LEVITON® decora smart®

Getting Started Guide

DIMMER

Z-WAVE PLUS

READ THESE INSTRUCTIONS BEFORE INSTALLING

DI-000-ZW6HD-02A-X8   Cat. No. ZW6HD

Welcome

The Decora Smart Z-Wave™ 800 Series Dimmer is designed for use with modern Z-Wave hubs and makes it easier than ever to control your lights how you want.

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. As well, this device can act as a repeater to increase the reliability of the Z-Wave network.

The Decora Smart Z-Wave 800 Series Dimmer looks right at home with your other Decora® in-wall devices and features intuitive on/off and dim/bright control. Add the Dimmer to your Z-Wave hub of choice to enable app commands, scheduling, and voice control of connected lighting.

❓ We are here to help

🌐 ONLINE
decorasmartsupport.leviton.com

✉ EMAIL
dssupport@leviton.com

💬 CHAT
www.leviton.com/support

📞 CALL
1-800-824-3005 (USA)
1-800-405-5320 (Canada)

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Your dimmer works with:

- Dimmable LED, dimmable CFL, incandescent, and MLV lighting.

- Do not use your dimmer with metal wallplates, electronic low voltage, motor loads, or aluminum wire.

- When two or more dimmers are installed next to each other, the load ratings become 500W incandescent and 500VA MLV for each dimmer. No reduction is necessary if the load is LED or CFL.

- For compatible LED bulbs, go to leviton.com/led

- **Additional self-service support options can be found at leviton.com/decorasmart**

RATINGS	
General Use	120VAC, 60Hz
LED/CFL	300W
Incandescent	600W
MLV	600VA
Operating Temp	32°F - 104°F (0°C - 40°C)
Operating Humidity	10% - 90% non-condensing
NETWORK	
Z-Wave Plus	908.40, 908.42, 916.00 MHz

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Features

Off means off
Ensures low-wattage LED bulbs always turn OFF.

Rocker
- Press the top to turn the light ON.
- Press the bottom to turn the light OFF.
- Double press the top to turn ON at maximum brightness with no fade.
- Double press the bottom to turn OFF with no fade.

Brightness indicator lights
- Displays light level when adjusting brightness.

Status LED
- Illuminates when the lights are OFF so you can find the dimmer in the dark.
- Provides connectivity feedback.

Dim/bright bar
Manually adjust light levels.

Air gap switch
This feature will stop power to the dimmer. Gently pull bottom out until a click is heard. Power to the dimmer and indicator lights will turn off. After servicing is complete, push back in for normal operation.
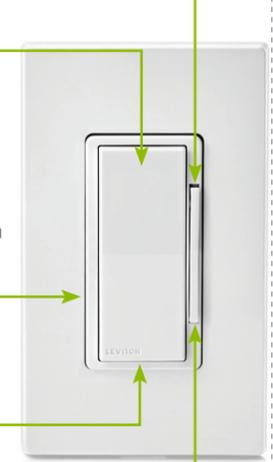
3

What you need to make it work:

A Z-Wave compatible hub.

A Z-Wave mesh network to join. Ensure your device is installed within **50 feet** of the hub or another Z-Wave enabled repeater. Communication through exterior surfaces may reduce transmission distances.

An available interior switch wallbox with a line (hot), load, neutral, and ground wire.

To control the dimmer from more than one location such as in a 3-way or multi-way, you will need a wired DD00R or DD0SR Companion device. Learn more about Companion devices and find connection instructions at leviton.com/decorasmart

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Identify your wires

WARNING: TO AVOID FIRE, SHOCK, OR DEATH, turn off power at the circuit breaker.

Check your wallbox:
1. Remove wallplate and disconnect existing switch.
2. Restore power. Carefully test wires with voltage tester to find the line (hot) wire.
3. **Turn OFF power at the circuit breaker.**
4. Mark the wires as shown below. Please note neutral wires are required to operate this device.

Quick tip: Neutral wires are typically white and will be found bundled inside the electrical box.

To Light
LOAD
NEUTRAL
GROUND
LINE
From Branch Circuit
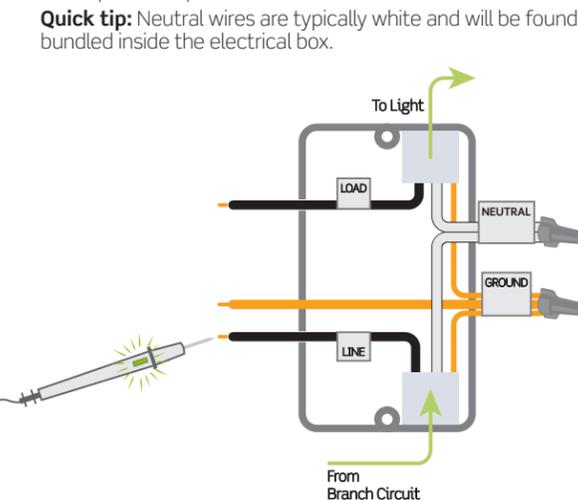
If your wallbox looks different, call an electrician.

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Wire your dimmer

Single-pole installation:
1. Work only one connection at a time.
2. Connect wires as shown using the included wire connectors.

NOTES:
- Neutral connection is required.
- The YELLOW/RED traveler wire is only used in 3-way applications; remember to put a wire connector on the YELLOW/RED traveler even if not in use.

To Light
LOAD
LINE
NEUTRAL
GROUND
TRAVELER
From Branch Circuit
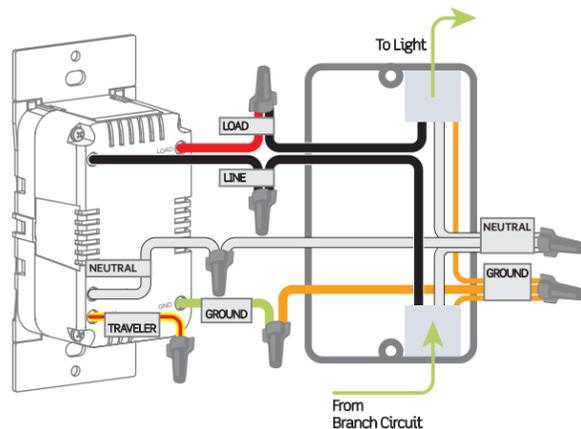
If your wallbox contains a different wiring configuration, contact Leviton's technical support team or consult an electrician.

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Test and install

1. Restore power.
2. After powering ON the dimmer to confirm it is receiving power, turn the power back OFF again at the breaker prior to completing the installation.
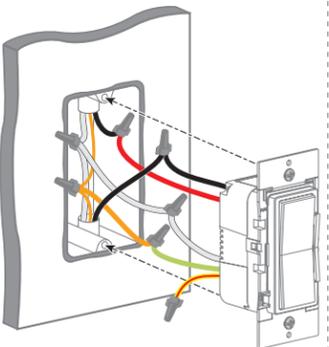
WARNING: Turn OFF power at the circuit breaker before screwing in your dimmer.

3. Gently push wires into wallbox. Screw dimmer to box.
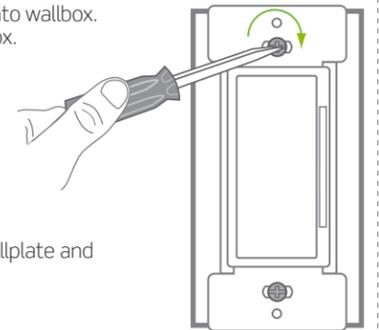
4. Snap on Decora wallplate and restore power.

**Congratulations!
Your Decora Smart Dimmer is ready to control your light.**

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SmartStart

Your Decora Smart Z-Wave 800 Series Dimmer is compatible with SmartStart.

SmartStart enabled devices can be added to a Z-Wave network by scanning the Z-Wave QR code on the top of the device, on the strap, or on the back of the unit box with a compatible Z-Wave controller that supports SmartStart inclusion. The device should be added automatically within 10 minutes of being switched on and in the network vicinity.

Z-Wave PIN code

Z-Wave QR code with DSK

Z-Wave QR code
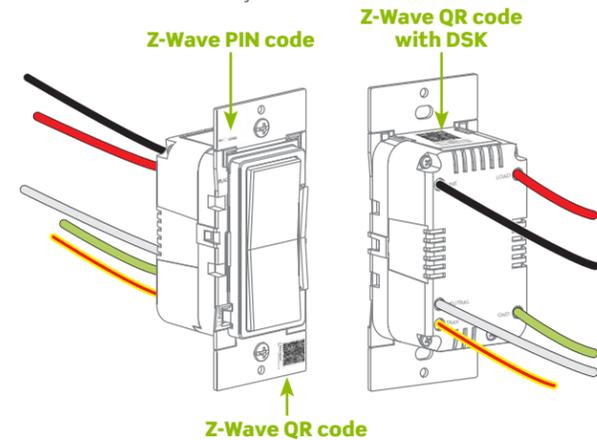
The QR code label with DSK is located on the top of the device. If required, the PIN code is underlined on the label. The PIN code is also located on the front strap.

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Setup mode

Enter setup mode:
1. Hold the top rocker for 7 seconds. The Status LED will turn AMBER, release and the Status LED will blink AMBER.
2. The device is now in setup mode.

Exit setup mode:
1. Hold the top rocker for 7 seconds until the LED turns AMBER. The device will return to normal operation.

Adding the Decora Smart Z-Wave 800 Series Dimmer to a hub

When using a Z-Wave Plus certified hub, choose network wide inclusion or SmartStart. If network wide inclusion does not discover your device, try classic inclusion.

Network wide inclusion to a Z-Wave network
Network Wide Inclusion allows your device to be included into the network using devices already paired to your home automation hub.

Start with the devices closest to the hub and work your way outward.
1. Enter setup mode (see above).
2. Tap the top rocker 1 time. The Status LED will quickly flash GREEN. The device is now ready to learn into the Z-Wave network.
3. Use the Z-Wave controller to complete the device enrollment process (follow the Z-Wave controller instructions)
4. The device's Status LED will turn off and then flash GREEN 4 times to confirm it has been successfully added to a Z-Wave network. If the device was not successfully added, the Status LED will flash RED 4 times.

Classic inclusion to a Z-Wave network

For older controllers, Classic Inclusion is supported. Depending on the age of the controller it may need to be 3 to 35 feet from the device when including.

1. Enter setup mode (see page 9).
2. Follow the Z-Wave controller instructions to enter inclusion mode.
3. Tap the top rocker 1 time, the Status LED will quickly flash GREEN.
4. The Z-Wave controller will confirm successful inclusion to the Z-Wave network.

Exclusion from a Z-Wave network

The Exclusion command found in the Z-Wave controller is used as a best practice for removing devices from a Z-Wave network.

1. Enter setup mode (see page 9).
2. Follow the Z-Wave controller instructions to enter exclusion mode.
3. Tap the top rocker 1 time, the Status LED will quickly flash GREEN.
4. The Z-Wave controller will confirm successful exclusion from the Z-Wave network.

Customization

Minimum dim and maximum brightness level

You can adjust the minimum dim level to increase compatibility with LED bulbs as well as the maximum brightness.

To adjust the minimum dim level:
1. Enter setup mode (see page 9).
2. Tap the top rocker 5 times. The Status LED will quickly flash RED/AMBER.
3. Tap the top rocker 1 time. The Status LED will quickly flash AMBER.
4. Use the dim/bright bar to adjust the minimum dim level.
5. Hold the top of the rocker to exit. The Status LED will quickly flash AMBER to confirm.

To adjust the maximum bright level:
1. Enter setup mode (see page 9).
2. Tap the top rocker 5 times. The Status LED will quickly flash RED/AMBER.
3. Tap the top rocker 2 times. The Status LED will quickly flash RED.
4. Use the dim/bright bar to adjust the maximum brightness level.
5. Hold the top of the rocker to exit. The Status LED will quickly flash AMBER to confirm.

Preset light level

To set a preset light level:
1. Enter setup mode (see page 9).
2. Tap the top rocker 7 times. The Status LED will quickly flash RED/AMBER.
3. Use the dim/bright bar to adjust the desired preset light level.
4. To set the dimmer to "Return to last level", set the dim/bright level to 0% or OFF.
5. Hold the top of the rocker to exit. The Status LED will quickly flash AMBER to confirm.

NOTE: The dimmer is set to "Return to last level" by default.

Customization (continued)

Fade on and fade off time

To adjust the fade on time:
1. Enter setup mode (see page 9).
2. Tap the top rocker 6 times. The Status LED will quickly flash GREEN/RED.
3. Tap the top rocker 1 time. The Status LED will quickly flash AMBER/RED.
4. Use the dim/bright bar to adjust the fade on time based on the chart.
5. Hold the top of the rocker to exit. The Status LED will quickly flash AMBER to confirm.

LED	VALUE
7 (top LED)	30 seconds
6	16 seconds
5	8 seconds
4	4 seconds
3	2 seconds
2	1 second
1 (bottom LED)	Instant

To adjust the fade off time:
1. Enter setup mode (see page 9).
2. Tap the top rocker 6 times. The Status LED will quickly flash GREEN/RED.
3. Tap the top rocker 2 times. The Status LED will quickly flash RED.
4. Use the dim/bright bar to adjust the fade off time based on the chart.
5. Hold the top of the rocker to exit. The Status LED will quickly flash AMBER to confirm.

LED dim/bright bar

To adjust LED dim/bright bar behavior:
1. Enter setup mode (see page 9).
2. Tap the top rocker 8 times. The Status LED will quickly flash RED.
3. Use the dim/bright bar to adjust the amount of time the dim/bright bar LEDs are lit after the dim/bright bar is pressed based on the chart.
4. Hold the top of the rocker to exit. The Status LED will quickly flash AMBER to confirm.

LED	VALUE
7 (top LED)	No timeout
6	240 seconds
5	30 seconds
4	5 seconds
3	3 seconds
2	1 second
1 (bottom LED)	Instant

Customization (continued)

Status LED

Follow the below steps to change the functionality of the Status LED.

Status LED ON when load is ON:
1. Enter setup mode (see page 9).
2. Tap the top rocker 4 times. The Status LED will quickly flash GREEN/AMBER.
3. Tap the top rocker 1 time. The Status LED will flash GREEN 4 times to confirm the selection.

Status LED ON when load is OFF (default)
1. Enter setup mode (see page 9).
2. Tap the top rocker 4 times. The Status LED will quickly flash GREEN/AMBER.
3. Tap the top rocker 2 times. The Status LED will flash AMBER 4 times to confirm the selection.

Status LED OFF:
1. Enter setup mode (see page 9).
2. Tap the top rocker 4 times. The Status LED will quickly flash GREEN/AMBER.
3. Tap the top rocker 3 times. The Status LED will flash RED 4 times to confirm the selection.

Control Timing

Control Timing can be used to help improve dimming performance if the lights pulse at certain dimming levels or when fading on or off.

Normal
1. Enter setup mode (see page 9).
2. Tap the top rocker 4 times. The Status LED will quickly flash GREEN/AMBER.
3. Tap the top rocker 9 times. The Status LED will flash GREEN 8 times to confirm the selection.

Medium
1. Enter setup mode (see page 9).
2. Tap the top rocker 4 times. The Status LED will quickly flash GREEN/AMBER.
3. Tap the top rocker 10 times. The Status LED will flash AMBER 8 times to confirm the selection.

Extended
1. Enter setup mode (see page 9).
2. Tap the top rocker 4 times. The Status LED will quickly flash GREEN/AMBER.
3. Tap the top rocker 11 times. The Status LED will flash RED 8 times to confirm the selection.

Advanced options

Your device supports Over-the-Air updates using the Z-Wave Firmware Update Meta Data command class for standardized firmware updates. The following advanced options can be configured over the Z-Wave network by a compatible Z-Wave controller.

Fade ON time
- Parameter No: 1, Length: 4 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: 4 Byte
- Valid values = 0 to 253 (default 2)
  - 0 = Instant ON
  - 1 - 127 = Seconds: 1 - 127 seconds
  - 128 - 253 = Minutes: 1 -126 minutes

Minimum dim light level
- Parameter No: 3, Length: 4 Byte
- Valid Values = 0 to 99 (default 10)

Maximum brightness light level
- Parameter No: 4, Length: 4 Byte
- Valid values = 0 to 99 (default 99)

Preset light level or return to last level
- Parameter No: 5, Length: 4 Byte
- Valid values = 0 to 99 (default 0)
  - 0 = Return to last level
  - 1 - 99 = Preset light level

LED dim/bright bar behavior
- Parameter No: 6, Length: 4 Byte
- Valid Values = 0 to 255 (default 3)
  - 0 = Level Indicators Off
  - 1 - 254 = Level Indicator Timeout (seconds)
  - 255 = Levels Always ON

Status LED configuration
- Parameter No: 7, Length: 4 Byte
- Valid Values = 0 to 255 (default 255)
  - 0 = Status LED OFF
  - 254 = Status LED ON when load is ON
  - 255 = Status LED ON when load is OFF (locator mode)

Advanced options (continued)

Bulb type
- Parameter No: 8, Length: 4 Byte
- Valid Values = 0 to 3 (default 1)
  - 0 = Incandescent
  - 1 = LED
  - 2 = CFL
  - 3 = MLV

Control timing
- Parameter No: 9, Length: 4 Byte
- Valid Values = 0 to 2 (default 0)
  - 0 = Normal
  - 1 = Medium
  - 2 = Extended

ZW6HD supported associations and supported Z-Wave classes

Group number: 1
- Maximum Nodes: 5
- Name: Lifeline
  - A notification 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.
- Profile: 0x0001
- Command Class Associations
  - 0x5A01: COMMAND_CLASS_DEVICE_RESET_LOCALLY, DEVICE_RESET_LOCALLY_NOTIFICATION
  - 0x2603: MULTI-LEVEL SWITCH REPORT
  - 0x8703: COMMAND_CLASS_INDICATOR (0x87) and INDICATOR_REPORT_V3 (0x03)

Group number: 2
- Maximum Nodes: 5
- Name: Multilevel switch set
  - All nodes in the association group receive a command based on ON/OFF button presses.
- Profile: 0x2001
- Command Class Associations
  - 0x2601: COMMAND_CLASS_SWITCH_MULTILEVEL.SWITCH_MULTILEVEL_SET
  - 0x2604: COMMAND_CLASS_SWITCH_MULTILEVEL.SWITCH_MULTILEVEL_START_LEVEL_CHANGE
  - 0x2605: COMMAND_CLASS_SWITCH_MULTILEVEL.SWITCH_MULTILEVEL_STOP_LEVEL_CHANGE

Advanced options (continued)

Group number: 3
- Maximum Nodes: 5
- Name: Basic set
  - All nodes in the association group receive a command based on ON/OFF button presses.
- Profile: 0x2001
- Command Class Associations
  - 0x2001: COMMAND_CLASS_BASIC.BASIC_SET

BASIC command class is mapped to the switch multilevel class, as follows:
- Basic Set = 255 maps to Multilevel Switch Set = 255
- Basic Set = 0 maps to Multilevel Switch Set = 0
- Basic Set = 1-99 maps to Multilevel Switch Set = 1-99
- Basic Get/Report maps to Multilevel Switch Get/Report

Supports the following additional Z-Wave classes:

Z-WAVE PLUS INFO	v2	non-secured
ASSOCIATION	v2	secured
ASSOCIATION GRP INFO	v3	secured
S2 SECURITY	v1	non-secured
VERSION	v3	secured
MANUFACTURER SPECIFIC	v2	secured
CONFIGURATION	v4	secured
DEVICE RESET LOCALLY	v1	secured
POWERLEVEL	v1	secured
SWITCH MULTILEVEL	v4	secured
BASIC	v2	secured
SCENE ACTUATOR CONF	v1	secured
SCENE ACTIVATION	v1	secured
TRANSPORT SERVICE	v2	non-secured
FIRMWARE UPDATE MD	v5	secured
SUPERVISION	v1	non-secured
INDICATOR	v3	secured
MULTI CHANNEL ASSOCIATION	v3	secured

ZW6HD indicator function

Supports the indicator command class with indicator ID 0x50 (identify). When an indicator command is received the Status LED on the device will quickly flash GREEN.

Factory default

When removing a Z-Wave device from the network, it is best practice to use the exclusion process. In situations where a device needs to be returned to factory default settings, follow the steps below. Please use this procedure only when the network primary controller is missing or otherwise inoperable.

1. Hold the top rocker for 14 seconds: After the first 7 seconds, the Status LED will turn AMBER. Continue holding until the Status LED flashes RED/AMBER then release.
2. The device will reset.

What to do if...

When power is applied, the light turns ON but the dimmer is not able to change the light level:
- For proper operation the dimmer needs a line (hot), neutral, load, and ground connection.
- Confirm the WHITE conductor is a neutral.
- If using LED or CFL bulbs, make sure they are dimmable.

The dimmer does not dim low enough or begins to flicker at the low end of the dimming range:
- Use the procedure described in the Customization section on page 12 to increase the minimum dim level to the point that does not cause the LED bulb to flicker.

Intermittent dimmer operation:
- Confirm the load does not exceed its ratings.

How do I clean my device?
- To clean, use a damp cloth with mild soap. DO NOT use disinfecting products, including foggers, sprays or other types of atomized cleaning agents.

Visit leviton.com/decorasmart or contact technical services for additional help.

Safety first

WARNINGS:
- **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 transformer operated appliance.
- This product is to be installed and/or used in accordance with electrical codes and regulations.
- For indoor use only.
- If you are unsure about any part of these instructions, consult an electrician.

CAUTIONS:
- Use with compatible 120V dimmable LED/CFL bulbs, incandescent, halogen, or magnetic-low-voltage (MLV) fixtures only. Use a Leviton electronic low voltage dimmer to control electronic (solid state) low voltage transformers. 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. Using the same make/model of each bulb will enhance dimmer performance.
- The Decora Smart ZW6HD dimmer is not compatible with standard 3-way or 4-way switches. It must be used with up to 4 Decora® Smart DD00R-DL or DD0SR companions for wired multi-location dimming.
- Maximum wire length from dimmer to all installed companion devices cannot exceed 300 ft (90m).
- Save this instruction sheet. It contains important technical data along with testing and troubleshooting information which will be useful after installation is complete.
- Dimmer may feel warm to the touch during normal operation.
- Recommended minimum wallbox depth is 2-3/4".
- Use this dimmer with copper or copper clad wire only.

ADDITIONAL RATINGS:
- Purpose of control: Operating Control
- Action Control Type: 1
- Pollution Degree: 2
- Impulse Voltage: 2500V
- Disconnection Type: Micro

Limited 2 year warranty & exclusions

ARTWORK PRINT SPECIFICATIONS

LEVITON®

PART NUMBER DI-000-ZW6HD-02A-X8   **REV**   **DESCRIPTION** Instruction Sheet

*Artwork must be printed at 100% (1:1 scale)

Material Specifications: North America Suppliers

* **Thickness:** 0.0028
* **Material:** 60lb Gloss Text Paper
* **Recycled Content:** N/A
* **Exterior Brightness:** 90%
* **Finish:** Gloss - 72

Material Specifications: Asia Suppliers

* **Thickness:** 84 um
* **Material:** 105G Coated Book Paper
* **Recycled Content:** N/A
* **Exterior Brightness:** N/A
* **Finish:** N/A

* **For manuals - designates cover specifications**

Color:

No. of Color(s): 6 over 6

1: PMS376
2: PMS2758
3: CMYK
4: _____

[X] Spot
[X] CMYK

Fonts:

1: Scene Std
2: _____
3: _____
4: _____

Die Line Key:

— . . — Perforate   —— Die Cut   - - - - Fold Line
—■—■— Kiss Cut   · · · · · Cellophane   ≡≡≡ Glue

MANUAL INTERIORS / BINDERY / FOLD SCHEME :

Body Material: _____
Thickness: _____

Bindery

[ ] Die cut   [X] Fold   [ ] Saddle Stitch
[ ] Perfect Bind   [ ] Drill   [ ] Trim

No. of Color(s): _____ over _____

1: _____
2: _____
3: _____
4: _____

[ ] Spot
[ ] CMYK

Fonts:

1: _____
2: _____
3: _____
4: _____

PROCESS :

[X] Offset   [ ] Flexo
[ ] Other _____

Line Screen: _____
Angle: _____
Resolution: _____

DIMENSIONS / FOLD SCHEME / BINDERY DIAGRAM

17"
11"
Part No.

3.4"
2.75"
FRONT FINAL

3.4"
2.75"
Part No.
BACK FINAL

—— Die Cut   - - - - Fold Line   ● Punch/Drill Hole
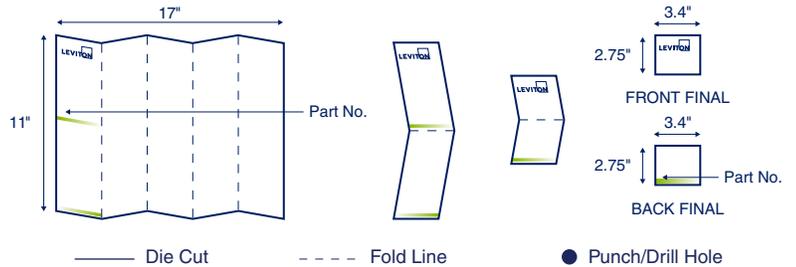
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[X] **Mktg** G. Rhoades   [X] **Eng** R. Gumina   [X] **S & A** B. Grande

[X] **Cust** Provide to J. Shurte   [X] **Other** V. LoNigro   [X] **Other** C. Buttitta

PN-ARN: SA0049-7457   **ECR Number:** _____   **Pilot Rev:** X8

Artist: Z. Reisman   **Released Artwork Format:** Production PDF   **Artwork Release Date:** _____

Notes: _____   [ ] Vector Photo   [ ] Color Corrected Photo