

Nema-4X Pictogram Combination Unit

Emergency Light and Pictogram Sign



IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. All servicing should be performed by qualified service personnel.
2. Do not let power supply cords touch hot surfaces.
3. Do not mount near gas or electric heaters.
4. Use caution when handling batteries. Avoid possible shorting.
5. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
6. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
7. Caution: If optional Halogen cycle lamp(s), symbol (H—), are used in this equipment, to avoid shattering: do not operate lamp in excess of rated voltage, protect lamp against abrasion and scratches and against liquids when lamp is operating, dispose of lamp with care.
8. Halogen cycle lamps operate at high temperatures. Do not store or place flammable materials near lamp.
9. Do not use this equipment for other than intended use.
10. Unit to be installed only as per configuration described in this instruction manual.

SAVE THESE INSTRUCTIONS

Installation Instructions

1. Turn off AC power.

Canopy Mount

- a. Remove canopy assembly from carton. Remove mounting plate from canopy and retain securement screw.
- b. Route AC circuit wires into the junction box and leave 6" of wire length.
- c. Remove proper knockouts in canopy backplate for desired mounting position. For **Nexus** wired option, install the liquidtight™ fitting, provided with the unit. For Ceiling mount, use the knockout located on top of the unit. For Side mount, use the knockout located on side of the unit (see fig. 4).
- d. Feed AC wires through large hole in canopy mounting plate.
- e. Make sure the securement screw is accessible (see figures.1 & 2 part # 13). Use existing screws in junction box to secure canopy backplate to the junction box.

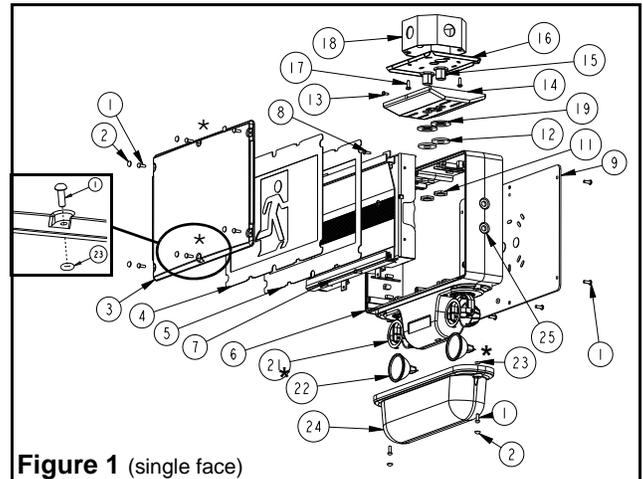


Figure 1 (single face)

*Note: Install o-rings on the screws between the lens and the frame.

Parts List

- | | |
|---|--|
| 1. Tamper-proof screws short (6 per side) | 14. Canopy |
| 2. Screw covers | 15. Nipple assembly (2) |
| 3. Lens-legend | 16. Canopy backplate |
| 4. Picto panels | 17. Junction box screws (not supplied) |
| 5. Opal panel | 18. Junction box (not supplied) |
| 6. Frame | 19. Nylon washer (2 for wall mount) |
| 7. Electronic module | 20. Junction box gasket (for wall mount) |
| 8. Electronic module screws (4) | 21. Swivel |
| 9. Backplate (single face sign) | 22. MR16 lamp |
| 10. Diffuser (double-face) | 23. O-ring |
| 11. Lock-nuts (2) | 24. Lens-emergency light |
| 12. Gasket washer (2) | 25. Knock-out cover |
| 13. Canopy securement screw | |

Part # 10(diffuser) is not shown in any figure.

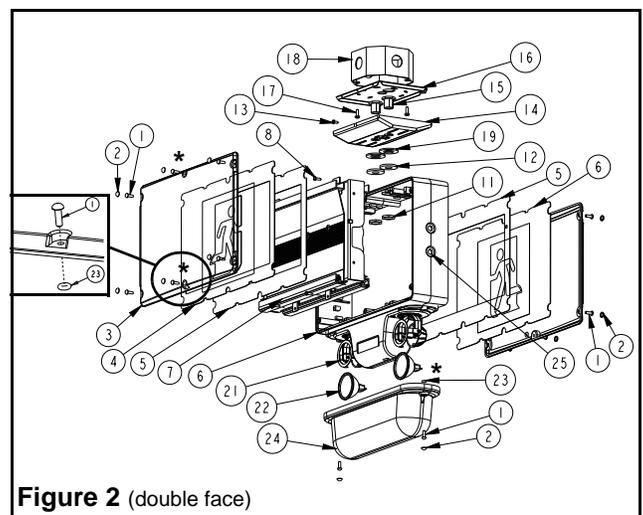


Figure 2 (double face)

*Note: Install o-rings on the screws between the lens and the frame.

- f. Remove lens, picto panels and opal panel from the packaging.
- g. In order to access the knockouts of the frame, remove the 4 electronic module screw(s) holding the electronic module to the frame (see figure 3), disconnect the lamps from terminal block and remove the electronic module.
CAUTION! For Nexus RF models. To avoid damaging the antenna, you must be vigilant when removing and re-installing the electronic module.
For double face models, you must first remove the diffuser (10) to pull out the module from the frame.
- h. Determine which holes in the exit frame will be used for mounting (see figures 1,2 & 4). Support frame by two blocks of wood, maximum one inch apart. Strike knockouts with a hammer and screwdriver. Clear holes of burrs to allow proper assembly of nipple/wire assembly. Note: end mount installation is weatherproof but not certified Nema 4X (see figure 4).
- i. Secure canopy to the frame by threading the provided nipple/wire assembly through the canopy and frame. Make sure the gasket washers are between the canopy and frame, and that the locknuts(11) are inside the exit sign (see figure 4).
- j. Reassemble the electronic module inside the frame and do the electrical connections inside the enclosure.
Double face: diffuser (part 10 shown in figure 2) to be removed in order to do the electrical connections (see page 3).
- k. For double face models: Before re-installing the electronic module, you must first re-install the diffuser (10) by clipping the top section to the electronic module and then screwing the bottom section (see figure 3).

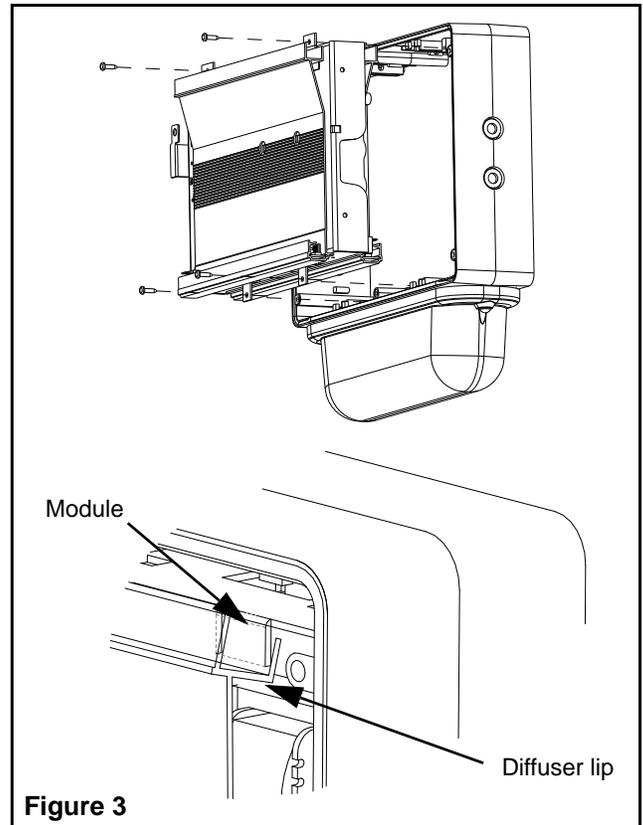


Figure 3

Wall Mount (Single Face Model Only)

- a. Remove the backplate from the packaging. Determine the proper knockouts to remove for mounting to a junction box (see figure 5).
- b. Support area around knockouts with two blocks of wood. Strike knockouts from the inside with a hammer and a screwdriver. For **Nexus** wired option, install the liquidtight™ fitting, provided with the unit.
- c. Remove the 4 electronic module screw(s) holding the electronic module to the frame (see figure 3), disconnect the lamps from terminal block and remove the electronic module.
- d. Mount parts 11, 12, 15 & 19 to backplate, as shown in figure 5, and reinstall the backplate to the frame using the tamper-proof screws (use the supplied bit).
- e. Make the electrical connections inside the junction box (see page 3).
- f. Attach the frame to the junction box, using the junction box supplied screws.
- g. Use the hook provided with in the canopy to temporarily support the electronic module on the frame.
- h. Complete electrical connections (see page 3).

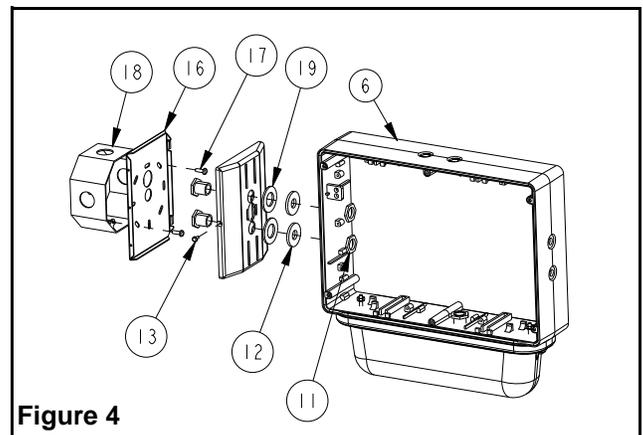


Figure 4

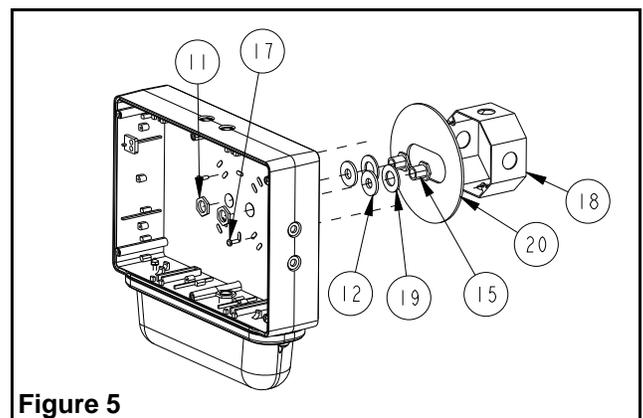


Figure 5

2. **Electrical connections:** Using the sealed AC nipple/wire assembly (3 wires), connect one end to the transformer leads inside the enclosure and the other end to AC line voltage inside the junction box. Connect the white lead to neutral and the green lead to ground. Connect the purple lead to AC line voltage and to appropriate transformer lead (See figure 6 for color code).



Unused primary wire must be insulated to prevent shorting.

Remote lamp Option:

For models with DC remote capacity, the sealed DC nipple/wire assembly (2 wires) will also need to be installed. One end connects to the AD charger terminal block inside the enclosure and the other end to DC output inside the junction box. Connect the red lead to positive, and the blue lead to the negative of the remote DC output (See figure 6).

For models with flasher-buzzer or fire alarm, the sealed DC nipple/wire assembly (2 wires) will also need to be installed. One end connects to the optional module terminal block inside the enclosure and the other end to DC input inside the junction box. Connect the red lead to positive and the blue lead to the negative (See figure 7)

Nexus models

For Nexus models, refer to "Nexus addendum" and for any additional information, go to www.Nexus-System.com.

These units can accept an input voltage of 120 or 347 VAC:

120 VAC

Connect the black (120 VAC) lead and white (neutral) lead to the building utility. Insulate the red wire to prevent shorting.

347 VAC

Connect the red (347 VAC) lead and white (neutral) lead to the building utility. Insulate the black wire to prevent shorting. Feed excess wire into the junction box.

Leave as much space as possible between the live voltage cabling and the unshielded low voltage data cabling.

Run the double insulation of data cables past the line cabling section and only strip back the last 30mm of the data cable sheathing.

3. **For canopy mount:** Attach the canopy backplate to the junction box using the junction box screws. Mount the frame and canopy assembly to canopy back plate by using the provided securement screw.
4. **For wall mount:** Reinstall the electronic module inside the frame.
5. Select the desired picto panel and install it with the opal diffuser behind. The picto panel without arrow shall be installed facing right (see Figure 8).
6. Install the lens-legend by using the 6 tamper-proof screws. The o-rings have to be installed on the center screws between the lens-legend and the frame as shown in figures 1 and 2.
The tamper-proof screws should be equally torqued to approximately 10 - 15 in-lbs (1.1 - 1.7 N-m).
7. Remove the lamp protectors.
8. Energize AC. Sign will illuminate.

Manual Testing

Operate the magnetic "test switch" by holding the provided magnet near the AC pilot lamp, where indicated on the legend. This will initiate a one minute test. The DC lamps will illuminate for approximately one minute, then the unit will automatically return to stand-by mode. Test can be cancelled by holding the magnet near the test switch again.

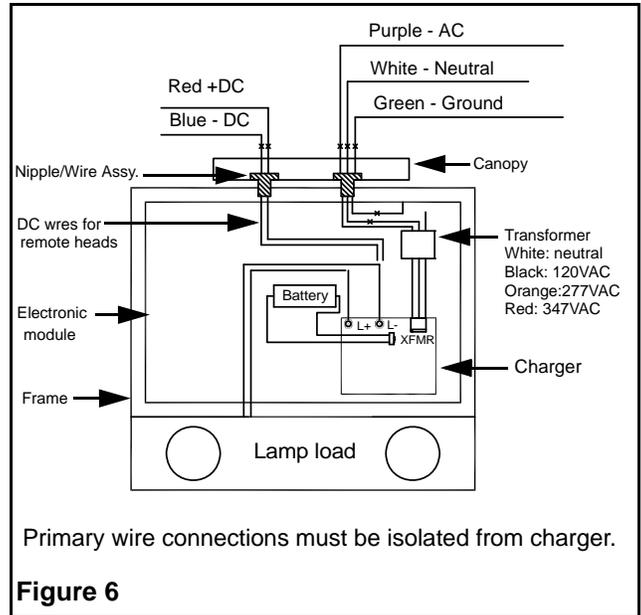


Figure 6

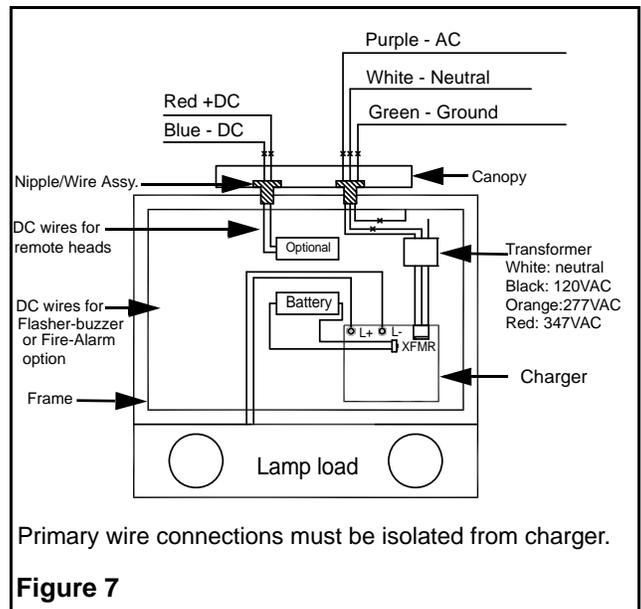


Figure 7

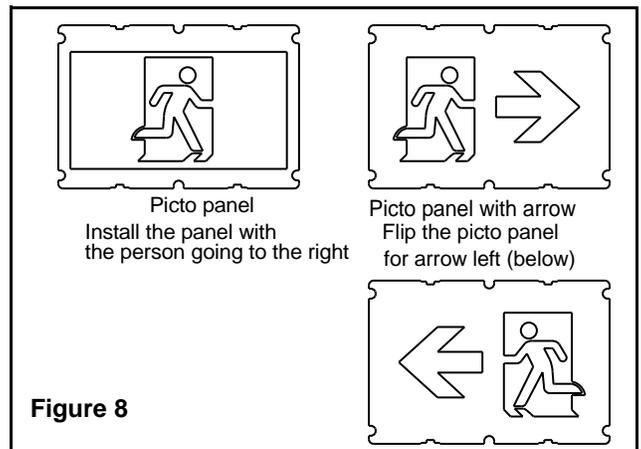


Figure 8

Automatic Testing

The unit will perform an automatic self-test of 1 minute every month, 10 minutes every 6 month and a 30 minutes self-test once a year.

Automatic Diagnostics

The Diagnostic Indicator is located on the Top left Corner (see figure 9). A label is applied on the lens to indicate the location of the LED indicator. The LED is bi-color. When the unit is in normal condition and no faults are detected, the LED indicator will be steady green. Otherwise, please check the following table.

Please note that any fault condition produces an audible warning (if activated). It consists of an intermittent beep, one second ON, one second OFF.

Status LED

Indicator	Meaning
Steady green	AC On
Blinking green	In Test
Steady red	Battery disconnect AND/OR load disconnect
1 red blink, pause of 5 seconds	Battery failure
2 red blinks, pause of 4 seconds	Charger failure
3 red blinks, pause of 3 seconds	Lamp failure
4 red blinks, pause of 2 seconds	LED strip failure (combo version)

For Nexus models, refer to "Nexus addendum" and for additional information about the Nexus system, go to "www.nexus-system.com".

For more information about the AD function, please consult the web site for this user manual:

"AD with Single LED Status User Manual"

Lamps adjustment

Adjust the lamps in appropriate position. The lamp can be adjusted 90 degrees horizontally and vertically when wall mounted. For canopy mount, a plastic pin can be removed to increase horizontal adjustment up to 180 degrees (See figure 10A & B). Lamp shouldn't be directed on opaque surface, closer than 1 meter.

Food processing facilities

Screw and knock-out covers (see figure 1 parts 2 & 25) are available in the hardware kit. These covers can be installed on screws and knock-out to avoid any food accumulation. Note: some detergent used in food processing industry can affect durability of polycarbonate lens (see figure 1 parts 3 & 24).

Maintenance (All Models)

None required. If AC supply to the unit is to be disconnected for 2 months or more, the battery must be disconnected.

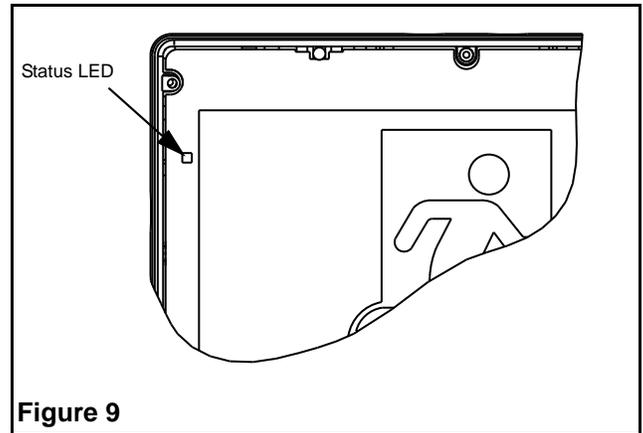


Figure 9

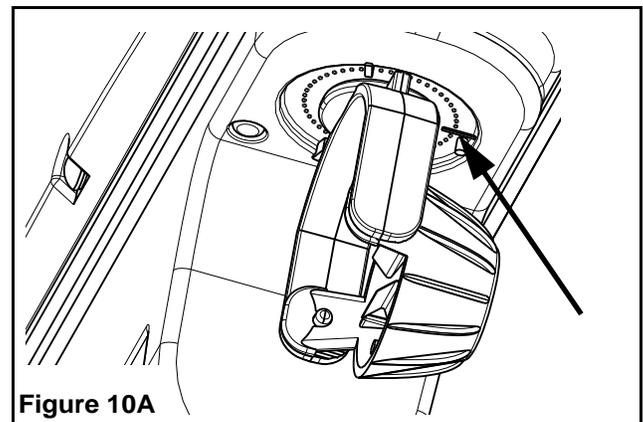


Figure 10A

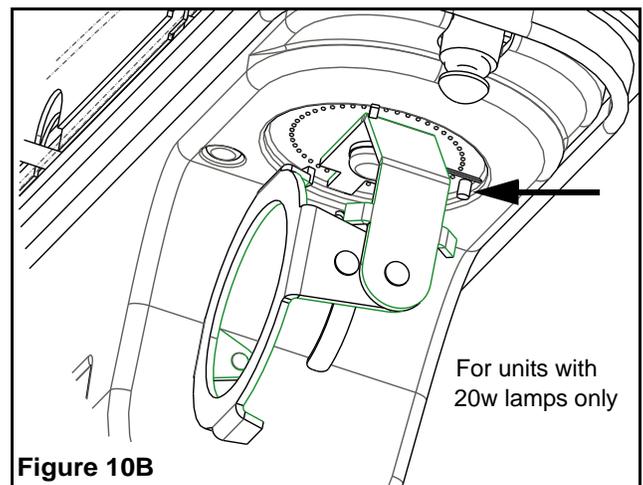
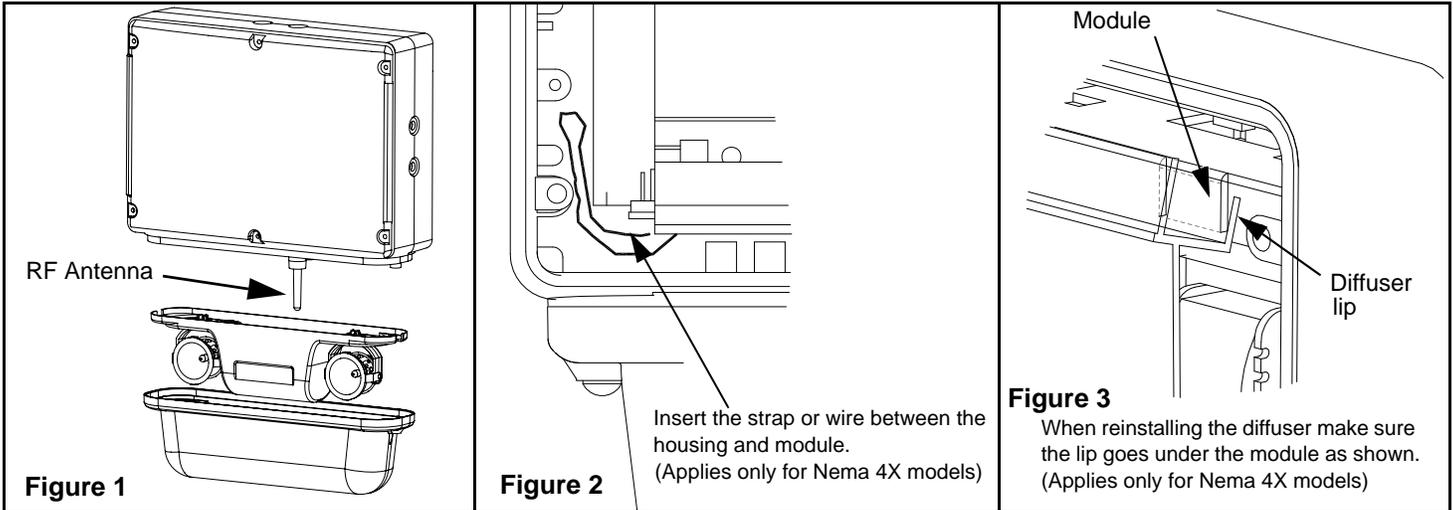


Figure 10B

Nexus RF Addendum - Nema 4X & Class I Division 2 combo models

Antenna installation

Turn the AC power OFF. All electrical installations should be performed by a qualified electrician. The antenna supplied with this equipment must be installed as shown below in Figure 1.



Figures for reference only

CAUTION! Handle the electronic module with care.

To avoid damaging the antenna, you must be vigilant when removing and re-installing the module.

For double face models, you must first remove the diffuser to pull out the module from the frame (refer to installation instructions).

⚠ WARNING:

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

1. this device may not cause harmful interference.
2. this device must accept any interference received, including interference that may cause undesired operation.

Status LED

LABEL		INDICATOR ACTIVITY	MEANING
●	AC ON	Steady green	AC on
- ●	IN TEST	Blinking green	Testing in progress
●	BATTERY/LAMP DISCONNECT	Steady red	Battery disconnected and/or load disconnected
- ●	BATTERY FAILURE	1 red blink, then a 5-second pause	Battery failure
● ●	CHARGER FAILURE	2 red blinks, then a 4-second pause	Charger failure
● - ● ●	LAMP FAILURE	3 red blinks, then a 3-second pause	Lamp failure
● ● ● ●	LED STRIP FAILURE	4 red blinks, then a 2-second pause	LED strip failure (combo version)
●	SERVER FAILURE	Steady yellow	Server failure
- ●	BLINK MODE	Blinking yellow	Wink mode
- ● - ●	NOT COMMISSIONED	Alternating yellow and green blinks	Unit not commissioned

FCC Statement

This device complies with part 15 of the FCC rules.

FCC ID: W3BGC822843

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 or more of the following measures:

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



IMPORTANT! Changes or modifications not covered in this addendum must be approved in writing by the manufacturer's Regulatory Engineering Department. Changes or modifications made without written approval may void the user's authority to operate this equipment.

Industry Canada

The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met.

IC: 8100A-GC822843

Canadian Wireless Regulatory

This Class B digital apparatus meets all the requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions: a) this device may not cause any interference, and b) this device must accept any interference, including interference that may cause undesired operation of the device. To prevent radio interference to the licensed service, this device is intended to be operated indoors, and away from windows to prevent maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Unauthorized Antenna Modifications

Use only the supplied integral antenna. Unauthorized antenna modifications or attachments could damage the unit and may violate FCC regulations. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



Precautions against electrostatic discharge (ESD)

Make sure to discharge any built-up static electricity from yourself and your electronic measurement devices before touching this equipment. The recommendation from the dealer is that you take this precaution before installation and connecting this equipment.