ColorSource AV Console

User Manual

v1.1.1

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Welcome to the ColorSource Help System

The topics found in this help system can also be found on your console by pressing the ⓘ button. Tutorial videos are also available on your console.

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Shutdown

Hold the **Stage Map** button (left-most button below the screen) for three seconds to select the Shutdown screen.

Shutdown sends the console into hibernation mode and turns off the screen and indicators.

To awaken the console, press the now blue Stage Map button again.

> ⓘ **Note:** When in hibernation mode, the console and its external power supply unit still consume some power. To ensure zero power consumption, the external power supply should be disconnected from the AC mains supply.

> ⚠ **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.

It is recommended to power the unit on and off on the AC side of the external power supply.

ColorSource Overview

The ColorSource console is made up of four different physical areas; the touchscreen (stage map), the faders and bumps, the crossfader, and the master faders. It is important to familiarize yourself with these different areas as you learn to use your console.
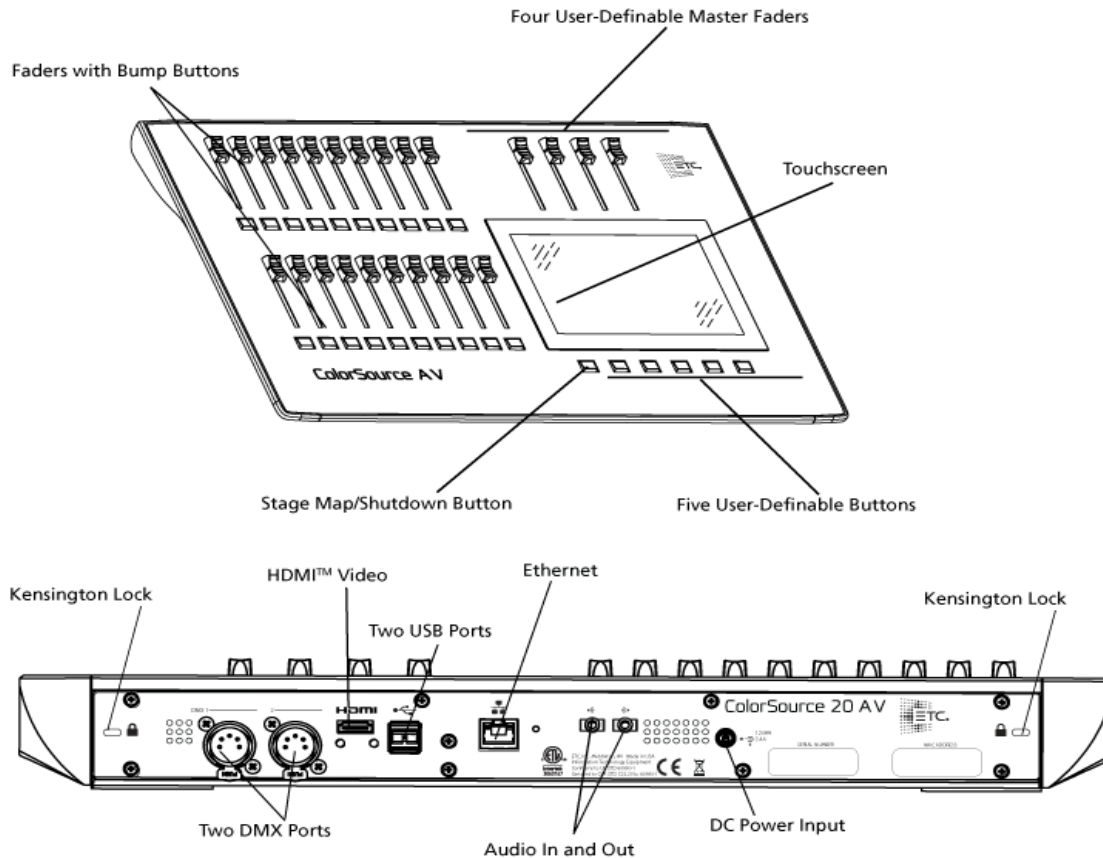
A Note about Touchscreen Performance on ColorSource Consoles

The ColorSource console touchscreen requires that the power supply is grounded (with a three-pin connector) for optimal performance. Lack of a grounded connection can cause the touchscreen to operate erratically or not at all. This might be seen as unwanted operations or inability to precisely select an item.

If no earthed / grounded outlet is available, or if the console is being run from an independent power source, including from a vehicle or battery, it is possible that the touchscreen will not operate correctly. In these situations it is advised to directly connect your body to the console chassis. This may be achieved with a conductive wrist strap, of the kind used in electronics manufacturing or hospitals to eliminate static charge build-up. The cable of the strap should be attached to a metallic part of the console, for example a screw or connector on the rear panel. If this is not practical, then you should at least ensure that you touch the console enclosure, the metallic part of it, with your wrist or your other hand.

Stage Map

The **Stage Map** button (left-most button below the screen) displays a topographical map of channels full-screen at maximum size. You may select channels on the topographical stage map for control.

> **Note:** The **Stage Map** button will toggle between displaying the Stage Map or the previously selected display.
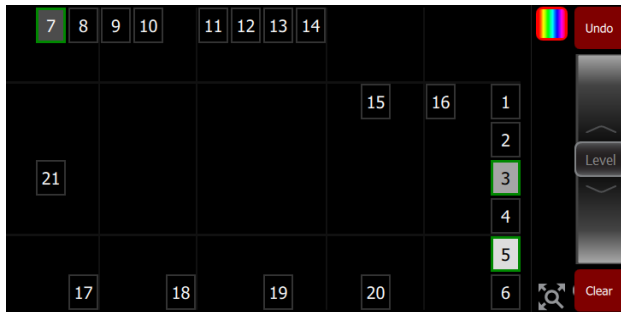
Available Controls

» Pinch two fingers to zoom the display in or out. Zoom in to see intensity levels within the channel cells.
» Drag with two fingers to pan the display.
» Single click on a deselected light to select it.
» Single click on a selected light to deselect it.
» Double click on a light to select that light alone and de-select all others.
» Stage Map Arrange Mode
» Selected lights are indicated surrounded by a green box.

The vertical strip to the right of the main area displays special content that is playing:

» **Effects:** press an icon to Stop or Edit the effect from playback. Press the icon to place the effect on the wheel controller to increase or reduce the effect.
» **Audio (ColorSource AV only):** press an icon to Stop or Edit the audio from playback. Pick the icon to place the audio volume on the wheel controller to increase or reduce the volume of that audio clip.
» **Video (ColorSource AV only):** press an icon to Stop or Edit the video from playback. Pick the icon to place the video luminance on the wheel controller to increase or reduce the video brightness.

> **Note:** The Effects, Audio, and Video icons will only display if that type of content is playing.

Stage Map Arrange Mode

Press and hold a cell on the stage map, or go to **Setup >Stage Map** to open the arrangement screen.

When in arrangement mode, the screen displays as a grid. Press and drag lights to move them to another position on the grid.
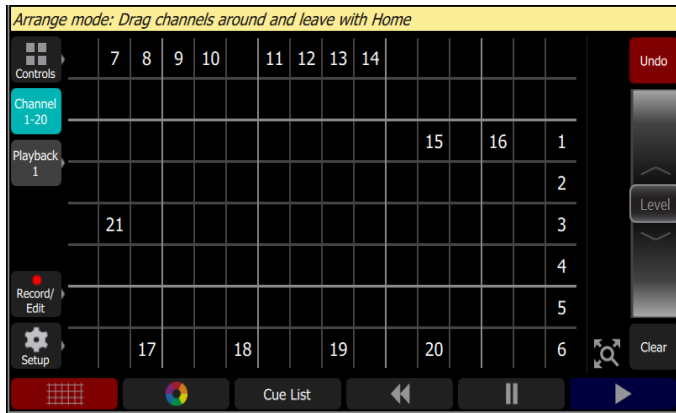
Press the **Stage Map** button (left-most button below the screen) to exit the arrangement mode.

Fader Mode

The faders to the left of the display may be set to operate individual channels or playbacks.

Two pages of channels are provided and ten pages of playbacks.

> ⓘ **Note:** See channels for information on faders and captured channels.

Bumps

The buttons below the faders are bump buttons.

Their operation changes based on the fader mode.

>> When the faders are in channel mode, the bumps can be used to select or deselect channels.
>> When the faders are in playback mode, their behavior is set based on the selected button mode.

Crossfader

The Crossfader can be assigned to one of the four faders above the touchscreen. It is assigned in the Console tab in Settings.

The Crossfader provides manual control over the fades between cues. You can see the progress of the crossfade and which cues are affected in the cue viewer.
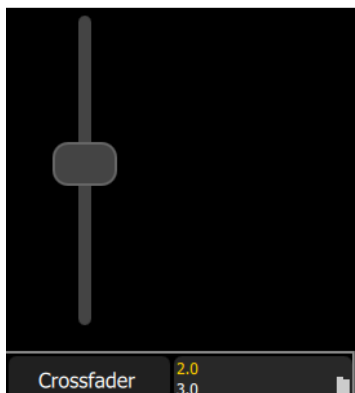
Master Faders

Master faders can be used to control the output of certain functions. Master faders are the four faders

above the touchscreen. They are assigned in the Console tab in Settings.

> ℹ️ **Note:** When the Playbacks or Cues faders are fully down no output will be produced by those sections.

Master faders default to these functions:

» **Volume (ColorSource AV only**: controls the audio volume.

» **Playbacks**: controls the output of the playbacks and sequences.

» **Cues**: controls the output of the cue list.

» **Crossfader**: Crossfades the cue list from the **Live** to the **Next** step.

In Simple Mode

» **Masters 1- 4**: The four playback masters. You may record the output and store it on one of the four masters to be re-used later.

Getting Started With Patching

To be able to control the lighting fixtures in your system you need to assign each fixture (or a group of dimmers) to a channel fader. The channel fader can then be used to set intensity of a fixture. The channel 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 lighting system are controlled using the DMX protocol and each dimmer or fixture uses a DMX address (or set of addresses) to communicate with the console.

The Patch is used to associate a channel with DMX addresses and device types. Once a channel is patched to an address or addresses, and the output is connected to a device (for example a dimmer, moving light, or accessory), the channel will then control that device.

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

> ⓘ **Note:** If your patch stays the same between shows, you can save time by saving a default show, which will load your patch automatically for you.

Patch

Displays the patching screen and controls.

Patching associates a console channel number with an address or block of addresses on the DMX output. You must ensure that the address on the light, dimmer, or device matches the address that you setup in Patch. To patch a basic device, press Add Dimmer.

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 console channel numbers though. To patch a complex device that is not automatically found by RDM, press Add Device.

During patching you may add tags to each light, dimmer, or device to aid in convenient grouping on the quick select screen.

The lower section of the screen may be set to display the channel stage map or a view of the DMX universes output.

> ⓘ **Note:** The media outputs, audio and video, do not need to be patched as they are controlled directly.

The settings and patch for the independents are on the Ind. Tab in Settings.

Add Dimmer

Dimmers are single-address devices that control intensity only. For patching multiple-address devices, see Add Device.

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

Patching a Dimmer or Single-address Device

1. Press **Add dimmer**. This will open the Patch Wizard display.
2. Select **Channel** to enter the channel number.
3. Select **Count** to enter in the number of similar devices you are patching. If the quantity is more than one, each dimmer will occupy one DMX address, starting from the address you specify.
4. Select **DMX** to enter the DMX address.
5. Select **Accept** to patch, or **Cancel** to exit.

For Example:
 If you set the count to 12 and the DMX address to 20, the devices will occupy DMX addresses 20-31.

Patching places the items in a list in the upper part of the patch screen and on the topographical stage map in the lower part of the screen in rising order starting in the top left corner. You may select one channel at a time in the list or on the stage map.

Each channel may be edited in the boxes at the top of the screen for channel number, DMX Universe and DMX address. You may also add tags to each item so that they may be conveniently grouped on the quick select screen.
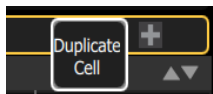
Duplicate Cell

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

> **(i) Note:** Duplicate cell adds dimmers only and not devices. Devices must be patched and placed individually. See Add Device.

Pick a channel 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 and set tags in Patch.

When a duplicate cell is selected or operated, each of the duplicate cells on the Stage Map will respond together. Each cell of a duplicate channel may be moved separately on the Stage Map.

> **ⓘ Note:** You can also add dimmers to a channel without showing them as separate cells on the Stage Map. Use Add Dimmer and then set the channel number to be the same as the channel you want to add the dimmer to. Dimmers added in this way do not consume space on the Stage Map, for instance you may need one channel 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.
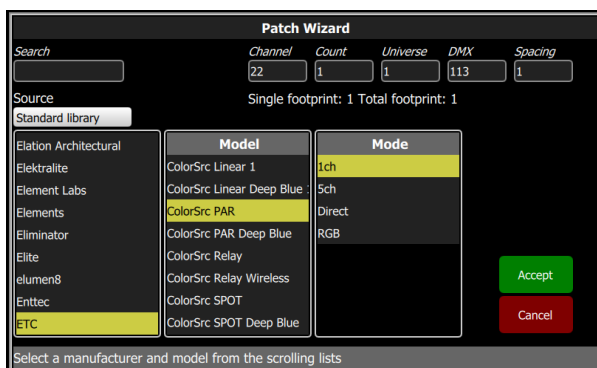
> **ⓘ Note:** Lighting devices with RDM available and enabled will be found automatically and added to the list of devices in the patch. However, you must assign them to console channel numbers.

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 **Channel** to enter the channel 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. 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 - 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 channels, but you would prefer to manually address them at logical starting nubmers 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 stage map in the lower part of the screen in rising order starting in the top left corner. You may select one channel at a time in the list or on the stage map.

Each channel may be edited in the boxes at the top of the screen for channel number, DMX Universe and DMX address. You may also add tags to each item so that they may be conveniently grouped on the quick select screen.

> **(i) Note:** Custom fixture profiles can be loaded onto the console. Please see Loading a Fixture Profile for instructions.

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.

To request a fixture personality from ETC, please send your request along with the user manual, the required mode(s) and your need by date to ColorSourceConsole@etcconnect.com.

> **(i) Note:** For the console 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 console.
2. With the USB drive plugged into the console, 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.

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

Remove

Select a device or dimmer, and press **Remove** to remove from the patch. If you accidently remove a device or dimmer, you can use the Undo function to restore it.

> **(i) Note:** If you have recorded a device into playbacks or cues, and then remove it from the patch, all the recorded values will remain in the playback or cue, but they will no longer be connected to a device.

Show Universes / Show Stage Map

The lower section of the Patch screen may be set to display the topographical Stage 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.
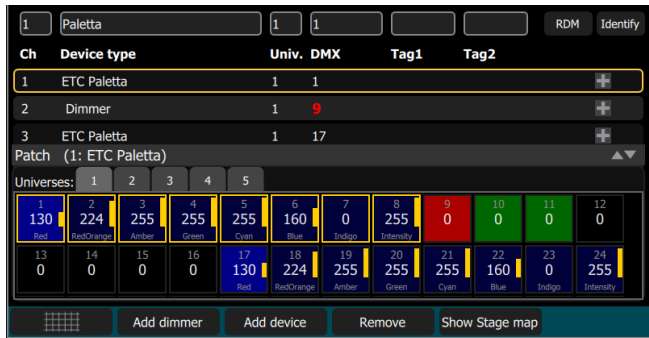
>> Each cell shows the DMX address, the value in the range 0-255 and the name of the parameter if for a device patched with a *personality*.

>> 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 channel 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.

>> Cells in **black** are unoccupied and not patched.

>> A yellow bar graph indicates the approximate value being output.

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 the pan and tilt channels so that pan on the console 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.

RDM

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

The RDM button enables and disables RDM on the local DMX ports and RDM messages coming from gateways to the console. When enabled, the RDM button will be green. If you have problems with lights or dimmers connected to the local ports on the console that flicker or suffer interference when you open the patch screen try to turn off the RDM button.

> **ⓘ** **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 console 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 console 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 channel number, and you can prevent this from being an annoyance by turning off the RDM button.

RDM via Network

RDM across a network connection from a ETC Net3 DMX/RDM Gateway to the console may be enabled or disabled with the RDM button.

Disabling RDM at the console will not affect what Gateways do on their respective DMX outputs. RDM activity on the DMX outputs of Gateways will depend on the type and setup of Gateway being used. To enable or disable RDM on a particular Gateway DMX output, you should use a network management tool such as ETC Net3 Concert, or the local controls of the Gateway itself.

Identify

Identify finds the RDM-capable lights during patching so it is easy to know which device is which when assigning them to channels.

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

When RDM discovers a light, the light is placed at the top of the patch list with the channel 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 light does when told to Identify is determined by the its manufacturer.

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

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

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 channels 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 Your Lighting System

After you have completed your patch, you are now ready to start controlling your lighting system. Your ColorSource console gives you many options for controlling of your lights.

This section discusses how to control your channels, and how to set the parameters.

> **Note:** 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.

Channels

A channel is the control used by the console to operate a dimmer, a group of dimmers, a dimmer and a device, or a complete moving light fixture.

Channels need to be associated with an address in patch for there to be output.

Channel Counts

» The ColorSource 20 can control up to 20 channels in simple mode, and 40 in complete.
» The ColorSource 40 can control up to 40 channels in simple mode, and 80 in complete.

Setting the Operating Mode

» Choose **Simple** or **Complete** mode on the Setup>Settings>Basic screen.

Fader Pages

» Simple Mode offers one page of faders to control the first 20 or 40 channels, depending on the model.
» Complete Mode offers two pages of faders to control all the available channels, 40 or 80 depending on the model.

Working with Dimmers / Intensity

Channels can be controlled in several different ways:

» The faders, when in channel mode, can be used to control a channel's intensity.
Depending on the chosen operating mode: **Complete** or **Simple**, there are one or two pages of channels that the faders can control. In **Complete** Mode toggle the Channel button to access each of the pages.

> **Note:** The second page of channels is only available when channels have been patched on that page (above 21 or 41, depending on the console model).

» You can use the touchscreen and select channels directly on the stage map. The wheel can then be used to assign an intensity level.
» In complete mode, you can use the keypad to select a channel and assign an intensity level.
» In complete mode, channels can also be controlled by the playbacks, sequences, and cues. In simple mode, channels can be controlled by four playbacks.

Selected Channels

To make changes to channel values, a channel must be selected. Selection is indicated by a thick green border around the channel cell on the Stage Map and a lit LED beneath the channel fader. Selection can happen in a number of ways:

» Move a fader to select a channel. If the channel is already on due to playback, move the fader until it matches the channel's current output. Move the fader back to the bottom "zero" position to deselect it (and take its intensity to zero.)

» Touch the channel cell on the Stage Map. Touch the cell again to deselect it.

» Use the Keypad to type in the channel numbers and set levels.

» To deselect all selected channels, use **Clear>Selection**.

Captured Channels

Selected channels that have a manually set intensity level are considered "captured." This means that the selected channels' levels will be held until the channels are deselected or the manual intensity values are cleared.

If **Clear>Channels** is used, cleared manual intensity values will return to the levels coming from active playback sources immediately.

If manually set channels are simply deselected, manually set levels will remain on stage until those channels get a new move instruction from a playback source.

Note: A channel fader moved back to the bottom (or "zero") position will deselect that channel. You cannot hold a channel at zero intensity using a channel fader. Another selection method must be used.

Controls

Controls contain all the functions for controlling lights and cues, and setting color and other parameters:

» Stage Map: The 'home' view of the full topographical stage map.

» Color Selector: Selection of mixable colors using a color picker or color chips.

» Param: Parameter control for moving or automated lights.

» Cue List: The cue display.

» Playback Toy: A screen to launch lighting looks and play, or busk, live.

» Keypad: Classic level control by typing numbers.

» Quick Select: Selection of channels in useful blocks or sets.

» Effects: Lighting effects for color, intensity, and movement.

» Media: Audio, Video, Image, Video Toy, and Sound2Light controls.

Note: The options, **Color Selector** and **Param**, are only available if you have patched lights with those capabilities.

Quick Select

In the quick select display, you can pick groups of channels according to their position on the topographical stage map or by choosing the tags setup during patching.
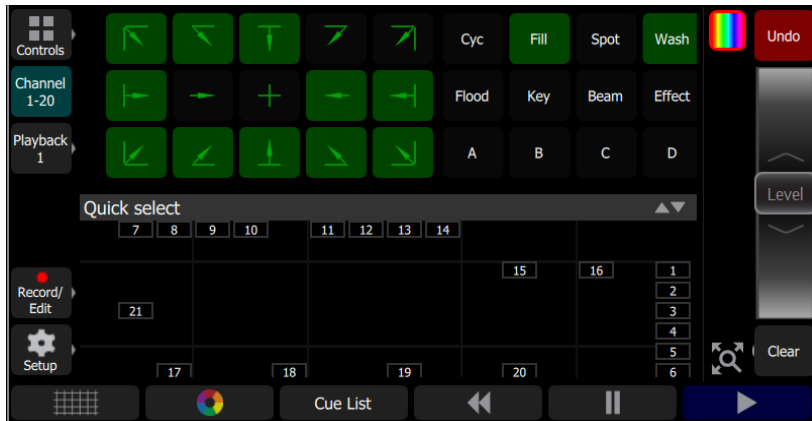
Groups display in the upper section, and the lower section of the screen displays the channel stage map. Available groups are displayed in green boxes. Double click on a group to select only the lights in that group, click on other groups to add or subtract channels from the selection.

While in the quick select display, the wheel operates the level of the selected channels proportionally. The group buttons are also variable cells that may be wiped up and down to alter the value.

When you exit the quick select display, the channels will remain selected and colors or other parameters may be applied to them.

Wheel

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

The wheel can also be used to control depth of effects and sequence rate.

Keypad

The keypad is opened by going to **Controls>Keypad**. This provides classic lighting control of channels and levels via a numeric keypad entry.

> (i) **Note:** Colors, Effects, Media, and Parameter settings must be controlled on their respective screens.

Available Buttons

- » + (Plus)
- » - (Minus)
- » Thru
- » Full
- » @ (At)
- » ..<<..(Backspace)
- » Enter

Keypad, Plus

Adds a channel to the selection set.

For Example:

> **1 Thru 10 + 20 Enter** - creates a set of eleven channels: 1-10 plus 20.

Keypad, Minus

Removes a channel from the selection set.

For Example:

>   **1 Thru 10 - 7 Enter** - creates a set of nine channels: 1-6 plus 8-10.

Keypad, Thru

Selects a range of channels.

For Example:

>   **1 Thru 10 Enter** - creates a set of ten channels: 1-10.

Keypad, Full

Sets the selected channels to full intensity.

To apply the chosen intensity, you must complete the command with the **Enter** key.

For Example:

>   **1 @ Full Enter** - sets channel one to full intensity.

Keypad, @ (at level)

Sets the selected channels to a level specified in percent % from 0 to 100.

To apply the chosen intensity, you must complete the command with the **Enter** key.

For Example:

>   **1 + 5 @ 70 Enter** - sets channels one and five to 70% intensity.

Keypad, << (Backspace)

The **<<** key behaves as a backspace button for the command line.

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.

Color Selector

Lights that have a color mixing system may be operated from this screen. If no such lights are patched, this option will only be available at the bottom of the stage map.

Lights must be selected before a color choice can be applied to them. Select some lights on the stage map view, or with the bump buttons if the fader mode is set to channels, and then pick a color or try several colors.

> (i) **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.

For lights with fixed ranges of preset colors, such as color wheels or scrollers, use the parameter control screen.
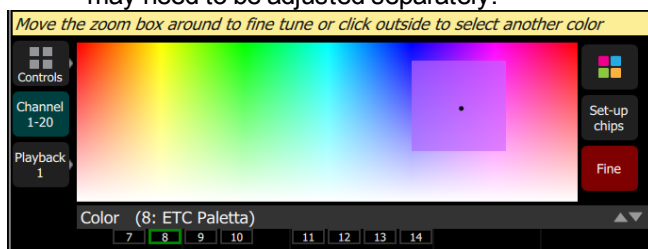
Color Controls

Two methods are provided:

» **Color Chips-** A set of preset color chips. Color chips may be programmed to carry any color mix. See Setup Color Chips for more information.

» **Color Picker-** A diagram of the visible spectrum varying by hue from left to right and by saturation (paleness) from top to bottom. A black dot is used to indicate the color selected. Press **Fine** to put the color picker in fine mode. When in fine mode a box appears that may be dragged around with finer resolution.

> » **White-** Anywhere on the bottom edge picks the color white. The actual shade of white produced will depend on the type of light and its capabilities.
> Lights made by ETC that are set to 'Direct mode' will produce the color 'D50' - equivalent to a color temperature of 5005K.
> For ETC lights operating in other modes you should set the color temp close to 5005K on the light so that they will match ETC lights running in Direct Mode. Other manufacturer's lights may need to be adjusted separately.

ⓘ **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.

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

Setup Color Chips

Color chips may be programmed to carry any color mix.

How to Program a Color Chip

1. Press the **Setup Chip** button.
2. Pick a chip to re-program.
3. Switch to the continuous color picker display, the top right button next to the color chips.

4. Pick a color, move around until you find the one you require.

5. Select **Exit setup** to close the function and save the new chip.

> (i) **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

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

Parameters may include position (pan/tilt), beam control (iris, focus, et cetera), or fixed-choice colors. The tab along the top allows viewing of all parameters or only the position or beam parameter types.
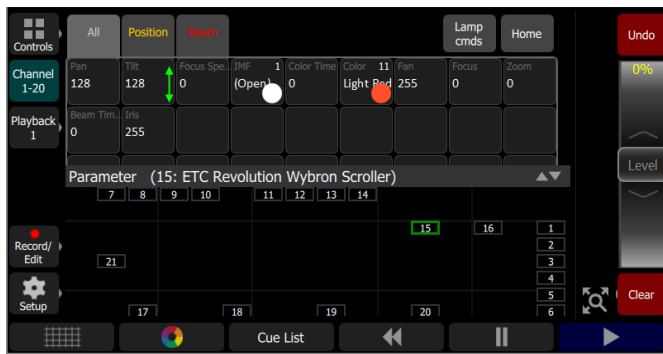
Each cell on the parameter display is a controllable button to alter the value. Press and hold on the cell and you can wipe the value up and down, using the entire screen height for control.

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.
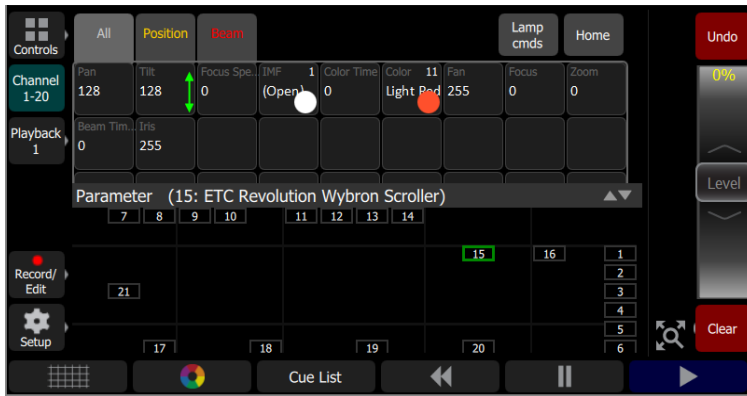

Parameter, All
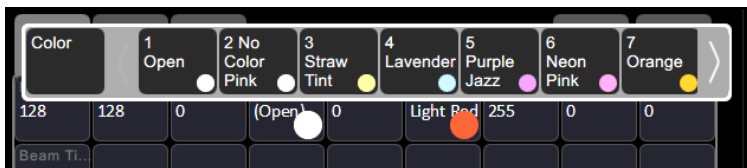
Shows all the available parameters.

> (i) **Note:** The **Param** button is only present if you have patched lights with those capabilities.

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.
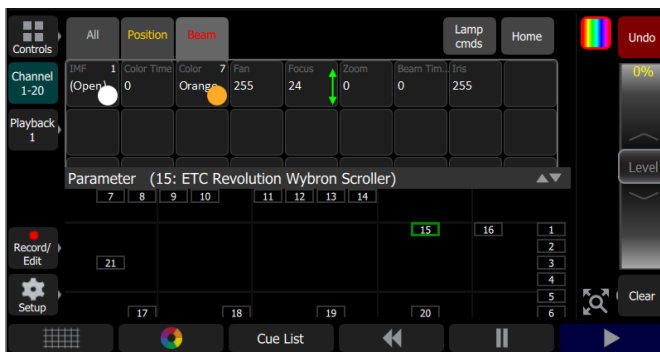

The filmstrip may be scrolled left <> right to see all the choices.

Parameter, Beam

Shows only the beam parameters. All parameters that are not position, intensity or color mixing are included in the beam parameter set.
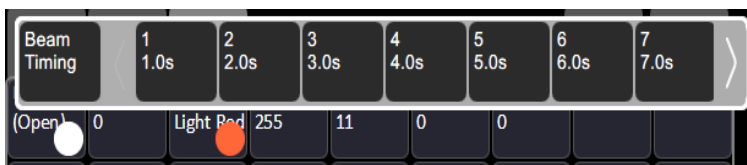
> **(i) Note:** The **Param** button is only present if you have patched lights with those capabilities.

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

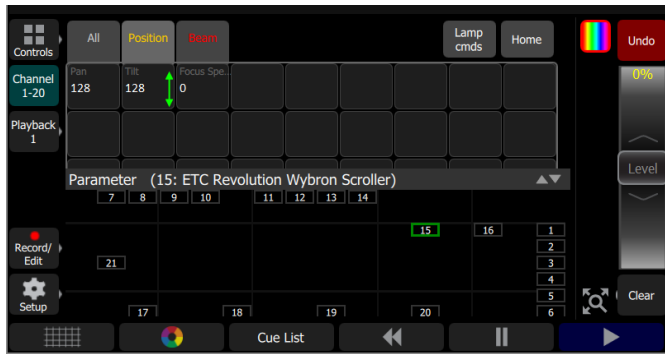Pick a parameter and wipe the value box up and down to change values.

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

Parameter, Position

Show only the position parameters, pan and tilt.

> **Note:** The **Param** button is only present if you have patched lights with those capabilities.

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 <> right to see all the choices.

Parameter, Lamp Commands

Click on the **Lamp Cmds** button to see the following options for lamp control:

- » **Lamp On:** Turns on the fixture's lamp. Also known as striking the lamp.
- » **Lamp Off:** Turns off the fixture's lamp. Also known as dousing the lamp.
- » **Reset:** Resets the lamp commands.

Parameter, Home

Sends all 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.

Recording Your Looks For Playback

This sections covers the multiple ways that you can record lighting looks for playing back. You can record cues, playbacks, and sequences.

» A playback memory can contain one lighting look and media.

» A cue is a recorded stage look that can include channel settings for intensity and other parameters, effects, and media.

» Sequences play back on the playback faders. A sequence may contain up to 99 steps with fade and step timing.

Record / Edit

All recording and editing is performed here.
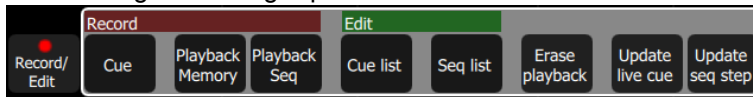
The following options are available:

Record

» Cue

» Playback Memory

» Playback Sequence

Edit

» Cue List

» Sequence List

» Erase Playback

» Update live cue

» Update Sequence Step (only displays when a step needs to be updated.)

Recordings are made by capturing the output being sent to the stage. You may choose which parts of the scene to record using Include Options. If you do not specify the Include Options, only lights set to an intensity above zero will be recorded.

If audio or video media is playing at the time, you will be prompted to include it in the recording.

In Simple Mode

Recordings are made by capturing the output being sent to the stage.

Pick one of the four Memory Master faders above the screen to record to.

Recorded faders are indicated in Mauve color.

To edit an existing memory raise its master so that it plays on stage then make some changes using the channel faders, the color picker, parameters or the keypad, then re-record to the same master position.

Playbacks

The faders can operate the levels of the playbacks. Playbacks can contain one lighting look, or they can contain a sequence, which is made up of multiple lighting looks. Playbacks are mixed with Highest-Takes-Precedence (HTP) for both intensity and color. HTP means that the highest level of all sources will be used.

If two playbacks are up and contain the same channels with differing colors, the resulting color will be the combination of the two. For example, if one playback has a channel set to green and another playback has the same light set to red, when they are mixed the light will turn yellow.

When playbacks also carry parameter values for automated lights, parameters may be run up or down on a playback fader until another playback or cue takes control of them.

There are 10 pages of playbacks. If the page is changed, playbacks that are currently up will not change immediately to the new page and must be brought first to zero. Playback faders may also carry sequences of up to 99 timed steps.

Page 10 is a special case. It may be used in the same way as other pages, or it can be used as a temporary store for remote recordings. Each time a remote recording is requested, the entire output state, including any running media, is stored as a snapshot to a playback on page ten and the snapshot counter is incremented. If more than 20 (40) recordings are made, the counter rolls round to playback #1.

Simple static playbacks are shown in mauve on the bump button, sequences are shown in yellow on the button.
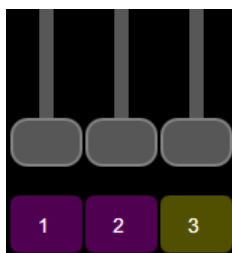
The playbacks are all controlled by the playbacks master fader.

Record Playback Memory

To record a playback, select **Record Playback Memory** and then pick a bump button. A playback memory can contain one lighting look.

To record on a different page select a new Playback Page before pressing the bump.

You may choose to include any media that is currently selected on the Media screen from the pop-up panel. To choose which lights are recorded, select **Include Options** and pick Selected, Active or All. The default if you do not choose is Active; only lights currently on at a level will be recorded.

When a playback recording is complete, the playback page will revert to its previous setting.

Playbacks may be named and given a time. The names and times may be viewed and edited in the Playback Toy screen.

To clear a playback, use the Erase Playback button under Record/Edit.

Include Options

When recording to a playback, cue, or sequence step, you may specify which lighting channels, sets of parameters, and media are included in the recording by pressing the **Include Options** button.

Channels:

» **Active:** Only channels with an intensity above zero are included.

» **Selected:** Only channels currently selected (surrounded by a green box on the stage map or brightly lit on the bumps) are included.

» **All:** All channels are included.

Include:

» **Intensity / Color:** Only the intensity and color mixing channels are included.

» **Position:** Only the position (pan/tilt) channels are included.

» **Beam:** Only the beam channels are included (beam includes non-fadable colors such as wheels and scrollers).

If any media is playing, you will have the option to include it in the recording.

Select Page

Playbacks can be arranged on 10 different pages. In normal use, all the playbacks are on the same page.

You can arrange the content of pages to match songs, scenes, or other blocks of activity in your show by using **Select Page** to record playbacks to a different page. Press the **Playback** button to display the **Select Page** button.

When the page is changed, any playback currently set to a level will remain as it is until it is taken to zero.

When a playback arrives at zero, the page will be updated for that playback. The next time the fader is taken up, it will operate the playback on the newly selected page.

Playbacks may also be operated on the Playback Toy screen, or automatically via the Sound2Light controller.

Erase Playback

To remove content from a playback, press **Erase Playback** and then pick the bump. You will be asked to confirm your choice. Press **Yes** to clear or **No** to cancel. The content of the playback is not simply cleared from the output, it is completely erased.

If you accidently delete a playback, you can immediately use Undo to bring it back.

Button Mode

The buttons below the faders may be used as bumps to operate playbacks.

> **Note:** When the faders are in channel mode, the bump button below the fader is always used to select the channel.

Flash

> **Note:** The button modes; Flash, Solo, Solo Change, and Move/GO are only available when the faders mode is set to playbacks.

When the button mode is set to **Flash**, pressing the bump button for a playback will cause the channels in that playback to flash on to the level of the bumps master. The color on each channel of the selected playback will be mixed onto the output with Highest-Takes-Precedence.

> **Note:** Operating the **Flash** button is the same as if the playback fader had been taken to the same level as the bumps master.

Solo

When the button mode is set to **Solo**, pressing the bump button for a playback will cause the channels in that playback to flash on and all the output from other playbacks or the cue list will be set to zero. The intensity will be set to the level on the bumps master and the color of the selected playback will be sent to the output.

> **Note:** This is the same as if the playback fader had been taken to the same level as the bumps master and all other playbacks and cues set to zero.

Solo Change

When the button mode is set to **Solo Change**, pressing the bump button for a playback will cause the channels in that playback to flash on depending on the intensity of each channel in the chosen playback.

If the chosen playback's channel is at an intensity above zero all the output from other playbacks or the cue list, for that channel, will be overridden. The intensity will be set to the level of the bumps master, and the color of the selected playback will be sent to the output, for that channel.

If the chosen playback's channel is at an intensity of zero, all the output from other playbacks or the cue list, for that channel, will be left unaffected.

Solo Change allows parts of the scene to be replaced while other parts are left unaffected.

Move / GO

When the button mode is set to **Move/GO**, pressing the bump button for a playback will cause the parameters of the channels in the chosen playback to move to their recorded positions and values, while the intensity remains unaffected. The intensity may be operated independently on the playback fader.

> **Note:** **Move/GO** does not work with sequences.

Record Cue

Records the current state into a cue in the cue list. A cue is a recorded stage look that can include channel settings for intensity and other parameters, effects, and media. All recording operations use the output currently live on stage. Blind recording is not permitted.
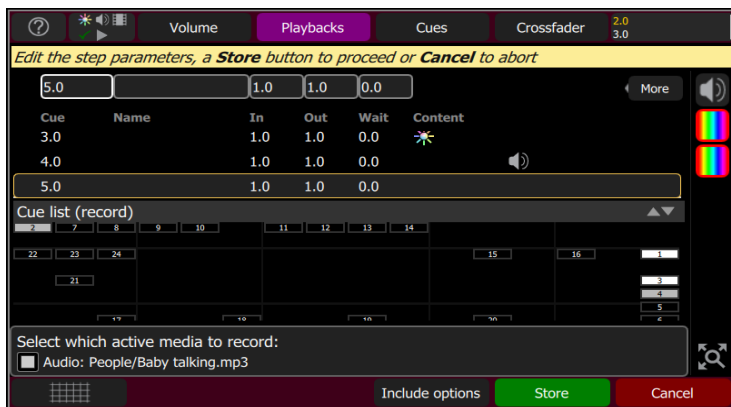
You may make a simple recording by just choosing Store. To specify a recording in more detail, select Include options and choose the lights and parameters you wish to be included.
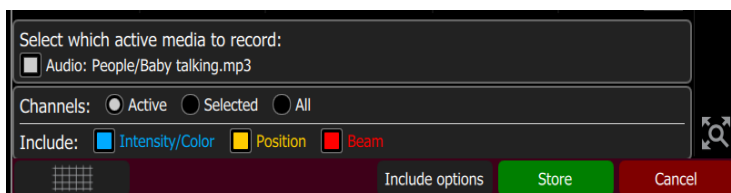
To record Media, run the media on the media screen (or from another source, for instance a playback carrying the desired media). You will see an option to include the running media when the cue is recorded.

Note: If you want a media clip to continue across several cues just record the same clip in each cue. Clips repeated in consecutive cues do not re-start, they continue to run.

Each cue may be named, and its In, Out and Wait times set.

Note: The wait time commences at the start of the cue. If wait is shorter than either in or out, the in or out will not complete before the next cue starts.

Wait time = 0 is a special case and causes the cue to wait for a manual press of the **GO** button.

Include Options

When recording to a playback, cue, or sequence step, you may specify which lighting channels, sets of parameters, and media are included in the recording by pressing the **Include Options** button.

Channels:

>> **Active:** Only channels with an intensity above zero are included.
>> **Selected:** Only channels currently selected (surrounded by a green box on the stage map or brightly lit on the bumps) are included.
>> **All:** All channels are included.

Include:

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

If any media is playing, you will have the option to include it in the recording.

Store

The current lighting levels will be stored in the selected cue or sequence step and recording will be completed. The recording *mode* is then closed, and normal operation resumes.

Note: Once a cue is recorded, it is placed on the live side of the cue crossfader and sent to the output. To remove the newly made cue take the cues master down. The cues master allows cues to be made as changes (deltas) by leaving it up and making the necessary adjustments for each cue, or to be made as complete new states for each cue by leaving the cues master down and making a new state for each recording.

Cue List

A list of timed cues.

Cues are played back with the **Cue Transport** ( ) buttons or by moving the crossfader up and down.

The **Cue Transport** buttons are Back, Pause, and GO. These buttons may be assigned to the hard buttons below the screen, and are also always available by pressing on the cue viewer in the upper right corner.

The live and next cues are indicated on the main cue list and also on the small cue viewer (

) in the upper right corner.

Cues are played back through the cues fader.

> ⓘ **Note:** For the cues to be seen on stage, the cues fader must be up.

More

Pressing on the **More** button in the Cue List or Edit Cue List displays will allow access to the following options:

- » Flag
- » Next flag
- » Previous flag
- » Goto O
- » Goto Cue

Flag

Cues may have a flag attached to aid in cue list navigation. Typically flags are useful to repeatedly return to the same place in the list, for example during rehearsals.

Press **Flag** to place a flag on the current live cue. Press **Flag** again to remove a flag on the current cue.

> ⓘ **Note:** The placing and removal of a flag is a toggle action on the current live cue.

Next Flag

Advances to the next flagged cue in the cue list.

Previous Flag

Returns to the previous flagged cue in the cue list.

Goto Cue

Allows you to go to a specified cue in the cue list.

In the cue list window, press More and then **Goto Cue**, type in the cue number, and press **Enter**.

Goto 0

Cue 0 does not exist as a real cue. It is an imaginary cue before the first cue.

Press **Goto 0** to take all levels from the cue list to zero, and prepare the crossfader for the first cue.

Edit Cue List

The Edit Cue List option is available by pressing the **Record/Edit** button and then selecting **Cue List**. This opens the cue list editor. Here you may change cue names and the timing of fades. You can insert new cues, copy cues, delete cues, and edit cues. To edit the content of an existing cue, press **Edit Cue**. Pick the cue you want to edit in the cue list in the upper part of the display.

New Cue

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

For example, to insert a cue between cues 4 and 5, you would enter 4.5.

> **(i) Note:** The cue list is not re-numbered when a cue is inserted.

Copy Cue

Copies the selected cue and creates a new cue. The new cue is added to the next free whole-numbered cue at the end of the cue list. The new cue may then be given another number, including a fractional or 'point' number.
For example, to insert a cue between cues 4 and 5, you would enter 4.5.

> **(i) Note:** The cue list is not re-numbered when a cue is inserted.

Delete Cue

Deletes the selected cue.

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

> **(i) Note:** A deleted cue may be recovered if Undo is pressed immediately after the deletion is performed.

Edit Cue

Pressing **Edit Cue** will cause only the content in the selected cue to be live on-stage. Any playbacks, sequences, or manual channel levels that are not part of the selected cue will be suppressed while in Edit Cue mode.

Use the normal channel controls to adjust the contents of the cue live on stage. Blind editing is not permitted.

> **⚠ Caution:** If the selected cue contains a blackout, the stage will go dark.

Pick the cue you want to edit in the cue list in the upper part of the display. You can also insert a new cue, copy cue, and delete cue.

Edit Cue is a *mode* which takes over the console and screen. While inside the edit screen, you may visit other screens to change colors, parameters, effects and media of the cue you are editing. While in those screens, a green watermark will display showing what cue you are editing.
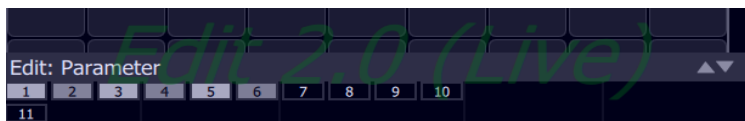
Press **Store** to save the current look to the selected cue and to exit the edit mode, or press **Store & Next** to save your current cue and move directly to the next cue in edit mode.

Update Live Cue

Records the current state of the channels to the live cue in the cue list. The cue's previous content will be replaced.

All recording operations use the output currently live on stage. Blind recording is not permitted.

Use **Update Live Cue** to quickly change or edit the cue on stage.

Clear Cues

Clears the output from the cue list. The action is the same as taking the cues fader to zero.

> **Note:** The cue list position is not affected. Pressing **GO** will fade in the next cue after the one that was cleared.

Record Sequence

Sequences play back on the playback faders. A sequence may contain up to 99 steps with fade and step timing.

Select the bump button of the playback to which you want to record the sequence. If a sequence already exists in that position, you may add steps to it, they will be added to the end of the existing sequence.

Each step of a sequence may contain channels, parameters, and media. To choose which channels, parameters, and media are recorded for each step, select Include Options.

Sequence recording is a *mode* which takes over the screen. The recording mode is shown by a red surround to the screen.
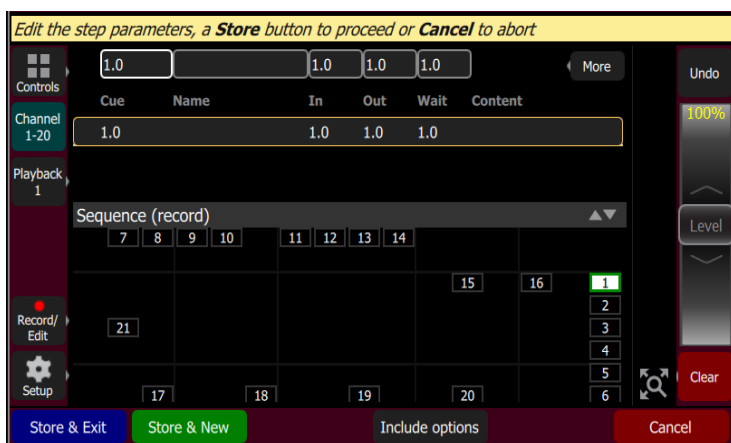
While in the recording mode you may visit other screens to set colors, parameters ,effects, and media. While in those screens, a red watermark will be displayed showing what step you are editing.

To return to the main recording screen press **Record / Edit** 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.

Include Options

When recording to a playback, cue, or sequence step, you may specify which lighting channels, sets of parameters, and media are included in the recording by pressing the **Include Options** button.

Channels:

- » **Active:** Only channels with an intensity above zero are included.
- » **Selected:** Only channels currently selected (surrounded by a green box on the stage map or brightly lit on the bumps) are included.
- » **All:** All channels are included.

Include:

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

If any media is playing, you will have the option to include it in the recording.

Store

The current lighting levels will be stored in the selected cue or sequence step and recording will be completed. The recording *mode* is then closed, and normal operation resumes.

Edit Sequence List

This option opens the Sequence List editor where you can change the content of a sequence list. Press a bump to select which sequence to edit.

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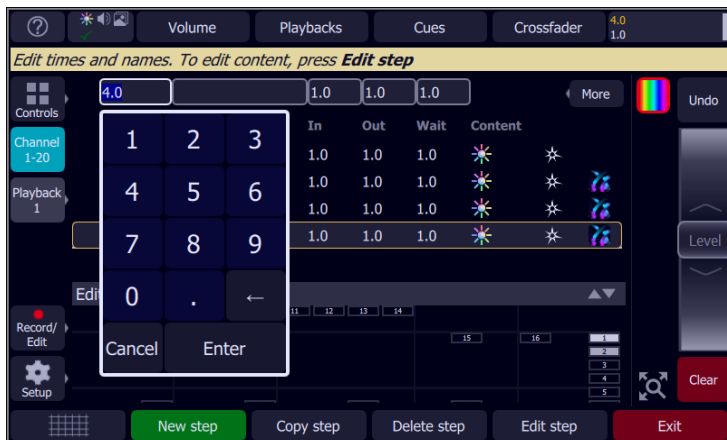
Press **Exit** to leave the editing mode. Any changes made will be stored in the selected sequence.

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.

> ℹ️ **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.

> ℹ️ **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.

> ℹ️ **Note:** A deleted step may be recovered if Undo is pressed immediately after the deletion is performed.

Edit Step

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

Use the normal channel controls to adjust the contents of the step live on stage. 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 colors, parameters, effects and media of the step you are editing. While in those screens, a green watermark will display showing what step you are editing.

Press **Store** 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.

Update Sequence Step

Sequences play back on the playback faders. A sequence may contain up to 99 steps with fade and step timing. Sequences must be stopped and stepped-on to the correct step for editing in order to update a step.

Operation

» Select a bump for the playback you want to Stop.

» Running sequences are indicated by a yellow bump button.

» Stopped sequences are indicated by a blue bump button.

» Stopped sequences may be advanced by pressing the blue bump button.

> **Note:** Stopped sequences may be used as additional cue lists if required.

To Update a Sequence Step

1. Stop the sequence by using the **Seq Run/Step** button, which is accessed by pressing the playback mode button in the Playback Toy display.

2. Use the bump button to advance to the step you wish to edit.

3. Then you may alter the lighting, effects, and media as required.

4. When the edit is complete, select **Update Seq Step** to save the changes. **Update Seq Step** will display only when a step needs updating.
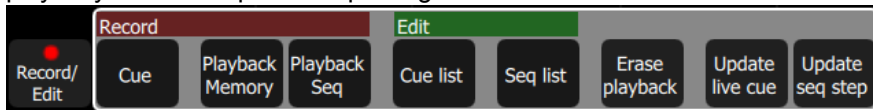
5. Pick the bump of the sequence to be updated to complete the update.

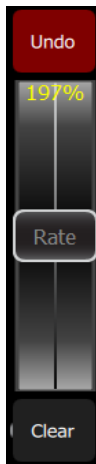> **Note:** There may be several stopped sequences at any given time.

Sequence Rate

Sequences play back on the playback faders. A sequence may contain up to 99 steps with fade and step timing.

Press **Seq Rate** and then select a bump for the playback you want to rate control.

The wheel will change to indicate rate control and the percentage of the rate will be shown on the wheel.

Sequence rate may also be viewed and altered on the playbacks page.

Sequence Run / Step Control

Sequences play back on the playback faders. A sequence may contain up to 99 steps with fade and step timing.

The **Sequence Run/Step** button is located in the Playback Toy display. A **Sequence Run/Step** button will display below each sequence and will only control that particular sequence. The button is a toggle that either lets you stop a sequence so you can manually go through the steps by pressing the bump button, or it runs through the steps automatically.
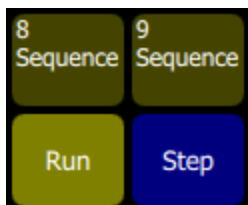
Operation

» Select a bump for the playback you want to stop or start.
» Running sequences are indicated by a yellow bump button.
» Stopped sequences are indicated by a blue bump button.
» Stopped sequences may be advanced by pressing the blue bump button.

> **Note:** Stopped sequences may be used as additional cue lists if required.

Tap Tempo

Places the bump buttons for playbacks carrying sequences into 'Tap' mode.

Hold **Tap** and press the bump of a playback carrying a sequence (shown in yellow on the bump) in the rhythm you want for the sequence rate.

Press several times until the rate is correct.

Tap can be assigned to a bottom button by going to the Console tab under Setup.

GO

Advances the cue list to the next position using the default cue times.

The next position may be the following entry in the cue list, or it may be somewhere else if you are jumping to another cue or flag.

The live cue is displayed surrounded by a yellow box with the next cue beneath it.

Cue	Name	In	Out	Wait	Content	More
1.0		1.0	1.0	0.0		
2.0		1.0	1.0	0.0		
3.0		1.0	1.0	0.0	✳	
4.0		1.0	1.0	0.0	✳	✷

Press **GO** twice or more to rapidly advance to further cues.

Pause

Stops the cue list at its current position. Any fades that are underway will be stopped.

Press GO to resume crossfading and running times.

Press Back to return to the previous cue.

Back

Reverses the cue list to the previous cue using the default cue times.

The live cue is displayed surrounded by a yellow box with the next cue beneath it and the previous cue above it.

Cue	Name	In	Out	Wait	Content	More
1.0		1.0	1.0	0.0		
2.0		1.0	1.0	0.0		
3.0		1.0	1.0	0.0	✳	
4.0		1.0	1.0	0.0	✳	✷

Press **Back** twice or more to rapidly return to previous cues.

Undo

You may **Undo** the most recent function that changed your show data. Undo is one level only, back to the most recent action.

The **Undo** function toggles between Undo and Redo so you may flip back and forth between two recorded items to see which one is correct before moving on.

The following actions are Undo-able:

» Record Playback: Undo returns the previous recording for that playback
» Record Cue and Record Sequence: Undo returns the previous set of cues/steps made prior to the most recent session. If several steps were recorded in one session, using **Store and Next** and not leaving the sequence recording screen, Undo will restore all of them. If only one step was recorded and recording was terminated with **Store and Exit**, then Undo will restore only that one step.
» Patch: Undo will remove all changes made since opening the patch display. If several devices were patched or altered in patch, they will all be restored to their former settings and values.
» Edit Cue List and Edit Seq List: Undo restores the previous cue list contents prior to the editing session.

> (i) **Note:** Undo does not work inside Edit Cue or Seq List, only once exited can Undo restore the previous list.

> ⚠ **Warning:** Undo cannot recover all the actions you perform that might alter your show. In particular, Undo will not undo Erase functions that remove multiple items, for instance Erase Cue List. It is strongly recommended to make frequent backups of important show data.
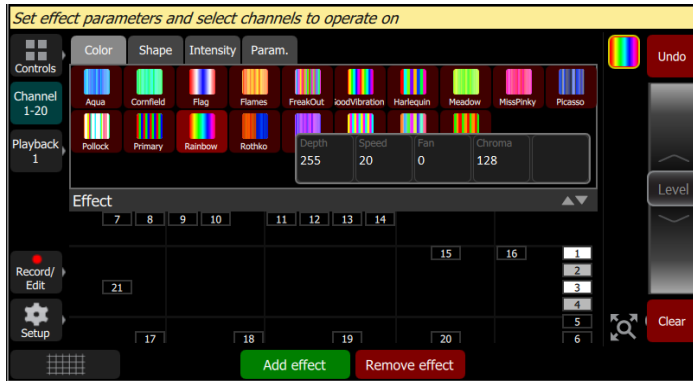
Using Effects

Effects are a method within ColorSource to provide dynamic, repetitive patterns to channels.

Effects

The Effects system is used to apply patterns to selected lights.

Patterns are provided for the following effect types: Color, Shape (motion), Intensity, and Parameter effects.
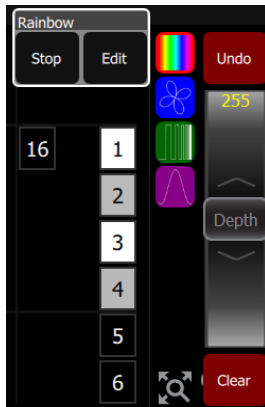

How to Apply an Effect

1. Select some lights.
2. Go to **Controls>Effects**
3. Press Add Effect.
4. Choose an effect type from the tab area.
5. Select a pattern.
6. Adjust the effect settings for the desired result. The available effect settings change based on the effect type selected.

> (i) **Note:** The order in which lights are selected is relevant and will affect the behavior of the fan setting.

To remove an effect, press the Remove effect button.

Effects can be stored to cues and playbacks. When effects are played back, a symbol is shown to the right of the stage map display corresponding to each effect currently in operation. You may pick this symbol and adjust the depth of the effect on the wheel, edit, or stop it.
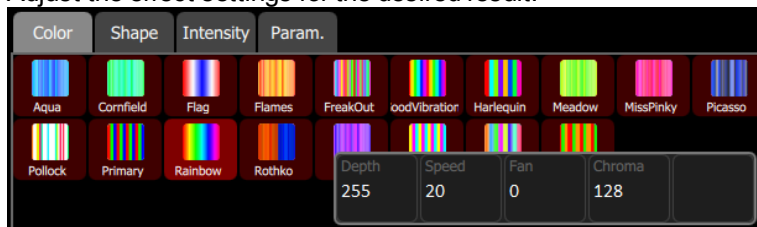
Effect, Color

Applies color effects to selected channels.

> **ⓘ Note:** The color effect system only works with lights capable of performing color mixing. Color effects cannot be applied to lights with fixed colors or a choice of single colors on wheels or scrollers.

How to Apply a Color Effect

1. Select some channels.
2. Go to **Controls>Effects.**
3. Press Add Effect.
4. Choose the color tab from the tab area.
5. Select a pattern.
6. Adjust the effect settings for the desired result.

Effect Settings

» **Depth**- The amount that the effect deviates from the static color set on the light. When set to full, the light follows the effect colors entirely. When set to 50%, the resulting colors will be half way between the light's static rest-state color (the color it was before the effect was chosen), and so on.

» **Speed**- The speed or rate that the effect runs.

» **Fan**- The amount the effect is spread out over the selected lights. Without fan, all the lights change together at the same time. With increasing the value of fan, the lights respond to different parts of the effect, offset from each other.

> **ⓘ Note:** The order in which the lights are selected will affect how they are spread-out by the fan setting.

» **Chroma**- The intensity of color. Chroma is currently 0-255. 127 = Normal, 0 = Paler, and 255 = Saturated.

> **(i) Note:** Effects containing fully saturated colors, such as Rainbow, cannot be made 'more' saturated with the Chroma control.

Running Effect Control

When effects run, an icon is displayed in the vertical area to the right of the stage map. This may be selected at any time to manipulate the effects.

Effects may be edited, removed, or reduced via the wheel control when they are playing back from playbacks or cues.
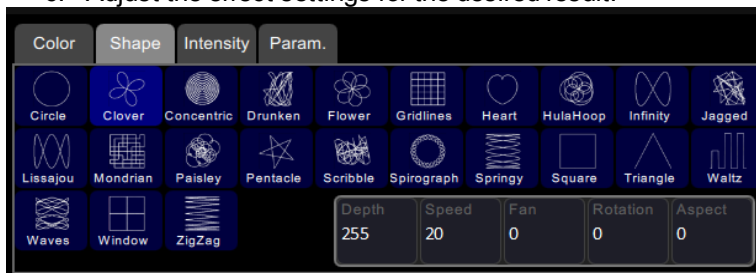
Effect, Shape

Applies shape (motion) effects to chosen channels.

> **(i) Note:** The shape effect system only works with lights capable of pan / tilt movement.

How to Apply a Shape Effect

1. Select some channels.
2. Go to **Controls>Effects.**
3. Press Add Effect.
4. Choose the shape tab from the tab area.
5. Select a pattern.
6. Adjust the effect settings for the desired result.

Adjustments

» **Depth**- The amount that the effect deviates from the static position set on the light. When set to full the light follows the shape entirely, which will be very large. When set to 50% the resulting Shape will be half way between the light's static rest-state position (the position it was before the effect was chosen), and so on.

» **Speed**- The speed or rate that the effect runs at.

» **Fan**- The amount the effect is spread-out over the selected lights. With no fan all the lights change together at the same time. With increasing values of fan the lights respond to different parts of the effect, offset from each other.

> **(i) Note:** The order in which the lights are selected will affect how they are spread-out by the fan setting.

» **Rotation**- The angle of the effect. In the zero setting, 0, the effect is played back normally. As rotation is increased the shape will rotate. The effect of rotation will only be apparent on shapes with distinct edges or asymmetry. For instance, the circle effect looks the same no matter what is the rotation setting whereas the Square effect appears as a diamond if set to 45 degrees rotation.

» **Aspect**- Shape effects may be squashed on one of their axes. This can used to fit a shape effect to a stage area or scenic element. Positive Aspect progressively squashes the tilt axis while negative Aspect progressively squashes the pan axis.

Running Effect Control

When effects run an icon is displayed in the vertical area to the right of the stage map. This may be selected at any time to manipulate the effects.

Effects may be edited, removed, or reduced via the wheel control when they are playing back from playbacks or cues.
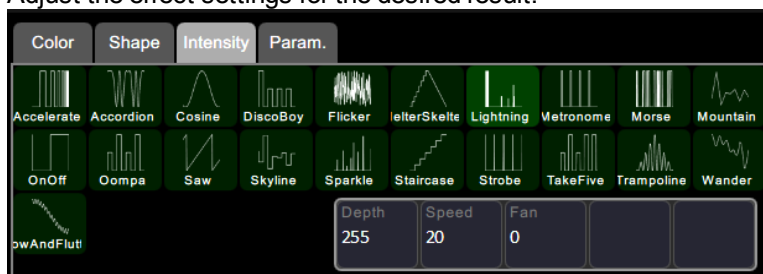
Effect, Intensity

Applies intensity effects to chosen channels.

> **(i) Note:** Intensity effects may only be applied to devices that produce light and have an intensity control channel.

How to Apply an Intensity Effect

1. Select some channels.
2. Go to **Controls>Effects.**
3. Press Add Effect.
4. Choose the intensity tab from the tab area.
5. Select a pattern.
6. Adjust the effect settings for the desired result.

Effect Settings

» **Depth**- The amount that the effect deviates from the static intensity set on the light. When set to full the light follows the effect entirely, and will range from zero to full. When set to 50% the resulting effect will be half way between the light's static rest-state intensity (the brightness it was before the effect was chosen), and so on.

> **(i) Note:** For the intensity to vary fully between zero and full you should set the rest-state value to 50%, then the effect can both raise and lower the intensity by the full amount possible.

» **Speed**- The speed or rate that the effect runs at.

» **Fan**- The amount the effect is spread-out over the selected lights. With no fan all the lights change together at the same time. With increasing values of fan the lights respond to different parts of the effect, offset from each other.

> **(i) Note:** The order in which the lights are selected will affect how they are spread-out by the fan setting.

Running Effect Control

When effects run an icon is displayed in the vertical area to the right of the stage map. This may be selected at any time to manipulate the effects.

Effects may be edited, removed or reduced via the wheel control when they are playing back from playbacks or cues.

Effect, Parameter

Applies effects to particular parameters of chosen channels.

How to Apply a Parameter Effect

1. Select some channels.
2. Go to **Controls>Effects.**
3. Press Add Effect.
4. Choose the parameter tab from the tab area.
5. Select a pattern.
6. Choose the parameter to be affected, you will see the effect start.
7. Adjust the effect settings for the desired result.
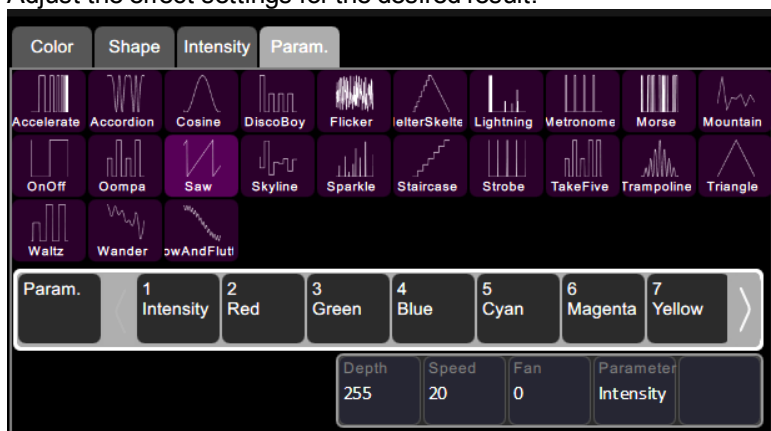
Effect Settings

» **Depth**- The amount that the effect deviates from the static value set on that parameter of the light. When set to full the parameter follows the effect entirely, and will range from zero to full. When set to 50% the resulting effect will be half way between the light's static rest-state for that parameter (the value it was before the effect was chosen), and so on.

> **Note:** For the parameter to vary fully between zero and full you should set the rest-state value to 50%, then the effect can both raise and lower the parameter value by the full amount possible.

» **Speed**- The speed or rate that the effect runs at.

» **Fan**- The amount the effect is spread-out over the selected lights. With no fan all the lights change together at the same time. With increasing values of fan the lights respond to different parts of the effect, offset from each other.

> **Note:** The order in which the lights are selected will affect how they are spread-out by the fan setting.

Running Effect Control

When effects run an icon is displayed in the vertical area to the right of the stage map. This may be selected at any time to manipulate the effects.

Effects may be edited, removed or reduced via the wheel control when they are playing back from playbacks or cues.

Add Effect

To use effects, select some lights and then press **Add Effect**. Choose an effect type in the tab area, select a pattern, and then adjust the effect settings for the desired result.

The order that lights are selected in is relevant and affects the behavior of the **Fan** setting. Fan refers to the amount the effect is spread-out over the selected channels. With no Fan all the lights change together at the same time. With increasing values of Fan the lights respond to different parts of the effect, offset from each other. Fan is set in the specific effect type tabs.

Several effects may be added to one device or channel and their actions will be combined, for instance a small circle effect may be applied as well as a large circle effect. The chosen device will then move in small circles processing round a larger circle.

Remove Effect

Select the effect to be removed on the effect symbol shown in the vertical strip to the right of the Effect display, and press **Remove Effect**. From the Stage Map, select the effect to be removed on the effect symbol shown in the vertical strip to the right of the stage map, then press **Edit>Remove effect**.
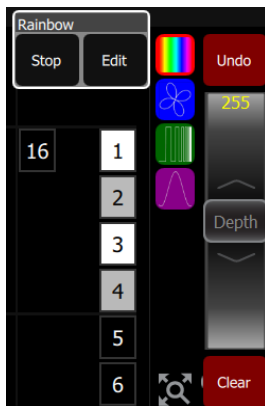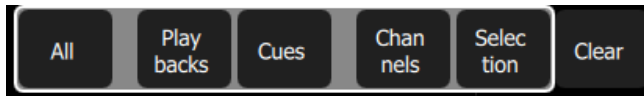

> **(i)** **Note:** If the effect is playing from a playback or cue, you must edit that item to remove the effect permanently.

Turning Lights Off

This section covers turning off your lights by using the Blackout or Clear functions.

Clear

Clear functions remove levels coming from various sections; cues, playbacks, and channels under control of the wheel.

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

» All
» Playbacks
» Cues
» Channels
» Selection

Cleared levels fade back using the fade time, which may be set in the Times Tab of the Settings screen. The default time is 0.5 seconds.

In Simple mode

Clear offers these two options:

» Channels - clears levels set on selected channels
» Selection - clears the selection set.

Clear All

Clear All removes all levels coming from these various sections; cues, playbacks, and channels under control of the wheel, faders, or keypad.

Clear Playbacks

Clears the output from the playbacks. The action is the same as taking each playback to zero or taking the playbacks fader to zero.

Clear Cues

Clears the output from the cue list. The action is the same as taking the cues fader to zero.

> **ⓘ Note:** The cue list position is not affected. Pressing **GO** will fade in the next cue after the one that was cleared.

Clear Channels

Clear Channels removes all levels coming from channels under control of the wheel, faders, or keypad.

Clear Selection

Clear Selection deselects any selected channels, but their levels will remain at the current value.

Speed Clear

Speed Clear is a function that can be assigned to one of the configurable buttons under the touchscreen. It is assigned in the Settings: Console tab.

By pressing the Speed Clear button a certain number of times, you can perform the following clear functions:

1. Deselect - pressing the speed clear button once deselects any selected channels, but their levels will remain at the current value.

2. Clear channels - pressing the speed clear button twice removes all levels coming from channels under control of the wheel, faders, or keypad.

3. Clear playbacks - pressing the speed clear button three times clears the output from the playbacks. The action is the same as taking each playback to zero or taking the playbacks fader to zero.

4. Clear cues - pressing the speed clear button four times clears the output from the cue list. The action is the same as taking the cues fader to zero.

> **Note:** The cue position is not affected. Pressing **GO** will fade in the next cue after the one that was cleared.

Blackout

Blackout sets all lighting levels to zero. The Blackout function can be assigned to one of the buttons below the touchscreen. See **Settings: Console (on page 71)** for more information.

> **Note:** Independents can be included or excluded from the effect of Blackout.

When Blackout is engaged a red X appears below the light bulb icon in the control box adjacent to the Help button.

Special Functions

This section covers the use of the Playback Toy and Independents.

The Playback Toy is a display where you can control playbacks and sequences.

Independents can be used to control certain devices and can have special settings applied to them.

Independent

Operates the independent outputs, 1 or 2.

Independents may be used to operate on/off devices such as motors, smoke machines, cue lights et cetera.

Independents may be set to operate as momentary bumps or as push-on / push-off latching switches.

Independents may be set with an on-level and you may choose to include or exclude them from blackout.

The independent settings and patch are on the Ind. Tab in settings.

Playback Toy

This screen shows ten playbacks from the current playback page.

Playbacks can be viewed and operated here.
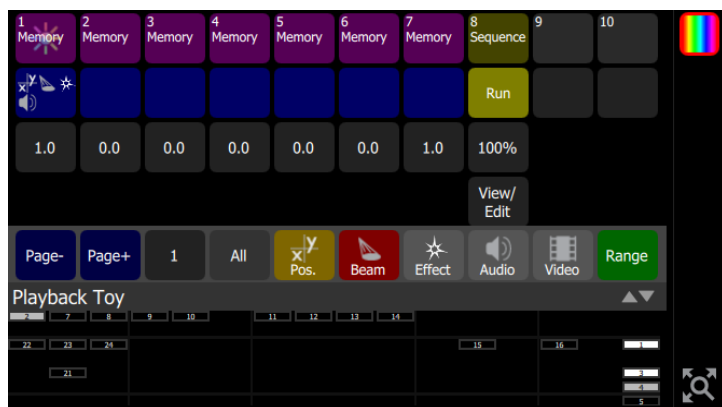
Operation

» Press on a top-row mauve cell to select and fade in that lighting scene.
» Hold on top-row cell to edit its name.
» Press a mid-row blue cell to operate the parameters for that playback, turn on and off filters to choose the parts to play-back.
» Press and hold a bottom-row grey cell to change the fade time.

Functions

» Intensity
» Parameter GO
» Time/ Rate
» Page -
» Page +
» All Filter
» Position Filter

- » [Beam Filter](#)
- » [Effects Filter](#)
- » [Audio Filter](#)
- » [Video Filter](#)
- » [Range](#)
- » [Sequence Run/Step](#)
- » [View/Edit](#)

The page number or name is shown to the right of the **Page -** and **Page +** buttons. Hold the button to change the page name.

Intensity

[Playback Toy](#) provides a simple way to play one playback or sequence at a time with a single press.

The **Intensity** button, shown in mauve for playbacks and yellow for sequences, plays only the intensity part of a recorded look. The parameter part of a look may be played independently, including from a different look than the one chosen to play the intensity.

When a playback or sequence is chosen, the previous one is faded out and replaced with the newly-chosen one.
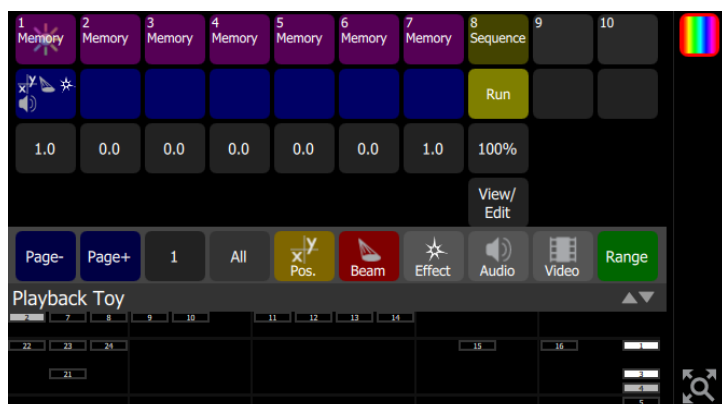
You may mix one intensity look with another parameter look to make a new combination look.

> ⓘ **Note:** You may enter names for playbacks by holding the **Intensity** button down until a keyboard appears for name entry.

Parameter GO

[Playback Toy](#) provides a simple way to play one playback or sequence at a time with a single press. When a playback or sequence is chosen, the previous one is faded out and replaced with the newly-chosen one.

The **Parameter GO** button, shown in blue, plays only the parameter part of the look. The intensity part may be played independently, including from a different playback or sequence than the one chosen to play the parameters.

The blue button indicates the types of parameters contained in the playback.
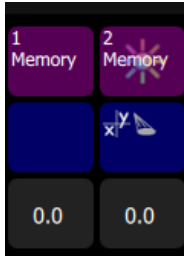
Parameters may be filtered so you can choose which types of parameters to play, for example you could choose to only play the position part by turning off (filtering) the other parameters such as beam.

You may mix one intensity look with another parameter look to make a new combination look.

Time/ Rate

Playbacks may be given a fade time. When either a bump or Playback Toy Intensity button is pressed, the intensity and parameter parts will fade in at the rate set on the Time button, shown in gray.

If the playback contains a sequence, the gray button will indicate the rate.
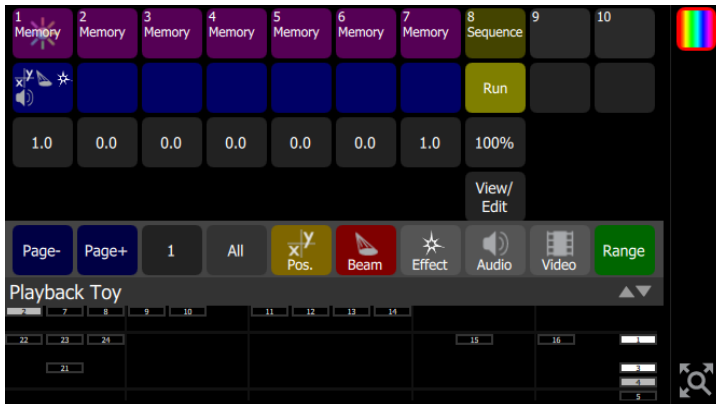
Holding down the gray button will open a keypad to alter the time (for playbacks) or the Rate (for sequences).
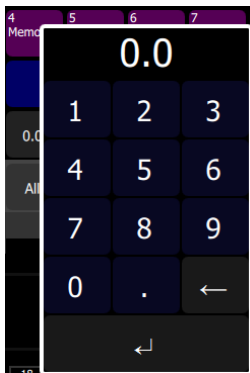
Playback Page Selection, Minus

Picks the playback page to switch to. There are ten pages of playbacks. The page will change for the next time a fader is raised from the zero position or a playback is launched in Playback Toy on a mauve or blue button.

ⓘ Note: Faders that are up at a level will not change immediately and must first be taken to zero.

The page number or name is shown to the right of the **Page -** and **Page +** buttons. Hold the **name / number** button to change it.

Playback Page Selection, Plus

Picks the playback page to switch to. There are ten pages of [playbacks](). The page will change for the next time a fader is raised from the zero position or a playback is launched in [Playback Toy]() on a mauve or blue button.

> (i) **Note:** Faders that are up at a level will not change immediately and must first be taken to zero.

The page number or name is shown to the right of the **Page -** and **Page +** buttons. Hold the **name / number** button to change it.

Playback Page Name / Number

There are ten pages of [playbacks]().

The page number or name is shown to the right of the **Page -** and **Page +** buttons. Hold the **name / number** button to change it.

Filter, All

Filtering is useful to play parts of a playback and leave other parts unaffected. Using this method you can play the pan/tilt part of one playback, the gobo and beam parts of a second playback, and the intensity and color mixing parts of a third playback to make a new composite playback.

The **All** button toggles between all parameters on and all parameters off.

Switch off a parameter to exclude it from playback when operating the blue **GO** buttons.

> (i) **Note:** If all parameters are off, the blue **GO** button will not do anything. However, the mauve intensity button can still launch the intensity and color mixing parts of the chosen playback.

Filter, Audio

Filtering is useful to play parts of a playback and leave other parts unaffected. Using this method you can play the pan/tilt part of one playback, the gobo and beam parts of a second playback, and the intensity and color mixing parts of a third playback to make a new composite playback.

The **Audio** button toggles between audio on and audio off.

Switch off audio to exclude audio from playback when operating the blue **GO** buttons.

> (i) **Note:** If all parameters are off, the blue **GO** button will not do anything. However, the mauve intensity button can still launch the intensity and color mixing parts of the chosen playback.

Filter, Beam

Filtering is useful to play parts of a playback and leave other parts unaffected. Using this method you can play the pan/tilt part of one playback, the gobo and beam parts of a second playback, and the intensity and color mixing parts of a third playback to make a new composite playback.

The **Beam** button toggles between beam on and beam off.

Switch off beam to exclude it from playback when operating the blue **GO** buttons.

> (i) **Note:** If all parameters are off, the blue **GO** button will not do anything. However, the mauve intensity button can still launch the intensity and color mixing parts of the chosen playback.

Filter, Effect

Filtering is useful to play parts of a playback and leave other parts unaffected. Using this method you can play the pan/tilt part of one playback, the gobo and beam parts of a second playback, and the intensity and color mixing parts of a third playback to make a new composite playback.

The **Effect** button toggles between effects on and effects off.

Switch off effect to exclude effects from playback when operating the blue **GO** buttons.

> **Note:** If all parameters are off, the blue **GO** button will not do anything. However, the mauve intensity button can still launch the intensity and color mixing parts of the chosen playback.

Filter, Position

Filtering is useful to play parts of a playback and leave other parts unaffected. Using this method you can play the pan/tilt part of one playback, the gobo and beam parts of a second playback, and the intensity and color mixing parts of a third playback to make a new composite playback.

The **Position** button toggles between position on and position off.

Switch off position to exclude it from playback when operating the blue **GO** buttons.

> **Note:** If all parameters are off, the blue **GO** button will not do anything. However, the mauve intensity button can still launch the intensity and color mixing parts of the chosen playback.

Filter, Video

Filtering is useful to play parts of a playback and leave other parts unaffected. Using this method you can play the pan/tilt part of one playback, the gobo and beam parts of a second playback, and the intensity and color mixing parts of a third playback to make a new composite playback.

The **Video** button toggles between video on and video off.

Switch off video to exclude video from playback when operating the blue GO buttons.

> **Note:** If all parameters are off, the blue **GO** button will not do anything. However, the mauve intensity button can still launch the intensity and color mixing parts of the chosen playback.

Range

Playback Toy displays ten playbacks at a time. To see further playbacks, press **Range** to switch between them.

AV Functions

This section covers the media functionality of the ColorSource AV console. Also covered is OSC function and using Amigo Web Browser.

The following topics are covered:

Use of Media

It is your sole responsibility to ensure that all media that you import into or export from the ColorSource AV console is rightfully yours to use and that such usage is legal. ETC asks that you comply with all applicable laws regarding the usage of media on or with this console, including copyright laws.

Media

The Media system provides audio and Video Toy controls. Media may be played directly, or may be recorded into Cues and Playbacks.

A video synthesizer called Video Toy is included for generation of image effects. Video Toy may be driven by the user or from audio via the Sound2Light system.

The Sound2Light system provides automated lighting control driven by a sound source; external or internal sounds may be used.

All pre-recorded media must be loaded in to the console from an external memory stick using the File - Media Import function.

Supported file types are:

» **Audio**: mp3, aac and wav files (44.1kHz sample rate, 4GB maximum file size)
» **Image**: jpg, png, tiff, and bmp files (1280 x 720 max size)

An audio mixer is provided to control sound from internal playback and the external audio input jack.

Media, Audio

To open the Audio tab, go to **Controls >Media**. Here you can choose audio clips to play or record. You can also operate the mixer to control audio volume and the external input on the rear panel.

For additional information about Audio input and output, please see **Audio Input and Output Help**.
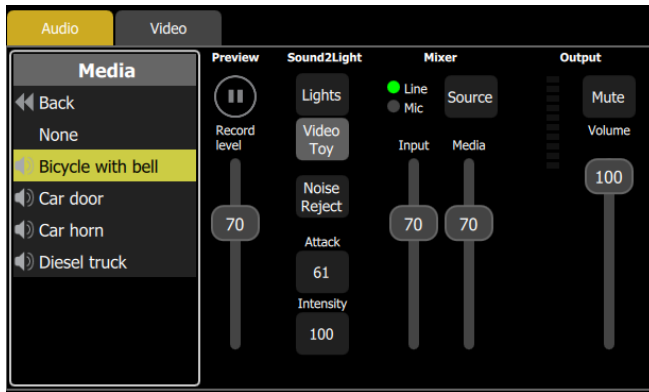
Browse the clip files to find a sound to play and try it on the local player on this screen. If a clip is playing when a recording is made, you will be asked if you wish to include it in the recording.

> (i) **Note:** The audio mixer also feeds the Sound2Light converter.

Audio Mixer

» **Input:** Controls the input level from the external socket on the rear panel.

» **Source:** Selects the source of input audio from either the internal microphone or the external line input socket.

» **Media:** Controls the playback level of audio clips in playbacks and cues.

» **Mute:** Mutes all audio output. See Audio Mute for more information.

» **Volume:** Controls the volume of the final output going to the output jack.

Sound2Light

The Sound2Light processor drives the first six playback faders according to the frequencies contained in the sound. Low, bass, frequencies go to Playback #1, higher to #2 and so on to #5 driven by high treble sounds.

When there is no sound Playback #6 is activated as a rest or silent background state. The rest state is driven after a delay so that it only appears when a sound clip has finished.

» **Lights:** Sends Sound2Light to the first 6 playback faders. You must program content into these to see the Sound2Light effect.

» **Video Toy:** Sends Sound2Light to the VideoToy video synthesizer.

» **Noise reject:** Turn this on if the sound source is noisy with hum or hiss, or there is high background noise if the Mic input is being used.

» **Attack:** Low values produce sudden changes tracking the sound rapidly and on VideoToy produces strong primary colors, high values result in slower and smoother response and more pastel or paler colors in VideoToy.

» **Intensity:** The brightness of the Sound to Light effects on either Lights or VideoToy.

Audio Input and Output Help

Input Type

» 3.5mm (1/8") TRS, Stereo, unbalanced

» Max Peak Input: -10dBV (316mV RMS)

» Input Impedance: 29k ohms

Output Type

» 3.5mm (1/8") TRS, Stereo, unbalanced

» Max Output : -10dBV (316mV RMS) at 10k ohms "Line Level"

» Load Impedance : 10k – 200k ohms

> **Warning:** NEVER connect the input if levels are directly from an amplifier or loudspeaker connection. Doing so may result in damage.

> **Warning:** NEVER connect the output to a balanced input that has 48V microphone phantom power enabled. Doing so may result in damage.

> **Note:** The output is stereo unbalanced and should not be connected to a balanced input as very poor sound quality will result.

Audio Input Tips

» Line or headphone output of consumer or professional audio equipment is recommended.

» If the input source level is too low turning up the input fader may produce noise. If the input level is too high it may distort.

Audio Output Tips

» Line level output is not suitable for connection to headphones. Although some sound can be heard in headphones, and it may be useful from time to time, the volume and quality will not usually be satisfactory.

» Connection to a load with a lower impedance (fewer ohms) will result in distortion and loss of bass. There is no upper limit for the load impedance, but very high impedance loads might result in some noise being heard.

» When possible connect directly to mixer or power amplifier "line level" inputs.

» If the input impedance is less than 10k ohms it is advisable to insert a suitable pre-amplifier between the console and the mixer/amplifier.

Preventing hum

» When the ColorSource AV console is connected to external audio equipment, and some other peripherals, audible hum may be produced. This is usually due to a phenomena known as a ground-loop or hum-loop where several pieces of equipment are grounded independently and then also to each other.

» Ground loops can sometimes be cured by simple means including re-arranging the grounding of the mixer/amplifier and source of sound. You should ask a competent electrician to perform any changes of grounding as it could affect equipment safety.

> ⚠️ **Caution:** You should ask a competent electrician to perform any changes of grounding as it could affect equipment safety.

» If hum cannot be cured easily you should consider using a Direct Injection (DI) box. You will need a stereo DI box on either the input or the output, and exceptionally on both. DI boxes are readily obtainable from music stores. You need a fully isolated type.

Media, Video

To open the Video tab, go to **Controls >Media**. Here you can choose still image or Video Toy pattern to play or record.

Browse the clip files to find an image or Video Toy pattern to play or record, and try it on the local player on this screen. If a clip is playing when a recording is made you will be asked if you wish to include it in the recording.

Images
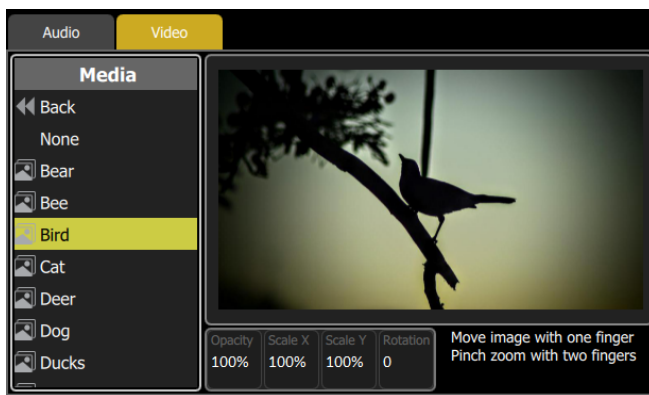
Image Controls

» **Opacity:** Controls the brightness or luminance of the image, if set to zero the image will be invisible.
» **Scale X & Y:** Controls the size of the two picture dimensions.
» **Rotation:** Alters the angle of the projected image.

Additionally, images may be manipulated on-screen with pinch-zoom and pan gestures.

Video Toy

Video Toy is a video synthesizer tool that can create patterns and images for scenic effects. Patterns may be run automatically, by on-screen finger gestures, or may be driven from the Sound 2 Light system.

Browse the included pattern files in **Video >Media > Effects** folder to find a pattern to play and try it on the local player on this screen. If a Video Toy pattern is playing when a recording is made, you will be asked if you wish to include it in the recording.
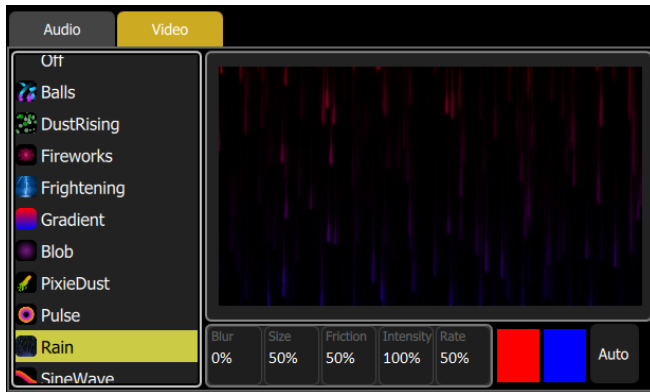
Video Toy Controls

>> **Blur**: The degree to which pattern elements remain in view or fades away.

>> **Size**: Adjusts the size or scale of pattern features.

>> **Friction**: Modifies the way pattern elements interact with each other.

>> **Intensity**: Adjusts the brightness of the resulting lighting levels.

>> **Rate**: Adjusts the rate or speed that pattern elements move or change.

>> **Color**: The two color boxes select the range of colors used in pattern generation.

>> **Auto**: Pressing **Auto** will open up a display with the following controls:

Auto Controls

>> **Paint**: At low settings, strong colors are painted on a black background. In the center position, strong colors are painted on top of each other. At the top position, the paint strength is reduced for more subtle changes to the accumulated picture.

>> **Speed**: The rate or speed that pattern elements move or change.

>> **Movement**: The degree to which painting is spread around the canvas. At low settings, all painting is in the center, or propagates from the center. At high settings, painting occurs all over the canvas.

>> **Density**: The quantity and/or size of pattern elements.

>> **Swirl**: A dynamic rotating distortion for added movement. When set to 50, there is no swirl. At low settings, the swirl contracts the image. At high settings, it spreads the image.

Audio Mute

Mutes all audio output.

> ℹ️ **Note:** Audio will continue to play silently. When audio is un-muted, the track will have moved on or may have completed.

All audio is muted, whether from external input, a clip, or video soundtrack playback. Audio Mute does not stop the Sound2Light system.

Media Pause

Pauses all running media.

Audio will stop at its current position. When **Media Pause** is disengaged, audio will resume playing from its paused position.

Video Off

Blanks the video output to black.

All video output is blanked, whether from a still image or **Video Toy** pattern.

S2L Lights

Turns on or off the [Sound2Light](#) Lights function.

S2LVideo Toy

Turns on or off the [Sound2Light](#) Video Toy function.

OSC Commands

OSC is a protocol that uses network communication (wired or wireless) to communicate between various audio, video, and lighting devices, and other devices, such as tablets for remote control of your console. For configuration information, see **Settings: Network (on page 72)**.

The following is a list of the OSC commands, their variables or arguments, if any, and a description of its function.

> ℹ **Note:** Arguments are shown following an equal sign (=). For OSC, these are not sent as a part of the OSC string itself, but instead attached as arguments. Configuration will vary depending on the software you are using.

Command	Variables / Arguments	Description
Buttons		
/cs/key/recordsnapshot		Records a snapshot of the active state in a memory
/cs/key/recordnextcue		Records the active state into the next cue
/cs/key/clearall		Clears all the selections, active channels, playbacks and cues
/cs/key/clearplaybacks		Clears the active playbacks
/cs/key/clearcues		Clears the active cue
/cs/key/clearchannels		Clears the active channels
/cs/key/clearselection		Clears the user's selected channels
/cs/key/blackout		Toggles the blackout state
/cs/key/audiomute		Toggles audio mute
/cs/key/videooff		Toggles video output
/cs/key/mediapause		Pauses or plays media
/cs/key/ind1		Toggles Ind1
/cs/key/ind2		Toggles Ind2
Cue		
/cs/playback/go		Runs the next cue
/cs/playback/goback		Runs the previous cue
/cs/playback/pause		Pauses an active cue change
Channels		
/cs/chan/select/{x}	x: channel number, no arguments	Exclusively select channel x
/cs/chan/select=x	x: channel number, 1 integer argument	Exclusively select channel x
/cs/chan/add/{x}	x: channel number, no arguments	Add channel x to selection
/cs/chan/add=x	x: channel number, 1 integer argument	Add channel x to selection
/cs/chan/subtract/{x}	x: channel number, no arguments	Remove channel x from selection
/cs/chan/subtract=x	x: channel number, 1 integer argument	Remove channel x from selection
/cs/chan/thru/{x}	x: channel number, no arguments	Select every channel from the last channel selected 'thru' to channel x
/cs/chan/thru=x	x: channel number, 1 integer argument	Select every channel from the last channel selected 'thru' to channel x
Groups		
/cs/locationGroup/select/{x}	x: location group number, no arguments	Selects all the channels in the location group x
/cs/locationGroup/select=x	x: location group number, 1 integer argument	Selects all the channels in the location group x

Command	Variables / Arguments	Description
/cs/tagGroup/select/{x}	x: tag group number, no arguments	Selects all the channels in the tag group x
/cs/tagGroup/select=x	x: tag group number, 1 integer argument	Selects all the channels in the tag group x
Level - Params - Color		
/cs/chan/at/{x}	x: value [0-100], no arguments	Puts the selected channel at level x
/cs/chan/at=x	x: value [0-100], 1 integer argument	Puts the selected channel at level x
/cs/chan/wheel/{x}	x: step amount [0-255], no arguments	Steps the selected channel's level by x
/cs/chan/wheel=x	x: step amount [0-255], 1 integer argument	Steps the selected channel's level by x
/cs/param/pan/wheel/{x}	x: step amount, no arguments	Steps the selected channel's pan value by x
/cs/param/pan/wheel=x	x: step amount, 1 integer argument	Steps the selected channel's pan value by x
/cs/param/panTilt/{x}/{y}	x: pan value [0-100] y: tilt value [0-100]	Steps the selected channel's pan value by x and tilt value by y
/cs/param/panTilt = x, y	x: pan value [0-100] y: tilt value [0-100], 2 integer arguments – pan, tilt	Steps the selected channel's pan value by x and tilt value by y
/cs/param/tilt/wheel/{x}	x: step amount, no arguments	Steps the selected channel's tilt value by x
/cs/param/tilt/wheel=x	x: step amount, 1 integer argument	Steps the selected channel's tilt value by x
/cs/color/hs/{x}/{y}	x: hue value [0-360] y: saturation value [0-100]	Sets the selected channel's color to hue x and saturation y
/cs/color/hs = x, y	x: hue value [0-360] y: saturation value [0-100], 2 integer arguments - hue, saturation	Sets the selected channel's color to hue x and saturation y
/cs/color/select/{x}	x: color chip number, no argument	Sets the selected channel's color to the color chip x
/cs/color/select=x	x: color chip number, 1 integer argument	Sets the selected channel's color to the color chip x
Playbacks		
/cs/playback/{x}/activate	x: playback number	Activates the playback x
/cs/playback/{x}/execute	x: playback number	Executes the playback x
/cs/playback/{x}/fire/press	x: playback number	Performs bump button press for playback x
/cs/playback/{x}/fire/{y}	x: playback number y: toggle [0 or 1]	Controls bump button press for playback x, 1 for button pressed, 0 for button released
/cs/playback/x/fire/y	No arguments	Controls bump button press for playback x, 1 for button pressed, 0 for button released
/cs/playback/x/fire = y	1 argument – button pressed (integer)	Controls bump button press for playback x, 1 for button pressed, 0 for button released
/cs/playback = x, "fire", y	3 arguments – playback number (integer), "fire" (string), button pressed (integer)	Controls bump button press for playback x, 1 for button pressed, 0 for button released
/cs/playback/{x}/level/{y}	x: playback number y: level [0.0-1.0]	Sets the level of playback x to value y

Command	Variables / Arguments	Description
/cs/playback/x/level/y	No arguments	Sets the level of playback x to value y
/cs/playback/x/level = y	1 argument – level (float)	Sets the level of playback x to value y (0.0 to 1.0)
/cs/playback = x, "level", y	3 arguments – playback number (integer), "level" (string), level (float)	Sets the level of playback x to value y (0.0 to 1.0)
/cs/playbacks/changePage/{x}	x: step amount, no argument	Pages the current playback page by x (typically +1 or -1)
/cs/playbacks/changePage=x	x: step amount, 1 integer argument	Pages the current playback page by x (typically +1 or -1)

Examples

» **/cs/playback/12/fire = 1** Presses the bump button for playback 12
» **/cs/playback = 12, "fire", 1** Presses the bump button for playback 12

Amigo® Remote Web Browser

The Amigo Web Browser Interface can be used for various purposes.

ℹ **Note:** A ColorSource console can only connect to one device (tablet, computer, or smartphone) at a time.

Some typical applications are:

» **Remote Control**- Remotely control a ColorSource AV console from another location (stage, audience) using a smartphone or tablet computer.
» **Console Extension**- Add control displays to your physical ColorSource AV console. A tablet or laptop may be used close to the console to provide additional views on a larger screen. This minimizes the switching of views on the console display. For example, to choose quick selects, pick colors, or operate pan/tilt.
» **Interactive Help**- The Web Interface displays related help in real-time based on the operations of your ColorSource AV console. This is a great way to quickly learn the console.

ℹ **Note:** Amigo is intended to be used by one user at a time.

ℹ **Note:**
» It is **not** recommended to connect the console to a general purpose office or home network or a network open to the internet.
» It is recommended to use a closed private network dedicated to lighting control.
» It is recommended to leave the IP address on the console as **Auto** on the **Setup>Settings>Network** tab unless you understand how to set-up manual IP addressing. Remember that if you make a shortcut on your computer to this address, when configured in Auto mode, it may cease working in a later session if the console acquires a different IP address.

Connecting the Amigo Remote Web Browser via WiFi

To operate your ColorSource AV console from a web browser, please follow these steps:

Automatic Connection with QR code

Your ColorSource AV console must be connected to a WiFi access point to connect via the QR code. You must login to that same device on your phone or tablet. Usually it will be password protected and often you

may find the password written on the underside of the access point or router itself, if not you must ask the person providing the WiFi service for the correct password. Remember: anyone who knows the WiFi password may be able to operate the console remotely.
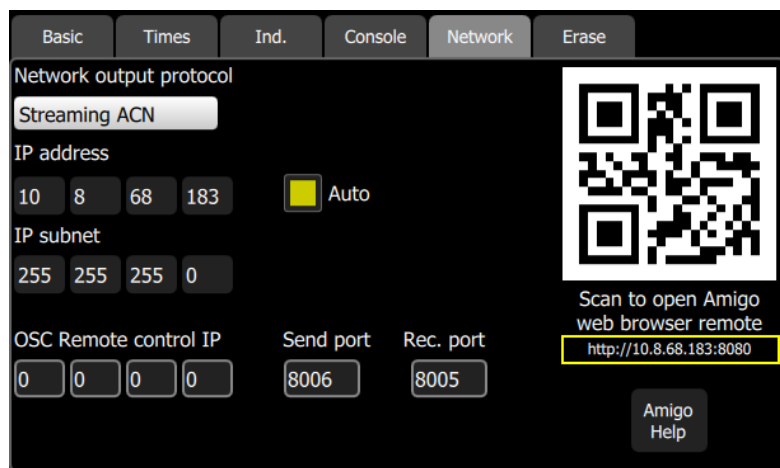
> (i) **Note:** If the QR code is not visible, your console is not currently connected to a network.

> (i) **Note:** A QR reader is required for automatic connection with QR code.

1. Open the **Setup>Settings>Basic** or **Setup>Settings>Network** tab.
2. Snapshot the QR code. You may need to wait a few moments for a connection be established.

Setting Up Your Computer, Phone, or Tablet

Open the **Setup>Settings>Network** tab on your ColorSource AV console.

» If Auto is enabled, then it is recommended that you set your computer, phone, or tablet to be automatic (DHCP) as well.

> (i) **Note:** Auto is enabled by default on your console, and may be on your device as well.

» If Auto is disabled, then you will need to manually set the IP address in your computer, phone, or tablet to be compatible with your ColorSource AV console

Entering Addresses Manually

1. Find the IP address of the console on the **Setup>Settings>Basic** or **Setup>Settings>Network** tab. This is four sets of numbers separated by periods. For example: 192.168.0.17 (the actual numbers may be different)
2. Connect a computer to the network port, or to a network switch that is connected to the network port.
3. Make sure the computer is in the same IP address range. The first two sets of IP address digits need to be the same. If they are not, then the computer will need to be restarted while connected to the ColorSource console network. The computer should then find an address starting with either 192 or 169. If you are using manual addressing, you must also manually address the computer accordingly.

Connecting To Amigo

1. Open your internet browser. Supported browsers include: Firefox, Chrome, Safari, and Internet Explorer v11.
2. On the address line, type http:// then the IP address followed by a colon and then the digits 8080. **Example:** If the ColorSource IP address is displayed as 169.254.12.48, type: http://169.254.12.48:8080 [Enter]. The full text to type will display under the QR code in the Basic and Network tabs.

Connecting to the Amigo Remote Web Browser by Cable

To operate your ColorSource AV console from a web browser on a wired network, please follow these steps:

Setting Up Your Computer, Phone, or Tablet

Open the **Setup>Settings>Network** tab on your ColorSource AV console.

» If Auto is enabled, then it is recommended that you set your computer, phone, or tablet to be automatic (DHCP) as well.

> **Note:** Auto is enabled by default on your console, and may be on your device as well.

» If Auto is disabled, then you will need to manually set the IP address in your computer, phone, or tablet to be compatible with your ColorSource AV console

Entering Addresses Manually

1. Find the IP address of the console on the **Setup>Settings>Basic** or **Setup>Settings>Network** tab. This is four sets of numbers separated by periods. For example: 192.168.0.17 (the actual numbers may be different)
2. Connect a computer to the network port, or to a network switch that is connected to the network port.
3. Make sure the computer is in the same IP address range. The first two sets of IP address digits need to be the same. If they are not, then the computer will need to be restarted while connected to the ColorSource console network. It should find an address starting with either 192 or 169. If you are using manual addressing, you must also manually address the computer accordingly.

Connecting To Amigo

1. Open your internet browser. Supported browsers include: Firefox, Chrome, Safari, and Internet Explorer v11.
2. On the address line, type http:// then the IP address followed by a colon and then the digits 8080. **Example:** If the ColorSource IP address is displayed as 169.254.12.48, type: http://169.254.12.48:8080 [Enter]. The full text to type will display under the QR code in the Basic and Network tabs.

Note: If the QR code is not visible, your console is not currently connected to a network.

Note: To use a wireless device, you must install a WiFi access point on the network connected to the console.

Using Help with the Remote Web Browser

The help tab in the remote web browser follows the functions being operated on your ColorSource AV console.

Each time a function is being used, the help page will change to show the help topic for that function.

Note: You do not need to press Help on the console to show help in the browser.

System Settings and Setup

This section covers the system settings and setup options for your ColorSource console.

The following topics are covered:

Setup

Contains functions used in the setup of the console:

- » Patch
- » Settings
- » Files
- » Stage Map (Arrange Mode)

Settings

All internal settings and default values are setup here.

Settings are arranged in tabs of related items:

- » Basic: Operating modes, language, stage map zones, auto-select channel on fader move, and about console information.
- » Times: Times for clear, default cue, and default move.
- » Independents: Independents setup and patching.
- » Console: Custom setup of console buttons, external monitor, and DMX speed.
- » Network: Custom setup of your console's network, including network output protocol, OSC settings, and Amigo.
- » Erase: Erase operations.

Settings: Basic

From this tab you can set the operating mode and language, show zones on the stage map, and select the fader behavior to auto-select channels.

> ⓘ **Note:** If the QR code is not visible, your console is not currently connected to a network.

Choose the operating mode:

» **Simple Mode**: Simple mode offers a very basic set of lighting controls. There is no cue list, no fader paging and only four playbacks. Simple mode is ideal for setting up a few static lighting states without needing any training or deep knowledge of lighting control.

» **Complete Mode**: Complete mode offer the whole set of functions and is suited to trained users and experienced lighting professionals.

Choose the operating language. Current options are English, French, German, Japanese, Italian, Russian, and Spanish.

Show stage map zones, when selected, will show the stage map zones. See stage map for more information.

Behavior of faders to auto-select channels on move can be disabled here.

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

You can change the IP address is the Network tab under Settings.

For information about using Amigo:

» Amigo Remote Web Browser
» Using Help with the Amigo Remote Web Browser
» Connecting the Amigo Remote Web Browser via WiFi
» Connecting Amigo Remote Web Browser via Cable to a Wired Network

Settings: Times

Sets the following times used as default settings for **Clear** and Cue programming:

» **Clear Time**: Sets the fade time for clearing channels on the Clear button.
» **Default Cue Time**: The default time for In-fade and Out-Fade in Cues and Sequences.
» **Default Move Time**: The time for parameters to move to new values during move dark and when picking preset values on the Parameter screen.

> ⓘ **Note:** Move Dark happens automatically for cue playback and ensures that lights will be moved to their correct position before the cue in which they appear is played.

Settings: Independents

Setup for the two independent control channels.

Independents may be used to control lights, for instance the house lights, or accessories and small machines such as smoke machines or mirror balls.

In this tab, the following settings for independents can be set:

>> **Universe** and **DMX** - an independent can be assigned to a DMX address on a given universe.
>> **Level** - sets the on level for the independent.
>> **Bump** - sets the bump button operation to a momentary bump or an on-off toggle.
>> **Blackout** - sets whether the independent is included or excluded from blackout.

Settings: Console

Setup of the console and its buttons and faders can be done on this tab.

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 and the brightness of the buttons. 1 is the dimmest setting and 7 is the brightest.

You can enable an external monitor connected via the HDMI^{TM} video port. When enabled, you can configure the video mode to either 1920x1080p-60 or 640x480p-60.

> (i) **Note:** Enabling an external monitor will disable video toy and image playback.

You can assign the five right-most buttons beneath the screen to the following functions:

>> None
>> Audio Mute
>> Back
>> Blackout
>> Color
>> Cue List
>> Effects
>> GO
>> Ind 1
>> Ind 2
>> Keypad
>> Media
>> Media Pause
>> Pause
>> Parameter
>> Playback Toy
>> Quick Select
>> S2L Lights
>> S2L VideoToy
>> Speed Clear
>> Stage Map

>> [Tap](#)
>> [Video Off](#)

These buttons default to Color, Cue List, Back, Pause, GO.

> ⓘ **Note:** The left-hand button cannot be re-assigned and always selects the Stage Map display.

You can also assign the four [master faders](#) above the screen to the following functions:

>> Volume
>> Bumps
>> [Crossfader](#)
>> Cues
>> Playbacks

These buttons default to Volume, Playbacks, Cues, and Crossfader.

Settings: Network

From this tab you can configure the network for your ColorSource AV console.

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

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.

> ⓘ **Note:** If the QR code is not visible, your console is not currently connected to a network.

Open Sound Control (OSC)

OSC is a protocol that uses network communication (wired or wireless) to communicate between various audio, video, and lighting devices, and other devices, such as tablets for remote control of your console.

» **OSC Remote control IP** - sets the IP address of the device that the console will be sending OSC output to or receiving OSC input from.

» **OSC Send Port** - sets the port address that the console will send OSC strings to.

» **OSC Receive Port** - sets the port address that the console will receive OSC strings from.

For a list of supported OSC commands, please see **OSC Commands (on page 63)**.

For information about using Amigo:

» Amigo Remote Web Browser

» Using Help with the Amigo Remote Web Browser

» Connecting the Amigo Remote Web Browser via WiFi

» Connecting Amigo Remote Web Browser via Cable to a Wired Network

Settings: Erase

The following erase operations are available in this tab:

» **All:** Erases all of the show data.

» **Memories:** Erases all of the playback memories. To erase just one playback, use Erase Playback.

» **Sequences:** Erases all of the sequences.

» **Cue List:** Erases all of the cues from the cue list.

» **Patch:** Erases all of the patch.

(i) **Note:** Erasing an item removes it from the show permanently. Erasure is not the same as clearing a cue or playback. A cleared item can be run again, an erased item cannot be run once removed.

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

Media:

- » Import USB
- » Import Show
- » Delete media

Advanced:

- » 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**.

> ℹ️ **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**.

> ℹ️ **Note:** Show files must be in the console'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.

> ℹ️ **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.
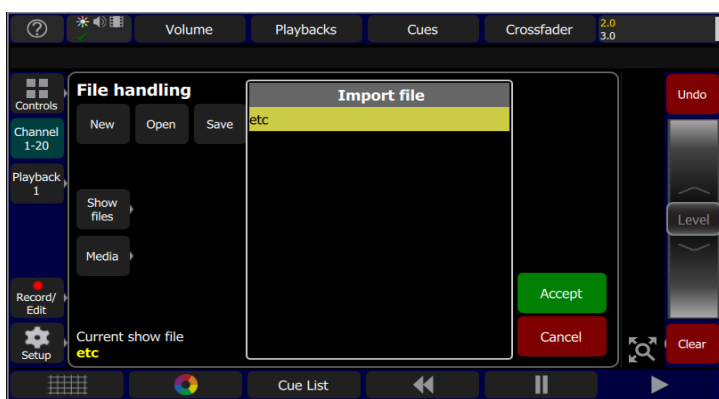
File, Import

Use of Media Notice

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

> ℹ️ **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**.

Use of Media Notice

> ℹ️ **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**.

> ⓘ **Note:** Exported shows contain all the media used in the show. If there is a large amount of image or audio clip content, the save may take some time to complete. Please ensure the USB drive has sufficient free space.
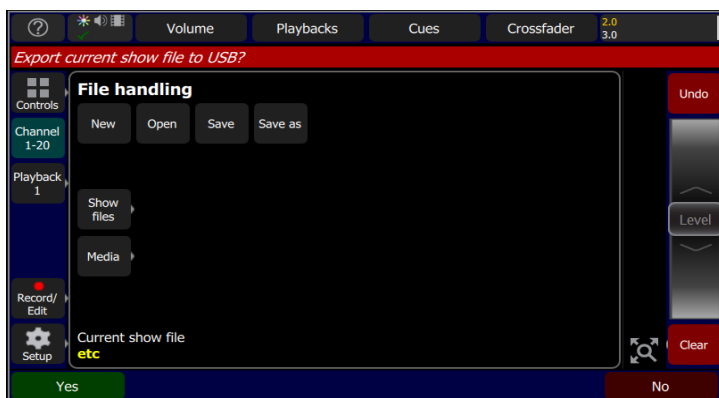
File, Delete

Delete an existing show file off the console 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**.
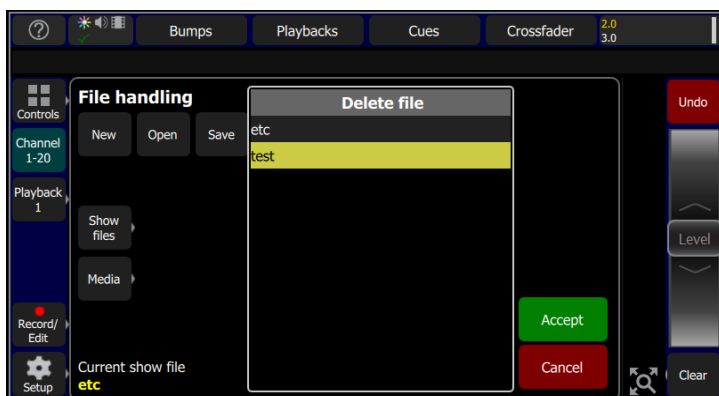
Files, Show files

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

Shows are saved internally with all content, including lighting,effects, and media.

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

When a new show is started, it will be based on the default show template, which you may define to contain a patch or part-patch, some show data, including playbacks and cues, or nothing as required.

If your lighting rig is fixed and usually the same set of equipment set to the same addresses, the default show will help you save patching and setup time. If you prefer to start with a blank state each time, no patch and no data, then you can save an empty default show.

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, for example, playbacks for operating house lights or other standard functions.

> ⚠ **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 the console 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, Media

Use of Media Notice

All media used in a show must be stored locally inside the console.

Media may be imported from an external memory stick.

Only one copy of each media file is needed even if it is used in several shows. However, when a show is exported to a memory stick, all the included media is also included in the export.

Supported File Types

» **Audio**: mp3, aac and wav files (44.1kHz sample rate, 4GB maximum file size)
» **Image**: jpg, png, tiff, and bmp files (1280 x 720 max size)

> ⓘ **Note:** It is recommended not to use the same name for different items of media. If the media is exported and then re-imported to the same console or another console, this would cause a local copy to be over-written.

Functions

» **Import USB**: imports media from an external memory stick. Files must be in a folder called **Import** in the root of the USB stick.

» **Import Show**: imports media from another show file.

» **Delete Media**: deletes selected media from your console.

> ⚠️ **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 Media

Importing Audio and Image clips.

Use of Media Notice

All media used in a show must be stored locally inside the console.

Media may be imported from an external memory stick.

Only one copy of each media file is needed even if it is used in several shows. However, when a show is exported to a memory stick, all the included media is also included in the export.

Supported file types

» **Audio**: mp3, aac and wav files (44.1kHz sample rate, 4GB maximum file size)

» **Image**: jpg, png, tiff, and bmp files (1280 x 720 max size)

> ℹ️ **Note:** It is recommended not to use the same name for different items of media. If the media is exported and then re-imported to the same console or another console, this would cause a local copy to be over-written.

Functions

» **Import USB**: imports media. The files must be in folder named **Import** on a FAT32 formatted USB drive.

» **Import Show**: imports media from another show file.

» **Delete Media**: deletes selected media from your console.

> ⚠️ **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.

Delete Media

Delete Audio and Image files saved to your ColorSource AV console by going to **Setup>Files>Media>Delete media**.

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

Files, Advanced

Functions

» Update firmware - updates the console's main operating software.
» Install Extras - add or replace data files, such as new device personalities, help texts or languages.
» Export Logs - exports the console'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.

Update Firmware

The main operating software can be updated here. The software must be obtained from ETC 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 ColorSource's 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 console until the process has finished. You will be prompted to shutdown the console and restart after the update.

Install Extras

Data and content used by the console 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 ETC and placed in the root of the USB drive. The files will be named with the suffix .cspkg.

> ℹ️ **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.

> ℹ️ **Note:** Fixture profiles are not loaded from this display. Please see Loading a Fixture Profile for instructions.

Export Logs

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

The file name will be in this format: ColorSource_Logs_#.tar.gz.

Installing Language Packs on a ColorSource Console

Any available language packs can be downloaded from the ETC website (www.etcconnect.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 console.
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.