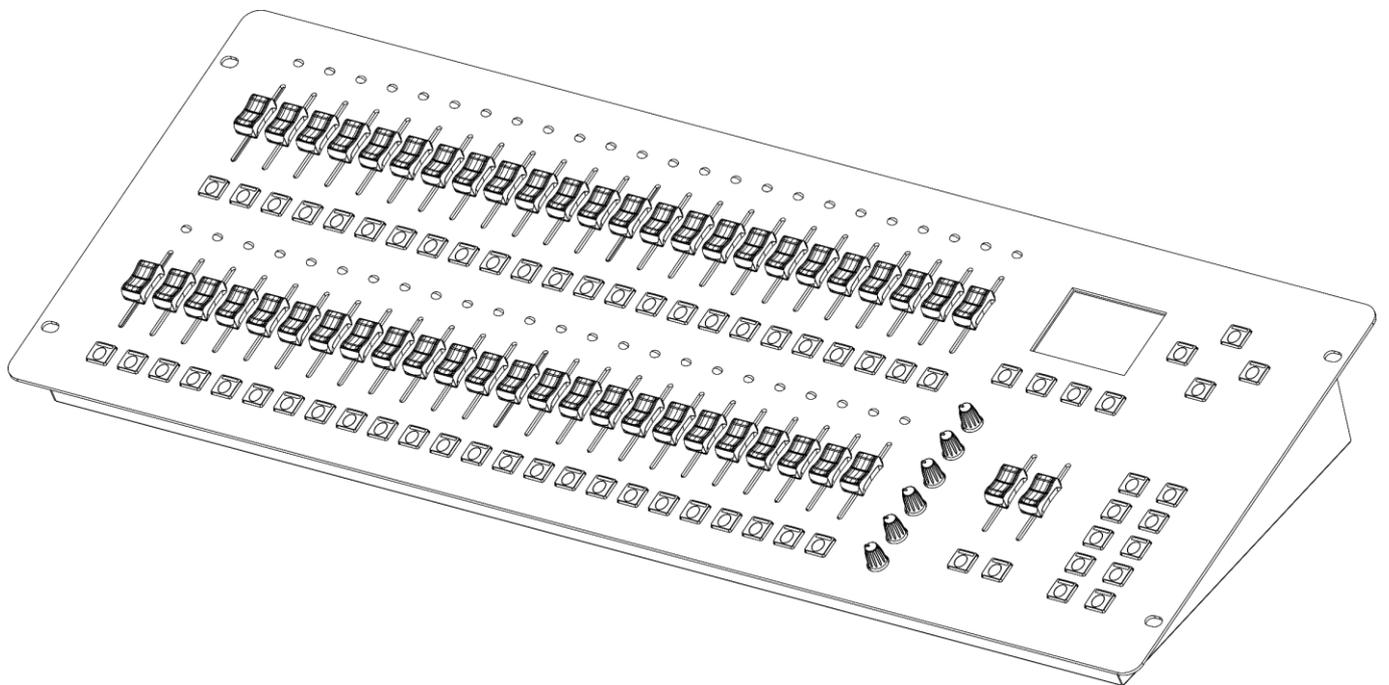




USER MANUAL



ENGLISH

ColorCue 4

V1

Product code: 50706

Preface

Thank you for purchasing this Showtec product.

The purpose of this user manual is to provide instructions for the correct and safe use of this product.

Keep the user manual for future reference as it is an integral part of the product. The user manual shall be stored at an easily accessible location.

This user manual contains information concerning:

- Safety instructions
- Intended and non-intended use of the device
- Installation and operation of the device
- Maintenance procedures
- Troubleshooting
- Transport, storage and disposal of the device

Non-observance of the instructions in this user manual may result in serious injuries and damage of property.

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1. Introduction

1.1. Before Using the Product



Important

Read and follow the instructions in this user manual before installing, operating or servicing this product.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

After unpacking, check the contents of the box. If any parts are missing or damaged, contact your Highlite International dealer.

Your shipment includes:

- Showtec ColorCue 4
- AC power adapter with 4 interchangeable AC plugs (Europe, UK, US/JP, AUS/NZ)
- User manual

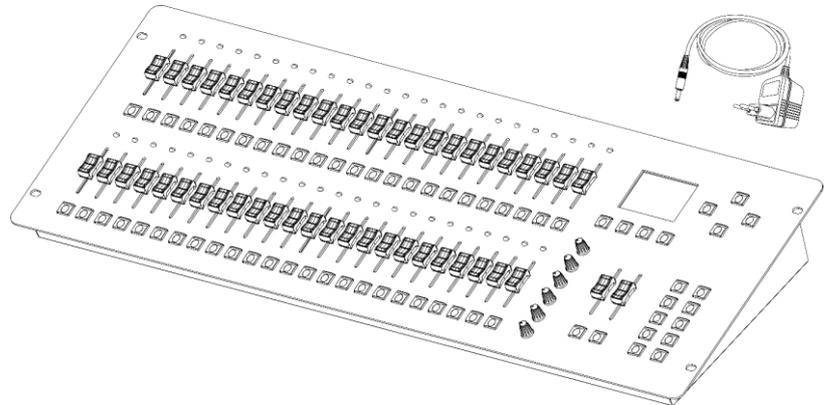


Fig. 01

1.2. Intended Use

This device is intended for use as a LED DMX controller. It is suitable only for indoor installation. It is not suitable for households.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

1.3. Product Lifespan

This device is not designed for permanent operation. Disconnect the device from the electrical power supply when the device is not in operation. This will reduce the wear and will improve the device's lifespan.

1.4. Text Conventions

Throughout the user manual the following text conventions are used:

- References: References to chapters and parts of the device are in bold lettering, for example: "Refer to **2. Safety**", "press the **power switch (03)**"
- 0–255: Defines a range of values
- Notes: **Note:** (in bold lettering) is followed by useful information or tips

1.5. Symbols and Signal Words

Safety notes and warnings are indicated throughout the user manual by safety signs.

Always follow the instructions provided in this user manual.

-  **DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
-  **WARNING** Indicates an imminently hazardous situation which, if not avoided, could result in death or serious injury.
-  **CAUTION** Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
-  **Attention** Indicates important information for the correct operation and use of the product.
-  **Important** Read and observe the instructions in this document.
-  Provides important information about the disposal of this product.

1.6. Symbols on the Information Label

This product is provided with an information label. The information label is located on the bottom plate of the device.

The information label contains the following symbols:

-  This device is designed for indoor use.
-  Read and follow the instructions in the user manual before installing, operating or servicing the device.
-  This device falls under IEC protection class II.
-  This device shall not be treated as household waste.

2. Safety



Important
Read and follow the instructions in this user manual before installing, operating or servicing this product.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

2.1. Warnings and Safety Instructions



DANGER
Danger for children

For adult use only. The device must be installed beyond the reach of children.

- Do not leave various parts of the packaging (plastic bags, polystyrene foam, nails, etc.) within children's reach. Packaging material is a potential source of danger for children.



Attention
Incorrect handling of the AC power adapter may result in hazardous situations

This device is delivered with an AC power adapter. Incorrect handling of the AC power adapter may result in hazardous situations.

- Use only the AC power adapter delivered with the device.
- Do not wrap the power cable around the power adapter or any other object. This can damage the internal wires.
- Do not cover the power adapter with anything when it is plugged into the socket-outlet. This may cause overheating.
- Do not expose the power adapter to water or other liquids.

Do not use the power adapter:

- If it shows signs of overheating, for example the plastic is damaged
- If the AC input pins show signs of corrosion or overheating
- If the power cable is damaged or shows signs of material fatigue.



Attention
General safety

- Do not shake the device. Avoid brute force when installing or operating the device.
- If the device is exposed to extreme temperature variations (e.g. after transportation), do not switch it on immediately. Let the device reach room temperature before switching it on, otherwise it may be damaged by the formed condensation.



Attention

This device shall be used only for the purposes it is designed for.

This device is designed to be used as a LED DMX controller. Any incorrect use may lead to hazardous situations and result in injuries and material damage.

This device does not contain user-serviceable parts. Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.



Attention

Do not expose the device to conditions that exceed the rated IP class conditions.

This device is IP20 rated. IP (Ingress Protection) 20 class provides protection against solid objects greater than 12 mm, such as fingers, and no protection against harmful ingress of water.

2.2. Requirements for the User

This product may be used by ordinary persons. Maintenance and installation may be carried by ordinary persons. Service shall be carried out only by instructed or skilled persons. Contact your Highlite International dealer for more information.

Instructed persons have been instructed and trained by a skilled person, or are supervised by a skilled person, for specific tasks and work activities associated with the service of this product, so that they can identify risks and take precautions to avoid them.

Skilled persons have training or experience, which enables them to recognize risks and to avoid hazards associated with the service of this product.

Ordinary persons are all persons other than instructed persons and skilled persons. Ordinary persons include not only users of the product but also any other persons that may have access to the device or who may be in the vicinity of the device.

3. Description of the Device

The Showtec ColorCue 4 is a LED DMX controller featuring 2 master faders, 48 fixture intensity faders, 6 color rotary encoders, 48 memory buttons for colors/chases/user memories. It can control up to 48 RGBWA-UV fixtures.

3.1. Top View – Fixtures/Paybacks Section

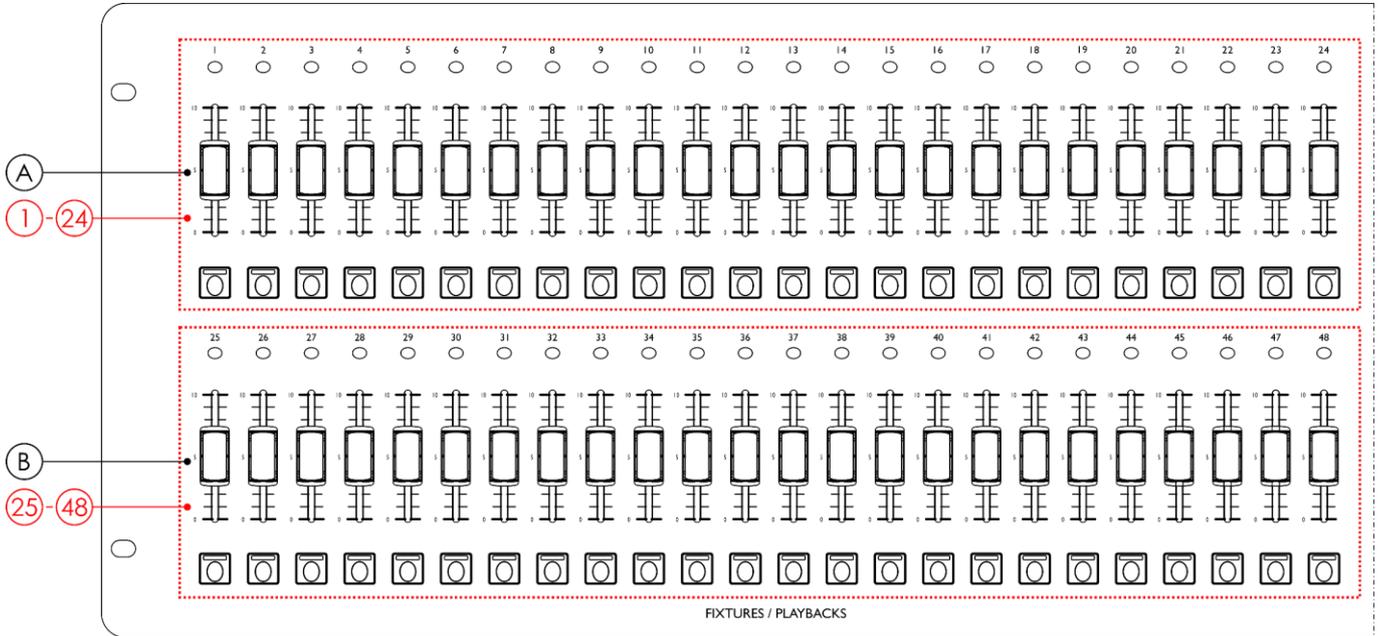


Fig. 02

- A) FIXTURES (Flash)/PLAYBACKS buttons with LEDs **(01)–(24)** and faders with LEDs **(01)–(24)** (BANK A)
- B) FIXTURES (Flash)/PLAYBACKS buttons with LEDs **(25)–(48)** and faders with LEDs **(25)–(48)** (BANK B)

3.2. Top View – Modes/Functions Section

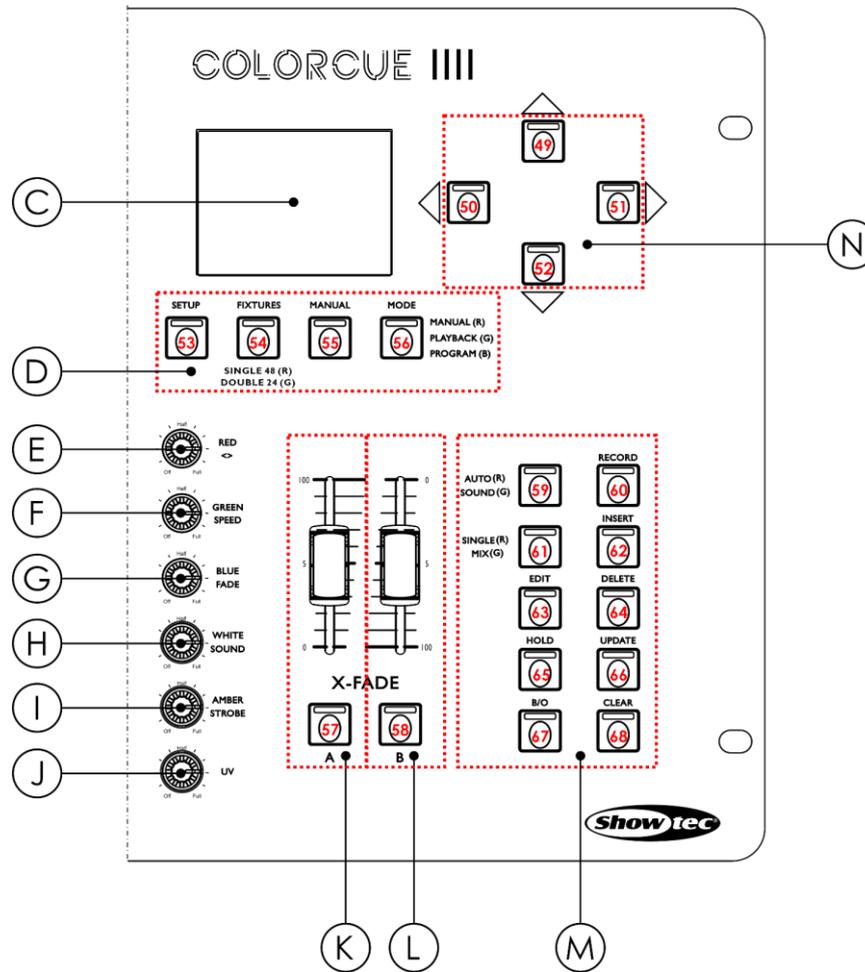


Fig. 03

- | | |
|--------------------------------------|---|
| C) LCD display | I) AMBER/STROBE control |
| D) Modes buttons with LEDs (53)–(56) | J) UV control |
| E) RED/DIRECTION control | K) BANK A master fader and flash button with LED (57) |
| F) GREEN/SPEED control | L) BANK B master fader and flash button with LED (58) |
| G) BLUE/FADE control | M) Function buttons with LEDs (59)–(68) |
| H) WHITE/SOUND control | N) UP/DOWN and LEFT/RIGHT buttons with LEDs (49)–(52) |

3.3. Back View

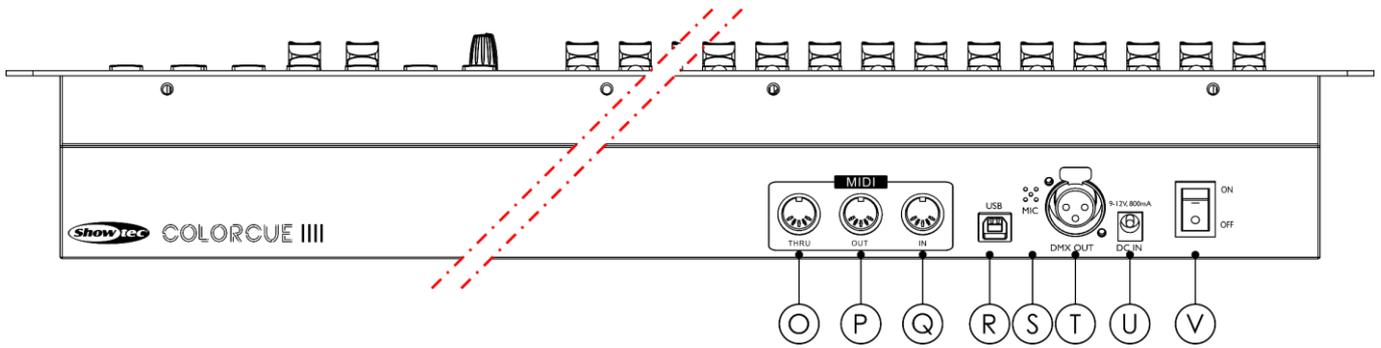


Fig. 04

- O) MIDI connector THRU
- P) MIDI connector OUT
- Q) MIDI connector IN
- R) USB connector (no function)
- S) Microphone
- T) 3-pin DMX connector OUT
- U) DC input connector
- V) Power switch ON/OFF

3.4. Product Specifications

Model:	ColorCue 4	
Electrical:		
Input voltage:	9–12 V DC	
Input current:	0,8 A	
Power consumption:	15 W	
AC power adapter:		
Input voltage:	100–240 V AC, 50/60 Hz	
Input current:	0,5 A max	
Output voltage:	12 V DC	
Output current:	1,5 A	
Physical:		
Dimensions:	720 x 265 x 80 mm (L x W x H)	
Installation depth:	100 mm	
Weight:	5,6 kg	
Operation and control:		
Fixtures:	48	
Fixture channels:	6 DMX channels per fixture	
Playback faders:	48	
Master faders:	2	
Playback keys:	48	
Parameter controls:	6	
Memories:	1000	
Control protocol:	DMX-512	
Display:	LED	
Connections:		
Power connection:	DC input connector	
MIDI:	5-pin MIDI connectors THRU/OUT/IN	
Input connections:	USB input connector (no function)	
Output connections:	3-pin DMX connector OUT	
Construction:		
Housing:	Metal	
Color:	Gray	
IP rating:	IP20	
Cooling:	Natural heat dissipation	
Thermal:		
Maximum ambient temperature t_a :	40 °C	
Maximum housing temperature t_c :	40 °C	

3.5. Optional Accessories

There is flight case available for ColorCue 4. The flight case can be purchased separately. Contact your Highlite International dealer for more information.

Product code: D7408 (Case for ColorCue 4)

3.6. Dimensions

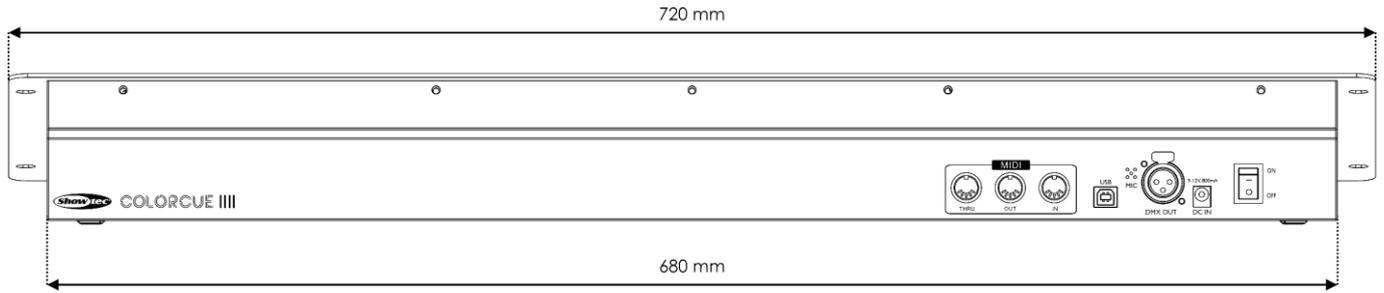


Fig. 05

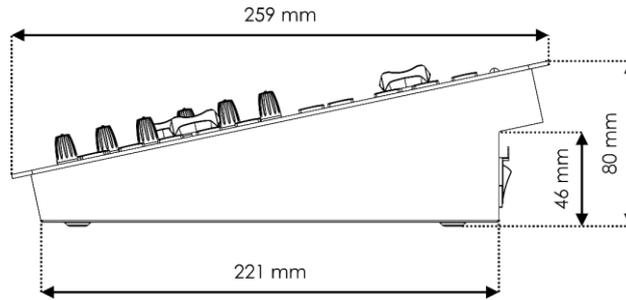


Fig. 06

3.6.1. Mounting Dimensions

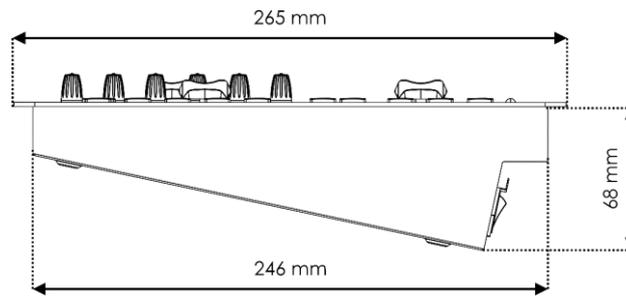


Fig. 07

4. Installation

4.1. Installation Site Requirements

- The device must be installed only indoors.
- The device can be placed on a stable, flat surface, or mounted vertically or horizontally in an opening.
- The device can be operated from the optional flight case. See **3.5. Optional Accessories** on page 11 for more information.
- The maximum ambient temperature $t_a = 40\text{ °C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 40 °C.

4.2. Mounting

The device can be mounted vertically or horizontally in an opening. Make sure that there is enough space for ventilation and for the connected cables. See **3.6.1. Mounting Dimensions** on page 12.

Fasten the device with 4 screws to the mounting surface.

4.3. Connecting to Power Supply



Attention
Incorrect handling of the AC power adapter may result in hazardous situations

This device is delivered with an AC power adapter. Incorrect handling of the AC power adapter may result in hazardous situations.

Connect the device to the socket-outlet with the delivered AC power adapter. Use only the AC power adapter delivered with the device.

5. Setup

5.1. Warnings and Precautions



Attention
Connect all data cables before supplying power.
Disconnect power supply before connecting or disconnecting data cables.

5.2. DMX Connection

5.2.1. DMX-512 Protocol

DMX-512 is a communication protocol used to control stage lighting and effects.

Devices on a serial data link must be daisy-chained in a single line. To comply with the TIA-485 standard, no more than 32 devices should be connected on one data link.

In order to connect more than 32 devices on one data link, you can use a DMX optically isolated splitter/booster. If no splitter/booster is used, this may result in deterioration of the DMX signal.

5.2.2. DMX Cables

Shielded twisted-pair cables with 3-pin XLR connectors must be used for reliable DMX connection. You can purchase DMX cables directly from your Highlite International dealer or make your own cables.

If you use XLR audio cables for DMX data transmission, this may lead to signal degradation and unreliable operation of the DMX network.

When you make your own DMX cables, make sure that you connect the pins and wires correctly as shown in Fig. 06.

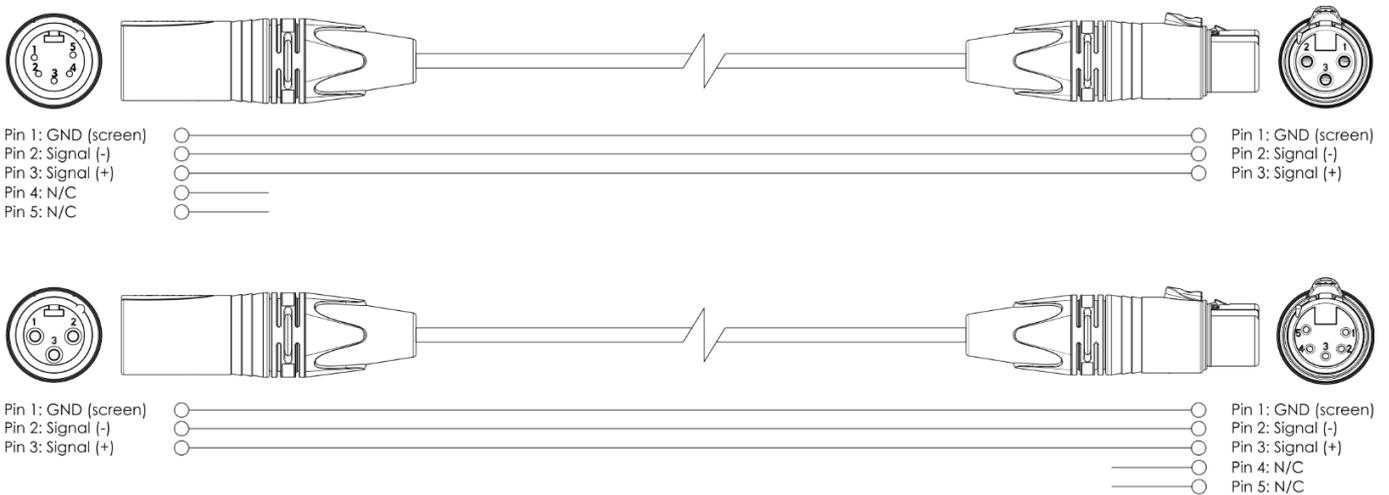


Fig. 08

5.3. Setup Example

The ColorCue 4 can control up to 48 fixtures with up to 6 channels (RGBWA/UV) per fixture. It is suitable for small theatres and venues. Fig. 09 and Fig. 10 show a typical setup with ColorCue 4 as a LED controller.

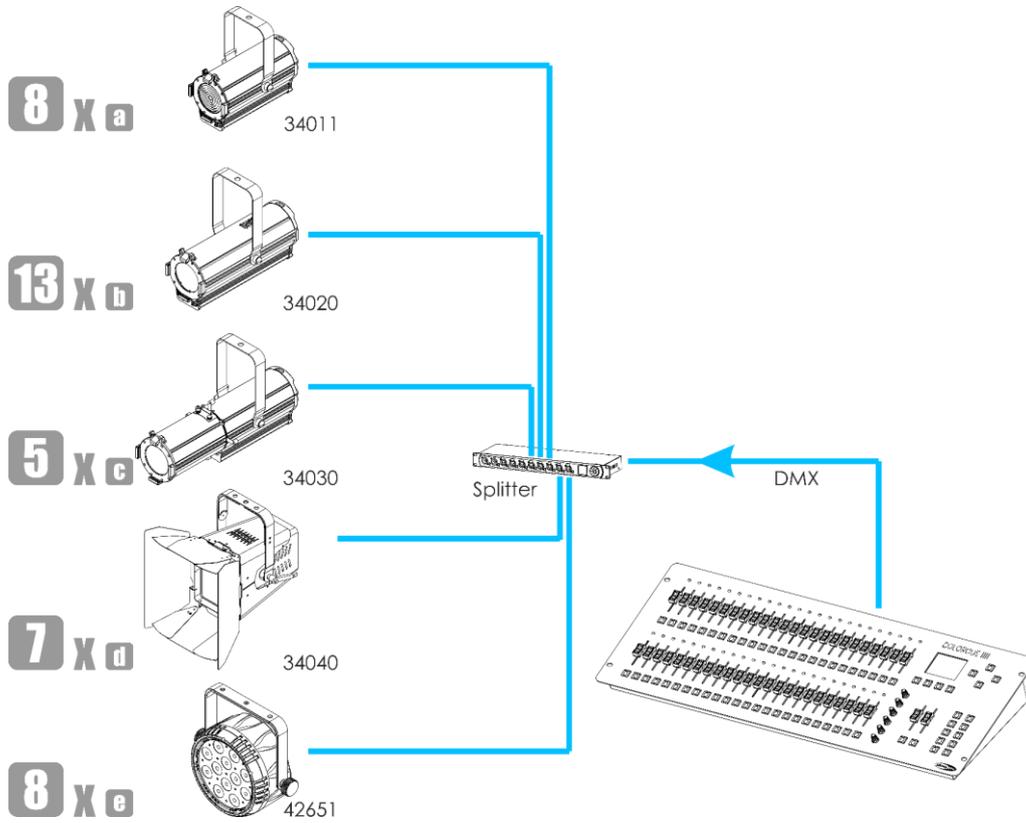


Fig. 09

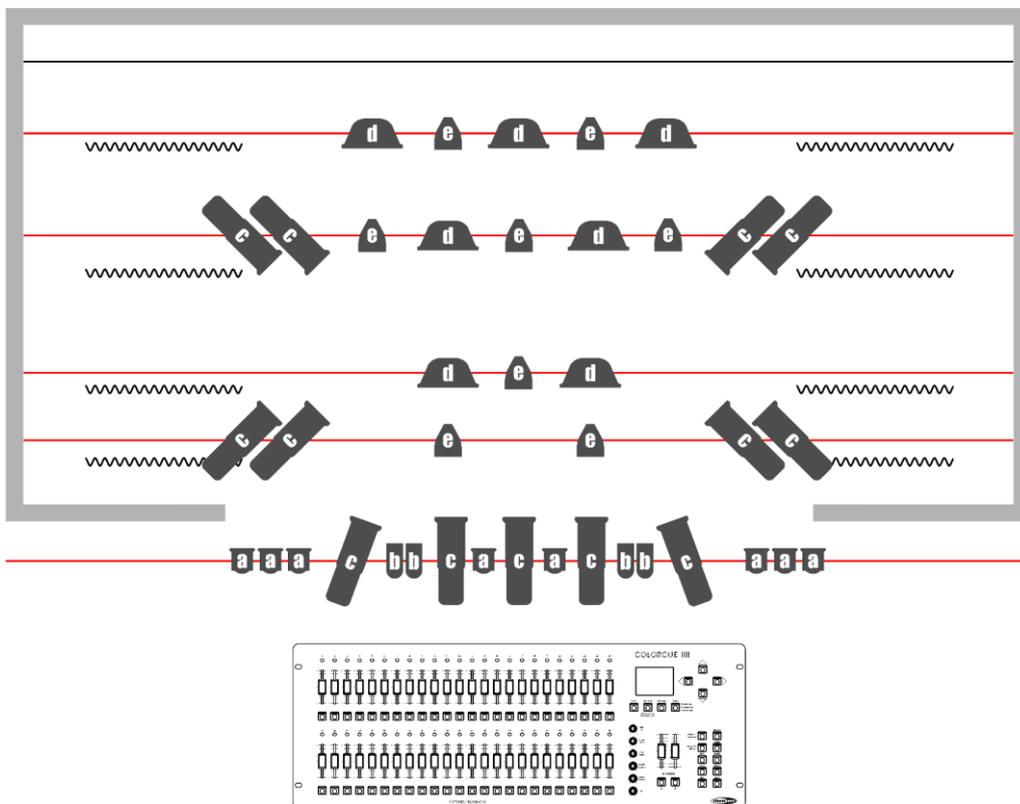


Fig. 10

6. Operation

6.1. Safety Instructions for Operation



Attention

This device must be used only for the purposes it is designed for.

This device is intended for use as a LED DMX controller. It is suitable only for indoor installation. It is not suitable for households.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

6.2. Start-up

The device has a power switch.

- Press the **power switch (V)** in ON position to turn on the ColorCue 4.
- Press the **power switch (V)** in OFF position to turn off the ColorCue 4.

6.3. Setup Mode

In this mode you can select the type of the LEDs of the connected lighting fixture(s) and the MIDI address of the device.

The setup mode screen provides information about the MIDI address of the device, the LEDs type of the connected fixtures, the starting DMX address of the last connected fixture, whether the default settings of the fixtures are active, and the firmware version.

```

SETUP MODE           Software:
MIDI ADDR:01        V0.8
FIXTURE: RGBWA/UV
DMX: 001
Default Mode: YES
  
```

- 01) Press and hold down the **SETUP button (53)** for 3 seconds to enter setup mode. The LED on the button will start blinking.

Refer to **6.3.1. LEDs Type Setup** on page 17 and to **6.3.3. MIDI Address Setup** on page 18 for more information about the available settings in this mode.

- 02) Press and hold down the **SETUP button (53)** for 3 seconds to exit setup mode. The LED on the button will stop blinking.

6.3.1. LEDs Type Setup

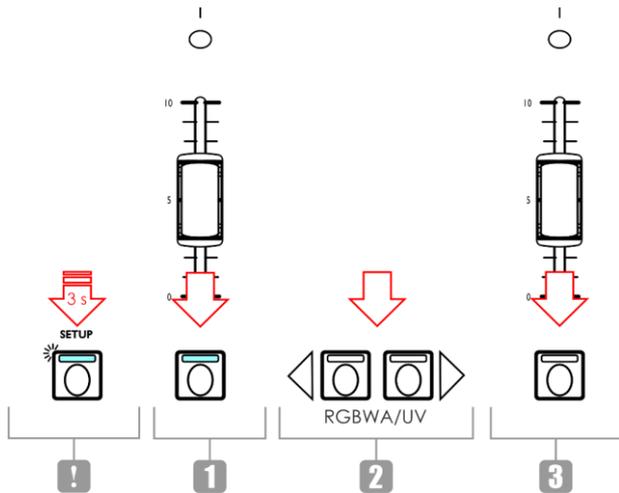


Fig. 11

- 01) In setup mode, press one or more **FIXTURES buttons (01)–(48)** to select the fixture(s) for which you want to set up the LEDs type. You can select multiple fixtures at the same time. The LEDs on the selected buttons will light up.
- 02) Press the **LEFT/RIGHT buttons (50)/(51)** to select the LEDs type of the fixture. The available options are:
 - RGB
 - RGBW
 - RGBA
 - RGBWA
 - RGBAW
 - RGBW/UV
 - RGBA/UV
 - RGBWA/UV (default mode)
 - RGBAW/UV
 - Dimmer (white only)
- 03) Press the **FIXTURES buttons (01)–(48)** once again to cancel the selection of the fixtures in step 1. The LEDs on the buttons will turn off. Do not do steps 3 and 4, if the LEDs type for all connected fixtures is the same.
- 04) Repeat steps 1–3 to set up the LEDs types for the remaining fixtures, which have different LEDs type.

6.3.2. DMX Starting Address of the Connected Fixtures

The ColorCue 4 calculates automatically the starting DMX address of each connected fixture depending on the LEDs type setup. Each color is controlled on a separate DMX channel. However, there are no reserved DMX channels for each color and only the active channels are used.

For example, if you want to connect 3 fixtures with RGB LEDs and 3 fixtures with RGBWA/UV LEDs, the starting DMX address of the connected 6 fixtures will be as follows:

Fixture	FIXTURES button	LEDs Type	Channels	Starting DMX address
Fixture 1	01	RGB	3	001
Fixture 2	02	RGB	3	004
Fixture 3	02	RGB	3	007
Fixture 4	04	RGBWA/UV	6	010
Fixture 5	05	RGBWA/UV	6	016
Fixture 6	06	RGBWA/UV	6	022
...

The starting DMX address of the last selected fixture is displayed on the setup mode screen.

- Approach 1: If you want to note down the starting DMX addresses, select one fixture first, change the LEDs type and then select the next fixture. Thus, each time the screen will display the correct starting DMX address of each fixture.
- Approach 2: If you select all fixtures first and then set the LEDs type, only the starting DMX address of the last fixture will be displayed on the screen.

There are no functional differences between Approach 1 and 2.

6.3.3. MIDI Address Setup

In setup mode press the **UP/DOWN buttons (49)/(52)** to assign the MIDI address of the ColorCue 4. The selection range is 1–16. Refer to **6.10. MIDI Implementation Chart** on page 32 for more information.

6.4. Control Modes

The device has 2 control modes:

- double (24-fixture) mode, and
- single (48-fixture) mode.

Press the **FIXTURES button (54)** to toggle between double and single control mode. In single mode the LED on the button will light up in **red** and in double mode in **green**.

6.4.1. Double (24-Fixtures) Mode

In double (24-fixtures) mode you can control up to 24 fixtures. You can create scenes in Bank A and Bank B. In manual operating mode you can crossfade between the scenes in Bank A and Bank B.

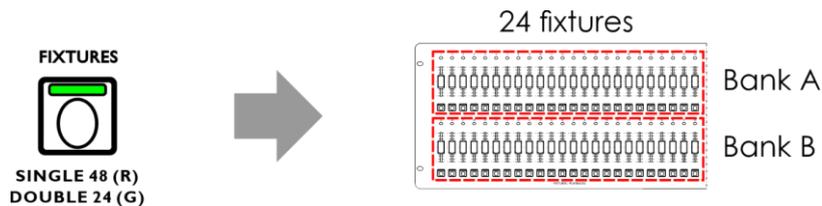


Fig. 12

In double (24-fixtures) mode:

- The **FIXTURES buttons** and **faders (01)–(24)** control Bank A scene values of the connected up to 24 fixtures
- The **FIXTURES buttons** and **faders (25)–(48)** control Bank B scene values of the connected up to 24 fixtures.
- The **BANK A master fader** and **flash button (K)** control the output of Bank A.
- The **BANK B master fader** and **flash button (L)** control the output of Bank B.

6.4.2. Single (48-Fixtures) Mode

In single (48-fixtures) mode you can control up to 48 fixtures. You can create single scenes. It is not possible to work with Bank A and Bank B scenes in this mode. You can transition between the scenes without crossfading.

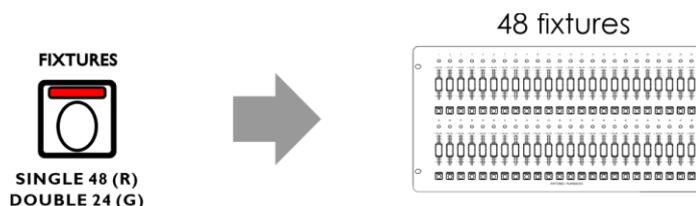


Fig. 13

In single (48-fixtures) mode:

- The **FIXTURES buttons** and **faders (01)–(48)** control the connected up to 48 fixtures.
- The **BANK A master fader** and **flash button (K)** act as master fader and flash button for all connected fixtures.
- The **BANK B master fader** and **flash button (L)** have no function.

6.5. Operating Functions

6.5.1. Color Selection Mode vs. Parameter Selection Mode

The **controls (E)–(I)** have double function.

Press the **MANUAL button (55)** to toggle between the two functions. In color selection mode, the LED on the **MANUAL button (55)** is on. In parameter selection mode the **MANUAL button (55)** is off.

Notes:

- Enabling one mode automatically disables the other mode.
- The **UV control (J)** does not have a double function. It functions only in color selection mode.

6.5.1.1. Color Selection Mode

You can adjust the intensity of the colors (red, green, blue, white, amber and UV) of the connected fixtures.

When the LED on the **MANUAL button (55)** is **ON**, the color selection mode is enabled and you can adjust the colors with the **controls (E)–(J)**.



Fig. 14

In color selection mode you will first need to fetch the last output value of the respective color. Turn the **controls (E)–(J)** clockwise or counterclockwise to fetch the value and return to zero. The display will show 000 for the respective color.

6.5.1.2. Parameter Selection Mode

You can adjust direction, speed, and fade in a chase. You can also adjust the sound sensitivity and add strobe effect to a chase/scene.

When the LED on the **MANUAL button (55)** is **OFF**, the parameter selection mode is enabled and you can adjust the parameters with the controls **(E)–(I)**.



Fig. 15

6.5.2. Strobe

You can add strobe effect at any time during playback of a scene or a chase.

- 01) Make sure that parameter selection mode is enabled. See **6.5.1.2. Parameter Selection Mode** on page 19.
- 02) Turn the **STROBE control (I)** to add strobe effect. The adjustment range is from OFF to FULL, from low to high frequency.

Note:

The strobe effect is a virtual strobe and cannot be recorded in a scene or a chase. If the fixture does not have a strobe channel, you can still add strobe effect by using the virtual strobe created by the ColorCue4.

6.5.3. Blackout

You can activate the blackout function at any time during playback of a scene or a chase.

Press the **BLACKOUT (B/O) button (67)** to black out the light output of all fixtures. The LED on the button will start blinking.

6.5.4. Flash

You can activate the flash function at any time during playback of a scene or a chase.

Press one of the **master flash buttons (57)/(58)** or any of the **FIXTURES flash buttons (01)–(48)** to activate the flash function. The LED on the button will light up. The light intensity of the selected fixture(s) will go to 100 %. When you release the button, the light intensity will return to the value selected with the fader.

Note:

If the device is in single (48-fixtures) mode, the **flash button (58)** has no function. See **6.4. Control Modes** on pages 18–19 for more information.

6.5.5. Hold

You can activate the hold function at any time during manual control or during playback of a scene or a chase.

Press the **HOLD button (65)** to hold the current scene. The LED on the button will light up. In playback mode HOLD will be displayed on the screen.

In manual mode, if the hold function is activated, you can make changes to the color and light intensity of the connected fixtures without outputting the changes live.

6.5.6. Clear the Programmer

Before exiting programming mode, you need to clear the programmer.

- 01) Make sure that color selection mode is enabled. See **6.5.1.1. Color Selection Mode** on page 19.
- 02) Press the **CLEAR button (68)** to clear any value, set with the **controls (E)–(J)**. The LED on the button will light up.

6.6. Manual Operating Mode

In this mode you can manually create scenes and transition between the scenes.

The manual mode screen provides information about the color values and the selected fixtures.

MANUAL MODE												
RED:	255	GREEN:	000	BLUE:	050							
WHITE:	000	AMBER:	000	UV:	000							
FIX:	01	02	03	04	05	06	07	08	09	10	11	12
	13	14	15	16	17	18	19	20	21	22	23	24
	25	26	27	28	29	30	31	32	33	34	35	36
	37	38	39	40	41	42	43	44	45	46	47	48

Press the **MODE button (56)** repeatedly until the LED on the button lights up in **red** to select manual mode.

6.6.1. Create a Scene in Bank A (Double Control Mode)

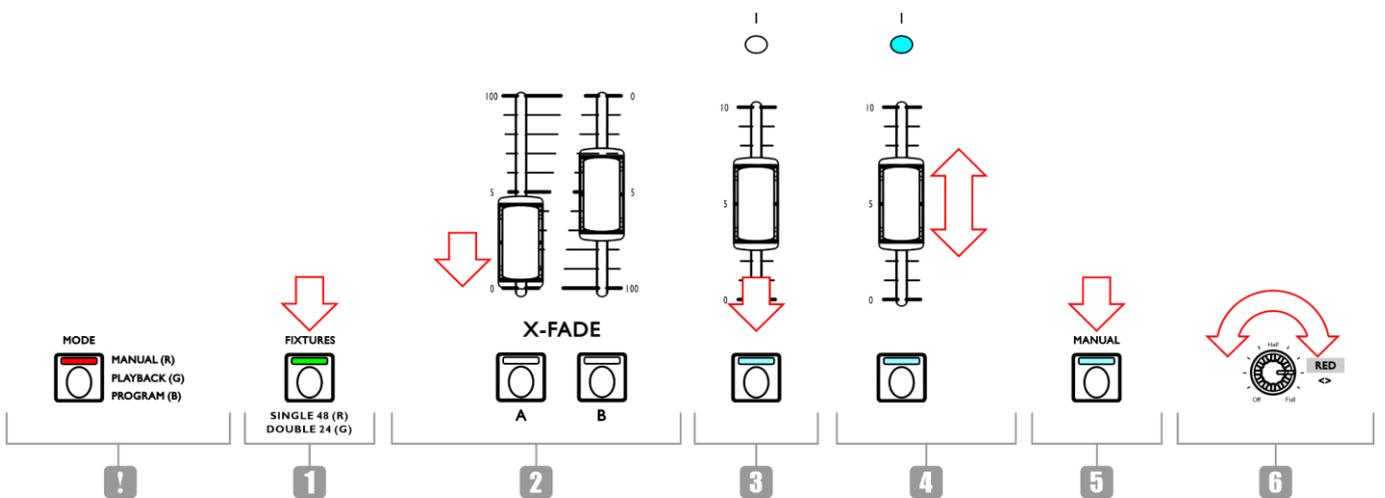


Fig. 16

- 01) Make sure that the device is in double (24-fixture) control mode. See **6.4. Control Modes** on pages 18–19 for more information.
- 02) Set the **BANK A master fader (K)** to 0, if you do not want to output the scene live while you are creating it. If you set the **BANK A master fader (K)** to any other value, any changes you make will be output live.
- 03) Press one or more **FIXTURES buttons (01)–(24)** to select the fixture(s) you want to control. The LED(s) on the button(s) will light up. If you want to have the same color for all connected fixtures, press all **FIXTURES buttons (01)–(24)**. If you want to have different colors for each of the connected fixtures, select only one fixture at this step. You can also select multiple fixtures, if you want to have one color on more than one fixture. The selected fixtures will be highlighted on the display.
- 04) Slide the **BANK A fixtures faders (01)–(24)** to adjust the light intensity of the connected fixtures, selected in step 3. The LEDs above the fixtures faders will light up.
- 05) Make sure that the color selection mode is enabled. See **6.5.1.1. Color Selection Mode** on page 19.
- 06) Turn the **controls (E)–(J)** to select the desired color. The available colors are red, green, blue, white, amber and UV. Turning the control clockwise will increase the color intensity. The display will show the color value in the range 0–255. If you want to clear a selection, press the **CLEAR button (68)**.
- 07) If you want to select different colors for different fixtures, press the **FIXTURES button(s) (01)–(24)** once again to cancel the selection of the fixture(s) you have made in step 3. The LED(s) on the button(s) will turn off. Do not do steps 7 and 8, if you have selected the same color for all connected fixtures.
- 08) Repeat steps 3–6 to select colors for the remaining fixtures.

6.6.2. Create a Scene in Bank B (Double Control Mode)

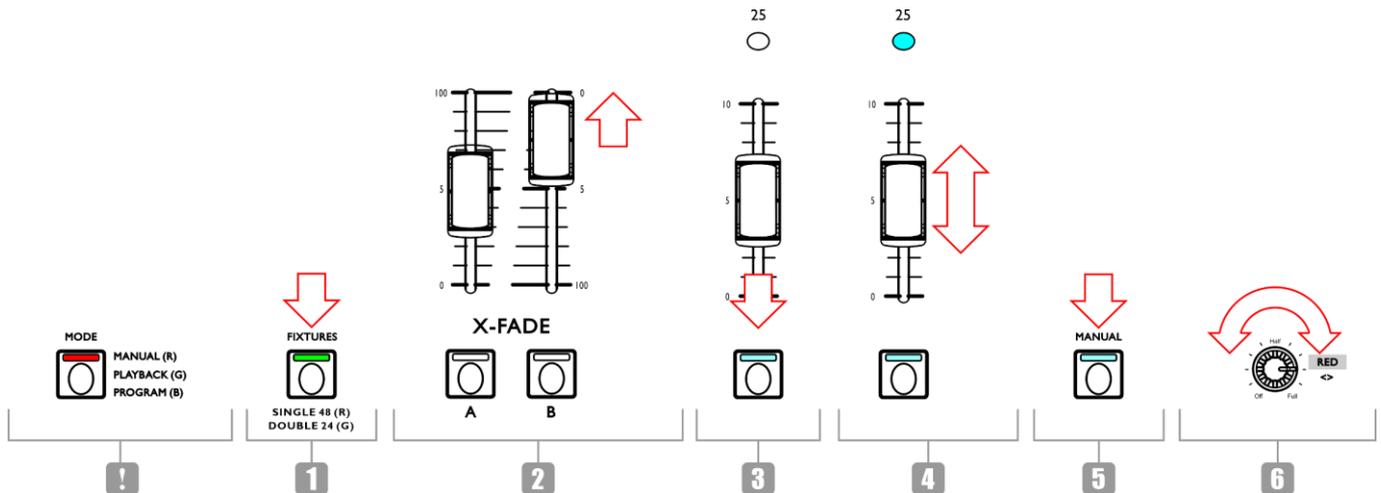


Fig. 17

- 01) Make sure that the device is in double (24-fixture) control mode. See **6.4. Control Modes** on pages 18–19 for more information.
- 02) Set the **BANK B master fader (L)** to 0, if you do not want to output the scene live while you are creating it. If you set the **BANK B master fader (L)** to any other value, any changes you make will be output live.
- 03) Press one or more **FIXTURES** buttons (25)–(48) to select the fixture(s) you want to control. The LED(s) on the button(s) will light up. If you want to have the same color for all connected fixtures, press all **FIXTURES** buttons (25)–(48). If you want to have different colors for each of the connected fixtures, select only one fixture at this step. You can also select multiple fixtures, if you want to have one color on more than one fixture. The selected fixtures will be highlighted on the display.
- 04) Slide the **BANK B fixtures faders** (25)–(48) to adjust the light intensity of the connected fixtures, selected in step 3. The LEDs above the fixtures faders will light up.
- 05) Make sure that the color selection mode is enabled. See **6.5.1.1. Color Selection Mode** on page 19.
- 06) Turn the **controls** (E)–(J) to select the desired color. The available colors are red, green, blue, white, amber and UV. Turning the control clockwise will increase the color intensity. The display will show the color value in the range 0–255. If you want to clear a selection, press the **CLEAR** button (68).
- 07) If you want to select different colors for different fixtures, press the **FIXTURES** button(s) (25)–(48) once again to cancel the selection of the fixture(s) you have made in step 3. The LED(s) on the button(s) will turn off. Do not do steps 7 and 8, if you have selected the same color for all connected fixtures.
- 08) Repeat steps 3–6 to select colors for the remaining fixtures.

6.6.3. Crossfade between Bank A and Bank B (Double Control Mode)

- 01) Create a scene in BANK A. Refer to **6.6.1. Creating a Scene in Bank A** on page 21.
- 02) Slide the **BANK A master fader (K)** to 100 to output the scene and at the same time slide the **BANK B master fader (L)** to 0.
- 03) Create a scene in Bank B. Refer to **6.6.2. Creating a Scene in Bank B** on page 22.
- 04) Slide the **BANK B master fader (L)** to 100 to output the scene and at the same time slide the **BANK A master fader (K)** to 0.

You can continue crossfading between Bank A and Bank B by sliding the **master faders (K)** and **(L)** up and down, or you can repeat steps 1–4, each time creating a new scene in Bank A and Bank B.

6.6.4. Create a Scene (Single Control Mode)

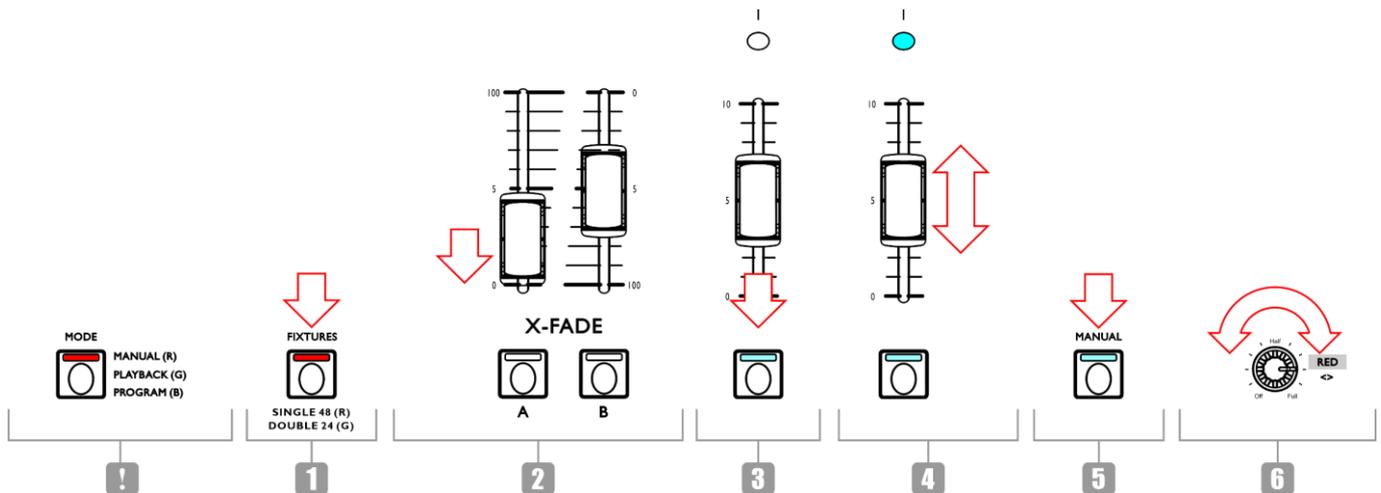


Fig. 18

- 01) Make sure that the device is in single (48-fixture) control mode. See **6.4. Control Modes** on pages 18–19 for more information.
- 02) Set the **master fader (K)** to 0, if you do not want to output the scene live while you are creating it. If you set the **master fader (K)** to any other value, any changes you make will be output live.
- 03) Press one or more **FIXTURES buttons (01)–(48)** to select the fixture(s) you want to control. The LED(s) on the button(s) will light up. If you want to have the same color for all connected fixtures, press all **FIXTURES buttons (01)–(48)**. If you want to have different colors for each of the connected fixtures, select only one fixture at this step. You can also select multiple fixtures, if you want to have one color on more than one fixture. The selected fixtures will be highlighted on the display.
- 04) Slide the **FIXTURES faders (01)–(48)** to adjust the light intensity of the connected fixtures, selected in step 3. The LEDs above the fixtures faders will light up.
- 05) Make sure that the color selection mode is enabled. See **6.5.1.1. Color Selection Mode** on page 19.
- 06) Turn the **controls (E)–(J)** to select the desired color. The available colors are red, green, blue, white, amber and UV. Turning the control clockwise will increase the color intensity. The display will show the color value in the range 0–255. If you want to clear a selection, press the **CLEAR button (68)**.
- 07) If you want to select different colors for different fixtures, press the **FIXTURES button(s) (01)–(48)** once again to cancel the selection of the fixture(s) you have made in step 3. The LED(s) on the button(s) will turn off. Do not do steps 7 and 8, if you have selected the same color for all connected fixtures.
- 08) Repeat steps 3–6 to select colors for the remaining fixtures.
- 09) Slide the **BANK A master fader (K)** to 100 to output the scene. Do not do this step, if you have already set the **BANK A master fader (K)** to 100.

6.6.5. Transition between Scenes (Single Control Mode)

- 01) Create a scene following the instructions in **6.6.4. Create a Scene** on page 23.
- 02) Press the **HOLD button (65)** to hold the output colors and intensities of the connected fixtures. The LED on the button will light up.
- 03) Set the output colors and intensities for the next scene. The new values will not be output.
- 04) Press the **HOLD button (65)** once again to output the scene. The LED on the button will turn off.
- 05) Repeat steps 1–4 to create each time a new scene and to transition between the two scenes.

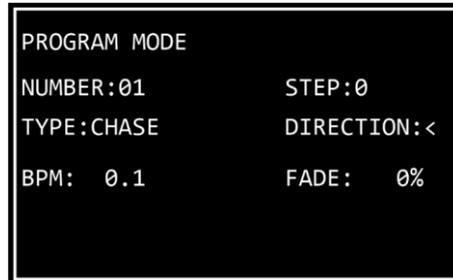
Note:

Transitioning between scenes in single (48-fixtures) mode is without crossfading.

6.7. Programming Mode

In this mode you can program and edit scenes and chases. The scenes and chases can be assigned to the 48 **PLAYBACKS buttons (A)–(B)**.

The programming mode screen provides information about the selected **PLAYBACKS** button number, the step number, the direction of the chase, the playback speed of the chase in bpm (beats per minute) and the fade percentage. The programming screen appears after you press the **RECORD button (60)** in step 2 in **6.7.1. Record a Scene** (see pages 24–25) and **6.7.2. Record a Chase** (see page 25).



- Press and hold down the **MODE button (56)** for 3 seconds to enter programming mode. The LED on the button will light up in **blue**.
- Press and hold down the **MODE button (56)** again for 3 seconds to exit programming mode. The LED on the button will light up in **red** and the device will return to manual mode.

Note:

Before exiting programming mode, make sure that you clear the programmer. See **6.5.6. Clear the Programmer** on page 20 for more information.

6.7.1. Record a Scene

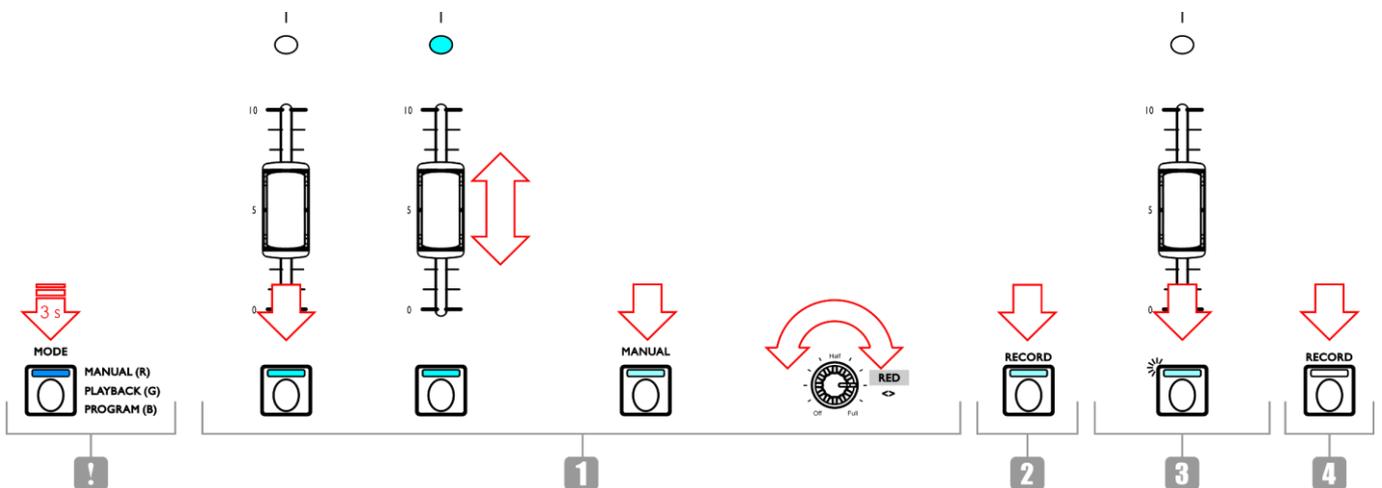


Fig. 19

- 01) Create a scene:
 - Double (24-fixture) mode – follow steps 3–8 from **6.6.1. Create a Scene in Bank A** on page 21. The concept of Bank A and Bank B is not applicable in programming mode. Therefore the connected fixtures can be selected only with the **FIXTURES buttons** and **faders (01)–(24)**.
 - Single (48-fixture) mode – follow steps 3–8 from **6.6.4. Create a Scene** on page 23.
- 02) Press the **RECORD button (60)** to start recording. The LED on the button will light up.
- 03) Press one of the **PLAYBACKS buttons (01)–(48)** to which you want to assign the scene. The LED on the button will start blinking.

Note:

If a **PLAYBACKS button (01)–(48)** is not free and has a scene assigned to it, the LED on the button will be on.

- 04) Press the **RECORD button (60)** once again to store the scene. The LED on the button will turn off.
- 05) Clear the programmer.

6.7.2. Record a Chase

A chase is a sequence of steps. Each step is a static scene.

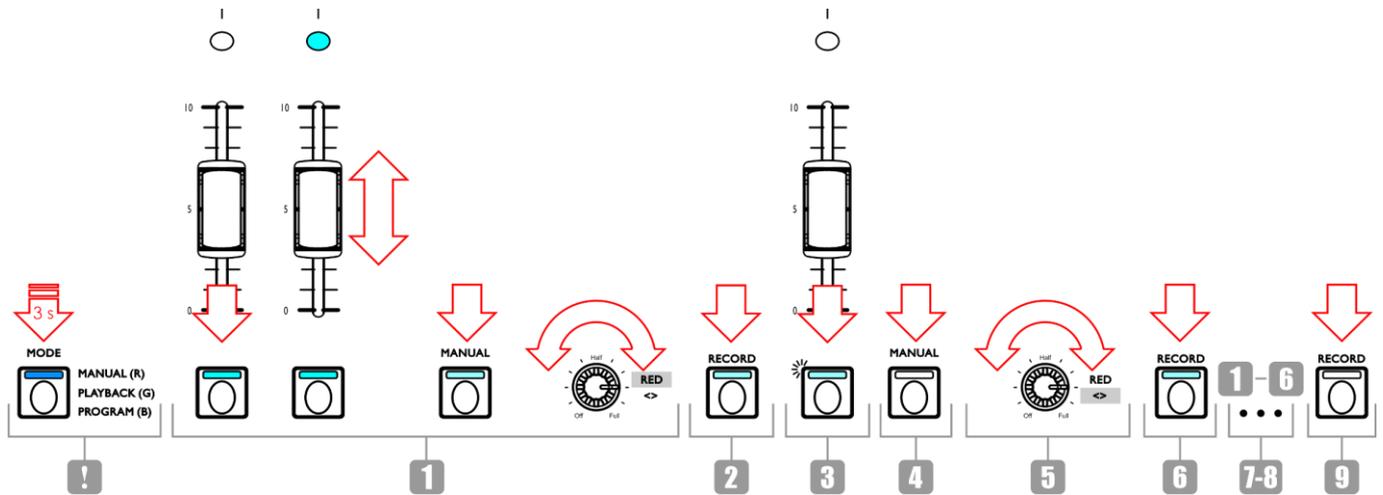


Fig. 20

- 01) Create a scene:
 - Double (24-fixture) mode – follow steps 3–8 from **6.6.1. Create a Scene in Bank A** on page 21. The concept of Bank A and Bank B is not applicable in programming mode. Therefore the connected fixtures can be selected only with the **FIXTURES buttons** and **faders (01)–(24)**.
 - Single (48-fixture) mode – follow steps 3–8 from **6.6.4. Create a Scene** on page 23.
- 02) Press the **RECORD button (60)** to start recording. The LED on the button will light up.
- 03) Press one of the **PLAYBACKS buttons (01)–(48)** to which you want to assign the chase. The LED on button will start blinking.

Note:

If a **PLAYBACKS button (01)–(48)** is not free and has a scene assigned to it, the LED on the button will be on.

- 04) Make sure that the parameter selection mode is enabled.
- 05) Set the chase parameters: direction, speed and fade. See **6.7.3. Chase Parameters** on page 26 for more information.
- 06) Press the **RECORD button (60)** to record the step. The LED on the button will light up.
- 07) Repeat steps 1 and 6 to create the next step in the chase.
- 08) Continue repeating steps 1 and 6 to create all steps in the chase.
- 09) Press the **RECORD button (60)** to finish recording. The LED on the button will turn off.

Notes:

- Make sure you wait 1 second before you press the **RECORD button (60)** to finish the recording in step 9. As the last step from recording a scene (see step 6 above) is pressing the **RECORD button (60)**, you need to wait 1 second before pressing the button again to finish the recording.
 - One chase can have up to 100 steps. The maximum number of steps for all recorded chases is limited to 1000 steps in total.
- 10) Clear the programmer.

6.7.3. Chase Parameters

When you create a chase you can additionally set the following parameters:

- direction in which the steps will be played back
- playback speed of a step
- fade percentage between the steps.

You can adjust those parameters after you have created the first step in the chase. The settings will be applied to all steps in the chase.

It is possible to have multiple steps in a chase with different speeds. To change the speed after each step, perform step 5 from **6.7.1. Record a Chase** (see pages 24–25) straight after step 1. Continue repeating steps 1, 4, 5 and 6 to create the remaining steps in the chase.

It is not possible to have a different chase direction and fade percentage between the steps in a chase.

Make sure that the parameter selection mode is enabled and the LED on the **MANUAL button (55)** is **OFF**. See **6.5.1. Color Selection Mode vs. Parameter Selection Mode** on page 19 for more information.

6.7.3.1. Direction

Turn the **DIRECTION control (E)** to set the direction of the chase. There are 3 options available:

- **Off** position (<) – the chase will play back in reverse order. The direction of the chase will be displayed on the screen as <.
- **Half** position (<>) – the chase will bounce back and forth. The direction of the chase will be displayed on the screen as <>.
- **Full** position (>) – the chase will play back forwards. The direction of the chase will be displayed on the screen as >.

6.7.3.2. Speed

Turn the **SPEED control (F)** to set the speed of the chase. The adjustment range is between 0.1 and 600 bpm (beats per minute). The speed will be displayed on the screen.

6.7.3.3. Fade

Turn the **FADE control (G)** to set the amount of fading between the steps. The adjustment range is between 0 and 100 %. The fade percentage will be displayed on the screen.

6.7.4. Delete a Chase/Scene

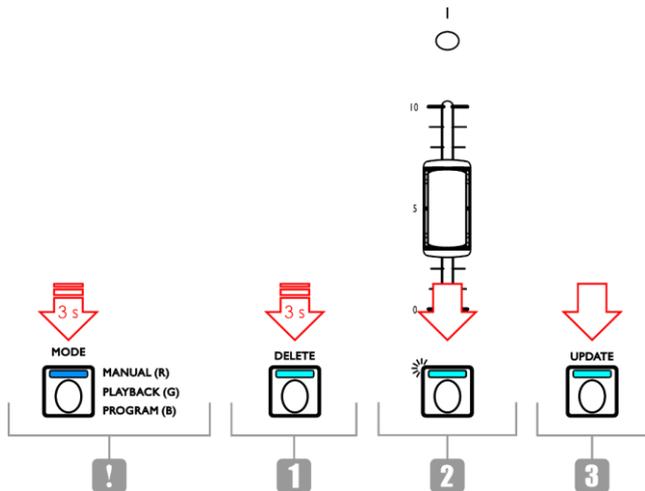
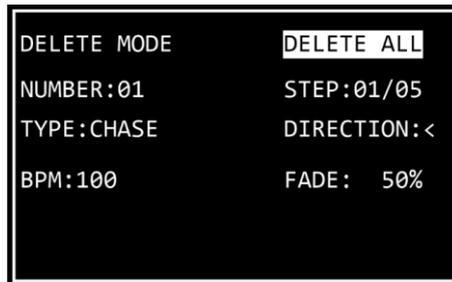


Fig. 21

- 01) In programming mode, press and hold down the **DELETE button (64)** for 3 seconds. The LED on the button will light up.
- 02) Press the **PLAYBACKS button (01)–(48)** for which you want to delete the chase/scene. The LED on the button will start blinking. The PLAYBACKS button number will be displayed on the screen.



- 03) Press the **UPDATE button (66)** to delete the chase/scene. The LED on the button will turn on. When you release the button, the LED will turn off.

6.7.5. Delete a Step in a Chase

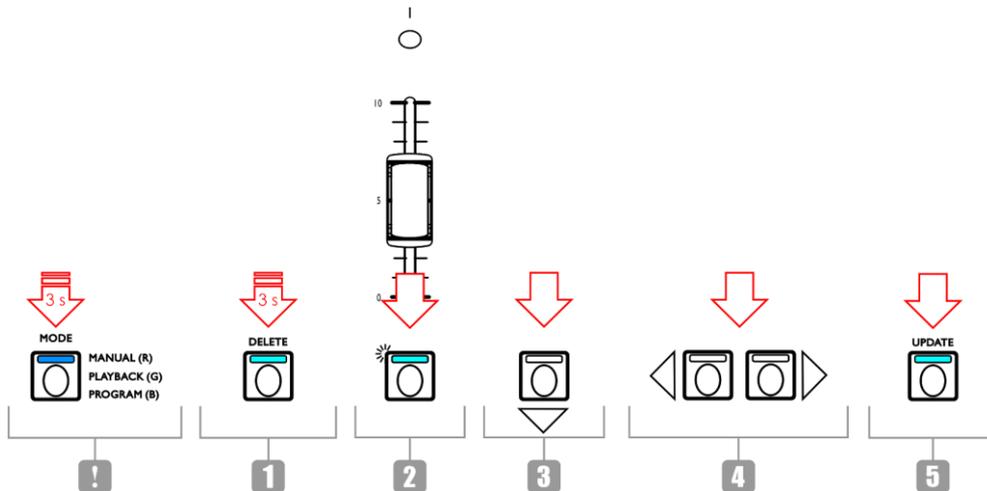
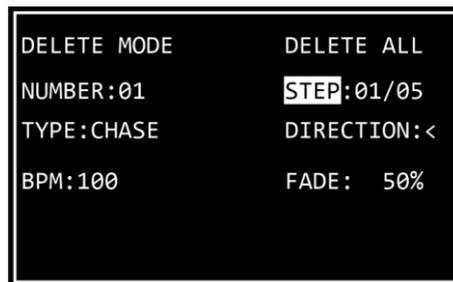


Fig. 22

- 01) In programming mode, press and hold down the **DELETE button (64)** for 3 seconds. The LED on the button will light up.
- 02) Press the **PLAYBACKS button (01)–(48)** for which you want to delete a step in a chase. The LED on the button will start blinking. The PLAYBACKS button number will be displayed on the screen.
- 03) Press the **DOWN button (52)** to navigate to the step level. The screen will show:



- 04) Press the **LEFT/RIGHT buttons (50)/(51)** to select the step you want to delete. The screen will show the selected step vs. the total number of steps in the chase. For example, 01/05 indicates selected step 1 from a chase with 5 steps.
- 05) Press the **UPDATE button (66)** to delete the selected step. The LED on the button will turn on. When you release the button, the LED will turn off.

6.7.6. Edit a Step in a Chase

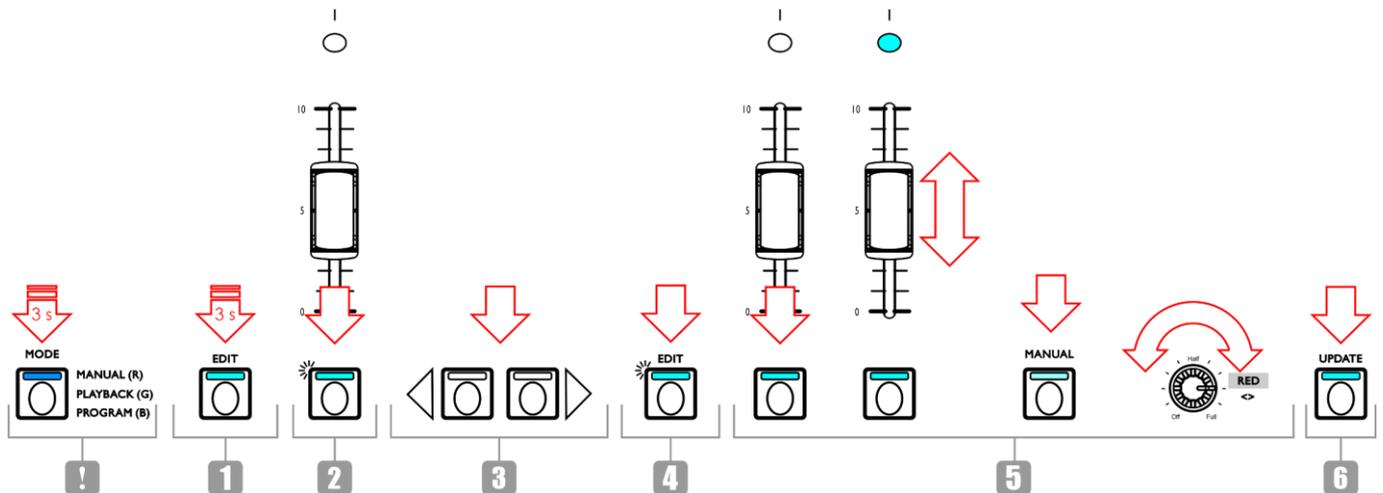
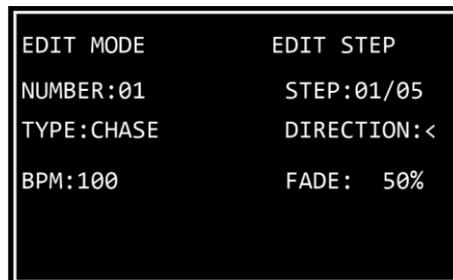


Fig. 23

- 01) In programming mode, press and hold down the **EDIT button (63)** for 3 seconds. The LED on the button will light up.
- 02) Press the **PLAYBACKS button (01)–(48)** for which you want to edit a step in the chase. The LED on the button will start blinking. The PLAYBACKS button number will be displayed on the screen.

Note:

At this point you can also adjust the chase parameters: direction, speed and fade. Make sure that the parameter selection mode is enabled. **See 6.7.3. Chase Parameters** on page 26 for more information.



- 03) Press the **LEFT/RIGHT buttons (50)/(51)** to select the step you want to edit. The screen will show the selected step vs. the total numbers of steps in the chase. For example, 01/05 indicates selected step 1 from a chase with 5 steps.
- 04) Press the **EDIT button (63)** again. The LED on the button will start blinking.
- 05) Edit the step. You can either change the current color and intensity values for the selected fixtures in the scene, or you can create a completely new scene. To adjust the values or to create a new scene:
 - Double (24-fixture) mode – follow steps 3–8 from **6.6.1. Create a Scene in Bank A** on page 21. The concept of Bank A and Bank B is not applicable in programming mode. Therefore the connected fixtures can be selected only with the **FIXTURES buttons and faders (01)–(24)**.
 - Single (48-fixture) mode – follow steps 3–8 from **6.6.4. Create a Scene** on page 23.
- 06) Press the **UPDATE button (66)** to edit the selected step. The LED on the button will turn off.

6.7.7. Insert a Step in a Chase

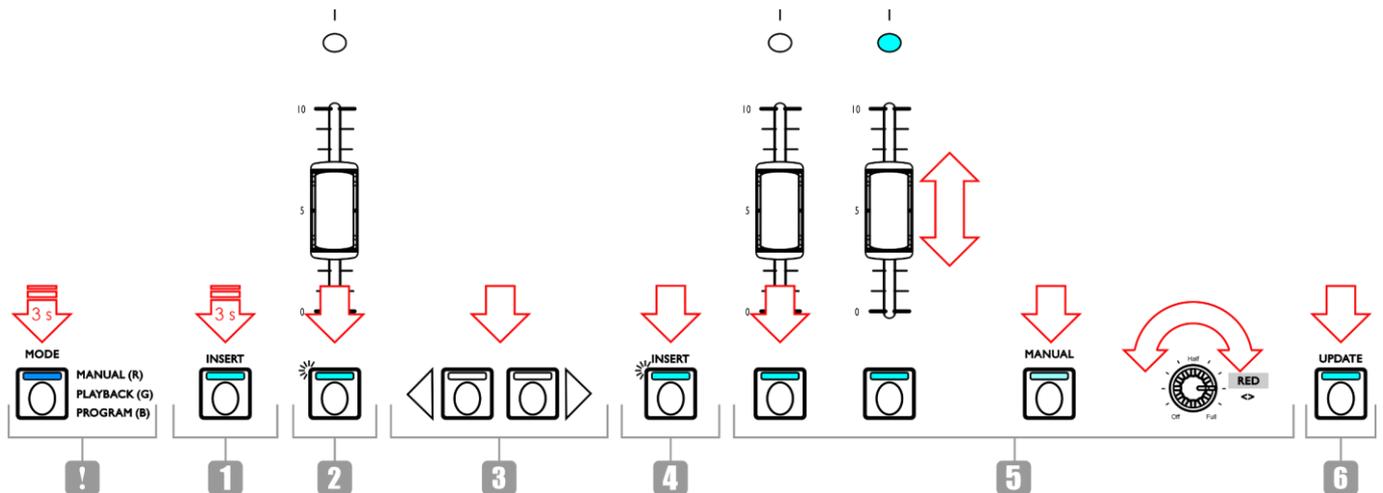
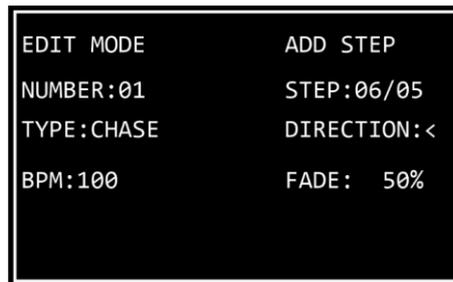


Fig. 24

- 01) In programming mode, press and hold down the **INSERT button (62)** for 3 seconds. The LED on the button will light up.
- 02) Press the **PLAYBACKS button (01)–(48)** for which you want to insert a step in the chase. The LED on the button will start blinking. The PLAYBACKS button number will be displayed on the screen.



- 03) Press the **LEFT/RIGHT buttons (50)/(51)** to select the place at which the new step will be inserted in the chase.

Note:

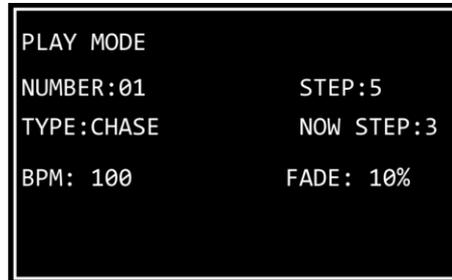
If you select step 01/05, the new step will become step 01 and the rest of the steps will be renumbered automatically. When you finish creating the new step, the screen will show 01/06. If you select 06/05, it means that the new step will be added at the end as step 06 to the chase.

- 04) Press the **INSERT button (62)** again. The LED on the button will start blinking.
- 05) Create a new scene:
 - Double (24-fixture) mode – follow steps 3–8 from **6.6.1. Create a Scene in Bank A** on page 21. The concept of Bank A and Bank B is not applicable in programming mode. Therefore the connected fixtures can be selected only with the **FIXTURES buttons and faders (01)–(24)**.
 - Single (48-fixture) mode – follow steps 3–8 from **6.6.4. Create a Scene** on page 23.
- 06) Press the **UPDATE button (66)** to insert the new step. The LED on the button will light up. When you release the button, the LED will turn off. The LEDs on all buttons on the device will blink 3 times to confirm that the update is completed.

6.8. Playback Mode

In this mode you can play back the recorded scenes/chases.

The playback mode screen provides information about the selected PLAYBACKS button number, the total number of steps in the chase, the step which is being played, the playback speed of the chase in bpm (beats per minute) and the fade percentage.



Press the **MODE button (56)** repeatedly until the LED on the button lights up in **green** to activate playback mode.

There are 2 playback options. Press the **AUTO/SOUND button (59)** to toggle between automatic and sound-controlled playback.

- **Auto playback:** The LED on the button will light up in **red**. The chase will play automatically.
- **Sound-controlled playback:** The LED on the button will light up in **green**. The chase will play automatically reacting to the beat of the music. Turn the **SOUND control (H)** to adjust the sensitivity of the built-in microphone. Make sure that the parameter selection mode is enabled. See **6.5.1.2. Parameter Selection Mode** on page 19 for more information.

You can additionally select between single chase play and multiple chase play. Press the **SINGLE/MIX button (61)** to toggle between the two options.

- **Single:** The LED on the button will light up in **red**. If this option is enabled, only one chase will be played back at a time.
- **Mix:** The LED on the button will light up in **green**. If this option is enabled, you can select multiple chases to be played back simultaneously.

Slide up the **fader(s) (01)–(48)** of the chase(s) you want to play back. The respective LED(s) above the fader(s) will light up and the selected chase(s) will be played back. The LED(s) on the respective **PLAYBACKS button(s) (01)–(48)** are blinking during playback.

During playback you can add strobe effect. Make sure that parameter selection mode is enabled. See **6.5.1.2. Parameter Selection Mode** on page 19 for more information. Turn the **STROBE control (I)** to add strobe effect. The adjustment range is from OFF to FULL, from low to high frequency.

6.9. Factory Reset

Press and hold down the **RECORD button (60)**, the **DELETE button (64)** and the **CLEAR button (68)** simultaneously for 3 seconds to reset the LED controller to the factory settings. The LEDs on all buttons will blink 3 times.

All programmed scenes and chases will be deleted and the fixture type will return to its default setting: RGBWA-UV.

6.10. MIDI Implementation Chart

Function		Transmitted	Recognized	Remarks
Basic channel	Default	1	1	
	Changed	1-16	1-16	
Mode	Default			
	Messages	X	X	
	Altered			
Note number		00-111	00-110	*1
	True voice	X	X	
Velocity	Note ON	O	O	*2
	Note OFF	X	X	
After touch	Key's	X	X	
	Channel	X	X	
Pitch bend		X	X	
Control change		X	X	
Prog Change		X	X	
	True#	X	X	
SysEx		X	X	
Common	Song pos	X	X	
	Song Sel	X	X	
	Tune	X	X	
System real time	Clock	X	X	
	Commands	X	X	
Aux Messages	Local ON/OFF	X	X	
	All Notes OFF	X	X	
	Active Sense	X	X	
	Reset	X	X	

O: YES

Mode 1: OMNI ON, POLY

Mode 2: OMNI ON, MONO

X: NO

Mode 3: OMNI OFF, POLY

Mode 4: OMNI OFF, MONO

*1 Table 1: Note Numbers

Note number	Function	Note number	Function
00-47 (00H-2FH)	Fader 1-48	56-103 (38H-67H)	Fixtures/playback buttons 1-48
48 (30H)	Red	104 (68H)	Fixtures single/double
49 (31H)	Green	105 (69H)	Manual
50 (32H)	Blue	106 (6AH)	Mode
51 (33H)	White	107 (6BH)	Auto
52 (34H)	Amber	108 (6CH)	Single
53 (35H)	UV	109 (6DH)	Hold
54 (36H)	X-fade A	110 (6EH)	Black out
55 (37H)	X-fade B	111 (6FH)	Clear (only transmitted, not recognized)

*2

On OR LED Green: Velocity > 0

Off OR LED Red: Velocity = 0

except: note number 56-103 which can be toggled using only note on commands (velocity > 0)

note number 00-55: The intensity is controlled by velocity.

7. Troubleshooting

This troubleshooting guide contains solutions to problems which can be carried out by an ordinary person. The device does not contain user-serviceable parts.

Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.

Refer servicing to instructed or skilled persons. Contact your Highlite International dealer in case the solution is not described in the table.

Problem	Probable cause(s)	Solution
The device does not function at all	No power to the device	<ul style="list-style-type: none"> Check if power is switched on and cables are plugged in
No DMX data transfer	Bad data link connection	<ul style="list-style-type: none"> Examine connections and cables. Correct poor connections. Repair or replace damaged cables
	The signal is reversed. The 3-pin DMX OUT of the controller does not match the DMX IN of the device	<ul style="list-style-type: none"> Install a phase-reversing cable between the controller and the device

8. Maintenance

8.1. Preventive Maintenance



Attention

Before use, examine the device visually for any defects.

Make sure that:

- All screws used for installing the device or parts of the device are tightly fastened and are not corroded.
- There are no deformations on housings, fixations and installation points.
- The power cables are not damaged and do not show any material fatigue.

8.1.1. Basic Cleaning Instructions

To clean the device, follow the steps below:

- 01) Disconnect the device from the electrical power supply.
- 02) Allow the device to cool down for 5 minutes.
- 03) Clean the device with a soft, lint-free cloth.



Attention

- Do not immerse the device in liquid.
- Do not use alcohol or solvents.

8.2. Corrective Maintenance

The device does not contain user-serviceable parts. Do not open the device and do not modify the device.

Refer repairs and servicing to instructed or skilled persons. Contact your Highlite International dealer for more information.

9. Deinstallation, Transportation and Storage

- Disconnect power supply before deinstallation.
- Use the original packaging to transport the device, if possible.
- Clean the device before storing. Follow the cleaning instructions in chapter **8.2.1. Basic Cleaning Instructions** on page 33.
- Store the device in the original packaging, if possible.

There is flight case available for ColorCue 4. You can store and transport the device in the flight case. The flight case can be purchased separately. See **3.5. Optional Accessories** on page 11 for more information.

10. Disposal

Correct disposal of this product



Waste Electrical and Electronic Equipment

This symbol on the product, its packaging or documents indicates that the product shall not be treated as household waste. Dispose of this product by handing it to the respective collection point for recycling of electrical and electronic equipment. This is to avoid environmental damage or personal injury due to uncontrolled waste disposal. For more detailed information about recycling of this product contact the local authorities or the authorized dealer.

11. Approval



Check the respective product page on the website of Highlite International (www.highlite.com) for an available declaration of conformity.



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