

Model: 45607

Z-Wave, RF Controlled, 500W, 120 VAC, Three Wire, Wall Mounted Dimmer/Switch and Transceiver

Thank you for your purchase of a GE SmartHome™ Z-Wave® control device. Z-Wave technology is designed to automate lighting/home control and provide easy remote operation of all your Z-wave enabled devices. The GE Z-Wave product family includes a variety of devices to enable and control lighting in your home. It is up to you whether you want to control one room or your entire house and whether you want to do it all now or start with one room and add more over time.

This dimmer is one component of a Z-Wave® control system and is designed to work with all other Z-Wave enabled devices in a home control network. It will also act as a wireless repeater to insure that commands intended for another device in the network are received, thereby extending the range of the wireless controller. Z-Wave devices of other types and brands can be added to the system and will also act as range extenders if they support this function of repeating the signal received to other nodes in the system.

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. It is recommended that a qualified electrician perform this installation.

This dimmer switch is designed for use only with permanently installed incandescent lighting fixtures. Do not use it to control fluorescent lighting, transformer supplied lighting/appliances, motorized appliances or receptacles. The incandescent lighting controlled by this dimmer switch must not exceed a total of 500 watts.

There are no user serviceable parts in this unit.

IMPORTANT NOTE ABOUT 3-WAY CIRCUITS

The term “3-way circuit” can be confusing. Technically, it can be used to describe a circuit with two switches and one load (light) like you find at the top and bottom of a stairway or a circuit with one switch and two loads like you may have in your garage. In the US, it is normally used for the two switches & one load type of circuit. 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. Information and wiring diagrams regarding the various wiring possibilities are readily available on the Internet; just search for “3-way electrical wiring”.

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, the first 3-way switch is replaced with the 45610 Auxiliary switch and the second 3-way switch is replaced with the 45607 Z-Wave dimmer. The auxiliary switch does not actually control the power; instead, it sends a momentary voltage signal through the traveler wire to the 45607 which in turn, controls the On/Off status of the power. If these two switches are reversed with the 45607 in the first position, the auxiliary switch will not be able to send the voltage signal back to the 45607 if the 44607 is in the Off position.

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

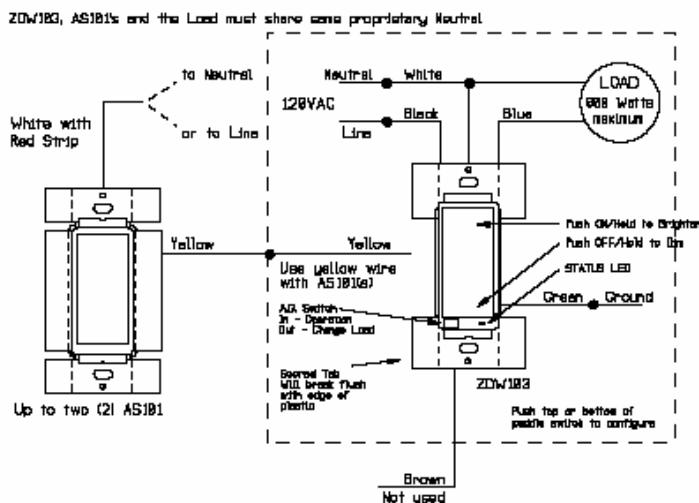
This dimmer switch is designed for use with permanently installed incandescent lighting only and may be used in new installations or to replace an existing wall switch. It can be used by itself or in three-way installations where a light is controlled from 2 locations such as the top and bottom of a staircase. It is also compatible with four-way installations (three switches & one light).

Please note:

1. The SmartHome Auxiliary Switch, model 45610, must be used with the 45607 Dimmer Switch in three-way installations. Two Auxiliary switches must be used in four-way installations.

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2. The Auxiliary switch(s) be wired to the same as the 45607 Dimmer and the lighting device. It not be wired to any other If multiple neutrals are together in one box, separate the neutrals to preserve the integrity of 45607's circuit.



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WARNING! 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 dimmer switch.

Single, Dual and Triple Gang Boxes

The metal plate surrounding the switch assembly is a heat sink. The maximum load rating (500W) is provided when installed in a single gang box with the full heat sink. If necessary, one or both sides of the heat sink may be removed but there is a corresponding reduction in the switch's load rating.

- **400W** maximum with one side removed
- **300W** maximum with both sides removed

Multiple 45607 Dimmer Switches may be installed in dual or triple gang boxes however, **Do Not** exceed the following loads:

- **300W** for each of the two 45607 dimmer switches
- **200W** for each of the three 45607 dimmer switches

1. Strip 3/4" of insulation from the ends of the conductors and connect as shown in the wiring diagram. Note that the line (hot) side of the load must be switched and that the connection to Neutral is required.
2. Check the connections to be sure they are tight and no bare conductors are exposed.
3. Make sure the total load does not exceed the dimmer switch's rating as listed above.
4. Turn On the power.

Use your primary controller to include the dimmer switch in the home control network after the dimmer switch is wired as shown in the above diagram. It can then be added to groups and/or lighting scenes and managed remotely to control the On/Off status and brightness level of the connected incandescent lighting.

Air Gap Switch

The 45607 has an air gap switch on the lower left side (see diagram for location) to completely disconnect power to the load. Pull the air gap switch OUT to disconnect the power and push it all the way back in for normal operation. The air gap switch must be all the way in for the dimmer to function and control the lighting.

BASIC OPERATION

Manual Control

The 45607 dimmer switch allows the user to:

1. Turn ON/OFF and control the brightness level of the connected incandescent lighting.
 - Tap the top of the rocker to turn the connected lighting ON.
 - Tap the bottom of the rocker to turn the connected lighting OFF.
 - Press and hold the top of the rocker to brighten the connected lighting; release when desired level is achieved
 - Press and hold the bottom of the rocker to dim the connected lighting; release when desired level is achieved
 - When OFF, pressing and holding the bottom of the rocker will cause the lighting to go to the minimum dim level.
2. Include or exclude the dimmer switch from the Z-Wave home control network.
 - Refer to the instructions for your primary controller to access the network setup function and include or exclude devices.
 - When prompted by your primary controller, tap the top or bottom of the rocker.
 - The primary controller should indicate that the action was successful. If the controller indicates the action was unsuccessful, please repeat the procedure.
 - Once the dimmer switch is part of the network, the same basic procedure is used to add the dimmer switch to groups or scenes. Refer to the primary controller's instructions for details.

Please Note: After a power failure, the 45607 dimmer switch returns to its previous On/Off/Dim state.

LED Indicator

- The LED will be lit when the connected lighting is OFF.
- This is the factory default setting and can be changed if your primary controller supports the node configuration function. See the section on "Configuration" for details.

ADVANCED OPERATION

The following Advanced Operation parameters require that you have an advanced controller like the GE model 45601 LCD remote. Advanced remotes from other manufacturers may also be able to change these settings; however, basic remotes do not have this capability.

All On/All Off

Depending upon your primary controller, the 45607 dimmer switch can be set to respond to ALL ON and ALL OFF commands in up to four different ways. Some controllers may not be able to change the response from its default setting. Please refer to your controller's instructions for information on whether or not it supports the configuration function and if so, how to change this setting.

The four possible responses are:

- It will respond to ALL ON and the ALL OFF command (default).
- It will not respond to ALL ON or ALL OFF commands.
- It will respond to the ALL OFF command but will not respond to the ALL ON command.
- It will respond to the ALL ON command but will not respond to the ALL OFF command.

Configuration

A number of settings on the 45607 dimmer switch can be changed to accommodate personal preferences.

Please note: Not all controllers are capable of this; your controller must be designed to perform this function. The SmartHome Controller, #45601, is designed to do this. Use its "Setup Menu", "Config Unit" to change the configuration of devices.

Configuration Functions

LED Light

When shipped from the factory, the LED on the 45606 is set to turn ON when the connected light is turned OFF. This allows the LED to be used as a night light or to indicate the switch's location in a dark room. To make the LED turn ON when the light is turned ON, change parameter 3's value to "0".

- **Parameter No: 3**
- **Length: 1 Byte**
- **Valid Values = 0 or 1 (default 1)**

Invert Switch

If the dimmer switch is accidentally installed upside down with "On" at the bottom and "Off" at the top, the default On/Off rocker settings can be reversed by changing parameter 4's value to "1".

- **Parameter No: 4**
- **Length: 1 Byte**
- **Valid Values = 0 or 1 (default 0)**

Dim Rate Adjustments

Both the number of steps (or levels) that the dimmer will change and the timing of the steps can be modified to suit personal preferences. The timing of the steps can be adjusted in 10 millisecond intervals. As an example, the default setting for parameter 8 is "3". This means that the lighting level will change every 30 milliseconds when the Dim Command is received. A value of 255 would mean that the level would change every 2.55 seconds. Combined, the two parameters allow dim rate adjustments from 10 milliseconds to 4.2 minutes to go from maximum-to-minimum or minimum-to-maximum brightness levels.

1. **When Receiving a Z-Wave Dim Command**
 - **Parameter 7 (number of steps or levels)**
 - **Parameter 8 (timing of the steps)**
 - **Length: 1 Byte**
 - **Valid Values:**
Parameter 7 (default = 1) Valid Values: 1-99
Parameter 8 (default = 3) Valid Values: 1-255
2. **Manual Control Dimming (pressing the Dimmer's rocker)**
 - **Parameter 9 (number of steps or levels)**
 - **Parameter 10 (timing of the steps)**
 - **Length: 1 Byte**
 - **Valid Values:**
Parameter 9 (default = 1) Valid Values: 1-99
Parameter 10 (default = 3) Valid Values: 1-255
3. **When Receiving an All-On or All-Off Command**
 - **Parameter 11 (number of steps or levels)**
 - **Parameter 12 (timing of the steps)**
 - **Length: 1 Byte**
 - **Valid Values:**
Parameter 11 (default = 1) Valid Values: 1-99
Parameter 12 (default = 3) Valid Values: 1-255

Ignore Start Level When Receiving Dim Commands

Please note: Every "Dim" command includes a start level embedded in it.

The 45607 can be set to ignore the start level that is part of the dim command. Setting parameter 5 to a value of 0 will cause the 45607 to dim or brighten from the start level embedded in the command.

- **Parameter No: 5**
- **Length: 1 Byte**
- **Valid Values = 0 or 1 (default 1)**

Restoring Factory Defaults

All Configuration Parameters can all be restored to their factory default settings by using your master controller to reset the device. ***Please note: The model #45601 controller is designed to do this. Use the controller's "Setup / Reset Unit" menu to restore defaults. Not all controllers are capable of this; your controller must be designed to perform this function.***

Interoperability with Z-Wave™ Devices

A Z-Wave™ network can integrate devices of various classes, and these devices can be made by different manufacturers. Although every Z-Wave certified product is designed to work with all other Z-Wave certified products, your controller must include the appropriate device classifications in order to control non-lighting Z-wave devices. As an example, the GE 45600 basic remote is designed only for controlling Z-Wave devices using the lighting control classification. The GE 45601 deluxe remote with LCD readout can control other Z-Wave certified devices like thermostats as well as lighting.

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. If the unit should prove defective within the warranty period, return prepaid with dated proof of purchase to:

JASCO Products Company
10 E. Memorial Rd.
Oklahoma City, OK 73114

CERTIFICATIONS

cULus Listed – Add Details

FCC Information

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph: The equipment 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 a residential installation. This equipment uses, generates and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Operation is subject to the following two conditions:

- This device may not cause interference and

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

Important Note: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

SPECIFICATIONS

Power: 120 VAC, 60 Hz.

Signal (Frequency): 908.42 MHz.

Minimum Load: 40W, incandescent lamps only.

Maximum Load: 500W, incandescent lamps only.

Range: Up to 100 feet line of sight between the Wireless Controller and the closest Z-Wave receiver module.

Operating Temperature Range: 32-104° F (0-40° C)

For indoor use only.

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