Linear WD500Z-1

Linear GoControl WD500Z-1 Z-Wave 500-Watt Wall-Mount Dimmer Switch Instruction Manual

1. INTRODUCTION AND OVERVIEW

The Linear GoControl WD500Z-1 Z-Wave 500-Watt Wall-Mount Dimmer Switch is designed to replace a standard wall switch or dimmer, providing wireless Z-Wave remote ON/OFF control and dimming capabilities for connected lighting. This device integrates into Z-Wave certified home automation systems, allowing for convenient control via remote, wall controller, or smart devices. It features a small blue LED indicator that can be programmed to illuminate when the switch is on or off, aiding in location in low light conditions. The switch is compatible with permanently-installed incandescent, fluorescent, compact fluorescent, halogen, and LED lighting, supporting a maximum load of 500 watts.

Figure 1: Front view of the Linear GoControl WD500Z-1 Z-Wave 500-Watt Wall-Mount Dimmer Switch.

2. SAFETY INFORMATION

WARNING: Risk of Electric Shock. Improper installation can result in serious injury or death. Always disconnect power at the circuit breaker or fuse box before installation or servicing. This device must be installed by a qualified

electrician in accordance with all national and local electrical codes.

- **Neutral Wire Required:** The WD500Z-1 dimmer switch requires a neutral wire for proper operation. It cannot be installed in homes without neutral wiring.
- **Load Compatibility:** For control of permanently installed lighting fixtures only. **NOT** for control of receptacles or motor loads.
- **Maximum Load:** Do not exceed 500 watts.
- **Indoor Use Only:** This device is intended for indoor use in dry locations.
- **Operating Voltage:** 120V AC, 60Hz.

3. PACKAGE CONTENTS

- 1 x GoControl WD500Z-1 Z-Wave 500-Watt Wall-Mount Dimmer Switch (White)
- 1 x White Paddle and Decorative Plate (pre-installed)
- Installation Guide (this document)

Note: Replaceable trim ring kits in brown, black, almond, or ivory are not included and must be purchased separately if a different color is desired.

4. SETUP AND INSTALLATION

Important: Installation should be performed by an experienced electrician. Incorrect wiring can cause irreparable damage to the switch and poses a safety risk.

4.1 Wiring Instructions

1. **Disconnect Power:** Turn off power to the switch location at the circuit breaker or fuse box. Verify power is off using a voltage tester.
2. **Remove Existing Switch:** Carefully remove the existing wall plate and switch from the electrical box.
3. **Identify Wires:** Identify the following wires:

   - **Line (Hot):** Incoming power from the circuit breaker.
   - **Load:** Wire going to the light fixture.
   - **Neutral:** Typically a white wire, required for this switch.
   - **Ground:** Bare copper or green wire.

4. **Connect Wires:** The WD500Z-1 dimmer switch comes with pre-cut wires for easy stripping. Connect the wires from the electrical box to the corresponding wires on the dimmer switch using wire nuts (not included):

   - Connect the **Line (Hot)** wire to the switch's **Black** wire.
   - Connect the **Load** wire to the switch's **Red** wire.
   - Connect the **Neutral** wire to the switch's **White** wire.
   - Connect the **Ground** wire to the switch's **Green** wire.

5. **Mount Switch:** Carefully fold the wires and insert the switch into the electrical box. Secure it with the provided screws.
6. **Install Wall Plate:** Attach the decorative wall plate.
7. **Restore Power:** Turn power back on at the circuit breaker.

Figure 2: Rear view of the dimmer switch, illustrating wiring connections.

4.2 Z-Wave Network Inclusion (Pairing)

To integrate the dimmer switch into your Z-Wave network:

1. Ensure your Z-Wave controller (hub/gateway) is in "inclusion" or "discovery" mode. Refer to your controller's manual for specific instructions.
2. On the WD500Z-1 dimmer switch, press the **bottom part of the rocker switch (OFF) once**.
3. The switch will send a signal to the controller. The controller should confirm successful inclusion.
4. Test the switch by turning it ON/OFF and adjusting dimming levels via your Z-Wave controller.

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Video 1: Demonstration of the GoControl WD500Z-1 Z-Wave 500-Watt Wall-Mount Dimmer Switch in operation, showing its ON/OFF and dimming functions.

5. OPERATING THE DIMMER SWITCH

5.1 Manual Control

- **Turn ON/OFF:** Press the top part of the rocker switch to turn lights ON. Press the bottom part to turn lights OFF.
- **Dimming:** Press and hold the top part of the rocker switch to increase brightness. Press and hold the bottom part to decrease brightness. Release the switch when the desired brightness level is reached.

5.2 Z-Wave Remote Control

Once paired with a Z-Wave controller, the WD500Z-1 can be controlled remotely via your Z-Wave hub, smartphone app, or other Z-Wave devices. This includes ON/OFF functionality, dimming to specific percentages, and inclusion in programmed lighting "scenes."

- **Scene Command Class:** The switch supports Z-Wave's Scene Command Class, allowing it to be part of complex lighting scenes where multiple Z-Wave devices are controlled simultaneously.
- **LED Indicator:** The small blue LED indicator lamp shines when the switch is on by default. This behavior can often be configured through your Z-Wave controller to illuminate when the switch is off, or to be disabled entirely.

6. MAINTENANCE

The GoControl WD500Z-1 dimmer switch requires minimal maintenance. To clean the device, gently wipe the surface with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners. Ensure power is disconnected before cleaning if removing the wall plate.

7. TROUBLESHOOTING

- **Lights do not turn ON/OFF or dim:**
  - Check the circuit breaker and ensure power is restored to the switch.
  - Verify all wiring connections are secure and correct, especially the neutral wire.
  - Ensure the connected light fixture is compatible with dimming and that the bulbs are dimmable.
  - Confirm the total wattage of connected lights does not exceed 500 watts.

- **Switch does not respond to Z-Wave commands:**
  - Ensure the switch is properly included in your Z-Wave network. Try re-pairing if necessary.
  - Check the distance between the switch and your Z-Wave controller or other Z-Wave devices. Z-Wave has a range of up to 100 feet between devices.
  - Verify your Z-Wave controller is functioning correctly.

- **LED indicator not working as expected:**
  - Check your Z-Wave controller settings for options to configure the LED indicator behavior.

- **Physical fit issues in electrical box:**
  - Some older or smaller electrical boxes may have limited space. Ensure wires are neatly folded. Do not remove the plastic enclosure of the switch.

8. SPECIFICATIONS

Feature	Specification
Model	WD500Z-1
Brand	Linear
Connectivity Protocol	Z-Wave
Maximum Load	500 Watts (Incandescent, Fluorescent, CFL, Halogen, LED)
Input Voltage	120V AC, 60Hz
Current Rating	15 Amps, 4 Amps
Range	Up to 100 feet (between wireless controller and/or closest Z-Wave device)

Feature	Specification
Z-Wave Version	4.55
Neutral Wire	Required
Color	White (replaceable trim rings available separately)
Dimensions (L x W x H)	5.1 x 3 x 2.6 inches
Item Weight	0.4 Pounds
Certifications	UL, cULus
Control Method	App, Manual
Controller Type Compatibility	SmartThings, GoControl, Vera, Vivint (and any Z-Wave certified gateway)

9. WARRANTY INFORMATION

Linear products are designed for reliability and performance. Specific warranty details for the GoControl WD500Z-1 dimmer switch are typically provided with the product packaging or available on the manufacturer's official website. Please retain your proof of purchase for warranty claims. The warranty generally covers defects in materials and workmanship under normal use for a specified period from the date of purchase.

10. SUPPORT

For technical assistance, product inquiries, or further support, please contact Linear customer service. You can find contact information on the manufacturer's website or refer to the original product packaging.

Manufacturer Contact Information:

EDMOND, OK, 73013 US