

# CRMX user guide

## Wireless DMX

Lighting control via wireless is nothing new, there are plenty of options. Trouble is, everyone is using the same narrow band of frequencies, and not just for lighting. Your competition are wireless microphones, in-ear monitors, Wi-Fi, ZigBee, Bluetooth devices and many more - often at the same time.

To achieve true wireless link reliability, you need an ingenious approach: CRMX™ (Cognitive Radio MultipleXer) provides the answer. Using our *Cognitive Coexistence* system at its heart, CRMX continually monitors the whole frequency band to identify all problem areas and dynamically shifts its operation. The result is that CRMX neither disturbs, nor is disturbed by other systems - it totally coexists, even in the most crowded areas.

CRMX units use high frame refresh rates and intelligent error correction routines to fix problems before they ever become apparent. CRMX units are so efficient that they can repair most corrupted or mis-timed inputs from other devices - a kind of *DMX washing machine* to clean up dirty signals.

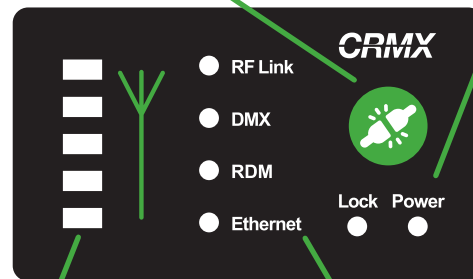
CRMX units are available as single transmitters and receivers which support DMX-512A.

## Front panel controls

Each unit uses an indicator panel to control and report upon its operation. See the operation section for details on how to link and unlink CRMX units.

**Link** - press to link with, or unlink from, another unit.

**Lock** - lit when keylock is locked.  
**Power** - lit when power applied.



### Signal quality indicators

Not used on transmitters. For receivers, the amber indicator turns on at roughly 20% of maximum signal quality and the top green indicator turns on at roughly 90%. The red indicator turns on only if a problem occurs with the link to the transmitter.

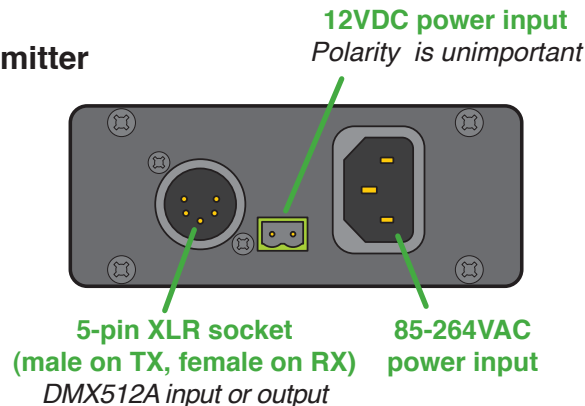
### Status indicators

**RF Link:** Indicator on when this unit is linked. *Receiver:* Flashes fast (~3Hz) if link is lost or when linking. *Transmitter:* Flashes fast (~3Hz) when linking or slow (~1Hz) when unlinking.  
**DMX:** On when a DMX signal is present.  
**RDM:** Not supported with Leviton product.  
**Ethernet:** Flashes to show Art-Net/Streaming ACN activity.



## Rear panel connections

### Single CRMX transmitter or receiver unit



## Normal operation

### To link units

- 1 Ensure the antennas are connected on the front panels.
- 2 Power on the transmitter and receiver(s). Ensure that the **RF LINK** indicators on all receivers are off (use the unlink procedure if necessary).
- 3 On the transmitter, press and release the **Link** button. The transmitter will search (for a period of ten seconds) for unlinked receivers. Its **RF LINK** indicator will flash.

At the end of the search period, all located receivers will be linked to the transmitter - their **RF LINK** indicators will be on.

### To unlink units

- **Unlink all:** Press and hold the **Link** button on the transmitter to unlink all of its receivers.
- **Unlink one:** Press and hold the **Link** button on a receiver to unlink it from a transmitter.

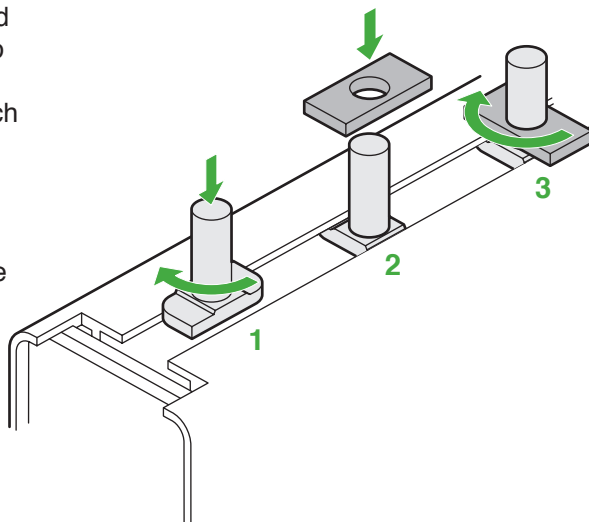


## T-screw mounting

Each CRMX unit is supplied with one T-screw and nut to allow it to be securely fixed to any mounting points, such as trussing.

### To use a T-screw

- 1 Lower the T-screw into the slot on the side of the unit and then twist it clockwise to lock.
- 2 Place the rectangular nut onto the screw.
- 3 Turn the nut clockwise until it tightens across the slot, thus locking the T-screw securely within the slot.
- 4 You can now attach the unit to a secure mounting point. The T-screw is a size M10 bolt.



### FCC Compliance Statement

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 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 methods: -Reorient or relocate the receiving antenna - Increase the separation between the equipment and the receiver - Connect the equipment into an electrical outlet on a circuit different from that which the radio receiver is connected - Consult the dealer or an experienced radio/TV technician for help. Modifications made to the product, unless expressly approved by Leviton, could void the user's right to operate the equipment.



### EU Declaration of Conformity

Marking by the above symbol indicates compliance with the Essential Requirements of the R&TTE Directive of the European Union (1999/5/EC). This equipment meets the following conformance standards:  
EN 301 489-1; 301 489-17; EN 300-328-1; EN 300-328-2;  
EN 609 50

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#### LIMITED 5 YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for five years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option, if within such five year period the product is returned prepaid, with proof of purchase date, and a description of the problem to **Leviton Manufacturing Co., Inc., Att: Quality Assurance Department, 201 North Service Road, Melville, N.Y. 11747, U.S.A.** This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. **There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose**, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to five years. **Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation.** The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.