

**Lite-Puter**

*EXTENSIBLE  
MODULE  
DESIGN*

# ***CX-2401***

## ***24CH. Modular Dimmer Console***

**【User Manual】**



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## Chapter 1. CX-2401 introduction

### *To change scene quickly.*

Do you have the experience?

We are often asked to operate lighting immediately, but the show has finished before you know how to use the console. CX-2401 will be an ideal dimmer console to change the scene quickly and meet your need.

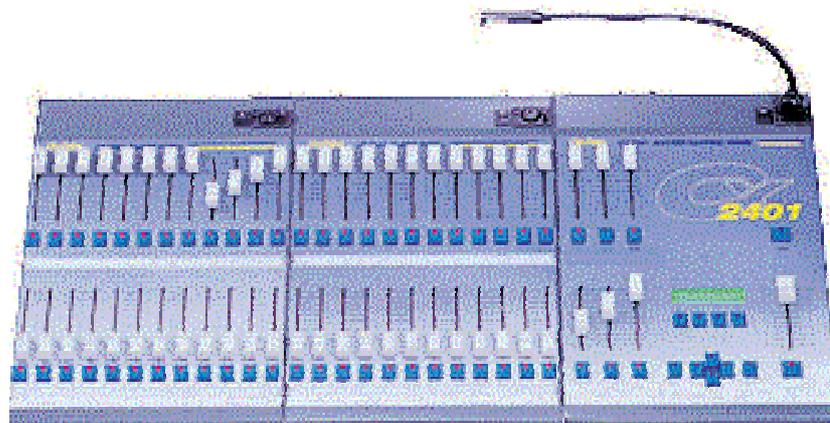
### *To use conveniently by module design*

CX-2401 dimmer console is designed to be a simple and easy operation machine. Because it is absolutely operated by one channel to one channel mode, a big control panel is necessary. Therefore, module design can meet all you need and be used in the big stage or the small club.

Furthermore, Cx-2401 output can be patched to 512 channels through LITE PUTER DP-11 DMX patch panel to make operate easily.

**Standard Set** 1 Master + 2 Slaves (12 ch. X 2) to control 24 ch.

**Extended Set** 1 Master + 2 ~ 7 Slaves (12ch. X 2 ~ 7) to make 10 pieces of dimmer module and control 84 ch.



## 1-1 CX-2401 features

- **DMX signal interface : DMX-512 (512 CH.)**
- **Channel control :**  
Standard set: to control 24 ch.  
Extended set: 7 dimmer modules can be extended at most and control 84 ch.
- **120 Scenes**
- **Call out the scene quickly by HOT KEY or VR.**  
Standard set: 24 VR & HOT KEY to call out scene 1 ~ 24.  
Extended set: each dimmer module can call out 12 scenes by VR or HOT KEY and total 120 scenes at most.
- **2 independent cross faders “A” and “B”**
- **X-FADE**  
Each program file can be programmed up to 120 steps  
each step corresponds to a certain scene
- **MIDI /AUDIO/ CHASER functions.**

## 1-2 CX-2401 regulation

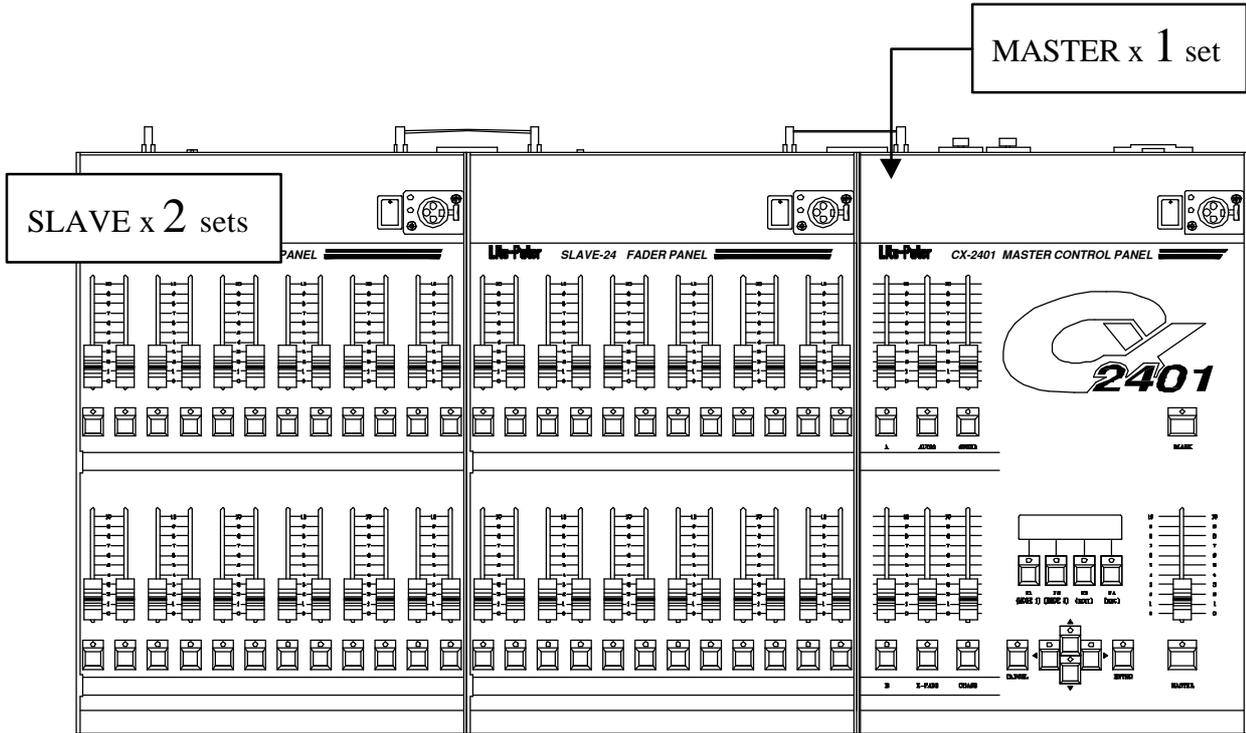
- Power supply : 100-240VAC / 50-60Hz
- DMX output/input : DMX-512 / 1990 protocol
- DMX output channel : 512 CH.
- DMX connector : XLR 5-pin
- AUDIO input : 200 mV max. Microphone inside.
- Goose neck light connector : XLR 3pin, DC+12V 250mA.
- Dimension :  
STANDARD:720 x 380 x 90mm (LxWxH)  
MASTER: 240 x 380 x 90mm (LxWxH)  
SLAVE: 240 x 380 x 90mm (LxWxH)

## Chapter 2. CX-2401 module installation

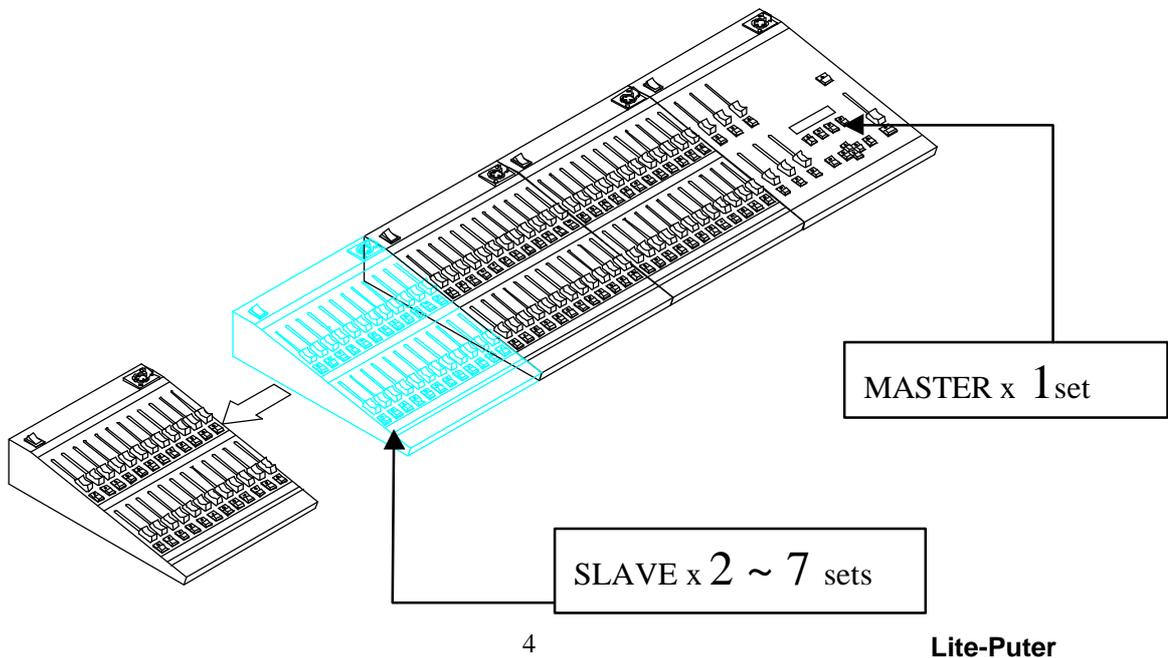
### 2-1 Standard and extend type

**Merit:** flexible channel number, easy maintenance and update software.

**Standard set:** to control 24 ch.

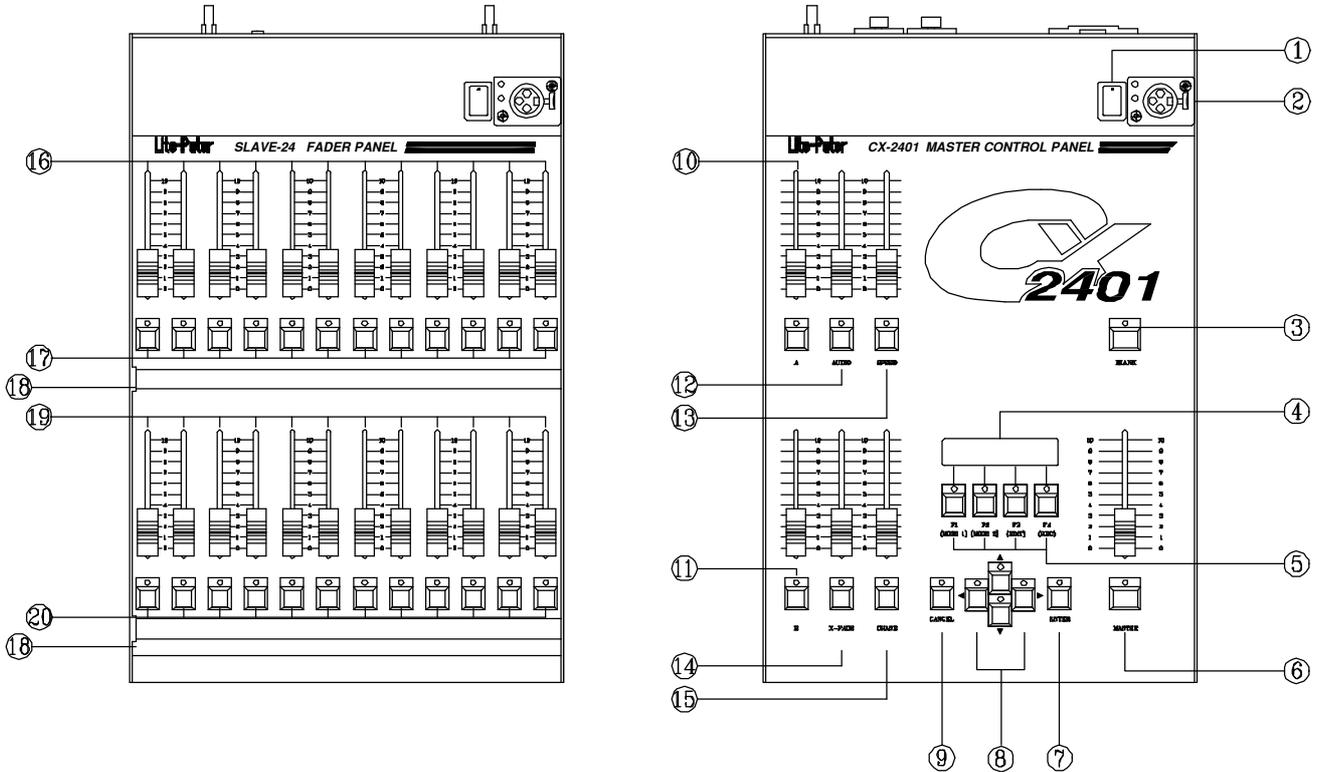


**Extended set:** 7 dimmer modules can be extended at most and control 84 ch.



**2-2 MASTER / SLAVE front panel description**

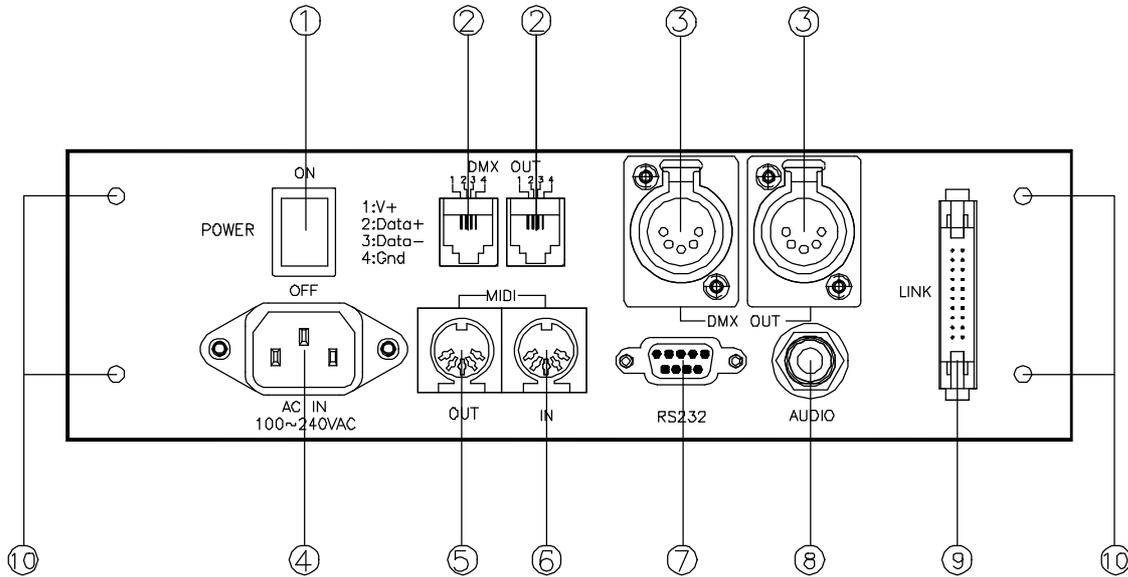
CX-2401 consists of mater (right photo) and slave (left photo) parts:



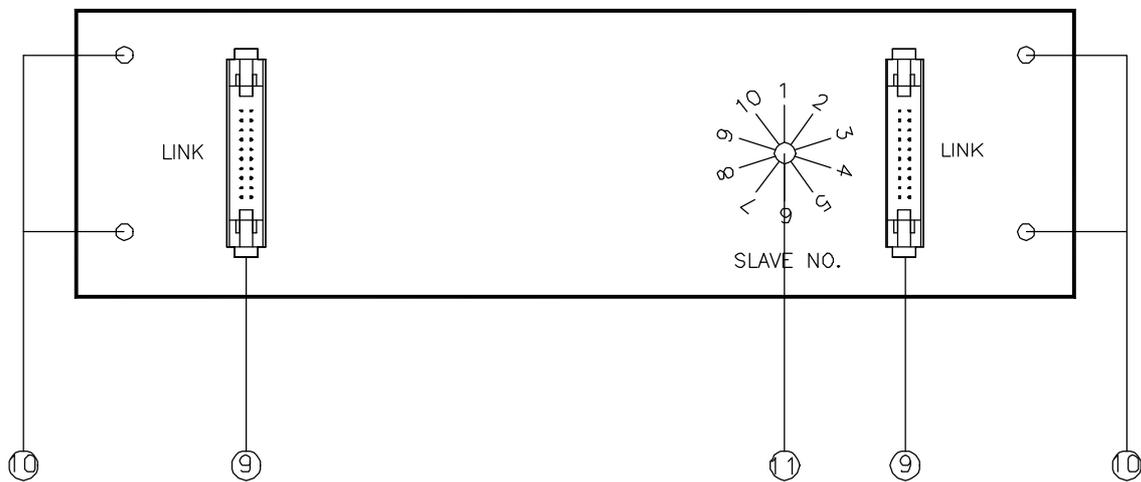
(1) Goose neck light switch	(2) Goose neck connector (DC+12V 250mA)
(3) BLANK switch	(4) LCD display
(5) F1~F4 function key	(6) <b>MASTER VR</b> (clearance key)
(7) ENTER confirmation key	(8) Forth / Back key
(9) CANCEL clearance output key	(10) Master VR for A scene. <b>(VR#A)</b>
(11) Master VR for B scene. <b>(VR#B)</b>	(12) VR for dimming level under AUDIO function.
(13) VR for speed of channel output	(14) X-FADER / clearance key
(15) VR for dimming level under CHASE function.	(16) VR for channel dimming & scene output. <b>A1: (CH#1~CH#24)</b> <b>A2: (SC#1~SC#24)</b>
(17) <b>HOT KEY #1 ~ HOT KEY #24</b> Mode A1: dimming level for each channel. Mode A2: quick scene output / FLASH	(18) SPACE: for user' s memory.
(19) VR for the dimming output of the scene. <b>A1 / A2: (CH#1~CH#24)</b>	(20) <b>HOT KEY #1 ~ HOT KEY #24</b> display the dimming level of each channel.

**2-3 MASTER/ SLAVE rear panel discription**

MASTER rear panel



SLAVE rear panel

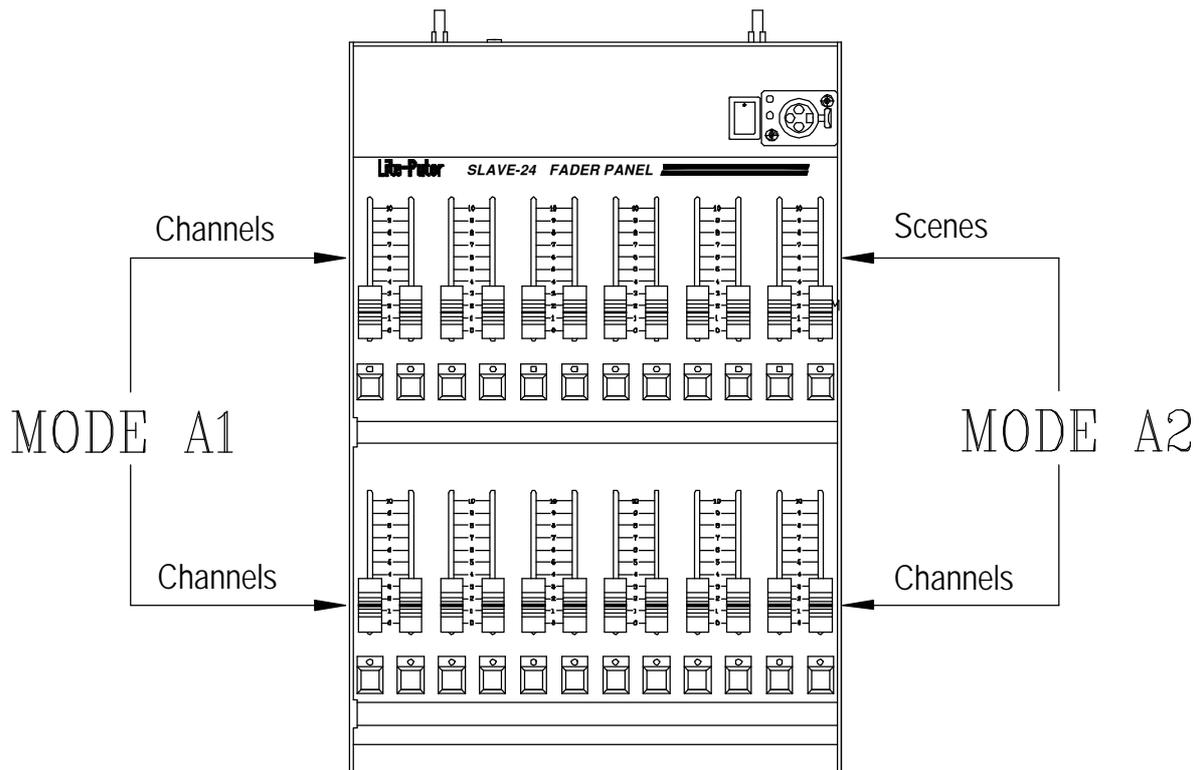


- |  |                                  |
|--|----------------------------------|
| (1) Power Switch                       | (2) DMX-512 output               |
| (3) DMX-512 output                     | (4) AC power socket:100-240 V AC |
| (5) Midi signal output                 | (6) Midi signal input            |
| (7) Rs232 D type socket (9 Pin)        | (8) Audio socket                 |
| (9) Power and signal connection socket | (10) Screws for fixing modules.  |
| (11) Dip switch                        |                                  |

## Chapter 3. Operation

### 3-1 A1 & A2

CX-2401 is designed of A1 and A2 modes to change the scene immediately and meet the user's need.



#### A1

Top line: the channel dimming level of A scene.

Bottom line: preset dimming level for B scene.

#### A2

Top line: to set and call out the scene.

Bottom line: display the real dimming output of the scene.

## 3-2 How to set and execute the scene under "A1" mode

Please confirm the mode (A1 or A2) before using CX-2401.

Under mode A1: A/B scene (24 channels each) can be set dimming level and output the bigger dimming level.

### 3-2-1. To enter "A1" mode

**STEP-1**: push master module "MASTER VR" to the top.

**STEP-2**: press **F1** to choose **MODE A1**.

NOW IS MODE A1  
SURE TO MODE A1?

**STEP-3**: press **ENTER** to confirm.

### 3-2-2. To set dimming level for A/B scenes

**STEP-1**: Push slave module VR on top line to ideal dimming level.

**STEP-2**: Push slave module VR on bottom line to ideal level.

**STEP-3**: Push master module **VR#A** (on top line) to the top.

### 3-2-3. To execute A/B scene cross fader

Pull **VR#A** down to the bottom (0% output) and push **VR#B** up to the top (100% output) at same time.

**3-3 How to set and execute the scene under "A2" mode**

**3-3-1. To enter "A2" mode**

**STEP-1:** Push "MASTER VR" to the top.

**STEP-2:** Press **F2** to choose **MODE A2**.

NOW IS MODE A2  
SURE TO MODE A2?

**STEP-3:** Press **ENTER** to confirm.

**3-3-2. Setting the scene**

*120 scenes can be set and 24 HOT KEY & VR for calling out scene 1-24 immediately.*

**Method 1 : to set scene 1-24 by **F4** function key**

*120 scenes can be set at most.*

**STEP-1:** push master module **VR#A & VR#B** to the top.

**STEP-2:** push slave module **SC#1~SC#24** (top line) and **CH#1~CH#24** (bottom line) to ideal dimming level.

**STEP-3:** press **F4** to choose the scene. **▲**: forth 1 scene **▼**: back 1 scene **◀**: forth 10 scenes **▶**: back 10 scenes

RECORD TO :  
Press **▲▼+1◀▶+-**

**STEP-4:** press **ENTER** to confirm.

**Method 2 : to set scene 1-24 by HOT KEY**

*Eg. Save many scenes and channels in scene1.*

**STEP-1:** push master module **VR#A 與 VR#B** to the top.

**STEP-2:** push slave module **SC#1~SC#24** and **CH#1~CH#24** to ideal dimming level.

**STEP-3**:press master module **F4 (REC.)**, and then press slave module **HOT KEY** under SC#1.

RECORD TO : 1  
Press ▲▼+1◀▶+-  
-~

Scene1 setting will be finished when Lcd displays the initial monitor.

NOW IS MODE A2  
CX-2401 Ver : 1.0

### 3-3-3. To execute the scene

*EG. : How to call out scene1*

#### Method 1 : push SC#1~SC#24 (dimming output)

Push **SC#1** to call **scene 1** (0%~100%), and the led (bottom line) will display the channels of scene1.

#### Method 2 : call out by HOT KEY#1 ~ #24 (switch output)

Press **HOT KEY #1 ~ #24** (top line) to call out scene 1 (switch output) and leave the key to stop output.

### 3-4 How to "stop" all the output for a while

Please press **BLANK** key.

### 3-5 How to "clear" all the output

**STEP-1**:pull all slave module channels down to the bottom.

**STEP-2**:pull "**MASTER VR**" down to the bottom, and then press **MASTER** to clear all channels output. (p.s. it is exceptional under x-fade & chase functions.)

## 3-6 “CHASER” TYPE

### 3-6-1. Call out the scenes to choose chasing type

#### *Under A1 mode : single channel chasing*

**STEP-1**:to confirm A1 mode. (refer to 3-2-1)

**STEP-2**:push master module **CHASE VR** to the ideal lighting level.

**STEP-3**:push master module **SPEED VR** to the ideal speed.

**STEP-4**:push” **VR#A**”down to the bottom.

**STEP-5**:push slave module **CH#1 ~ CH#24** for your need. (channel 1~ channel 24)

#### *Under A2 mode : scenes chasing*

**STEP-1**:to confirm A2 mode.(refer 3-3-1)

**STEP-2**:push master module **CHASE VR** to the ideal lighting level.

**STEP-3**:push master module **SPEED VR** to the ideal speed.

**STEP-4**:push **VR#A** down to the bottom.

**STEP-5**:push slave module **SC#1 ~ SC#24** for your need. (scene1~scene24)

### 3-6-2. Chasing controlled by audio

#### *Under A1 mode :*

**STEP-1**:to confirm A1 mode. (refer to 3-2-1)

**STEP-2**:push **CHASE VR** to the ideal lighting level.

**STEP-3**:pull **SPEED VR** down to the bottom.

**STEP-4**:push **AUDIO VR** to the top.

**STEP-5**:push slave module **CH#1 ~CH#24** for your need. (channel 1 ~channel 24).

**Under A2 mode :**

**STEP-1**:to confirm A2 mode. (refer to 3-3-1)

**STEP-2**:push master module **CHASE VR** to the ideal lighting level.

**STEP-3**:pull master module **SPEED VR** down to the bottom.

**STEP-4**:push **AUDIO VR** up to the top.

**STEP-5**:push slave module **SC#1 ~ SC#24** for your need.(scene 1~ scene 24).

**3-6-3. Chasing controlled by MIDI**

Output is controlled only by MIDI.

**3-7 How to stop chasing**

Pull "**CHASE VR**" down to the bottom.

**3-8 Scenes X-FADE**

**3-8-1. Setting "X-FADE"**

EG. :

STEP 1 = SCENE 2

STEP 2 = SCENE 4

STEP 3 = SCENE 6

120 steps at most.

▲ or ▼ : choose previous step or next step.

◀ or ▶ : choose previous scene or next scene.

**STEP-1**:press **F3**,to set scene steps.

1.XFADE EDIT  
Press▲ ▼ KEY Sel

**STEP-2**:press **ENTER** to confirm.

1.XFADE EDIT  
STEP 1 =SC 1

**STEP-3:**press 

1.XFADE EDIT  
STEP 1 =SC 2

**STEP-4:**press 

1.XFADE EDIT  
STEP 2 =SC 2

**STEP-5:**press  two times

1.XFADE EDIT  
STEP 2 =SC 4

**STEP-6:**press 

1.XFADE EDIT  
STEP 3 =SC 4

**STEP-7:**press  two times to finish setting.

1.XFADE EDIT  
STEP 3 =SC 6

**STEP-8:**press **ENTER** to confirm.

### 3-8-2. Executing "X-FADE"

*The same example as above :*

*To display scene 2, scene 4 and scene 6 dimming output by pressing X-FADE VR.*

**STEP-1:**push "X-FADE VR" up to the top to output scene 2. (step 1)

**STEP-2:**pull "X-FADE VR" down to the bottom to output scene 4. (step 2)

**STEP-3:**push "X-FADE VR" up to the top to output scene 6. (step 3)

### 3-8-3. Stop "X-FADE"

Pull "X-FADE VR" down to the bottom and then press **HOT KEY** to stop x-fade output.

### 3-9 Additional functions to **F3** function key.

Press **F3** and then press ▲ or ▼ to choose the functions.

#### 3-9-1. Edit "X-FADE"

Referring 3-8

#### 3-9-2. Setting channel level correspond to MIDI.

Basic MIDI format includes:

**【CHANNEL】** (Correspond to different kinds of musical instrument)  
**【TONE】** (From 0 to 127)  
**【VELOCITY】** (From 0 to 127)

*MIDI IN function : call out 120 scenes by "TONE".*

**MIDI** interface can send out 16 different kinds of musical effect by installing different level on **CHANNEL** (1-16). As a result of that, the **MIDI-CHANNEL** level in CX-2401 has to be corresponding to the **CHANNEL** level of **MIDI** interface, then CX-2401 can receive the data correctly from **MIDI** interface.

**TONE** can send 128 different kinds of digital code to CX-2401, which will divide 128 **TONE** into **120 MIDI MEMORY**, and each of those represents a "**SCENE**".

**STEP-1**: press **F3** and then press ▲ three times.

```
3.MIDI CHNL. SET
Press ▲ ▼ KEY Sel
```

**STEP-2** : press **ENTER**.

```
3.MIDI CHNL. SET
MIDI CHNL. = 1
```

**STEP-3** : press ▲ or ▼ to adjust 1-16 channel level.

**STEP-4** : press **ENTER** to confirm.

**3-9-3. To set "scene" level corresponding to "tone"**

**STEP-1:**press **F3** and then press ▲ two times

2.MIDI TONE EDIT  
Press ▲ ▼ KEY Sel

**STEP-2:**press **ENTER**

2.MIDI TONE EDIT  
TONE 1=SC 1

TONE 1-TONE 128  
are always corresponding to  
SCENE 1

**STEP-3:**press ▲ or ▼ to change tone level and press ◀ or ▶ to change scene level.

**STEP-4:**press **ENTER** to confirm.

**3-9-4. To set LCD background lighting level.**

**STEP-1:**press **F3**, and press ▲ four times.

4.LCD BACKGROUND  
Press ▲ ▼ KEY Sel

**STEP-2:**press **ENTER**, and then press ▲ or ▼, to adjust background lighting level.

4.LCD BACKGROUND  
LIGHTLY

4.LCD BACKGROUND  
BLACKLY

**3-9-5. Inspection**

**Step-1:**press **F3**, and press ▲ five times.

5.E2M DATA INIT.  
Press ▲ ▼ KEY Sel

p.s. the function is for Q.C. inspection.