

Echoflex Installation Guide

Keycard Switch Station

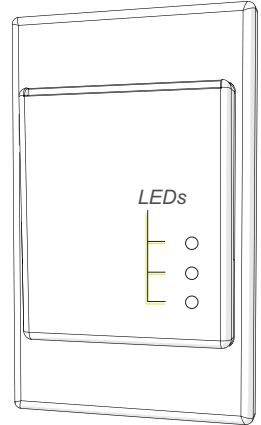
KSS

Overview

The Keycard Switch Station (KSS) uses wireless technology to communicate with compatible Echoflex lighting and temperature controllers to signal occupancy and vacancy for efficient energy management. Color LEDs visible through the faceplate indicate function and working status.

The KSS is well suited for occupancy-based hospitality applications that require control to power a room or setback temperature control devices.

This document covers installation and testing of all battery powered Keycard Switch Station models. The product package includes the station, faceplate, back support plate, and a battery.



Prepare for Installation

To ensure optimal function, consider the installation environment and the following guidelines:

- For indoor use only. Operating temperature -10°C to 45°C (14°F to 113°F), 5%–92% relative humidity (non-condensing).
- High-density construction materials and large metal appliances or fixtures in the space may disrupt wireless transmissions.
- One CR2032 coin cell battery is provided with the KSS. Install the battery or activate it if factory-installed by removing the protective plastic tab in the battery housing. See [Battery Power on page 3](#).
- Avoid mounting transmitters and receivers on the same wall.

Supplies required to install:

- Two #6 screws and wall anchors (not provided)
- Quick strip spacers (not provided)



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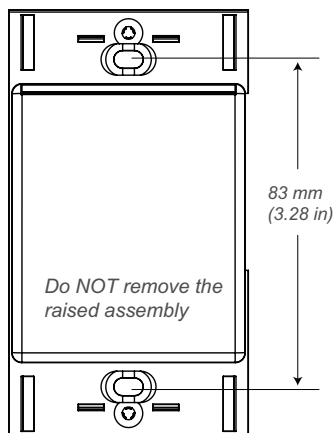
Installation

Use hand tools when installing. Over-torquing with a power tool can damage the KSS. Three different mounting options are available:

- Flush-mounted to a firm surface with screws and wall anchors, not provided.
- On a mud ring using the metal back support plate provided. Echoflex part no.: 8188A3005.
- Over a line voltage device box with a UL approved barrier, sold separately. Echoflex part no.: 8188K1001-5 or 8188K1002-5.

To install the station:

1. Mount the KSS according to the selected option.
2. Attach the faceplate by aligning the top and bottom corners over the switch and gently pressing until it clicks into place.
3. Insert a keycard to test. The green LED will blink each time to indicate a transmitted message.



Faceplate Removed View



Note: To remove the faceplate from the KSS, use your thumbs to press down on a corner to lift it free.

Link to a Controller

The compatible target controller must be installed, powered, and within range of the KSS.



Note: The linking process can be used both to link a device to a controller and to unlink a linked device from a controller.

1. Press the **[Learn]** button on the controller to activate Link mode. If necessary, refer to controller product documentation.
2. Insert and remove a keycard three times quickly.
3. Deactivate Link mode on the controller before attempting to link to any other controllers.
4. Test by inserting and removing a keycard several times. The egress timer is activated when a keycard is removed. Wait 40 seconds before re-inserting the keycard.

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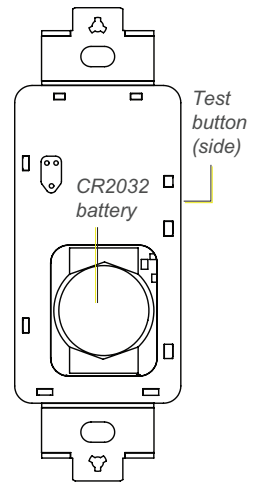
Note: If the process fails, check the battery or run [Range Confirmation on page 4](#) to confirm adequate signal strength.

Battery Power

A CR2032 battery is included with the KSS. The battery may be factory installed or packed separately according to shipping regulations. Insert the battery if required or remove the protective plastic tab before installing the KSS.

To replace the battery:

1. Remove the faceplate, and then unscrew the switch from its mounting location.
2. Insert a precision flatblade screwdriver under the battery clip and gently pry it free.
3. Press and hold the **[Test]** button for 10 seconds to discharge any stored energy and ensure a clean start for the microprocessor.
4. Insert the new battery into the clip with the positive side (+) up and press down. If successful, an LED chase sequence will run three times.



KSS Back View

Tests and Settings

Use the **[Test]** button and color LEDs to navigate the Tests and Settings menu. Remove the faceplate to access the **[Test]** button on the side. The LEDs display through the faceplate on the front of the KSS.

- [Reboot](#) (red LED)
- [Range Confirmation](#) (blue LED)

The menu times out after two minutes of inactivity.

Reboot

1. Press and hold the **[Test]** button until all the LEDs blink.
2. Press and release the **[Test]** button to cycle through the menu of color LEDs and stop when the red LED blinks. Disregard any other LEDs that blink; they are for factory use only.
3. Press and hold the **[Test]** button for five seconds to select. The LEDs flash a sequence three times to confirm successful reboot.

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Range Confirmation

The Range Confirmation test quantifies the strength of the wireless signal to a linked controller that has range confirmation capability.



Note: *Only one controller can be linked to the KSS to run the test properly. Disable repeaters that are in range.*

1. Press and hold the **[Test]** button until the green LED is displayed. Release the button to enter the menu and display the first item, the blinking green LED.
2. Press and release the **[Test]** button to cycle through the menu of color LEDs and stop when the blue LED is blinking. Disregard any other LEDs that blink; they are for factory use only.
3. Press and hold the **[Test]** button until the LED stops blinking to initiate the Range Confirmation test. After the KSS transmits and receives a Range Confirmation message, the signal strength status is displayed as an LED color.

LED Blink	Signal Strength
Green	-41 to -70 dBm (best)
Blue	-70 to -80 dBm (good)
Red	-80 to -95 dBm (poor, move closer)
No LED	No linked controllers detected

The test repeats every five seconds and runs for 50 seconds. To exit before the time-out, press and hold the **[Test]** button.

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Compliance

For complete regulatory compliance information, see the Keycard Switch Station datasheet at echoflexsolutions.com.

FCC Compliance

Echoflex Keycard Switch Station

(For any FCC matters):

Echoflex Solutions, Inc.

3031 Pleasant View Road

Middleton, WI 53562

+1 (608) 831-4116

echoflexsolutions.com

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.

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 instructions, may cause harmful interference to radio communications. Any modifications or changes to this product not expressly approved by Electronic Theatre Controls, Inc. could void the user's authority to operate the product. 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 their own expense.

Contains FCC ID: SZV-TCM515U

ISED Compliance

This device contains a license-exempt transmitter/receiver that complies with Innovation, Science, and Economic Development Canada's license-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Contains IC ID: 5713A-TCM515U

Conformité ISDE

Cet appareil contient un émetteur/récepteur conforme aux CNR d'Innovation, Sciences et Développement économique Canada (ISDE) applicables aux appareils radio exempt de licence. Son fonctionnement est soumis aux deux conditions suivantes:

1. L'appareil ne doit pas produire d'interférences.
2. L'utilisateur de l'appareil doit accepter toute interférence, même si l'interférence est susceptible d'en compromettre le fonctionnement.

Contient ID IC: 5713A-TCM515U

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