



Liquor and Gaming
Authority of Manitoba

GAMING INTEGRITY STANDARDS

BINGO CALLER DESKS

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 Bingo caller desks, 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

1. “Designator” means an object used in the number selection process, such as a ping pong ball, upon which letters and numbers are imprinted.
2. “Electronic verification” means the verification of Bingo by entering the free space number of the winning Bingo card into computer equipment, which contains preprogrammed software for this purpose.
3. “Gaming Centre Provider” means a person who, under an agreement with MLLC, owns or operates premises in which MLLC operates provincial gaming.
4. “Gaming Operator” means a person who, under an agreement with MLLC, owns or operates premises in which the person operates provincial gaming.
5. “Lottery Scheme” means a lottery scheme within the meaning of paragraph 207 (4) of the *Criminal Code* (Canada).
6. “MLLC” means the Manitoba Liquor and Lotteries Corporation and is also referred to as the “applicant” or “purchaser”.
7. “Nameplate” means the manufacturer’s identifier appearing upon the exterior of the desk, which includes but is not limited to; the brand, model and serial number, and may include the manufacture date.

8. "Play" means the patron wagers his/her own currency to obtain a chance for realizing a reward.
9. "Provincial Gaming" means a lottery scheme referred to in paragraph 207(1) (a) of the *Criminal Code* (Canada).
10. "Random selection" or "randomly selected" means a process of selecting number designators to produce random numbers during a bingo game in which each designator or number in the remaining population has an equal chance or probability of being selected.

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.

1. Independent laboratory certification must be provided for each model of Bingo desk and associated random number generator (RNG) testing results, including all intended versions of firmware, when applicable.
2. The applicant is required to supply all manuals, the manufacturer's quality assurance tests and any other applicable documents to the LGA for review and retention.
3. 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 for the LGA application process.

Standards

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

Construction

Bingo desks vary greatly in size and style, therefore, no physical dimensions are enforced by LGA as there is no part of the Bingo desk where tolerances can be applied, or are critical, for its satisfactory operation. The MLLC is responsible to ensure the dimensions and specifications are compatible with other gaming equipment.

1. Bingo desks must have CSA or similar safety certification/approval.
2. Bingo desks must be readily identifiable by model number and all firmware must be readily identifiable by an ID and version number.

3. The Bingo desk must have a permanent nameplate containing the following information:
 - a. manufacturer's name and address
 - b. model number
 - c. serial number

4. The Bingo desk shall have either an approved manual ball blower system (A mechanical device that uses air flow for mixing and randomly withdrawing balls to determine the letters and numbers or symbols to be called.) or an approved electronic random number generator (RNG), to determine the order of drawn Bingo balls.

5.1 **Mechanical RNG**

For Bingo Desks with a ball blower system (mechanical RNG) the device shall be constructed to allow for the following:

- 5.1.1 Players have a full view of the mixing action of the balls.
- 5.1.2 The operation cannot be interrupted to change the random placement of the balls at the exit receptacle of the device, except when the device is shut off.
- 5.1.3 The spout is manufactured in such a way that it will trap the last Bingo ball, whenever the machine is turned off.
- 5.1.4 The tray is designed so that Bingo balls will automatically drop into the blower chamber, without manual assistance, when released from the tray.
- 5.1.5 The blower has sufficient power to randomly mix all of the Bingo balls.
- 5.1.6 The mechanical pieces are constructed of materials to prevent decomposition of any component over time (e.g., a ball shall not disintegrate).
- 5.1.7 The properties of physical items used to choose the selection (designator) cannot be altered and there is no discretion over which ball is drawn.
- 5.1.8 Players do not have the ability to physically interact or come into physical contact or manipulate the machine physically with the mechanical portion of the game.

5.2 **Electronic RNG**

For Bingo desks with an electronic RNG, the device shall be constructed in the following manner:

- 5.2.1 The use of an RNG result in the selection of game symbols or production of game outcomes. The selection shall:
 - Be statistically independent
 - Conform to the desired random distribution
 - Pass various recognized statistical tests
 - Be predictable

5.2.2 Applied Tests

The test laboratory may employ the use of various recognized tests to determine whether or not the random values produced by the random generator pass the desired confidence level of 95%. These tests may include, but are not limited to:

- a. Chi-square test
 - b. Equi-distribution (frequency) test
 - c. Gap test
 - d. Overlaps test
 - e. Coupon collector's test
 - f. Permutation test
 - g. Kolmogorov-Smirnov test
 - h. Adjacency criterion tests
 - i. Order statistic test
 - j. Runs test (patterns of occurrences should not be recurrent)
 - k. Interplay correlation test
 - l. Serial correlation test potency and degree of serial correlation (outcomes should be independent of the previous game)
 - m. Tests on subsequences
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- i. Background RNG Activity
The RNG shall be cycled continuously in the background between games and during game play at a speed that cannot be timed. The test laboratory recognizes that sometime during the game, the RNG may not be cycled when interrupts may be suspended. The test laboratory recognizes this but shall find that this exception shall be kept to a minimum.
 - ii. RNG Seeding
The first seed shall be randomly determined by an uncontrolled event. After every ball draw, there shall be a random change in the RNG process (new seed, random timer, delay, etc.). This will verify the RNG doesn't start at the same value, every time. It is permissible not to use a random seed; however, the manufacturer must ensure that games will not synchronize.
6. There shall be a method to display the RNG outcome for the numbers called at all Bingo games. The display must be visible to all players and clearly indicate all numbers that have been called.
 7. Each Bingo desk (with a corresponding reader board/flash board/display) must be designed so that the actual number drawn is always displayed.
 8. The Bingo desk should have some means of correcting any input errors, regarding drawn balls, up to the time the game is closed.
 9. The Bingo desk shall not have the ability to sell or modify sales information.
 10. Bingo desks must also meet GLI-15, Gaming Laboratories International Electronic Bingo System Standards – 2.4 Callers Desk Requirements, in conjunction with these Gaming Integrity standards.

Distribution/Packaging

1. All applicable manuals (operational performance, service, user, etc), preventative maintenance schedules, and any other applicable documentation must be provided to the purchaser, in either printed or electronic format.
2. 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.
3. 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 gaming equipment and the supplier.
4. A packing slip inside the carton listing the same information in point 3 is required.
5. The supplier's name, logo or identifying mark must be placed on each packaged shipment or alternatively placed on each crate or box containing individual Bingo desks.