



COLORDRIVE 4

ORDERCODE 42634



SHOWELECTRONICS FOR PROFESSIONALS

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1 PRODUCT (GENERAL)

1.1 PRODUCT INTRODUCTION

This product is designed for indoor use only. Suitable applications include wash or effect lighting for architectural applications. This product can be operated as a single unit or in multiple units for large applications.

The specially developed controller that allows the product to be controlled independent of the DMX512 controller enables the user to create and edit a wide range of custom programs. All programs can be touch-button displayed or scheduled to START and END at scheduled times. When programs have been created or edited in the controller, it is also possible to trigger these programs using the DMX IN function when connected to a DMX512 controller.

1.2 PRODUCT FEATURES

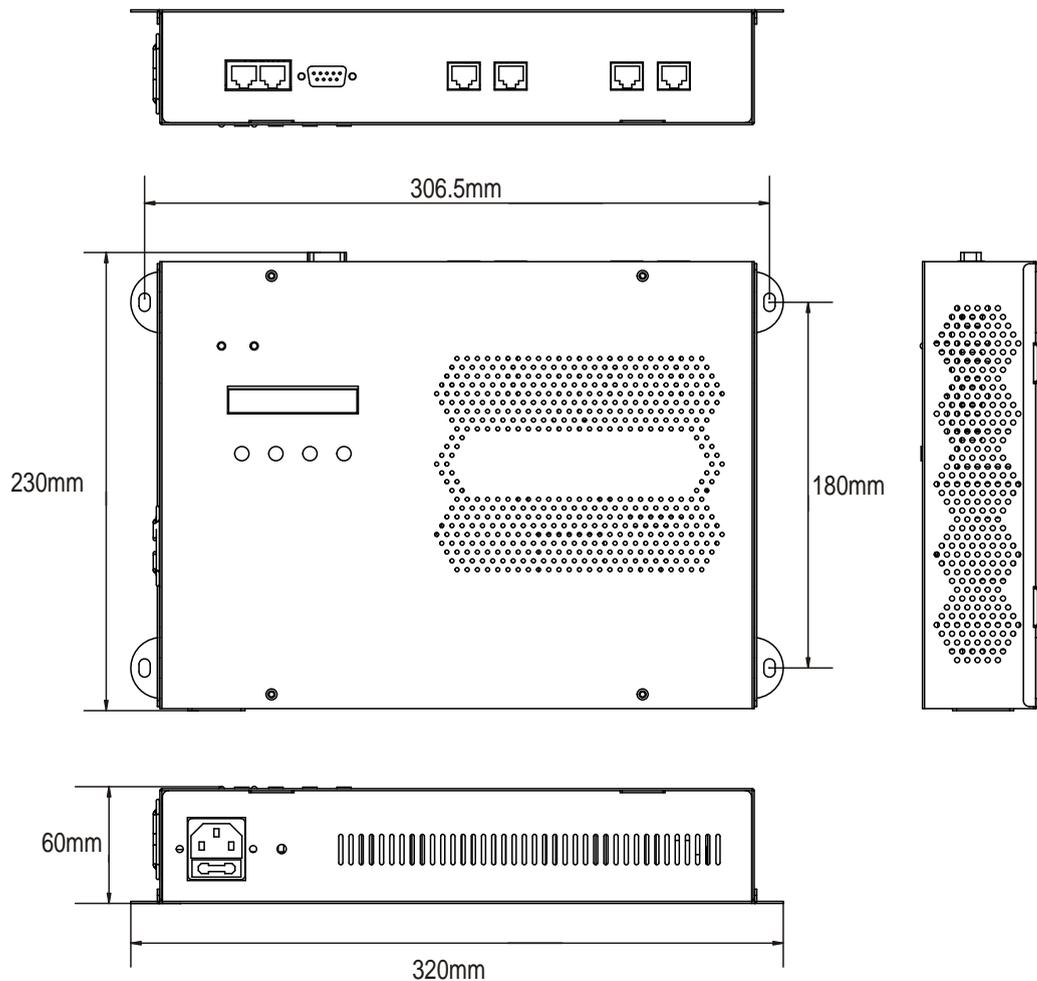
LED DRIVER

- * Upload function
- * Master/Slave(RJ45)
- * Auto programs
- * Custom programs
- * Static playing
- * RGB calibration
- * RGB to white
- * Schedule Play
- * Clock
- * LCD display
- * Power indicator
- * Signal indicator

1.3 TECHNICAL SPECIFICATIONS

LED MODULE

LED MODULE:	
Voltage	100~240V...50/60Hz
Rated Power	200W
Output Line	4 Lines
Output per Line	36 x 1W LED(12W per color)
Total Output	144 x 1W LED(48W per color)
Environment Temperature	-20°C~40°C
Cooling	Direct air convection
Dimensions	320 x 230x 60mm
Weight	2Kg



1.4 SAFETY WARNING

IMPORTANT

**【ALWAYS READ THE USER MANUAL BEFORE OPERATION. 】
【PLEASE CONFIRM THAT THE POWER SUPPLY STATED ON THE
PRODUCT IS THE SAME AS THE MAINS POWER SUPPLY IN YOUR
AREA.】**

- This product must be installed by a qualified professional.
- Always operate the equipment as described in the user manual.
- The product must always be placed in a well ventilated area.
- Always make sure that the equipment is installed securely.
- DO NOT stand close to the equipment and stare directly into the LED light source.
- Always disconnect the power supply before attempting and maintenance.
- Always make sure that the supporting structure is solid and can support the combined weight of the products.
- The earth wire must always be connected to the ground.
- Do not touch the power cables if your hands are wet.

ATTENTION

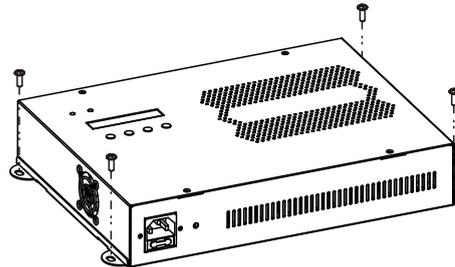


- This product left the place of manufacture in perfect condition. In order to maintain this condition and for safe operation, the user must always follow the instructions and safety warnings described in this user manual.
- Avoid shaking or strong impacts to any part of the equipment.
- Make sure that all parts of the equipment are kept clean and free of dust.
- Always make sure that the power connections are connected correct and secure.
- If there is any malfunction of the equipment, contact your distributor immediately.
- When transferring the product, it is advisable to use the original packaging in which the product left the factory.

2 INSTALLATION

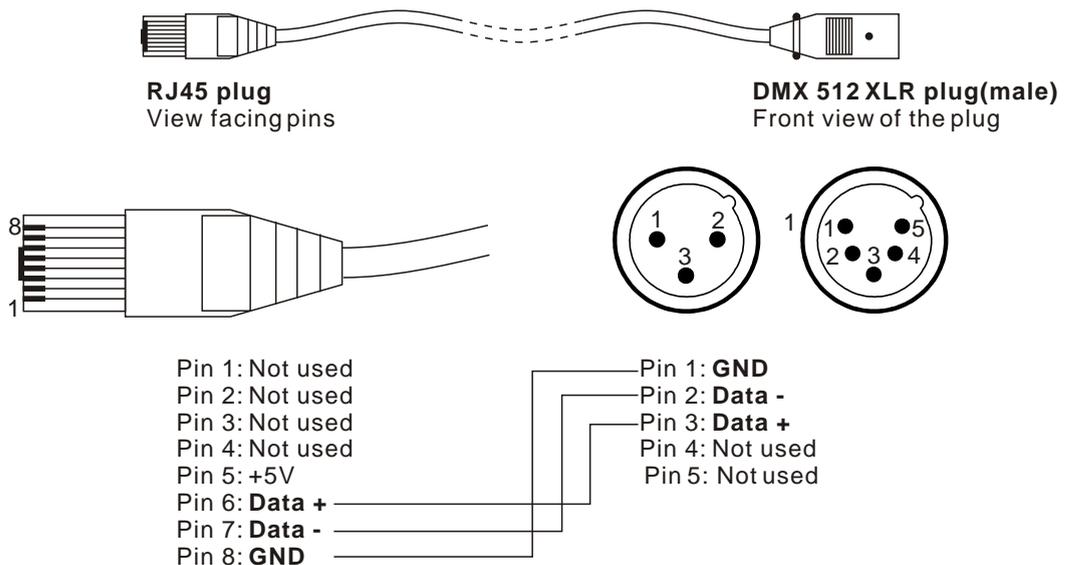
2.1 MOUNTING

The LED DRIVER should be placed on a non-flammable flat surface in any orientation and fixed by the four screws. There are 4 mounting holes of 5x7 mm in housing of the driver.

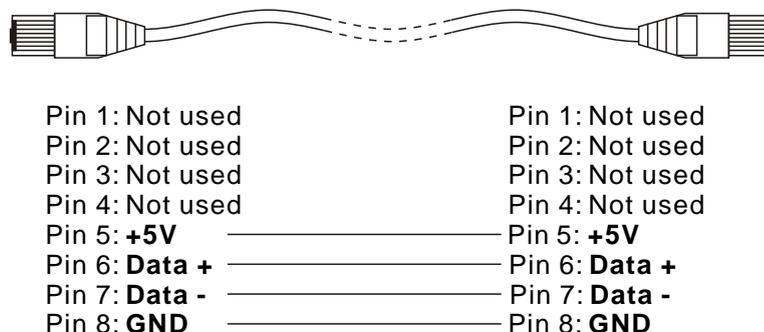


2.2 CONNECTION CABLES

The adapter cable RJ45/XLR connects the LED DRIVER to the DMX controller. If your DMX controller has RJ45 socket for DMX output, use RJ45 patch cable for connection with the LED DRIVER.



RJ45 patch cables category 5 that connect the LED DRIVER 4 each other are wired 1:1, that is, pins with the same numbers are connected together.

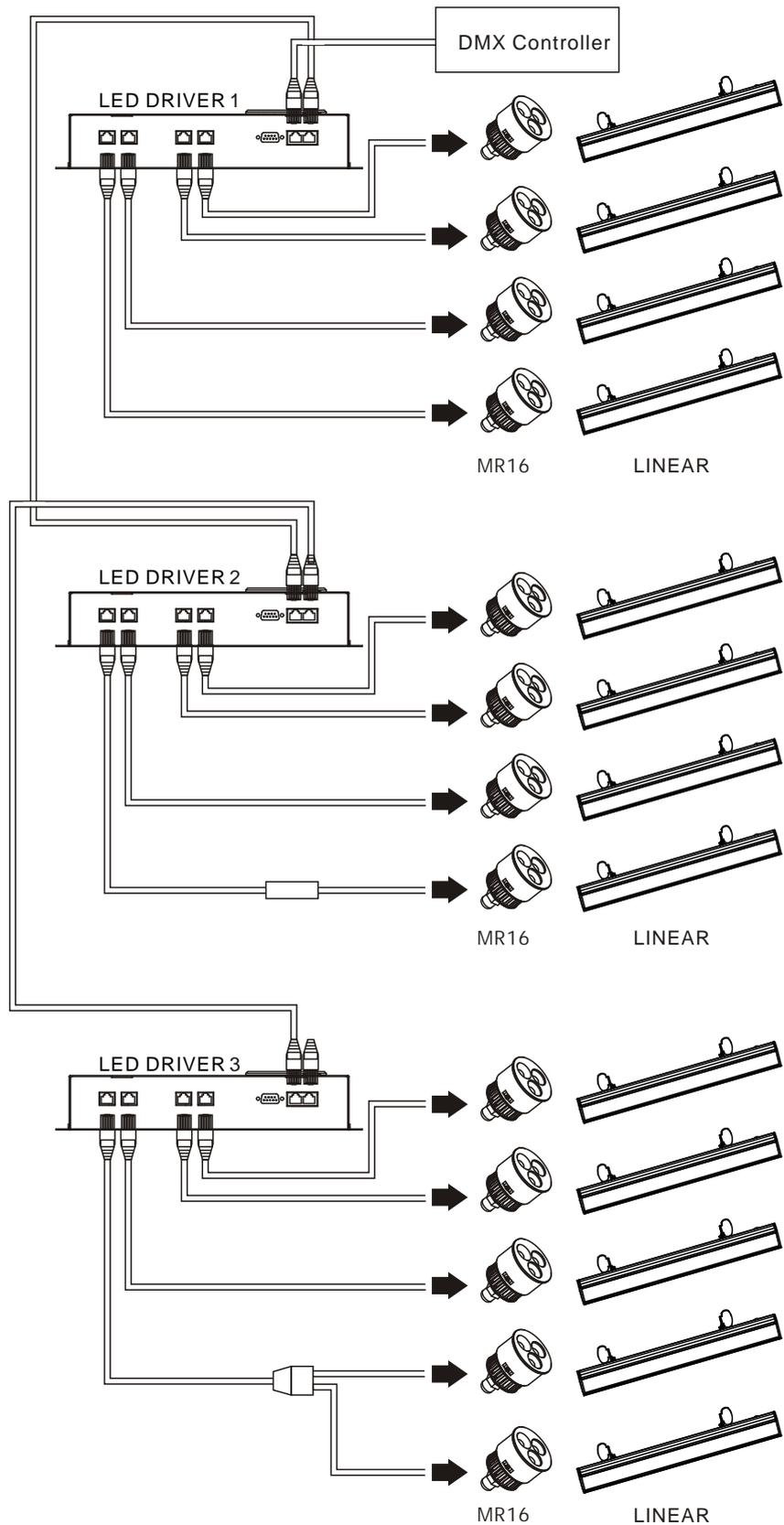


2.3 INSTALLATION

Multiple LED DRIVER installation:
 Connect the DMX output of the first LED DRIVER with the DMX input of the next LED DRIVER. Always connect one output with the input of the next LED DRIVER until all fixtures are connected.

At the last LED DRIVER the data link has to be terminated with a terminator. A termination plug is simply a RJ45 connector with a 120 Ω resistor between pins Data (-) and Data (+). Plug terminator in the DMX output of the last LED DRIVER.

Maximum number of LEDs connected to the one LED DRIVER zone is 36, (but maximum 12 LEDs per colour).



Maximum possible number of LED modules connected to the one zone of LED DRIVER :

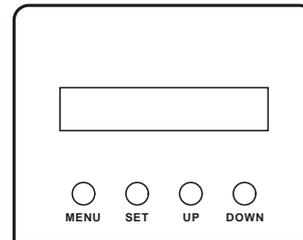
Model	Total LEDs	Red LEDs	Green LEDs	Blue LEDs	Max. number of connected modules
MR16 3W RGB	3	1	1	1	12
MR16 3W RGB(tri-color)	3	1	1	1	12
MR16 6W RGB	6	2	2	2	6
AR1-11 12W RGB	12	4	4	4	3
AR1-11 12W RGB(tri-color)	12	4	4	4	3
LED STRIP 12W RGB(with lens)	12	4	4	4	3
LED STRIP 24W RGB(with lens)	24	8	8	8	1
LED STRIP 12W RGB(without lens)	12	4	4	4	3
LED STRIP 24W RGB(without lens)	24	8	8	8	1

3 DISPLAY PANEL OPERATION

3.1 BASIC

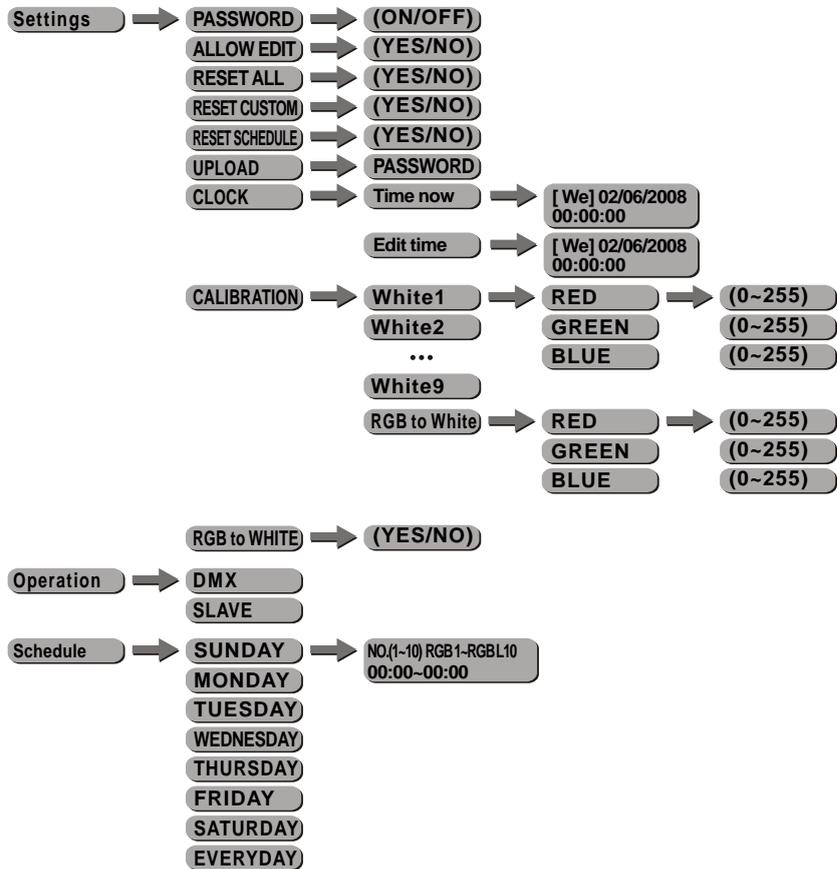
The LED DRIVER is mounted with a LCD display and 4 control buttons.

- 【 MENU 】** Scroll through the main menu or return to the main menu
- 【 SET 】** enter the currently selected menu or confirm the current function value
- 【 UP 】** scroll 'UP' through the menu list or increase the value of the current function
- 【 DOWN 】** scroll 'DOWN' through the menu list or decrease the value of the current function

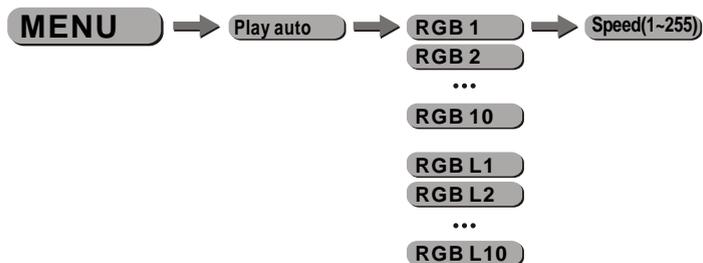


3.2 MENU





3.3 PLAY AUTO



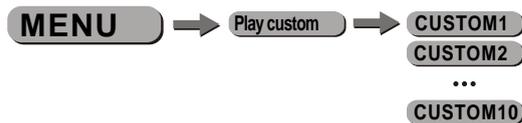
【Play auto】

- Select the target auto program and press set.
- All these programs are fully pre-programmed and will not be altered by changes in **【EDIT CUSTOM】** mode.
- Each program allows the creation of a scene using with a step time **【1-255】** .(If **【ALLOW EDIT】** from **【SETTINGS】** menu is **【YES】** , then after selecting an **【AUTO】** program, the user then presses **【ENTER】** again, they can change the speed of the **AUTO PROGRAMS**).
- **【RGB 1-10】** = control of all lines to create effects with RGB fixtures.
【RGB L 1-10】 = control of different lines to create effects with RGB fixtures.

【Play auto】

- Select the target auto program and press set.
- All these programs are fully pre-programmed and will not be altered by changes in **【EDIT CUSTOM】** mode.
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- **【RGB 1-10】** = control of all lines to create effects with RGB fixtures.
【RGB L 1-10】 = control of different lines to create effects with RGB fixtures.

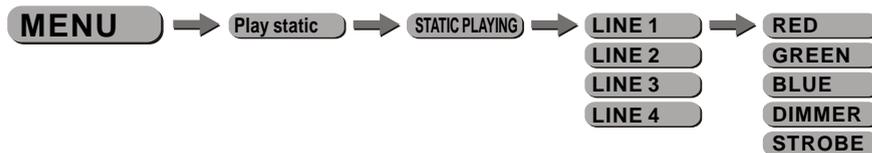
3.4 PLAY CUSTOM



【Play custom】

- Select the target **【CUSTOM】** program and press **【SET】**.
- Programs **【CUSTOM1】** to **【CUSTOM10】** are set by customer and can be edited in **【EDIT CUSTOM】** mode.

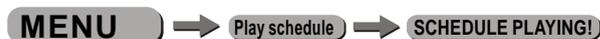
3.5 PLAY STATIC



【Play static】

- Enter the **【Play static】** mode to create the programs from **【LINE 1】** to **【LINE 4】**.
- Combine **【RED】**, **【GREEN】**, **【BLUE】** and **【DIMMER】** to create an infinite range of colors **【0-255】**.
- Set the value of the **【STROBE】** **【0-20Hz】**.

3.6 PLAY SCHEDULE



【Play schedule】

- Activate this menu in order to play the schedule.

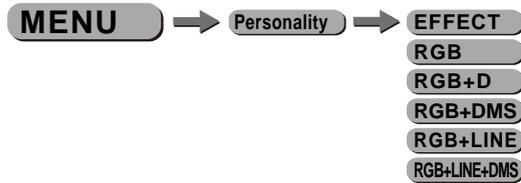
3.7 DMX ADDRESS



【DMX Address】

- Enter the **【DMX address】** menu to set the DMX address of the LED DRIVER.
- The DMX address can only be selected in the range **【1-512】**.

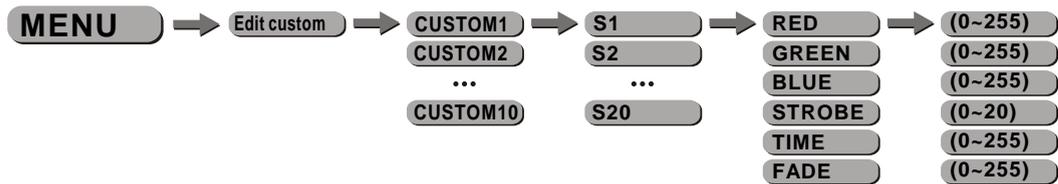
3.8 PERSONALITY



【Personality】

- Enter **【Personality】** and select **【EFFECT】** / **【RGB】** / **【RGB+D】** / **【RGB+DMS】** / **【RGB+LINE】** / **【RGB+LINE+DMS】** DMX mode.

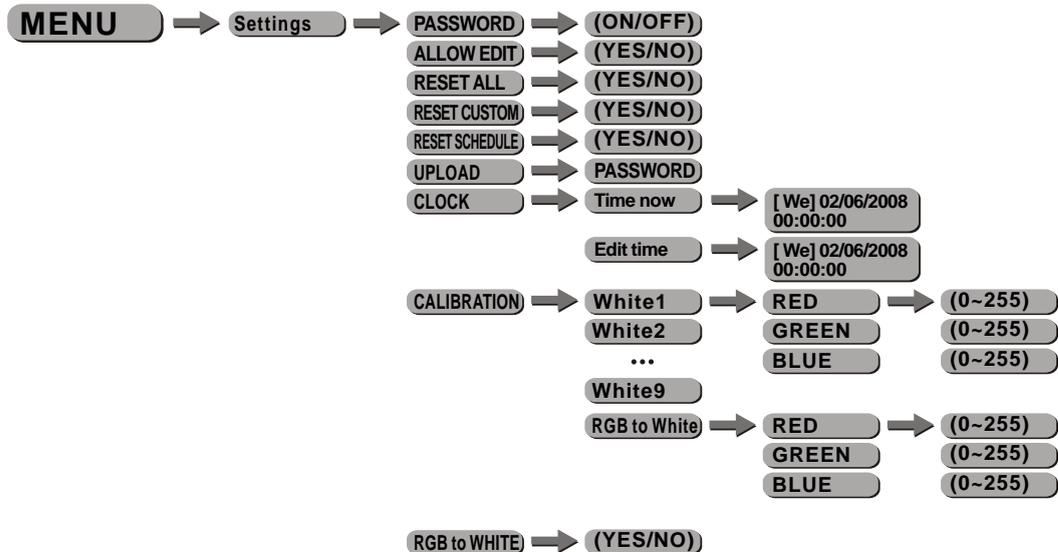
3.9 EDIT CUSTOM



【EDIT Custom】

- Enter the **【EDIT Custom】** mode to edit the custom programs **【CUSTOM1】** to **【CUSTOM10】**.
- Each custom program has 20 steps that can be edited.
- Each step allows the creation of a scene using RED **【RED】**, GREEN **【GREEN】**, BLUE **【BLUE】**, STROBE **【STROBE】**, TIME **【TIME】** & FADE **【FADE】**.

3.10 SETTINGS



【PASSWORD】

- Enter the Password mode to set password ON/OFF.
- Choosing ON, the operation board will be under password protection after 30s without operation.
- Choosing OFF, you will be able to operate at any time freely.

【ALLOW EDIT】

- This function allows or disables edit in the AUTO Program.

【RESET ALL】

- This function will reset all settings to the original factory setting.

【RESET CUSTOM】

- This function will reset the custom program.

【RESET SCHEDULE】

- This function will reset the schedule program

【UPLOAD】

- Select **【UPLOAD】** to upload the custom programs from the current MASTER unit to the SLAVE units.
- In order to activate the upload function the password must be entered.
- Password is the same as the main access password. **【up】 【down】 【up】 【down】**
- When uploading, the MASTER and SLAVE units will display YELLOW.
- On successful uploading of the custom programs, the MASTER and SLAVE units will display GREEN.

【CLOCK】

- Enter **【Time now】** to view the current time.
- Enter **【Edit time】** to edit the date and time.

【CALIBRATION】

- Enter the **【CALIBRATION】** to edit white color of different color temperatures.
- There are 9 pre-programmed White colors plus **【RGB TO WHITE】** and can be edited by using **【Red】** , **【Green】** & **【Blue】** .

【RGB TO WHITE】

- When **【RGB TO WHITE】** is set to **【YES】** , on RGB = 255,255,255, the color is perfect white as the actual RGB values are adjusted to make white. When it is set to **【NO】** , on RGB = 255,255,255, the RGB values are not adjusted and the output is most powerful. The **【RGB TO WHITE】** ' s parameter can be adjusted in **【CALIB】** .

3.11 OPERATION

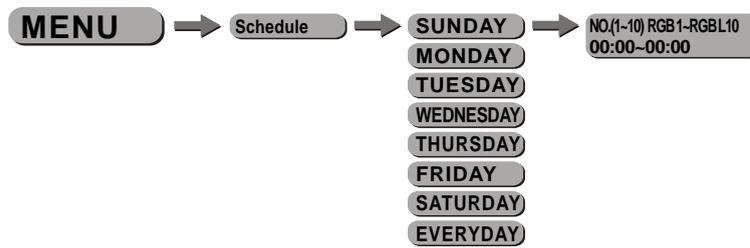


【OPERATION】

- Enter the **【OPERATION】** mode to set working mode.
- **【DMX】** mode is for using the DMX512 controller to control the LED DRIVER.
- **【SLAVE】** mode is for Master -- Slave operation

Note: When fixtures are under Auto program operation, the **【OPERATION】** does not work. If **【PLAYAUTO】** / **【PLAYCUSTOM】** / **【PLAYSTATIC】** / **【PLAYSCHEDULE】** is selected, then the unit is automatically set as MASTER.

3.12 SCHEDULE



【SCHEDULE】

- Select the day you want to play the program.
- Choose programs from **【PLAYAUTO】** / **【PLAYCUSTOM】** / **【PLAYSTATIC】** / **【PLAYNONE】** and set start and end time
- Programs will be played according to schedule time order.

Note: When there are time conflicts the first EVENT has priority over the second EVENT. When there is a conflict between **EVERYDAY** and a day of the week, the day of the week will have priority.

4 USING A DMX512 CONTROLLER

4.1 BASIC ADDRESSING

- Connect all of the units in series using a RJ45 data cable.
- Set the DMX512 address in the **【DMX】** menu.
- It is possible to have the same DMX address or independent addresses for each fixture.

4.2 CHANNEL ASSIGNMENT

- Note: This product has six DMX512 channel configurations: **【EFFECT】** , **【RGB】** , **【RGB+D】** , **【RGB+DMS】** , **【RGB+LINE】** and **【RGB+LINE+DMS】** .

EFFECT

CHANNEL	VALUE	FUNCTION
1	0 ↔ 255	RED (or STEP TIME when CUS.01-CUS.10 is activated)
2	0 ↔ 255	GREEN (or FADE TIME when CUS.01-CUS.10 is activated)
3	0 ↔ 255	BLUE
4	0 ↔ 255	MASTER DIMMER
5	0 ↔ 10	COLOR MACRO NO FUNCTION
	11 ↔ 35	RED 100%/GREEN UP/BLUE 0%
	36 ↔ 60	RED DOWN/GREEN 100%/BLUE 0%
	61 ↔ 85	RED 0%/GREEN 100%/BLUE UP
	86 ↔ 110	RED 0%/GREEN DOWN/BLUE 100%
	111 ↔ 135	RED UP/GREEN 0%/BLUE 100%
	136 ↔ 160	RED 100%/GREEN 0%/BLUE DOWN
	161 ↔ 185	RED 100%/GREEN UP/BLUE UP
	186 ↔ 210	RED DOWN/GREEN DOWN/BLUE 100%
	211 ↔ 215	WHITE 1: 3200K
	216 ↔ 220	WHITE 2: 3400K
	221 ↔ 225	WHITE 3: 4200K
	226 ↔ 230	WHITE 4: 4900K
	231 ↔ 235	WHITE 5: 5600K
	236 ↔ 240	WHITE 6: 5900K
	241 ↔ 245	WHITE 7: 6500K
	246 ↔ 250	WHITE 8: 7200K
251 ↔ 255	WHITE 9: 8500K	

CHANNEL	VALUE	FUNCTION
6	0 ↔ 4	STROBE No function
	5 ↔ 255	Strobe (slow to fast)
7	0 ↔ 20	AUTO+CUSTOM PROGRAMS NO FUNCTION
	21 ↔ 30	AUTO RGB 1
	31 ↔ 40	AUTO RGB 2
	41 ↔ 50	AUTO RGB 3
	51 ↔ 60	AUTO RGB 4
	61 ↔ 70	AUTO RGB 5
	71 ↔ 80	AUTO RGLB 1
	81 ↔ 90	AUTO RGLB 2
	91 ↔ 100	AUTO RGLB 3
	101 ↔ 110	AUTO RGLB 4
	111 ↔ 120	AUTO RGLB 5
	121 ↔ 130	CUSTOM 1
	131 ↔ 140	CUSTOM 2
	141 ↔ 150	CUSTOM 3
	151 ↔ 160	CUSTOM 4
	161 ↔ 170	CUSTOM 5
	171 ↔ 180	CUSTOM 6
	181 ↔ 190	CUSTOM 7
	191 ↔ 200	CUSTOM 8
	201 ↔ 210	CUSTOM 9
211 ↔ 220	CUSTOM 10	
221 ↔ 255	NO FUNCTION	
8	0 ↔ 255	AUTO SPEED Slow to fast
9	0 ↔ 9	ZONE SELECTION ALL LINES
	10 ↔ 29	LINE 1
	30 ↔ 49	LINE 2
	50 ↔ 69	LINE 3
	70 ↔ 89	LINE 4
	90 ↔ 109	LINE 1,2
	110 ↔ 129	LINE 2,3
	130 ↔ 149	LINE 3,4
	150 ↔ 169	LINE 1,4
	170 ↔ 189	LINE 1,3
	190 ↔ 209	LINE 2,4
	210 ↔ 219	LINE 1,2,3
	220 ↔ 229	LINE 2,3,4
	230 ↔ 239	LINE 1,2,4
	240 ↔ 249	LINE 1,3,4
	250 ↔ 255	ALL LINES

RGB

CHANNEL	VALUE	FUNCTION
1	0 ↔ 255	RED
2	0 ↔ 255	GREEN
3	0 ↔ 255	BLUE

RGB+D

CHANNEL	VALUE	FUNCTION
1	0 ↔ 255	RED
2	0 ↔ 255	GREEN
3	0 ↔ 255	BLUE
4	0 ↔ 255	MASTER DIMMER

RGB+DMS

CHANNEL	VALUE	FUNCTION
1	0 ↔ 255	RED
2	0 ↔ 255	GREEN
3	0 ↔ 255	BLUE
4	0 ↔ 255	MASTER DIMMER
5	0 ↔ 255	COLOR MACROS
6	0 ↔ 255	STROBE

RGB+LINE

CHANNEL	VALUE	FUNCTION
1	0 ↔ 255	LINE 1 RED
2	0 ↔ 255	LINE 1 GREEN
3	0 ↔ 255	LINE 1 BLUE
⋮	⋮	⋮
10	0 ↔ 255	LINE 4 RED
11	0 ↔ 255	LINE 4 GREEN
12	0 ↔ 255	LINE 4 BLUE

RGB+LINE+DMS

CHANNEL	VALUE	FUNCTION
1	0 ↔ 255	LINE 1 RED
2	0 ↔ 255	LINE 1 GREEN
3	0 ↔ 255	LINE 1 BLUE
⋮	⋮	⋮
10	0 ↔ 255	LINE 4 RED
11	0 ↔ 255	LINE 4 GREEN
12	0 ↔ 255	LINE 4 BLUE
13	0 ↔ 255	ALL LINES DIMMER
14	0 ↔ 255	ALL LINES MACRO
15	0 ↔ 255	ALL LINES STROBE

4.3 BASIC INSTRUCTIONS FOR DMX512 OPERATION (EFFECT)

MASTER DIMMER

- CH4 controls the intensity of the currently projected color.
- When the slider is at the highest position (255) the intensity of the output is the maximum.

RED, GREEN & BLUE COLOR SELECTION

- CH1, CH2 & CH3 control the intensity ratio of each of the RED, GREEN & BLUE LEDs.
- When the slider is at the highest position (255) the intensity of the color is the maximum.
- CH1, CH2 & CH3 can be combined together to create over 16 million colors.

COLOR MACROS

- CH5 selects the required COLOR MACRO.
- CH5 has priority over CH1, CH2, CH3.
- CH4 is used to control the intensity of the COLOR MACRO.

STROBE

- CH6 is the strobe channel and controls the speed of the strobe.

AUTO

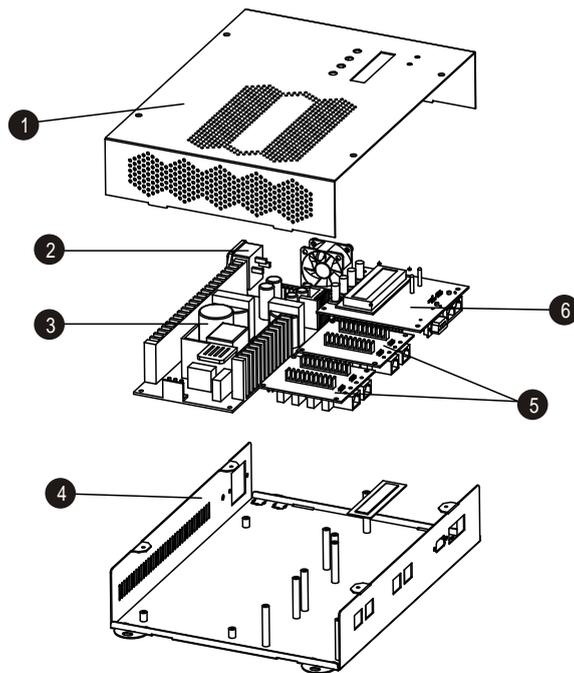
- CH7 selects the preset AUTO programs AT.01-AT.10 or the custom AUTO programs CUS.01-CUS.10.
- When activating the custom AUTO programs CUS.01 to CUS.10, it is possible to control the STEP TIME and FADE TIME using CH1 and CH2 respectively.
- CH7 has priority over CH1, CH2, CH3 & CH5.

5 APPENDIX

5.1 TROUBLE SHOOTING

SITUATION	CAUSE	ACTION	PART ORDER NUMBER
No display	1) Power connection error	1) Check power connections	
	2) Main PCB damaged	2) Replace main PCB	26-2A-LED904MC-00
Display normal, but no response from buttons	Main PCB damaged	Replace main PCB	26-2A-LED904MC-00
Display normal, but no response to DMX512 controller	1) Signal connection error	1) Check all signal connections	
	2) DMX address error	2) Check DMX address	
	3) Driver board damaged	3) Replace driver board	26-2A-LED904DRIVER2-00

5.2 MAINTENANCE



No	ITEM
1	Front cover
2	Power socket
3	Power switch
4	Metal base
5	Driver board
6	Display board