RemoteLinc™ 2

INSTEON® Remote Control Keypad, 4 Scene (**#2444A2xx4**)
Owners Manual
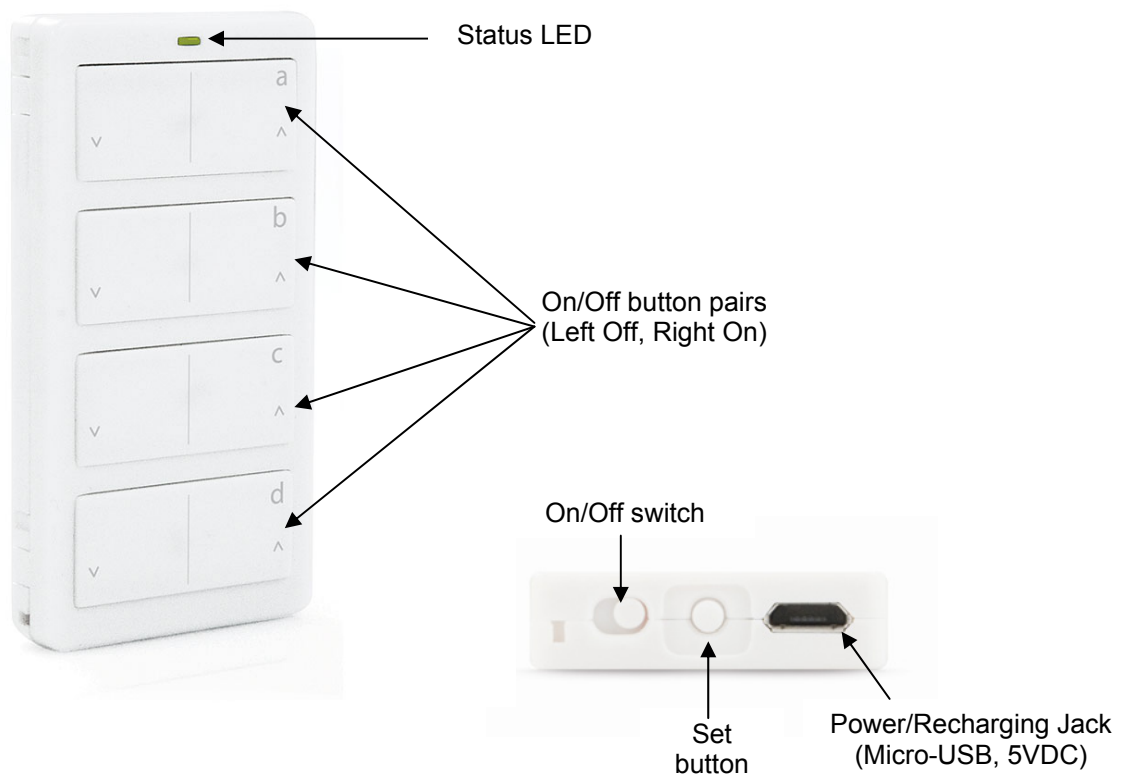
INSTEON

SMARTHOME®

RemoteLinc 2

RemoteLinc 2 is the smallest and most versatile INSTEON remote control in the world. The 4 scene controller can easily be reconfigured to give you toggle control of up to 8 scenes and/or devices. RemoteLinc 2 can be:

- Handheld (wireless remote)
- Mounted on wall with no trim plate (wireless keypad)
- Mounted on wall in a single-gang Decorator trim plate (wireless keypad, built-in look)
- Mounted on wall in a multi-gang Decorator trim plate (add to the number of controllers in your room without hiring an electrician and/or tearing out drywall)
- Placed on a Tabletop Stand (sold separately)
- Clipped to your car's visor with Visor Clip (sold separately)

Status LED

On/Off button pairs
(Left Off, Right On)

On/Off switch

Set
button

Power/Recharging Jack
(Micro-USB, 5VDC)

Features & Benefits

Small, elegant design

Super-easy setup

Rechargeable battery included

Discreet On and Off buttons for 4 scenes

Can be reconfigured for 8 scene triggers or 8 scene On/Off toggle control

Can be installed into a single Decorator style opening (requires Wall-Mount Bracket, sold separately)

Can be used as a table-top controller (requires Tabletop Stand, sold separately)

Can be used as a visor-mounted remote control for lights, garage door opener etc. (requires Visor Clip, sold separately)

LED blinks green when turning a scene On and red when turning a scene Off

Power switch for disabling buttons ("vacation" or "pocket" mode)

Stuck Button Mode – saves battery life by going to sleep if button stuck down

Beeper for setup ease

Recharges with standard USB charger with via Micro-USB Plug (5VDC)

9-12 month battery life based on average usage

Battery charge LED indicator built-in

All settings stored in stable memory which is maintained even without power

1 year warranty

What's in the Box?

RemoteLinc 2

Rechargeable battery (pre-installed)
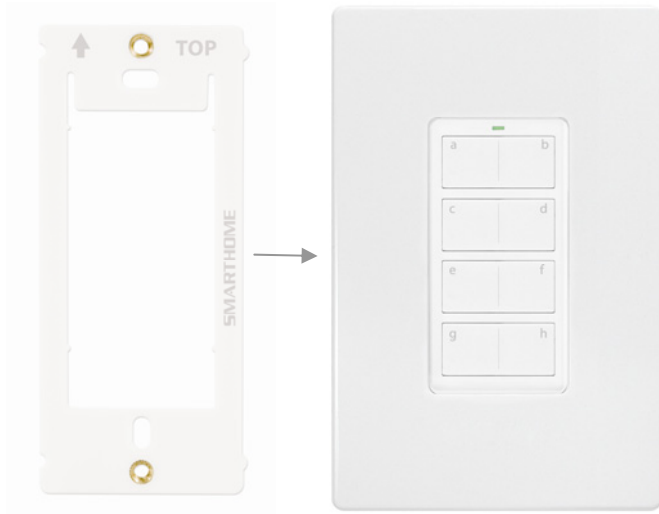
Quick-Start Guide

Required Accessories

- A micro USB cable for connecting and recharging RemoteLinc 2 via USB port on a computer or USB power adapter.
- If the INSTEON device you intend to control does not receive RF signals (i.e., power line only), you will need at least one dual-band INSTEON device to convert the RF signals to power line signals.

Type A to Micro-B cable
(2444B5)

Optional Accessories

Wall Mount Bracket
(2444B4)

- Wall mount your RemoteLinc 2 anywhere
- Gang two or more together for more control
- Can be installed adjacent to existing wired-in switches
- RemoteLinc 2 can easily be removed for portability or recharging
- Use with any decorator wallplate
-

Pair the Wall Mount Bracket with any decorator style wall plate (sold separately) for the perfect wireless wall switch solution.

Tabletop Stand
(Available in the 2444Bxx kit)

- Perfect for a nightstand, kitchen counter or coffee table

Visor Clip
(Available in the 2444Bxx kit)

- Control your home from your vehicle
- Turn lights on when you arrive and off as you leave

USB Power Adapter
(2444B6)

- For use with RemoteLinc 2 USB Charging Cable and any other device that charges via USB cable

Getting Started

Fully charge your RemoteLinc 2 prior to programming or anytime the unit is not responding. RemoteLinc 2 charges via a USB cable (Type A to Micro-B, sold separately). The red charging LED will turn off once the battery has been fully charged (approximately 1 hour). To turn on RemoteLinc 2, simply slide the power switch to the on position.

Note: RemoteLinc 2 uses a subtle beeper sound to assist setup. It is recommended that you program the unit in a quiet area.

Setting up INSTEON Scenes

Scene: One or more INSTEON devices which respond to an INSTEON controller. When the scene is activated (turned "on"), all devices return to the states they were at when the scene was programmed. INSTEON scenes let you activate dramatic lighting moods at the touch of a button. For example, you can set all the lights in a scene to dim to 50% or turn certain lights on while turning others off, all with the tap of a button on any INSTEON Controller. INSTEON scenes are easy to set up, just follow the directions below.

Maximum number of scenes in RemoteLinc 2 Keypad: 8 (Default is 4)
Scene Control Functions supported; On, Off, Press & hold Bright, Press & hold Dim, Double-tap Fast On and Double-tap Fast Off.

Add RemoteLinc 2 Button to a Scene as a <u>Controller</u>

Follow the steps below to control a scene (one or more INSTEON devices).

1) Tap the RemoteLinc 2 scene button of choice (on or off buttons will both work)

2) Adjust the scene responder to the "state" you want when the scene is activated from RemoteLinc 2 (e.g., 50%, 25% or even OFF)[1]

3) Press & hold RemoteLinc 2's Set button until RemoteLinc 2 beeps

   *RemoteLinc 2's LED will blink **GREEN***

4) Press & hold the responder's Set button until it beeps (or until its LED/load flashes)

   *RemoteLinc 2 will **(Beep)-(Beep)** and its LED will stop blinking*

   *Responder's LED will stop blinking (it may also **(Beep)-(Beep)**)*

5) Confirm that scene addition was successful by tapping on/off on your chosen RemoteLinc 2 button

   The Responder will toggle between the scene on level and off

6) If you wish to add more responders to RemoteLinc 2, repeat steps 1-5 for each additional scene responder (or see Add Multiple Responders to a scene)

[1] If the Responder is a multi-scene device such as a KeypadLinc, tap the scene button you wish to control until its LED is in the desired state (on or off)

Remove RemoteLinc 2 Button from a Scene as a <u>Controller</u>

If you are no longer going to use an INSTEON responder that is a scene responder of RemoteLinc 2, it is very important that you remove its scene membership. Otherwise, RemoteLinc 2 will retry every scene command repetitively, thus creating delays and shortening battery life.

1) Tap the RemoteLinc 2 scene button of choice (on or off buttons will both work)

   The Responder will respond

2) Press & hold the RemoteLinc 2's Set button until it beeps

   *RemoteLinc 2's LED will blink **GREEN***

3) Press & hold the RemoteLinc 2's Set button until it beeps again

   *RemoteLinc 2's LED will blink **RED***

4) Press & hold the Responder's Set button until it double-beeps (or LED blinks)

   *RemoteLinc 2 will **(Beep)-(Beep)** and its LED will stop blinking*

5) Confirm that Unlinking was successful by tapping the scene button on and off

   The Responder will <u>not</u> respond

6) If you wish to remove multiple responders from RemoteLinc 2, repeat steps 1-5 for each additional responder (or see Remove Multiple Responders from a Scene)

Using RemoteLinc 2

4 Scene Mode (Default)

The On/Off button pairs each control all their scene members as follows:

Button	Side	Icon	Tap	Press & hold	Double-tap
On	Right	^	Turn scene on	Brighten scene members until released	Turn scene members full-bright instantly
Off	Left	v	Turn scene off	Dim scene members until released	Turn scene members off instantly

8 Scene Toggle Mode

Each button will control all its scene members as follows:

Last Command Sent	Tap	Press & hold	Double-tap
Off or Dim	Turn scene on	Brighten scene members until released	Turn scene members full-bright instantly
On or Bright	Turn scene off	Dim scene members until released	Turn scene members off instantly

8 Scene Non-Toggle Mode (Always On)

Each button will control all its scene members as follows:

Tap	Press & hold	Double-tap
Turn scene on	Brighten scene members until released	Turn scene members full-bright instantly

Note: Devices in scenes that respond to the scene trigger by turning off do not respond to scene dims and brights. Devices in scenes that only support On/Off (such as switches and relays) do not respond to scene dims and brights.

LED Behavior

RemoteLinc 2 has a two-color LED (Green & Red) which momentarily indicates whether an on or an off is being sent.

LED State	Meaning
Blink Green (Once)	On Sent
Blink Red (Once)	Off Sent
Blink Red (for a few seconds)	One or more scene members did not acknowledge (note: scene members may still have heard the scene command and adjusted their settings)

Turn Unit On/Off (Pocket Mode)

The RemoteLinc 2 features a power switch located next to the Set button. If you plan on carrying the RemoteLinc 2 in your pocket it is recommended that you turn it off to prevent buttons from accidentally being pressed. This is also recommended if your RemoteLinc will not be in use for long periods of time.

Power Switch
(right On, left Off)

Stuck Button

If a button on RemoteLinc 2 is held for more than 4 minutes, the RemoteLinc will automatically stop transmitting to preserve battery life. The RemoteLinc 2 will automatically turn back on when the button that was depressed is no longer being pressed.

Advanced Features

Add Multiple Responders to a Scene (Multi-Link)

1) Tap the RemoteLinc 2 scene button of choice (on or off buttons will both work)

2) Press & Hold Set Button for 3 seconds - until you hear a beep

   RemoteLinc 2's LED will blink **GREEN**

3) Tap Set Button

   RemoteLinc 2's LED will double-blink **GREEN-GREEN**

4) Adjust Each Responder you wish to add to scene, then Press & Hold its Set Button until RemoteLinc 2 double-beeps

   RemoteLinc 2's LED will continue to double-blink **GREEN-GREEN**

5) When all your devices have been added, tap RemoteLinc 2's Set Button

   RemoteLinc 2 will **(Beep)-(Beep)***, its LED turns off & returns to Ready Mode*

Remove Multiple Responders from a Scene (Multi-Unlink)

1) Tap the RemoteLinc 2 scene button from which you wish to remove the responder (on or off buttons will both work)

2) Press & Hold Set Button for 3 seconds - until you hear a beep

*RemoteLinc 2's LED will blink **GREEN***

3) Press & Hold Set Button a 2nd time for 3 seconds - until you hear a beep

*RemoteLinc 2's LED will blink **RED***

4) Tap Set Button

*RemoteLinc 2's LED will double-blink **RED-RED***

5) For each Responder you wish to remove from scene, Press & Hold its Set Button until RemoteLinc 2 double-beeps

*RemoteLinc 2's LED will continue to double-blink **RED-RED***

6) When all your devices have been removed, tap RemoteLinc 2's Set Button

*RemoteLinc 2 will **(Beep)-(Beep),** its LED turns off & returns to Ready Mode*

Change Button / Scene Configuration (e.g., Change to 8 Button Mode)

1. Press & Hold Set Button for 3 seconds - until you hear a beep

*RemoteLinc 2's LED will blink **GREEN***

2. Press & Hold Set Button a 2nd time for 3 seconds - until you hear a beep

*RemoteLinc 2's LED will blink **RED***

3. Press & Hold Set Button a 3rd time for 3 seconds - until you hear a beep

*RemoteLinc 2's LED will blink **GREEN***

4. Press & Hold Set Button a 4th time for 3 seconds - until you hear a beep

*RemoteLinc 2's LED will blink **RED***

5. Tap Set Button

*RemoteLinc 2's LED will blink **RED-RED***

6. Press the appropriate button for the desired button/scene configuration

Desired Configuration	Button to Press
8 Button Toggle	Bottom Row, Left Side
8 Button Non-Toggle (Always On)	Top Row, Left Side
4 scene (Default)	Top Row, Right Side

*RemoteLinc 2 will **(Beep)-(Beep)**, its LED turns off & returns to Ready Mode*

7. To confirm the configuration, tap the top left button on RemoteLinc 2 several times

RemoteLinc 2's LED will flash as follows

Flash Pattern	Configuration
RED every tap	4 scene
GREEN every tap	8 scene Non-Toggle (Always On)
GREEN / RED alternating	8 scene Toggle

Turn LED Off (or Back On)

1) Press & Hold Set Button for 3 seconds - until you hear a beep

   *RemoteLinc 2's LED will blink **GREEN***

2) Press & Hold Set Button a 2nd time for 3 seconds - until you hear a beep

   *RemoteLinc 2's LED will blink **RED***

3) Press & Hold Set Button a 3rd time for 3 seconds - until you hear a beep

   *RemoteLinc 2's LED will blink **GREEN***

4) Press the appropriate button for the desired button/scene configuration

Desired LED Mode	Button to Press
LED Off	Top Row, Left Side
LED On (default)	Top Row, Right Side

*RemoteLinc 2 will **(Beep)-(Beep)**, its LED turns off & returns to Ready Mode*

Turn Beeper On During Usage (or Back Off)

1) Press & Hold Set Button for 3 seconds - until you hear a beep

   *RemoteLinc 2's LED will blink **GREEN***

2) Press & Hold Set Button a 2nd time for 3 seconds - until you hear a beep

   *RemoteLinc 2's LED will blink **RED***

3) Press & Hold Set Button a 3rd time for 3 seconds - until you hear a beep

   *RemoteLinc 2's LED will blink **GREEN***

4) Tap Set Button

   *RemoteLinc 2's LED will blink **GREEN-GREEN***

5) Press the appropriate button for the desired button/scene configuration

Desired Beeper Mode	Button to Press
Off (Default)	Top Row, Left Side
On	Top Row, Right Side

*RemoteLinc 2 will **(Beep)-(Beep)**, its LED turns off & returns to Ready Mode*

Beeper Behavior

Command	Method	Beeper Disabled (Default)	Beeper Enabled
On	Tap	-	Beep
Off	Tap	-	Beep
Fast-On	Double-Tap	-	Beep
Fast-Off	Double-Tap	-	Beep
Begin Bright	Press & hold	-	Beep
Begin Dim	Press & hold	-	Beep
Setup Action			**Beeper**
Enter Setup Mode, Transition to next setup mode or Exit Setup Mode			Beep
Setup successful, return to Ready Mode			Beep-Beep
Return to Ready Mode after a longer than 3 minute time-out			3 Second (((((((((Beep)))))))))))
Failure to add a scene responder			3 Second (((((((((Beep)))))))))))
Exiting Stuck Button			3 Second (((((((((Beep)))))))))))

LED Behavior During Setup

RemoteLinc 2 has a two-color LED (Green & Red) which displays helpful information.

LED State	Meaning
Blinking Green slowly	Add Responder Setup Mode, or
	LED on/off Setup Mode
Blinking Red slowly	Remove Responder Setup Mode
Double-Blinking Green slowly	Multi-Add Responder Setup Mode, or
	Beeper on/off Setup Mode
Double-Blinking Red slowly	Multi-Remove Responder Setup Mode, or
	Keypad Configuration Setup Mode

Factory Reset

The factory reset procedure clears all settings from RemoteLinc 2 including INSTEON scenes.

1) If possible, unlink (remove) all scene responders prior to performing factory reset
2) Turn RemoteLinc 2 off (slide power switch to left)
3) Press & Hold Set Button
4) While continuing to hold the Set Button, turn RemoteLinc 2 back on (slide power switch to the right)

*RemoteLinc 2 will **(Beep)** & LED stays solid **GREEN***

5) Continue to Hold Set Button until the long beep stops

*LED turns solid **RED***

6) Release Set Button

*RemoteLinc 2 will **(Beep)-(Beep)**, its LED turns off & returns to Ready Mode*

Specifications

General	
Product Name	RemoteLinc 2 – INSTEON Wireless Keypad
Brand	Smarthome
Manufacturer Product Number	2444A2xx4
UPC	813922010701
FCC ID	SBP2444A
Patent Number	7,345,998 US, International Patents Pending
Warranty	1 Year, Limited
INSTEON			
Scenes	4 (default), configurable to 8	
Scene Configurations	4 On/Off (default), 8 Toggle or 8 Always On	
Maximum scene Links	400	
Scene Commands Supported	On	Off
	Begin Brightening	Begin Dimming
	End Brightening	End Dimming
	Fast On	Fast Off
Software Configurable	Yes	
X10 Support	None	
Operation			
LED Type	Two-color: Green and Red	
LED during Use	Green Flash Once	On (sent)
		Bright
		Fast-On
	Red Flash Once	Off
		Dim
		Fast-Off
	Red Blink for ~3 Seconds	Scene Acknowledge Missing
LED	Always used for setup, default On during use	
Setup Button	Yes	

On/Off Switch	Yes
Beeper	Yes, configurable
Battery Charging LED	Yes, Embedded (shines red through case during charge)
RF Range	50' Line-of-Sight
Retains all settings without power	Yes, all saved in Non-volatile EEPROM
Mechanical	
Color	White
Plastic	UV Stabilized ABS
Dimensions	2.6" H x 1.3" W x 0.39" D
Weight	1 Oz.
Button Style	Plastic Paddles over Contact Switches
Optional Hardware	Wall Mount
	Tabletop Stand
	Visor Clip
Operating Environment	Indoors, 32°F to 104°F, up to 85% relative humidity
Electrical	
Battery type	3.7 VDC Lithium Polymer, Rechargeable, non-replaceable
Battery life (between charges)	9-12 months under standard usage
Battery Re-charging cycles	> 500 recharging cycles
Recharging jack	Standard, Micro-USB, 5VDC
Recharging time	1 hour

Troubleshooting

Problem	Possible Cause	Solution
RemoteLinc 2 won't add a scene responder	RemoteLinc 2 may be out of range of nearest dual-band INSTEON device (hopper)	Try moving an access point or other dual-band plug-in module closer to RemoteLinc 2
	The INSTEON signal may not be getting to the "vicinity" of Responder	Make sure phases are bridged, add additional INSTEON devices and/or move around existing INSTEON devices
	Large appliances, such as refrigerators or air conditioners, may be producing electrical noise on the power line	Install a power line noise filter (e.g., #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	
RemoteLinc 2 will not turn a Responder On (it may turn it off)	Ramp Rate may be Extremely Slow Or Responder may be Linked at OFF	Re-link to Responder with fast Ramp Rate

Problem	Possible Cause	Solution
Responder's Load doesn't appear to turn on right away	The Ramp Rate may be set too slow	Re-link to Responder with fast Ramp Rate
Responder(s) is taking a long time to respond to a RemoteLinc 2	RemoteLinc 2 may be sending commands to a Responder(s) that is no longer in use	Remove all unused Responders from the RemoteLinc 2. HINT: If you are using home automation software, you can easily check scene membership and eliminate unnecessary Links
		If the above doesn't work, try the solutions for "RemoteLinc 2 will not turn a Responder On"
RemoteLinc 2 blinks red after I turn a scene On or Off	One or more scene members not responding Or One or more scene members not responding AND HouseLinc (or other software) is attempting to communicate to RemoteLinc 2	Monitor for recurrence and if recurs: a) Remove all scene responders that are no longer in use, or b) Add INSTEON devices for better signaling
RemoteLinc 2 is locked up	Glitch	Power cycle: Turn unit Off (slide switch to left), wait 10 seconds and turn back on
		Perform a factory reset on RemoteLinc 2

If you have tried these solutions, reviewed this Owner's Manual, and still cannot resolve an issue you are having, please call: 800-762-7845

Certification and Warranty

FCC & 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 present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorise aux deux conditions suivantes:

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

    (2) l'utilisateur de l'appareil doit accepter tout brouillage radiolectrique subi, mme 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.

Limited Warranty
Seller warrants to the original consumer purchaser of this product that, for a period of one year 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 the INSTEON Gold Support Line at 800-762-7845 with the Model # and Revision # of the device to receive an RMA# and send the product, along with all other required materials to:

Smarthome
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 one-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.

U.S Patent No. 7,345,998, International patents pending
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