

Overview

The Shade Controller provides control to new and/or existing window shades and blinds. The receiver responds to radio signals from self-powered wireless light switches, providing control for 2 independent output channels. Each output channel consists of two signals, UP and DOWN, for a total of 4 outputs.

Compatible Devices

- Single Rocker Self-powered Wireless Light Switches; E3T-S1Axx
- Dual Rocker Self-powered Wireless Light Switches; E3T-S2Axx
- Dual Rocker Handheld Remote; E3T-S2Hxx

Components Included

The following items are included with this product:

- A -- (1) Illumra Shade Controller

Tools Needed for Installation

- Pencil or ball point pen (stylus)
- Electrical tape
- Power Pack (for High Voltage Installation only)

Installation

To install the Shade Controller select your application from the options below. Follow the instructions for that application. For Transmitter installation instructions, see appropriate installation guides(s).

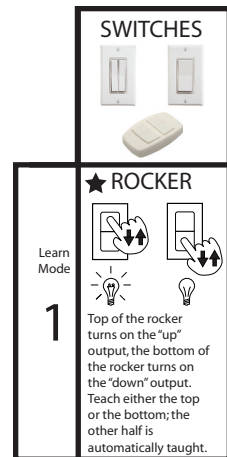
CAUTION/NOTES:

- Always follow local electrical codes when installing this device. Installation should be performed by a qualified electrician.
- ILLUMRA Relay Receivers are intended only for use indoors, in dry locations, and with permanently installed fixtures.
- ILLUMRA receivers should NOT be installed in locations where the units will be in close proximity to light bulb(s) or other sources of heat, such as above a ceiling hugger fixture, particularly with higher wattage loads. (See "Operating Temperature" on Specifications table).
- Installation in metallic enclosures or near large metal objects will typically reduce radio range. If possible, install in plastic or fiberglass enclosures for best performance.

Teach/Learn Procedure (a Transmitter teaches a Receiver, a Receiver learns a Transmitter)

The receiver must be powered when teaching. After teaching a receiver, settings are retained when power is disconnected. The receiver sensitivity is reduced when in Learn Mode to prevent unintentionally teaching unwanted transmitters to the receiver. Transmitters should be within 15 feet (5 meters) of the receiver when teaching. Teach the receiver in any of the modes below.

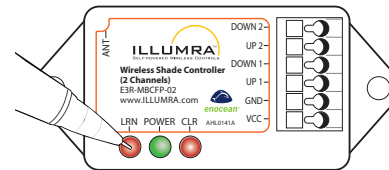
Step 1: Determine the Desired Behavior



UP 1 = Output for motor up on Channel 1
 DOWN 1 = Output for motor down on Channel 1
 UP 2 = Output for motor up on Channel 2
 DOWN 2 = Output for motor down on Channel 2

GND = Power Supply (-)
 VCC = Power Supply (+)

LRN = Program Button
 CLR = Clear Button



Step 2: Teach the Receiver

Clear All Instructions: The CLR button can be used to clear all of the memory in the receiver (erases all previously learned transmitters). Press and hold the clear button (CLR) for several seconds. When the light starts to blink, this indicates that the memory has been cleared and that the receiver is in learn mode one.

PART	ACTION	RESULT	NOTES
A Enter Learn Mode 1	Press LRN 1 SEC, Release	1 Device Output flashes pattern.	<p>More than one transmitter can be learned by each receiver. To do this, learn each transmitter as explained to the left. After the 3 second learn (light on) indication, teach another transmitter, and so on.</p> <p>A transmitter can also be unlearned by a receiver by repeating part C. Instead of a 3 second learn indication (light on) the receiver will give a 3 second unlearn indication (light off).</p>
B Select Learn Channel	Press LRN 0.5 SEC, Release This advances to Channel 2.	2	
C Learn Transmitter	Press "Teach" button ONCE	3 SEC Learn indication light is on for three seconds, then resumes blinking Learn Mode Pattern. Transmitter has been learned. Learn another transmitter (Part C), select another mode (Part B), or exit (Part D).	
D Exit Configuration	Wait 30 SEC (or press LRN 2 SEC, Release)	Lights stop blinking. Device is configured and ready to use.	

Step 3: (Optional) Activate Other Features

PART	ACTION	RESULT	NOTES
A Turn power to receiver off		It is important to understand that the entire device needs to be powered down. This can be done with a switch or breaker, or other means.	<p>This may be a difficult task as the CLR/LRN button needs to be held pressed while powering up the device. This is most easily done before installation or with two people.</p> <p>As the device powers up the LED will blink off twice, quickly.</p> <p>In the default configuration, an output is at or near 0 volts when not active, and at or near VCC (the power supply voltage) when active. When the outputs are inverted, they are at VCC when not active and at 0 volts when active.</p> <p>If this process is repeated the output will revert back to its original state and will only blink off once quickly instead of twice.</p>
B Press and hold CLR	Hold CLR 3 SEC, Release	Invert Output Feature Inverting (reversing) the Outputs. The Shade Controller supports an inverted output mode of operation. This mode inverts the logical sense of the output voltages. (Note: This mode is not for reversing the direction of the blinds. To reverse the direction of travel, reverse the UP and DOWN wiring connections. Alternatively, if the wiring is inaccessible, turn the wireless switch upside-down.)	
C Press and hold LRN	Hold LRN 3 SEC, Release	Repeater Feature A repeater re-transmits a copy of every signal received, and many repeaters also function as receivers. It is recommended that no more than two repeaters are active within range of any ILLUMRA transmitter or receiver. Repeater should be installed high above the floor in a central location, minimizing the number of walls or other obstructions through which the wireless signal must travel.	
D Press and hold LRN and CLR	Hold LRN and CLR simultaneously 3 SEC, Release	Mode Switching Feature There are two modes for the Shade Controller: Momentary First, and Latching First. In Momentary First Mode (default) a short press will run the motor only momentarily. If the button is held down longer than 3/4 of a second, the output will latch on and continue running until a limit switch stops the blinds. After 3 minutes, the motor outputs will turn off automatically. The Latching First Mode is for certain types of blinds and shades that have functions using a short press to latch the motor on, while longer presses will run the motor in momentary mode. In this mode a press longer than 3/4 of a second will run the motor only until the button is released.	

Specifications

E3R-MBCFP-02	
Range	50-150 feet (typical)
Radio Frequency	315 MHz
Power Supply	8-30 VDC, 40 mA
Output Rating	30 VDC max, 100 mA max Off Voltage 1V max On Voltage VCC-1V min
Number of Output Channels	2 (2 UP and 2 Down)
Operating Temperature	-13° to 140°F (-25° to +60°C)
Storage Temperature	-40°F to 140°F (-40°F to +60°C)
Dimensions	2.88"(W) x 1.30"(H) x 0.67"(D) 7.32cm x 3.30cm x 1.70cm
Antenna	attached whip antenna (5.85")
Radio Certification	FCC (United States) SZV-TCM2XXC, I.C. (Canada) 5713A-TCM2XXC

Wiring Diagrams

Figure A: High Voltage Installation

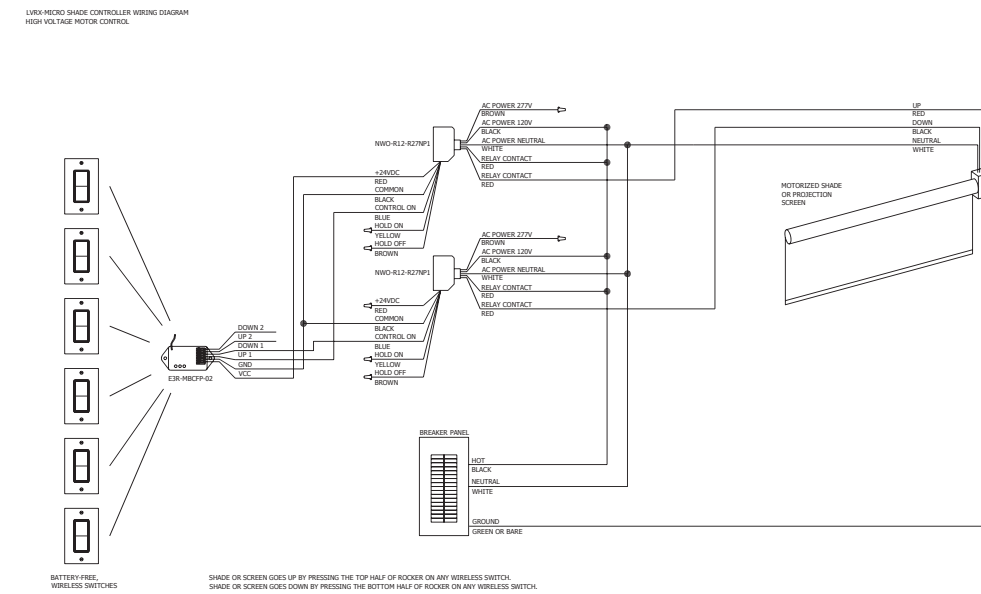
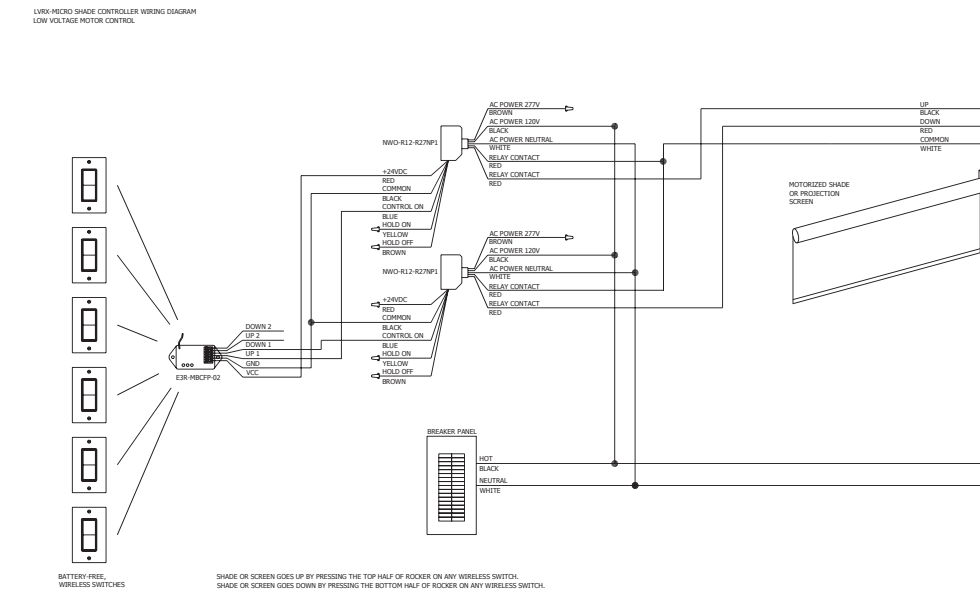


Figure B: Low Voltage Installation



Contains FCC ID: SZV-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 received, including interference that may cause undesired operation.

Contains IC: 5713A-TCM2XXC



This device or certain aspects thereof is protected by at least one U.S. or international patent or has at least one such patent application pending.

ILLUMRA is a trademark of Ad Hoc Electronics, L.L.C. Other trademarks herein are the property of their respective owners.