CRESTRON.

Description

The Crestron® junction box-mounted zone controllers deliver intelligent lighting control with essential features for energy efficiency. Available for 20 A switching, 5 A or 16 A 0-10 V dimming, and 20 A plug load control, each ZUMMESH-JBOX model wirelessly connects to Zūm daylight sensors, occupancy sensors, vacancy sensors, keypads, and dimmers (all sold separately) over the Zūm mesh network, providing intelligent lighting control based on the amount of natural light and the presence of people in a space. The Zūm J-Box Zone Controllers offer a powerful lighting control solution for every space within the Zūm network.

A basic single-room Zūm system consists of Zūm mesh devices, i.e., dimmers, switches, keypads, and sensors. The Zūm mesh devices in the room communicate directly with each other without the need for a centralized gateway or processor.

To monitor or control the room from a centralized Crestron control system, use the ZUMMESH-NETBRIDGE.

NOTE: The ZUMMESH-NETBRIDGE requires a J-box device to provide power.

For quick network setup, use the Zūm app on a smartphone or tablet.

SPECIFICATION	DETAILS
Power Requirements	
Line Power	100-277 Vac, 50/60 Hz
Idle State Power Consumption	1 W
Expansion Port	Expansion port allows connection of an accessory such as a Zūm Network Bridge (ZUMMESH-NETBRIDGE) or HVAC Contact Closure Module (ZUM-CCO)
SKUs	
ZUMMESH-JBOX-16A-LV / ZUMMESH-JBOX-5A-LV	
Switched Output	16 A at 100-277 Vac, 50/60 Hz (20 A, de-rated to 80%) 5 A at 100-277 Vac, 50/60 Hz
0-10V Output	60 mA Sink or Source
DIM Load Type	LED driver (4-wire), Fluorescent, Incandescent, MLV, ELV
Functionality	Controlled by keypads, occupancy or vacancy, and daylight sensors.
Expansion Port	Allows connection of Zūm Network Bridge or Relay Contact Closure Module
ZUMMESH-JBOX-20A-SW	
Switched output	20 A high in-rush (de-rated to 80%), zero cross switching
Switch Load Types	0-10 V LED driver, Fluorescent ballast (4-wire), 60 mA max current sink or source
Functionality:	Controlled by keypads and occupancy or vacancy sensors
Expansion Port:	Allows connection of Zūm Network Bridge or Relay Contact Closure Module
ZUMMESH-JBOX-20A-PLUG	
Switched output	20 A high in-rush, zero cross switching for control of receptacles
Functionality	Controlled by occupancy or vacancy sensors to energize receptacles when the room is occupied. Note that the output defaults to energized state after a power cycle.
Expansion Port	Allows connection of Zūm Network Bridge or Relay Contact Closure Module
ZUMMESH-JBOX-PSU	
Functionality	Provides power for Zūm Network Bridge when other J-box devices are not available.
Expansion Port	Allows connection of Zūm Network Bridge or Relay Contact Closure Module
Enclosure	
Housing	Plastic, white, UL® standard 5VA rated
Mounting	Mounts in a 4″ x 4″ junction box via 1/2 in conduit knockout; Rated for mounting in plenum spaces, UL standard 2043
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)
Weight	0.4 lbs (7 oz)

Additional Resources

Visit the product page on the Crestron website (www.crestron.com) for additional information. 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!
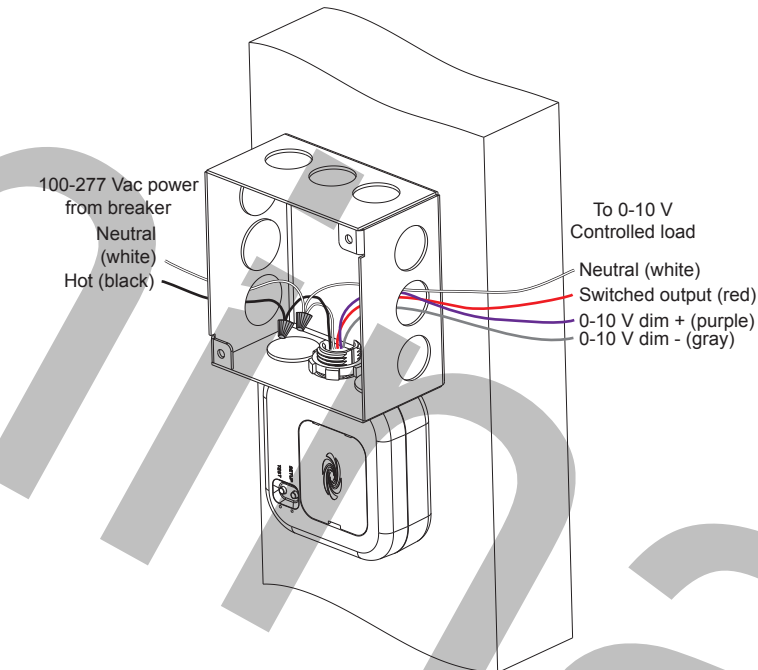
NOTES: Observe the following points:

- Install and use this product in accordance with appropriate electrical codes and regulations.
- A licensed electrician should install this product.

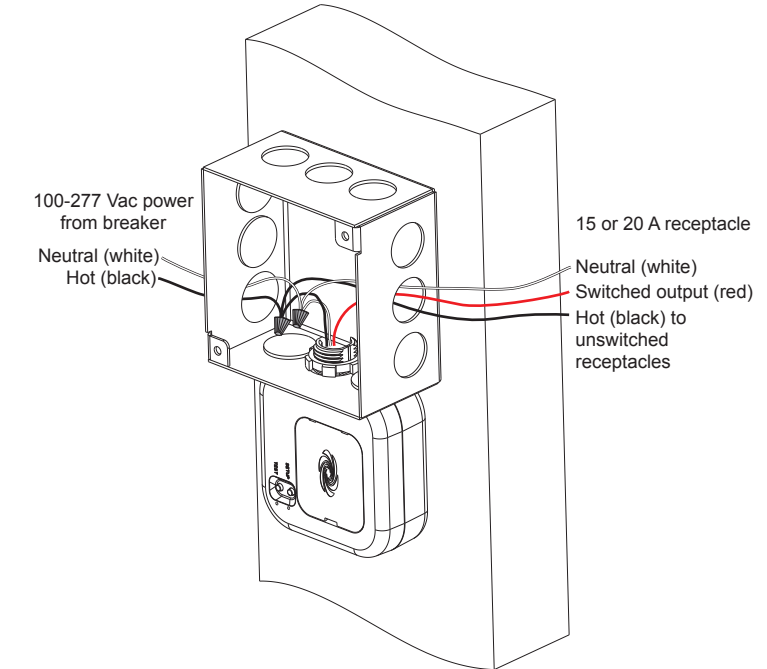To install a switch or dimmer, do the following:

1. Turn the power off at the circuit breaker.
3. Mount the J-box device to the J-box.
2. Wire the device as shown in the following diagrams.

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

100-277 Vac power from breaker
Neutral (white)
Hot (black)

To 0-10 V Controlled load
Neutral (white)
Switched output (red)
0-10 V dim + (purple)
0-10 V dim - (gray)

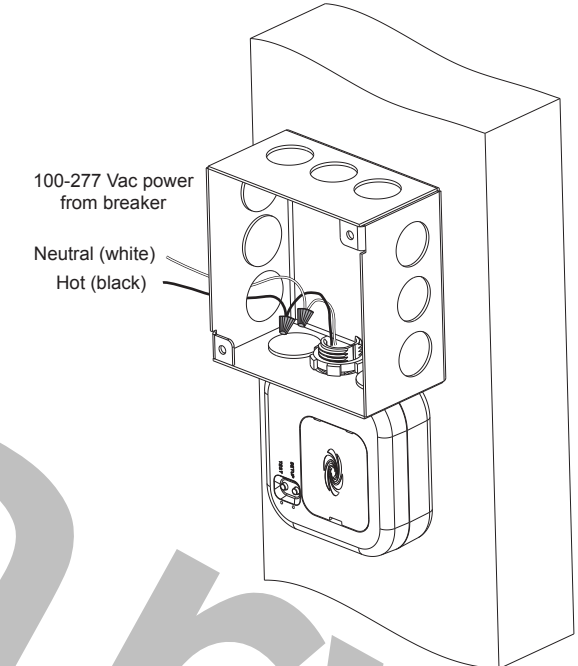**NOTE**: The 0–10 V dim - and 0–10 V dim + wires are not present on the ZUMMESH-JBOX-20A-SW.

ZUMMESH-JBOX-20A-PLUG Wiring

100-277 Vac power from breaker
Neutral (white)
Hot (black)

15 or 20 A receptacle
Neutral (white)
Switched output (red)
Hot (black) to unswitched receptacles

ZUMMESH-JBOX-PSU Wiring

100-277 Vac power from breaker
Neutral (white)
Hot (black)

Test the Loads

Press the TEST button to toggle the connected loads.

Press and hold the TEST button to cycle dim the connected loads (dimmer models only).

Basic Room Setup

A basic single-room Zūm system consists of Zūm mesh devices, i.e., dimmers, switches, keypads, and sensors. The Zūm mesh devices in the room communicate directly with each other without the need for a centralized gateway or processor.

To set up a new single-room Zūm system, do the following:

Step 1a: Create a new single-room Zūm system.

Step 2: Add Zūm mesh devices to the room.

Step 3: Finish creating the single-room Zūm system.

To modify an existing Zūm system, do the following:

Step 1b: Place the system in Joining mode.

Step 2: Add Zūm mesh devices to the room.

Step 3: Finish creating the single-room Zūm system.

Step 1a – Creating a Single-Room Zūm System

To create a new single-room Zūm system, first form a new room.

NOTE: This can be performed on only one device in the room.

NOTE: The device that is used to create the room is automatically added to the room. The device does not need to be added to the room.

NOTE: A room can be created only from an ac-powered device.

Start a New Single-Room System with a Keypad, Dimmer, or Switch

Press the bottom button 5 times, and then press and hold the bottom button for 2 seconds. If the device is not factory fresh, hold the button for 10 seconds. Release the button when the LED lights. The LED illuminates for 3 seconds and then slowly flashes to indicate that the room is in Joining mode and that other devices can join the room.

2s or 10s
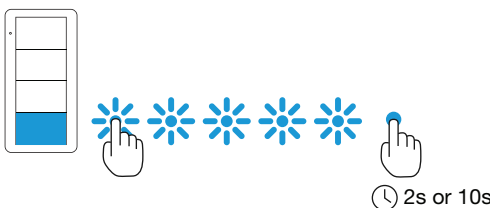
Start a Single-Room System with a J-Box Device

Press the SETUP button 5 times, and then press and hold the SETUP button for 2 seconds. If the device is not factory fresh, hold the button for 10 seconds. Release the button when the LED lights. The LED illuminates for 3 seconds and then slowly flashes to indicate that the room is in Joining mode and that other devices can join the room.

2s or 10s
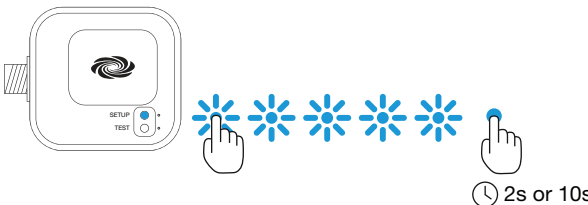
Step 1b – Expanding an Existing Single-Room Zūm System

To allow other devices to join the room, place the single-room Zūm system into Joining mode. Joining mode can be enabled from any ac-powered device or battery keypad that is already part of the room.

Expand a Single-Room Zūm System Using a Keypad

To enter Joining mode, press and hold both the top and bottom buttons for 5 seconds, wait for the LED to light, and then tap the top button once, and then the bottom button once.

5s
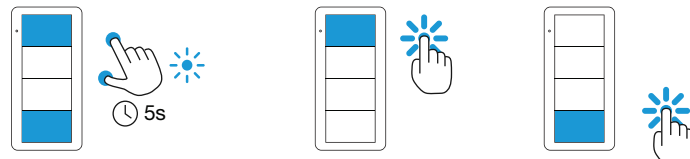
Expand a Single-Room Zūm System Using a J-box Device

To enter Joining mode, tap the SETUP button 2 times, and then tap the TEST button.

Pressing any button on a device that is part of the network takes the system out of joining mode. Joining mode ends automatically after 4 minutes.

## Step 2 - Adding Zūm Mesh Devices to the Room

Adding Zūm mesh devices to a room is quick and easy. Add devices to the room when the room is in Joining mode. Joining mode is automatically enabled after a single-room Zūm system is started (see Step 1a). Joining mode can also be enabled manually (see Step 1b).

The LEDs on all ac-powered devices in the system blink when the system is in Joining mode.

NOTE: A Zūm mesh device can belong to only one room.

NOTE: The Zūm mesh device used to create the room is already part of the network. It does not need to be added to the network.

To add a J-box dimmer or switch to the room, press the SETUP button 3 times, and then press and hold the SETUP button for 2 seconds. If the device is not factory fresh, hold the button for 10 seconds. Release the button when the LED lights. The LED blinks slowly to indicate that it is part of the room and that the room is still in Joining Mode.

2s or 10s
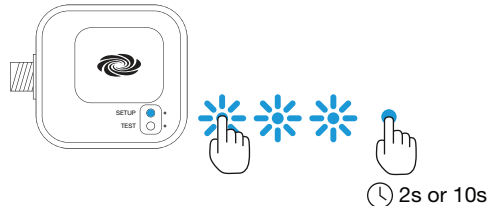
Step 3 - Finishing the Single-Room Zūm System

Press any button on a device that has already joined the network to end the setup process (e.g., the top button of a keypad or the SETUP button of a J-box device that is blinking its LED).


Factory Reset

Perform a factory reset when the device is removed from the network or to remove the configuration settings. The device must also be factory reset if the device 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 device, press and hold the TEST and SETUP button for 10 seconds. Release the button when the LED lights. The LEDs and output will turn on.
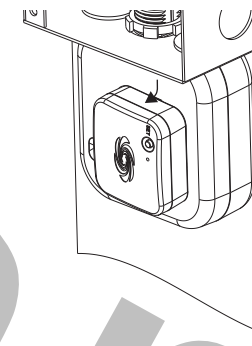

10s
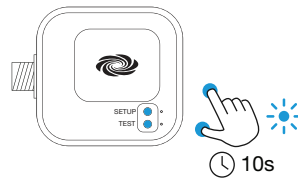
Install Network Bridge

The Zūm Network Bridge enables Zūm device setup from a mobile app and integrates a stand-alone Zūm lighting control system with the Zūm hub (not supplied) for a centrally managed, enterprise-wide lighting control system. The network bridge can be installed to any J-box device.

1. Using a flat-head screwdriver, remove the cover on the J-box device.
2. Ensure that the connector on the network bridge is aligned with the expansion port on the J-box, and then insert the network bridge into the J-box device. The network bridge snaps into place.

100-277 Vac power from breaker

Neutral (white)

Hot (black)
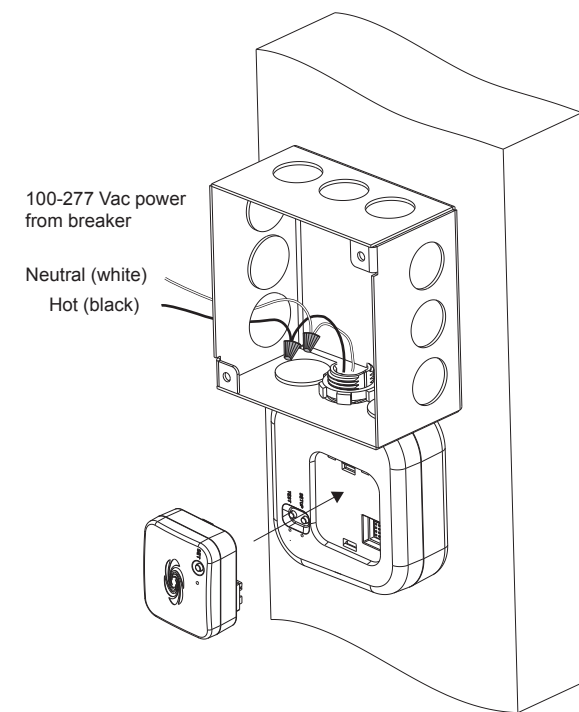
If necessary, the network bridge can be easily removed. To remove the network bridge, do the following:

1. Between the J-box and the J-box device, press the side of the network bridge with your thumb away from the J-box.
2. While pressing on the side of the network bridge, slightly lift the network bridge up and out of the J-box device. The network bridge should easily remove from the J-box device.