

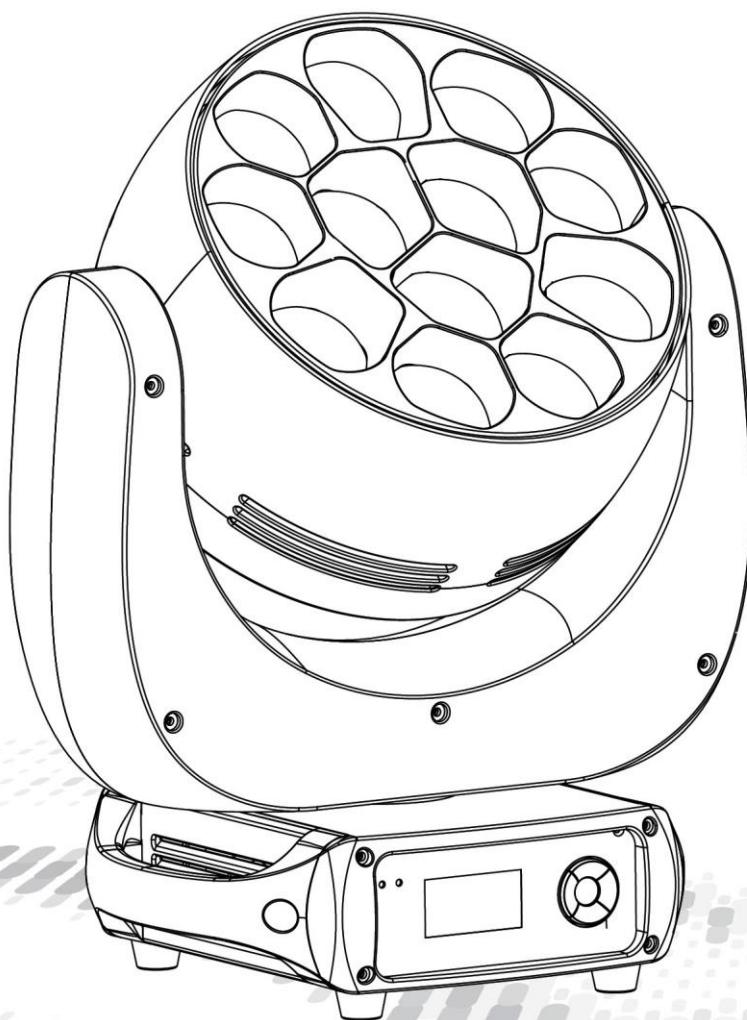
# SHOWPRO

## PLUTO 4000 XE/CCS3

USER MANUAL

LEDMOV540

/LEDMOV545



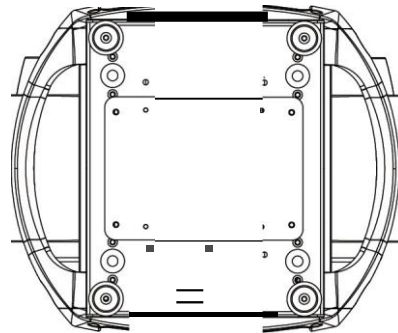
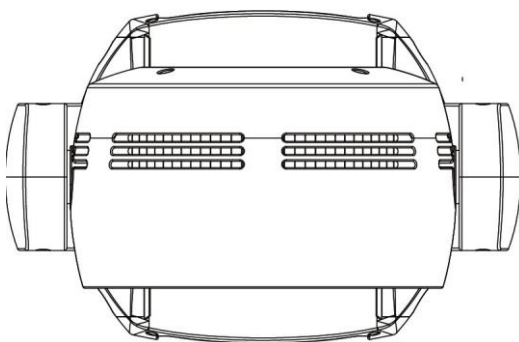
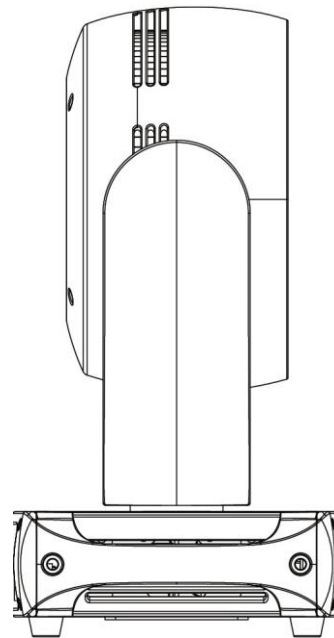
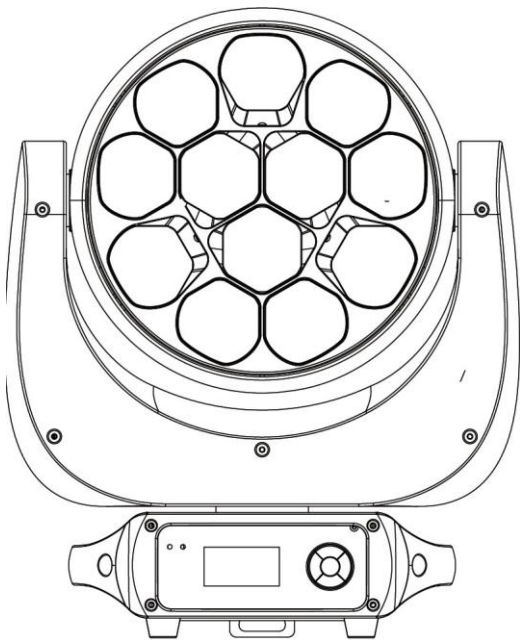
# 1 PRODUCT SPECIFICATIONS

## 1.1 PRODUCT SPECIFICATIONS

### Electrical

- ◆ Voltage: 100V-240V ~, 50/60Hz
- ◆ Max Power: 460W
- ◆ Size: 478x390x251 mm
- ◆ Weight: 15kg

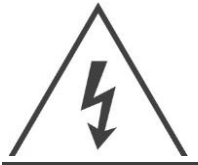
## 1.2 PRODUCT FEATURES



## 1.3 SAFETYWARNING

### IMPORTANT:

- **This** product must be installed by a qualified professional.
- **All** maintenance must be carried out by a qualified electrician.
- **A** minimum distance of 0.5m must be maintained between the equipment and a combustible surface.
- **The** product must always be operated in a well ventilated area.
- **DO NOT** stare directly into the LED light source.
- **Always** disconnect the power before carrying out any maintenance.
- **The** earth must always be connected to the ground.
- **Ensure** that all parts of the equipment are kept clean and free of dust.
- Do not open the fixture or remove any cover. Refer any service operation not described in this manual to an authorized Show Technology Service Centre



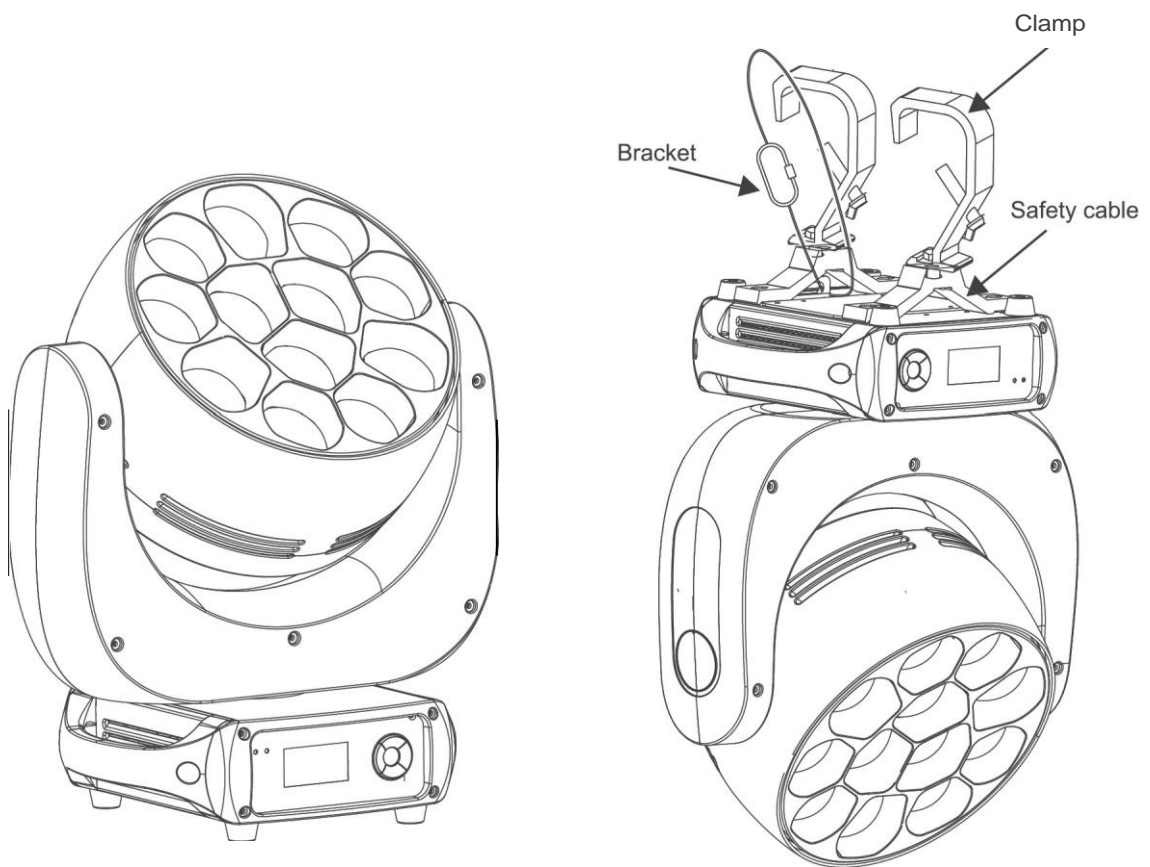
Caution, risk of electric shock

The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

## 2 INSTALLATION

### 2.1 MOUNTING:

- **The** fixture can be mounted in any position.
- **Always** ensure that mounting surface can withstand 10 times the weight of the fixture.
- **Always** use a safety cable when mounting the fixture in any elevated position.
- **Contact** your ShowPRO supplier for assistance if you have any questions about how to install this product safely.



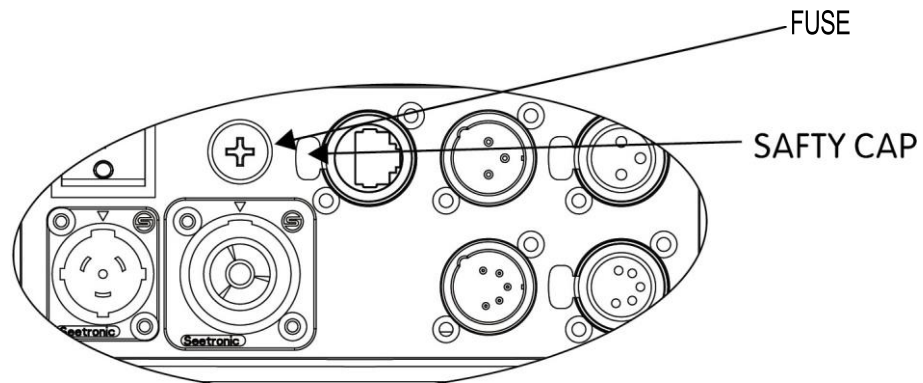
### **IMPORTANT SAFETY NOTE!!**

Always use a safety cable when installing this unit!!

Be sure that the safety cable is connected to a solid load-bearing structure.

## 2.2 FUSE REPLACEMENT

- Remove the safety cap by a screwdriver.
- Fetch the old fuse from safety cap.
- Install a new fuse.
- Install the safety cap.



## 2.3 POWER CONNECTIONS

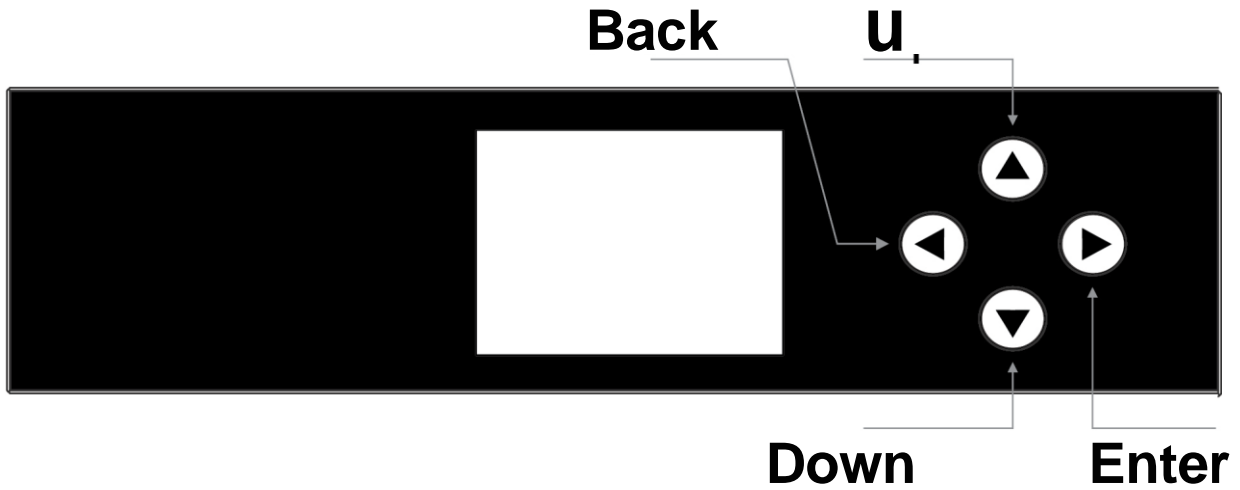
- 220~240V: 5 units may be connected in series
- 110~120V: 2 units may be connected in series

**Note:**

If the signal cable is over 60m between the DMX512 controller and fixture or between two fixtures, then a OMX signal amplifier is needed as well.

# 3 DISPLAY PANEL OPERATION

## 3.1 DISPLAY OPERATION



<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.

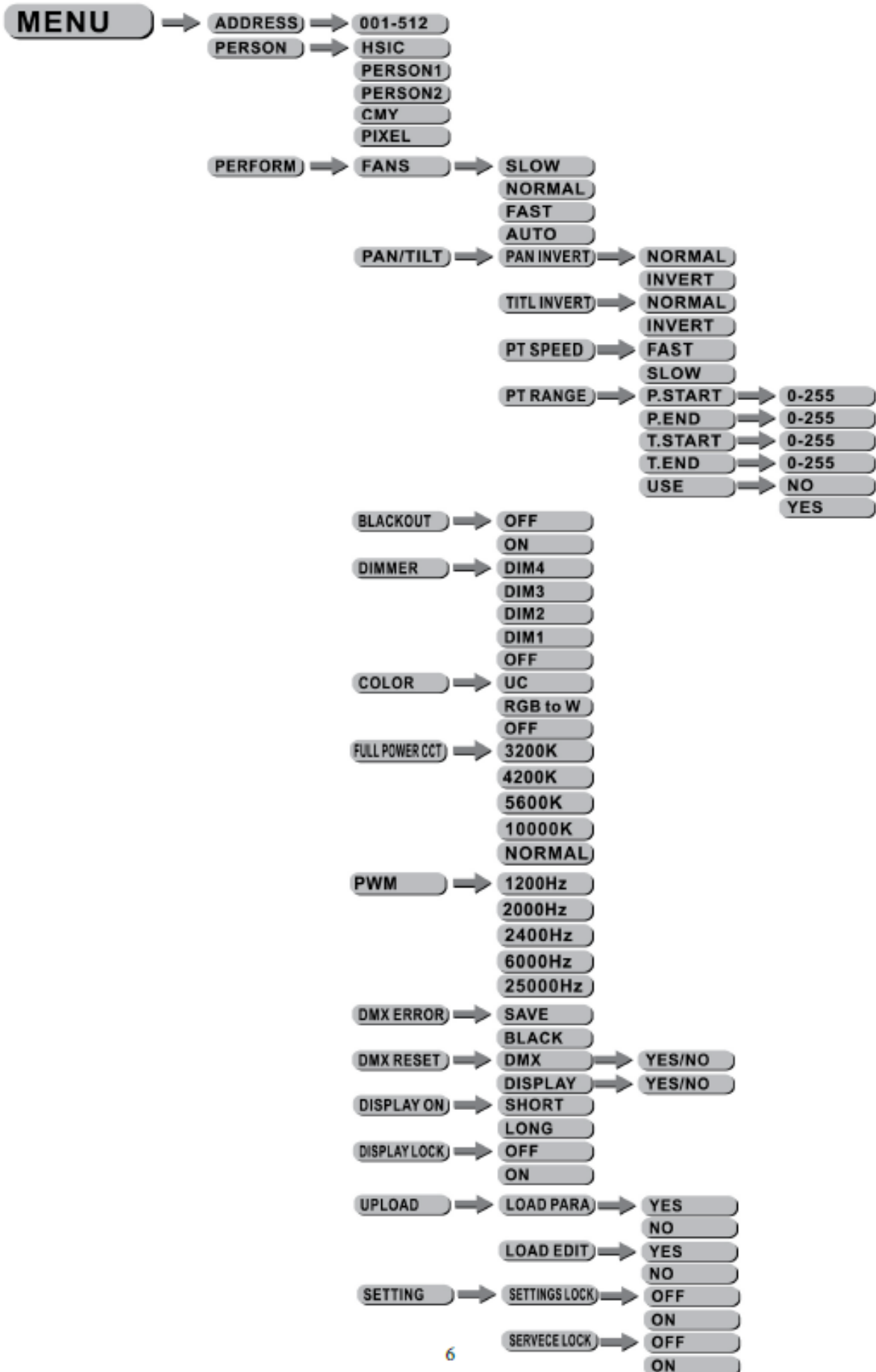
<BACK> Scroll through the main menu or exit current function.

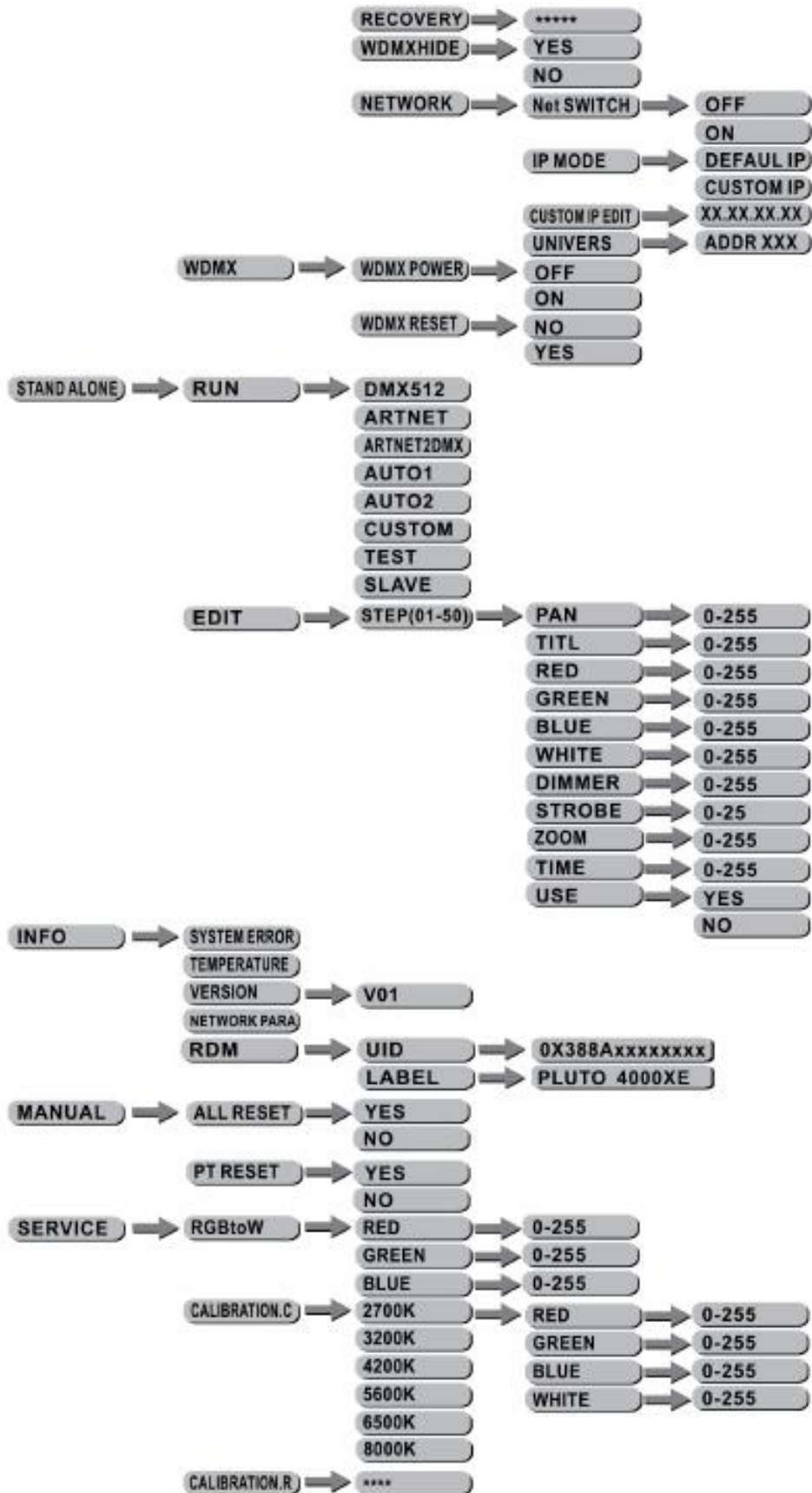
<ENTER> Enter the currently selected menu or confirm the current function value.

To Unlock (Wake) the display:

1. Keep pressing BACK around 5 seconds, until the display shows password prompt
2. Press "<UP> <DOWN><UP><DOWN><ENTER>" to unlock.

### 3.2 MENU MAP





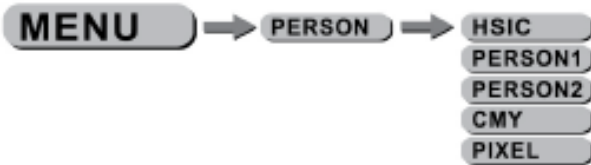
### 3.3 DMX512 SETTINGS

**MENU** → **ADDRESS** → 001-512

- Enter the **[DMX]** mode to set the DMX ADDRESS.

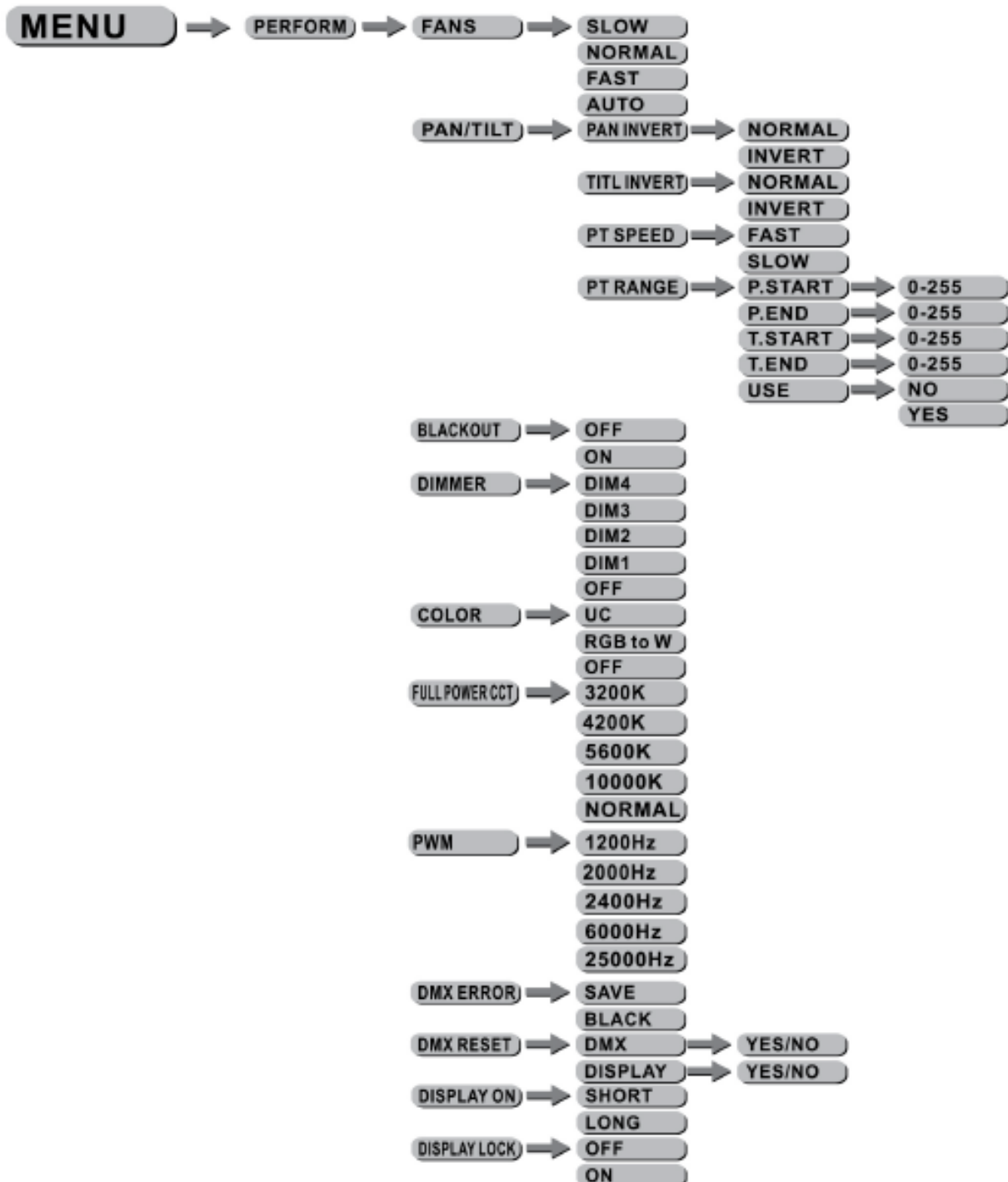


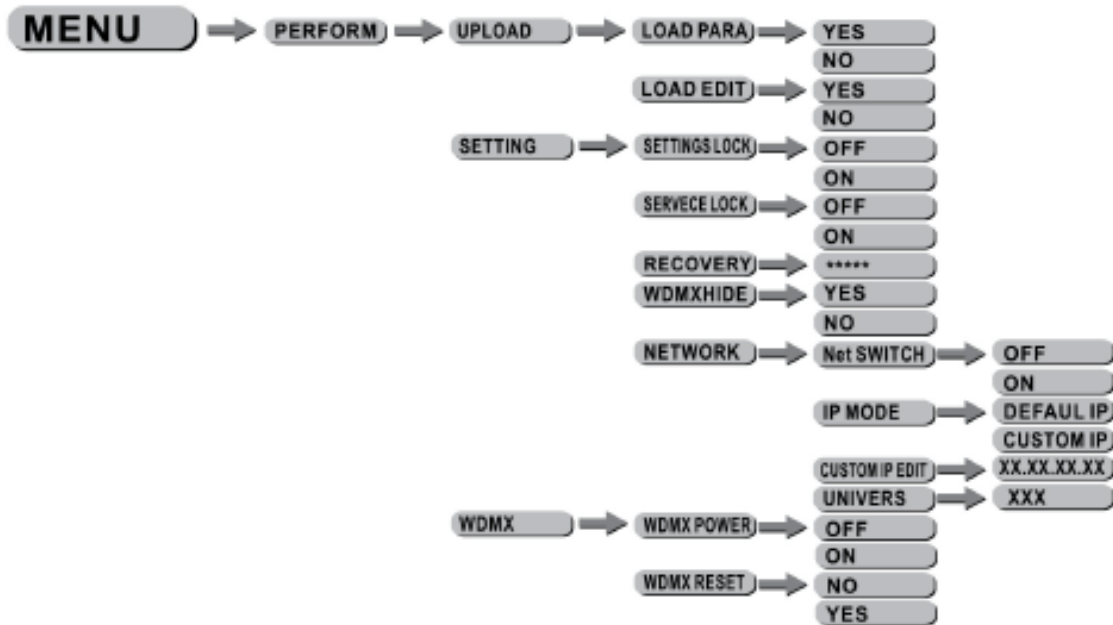
### 3.4 PERSONALITY



- Enter the **PERSON** mode to select DMX mode: **HSIC** , **PERSON1** , **PERSON2** , **CMY** , **PIXEL** ,

### 3.5 PERFORM





- **【FANS】** menu, select **【Slow/Norm/Fast/Auto】** as required fan speed.
- **【PAN INVERT】** menu, select **【NORM/INVERT】** for normal/inverted control of the PAN function
- **【TILT INVERT】** menu, select **【NORM/INVERT】** for normal/inverted control of the TILT function
- **【PT SPEED】** menu, select **【Slow/Fast】** as required PAN/TILT movement speed.
- **【BLACKD】** menu, select **【OFF】** for immediate activation of PAN/TILT blackout when selected using the control channel or **【ON】** for 3 second delay before activation.
- **【DIMMER】** menu for selection of **【DIM1/DIM2/DIM3/DIM4/OFF】** special dimming curves
- **【COLOR】** is for activate/unactivate the color calibration functions. When **【RGBtoW】** is selected, on RGB = 255,255,255, the color is displayed as calibrated in Service -- RGBtoW. When **【COLOR】** is set **【OFF】**, on RGB = 255,255,255, the RGB values are not adjusted and the output is most powerful. When **【UC】** is selected, the RGB output are adjusted to a standard preset universal color which balances fixtures from different generations.
- **【PWM】** is PWM refresh rate bottom, press UP/DOWN to choose <1200Hz>、<2400Hz>、<4000Hz>、<6000Hz>、<25000Hz>
- **【FULL POWER CCT】** is the color temperature choose bottom, press **【UP】** / **【DOWN】** to choose, under full power, <3200K>、<4200K>、<5600K>、<10000K> can be chosen, when choose <COLOR>、<3200K>、<4200K>、<5600K>、<10000K> are not work, but choose **【NORMAL】**.
- **【DMXERROR】** menu, select **【SAVE】** to maintain last command in case of DMX error or **【BLACK】** for blackout
- **【DMXRESET】** menu, select **【DMX】** to allow remote reset using DMX controller or **【DISPLAY】** for reset only available at on-fixture display
- **【DISPLAY ON】** menu, select **【LONG/SHORT/DISPLAY LOCK】** for length of time for display backlight
- **【UPLOAD】** upload data setting, choose **【LOAD PARA】** to upload data, choose **【NO】** means do not upload data choose **【YES】** means upload data, choose **【LOAD EDIT】**

- to program, choose **【NO】** means do not upload, choose **【YES】** means upload
- **【SETTING】** is a protect bottom, **【 SETTINGS LOCK】** is the menu lock bottom, choose **【OFF】** means the menu lock bottom is off, choose **【ON】** means the menu lock bottom is on **【RECOVERY】** is the recover to default value. Press **【ENTER】** to password setting, press correct password **【UP+DOWN+UP+DOWN】**, and press **【ENTER】**, if password is correct, display will show **【OK】**,
- **【NET SWITCH】** is net switch, OFF adhere to 2.XX.XX.XX, ON adhere to 2.XX.XX.XX, **【IP MODE】** is IP mode setting, "DEFAULT IP" is default IP, CUSTOM IP is user IP, **【CUSTOM IP SET】** is customer IP setting, **【UNIVERS】** is data bulk setting, output series: 0-255
- **【WDMX】** setting, choose **【WDMX POWER】** to turn on/off the DMX, choose **【OFF】** to turn off it. **【ON】** to turn on it. Choose **【 WDMX RESET】** to reset the DMX, choose **【NO】**, then DMX will not reset, **【YES】**, then DMX will reset

### 3.6 RUN



- Enter the **【 STAND ALONE】** menu to select from **【DMX512/ARTNET/ARTNET2DMX/AUTO 1/AUTO 2/CUSTOM/TEST/SLAVE】** run modes

### 3.7 EDIT

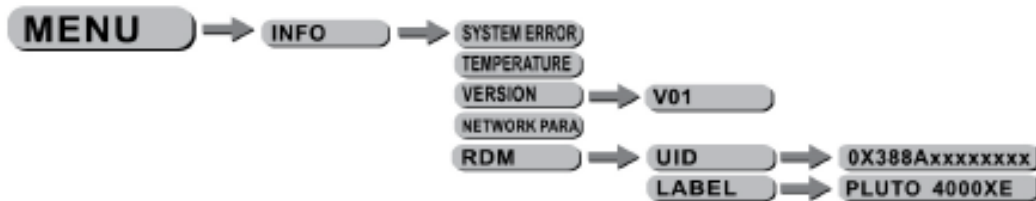


- Enter the **【 EDIT】** mode to edit the custom programs by adjusting the value of **【PAN】**, **【TILT】**, **【RED】**, **【GREEN】**, **【BLUE】**, **【WHITE】**, **【DIMMER】**, **【STROBE】**, **【ZOOM】**, **【 TIME】**
- Enter **【 USE】** and select **【YES】** to run the steps user need.

**Note:** if user want to circulate the created steps, please set the last step 's **【Time】** as 0  
For example, there are 3 steps, the setting should be like belowed:

Step 1	<b>【Time】</b> = 4	<b>【 Use】</b> = Yes
Step 2	<b>【Time】</b> = 5	<b>【 Use】</b> = Yes
Step 3	<b>【Time】</b> = 0	<b>【 Use】</b> = Yes

### 3.8 INFO



- push **【OK】** button into the information search mode in menu **【INFO】** , push **【up/down】** to choose item.

Choose **【SYSTEM ERROR】** system data error .

Choose **【TEMPERATURE】** LED working temperature

Choose **【VERSION】** software version

Choose **【NETWORK PARA】** check network specification

Choose **【RDM】** check the fixture ID

Choose **【LABEL】** check model name

### 3.9 MANUAL



- Select **【RESET】** from the **【MANUAL】** menu
- **【ALL RESET】** menu, select **【YES/NO】** to carry out full fixture reset
- **【PT RESET】** menu, select **【YES/NO】** to carry out PAN/TILT reset

### 3.10 SERVICE



- Enter the **【RGBtoW】** to adjust the RGB parameter to make different whites.
- When the new setting is activated, the DMX controller choose RGB = 255,255,255 the white color will be made by the actual RGB values on the **【RGBtoW】** .
- Enter the **【CALIBRATION.C】** to select white color of different color temperature.
- There are 11 pre-programmed White colors plus RGB TO WHITE and can be edited by using **【RED】** , **【GREEN】** , **【BLUE】** & **【WHITE】** .
- Press **【ENTER】** to find **【CALIBRATION.R】** CCT reset , press passcode (**Up + Down+ Up +Down**) , then **【SUCCESS】** will be shown

# 4 USING A DMX512 CONTROLLER

## 4.1 CHANNEL ASSIGNMENT

- Note: This product have four DMX512 channel configuration: [HSIC] , [PERSON1] , [PERSON2] , [CMY] , [PIXEL]
- Note: [PERSON2] has different channels for the XE and CCS3 versions

### HSIC

CHANNEL	VALUE	FUNCTION
1	000 – 255	PAN
2	000 – 255	PAN FINE
3	000 – 255	TILT
4	000 – 255	TILT FINE
5	000 – 255	PT SPEED
6	000 – 255	INTENSITY
7	000 – 255	HUE
8	000 – 255	HUE FINE
9	000 – 255	SATURATION
10		CCT
	000 – 009	NO FUNCTION
	010 – 040	2700K
	041 – 080	3200K
	081 – 120	4200K
	121 – 160	5600K
	161 – 200	6500K
	201 – 255	8000K
11		STROBE
	000 – 009	NO FUNCTION
	010 – 099	STROBE (SLOW TO FAST, 0 – 25Hz)
	100 – 109	NO FUNCTION
	110 – 179	LIGHTNING STROBE
	180 – 189	NO FUNCTION
	190 – 255	RANDOM STROBE
12	000 – 255	ZOOM
13		CONTROL
	000 - 009	NO FUNCTION
	010 – 019	PAN/TILT BLACKOUT ON
	020 – 029	PAN/TILT BLACKOUT OFF
	030 – 039	FAN SLOW

	040 – 049	FAN NORMAL
	050 – 059	FAN FAST
	060 – 069	FAN AUTO
	070 – 079	AUTO1
	080 – 089	AUTO2
	090 – 099	CUSTOM
	100 – 109	TEST
	110 – 119	RESET
	120 – 129	NO FUNCTION
	130 – 139	DIM0
	140 – 149	DIM1
	150 – 159	DIM2
	160 – 169	DIM3
	170 – 179	DIM4
	180 – 255	NO FUNCTION

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**PERSON1**

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CHANNEL	VALUE	FUNCTION
1	000 – 255	PAN
2	000 – 255	TILT
3	000 – 255	RED
4	000 – 255	GREEN
5	000 – 255	BLUE
6	000 – 255	WHITE
7	000 – 255	DIMMER
8		MACROS
	000 – 009	NO FUNCTION
	010 – 029	RED 100% / GREEN UP / BLUE 0%
	030 – 049	RED DOWN / GREEN 100% / BLUE UP
	050 – 069	RED 0% / GREEN 100% / BLUE UP
	070 – 089	RED 0% / GREEN DOWN / BLUE 100%
	090 – 109	RED UP / GREEN 0% / BLUE 100%
	110 – 129	RED 100% / GREEN 0% / BLUE DOWN
	130 – 149	RED 100% / GREEN UP / BLUE UP
	150 – 169	RED DOWN / GREEN DOWN / BLUE 100%
	170 – 189	ALL LED FULL OUTPUT
	190 – 199	2700K

	200 – 209	3200K
	210 – 219	4200K
	220 – 229	5600K
	230 – 239	6500K
	240 – 255	8000K
		A SINGLE POINT
	000 – 009	NO FUNCTION
	010 – 012	1
	013 – 015	2
	016 – 018	3
	019 – 021	4
	022 – 024	5
	025 – 027	6
	028 – 030	7
	031 – 033	8
	034 – 036	9
	037 – 039	10
	040 – 042	11
	043 – 045	12
	046 – 049	1, 2, 3
	050 – 053	5, 8, 11
	054 – 057	6, 7, 8, 9, 4, 12
	058 – 061	4, 5, 6
9	062 – 065	7, 8, 9
	066 – 069	10, 11, 12
	070 – 073	4, 5, 6, 7, 8, 9, 10, 11, 12
	074 – 077	1, 2, 3, 6, 7, 10, 12
	078 – 081	1, 2, 3, 4, 7, 8, 10
	082 – 085	1, 2, 3, 4, 7, 9, 12
	086 – 089	1-2-3
	090 – 093	1-3-2
	094 – 097	4-5-6-7-8-9-10-11-12
	098 – 101	12-11-10-9-8-7-6-5-4
	102 – 105	1-2-3-4-5-6-7-8-9-10-11-12
	106 – 109	12-11-10-9-8-7-6-5-4-3-2-1
	110 – 113	(1-2-3)+(12-11-10-9-8-7-6-5-4)
	114 – 117	(1-3-2)+(4-5-6-7-8-9-10-11-12)
	118 – 121	4, 5-6, 7-8, 9-10, 11-12, 4-5, 6-7, 8-9, 10-11, 12
	122 – 125	1, 2, 3-4, 5, 6, 7, 8, 9, 10, 11, 12
	126 – 129	1, 6, 7-2, 9, 10-3, 4, 12-8-11-5
	130 – 133	Set Inner Circle Red, Running 1-2-3 in 2700K
	134 – 137	Set Inner Circle Orange, Running 1-2-3 in

		2700K
	138 – 141	Set Inner Circle Yellow, Running 1-2-3 in 2700K
	142 – 145	Set Inner Circle Green, Running 1-2-3 in 2700K
	146 – 149	Set Inner Circle Cyan, Running 1-2-3 in 2700K
	150 – 153	Set Inner Circle Blue, Running 1-2-3 in 2700K
	154 – 157	Set Inner Circle Purple, Running 1-2-3 in 2700K
	158 – 161	Set Inner Circle Red, Running 1-2-3 in 5600K
	162 – 165	Set Inner Circle Orange, Running 1-2-3 in 5600K
	166 – 169	Set Inner Circle Yellow, Running 1-2-3 in 5600K
	170 – 173	Set Inner Circle Green, Running 1-2-3 in 5600K
	174 – 177	Set Inner Circle Cyan, Running 1-2-3 in 5600K
	178 – 181	Set Inner Circle Blue, Running 1-2-3 in 5600K
	182 – 185	Set Inner Circle Purple, Running 1-2-3 in 5600K
	186 – 189	Set Inner Circle Red, Running 4-12 in 2700K
	190 – 193	Set Inner Circle Orange, Running 4-12 in 2700K
	194 – 197	Set Inner Circle Yellow, Running 4-12 in 2700K
	198 – 201	Set Inner Circle Green, Running 4-12 in 2700K
	202 – 205	Set Inner Circle Cyan, Running 4-12 in 2700K
	206 – 209	Set Inner Circle Blue, Running 4-12 in 2700K
	210 – 213	Set Inner Circle Purple, Running 4-12 in 2700K
	214 – 217	Set Inner Circle Red, Running 4-12 in 5600K
	218 – 221	Set Inner Circle Orange, Running 4-12 in 5600K
	222 – 225	Set Inner Circle Yellow, Running 4-12 in 5600K
	226 – 229	Set Inner Circle Green, Running 4-12 in 5600K
	230 - 233	Set Inner Circle Cyan, Running 4-12 in 5600K
	234 – 237	Set Inner Circle Blue, Running 4-12 in 5600K
	238 – 241	Set Inner Circle Purple, Running 4-12 in 5600K
	242 – 245	Inner Circle Red, Outer Circle Blue, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
	246 – 249	Inner Circle Green, Outer Circle Red, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
	250 – 255	Inner Circle Blue, Outer Circle Yellow, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
10	000 – 255	AUTO SPEED (SLOW TO FAST)
11		STROBE
	000 – 009	NO FUNCTION
	010 – 099	STROBE (SLOW TO FAST, 0 – 25Hz)
	100 – 109	NO FUNCTION



	110 – 179	LIGHTNING STROBE
	180 – 189	NO FUNCTION
	190 – 255	RANDOM STROBE
12	000 – 255	ZOOM
13		CONTROL
	000 - 009	NO FUNCTION
	010 – 019	PAN/TILT BLACKOUT ON
	020 – 029	PAN/TILT BLACKOUT OFF
	030 – 039	FAN SLOW
	040 – 049	FAN NORMAL
	050 – 059	FAN FAST
	060 – 069	FAN AUTO
	070 – 079	AUTO1
	080 – 089	AUTO2
	090 – 099	CUSTOM
	100 – 109	TEST
	110 – 119	RESET
	120 – 129	NO FUNCTION
	130 – 139	DIM0
	140 – 149	DIM1
	150 – 159	DIM2
160 – 169	DIM3	
170 – 179	DIM4	
	180 – 255	NO FUNCTION

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**PERSON2 (XE)**

CHANNEL	VALUE	FUNCTION
1	000 – 255	PAN
2	000 – 255	PAN FINE
3	000 – 255	TILT
4	000 – 255	TILT FINE
5	000 – 255	PT SPEED
6	000 – 255	RED
7	000 – 255	RED FINE
8	000 – 255	GREEN
9	000 – 255	GREEN FINE
10	000 – 255	BLUE

11	000 – 255	BLUE FINE
12	000 – 255	WHITE
13	000 – 255	WHITE FINE
14	000 – 255	DIMMER
15	000 – 255	DIMMER FINE
16		MACROS
	000 – 009	NO FUNCTION
	010 – 029	RED 100% / GREEN UP / BLUE 0%
	030 – 049	RED DOWN / GREEN 100% / BLUE UP
	050 – 069	RED 0% / GREEN 100% / BLUE UP
	070 – 089	RED 0% / GREEN DOWN / BLUE 100%
	090 – 109	RED UP / GREEN 0% / BLUE 100%
	110 – 129	RED 100% / GREEN 0% / BLUE DOWN
	130 – 149	RED 100% / GREEN UP / BLUE UP
	150 – 169	RED DOWN / GREEN DOWN / BLUE 100%
	170 – 189	ALL LED FULL OUTPUT
	190 – 199	2700K
	200 – 209	3200K
	210 – 219	4200K
	220 – 229	5600K
	230 – 239	6500K
	240 – 255	8000K
17		A SINGLE POINT
	000 – 009	NO FUNCTION
	010 – 012	1
	013 – 015	2
	016 – 018	3
	019 – 021	4
	022 – 024	5
	025 – 027	6
	028 – 030	7
	031 – 033	8
	034 – 036	9
	037 – 039	10
	040 – 042	11
	043 – 045	12
	046 – 049	1, 2, 3
	050 – 053	5, 8, 11
	054 – 057	6, 7, 8, 9, 4, 12
	058 – 061	4, 5, 6
	062 – 065	7, 8, 9
066 – 069	10, 11, 12	

070 – 073	4, 5, 6, 7, 8, 9, 10, 11, 12
074 – 077	1, 2, 3, 6, 7, 10, 12
078 – 081	1, 2, 3, 4, 7, 8, 10
082 – 085	1, 2, 3, 4, 7, 9, 12
086 – 089	1-2-3
090 – 093	1-3-2
094 – 097	4-5-6-7-8-9-10-11-12
098 – 101	12-11-10-9-8-7-6-5-4
102 – 105	1-2-3-4-5-6-7-8-9-10-11-12
106 – 109	12-11-10-9-8-7-6-5-4-3-2-1
110 – 113	(1-2-3)+(12-11-10-9-8-7-6-5-4)
114 – 117	(1-3-2)+(4-5-6-7-8-9-10-11-12)
118 – 121	4, 5-6, 7-8, 9-10, 11-12, 4-5, 6-7, 8-9, 10-11, 12
122 – 125	1, 2, 3-4, 5, 6, 7, 8, 9, 10, 11, 12
126 – 129	1, 6, 7-2, 9, 10-3, 4, 12-8-11-5
130 – 133	Set Inner Circle Red, Running 1-2-3 in 2700K
134 – 137	Set Inner Circle Orange, Running 1-2-3 in 2700K
138 – 141	Set Inner Circle Yellow, Running 1-2-3 in 2700K
142 – 145	Set Inner Circle Green, Running 1-2-3 in 2700K
146 – 149	Set Inner Circle Cyan, Running 1-2-3 in 2700K
150 – 153	Set Inner Circle Blue, Running 1-2-3 in 2700K
154 – 157	Set Inner Circle Purple, Running 1-2-3 in 2700K
158 – 161	Set Inner Circle Red, Running 1-2-3 in 5600K
162 – 165	Set Inner Circle Orange, Running 1-2-3 in 5600K
166 – 169	Set Inner Circle Yellow, Running 1-2-3 in 5600K
170 – 173	Set Inner Circle Green, Running 1-2-3 in 5600K
174 – 177	Set Inner Circle Cyan, Running 1-2-3 in 5600K
178 – 181	Set Inner Circle Blue, Running 1-2-3 in 5600K
182 – 185	Set Inner Circle Purple, Running 1-2-3 in 5600K
186 – 189	Set Inner Circle Red, Running 4-12 in 2700K
190 – 193	Set Inner Circle Orange, Running 4-12 in 2700K
194 – 197	Set Inner Circle Yellow, Running 4-12 in 2700K
198 – 201	Set Inner Circle Green, Running 4-12 in 2700K
202 – 205	Set Inner Circle Cyan, Running 4-12 in 2700K
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218 – 221	Set Inner Circle Orange, Running 4-12 in 5600K
222 – 225	Set Inner Circle Yellow, Running 4-12 in 5600K
226 – 229	Set Inner Circle Green, Running 4-12 in 5600K

	230 - 233	Set Inner Circle Cyan, Running 4-12 in 5600K
	234 - 237	Set Inner Circle Blue, Running 4-12 in 5600K
	238 - 241	Set Inner Circle Purple, Running 4-12 in 5600K
	242 - 245	Inner Circle Red, Outer Circle Blue, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
	246 - 249	Inner Circle Green, Outer Circle Red, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
	250 - 255	Inner Circle Blue, Outer Circle Yellow, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
18	000 - 255	AUTO SPEED (SLOW TO FAST)
19		STROBE
	000 - 009	NO FUNCTION
	010 - 099	STROBE (SLOW TO FAST, 0 - 25Hz)
	100 - 109	NO FUNCTION
	110 - 179	LIGHTNING STROBE
	180 - 189	NO FUNCTION
	190 - 255	RANDOM STROBE
20	000 - 255	ZOOM
21		CONTROL
	000 - 009	NO FUNCTION
	010 - 019	PAN/TILT BLACKOUT ON
	020 - 029	PAN/TILT BLACKOUT OFF
	030 - 039	FAN SLOW
	040 - 049	FAN NORMAL
	050 - 059	FAN FAST
	060 - 069	FAN AUTO
	070 - 079	AUTO1
	080 - 089	AUTO2
	090 - 099	CUSTOM
	100 - 109	TEST
	110 - 119	RESET
	120 - 129	NO FUNCTION
	130 - 139	DIM0
	140 - 149	DIM1
	150 - 159	DIM2
	160 - 169	DIM3
170 - 179	DIM4	
180 - 255	NO FUNCTION	

**PERSON2 (CCS3)**

<b>CHANNEL</b>	<b>VALUE</b>	<b>FUNCTION</b>
1	000 – 255	PAN
2	000 – 255	PAN FINE
3	000 – 255	TILT
4	000 – 255	TILT FINE
5	000 – 255	PT SPEED
6	000 – 255	RED
7	000 – 255	RED FINE
8	000 – 255	GREEN
9	000 – 255	GREEN FINE
10	000 – 255	BLUE
11	000 – 255	BLUE FINE
12	000 – 255	WHITE
13	000 – 255	WHITE FINE
14	000 – 255	DIMMER
15	000 – 255	DIMMER FINE
16	000 – 255	PRESET COLOUR (See Annex 1)
17		CCT
	000 – 009	NO FUNCTION
	010 – 040	2700K
	041 – 080	3200K
	081 – 120	4200K
	121 – 160	5600K
	161 – 200	6500K
	201 – 255	8000K
18		A SINGLE POINT
	000 – 009	NO FUNCTION
	010 – 012	1
	013 – 015	2
	016 – 018	3
	019 – 021	4
	022 – 024	5
	025 – 027	6
	028 – 030	7
	031 – 033	8
	034 – 036	9
	037 – 039	10

040 – 042	11
043 – 045	12
046 – 049	1, 2, 3
050 – 053	5, 8, 11
054 – 057	6, 7, 8, 9, 4, 12
058 – 061	4, 5, 6
062 – 065	7, 8, 9
066 – 069	10, 11, 12
070 – 073	4, 5, 6, 7, 8, 9, 10, 11, 12
074 – 077	1, 2, 3, 6, 7, 10, 12
078 – 081	1, 2, 3, 4, 7, 8, 10
082 – 085	1, 2, 3, 4, 7, 9, 12
086 – 089	1-2-3
090 – 093	1-3-2
094 – 097	4-5-6-7-8-9-10-11-12
098 – 101	12-11-10-9-8-7-6-5-4
102 – 105	1-2-3-4-5-6-7-8-9-10-11-12
106 – 109	12-11-10-9-8-7-6-5-4-3-2-1
110 – 113	(1-2-3)+(12-11-10-9-8-7-6-5-4)
114 – 117	(1-3-2)+(4-5-6-7-8-9-10-11-12)
118 – 121	4, 5-6, 7-8, 9-10, 11-12, 4-5, 6-7, 8-9, 10-11, 12
122 – 125	1, 2, 3-4, 5, 6, 7, 8, 9, 10, 11, 12
126 – 129	1, 6, 7-2, 9, 10-3, 4, 12-8-11-5
130 – 133	Set Inner Circle Red, Running 1-2-3 in 2700K
134 – 137	Set Inner Circle Orange, Running 1-2-3 in 2700K
138 – 141	Set Inner Circle Yellow, Running 1-2-3 in 2700K
142 – 145	Set Inner Circle Green, Running 1-2-3 in 2700K
146 – 149	Set Inner Circle Cyan, Running 1-2-3 in 2700K
150 – 153	Set Inner Circle Blue, Running 1-2-3 in 2700K
154 – 157	Set Inner Circle Purple, Running 1-2-3 in 2700K
158 – 161	Set Inner Circle Red, Running 1-2-3 in 5600K
162 – 165	Set Inner Circle Orange, Running 1-2-3 in 5600K
166 – 169	Set Inner Circle Yellow, Running 1-2-3 in 5600K
170 – 173	Set Inner Circle Green, Running 1-2-3 in 5600K
174 – 177	Set Inner Circle Cyan, Running 1-2-3 in 5600K
178 – 181	Set Inner Circle Blue, Running 1-2-3 in 5600K
182 – 185	Set Inner Circle Purple, Running 1-2-3 in 5600K
186 – 189	Set Inner Circle Red, Running 4-12 in 2700K
190 – 193	Set Inner Circle Orange, Running 4-12 in 2700K
194 – 197	Set Inner Circle Yellow, Running 4-12 in 2700K

	198 – 201	Set Inner Circle Green, Running 4-12 in 2700K
	202 – 205	Set Inner Circle Cyan, Running 4-12 in 2700K
	206 – 209	Set Inner Circle Blue, Running 4-12 in 2700K
	210 – 213	Set Inner Circle Purple, Running 4-12 in 2700K
	214 – 217	Set Inner Circle Red, Running 4-12 in 5600K
	218 – 221	Set Inner Circle Orange, Running 4-12 in 5600K
	222 – 225	Set Inner Circle Yellow, Running 4-12 in 5600K
	226 – 229	Set Inner Circle Green, Running 4-12 in 5600K
	230 - 233	Set Inner Circle Cyan, Running 4-12 in 5600K
	234 – 237	Set Inner Circle Blue, Running 4-12 in 5600K
	238 – 241	Set Inner Circle Purple, Running 4-12 in 5600K
	242 – 245	Inner Circle Red, Outer Circle Blue, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
	246 – 249	Inner Circle Green, Outer Circle Red, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
	250 – 255	Inner Circle Blue, Outer Circle Yellow, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
19	000 – 255	AUTO SPEED (SLOW TO FAST)
		STROBE
	000 – 009	NO FUNCTION
	010 – 099	STROBE (SLOW TO FAST, 0 – 25Hz)
20	100 – 109	NO FUNCTION
	110 – 179	LIGHTNING STROBE
	180 – 189	NO FUNCTION
	190 – 255	RANDOM STROBE
21	000 – 255	ZOOM
		CONTROL
	000 - 009	NO FUNCTION
	010 – 019	PAN/TILT BLACKOUT ON
	020 – 029	PAN/TILT BLACKOUT OFF
	030 – 039	FAN SLOW
	040 – 049	FAN NORMAL
	050 – 059	FAN FAST
	060 – 069	FAN AUTO
	070 – 079	AUTO1
	080 – 089	AUTO2
	090 – 099	CUSTOM
	100 – 109	TEST
22	110 – 119	RESET

	120 – 129	NO FUNCTION
	130 – 139	DIM0
	140 – 149	DIM1
	150 – 159	DIM2
	160 – 169	DIM3
	170 – 179	DIM4
	180 – 255	NO FUNCTION

CMY

CHANNEL	VALUE	FUNCTION
1	000 – 255	PAN
2	000 – 255	PAN FINE
3	000 – 255	TILT
4	000 – 255	TILT FINE
5	000 – 255	PT SPEED
6	000 – 255	CYAN
7	000 – 255	MAGENTA
8	000 – 255	YELLOW
9	000 – 255	DIMMER
10		MACROS
	000 – 009	NO FUNCTION
	010 – 029	RED 100% / GREEN UP / BLUE 0%
	030 – 049	RED DOWN / GREEN 100% / BLUE UP
	050 – 069	RED 0% / GREEN 100% / BLUE UP
	070 – 089	RED 0% / GREEN DOWN / BLUE 100%
	090 – 109	RED UP / GREEN 0% / BLUE 100%
	110 – 129	RED 100% / GREEN 0% / BLUE DOWN
	130 – 149	RED 100% / GREEN UP / BLUE UP
	150 – 169	RED DOWN / GREEN DOWN / BLUE 100%
	170 – 189	ALL LED FULL OUTPUT
	190 – 199	2700K
	200 – 209	3200K
	210 – 219	4200K
	220 – 229	5600K
	230 – 239	6500K
240 – 255	8000K	



	A SINGLE POINT
000 – 009	NO FUNCTION
010 – 012	1
013 – 015	2
016 – 018	3
019 – 021	4
022 – 024	5
025 – 027	6
028 – 030	7
031 – 033	8
034 – 036	9
037 – 039	10
040 – 042	11
043 – 045	12
046 – 049	1, 2, 3
050 – 053	5, 8, 11
054 – 057	6, 7, 8, 9, 4, 12
058 – 061	4, 5, 6
062 – 065	7, 8, 9
066 – 069	10, 11, 12
070 – 073	4, 5, 6, 7, 8, 9, 10, 11, 12
074 – 077	1, 2, 3, 6, 7, 10, 12
078 – 081	1, 2, 3, 4, 7, 8, 10
082 – 085	1, 2, 3, 4, 7, 9, 12
086 – 089	1-2-3
090 – 093	1-3-2
094 – 097	4-5-6-7-8-9-10-11-12
098 – 101	12-11-10-9-8-7-6-5-4
102 – 105	1-2-3-4-5-6-7-8-9-10-11-12
106 – 109	12-11-10-9-8-7-6-5-4-3-2-1
110 – 113	(1-2-3)+(12-11-10-9-8-7-6-5-4)
114 – 117	(1-3-2)+(4-5-6-7-8-9-10-11-12)
118 – 121	4, 5-6, 7-8, 9-10, 11-12, 4-5, 6-7, 8-9, 10-11, 12
122 – 125	1, 2, 3-4, 5, 6, 7, 8, 9, 10, 11, 12
126 – 129	1, 6, 7-2, 9, 10-3, 4, 12-8-11-5
130 – 133	Set Inner Circle Red, Running 1-2-3 in 2700K
134 – 137	Set Inner Circle Orange, Running 1-2-3 in 2700K
138 – 141	Set Inner Circle Yellow, Running 1-2-3 in 2700K
142 – 145	Set Inner Circle Green, Running 1-2-3 in 2700K
146 – 149	Set Inner Circle Cyan, Running 1-2-3 in 2700K
150 – 153	Set Inner Circle Blue, Running 1-2-3 in 2700K

	154 – 157	Set Inner Circle Purple, Running 1-2-3 in 2700K
	158 – 161	Set Inner Circle Red, Running 1-2-3 in 5600K
	162 – 165	Set Inner Circle Orange, Running 1-2-3 in 5600K
	166 – 169	Set Inner Circle Yellow, Running 1-2-3 in 5600K
	170 – 173	Set Inner Circle Green, Running 1-2-3 in 5600K
	174 – 177	Set Inner Circle Cyan, Running 1-2-3 in 5600K
	178 – 181	Set Inner Circle Blue, Running 1-2-3 in 5600K
	182 – 185	Set Inner Circle Purple, Running 1-2-3 in 5600K
	186 – 189	Set Inner Circle Red, Running 4-12 in 2700K
	190 – 193	Set Inner Circle Orange, Running 4-12 in 2700K
	194 – 197	Set Inner Circle Yellow, Running 4-12 in 2700K
	198 – 201	Set Inner Circle Green, Running 4-12 in 2700K
	202 – 205	Set Inner Circle Cyan, Running 4-12 in 2700K
	206 – 209	Set Inner Circle Blue, Running 4-12 in 2700K
	210 – 213	Set Inner Circle Purple, Running 4-12 in 2700K
	214 – 217	Set Inner Circle Red, Running 4-12 in 5600K
	218 – 221	Set Inner Circle Orange, Running 4-12 in 5600K
	222 – 225	Set Inner Circle Yellow, Running 4-12 in 5600K
	226 – 229	Set Inner Circle Green, Running 4-12 in 5600K
	230 - 233	Set Inner Circle Cyan, Running 4-12 in 5600K
	234 – 237	Set Inner Circle Blue, Running 4-12 in 5600K
	238 – 241	Set Inner Circle Purple, Running 4-12 in 5600K
	242 – 245	Inner Circle Red, Outer Circle Blue, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
	246 – 249	Inner Circle Green, Outer Circle Red, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
	250 – 255	Inner Circle Blue, Outer Circle Yellow, Inner Circle 1-3-2 running, outer circle 4-12 running in 10000K
		STROBE
12	000 – 009	NO FUNCTION
	010 – 099	STROBE (SLOW TO FAST, 0 – 25Hz)
	100 – 109	NO FUNCTION
	110 – 179	LIGHTNING STROBE
	180 – 189	NO FUNCTION
	190 – 255	RANDOM STROBE
	13	000 – 255
14		CONTROL
	000 - 009	NO FUNCTION

	010 – 019	PAN/TILT BLACKOUT ON
	020 – 029	PAN/TILT BLACKOUT OFF
	030 – 039	FAN SLOW
	040 – 049	FAN NORMAL
	050 – 059	FAN FAST
	060 – 069	FAN AUTO
	070 – 079	AUTO1
	080 – 089	AUTO2
	090 – 099	CUSTOM
	100 – 109	TEST
	110 – 119	RESET
	120 – 129	NO FUNCTION
	130 – 139	DIM0
	140 – 149	DIM1
	150 – 159	DIM2
	160 – 169	DIM3
	170 – 179	DIM4
	180 – 255	NO FUNCTION

PIXEL

CHANNEL	VALUE	FUNCTION
1	000 – 255	PAN
2	000 – 255	PAN FINE
3	000 – 255	TILT
4	000 – 255	TILT FINE
5	000 – 255	PT SPEED
6	000 – 255	DIMMER
7		STROBE
	000 – 009	NO FUNCTION
	010 – 099	STROBE (SLOW TO FAST, 0 – 25Hz)
	100 – 109	NO FUNCTION
	110 – 179	LIGHTNING STROBE
	180 – 189	NO FUNCTION
	190 – 255	RANDOM STROBE
8	000 – 255	ZOOM

		CONTROL
	000 - 009	NO FUNCTION
	010 - 019	PAN/TILT BLACKOUT ON
	020 - 029	PAN/TILT BLACKOUT OFF
	030 - 039	FAN SLOW
	040 - 049	FAN NORMAL
	050 - 059	FAN FAST
	060 - 069	FAN AUTO
	070 - 079	AUTO1
	080 - 089	AUTO2
	090 - 099	CUSTOM
	100 - 109	TEST
	110 - 119	RESET
	120 - 129	NO FUNCTION
	130 - 139	DIM0
	140 - 149	DIM1
	150 - 159	DIM2
	160 - 169	DIM3
	170 - 179	DIM4
	180 - 255	NO FUNCTION
9		
10	000 - 255	RED1
11	000 - 255	BLUE1
12	000 - 255	GREEN1
13	000 - 255	WHITE1
14	000 - 255	RED2
15	000 - 255	BLUE2
16	000 - 255	GREEN2
17	000 - 255	WHITE2
18	000 - 255	RED3
19	000 - 255	BLUE3
20	000 - 255	GREEN3
21	000 - 255	WHITE3
22	000 - 255	RED4
23	000 - 255	BLUE4
24	000 - 255	GREEN4
25	000 - 255	WHITE4
26	000 - 255	RED5
27	000 - 255	BLUE5
28	000 - 255	GREEN5
29	000 - 255	WHITE5
30	000 - 255	RED6
31	000 - 255	BLUE6

32	000 – 255	GREEN6
33	000 – 255	WHITE6
34	000 – 255	RED7
35	000 – 255	BLUE7
36	000 – 255	GREEN7
37	000 – 255	WHITE7
38	000 – 255	RED8
39	000 – 255	BLUE8
40	000 – 255	GREEN8
41	000 – 255	WHITE8
42	000 – 255	RED9
43	000 – 255	BLUE9
44	000 – 255	GREEN9
45	000 – 255	WHITE9
46	000 – 255	RED10
47	000 – 255	BLUE10
48	000 – 255	GREEN10
49	000 – 255	WHITE10
50	000 – 255	RED11
51	000 – 255	BLUE11
52	000 – 255	GREEN11
53	000 – 255	WHITE11
54	000 – 255	RED12
55	000 – 255	BLUE12
56	000 – 255	GREEN12
57	000 – 255	WHITE12

## Annex 1

PRESET COLOR	Value	Color Names		x	y
	0-10	NO FUNCTION			
COLOR 1	11-15	L176	Loving Amber	0.407	0.321
COLOR 2	16-20	R40	Light Salmon	0.499	0.321
COLOR 3	21-25	L24	Scarlet	0.561	0.296
COLOR 4	26-30	L164	Flame Red	0.659	0.302
COLOR 5	31-35	L747	Easy White	0.389	0.344
COLOR 6	36-40	R303	Warm Peach	0.448	0.353
COLOR 7	41-45	L08	Dark Salmon	0.498	0.347
COLOR 8	46-50	L25	Sunset Red	0.566	0.359
COLOR 9	51-55	L04	Medium Bastard Amber	0.37	0.335
COLOR 10	56-60	L237	CID (To Tungsten)	0.43	0.365
COLOR 11	61-65	R321	Soft Golden Amber	0.477	0.406
COLOR 12	66-70	L652	Urban Sodium	0.535	0.399
COLOR 13	71-75	L212	LCT Yellow(Y1)	0.34	0.363
COLOR 14	76-80	L765	LEE Yellow	0.389	0.412
COLOR 15	81-85	L513	Ice And A Slice	0.38	0.447
COLOR 16	86-90	L100	Spring Yellow	0.41	0.502
COLOR 17	91-95	L244	LEE Plus Green	0.324	0.388
COLOR 18	96-100	R4430	CalColor 30 Green	0.318	0.44
COLOR 19	101-105	L122	Fern Green	0.234	0.543
COLOR 20	106-110	L90	Dark Yellow Green	0.184	0.641
COLOR 21	111-115	L243	LEE Fluorescent3600K	0.286	0.37
COLOR 22	116-120	R92	Turquoise	0.235	0.36
COLOR 23	121-125	R94	Kelly Green	0.185	0.459
COLOR 24	126-130	L327	Forest Green	0.162	0.496
COLOR 25	131-135	L191	Cosmetic Aqua Blue	0.3	0.318
COLOR 26	136-140	L728	Steel Green	0.256	0.302
COLOR 27	141-145	L117	Steel Blue	0.223	0.278
COLOR 28	146-150	L354	Special Steel Blue	0.173	0.265
COLOR 29	151-155	L53	Paler Lavender	0.284	0.284
COLOR 30	156-160	L501	New Colour Blue	0.246	0.249
COLOR 31	161-165	L174	Dark Steel Blue	0.204	0.205
COLOR 32	166-170	L165	Daylight Blue	0.159	0.158
COLOR 33	171-175	L136	Pale Lavender	0.288	0.254
COLOR 34	176-180	L194	Surprise Pink	0.24	0.183
COLOR 35	181-185	L142	Pale Violet	0.209	0.148
COLOR 36	186-190	L700	Perfect Lavender	0.177	0.07
COLOR 37	191-195	L35	Light Pink	0.335	0.289
COLOR 38	196-200	L794	Pretty'n Pink	0.335	0.251
COLOR 39	201-205	L328	Follies Pink	0.335	0.18
COLOR 40	206-210	L795	Magical Magenta	0.327	0.138
COLOR 41	211-215	L154	Pale Rose	0.35	0.318
COLOR 42	216-220	L127	Smokey Pink	0.397	0.265
COLOR 43	221-225	L192	Flesh Pink	0.41	0.237
COLOR 44	226-230	L332	Special Rose Pink	0.465	0.193
COLOR 45	231-235	L790	Moroccan Pink	0.378	0.324
COLOR 46	236-240	L157	Pink	0.457	0.272
COLOR 47	241-245	R332	Cherry Rose	0.489	0.295
COLOR 48	246-250	L128	Cool LED Bright Pink	0.57	0.263
	251-255	NO FUNCTION			