Victory 3

Lighting Controller

User Manual

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PRODUCT SAFETY INFORMATION

Please read these instructions carefully. They include important information about the installation, usage and maintenance of this product.

ENVIRONMENTAL MAXIMUMS

- Do not operate the consoles if the humidity and ambient temperature cause condensation on the product; allow the product to dry first before connecting to the mains.
- DO not operate at ambient temperatures higher than 104°F (40°C).

ELECTRICAL SAFETY

- The controller must be connected to protective earth (PE) when energized.
- Do not use the product if the mains inlet is damaged.
- Do not expose the product to rain or moisture.
- ALWAYS disconnect from the power before servicing or replacing the fuse. Replace it with the same fuse size and type.
- Do not use the product if the mains system is not in accordance with the below information.
- Do not open the product while connected to mains unless qualified to do so.

POWER CONSUMPTION

Power Consumption: 85W

Currents Input: 100-240VAC, 2.5A

Frequency: 50-60Hz

Button Cell BATTERY

The product motherboard contains a Lithium-Ion button cell (CR2032) for time data retention.

This battery is used to maintain time data when the product is not powered, this battery will need to be replaced at least every three years. If the product is mostly off for long periods or in cold environments then it may need an earlier replacement.

Recycle the CMOS battery in accordance with local law.

Please be aware that Lithium-Ion button cells are a particular danger to small children.

TOUCH SENSOR GLASS SAFETY

Do not operate the console if the touch sensor is broken as glass particles may be released by the sensor.

Caution!

There are no user-serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your local dealer.

Suggestion for Power Supply

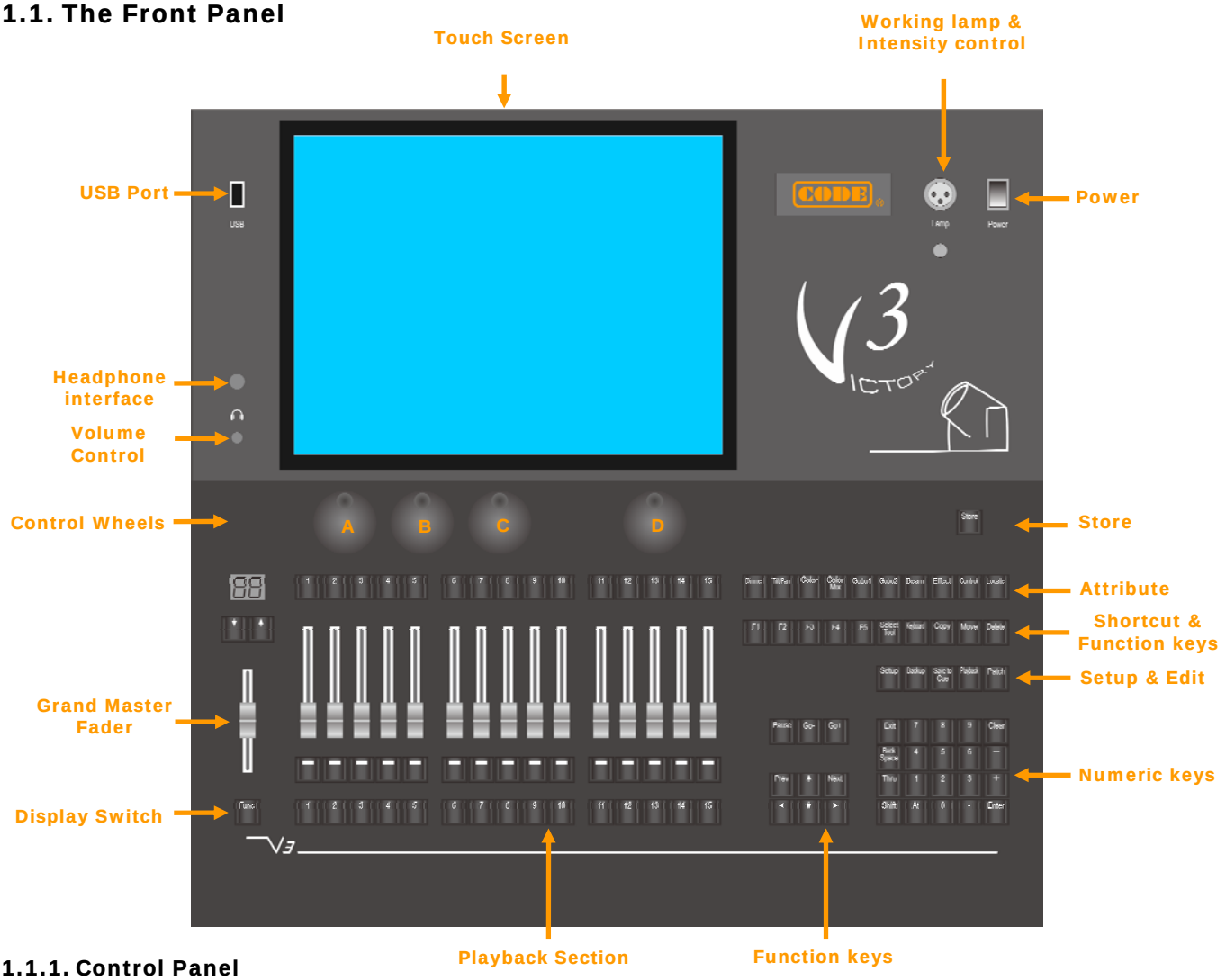
We strongly suggest you connect with the UPS power supply to avoid any power cut accident during programming.

1. Panel Introduction

Welcome to use the Victory 3 lighting controller.

The manual is a guide to all the functions of the controller. Attention points will be highlighted by **shading**. The words with a square represent a physical key, such as the **Enter** button. While words with square brackets represent the virtual soft keys found on the LCD touch screen, such as **[Playback Parameters]**. Menu name or option name will be indicated with quotation marks, such as **'LIVE SHOW'**.

1.1. The Front Panel



1.1.1. Control Panel

There are 3 colors for the key backlighting and highlighting (red, green, and yellow). Pressing the **Shift** and **Thru** keys to change the combination of color, or use the **Shift** key along with **+** or **–** to adjust the backlight brightness. Besides, the setting can also be done under the **[Key Backlight]** function in the **'Setup menu'**.

1.1.1.1. Quick Record Key

A single press of the **Store** button can quickly save backup copies of the show.

1.1.1.2. Control Wheels

The left 3 wheels, A, B, and C are used for setting values for fixture attributes, effect parameters, and so on.

The right wheel D is used for scrolling the page on selected operation windows, or setting Cue-lists velocity. The key in Wheel D can be used as an Enter button when pressed down while setting options.

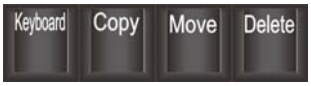
1.1.1.3. Attribute Keys

There are 9 attribute keys and 1 **Locate** key in this area. Each attribute key allows displaying 3 channels at most on each page. The selected attribute key shows with high light color. Press the selected attribute key again can turn to the next page, displaying more channels. You can control fixtures by using the different attribute keys with the corresponding wheels A, B, and C.

1.1.1.4. Shortcut & Function Keys

The keys **F1** to **F5** and **Select Tool** are the shortcut keys for the soft keys on the lower right at the touch screen.

Function buttons are distributed in multiple areas, providing soft-keyboard, copy, move, delete, and playback Pause/GO.



1.1.1.5. Setup & Programming Keys

The keys are used for setting up the controller and editing playbacks.

1.1.1.6. Numeric Keypad Keys

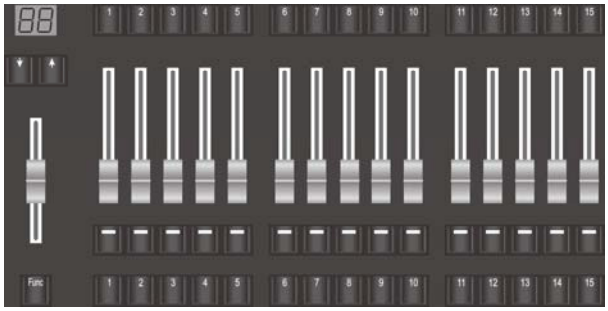
The numeric keypad can be used to input numerical commands to change the running state of the playback. Their functions will be introduced in a later chapter.

1.1.1.7. Playback Section

The fader backlight in the playback section can be set in the **'Setup'** menu. According to the 3 different states of the playback, the backlight can be set in different colors. The 3 playback fader states are: not used, saved playback but not running, playback is running.

The playback section is composed of master faders, page keys, fader-playbacks with faders and function keys, and key-playback keys.

There are 80 playback pages; each page has 15 faders and 15 keys for saving playbacks. Use the ↑ or ↓ keys to turn pages, and the indicator LED display will display the page number.

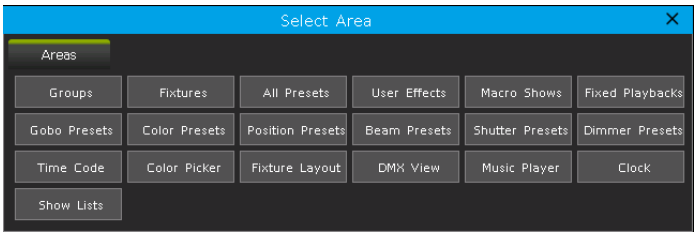


Pressing the **Func** key under the master fader can switch between the display of attribute setting and shortcut function to the display of the key-playback name.

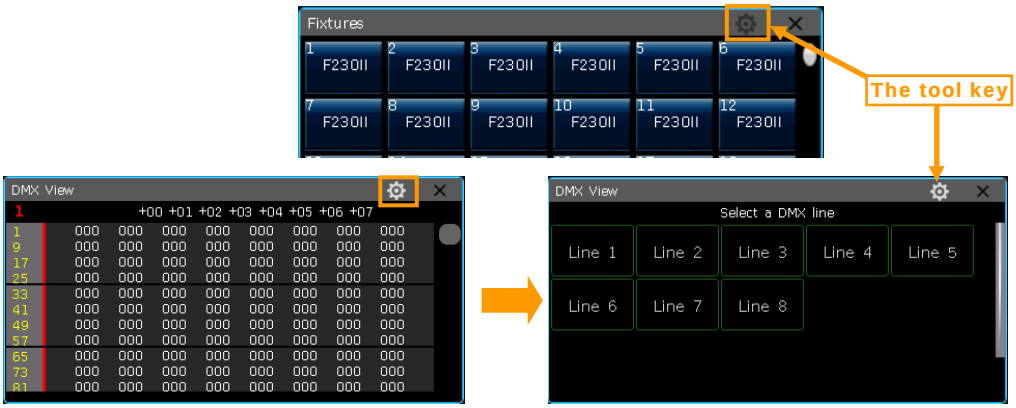
1.1.2. Working Space

The controller offers a 15-inch LCD capacitive touch screen for operating.

Most of the operating options should be worked on the touch screen. Different working windows can be selected and displayed on the touch screen according to the need.



There is a tool key in the upper right corner of each working window. When it is dark, it means there is no other option. But there will be other options while it is white, pressing the tool key can get other options.



1.1.2.1. Setting Up Working Windows

The position and size of the operation window are not fixed. Hold down the top of the window bar and slide the finger can change the position. Adjust the window size as follows:

- Hold the ***bottom right corner*** of the window, and slide the finger after the frame is turned in RED, then release at the wanted position to confirm the size.

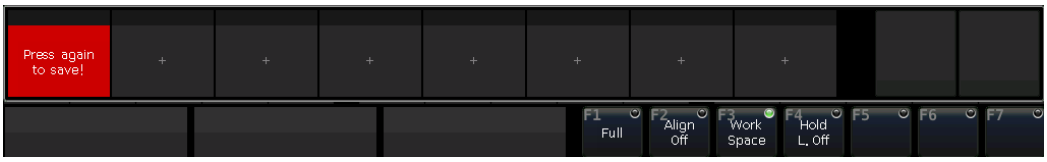
- Hold the ***upper left corner*** of the window, and slide the finger after the frame is turned in RED, then release at the wanted position to confirm the size.

1.1.2.2. Setting Up Work Space

Use the **[Work Space]** function to save different combinations of working windows for quick switching during use.

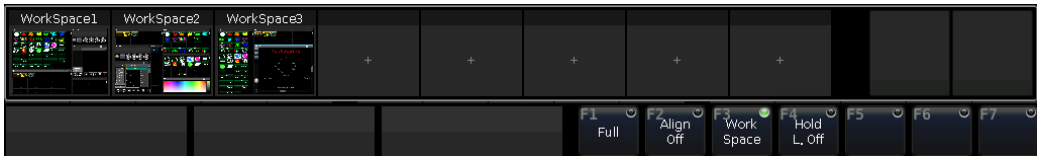
1> Press key **[Work Space]** when finished setting up windows combinations on the screen;

2> Select an empty grid in the pop-up window;



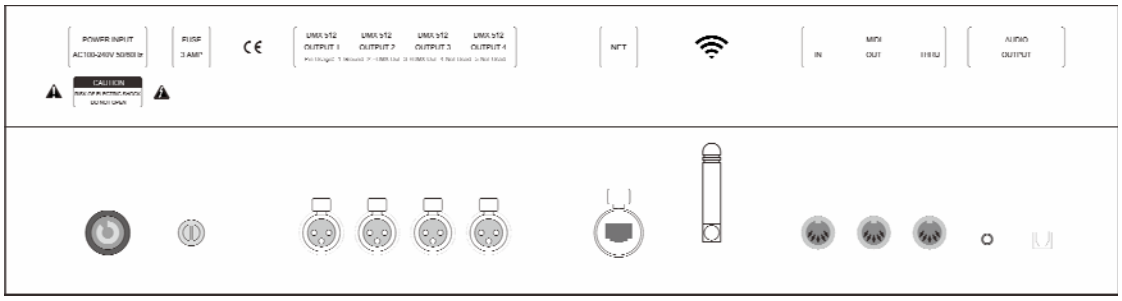
3> Select the grid with highlight words **'Press again to save'**, to save the combination of workspace windows;

4> Press the saved backup to easily switch between different combinations of workspace windows.



Note: Please use the delete function to delete the old content before updating the workspace window

1.2. The Rear Panel



Audio Output --- one 3.5mm audio interface and one audio-optical interface allow you to connect with the audio device.

MIDI Interface --- there are 3 MIDI interfaces, the **'In'**, **'Out'**, and **'Thru'** for connecting with other MIDI devices.

Art-Net Interface --- offers network function to transmit maximums 4096 DMX channels under Ethernet protocol over the Art-Net/DMX converter.

Wireless antenna --- provides WIFI signal for connecting App on mobile or tablet.

DMX Universes --- there are 4 DMX universes that sending out 512 DMX channels per output.

Power Supply --- the power supply offers quite a wide voltage range (100-240V AC, 50-60Hz). Thus, it can be used worldwide. Please cut off the power supply before replacing the fuse.

2. Initialization and Backup

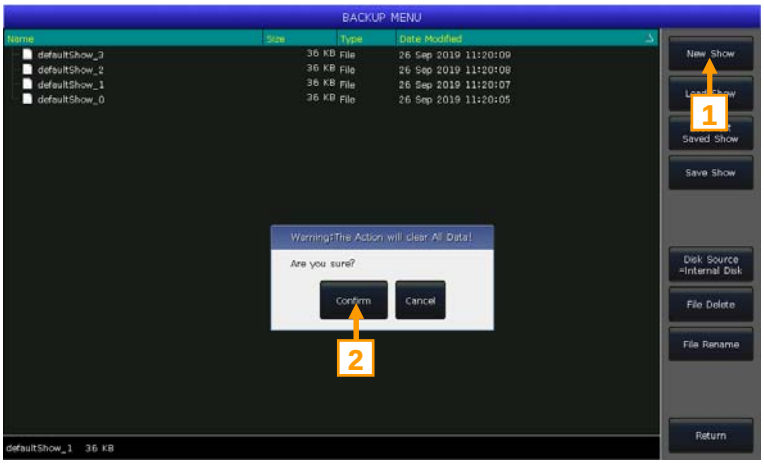
2.1. Clear All Data

We strongly recommend clearing all data (opening a new show) on the new controller or after upgrading the firmware to avoid any unpredictable errors when programming.

1> Press Backup to entry **'BACKUP MENU'**;

2> Press **[New Show]**;

3> Press **[Confirm]** to clear all data and exit.



Note: All data created will be deleted (including the setup, patching, presets and programs). But the system fixtures and user fixtures won't be affected.

Press the option **[Delete All Data]** twice after Press **Delete**, then press **[Confirm]** can also clear all data.

2.2. Backup

Note: Though turning off the controller by the power switch will not damage the system, any unsaved program operations will be lost if the controller is turned off without backing up.

The backup show files can be saved into the internal RAM or external USB disk.

Back up the show by pressing the **Store** key for a quick save. The show file will be saved into the internal RAM. By this operation, the files will be cyclic saved or covered as **'defaultShow_0'**, **'defaultShow_1'**, **'defaultShow_2'** and **'defaultShow_3'** by turns.

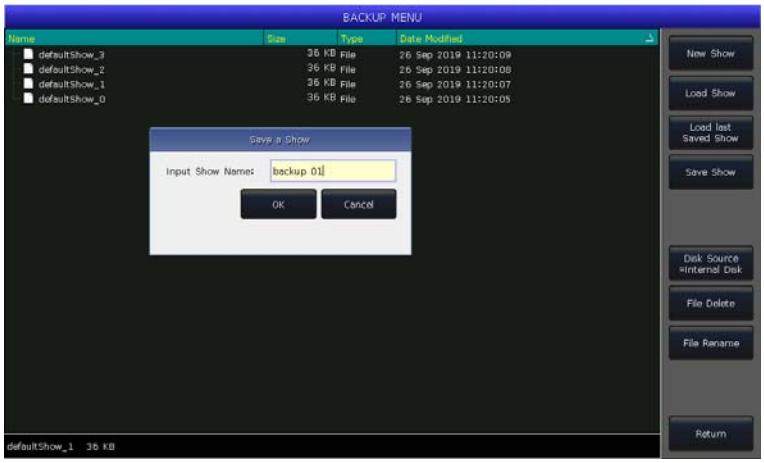
A backup file with a custom name can be saved. If a USB driver is inserted, press [Disk **Source]** can switch the source path between **[Internal Disk]** or **[USB Disk]**.

1> Press **Backup** to entry **'BACKUP MENU'**;

2> Press **[Save Show]**;

3> Press **Keyboard**, input the file name and press **[Enter]** on soft keyboard;

4> Press **[OK]** to save.



When saving backup files to either drive, one of the 'defaultShow' files will be updated.

Note: We recommend regularly backing up during the programming process to avoid accidental program loss.

2.3. Load the Backup File

When the controller is powered on, the last saved **'defaultShow'** file will be automatically loaded.

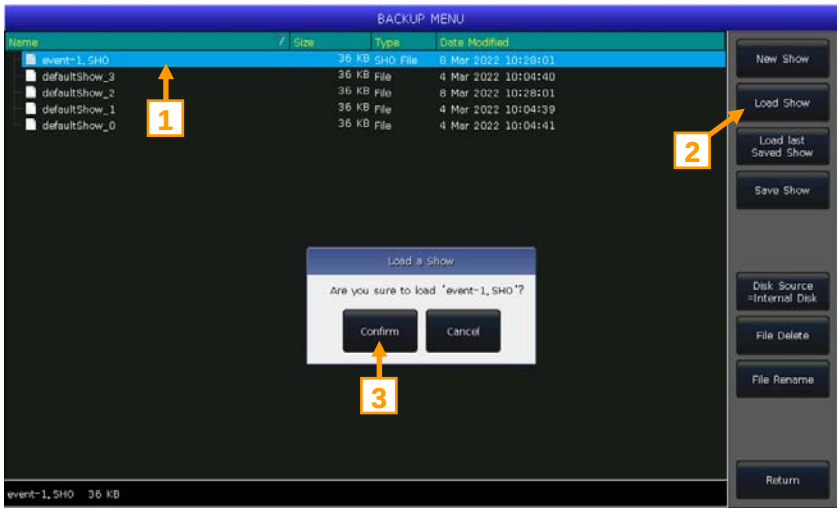
Selecting the file name can load a needed backup.

1>. Press Backup to entry **'BACKUP MENU'**;

2>. Select the file name;

3>. Select **'Load Show'**;

4>. Press **[Confirm]** to load the backup.



Pressing the option **'Load last Saved Show'** will help to load the last saved **'defaultShow'** file directly without selecting any file.

2.4. File Delete

The option allows deleting useless files.

2.5. File Rename

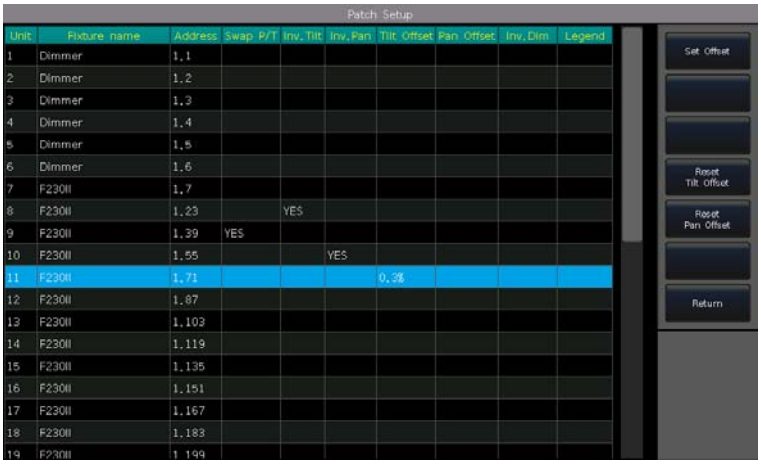
The option allows renaming the saved backup files.

3. Patching

We have to patch fixtures to tell the controller what kinds of fixtures need to be controlled.

When patching, the controller offers a free initial DMX address automatically for each line. We can patch all fixtures first then check over their DMX addresses before assigning on the fixtures. We may also assign the wanted DMX addresses on fixtures first then set the right addresses when patching.

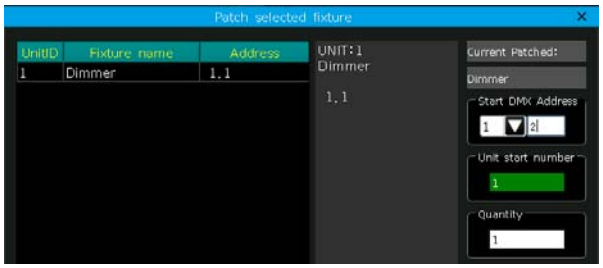
If the fixtures are RDM equipped, the controller can help the fixtures to change the setting of DMX address and channel mode.



3.1. Patching Fixtures

To control the dimmer channels or intelligent fixtures, you should patch each of them to the unit keys in **'Fixtures'** window. A maximum of 1000 fixtures can be patched.

3.1.1. Patch Dimmers



Each unit key can control single or multiple dimmer channels.

1> Press **Patch**;

2> Press **[Patch New Fixture]**;

3> Press **[Patch Dimmer]**.

4> Press **[▼]** on **'Start DMX Address'** option can find out other DMX lines (from 1 to 8). The number behind shows the initial free address can be patched; you can entry a new number by numeric keypad or use the Wheel D to change;

5> The option **'Unit start number'** shows the initial unit ID to be patched;

6> We can enter a value on the column of **'Quantity'** to set the patching quantity. Enter 1 means to patch a single dimmer channel on a unit ID; while value more than 1 means to patch a sequence of dimmer channels on a sequence unit ID. The range of dimmers will be patched to sequential DMX addresses;

7> Press **[Confirm]** to patch, the list of **'Patch selected fixture'** will be updated;

8> You can also patch multiple dimmer channels on a same unit ID. *For example*, after we patched one dimmer channel on a unit ID, the field of **'Unit start number'** will display in Green. The DMX address will increase one after patched. If we press **[Confirm]** again, the new DMX address will be patched onto the same unit ID. Those dimmer channels had been patched on the same unit will be controlled together;

3.1.2. Patch Intelligent Fixtures

There is a slight difference between patching intelligent fixtures and dimmer channels. This is because intelligent fixtures may have more attributes to control such as pan, tilt, color, or gobos; while dimmer channels only have one attribute, which is intensity. To control intelligent fixtures, you need to select its fixture profile from your fixture library.

The console offers two types of fixture libraries to choose from,

- **System fixture:** the controller has its own fixtures in system library;
- **User fixture:** if you cannot find out your fixture in system library, the controller offers you multi-way to create or edit your fixture. (We will introduce you how to create or edit the user fixture on another chapter)

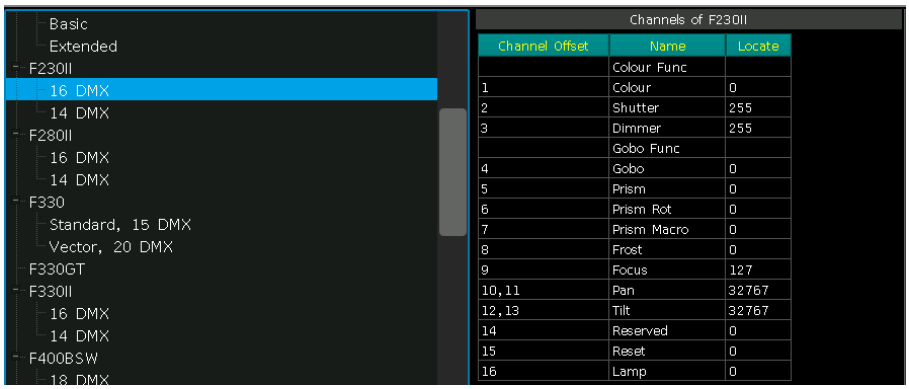
1> Press **Patch**;

2> Press **[Patch New Fixture]**;

3> Press **[Used Library = System]** can switch to **[Used Library = User]**;

- When patching system fixture you can use the Wheel D or scroll bar to search the manufacture; or you can recall the soft-keyboard by Keyboard and input the first letter of manufacturer name to search. Select the manufacturer and press **[Confirm]** to enter; you can select the fixture from the list.
- You can select the fixture directly on touch screen if patch from user library list.

Note: The channels details will be listed on the right bar after a fixture is selected.



4> Select the fixture about to be patched and select **[Confirm]** to call out the patching menu;

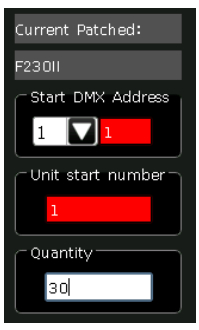
5> Press **[▼]** on **'Start DMX Address'** for other DMX lines (from 1 to 8). And enter the number by numeric keypad or use Wheel D to set the start address;

6> Set the unit ID on **'Unit start number'**;

7> Enter the quantity number would like to patch on the column of **'Quantity'**;

8> Press **[Confirm]** to patch, the list of **'Patch selected fixture'** will be updated;

If the field is shown in **RED** when you set the **'Start DMX address'** or **'Unit start number'** during patching, it means the number of the DMX address or unit ID has been used. It will not allow you to continue patching on.



If the option **'Load Preset'** is selected, the controller will help to load in the presets which had written in the fixture profile automatically.

If the option **'Auto Group'** is selected, the controller will help to group up all same model fixtures.

3.2. Patch Selected Type

The function allows patching more fixtures in the same type without searching from the fixtures pool again.

3.3. Unpatch

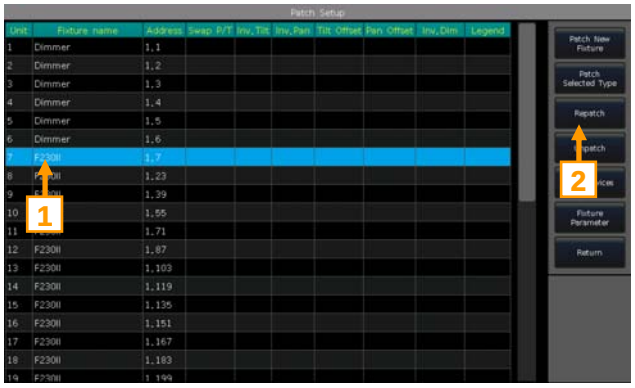
You can select and delete one or more consecutive patched fixtures by pressing option **[Unpatch]**.

3.4. Repatch

The function allows you to change the patching address and/or the output line of the fixtures.

1> Select the fixture need to be changed;

2> Press **[Repatch]**;

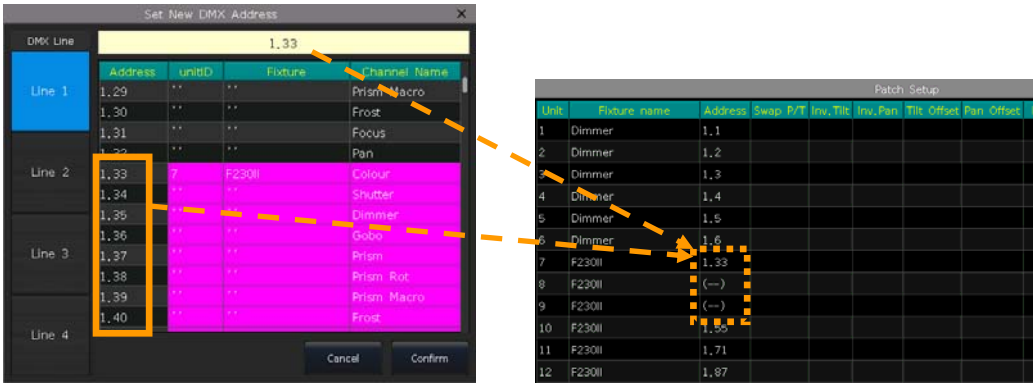


3> Select the DMX line and start address on the menu by touch. Or change them by typing the line and address number on the top bar;

4> Press **[Confirm]** to change the address and/or DMX line.

Note: Unit ID will not be changed after re-patched.

The selected addresses will indicate in pink if they were used. If you continue to press **[Confirm]** in this case or input the used number of DMX line and address, the address of the selected fixture can be changed successfully but the fixtures that previously used/included those addresses will be suspended. You have to patch them again.



3.5. Setup RDM Devices

The function allows the controller to interrogate the practical fixtures. Then it can patch itself to match the existing DMX addresses. You can also remotely change the modes and other settings on the practical fixtures.

Note: Fixtures must be equipped with RDM for the function to work.
If you have connected with DMX buffers or splitters, they must be RDM enabled. Otherwise, they will block the information being sent back to the controller.

Press **[RDM Discover]** to start searching. All RDM supported fixtures will be listed here. Select the fixture and press **[RDM Info]** to look over its details.

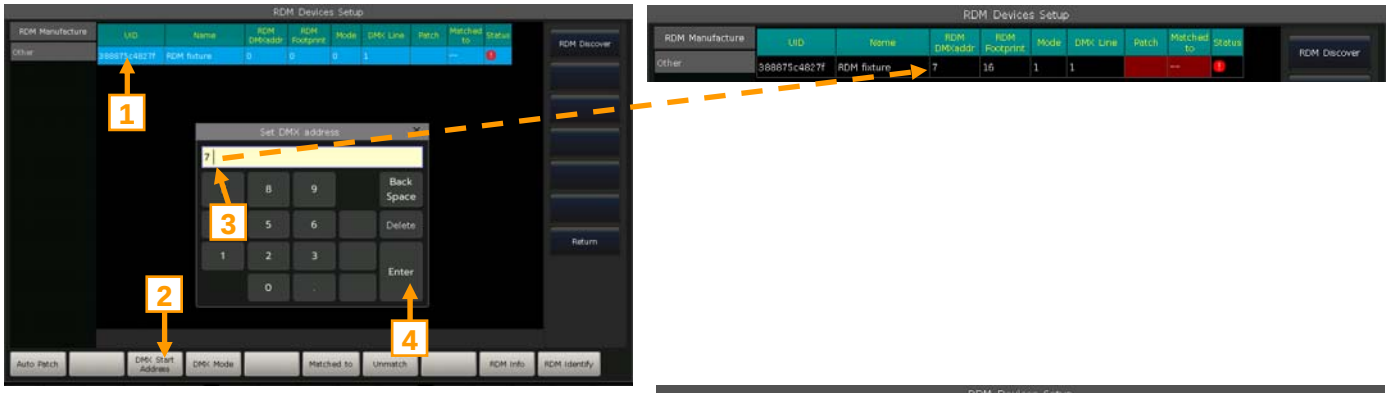
3.5.1. Remotely Setup Devices

We can also remotely change the address on the practical fixture.

1> Select the fixture on the list;

2> Press **[DMX Start Address]**;

3> Enter the DMX address to be set, then press **[Enter]**;



3.5.2. Match RDM Devices

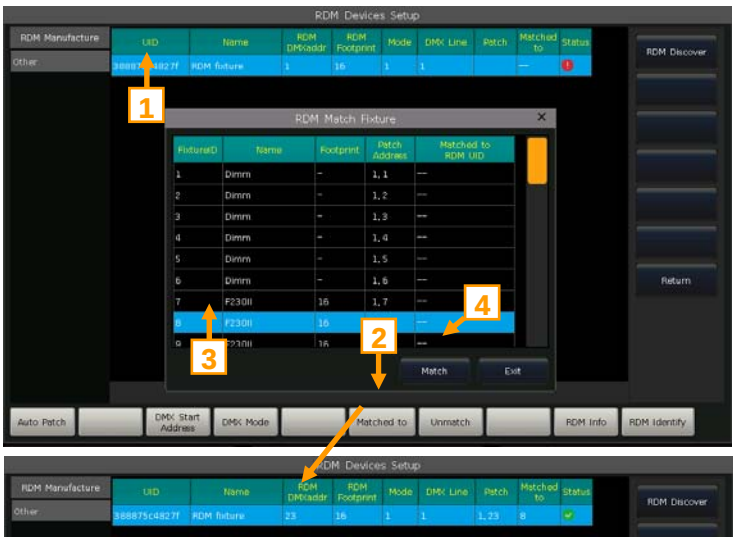
1> Select the fixture on the list;

2> Press **[Matched to]**;

3> Select the patched fixture from the list of **'RDM Match Fixture'**, then press **[Match]**;

Note: The device can only be matched to the fixture that is patched in the same DMX line.

Press **[Unmatch]** if you do not want to match it to the patche fixture any more.

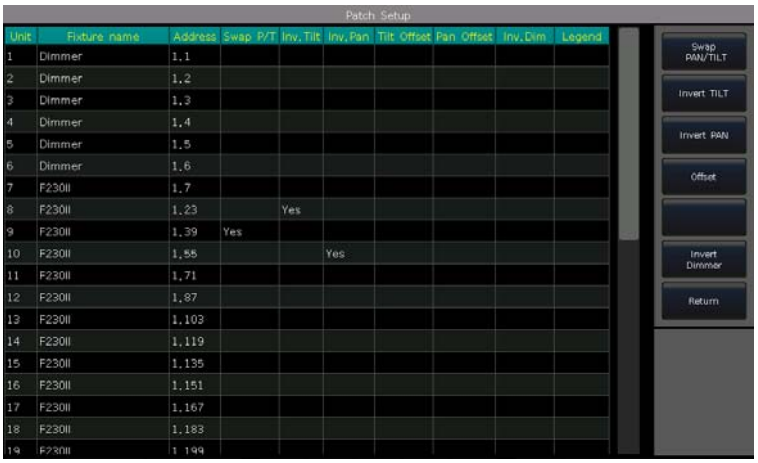


3.6. Fixture Parameter

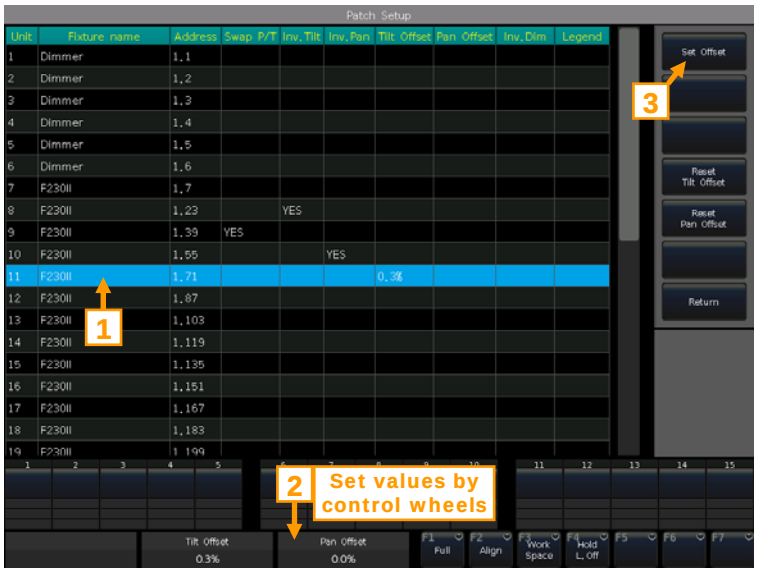
You are allowed to swap or invert Pan and Tilt of the fixtures on the controller. So that you can control the moving lights to run as mirror movement more conveniently. Dimmer channels can be inverted as well.

Press **[Fixture Parameter]** on **'PATCH SETUP'** menu;

- **[Swap PAN/TILT]** -------- to swap the controlling of Pan and Tilt channels;
- **[Invert TILT]** -------- to invert the controlling of Tilt channel;
- **[Invert PAN]** -------- to invert the controlling of Pan channel;
- **[Invert Dimmer]** -------- to invert the controlling of Dimmer channel;



- **[Offset] --------** to offset the locate value of Pan and/or Tilt for the practical fixtures which without perfectly placed. Offset values shown in percentage which are set by control wheels. We can cancel the offset setting by the options **[Reset Tilt Offset]** or **[Reset Pan Offset].**



4. Controlling Fixtures

We will find the patched fixtures in the **'Fixtures'** window. If the **'Load Preset'** and **'Auto Group'** options are selected during patching, the corresponding option windows will be attached with the data.

The patched fixtures are shown in dark blue, while selected ones are shown in light blue, and those fixtures that have been deselected are shown in gray.

Attributes of the fixtures are set by the control wheels and the channel names are shown on the bottom of the screen.

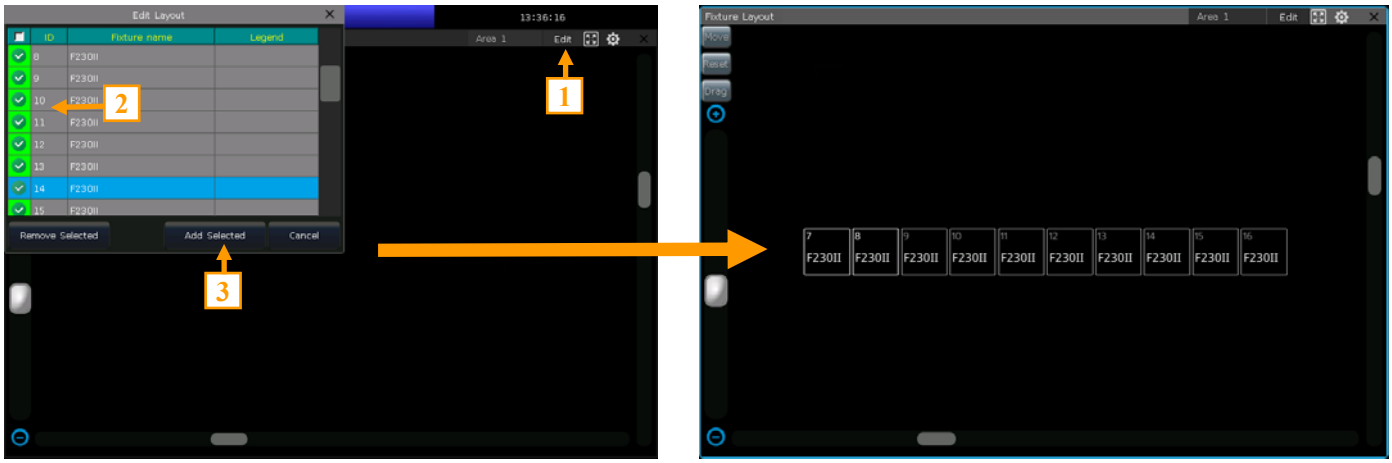
If a fixture has multiple cells of control and its personality supports it, you can select and control the fixture either as a whole or as independent cells. This is particularly useful when using Shapes.

A sub-fixture occupies multiple consecutive fixture grids on the **'Fixtures'** window. The master unit ID will be listed together with its series cell IDs.

4.1. Setup Fixture Layout

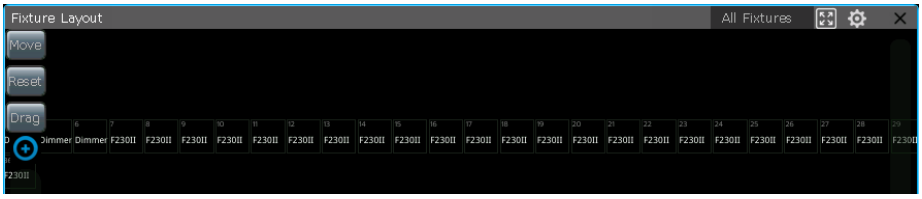
All patched fixtures will be listed in the **'Fixtures'** window, but we can also find them from the **'Fixture Layout'** window.

The **'Fixture Layout'** window offers 7 display areas, the **'All Fixtures'** and the areas 1 to 6. Areas 1 to 6 do not display any fixtures by default.

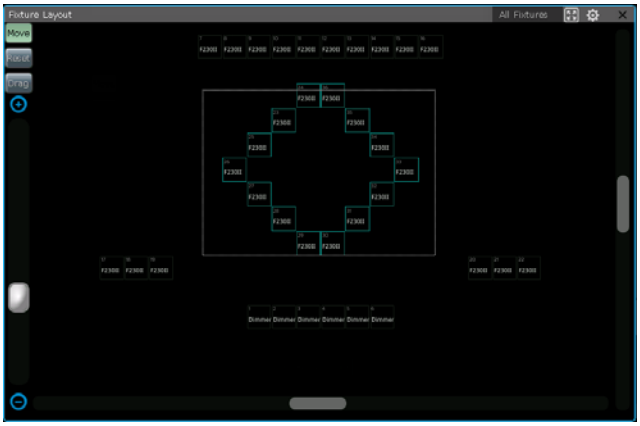


- Select **[All Fixtures]** and select any of areas 1 to 6 from the option box;
- Select **[Edit]** and select the fixtures to be displayed on the area;
- Press **[Add Selected]** to display the selected fixtures, or **[Remove Selected]** to remove the selected fixtures; Press the small frame on left top corner can help to select/unselect all fixtures.

The fixtures in the **'Fixture Layout'** window will be initially listed in lines, each of which with 32 units. You can edit a 2D position layout which to display the fixtures approximately as their actual physical location.



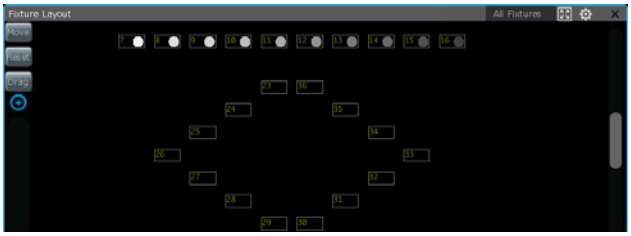
- Press the soft-key **[Move]**, you can reposition the fixtures to anywhere in **'Fixture Layout'** by selecting and dragging them. You can select the fixture by touching the unit one by one, or draw a selection box to select a range of them. The frames of selected fixtures will show in blue.



- You can use the scroll bar on the bottom and on the right to change the display center. Pressing **[Reset]** can reset the fixture of unit ID 1 to the center. Selecting **[Drag]** and then dragging the window can also move the display center. The function key in the upper right corner of the window can help to re-center and maximize the display of all fixtures.

Note: When using the **[Drag]** function, the fixtures are not allowed to be selected.

- You can use the scroll bar on the left or the Wheel D to zoom in or out the display window.



Pressing the tool key, you can set the display to show the running states of the dimming or RGB channels.

4.2. Select Fixtures

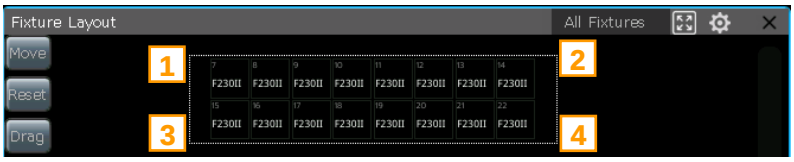
There are several ways to select the fixtures:

Touch Screen

1> **'Fixtures'** window --- you can select the fixtures one by one by pressing the unit ID, the fixture order depends on the sequence in which you select. Besides, you may slide the finger across the unit keys to draw a selection box to select a range of fixtures. The fixture order starts from the smaller unit ID number.

Note: The fixture order selected by drawing the selection box from 1 to 2 is the same as drawing from 2 to 1.

2> **'Fixture Layout'** window --- you can select the fixtures in the **'Fixture Layout'** window directly too.



There are 8 different ways for selecting fixtures by drawing the selection box. *For example*:

- If a group of fixtures is selected by drawing a selection box from **1** to **2** to **4**, the fixture order is from left to right, and then top to bottom.
- If the selection box is drawn from **1** to **3** to **4**, the fixture order is from top to bottom, and then left to right.
- If the selection box is drawn from **4** to **3** to **1**, the fixture order is from right to left, and then bottom to top.

Numeric keypad

In **'LIVE SHOW'**, typing in the command by numeric keys to select fixtures.

- If you want to select a fixture, type in the unit number and press **Enter**.
- If you want to select more than one fixture, use **'+'** between each number. *For example*, press keys **1**, **+**, **3**, **+**, **5**, **+**, **7** in sequence and press **ENTER** will select fixtures 1, 3, 5, and 7.
- If you want to select a range of fixtures, use the key **THRU**. *For example*, press keys **1**, **THRU**, **9** and press **ENTER** will select fixtures from 1 to 9.
- We can use the **'–'** to not select any from a range of fixtures. *For example*, press keys **1**, **THRU**, **5**, **-**, **3** in sequence and press **ENTER** will select fixtures 1,2,4, and 5.

Note: For the sub fixtures, the command selection can only help to select the master unit IDs.

4.3. Manual Control Fixtures

4.3.1. Light Up the Fixtures

You can double-tap the key **Locate** or press **F1** / **[Full]** to light up the selected fixtures in open white and move them to a central position, you can also press the key **Locate** and select **[Locate Fixture]** to light up the fixtures. All attributes will be set to default.

If you want to locate the fixtures without re-center the position, press the key **Locate** and select **[Locate Fixture No PAN/TILT]** to light up the fixtures. All attributes except Pan and Tilt will be set to default.

If you do not want to default other attributes, you can hold down the key **Locate** and press attribute key. The channel attributes on that key will be set to default, but attributes on other keys will keep their latest values. ***For example:*** hold down the key **Locate**, and press **Tilt/Pan**. Pan and Tilt of the selecting fixtures will be set to the central position, but other channels will keep in their own value.

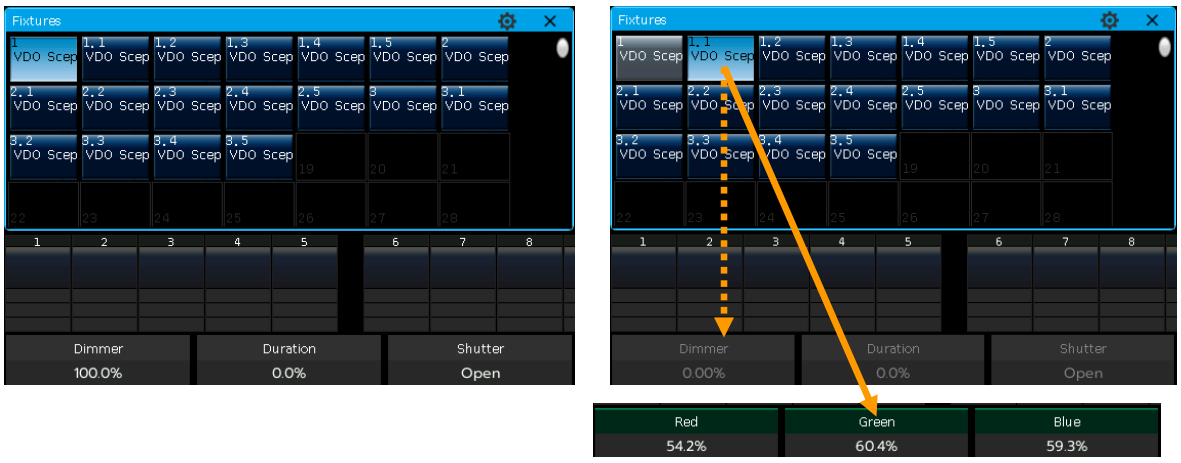
The operation of double-tap the key **AT** can set dimmer channel into value 255. Double-tap the key **·** can set dimmer into 0. Besides, double-tap the key **+** or **–** can increase or reduce the brightness by 10%.

4.3.2. Change Attributes of Fixtures

Select the fixtures and attribute key, then change the values by using the control wheels.

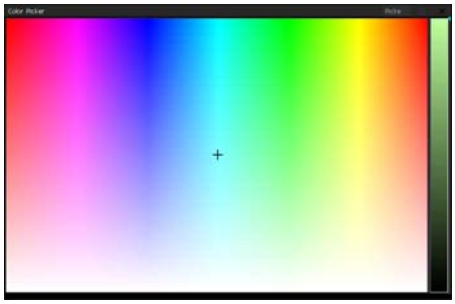
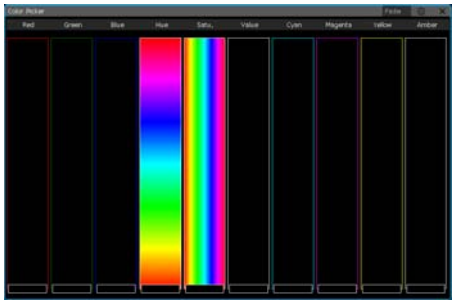
Select the attribute key, and then you can enter the value by numeric keys and tap on the channel name on the touch screen. So that it can be set to the value directly.

For the sub fixture (*For example*, the LED fixture with multiple RGB channels), select the master unit ID that can control the whole fixture, all cell channels will be controlled together. However, the master channels are not allowed to be set under the cell ID, you can only control its cell channels individually.



4.3.3. Special Control of Attributes

You can call out the **'Color Picker'** window from the **'Select Area'** box. Fixtures with RGB/CMY channels can be easily mixing by the color picker. There are 3 color mixing modes for selection.

The controller can read the channels range preset from the personality.

For example, select the fixtures and attribute key **Color**, press the attribute name **'Color'** on the touch screen can call out a list for channel range. You can select the range options on the list directly. You can also enter the value by numeric keys.

4.3.4. Macro Function of Fixtures

Macro is a sequence of fixtures program, which run with time parameter. Some of the fixtures can run special operations, such as Reset, Lamp on or off. After patched, the macro function from the fixture library will be loaded. If you want to check whether the fixtures have a macro or to run the macro, please do as follow;

1> Select the fixtures;

2> Press **Locate**;

3> Press **[Macro function]**. All macro functions created in the library are displayed on the right menu bar;

4> Select the macro name to run. The soft-key shows in pale blue when the macro is running.

4.3.5. Fan Mode

The fan mode is widely used on Pan or Tilt attributes, but it can also be applied to other attributes, such as color-mix. If the fixtures with tricolor channels, you can also mix a rainbow by fan mode.
We kindly suggest you not to use less than 4 fixtures in order to get a better effect.

The selected order of the fixtures is important. The attribute will be adjusted proportionally to the selected order.

4.3.6.1. Fan Align

1> Select the fixtures and locate them;

2> Select the attribute key. *For example*, the **Tilt / Pan**;

3> Press the **[Align Off]**;

4> Select one of the align modes;

There are several modes for fixtures align:

- **[<]** ----- Fixtures align based on the rightmost fixtures.
- **[>]** ----- Fixtures align based on the leftmost fixtures;
- **[><]** ----- Fixtures align based on the middle fixtures. The value increases changing from the middle to both sides. The fixtures on both sides change in opposite directions;

- **[<|>] -----** Fixtures align based on the middle fixtures. The value increases changing from the middle to both sides. The fixtures on both sides change in the same direction;
- **[<||>]** ----- Fixtures align based on the middle fixtures. The value increases changing from both sides to the middle. The fixtures on both sides change in the same way;
- **[Wings]** ----- It divides the fixtures into two groups from the middle. When it works with other align setting, two groups of fixtures run exactly the same.

e.g. Tilt changes by [<|>] and [Wings]

5> Set the Fan effect by the Wheel A, B or C.

4.3.6.2. Fan Align by Curves

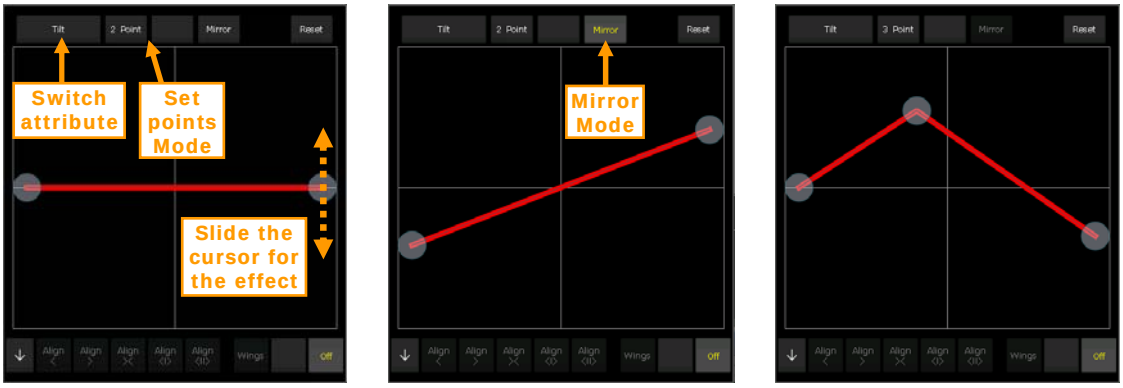
1> Select fixtures and locate;

2> Press **[Align Off]**;

3> Press **[↑]** to call out fan curve menu;

4> Press attribute key can switch to other attribute. Press the attribute name on the curve menu can switch into other attributes in current attribute key;

5> Press **[2 Points]** can switch to **[3 Points]** mode; **[Mirror]** function can only be used on 2 Point mode.

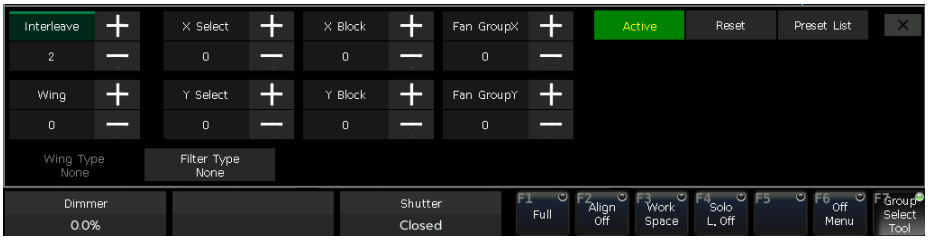


6> Slide the cursors to set fan align.

Note: You can re-center the value of current attribute by pressing **[Reset]**.

4.3.6. Group Selection Tool

The **[Group Selection Tool]** is usually used together with the fan alignment settings. It can help you run the same alignment settings for fixtures in different groups.



The option **[Filter Type]** can help quickly select odd or even fixtures.

Note: The meaning of odd or even fixtures depends on how you select the fixtures. They are not related to the ID number of the fixture.

4.3.7. Find Fixture Function

After locating a group of selected fixtures, you can use the key ← or → to lamp one of the selected fixtures one by one and change its attributes. It can help to find out where the fixture is.

You can also change the function as select the fixtures one by one but keep the brightness by setting the option **[F4]** to **[Hold L. On]**, or setting **[Keep the brightness]** in the setup menu. It is useful if we want to set all fixtures to the same position.

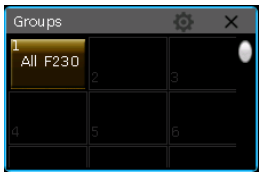
4.3.8. Clear Options

After finished editing, pressing the key **Clear** can deselect all fixtures.
However, you can hold it down to find more other clear options;

- **[Clear All Fixtures]** ----- clear all fixtures from the programmer; press the option can switch to **[Clear Selected Fixtures]** ----- only currently selected fixtures will be cleared.
- **[Clear All Presets]** ----- clear all using presets from the programmer.
- **[Clear All Effects]** ----- clear all running user effects from the programmer.
- **[Clear Mode = Normal]** ----- clear fixtures and all channels except intensity will keep the last values; press the option can switch to **[Clear Mode = Default]** ----- clear fixtures and all channels except intensity will resume to default values.

4.4. Groups

One or more fixtures can be grouped for easier selection. The grid of group soft-key will turn brown after saved. The group name and ID number will be displayed on the grid in the **'Groups'** window.



4.4.1. Create a Group

1> Open the **'Groups'** window if it is not visible on **'LIVE SHOW'**;

2> Press **[Group]**;

3> Press **[Save Group]**;

4> Select the fixtures for the group. they can be the same type or different type of fixtures;

5> Select a grid in the **'Groups'** window. If there was a group in the grid, it will remind whether you want to overwrite or not;

6> If you want to create more groups, you can repeat the steps from **3** to **5**;

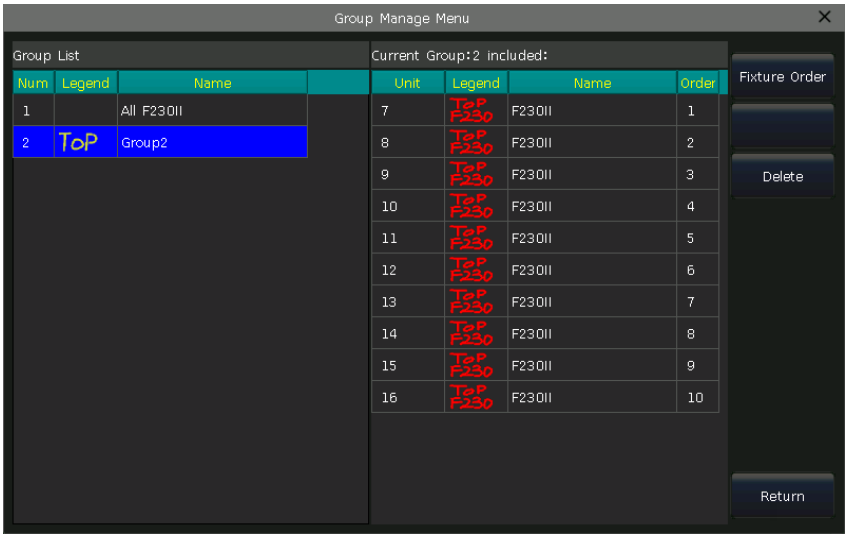
7> Press **[Return]** or **Exit** to quit.

4.4.2. Group Management

1> Press **[Group]** to entry **'Group Program'**;

2> Press **[Group Manage]**;

3> Select the group name can find all the fixtures included;



4> You will find details of included fixtures of the current group, such as the fixture unit ID, fixture name, picture legend, and the sequence number.

4.4.2.1. Setting Fixture Order in Group

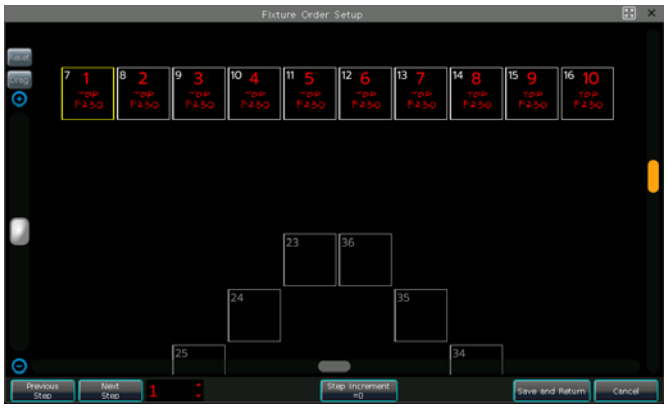
Fixtures in a group are stored with a selection order. Each fixture has its sequence ID. Different fixtures can have the same or different sequence IDs.

The order is important when applying fans, shape effects, and overlap functions which will be distributed along with the sequence.

You can change the fixture order in the group so that the fixtures will run in the sequence every time using this group.

1> Select **[Fixture Order]**, the fixtures will be listed as the layout in **'Fixture Order Setup'** window.

Note: Only the group of fixtures can be set, other fixtures will be displayed as the empty frames with the unit ID. The big **RED** number means the fixture order, while the **WHITE** number shows the fixture unit ID.



2> Set the sequence number by pressing soft-key **[Previous Step]** or **[Next Step]**;

3> Select one or more fixtures for the sequence. You can draw a selection box to select multiple fixtures;

- When **[Step Increment=0]**, draw a selection box to select fixtures can set them all in the same sequence number;

- When **[Step Increment=1]**, the sequence number of the fixtures selected by drawing a selection box increase 1 automatically. The sequence number increases according to the drawing way of the selection box;

4> Repeat the steps **2>** and **3>** until finished setting;

5> Press the key **[Save and Return]** to save and exit.

5. Presets

You always need to change different attributes, such as color, gobo, and so on during programming or a live show. In that case, you can enter one or more attributes of fixtures to the preset keys in advance.

Although all attributes can be saved on the same attribute key, it's more convenient to change the attributes during the live show if you create different presets with only color or gobo, and etc.

You can call out different types of **'Presets'** windows at the same time. Different presets can be saved into their own type of window, so that you can change attributes rapidly when programming, or during a live show.

5.1. Edit Preset

There are 3 different Save Modes:

- **Current Attr.**: All channel values of selected fixtures in the current attribute key will be saved.
- **All Attribute**: All channel values of selected fixtures will be saved.
- **Changed Attr.**: All channel values of selected fixtures that have been edited will be saved.

There are 2 different Preset Modes:

- **Normal**: The preset can only be used by the fixtures selected when creating;
- **Global**: You may select one of the fixtures to create and save the preset, and it can be used by all the fixtures of the same model.

1> Select the fixtures;

2> Use the attribute keys and wheels to set up your desired effects;

3> Press key **[Edit Preset]** to enter **'Preset Edit Menu'**;

4> Select a soft key in **'Preset'** window to save;

- If there is nothing on the grid, you can input the preset name and the fade in time directly. Press **[Confirm]** to save, the grid will turn to dark green. There will be a **'G'** mark on the left bottom corner if the preset saved by **Global** mode.
- You can rename (named by keypad only) and update the fade in time for the preset if there is something in the grid. Then select **[Merge]**, **[Replace]**, or **[Cancel]** to finish operation.

5.2. Preset Management

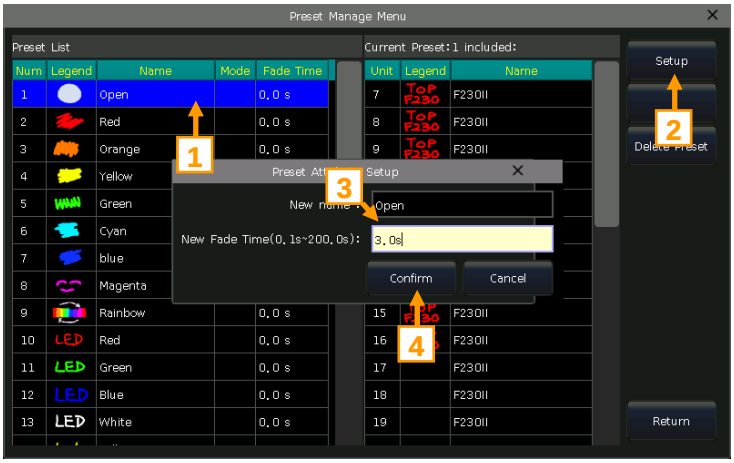
You can rename and set the fade-in time of the preset in the **'Preset Manage Menu'**.

1> Press **[Edit Preset]**;

2> Press **[Preset Manage]**;

3> The **'Preset List'** will show all saved presets with their information. The fixtures used for creating the preset will be listed when you select the preset on the **'Preset List'**.

- Preset **[Setup]**. You can edit the preset name and its fade in time of the preset;



- Press **[Delete Preset]** can delete the selected preset;

4> Press **[Return]** to exit.

5.3. Using Presets

The controller provides multiple ways for recalling the presets. The soft-key of the latest selected preset is displayed in light green.

- **Select fixtures and recall**: recall the preset after selected fixtures; those non-selected fixtures will not be added in the preset.

- **Non-select fixtures and recall**: when the preset is recalled, it will be added to all included fixtures. You should first enable the option **[Quick Palette]** in the setup menu for this feature.

When recalling a preset where the fade-in time is already set, it will use the time to fade in the preset; if the preset has not been set any time (default time is 0s), the preset will be activated immediately.

However, entering a value (ranging from 0.0~200.0 seconds) before recalling the preset will temporarily use the time to fade in the preset.

1> Input value by numeric keys under **'LIVE SHOW'**, such as 5;

2> Select a preset on the touch screen, such as an RGB mixed color or a location;

3> Then you will find the preset is recalled and fading in with 5s.

If some of the playbacks are saved by recalling the presets. Modify and update the used presets to update the playbacks directly.

For example, if Cue 2 on Playback 1, and Cue 5 on Playback 10 were recorded on Preset 1 (red color). Change Preset 1 to yellow color with the prism opened. Then changes would take effect upon updating.

6. Shape Effects

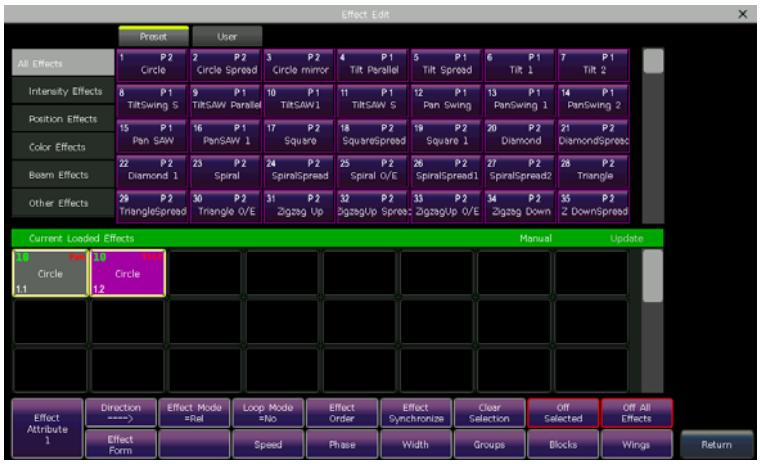
The controller offers an effect generator for you to quickly create exciting light shows with the minimum of programming.

6.1. Using Effect

1> Select the fixtures and light them up;

2> Press **[Effects]**;

3> Select effects using the soft keys. The default selection type is **[All Effects]**, but you can also find more specific types of effects by using the effect type shortcut options on the left.



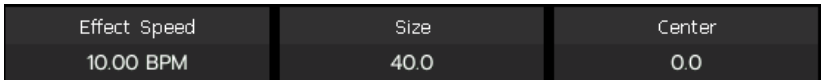
- The running effects will be listed on the **'Current Loaded Effects'**, in which the quantity of selecting fixtures shows on the left top and the contained channels will be expanded to display on the right top, while the effect number in the bottom left corner of the grid.
- The basic point of effect can be modulated. By changing its attribute, to set the size or speed to **'0'** can get the basic position of the effect.
- Each of the built-in effects is designed to work with a specific attribute type, but will only work if the fixtures themselves have the attributes needed to accomplish the effect. *For example*, the fixtures should have R, G, B or C, M, Y channels to run the **'Rainbow'** effects. Otherwise, you should use the **'Color'** effects for the fixtures with the color channel.

6.2. Effect Parameters

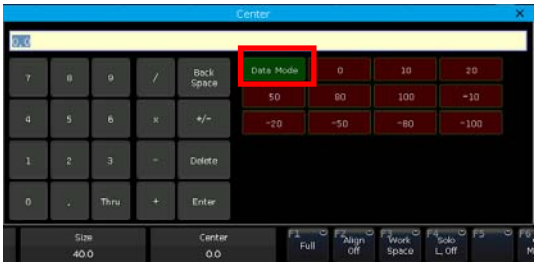
Each channel included in the effect has its own parameters with default values. You can edit the parameters of the effect channels together or one by one.

6.2.1. Effect Speed, Size and Center

When an effect is running, the **[Effect Attribute 1]** offers settings for **'Effect Speed'**, **'Size'**, and **'Center'**.



- **'Effect speed'** can be shown in **second** or **BPM**. You may change the feature by tapping on the name of **'Effect Speed'** and pressing the option **'BPM / Second'**.
- The **'Size'** works round the value of **'Center'**.
- The **'Center'** allows setting the center of the effect, which is offset from the base point values of the channels.



Click on the name of **'Size'** or **'Center'**, then select **[Data Mode]** in the pop-up dialog box. You can change the settings to **'Low Value'** and **'High Value'**.

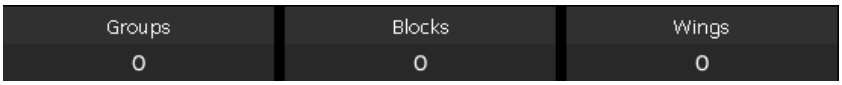
6.2.2. Phase, Width and Stop Time

The **[Effect attribute 2]** offers settings for **'Phase'**, **'Width'**, and **'Stop Time'**.

- The **'Phase'** on each complete effect waveform runs from 0 to 360 degrees, it can control each fixture's starting point. The phase can be a single value, or a range values. When it is a range value, the selected fixtures will be evenly offset to the effect waveform. The fixtures will start from different points.
- The **'Width'** controls the time a full cycle occupies. If the **'Width'** is set at 50%, the cycle will occupy only the first half.
- The **'Stop Time'** allows you to set how long the effect runs. If you need the effect runs continuously, please set it to **'Never'**.

6.2.3. Groups, Blocks and Wings

The **[Effect attribute 3]** offers settings for **'Groups'**, **'Blocks'**, and **'Wings'**.



- The **'Groups'** can divide the selected fixtures into **'n'** groups. When it is set at 1, all the fixtures will run like they are the same one, even if we have set a range value in phase. But when we set it at 2, the fixtures will run in odd and even.
- The **'Blocks'** can set the nearby numbers of fixtures to move together. But you should first set a range value on **'Phase'**, otherwise they will continue moving as a single group.
- The **'Wings'** plays according to our setting, when we set it at 2, it will divide our fixtures into 2 groups and flipping the direction for the 2nd group of fixtures, then the effect will run like symmetry.

6.2.4. Effect Direction

The **[Effect Direction]** can set the effect to run forward or backward.

6.2.5. Effect Mode

There are 2 effect modes, Relative and Absolute.

- **Absolute** ------- No matter where the basic value of the channel is, the effect will run between the two set values. (The values for **'Size'** and **'Center'**, or **'Low Value'** and **'High Value'**.)
- **Relative** ------- The effect is centered around the set value of the channel, and runs between two set values.

6.2.6. Loop Mode

The mode allows you to set the effect to get a round-trip run.

6.2.7. Fixture Order

The **[Fixture Order]** allows you to reorder the fixtures that run on the selected effect.
If multiple effects are running at the same time, each effect can be set to run in its own fixture order.
The way of setting up fixture order please refers to chapter 4.4.2.1.

6.2.8. Synchronize

The **[Effect Synchronize]** allows you to restart all running effects to see how they will interact.

6.2.9. Clear Selection

The option can deselect all the loaded effects.

6.2.10. Delete Selected

The option can select and delete the selected effects, others will keep running.

6.2.11. Delete All Effects

The option can delete all the running effects.

6.2.12. Effect Form

This option allows you to change the waveform for the selected effect.

6.3. User Effect

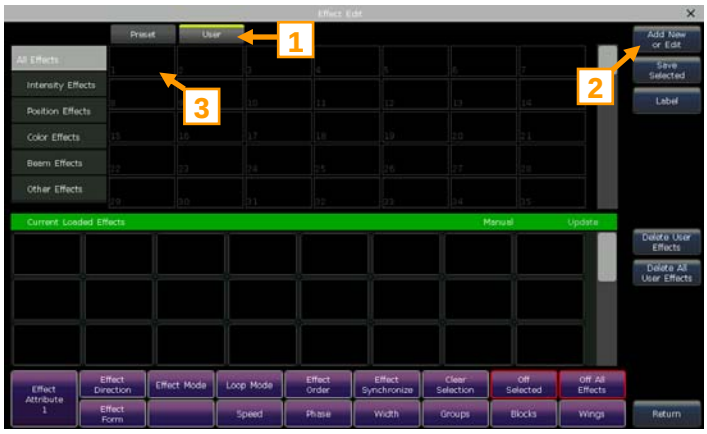
The user effect system allows you to create the user effects by effect forms. When creating a new user effect, the system will only offer the channels that are contained in the patched fixtures.

6.3.1. Create a User Effect

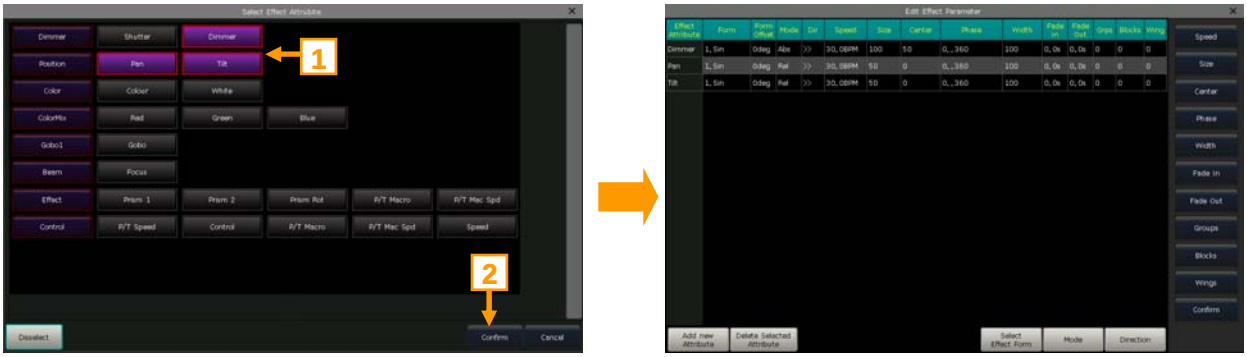
1> Select the **[User]** on top of the **'Effect Edit'** menu.

2> Press **[Add New or Edit]**.

3> Select an empty grid in **'User'** (e.g. No. 1), to open the **'Select Effect Attribute'** menu.



4> Select the channels that are needed, then press **[Confirm]**.

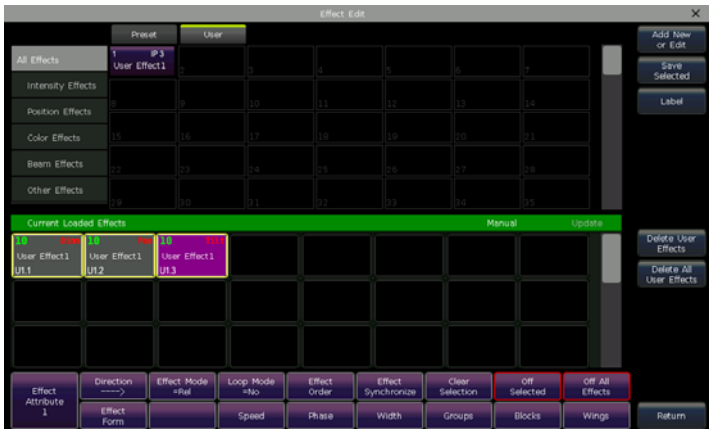


5> Select one of or multiple attributes in **'Edit Effect Parameter'**, and set the attribute settings are needed. Each attribute can match one wave form. You may change the wave form by the **[Select Effect Form].** You may also set the necessary parameters (Mode, Direction, Speed, Size, Phase, and so on) by the options in the toolbar at the right.

For example, if we want to make a circular movement effect, we may select the form **'Sin'** for Tilt, and form **'Cos'** for Pan. (Or select form **'Cos'** for Tilt and form **'Sin'** for Pan.)

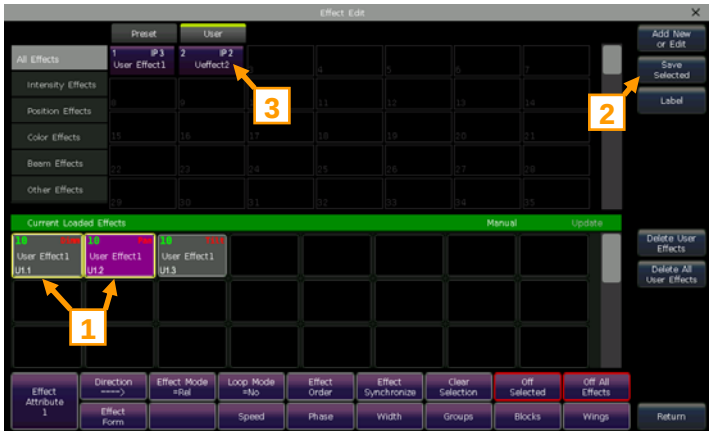
6> Press **[Confirm]** after finished setting all parameters. You can find the new user effect is listed on the **'User'**. The attribute types and the number of included channels of the user effect will be listed at the top right corner of the grid.

7> When recalling the user effect, all contained channels will be expanded to display on the **'Current Loaded Effects'** which is the same as when setting the system preset effect.



6.3.2. Save Selected

The option allows you to save the selected effects from the **'Current Loaded Effects'** Pool as a new user effect. You can recall the user effect for other fixtures to get the same effect. However, all parameters are based on the number of running fixtures. You can modify the parameters if the quantity is different.



6.3.3. Label

You may rename the user effect by the option **[Label]**.

6.3.4. Delete User Effects

- Select **[Delete User Effect]** can delete one of the user effects.
- Select **[Delete All User Effects]** can delete all the user effects.

Note: If you want to delete one of the user effects, you can also use the **Delete** key then select the effect shows in the **'Effects'** window.

6.4. Edit Effect

You are allowed to modify the effect which had been saved.

1> Press **[Effect]** in **'LIVE SHOW'**;
2> Fade in the playback that includes the effect to be edited;
3> Press the option **[Manual]** in **'Current Loaded Effects'** and set it to **[Playback]**;
4> Select the loaded effect in the **'Current Loaded Effects'** Pool;
5> Edit the selected effect and press **[Update]** after finished.
6> Press **[Return]** to exit.

7. Playback Fader

The playback faders can be used to save playbacks or set as the Group Master or Speed Master control.

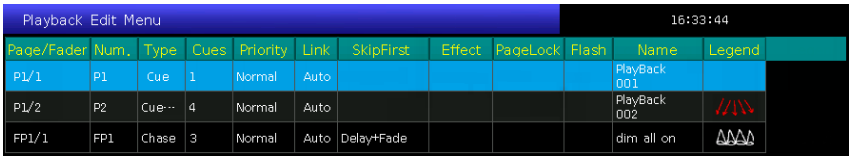
7.1. Playback Modes

The playback has two types: Cue and Cue-lists. Meanwhile, the Cue-lists has 2 modes: Cue-lists and Chase.

7.2. Playback Edit Menu

You can press the key **Edit Playback** to enter **'Playback Edit Menu'** to find out those saved playback details from the list. Besides, you can find functions of playback type (Cue-lists Mode), priority level, link mode, effect control mode, and so on from this menu.

The number of Playback display in **'PX/Y'** and **'FPX/Y'**. Hereinto, **'P'** means fader playback and **'FP'** means key-playback, **'X'** shows playback page number, and **'Y'** shows the playback number.



7.3. Cue

7.3.1. Save Mode of Cue

- **[Record All Stage]** ----- All patched fixtures will be saved, regardless of whether they have been selected and set.
- **[Record Mode = Fixture]** ----- All channel data of the selected fixtures will be saved.
- **[Record Mode = Changed Attr.]** ----- Only the changed channels of the fixtures will be saved. This function helps the playbacks saved with different attributes to run together.

7.3.2. Run Mode of Cue

- **[Mode=Time]** --- Enable both HTP and LTP times. If the times are set to 0, value of HTP channel depends on the fader position.
- **[Mode=Fader]** --- Disable any times. Values of HTP and LTP channels depend on fader position.

7.3.3. Save Cue

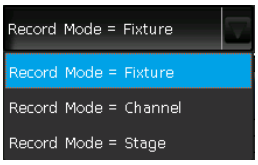
1> Select the fixtures;
2> Create a Scene or an effect;
3> Press **Save to Cue** when in **'LIVE SHOW'**;
4> Select the record mode and run mode as needed, select **[Playback type=Cue]**;
5> Press a key upon playback fader or a key-playback key to record.

Note: If the fader has been programmed, you can select the option **'Replace'**, **'Merge'**, or **'Save to Last Step'** as needed.

7.4. Cue-lists

The Cue-lists has two modes, Cue-lists, and Chase. The Cue-lists playback allows you to set different times for each step, while the Chase playback has only the same time for every step.

7.4.1. Create a Cue-lists



1> Press **Edit Playback** when in **'LIVE SHOW'**;

2> Select a key upon the fader playback or a key-playback key;

3> Select the fixtures;

4> Set a scene by attribute keys and wheels;

5> The **[Record Mode]** option defaults to **'Fixture'**. Press it to change to another mode for recording;

- **Record Mode = Fixture** ----- All channel data of the selected fixtures will be saved.
- **Record Mode = Channel** ----- Only the changed channels of the fixtures will be saved. This function helps the playbacks saved with different attributes to run together.
- **Record Mode = Stage** ----- All patched fixtures will be saved, regardless of whether they have been selected and set.

6> Press the playback key or press **[Save Step]** to save the step;

7> Repeat the steps from **3** to **6** until the end. Press **Edit Playback** to exit.

Besides, you can also create the Cue-lists playback under **Save to Cue** menu.

1> Press **Save to Cue** in **'LIVE SHOW'**;

2> Select record and run mode you want, select as **[Playback type=Cuelists]**; (At the moment, the indicator led of **Edit Playback** will flash.)

3> Select the fixtures and set a scene by the attribute keys and wheels;

4> Select a playback key for the Cue-lists. The top of the menu bar on the touch screen will display as **'Current PLBK=n'** (n means the number of playback fader);

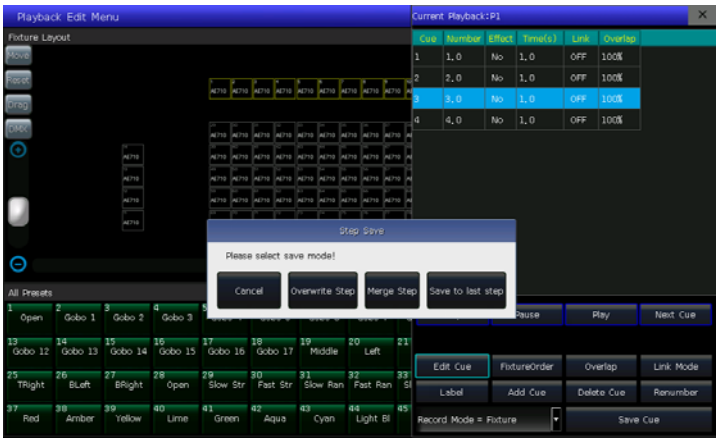
5> Set a scene by the attribute keys and wheels;

6> Press again the playback key which indicator led keeping on to record, the top of the menu bar on the touch screen will display as **'Total Steps=1'**;

7> Repeat the steps from **3** to **6** until the end. Press **Edit Playback** or **Save to Cue** to exit when finished.

7.4.2. Edit Cue-lists

7.4.2.1. Edit Cues



1> Press **Edit Playback** in **'LIVE SHOW'**;

2> Select a Cue-lists to be edited;

3> Select a cue from the Cue-lists;

4> Select **[Edit Cue]**, the scene will be loaded with the used fixtures;

5> You can edit the scene directly or select other fixtures for a new scene;

6> Press **[Save Step]**;

7> Select **[Overwrite Step]** will replace the original cue; Select **[Merge Step]** can merge it to the original cue; Select **[Save to last step]** will save as a new cue;

Note: If the newly added scene uses the same fixtures as the original cue, the data for those fixtures will be overwritten even when using the merge function.

8> Press **Edit Playback** to exit.

7.4.2.2. Fixture Order

The **[Fixture Order]** in Cue-lists should run with **'Fixture Overlap'**. You cannot find the effects if you did not set up fixture overlap in advance. The way of setting **'Fixture Order'** please refers to chapter 4.4.2.1.

However, you may remove the fixture(s) from the sequence if you don't want them to run with fixture overlap. The removed fixture(s) will start to run as soon as the first fixture(s) begins, and finish at the same time as the last fixture(s) ended.

7.4.2.3. Fixture Overlap

The **[Overlap]** option allows you to run a series of fixtures with chasing effect in one step. The range of overlap is from 0%~100%.

When overlap=100%, all fixtures will change together. If overlap=50%, the second fixture will not start until the first fixture is halfway (50%) through fading. The running sequence of fixtures follows the setting of the fixture order.

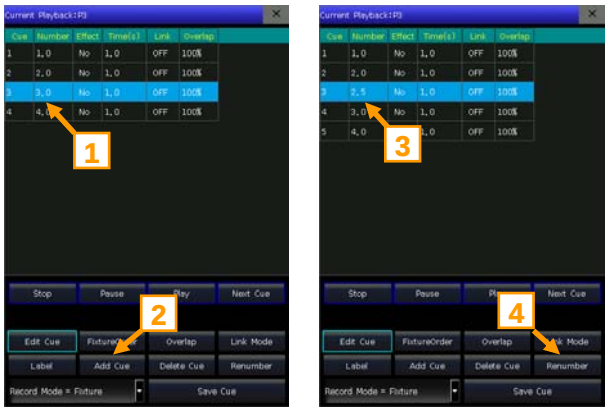
The running time will be divided equally for each fixture. That means if there are 5 fixtures run in 10s for the step. After setting the fixture overlap, each fixture uses 2s to finish its effect.

7.4.2.4. Link Mode of Cue-lists

You can set the link mode to each cue in the playback. To run this function, you should set the **[Link Mode]** as **'inside'** from **'Playback Edit Menu'**.

- When the Link is **'OFF'**, the cue will stop at the last scene unless getting the instruction to run the next cue.
- When the Link is **'ON'**, the cue will go to the next cue after it is finished.

7.4.2.5. Insert a Cue to Playback



1> Press **Edit Playback** in **'LIVE SHOW'**;
2> Select a Cue-lists to be edited;
3> Select the needed fixtures;
4> Set a new scene by attribute keys and wheels;
5> Select one of the cues. *For example*, select cue 3 if you want to insert a cue between 2 and 3;
6> Press **[Add Cue]**, then a cue 2.5 is inserted;
7> Press **[Renumber]** to renumber the cues;
8> Press **Edit Playback** to quit when finished.

7.4.2.6. Delete a Cue

1> Press **Edit Playback** in **'LIVE SHOW'**;

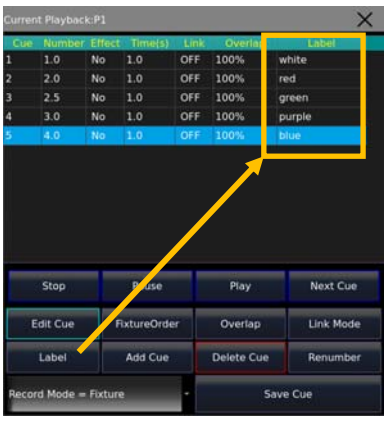
2> Select a Cue-lists to be edited;

3> Select a cue to be deleted;

4> Press **[Remove Cue]**;

5> Press **[Renumber]** to renumber the cues;

6> Press **Edit Playback** to quit.



7.4.2.7. Label the Cue

The option **[Label]** allows you to name the selected cue. The cue name will be displayed on the information grid during playing.

Note: Text input only.

7.5. Run the Playbacks

When running multiple playbacks, the last activated playback will display in the lower right corner of the touch screen. You can switch the indicated playback by holding on the key Shift and pressing the numeric key (physical button) of the playback. The velocity of the Cue-lists in its present state can be adjusted by Wheel D.

7.5.1. Play the Fader Playback

Fade in the fader can run the Fader-playback directly. The keys above or under playback faders have different functions for the running playbacks.

- **Keys above playback faders can be used as prelocate or pause.**

The keys can be used as prelocate function before the playback is faded in. Press the key above the fader. All channels of fixtures will be set to the value on the first scene of playback with the lamp off. Once you fade in the playback, the program will start to run immediately.
If a playback is faded in, the key above the fader is used as a pause function. The fixtures will stop at the current position when you press the key.

- **Keys under playback faders can be used as a flash or manual GOTO control.**

The keys under playback faders can be used as a flash if the playback is not faded in. Holding the key can keep the playback running the same as a fully faded in the fader. The playback will stop once the key is released.
If there is a Cue-lists playback had faded in, these keys can be used as GOTO control. Pressing the key once means to run one step of the Cue-lists.

Note: To use the manual control function, the option **'Playback GO+/GO-'** in **'Controller Manage'** should be set to **[Enable]**, and the link mode of Cue-lists steps should be set as **'Inside'** with **'Link Off'** or **'Manual'**.

7.5.2. Play the Fixed Playback

Press the numeric button under the fader to run the Fixed playback. Besides, you can also run the Fixed playback by pressing the playback name on the bottom part of touch screen, or the playback name on **'Fixed Playback'** window.

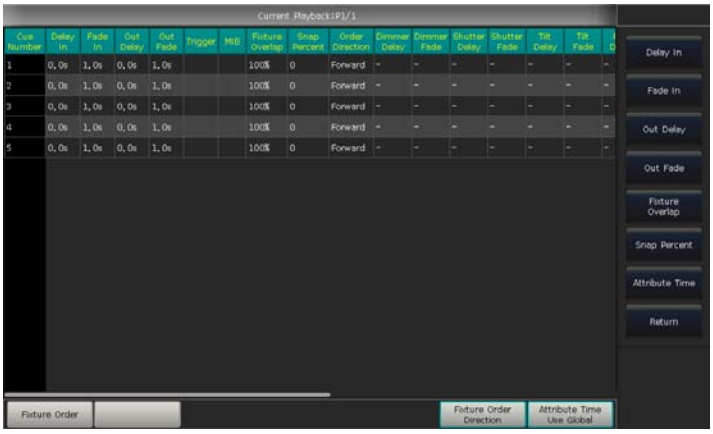
Note: Up to 200 Fixed playbacks can run simultaneously.
The Playback GO function cannot be used in Fixed playbacks.

7.5.3. Playback Running Direction

The Cue-lists playback runs from the first cue to the last cue by default. Users can hold down the ← key and press its flash button to change it to run backward. Hold down the → key and press its flash button to set it to run forward.

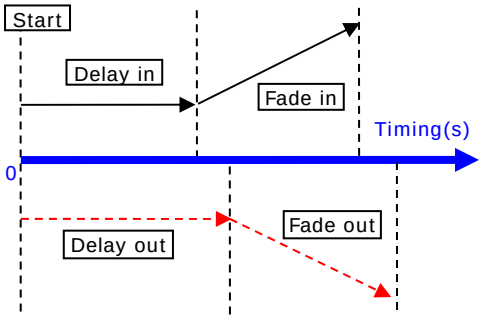
7.6. Time for Playback

Each playback has its own running time. There are 4 kinds of global times for each Cue-lists playback: delay in, fade in, delay out and fade out. Meanwhile, there are 3 kinds of global times for each Cue playback: delay in, fade in and fade out. Besides, you may set some of the functions, such as fixture overlap, individual attribute times, fixture order and etc. at the menu.



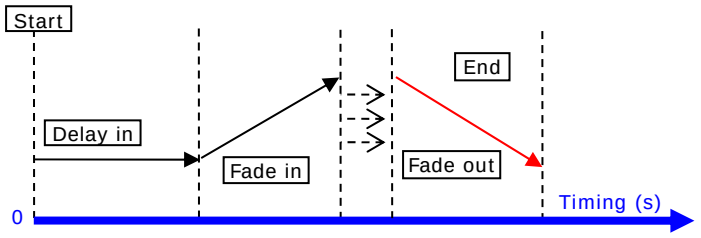
7.6.1. Set Global Times

- The times for Cue-lists playbacks are illustrated in the graphic on the right.



Delay in and delay out times will start together. Fade in time starts after delay in finished, while fade out time starts after delay out finished.
Fade out is only used on dimming channels. Fade out time will be used as delay out between the steps if the coming step does not have a dim off effect.

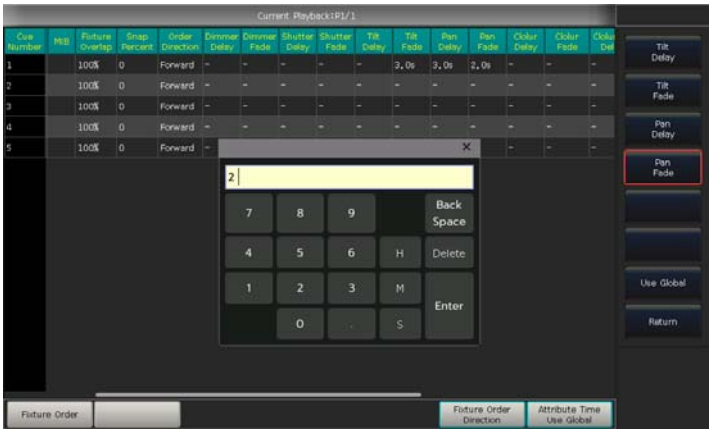
- The times for Cue playbacks are illustrated in the graphic below.



There is no delay out time if it is a cue playback.
When fading in the playback, the fade in time starts to run after the delay in is finished. When fading out the playback, the fade out time starts to run immediately.

7.6.2. Set Individual Attribute Times

The attribute time system allows you to set different running times for different attribute channels to achieve complex changes with minimal editing.
The attributes times have only delay in and fade in times. When editing attribute times, you can switch to other attributes by pressing attribute keys.



After setting the attribute times, those attributes that had been set will not use global times, unless you press **[Use Global]**. Those attributes that have not been set will keep using the global times.

- Press **[Use Global]** if you want the edited attribute times to resume to global times.
- Press **[Attribute Time Use Global]** if you want all attribute times to resume to global times.

7.6.3. Snap Percentage

The **[Snap Percent]** allows you to control when instant channels should occur. It defaults in 0%.

If the snap percent is 0% the channel occurs at the beginning of the cue fades in.

If the snap percent is 100% the channel occurs at the end of the cue.

If the snap percent is 50% the channel occurs in the middle of the cue.

7.6.4. Time for Cue-lists in Chase mode

Global and attribute times are unavailable for Cue-lists in chase mode. The time for chase mode can only be set by using Wheel D, while the **'Cross'** is set by using the **Shift** key with Wheel D.

- Cross=100% means steps will use the time to fade in the next step.
- Cross=0% means steps will not have a fade in time. The time is used as delay in for each step.

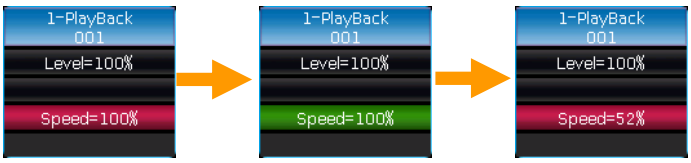
Speed=2.0s means every step in the chase runs in 2.0 seconds.

7.6.5. Manually control Speed of Cue-lists

After faded in a cue-list, you can use Wheel D to adjust the speed directly.

- Roll the Wheel D to set the speed percentage of the Cue-lists, on the bottom right corner will display as: **'Speed=100%'**(range at 10～500%).

- Press the speed frame to make it turns red, then press Wheel D to make it turn green (it is the start mark of setting speed). Press Wheel D again and the frame turn red again (it is the end mark of setting speed). Then the system will calculate a speed by the time slot between the start mark and end mark (range at 10～500%). Press the speed frame again to quit setting.



7.7. Playback Parameters

Pressing **[Playback Parameters]** and selecting the playback number keys can enter the playback parameter setting menu. Besides, hold down the **SHIFT** key and select the playback can also enter the playback parameter setting menu. Some other settings can be found from the menu after pressing **Edit Playback** key.

Cue-lists Playbacks

Cue Playbacks

In the playback parameter setting menu, press the playback number key to switch another playback to the current setting.

7.7.1. Playback Priority

The option **[Priority]** allows you to set different playbacks to run in different priority levels. The option can be set to **'Very Low'**, **'Low'**, **'Normal'**, **'High'**, or **'Very High'**. Each new playback defaults to **'Normal'**.

The function is very useful while performing. When running a playback, a newly activated playback that uses the same fixtures will cover the old playback if the new one is in the same or higher priority. However, if the priority of the newly activated playback is lower than the first one, the first playback will not be affected.

7.7.2. Release Mode

After the playback ends, the channels of the fixtures will be released according to the **'Release Mode'** setting.

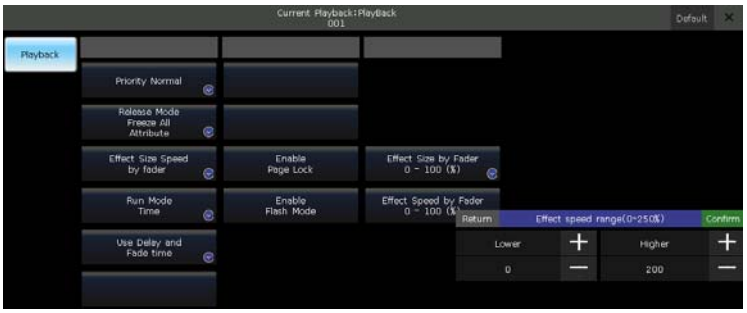
- **[Freeze All Attribute]** ---- Hold all channels in the current state except the HTP channel.
- **[Release All Attribute]** ---- Restore all channels to the state they were in before playback was activated.
- **[Release Only Pan/Tilt]** ---- Restore Pan and Tilt to the beginning state and hold the other channels' state except for the HTP channel.

7.7.3. Effect Control by Fader

The option **[Effect Size Speed]** allows to set the size or speed of the included effect to be controlled by the fader. There are 4 options, **'Effect Size Speed Static'**, **'Effect Size Speed by fader'**, **'Effect Size by fader'**, or **'Effect Speed by fader'**.

Note: Once the function is set, the fader cannot control the intensity.

Once the effect size or/and speed is/are set to be controlled by the fader, the fader control range can be defined (from 0 to 250%).



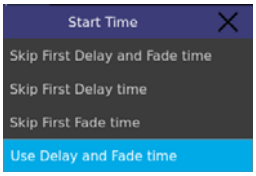
7.7.4. Run Mode

The option is available for the Cue playbacks only,

- **Mode=Time** ---- Enable the time settings. If the times are set to 0, the value of the intensity channel depends on the fader position.
- **Mode=Fader** ---- Disables any time settings. The output value of the channel depends on the fader position.

7.7.5. Playback Start Time

If the run times are set to playback, the time will affect the initial step at the beginning. *For example*, if you had set the delay in or fade in time, the fixtures will use the times to move from the last position to the first step, then start to run the Cue-lists.
Press the option **[Use Delay and Fade time]** to switch the function of skip start time as needed.



7.7.6. Link Mode of Cue-lists

The option only provides for Cue-lists, there are 3 link modes for Cue-lists: **'Automatic'**, **'Manual'**, and **'Inside'**:

- **Automatic** ---- No matter what the link setting is, the cues will keep running automatically.
- **Manual** ---- No matter what the link setting is, the cues will pause on each cue until getting the next instructions.
- **Inside** ---- The cues run by the link settings of each cue.

If the link mode is **'Manual'** or **'Inside'** with **'Link=OFF'**. The button under the playback fader can be used as a GOTO function after the playback is faded in. Pressing it one time means to run a cue.

7.7.7. Loop Mode

If it is a Cue-lists playback, press **[Loop run]** option can switch the run mode to **[Stop in Last Step]**.

7.7.8. Connect Speed Master

The option allows you to link the playback to a speed master, and then the effect speed of the playback will be controlled by the global speed.

Note: Once the playback is linked to the speed master, the **'Effect Speed by fader'** will be unavailable.

7.7.9. Tracking Mode

The option is available for Cue-lists playbacks only and defaults by **[Enable]**. If a cue in the Cue-lists playback contains a shape effect, the effect will affect the other cues. Disable the option to disconnect the shape effect from other cues.

7.7.10. Chase Mode

The option is available for Cue-lists playbacks only and defaults by **[Disable]**. Enable it to switch the Cue-lists playback to chase mode.

7.7.11. Lock the Playback

The function is only available for fader playbacks. When the option **[Enable Page Lock]** is enabled, the playback will be locked on the page where it is located, then the program will remain in this fader although you are on the other pages.

Note: Once the playback is locked, the playbacks on the same fader on other pages cannot be output.

7.7.12. Flash Mode

The function is only available for fixed playback. When the **[Flash Mode]** is enabled, it will become a flash output. The function can only be used by using the physical button of the fixed playback.

Note: The fixed playbacks activated on the touch screen do not have the flash function.

7.7.13. Solo Mode

When in the **'Edit Playback'** Menu, press the option **[FixedPLBK = Normal Mode]** can switch the mode to **[Solo Mode]**.

The solo mode is only available for the fixed playbacks. The new output playback will replace the running one if the mode is activated.

7.7.14. Rename the Playback

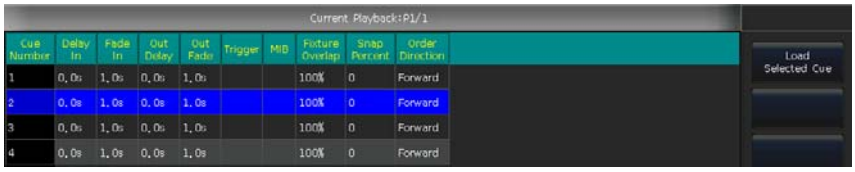
The option **[Playback Label]** allows you to rename the selected playback in the list of **'Edit Playback'** Menu. The name of the playback will be shown at the bottom of the screen. You can press the **Func** key to switch the display of the fixed playbacks or the settings on the screen.

7.8. Reload a Cue

The controller allows you to reload the attribute values of fixtures from one of the whole Cue-lists. You may load the values of the needed attributes from one of the cues by the option **[Load Cue to Program]** after pressing **[Playback Parameters]**.

You may find all indicators of attribute keys are on. Pressing the attribute keys to cancel selected so that the non-selected attributes will not be loaded in. Then select the playback that needs to be reloaded.

- If there is a cue playback, the fixtures included in the cue will be selected automatically.
- If there is a Cue-lists playback, you may select one of the cues and then select **[Load Selected Cue]**. It will return to **'LIVE SHOW'** and the fixtures included in the cue will be selected automatically.



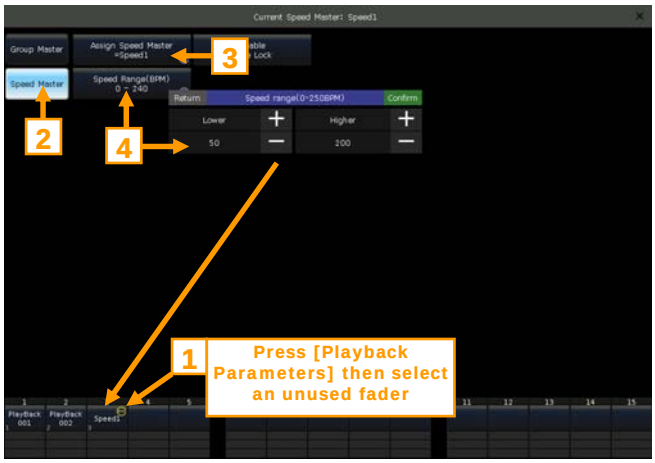
7.9. Custom Defined Fader

The controller allows you to define an unused fader to control other functions besides achieving the playbacks. The faders can be set as the effect global speed fader or the fixtures master fader.

7.9.1. Create a Speed Fader

1> Press the option **[Playback Parameters]**;
2> Select an unused playback fader;
3> Select the option **[Speed Master]**;
4> Press **[Assign Speed = Empty]**;
5> Select the speed sources from the list (Speed1 to Speed8);
6> Set the speed range as needed.
7> Press **[✕]** to Exit.

The playback will become used and named with the speed source name, with a red mark showing in the upper right corner of the grid.



The Grand-Master fader can be set as the speed fader in the **'Manage Console'** menu. However, the speed range of the speed source needs to be set by entering the **'Playback Parameters'** menu of the playback fader.

Note: Once set to a speed fader, the Grand-Master fader will no longer control the main intensity.

7.9.2. Use the Speed Fader

After creating a speed fader, users can enter the playback parameters menu and link the selected playback to the speed fader. The speed fader will control the speed of all the playbacks that are linked to it. Then the shape effects in different playbacks can run at the same global speed.

7.9.3. Delete a Speed Fader

The deletion function cannot delete the speed fader. If a speed fader needs to be deleted, please follow the steps below,

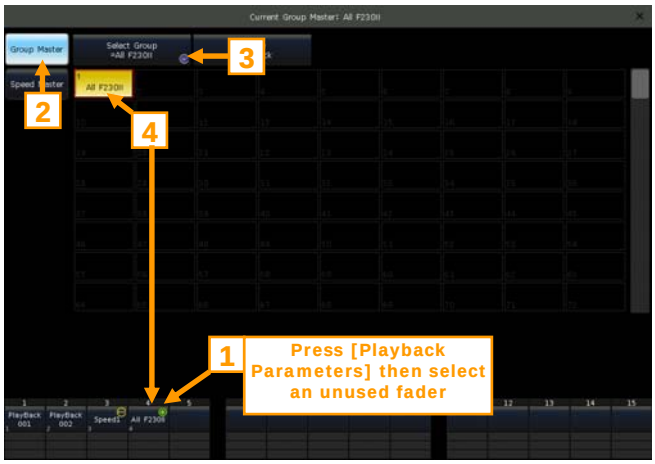
1> Press the option **[Playback Parameters]** and select the speed fader;
2> Set the option **[Assign Speed]** to **[Empty]** to cancel it;
3> Press **[✕]** to Exit.

Note: After deleting the speed fader, we need to unlink the playbacks that are linked to it.

7.9.4. Create a Group-Master Fader

1> Press the option **[Playback Parameters]**;
2> Select an unused playback fader;
3> Select the option **[Group Master]**;
4> Press **[Select Group = Empty]**;
5> Select the group from the list;
6> Press **[✕]** to Exit.

The playback will become used and named with the group name, with a green mark showing in the upper right corner of the grid.



When playing a playback that includes the fixtures in this group, the intensity output value is based on the saved values and the position of the master and Group-Master fader.

For example, a playback is saved with an intensity value of 50%. If the master fader is fully faded but the Group-Master fader is half faded, then the playback intensity will only be output at 25%.

Note: The Group-Master fader won't be listed on the **'Playback Edit Menu'**, and cannot be overwritten by another playback.

7.9.5. Delete a Group-Master Fader

The deletion function cannot delete the Group-Master fader. If a Group-Master fader needs to be deleted, please follow the steps below,

1> Press the option **[Playback Parameters]** and select the Group-Master fader,
2> Deselect the highlighted group name to delete the Group-Master fader,
3> Press **[✕]** to Exit.

Note: If the group is deleted when the Group-Master still exists, then the playback intensity will remain controlled. It means that a new group needs to be created with the fixtures to remove the control state.

7.10. Show lists

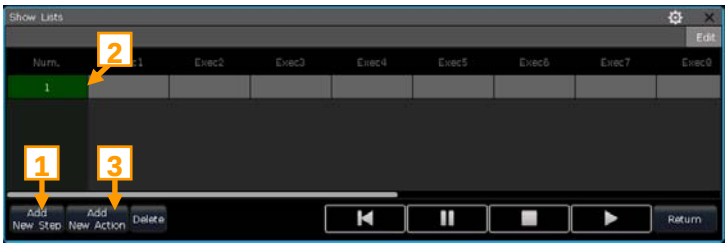
The **'Show lists'** function can be found after opening its operation window, you can add different playbacks to the sequence, and manually activate the next or previous sequence using the **GO+** or **GO-** buttons.

7.10.1. Create a Show List

1> Select an empty number from **'Show Lists'** window;

2> Press **[Add New Step]**;

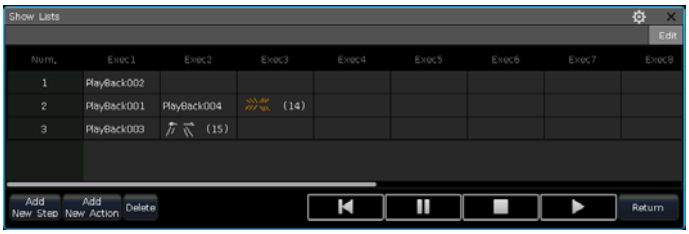
3> Select the step number;



4> Press **[Add New Action]**;

5> Select the needed playback from the list and press **[Confirm]**;

Note: If you have multiple playbacks that need to be added to the same step, you should repeat steps 3 to 5 to add the playbacks one by one;



6> Repeat steps from 2 to 5 until finish creating the show list.

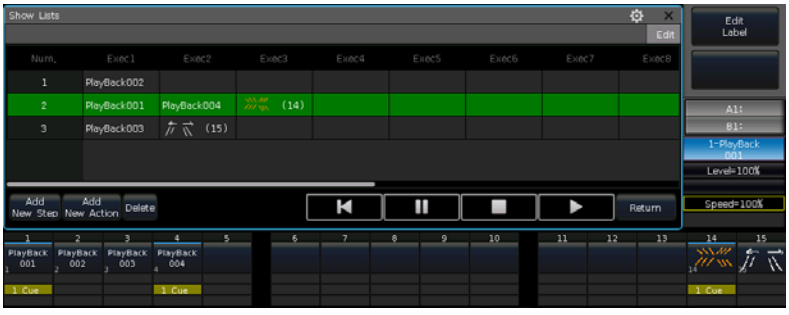
7.10.2. Play the Show List

1> Select the show list number;

2> Press the play icon on the window;

Note: After pressing the play icon, regardless of which step is selected, the show list will always start from step 1.

3> Press the button **GO+** to run next step, or press **GO-** to run previous step.



Note: When a show list is playing, the current running step will be indicated in Green.
Press the stop icon to stop the running show list. Otherwise, you cannot stop the running playbacks in any way.

8. Practical Functions

We will introduce the practical functions such as Off, Copy, Delete, Move, Rename, and so on in this part.

8.1. Off Function

Press the option **[Off Menu]** on the touch screen to entry off function.

- **[Off effects]** --- close shape effect on selected fixtures, those ones not being selected will not be affected;
- **[Off all effects]** --- all shape effect will be closed no matter the fixtures are selected;
- **[Off selected Fixtures]** --- lamp off and stop the selected fixtures;
- **[Release All Playbacks]** --- release all running playbacks.

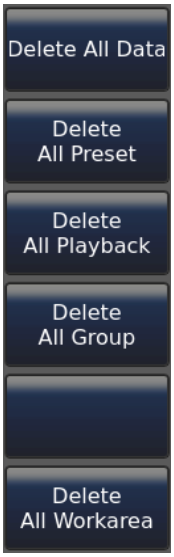
Besides, when the **[Off Menu]** is on, you can release a single playback by press the key under playback fader. But you have to fade it in if you want to activate it again.

8.2. Copy Function

The copy function can be used in Groups, Presets, and Playbacks. Press the key **Copy** and select an item, then select a target:

- If it is an empty target, you can simply achieve the copy and paste functions;
- If there is something in the target, you can select **[Overwrite it]** or **[Merge]**;
- If both the copied and pasted targets are playbacks, there will be an added option **[Copy to Last Step]**. The function makes it more convenient to compose several cues to be a Cue-lists playback.

8.3. Deletion Function



You can delete the data edited on the controller. Press key **Delete** to enter the delete function.

- **Delete All Data** --- It can delete all edited data on Controller. The operation is equivalent to system clearing.
- **Delete All Preset** --- It can delete all saved presets.
- **Delete All Playbacks** --- It can delete all playbacks you programmed.
- **Delete All Group** --- It can delete all saved groups.
- **Delete All Workarea** --- It can delete all the saved workspaces.

Besides, you can delete a single item by the delete function.

- Select the units from either operating window, such as **'Group'**, **'Fixture'**, **'Preset'**, **'Effect'**, **'Macro'** etc. You can delete a single item by pressing the unit twice.
- If you want to delete a playback, you can press the playback number key twice directly.

8.4. Move Function

It is easy to move the group, preset, or playback to another position on the controller. Press **Move** and select a root, then select a target:

- If it is an empty move target, you can achieve the move function;
- If there is something already in the moving target, those two sources will be swapped.

8.5. Lock the Controller

If you want to step away for a moment, you can input the password using numbers or letters in **'LIVE SHOW'**, and then press **[Lock Controller]**. When locked, all operations are disabled until you input the correct password.

Note: Restarting the system will also unlock the controller. But any unsaved program operations will be lost.

8.6. Label Management

For easier understanding of the edited contents, you can use the legend function to rename groups, fixtures, presets, playbacks, macro shows, and etc.

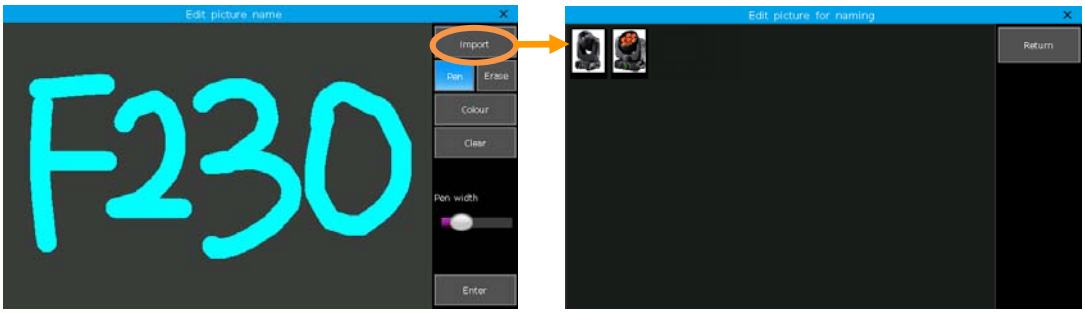
1> Press **[Edit Label]** on the menu bar;

2> Select the source to be renamed;

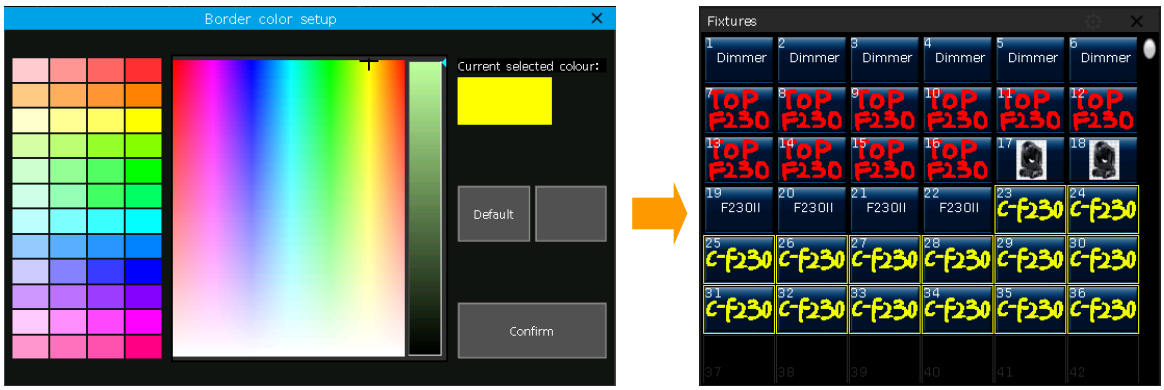
3> Select different rename options from the menu bar on right;

There are two rename ways for your selection,

- **Text:** You may call out the keypad by keyboard and typing in the letters.
- **Picture:** You can draw a picture as the name. The pen color and width can be changed accordingly. Or you can import image as names from a USB drive.



Besides, you may change the frame color of the grids by the option **[Border]**. It helps you to discriminate different units according to their functions.



4> Press **[Confirm]** to finish naming.

9. Macro Show

The macro show is a function based on the time code, which allows you to record and replay a sequence of the playback output. When recording the show, you can select different modes of time code as needed.

The controller offers 3 kinds of time code modes:

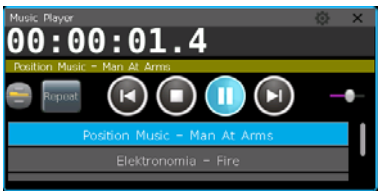
1> **Internal Clock** ---- record and trigger the show recording by using the internal clock time.

2> **MIDI MTC** ---- it requires an external MIDI device to provide the time code for macro show. Please set the controller to **'Slave Mode'** before using this mode.

3> **Internal Music** ---- play music through the built-in music player and use its time code for the macro show.

You can replay the operations of playbacks and presets by recall the macro show. When it is replaying, the outputs of playbacks and presets are completed followed by the operations when making the macro show.

9.1. The Built-in Music Player

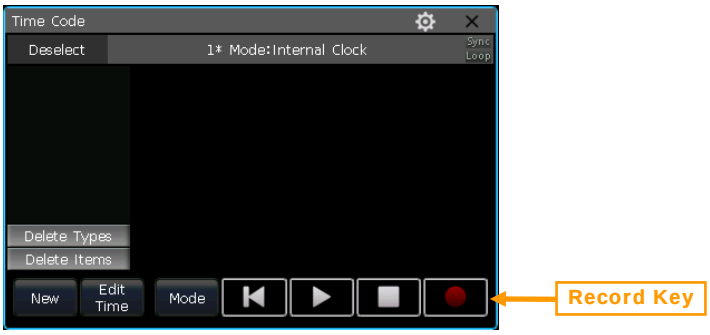


The controller has a built-in music player, which can directly play the music files on the USB disk. The supported formats are: ***mp3/aac/m4a/wav/wma/flac/ape***.

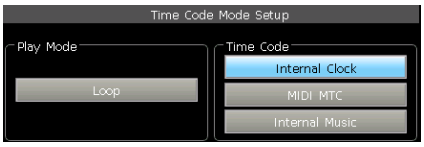
9.2. Record a Macro Show

1> Open the **'Time Code'** window on **'LIVE SHOW'**;

2> Select **[New]** to open a new record. The record number and its mode will be listed on the top;



3> Select the **[Mode]** to find other time code modes and the **[Loop]** can set whether the record replays cyclically;



- If the time code mode is **Internal Clock**, the record starts directly. The timeline will be the relative time from the beginning to the end of the recording.
- If the time code mode is **MIDI MTC**, the timeline starts from when you start playing on the external device. The system clock will change into the display of the time code which comes from the external device.

- If the time code mode is **Internal Music**, the built-in music player will offer the time code for recording. The timeline starts when you pressing play on the music player.

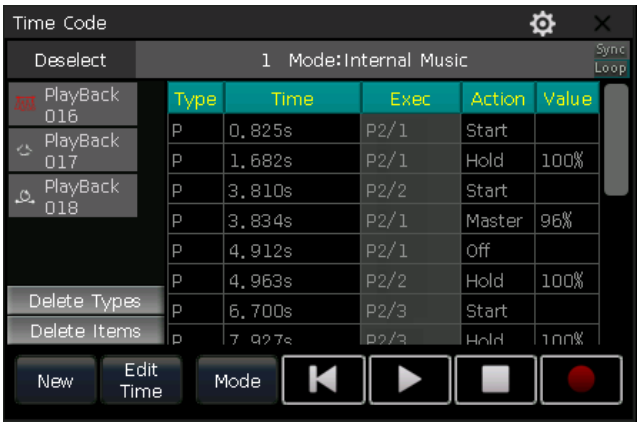
4> Select **[Apply]** to confirm the time code mode;

5> Press the record key, the macro show starts to record when its frame turns red.

6> Execute or close the playbacks or presets according to the music. If there is a Cue-lists playback, you may use the GOTO function to record.

7> Release all playbacks and presets when finished recording. Press the record key again, then **[confirm]** to save the macro show.

8> After saved, all used playbacks and presets as well as the operations will be listed in the **'Time Code'** window.



9> You can replay the macro show on the window directly.

- If the macro show saved by **Internal Clock**, the macro show starts to replay once you pressing play on the time code window.

Note: If there is a time slot without any operation at the beginning, it will run out as when recording. You may skip the time slot by the option **[Skip Macro Show start time]** in **'Controller Setup'**.

- If the macro show saved by **MIDI MTC**, the macro show will be standing by when pressing the show record in the **'Macro Shows'** window. The show starts to play once you pressing play on the external device.
- If the macro show saved by **Internal Music**, the macro show starts to play once you select the show record on the **'Macro Shows'**, and the music which used for saving the record will be played automatically.

10> The macro show will stop automatically when it finished.

Note: When the macro show finished playing, we should stop playing the music on the external device manually if the record is saved under **MIDI MTC** mode.

9.2.1. Edit Macro Show

You are allowed to revise the saved macro shows after created. We can call out the **'Macro Show'** window and select the show record to switch displaying its operations in the **'Time Code'** window.

9.2.1.1. Insert New Operations

You are allowed to add new operations into a saved macro show

1> Select the macro show to be edited;

2> Press the record key in the **'Time Code'** window and play the music again to start record;

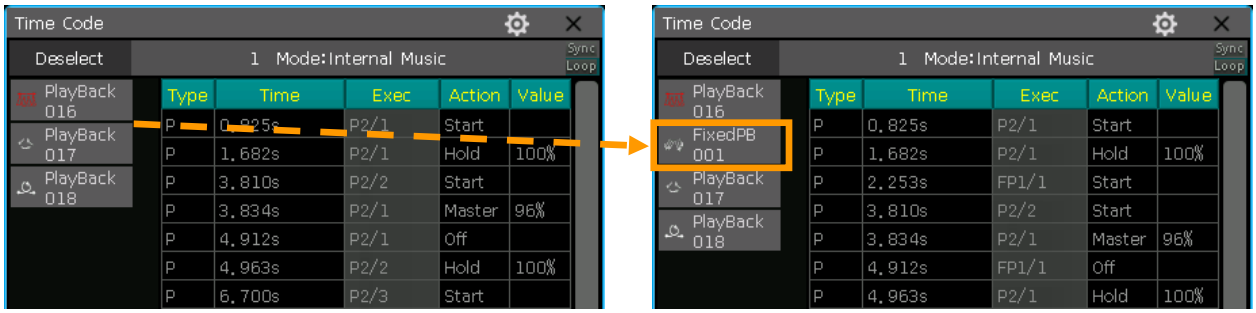
3> Execute playbacks or presets at the timeline point to be added;

4> Close the running playbacks and presets, then press the record key again;

5> Select option **[Merge]** at the call out menu;

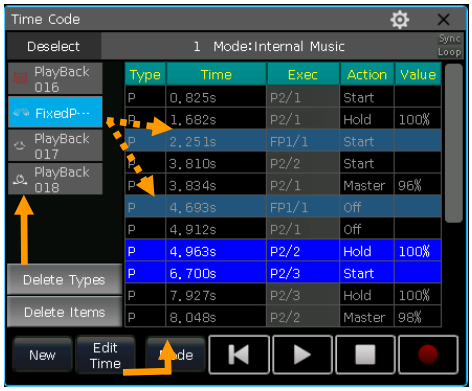
Note: Select **[Overwrite]** will take place of the original contents.

6> The added playbacks and presets will be listed at the left bar of the **'Time Code'** window.



9.2.1.2. Delete Operations

You can delete some useless operations from the macro show. There are two different options for deleting the contents.



- **[Delete Types]**

1> Select the playback or preset name on the list. All operations using that playback or preset will be highlighted.

2> Press **[Delete Types]** to delete all the operations from the selected playback or preset.

- **[Delete Items]**

1> Select one or sequential operations to be deleted.

2> Press **[Delete Items]** to delete the selected operations.

9.2.1.3. Edit Timing of Macro Show

While replaying the macro show, you may find one or several operations do not match the rhythm. At this time, you may correct their timing in the **'Time Code'** window.

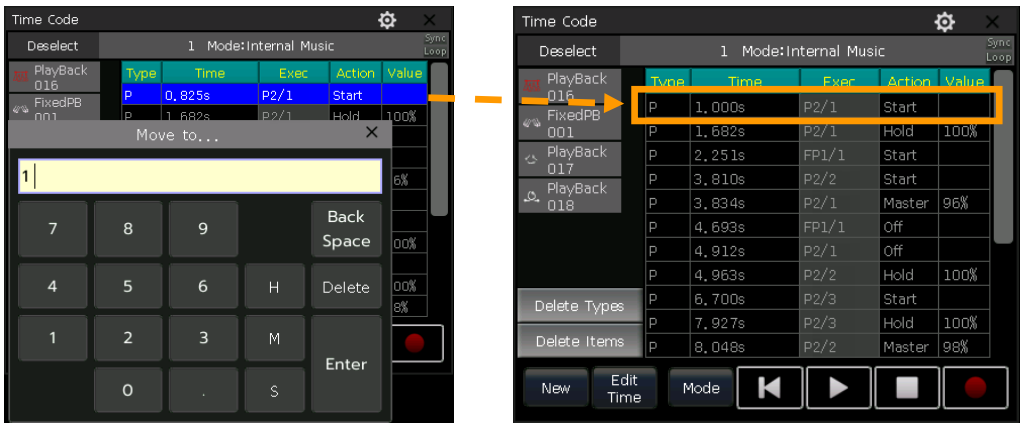
A playback or preset at the saved macro show has at least two operation statuses, **'Start'** and **'Off'**. Furthermore, you will have two more states, **'Hold'** and **'Master'**, if the dimming value changes when recording the macro show.

1> Select the operation that needs to be edited;

2> Press key **ENTER** or **[Edit Time]** at the **'Time Code'** window;

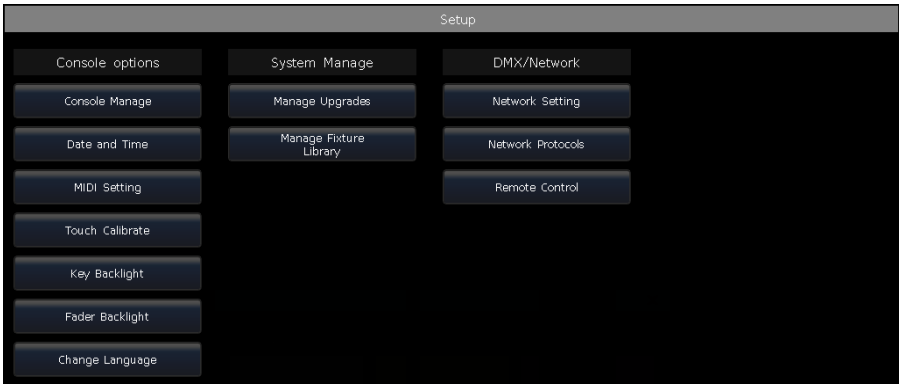
3> Entry the correct time at the **'Move to...'** window. The entered value defaults to second, but we can select **[H]** to set it to hour or **[M]** to minute;

4> Press **[ENTER]** confirm to modify the timing.



10. Setup Management

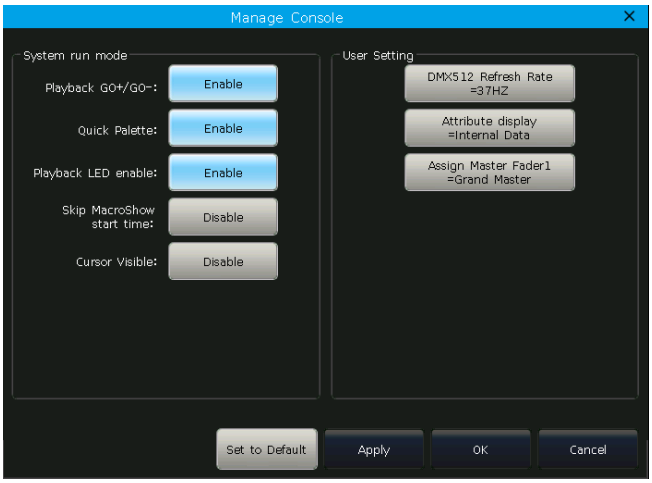
Press the **Setup** key, you can enter the **'Setup'** menu for different controller setup options.



10.1. Console Options

10.1.1. Console Manage

Press **[Apply]** to activate the changes, and press **[Set to Default]** to reset all the changes.



10.1.1.1. System run mode

Playback GO+/GO- --- The option defaults to **[Enable]**. When Cue-lists link mode is manual or **'Link=Off'**, the key under playback fader can be used as a GOTO function. If the option is **[Disable]**, when the playback fader is not fully output, the keys under the faders can be used as intensity flash output.

Quick Palette --- The option defaults to **[Enable]**. You can recall presets without selecting fixtures. If the option in **[Disable]**, you have to select the fixtures before recalling presets. If you do not select any, the presets cannot be recalled.

Playback LED enable --- The option defaults to **[Enable]**, the key upon Playback fader will be highlighted if it has a program. If the option is **[Disable]**, the key upon playback fader will show in backlight color whatever if it has a program or not.

Skip Macro Show start time --- The option defaults to **[Disable]**. It is used for the macro show which recorded with the internal clock. The start time slot of the macro show will be canceled if the option is **[Enable]**.

Cursor Visible --- The option defaults to **[Disable]**. If the option is **[Enable]**, you can display the cursor when connecting with a mouse.

Note: If the mouse is connected after power on, the controller should be restarted to activate the mouse.

10.1.1.2. User Setting

The option **[DMX 512 refresh rate]** allows you to set the output rates ranging from 26~37Hz to match some special fixtures.

[Attribute Display = Internal Data] means that the attributes will be displayed in the data format written in the fixture profile. If the option is **[Decimal]** the attributes will be displayed as values of 0 ~ 255. While it is **[Percent]** the attributes will be displayed as 0 ~ 100%.

[Assign Master Fader] allows you to set the Master Fader to control the grand master output or become a speed fader.

10.1.2. Setup Date and Time

You can set the local time which displays on top of touch screen. When power on, the controller reads the latest **'defaultshow'** file which according to the backup date and time.

10.1.3. MIDI Setting

- MIDI Channel: setting range from 0-15.
- MIDI mode: You can set the controller in **[Master Mode]**, **[Slave Mode]** or **[MIDI Disable]**. The default setting is in disable.

When in **[Master Mode]**, the controller is the master device that can control the slave one; and while in **[Slave Mode]**, the controller is the slave device that can be controlled by the master device.

MIDI COMMAND:

You may input the midi command on other midi devices to trigger the playbacks of the controller.
The character **'n'** (o to 15) below means the midi channel number (n=0 means channel=1). The midi channel number should be the same as the setting on the controller.

Note: MIDI command cannot trigger the Fixed playbacks.
All input numbers for the commands should be in hexadecimal notation.

- The midi Command for switching playback (PB) pages. (pages from 0 to 79): **Bn + PB page + 0**
- The midi Command for running a playback (PB): **9n + pp + ll**
  pp = playback number (decimal: 0 – 14)
  ll = playback levels (decimal: 0-127)

Example: the midi channel on the controller is 1**.**

a) If you want to switch the playback page to page 3. Command: **B0 02 00**
b) If you want to run playback 1 with full intensity. Command: **90 00 7F**
c) If you want to run playback 15 with a 50% level. Command: **90 0E 3F**

10.1.4. Touch Calibration

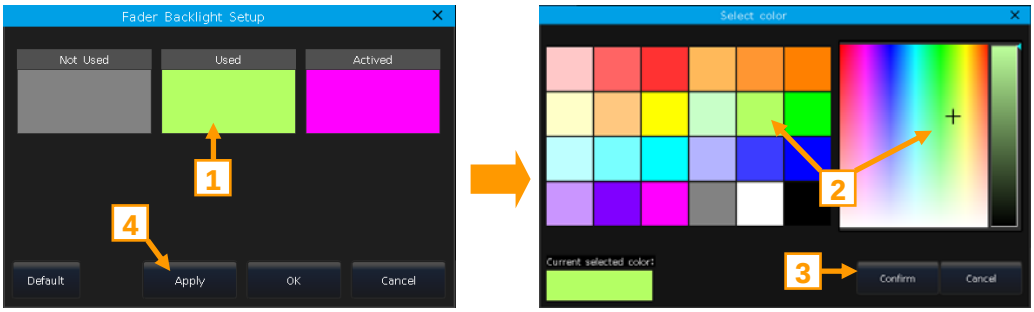
You can use the option **[Touch Calibrate]** to calibrate the touch screen. Besides, using ← + → + **Setup** keys can also enter the touch screen calibration.

10.1.5. Setup Key Backlight

The keys on the controller offer three backlight colors. You may change the combination of backlight and highlight colors, or set up the intensity of the backlight. Besides, you can also use the combination keys **Shift** + **Thru** to change the backlight color or keys **Shift** + **+** or **–** to set intensity.

10.1.6. Setup Fader Backlight

The faders on the controller take with backlights. You can change the backlight colors according to the functions of the faders.

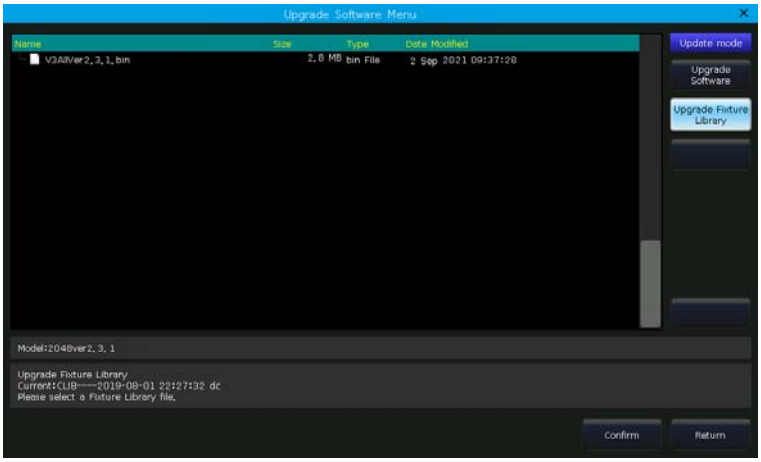


10.1.7. Set Language

The language of the controller can be switched between Chinese or English.

10.2. System Manage

10.2.1. Upgrade Manage



You can upgrade the firmware or system library in this option. The current version of firmware and the updated date of the system library can be shown on the bottom of the upgrade menu.

You can put the latest firmware file and/or library file into the USB disk, and upgrade the firmware or system library by the corresponding option in this menu.

10.2.2. Manage Fixture Library

If you cannot find the fixture library from the system, you can create or edit the user fixture on the controller. When entered the option, it will list all loaded or created user fixtures on the left. Select any of them that will show its channel details, then you can edit it again.

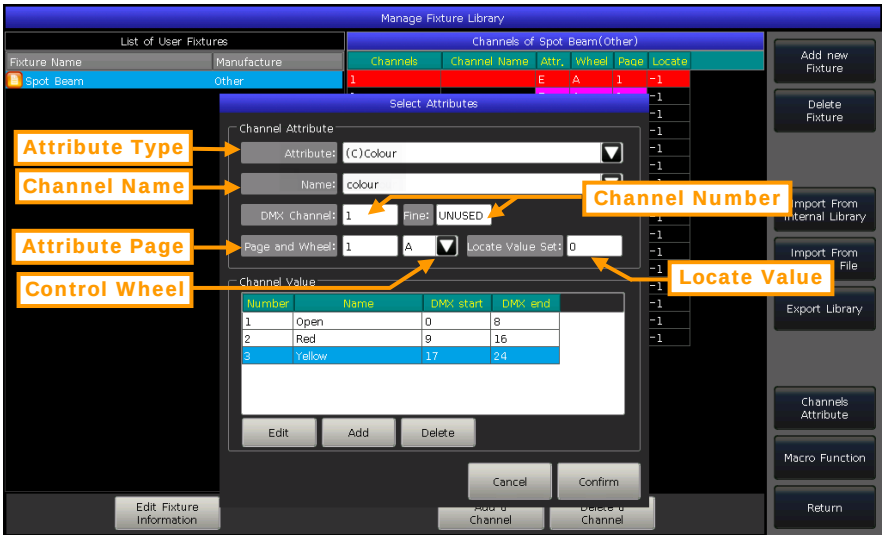
10.2.2.1. Create New Fixture

1> Press **[Add New Fixture]**;

2> Fill in the information of the fixture, such as **'Fixture Name'**, **'Manufacture'**, **'DMX channels'**, and select **'Color Mix Mode'**;

3> Select the channel row to be edited and then press **[Channels Attribute]**;

4> At the **'Select Attribute'** menu, you can set up the attribute type and its name (you may type in the name by the soft keyboard); set up whether it has a fine channel; select the position of the control wheel and its page; set up the locate value;



Besides, you may set or edit channel values on each attribute if needed.

- Press **[Add]** at **'Channel Value'**;
- Select the row to be edited and press **[Edit]**;
- Enter the name, start and end values;
- Press **[Confirm]** when finished.

5> Press **[Confirm]** to finish setting the attribute;

6> Repeat the steps **3** to **5** until the whole list finished;

7> Press **[Return]** and then **[Confirm]** to save.

10.2.2.2. Delete User Fixture

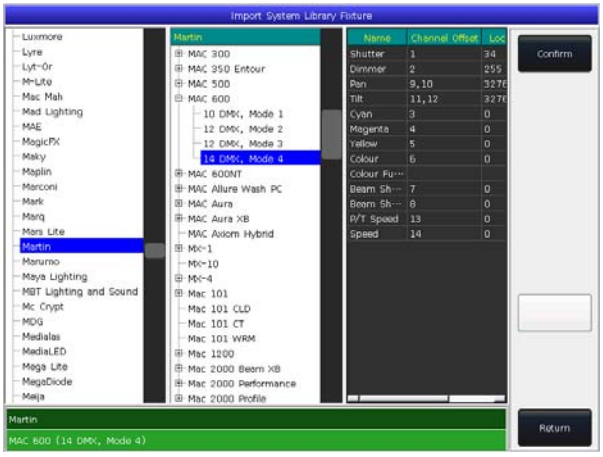
The option allows you to delete the user-defined fixtures. However, the system fixtures are not allowed to be deleted.

1> Select the fixture to be deleted on the list on the left side.

2> Press **[Delete Fixture]** to delete the selected fixture.

10.2.2.3. Import System Fixture

You can export the fixtures from the system library, and edit the fixtures according to the physical lightings. The edited user-defined fixtures will not affect the system fixtures.



1> Press **[Import From Internal Library]**;

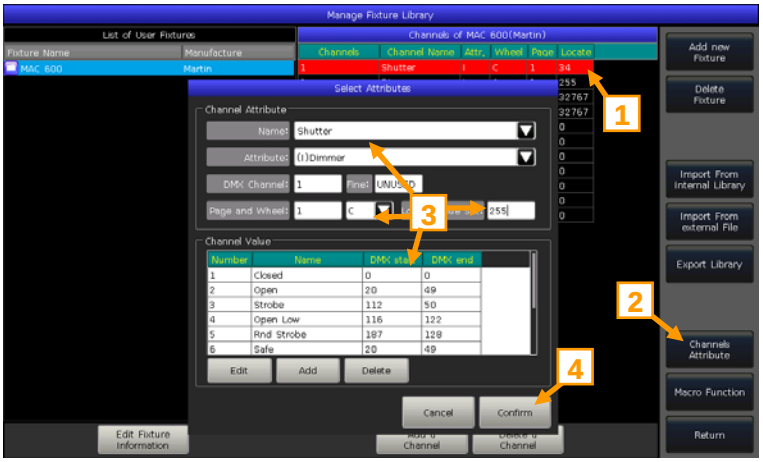
2> Select the manufacturer name listed on the left side of the menu;

3> Select the fixture model and its channel mode under the manufacturer. The channel details will be listed on the right frame.

4> Press **[Confirm]** to load in the selected fixture;

5> The exported fixture is listed on the **'List of User Fixtures'** as the user-defined fixture. Select the channel to be edited;

6> Select **[Channels Attribute]** and modify the details. *For example*, edit the locate value;

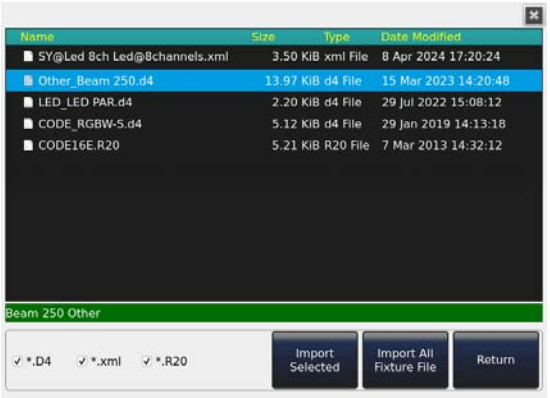


7> Press **[Confirm]** after finished editing;

8> Press **[Return]** and **[Confirm]** to save the change.

10.2.2.4. Import From external File

You can load in the user library file **'codeusrlib.bin'** which was exported from the same series controller, R20, D4, or XML format library files into the controller.



1> Put the needed files into the USB disk;

2> Press key **[Import From external File]**;

3> All files in the USB disk will be listed at the callout window;

4> When a R20, D4, or xml format file is selected, the lower bar will turn green and display the fixture name.

- If you need to load in the whole user fixture library that exported from another controller, select the file **'codeusrlib.bin'**;
- Select the option **'*.R20'** can help to show only all the R20 format files;
- Select the option **'*.D4'** can help to show only all the D4 format files;
- Select the option **'*.xml'** can help to show only all the XML format files.

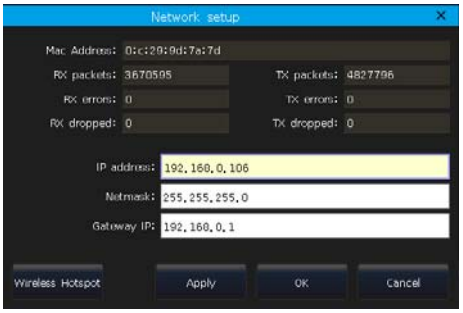
5> Press **[Import Selected]** to load the fixture into the user list.

All fixtures in the **'List of User Fixtures'** will be overwritten after loaded the **'codeusrlib.bin'** file.

10.2.2.5. Export Library

You can export the user fixture library to the USB drive as a backup. Then, the fixture library can be used in other controllers in the same series. The exported library file is named **'codeusrlib.bin'**.

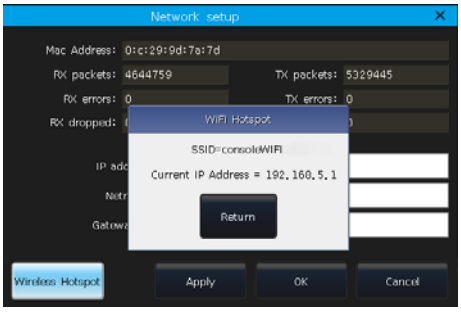
10.3. DMX/Network Setting



10.3.1. Network Setting

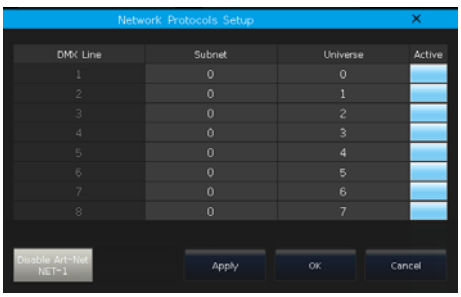
The function offers options such as **'IP address'**, **'Net mask'** and **'Gateway IP'** for your setting up. The IP address is **192.168.0.231** by default.

Note: After setting the new IP settings, restart the console to activate the settings.



There is a **[Wireless Hotspot]** option allows you to open the WIFI function to connect with the App on remote devices. The SSID from the console is **'consoleWIFI'** and the WIFI password is **'87654321'**.

Note: If the remote device is connected to **'consoleWIFI'** directly, the IP address on the App should be set to **'192.168.0.231'** or **'192.168.5.1'**. If the remote device connects to the console via the WIFI router, the IP address on the App should be the same as the one on the WIFI router.



10.3.2. Network Protocols

You can enable the Art-net to output DMX data and active the needed DMX lines to output by Art-net.

11. Technological Specification

- Total 4096 DMX channels. Provides 4 individual optical isolated DMX interfaces and 1 Art-Net interface.
- One high-resolution 15 inches capacitive LCD touch screen.
- Provides a total of 80 playback pages. Each page provides 15 multifunction faders and 15 playback buttons.
- 4 backlit optical encoders for data settings.
- The key backlit offers three color options and adjustable brightness.
- Playback faders with backlit which can be set to different colors for 3 different states.
- Individual keys for flash and pause functions for playbacks.
- Provides midi In, Out and Thru interfaces to connect and work with other devices. Accept midi time code signal.
- Built-in WiFi for connecting the application on mobile or tablet.
- Provides one USB 2.0 interface. Connecting to a mouse is available.
- Provides one 3.5mm stereo audio interface, one audio optical interface, and a headphone interface.
- 1 working lamp interface with luminance regulator.
- Power supply: AC100-240V, 50-60Hz.
- Size: 665mm × 580mm × 205mm.
- Net weight: 15Kg approx.