

About ToggleLinc's Certification

ToggleLinc has been thoroughly tested by ITS ETL SEMKO, a nationally recognized independent third-party testing laboratory. Products bearing North American ETL Listed mark signifies that the product has been tested to and has met the requirements of a widely recognized consensus of U.S and Canadian product 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.



Smarthome Limited Warranty

Smarthome 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, Smarthome 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 Smarthome's liability with respect to this product.

For repair or replacement during the warranty period, call Smarthome customer service to receive an RA# (return authorization number), properly package the product (with the RA# clearly printed on the outside of the package) and send the product, along with all other required materials, to:

Smarthome
ATTN: Receiving Dept.
16542 Millikan Ave
Irvine, CA 92606-5027

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Limitations:

THE ABOVE WARRANTY IS IN LIEU OF AND SMARTHOME DISCLAIMS ALL OTHER WARRANTIES, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF 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 PERIOD OF THE EXPRESS WARRANTY ABOVE. NO OTHER REPRESENTATION OR CLAIM OF ANY NATURE BY ANY PERSON SHALL BE BINDING UPON SMARTHOME OR MODIFY THE TERMS OF THE ABOVE WARRANTY AND DISCLAIMER.

IN NO EVENT SHALL SMARTHOME BE LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES RESULTING FROM THE POSSESSION OR USE OF THIS PRODUCT, INCLUDING WITHOUT LIMITATION DAMAGE TO PROPERTY AND, TO THE EXTENT PERMITTED BY LAW, PERSONAL INJURY, EVEN IF SMARTHOME 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, which may vary from state to state.

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rev 111703



ToggleLinc™ Multi-Way Companion Switch

Create 3-, 4-, and 5-way lighting circuits with all ToggleLincs and KeypadLincs

For models:

23892W ToggleLinc Multi-way
Companion Switch (White)

23892I ToggleLinc Multi-way
Companion Switch (Ivory)

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Thanks for purchasing the ToggleLinc Multi-way Companion Switch. This switch is designed to work exclusively with the SwitchLinc and ToggleLinc series of wall switches and KeypadLincs with integrated dimmers. When combined with a "master" switch, the Multi-way Companion Switch, sometimes called a "slave" switch, allows control of the lighting from a second location in the home.

A few terms commonly used....

Three-way switch

Most homes have one or more three-way switches, which is an arrangement where two wall switches can control a set of lights. They are commonly found in hallways, stairwells, or in places where there are two entrances to a room. To automate this circuit, one master ToggleLinc and one Multi-way Companion Switch will be installed.

Four-way switch

In a four-way switch circuit, there are three wall switches controlling a set of lights. Any of the three switches can turn the lights on or off. To automate this circuit, one master ToggleLinc and two 2382 Multi-way Companion Switches will be installed. Companion Switches can be wired into new or existing five and six-way circuits.

An apology....

The electrical industry has used the terms "master" and "slave" for decades to describe the relationship between components. The master unit was designed to do the controlling part of the task while the slave unit was assigned a lesser task. These terms also made their way into the lighting business and are commonly used in the home automation industry. Out of respect for those who have suffered from human slavery, we are using alternative terms to describe these functions. We have started by renaming this product the ToggleLinc Multi-way Companion Switch.

Key Features

- Wires in just like a standard wall switch
- High quality switch (no mushy feel)
- True rocker action (top = on/bright, bottom = off/dim)
- Night light LED helps locate the switch in a dark room

The ToggleLinc Multi-way Companion Switch is designed to work with the following wall switches and dimmers:

ToggleLinc Dimmers and Switches

23890W/I, 23893W/I, 23894W/I, 23895W/I, 23896W/I, 23897W/I*

SwitchLinc 3-wire Dimmers and Switches

2380W/I, 2381W/I, 2383W/I, 2384W/I, 2385W/I, 2386W/I, 2387W/I*

KeypadLinc with 450-Watt Integrated Dimmer

12073W, 12073WB, 12073WW, 12074W, 12074WB, 12074WW

SwitchLinc RX Dimmers and Switches

2386W2, 2386I2, 2384W2, 2384I2, 2387I2, 2387I2*

SwitchLinc Relay

23883W/I, 23885W/I, 12083W/I*

* (W/I - White or Ivory)

When working with the products above, be sure to only use Smarhome Multi-way Companion Switches. Other brands of slave switches may not work, may electrically harm the master switch, or pose an electrical or fire hazard. Never use a regular mechanical 3 or 4-way switch in place of the Multi-way Switch.

Troubleshooting & Technical Support

Problem	Possible Cause	Solution
The Companion switch will turn off the light but won't turn it on.	The companion and master switches are in the wrong outlet boxes.	Swap the locations of each switch. The companion switch needs to be installed where power comes into the circuit. When installed backwards, the companion is only getting power when the load is switched on at the master.
LED is not visible and or ToggleLinc is not controlling the light.	ToggleLinc is in system off position.	Press in the Set Button/Status LED.
	Incomplete (open) wire connection in wall box.	Check wall box wires to ensure all connections are tight and no bare wires are exposed.
	Incomplete (open) wire connection at fixture.	Check fixture to ensure all connections are tight and no bare wires are exposed.
The companion switch can't turn off the load but turning on is OK.	The wiring distance between the switches is over 80 feet or the switch is controlling a high load.	Reduce the load's wattage so less voltage is induced onto the traveler control wire. Use a KeypadLinc 12063 or 12064 in the companion's location to send signals to the master.
The Status LED on the companion switch is off.	The companion switch's white wire isn't connected to the neutral wire in the box.	Connecting the neutral wire at the companion switch is optional. It will still control the master if this wire is unconnected. Its only function is to operate the nightlight indicator.
The Status LED on the companion switch does not blink like the master when signals are detected.	This is normal operation for the companion switch.	The Status LED operates only has a indicator light (for help locating the switch in a dark room). The companion switch does not have any detection circuits to process powerline signals.

If these solutions have been tried, the manual has been reviewed and you still cannot resolve an issue you're having with the multi-way circuit;

- Search our on-line knowledge base at:
<http://smarhome.custhelp.com>
- E-mail tech@smarhome.com
- Call our Technical Support Dept. at 949-221-9200

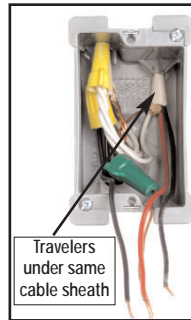
Step 5: Connect the copper ground wire to the other ground wires in the wall box

If you have a four-way or greater switching circuit, see *Special Treatment for Four-way Circuits* at the end of this section.

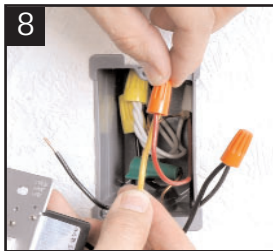
Step 6: Install the Master Switch in the remaining box

There will be the two traveler wires from the first box and the wire that carries power from the switch to the lights; we call this the LOAD. The travelers can sometimes be easily recognized because those two wires are covered by the same cable sheath or covering around the wires. The wires can also be identified by the same method described earlier; turn on the power, (taking the same precautions), and using a voltmeter to find the wire with electricity. The wire with electricity is the LINE wire.

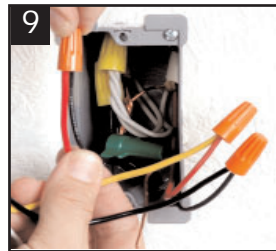
Continue with the connections below....make sure the power is turned off!!!



Step 7: Connect the master's **Black** LINE wire to the identified Line wire, usually **Black**, out of the wall.



Step 8: Connect the other traveler, usually **Red**, to the **Yellow** Control wire on the Master.



Step 9: Connect the remaining wire out of the wall, usually **Black**, to the Master's **Red** wire.

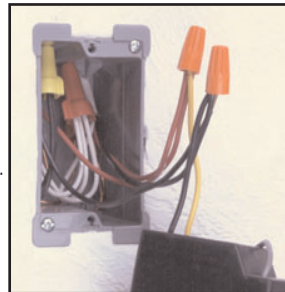
Step 10: Connect the neutral and ground wires using the same instructions given previously for the Multi-way Companion Switch.

Return to the installation instructions on page 4 and continue on with step 8.

Special Treatment for Four-way Circuits

If your lighting circuit includes more than two switches controlling a set of lights, some wall boxes will have four wires. Two of the wires are coming from the wall box where the power enters the circuit (step one) and the remaining wires connect through to the master's location (step six). In this center position, install another ToggleLinc Multi-way Companion Switch.

1. Connect the Companion Switch's **Black** wire to the **two Black** travelers with a single wire nut.
2. Connect the **Yellow** wire to the remaining **two Red** travelers with a single wire nut.
3. Connect the neutral and ground wires using the same instructions given previously for the Multi-way Companion switch.



To see these instructions with larger color photos, visit:

www.smarthome.com/SL_3-way.html

Caution!

Read and understand these instructions before installing. This device 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. To reduce the risk of overheating and possible damage to other equipment, do not install any dimmer to control a receptacle or fluorescent lighting fixture. For use indoor only. Connect only copper or copper-clad wire to this device. Before installing, disconnect power at circuit breaker or remove fuse to avoid shock or damage to the control. It is recommended that a qualified electrician perform this installation. Retain these instructions for future reference.

Dimming an inductive load (such as a ceiling fan) below the minimum voltage set by the manufacturer of the load device could cause damage to the load device from overheating. If the manufacturer of the load device does not recommend dimming, DO NOT use a ToggleLinc dimmer with that device (use ToggleLinc 2-Way Switch #23893W/1 or PLC Switch #23895W/1). USER ASSUMES ALL RISKS ASSOCIATED WITH DIMMING AN INDUCTIVE LOAD.

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 monter, une lampe fluorescente ou un appareil alimenté par un transformateur.

Preparation

Before installing ToggleLinc or the Multi-way Companion Switch, please familiarize yourself with the following and take the necessary precautions listed here:

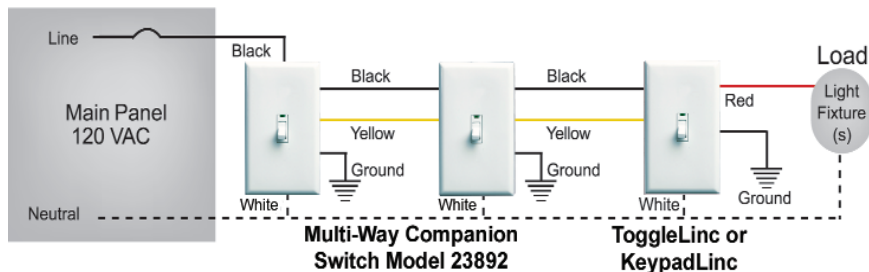
- Be sure that the fuse has been removed or the circuit breaker is turned off to the circuit being controlled. Installing switches with the power on may expose you to dangerous voltages, may kill you, and may damage the product.
- Refer to the Multi-way Wiring Diagram on page 4 to determine the wire colors of the connections to the ToggleLinc master and Multi-way Companion Switch. Note: While the neutral connection is optional on the Multi-way Companion Switch, ToggleLinc masters require a neutral connection.
- Wiring for 3-way, 4-way, & up switch circuits follow conventional (standard, non-remote) wiring practice (plus the requirement for a neutral). Wiring the Multi-way Companion Switch requires the Line (Black) wire be accessible and be the same 110V leg of the house wiring. The white wire on the Multi-way Companion Switch is only connected to NEUTRAL. If neutral is not available, cap the white wire, which will simply causes the nightlight LED not to function.
- The ToggleLinc master may feel warm during operation. The amount of heat generated is within U.L. approved limits and poses no hazards. To minimize heat build-up, ensure that the area surrounding the rear of the master switch has adequate ventilation (i.e., clear away excess insulation).
- Installation should be performed only by a qualified electrician, or by a homeowner who is familiar and comfortable with electrical circuitry. If there are any questions, consult an electrician or contact Smarthome's Tech Support department for guidance.
- Follow all routine safety precautions.

Basic Installation Instructions

1. Disconnect the power for the existing switches at the circuit breaker or fuse panel. Verify that the power has been removed by trying to turn on the lights controlled by the switches.
2. Remove the trim plate from the existing switches.
3. Unscrew and pull the existing switches from the wall box.
4. Disconnect the wires from the existing switches.
5. The Multi-way Companion Switch must to be installed **in the wall box where power comes into the circuit**. Using a wire tester or voltmeter, identify and mark "Hot," "Neutral," "Ground," and "Traveler" wires that were connected to the device. For additional help installing on 3-way circuits, see the *Detailed Installation Instructions* on the next page.
6. Before making any connections to the master switch, gently pull its Status LED/ Set Button until a click is heard. This will open the "air gap" and isolate the switch from the electricity when the circuit breaker is turned back on.
7. Orient ToggleLinc so the LED is at the top, make connections according to the "Multi-Way Wiring Diagram" below.
8. After all connections have been made, ensure that all wire connectors are firmly attached and that there is no exposed copper except for the Ground wire.
9. Gently place the wires and switch into the wall box (with LED at top of device) and screw into place.
10. Before installing the faceplates, restore power to the circuit, and press in the master's Status LED/ Set Button top until it is even with the front plastic trim ring. Once the Set Button is pressed in, power will be supplied to the master switch. After a few seconds, the green Status LED will come on.
11. After testing the circuit for proper operation, install the faceplates (sold separately).

Multi-Way Wiring Diagram

(Two or more switches controlling the load)



Detailed Installation Instructions

Help for users with three-way (or greater) lighting circuits

Smarthome wall switches and keypads can be installed in place of an existing three-way lighting circuit. A three-way circuit is where there are two switches controlling a set of lights. A four-way circuit has three switches controlling the same set of lights. When updating an existing mechanical 3-way switch, you will need at least:

One ToggleLinc Master Switch or KeypadLinc with dimmer

One 23892 Multi-way Companion Switch (sometimes called a 'slave' switch)

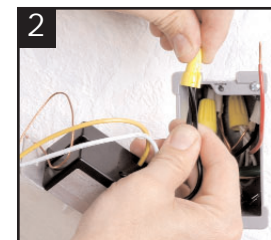
When replacing a three-way mechanical switch, each switch will have three wires connected to it from the wall box. Four-way or greater circuits will have four wires connected to the switches in the center of the circuit. For this tutorial, we will follow the most commonly used wire colors for homes in North America.

Step 1: Find the Hot Wire

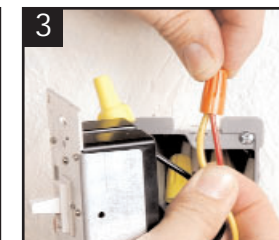
The master and remote switch need to go in specific locations. The first task is to find the wall box where the electricity comes into the circuit. Turn off the electricity at the breaker box and remove all the switches from the wall so that the bare copper ends of the wire are left exposed. Each wall box should have three wires sticking out of it. If the circuit is a four-way or greater, some of the boxes will have four wires. Making sure that none of the wires are touching anything and that no one is around the wall boxes, turn the electricity back on. Using a voltmeter or voltage sensor, individually test each wire for voltage. When 120 volts is measured, note that wire as LINE, (this wire is usually black). The other two wires, commonly black and red, are the travelers and go to the next wall box. Turn off the electricity to resume installing the new switches.



In the wall box where the electricity comes into the circuit, install the ToggleLinc Multi-way Companion Switch. It is very important that the Multi-way Companion Switch be installed in this position. The system will not work correctly if a master ToggleLinc or KeypadLinc (with dimmer) is installed at this outlet box.



Step 2: Connect the **Black** Line, the **Black** traveler, and the **Black** wire on the ToggleLinc Multi-way Companion Switch all together with a single wire nut.



Step 3: Connect the **Yellow** wire on the ToggleLinc Multi-way Companion Switch to the remaining wire out of the wall, usually a **Red** wire.



Step 4: Locate the group of **White** wires in the rear of the box that were not connected to the old switch. These are the neutral wires and the **White** wire connects in there.