

Description

The Crestron® ZUMMESH-JBOX load controllers provide sophisticated lighting control with simple installation. The ZUMMESH-JBOX provides control of 16 amp switching, 5 amp or 16 amp 0-10 V dimming, and 20 amp plug load control.

The ZUMMESH-JBOX mounts directly to a 4-inch square junction box and pairs wirelessly with one or more Züm wireless keypads.

Züm Overview

A Züm space consists of one space, such as a board room or conference room, that is equipped with Züm mesh devices. The Züm mesh devices (i.e., dimmers, switches, keypads, and sensors) in the space provide control and communicate directly with each other without the need for a centralized gateway or processor.

To expand the functionality of the Züm space, a ZUMMESH-NETBRIDGE (not included) can be added which provides centralized control and monitoring from a Crestron control system (not included).

NOTE: The ZUMMESH-NETBRIDGE requires a compatible J-box device (not included) to provide power.

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.



Installation

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!

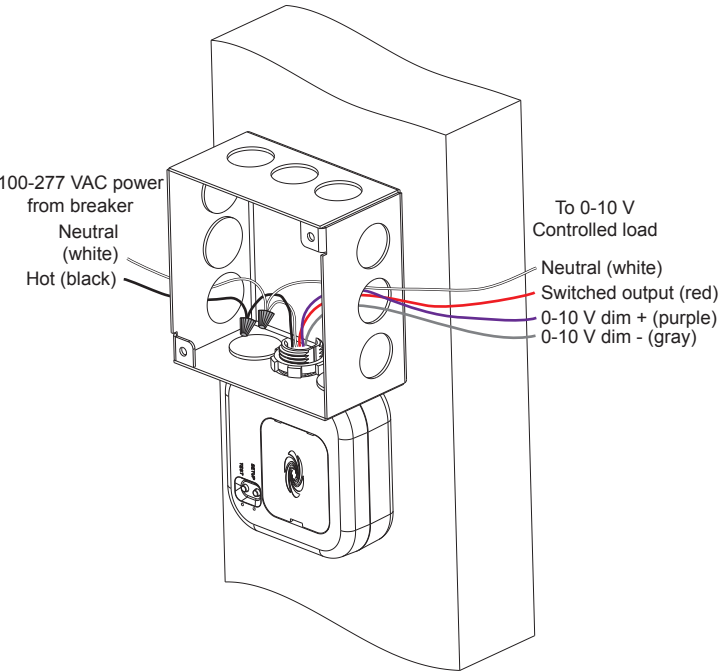
NOTE: Observe the following points:

- Install and use this product in accordance with appropriate electrical codes and regulations.
- A licensed electrician should install this product.
- Projects 3-11/16 inches (93 mm) from the junction box when installed.

To install a ZUMMESH-JBOX:

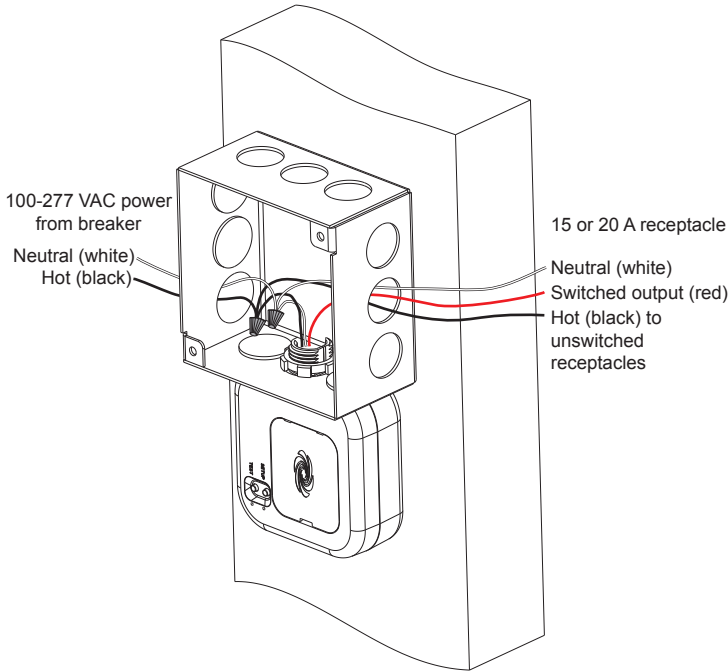
1. Turn the power off at the circuit breaker.
2. Mount the ZUMMESH-JBOX to the J-box using a locknut (not included).
3. Wire the ZUMMESH-JBOX as shown in the following diagrams.

ZUMMESH-JBOX-5A-LV, ZUMMESH-JBOX-16A-LV, and ZUMMESH-JBOX-20A-SW Wiring

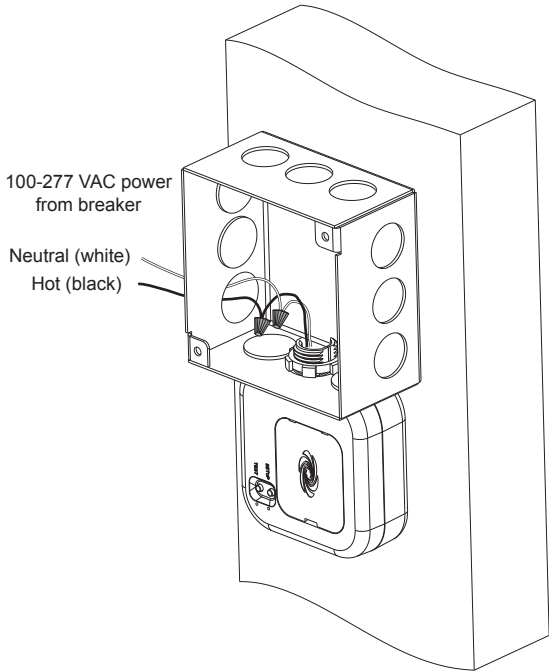


NOTE: The 0–10 V dim - and 0–10 V dim + wires are not present on the ZUMMESH-JBOX-20A-SW.

ZUMMESH-JBOX-20A-PLUG Wiring



ZUMMESH-JBOX-PSU Wiring



Test the Loads

To verify system wiring, the loads can be tested before setting up the Züm space. Press the **TEST** button to toggle the connected loads on and off. Press and hold the **TEST** button to cycle dim the connected dimmers.

How to Set Up a Züm Space and Add Züm Devices

Once all devices are physically installed in a board room or conference space, a new Züm space can be created and devices added.

NOTE: Only set up one Züm space at a time.

NOTE: For simplified setup of a Züm space, use the Züm app on a mobile device.

Step 1 Create a New Züm Space

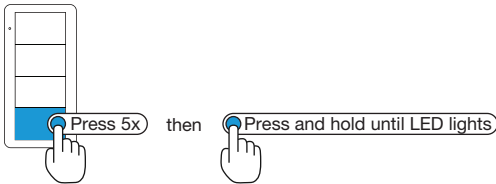
Creating a Züm space defines the area where the devices are located, such as a board room or conference room. A Züm space is created with a keypad, dimmer or switch, a J-box device, or an AV Bridge.

NOTE: Creating a Züm space can only be performed by one device in the space.

NOTE: A Züm space cannot be created from a battery-powered keypad.

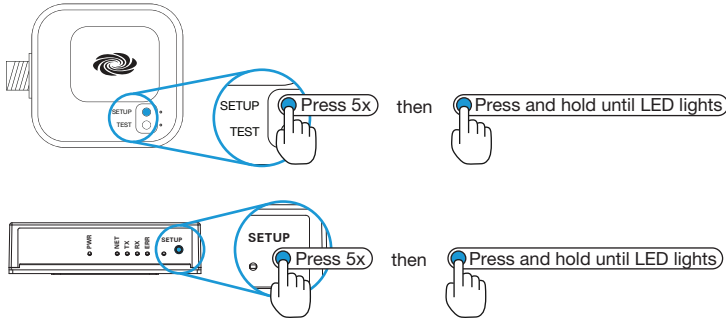
To create a new Züm space using a keypad, dimmer, or switch:

1. Press the bottom button 5 times.
2. Press and hold the bottom button until the LED on the device lights (about 10 seconds). After approximately 3 seconds, the device LED begins slowly flashing. This indicates that the Züm space is now created and in Joining mode, allowing you to add devices.



To create a new Züm space using a J-box device or an AV Bridge:

1. Press the **SETUP** button 5 times.
2. Press and hold the **SETUP** button until the LED on the device lights (about 10 seconds). After approximately 3 seconds, the device LED begins slowly flashing. This indicates that the Züm space is now created and in Joining mode, allowing you to add devices.



NOTE: The device that is used to create the Züm space is automatically added to the space and does not need to be added in Step 2.

Step 2 Add the ZUMMESH-JBOX to the Züm Space

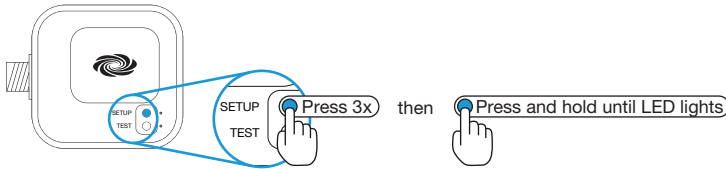
After a new Züm space is created, add the ZUMMESH-JBOX while the space is in Joining mode.

NOTE: A Züm mesh device can belong to only one space.

NOTE: Joining mode ends automatically after 4 minutes.

To add the ZUMMESH-JBOX:

1. Press the **SETUP** button 3 times.
2. Press and hold the **SETUP** button until the LED on the ZUMMESH-JBOX lights (up to 10 seconds). The LED on the ZUMMESH-5A will start to flash slowly to indicate that it has joined the space.



Step 3 Complete Züm Space Setup

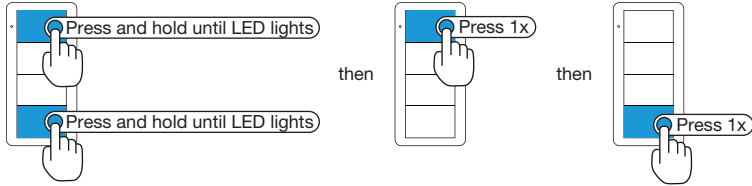
To finish creating a Züm space, press any button on a device that is part of the Züm space to exit Joining mode.

Add the ZUMMESH-JBOX to an Existing Züm Space

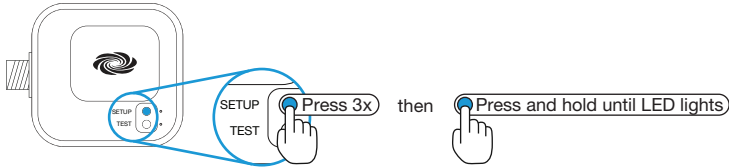
Add the ZUMMESH-JBOX to an existing Züm space by placing the Züm space in Joining mode.

Add the ZUMMESH-JBOX using a keypad, dimmer, or switch:

1. Enter Joining mode.
 - a. Press and hold both the top and bottom buttons until the LED lights (about 5 seconds).
 - b. Press the top button once.
 - c. Press the bottom button once. The LEDs on all devices in the space (except battery powered devices) flash slowly to indicate that the devices are part of the space and that the space is in Joining mode.



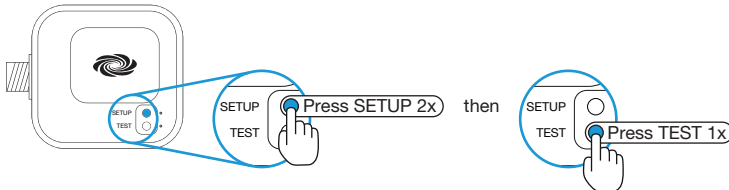
2. Add the ZUMMESH-JBOX.
 - a. Press the **SETUP** button 3 times.
 - b. Press and hold the **SETUP** button until the LED on the ZUMMESH-JBOX lights (up to 10 seconds). The LED on the ZUMMESH-5A will start to flash slowly to indicate that it has joined the space.



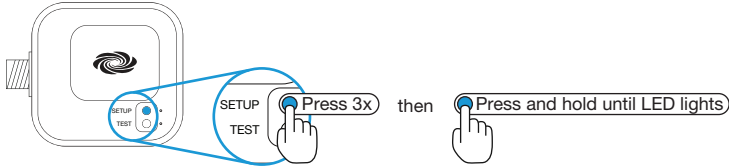
3. Press any button on a device that is part of the Züm space to exit Joining mode.

Add the ZUMMESH-5A using a J-box device:

1. Enter Joining mode.
 - a. Press the **SETUP** button 2 times.
 - b. Press the **TEST** button once. The LEDs on all devices in the space (except battery powered devices) flash slowly to indicate that the devices are part of the space and that the space is in Joining mode.



2. Add the ZUMMESH-JBOX.
 - a. Press the **SETUP** button 3 times.
 - b. Press and hold the **SETUP** button until the LED on the ZUMMESH-JBOX lights (up to 10 seconds). The LED on the ZUMMESH-5A will start to flash slowly to indicate that it has joined the space.

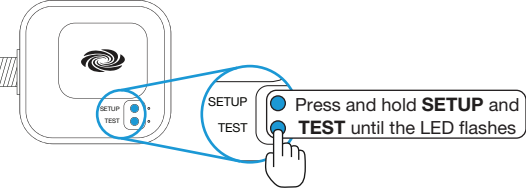


Factory Reset

A factory reset should be performed when the ZUMMESH-JBOX is removed from the network or to remove the configuration settings from the device. The ZUMMESH-JBOX must also be factory reset if it is being moved to a different system.

NOTE: New-in-box devices do not need to be factory reset before joining a system.

To factory reset the ZUMMESH-JBOX, press and hold the **SETUP** and **TEST** buttons until the **SETUP** LED lights (about 10 seconds), and then release both buttons. The **SETUP** LED and the connected load output turn on.



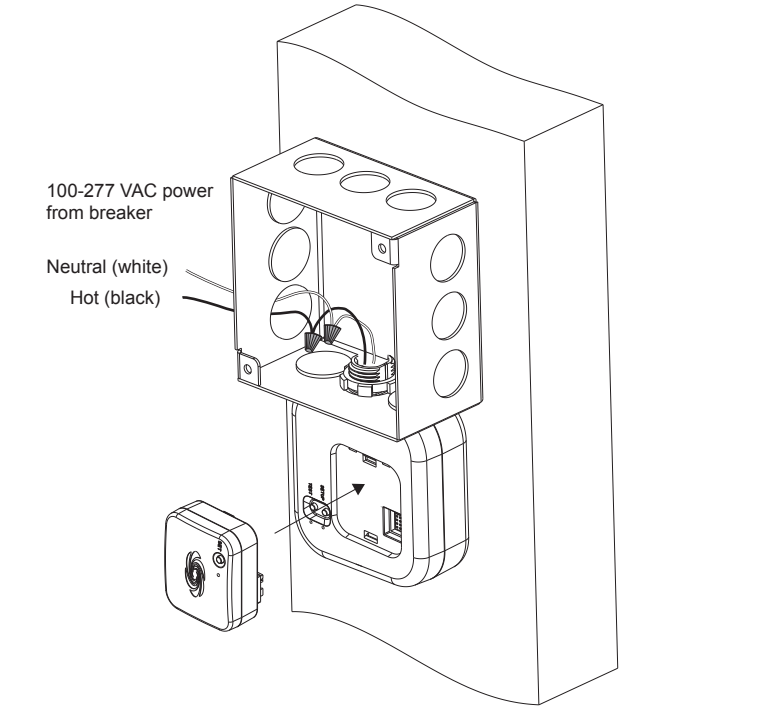
Attach a J-Box Module

A J-box module, such as the ZUMMESH-NETBRIDGE or ZUMMESH-CCO (both not included), can be attached to any J-box device.

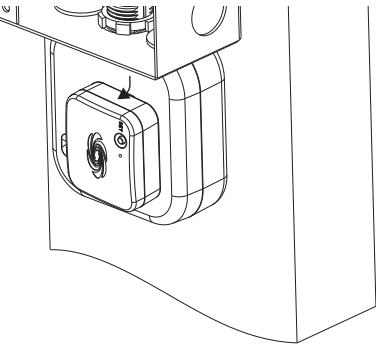
NOTE: For product specifications and additional installation details, refer to the ZUMMESH-NETBRIDGE Installation Guide (Doc. 7955) or ZUMMESH-CCO Installation Guide (Doc. 7935) at www.crestron.com/manuals for details.

Attach the J-box module to the ZUMMESH-JBOX device.

- Use a flat-head screwdriver to remove the cover on the ZUMMESH-JBOX device. Insert the flat-head screwdriver into the slot next to the cover and pry up to remove the cover.
- Align the ports on the J-box module and the ZUMMESH-JBOX device, and then insert the J-box module into the ZUMMESH-JBOX device. The J-box module snaps into place.



If the J-box module needs to be removed, place your thumb on the side of the J-box module that is closest to the J-box and gently push the module away from the J-box. The module should easily separate from the J-box device.



SPECIFICATION	DETAILS
Expansion Port	Expansion port allows connection of an accessory such as a Züm Network Bridge (ZUMMESH-NETBRIDGE) or HVAC Contact Closure Module (ZUMMESH-CCO)
Models:	
ZUMMESH-JBOX-5A-LV	
Line/Load Voltage	100-277 VAC, 50/60 Hz
Idle Power Usage	1 W
Load Rating	5 A
Dim Load Type	0-10 V LED drivers or fluorescent ballasts (4-wire), 60 mA maximum current sink
Functionality	Controlled by keypads, occupancy or vacancy sensors, and daylight sensors.
ZUMMESH-JBOX-16A-LV	
Line/Load Voltage	100-277 VAC, 50/60 Hz
Idle Power Usage	1 W
Load Rating	16 A
Dim Control Output	0-10 VDC, 60 mA maximum sink or source
Dim Load Type	0-10 V LED drivers or fluorescent ballasts (4-wire), 60 mA maximum current sink
Functionality	Controlled by keypads, occupancy or vacancy sensors, and daylight sensors.
ZUMMESH-JBOX-20A-SW	
Line/Load Voltage	100-277 VAC, 50/60 Hz
Idle Power Usage	1 W
Load Rating	16 A, high in-rush, zero cross switching;
Switched output	20 A high in-rush (de-rated to 80%), zero-cross switching
Switch Load Types	LED, fluorescent ballast, incandescent, magnetic low-voltage, electronic low-voltage, neon/cold cathode, high-intensity discharge
Functionality	Controlled by keypads and occupancy or vacancy sensors
ZUMMESH-JBOX-20A-PLUG	
Line/Load Voltage	100-240 VAC, 50/60 Hz
Idle Power Usage	1 W
Load Rating	20 Amps (or 16 Amps derated by 80%), high in-rush, zero-cross switching for receptacles
Functionality	Controlled by occupancy or vacancy sensors to energize receptacles when the space is occupied. The output defaults to energized state after a power cycle.
ZUMMESH-JBOX-PSU	
Line/Load Voltage	100-277 VAC, 50/60 Hz
Idle Power Usage	1 W
Functionality	Provides power for Züm Network Bridge or Züm Contact Closure Output when other J-box devices are not available.

SPECIFICATION	DETAILS
Enclosure	
Housing	Plastic, white, UL® 94 standard 5VA rated
Mounting	Mounts to the side of a 4-inch square junction box via a 1/2-inch conduit knockout
	Meets the requirements of UL 2043 for installation in an environmental air-handling (plenum) space
Environmental	
Temperature	32° to 104 °F (0° to 40 °C)
Humidity	10% to 90% RH (noncondensing)
Dimensions	
Height	3.25 in (83 mm)
Width	4.17 in (106 mm)
Depth	1.31 in (33 mm)
	Projects 3.66 in (93 mm) from the J-box when installed
Weight	0.4 lbs (7 oz)

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

Ce produit est homologué selon les normes et les exigences UL applicables par 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 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.

Industry Canada (IC) Compliance Statement

CAN ICES-3(B)/NMB-3(B)

This equipment should be installed and operated with a minimum distance 20cm between the radiator and your body

Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.

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.

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.

Designed to meet IEC60992 Annex E (0-10V)

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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Crestron Electronics, Inc.

15 Volvo Drive, Rockleigh, NJ 07647

Tel: 888.CRESTRON

Fax: 201.767.7576

www.crestron.com

Installation Guide - DOC. 7863C

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Specifications subject to change without notice.