

# Single Pole (One location) or 3-Way (Multi-location) Fluorescent Dimmer

Cat. No. VZX12-7L (Lighted)  
1200VA-277VAC, 60Hz

For use with Mark 10™ Powerline dimmable ballasts

## INSTALLATION INSTRUCTIONS

### WARNINGS AND CAUTIONS:

- To be installed and/or used in accordance with appropriate electrical codes and regulations.
- If you are unsure about any part of these instructions, consult a qualified electrician.
- To avoid overheating and possible damage to this device and other equipment, use only with the appropriate Advance Transformer 277V Mark 10™ Powerline electronic ballasts for controlling the specific fluorescent lamps.
- When retrofitting Mark 10™ Powerline dimming ballasts into fixtures that originally had Instant Start ballasts, the sockets MUST be replaced with Rapid Start sockets to allow proper dimmer operation and prevent damage to the dimmer ballast. Refer to the instructions provided with the ballast.
- Vizia™ dimmers are not compatible with standard 3-way or 4-way switches. They must be used with compatible Vizia™ remotes for multi-location dimming.
- Use only one (1) Vizia™ dimmer in a multi-location circuit with up to 9 coordinating remotes without LEDs or up to 4 matching remotes with LEDs. The remote(s) will turn the light on at the brightness level selected at the dimmer.

### WARNINGS AND CAUTIONS:

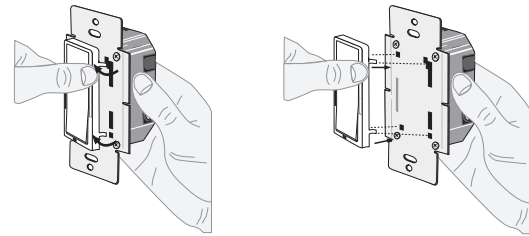
- Lamps must be burned in at full intensity for 100 hours prior to dimming for proper dimming performance.
- For new installations, wire a test switch before installing dimmer.
- Total minimum load must exceed 40W.
- Dimmer may feel warm to the touch during normal operation.
- Recommended minimum wall box depth is 2-1/2".
- Maximum wire length from dimmer to all installed remotes cannot exceed 300 ft (90 m).
- Disconnect power at circuit breaker or fuse when servicing, installing or removing fixture.
- Use this device only with copper or copper clad wire. With aluminum wire use only devices marked CO/ALR or CU/AL.

### Tools needed to install your Dimmer:

- Slotted/Phillips Screwdriver
- Pliers
- Cutters
- Electrical Tape
- Pencil
- Ruler

### Changing the color of your Dimmer:

Your Dimmer includes three color options. The Dimmer ships with the White frame attached. To change color of frame, proceed as follows:



Push in side at tab to release

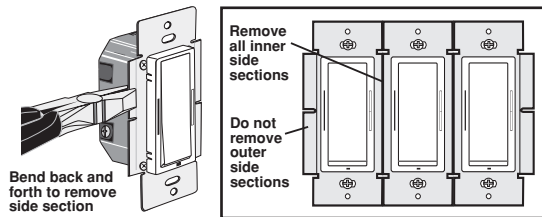
Line up tabs and press in side to attach

### Installing Dimmer by itself or with other devices:

If installing Dimmer 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 side sections of the mounting strap may require removal. Use pliers to carefully bend side sections back and forth until they break off.



Typically, removal of the side sections in multi-dimmer installations requires a reduction of the dimmer's capacity. However, there is no reduction necessary for this device. Refer to the chart for maximum load per dimmer.

MAXIMUM LOAD PER DIMMER FOR MULTI-DEVICE			
Cat. No.	Single	Two Devices	More than 2 Devices
VZX12	1200VA (4.3A)	1200VA (4.3A)	1200VA (4.3A)

### MAXIMUM BULB WATTAGE

Mark 10™ Powerline dimmers are rated in Volt-Amps (VA). The maximum bulb wattage is determined by the efficiency of the Mark 10™ Powerline ballast. The following table shows the maximum number of ballasts that can be connected to a single dimmer for different Mark 10™ Powerline ballasts. Also note that the table shows maximum ballasts for multi-gang installations.

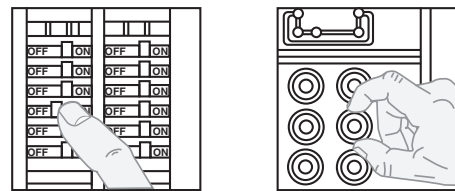
Cat. No. VZX12-7, 277V, For use with Advance Transformer 277V Mark 10™ Powerline Electronic Ballasts

Advance Mark 10™ Powerline Part No.	Lamp	Max. # Ballasts/Dimmer for Multi-gang		
		Single Gang	Two Ganged	More than 2 Gang
VEZ-1T32	CFM42W/GX24Q	39	39	39
VEZ-2Q26	CFM26W/GX24Q	20	20	20
VEZ-1T32	CFM26W/GX24Q	30	30	30
VEZ-1T42	CFM32W/GX24Q	24	24	24
VEZ-1Q18-M2-BS	CFM18W/G24Q	54	54	54
VEZ-1Q18-M2-LD	CFQ18W/G24Q	54	54	54
VEZ-2Q18-M2-BS	CFQ18W/G24Q	27	27	27
VEZ-2Q18-M2-LD	CFQ18W/G24Q	27	27	27
VEZ-1T32	CFQ26W/G24Q	39	39	39
VEZ-1T42-M2-BS	CFQ26W/G24Q	39	39	39
VEZ-1T42-M2-LD	CFQ26W/G24Q	39	39	39
VEZ-2Q26	CFQ26W/G24Q	20	20	20
VEZ-2Q26-M2-BS	CFQ26W/G24Q	20	20	20
VEZ-2Q26-M2-LD	CFQ26W/G24Q	20	20	20
VEZ-1Q18-M2-BS	CFTR18W/GX24Q	54	54	54
VEZ-1Q18-M2-LD	CFTR18W/GX24Q	54	54	54
VEZ-2Q18-M2-BS	CFTR18W/GX24Q	27	27	27
VEZ-2Q18-M2-LD	CFTR18W/GX24Q	27	27	27
VEZ-1T42-M2-BS	CFTR26W/GX24Q	39	39	39
VEZ-1T42-M2-LD	CFTR26W/GX24Q	39	39	39
VEZ-2Q26-M2-BS	CFTR26W/GX24Q	20	20	20
VEZ-2Q26-M2-LD	CFTR26W/GX24Q	20	20	20
VEZ-1T42-M2-BS	CFTR32W/GX24Q	30	30	30
VEZ-1T42-M2-LD	CFTR32W/GX24Q	30	30	30
VEZ-2T42-M3-BS	CFTR32W/GX24Q	15	15	15

### INSTALLING YOUR DIMMER

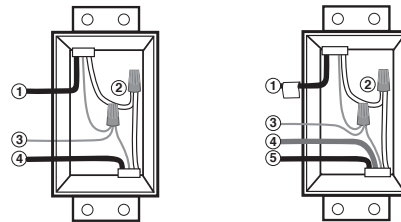
NOTE: Use check boxes  when Steps are completed.

**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 a qualified electrician.



#### Single Pole

- Line (Hot)
- Neutral
- Ground
- Load

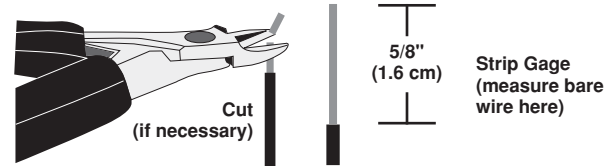
#### 3-Way

- Line or Load (*see important instruction below*)
  - Neutral
  - Ground
  - First Traveler – note color
  - Second Traveler – note color.
- NOTE: For matching remote w/LEDs installation, the First Traveler becomes Line Hot.

**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:

Pull off pre-cut insulation from dimmer leads. 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:



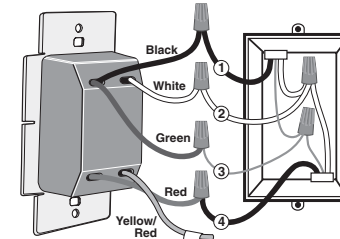
For non-standard wiring applications, refer to Wire Nut and Connector Size Chart

#### WIRE CONNECTOR / # OF COND. COMBINATION CHART

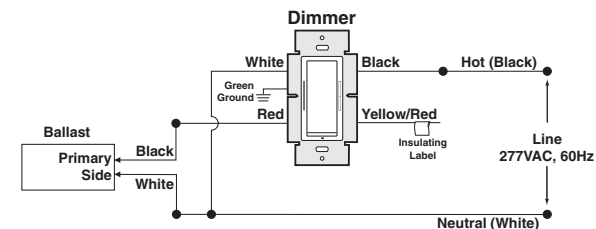
- 1 - #12 w/ 1 to 3 #14, #16 or #18
- 2 - #12 w/ 1 or 2 #16 or #18
- 1 - #14 w/ 1 to 4 #16 or #18
- 2 - #14 w/ 1 to 3 #16 or #18

- For Single-Pole Application, go to Step 4a.
- For 3-Way Matching Remote (with LEDs) Application, go to Step 4b.

**Step 4a** Single Pole Wiring Application:



Insulating label: This wire is used in 3-way installations only. For single pole installations, do not remove this insulating label.



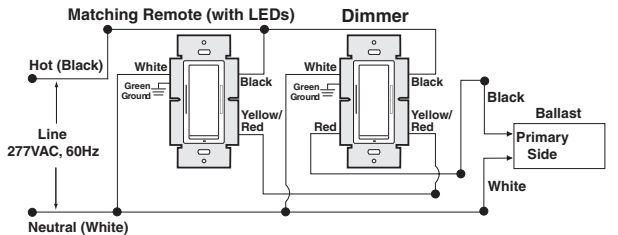
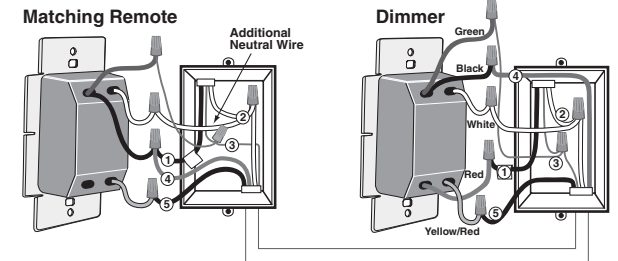
**Step 4a cont'd**

#### WIRING DIMMER:

Connect wires per WIRING DIAGRAM as follows:

- Green or bare copper wire in wall box to Green dimmer lead.
  - Line Hot wall box wire to Black dimmer lead.
  - Load wall box wire to Red dimmer lead.
  - Line Neutral wall box wire to White dimmer lead.
  - Yellow/Red wire should have Red insulation label affixed.
- NOTE: If insulating label is not affixed to Yellow/Red dimmer lead, use electrical tape to cover.
- Proceed to Step 5.

**Step 4b** 3-Way Wiring with Matching Remote (w/LEDs) Application:



NOTE: The dimmer **must** be installed in a wall box that has a Load connection. 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 a qualified electrician.

NOTE: Maximum wire length from dimmer to all installed remotes cannot exceed 300 ft (90 m).

**Step 4b cont'd 3-Way Wiring with Matching Remote (w/LEDs) Application:**

**WIRING MATCHING REMOTE**

**(wall box with Line Hot connection):**

**Connect wires per WIRING DIAGRAM as follows:**

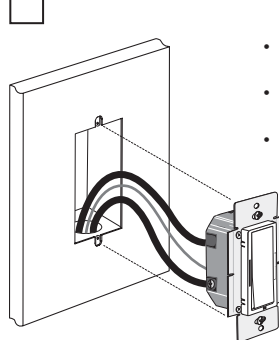
- Green or bare copper wire in wall box to Green remote lead.
- Line Hot (common) wall box wire identified (tagged) when removing old switch and First Traveler to Black dimmer lead.
- Second Traveler wall box wire from dimmer to Yellow/Red remote lead (**note wire color**). This traveler from the remote must go to Yellow/Red dimmer lead.
- Line Neutral wall box to White remote lead.

**WIRING DIMMER (wall box with Load connection):**

**Connect wires per WIRING DIAGRAM as follows:**

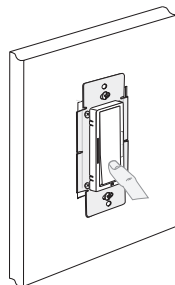
- Green or bare copper wire in wall box to Green dimmer lead.
- Load wall box wire identified (tagged) when removing old switch to Red dimmer lead.
- First Traveler Line Hot to Black dimmer lead.
- Remove Red insulating label from Yellow/Red dimmer lead.
- Second Traveler wall box wire (**note color as above**) to Yellow/Red dimmer lead. This traveler from the dimmer must go to the Yellow/Red remote lead.
- Line Neutral wall box wire to White dimmer lead.
- **Proceed to Step 5.**

**Step 5 Testing your Dimmer prior to mounting in wall box:**



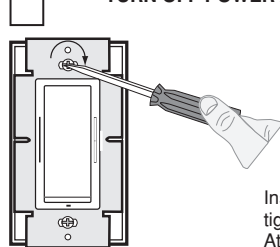
- Position all wires to provide room in outlet wall box for device.
- Ensure that the word "TOP" is facing up on device strap.
- Partially screw in mounting screws in wall box mounting holes.

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



- Restore power at circuit breaker or fuse.
- Press pad until locator light is OFF. Lights should turn ON. If lights do not turn ON, press the DIM/BRIGHT Bar until the lights brighten.
- **If lights still do not turn ON, refer to the TROUBLESHOOTING section.**

**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 wallplate.

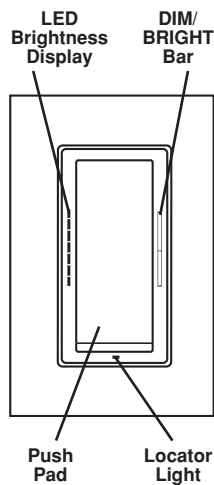
**Step 7 Restore Power:**

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

**OPERATION**

**NOTE:** 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 or the remote location.



**Push Pad (Default settings)**

**Turn ON from OFF position:**  
Tap – Lights turn ON to preset level.  
Press and Hold – Lights turn ON to full bright.

**Turn OFF from ON position:**  
Tap – Lights turn OFF.

**DIM/BRIGHT Bar**

**BRIGHTEN:**  
Press the top half of the DIM/BRIGHT Bar – Lights brighten to desired level.

**DIM:**  
Press the bottom half of the DIM/BRIGHT Bar – Lights dim to desired level.  
If you continue to hold, the lights will DIM to minimum level and then turn OFF.

**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 Switch:** On the dimmer only, to engage the air gap switch gently pull the bottom of the push pad until it lifts completely out of the frame and a click is heard. **Refer to figure.** This will cut power to the fixture to replace the bulb. After servicing is complete, push the push pad back for normal operation.

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

Gently lift bottom of push pad out

**ADVANCED PROGRAMMING FEATURES**

**Mode 1 – Set Minimum Brightness:** Set the minimum brightness level that the lights can dim to prior to turning full OFF.

**Mode 2 – Set Dim-Lock:** Set the brightness level that the lights will turn on to regardless of the previous light level at which they were turned OFF.

**Mode 3 – Set Fade Rate:** Set the amount of time (in seconds) that the lights will have to turn ON or OFF. Fade rates can be set to one of five different settings.

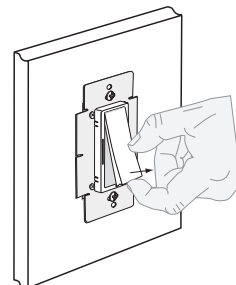
Advanced Features Summary			
Mode	Description	Range	Default
1	Set Min. Brightness	1 - 50 %	25 %
2	Set Dim-Lock Level	0 - 100 %, 0 = no lock	0
3	Select Fade Rate	1, 2, 3, 4, 5, 6 or 7	Preset #1

**To Program:**

**NOTE:** Have a flashlight handy if this dimmer controls the only light source in the room.

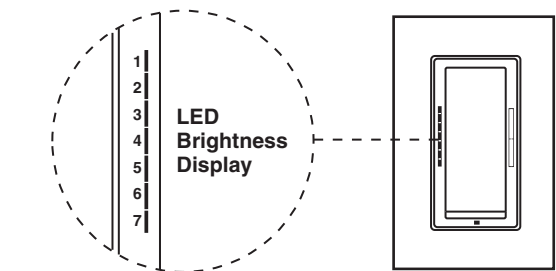
1. On the dimmer only, engage the air-gap switch by gently pulling the bottom of the push pad until it lifts completely out of the frame and a click is heard (**refer to figure**).
  2. Press push pad back into frame and hold push pad for 7 seconds until the locator light and the top LED (LED 1) start blinking.
  3. Upon releasing the push pad, the locator light will continue to blink once per second indicating the dimmer is in Mode 1, Set Minimum Brightness mode. To change the current Minimum Brightness level from 1-50%, use the DIM/BRIGHT Bar. This setting will automatically be saved.
  4. Tap the push pad to change to Mode 2, Set Dim-Lock Level mode. The locator light will blink twice per second. To change the current Set Dim-Lock level from 1-100%, use the DIM/BRIGHT Bar. If this feature is not desired, press and hold the lower half of the DIM/BRIGHT Bar until no LED is lit. This setting will automatically be saved.
  5. Tap the push pad to change to Mode 3, Set Fade Rate mode. The locator light will blink 3 times per second. To change the current Fade Rate, use the DIM/BRIGHT Bar to move the LED to the desired preset level. This setting will automatically be saved by tapping the push pad to exit programming mode.
- The LED Brightness Display is separated into 7 segments. Each LED represents a preset level with LED 1 (Preset 1) located at the top and LED 7 (Preset 7) located at the bottom. Refer to chart for settings and defaults.

**NOTE:** The dimmer will exit program mode after 3 minutes of inactivity.



Fade Rate Presets			
Preset	LED**	Fade On	Fade Off
1*	1	Approx. 1.5s from full off	Approx. 3s from full on
2	2	No Fade	No Fade
3	3	No Fade	Approx. 3s from full on
4	4	Approx. 0.5s from full off	Approx. 3s from full on
5	5	Approx. 0.5s from full off	Approx. 1.5s from full on
6	6	Approx. 1.5s from full off	Approx. 5s from full on
7	7	Approx. 1.5s from full off	Approx. 10s from full on

- \* **default**
- \*\* **LED #1 is located at the top**



**TROUBLESHOOTING**

- **Lights Flickering**
  - Lamp has a bad connection.
  - Wires not secured firmly with wire connectors of dimmer or remote.
  - Verify load type is fluorescent and compatible ballasts are used.
- **Light does not turn ON and Locator LED does not turn ON**
  - Circuit breaker or fuse has tripped.
  - Lamp is burned out.
  - Sockets are not Rapid Start type.
  - Neutral not wired to Dimmer (White wire).
- **Intermittent dimmer operation**
  - Minimum load is under 40W.
- **Remote does not operate lights**
  - Ensure that total wire length does not exceed 300 ft (90 m).
  - Ensure wiring is correct.
- **Lights cycle ON and OFF**
  - Remove excess load.

For additional information, contact Leviton's Techline at 1-800-824-3005 or visit Leviton's website at [www.leviton.com](http://www.leviton.com)

Covered by one or more US & Foreign Patents and patents pending

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**FCC COMPLIANCE STATEMENT**

This 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 generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. 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 the 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.

**LIMITED 5 YEAR WARRANTY AND EXCLUSIONS**

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for five years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option, if within such five year period the product is returned prepaid, with proof of purchase date, and a description of the problem to **Leviton Manufacturing Co., Inc., Att: Quality Assurance Department, 59-25 Little Neck Parkway, Little Neck, New York 11362-2591**. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. **There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to five years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation.** The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.