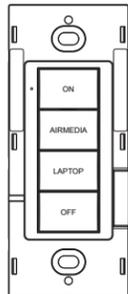




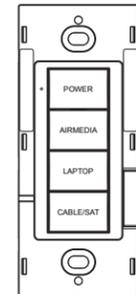
Description

The Crestron® ZUMMESH-KP10AV1BATT, ZUMMESH-KP10AV2BATT, ZUMMESH-KP10AV3BATT, and ZUMMESH-KP10AV4BATT AV keypads provide audio and video control in a Zūm wireless lighting system. Simply connect the AV keypad to a ZUMMESH-AVBRIDGE (not included) to enable AV control. The AV Keypads are available in the following configurations. Custom button screening is also available. The action of a button press is determined by the programming in the AV controller.

ZUMMESH-KP10AV1BATT



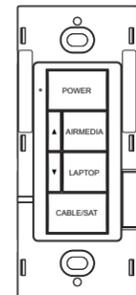
ZUMMESH-KP10AV3BATT



ZUMMESH-KP10AV2BATT



ZUMMESH-KP10AV4BATT



For simplicity within this guide, the ZUMMESH-KP10AV1BATT, ZUMMESH-KP10AV2BATT, ZUMMESH-KP10AV3BATT, and ZUMMESH-KP10AV4BATT are referred to as "AV Keypad".

Zūm Overview

A Zūm space is an area, such as a board room or conference room, that is equipped with Zūm mesh devices such as dimmers, switches, keypads, and motion sensors. Zūm mesh devices create a mesh network that allows communication between all Zūm mesh devices without the need for an independent wireless gateway. Centralized control and monitoring is enabled by adding a ZUMMESH-NETBRIDGE to the space and integrating a ZUMNET-GATEWAY and ZUM-FLOOR-HUB to the Crestron control system (all not included).

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

Installation

NOTE:

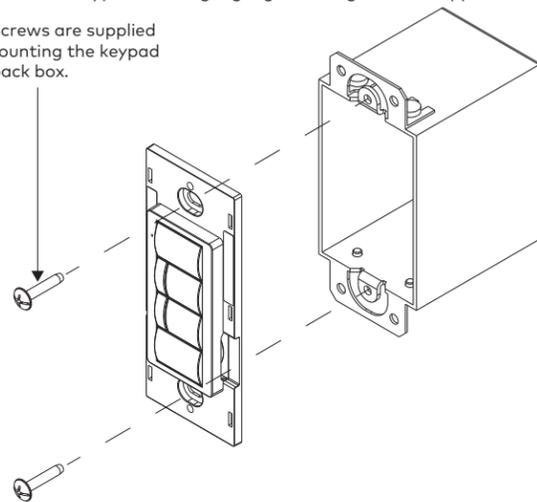
- Codes: Install in accordance with all local and national electrical codes.
- Temperature: For use where temperatures are between 32° to 104 °F (0° to 40 °C).
- Electrical Boxes: Several devices can be installed in one electrical box (multigang). For a smooth appearance, install a one-piece multigang faceplate (not included).

Mount the AV Keypad to a single-gang box or directly to a flat surface using double-sided tape.

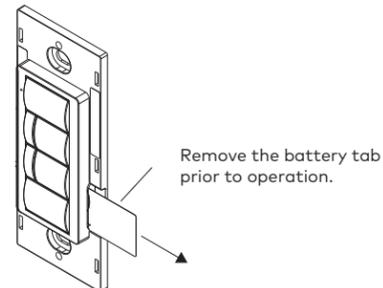
Mount in a Single-Gang Box

1. Secure the AV Keypad to a single-gang box using the two supplied screws.

Two screws are supplied for mounting the keypad to a back box.



2. Remove the battery tab to turn on the keypad.

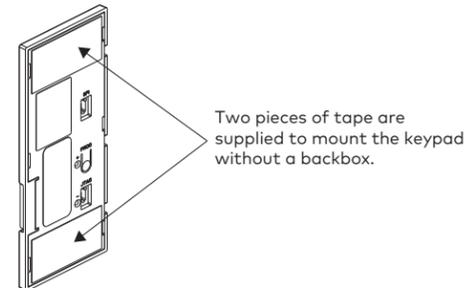


3. Attach a decorator-style faceplate (not included).

Mount with Double-Sided Tape

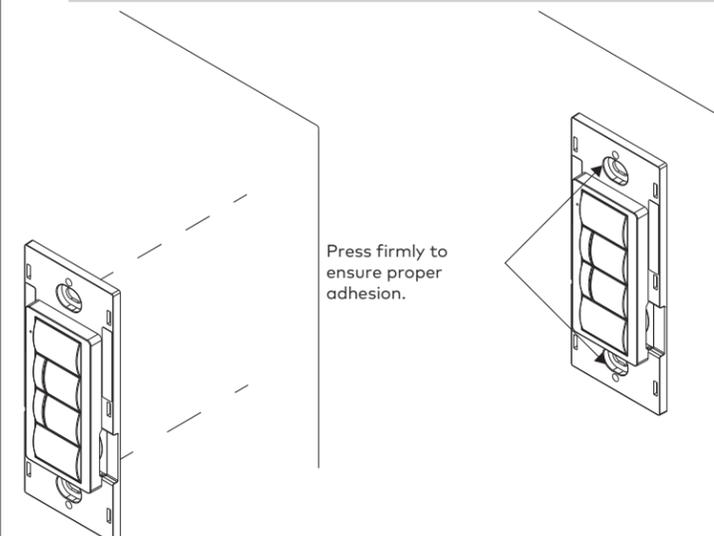
Secure the AV Keypad to a clean, flat surface using the supplied double-sided tape.

1. Clean the mounting surface with a light cleaning agent that does not leave a residue.
2. Remove the backing of one piece of double-sided tape, and apply it to the back of the keypad. Repeat for the other piece of double-sided tape.

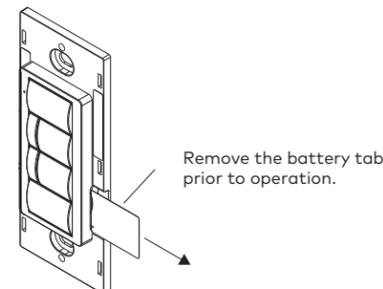


3. Ensure that the keypad is vertical and press it firmly against the wall to ensure it is properly secured.

CAUTION: Removing the keypad after installation may damage the mounting surface.



4. Remove the battery tab to turn on the keypad.



5. Attach a decorator-style faceplate (not included).

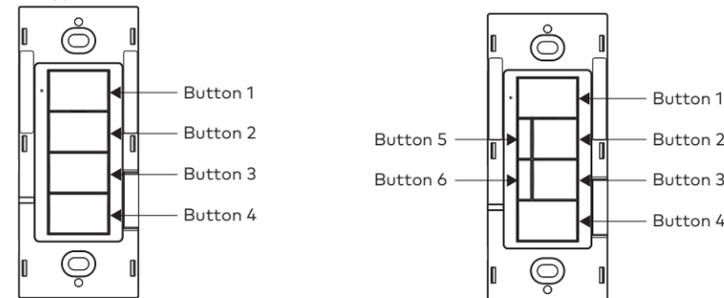
Button Functions

The AV Keypad transmits serial commands to the AV bridge that contain the press type (tap, hold, release), button number, AVID, and the serial number of the AV Keypad. The AV bridge sends the serial command to the AV controller that performs an action based on its programming. For additional information, refer to the ZUMMESH-AVBRIDGE Installation Guide (Doc. 7916) at www.crestron.com/manuals.

The AV Keypad command format:

- !button.[tap|hold|release].[1-6].[id].[SN]
- tap|hold|release - the type of button press
 - 1-6 - the button number that is pressed
 - id - the AVID of the keypad
 - SN - the serial number of the keypad

The illustration that follows shows the button numbers for the two styles of AV Keypads.



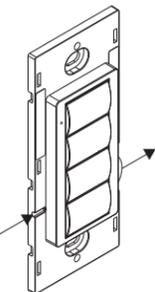
Replace the Battery

WARNING: Refer to the following warnings before changing the batteries.

- Do not ingest batteries. Ingesting a battery poses a chemical burn hazard.
- This product contains a coin cell battery. If a coin cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
- Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children.
- If you think batteries have been swallowed or placed inside any part of the body, seek immediate medical attention.

CAUTION: The battery used in this device may present a risk of fire or chemical burn if mistreated. Do not recharge, disassemble, heat above 212 °F (100 °C), or incinerate. Replace batteries with an identical CR2032 only. Use of another battery may present a risk of fire or explosion.

To remove the battery, insert a pin or paper clip into the slot on the left side of the keypad. The battery slides out of the opposite side of the keypad.

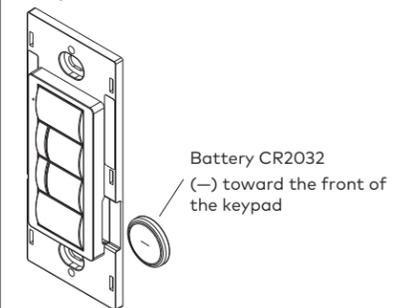


To remove the battery, insert a pin or paper clip into the hole on the side.

NOTE:

- The battery must be inserted properly.
- The keypad will not operate if the battery is inserted incorrectly. To install a new battery, insert the battery into the battery slot. The - terminal faces away from the wall.

To install a new battery, insert the battery into the battery slot. The - terminal faces away from the wall.



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

Step 1 Create a New Züm Space

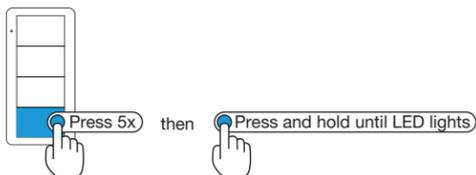
Creating a Züm space defines the area where the devices are located, such as a board room or conference room. A Züm space is created with a keypad, dimmer or switch, a J-box device, or an AV Bridge.

NOTE:

- Creating a Züm space can only be performed by one device in the space.
- A Züm space cannot be created from a battery-powered keypad.

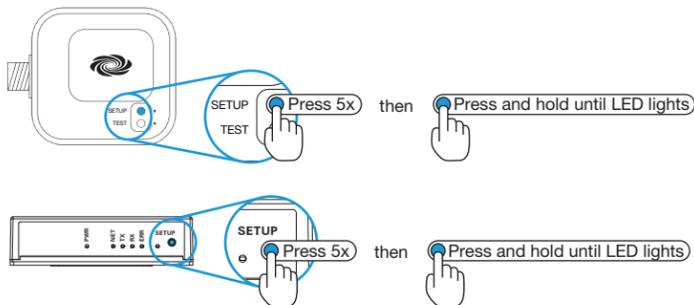
To create a new Züm space using an AC powered keypad, dimmer, or switch:

1. Press the bottom button 5 times.
2. Press and hold the bottom button until the LED on the device lights. 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. 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 AV Keypad to the Züm Space

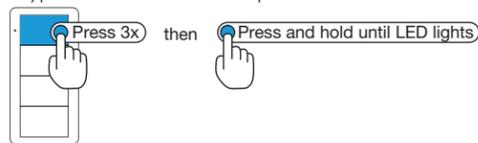
After a new Züm space is created, add the AV Keypad while the space is in Joining mode.

NOTE:

- A Züm mesh device can belong to only one space.
- Joining mode ends automatically after 4 minutes.

To add the AV Keypad:

1. Press the top button 3 times.
2. Press and hold the top button until the LED on the AV Keypad lights. The AV Keypad is added to the Züm space.



Step 3 Complete Züm Space Setup

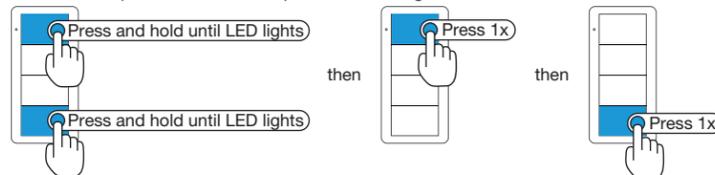
To finish creating a Züm space, press any button on a device that is part of the Züm space to exit Joining mode.

Add the AV Keypad to an Existing Züm Space

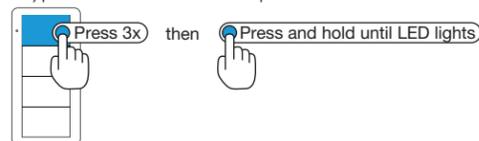
Add the AV Keypad to an existing Züm space by placing the Züm space in Joining mode.

Add the AV Keypad Using an AC powered Keypad, Dimmer, or Switch

1. Enter Joining mode.
 - a. Press and hold both the top and bottom buttons until the LED lights.
 - 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.



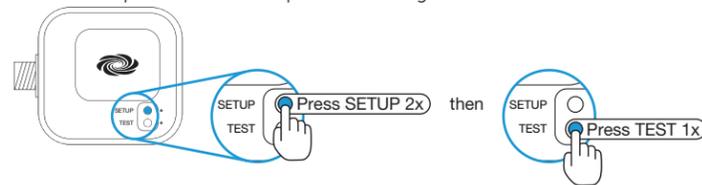
2. Add the AV Keypad.
 - a. Press the top button 3 times.
 - b. Press and hold the top button until the LED on the AV Keypad lights. The AV Keypad is added to the Züm space.



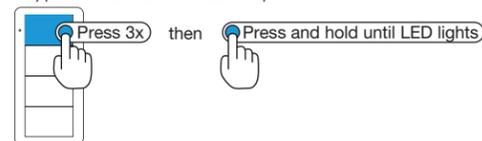
3. Press any button on an AC-powered device that is part of the Züm space to exit Joining mode.

Add the AV Keypad 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.



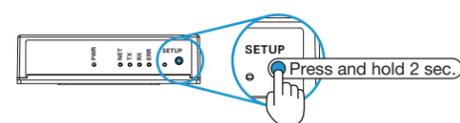
2. Add the AV Keypad.
 - a. Press the top button 3 times.
 - b. Press and hold the top button until the LED on the AV Keypad lights. The AV Keypad is added to the Züm space.



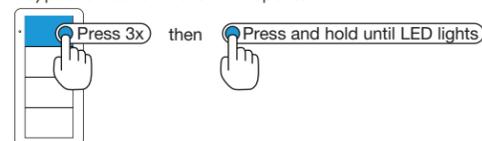
3. Press any button on an AC-powered device that is part of the Züm space to exit Joining mode.

Add the AV Keypad using an AV Bridge:

1. Enter Joining mode.
 - a. Press and hold the **SETUP** button for 2 seconds. 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 AV Keypad.
 - a. Press the top button 3 times.
 - b. Press and hold the top button until the LED on the AV Keypad lights. The AV Keypad is added to the Züm space.



3. Press any button on an AC-powered device that is part of the Züm space to exit Joining mode.

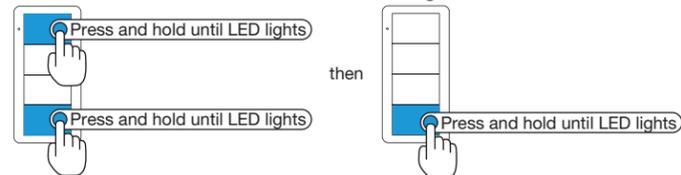
Factory Reset

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 keypad:

1. Press and hold the top and bottom buttons until the LED lights.
2. Press and hold the bottom button until the LED lights.



Troubleshooting

The following provides corrective actions for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

TROUBLE	POSSIBLE CAUSE(S)	ACTION
The AV Keypad is not controlling the lights in the room.	The AV bridge is not joined to the same room as the AV Keypad.	Verify that the AV bridge is joined to the same room as the AV Keypad.
	The AV bridge is not receiving or transmitting the serial packet to the AV control system.	Verify that the green Tx LED lights on the AV bridge when a button on the AV Keypad is pressed. The Tx LED indicates that a message is being received from the AV Keypad and the serial packet is being transmitted to the AV control system.
	The AV control system is not configured properly.	Verify that the program running in the AV control system is decoding and acting on the serial packet from the AV bridge.
Messages from the AV Bridge are not getting to the AV control system	The AV bridge is not properly connected to the AV control system.	Check the serial connections to the AV control system.
The AV Keypad LED lights red when a button is pressed.	The battery is low.	If the AV bridge is connected to both RS-232 and the USB port, serial data is transmitted only over USB.
		Replace the battery.
Control from the AV Keypad is intermittent.	There is poor communication between devices in the room.	Verify that the range between the AV Keypad and the other ac-powered devices in the room is less than 50 feet.
		Verify that the range between the AV bridge and the other ac-powered devices in the room is less than 50 feet.
		Verify that there are no Wireless Access Points (WAPs) within 10 feet of the AV bridge.

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.



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 two 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 A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Industry Canada (IC) Compliance Statement

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

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.