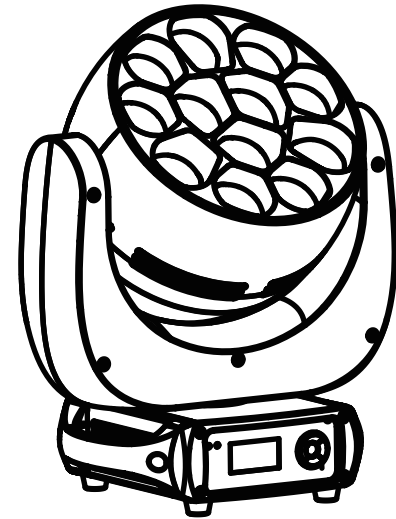




LEDING



DYNAMO 12
USER MANUAL

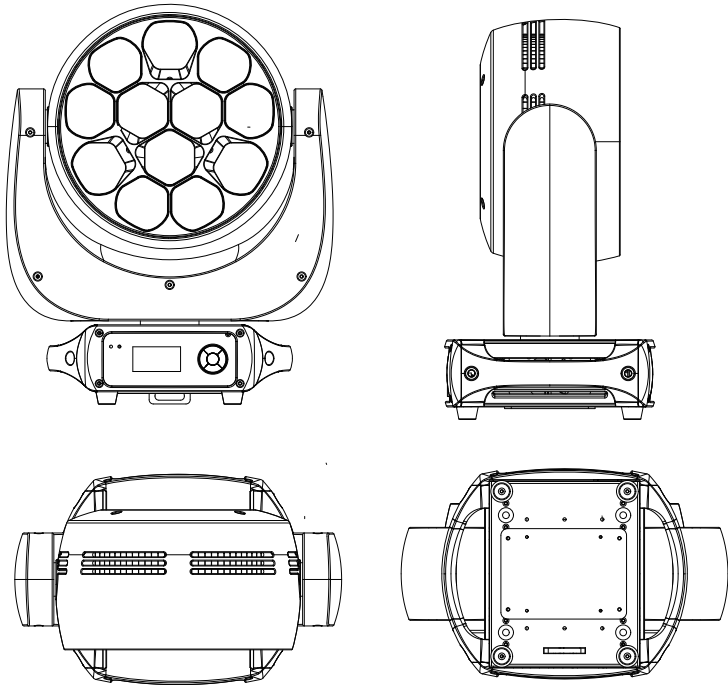
1 PRODUCT SPECIFICATIONS

1.1 PRODUCT SPECIFICATIONS

Electrical

- ◆ Voltage: 100V-240V~, 50/60Hz
- ◆ Max Power: 460W
- ◆ Size: 478x390x251mm
- ◆ Weight: 15kg

1.2 PRODUCT FEATURES



1.3 SAFETY WARNING

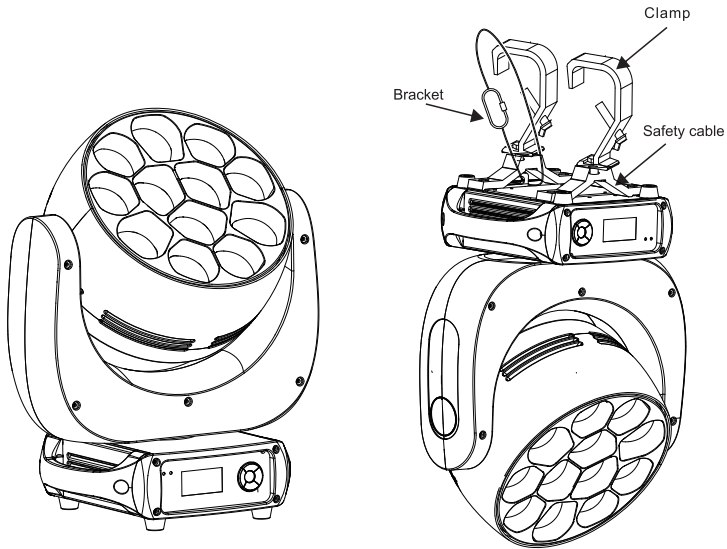
IMPORTANT:

- 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.

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.

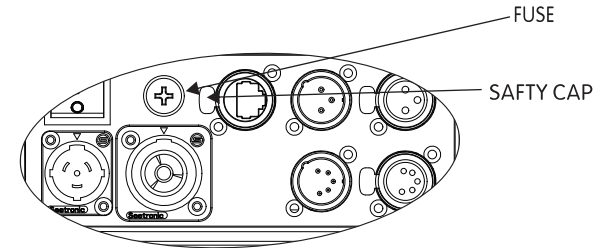


IMPORTANT SAFETY NOTE!!

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

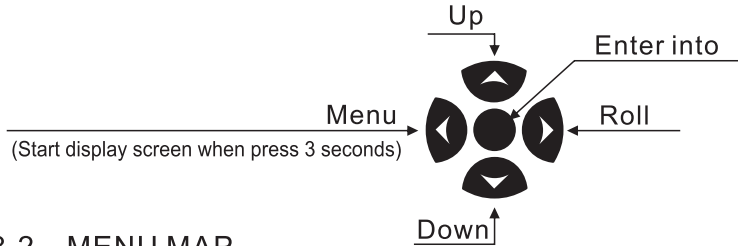
- 220~240V: 5 units may be connected in series
- 110~120V: 2 units may be connected in series

Note:

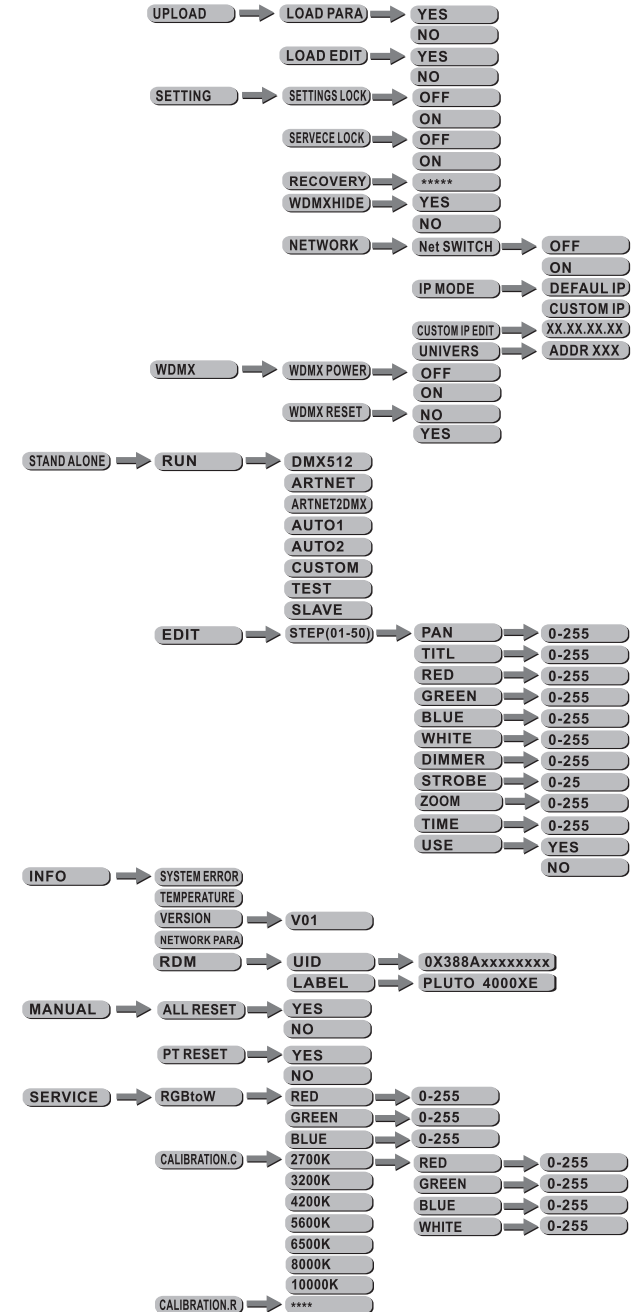
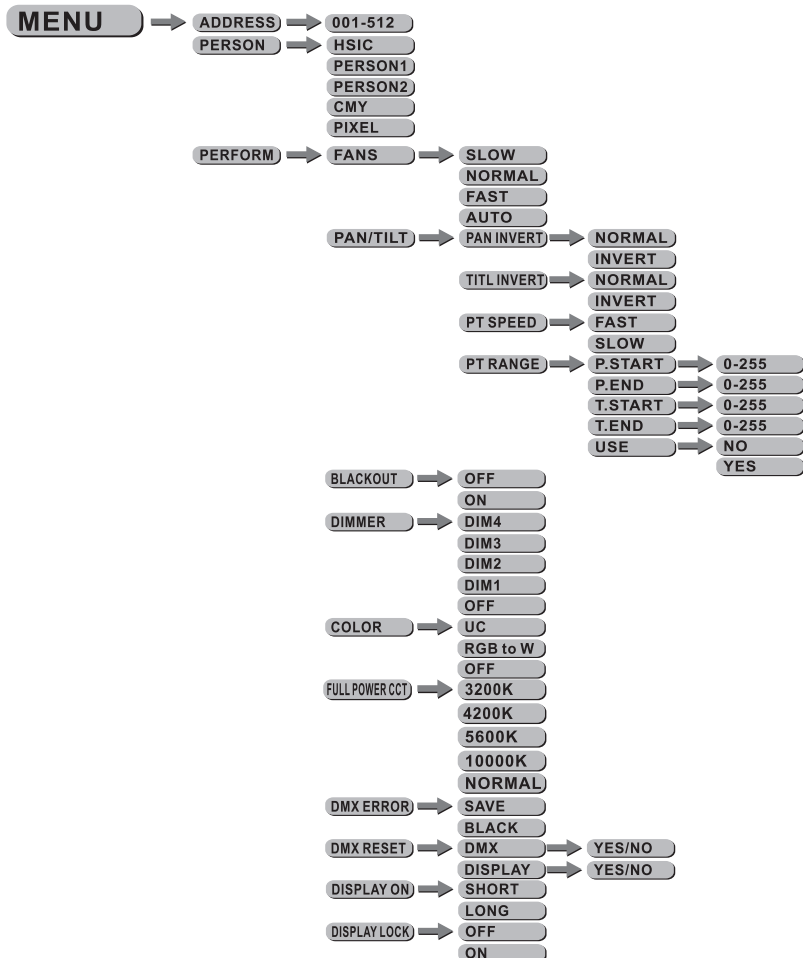
If the signal cable is over 60m between the DMX512 controller and fixture or between two fixtures, then a DMX signal amplifier is needed as well.

3 DISPLAY PANEL OPERATION

3.1 DISPLAY OPERATION



3.2 MENU MAP

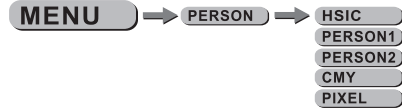


3.3 DMX512 SETTINGS



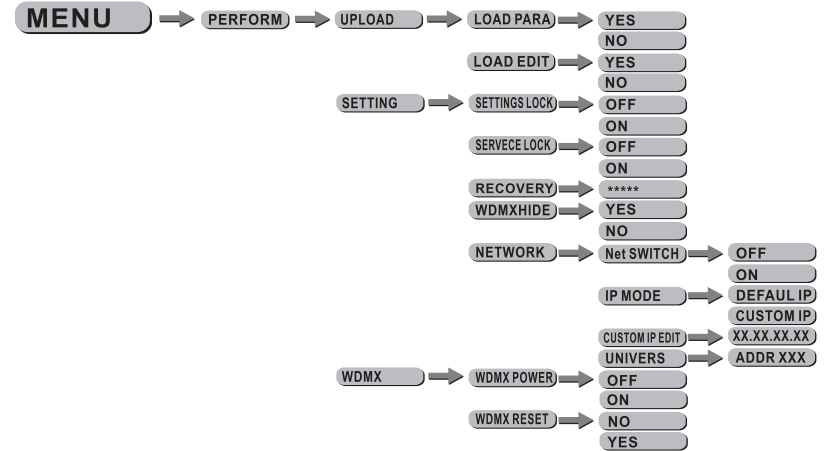
- Enter the **【DMX】** mode to set the DMX ADDRESS.

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.
- **【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】** .
- **【DMX ERROR】** menu, select **【SAVE】** to maintain last command in case of DMX error or **【BLACK】** for blackout
- **【DMX RESET】** 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

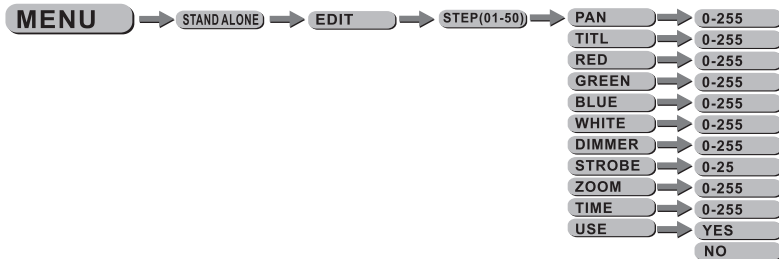
- **【SETTING】** is a protect bottom, **【 SETTINGS LOCK】** is the menu lock bottom, choose **【OFF】** means the menu lock bottom is off, choose **【ON】** means the menu lock bottom is on **【RECOVERY】** is the recover to default value. Press **【ENTER】** to password setting, press correct password **【UP+DOWN+UP+DOWN】** ,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



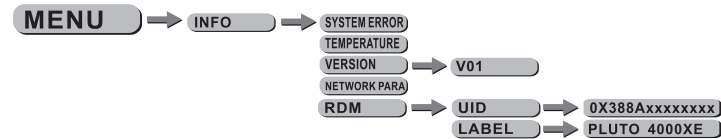
- Enter the **【 EDIT 】** mode to edit the custom programs by adjusting the value of **【PAN】** , **【TILT】** , **【RED】** , **【GREEN】** , **【BLUE】** , **【WHITE】** , **【DIMMER】** , **【STROBE】** , **【ZOOM】** , **【 TIME】**
- Enter **【 USE】** and select **【YES】** to run the steps user need.

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 **【Time】** = 4 **【 Use】** = Yes
 Step 2 **【Time】** = 5 **【 Use】** = Yes
 Step 3 **【Time】** = 0 **【 Use】** = Yes

3.8 INFO



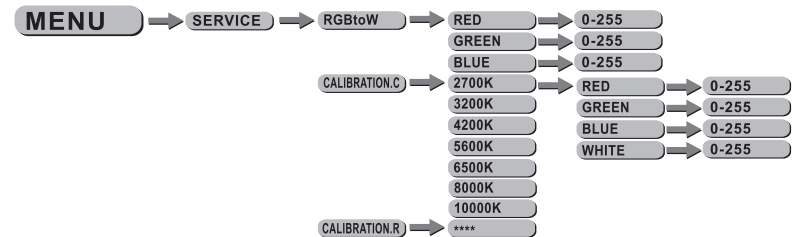
- push **【OK】** button into the information search mode in menu **【INFO】** , push **【up/down】** to choose item.
 Choose **【SYSTEM ERROR】** system data error .
 Choose **【TEMPERATURE】** LED working temperature
 Choose **【 VERSION】** software version
 Choose **【NETWORK PARA】** check network specification
 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】 .

HSIC

CHANNEL	VALUE	FUNCTION
1	0 ⇄ 255	PAN
2	0 ⇄ 255	PAN FINE
3	0 ⇄ 255	TITL
4	0 ⇄ 255	TITL FINE
5	0 ⇄ 255	PT SPEED
6	0 ⇄ 255	INTENSIYT
7	0 ⇄ 255	HUE
8	0 ⇄ 255	HUE FINE
9	0 ⇄ 255	SATURATION
10		CCT
	0 ⇄ 9	NO FUNCTION
	10 ⇄ 40	2700K
	41 ⇄ 80	3200K
	81 ⇄ 120	4200K
	121 ⇄ 160	5600K
	161 ⇄ 200	6500K
	201 ⇄ 255	8000K
11		STROBE
	0 ⇄ 9	NO FUNCTION
	10 ⇄ 99	STROBE FROM (SLOD TO FAST , 0-25Hz)
	100 ⇄ 109	NO FUNCTION
	110 ⇄ 179	LIGHTNING STROBE
	180 ⇄ 189	NO FUNCTION
	190 ⇄ 255	RANDOM SROBE
12	0 ⇄ 255	ZOOM

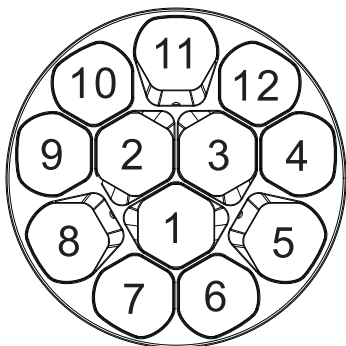
CHANNEL	VALUE	FUNCTION
		CONTROL
13	0 ⇄ 9	NO FUNCTION
	10 ⇄ 19	PAN/TILT BLACK ACTIVATED
	20 ⇄ 29	PAN/TILT BLACK DEACTIVATED
	30 ⇄ 39	FAN SLOW
	40 ⇄ 49	FAN NORMAL
	50 ⇄ 59	FAN FAST
	60 ⇄ 69	FAN AUTO
	70 ⇄ 79	AUTO1
	80 ⇄ 89	AUTO2
	90 ⇄ 99	CUSTOM
	100 ⇄ 109	TEST
	110 ⇄ 119	RESET
	120 ⇄ 129	NO FUNCTION
	130 ⇄ 139	DIM0
	140 ⇄ 149	DIM1
	150 ⇄ 159	DIM2
	160 ⇄ 169	DIM3
	170 ⇄ 179	DIM4
180 ⇄ 255	NO FUNCTION	

PERSON1

CHANNEL	VALUE	FUNCTION
1	0 ↔ 255	PAN
2	0 ↔ 255	TITL
3	0 ↔ 255	RED
4	0 ↔ 255	GREEN
5	0 ↔ 255	BLUE
6	0 ↔ 255	WHITE
7	0 ↔ 255	DIMMER
8		MARCOS
	0 ↔ 9	NO FUNCTION
	10 ↔ 29	RED 100% / GREEN UP / BLUE 0%
	30 ↔ 49	RED DOWN / GREEN 100% / BLUE 0%
	50 ↔ 69	RED 0% / GREEN 100% / BLUE UP
	70 ↔ 89	RED 0% / GREEN DOWN / BLUE 100%
	90 ↔ 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 AT FULL OUTPUT
	190 ↔ 199	2700K
	200 ↔ 209	3200K
	210 ↔ 219	4200K
	220 ↔ 229	5600K
	230 ↔ 239	6500K
	240 ↔ 255	8000K
9		A SINGLE POINT
	0 ↔ 9	NO FUNCTION
	10 ↔ 12	1
	13 ↔ 15	2
	16 ↔ 18	3
	19 ↔ 21	4
	22 ↔ 24	5
	25 ↔ 27	6
	28 ↔ 30	7
	31 ↔ 33	8
	34 ↔ 36	9
	37 ↔ 39	10
	40 ↔ 42	11
	43 ↔ 45	12
	46 ↔ 49	1,2,3
	50 ↔ 53	5,8,11
	54 ↔ 57	6,7,8,9,4,12
	58 ↔ 61	4,5,6
	62 ↔ 65	7,8,9
	66 ↔ 69	10,11,12

CHANNEL	VALUE	FUNCTION
9	70 ↔ 73	4,5,6,7,8,9,10,11,12
	74 ↔ 77	1,2,3,6,7,10,12
	78 ↔ 81	1,2,3,4,6,8,10
	82 ↔ 85	1,2,3,4,7,9,12
	86 ↔ 89	1-2-3
	90 ↔ 93	1-3-2
	94 ↔ 97	4-5-6-7-8-9-10-11-12
	98 ↔ 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 maple, 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	Et 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 maple, 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 maple, 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 maple, 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	

CHANNEL	VALUE	FUNCTION
10	0 ↔ 255	AUTO SPEED (Slow to Fast)
		STROBE
11	0 ↔ 9	NO FUNCTION
	10 ↔ 99	STROBE FROM (SLOD TO FAST , 0-25Hz)
	100 ↔ 109	NO FUNCTION
	110 ↔ 179	LIGHTNING STROBE
	180 ↔ 189	NO FUNCTION
	190 ↔ 255	RANDOM SROBE
12	0 ↔ 255	ZOOM
		CONTROL
13	0 ↔ 9	NO FUNCTION
	10 ↔ 19	PAN/TILT BLACK ACTIVATED
	20 ↔ 29	PAN/TILT BLACK DEACTIVATED
	30 ↔ 39	FAN SLOW
	40 ↔ 49	FAN NORMAL
	50 ↔ 59	FAN FAST
	60 ↔ 69	FAN AUTO
	70 ↔ 79	AUTO1
	80 ↔ 89	AUTO2
	90 ↔ 99	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

CHANNEL	VALUE	FUNCTION
1	0 ↔ 255	PAN
2	0 ↔ 255	PAN FINE
3	0 ↔ 255	TITL
4	0 ↔ 255	TITL FINE
5	0 ↔ 255	PT SPEED
6	0 ↔ 255	RED
7	0 ↔ 255	RED FINE
8	0 ↔ 255	GREEN
9	0 ↔ 255	GREEN FINE
10	0 ↔ 255	BLUE
11	0 ↔ 255	BLUE FINE
12	0 ↔ 255	WHTIE
13	0 ↔ 255	WHTIE FINE
14	0 ↔ 255	DIMMER
15	0 ↔ 255	DIMMER FINE
16		MARCOS
	0 ↔ 9	NO FUNCTION
	10 ↔ 29	RED 100% / GREEN UP / BLUE 0%
	30 ↔ 49	RED DOWN / GREEN 100% / BLUE 0%
	50 ↔ 69	RED 0% / GREEN 100% / BLUE UP
	70 ↔ 89	RED 0% / GREEN DOWN / BLUE 100%
	90 ↔ 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 AT FULL OUTPUT
	190 ↔ 199	2700K
	200 ↔ 209	3200K
	210 ↔ 219	4200K
220 ↔ 229	5600K	
230 ↔ 239	6500K	
240 ↔ 255	8000K	
17		A SINGLE POINT
	0 ↔ 9	NO FUNCTION
	10 ↔ 12	1
	13 ↔ 15	2
	16 ↔ 18	3
	19 ↔ 21	4
	22 ↔ 24	5
	25 ↔ 27	6
	28 ↔ 30	7

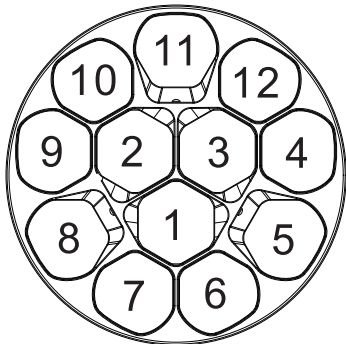
CHANNEL	VALUE	FUNCTION
17	31 ↔ 33	8
	34 ↔ 36	9
	37 ↔ 39	10
	40 ↔ 42	11
	43 ↔ 45	12
	46 ↔ 49	1,2,3
	50 ↔ 53	5,8,11
	54 ↔ 57	6,7,8,9,4,12
	58 ↔ 61	4,5,6
	62 ↔ 65	7,8,9
	66 ↔ 69	10,11,12
	70 ↔ 73	4,5,6,7,8,9,10,11,12
	74 ↔ 77	1,2,3,6,7,10,12
	78 ↔ 81	1,2,3,4,6,8,10
	82 ↔ 85	1,2,3,4,7,9,12
	86 ↔ 89	1-2-3
	90 ↔ 93	1-3-2
	94 ↔ 97	4-5-6-7-8-9-10-11-12
	98 ↔ 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 maple, 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 maple, 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	

CHANNEL	VALUE	FUNCTION
17	210 ↔ 213	Set inner circle maple, 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 maple, 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	0 ↔ 255	AUTO SPEED (Slow to Fast)
		STROBE
19	0 ↔ 9	NO FUNCTION
	10 ↔ 99	STROBE FROM (SLOD TO FAST , 0-25Hz)
	100 ↔ 109	NO FUNCTION
	110 ↔ 179	LIGHTNING STROBE
	180 ↔ 189	NO FUNCTION
190 ↔ 255	RANDOM SROBE	
20	0 ↔ 255	ZOOM
		CONTROL
21	0 ↔ 9	NO FUNCTION
	10 ↔ 19	PAN/TILT BLACK ACTIVATED
	20 ↔ 29	PAN/TILT BLACK DEACTIVATED
	30 ↔ 39	FAN SLOW
	40 ↔ 49	FAN NORMAL
	50 ↔ 59	FAN FAST
	60 ↔ 69	FAN AUTO
	70 ↔ 79	AUTO1
	80 ↔ 89	AUTO2
	90 ↔ 99	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	

CMY		
CHANNEL	VALUE	FUNCTION
1	0 ⇄ 255	PAN
2	0 ⇄ 255	PAN FINE
3	0 ⇄ 255	TITL
4	0 ⇄ 255	TITL FINE
5	0 ⇄ 255	PT SPEED
6	0 ⇄ 255	CYAN
7	0 ⇄ 255	MAGENT
8	0 ⇄ 255	YELLOW
9	0 ⇄ 255	DIMMER
10		MARCOS
	0 ⇄ 9	NO FUNCTION
	10 ⇄ 29	CYAN 100% / MAGENTA UP / YELLOW 0%
	30 ⇄ 49	CYAN DOWN / MAGENTA 100% / YELLOW 0%
	50 ⇄ 69	CYAN 0% / MAGENTA 100% / YELLOW UP
	70 ⇄ 89	CYAN 0% / MAGENTA DOWN / YELLOW 100%
	90 ⇄ 109	CYAN UP / MAGENTA 0% / YELLOW 100%
	110 ⇄ 129	CYAN 100% /MAGENTA 0%/YELLOW DOWN
	130 ⇄ 149	CYAN 100%/MAGENTA UP/YELLOW 0%
	150 ⇄ 189	NO FUNCTION
	190 ⇄ 199	2700K
	200 ⇄ 209	3200K
	210 ⇄ 219	4200K
	220 ⇄ 229	5600K
	230 ⇄ 239	6500K
	240 ⇄ 255	8000K
	11	
0 ⇄ 9		NO FUNCTION
10 ⇄ 12		1
13 ⇄ 15		2
16 ⇄ 18		3
19 ⇄ 21		4
22 ⇄ 24		5
25 ⇄ 27		6
28 ⇄ 30		7
31 ⇄ 33		8
34 ⇄ 36		9
37 ⇄ 39		10
40 ⇄ 42		11
43 ⇄ 45		12
46 ⇄ 49		1,2,3
50 ⇄ 53		5,8,11
54 ⇄ 57		6,7,8,9,4,12
58 ⇄ 61		4,5,6
62 ⇄ 65		7,8,9
66 ⇄ 69		10,11,12

CHANNEL	VALUE	FUNCTION
11	70 ⇄ 73	4,5,6,7,8,9,10,11,12
	74 ⇄ 77	1,2,3,6,7,10,12
	78 ⇄ 81	1,2,3,4,6,8,10
	82 ⇄ 85	1,2,3,4,7,9,12
	86 ⇄ 89	1-2-3
	90 ⇄ 93	1-3-2
	94 ⇄ 97	4-5-6-7-8-9-10-11-12
	98 ⇄ 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 maple, 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	Et 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 maple, 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 maple, 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 maple, 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	

CHANNEL	VALUE	FUNCTION
12		STROBE
	0 ↔ 9	NO FUNCTION
	10 ↔ 99	STROBE FROM (SLOD TO FAST , 0-25Hz)
	100 ↔ 109	NO FUNCTION
	110 ↔ 179	LIGHTNING STROBE
	180 ↔ 189	NO FUNCTION
13	190 ↔ 255	RANDOM SROBE
	0 ↔ 255	ZOOM
14		CONTROL
	0 ↔ 9	NO FUNCTION
	10 ↔ 19	PAN/TILT BLACK ACTIVATED
	20 ↔ 29	PAN/TILT BLACK DEACTIVATED
	30 ↔ 39	FAN SLOW
	40 ↔ 49	FAN NORMAL
	50 ↔ 59	FAN FAST
	60 ↔ 69	FAN AUTO
	70 ↔ 79	AUTO1
	80 ↔ 89	AUTO2
	90 ↔ 99	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	0 ↔ 255	PAN
2	0 ↔ 255	PAN FINE
3	0 ↔ 255	TILT
4	0 ↔ 255	TILT FINE
5	0 ↔ 255	PT SPEED
6	0 ↔ 255	DIMMER
7		STROBE
	0 ↔ 9	NO FUNCTION
	10 ↔ 99	STROBE FROM (SLOD TO FAST , 0-25Hz)
	100 ↔ 109	NO FUNCTION
	110 ↔ 179	LIGHTNING STROBE
	180 ↔ 189	NO FUNCTION
8	190 ↔ 255	RANDOM SROBE
	0 ↔ 255	ZOOM
9		CONTROL
	0 ↔ 9	NO FUNCTION
	10 ↔ 19	PAN/TILT BLACK ACTIVATED
	20 ↔ 29	PAN/TILT BLACK DEACTIVATED
	30 ↔ 39	FAN SLOW
	40 ↔ 49	FAN NORMAL
	50 ↔ 59	FAN FAST
	60 ↔ 69	FAN AUTO
	70 ↔ 79	AUTO1
	80 ↔ 89	AUTO2
	90 ↔ 99	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	
10	0 ↔ 255	RED 1
11	0 ↔ 255	GREEN1
12	0 ↔ 255	BLUE1
13	0 ↔ 255	WHITE1
14	0 ↔ 255	RED 2
15	0 ↔ 255	GREEN2
16	0 ↔ 255	BLUE2
17	0 ↔ 255	WHITE2

CHANNEL	VALUE	FUNCTION
18	0 ↔ 255	RED 3
19	0 ↔ 255	GREEN3
20	0 ↔ 255	BLUE3
21	0 ↔ 255	WHITE3
22	0 ↔ 255	RED 4
23	0 ↔ 255	GREEN4
24	0 ↔ 255	BLUE4
25	0 ↔ 255	WHITE4
26	0 ↔ 255	RED 5
27	0 ↔ 255	GREEN5
28	0 ↔ 255	BLUE5
29	0 ↔ 255	WHITE5
30	0 ↔ 255	RED 6
31	0 ↔ 255	GREEN6
32	0 ↔ 255	BLUE6
33	0 ↔ 255	WHITE6
34	0 ↔ 255	RED 7
35	0 ↔ 255	GREEN7
36	0 ↔ 255	BLUE7
37	0 ↔ 255	WHITE7
38	0 ↔ 255	RED 8
39	0 ↔ 255	GREEN8
40	0 ↔ 255	BLUE8
41	0 ↔ 255	WHITE8
42	0 ↔ 255	RED 9
43	0 ↔ 255	GREEN9
44	0 ↔ 255	BLUE9
45	0 ↔ 255	WHITE9
46	0 ↔ 255	RED 10
47	0 ↔ 255	GREEN10
48	0 ↔ 255	BLUE10
49	0 ↔ 255	WHITE10
50	0 ↔ 255	RED 11
51	0 ↔ 255	GREEN11
52	0 ↔ 255	BLUE11
53	0 ↔ 255	WHITE11
54	0 ↔ 255	RED 12
55	0 ↔ 255	GREEN12
56	0 ↔ 255	BLUE12
57	0 ↔ 255	WHITE12