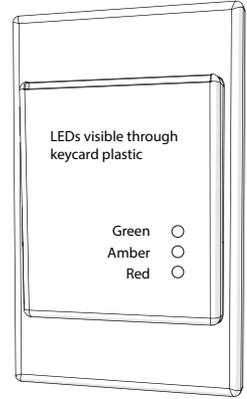


Echoflex Installation Guide

Keycard Switch Station

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.



Prepare for Installation

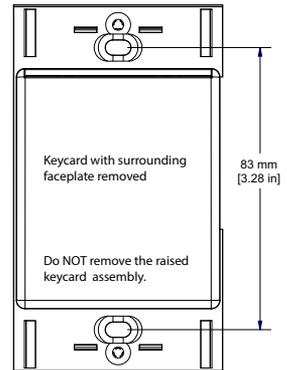
Echoflex recommends paying special attention to the installation environment.

- For indoor use only. Operating temperature -10°C to 45°C (14°F to 113°F), relative humidity (non-condensing) 5% to 92%.
- The switch should be installed in the same space as the device that controls its lighting or temperature settings.
- High density construction materials and large metal appliances or fixtures in the space may disrupt wireless transmissions.
- CR2032 coin cell battery is supplied with the switch. Install the battery or activate it if factory-installed by removing the protective plastic tab in the battery housing. See [Battery Power](#) on [page 2](#).

Installation

Use hand tools when installing. Over-torquing with a screw gun can damage the switch. Three different mounting options are available:

- Flush mounted to a firm surface with screws and wall anchors (not supplied).
- On a mud ring using the provided back support plate.
- Over a line voltage device box with a UL approved barrier (available from Echoflex, order part number 8188K1001-5 or 8188K1002-5).



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- 1: Use your thumbs to press down on a corner of the faceplate to remove it.
- 2: Mount the switch according to the option you selected.
- 3: Position the top and bottom corners of the faceplate on the switch and snap it on.
- 4: Insert a keycard to test the operation. A green LED blinks to indicate a transmitted message.

Link to a Controller

The target Echoflex controllers or receivers must be installed, powered, and within range of the switch. The following process also can be used to unlink the switch.

- 1: Press the **[Learn]** button to activate Link mode at each target controller. If necessary, refer to the related product documentation.
- 2: Insert and remove a keycard three times quickly.
- 3: Deactivate Link mode at each target 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.



Note: *If the test fails, check the battery or run a [Range Confirmation](#) on [page 3](#) to confirm adequate signal strength.*

Battery Power

A CR2032 is supplied with the switch. 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 switch.

During normal operation, if the green LED blinks once, the battery is strong and a message was sent. If the red LED blinks once, the battery is weak but the message was sent. If critically low, the red LED blinks three times and cannot transmit. If the red LED blinks once every minute the battery must be replaced. To replace the battery:

- 1: Remove the faceplate, and then unscrew the switch from its mounting location.
- 2: Insert a flatblade screwdriver under the battery clip and gently pry it free.

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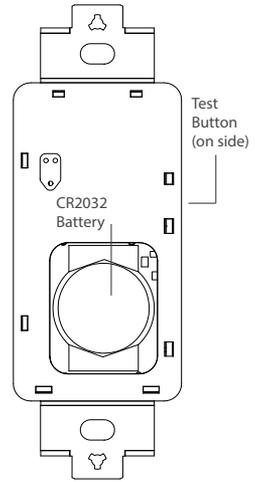
Keycard Switch Station

- 3: Press and hold the **[Test]** button for 10 seconds to discharge any stored energy.
- 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.

Tests and Settings

The **[Test]** button on the side of the switch provides access to a menu of tests and settings. Operational and navigational feedback is provided via the color LEDs. The menu times out after two minutes.

- 1: Remove the faceplate to access the **[Test]** button.
- 2: Press and hold the **[Test]** button until all the LEDs blink.
- 3: Tap the **[Test]** button to cycle through the menu (see table below).
- 4: Press and hold for five seconds to select based on the LED blink. Disregard any other LEDs that blink; they are for factory use only.



Tests and Settings Menu	
Single red blink	Reboot
Single amber blink	Range Confirmation

Reboot

The LEDs will run a chase sequence three times to confirm successful reboot.

Range Confirmation

The Range Confirmation test displays the strength of the signal transmitted to the linked controller. The switch should be linked to only one controller.

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Keycard Switch Station



Note: *Disable all repeaters within range before running the test. See the controller documentation to disable the repeater feature.*

While the test is running, all the LEDs will blink quickly. When the switch receives a range confirmation message from the linked controller, the signal strength status is displayed for two seconds (see table below). The result repeats every ten seconds and runs for three minutes.

LED Blink	Signal Strength	Status
Green	-41 to -70 dBm	Best
Amber	-70 to -80 dBm	Good
Red	-80 to -95 dBm	Poor, move closer
None	No linked controllers detected. Move closer or add message repeating.	

Compliance

FCC Part 15.231 (902 MHz model). Contains FCC ID: SZV-TCM515U Contains IC: 5713A-TCM515U 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.	
IC RSS-210	