

decora smart™



LEVITON®

Dimmer with Z-Wave® Technology

Cat. No. DZ6HD

Universal Incandescent, LED, CFL Dimmer

Rated: 120 VAC, 60 Hz
600W Incandescent
300W LED/CFL



INSTALLATION INSTRUCTIONS



Schedule or dim lights from anywhere using a compatible Z-Wave® controller

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DI-000-DZ6HD-02A

PATENTS
This product is covered by U.S. Patent No. 8,664,886 and corresponding foreign patents.

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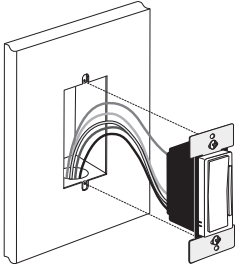
TECHNICAL SUPPORT
For additional information contact Leviton's Technical Support at:
1-800-824-3005 or visit Leviton's website at **www.leviton.com**

FOR CANADA ONLY
For warranty information and/or product returns, residents of Canada should contact Leviton in writing at **Leviton Manufacturing of Canada Ltd to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9** or by telephone at **1-800-405-5320**.

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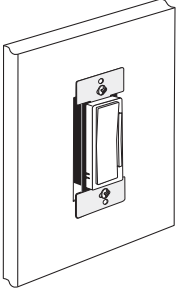
Step 5

Testing your Dimmer prior to mounting in wall box:



- Position all wires to provide room in outlet wall box for device.
- Ensure that the word "TOP" is facing up on device strap.
- Partially screw in mounting screws in wall box mounting holes.

NOTE: Dress wires with a bend as shown in diagram in order to relieve stress when mounting device.

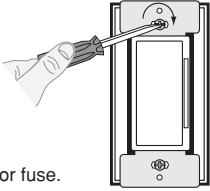


Step 6

Dimmer Mounting: TURN OFF POWER AT CIRCUIT BREAKER OR FUSE.



Installation may now be completed by tightening mounting screws into wall box. Attach wall plate.



Step 7

Restore Power:



Restore power at circuit breaker or fuse. Installation is complete.

OPERATION

NOTE: At default the locator light will illuminate when the load is in the OFF position to facilitate access in the dark.

NOTE: If using the dimmer in a 3-way application, the lights will turn ON at brightness set on dimmer's DIM/BRIGHT bar. The lighting can be controlled from either the dimmer, the remote location or a Z-Wave® enabled controller.

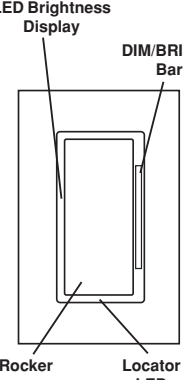
Rocker (Default settings)
Turn ON from OFF position:
Tap TOP of Rocker: Lights turn ON to preset level.

Turn OFF from ON position:
Tap BOTTOM of Rocker. Lights turn OFF.

DIM/BRIGHT Bar
BRIGHTEN:
Tap the TOP half of the DIM/BRIGHT Bar – Lights will jump to the next brightness setting. Hold the TOP half of the DIM/BRIGHT Bar – Lights will brighten.

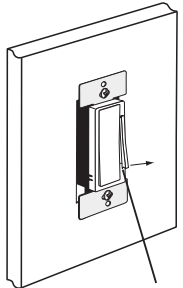
DIM:
Tap the BOTTOM half of the DIM/BRIGHT Bar – Lights will jump to the next dim setting. Hold the BOTTOM half of the DIM/BRIGHT Bar – Lights will dim.

NOTE: When lights are OFF you can change the light level that the lights will turn ON to using the DIM/BRIGHT Bar. If there is a power outage, when the power is restored, the lights will return to the last setting before the power interruption.



AIR GAP

On the dimmer only, engage the air-gap switch by gently pulling out from the bottom of the DIM/BRIGHT Bar until the bottom of the bar lifts completely out of the frame and a click is heard (refer to Figure). LED's will turn OFF. This will stop power to the fixture to replace the bulb. After servicing is complete, press the DIM/BRIGHT Bar back into place for normal operation.



Cleaning: Clean with a damp cloth. DO NOT use chemical cleaners.

INCLUSION TO A Z-WAVE® NETWORK

Leviton Decora Smart™ Z-Wave® devices support two methods of inclusion. When using a Z-Wave Plus™ certified controller choose Network Wide Inclusion.

Network Wide Inclusion:
Network Wide Inclusion allows your device to be included into the network using devices already in the network to assist with communication. Work your way from the closest devices to the controller outward.

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will blink amber.
- Tap the top of the paddle one time. The Locator LED will quickly flash green.
- The Decora Smart™ Z-Wave® device is ready to learn into the Z-Wave® network.
- Follow directions in the Z-Wave® controller to complete the adding process.
- Upon successful addition to network the LED will turn off and then blink green 3 times.
- If the adding process is not successful the LED will flash red 3 times.

Traditional Inclusion:
For older controllers Traditional Inclusion is supported. Depending on the age of the controller the controller will need to be 3 to 35 feet from the device when including.

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will blink amber.
- The Decora Smart™ Z-Wave® device is ready to add to the Z-Wave® network.
- Follow directions in the Z-Wave® controller to enter learn mode.
- Tap the top of the paddle one time. The Locator LED will quickly flash green. The Z-Wave® controller will begin to pair with the Decora Smart™ device.
- Upon successful addition to the network the LED will turn off and then blink green 3 times.
- If the adding process is not successful the LED will flash red 3 times.

EXCLUSION FROM A Z-WAVE® NETWORK

When removing a device from a Z-Wave® network best practice is to use the exclusion command found in the Z-Wave® controller.

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will blink amber.
- Follow directions in the Z-Wave® controller to enter exclusion mode
- Tap the top of the paddle one time. The Locator LED will quickly flash green. The Z-Wave® controller will exclude the Decora Smart™ device
- The Z-Wave® controller will confirm successful exclusion from the network.

LOAD TYPE SETUP

Leviton Decora Smart™ Z-Wave® dimmers are compatible with different types of loads. Choosing the correct load type will increase compatibility and provide proper operation.

Incandescent Loads (Default):

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will blink amber.
- Tap the top of the paddle 4 times. The Locator LED will quickly flash green and amber.
- Tap the top of the paddle 4 times. The Locator LED will flash green/amber 3 times to confirm the selection.

LED Loads:

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will blink amber.
- Tap the top of the paddle 4 times. The Locator LED will quickly flash green and amber.
- Tap the top of the paddle 5 times. The Locator LED will flash green/red 3 times to confirm the selection.

CFL Loads:

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will blink amber.
- Tap the top of the paddle 4 times. The Locator LED will quickly flash green and amber.
- Tap the top of the paddle 6 times. The Locator LED will flash red/amber 3 times to confirm the selection.

MINIMUM / MAXIMUM DIM LEVELS

Leviton Decora Smart™ Z-Wave® devices have the ability to alter the minimum dim level to increase compatibility with LED bulbs as well as alter the maximum brightness to save energy.

To change minimum dim level:

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will turn amber.
- Tap the top of the paddle 5 times. The Locator LED will quickly flash red and amber.
- Tap the top of the paddle once. The Locator LED will flash amber.
- Use the dim/bright bar to adjust the minimum dim level.
- Hold the top of the paddle to exit.

To change maximum dim level:

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will turn amber.
- Tap the top of the paddle 5 times. The Locator LED will quickly flash red and amber.
- Tap the top of the paddle 2 times. The Locator LED will flash red.
- Use the dim/bright bar to adjust the maximum dim level.
- Hold the top of the paddle to exit.

LOCATOR LED SETUP

Leviton Decora Smart™ Z-Wave® devices have a locator LED on the bottom of the paddle. The operation of the LED can be changed.

Status Mode: LED On when the load is On:
The Locator LED is used to show the current state of the load:

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will turn amber.
- Tap the top of the paddle 4 times. The Locator LED will quickly flash green and amber.
- Tap the top of the paddle once. The Locator LED will flash green 3 times to confirm the selection.

Locator Mode: LED On when the load is Off (Default):
The Locator LED is designed to easily find the dimmer in a dark room. If the setting has been changes and you wish to return to the default operation.

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will turn amber.
- Tap the top of the paddle 4 times. The Locator LED will quickly flash light green and amber.
- Tap the top of the paddle twice. The Locator LED will flash amber 3 times to confirm the selection.

LED Off: Locator LED is always Off:

The Locator LED is turned off:

- Enter Programming Mode by holding the top of the paddle for 7 seconds, the Locator LED will blink amber.
- Tap the top of the paddle 4 times. The Locator LED will quickly flash green and amber.
- Tap the top of the paddle 3 times. The Locator LED will flash red 3 times to confirm the selection.

FACTORY DEFAULT

When removing a device from a network it is best practice to use the Exclusion process. In situations where a device needs to be returned to factory default follow the following steps. A reset should only be used when a controller is inoperable or missing.

- Hold the the top of the paddle for a total of 14 seconds.
 - After the first 7 seconds the LED turns amber.
 - The Locator LED will quickly flash red/amber after 14 seconds.
- Release the the top of the paddle and the device will reset.

EXITING PROGRAMMING

Devices are programmed to automatically time-out of any settings after 20 seconds.

TROUBLESHOOTING

- Lights Flickering**
 - Lamp has a bad connection.
 - Wires not secured firmly with wire connectors of dimmer or terminal screws of remote.
 - If using in a dimmable fluorescent application see **Load Type Setup prior to testing the device.**
- Light does not turn ON and Locator LED does not turn ON**
 - Circuit breaker or fuse has tripped.
 - Lamp is burned out.
 - Neutral not wired to Dimmer (White wire).
 - Confirm that the device is being supplied from a 120V AC, 60 Hz source ONLY.
- Intermittent dimmer operation**
 - Confirm that the Load being controlled does not exceed the 1000VA dimmer limit.
- Remote does not operate lights**
 - Ensure that total wire length does not exceed 300 ft.
 - Ensure wiring is correct.

ADVANCED OPTIONS

Leviton Decora Smart™ Devices are configurable through the paddle as well as over the Z-Wave® network. Compatible Z-Wave® controllers can add support for additional advanced options. Consult your Z-Wave® controller manufacturer for compatibility with advanced feature support.

Fade On Time

- Parameter No: 1, Length: 1 Byte
- Valid Values = 0 to 253 (default 2)
 - 0 = Instant On
 - 1 - 127 = Seconds: 1 - 127 seconds
 - 128 - 253 = Minutes: 1 - 126 minutes

Fade Off Time

- Parameter No: 2, Length: 1 Byte
- Valid Values = 0 to 253 (default 2)
 - 0 = Instant Off
 - 1 - 127 = Seconds: 1 - 127 seconds
 - 128 - 253 = Minutes: 1 - 126 minutes

Minimum Light Level

- Parameter No: 3, Length: 1 Byte
- Valid Values = 0 to 100 (default 10)

Maximum Light Level

- Parameter No: 4, Length: 1 Byte
- Valid Values = 0 to 100 (default 100)

Preset Light Level

- Parameter No: 5, Length: 1 Byte
- Valid Values = 0 to 100 (default 0)
 - 0 = Memory Dim - Last dim state
 - 1 - 100 = Level

LED Dim Level Indicator Timeout

- Parameter No: 6, Length: 1 Byte
- Valid Values = 0 to 255 (default 3)
 - 0 = Level Indicators Off
 - 1 - 254 = Level Indicator Timeout (seconds)
 - 255 = Levels Always On

Locator LED Status

- Parameter No: 7, Length: 1 Byte
- Valid Values = 0 to 255 (default 255)
 - 0 = LED Off
 - 254 = Status Mode
 - 255 = Locator Mod

Load Type

- Parameter No: 8, Length: 1 Byte
- Valid Values = 0 to 2 (default 0)
 - 0 = Incandescent
 - 1 = LED
 - 2 = CFL

Z-WAVE® ASSOCIATIONS

- Group Number: 1
- Maximum Nodes: 5
- Z-Wave Plus™ Lifeline: A NOTIFICATION frame is sent to the nodes in this association group when a Lifeline event occurs.
- All nodes in the association group receive notification of status changes.

ADDITIONAL SUPPORTED CLASSES

Z-WAVE PLUS INFO
ASSOCIATION
ASSOCIATION GRP INFO
VERSION
MANUFACTURER SPECIFIC
CONFIGURATION
DEVICE RESET LOCALLY
POWERLEVEL
SWITCH MULTILEVEL
BASIC
SWITCH ALL
SCENE ACTUATOR CONF
SCENE ACTIVATION
FIRMWARE UPDATE MD V2
HAIL

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DI-000-DZ6HD-02A

- WARNINGS AND CAUTIONS

- **TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER** at circuit breaker or fuse and test that power is off before wiring!
 - **TO AVOID FIRE, PERSONAL INJURY OR PROPERTY DAMAGE, DO NOT** install to control a receptacle, a motor, or a transformer operated appliance.
 - To be installed and/or used in accordance with electrical codes and regulations.
 - If you are unsure about any part of these instructions, consult an electrician.
 - Use with incandescent, or 120V halogen fixtures only. Use a Leviton electronic low voltage dimmer to control electronic (solid state) low voltage transformers.
 - The Decora® DZ6HD dimmer is not compatible with standard 3-way or 4-way switches. It must be used with up to 4 Decora® Digital DD00R-DL remotes for multi-location dimming.
 - Maximum wire length from dimmer to all installed remotes cannot exceed 300 ft.
 - Save this instruction sheet. It contains important technical data along with testing and troubleshooting information which will be useful after installation is complete.

WARNINGS AND CAUTIONS

- Dimmer may feel warm to the touch during normal operation.
 - Recommended minimum wall box depth is 2-3/4".
 - Use this device **with copper or copper clad wire only**.
 - Use with compatible dimmable LED, CFL bulbs, incandescent or 120V halogen fixtures only. For a list of compatible LED and CFL bulbs refer to [www.leviton.com](#).
 - DO NOT mix bulb types when multiple bulbs are used with one dimmer. All bulbs shall be either LED; CFL or incandescent. Using the same make/model of each bulb will enhance dimmer performance.
 - Leviton recommends Z-Wave® technology in residential installations up to 7,500 sq.ft. Metal junction boxes may adversely affect network coverage. Communication is designed to pass through interior materials, exterior materials are designed to reflect RF energy and may prevent communication to detached buildings.
 - Z-Wave® networking technology is designed for distributed communication. Large clustering of communicating devices in a centralized location (ie. a closet) is not recommended.

INTRODUCTION

Leviton's Decora Smart™ Z-Wave® Dimmers are designed to communicate with each other via Radio Frequency (RF) to provide remote control of your lighting. In a Z-Wave® network, each device is designed to act as a router. These routers will re-transmit the RF signal from one device to another until the intended device is reached. This ensures that the signal is received by its intended device by routing the signal around obstacles and radio dead spots. This dimmer is compatible with any Z-Wave® enabled network, regardless of the manufacturer and can also be used with other devices displaying the Z-Wave® logo.

WARNING: TO AVOID FIRE, PERSONAL INJURY OR DEATH DO NOT USE the remote for the control of high power heating appliances such as portable heaters. There can be some unexpected consequences if not used with care. For example, an empty coffee pot can be remotely turned on. If that should happen, your coffee pot could be damaged from overheating. If an electric heater is turned on by remote control while clothing is draped over it, a fire could result. This device will not control lighting that is used with electronic low-voltage and high frequency power supply transformers, nor high pressure discharge lamps (HID lighting). This includes mercury-vapor, sodium vapor and metal halide lamps.

Decora Smart™ Devices are ideal for living rooms, bedrooms, kitchens, dining rooms, home offices, outdoor lighting or anywhere full control of lighting is desired.

RATINGS

Incandescent - 600W - 120VAC, 60Hz
LED/CFL - 300W - 120VAC, 60Hz

FEATURES

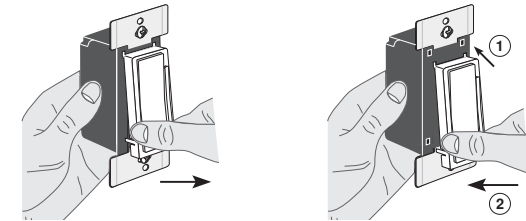
- Z-Wave Plus™ Certification
 - Increased communication range
 - Network Wide Inclusion
 - Support for beaming and secure commands
 - Over The Air (OTA) updates
- Compatible with Leviton vizia rf+ systems
- Soft fade ON/OFF
- ON/OFF LED and Brightness level LED
- Three way communication
- Ease of installation – No new wiring

TOOLS NEEDED TO INSTALL YOUR DIMMER

Slotted/Phillips Screwdriver Electrical Tape Pliers
Pencil Cutters Ruler

Changing the color of your Dimmer:

Your dimmer comes with two color options. To change color of the face proceed as follows:



Push in sides at bottom tabs and pull outward to release

Insert top tabs and press in bottom tabs to attach

INSTALLING DIMMER BY ITSELF OR WITH OTHER DEVICES

If installing the device in a single device application, proceed with the **INSTALLING YOUR DIMMER** section. If installing Dimmer in a multi-device application, proceed as follows:

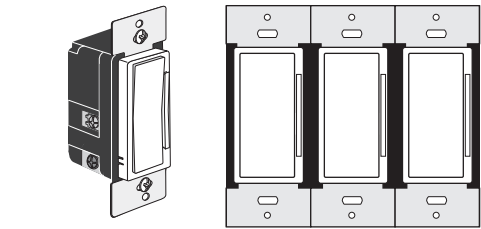
INSTALLING DIMMER BY ITSELF OR WITH OTHER DEVICES

If installing the device in a single device application, proceed with the **INSTALLING YOUR DIMMER** section. If installing Dimmer in a multi-device application, proceed as follows:

MULTI-DEVICE APPLICATION

In multi-dimmer installations, the reduction of the dimmer's capacity may be required. Refer to the chart for maximum load per dimmer.

NOTE: No derating is required for LED or CFL bulb applications.

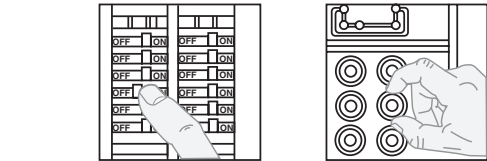


MAXIMUM LOAD PER DIMMER FOR MULTI-DEVICE			
Load	Single	Two Devices	More than 2 Devices
Incand	600W	500W	500W

INSTALLING YOUR DIMMER

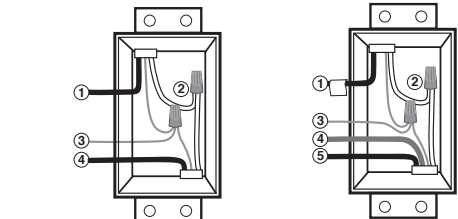
NOTE: Use check boxes ☒ when Steps are completed.

Step 1 **WARNING: TO AVOID FIRE SHOCK OR DEATH; TURN OFF POWER** at circuit breaker or fuse and test that power is off before wiring!



Step 2 **Identifying your wiring application (most common):**

NOTE: If the wiring in your wall box does not resemble any of these configurations, consult an electrician.

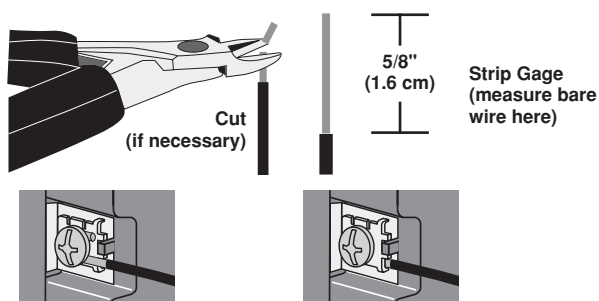


- Single Pole**
1. Line (Hot)
 2. Neutral
 3. Ground
 4. Load
- 3-Way**
1. Line or Load (see important instruction)
 2. Neutral
 3. Ground
 4. First Traveler – note color
 5. Second Traveler – note color

IMPORTANT: For 3-Way applications, note that one of the screw terminals from the old switch being removed will usually be a different color (Black) or labeled Common. Tag that wire with electrical tape and identify as the Common (Line or Load) in both the dimmer wall box and remote wall box.

Step 3 Preparing and connecting wires:

This dimmer can be wired using side wire terminal screws or through backwire openings. Choose appropriate wire stripping specifications accordingly.



Side Wire Connection
Side wire terminals accept #14-12 AWG solid copper wire only.

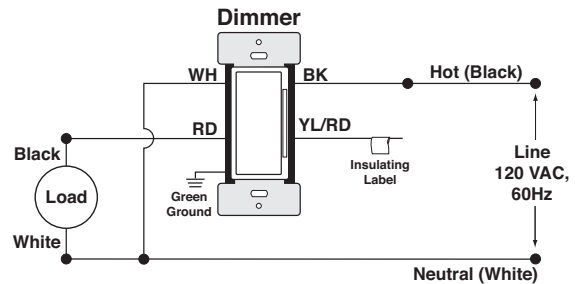
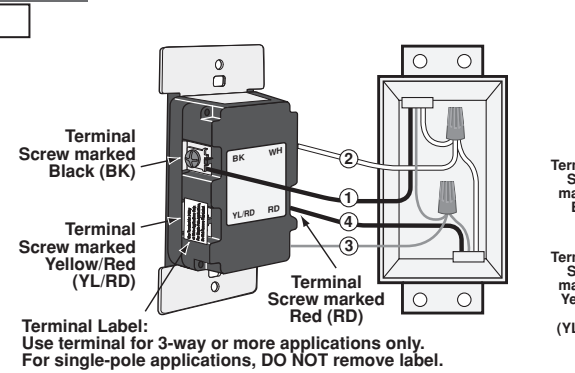
Back Wire Connection
Back wire openings accept #14-12 AWG solid copper wire only.

- Make sure that the ends of the wires from the wall box are straight (cut if necessary).
- Remove insulation from each wire in the wall box as shown.
- **For Single-Pole Application, go to Step 4a.**
- **For 3-Way Matching Remote (with LEDs) Application, go to Step 4b.**

For non-standard wiring applications, refer to Wire Connector and Conductor Size Chart

WIRE CONNECTOR / # OF COND. COMBINATION CHART
1 - #12 w/ 1 to 3 #14, #16 or #18
2 - #12 w/ 1 or 2 #16 or #18
1 - #14 w/ 1 to 4 #16 or #18
2 - #14 w/ 1 to 3 #16 or #18

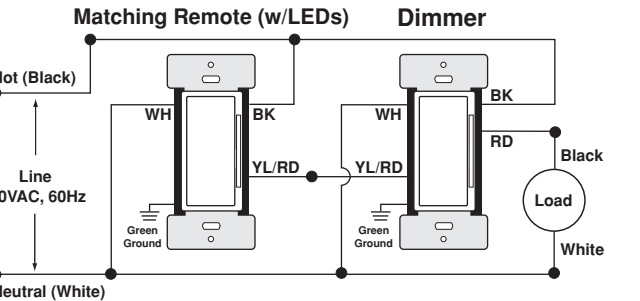
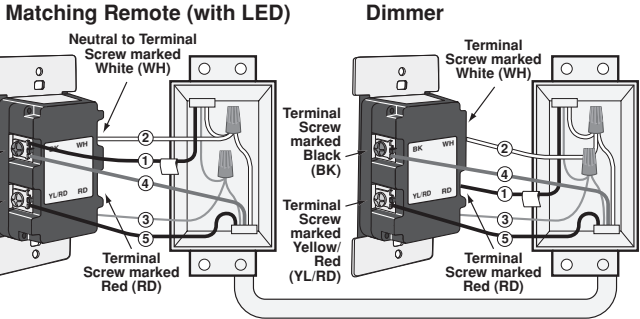
Step 4a Single Pole Wiring Application:



WIRING DIMMER:
Connect wires per WIRING DIAGRAM as follows:

- NOTE:** The DZ6HD dimmer requires a neutral connection.
- Green or bare copper wire in wall box to Green dimmer terminal screw.
 - Line Hot wall box wire to Black dimmer terminal screw.
 - Load wall box wire to Red dimmer terminal screw.
 - Neutral wall box wire to White dimmer terminal screw.
 - Yellow/Red dimmer terminal screw should have Red insulation label affixed.
- NOTE:** If insulating label is not affixed to Yellow/Red dimmer terminal screw, use electrical tape to cover.
- **Proceed to step 5.**

Step 4b 3-Way Wiring with DD00R Matching Remote (with LED) Application:



WIRING DIMMER (wall box with load connection):
Connect wires per WIRING DIAGRAM as follows:

- NOTE:** The DZ6HD dimmer must be installed in a wall box that has a Load connection. The dimmer also requires a neutral connection.
- Green or bare copper wire in wall box to Green terminal screw.
 - Load wall box wire identified (tagged) when removing old switch to dimmer terminal screw marked "RD".
 - First Traveler Line Hot to dimmer terminal screw marked "BK".
 - Remove Red insulating label from terminal screw marked "YL/RD".
 - Second Traveler wall box wire (**note color as above**) to dimmer terminal screw marked "YL/RD". This traveler from the dimmer must go to the terminal screw on the remote marked "YL/RD".
 - Neutral wall box wire to White dimmer terminal screw.

WIRING MATCHING REMOTE (wall box with Line Hot connection):
Connect wires per WIRING DIAGRAM as follows:

- NOTE:** The matching remote must be installed in a wall box with a Line Hot connection and a Neutral connection. A Neutral wire to the matching remote needs to be added as shown. If you are unsure about any part of these instructions, consult an electrician.
- NOTE:** Maximum wire length from dimmer to all installed remotes cannot exceed 300 ft (90m).
- Green or bare copper wire in wall box to Green terminal screw.
 - Line Hot (common) wall box wire identified (tagged) when removing old switch and First Traveler to remote terminal screw marked "BK".
 - Second Traveler wall box wire from dimmer to remote terminal screw marked "YL/RD" (**note wire color**). This traveler from the remote must go to the terminal screw on the dimmer marked "YL/RD".
 - Line Neutral wall box to remote terminal screw marked "WH".

NOTE: To synchronize LEDs between a Decora® digital remote and the Decora® DZ6HD dimmer, a dim up or dim down command must be pressed on the remote.

- **Proceed to Step 5.**