

# DIN Rail Dimmer

## Owner's Manual

2452-222 (US)

2452-422 (EU)

2452-522 (AUS/NZ)



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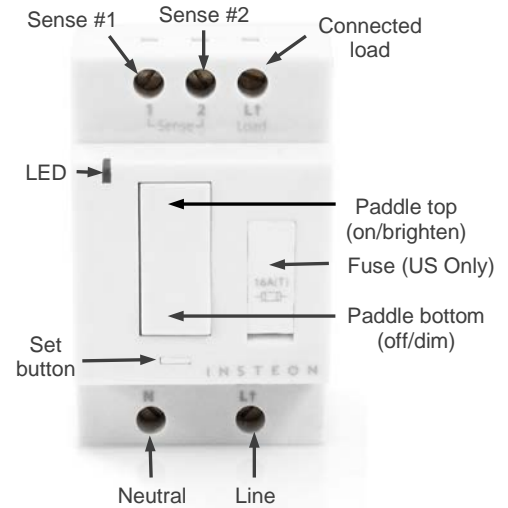
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## About DIN Rail Dimmer

Tools Needed	Optional Accessories
Slotted screwdriver	INSTEON Hub
Wire cutter/stripper	Mini Remote
Voltage Meter	



## Installation Preparation

### CAUTIONS AND WARNINGS

Read and understand these instructions before installing and retain them for future reference.

This product is intended for installation in accordance with the local regulations in the regions intended for sale. Use indoors only. This product is not designed or approved for use on power lines other than 100-277VAC, 50Hz or 60Hz, single phase. Attempting to use this product on non-approved power lines may have hazardous consequences.

- Use only indoors or in outdoor rated box
- Be sure that you have turned off the circuit breaker or removed the fuse for the circuit you are installing this product into. Installing this product with the power on will expose you to dangerous voltages.
- Connect using only copper or copper-clad wire
- This product may feel warm during operation. The amount of heat generated is within approved limits and poses no hazards. To minimize heat buildup, ensure the area surrounding this product is as clear of clutter as possible.
- Each INSTEON product is assigned a unique INSTEON I.D., which is printed on the product's label.
- To reduce the risk of overheating and possible damage to other equipment, do not use this product to control loads in excess of the specified maximum(s) or, install in locations with electricity specifications which are outside of the product's specifications. If this device supports dimming, please note that dimming an inductive load, such as a fan or transformer, could cause damage to the dimmer, the load bearing device, or both. If the manufacturer of the load device does not recommend dimming, use a non-dimming INSTEON on/off switch. **USER ASSUMES ALL RISKS ASSOCIATED WITH DIMMING AN INDUCTIVE LOAD.**

#### Identifying the Electrical Wires in Your Home (North America only)

- **Line**: usually black (may also be called hot, live or power), carries 100-277VAC electricity into the wall box
- **Neutral**: usually white or white wire bundle, commonly daisy-chained from box to box
- **Load**: usually black, from a separate cable jacket
- **Ground**: bare copper wire or metal fixture (if grounded)

#### Identifying the Electrical Wires in Your Home (Europe/Australia/New Zealand)

- As wire colors vary from country to country, make sure you always check your electrical wires with a voltage meter to correctly identify line, load, neutral and ground wires

### **IMPORTANT!**

If you have any difficulties or questions, consult an electrician. If you are not knowledgeable about, and comfortable with, electrical circuitry, you should have a qualified electrician install the product for you.

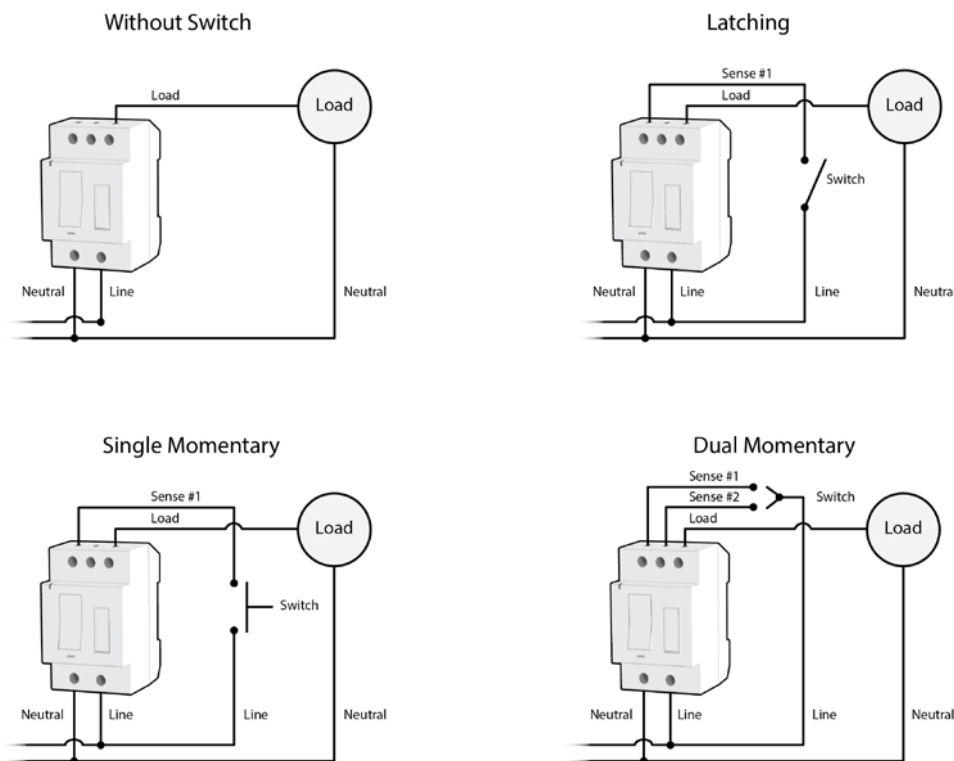
## Identify Switch Type

Before you install DIN Rail behind a switch, you must determine which type of switch you have—latching (the default setting), single momentary or dual momentary—as each is wired differently. If you are using DIN Rail with a single momentary or dual momentary switch, you will program it for the corresponding switch after installation.

- **Latching (default mode):** switch has no central position: it can be pressed on both the top and bottom and remains in that state once released
- **Single momentary:** switch can only be pressed in one place (like a doorbell) and returns to central position once released
- **Dual momentary:** switch can be pressed on both the top and bottom; returns to central position once released

## Installation

- 1) Turn off breaker/fuse and verify power is off
  - 2) Disconnect wires from light fixture. Strip away wire coating until you have 5/16" (8mm) of bare wire on the ends.
  - 3) After ensuring the wires are not touching, turn on breaker/fuse
  - 4) Use a voltage meter to identify the fixture's line, load and neutral wires, then turn off breaker/fuse again
  - 5) For reference, write down the INSTEON I.D. (on the side of the module) and the load it is controlling
  - 6) Snap module onto DIN rail. (If installing next to another module, allow 3/4" (2 cm) between modules for heat dissipation.)
  - 7) Connect wires per diagram which corresponds to your installation
- Note: sense lines carry very low current (~0.35mA 240V, ~0.17mA for 120V)



- 8) After ensuring wires are firmly connected and that there is no exposed wire, turn on breaker/fuse  
*After a few seconds, load will turn on and DIN Rail LED will turn green*
- 9) Test by tapping DIN Rail paddle top and bottom  
*Load will turn on and off*  
*DIN Rail LED will turn green when load is on and red when load is off*

## Switch Operation Mode

By default, DIN Rail is programmed for a latching switch. If you are installing DIN Rail behind a single momentary or dual momentary switch, you must change DIN Rail's local-control switch operation to single momentary mode or dual momentary mode.

### Change Mode

- 1) If installing a single momentary or dual momentary switch, change mode as follows
  - a) Press and hold set button until it beeps  
*LED will start blinking green*
  - b) Press and hold set button until it beeps a second time  
*LED will start blinking red*
  - c) Press and hold set button until it beeps a third time  
*LED will start blinking green*
  - d) Perform the step that applies
    - For single momentary: slowly tap set button four times  
*LED will continue blinking green*
    - For dual momentary: slowly tap set button five times  
*LED will start double-blinking green*
    - To switch back to latching: slowly tap set button six times  
*LED will start blinking green*
  - e) Once the mode is selected, press and hold set button until it double-beeps  
*LED will stop blinking and turn green if load is on or red if load is off*
- 2) Test mode change by following the switch actions in the Latching, Single Momentary, or Dual Momentary tables below  
*Load will respond appropriately*

### 3-Way Toggle Mode (Latching Switches Only, Default)

Because DIN Rail module comes programmed for latching switches, 3-way toggle mode is enabled by default. Normally, a latching switch reads the switch's up position as on and down position as off. For example, if you turn DIN Rail module on from the latching switch and off from another controller, the switch is still in the up (on) position; turning DIN Rail module back on from the switch would require you to tap the switch down, then up again. The 3-way toggle mode overrides this sense feature, so in that same scenario—turning DIN Rail module on at the switch and off from another controller, so switch is in up (on) position—you could then turn DIN Rail module on at the switch by tapping it down.

If you are installing DIN Rail module behind a single or dual momentary switch, 3-way toggle mode is ignored. If desired, you can disable (or re-enable) 3-way toggle mode by performing these steps:

- 1) Press and hold set button until it beeps  
*LED will start blinking green*
- 2) Press and hold set button until it beeps a second time  
*LED will start blinking red*
- 3) Press and hold set button until it beeps a third time  
*LED will start blinking green*
- 4) Press and hold set button until it beeps a fourth time  
*LED will start blinking red*
- 5) Tap set four times button  
*DIN Rail module will beep*  
*LED will start double-blinking red*
- 6) Press and hold set button until it double-beeps  
*LED will stop blinking*  
*3-way toggle mode is now disabled (or re-enabled)*

## Local Control Operations

DIN Rail's [switch operation mode](#) affects how it responds to commands; so it's important to properly program DIN Rail for the correct type of switch you are installing. DIN Rail on/off buttons function exactly like the top and bottom of your wall switch.

*Note: LED will blink red for a few seconds if one or more responders do not acknowledge a message.*

### Latching Wall Switch (Default)

Connected load/responders		
Latching switch	Tap	LED
Top	<b>On</b> (ramped)	<b>Green</b>
Bottom	<b>Off</b> (ramped)	<b>Red</b>

### Single Momentary Wall Switch

Connected load/responders				
Single momentary switch	Tap	Press and hold	Double-tap	LED
Switch	<b>On/Off</b> (ramped)	<b>Brighten/Dim</b> (until release or full-on/off)	<b>On/Off</b> (instant)	<b>Green/ Red</b>

### Dual Momentary Wall Switch

Connected load/responders				
Dual momentary switch	Tap	Press and hold	Double-tap	LED
Top	<b>On</b> (ramped)	<b>Brighten</b> (until release or 100%)	<b>On</b> (instant)	<b>Green</b>
Bottom	<b>Off</b> (ramped)	<b>Dim</b> (until release or off)	<b>Off</b> (instant)	<b>Red</b>

## Adjust Local Settings

### Local On-Level

Local on-level is the brightness that the load wired into DIN Rail will come on when turned on at the DIN Rail paddle. The default local on-level is 100% brightness, but it can be set to any one of 32 fixed brightness levels (3% to 100%). If you want DIN Rail to turn the load on at its last brightness level (prior to being turned off), see [Resume Dim](#).

- 1) Press and hold set button until it beeps  
*LED will start blinking green*
- 2) Press and hold set button until it beeps a second time  
*LED will start blinking red*

- 3) Press and hold set button until it beeps a third time  
*LED will start blinking green*
- 4) Press and hold set button until it beeps a fourth time  
*LED will start blinking red*
- 5) Slowly tap set button once  
*LED will start double-blinking red*
- 6) Press and hold DIN Rail on/off buttons to dim and brighten load to desired brightness
- 7) Press and hold set button until it double-beeps  
*LED will stop blinking*  
*LED will turn green*
- 8) Test by turning switch off and then back on  
*Load will turn on to new local on-level*

## Local Ramp Rate

The local ramp rate is the time it takes for the connected load to go from off to 100% brightness. The default ramp rate is 0.5 seconds, but is adjustable from instant to 5 seconds (using set button) or up to 8 minutes (with software).

*Note: if your local on-level is less than 100% brightness, the ramp rate will be shortened depending on the brightness level. For example, if you program a 2-second ramp rate for a load that has a local on-level of 50% brightness, it will take 1 second for the load to ramp from off to 50% brightness.*

- 1) Press and hold set button until it beeps  
*LED will start blinking green*
- 2) Press and hold set button until it beeps a second time  
*LED will start blinking red*
- 3) Press and hold set button until it beeps a third time  
*LED will start blinking green*
- 4) Press and hold set button until it beeps a fourth time  
*LED will start blinking red*
- 5) Slowly tap set button 2 times  
*LED will continue blinking red*
- 6) Press and hold set button to see the next available ramp rate  
*Load will ramp from off to on at the next available ramp rate*  
*LED will continue blinking red*
- 7) To see the next ramp rate, press and hold set button again  
*Load will ramp from off to on at the next available ramp rate*
- 8) If this is the desired ramp rate, tap set button to accept  
*DIN Rail will double beep and the LED will stop blinking*

Ramp Rate Presets
"Instant"
0.5 seconds (factory default)
2 seconds
5 seconds

- 9) Test by turning off and then back on via the local switch  
*Load will ramp off and back on at the new local ramp rate*

## Resume Dim

When resume dim is enabled, each time you turn on the DIN Rail it will go to the previously used dim level. To change the desired level, simply dim or brighten to the new desired level and turn the DIN Rail off. When you turn it on again it will return to the last used dim level.

- 1) Press and hold set button until it beeps  
*LED will start blinking green*

- 2) Press and hold set button until it beeps a second time  
*LED will start blinking red*
- 3) Press and hold set button until it beeps a third time  
*LED will start blinking green*
- 4) Press and hold set button until it beeps a fourth time  
*LED will start blinking red*
- 5) Slowly tap set button three times  
*LED will start double-blinking red*
- 6) Press and hold set button until it double-beeps  
*LED will stop blinking*
- 7) Test by turning off and then back on via the local switch  
*Load will ramp off and back on to resume dim level*

### Change LED Brightness (or turn it off)

DIN Rail's LED is set at a default 50% brightness, but it can be set anywhere from off to 100% brightness by following these steps.

- 1) Press and hold set button until it beeps  
*LED will start blinking green*
- 2) Press and hold set button until it beeps a second time  
*LED will start blinking red*
- 3) Press and hold set button until it beeps a third time  
*LED will start blinking green*
- 4) Tap set button once  
*LED will start double-blinking green*
- 5) Press and hold set button until it beeps  
*LED will turn green (at brightness of connected load)*
- 6) Press and hold DIN Rail on/off buttons to brighten or dim LED to desired brightness
- 7) Tap set button until it double-beeps  
*DIN Rail will double beep and return to ready mode*

### Error Blink

By default, DIN Rail LED blinks red for a few seconds to acknowledge a communication error with a responder. This setting is adjustable via software or central controller only.

## INSTEON Setup

Some products have subtle differences in their setup procedures. Please refer to the other device's owner's manual for details.

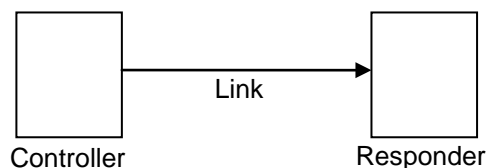
### INSTEON Controllers, Responders and Links

Let's define a few terms.

- The INSTEON "transmitter" is called a **controller**
- The INSTEON "receiver" is called a **responder**

Note: Some devices are controllers only (e.g., motion sensors, handheld remotes), some are responders only (e.g., FanLinc), and some can be controllers and responders (e.g., switches and dimmers).

- The association between the controller and responder is called a **link**



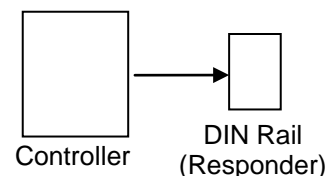
Note that a link is one way. If you want control the other way (making the responder a controller), and the devices are capable of it, simply add a link "the other way."



## Make DIN Rail a Responder

Control DIN Rail from another INSTEON device:

- 1) Press and hold controller button until it beeps  
*Controller LED will start blinking*
- 2) Press and hold DIN Rail paddle top or bottom to adjust load to desired brightness (or off) when scene is activated  
*Connected load will respond appropriately*
- 3) Press and hold DIN Rail set button until it double-beeps  
*Controller will double-beep and its LED will stop blinking*
- 4) Test by tapping controller button on and off  
*Connected load will return to the state set in step #2*



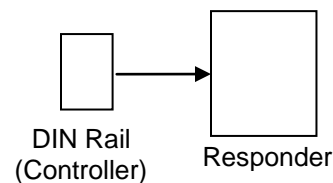
Note:

- The link just created is one way. See “Make DIN Rail a Controller” to add another link to keep the two products in synch, or see “Groups” section.

## Make DIN Rail a Controller

Use DIN Rail to control other INSTEON devices:

- 1) Press and hold DIN Rail set button until it beeps  
*DIN Rail LED will start blinking green*
- 2) Turn responder on (or any other state such as on 50% or even off)
- 3) Press and hold responder set button until it double-beeps  
*DIN Rail will double-beep and its LED will stop blinking*
- 4) Test by tapping DIN Rail paddle top and bottom  
*Responder load will respond appropriately*  
*DIN Rail LED will turn green when load is on and red when load is off*



Notes:

- To add multiple responders, repeat steps 1-4
- The link just created is one way. See “Make DIN Rail a Responder” to add another link to keep the two products in synch or see “Groups” section.

## Groups

Devices in a group share all the same settings (e.g., on-level, ramp rate). This keeps all group members synchronized. Every device in a group is both a controller of, and responder to, all the other devices. The most common example of a group is a 3-way lighting circuit (2 switches). For simplicity, we will assume that the desired group level is on.

The following steps will create a virtual 3-way circuit including device “A” and device “B”:

- 1) Turn on devices A and B  
*Device A and B loads will turn on*
- 2) Press and hold device A set button until it beeps  
*Device A status LED will start blinking green*
- 3) Press and hold device B set button until it double-beeps  
*Device A will double-beep and its LED will stop blinking (device A is now a controller of device B)*
- 4) Press and hold device B set button until it beeps  
*Device B LED will start blinking green*
- 5) Press and hold device A set button until it double-beeps  
*Device B will double-beep and its LED will stop blinking (device B is now a controller of device A)*
- 6) Test by turning load on and off from device A and then device B  
*The load(s) and both devices A and B LEDs will remain in synch*

## Scenes

Devices in a scene can each have different settings. This provides for advanced lighting, audio, etc scene creation. Software is recommended for scene management.

Example of a scene with 1 controller and DIN Rail as a member

- 1) Press and hold controller button until it beeps  
*Controller LED will start blinking green*
- 2) Tap controller set button  
*Controller LED will start double-blinking green*
- 3) Tap DIN Rail on and adjust to desired scene brightness  
*DIN Rail LED will be green*
- 4) Press and hold DIN Rail set button until it double-beeps
- 5) For each additional scene member:
  - a. Adjust member to desired scene brightness
  - b. Press and hold set button until it double-beeps
- 6) Tap On, Off or the Set button once to exit Multi-linking  
*Controller LED will stop blinking*
- 7) Test by tapping controller button on and off  
*DIN Rail and other scene responders will all respond appropriately*

### ***Make DIN Rail a Controller of Multiple Responders***

- 1) Press and hold DIN Rail set button until it beeps  
*DIN Rail LED will start blinking green*
- 2) Tap DIN Rail set button  
*DIN Rail LED will start double-blinking green*
- 3) For each responder you are adding:
  - a. Adjust responder to desired scene brightness/state
  - b. Press and hold set button until it double-beeps
- 4) Tap On, Off or the Set button once to exit Multi-linking  
*DIN Rail LED will stop blinking*
- 5) Test by tapping DIN Rail on and off  
*All the responders will turn on and off*

### ***Remove DIN Rail as a Controller (Unlink)***

If you no longer want DIN Rail to control another device (or are removing DIN Rail) it is important that you follow the instructions below for each responder.

- 1) Press and hold DIN Rail set button until it beeps  
*DIN Rail LED will start blinking green*
- 2) Press and hold DIN Rail set button until it beeps a second time  
*DIN Rail LED will start blinking red*
- 3) Press and hold responder set button until it double-beeps  
*DIN Rail will double-beep and LED will stop blinking*
- 4) Test by tapping DIN Rail on and off  
*Former responder will not respond*

### ***Remove DIN Rail as a Responder (Unlink)***

If you no longer want a controller button to control DIN Rail follow these directions. Note: If you ever wish to un-install DIN Rail, remove all DIN Rail responder links, otherwise controllers will retry commands repetitively, creating network delays

- 1) Press and hold controller button until it beeps  
*Controller LED will start blinking green*
- 2) Press and hold controller button until it beeps a second time  
*Controller LED will start blinking red*
- 3) Press and hold DIN Rail set button until it double-beeps  
*Controller LED will stop blinking*
- 4) Test by tapping controller button on and off  
*DIN Rail will no longer respond*

### ***Remove DIN Rail as a Controller of Multiple Responders (Unlink)***

- 1) Press and hold DIN Rail set button until it beeps  
*DIN Rail LED will start blinking green*

- 2) Press and hold DIN Rail set button until it beeps a second time  
*DIN Rail LED will start blinking red*
- 3) Tap DIN Rail set button  
*DIN Rail LED will start double-blinking red*
- 4) For each responder you are removing, press and hold responder set button until it double-beeps
- 5) Tap On, Off or the Set button once to exit Multi-Unlink  
*DIN Rail LED will stop blinking*
- 6) Test by tapping DIN Rail on and off  
*None of the former responders will respond*

## Factory Reset

All settings and scenes will be erased and return to factory default settings.

- 1) Remove scene memberships from all controllers, otherwise controllers will retry commands repetitively, creating network delays (see [Remove DIN Rail as a Responder \(Unlink\)](#))
- 2) Press and hold DIN Rail set button until it beeps  
*LED will start blinking green*
- 3) Press and hold DIN Rail set button until it beeps a second time  
*LED will start blinking red*
- 4) Press and hold DIN Rail set button until it beeps a third time  
*LED will start blinking green*
- 5) Slowly tap set DIN Rail button 3 times  
*LED will start double-blinking green*
- 6) Press and hold DIN Rail set button (and don't let go)  
*DIN Rail will begin a long beep*
- 7) Release DIN Rail set button after beeping has stopped  
*After a few seconds DIN Rail will double-beep*  
*DIN Rail will turn on and LED will turn green*

## X10 Setup

DIN Rail ships with no X10 address assigned.

### Assign an X10 Address

- 1) Press and hold DIN Rail set button until it beeps  
*DIN Rail LED will start blinking green*
- 2) Send the X10 address 3 times (with or without commands)  
*Example: A1-A1-A1-AON or A1-AON-A1-AON-A1-AON*  
*DIN Rail will double-beep and its LED will stop blinking*
- 3) Test by sending X10 on and off commands  
*Load will turn on and off*

### Remove X10 Address

- 1) Press and hold DIN Rail set button until it beeps  
*DIN Rail LED will start blinking green*
- 2) Press and hold DIN Rail set button until it beeps a second time  
*DIN Rail LED will start blinking red*
- 3) Send the X10 address 3 times (with or without commands)  
*DIN Rail will double-beep and its LED will stop blinking*
- 4) Test by sending X10 on and off commands  
*Load will not respond*

## Specifications

General		
Product name	DIN Rail Dimmer	
Brand/manufacturer	INSTEON	
Manufacturer product number	US	2452-222
	EU	2452-422
	AUS/NZ	2452-522
UPC	US	813922012798
	EU	813922012804
	AUS/NZ	813922012811
Warranty	2 years, limited	
INSTEON		
INSTEON powerline mesh repeater	Yes	
INSTEON RF mesh repeater	Yes	
INSTEON controller	Yes	
INSTEON responder	Yes	
Maximum links/scenes	400	
Load brightness levels	32 locally (256 with software)	
LED	Green when load is on, red when load is off. Blinks red when responder does not acknowledge (can be disabled via software). Blinks red or green during setup.	
LED brightness	Adjustable, from off to bright	
Local on-level	Adjustable, 32 fixed brightness levels or resume dim	
Local ramp-rate	Adjustable from 0.1 seconds to 5 seconds locally (0.1 seconds to 8 minutes via software)	
Local control	Yes	
Commands supported as controller	On/off, Fast on/off, Begin brighten/dim, End brighten/dim	
Commands supported as responder	On/off, Fast on/off, Beep	
Software configurable	Yes	
RF range	Up to 150 feet (50 meters) open air* *Range may vary due to local interference	
Phase bridge detect beacon	Yes	
INSTEON device category	0x01 dimmable lighting control (all frequencies)	
INSTEON device subcategory	US	0x34
	EU	0x36
	AUS/NZ	0x37
X10		
X10 address	1 optional (comes unassigned)	

X10 transmitter	Yes	
X10 receiver	Yes	
X10 status response	Supported	
X10 resume dim	Supported (by setting local on-level to zero)	
X10 minimum transmit level	3.2 Vpp into 5 Ohms	
X10 minimum receive level	20mV into 5 Ohms	
X10 messages repeated	No	
<b>Mechanical</b>		
Mounting	35mm (top hat) DIN Rail	
Wires	NA	
Max Cable Size	4mm <sup>2</sup> , 12 AWG (2.72mm Diameter)	
Min Cable Size	1.5mm <sup>2</sup> , 15 AWG	
Screw DIN Rail connections	Line, Neutral, Load, Sense 1, Sense 2	
Case color	White	
Set button	Yes	
Plastic	UV stabilized polycarbonate	
Beeper	Yes	
Beep on button press	Optional (off by default)	
LED	1, RGB	
Dimensions	3.14"H x 2.05"W x 2.48"D (80mm x 52mm x 63mm)	
Weight	6.17 oz (175g)	
Operating environment	Indoors	
Operating temperature range	32° to 104° F (0° to 40° C)	
Operating humidity range	0-90% relative humidity	
Storage temperature range	-4° o to 158° F (-20° to 70° C)	
<b>Electrical</b>		
Voltage	100VAC to 240VAC	
RF Frequency	US	915 MHz
	EU	869 MHz
	AUS/NZ	921 MHz
Electrical Frequency	50/60Hz auto detected at power-up	
Load type(s)	Resistive Low voltage halogen Incandescent	
Maximum load	300 watts (@ 240VAC) 300 watts (@ 120VAC)	
Minimum load	5 watts	
User replaceable fuse	US	16A, 5x20mm slow blow/burn glass fuse
	EU	2A, 5x20mm slow blow/burn glass fuse

	AUS/NZ	
Hardwired remote control	Yes, either latching or momentary switches supported	
Retains all settings without power	Yes, saved in non-volatile EEPROM	
Standby power consumption	< 1 watt	
Safety approval(s)	ETL, CE, C-Tick	
Certifications	FCC 15.107, 15.109, 15.249 RSS 210 EN 300 220-2, 301 489-3 AS/NZS 4268, CISPR 22 UL 1472 IEC 60669-2-1	
FCC ID	SBPDR01	

## Troubleshooting

Problem	Possible Cause	Solution
The LED on DIN Rail is not turning on at all and won't control my light	DIN Rail is not getting power	Make sure the circuit breaker is turned on
		Check junction box wires to ensure all connections are tight and no bare wires are exposed
		Check the light fixture to ensure all connections are tight and no bare wires are exposed
		Check fuse to ensure it is not broken.
The switch I'm replacing only has two wires	DIN Rail needs a Neutral wire in order to operate	Look in the rear of the box for a group of wires all tied together with a wire nut. Those are the Neutral wires.
		Pull a Neutral from nearby junction box
DIN Rail is not receiving signals from a controller	DIN Rail and the controller are not within range of each other	Install additional INSTEON devices to strengthen INSTEON signals
		US applications: Add a Range Extender
		Move controller within range of DIN Rail
	The controller is plugged into a power strip	Power line signals can't travel through some power filters. Plugging the controller directly into a wall outlet works best.
Other appliance(s) are causing line noise	Install filters where device(s) are causing line noise	
	Install additional INSTEON devices to strengthen INSTEON signals	
The load turned on by itself	Another controller, a timer, or stray X10 signals triggered DIN Rail	Install a power line signal blocker in your home to keep X10 signals from neighboring homes from interfering. Consider not using DIN Rail in X10 mode.
	DIN Rail may have an undesired responder membership	Use software to remove membership or perform a factory reset
The controlled load does not appear to turn on or off right away	Responder scene ramp rate might be quite slow	Set a faster ramp rate – software recommended
DIN Rail responds to on commands but not off commands	Load connected to DIN Rail is producing electrical noise that is interfering with DIN Rail reception of power line signal	Install an in-line noise filter between the load and DIN Rail
		Install additional INSTEON devices to strengthen INSTEON signals
My load only will turn off when I tap a button on DIN Rail, but I can brighten and dim it	The on-level may be set to fully-off or very dim	Set a brighter on-level. See <a href="#">Local On-Level</a>
When I try to turn on my load with another controller, the load will turn on, then back off	DIN Rail may be set up with an INSTEON on-level at a high brightness and an X10 Primary or scene address on-Level at a low brightness	Remove the X10 address
		Remove the X10 address from the INSTEON controller
When I press a button on	DIN Rail is trying to control a	Connect power to the device

DIN Rail, it takes a long time for other INSTEON devices it is controlling to respond	scene responder that is not powered on	If the INSTEON device is still available, remove it from DIN Rail and then re-add it
		Perform a factory reset
The load is buzzing when on or dim	The dimming component inside DIN Rail "chops" the power line sine wave to reduce the power	The bulb filaments are vibrating. Use rough-service or appliance grade bulbs to reduce the noise
		Run DIN Rail in the "full-on" mode or switch to a non-dimming DIN Rail On/Off (Relay) Switch
DIN Rail is locked up	A surge or excessive noise on the power line occurred	Power cycle the device
		Perform a factory reset
DIN Rail is getting warm to the touch	It is normal for wall dimmers to get warm (DIN Rail conforms to Safety standards)	DIN Rail will dissipate about 1 Watt per 100 Watts controlled. Controlling a smaller load all will help lessen the heat.
DIN Rail can turn off my responder, but nothing happens when I send an on	Responder scene level is off	Add responder to scene again at desired scene on-level
Controller can turn off DIN Rail, DIN Rail does not respond to on	DIN Rail may be added to a scene at its off state	Add DIN Rail to scene again at desired scene on-level
DIN Rail still controls devices even after factory reset	Scene memberships exist in the responder	Remove responder from DIN Rail scene



## Phase Bridge Detect Beacon/RF Range Test

Dimmer module automatically bridges the electrical phases in your home (via communications with other dual-band devices on the “other phase”). This is only important in 2-phase homes with powerline-only INSTEON products or buildings with both 2- and 3- phase circuits. The phase bridge detect beacon can also be used as an RF range test to see if your devices are within communication range. You will need at least one other INSTEON dual-band device installed.

- 1) Press and hold set button until it beeps  
*LED will start blinking green*
- 2) Press and hold set button until it beeps a second time  
*LED will start blinking red*
- 3) Press and hold set button until it beeps a third time  
*LED will start blinking green*
- 4) Slowly tap set button 2 times  
*LED will continue blinking green*
- 5) Press and hold set button until it beeps  
*DIN Rail will start beeping once per second*  
*LED will turn solid green*
- 6) Check the LED behavior of other dual-band devices  
Phase Bridge Detect Beacon
  - If the other dual-band device is blinking green, it is on the other phase:  
*Device provides a phase bridge to Dimmer module*
  - If the other dual-band device is blinking red, it is on the same phase:  
*Device does not provide a phase bridge to Dimmer module*  
*Relocate if necessary (and practical)*
  - If the other dual-band device is not blinking:  
*Device is not within RF range of Dimmer module so it does not provide a phase bridge*  
*Relocate if necessary (and practical) or add an additional dual-band device*RF Range Test
  - If LED is blinking:  
*Device is within RF communication range*
  - If LED is not blinking:  
*Device is not within RF communication range*  
*Relocate if necessary (and practical) or add an additional dual-band device*
- 7) Tap set button  
*Dimmer module will stop beeping*  
*Other device LEDs will stop blinking*

## Replacing Fuse

- 1) Turn off power to device
- 2) Use a small screwdriver or similar tool to pry up fuse cover
- 3) Remove fuse cover and fuse
- 4) Replace fuse with 5x20mm slow blow/burn glass fuse (use 16A for US, 2A for EU and AUS/NZ)
- 5) Ensure fuse is centered in fuse holder and firmly press fuse and cover into place.
- 6) Restore power to device
- 7) Ensure device is functioning properly

If you have tried these solutions, reviewed the owner's manual, and still cannot resolve an issue you are having with DIN Rail, visit <http://www.insteon.com/support> or call INSTEON Support Line at 866-243-8022.

# Certification and Warranty

## Certification

This product has been thoroughly tested by ITS ETL SEMKO, a nationally recognized independent third-party testing laboratory. The North American ETL Listed mark signifies that the device has been tested to and has met the requirements of a widely recognized consensus of U.S. and Canadian device safety standards, that the manufacturing site has been audited, and that the manufacturer has agreed to a program of quarterly factory follow-up inspections to verify continued conformance.

## FCC and Industry Canada Compliance Statement

This device complies with FCC Rules Part 15 and Industry Canada RSS-210 (Rev. 7). Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The digital circuitry of this device 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 residential installations. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna of the device experiencing the interference
- Increase the distance between this device and the receiver
- Connect the device to an AC outlet on a circuit different from the one that supplies power to the receiver
- Consult the dealer or an experienced radio/TV technician

**WARNING:** Changes or modifications to this device not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## Declaration of Conformity

Hereby, INSTEON declares that this device is in compliance with the essential requirements and other relevant provisions of the following Directives:

1) Low Voltage Equipment Directive 2006/95/EC

2) Electromagnetic Compatibility Directive 2004/108/EC

3) Hazardous Substance Directive 2005/95/EC

Technical data and copies of the original Declaration of Conformity are available and can be obtained from INSTEON; 16542 Millikan Ave, Irvine, CA, USA.

User Information for Consumer Products Covered by EU Directive 2002/96/EC on Waste Electric and Electronic Equipment (WEEE)

This document contains important information for users with regards to the proper disposal and recycling of INSTEON products. Consumers are required to comply with this notice for all electronic products bearing the following symbol:



Environmental Information for Customers in the European Union

European Directive 2002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams.

It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health.

For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

DECLARATION OF CONFORMITY TO R&TTE DIRECTIVE 1999/5/EC for the European Community, Switzerland, Norway, Iceland and Liechtenstein

Product category: general consumer (category 3).

English: This equipment is in compliance with the essential requirements and other relevant provisions of the European R&TTE Directive 1999/5/EC

Deutsch [German]: Dieses Gerät entspricht den grundlegenden Anforderungen und den weiteren entsprechenden Vorgaben der Richtlinie 1999/5/EU.

Nederlands [Dutch]: Dit apparaat voldoet aan de essentiële eisen en andere van toepassing zijnde bepalingen van de Richtlijn 1999/5/EC.

Svenska [Swedish]: Denna utrustning står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Français [French]: Cet appareil est conforme aux exigences essentielles et aux autres dispositions pertinentes de la Directive 1999/5/EC

Español [Spanish]: Este equipo cumple con los requisitos esenciales así como con otras disposiciones de la Directiva 1999/5/CE.

Português [Portuguese]: Este equipamento está em conformidade com os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/EC.

Italiano [Italian]: Questo apparato è conforme ai requisiti essenziali ed agli altri principi sanciti dalla Direttiva 1999/5/CE.

Norsk [Norwegian]: Dette utstyret er i samsvar med de grunnleggende krav og andre relevante bestemmelser i EU-direktiv 1999/5/EF.

Suomi [Finnish]: Tämä laite täyttää direktiivin 1999/5/EY olennaiset vaatimukset ja on siinä asetettujen muiden laitetta koskevien määräysten mukainen.

Dansk [Danish]: Dette udstyr er i overensstemmelse med de væsentlige krav og andre relevante bestemmelser i Direktiv 1999/5/EF.

Poliski [Polish]: Urządzenie jest zgodne z ogólnymi wymaganiami oraz szczególnymi warunkami określonymi Dyrektywą UE: 1999/5/EC

## ETL/UL Warning (Safety Warning)

**CAUTION:** To reduce the risk of overheating and possible damage to other equipment, do not install this device to control a receptacle, a motor-operated appliance, a fluorescent lighting fixture, or a transformer-supplied appliance.

Gradateurs commandant une DIN Raile a filament de tungstene – afin de reduire le risqué de surchauffe et la possibilite d'endommagement a d'autres materiels, ne pas installer pour commander une prise, un appareil a moteur, une DIN Raile fluorescente ou un appareil alimente par un transformateur.

## Limited Warranty

Seller warrants to the original consumer purchaser of this product that, for a period of two years from the date of purchase, this product will be free from defects in material and workmanship and will perform in substantial conformity to the description of the product in this Owner's Manual. This warranty shall not apply to defects or errors caused by misuse or neglect. If the product is found to be defective in material or workmanship, or if the product does not perform as warranted above during the warranty period, Seller will either repair it, replace it, or refund the purchase price, at its option, upon receipt of the product at the address below, postage prepaid, with proof of the date of purchase and an explanation of the defect or error. The repair, replacement, or refund that is provided for above shall be the full extent of Seller's

liability with respect to this product. For repair or replacement during the warranty period, call INSTEON at 866-243-8022 with the Model # and Revision # of the device to receive an RMA# and send the product, along with all other required materials to:

**INSTEON**  
**ATTN: Receiving**  
**16542 Millikan Ave.**  
**Irvine, CA 92606-5027**

**Limitations**

The above warranty is in lieu of and Seller disclaims all other warranties, whether oral or written, express or implied, including any warranty or merchantability or fitness for a particular purpose. Any implied warranty, including any warranty of merchantability or fitness for a particular purpose, which may not be disclaimed or supplanted as provided above shall be limited to the two-year of the express warranty above. No other representation or claim of any nature by any person shall be binding upon Seller or modify the terms of the above warranty and disclaimer.

Home automation devices have the risk of failure to operate, incorrect operation, or electrical or mechanical tampering. For optimal use, manually verify the device state. Any home automation device should be viewed as a convenience, but not as a sole method for controlling your home.

In no event shall Seller be liable for special, incidental, consequential, or other damages resulting from possession or use of this device, including without limitation damage to property and, to the extent permitted by law, personal injury, even if Seller knew or should have known of the possibility of such damages. Some states do not allow limitations on how long an implied warranty lasts and/or the exclusion or limitation of damages, in which case the above limitations and/or exclusions may not apply to you. You may also have other legal rights that may vary from state to state.

Protected under U.S and foreign patent (see [www.insteon.com/patents](http://www.insteon.com/patents))

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