CLW-DIMSWEX-P

Cameo® Wireless In-Wall Dimmer and Switch Combo

Installation and Operation Guide

Description

The CLW-DIMSWEX-P is a Cameo® wireless in-wall combination dimmer and switch that features field-replaceable and engravable buttons. Without the need for additional control wiring, the CLW-DIMSWEX-P easily replaces any standard in-wall dimmer or light switch. Although functional as a standalone dimmer or light switch, the CLW-DIMSWEX-P delivers enhanced automation and control capability when connected to any Crestron® control system using the infiNET EX® network.

CLW-DIMSWEX-P Specifications

SPECIFICATION	DETAILS
Power Requirements	120 Vac, 60 Hz, line power
Load Ratings: Dimmer	
Minimum Load	25 W
Incandescent/Tungsten, Magnetic Low Voltage, and Dimmable CFL	500 VA/W
Load Ratings: Switch	
Exhaust Fan	1 A
Environmental	
Temperature	32° to 104°F (0° to 40°C)
Humidity	10% to 90% RH (non-condensing)
Dimensions	
Height	4.13 in (105 mm)
Width	1.75 in (45 mm)
Depth	1.75 in (45 mm)

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.

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-DIMSWEX-P. 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 device only when the short is no longer present. The warranty is void if the device 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 REDUIRE LE RISQUE DE SURCHAUFFE ET LA POSSIBILITE D'ENDOMMAGEMENT A D'AUTRES MATERIELS, NE PAS INSTALLER POUR COMMANDER UNE PRISE OU UN APPAREIL ALIMENTE PAR UN TRANSFORMATEUR.

NOTES: Observe the following points:

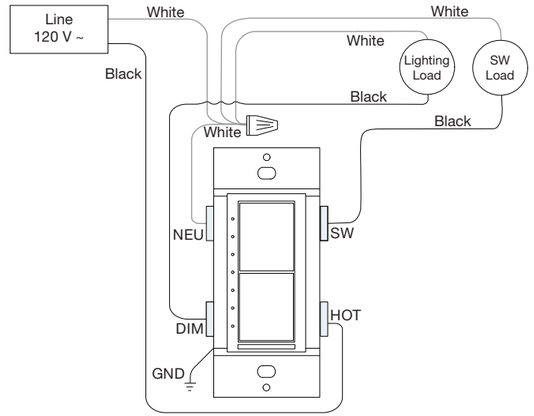
- Installation: This product should be installed by a licensed electrician.
- Codes: Install in accordance with all local and national electrical codes.
- Wiring: Use copper wire only. For supply connections, use wires rated for at least 75°C.
- Wiring: The CLW-DIMSWEX-P requires a neutral connection.
- 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, 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 faceplate (not supplied) can be installed.
- Switches: Mechanical 3- or 4-way switches will not work with the CLW-DIMSWEX-P series.
- 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 overheating the transformer 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.

Installation

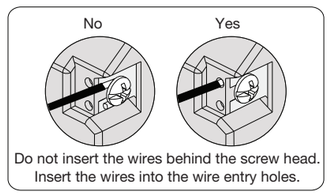
WARNING: Turn off power at the circuit breaker. Installing with the power on can result in serious personal injury and damage to the device.

The following describes the installation of a CLW-DIMSWEX-P.

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



NOTE: Refer to the following diagram when making connections to the device.



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

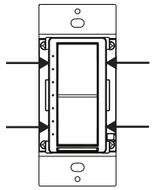
NOTE: To operate the device in Switch mode, follow the instructions in "Switching Between Dim and Switch Mode."

6. Restore power at the circuit breaker.

Changing the Button Assemblies

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

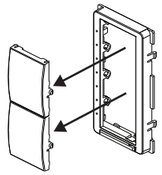
1. Remove the button assembly by squeezing the sides of the bezel near the bezel snaps.



Squeeze at the arrow points and pull to remove the button assembly.

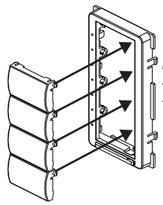
NOTE: When the button assembly is removed, power disconnects from the internal electronics and the connected loads. Power is still supplied to the HOT terminal.

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



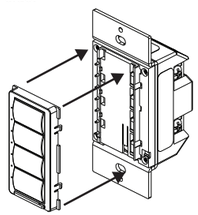
Gently spread the frame apart to remove the buttons.

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.

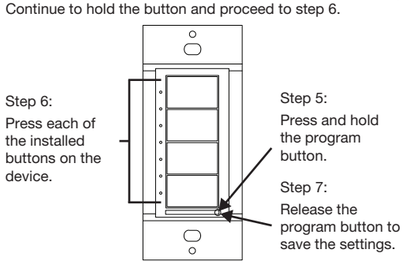


Gently spread the frame apart to insert the buttons.

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 button, press each of the installed buttons in the new layout. The LED next to the tapped button will light.

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 will alter the device's behavior. Refer to "Default Button Functions" for details.

Multigang Installations

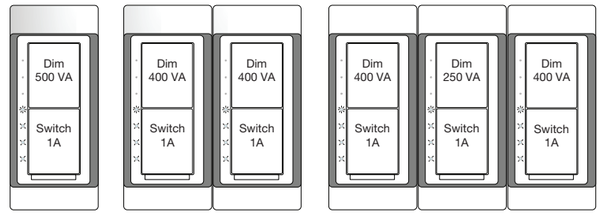
In multigang installations, several devices are grouped horizontally in one electrical box. For a smooth appearance, a one-piece multigang faceplate (not supplied) can be installed.

NOTE: When installing into a multigang box, do not fully tighten the 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 diagrams for derating information.

NOTE: VA ratings are for input power to the transformer. If the input power requirements of the transformer are unknown, use the bulb's wattage rating to determine the proper rating.

Derating Information for the CLW-DIMSWEX-P



Switching Between Dim and Switch Modes

The CLW-DIMSWEX-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 not to have the load dimmed. To toggle between Dim and Switch modes:

1. Open the air-gap switch by pressing on the left side of the air-gap switch. Refer to "Disconnecting the Power" for details.
2. While the power is off, press and hold the top and bottom button caps (regardless of the button configuration) simultaneously while reengaging the air-gap switch to reapply power. After 5 seconds, the top LED will blink three times to indicate Dim mode or five times to indicate Switch mode.
4. Release the buttons within the next 5 seconds.

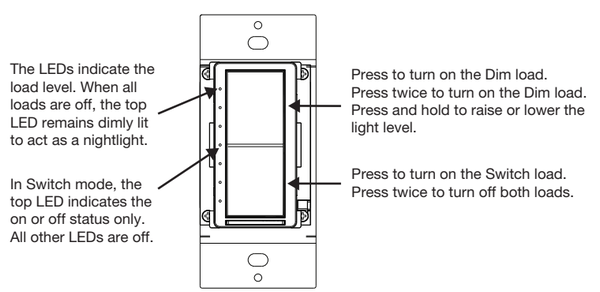
Operation

NOTE: Before using the CLW-DIMSWEX-P, ensure the device is using the latest firmware. Check for the latest firmware for the CLW-DIMSWEX-P at 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.

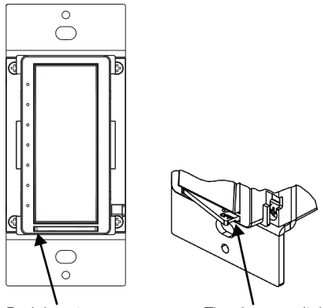
Basic Operation

The operation described in this guide assumes the CLW-DIMSWEX-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-DIMSWEX-P is shipped with two buttons already installed. In this configuration, the unit will function as shown.



Disconnecting the Power

Power to the dimmed and switched loads can be disconnected by pushing the air-gap switch.



Push here to open the air-gap.

The air-gap switch is in the open position.

NOTE: When the button assembly is removed, power disconnects from the internal electronics and the connected loads. Power is still supplied to the HOT terminal. For instructions on removing the button assembly, refer to "Changing the Button Assemblies."

Setting the Preset Levels

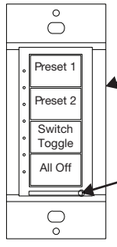
The CLW-DIMSWEX-P can recall and store up to two presets depending on the installed button configuration. A third preset can be accessed via the control system.

To set a preset level:

1. Adjust the light to the desired level.
2. Enter the Programming mode by quickly tapping the right side of the air-gap switch. The LEDs will blink beside the buttons capable of storing a preset.

   NOTE: Programming mode is disabled when the load is off.
3. Press and hold the desired preset button for approximately 2 seconds. The LED will begin to blink.
4. Release the button to store the new level.

   The CLW-DIMSWEX-P will exit Programming mode if no button is pressed within 5 seconds.



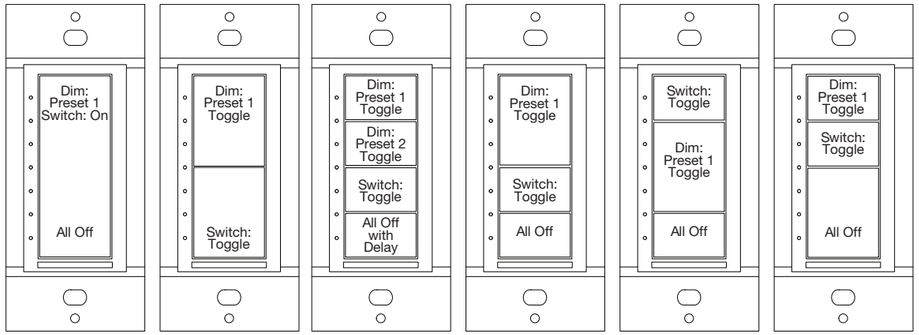
Step 3:
Hold the button to store the new level.

Step 2:
Quickly tap the program button. The LEDs blink to indicate the buttons that can be programmed.

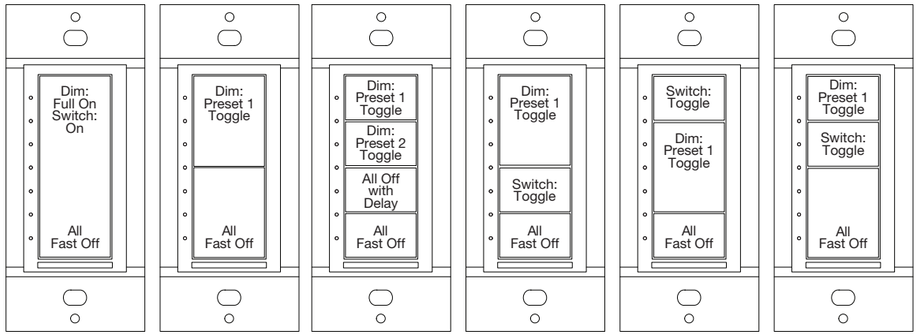
Default Button Functions

The the default button functions differ for each button configuration. "Dim" refers to the dimmable lighting load, and "Switch" refers to the motorized load. Unless otherwise noted, toggle functionality is between on and off (or delayed off if programmed to do so). Refer to the following illustrations for single button press, double button press, and press and hold functions.

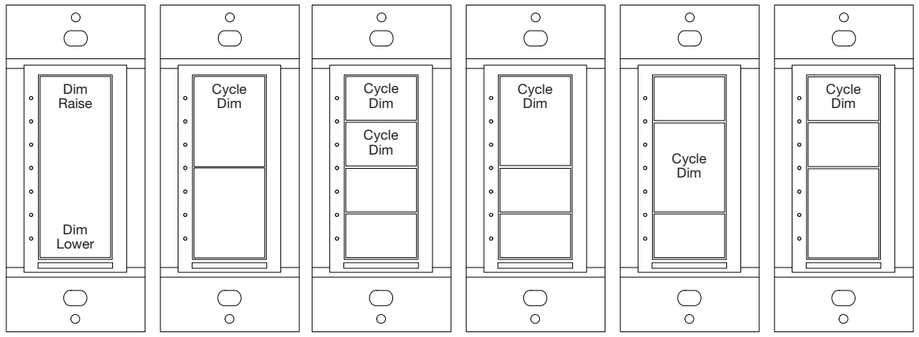
Single Button Press



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. To join an infiNET EX network, the device must be 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. Refer to the gateway's manual at www.crestron.com/manuals for details.

   NOTE: In an environment where multiple gateways are installed, only one gateway should be in Acquire mode at any time.
2. Put 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 blink 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 by 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 top button to acknowledge the failure. 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 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 actions for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

CLW-DIMSWEX-P Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
The dimmer does not function.	The dimmer is not receiving line power.	Verify that the dimmer is properly connected to the power line and that the circuit breaker is closed.
	The air-gap switch is open.	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 determine or change the operating mode.
	The dim and hot wires are reversed.	Swap the dim and hot connections.
	The switch and hot wires are reversed.	Swap the switch and hot connections.
	A neutral connection does not exist.	Connect the neutral.
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 three times, the device is in Dim mode; if it blinks five times, it is in Switch mode.

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

FCC ID: Contains EROCWD6790

Compliance Statement (Part 15.19)

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.

Warning (Part 15.21)

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

RF Exposure (OET Bulletin 65)

To comply with FCC's RF exposure limits for general population / uncontrolled exposure, this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

The product warranty can be found at www.crestron.com/warranty.

The specific patents that cover Crestron products are listed at patents.crestron.com.

This document was written by the Technical Publications department at Crestron.

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