Description

The Crestron® CLW-DELVEX-E and CLW-DELVEX-P are Cameo® in-wall ELV dimmers designed for dimming electronic low-voltage lighting, supporting lighting loads such as tungsten-halogen, incandescent, and dimmable LED replacement lamps. Versatile and affordable, the CLW-DELVEX-E and CLW-DELVEX-P feature field-replaceable, engravable buttons and can be configured with various button layouts and designer colors.

The CLW-DELVEX-E and CLW-DELVEX-P are functionally identical. For simplicity within this guide, the term "CLW-DELVEX-E/P" is used except where noted.

CLW-DELVEX-E/P Specifications

SPECIFICATIONS	DETAILS
Load Rating Load Type	Electronic low-voltage, LED, incandescent, tungsten-halogen, electronic CFL, 2-wire fluorescent ballast
Maximum Load	500 VA/watts
Minimum Load	10 Watts
Power Requirements	120 Vac, 50/60 Hz, line power A dedicated neutral wire is required.
Enclosure	1-gang mountable in a 3-1/2 inch (89 mm) deep electrical box; Requires decorator style faceplate (not included)

Environmental
    Temperature
    Humidity
	32° to 104 °F (0° to 40 °C)
	10% to 90% RH (noncondensing)

Additional Resources

Visit the product page on the Crestron website (www.crestron.com) for additional information and the latest firmware updates. Use a QR reader application on your mobile device to scan the QR image.

CLW-DELVEX-E   CLW-DELVEX-P

Important Notes

WARNING: To avoid fire, shock, or death, turn off power at the circuit breaker or fuse and test that power is off before wiring!

WARNING: New installations should be checked for short-circuits prior to installing a CLW-DELVEX-E/P dimmer. With the power off, close the circuit and then restore power. If the lights do not work, or a breaker trips, check and correct the wiring or fixture (if necessary). Install the dimmer only when the short is no longer present. The warranty is void if the dimmer is installed and operated with a shorted load.

CAUTION: TO REDUCE THE RISK OF OVERHEATING AND POSSIBLE DAMAGE TO OTHER EQUIPMENT, DO NOT INSTALL TO CONTROL A RECEPTACLE, A MOTOR-OPERATED APPLIANCE OR A TRANSFORMER-SUPPLIED APPLIANCE.

ATTENTION: GRADATEURS COMMANDANT UN BALLAST-AFIN DE RÉDUIRE LE RISQUE DE SURCHAUFFE ET LA POSSIBILITÉ D'ENDOMMAGEMENT À D'AUTRES MATÉRIELS, NE PAS INSTALLER POUR COMMANDER UNE PRISE, UN APPAREIL OPÉRÉ DE MOTEUR OU UN APPAREIL ALIMENTÉ PAR UN TRANSFORMATEUR.

NOTE: Observe the following points.

- Codes: Install in accordance with all local and national electrical codes.
- Installation: This product should be installed by a qualified electrician.
- Wiring: Use copper wire only. For supply connections, use wire rated for at least 75 °C.
- Lamp Type: For use with permanently installed incandescent, electronic low-voltage halogen or LED, tungsten-halogen, or dimmable CFL only.
- Temperature: For use where temperatures are between 32° to 104 °F (0° to 40 °C).
- Electrical Boxes: Devices mount in standard electrical boxes. For easy installation, Crestron recommends using 3-1/2 in (89 mm) deep electrical boxes. Several devices can be installed in one electrical box (multigang). This requires derating of the dimming device. For a smooth appearance, one-piece multigang faceplates (not included) can be installed.
- Switches: Mechanical 3- or 4-way switches do not work with CLW-DELVEX-E/P dimmers.
- Spacing: If mounting one device above another, leave at least 4-1/2 in (115 mm) vertical space between them.
- Low-Voltage Applications: Use with electronic low-voltage transformers only.
- Do not use any magnetic low-voltage transformers.
- Operation of a low-voltage circuit with all lamps inoperative or removed may result in current flow in excess of normal levels. To avoid transformer overheating and premature transformer failure, Crestron recommends the following:
  > Do not operate low-voltage circuits without operative lamps in place.
  > Replace burned-out lamps as quickly as possible.
  > Use transformers that incorporate thermal protection to prevent transformer failure due to overcurrent.
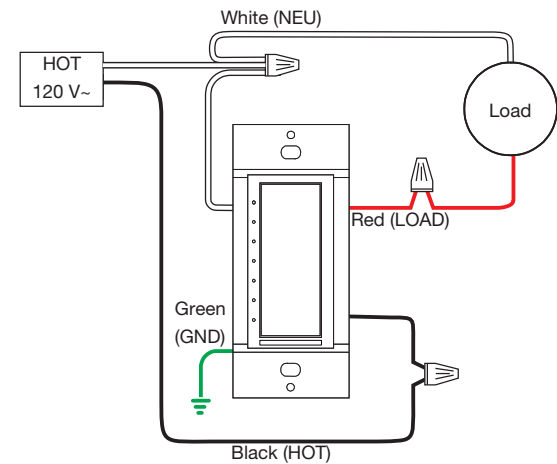
Installation

Install the CLW-DELVEX-E/P dimmer.

1. Turn the power off at the circuit breaker.
2. Wire the device as shown in the following diagrams. Refer to the table that follows for wire information.

*Wire the CLW-DELVEX-P*
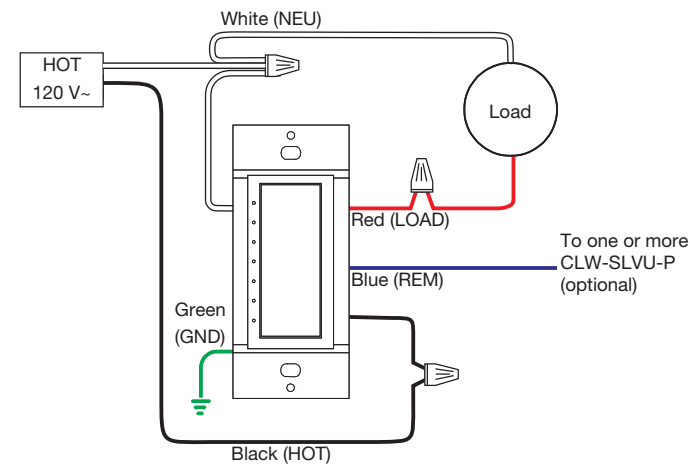
Wire the CLW-DELVEX-E

CONNECTION	WIRE GAUGE	WIRE COLOR
HOT	16 AWG	Black
NEU	16 AWG	White
LOAD	16 AWG	Red
REM	16 AWG	Blue
GND	16 AWG	Green

3. Push all power wires back into the electrical box and fasten the device to the electrical box with the provided screws.
4. Attach a decorative faceplate.
5. Ensure all buttons, including the air-gap switch and program button, actuate without sticking.
6. Restore power at the circuit breaker.

Changing the Button Assemblies

The button assembly can be removed and replaced with other button assemblies. To replace the button assembly:

1. Squeeze the sides of the bezel near the bezel snaps to remove the button assembly.


Squeeze at arrow points and pull to remove the button assembly.
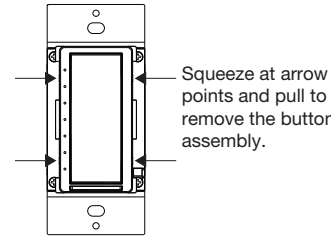
NOTE: Power to the unit and load is removed automatically when the button assembly is removed.

2. Remove the button from the front of the button assembly.

Gently spread the frame apart to remove the buttons.
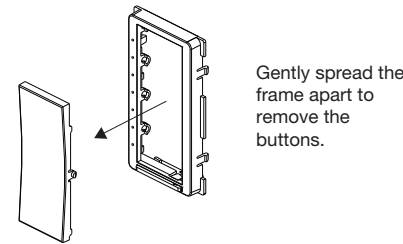
3. Insert the new buttons through the front of the bezel and snap them into place. Ensure that the LED strip is on the left side.



Gently spread the frame apart to insert the buttons.
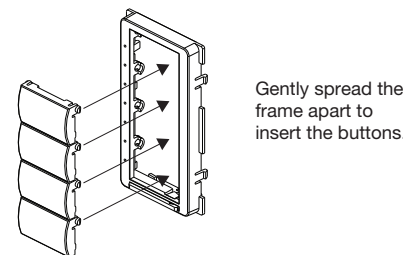
4. Attach the button assembly to the device. Ensure that the LED strip is on the left side.
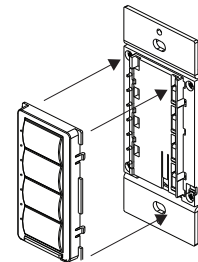
5. Once power has been restored, press and hold the program button. After 5 seconds, the LEDs associated with the old button layout begin to flash. Continue to hold the button and proceed to step 6.
6. While holding the program button, press all of the buttons in the new layout. The LED next to the pressed button lights.
   NOTE: If the rocker switch is installed, press the top and bottom of the rocker.
7. Release the program button to save the settings after all of the buttons have been pressed.

Step 6:
Press each of the installed buttons on the device.

Step 5:
Press and hold the program button.

Step 7:
Release the program button to save the settings.
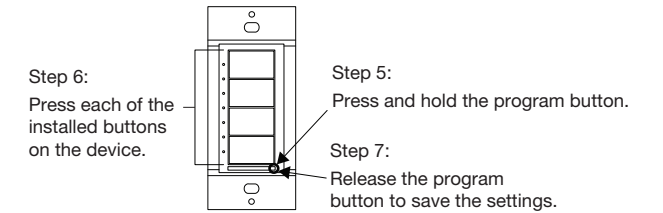
NOTE: Changing the button configuration alters the device's behavior. Refer to the "Default Button Functions" for details.

Multigang Installations

In multigang installations, several devices are grouped horizontally in one electrical box. For a smooth appearance, one-piece multigang faceplates (not included) can be installed.

NOTE: When installing into a multigang box, do not fully tighten devices to the box until the faceplate has been aligned.

The load capacity for each device in the electrical box must be derated. Derating information is shown in the illustration below.

Derating Information for CLW-DELVEX-E/P Dimmers

| 500 W | 400 W | 400 W | 400 W | 250 W | 400 W |
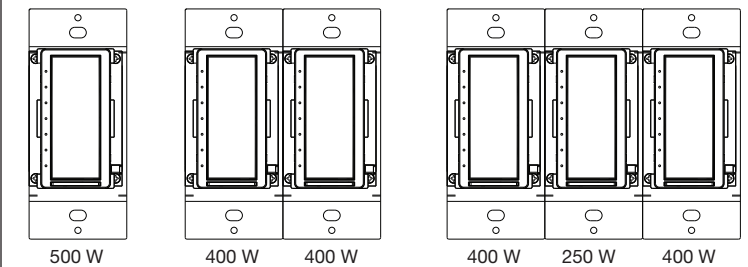
Operation

NOTE: Before using the CLW-DELVEX-E/P, ensure the device is using the latest firmware. Check for the latest firmware for the CLW-DELVEX-E/P at www.crestron.com/firmware. Load the firmware onto the device using Crestron Toolbox™ software.

NOTE: The device may be warm during operation. This is normal.

Basic Operation

The CLW-DELVEX-E/P is shipped with a rocker switch already installed. In this configuration, the unit functions as shown below.

NOTE: Operation described in this guide assumes the CLW-DELVEX-E/P is operating in Local mode (without the use of a control system). The device can also operate in Remote mode, in which button behavior is dictated entirely by the control system program.
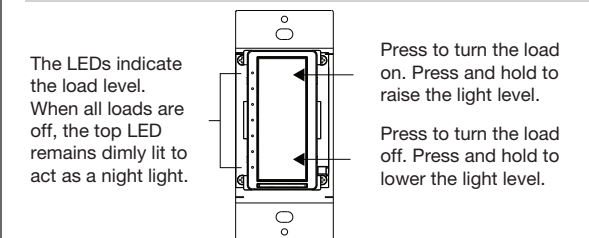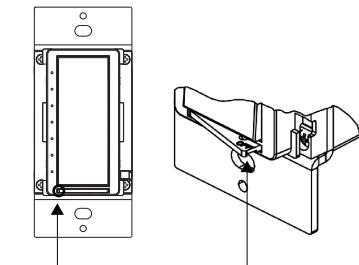

The LEDs indicate the load level. When all loads are off, the top LED remains dimly lit to act as a night light.

Press to turn the load on. Press and hold to raise the light level.

Press to turn the load off. Press and hold to lower the light level.

Disconnecting Power

Power to the dimmer and load can be disconnected by pushing on the air-gap switch.

Push here to open the air-gap switch.

Air-Gap Switch in the Open Position

NOTE: If the dimmer remains powered after the air-gap is opened, the HOT and DIM terminals have been connected in reverse. Turn off power at the circuit breaker or fuse and adjust the connections.
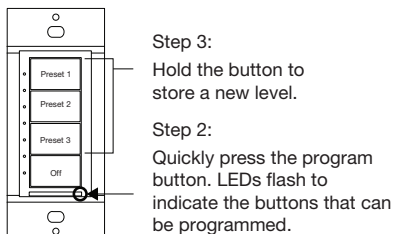
NOTE: Power to the load is automatically disconnected when the button assembly is removed. For instructions on removing the button assembly, refer to "Changing the Button Assemblies."

Setting Preset Levels

The CLW-DELVEX-E/P can recall and store up to three presets depending on the installed button configuration.

Set a preset level.

1. Adjust the light level to the desired level.
2. Enter Programming mode by quickly pressing the program button as shown below. Buttons that are capable of storing a preset will flash their LEDs.

   NOTE: Programming mode is disabled when the load is off.

3. Press and hold the desired preset button until the LED blinks (approximately two seconds). Release the button to store the new level.
4. If a button is not pressed, the device exits Programming mode after approximately five seconds.


Step 3:
Hold the button to store a new level.

Step 2:
Quickly press the program button. LEDs flash to indicate the buttons that can be programmed.

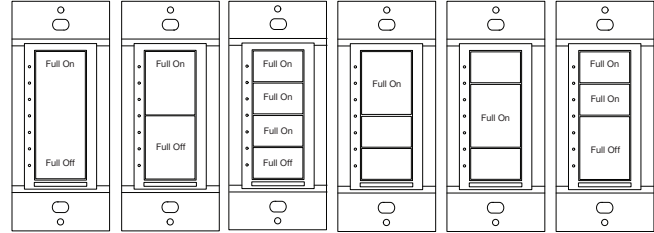**NOTE:** A delayed off can be added via control system programming.

Default Button Functions

The figures below illustrate the default functions available for each physical button configuration and press or hold actuation sequence.
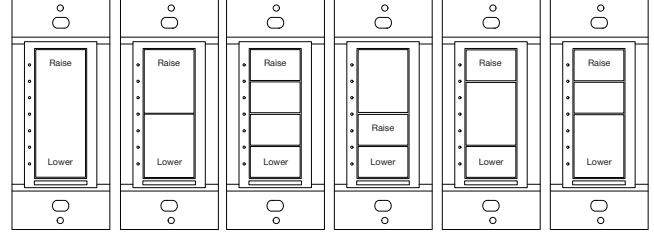
Single Button Press
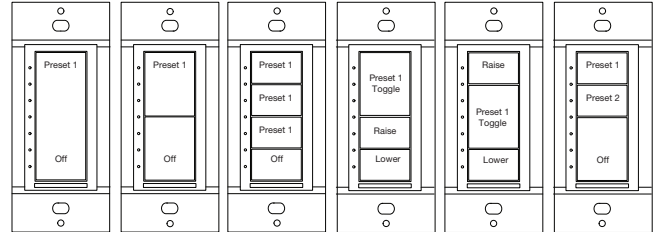
Double Button Press (Press Twice within 1/2 Second)

Single Button Press and Hold (Hold for more than 1/2 second)

Wireless Communications

The device connects to the Crestron network via the infiNET EX® communications protocol. Use the procedures outlined below to join or leave an infiNET EX network and to verify communications between the device and the control system.

Joining an infiNET EX Network

Before a device can be used in a lighting system, it must first join an infiNET EX network by being acquired by an infiNET EX gateway.

NOTE: A device can be acquired by only one gateway.

1. Put the infiNET EX gateway into Acquire mode from the unit itself or from Crestron Toolbox, as described in its manual at www.crestron.com/manuals.

   NOTE: In an environment where multiple gateways are installed, only one gateway should be in Acquire mode at any time.

2. Place the device into Acquire mode.

   a. Tap the top button three times, and then press and hold it down (tap-tap-tap-press+hold) until the top LEDs on the device flash once (this can take up to 10 seconds).

   b. Release the button to start the acquire process. The top LED flashes slowly to show that the device is actively scanning the infiNET EX network.
   - The top two LEDs turn on for 5 seconds to show that the device has been successfully acquired to the infiNET EX network.
   - The top LED flashes quickly to indicate that the device was not successfully acquired by the infiNET EX network. Press the top button to acknowledge failure to acquire the infiNET EX network. Ensure the gateway is in Acquire mode and within range before attempting the acquire process again.

3. Once all devices have been acquired, take the gateway out of Acquire mode. Refer to the gateway's manual for details.

Leaving an infiNET EX Network

To leave an infiNET EX network, put the device into Acquire mode, as described in "Joining an infiNET EX Network" above, when no gateway is in Acquire mode.

Verifying Communications Status

To check the communications status of the device, tap the top button three times and then press and hold it down (tap-tap-tap-press+hold) for up to 2 seconds. The LED flashes to indicate the communications status. Refer to the following table for details.

LED	COMMUNICATIONS STATUS
Turns on for 5 seconds	The device is communicating with the control system.
Flashes three times	The device is not communicating with the gateway, but the gateway is not communicating with the control system.
Flashes twice	The device was previously joined to the network but is not communicating with the gateway.
Flashes once	The device is not joined to the network.

Troubleshooting

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

CLW-DELVEX-E/P Troubleshooting

TROUBLE	PROBABLE CAUSE(S)	CORRECTIVE ACTION
The dimmer does not function.	The dimmer is not receiving line power.	Verify that the power connections are correct and that the circuit breaker is closed.
	The load is not operational (e.g., lamps are burned out).	Verify that the load is operational and that the air-gap switch is closed.
	The device is in Remote mode.	Check the program to verify the operating mode.
	The neutral wire is not connected to the dimmer.	Connect a dedicated neutral wire to the dimmer.
The dimmer does not dim to a low level or flickers when dimmed.	The lamps connected may be better suited to an alternate dimming mode.	Switch the dimmer to use Alternate Dimming mode. Contact Crestron Technical support or refer to Online Help Answer ID 5520.