



## Description

The Crestron® CLW-DIMEX-P is a Cameo® in-wall dimmer that features field-replaceable, engravable buttons. Along with the entire line of new Cameo products, it can be configured with various button layouts and designer colors, making the CLW-DIMEX-P more versatile and affordable than previous generations of in-wall dimmers. Its streamlined design matches the entire line of Cameo dimmers, switches, and keypads, making it a great addition to new or retrofit installations. In addition to its attractive look and feel, infiNET EX® communication technology brings proven reliability to the CLW-DIMEX-P.

CLW-DIMEX-P Specifications

SPECIFICATION	DETAILS
<b>Load Ratings</b>	
Incandescent or Tungsten Halogen	750 watts*
Magnetic Low Voltage	750 VA/750 watts*
Minimum Load	25 watts (with dedicated neutral connected); 50 watts (no dedicated neutral)
<b>Power Requirements</b>	120 Vac, 60 Hz, line power
<b>Environmental</b>	
Temperature	32° to 104°F (0° to 40°C)
Humidity	10% to 90% RH (non-condensing)
<b>Enclosure</b>	1-gang mountable in a 3 1/2 inch deep electrical box; Requires decorator style faceplate (not included)

\* Derating applies for multigang installations. Refer to "Multigang Installations" for more information.

## Additional Resources

Visit the product page on the Crestron website ([www.crestron.com](http://www.crestron.com)) or scan the QR code to the right for additional information and the latest firmware updates.



## Installation

**WARNING:** To avoid fire, shock, or death, turn off power at 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-DIMEX-P dimmer. With power off, close the circuit and 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, A FLUORESCENT LIGHTING FIXTURE, 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 D'ÉCLAIRAGE FLUORESCENT, UN APPAREIL OPÉRÉ DE MOTEUR OU UN APPAREIL ALIMENTÉ PAR UN TRANSFORMATEUR.

**NOTES:** Observe the following points.

- Codes: This product should be installed and used in accordance with appropriate electrical codes and regulations.
- Installation: This product should be installed by a qualified electrician.
- Wiring: Use copper wire only. For supply connections, use wires rated for at least 75°C (167°F).
- Lamp Type: For use with permanently installed incandescent, magnetic low voltage, 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, use 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 supplied) can be installed.
- Switches: Mechanical 3- or 4-way switches do not work with CLW-DIMEX-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 core and coil (magnetic) low voltage transformers only. Do not use any solid-state electronic 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:

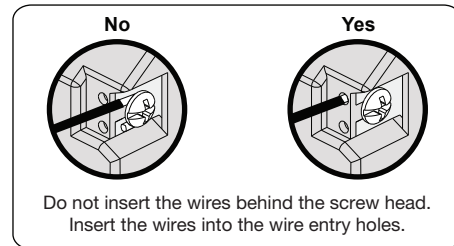
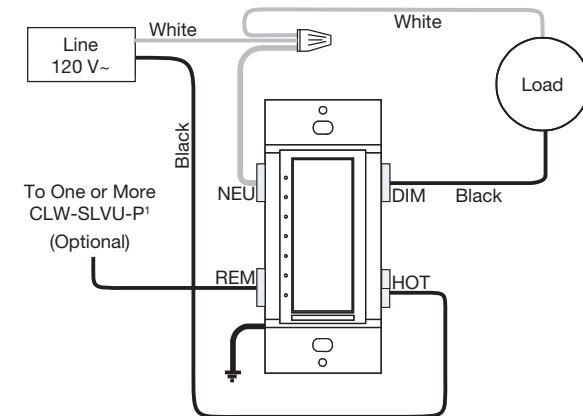
- > Do not operate low voltage circuits without operative lamps in place.
- > Replace burned-out lamps as quickly as possible.
- > Use transformers that incorporate thermal protection or fuse transformer primary windings to prevent transformer failure due to overcurrent.

The following describes the installation of a CLW-DIMEX-P dimmer.

1. Turn power off at the circuit breaker.
2. Wire the device as shown in the following diagrams.

**NOTE:** The dimmer can operate with or without a direct connection to the neutral.

**NOTE:** Switch mode requires a dedicated neutral.



**NOTE:** For optimal performance, the neutral should be connected. If the neutral is not connected, the minimum required load is 50 watts.

3. Push all power wires back into the electrical box and fasten the device to the electrical box with the provided screws.
4. Attach the decorative faceplate.
5. Ensure all buttons, including the program button, actuate without sticking.

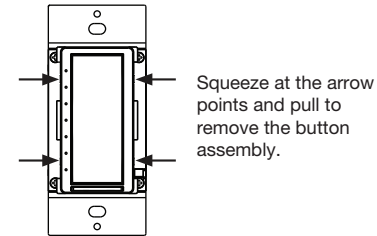
**NOTE:** To operate the device in Switch mode, follow the instructions in "Switching Between Dim Mode and Switch Mode" before restoring power.

6. Restore power at the circuit breaker.

## Changing the Button Assemblies

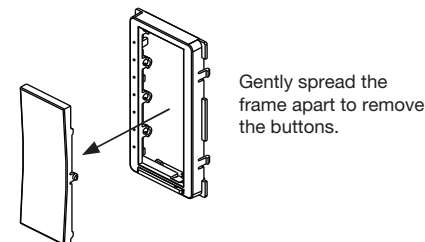
The button assembly can be removed and replaced with other button assemblies.

1. Remove the button assembly by squeezing the sides of the bezel near the bezel snaps.

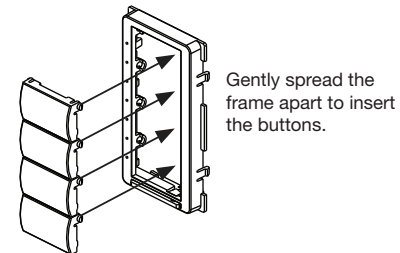


**NOTE:** When the button assembly is removed, power to the unit and load is removed automatically.

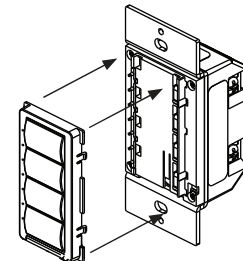
2. Remove the button from the front of the button assembly.



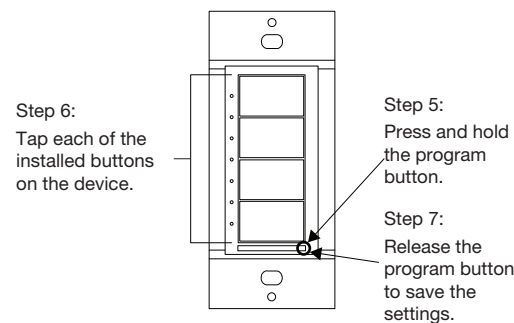
3. Insert the new buttons through the front of the bezel and snap them into place. Ensure that the LED strip is on the left side.



4. Attach 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. After all of the buttons have been pressed, 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.

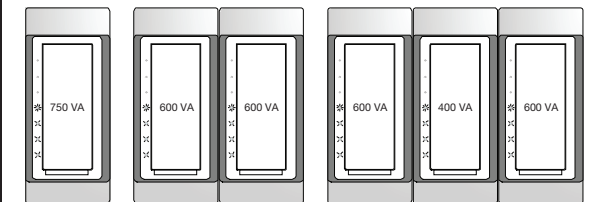
## Multigang Installations

In multigang installations, several devices are grouped horizontally in one electrical box. For a smooth appearance, one-piece multigang faceplates (not supplied) 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. Refer to the following diagrams for derating information. The VA ratings are for input power to the transformer. If you do not know the input power requirement of the transformer, use the bulb's wattage rating to determine proper rating.

Derating Information for CLW-DIMEX-P Dimmers



## Switching Between Dim Mode and Switch Mode

The CLW-DIMEX-P is capable of operating in Switch mode. Toggling between Dim and Switch mode is useful if the load is not dimmable or if it is preferred to not dim the load.

1. Open the air-gap switch as described in "Disconnecting the Power."
2. While power is off, press and hold the top and bottom button caps (regardless of button configuration) simultaneously while closing the air-gap switch.
3. After 5 seconds, the top LED blinks 3 times to indicate Dim mode or 5 times to indicate Switch mode.
4. To commit the new setting, release the buttons within the next 5 seconds.

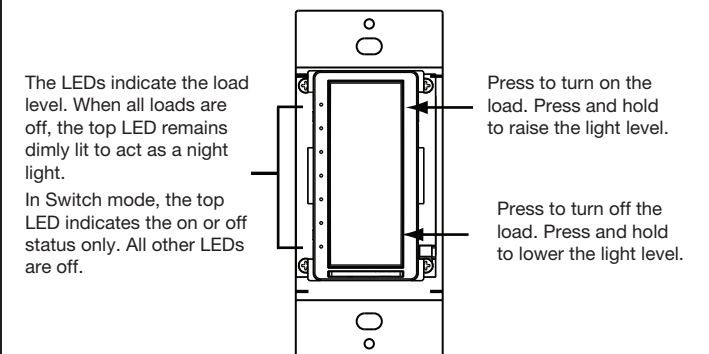
## Operation

**NOTE:** Before using the CLW-DIMEX-P, ensure the device is using the latest firmware. Check for the latest firmware for the CLW-DIMEX-P at [www.crestron.com/firmware](http://www.crestron.com/firmware). Firmware is loaded onto the device using Crestron Toolbox™.

**NOTE:** The device may be warm to the touch during operation. This is normal.

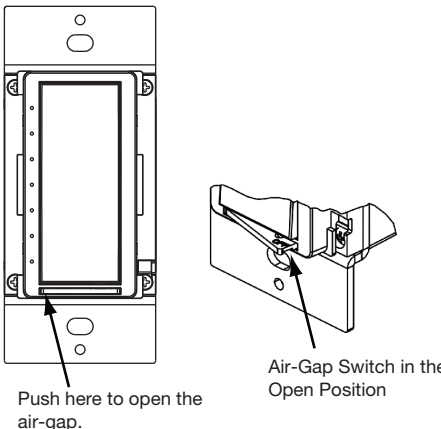
## Basic Operation

The operations described in this guide assume the CLW-DIMEX-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 CLW-DIMEX-P is shipped with a rocker switch already installed. In this configuration, the unit functions as described below.



**Disconnecting the Power**

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



**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**

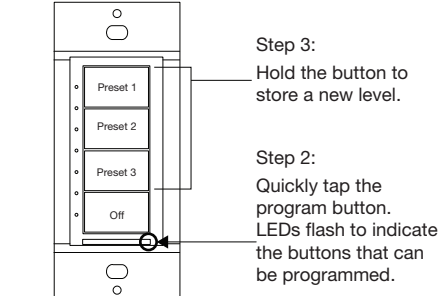
The CLW-DIMEX-P can recall and store up to three presets depending on the installed button configuration.

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

**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.

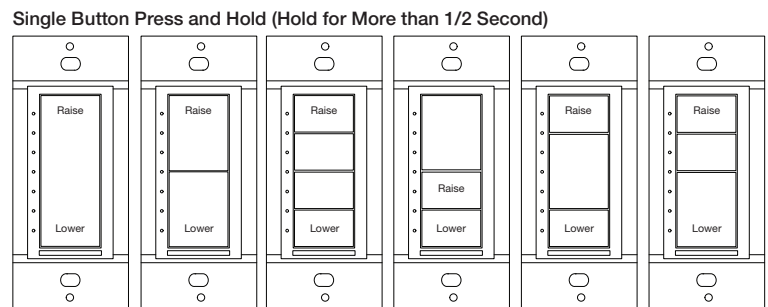
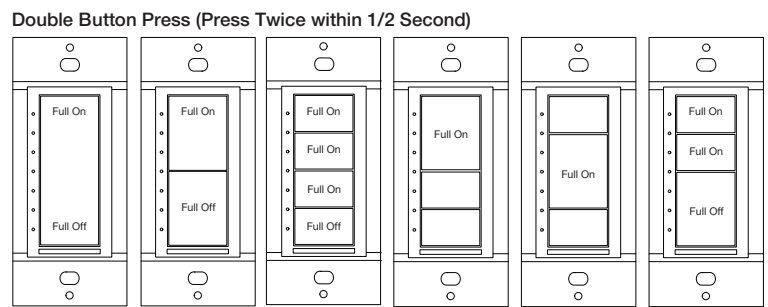
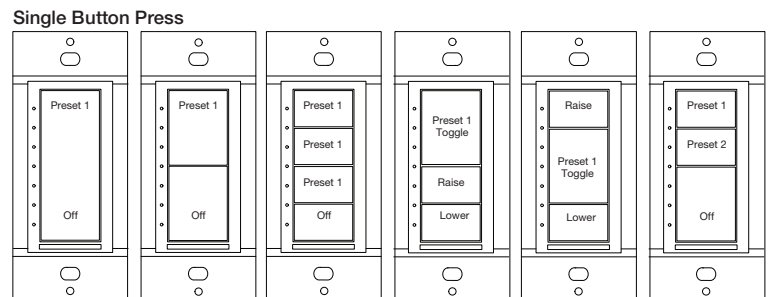
If a button is not pressed, the device exits Programming mode after approximately five seconds.



**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 tap or hold actuation sequence.



**Master and Slave Operation**

For more information on master and slave operation, refer to the CLW-SLVU-P Installation Guide (Doc. 7364).

**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](http://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 blinks 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 blinks fast to indicate that the device was not successfully acquired by the infiNET EX network. Tap the setup 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 setup button three times and then press and hold it down (tap-tap-tap-press+hold) for up to 2 seconds. The LED blinks 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.
Blinks three times	The device is communicating with the gateway, but the gateway is not communicating with the control system.
Blinks twice	The device was previously joined to the network but is not communicating with the gateway.
Blinks 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-DIMEX-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 SIMPL program to verify the operating mode.
The dimmer does not dim.	The device is in Switch mode.	Remove power from the device. Reapply power and press and hold the top and bottom buttons for 5 seconds. If the LED blinks 3 times, the device is in Dim mode; if it blinks 5 times, it is in Switch mode.
The dimmer remains powered and air-gap switch is opened.	The HOT and DIM terminals are wired in reverse.	Turn off power at the circuit breaker or fuse and adjust the connections.
The dimmer cycles off occasionally when near full brightness.	The load connected is less than 25 watts.	Increase the load on the circuit to at least 25 watts. A neutral wire is required for loads less than 50 watts.
	The load connected is less than 50 watts.	Connect the neutral to the dimmer.

This product is Listed to applicable UL Standards and requirements by Underwriters Laboratories Inc.



**Federal Communications Commission (FCC) Compliance Statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**CAUTION:** Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

**NOTE:** 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 receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected

**Industry Canada (IC) Compliance Statement**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

**Industrie Canada (IC) Déclaration de conformité**

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent émetteur radio, IC: 5683C-CWD6790, a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

- Type d'antenne: Inversé-F, Gain admissible maximal: 2.66 dBi, Impédance: 50 Ohms
- To satisfy RF exposure requirements, this device and its antenna must operate with a separation distance of at least 20 centimeters from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

The product warranty can be found at [www.crestron.com/warranty](http://www.crestron.com/warranty).

The specific patents that cover Crestron products are listed at [patents.crestron.com](http://patents.crestron.com).

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**Crestron Electronics, Inc.**  
15 Volvo Drive Rockleigh, NJ 07647  
Tel: 888.CRESTRON  
Fax: 201.767.7576  
[www.crestron.com](http://www.crestron.com)

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