

User Manual
Please read the instruction carefully before use

CONTENTS

01/ Safety Information	2
02/ Technical Specifications	4
03/ Overview	6
04/ Connecting Power and Data	7
4.1 Connecting Power	7
4.2 Connecting Data	8
05/ Fixture Installation	9
5.1 Hanging the Fixture	10
5.2 Gel Frame & Barn Door Installation	11
06/ Operation	12
6.1 Control Menu	12
6.2 Home Position Adjustment	24
07/ Configuring the Device for DMX Control	27
7.1 Address Setting	27
7.2 DMX Protocol	28
08/ Error Information	32
09/ Troubleshooting	33
10/ Fixture Cleaning	34

01/ Safety Information



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.

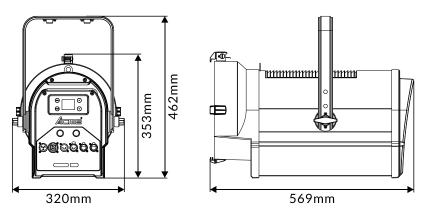
- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- This product is for indoor use only. Use only in a dry location.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. 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: 0°C. Maximum ambient temperature TA: 40°C. 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 55 °C. 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.

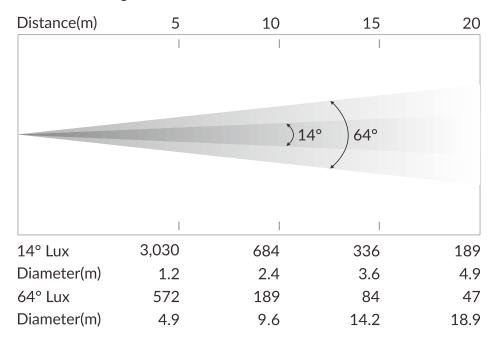
- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- The minimum distance to objects/surface must be more than 1 meter.
- In the 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.

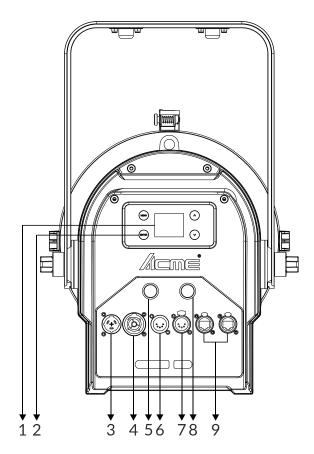
02/ Technical Specifications

AC Power	100-240V~ 50/60Hz				
Max. Power Consumption	445W				
Light Source	TOC-500-V5-RGBWW	'600			
Color Temperature	2500K-8000K				
Zoom Range	14°-64°				
	DMX Channels	10/12			
		DMX512			
		RDM			
Control and Programming	Protocols	Art-Net			
		sACN			
		Primary/Secondary Mode			
	Firmware Update	via DMX			
	Display	LCD display			
	DMX and RDM	5-pin XLR (optional with 3-pin XLR)			
Construction	Data In/Out	RJ45 Connectors			
	Power In/Out	Power Connector in/out			
	Protection Rating	IP20			
	0-100% smooth dimmi	ng + Manually	dimmer control		
	Choice of four dimming	g curves			
Damania Effects	Motorized zoom + Man	nually zoom co	ntrol		
Dynamic Effects	Variable color temperat	ture control			
	Outstanding color mixing				
	With color correction s	ystem to ensu	re consistent color output		
Dimensions	320x569x462mm 12.6"x22.4"x18.2"				
Weight	13 kg 28.7 lbs				



Photometric Diagram:





1. Display	To show the various menus and the selected function			
MENU		To enter into move backward or leave the menu		
2. Buttons	▲ UP	UP To go backward to move up in the menu		
Z. Buttons	→ DOWN	To go forward to move down in the menu		
	ENTER	To perform the desired functions		
3. POWER IN	To connect to supply power			
4. POWER OUT	To connect to the next fixture			
5. DIMMER	Manually adjust the dimmer value			
6. DMX IN	For DMX512 link, use 5-pin XLR cable to link the unit and DMX controller to input DMX signal (optional with 3-pin XLR)			
7. DMX OUT	For DMX512 link, use 5-pin XLR cable to link the next units to output DMX signal (optional with 3-pin XLR)			
8. ZOOM	Manually adjust the zoom value			
9. ETHERNET	Transfers fixture's information to a main controller			

4.1 Connecting Power

This fixture can operate on any 100-240V~ 50/60Hz AC mains power supply.

The maximum power consumption is 445W.

The fixture must be grounded/earthed and able to be isolated from AC power. The AC power supply must incorporate a fuse or circuit breaker for fault protection.

Wiring and connection work must be carried out by a qualified electrician.

The power cable color coding is given in the figure below:

Wire	Color (US)	Wire	Color (EU)	Symbol	Conductor
	black		brown	L	live
	white		blue	N	neutral
	green		yellow/green	⊥ or ⊥	ground (earth)

CAUTION!

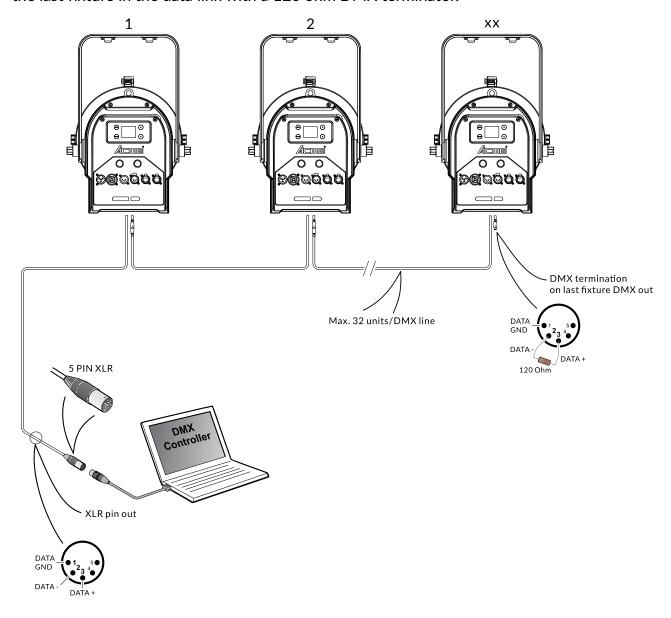
DO NOT CONNECT THE FIXTURE TO AN ELECTRICAL DIMMER SYSTEM AS DOING SO MAY CAUSE DAMAGE.

4.2 Connecting Data

The fixture is equipped with 5-pin (or 3-pin) XLR sockets for DMX input and output. Use a high-quality DMX cable designed for RS-485 and 5-pin (or 3-pin) XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

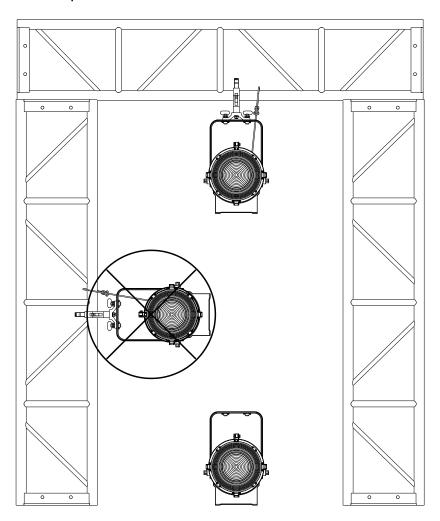
Building a serial DMX chain:

Connect the DMX data output from the controller to the fixture's data input socket. Connect the DMX output of the first fixture in the DMX chain with the DMX input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected. Up to 32 fixtures can be connected to the same DMX link. Terminate the DMX out cable of the last fixture in the data link with a 120 ohm DMX terminator.

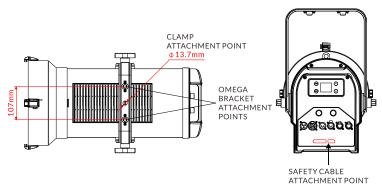


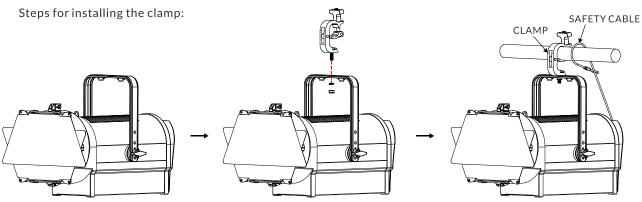
05/ Fixture Installation

- DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas were unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.
- Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always attach a safety cable that can hold at least 12 times the weight of the fixture whenever installing this fixture in a suspended environment to ensure that the fixture will not fall if the clamp fails.
- This fixture is fully operational in two different mounting positions: hanging on trussing, or standing on the floor. DO NOT mount this fixture sideways on trussing. Always use and install a safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

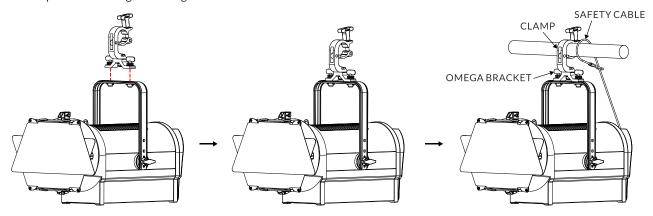


5.1 Hanging the Fixture



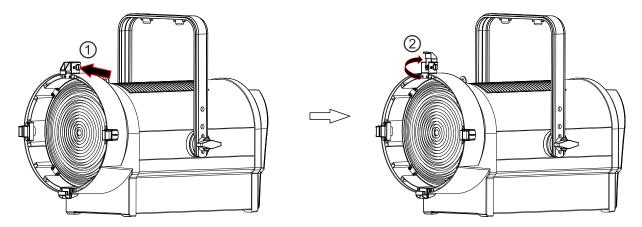


Steps for installing the omega bracket:

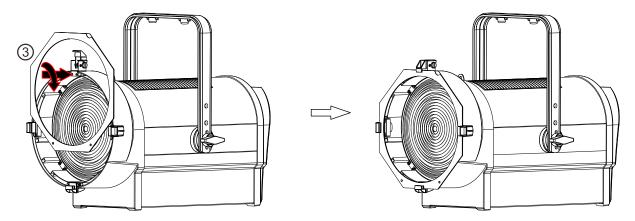


5.2 Gel Frame & Barn Door Installation

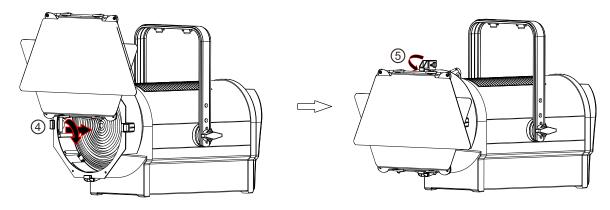
As shown in the figure, press the button on the lock catch in the direction indicated by the arrow ① to open the lock catch ②.



According to the direction indicated by the arrow, insert the gel frame into the inner groove (the groove on the inside) from top to bottom ③.



According to the direction indicated by the arrow, insert the barn door into the outer groove (the groove on the outside) from top to bottom ④. Pull down the lock catch (note: the barn door should be buckled in the hook of the lock catch) ⑤, and re-lock the lock catch to prevent the barn door and the gel frame from slipping.



6.1 Control Menu

- ▶ To access the control menus, press the [MENU] button.
- ▶ Navigate the menu structure, using the [ENTER], [▲ UP] and [▼ DOWN] buttons.
- ▶ To select a menu option or to confirm a selection, press the [ENTER] button.
- ► To return to a higher level in the menu structure without making a change, press the [MENU] button, or wait 30 seconds.

The main functions are shown below:

MAIN MENU	SUBMENU	CHOICES/VALUES			
	DMV Address	1-503 (10 CH)	1-503 (10 CH) (Default=1)		
	DMX Address	1-501 (12 CH)	(Derault-1)		
	DMX Channel Mode	10 CH			
		12 CH			
		Blackout			
	No DMX Status	Hold			
		Manual			
	View DMX Value				
		Auto			
	Commont Oution	DMX			
	Connect Option	Art-Net			
DMX Settings		sACN			
		IP Address	Default 1:002.xxx.xxx.xxx		
	Network		Default 2:010.xxx.xxx.xxx		
			Manual:xxx.xxx.xxx.xxx		
		Subnet Mask	XXX.XXX.XXX		
		Net	0-127	(Default=0)	
	Art-Net Settings	Sub-Net	0-15	(Default=0)	
		Universe	0-15	(Default=0)	
	a A C N L Cattings	Universe	1-32000	(Default=1)	
	sACN Settings	Priority	0-200	(Default=100)	
	Nationalists DMV	No			
	Network to DMX	Yes			

Linear Square Law			
Square Law			
Dimmer Curve	Square Law		
Inv SQ Law	Inv SQ Law		
S Curve			
Fast			
Dimmer Speed Smooth			
Red 125-	255		
Green 125-	255		
White Balance Blue 125-	255		
Warm White 125-	255		
900Hz			
1000Hz			
1100Hz			
1200Hz			
1300Hz			
Fixture Settings 1400Hz			
1500Hz	1500Hz		
LED Refresh Rate 2500Hz			
4000Hz			
5000Hz			
6000Hz			
10000Hz			
15000Hz			
20000Hz			
25000Hz	25000Hz		
Primary Primary	Primary		
Pri./Sec. Mode Secondary			
On			
Color Calibration Off	Off		
G III LI MA L HI CRI	Hi CRI		
Calibration Mode Hi Output			
No			
Display Invert Yes			
Backlight Intensity 1-10 (Def.	ault=10)		
Display Settings °C			
Temperature Unit °F			
English			
Language Chinese			

MAIN MENU	SUBMENU	CHOICES/VALUES			
	Auto Tost	Single Test			
	Auto Test	Cycle Test			
		Clear	No/Yes		
		Dimmer	0-255		
		Zoom	0-255		
Fixture Test		Red	0-255		
	Manual Test	Green	0-255		
		Blue	0-255		
		Warm White	0-255		
		ССТ	0-255		
		Color Macro	0-255		
	Fixture Use Hour				
		Total LED Hour			
	LED Use Hour	LED On Hour			
		LED Hours Reset	Password=050		
	Townsonstrum	Current			
Fixture Information	Temperature	Max temp			
	Firmware Version				
	RDM UID				
		Fixture Errors			
	Error Logs	Deact Francis Land	No		
		Reset Error Logs	Yes	Password=050	
Reset Functions	All Reset	No			
Reset Functions	All Keset	Yes			
Factor Doctors	No				
Factory Restore	Yes				

DMX Settings

Enter the control menu and select **DMX Settings**, press ENTER. Use the UP/DOWN button to select **DMX Address**, **DMX Channel Mode**, **No DMX Status**, **View DMX Value**, **Connect Option**, **Network**, **Art-Net Settings**, **sACN Settings** or **Network to DMX**.

DMX Address

Select **DMX Address**, press ENTER.

Use UP/DOWN button to select an address, confirm your selection with ENTER.

CHANNEL MODE	DMX ADDRESS
10 CH	1-503
12 CH	1-501

To exit the menu, press MENU, or wait 30 seconds.

DMX Channel Mode

Select **DMX Channel Mode**, press ENTER.

Use UP/DOWN button to select between **10 CH** and **12 CH**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

No DMX Status

Select **No DMX Status**, press ENTER.

Use UP/DOWN button to select one of the following status:

Blackout (Fixture blacks out if DMX signal stops)

Hold (The device continues to operate in the current mode with the last active DMX values until the signal returns)

Manual (The device accepts the DMX value stored in the 'Manual Test' menu)

Confirm your selection with ENTER.

View DMX Value

Select View DMX Value, press ENTER.

Use UP/DOWN button to select the desired DMX channel, for which the value is to be displayed.

To exit the menu, press MENU, or wait 30 seconds.

Connect Option

Select **Connect Option**, press ENTER.

Use UP/DOWN button to select **Auto, DMX, Art-Net** or **sACN**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Network

Select **Network**, press ENTER.

Use UP/DOWN button to select **IP Address** or **Subnet Mask**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Art-Net Settings

Select Art-Net Settings, press ENTER.

Use UP/DOWN button to select **Net, Sub-Net** or **Universe**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

sACN Settings

Select **sACN Settings**, press ENTER.

Use UP/DOWN button to select **Universe** or **Priority**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Network to DMX

Select Network to DMX, press ENTER.

Use UP/DOWN button to select **No** or **Yes**, confirm your selection with ENTER.

Fixture Settings

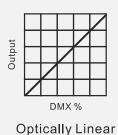
Enter the control menu and select **Fixture Settings**, press ENTER. Use the UP/DOWN button to select **Dimmer Curve**, **Dimmer Speed**, **White Balance**, **LED Refresh Rate**, **Pri./Sec. Mode**, **Color Calibration** or **Calibration Mode**.

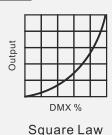
Dimmer Curve

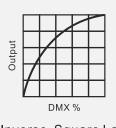
Select Dimmer Curve, press ENTER.

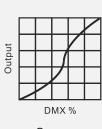
Use UP/DOWN button to select **Linear, Square Law, Inv SQ Law** or **S Curve**, confirm your selection with ENTER.

Dimmer Modes









. . .

Inverse Square Law

S-curve

To exit the menu, press MENU, or wait 30 seconds.

Dimmer Speed

Select **Dimmer Speed**, press ENTER.

Use UP/DOWN button to select **Fast** or **Smooth**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

White Balance

Select White Balance, press ENTER.

Use UP/DOWN button to select **Red, Green, Blue** or **Warm White**, confirm your selection with ENTER.

Use UP/DOWN button to select a value between **125** and **255**, confirm your selection with ENTER.

LED Refresh Rate

Select **LED Refresh Rate**, press ENTER.

Use UP/DOWN button to select **900Hz**, **1000Hz**, **1100Hz**, **1200Hz**, **1300Hz**, **1400Hz**, **1500Hz**, **2500Hz**, **4000Hz**, **5000Hz**, **6000Hz**, **10000Hz**, **15000Hz**, **confirm your selection with ENTER.**

To exit the menu, press MENU, or wait 30 seconds.

Pri./Sec. Mode

Select **Pri./Sec. Mode**, press ENTER.

Use UP/DOWN button to select **Primary** or **Secondary**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Color Calibration

Select Color Calibration, press ENTER.

Use UP/DOWN button to select **On** or **Off**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Calibration Mode

Select Calibration Mode, press ENTER.

Use UP/DOWN button to select **Hi CRI** or **Hi Output**, confirm your selection with ENTER.

Display Settings

Enter the control menu and select **Display Settings**, press ENTER. Use the UP/DOWN button to select **Display Invert**, **Backlight Intensity**, **Temperature Unit** or **Language**.

Display Invert

Select **Display Invert**, press ENTER.

Use UP/DOWN button to select **No** (display normal) or **Yes** (display inverted), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Backlight Intensity

Select Backlight Intensity, press ENTER.

Use UP/DOWN button to select a value between **1** (dark) and **10** (bright), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Temperature Unit

Select **Temperature Unit**, press ENTER.

Use UP/DOWN button to select **°C** or **°F**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Language

Select Language, press ENTER.

Use UP/DOWN button to select **English** or **Chinese**, confirm your selection with ENTER.

Fixture Test

Enter the control menu and select **Fixture Test**, press ENTER. Use the UP/DOWN button to select **Auto Test** or **Manual Test**.

Auto Test

Select Auto Test, press ENTER.

Use UP/DOWN button to select **Single Test** (the device immediately performs a single automatic self-test) or **Cycle Test** (the device immediately performs a cyclic automatic self-test), confirm your selection with ENTER.

Manual Test

Select Manual Test, press ENTER.

Use UP/DOWN button to select the channel for which the manual test is to be performed, confirm your selection with ENTER.

Use UP/DOWN button to select a value, confirm your selection with ENTER.

To exit the menu, press MENU.

(The device returns to its original DMX state after the manual test. The test values are saved automatically when the device is switched off.)

Fixture Information

Enter the control menu and select **Fixture Information**, press ENTER. Use the UP/DOWN button to select **Fixture Use Hour, LED Use Hour, Temperature, Firmware Version, RDM UID** or **Error Logs**.

Fixture Use Hour

Select **Fixture Use Hour**, press ENTER.

The operating hours is displayed.

LED Use Hour

Select **LED Use Hour**, press ENTER.

Use UP/DOWN button to select Total LED Hour (total time) or LED On

Hour (current switch-on time), confirm your selection with ENTER.

The total time or current switch-on time is displayed.

Use UP/DOWN button to select **LED Hours Reset**, confirm your selection with ENTER.

Use UP/DOWN button to set the password 050, confirm your selection with ENTER. The LED operating hours is reset.

To exit the menu, press MENU, or wait 30 seconds.

Temperature

Select **Temperature**, press ENTER.

The device temperature is displayed.

To exit the menu, press MENU, or wait 30 seconds.

Firmware Version

Select Firmware Version, press ENTER.

The firmware version is displayed.

To exit the menu, press MENU, or wait 30 seconds.

RDM UID

Select RDM UID, press ENTER.

The RDM UID is displayed.

Error Logs

Select **Error Logs**, press ENTER.

Use UP/DOWN button to select **Fixture Errors**, confirm your selection with ENTER.

The error list is displayed.

Use UP/DOWN button to select **Reset Error Log**, confirm your selection with ENTER.

If you wish to reset the relevant error logs, select **Yes**. If you do not wish to reset anything, select **No**. Confirm your selection with ENTER.

If you select **Yes**, use UP/DOWN button to set the password 050, confirm your selection with ENTER. The relevant error logs are reset.

To exit the menu, press MENU, or wait 30 seconds.

Reset Functions

Enter the control menu and select **Reset Functions**, press ENTER. Use the UP/DOWN button to select **All Reset**.

All Reset

Select **All Reset**, press ENTER.

Use UP/DOWN button to select **No** or **Yes** (the device will run built-in program to reset all to their home positions), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Factory Restore

Select **Factory Restore**, press ENTER.

If you wish to reset the device to the factory settings, select **Yes**. If you do not wish to reset anything, select **No**. Confirm your selection with ENTER.

RDM functions: Certain menus of the device and functions can be called up via the RDM protocol.

The parameter IDs are implemented as follows for different commands:

Parameter ID	Command 'Discovery'	Command 'Set'	Command 'Get'
DISC_UNIQUE_BRANCH	√		
DISC_MUTE	√		
DISC_UN_MUTE	√		
DEVICE_INFO			✓
SUPPORTED_PARAMETERS			✓
SOFTWARE_VERSION_LABEL			✓
DMX_START_ADDRESS		√	✓
IDENTIFY_DEVICE		√	✓
DEVICE_MODEL_DESCRIPTION			✓
PARAMETER_DESCRIPTION			✓
MANUFACTURER_LABEL			✓
DEVICE_LABEL		√	√
FACTORY_DEFAULTS		√	✓
BOOT_SOFTWARE_VERSION_ID			√
BOOT_SOFTWARE_VERSION_LABEL			✓
DMX_PERSONALITY		√	✓
DMX_PERSONALITY_DESCRIPTION			✓
SLOT_INFO			√
SLOT_DESCRIPTION			✓
SENSOR_DEFINITION			✓
SENSOR_VALUE			✓
DEVICE_HOURS			√
LAMP_HOURS			√
RESET_DEVICE		√	
CURVE		√	√
PRIMARY_SECONDARY		√	√
DMX_STATE		√	√
DIMMER_SPEED		√	√

 \checkmark -Command implemented for the respective parameter ID

6.2 Home Position Adjustment

- ▶ To access the control menus, press the [MENU] button.
- ▶ To access the offset menus, long-press the [ENTER] button.
- ▶ Navigate the offset menus, using the [ENTER], [▲ UP] and [▼ DOWN] buttons.
- ▶ To select a menu option or to confirm a selection, press the [ENTER] button.
- ► To return to a higher level in the menu structure without making a change, press the [MENU] button, or wait 30 seconds.

OFFSET MENU	VALUES
Frequency (Hz)	1072~1327
Zoom	-128~127
Dimmer Start	0~255
Red	0~255
Green	0~255
Blue	0~255
Warm White	0~255

Frequency (Hz)

Select Frequency (Hz), press ENTER.

Use UP/DOWN button to select a value, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Frequency	VALUES
900Hz	772~1027
1000Hz	872~1127
1100Hz	972~1227
1200Hz	1072~1327
1300Hz	1172~1427
1400Hz	1272~1527
1500Hz	1372~1627
2500Hz	2372~2627
4000Hz	3872~4127
5000Hz	4872~5127
6000Hz	5872~6127
10KHz	9872~10127
15KHz	14872~15127
20KHz	19872~20127
25KHz	24872~25127

Zoom

Select **Zoom**, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Dimmer Start

Select **Dimmer Start**, press ENTER.

Use UP/DOWN button to select a value between 0 and 255, confirm your selection with ENTER.

Red

Select Red, press ENTER.

Use UP/DOWN button to select a value between 0 and 255, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Green

Select **Green**, press ENTER.

Use UP/DOWN button to select a value between 0 and 255, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Blue

Select Blue, press ENTER.

Use UP/DOWN button to select a value between 0 and 255, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Warm White

Select Warm White, press ENTER.

Use UP/DOWN button to select a value between 0 and 255, confirm your selection with ENTER.

7.1 Address Setting

All fixtures should be given a DMX starting address when operating with a DMX controller, in order to ensure that the correct fixture responds to the correct control signal. Incorrect settings will result in unpredictable responses from the lighting controller.

You can set the same starting address for all fixtures or a group of fixtures, or set different addresses for each individual fixture.

Setting all fixtures to the same DMX address will cause all fixtures to react in the same way. In this case, please note that changing the settings of one channel will affect all the fixtures simultaneously.

If you set each fixture to a different DMX address, each unit will "listen" starting at the channel number you have set, based on the quantity of DMX channels of each fixture. That means changing the settings of one channel will only affect the selected fixture.

For example, if the first fixture is set to 10 ch DMX mode with a start DMX address of 1, the following fixture in the DMX chain should then be set to a DMX address of 11. As the first fixture uses all the first 10 DMX channels, the next available channel is 11 (10+1=11 >> 11). See the chart below for more details:

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address	Unit xxx Address
10 channels	1	11	21	31	
12 channels	1	13	25	37	

7.2 DMX Protocol

CHANNEL			
10 ch	12ch	VALUE	FUNCTION
1	1	000-255	DIMMER 0%→100%
	2	000-255	DIMMER FINE
2	3	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	Close Open Strobe from Slow to Fast Open Fast Open Slow Close from Slow to Fast Open Slow Open Fast Close from Slow to Fast Open Random Strobe from Slow to Fast Open
3	4	000-255	ZOOM Narrow→Wide
	5	000-255	ZOOM FINE
4	6	000-029 030-039 040-049 050-059 060-069 070-099 100-109 110-119 120-122 123 124 125 126 127 128 129 130 131 132 133	SPECIAL FUNCTION (To activate following functions, stop in DMX value for at least 3 seconds.) Null Dimmer Curve: Linear Dimmer Curve: Square Law Dimmer Curve: Inv SQ Law Dimmer Curve: S Curve Null Led Frequency Setting Enable Led Frequency Setting Disable Null 900Hz 1000Hz 1100Hz 1200Hz 1300Hz 1400Hz 1500Hz 2500Hz 4000Hz 5000Hz 5000Hz

		134 135 136 137 138-159 160-169 170-179 180-189 190-199 200-209 210-219 220-229 230-255	10KHz 15KHz 20KHz 25KHz Null Color Calibration: On Color Calibration: Off Calibration Mode: Hi CRI Calibration Mode: Hi Output Reset All Dimmer Speed: Fast Dimmer Speed: Smooth Null
5	7	000-255	RED 0%→100%
6	8	000-255	GREEN 0%→100%
7	9	000-255	BLUE 0%→100%
8	10	000-255	WARM WHITE 0%→100%
9	11	000 001-004 005-009 010-013 014-018 019-022 023-027 028-031 032-036 037-040 041-045 046-049 050-054 055-058 059-063 064-067 068-072 073-076 077-081 082-085 086-090 091-094 095-099 100-103 104-108	CCT (8000K-2500K) Null 8000K 7900K 7800K 7800K 7600K 7600K 7600K 7500K 7400K 7300K 7200K 7100K 7000K 6900K 6900K 6800K 6700K 6600K 6500K 6400K 6300K 6200K 6100K 6000K 5900K 5900K

109-112				
118-121 5400K 122-126 5300K 127-130 5200K 131-135 5100K 136-139 5000K 140-144 4900K 145-148 4800K 149-153 4700K 154-157 4600K 158-162 4500K 167-171 4300K 167-171 4300K 172-175 4200K 176-180 4100K 181-184 4000K 181-184 4000K 185-189 3900K 190-193 3800K 190-193 3800K 199-193 3800K 199-202 3600K 203-207 3500K 208-211 3400K 217-220 3200K 221-225 3100K 221-225 3100K 221-225 3100K 226-229 3000K 235-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 048-255 Color 5 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12			109-112	5600K
122-126			113-117	5500K
127-130			118-121	5400K
131-135 5100K 136-139 5000K 140-144 4900K 145-148 4800K 149-153 4700K 154-157 4600K 158-162 4500K 163-166 4400K 167-171 4300K 172-175 4200K 176-180 4100K 181-184 4000K 181-184 3900K 190-193 3800K 190-193 3800K 199-193 3800K 199-202 3600K 203-207 3500K 208-211 3400K 211-216 3300K 221-225 3100K 221-225 3100K 221-225 3100K 221-225 3100K 223-234 2900K 233-234 2900K 233-234 2900K 233-234 2900K 235-238 2800K 239-243 2700K 244-247 2600K 244-247 2600K 248-255 2500K COLOR MACRO Null 017-023 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12			122-126	5300K
136-139 5000K 140-144 4900K 145-148 4800K 149-153 4700K 158-152 4500K 158-162 4500K 163-166 4400K 167-171 4300K 172-175 4200K 176-180 4100K 181-184 4000K 181-184 4000K 181-189 3900K 190-193 3800K 190-193 3800K 194-198 3700K 199-202 3600K 203-207 3500K 208-211 3400K 211-2216 3300K 217-220 3200K 221-225 3100K 221-225 3100K 226-229 3000K 230-234 2900K 235-238 2800K 239-243 2700K 242-27 2600K 248-255 2500K COLOR MACRO Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 059-065 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12			127-130	5200K
140-144			131-135	5100K
145-148			136-139	5000K
145-148			140-144	4900K
149-153			145-148	
154-157				
158-162				
163-166				
167-171				
172-175				
176-180				
181-184				
185-189 3900K 190-193 3800K 194-198 3700K 199-202 3600K 203-207 3500K 208-211 3400K 212-216 3300K 217-220 3200K 221-225 3100K 226-229 3000K 230-234 2900K 235-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
190-193 3800K 194-198 3700K 199-202 3600K 203-207 3500K 208-211 3400K 212-216 3300K 217-220 3200K 221-225 3100K 226-229 3000K 230-234 2900K 235-238 2800K 235-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
194-198 3700K 199-202 3600K 203-207 3500K 208-211 3400K 2112-216 3300K 217-220 3200K 221-225 3100K 226-229 3000K 235-238 2800K 235-238 2800K 244-247 2600K 248-255 2500K COLOR MACRO Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
199-202 3600K 203-207 3500K 208-211 3400K 212-216 3300K 217-220 3200K 221-225 3100K 226-229 3000K 230-234 2900K 233-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
203-207 3500K 208-211 3400K 212-216 3300K 217-220 3200K 221-225 3100K 226-229 3000K 230-234 2900K 233-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
208-211 3400K 212-216 3300K 217-220 3200K 221-225 3100K 226-229 3000K 230-234 2900K 235-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
212-216 3300K 217-220 3200K 221-225 3100K 226-229 3000K 230-234 2900K 235-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
217-220 3200K 221-225 3100K 226-229 3000K 230-234 2900K 235-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
221-225 3100K 226-229 3000K 230-234 2900K 235-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
226-229 3000K 230-234 2900K 235-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
230-234 2900K 235-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
235-238 2800K 239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
239-243 2700K 244-247 2600K 248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
244-247 2500K 248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
248-255 2500K COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12				
COLOR MACRO 000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 073-079 Color 10 080-086 Color 11 087-093 Color 12				
000-009 Null 010-016 Color 1 017-023 Color 2 024-030 Color 3 031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12			248-255	2500K
010-016				COLOR MACRO
017-023			000-009	
024-030			010-016	Color 1
031-037 Color 4 038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12			017-023	Color 2
038-044 Color 5 10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12			024-030	Color 3
10 12 045-051 Color 6 052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12			031-037	Color 4
052-058 Color 7 059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12			038-044	Color 5
059-065 Color 8 066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12	10	12	045-051	Color 6
066-072 Color 9 073-079 Color 10 080-086 Color 11 087-093 Color 12			052-058	Color 7
073-079 Color 10 080-086 Color 11 087-093 Color 12			059-065	Color 8
080-086 Color 11 087-093 Color 12			066-072	Color 9
080-086 Color 11 087-093 Color 12				
087-093 Color 12			080-086	
074 100 C0101 13			094-100	Color 13

101-107	Color 14
108-114	Color 15
115-121	Color 16
122-128	Color 17
129-135	Color 18
136-142	Color 19
143-149	Color 20
150-156	Color 21
157-163	Color 22
164-170	Color 23
171-177	Color 24
178-184	Color 25
185-191	Color 26
192-198	Color 27
199-205	Color 28
206-212	Color 29
213-219	Color 30
220-226	Color 31
227-233	Color 32
234-255	Color 33

Error codes are shown continuously in the display when the fixture fails and they will not disappear until the fixture is repaired.

Zoom Reset Err

Check whether the position of the zoom where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the zoom operating range.

Check whether the Hall element on the zoom is damaged.

Check whether the lead connecting the Hall element on the zoom and the PCB board is in poor contact or disconnected.

Check whether the motor on the zoom is damaged.

Check whether the related circuit of the motor drive board on the zoom is damage.

Net Model Err

Check whether the net model is installed in place.

Check whether the net model is damaged.

Check whether the network is normal.

LED Temp. Err

Check whether the temperature detecting board is normal.

Check whether the components of the temperature detecting board are damaged.

Check whether the lead on the temperature detecting board is installed in place or disconnected.

09/ Troubleshooting

Problem	Potential cause(s)	Remedies
Fixture does not respond	No power to the fixture.	Confirm that the power is switched on and cables are plugged in.
or appears to be off.	No output from PSU.	Replace the PSU.
Fixture suddenly turned off.	Power was turned off.	Check the power supply, switches and breakers.
Light output cuts out intermittently.	Fixture is too hot.	Check fixture's stored error messages for more information. Allow fixture to cool. Clean fixture. Reduce ambient temperature.
Fixture suddenly stopped responding.	DMX cables were disconnected.	Inspect DMX cables.
	Incorrect DMX address or DMX mode.	Inspect and enter the correct DMX address or mode.
Fixture energies	DMX link is not terminated.	Install a XLR 120ohm DMX termination at the end of the DMX link.
Fixture operates irregularly / abnormal.	Bad data link.	Replace or repair defective cables and/or connections.
	One of the fixtures is	Track and isolate the corrupted
	defective and is disturbing	fixture.
	data transmission on the link.	Have the fixture serviced by a qualified technician.

10/ Fixture Cleaning

Regular cleaning is very important for fixture life and performance. Buildup of dust, dirt, smoke particles, fog fluid residues, etc. degrades the fixture's light output and cooling ability. Cleaning schedules for lighting fixtures vary greatly depending on the operating environment. It is therefore impossible to specify precise cleaning intervals for the fixture. Environmental factors that may result in a need for frequent cleaning include:

- Use of smoke or fog machines.
- ▶ High airflow rates (near air conditioning vents, for example).
- Airborne dust (from stage effects, building structures and fittings or the natural environment at outdoor events, for example).

If one or more of these factors is present, inspect fixtures within their first few hours of operation to see whether cleaning is necessary. Check again at frequent intervals. This procedure will allow you to assess cleaning requirements in your particular situation.

Follow these precautions when cleaning the fixture:

- Work in a clean, dry, well-lit area.
- Use gentle pressure only. A soft lint-free cloth dampened with a solution of water and a mild detergent is recommended, under no circumstances should alcohol, solvents or abrasives be used! Use care when cleaning optical components: surfaces are fragile and easily scratched.

