


Installation Guide

E3T-R02-2INTP (24V)
E3T-R12-2INTP (120V)
E3T-R24-2INTP (240V)
E3T-R27-2INTP (277V)

Switch Leg Transmitter



Overview

The Switch Leg Transmitter™ (SLT) replaces wires between a switch and an electrical load with an RF control signal. The SLT senses status of a photocell, timer, or manual switch master circuit to control wireless slave receiver(s).

Compatible Devices

- 3-Wire Relay; E3R-Rxx-3HOBP
- 5-Wire Relay; E3R-Rxx-5IBBP
- Plug-in Relay; E3R-R12GP-1
- 4-Channel Low Voltage Receiver; E3R-MICFP-04
- Room Controller; E3X-MRCFP-xx
- Thermostat; E3X-T02-U2W
- See website for more available receivers

Components Included

The following items are included with this product:

- A -- (1) ILLUMRA Switch Leg Transmitter

Tools Needed for Installation

- Pencil or ball point pen
- Wire nuts
- Electrical tape

Installation

WARNING: To avoid risk of fire, shock, or death, TURN OFF POWER at circuit breaker or fuse and verify that it is OFF before installation begins. Make sure that it remains OFF until installation is complete.

CAUTION/NOTES:

- Always follow local electrical codes when installing this device. Installation should be performed by a qualified electrician.
- ILLUMRA SLTs are intended only for use indoors, in dry locations, and with permanently installed fixtures.
- ILLUMRA SLTs should NOT be installed in locations where the units will be in close proximity to light bulbs or other sources of heat, such as above a ceiling hugger fixture, particularly with higher wattage loads. (See "Operating Temperature" on specifications table.)
- For in-wall installation, a wiring box must be used. For ceiling installation make wire connections inside a junction box. Ensure that the temperature in the ceiling box will not exceed 50 degrees C (see specifications). For best wireless signal performance install receiver in plastic box away from floor and away from metal objects.

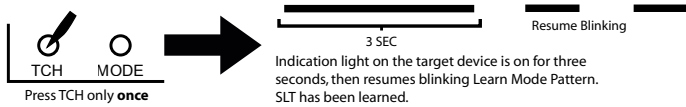
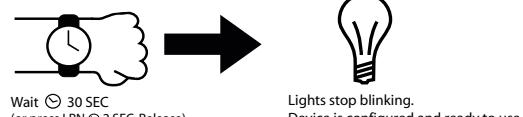
- Step 1: Read all installation steps for this option before taking any action to install SLT.
- Step 2: **It may be convenient to associate the SLT with all appropriate receivers prior to final installation.** Steps 3-9 explain how to associate an SLT with a receiver. Test the range of the SLT before final installation.
- Step 3: **Make sure the SLT is within 16 feet (5 meters) of the desired receiver when programming.** Receivers have reduced range during programming.
- Step 4: **WARNING:** To avoid risk of fire, shock, or death, TURN OFF POWER at circuit breaker or fuse and verify that it is OFF before installation begins. Make sure that it remains OFF until installation is complete.
- Step 5: Connect wires as shown in **Figure A**. Twist wire nuts on clockwise making sure no bare wires show. Wrap connections with electrical tape.
- Step 6: **Programming:** Restore power and follow receiver programming instructions found in receiver installation guide. For SLT installations, program the receiver using Rocker Mode.
- Step 7: To associate an SLT with a receiver, simply press the Teach button (labeled "TCH") on the SLT while the receiver is in the desired Learn Mode. (See **Figure B**.) This sends a signal containing the unique ID of the SLT to the receiver. The receiver memorizes the ID and knows to respond to the SLT in the future.
- Step 8: **Activation:** Test SLT. Once a Switch Leg Transmitter has been associated with a receiver, whenever power is provided to or removed from the SLT, the SLT transmits a wireless signal to control the receiver. (If SLT is not working, review wiring and programming instructions for both the SLT and the receiver.)
- Step 9: Stow all wires and SLT in wiring box to complete installation.

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

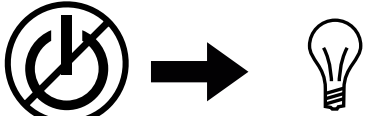
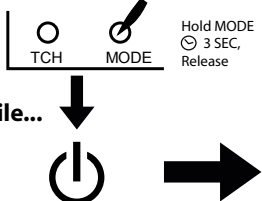
The receiver must be powered when teaching. After teaching a receiver, settings are retained when power is disconnected. The receiver sensitivity is reduced when in Learn Mode to prevent unintentionally teaching unwanted transmitters to the receiver. Transmitters should be within 15 feet (5 meters) of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

Note: When the device is not in a learn mode and is operational, the CLR button can be pressed quickly to toggle the output. This is convenient in the Scene Mode application (See Below).

Step 1: Teach the Target Device

PART	ACTION	RESULT	NOTES
(A)	Enter Learn Mode on Target Device (see target device instructions)		Target devices have reduced range during programming (16 feet / 5 meters of the desired receiver).
(B)	Send SLT Teach Packet	 <p>Indication light on the target device is on for three seconds, then resumes blinking Learn Mode Pattern. SLT has been learned.</p>	Connect wires as shown in Figure A. Twist wire nuts on clockwise making sure no bare wires show. Wrap connections with electrical tape.
(C)	Exit Target Device Configuration	 <p>Wait 30 SEC (or press LRN 2 SEC, Release)</p> <p>Lights stop blinking. Device is configured and ready to use.</p>	After the target device has learned the SLT packet part B can be repeated to unlearn the SLT (see device instructions)

Step 2: Select Other Modes

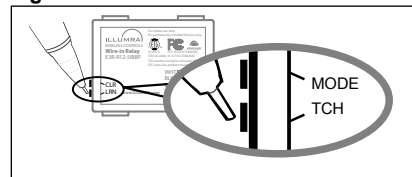
PART	ACTION	RESULT	NOTES								
(A)	Turn power to SLT off	 <p>It is important to understand that the entire device needs to be powered down. This can be done with a switch or breaker, or other means.</p>	The TCH and MODE buttons have different functions in each of the two Transmission Modes. <table border="1" style="margin: 5px auto; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">SLT Mode</td> </tr> <tr> <td style="text-align: center;">TCH Teach Packet</td> <td style="text-align: center;">MODE Status Packet</td> </tr> <tr> <td colspan="2" style="text-align: center;">PTM Mode</td> </tr> <tr> <td style="text-align: center;">TCH ON Packet</td> <td style="text-align: center;">MODE OFF Packet</td> </tr> </table>	SLT Mode		TCH Teach Packet	MODE Status Packet	PTM Mode		TCH ON Packet	MODE OFF Packet
SLT Mode											
TCH Teach Packet	MODE Status Packet										
PTM Mode											
TCH ON Packet	MODE OFF Packet										
(B)	Press and hold MODE Turn power to relay on with MODE held	 <p>Hold MODE 3 SEC, Release</p> <p>While...</p> <p>There are two transmission modes: SLT (default), and PTM.</p> <p>In SLT mode the SLT will transmit a ON/OFF packet every time the SLT is powered ON or powered OFF. In addition, the SLT will also send a status packet every ten seconds.</p> <p>In PTM mode the SLT will transmit a ON/OFF packet every time the SLT is powered ON or powered OFF.</p>									

Specifications

	E3T-R02-2INTP	E3T-R12-2INTP	E3T-R24-2INTP	E3T-R27-2INTP
Range	50-150 feet (typical)			
Frequency	315 MHz			
Power Supply Input Rating	24 VAC 50/60 Hz	120 VAC 50/60 Hz	240 VAC 50/60 Hz	277 VAC 50/60 Hz
Operating Temperature	14° to +122°F (-10° to +50°C)			
Dimensions	2.11 x 1.73 x 1.09 inches (54 x 44 x 28 mm)			
Radio Certification	FCC (United States) SZV-TCM2XXC I.C. (Canada) 5713A-TCM2XXC			
Safety Approval	ETL (United States) UL244A and UL2043 ETL (Canada) CSAc22.2#14-05			
Addressing	Factory set unique ID (1 of 4 billion)			

Diagrams

Figure B: Press Teach Button



Always install devices in accordance with local electrical regulations.

Figure A: Basic Installation of Switch Leg Transmitter

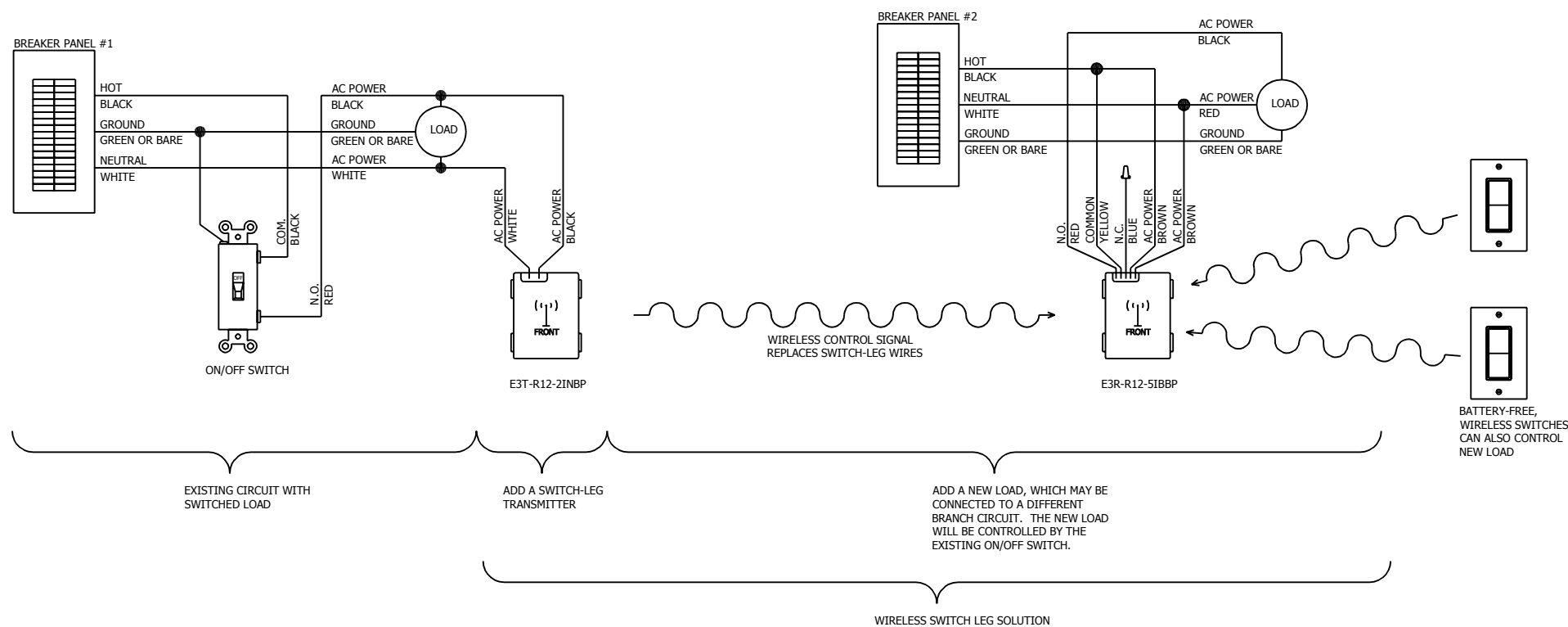
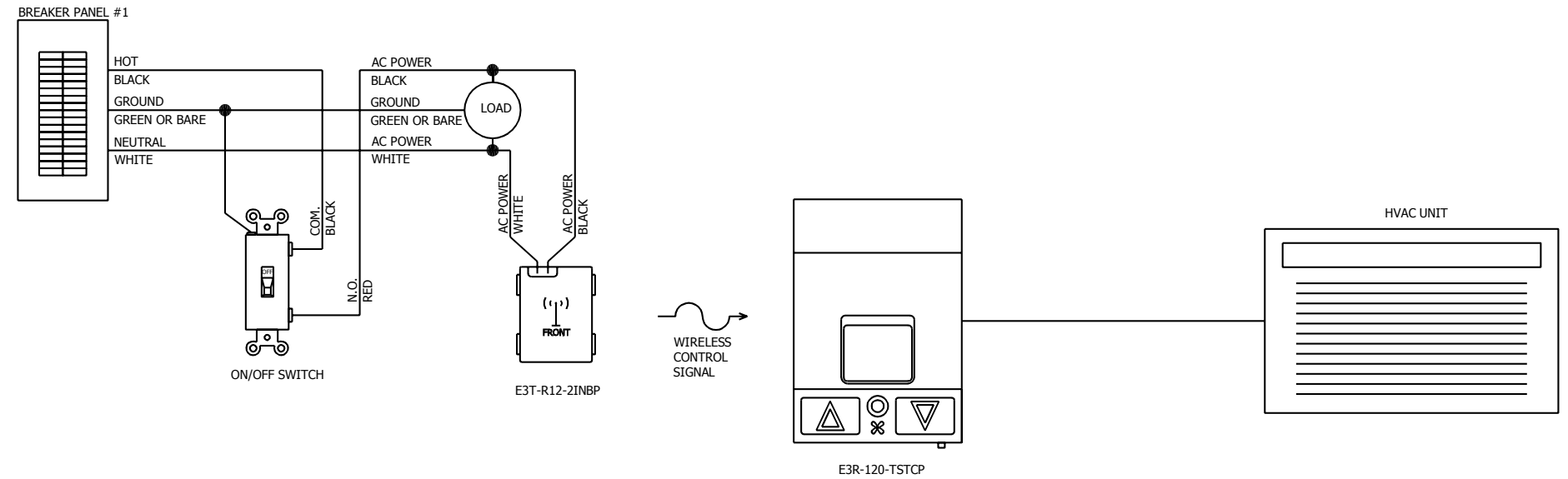


Figure C: Disable HVAC Unit When Existing Light Circuit is Turned Off

DISABLE HVAC UNIT WHEN EXISTING LIGHT FIXTURE IS TURNED OFF WWW.ILLUMRA.COM

WHEN THE LIGHT IN THE ROOM IS TURNED ON USING THE EXISTING SWITCH, THE SLT SENSOR IS TRIGGERED TO TRANSMIT A WIRELESS CONTROL SIGNAL TO THE ILLUMRA THERMOSTAT, WHICH IN TURN ACTIVATES THE HVAC UNIT. WHEN THE LIGHTS ARE TURNED OFF, THE HVAC UNIT REVERTS TO A SET-BACK SETTING.



FCC Contains FCC ID: SZV-TCM2XXC
Contains IC: 5713A-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.

ETL ETL (US) – Conforms to UL STD 244A. This device was tested according to and was found to comply with UL 244A Solid State Controls for Appliances and UL 2043 UL Standard for Safety Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces.

ETL (Canada) – Certified to CAN/CSA STD C22.2 No. 14-05. This device was tested according to and was found to comply with CAN/CSA STD C22.2 No. 14-05.

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No Wires. No Batteries. No Limits.

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.

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