

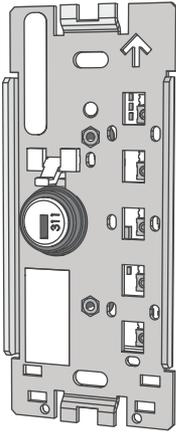
ETC Installation Guide

Unison® Echo Lockout Station



Overview

Echo Lockout station enables security for stations within a space, preventing unwanted control-activation from all stations within the space while the keyed lockout is enabled.



The Lockout station is designed for use with any EchoConnect-enabled system including Echo Zone Controllers, Echo Relay Panels, Sensor3 and Unison DRD with Echo ACP.

Prepare for Installation

Echo Lockout stations ship with station electronics, faceplate, termination kit, (2) keys, and installation hardware. The station may be installed into a standard back box (provided by others) or surface mounted back box (sold separately and available from ETC).

Lockout stations connect to the EchoConnect station communication bus. EchoConnect is a bidirectional protocol that uses one pair of wires (data+ and data-) for both data and power. ETC recommends using Belden 8471 (or approved equal) Class II wire. The total combined length of an EchoConnect wire run may not exceed 1,640 feet (500m).

 **Note:** *All control wiring should be installed and terminated by a qualified installer and should follow standard wiring installation practices.*

Leave approximately 10 inches (254mm) of wiring in the back box for connection and to allow slack for future service needs.

 **Note:** *ETC requires that all stations be grounded. Pull an additional 14 AWG (1.5mm²) wire for grounding when control wires are not installed in grounded metal conduit.*

Environmental

- Indoor installation - 0-50deg C, 5-95% non-condensing humidity

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Installation

Installation should follow all local codes and standard electrical practices. The back box (provided by others) should be installed level and square for best results. Ensure that the back box is clean and free of obstructions and that all wiring is installed correctly and in accordance with local codes.

Lockout stations ship with a termination kit for use with Belden 8471 (or equivalent wire) and contains a power pigtail, a ground wire pigtail, spacers, and all required wire termination connectors for installation.

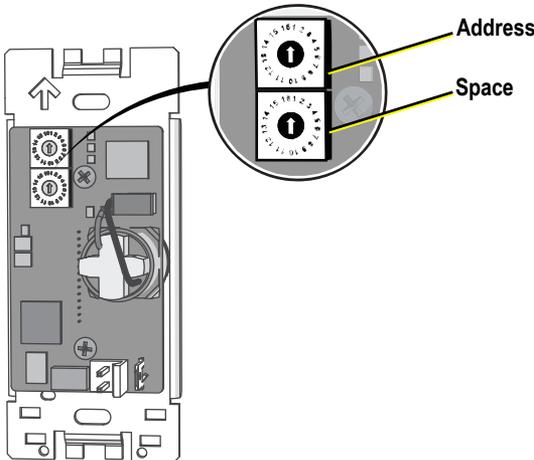
 **Note:** *When using Category5 (or equivalent) cable on the EchoConnect communication bus, please note the following:*

- Not all topologies are supported using Cat5; careful planning is required to ensure the proper termination kits are available and the wire is pulled appropriately.

- Cat5 wiring may be terminated using an EchoConnect Cat5 Station Termination Kit and must be installed using a bus topology. Refer to the installation guide that is provided with the Cat5 Station Termination Kit (7186A1207) for information to terminate Cat5 wiring.

Assign the Station Address and Space

Echo Lockout station includes a set of rotary switches that determine space assignment and station address.

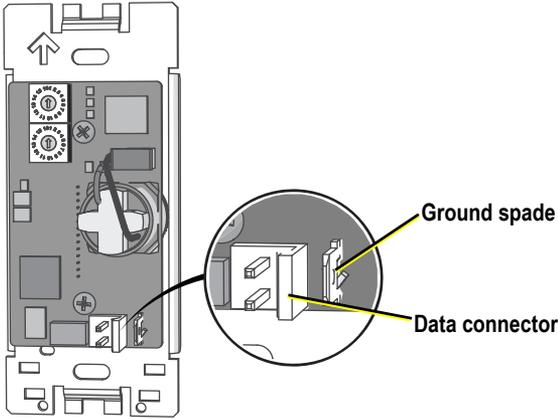


Rotary Switch Assignments

Each station must be set to a unique station address for the assigned space. By default, these switches are set to Space 1, Station Address 1. Commands are shared by all devices within a space.

- Step 1: Set the Space rotary switch to the desired number (1 thru 16) for the space you want the station to provide lockout.
- Step 2: Set the Address rotary switch to the desired address (1 thru 16) for the station identification in the selected Space.

Connect the Wiring



- Step 1: Pull all required wiring (data+, data-) into the back box. As needed, pull an additional ESD ground wire (required only when the station is not installed in grounded metal conduit).



Note:

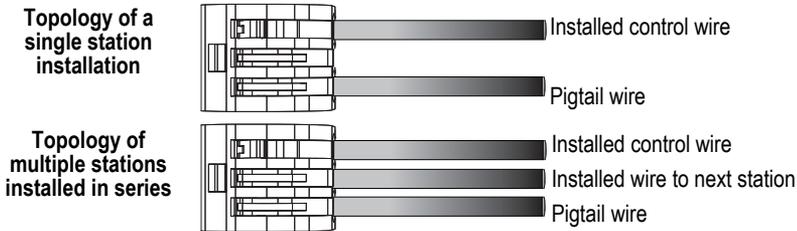
A ground connection (14 AWG) is required between every station and back box, even when installed with grounded metal conduit.

- Step 2: Connect station ESD ground wire pigtail.
 - a: Strip 3/8" (9-10mm) of insulation from the ends of the station ground wire pigtail, provided in the termination kit, and the incoming ground wire to the grounded metal back box.
 - b: Use one WAGO connector, provided in the termination kit, to connect the station ESD ground pigtail and the incoming ground. For systems using grounded metal conduit, connect the ground pigtail to the metal back box ground location.
 - c: Install the ESD ground wire pigtail Faston connector to the spade terminal on the station electronics.

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Step 3: Terminate and connect EchoConnect wires. EchoConnect is topology free, you may install the wires in any combination of bus, star, loop, or home-run.

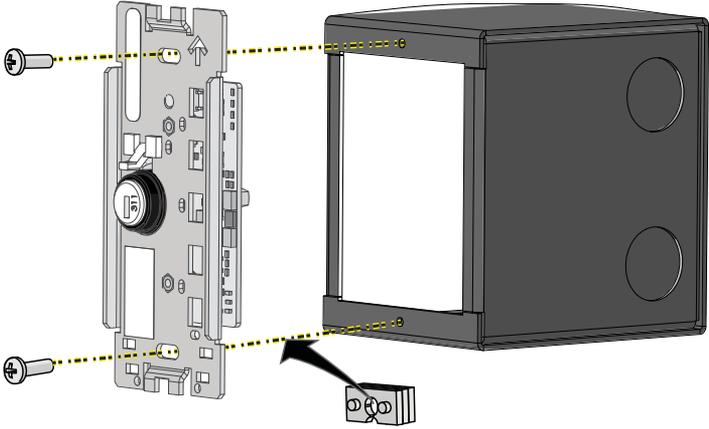


- a: Strip 3/8" (9-10mm) from the ends of each power pigtail wire, provided in the termination kit, and the installed control wires.
- b: Use one WAGO connector, provided in the termination kit, to connect the power pigtail and the installed control wires. Open the terminal levers on the WAGO connector and insert the installed (typically black) Belden 8471 wire and the black lead from the power pigtail into the terminals. Then close the levers.
- c: Repeat for the installed (typically white) Belden 8471 power wires and the remaining white wire from the power pigtail using a new WAGO connector.
- d: Install the two pin connector from the power pigtail to the mating receptacle on the station electronics.

Installing the Station into the Back Box

Spacers are provided to help position the station and cover flush with the wall in flush mount applications. The spacers are not used with surface mount back boxes.

Step 1: Insert the station electronics and wiring into the back box. The arrow on the mounting plate must point up.



Step 2: Use receptacle spacers as needed to provide a flush mounted station.

- a: Fold the spacer in a zig-zag fashion and press the stack together to achieve the thickness needed to fill the gap between the station, wall surface, and the back box.
- b: Cut off and discard the excess.
- c: Place the stack between the station electronics and the flush mounted back box.

Step 3: Secure the station electronics in place using the two screws provided. If using spacers, insert the screws through the spacers as well.

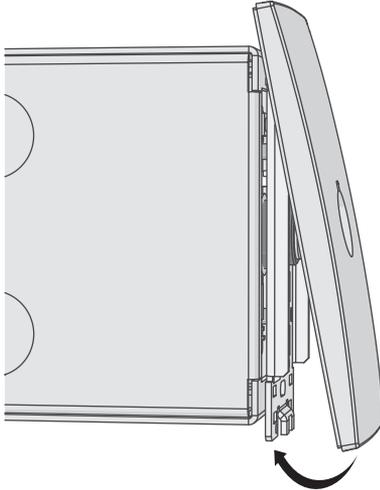
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Installing the Faceplate

The faceplate is secured to the station with two magnets that are located on the bottom edge of the faceplate.

Step 1: Align the top of the faceplate approximately 20 degrees to the station.



Step 2: Hook the top of the faceplate on the tabs located on the top of the station electronics assembly. To ensure the faceplate is hooked properly on the top hook, wiggle it slightly side to side while the bottom is angled about 20 degrees from the wall.

Step 3: Swing the bottom of the faceplate down until the magnets engage.

Step 4: If the faceplate does not fully attach, wiggle the bottom of the plate until the magnets are seated properly to the station and the faceplate is secure.

Service

If you have any difficulties installing your system or with system startup please contact ETC Technical Services at the office nearest you. ETC contact information is located at the bottom of page 1.