

FOS

technologies

FOS Designer 1024



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Welcome to use FOS DESIGNER 1024

For your convenient usage, the manual divided into 10 chapters. Important contents are highlighted by shading and example explanations are added when necessary for the sake of your better understanding.

In the manual, a square symbolizes a key, such as **Enter**. While a square brackets symbolizes soft-keys on the touch screen, such as **[Playback Parameters]**.



1. Setting up FOS DESIGNER 1024

1.1. Front Panel of FOS DESIGNER 1024

FOS DESIGNER 1024 offers 3 kinds of colors (red, yellow and green) for the keys backlight.

Users can set the combine of backlight and highlight color to different colors as needed. Use keys **Shift** and **Thru** to change colors, and use keys **Shif** with **+** or **-** to increase or reduce the brightness.

1.1.1. Quick Record Key

Users can quick record the programs and setting by press key **Store**.



1.1.2. Playback Section

Playback section is composed of page keys, playback keys, playback faders, and playback master faders.

FOS DESIGNER 1024 has 40 playback pages, each page has 15 faders for editing playbacks, thus 600 playbacks can be saved totally. Users can turn pages by keys **↑** or **↓**, while indicator led displays the page number.

There are keys upon and under each playback faders. Their functions will be introduced in the relevant chapters.



1.1.3. Grand Master

It contains with a master fader and a **Blackout** key.

1.1.4. Numeric keypad

There are 24 keys in the Numeric keypad. The functions will be introduced in the relevant chapter.

1.1.5. Attribute keys

There are 9 attribute and 1 Locate keys in this area. Press the same attribute key can turn to page 2 which display other channels. Each page can display 3 channels at most. Users can control fixtures by using the different attribute keys with corresponding Wheels A, B and C.



Press **Locate** twice rapidly, or press **Locate** once and select **[Locate Fixture]** to turn on all selecting fixtures and set all channels to default value, such as set Pan and Tilt to 128.

Hold **Locate**, and press attribute key can set those channels to locate value.

Example: hold **Locate** and press **Dimmer** can set Dimmer and Shutter channels to their locate value but without changing other channels. Then fixtures will lamp on in the last position.

1.1.6. Function Keys



Keyboard — The controller offers users a soft-keyboard to input character;

Backup — Backup programs and data;

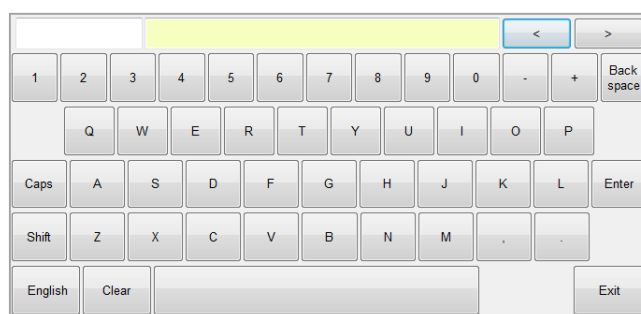
Setup — Setup the controller;

Save to Cue — Save Cue playbacks;

Edit Playback — Create or edit Cue-lists playbacks;

Edit Preset — Create or edit presets;

Patch — Patch fixtures.



Off — off function;

Copy — copy function;

Delete — delete function;

Move — move function;

Even/Odd — even/odd selection mode for fixtures;

Find — select all fixtures in sequence in find fixture mode.



Some of functions on the keys will be introduced in their relevant chapters.

1.1.7. Selection keys

The part includes options of **Group**, **Fixture**, **Preset**, **Effec** and **Macro** together with page switch keys. Each kind of option has 20 pages, and 20 keys for each page.

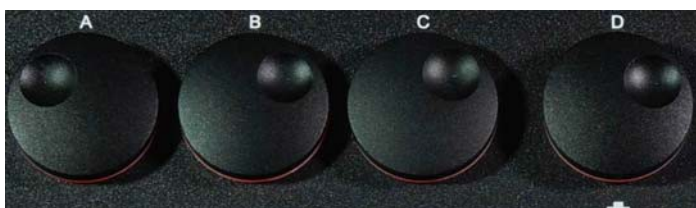


1.1.8. Control Wheels

Control wheels A, B and C are used for setting attributes of the fixtures or the parameters of movement effect.

Wheel D takes with a key which use for setting control values of options, and setting Cue-lists velocity.

The key in wheel D can be used as **Enter** or save key when setting options.



1.1.9. Touch Screen

There is a 7" TFT-LCD touch screen offers soft-keys for operating. Such as selecting fixtures, groups, presets and menu options.



1.1.10. USB Interface

The controller offers a USB interface for users to backup the shows or upgrade system version and fixture libraries.



1.2. The Rear Panel of FOS DESIGNER 1024



1.2.1. DMX universes

FOS DESIGNER 1024 can output 2 universes of DMX signal, each of them can output 512 control channels.

The controller can send DMX directly to fixtures over A, B output interface.

"DMX Output A" outputs signals of A001 - A512; "DMX Output B" outputs signals of B001 - B512

1.2.2. Art-Net Interface

FOS DESIGNER 1024 has a network interface which allows DMX signals output via network cable.

1.2.3. MIDI Interface

FOS DESIGNER 1024 not only can be controlled by MIDI signals, but also can send MIDI signal to control another one.

Please refer to the relevant chapter for further control instruction.

1.2.4. Audio Input

FOS DESIGNER 1024 can pick up the bass and rhythm of the audio signal to trigger Cue-lists, so that Cue-lists can auto run by the bass rhythm of audio.

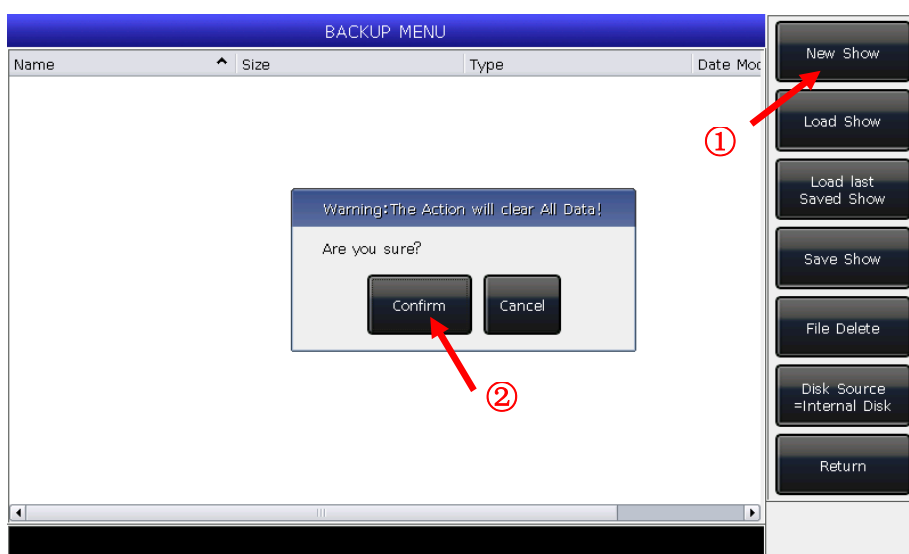
1.2.5. Power Supply

FOS DESIGNER 1024 adapts to quite a wide voltage range (100-240V AC, 50-60Hz). Thus, it can be used worldwide. If you need to change the fuse, please disconnect the power cable for safety.

1.3. Clear All Data

We strongly recommend you to clear all data on the new controller, so that you can avoid the unpredictable errors when programming.

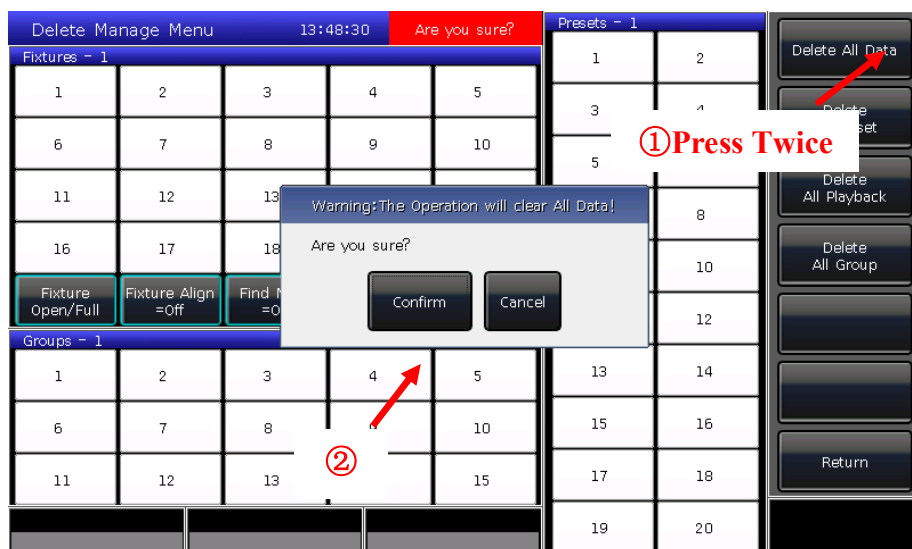
- 1> Press **Backup** to entry "BACKUP MENU";
- 2> Press **[New Show]**;



- 3> Press **[Confirm]** will clear all data and return to "LIVE SHOW" automatic.

Note: All data created by users will be deleted (including the patched fixtures, presets and playbacks). But the system libraries and user libraries will be saved.

Users can also press **Delete** and press **[Delete All Data]** twice to clear all data.



1.4. Backup and Load Show

FOS DESIGNER 1024 runs closed to a Windows-based operating system internally, so you need to backup your show after programmed. You can turn off the controller by the power switch on the rear panel and will not damage the system. But those program operations without backup will be lost when

The backup show files can be saved into the internal SD card or external USB driver.

You can backup the Show by press **Store** for a quick save. The show file will be saved into the internal SD card. By this operation, the files will be saved as "defaultShow" and "defaultShow_0" by turns.

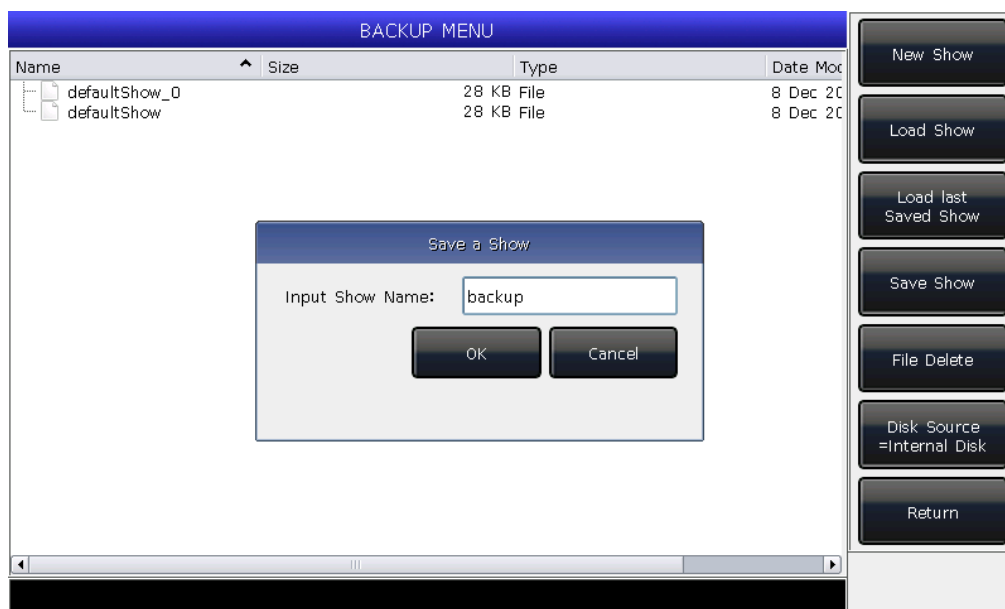
Users can also define the name of backup file;

- 1> Press **Backup** to entry "**BACKUP MENU**";
- 2> If you had inserted a USB driver, press **[Disk Source]** can switch the directory path between **[Internal Disk]** and **[USB Disk]**;
- 3> Press **[Save Show]**;
- 4> Press **Keyboard** to recall the keyboard and **[Enter]** to input the name;
- 5> Press **[EXIT]** or **EXIT** to quit the keyboard;
- 6> Press **[OK]** or **ENTER** to save.

Whatever you save the backup files into the internal SD card or external USB driver. The file of 'defaultshow' or 'defaultshow_0' will be renewed.

We recommend that you backup frequently when programming, so that you will not loose any programs by accident.

We recommend that you save the backup in the internal SD card as well as USB driver. So that you can take with the backup files in USB driver, and use them in other FOS DESIGNER 1024.



2. Patch

We will introduce how to patch and setup dimmer channels and fixtures in this chapter;

2.1. Assign fixture addresses

First of all, you have to patch fixtures to tell the controller what kind of fixtures you want to control.

The controller will offer a free DMX address automatic during patch. You can patch all your fixtures first and check over their patching addresses before assign on the fixtures.

You can also assign the wanted DMX addresses on fixtures first, then set the right addresses during patch.

2.2. Patch fixtures

To control the intelligent fixtures or dimmer channels, you should patch them on the fixture keys first. FOS DESIGNER 1024 has 20 fixture pages, each page has 20 fixture keys for patching fixtures. Thus, there are maximal 400 fixtures can be patched.

2.2.1. Patch Dimmers

Each fixture key can control single or multiple dimmer channels.

- Press **[Patch]**;
- Press **[Patch New Fixture]**;
- Press **[Patch Dimmer]**. The patch window on the left will show the patched fixtures;
- Press **[A]** on **"Start DMX Address"** option, can find out other outputs (A and B). Input Value "xxx" to setup the initial DMX address on the blank; you can also use numeric keys or Wheel D to setup the value;
- Press Wheel D can switch the cursor to option **"Unit start number"**. Input value "yyy" on the blank; (see photo 1 below)
- Press Wheel D can switch the cursor to option **"Quantity"**. Input value "zzz" on the blank. "zzz=1" means to patch a single dimmer channel on No.yyy unit key; and "zzz>1" means to patch a sequence of dimmers each to its own key. The range of dimmers will be patched to sequential DMX addresses;
- Press **[Confirm]** to finish patching. The **"PATCH SETUP"** will be renewed;

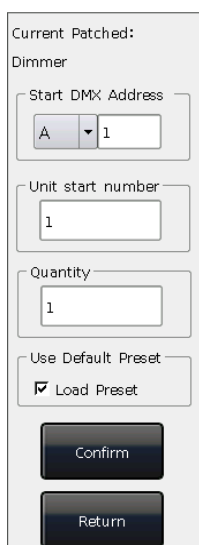
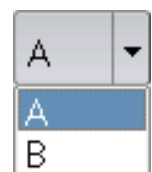


Photo 1

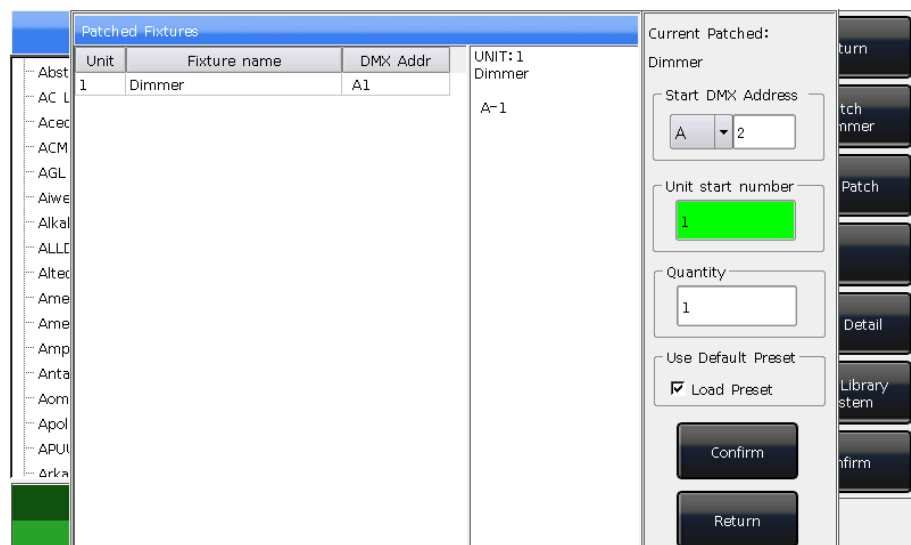


Photo 2

- You can also patch multiple dimmer channels on the same unit key. For example, you can set the same "yyy" value on option **"Unit start number"** when patch dimmer. In that case, if the key which had been patched, the blank will display in Green. The DMX address will increase one after patched. (see photo 2 above)
- Press **[Exit]** to quit to **"LIVE SHOW"**.

2.2.2. Patch Intelligent Fixtures

There is a bit different on patching between intelligent fixtures and dimmer channels. Because intelligent fixture has more attributes to control, such as Pan, Tilt, Colour and Gobo, but dimmer channel has only one attribute, intensity. To control the intelligent fixture needs library, you must find out and patch its corresponding library.

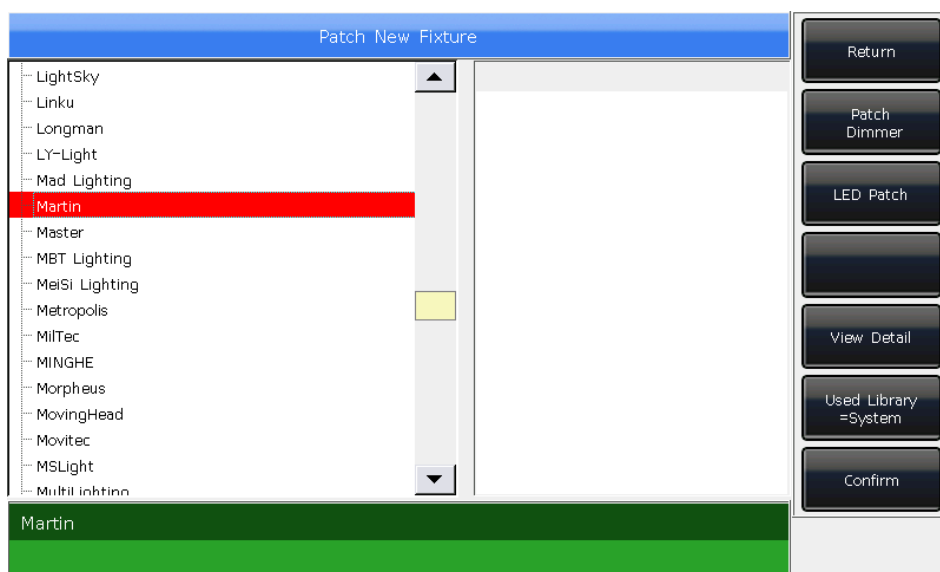
FOS DESIGNER 1024 offers two kinds of fixture libraries for your choice.

1> System library: FOS DESIGNER 1024 has its own system library inside. Users can download the latest library file from <https://www.fos-lighting.eu/fos-designer-1024-p-486.html> for updating;

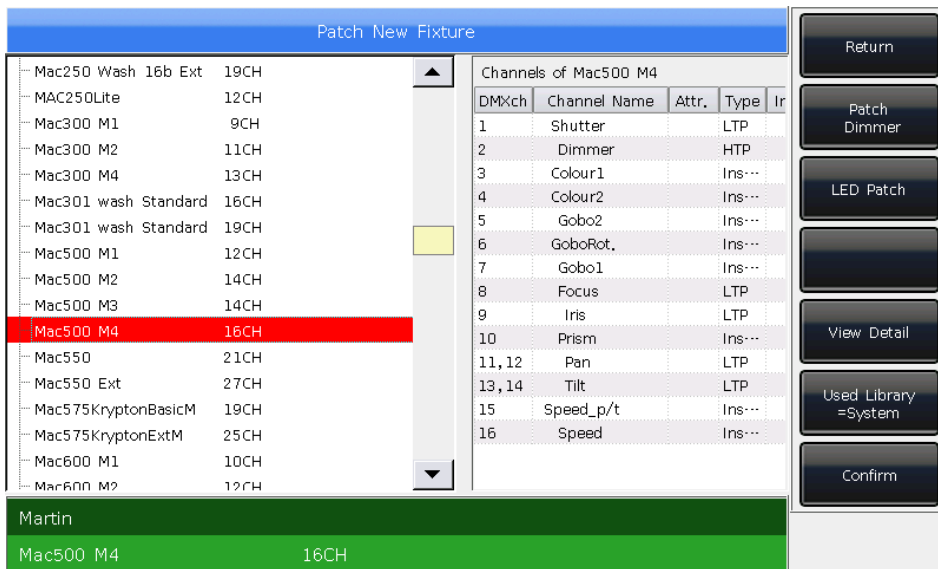
2> User library: If you cannot find out your library in system, FOS DESIGNER 1024 offers you multi-way to create or edit your library. (We will introduce you how to create or edit the user library on chapter 8.3)

- Press **Patch**;
- Press **[Patch New Fixture]**;
- Press **[Used Library = System]**, can switch to **[Used Library = User]**;

① When patch system library, you can use Wheel D or scroll bar to search the manufacture; or you can recall the soft-keyboard by **Keyboard**, and input the name of manufacture (You can input the first several words). Press **[ENTER]** on the soft-keyboard will select on the right option, press **[Exit]** to quit the soft-keyboard.



Press **[Confirm]** to enter the menu of manufacture and search the needed fixture as the same way above and press **[Confirm]**. (Channels details will be listed when the model is selected.)

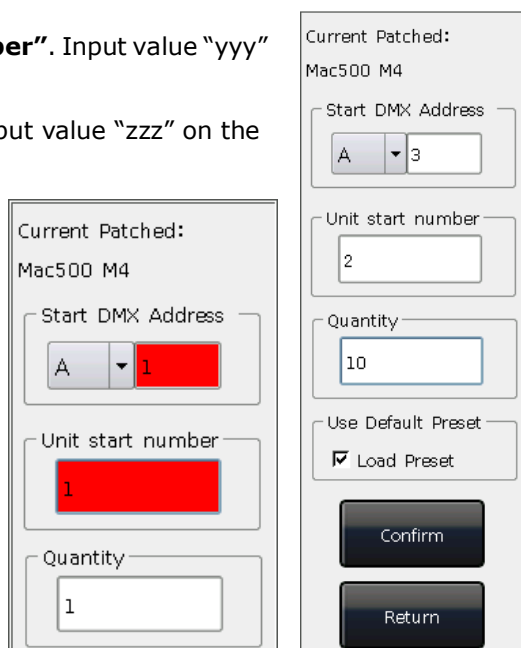


② You can select the model directly on touch screen or use Wheel D when patch user library.

- Press **[A]** on **"Start DMX Address"** option, can find out other output options (A and B). Input Value "xxx" to setup the initial DMX address on the blank;
- Press Wheel D can switch the cursor to option **"Unit start number"**. Input value "yyy" on the blank;
- Press Wheel D can switch the cursor to option **"Quantity"**. Input value "zzz" on the blank.
- Press **[Confirm]** to finish patching, the **"PATCH SETUP"** will be renewed automatically;
- Press **[Return]** and quit to "LIVE SHOW".

Note: The blank will turn RED if the DMX address or unit number was used when setting the "initial DMX address" or "Unit start number".

6 Mac500 M4	7 Mac500 M4
11 Mac500 M4	12



After patched, the soft-key on touch screen will turn to dark blue, and the model name will be shown on the soft-key.

2.3. Check and Setup the Patch

Users can press **Patch** to entry **"PATCH SETUP"** to check the DMX address or other information of the patched fixtures.

PATCH SETUP						
Unit	Fixture name	DMX Addr	Swap P/T	Inv. Tilt	Inv. Pan	Inv. Dim
1	Dimmer	A1/A2...				
2	Mac500 M4	A3-18				
3	Mac500 M4	A19-34				
4	Mac500 M4	A35-50				
5	Mac500 M4	A51-66				
6	Mac500 M4	A67-82				
7	Mac500 M4	A83-98				
8	Mac500 M4	A99-114				
9	Mac500 M4	A115-130				
10	Mac500 M4	A131-146				
11	Mac500 M4	A147-162				

Return

Patch New Fixture

Unpatch

Swap PAN/TILT

Invert TILT

Invert PAN

Invert Dimmer

2.3.1. Delete patched Fixtures

On **"PATCH SETUP"** menu, users may select multiple patched fixtures and select **[Unpatch]** to delete all fixtures you do not need.

2.3.2. Setting moving light

Users are allowed to swap or invert Pan and Tilt of the moving lights installed on the stage. So that users can control the moving lights to run as mirror movement more conveniently. Dimmer channels can be inverted as well. Press **Patch** to entry **"PATCH SETUP"** can setup the channels of moving lights:

Users can multi-select fixtures to setup the pan, tilt or dimmer channels or delete them.

- **[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.

Note: All the same model of moving lights will be inverted if invert the Dimmer channel.

PATCH SETUP						
Unit	Fixture name	DMX Addr	Swap P/T	Inv. Tilt	Inv. Pan	Inv. Dim
1	Dimmer	A1/A2...				
2	Mac500 M4	A3-18				
3	Mac500 M4	A19-34				
4	Mac500 M4	A35-50				
5	Mac500 M4	A51-66		YES	YES	
6	Mac500 M4	A67-82		YES	YES	
7	Mac500 M4	A83-98		YES	YES	
8	Mac500 M4	A99-114		YES	YES	
9	Mac500 M4	A115-130				
10	Mac500 M4	A131-146				
11	Mac500 M4	A147-162				

Return

Patch New Fixture

Unpatch

Swap PAN/TILT

Invert TILT

Invert PAN

Invert Dimmer

3. Manual Control Fixtures

We will introduce how to manual control fixtures, set attributes, save groups in this chapter.

3.1. Select Fixtures

FOS DESIGNER 1024 offers several ways for users to select the fixtures:

- 1> Touch Screen --- users can select the fixtures on the touch screen directly.
- 2> Selection keys --- when the indicator led is on Fixture of "Select" area, press keys from 1 to 20 can select the needed fixtures. If you want to select a serial of fixtures, you can hold the first key and then press the last one. A serial of fixtures will be selected after released.
- 3> Numeric select --- on "LIVE SHOW", when the indicator led is on Fixture of "Select" area, input the number can select those fixtures. For example:

If you want to select fixtures 1 to 9, you can press keys orderly as 1, THRU, 9. The top right of touch screen will display '1~9'. Then press ENTER will select those fixtures;

1~9

If you want to select fixtures of 1,3,5,7, you can press keys orderly as 1, +, 3, +, 5, +, 7. The touch screen will display '1+3+5+7'. Then press ENTER will select those fixtures;

1+3+5+7

If you want to select a serial of fixtures but without any in it, such as select 1,2,4,5, you can press keys orderly as 1, THRU, 5, -, 3. The touch screen will display '1~5-3', Then press ENTER will select those fixtures;

1~5-3

- Those fixtures being selected display in gray blue on touch screen, while the indicator led of the keys in **Fixture** of "Select" will turn on.
- If press the selecting keys again, the soft-keys will change into light blue. It means they had ever selected.
- Select new fixtures will turn off the selected fixtures if you ever adjusted the channels on the fixtures. The soft-keys of fixtures had been set will display in light blue. It means they had ever selected or edited. The new selecting ones will display in gray blue, means they are being selected.



3.2. Manual Control fixtures

3.2.1. Light up the fixtures

Press **[Fixture Open/Full]** to light up the selecting fixtures in open white and move them to a central position. Users can also press **Locate** and select **[Locate Fixture]** to light up fixtures. All attributes will be defaulted.

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

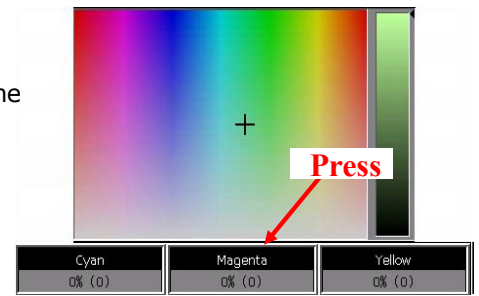
3.2.2. Change attributes of fixtures

Select the fixtures and attribute keys and change their value by using Wheels A, B or C.

After selected the attribute key, users can also input the number value, then touch the attribute name on the touch screen. So that can set the channel value directly.

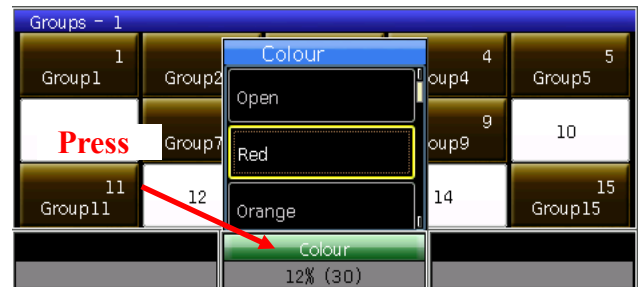
3.2.3. Special control of attributes

There is an absolute color-mix system in FOS DESIGNER 1024. If the selecting fixtures with tricolor channel, select **Colour Mix** and press the attributes names on touch screen can call out a palette. Users can select your needed color on the palette directly, the system will auto-mix your color.



FOS DESIGNER 1024 can read the channels range data from R20 library files. **For example**, after users selected the fixtures and **attribute** key **Colour**, press the name on touch screen can call out a range table. You can select the range value by Wheel D or touch the options directly.

Note: 1. the function can only be used in fixtures which patched with R20 library.
2. before using Wheel D to select range value, users should notice whether the channel range table with focus on. Otherwise, you may change the speed of the running Cue-lists. The yellow frame indicates the focus on.



3.2.4. Seriatim light up fixtures

Users can select and control one of fixtures from a sequence selecting fixtures one by one.

After located a group of fixtures, users can press \rightarrow or \leftarrow to lamp on one of the fixtures one by one and change its attributes.

You may press key **Find** or soft-key **[Find Mode = ON]** to re-select all fixtures in the group.

3.2.5. Other functions of locate

Press **Locate**, users can select other options for more functions except lighting up fixtures.

3.2.5.1. Locate Without Pan/Tilt

Users can locate the fixtures except Pan and Tilt channels.

3.2.5.2. Run Macro

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

1. Select the fixtures;
2. Press **Locate**;
3. Press **[Macro function]**. The screen will display macro functions if the library has;
4. Press the soft-key to select the macro you want. The key will show in gray blue when macro is running, and will resume when it is over.



3.2.6. Fan Mode

The fan effect widely use in 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 mix a rainbow by fan effect.

We kindly suggest you not to use less than 4 fixtures in order to get a better scene.

1. Select the fixtures;
2. Select attribute key, for example Tilt/Pan;
3. Press [Fixture Open/Full];
4. Press [Fixture Align=Off];

There are several modes for fixtures align:

- Expand M0 ----- Fixtures align base on the middle fixtures with normal align;
 - Expand M1 ----- Fixtures align base on the middle fixtures with little align in the middle;
 - Expand M2 ----- Fixtures align base on the middle fixtures with much align in the middle;
 - Left ----- Fixtures align base on the leftmost fixtures;
 - Right ----- Fixtures align base on the rightmost fixtures.
5. Set the fan effect by the Wheel A, B or C.

3.2.7. Clear Options

After finished operated on the fixtures, you can press **Clear** to clear manual operation. It can clear the upload preset or manual operation when running playbacks.

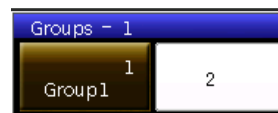
When using clear operation, you can hold **Clear** and select the options on touch screen to change different modes;

1. **[Clear All Fixtures]** ----- all manual operations will be cleared;
2. **[Clear Selected Fixtures]** ----- Manual operations of the selecting fixtures will be cleared.
3. **[Clear All Presets]** ----- clear all manually added presets and keep the fixtures selected;
4. **[Clear All Effects]** ----- clear all manually added effects and keep the fixtures selected.

3.3. Groups

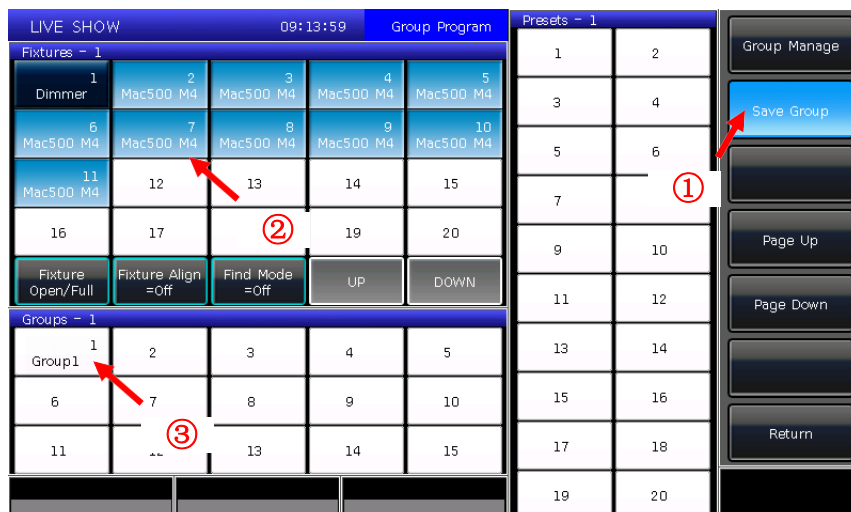
One or more fixtures can be grouped for quick selection.

The group soft-key will turn brown when it is saved. The group number and name will be shown on the relevant soft-key.



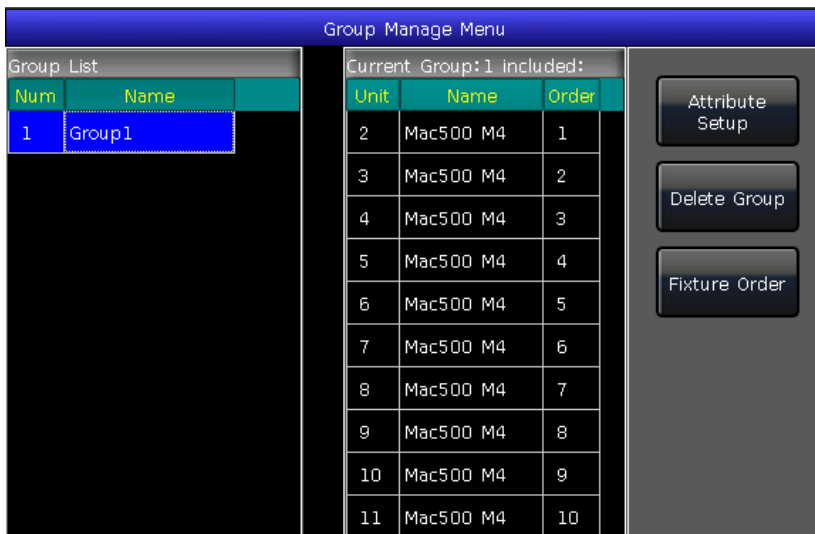
3.3.1. How to Create a group

- 1> Press **[Group]** on "LIVE SHOW";
- 2> Press **[Save Group]**;
- 3> Select the fixtures;
- 4> Select a soft-key on 'Groups' section. If there was a group in the soft-key, it will remind whether you want to overwrite or not;
- 5> If you want to create or edit more groups, you can repeat from steps 3> to 4>;
- 6> Press **[Return]** or **Exit** to quit.



3.3.2. Group manage

- 1) Press **[Group]** to entry "Group Program";
- 2) Press **[Group manage]**;
- 3) Select the group you want to edit. It will list all the fixtures in the selected group;



- 4) You will find the fixture order as when you selected them.

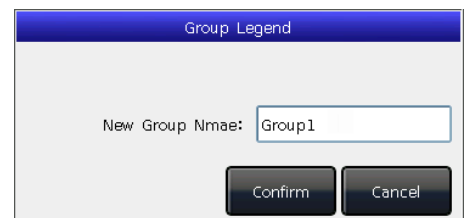
Fixture order 1 to 5 is not the same as order 5 to 1. The order is important when applying effects and overlap functions which will be distributed along the order.

Users can change the fixture order in the group. So that the fixtures will run in the order when use this group again.

- ① Select **[Fixture Order]** and call out the "Fixture order setup" window;
- ② Set the step number by soft-key **[Previous Step]** or **[Next Step]**;
- ③ Select one or more Fixtures for the step number; Please note that the big RED numbers on fixtures soft-key indicate the running order, while the right bottom WHITE numbers indicate the fixtures unit numbers;



- ④ Repeat steps ② and ③ until finished setting;
 - ⑤ Press key **[Exit]** and confirm to save the fixture order.
- 5) You may rename the group by **[Attribute Setup]** or **[Delete Group]** by the right options. (You can also rename the group by **[Legend Manage]** in "LIVE SHOW")



3.3.3. Select groups

FOS DESIGNER 1024 offers several ways for users to select the groups:

- 1> Touch Screen --- users can select the groups on the touch screen directly.
- 2> Selection keys --- when the indicator led is on **Group** of **"Select"** area. If you need to select a sequence groups, you can hold the first key and then press the last one, a serial of groups will be selected after released.
- 3> Numeric select --- on the **"LIVE SHOW"**, when the indicator led is on **Grou** of **"Select"** area, input the number can select those groups.

For example:

If you want to select groups 2 to 5, you can press keys orderly as **2**, **THRU**, **5**. The top right of touch screen will display '2~5'. Then press **ENTER** will select those groups;

If you want to select groups of 2,4,6,8, you can press keys orderly as **2**, **+**, **4**, **+**, **6**, **+**, **8**. The touch screen will display '2+4+6+8'. Then press **ENTE** will select those groups;

If you want to select a serial of groups but without any in it, such as select 1,2,4,5, you can press keys orderly as **1**, **THRU**, **5**, **-**, **3**. The touch screen will display '1~5-3'. Then press **ENTE** will select those groups;



Those groups selecting shown in yellow on touch screen. The indicator LED of the keys in **Group** of **"Select"** section will turn on.

4. Preset

Users always need to adjust different attributes, such as color, gobo and so on during programming or live show. In that case, users can save one or more attributes of fixtures to the preset keys in advance. So that you can change attributes rapidly when you are programming or live show.

4.1. Edit Preset

Although each preset could save all attributes of a fixture, it's easier to operate the controller if you create some presets which only with positions, some for colour, some for gobo and so on.

- 1> Select fixtures;
- 2> Use the attribute keys and attribute wheels to set the needed effect;
- 3> Press **Edit Preset** to entry "Preset Edit Menu";

There are 3 different Save Modes for your chosen:

- **Current Attr.:** all channels value in the current attribute key of selecting fixtures will be saved.
- **All Attribute:** all channels value of selecting fixtures will be saved.
- **Changed Attr.:** all channels had been edited of selecting fixtures will be saved.

There are 2 different Preset Modes for your chosen:

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

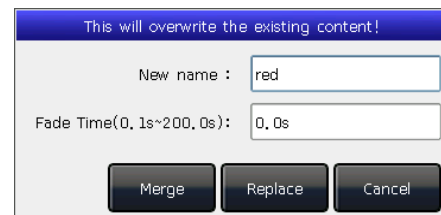
- 4> Select a soft-key on preset section;



- If there is nothing on the soft-key, users can name the preset and set the fade in time. Press **[Confirm]** to save, the soft-key will turn to dark green. There will be a 'G' marks on the left top corner if the preset is saved by Global mode.



- If there is something in the soft-key, users can also rename the preset and set the fade in time. Then select **[Merge]**、**[Replace]** or **[Cancel]** to finish operation.



Note: Fade in time only for LTP channels.

5> Press [Return] to quit.

4.2. Preset manage

Users can rename and set fade in time of preset in the **"Preset Manage Menu"**.

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

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

3> Select the preset want to edit. It will list all fixtures which can use the preset;

4> Preset **[Attribute Setup]**. You can legend and set fade in time of the preset;

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

6> Press **[Return]** to quit.



4.3. Use Preset

FOS DESIGNER 1024 provides several ways for users to recall the presets. The soft-key of latest selected preset displays in gray green.

- 1> **Select fixtures and recall:** users can recall the preset after selected fixtures, those fixtures without selected will not be added in the preset.
- 2> **Non select fixtures and recall:** users can recall the preset directly. In this case, all fixtures which can use the preset will be added in the preset.

To recall the preset, if you had set the fade in time, it will use the time to fade in the preset; if you had not set any time (default time is 0s), it will recall the preset immediately.

However, if you entry a value 0.0~200.0 (seconds) before recall the preset, it will use this temporary time to fade in the preset.

- ① Input value by numeric keys in **"LIVE SHOW"**, such as number 5;
- ② Select a preset on touch screen, such as a color mixed by RGB or a location;
- ③ Then you will find the preset is recalled with fade in 5s.

You may also recall the preset by the number keys when you are selecting **Preset** key on selection section. The information of the number keys will be shown on the external monitor.

Besides, you may also recall a preset by its number by typing the number on the numeric keypad.

- ① Select **Prese** key on selection section;
- ② Type in the number of the preset you want to recall by numeric keypad;
- ③ Press **Ente** key.

You can only use its own fade in time by this operation. There is no way for you to entry the value of temporary fade in time.

If some of playbacks are made by recalling the presets. Users may modify and update the recalled presets so that the playbacks will be updated automatically.

For example the cue 2 on playback 1 and cue 5 on playback 10 were recorded by preset 1 (red color). Users may modify the preset 1 into yellow color with prism opened. After updated, the cue 2 on playback 1 and cue 5 on playback 10 will change into the effect of yellow color with prism opened.

5. Shape Effects

FOS DESIGNER 1024 offers an effect generator for users to quickly create exciting light shows with the minimum of programming.

5.1. How Effect Generator Works

Effect is a series of sequenced repeated movement preprogram. The representative effects are circle, square, spiral etc. They are the non-repeat random effects. For example, lighting beams move in a round route on the stage. When you run an effect, the fixtures will work according to present setup. If the effect is applied to pan and tilt attribute of the fixtures, the center of effect will depend on the present location of pan and tilt. By changing pan and tilt position, the whole effect will show on the stage.

Effect generator can also be applied to other attributes of fixtures. You can use the effect generator to create various colours, gobos, irises, and many other changes. Each effect can be used to produce a regular change for one attribute.

5.2. Using Effect

1. Select the fixtures and light up;
2. Press **[Effect]**;
3. Select effects on soft-keys. When you want to select effect, you can search by their types. Default option is **[All Effects]**. You can get other options by press the soft-key. Those effects in selecting will display in **“Current Load Effects”**, for your convenient editing later;



- The selecting effects will be listed on **“Current Loaded Effects”** window, which the quantity of selecting fixtures shows on left top and the attribute type of effect shows on right top. Those different attribute types of effects include Intensity (I), Position (P), Colour (C) and Beam (B) Effects.
- 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 effect.
- Each effect should work with its attribute. The type of effect can not be used if the fixtures do not have that attribute.

5.3. Effect Parameters

Each shape effect has its own parameters with default value. Users can modify the parameters to achieve various effects.

If several effects are running, you can select each of them in **"Current Load Effects"** to edit one by one.

5.3.1. Effect Size, Speed and Spread

When you had selected an effect, **[Effect attribute 1]** offers parameters of 'Effect Size', 'Effect Speed' and 'Effect Spread' for your setting.

Effect Size	Effect Speed	Effect Spread
40%	4.0s	0

- The minimum size or speed is 0. It can stop the fixtures, however the effect is still active.
- Effect speed can be shown in 'second' or 'BPM'. You may change the display by tap the frame of 'Effect Speed'.
- Spread can make the effects more impressive.

5.3.2. Speed Group, Block Group and Width

Press **[Effect attribute 1]** can switch to **[Effect attribute 2]**, which offers 'Speed Group', 'Block Group' and 'Width' for your setting.

Speed Group	Block Group	Width
0	0	100%

- The 'Speed Group' can divide the selecting fixtures into 'n' groups. Each group of fixtures runs in the same velocity. After set the 'Speed Group', the 'Spread' will be disabled.
- There is nothing change on the effect if 'Block Group' value is in 0 or 1. The 'Block Group' can set the close several fixtures with the setting value to run in the same velocity.
- The 'Width' controls how much time should occupy of a full cycle. If the 'Width' is 50% then the effect only occupies the first half of the cycle.

5.3.3. Fade time and Start Offset

Press **[Effect attribute 2]** can switch to **[Effect attribute 3]**, which offers 'Start Offset' and 'Stop Offset' for your setting.

	Start Offset	Stop Offset
	0	Never

- The 'Start Offset' allows users to set the origin of the effect. (Range from 0~360)
- The 'Stop Offset' allows users to set how many loop to execute the effect and where to be the stop point. The option defaults in 'Never'.

5.3.4. Effect Direction

Users can use **[Effect Direction]** to set fixtures run the effect in different directions, '→', '←', '←→' or '→←'.



5.3.5. Effect Mode

There are 4 running modes for Effect,

1. **Rel(Center)** ----- effect in relative mode which runs around the center;
2. **Rel(Up)** ----- effect in relative mode which runs on up-going;
3. **Rel(Down)** ----- effect in relative mode which runs on down-going;
4. **Absolute** ----- effect in absolute mode which runs on absolute value.

5.3.6. Fixture Order

Fixture order option allows users to realign the group of fixtures' running order on the selecting effect.

5.3.7. Delete Effect

Users can delete the useless effect from the selected effects:

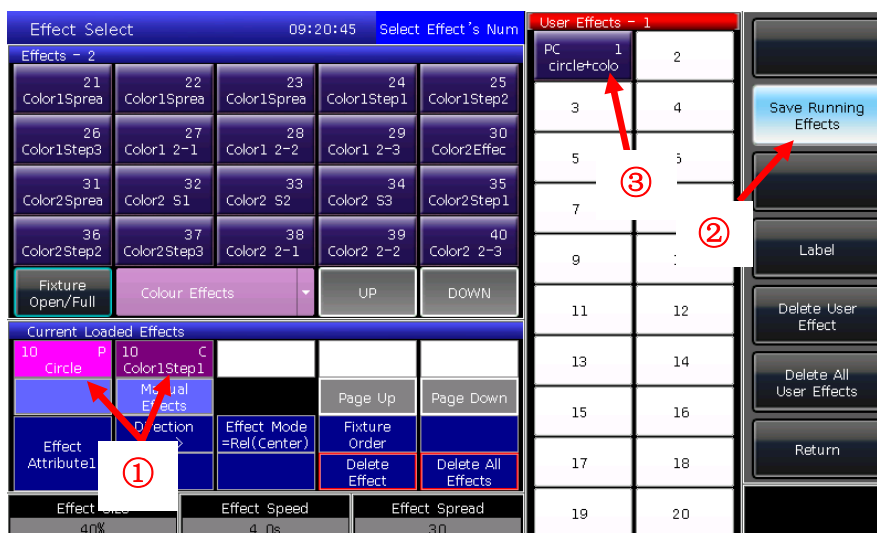
1. **[Delete Effect]** --- you can choose and delete any one from the selecting effects, others will keep running.
2. **[Delete All Effect]** --- delete all the selecting effects.

5.4. User Effect

After created a new shape effect you can save to **"User Effects"** so that you can use the same effect in other fixtures in future.

5.4.1. Save User Effects

1. Select system Effects and adjust necessary parameters;
2. Select **[Save Running Effects]**;
3. Select a soft-key on **"User Effects"**;
4. Entry the name for the effect and **[Confirm]**;
5. Press **[Return]** to exit edit.



5.4.2. Delete User Effects

Select **[Delete User Effect]** can delete one of the user effects if you need.

Select **[Delete All User Effects]** can delete all the user effects you had saved.

Note: If you want to delete one of the user effects, you can use Delete function and select the right key on the Effect on selection part.

6. Playback

We will introduce how to save and edit Playbacks in this chapter.

6.1. Playbacks and Playback Pages

Playbacks on FOS DESIGNER 1024 have two modes: Cue and Cue-lists. At the meanwhile, Cue-lists divide into 2 modes, Cue-lists and Cue-lists.

FOS DESIGNER 1024 has 40 playback pages which have 15 playback faders for programming, thus totally 600 playbacks can be saved. Each playback fader can save as a Cue or Cue-lists. It allows users to run 15 Playbacks at the same time in this section.

6.2. Playback Edit Menu

Users can press **Edit Playback** to entry **"Playback Edit Menu"** to find out those saved playbacks details from the list.

The number of Playback display in "PX/Y". "PX" means the page number of the playback; while "Y" means which fader is.

Besides, you can find functions of playback type, total steps, priority level, link mode, fader effect and so on from the menu.

Playback Edit Menu									
Page/Fader	Type	Cues	Priority	Link	Trigger	SkipFirst	Effect	PageLock	Name
P1/1	Cue	1	Normal	A--					PlayBack001
P1/2	CueLists	3	Normal	A--					PlayBack002
P1/3	Chase	5	Normal	A--					PlayBack003
P1/4	Cue	1	Normal	A--					PlayBack004
P1/5	Cue	1	Normal	A--					PlayBack005
P1/14	Cue	1	Normal	A--					PlayBack014
P1/15	CueLists	3	Normal	A--					PlayBack015

Playback Priority

Link Mode

Trigger Mode

Skip start run time

Effect By Fader

Lock Page for Fader

Chase mode

Edit Playback

Edit Time

Playback Legend

Delete Playback

Return

6.3. Cue Playback

6.3.1. Save mode of cue

- Record All Stage ----- All fixtures in stage will be saved whatever they are being selected or not.
- Record Mode = Fixture ----- All attributes of selecting fixtures will be saved.
- Record Mode = Changed Attr. ----- Only the changed attributes of selecting fixtures will be saved. This function makes cues in different attributes can be run synchronously.

Record All Stage

Record Mode =Fixture

Record All Stage

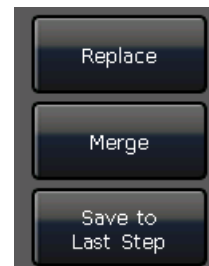
Record Mode =Changed Attr.

6.3.2. 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 fader position.
- Mode=Fader --- Disable any times. Values of HTP and LTP channels depend on fader position.

6.3.3. Save Cue

- ① Select the fixtures;
- ② Adjust the attributes to create a Scene or an effect;
- ③ Press **Save to Cue** in "LIVE SHOW";
- ④ Select record mode and run mode you want, select [**Playback type=Cue**];
- ⑤ Press a key upon playback fader to record.



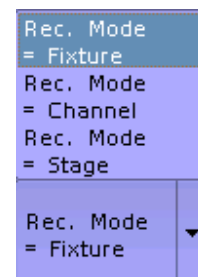
Note: If the fader had been programmed, users will have options "Replace", "Merge" or "Save to Last Step" as needed.

6.4. Cue-lists playback

The Cue-lists playback has two modes, Cue-lists and Chase. Cue-lists is allowed to set different times for each steps while Chase has the same time for every steps.

6.4.1. Create a Cue-lists playback

- ① Press **Edit Playback** in "LIVE SHOW";
- ② Press a key upon playback fader;
- ③ Select the fixtures;
- ④ Set a scene by attribute keys and wheels;
- ⑤ The record mode defaults in 'Fixture'. Press [**Rec. Mode**] if you want to record by other mode;
 - Rec. Mode = Fixture ----- all attributes of fixtures will be saved.
 - Rec. Mode = Channel ----- only the changed attributes of fixtures will be saved. This function makes fixtures in different attributes can be run synchronously.
 - Rec. Mode = Stage ----- all fixtures in stage will be saved whatever they are selecting.
- ⑥ Press the twinkling playback key for saving step (or press [**Save Step**]);
- ⑦ Repeat steps from ③ to ⑥ till the end. Press **Edit Playback** to exit.



The screenshot shows the software interface with a fixture grid on the left and a cue list table on the right.

Fixtures - 1

1 Dimmer	2 Mac500 M4	3 Mac500 M4	4 Mac500 M4	5 Mac500 M4
6 Mac500 M4	7 Mac500 M4	8 Mac500 M4	9 Mac500 M4	10 Mac500 M4
11 Mac500 M4	12	13	14	15
16	17	18	19	20
Fixture Open/Full	Fixture Align =off	Find Mode =off	UP	DOWN

Groups - 1

1 Group1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Cue List Table:

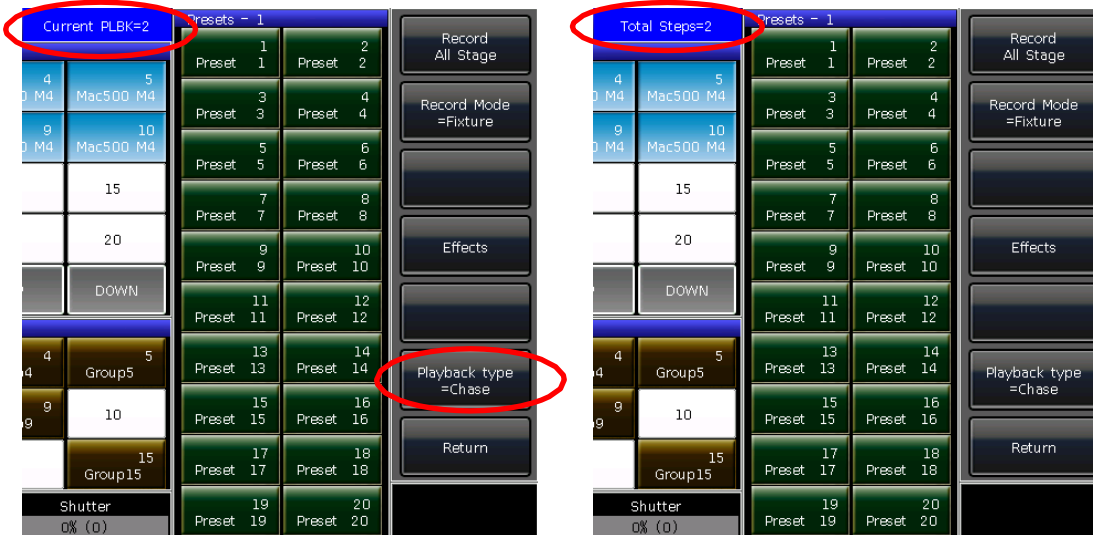
Cue	Step	Effect	Time(s)	Link	Overlap
1	1.0	No	1.0	OFF	100%
2	2.0	No	1.0	OFF	100%
3	3.0	No	1.0	OFF	100%
4	4.0	No	1.0	OFF	100%

Control Panel:

- Fixture Order
- Fixture Overlap
- Link Mode
- Remove Step
- Insert Step
- Renumber
- Effect
- Rec. Mode = Fixture
- Save Step

Besides, users can create Cue-lists by cues.

- ① Press Save to Cue in **"LIVE SHOW"**;
- ② Select record and run mode you want, select as [Playback type=Cue-lists];
- ③ Press a key upon playback fader. The top right of touch screen will display "Current PLBK=n" ("n" means the number of playback fader);
- ④ Select the fixtures and set a scene by attribute keys and wheels;
- ⑤ Press the playback key which indicator led is on again to record, the top right of touch screen will display "Total Steps=1";
- ⑥ Repeat steps from ④ to ⑤ till the end. Press Edit Playback or Save to Cue to quit.



6.4.2. Edit Cue-lists playback

6.4.2.1. Edit Cue-lists playback step

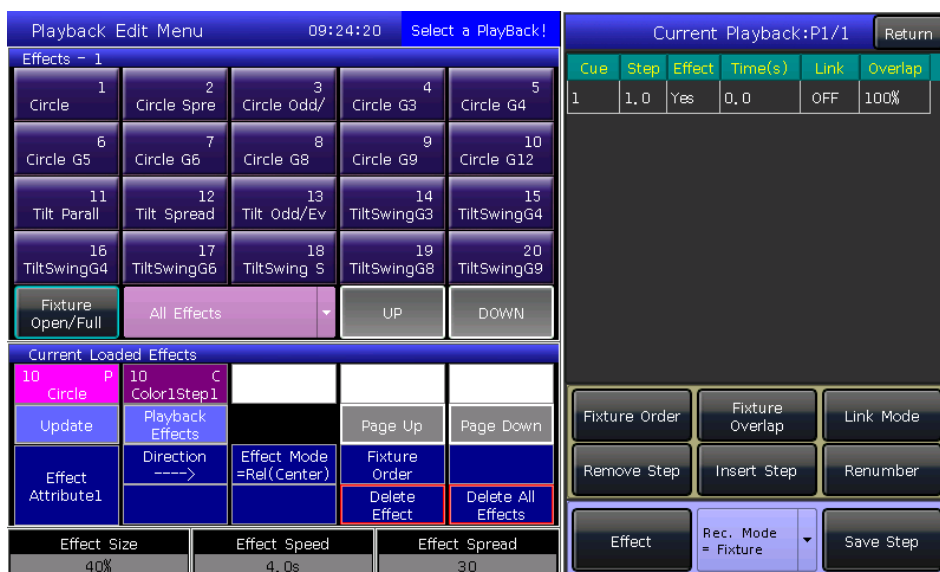
- ① Press **Edit Playback** in **"LIVE SHOW"**;
- ② Select a Cue-lists you want to edit;
- ③ Select the fixtures and set a new scene;
- ④ Select the Cue-lists step needs to be edited;
- ⑤ Select the record mode you want;
- ⑥ Press **[Save Step]**. Press **[Overwrite Step]** to take place the old step; Press **[Merge Step]** can add it into the original step; Press **[Save to last step]** will create a new step;
- ⑦ Press **Edit Playback** to quit when finished.



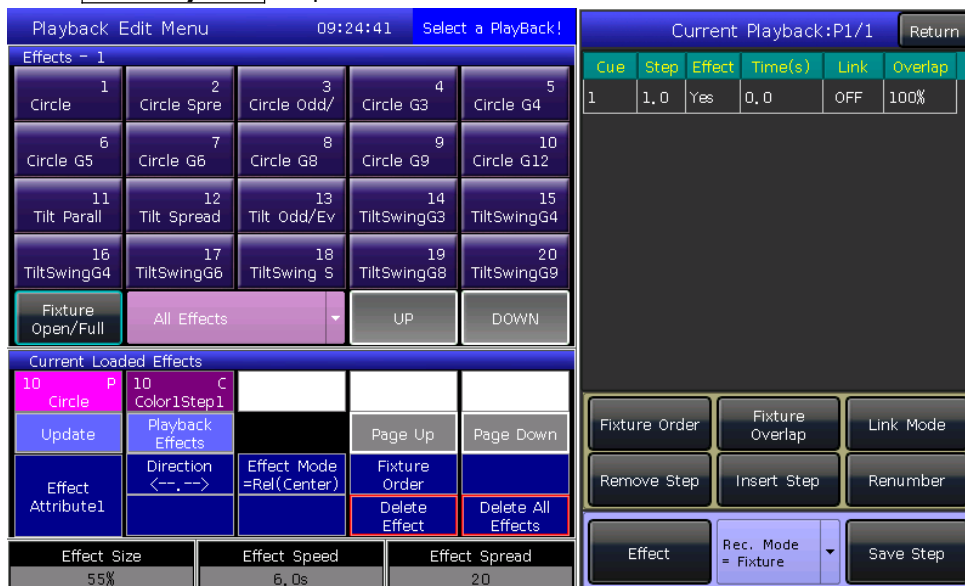
6.4.2.2. Edit Effect

Users are allowed to adjust the effect which had been saved as playback.

- ① Press **Edit Playback** in "LIVE SHOW";
- ② Select a Cue-lists you want to edit;



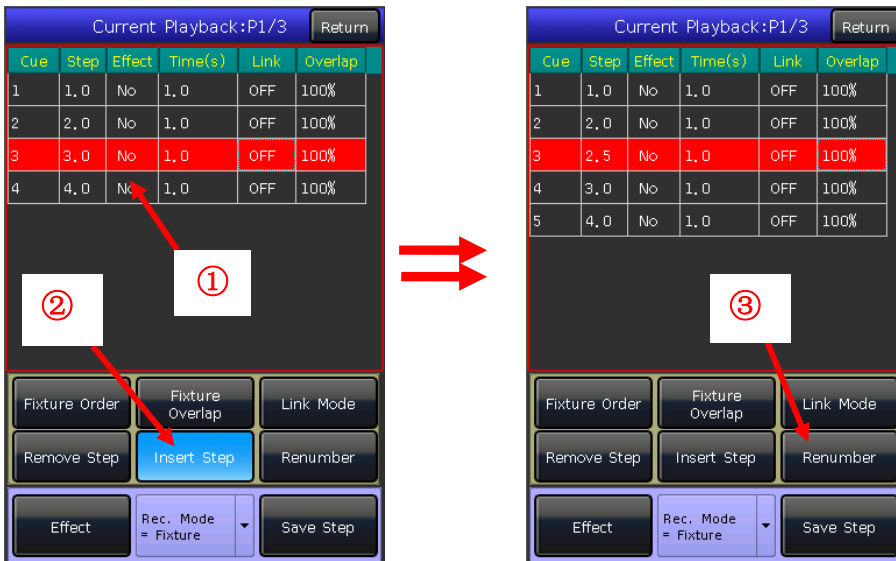
- ③ Press **[Effect]** and entry the effects menu;
- ④ Fade in the fader which corresponding to the step with effect;
- ⑤ Select the effect needs to be adjusted;
- ⑥ Press **[Update]** after adjusted the effect parameters;
- ⑦ Press **Edit Playback** to quit when finished.



6.4.2.3. Insert a Cue-lists step

- ① Press **Edit Playback** in "LIVE SHOW";
- ② Select a Cue-lists needs to edit;
- ③ Select the needed fixtures;
- ④ Set a scene by attribute keys and wheels;
- ⑤ Select a step you want to insert. For example, if you want to insert into 2nd step, then select step 2;
- ⑥ Press **[Insert Step]**, then the serial number of step displays in 1.5;

- ⑦ Press **[Renumber]** to realign the number;
- ⑧ Press **Edit Playback** to quit when finished.

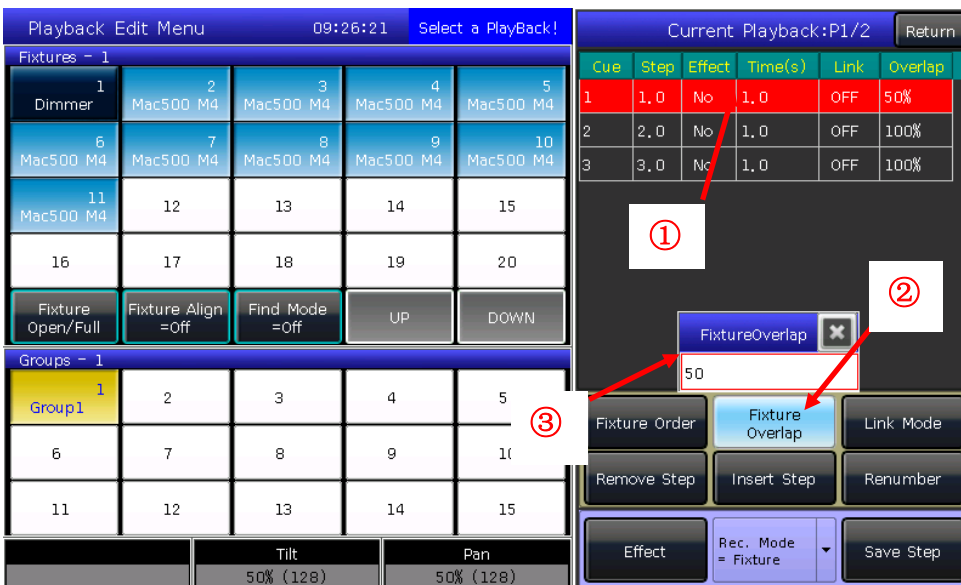


6.4.2.4. Fixture Overlap

The **[Fixture Overlap]** 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 half way (50%) through fading. The fixtures running order follows to the setting of fixture order.

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



6.4.2.5. Fixture Order

The **[Fixture Order]** in cue-lists should run with Fixture Overlap or effect. You cannot find the effects if you did not setup fixture overlap or effect in advance.

The steps of setup Fixture Order please refers to chapter 3.3.2.

However, you may close some of fixtures if you don't want them run with fixture overlap. The closed fixture(s) will start to run as soon as the first fixture(s) begin, and finish at the same time as last fixture(s) ended.



6.4.2.6. Delete a Cue-lists step

- ① Press **Edit Playback** in "LIVE SHOW";
- ② Select a Cue-lists to be edited;
- ③ Select a step to be deleted;
- ④ Press **[Remove Step]**;
- ⑤ Press **[Renumber]** to realign the number;
- ⑥ Press **Edit Playback** to quit.

6.5. 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. At the meanwhile, there are 3 kinds of global times for each Cue playback: delay in, fade in and fade out. Besides, the playbacks offer individual attribute times and the Snap percentage of instant channels for your setting.

We may also set fixture order and fixture order direction for each step on this menu.

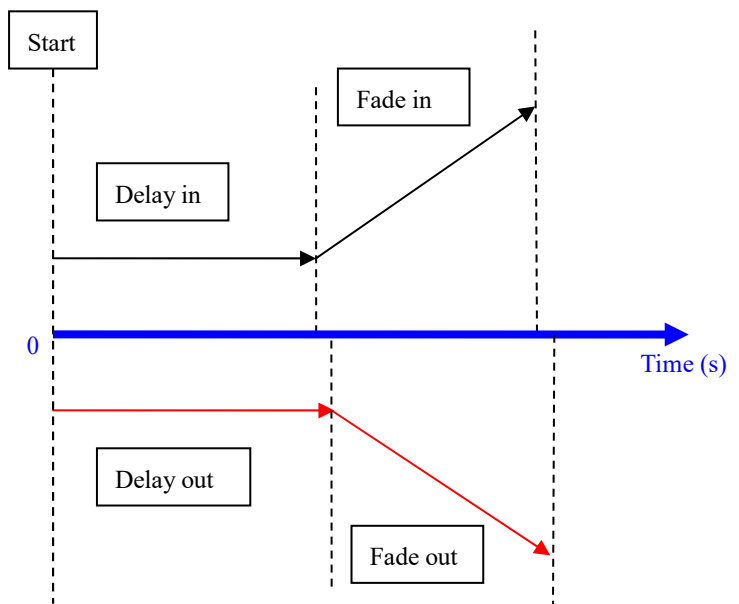
6.5.1. Set the global times



- The times for cue-lists playbacks are run as following graphic.

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.

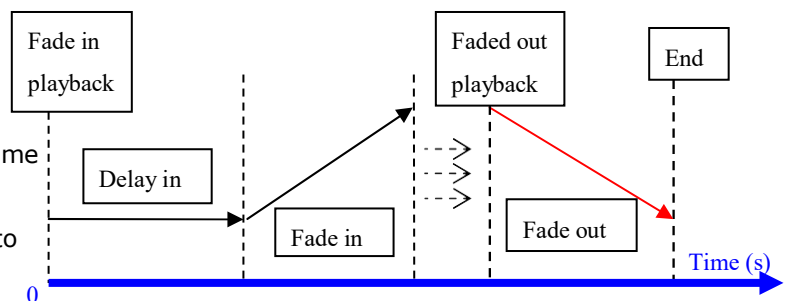
Fade out is only used on dimming channel. Fade out time will be used as delay out between the steps if the coming step does not have dim off effect.



- The times for cue playback are run as following graphic.

There is no delay out time if it is a cue playback.

When fade in the playback, the fade in time starts to run after delay in is finished. When faded out the playback, fade out time starts to run immediately.



6.5.2. Set Individual Attribute Times

The attributes times have only delay in and fade in times. Users can switch to other attributes by pressing attribute keys.

The screenshot shows a control interface with a table of attribute times and a vertical stack of buttons. The table has columns for Tilt Delay, Tilt Fade, Pan Delay, Pan Fade, Clolur Delay, Clolur Fade, ClolurMix Delay, ClolurMix Fade, Gobo Delay, Gobo Fade, Beam Delay, and Bea Fac. The 'Pan Fade' button is highlighted with a red box.

Tilt Delay	Tilt Fade	Pan Delay	Pan Fade	Clolur Delay	Clolur Fade	ClolurMix Delay	ClolurMix Fade	Gobo Delay	Gobo Fade	Beam Delay	Bea Fac
-	2, 0s	2, 0s	3, 0s	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

Buttons on the right: Tilt Delay, Tilt Fade, Pan Delay, Pan Fade (highlighted), Use Global, Return.

Buttons at the bottom: Fixture Order, Fixture Order Direction, Attribute Time Use Global.

After set the attribute times, those attributes will not use global times unless you press **[Use Global]** again.

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

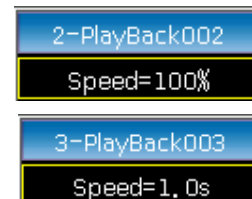
6.5.3. Time for Cue-lists in Chase mode

The global times and attribute times are unavailable for the cue-lists in chase mode.

Times for chase mode can only be set by wheel D, while the cross set by key **Shif** with wheel D.

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

Speed=1.0s means every step in the chase runs in 1.0 second.



6.5.4. Snap Percentage

[Snap Percent] allows users to control when the instant channels should be occurred. It defaults in 0%.

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

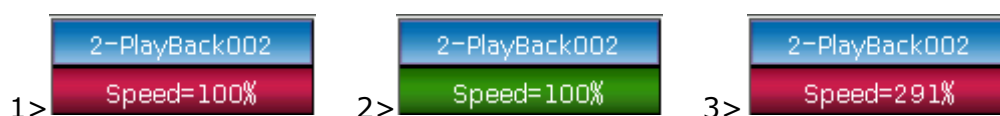
If snap percent is 100% the channel occurs at the end of the cue.

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

6.5.5. Manually control Speed of Cue-lists

Users can also set the speed when running the Cue-lists. When fade in a cue-lists, users can use the Wheel D to adjust the speed directly. If you need to adjust other Cue-lists speed, then you must hold **Shift** and press the needed playback key to set the cue-lists at current:

- ① Roll the Wheel D to set the speed percentage of the Cue-lists, on the bottom right corner will displays as: 'Speed=100%'(adjust range at 10%~500%)
- ② Input value by numeric keys and press the speed frame to set the value (input range at 10~500);
- ③ Press the speed frame to make it turn 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 system will calculate a speed by the time slot between start mark and end mark (range at 10~500). Press the speed frame again to quit setting.



Speed of Cue-lists in chase mode shows in second instead of percentage.

6.6. Link Mode of Cue-lists

Users can set the link state of each cue-lists step. When 'Link =ON', it means it will go on running after the end of this step. However, when 'Link=OFF', the step will stop, until the next running instruction.

There are 3 link modes for Cue-lists: 'Internal', 'Auto' and 'Manual';

- Inside ---- Cue-lists steps run by link setting of each steps.
- Auto ---- No matter what is the link setting, cue-lists steps will keep running automatic.
- Manual ---- No matter what the link setting is, cue-lists will pause on each step until get the next running instruction.

If link mode is 'Manual' or 'Inside' with 'Link=OFF'. The key under playback fader can be used as GOTO function

after playback had faded in. Press it once means to run one step.

6.7. Senior setting of Playbacks

There are many options for users to edit playback parameters for each playback in **"Playback Edit Menu"**.

Playback Edit Menu										
Page/Fade	Type	Cues	Priority	Link	Trigger	SkipFirst	Effect	PageLock	Name	
P1/1	Cue	1	Normal	A...			Size B...			circle
P1/2	CueLists	3	Normal	A...		Fade+Delay		Lock		mix
P1/3	CueLists	5	Normal	Ma...						up-down
P1/4	Cue	1	High	A...						PlayBack004
P1/5	Cue	1	Normal	A...						led w
P1/14	Cue	1	Normal	A...						PlayBack014
P1/15	Chase	3	Normal	A...		Fade+Delay				PlayBack015

Playback Priority

Link Mode

Trigger Mode

Skip start run time

Effect By Fader

Lock Page for Fader

Chase mode

Edit Playback

Edit Time

Playback Legend

Delete Playback

Return

6.7.1. Playback Priority

[Playback Priority] option allows users to set the running priority level of different playbacks. The option can be set into options such as very low, low, normal, high and very high. Each new playback is defaulted in normal.

The function is very useful for performing. When some of fixtures are running in a playback, run a new playback with the same fixtures will change the old one if the new one is in the same or higher priority. However, if the priority of new playback is lower than the first one, the first playback will not be changed.

6.7.2. Set Link Mode for Cue-lists

Press soft-key **[Link Mode]** can switch the cue-lists link mode between auto, manual or inside.

6.7.3. Music Trigger Function

[Trigger Mode] option allows users to run the cue-lists follow the bass rhythm.

6.7.4. Playback start time

If you ever set the running time on the cue-lists, the time may affect the first 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, and then start to run the cue-lists each time.

You can skip the time by press option **[Skip start run time]** into 'Fade', 'Delay' or 'Fade+Delay'.

6.7.5. Set effect of fader

If there is a Cue saved with shape effects, users can set the fader trigger with 4 modes by option **[Effect By Fader]** as "Size By Fader", "Speed By Fader" or "Size+Speed By Fader".

6.7.6. Lock faders

Users can lock the playback by option **[Lock Page For Fader]**. Once select the option, the playback will be locked in the page where locates in. You can run the same program by the same fader even though in other pages.

Note: Once the playback was locked. Playbacks in the same fader in other pages will be unavailable.

6.7.7. Rename the Playback

Select a playback in the list can rename the playback by option **[Playback Legend]**.
 The name of the playback will be displayed on the bottom right corner when fade in the playback.

6.8. Run Playback

It's easy to run a Playback. Select the Playback page, and fade in the Playback. When running several playbacks, on the bottom right corner of touch screen will display the latest playback which had been faded in. You can switch the running playback to present state by press **Shift** along with the key upon playback fader. The velocity of Cue-lists at present state can be adjusted by Wheel D.

The keys upon or under playback faders have different functions for running playbacks.

1> Keys upon playback faders can be used as pre-locate or pause.

The key can be used as Pre-locate function before the playback is faded in. Press the key upon the fader. All LTP channels of fixtures will be set to the value on first scene of playback with lamp off. Once you fade in the playback, the program will start to run immediately.

You may also hold the key upon the fader and fade in the playback. The program will start to run with lamp off. Once you release the key, the fixtures will lamp on immediately.

If you had faded in a playback, the key upon is used for pause function. The fixtures will stop at the present position when you press pause.

2> Keys under playback faders can be used as flash or manual control.

The key under playback fader can be used as flash if the playback is not faded in. Press and hold the key can keep running the playback as the same as faded in the playback fully. Once the key is released, the playback will stop running.

If there is a cue-lists playback had faded in, the key can be used as manual control. Press the key once means to run one step of the cue-lists.

Note: In order to use manual control function, the setting of "Playback GO+/GO-" in "Controller Manage" should be in [Enable], and the cue-lists steps should be set as Inside with Link Off or Manual.

6.9. Playback Parameters

In "LIVE SHOW", users can also edit the playback by option **[Playback Parameters]**.

6.9.1. Reload a Cue

The controller allows users to reload the attributes values of fixtures from one of the whole cues.

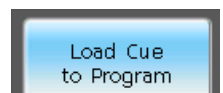
Users may load in the needed attributes values from one of the cues by option **[Load Cue to Program]** after selected **[Playback Parameters]**.

At this time, you may find all indicators of attribute keys are on. You may press the attribute keys to cancel selected, so that the non-selected attributes will not be loaded in.

Users can select the playback needs to be reloaded.

If there is a cue playback, the fixtures include in the cue will be selected automatic.

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



Cue	Delay In	Fade In	Out Delay	Out Fade	Trigger	MIB	Fixture Overlap	Snap Percent	Order Direction
1	0.0s	1.0s	0.0s	1.0s			50%	0	Forward
2	0.0s	1.0s	0.0s	1.0s			100%	0	Forward
3	0.0s	1.0s	0.0s	1.0s			100%	0	Forward



6.9.2. Other options

After pressed **[Playback Parameters]** and select the playback. There are some other options can be setting. Most of functions are the same as **"Playback Edit Menu"** so that we will introduce other functions in this part.

6.9.2.1. Release Mode

Users can set the release mode for playback as follow:

- **[Freeze All Attribute]** ---- All attribute channels will be hold except HTP channel;
- **[Release All Attribute]** ---- Resume all attributes to the beginning state;
- **[Release Only Pan/Tilt]** ---- Resume Pan and Tilt to beginning state and hold other attribute channels except HTP channel

6.9.2.2. Direction

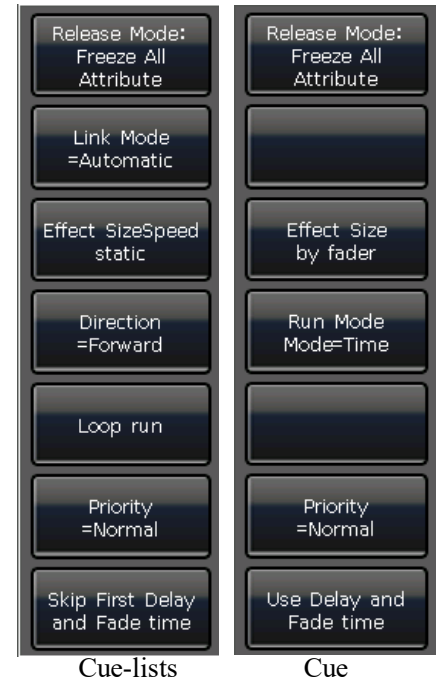
If there is a Cue-lists playback, press **[Direction]** option can set the Cue-lists runs "Forward" or "Backward".

6.9.2.3. Run Mode

If there is a Cue playback, you can set one of run modes for the cue.

6.9.2.4. Loop run

If there is a Cue-lists playback, press **[Loop run]** option can change the run mode into **[Stop in Last Step]**.



7. Senior Function

We will introduce the senior functions such as Off, Copy, Delete, Move, Legend and Record show in this part.

7.1. Off Function

Press **Off** in "LIVE SHOW" to entry off function.

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

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

7.2. Copy Function

Copy function can be used in groups, presets and playbacks. Press **Copy** and select a root, then select a target:

1. If it is an empty plaster target, you can achieve the simple function of copy and plaster;
2. If there is something in the plaster target, you can select **[Overwrite it]** or **[Merge]**;
3. If the copy and plaster root and target are playbacks, there is an added option **[Copy to Last Step]**. The function makes you more convenient to compose several cues to be one Cue-lists playback.

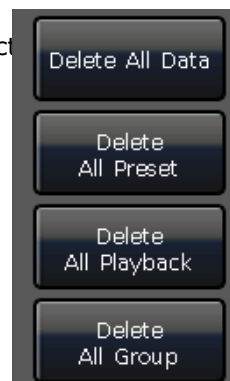
7.3. Delete Function

You can delete the data edited on FOS DESIGNER 1024. Press **Delete** to entry delete function.

1. **Delete All Data** --- It can delete all edited data on FOS DESIGNER 1024. The operation equal to system clearance.
2. **Delete All Preset** --- It can delete all presets you edited.
3. **Delete All Playbacks** --- It can delete all playbacks you programmed.
4. **Delete All Group** --- It can delete all groups you edited.

Besides, you can delete a single fixture, group, preset, user effect, macros show or playback by delete function. The function should be operated by keys.

1. Select the option **Group**, **Fixture**, **Preset**, **Effec** or **Macro** at selection, you can delete a single fixture, group or preset by press the key twice.
2. If you want to delete a playback, you can press the key upon the fader twice directly.



7.4. Move Function

It is easy to move the group, preset or playback to other position on FOS DESIGNER 1024. Press **Move** and select a root, then select a target:

1. If it is an empty move target, you can achieve the move function;
2. If there is something in the move target, you can select **[Overwrite it]** or **[Swap]**.

Note: Fixture can only be moved but can not be swapped.

7.5. Lock the Controller

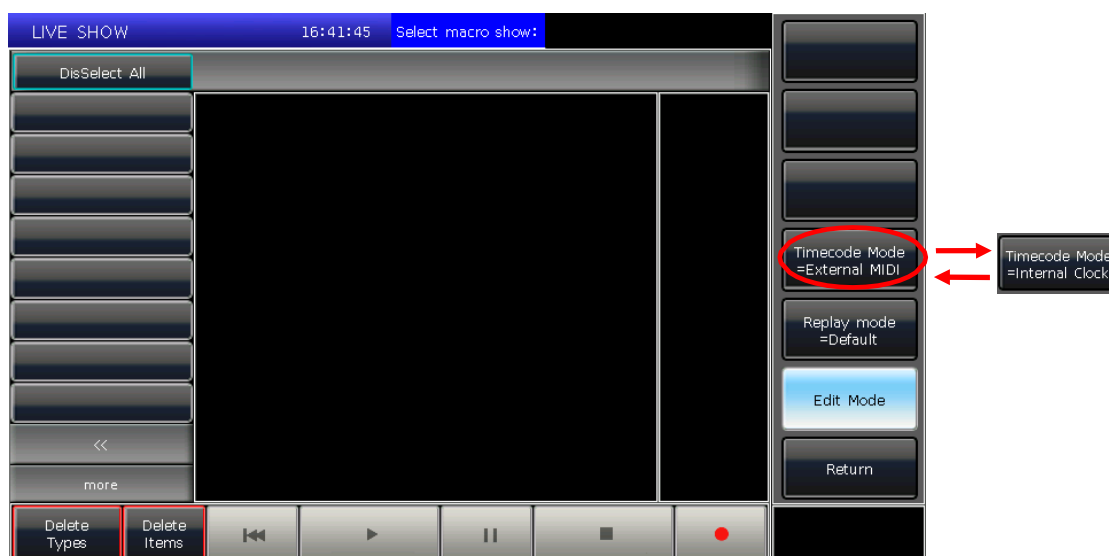
If you want to leave away for a moment, you can input the controller with password in numbers or letters in "LIVE SHOW", and then press [Lock Controller]. When the controller is locked, any operation is useless unless input the right password.

Note: Restart can unlock the controller.

7.6. Record Macro Show

Macro show is a function base on time code which allows users to record and replay a sequence operate on the playbacks output. When record the show, users can select different mode of time code as needed. FOS DESIGNER 1024 offers two kinds of time code modes for your choice.

- External MIDI ---- This mode needs a MIDI device to offer the time code to trigger the show record. Please set the controller in to 'Slave Mode' before using this mode.



- Internal Clock ---- This mode should record and trigger the show record by the clock base on the controller.

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

Press [Show Record Mode] on touch screen and select the mode of time code. At this time, the option on selection part will switch to **Macro**. Then select a key for recording. The gray bar upon will show where the record had put in.

7.6.1. External Midi

In this mode, you should connect the controller with external MIDI equipment via the MIDI cable first. And the controller should be set to 'Slave mode'.


- Select [Time code Mode = External MIDI] and select a record key on **Macro**;

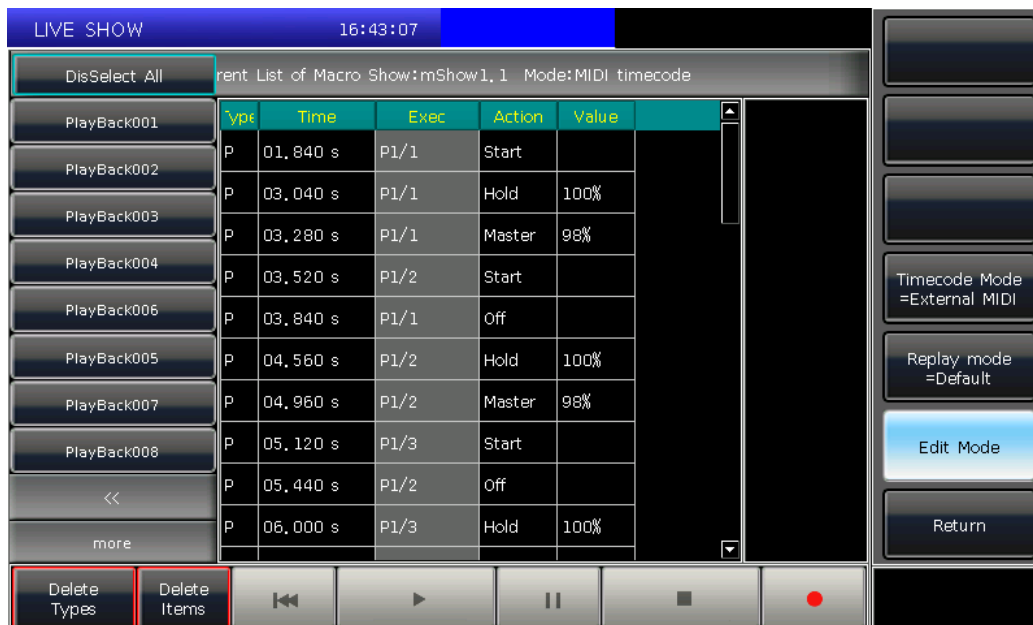
- Press the soft-key , it will turns red what means start to record .

Play the music on external equipment. At this moment, the internal clock will change into midi time code. It shows as followed.




- Put out the playbacks or presets follow the rhythm as you want. If there is a Cue-lists playback, you may use the function of GOTO to record.

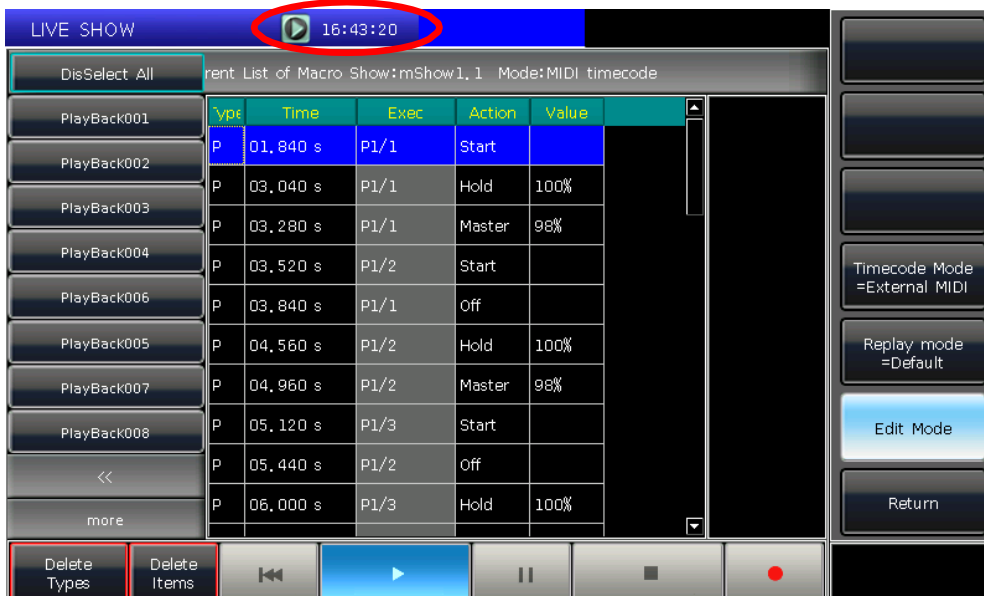
- Fade out all playbacks when the music finished. And press the soft-key  to stop and save show record. Press **[confirm]** to save.
- After saved, the window will list all the used playbacks and presets as well as the operations.



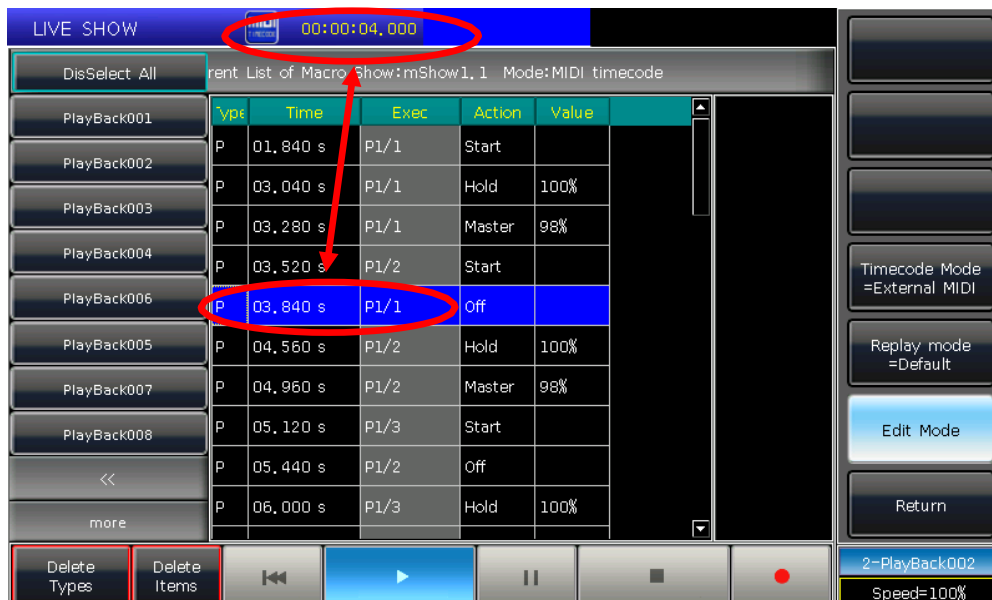
- The location of macro show and its record mode will be shown on top of the window.



- Users may press the soft-key  on record window when need to run the macro show. But can also press the corresponding key on **Macro** section to run the macro if had exited the window. **The macro show is in ready state after selected the soft-key, and wait for the MIDI signal to play.** (Shown as photo below.) At the moment, the time bar still show in internal clock.



- Users may play the music on external equipment again. The macro show will run the playbacks or presets follow the time code as when recording. The internal clock will change into audio time code when begin playing the music. The operation state will be shown on the touch screen if it is in record window.





9. The macro show will stop automatic when finished playing.

7.6.2. Internal Clock

This mode can be used in the situation when users do not have the midi cable or external midi device.


1. Select **[Time code Mode = Internal Clock]** and select a record key on **Macro**;

2. Press the soft-key , it will turns red means start to record .

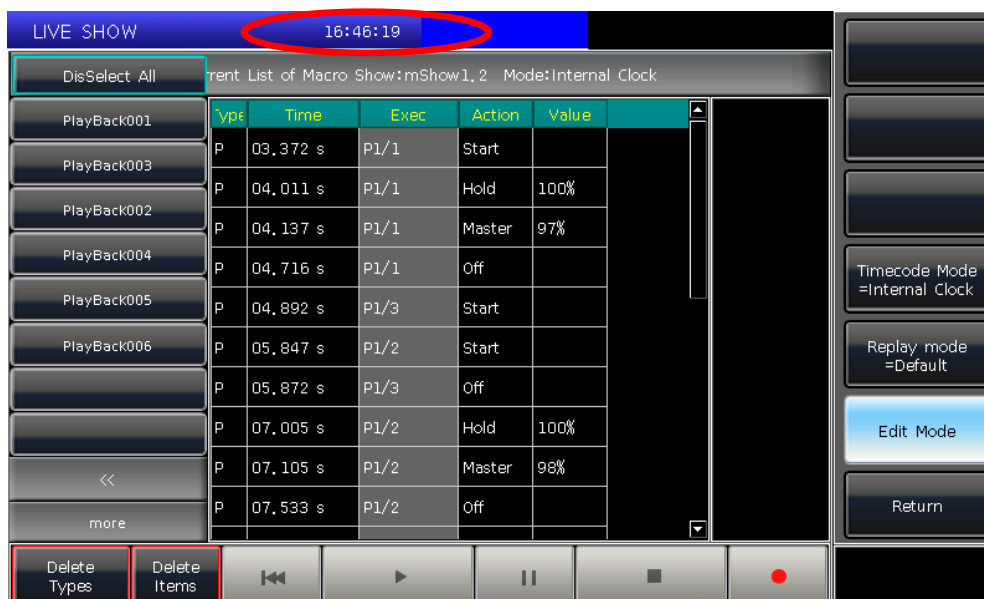
The macro show begins to record once this soft-key turns red. The time code is based on the internal clock which shows as follow.



3. Put out the playbacks or presets follow the music as you need. If there is a Cue-lists playback, you may use the GOTO function to record.

4. Fade out all playbacks when the music finished. And press the soft-key  to stop and save show record. Press **[confirm]** to save.


5. After saved, the window will list all the used playbacks and presets as well as the operations.



6. The location of macro show and its record mode will be shown on top of the window.

Current List of Macro Show:mShow1.2 Mode:Internal Clock



7. Users may press the soft-key  on record window when need to run the macro show. But users can also press the corresponding key on **Macro** section to play the macro if had exited the record window.

8. The macro show begins to run immediately once select the play soft-key.

9. The macro show will stop automatic when finished playing.

Note: The macro show begins to record once press the record key. If there is a time slot without any operation at the beginning, it will run out as the fact when you begin to run the macro show. You may skip it on controller setting if you do not need the time slot.

7.6.3. Edit Macro show

Users can revise the macro show after created.

1. For example, you may add in some needed playback to the saved macro show record.


① Entry the show record needs to be edited;



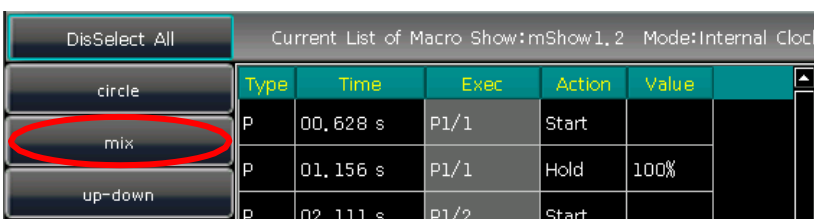
② Press the record key  and play the music again;

③ Put out the playback or preset at the right time;



④ Fade out all playback or preset and press the record key  again and select **[Merge]** on the call out window;

⑤ You will find the new playback or preset is added in and lists on the left bar.

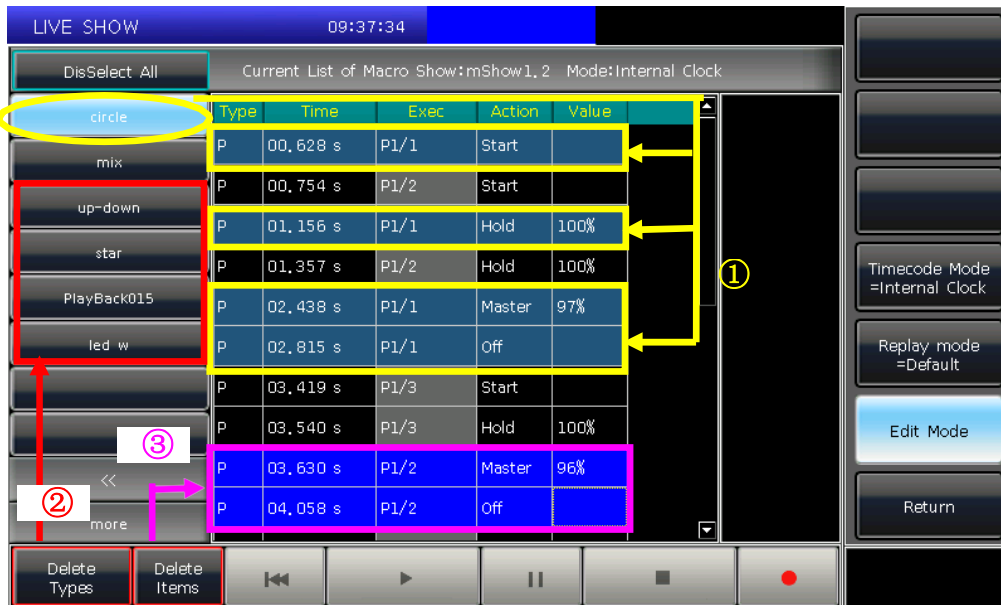


2. Edit macro show details;

① All the operation status of the playback or preset will be listed when you select the names on the left bar.

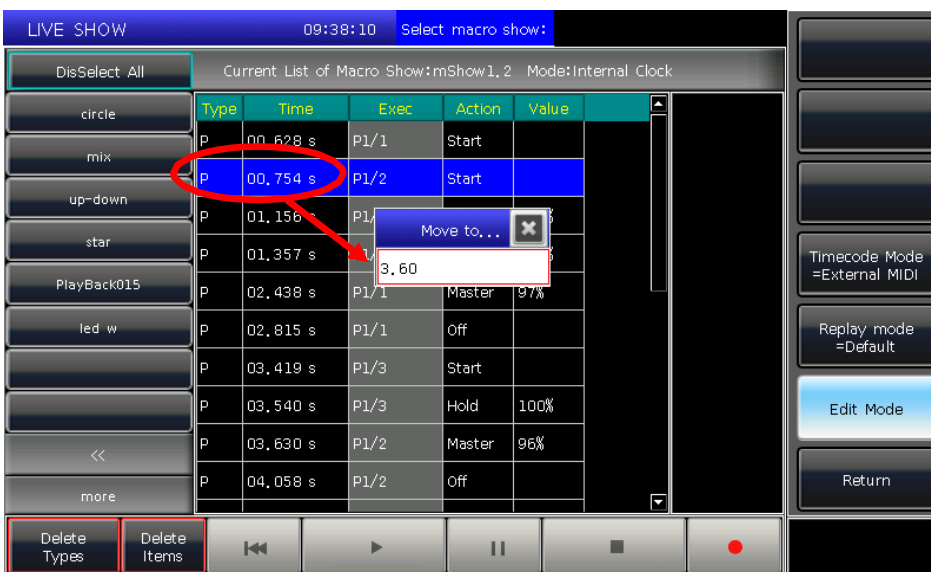
② You may delete all the operations from the selecting playback or preset by option **[Delete Types]**.

③ You may delete some of operations selected by option **[Delete Items]**.

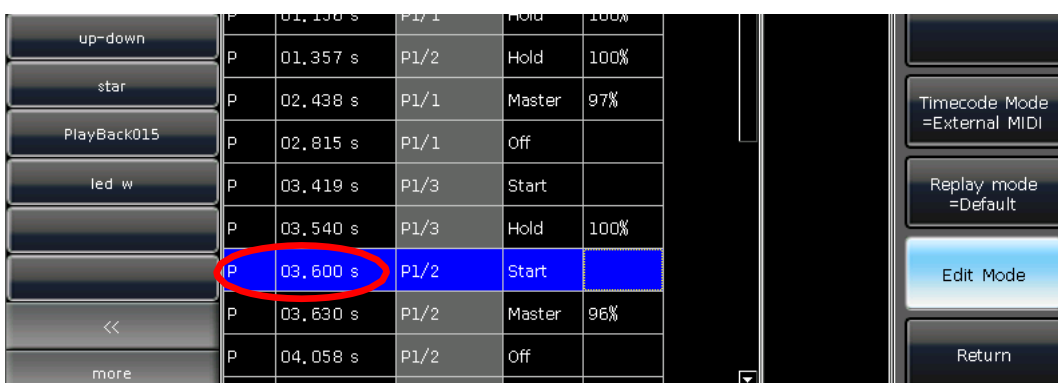


3. If you may find one or several operations do not match to the rhythm when play the macro show again after created. At this time, you may entry the show record again and correct the time of operations.

- ① Entry the show record needs to be edited;
- ② Select the operation needs to be edited;
- ③ Press key **ENTE** or press wheel D;



- ④ Entry the new time for the operation which can match to the rhythm;
- ⑤ Press **ENTER** or wheel D again to change the time.



7.7. Legend Manage

Users can rename all the selection options on touch screen. Press [**Legend Manage**] and select the soft-key on "**Fixtures**", "**Groups**" or "**Presets**" section on touch screen. Then enter the name and press **ENTER**.



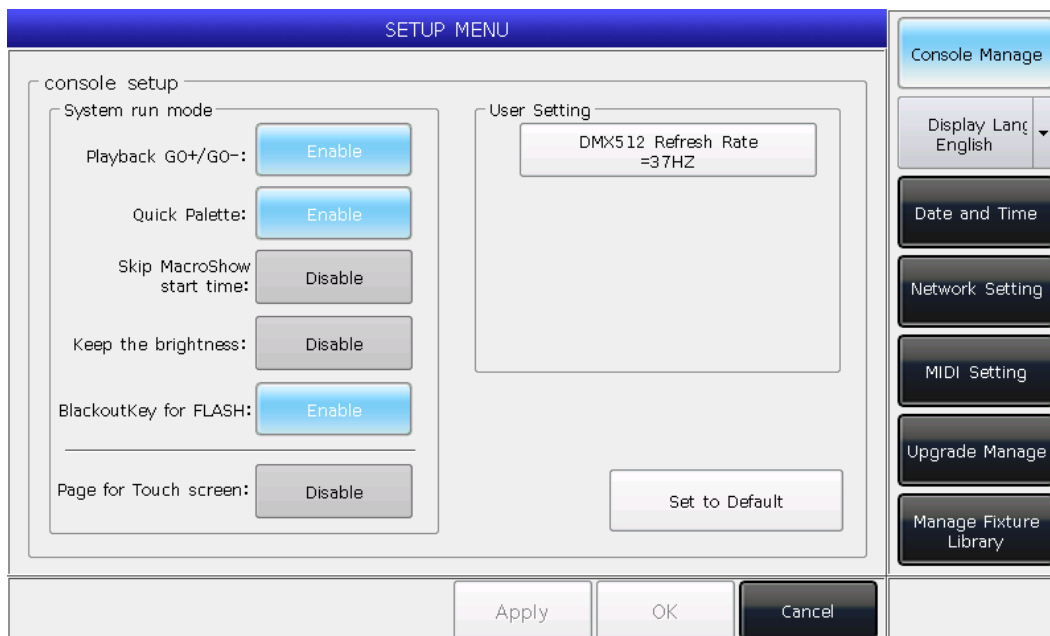
8. Setup the Controller

Press **Setup**, users can entry the "SETUP MENU".

8.1. User options

8.1.1. Controller Manage

You can setup the run mode by pressing **[Controller Manage]**:



Playback GO+/GO- --- The option defaults in **[Enable]**. When Cue-lists link mode is set as manual or 'Link=Off', the key under playback fader can be used as GOTO function (Go+ or Go- depends on the direction setting of cue-lists).

If the option is in **[Disable]**, if the playback fader is not fully output, the keys under the faders can be used as intensity flash output.

Quick Palette --- The option defaults in **[Enable]**. Users can recall presets even though without select fixtures.

If the option is in **[Disable]**, you have to select the fixtures before recalling presets. If you do not select any, the presets can not be recalled.

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

Keep the brightness --- The option defaults in **[Disable]**. The group of fixtures will be switched light up one by one from function of 'Seriatim light up fixtures'. If the option is in **[Enable]**, the fixtures will keep on after lighted up.

After finished you may use **Find** key to select all fixtures again.

Blackout Key for FLASH --- The option defaults in **[Enable]**. The key is use for flashing output when the master fader does not fade in. If the option is in **[Disable]**, the key is used as blackout function for all outputs.

Page for Touch Screen --- The option defaults in **[Disable]**. User can turn pages on selection part while the option on touch screen will stay at its own page. You may select the right options in different pages at the same time. While the option is in **[Enable]**, the option on touch screen will turn pages together when you turn pages on selection part.

On "User setting", you can change the output refresh rate (26~37HZ) to match some of special fixtures. Users can reset all options here by [Set to Default].

8.1.2. Select Language

Users can set display language of the controller in Chinese or English.

8.2. Misc. Setting

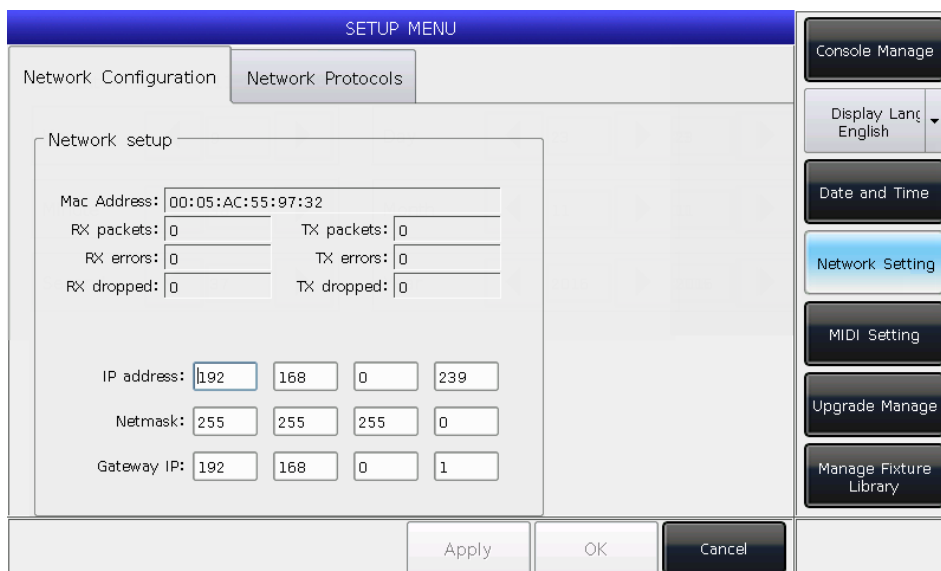
8.2.1. Date and Time

Users can set the local time which will display on top of touch screen.

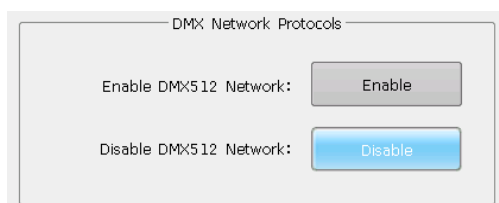


8.2.2. Network Setting

- ① Network Configuration: You can setup the network configuration for network output on controller. The default IP address of the controller is 192.168.0.239.



- ② Network Protocols: You can set whether to use DMX network output.



8.2.3. MIDI Setting

- ① MIDI Channel: setting range from 0-15.
- ② MIDI mode: You can set the controller in **[Master Mode]**, **[Slave Mode]** or **[MIDI Disable]**. Default setting is in disable.



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

MIDI COMMAND:

Users may input the midi command on other midi device to trigger the playbacks of the controller.

The character '**n**' (0 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.

All numbers for the commands should be in hexadecimal notation.

- **The midi Command for switching playback (PB) pages. (0 to 39)**

Playback pages: **\$Bn + PB page + 0**

- **The midi Command for running a playback (PB). (0 to 14)**

Command: **\$9n + pp + ll**

pp = playback number (decimal: 0 – 14)

ll = playback levels (decimal: 0-127)

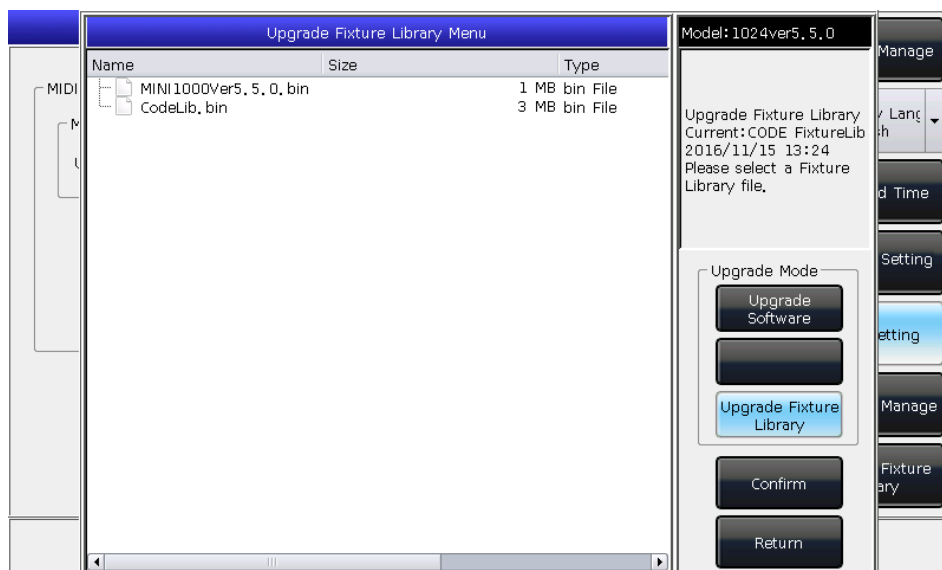
Example: the midi channel on the controller is 1.

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

8.3. System Manage

8.3.1. Upgrade Manage

The option provides users to upgrade the system or library. You can upgrade system or library via USB driver when you get the file. You can check up the system version and date of library here.



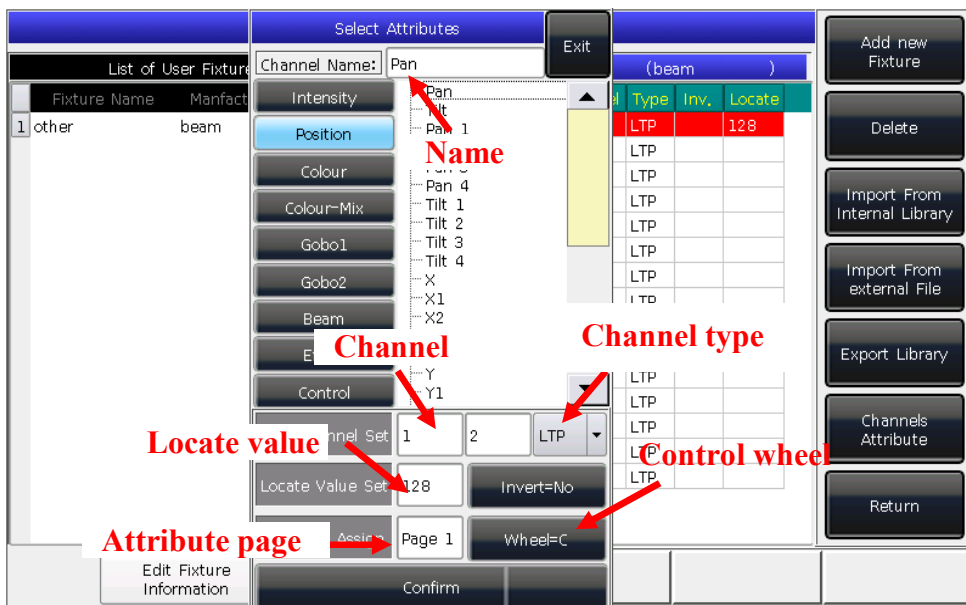
8.3.2. Manage Fixture Library

If you can not find the fixture library from system, you can create or edit user library on the controller.

When entered the option, it will list all loaded or created user libraries on the left. Select any one will list its channel details, you can edit it again.

8.3.2.1. Create new fixture

- ① Press **[Add New Fixture]**;
- ② Entry the **"Fixture Name"**, **"Manufacture"** and **"DMX channels"**, then press **[Confirm]**;
- ③ The fixture information will list on the left. And will list all channels when you select the fixture name. The number of rows equal to your setting of DMX channels;



- ④ Select channel number on touch screen and press **[Channels Attributes]**;
- ⑤ The call out window will list different kinds of attribute names on the left which relevant to attribute keys. You will find many attribute names in each of them. Then you can select the channel name, set DMX channel (fine channel or not), channel type, locate value, key page and the wheels to control;
- ⑥ Press **[Confirm]** to finish setting on that channel;
- ⑦ Repeat steps from ④ to ⑥ until finish all the channel list;
- ⑧ Press **[Return]** and select **[Confirm]** to save your setting.

8.3.2.2. Delete User library

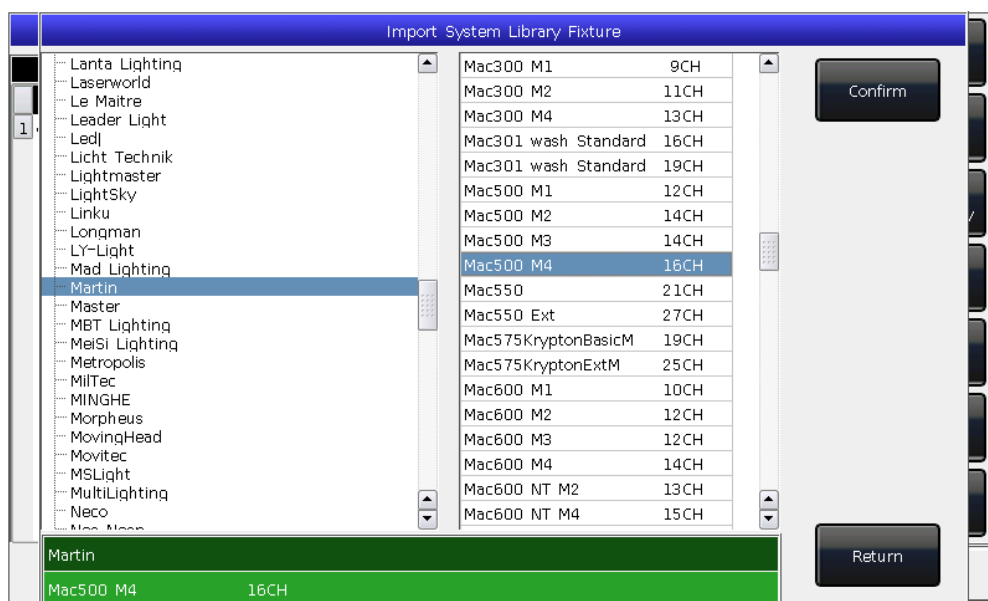
The option can only delete user library but system library.

- ① Select the name list on left;
- ② Press **[Delete]** to delete.

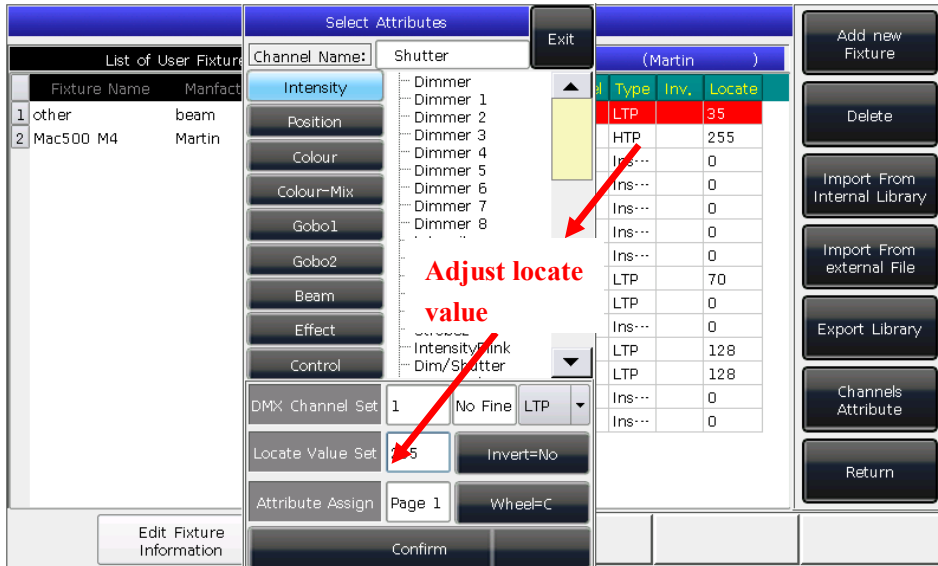
8.3.2.3. Import and edit library from system

If there is a system library which can be used, but something should be adjusted. You can import the system library and adjust it for actual using. (Note: The modulation on import library will not change the initial library in system. But those pre-setting functions in system library will be deleted after adjusted.)

- ① Press **[Import From Internal Library]**;
- ② The window will list all manufacture names from system library on left;
- ③ Search and select the manufacture, all libraries of the manufacture will be list on right;



- ④ Select the library then press **[Confirm]**;
- ⑤ The import library will be listed on **"List of User Fixtures"**;
- ⑥ Select the import library and select the needed channel;
- ⑦ Press **[Channels Attribute]** and amend the information of the channel;

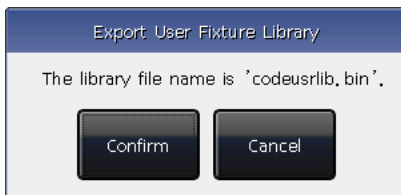


⑧ Press **[Return]** and **[Confirm]** to save.

Note: All preset, range table and macro details will be delete after edited the library.

8.3.2.4. Export Library

Users can export all the user libraries to USB driver. You can backup the user libraries which may use in another FOS DESIGNER 1024. Default name of backup file is 'codeusrlib.bin'.



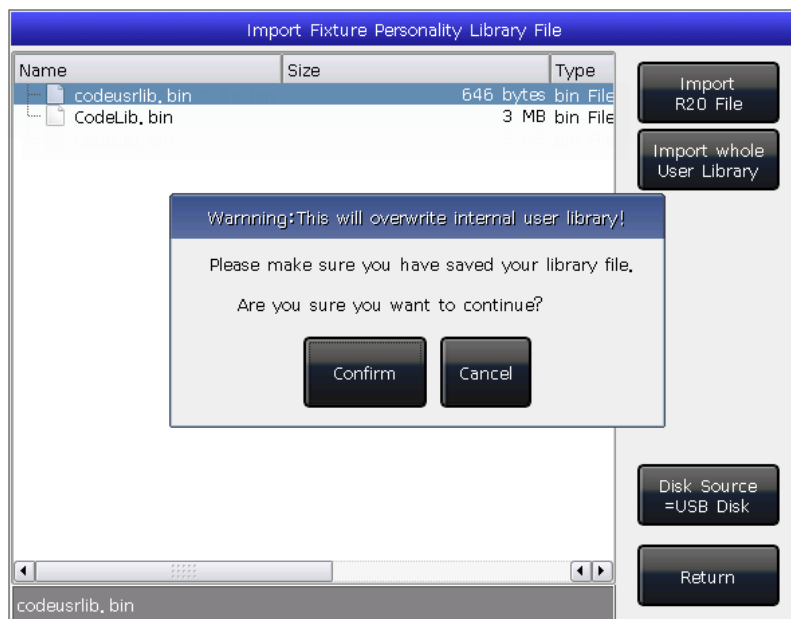
8.3.2.5. Import external library File

Users can import the user library 'codeusrlib.bin' or R20 library file to the controller.

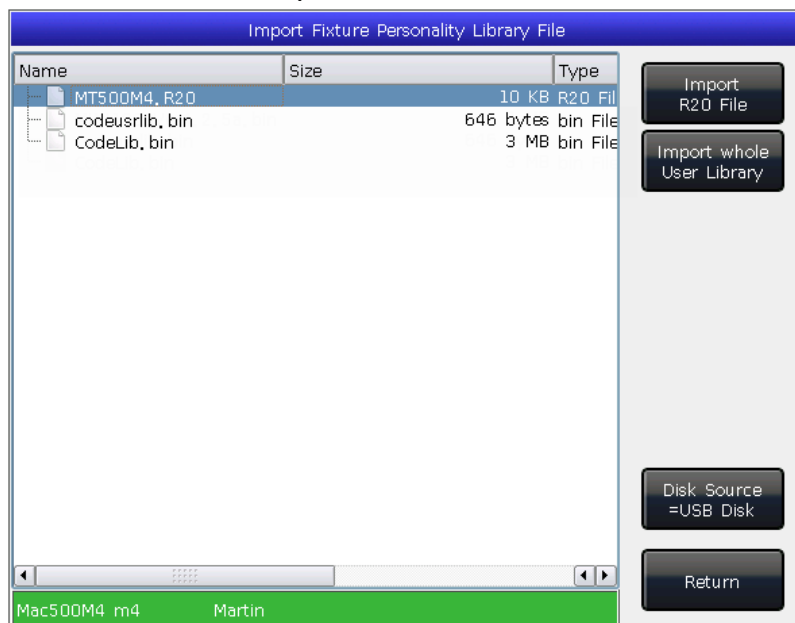
- ① Put in the library file to USB driver;
- ② Press **[Import From external File]**;
- ③ System will read USB driver automatic and the window will list all files in your USB driver; (Press **[Disk Source]** can switch to Internal Disk.)
- ④ Select the file you want;

Press **[Import whole User Library]** if you want to import the user library;

Note: All user libraries in the list will be replaced if you import whole User Library.



Press **[Import R20 File]** if you want to import library file in R20 format. (The info area at the bottom will turn green if R20 file is selected.)



- ⑤ Press **[Return]** and quit to **"List of User Fixtures"**.

9. Touch Options

There are three default options for users selecting on touch screen, which are Fixtures, Presets and Groups.



Users can set other options on 'Select' part to touch screen for more convenient selecting.

For example, we can hold the key **Macr** and select the name 'Fixtures' on blue bar on touch screen.



10. Technological Specification

- Totally 1024 channels. Offer 2 individual optical isolated DMX outputs and Art-net interface.
- 7" TFT-LCD touch screen for operating.
- Keys take with backlight and highlight which colours can be changed into red, green or yellow.
- Offers 4 optical encoders with backlight for details setting.
- Up to 600 playbacks can be programmed which controlled by 15 playback faders × 40 pages. Totally 15 playbacks can be run simultaneous.
- Maximum 400 Units for patching all kinds of Fixtures.
- Up to 400 Groups.
- Up to 400 Presets.
- Up to 400 user-defined shape effects.
- Up to 400 Macro Shows can be saved which allow to be triggered by external MIDI time code or internal clock.
- Shortcut area provides a quick way for selecting Fixtures, Groups, Presets, Custom Effects and Macro Shows.
- Color-mix system provides a palette for users to control fixtures with RGB or CMY channels more conveniently.
- Shape Generator provides various effects which can be modified with different parameters. User-defined shape effects can be saved for convenient calling out again.
- Provides 5 levels precedence for playbacks.
- Offer attributes times for playbacks.
- Provide over 8000 Libraries in system. Enable users to edit system library or create custom Library.
- Upgrade version and system library are freely offered on website.
- An internal electronic disk allows user to backup show data.
- USB interface allows users to backup shows in external disk.
- Provide MIDI in and out interfaces to connect and work with other consoles.
- Power supply: AC100-240V, 50-60Hz.
- Size: 540mm × 480mm × 180mm.
- Net weight: 10Kg approx.