



# ElahoTouch

## User Manual

Version 2.6.0

Part Number: 8186M1283-2.6.0 Rev: A

Released: 2019-04

To view a list of trademarks and patents, go to [etcconnect.com/ip](https://etcconnect.com/ip).

All other trademarks, both marked and not marked, are the property of their respective owners.

ETC intends this document, whether printed or electronic, to be provided in its entirety.

# Table of Contents

---

Introduction .....	5
Help from Technical Services .....	6
ElahoTouch Overview .....	7
Zones .....	7
Zone Map .....	7
Pages .....	8
Layout Mode .....	9
Getting Started With Patching .....	13
Patch .....	13
Add Elaho Zone .....	13
Add Dimmer .....	14
Add Device .....	15
RDM .....	16
Identify .....	16
Loading a Fixture Profile .....	16
Show Universes / Show Zone Map .....	17
Invert Pan .....	17
Invert Tilt .....	18
Swap Pan and Tilt .....	18
Remove .....	18
About RDM .....	18
Controlling Parameters .....	21
Parameter .....	21
Parameter, All .....	21
Parameter, Position .....	22
Nudge .....	23
Parameter, ColorMix .....	23
Parameter, Beam .....	25
Parameter, Lamp Commands .....	26
Parameter, Home .....	26
Recording Your Looks For Playback .....	29
Record .....	29
Presets .....	29
Record Sequence .....	31
Edit Sequence List .....	32
System Settings and Setup .....	35
Setup .....	35
Settings .....	35
Showfile Management .....	39
Files .....	39
File, New .....	39
File, Open .....	39
File, Save .....	40
File, Save As .....	40
File, Import .....	40
File, Export .....	40
File, Delete .....	41
Files, Show files .....	41
Save As Default .....	42
Remove Default Show .....	42
Files, Advanced .....	42

Import Settings .....	42
Update Firmware .....	42
Install Extras .....	42
Export Logs .....	43
Installing Language Packs .....	43
EULA .....	44

# Introduction

---

This manual is for use with ElahoTouch.

In order to be specific about where features and commands are found, the following naming and text conventions will be used:

- Buttons, Browser menus, and commands are indicated in **bold text**. For example: In the **File** menu, click **Open**.
- Alphanumeric keyboard buttons are indicated in all CAPS. For example, ALT or CTRL.
- References to other parts of the manual are indicated in underlined blue (for example, [Patch](#)). When viewing this manual electronically, click on the reference to jump to that section of the manual.



**Note:** Notes are helpful hints and information that is supplemental to the main text.



**Caution:** A Caution statement indicates situations where there may be undefined or unwanted consequences of an action, potential for data loss or an equipment problem.



**Warning:** A Warning statement indicates situations where damage may occur, people may be harmed, or there are serious or dangerous consequences of an action.

Please email comments about this manual to: [TechComm@etcconnect.com](mailto:TechComm@etcconnect.com)

## Help from Technical Services

If you are having difficulties, your most convenient resources are the references given in this document. To search more widely, try the Echoflex website at [echoflexsolutions.com](http://echoflexsolutions.com). If none of these resources are sufficient, contact Technical Services directly at the office identified below.

When calling for assistance, please have the following information handy:

- Model and serial number (located on back panel)
- Facility name
- Other components in your system ( other control devices, LED fixture types, etc.)

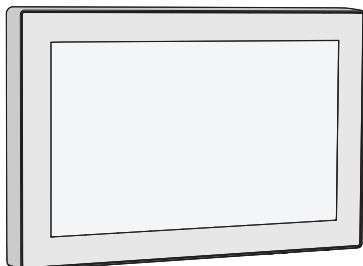
### **Echoflex**

38924 Queensway Unit #1  
Squamish, British Columbia  
Canada, V8B 0K8  
888-324-6359 (toll-free)  
+1-778 733-0111  
[info@echoflexsolutions.com](mailto:info@echoflexsolutions.com)

# ElahoTouch Overview

ElahoTouch is an all-in-one flush or surface mounted touchscreen that provides control of up to 16 Elaho Zones and connectivity with other Elaho control and output products.

ElahoTouch provides local control of a full universe of DMX and sACN or Art-Net outputs. It is also an RDM controller for compatible and enabled devices.



The topics found in this manual can also be found on your touchscreen by pressing the  button.

## Zones

A zone is used by ElahoTouch to control fixtures. ElahoTouch can control up to 40 zones. There are four types of zones: an Elaho Zone, a dimmer, a group of dimmers, a device, for example a color changing or moving light fixture.

Zones need to be configured in [patch](#) for there to be output.



**Note:** Elaho Zones are not patched to a DMX value, instead they communicate over EchoConnect to other Elaho devices. Only the first 16 zones can be Elaho Zones.

## Working with Dimmers / Intensity

You can use the touchscreen and select zones directly on the [zone map](#). The [wheel](#) can then be used to assign an intensity level.

Zones can be controlled by zone faders, [presets](#), and [sequences](#) on the [pages](#).

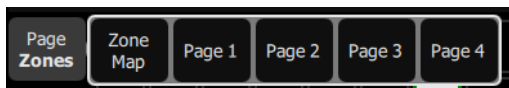
## Selected Zones

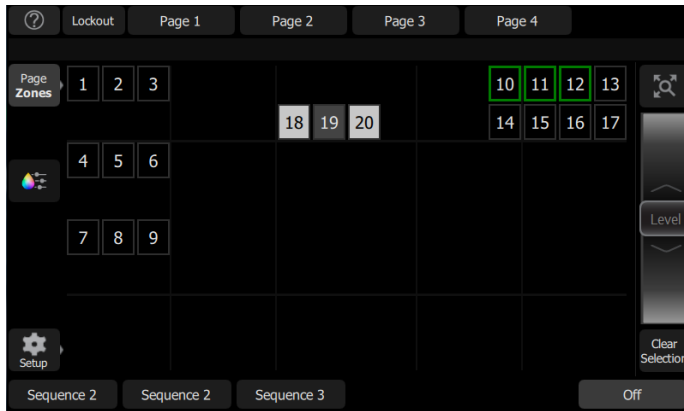
To make changes to zone values, a zone must be selected. Selection is indicated by a thick green border around the zone cell on the Zone Map. Selection can happen in a number of ways:

- Touch the zone cell on the Zone Map. Touch the cell again to deselect it.
- Touch the color chip at the top of a zone fader. Touch the chip again to deselect.
- To deselect all selected zones, use [Clear>Selection](#).

## Zone Map

The **Zone Map** button (located in the [Page](#) button menu) displays a topographical map of [zones](#) fullscreen at maximum size. You may select zones on the topographical map for control.





## Available Controls

- Pinch two fingers to zoom the display in or out, or use the **Zoom** button located above the **Wheel**. Zoom in to see intensity levels within the zone cells.
- Drag with two fingers to pan the display.
- Single click on a deselected zone to select it.
- Single click on a selected zone to deselect it.
- Double click on a zone to select that zone alone and de-select all others.
- Use [Layout Mode](#) for zone map customization.
- Selected zones are indicated surrounded by a green box.

## Wheel

To the right of the zone map is the wheel. The wheel can be used to control zone levels by moving the wheel up to increase the level or down to decrease.

## Clear Selection

Deselects any selected zones, but their levels will remain at the current value.

## Lockout

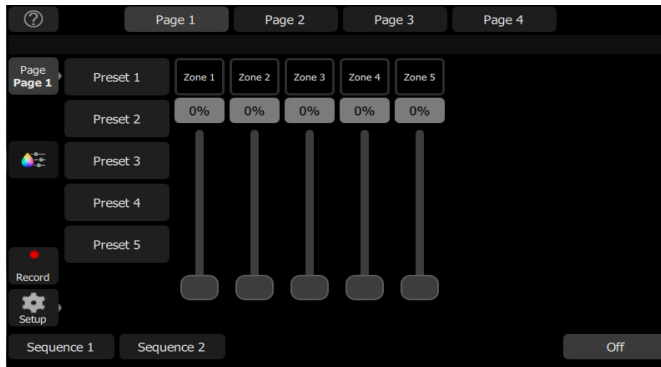
This button is used to lockout other Elaho devices in the shared space.

The **Lockout** button will only display if **Show Elaho Space Lockout Control** has been enabled in [Settings: Elaho](#).

## Pages

Pages are user configurable displays that can contain buttons for [presets](#), [sequences](#), [off](#), and faders for [zones](#).





The following page configuration options are available in layout mode:

- [Add Page](#): allows up to seven pages to be added on ElahoTouch.
- [Name Page](#): is used to label the current page.
- [Remove Page](#): allows you to delete the currently selected page.

See [Layout Mode](#) for more information about customizing a page.

### Add Page

Allows you to add a new [page](#). You can have up to seven customizable pages on ElahoTouch.

The new page will be blank. You can use the [Add Item](#) button to configure your page.

### Name Page

The **Name Page** button is used to edit a label to the currently selected [page](#). Tap **Name Page** to open the onscreen keyboard.

### Remove Page

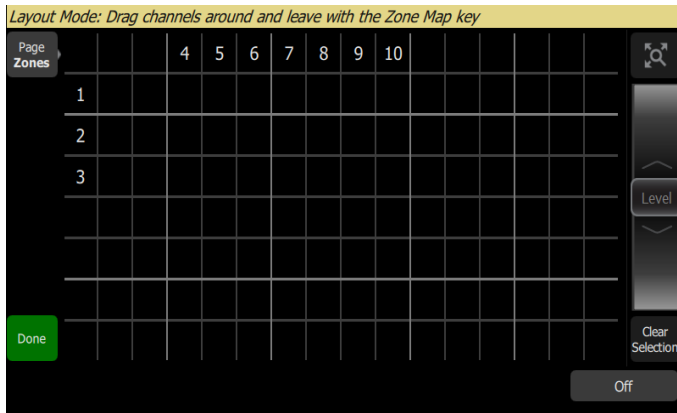
Allows you to delete the currently selected [page](#). Select **Accept** to delete, or **Cancel** to exit without deleting.

## Layout Mode

Layout mode allows you to set up your display with zones, zone faders, preset and sequence buttons. There are two layout modes. One for arranging the patched zones on the [zone map](#), and the second is for faders, presets, and sequences on the [pages](#).

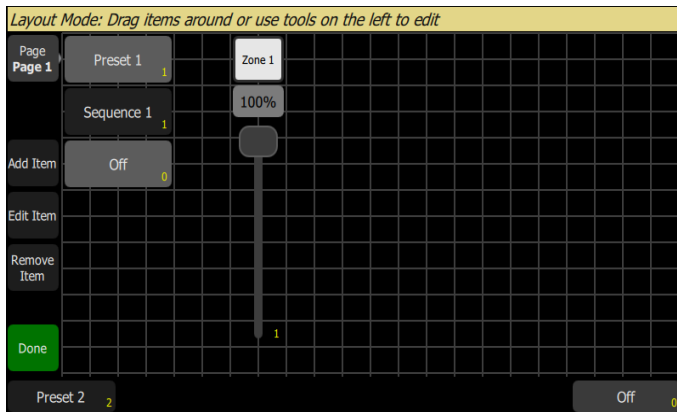
Press and hold a cell on the zone map, or go to **Setup >Layout Mode** to open the layout screen.

When in layout mode, the zone map and pages display as a grid. Press and drag items to move them to another position on the grid.



When configuring pages in layout mode, the following options are available:

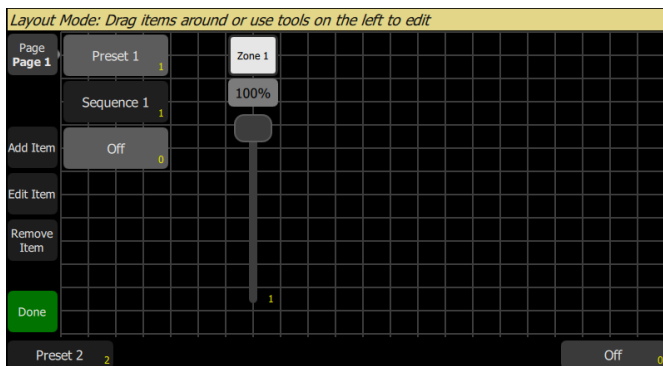
- [Add Item](#)
- [Edit Item](#)
- [Remove Item](#)



Press the **Done** button to exit the layout mode.

## Add Item

Items are [zone](#) faders, [presets](#), [sequences](#), or additional [Off](#) buttons that can be added to a page.



## Adding an Item

1. Press **Add Item**. This will open the Layout Wizard display.
2. Enter the appropriate count.
3. Select the correct item type from the list.
4. Select the correct item number from the list.
5. Select the target, which is the location to which you are assigning the item. This can be the current page or one of the six user buttons on the bottom of your touchscreen.
6. Select **Accept** to add, or **Cancel** to exit.

## Edit Item

**Edit item** allows you to change some information about an item ([zone](#) fader, [preset](#), and [sequence](#)) but it does not allow you to record, update or change the data for an item.

For zone faders and sequence buttons, you can only edit the name using the onscreen keyboard. See [Edit Sequence List](#) for information about editing an existing sequence.

For preset and off buttons, the following options are available:

- **Button Text** - allows you to edit the button's label.
- **Custom Timing** - allows you to assign a fade time for the action that is specific only to that button. If not selected, presets will use the default timing set in the [Preset tab](#) in Setup for locally patched zones and in the connected output product for Elaho only zones.
- **Button Time** - when custom timing is enabled, you can set the time here.
- **Multi Space** - allows you to trigger off or a preset with the same number in multiple spaces.

## Remove Item

Allows you to remove a zone fader, preset, sequence, or off button from a page. You can only remove one item at a time.



**Note:** There is no undo when removing an item.



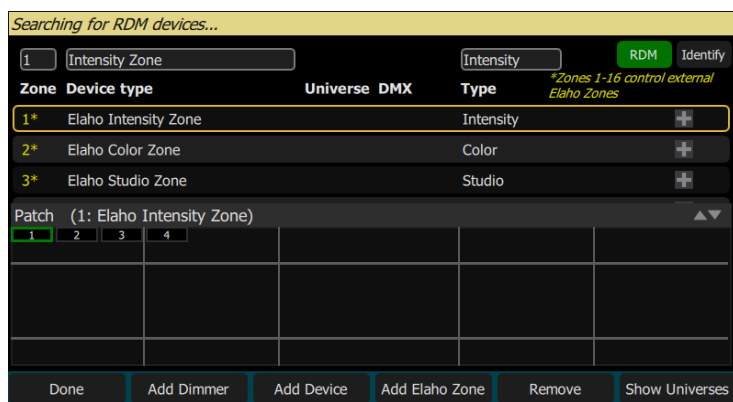
# Getting Started With Patching

To be able to control the lighting fixtures in your system you need to assign each [Elaho Zone](#), [dimmer](#), [fixture](#) (or a group of dimmers) to a zone. This is done in [Patch](#). The zone can then be used to control a fixture. The zone also becomes a way to select that fixture for other types of control like color changes, or adjustment of other parameters (in the case of a moving light, for example). The fixtures in your system are controlled using EchoConnect, DMX, streaming ACN, or ArtNet protocols, and each device uses a DMX address (or set of addresses) to communicate with the touchscreen. Elaho Zones are not patched to a DMX value, instead they communicate over EchoConnect to other Elaho output devices.

To access the Patch functions, press **Setup > Patch**.

## Patch

Displays the patching screen and controls.



Elaho Zones are not patched to a DMX value, instead they are assigned to a specific zone and communicate over EchoConnect to other Elaho output devices. Elaho Zones still need to be assigned in patch. To patch an Elaho Zone, press [Add Elaho Zone](#).

There is an internal network universe that can be assigned to any sACN or ArtNet universe number in **Setup>Settings>Network**. In the Patch display, the internal universe number will be displayed first with the assigned universe in parentheses.

Complex devices with several [parameters](#), such as motion, color, or beam controls, are described by a *personality*. Select the make and type of device to match the actual connected device. Some devices have *modes* that must also match on the device and in the patch list. Lighting devices with [RDM](#) available and enabled are found automatically and added to the list of devices. You must still assign them to zone numbers though. To patch a complex device that is not automatically found by RDM, press [Add Device](#).



**Note:** Custom fixture profiles can be loaded. Please see [Loading a Fixture Profile](#) for instructions.

## Add Elaho Zone

Elaho Zones are not patched to a DMX value, instead they communicate over EchoConnect to other Elaho devices.



**Note:** Only zones 1 through 16 can control external Elaho Zones.



## Patching an Elaho Zone

1. Press **Add Elaho Zone**. This will open the Patch Wizard display.
2. Select **Zone** to enter the zone number.
3. Select **Count** to enter in the number of similar devices you are patching.
4. Select **Zone Type** to enter the type of Elaho Zone. The following options are available: intensity, color, studio, and color temp.
  - **Intensity** - controls intensity of all Elaho Zones.
  - **Color** - controls hue, saturation, and intensity on devices patched to an Elaho DMX Scene Controller or another ElahoTouch.
  - **Studio** - controls color temperature, tint, and intensity on devices patched to an Elaho DMX Scene Controller or another ElahoTouch.
  - **Color Temp** - controls color temperature and intensity on devices patched to an Elaho DMX Scene Controller or another ElahoTouch.
5. Select **Accept** to patch, or **Cancel** to exit.

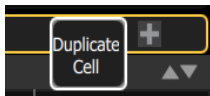
## Add Dimmer

Dimmers are single-address devices that control intensity only. For patching multiple-address devices, see [Add Device](#).



**Note:** Dimmer patching can also be used to connect other simple devices that only require one DMX address.

## Duplicate Cell



Duplicate cell lets you place two dimmers on the Zone Map in different places patched to the same zone.



**Note:** Duplicate cell adds dimmers only and not Elaho Zones or devices. Elaho Zones and devices must be patched and placed individually. See [Add Device](#) and [Add Elaho Zone](#).

Pick a zone in the patch list and select the **+** button and then the Duplicate cell button to make a copy.

A new cell is added and is patched to the next-highest free DMX address. You may change the address and universe in [Patch](#).

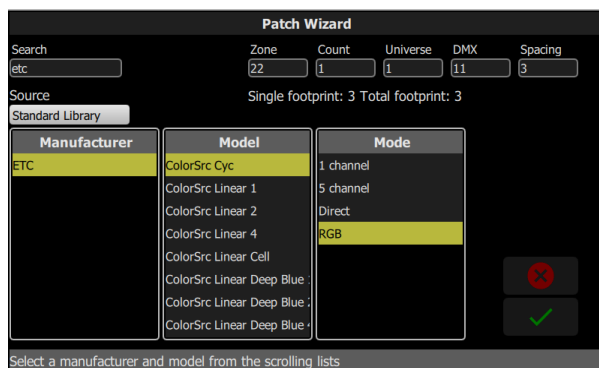
When a duplicate cell is selected or operated, each of the duplicate cells on the Zone Map will respond together. Each cell of a duplicate zone may be moved separately on the [Zone Map](#).



**Note:** You can also add dimmers to a zone without showing them as separate cells on the Zone Map. Use [Add Dimmer](#) and then set the zone number to be the same as the zone you want to add the dimmer to. Dimmers added in this way do not consume space on the Zone Map, for instance you may need one zone to control a range of dimmers for house lights without wishing them to be each placed and indicated separately.

## Add Device

Devices are multiple-address lights with a number of controllable [parameters](#), such as position, color, beam, and intensity. Devices have their own *personality*, which defines what each parameter does and which controls are needed.



**Note:** Lighting devices with [RDM](#) available and enabled will be found automatically and added to the list of devices in the patch. However, you must assign them to zone numbers.

## Patching a Device

1. Press **Add Device**. This will open the Patch Wizard display.
2. Select the correct personality from the list provided. Select the make and type of device to match the actual connected device. Some devices have modes that must also match on the device and in the patch list.
3. Select zone to enter the [number](#).
4. Select **Count** to enter in the number of similar devices you are patching. If the quantity is more than one, each device will occupy the number of DMX addresses used by its footprint, starting from the address you specify.
5. Select **DMX** to enter the starting DMX address.
6. Enter the desired **Spacing**.
7. Select **Accept** to patch, or **Cancel** to exit.

For Example:

If you patch 12 devices with a footprint of 6 DMX addresses each to address 20, they will occupy DMX addresses 20 through 91.

To patch devices with a gap between them, adjust the Spacing value to a larger number.



**Note:** Do not adjust this to a smaller number as that will cause overlaps and unexpected behavior from your devices.

For Example:

Your devices use 17 zones, but you would prefer to manually address them at logical starting numbers like 1, 21, 41 and so on. Use the Spacing cell to change the footprint to 20 so that those devices will automatically patch at 1, 21, 41...

Patching places the items in a list in the upper part of the patch screen and on the topographical [zone map](#) in the lower part of the screen in rising order starting in the top left corner. You may select one zone at a time in the list or on the zone map.

Each zone may be edited in the boxes at the top of the screen for zone number, DMX Universe and DMX address.



**Note:** Custom fixture profiles can be loaded. Please see [Loading a Fixture Profile](#) for instructions.

## RDM

RDM is a two-way communications method built-in to ordinary DMX512 for lighting control. See [About RDM](#) for more information.



**Note:** When you exit the patch screen, all RDM messages are suppressed and only ordinary DMX512 is sent to your lighting rig on the local ports. The RDM button allows you to turn off RDM when on the patch screen. Doing so will prevent the patch screen from finding and patching RDM lights. You should only suppress if necessary to prevent flicker or errors on the local port(s) while you are in the patch screen.



**Note:** You may also choose to turn off RDM when you have patched all the lights in a rig that you wish to use. If the rig contains lights that you do not wish to patch, they will keep appearing in the patch list, awaiting a number, and you can prevent this from being an annoyance by turning off the RDM button.

## Identify

**Identify** finds the [RDM](#)-capable lights during patching so it is easy to know which device is which when assigning them to zones.

When RDM discovers a light, the light is placed at the top of the patch list with the zone shown as zero. When **Identify** is set to On, each light selected in the patch list will identify itself exclusively, usually a light will blink on and off. Devices that do not produce light, for example a scroller or pan/tilt yoke, may shuffle or move. The action that a device does when told to Identify is determined by its manufacturer.

You will need to choose a zone to patch the device.



**Note:** Identify does not work with non-RDM devices or dimmers.

Turn off **Identify** to stop all RDM Identification. Turn on **Identify** to see the currently selected RDM device.

See Also: [RDM](#)

## Loading a Fixture Profile

If you have devices in your lighting system that cannot be discovered by RDM and are not included in the onboard device library, you can create your own personality for that device and import it into your show file. There is a device editor application for Windows PCs called ColorSource Personality Edit, which is available for download at [www.etcconnect.com](http://www.etcconnect.com).

To request a fixture personality from Echoflex, please send your request along with the user manual, the



required mode(s) and your need by date to ColorSourceConsole@etcconnect.com.



**Note:** For the device to recognize the profile, the file name has to be userlib.jlib.

1. You will need to save the file onto the root directory of a USB drive to be able to read it from the device.
2. With the USB drive plugged into the device, go to **Setup>Patch>Add Device**.
3. From the Source dropdown, select User Library. A new library will display with your fixture listed by its manufacturer's name.

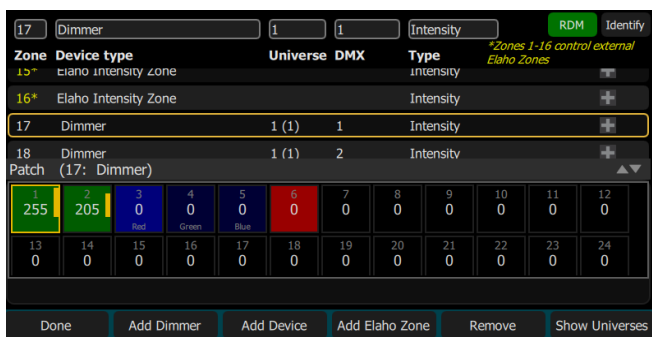


**Note:** Custom device libraries are not stored on the device itself. Please store these custom files on your USB drive or on another computer for safe keeping.

## Show Universes / Show Zone Map

The lower section of the [Patch](#) screen may be set to display the topographical [Zone Map](#) or a chart of the DMX addresses.

The DMX address chart is view-only and may not be edited. Scroll up and down to view all the addresses in the selected Universe.



- Each cell shows the DMX address, the value in the range 0-255 and the name of the parameter for a device patched with a *personality*.
- Cells colored in **light blue** indicate the *base address* of the item, which is the address entered in the Patch screen DMX box. The following cells in **dark blue** show the following DMX addresses used by the device according to the size of its *footprint*.
- Cells colored in **green** indicate single dimmers.
- Cells colored in **red** indicate patching overlap, where more than one dimmer or device is patched to the same DMX address. In some cases it may be desirable to patch with overlaps but usually it is a bad idea to be avoided if possible.
- A yellow bar graph indicates the approximate value being output.
- Cells in **black** are unoccupied and not patched.
  - Since Elaho Zones do not have a DMX patch, they will not display in Show Universes.

## Invert Pan

Switches the pan control to run in the opposite direction. Click on the **+** button in patch for the device you want to invert pan.





**Note:** Use this if you have rigged a light upside-down or back-to-front compared to other similar lights so that if they are all selected together their movements will be in similar directions.

## Invert Tilt

Switches the tilt control to run in the opposite direction. Click on the **+** button in patch for the device you want to invert tilt.



**Note:** Use this if you have rigged a light upside-down or back-to-front compared to other similar lights so that if they are all selected together their movements will be in similar directions.

## Swap Pan and Tilt

Exchanges pan and tilt so that pan on the controls tilt on the device and vice-versa. Click on the **+** button in patch for the device you want to swap pan and tilt.



**Note:** An example of when to use this function would be if a fixture is hung sideways or a moving mirror fixture is rotated 90 or 270 degrees from other fixtures.

## Remove

Select a zone, and press **Remove** to remove from the [patch](#).

The removed item will no longer display on the zone map.

## About RDM

RDM is a two-way communications method built-in to ordinary DMX512 for lighting control. By using RDM, you can find lights, find out about them and their status, patch them, and set their operating mode without needing to go to the light itself. For lights rigged in difficult locations, RDM is very useful for remote setup.

### Discovery

RDM automatically discovers RDM-capable lights. Discovery runs continuously any time the Patch screen is open and the [RDM](#) button is enabled, and will repeatedly search for devices. As devices are added or removed from a system, they will be updated in the patch list.



**Note:** Discovery takes place during short periods of rest of normal DMX transmission and is a lengthy process to complete. You should expect at least several seconds of delay to discover a light on a small system and much longer delays on a very large system.

### Addressing and Mode

RDM allows you to set the DMX address and the operating mode of a light remotely.

Setting the operating mode may change the footprint, which is the number of DMX addresses occupied by the device. If you change the mode of a device adjacent to some other device or dimmers in patch, the new mode could be larger than the available space and overlap already used DMX addresses. When this happens, the affected ones are indicated in the patch list in red, and you will need to take corrective action and re-patch.

The Patch system knows how to match the chosen mode with the correct personality.

### ***Universe***

You cannot change the Universe part of the DMX patch for a Device found by RDM. RDM can only operate on the one universe it is connected to. To change the universe a light is patched to, you must physically re-plug the light to another DMX cable.



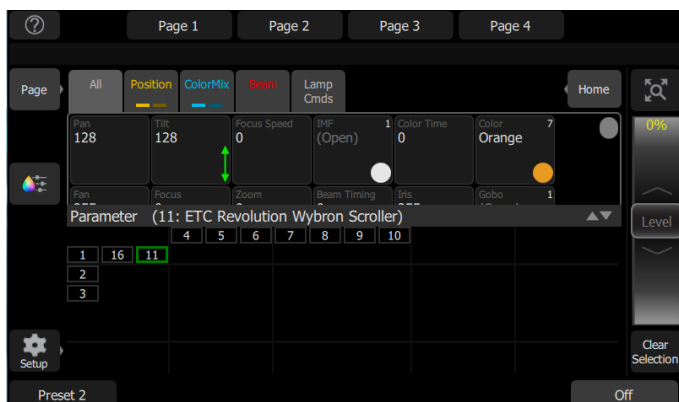
# Controlling Parameters

Depending on the types of lights you have patched, you may have additional parameters that you can control. Those parameters may include [color](#), [position](#) (focus), [beam](#), and [lamp commands](#).

## Parameter

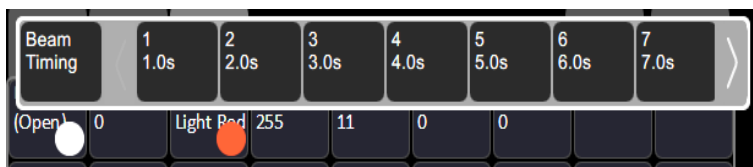
All the controllable features of an automated light, with the exception of the intensity, are known as the parameters of the light.

Parameters may include position (pan/tilt), color mix, beam control (iris, focus, et cetera), or lamp controls. The tabs along the top allows viewing of all parameters or only a selected type. Tabs with additional pages display with an indicator under the parameter name. Tap on a tab twice to access page two and three times for page three.



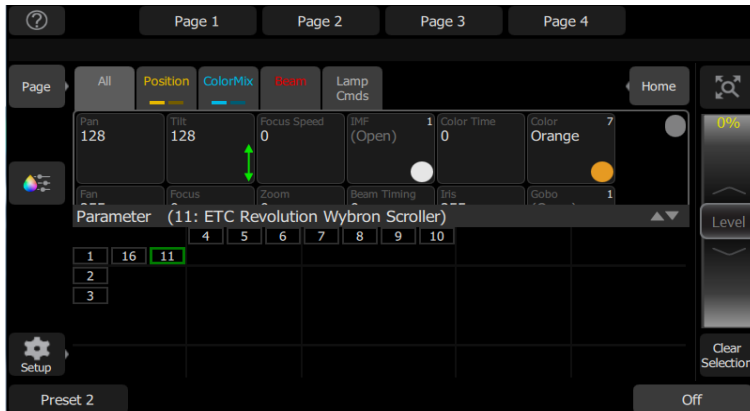
Each cell on the parameter display is a controllable button to alter the value. Press and hold on the cell and you can wipe the value up and down, using the entire screen height for control.

Press once and release on a cell to reveal a filmstrip-style view of the available settings, with diagrams of gobos and samples of fixed colors. The strip may be scrolled left-right until the desired setting is found. Pick the setting to close the filmstrip.



## Parameter, All

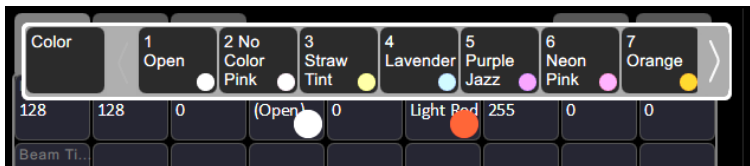
Shows all the available parameters.



Controls the parameters of the selected light(s). Only lights with parameters may be controlled here.

Pick a parameter and swipe the value box up and down to change values. A green arrow will appear on the value box when you are swiping it.

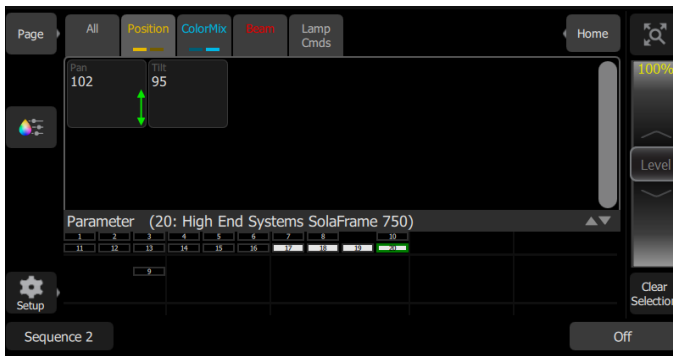
Pick the value box with one press to open a filmstrip view of the available settings.



The filmstrip may be scrolled left or right to see all the choices.

## Parameter, Position

Show only the position parameters, pan and tilt. There are two pages of pan and tilt controls. The first page displays value boxes for pan and tilt.



Control the parameters of the selected light(s). Only lights with parameters may be controlled here.

Pick a parameter and wipe the value box up and down to change values.



Pick the value box with one press to open a filmstrip view of the available settings. The filmstrip may be scrolled left or right to see all the choices.

The second page displays a cross hair pan and tilt control. Tap the tab twice to get to the second page.

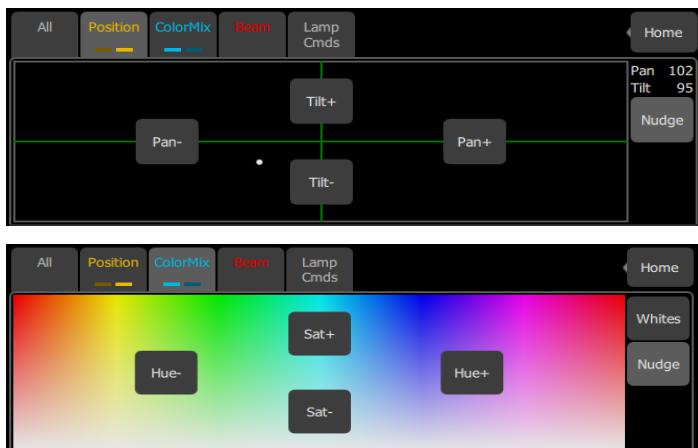
A white dot is used to indicate the current location. The actual pan and tilt values will display above the **Nudge** button. Press anywhere within the crosshairs to move your device.

For fine control of pan and tilt, use the **Nudge** button. See [Nudge](#) for more information.

## Nudge

Nudge allows for fine control of [position](#) and [color](#) parameters.

The **Nudge** button is available on the second page of position parameter control and on the first page of color-mix parameter control.



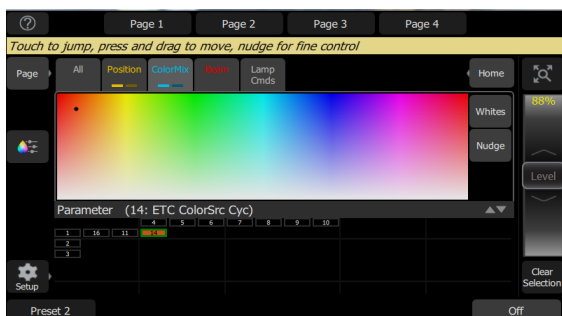
Press the buttons to add or subtract from the current values. Press and hold the buttons to quickly make a jump in value.

For position, the actual pan and tilt values will display above the **Nudge** button

## Parameter, ColorMix

Lights that have a color mixing system may be operated from this tab. There are two pages of color mixing tools and one page for direct emitter control. The first page displays the color picker, and the second page displays the color chips. Tap the tab twice to get to the second page, and three times to get to the direct emitter page.

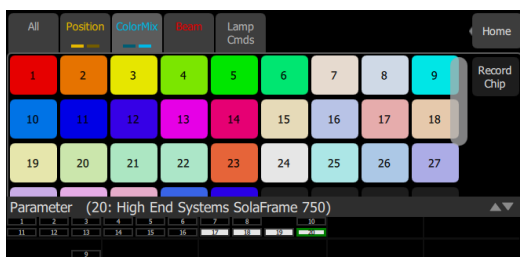
Lights must be selected before a color choice can be applied to them. Select some lights on the [zone map](#) view, and then pick a color or try several colors.



The color picker is a diagram of the visible spectrum varying by hue from left to right and by saturation (pale-ness) from top to bottom. The color picker can be set to colors or whites mode. See [Whites](#) for more information.

A black dot is used to indicate the color selected. Press **Nudge** to put the color picker in fine mode. See [Nudge](#) for more information.

The second page displays the color chips. Color chips are a set of preset color chips. Color chips may be programmed to carry any color mix. See [Setup Color Chips](#) for more information.



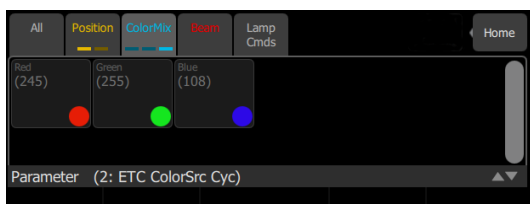
**Note:** Not all color mixing systems can produce precise color matches and a full range of colors. It is advisable to control color on only one fixture type at a time.



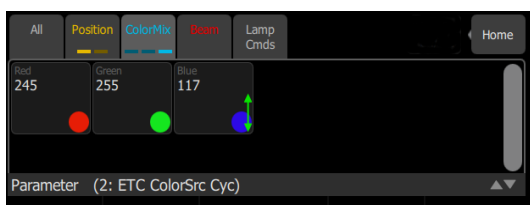
**Note:** You may find it necessary to pick colors independently for different lights in order that they all produce a similar color.

The third page is for direct emitter control. Direct emitter control provides an additional method of color control that allows for the manipulation of each individual LED emitter.

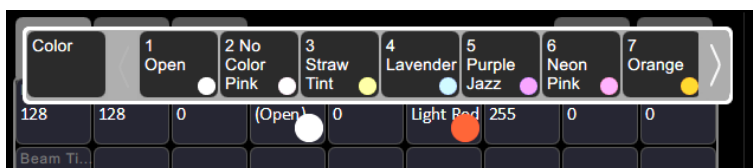
When color values are set via the color picker, their values will display in parentheses when viewed in the direct emitter page.



To change an individual emitter, pick a color and wipe the value box up and down to change values.



For lights with fixed ranges of preset colors, such as color wheels or scrollers, use the [parameter all](#) tab.



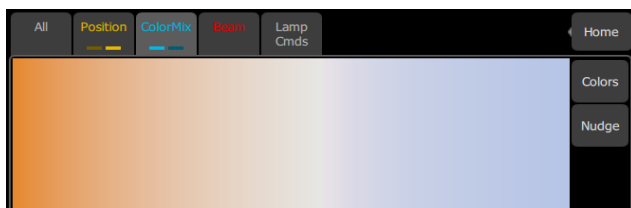
The filmstrip may be scrolled left or right to see all the choices.

## Whites

The color picker can be set to either colors or whites. In whites mode, the picker will attempt to match the shade of white selected. However, the actual shade of white produced will depend on the type of light and its capabilities.



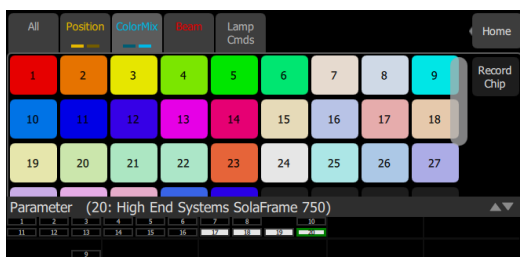
Use the [Nudge](#) function to get the desired shade.



See [Parameter, ColorMix](#) for more information.

## Record Color Chips

Color chips may be programmed to carry any color mix.



### How to Program a Color Chip.

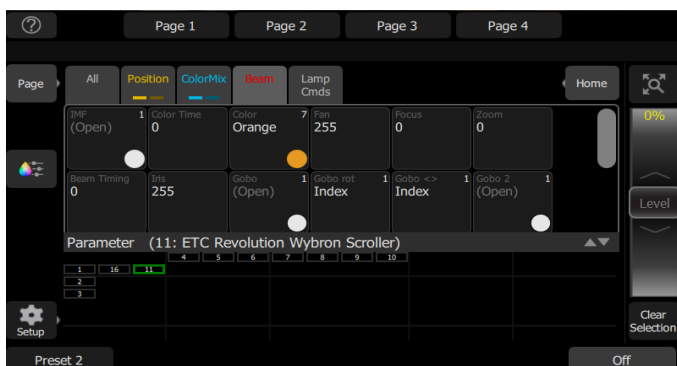
1. Pick a color using the [color selector](#), move around until you find the one you require.
2. Press the **Record Chip** button.
3. Pick a chip to re-program, or press **Cancel** to exit without saving.



**Note:** Not all lights can produce all colors, and not all lights can match colors accurately, either between similar models or with other different models. You may find it convenient to make several similar chips for different lights in order that they all produce a similar color.

## Parameter, Beam

Shows only the beam parameters. All parameters that are not position, intensity or color mixing are included in the beam parameter set.



Controls the parameters of the selected light(s). Only lights with parameters may be controlled here.

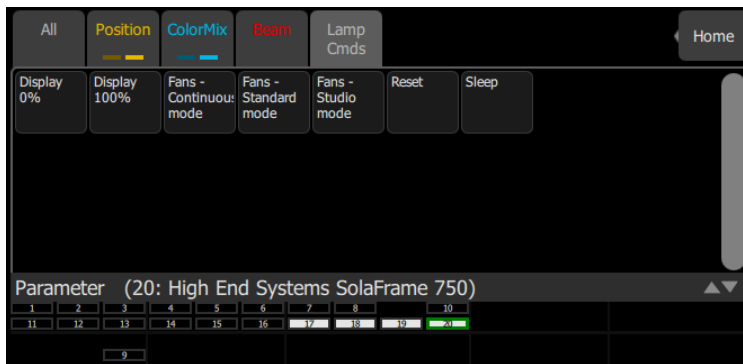
Pick a parameter and swipe the value box up and down to change values.



Pick the value box with one press to open a filmstrip view of the available settings. The filmstrip may be scrolled left or right to see all the choices.

## Parameter, Lamp Commands

Lamp commands allow you to execute control functions for a selected fixture such as calibrate, douse lamp, strike lamp, and reset. Each fixture type has its own set of lamp commands.



## Parameter, Home



When **Home** is pressed, the following options will be available:

- [Home All](#)
- [Home Position](#)
- [Home ColorMix](#)
- [Home Beam](#)

### Home All

Sends all or just the selected [parameters](#) of the selected lights to their home positions. The home positions are pre-recorded in the patching personality files, and may not be changed by the user.

Generally, parameters home to useful settings. For instance, pan and tilt will be set to mid-way values. Gobos and beam control will be set so that the beam is unobstructed and visible.

### Home Position

Sends just the [position parameters](#) of the selected lights to their home positions. The home positions are pre-recorded in the patching personality files, and may not be changed by the user.

Generally, parameters home to useful settings. For instance, pan and tilt will be set to mid-way values.

## Home ColorMix

Sends just the [colormix parameters](#) of the selected lights to their home positions. The home positions are pre-recorded in the patching personality files, and may not be changed by the user.

Generally, parameters home to useful settings.

## Home Beam

Sends just the [beam parameters](#) of the selected lights to their home positions. The home positions are pre-recorded in the patching personality files, and may not be changed by the user.

Generally, parameters home to useful settings. Gobos and beam control will be set so that the beam is unobstructed and visible.



# Recording Your Looks For Playback

This section covers the multiple ways that you can record lighting looks for playing back. You can record [pre-sets](#) and [sequences](#).

## Record

Press this button to record a [preset](#) or a [sequence](#).

You can choose to hide the **Record** button in **Setup>Settings>Elaho**.

## Presets

Presets are a collections of all zones in a space set to defined values. Only one preset can be played back at a time. Presets can be played back from the ElahoTouch itself or from additional Elaho devices connected via EchoConnect.

There are 64 presets available on ElahoTouch.

Presets default to the following values:

Preset	Level	Preset	Level
1	100%	9	100%
2	75%	10	75%
3	50%	11	50%
4	25%	12	25%
5	100%	13	100%
6	75%	14	75%
7	50%	15	50%
8	25%	16	25%

The default time for each preset can be set it in Presets tab in Settings. See [Settings: Presets](#) for more information.

Use the [Edit Item](#) button to change the label and timing associated with a preset button.

## Re-recording Presets



**Note:** A preset button assigned to the preset number must be available on a [page](#) before a preset can be re-recorded.

To re-record a preset:

1. Create the look that you would like to record.
2. Press **Record**.
3. Press the appropriate preset button. The button will flash as the new preset is being stored.

## Multi Space Presets

Multi Space presets allow you to control a preset of the same number in a different space or allow a preset to be played in multiple spaces from one button.

For Example, a preset button with multi space configured could play preset 1 in spaces 1, 3, and 5. While triggered together, each preset uses the values defined for its space.

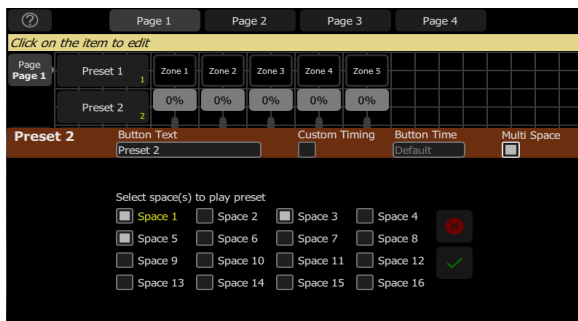
### ***Creating a Multi Space Preset:***

To create a multi space preset, you must first be in layout mode.

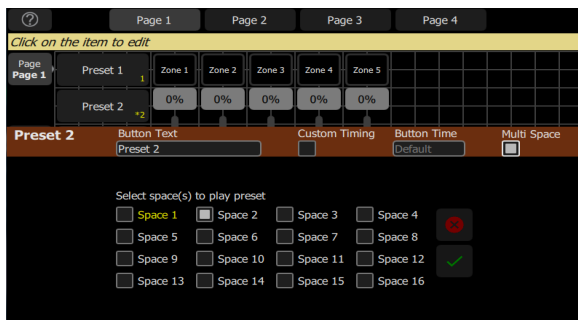
1. While on the appropriate page with your preset, go to **Setup>Layout Mode**.

2. Press **Edit Item**.
3. Select your preset. The edit preset display will open.
4. Select **Multi Space**. The space options will display. The space assigned to your ElahoTouch will be displayed in yellow.
5. Select the space(s) that you want this preset button to control.
6. Select **Accept** to assign, or **Cancel** to exit.

You can assign the preset button to control that preset number in multiple spaces including the space that your ElahoTouch is in.



You can also assign a button to control presets in other spaces not including the one that your ElahoTouch is in.



## Off

The Off button takes all outputs in a space to 0% level and non-intensity parameters to their home position. This includes [zones](#), [presets](#), and [sequences](#).

A default time for Off can be set it in Presets tab in Settings. See [Settings: Presets](#) for more information.

## Record Sequence



**Note:** Sequences can only be used to control zones that are patched to DMX, sACN or ArtNet addresses.

Sequences play back on sequence buttons on [pages](#). A sequence may contain up to 99 steps with fade and step timing.

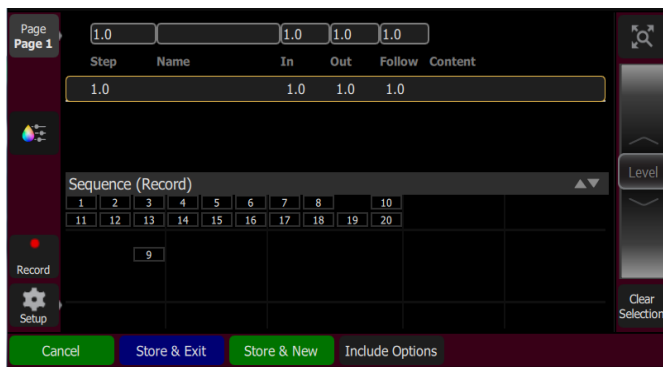


**Note:** A sequence button must be available on a [page](#) before a sequence can be recorded.

Press **Record** and then the sequence button to begin recording a sequence.

See [Edit Sequence List](#) for information about editing an existing sequence.

Sequence recording is a *mode* which takes over the screen. The recording mode is shown by a red surround to the screen.



While in the recording mode you may visit other screens to set [parameters](#). While in those screens, a red watermark will be displayed showing what step you are editing.



To return to the main recording screen press **Record** again. You may [store](#) the step you have made and exit immediately with **Store & Exit** or you may store the step and remain inside sequence recording to record further steps with **Store & New**. Press **Cancel** to leave the recording screen without saving anything.

### Store And New

The current lighting levels will be stored in the selected [sequence step](#) and recording will remain open so additional steps can be recorded. Use [Store And Exit](#) to close the recording *mode* and resume normal operation.

### Store And Exit

The current lighting levels will be stored in the selected [sequence step](#) and recording will be completed. The recording *mode* is then closed, and normal operation resumes. Use [Store and New](#) to keep the recording *mode* open to record additional steps.

### Include Options

When recording to a [sequence step](#), you may specify which lighting zones and sets of [parameters](#) are included in the recording by pressing the **Include Options** button.

Zones:

- **Active:** Only zones with an intensity above zero are included.
- **Selected:** Only zones currently selected (surrounded by a green box on the [zone map](#) or brightly lit on the bumps) are included.
- **All:** All zones are included.

Include:

- **Intensity / Color:** Only the intensity and color mixing zones are included.
- **Position:** Only the position (pan/tilt) zones are included.
- **Beam:** Only the beam zones are included (beam includes non-fadable colors such as wheels and scrollers).

## Edit Sequence List

When record is used for an already created sequence, you will enter the Sequence List editor where you can change the content of a [sequence](#) list.

Here you may change the step names and fade times. Using the **Edit Step** button, you may change the content of the steps. Pick the step you want to edit in the sequence list in the upper part of the display. You can also insert [new steps](#), [copy steps](#), [delete steps](#), and [edit steps](#).



Press **Exit** to leave the editing mode. Any changes made will be stored in the selected sequence.

### New Step

Inserts a new sequence step. The new step is added to the next free whole-numbered step at the end of the sequence list. The new step may then be given another number, including a fractional or 'point' number.

For example, to insert a step between steps 4 and 5, you would enter 4.5.



**Note:** The [sequence list](#) is not re-numbered when a step is inserted.

### Copy Step

Copies the selected step and creates a new step. The new step is added to the next free whole-numbered step at the end of the sequence list. The new step may then be given another number, including a fractional or 'point' number.

For example, to insert a step between steps 4 and 5, you would enter 4.5.



**Note:** The [sequence list](#) is not re-numbered when a step is inserted.



## Delete Step

Deletes the selected step.

The sequence list will not be re-numbered, and the missing step will be skipped the next time the list is played.

## Edit Step

Pressing **Edit Step** will cause only the content in the selected step to be live on-stage. Any presets or manual zone levels that are not part of the selected step will be suppressed while in Edit Step mode.

Use the normal controls to adjust the contents of the step live. Blind editing is not permitted.



**Caution:** If the selected step contains a blackout, the stage will go dark.

Pick the step you want to edit in the sequence list in the upper part of the display. You can also insert a [new step](#), [copy step](#), and [delete step](#).

Edit Step is a *mode* which takes over the screen. While inside the edit step screen, you may visit other screens to change parameters of the step you are editing. While in those screens, a green watermark will display showing what step you are editing.



Press **Store & Exit** to save the current look to the selected step and to exit the edit mode, or press **Store & Next** to save the current look and remain in the edit mode.



# System Settings and Setup

---

This section covers the [system settings](#) and [setup](#) options for your device.

## Setup

Contains functions used in the setup of the device:

- [Patch](#)
- [Settings](#)
- [Files](#)
- [Layout Mode](#)

## Settings

All internal settings and default values are setup here.

Settings are arranged in tabs of related items:

- [General](#): Language and about device information.
- [Hardware](#): Custom setup of backlight and DMX speed.
- [Network](#): Custom setup of your device's network.
- [Elaho](#): Custom setup of specific Elaho settings, including login, Elaho space, and lockout.
- [Display](#): Custom setup of inactivity behavior for your touchscreen.
- [Presets](#): Custom setup of default times used for each of the Presets and the Off function.

### Settings: General

From this tab you can set the language. Current options are English, French, German, and Spanish.

The hardware model, current software version, Echo protocol version, and personality library version are also displayed on this tab.

### Settings: Hardware

You can adjust the DMX speed. You should choose the fastest setting that works correctly with all your equipment. Normally, with modern devices, this should be Max or Fast.

You can adjust the backlight for the touchscreen. 1 is the dimmest setting and 7 is the brightest.

### Settings: Network



**Note:** The network tab is not available in the offline editor.

From this tab you can configure the network for your ElahoTouch.

Network Output Protocol

Streaming ACN

Network Universes

1: 1

IP Address

10.8.68.114

IP Subnet

255.255.255.0

☒ Auto

Choose the network output protocol. Current options are Streaming ACN (sACN) or ArtNet.

You can assign the internal network universe to any sACN universe number. In the Patch display, the internal universe number will be displayed first with the assigned sACN universe in parentheses.

When **Auto** is enabled (the box will be yellow), the IP address and subnet will automatically be set via a DHCP server. **This is the recommended setting.**

If **Auto** is disabled, you will need to set the desired IP address and subnet. After you set those, press the **Activate** button to apply your changes.

Network Output Protocol

Streaming ACN

Network Universes

1: 1

IP Address

10.8.68.114

IP Subnet

255.255.255.0

☐ Auto

Activate

## Settings: Elaho

This tab contains Elaho specific settings.

General Hardware **Elaho** Display Presets

Elaho Space 1

☒ Show Record Button

☒ Require Setup Passcode

Setup Passcode 3333

Device Name Touch Controller

☐ Login Always Required

☐ Allow Elaho System to Lockout this Station

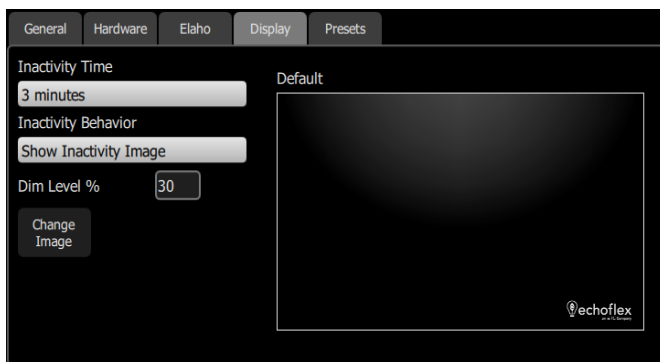
☒ Show Elaho Space Lockout Control

The following options are available:

- **Elaho Space** - assigns the Elaho Space used by your touchscreen. An Elaho system can support spaces 1 through 16.
- **Require Setup Passcode** - when enabled, the touchscreen requires a four digit passcode be entered to access the setup options, such as patch and settings.
- **Show Record Button** - when disabled, the [record](#) button will be hidden.
- **Login Always Required** - A login passcode can also be assigned. This requires a four digit passcode be entered to access the touchscreen after a period of inactivity or lockout. You can set the period of inactivity in the [Display](#) tab.
- **Allow Elaho System to Lockout This Station** - allows a lockout command from an Elaho control system to affect this device.
- **Show Elaho Space Lockout Control** - displays a button that can be used to lockout other Elaho devices in the shared space.

## Settings: Display

From this tab, you can assign inactivity behavior for your touchscreen.



You can assign the amount of inactivity time that needs to pass before the inactivity behavior starts. Inactivity time can be set to 1 minute, 3 minutes, or 5 minutes.

The following inactivity behaviors can be set:

- **Dim Screen** - dims the touchscreen to an assigned dim percentage level.
- **Show Inactivity Image** - displays a default or an assigned image. You can assign an image by tapping on **Change Image** and selecting the desired image from an attached USB drive. The following formats are supported: jpg, png, tiff, and bmp files. You can also set a dim percentage level for this option.
- **Screen Off** - turns the touchscreen display off.

Tapping the touchscreen will exit out of all of the inactivity behaviors.

## Settings: Presets

Sets the default times used for each of the Presets and the Off function. To set the timing used for a specific preset or off button, see [Edit Item](#) for more information.



# Showfile Management

---

This section explains how to [create](#), [save](#), [open](#), [delete](#), [import](#), and [export](#) show files. [Software upgrades](#) and creating a [default](#) show file are also covered.

## Files

### All filing operations:

- [New](#)
- [Open](#)
- [Save](#)
- [Save As](#)

### Show files:

- [Save as default](#)
- [Remove default](#)
- [Delete](#)
- [Import](#)
- [Export](#)

### Advanced:

- [Import Settings](#)
- [Update Firmware](#)
- [Install Extras](#)
- [Export Logs](#)



**Caution:** All data is stored internally in non-volatile memory. Do not switch off the power until any pending save operation is completed, or you may lose data. It is strongly advised that you make periodic backups of important data to an external memory stick using the [Export](#) function.

## File, New

Start a new show by going to **Setup>Files>New**.



**Note:** You will be warned that this action will clear the memory. Select **Yes** to clear memory and start a new show, or **No** to cancel.

The new show will be based on the template [default show](#), which is customizable.

## File, Open

Open an existing show file by going to **Setup>Files>Open**.



**Note:** Show files must be in the device's internal storage before they can be opened here. If the file is located on a memory stick, you will need to use [import](#) first.

## File, Save

Save the show by going to **Setup>Files>Save**.

The show will be saved with the name you last gave it. If you have not yet saved the show with a name, you will be prompted to enter a show file name.



**Caution:** All data is stored internally in non-volatile memory. Do not switch off the power until any pending save operation is completed, or you may lose data. It is strongly advised that you make periodic backups of important data to an external memory stick using the [export](#) function.

## File, Save As

Save the show by going to **Setup>Files>Save As**. The show will be saved with the name you enter.



**Note:** The difference between [Save](#) and Save As is you will always be asked to name the show file when you use Save As.



**Caution:** All data is stored internally in non-volatile memory. Do not switch off the power until any pending save operation is completed, or you may lose data. It is strongly advised that you make periodic backups of important data to an external memory stick using the [Export](#) function.

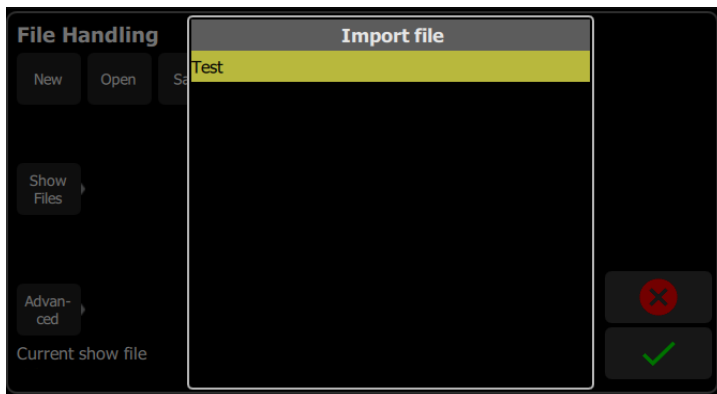
## File, Import

Import an existing [show file](#) by going to **Setup>Files>Shows>Import**.



**Note:** Show files must be saved on a memory stick, in a folder named "Shows" in the root directory.

When the **Import** button is pressed, the following screen will display showing the available show files. Select the desired file, and then press **Accept**. If you want to leave this display without importing, press **Cancel**.



## File, Export

Export the current [show file](#) by going to **Setup>Files>Shows>Export**.



**Note:** Show files will be saved onto a memory stick, in a folder named "Shows" in the root directory.



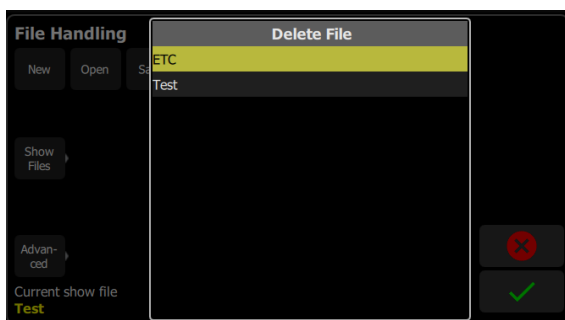
When the **Export** button is pressed, the following screen will display. Press **Yes** to export. If you want to leave this display without exporting, press **No**.



## File, Delete

Delete an existing [show file](#) off your device by going to **Setup>Files>Shows>Delete**.

When the **Delete** button is pressed, the following screen will display showing the available show files. Select the desired file, and then press **Accept**. If you want to leave this display without deleting, press **Cancel**.



## Files, Show files

You can open and save shows by going to **Setup>Files**

Pressing the **Show files** button gives you the default show options.

### Functions

- [Save As Default](#)
- [Remove Default Show](#)
- [Delete](#)
- [Import](#)
- [Export](#)



**Caution:** All data is stored internally in non-volatile memory. Do not switch off the power until any pending save operation is completed, or you may lose data. It is strongly advised that you make periodic backups of important data to an external memory stick using the [export](#) function.

## Save As Default

The current show will be saved as the default to be used each time **Setup> File > New** is selected. Typically this will include a standard patch, but may also include any other show elements.



**Caution:** All data is stored internally in non-volatile memory. Do not switch off the power until any pending [save](#) operation is completed, or you may lose data. It is strongly advised that you make periodic backups of important data to an external memory stick using the [export](#) function.

## Remove Default Show

The Default show is removed to a complete blank state with no patch or content at all.

Selecting **File > New** will start your device with no programmed content at all.



**Caution:** All data is stored internally in non-volatile memory. Do not switch off the power until any pending [save](#) operation is completed, or you may lose data. It is strongly advised that you make periodic backups of important data to an external memory stick using the [export](#) function.

## Files, Advanced

### Functions

- [Import Settings](#) - allows you to import a settings file.
- [Update firmware](#) - updates the device's main operating software.
- [Install Extras](#) - add or replace data files, such as new device personalities, help texts or languages.
- [Export Logs](#) - exports the devices's log files to a USB drive.



**Caution:** All data is stored internally in non-volatile memory. Do not switch off the power until any pending [save](#) operation is completed, or you may lose data. It is strongly advised that you make periodic backups of important data to an external memory stick using the [export](#) function.

## Import Settings

When a show file is [exported](#), a settings file is also created. This file only contains the settings information selected in the Settings tabs. This file can be imported using the Import Settings option under **Files>Advanced**.

## Update Firmware

The main operating software can be updated here. The software must be obtained from Echoflex and placed in the root of the USB drive. Please make sure the software file is not inside any other folder or subdirectory, as this will hide it from the update function.

The file name will be in this format: ETC\_CS\_#.#.#.#.#.fw (the software version will replace #.#.#.#.#).



**Caution:** The update process may take a few minutes. Do not shutdown the device until the process has finished. You will be prompted to shutdown and restart after the update.

## Install Extras

Data and content supplied by Echoflex used by your device may be imported here.

This includes new device personality libraries, new help texts, [language revisions](#), additions, and other internal features as they become available.

The files you wish to import must be obtained from Echoflex and placed in the root of the USB drive. The files will be named with the suffix .cspkg.



**Note:** You cannot update the main operating software here, only support files. To update the main software version, you will need to use the [Update firmware](#) button.



**Note:** Fixture profiles are not loaded from this display. Please see [Loading a Fixture Profile](#) for instructions.

## Export Logs

Exports the device's log files to a USB drive. Tap **Yes** to export or **No** to cancel.

The file name will be in this format: Elahotouch\_Logs\_#.tar.gz.

## Installing Language Packs

Any available language packs can be downloaded from the Echoflex website ([echoflexsolutions.com](http://echoflexsolutions.com)) as .zip files.

1. Once downloaded, extract your file.
2. Place it onto the root directory of a USB drive. The file name will end with .cspkg.
3. Plug the USB drive into the USB port of your device.
4. On your console, go to **Setup>Files>Advanced>Install Extras**.
5. A list will appear that shows the files on your USB drive. Select the appropriate language file to install.
6. Press **Accept** to begin the installation process.
7. Follow the on-screen prompts as needed.

# EULA

ELAHOTOUCH - Copyright © 2019 - Echoflex Solutions Inc

IMPORTANT – THIS IS A LEGAL AGREEMENT BETWEEN YOU (“USER”) AND ECHOFLEX SOLUTIONS INC (“ECHOFLEX”). PLEASE READ THE FOLLOWING CAREFULLY BEFORE OPERATING AND INSTALLING THE SOFTWARE (the “Software”). ECHOFLEX PROVIDES THE SOFTWARE SOLELY ON THE TERMS AND CONDITIONS SET FORTH IN THIS END USER LICENSE AGREEMENT (the “Agreement”) AND BY CLICKING THE “ACCEPT” BUTTON AND OPERATING AND INSTALLING THE SOFTWARE, YOU ACCEPT THIS AGREEMENT AND AGREE THAT YOU ARE LEGALLY BOUND BY ITS TERMS. IF YOU DO NOT AGREE TO ALL THE TERMS AND CONDITIONS CONTAINED IN THE AGREEMENT, THEN ECHOFLEX WILL NOT AND DOES NOT LICENSE THE SOFTWARE TO YOU AND YOU MUST NOT INSTALL THE SOFTWARE OR OTHERWISE USE THE SOFTWARE.

THE SOFTWARE IS LICENSED AND COPYRIGHTED (NOT SOLD). Except for the limited license granted in this Agreement, ECHOFLEX and its licensors retain all right, title and interest in the Software and all proprietary rights in the Software, including copyrights, patents, trademarks and trade secret rights, excluding any third party software contained therein.

THIS SOFTWARE IS PROVIDED TO USER IN CONNECTION WITH A DEVICE FROM ECHOFLEX (“Device”). USER MAY USE THE SOFTWARE ONLY ON THE DEVICE AND ONLY SUBJECT TO THE TERMS AND CONDITIONS HEREIN. ECHOFLEX will have no liability for errors, unreliable operation, or other issues resulting from use of the Software on or in connection with devices that are not in conformance with the manufacturer’s original specifications (collectively, “Modified Devices”). Use of the Software on Modified Devices will be at User’s sole and exclusive risk and liability.

1. Grant of License. Subject to User’s strict compliance with the following terms and conditions, ECHOFLEX hereby grants to User, a worldwide, non-exclusive, limited license to use the Software on the Device during the Term.
2. Limitations on License. The license granted to User in this Agreement is restricted as follows:
  - Limitations on Copying and Distribution. User may not copy or distribute the Software except to the extent that copying is necessary to use the Software within User’s organization for purposes set forth herein.
  - Limitations on Reverse Engineering and Modification. User may not reverse engineer, disassemble, decompile, modify or create derivative works of the Software.
  - Proprietary Notices. User may not remove, delete, alter or obscure any product identification or proprietary notices (e.g., copyright and trademark notices) from the Software or its documentation.
  - Use in Accordance with Documentation. All use of the Software must be in accordance with its then current documentation, if any, provided with the Software or made available on ECHOFLEX’s website.
  - Compliance with Applicable Law. User is solely responsible for ensuring its use of the Software is in compliance with all applicable foreign, federal, state, provincial and local laws, and rules and regulations.
3. Responsibility for Use of Software. User is responsible and liable for all uses of the Software and documentation through access thereto provided by ECHOFLEX, directly or indirectly. Specifically, and without limiting the generality of the foregoing, User is responsible and liable for all actions and failures to take required actions with respect to the Software and documentation by its authorized users or by any other person to whom User may provide access to or use of the Software, whether such access or use is permitted by or in violation of this Agreement.
4. Third-Party Software. The Software may include software, content, data or other materials, including related documentation, that are owned by third parties other than ECHOFLEX and that are provided to ECHOFLEX on license terms that are in addition to or different from those contained in this Agreement (“Third-Party Licenses”). A list of all materials, if any, included in the Software and provided under Third-Party Licenses is set forth on Schedule A to this Agreement, and the applicable Third-Party Licenses are accessible via links therefrom. User is bound by and shall comply with all Third-Party Licenses. Any breach by User or any of its authorized users of any Third-Party License is also a breach of this Agreement.

5. **Software Support; Functionality.** All questions and requests relating to Software Support must be directed to ECHOFLEX. ECHOFLEX may change or remove functionality and other features of the Software at any time, without notice. Support Services will include the provision of updates, bug fixes, patches and other error corrections (collectively, "Updates") as ECHOFLEX makes generally available free of charge to all licensees of the Software. ECHOFLEX may develop and provide Updates in its sole discretion, and User agrees that ECHOFLEX has no obligation to develop any Updates at all or for particular issues. User further agrees that all Updates will be deemed Software, and related documentation will be deemed documentation, all subject to all terms and conditions of this Agreement. User acknowledges that ECHOFLEX may provide some or all Updates via download from a website designated by ECHOFLEX and that User's receipt thereof will require an internet connection, which connection is User's sole responsibility. ECHOFLEX has no obligation to provide Updates via any other media. Support Services do not include any new version or new release of the Software that ECHOFLEX may issue as a separate or new product ("Upgrades"), and ECHOFLEX may determine whether any issuance qualifies as an Upgrade or Update in its sole discretion. ECHOFLEX has no obligation to provide Support Services, including Updates (i) for any but the most current version or release of the Software, or (ii) for any copy of Software for which all previously issued Updates have not been installed, or (iii) for any Software that has been modified other than by or with the authorization of ECHOFLEX, or that is being used with any hardware, software, or configuration not specified in the documentation or expressly authorized by ECHOFLEX in writing.
6. **Upgrades.** ECHOFLEX intends to provide, but does not guarantee, Updates or Upgrades of the Software. If the Software is an Upgrade from a previous version of the Software, then it is provided to User on a license exchange basis. User agrees by installing and using the upgraded version of the Software to voluntarily terminate all use of the previous version of the Software. For each Upgrade, User will be prompted to accept a new terms and conditions relating to User's use of the upgraded Software. User agrees any earlier agreement governing the use of the previous version of the Software is hereby void and replaced in its entirety by this Agreement.
7. **Feedback.** User may provide suggestions, comments or other feedback (collectively, "Feedback") regarding ECHOFLEX's products and services, including the Device and Software. Feedback is voluntary. ECHOFLEX may use Feedback for any purpose without obligation of any kind. To the extent a license is required under User's intellectual property rights to make use of the Feedback, User hereby grants to ECHOFLEX an irrevocable, world-wide, non-exclusive, perpetual, fully-paid-up, royalty-free license to use the Feedback in connection with ECHOFLEX's business, including the enhancement of the Software and the provision of products and services to its customers.
8. **Disclaimer of Warranty.** THE SOFTWARE AND DOCUMENTATION ARE PROVIDED TO USER "AS IS" AND WITH ALL FAULTS AND DEFECTS WITHOUT WARRANTY OF ANY KIND. TO THE MAXIMUM EXTENT PERMITTED BY LAW, ECHOFLEX AND ITS SUPPLIERS AND LICENSORS DISCLAIM ALL WARRANTIES WITH RESPECT TO THE SOFTWARE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, TITLE, MERCHANTABILITY, QUIET ENJOYMENT, QUALITY OF INFORMATION, AND FITNESS FOR A PARTICULAR PURPOSE. ECHOFLEX AND ITS SUPPLIERS AND LICENSORS DO NOT WARRANT THAT THE SOFTWARE WILL MEET USER'S REQUIREMENTS, OR THAT THE OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN THE SOFTWARE WILL BE CORRECTED. The entire risk as to the quality, operation, and performance of the Software is with User. Should any Software prove defective in any respect, User assumes the cost of any necessary servicing, repair or correction. This disclaimer of warranty constitutes an essential part of this license. ECHOFLEX STRICTLY DISCLAIMS ALL WARRANTIES WITH RESPECT TO ANY THIRD-PARTY LICENSES.
9. **U.S. Government Restrictions.** The Software is commercial computer software, as such term is defined in 48 C.F.R. §2.101. Accordingly, if the User is the U.S. Government or any contractor therefor, User shall receive only those rights with respect to the Software and documentation as are granted to all other end users under license, in accordance with (a) 48 C.F.R. §227.7201 through 48 C.F.R. §227.7204, with respect to the Department of Defense and their contractors, or (b) 48 C.F.R. §12.212, with respect to all other U.S. Government licensees and their contractors.
10. **Limitation of Liability.** TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT WILL ECHOFLEX OR ITS AFFILIATES, OR ANY OF ITS SUPPLIERS AND LICENSORS, BE LIABLE TO USER OR ANY THIRD PARTY FOR ANY DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR

INDIRECT DAMAGES (WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE), WHICH INCLUDE, WITHOUT LIMITATION, DAMAGES FOR PERSONAL INJURY, LOSS OF SERVICES, LOST PROFITS, LOST DATA AND BUSINESS INTERRUPTION, ARISING OUT OF THE USE OR INABILITY TO USE THE SOFTWARE, EVEN IF THEY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY CASE, THE ENTIRE LIABILITY OF ECHOFLEX AND ITS AFFILIATES, SUPPLIERS AND LICENSORS, UNDER THIS AGREEMENT FOR ALL DAMAGES, LOSSES, AND CAUSES OF ACTION (WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE) IS LIMITED TO THE AMOUNT PAID BY USER, IF ANY, FOR THE SOFTWARE.

SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO USER.

11. **Export Regulations and Trade Compliance.** The Software and documentation are subject to U.S. and Canadian export control laws, including without limitation, the U.S. Export Administration Act, the Export and Import Permits Act (Canada) and their associated regulations, and may be subject to export or import regulations in other countries. In connection with this Agreement, both ECHOFLEX and User will comply with all applicable import, re-import, sanctions, anti-boycott, export, and re-export control laws and regulations, including all such laws and regulations that apply to a U.S. or Canadian company, such as the Export Administration Regulations (U.S.), the International Traffic in Arms Regulations (U.S.), the United Nations Act (Canada) and the Special Economic Measures Act (Canada) and their associated regulations, and economic sanctions programs implemented by the Office of Foreign Assets Control (U.S.). User shall not, directly or indirectly, export, re-export or release the Software or documentation to, or make the Software or documentation accessible from, any jurisdiction or country to which export, re-export or release is prohibited by law, rule or regulation. User shall comply with all applicable federal laws, regulations and rules, and complete all required undertakings (including obtaining any necessary export license or other governmental approval), prior to exporting, re-exporting, releasing or otherwise making the Software or documentation available outside the United States or Canada. User represents and warrants that it is not subject to sanctions or otherwise designated on any list of prohibited or restricted parties, including but not limited to the lists maintained by the United Nations Security Council, the U.S. Government (e.g., the Specially Designated Nationals List and Foreign Sanctions Evaders List of the U.S. Department of Treasury, and the Entity List of the U.S. Department of Commerce), the Canadian Government (e.g. the Export Control List and the Area Control List), the European Union or its Member States, or other applicable government authority.
12. **Termination.** User may terminate this Agreement by ceasing to use and destroying all copies of the Software and documentation. This license will automatically terminate in the event User breaches any of its terms. In the event of a claim of intellectual property infringement by any third party relating to the Software, ECHOFLEX may immediately terminate this Agreement. In addition, ECHOFLEX may choose to discontinue support of the Software at any time, without notice. In such case, the Software may cease to function and User's data may become inaccessible. User is solely responsible for backing up any data stored in the Software.
13. **Indemnification.** User shall indemnify, defend and hold harmless ECHOFLEX and its suppliers and licensors from and against any and all losses, damages, claims, liabilities, fines, costs and expenses (including reasonable attorney fees) arising out of User's breach of this Agreement.
14. **Privacy.** User acknowledges that ECHOFLEX may, directly or indirectly through the services of third parties, collect and store information regarding use of the Software and use of the Device on which the Software is installed through the provision of Support Services. User agrees ECHOFLEX may use such information for any purpose related to any use of the Software by User or on User's equipment including but not limited to improving the performance of the Software, developing Updates, or providing products and services to its customers. ECHOFLEX recognizes the importance of respecting User's privacy. The Privacy Policy (linked below) provides a description of how ECHOFLEX collects, uses, shares and protects personal information, as well as the choices and access rights User has in regards to such personal information. For more information on ECHOFLEX's privacy practices and to review ECHOFLEX's Privacy Policy please visit the following link <http://www.echoflexsolutions.com/privacy-statement>.
15. **Destruction of the Software.** Upon termination of this Agreement, the license granted hereunder shall terminate, and User shall cease using and destroy the Software, the related documents and any and all

copies thereof and submit documents evidencing such destruction to ECHOFLEX, if requested by ECHOFLEX to do so.

16. **Miscellaneous.** This Agreement will be construed and interpreted exclusively according to the laws of the Province of British Columbia and the laws of Canada applicable therein, notwithstanding any conflict-of-laws doctrines of any other jurisdiction to the contrary and without aid of any canon, custom or rule of law requiring construction against the drafter. Any action at law or in equity arising out of or directly or indirectly relating to this Agreement may be instituted only in the competent court sitting in the Province of British Columbia, with respect to any legal action or proceeding arising out of, or relating to, in whole or in part, this Agreement, and the Parties further agree that any claims with respect to such action or proceeding shall be heard or determined only in such court. ECHOFLEX and User consent and submit to the personal jurisdiction of those courts for the purposes of any action related to this Agreement, and to extra-territorial service of process. This Agreement constitutes the entire understanding and agreement between ECHOFLEX and User with respect to the transactions contemplated in this Agreement and supersedes all prior or contemporaneous oral or written communications with respect to the subject matter of this Agreement, all of which are merged in this Agreement. This Agreement may not be modified, amended or in any way altered except by an instrument in writing signed by authorized representatives of both parties. In the event any provision of this Agreement is found invalid or unenforceable pursuant to judicial decree, the remainder of this Agreement will remain valid and enforceable according to its terms. Any failure by ECHOFLEX to strictly enforce any provision of this Agreement will not operate as a waiver of that provision or any subsequent breach of that provision. The disclaimers and limitations of liability and User's indemnity will survive any termination or expiration of this Agreement. All notices, requests, consents, claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given on the date sent by e-mail or facsimile (with confirmation of transmission) or on the third day after the date mailed, by certified or registered mail, postage prepaid. This Agreement may be accepted in electronic form (e.g., by an electronic or other means of demonstrating assent) and User's acceptance will be deemed binding between User and ECHOFLEX. Neither ECHOFLEX nor User will contest the validity or enforceability of this Agreement, including under any applicable statute of frauds, because it was accepted or signed in electronic form. Electronically maintained records when produced in hard copy form shall constitute business records and shall have the same validity as any other generally recognized business records. IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT IN THE EVENT ANY REMEDY HEREUNDER IS DETERMINED TO HAVE FAILED OF ITS ESSENTIAL PURPOSE, ALL LIMITATIONS OF LIABILITY AND EXCLUSIONS OF DAMAGES WILL REMAIN IN EFFECT.

#### Schedule A

**Third-Party Licenses Terms and Conditions.** For a complete list of all Third-Party Licenses that are fully incorporated herein to the extent required by each Third-Party License terms and conditions please visit [www.etconnect.com/licenses](http://www.etconnect.com/licenses).

