

# HZ-KPCN

## Horizon™ Keypads

Crestron® Horizon™ HZ-KPCN-series precision keypads provide optimal control of Crestron devices such as lighting, shading, and A/V equipment from a single location. Each keypad offers up to five tactile button or rocker switch positions, multicolor LED backlighting, laser-engraved buttons and customizable faceplates designed to meet your needs. Simply connect the keypad directly to your Cresnet® control network to begin.

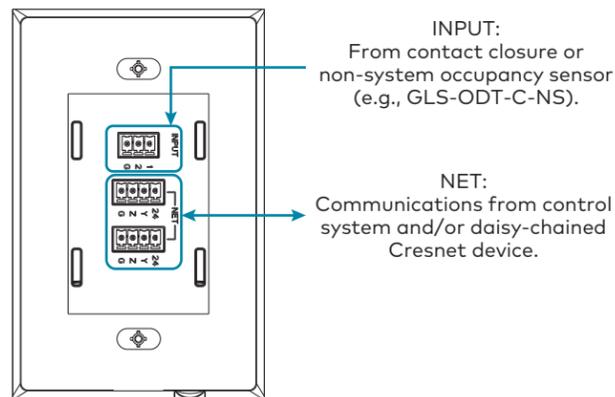
### Check the Box

Item	Qty
<b>HZ-KPCN*</b>	1
Connector, 3-Pin (P/N 2003575)	1
Connector, 4-Pin (P/N 2003576)	2
Trim Plate*	2
Trim Plate, Textured*	2
Button Cap, Single Button*	5
Screw, 6-32 x 3/4 in., Truss Head, Combo (P/N 2009211)	2
Screw, 4-40 x 1/4 in., Flat Head, Philips (P/N 2050242)	2
Metal, Plate, Mounting (P/N 2052028)	1

\* Available in a variety of colors and textures. Please refer to the Crestron website for a complete list of options.

### Wire the Keypad

To wire the keypad, connect the NET and INPUT ports as needed.



### Install the Keypad

**CAUTION:** Do not mix high- and low-voltage devices in the same electrical box without an approved barrier.

**NOTE:** Before operating the HZ-KPCN, ensure the device is using the latest firmware. Check for the latest HZ-KPCN firmware at [www.crestron.com/firmware](http://www.crestron.com/firmware). Load the firmware onto the device using Crestron Toolbox™ software.

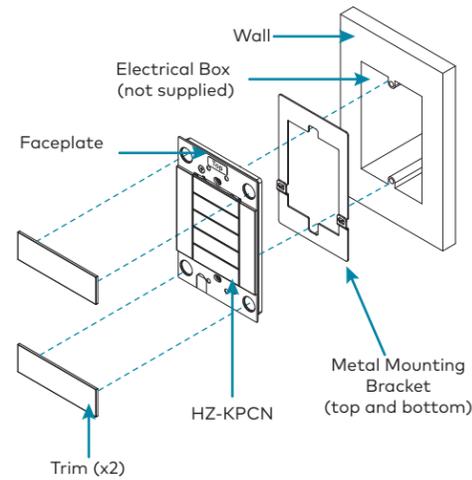
The Horizon keypad is designed for installation into a standard, single-gang electrical box. For larger applications, combine up to four keypads in a multi-gang electrical box.

To install the keypad:

1. Turn the system power OFF.
2. Place the metal mounting bracket over the back of the HZ-KPCN. The two parts of the metal bracket clip together which allows the wiring to remain in place.
3. Fold the wires into the electrical box. Avoid pinched wires.
4. Secure the HZ-KPCN to the electrical box using the integrated mounting screws on the device. Ensure that the "Top" label is properly oriented.

**CAUTION:** Do not overtighten the screws when attaching the keypad to the electrical box, damage to the unit and undesired functionality may occur.

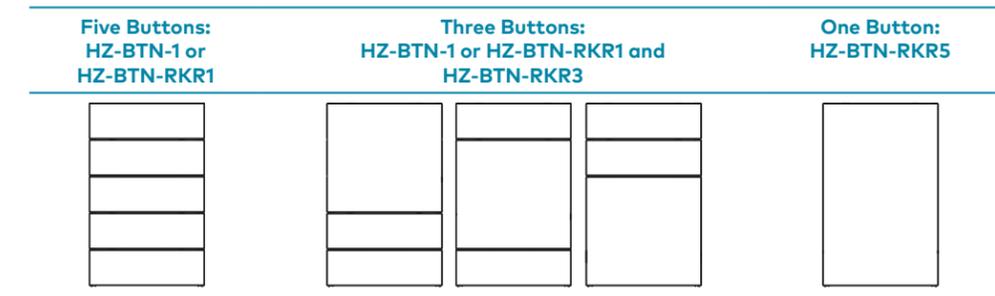
5. Attach the magnetic top and bottom trim pieces to the faceplate.
6. Ensure that all buttons actuate without sticking.
7. Turn the system power ON.



### Button Cap Configurations

The keypad button layout is configurable to suit a wide range of uses. The keypad is configured using a variety of button caps, which may include a single pushbutton or horizontal rocker switch cap. Larger vertical rocker switch caps are also available. All button caps are intended to be laser-engraved to identify each button's function.

The HZ-KPCN offers the following button-cap configurations:

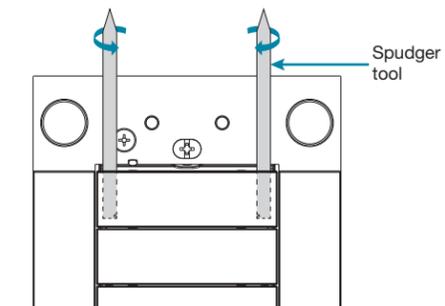


- HZ-BTN-1: One-row button cap, center press (supplied - qty. 5)
- HZ-BTN-RKR1: One-row rocker button cap, left/right press (not supplied)
- HZ-BTN-RKR3: Three-row rocker button cap, top/bottom press (not supplied)
- HZ-BTN-RKR5: Five-row rocker button cap, top/bottom press (not supplied)

To replace button caps:

1. Remove the top trim piece.
2. Remove the old button cap using the flat end of the spudger (supplied with engraved buttons):
  - a. Insert the spudger between the top of the button cap and the keypad near the left edge of the button. Rotate the spudger tool counterclockwise to remove the left side of the button cap.
  - b. Insert the spudger between the top of the button cap and the keypad near the right edge of the button. Rotate the spudger tool clockwise to remove the right side of the button cap.

**NOTE:** For the 3 and 5 position button caps, repeat step 2 but insert the spudger between the bottom of the button cap and the keypad.



3. Align the posts on the back of the new button cap with the slot in the keypad and press firmly onto the keypad. Ensure that the button cap actuates without sticking.
4. Replace the top trim piece.

Scan or click the QR code to view a video tutorial of the button cap replacement process.



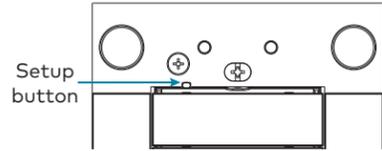
## » Ambient Light Sensor Calibration

Behind each button is an LED backlight, which illuminates the engraving. The ambient light sensor adjusts the keypad's backlight brightness according to the light level in the room. Once the custom, laser-engraved buttons are installed, the ambient light sensor must be calibrated.

**NOTE:** The LED backlight is enabled after light sensor calibration.

Calibrate the light sensor:

1. Ensure the faceplate and bottom trim piece are installed correctly. Remove the top trim piece.
2. Press and hold the setup button using the pointed end of the supplied spudger tool until all keypad backlights flash magenta (about 2 seconds).
3. Avoid blocking the light sensor on the bottom of the HZ-KPCN. The light sensor should remain unobstructed and free of direct light. After about 5 seconds, the calibration process is complete. The keypad returns to normal operation.



## » Backlight Customization

To change the color of the LED backlights:

1. Press the setup button once using the pointed end of the spudger tool. The LED backlights will light brightly for 15 seconds.
2. Press the setup button repeatedly to cycle through the backlight color options.

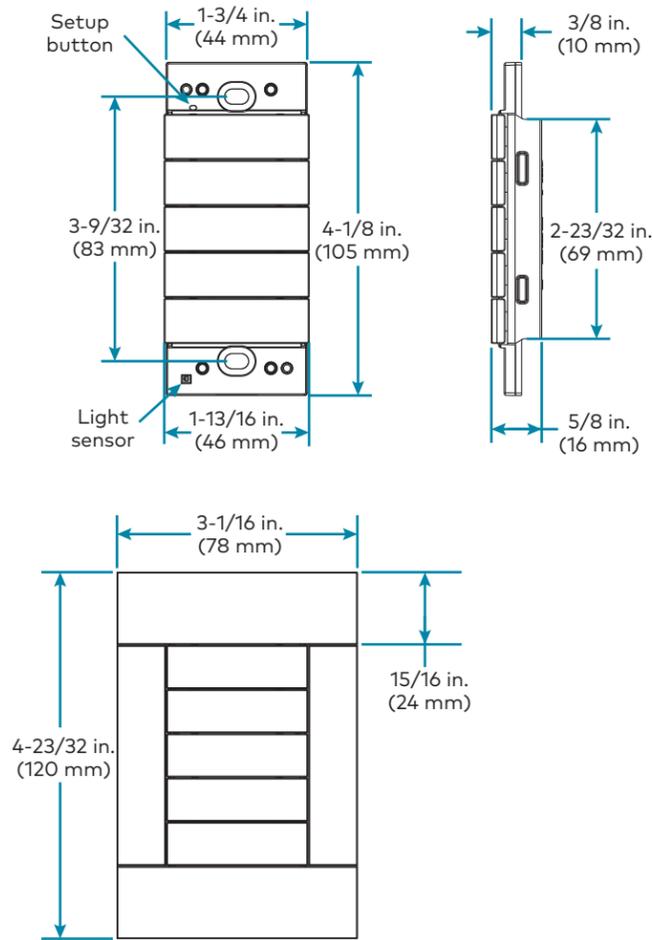
**NOTE:** Custom color themes may be defined in the control system program.

## » Technical Specifications

Visit the product web page for complete technical specifications.

Specification	Details
Power Requirements	
Cresnet Power Usage	2 W (83 mA @ 24 VDC)
Power Consumption	2 W maximum
INPUT Port	(2) digital/analog input ports (referenced to GND); Digital Input: Rated for 0-24 Volts DC, input impedance 200k Ohms, logic threshold 1.24 Volts DC; Analog Input: Rated for 0-10 Volts DC, protected to 24 Volts DC maximum, input impedance 200k Ohms; Programmable 3 Volts, 2k Ohms pull-up resistor per input
Environmental	
Temperature	32° to 104 °F (0° to 40 °C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	6.8 Btu/h maximum

## » Dimensions



## » Troubleshooting

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

Symptom	Issue	Action
No action is performed when a button on the keypad is pressed.	The unit is not receiving 24 VDC Power. There is an error in the control system program.	Check wiring for 24 VDC power. Verify that the control system program is correct.
The LEDs do not light.	The LEDs are not enabled.	Perform Light Sensor Calibration to enable the LEDs.
The keypad button(s) do not actuate when pressed.	The keypad mounting screws are overtightened. The button may not be snapped into the keypad.	Slightly loosen the mounting screws. Ensure that the button cap is properly oriented and installed.
The backlight LEDs are too bright when the room is dark.	The keypad may be staying in Day mode. While in Day mode the LEDs are typically full brightness or off.	Check the DayNightThreshold setting in the control system program. If set to Default, rerun the calibration process from the keypad. Change the DayNightThreshold Calibration setting to Med-Bright or Bright in the control system program to ensure Night mode is entered when the room is dark.
	The LED brightness settings for Night mode may be incorrect.	Adjust the Keypad Brightness settings in the control system program.
The backlight LEDs are too dim or not visible.	The keypad may be staying in Night mode as the room transitions from Dark to Dim. While in Night mode the LEDs are typically at very low brightness.	Change the DayNightThreshold Calibration setting to Med-Dark or Dark in the control system program to ensure Day mode is entered when the room brightens. Calibration may have been run when the lower trim piece was not installed. Replace lower trim and rerun calibration.

## » For Additional Information

Scan or click the QR code for detailed product information.



HZ-KPCN

## Compliance and Legal

**Original Instructions:** The U.S. English version of this document is the original instructions. All other languages are a translation of the original instructions.

### 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)

The product warranty can be found at [www.crestron.com/warranty](http://www.crestron.com/warranty).

The specific patents that cover Crestron products are listed at [www.crestron.com/legal/patents](http://www.crestron.com/legal/patents).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](http://www.crestron.com/opensource).

Crestron, the Crestron logo, Crestron Toolbox, Cresnet, and Horizon are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography.

©2018 Crestron Electronics, Inc.

**Crestron Electronics, Inc.**  
15 Volvo Drive, Rockleigh, NJ 07647  
Tel: 888.CRESTRON  
Fax: 201.767.7576  
[www.crestron.com](http://www.crestron.com)

**Quick Start - Doc. 8285C**  
**(2053091)**  
**12.18**  
Specifications subject to change without notice.