

# INSTEON®

## On/Off Outdoor Module Owner's Manual 2634-222

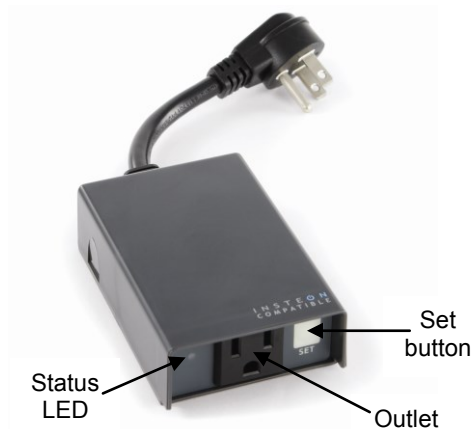


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## About On/Off Outdoor Module

On/Off Outdoor Module is a simple way to remotely control any plug-in device, in or outside your home, at the touch of a button. Send commands to On/Off Outdoor Module from any INSTEON controller, or link it to other INSTEON devices as a controller.



## Features and Benefits

- Installs and links to other INSTEON devices in minutes
- Controls standard incandescent loads up to 1440 Watts and inductive loads up to 12 Amps
- Weatherproof to withstand harsh outdoor conditions
- Indicates INSTEON setup mode activity and operational states with a dual-color Status LED and beeper
- Load Sensing easily enabled and disabled
- Stores setup state in memory so settings aren't lost during power outages
- Two-year warranty

In the Box	Optional Accessories
On/Off Outdoor Module	Mini Remote
Quick Start Guide	INSTEON Hub

## Before Installation

### CAUTIONS AND WARNINGS

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

On/Off Outdoor Module is intended for installation in accordance with the National Electric Code and local regulations in the United States or the Canadian Electrical Code and local regulations in Canada.

On/Off Outdoor Module is not designed nor approved for use on power lines other than 120V 60Hz, single phase. Attempting to use On/Off Outdoor Module on non-approved power lines may have hazardous consequences.

Prior to installing On/Off Outdoor Module, please review the entire installation procedure and take the following precautions:

- Be sure On/Off Outdoor Module is connected to a 3-prong AC outlet that includes a Ground Fault Circuit Interrupt (GFCI) feature. If On/Off Outdoor Module is plugged into an outlet without GFCI protection, make sure there is a GFCI device upstream (at another outlet closer to the electrical panel or a GFCI circuit breaker).
- Test your GFCI protection each time On/Off Outdoor Module is plugged in, as well as on a monthly basis. To test your GFCI protection, make sure On/Off Outdoor Module is plugged in and the connected load is on. Then, push the TEST button on the GFCI outlet or circuit breaker. This unit must stop operating. Wait about 5 seconds and then push the RESET button on the GFCI outlet or circuit breaker. On/Off Outdoor Module will begin receiving electricity and the connected load will turn on. If the GFCI circuit does not perform in this manner, there may be an electrical malfunction, increasing the probability of electric shock. Disconnect the power until the problem has been corrected. Please see the instructions that came with your GFCI device for specific testing procedures. When in doubt of the GFCI device's ability to detect a ground fault, replace the GFCI device.
- Don't bury On/Off Outdoor Module, any electrical cable, or component connected to it. A buried power cord may result in electrocution if improper cables are used or if digging occurs over the cable.
- Don't allow vegetation to grow on or around On/Off Outdoor Module
- Don't install On/Off Outdoor Module in a manner that allows water to accumulate around it
- If an extension cord is used, the cord must be properly grounded. Be sure the extension cord is of adequate capacity to provide power to your load. A "light-duty" or "medium-duty" extension cord may cause a voltage drop, which will cause overheating of the cable, plug, or socket.
- Don't attempt to open On/Off Outdoor Module. The case is sealed and can't be opened. There are no user-serviceable parts inside.
- Don't use On/Off Outdoor Module to control devices that preserve, maintain, or contribute to human or animal safety or life support
- Don't plug On/Off Outdoor Module into an outlet controlled by a switch because if the switch is inadvertently turned off, On/Off Outdoor Module won't have power
- Don't plug On/Off Outdoor Module into a filtered power strip or AC line filter
- Be sure the device's built-in switch is in the on position
- Don't exceed the load rating of On/Off Outdoor Module. Check and add up all the electrical devices that will be attached and make sure the total does not exceed 12 Amps.
- Don't use any electrical cord or extension cord that is damaged or in poor condition

### IMPORTANT!

If you have any difficulties or questions, consult an electrician. If you have any questions, call the INSTEON Support Line at 866-243-8022.

## Installation

- 1) Plug appliance/device (also called the load) you want to control into On/Off Outdoor Module outlet
- 2) Plug On/Off Outdoor Module into unswitched wall outlet  
*Status LED will turn on solid green*  
*The load will turn on. (If load does not turn on, tap Set button.)*
- 3) Allow On/Off Outdoor Module to hang down from outlet (see image)

Note: After completing installation, you will not be able to use the load's built-in switch to control the load, unless you have enabled Load Sensing. See [Load Sensing](#).



## Using On/Off Outdoor Module

### Local Control Operation

<i>Connected load/responders</i>			
	Tap	Double-tap	LED
Set Button	On/Off	On/Off (instant)	Green/ Red

### LED Activity

LED	Status/Setup Mode
Solid green	Load is on
Solid red	Load is off
Blinking green	Linking mode
Blinking red	Unlinking mode

## Adjust Local Settings

### LED On or Off

Default = On

This setting is only adjustable via software or a central controller. When enabled, LED On will cause the LED to be green when the Load is on and Red when the load is off.

### Blink on Traffic

Default = enabled

This setting is only adjustable via software or a central controller. On/Off Outdoor Module LED will blink green for INSTEON traffic and if it detects noise that could disrupt communication.

### Programming Lock

Default = disabled

This setting is only adjustable via software or a central controller. When enabled, Programming Lock will disable the set button so that a user can not adjust settings or modify links. This is typically used in commercial or installer applications.

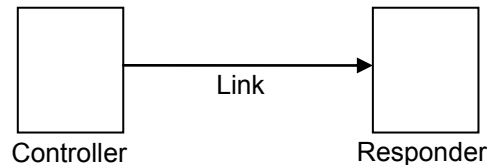
## INSTEON Setup

Some products have subtle differences in their setup procedures. Please refer to the other devices' owner's manuals 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**
- The association between the controller and responder is called a **link**



Note that a link is one way. If you wish to have control “the other way,” simply add a link “the other way.”

### Make On/Off Outdoor Module a Responder

- 1) Press and hold controller set button until it beeps  
*Controller LED will start blinking*  
*You will have four minutes to complete the next steps before linking mode times out*
- 2) Use On/Off Module set button to adjust load to desired state (on or off)
- 3) Press and hold On/Off Outdoor Module set button until it double-beeps  
*Controller will double-beep and its LED will stop blinking*
- 4) Test link by tapping controller button on and off  
*Lamp connected to On/Off Outdoor Module will respond appropriately*

Note:

- The link just created is one way. See [Make On/Off Outdoor Module a Controller](#) or [Groups](#) to add another link to keep the two products in sync.
- If you wish the load to be off when link is activated—such as for an “all off” scene—turn off the load in step #2.

### Make On/Off Outdoor Module a Controller

- 1) Press and hold On/Off Module set button until it beeps  
*On/Off Module LED will start blinking green*
- 2) Adjust responder to desired brightness state (such as on, 50% or even off)
- 3) Press and hold responder set button until it double-beeps  
*On/Off Module LED will stop blinking*
- 4) Test by tapping On/Off Module set button to turn on/off  
*Responder will respond appropriately*

## 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 A and B on
- 2) Press and hold A set button until it beeps  
*A status LED will start blinking green*
- 3) Press and hold B set button until it double-beeps  
*A will double-beep and its LED will stop blinking*
- 4) Press and hold B set button until it beeps  
*B LED will start blinking green*
- 5) Press and hold A set button until it double-beeps  
*B will double-beep and its LED will stop blinking*
- 6) Test by turning load on and off from A and then B  
*The load(s) and both A and B LEDs will remain in synch*

## Scenes

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

Example of a scene with 1 controller and On/Off Outdoor Module as a member:

- 1) Press and hold controller set button until it beeps  
*Controller LED will start blinking green*
- 2) Tap controller set button  
*Controller LED will start double-blinking green*
- 3) Use On/Off Module set button to adjust load to desired state (on or off)
- 4) Press and hold On/Off Outdoor Module 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 controller set button  
*Controller will beep and LED will stop blinking*
- 7) Test by tapping controller button on and off  
*On/Off Outdoor Module and other scene responders will all respond appropriately*

## Remove On/Off Outdoor Module as a Responder

If you no longer want a controller button to control On/Off Outdoor Module, follow these directions.

*Note: If you ever wish to uninstall On/Off Outdoor Module, it is important that you remove all On/Off Outdoor Module responder links. Otherwise, controllers will repetitively retry commands, creating network delays.*

- 1) Press and hold controller button until it beeps  
*LED will start blinking green*
- 2) Press and hold controller button until it beeps again  
*LED will start blinking red*
- 3) Press and hold On/Off Outdoor Module set button until it double-beeps  
*Controller LED will stop blinking*
- 4) Test by tapping controller button on and off  
*On/Off Outdoor Module will no longer respond*

## Remove On/Off Outdoor Module as a Controller

If you no longer want On/Off Outdoor Module to control another device (or are removing On/Off Outdoor Module from your network) it is important that you follow the instructions below for each responder.

- 1) Press and hold On/Off Outdoor Module set button until it beeps  
*LED will start blinking green*
- 2) Press and hold On/Off Outdoor Module set button until it beeps again  
*LED will start blinking red*
- 3) Press and hold responder set button until it double-beeps  
*On/Off Outdoor Module will double-beep and LED will stop blinking*
- 4) Test by tapping On/Off Outdoor Module on and off  
*Former responder will not respond*

## Load Sensing

Load Sensing allows you to control the load plugged into On/Off Outdoor Module from its local switch in addition to any linked controllers. Load Sensing is disabled on On/Off Outdoor Module by default, but you can enable it by following these steps.

### Enable Load Sensing

- 1) Press and hold On/Off Outdoor Module set button until it beeps (3 seconds)  
*On/Off Outdoor Module Status LED will begin blinking green*
- 2) Triple-tap On/Off Outdoor Module set button. (Be sure to quickly press the set button like clicking a computer mouse.)  
*On/Off Outdoor Module Status LED will stop blinking and turn on solid green if the load is on or solid red if it is off*
- 3) Test by turning the load on and off from its built-in switch  
*Load will turn on and off*

### Disable Load Sensing

- 1) Press and hold On/Off Outdoor Module set button until it beeps (3 seconds)  
*On/Off Outdoor Module Status LED will begin blinking green*
- 2) Double-tap On/Off Outdoor Module set button. (Be sure to quickly press the set button like clicking a computer mouse.)  
*On/Off Outdoor Module Status LED will stop blinking and turn on solid green if the load is on or solid red if it is off*
- 3) Test by turning the load on and off from its built-in switch  
*Load will not respond*



## Specifications

General		
Product name	On/Off Outdoor Module	
Brand/manufacturer	INSTEON	
Manufacturer product number	2634-222	
UPC	813922013375	
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	
LED	Green when load is on, red when load is off Blinks red or green during setup	
Beep on button press	No	
Local control	Yes	
Commands supported as controller	On	Off
Commands supported as responder	On	Off
	Beep	
Software configurable	Yes	
RF range	Up to 150 feet open air* <i>*Range may vary due to local interference</i>	
Phase bridge detect beacon	Yes	
INSTEON device category	0x02 switched lighting control	
INSTEON device subcategory	0x38 (US – 915 MHz RF frequency)	
X10		
N/A		
Mechanical		
Mounting	Type A (US) AC Outlet	
Wires	N/A	
Max Cable Size	N/A	
Min Cable Size	N/A	

Screw On/Off Outdoor Module connections	None	
Case color	Dark gray	
Set button	Yes	
Plastic	UV stabilized polycarbonate	
Beeper	Yes	
LED	1, Red-Green	
Dimensions	2.75"W x 4.32"H x 1.27"D (with 6" lead) 70mm W x 110mm H x 32mm D (with 150mm lead)	
Weight	.465lbs (7.2 oz) .21kg	
Operating environment	Indoor/outdoor	
Rainproof rated	NEMA Type 3R Enclosure	
Operating temperature range	-4° to 122° F	-20° to 50° C
Storage temperature range	-4° to 158° F	-20° to 70° C
Operating humidity range	0 - 90% relative humidity	
<b>Electrical</b>		
Voltage	120 Volts AC +/- 10%	
Frequency	60Hz	
Load type(s)	Standard appliances up to 12 Amps and incandescent lights up to 1440 watts	
Maximum load	12 Amps; 1440 Watts (for incandescent loads)	
Minimum load	None	
User replaceable fuse	None	
Retains all settings without power	Yes, saved in non-volatile EEPROM	
Standby power consumption	< 1 watt	
Safety approval(s)	Conforms to ANSI/UL Std. 508-2005 Certified to CAN/CSA Std. C22.2 #14-05	
FCC ID	SBP26342	

## Troubleshooting

Problem	Possible Cause	Solution
The Status LED on On/Off Outdoor Module is not turning on and won't control the load	On/Off Outdoor Module may not be getting power	Make sure On/Off Outdoor Module is not plugged into a switched outlet that is turned off
On/Off Outdoor Module won't link to or work with a controller	The controller or might have been reset without unlinking On/Off Outdoor Module	Re-link On/Off Outdoor Module to the controller
	The controller and On/Off Outdoor Module may be on opposite powerline phases	Make sure a least one other INSTEON dual-band device is properly installed to bridge the two powerline phases.
	The INSTEON signal may be too weak.	Add additional INSTEON devices or move around existing INSTEON devices. All INSTEON devices act as INSTEON network repeaters.
	Large appliances, such as refrigerators or air conditioners, may be producing electrical noise on the powerline	Install a power line noise filter (#1626-10) to filter electrical noise and minimize signal attenuation
	Other electrical devices, such as computers, televisions, or power strips, may be absorbing the INSTEON signal	
On/Off Outdoor Module is taking a long time to respond to a controller	The controller may be sending commands to a responder that is no longer in use. Commands for the unused responder are being resent and loading down the signal.	Unlink any unused responders from the controller. HINT: If you are using home automation software, you can easily check scene membership and eliminate unnecessary links.
		If the above doesn't work, perform a factory reset on the controller
The load turned on by itself	Another controller or timer could have triggered On/Off Outdoor Module.	Perform a factory reset. See <a href="#">Factory Reset</a> .
The controller can turn off On/Off Outdoor Module but On/Off Outdoor Module does not turn on when I send an ON command from the controller	On/Off Outdoor Module may be Linked at its off state.	Relink On/Off Outdoor Module to the controller, while the load is on. See <a href="#">Make On/Off Outdoor Module a Responder</a> .
On/Off Outdoor Module is locked up	A surge or excessive noise on the powerline may have glitched it	Unplug On/Off Outdoor Module for 10 seconds and then reinstall
		If the above doesn't work, perform a factory reset. See <a href="#">Factory Reset</a> .
The load is not being controlled by On/Off Outdoor Module	The load may not be getting power	Make sure the load's built-in switch is in the on position

If you have tried these solutions, reviewed this Owner's Manual, and still cannot resolve an issue you are having with On/Off Outdoor Module, please call INSTEON Support Line at 866-243-8022.

## Phase Bridge Detect Beacon/RF Range Test

On/Off Outdoor 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) Quickly tap Set button four times
  - On/Off Outdoor Module will start beeping once per second*
  - LED will turn solid green*
- 2) 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 Micro module*
    - If the other dual-band device is blinking red, it is on the same phase:
      - Device does not provide a phase bridge to Micro module*
      - Relocate if necessary (and practical)*
    - If the other dual-band device is not blinking:
      - Device is not within RF range of Micro module so it does not provide a phase bridge*
      - Relocate if necessary (and practical) or add an additional dual-band device*
  - RF Range Test
    - RF range test: if LED is blinking:
      - Device is within RF communication range*
    - RF range test: if LED is not blinking:
      - Device is not within RF communication range*
      - Relocate if necessary (and practical) or add an additional dual-band device*
- 3) Tap Set button
  - On/Off Outdoor Module will stop beeping*
  - Other device LEDs will stop blinking*

## Factory Reset

All settings, links and scenes will be erased.

- 1) If you are using a controller to control On/Off Outdoor Module, be sure to unlink it from the controller
- 2) Unplug On/Off Outdoor Module
- 3) While pressing and holding Set button, plug On/Off Outdoor Module back in. Do not let go of set button.
  - On/Off Outdoor Module will begin to emit a long beep*
  - Status LED will turn green*
- 4) When long beep stops, release set button
  - Status LED will flash red and then turn green*
  - After a few seconds, load will turn on*

# 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. 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.

## **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 lampe à filament de tungstène – afin de réduire le risque de surchauffe et la possibilité d'endommagement à d'autres matériels, ne pas installer pour commander une prise, un appareil à moteur, une lampe fluorescente ou un appareil alimenté 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 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**  
**1621 Alton Parkway, Suite 100**  
**Irvine, CA 92606**

## **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 patents (see [www.insteon.com/patents](http://www.insteon.com/patents))

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