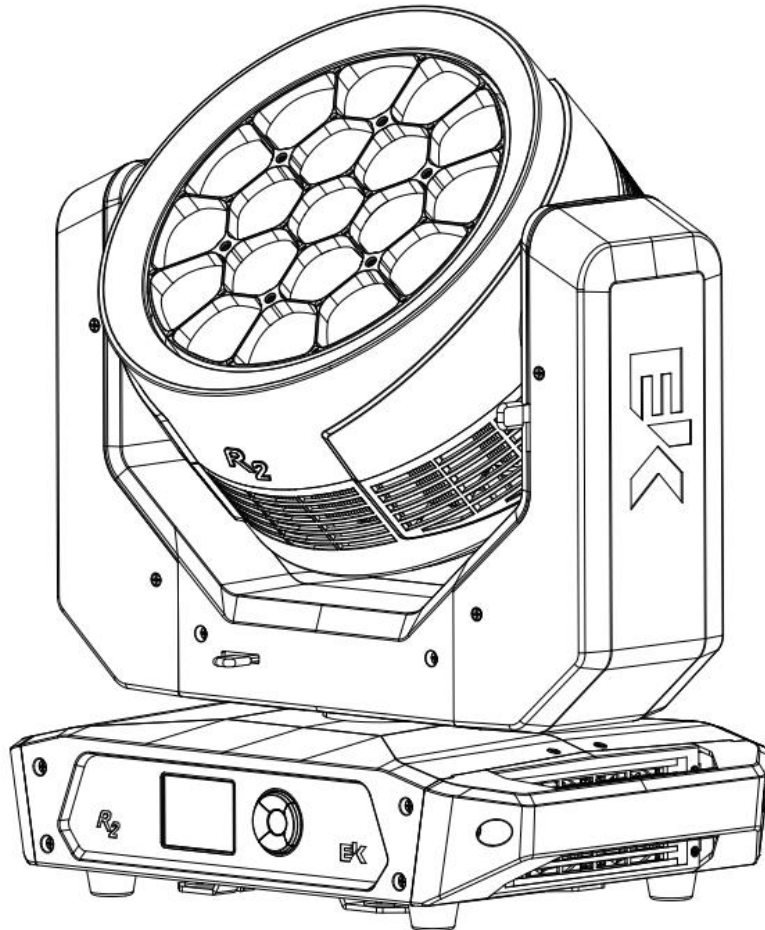




SHOWPRO

R2 Beam Wash USER MANUAL


LEDMOV422



SAFETY

WARNING! Before carrying out any operations with the unit, carefully read this instruction manual and keep it with care for future reference, it contains important information about the installation, use and maintenance of the unit.

General instructions

- The products referred to in this manual conform to Australian Standards and are therefore marked with the Regulatory Compliance Mark (RCM). 
- The unit is supplied with hazardous network voltage (230V~). Leave servicing to skilled personnel only. Never make any modifications on the unit not described in this instruction manual, otherwise you risk an electric shock.
- Connection must be made to a power supply system fitted with efficient earthing (Class I appliance according to standard EN60598-1). It is recommended to protect the supply lines of the units from indirect contact and/or shorting by using appropriately sized residual current devices.
- The connection to the main network of electric distribution must be carried out by a qualified electrical installer. Check that the mains frequency and voltage correspond to those for which the unit is designed as given on the electrical data label.
- This unit is not for home use. Only use the unit in professional applications.
- Never use the fixture under the following conditions:
 - in places subject to vibrations or bumps;
 - in places with a temperature of over 40 °C.
- Make certain that no flammable liquids, water or metal objects enter the fixture.
- Do not dismantle or modify the fixture.
- All work must always be carried out by qualified technical personnel. Contact the nearest sales point for an inspection or contact the manufacturer directly.
- If the unit is to be put out of operation definitively, take it to a local recycling plant for a disposal which is not harmful to the environment.

Warnings and installation precautions

- Always conform to the safety instructions and procedures laid out in this manual. Failure to do so will void the warranty. Any unauthorized operation may lead to dangers like short circuit, burns, electric shock, etc.
- Before starting any maintenance work or cleaning the fixture, cut off power from the main supply.
- Always secure the fixture with an additional safety chain. When carrying out any work, always comply scrupulously with all the regulations (particularly regarding safety) currently in force in Australia.
- Install the fixture in a well-ventilated place.
- Keep any flammable materials at a safe distance from the fixture.
- Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is impaired.
- The lamp shall be changed if it has become damaged or thermally deformed.
- Never look directly at the light beam. Note that fast changes in lighting, e.g. flashing lights, may trigger epileptic seizures in photosensitive persons or persons with epilepsy.
- Do not touch the product's housing when operating because it may be very hot.

INTRODUCTION

Features

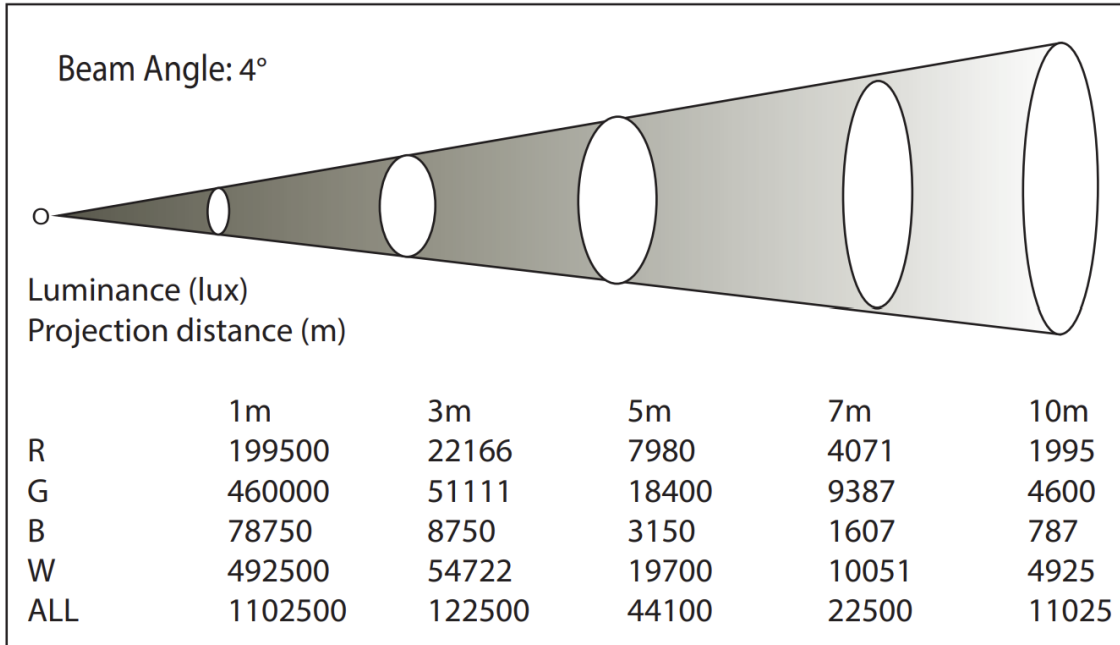
- 4° ~ 60° linear zoom
- Aerial and graphic effects
- Individual LED control, built-in colour and effects macros
- Layer effects (background/foreground)
- White colour temperature presets from 2700K – 8000K
- Hue/Saturation/Tint adjustment
- Flawless 16-bit pan/tilt movement
- Selectable PWM frequency for flicker-free video with any camera
- Locking pan/tilt for secure transportation
- DMX, RDM, Artnet and sACN control

SPECIFICATIONS

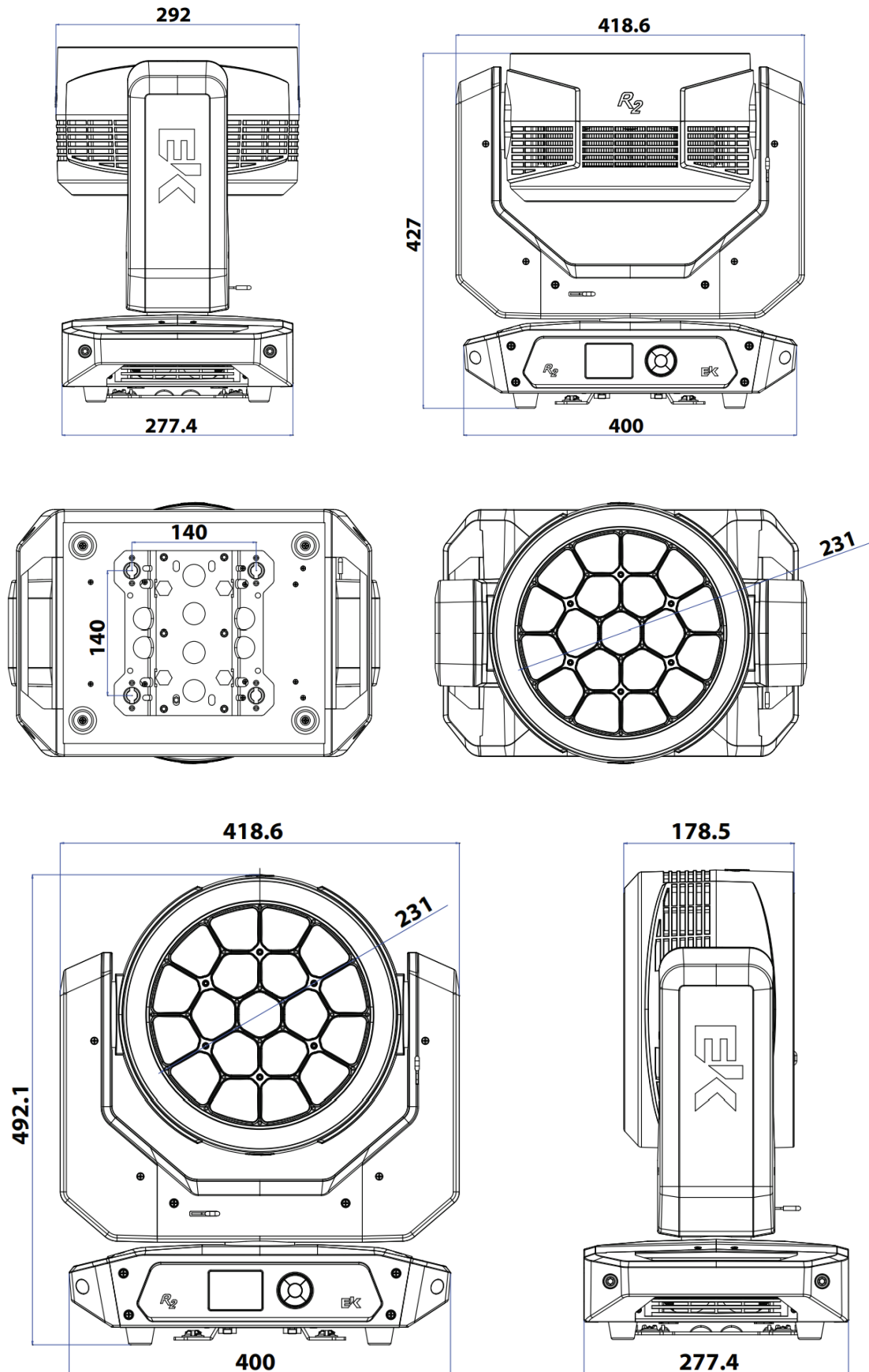
Light Source:	19 x 40W RGBW LEDs
Output:	38,000 lux @ 5m
Linear Zoom:	4° to 60°
Mains:	100~240 VAC, 50/60 Hz
Consumption:	910W/120V, 858W/230V
Power Connections:	Powercon In/Out
Colour Mixing:	RGBW
Macros:	Colours, Patterns, Strobe, Pan/Tilt
Layers:	Background layer dimming, strobe, patterns, colours, CT, tints and macros
Pan:	540° (16 bit)
Tilt:	270° (16 bit)
Strobe:	0~20Hz + strobe effect macros
Dimming:	0~100% with 4 dimming curve modes
Protocol:	DMX512/RDM/Artnet/sACN
DMX Channels:	16CH/17CH/43CH/86CH
Data Connections:	XLR In/Out for DMX, RJ45 In/Out for Artnet/sACN
Display:	TFT Display with 4-button navigation
Materials:	Plastic and Aluminium
Finish:	Matte black
IP Rating:	IP20
Cooling:	Active (Variable speed fan + silent mode)
Dimensions:	419 x 277 x 510 mm
Weight:	20kg
Mounting:	Omega bracket (Included)

PHOTOMETRICS

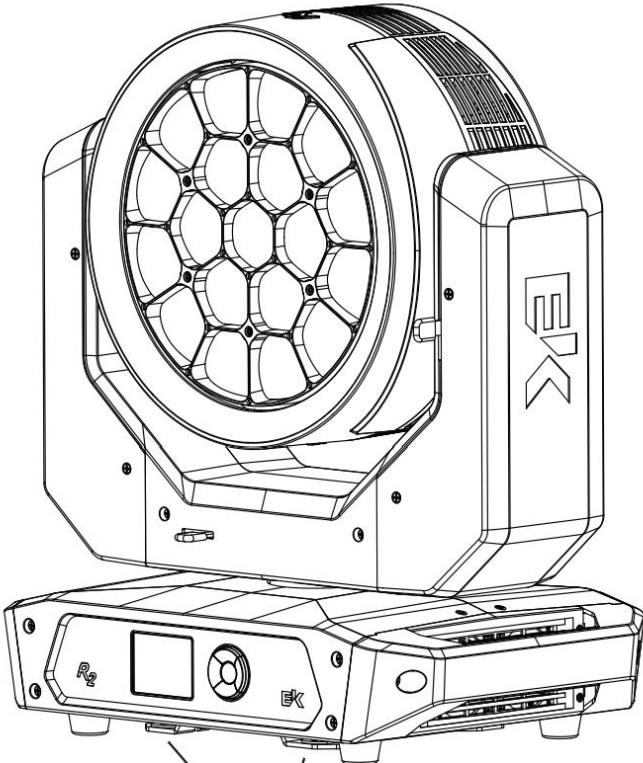
4° RGBW Beam



DIMENSIONS

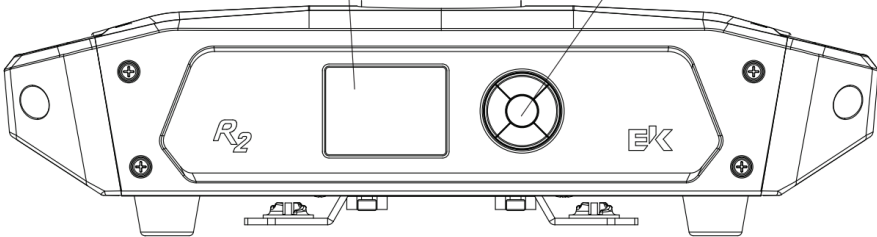


OVERVIEW

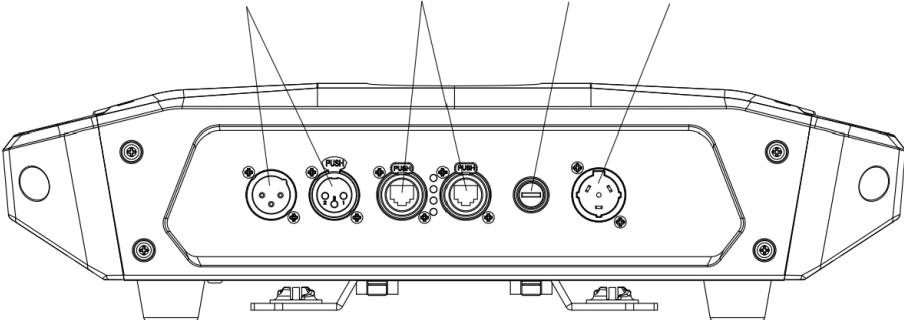


Omega bracket mounting plate

Menu Display Menu navigation buttons



DMX In/Out Artnet In/Out Fuse Power In



FUNCTIONS AND OPERATION

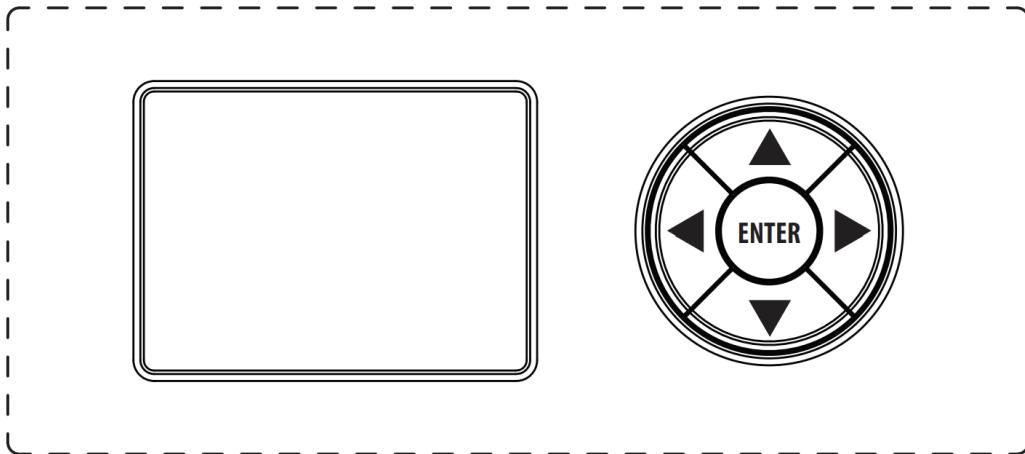
POWER ON/OFF

The fixture is powered on by connecting the included power cable to mains power (100 - 240 VAC, 50/60 Hz). Upon receiving power, the fixture will cycle through a motor reset program. To power on, disconnect the power cable or turn on power remotely using a switch.

MENU NAVIGATION

The control panel features five-button navigation of the onboard menu. If the panel is password-protected, go to the Advanced menu, in the Menu locking submenu, enter the unlock code using the navigation buttons:

1234



UP:	Increase value or scroll up
DOWN:	Decrease value or scroll down
LEFT:	Return to previous menu
RIGHT:	Move between units, tens, hundreds
OK:	Confirm and save setting

FUNCTIONS AND OPERATION

Main Menu	Sub Menu	Sub Menu	Values	Default	
DMX Address			001 – 512		
DMX Mode	16CH			16CH	
	17CH				
	43CH				
	86CH				
Settings	Display Reverse		On/Off	Off	
	Display	Backlight	On/30s	On	
	DMX Fail	DMX Fail	Hold/Blackout	Hold	
	Dimmer Curve	Dimmer Curve	Linear		Linear
			Exp		
			Log		
			S-Curve		
	Dim Resp	Dimmer Response	LED/Halogen	LED	
	Colour Calibration	RAW			
		User Calibration	Red	000 – 255	255
			Green	000 – 255	255
			Blue	000 – 255	255
			White	000 – 255	255
	Factory Calibration				
	Pan Reverse	Pan Reverse	On/Off	Off	
	Tilt Reverse	Tilt Reverse	On/Off	Off	
	Feedback	Feedback	On/Off	On	
	Fan Set	Fan Set	Regular/Silent		
	LED Frequency	LED Frequency	800Hz		
			1200Hz		
			2000Hz		
			3600Hz		
			12kHz		
			25kHz		
	Mov Blackout	Movement Blackout	On/Off		
	Test	Auto Test			
		Manual Test	Pan	000 – 255	000
Tilt			000 – 255	000	
Dimmer			000 – 255	000	
Red			000 – 255	000	
Green			000 – 255	000	
Blue			000 – 255	000	
White			000 – 255	000	
Zoom	000 – 255	000			
Auto Lock Unit	Auto Lock Unit		Off/60s	Off	
	Password: Press UP + DOWN for 3 seconds to unlock				
Reset	Reset	Head			
		Pan & Tilt			
		All			
Factory Reset	Reset Now!				
Service Menu	Offset Menu	Pan		000 – 255	
		Tilt			
		Zoom			
	Runtime Reset	Reset Now?			
	Temperature	Max Time			
		Temperature			
		Time			
		XXX°C			
	Service Menu Password Codes: PW: 50 opens Service Menu Calibrate PW: 60 opens Service Menu Run Time Reset PW: 70 opens Service Menu Temperature				
Protocol Setup	Only DMX				

	Only Artnet	Universe	000 – 255	0	
		Universe Group	000 – 127	0	
	Only sACN	Universe	001 – 256	1	
		Universe Group	000 – 249	0	
	Artnet + DMX	Universe	000 – 255	0	
		Universe Group	000 – 127	0	
		DMX Address	001 – 512	1	
	sACN + DMX	Universe	001 – 256	1	
		Universe Group	000 – 249	0	
DMX Address		001 – 512	1		
Network Setting	IP Address	IP Address	xxx.xxx.xxx.xxx		
	Subnet Mask	Subnet Mask	xxx.xxx.xxx.xxx		
	DMX Out	DMX Out XXX	On/Off		
System Info	Firmware	DISP – V1.0			
		NET – V1.0			
		CTR1 – XY – V1.0			
		CTR2 – LEDDRV – V1.0			
		CTR3 – MOTOR – V1.0			
	Temperature	LED	LED XXX °C/°F		
		HEAD	HEAD XXX °C/°F		
		BASE	BASE XXX °C/°F		
		°C/°F	Unit XX		
		Unit	°C/°F		°C
	Operating Hours	24:05h			
UID	030F052****				
Error Info		Error Flag XXX			

DMX STARTING ADDRESS

To set the starting address of each fixture:

- Press the Enter button and use the UP/DOWN buttons to scroll the menu
- Select the DMX ADDRESS menu and press ENTER
- Use the UP/DOWN buttons to scroll to the preferred address value
- Press ENTER to confirm the chosen DMX address
- Press the MENU button to save changes and exit

To set the starting address of each fixture:

The below table shows an example of starting addresses for four fixtures, assuming a starting address of 001. Actual addresses will be determined by the operator as needed.

DMX ALLOCATION	Fixture 1	Fixture 2	Fixture 3	Fixture 4
16 Channels	001	017	033	049

DMX CHART

16CH	Function	Value	Setting
1	Pan	000 – 255	Pan Coarse
2	Pan Fine	000 – 255	Pan Fine
3	Tilt	000 – 255	Tilt Coarse
4	Tilt Fine	000 – 255	Tilt Fine
5	Dimmer	000 – 255	0 – 100%
6	Dimmer Fine	000 – 255	0 – 100%
7	Red	000 – 255	0 – 100%
8	Green	000 – 255	0 – 100%
9	Blue	000 – 255	0 – 100%
10	White	000 – 255	0 – 100%
11	Colour Temperature	000 – 010	Off
		011 – 040	2700K
		041 – 070	3200K
		071 – 100	4000K
		101 – 130	5600K
		131 – 160	6500K
		161 – 190	7000K
		191 – 220	7500K
12	Tint	000 – 127	Minus Green
		128 – 128	Off
		129 – 255	Plus Green
13	Zoom	000 – 255	0 – 100%
14	Effect Macros	000 – 005	Off
		006 – 010	Effect 1 (Cross CW)
		011 – 015	Effect 2 (Circle 2 Step In > Out)
		016 – 020	Effect 3 (Circle 2 Step Colour Change In > Out)
		021 – 025	Effect 4 (Clock Hand – CW)
		026 – 030	Effect 5 (Ventilator – CW)
		031 – 035	Effect 6 (Bow Runs Left >)
		036 – 040	Effect 7 (Bow Runs Right <)
		041 – 045	Effect 8 (3-Line to 2-Line)
		046 – 050	Effect 9 (Diamond Change)
		051 – 055	Effect 10 (Small Circle 2 Dots Run)
		056 – 060	Effect 11 (Circle 3-Step In > Out)
		061 – 065	Effect 12 (2 Dots Running On Outer Circle)
		066 – 070	Effect 13 (4 Dots Running On Outer Circle)
		071 – 075	Effect 14 (Even/Odd)
		076 – 080	Effect 15 (Random Single Dots Jump)
		081 – 085	Effect 16 (Random Single Dots Fade)
		086 – 090	Effect 17 (Raindrop Jump)
		091 – 095	Effect 18 (Raindrop Fade)
096 – 100	Effect 19 (All Effects)		
15	Effect Speed	101 – 255	All LEDs On
		000 – 005	Stop
		006 – 127	Slow > Fast, Forward
16	Control	128 – 255	Fast > Slow, Reverse
		000 – 005	No Function
		006 – 007	Blackout On (Hold 3s)
		008 – 009	Blackout Off (Hold 3s)
		010 – 041	Spare
		042 – 043	Invert Pan On (Hold 3s)
		044 – 045	Invert Pan Off (Hold 3s)
		046 – 047	Invert Tilt On (Hold 3s)
		048 – 049	Invert Tilt Off (Hold 3s)
		050 – 073	Spare
		074 – 075	Dimmer Response LED (Hold 3s)
		076 – 077	Dimmer Response Halogen (Hold 3s)
		078 – 097	Spare
		098 – 099	Silent Fan On (Hold 3s)
		100 – 101	Auto Fan (Hold 3s)
		102 – 119	Spare
		120 – 121	LED Frequency 800Hz (Hold 3s)
		122 – 123	LED Frequency 1200Hz (Hold 3s)
		124 – 125	LED Frequency 2000Hz (Hold 3s)
126 – 127	LED Frequency 3600Hz (Hold 3s)		

		128 – 129	LED Frequency 12kHz (Hold 3s)
		130 – 131	LED Frequency 25kHz (Hold 3s)
		132 – 139	Spare
		140 – 141	Display On (Hold 3s)
		142 – 143	Display Off (Hold 3s)
		144 – 159	Spare
		160 – 161	LED Direction Normal (Hold 3s)
		162 – 163	LED Direction Reverse (Hold 3s)
		164 – 165	Dimmer Curve Linear (Hold 3s)
		166 – 167	Dimmer Curve Exponential (Hold 3s)
		168 – 169	Dimmer Curve Logarithmic (Hold 3s)
		170 – 171	Dimmer Curve S-Curve (Hold 3s)
		172 – 201	Spare
		202 – 203	RAW Mode (Hold 3s)
		204 – 205	User Calibrated Mode (Hold 3s)
		206 – 207	Factory Calibrated Mode (Hold 3s)
		208 – 221	Spare
		222 – 223	Reset Pan/Tilt (Hold 3s)
		224 – 227	Spare
		228 – 229	Reset Zoom (Hold 3s)
		230 – 235	Spare
		236 – 237	Reset All Functions (Hold 3s)
		238 – 245	Spare
		246 – 255	No Function

17CH	Function	Value	Setting
1	Pan	000 – 255	Pan Coarse
2	Pan Fine	000 – 255	Pan Fine
3	Tilt	000 – 255	Tilt Coarse
4	Tilt Fine	000 – 255	Tilt Fine
5	Dimmer	000 – 255	0 – 100%
6	Dimmer Fine	000 – 255	0 – 100%
7	Strobe	000 – 005	Strobe Open
		006 – 010	Strobe Closed
		011 – 033	Pulse Random (Slow to Fast)
		034 – 056	Pulse Up Random (Slow to Fast)
		057 – 079	Pulse Down Random (Slow to Fast)
		080 – 102	Random Strobe Effect (Slow to Fast)
		103 – 127	Strobe Lightning Effect (5s to 1s)
		128 – 250	Strobe (Slow to Fast)
		251 – 255	Strobe Open
8	Red	000 – 255	0 – 100%
9	Green	000 – 255	0 – 100%
10	Blue	000 – 255	0 – 100%
11	White	000 – 255	0 – 100%
12	Colour Temperature	000 – 010	Off
		011 – 040	2700K
		041 – 070	3200K
		071 – 100	4000K
		101 – 130	5600K
		131 – 160	6500K
		161 – 190	7000K
		191 – 220	7500K
221 – 255	8000K		
13	Tint	000 – 127	Minus Green
		128 – 128	Off
		129 – 255	Plus Green
14	Zoom	000 – 255	0 – 100%
15	Effect Macros	000 – 005	Off
		006 – 010	Effect 1 (Cross CW)
		011 – 015	Effect 2 (Circle 2 Step In > Out)
		016 – 020	Effect 3 (Circle 2 Step Colour Change In > Out)
		021 – 025	Effect 4 (Clock Hand – CW)
		026 – 030	Effect 5 (Ventilator – CW)
		031 – 035	Effect 6 (Bow Runs Left >)
		036 – 040	Effect 7 (Bow Runs Right <)
		041 – 045	Effect 8 (3-Line to 2-Line)
		046 – 050	Effect 9 (Diamond Change)
		051 – 055	Effect 10 (Small Circle 2 Dots Run)
056 – 060	Effect 11 (Circle 3-Step In > Out)		

		061 – 065	Effect 12 (2 Dots Running On Outer Circle)
		066 – 070	Effect 13 (4 Dots Running On Outer Circle)
		071 – 075	Effect 14 (Even/Odd)
		076 – 080	Effect 15 (Random Single Dots Jump)
		081 – 085	Effect 16 (Random Single Dots Fade)
		086 – 090	Effect 17 (Raindrop Jump)
		091 – 095	Effect 18 (Raindrop Fade)
		096 – 100	Effect 19 (All Effects)
		101 – 255	All LEDs On
16	Effect Speed	000 – 005	Stop
		006 – 127	Slow > Fast, Forward
		128 – 255	Fast > Slow, Reverse
17	Control	000 – 005	No Function
		006 – 007	Blackout On (Hold 3s)
		008 – 009	Blackout Off (Hold 3s)
		010 – 041	Spare
		042 – 043	Invert Pan On (Hold 3s)
		044 – 045	Invert Pan Off (Hold 3s)
		046 – 047	Invert Tilt On (Hold 3s)
		048 – 049	Invert Tilt Off (Hold 3s)
		050 – 073	Spare
		074 – 075	Dimmer Response LED (Hold 3s)
		076 – 077	Dimmer Response Halogen (Hold 3s)
		078 – 097	Spare
		098 – 099	Silent Fan On (Hold 3s)
		100 – 101	Auto Fan (Hold 3s)
		102 – 119	Spare
		120 – 121	LED Frequency 800Hz (Hold 3s)
		122 – 123	LED Frequency 1200Hz (Hold 3s)
		124 – 125	LED Frequency 2000Hz (Hold 3s)
		126 – 127	LED Frequency 3600Hz (Hold 3s)
		128 – 129	LED Frequency 12kHz (Hold 3s)
		130 – 131	LED Frequency 25kHz (Hold 3s)
		132 – 139	Spare
		140 – 141	Display On (Hold 3s)
		142 – 143	Display Off (Hold 3s)
		144 – 159	Spare
		160 – 161	LED Direction Normal (Hold 3s)
		162 – 163	LED Direction Reverse (Hold 3s)
		164 – 165	Dimmer Curve Linear (Hold 3s)
		166 – 167	Dimmer Curve Exponential (Hold 3s)
		168 – 169	Dimmer Curve Logarithmic (Hold 3s)
		170 – 171	Dimmer Curve S-Curve (Hold 3s)
		172 – 201	Spare
		202 – 203	RAW Mode (Hold 3s)
		204 – 205	User Calibrated Mode (Hold 3s)
		206 – 207	Factory Calibrated Mode (Hold 3s)
		208 – 221	Spare
		222 – 223	Reset Pan/Tilt (Hold 3s)
		224 – 227	Spare
		228 – 229	Reset Zoom (Hold 3s)
		230 – 235	Spare
		236 – 237	Reset All Functions (Hold 3s)
		238 – 245	Spare
		246 – 255	No Function

43CH	Function	Value	Setting
1	Pan	000 – 255	Pan Coarse
2	Pan Fine	000 – 255	Pan Fine
3	Tilt	000 – 255	Tilt Coarse
4	Tilt Fine	000 – 255	Tilt Fine
5	Dimmer	000 – 255	0 – 100%
6	Dimmer Fine	000 – 255	0 – 100%
7	Strobe	000 – 005	Strobe Open
		006 – 010	Strobe Closed
		011 – 033	Pulse Random (Slow to Fast)
		034 – 056	Pulse Up Random (Slow to Fast)
		057 – 079	Pulse Down Random (Slow to Fast)
		080 – 102	Random Strobe Effect (Slow to Fast)
		103 – 127	Strobe Lightning Effect (5s to 1s)
		128 – 250	Strobe (Slow to Fast)
251 – 255	Strobe Open		
8	Red	000 – 255	0 – 100%
9	Red Fine	000 – 255	0 – 100%
10	Green	000 – 255	0 – 100%
11	Green Fine	000 – 255	0 – 100%
12	Blue	000 – 255	0 – 100%
13	Blue Fine	000 – 255	0 – 100%
14	White	000 – 255	0 – 100%
15	White Fine	000 – 255	0 – 100%
16	Colour Macro	000 – 005	No Function
		006 – 009	46 Dark Magenta
		010 – 013	29 Plasa Red
		014 – 017	26 Bright Red
		018 – 021	127 Smokey Pink
		022 – 025	36 Medium Pink
		026 – 029	19 Fire
		030 – 033	135 Deep Golden Amber
		034 – 037	778 Millenium Gold
		038 – 041	21 Gold Amber
		042 – 045	157 Pink
		046 – 049	110 Middle Rose
		050 – 053	109 Light Salmon
		054 – 057	35 Light Pink
		058 – 061	134 Golden Amber
		062 – 065	17 Surprise Peach
		066 – 069	746 Brown
		070 – 073	105 Orange
		074 – 077	20 Medium Amber
		078 – 081	768 Egg Yolk Yellow
		082 – 085	15 Deep Straw
		086 – 089	767 Nectarine
		090 – 093	101 Yellow
		094 – 097	100 Spring Yellow
		098 – 101	88 Lime Green
		102 – 105	121 LEE Green
		106 – 109	738 Jas Green
		110 – 113	89 Moss Green
		114 – 117	139 Primary Green
		118 – 121	124 Dark Green
		122 – 125	323 Jade
		126 – 129	354 Special Steel Blue
		130 – 133	116 Medium Blue-Green
		134 – 137	183 Moonlight Blue
		138 – 141	132 Medium Blue
		142 – 145	119 Dark Blue
		146 – 149	716 Mikkel Blue
		150 – 153	71 Tokyo Blue
		154 – 157	181 Congo Blue
		158 – 161	799 Special KH Lavender
162 – 165	707 Ultimate Violet		
166 – 169	343 Special Medium Lavender		
170 – 173	798 Chrysalis Pink		
174 – 177	701 Provence		
178 – 181	797 Deep Purple		
182 – 185	48 Rose Purple		
186 – 189	345 Fuchsia Pink		

		190 – 193	795 Magical Magenta
		194 – 197	128 Bright Pink
		198 – 201	2 Rose Pink
		202 – 204	Colour Jumping Stop
		205 – 230	Colour Jumping Slow to Fast
		231 – 255	Colour Fading Slow to Fast
17	Colour Macro Crossfade	000 – 005	0s
		006 – 255	0.1s – 10s
18	Colour Temperature	000 – 010	Off
		011 – 040	2700K
		041 – 070	3200K
		071 – 100	4000K
		101 – 130	5600K
		131 – 160	6500K
		161 – 190	7000K
		191 – 220	7500K
		221 – 255	8000K
19	Tint	000 – 127	25 to 0 Magenta
		128 – 128	0
		129 – 255	0 to 25 Green
20	Zoom	000 – 255	Narrow to Wide
21	Zoom Fine	000 – 255	0 – 100%
22	Pattern Selection	000 – 005	Off
		006 – 064	Pattern 1
		065 – 128	Pattern 2
		129 – 255	Coloured Patterns
23	Pattern 1	000 – 005	Off
		006 – 010	1
		011 – 015	2
		016 – 020	3
		021 – 025	4
		026 – 030	5
		031 – 035	6
		036 – 040	7
		041 – 045	8
		046 – 050	9
		051 – 055	10
		056 – 060	11
		061 – 065	12
		066 – 070	13
		071 – 075	14
		076 – 080	15
		081 – 085	16
		086 – 090	17
		091 – 095	18
		096 – 100	19
		101 – 105	20
		106 – 110	21
		111 – 115	22
		116 – 120	23
		121 – 125	24
		126 – 130	25
		131 – 135	26
		136 – 140	27
		141 – 145	28
		146 – 150	29
		151 – 155	30
		156 – 160	31
		161 – 165	32
		166 – 170	33
		171 – 175	34
		176 – 180	35
		181 – 185	36
		186 – 190	37
		191 – 195	38
		196 – 200	39
		201 – 205	40
		206 – 210	41
		211 – 215	42
		216 – 220	43
		221 – 225	44

When
CH
22 =
006 –
064

		226 – 230	45	
		231 – 235	46	
		236 – 240	47	
		241 – 245	48	
		246 – 250	49	
		251 – 255	50	
	Pattern 2	000 – 005	Off	When CH 22 = 065 – 128
		006 – 010	51	
		011 – 015	52	
		016 – 020	53	
		021 – 025	54	
		026 – 030	55	
		031 – 035	56	
		036 – 040	57	
		041 – 045	58	
		046 – 050	59	
		051 – 055	60	
		056 – 060	61	
		061 – 065	62	
		066 – 070	63	
		071 – 075	64	
		076 – 080	65	
		081 – 085	66	
		086 – 090	67	
		091 – 095	68	
		096 – 100	69	
		101 – 105	70	
		106 – 110	71	
		111 – 115	72	
		116 – 120	73	
		121 – 125	74	
		126 – 130	75	
		131 – 135	76	
		136 – 140	77	
		141 – 145	78	
		146 – 150	79	
		151 – 155	80	
		156 – 160	81	
		161 – 165	82	
		166 – 170	83	
		171 – 175	84	
		176 – 180	85	
		181 – 185	86	
		186 – 190	87	
		191 – 195	88	
		196 – 200	89	
		201 – 205	90	
		206 – 210	91	
	211 – 215	92		
	216 – 220	93		
	221 – 225	94		
	226 – 230	95		
	231 – 235	96		
	236 – 240	97		
	241 – 245	98		
	246 – 250	99		
	251 – 255	100		
	Effect Macros	000 – 005	Off	When CH 22 = 129 – 255 Z
		006 – 010	Effect 1 (Cross CW)	
		011 – 015	Effect 2 (Circle 2 Step In > Out)	
		016 – 020	Effect 3 (Circle 2 Step Colour Change In > Out)	
		021 – 025	Effect 4 (Clock Hand – CW)	
		026 – 030	Effect 5 (Ventilator – CW)	
		031 – 035	Effect 6 (Bow Runs Left >)	
		036 – 040	Effect 7 (Bow Runs Right <)	
		041 – 045	Effect 8 (3-Line to 2-Line)	
		046 – 050	Effect 9 (Diamond Change)	
		051 – 055	Effect 10 (Small Circle 2 Dots Run)	
		056 – 060	Effect 11 (Circle 3-Step In > Out)	
		061 – 065	Effect 12 (2 Dots Running On Outer Circle)	
	066 – 070	Effect 13 (4 Dots Running On Outer Circle)		

		071 – 075	Effect 14 (Even/Odd)
		076 – 080	Effect 15 (Random Single Dots Jump)
		081 – 085	Effect 16 (Random Single Dots Fade)
		086 – 090	Effect 17 (Raindrop Jump)
		091 – 095	Effect 18 (Raindrop Fade)
		096 – 100	Effect 19 (All Effects)
		101 – 255	All LEDs On
24	Effect Speed	000 – 005	Stop
		006 – 127	Slow > Fast, Forward
		128 – 255	Fast > Slow, Reverse
25	Effect Sync	000 – 005	Stop
		006 - 255	0.1s to 5s
26	Effect Fade	000 – 005	Off
		006 – 127	Fade, Slow > Fast
		128 – 255	Wake, Slow > Fast
27	Background Dimmer	000 – 255	0 – 100%
28	Background Dimmer Fine	000 – 255	0 – 100%
29	Background Strobe	000 – 005	Strobe Open
		006 – 010	Strobe Closed
		011 – 033	Pulse Random (Slow to Fast)
		034 – 056	Pulse Up Random (Slow to Fast)
		057 – 079	Pulse Down Random (Slow to Fast)
		080 – 102	Random Strobe Effect (Slow to Fast)
		103 – 127	Strobe Lightning Effect (5s to 1s)
		128 – 250	Strobe (Slow to Fast)
		251 – 255	Strobe Open
30	Background Red	000 – 255	0 – 100%
31	Background Red Fine	000 – 255	0 – 100%
32	Background Green	000 – 255	0 – 100%
33	Background Green Fine	000 – 255	0 – 100%
34	Background Blue	000 – 255	0 – 100%
35	Background Blue Fine	000 – 255	0 – 100%
36	Background White	000 – 255	0 – 100%
37	Background White Fine	000 – 255	0 – 100%
38	Background Colour Macro	000 – 005	No Function
		006 – 009	46 Dark Magenta
		010 – 013	29 Plasa Red
		014 – 017	26 Bright Red
		018 – 021	127 Smokey Pink
		022 – 025	36 Medium Pink
		026 – 029	19 Fire
		030 – 033	135 Deep Golden Amber
		034 – 037	778 Millenium Gold
		038 – 041	21 Gold Amber
		042 – 045	157 Pink
		046 – 049	110 Middle Rose
		050 – 053	109 Light Salmon
		054 – 057	35 Light Pink
		058 – 061	134 Golden Amber
		062 – 065	17 Surprise Peach
		066 – 069	746 Brown
		070 – 073	105 Orange
		074 – 077	20 Medium Amber
		078 – 081	768 Egg Yolk Yellow
		082 – 085	15 Deep Straw
		086 – 089	767 Nectarine
		090 – 093	101 Yellow
		094 – 097	100 Spring Yellow
		098 – 101	88 Lime Green
		102 – 105	121 LEE Green
		106 – 109	738 Jas Green
		110 – 113	89 Moss Green
		114 – 117	139 Primary Green
		118 – 121	124 Dark Green
		122 – 125	323 Jade
		126 – 129	354 Special Steel Blue
		130 – 133	116 Medium Blue-Green
		134 – 137	183 Moonlight Blue
		138 – 141	132 Medium Blue
		142 – 145	119 Dark Blue
		146 – 149	716 Mikkel Blue

		150 – 153	71 Tokyo Blue
		154 – 157	181 Congo Blue
		158 – 161	799 Special KH Lavender
		162 – 165	707 Ultimate Violet
		166 – 169	343 Special Medium Lavender
		170 – 173	798 Chrysalis Pink
		174 – 177	701 Provence
		178 – 181	797 Deep Purple
		182 – 185	48 Rose Purple
		186 – 189	345 Fuchsia Pink
		190 – 193	795 Magical Magenta
		194 – 197	128 Bright Pink
		198 – 201	2 Rose Pink
		202 – 204	Colour Jumping Stop
		205 – 230	Colour Jumping Slow to Fast
		231 – 255	Colour Fading Slow to Fast
39	Background Colour Macro Crossfade	000 – 005	0s
		006 – 255	0.1s – 10s
40	Background Colour Temperature	000 – 010	Off
		011 – 040	2700K
		041 – 070	3200K
		071 – 100	4000K
		101 – 130	5600K
		131 – 160	6500K
		161 – 190	7000K
		191 – 220	7500K
		221 – 255	8000K
41	Background Tint	000 – 127	25 to 0 Magenta
		128 – 128	0
		129 – 255	0 to 25 Green
42	Pan/Tilt Speed	000 – 255	P/T Movement Fast to Slow
43	Control	000 – 005	No Function
		006 – 007	Blackout On (Hold 3s)
		008 – 009	Blackout Off (Hold 3s)
		010 – 041	Spare
		042 – 043	Invert Pan On (Hold 3s)
		044 – 045	Invert Pan Off (Hold 3s)
		046 – 047	Invert Tilt On (Hold 3s)
		048 – 049	Invert Tilt Off (Hold 3s)
		050 – 073	Spare
		074 – 075	Dimmer Response LED (Hold 3s)
		076 – 077	Dimmer Response Halogen (Hold 3s)
		078 – 097	Spare
		098 – 099	Silent Fan On (Hold 3s)
		100 – 101	Auto Fan (Hold 3s)
		102 – 119	Spare
		120 – 121	LED Frequency 800Hz (Hold 3s)
		122 – 123	LED Frequency 1200Hz (Hold 3s)
		124 – 125	LED Frequency 2000Hz (Hold 3s)
		126 – 127	LED Frequency 3600Hz (Hold 3s)
		128 – 129	LED Frequency 12kHz (Hold 3s)
		130 – 131	LED Frequency 25kHz (Hold 3s)
		132 – 139	Spare
		140 – 141	Display On (Hold 3s)
		142 – 143	Display Off (Hold 3s)
		144 – 159	Spare
		160 – 161	LED Direction Normal (Hold 3s)
		162 – 163	LED Direction Reverse (Hold 3s)
		164 – 165	Dimmer Curve Linear (Hold 3s)
		166 – 167	Dimmer Curve Exponential (Hold 3s)
		168 – 169	Dimmer Curve Logarithmic (Hold 3s)
		170 – 171	Dimmer Curve S-Curve (Hold 3s)
		172 – 201	Spare
		202 – 203	RAW Mode (Hold 3s)
		204 – 205	User Calibrated Mode (Hold 3s)
		206 – 207	Factory Calibrated Mode (Hold 3s)
		208 – 221	Spare
		222 – 223	Reset Pan/Tilt (Hold 3s)
		224 – 227	Spare
		228 – 229	Reset Zoom (Hold 3s)
		230 – 235	Spare

		236 – 237	Reset All Functions (Hold 3s)
		238 – 245	Spare
		246 – 255	No Function

86CH	Function	Value	Setting
1	Pan	000 – 255	Pan Coarse
2	Pan Fine	000 – 255	Pan Fine
3	Tilt	000 – 255	Tilt Coarse
4	Tilt Fine	000 – 255	Tilt Fine
5	Dimmer	000 – 255	0 – 100%
6	Dimmer Fine	000 – 255	0 – 100%
7	Strobe	000 – 005	Strobe Open
		006 – 010	Strobe Closed
		011 – 033	Pulse Random (Slow to Fast)
		034 – 056	Pulse Up Random (Slow to Fast)
		057 – 079	Pulse Down Random (Slow to Fast)
		080 – 102	Random Strobe Effect (Slow to Fast)
		103 – 127	Strobe Lightning Effect (5s to 1s)
		128 – 250	Strobe (Slow to Fast)
		251 – 255	Strobe Open
8	Red	000 – 255	0 – 100%
9	Green	000 – 255	0 – 100%
10	Blue	000 – 255	0 – 100%
11	White	000 – 255	0 – 100%
12	Red	000 – 255	0 – 100%
13	Green	000 – 255	0 – 100%
14	Blue	000 – 255	0 – 100%
15	White	000 – 255	0 – 100%
16	Red	000 – 255	0 – 100%
17	Green	000 – 255	0 – 100%
18	Blue	000 – 255	0 – 100%
19	White	000 – 255	0 – 100%
20	Red	000 – 255	0 – 100%
21	Green	000 – 255	0 – 100%
22	Blue	000 – 255	0 – 100%
23	White	000 – 255	0 – 100%
24	Red	000 – 255	0 – 100%
25	Green	000 – 255	0 – 100%
26	Blue	000 – 255	0 – 100%
27	White	000 – 255	0 – 100%
28	Red	000 – 255	0 – 100%
29	Green	000 – 255	0 – 100%
30	Blue	000 – 255	0 – 100%
31	White	000 – 255	0 – 100%
32	Red	000 – 255	0 – 100%
33	Green	000 – 255	0 – 100%
34	Blue	000 – 255	0 – 100%
35	White	000 – 255	0 – 100%
36	Red	000 – 255	0 – 100%
37	Green	000 – 255	0 – 100%
38	Blue	000 – 255	0 – 100%
39	White	000 – 255	0 – 100%
40	Red	000 – 255	0 – 100%
41	Green	000 – 255	0 – 100%
42	Blue	000 – 255	0 – 100%
43	White	000 – 255	0 – 100%
44	Red	000 – 255	0 – 100%
45	Green	000 – 255	0 – 100%
46	Blue	000 – 255	0 – 100%
47	White	000 – 255	0 – 100%
48	Red	000 – 255	0 – 100%
49	Green	000 – 255	0 – 100%
50	Blue	000 – 255	0 – 100%
51	White	000 – 255	0 – 100%
52	Red	000 – 255	0 – 100%
53	Green	000 – 255	0 – 100%
54	Blue	000 – 255	0 – 100%
55	White	000 – 255	0 – 100%
56	Red	000 – 255	0 – 100%
57	Green	000 – 255	0 – 100%

58	Blue	000 – 255	0 – 100%
59	White	000 – 255	0 – 100%
60	Red	000 – 255	0 – 100%
61	Green	000 – 255	0 – 100%
62	Blue	000 – 255	0 – 100%
63	White	000 – 255	0 – 100%
64	Red	000 – 255	0 – 100%
65	Green	000 – 255	0 – 100%
66	Blue	000 – 255	0 – 100%
67	White	000 – 255	0 – 100%
68	Red	000 – 255	0 – 100%
69	Green	000 – 255	0 – 100%
70	Blue	000 – 255	0 – 100%
71	White	000 – 255	0 – 100%
72	Red	000 – 255	0 – 100%
73	Green	000 – 255	0 – 100%
74	Blue	000 – 255	0 – 100%
75	White	000 – 255	0 – 100%
76	Red	000 – 255	0 – 100%
77	Green	000 – 255	0 – 100%
78	Blue	000 – 255	0 – 100%
79	White	000 – 255	0 – 100%
80	Red	000 – 255	0 – 100%
81	Green	000 – 255	0 – 100%
82	Blue	000 – 255	0 – 100%
83	White	000 – 255	0 – 100%
84	Zoom	000 – 255	Narrow to Wide
85	Zoom Fine	000 – 255	0 – 100%
86	Control	000 – 005	No Function
		006 – 007	Blackout On (Hold 3s)
		008 – 009	Blackout Off (Hold 3s)
		010 – 041	Spare
		042 – 043	Invert Pan On (Hold 3s)
		044 – 045	Invert Pan Off (Hold 3s)
		046 – 047	Invert Tilt On (Hold 3s)
		048 – 049	Invert Tilt Off (Hold 3s)
		050 – 073	Spare
		074 – 075	Dimmer Response LED (Hold 3s)
		076 – 077	Dimmer Response Halogen (Hold 3s)
		078 – 097	Spare
		098 – 099	Silent Fan On (Hold 3s)
		100 – 101	Auto Fan (Hold 3s)
		102 – 119	Spare
		120 – 121	LED Frequency 800Hz (Hold 3s)
		122 – 123	LED Frequency 1200Hz (Hold 3s)
		124 – 125	LED Frequency 2000Hz (Hold 3s)
		126 – 127	LED Frequency 3600Hz (Hold 3s)
		128 – 129	LED Frequency 12kHz (Hold 3s)
		130 – 131	LED Frequency 25kHz (Hold 3s)
		132 – 139	Spare
		140 – 141	Display On (Hold 3s)
		142 – 143	Display Off (Hold 3s)
		144 – 159	Spare
		160 – 161	LED Direction Normal (Hold 3s)
		162 – 163	LED Direction Reverse (Hold 3s)
		164 – 165	Dimmer Curve Linear (Hold 3s)
		166 – 167	Dimmer Curve Exponential (Hold 3s)
		168 – 169	Dimmer Curve Logarithmic (Hold 3s)
		170 – 171	Dimmer Curve S-Curve (Hold 3s)
		172 – 201	Spare
		202 – 203	RAW Mode (Hold 3s)
		204 – 205	User Calibrated Mode (Hold 3s)
		206 – 207	Factory Calibrated Mode (Hold 3s)
		208 – 221	Spare
		222 – 223	Reset Pan/Tilt (Hold 3s)
224 – 227	Spare		
228 – 229	Reset Zoom (Hold 3s)		
230 – 235	Spare		
236 – 237	Reset All Functions (Hold 3s)		
238 – 245	Spare		
246 – 255	No Function		

PIXEL MAP

Pixel Order: Refer to the below illustration for programming the order of the R2 LEDs

