



Description

The CLWI-DIMFLVEX delivers native Crestron® control to 0–10 V dimmable fixtures or switched loads in new or retrofit 230 volt applications. Featuring reliable infiNET EX® wireless technology, the CLWI-DIMFLVEX can be installed in virtually any location thanks to reliable mesh networking. The CLWI-DIMFLVEX delivers a perfect solution for controlling newer LED fixtures from a single gang, without requiring external boosters.

Specifications for the CLWI-DIMFLVEX are listed in the following table.

CLWI-DIMFLVEX Specifications

SPECIFICATION	DETAILS
Load Ratings	
Minimum Load	7 W
Maximum load	2 A/AX; 30 mA sink only per channel
Load types	0–10 volt fluorescent ballast or LED driver (4-wire)
Power Requirements	220–240 Vac, 50/60 Hz, line power
Environmental	
Temperature	0° to 40 °C (32° to 104 °F)
Humidity	10% to 90% RH (noncondensing)
Enclosure	1-gang mountable in a 35 mm (1.38 in) deep square or round electrical box; gangable in horizontal and vertical positioning; requires faceplate (not included)
Dimensions	
Height	72 mm (2.80 in)
Width	72 mm (2.80 in)
Depth	32 mm (1.24 in) including front face with buttons
Weight	95 g (4 oz)

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 the power at the circuit breaker or fuse and test that the power is off before wiring!

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

CAUTION: When wiring, refer to the following cautions.

- Install on 10 A branch circuits only.
- Install with 1 x 1.5–2.5 mm² wire complying with BS6004:2000/IEC 60245 and local electrical codes.
- Use with loads that have a power factor greater than 0.95.

NOTE: LOW-VOLTAGE APPLICATIONS: 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.

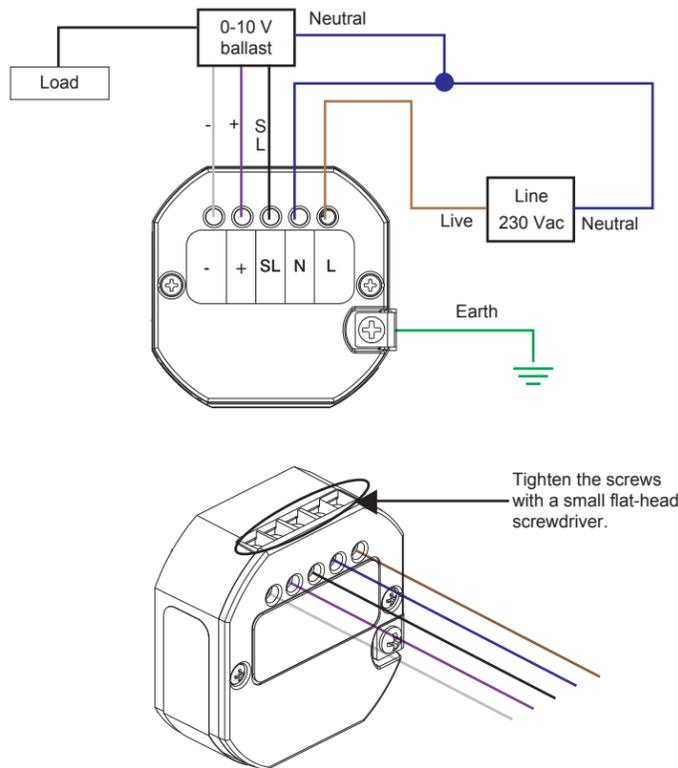
NOTE: When wiring, refer to the following notes.

- A neutral connection is required for this device to operate.
- Use copper wire only. For supply connections, use wires rated for at least 75 °C.
- Use only with permanently installed 0–10 volt fluorescent ballast or LED driver (4-wire).
- For use where temperatures are between 0° to 40 °C (32° to 104 °F).

WIRING

Make the power connections to the CLWI-DIMFLVEX. Use 1 x 1.5–2.5 mm² (14–12 AWG) wiring when making connections. When making connections, insert the wires into the back of the unit and use a small flat-head screwdriver to tighten the connections.

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



Configuration

The local buttons must be defined when using the CLWI-DIMFLVEX in Local mode (operating without a control system). The minimum and maximum dimming levels and the preset dimming levels can be established.

Define the Local Buttons

Buttons that are identified as local buttons have predefined functions that are described in the “Default Button Functions” section.

NOTE: Buttons that are not identified as local buttons must be controlled by a control system.

Define the local buttons.

1. Press and hold the setup button (located in the lower right corner of the device) for 5 seconds to enter Button Layout mode. The LEDs that correspond to the current button layout begin to flash quickly. Do not release the setup button.

NOTE: If the setup button is held for 15 seconds without other button presses, the device restarts. Refer to “Device Reboot” for additional information.

NOTE: If the setup button is released before all buttons are configured, the device exits Button Layout mode and no changes are saved. The device reverts to the previously programmed button layout.

2. While holding the setup button, and within 5 seconds of the LEDs starting to flash, press all of the buttons on the device that require local functionality. Refer to the “Default Button Functions” section for valid local button options. The LED illuminates to verify the button press.

NOTE: The device exits Button Layout mode after 10 seconds pass without additional button assignments. The device reverts to its previously programmed button layout.

3. Release the setup button.

NOTE: If an invalid button pattern is selected, the button pattern is not saved.

Setting the Minimum and Maximum Dimming Levels

Establish the minimum and maximum dimming levels for the connected loads. To enter Min/Max Dimming mode:

1. Press and hold the setup button for 10 seconds until all LEDs light and the middle LEDs begin flashing. The connected load dims to 50%.

NOTE: During Min/Max Dimming mode the device LEDs flash quickly and indicate the current minimum and maximum dimming levels.

NOTE: The maximum level is saved only if the light level is raised above 75% (either of the top two LEDs are illuminated).

NOTE: The minimum level is saved only if the light level is lowered below 45% (either of the bottom two LEDs are illuminated).

2. Press any top button on the dimmer to raise the load to the maximum desired level. If the connected load begins to cycle or flash, the level must be reduced.
3. Press and hold the setup button for 2 seconds to save the maximum dim level.
4. Press any bottom button on the dimmer to lower the load to the minimum desired level. If the connected load begins to flicker, the level must be increased.
5. Press and hold the setup button for 2 seconds to save the minimum dimming level.
6. Tap the setup button to exit Min/Max Dimming mode.

Setting Preset Levels

The device can recall and store up to three presets, depending on the installed button configuration and local programming. Buttons that utilize presets are identified in the “Default Button Functions” section. To set the preset levels, follow the procedure below:

1. Adjust the light level to the desired level.
2. Press the setup button to enter Programming mode. Buttons capable of storing presets flash their LEDs.
3. Press and hold the desired preset button for about 2 seconds. The LED flashes.

NOTE: If a button is not pressed, the device exits Programming mode after about 5 seconds.

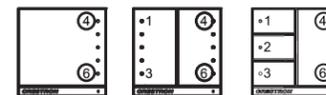
Default Button Functions

The default functionality of a button depends on the button assembly that is installed and the button configuration determined in the “Define Local Buttons” procedure.

The illustrations that follow show various button assembly configurations and the default button press functions. The circled button numbers identify buttons that are configured for local operation. All other button functions are determined by control system programming.

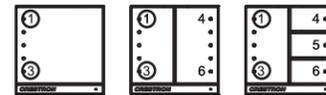
The button functions for the CLWI-DIMFLVEX are shown below.

Rocker with LEDs on Right (Default Layout)



BUTTON #	TAP	DOUBLE TAP	HOLD	LED FEEDBACK	NIGHTLIGHT LED FEEDBACK
4	Preset 1	Fast full on	Raise	Load light level bar graph	LED glows when load is off
6	Delayed off	Fast off	Lower	N/A	-

Rocker with LEDs on Left



BUTTON #	TAP	DOUBLE TAP	HOLD	LED FEEDBACK	NIGHTLIGHT LED FEEDBACK
1	Preset 1	Fast full on	Raise	Load light level bar graph	LED glows when load is off
3	Delayed off	Fast off	Lower	N/A	-

Rocker with LEDs on Right with Presets



BUTTON #	TAP	DOUBLE TAP	HOLD	LED FEEDBACK	NIGHTLIGHT LED FEEDBACK
1	Preset 1	N/A	N/A	On when selected	LED glows when load is off
2	Preset 2	N/A	N/A	On when selected	LED glows when load is off
3	Preset 3	N/A	N/A	On when selected	LED glows when load is off
4	Full on	Fast full on	Raise	Load light level bar graph	LED glows when load is off
6	Delayed off	Fast off	Lower	Load light level bar graph	-

Rocker with LEDs on Left with Presets



BUTTON #	TAP	DOUBLE TAP	HOLD	LED FEEDBACK	NIGHTLIGHT LED FEEDBACK
1	Full on	Fast full on	Raise	Load light level bar graph	LED glows when load is off
3	Delayed off	Fast off	Lower	Load light level bar graph	-
4	Preset 1	N/A	N/A	On when selected	LED glows when load is off
5	Preset 2	N/A	N/A	On when selected	LED glows when load is off
6	Preset 3	N/A	N/A	On when selected	LED glows when load is off

Single Right Button Control



BUTTON #	TAP	DOUBLE TAP	HOLD	LED FEEDBACK	NIGHTLIGHT LED FEEDBACK
4	Toggle Preset 1 / Delayed off	Fast full on	Cycle dim	On when load is on	LED glows when load is off

Single Left Button Control



BUTTON #	TAP	DOUBLE TAP	HOLD	LED FEEDBACK	NIGHTLIGHT LED FEEDBACK
1	Toggle Preset 1 / Delayed off	Fast full on	Cycle dim	On when load is on	LED glows when load is off

Operation

Upgrading Firmware

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

Firmware is upgraded using infiNET EX over-the-air firmware upgrades. Refer to the Crestron Toolbox help file for details.

Restore Default Settings

To reset the device to its factory default settings, send the “restore” console command. All local programming needs to be reset after restoring default settings.

Device Reboot

Press and hold the setup button for 15 seconds to reboot the device. Release the setup button after all LEDs on the front of the device flash to full on and then turn off. This indicates that the device is rebooting. Reboot is completed once the LEDs come back on to normal operating mode.

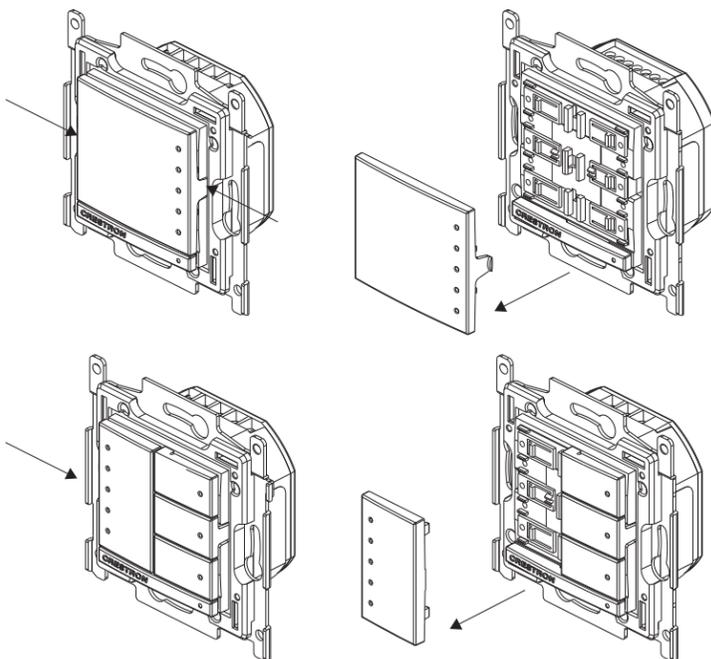
Change Button Assemblies

To change or replace the button assemblies.

1. Squeeze the sides of the button assembly near the center of the device.
2. While squeezing the sides of the button assembly, pull the button assembly off of the device.

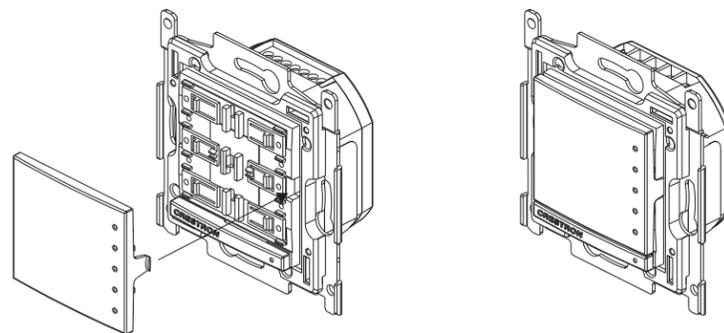
NOTE: When more than one button assembly is installed on a device, press on one side of the button assembly and carefully remove the button assembly. The second button assembly can be removed in the manner described in steps 1 and 2 above. Refer to the illustrations that follow.

Remove the Button Assembly



3. Press the new button assembly onto the device. It might be necessary to squeeze the sides of the button assembly to allow for easier button assembly installation.

Install the New Button Assembly



Installation

The CLWI-DIMFLVEX can be mounted in a single-gang or multigang electrical box.

Single-Gang Installation

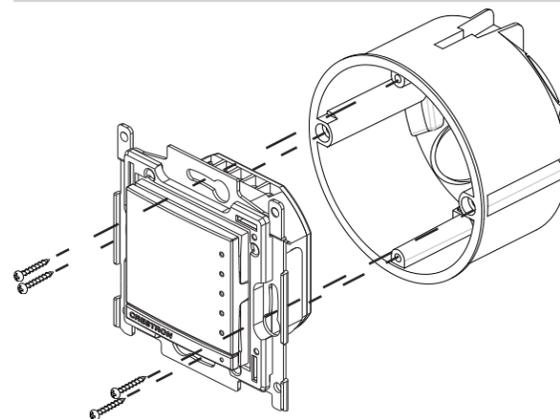
To install in a single-gang electrical box.

NOTE: Electrical box depth must be 35 mm (1.38 in) or deeper.

NOTE: Ensure that system power is off before installation.

1. Push the wires back into the electrical box and fasten the device to the electrical box with the provided screws.

NOTE: Use care when placing the device in the electrical box. Pinched wires may cause a short circuit.



2. Attach the faceplate (not included).
3. Ensure that all buttons, including the program button, actuate without sticking.
4. Restore power to the system.

Multigang Installation

In multigang installations, several devices are grouped horizontally or vertically in one electrical box. When ganging vertically, the devices snap together by sliding the bottom of the upper device into the top of the lower device. This allows the devices to be mounted closer together.

For a smooth appearance, one-piece multigang faceplates (not included) can be installed.

NOTE: The devices do not interlock when ganged horizontally.

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

Wireless Communications

This 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 the latest version of its manual, which is available from the Crestron Web site (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 by doing the following:

- a. Tap the setup button three times, and then press and hold it down (tap-tap-tap-press+hold) until all LEDs on the device flash once (this can take up to 10 seconds).
- b. Release the button to start the acquire process. The top two LEDs flash 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 two LEDs flash quickly to indicate that the device was not successfully acquired to the infiNET EX network. Tap the setup button to acknowledge failure to acquire to the infiNET EX network. Ensure that the gateway is in Acquire mode and within range before attempting the acquire process again.

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 communication status of the device tap the setup button three times then press and hold it down (tap-tap-tap-press+hold) for 2 seconds. The top two LEDs flash to indicate the communication 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 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.

As of the date of manufacture, the product has been tested and found to comply with specifications for CE marking.



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

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

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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Specifications subject to change without notice.