



# User Manual

**Genion II  
[PN223, PN323,  
PN224, PN324]**

Version 4.0  
Confidential

## Genion II [PN223, PN323, PN224, PN324]

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# 1 Conformity, Compliance and Safety

The current Manual for the Genion II [PN223, PN323, PN224, PN324] lottery terminal is provided in order to guide the authorized service personnel throughout the installation of these terminals in the Lottery shops, agencies or in any other public environment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



## FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

- (1) This device may not cause harmful interference
- (2) This device must accept any interference received, including interference that may cause undesired operation.
- (3) FCC ID: 2ADEN-INTRALOT-GNN2 doesn't include RF TX function except NFC, WIFI



## FCC RF Radiation Exposure Statement

This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## 2 Safety and Precautions


**Attention:**

Please read the safety warnings and the precautions provided in the following paragraphs, to ensure that you use your terminal safely. Do not attempt to use the terminal in any way not described in this manual.

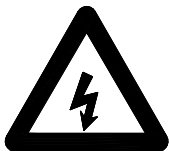

**Warning:**

Failure to follow these recommendations could result in serious injury to the personnel or in damage to the terminal.

### Electrical Safety Warning


**Warning:**

High Voltage, disconnect power supply and power off UPS before moving or servicing



Follow all applicable national regulations when making power connections and grounding or mounting hardware.

Carefully examine the working area for possible hazards such as moist floors, ungrounded power extension cables and missing safety grounds.

Keep always the equipment and site area clean and free of dust.

The power cables must be disconnected before installing or moving the equipment.

### Electrostatic Discharge Warning



Keep the equipment in the original packaging material and sheltered in the carton box until its installation.

It is always a good practice not to wear loose clothing, jewelry or other items that could get caught in the equipment.

Do not handle the equipment unnecessarily.

### Safety Instructions

- The environment for use must be within the range specified in the environment specifications.
- Follow all applicable regulations when making power connections and grounding or mounting hardware.
- Avoid using power extension cables.
- Always keep the equipment and site area clean and free of dust.
- Always use the power ON/OFF switch to turn the equipment on and off.
- Disconnect any power cables prior to moving the equipment.
- Locate a power outlet near the equipment for quick and easy removal of the power plug in case of emergency.

- Make sure that the equipment is connected to a grounded power outlet and do not use ungrounded power extension cables.
- In case the equipment develops smoke, unusual odors or makes strange noises, immediately shut it down, unplug the power cord and contact the Help Desk.
- Take care to remove excessive tickets/receipts from the printer's paper output prior to printing.

### Warning

- Do not spill liquids on the terminal or expose it in rain or moisture. Risk of fire or electric shock.
- Do not try to connect the equipment with devices other than those approved for the designated use.
- Do not block the equipment's ventilation holes and take care to provide adequate space for ensuring proper ventilation.
- Do not squeeze the power cords or place anything heavy on them.
- Do not connect/disconnect any cables from the terminal or its peripheral devices when in operation.
- Do not turn off the terminal while the printer operates.
- Do not unplug the power cord when the equipment operates, unless in case of emergency.
- Do not block the paper output of the printer as this can cause the paper to jam.



#### DANGER!

High-voltage inside the terminal. To reduce the risk of electric shock, do not remove the cover. No user-serviceable parts inside. Refer servicing to qualified service personnel.



#### CAUTION

- Replace used batteries only with the same type. Risk of explosion when using an incorrect or not approved type.
- Protect the environment by disposing used batteries according to the instructions.

### 3 Overview

**Genion II** is a compact and multi-functional terminal and a paperless access point for players that is ideally small for any store counter size.

Main features include:

- **Ticket Checker:** Scans tickets for winnings
- **Transaction Display:** Displays useful information during transactions.
- **Advertising Display:** when idle, displays promotional /informative videos, images and animated graphics.
- **Player Access Point:** Using their smartphone, contactless card, smartcard and voucher, layers gain access to: 1. player account, 2. players digital wallet, 3. player loyalty schemes
- **Autonomous Retailer Terminal:** As a standalone device, it serves as a selling point for instant tickets. When connected to a printer, it offers lottery quick picks and players may autonomously validate instant tickets.





## 4 Getting Started

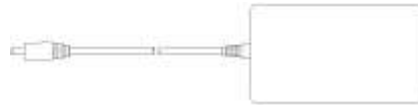
### 4.1 Unpack the equipment

Please make sure that the illustrated accessories are included in the packages prior to testing the equipment.

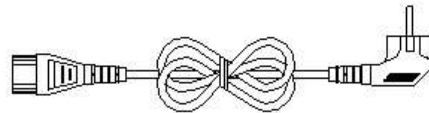
#### Genion II Package



- Power supply adaptor



- Power cable



- Genion II

### 4.2 Ports and Modules



Figure 1: SD Card Port



**Figure 2: I/O Board**



**Figure 3: Barcode Scanner Module**

## 5 Prepare Terminal for Use

### 5.1 Remove Genion SD card



Turn the Genion so that the OOBT technician has the back side in front of him. Locate on the left side the SD Card slot cover and remove the Rubber cover. A Philips Screw will be revealed.



Unscrew the Philips Screw with a corresponding Screwdriver and reveal the SD card slot along with the SD card inside it.

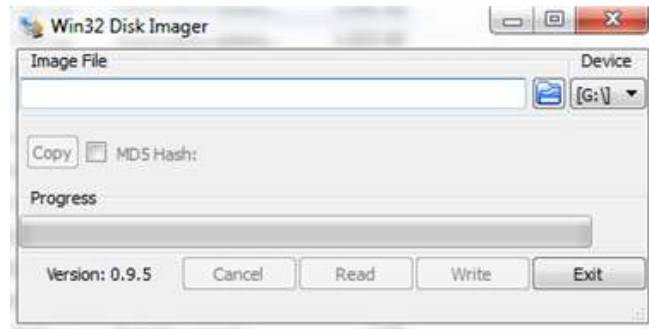


Press gently on the back of the card with your finger (press from the left side towards the right side to release the card from its socket). The SD card is ready to have the Image installed.

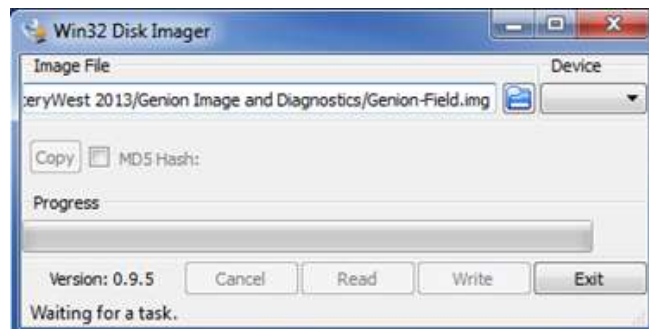
The needed equipment for the Image installation is a card reader that can accept SD cards of normal size, either portable or on a laptop socket.

## 5.2 Install Genion Image

- 1 All needed software is provided by Intralot in a USB stick carrying the Genion Image file and the application is called Win32DiskImager.
- 2 Identify the executable file Win32DiskImager.exe in the corresponding folder and run it.



- 3 Click on the blue folder icon and locate the file **Genion-Field.img**, if it is compressed into a file named **Genion-Field.img.gz** extract it. It is located on the provided USB stick. The file size of the extracted Image file is around 4GB.
- 4 Once the file is selected from its location you should see the screen on the right.



- 5 Select the proper device where the SD card is located and press Write.
- 6 The time needed for an SD to be written, is approximately 6 minutes.
- 7 Once Image file installation is completed follow the procedure described in the previous paragraph backwards to secure back into position the SD card.

## 5.3 Prepare Genion

- 1 Plug the Genion to the mains power.
- 2 Remove back cover for ease of access.
- 3 Plug the provided USB stick with Diagnostics in a USB port at the back of the Genion. Power on the Genion.
- 4 Wait for the Genion to show the diagnostics menu. The Genion is ready for testing.

## 6 Test Genion

### 6.1 Diagnostics Screen

Upon plugging in the Diagnostics USB flash, and powering up the machine the following screen appears.

- Using single mode you perform a single test, Batch mode, all the tests and Burn in Mode (which will not be used)
- Using Config you choose which tests will be performed in the OOBT, Network will present a form to fill with the network connections (not to be used in OOBT) and reset to reset the sequence of the tests.
- Shutdown shuts down the Genion.

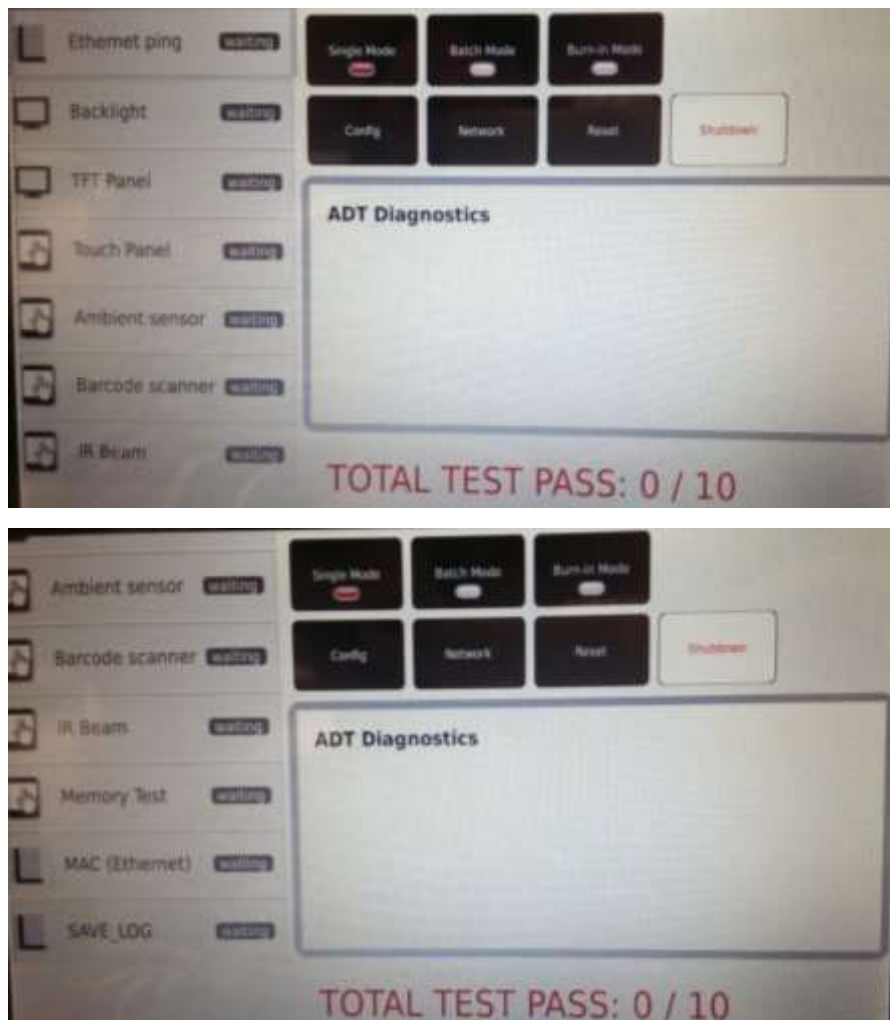


Figure 4: Genion Diagnostics Screen

## 6.2 Ethernet Ping

Description	Tests the Ethernet port.
Steps	<ol style="list-style-type: none"> <li>1. Plug the special Loopback Ethernet cable (see <b>Error! Reference source not found. Error! Reference source not found.</b>) to the LAN port at the back of the device.</li> <li>2. Touch the <b>[Ethernet Ping]</b> button.</li> <li>3. Note down the result.</li> </ol>

## 6.3 MAC Ethernet

Description	Tests the MAC Address.
Steps	<ol style="list-style-type: none"> <li>1. Touch the <b>[MAC Ethernet]</b> button.</li> <li>2. Note down the result.</li> </ol>

## 6.4 Memory Test

Description	Tests the device's built-in memory.
Steps	<ol style="list-style-type: none"> <li>1. Touch the <b>[Memory Test]</b> button.</li> <li>2. Note down the result (Pass/Fail)</li> </ol>

## 6.5 Barcode Scanner

!!!ATTENTION!!! To be able to perform this test you need to print a test barcodes using a laser printer.

Description	Tests the scanning ability of the integrated barcode reader.
Steps	<ol style="list-style-type: none"> <li>1. Touch the <b>[Barcode Test]</b> button.</li> <li>2. When prompted, scan the PDF-417 barcode.</li> <li>3. When prompted, scan the QR test barcode.</li> <li>4. When prompted, scan the interleaved test symbol barcode.</li> <li>5. If any of the above tests failed, repeat the test. Then, note down the result.</li> </ol>



## 6.6 USB Host Test

Description	Tests the USB host ports.
Steps	<ol style="list-style-type: none"> <li>1. Insert three formatted USB sticks into the device's USB ports. The third will be connected via a USB OTG cable</li> <li>2. Touch the <b>[USB Test]</b> button and wait for the test to complete.</li> <li>3. Note down the result.</li> </ol>

## 6.7 IRBeam test

Description	Tests the IR led and sensor.
Steps	<ol style="list-style-type: none"> <li>1. Touch the <b>[IRBeam Test]</b> button.</li> <li>2. Place your hand under the camera, in order to block the beam.</li> <li>3. Note down the result.</li> </ol>

## 6.8 Touch Panel

Description	Tests the touch screen functionality.
Steps	<ol style="list-style-type: none"> <li>1. Touch the <b>[Touch Panel]</b> button.</li> <li>2. The screen should look like this: <div data-bbox="445 725 975 1046" data-label="Image">  </div> <p>Touch the screen in the four designated circles.</p> <div data-bbox="445 1079 975 1395" data-label="Image">  </div> <p>On every corner you press the coordinates are shown and the circle becomes green.</p> </li> <li>3. Upon completion the test will exit.</li> <li>4. Note down the result.</li> </ol>

## 6.9 Backlight Test

Description	Tests the monitor's backlight.
Steps	<ol style="list-style-type: none"> <li>1. Touch the <b>[Backlight Test]</b> button. The screen turns white and the backlight loops between four (4) levels of intensity.</li> <li>2. Verify that there are four (4) clearly distinguishable intensity levels and when prompted respond within 10 seconds (else, the test will result in an 'UNDETERMINED' status).</li> <li>3. Note down the result.</li> </ol>

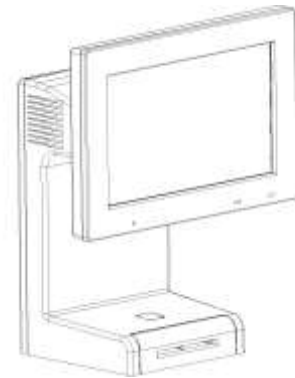


## 6.10 TFT Panel Test

Description	Tests the LCD screen for bad pixels.
Steps	<ol style="list-style-type: none"> <li>1. Touch the <b>[TFT Panel Test]</b> button. The screen displays five (5) colors (red, green, blue, white and black) in succession.</li> <li>2. Verify that there are no visible bad pixels and when prompted respond within 10 seconds (else, the test will result in an 'UNDETERMINED' status).</li> <li>3. Note down the result.</li> </ol>

## 6.11 Ambient Sensor Test

Description	Test the ambient light sensor.
Steps	<ol style="list-style-type: none"> <li>1. Make sure that the testing facility is well lit.</li> <li>2. Touch the <b>[Ambient sensor Test]</b> button.</li> <li>3. Use your finger to cover the light sensor located next to the power led. Keep your finger on the light sensor until the test completes.</li> <li>4. Note down the result.</li> </ol>



## 6.12 Save log

Use this button to save the log of the aforementioned tests

## 7 Troubleshooting

Symptom	Possible cause	Suggested action
<b><i>Does not start</i></b>	<b>The power cable is either loosely connected or damaged.</b>	Reconnect the power cable to both the terminal and the mains socket. If the problem remains, replace the power cable and recheck.
	<b>The terminal's power supply unit has a fault.</b>	Check whether the LED on the power supply unit is lit. If not, then you may need to replace the power supply unit.
<b><i>Does not display an image</i></b>	<b>The terminal has 'frozen'.</b>	Press and hold the terminal's power switch for about 4 seconds to power off. Wait for 30 seconds, then power back on.
<b><i>Shuts down or reboots while in operation</i></b>	<b>The terminal's power supply unit has a fault.</b>	Replace the power supply unit and recheck.
<b><i>The terminal or its power supply unit makes an abnormal noise and/or emits a burning odor</i></b>	<b>A severe fault has occurred.</b>	Immediately power off and remove the terminal from the mains socket. Send the terminal along with its power supply unit to the Repair Lab.
<b><i>Fails to read some play slips or the barcodes of some tickets</i></b>	<b>The camera's reading tray is not uniformly lit.</b>	Reposition the device away from a strong or reflective light source.
	<b>The paper is severely wrinkled or folded.</b>	Flatten the paper and try scanning again.
	<b>The protective glass in front of the image sensor is dirty.</b>	Clean the glass with a soft cloth.
<b><i>The image displayed is faded</i></b>	<b>The display's brightness and/or contrast may be set too low.</b>	Use the display's control buttons to increase the brightness and/or contrast.
<b><i>The speakers make no sound.</i></b>	<b>The volume is too low.</b>	Raise the volume.
	<b>The sound subsystem has 'hanged'.</b>	Power off the terminal, wait 30 seconds and then power back on.
<b><i>The touch screen does not respond as it should.</i></b>	<b>The touch screen is not properly calibrated.</b>	Use the Diagnostics tool's specific function to calibrate the touch screen.

## 8 Operating & Environmental Conditions – Dimensions – Technical Specifications

	FULL	LITE
<b>PROCESSOR</b>	Freescale i.MX 6 Solo ARM® Cortex™-A9 at 1.06GHz	
<b>SYSTEM MEMORY</b>	512MB DDR3 (1GB max)	512MB DDR3
<b>STORAGE</b>	1x SD Card, 16GB (default)	
<b>MAIN I/O EXTERNAL INTERFACES</b>	2 x USB, 1 x OTG USB, 1 x COM 1 x Fast Ethernet	1 x OTG USB, 1 x COM, 1 x Fast Ethernet
<b>DISPLAY</b>	TFT-LCD with LED Backlight, 7" (16:9), 1024 x 600, Bezel-less	
<b>TOUCHSCREEN</b>	Projected Capacitive	n/a
<b>BARCODE READER</b>	1D & 2D Barcodes (including PDF417, QR, Data Matrix, MaxiCode)	
<b>AUDIO</b>	Stereo Output 2W, Capacitive Type Microphone	Buzzer
<b>OPTIONAL FEATURES</b>	Smartcard Reader, NFC, Wi-Fi, Bluetooth	Wi-Fi
<b>DIMENSIONS (D x W x H)</b>	11.9 x 19.6 x 23.9 cm, 17.2 x 19.6 x 26.1 cm (with desktop base)	
<b>FOOTPRINT (D x W)</b>	11.1 x 11.8 cm, 17.2 x 14.8 cm (with desktop base)	
<b>WEIGHT</b>	1.55 kg, 2.3 kg (with desktop base for increased stability)	
<b>OPERATING TEMPERATURE</b>	5°C to 45°C	
<b>CERTIFICATES<sup>1</sup></b>	UL, CE, FCC, CB, RCM, RoHS	

**Figure 5: Technical Specifications**

<sup>(1)</sup> Note: FCC ID: 2ADEN-INTRALOT-GNN2 doesn't include RF TX function except NFC WIFI

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