DMX MASTER
Professional Lighting Controller

PRO512

User Manual

Please read these instructions carefully before use

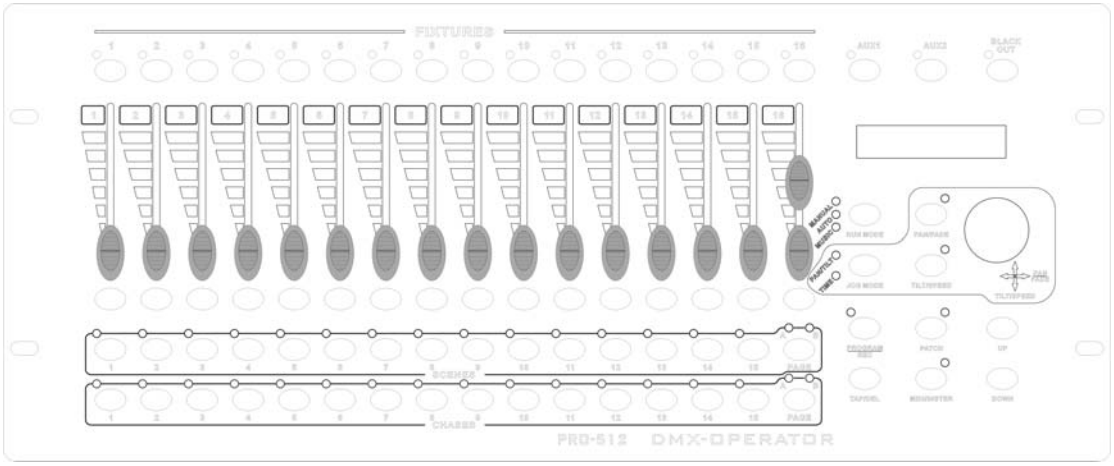
1. Welcome to use PRO512 DMX professional console

1.1 This console is specially designed for DMX lighting equipment. In order to facilitate you use this console. Please read this use guide before using it; Text in box appeared in this paper means a button. For example, PROGRAM means the Program Buttons.

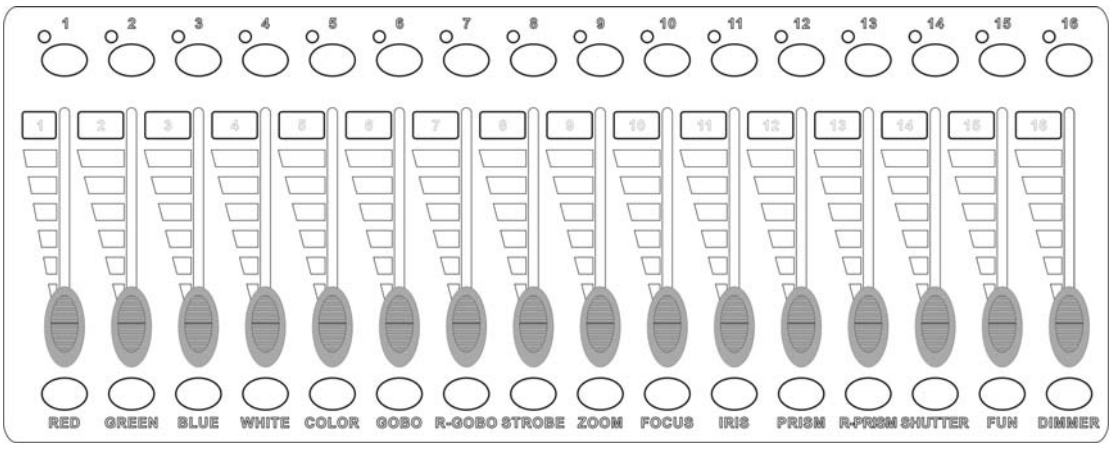
1.2 The input of the power adapter supplied by the console is AC100~240V 50/60HZ, the output is DC9V1.5A, the input of the control console is DC9V1.5A.

Tip: please check up whether the local mains is within AC100~240V and the output of the power adapter is DCDC9V1.5A.

2. PRO512 console panel

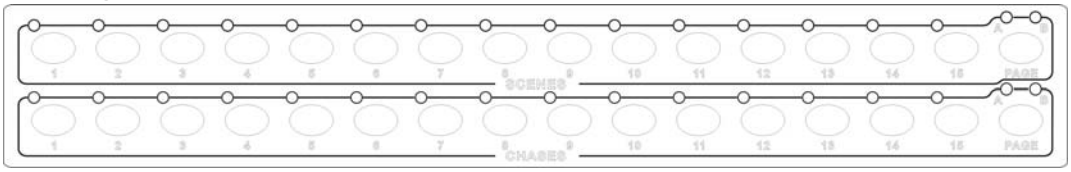


2.1 Fixture area



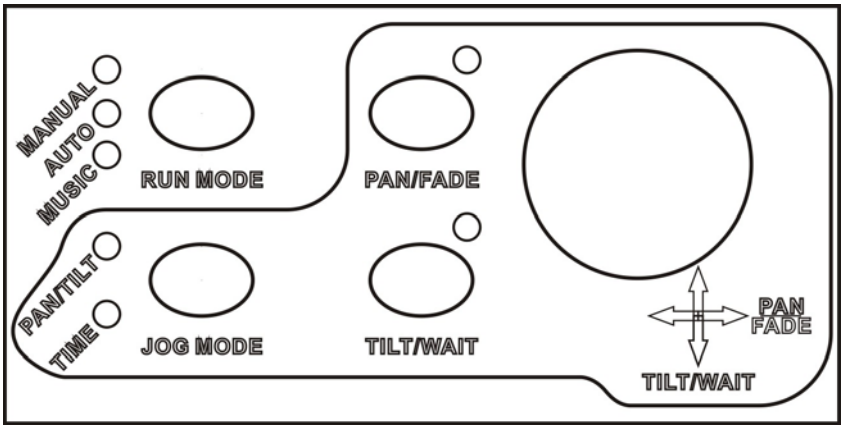
The fixture area consists of 16 fixture buttons in the upper row, 16 channel sliders in the middle row, and 16 press-control buttons in the bottom row. The fixture buttons are to select lighting fixtures. The channel sliders output the control data. Press the press-control button, the corresponding channel will output the value of 255. Once released, the output value will return to the slider value.

2.2 Storage area



Storage is divided into two storage areas: scenes and chases; each area has two pages A and B. Up to 30 scenes and 30 chases can be store.

2.3 Joystick area

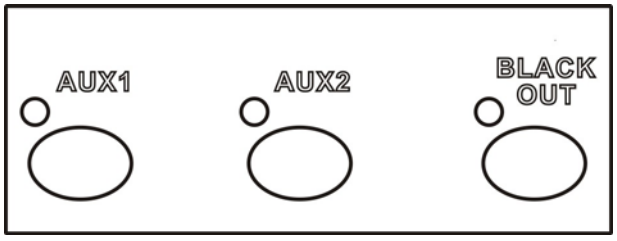


JOG MODE is the joystick function select button; When the PAN/TILT indicator turns on, the joystick to adjust the Pan/Tilt channels; when the TIME indicator turns on, the joystick is to adjust fade time and wait time of a chase;

When the indicator of the PAN/FADE button or the TILT/WAIT button is flashing, you cannot change the data at PAN/FADE or TILT/WAIT direction with the joystick.

2.4 Function key area

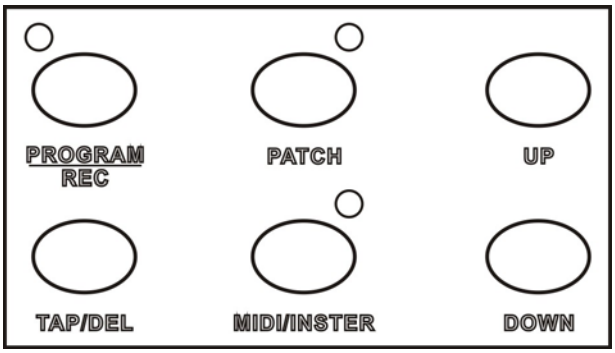
2.4.1 Function key area 1



AUX1 and AUX2 are two additional buttons. One or several or all of the 256 channels can be assigned to the AUX buttons (press to set on/off). The button can also be programmed in scenes and chases.

BLACKOUT is the blackout button.

2.4.2 Function key area 2



PROGRAM/REC is used to enter program mode or to confirm an operation. Press and hold it for three seconds, it will enter program mode; Press and hold again to exit. When in program mode, use it to record the current effect.

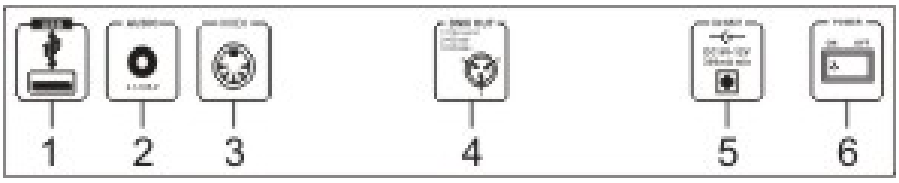
PATCH is the channel patching button. Press and hold it for three seconds, it will enter patch editing mode; long again press again to exit; A single pressing is to clear the manual output.

When a chase is running, press TAP/DEL twice, the interval time between the two pressings will be recorded as the chase running time; The button also has the delete data function.

MIDI/INSERT is used to enter midi setting or to insert.

UP DOWN are Up / Down buttons.

3. PRO512rear panel



1.	USB	USB port.
2.	**AUDIO IN**	**0.1~1Vp-p.**
3.	**MIDI IN**	**receive MIDI data**
4.	**DMX OUT**	**DMX signal output terminal**
5.	**DC INPUT**	**Dc input (DC 9-12V, 300mA min)。**
6.	**POWER**	**mains [power] switch**

4. PRO512 fixture patching

This section shows how to patch DMX channels.

In order to control lighting equipment according to your need, you need to complete DMX channel patching; PRO512 has 16 fixture buttons and 16 channel sliders, and you can assign 512 DMX channels to PAN/TILT, AUX1 and AUX2.

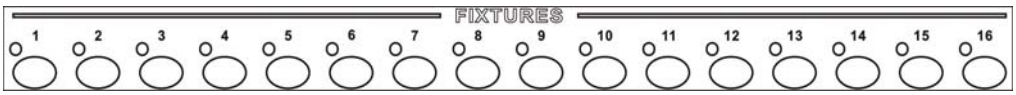
The factory default setting of the patching is list in Section 4.7 and in the Appendix.

4.1 DMX channel patching

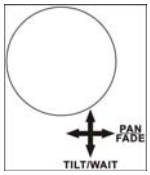
In patching state, the joystick can be used to browse into the 512 DMX channels. Move the joystick up or down (TILT) to page up or down; there are 18 DMX channels in each page. Move the joystick left or right (PAN) to browse into the 18 channels on the current page.

a. Press and hold PATCH for 3 seconds to light up the PATCH indicator; then, the controller is in patching state;

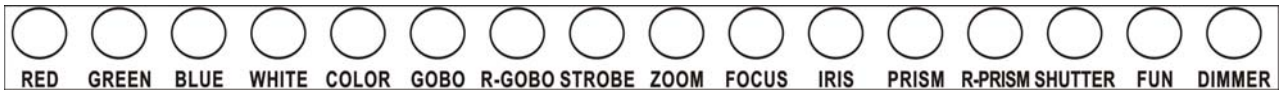
b. Choose a desired fixture by pressing one of the 16 fixture buttons; the indicator lights up;

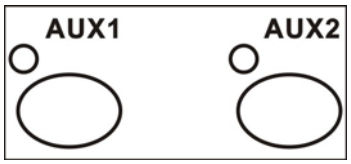


c. Choose a desired DMX channel with the joystick;

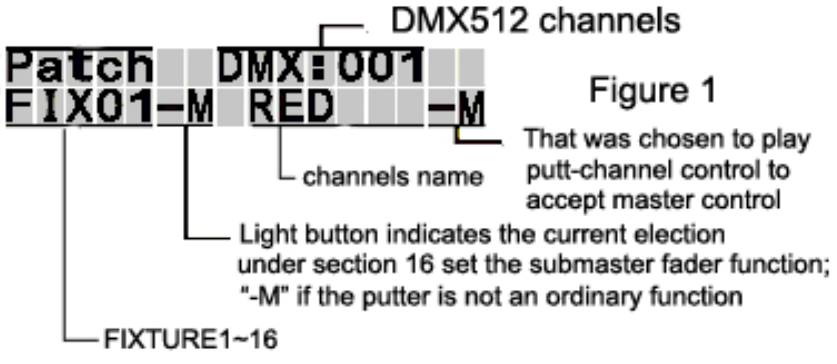


d. Choose a desired target button; you can also select PAN, TILT, AUX1 or AUX2;





e. The LCD will show the corresponding data, as shown in Figure 1 or Figure 2;



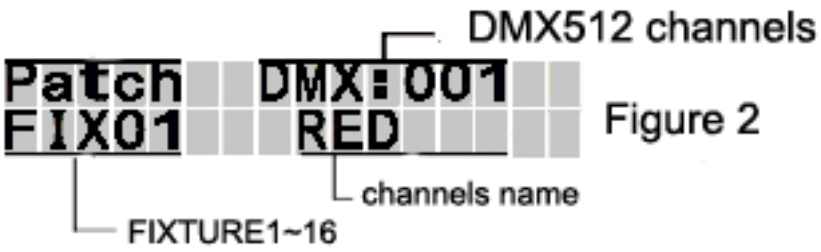


Figure 2

f. Repeat Step b, c and d to patch other channels;

e. Press and hold PATCH again for 3 seconds to exit; the indicator is off.

Eg: Patch the 5th DMX channel to the 2nd slider of the 2nd fixture:

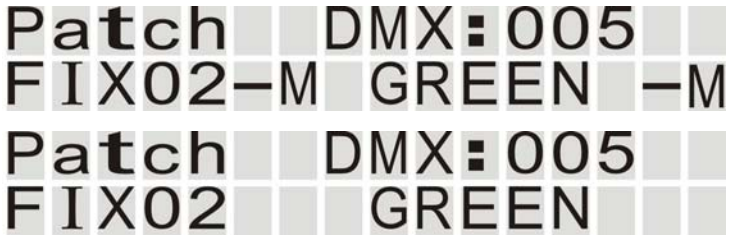
a. Press and hold PATCH for 3 seconds to light up the PATCH indicator; then, the controller is in patching state;

b. Choose Fixture 2; the indicator lights up;

c. Choose the 5th DMX channel with the joystick;

d. Press the corresponding button (GREEN) of the 2nd slider;

e. Patching OK. The LCD will show as below (Master or Normal):

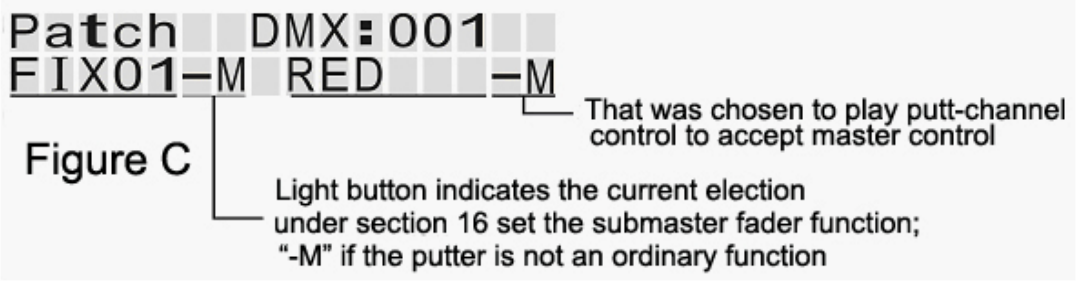


f. Press and hold PATCH again for 3 seconds to exit; the indicator is off.

Note: Every DMX channel can be patched to only one slider!

4.2 The patch of a master slider

From the above figures, you see “M” in the LCD



The first M indicates that the 16th slider for the current fixture is set as a master slider; If no M appeared, then, it is a normal slider. The second M indicates that the chosen slider channel is subject to the control of the master slider.

The operation steps are as below:

a. Press and hold PATCH for 3 seconds to light up the PATCH indicator; then, the controller is in patching state;

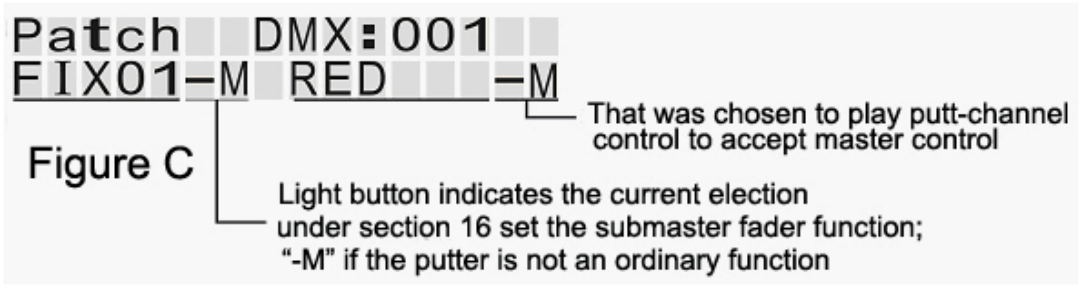
b. Choose a desired fixture button for master slider setting; The indicator is on;

c. Press and hold DIMMER, the corresponding button to the 16th slider channel; After about 3 seconds, the LCD will show Figure A. It means the 16th slider is set as a master slider. If it was already set as a master slider, then, this operation will clear the setting and the LCD will show Figure B.

Figure A

Figure B

If the 16th slider is set as a master slider, the LCD will show an M for the rest slider of the fixture, as shown in Figure C:



d. Repeat Step b and c to set another master slider;

e. Press and hold PATCH again for 3 seconds to exit; the indicator is off.

4.3 Set a slider to be subject to the control of a master slider

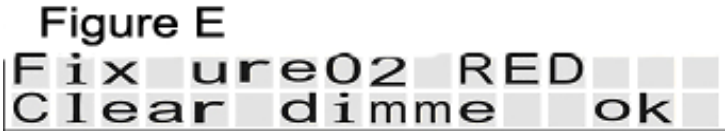
a. Press and hold PATCH for 3 seconds to light up the PATCH indicator; then, the controller is in patching state;

b. Choose a desired fixture button for master slider setting; The indicator is on;

c. Press and hold the corresponding button to the desired slider channel that will be subject to the control of a master slider; After about 3 seconds, the LCD will show Figure D. It means the setting is succeeded. If the slider channel was already set as being subject to the control of a master slider, then, this operation will clear the setting and the LCD will show Figure E.

Figure D

Figure E



d. Repeat Step b and c to set another slider channel;

e. Press and hold PATCH again for 3 seconds to exit; the indicator is off.

4.4 Joystick Pan/Tilt Reverse

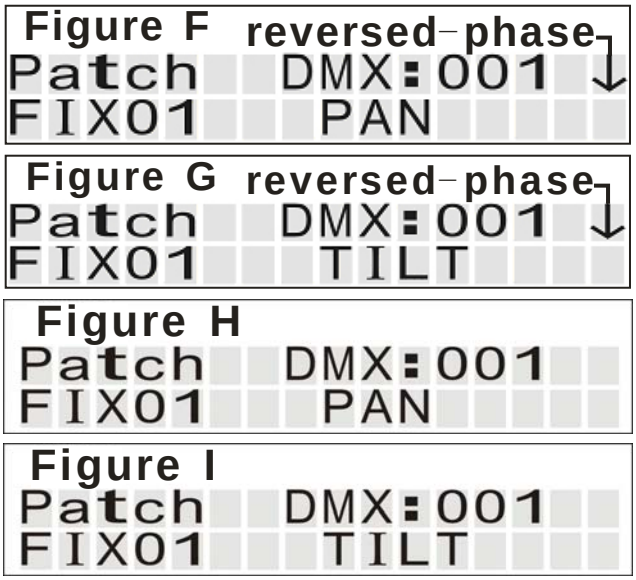
Normally, to move pan of the joystick right-ward or to move the tilt upward is to add the value; but, this can be reversed.

a. Press and hold PATCH for 3 seconds to light up the PATCH indicator; then, the controller is in patching state;

b. Select a desired fixture (Fixture 1-16) to reverse its channels. The corresponding indicator will be on;

c. Move the joystick to select a desired channel that will be patched to pan or tilt;

d. Press and hold PAN/FADE for pan patching or press and hold TILT/WAIT for tilt patching; After 3 seconds, the LCD will show Figure F and Figure G. with and downward arrow. Then, the reverse setting is successfully done. If the reverse has already been setup, then, this operation will clear the setting and the LCD will show Figure H and Figure J, without the downward arrow.



e. Repeat Step b, c and d to setup another desired channel;

f. Press and hold PATCH again for 3 second to exit.

Note: A DMX channel can be patched to any of the channel sliders, joystick (pan or tilt), AUX1 or AUX2; Once patched, it cannot be patched to another one. However, two or more DMX channels can be patched to the same channel slider, joystick (pan or tilt), AUX1 or AUX2.

4.5 Clear the patching of a single channel

The patching of a DMX channel can be cleared:

a. Press and hold PATCH for 3 seconds to light up the PATCH indicator; then, the controller is in patching state;

b. Select the desired DMX channel to clear patching;

c. When no fixture button is selected, select any one of the 16 slider buttons;

d. The LCD will show:

"NO Assign" indicates that currently no DMX channel is patched.

e. Repeat Step b and c to clear another channel;

f. Press and hold PATCH again for 3 seconds to exit.

4.6 Reset the patching to factory setting

a. Power of the controller;

b. Press and hold PROGRAM, TAP/DEL and PATCH;

c. Power on the controller. Till the LCD show the below message, release the above three buttons

e. After about 5 seconds, the LCD will show as below; Then, the factory setting is successfully loaded.

4.7 Modify the slider name

The factory default setting of the patching in the controller is as below:

Slider	Default name	Slider	Default name	Slider	Default name
Slider 1	RED	Slider 7	G-GOBO	Slider 13	RPRISM
Slider 2	GREEN	Slider 8	STROBE	Slider 14	SHUT
Slider 3	BLUE	Slider 9	ZOOM	Slider 15	FUN
Slider 4	WHITE	Slider 10	FOCUS	Slider 16	DIMMER
Slider 5	COLOR	Slider 11	IRIS		
Slider 6	GOBO	Slider 12	PRISM		

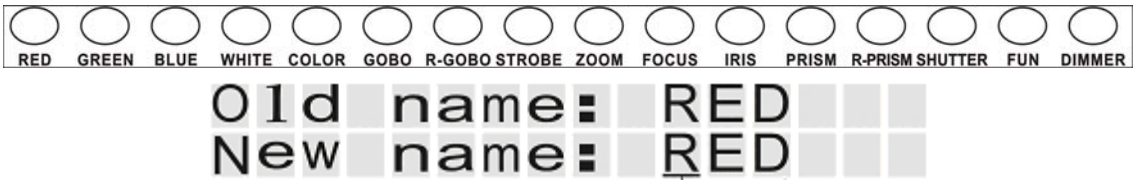
To modify the slider name:

a. Power off the controller;

b. Press and hold PROGRAM/REC, FIXTURE16 and PATCH;

c. Power on the controller. Till the LCD shows the below message, release the above three buttons:

d. Press a desired slider button to modify the name. The LCD will show as below:



e. Move the joystick left or right to move the cursor; Move the joystick up or down to change the letter at the current position;

f. Once a new name is selected, Press PROGRAM/REC to save. The LCD will show:

g. Repeat Step d~f to modify the name of another slider;

h. Power off the controller and restart it.

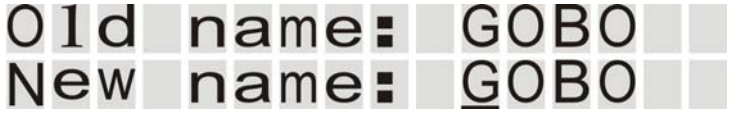
Eg: Change the name of the 6th slider to Frost;

a. Power off the controller;

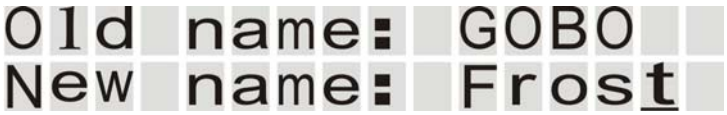
b. Press and hold PROGRAM/REC, FIXTURE16 and PATCH;

c. Power on the controller; Till the LCD shows the below message, release the above three buttons:

d. Press GOBO of the 6th slider. The LCD will show:



e. Move the joystick left or right to move the cursor; Move the joystick up or down to change the letter at the current position;



f. Once the new name is selected, Press PROGRAM/REC to save. The LCD will show:

g. Power off the controller and restart it.

5. Edit and Storage

Functions introduced in this section are in the program mode, including the storage of scenes, the edit and storage of chases, and the deletion of scenes and chases.

5.1 The editing and storage of scenes

This console can store up to 30 scenes, 15 on PAGE-A and another 15 on PAGE-B.

a. Press and hold PROGRAM/REC for 3 seconds to light up the indicator; then, the controller is in program mode.

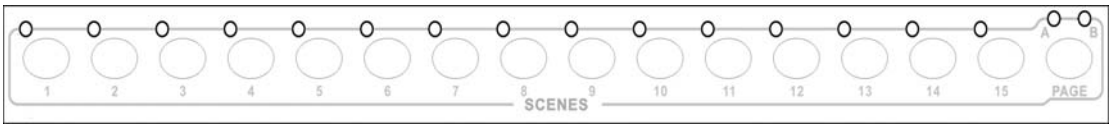
b. Select a desired fixture from FIXTURE1 ~ 16;

c. Adjust the corresponding channels to create a light effect;

d. Press PROGRAM/REC to confirm;

e. Press one of the 15 scene buttons on PAGE-A or PAGE-B to light up the indicator. The scene will be saved in this button;

f. All the indicators on the controller will blink, indicating that the scene is saved successfully;



g. Repeat Steps a~e to edit and save a new scene;

h. Press and hold PROGRAM/REC for 3 seconds again to exit.

Eg: Edit an effect for the sixth fixture and store it in the ninth scene button on PAGE-B.

a. Press and hold PROGRAM/REC for 3 seconds to light up the indicator; then, the controller is in program mode.

b. Select FIXTURE 6;

c. Adjust the corresponding channels to create a light effect;

d. Press PROGRAM/REC to confirm;

e. Press the PAGE button to light up indicator B;

f. Press Scene 9; the scene is then save here;

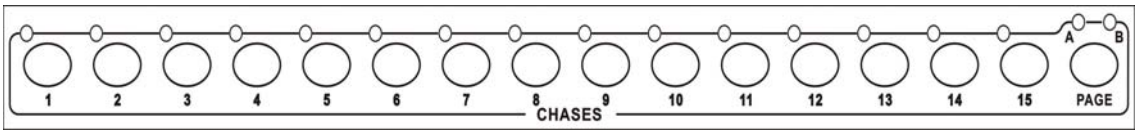
g. Press and hold PROGRAM/REC for 3 seconds again to exit.

5.2 The editing and storage of chases

No scene is needed before editing a chase. But, existing scenes can be edited into a chase. Or, you can edit a light effect when editing a chase. Up to 200 steps can be saved in each chase. Up to 1500 steps can be saved in the console.

a. Press and hold PROGRAM/REC for 3 seconds to light up the indicator; then, the controller is in program mode.

b. Press one of the 15 chase buttons on PAGE-A or PAGE-B to light up the indicator. The LCD shows as below:



c. Select a desired fixture from FIXTURE1 ~ 16;

d. Adjust the corresponding channels to create a light effect; Or, you can choose a scene from one of the 15 scene buttons on PAGE-A or PAGE-B (the corresponding indicator is on). If two or more scenes are using a same channel, then, the scene with the biggest output will be applied;

e. Press PROGRAM/REC to add the current effect into the chase. All the indicators will flash. The step is then saved successfully.

f. Repeat Step c~e to edit more effects;

g. Repeat Step b~f to edit more chases;

h. Press and hold PROGRAM/REC again for 3 seconds to exit.

5.3 Insert a step in a chase

You can insert one or more steps at or after the chase editing. Press MIDI/INSERT when editing a chase to flash the indicator. Then, press UP and DOWN to the chase step before which you will insert a step. Example: insert a step before the eighth step in Chase 6:

a. Press and hold PROGRAM/REC for 3 seconds to light up the indicator; The controller is then in program mode.

b. Press the 6th chase button on PAGE-A (indicator on).

c. Press MIDI/INSER, indicator on;

d. Press UP and DOWN to show the 8th step of the chase. The LCD shows as below:

e. Adjust the channel sliders to create a light effect; or pick up a scene from one of the 15 scene buttons on PAGE-A or PAGE-B (indicator on); If two or more scenes are using a same channel, then, the scene with the biggest output will be applied;

f. Press PROGRAM/REC to add the new effect into the chase; all the indicators will flash. Then, the new step is added;

g. Press MIDI/INSERT again, indicator off, to exit the insert state; Otherwise, it will keep inserting.

h. Press and hold PROGRAM/REC again for 3 seconds to exit.

5.4 Delete the steps in a chase

a. Press and hold the PROGRAM/REC button for 3 seconds to light up the indicator; then, the controller is in program mode.

b. choose a chase from which you will delete steps;

c. Press UPand DOWN to show the step you want to delete;

d. Press TAP/DEL; all the indicator lights flash; the step is deleted successfully from the chase;

e. Press and hold PROGRAM/REC again for 3 seconds to exit.

6. The running of scenes and chases

This console can run five chases and all the scenes at the same time; if any channels are shared by different scenes, the scene with maximum output value will apply.

6.1 Open/Close a Scene

When the console is not in the programming or the patching mode, press one of the 15 scene buttons on PAGE-A or PAGE-B (the corresponding indicator is on), then, the scene is open. (If any channels are shared by different scenes, the scene with maximum output value will apply.)

Press the same button again (indicator off) to close the scene.

6.2 The running of chase

When the console is not in the programming or the patching mode, press one of the 15 chase buttons on PAGE-A or PAGE-B (the corresponding indicator is on), then, the chase is open. (If any channels are shared by different scenes, the scene with maximum output value will apply.) Press the same button again (indicator off) to close the chase.

6.2.1 Run a Chase in Auto Mode

In default setting, a chase is opened to run in auto mode. When running more than one chase, the changes will be applied to them all; but the running speed and running time can be adjusted individually.

a. a. Press a desired chase button to run the chase. The indicator will keep flashing. (When more than one chase are opened, the one with a flashing indicator is ready for adjustment.)

b. Press RUN MODE to select the running mode, indicator on; The LCD shows as below:

c. The running settings can only be adjusted when the chases are ready for adjustment. When more than one chase are running, first press and hold the desired chase button to activate the chase ready for adjustment (indicator flashes/LCD also shows);

d. Press JOG MODE to select state of the joystick. If the PAN/TILT is on, the joystick is for pan/tilt channel; if the TIME is on, the joystick is for the adjustment of chase time and chase speed;

e. Move the joystick left and right to adjust the sliding time of the current chase (range: 0~30 seconds); up and down to adjust the waiting time (0~10 minutes); the two time are independent to each other.

6.2.2 Run a Chase in Music Mode

a. Press a desired chase button to run the chase;

b. Press RUN MODE and choose Music Mode. The corresponding indicator is on;

c. Press UP or DOWN to adjust sound sensitivity;

d. Sliding time of the chase can be adjusted in Music Mode. Press JOG MODE to select state of the joystick. If the PAN/TILT is on, the joystick is for pan/tilt channel; if the TIME is on, the joystick is for the adjustment of chase time and chase speed;

e. Move the joystick left and right to adjust the sliding time of the current chase (range: 0~30 seconds);

6.2.3 Run a Chase in Manual Mode

a. Press a desired chase button to run the chase;

b. Press RUN MODE and choose Manual Mode. The corresponding indicator is on;

c. Press UP or DOWN to adjust the chase step;

d. Sliding time of the chase can be adjusted in Manual Mode. Press JOG MODE to select state of the joystick. If the PAN/TILT is on, the joystick is for pan/tilt channel; if the TIME is on, the joystick is for the adjustment of chase time and chase speed;

e. Move the joystick left and right to adjust the sliding time of the current chase (range: 0~30 seconds);

7. MIDI Address Settings

7.1 MIDI Address Settings

a. Press and hold MIDI/INSERT for 3 seconds to light up the indicator; the controller is now ready for MIDI address setting and the LCD will show the current address:

b. Press UP or DOWN to adjust a new MIDI addresse;

c. Once set, press and hold MICI/INSTE again to save the settings and exit.

7.2 MIDI chart

30 scenes, 30 chases, AUX1, AUX2, TAP, UP, DOWN and BLACK OUT can be controlled by MIDI, details as below:

function	MIDI data
Scene 1	00
Scene 2	01
Scene 3	02
……	…
Scene 30	29
Chase 1	30
Chase 2	31
Chase 3	32
……	…
Chase 30	59
AUX1	60
AUX2	61
UP	62
DOWN	63
TAP	64
BLACK OUT	126

8. USB

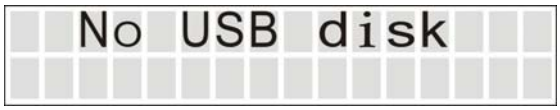
A USB flash memory can be used to save and load data and to update the software of the controller. When reading or writing a USB memory stick, the 16 Fixture buttons (Fixture 1-16) represent File 1-16.

8.1 Write data to a USB memory

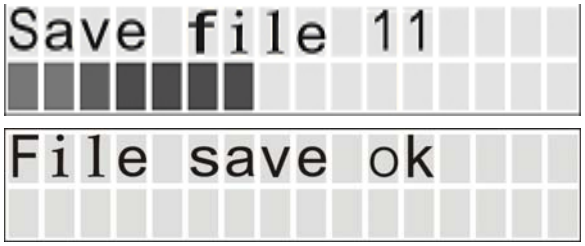
a. Insert a USB memory to the USB port;

b. Press and hold on RUN MODE and UP for 3 seconds. The LCD shows as below:

c. Select a fixture button to save the file (a flashing indicator on the fixture button means there is an existing file in the USB memory corresponding to this button); Press any of the other buttons (non-fixture buttons), you will exit USB mode; If no USB memory is inserted, the LCD shows as below and exit:



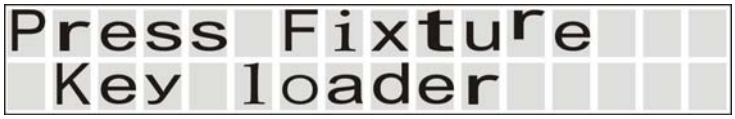
d. The saving progress bars will be shown on the LCD. Once saved, it will show as below:



8.2 Load files from a USB memory

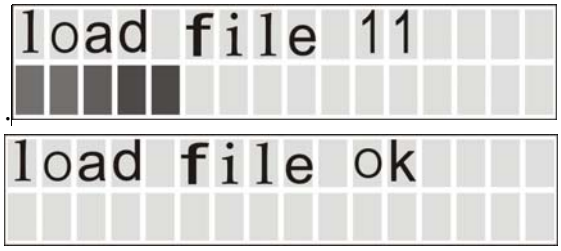
a. Insert the USB memory to the USB port;

b. Press hold RUN MODE and DOWN at the same time for about 3 seconds, LCD shows as follows:



c. Select a fixture button to load the file (a flashing indicator on the fixture button means there is an existing file in the USB memory corresponding to this button); Press any of the other buttons (non-fixture buttons), you will exit USB mode; If no USB memory is inserted, the LCD shows as below and exit:

d. The loading progress bars will be shown on the LCD. Once loaded, it will show as below:



8.3 Controller software update

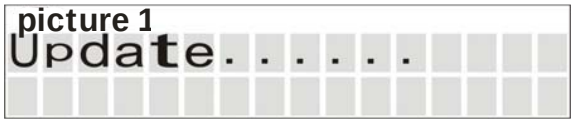
Power on/off is required to implement this function. First, get the update file from our website or your supplier and store the update file in a fold named PRO-256 under the root directory of a USB memory;

a. Power off the controller; Insert the USB memory to the USB port;

b. Press and hold RUN MODE, PROGRAM/REC and UP at the same time, then, power on the controller;

c. After about 3 seconds, till you see the LCD shows the below message, release the three buttons:

e. Press any button to start updating. The LCD shows Image 1. Once the update is completed, the LCD shows Image 2;



f. Power off the controller and restart it again to complete the update.

Note: During any USB operation, don't remove the USB memory or power off the controller, as it will damage your USB memory!

9. RDM operation

Before operation, make sure that your fixtures are RDM devices!

a. In a non-patching mode, press and hold RUN MODE and PROGRAM at the same time;

b. After 2 seconds, it start scanning equipment's number and relevant data (the more equipments , the longer time scan);

c. After scanning, the console will display the names and DMX addresses of the fixtures currently available, as below:

e. Move the joystick left and right to browse in different fixtures;

f. Press UP and DOWN to adjust the new DMX address for the current fixture;

g. Press PROGRAM to apply the new address to the fixture;

h. Repeat Step e – g to set a new DMX address for another fixture;

i. Press and hold RUN MODE and PROGRAM to exit RDM.

Specifications

Power Input	DC 9V ， 300 mA min.
DMX output	3 pin male XLR
USB	USB-A
MIDI Signal	5 pin standard interface
Audio Input	By built-in microphone or line in
Dimensions	482x132x73mm
Weight(appro.)	2.5 kg

Every information is subject to change without prior notice.

Appendix: Factory Default Setting

Slider / Fixture	RED	GREEN	BLUE	WHITE	COLOR	GOBO	R-GOBO	STROBE	ZOOM	FOCUS	IRIS	PRISM	R-PRISM	SHUTTER	FUN	DIMMER	PAN	TILT
Fixture 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Fixture 2	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Fixture 3	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Fixture 4	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
Fixture 5	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Fixture 6	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108
Fixture 7	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126
Fixture 8	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144
Fixture 9	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162
Fixture 10	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Fixture 11	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198
Fixture 12	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216
Fixture 13	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234
Fixture 14	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252
Fixture 15	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270
Fixture 16	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288

Note: As there are only 16 Fixture buttons, in the default setting, the DMX channel number can only be set to 288; and, in the default setting, the DIMMER slider is not patched to any DMX channel.