls to your KGM Gaming representative.

Illustration 1: Damaged ball on right side

Inside of Wheel

The inside of the wheel should be thoroughly cleaned according to the cleaning maintenance interval. Clean the entire inside of the wheel, all metal and wood surfaces. Careful consideration should be taken for cleaning each pocket (both bottom and side walls) as well as the outside edge of the wheel where most of the dirt will collect.

Air Filter

The Air Filter located under the Blower Fan should be replaced every 3 months or more often if the machine is located in a dusty environment.

Item / Interval	Every day	Every 2 weeks	When prompted	Every 3 months
Outside Surfaces	C			
Domed Wheel Cover		C		
Ball			I, C or R	
Inside of Wheel			C	
Air Filter			I	R

C - clean, **I** - inspect, **R** - replace

ℹ️ Please contact your KGM Gaming representative for recommended cleaning solutions.

6 Preventive actions
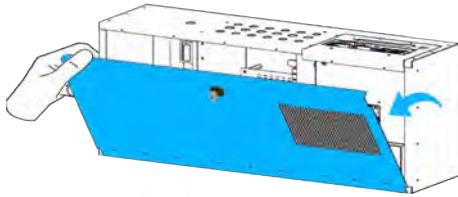
🔄 The main control unit's computer must be preventive restarted at least every three weeks. KGM Gaming recommends replacing all data storage devices every 5 years to ensure smooth operation over longer periods of time.

7 Basic operational procedure

In this chapter you can view simple step-by-step guide for all basic operational procedures regarding the RNG.
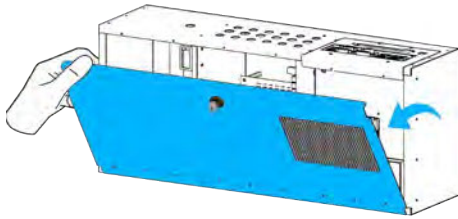
7.1 Open the wheel logic door

This chapter provide a simple step-by-step guide for opening the wheel logic door, required for making changes in the Parameters menu (see Chapter *4.5 Parameters*).

STEP 1	STEP 2
Unlock the control unit's door (wheel logic door).	Open the control unit's door (wheel logic door).

7.2 Check control board's firmware version

This chapter provide quick guide for performing control board firmware check. Before starting these procedure ensure the connected play stations are not occupied by players (see Chapter *4.9 Station status*).

STEP 1	STEP 2
Unlock and open the control unit's door (wheel logic door).	In menu screen (see Chapter *3.3 Menu screen layout*) select **SERVICE** button.
STEP 3	**STEP 4**
In Service tab (see Chapter *4.10.1 Service tab*) double click on control responding state: **YES**.	If the previous step is done correctly the current connected control board firmware version must appear.

KGM GAMING SOFTWARE
SICBO AUTO v2.1.8.X

Main Control Unit Software

USER MANUAL

Table of Contents

1 Introduction

This manual was created to describe the **SicBo Auto software (RNG)**. The associated application was developed to control and manage Main control units of the SicBo wheels/tumblers.

The graphics represented in this manual are for illustrative purposes only, variation may be possible. Some settings and parameters may not be available as they can be specifically configured for the customer. For detailed information please contact KGM Gaming via e-mail at info@kgmgaming.com or via phone at 215-430-0388.

2 RNG summery window

After each RNG restart, a summary window of the SicBo settings is visible for a short time (10 seconds).

Description of the RNG summery window (numbered from 1 to 4) can be viewed in the table below:

NUMBER	DESCRIPTION
1	RNG type information (in our case RNG type is configuration as **Auto**).
2	GAME type information (in our case RNG GAME type is configuration as **SicBo**).
3	SicBo configuration settings: • CB Board Port (valid COM port where control board is connected), • Wheel ID (Main control unit ID number).
4	Button for changing currently configured SicBo settings. **The appropriate settings are preset for customer requirements and shouldn't be changed!**

3 Interface Overview

This chapter describe all basic RNG software functionalities like login, changing the SicBo parameters, viewing dice statistics, accessing logs and much more.

3.1 Login

There are two ways of accessing the RNG software. Access can be gained either by using a dedicated keyboard, mouse and display connected to the SicBo main control unit or through any of the connected playing stations by using the touchscreen display. The second (playing stations) option will require access through the **MgCore Main menu**, for more information see: **KGM Gaming Software - MgCore - User Manual**.

The available control units are visible under the AVAILABLE GAME CONTROLS. Login to desired control unit (SicBo) can be accomplished by following the steps below:

STEP 1: Click **CONNECT** button	
STEP 2: Enter the password and select **OK**.	

3.2 Main screen layout

During the operation the main screen will be displayed. The buttons, windows and rows are described in the table be-
low.

BUTTON/WINDOW/ROW	DESCRIPTION
CONNECT	Login and connect to a selected control unit.
DISCONNECT	Logout and disconnect from a selected control unit.
VERSION INFO	Version of the software.
USER	Currently logged in user.
GAME	Name of the game running on the selected control unit.
WHEEL	Wheel ID of a selected control unit.
IP ADDRESS	IP address of a selected control unit.
DATE/TIME	Current date and time.
PHASE	Current game phase.
BET TIME	Remaining time for betting.
RESULT	Current game result.
START	Start the game.
STOP	Stop the game.
LAST 3 GAMES	Stop the game after 3 more games (rounds).
SHOW	Show the complete menu (see Chapter *3.3 Menu screen layout*).
EVENTS WINDOW	Events regarding the game phases, winning numbers, errors, etc.
CB version	Control board's firmware version.

3.3 Menu screen layout

If the **SHOW MENU** button is selected the layout will change to the menu layout. At this point several new button will be available.

BUTTON	DESCRIPTION
LOG	Opens the **Log** menu (see Chapter *4.1 Log*).
RESULTS	Opens the **Results** menu (see Chapter *4.2 Results*).
STATISTICS	Opens the **Statistics** menu (see Chapter *4.3 Statistics*).
PARAMETERS	Opens the **Parameters** menu (see Chapter *4.4 Parameters*).
ACCESS	Show and manage user accesses (see Chapter *4.5 Access*).
SCHEDULE	Opens the **Schedule** menu (see Chapter *4.6 Schedule*).
STATION STATUS	Opens the connected stations status window (see Chapter *4.7 Station status*).
SERVICE	Opens the **Service** menu (see Chapter *4.8 Service*).
SET DICE	Opens the **Set dice** menu (see Chapter *4.9 Set dice*).
LICENCE	Show and manage licence (see Chapter *4.10 Licence (authorization by server)* or *4.11 Licence (authorization by code)*).
REBOOT	Reboot the control unit (see Chapter *4.12 REBOOT*).
SHUTDOWN	Shutdown the control unit (see Chapter *4.13 SHUTDOWN*).
BACKUP	Opens the **Backup** menu (see Chapter *4.14 Backup*).
HIDE MENU	Hide the menu and return to the main screen.

4 Menus

This chapter describes all available menus that are accessible from the menu screen. Each menu is presented with a brief description and illustration.

4.1 Log

By accessing the Logs menu, all activities on the SicBo main control unit can be checked. Date, time, game number, winning dice combination, errors and other information regarding all the processes in the background can be viewed here.

Logs can also be filtered by date, by using **SELECT DATE** option.

4.2 Results

By accessing the Results menu, the complete history of results and voided games can be checked. The current game number, winning dice combination, date and time are provided for each game separately.

4.3 Statistics

In this menu statistics for each dice are displayed (with numbers and winning percentage). Total number of played games and number of void games as well as other counters can also be visible in this menu.

All the available statistic information can be printed, connected printer must be configured as the default printer in Windows.

The printer icon is located in the bottom left corner and can represent the following status:

	PRINTING IS NOT AVAILABLE The printer is not connected and/or not configured as the default printer in Windows.
	PRINTING IS AVAILABLE The printer is properly connected and configured. Simply press the icon to print.

4.4 Parameters

Parameters menu includes all available SicBo main control unit settings. The Parameters menu can only be access by opening the main control unit's logic door (see Chapter *7.1 Open the main control unit's logic door*).

4.4.1 Basic tab

In the Basic tab all the important SicBo main control unit settings can be set.

PARAMETER/BUTTON	DESCRIPTION
Bet interval	The duration of *"bets are open"* phase. Bets can be placed for a set period of time [seconds].
Start roll interval	Time interval of how much before the *"bets are closed"* event, dice preshake phase starts [seconds].
Separate interval	Time interval between separation maneuvers [seconds].
Read dice interval	Maximum dice read duration. If dice are not read within this time interval, dice separation procedure will be performed (if enabled), followed by an error if unsuccessful [seconds].
Payout interval	Time delay before a new game is started [seconds].
Demo time enabled	If checked, the machine will enter demo mode if players inactivity is detected. See corresponding parameter *Demo time [min]*.
Demo time [min]	Time period before the machine enters demo mode due to players inactivity [minutes].
Protocol	Method of communication between main control unit and playing stations: • UDP protected • UDP legacy
Tilt Sensor	If checked, tilt sensor functionality will be enabled (tilt sensor must be installed and control board firmware must be v4.1 or greater).
Time synchronization (sec)	Allowed time difference between playing stations and main control unit. If the time difference is higher, times will be synchronized [seconds].
Numbers of boards	Number of connected playing stations (min. 1, max. 198).

PARAMETER/BUTTON	DESCRIPTION
Shooter Type	Define the dice shooter type: • SHOOT ONLY
Shaking Type	Define the dice shaking maneuver. • PRESHAKE + SHOOT - Default option, dice are shaken until the shoot maneuver is performed. • 1 SHOT - A single shoot maneuver is performed. • 2 SHOTS - Two shoot maneuvers are performed. • 3 SHOTS - Three shoot maneuvers are performed.
Dice separation on undetectable result	If checked, dice separation maneuver will be performed if the result readout is unsuccessful.
Shoot again on undetectable result	If checked, dice shoot maneuver will be performed if the result read-out is unsuccessful after the separation maneuver.
Game controller type	Game controller type configuration. • CYLINDER - Support for legacy products. • SHOOTER - Default option.
SAVE	Save settings.
EXIT	Exit menu.

4.4.2 Sound tab

Sound settings are located in the sound tab.

PARAMETER/BUTTON	DESCRIPTION
Language code	Selected language for the RNG's sounds (announcing winning numbers and game phases).
Volume	Volume adjustment can be made by using the volume slider.
TEST	Test sound levels.
Play Game Specific Sounds	If checked, game specific sounds will be played by the main control unit.
SAVE	Save settings.
EXIT	Exit menu.

4.5 Access

In the Access menu user accounts can be added, managed or removed.

4.5.1 Adding a new user

To add a new user in the Access menu select **ADD NEW**. Confirm this action by clicking **OK**.

Password for the new user should be set. Enter the desired password and click **OK**.

The **NAME** for the account can now be edited, as well as setting and different levels of privileges this account will have. Select which buttons and menus are accessible by clicking on the red squares. Once activated the square will turn green.

Changes must be saved by clicking **SAVE** button.

4.5.2 Editing existing user

Select the existing user from the drop down menu. When selected the user account will appear.

The **NAME** for the account can now be edited, as well as setting the different levels of privileges this account will have. Select which buttons and menus are accessible by clicking on the red squares. Once activated the square will turn green.

Users password can be changed by clicking **SET PASSWORD**.

Changes must be saved by clicking **SAVE** button.

4.5.3 Deleting the user

Select the existing user from the drop down menu. When selected the user account will appear, click **DELETE USER**.

To delete the account. Confirm this action by clicking **OK**.

Changes must be saved by clicking **SAVE** button.

4.6 Schedule

In this menu the schedule for the automatic operation of start and stop command can be set. The schedule is divided into days of the week.

Start and stop commands can be set several days apart. Start command is activated when the button is colored green, stop command is activated when colored red. The configuration above is set to the following schedule:
- Start on Monday at 8:00, stop on Thursday at 22:00,
- Start on Friday at 8:00, stop on Saturday at 23:00,
- Start on Sunday at 8:00, stop at 12:00.

After the scheduled stop command is triggered, the game will stop after 3 more games.

4.7 Station status

In this menu a quick overview of connected playing stations can be seen. Each playing station is represented with a square and a number.

The color of the square presents the status of the playing station (offline, online, credits present, bets placed or error caused by denomination not set correctly). Additional information about each playing station (by clicking on the number square) can be visible in the bottom right corner.

4.8 Service

The Service menu is intended for use in regular wheel/tumbler maintenance and testing/troubleshooting purposes.

4.8.1 Service tab

Service tab features several wheel/tumbler operations that can be triggered.

BUTTON/ROW	DESCRIPTION
MOTOR FUNCTIONS - STOP	If pressed, motor controlling the dice platform will be stopped.
MOTOR FUNCTIONS - READING	If pressed, motor controlling the dice platform will lowered to the dice result readout position.
MOTOR FUNCTIONS - SHAKE	If pressed, motor controlling the dice platform will perform the shaking maneuver.
MOTOR FUNCTIONS - SHOOT	If pressed, motor controlling the dice platform will perform the shooting maneuver.
MOTOR FUNCTIONS - SEPARATION	If pressed, motor controlling the dice platform will perform the separation maneuver.
COVER - OPEN	Open the cover by holding this button.
COVER - CLOSE	Close the cover cover by holding this button.
Dice numbers	Last read dice numbers (dice 1, dice 2, dice 3).
Reader responding	Control response from communication with the dice reader: • **YES** - communication is established and running properly, • **NO** - communication is not established.
Reader error	Last dice reader communication/error code.
Reader version	Reader board's firmware version.
Reader CRC	Reader board's firmware CRC code.
Control board responding	Control response from communicating with the control board: • **YES** - communication is established and running properly, • **NO** - communication is not established.

BUTTON/ROW	DESCRIPTION
Control board error	Last control board error/communication code.
Control board version	Control board's firmware version and its CRC code.
Cover open	Control response from the cover switch: • **YES** - the cover is open, • **NO** - the cover is closed.
EXIT	Exit menu.

4.8.2 System tab

System tab features other possible service operations.

BUTTON/ROW	DESCRIPTION
CHECK OS AND BIOS	Starts the OS and BIOS checking process. This functionality is market/customer specific and must be configured by KGM Gaming beforehand to operate properly.
CHECK SHA	Opens the **SHA check** window (see chapter *4.8.2.1 Check SHA).*
EXIT	Exit menu.

4.8.2.1 Check SHA

Within this window all major files version and SHA values can be checked.

PARAMETER/BUTTON	DESCRIPTION
File name	List of all major file names.
Version	Corresponding version for each major file.
SHA1	SHA1 (Secure Hash Algorithm 1) value for each major file.
HMAC-SHA1 SEED	HMAC-SHA1 SEED (Hash-based Message Authentication Code - Secure Hash Algorithm 1 SEED) value for each major file.
HMAC-SHA1	HMAC-SHA1 (Hash-based Message Authentication Code - Secure Hash Algorithm 1) value for each major file.
EXIT	Exit menu.

4.9 Set dice

Set dice menu contains the information of currently used dice. Each dice side (number) has its own unique tag ID.

4.10 Licence (authorization by server)

By accessing the Licence menu, it is possible to check the authorization server's IP address and the remaining time until the licence expires.

For additional information in regards to activation please contact KGM Gaming:
Telephone: 215-430-0388, E-Mail: info@kgmgaming.com

4.11 Licence (authorization by code)

By accessing the Licence menu, it is possible to check the machine ID, current date and the remaining time until the licence expires. The software can be reactivated by selecting the **ACTIVATE** button.

Reactivating can be done by entering First and the Second activation code, both can be obtain by contacting KGM Gaming: Telephone: **215-430-0388**, E-Mail: **info@kgmgaming.com**

Newly entered codes can be confirm by selecting the **ACTIVATE** button.

4.12 REBOOT

After selecting the **REBOOT** button, a confirmation window will appear. Confirm the reboot by selecting the **YES** button.

4.13 SHUTDOWN

After selecting the **SHUTDOWN** button, a confirmation window will appear. RNG can be shutdown by clicking the **RNG ONLY** button. The **RNG AND GROUP** button will shutdown the RNG as well as all of the properly configured playing stations in the network (*"Accept shutdown from"* option must be configured in the **MgCore** on each playing station).

4.14 Backup

Backup can either be performed on a USB drive or to a predetermined location/server. Each method has its own tab, description for each one are available in the following chapter.

4.14.1 Copy to USB tab

In these tab the important information like LOG files, Data, Settings and Windows LOG can be backed up to a USB drive. The USB key will be automatically detected (currently displaying E:\). The backup process can be started by selecting the **COPY** button.

4.14.2 Backup to location tab

Scheduled backups to a dedicated server can be configured in these tab. **Backup functionality is only possible with additional KGM Gaming software**. For additional information in regards to backup functionality please contact KGM Gaming.

PARAMETER/BUTTON	DESCRIPTION
Backup	If checked, backup functionality is enabled.
Destination path	Backup server destination path. Backups will be saved to this network location.
Username	Username used for the backup server.
Password	Password used for the backup server.
Stop game on server down after (min)	Define the time period of unsuccessful backup attempt after which the game will lock [minutes].
Interval to copy the files (sec)	Define the backup interval [seconds].
SAVE	Save settings.
EXIT	Exit menu.

5 Maintenance program

⚠️ Cleaning must only be performed with the Main Power Switch turned OFF.

It is suggested that a regular cleaning schedule be maintained for the following parts of the machine.
In any case, for cleaning do **not** use:
- wire or nylon wool scouring brooms,
- furniture polishes,
- alcohol based polishes,
- powder or liquid abrasive cleaners,
- bleach or strong detergents.

Outside Surfaces
All outside surfaces should be inspected and if necessary cleaned every day, using mild detergents and damp cloth.

Cylindrical Cover
It is suggested that the Cylindrial Cover be cleaned every 2 weeks. Careful consideration should be taken not to scratch the surface. Both inside and outside surfaces should be cleaned.

Dice
The dice should be cleaned or replaced according to the cleaning maintenance interval.
Dice should be replaced in case it's surfaces are too worn out (can impact *dice randomness*). Dices can be recycled by the manufacturer.

Illustration 1: Comparison between clean and dirty dice.

Dice Platform
The dice platform should be thoroughly cleaned according to the cleaning maintenance interval.

Item / Interval	Every day	Every 2 weeks	Every 3 months
Outside Surfaces	C		
Cylindrical Cover		C	
Dice		C, I or R	
Dice Platform		C	

C – clean, **I** – inspect, **R** – replace

ℹ️ Please contact your KGM Gaming representative for recommended cleaning solutions.

6 Preventive actions

🔄 The main control unit's computer must be preventive restarted at least every three weeks.
KGM Gaming recommends replacing all data storage devices every 5 years to ensure smooth operation over longer periods of time.

7 Basic operational procedure

In this chapter you can view simple step-by-step guide for all basic operational procedures regarding the RNG.

7.1 Open the main control unit's logic door

This chapter provide a simple step-by-step guide for opening the main control unit's logic door, required for accessing the Parameters menu (see Chapter *4.4 Parameters)*.

STEP 1	STEP 2
Unlock the control unit's door (logic door).	Open the control unit's door (logic door).

K G M   G A M I N G   S O F T W A R E

BIG WHEEL v2.1.X.X

Main Control Unit Software

USER MANUAL

Table of Contents

1 Introduction

This manual was created to describe the **Big Wheel software (RNG)**. The associated application was developed to control and manage Main control units of Big Wheels.

The graphics represented in this manual are for illustrative purposes only, variation may be possible. Some settings and parameters may not be available as they can be specifically configured for the customer. For detailed information please contact KGM Gaming via e-mail at info@kgmgaming.com or via phone at 215-430-0388.

2 RNG summery window

After each RNG restart, a summary window of the Big Wheel settings is visible for a short time (10 seconds).

Description of the RNG summery window (numbered from 1 to 4) can be viewed in the table below:

NUMBER	DESCRIPTION
1	RNG type information (in our case RNG type is configuration as **Auto**).
2	GAME type information (in our case RNG GAME type is configuration as **BigWheel**).
3	Big Wheel configuration settings: • IO Board Port (valid COM port where IO Board is connected), • Wheel ID (Main control unit ID number).
4	Button for changing currently configured Big Wheel settings. **The appropriate settings are preset for customer requirements and shouldn't be changed!**
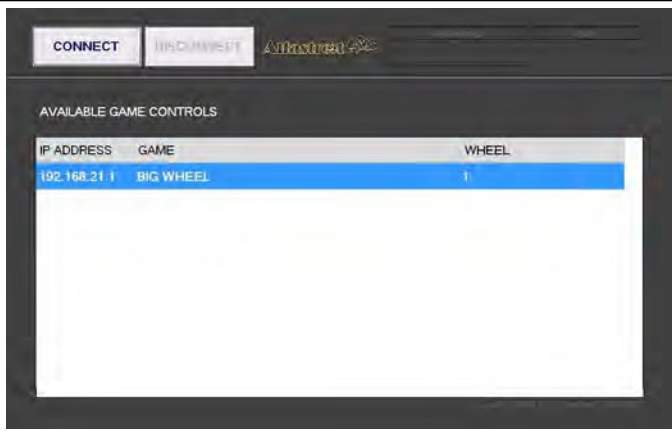
3 Interface Overview

This chapter describe all basic RNG software functionalities like login, changing the Big Wheel parameters, viewing wheel statistics, accessing logs and much more.
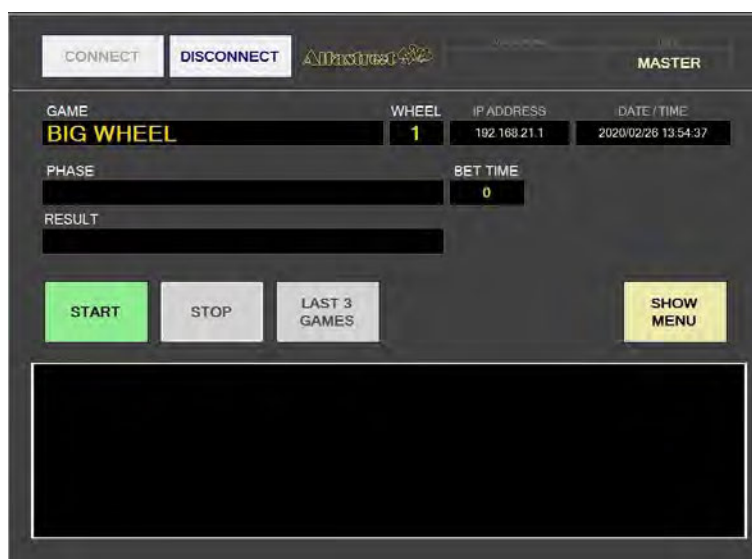
3.1 Login

There are two ways of accessing the RNG software. Access can be gained either by using a dedicated keyboard, mouse and display connected to the Big Wheel or through any of the connected playing stations by using the touchscreen display. The second (playing stations) option will require access through the **MgCore** Main menu, for more information see **KGM Gaming Software - MgCore - User Manual**.

The available control units are visible under the AVAILABLE GAME CONTROLS. Login to the desired control unit (BIG WHEEL) can be accomplished by following the steps below:

STEP 1: Click **CONNECT** button	
STEP 2: Enter the password and select **OK**.	

3.2 Main screen layout

During the operation the main screen will be displayed. The buttons, windows and rows are described in the table below.

BUTTON/WINDOW/ROW	DESCRIPTION
CONNECT	Login and connect to a selected control unit.
DISCONNECT	Logout and disconnect from a selected control unit.
VERSION INFO	Version of the software.
USER	Currently logged in user.
GAME	Name of the game running on the selected control unit.
WHEEL	Wheel ID of a selected control unit.
IP ADDRESS	IP address of a selected control unit.
DATE/TIME	Current date and time.
PHASE	Current game phase.
BET TIME	Remaining time for betting.
RESULT	Current game result.
START	Start the game.
STOP	Stop the game.
LAST 3 GAMES	Stop the game after 3 more games (rounds).
SHOW MENU	Show the complete menu (see Chapter *3.3 Menu screen layout*).
EVENTS WINDOW	Display events related to game phases, winning numbers, errors, etc.

3.3 Menu screen layout

If the **SHOW MENU** button is selected the layout will change to the menu layout. At this point several new button will be available.


| BUTTON	DESCRIPTION
LOG	Opens the **Log** menu (see Chapter *4.1 Log*).
RESULTS	Opens the **Results** menu (see Chapter *4.2 Results*).
STATISTICS	Opens the **Statistics** menu (see Chapter *4.3 Statistics*).
PARAMETERS	Opens the **Parameters** menu (see Chapter *4.4 Parameters*).
ACCESS	Show and manage user accesses (see Chapter *4.5 Access*).
SCHEDULE	Opens the **Schedule** menu (see Chapter *4.6 Schedule*).
STATION STATUS	Opens the connected stations status window (see Chapter *4.7 Station status*).
SERVICE	Opens the **Service** menu (see Chapter *4.8 Service*).
LICENCE	Show and manage licence (see Chapter *4.9 Licence (authorization by server) or 4.10 Licence (authorization by code)*.
REBOOT	Reboot the control unit (see Chapter *4.11 Reboot*).
SHUTDOWN	Shutdown the control unit (see Chapter *4.12 Shutdown*).
BACKUP	Opens the **Backup** menu (see Chapter *4.13 Backup*).
HIDE MENU	Hide the menu and return to the main screen.

4 Menus

This chapter describes all available menus that are accessible from the menu screen. Each menu is presented with a brief description and illustration.

4.1 Log

By accessing the Log menu, all activities on the Big Wheel can be checked. Date, time, game number, winning number, errors and other information regarding all the processes in the background can be viewed here.
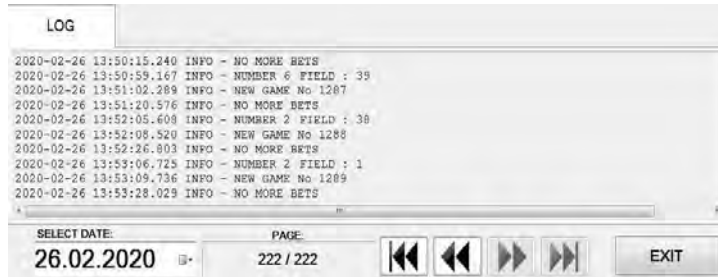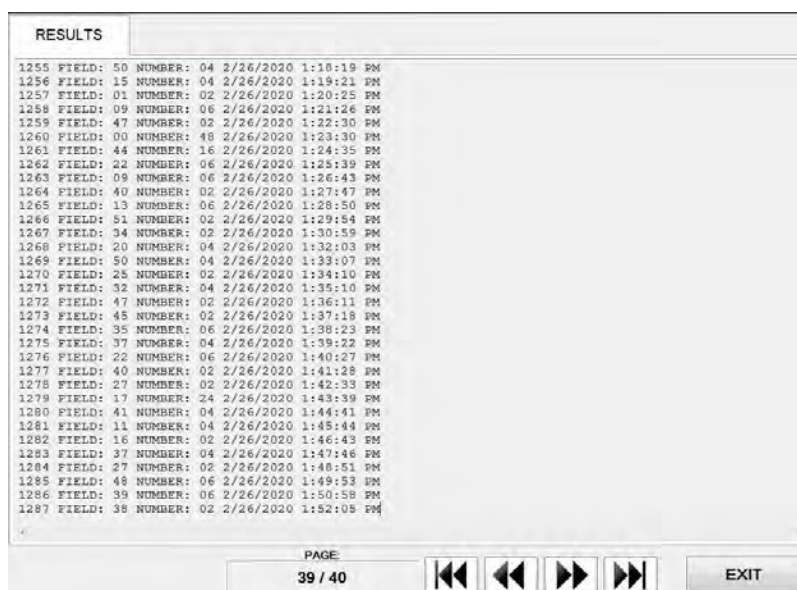

Logs can also be filtered by date, by using **SELECT DATE** option.
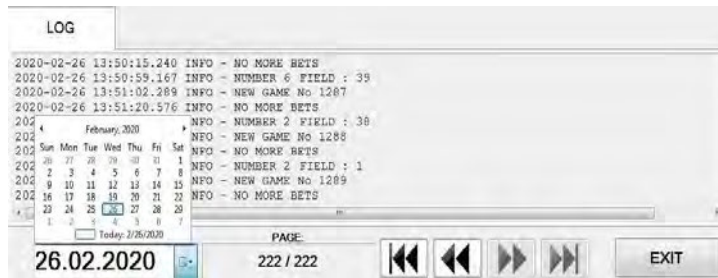
4.2 Results

By accessing the Results menu, the complete history of results and voided games can be checked. The current game number, winning field, winning number, date and time are provided for each game separately.
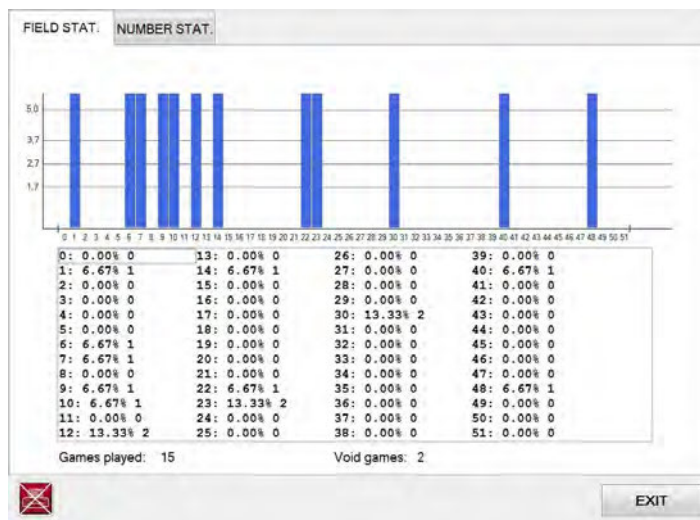
4.3 Statistics

By accessing statistics a full visual representation is available for various metrics. The menu is divided into several tabs.

All the available statistic information can also be printed, connected printer must be configured as the default printer in Windows. The printer icon is located in the bottom left corner and can represent the following status:

|	**PRINTING IS NOT AVAILABLE** The printer is not connected and/or not configured as the default printer in Windows.
	PRINTING IS AVAILABLE The printer is properly connected and configured. Simply press the icon to print.

4.3.1 Field statistic tab

In this tab statistics of winning fields are displayed - number, winning percentage, number of times. Total number of played and voided games can be visible in this tab.

4.3.2 Number statistic tab

This tab features the statistics of each number field (2, 4, 6, 16, 24, 48, BONUS). Total number of played and voided games can also be visible in this tab.
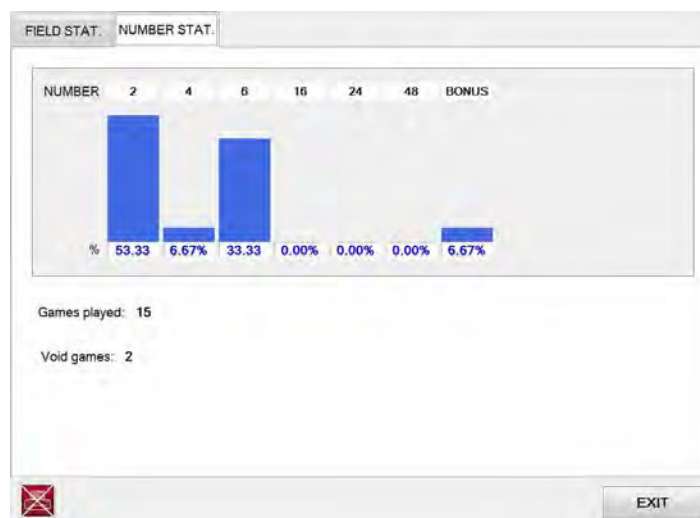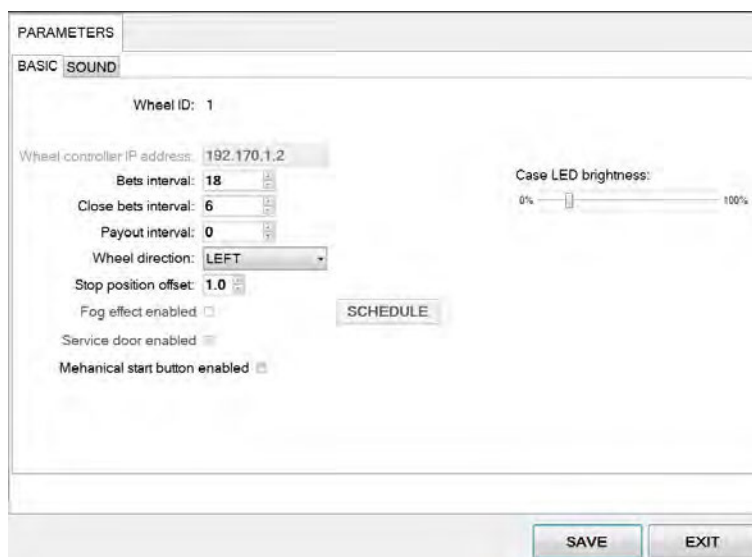
4.4 Parameters

The parameters menu includes all available Big Wheel settings. The Parameters menu can only be access by opening the logic door (see Chapter *7.1 Open the logic door*).

4.4.1 Basic tab

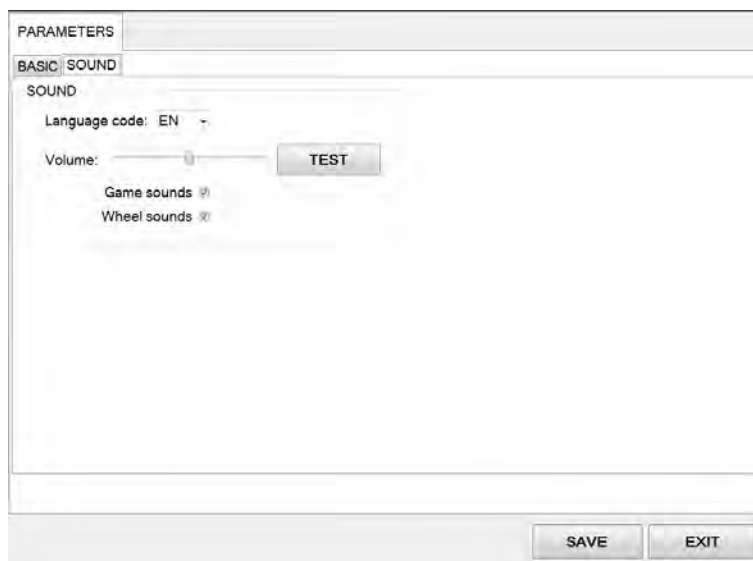In the Basic tab all the important Big Wheel settings can be set.

PARAMETER/BUTTON	DESCRIPTION
Wheel ID	ID number of connected wheel.
Wheel controller IP address	IP address of the wheel AC drive (Control Techniques / Nidec) control module.
Bets interval	The duration of ''*bets are open*'' phase. Bets can be placed for a set period of time [seconds].
Close bets interval	The duration of ''*hurry up*'' phase, before the bets are closed [seconds].
Payout interval	The duration of phase from when the result is announced event to the new games starts event. [seconds].
Wheel direction	Desired wheel spinning direction: • LEFT, • RIGHT, • DUAL SPIN.
Stop position offset	Define the allowed angle from the center of the number field at which the wheel may stops. If disabled, the wheel will always stop in the center of the number field [0-disabled, Max. 1.5°].
Fog effect enabled	Setting disabled by default. Function not available for Big Wheel.
Service door enabled	Setting enabled by default. If checked, service door safety switches are enabled - game will stop and wheel rotation will stop if the service door is opened, during normal operation. It is recommended to leave this setting enabled at all times.
Mechanical start button enabled	If enabled, the game will start when the mechanical button is pressed or the mechanical lever is pulled.

PARAMETER/BUTTON	DESCRIPTION
Updated multigame interval	If checked, the wheel rotation information (used for animation on the playing stations) is sent to the playing stations at a lower packet rate. This parameter is recommended for the most configurations.
SCHEDULE	Setting disabled by default. Function not available for Big Wheel.
Case LED brightness	Chassis LED lights brightness adjustment slider.
SAVE	Save settings.
EXIT	Exit menu.

4.4.2 SOUND tab

In the Sound tab all sound settings can be set.

PARAMETER/BUTTON	DESCRIPTION
Language code	Selected language for the RNG's sounds (announcing winning numbers and game phases).
Volume	Volume adjustment can be made using the volume slider.
TEST	Test sound levels.
Game sounds	If checked, game sounds such as announcing winning numbers and game phases will play.
Wheel sounds	If checked, wheel sounds such as number drawing and winning sounds will play.
SAVE	Save settings.
EXIT	Exit menu.

4.5 Access

In the Access menu user accounts can be added, managed or removed.
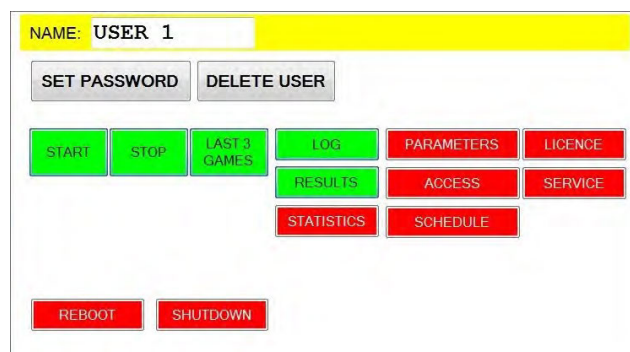

4.5.1 Adding a new user

To add a new user in the Access menu select **ADD NEW**. Confirm this action by clicking **OK**.

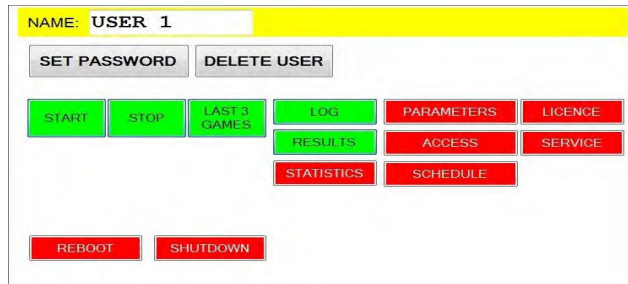Password for the new user should be set. Enter the desired password and click **OK**.

The **NAME** for the account can now be edited, as well as setting the different levels of privileges this account will have. Select which buttons and menus are accessible by clicking on the red squares. Once activated the square will turn green.
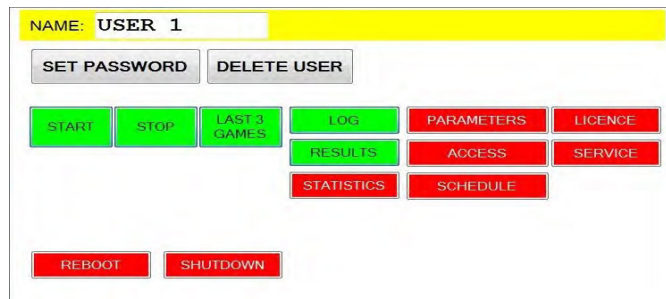

Changes must be saved by clicking **SAVE** button.

4.5.2 Editing existing user

Select the existing user from the drop down menu. When selected the user account will appear.

The **NAME** for the account can now be edited, as well as setting the different levels of privileges this account will have. Select which buttons and menus are accessible by clicking on the red squares. Once activated the square will turn green.

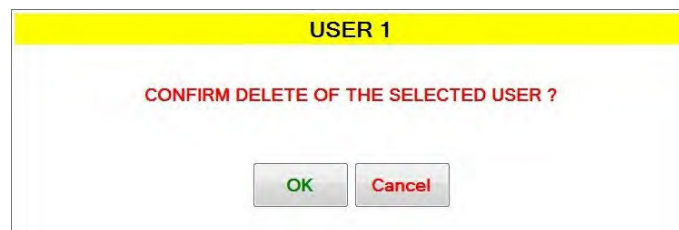Users password can be changed by clicking **SET PASSWORD**.

Changes must be saved by clicking **SAVE** button.

4.5.3 Deleting the user

Select the existing user from the drop down menu. When selected the user account will appear click **DELETE USER**.

To delete the account. Confirm this action by clicking **OK**.

Changes must be saved by clicking **SAVE** button.

4.6 Schedule

In this menu the schedule for the automatic operation of start and stop command can be set. The schedule is divided into days of the week.

Start and stop commands can be set several days apart. Start command is activated when the button is coloured green, stop command is activated when coloured red. The configuration above is set to the following schedule:
- start on Monday at 8:00, stop on Thursday at 22:00,
- start on Friday at 8:00, stop on Saturday at 23:00,
- start on Sunday at 8:00, stop at 12:00.

After the scheduled stop command is triggered, the game will stop after 3 more games.

4.7 Station status

In this menu a quick overview of connected playing stations can be seen. Each playing station is represented with a square and a number.

The colour of the square presents the status of the playing station (offline, online, credits present, bets placed or error caused by denomination not set correctly). Additional information about each playing station (by clicking on the number square) can be visible in the bottom right corner.

4.8 Service

The Service menu is intended for use in regular wheel maintenance and testing/troubleshooting purposes.
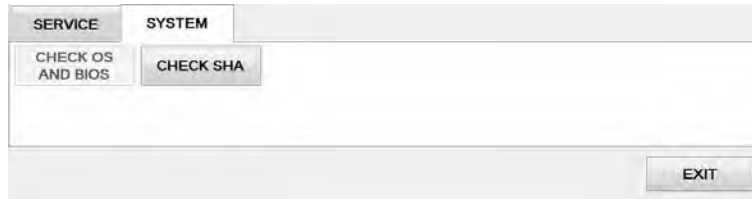
4.8.1 Service tab

Service tab features several wheel operations that can be triggered.

BUTTON/ROW	DESCRIPTION
Rotate - Degrees	Enter the number of degrees to rotate the wheel for.
Rotate - Start	Start wheel rotation for set number on degrees.
Go to - Field index	Enter the field number to rotate the wheel to.
Go to - Start	Start wheel rotation to the selected field index.
Current Data - Absolute position	Current absolute position of the wheel.
Current Data - Number	Current wheel number.
Current Data - Field index	Current wheel field index.
Set zero position	If pressed, current wheel position will be set as the **zero position**. Should only be used during the wheel calibration procedure, by following the set zero position instructions, for more details see **Setting zero position on Big Wheel - Quick guide** document.
Stop	Emergency stop.
EXIT	Exit menu.

4.8.2 System tab

System tab features other possible service operations.

BUTTON/ROW	DESCRIPTION
CHECK OS AND BIOS	Starts the OS and BIOS checking process. This functionality is market/customer specific and must be configured by KGM Gaming beforehand to operate properly.
CHECK SHA	Opens the **SHA check** window (see Chapter *4.8.2.1 Check SHA)*.
EXIT	Exit menu.

4.8.2.1 Check SHA

Within this window all major files version and SHA values can be checked.

PARAMETER/BUTTON	DESCRIPTION
File name	List of all major file names.
Version	Corresponding version for each major file.
SHA1	SHA1 (Secure Hash Algorithm 1) value for each major file.
HMAC-SHA1 SEED	HMAC-SHA1 SEED (Hash-based Message Authentication Code - Secure Hash Algorithm 1 SEED) value for each major file.
HMAC-SHA1	HMAC-SHA1 (Hash-based Message Authentication Code - Secure Hash Algorithm 1) value for each major file.
EXIT	Exit menu.

4.9 Licence (authorization by server)

By accessing the Licence menu, it is possible to check the authorization server's IP address and the remaining time until the licence expires.

For additional information in regards to activation please contact KGM Gaming:
Telephone: 215-430-0388, E-Mail: info@kgmgaming.com

4.10 Licence (authorization by code)

By accessing the Licence menu, it is possible to check the machine ID, current date and the remaining time until the licence expires.

The software can be reactivated by selecting the **ACTIVATE** button.

Reactivating can be done by entering First and the Second activation code, both can be obtain by contacting KGM Gaming: Telephone: **215-430-0388**, E-Mail: info@kgmgaming.com

Newly entered codes can be confirm by selecting the **ACTIVATE** button.

4.11 Reboot

After selecting the **REBOOT** button, a confirmation window will appear. Confirm the reboot by selecting the **YES** button.

4.12 Shutdown

After selecting the **SHUTDOWN** button, a confirmation window will appear. RNG can be shutdown by selecting the **RNG ONLY** button. The **RNG AND GROUP** button will shutdown the RNG as well as all of the properly configured playing stations in the network (*''Accept shutdown from''* option must be configured in the **MgCore** on each playing station).
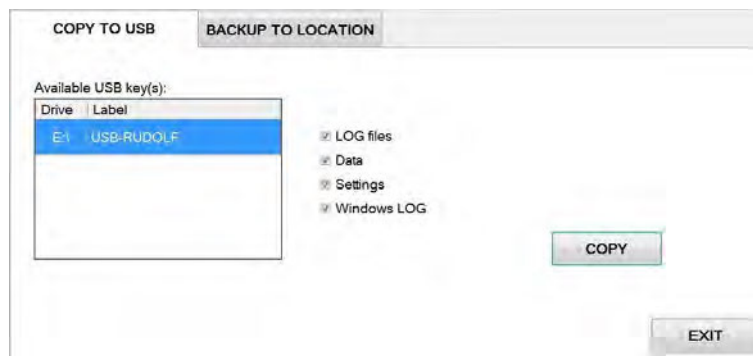
4.13 Backup

Backup can either be performed on a USB drive or to a predetermined location/server. Each method has its own tab, description for each one are available in the following chapter.
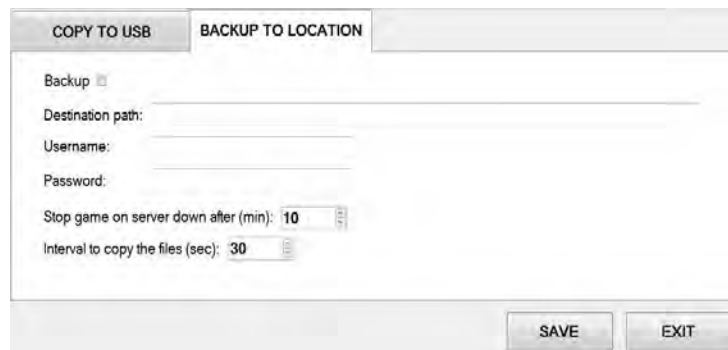
4.13.1 Copy to USB tab

In these tab the important information like LOG files, Data, Settings and Windows LOG can be backed up to a USB drive. The USB key will be automatically detected (currently displaying E:\). The backup process can be started by selecting the **COPY** button.

4.13.2 Backup to location tab

Scheduled backups to a dedicated server can be configured in these tab. **Backup functionality is only possible with additional KGM Gaming software**. For additional information in regards to backup functionality please contact KGM Gaming.

PARAMETER/BUTTON	DESCRIPTION
Backup	If checked, backup functionality is enabled.
Destination path	Backup server destination path. Backups will be saved to this network location.
Username	Username used for the backup server.
Password	Password used for the backup server.
Stop game on server down after (min)	Define the time period of unsuccessful backup attempts after which the game will lock [minutes].
Interval to copy the files (sec)	Define the backup interval [seconds].
SAVE	Save settings.
EXIT	Exit menu.

5 Maintenance program

⚠️ Cleaning must only be performed with the Main Power Switch turned OFF.

It is suggested that a regular cleaning schedule be maintained for the following parts of the machine. In any case, for cleaning do not use:
- wire or nylon wool scouring brooms,
- furniture polishes,
- alcohol based polishes,
- powder or liquid abrasive cleaners,
- bleach or strong detergents.

Outside Surfaces
All outside surfaces should be inspected and if necessary cleaned every day, using mild detergents and damp cloth.

Item / Interval	Every day	Every 2 weeks	When prompted	Every 3 months
Outside Surfaces	C			

C - clean, I - inspect, R - replace

ℹ️ Please contact your KGM Gaming representative for recommended cleaning solutions.
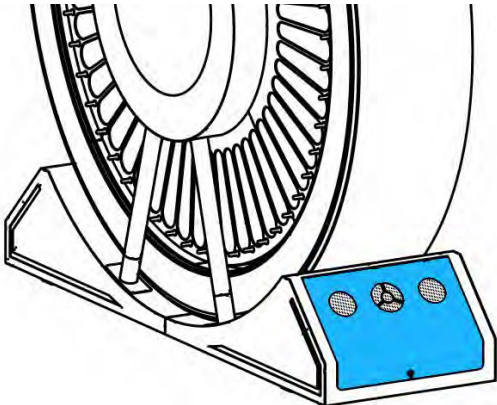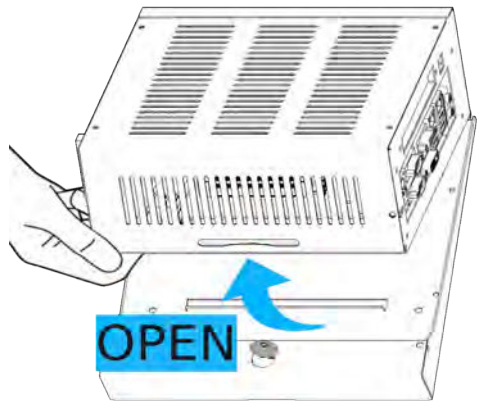
6 Preventive actions

🔄 The main control unit's computer must be preventive restarted at least every three weeks. KGM Gaming recommends replacing all data storage devices every 5 years to ensure smooth operation over longer periods of time.

7 Basic operational procedure

In this chapter you can view simple step-by-step guide for all basic operational procedures regarding the RNG.

7.1 Open the logic door

This chapter provide a simple step-by-step guide for opening the logic door, required for accessing the Parameters menu (see Chapter *4.4 Parameters*).

STEP 1	STEP 2
Unlock and open the service door.	Open the logic door.

KGM GAMING SOFTWARE
CARDSERVER v2.98.0.X

Main Control Unit Software

USER MANUAL

Table of Contents

1 Introduction

CardServer is an application that was developed to control and manage card based games (Baccarat and Blackjack). This software supports communication with KGM Gaming, Bee-tek or Angel Eye dealing shoes.

The graphics represented in this manual are for illustrative purposes only, variation may be possible. Some settings and parameters may not be available as they can be specifically configured for the customer. For detailed information please contact KGM Gaming via e-mail at info@kgmgaming.com or via phone at 215-430-0388.

2 Interface overview

This chapter describe all basic CardServer software functionalities like logging in, changing the CardServer settings, viewing playboard history, accessing logs and much more.

2.1 Login

In the CardServer there are two login options. Depending on the system configuration one or both login options will be available to use.

2.1.1 Login using the card

If the system is equipped with the card reader, dealer can simply login by swiping or placing the card near the card reader. Some systems may require to selected a user before swiping the card.

2.1.2 Log in using the password

To log in by entering the password the following steps must be followed:

STEP 1:	STEP 2:
select the **DEALER 1**, **SUPERVISOR 1** account or other available options.	Enter the password and select **ENTER**. Password can be cleared by using the **C** button, login process can be cancelled by selecting the **CANCEL** button.

Default passwords:

        User: *DEALER 1*   **Default password**:   *1*
        User: *SUPERVISOR 1*   **Default password**:   *2*

After a successful login, the main layout is displayed:
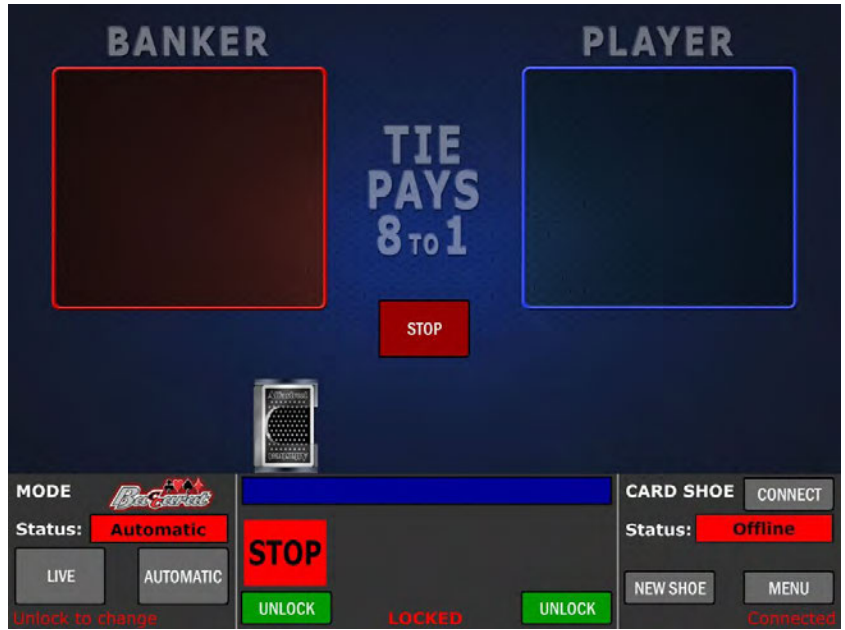
2.2 Main screen layout

The main screen layout changes based on selected game. Each game's button, windows and rows are described in chapters below.

2.2.1 Baccarat game layout

The main screen layout of the Baccarat game is as follows:

1. Banker's card field,
2. Player's card field,
3. START/STOP button - opens the **Game menu** (see Chapter *3 Game menu*),
4. Dealing shoe notifications,
5. MODE - currently selected game,
6. Status - currently active game mode (Automatic or Live),
7. LIVE button - switches the game to live mode,
8. AUTOMATIC button - switches the game to automatic mode,
9. Game notifications,
10. Game phase visual indicator,
11. UNLOCK buttons (left and right side) - triggers the unlock procedure,
12. CARD SHOE (CONNECT button) - triggers dealing shoe connection process,
13. Status - current dealing shoe status (Offline or Connected),
14. NEW SHOE button - triggers the New shoe procedure or Cut card procedure,
15. MENU button - opens the **Operator menu** (see Chapter *4 Operator menu*).

2.2.2 Blackjack (multi-hand) layout

The main screen layout of the Blackjack (multi-hand) game is as follows:
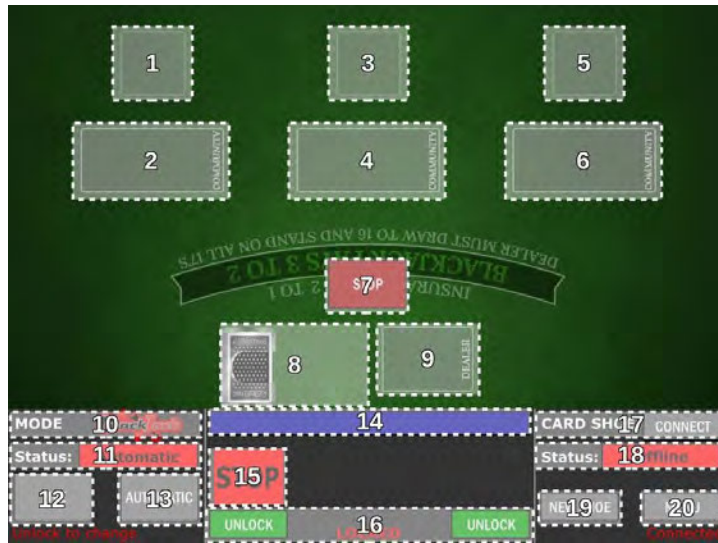
1. Player's cards field (Hand 3),
2. Community cards field (Hand 3),
3. Player's cards field (Hand 2),
4. Community cards field (Hand 2),
5. Player's cards field (Hand 1),
6. Community cards field (Hand 1),
7. START/STOP button - opens the **Game menu** (see Chapter *3 Game menu*),
8. Dealing shoe notifications,
9. Dealer's cards field,
10. MODE - currently selected game,
11. Status - currently active game mode (Automatic or Live),
12. LIVE button - switches the game to live mode,
13. AUTOMATIC button - switches the game to automatic mode,
14. Game notifications,
15. Game phase visual indicator,
16. UNLOCK buttons (left and right side) - triggers the unlock procedure,
17. CARD SHOE (CONNECT button) - triggers dealing shoe connection process,
18. Status - current dealing shoe status (Offline or Connected),
19. NEW SHOE button - triggers the New shoe procedure or Cut card procedure,
20. MENU button - opens the **Operator menu** (see Chapter *4 Operator menu*).

3 Game menu

The game menu can be accessed by selecting the **START/STOP** button, located in the middle of the main screen (see Chapter *2.2 Main screen layout*).

BUTTON	DESCRIPTION
VOID GAME	Void the current game.
LAST GAME	Stop the game after the current game (round).
3 MORE GAMES	Stop the game after three more games (rounds).
START GAME	Start the game.
STOP GAME	Stop the game.
EXIT MENU	Exit the Game menu.

4 Operator menu

The Operator menu can be accessed by performing the unlock procedure (see Chapter *7.2 Unlock procedure*) and selecting the **MENU** button(see Chapter *2.2 Main screen layout*).
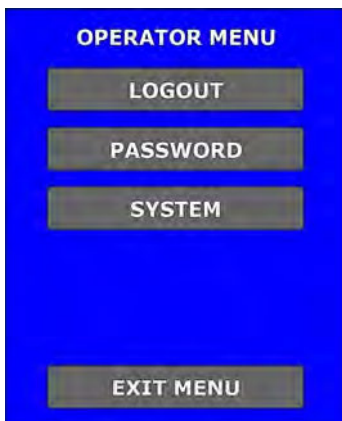
BUTTON	DESCRIPTION
LOGOUT	Log out of current user (see Chapter *7.3 Logout procedure*).
PASSWORD	Stop the game after the current game (round). Change the current user password. The old password will have to be entered first. New password can then be assigned to the current user (dealer or supervisor).
SYSTEM	Opens the **System menu** (see Chapter *5 System menu*).
EXIT MENU	Exit the Operator menu.
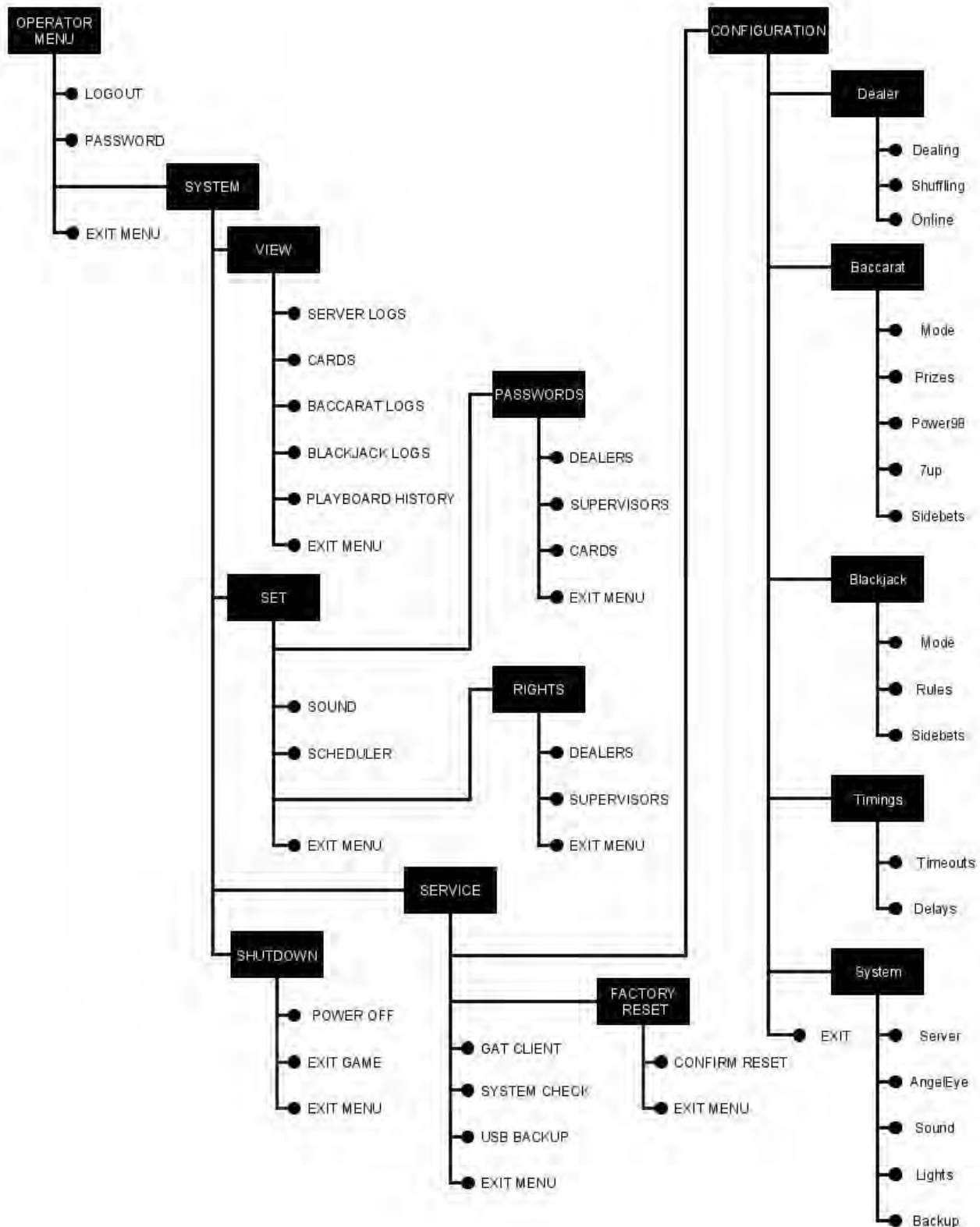
5 System menu

The System menu contains all the settings associated with the server and the games.
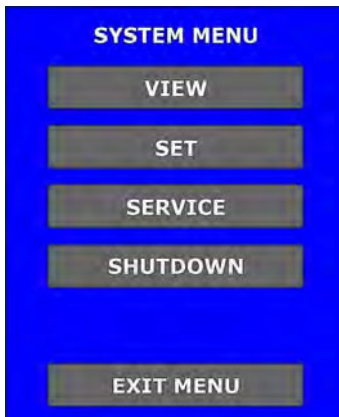
BUTTON	DESCRIPTION
VIEW	Opens the **View** menu (see Chapter: *5.1 View menu*).
SET	Opens the **Set** menu (see Chapter: *5.2 Set menu*).
SERVICE	Opens the **Service** menu (see Chapter: *5.3 Service menu*).
SHUTDOWN	Opens the **Shutdown** menu (see Chapter: *5.4 Shutdown menu*).
EXIT MENU	Exit the System menu.

5.1 View menu

View menu can be accessed by selecting the **VIEW** button in the System menu.
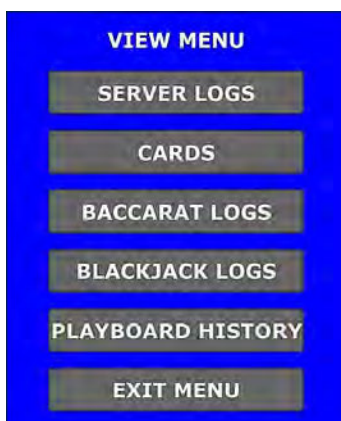
BUTTON	DESCRIPTION
SERVER LOGS	View server logs (see Chapter: *5.1.1 Server logs*).
CARDS	View cards statistics (see Chapter: *5.1.2 Cards*).
BACCARAT LOGS	View Baccarat game logs (see Chapter: *5.1.3 Baccarat logs*).
BLACKJACK LOGS	View Blackjack game logs (see Chapter: *5.1.4 Blackjack logs*).
PLAYBOARD HISTORY	View the playing stations status for each game separately (see Chapter: *5.1.5 Playboard history*).
EXIT MENU	Exit the View menu (return to the System menu).

5.1.1 Server logs

Within this menu server logs can be viewed. **To access this menu, service door must be opened** (see Chapter *7.1 Open the service door*).

Navigation through the log file can be accomplished by using the arrow buttons.

- Move to first page

- Move back 10 pages

- Move back 1 page

- Move forward 1 page

- Move forward 10 pages

- Move to last page

- Exit Server logs menu

This menu can be exit by selecting the **Exit Server logs menu** button.

5.1.2 Cards

Within this menu card statistic can be viewed. Each card type has its own counter to indicate how many times it has appeared in LIVE and AUTO game mode.

This menu can be exit by selecting the **EXIT MENU** button.

5.1.3 Baccarat logs

Within this menu Baccarat game logs can be viewed. **To access this menu, service door must be opened** (see Chapter *7.1 Open the service door*).

Navigation through the log file can be accomplished by using the arrow buttons.

- Move to first page

- Move back 10 pages

- Move back 1 page

- Move forward 1 page

- Move forward 10 pages

- Move to last page

- Exit Baccarat logs menu

This menu can be exit by selecting the **Exit Baccarat logs menu** button.

5.1.4 Blackjack logs

Within this menu Blackjack game logs can be viewed. **To access this menu, service door must be opened** (see Chapter *7.1 Open the service door*).

Navigation through the log file can be accomplished by using the arrow buttons.

- Move to first page

- Move back 10 pages

- Move back 1 page

- Move forward 1 page

- Move forward 10 pages

- Move to last page

- Exit Blackjack logs menu

This menu can be exit by selecting the **Exit Blackjack logs menu** button.

5.1.5 Playboard history

Within this menu all games results and playing stations (playboards) statuses can be viewed for a specific game number separately.

Playing stations (playboards) statuses for a specific game number can be viewed, by first navigating to the desired game number. Navigating can be done by using the arrow buttons.

- Move to the first game

- Move back 10 games

- Move back 1 game

- Move forward 1 game

- Move forward 10 games

- Move to the last game

- Exit Playboard history menu

The playing stations statuses are described in the table below:

Station status	DESCRIPTION
	Offline (white) - during a specified game, the station was not connected to the main control unit (CardServer).
	No Credits (light-green) - during a specified game, the station was connected to the main control unit (CardServer), but with no credits presented.
	In Game (green) - during a specified game, the station was connected to the main control unit (CardServer), with credits presented.
	Bet (cylan) - during a specified game, the station was connected to the main control unit (CardServer), with bets placed.

This menu can be exit by selecting the **Exit Playboard history menu** button.

5.2 Set menu

Set menu can be accessed by selecting the **SET** button in the System menu.

BUTTON	DESCRIPTION
PASSWORDS	Opens the **Passwords** menu (see chapter: *5.2.1 Passwords menu*).
SOUND	Opens the **Sound** menu (see Chapter: *5.2.2 Sound menu*).
SCHEDULER	Opens the **Scheduler** menu (see Chapter: *5.2.3 Scheduler menu*).
RIGHTS	Opens the **Rights** menu (see Chapter: *5.2.4 Rights menu*).
EXIT MENU	Exit the Set menu (return to the System menu).

5.2.1 Passwords menu

In this menu passwords for multiple users can be managed (the menu can only be accessed by **Supervisor** user with the appropriate rights).

BUTTON	DESCRIPTION
DEALERS	Opens the **Dealers passwords** menu (see Chapter: *5.2.1.1 Dealer passwords*).
SUPERVISORS	Opens the **Supervisors passwords** menu (see Chapter: *5.2.1.2 Supervisor passwords*).
CARDS	Opens the **Cards password** menu (see Chapter: *5.2.1.3 Card passwords*).
EXIT MENU	Exit the Passwords menu (return to the Set menu).

5.2.1.1 Dealer passwords

Within these menu, all dealers passwords can be changed.

For example if we want to change first dealer's account password, we must preform the following steps below:
1. In Dealer passwords menu select the **DEALER 1** button,
2. In newly appeared window enter dealer's new password (new password must be 4 digits long),
3. New password can be confirm by selecting the **ENTER** button.

Entered password can be cleared by selecting the **C** button or canceled by selecting the **CANCEL** button.

5.2.1.2 Supervisor passwords

Within these menu, all supervisors passwords can be changed.
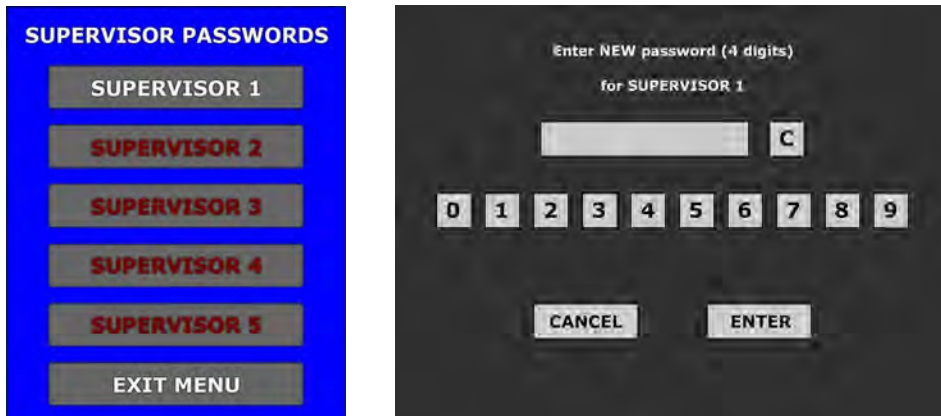
For example if we want to change first supervisor's account password, we must preform the following steps below:
1. In Supervisor passwords menu select the **SUPERVISOR 1** button,
2. In newly appeared window enter supervisor's new password (new password must be 4 digits long),
3. New password can be confirm by selecting the **ENTER** button.

Entered password can be cleared by selecting the **C** button or canceled by selecting the **CANCEL** button.

5.2.1.3 Card passwords

Within these menu, card correction password can be changed.
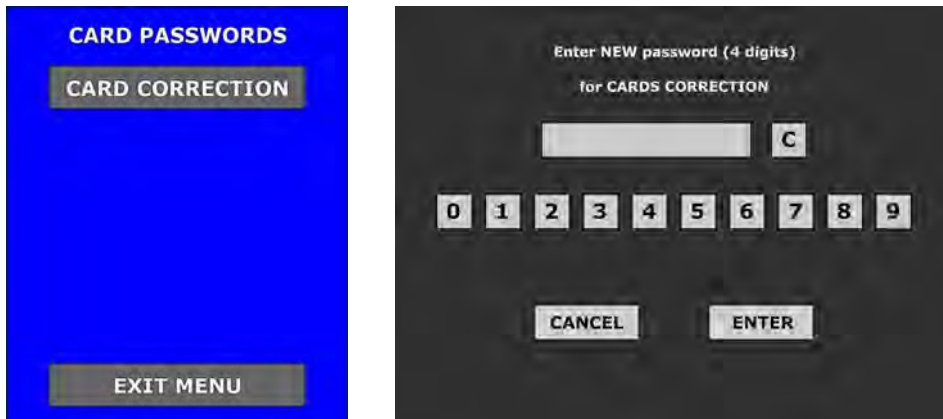
Card correction password can be changed by selecting the **CARD CORRECTION** button. New password can be entered in newly appeared window and confirmed by selecting the **ENTER** button.

Entered password can be cleared by selecting the **C** button or canceled by selecting the **CANCEL** button.

5.2.2 Sound menu

Within these menu, server's sound levels can be set.
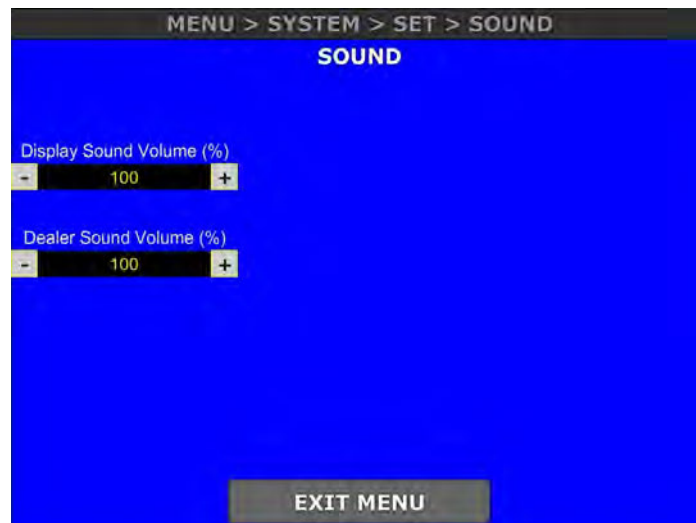
SETTING/BUTTON	DESCRIPTION
Display Sound Volume (%)	Adjust the display's sound volume [%].
Dealer Sound Volume (%)	Adjust the dealer's sound volume [%].
EXIT MENU	Exit Sound menu.

5.2.3 Scheduler menu

Within these menu, CardServer's scheduler can be configured for the automatic game mode. To enable or disable the scheduler the **ON/OFF** button must be selected (located on the top of the screen).
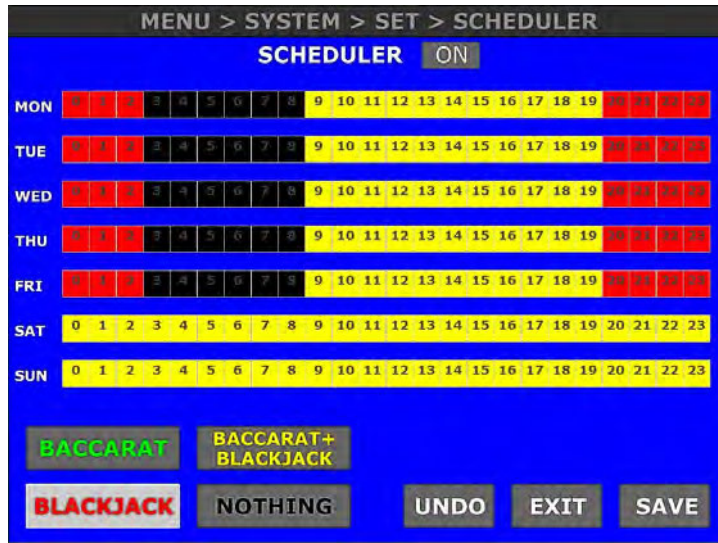
The scheduler is divided by hours for all seven days of the week. The following options can be assigned to a specific hours of the day:

BUTTON	DESCRIPTION
BACCARAT	only the game of Baccarat can be played (⬛ - green).
BLACKJACK	only the game of Blackjack can be played (⬛ - red).
BACCARAT+ BLACKJACK	Baccarat and Blackjack game can be played (⬛ - yellow).
NOTHING	CardServer will be stopped, no game can be played (⬛ - black).

The configuration (in picture above) is set to the following schedule:
- from Monday to Friday - only Blackjack game can be played from 00:00 to 02:59,
- from Monday to Friday - CardServer is stopped from 03:00 to 08:59,
- from Monday to Friday - any CardServer's game can be played from 09:00 to 19:59,
- from Monday to Friday - only Blackjack game can be played from 20:00 to 23:59,
- from Saturday to Sunday - any CardServer's game can be played from 00:00 to 23:59.

Changes done to the scheduler can be undone by using the **UNDO** button. Scheduler configuration must be saved by selecting the **SAVE** button prior to exiting the menu, by using the **EXIT** button.

5.2.4 Rights menu

In this menu all dealers and supervisors rights can be managed (the menu can only be accessed by **Supervisor** user with the appropriate rights).

BUTTON	DESCRIPTION
DEALERS	Opens the **Dealer rights** menu (see Chapter: *5.2.4.1 Dealer rights*).
SUPERVISORS	Opens the **Supervisor rights** menu (see Chapter: *5.2.4.2 Supervisor rights*).
EXIT MENU	Exit the Rights menu (return to the Set menu).

5.2.4.1   Dealer rights

Within these menu, additional dealer's account rights (privileges) can be granted.

For example if we want to change first dealer's account rights, we must preform the following steps below:
1. In Dealer rights menu select **DEALER 1**,
2. In newly appeared window, individual rights can be assigned to the current dealer's account. Select which actions and menus are accessible/not accessible, by selecting the appropriate buttons. Green button represent the actions and the menus that are accessible to the first dealer's account. On the other hand, the red buttons represent the actions and the menus that are NOT accessible to the first dealer's account.

Changes done in the Dealer rights menu can be undone by using the **UNDO** button. Rights configuration must be saved by pressing the **SAVE** button prior to exiting the menu, by using the **EXIT** button.

5.2.4.2 Supervisor rights

Within these menu, additional supervisor account rights (privileges) can be granted.

For example if we want to change first supervisor's account rights, we must preform the following steps below:
1. In Supervisor rights menu select **SUPERVISOR 1**,
2. In newly appeared window, individual rights can be assigned to the current supervisor's account. Select which actions and menus are accessible/not accessible, by selecting the appropriate buttons. Green button represent the actions and the menus that are accessible to the first supervisor's account. On the other hand, the red buttons represent the actions and the menus that are NOT accessible to the first supervisor's account.

Changes done in the Supervisor rights menu can be undone by using the **UNDO** button. Rights configuration must be saved by pressing the **SAVE** button prior to exiting the menu, by using the **EXIT** button.

5.3 Service menu

Service menu can be accessed by selecting the **SERVICE** button in the System menu. The menu contains all settings related to the server and its games.

BUTTON	DESCRIPTION
CONFIGURATION	Opens the **Configuration** menu (see Chapter *6 Configuration menu*).
FACTORY RESET	Opens the **Factory reset** menu (see Chapter *5.3.1 Factory reset*).
GAT CLIENT	Opens the **GAT client** menu (see Chapter *5.3.2 GAT client*).
SYSTEM CHECK	Perform the system check procedure (see Chapter *5.3.3 System check*).
USB BACKUP	Perform the USB backup procedure (see Chapter *5.3.4 USB backup*).
EXIT MENU	Exit the Service menu (return to the System menu).

5.3.1 Factory reset

Factory reset procedure can be triggered by selecting the **CONFIRM RESET** button. All settings will be returned to the factory defaults.

Factory reset menu can be exit by selecting the **EXIT MENU** button.

5.3.2 GAT client

Within these window, GAT client configuration can be set.

PARAMETER/BUTTON	DESCRIPTION
COM Port	COM port number for the GAT interface: • 1, • 4, • 7, • 10. • 2, • 5, • 8, • 3, • 6, • 9,
START	Start the Alfastreet's GAT client.
EXIT	Exit Alfastreet GAT client window.

5.3.3 System check

Within these window, a system check procedure can be started. **This functionality is market/customer specific and must be pre-configured by KGM Gaming, to operate properly**.

5.3.4 USB backup

Backup to a USB storage device can be performed within this menu.

The USB storage device can be manually found by selecting the **FIND USB DISK** button. If any USB storage device is found, its drive letter (currently showing E:) will be displayed.

The backup process can be started by selecting the **COPY TO USB** button or exit by selecting the **EXIT** button.

5.4 Shutdown menu

Within these menu, shutdown of a CardServer's PC can be performed.

BUTTON	DESCRIPTION
POWER OFF	Power of the CardServer's PC.
EXIT GAME	Close the CardServer application.
EXIT MENU	Exit the Shutdown menu (return to the System menu).

6 Configuration menu

Configuration menu can be accessed by selecting the **CONFIGURATION** button in the Service menu. This menu is additionally divided in to several tabs, each of them is described in the following chapters below.

6.1 Dealer tab

Settings regarding the dealer can be found under the Dealer tab. This tab is additionally divided into 2 tabs - Dealing and Shuffling.

6.1.1 Dealing tab

This section describes the content of the **Dealing tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Dealer Modes	Dealer mode configuration: • Live & Automatic - dealer mode can be switched with **LIVE** and **AUTOMATIC** button (see Chapter *2.2 Main screen layout*), • Live Only - dealer must deal cards manually, • Automatic Only - cards are dealt automatically.
Error Resolution	Error resolution configuration: • Auto Cancel Game - in case of bad card recognition, game is automatically voided, • Dealer Corrects Open - dealer can only correct open cards, • Dealer Corrects All - dealer can correct all cards.
Error Card Cancel	Error card cancellation configuration: • No Cancel - card with an error cannot be cancelled, • Dealer May Cancel - card with an error can be cancelled by dealer.
Dealer Card Input	Dealer card input configuration: • Error Only - dealer can only manually input a card when error happens, • Always - dealer can manually input a card at any time, card button is always active.
Shoe Error Action	Shoe error action configuration: • Stop & Void Game - If shoe error happens the game is stopped and voided, • Stop Game - If shoe error happens the game is stopped, • Ignore - Shoe errors are ignored.
Burn Cards	Number and/or type of cards to be burned: • No,　　　　　　　• Face up Or One, • One,　　　　　　　• Face up And One. • Face Up,

SETTING/BUTTON	DESCRIPTION
Face Up Confirmation	Set face up confirmation: • No, • Yes.
Betting Demo Mode	Betting demo mode can be used to repeatedly force ''bets are open'' phase even if there is no participating players. It can be configured as it follows: • Off, • Automatic Only, • Live Only, • Live & Automatic.
Betting Open By	Set who/what will start *''bets are open''* phase: • Timer, • Dealer.
Betting Closed By	Set who/what will close *''bets are open''* phase: • Timer, • Timer & Dealer. • Dealer,
Dealer Only Game	Dealer only game configuration: • Off - cards cannot be dealt if there is no participating players, • Live Only - cards can be dealt in live mode only even if there is no participating players, • Automatic Only - cards can be dealt in automatic mode only even if there is no participating players, • Live & Automatic - cards can always be dealt even if there is no participating players. **This setting is only applicable for the Baccarat game**.
Player Deal Button	Player deal button is used to prematurely end the ''bets are open'' phase. It can be configured as it follows: • No - player deal button is disabled, • With Bets - player deal button is only available to players that place a bet.
Player Phases	Define player phase configuration: • Only with credits, • Always.
Dealer Confirms Outcome	Define if dealer must confirm every game (round) outcome (additional "*Dealer confirmation*" phase): • No, • Yes.
Dealer May Correct Cards	Define if dealer can correct cards: • No, • Yes. **This setting is only applicable for the Baccarat game**.
Dealer May Void Games	During a "*Dealer confirmation*" phase a dealer can void the game, by selecting the additional **VOID GAME** button (*"Dealer Confirms Outcome"* setting must be set to **YES**): • No, • Yes.
Early Card Action	Define a response if a card is drawn to early: • Ignore, • Alert & Close Bets, • Alert, • Alert & Play Cards, • Alert & Void Game, • Close Bets & Play Cards.
Burn Early Cards	Burn early cards configuration: • No, • Yes.
Games After Cut Card	Number of games to be played after the cut card is drawn (max. 3 games). **This setting is only applicable for the Baccarat game**.

SETTING/BUTTON	DESCRIPTION
Cut Card Mode	Cut card mode configuration: • Normal, • Count Game if First. **This setting is only applicable for the Baccarat game**.
Dealer May Dummy Hand	Dealer may dummy hand configuration: • No, • Yes. **This setting is only applicable for the Baccarat game**.
EXIT	Exit the Configuration menu (return to the Service menu).

6.1.2 Shuffling tab

This section describes the content of the **Shuffling tab** and it's settings:
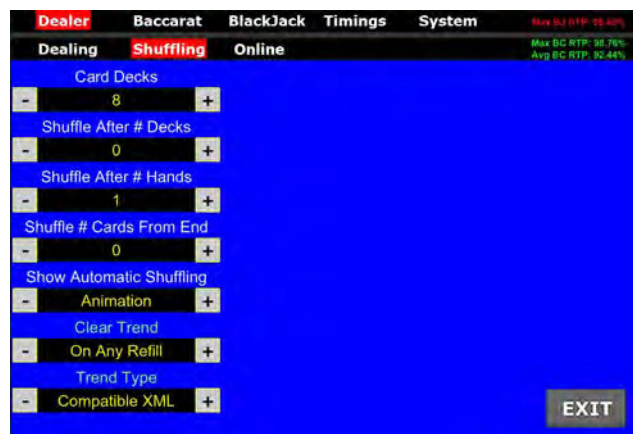
SETTING/BUTTON	DESCRIPTION
Card Decks	Number of decks used in the automatic mode [min. 1, max. 10].
Shuffle After # Decks	Define the number of decks to be played before reshuffling starts [min. 1, max. 10].
Shuffle After # Hands	Define the number of hands to be played before reshuffling starts [min. 0, max. 130].
Shuffle # Cards From End	Define the number of cards left in the shoe before reshuffling starts [min. 0, max. 130].
Show Automatic Shuffling	Show automatic shuffling configuration: • No, • Animation.
Clear Trend	Clear trend (statistic chart) configuration: • Never, • On Automatic Refill, • On Live Refill, • On Any Refill. **This setting is only applicable for the Baccarat game**.
Trend Type	Trend (statistic chart) type configuration: • Compatible XML, • Basic XML, • Compact. **This setting is only applicable for the Baccarat game**.
EXIT	Exit the Configuration menu (return to the Service menu).

6.1.3 Online tab

This section describes the content of the **Online tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Dealer May Pass Game	Dealer may pass game configuration: • No • Yes
Dealer Dark Cards	Dealer dark cards configuration: • No • Yes
Dealer Hide Score	Dealer hide score configuration: • No • Yes

6.2 Baccarat tab

The Baccarat tab contains all the settings regarding the Baccarat game. This tab is additionally divided into 5 tabs - Mode, Prizes, Power98, 7up and SideBets.

6.2.1 Mode tab

This section describes the content of the **Mode tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Baccarat Mode	Baccarat mode configuration: • Commission, • No Commission, • Commission Super 6, • No Commission Sup.6, • Power 98, • 7 up, • Fabulous 4, • No Commission Tiger • Dragon & Tiger.
Squeeze Mode	Squeeze mode configuration: • Open Cards, • Player Squeeze, • Player & Banker Sq.
Squeeze 3rd Card	Squeeze 3rd card configuration: • Open 3rd Card, • Squeeze 3rd card.
Show Player Cards	Define when the players cards will be shown: • After Banker Choice, • Before Banker Choice.
Turn Player Cards	Define turn player cards configuration: • Dealer Confirms, • Automatic.
Show Banker Cards	Define when the bankers cards will be shown: • After Player Choice, • Become Player Choice.
Turn Banker Cards	Define turn banker cards configuration: • Dealer Confirms, • Automatic.
Player Squeeze Choices	Define player squeeze choices configuration: • Single Choice, • Restrict if not 5, • All Choices.

SETTING/BUTTON	DESCRIPTION
Power 98 Dice Mode	Power 98 dice mode configuration (which system handles dice): • Automatic RNG, • Dealer Input. • Player RNG,
Dragon & Tiger Draw	Dragon & Tiger configuration: • Dragon then Tiger, • Tiger then Dragon.
Last Game Ends	Define when last game ends: • Always, • If not Tie.
Dragon Tail	Dragon tail configuration: • Off, • At 6 Rows, • At 9 Rows, • At 4 Rows, • At 7 Rows, • At 10 Rows. • At 5 Rows, • At 8 Rows,
Dragon Tail Event	Dragon tail event configuration: • Tail Turns Right, • Tail Is Long Enough.
Dragon Tail Broadcast	Dragon tail broadcast configuration: • Off, • Broadcast & Forward. • Broadcast,
EXIT	Exit the Configuration menu (return to the Service menu).

6.2.2 Prizes tab

This section describes the content of the **Prizes tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Banker Tax %	Commission on bankers win in ''*Commission*'' baccarat mode [min. 0%, max. 20%].
Banker Six Tax %	Commission on bankers win in ''*Commission Super 6*'' baccarat mode [min. 0%, max. 100%].
Tie Prize	Prize for Tie [min. 5, max. 9].
Pair Prize	Prize for Pair [min. 6, max. 12].
Super Six Prize	Prize for Super 6 [min. 8, max. 15].
EXIT	Exit the Configuration menu (return to the Service menu).

6.2.3 Power98 tab

This section describes the content of the **Power98 tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Player Tax %	Commission on player's win in *''Power 98''* baccarat mode [min. 0%, max. 20%].
Banker Tax %	Commission on banker's win in *''Power 98''* baccarat mode [min. 0%, max. 20%].
Tie Prize	Prize for Tie in **NO** Power Hand mode [min. 5, max. 9].
Pair Prize	Prize for Pair in **NO** Power Hand mode [min. 6, max. 12].
Natural 8 Prize %	Prize on NATURAL 8 in **NO** Power Hand mode [min. 350, max. 450].
Natural 9 Prize %	Prize on NATURAL 9 in **NO** Power Hand mode [min. 300, max. 400].
Power Player +%	Prize on player's Power hand [min. 0%, max. 5%].
Power Banker +%	Prize on banker's Power hand [min. 0%, max. 5%].
Power Tie Prize	Prize for Tie in Power Hand mode [min. 5 max. 10].
Power Pair Prize	Prize for Pair in Power Hand mode [min. 6 max. 15].
Power Natural 8 %	Prize on NATURAL 8 in Power Hand mode [min. 350%, max. 500%].
Power Natural 9 %	Prize on NATURAL 9 in Power Hand mode [min. 300%, max. 425%].
EXIT	Exit the Configuration menu (return to the Service menu).

6.2.4 7up tab

This section describes the content of the **7up tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Player 7 Prize %	Commission on player win with point count of 7 [min. 40 max. 60].
Banker 7 Prize %	Commission on banker win with point count of 7 [min. 160 max. 200].
Tie Non-7 Prize	Prize on tie when point count is not 7 [min. 5 max. 7].
Tie 7 Prize	Prize on tie when point count is 7 [min. 5 max. 9].
Super 7's 2x7 Prize	Prize on win with two 7's [min. 1 max. 2].
Super 7's 3x7 Prize	Prize on win with three 7's [min. 1 max. 7].
Super 7's 4x7 Prize	Prize on win with four 7's [min. 1 max. 17].
Super 7's 5x7 Prize	Prize on win with five 7's [min. 1 max. 77].
Super 7's 6x7 Prize	Prize on win with six 7's [min. 1 max. 777].
EXIT	Exit the Configuration menu (return to the Service menu).

6.2.5 Sidebets tab

This section describes the content of the **SideBets** tab and it's settings:

SETTING/BUTTON	DESCRIPTION
Big/Small Sidebets	Big/small sidebets configuration: • No, • Online only, • Yes.
Big Prize %	Prize for Big sidebet (5 or 6 cards drawn at the end of the game). Only applicable for the **online Baccarat** [min. 30%, max. 60%].
Small Prize %	Prize for Small sidebet (4 cards drawn at the end of the game). Only applicable for the **online Baccarat** [min. 115%, max. 160%].
Perfect Pair Sidebet	Perfect pair sidebet configuration: • No, • Yes.
1 Perfect Pair Prize	Prize on 1 perfect pair [min. 20, max. 25].
2 Perfect Pairs Prize	Prize on 2 perfect pairs [min. 200, max. 250].
Specific Number Sidebets	Specific number sidebet configuration: • No, • Yes, Static Paytable, • Yes, Dynamic Paytable.
Specific Number House Edge	Specific number House Edge configuration [min. 5, max. 20].
Specific Number Min Prize	Specific number Min prize configuration [min. 0, max. 2].
Specific Number Max Prize	Specific number Max prize configuration [min. 199, max. 999].
Specific Number Min RTP%	Specific Number Min RTP configuration[min. 0%, max. 90%].
Specific Number Exceptions	Specific Number Exceptions configuration: • Disable Specific Bets, • Force Shuffle.
Jackpot Sidebet	Jackpot sidebet configuration: • No, • X of a kind (Local).
Jackpot House Edge %	Jackpot house edge configuration [min. 0%, max. 30%].
Jackpot Reserve %	Jackpot reserve configuration [min. 0%, max. 40%].
Jackpot Level 1 Payout %	Jackpot level 1 payout configuration [min. 0%, max. 100%].
Jackpot Level 2 Payout %	Jackpot level 2 payout configuration [min. 0%, max. 100%].
Jackpot Level 3 Payout %	Jackpot level 3 payout configuration [min. 0%, max. 100%].
Jackpot Level 4 Share %	Jackpot level 4 share configuration [min. 0%, max. 100%].
EXIT	Exit the Configuration menu (return to the Service menu).

6.3 Blackjack tab

The Blackjack tab contains all the settings regarding the Blackjack game. This tab is additionally divided into 3 tabs - Modes, Rules and Sidebets.

6.3.1 Mode tab

This section describes the content of the **Mode tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
BlackJack Mode	Blackjack mode configuration: • Normal, • Multi - Hand, 1 Hand, • Multi - Hand, 2 Hands, • Multi - Hand, 3 Hands.
Hole Card Show/Deal	Hole card show/deal configuration: • Only if needed - Hole card is shown to all players if at least one player won, • Always - Hole card is shown to all players, even in the event that all players lost.
Draw Versus Blackjack	Define the dealer's second card drawing action in case player has a Blackjack: • Only if needed - Second dealer's card will only be drawn if the first dealer's card is either valued 10 (10, J, Q, K) or it's an ace (A), • Up to hole card - Second dealer's card will be always drawn, but potential third will not, • Complete Hand - Dealers hand will be completed in full (until dealer reaches a count of 17 or higher or dealer busts).
Show Community Cards	Show community cards configuration: • Server Only, • Client Box Only, • Client Shows All.
Layout Mode	Layout mode configuration: • Compact - History chart is reduced to the bottom right corner, community cards may cover all of the table layout, • Always Show Rules - History chart is positioned normally, community cards never cover the table layout (game rules).
EXIT	Exit the Configuration menu (return to the Service menu).

6.3.2 Rules tab

This section describes the content of the **Rules tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Max Split Hands	Maximum number of hands the player can split [min. 2, max. 4].
Double down after split	Define if player has the option to double the bet after splitting the hand: • No, • Yes.
Only one card to split aces	Define if only one card will be dealt after a hand with aces is split: • No, • Yes.
Split Aces	Define if and how many times aces can be split in a single game: • No, • Twice, • Once, • 3 times.
Split Ace and 10 is	Define how the hand with an ace and 10 (after split) is valued: • 21, • BlackJack.
10-valued cards can be split	Define if a same rank 10-valued card can be split (jack-jack, king-king): • Yes, • No.
Split any 10-valued cards	Define if any 10-valued card (king-jack, queen-jack, etc.) • No, • Yes.
Double Down	Define when the double down action is available to the player: • Always, • Only on 10,11, • Only on 9,10,11.
Allow Double on BlackJack	Define if double down action is available on Blackjack: • No, • Yes.
Allow Double on 21	Define if double down action is available on a split hand valued at 21: • No, • Yes.

SETTING/BUTTON	DESCRIPTION
Surrender	Define is surrender is possible: • Off, • On.
Surrender against dealer ace	Define is surrender against dealers ace is possible: • No, • Yes.
Hole Card	Define if the dealers second card is dealt faced up: • No, • Yes.
Peek	Define if dealer is allowed to peek - check the second card: • No, • Yes.
Peek on 10-valued card	Define if dealer is allow to peek - check the second card only when the first card is valued at 10: • No, • Yes.
Player Timeout Action	Define the action to be performed if the player doesn't make a decision in the available time. • Stand, • Dealer Rules.
Split Allowed On	Define when a split is allow. • Any Hand, • First Two Hands.
Insurance	Define when insurance is offered: • Normal, • Every Bet.
Even Money	Define if even money is offered: • No, • Yes.
Charlie	Define Charlie configuration: • No - Charlie is disabled, • 5 - card Charlie - Player wins a reward if the hand contains 5 cards and is not valued over 21 at the same time. The reward is the original bet with wining multiplier of 2, • 6 - card Charlie - Player wins a reward if the hand contains 6 cards and is not valued over 21 at the same time. The reward is the original bet with wining multiplier of 2, • 7 - card Charlie - Player wins a reward if the hand contains 7 cards and is not valued over 21 at the same time. The reward is the original bet with wining multiplier of 2.
Dealer Soft 17 Action	Define the dealers action on a soft 17: • Stand, • Hit.
BlackJack Prize	Define payout for Blackjack: • BlackJack pays 3:2, • BlackJack pays 6:5.
EXIT	Exit the Configuration menu (return to the Service menu).

6.3.3 Sidebets tab

This section describes the content of the **Sidebets tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Jackpot 777	Define if Jackpot 777 sidebet is enabled: • No, • Yes.
Jackpot 1x7 Prize	Prize on a hand containing a single 7's card [min. 3, max. 5].
Jackpot 2x7 Unsuited Prize	Prize on a hand containing two 7's cards [min. 25, max. 50].
Jackpot 2x7 Suited Prize	Prize on a hand containing two 7's cards of the same suit (spades, hearts, etc.) [min. 50, max. 100].
Jackpot 3x7 Unsuited Prize	Prize on a hand containing three 7's cards [min. 100, max. 500].
Jackpot 3x7 Suited Prize	Prize on a hand containing three 7's cards of the same suit (spades, hearts, etc.) [min. 500, max. 5000].
Poker Hands	Define if Poker Hands sidebet is enabled: • No, • Yes.
Poker Hands Player Pair	Prize for a player pair card combination on Poker Hands sidebet [min. 4, max. 5].
Poker Hands Flush	Prize for a flush card combination on Poker Hands sidebet. Min 10 max 10
Poker Hands Straight	Prize for a straight card combination on Poker Hands sidebet. Min 20 max 25
Poker Hands 4 of a Kind	Prize for a 4 of a kind card combination on Poker Hands sidebet. Min 10 max 100
Poker Hands Straight Flush	Prize for a straight flush combination on Poker Hands sidebet. Min 100 max 200
Poker Hands Royal Straight	Prize for a royal straight combination on Poker Hands sidebet. Min 500 max 1000
EXIT	Exit the Configuration menu (return to the Service menu).

6.4 Timing tab

Settings regarding the timings can be found under **Timing tab** and are additionally divided into 2 tabs - Timeouts and Delays.

6.4.1 Timeouts tab

This section describes the content of the **Timings tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Wait Players (s)	Duration of game phase where the players connect to the server [min. 1, max. 60].
Betting Timeout (s)	Duration of game phase where the players can freely place bets [min. 3, max. 180].
Hurry Timeout (s)	Duration of game phase where the players are notified about the bet placing phase closing. Bet can still be placed [min. 0, max. 99].
Dealer Timeout (s)	Duration of game phase after the bets are closed and before the dealing of cards starts [min. 0, max. 99].
Choice Timeout (s)	Duration of game phase where the players can make a decision about the next action [min. 1, max. 120].
Push Timeout (s)	Duration of game phase where the players can make a decision about the push action [min. 1, max. 120].
EXIT	Exit the Configuration menu (return to the Service menu).

6.4.2 Delays tab

This section describes the content of the **Delays tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Deal Time (ms)	Time delay for dealing the cards [min. 100, max. 3000].
Card Flight Time (ms)	Time delay for card moving animation [min. 100, max. 3000].
Card Turn Time (ms)	Time delay for card turning animation [min. 0, max. 1000].
Score Delay (ms)	Time delay for announcing the score [min. 0, max. 5000].
Player Deal Delay (ms)	Time delay for dealing the cards to the player [min. 100, max. 5000].
Banker Deal Delay (ms)	Time delay for dealing the cards to the banker [min. 100, max. 5000].
Winner Announce Time (ms)	Time delay for announcing the winner [min. 0, max. 4000].
Card Collect Time (ms)	Time delay for collecting the cards [min. 0, max. 2000].
EXIT	Exit the Configuration menu (return to the Service menu).

6.5 System tab

Settings regarding timings can be found under **System tab** and are additionally divided into 5 tabs - Server, AngelEye, Sound, Lights and Backup.

6.5.1 Server tab

This section describes the content of the **Server tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Server ID	Server identification number [min. 1, max. 100].
Encrypted Communication	Encrypted communication configuration: • Optional - Server accepts playing terminals using encrypted and unencrypted communication, • Required - Server only accepts playing terminals using encrypted communication.
Wait For OnLine	Wait for online configuration: • No - CardServer will not wait for Remote Play account server response during various game phases, before proceeding with dealer protocol. Selected (disabled) by default. • Yes - CardServer will wait for the Remote Play account server response at the closing of the bets and at the end of the game, before proceeding with dealer protocol. Should only be selected (enabled) when using in combination with Remote Play.
Time Synchronization	Time synchronization configuration: • No - Time of main control unit and playing terminals will not be synchronized. • Yes - Time of main control unit and playing terminals will be synchronized.
Test Mode	Enable or disable test mode: • Off, • On.
Game History (games)	Define the number of games stored in game history [min. 1000, max. 100000].
Card Shoe Type	Define the connected card shoe: • Alfastreet, • Super Angel Eye, • Angel Eye III, • Bee-tek 918/928, • Angel Eye II, • Angel Eye II EX.

SETTING/BUTTON	DESCRIPTION
Card Shoe Port	Define the COM port for dealing shoe: • Disabled, • COM4, • COM8, • COM12. • COM1, • COM5, • COM9, • COM2, • COM6, • COM10, • COM3, • COM7, • COM11,
Player Status	Define if dealer can see the players/playboard status (did the player place a bet, etc.): • No, • Yes.
Number Of Boards	Number of connected playing terminals [min. 0, max. 200].
Maintenance Day	Schedule maintenance interval, based on the day of a week: • Automatic (21 days), • Friday, • Monday, • Saturday, • Tuesday, • Sunday, • Wednesday, • Every Day. • Thursday,
Maintenance hour	Schedule maintenance interval, based on the hour of a day [min. 0, max. 23].
Dealer Video Mode	Dealer GUI aspect ratio: • Normal 4:3 • Stretch to fit
EXIT	Exit the Configuration menu (return to the Service menu).

6.5.2 AngelEye tab

This section describes the content of the **AngelEye tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
AngelEye 3 Protocol	AngelEye 3 protocol configuration: • Master Mode, • AngelEye Mode.
AngelEye 3 Discard Mode	AngelEye 3 discard mode configuration: • Mode 0, • Mode 1.
AngelEye 3 Buzzer Mode	AngelEye 3 buzzer mode configuration: • On, • Off, • Error Only.

SETTING/BUTTON	DESCRIPTION
AngelEye 3 Start Option	AngelEye 3 start option configuration: • Off (0), • One (1), • Number (N).
AngelEye 3 Overdraw	AngelEye 3 overdraw configuration: • Warning Off, • Warning On.
AngelEye 3 Shoe Cover	AngelEye 3 shoe cover detection configuration: • No detection, • Alarm LED only, • Alarm LED+Buzzer, • Alarm Buzzer only.
AngelEye 3 More Draw	AngelEye 3 more draw configuration: • Error, • No reaction.
AngelEye 3 Transition	AngelEye 3 transition configuration: • Off (Manual), • Automatic 2s, • Automatic 5s.
AngelEye 2EX Protocol	AngelEye 2EX protocol configuration: • Master Mode, • AngelEye Mode.
AngelEye 2EX Operation Mode	AngelEye 2EX operation mode configuration: • Mode 0, • Mode 1, • Mode 0 + Special Start 1, • Mode 1 + Special Start. • Mode 0 + Special Start 2,
AngelEye 2EX Buzzer Mode	AngelEye 2EX buzzer mode configuration: • On, • Off, • Error Only.
AngelEye 2EX LCD BackLight	AngelEye 2EX LCD backlight configuration: • Off, • On.
AngelEye 2EX Lock LED Blink	AngelEye 2EX LED blink configuration: • Off, • On.
AngelEye 2EX Card Code Error	AngelEye 2EX card code error configuration: • No detection, • On (Error).
AngelEye 2EX Cover Check	AngelEye 2EX cover check configuration: • No detection, • On (Error).
AngelEye 2EX Cover Alarm	AngelEye 2EX cover alarm configuration: • Alarm LED+Buzzer, • Alarm LED only, • Alarm Buzzer only.
AngelEye 2EX More Draw	AngelEye 2EX more draw configuration: • Error, • No reaction.

SETTING/BUTTON	DESCRIPTION
AngelEye 2EX Transition	AngelEye 2EX transition configuration: • Off (Manual), • On (Automatic).
AngelEye 2EX Trans. Time	AngelEye 2EX transition time configuration: • Automatic 2s, • Automatic 5s.
EXIT	Exit the Configuration menu (return to the Service menu).

6.5.3 Sound tab

This section describes the content of the **sound tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Client Sounds	Define the client sound: • Client Setting, • Server Sounds, • Mute.
Dealer Sounds	• Mute, • Play Sounds.
EXIT	Exit the Configuration menu (return to the Service menu).

6.5.4 Lights tab

This section describes the content of the **Lights tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Ambient Light Type	Define ambient light type: • Fixed, • Game Phase.
Ambient Light Color Red	Define ambient light red color [min. 0, max. 255].
Ambient Light Color Green	Define ambient light green color [min. 0, max. 255].
Ambient Light Color Blue	Define ambient light blue color [min. 0, max. 255].
Ambient Light Brightness (%)	Define ambient light brightness [min. 0%, max. 100%].
Blinking Speed (*40ms)	Define the blinking speed [min. 0, max. 127].
EXIT	Exit the Configuration menu (return to the Service menu).

6.5.5 Backup tab

This section describes the content of the **backup tab** and it's settings:

SETTING/BUTTON	DESCRIPTION
Remote Backup	Remote backup configuration: • No - Remote backup disabled, • Optional - Remote backup enabled, game will continue even if backup can not be performed, • Required - Remote backup enabled, game will be stopped if backup can not be performed.
Backup Mode	Backup mode configuration: • All Phases - Backup will be performed after each phase, • At End of Game - Backup will be performed at the end of each game, • At Interval - Backup will be performed according to set interval (as set in Copy Interval parameter).
Local IP	IP address and/or custom name of the CardServer. A folder named as this address and/or custom name will be created on the backup server.
Backup Path	Backup server destination path. Backups will be saved to this location.
Backup Username	Username used for the backup server.
Backup Password	Password used for the backup server.
Copy Interval (sec)	Define the backup interval [min. 60, max. 3600].
Backup Data	Data backup configuration: • No - Data will not be backed up, • Yes - Data will be backed up.
Backup Settings	Settings backup configuration: • No - Settings will not be backed up, • Yes - Settings will be backed up.
Backup Logs	Logs backup configuration: • No - Logs will not be backed up, • Yes - Logs will be backed up.
Stop After Server Down (min)	Define the time period of unsuccessful backup attempts after which the game will lock. If Remote backup parameter is set to Required [min. 0, max. 1400].
TEST LOGIN	Manually verify that the destination path, username and password are set correctly.
EXIT	Exit the Configuration menu (return to the Service menu).

7 Standard operational procedures

In this chapter standard operational procedures for the CardServer can be viewed. Follow the provided steps to properly operate and manage the CardServer software.

7.1 Open the service door

This chapter provide a simple step-by-step guide for opening the service door, required for making changes in the Configuration menu (see Chapter *6 Configuration menu*).

STEP 1	STEP 2
Unlock the Alfa GC door (service door).	Open the Alfa GC door (service door).
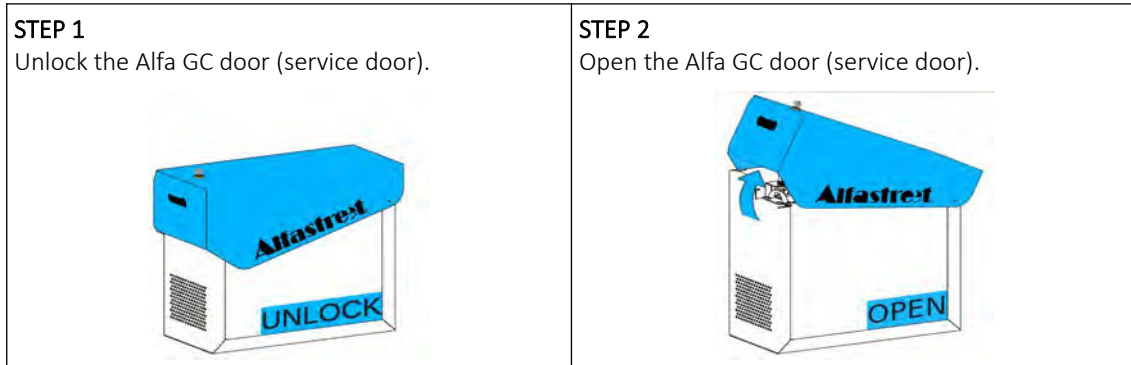
7.2 Unlock procedure

During normal game operation, the buttons and menus located on the main screen layout are locked. The unlock procedure require two step confirmation by selecting two **UNLOCK** button (must be selected within 2 second window).
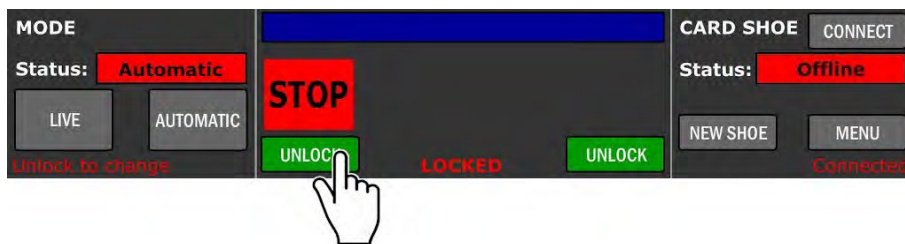
After the first **UNLOCK** button is pressed a notification **CLICK RIGHT** or **CLICK LEFT** will appear, prompting the user to select the final button.

After the final button is pressed, the unlock procedure is complete, a UNLOCKED notification will be displayed.
The buttons and menus located on the main screen layout is now active and operational.
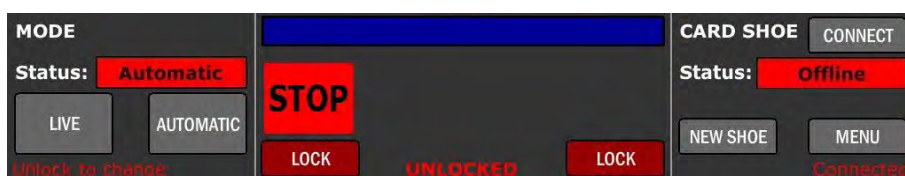
7.3 Logout procedure

To Log out of current user, the **UNLOCK** procedure must be performed (see Chapter *7.2 Unlock procedure*) and the **MENU** button selected (see Chapter *4 Operator menu*). The logout procedure can be started by selecting the **LOGOUT** button in the newly opened menu.
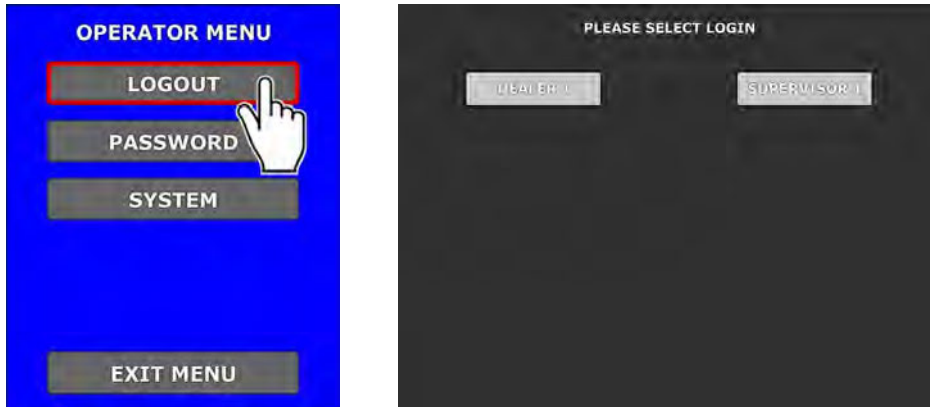
When the logout is completed, the account login selection list will be displayed (see Chapter *2.1 Login*).

7.4 Starting the game

The game will continue automatically when the dealer or supervisor is logged in. If the game was previously stopped it can be started by first opening the Game menu (**START** button) and in newly opened menu selecting the **START GAME** button.
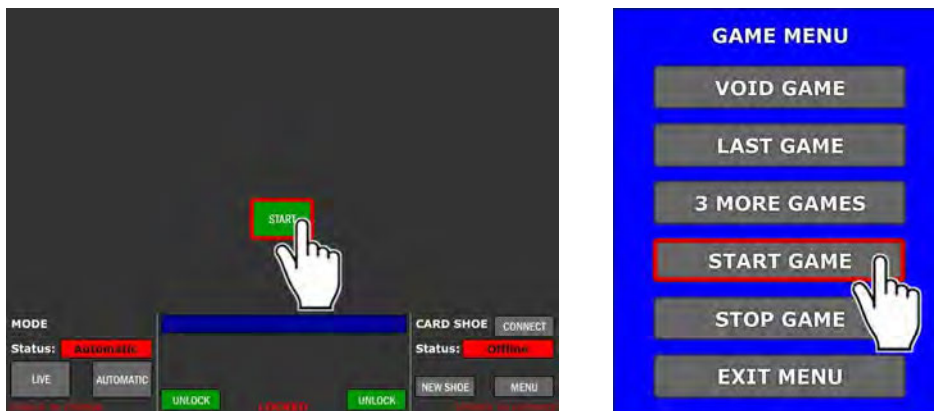
At this point the game will be started.

7.5 Switch between games

Switching between the games can be accomplished by first preforming the **UNLOCK** procedure (see Chapter *7.2 Unlock procedure*) and in the main layout selecting the **MODE** menu.
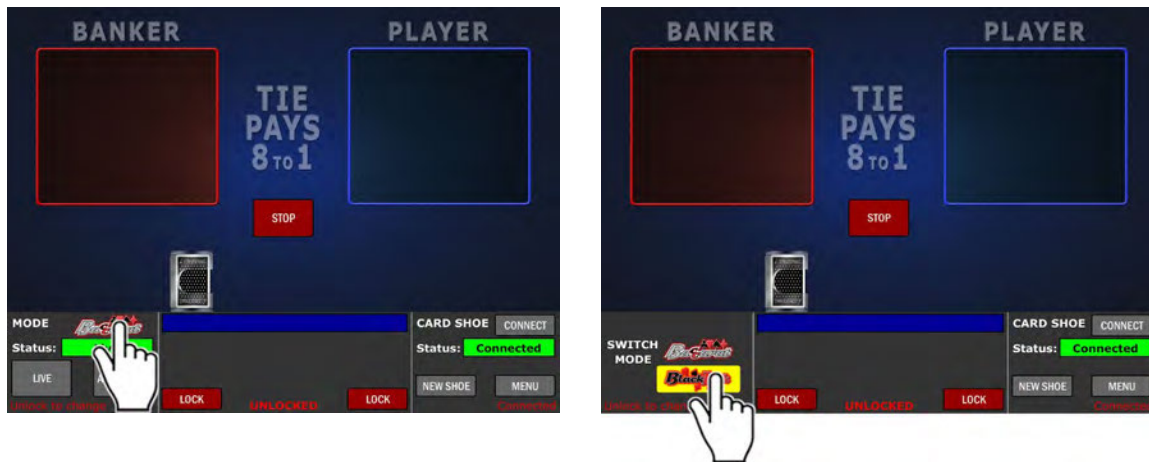
In Mode menu the game can be switched by selecting the different game name (in our example Blackjack).
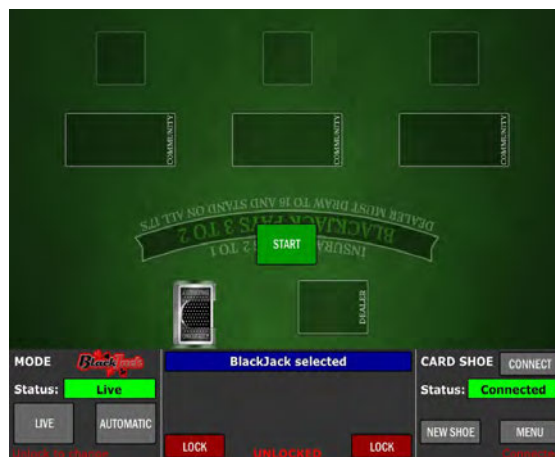
Before switching the game it is recommended to first preform the **STOP** game procedure (see Chapter *7.12 Stopping the game*). Otherwise, the game switching process will be pending until the current game (round) is finished.

7.6 Switch between game's mode

Switching current game's mode can be accomplished by first preforming the **UNLOCK** procedure (see Chapter 7.2 Unlock procedure) and in main layout selecting the **AUTOMATIC** (dealer not needed) or the **LIVE** (dealer required) button.
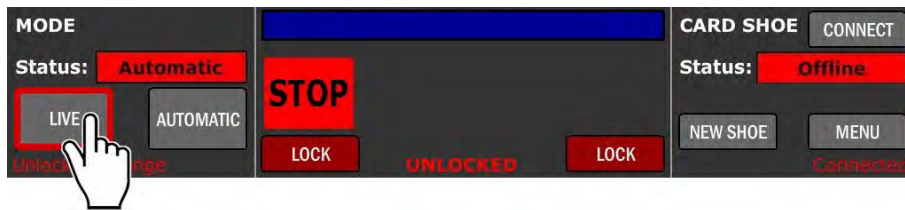
Before switching the game's mode it is recommended to first preform the **STOP** game procedure (see Chapter *7.12 Stopping the game*). Otherwise, the game's mode switching process will be pending until the current game (round) is finished.
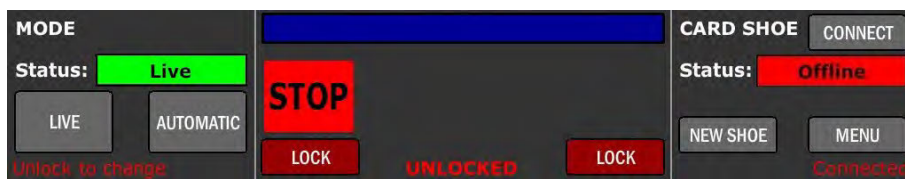
7.7 Confirm result

Each game outcome can be confirmed, by first enabling the *"Dealer Confirms Outcome" setting* (see Chapter *6.1.1 Dealing tab*). After each game (round) the game will automatically ask for the result confirmation, by providing the **CONFIRM GAME** button.

Alternatively the corresponding button on the dealing shoe can also be used to confirm the result. For more information about this option consolidate the dealing shoe documentation.

7.8 Void game

Depending on the game phase and applied settings, two voiding options are available.

7.8.1 Voiding during confirm game phase

To void the game (round) at the confirm game phase the *"Dealer Confirms Outcome"* and *"Dealer May Void Game"* setting must be enabling (see Chapter *6.1.1 Dealing tab*). After each game (round) the game will automatically ask for the result confirmation, by providing the **CONFIRM GAME** and the **VOID GAME** button.

The current game (round) can be voided, by selecting the **VOID GAME** button. Some dealing shoe should be reset to properly continue the next game (round).

If the currently logged in account has limited privileges (see Chapter *5.2.4 Rights menu*), The **SUPERVISORS** password will be required.

After correct SUPERVISOR password is entered the current game (round) will be voided.

7.8.2 Voiding during other game phase

To void the game during other phases, the Game menu must first be opened, by using the **STOP** button. In newly opened menu the **VOID GAME** button must be selected and confirmed with the **YES, VOID GAME** button.

At this point the current game (round) will be voided. Some dealing shoe should be reset to properly continue the next game (round). If the currently logged in account has limited privileges (see Chapter *5.2.4 Rights menu*), The **SUPERVISORS** password will be required.

After correct SUPERVISOR password is entered the current game (round) will be voided.

7.9 New shoe procedure

The new shoe procedure should only be started if the dealing shoe doesn't support this as an automatic feature.

Procedure can be started by first preforming the **UNLOCK** procedure (see Chapter *7.2 Unlock procedure*) and selecting the **NEW SHOE** button.

In newly opened menu the **NEW SHOE** button must be selected.

7.10 Cut card procedure

The cut card procedure should only be initiate after the *"Cut Card"* message is displayed. Procedure can be started by first preforming the **UNLOCK** procedure (see Chapter *7.2 Unlock procedure*) and selecting the **NEW SHOE** button (Shoe menu).

In newly opened menu the **CUT CARD** button must be selected.

The current game can now be finished. Note that the **CUT CARD** notification will now be displayed, until the end of the current game. When the current game is finished the **REFILL SHOE** notification will be displayed. Proceed with refilling the shoe and other steps regarding the casino policies (burn cards, new shoe procedure etc.).

When the refilling process is done, the **CONTINUE** button must be selected. The game will continue in a normal fashion.

7.11 Card correction (Baccarat correction)

In the Baccarat game, each hand's card can be corrected by first enabling the *"Dealer May Correct Cards" setting* (see Chapter *6.1.1 Dealing tab*).

Desired card can be corrected at any time of the game (round), by selecting the **CORRECT CARD X** button. If the currently logged in account has limited privileges, **SUPERVISORS** password will be required.

For example if second player's card need to be corrected, the CORRECT CARD 2 button need to be selected (Correct card! notification), followed by selecting the card selecting menu (CARD button).

In card selection menu, the correction card can be entered manually. Additional card conformation is needed by selecting the **CONFIRM** button.

The card will now be changed to the selected one (currently seven of diamonds) and the game will continue.

7.12 Stopping the game

The game can be stopped at any time. To do so the **STOP** button must be selected.

If the game stop request is submitted during a critical game phases the game will stop after the current game is finished.

7.12.1 Last game

The game can alternatively be stopped by selecting the **LAST GAME** button.

Stopping the game in this way will result in one more game before the game is stopped.

7.12.2 3 More game

The game can alternatively be stopped by selecting the **LAST GAME** button.

Stopping the game in this way will result in one more game before the game is stopped.

7.13 Live players status

Within the main layout, the playing stations statuses can be viewed in real time, by enabling the "Player Status" setting (see Chapter 6.5.1 Server tab).

Playing stations statuses are only displayed in the "BET TIME" phase (see Chapter 6.4.2 Delays tab).

The playing stations statuses are described in the table below:

Station status	DESCRIPTION
	Offline (white) - during a specified game, the station was not connected to the main control unit (CardServer).
	No Credits (light-green) - during a specified game, the station was connected to the main control unit (CardServer), but with no credits presented.
	In Game (green) - during a specified game, the station was connected to the main control unit (CardServer), with credits presented.
	Bet (cyan) - during a specified game, the station was connected to the main control unit (CardServer), with bets placed.

8 Preventive actions

The computer of KGM Gaming CardServer must be preventive restarted at least every three weeks. This is due to proper functioning of the machine.

KGM Gaming recommends replacing all data storage devices every 5 years to ensure smooth operation over longer periods of time.

Appendix 4

KGM Software Paytables

Table of Contents

1 Introduction

This documentation features KGM Gaming's games paytables.

2 ROULETTE (Double Zero) Game

2.1 Paytables

DOUBLE ZERO ROULETTE RTP: Min = 92.11 %, Max = 94.74 %	
WINNING BET	PAYS
Straight up	35 to 1
Split	17 to 1
Corner	8 to 1
Street	11 to 1
Three numbers including a zero or a double zero	11 to 1
Five numbers	6 to 1
Six numbers	5 to 1
Dozen	2 to 1
Column	2 to 1
Low or High	1 to 1
Red or Black	1 to 1
Even or Odd	1 to 1

3 SICBO Game

3.1 Paytables

PAYTABLE 1	
RTP: Min = 52.78%, Max = 97.22%, Average = 86.63%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	150 to 1
Any triple	25 to 1
Total sum 4 or 17	50 to 1
Total sum 5 or 16	18 to 1
Total sum 6 or 15	14 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	6 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	3 to 1
Domino combination	6 to 1

PAYTABLE 2	
RTP: Min = 92.59%, Max = 100%, Average = 96.43%	
WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	209 to 1
Any triple	34 to 1
Total sum 4 or 17	68 to 1
Total sum 5 or 16	34 to 1
Total sum 6 or 15	20 to 1
Total sum 7 or 14	13 to 1
Total sum 8 or 13	9 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	7 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1

PAYTABLE 3	RTP: Min = 87.50%, Max = 97.22%, Average = 94.70%

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	205 to 1
Any triple	33 to 1
Total sum 4 or 17	65 to 1
Total sum 5 or 16	33 to 1
Total sum 6 or 15	20 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	180 to 1
Any triple	31 to 1
Total sum 4 or 17	62 to 1
Total sum 5 or 16	31 to 1
Total sum 6 or 15	18 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1

PAYTABLE 5
RTP: Min = 81.02%, Max = 97.22%, Average = 91.02%

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	180 to 1
Any triple	30 to 1
Total sum 4 or 17	60 to 1
Total sum 5 or 16	30 to 1
Total sum 6 or 15	17 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	6 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	3 to 1
Domino combination	6 to 1

PAYTABLE 6
RTP: Min = 90.28%, Max = 97.22%, Average = 94,19%

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	195 to 1
Any triple	32 to 1
Total sum 4 or 17	64 to 1
Total sum 5 or 16	32 to 1
Total sum 6 or 15	19 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8.5 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6.5 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1

PAYTABLE 4
RTP: Min = 83.80%, Max = 97.22%, Average = 92.44%

PAYTABLE 7
RTP: Min = 52.78%, Max = 97.22%, Average = 79.30%

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	8 to 1
Specific straight triple	150 to 1
Any triple	24 to 1
Total sum 4 or 17	50 to 1
Total sum 5 or 16	18 to 1
Total sum 6 or 15	14 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	6 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	3 to 1
Domino combination	5 to 1

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	10 to 1
Specific straight triple	180 to 1
Any triple	30 to 1
Total sum 4 or 17	50 to 1
Total sum 5 or 16	30 to 1
Total sum 6 or 15	18 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	6 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	10 to 1
Domino combination	5 to 1

PAYTABLE 9
RTP: Min = 66.67%, Max = 97.22%, Average = 81.37%

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	8 to 1
Specific straight triple	150 to 1
Any triple	24 to 1
Total sum 4 or 17	50 to 1
Total sum 5 or 16	30 to 1
Total sum 6 or 15	18 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	6 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	3 to 1
Domino combination	5 to 1

PAYTABLE 10
RTP: Min = 81.48%, Max = 97.22%, Average = 86.67%

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	10 to 1
Specific straight triple	180 to 1
Any triple	30 to 1
Total sum 4 or 17	60 to 1
Total sum 5 or 16	30 to 1
Total sum 6 or 15	18 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	5 to 1

PAYTABLE 8
RTP: Min = 70.83%, Max = 97.22%, Average = 85.54%

PAYTABLE 11
RTP: Min = 93.75%, Max = 97.22%, Average = 96.53%

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	12 to 1
Specific straight triple	205 to 1
Any triple	34 to 1
Total sum 4 or 17	67 to 1
Total sum 5 or 16	34 to 1
Total sum 6 or 15	20 to 1
Total sum 7 or 14	13 to 1
Total sum 8 or 13	9 to 1
Total sum 9 or 12	7.4 to 1
Total sum 10 or 11	6.5 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11 to 1
Specific straight triple	180 to 1
Any triple	31 to 1
Even	1 to 1
Odd	1 to 1
Total sum 4 or 17	62 to 1
Total sum 5 or 16	31 to 1
Total sum 6 or 15	18 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1
Four number combination	7 to 1
Double numbers with single dice combination	50 to 1
Three single dice combination	30 to 1

PAYTABLE 12
RTP: Min = 70.83%, Max = 97.22%, Average = 85.15%

PAYTABLE 13
RTP: Min = 90 %, Max = 97.22 %, Average = 92.85 %

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	12 to 1
Specific straight triple	195 to 1
Any triple	32 to 1
Even	1 to 1
Odd	1 to 1
Total sum 4 or 17	64 to 1
Total sum 5 or 16	32 to 1
Total sum 6 or 15	19 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	9 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6.5 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1
Four number combination	7.1 to 1
Double numbers with single dice combination	64 to 1
Three single dice combination	32 to 1

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	195 to 1
Any triple	32 to 1
Even	1 to 1
Odd	1 to 1
Total sum 4 or 17	64 to 1
Total sum 5 or 16	32 to 1
Total sum 6 or 15	19 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8.5 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6.5 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1
Four number combination	7.5 to 1
Double numbers with single dice combination	50 to 1
Three single dice combination	30 to 1

PAYTABLE 14
RTP: Min = 70.83 %, Max = 97.22 %, Average = 86.41%

PAYTABLE 15
RTP: Min = 90 %, Max = 97.22 %, Average = 92.50 %

WINNING BET	PAYS
Big	1 to 1
Small	1 to 1
Double dice	11.5 to 1
Specific straight triple	194 to 1
Any triple	32 to 1
Even	1 to 1
Odd	1 to 1
Total sum 4 or 17	64 to 1
Total sum 5 or 16	32 to 1
Total sum 6 or 15	19 to 1
Total sum 7 or 14	12 to 1
Total sum 8 or 13	8.5 to 1
Total sum 9 or 12	7 to 1
Total sum 10 or 11	6.4 to 1
Single die – on 1 die	1 to 1
Single die – on 2 dice	2 to 1
Single die – on 3 dice	12 to 1
Domino combination	6 to 1
Four number combination	7.1 to 1
Double numbers with single dice combination	64 to 1
Three single dice combination	32 to 1

4 BIG WHEEL Game

4.1 Paytables

MAIN GAME PAYTABLE	
WINNING BET	PAYS
2	2 to 1
4	4 to 1
6	6 to 1
16	16 to 1
24	24 to 1
48	48 to 1

BONUS FIELD PAYTABLE	
WINNING BET	PAYS
5	5 to 1
20	20 to 1
50	50 to 1
100	100 to 1
250	250 to 1
1000	1000 to 1

RTP of BIG WHEEL game is 92.31%.

5 BACCARAT (No Commission) Game
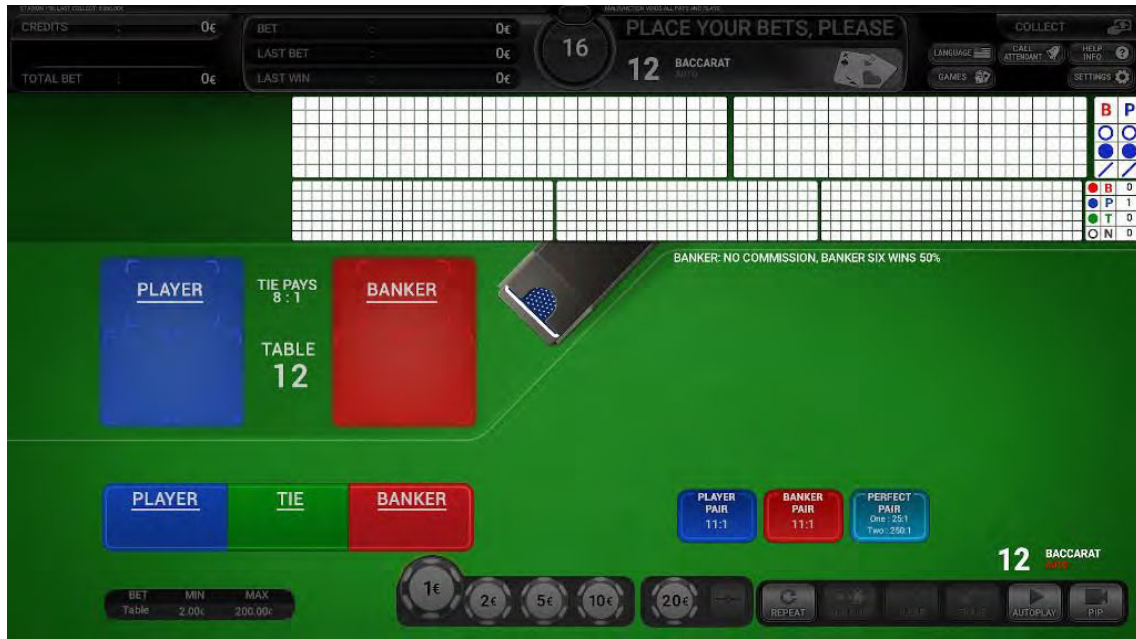
5.1 Paytables

BACCARAT – No Commission RTP: Min = 85.41%, Max = 98.77%	
WINNING BET	PAYS
Banker wins with 6	0.5 to 1
Banker wins with any other number	1 to 1
Player	1 to 1
Tie	8 to 1
Banker Pair	11 to 1
Player Pair	11 to 1

6 BACCARAT (Commission) Game

6.1 Paytables

BACCARAT – Commission (5%) RTP: Min = 85.41%, Max = 98.95%	
WINNING BET	PAYS
Banker	0.95 to 1
Player	1 to 1
Tie	8 to 1
Banker Pair	11 to 1
Player Pair	11 to 1

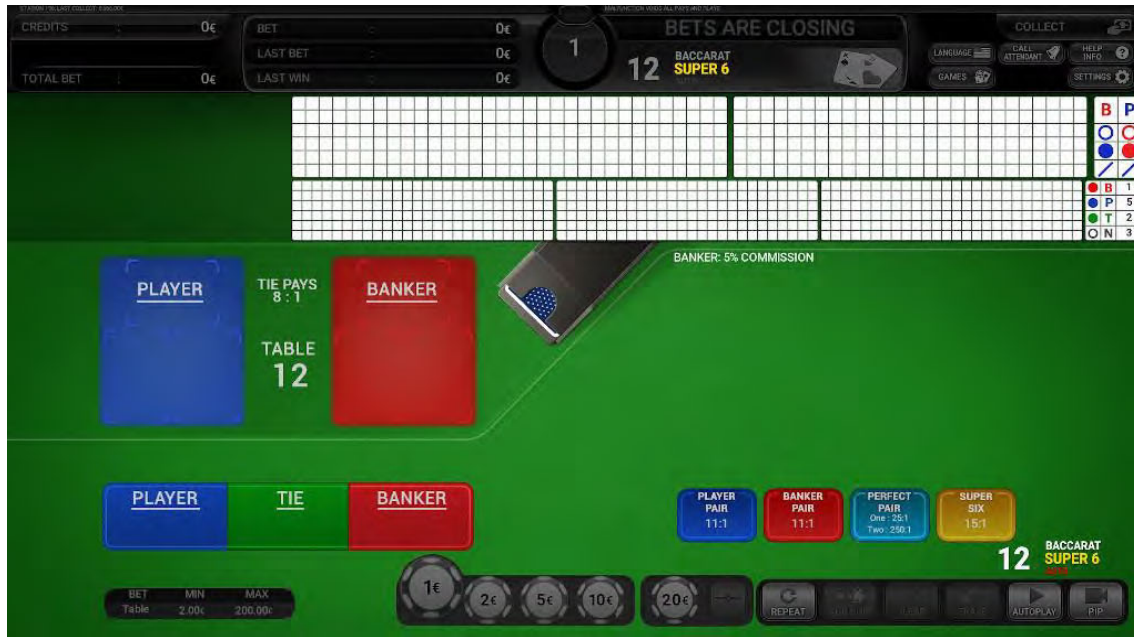# 7 BACCARAT (Super Six No Commission) Game
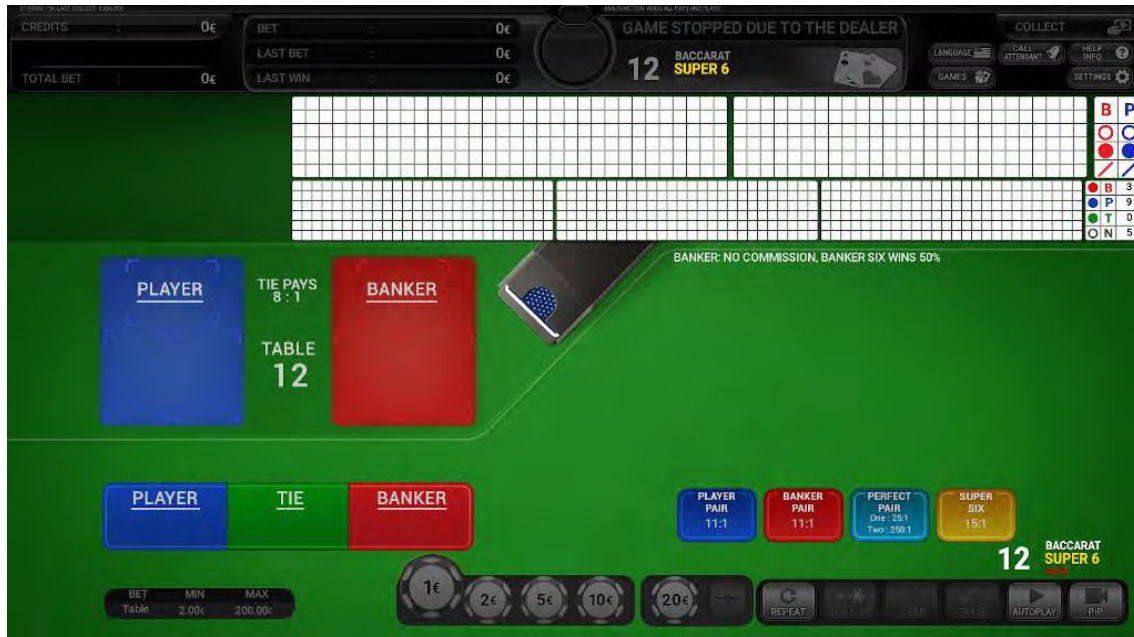
7.1 Paytables

BACCARAT – Super Six No Commission RTP: Min = 85.41%, Max = 98.77%	
WINNING BET	PAYS
Banker wins with 6	0.5 to 1
Banker wins with any other number	1 to 1
Player	1 to 1
Tie	8 to 1
Banker Pair	11 to 1
Player Pair	11 to 1
Super Six	15 to 1

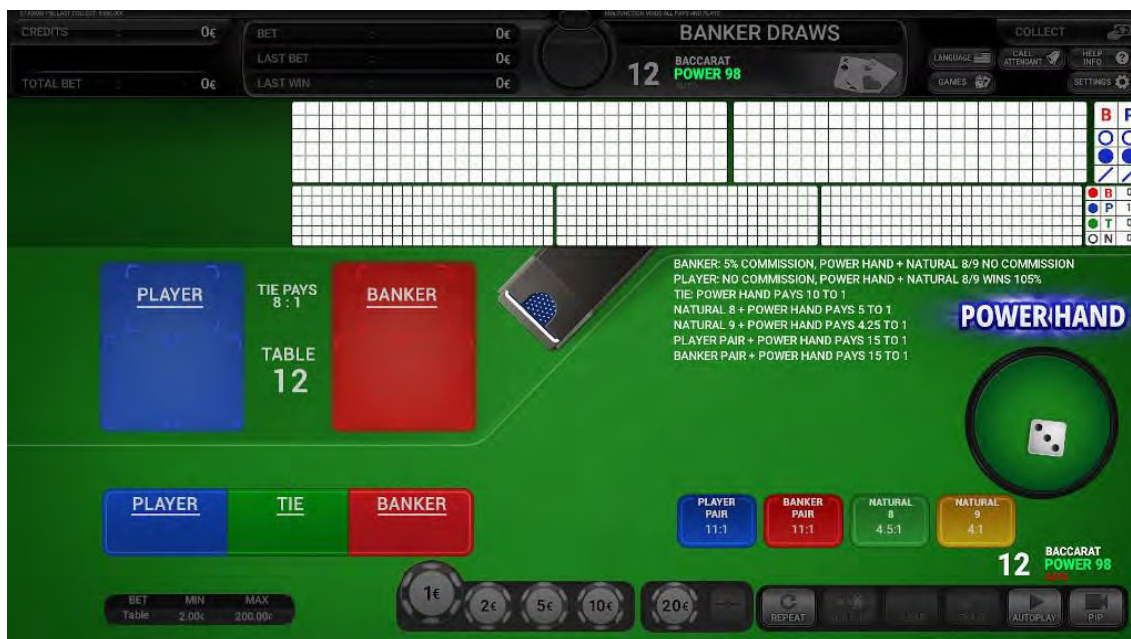# 8 BACCARAT (Super Six Commission) Game

8.1 Paytables

BACCARAT – Super Six Commission (5%) RTP: Min = 85.41%, Max = 98.95%	
WINNING BET	PAYS
Banker	0.95 to 1
Player	1 to 1
Tie	8 to 1
Banker Pair	11 to 1
Player Pair	11 to 1
Super Six	15 to 1

9 BACCARAT (Power 98) Game

9.1 Paytables

| BACCARAT – Power 98 RTP: Min = 86.14%, Max = 96.97%			
NO Power Hand mode		**Power Hand mode**	
WINNING BET	PAYS	WINNING BET	PAYS
Banker wins with any other number	0.95 to 1	Banker wins with any other number	0.95 to 1
Banker wins with Natural 8 or Natural 9	0.95 to 1	Banker wins with Natural 8 or Natural 9	1 to 1
Player wins with any other number	1 to 1	Player wins with any other number	1 to 1
Player wins with Natural 8 or Natural 9	1 to 1	Player wins with Natural 8 or Natural 9	1.05 to 1
Tie wins with any other number	8 to 1	Tie wins with any other number	8 to 1
Tie wins with Natural 8 or Natural 9	8 to 1	Tie wins with Natural 8 or Natural 9	10 to 1
Banker Pair wins with any other number	11 to 1	Banker Pair wins with any other number	11 to 1
Banker Pair wins with Natural 8 or Natural 9	11 to 1	Banker Pair wins with Natural 8 or Natural 9	15 to 1
Player Pair wins with any other number	11 to 1	Player Pair wins with any other number	11 to 1
Player Pair wins with Natural 8 or Natural 9	11 to 1	Player Pair wins with Natural 8 or Natural 9	15 to 1
Natural 8 ("Player" or "Banker" Natural 8)	3.85 to 1	Natural 8 ("Player" or "Banker" Natural 9)	5 to 1
Natural 9 ("Player" or "Banker" Natural 9)	4 to 1	Natural 9 ("Player" or "Banker" Natural 9)	4.25 to 1

10   BACCARAT (7 Up) Game

10.1 Paytables

BACCARAT – 7UP RTP: Min = 90.95%, Max = 97.48%		
WINNING BET	PAYS	
	Point count = 7	Point count ≠ 7
Banker	2.8 to 1	1 to 1
Player	1.5 to 1	1 to 1
Tie	9 to 1	7 to 1
Number of 7's		
WINNING BET	PAYS	
Super 7's - Any Two 7's	2 to 1	
Super 7's - Any Three 7's	5 to 1	
Super 7's - Any Four 7's	17 to 1	
Super 7's - Any Five 7's	70 to 1	
Super 7's - Any Six 7's	700 to 1	

11 BACCARAT (Fabulous Four) Game
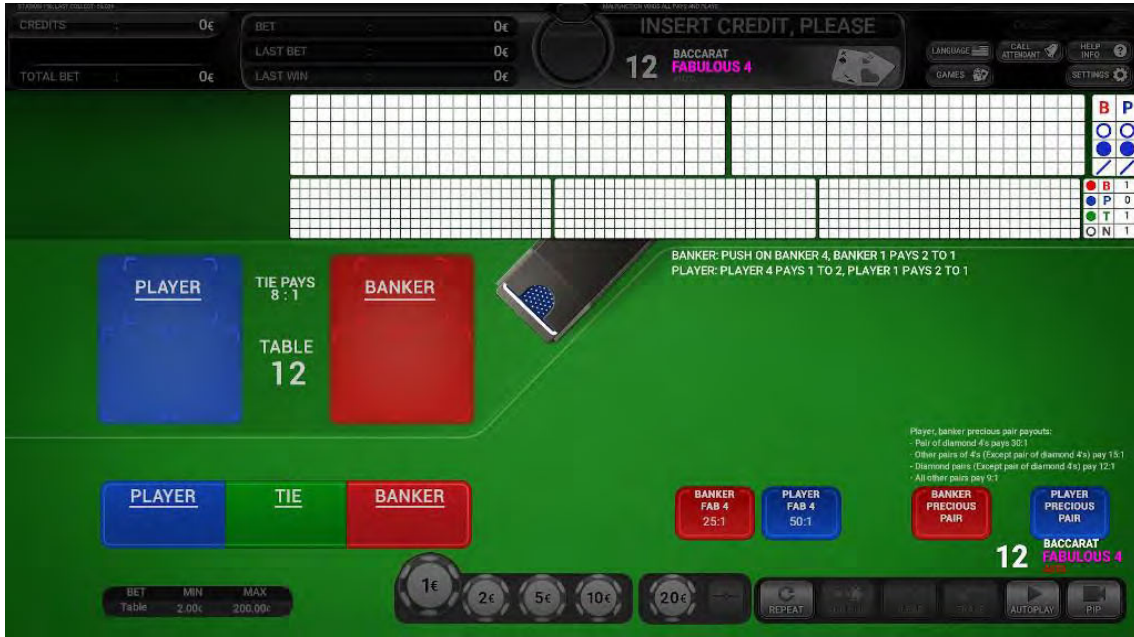
11.1 Paytables

BACCARAT – FABULOUS 4
RTP: Min = 77.23%, Max = 98.46%

No Power Hand mode		Banker / Player Precious pair	
WINNING BET	PAYS	WINNING BET	PAYS
Banker wins with total card count of 4	Push	Pair of diamonds 4's	30 to 1
Banker wins with total card count of 1	2 to 1	Other pairs of 4's (except pair of diamonds 4's)	15 to 1
Banker wins with any number except for 4 or 1	1 to 1	Diamonds pairs (except pair of diamonds 4's)	12 to 1
Player wins with total card count of 4	0.5 to 1	Any other pairs	9 to 1
Player wins with total card count of 1	2 to 1		
Player wins with any number except for 4 or 1	1 to 1		
Tie	8 to 1		
Banker Fabulous 4	25 to 1		
Player Fabulous 4	50 to 1		

12 BACCARAT (No Commission Tiger) Game

12.1 Paytables

BACCARAT - No Commission Tiger RTP: Min = 68.91%, Max = 98.77%	
WINNING BET	PAYS
Banker wins with point total of 6	0.5 to 1
Banker wins with any other total	1 to 1
Player	1 to 1
Tie	8 to 1
Tiger Tie	35 to 1
Tiger (with 2 cards)	12 to 1
Tiger (with 3 cards)	20 to 1
Big Tiger	50 to 1
Small Tiger	22 to 1
Tiger Pair (Single)	4 to 1
Tiger Pair (Double)	20 to 1
Tiger Pair (Twin)	100 to 1

13   BLACKJACK (Multi-Hand) Game

13.1 Paytables

MULTI HAND BLACKJACK RTP: depends on settings. Please see below	
WINNING BET	PAYS
Blackjack	1.5 to 1
Insurance	2 to 1
Win	1 to 1
Tie	Push

Sidebet - JACKPOT 777 RTP: 90.99%	
WINNING BET	PAYS
First player's card is 7	3 to 1
Different suited first and Second player's hand are 7	50 to 1
Same suited first and Second player's hand are 7	50 to 1
Different suited first, second and third player's hand are 7	100 to 1
Same suited first, second and third player's hand are 7	200 to 1

Sidebet - POKER HANDS RTP: 80.17%	
WINNING BET	PAYS
Player pair	4 to 1
Flush	10 to 1
Straight	20 to 1
Four of a Kind	100 to 1
Straight Flush	200 to 1
Royal Straight Flush	1000 to 1

RTP: 99.67%

RTP: 99.67%

RTP: 98.45%

RTP:99.38%

NOTICE:
regarding to customer requests, settings and RTP% can CHANGE.

14   CRAPS Game

14.1 Paytable

CRAPS RTP: Min = 83.33%, Max= 98.64% - 100%*			
WINNING BET	**PAYS**	**Lay bets (5% Commission)**	
Passline / Don't pass	1 to 1	Number 4 or 10	1 to 2
Come / Don't Come	1 to 1	Number 5 or 9	2 to 3
Big 6 / 8	1 to 1	Number 6 or 8	5 to 6
Come Odds		**Place bets**	
If 6 or 8 is the Point	6 to 5	Number 4 or 10	9 to 5
If 5 or 9 is the Point	3 to 2	Number 5 or 9	7 to 5
If 4 or 10 is the Point	2 to 1	Number 6 or 8	7 to 6
Don't Come Odds		**Hardways**	
If 6 or 8 is the Point	5 to 6	If 4 is rolled as pair of twos	7 to 1
If 5 or 9 is the Point	2 to 3	If 6 is rolled as pair of threes	9 to 1
If 4 or 10 is the Point	1 to 2	If 8 is rolled as pair of fours	9 to 1
Craps and eleven (C&E)		If 10 is rolled as pair of fives	7 to 1
If 2,3 or 12 is rolled	3 to 1	**One roll bets**	
If 11 is rolled	7 to 1	Any Craps (2,3 or 12)	7 to 1
Pass Odds		Seven	4 to 1 or 9 to 2
If 6 or 8 is the Point	6 to 5	Number 2 or 12	30 to 1
If 5 or 9 is the Point	3 to 2	Number 3 or 11	15 to 1
If 4 or 10 is the Point	2 to 1	Hop	15 to 1
Don't Pass Odds		Hooping Hardaways	30 to 1
If 6 or 8 is the Point	5 to 6		
If 5 or 9 is the Point	2 to 3		
If 4 or 10 is the Point	1 to 2		
Field bets			
If 3, 4, 9, 10 or 11 is rolled	1 to 1		
If 2 is rolled	2 to 1 or 3 to 1		
If 12 is rolled	2 to 1 or 3 to 1		
Buy bets (5% Commission)			
Number 4 or 10	2 to 1		
Number 5 or 9	3 t o 2		
Number 6 or 8	6 to 5		

* In case Field bet pays 3:1 for result 2 or 12 the max payback ratio equals 100%.

NOTICE:
In Baccarat, BlackJack and Craps game only some of possible paytables are displayed. Based on customer's requirements and setting valuess RTP% can change.