The ABCs of ColorSource

ColorSource/ColorSource AV Console

Workbook
V3.1

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Console Introduction

ColorSource Console is an easy to use lighting console for basic and advanced programming needs. The console is designed to feel approachable for anyone and provides a programmer or designer with familiar faders and an app like interface on the 7" touch screen.

There are 4 consoles in the ColorSource family.

- ColorSource 20 (80 channels)
- ColorSource 40 (80 channels)
- ColorSource 20 AV (80 channels)
- ColorSource 40 AV (80 channels)

The model number refers to the number of faders. The AV console adds functionality allowing you to include media in your show file.

To figure out which console is right for you, please use the spreadsheet below.

For the purposes of this class we will be focusing on standard and advanced options for the ColorSource AV 20 or 40 model.

All ColorSource consoles feature:

✓ 80 control channels/devices	✓ Color, Position and Beam Palettes
✓ 7" integrated multi-touch display	✓ Color, Intensity, Position and Parameter Effects
✓ 4 configurable sliders	✓ Intuitive color control of LEDs
✓ 5 configurable soft keys for common commands	✓ RDM discovery and configuration
✓ Virtual level/rate paddle	✓ Onboard help system
✓ Cue List record and playback functions	✓ "Simple mode" operation with 4 looks
✓ Non-intensity parameter control	✓ Playback Toy for live busking
✓ Console lockout	✓ Kensington Security Slot

| Additional Features	ColorSource 20	ColorSource 40	ColorSource 20AV	ColorSource 40AV
DMX input/output Control Faders	20	40	20	40
5-pin DMX ports	1	1	2	2
USB Ports	1	1	2	2
Playback pages with configurable modes	10 (200 total)	10 (400 total)	10 (200 total)	10 (400 total)
Network (sACN/ Art-Net universes)			5	5
3.5mm/ 1/8" stereo audio input/output			✓	✓
Sound-to-light playback			✓	✓
HDMI port for monitor or image/visual effects			✓	✓
Video Toy for Interactive visual effects			✓	✓
"Amigo" web-based remote control over network			✓	✓
OSC support			✓	✓

HARDWARE OVERVIEW
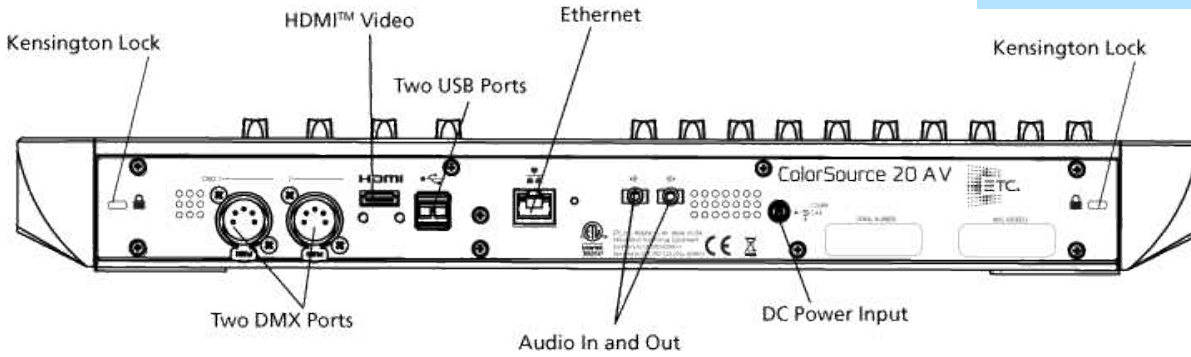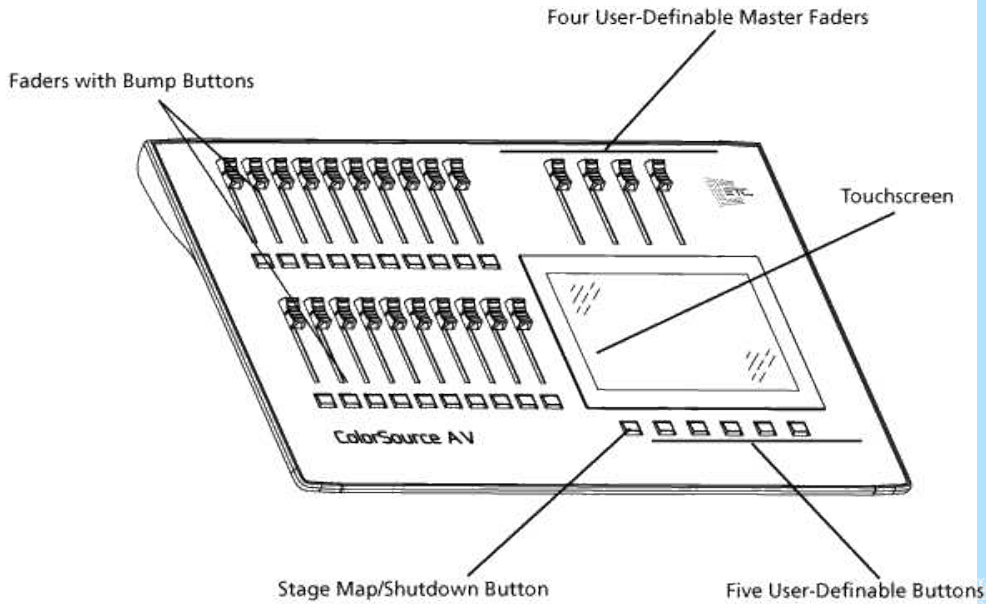
ColorSource consoles output 512 addresses or 1 universe of DMX (1 DMX Port).

ColorSource AV consoles support up to 1024 addresses which can span up to 5 universes (DMX 1 and 2, plus Ethernet-based distribution via sACN or Artnet).
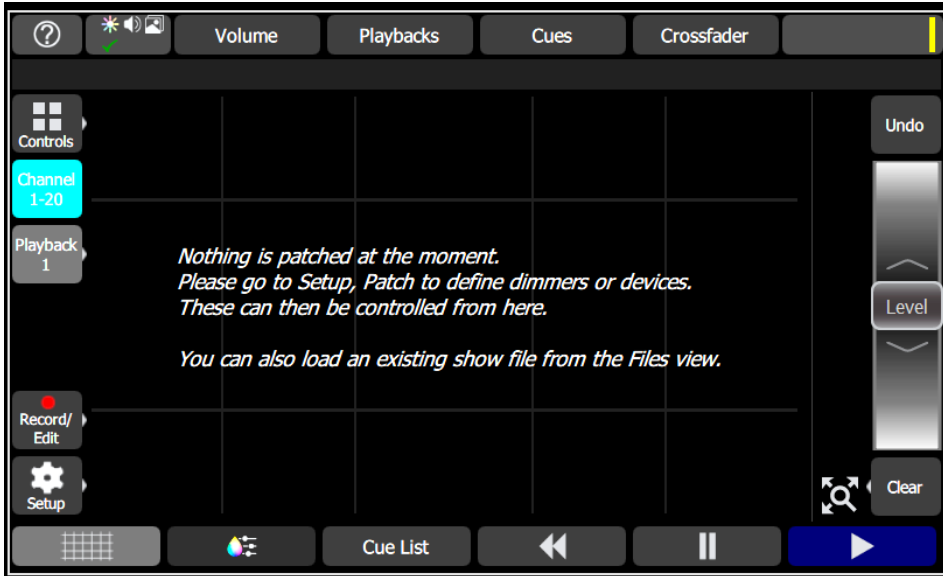
COLORSOURCE
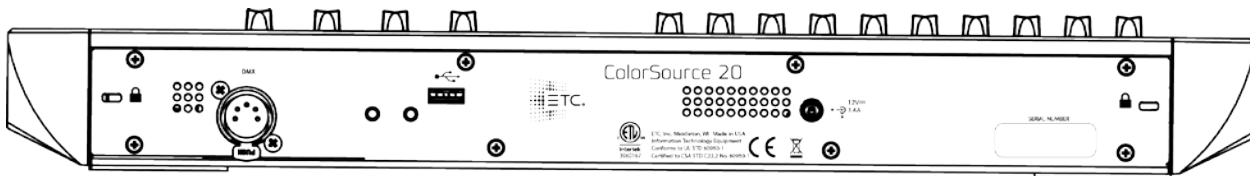
COLORSOURCE AV
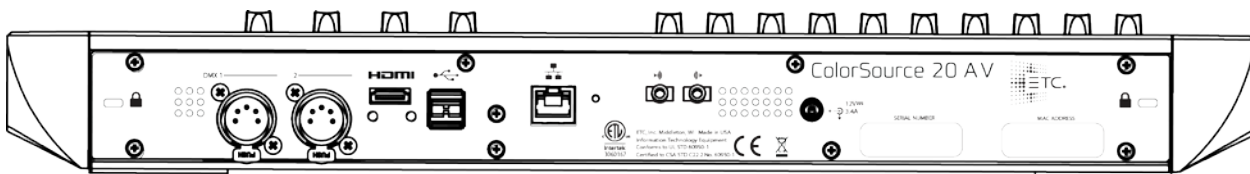
GETTING STARTED

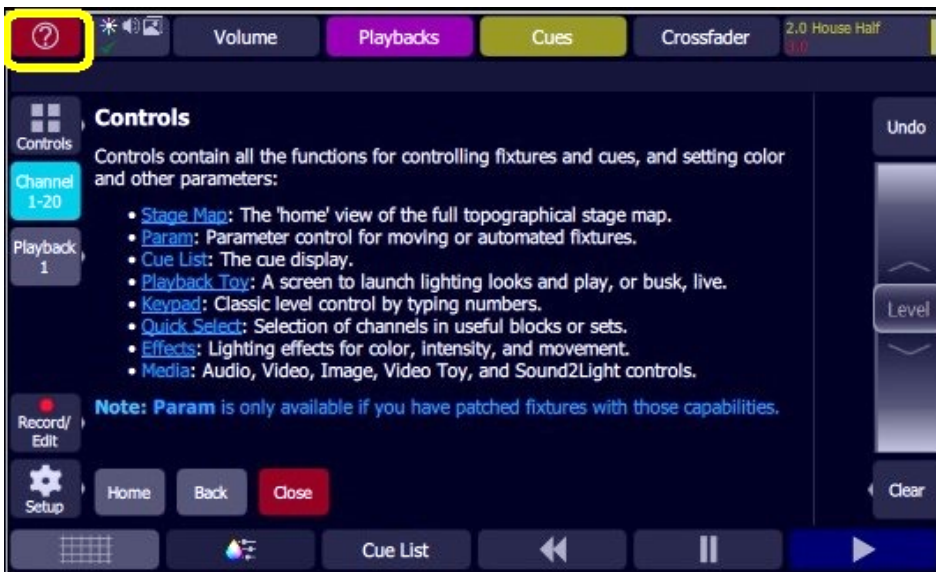Let's look at all the console's basic functions.

POWERING UP YOUR CONSOLE: Just plug it in to the wall. You will be greeted with this home screen.

Pro Tip: There are videos available on the ETC YouTube Channel: ETCVideoLibrary: ColorSource.

You can also download the offline software: https://www.etcconnect.com/Products/Consoles/ColorSource/Software.aspx

HELP!

The console has a built-in help feature.

Tap and hold the question mark in the upper left-hand corner and a help screen will pop up. Or tap HELP and touch any button for more information on what it does.

Exercise:

1. Tap the QUESTION MARK.
2. Press or tap the CONTROLS.
3. Tap CLOSE to get back to the stage map screen.

NAVIGATION

The ColorSource console is designed to be simple, intuitive, and to allow users to reach the basic functions of programming very quickly.

- Faders are on the left, each with a bump button.
- There is a multi-point touchscreen on the right.
- There are four faders above the touchscreen, which reference the four virtual buttons beneath them.
- There are six buttons beneath the touchscreen, which reference the six virtual buttons above.
- The bottom left button is the Stage Map button and it will return you back to the Stage Map screen. If you are currently in the Stage Map, this button will return you to the last screen you were on.

These buttons toggle the faders between Channel and Playback Modes

These relate to the 4 customizable faders but also act as control buttons.

The Undo button is your friend!
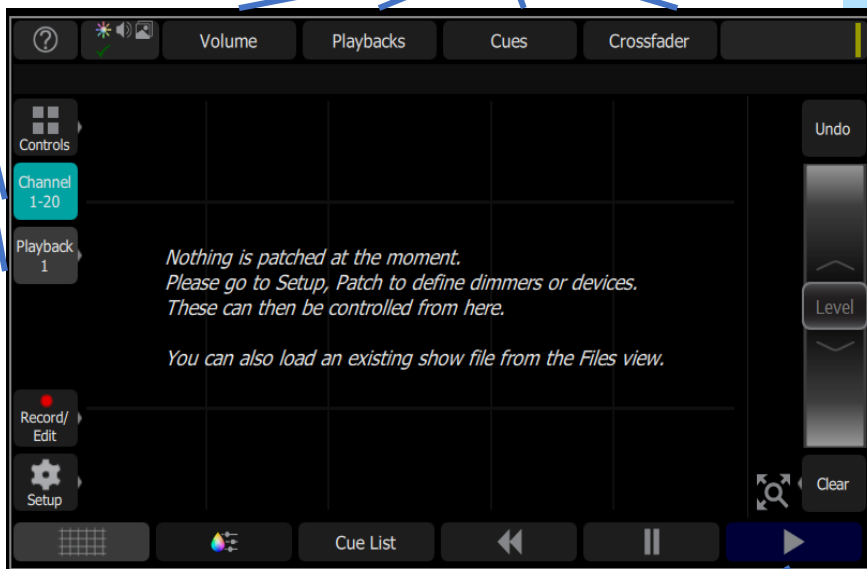
The LEVEL slider is an easy way to control intensity

CLEAR Selections or Outputs

The physical button is dedicated as your STAGE MAP shortcut.

The physical and virtual buttons are customizable. You can either use the touch screen or the six buttons below to access these functions.

SLIDE OUT MENUS

The menu options for ColorSource Console are always at your fingertips. Easy to use slide out menus are always just a tap away.
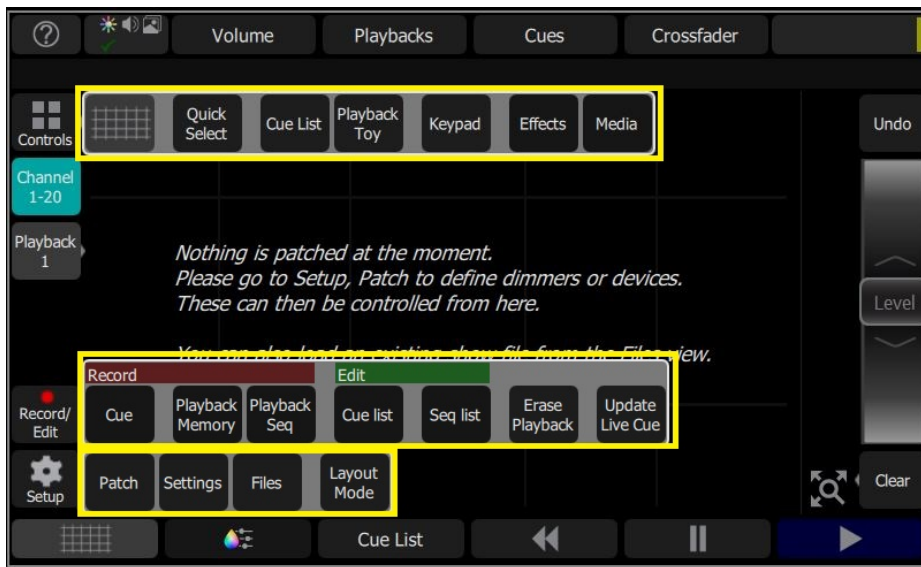
CONTROLS: The CONTROLS slide out menu can get you to your` STAGE MAP, QUICK SELECT, CUELIST, PLAYBACK TOY, NUMERIC KEYPAD, and EFFECTS.

MEDIA controls are only available in the ColorSource AV.

RECORD/EDIT: The RECORD/EDIT slide out menu allows you to record a CUE, PLAYBACK MEMORY or a PLAYBACK SEQUENCE. You can edit a CUE LIST or SEQ LIST. You can also ERASE PLAYBACK or UPDATE LIVE CUE.

SETUP: The SETUP slide-out menu will give you access to PATCH, SETTINGS, FILES and LAYOUT mode.

Pro Tip: ColorSource Consoles support a mouse.

Pro Tip: PARAM and the COLOR SELECTOR only appear in the CONTROLS slide out menu only when there are channels that have color mixing/parameters available.

MASTER FADERS

Master faders can be used to control the output of certain functions. Master faders are the four physical faders above the touchscreen.
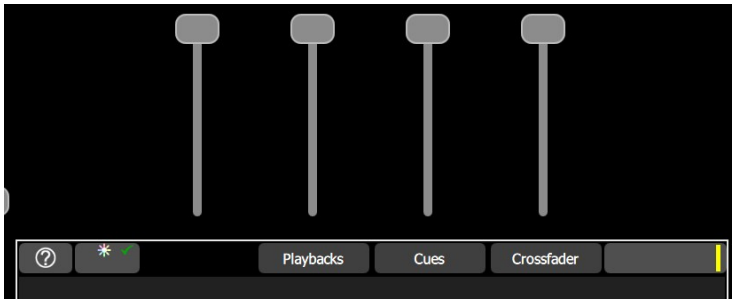
> **Note:** When the Playbacks or Cues faders are fully down, no output will be produced by those sections.

Master faders can be assigned to these functions:

- **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.
- **Grandmaster:** controls the overall intensity of all patched channels.
- **Volume:** controls the audio volume (ColorSource AV only)

By default, on a ColorSource, the masters are `blank', Playbacks, Cues and Crossfader . On a ColorSource AV, the first fader is Volume.

To change the Master fader function:
1. Go to Setup > Settings > Console tab
    4. Tap the Playbacks button under fader 2
    5. A drop-down menu appears - you would select here
    6. Leave as Playbacks for the class.

This is also the place to go to change the functions of the five right-most buttons beneath the touchscreen. These buttons default to Color, Cue List, Back, Pause, and GO. The left most button cannot be re-assigned and always selects the Stage Map display
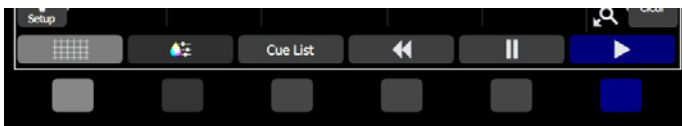

IN SIMPLE MODE

The four faders above the touchscreen become four playback memories. You may record the output and store it on one of the four masters to be re-used later.

Patch

RDM

When you enter the PATCH menu, the console will use RDM to discover any RDM enabled fixtures. When detected they will be patched to channel 0 and highlighted in yellow. A red DMX address indicates overlapping addresses.

Note: In an actual lighting rig you may see some fixtures flash and strobe randomly when in patch. This is normal as non-RDM compliant fixtures interpret RDM packets as DMX.
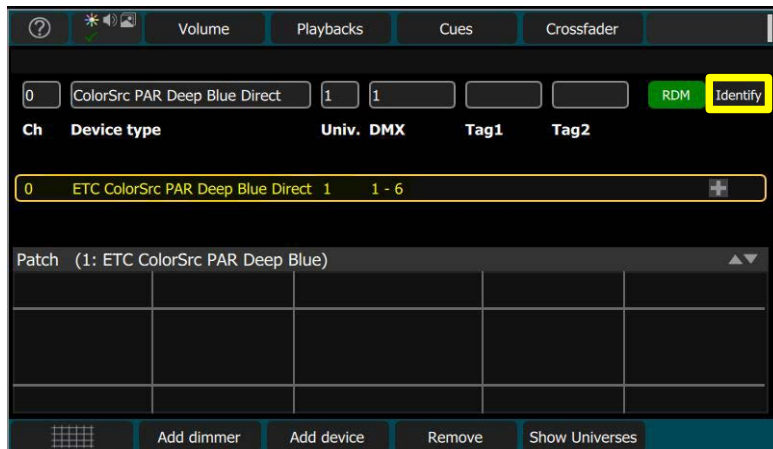
Exercise:

1. To open patch up tap SETUP in the far bottom right and then PATCH on the slide out menu.
2. Tap IDENTIFY in the top right. The fixture's intensity should blink.
3. Tap the bubble above DMX to change the DMX channel using RDM.
4. Confirm the fixture has received the DMX change by pressing any button on the fixtures' LCD menu to view the starting DMX address.
5. To patch the light, press the bump button under fader 12.

CHECK: PUSH FADER 12 UP TO MAKE SURE THE FIXTURE TURNS ON.

Note: If you have multiple RDM fixtures after you press each bump button the next unpatched fixture will start to flash. This makes patching easy and very fast on the console.

Pro Tip: Remote Device Management (RDM) is a bidirectional protocol that uses existing DMX cable to send/receive information to and from an RDM device.

The best practice is to only daisy chain RDM fixtures and run a separate DMX line for non-compliant fixtures.

Pro Tip: To quickly patch to channels above 20/40, type the channel number in the bubble above "Ch."

PATCH - SINGLE DIMMER

Patching on the console is very simple. We can patch dimmers or devices like an LED or moving light. We will explore how to patch individual dimmers to start.
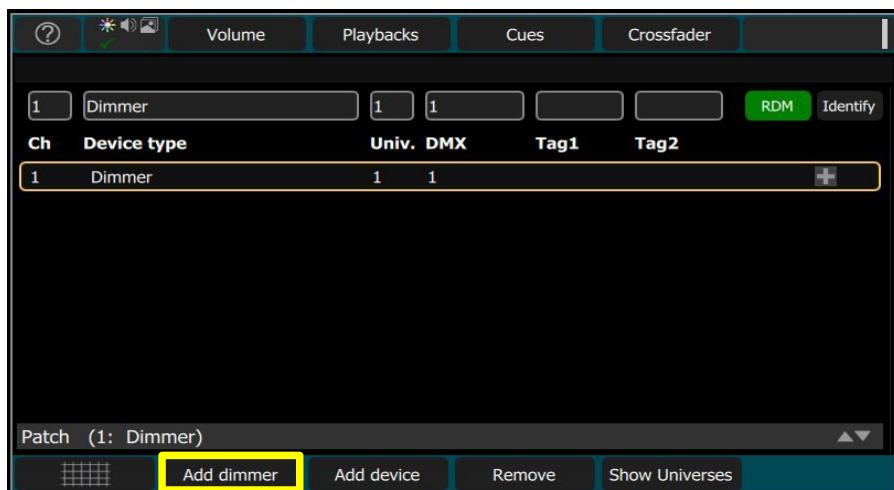
Exercise:

1. Tap SETUP button in the bottom left of the screen.
2. Tap the PATCH button to get into the patch screen.
3. Tap the ADD DIMMER button
4. Look at the patch wizard options:
   Channel: Starting channel.
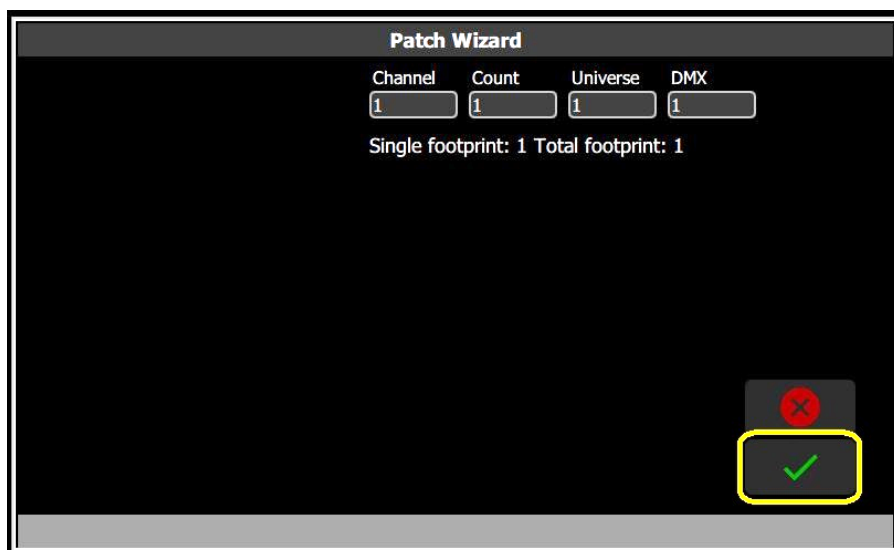   **Count:** Number of dimmers to add.
   Universe*: DMX universe to be patched to.
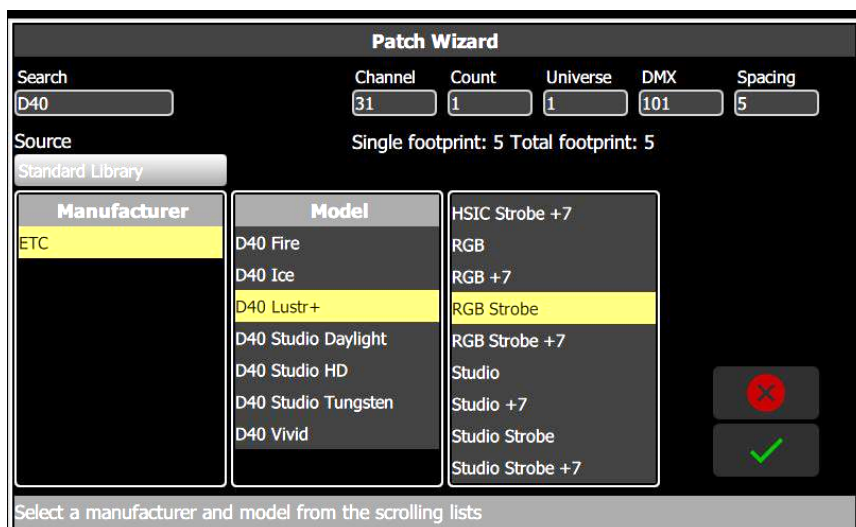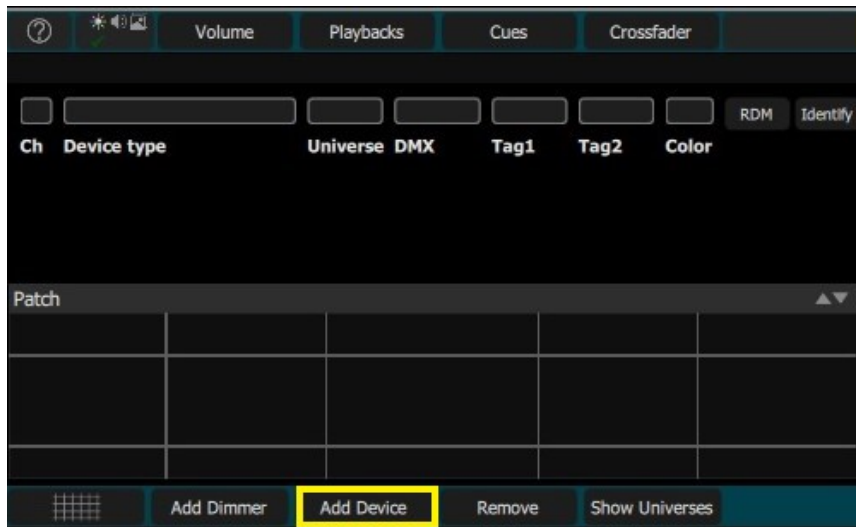   **DMX:** DMX start address
   7.   Tap the GREEN CHECKMARK

Note: On ColorSource AV you can patch addresses on universes 1 thru 5 (1024 max). DMX ports on the console will always be universe 1 and 2 respectively. On a ColorSource Console DMX addresses will only patch into universe 1.

PATCH - MULTI-PARAMETER DEVICES

PATCHING DEVICES: You can patch multi-parameter devices. These units can be LEDs, moving lights or any fixture with more than one parameter of control including Lasers!

Pro Tip: The console will automatically figure out your address spacing (DMX offset). A common practice is to address your fixtures leaving gaps between each starting address so your LEDs or moving lights always end in a 1. Example DMX address 201, 241, 281... would have a spacing of 40.

Exercise:

1. Tap the ADD DEVICE button.
2. Change your CHANNEL to 31. ENTER.
3. Change your DMX to 41. ENTER.
4. You can use the search bubble or scroll down the Manufacturer list.
5. Type D40 in the search box
6. Tap the D40 Lustr+ fixture and then the RGB Strobe profile.
7. Tap the GREEN CHECKMARK.
   8.

Pro Tip: If you do not see the profile you need, you can build your own with the free COLORSOURCE PERSONALITY EDITOR software from ETC. Profiles can be imported via a USB flash drive and by clicking on the SOURCE bubble.
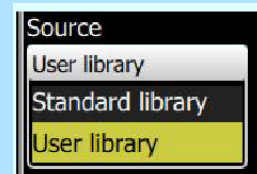
PATCH - MULTIPLE DIMMERS

You can patch multiple dimmers simultaneously to quickly set up a small dimmer rack all at once.
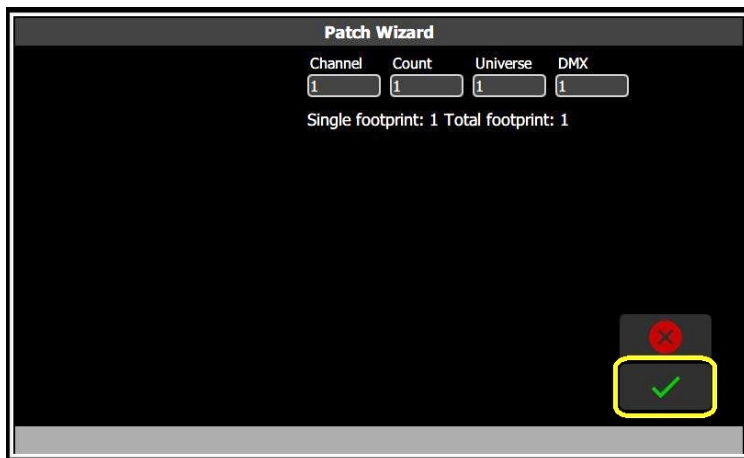
Exercise:

1. Tap the ADD DIMMER button again
    9. Tap the COUNT bubble, change it to 10 and tap ENTER
    10. Tap the GREEN CHECKMARK

Note: The console automatically advanced to the next available channel (2) and DMX output (2).

You should end up with a patch screen that looks like the below.
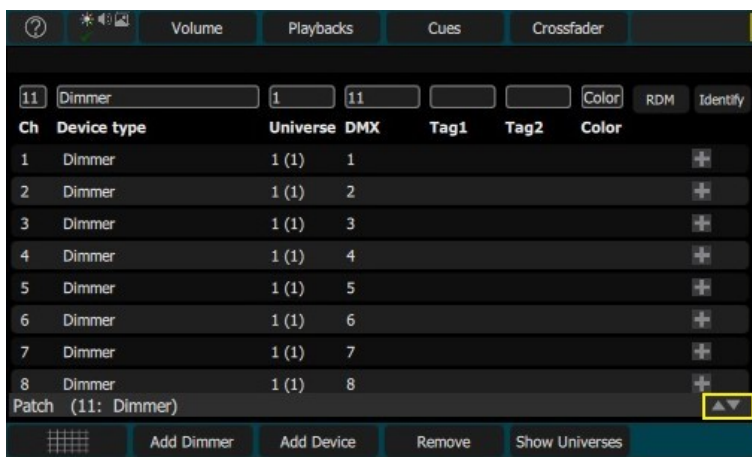
Exercise:

1. Now patch channels 21 – 24

Channel	Type	Address	Purpose
21	Dimmer	21	House lights - house left
22	Dimmer	22	House lights - center aisle
23	Dimmer	23	House lights - house right
24	Dimmer	24	House lights - wall washers

Pro Tip: Tap and drag this icon to show more/less of your STAGE MAP when in other menus.
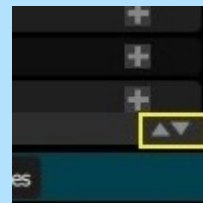
PATCH - MULTIPLE DEVICES

You can patch multiple devices at once to set your rig up even faster. These units can be LEDs, moving lights or any fixture with more than one parameter of control.

Let's look at channels 31 - 33.

| Channel	Type	Address	Purpose
31	ETC D40 Lustr+ RGB Strobe	41 - 45	Choir down wash
32	ETC D40 Lustr+ RGB Strobe	46 - 50	Choir down wash
33	ETC D40 Lustr+ RGB Strobe	51 - 55	Choir down wash

Exercise:

1. Tap the ADD DEVICE button
    11. Change your CHANNEL to 31
    12. Change your COUNT to 3
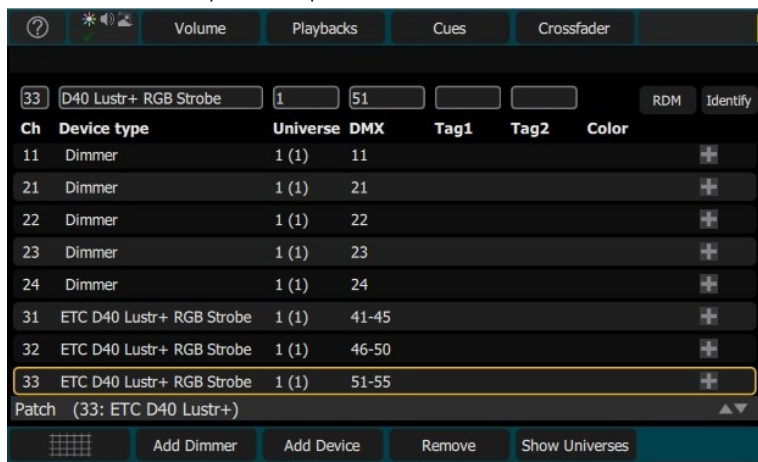   13. Change your DMX to 41
    14. Leave Universe as 1 and Spacing as default
    15. Tap the GREEN CHECKMARK
    16. Type D40 in the search box (or scroll down the Manufacturer list)
    17. Tap the GREEN CHECKMARK
    18. Tap the D40 Lustr+ fixture and then the RGB Strobe profile
    19. Tap the GREEN CHECKMARK

You should end up with a patch screen that looks like the below.

Exercise: Patch the following:

Channel	Type	Address	Purpose
18	High End SolaFrame 750	121 - 167	Mover - DSR
19	High End SolaFrame 750	171 - 217	Mover - DSC
20	High End SolaFrame 750	221 - 267	Mover - DSL
34	ETC D60 Lustr+ RGB Strobe	61 - 65	MSR down wash
35	ETC D60 Lustr+ RGB Strobe	67 - 71	MSC down wash
36	ETC D60 Lustr+ RGB Strobe	73 - 77	MSL down wash
37	ETC D60 Lustr+ RGB Strobe	79 - 83	USC down wash
38	ETC D60 Lustr+ RGB Strobe	91 - 95	Band down wash
39	ETC D60 Lustr+ RGB Strobe	96 - 100	Band down wash
40	ETC D60 Lustr+ RGB Strobe	101 - 105	Band down wash

PATCH - REMOVE

Removing a device is very easy. Tap the device you would like to remove and make sure the orange outline is around the fixture.

Then tap the REMOVE button at the bottom of the screen. Be careful - there is no confirmation required for this action.
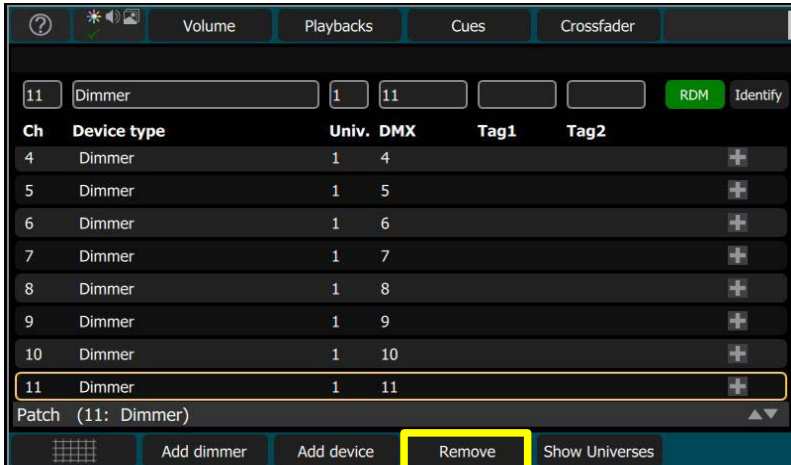
We accidently patched one extra dimmer when we patched multiple dimmers. We would like to remove channel 11 from the patch.

Exercise:
1. Scroll down and tap channel 11 to select it.
2. Tap REMOVE

EDIT IN PATCH

Let's create a problem. Still in Patch:
1. Tap the ADD DEVICE button
20. Type D40 in the search box and tap the GREEN CHECKMARK in the virtual keyboard
21. (or scroll down the Manufacturer list)
22. Tap the D40 Lustr+ fixture and then the RGB Strobe profile
23. Change your CHANNEL to 41
24. Leave the COUNT as 1
25. Change your DMX to 102
26. Leave Universe as 1 and Spacing as default
27. Tap the GREEN CHECKMARK in the keypad
28. Tap the GREEN CHECKMARK

Across the top of the screen a warning appears: Overlapping addresses: Conflicts in red need to be resolved

29. Select channel 41 again
30. Change your DMX to 110 and the warning goes away.

Pro Tip: One of the benefits of RDM, Remote Device Management, is that the changes made in Patch are sent back to the fixtures in the rig and they will change their physical addresses. RDM fixtures are indicated in yellow and not in white.

TAGS

Tags are simply text labels. There are 12 total tag options, which default to Cyc, Fill, Spot, Wash ,Flood, Key, Beam, Effect, A, B, C, and D. Up to two tags can be applied to individual dimmers and devices in Patch to aid in convenient grouping on the Quick Select screen. You can change the names of the tags to fit your needs.

Let's play with Tags. Still in Patch:
1. Tap channel 41 again
   31. Tap the box above Tag 1 to get a drop-down menu of the default Tag options
   32. Select Beam
   33. Tap the box above Tag 2
   34. Select A

In the Patch display you will see that channel 41 now has 2 Tags, Beam and A.

To rename or relabel a Tag:
1. Go to SETUP - SETTINGS - TAGS tab
   35. Select Item 9 or the A Tag .
   36. Tap the box above the word `Text'
   37. Type in Special and tap the GREEN CHECKMARK
   38. Go back to Patch and you'll see that channel 41's second Tag is now Special .

As we won't be using this channel 41, please remove channel 41.

Pro Tip: Tags can be used later to select lights by that name instead of having to remember channels numbers.
REMEMBER: Only 12 Tags, so choose wisely.

Show File Handling

Show files: In Setup you have access to file options including start a NEW show, OPEN a show, SAVE a show, or create a copy of your show using SAVE AS.

Additional options to DELETE and IMPORT/EXPORT from a USB flash drive can be found here.

SAVE TO MEMORY
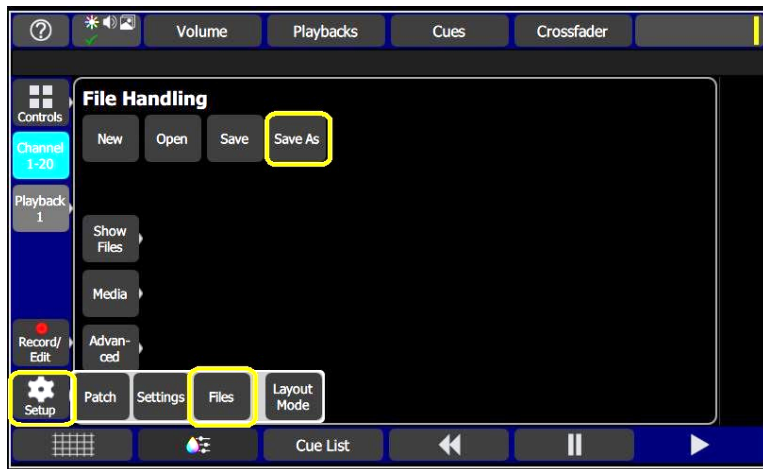
Exercise:

1. Tap SETUP -> FILES.
2. SAVE AS.
3. Type (your name). GREEN CHECKMARK.

EXPORT OR SAVE TO USB
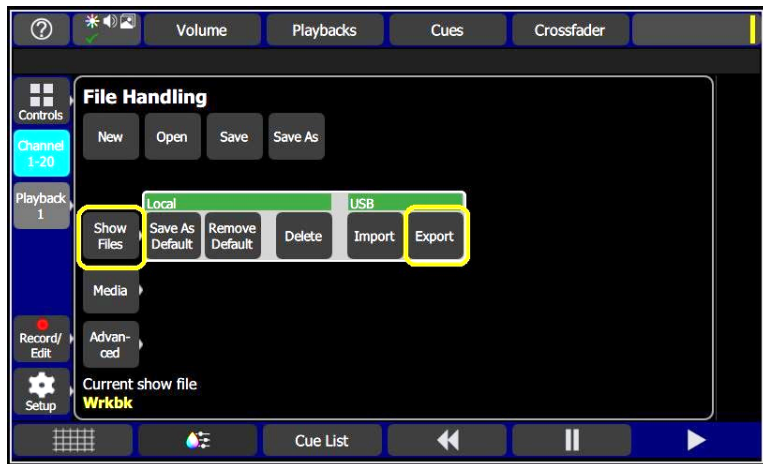
Exercise:

1. Go back into SETUP -> FILES
2. Connect USB flash drive then tap SHOWFILES.
3. EXPORT.
4. Export current show file to USB?
   39. Tap the GREEN CHECKMARK in the bottom left corner.

Pro Tip: ColorSource Console has 2GB solid-state memory while the AV Console has a 25GB solid-state memory for additional media content.

Pro Tip: You must save your show file to the internal solid-state memory before you can save to a USB flash drive.

SAVE AS DEFAULT

If you save a show as the default, it will be used each time Setup> File > New is selected. This means you may define the default show 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 uses the same set of equipment set to the same addresses, setting a 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 show as the default.

> 40.

OPEN SAVED SHOWS

Saved Shows can be opened from the internal solid-state memory or imported from a USB flash drive.

Exercise:

1. Tap SETUP -> FILES.
2. OPEN.
3. Select USITT Demo.
4. Tap the GREEN CHECKMARK.
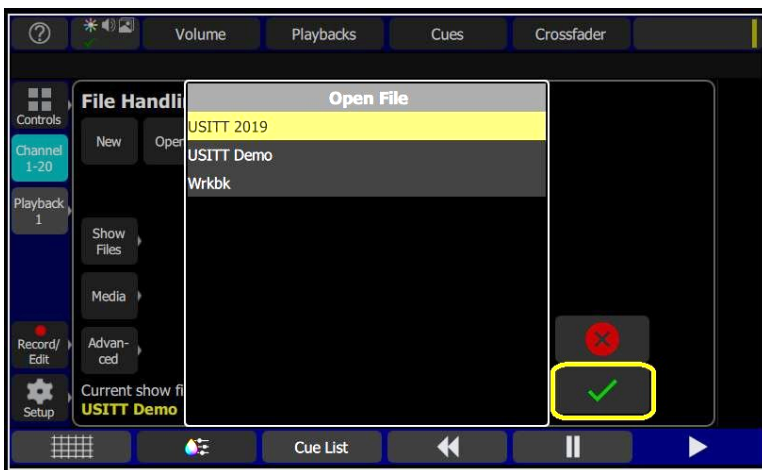
You have now loaded the complete patch found in that show file.

Console Set-up

STAGE MAP

You can always get to your Stage Map by pressing the grid icon at the bottom left of your screen.
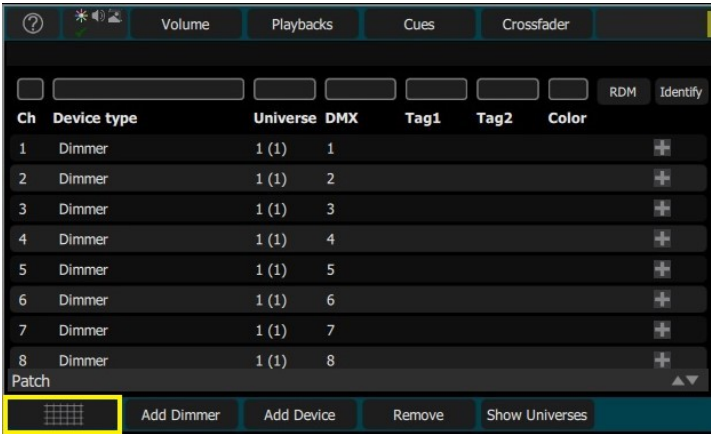
For every channel that you patch, a block tile will automatically be created. You can select them by tapping on them.
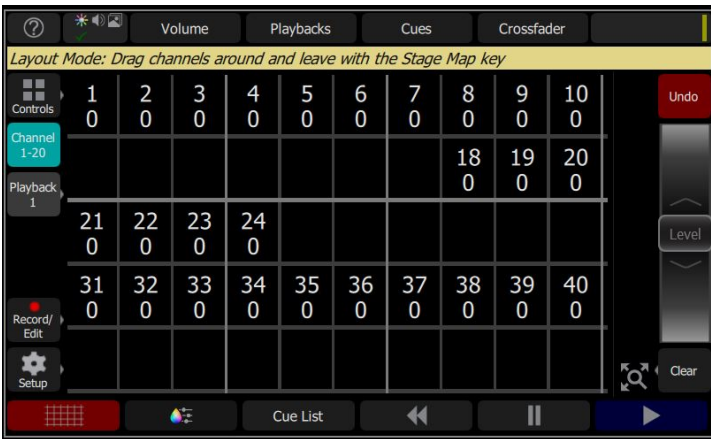
Exercise:

1. Tap SETUP and then tap LAYOUT MODE to enter the adjustment mode.
2. Tap and drag fixtures into their desired stage layout.
3. Tap the red Stage Map in the bottom left to exit the editor.
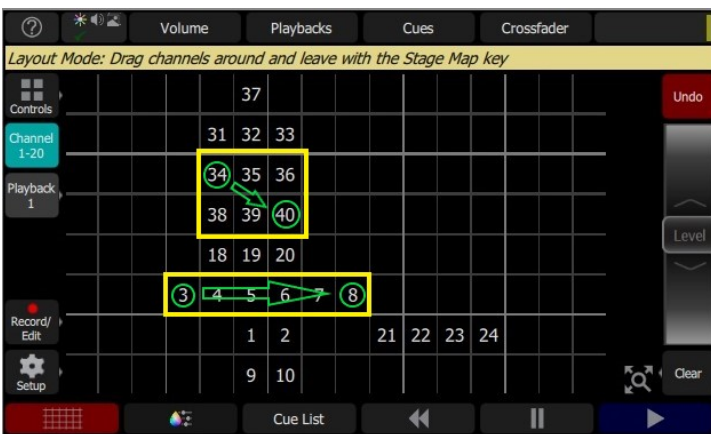
Pro Tip: You can arrange your channel Palettes into a ground plan representation of your plot or arrange similar fixtures next to each other.

Pro Tip: A quicker way to adjust your stage map is to tap and hold anywhere in the stage map to get into the stage map adjustment mode

CHANNEL SELECTION

To control a channel, it must be selected. Selected channels can be adjusted using the onscreen level wheel, the color controls, or the parameter controls.

Raising a channel fader automatically selects a channel for control, meaning you can just bring up the fader to get light on stage, then go directly to the color selector to change its color, for example.

MULTI-TOUCH SELECTION: The built in 7" touch screen supports multi-touch gestures. You can pinch and zoom to change the stage map size and can tap and swipe to select multiple fixtures.

PINCH AND ZOOM: The touchscreen recognizes multi touch gestures like pinch and zoom. Try zooming in on any channels on your stage layout. As you zoom in you will be able to see the intensity level below the channel number.
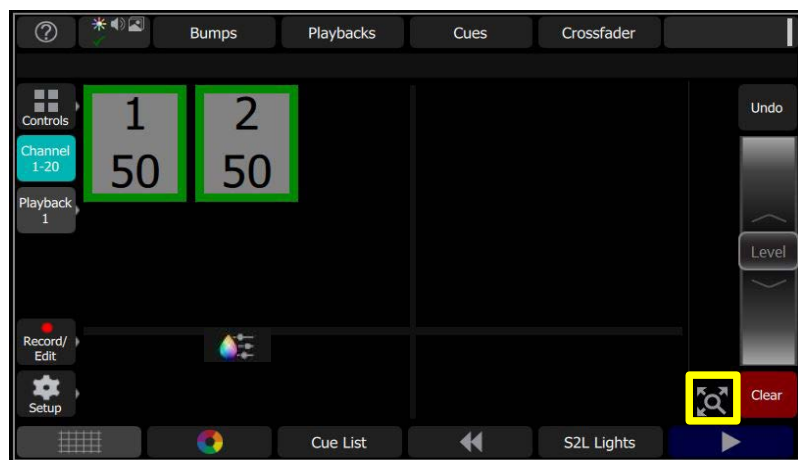
Tapping the zoom will fit your stage map to the screen.

Pro Tip: If you would like to adjust a channel but not bring up its fader, there are several other ways to select channels. One way is to press the bump key beneath the channel fader. Another way is to touch the channel cell or cells on the Stage Map. A third way is to use the Quick Select tools

Pro Tip: You can always get back to your STAGE MAP from any screen by hitting the dedicated STAGE MAP grid icon in the bottom left.

CLEAR

The CLEAR button in the bottom right of the screen provides multiple options.
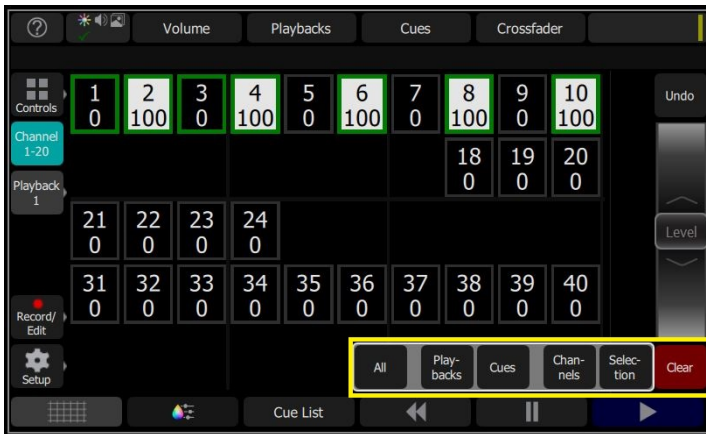
ALL: Releases all channels, playbacks, cues, and selections (Does not home the non-intensity parameters. Only homes the Intensity).

PLAYBACKS: Releases intensity values of any playback that is active. If you have manually selected a channel in that cue and given it an intensity level, it will remain at that level. We will discuss playbacks later.

CUES: Releases intensity values of the current cue. If you have manually selected a channel in that cue and given it an intensity level, it will remain at that level.

CHANNELS: Releases channel selection and intensity.

SELECTION: Releases channel selection but maintains intensity.

Exercise:

1. Select your 10 favorite fixtures and give them an intensity level.
2. Tap CLEAR and SELECTION.
3. Tap CLEAR and CHANNELS.

Note: Notice the difference of what happens to the light output in the visualizer.

Pro Tip: Clear defaults to a 0.5 second fade out. This timing can be changed in SETUP-SETTINGS-TIMES.

Pro Tip: Don't forget: Tap and drag this icon to show more/less of your STAGE MAP when in other menus.

QUICK SELECT

Channels can be selected using the buttons underneath the channel faders, using the boxes in the touchscreen on the Stage Map, dragging your finger on the touchscreen, or by using the Quick Select tools.

The Quick Select display is found under the Controls menu with the Quick Select button.

There are two areas of channel selection possible. The one on the left is based on the graphic positions of your channels on the Stage Map, and then section of buttons on the right with the tag names that you can apply in Patch.

Looking at the graphic positions on the left, you can see that the channels are primarily concentrated in the upper left area of the screen. The right side of the graphical areas are black background, which indicates that there are no channels there. The green background indicates that there are channels in those segments of the Stage Map.

In the tagging area, the same background concept applies - green for tags that have been used, black means none of the channels have been tagged with those names.

Exercise

1. Clear out the selection by using the Clear menu
    41. Tap on a green area of the graphic positions - see the channels that are selected in the Stage Map area in the lower half of the display
    42. Add additional channels using other graphic positions
    43. Remove by tapping the same area again

On the console, you can see that the LEDs under the channel faders light up to indicate that channel selections as well. So, both the fader area and the touchscreen are interactive with one another.

This is how you can use the Stage Map layout and the tagging functions to help you select groupings of lights.

Programming Basics

INTENSITY

Controlling intensity on ColorSource consoles can be done in several ways.

Faders

The very simplest way is to slide up a fader. When we patched the addresses, we assigned dimmers, LED fixtures and other devices to individual channel numbers. These numbers correspond with the numbers underneath the faders in Channel mode. What does that mean?

On the left-hand side of the screen, there is a teal button labeled Channel, showing 1 - 20. That means that the faders on the console will control each of those individual channels one to one.

If channels above number 20 were patched, tapping the Channel button again will take you to the second page of channels, 21 - 40. Now when you slide a fader up, it is a channel from 21 to 40. A simple way to move back and forth between those two pages. Notice as you move back and forth on the pages, that the LEDs underneath the channels indicate which channels are selected or at a level.

> **Note:**   If on a ColorSource 40 console, the Channel button will be 1 - 40 and 41 - 80.

Touchscreen

So, if you don't like paging back and forth to get to channels, you can use the touchscreen to select channels and control them with the Level wheel on the right-hand side of the screen.

Tapping on the channel numbers will select the channels, notice the green outline. The LED underneath the channel fader lights up as soon as the channel is selected. Those selected channels can now be controlled using the Level wheel.

> **Note:**   As you roll the wheel up and down that the channel number cells go from a black background to a white background.

Keypad

The last method of control for intensity is the keypad, which is found under Controls using the Keypad button. Here simply type in the channel numbers and give intensity commands directly.

1. 1 Thru 3 @ 75 Enter.
2. Use your fingers and zoom in till the icon is big enough to show both the channel number and their intensity level.
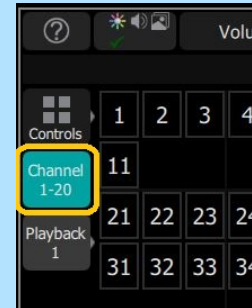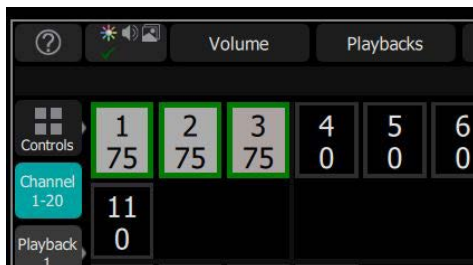
Pro Tip: Keep an eye on which channels have the green outline and are selected. Channels may be at a level, but if not selected, you don't have control over them with the level wheel.

Color Selection

ColorSource consoles are designed to control LEDs and moving lights with color mixing systems. If you have patched a light that has color mixing capabilities, you can select the fixtures and either use Color Palettes or open the Color Picker.

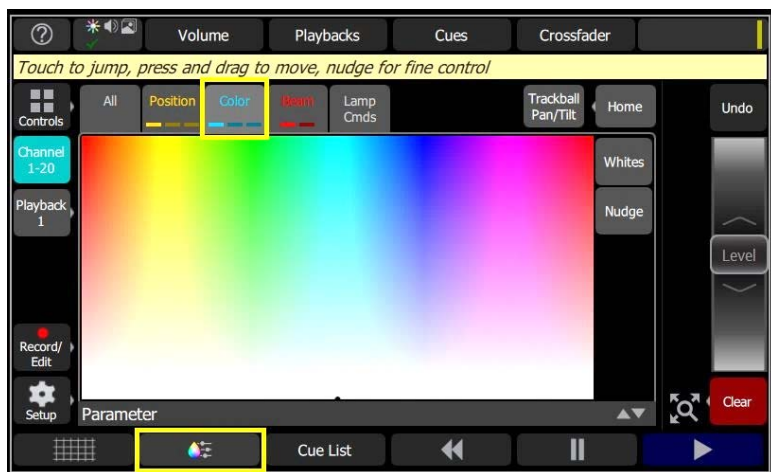**Pro Tip:** The Color Picker can be set to either Colors or Whites. In the Whites mode, the picker will attempt to match the shade of white selected. However, the actual shade of white produced will depend on the type of fixture and its capabilities.

Pro Tip: Fixtures with fixed ranges of preset colors, such as color wheels or scrollers, use the All tab. The option shows up as a cell, when tapped, a filmstrip opens that may be scrolled left or right to see all the choices.

Pro Tip: Tap NUDGE to get granular Hue and Saturation control over a color. This s a toggle. Tap NUDGE again to turn off the Hue/Sat controls

Exercise:

1. In the Stage Map, select channels 31-34. Set them to full using the virtual level wheel.
2. Tap the Color Selector towards the bottom left.
3. Tap the COLOR TAB once – Color Picker
4. Tap the COLOR TAB again – Color Palettes
5. Tap the COLOR TAB again – Individual Parameter Control
6. Tap the COLOR TAB again, back to the Color Picker.
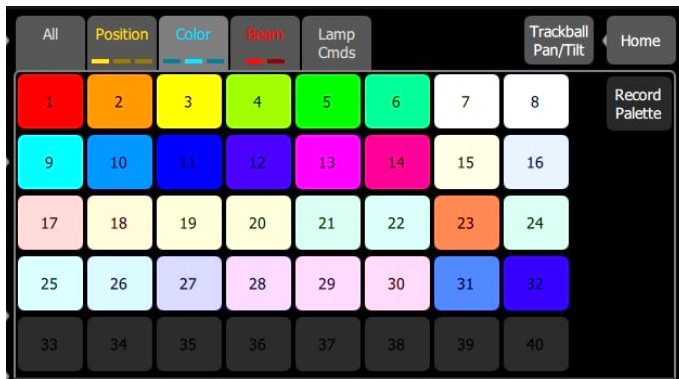7. Drag your finger across the color space and watch your selected channels change colors instantly.
   44.

COLOR PALETTES

Color Palettes are a set of buttons that can be assigned any color palette. The first 32 are set by default to specific colors but can be overwritten. These buttons were referred to as chips in earlier software versions.

1. Tap COLOR TAB again to the Color Palettes and then Tap COLOR CHIP 11. (Blue)
2. Tap STAGE MAP and see that the channels indicate what color the fixtures are in.
3. Tap the Channel 1-20 button to toggle the channel faders to 21-40 and notice that your LED indicators in the bump buttons are blue.
   45.

CUSTOM PALETTES

You can customize the buttons with the color palettes that you want to use in your show.

Exercise:

1. Set the color parameters accordingly for the fixture or fixtures you wish to record.
2. Tap the Color tab to open the Color Palette page.
3. Press the Record Palette button.
4. On the bottom of the screen, press Include Options to choose to record for all channels, or only the ones currently selected.
5. Pick a button to re-program, or press Cancel to exit without saving. Buttons in dark gray are blank.
6. Press and hold on the palette button to add a label in addition to the palette number.

Pro Tip: Even when the fader is down, the LEDs in the bump button stay in the color, but really dim. This helps you to know what color the channel is in before you fade it up.

Pro Tip: You can rename palettes by pressing and holding on them until a keyboard shows up.

Recording and Playback

Playback Memories: A playback memory is a way of storing a look-per-fader. You have 10 pages of faders available as playbacks, up to 200 different looks on a ColorSource 20 (or 400 on a ColorSource 40 console). This is a great way to run smaller events live or to layer on top of your cue list.

Cue List: A cue list stores looks on stage so they can be recalled later in a particular order. Cues can be recorded from channels that are up, from playback memories, or a combination of both. You can apply fade and wait timing to a cue to create more dynamic lighting changes.

Playback Sequences: A playback sequence is a series of looks that loop automatically and continuously and are stored on a fader. These are stand-alone ideas or effects that cannot be recorded into your cue list. You can record up to 99 steps per sequence with fade and step timing. It is easy to change the speed at which the sequences play back.

RECORDING PLAYBACK MEMORIES

To record a playback memory, cue list, or playback sequence create a look on stage using your channel faders and then tap the RECORD/EDIT fly-out menu on the left.
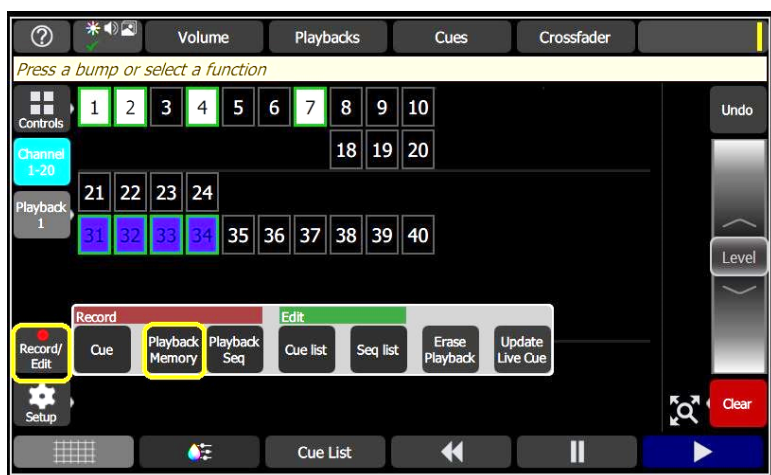
PLAYBACK MEMORIES

There are two ways to record Playback Memories: a quick simple way and a more-detailed ways.

The quick way is to simply press RECORD/EDIT and then press the bump button of the fader where you want to store the memory.

The more detailed option is to press RECORD/EDIT, then press PLAYBACK MEMORY and now you can give it a label and adjust the timing.

Make sure you are on playback page 1 and on the first page of channels 1-20. Your screen might look like what is below.

Exercise

1. CLEAR ALL
2. Bring up faders 1 & 2.
3. Record playback memory #1.
4. CLEAR CHANNELS
5. Bring up faders 31 thru 33. (change to channel 21-40 if necessary)
6. Change to Red. (chip 1 on the COLOR PALETTES)
7. Record this as a playback memory labeled "Red" to playback #2.
8. Change the selected channels to Green. (chip 5 on the COLOR PALETTES)
9. Record this as a playback memory labeled "Green" to playback #3.
10. CLEAR CHANNELS
11. Press or tap the Stage Map Button. (bottom left most button)
12. Bring (31 thru 33) to full using virtual fader.
13. Change to Blue. (chip 11 on the COLOR PALETTES)
14. Record this as a playback memory labeled "Blue" to playback #4.
15. CLEAR ALL
16. Pull down all faders and tap the PLAYBACK 1 button.
17. Notice that bump buttons for faders 1 – 4 are lit.

Go ahead and slide fader 2 up to see the Red look, Slider 3 for Green and Slider 4 for Blue.

Pro Tip: Make sure your PLAYBACKS master above your touch screen is pushed to full before recording playbacks.

Pro Tip: Remember the default timing for Clear can be changed in SETUP-SETTINGS-TIMES

Pro Tip: You can use the playback memory faders to mix to different colors. This is because the console uses Highest Takes Precedence (HTP) instead of Latest Takes Precedence (LTP) for color mixing. For more information on HTP vs LTP please check out the white paper at www.etcconnect.com

RECORDING CUES

Recording a cue simply means that you are recording a look that is given a number and is stored within a stack or list of looks. This allows you to progress through the list using the Go button. 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. The console supports up to 999 cues on the cue list. This includes point cues, #.#.

Press RECORD/EDIT then press CUE.

Then you may make a simple recording by just choosing STORE. Once a cue is recorded, it is placed on the live side of the cue crossfader and sent to the output.

Before hitting STORE, each cue may be given a label or name, and have its In, Out and Follow times set. In and Out times refer to the transition that is happening when you the Go button is pressed. All intensities increasing in the cue will fade up in the In time, and all decreasing will fade down in the Out time. The Follow time is used to make a cue automatically execute based on the Go on the previous cue.

Pro Tip: Follow time = 0 is a special case and causes the cue to wait for a manual press of the GO

INCLUDE OPTIONS

To specify a recording in more detail, select INCLUDE OPTIONS and choose the fixtures and parameters you wish to be included.

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-fadeable colors such as wheels and scrollers).

Exercise:
1. CLEAR ALL. Make sure that the Cues Master fader is up. (third fader of the four above the touchscreen)
2. Bring up faders 3 & 4
3. Press RECORD/EDIT, then press CUE, and then STORE
4. Bring down faders 3 & 4
5. Bring up faders 5 & 6
6. Press RECORD/EDIT, then CUE, and name it Red.
7. Change the In and Out times to 2.0 and press the green check mark in the keypad window
8. Press STORE
9. Bring down faders 5 & 6
10. Bring up faders 7 & 8
11. Record look as next cue, labeled Blue, with 3 sec fade times and a 3 sec Follow time
12. Bring down faders 7 & 8
13. Press as Blackout cue, (label and time 0)

Pro Tip: Make sure your CUES master above your touch screen is pushed to full before recording cues. If it is not up, no light

Pro Tip: Under Content in the Cue list, you might see icons begin to populate as you record cues. The icons represent Intensity and Color, Focus, Beam, Effects and Media

PLAYBACK A CUE LIST

Simply press the ►(GO) button.

The Go Button is one of the bottom buttons, far right. You can also use the ◄ (BACK) and ; (PAUSE) buttons. If you pause a cue, press ►(GO) again to resume the crossfade or press ◄ (BACK) to return to the previous cue.

In the right-hand corner of the screen next to crossfader is a small display of the Cue List. Just two cues: the yellow cue is the current cue and the red cue is the next cue.
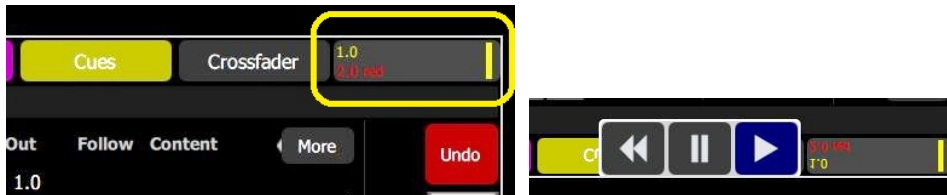
The Cue Transport buttons are Back, Pause, and GO. These buttons are always available by pressing on the cue list indicator in the upper right corner and may be assigned to the hard buttons below the screen.

DISPLAY THE CUE LIST

To see a larger display of the Cue list, go to the CONTROLS menu, and select CUE LIST. Often the Cue List is offered as a button on the bottom of the screen.

ADDITIONAL CONTROLS

Pressing on the MORE button in the Cue List will allow access to the following options:

- **Flag** – Typically flags are useful to repeatedly return to the same place in a list such as the beginning of an Act or a Scene. Simply press FLAG to place a flag on a cue, Press FLAG again to remove it.
- **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 O** – Takes all levels from the cue list to zero and resets back to the first cue. A blank line is shown as the active cue and the first cue is red to indicate that it is the next cue. BTW, Cue 0 does not exist as a real cue.
- **Goto Cue** – Allows you to go to a specified cue in the cue list. When you press GOTO CUE, a keypad pops up, type in a number and press the green checkmark.

RECORDING PLAYBACK SEQUENCES

Playback Sequences are like Cue Lists, but they are recorded to Playback Faders instead of the main Cue List position. They are most often used when you need to build a chase effect or any other kind of looping Cue List that you want to have executed on a separate fader. A sequence can have up to 99 steps.

Exercise

1. Press RECORD/EDIT.
2. Press PLAYBACK SEQ and then press the bump button of the target fader for the Sequence, fader 20.

   Now in the Record Sequence Editing Mode, or Creation Mode, you see the prompt, "Edit the step parameters, press Store button to proceed or Cancel to abort" so you can set up the stage to look the way you want it - any parameters - Intensity, Focus, Color, or Beam

   46. Bring channels 31 - 33 to Full and make them red

   You'll notice that the {Record} button is red and that the outline of the screen is in red indicating Recording mode. You can also see very faintly Record 1.0 superimposed on the controls.

   47. Press STORE & NEW

   Notice it now shows Record 2.0 superimposed on the screen.

   48. Make 31 - 33 green.
   49. Press STORE & NEW
   50. Make 31 - 33 blue.
   51. Press STORE & EXIT

   52. Press PLAYBACK 1
   53. Bring up Playback 20

This is three-color chase essentially on Playback number 20. Notice that the LED underneath that fader is in yellow. Yellow indicates that there is a Sequence on that fader. Remember that the Playback Memory color is purple.

USING PLAYBACK MEMORIES TO RECORD A SEQUENCE

Instead of programing the steps individually by selecting lights and setting up all their parameters, you can also use the Playback Memories to create a Sequence.

Exercise

   Still in Playback 1 mode:

1. Press RECORD/EDIT.
2. Press PLAYBACK SEQ and then press the bump button of the target fader for the Sequence, fader 19.
3. Press PB Memory 1 bump button
4. Press STORE & NEW.
5. Press PB Memory 2 bump button
6. Press STORE & NEW.
7. Press PB Memory 3 bump button
8. Press STORE & EXIT.

   This results in a chase created from the three Playback Memories previously recorded.

EDIT CUES AND SEQUENCES

ColorSource consoles have a feature that allow you to edit cues and sequences very easily. Edits in the system are all done Live, meaning that you must see your lights on the stage to know what you are recording. Sometimes you end up with a mix of Playbacks and Cues on the stage at the same time.

EDIT CUES

Downlights with a combination of playbacks 1 and 2 and the LED fixtures doing a chase from Playback 20, and cue 3

1. Press RECORD/EDIT. Notice the Edit section in the middle of the menu with CUE LIST and SEQUENCE LIST as options.
2. Press CUE LIST.

   You have the Cue List on the top half of the screen, the Stage Map on the bottom half, and the buttons have changed to functions related to editing a cue list:

   - Exit – Takes you out of the Edit menu/mode
   - New Cue – Inserts a new cue at the end of the cue list, that can then be renumbered, including as a point cue.
   - Copy Cue – Copies the selected cue and creates a new cue again at the end of the cue list and can then be renumbered
   - Delete Cue – Deletes the selected cue
   - Edit Cue – Causes only the content in the selected cue to be live on-stage so that it can be adjusted as needed.

54. Choose the cue to edit. With one selected, the name and timings can be changed using the cells at the top of the screen.
55. To edit the contents of the cue, press EDIT CUE. Notice it now shows Edit 2.0 superimposed on the screen.

   Notice only the content in the selected cue is now 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.

56. Select channels and make changes.
57. When ready to save the changes, you can hit STORE. A prompt will appear to confirm the change.
58. Press the GREEN CHECKMARK and the levels will be stored in the selected cue only. Recording /Editing mode will close, and the console will go back to normal operation.

   Or, you can press STORE & NEXT. Again, a prompt to confirm and press the GREEN CHECKMARK. The new levels will be stored in the selected cue and Recording mode remains open so additional cues can be edited. The cue selection will automatically move to the next cue as seen by the Edit superimposed on the screen.

EDIT SEQUENCES

1. Let's clear everything. CLEAR. CLEAR ALL.
2. Still in PLAYBACK 1, bring up fader 20 to start the simple three-color chase.
3. Press RECORD/EDIT, then press SEQUENCE LIST.
4. Pick the sequence you want to edit by pressing the bum button of that fader.
5. Select the step of the sequence that you wish to edit.
6. Press EDIT STEP. Only the contents of that step will be editable.
7. Select STORE or STORE & NEXT.

   If you don't want to keep any of the changes, simply press CANCEL or press the EXIT button.

LET'S WRITE CUES

Let's write some cues for the beginning of our show. We want to start with a walk-in look for our audience to come into, followed by taking out the house lights, revealing the choir for a moment, and then snapping to a blue band look.

1. Pull down all faders and switch back to CHANNELS 21-40.
2. Using touchscreen, bring up channels 21 thru 24 to full (use tap and drag if you like!)
3. Record Cue 1, label "Walk In", STORE
4. Pinch to zoom in until levels are visible
5. Using virtual fader, bring all house light channels to 50%
6. Record Cue 2, label "House to ½", change timing to 3 sec in/out, STORE
7. CLEAR Cues
8. Switch to PLAYBACK 1
9. Using faders 2 & 3, create an amber color
10. Record Cue 3, leave timing as default 1, but change Follow to 2, STORE
11. Pull faders back down
12. CLEAR ALL
13. Using touchscreen, select channels 38 thru 40 and bring them to full
14. Change fixtures to light blue
15. Record Cue 3.1 and change timing to 0 in/out, STORE.
16. CLEAR ALL and switch back to CHANNELS 1-20.

CHECK: Make sure your CUES master fader is pushed up.

Go into CUELIST screen using softkey. Find GO, PAUSE AND BACK BUTTON in the bottom right of the screen. Push GO to go into Cue 1. Find cue list in top right corner. Press GO again (cue 2), again (cue 3) Cue 3.1 will autofollow. Press GO again to demonstrate auto-looping cue list.

Pro Tip: Get a popup window with the Go/Back/Pause controls by tapping the mini-cue list in top right corner. Note that the Level Wheel becomes a Rate wheel with this window open.
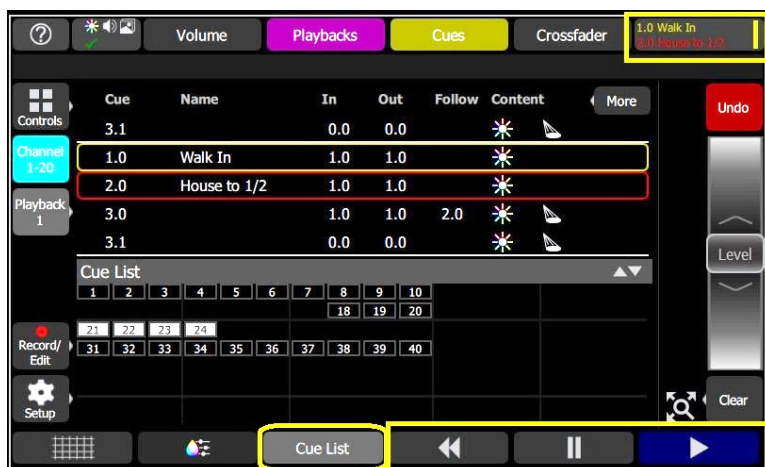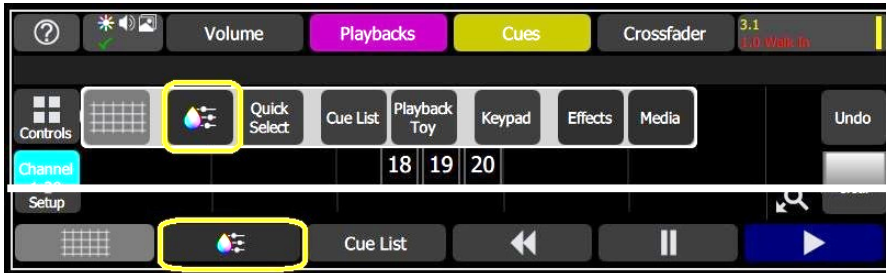
Advanced Programming

WORKING WITH MOVING LIGHTS

The touchscreen is the main way to control moving lights on the console.

You can open the parameter controls either from the Controls slide-out menu or the PARAMS Selector button on the bottom left

You can narrow down the parameter controls displayed by selecting from the ALL, POSITION, COLOR, or BEAM tabs. Tabs with additional pages display have an indicator under the parameter name. Tap on a tab twice to access page two and three times for page three.

Each cell on the parameter displays 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. A green arrow will appear on the value box when you are swiping it. Basically, your finger becomes the encoder for any parameter (pan, tilt, zoom, gobos, fixed color, speed and more).

- Tap a cell just once to reveal a filmstrip-style view of the available options for the fixtures such as ranges of values, such as gobos, strobes, and samples of fixed colors. Pick a setting to close the filmstrip.

- Double tap a parameter cell and it will home the parameter to its default settings

There is a separate HOME button that gives you options for setting parameters to their default profile values based on categories.

- All: Homes all parameters except intensity.

- Position: Homes Pan, Tilt, or other position parameters only.

- Beam: Color, Gobo, Focus, Zoom, Strobe, Iris, FX, Shutters, and other beam parameters only.

- Individual Param: Double tap any parameter cell to home just that parameter.


Pro Tip: LAMP CMDS (Commands) allow you to execute control functions for a selected fixture such as calibrate, douse lamp, strike lamp, and reset. Each fixture type has its own set of lamp commands.

Pro Tip: The TRACKBALL PAN/TILT button allows an attached USB mouse or trackball to control pan and tilt.

Exercise:

1. In the Stage Map, select channels 18-20. Set them to full using the virtual level wheel.
2. Tap the Params Selector towards the bottom left.
3. Tap the POSITION TAB once – Individual Parameter Control
4. Tap the POSITION TAB again – Crosshair Pan and Tilt Control
5. Tap the POSITION TAB again – Focus Palettes
6. Tap the POSITION TAB again, back to the individual parameter control.
7. Pick a parameter and wipe the value box up and down to change values.
8. Tilt fixtures so they are on stage.
9. Tap the POSITION TAB again, back to the Crosshair Pan and Tilt.

   A white dot indicates the current location. The pan and tilt values are displayed above the Nudge button.
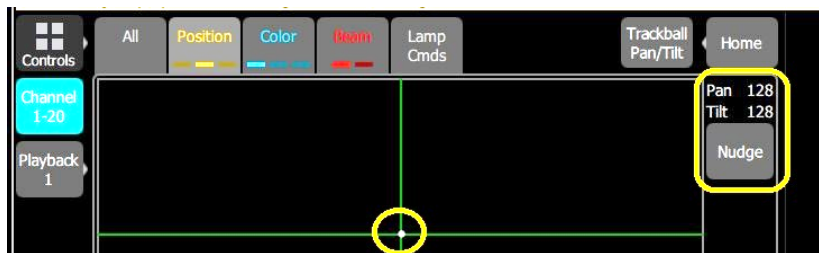
10. Press anywhere within the crosshairs to move your device.
    59. For fine control of pan and tilt, use the Nudge button.
    60. CLEAR – CLEAR ALL

WORKING WITH EFFECTS

There are multiple effect options. Color changing effects, shape effects that change pan and tilt values, intensity effects, and parameter effects. Select the corresponding tabs to see the available effects.
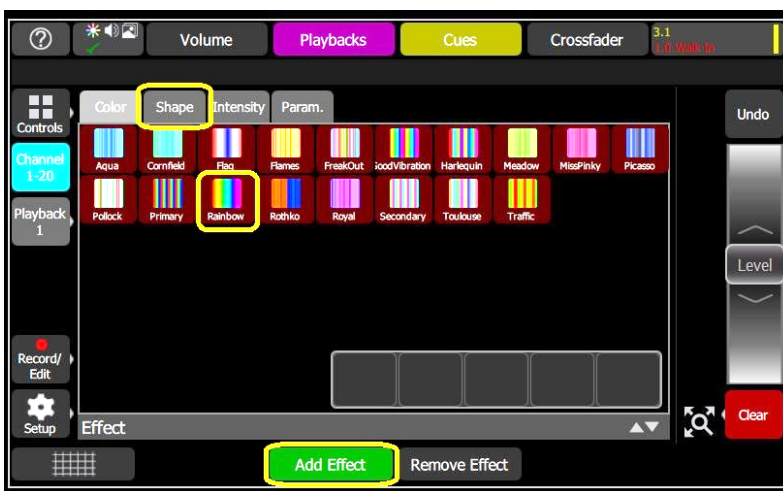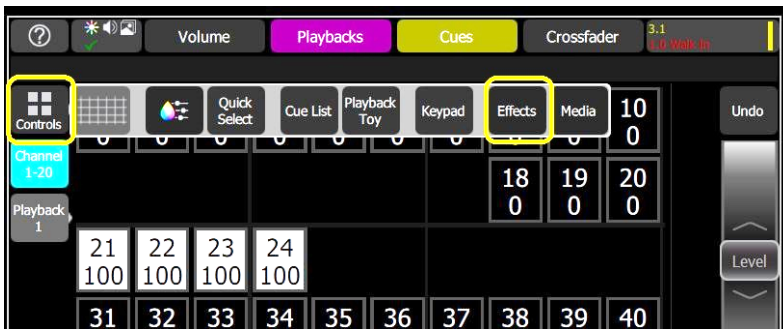

Exercise:

1. Select channels 18 - 20 and bring them to full.
2. CONTROLS – EFFECTS - COLOR.
    61. Press ADD EFFECT softkey.
    62. Select Rainbow.
    63. Increase speed to 50, increase fan to 125.
    64. Select the SHAPE tile.
    65. Touch Circle. (first one)
    66. Increase speed to 100 and increase fan to 255.
    67. Record playback memory #12.
    68.

When effects are played back, a symbol is shown to the right of the STAGE MAP display next to the VIRTUAL FADER 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.

To remove an effect, select it and press the REMOVE EFFECT button.

Pro Tip: While you can have multiple effects running at the same time, you can only have one effect type per channel playing (example: you can't have two color effects on channel 1). Each effect has an icon by the virtual level wheel to indicate it has been applied.
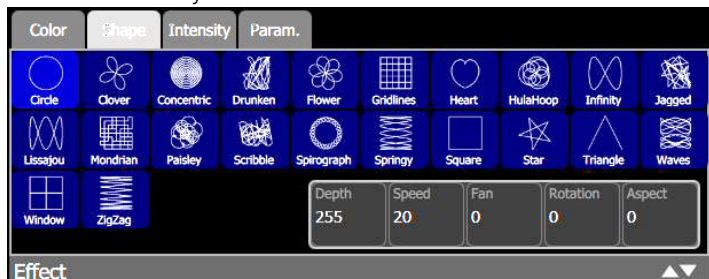
EFFECT ADJUSTMENTS
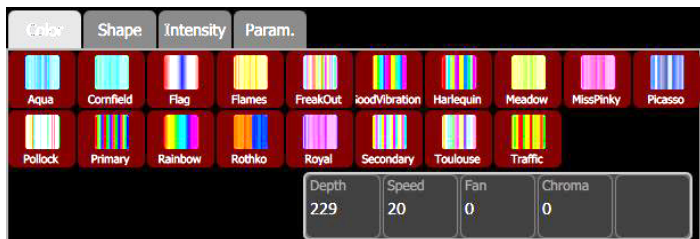
Depth: The amount that the effect deviates from the static-rest color set on the light.
Speed: The speed or rate that the effect runs.
Fan: The amount the effect is spread out over the selected lights.
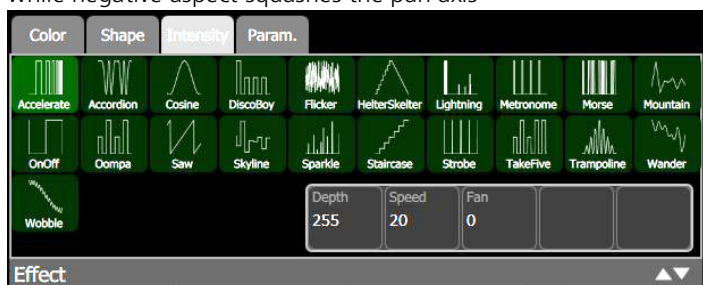**Chroma:** Intensity of color

Depth: The amount that the effect deviates from the static-rest position set on the light.
Speed: The speed or rate that the effect runs.
Fan: The amount the effect is spread out over the selected lights.
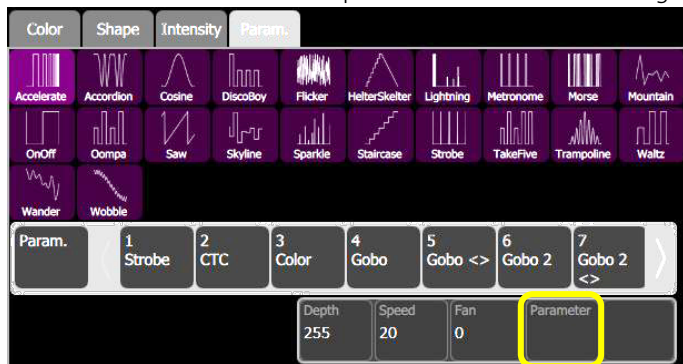**Rotation:** The angle of the effect.
Aspect: Squashes the effect on one of their axes. Positive aspect squashes the tilt axis while negative aspect squashes the pan axis

Depth: The amount that the effect deviates from the static-rest intensity set on the light.
Speed: The speed or rate that the effect runs
Fan: The amount the effect is spread out over the selected lights.

Tap PARAMETER for the parameter options

Depth: The amount that the effect deviates from the static-rest parameter.
Speed: The speed or rate that the effect runs
Fan: The amount the effect is spread out over the selected lights.
Parameter: Select the individual parameter you would like to apply an effect to.

Pro Tip: The order in which the lights were selected will affect how FAN spreads the effect out

Pro Tip: A fan of 0 will cause all lights change together at the same time.

Pro Tip: Symmetrical effects like a circle will have no appearance change with rotation, while a square effect appears as a diamond if set to 45 degrees.

Pro Tip: For the intensity to vary fully between 0 and full you should set the rest-state to 50%

PLAYBACK AUTOMARK

Automark causes non-intensity parameters to move into position while a channel is dark (intensity = 0%), before you press GO for that cue. It looks ahead to see the values of the parameters in the cue and pre-sets the parameters so that when you press GO, the light is already in the position you recorded. If you don't turn the light off, you will have a live move, seeing the fixture move into position, change color, and change other parameters. .

Basically, when the light turns off, the console is checking to see that the light is in fact off, that it hasn't been turned on manually, or through a Playback Memory, or some other source. And if it's off before the new cue is executed, the console will move that light into its new position for you.

Let's write some cues to help to illustrate this.

1. CLEAR - CLEAR ALL

    69. Bring 18 THRU 20 Full, notice they are all in their home position, straight down in front of the stage.
    70. Record Cue 101
    71. Bring 18 AND 20 out, leaving 19 at full
    72. Record Cue 102
    73. Select 18 - 20 - all three fixtures again
    74. PARAMS - POSITION - Tilt them all upstage on the back wall.
    75. COLOR - Color Palette 3 (yellow)
    76. BEAM - GOBO 2 (Block Fan), Focus at 150
    77. Change Gobo Index to Gobo Rot(ate)
    78. Change Gobo <> from Rot Stop to Rot >> and scroll up to about +125
    79. Record Cue 103
    80. CLEAR - CLEAR ALL
    81. CUE LIST - MORE - GOTO CUE 101 - CHECKMARK
    82. Press ▶ (GO)

    Cue 102 has the outside fixtures fading out, leaving the center fixture on.

    83. Press ▶ (GO) for Cue 103

    Channel 19 does a Live move - the gobo and the color are moving into position as the lights were moving into place.

    Notice that channels 18 and 20 slowly faded in on the wall with the gobos and color already in place.

    For all three lights to show up on the wall in their new color and gobo in a nice way, turn channel 19 off in cue 102 as well.

    84. CUE LIST - MORE - GOTO CUE 102 - CHECKMARK
    85. Select channel 19 and turn it off
    86. Press RECORD/EDIT, and the UPDATE LIVE CUE.
    87. Don't forget the GREEN CHECKMARK to confirm
    88. CLEAR - CLEAR ALL
    89. Press ◀ (Back) and then ▶ (GO).

In cue 101, all three lights are in their home position. In cue 102, all three turn off. Finally, in cue 103, all three fade up on the wall in their color and gobo.

Live Sound and Sound to Light

ColorSource AV consoles add audio and visual functions to the lighting desk. Media may be played directly, or may be recorded into Cues and Playbacks. These functions are found under MEDIA in the CONTROLS menu.

AUDIO PLAYBACK

The audio tab allows you to play audio clips. You can operate the mixer to control audio volume and the external input on the rear panel of the console.

- **Preview**
  - **Play** button
  - **Record Level Fader**
- **Sound2Light** will be explained in the next lesson.
  - **Lights:** Sends Sound2Light to the first 6 playback faders on the first page
  - **Video Toy:** Sends Sound2Light to the Video Toy video synthesizer
- **Mixer**
  - **Source:** Selects the source of input audio from either internal microphone or external line input socket.
  - **Input Fader:** Controls the input level from the 1/8" jack input on the rear panel
  - **Media Fader:** Controls the playback level of the audio clips in playbacks and cues.
- **Output**
  - **Mute:** Silences all audio output.
  - **Volume Fader:** Controls the volume of the final output going to the output jack.

Pro Tip: Sound2Light is a great way to have the console auto generate lighting looks to the BPMs and frequencies of audio content based on the first six playbacks on the first page.

FADERS IN THE MIXER

- **Record Level** – This is defaulted to 70% to avoid "clipping and distortion". Basically, to keep signal levels from over-driving the device. While it can't stop the signal from already be over-driven it reduces the possibility of us adding any distortion.
- **Mixer** - Input (Line or Mic) – This is more for sound to light (when enabled) or mastering external audio signals passing through the console. Or when the Mic source is enabled its' "gain" control.
- **Media** – This is the general audio control that is used for internal Media Playback. This was added for example if you found your media was 10% too loud across the board. But your line levels and overall output was dialed in. Changing this you would quickly reduce your media playback without having to re-record or touch your output volume.
- **Output - Volume** – the true Line Out volume and acts as the device proportional volume grand master.

Pro Tip: The faders do compound, but general hierarchy is Record Level, Media Level, Playback Fader Level, Output Level.

Exercise:

1. CLEAR ALL.
2. CONTROLS - MEDIA
3. Select AUDIO tab.
4. Choose AMBIENCE.
5. Select "Audience 1".
6. Press the play button under Preview to listen to it.
7. Adjust the volume under Output
8. Record Cue 4.

Now when the fader is raised, you can hear the audience sound. The fader acts as a trigger and a volume master for that clip. You can also use the bump button as a trigger as well.

It is possible to recording the audio clip to a Playback memory as well as to a cue. If you are trying to synchronize with an action onstage, the Playback Memory may be the way to go. Keep in mind, you can always record the audio clip into a cue later.

IMPORT AUDIO CLIPS

The console is provided with several stock sound effect clips. It is possible to import sound effects,

1. SETUP - FILES
2. MEDIA - along the left side of the display
3. IMPORT USB.

Please consult the documentation that comes with your console regarding which file types are compatible with the system and to learn about the specific storage location for these files on a USB stick so the console can read them.

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.

AUDIO EFFECTS

The audio tab mixer can control sound from the internal playback as well as from an external audio input and let you work with the audio in two different ways.

PASS THROUGH LIVE SOUND

ColorSource AV consoles can pass live sound through the desk and out on the audio output. This is controlled in the CONTROLS – MEDIA menu on the audio tab.

To pass audio through from a source:

Select LINE OUTPUT with the source selector.

1. The console should default input to a level of 0. This is to keep your audio system from humming in the case that you don't have anything connected to the input line.
2. Bring up the Input fader
3. Start your music and hear it passing through the console.
4. Adjust the volume using the Input fader which controls the level coming into the console.
5. Or adjust the Output volume fader to control the level leaving the console.
6. Or adjust the Volume Fader – the first fader above the touchscreen.

Please note that passing through music does not allow you to record that passed-through music into your Cues or into your Playback Memories.

SOUND2LIGHT FUNCTION

The ColorSource AV console also has a Sound-to-Light function. 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.

> **Note:** For more specifics about the Playback Sound2Light functions, check out: https://support.etcconnect.com/ETC/Consoles/ColorSource/ColorSource_20_and_40_AV/Sound2Light_Frequency_Bands

7. Start the music on the external device.
8. Press LIGHTS under the Sound2Light heading.

The audio that is being input into the system, either through the line input or by the internal microphone, will trigger the first six Playback Memories.

When Lights is selected under Sound2Light, additional controls appear.

- **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:** (Video Toy control) Low values produce sudden changes tracking the sound rapidly and, on Video Toy, produces strong primary colors. The high values result in slower and smoother response and more pastel or paler colors in Video Toy. (Default is 0, up to 100)
- **Intensity:** The brightness of the Sound2Light effects on either Lights or Video Toy. (Default is 100)

Sound2Light can also be used on the Video Toy functions of the desk.

Pro Tip: You must program content into the first 6 playbacks to see the Sound2Light effect. Make sure you have usable content - color looks like in the video or positions for movers or a combination of both. This can sometimes simplify your programming burden by letting the system take over for you
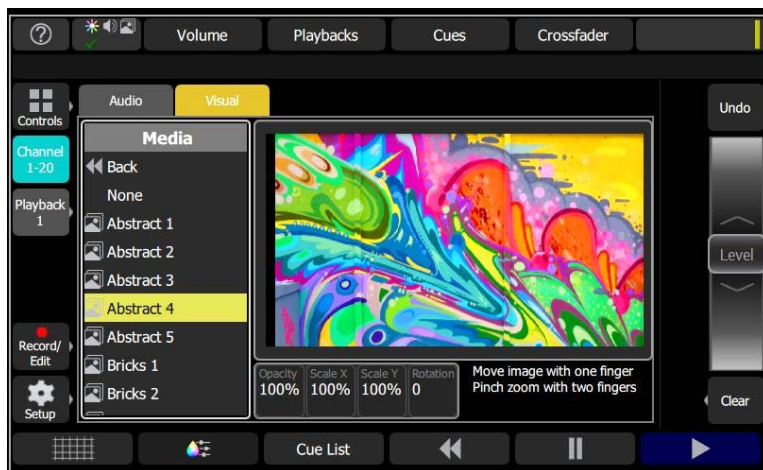
Visual

IMAGE PLAYBACK

Images can be played back when your external monitor is set to output visual media via the HDMI port on the back of the console.

To control visual images, go to CONTROLS > MEDIA and press the VISUAL tab.

Keep in mind these images will be output on the HDMI port of the console. These are available to be used as long as the HDMI port is not being used as an external monitor for the system.

In the library, there are stock images provided and organized by genre. Images will display on the console touchscreen and external display when selected.

You can also import your own images from the Setup – Files – Media menu.

Exercise:

1. CONTROLS -> MEDIA.
2. Tap the VISUAL tab.
3. Choose BACKGROUNDS and then select Abstract 4.
4. Press and hold on the image with one finger to move the image around the screen
5. Use two fingers to pinch in or out to zoom

6. Press RECORD/EDIT and then the bump button on fader 9 to store as a playback memory
7. Select Skyline. (Same folder)
8. Press RECORD/EDIT, PLAYBACK MEMORY
9. Select which active media to record
10. Press the bump button on fader 10
11. CLEAR ALL

    Check: PLAYBACK 1, then run fader 9 up and down - you now can fade an image. With fader 9 up, bring up fader 10. You can crossfade between 2 images! Image information behaves just like lighting channels, and can be stored in cues, memories, and sequences.

12. With either Playback fader at full, record the look as Cue 5
13. STORE

Pro Tip: Opacity, scale and rotation can be edited here. Pinch to zoom.

Pro Tip: When media content is active a small film strip will appear to give you quick access to it
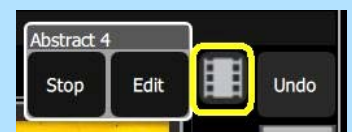
VISUAL EFFECTS (VIDEO TOY)

Visual Effects are played on a video synthesizer tool that can create patterns and images for scenic effects. Patterns may be run automatically, or with on-screen finger gestures, or may be driven from Sound 2 Light.

Content can be found in the CONTROLS – MEDIA menu, on the Visual tab, in the Effects folder. These are pixel effects that are generated by the console and are output on the HDMI port. Remember the effects are only available of the HDMI port is not currently being used as an external monitor.

Pro Tip: Different effects behave differently when they are recorded into cues/playbacks. Experiment with the various effects to see how much fun you can have!

Exercise:

1. CLEAR ALL.
2. CONTROLS > MEDIA.
3. Select VISUAL tab.
4. Select "EFFECTS" folder.
5. Choose "FIREWORKS".
6. Tap on the touch screen. Note that this is a live effect.

    The effects can be adjusted using the Parameter Controls on the touchscreen:

    - **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 colored boxes select the range of colors used in pattern generation.
    - **Auto:** Pressing Auto opens a display with additional controls.

7. Change the first color to yellow, second color to pink.
8. Adjust BLUR. (Tap and slide up or down)
9. Adjust RATE. (Tap and slide up or down)

Now using the star effect make a lightspeed effect and record Cue 6.

Pro Tip: If a pattern is playing when recording a playback or cue, you will be asked if you wish to include the effect in the recording.

Powering Down

SAVE SHOW: Before powering down always make sure to save your show file to the internal memory. When possible save to a USB flash drive.

HIBERNATION MODE: The ColorSource Console does not have a hard power switch. It acts just like your phone or tablet and goes into hibernation mode so it can quickly be woken up and you are not waiting on boot time.

To enter hibernation mode, press and hold the STAGE MAP button. You will need to confirm that you would like to enter hibernation mode by pressing the far-right button, PROCEED.
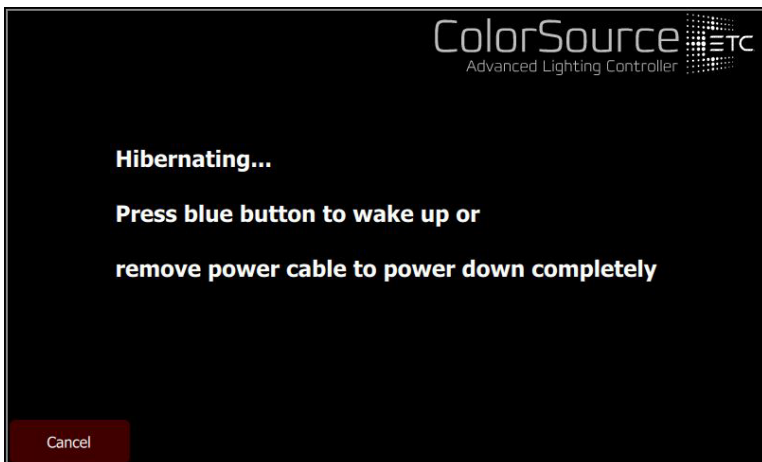
Pro Tip: When entering hibernation mode, the console will automatically save your show to active memory. This does not mean it has been properly stored to internal memory. Always save to a recognizable name on the console itself and/or export to a USB flash drive before hibernating/shutting down the console

Appendix A - Complete Patch

Patch Exercise: Consider the fastest ways to patch the following channel hookup.
Consider footprint size and range patching.

Channel	Type	Address	Purpose
1	Dimmer	1	Podium
2	Dimmer	2	Podium
3	Dimmer	3	Choir White
4	Dimmer	4	Choir White
5	Dimmer	5	Choir Red
6	Dimmer	6	Choir Red
7	Dimmer	7	Choir Blue
8	Dimmer	8	Choir Blue
9	Dimmer	9	Band Front
10	Dimmer	10	Band Front
11	Dimmer	11	Band Front
18	High End SolaFrame 750	121 - 167	Mover – downstage right
19	High End SolaFrame 750	171 - 217	Mover – downstage center
20	High End SolaFrame 750	221 - 267	Mover – downstage left
21	Dimmer	21	House lights – house left
22	Dimmer	22	House lights – center aisle
23	Dimmer	23	House lights – house right
24	Dimmer	24	House lights – wall washers
31	ETC D40 Lustr+ RGB Strobe	41	Choir down wash
32	ETC D40 Lustr+ RGB Strobe	46	Choir down wash
33	ETC D40 Lustr+ RGB Strobe	51	Choir down wash
34	ETC D60 Lustr+ RGB Strobe	61	Midstage right down wash
35	ETC D60 Lustr+ RGB Strobe	67	Midstage center down wash
36	ETC D60 Lustr+ RGB Strobe	73	Midstage left down wash
36	ETC D60 Lustr+ RGB Strobe	79	UC wash
38	ETC D60 Lustr+ RGB Strobe	91	Band down wash
39	ETC D60 Lustr+ RGB Strobe	96	Band down wash
40	ETC D60 Lustr+ RGB Strobe	101	Band down wash

Appendix B - Import Custom Media

CUSTOM MEDIA: All custom media is stored on the console's 25GB solid state internal memory. Only one copy of each media file is needed even if it is used in several shows. Required media files will be included when a show is exported.

IMPORT USB: Imports external media. Files must be loaded from a USB flash drive from a folder labeled **Import** in the root directory of a FAT formatted USB flash drive.
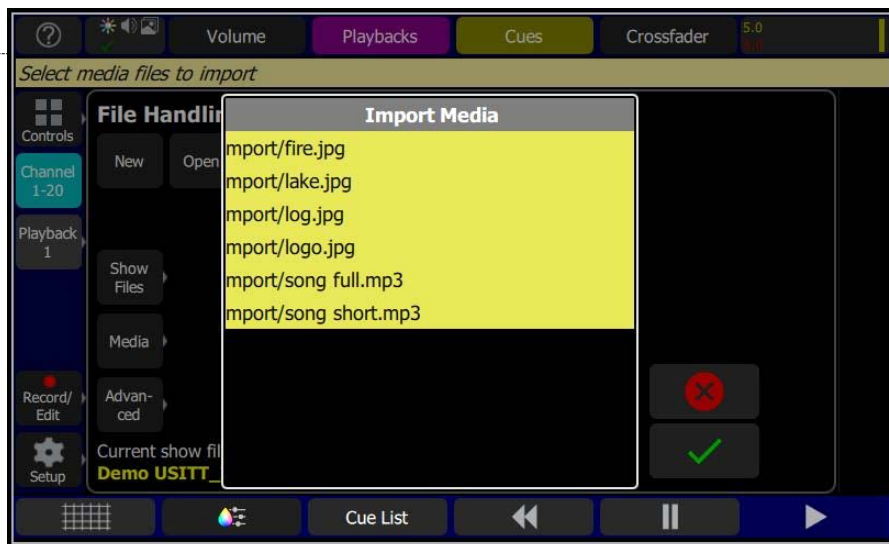
IMPORT SHOW MEDIA: Imports media from another show file.

DELETE MEDIA: Deletes selected media from your console.
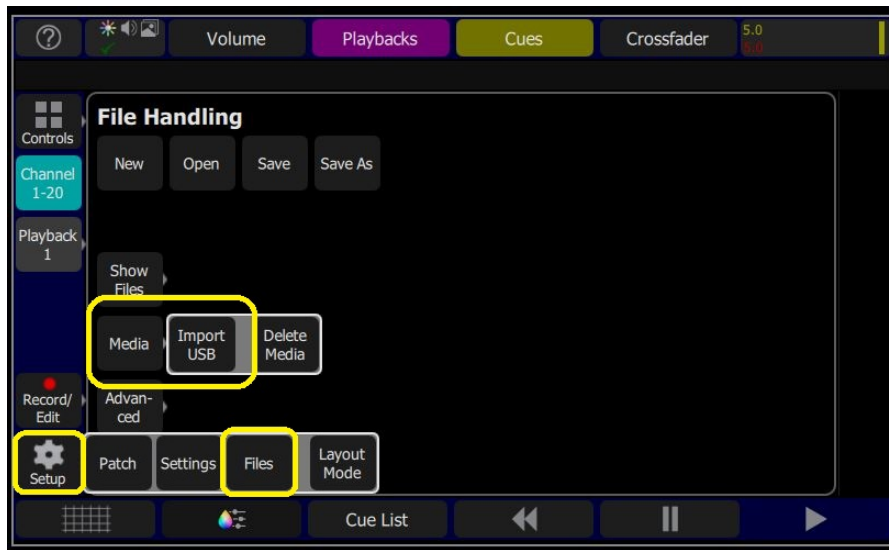
Exercise:

1. Return to STAGE MAP.
2. CLEAR ALL.
3. SETUP > FILES > MEDIA > IMPORT USB.
4. Select all files.
5. Press ACCEPT.

Pro Tip: Proper root directory folder location for importing.

Pro Tip: Content is saved to the "USER" folder under the CONTROLS - > MEDIA tab.

Pro Tip: Supported AV formats.
Audio: mp3, aac, and wav files 4 GB maximum file size.
Image: jpg, png, tiff and bmp 1280x720 max size

Appendix C - Amigo

Amigo is a web based remote into your ColorSource AV console. It requires a Wi-Fi access point connected to the ethernet port on the back of the console or a direct line from a laptop into the console. You can access console functions by scanning with a mobile device or entering the IP address into the web browser on a connected device.

If a QR code is not visible, your console is not currently connected to a network.
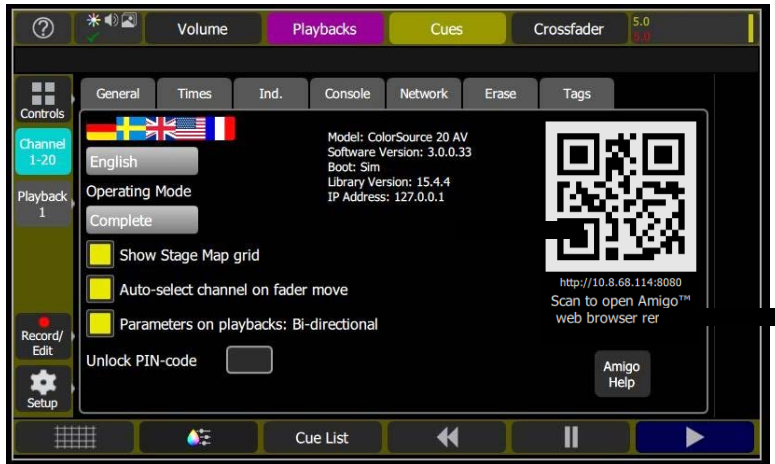
Pro Tip You can also type the console IP address into your browser to access Amigo over the network.

Pro Tip You can use any QR reader app to scan the 2D barcode.

Additional IP information can be found in the network tab.
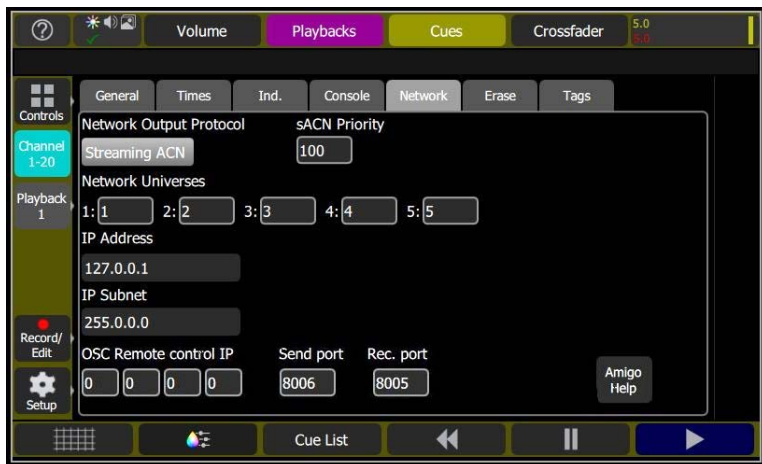
Amigo provides some additional layout options to view and control content.