

45610/ZW2001/ZW2002

# GE Wireless Lighting Control Auxiliary Switch

This auxiliary switch is a component of the GE Z-Wave® lighting control system and is designed to work with the 45607 Dimmer (ZW3002), 45612 Dimmer (ZW3003) and 45609 On/Off Relay Switch (ZW4001). Use one auxiliary switch for 3-way control such as the top and bottom of a staircase (1 load/light & 2 switches) with one of the above Z-Wave devices. Two or three auxiliary switches can be used with these dimmers and switches to create a 4-way (1 load/light & 3 switches) or 5-way (1 load/light & 4 switches) lighting system.

***The 45610 auxiliary switch is not Z-Wave enabled and must be used exclusively with one of the Z-Wave devices listed above. It is not designed for stand-alone use to control an electrical load. It does not have Z-Wave functionality and does not act as a repeater in your Z-Wave control network.***

This switch communicates with the Z-Wave enabled switch through the traveler wire, providing manual On/Off/Dim control of the connected lighting (through the active Z-Wave switch) and synchronization of the lighting status (On/Off/Dim level) between the switches.

*There are no user serviceable parts in this unit.*

## CAUTION

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. If you are unsure or uncomfortable about performing this installation consult a qualified electrician.

## WARNING

RISK OF FIRE

RISK OF ELECTRICAL SHOCK

RISK OF BURNS

### **Controlling Appliances:**

Exercise extreme caution when using Z-Wave devices to control appliances. Operation of the Z-Wave device may be in a different room than the controlled appliance, also an unintentional activation may occur if the wrong button on the remote is pressed. Z-Wave devices may automatically be powered on due to timed event programming. Depending upon the appliance, these unattended or unintentional operations could possibly result in a hazardous condition.



## **WARNING**

continued

For these reasons, we recommend the following:

1. Assign Z-Wave controlled appliances to device numbers 10 – 18 on the GE remote. The likelihood of unintentionally turning on the appliance will be reduced significantly because the “Shift” button will need to be pressed before pressing device numbers 10-18.
2. Z-Wave devices controlling appliances should be removed from “All” control setting. Instructions on how to do this are included in the manual for your GE remote.
3. Do Not include Z-Wave devices in Groups or Scenes if they control appliances.
4. Do Not use Z-Wave devices to control electric heaters or any other appliances which may present a hazardous condition due to unattended or unintentional or automatic power on control.
5. Double check programs for accuracy before using them.

### **NOT FOR USE WITH MEDICAL OR LIFE SUPPORT EQUIPMENT**

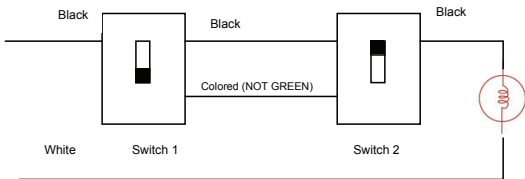
Z-Wave enabled devices should never be used to supply power to or control the On/Off status of medical and/or life support equipment!

## ***IMPORTANT NOTE ABOUT 3-WAY CIRCUITS***

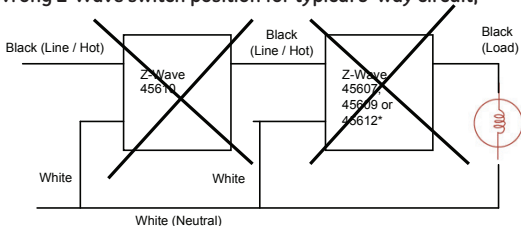
The term “3-way circuit” refers to a circuit with two switches and one load (light) like you find at the top and bottom of a stairway. There are many ways to physically wire a 3-way circuit and it is important to understand how the circuit you wish to upgrade to Z-Wave control is wired. Below is a description of a typical 3-way circuit.

One of the ways to wire a two-switch/one-load circuit is to route the incoming power through the first switch, then to the second switch and then to the load. Although very common and by no means a standard, it is the easiest to convert to Z-Wave control. With this type of circuit, Switch 1 is replaced by the Z-Wave auxiliary switch and Switch 2 is replaced with the primary Z-Wave switch. The auxiliary switch does not actually control the power; instead, it sends a momentary voltage signal through the traveler wire to the primary switch which in turn, controls the power to the load.

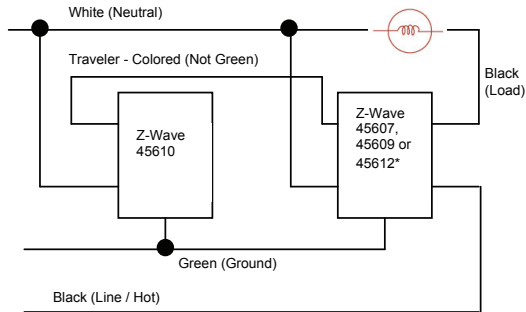
## Typical 3-way circuit:



## Wrong Z-Wave switch position for typical 3-way circuit;



## Correct Z-Wave switch position for typical 3-way circuit:



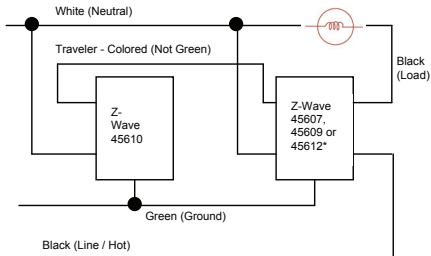
***Please consult an electrician if you have trouble identifying the type of wiring circuit you wish to convert or if you do not feel confident in your ability to convert the circuit to Z-Wave control.***

## INSTALLATION

This switch may be used in new installations or to replace an existing wall switch when converting a 3 or 4 way circuit to Z-Wave. **It can not be used by itself for 2-way control (one switch & one load).**

**Please note:** The Auxiliary switch(s) must be wired to the same Neutral as the Z-Wave enabled switch and the lighting device. It must not be wired to any other Neutral. If multiple Neutrals are tied together in one box, separate the neutrals to preserve the integrity of the circuit.

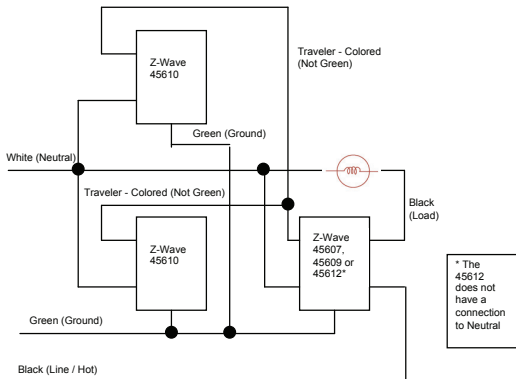
### 3-Way Wiring Schematic using one 45610 and one 45607, 45609 or 45612



\* The 45612 does not have a connection to Neutral



## 4-Way Wiring Schematic using two 45610's and one 45607, 45609 or 45612



### ***SHOCK HAZARD!***

Turn **OFF** the power to the branch circuit for the switch and lighting fixture at the service panel. All wiring connections must be made with the **POWER OFF** to avoid personal injury and/or damage to the switch.

## **Z-Wave 45607, 45609 or 45612**

1. Shut off power to the circuit at fuse box or circuit breaker.
2. Remove wall plate.

**! Warning: Verify power is OFF to switch box before continuing.**

3. Remove the switch mounting screws.
4. Carefully remove the switch from the switch box. DO NOT disconnect the wires.
5. There are five wiring connections on the Z-Wave dimmer and switch; these are marked LINE (Hot), NEUTRAL, LOAD, GROUND and TRAVELER. ***The Traveler terminal is only used for 3-way, 4-way or 5-way wiring and should be insulated if the dimmer/switch is being installed in a single pole, 2-way system (one switch & one load).*** Match these leads or screw terminals to the wires connected to the existing switch.
6. Disconnect the wires from the existing switch.
7. Connect the green or bare copper ground wire to the GROUND lead or terminal.
8. Connect the white wire to the lead or terminal marked NEUTRAL. (The 45612 does not have a connection to Neutral)
9. Connect the black wire that goes to the light to the lead or terminal marked LOAD.

10. Connect the black wire that comes from the electrical service panel (Hot) to the lead or terminal marked LINE.
11. Connect the Traveler wire (usually Red) to the wire or screw terminal marked TRAVELER. The other end of this Traveler wire connects to the TRAVELER wire on the 45610 Auxiliary Switch. ***The TRAVELER terminal or lead must be insulated if you are not using it.*** See the following section for information about wiring the 45610 Auxiliary Switch.
12. Insert Z-Wave Switch into the switch box being careful not to pinch or crush wires.
13. Secure the switch to the box using the supplied screws.
14. Mount the wall plate.
15. Reapply power to the circuit at fuse box or circuit breaker and test the system.

**Note:** UL specifies that the tightening torque for the screw terminals is 14Kgf-cm.

### **45610 for 3 or 4-Way Control:**

1. The 45610 requires the following 3 wiring connections:
  - a. The Traveler wire. This is used to send voltage signals to the primary Z-Wave switch. The signals tell the Z-Wave switch what action to perform.
  - b. Ground.
  - c. Neutral.
2. **DO NOT connect the 45610 auxiliary switch to the home's black Hot (Line) wire.**

## Observe Important Wiring Information

**Important:** This switch is rated for and intended to only be used with copper wire.

**Models 45609 and 45612 ONLY:** The home's electrical wires may be attached to the screw terminals or inserted into the holes in the back of the switch enclosure and clamped in place by tightening the screw terminals. Always follow the recommended wire strip lengths when making wiring connections.

Wire strip length:

- For attachment to screw terminals: Strip insulation 5/8" (max 14 AWG wire).
- For attachment using the enclosure's holes: Strip insulation 5/8" (max 14 AWG wire).

## OPERATION

**When installed with the 45607 or 45612 dimmer:**

- Press and release the top of the 45610's rocker to turn the connected lighting ON and return the brightness level to its previous setting.
- Press and hold the top of the 45610's rocker to turn the connected lighting ON and set the brightness level. Release when the desired level is attained.
- Press the bottom of the 45610's rocker to turn the connected lighting OFF.
- Press and hold the bottom of the 45610's rocker to lower

the brightness level of the connected lighting. Release when the desired level is attained.

**When installed with the 45609 switch:**

- Press and release the top of the 45610's rocker to turn the connected lighting ON.
- Press the bottom of the 45610's rocker to turn the connected lighting OFF.

## **WARRANTY**

JASCO Products warrants this product to be free from manufacturing defects for a period of two years from the original date of consumer purchase. This warranty is limited to the repair or replacement of this product only and does not extend to consequential or incidental damage to other products that may be used with this product. This warranty is in lieu of all other warranties, expressed or implied. Some states do not allow limitations on how long an implied warranty lasts or permit the exclusion or limitation of incidental or consequential damage, so the above limitations may not apply to you. This warranty gives you specific rights, and you may also have other rights which vary from state to state. Please contact Customer Service at 800-654-8483 (option 4) between 7:30AM -45603-2 5:00PM CST or via our website ([www.jascoproducts.com](http://www.jascoproducts.com)) if #/21 the unit should prove defective within the warranty period,

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