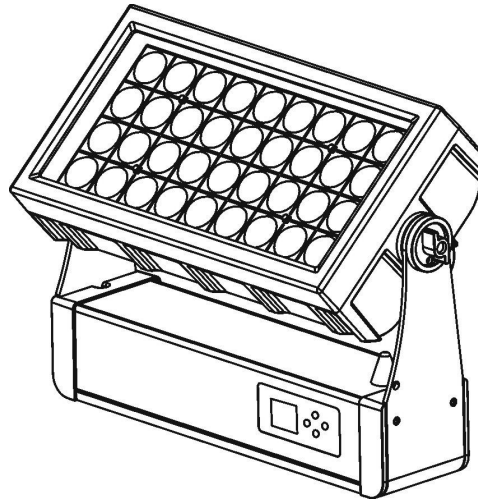
CITY ZOOM LED

User Manual



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Led Design

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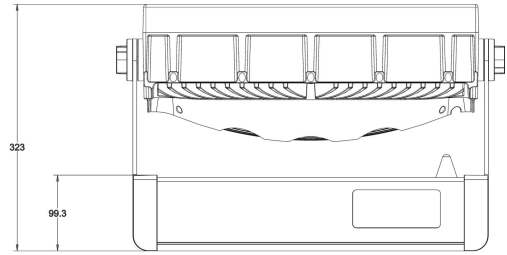
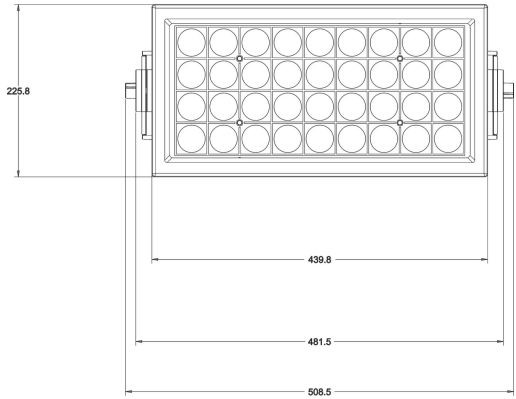
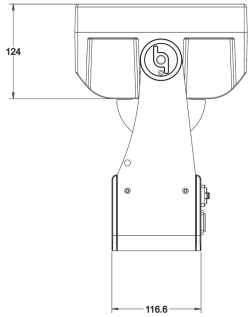
Dimensions

All dimensions are in millimeters







Before Using

What's inside

- Equipment x 1
- Power cable with Plug x 1
- User manual x 1
- Iron holder x 2

Open Instruction

Help preserve the environment! Ensure that this product is recycled at the end of its life. Your supplier can give details of local arrangements for the disposal of products.

Please open the equipment carefully ,and check all the spare parts are included or not.If any part of the cause of the failure due to improper transportation or carton,please keep the packing materials and immediately inform the shipper to check.If the equipment must be returned to the factory,the equipment should be use the original carton and packaging.

AC Power Supply

The equipment power supply is able to adapt to the wide input voltage.Please confirm the input voltage is in the scale of rated voltage。The equipment can adapt to100V-240V AC voltage，Frequency50-60HZ。It can not run a rheostat(variable resistor) or dimmer circuits.

Safety Instruction

This product is I level protection equipment,so it is must be connected well and connected by the professional people.

- Make sure the voltage don't be above or below which the user manual rated values.

- Confirm the power cord is not a sword cut or damaged.
- Must be cut off the power supply in the condition of no using or cleaning.
- Only allowed with the power cord plug connection.Please do not force when unplug the power cord to pull the plug.。
- Be careful in the process of installation of equipment. Avoid touching the bare wire,otherwise it will suffer fatal shocks.。
- Don't look the light source directly,otherwise it will hurts the eyes.
- When choosing installation position of equipment and the equipment must be more than 0.5m distance between objects.
- Please use the equipment wires appropriate.
- Without the manufacturer's authorization or laypeople don't remove, repair and modification of equipment.
- The maximum operating temperature is 40℃，don't operate the equipment when it is over 40℃
- Do not connect the equipment to the dimmer equipment
- Under 120V voltage,output power don't series more than 4 pcs equipment,voltage 230V.Output power don't series more than 8 pcs

Introduction

Specification

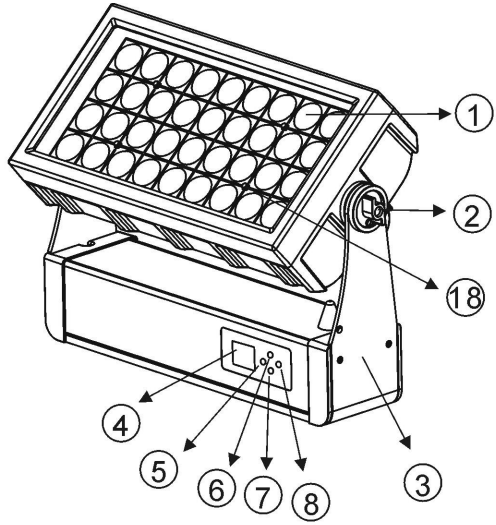
- Rated Voltage：AC100V～240V 50-60HZ
- Rated Power: 500W
- LED Qty: 36x15W High power RGBW LEDs(Beam)
  72x0.2W RGB LEDs(Ground Colour)
- LED Drive Current: 1A
- Zoom Angle: 7-58°
- IP Class: IP65
- DMX Mode： 3/4_1/4_2/5/15/20/21/37CH
- Packing Size：575x270x450mm

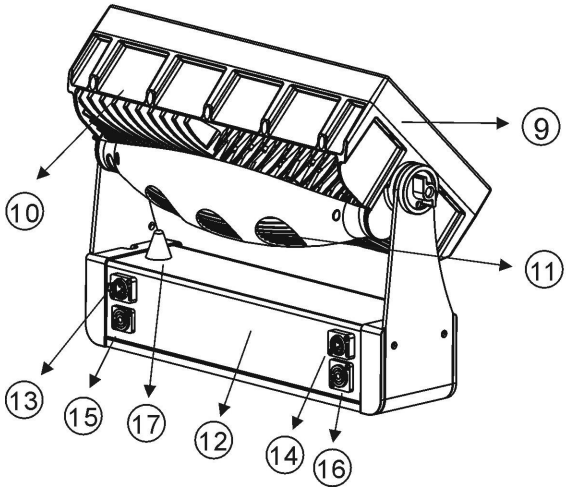
- Net weight： 15Kg
- Gross weight：17.7Kg

Product features

- Dmx input:3 pin electronic J3F2C-W .
- Dmx output:3 pin electronic K3F2C-W.
- Power connection:electronic powerCON in(SAC3MPX)/ powerCON out(SAC3FPX)
- 3 kinds of control model: DMX512,WDMX,Master/slave.
- 2.4G Wireless DMX control.
- Setting and Addressing:RDM
- DMX function:Dimmer,Strobe,RGBW,Macro color,Color jump,Color fade,Rainbow,Auto Program choice,Auto speed,Curve dimmer select,Function setting
- Stand-alone mode: Color step,Color shade,Auto,Slave,Macro color,Static color setting, Rainbow,Auto program choice.
- Housing:aluminium.
- Housing color:Black .
- 2.4inch TFT color display screen
- Anti-interference button
- Refresh rate:3000Hz.
- Operation temperature:-20°C～+40°C.
- 8 Kinds of DMX modes:3/4_1/4_2/5/15/20/21/37CH.
- Dimmer mode: 2 kinds.
- 4 kinds of curve dimmer:Linear Dimmer、Square Dimmer、I. Square Dimmer、S-Curve Dimmer.
- Display board can be 180°in turn，it can be fitted in different setting.
- Strobe effect:Plus Random、Ramp up Random、Ramp down Random、Random strobe、Strobe Break Effect,5s.....1s、Strobe 0-20Hz.
- Perfect mixing color and rainbow effect
- Cooling system:fan cooling(Auto&high-speed).
- Certficate:CE,ROHS

Product Introduction



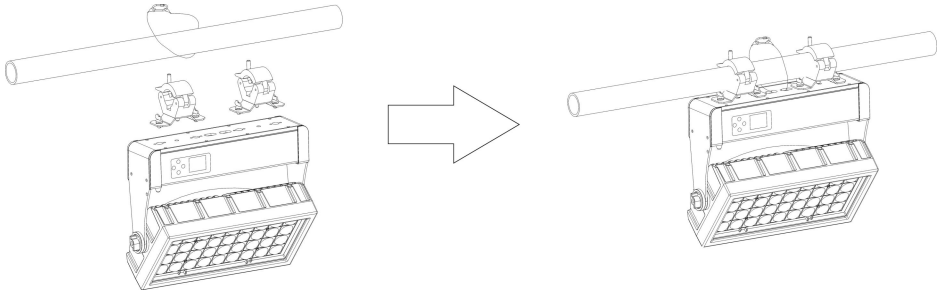


① Lens
② Rotary knob
③ Main holder
④ LCD display
⑤ MENU
⑥ UP
⑦ DOWN
⑧ ENTER
⑨ Top cover
⑩ Cooling fin
⑪ Fan
⑫ Base housing
⑬ DMX IN
⑭ DMX OUT
⑮ Power IN
⑯ Power OUT
⑰ Wireless
⑱ Motor

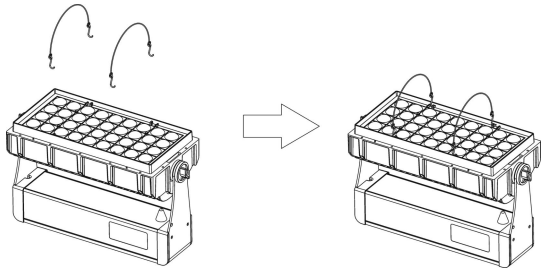
Installation

Installation Requirements

- This equipment can be used in many places, it can hang and put on the ground。
- Choosing a suitable place to put or hang the equipment when installation.Must be use the special screws and hook to make sure the lamp's weight is in the weight range。
- When installing the equipment,ensure no inflammable and explosive goods at 0.5 meter distance.
- Please ask the professionals to install the equipment, any improper installation will cause personal injury or material damage.
- To prevent others entering the working areas below,the installation or maintenance of equipment with suitable and stable platform
- The equipment must be placed in ventilated place, at least 50 cm from the ground,please ensure that the vent without clogging.



Disassembly lenses



Power supply connection

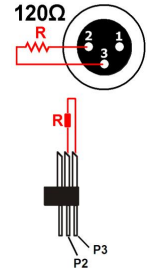
The equipment can be used in the wide voltage input。Please make sure the voltage is the scale of rated voltage when connecting the power.The equipment can adapt to 100V to 240 V AC voltage and 50-60 Hz.

s	Connection	Pin
Brown	AC Live	1
Blue	AC Neutral	2
Green/Yellow	AC Ground	3

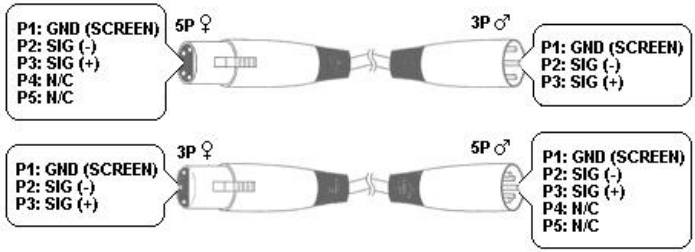
DMX Signal Connection

1. Use DMX512 controller, use the DMX signal（male ）to plug into the first light(female）3 pin。
2. Put out of the equipment of the first signal wire(head),connected to the equipment of the next 3 pin plug(female),so on.See belowed pictures.

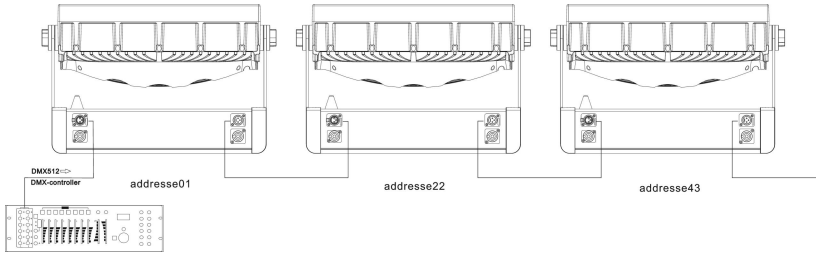
terminator



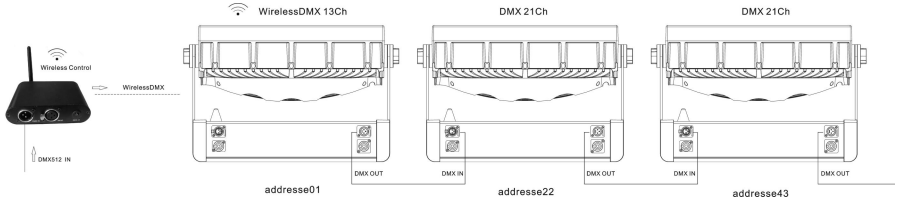
How to turn the controller line from 3-pins into 5-pins (plug and socket).



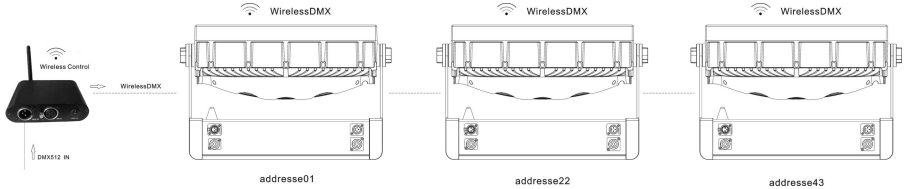
3.DMX to DMX:



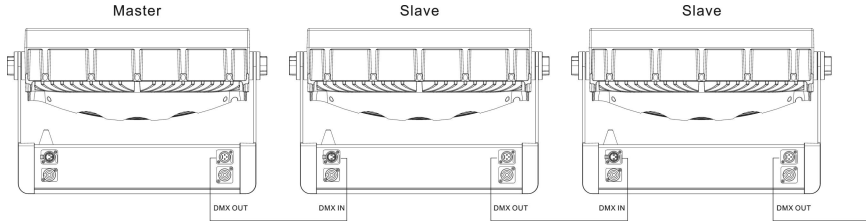
4:Wireless to DMX



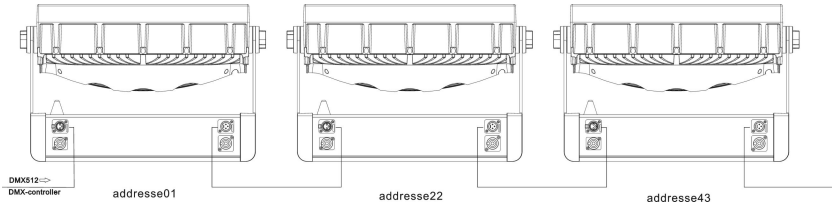
5:Wireless Control



6:Master/Slave



DMX Address setting



Operating Instruction

Control board function

Button	Function
Mode	Choose mode or function exit
ENTER	Current show menu or enter into the current selected function
UP	Increase the value
DOWN	Decrease the value

• When the spotlight is properly connected to the mains, “Software Update ,Please Wait” (only for internal purposes), “Welcome to LED Wash Zoom”, the model name and software version appear successively on the display during the start-up process. After this operation, the spotlight is ready for use and starts in the mode that was previously selected.

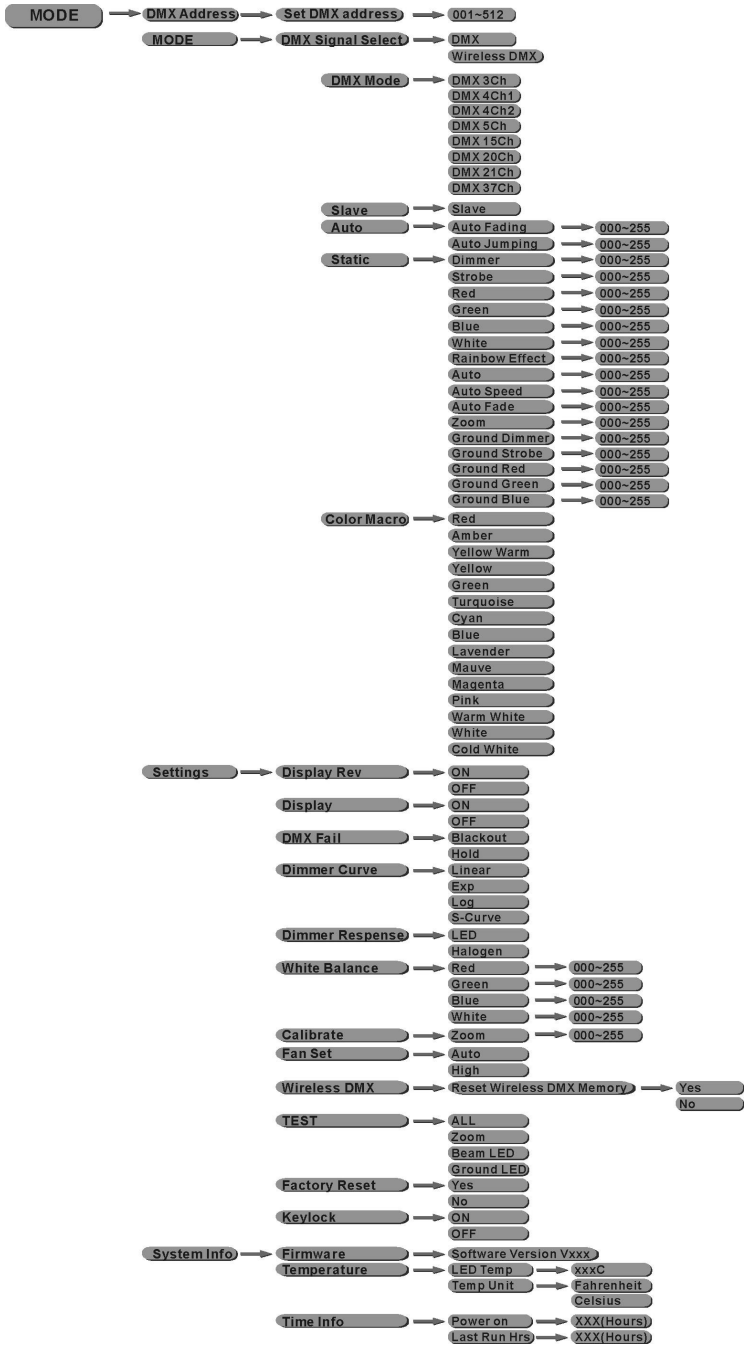
• If one of the DMX operating modes is activated and there is no DMX signal at the DMX input, the display starts to flash after a few seconds.

• After approximately 30 seconds of inactivity, the display will automatically show the currently active operating mode.

• Fast Access Feature: In order to simplify the menu guide, the device has an intelligent menu structure which allows menu and sub-menu items

that were last selected to be accessed directly. 1. Pressing MODE and ENTER simultaneously will take you directly to the sub-menu item that was last edited and allows you to instantly change the corresponding value as desired (DMX start address and all operating modes). 2. Pressing MODE will take you directly to the menu item that was last selected and edited; now press ENTER to instantly access the sub-menu item that was selected and edited last (DMX start address and all operating modes).

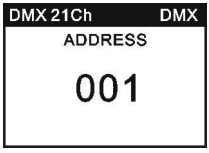
Menu Map


MODE
DMX Address
Set DMX address
001~512
MODE
DMX Signal Select
DMX
Wireless DMX
DMX Mode
DMX 3Ch
DMX 4Ch1
DMX 4Ch2
DMX 5Ch
DMX 15Ch
DMX 20Ch
DMX 21Ch
DMX 37Ch
Slave
Slave
Auto
Auto Fading
000~255
Auto Jumping
000~255
Static
Dimmer
000~255
Strobe
000~255
Red
000~255
Green
000~255
Blue
000~255
White
000~255
Rainbow Effect
000~255
Auto
000~255
Auto Speed
000~255
Auto Fade
000~255
Zoom
000~255
Ground Dimmer
000~255
Ground Strobe
000~255
Ground Red
000~255
Ground Green
000~255
Ground Blue
000~255
Color Macro
Red
Amber
Yellow Warm
Yellow
Green
Turquoise
Cyan
Blue
Lavender
Mauve
Magenta
Pink
Warm White
White
Cold White
Settings
Display Rev
ON
OFF
Display
ON
OFF
DMX Fail
Blackout
Hold
Dimmer Curve
Linear
Exp
Log
S-Curve
Dimmer Respense
LED
Halogen
White Balance
Red
000~255
Green
000~255
Blue
000~255
White
000~255
Calibrate
Zoom
000~255
Fan Set
Auto
High
Wireless DMX
Reset Wireless DMX Memory
Yes
No
TEST
ALL
Zoom
Beam LED
Ground LED
Factory Reset
Yes
No
Keylock
ON
OFF
System Info
Firmware
Software Version Vxxx
Temperature
LED Temp
xxxC
Temp Unit
Fahrenheit
Celsius
Time Info
Power on
XXX(Hours)
Last Run Hrs
XXX(Hours)

Menu Instruction：

MAIN DISPLAY DMX MODE

In the upper line of the display,the DMX (DMX 3Ch,4Ch1,4Ch2,5Ch,15Ch,20Ch,21Ch,37Ch)is display and the DMX start address is prominently shown in the centre(for example DMX2Ch and ADDRESS 001).As soon as the DMX signal is interrupted,the display starts flashing；if the DMX signal is present again,the display stops flashing.

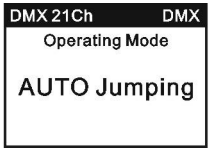


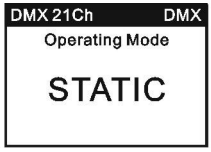
MAIN DISPLAY SLAVE MODE

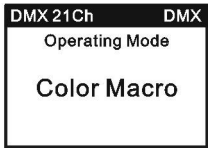
In the upper line the display,the preset DMX is displayed and “SALVE”is prominently shown in the center. As soon as the control signal is interrupted, the display starts flashing;if the control signal is present again, the display stops flashing.

MAIN DISPLAY STANDALONE MODE

In the upper line of display,the preset DMX mode is displayed and the currently activated Auto mode, static mode STATIC,or colour macro mode COLOUR MACRO.

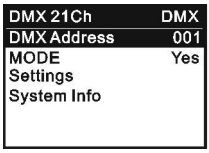


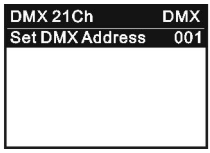


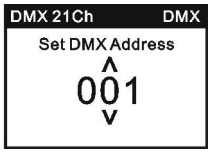


SETTING THE DMX START ADDRESS(ADDRESS)

Pressing MODE will take you the selection menu for system setting.Using UP and DOWN,select the menu item“ADDRESS”(colored background)and confirm with ENTER.This is followed by the display of the menu item “Set DMX Address”.Press ENTER again to select the DMX start address as desired button using the UP and DOWM button. If the start address is changed,the address color changes to red. Confirm with ENTER and Press MODE twice to return to the main display.The main display is automatically activated if no input is made within about 30 seconds.

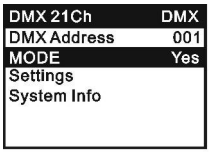


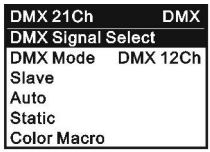


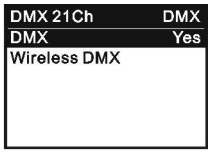


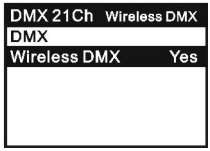
SETTING THE DMX SIGNAL SELECT(DMX SIGNAL SELECT)

Pressing MODE will take you to the selection menu for system settings. Using UP and DOWM,select the menu item“MODE” (colored background) and confirm with ENTER. Now use the UP and DOWN buttons once more to select the “DMX SIGNAL SELECT”sub-menu item and confirm button pressing ENTER. Using UP and DOWN, select the desired DMX mode(DMX,Wireless DMX)and confirm with ENTER. Press MODE twice to return to the main display. the main display is automatically activated if no input id made within about 30 seconds. You will find tables with the channels of the different DMX Signal in this manual under DMX SIGNAL CONTROL.



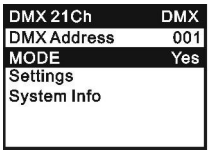


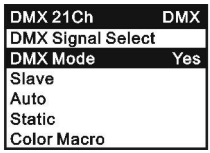




SETTING THE DMX MODE(DMX MODE)

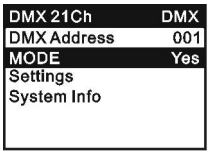
Pressing MODE will take you to the selection menu for system settings. Using UP and DOWM, select the menu item“MODE” (colored background) and confirm with ENTER.Now use the UP and DOWN buttons once more to select the “DMX MODE”sub-menu item and confirm button pressing ENTER.Using UP and DOWN,select the desired DMX mode(DMX 3Ch,DMX 4Ch1,DMX 4Ch2,DMX 5Ch,DMX 15Ch,DMX 20Ch,DMX21 Ch, DMX37 Ch)and confirm with ENTER.Press MODE twice to return to the main display.the main display is automatically activated if no input id made within about 30 seconds.You will find tables with the channels of the different DMX modes in this manual under DMX CONTROL.

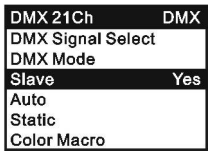




SETTING THE SLAVE MODE(Slave)

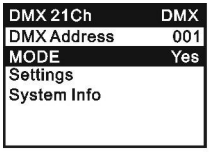
Pressing MODE will take you to the selection menu for system settings. Using UP and DOWN, select the menu item“MODE” (colored background) and confirm with ENTER.Now use the UP and DOWN buttons once more to select the “DMX MODE” sub-menu item and confirm button pressing ENTER and press MODE twice to return to the main display.The main display id automatically activated if no id made within about 30 seconds, Connect the slave and the master unit(same model)with a DMX cable and activate one of the standalone modes(Auto,Static,Color Macro)on the master unit.Now the slave unit follows the master unit.

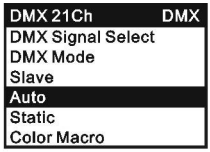


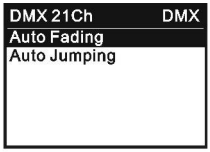


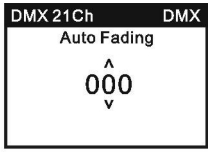
SETTING THE AUTOMATIC CONTROL MODE(Auto)

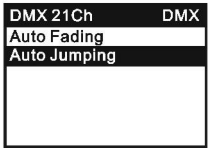
Pressing MODE will take you to the selection menu for system settings. Using UP and DOWN, select the menu item“MODE” (colored background) and confirm with ENTER. Now use the UP and DOWN buttons once more to select the “Auto” sub-menu item and confirm button pressing ENTER, Using UP and DOWN ， you can now select between Auto additional sub-menu items “Auto Fading” and “Auto Jumping”.Select“Auto Fading”, Press ENTER again to select the auto fading speed(000-255) as desired button using the UP and DOWM button. If set the “Auto Jumping”, Press ENTER again to select the auto jumping speed(000-255) as desired button using the UP and DOWM buttons.

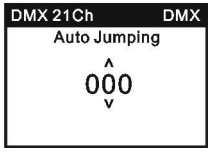








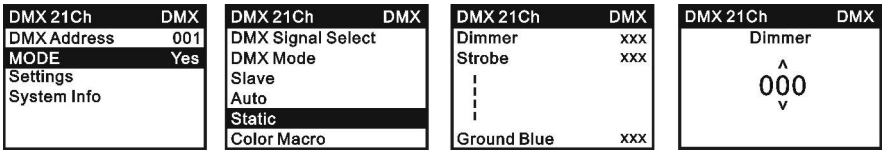




STATIC MODE(Static)

In the same way as with a DMX control unit, the static mode allows you adjust an functions such as Dimmer ,Red,Green,Blue,White and Strobe directly on the device with values from 000 to 255.Thus, an individual scene can be created without an additional DMX controller ,pressing MODE will take you to the selection menu for system settings .Using UP and Down, select the menu item“Static”(colored background) and confirm with ENTER, Use the UP and DOWN buttons to select the function of the LED Wash that you wish to edit and confirm button pressing ENTER.The alue(dimmer ,Red,Green,Blue,

White,etc., see list)of the corresponding function can now be set from 000-255 and press ENTER to confirm the input. Once all of the parameters have been set as desired, press MODE three to the main display. The main display is automatically activated if no input made within 30 seconds.



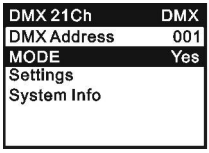
STATIC				
Dimmer	000	-	255	0% to 100%
Strobe	000	-	005	Strobe open
	006		010	Strobe closed
	011	-	033	Plus Random, slow->fast
	034	-	056	Ramp up Random, slow -> fast
	057-	-	0796	Ramp down Random, slow -> fast
	080	-	102	Random Strobe Effect, slow -> fast
	103	-	127	Strobe Break Effect, 5s…..1s (Short burst with break)
	128	-	250	Strobe slow -> fast <1Hz - 20Hz
	251	-	255	Strobe open
Red	000	-	255	0% to 100%
Green	000	-	255	0% to 100%
Blue	000	-	255	0% to 100%
White	000	-	255	0% to 100%
Rainbow	000	-	005	Rainbow off
	006	-	021	Rainbow1
	022	-	037	Rainbow2
	038	-	053	Rainbow3
	054	-	069	Rainbow4
	070	-	085	Rainbow5
	086	-	101	Rainbow6
	102	-	117	Rainbow7
	118	-	133	Rainbow8

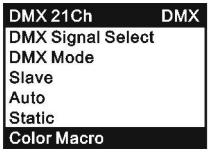
	134	-	149	Rainbow9
	150	-	165	Rainbow10
	166	-	181	Rainbow11
	182	-	197	Rainbow12
	198	-	213	Rainbow13
	214	-	229	Rainbow114
	230	-	255	Rainbow15
Auto Program	000	-	005	No function
	006	-	030	Auto Program1
	031	-	055	Auto Program2
	056	-	080	Auto Program3
	081	-	105	Auto Program4
	106	-	130	Auto Program5
	131	-	155	Auto Program6
	156	-	180	Auto Program7
	181	-	205	Auto Program8
	206	-	230	Auto Program9
	231	-	255	Auto Program10
Auto speed	000	-	255	Auto speed
Zoom	000	-	255	7-58° Zoom
Ground Dimmer	000	-	255	Dimmer 0% to 100%
Ground Strobe	000	-	255	Slow->fast 0-20Hz
Ground Red	000	-	255	Red 0% to 100%
Ground Green	000	-	255	Green 0% to 100%
Ground Blue	000	-	255	Blue 0% to 100%

SETTING THE COLOR MACRO MODE(Color Macro)

Pressing MODE will take you to the selection menu for system settings. Using UP and DOWN, select the menu item“MODE” (colored background) and confirm with ENTER. Now use the UP and DOWN buttons once more to select the “Color Macro”sub-menu item and confirm button pressing ENTER, Using UP and DOWN ， you can now select 15 different color macros are available as presets: “Red”, “Amber” , “Yellow Warm”, “Yellow” ,“Green” ,“Turquoise” ,“Cyan” ,“Blue”, “Lavender”, “Mauve”,

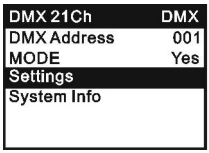
“Magenta”,“Pink”,“Warm White”, “White”and“Cold White”,Press ENTER and exit. press MODE three to the main display. The main display is automatically activated if no input made within 30 seconds.

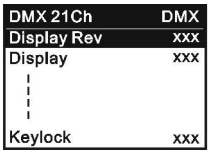


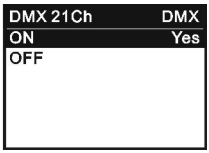


DEVICE SETTINGS(Setting)

Pressing MODE will take you to the selection menu for system settings. Using UP and DOWN, select the menu item “Setting” (colored background) and confirm with ENTER. You will then be taken to the sub-menu to set the sub-menu items(set list).The main display is automatically activated if no input is made within about 30 seconds.





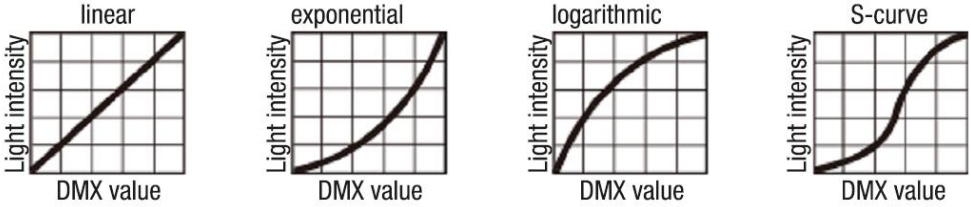


setting				
Display Rev	=	Flip Display	ON	=Rotation of the display by 180° (e.g.over head installation)
			OFF	=no rotation of the display
Display	=	Display lighting	ON	=permanently on
			OFF	=deactivation after approx.1 minutes of inactivity
DMX Fail	=	Operation status with DMX signal interruption	Hold	=last command is held
			Blackout	=activates Blackout
Dimmer Curve	=	Dimmer Curve	Linear	=The light intensity increases linearly with the DMX value
			Exp	=Adjustment of the light intensity is finer in the lower DMX value range and coarser in the upper DMX value range
			Log	=Adjustment of the light intensity is coarser in the lower DMX value

				range and finer in the upper DMX value range
			S Curve	=Adjustment of the light intensity is finer in the lower and upper DMX value ranges and coaster in the middle DMX value range
Dimmer Response	=	Dimmer response	LED	=The spotlight responds abruptly to changes in the DMX value
			Halogen	=The spot behaves in a manner similar to that of a halogen lamp with gentle changes in brightness
White Balance	=	White balance	Red,Green, Blue,White	=Individual white balance. Cross-operating mode setting of the 4 RGBW LED groups
Calibrate	=	Correction of the original position of the lens	Zoom	=0-127 correct the minimum angle，128-255 correct the max angle
Fan Set	=	Fan speed	Auto	=According to the LED temperature to control the fan speed
			High	=The fan at high speed
Wireless DMX	=	Reset Wireless DMX Memory	No	=do not reset wireless DMX
			Yes	= Reset Wireless DMX Memory
Test	=	Function test	ALL	=Test all functions
			Zoom	=Test Zoom motro
			BEAM LED	=Test Beam LEDs
			Ground LED	=Test Ground LEDs
Factory Reset	=	Reset to factory set	OFF	=do not perform reset
			ON	= Reset to factory setting
Key lock	=	The key lock switch	OFF	=Key lock closure
			ON	= Key lock closure, As the key lock opens, display screen backlight 30 seconds out, button is locked, need operation buttons, first to ENTER a

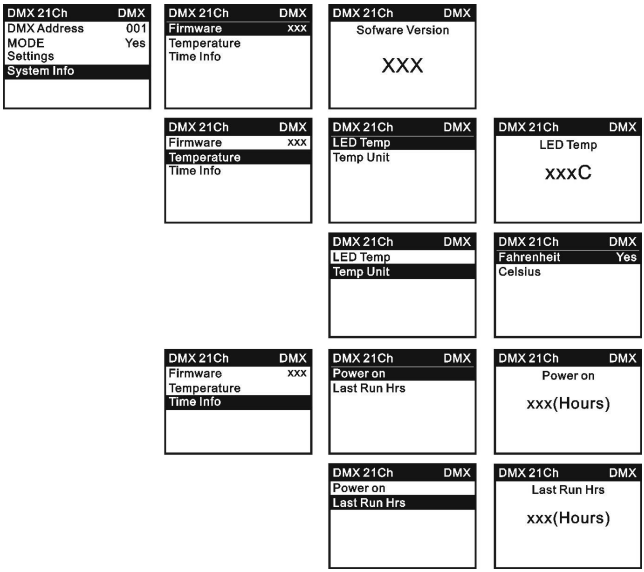
				password to unlock, ENTER the password to operation display panel buttons UP, DOWM, UP, DOWN, press ENTER to unlock,

DIMMER CURVES



DEVICE INFORMATION(System Info)

Pressing MODE will take you to the selection menu for system settings. Using UP and DOWN, select the menu item “System Info” (colored background)and confirm with ENTER. You will then be taken to the sub-mune to display the device information. Use the UP and DOWN panels again to select the desired sub-menu item and then press ENTER to retrieve the information.



System Info				
Software Ver	=	Display the device software version		Vxxx
Temp info	=	Temperature display of the LED unit	LED Temp	XxC/xxF
			Temp Unit	Celsius(=display in degrees Celsius)
				Fahrenheit(=display in degrees Fahrenhet)
Time info	=	Operating time display	Power on	Displays the tatal operating time in hours
			Last run hrs	Displays the operating time since the last operation

Press the MODE button repeatedly to return to the main display. The main display id automatically activated if no input within about 30 seconds.

DMX Channel Table

3Ch mode						
Ch.	Function	Values				Sub-group
1	Zoom	000	-	255	0%-100%	Zoom
2	Dimmer	000	-	255	0%-100%	Dimmer
3	Colour Macro (override RGBW)	000	-	005	Colour OFF	Colour Macro
		006	-	013	Red	
		014	-	021	Amber	
		022	-	029	Yellow Amber	
		030	-	037	Yellow	
		038	-	045	Green	
		046	-	053	Turquoise	
		054	-	061	Cyan	
		062	-	069	Blue	
		070	-	077	Lavender	
		078	-	085	Mauve	
		086	-	093	Magenta	
		094	-	101	Pink	

		102	-	109	Warm White	
		110	-	117	White	
		118		125	Cold White	
		126		127	Colour jumping stop	
		128		191	Colour jumping Speed slow->fast/Colour1->12	
		192		255	Colour fading Speed slow->fast/Colour1->12	

4Ch mode1						
Ch.	Function	Values				Sub-group
1	Zoom	000	-	255	0%-100%	Zoom
2	Dimmer	000	-	255	0%-100%	Dimmer
3	Strobe	000	-	005	Strobe Open	Strobe
		006	-	010	Strobe Close	
		011	-	250	Strobe slow->fast<1Hz-20Hz	
		251	-	255	Strobe Open	
4	Colour Macro (override RGBW)	000	-	005	Colour OFF	Colour Macro
		006	-	013	Red	
		014	-	021	Amber	
		022	-	029	Yellow Amber	
		030	-	037	Yellow	
		038	-	045	Green	
		046	-	053	Turquoise	
		054	-	061	Cyan	
		062	-	069	Blue	
		070	-	077	Lavender	
		078	-	085	Mauve	
		086	-	093	Magenta	
		094	-	101	Pink	
		102	-	109	Warm White	
		110	-	117	White	
		118		125	Cold White	

		126		127	Colour jumping stop	
		128		191	Colour jumping Speed slow->fast/Colour1->12	
		192		255	Colour fading Speed slow->fast/Colour1->12	

4Ch mode2						
Ch.	Function	Values				Sub-group
1	Zoom	000	-	255	0%-100%	Zoom
2	Red	000	-	255	Red 0%-100%	Red
3	Green	000	-	255	Green 0%-100%	Green
4	Blue	000	-	255	Blue 0%-100%	Blue

5Ch mode						
Ch.	Function	Values				Sub-group
1	Zoom	000	-	255	0%-100%	Zoom
2	Red	000	-	255	Red 0%-100%	Red
3	Green	000	-	255	Green 0%-100%	Green
4	Blue	000	-	255	Blue 0%-100%	Blue
5	White	000	-	255	White 0%-100%	Whtie

15Ch mode						
Ch.	Function	Values				Sub-group
1	Zoom	000	-	255	0%-100%	Zoom
2	Dimmer	000	-	255	Dimmer 0%-100%	Dimmer
3	Strobe functions	000	-	005	Strobe open	Multifunctional -strobe
		006	-	010	Strobe closed	
		011	-	250	Strobe slow -> fast <1Hz - 20Hz	
		251	-	255	Strobe open	
5	Red	000	-	255	Red 0%-100%	Red
5	Green	000	-	255	Green 0%-100%	Green
6	Blue	000	-	255	Blue 0%-100%	Blue

7	White	000	-	255	White 0%-100%	White
8	Colour Macro (override RGBW)	000	-	005	Colour OFF	Colour Macro
		006	-	013	Red	
		014	-	021	Amber	
		022	-	029	Yellow Amber	
		030	-	037	Yellow	
		038	-	045	Green	
		046	-	053	Turquoise	
		054	-	061	Cyan	
		062	-	069	Blue	
		070	-	077	Lavender	
		078	-	085	Mauve	
		086	-	093	Magenta	
		094	-	101	Pink	
		102	-	109	Warm White	
		110	-	117	White	
		118		125	Cold White	
		126		127	Colour jumping stop	
		128		191	Colour jumping Speed slow->fast/Colour1->12	
		192		255	Colour fading Speed slow->fast/Colour1->12	
9	Dimmer Curve	000	-	005	No function	Set dimmer curve
		006	-	063	Linear Dimmer Curve	
		064	-	127	Exponential Dimmer Curve	
		128	-	191	Logarithmic Dimmer Curve	
		192	-	255	S-Curve Dimmer Curve	
10	Device settings	000	-	005	No function	Device settings
		006	-	055	Dimmer Response LED (Hold 3s)	
		056	-	105	Dimmer Response Halogen (Hold 5s)	
		106	-	155	Setting Fan High Mode (Hold 3s)	
		156	-	205	Setting Fan Auto Mode (Hold 3s)	
		206	-	255	Reset All Function(Hold 5s)	

11	Ground Colour Dimmer	000	-	255	Ground Colour Dimmer 0%-100%	Ground Colour Dimmer
12	Ground Colour Strobe	000	-	255	Ground Colour Strobe slow->fast<1-20HZ	Ground Colour Strobe
13	Ground Colour Red	000	-	255	Ground Colour Red 0%-100%	Ground Colour Red
14	Ground Colour Green	000	-	255	Ground Colour Green 0%-100%	Ground Colour Green
15	Ground Colour Blue	000	-	255	Ground Colour Blue 0%-100%	Ground Colour Blue

20Ch mode						
Ch.	Function	Values				Sub-group
1	Zoom	000	-	255	0%-100%	Zoom
2	Red1	000	-	255	Red1 0%-100%	Red1
3	Green1	000	-	255	Green1 0%-100%	Green1
4	Blue1	000	-	255	Blue1 0%-100%	Blue1
5	White1	000	-	255	White1 0%-100%	Whtie1
6	Red2	000	-	255	Red2 0%-100%	Red2
7	Green2	000	-	255	Green2 0%-100%	Green2
8	Blue2	000	-	255	Blue2 0%-100%	Blue2
9	White2	000	-	255	White2 0%-100%	Whtie2
10	Red3	000	-	255	Red3 0%-100%	Red3
11	Green3	000	-	255	Green3 0%-100%	Green3
12	Blue3	000	-	255	Blue3 0%-100%	Blue3
13	White3	000	-	255	White3 0%-100%	Whtie3
14	Red4	000	-	255	Red4 0%-100%	Red4
15	Green4	000	-	255	Green4 0%-100%	Green4
16	Blue4	000	-	255	Blue4 0%-100%	Blue4
17	White4	000	-	255	White4 0%-100%	Whtie4

18	Ground Colour Red	000	-	255	Ground Colour Red 0%-100%	Ground Colour Red
19	Ground Colour Green	000	-	255	Ground Colour Green 0%-100%	Ground Colour Green
20	Ground Colour Blue	000	-	255	Ground Colour Blue 0%-100%	Ground Colour Blue

21Ch mode						
Ch.	Function	Values				Sub-group
1	Zoom	000	-	255	0%-100%	Zoom
2	Zoom speed	000	-	255	Fast->Slow	Zoom speed
3	Dimmer	000	-	255	0%-100%	Dimmer
4	Strobe functions	000	-	005	Strobe open	Green
		006	-	010	Strobe closed	Multifunctional -strobe
		011	-	033	Plus Random, slow->fast	
		034	-	056	Ramp up Random, slow -> fast	
		057	-	079	Ramp down Random, slow -> fast	
		080	-	102	Random Strobe Effect, slow -> fast	
		103	-	127	Strobe Break Effect, 5s…..1s (Short burst with break)	
		128	-	250	Strobe slow -> fast <1Hz - 20Hz	
		251	-	255	Strobe open	
5	Red	000	-	255	Red 0%-100%	Red
6	Green	000	-	255	Green 0%-100%	Green
7	Blue	000	-	255	Blue 0%-100%	Blue
8	White	000	-	255	White 0%-100%	White
9	Colour Macro (override RGBW)	000	-	005	Colour OFF	Colour Macro
		006	-	013	Red	
		014	-	021	Amber	
		022	-	029	Yellow Amber	
		030	-	037	Yellow	

		038	-	045	Green	
		046	-	053	Turquoise	
		054	-	061	Cyan	
		062	-	069	Blue	
		070	-	077	Lavender	
		078	-	085	Mauve	
		086	-	093	Magenta	
		094	-	101	Pink	
		102	-	109	Warm White	
		110	-	117	White	
		118		125	Cold White	
		126		127	Colour jumping stop	
		128		191	Colour jumping Speed slow->fast/Colour1->12	
		192		255	Colour fading Speed slow->fast/Colour1->12	
10	Rainbow	000	-	005	Rainbow off	Rainbow effect
		006	-	021	Rainbow1	
		022	-	037	Rainbow2	
		038	-	053	Rainbow3	
		054	-	069	Rainbow4	
		070	-	085	Rainbow5	
		086	-	101	Rainbow6	
		102	-	117	Rainbow7	
		118	-	133	Rainbow8	
		134	-	149	Rainbow9	
		150	-	165	Rainbow10	
		166	-	181	Rainbow11	
		182	-	197	Rainbow12	
		198	-	213	Rainbow13	
		214	-	229	Rainbow14	
		230	-	255	Rainbow15	
11	Auto	000	-	005	No function	AUTO

		006	-	030	Auto Program1	Program
		031	-	055	Auto Program2	
		056	-	080	Auto Program3	
		081	-	105	Auto Program4	
		106	-	130	Auto Program5	
		131	-	155	Auto Program6	
		156	-	180	Auto Program7	
		181	-	205	Auto Program8	
		206	-	230	Auto Program9	
		231	-	255	Auto Program10	
12	Speed	000	-	255	Auto program speed slow->fast	Speed
13	Fade	000	-	255	Auto program Fade	Fade
14	Dimmer Curve	000	-	005	No function	Set dimmer curve
		006	-	063	Linear Dimmer Curve	
		064	-	127	Exponential Dimmer Curve	
		128	-	191	Logarithmic Dimmer Curve	
		192	-	255	S-Curve Dimmer Curve	
15	Device settings	000	-	005	No function	Device settings
		006	-	055	Dimmer Response LED (Hold 3s)	
		056	-	105	Dimmer Response Halogen (Hold 5s)	
		106	-	155	Setting Fan High Mode (Hold 3s)	
		156	-	205	Setting Fan Auto Mode (Hold 3s)	
		206	-	255	Reset All Function(Hold 5s)	
16	Ground Colour Dimmer	000	-	255	Ground Colour Dimmer 0%-100%	Ground Colour Dimmer
17	Ground Colour Strobe	000	-	255	Ground Colour Strobe slow->fast<1-20HZ	Ground Colour Strobe
18	Ground Colour Red	000	-	255	Ground Colour Red 0%-100%	Ground Colour Red
19	Ground Colour Green	000	-	255	Ground Colour Green 0%-100%	Ground Colour Green

20	Ground Colour Blue	000	-	255	Ground Colour Blue 0%-100%	Ground Colour Blue
21	Ground Colour Macro	000	-	005	Colour OFF	Ground Colour Macro
		006	-	013	Red	
		014	-	021	Amber	
		022	-	029	Yellow Amber	
		030	-	037	Yellow	
		038	-	045	Green	
		046	-	053	Turquoise	
		054	-	061	Cyan	
		062	-	069	Blue	
		070	-	077	Lavender	
		078	-	085	Mauve	
		086	-	093	Magenta	
		094	-	101	Pink	
		102	-	109	Warm White	
		110	-	117	White	
		118	-	125	Cold White	
		126	-	127	Colour jumping stop	
		128	-	191	Colour jumping Speed slow->fast/Colour1->12	
		192	-	255	Colour fading Speed slow->fast/Colour1->12	

37Ch mode						
Ch.	Function	Values				Sub-group
1	Zoom	000	-	255	0%-100%	Zoom
2	Zoom speed	000	-	255	Fast->Slow	Zoom speed
3	Dimmer	000	-	255	0%-100%	Dimmer
4	Strobe functions	000	-	005	Strobe open	strobe
		006	-	010	Strobe closed	Multifunctional -strobe
		011	-	033	Pulse Random, slow->fast	

		034	-	056	Ramp up Random, slow -> fast	
		057	-	079	Ramp down Random, slow -> fast	
		080	-	102	Random Strobe Effect, slow -> fast	
		103	-	127	Strobe Break Effect, 5s…..1s (Short burst with break)	
		128	-	250	Strobe slow -> fast <1Hz - 20Hz	
		251	-	255	Strobe open	
5	Red	000	-	255	Red 0%-100%	Red
6	Green	000	-	255	Green 0%-100%	Green
7	Blue	000	-	255	Blue 0%-100%	Blue
8	White	000	-	255	White 0%-100%	White
9	Colour Macro (override RGBW)	000	-	005	Colour OFF	Colour Macro
		006	-	013	Red	
		014	-	021	Amber	
		022	-	029	Yellow Amber	
		030	-	037	Yellow	
		038	-	045	Green	
		046	-	053	Turquoise	
		054	-	061	Cyan	
		062	-	069	Blue	
		070	-	077	Lavender	
		078	-	085	Mauve	
		086	-	093	Magenta	
		094	-	101	Pink	
		102	-	109	Warm White	
		110	-	117	White	
		118	-	125	Cold White	
		126	-	127	Colour jumping stop	
		128	-	191	Colour jumping Speed slow->fast/Colour1->12	
		192	-	255	Colour fading Speed slow->fast/Colour1->12	
10	Rainbow	000	-	005	Rainbow off	Rainbow

		006	-	021	Rainbow1	effect
		022	-	037	Rainbow2	
		038	-	053	Rainbow3	
		054	-	069	Rainbow4	
		070	-	085	Rainbow5	
		086	-	101	Rainbow6	
		102	-	117	Rainbow7	
		118	-	133	Rainbow8	
		134	-	149	Rainbow9	
		150	-	165	Rainbow10	
		166	-	181	Rainbow11	
		182	-	197	Rainbow12	
		198	-	213	Rainbow13	
		214	-	229	Rainbow14	
		230	-	255	Rainbow15	
11	Auto	000	-	005	No function	AUTO Program
		006	-	030	Auto Program1	
		031	-	055	Auto Program2	
		056	-	080	Auto Program3	
		081	-	105	Auto Program4	
		106	-	130	Auto Program5	
		131	-	155	Auto Program6	
		156	-	180	Auto Program7	
		181	-	205	Auto Program8	
		206	-	230	Auto Program9	
		231	-	255	Auto Program10	
12	Speed	000	-	255	Auto program speed slow->fast	Speed
13	Fade	000	-	255	Auto Fade	Fade
14	Dimmer Curve	000	-	005	No function	Set dimmer curve
		006	-	063	Linear Dimmer Curve	
		064	-	127	Exponential Dimmer Curve	

		128	-	191	Logarithmic Dimmer Curve	
		192	-	255	S-Curve Dimmer Curve	
15	Device settings	000	-	005	No function	Device settings
		006	-	055	Dimmer Response LED (Hold 3s)	
		056	-	105	Dimmer Response Halogen (Hold 5s)	
		106	-	155	Setting Fan High Mode (Hold 3s)	
		156	-	205	Setting Fan Auto Mode (Hold 3s)	
		206	-	255	Reset All Function(Hold 5s)	
16	Red1	000	-	255	Red1 0%-100%	Red1
17	Green1	000	-	255	Green1 0%-100%	Green1
18	Blue1	000	-	255	Blue1 0%-100%	Blue1
19	White1	000	-	255	White1 0%-100%	Whtie1
20	Red2	000	-	255	Red2 0%-100%	Red2
21	Green2	000	-	255	Green2 0%-100%	Green2
22	Blue2	000	-	255	Blue2 0%-100%	Blue2
23	White2	000	-	255	White2 0%-100%	Whtie2
24	Red3	000	-	255	Red3 0%-100%	Red3
25	Green3	000	-	255	Green3 0%-100%	Green3
26	Blue3	000	-	255	Blue3 0%-100%	Blue3
27	White3	000	-	255	White3 0%-100%	Whtie3
28	Red4	000	-	255	Red4 0%-100%	Red4
29	Green4	000	-	255	Green4 0%-100%	Green4
30	Blue4	000	-	255	Blue4 0%-100%	Blue4
31	White4	000	-	255	White4 0%-100%	Whtie4
32	Ground Colour Dimmer	000	-	255	Ground Colour Dimmer 0%-100%	Ground Colour Dimmer
33	Ground Colour Strobe	000	-	255	Ground Colour Strobe slow->fast<1-20HZ	Ground Colour Strobe
34	Ground Colour Red	000	-	255	Ground Colour Red 0%-100%	Ground Colour Red

35	Ground Colour Green	000	-	255	Ground Colour Green 0%-100%	Ground Colour Green
36	Ground Colour Blue	000	-	255	Ground Colour Blue 0%-100%	Ground Colour Blue
37	Ground Colour Macro	000	-	005	Colour OFF	Ground Colour Macro
		006	-	013	Red	
		014	-	021	Amber	
		022	-	029	Yellow Amber	
		030	-	037	Yellow	
		038	-	045	Green	
		046	-	053	Turquoise	
		054	-	061	Cyan	
		062	-	069	Blue	
		070	-	077	Lavender	
		078	-	085	Mauve	
		086	-	093	Magenta	
		094	-	101	Pink	
		102	-	109	Warm White	
		110	-	117	White	
		118	-	125	Cold White	
		126	-	127	Colour jumping stop	
		128	-	191	Colour jumping Speed slow->fast/Colour1->12	
		192	-	255	Colour fading Speed slow->fast/Colour1->12	