



# Single Pole (One location) or 3-Way (Multi-location) Quiet Fan Speed Control

Cat. No. VRF01-1L, 1.5A  
120VAC, 60Hz

## 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, do not install to control a receptacle, fluorescent lighting, a motor or a transformer-operated appliance other than appropriate ceiling fans.
- To reduce risk of fire or electrical shock, this control is to be used with ceiling fans that are rated 120VAC, total load 1.5 amperes maximum.
- For use on ceiling paddle fans with split-capacitor or shaded pole motors only. Please refer to manufacturer's instructions or rating label on the motor to confirm type. Use with any other types of motors or equipment may cause overheating and/or damage to the motors or equipment.

### WARNINGS AND CAUTIONS:

- Vizia RF +™ fan speed controls are not compatible with standard 3-way or 4-way switches. They must be used with compatible Vizia +™ or Vizia RF +™ remotes for multi-location control.
- Use only one (1) Vizia RF +™ fan speed control 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 fan on at the speed selected at the control.
- 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.

### INTRODUCTION

Leviton's Vizia RF +™ components are designed to communicate with each other via Radio Frequency (RF) to provide remote control of your lighting. Using RF technology allows Leviton to provide the greatest signal integrity possible. Each module in Leviton's Vizia RF +™ component line is a Z-Wave® enabled device. 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. The Scene Capable Quiet Fan Speed Control 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.

**CAUTION:** Remember to exercise good common sense when using the Timer features of your remote, especially when scheduling unattended devices. 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. **DO NOT USE** the remote for the control of high power heating appliances such as portable heaters. 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.

### FEATURES

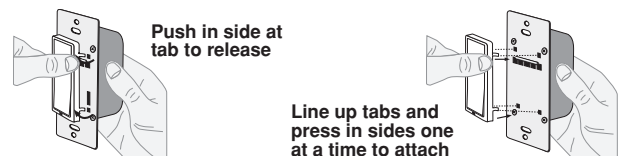
- This is a Z-Wave® controller
- ON/OFF LED and Fan Speed level LED
- Scene capable
- Ease of installation – No new wiring
- Two way communication
- Compatible with other Z-Wave® enabled devices
- RF reliability

### Tools needed to install your Fan Speed Control

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

### Changing the color of your device:

Your device may include color options. To change color of the face, proceed as follows:

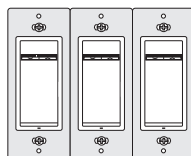


### Installing Fan Control by itself or with other devices

If installing fan speed control in a single device application, proceed with the **INSTALLING YOUR FAN SPEED CONTROL** section. If installing fan speed control in a multi-device application, proceed as follows:

### MULTI-DEVICE APPLICATION

In multi-fan speed control installations, there is no derating necessary. Refer to the chart for maximum load per fan speed control.



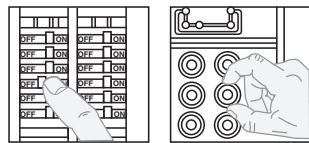
MAXIMUM LOAD PER FAN SPEED CONTROL FOR MULTI-DEVICE APPLICATION			
Cat. No.	Single	Two Devices	More than 2 Devices
VRF01	1.5A	1.5A	1.5A

### INSTALLING YOUR FAN SPEED CONTROL

**NOTE:** Use check boxes  when Steps are completed.

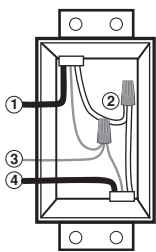


**WARNING: TO AVOID FIRE SHOCK OR DEATH; TURN OFF POWER** at circuit breaker or fuse and test that power is off before wiring!



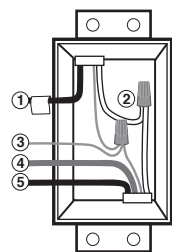
### Identifying your wiring application (most common):

**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



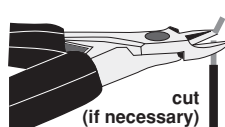
#### 3-Way

- Line or Load (See important instruction below)
- Neutral
- Ground
- First Traveler – note color
- Second Traveler – note color

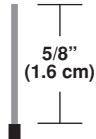
**IMPORTANT:** For 3-Way applications, note that one of the screw terminals from the old switch being removed will usually be a different color (Black) or labeled Common. Tag that wire with electrical tape and identify as the common (Line or Load) in both the fan speed control wall box and remote wall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

### Step 3 Preparing and connecting wires:

Pull off pre-cut insulation from fan speed control 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:



**Strip Gage**  
(measure bare wire here or use gage on back of the dimmer)



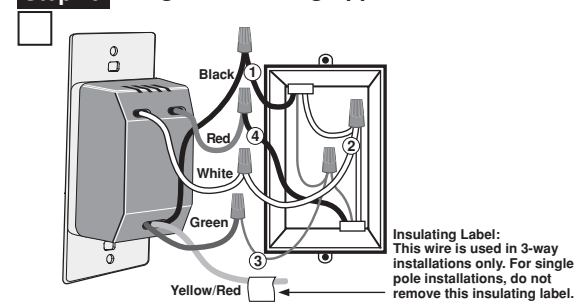
For non-standard wiring applications, refer to Wire Nut and Connector Size Chart

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

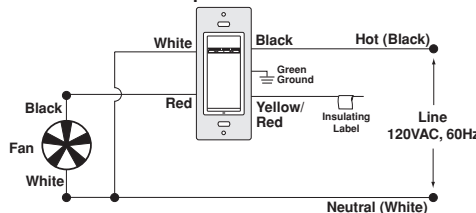
- 1 - #12 w/ 1 to 3 #14, #16 or #18
- 2 - #12 w/ 1 or 2 #16 or #18
- 1 - #14 w/ 1 to 4 #16 or #18
- 2 - #14 w/ 1 to 3 #16 or #18

- For Single-Pole Application, go to Step 4a.
- For 3-Way Coordinating Remote (no LEDs) Application, go to Step 4b.
- For 3-Way Matching Remote (with LEDs) Application, go to Step 4c.

### Step 4a Single Pole Wiring Application:



### Fan Speed Control



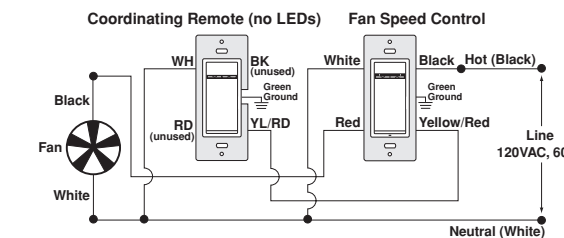
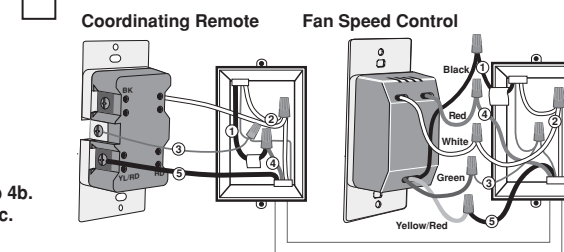
### WIRING FAN SPEED CONTROL:

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

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

• **Proceed to Step 5.**

### Step 4b 3-Way Wiring with Coordinating Remote (no LEDs) Application:



### WIRING FAN SPEED CONTROL:

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

**NOTE:** When using the coordinating remote without LEDs, the fan speed control can be installed on either the Line or Load side of the 3-way circuit.

- NOTE:** Maximum wire length from fan speed control to all installed remotes cannot exceed 300 ft (90 m).
- Green or bare copper wire in wall box to Green lead.
  - Line Hot (common) wall box wire identified (tagged) when removing old switch to Black lead.
  - First Traveler wall box wire to Red lead (**note wire color**).
  - Remove Red insulating label from Yellow/Red lead.
  - Second Traveler wall box wire to Yellow/Red lead (**note wire color**). This traveler from the fan speed control must go to the terminal screw on the remote marked "YL/RD".
  - Line Neutral wall box wire to White lead.

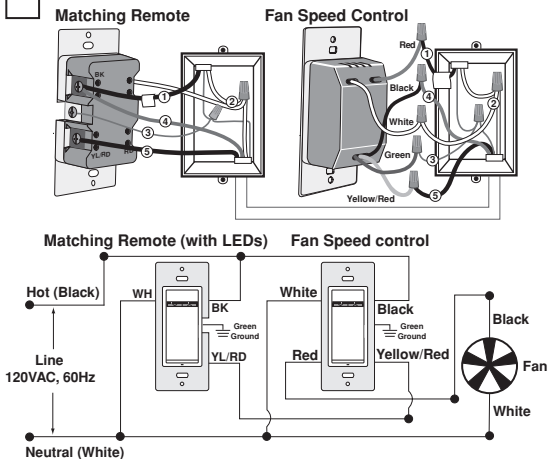
### WIRING COORDINATING REMOTE:

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

**NOTE:** "BK" and "RD" terminals on coordinating remote are unused. Tighten both screws.

- NOTE:** Maximum wire length from fan speed control to last remote is 300 ft (90 m).
- Green or bare copper wire in wall box to Green terminal screw.
  - Load wall box wire identified (tagged) when removing old switch to First Traveler (**note color as above**).
  - Second Traveler wall box wire (**note color as above**) to terminal screw marked "YL/RD". This traveler from the remote must go to the Yellow/Red fan speed control lead.
  - Remove White insulating label from terminal screw marked "WH".
  - Line Neutral wall box wire to terminal screw marked "WH".
- **Proceed to Step 5.**

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



**NOTE:** The fan speed control **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 fan speed control to all installed remotes cannot exceed 300 ft (90 m).

#### 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 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 fan speed control to remote terminal screw marked "YL/RD" (**note wire color**). This traveler from the remote must go to the fan control Yellow/Red lead.
  - Line Neutral wall box to remote terminal screw marked "WH".

#### WIRING FAN SPEED CONTROL (wall box with Load connection):

- Connect wires per WIRING DIAGRAM as follows:**
- Green or bare copper wire in wall box to Green lead.
  - Load wall box wire identified (tagged) when removing old switch to Red lead.
  - First Traveler Line Hot to Black lead.
  - Remove Red insulating label from Yellow/Red lead.
  - Second Traveler wall box wire (**note color as above**) to Yellow/Red lead. This traveler from the fan control must go to the terminal screw on the remote marked "YL/RD".
  - Line neutral wall box wire to White lead.
  - Proceed to Step 5.**

### Step 5 Testing your Fan Speed Control prior to mounting in wall box:

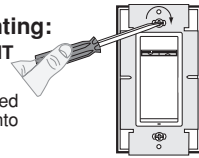
- Position all wires to provide room in outlet wall box for device.
- Ensure that the word "TOP" is facing up on device strap.
- Partially screw in mounting screws in wall box mounting holes.
- Restore power at circuit breaker or fuse.
- Press Push Pad and fan should turn ON. If fan does not turn ON, press the right half of the Fan Speed Bar until the fan turns ON.

**If fan still does not turn ON, refer to the TROUBLESHOOTING section.**

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

### Step 6 Fan Speed Control 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.

### Step 8 Including Scene Capable Fan Speed Control into Z-Wave® Network:

#### NOTES:

- If using a non-Leviton Programmer/Controller, refer to the Programmer/Controller instruction sheet for Including a device.
- If using the VRCPG's Install Checklist feature, go directly to Step B.

- A)** If using a Leviton Z-Wave® Programmer/Controller, Cat. No. VRCPG, press the Menu button and scroll down to System Setup. Choose Advanced Settings. Press the center button to select System Setup Menu. Press the center button to select Network.
- B)** While standing close to the module (approx. 2-5 ft), press the center button to <Include> device in the network.
- NOTE:** Only one device may be included at a time. **DO NOT** put multiple devices into the Inclusion mode at any time.

- C)** While the Programmer/Controller is in the Inclusion mode and the Locator LED is ON on the fan speed control, push the push pad to turn ON the fan. The Programmer/Controller will verify inclusion and the locator LED will turn OFF on the fan speed control. If the fan speed control is flashing Amber while in the Inclusion mode, the Programmer/Controller is still trying to communicate with the fan speed control. Wait until the device stops flashing, then press the push pad.
- NOTE:** If the locator LED on the fan speed control turns solid Red while including, there has been a communication error. Refer to Troubleshooting section.

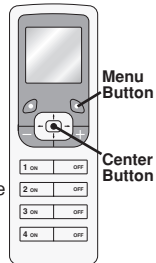
- D)** The Primary Programmer/Controller will assign a node ID number (Name) for this module.
- NOTE:** This ID number (Name) will be stored in the controller library to be used for future reference.
- NOTE:** You may edit the name of this device at this time.

- E) The fan speed control is now installed in the network.**
- NOTE:** If a fan speed control has been successfully included in the network and the user tries to include it again without first excluding it from the network, the module will retain the first node ID it had received and ignore the second.

### Step 9 Excluding Fan Speed Control from Network:

**NOTE:** It is very important to accurately Exclude devices from the network when moving or removing a device from a Z-Wave® network. This ensures that all information has been removed from your Primary Programmer/Controller's information table and is not counted on to be a part of the mesh network.

#### Programmer/Controller Cat. No. VRCPG



- A)** If using a Leviton Z-Wave® Programmer/Controller, Cat. No. VRCPG, press the Menu button and scroll down to System Setup. Choose Advanced Settings. Press the center button to select System Setup Menu. Press the center button to select Network.
- B)** While standing close to the fan speed control, press the center button to <Exclude> device from the network. While the Programmer/Controller is in the Exclusion mode and the locator LED is ON on the fan speed control, press the push pad on the fan speed control. The Programmer/Controller will verify Exclusion and the locator LED will turn OFF on the fan speed control. If the fan speed control is flashing Amber while in the Exclusion mode, the Programmer/Controller is still trying to communicate with the fan speed control. Wait until the device stops flashing, then press the push pad.

#### Factory Default:

If your fan speed control is not responding, or you are unable to control it after you have tried to Include/Exclude it multiple times, it may be necessary to reset the fan speed control to its original factory settings. To accomplish this, proceed as follows:

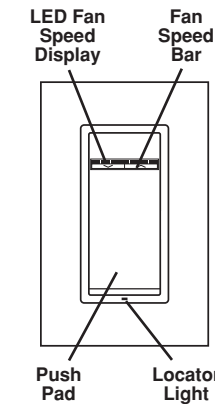
- On the fan speed control, engage the air-gap switch (**refer to Operation section**) and wait 5 seconds. Press push pad back into frame and hold push pad until the locator LED turns Amber and then flashes Red. The fan speed control is now reset. Once the fan speed control is reset, it will be necessary to Re-Include it to a network before it can be used.

**CAUTION:** SETTING A DEVICE TO A FACTORY DEFAULT DOES NOT EXCLUDE THAT DEVICE FROM A NETWORK. THE EXCLUSION PROCEDURE MUST STILL BE FOLLOWED TO REMOVE THE DEVICE FROM THE PRIMARY CONTROLLER'S INFORMATION TABLE. FAILURE TO DO SO MAY RESULT IN A SYSTEM THAT IS SLOW TO RESPOND, OR MAY FAIL TO RESPOND TO SOME DEVICES.

#### 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 fan speed control in a 3-way application, the fan will turn ON at speed set on fan's Fan Speed bar. The fan speed can be controlled from either the fan speed control or the remote location.

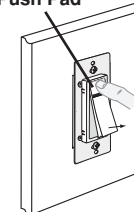


#### Air-Gap Switch:

On the Fan Speed Control only, engage the air-gap switch by gently pressing the top of the Push Pad until the bottom lifts completely out of the frame and a click is heard (**refer to Figure**). This will cut power to the fixture. After servicing is complete, press the Push Pad back into place for normal operation.

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

#### Gently press top of Push Pad



#### Push Pad (Default settings) Turn ON from OFF position:

Tap – Fan turns ON to preset speed.

#### Turn OFF from ON position:

Tap – Fan turns OFF.

#### Fan Speed Bar

Press Fan Speed Bar right or left to increase or decrease fan speed respectively.

There are 3 speeds - High, Medium or Low.

#### INCREASE:

Press the right half of the Fan Speed Bar to increase fan speed.

#### DECREASE:

Press the left half of the Fan Speed Bar to decrease fan speed.

If you continue to hold, the fan will reduce speed to minimum level and then turn OFF.

**NOTE:** The fan speed can be changed when the fan is off using the Fan Speed Bar. In the event of power outage or interruption the fan will reset to the last fan speed when power is restored.

## ADVANCED PROGRAMMING FEATURES

#### Definition of A Modes

**A) Preset ON Speed:** Sets the turn on fan speed regardless of the previous speed set (Formerly Speed Lock).

#### Definition of B Modes

**B) LED Options:** Sets the time period in seconds the Locator LED and Brightness display will stay on before extinguishing.

#### NOTES:

- The device will exit programming mode after 3 minutes of inactivity
- Pressing the Push Pad at any time during programming will advance the device to the next programming mode.

#### Program Mode A

##### To enter Program Mode A:

Press and hold the Push Pad and then the **right** half of the FAN SPEED Bar (v) for 5 seconds until the Locator LED and leftmost LED (LED 1) begins to blink.

The Locator LED will blink once per second to indicate Program Mode A, **Preset ON Speed**. To change the current **Preset ON Speed** from HIGH (LED 7), MEDIUM (LED 4), LOW (LED 1), use the FAN SPEED Bar. If this feature is not desired, press and hold the **left** half of the FAN SPEED Bar (v) until no LED is lit (default setting). By tapping the Push Pad this setting will automatically be saved and the device will exit Programming Mode A.

#### Program Mode B

##### To enter Program Mode B:

Press and hold the Push Pad and then the **left** half of the FAN SPEED Bar (v) for 5 seconds until the Locator LED and rightmost LED (LED 7) begins to blink.

The Locator LED will blink once per second to indicate Program Mode B, **LED Options** Mode. To change the **LED Options** settings, use the FAN SPEED Bar to move the LED to the desired preset setting according to the chart below. By tapping the Push Pad this setting will automatically be saved and the device will exit Programming Mode B.

LED	LED LOCATOR TIMEOUT	LED BRIGHTNESS DISPLAY TIMEOUT
LED 1 (Default)	Active	Active
LED 4	Active	Turns off 5 seconds after use
LED 7	Turns off 5 seconds after use	Turns off 5 seconds after use

## TROUBLESHOOTING

#### Fan does not turn ON and ON/OFF LED does not turn ON

- Circuit breaker or fuse has tripped.
- Fan has burned out.
- Fan Neutral connection is not wired.
- Confirm that the device is being supplied from a 120V, 60Hz AC source ONLY.
- Confirm that unit is programmed properly. Repeat "TO INSTALL" section to verify that it has been included in the Z-Wave™ network.
- Remote does not operate fan**
  - Ensure that total wire length does not exceed 300 ft.

## 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/television technician for help.

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

Protected under U.S. Patent Number 6,388,399 and patents pending and licensed under U.S. Patents Numbers 5,905,442, and 5,982,103

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#### 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., Attn: 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.

**LEVITON INSTRUCTION SHEET/MANUAL SPECIFICATIONS**

- Artwork No/Rev Level: DI-000-VRF01-02A
- Color(s): 1 over 1
  - 1. Black                      2. \_\_\_\_\_
  - 3. \_\_\_\_\_                      4. \_\_\_\_\_
- Font Families: Helvetica
- Material
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  - Final fold size: 2.3" X 4.25"

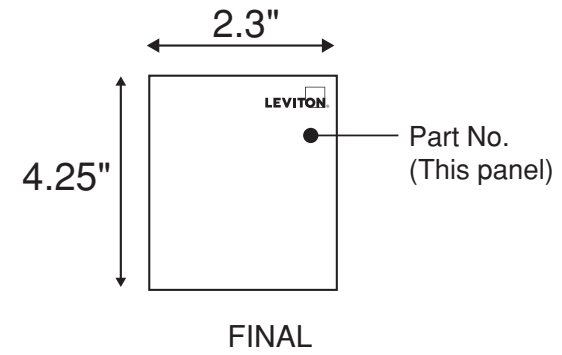
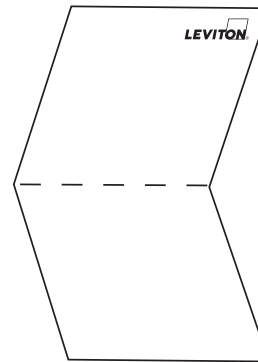
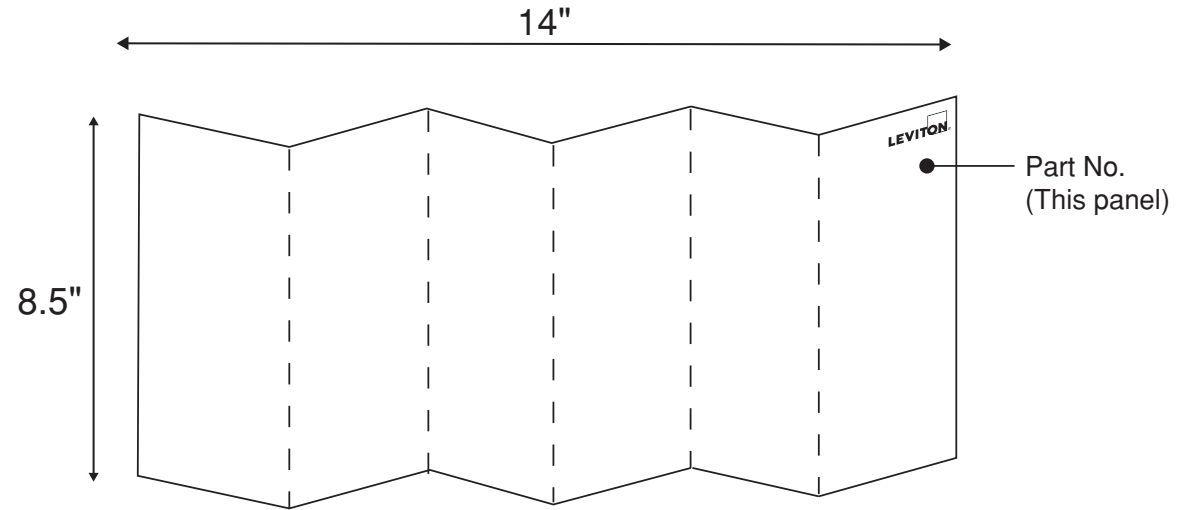
**DOCUMENTATION**

- ECO No.: N/A
- Artist: H2D                      Date: 6/20/08

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**FOLD SCHEME**



— — — — — Fold Line