Universal Phase In-Wall Dimmer with Neutral Wire, 230 Vac

Installation Guide

′infi**NET** EX**》**

Description

The CLWI-DIMUNEX delivers native Crestron® dimming control to any light in new or retrofit 230-volt applications. Featuring reliable infiNET EX® wireless technology, the CLWI-DIMUNEX can be installed in virtually any location thanks to reliable mesh networking. Universal dimming provides automatic compatibility with both forward and reverse phase loads.

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

SPECIFICATION	DETAILS
Load Ratings	
Load Types	Incandescent, tungsten-halogen, magnetic low- voltage, dimmable CFL, electronic low-voltage, phase control dimmable LED
Max Load per Channel	450 VA/W
Min Load per Channel	10 W
Power Requirements	220–240 Vac, 50 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 an FP-INTENSE or FP-PURE faceplate (sold separately)
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	85 g (3 oz)

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!

WARNING: Check new installations for short circuits prior to installing the device. 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 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.

CAUTION: Observe the following points.

- Install on a 10 A branch circuit only.
- Install with 1 x 1.5-2 mm² wire complying with BS6004:2000/IEC 60245 and local electrical codes
- Use with loads that have a power factor greater than 0.95.

NOTES: Observe the following points.

- Codes: Install and use this product in accordance with appropriate electrical codes and regulations
- Installation: A licensed electrician should install this product.
- Wiring: Use copper wire only. For supply connections, use wire rated for at least 75 °C.
- Lamp Type: For use with permanently installed incandescent, tungsten-halogen, matnetic low-voltage, dimmable CFL, electronic low-voltage, phase control dimmable LED only.
- Temperature: For use where temperatures are between 0° to 40 °C (32° to 104 °F).
- Electrical Boxes: Devices mount in standard electrical boxes. For easy installation, Crestron recommends using 89 mm (3-1/2 in) 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: Use only with a transformer intended to be used with an electronic switch. Mechanical 3- or 4-way switches do not work with the device.

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.



Wiring

Wire the CLWI-DIMUNEX according to the diagram below. Use 1 x 1.5-2.5 mm² (14-12 AWG) wiring when making connections. For installation instructions, refer to Installation

- 1. Turn the power off at the circuit breaker.
- 2. Wire the device as shown in the following diagram. Insert the wires into the back of the unit when making connections



3. Use a small flat-head screwdriver to tighten the connection.



Configuration

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

Before the CLWI-DIMUNEX can be used in Local mode, the device must be set up. During the setup process, some or all fixed buttons can be configured for local control. If certain fixed buttons are to be operated remotely (via control system programming), do not assign local programming during this process. Buttons programmed for local functionality are predefined. For details, refer to "Assign Button Functions." Follow the procedures below to set up the device.

Set Up the Button Configuration

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 blink fast. Do not release the setup button

NOTE: If the setup button is held for 10 seconds without other button presses, the device enters Min/Max Dimming mode. Refer to "Set Up the Minimum and Maximum Dimming Levels" for information.

NOTE: If the setup button is released before all buttons are configured, the device exits Button Layout mode and changes are not saved. The device reverts to its previously programmed button layout.

2. While holding the setup button and within 5 seconds of the flashing LEDs, press any button on the device that requires local functionality. Refer to "Assign Button Functions" for valid button layouts. The LED illuminates to confirm that the button was pressed.

NOTE: After assigning a button, if no buttons are pressed for 10 seconds, the device exits Button Layout mode without saving the layout. The device reverts to its previously programmed button layout.

3. Continue holding the setup button and press the remaining buttons on the device that require local functionality. The LED associated with each button that is selected is illuminated.

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

Set Up the Minimum and Maximum Dimming Levels

For proper operation of the connected load, the minimum and maximum lighting levels must be established for each device. Follow the procedure below to enter Min/Max Dimming mode and to make changes to the levels.

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

NOTE: During Min/Max Dimming mode, the device's LEDs blink fast 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. Using any available top button on the dimmer, raise the load to the maximum desired level. If the connected load begins to cycle or flash, the level must be reduced.
- 3. Save the maximum dimming level by holding the setup button for 2 seconds.
- 4. Using any available bottom button on the dimmer, lower the load to the minimum desired level. If the connected load begins to flicker, the level must be increased.
- 5. Save the minimum dimming level by holding the setup button for 2 seconds.
- 6. Tap the setup button to exit Min/Max Dimming mode.

Set the Preset Levels

The device can recall and store up to three presets depending on the installed button configuration and local programming. Refer to "Assign Button Functions" for configurations that utilize presets.

- To set the presets, follow the procedure below.
- 1. Adjust the light level to the desired level.
- 2. Enter Programming mode by tapping the setup button. If the buttons are capable of storing presets, their corresponding LEDs flash.

3. Press and hold the desired preset button until the LED blinks (about 2 seconds). If a button is not pressed, the device exits Programming mode after about 5 seconds.

Assign Button Functions

The CLWI-DIMUNEX uses a fixed button configuration that functions differently depending on the button panel that is installed. Refer to "Change the Button Assemblies" for instructions on how to change the button assembly. The illustrations show the available button panel configurations for the device. Button numbers inside circles identify the buttons configured for local operation during this procedure. Button numbers that are not circled are configured through the control system programming. Rocker with LEDs on Right (Default Lavout)

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BUTTON #	ТАР	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

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BUTTON #	TAP		DOU TA	BLE \P	ł
1	Preset 1		Fast f	ullon	

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BUTTON #	ТАР	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

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BUTTON #	ТАР	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

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BUTTON #	ТАР	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

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BUTTON #	ТАР	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

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

Restore the Default Settings

If needed, send the following console command to rest the device to its factory default settings: RESTORE. All local programming is lost when the device is restored to its default settings.

Reboot the Device

To reboot the CLWI-DIMUNEX, press and hold the setup button for 15 seconds. 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. The reboot is complete once the LEDs come back on.

Change the Button Assemblies

To change or replace the button assemblies, follow the procedure below.

- 1. Squeeze the sides of the button assembly near the center of the device. Remove the button assembly by carefully pulling the button assembly off of the device.
 - NOTE: When there are two or more button assemblies 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 above.

Remove the Button Assembly

2. Insert the new button assembly onto the device by pressing them into the device. Squeeze the sides of the button assembly to allow for easier assembly Install the Button Assembly



Installation

Single-Gang Installation

Refer to the following procedure and illustration to install the device into a single-gang electrical box. Electrical box depth must be 35 mm (1.38 in) or deeper.

- 1. Push all power 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 supplied).
- 3. Ensure all buttons, including the setup button, actuate without sticking.
- 4. Restore power at the circuit breaker.

Multigang Installation

In multigang installations, several devices are grouped horizontally or vertically in one electrical box. When ganging vertically, snap the devices 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 supplied) can be installed.

NOTE: When devices are ganged in a horizontal position, the devices do not interlock.

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

As of the date of manufacture, the product has been tested and found to comply with

specifications for CE marking. CE

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

The specific patents that cover Crestron products are listed at patents.crestron.com. Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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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 setup 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 two LEDs blink 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 two LEDs blink fast to indicate that the device was not successfully acquired by the infiNET EX network. Tap the setup 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 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.