Introduction

Thank you for buying a LumenRadio CRMX Slim product. This guide is intended to give you a quick start to experience the benefits of LumenRadio's CRMX system. The CRMX products you just purchased are designed to give you the highest reliability on the market and are fully compatible with other CRMX products in entertainment lighting (CRMX Nova, CRMX Outdoor, CRMX OEM). Through this you are able to expand your wireless system with units from our other product lines as well as with those of our partners. For the latest updates please visit the LumenRadio website www.lumenradio.com.

We hope that you will enjoy our products and that they will bring benefits and positive experiences.

LumenRadio

RF Link
DMX
RDM
DALI

CRMX OUTDOOR
Coexistence assured

Easy one-button operation. See page 3 for details.

Notice

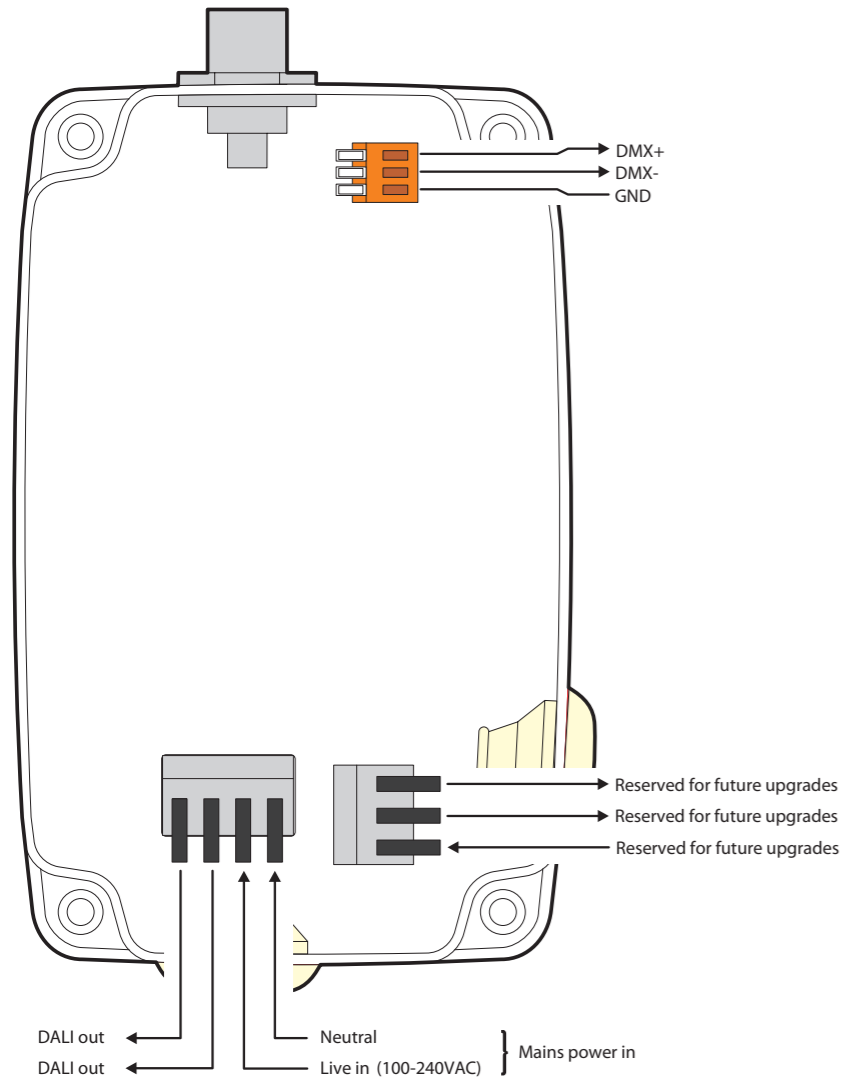**To optimize range and performance:**

• Keep antennas upright
• Maintain TX to RX line of sight
• Elevate the units above any crowds
• Elevation above ground increases range
• Keep away from large metal objects

Connections

All connections are made via the two cable glands.

100-240VAC power input/output
Warning: Ensure that the supply is de-energized before connecting, disconnecting or whenever opening the casing.

→ DMX+
→ DMX-
→ GND

Cable size and type

Diameter = 8 - 13mm
Use stranded cable only

Power terminal connections

Max wire size = 1,5mm^2 (16 AWG)
Min wire size = 0,08mm^2 (28 AWG)
Min insulation strip length = 4 mm

DMX terminal connections

Max wire size = 0,5mm^2 (20 AWG)
Min wire size = 0,08mm^2 (28 AWG)
Insulation strip length = 5-6mm

→ Reserved for future upgrades
→ Reserved for future upgrades
→ Reserved for future upgrades

DALI out ←
DALI out ←
→ Neutral
→ Live in (100-240VAC)
} Mains power in

TIPS: The two grey connector blocks can be detached from the circuit board to assist with connections.

A loose two-way connector block is also included to terminate the mains ground input or to provide a ground link through to the sensor power connection (if used).
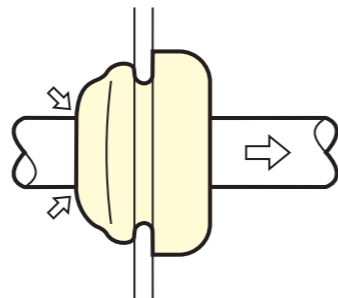
Correct use of the cable glands

When used correctly, the glands offer full environmental protection up to IP65.

1. Each gland has a membrane inside it. Puncture this using an appropriate tool or the cable itself.

2. Insert the cable through the gland, with an additional 1cm of cable than your desired length.

3. Retract the cable 1cm, to ensure the IP seal.

Operation

CRMX Slim units can link with any other CRMX units as well as legacy W-DMX™ (G2/G3/G4) transmitters (2.4 GHz only).

To link

1. Ensure the antenna is connected.
2. Power on the transmitter and receiver(s).
3. Ensure that the RF Link indicators on all receivers are off to indicate that the receiver(s) are ready to be linked. (If necessary, follow the unlink procedure.)
4. On the transmitter, press and release the ⊗ button.
5. The transmitter will search for any unlinked receivers. Its RF Link indicator will flash for 10 seconds and normal operation will resume.
6. The RF Link indicator will change to a steady on-state on successfully linked receivers.

To unlink

- **Unlink one**: On the receiver, press and hold its ⊗ button for more than 3 seconds to unlink it from a transmitter. The RF Link indicator will extinguish.
- **Unlink all**: On the transmitter, press and hold its ⊗ button for more than 3 seconds to unlink all of its receivers.

Control panel

Status indicators
RF Link on Transmitter:
On = Normal operation.
Fast flashing (~3Hz) = Linking.
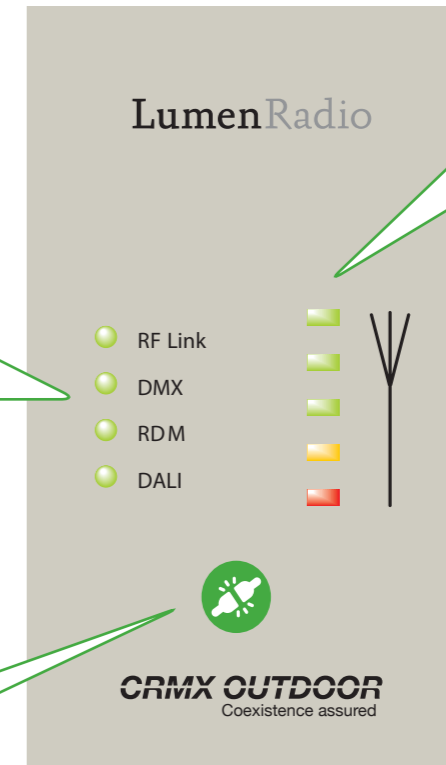Slow flashing (~1Hz) = Unlinking.
RF Link on Receiver:
On = Linked with RF signal.
Off = Unlinked.
Fast flashing (~3Hz) = Linking or linked, but with lost RF signal.
DMX: On when DMX is present.
RDM: Flashes to RDM activity.
DALI: On when a DALI conversion is active. Flashes when DALI data is being sent.

Signal quality indicators
Transmitter:
Not used/All off.
Receiver:
Top green = 80% signal quality.
Mid green = 60% signal quality.
Bottom green = 40% signal quality.
Amber = 20% signal quality.
Red = Link problem.

LumenRadio

○ RF Link
○ DMX
○ RDM
○ DALI

CRMX OUTDOOR
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Link button - press to link with, or unlink from, another unit.

Using SuperNova

The default DMX address for the DALI/DSI interface is channel 1. After a discovery in SuperNova the Slim receiver will appear as two units, the actual Slim wireless module as well as the DALI/DSI interface. The start address of the DALI/DSI interface can be set in SuperNova. SuperNova runs on any Windows, Mac OS X or GNU/Linux computer with a Java runtime environment of at least version 1.6. The latest version of SuperNova as well as detailed user guides can be accessed at www.lumenradio.com/supernova.

Specifications

Power input:	100-240VAC / 50-60Hz
Maximum consumption:	3W
Operation temperature range:	-20°C to +50°C (-4°F to 122°F)
Environmental:	IP65 (protected from water jets)
Frequency range:	2.402 to 2.480 GHz
Output power levels:	300mW (25dBm) (Permitted only in North America), 100mW (20dBm), 35mW (15dBm), 10mW (10dBm)
Order code CRMX Slim receiver:	800-5001/OS-RRX1
Order code CRMX Slim transmitter:	800-5101/OS-DTX1

Firmware upgrade

All CRMX units are upgradeable. Please contact your local distributor for more information.

Mounting template (1:1)

TOP

11mm

25.5mm 25.5mm

5mm

90mm

174mm 152mm 156mm

Ø4mm Ø4mm

11mm

Ø7mm

13mm
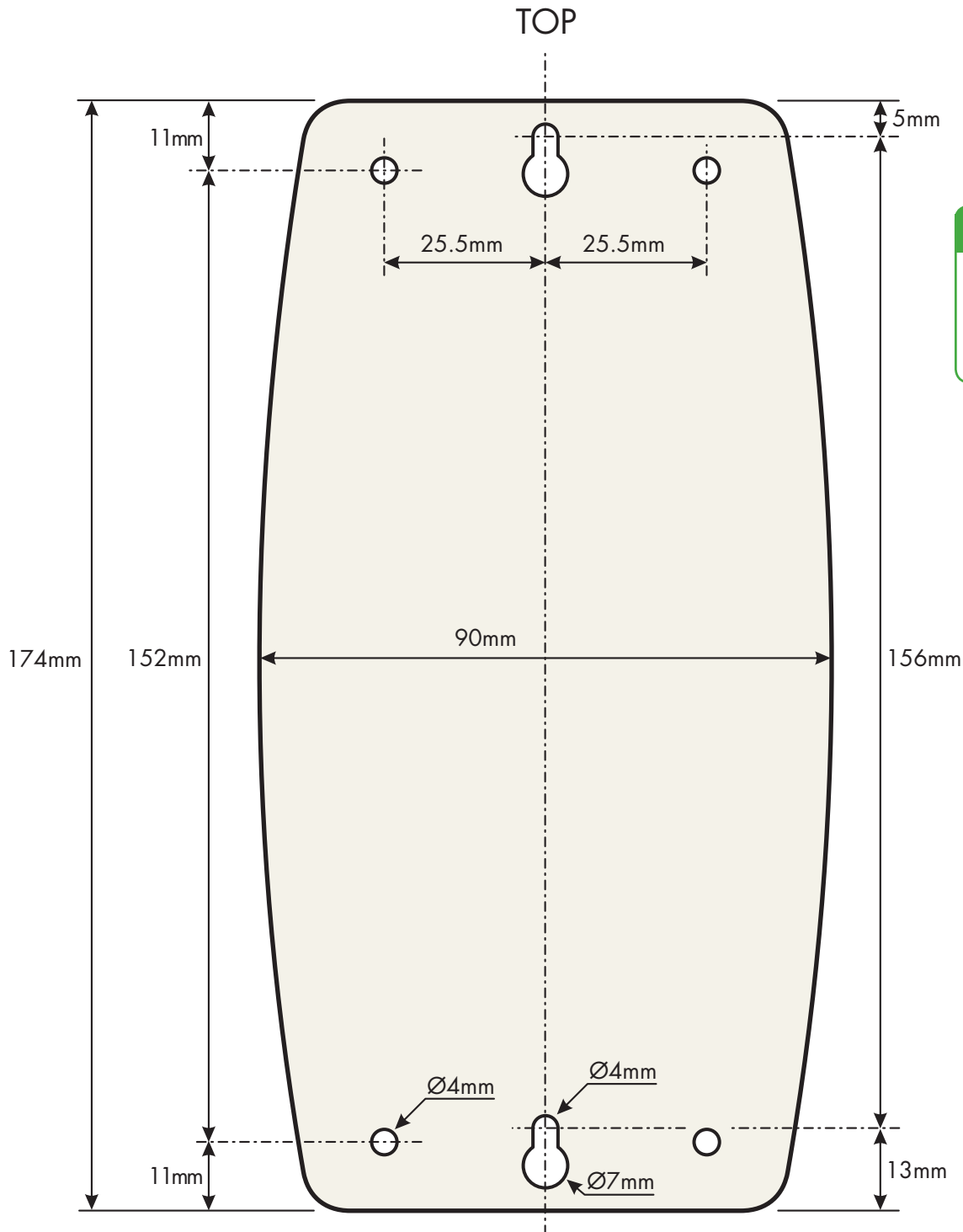
FCC statement

Note: 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:

- 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.

EU Declaration of Conformity

These products compliance with the Essential Requirements of the R&TTE Directive of the European Union (1999/5/EC). This equipment meets the following conformance standards:

ETSI EN 301 489-1 V1.8.1; ETSI EN 301 489-3 V1.4.1;
ETSI EN 300 328 V1.7.1; EN 609 50

FC FCC ID: XRSCRMXNOVA101
IC: 8879A-CRMXN101   CE ① ☒

SRRC CMIT ID: 2011DJ0708   US Patent 7,432,803

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