

Crestron CLWI-KPLEX-BATT
On-Wall Wireless Lighting Keypad, Battery Powered
Installation Guide



Further Inquiries
To locate specific information or resolve questions after reviewing this guide, contact Crestron's True Blue Support at 1-888-CRESTRON [1-888-273-7876] or, for assistance within a particular geographic region, refer to the listing of Crestron worldwide offices at www.crestron.com/offices.

To post a question about Crestron products, log onto Crestron's Online Help at www.crestron.com/onlinehelp. First-time users must establish a user account to fully benefit from all available features.

Future Updates
As Crestron improves functions, adds new features, and extends the capabilities of the CLWI-KPLEX-BATT, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

Check the Crestron website periodically for manual update availability and its relevance. Updates are identified as an "Addendum" in the Download column.

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

- NOTES:** Observe the following points.
- To be installed and/or used in accordance with appropriate electrical codes and regulations.
 - This product should be installed by a qualified electrician

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Installation Guide - DOC. 7244C
(2031641)
10.14
Specifications subject to change without notice.



As of the date of manufacture, the CLWI-KPLEX-BATT has been tested and found to comply with specifications for CE marking.



Regulatory Compliance

Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following 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
- Consult the dealer or an experienced radio/TV technician for help

(Continued on following page)

INTRODUCTION

The CLWI-KPLEX-BATT is a companion keypad for Crestron® CLWI dimmers and switches. It provides lighting and audio control from more than one location around the home or office using infiNET EX® technology. Recall scenes, dim up and down, and adjust volume using the customizable button layout.

Specifications

Specifications for the CLWI-KPLEX-BATT are listed in the following table.

CLWI-KPLEX-BATT Specifications

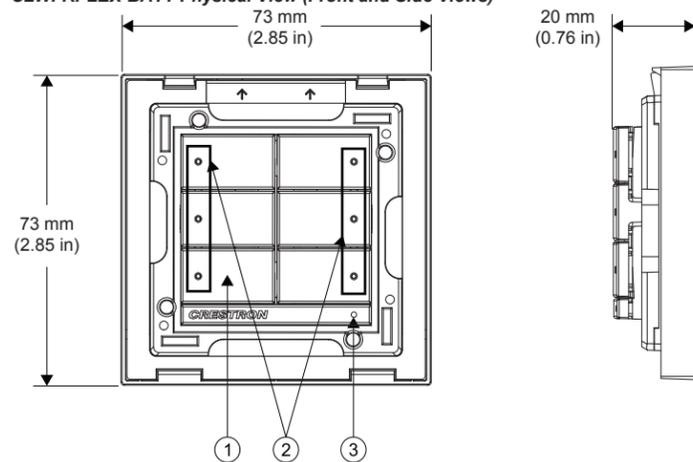
SPECIFICATION	DETAILS
Power Requirements	3 volts lithium coin cell battery, 40 mA; CR2450 battery
Wireless	
RF Transceiver	infiNET EX 2-way RF, 2.4 GHz ISM Channels 11 to 26 (2400 to 2483.5 MHz), default channel 15; IEEE 802.15.4 compliant
Range (Typical)	46 m (150 ft) indoor, 76 m (250 ft) outdoor to nearest mesh network device(s); Subject to site-specific conditions and individual device capabilities*
Gateway	Requires an infiNET EX gateway (sold separately)
Environmental	
Temperature	0° to 40° C (32° to 104° F)
Humidity	10% to 90% RH (non-condensing)
Enclosure	Mounts to surface, requires faceplate (not included)
Dimensions	
Height	73 mm (2.85 in)
Width	73 mm (2.85 in)
Depth	20 mm (0.76 in) including front face with buttons
Weight	55 g (2 oz)

* Any infiNET EX device that provides expander functionality effectively extends the range of the wireless network beyond the initial range of the gateway. Battery-powered infiNET EX devices do not provide expander functionality. A dedicated infiNET EX wireless expander, model CLW-EXPEX or GLA-EXPEX (both sold separately), is also available.

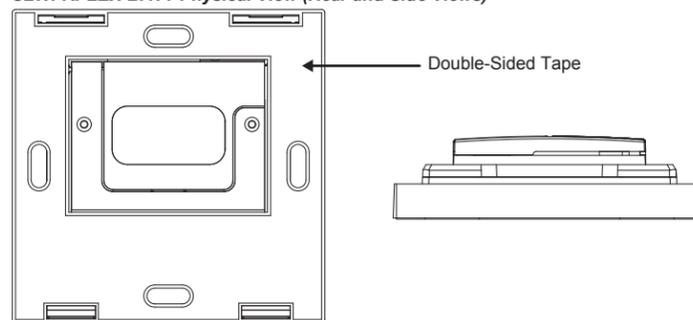
PHYSICAL DESCRIPTION

This section provides information on the controls and indicators available on the CLWI-KPLEX-BATT.

CLWI-KPLEX-BATT Physical View (Front and Side Views)



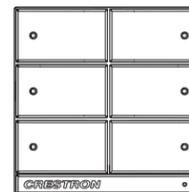
CLWI-KPLEX-BATT Physical View (Rear and Side Views)



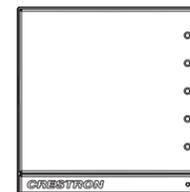
Controls and Indicators

#	CONTROLS AND INDICATORS	DESCRIPTION
1	Buttons	Configurable for a variety of buttons, refer to the illustration below for button configurations; Default button arrangement is two 3-button pads; Maximum layout contains six buttons
2	LED Indicator	LED lights to indicate button press
3	Setup Button	Allows setup and configuration of the device: Join an infiNET EX Network: Tap-tap-tap-press and hold for 2 to 10 seconds Verify Communications Status: Tap-tap-tap-press and hold for less than 2 seconds Enter Setup Mode: Press and hold for 4 seconds

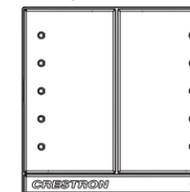
Two 3-Button Pads



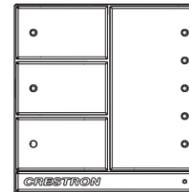
One Rocker



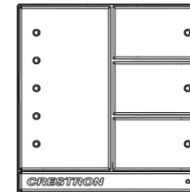
Two Split Rockers



One 3-Button Pad and One Split Rocker



One Split Rocker and One 3-Button Pad



ASSEMBLY

The battery and battery door must be installed before installing the CLWI-KPLEX-BATT. Refer to the illustration in the "Replace Battery" section on page 2 for details.

- Remove the screw from the back of the CLWI-KPLEX-BATT; retain it for reinstallation.
- Insert the battery with the positive (+) side facing out.
- Secure the battery by installing the battery door with the screw removed in step 1.

INSTALLATION

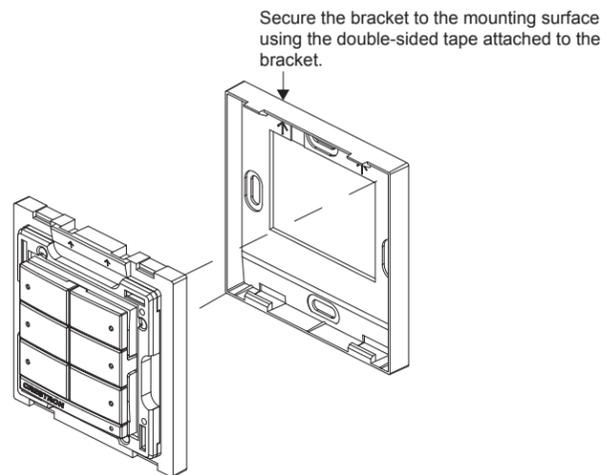
The CLWI-KPLEX-BATT attaches to a bracket that is mounted using double-sided tape or mounting screws. Refer to the procedures below for mounting instructions.

Stick-On Surface Mounting

The CLWI-KPLEX-BATT can be mounted to the wall using the preinstalled double-sided tape. Refer to the following procedure for instructions.

- Remove the release liner of the double-sided tape from the rear of the bracket.
- Ensure that the arrows on the rear of the device point up and firmly press the bracket against the wall to ensure adhesion.
- Place the keypad into the bracket.

Stick-On Surface Mounting

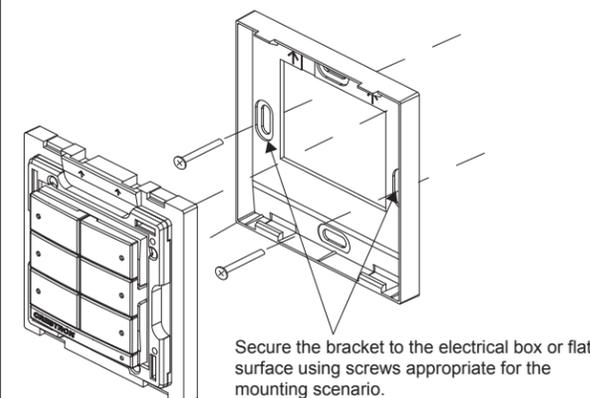


Permanent Mounting

The CLWI-KPLEX-BATT can be mounted to a round or square electrical box using two mounting screws (supplied). It can also be mounted directly to a flat surface using screws that are appropriate for the mounting scenario (not supplied).

Mounting screws are installed through the bracket and secure to the round or square electrical box or flat surface. Ensure that the arrows on the rear of the device point up. Refer to the following illustration for a typical permanent mount scenario.

Permanent Surface Mounting



ASSIGN BUTTON FUNCTIONS

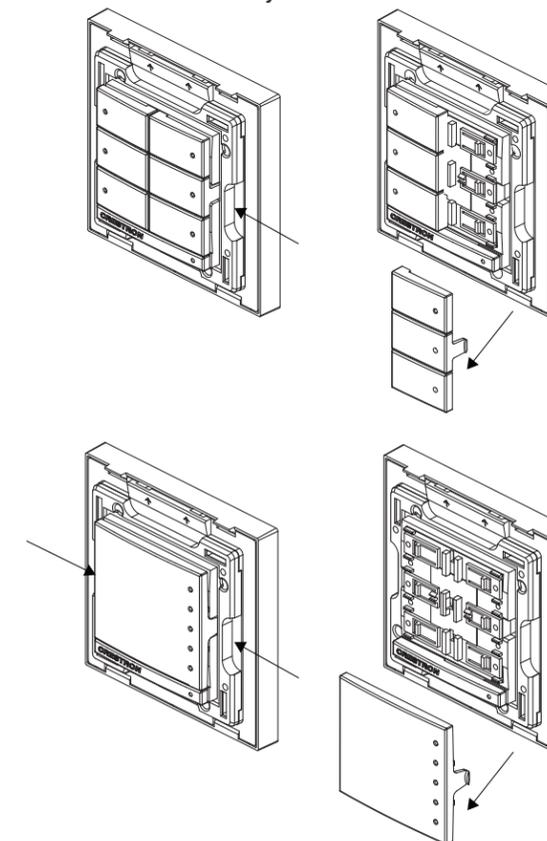
The CLWI-KPLEX-BATT button functions are based on the control system's program. Refer to the Crestron Studio™ or SIMPL Windows help file for details.

CHANGE THE BUTTON ASSEMBLIES

Follow the procedure below if the button assemblies need to be changed or replaced.

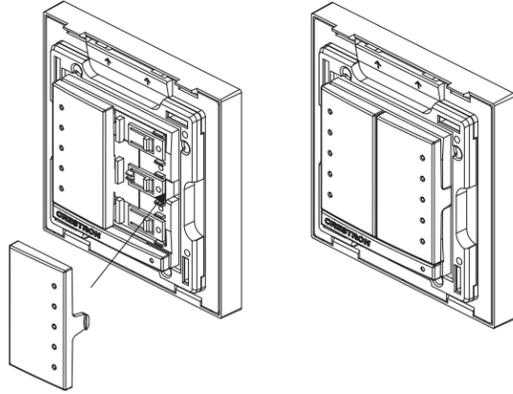
- Squeeze the sides of the button assembly near the center of the device or, for two or more button assemblies, press on one side of the button assembly.
- Remove the button assembly by carefully pulling the button assembly off of the device. For two or more button assemblies, remove the second button in the same manner. Refer to the illustrations that follow.

Remove the Button Assembly



3. Insert the new button assemblies by pressing them into the device. It might be necessary to squeeze the sides of the button assembly to allow for easier insertion.

Install the Button Assembly



RF ID

It is recommended to have direct access to the CLWI-KPLEX-BATT and to use Crestron Toolbox™ to set the RF ID of the device. Set the RF ID for the CLWI-KPLEX-BATT by doing the following.

1. Wake the device by pressing the setup button on the CLWI-KPLEX-BATT.
2. Set the RF ID of the device using Crestron Toolbox. The RF ID must match the RF ID specified in the Crestron Studio or SIMPL Windows program.
3. Press the setup button on the CLWI-KPLEX-BATT to ensure that the device is still awake and the RF ID is transferred to the device.

The RF ID can also be set by placing the device into Setup mode.

1. Press the setup button for more than 4 seconds. The bottom LEDs blink.
2. Set the RF ID using Crestron Toolbox. Setup mode exits after 5 minutes.

FIRMWARE UPGRADE

To upgrade the firmware on the CLWI-KPLEX-BATT, follow the procedure below using Crestron Toolbox (v. 2.36.216 or later):

1. Select **Tools > Network Device Tree View**.
2. Right-click the gateway in the **Network Device Tree View** window.
3. Select **Functions > Firmware Upload (Deep Sleep)**.
4. Click the **Load Firmware File** button in the **Firmware Upload (Deep Sleep)** window and browse for the firmware in the **Open** window.
5. Once the firmware is selected, click **Open** to add the firmware to **Firmware Images**.
6. In the **Assignments** section, click the device (**CTRL** + click or **SHIFT** + click for multiple devices) that the firmware should be assigned to. The row turns light gray.

NOTE: If a device is not located in the **Assignments** section, click **Show all Available IDs**.

NOTE: If a deep sleep device has not been acquired by the gateway, assign the firmware to an ID if the future ID number of the device is known.

7. In the **Firmware Images** section, click the firmware that should be assigned to the device(s). The row turns light gray.
8. Once the device(s) and firmware are selected, click **Assign Selected Image to Selected Target(s)** to assign the firmware to the device(s). The firmware is stored on the gateway and assigned to the device(s).
9. Select a method to initiate the firmware upgrade on the CLWI-KPLEX-BATT:
 - Allow the CLWI-KPLEX-BATT to automatically initiate the firmware upgrade, which occurs every 8 hours.
 - To manually initiate the firmware upgrade, press the setup button.

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 by doing the following:
 - a. Tap the setup button three times 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 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 to 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 failure to acquire the infiNET EX network; LEDs time out automatically. Ensure 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 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 top two LEDs blink to indicate the communications status. Refer to the following table for details.

LED	COMMUNICATIONS STATUS
Turns on for 5 seconds	Device is communicating with the control system.
Blinks twice	Device was previously joined to the network but is not communicating with the gateway.
Blinks once	Device is not joined to the network.

NOTE: Wireless networks composed predominantly of battery-powered devices may need additional infiNET EX expanders, such as the CLW-EXPEX or GLA-EXPEX (sold separately), or other non-battery powered infiNET EX devices to ensure proper functionality of the network and battery life for the devices. Refer to the Best Practices for Installation and Setup of Crestron RF Products (Doc. 6689) at www.crestron.com/manuals for complete system design guidelines, or contact Crestron True Blue Support for further assistance.

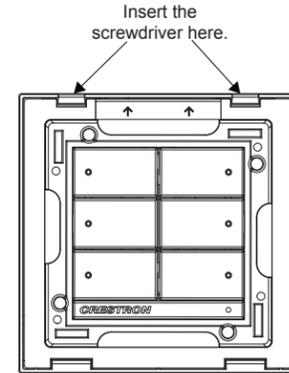
REPLACE BATTERY

CAUTION: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

Follow the instructions below to replace the battery in the CLWI-KPLEX-BATT. Refer to the illustration that follows for details.

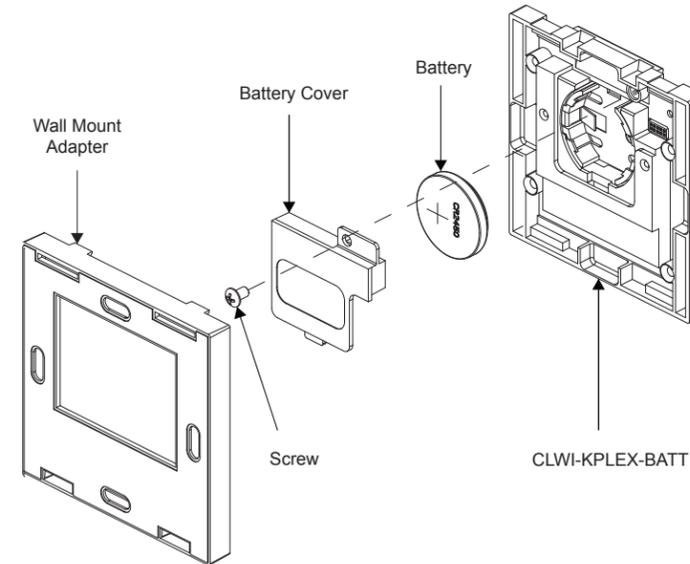
1. Remove the faceplate.
2. Remove the CLWI-KPLEX-BATT from the wall mount adapter using a flat head screwdriver to gently separate the top of the device from the wall mount adapter.

Remove the CLWI-KPLEX-BATT from the Wall Mount Adapter



3. Using a Phillips head screwdriver, remove the screw on the back of the device that secures the battery cover.
4. Remove the battery from the battery holder.
5. Replace it with a new CR2450 battery.
6. Return the battery cover to its original position and secure it with the screw removed in step 3.
7. To mount the CLWI-KPLEX-BATT, push the bottom of the device into the wall mount adapter followed by the top of the device. The wall mount adapter clicks once the device is secured.

Return the CLWI-KPLEX-BATT to the Wall Mount Adapter



NOTE: Dispose of the batteries promptly. Keep away from children. Do not disassemble and do not dispose of in fire.

Regulatory Compliance (Continued)

Industry Canada (IC) Compliance Statement

This device complies with Industry Canada license-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.

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.

Product warranty can be found at www.crestron.com/warranty.

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

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