

DL350 MANUAL

Brief introduction 2. Spec 3. Key and display led function 4. Operating instruction (A). System and Unit setup, edit and delete 1、Setup SYSTEM 2、Build UNIT 3、Edit UNIT 4. Delete UNIT (B), Choose and run MEMORY, PROGRAMS, CHASES, PSYCOS, PRESETS, EXTRAL 1、Run MEMORY 2、Run PROGRAM、CHASE、PSYCHO、PRESET 3、Set PROGRAM、CHASE 4、Set PSYCHO、PRESET 5、Run EXTRAL (C), Save MEMORY, edit and modify PROGRAM, CHASE, PSYCO, PRESET 1, Save MEMORY 2. Edit & modify PROGRAM 3、Edit & modify CHASE 4、Edit & modify PSYCHOS

5、Edit & modify PRESETS

(D) Other function:

- 1. program COPY
- 2、Choose & run UNIT
- 3. Setup UNIT working area
- 4、Setup & run SMPTE
- 5. Setup MIDI channel and run MIDI

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-. Brief introduction:

It's DMX512 controller. It can store 40 PROGRAMs、40 CHASEs、40 PHYCHOs、40 PRESETs。

二、Spec

Code: DL350

Name: DMX512 CONTROLLER

Power source: 9V/1000MA

Size: L516 X W284 X H120MM

三、Function key & display led:

SETUP (S21): Setup the system

COPY (S22): Copy one program to another.

ENTER(\$23):To confirm by this key after editing or modifying the UNIT, PROGRAM, CHASE, PSYCHO, PRESET.

PLAY (S24):

EXTRAL (S25): Get into EXTRAL menu controlling.

LAMP (S26): Control the lamp of the unit to be ON or OFF.

RESET (S27): Reset the unit.

PAGE (S28): Choose the page, it's f or the 20 MULTI FUNCTION key on the panel.

KEY; When the led is out, it's in page 1; or it's in the page 2.

STORE(S29): Hold pressing STORE when it mode of PROGRAM, CHASE, PSYCHO, PRESET, you can store the running program to one MEMORY; When edit or modify one program, press the STORE key, then press the MULTI FUNCTION KEY to save the set data to the current program.

When pressing STORE key to choose PROGRAM, CHASE, PSYCHO, PRESET mode, it could save the current running mode to a MEMORY; If you want to edit a program, you need to press the STORE key, with a MULTI FUNCTION KEY you could save the setting data to the a step of the current program.

EDIT (\$30): It can edit and modify the PROGRAM, CHASE, PSYCHO, PRESET.

LEVELS (S31): Set the output of the running PROGRAM, CHASE, PSYCHO, PRESET (0-255).

TIMES (S32): It can set the acting way(sound or time), running direction & speed percent for the running PROGRAM & CHASE. It also can set fading time for PSYCHO & PRESET.

MEMORY (S33): Get into MEMORY menu, it can store up to 40 个 MEMORY, you can run one of them。

PROGRAM (S34): Get into PROGRAM menu, at most 4 PROGRAMs can run simultaneously.

CHASE (S35): Get into CHASE menu, at most 4 CHASE can run simultaneously.

PSYCHO (S36): Get into PSYCHO menu, at most 4 PSYCHO can run simultaneously.

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PRESET (S37): Get into PRESET menu , at most 4 PRESET can run simultaneously.

UNIT (S38): Choose UNIT. Hold on can choose or save UNIT GROUP.

STEP (S39): In the mode of PROGRAM or CHASE , you can manually choose one step of the PROGRAM or CHASE.

MULTI FUNCTION KEY1-20 (S1-S20): It can be used to choose PROGRAM, CHASE, PSYCHO, PRESET,

UNIT with PAGE key, also it can be use to choose the step when you are editing or running PROGRAM,

CHASE.

GREYKEY1-GREYKEY6 (\$40-\$45): It has multifunction, mainly control the DMX channel output.

BACK (S52): Return。

SURE (\$53): Confirm the previous operation.

UPKEY (\$49), DOWNKEY (\$48), LEFTKEY (\$50), RIGHTKEY (\$51): To change data or move the cursor.

PANKEY (\$46), TILTKEY (\$47): It can enable the rocker to control the X & Y.

四、Operating instruction

(—). Setup system, build, edit and delete UNIT:

1. Setup system :Before use this controller, we need to make several setup such as build UNIT, set DM starting channel, set dimming channels, dimming way, output waves, etc....

Press SETUP to get into this mode, You will see menu 1 from the LCD:

CONFIGURATION & SETUP MENU		
SELECT → [UNIT PATCH]	oĸ→

Press ENTER, it will get into the following menu 2 as below:

UNIT	TYPE		FROM-	1cod10
[]			TO-	

Use the UP and Down or MULTIFUNCTION key or the relative sliders to choose the unit name and DMX channel. You can press the GREYKEY4 (the led will flicker) to cancel the setup , ;Press the ENTER to save the setup and back the previous menu 2; then press UP or DOWN till to see DIMMER PATCH" to get into the menu 3:

DMX-CH	CHANNEL	LIM% EQUAL	OK->
[]<		<	:DEL>

Now you can use the UP, DOWN , LEFT, RIGHT and the rocker to set data for DMX channel. Any data can be canceled via pressing GREYKEY6.

DMX-CH: The channel under editing (1-512)

CHANNEL: CH1~CH192.

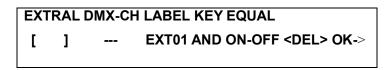
LIM%: The max output percent of the current DMX channel (0-100)

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EQUAL : The output cure of the current DMX channel (1-8), 1-5 is CURVE output , 7 is linear output , 8 is switch output。

Press ENTER to save the setup then it will be back to MENU 1, then press UP or DOWN till to see

" EXTRAL PATCH" in the bracket to get into MENU 4:



EXTRAL: 1-48

DMX-CH: The corresponding DMX channel(1~512) to EXTRAL channel!

LABEL: Then name of the controlled unit by EXTRAL channel, you can edit the name by using the LEFT AND RIGHT key to choose the corresponding letters.

KEY: Two choices: OR & AND. OR: After get into EXTRAL, GREYKEY1-6 has the OR relation with the sliders, press the key, the output of the corresponding is 255. AND: GREYKEY1-6 has the AND relation with the sliders; the DMX channel will only have output when you press the key, otherwise it will be 0. You can choose by GREYKEY4.

EQUAL: Two ways: LIN and ON-OFF. You can choose it by GREYKEY5.

If you want to cancel the current setting you can press GREYKEY6; and press the confirm key to save!; If there is one DMX channel over-occupied by another unit, dimmer, extral, then the menu 84 will display as below:

" ***" will show the over-occupied channel, press confirm key the system will back to menu 1. Press up or down key until you see" *TATAL DIMMER CHANNELS*" flashes in the bracket, confirm and get into menu 5:

N.PAGES	CHANNELS	esc<-
[]		OK->

Using the up or down key to set the number of dimming channels (6-192), N.PAGE is the number of pages. Every page has 6 channels and max is 32 pages. After setting, press the confirm key to save and the system get back to menu 1.

2. Creat UNIT: Press the up and down key until you see " <u>INTERAL LIBRARY</u>" in the bracket and confirm to get into menu 9:

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--- INTERNAL LIBRARY CONFIGURATION ---
Select ITEM --> [CREAT NEW UNIT ]
```

Press the confirm key get into the creat menu 10:

Select	feature	to	configure	for:	esc<-
NNNN	NNNNNN	IN->	TOTAL DMX	CHANNEL]	OK->

You can set the property of the unit here. Press the up or down key or slider 5(The led will flash) to choose and confirm to get into. See below:

" TOTAL DMX CHANNEL" confirm and get into menu 13:

Total	channels	occupied	on	dmx:	esc<-
NNNNNNNNNN			[]		OK->

Set the total DMX channels of the unit。

" LCD EFFECT LABEL" confirm and get into menu 14:

Enter	number	of	lcd	pages:	esc<-
ииии	NNNNNN	IN	i	[]	OK->

Input the number of pages(1~5) of the unit occupied and then get into menu 26 to set the string of each

channel:

Enter	the	string	for	effects:	more<->
					P1

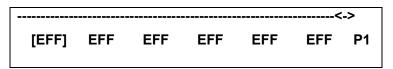
Px shows the current page(choosed by confirm key or return key), use the up or down or left or right key to set the numbers and confirm back to menu 9. Then choose" *INTERNAL PATCH*" and confirm back to menu 15:



Set the channel of each function of the unit, press GREYKEY1-6 to cancel the setting; get back to menu 10 after setting and choose " <u>STAND-BY VALUES</u>" then confirm back to menu 16:



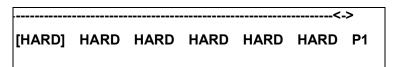
Set the STAND-BY value of each channel; press the GREYKEY1-6 to cancel. Get back to menu 10 after setting and choose " <u>EFFECT TYPE</u>" and confirm get into menu 17:



Use up or down or sliders or GREYKEY1-6 to set DIM or EFF to each channel, if set to DIM, the channel will be controlled the general output slider and LEVEL, otherwise it will be out of controlling. Get back to menu 10 after

setting and choose " MIRROR/HEAD PATCH" get into menu 18:

Set the channel of the unit to X and Y of the rocker. If it's 8BIT, only need to set H; if it's 16BIT, you need to set both H and L (H is high 8BIT, L is low 8BIT), get back to menu 10 after setting and choose" <u>HARD/SOFT</u> PY-S241885



Use the up or down or GREYKEY1-6 to set HARD/SOFT to each channel ,if it's HARD ,the DMX datas will be controlled by the CROSS% which is set in the program already; if it's SOFT, it won't be controlled by it! Get back to menu 10 after setting and choose " <u>UNIT NAME</u>" and confirm to get into menu 20 : :

Enter/modify the name of the unit:
-NNNNNNNNNNN- OK->

Edit the name of the unit and confirm to get back to menu 10 and choose " <u>UNIT DESCRIPTION</u>" and confirm to get into menu 21 :

DESCRIPTION:-----

Edit the spec of the unit and confirm to get back to menu 10 , then choose" <u>RESET/LAMP VALUES</u>" and confirm to get into menu 22 :

RESET OFF ON | LAMP OFF ON [] --- --- OK->

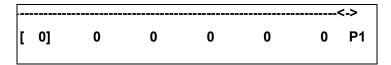
Here you can set the reset channel of the current unit and the channel which is controlling the lamp and the exact DMX data. In the normal operation you can control the unit to reset or on/off the lamp through the settings., you can press the corresponding GREYKEY1-6 to cancel the setting. Get back to menu 10 after setting and choose " <u>DIP-SWITCH CONFIG.</u>" And confirm to get into menu 23:

ENTER THE DIP-SWITCH CONFIGURATION:

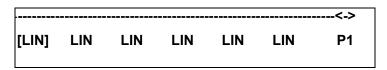
1.dip=[5] 1st channel= 0 = . OK->

Here you can set the binary way of the DMX address of the current unit, n.dip means the digit of the address,

1st channel means the location of the address(up or down) when the first channel is under editing, the binary code will display after setting the starting address. Get back to menu 10 after setting and choose " <u>BEAM FIND</u> <u>VALUES</u>." And confirm to get into menu 23:



Get back to menu10 after setting and choose " CONTROL TYPE" and confirm to get into menu 25 :



Choose LIN mode or TAB mode for the running channel. When it's in TAB mode, press the corresponding

GREYKEY1-6 of the channels to get into menu 80 :

PAGE_1	TOT.ITEM	ITEM	VALUE	
EFFECT_1	[12]	10	125	ok->

PAGE_x: The page number of the current LIN/TAB mode.

EFFECT_x: The current channel(1~6) of the current page.

TOT.ITEM: The total number of the functions are edited (1-50)

ITEM: The function under editing.

VALUE: The value of the edited function.

Confirm to store the setting and get back to menu 25; If need to edit the other channels, press the GREYKEY1-6 again to get into menu 80, otherwise back to menu 10.

So far the built of UNIT is over , if there is something need to be modified, choose the relative menu and edit。 If the UNIT already exists, the system will show menu 28 :

NNNNNNNNNNN - ALREADY EXISTS!	q	uit<-
Do you want to replace it ?	<no></no>	yes->

If you want to replace, press yes; otherwise press the GREYKEY6(It will flash!) to cancel of there is something wrong with the UNIT editing, when you exit the system will show menu 83 as below:

CONFIGURATION MISHMASH! exit<- Do you want to exit or retry? retry->
Press the exit to get back to edit and modify mode, press confirm to store!
3、Edit UNIT:
Choose" EDIT EXISTING UNIT" in menu 9 to get into menu 11:
Select unit to configure in libr : esc<-
[NNNNNNNNN] OK->
Choose the UNIT to edit , the operation is the same as building a new UNIT。
4、Delete UNIT:
Choose" DELETE UNIT" in menu 9 to get into menu 12,then choose the UNIT to delete:
Select unit to erase from library: esc<-
[NNNNNNNNNN] OK->
(=), Choose and run MEMORY、PROGRAMS、CHASES、PSYCOS、PRESETS、EXTRAL :
1、 Run MEMORY
Press the MEMORY key and get into below:
SELECT MEMORY
DV 0044005
You can use the 20 multi-function key and the PAGE key to choose the MEMORY1-40 , when one memory
is choosed, the light will be on!。
2、 Choose and run PROGRAM、CHASE、PSYCHO、PRESET
Press PROGRAM、CHASE、PSYCHO、PRESET to get into menu 31、32、33、34:
SELECT PROGRAMS
SELECT CHASES

--- SELECT PSYCHOS ---

--- SELECT PRESETS ---

If you don't select a memory already the system will show menu 42 as below:

Then you should choose the PROGRAMS 1-40.

CHASES 1-40、PSYCHOS 1-40、PRESETS 1-40, each menu can choose 4 memories at most or it will show menu

37 as below::

WARNING: Maximum of four elements!

You can select four elements. ok->

3、设置 Set running parameters for PROGRAM、CHASE

When running PROGRAM、CHASE, press LEVELS, it goes into menu 49 & 50:

Set the output value (0~255) for each PROGRAM or CHASE, press LEVELS again to exit when finish setting;

press TIMES, it goes into menu 54 & 55:

PROG	TRIG	RUN	SPEED%	
xx	[INRN]	NORMAL	100	ok->

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CHASE	TRIG	RUN	SPEED%	
xx	[INRN]	NORMAL	100	ok->

Set the running mode for PRLGRAM CHASE,

PROG、CHASE: The PROGRAM or CHASE under editing.

TRIG: set the burst mode, INRN—time burst, MUSIC—audio burst.

RUN: set running direction: NORMAL or BACKW.

SPEED%: 25%-400%

Press TIMES key to exit after setting, and then press STEP to get into menu 81 & 82 :

STATUS: Press GREYKEY5 to set the running mode: RUN (auto), PAUSE (manual),

STEP : The funning step! It will change to the time or sound under auto or sound active mode ; In manual mode, you can chose the step through PAGE key and 20 multi-function key.

4、Set parameters for PSYCHO、PRESET

When running PSYCHO、PRESET, press LEVELS, it will goes into menu 51 & 52:

Set the general output (0~255) for each PSYCHO or PRESET ,press LEVELS again to exit ,press TIMES to get

into menu 56 & 57:

Set the fading time (0~999) of general output for each PSYCHO or PRESET, press TIMES again to exit.

And before set parameters for PSYCHO、PRESET, there should be PSYCHO or PRESET already selected, otherwise the system will show as below when you press LEVELS or TIMES

WARNING: No elements is running!

Please select elements first. ok->

5、 Run EXTRAL

There are 48 channels for EXTAL Press EXTRAL to get into menu 29 :

EXT01	EXT02	EXT03	EXT04	EXT05	EXT06 <->
[0]	0	0 0	0	0	

Set the output value for each channel; press confirm and return to turn pages.

(\equiv), Store MEMORY, edit and modify PROGRAM, CHASE, PSYCO, PRESET:

1、Store MEMORY

In the following menu 30、31、32、33、34, hold press STORE, the system will get into menu 36:

Use the PAGE key and the 20 multi-function key to choose the location to store for the current MEMORY, then un-press the STORE, all the current running PROGRAM, CHASE, PSYCO, PRESET are stored in the selected MEMORY, and you can choose to run through manual, MIDI or foot switch. It will go back to menu 30after saving!

2. Edit and modify PROGRAM

Choose the running PROGRAM in menu31, press EDIT, system goes into editing menu38:

PROG TOTAL STEPS	EDIT MENU	esc<-
- xx- -xx -	[PROGRAM LENGTH]	ok->

PROG: the program under editing.

TOTAL STEPS: The total steps. If it has not edited or total steps are zero then it will show "NO".

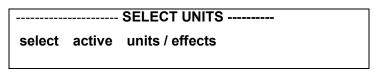
EDIT MENU: The functions of the PROGRAM in editing.

Set the "PROGRAM LENGTH" and confirm to get into menu 66 :

PROGRAM L	PROGRAM LENGTH			
-xx -	-xx - [xx]			

PROGRAM: The program under editing.

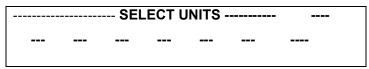
Set the length (1~40)of the program, confirm and get back to menu 38. Choose " <u>ACTIVE EFFECTS</u>" to get into menu 70 :



Select the unit and effect(including each channel and pan and tilt)

- (1), Select the UNIT through PAGE key and 20 multi-function ket!
- (2), Then the LCD will display the function of each channel of the UNIT!

When finish, get back to menu 38 and choose to get into menu35



Now if you press STEP, its led will flash. It goes into menu 73:

```
select step to edit
```

Choose the step to be edited, un-press the STEP the system get back to menu35, then set the DMX data for every channel(including X & Y). Press STORE after all finished, the LCD will display menu 72:

```
select destination step
```

Choose the location for the current program, un-press the STEP to menu 35, and redo the above operation to set every step for the program; now get back to menu 38and choose " <u>STEP'S TIME</u>" to get into menu 67, then you can set STEP TIME & FADE TIME for every step:

esc<-
ok->

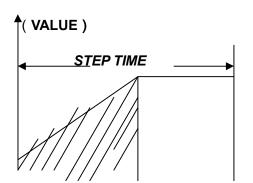
PROG: The program to be edited.

STEP: The current step (STEP TIME & FADE TIME).

CROSS%: FADE TIME of current step (0-100).

TIME: 0-999。

The relation between STEP TIME & FADE TIME is as below:



(1), Select the step to be edited, now if you press STEP or hold on the multi-function key, it will go to menu

select other steps to make a group ok->
- xx- | [xx] xxx xxx (100ms)

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At this time you can select the other steps to edit together, un-press STEP to back to menu 67, "GR"(group) will display below STEP; if the settings of the selected steps are different, "***" will display below CROSS% or TIME.

(2), After finish setting for the step, confirm and get back to menu 38.

Now the editing or modifying on one PROGRAM comes to the end. Now if you press return or EDIT key, system will go to menu 65 :

PROGRAM xx will be UPDATED! quit<Press ENTER to store <ESC>

If there is still something to be changed, get into menu 38 to redo! Press ENTER to store , press GREYKEY6(it will flash) to cancel , system back to menu 31.

3. Edit and modify CHASE

75:

Select a CHASE in menu 32, press EDIT to go to menu 39:

CHASE |TOTAL STEPS| EDIT MENU esc<- xx- | -xx - | [CHASE LENGTH] ok->

CHASE: The edited CHASE.

TOTAL STEPS :Number of CHASE ,if the CHASE has not been edited yet of the total steps are zero, it will display "NO".

EDIT MENU: Through it to edit the CHASE.

Select" CHASE LENGTH" to get into menu 45 :

CHASE | LENGTH esc<-xx - | [xx] ok->

Set the length of CHASE(1-40) ,confirm and get back to menu 39 ,select <u>STEPS TIME</u>" to get into menu46 :

CHASE STEP CROSS%			TIME		esc<-
- xx-	[xx]	xxx	XXX	(100ms)	ok->

Now do the same as editing PROGRAM ,refer to the settings in menu 67 ,after editing press confirm to get back

to menu39, then choose" EDIT STEPS" to get into menu 47:

CH001 (CH002	CH003	CH004	CH005	CH006	CHA
[0]	0	0	0	0	0	-xx-

CHA: The chase which is under editing.

Use the slider or UP,DOWN,LEFT,RIGHT to set the DMX value, press confirm key to next page, press the RETURN back to the previous page. If you press RESET it will go to MENU85.

Want	to	clear	output ?	esc<-
				OK->

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Pressing the confirm button to clear the operation of all channels; pressing the return button to be back to Menu 47 to continue the editing operation.

Moreover, the compound-function button and the PAGE button are used to design the editing CHASE steps. Once this task is completed, you can return to Menu 39 by pushing the return button.

CHASE xx will be UPDATED!	quit<-
Press ENTER to store	<esc></esc>

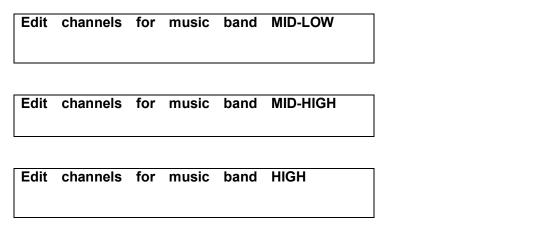
If any change of the editing is required, please click on the return button for Menu 39 to reorganize the operation; then click on the ENTER button for confirmation and saving; whereas the GREYKEY 6 button with a corresponding indicator is used to cancel all the previous operations, and then the system will return to the CHASE menu 32.

4. Editing and revising PSYCHOS

Post to the selection of operating PSYCHO from Menu 33, if the EDIT button is hit, then Menu 58 shown on the controller will read as:

Edit psycho channels for music band LOW switch dimmer channels on/off with music

Each PSYCHO consists of 4 types of sound-activated models, i.e. LOW \(\text{MID-LOW} \), MID-HIGH and HIGH; each of the models is corresponding to the one of the relevant settings of the PSYCHO. The GREYKEY 1-4 buttons are used to edit the PSYCHO models, which will be indicated by the controller's menu 59, 60 and 61.



Two seconds after the menu's indication, Menu 40 programmed in the PSYCHO channels is ready for edition.

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CH001 (PSY					
[0]	0	0	0	0	0	-XX-

PSY: indicating that the current PSYCHO is being edited.

The process of editing or revising a PSYCHO proceeds as: setting the desired value of each channel by using the control handle and the UP, DOWN, LEFT, RIGHT buttons; using the RETURN and ENTER buttons to select the page of the editing channel; subsequently to the completion of the setting, pressing EDIT button to direct the system to Menu 44.

PSYCHO xx will be UPDATED!	quit<-
Press ENTER to store	<esc></esc>

If it is necessary to change the setting, you can press the RETURN button to return to Menu 40 for reorganizing the edition; then hit the ENTER button for confirmation; or hit the GREYKEY 6 button (with a corresponding indicating right) to cancel all the previously organized operations, and subsequently the system will return to the selection PSYCHO Menu 33.

5. Editing and revising PRESETS

Following the selection of the PRESETS in Menu 34, the controller enters the PRESET editing Menu 41 by pressing the EDIT button.

CH001	CH001 CH002 CH003 CH004 CH005 CH006						
[0]	0	0	0	0	0	-XX-	

PRE: indicting that the current PRESET is being editing.

The value of each channel is set by using the control handle and the UP, DOWN, LEFT, RIGHT buttons; the page being edited in the channel can be selected by pressing the RETURN and ENTER buttons; furthermore, the GREYKEY 1-6 situated below the channel being edited function as the FLASHON key, which represents that the channel value turns to be 225 by pressing once and it turns to be 0 by pressing again; Until now, the edition or revision of the PRESET has been completed, and then they system will enter Menu 43 by pressing the EDIT KEY.

PRESET xx will be UPDATED!	quit<-
Press ENTER to store	<esc></esc>

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If it is necessary to change the setting, you can return to Menu 41 by pressing the RETURN key to reorganize the edition; pressing the ENTER key to confirm this order, or pressing the GREYKEY 6 key (with corresponding indicating right) to cancel the previously organized operations; and then the system will return to the PRSET Menu 34.

(4), : The operation of other functions

1. The COPY of the programs

The controller enters the program-copy Menu 76 by pressing the PROGRAM button.

COPY	OBJECT	FROM	TO	esc<-
PR	OGRAM:	[12]->	26	ok->

The selection of the program to be copied or the destination program is done by using the control handle (1 and 2) or the UP and down buttons; after the selection, pressing the ENTER key for confirmation, and then the system will show the indicating Menu 65.

PROGRAM 26 will be UPDATED!	quit<-
Press ENTER to store	<esc></esc>

This indicates that program 26 will be overlaid, and pressing the ENTER Key to save the setting.

- 2. The selection and operation of UNIT:
 - (1). How to open and close the LAMPS of UNIT:

The system will come to Menu 77 by pressing the LAMP key during the normal

operation of the controller.

SWITCH LAMPS BY HOLDING DOWN KEYS

Keep pressing the PAGE buttons corresponding to UNIT and the 20 multi-function compound buttons,

- (2) Reset UNIT
- (3) Control all kinds of figures of the X, Y axis of UNIT
 - (4), Save UNIT GROUP
- 3: SETTING THE WORKING reach of UNIT
- **4: SETTING AND RUNNING OF SMPTE**
- 5: Set MINI channel and run

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