



Liquor and Gaming
Authority of Manitoba

GAMING INTEGRITY STANDARDS

ROULETTE WHEELS

Background

The Liquor and Gaming Authority of Manitoba (LGA) regulates licensed and provincial gaming in Manitoba to ensure that gaming is conducted honestly, with integrity and in the public interest. This authority is established by *The Liquor and Gaming Control Act* (the “Act”). All lottery schemes are required to have LGA gaming integrity approval, including approval of any associated gaming equipment. Suppliers intending to provide gaming equipment must be licensed by the LGA. Continued licence approval requires compliance with Gaming Supplier Terms and Conditions, including ensuring that at all times equipment supplied complies with any applicable Gaming Integrity Standards. The LGA reserves the right to amend these standards at any time.

Purpose

This document is intended to provide regulatory guidance to manufacturers, suppliers and purchasers of gaming equipment by providing Gaming Integrity Standards for Roulette wheels, their production and distribution. These standards ensure that gaming equipment used in lottery schemes in the province of Manitoba meet the tests for fairness, honesty, security, safety, and auditability.

Definitions

The following definitions are provided for use with these standards, the Gaming Integrity Terms and Conditions of approval and quality assurance testing.

1. “Ball/Canoe Stops” means equally spaced objects placed around the ball track to scatter the trajectory of a roulette ball with the intent to cause the ball to change course in a random manner as it falls from the track.
2. “Ball Track/Race” means the recessed area located on the outside of the inner rim of the wheel housing, in which the ball rotates and travels around the full circumference of the bowl.
3. “Biased” means an imperfection that causes certain numbers or sections of numbers to appear at a higher frequency than probability allows for.
4. “Bowl/Wheel Housing” means the stationary portion in which the roulette wheel’s cylinder sits within.
5. “Cone” is the cone shaped piece of wood located around the centre of the wheel head, between the turret and the separator ring.
6. “Crown/Turret” means the tower that is affixed onto the centre of the wheel head.
7. “Cylinder/Wheel Head” means the central part of the roulette wheel that rotates.

8. "Design Schematic" means a true rendering of the proposed Roulette wheel.
9. "Gaming Centre Provider" means a person who, under an agreement with MLLC, owns or operates premises in which MLLC operates provincial gaming.
10. "Gaming Operator" means a person who, under an agreement with MLLC, owns or operates premises in which the person operates provincial gaming.
11. "Gap" means the space between the wheel head and the bowl.
12. "Lottery Scheme" means a lottery scheme within the meaning of paragraph 207 (4) of the *Criminal Code* (Canada).
13. "MLLC" means the Manitoba Liquor and Lotteries Corporation and is also referred to as the "applicant" or "purchaser".
14. "Pad" means the area located on the bottom of each black, red or green numbered compartment located on the wheel head.
15. "Play" means the patron wagers his/her own currency to obtain a chance for realizing a reward.
16. "Provincial Gaming" means a lottery scheme referred to in paragraph 207(1) (a) of the *Criminal Code* (Canada).
17. "Roulette Wheel" means a round wheel with numbered pockets constructed in a manner to be perfectly horizontal and unbiased when spun.
18. "Separator Ring" means the non-metallic separators, designed as either frets or scallops, which become pockets or compartments upon the pad.
19. "Track" means the inner rim of the wheel head that holds the ball until gravity sends it toward the crown.
20. "Unique Manufacturer Identifier (UMI)" means the manufacturer's assigned serial number coded to each wheel produced to identify the wheel, including but not limited to; the premises in which the wheel was manufactured for, the brand, model and/or specific style of wheel, and the manufacture date.

LGA Gaming Supplier Licence

The supplier is required to be a LGA licensed gaming supplier, if their product is intended to be offered for play. The manufacturer may also be required to be a licensed gaming supplier.

Gaming Equipment Specifications

Quality assurance testing is required for gaming integrity approval of the gaming equipment. A design schematic may also be required if any custom design features are used in the construction of the gaming equipment.

1. The design schematic must be a true rendering showing the following characteristics:
 - a. Size of the wheel including all dimensions and technical specifications

- b. Brand or style of wheel, including design, model, etc.
- c. Type of separator ring used for the pockets/compartments
- d. Security feature(s) utilized, if applicable
- e. Materials used in the construction
- f. Placement of the premises name/logo, if applicable
- g. Placement of the manufacturer's name, logo or identifying mark
- h. Colour(s) and pantone (if applicable) utilized for the numbers

The schematic should provide the manufacturer's name, logo, and address; indicate the brand or style of wheel; and provide a section for the purchaser to approve and accept the schematic for production.

2. Whenever a shipment is received the MLLC, gaming operator or gaming centre provider is required to:
 - a. conduct quality assurance testing to ensure the gaming equipment meets the standards and conforms to the approval issued; and
 - b. apply some form of identification to the gaming equipment, for inventory purposes

The MLLC and the gaming operator or gaming centre provider should also refer to the LGA Gaming Integrity Application and Approval Requirements for further information and guidelines on the application process.

Standards

At any time Roulette wheels do not meet the following standards, the equipment may be returned to the supplier.

Construction

The MLLC is responsible to ensure the dimensions and specifications are compatible with the gaming table.

1. The roulette wheel should be constructed and designed entirely of non-metallic substances to alleviate interference from magnetic sources.
2. All affixed parts upon the roulette wheel must be secure and free from movement.
3. The manufacturer's name, logo or identifying mark must be placed upon the Roulette wheel and may be invisible to the naked eye. If invisible, the method and/or equipment used to identify and determine the manufacturer must be provided.
4. The manufacturer's UMI# must be placed on both the Roulette wheel's bowl and wheel head.
5. The premises name or logo may be imprinted or affixed upon each Roulette wheel head.

Cylinder/Wheel Head

1. The cylinder/wheel head must be constructed and designed to rotate and move freely of its own accord within the wheel housing.

2. The circumference of the cylinder must not be less than 20 inches in diameter and the wheel not less than 30 inches in diameter, unless otherwise approved by the LGA.
3. The weight of the wheel head must be equally distributed upon the rotor, allowing for unbiased and level movement within the bowl.
4. The height of the wheel head's outer edge must be level and flush to the height of the bowl rim. The manufacturer must provide and outline acceptable clearances.
5. The wheel head must be constructed and designed for ease in interchangeability without removing the rotor.

Rotor and Spindle/Turret

1. The rotor and spindle/turret must be designed in such a manner to prevent intentional wheel bias.

Canoe Stops

1. The Roulette wheel must contain, at a minimum, 8 canoe stops along the ball track.
2. The canoe stops must be constructed of a non-metallic material and designed with a double elliptical shape.
3. Each canoe stop must be precisely the same as every other stop and affixed in an alternating horizontal and vertical fashion along the ball track.

Ball Pockets/Compartments

1. The numbers and background colours around the cylinder/wheel head must be composed in the following clockwise order (beginning at Single "0"):

Double-zero wheels:

0 Green, 28 Black, 9 Red, 26 Black, 30 Red, 11 Black, 7 Red, 20 Black, 32 Red, 17 Black, 5 Red, 22 Black, 34 Red, 15 Black, 3 Red, 24 Black, 36 Red, 13 Black, 1 Red, 00 Green, 27 Red, 10 Black, 25 Red, 29 Black, 12 Red, 8 Black, 19 Red, 31 Black, 18 Red, 6 Black, 21 Red, 33 Black, 16 Red, 4 Black, 23 Red, 35 Black, 14 Red, 2 Black

Single-zero wheels:

0 Green, 32 Red, 15 Black, 19 Red, 4 Black, 21 Red, 2 Black, 25 Red, 17 Black, 34 Red, 6 Black, 27 Red, 13 Black, 36 Red, 11 Black, 30 Red, 8 Black, 23 Red, 10 Black, 5 Red, 24 Black, 16 Red, 33 Black 1 Red, 20 Black, 14 Red, 31 Black, 9 Red, 22 Black, 18 Red, 29 Black, 7 Red, 28 Black, 12 Red, 35 Black 3 Red, 26 Black

2. The colour of each ball pocket/compartment must either be a corresponding colour to those depicted on the ring or a neutral color, as approved on a case by case basis by the LGA.
- 3.1 The ball pockets/compartments on a scalloped ring must be designed so that any individual compartment is precisely the same as every other compartment in width and depth as all other compartments, are equally spaced and in an elliptical shape, and enable a roulette ball to land and rest within the pad.
- 3.2 The ball pockets/compartments on a fretted ring must be designed so that; any individual compartment is precisely the same as every other compartment in width and depth as all

other compartments, are equally spaced, prevent the ability of individually raising or lowering a fret or frets upon the pad and enable a roulette ball to land and rest within the pad.

Ball Track/Race

1. The surface of the ball track/race must have a perfectly smooth finish to allow for true randomness.

Distribution/Packaging

1. The Roulette wheel must be balanced and levelled by the manufacturer and/or supplier prior to shipment.
2. Quality assurance documentation must be provided to the purchaser for each Roulette wheel within the shipment.
3. All applicable manuals (operational performance, service, user, etc), preventative maintenance schedules, and any other applicable documentation must be provided to the purchaser.
4. Distribution methods must meet both the manufacturer's and the MLLC's requirements for shipping.
5. Each package, box, or other container must be sealed with a tamper resistant seal or tape, including a warning to the purchaser that it may have been tampered with if the package, box or other container was received by the purchaser with the seal broken. The seal or tape must be visible from outside the package, box, or container and must be of such construction as to guarantee that should the container be opened or otherwise tampered with, evidence of the opening or tampering would be easily detected.
6. A label shall be placed on, or be visible from, the exterior of each crate, box or other container to easily determine the intended premises, the type of product and the manufacturer.
7. A packing slip inside the carton listing the same information in point 6 is required. The packing slip must provide the unique manufacturer identifier, i.e., corresponding serial number placed on the wheel.
8. The manufacturer's identification name or logo must be placed on each packaged shipment or alternatively placed on each crate or box containing individual Roulette wheels.