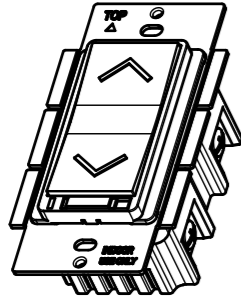




# INSTALLATION INSTRUCTIONS

## ZW500D

### Wireless Home Automation Control Device Dimmer Switch



#### ◆ SPECIFICATIONS

Voltage..... 120VAC, 60Hz  
 Incandescent.....500W  
 Z-Wave Frequency..... 908.42 MHz  
 Operating Temperature..... 32-104° F  
 Range.....Up to 100 feet line of sight between the Wireless Controller and the closest Z-Wave receiver module.

#### ◆ FEATURES

- Perfect Replacement for regular wall ON/OFF & Dim switch, 120VAC
- Wireless Z-Wave technology creates a mesh network for command and control interoperability with other Z-Wave compliant controller and devices
- Manual and Remote ON/OFF& Dim control of any permanently installed incandescent, dimmable LED and CFL lamp fixture
- Preset light level option allows the dimmer will turn on to the light level that it was adjusted to the previous time when the light was on
- Can be used for signal pole or 3- Way (Multi-location) with ZW3K Auxiliary Switch (sold separately)
- Air-Gap Switch feature meets UL requirement and disconnect power from load locally

#### ◆ DESCRIPTION

The ZW500D Dimmer Switch is a perfect wireless manual and remote on/off/dim/bright control replacement of regular on/off and dimmer switch, controlling incandescent, dimmable LED and CFL. This ZW500D dimmer switch is fully compatible with other Z-Wave devices, provides programmable function creating a perfect ambiance such as scenes, association, schedule event, etc. Also it can be added to most Z-Wave compliant controllers. Sliding Air-Gap switch to a totally disconnect power while replacing light bulbs and preventing from leakage current from the fixture(s). This ZW500D dimmer works with ZW3K 3-Way Auxiliary Switch that reducing energy consumption, enhancing the value of technology of your home, condominiums and apartment.

The LED dimming performance may vary based upon dimmer type, model, manufacturer, circuit wiring and circuit loading.  
 No specific recommendation on product selection and there are no warranties of performance or compatibility implied.

### WARNINGS AND CAUTIONS

To be installed and/or used in accordance with appropriate electrical codes and regulations. 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 operation could possibly result in a hazardous condition.

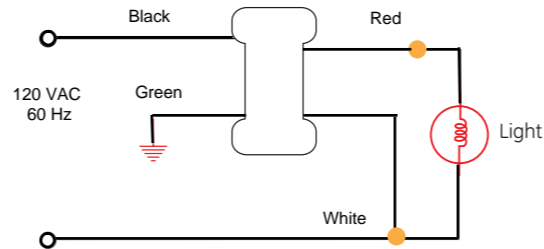
Z-Wave enabled devices should never be used to supply power to, or control the On/Off status of medical and/or life support equipment.

If you are unsure or uncomfortable about performing the installation, please consult a qualified electrician.

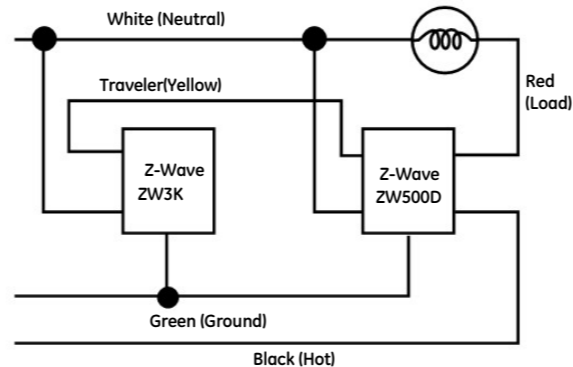
#### ◆ INSTALLATION

This ZW500D dimmer switch may be used in new installations or replace an existing wall switch.

#### Typical Dimmer Wiring Schematic:

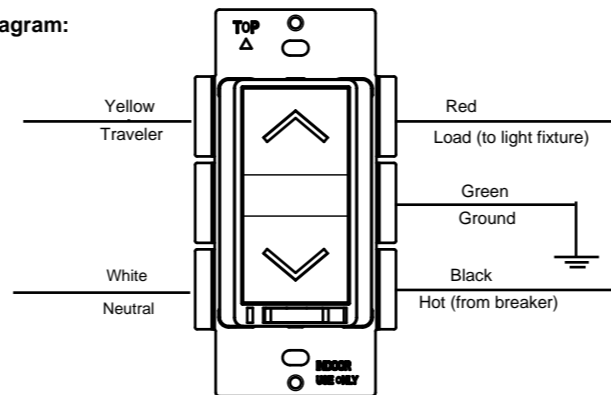


#### 3-Way Wiring Schematic using one ZW500D and one ZW3K



Traveler works with ZW3K for 3-way control, ZW3K sold separately.

#### Wiring Diagram:

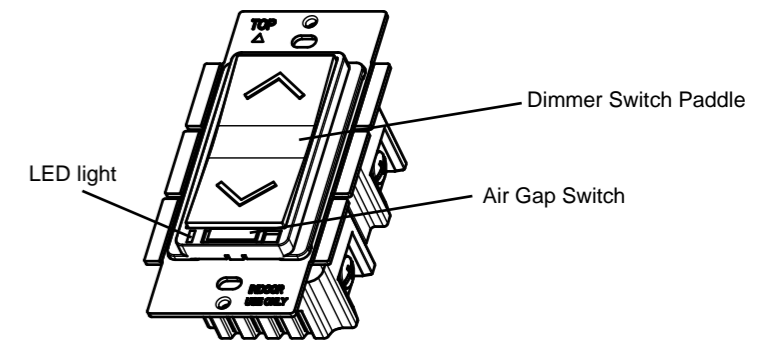


1. WARNING : To avoid fire, shock, or death. Turn off power at circuit breaker or fuse and test that power is off before wiring.
2. Remove wall plate and existing switch mounting screws.
3. Carefully remove the existing switch from the switch box.
4. Disconnect the wiring from the existing switch.
5. Connect the Z-Wave dimmer switch as shown in the wiring diagram: Black lead to hot wire, white lead to neutral wire, red lead to load wire, green lead to ground wire.
6. Check connections to be sure they are tight and no bare conductors are exposed.
7. Insert the ZW500D dimmer switch into the outlet box carefully.
8. Make sure the ZW500D dimmer switch to the box using the supplied screws
9. Attach the wall plate
10. Restore power at the circuit breaker and test the system.

### Air Gap Switch

During normal operation, there is a small amount of power passing through the switch to the load even when the dimmer switch is turned off. The ZW500D has an air gap switch on the lower right side to completely disconnect power to the load. Slide the air gap switch to left to disconnect the power while replacing light bulbs and slide it to right for normal operation. The air gap switch must be all the way in for the dimmer to function and control the lighting.

#### ◆ OPERATIONS



### Basic Operation

The connected light can be turned ON in two ways:

1. With a remote.
2. Manually flick the switch paddle on the Z-Wave dimmer.

### Remote Control

Z-Wave remotes provide control of an Individual device, Groups of devices and Scenes. Please refer to your remote control's instructions for details on its capabilities and instructions for adding and controlling devices.

### Manual Control

The ZW500D dimmer switch allows the user to:

1. Turn ON/OFF and control the brightness level of the connected lighting.
  - To turn the connected lighting ON: Tap the top of the dimmer switch paddle.
  - To turn the connected lighting OFF: Tap the bottom of the dimmer switch paddle.
  - To brighten the connected lighting: Press and hold the top of the dimmer switch paddle, release when desired level is achieved.
  - To dim the connected lighting: Press and hold the bottom of the dimmer switch paddle, release when desired level is achieved.

## INSTALLATION INSTRUCTIONS

Please note: pressing and holding the dimmer switch paddle until the light intensity is at the minimum setting does not turn the power OFF, you must still tap (short press) the bottom of the dimmer switch paddle to turn the power OFF.

- Program your dimmer switch (Include or exclude the dimmer switch to/from the Z-Wave home control network.)
  - When the primary controller sends the program command, press the button.
  - The primary controller should indicate that the action was successful. If the controller indicates the action was unsuccessful, please repeat the procedure.
  - Once the module 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 ZW500D dimmer switch returns to OFF state.

### Advanced Operation

The following Advanced Operation parameters require that you have an advanced controller. However, basic remotes do not have this capability.

### All-ON and All-OFF

Depending upon your primary controller, the ZW500D 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.

### LED Light and Buttons Configuration

By default setting, once press button "up", the load connected to ZW500D will be turned on, and LED light will turn off. We use Command\_Class\_Configuration to configure LED light state and button reverse.

For instance, after configuring, once press button "up", the load connected to ZW500D can be turned off and LED light will turn off.

Configuration details

- Parameter 1 (configure LED light state), default value is 0. Valid values are 0 and 1 with 1 byte.
- Parameter 2 (configure button reverse), default value is 0. Valid values are 0 and 1 with 1 byte.

### Association command class

ZW500D can support single association group with up to 5 target nodes by using command class COMMAND\_CLASS\_BASIC. When a destination(target) device is assigned to ZW500D by association group, it will be activated and deactivated each time when double press ZW500D's button.

For instance, one short press the ZW500D's button ON/OFF, its load will be turned ON/OFF. Double short press the ZW500D, the load connected to ZW500D and target device will be turn ON/OFF almost simultaneously.

### ◆ WIRELESS RANGE

This device complies with the Z-Wave standard of open-air, line of sight transmission distances of 100 feet. Actual performance in a home depends on the numbers of walls between the remote controller and the destination device, the type of construction and the number of Z-Wave enabled devices installed in the control network.

### Z-Wave Network

Every Z-Wave enabled device acts as a signal repeater and multiple devices result in more possible transmission routes which helps eliminate " RF dead-spots."

### Things to consider regarding RF range:

- Each wall or obstacle (i.e.:refrigerator, big screen TV, etc.)between the remote or a Z-Wave device and the destination device will reduce the maximum range by approximately 25-30%.
- Brick, tile or concrete walls block more of the RF signal than walls made of wooden studs and plasterboard (drywall).
- Wall mounted Z-Wave devices installed in metal junction boxes will suffer a significant loss of range (approximately 20%) since the metal box blocks a large part of the RF signal.

### Effects of Home Construction on Wireless Range Between Z-Wave Enabled Devices.

**Note: The distances shown in the table below are typical examples. Actual performance in your home will vary .**

From the Remote (or repeating Z-Wave module) to destination device:					
Type of Construction	Wood Frame with Drywall		Brick, Tile or Concrete		
	Plastic J-Boxes*	Metal J-Boxes	Plastic J-Boxes*	Metal J-Boxes	
Number of Walls or Obstacles	0**	100'	80'	100'	80'
	1	70'	56'	60'	48'
	2	49'	39'	36'	29'
	3	34'	27'	21'	17'

### Restoring Factory Defaults

All Configuration Parameters can all be restored to their factory default settings by using your master controller to reset the device.

### ◆ FCC COMPLIANCE STATEMENT

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

### ◆ WARRANTY INFORMATION

Our company warranties its products to be free of defects in materials and workmanship for a period of two (2) years. There are no obligations or liabilities on part of our company for consequential damages arising out of or in connection with the use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation or reinstallation.

Nov, 2014  
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