

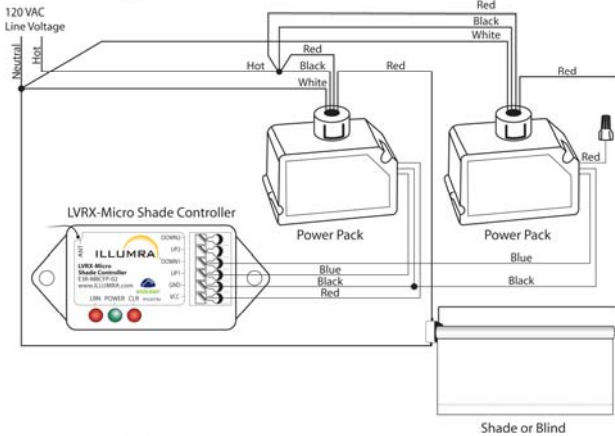
# Starter Guide

LVRX-MICRO SHADE CONTROLLER (E3R-MBCFP-02)  
**EnOcean-compatible Wireless Lighting Control**  
 AHD0152A



## INSTALLATION

### STEP 1 Connect the receiver



### STEP 2 Enter Program Mode by pressing the LRN button

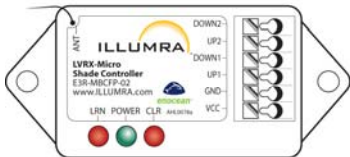


(Advance to the next Relay(s) by briefly pressing the LRN button)

### STEP 3 Press the button on the transmitter



### STEP 4 Exit Program Mode by pressing the LRN button



(Advance to the next Relay(s) by briefly pressing the LRN button)

**CAUTION:** To be installed and/or used in compliance with relevant electrical codes and regulations. If you are unsure about any portion of these instructions, please contact a qualified electrician.

**CAUTION:** Intended for indoor use only, for permanently installed fixtures only, and for dry locations only.

**CAUTION:** Exceeding the voltage or current ratings of the Shade Controller will void the warranty and may damage the unit. Do not connect to any terminal with a voltage higher than VCC or lower than GND. Do not exceed the current rating of 100 mA (maximum) per output.

**Note:** For optimal radio performance do not mount or place receivers close to the floor or inside a metal housing.

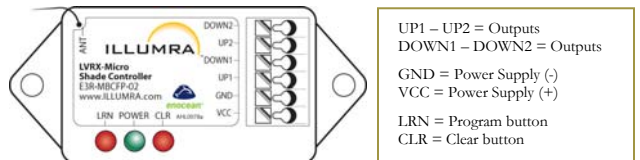
#### High Voltage Installation [See Step 1.]

- Connect the Power Pack relay to the power terminals of the Shade Controller using the thin wires protruding from the side of the Power Pack. Observe polarity; the '+' terminal is the first one on the connector block (connect the red wire to the VCC/+ terminal), followed by Ground (connect the black wire to the GND/- terminal).
- Connect the relay coil (blue wire on Power Pack) to UP1 of the Shade Controller.  
(Other Power Packs may be connected to DOWN1, UP2 and DOWN2 by following the same procedure. Connect all the thin black wires together and to the GND terminal of the Shade Controller. In these instances, the thin red wires of each additional Power Pack can just be left unconnected since the Shade Controller already has power. Cap off these wires – DO NOT connect them together.)
- Connect one thick red wire from the top of the Power Pack to the electrical load.
- Connect the other thick red wire and the thick black wire from the top of the Power Pack to the hot line voltage.
- Connect the thick white wire from the top of the Power Pack and the neutral wire from the electrical load to the neutral line voltage.

#### Low Voltage Installation [See figure 1.]

- Connect power (+) to the VCC slot.
- Connect ground (-) to the GND slot.
- Connect electrical load to the UP1 slot.  
(Other loads may be connected to DOWN1, UP2 and DOWN2 repeating Step C)

Figure 1. LVRX-Micro Shade Controller (4-output)



#### Program Mode [See Steps 2-4]

- Enter the receiver into Program Mode by pressing and holding the LRN button for ~0.5 seconds. The load on UP1 will begin toggling.
- Press the button on the transmitter (See Step 3). The load will stay ON for 4 seconds indicating that the receiver has stored the transmitter in its memory.
- (If only one transmitter is desired on UP1 then skip Step C). To program a second transmitter to UP1, wait until toggling of the receiver resumes. Repeat the instructions in

Step B and Step C until all desired transmitters are programmed to UP1.

- D. Enter Program Mode for DOWN1 by briefly pressing the LRN button. The Power LED will blink twice indicating that DOWN1 is in Program Mode. Follow Step B and Step C to program transmitters to DOWN1.
- E. Repeat Step D followed by Step B and Step C to program transmitters to UP2 and DOWN2.
- F. To exit Program Mode, press the LRN button again for ~1 second (See Step 4). Or simply wait, the receiver automatically exits Program Mode after 30 seconds of inactivity.

**Selective Deleting.** Follow the Program Mode Steps A-F above to delete a transmitter from a receiver's memory. During Step B the load will stay OFF for 4 seconds indicating that the transmitter was deleted from the receiver's memory.

**Clear All.** If the CLR button is pressed and held for ~2 seconds, the entire memory of the receiver is deleted. The receiver will enter Program Mode after the memory has been cleared.

**Clear One Output Channel.** First enter Program Mode by repeatedly pressing the LRN button until the desired relay's light is blinking. Hold down the clear button for ~2 seconds. This will clear the entire memory for that output, leaving the other outputs intact.

## OPERATING MODES

**Rocker Mode.** Once in Program Mode, the receiver begins with a "Slow" toggling pattern indicating that the transmitter will be programmed to operate in Rocker Mode.

In Rocker Mode the receiver responds only on a transmitter press and not on the release. For example, one end of the rocker on a wireless light switch will activate the relay (turn the light ON) when pressed and the opposite end of the same rocker will deactivate the relay (turn the light OFF) when pressed.

**Momentary Mode.** To program a transmitter with a momentary function, press and hold the LRN button for ~3 seconds while the receiver is in Rocker Program Mode. The load will now toggle in a "Fast" pattern, indicating that the transmitter will be programmed to operate in Momentary Mode.

When using wireless light switches in Momentary Mode, each end of the rocker acts as a separate button. When the rocker is pressed an output on the receiver will activate (turning the electrical load ON). When the rocker is released the output will deactivate (turning the electrical load OFF). Each end of the rocker operates as a separate button, in contrast to Rocker Mode where both sides of a rocker are programmed together.

**Toggle Mode.** To program a transmitter with the toggle function, press and hold the LRN button for ~3 seconds while the receiver is in Momentary Program Mode. The load will continue toggling in a "Fast" pattern, indicating that the transmitter will be programmed to operate in Toggle Mode.

In Toggle Mode, the output of the receiver will always change state (if off, it will turn on; if on, it will turn off). Like Momentary Mode, both ends of the rocker are learned separately, but like Rocker Mode, the output status only changes when a button is pressed and is ignored on the release.

## SPECIFICATIONS

Radio frequency	315 MHz
Power supply	8-30 VDC, 40 mA
Output Rating	0-30VDC, 130mA (max) Off Voltage is 1 V (max) On Voltage is Vsupply - 1 (min)

Ambient temperature	14° to +122°F (-10° to +50°C)
Storage temperature	-4° to +176°F (-20° to +80°C)
Certifications	FCC (United States), I.C. (Canada), ETL (U.S.), ETL(Canada)
Dimensions of housing	2.88 x 1.3 x 0.67 inches (7.32 x 3.3 x 0.67 cm)

## TROUBLESHOOTING

For a new or pre-existing system:

- Check if the receiver is connected as specified.
- Verify that fixture operates without the transmitter in-line.
- Delete all assigned transmitters in the receiver and reprogram the receiver (See Clear All).

The receiver independently turns ON and OFF:

- This can occur when an alternate transmitter is unintentionally activated when the receiver is in Learn Mode.
- Clear all transmitters in the receiver and reprogram.

The receiver does not receive a transmitter command:

- Move the transmitter closer to the receiver. If the system works at closer distance, the transmitter was installed outside the reception range or there was signal interference. Repeaters that extend coverage range are available; please contact your dealer.
- Mount the transmitter or receiver at better location.

**Need more help?** For a more detailed product manual, visit [www.ILLUMRA.com](http://www.ILLUMRA.com) and type the product number into the search box. The item page will have a link that allows the product manual to be downloaded.

## CONTACT ILLUMRA

Use any of the means listed below to gain access to Ad Hoc's wireless expertise:

Phone: (801) 225-2226  
E-mail: [support@ILLUMRA.com](mailto:support@ILLUMRA.com)  
Web Site: [ILLUMRA.com](http://ILLUMRA.com)

**Notice:** Save this instruction sheet; it contains useful installation, testing, and troubleshooting information, along with important technical data.

**Note:** Each ILLUMRA product or certain aspects thereof is protected by at least one U.S. or international patent or has at least one such patent application pending.



Contains FCC ID: SZV-TCM2XXC IC: 5731A-TCM2XXC

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

- (i.) this device may not cause harmful interference and
- (ii.) this device must accept any interference re-ceived, including interference that may cause undesired operation.