



ETC Installation Guide

Unison Echo[®]-Echoflex Interface

Overview

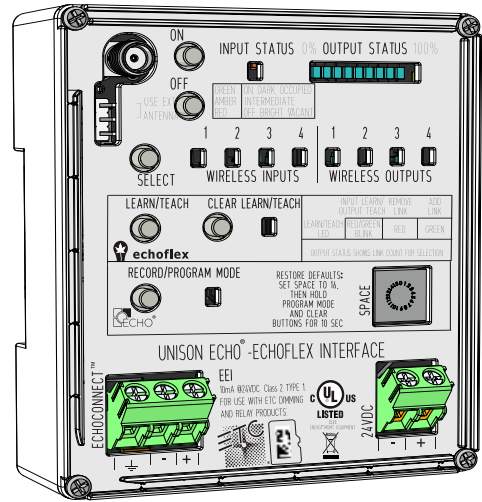
The Echo-Echoflex Interface (EEI) provides communication between Unison Echo and Echoflex control systems by converting wireless Echoflex controls into Unison Echo actions, and enabling Unison Echo controls to control wireless Echoflex power controllers.

The Echo-Echoflex Interface installs on standard DIN rail.

Accessory Kits

ETC provides a Low Voltage DIN rail Cover Kit (ETC part number 7186A1218) that allows installation of the Echo-Echoflex Interface to any standard 4" (10.16cm) junction box (provided by others). Contact ETC for ordering details.

ETC offers an Echo-Echoflex Interface Antenna Kit (ETC part number 7186K1001) that allows the installation of an external antenna. Contact ETC for ordering information.



Specification



Note: *Installation should follow all local codes and standard electrical practices.*

For use with ETC dimming and relay products. (902Mhz radio products only)

Ambient Environment

For indoor use only. Supports plenum rating.

- Operating temperature 0-50°C, 5-95% non-condensing humidity.

Electrical Specification

The EEI requires 24 Vdc (Class II) power, supplied by an external 24 Vdc power supply. Termination for this connection is provided on a two position terminal, labeled 24 Vdc, accepting 26-14 AWG (0.4 - 1.6mm²) wires (typically a 16AWG black and red wire pair).



Note: *NEC Class 2 product are to be wired in accordance with NEC Article 725 and local jurisdiction requirements.*
All power and control wiring should be installed and terminated by a qualified installer and should follow standard wiring installation practices.

Data and Wireless Signal

In addition to 24 Vdc, the Echo-Echoflex Interface requires EchoConnect[™], Belden 8471 (or equivalent) plus one ESD ground wire, supporting data and control to the Echo connect station bus. Reference [Electrical Specification](#) for more information about powering the Echo-Echoflex Interface.

For communication with other wireless Echoflex devices, the Echo-Echoflex Interface includes a built-in 902 MHz radio. Communication is possible between the Echo-Echoflex Interface and other Echoflex wireless devices that also support 902 MHz radio communication.



Corporate Headquarters ■ Middleton, WI, USA ■ Tel +608 831 4116 ■ Service: (Americas) service@etconnect.com
London, UK ■ Tel +44 (0)20 8896 1000 ■ Service: (UK) service@etceurope.com
Rome, IT ■ Tel +39 (06) 32 111 683 ■ Service: (UK) service@etceurope.com
Holzkirchen, DE ■ Tel +49 (80 24) 47 00-0 ■ Service: (DE) techserv-hoki@etconnect.com
Hong Kong ■ Tel +852 2799 1220 ■ Service: (Asia) service@etcasia.com
Web: www.etconnect.com ■ © 2016 ETC. All Rights Reserved. ■ Product information and specifications subject to change.
7186M2103 ■ Rev A ■ Released 2016-03 ■ ETC intends this document to be provided in its entirety.

ETC Installation Guide

Echo-Echoflex Interface

Compliance

UL and cUL Listed, UL2043 listed for installation and use in a plenum space.

RoHS compliant

WEEE marked

FCC: Contains FCC ID: SZV_TCM320U - the enclosed device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (i.) this device may not cause harmful interference and (ii.) this device must accept any interference received, including interference that may cause undesired operation.

Contains IC: 5713A-STM300U / Contient le module d'émission IC: 5713A-STM300U

Range Planning

The EEI interfaces Unison Echo communications with Echoflex controls using a 902 MHz wireless signal. For best wireless performance, because radio waves can be susceptible to interference, some basic principles should be followed when determining the location of the EEI to the Echoflex wireless stations and controllers.

Additionally, ETC requires that the total combined length of an EchoConnect data run (using Belden 8471 or equivalent) must not exceed 1,640 feet (500m). This requirement should be considered when determining the location of the Echo-Echoflex Interface for installation.

Range Planning Guidelines for Wireless

When an event is triggered by a button station or sensor, a wireless message is sent between the EEI and the linked Echoflex device(s). Radio signals become inherently weaker the further they travel and coverage can be decreased by certain materials or obstacles between the stations and controllers. Although the wireless signal can transmit through walls, they are dampened more than on a direct line-of-sight path. Line-of-sight is always the best application when possible.

Typical Radio Range

Material	Range - Typical
Line of sight	100 feet (30m) corridors
Line of sight	330 feet (100m) open halls
Plasterboard	100 feet (30m) through 5 walls
Brick	65 feet (20m) through 3 walls
Concrete	65 feet (20m) through 3 walls
FerroConcrete	33 feet (10m)
Ceiling	1 ceiling (drywall or drop ceiling)

Signal Loss

Material	Attenuation
Wood/Plaster/Glass	0-10%
Brick/MDF	5-35%
Metal	90-100%

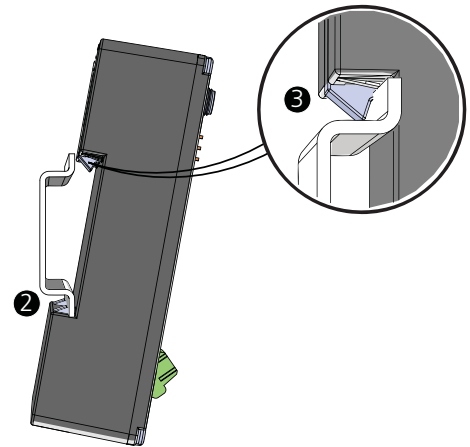
ETC Installation Guide

Echo-Echoflex Interface

Installation

Install Interface to DIN rail

- Step 1: Ensure the section of DIN rail to be used is mounted securely according to the manufacturer's requirements. DIN rail is provided by others.
- Step 2: Hook the bottom of the EEI under the lower DIN rail as shown.
- Step 3: Pivot the device up and depress until the top clip on the device seats to the top rail.



Connect Wiring

Connect EchoConnect

EchoConnect terminations require Belden 8471 (or equivalent) between the EchoConnect station bus and Echo-Echoflex Interface, plus one 14 AWG (2.5mm²) ESD ground wire.

- Step 1: Strip 3/8" (9-10mm) of insulation from the bare end of the Belden 8471 (or equivalent) wires and the ESD ground wire.
- Step 2: Loosen the three screw terminals on the EchoConnect terminals.
- Step 3: Insert the white wire (typical) into terminal 3 (identified with a + symbol), insert the black wire (typical) into terminal 2 (identified with a - symbol), and insert the ESD ground wire into the terminal 1 (identified with a ground symbol).
- Step 4: Secure the screws firmly onto each wire.

Connect 24 Vdc

An external 24 Vdc (Class II) power supply is required to power the EEI. Terminate to the interface terminals labeled 24 Vdc. Terminals accept 26-14 AWG (0.4 - 1.6mm²) wires (typically a 16 AWG black and red wire pair).

- Step 1: Strip 3/8" (9-10mm) of insulation from the bare end of each 16 AWG wire.
- Step 2: Loosen the two screw terminals on the 24 Vdc terminals.
- Step 3: Insert the "negative -" wire (black wire typical) into terminal 1 (identified with a - symbol), and insert the "positive +" wire (red wire typical) into terminal 2 (identified with a + symbol) of the 24 Vdc terminals.
- Step 4: Secure the screws firmly onto each wire.

Connect External Antenna (Optional)

An external antenna can be used with the EEI.

- Step 1: Connect the EEI Antenna to the RF jack.
- Step 2: Move the jumper located below the RF jack to the "Use Ext. Antenna" position.

Set Space

The EEI participates in a Unison Echo Control system using the configured Space, which is selectable using the rotary switch on the front of the unit. Set the Space rotary switch to the desired Space number for this controller. All devices that are in the same Space will share control of the connected Unison Echo stations and sensors.

ETC Installation Guide

Echo-Echoflex Interface

Power Up and Operation

Once the EEI is connected to the EchoConnect station bus and power is applied, the unit's Wireless Input 1 LED will illuminate, indicating its ready for operation.

Echoflex System

Up to 25 compatible 902 MHz wireless Echoflex devices can be linked to the EEI through its inputs and outputs.

When linked to the interface's Wireless Echoflex Inputs, Echoflex devices can control Unison Echo presets and space levels. Compatible Echoflex wireless control devices can be configured for input control.

When linked to the interface's Wireless Echoflex Outputs, Echoflex wireless power controllers are controlled as Unison Echo zones within the Unison Echo Control system. Compatible Echoflex wireless power control devices can be configured for output control.

Unison Echo Control System

The interface participates in a Unison Echo control system using the configured Unison Echo Space, selected using the rotary switch on the front of the unit. Control of presets and zones are shared over EchoConnect with other connected Unison Echo devices. By default Wireless Inputs 1 through 4 are configured to control Echo Presets 1 through 4, and Wireless Outputs 1 through 4 are configured to Echo Zones 1 through 4.

ETC Installation Guide

Echo-Echoflex Interface

User Interface

These are the various components on the EEI. Familiarize yourself with these components and their terms as they are used throughout this document to assist you with configuration.

Buttons

ON and OFF

The [ON] and [OFF] buttons are multi-functional buttons that allow you to configure and manually control Wireless Inputs and Wireless Outputs, and provides adjustments to settings for certain linked wireless Echoflex devices.

How the [ON] and [OFF] buttons function is dependent on:

- The current selection, either Wireless Input or Wireless Output.
- The current operating mode, either normal operation, Record Mode, Program Mode, or Settings Adjust Mode.

Select

The [SELECT] button scrolls through the available Wireless Inputs and Wireless Outputs, and indicates the selection by lighting the associated LED. Each time the [SELECT] button is pressed, the next input or output will be selected and will continuously cycle through the inputs and outputs.

Learn/Teach

The [LEARN/TEACH] button links Echoflex wireless devices to the EEI.

- When a Wireless Input is selected, pressing the [LEARN/TEACH] button “Learns” Echoflex devices that are in “Teach” mode to the Wireless Input.
- When a Wireless Output is selected, pressing the [LEARN/TEACH] button “Teaches” the Wireless Output to Echoflex Controllers that are in “Learn” mode.



Note:

Reference the Echoflex Programming Guide, available as a download from the ETC website at www.etconnect.com, for information about placing your Echoflex wireless devices in Learn or Teach mode.

Clear

The [CLEAR] button clears (unlinks) linked Echoflex devices from the selected Echoflex Input or Echoflex Output. See [Clearing the Linked Devices from Wireless Inputs and Outputs](#) on [page 11](#)

Program Mode

Program Mode allows the configuration of which Echo Presets is assigned to the selected Echoflex Input and which Echo Zone is assigned to the selected Echoflex Output. See [Program Mode](#) on [page 11](#)

Record

Used with the selected Wireless Input, Record allows the corresponding Echo Preset to be snapshot recorded. See [Record](#) on [page 11](#)

ETC Installation Guide

Echo-Echoflex Interface

LEDs

Input Status

The INPUT STATUS LED displays the state of the currently selected Wireless Input.

When an Echoflex device is linked to the Echoflex Input and the Echoflex Input is selected, the LED reflects the current control status of the linked device. Generally speaking “lights on” events are shown with green, “lights off” with red, and amber for intermediate states.

Echoflex wireless Switch Station

- Green - Switch is depressed in On Position.
- Amber - Switch is at rest.
- Red - Switch is depressed in Off position.

Occupancy Sensor

- Green - Occupied
- Red - Vacant

Photo Sensor - Dimmed Operation

- Green - as light levels are raising
- Amber - light levels are within the set thresholds
- Red - as light levels are lowering

Photo Sensor - Switched Operation

- Green - sensor is in Dark state (lights on)
- Amber - sensor is between thresholds
- Red - sensor is in Bright state (lights off)

Keycard Station

- Green - while any keycard is inserted
- Red - while all keycards are removed



Note:

When no Echoflex devices are linked to an Input, the [ON] and [OFF] buttons will behave like a wireless Switch Station. The INPUT STATUS LED will also reflect use of the local [ON] and [Off] buttons as green and red respectively.

Setting Target Lux using a Photo Sensor

Using the photo sensor that is linked to the EEI Wireless Input, tap the photo sensor’s teach button 3 times to set the target lux. When the EEI receives this command, the Input Status LED for the associated Wireless Input will blink once, and then four more times when the new target lux has been recorded.

Output Status

The OUTPUT STATUS LEDs display information about the currently selected Wireless Output.

When an Wireless Output is selected in normal operation, it’s current output level displays on the OUTPUT STATUS LED’s. The level indicated is the highest dimming (control) level detected for all Echoflex controllers that are currently linked to the selected Echoflex Output. All levels, between 0 and 100% are indicated with a LED indicator.

For example:

- No LED’s indicate the current output level is 0% or that there are no Echoflex controllers associated with the selected Echoflex Output.
- 5 green LED’s indicate the current output level is 50%.
- 10 green LED’s indicate the current output level is 100%.

ETC Installation Guide

Echo-Echoflex Interface

System



Note: *The EEI supports a maximum of 25 Echoflex wireless devices.*

Wireless Inputs

The four Wireless Inputs on the EEI convert Echoflex control inputs into Unison Echo Control system actions. Linking of Echoflex controls such as stations and sensors allows control of Echo presets.

Wireless Inputs can be configured to recall a specific preset which is configured using Program Mode. See [Program Mode](#) on [page 11](#). By default, the four Wireless Inputs are configured for Presets 1 through Preset 4, respectively.

Each Wireless Input allows linking of multiple Echoflex devices of the same matching type to share control of the individual input.

Wireless Outputs

The four Wireless Outputs on the EEI can be linked to Echoflex power control devices for combined control with Echo zones. Each of the four outputs available are individually dimmable output circuits that correspond to Echo zones within the selected Space.

Manual Control ON/OFF Buttons

Manual Control of Wireless Inputs

When a Wireless Input is selected, the Manual Control [ON] and [OFF] buttons on the EEI initiate events depending on the linked Echoflex device input type

Manual control of Wireless Inputs simulates the event action on both the linked Echoflex control system and the Unison Echo control system. For a selected Echoflex Input, the [ON] button press simulates the On event Echo action and the [OFF] button press simulates the Off event Echo action for the selection.

For example:

- If Preset 1 is configured to Echoflex Input 1, and the [ON] button is pressed, Preset 1 will play on the Unison Echo Control system and on any Echoflex devices linked to Wireless Outputs.



Note: *If a Wireless Input is not linked to any wireless Echoflex devices, the button will perform Echoflex Switch Station type behaviors.*

Echoflex Switch Station

The following actions pertain to both the SmartClick Switch Station and Wave Station types.

Push

Press and release the button.

- On – Preset activation
- Off – Space Off

Hold

Press and hold the button.

- Hold On – Space raise
- Hold Off – Space lower

ETC Installation Guide

Echo-Echoflex Interface

Double-tap

Double-tap On and Off events perform the same action as the “Push” action for the linked Echoflex device type, except the event will execute in a 500ms time frame.

- Double-tap On – Preset activation executed in a 500ms fade time.
- Double-tap Off – Space Off executed in a 500ms fade time.

Echoflex Occupancy Sensor

Push

Press and release the button.

- On – Preset activation for Occupancy
- Off – Space Off for Vacancy

Double-tap

Double-tap On and Off events perform the same action as the “Push” action for the linked Echoflex device type, except the event will execute in a 500ms time frame.

- Double-tap On – Preset activation for Occupancy, executed in a 500ms fade time.
- Double-tap Off – Space Off for Vacancy, executed in a 500ms fade time.

Echoflex Photo Sensor

Push

Press and release the button.

- On – Preset activation for the Dark action.
- Off – Space Off for the Bright action.

Hold

Press and hold the button.

- Hold On – Space Raise
- Hold Off – Space Lower



Note:

Photo hold On and Off will use the same raise/lower rate as the rocker switch (50ms per step). The actual photo raise/lower rate for normal operation is 1s per step.

Double-tap

Double-tap On and Off events perform the same action as the “Push” action for the linked Echoflex device type, except the event will execute in a 500ms time frame.

- Double-tap On – Preset activation for the Dark action, executed in a 500ms fade time.
- Double-tap Off – Space Off for the Bright action, executed in a 500ms fade time.

Echoflex Keycard Station

Push

Press and release the button.

- On – Preset activation and Station Unlock for the inserted card action.
- Off – Space Off and Station Lockout for the removed card action.



Note:

Manual On/Off control skips any configured ingress and egress delay times so that you do not need to hold the button for the configured duration to test the function.

ETC Installation Guide

Echo-Echoflex Interface



Note: *Be careful with your testing. It is possible for manual controls to place the EEI out of state with maintained or state based wireless inputs.*

Double-tap

Double-tap On and Off events perform the same action as the “Push” action for the linked Echoflex device type, except the event will execute in a 500ms time frame.

- Double-tap On – Preset activation and Station Unlock for the inserted card action, executed in a 500ms fade time.
- Double-tap Off – Space Off and Station Lockout for the removed card action, executed in a 500ms fade time.

Manual Control of Wireless Outputs

When a Wireless Output is selected, the Manual Control [ON] and [OFF] buttons allow manual level control of the selected Wireless Output and its linked Echoflex devices.

Manual control of Wireless Outputs simulate the event action only on the linked Echoflex control system, and only for the zone that is associated with the selected Wireless Output and the linked Echoflex wireless device(s).

For example:

If Wireless Output 1 is selected, pressing the [ON] button will set the levels for all of the Echoflex power controllers that are linked to Echoflex Output 1 to 100%.

Manual control events for the selected Wireless Outputs will not be shared to the Unison Echo Control system.

Push

Press and release the button.

- On - sets the selected output to 100% using a 2 second fade time.
- Off – sets the selected output to 0% using a 2 second fade time

Hold

Press and hold the button.

- Hold On – selected output level raise
- Hold Off – selected output level lower

Double-tap

Double-tap On and Off events perform the same action as the “Push” action for the linked output, except the event will execute in a 500ms time frame.

- Double-tap On – sets the selected output to 100%, executed in a 500ms fade time.
- Double-tap Off – sets the selected output to 0%, executed in a 500ms fade time.

ETC Installation Guide

Echo-Echoflex Interface

Configuration

Linking Echoflex Devices to Wireless Inputs and Outputs

With a Wireless Input or Output selected, and the EEI in Learn/Teach Mode, the selected Wireless Input or Output LED lights and the OUTPUT STATUS LEDs indicate the number of Echoflex controls that are linked to the selected input or output.

A selected Wireless Input or Output that is not associated with (linked) Echoflex controls will not display indication on the Output Status LED's.

To link an Echoflex device to an EEI Wireless Input, you must have access to the EEI to place the unit in Learn mode and access to the Echoflex device to place it into Teach mode.

Follow these instructions to link an Echoflex device to the EEI Wireless Input.

- Step 1: Select the Wireless Input. Press the [SELECT] button to cycle through the available wireless inputs and outputs, until the desired input is selected. The selected input LED will indicate in amber. If the input already has a linked device, the INPUT STATUS LED will indicate. Reference *Input Status* on [page 6](#) for LED indication details.
- Step 2: Press the [LEARN/TEACH] button. The LEARN/TEACH LED will blink alternating red and green to indicate it is in Learn mode. Learn mode will expire after 30 seconds of inactivity, if no Teach messages are received from Echoflex devices or interaction with the [SELECT] button is made.
- Step 3: On the Echoflex wireless device, press the [TEACH] button, or for switch stations press the station On button three times to link the device to the selected Echoflex Input. When the Echoflex device links to the EEI, the INPUT STATUS LED will indicate solid green for 4 seconds.



Note: *While in Learn mode, the OUTPUT STATUS LED's will indicate the number of Echoflex devices (must be of the same type) that are linked to the selected Echoflex Input.*

To link an Echoflex device to an EEI Wireless Output, you must have access to the EEI to place the unit in Teach mode and access to the Echoflex device to place it into Learn mode.

Follow these instructions to link an Echoflex device to the EEI Wireless Output.

- Step 1: Select the Wireless Output. Press the [SELECT] button to cycle through the available wireless inputs and outputs, until the desired output is selected. The selected output LED will indicate in amber. If the output already has a linked device, the OUTPUT STATUS LED will indicate.
- Step 2: Put the Echoflex device into Learn mode (by pressing its own Learn button). Press the [LEARN/TEACH] button on the EEI. If a controller has been linked at the moment of pushing Teach, the EEI Output LED shall show a green LED for 4 seconds (if a controller has been unlinked the EEI Output LED will show a red LED for 4 seconds). If nothing has been linked/unlinked the EEI Output LED shall remain off.



Note: *Because the teach button linking is an instantaneous one-time event there is not a timeout, if a device is not added or deleted when the Teach button is pressed nothing further will happen until the Teach button is pressed again.*

Press the [LEARN/TEACH] button again to exit Learn mode or press the [SELECT] button to cycle through the inputs and outputs.

ETC Installation Guide

Echo-Echoflex Interface

Clearing the Linked Devices from Wireless Inputs and Outputs

To clear all Echoflex devices from the selected Echoflex Input or Output on the EEI, press and hold the [CLEAR] button for five seconds. The LEARN/TEACH LED indicates in red, then goes out when the clear action is complete.



Note: *After clearing linked devices from the EEI Echoflex outputs, you must also push the CLEAR button on the associated Echoflex devices, as the outputs are bidirectional links.*

Record

Enter Record mode with a brief press and release of the [RECORD/PROGRAM MODE] button. Record snapshots the current output levels to the Echo Preset that is configured for control by the selected Echoflex Input.



Note: *The Preset Record command will occur in the entire connected Unison Echo Control system, and not just locally.*

Program Mode

Echo Program Mode is used to adjust which Echo Presets are controlled by Wireless Inputs as well as which Echo Zones associated with Wireless Outputs.

Enter Program Mode by pressing and holding the [RECORD/PROGRAM MODE] button for three seconds. When in Program Mode, press the [ON] and [OFF] buttons to increment or decrement values.

The OUTPUT STATUS LEDs display the current value edited with [ON] and [OFF] buttons:

- 2 green LED's indicate Preset 2 for the selected Echoflex Input.
 - When the selected Wireless Input configured Preset is greater than 10, the additional Preset number will indicate additively in a cycle. First, all LED's will indicate (=10), then the remaining LED's indicate (up to 6), followed by a long pause.
-



Note: This behavior ONLY occurs while you are in ECHO Program Mode for the given Echoflex Input



Note: *Program Mode times out after 90 seconds of inactivity. Any changes that were made before the timeout will not be saved. To exit Program Mode with changes saved, press the [RECORD/PROGRAM] button.*

Assigning Echo Presets to Wireless Inputs

The Preset number associated with the selected Wireless Input is displayed on the OUTPUT STATUS LED's, where the number of LEDs lit is the Preset number value. This Preset defines the lights on action of the linked Echoflex devices. See [Manual Control of Wireless Inputs on page 7](#) for more information about each Echoflex device type and it's behaviors with Preset actions.

By factory default, the four Echoflex Inputs are configured to Preset 1 through Preset 4, respectively. Presets 1-16 may be individually assigned to the Wireless Inputs.



Note: *Only one preset may be configured per Echoflex Input.*

Configure Preset

Step 1: Place the EEI in Program Mode.

ETC Installation Guide

Echo-Echoflex Interface

- Step 2: Press the [SELECT] button until the Wireless Input to be configured is selected. The current preset number configured to the selection displays on the OUTPUT STATUS LED's.
- Step 3: Press the [ON] button to increase the preset number or press the [OFF] button to decrease the Preset number. When the Preset number is greater than 10, a second set of LED's will indicate as an additive process.
- Step 4: When the desired preset number for the selection is displayed, you can choose to:
- a: Press the [SELECT] button to change the selection to the next Echoflex Input and repeat the process of configuring the preset number for the selection.
 - b: Exit Program Mode by pressing the [RECORD/PROGRAM] button.
- Step 5: Press the [RECORD/PROGRAM] button to save the selection and exit Program Mode. The selected Echoflex Input or Echoflex Output LED will blink to indicate the save process.

Assigning Echo Zones to Wireless Outputs

The OUTPUT STATUS LED's displays the assigned Zone number associated with the selected Wireless Output as a count of lit LEDs. Zone assignment of Wireless Outputs allows combined control of Echoflex devices with Echo zones that are configured for the same Space.

By factory default, the four Echoflex Outputs are configured to Zone 1 to Zone 4. Zones 1-16 may be individually assigned to the Wireless Outputs

When an Wireless Output is selected, and the EEI is in Program Mode, indicated by a lit Program Mode LED, the OUTPUT STATUS LED's will display the selected output Zone. This is displayed according to the following sequence:

- 1 green LED indicates Zone 1 for the selected Echoflex Output.
- When the selected Echoflex Output configured Zone is greater than 10, the additional Zone number will indicate additively in a cycle. First, all LED's will indicate (=10), then the remaining LED's will indicate (up to 6), followed by a long pause.



Note: *Only one Zone may be configured per Echoflex Output.*

Configure Zone

- Step 1: Place the EEI in Program Mode.
- Step 2: Press the [SELECT] button until the Wireless Output to be configured is selected. The current zone number configured to the selection displays on the OUTPUT STATUS LED's.
- Step 3: Press the [ON] button to increase the zone number or press the [OFF] button to decrease the Zone number. When the Zone number is greater than 10, a second set of LED's will indicate as an additive process.
- Step 4: When the desired zone number for the selection is displayed, you can choose to:
- c: Press the [SELECT] button to change the selection to the next Echoflex Output and repeat the process of configuring the zone number for the selection.
 - d: Exit Program Mode by pressing the [RECORD/PROGRAM] button.
- Step 5: Press the [RECORD/PROGRAM] button to save the selection and exit Program Mode. The selected Echoflex Input or Echoflex Output LED will blink to indicate the save process.

ETC Installation Guide

Echo-Echoflex Interface

Settings Configuration

Occupancy Sensor Input Settings

Use the [SELECT] button to select the Echo input channel that has an occupancy sensor linked to it.

- Step 1: Press and hold the ON and OFF buttons for 5 seconds, until the Echo input status LED starts blinking RED.
- Step 2: Tap the ON button to cycle through different values which are displayed on the output status bar.

Input Status LED	Mode	Output Status 1 LED	Output Status 2 LEDs	Output Status 3 LEDs	Output Status 4 LEDs
Red	Time	5min (default)	15min	30min	Automatic

- Step 3: Press and hold the ON and OFF buttons for 5 seconds to exit and save. The input status LED will go solid RED for 4 seconds, then shut off.



Note: *If the ON and OFF buttons are not pressed within 10 seconds, the system will exit without saving.*

Photo Sensor Input Settings Mode

Use the [SELECT] button to select the Echo input that has a photo sensor linked to it.

- Step 1: Press and hold the ON and OFF buttons for 5 seconds, until the Echo input status LED starts blinking RED.
- Step 2: Tap the OFF button while in this mode to cycle through item to edit.
- Step 3: Tap the ON button to cycle through different values.

Input Status LED	Mode	Output Status 1 LED	Output Status 2 LEDs	Output Status 3 LEDs	Output Status 4 LEDs
Red	Dim/Switch	Dimming (default)	Switched	N/A	N/A
Green	Timeout	5 minutes (default)	15 minutes	30 minutes	60 minutes
Amber	Deadband	10% (default)	20%	35%	50%

- Step 4: Press and hold the ON and OFF buttons for 5 seconds to exit and save. The input status LED will go solid RED for 4 seconds, then shut off.



Note: *If the ON and OFF buttons are not pressed within 10 seconds, the system will exit without saving.*

Keycard Input Settings

Use the [SELECT] button to select the Echo input that has a keycard sensor linked to it.

- Step 1: Press and hold the ON and OFF buttons for 5 seconds, until the input status LED starts blinking RED.
- Step 2: Tap the OFF button while in this mode to cycle through item to edit.

ETC Installation Guide

Echo-Echoflex Interface

Step 3: Tap the ON button to cycle through different values.

Input Status LED	Mode	Output Status 1 LED	Output Status 2 LEDs	Output Status 3 LEDs	Output Status 4 LEDs
Red	Ingress Timeout	0sec (default)	30sec	1min	5min
Green	Egress Timeout	0sec	30sec (default)	1min	5min
Amber	Action Inversion	Non-inverted (default)	Inverted	N/A	N/A

Step 4: Press and hold the ON and OFF buttons for 5 seconds to exit and save. The input status LED shall go solid RED for 4 seconds, then shut off.



Note: *If the ON and OFF buttons are not pressed within 10 seconds, the system will exit without saving.*

Restore Defaults

If for any reason you need to restore defaults to the Echo-Echoflex Interface, follow these instructions.

Step 1: Set the Space rotary dial to 16.

Step 2: Hold the [RECORD/PROGRAM] and [CLEAR] buttons for 10 seconds.



Note: *When using restore defaults, the linked Unison Echo controller must also be manually cleared.*

Remove the Interface from DIN

If for any reason you need to remove the Echo-Echoflex Interface from the DIN rail, follow these instructions.

Step 1: Disconnect all wiring.

Step 2: Insert a flat head screwdriver into the clip on top of the interface, slide it straight up, then pivot the top of the interface off of the DIN rail.

Special EnOcean Functions

To configure the repeater functionality, hold the [CLEAR] button and tap [LEARN/TEACH] a number of times to select desired repeater functionality:

1 tap - Repeater disabled

2 taps - Repeater 1 hop

3 taps - Repeater 2 hops

The Learn/Teach LED will blink the number of times to confirm

To send a manufacturer specific message, press and hold the [LEARN/TEACH] button while tapping the [CLEAR] button 2 times. This will send the radio ID of the EEI in order to configure it with remote management tools. The [learn/teach] LED will blink twice to confirm the message was sent.