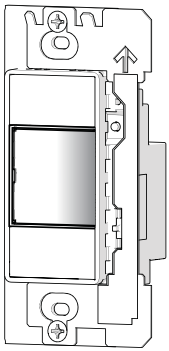
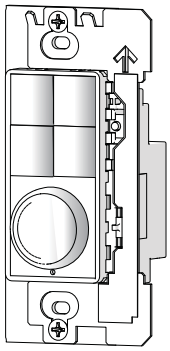
ETC Installation Guide

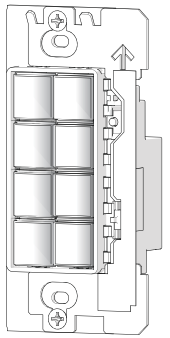
Unison Echo® Inspire® Station

Overview

Inspire stations provide preset, zone, and space combine controls for use with Unison Echo and Sensor® control systems.







Reference the ETC website at www.etcconnect.com for related Inspire Station documentation including the data sheet which provides a complete listing of station types, and the Echo Inspire Station Programming Guide for complete instruction to configure and program all station controls and features.

Stations are available in 1, 2, 4, 6, and 8 button assemblies, and a 4 button with fader station. Station buttons are backlit by both blue and amber LEDs. The 4 button with fader station knob is backlit with a blue LED.

Custom Configuration

This document guides you through the installation and local DIP switch setup of the Echo Inspire station. For more detailed information about local configuration options available for the Inspire station, reference the Echo Inspire Station Programming Guide.

For information about the custom configuration options available for the Inspire station using EchoAccess, reference the EchoAccess Mobile App integrated help system. ETC's user documentation is available from our website www.etcconnect.com.

Note: *To configure the Echo Inspire station using EchoAccess, the station Function switch must be set to Custom.*

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Prepare for Installation

Inspire stations ship with station electronics, a decorator style wall plate, termination kit, and a template of standard button labels. The station may be installed into an industry standard back box (provided by others) or surface mounted back box (sold separately and available from ETC).

Inspire 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 (using Belden 8471, or equal) 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 (1.5mm^2) wire for grounding when control wires are not installed in grounded metal conduit.*

Environmental

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

Installation

Installation should follow all local codes and standard electrical practices.

Note: *NEC Class 2 product to be wired in accordance to NEC Article 725 and local jurisdiction requirements.*

The back box should be installed plum and square for best results. Ensure that the back box is clean and free of obstructions and that all wiring is installed correctly.

Inspire 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 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.

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).

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.
- b: Use one WAGO connector, provided in the termination kit, to connect the station ESD ground pigtail and the incoming ground. For stations using grounded metal conduit, connect the ground pigtail to the metal backbox ground location.
- c: Install the ESD ground wire pigtail Faston connector to the spade terminal on the station electronics.

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

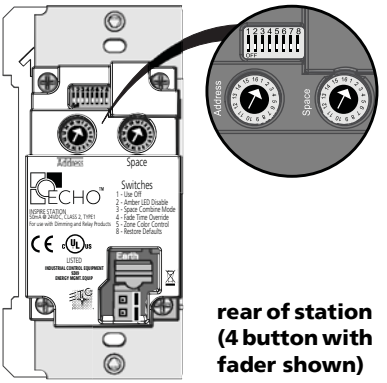
and the black lead from the power pigtail into the terminals. Then close the levers.

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.

Rotary and DIP Switches

Rotary and DIP switch settings are accessible on the rear of the station.



rear of station (4 button with fader shown)

Rotary Switch Assignments

Two rotary switches on the rear panel of the station provide for space assignment and station address assignment. 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. Station commands are shared by all devices within an assigned space.

DIP Switch Settings

DIP switches on the rear panel of the station provide for designation of "Off" functionality, the ability to disable amber button LEDs, 4 button station space combine controls, and the ability to restore the station to its factory defaults.

DIP Switch Settings

Switch #	Use
1	Use Off - Provides "Use Off" functionality. When this is set to Off, the "Off" function of the station is not provided.
2	Amber LED Disable - Provides the ability to disable use of the amber LEDs. When this switch is set to On, amber button LEDs on the station will be disabled. The default setting is Off, enabling amber LEDs. (Amber LEDs is provided as the default so the station glows in darkened spaces, allowing it to be easily located.)
3	Space Combine Mode - 4-button station only, changes the station personality, enabling space combine.

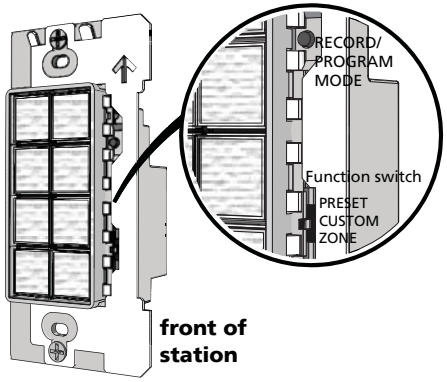
DIP Switch Settings [Continued]

Switch #	Use
4	Fade Time Override (Disable) - Applies a 0 second fade time to all station actions for non-dim switched mode behavior (when dimming features are not wanted).
5	Zone Color Control - 4-button with fader station only, changes the Zone mode (function selection switch) of the station into Color Control mode.
6	Future development
7	Future development
8	Restore to Defaults at boot. Setting this DIP switch, then cycling power to the station restores the station to factory defaults

Note: *When the station Function switch is set to Custom, only DIP switch number 8 applies. All other DIP switch settings are ignored. Reference the Echo Inspire Station Programming Guide (available for download from the ETC website www.etcconnect.com for details on use of the Function switch.*

Station Configuration

The Inspire station has on-board switch and button settings that are available from the front of the station when it is installed and the cover is removed.



Reference the Echo Inspire Station Programming Guide for information about local settings on your Inspire Station, including configuration, program and record mode, and station functionality. ETC's user documentation is available for free download from our website www.etcconnect.com.

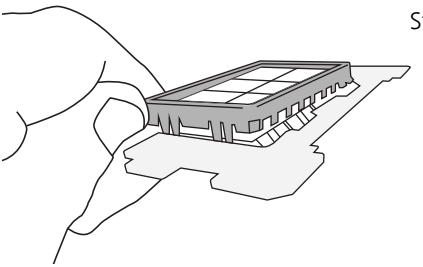
Reference the EchoAccess Mobile App integrated help system for details about custom configuration using the EchoAccess.

Install Button Legends

Inspire stations ship with standard button legends installed beneath a clear lens. An additional sheet of standard button legends are provided for field installation as needed.

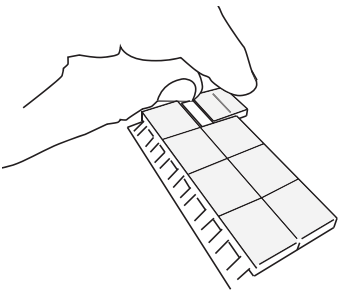
Note: *Customize and print your own button legends on standard transparency. Download the button legend template provided on the ETC website www.etcconnect.com.*

Each button can have a legend, installed beneath the button lens. To remove, install, or replace a button legend you must first remove the bezel and button lens from the station electronics.



Step 1: Remove the bezel from the station electronics.

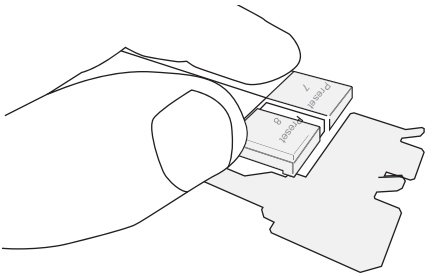
- Each corner of the bezel is provided with a notch to assist with bezel removal. Use your thumbnail to lift a corner free, then gently remove the bezel from the station.



Step 2: Remove the button lens.

- Using the pads of your thumbs, press on the lens and slide the lens either left or right, toward the button hinge points.

Step 3: Once the lens is removed, remove the existing legend and replace it with another standard legend, as provided with this station, or insert a custom legend.

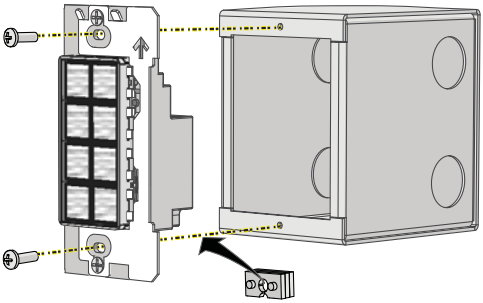


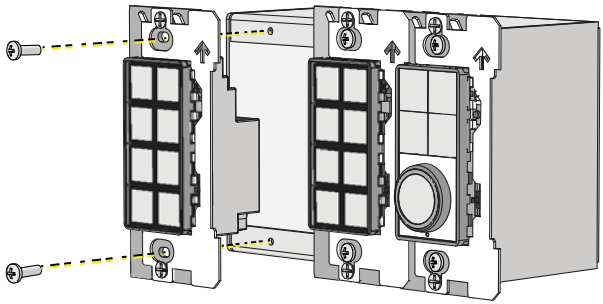
Step 4: Replace the lens onto the button by aligning the grooves of the lens to the button, then sliding the lens in place starting at the hinge. Slide the lens until it covers the entire button and clicks into place.

Step 5: Replace the bezel to the station electronics when all legends and lenses are in place.

Install the Station into the Back Box

Receptacle spacers are provided to help align the station and cover flush against the wall in flush mount application. The spacers are not required when installing the station into a surface mount back box.





Step 1: Insert the station electronics and wiring into the back box. To install multiple stations (multi-gang), insert the station electronics into the back box from the right to the left side for the best alignment and fit. The alignment bracket will slightly overlap the station to the right when properly installed.

Step 2: Use 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.

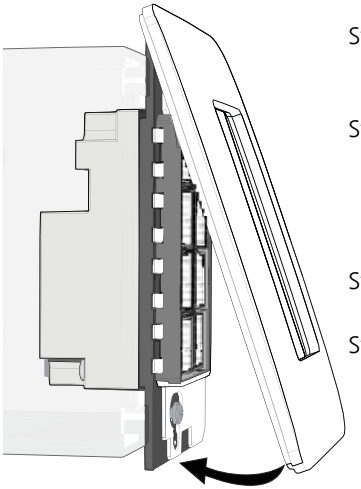
c: Place the stack between the station electronics and the flush mounted back box.

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

CAUTION: *To improve successful station and wall plate installation, do not over tighten the screws. If screws are over tightened, button activation can be negatively impacted.*

Install the Wall Plate

The wall plate is secured to the station with built-in magnets.



Step 1: Align the top of the wall plate to the station and angle the bottom approximately 20 degrees.

Step 2: Hook the top of the wall plate to the tabs located on the station electronics assembly. To ensure the wall plate is hooked properly on the top hook, wiggle it slightly side to side.

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

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

Note: *When installing a multi-gang wall plate and the stations are misaligned in the back box, the wall plate will not attach properly. Loosen the screws that secure the station to the backbox, adjust each station to improve the alignment, secure the screws, then retry wall plate installation.*