

Echoflex Installation Guide

Elaho-Echoflex Interface

Overview

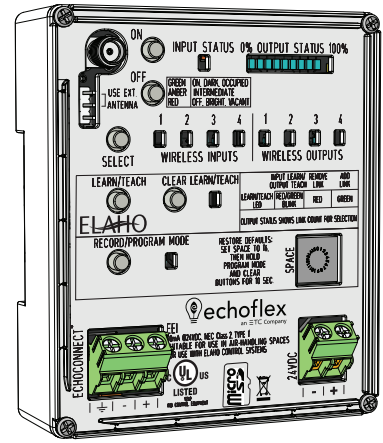
The Elaho-Echoflex Interface (EEI) provides communication between Elaho and Echoflex control systems by converting wireless Echoflex controls into Elaho actions, and enabling Elaho controls to control wireless Echoflex power controllers.

The Elaho-Echoflex Interface installs on standard DIN rail.

Accessory Kits

Echoflex offers a Low Voltage DIN rail Cover Kit (part number 7186A1218) that allows installation of the Elaho-Echoflex Interface to a 10.16 cm (4 in) junction box (provided by others). Contact Echoflex for ordering details.

Echoflex offers an Antenna Kit (Echoflex part number 8186K1001) that allows the installation of an external antenna. Contact Echoflex for ordering details.



Specification



Note: Installation must follow all national and local codes for electrical equipment.

For use with Echoflex dimming and relay products and Echoflex (902 MHz radio products only).

Ambient Environment

For indoor, commercial controls use only. Supports plenum rating.

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

Compliance

- UL/cUL Listed; additionally rated for plenum spaces under UL 2043
- RoHS compliant
- WEEE marked
- **FCC: Contains FCC ID: SZV_STM300U** - 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

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Electrical Requirements

The Elaho-Echoflex Interface requires external power provided to the unit by an external 24 VDC (Class 2) power supply. Termination for this connection is provided on a two-position terminal, labeled 24 VDC, accepting 0.2–4 mm² (24–12 AWG) wires, typically a 1.5 mm² (16 AWG) 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 Elaho-Echoflex Interface requires EchoConnect, Belden 8471 (or equivalent) plus one ESD ground wire, supporting data and control to the EchoConnect station bus. See [Electrical Requirements](#) for more information about powering the Elaho-Echoflex Interface.

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

Range Planning

The EEI interfaces Elaho 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, Echoflex requires that the total combined length of an EchoConnect data run (using Belden 8471 or equivalent) must not exceed 500 m (1,640 ft). This requirement should be considered when determining the location of the Elaho-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, it is 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	24 m (80 feet) corridors
Line of sight	100 m (330 feet) open halls
Plasterboard	24 m (80 feet) through 5 walls
Brick	10 m (33 feet) through 3 walls
Concrete	10 m (33 feet) through 3 walls
FerroConcrete	10 m (33 feet)
Ceiling	1 drop ceiling (drywall not recommended)

Signal Loss

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

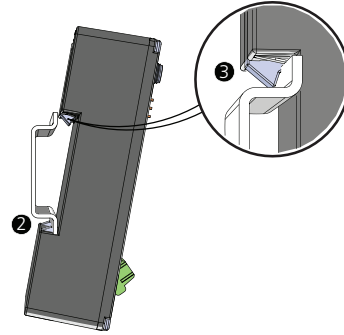
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Install to DIN rail

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.)
2. Hook the bottom of the device under the lower DIN rail edge as shown.
3. Pivot the device up and depress until the top clip seats completely onto the DIN rail.



*The structural support for the DIN rail has been removed from this graphic for clarity of the installation procedure.

Connect Wiring

Connect EchoConnect

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

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

Connect 24 VDC

An external 24 VDC (Class 2) power supply is required to power the EEI. Terminate to the interface terminals labeled 24 VDC. Terminals accepts 0.2–4 mm² (24–12 AWG) wires (typically a 16 AWG black and red wire pair).

1. Strip 9–10 mm (3/8") of insulation from the bare end of each 1.5 mm² (16 AWG) wire.
2. Loosen the two screw terminals on the 24 VDC terminals.
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.
4. Secure the screws firmly onto each wire.

Connect External Antenna (optional)

An external antenna can be used with the EEI.

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

Set Space

The EEI participates in a Elaho 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 Elaho stations and sensors.

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Power Up and Operation

Once the Elaho-Echoflex Interface is connected to the EchoConnect station bus and power is applied, the Wireless Input 1 LED will illuminate, indicating it is ready for operation.

Echoflex System

Up to 35 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 Elaho 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 Elaho zones within the Elaho control system. Compatible Echoflex wireless power control devices can be configured for output control.

Elaho Control System

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

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 a wireless input or a 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.

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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: See the related Echoflex device installation guide, available on the Echoflex website at echoflexsolutions.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 Linked Devices from Wireless Inputs and Outputs on page 10](#).

Program Mode

Program Mode allows the configuration of which Elaho Presets is assigned to the selected Echoflex Input and which Elaho 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 Elaho Preset to be snapshot recorded. See [Record on page 10](#).

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 a green LED, “lights off” events are shown with a red LED, and amber is shown for intermediate states.

Echoflex Wireless Switch Station

- Green – Switch is pressed in On Position
- Amber – Switch is at rest
- Red – Switch is pressed 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

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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 keycard is inserted
- Red – while keycard is 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 a wireless output is selected in normal operation, its current output level displays on the OUTPUT STATUS LEDs. 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 LEDs indicate the current output level is 0% or that there are no Echoflex controllers associated with the selected Echoflex Output.
- 5 green LEDs indicate the current output level is 50%.
- 10 green LEDs indicate the current output level is 100%.

System



Note: The EEI supports a maximum of 35 Echoflex wireless devices.

Wireless Inputs

The four wireless inputs on the EEI convert Echoflex control inputs into Elaho control system actions. Linking of Echoflex controls such as stations and sensors allows control of Elaho 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 4, respectively.

Each wireless input allows linking of multiple Echoflex devices of the same matching type to share control of the individual input. This allows multiple stations or sensors to be able to trigger the same input.

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Wireless Outputs

The four wireless outputs on the EEI can be linked to Echoflex power control devices for combined control with Elaho zones. Each of the four outputs available are individually dimmable output circuits that correspond to Elaho 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 simulate the event action on both the linked Echoflex control system and the Elaho control system. For a selected Echoflex Input, the [ON] button press simulates the On event Elaho action and the [OFF] button press simulates the Off event Elaho action for the selection.

Example: If Preset 1 is configured to Echoflex Input 1, and the [ON] button is pressed, Preset 1 will play on the Elaho 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 Wave and Decorator Style switches.

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

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 500 ms time frame.

- Double-tap [ON] – Preset activation executed in a 500 ms fade time
- Double-tap [OFF] – Space Off executed in a 500 ms fade time

Echoflex Occupancy Sensor

Push

Press and release the button.

- [ON] – Preset activation for Occupancy
- [OFF] – Space Off for Vacancy

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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 500 ms time frame.

- Double-tap [ON] – Preset activation for Occupancy, executed in a 500 ms fade time
- Double-tap [OFF] – Space Off for Vacancy, executed in a 500 ms 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]S will use the same raise/lower rate as the rocker switch (50 ms per step). The actual photo raise lower rate for normal operation is one second 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 500 ms time frame.

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



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 500 ms time frame.

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

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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).

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 Elaho control system.

Push

Press and release the button.

- [ON] – sets the selected output to 100% using a two second fade time
- [OFF] – sets the selected output to 0% using a two 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 500 ms time frame.

- Double-tap [ON] – sets the selected output to 100%, executed in a 500 ms fade time
- Double-tap [OFF] – sets the selected output to 0%, executed in a 500 ms fade time

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 any indication on the OUTPUT STATUS LEDs.

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.

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. See [Input Status on page 5](#) for LED indication details.

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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.
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 four seconds.



Note: *While in Learn mode, the OUTPUT STATUS LEDs 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.

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.
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 four seconds (if a controller has been unlinked the EEI Output LED will show a red LED for four 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.

Clearing 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, and 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 because 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 Elaho preset that is configured for control by the selected Echoflex Input.



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

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Program Mode

Elaho Program Mode is used to adjust which Elaho Presets are controlled by wireless inputs as well as which Elaho Zones are 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 LEDs 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 LEDs will indicate (=10), and then the remaining LEDs indicate (up to 6), followed by a long pause.



Note: This behavior ONLY occurs while you are in Elaho 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 Elaho Presets to Wireless Inputs

The Preset number associated with the selected wireless input is displayed on the OUTPUT STATUS LEDs, 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 Outputs on page 9](#) for more information about each Echoflex device type and its 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

1. Place the EEI in Program Mode.
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 LEDs.
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 LEDs will indicate as an additive process.
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.
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.

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Assigning Elaho Zones to Wireless Outputs

The OUTPUT STATUS LEDs display 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 Elaho 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 a wireless output is selected and the EEI is in Program Mode (indicated by a lit Program Mode LED), the OUTPUT STATUS LEDs 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 LEDs will indicate (=10), and then the remaining LEDs will indicate (up to 6), followed by a long pause.



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

Configure Zone

1. Place the EEI in Program Mode.
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 LEDs.
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 LEDs will indicate as an additive process.
4. When the desired zone number for the selection is displayed, you can choose to:
 - a. 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.
 - b. Exit Program Mode by pressing the [RECORD/PROGRAM] button.
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.

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Settings Configuration

Occupancy Sensor Input Settings

The Occupancy Sensor Input provides menu access to change occupancy timeout and auto-on behavior from the default behaviors.

1. Use the [SELECT] button to select the Elaho input channel that has an occupancy sensor linked to it.
2. Press and hold the [ON] and [OFF] buttons for five seconds, until the Elaho INPUT STATUS LED starts blinking RED.
3. Tap the [OFF] button until the INPUT STATUS LED blinks the either red or green, according to the setting you will edit. The OUTPUT STATUS LED indicates the current setting.
4. Tap the [ON] button to edit the current setting displayed in 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 (blinking)	Adjust Occupancy Timeout	5 minutes (default)	15 minutes	30 minutes	Automatic
Green (blinking)	Adjust Auto-On Behavior	Auto-On Disabled	Auto-On Enabled (default)		

5. Press and hold the [ON] and [OFF] buttons for five seconds to exit and save. The input status LED will display solid red for four seconds and then shut off.



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

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Photo Sensor Input Settings Mode

1. Use the [SELECT] button to select the Elaho input that has a photo sensor linked to it.
2. Press and hold the [ON] and [OFF] buttons for five seconds, until the Elaho INPUT STATUS LED starts blinking RED.
3. Tap the [OFF] button until the INPUT STATUS LED blinks the either red, green, or amber, according to the setting you will edit. The OUTPUT STATUS LED indicates the current setting.
4. Tap the [ON] button to edit the current setting 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	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%

5. Press and hold the [ON] and [OFF] buttons for five seconds to exit and save. The input status LED will go solid red for four seconds and 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

1. Use the [SELECT] button to select the Elaho input that has a keycard sensor linked to it.
2. Press and hold the [ON] and [OFF] buttons for five seconds, until the Elaho INPUT STATUS LED starts blinking red.
3. Tap the [OFF] button until the INPUT STATUS LED blinks the either red, green, or amber, according to the setting you will edit. The OUTPUT STATUS LED indicates the current setting.
4. Tap the [ON] button to edit the current setting 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	Ingress Timeout	0 seconds (default)	30 seconds	1 minute	5 minutes
Green	Egress Timeout	0 seconds	30 seconds (default)	1 minute	5 minutes
Amber	Action Inversion	Non-inverted (default)	Inverted	N/A	N/A

5. Press and hold the [ON] and [OFF] buttons for five seconds to exit and save. The input status LED shall go solid red for four seconds and then shut off.



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

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Restore Defaults

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

1. Set the Space rotary dial to 16.
2. Hold the [RECORD/PROGRAM] button and [CLEAR] button for 10 seconds.



Note: When restoring defaults, the linked Elaho controller must also be manually cleared.

Remove the Interface from DIN rail

If for any reason you need to remove the unit from the DIN rail, follow these instructions.

1. Shut power off from the unit and station power supplies on connected EchoConnect segments.
2. Label and then disconnect all wiring and cap off as necessary.
3. Insert a flatblade screwdriver into the clip on top of the enclosure, slide it straight up, and then pivot the top of the unit 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:

- One tap – repeater disabled
- Two taps – repeater 1 hop
- Three 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 two 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.