VARI*LITE

VL3600 PROFILE IP
User Manual

TABLE OF CONTENTS

1. Safety Instructions

Please read the instruction carefully which includes important information about the installation, usage and maintenance.

WARNING

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction manual.

Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

Caution:

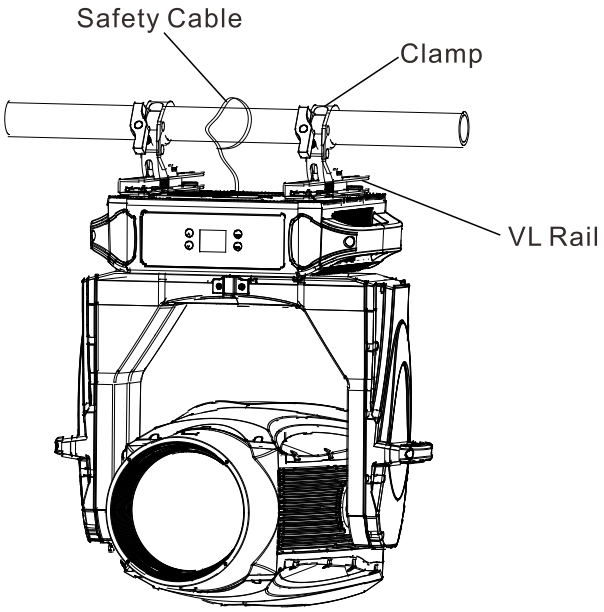
- All fixtures are intact from the manufacturer, please operate follow up the User's Manual, artificial fault is not under guarantee repair.
- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- This product is suitable for wet locations. Do not immerse in water.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: -10℃. Maximum ambient temperature TA: 45℃. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- Keep flammable materials away from the fixture while operating to avoid fire hazard.

- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to 80℃. DO NOT touch the housing bare-handed during its operation.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.
- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- DO NOT open the housing as there are no user serviceable parts inside.
- DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect this product from its power source before servicing.
- DO use the original packaging if the device is to be transported.
- Avoid direct eye exposure to the light source while the product is on.
- DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.

Installation:

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. Always ensure that the structure to which you are attaching the unit is secure and can support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture. Use M12 screw to fasten the clamp to the Quick-lock fastener.

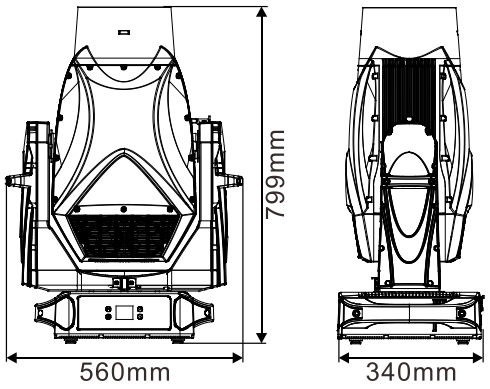
The equipment must be installed by professionals. And it must be installed at a place where is out of the touch of people and has no one pass by or under it.



2. Techical Specfications

- DMX Mode: 16Bit / 16Bit Enh
- Control Mode: DMX512, RDM, RJ45, Wireless
- Firmware Upgrade: Update via DMX and USB
- Display: LCD touch display
- Data In/Out: 5-pin XLR
- Power In/Out: Power Connector
- Protection Rating: IP65
- Built-in programs for selection
- Can achieve changing the DMX address code, machine reset and other functions from the console
- Voltage: 120-240V~ 50/60Hz
- Power Consumption: 1505W
- Light Source: 1000W LED
- Zoom Range: 5.5°~50°
- Dimension/Weight: 560x340x799mm, 47.64kgs

  22x13.4x31.5in, 105lbs

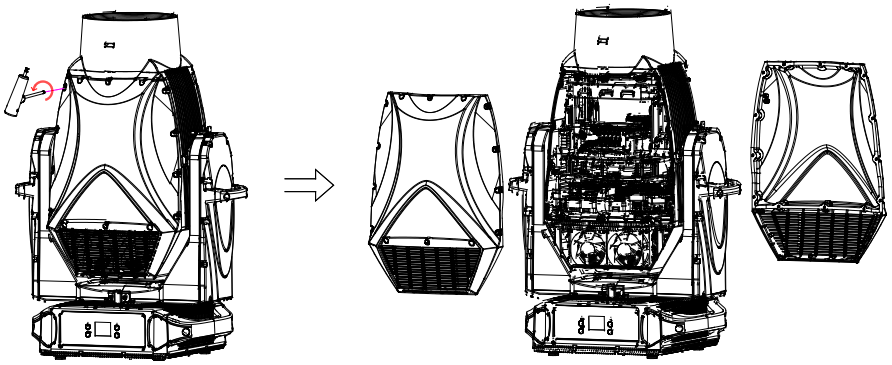


3. IP Rating and Fixture Maintenance

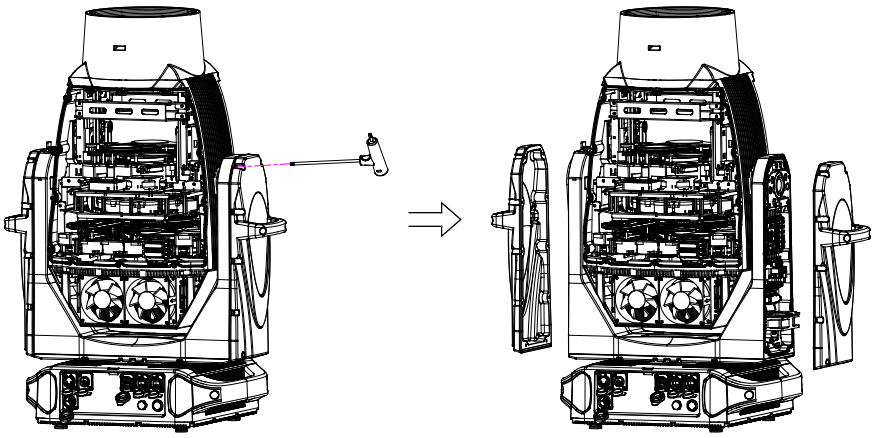
IP65 RATED

An IP rated lighting fixture is one, which is commonly installed in outdoor environments and has been designed with an enclosure that effectively protects the ingress (entry) of external foreign objects such as dust and water. The International Protection (IP) rating system is commonly expressed as “IP” (Ingress Protection) followed by two numbers (i.e. IP65) where the numbers define the degree of protection. The first digit (Foreign Bodies Protection) indicates the extent of protection against particles entering the fixture and the second digit (Water Protection) indicates the extent of protection against water entering the fixture. An IP65 rated lighting fixture is one, which has been designed and tested to protect against the ingress of dust (6) and low-pressure water jets from any direction (5).

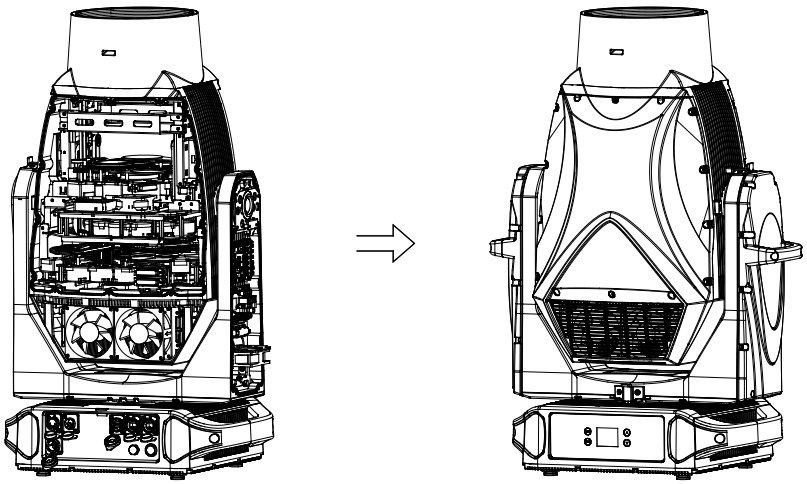
Unscrew the screws of the luminaire head covers with a Torx screwdriver (packed with fixture in the box) to open the luminaire head covers (no need to move the waterproof silicon ring) for after-service.



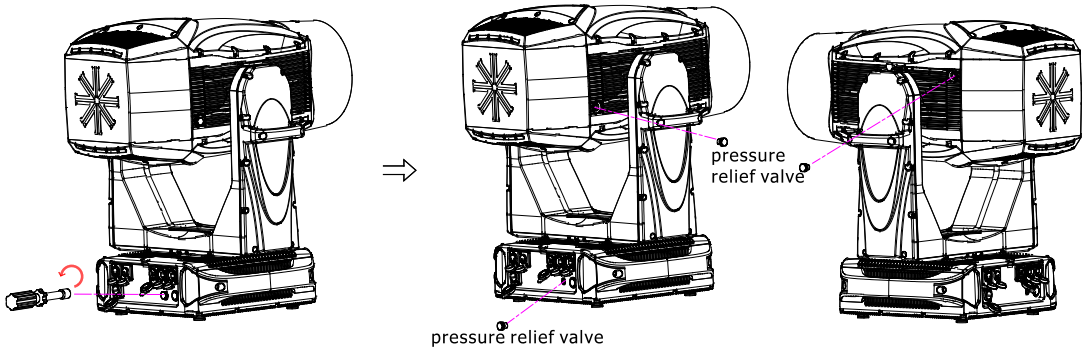
Unscrew the screws of the luminaire arm covers with a Torx screwdriver to open the luminaire arm covers (no need to move the waterproof silicon ring) for after-service.



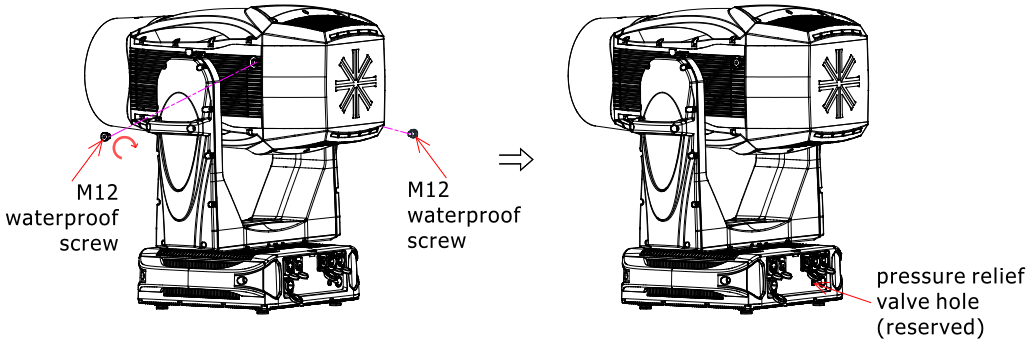
After maintenance, power on the luminaire to check whether all functions are normal. Install the head and arm covers and check carefully whether they are locked, free of bumps and large gaps.



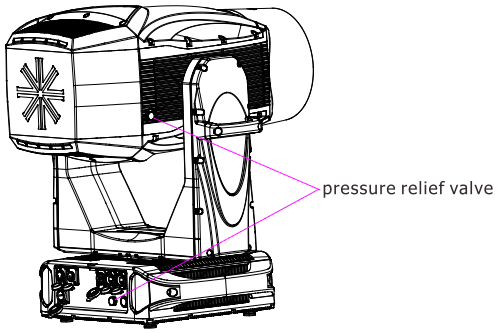
Adjust the luminaire head to the illustrated state and ready for air tightness test. Remove three pressure relief valves with a 16mm hex sleeve screwdriver.



After removing the three pressure relief valves, lock any two pressure relief valve holes with two M12 waterproof screws, and insert the air hose of the air tightness tester into the remaining pressure relief valve hole. Power on the air tightness tester, adjust the parameters (maintain value -30 KPa, leakage < -4500 Pa, measured time 60s), run the test and wait for the test results. For more information, please refer to the user manual of the air tightness tester.



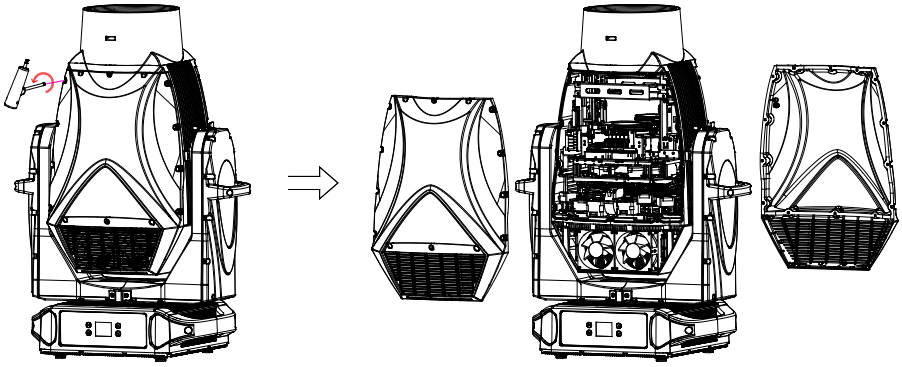
After the test is passed, remove the two M12 waterproof screws and put the three pressure relief valves back in place.



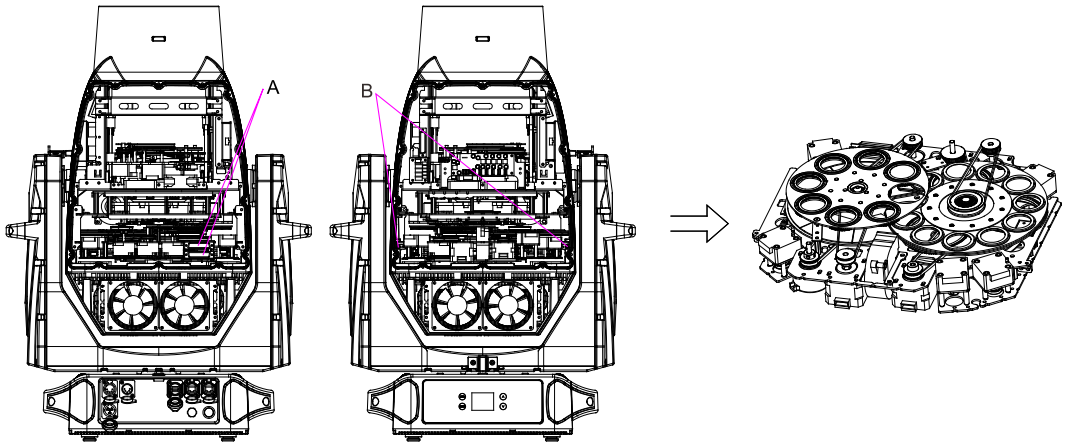
4. Replacing Static/Rotating Gobos

4.1 Replacing Rotating Gobos

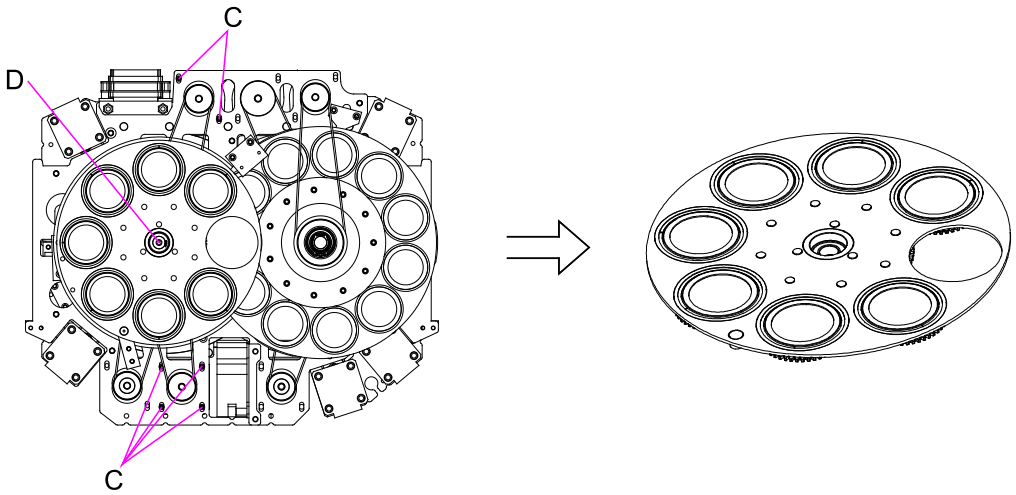
1. Unscrew the screws of the luminaire head covers with a Torx screwdriver to open the luminaire head covers (no need to move the waterproof silicon ring).



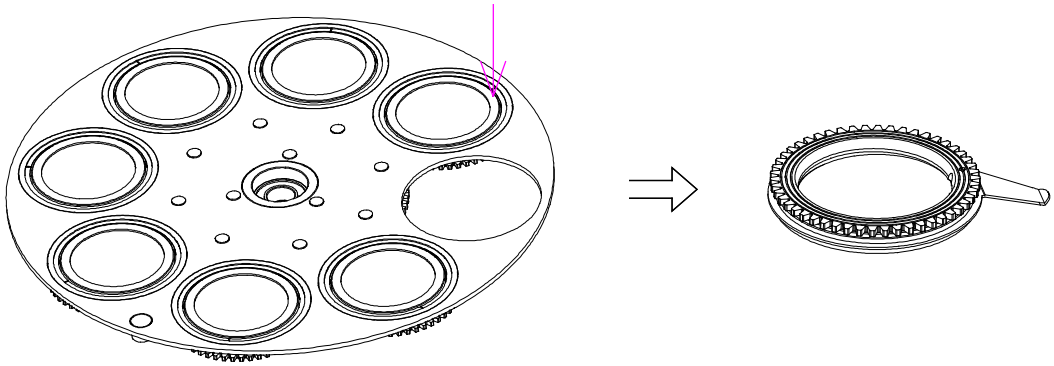
2. Unplug the DB plug at A and unscrew the two screws at B to take out the gobo & colors assembly.



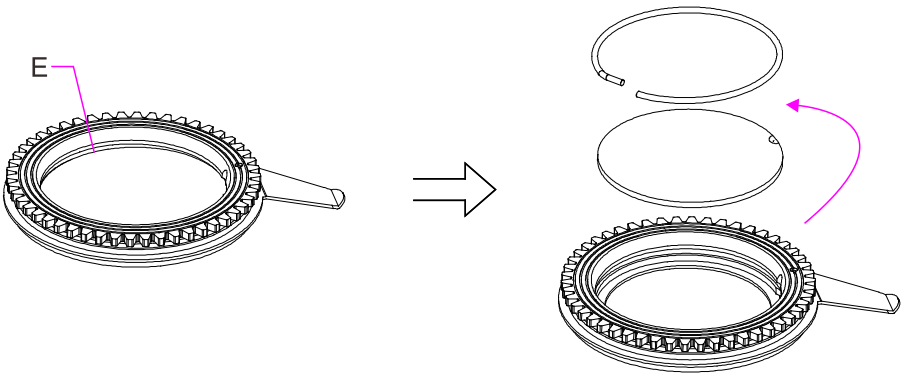
3. Half loosen the screws at C and remove two belts; Unscrew the screw at D, then take out the rotating gobo wheel assembly;



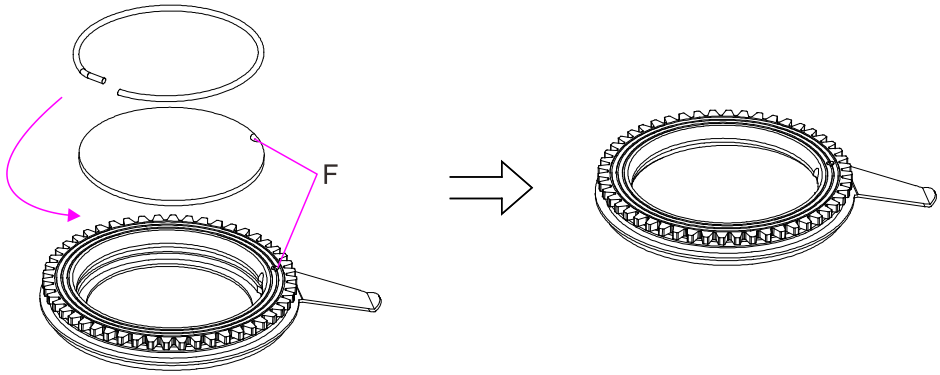
4. Press down the gobo from the edge of the rotating gobo wheel assembly and slowly pull it out;



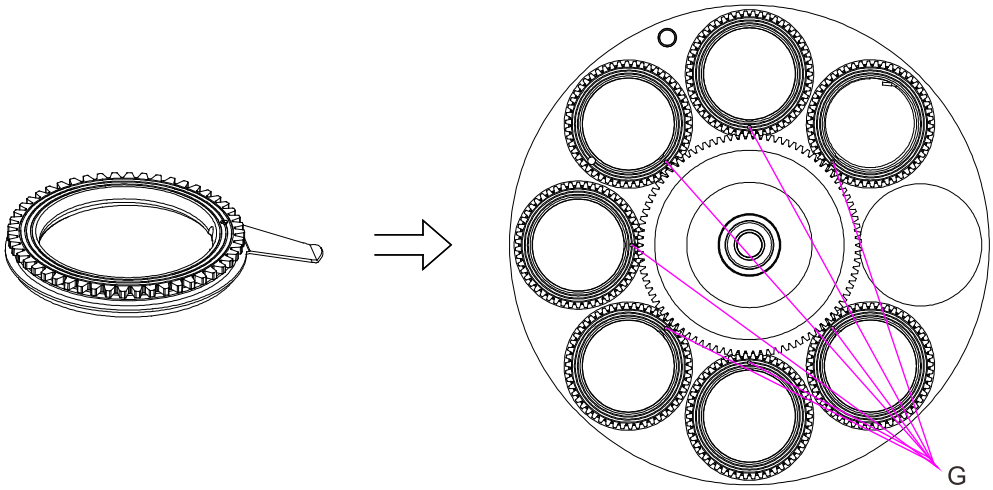
5. Remove the spring at E with an appropriate tool like tweezers (the gobo is fixed with glass glue, do remove it with some good glass cleaning fluid before removing the spring to avoid damage to the gobo).



6. Do not touch the surface of the gobo with bare fingers. Put the gobo and the spring back into the gobo holder (the gobo has a small position point at its edge which has to aim at the position point on the gobo holder like F shows; the gobo coating side should face upwards), and then apply a little glass glue to fix the gobo.



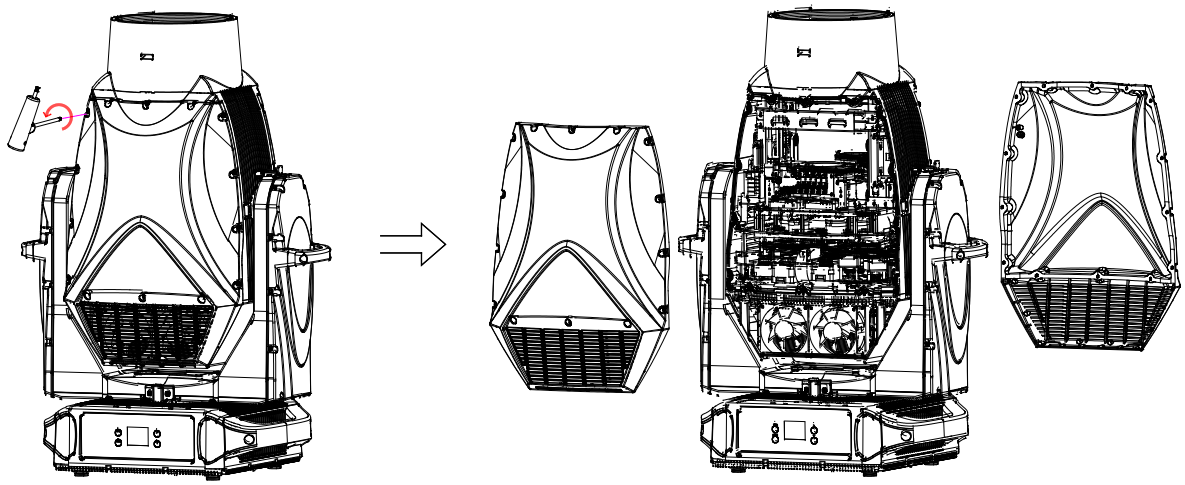
7. Insert the gobo holder back into the rotating gobo wheel assembly in this way that its position point has to exactly aim at the center of the rotating gobo wheel.



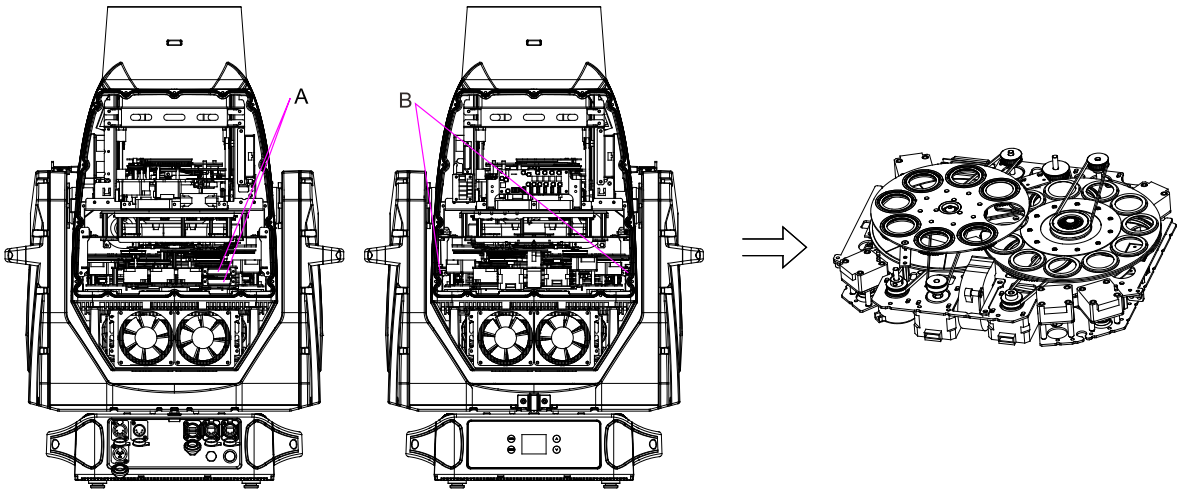
8. After installation, put the gobo & color assembly back to the fixture

4.2 Replacing Static Gobos

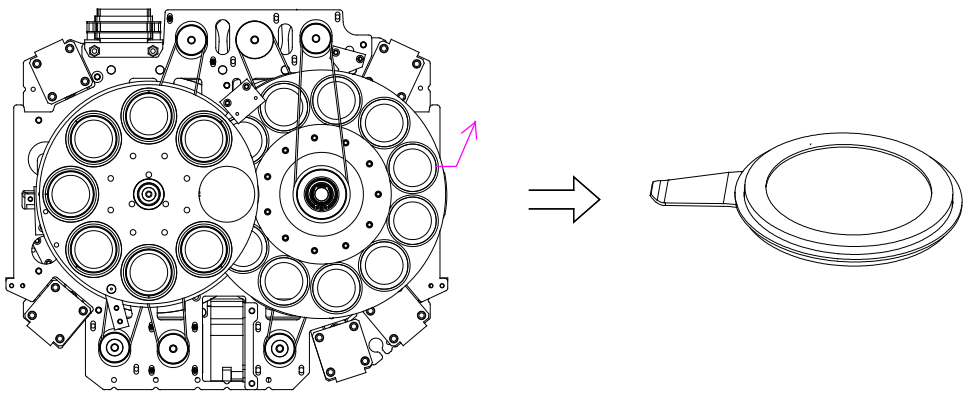
1. Unscrew the screws of the luminaire head covers with a Torx screwdriver to open the luminaire head covers (no need to move the waterproof silicon ring).



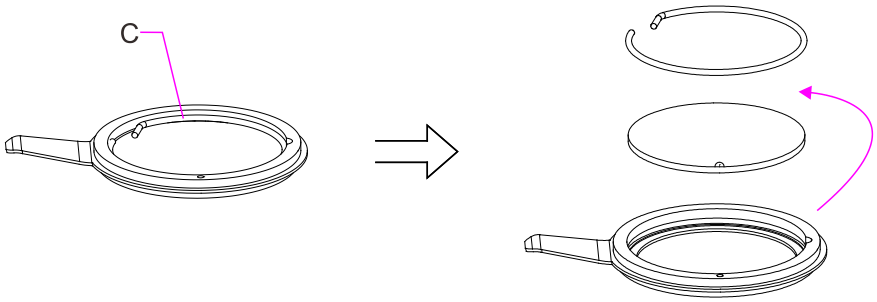
2. Unplug the DB plug at A and unscrew the two screws at B to take out the gobo & color assembly.



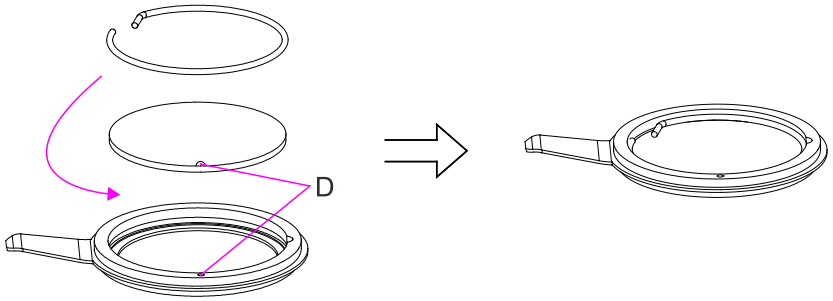
3. Gently lift the gobo holder from the edge of the static gobo wheel and slowly pull it out.



4. Remove the spring at C with an appropriate tool like tweezers (the gobo is fixed with glass glue, do remove it with some good glass cleaning fluid before removing the spring to avoid damage to the gobo).



5. Do not touch the surface of the gobo with bare fingers. Put the gobo and the spring back into the gobo holder (the gobo has a small position point at its edge which has to aim at the position point on the gobo holder like D shows; the gobo coating side should face upwards), and then apply a little glass glue to fix the gobo.



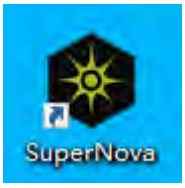
6. Insert the gobo holder back into the static gobo wheel assembly. After installation, put the gobo & color assembly back to the fixture.

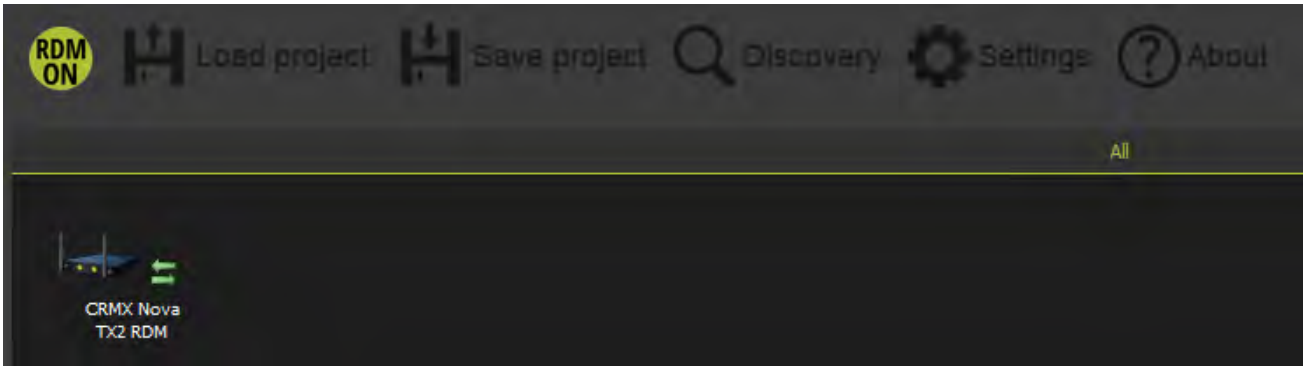
5. VL3600 Control via SuperNova Procedures

Power on VL3600 PROFILE IP, enter the main menu and select **DMX**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Wireless DMX,** press the **ENTER** button to confirm. Then use the **UP/DOWN** button to select **Select Signal**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Wireless DMX,** press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **On,** press the **ENTER** button to store.

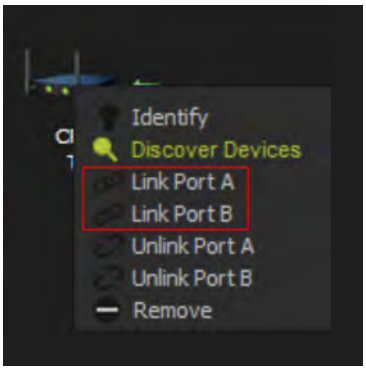
Power on TX2 RDM. Turn on the computer and connect the TX2 RDM to the computer with a network cable.

Open the SuperNova software and the following window will pop up.

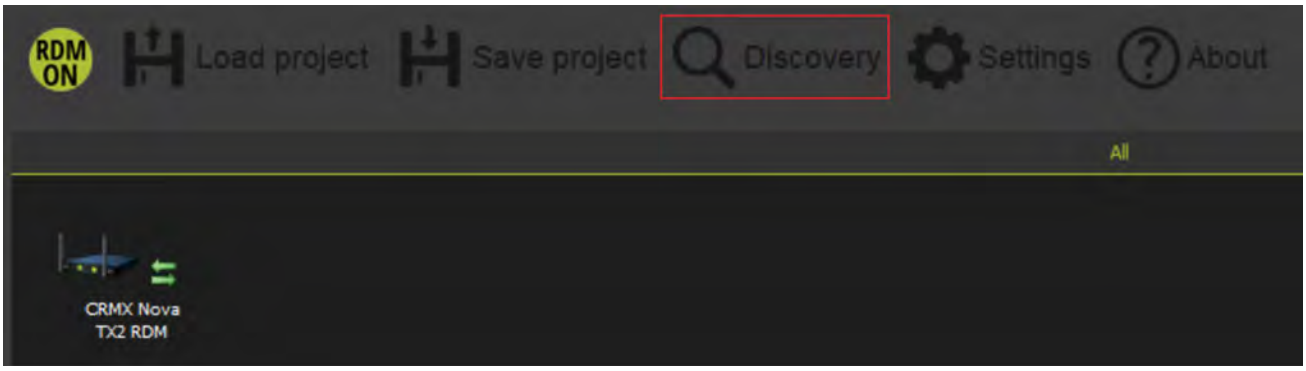




Right click on the CRMX Nova TX2 RDM and select Link Port A or Link Port B which depends DMX cable connect to which port, if no DMX cable connecting, choose any port is OK.

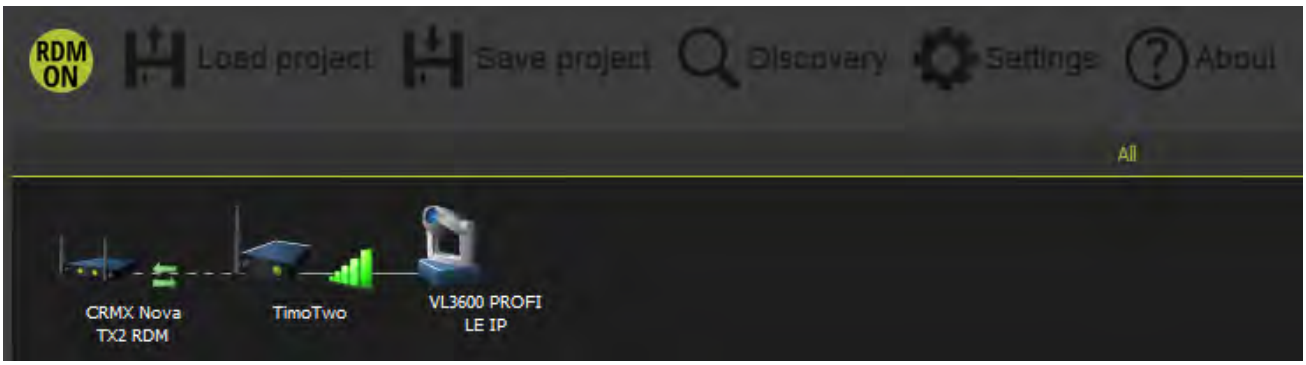


Select **Discovery**.



In the pop-up window, select **Start** in **Full discovery.**

Then the following windows will pop up.



Right click on VL3600 PROFILE IP, three options of Identify, Sensors and Virtual Console will appear.

When Identify is selected, the luminaire will go into a strobe state to tell its location.

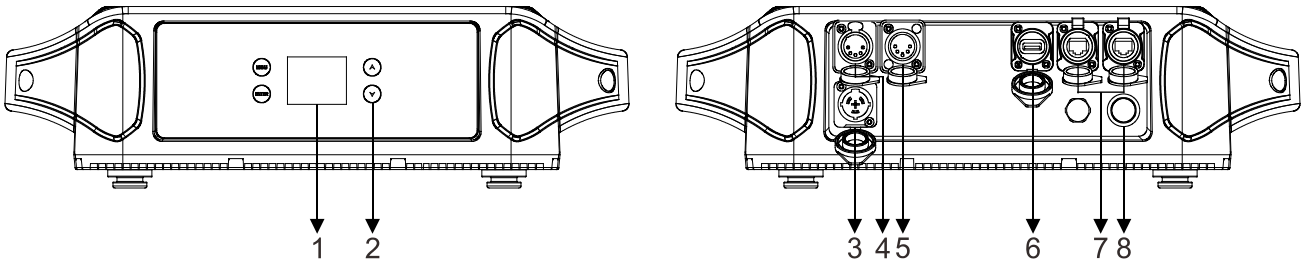
When Sensors is selected, a window showing the temperature of each CPU of the luminaire will pop up.

When Virtual Console is selected, a window showing the console will pop up, through which you can control the luminaire.

You can also connect the TX2 RDM to the DMX console with an XLR cable or network cable after all the above operations to control the luminaire through the DMX console(only when the Virtual Console window is closed can the luminaire be controlled by the DMX console).

6. How To Set The Fixture

6.1 Control Panel



1. Display: To show the menu and the selected functions

2. Button:

MENU	To select the programming functions
UP	To go backward in the selected functions
DOWN	To go forward in the selected functions
ENTER	To confirm the selected functions

3. POWER INPUT: Used to connect to supply power

4. DMX/RDM THRU:

Connectors for DMX512 operation, use 5-pin XLR cable to link the next unit

5. DMX/RDM INPUT:

Connectors for DMX512 operation, use 5-pin XLR cable to link the DMX console

6. FIRMWARE UPGRADE: Used to upgrade fixture's firmware

7. ETHERNET: Transfers fixture's information to a main controller

8. BATTERY DISPLAY

6.2 Main Functions

To select any functions, press the MENU button until the required one is shown on the display. Select the function by the ENTER button and the display will blink. Use the DOWN and UP button to change the mode. Once the required mode has been selected, press the ENTER button to setup. Back to the functions without any change press the MENU button. The main functions are shown below:

Press and hold the **ENTER** button, and then quickly press the **UP-->DOWN-->UP-->DOWN** buttons in 2s to unlock the screen.

QUICK REFERENCE MENU KEY SHORTCUTS

MENU KEY SHORTCUTS	FUNCTION
Holding Menu at Power up	Bypass Calibration
Menu + Up	ReCal All
Menu + Down	Pan / Tilt Deactivated
Menu + Enter	Factory Defaults
Enter + Up	LED On
Enter + Down	LED Off
Up + Down	Display FLIP
Enter + Up + Down at Power up	Reset Timers Shortcut

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Default
Address	001~512					(Default 001)
Configure	LED	LED Hours	XXXXXX h			
		Dimming Curve	Square Law			(Default)
			S Curve			
			Linear			
		Dim Snap	Snap On			
			Snap Off			(Default)
		Output Mode	Standard			(Default)
			Studio			
			Whisper			
		Fan Mode	On			
			Auto			(Default)
		Refresh Rate	900Hz			
			910Hz			
			920Hz			
			930Hz			
			940Hz			
			950Hz			
			960Hz			
			980Hz			
			990Hz			
			1000Hz			
			1500Hz			(Default)
			2500Hz			
			3000Hz			
			3500Hz			
			4000Hz			

Level 1	Level 2	Level 3	Level 4 Level 5 Level 6	Default
			4500Hz	
			5000Hz	
			5500Hz	
			6000Hz	
			6500Hz	
			7000Hz	
			7500Hz	
			8000Hz	
			8500Hz	
			9000Hz	
			10KHz	
			10.5KHz	
			11KHz	
			11.5KHz	
			12.5KHz	
			13KHz	
			13.5KHz	
			14KHz	
			14.5KHz	
			15KHz	
			16.5KHz	
			17KHz	
			17.5KHz	
			18KHz	
			18.5KHz	
			19KHz	
			19.5KHz	
			20KHz	
			20.5KHz	
			21.5KHz	
			22KHz	
			22.5KHz	
			23KHz	
			23.5KHz	
			24KHz	
			24.5KHz	
			25KHz	
		Gamm Shift	2.00	(Default)
			2.10	
			2.20	
			2.30	
			2.40	

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Default
			2.50			
			2.60			
			2.70			
			2.80			
	Movement	Pan/Tilt	Enable			(Default)
			Disable			
		Side Hang	Enable			
			Disable			(Default)
	Cal-Position	Home				(Default)
		Dmx				
	Display	Orientation	Up			(Default)
			Down			
		On Time	30 Sec			(Default)
			5 Min			
			10 Min			
			On			
	Focus Track	Enable				
		Disable				(Default)
	Follow Spot Mode	Enable				
		Disable				(Default)
	Reset Defaults	Are You Sure?				
DMX	Address	001~512				
	DMX Mode	16-Bit Enh				(Default)
		16-Bit				
	Data	Ch 1 - Intensity XXX (Value)				
		Ch 2 - Intensity Fine XXX (Value)				
		.....All functions				
	Pan/Tilt	Swap Pan/Tilt	Off			(Default)
			On			
		Invert Pan	Off			(Default)
			On			
		Invert Tilt	Off			(Default)
			On			
	Select Signal	DMX Only				(Default)
		Art-Net	Off			(Default)
			On			
		Wireless DMX	Off			(Default)
			On			
	Wireless DMX	Setup	Set up data to be configered once final wireless provider confirmed.....			
	Set Artnet	Set Universe	0~15			

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Default
		Net	0~127			
		Sub-Net	0~15			
		Ethernet IP	IP1 XXX. XXX. XXX. XXX			
			IP2 XXX. XXX. XXX. XXX			
			Manual			
		Ether Mask IP	XXX. XXX. XXX. XXX			
	Dmx Fail	DMX Hold				(Default)
		Blackout				
		Goto Preset	1 to 20			
Fixture	Status	*(No Errors… or displays a list of errors)*				
	Recal (Fixture)	Are You Sure?				
	Reboot Fixture	Are You Sure?				
	Version	VXXX				
	Fixture Hours	XXXXXX h				
	Crossload *(Software)*	Send				
	Service	Service Settings	Password Access Only(2606)	Set Position Cal	Pan	(-128~127)
					Tilt	(-128~127)
					Re. Pos. Offset	No/Yes
					ReCal Position	No/Yes
				Color Offset	Cyan	(-128~127)
					Yellow	(-128~127)
					Magenta	(-128~127)
					CTO	(-128~127)
					Color Wheel 1	(-128~127)
					Color Wheel 2	(-128~127)
					Reset Color Offset	No/Yes

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Default
					ReCal Color	No/Yes
				Gobo Offset	Gobo1 Wheel	(-128~127)
					Gobo2 Wheel	(-128~127)
					Gobo2 Rot	(-128~127)
					Gobo3 Wheel	(-128~127)
					Gobo3 Rot	(-128~127)
					Reset Gobo Offset	No/Yes
					ReCal Gobo	No/Yes
				Optics Offset	Focus	(-128~127)
					Zoom	(-128~127)
					Prism 1	(-128~127)
					Prism 2	(-128~127)
					Prism 1 Rot	(-128~127)
					Prism 2 Rot	(-128~127)
					Frost 1	(-128~127)
					Frost 2	(-128~127)
					Re. Opt. Offset	No/Yes
					ReCal Optics	No/Yes
				Beam Offset	Iris	(-128~127)
					Frame Rot	(-128~127)
					Frame 1A	(-128~127)
					Frame 1B	(-128~127)
					Frame 2A	(-128~127)
					Frame	(-128~127)

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Default
					2B	
					Frame 3A	(-128~127)
					Frame 3B	(-128~127)
					Frame 4A	(-128~127)
					Frame 4B	(-128~127)
					Re. Opt. Offset	No/Yes
					ReCal Frame	No/Yes
		USB	Log File	Download		N/A
			Save Config	XXXX Version number	Are You Sure? (Yes/No)	N/A
			Restore Config	XXXX Version number	Are You Sure? (Yes/No)	N/A
			Save Preset	XXXX Version number	Are You Sure? (Yes/No)	N/A
			Restore Presets	XXXX Version number	Are You Sure? (Yes/No)	N/A
			Update OS	XXXX Version number	Are You Sure? (Yes/No)	N/A
		Diagnostics	Fan Check			
			LED Temp	Cur	Max	
				xx°C	xx°C	

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Default
Test	All Test	*(Run 'ALL TEST')*				
	Pan/Tilt Test	*(Run 'PAN/TILT TEST')*				
	Test Channel	Intensity			*(Run Intensity test)*	
		Pan			*(Run Pan test)*	
		Tilt			*(Run Tilt test)*	
		Focus			*(Run Focus test)*	
		Zoom			*(Run Zoom test)*	
		Cyan			*(Run Cyan test)*	
		Yellow			*(Run Yellow test)*	
		Magenta			*(Run Magenta test)*	
		Cto Wheel			*(Run Cto test)*	
		Color Wheel 2			*(Run Color2 test)*	
		Color Wheel 1			*(Run Color1 test)*	
		Gobo Wheel 1			*(Run Gobo1 test)*	
		Gobo Wheel 2			*(Run Gobo2 test)*	
		Gobo Wheel 3			*(Run Gobo3 test)*	
		Iris			*(Run Iris test)*	
		Frame1A			*(Run Frame1A test)*	
		Frame1B			*(Run Frame1A test)*	
		Frame2A			*(Run Frame1B test)*	
		Frame2B			*(Run Frame2A test)*	
		Frame3A			*(Run Frame2B test)*	
		Frame3B			*(Run Frame3A test)*	
		Frame4A			*(Run Frame3B test)*	
		Frame4B			*(Run Frame4A test)*	
		Frame Rotate			*(Run Frame4B test)*	
		Prism1			*(Run Prism1 test)*	
		Prism2			*(Run Prism2 test)*	
		Frost			*(Run Frost test)*	
		Strobe			*(Run Strobe test)*	
	Encoder Pan	XXXXXXX - Displays Pan Encoder				
	Encoder Tilt	XXXXXXX - Displays Tilt Encoder				
Manual/ Preset	Playback	Power Up Preset	1 to 20		N/A	
		Preset Intensity	0-255		255	
		Priority	Preset		Preset	
			DMX			
		Power Up?	Preset Off		Preset Off	
			Preset On		N/A	

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Default
	Edit	Load Preset	1 to 20			
		Edit Settings	Intensity	0-255		255
			Strobe	0-255		0
			Pan	0-255		128
			Tilt	0-255		128
			Cyan	0-255		0
			Yellow	0-255		0
			Magenta	0-255		0
			CTO Wheel	0-255		0
			Color Wheel 2	0-255		0
			Color Wheel 1	0-255		0
			Color Wheel Spin	0-255		0
			Gobo 1 Selection	0-255		0
			Gobo 2 Selection	0-255		0
			Gobo 2 Index / Rotate	0-255		0
			Gobo 3 Selection	0-255		0
			Gobo 3 Index / Rotate	0-255		0
			Prism 1	0-255		0
			Prism 2	0-255		0
			Zoom	0-255		128
			Focus	0-255		128
			Iris	0-255		0
			Frost	0-255		0
			Frame 1A	0-255		0
			Frame 1B	0-255		0
			Frame 2A	0-255		0
			Frame 2B	0-255		0
			Frame 3A	0-255		0
			Frame 3B	0-255		0
			Frame 4A	0-255		0
			Frame 4B	0-255		0
			Frame	0-255		128

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Default
			Rotate			
			Movement Shape	None	Are You Sure? (Yes/No)	None
				Figure 8	Are You Sure? (Yes/No)	
				Arc	Are You Sure? (Yes/No)	
				Line	Are You Sure? (Yes/No)	
				Speed	Slow-Medium-Fast	Medium
				Size	Small-Medium-Large	Medium
		Store	1>>>>>>>>20	Are You Sure? (Yes/No)		N/A
		Clear	1>>>>>>>>20	Are You Sure? (Yes/No)		N/A
		Clear All Presets		Are You Sure? (Yes/No)		N/A

Address

To select **Address**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the address from **001** to **512**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Configure

To select **Configure**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **LED,**

Movement, Cal-Position, Display, Focus Track, Follow Spot Mode or **Reset Defaults.**

LED

To select **LED**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **LED Hours, Dimming Curve, Dim Snap, Output Mode, Fan Mode, Refresh Rate** or **Gamm Shift**, press the **ENTER** button to store. Press the **MENU** button back to exit.

LED Hours

To select **LED Hours**, press the **ENTER** button to confirm, LED hours will show on the display, press the **MENU** button back to exit.

Dimming Curve

To select **Dimming Curve**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Square Law, S Curve** or **Linear,** press the **ENTER** button to store. Press the **MENU** button back to exit.

Dim Snap

To select **Dim Snap**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Snap On** or **Snap Off,** press the **ENTER** button to store. Press the **MENU** button back to exit.

Output Mode

To select **Output Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Standard, Studio** or **Whisper,** press the **ENTER** button to store. Press the **MENU** button back to exit.

Fan Mode

To select **Fan Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **On** or **Auto,** press the **ENTER** button to store. Press the **MENU** button back to exit.

Refresh Rate

To select **Refresh Rate**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **900Hz, 910Hz, 920Hz, 930Hz, 940Hz, 950Hz, 960Hz, 980Hz, 990Hz, 1000Hz, 1500Hz, 2500Hz, 3000Hz, 3500Hz, 4000Hz, 4500Hz, 5000Hz, 5500Hz, 6000Hz, 6500Hz, 7000Hz, 7500Hz, 8000Hz, 8500Hz, 9000Hz, 10KHz, 10.5KHz, 11KHz, 11.5KHz, 12.5KHz, 13KHz, 13.5KHz, 14KHz, 14.5KHz, 15KHz, 16.5KHz, 17KHz, 17.5KHz, 18KHz, 18.5KHz, 19KHz, 19.5KHz, 20KHz, 20.5KHz, 21.5KHz, 22KHz, 22.5KHz, 23KHz, 23.5KHz, 24KHz, 24.5KHz** or **25KHz,** press the

ENTER button to store. Press the MENU button back to exit.

Gamm Shift

To select Gamm Shift, press the ENTER button to confirm. Use the UP/DOWN button to select 2.00, 2.10, 2.20, 2.30, 2.40, 2.50, 2.60, 2.70 or 2.80, press the ENTER button to store. Press the MENU button back to exit.

Movement

To select Movement, press the ENTER button to confirm. Use the UP/DOWN button to select Pan/Tilt or Side Hang, press the ENTER button to store. Press the MENU button back to exit.

Pan/Tilt

To select Pan/Tilt, press the ENTER button to confirm. Use the UP/DOWN button to select Enable or Disable, press the ENTER button to store. Press the MENU button back to exit.

Side Hang

To select Side Hang, press the ENTER button to confirm. Use the UP/DOWN button to select Enable or Disable, press the ENTER button to store. Press the MENU button back to exit.

Cal-Position

To select Cal-Position, press the ENTER button to confirm. Use the UP/DOWN button to select Home or Dmx, press the ENTER button to store. Press the MENU button back to exit.

Display

To select Display, press the ENTER button to confirm. Use the UP/DOWN button to select Orientation or On Time, press the ENTER button to store. Press the MENU button back to exit.

Orientation

To select Orientation, press the ENTER button to confirm. Use the UP/DOWN button to select Up or Down, press the ENTER button to store. Press the MENU button back to exit.

On Time

To select On Time, press the ENTER button to confirm. Use the UP/DOWN button to select 30 Sec, 5 Min, 10 Min or On, press the ENTER button to store. Press the MENU button back to exit.

Focus Track

To select Focus Track, press the ENTER button to confirm. Use the UP/DOWN button to select Enable or Disable, press the ENTER button to store. Press the MENU button back to exit.

Follow Spot Mode

To select **Follow Spot Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Enable** or **Disable**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Reset Defaults

To select **Reset Defaults**, press the **ENTER** button to confirm, **Are You Sure?** will show on the display, press the **ENTER** button to store. Press the **MENU** button back to exit.

DMX

To select **DMX**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Address, DMX Mode, Data, Pan/Tilt, Select Signal, Wireless DMX, Set Artnet** or **DMX Fail.**

Address

To select **Address**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the address from **001** to **512**, press the **ENTER** button to store. Press the **MENU** button back to exit.

DMX Mode

To select **DMX Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **16-Bit Enh** or **16-Bit,** press the **ENTER** button to store. Press the **MENU** button back to exit.

Data

To select **Data**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Ch1-Intensity, Ch2-Intensity Fine** or **....All functions,** press the **ENTER** button to store. Press the **MENU** button back to exit.

Pan/Tilt

To select **Pan/Tilt**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Swap Pan/Tilt, Invert Pan** or **Invert Tilt,** press the **ENTER** button to store. Use the **UP/DOWN** button to select **Off** or **On**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Select Signal

To select **Select Signal**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **DMX Only, Art-Net** or **Wireless DMX,** press the **ENTER** button to store. Press the **MENU** button back to exit.

Wireless DMX

To select **Wireless DMX**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Setup,** press the **ENTER** button to store. Press the **MENU** button back to exit.

Set Artnet

To select **Set Artnet**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Set Universe, Net, Sub-Net, Ethernet IP** or **Ether Mask IP,** press the **ENTER** button to store. Press the **MENU** button back to exit.

DMX Fail

To select **DMX Fail,** press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **DMX Hold, Blackout** or **Goto Preset,** press the **ENTER** button to store. Press the **MENU** button back to exit.

Fixture

To select **Fixture**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Status, ReCal (Fixture), Reboot Fixture, Version, Fixture Hours, Crossload (Software)** or **Service.**

Status

To select **Status**, press the **ENTER** button to confirm, **(No Errors...or displays a list of errors)** will show on the display, press the **MENU** button back to exit.

Recal (Fixture)

To select **Recal (Fixture)**, press the **ENTER** button to confirm, **Are You Sure?** will show on the display, press the **ENTER** button to store. Press the **MENU** button back to exit.

Reboot Fixture

To select **Reboot Fixture**, press the **ENTER** button to confirm, **Are You Sure?** will show on the display, press the **ENTER** button to store. Press the **MENU** button back to exit.

Version

To select **Version**, press the **ENTER** button to confirm, fixture's firmware version will show on the display, press the **MENU** button back to exit.

Fixture Hours

To select **Fixture Hours**, press the **ENTER** button to confirm, fixture hours will show on the display, press the **MENU** button back to exit.

Crossload (Software)

To select **Crossload (Software)**, press the **ENTER** button to confirm, **Send** will show on the display, press the **ENTER** button to store. Press the **MENU** button back to exit.

Service

To select **Service**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Service Settings, USB** or **Diagnostics**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Service Settings

To select **Service Settings**, press the **ENTER** button to go into **Password Access Only**, press the **ENTER** button to set the password 2606 and confirm. Use the **UP/DOWN** button to select **Set Position Cal, Color Offset, Gobo Offset, Optics Offset** or **Beam Offset**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Set Position Cal

To select **Set Position Cal,** press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Pan, Tilt, Re. Pos. Offset** or **ReCal Position**, then use the **UP/DOWN** button to adjust the value for **Pan** or **Tilt**, press the **ENTER** button to store, the fixture will run as the channel value indicates and to select **No** or **Yes** for **Re. Pos. Offset** or **ReCal Position**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Color Offset

To select **Color Offset,** press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Cyan, Yellow, Magenta, CTO, Color Wheel 1, Color Wheel 2, Reset Color Offset** or **ReCal Color**, then use the **UP/DOWN** button to adjust the value for **Cyan, Yellow, Magenta, CTO, Color Wheel 1** or **Color Wheel 2**, press the **ENTER** button to store, the fixture will run as the channel value indicates and to select **No** or **Yes** for **Reset Color Offset** or **ReCal Color**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Gobo Offset

To select **Gobo Offset,** press the **ENTER** button to confirm. Use the **UP/DOWN** button to select

Gobo 1 Wheel, Gobo 2 Wheel, Gobo 2 Rot, Gobo 3 Wheel, Gobo 3 Rot, Reset Gobo Offset or ReCal Gobo, then use the UP/DOWN button to adjust the value for Gobo 1 Wheel, Gobo 2 Wheel, Gobo 2 Rot, Gobo 3 Wheel or Gobo 3 Rot, press the ENTER button to store, the fixture will run as the channel value indicates and to select No or Yes for Reset Gobo Offset or ReCal Gobo, press the ENTER button to store. Press the MENU button back to exit.

Optics Offset

To select Optics Offset, press the ENTER button to confirm. Use the UP/DOWN button to select Focus, Zoom, Prism 1, Prism 2, Prism 1 Rot, Prism 2 Rot, Frost 1, Frost 2, Re. Opt. Offset or ReCal Optics, then use the UP/DOWN button to adjust the value for Focus, Zoom, Prism 1, Prism 2, Prism 1 Rot, Prism 2 Rot, Frost 1 or Frost 2, press the ENTER button to store, the fixture will run as the channel value indicates and to select No or Yes for Re. Opt. Offset or ReCal Optics, press the ENTER button to store. Press the MENU button back to exit.

Beam Offset

To select Beam Offset, press the ENTER button to confirm. Use the UP/DOWN button to select Iris, Frame Rot, Frame 1A, Frame 1B, Frame 2A, Frame 2B, Frame 3A, Frame 3B, Frame 4A, Frame 4B, Re. Opt. Offset or ReCal Frame, then use the UP/DOWN button to adjust the value for Iris, Frame Rot, Frame 1A, Frame 1B, Frame 2A, Frame 2B, Frame 3A, Frame 3B, Frame 4A or Frame 4B, press the ENTER button to store, the fixture will run as the channel value indicates and to select No or Yes for Re. Opt. Offset or ReCal Frame, press the ENTER button to store. Press the MENU button back to exit.

USB

To select USB, press the ENTER button to confirm. Use the UP/DOWN button to select Log File, Save Config, Restore Config, Save Preset, Restore Presets or Update OS, press the ENTER button to store. Press the MENU button back to exit.

Diagnostics

To select Diagnostics, press the ENTER button to confirm. Use the UP/DOWN button to select Fan Check or LED Temp, press the ENTER button to store. Press the MENU button back to exit.

Test

To select **Test**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **All Test, Pan/Tilt Test, Test Channel, Encoder Pan** or **Encoder Tilt.**

All Test

To select **All Test**, press the **ENTER** button to confirm, the unit will run all test. Press the **MENU** button back to the last menu or exit menu mode after auto test.

Pan/Tilt Test

To select **Pan/Tilt Test**, press the **ENTER** button to confirm, the unit will run pan/tilt test. Press the **MENU** button back to the last menu or exit menu mode after auto test.

Test Channel

To select **Test Channel**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Intensity, Pan, Tilt, Focus, Zoom, Cyan, Yellow, Magenta, Cto Wheel, Color Wheel 2, Color Wheel 1, Gobo Wheel 1, Gobo Wheel 2, Gobo Wheel 3, Iris, Frame1A, Frame1B, Frame2A, Frame2B, Frame3A, Frame3B, Frame4A, Frame4B, Frame Rotate, Prism1, Prism2, Frost** or **Strobe**, press the **ENTER** button to confirm, then use the **UP/DOWN** button to adjust the channel value, press the **ENTER** button to store, the fixture will run as the channel value indicates. Press the **MENU** button back to exit.

Encoder Pan

To select **Encoder Pan**, press the **ENTER** button to confirm, Displays Pan Encoder will show on the display. Press the **MENU** button back to exit.

Encoder Tilt

To select **Encoder Tilt**, press the **ENTER** button to confirm, Displays Tilt Encoder will show on the display. Press the **MENU** button back to exit.

Manual/Preset

To select **Manual/Preset,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Playback** or **Edit.**

Playback

To select **Playback**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Power Up Preset, Preset Intensity, Priority** or **Power Up?**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Edit

To select **Edit**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Load Preset, Edit Settings, Store, Clear** or **Clear All Presets**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Load Presets

To select **Load Presets**, press the **ENTER** button to confirm, use the **UP/DOWN** button to adjust the value from **1** to **20**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Edit Settings

To select **Edit Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Intensity**, **Strobe, Pan, Tilt**, **Cyan, Yellow, Magenta, CTO Wheel, Color Wheel 2, Color Wheel 1, Color Wheel Spin, Gobo 1 Selection, Gobo 2 Selection, Gobo 2 Index/Rotate, Gobo 3 Selection, Gobo 3 Index/Rotate, Prism 1, Prism 2, Zoom, Focus, Iris, Frost, Frame 1A, Frame 1B, Frame 2A, Frame 2B, Frame 3A, Frame 3B, Frame 4A, Frame 4B, Frame Rotate** or **Movement Shape,** press the **ENTER** button to confirm, then use the **UP/DOWN** button to adjust the value for these channels, press the **ENTER** button to store, the fixture will run as the channel value indicates. Press the **MENU** button back to exit.

Store

To select **Store**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the value from **1** to **20**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Clear

To select **Clear**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the value from **1** to **20**, press the **ENTER** button to store. Press the **MENU** button back to exit.

Clear All Presets

Select **Clear All Presets**, press the **ENTER** button to confirm, **Are You Sure?** will show on the display, press the **ENTER** button to store. Press the **MENU** button back to exit.

7. How To Control The Unit

You can operate the unit by DMX controller.

7.1 DMX512 Configuration

16Bit EN Channel Mode (Default mode):

CHANNEL	VALUE	DEFAULT	FUNCTION
1	0-65535	0	Intensity High 16 Bit control of Dimming
2	0-65535	0	Intensity Low 16 Bit control of Dimming
3	0-65535	32767	Pan High 540° Total Pan Rotation
4	0-65535	32767	Pan Low 540° Total Pan Rotation
5	0-65535	32767	Tilt High 270° Total Tilt
6	0-65535	32767	Tilt Low 270° Total Tilt
7	0-65535	32767	Focus High Focus control, default value 50% focus range
8	0-65535	32767	Focus Low Focus control, default value 50% focus range
9	0-65535	32767	Zoom High Zoom control, default value 50% zoom range
10	0-65535	32767	Zoom Low Zoom control, default value 50% zoom range
11	0-255	0	Cyan Cyan Color Control 0-100% saturation
12	0-255	0	Yellow Yellow Color Control 0-100% saturation
13	0-255	0	Magenta Magenta Color Control 0-100% saturation
14	0-255	0	CTO Wheel CTO Color Control 0-100% saturation
15	0-255 0-30 31-60 61-90	0	Color Adjustment (Color Wheel 2) Open CRI Booster 1/4 Minus Green

CHANNEL	VALUE	DEFAULT	FUNCTION
	91-120		1/2 Minus Green
	121-180		CTB
	181-255		Reserved
	0-255		**Color Wheel 1**
	0-31		Open
	32-63		VL RED Centre - 48
	64-95		Dark Blue Centre - 80
16	96-127	0	Yellow Centre - 112
	128-159		Kelly Green Centre - 144
	160-191		Amber Centre - 176
	192-223		Congo Blue Centre - 208
	224-255		Open
	0-255		**Color Wheel 1 Control**
	0-5		Linear Movement using shortest (quickest) path.
	6-10		Linear Movement using normal (longest) path.
	11-15		Wheel Spin CW (Forward)
	16-20		Wheel Spin STOP
17	21-25	0	Wheel Spin CCW (Reverse)
	26-56		Color Shake Quickest Path (Slow to Fast) For fastest shake set color timing to 0
	57-87		Color Shake Normal Path (Slow to Fast) For fastest shake set color timing to 0
	88-255		Reserved Values
	0-255		**Gobo Wheel 1 (Fixed)**
	0-20		Open - No Gobo
	21-41		Gobo 1 Leafy Breakup
	42-62		Gobo 2 Medium Circle
	63-83		Gobo 3 Square Pile
	84-104		Gobo 4 Confusion
18	105-125	0	Gobo 5 Dust
	126-146		Gobo 6 Neurons
	147-167		Gobo 7 Radial Breakup
	168-188		Gobo 8 Staples
	189-209		Gobo 9 Blobs
	210-230		Gobo 10 Pipes Breakup
	231-255		Open - No Gobo
	0-255		**Gobo Wheel 1 Control**
	0-5		Gobo Selection using shortest (quickest) path.
	6-10		Gobo Selection using normal (longest) path.
19	11-20	0	Reserved Values
	21-50		Wheel Spin CW Forward (Fast to Slow)
	51-60		Wheel Spin STOP
	61-90		Wheel Spin CCW Reverse (Slow to Fast)

CHANNEL	VALUE	DEFAULT	FUNCTION
	91-120		Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
	121-150		Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
	151-180		Reserved Values
	181-210		Reserved Values
	211-255		Reserved Values
20	0-255	0	**Gobo Wheel 2**
	0-5		Open - No Gobo
	6-10		Gobo 1 Night Sky Index
	11-15		Gobo 2 New Twirler Index
	16-20		Gobo 3 Bricked Out Index
	21-25		Gobo 4 Horzonal Slits Index
	26-30		Gobo 5 Super Alpha Rays Index
	31-35		Gobo 6 Honey Combe Reverse Index
	36-40		Gobo 7 On the Rock - Clear glass version Index
	41-45		Open - No Gobo
	46-50		Gobo 1 Night Sky Rotate
	51-55		Gobo 2 New Twirler Rotate
	56-60		Gobo 3 Bricked Out Rotate
	61-65		Gobo 4 Horzonal Slits Rotate
	66-70		Gobo 5 Super Alpha Rays Rotate
	71-75		Gobo 6 Honey Combe Reverse Rotate
	76-80		Gobo 7 On the Rock - Clear glass version Rotate
	81-85		Open - No Gobo
	86-90		Gobo 1 Night Sky Rotate Mega Stepping
	91-95		Gobo 2 New Twirler Rotate Mega Stepping
	96-100		Gobo 3 Bricked Out Rotate Mega Stepping
	101-105		Gobo 4 Horzonal Slits Rotate Mega Stepping
	106-110		Gobo 5 Super Alpha Rays Rotate Mega Stepping
	111-115		Gobo 6 Honey Combe Reverse Rotate Mega Stepping
	116-120		Gobo 7 On the Rock - Clear glass version Rotate Mega Stepping
	121-255		Open - No Gobo
21	0-65535	32767	**Gobo Wheel 2 Rotate/Index High Byte**
	0-32756		Rotate Fast to Slow <<<
	32757-32780		Rotation STOP
	32781-65535		Rotate Slow to Fast >>>
22	0-65535	32767	**Gobo Wheel 2 Rotate/Index Low Byte**
	0-32756		Rotate Fast to Slow <<<
	32757-32780		Rotation STOP
	32781-65535		Rotate Slow to Fast >>>

CHANNEL	VALUE	DEFAULT	FUNCTION
23	0-255	0	**Gobo Wheel 2 Control**
	0-5		Gobo Selection using shortest (quickest) path.
	6-10		Gobo Selection using normal (longest) path.
	11-20		Reserved Values
	21-50		Wheel Spin CW Forward (Fast to Slow)
	51-60		Wheel Spin STOP
	61-90		Wheel Spin CCW Reverse (Slow to Fast)
	91-120		Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
	121-150		Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
	151-180		Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0
	181-210		Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0
	211-255		Reserved Values
24	0-255	0	**VLFX (Gobo Wheel 3)**
	0-10		Open - No Gobo
	11-33		Gobo 1 Amoeboid chamber Index
	34-56		Gobo 2 Dichrofusion Index
	57-79		Gobo 3 Concurrent Index
	80-90		Open - No Gobo
	91-113		Gobo 1 Amoeboid chamber Rotate
	114-136		Gobo 2 Dichrofusion Rotate
	137-159		Gobo 3 Concurrent Rotate
	160-170		Open - No Gobo
	171-193		Gobo 1 Amoeboid chamber Rotate Mega Stepping
	194-216		Gobo 2 Dichrofusion Rotate Mega Stepping
	217-239		Gobo 3 Concurrent Rotate Mega Stepping
	240-255		Open - No Gobo
25	0-65535	32767	**VLFX (Gobo Wheel 3) Rotate/Index High Byte**
	0-32756		Rotate Fast to Slow <<<
	32757-32780		Rotation STOP
	32781-65535		Rotate Slow to Fast >>>
26	0-65535	32767	**VLFX (Gobo Wheel 3) Rotate/Index Low Byte**
	0-32756		Rotate Fast to Slow <<<
	32757-32780		Rotation STOP
	32781-65535		Rotate Slow to Fast >>>
27	0-255	0	**VLFX (Gobo Wheel 3) Control**
	0-5		Gobo Selection using shortest (quickest) path.
	6-10		Gobo Selection using normal (longest) path.
	11-20		Reserved Values
	21-50		Wheel Spin CW Forward (Fast to Slow)

CHANNEL	VALUE	DEFAULT	FUNCTION
	51-60 61-90 91-120 121-150 151-180 181-210 211-255		Wheel Spin STOP Wheel Spin CCW Reverse (Slow to Fast) Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0 Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0 Reserved Values
28	0-255 0-200 201-255	0	**Iris** Iris beam size open to closed Iris pulse slow to fast
29	0-255	0	**Frame 1A** Controls Framing Shutter 1A from Open (DMX 0) to Full (DMX 255)
30	0-255	0	**Frame 1B** Controls Framing Shutter 1B from Open (DMX 0) to Full (DMX 255)
31	0-255	0	**Frame 2A** Controls Framing Shutter 2A from Open (DMX 0) to Full (DMX 255)
32	0-255	0	**Frame 2B** Controls Framing Shutter 2B from Open (DMX 0) to Full (DMX 255)
33	0-255	0	**Frame 3A** Controls Framing Shutter 3A from Open (DMX 0) to Full (DMX 255)
34	0-255	0	**Frame 3B** Controls Framing Shutter 3B from Open (DMX 0) to Full (DMX 255)
35	0-255	0	**Frame 4A** Controls Framing Shutter 4A from Open (DMX 0) to Full (DMX 255)
36	0-255	0	**Frame 4B** Controls Framing Shutter 4B from Open (DMX 0) to Full (DMX 255)
37	0-255	128	**Frame Rotate** Controls Framing Shutter mechanism from +/- 60°
38	0-255 0-5	0-255	**Prism 1 (Triangular)** Open

CHANNEL	VALUE	DEFAULT	FUNCTION
	6-10 11-15 16-20 21-255		Index Rotate Normal Rotate with Mega Stepping Reserved Values
39	0-65535 0-32756 32757-32780 32781-65535	32767	**Prism 1 Index/Rotate High Byte** Rotate Fast to Slow <<< Rotation STOP Rotate Slow to Fast >>>
40	0-65535 0-32756 32757-32780 32781-65535	32767	**Prism 1 Index/Rotate Low Byte** Rotate Fast to Slow <<< Rotation STOP Rotate Slow to Fast >>>
41	0-255 0-5 6-10 11-15 16-20 21-255	0-255	**Prism 2 (Flat)** Open Index Rotate Normal Rotate with Mega Stepping Reserved Values
42	0-65535 0-32756 32757-32780 32781-65535	32767	**Prism 2 Index/Rotate High Byte** Rotate Fast to Slow <<< Rotation STOP Rotate Slow to Fast >>>
43	0-65535 0-32756 32757-32780 32781-65535	32767	**Prism 2 Index/Rotate Low Byte** Rotate Fast to Slow <<< Rotation STOP Rotate Slow to Fast >>>
44	0-255 0-10 11-20 21-25 26-36 37-47 48-255	0	**Frost** No Frost Frost 1 Frost 2 Open Frost 1+2 Reserved
45	0-255 0-5 6-10 11-125 126-130 131-245 246-250 251-255	9	**Strobe** Shutter open Shutter close Strobe Slow>>>>>>>Fast 0.5Hz-30Hz Shutter open Strobe Random/Random Sync* Slow>>>>>>>>Fast Shutter open Shutter closed

CHANNEL	VALUE	DEFAULT	FUNCTION
46	0		**Future use channel** Channel reserved for future use
47	0-255 0-40 41-45 46-50 51-55 56-60 61-65 66-70 71-75 76-80 81-85 86-90 91-95 96-100 101-105 106-110 111-115 116-120 121-125 126-130 131-135 136-140 141-145 146-150 151-155 156-160 161-165 166-170 171-175 176-255	0	**Programmers Channel** Idle Dimming Curve Linear Dimming Curve S-Curve Dimming Curve Square Curve (Default)** Dimmer Snap On Dimmer Snap Off (Default) Reserved Values Reserved Values Edge Tracking on Edge tracking off (Default) Reserved Values Color Snap off (Default) Color Snap on (de-activates color timing channel) Reserved Values Strobe Random (Default) Strobe Random Sync Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values
48	0-255	255	**Focus Timing** Adjustment of fixture timing to control Pan/Tilt mechanisms. See Timing Channel Chart in User Manual
49	0-255	255	**Optics Timing** Adjustment of fixture timing to control lensing mechanisms. See Timing Channel Chart in User Manual
50	000-255	255	**Color Timing** Adjustment of fixture timing to control color mechanisms. See Timing Channel Chart in User

CHANNEL	VALUE	DEFAULT	FUNCTION
			Manual
51	0-255	255	Beam Timing Adjustment of fixture timing to control beam shaping mechanisms. See Timing Channel Chart in User Manual
52	0-255	255	Gobo Timing Adjustment of fixture timing to control gobo mechanisms. See Timing Channel Chart in User Manual
53	0-255 0-4 5-255	0	Fan Control Automatic fan/output adjustment (Default) Linear control of fan speed and LED max output* DMX 5 = Highest Constant Fan Speed (Standard mode) DMX 255 = Lowest Constant Fan Speed (Whisper mode) *Standard mode only function is dec-activated if Studio or Boost modes are selected via Dmx or User Interface
54	0-255 0-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65 66-70 71-75 76-80 81-85 86-90 91-95 96-100	0	Luminaire Control Idle (Default) Full Luminaire ReCal - Also Used to Wake fixture up from shutdown Fixture Shutdown ReBOOT Display - Menu ON Display - Menu OFF Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Status Check (Turn UI Screen Green if fixture has no Error - Red if Error) Side Hang Disable (Default) Side Hang activate

CHANNEL	VALUE	DEFAULT	FUNCTION
	101-105		Reserved Values
	106-110		Reserved Values
	111-115		Standard Mode (Default) - Variable fan channel active
	116-120		Studio Mode - Reduced output with lower fan settings variable Fan control
	121-125		Whisper Mode - Reduced output with lower fan settings variable Fan control
	126-130		Reserved Values
	131-135		Reserved Values
	136-140		Fan On (Default) (Continuous spin rate - max speed set buy output mode / ch44)
	141-145		Fan Auto (Fan spin rate set by LED temp - max speed set buy output mode / ch44)
	146-150		Reserved Values
	151-155		ReCal Position
	156-160		ReCal Color
	161-165		ReCal Beam
	166-170		ReCal Optics
	171-175		ReCal Gobo
	176-180		Reset fixture to default
	181-185		CTB Correction off (Default)
	186-190		CTB correction on
	191-195		Reserved values
	196-255		Reserved values

16Bit Channels Mode:

CHANNEL	VALUE	DEFAULT	FUNCTION
1	0-65535	0	Intensity High 16 Bit control of Dimming
2	0-65535	0	Intensity Low 16 Bit control of Dimming
3	0-65535	32767	Pan High 540° Total Pan Rotation
4	0-65535	32767	Pan Low 540° Total Pan Rotation
5	0-65535	32767	Tilt High

CHANNEL	VALUE	DEFAULT	FUNCTION
			270° Total Tilt
6	0-65535	32767	**Tilt Low** 270° Total Tilt
7	0-65535	32767	**Focus High** Focus control, default value 50% focus range
8	0-65535	32767	**Focus Low** Focus control, default value 50% focus range
9	0-65535	32767	**Zoom High** Zoom control, default value 50% zoom range
10	0-65535	32767	**Zoom Low** Zoom control, default value 50% zoom range
11	0-255	0	**Cyan** Cyan Color Control 0-100% saturation
12	0-255	0	**Yellow** Yellow Color Control 0-100% saturation
13	0-255	0	**Magenta** Magenta Color Control 0-100% saturation
14	0-255	0	**CTO Wheel** CTO Color Control 0-100% saturation
15	0-255 0-30 31-60 61-90 91-120 121-180 181-255	0	**Color Adjustment (Color Wheel 2)** Open CRI Booster 1/4 Minus Green 1/2 Minus Green CTB Reserved
16	0-255 0-31 32-63 64-95 96-127 128-159 160-191 192-223 224-255	0	**Color Wheel 1** Open VL RED Centre - 48 Dark Blue Centre - 80 Yellow Centre - 112 Kelly Green Centre - 144 Amber Centre - 176 Congo Blue Centre - 208 Open
17	0-255 0-5 6-10 11-15 16-20 21-25 26-56	0	**Color Wheel 1 Control** Linear Movement using shortest (quickest) path. Linear Movement using normal (longest) path. Wheel Spin CW (Forward) Wheel Spin STOP Wheel Spin CCW (Reverse) Color Shake Quickest Path (Slow to Fast) For

CHANNEL	VALUE	DEFAULT	FUNCTION
			fastest shake set color timing to 0
	57-87		Color Shake Normal Path (Slow to Fast) For fastest shake set color timing to 0
	88-255		Reserved Values
18	0-255	0	**Gobo Wheel 1 (Fixed)**
	0-20		Open - No Gobo
	21-41		Gobo 1 Leafy Breakup
	42-62		Gobo 2 Medium Circle
	63-83		Gobo 3 Square Pile
	84-104		Gobo 4 Confusion
	105-125		Gobo 5 Dust
	126-146		Gobo 6 Neurons
	147-167		Gobo 7 Radial Breakup
	168-188		Gobo 8 Staples
	189-209		Gobo 9 Blobs
	210-230		Gobo 10 Pipes Breakup
	231-255		Open - No Gobo
19	0-255	0	**Gobo Wheel 1 Control**
	0-5		Gobo Selection using shortest (quickest) path.
	6-10		Gobo Selection using normal (longest) path.
	11-20		Reserved Values
	21-50		Wheel Spin CW Forward (Fast to Slow)
	51-60		Wheel Spin STOP
	61-90		Wheel Spin CCW Reverse (Slow to Fast)
	91-120		Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
	121-150		Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
	151-180		Reserved Values
	181-210		Reserved Values
	211-255		Reserved Values
20	0-255	0	**Gobo Wheel 2**
	0-5		Open - No Gobo
	6-10		Gobo 1 Night Sky Index
	11-15		Gobo 2 New Twirler Index
	16-20		Gobo 3 Bricked Out Index
	21-25		Gobo 4 Horzonal Slits Index
	26-30		Gobo 5 Super Alpha Rays Index
	31-35		Gobo 6 Honey Combe Reverse Index
	36-40		Gobo 7 On the Rock - Clear glass version Index
	41-45		Open - No Gobo
	46-50		Gobo 1 Night Sky Rotate
	51-55		Gobo 2 New Twirler Rotate

CHANNEL	VALUE	DEFAULT	FUNCTION
	56-60		Gobo 3 Bricked Out Rotate
	61-65		Gobo 4 Horzonal Slits Rotate
	66-70		Gobo 5 Super Alpha Rays Rotate
	71-75		Gobo 6 Honey Combe Reverse Rotate
	76-80		Gobo 7 On the Rock - Clear glass version Rotate
	81-85		Open - No Gobo
	86-90		Gobo 1 Night Sky Rotate Mega Stepping
	91-95		Gobo 2 New Twirler Rotate Mega Stepping
	96-100		Gobo 3 Bricked Out Rotate Mega Stepping
	101-105		Gobo 4 Horzonal Slits Rotate Mega Stepping
	106-110		Gobo 5 Super Alpha Rays Rotate Mega Stepping
	111-115		Gobo 6 Honey Combe Reverse Rotate Mega Stepping
	116-120		Gobo 7 On the Rock - Clear glass version Rotate Mega Stepping
	121-255		Open - No Gobo
21	0-65535	32767	Gobo Wheel 2 Rotate/Index High Byte
	0-32756		Rotate Fast to Slow <<<
	32757-32780		Rotation STOP
	32781-65535		Rotate Slow to Fast >>>
22	0-65535	32767	Gobo Wheel 2 Rotate/Index Low Byte
	0-32756		Rotate Fast to Slow <<<
	32757-32780		Rotation STOP
	32781-65535		Rotate Slow to Fast >>>
23	0-255	0	Gobo Wheel 2 Control
	0-5		Gobo Selection using shortest (quickest) path.
	6-10		Gobo Selection using normal (longest) path.
	11-20		Reserved Values
	21-50		Wheel Spin CW Forward (Fast to Slow)
	51-60		Wheel Spin STOP
	61-90		Wheel Spin CCW Reverse (Slow to Fast)
	91-120		Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
	121-150		Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
	151-180		Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0
	181-210		Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0
	211-255		Reserved Values
24	0-255	0	VLFX (Gobo Wheel 3)
	0-10		Open - No Gobo
	11-33		Gobo 1 Amoeboid chamber Index

CHANNEL	VALUE	DEFAULT	FUNCTION
	34-56		Gobo 2 Dichrofusion Index
	57-79		Gobo 3 Concurrent Index
	80-90		Open - No Gobo
	91-113		Gobo 1 Amoeboid chamber Rotate
	114-136		Gobo 2 Dichrofusion Rotate
	137-159		Gobo 3 Concurrent Rotate
	160-170		Open - No Gobo
	171-193		Gobo 1 Amoeboid chamber Rotate Mega Stepping
	194-216		Gobo 2 Dichrofusion Rotate Mega Stepping
	217-239		Gobo 3 Concurrent Rotate Mega Stepping
	240-255		Open - No Gobo
25	0-65535	32767	VLFX (Gobo Wheel 3) Rotate/Index High Byte
	0-32756		Rotate Fast to Slow <<<
	32757-32780		Rotation STOP
	32781-65535		Rotate Slow to Fast >>>
26	0-65535	32767	VLFX (Gobo Wheel 3) Rotate/Index Low Byte
	0-32756		Rotate Fast to Slow <<<
	32757-32780		Rotation STOP
	32781-65535		Rotate Slow to Fast >>>
27	0-255	0	VLFX (Gobo Wheel 3) Control
	0-5		Gobo Selection using shortest (quickest) path.
	6-10		Gobo Selection using normal (longest) path.
	11-20		Reserved Values
	21-50		Wheel Spin CW Forward (Fast to Slow)
	51-60		Wheel Spin STOP
	61-90		Wheel Spin CCW Reverse (Slow to Fast)
	91-120		Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
	121-150		Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
	151-180		Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0
	181-210		Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0
	211-255		Reserved Values
28	0-255	0	Iris
	0-200		Iris beam size open to closed
	201-255		Iris pulse slow to fast
29	0-255	0	Frame 1A Controls Framing Shutter 1A from Open (DMX 0) to Full (DMX 255)
30	0-255	0	Frame 1B Controls Framing Shutter 1B from Open (DMX 0)

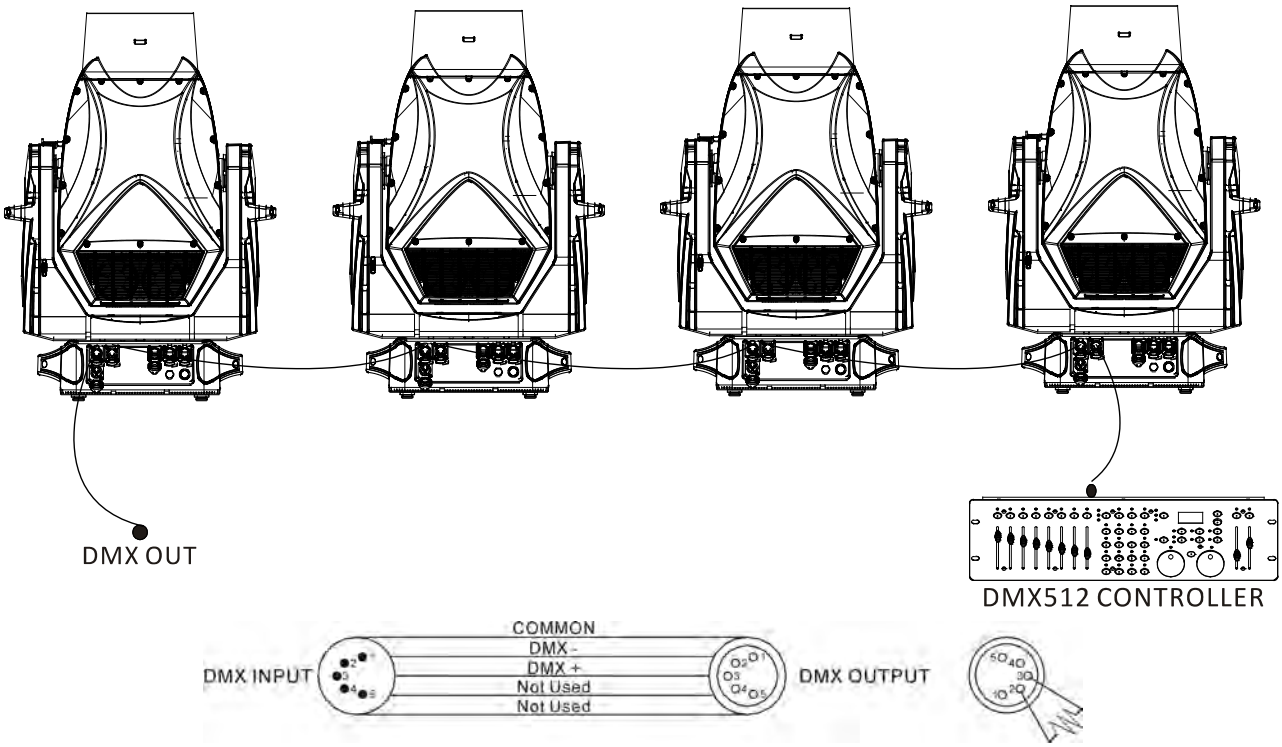
CHANNEL	VALUE	DEFAULT	FUNCTION
			to Full (DMX 255)
31	0-255	0	**Frame 2A** Controls Framing Shutter 2A from Open (DMX 0) to Full (DMX 255)
32	0-255	0	**Frame 2B** Controls Framing Shutter 2B from Open (DMX 0) to Full (DMX 255)
33	0-255	0	**Frame 3A** Controls Framing Shutter 3A from Open (DMX 0) to Full (DMX 255)
34	0-255	0	**Frame 3B** Controls Framing Shutter 3B from Open (DMX 0) to Full (DMX 255)
35	0-255	0	**Frame 4A** Controls Framing Shutter 4A from Open (DMX 0) to Full (DMX 255)
36	0-255	0	**Frame 4B** Controls Framing Shutter 4B from Open (DMX 0) to Full (DMX 255)
37	0-255	128	**Frame Rotate** Controls Framing Shutter mechanism from +/- 60°
38	0-255 0-5 6-10 11-15 16-20 21-255	0-255	**Prism 1 (Triangular)** Open Index Rotate Normal Rotate with Mega Stepping Reserved Values
39	0-65535 0-32756 32757-32780 32781-65535	32767	**Prism 1 Index/Rotate High Byte** Rotate Fast to Slow << Rotation STOP Rotate Slow to Fast >>>
40	0-65535 0-32756 32757-32780 32781-65535	32767	**Prism 1 Index/Rotate Low Byte** Rotate Fast to Slow <<< Rotation STOP Rotate Slow to Fast >>>
41	0-255 0-5 6-10 11-15 16-20 21-255	0-255	**Prism 2 (Flat)** Open Index Rotate Normal Rotate with Mega Stepping Reserved Values
42	0-65535	32767	**Prism 2 Index/Rotate High Byte**

CHANNEL	VALUE	DEFAULT	FUNCTION
	0-32756 32757-32780 32781-65535		Rotate Fast to Slow <<< Rotation STOP Rotate Slow to Fast >>>
43	0-65535 0-32756 32757-32780 32781-65535	32767	Prism 2 Index/Rotate Low Byte Rotate Fast to Slow <<< Rotation STOP Rotate Slow to Fast >>>
44	0-255 0-10 11-20 21-25 26-36 37-47 48-255	0	Frost No Frost Frost 1 Frost 2 Open Frost 1+2 Reserved
45	0-255 0-5 6-10 11-125 126-130 131-245 246-250 251-255	9	Strobe Shutter open Shutter close Strobe Slow>>>>>>>Fast 0.5Hz-30Hz Shutter open Strobe Random/Random Sync* Slow>>>>>>>>Fast Shutter open Shutter closed
46	0		Future use channel Channel reserved for future use
47	0-255 0-40 41-45 46-50 51-55 56-60 61-65 66-70 71-75 76-80 81-85 86-90 91-95 96-100 101-105 106-110 111-115 116-120	0	Programmers Channel Idle Dimming Curve Linear Dimming Curve S-Curve Dimming Curve Square Curve (Default)** Dimmer Snap On Dimmer Snap Off (Default) Reserved Values Reserved Values Edge Tracking on Edge tracking off (Default) Reserved Values Color Snap off (Default) Color Snap on (de-activates color timing channel) Reserved Values Strobe Random (Default) Strobe Random Sync Reserved Values

CHANNEL	VALUE	DEFAULT	FUNCTION
	121-125		Reserved Values
	126-130		Reserved Values
	131-135		Reserved Values
	136-140		Reserved Values
	141-145		Reserved Values
	146-150		Reserved Values
	151-155		Reserved Values
	156-160		Reserved Values
	161-165		Reserved Values
	166-170		Reserved Values
	171-175		Reserved Values
	176-255		Reserved Values
48	0-255 0-4 5-255	0	Fan Control Automatic fan/output adjustment (Default) Linear control of fan speed and LED max output* DMX 5 = Highest Constant Fan Speed (Standard mode) DMX 255 = Lowest Constant Fan Speed (Whisper mode) *Standard mode only function is dec-activated if Studio or Boost modes are selected via Dmx or User Interface
49	0-255 0-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65 66-70 71-75 76-80 81-85 86-90	0	Luminaire Control Idle (Default) Full Luminaire ReCal - Also Used to Wake fixture up from shutdown Fixture Shutdown ReBOOT Display - Menu ON Display - Menu OFF Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Reserved Values Status Check (Turn UI Screen Green if fixture has no Error - Red if Error)

CHANNEL	VALUE	DEFAULT	FUNCTION
	91-95		Side Hang Disable (Default)
	96-100		Side Hang activate
	101-105		Reserved Values
	106-110		Reserved Values
	111-115		Standard Mode (Default) - Variable fan channel active
	116-120		Studio Mode - Reduced output with lower fan settings variable Fan control
	121-125		Whisper Mode - Reduced output with lower fan settings variable Fan control
	126-130		Reserved Values
	131-135		Reserved Values
	136-140		Fan On (Default) (Continuous spin rate - max speed set buy output mode / ch44)
	141-145		Fan Auto (Fan spin rate set by LED temp - max speed set buy output mode / ch44)
	146-150		Reserved Values
	151-155		ReCal Position
	156-160		ReCal Color
	161-165		ReCal Beam
	166-170		ReCal Optics
	171-175		ReCal Gobo
	176-180		Reset fixture to default
	181-185		CTB Correction off (Default)
	186-190		CTB correction on
	191-195		Reserved values
	196-255		Reserved values

7.2 DMX512 Connection



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

2. Connect the unit together in a “daisy chain” by XLR plug cable from the output of the unit to the input of the next unit. The cable can only be used in series and cannot be connected in parallel. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.

3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units’ power is disconnected.

4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.

5. The end of the DMX 512 system should be terminated to reduce signal errors.

6. 3 pin XLR connectors are more popular than 5 pins XLR.

   3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

   5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

VL3600 PROFILE IP Luminaire - Current vs. Voltage (1X1000W LED)

AC Voltage at 60Hz	Total Luminaire Current (Motor + LED Current)	Total Luminaire Power (Motor + LED Power)	PFC
120V	12.66A	1505W	0.996
180V	8.22A	1475W	0.988
208V	7.12A	1472W	0.987
230V	6.32A	1460W	0.987
240V	6.12A	1445W	0.983
264V	5.58A	1440W	0.980
277V	5.38A	1435W	0.966

8. Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for troubleshooting:

A. The unit does not work, no light and the fan does not work

1. Check the connected power.
2. Measure the voltage.
3. Check the power indicator to see whether it can be lit up or not.

B. Not responding to the DMX controller

1. Check whether the DMX connectors and the DMX cables are connected correctly.
2. Check whether the DMX address is correctly set.
3. If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.
4. Try it with another DMX controller.
5. Check whether the DMX cables run near or alongside to the high-voltage cables, which may damage or interfere with the signal circuit.

C. One of the channels is not working well

1. The stepper motor might be damaged or the cable connected to the PCB might be broken.
2. The motor's drive IC on the PCB might be out of condition.

9. Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
- Always dry the parts carefully.
- Clean the external optical lens at least every 20 days.

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