

# Starter Guide

PLUG-IN DIMMER/RELAY RECEIVER (E8R-D12GP-1)

Wireless Lighting Control

AHD0134B



**AD HOC**  
ELECTRONICS™

## INTRODUCTION

### Plug-in Dimmer/Relay Receiver

The Plug-in Dimmer/Relay Receiver was engineered to dim and provide ON/OFF control of various 120V electronic devices such as:

- Incandescent lamps (Dim or Relay)
- High-voltage halogen lamps (Relay only)
- Fluorescent (Relay, some fluorescents are dimmable)
- LEDs (Relay, some LEDs are dimmable)

### Dimmer Mode Controls

Light Switch Control	Result
Quick Press ON (top of the switch)	Light is raised to the last saved brightness setting
Second Quick Press ON	Light is raised to 100% brightness
Quick Press OFF	Light is lowered to OFF
Press, Hold & Release	Raises or lowers light level. Release point defines the preferred brightness setting.

**Transmission Range.** Line of sight range is typically 98 ft. (30m) in corridors, 328 ft. (100m) in large rooms. Transmission range depends on the materials used in the building.

Material	Typical Range
Masonry	65 ft. (20m), through 3 walls max.
Reinforced concrete	32 ft. (10m), through 1 wall / ceiling max.
Wood walls / drywalls	98 ft. (30m), through 5 walls max.

## INSTALLATION

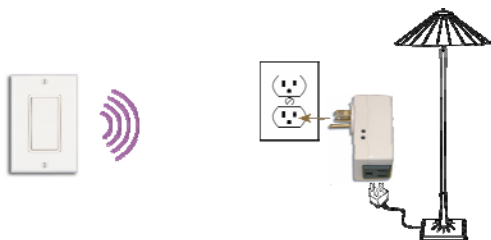
**Caution:** This device is not for installation on a circuit protected at greater than 15 amperes.

**Advertisement:** Convient a un circuit pouvant debiter un courant de defaut maximal de 15 amperes efficaces symetriques.

### Step 1. Plug it in

Plug the lamp or other device into the bottom of the Plug-in Dimmer/Relay Receiver; then plug the receiver into any 120 VAC power outlet (Reverse order to uninstall).

Figure 1. Basic Components



Transmitter → Dimmer/Relay → Controlled Device

### Step 2. Set Operating Mode

The receiver arrives in Dimmer Mode by default, but can be programmed to operate in Relay Mode by using the instructions given in the table below. If you wish to use the receiver in Dimmer Mode then skip this step and move on to step 3.

Dimmer Mode ON/OFF/DIM	Relay Mode ON/OFF
<p>Press and hold the <b>LRN (Dim) button</b> while plugging the receiver into a power outlet. Keep holding the button down until the lamp brightness raises then lowers. (Hold button down for ~5 seconds after plugging in.)</p>	<p>Press and hold the <b>CLR (Relay) button</b> while plugging the receiver into a power outlet. Keep holding the button down until the lamp turns on then off again. (Hold button down for ~5 seconds after plugging in.)</p>

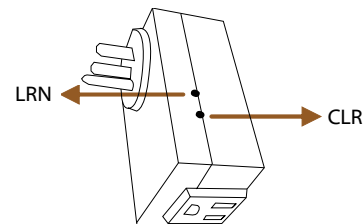
### Step 3. Program the Transmitter

After the receiver is plugged in and the operating mode has been chosen, the next step is to program the wireless transmitter to communicate with the receiver.

In order for the Plug-in Dimmer/Relay Receiver to respond to a transmitter, the receiver must Learn the transmitter's ID. This is accomplished by storing the ID in memory while the receiver is in Learn Mode.

**1. Enter the Receiver into Learn Mode.** Press and hold the LRN button for approximately 3 seconds [refer to Figure 2]. Once in Learn Mode, the receiver will begin 1-second cyclic switching of the load ("Toggling"). If a lamp is connected, the light will switch ON and OFF every second.

Figure 2. Enter the Receiver into Learn Mode



**2. Press the Transmitter.** While the receiver is in learn mode, press the transmitter (See transmitter starter guide to learn which transmitter button needs to be pressed). This will transmit a radio signal to the receiver and that transmitter's unique ID is then stored in the receiver's memory. After the radio signal is received, the receiver will stop toggling and the lamp will turn on for approximately 4 seconds. This idle period indicates that the transmitter ID has been saved in the receiver's memory.

**3. Program a Second Transmitter.** (If only one transmitter is desired then skip this step and exit Learn

Mode by following the instructions below.) To program a second transmitter, wait until toggling of the receiver resumes. At this point an additional transmitter can be programmed by repeating the instructions in step 2. Continue to repeat the steps above until all desired transmitters are programmed to the receiver and then move on to step 4.

**4. Exit Learn Mode.** Press the LRN button again (for ~ 2 seconds) or simply wait. The receiver automatically exits Learn Mode after 30 seconds of inactivity.

**Figure 3. Learn Mode Indicators**

The Receiver toggles the power on and off to indicate learn modes



**Selective Deleting.** A transmitter ID that has been programmed into a receiver’s memory can be deleted. To do so, activate Learn Mode by pressing the LRN button. After the receiver begins to toggle the power, press the transmitter that is to be deleted. The light will stop toggling and turn off for 4 seconds indicating that the transmitter has been deleted. Exit learn mode by following step 4 above.

**Clear All.** If the CLR (see Figure 2) button is pressed and held for ~2 seconds, the memory of the receiver is deleted. The receiver then enters Learn Mode which is indicated by the receiver toggling the power.

**SPECIFICATIONS**

**Plug-in Dimmer/Relay Receiver**

Radio frequency	868 MHz
Power supply	120VAC~ / 60 Hz
Relay output	Maximum 300W resistive Incandescent or other dimmable loads only - No motor loads
Ambient temperature	-10° to +45°C
Storage temperature	-20° to +80°C
Certifications	FCC, IC, ETL (U.S.), ETL (Canada)
# of transmitters learnable	Up to 30 switches
Dimensions of housing	3.26" x 2.07" x 1.42" (82 x 53 x 36 mm)
Degree of protection	For indoor use only

**TROUBLESHOOTING**

For a new or pre-existing system:

- Check if the receiver and plug-in device are connected as specified
- Delete all assigned transmitters in the receiver (press and hold the CLR button for 2 seconds), and reprogram the receiver

The receiver independently turns ON and OFF:

- This can occur when an unintended transmitter is activated within the receiver range when the receiver is in Learn Mode.
- Clear all transmitters in the receivers memory and reprogram the receiver

The receiver does not receive a transmitter command:

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

**Need more help?** For a more detailed product manual, visit [www.AdHocElectronics.com](http://www.AdHocElectronics.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 AD HOC ELECTRONICS**

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

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

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

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