



PULSAR S2



User Manual

Please read the instruction carefully before use

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01/ Safety Information



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

WARNING

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

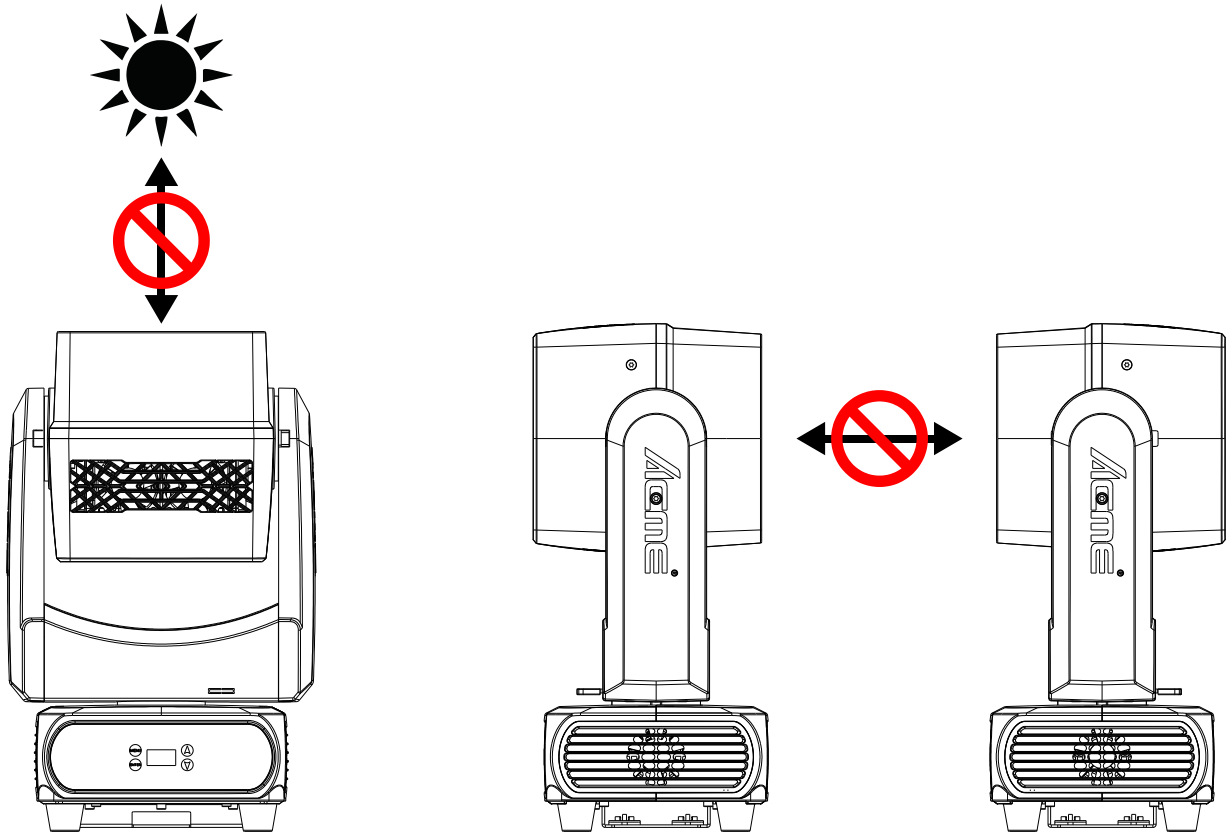
Important:

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 the head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation holes are blocked, otherwise the unit could over heat.
- 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 65°C. DO NOT touch the housing bare-handed during its operation.

- Avoid any flammable liquids, water or metal from entering the unit. If 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 wiring 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 0.5 meters.
- In the event of an operating problem, stop using the unit immediately.
- Never turn the unit off and on repeatedly.
- 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 or suitable road case if the device is to be transported.
- Check that the head tilt lock is released before packing for transportation.
- 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.

- External sources of light beams from direct sunlight or any other strong light source, which penetrate the front lens of lighting fixtures, can cause severe internal damage. DO NOT expose the fixture front lens to light beams from direct sunlight or any other strong light source from any angle while unpacking, installation, use, and extended idle times outdoors. DO NOT focus a light beam from one lighting fixture directly towards another.



01/ Informations de sécurité



AVERTISSEMENT

Veillez lire attentivement les instructions, car elles contiennent des informations importantes concernant l'installation, l'utilisation et la maintenance.

Veillez conserver ce manuel d'utilisation pour consultation future. Si vous vendez l'appareil à un autre utilisateur, assurez-vous qu'il reçoive également ce manuel d'instructions.

Important:

Les dommages causés par le non-respect de ce manuel d'utilisation ne sont pas couverts par la garantie. Le revendeur n'acceptera aucune responsabilité pour les défauts ou problèmes qui en résulteraient.

- Déballer et vérifier soigneusement qu'il n'y a pas de dommages dus au transport avant d'utiliser l'appareil.
- Ce produit est destiné à une utilisation en intérieur uniquement. Utilisez-le uniquement dans un endroit sec.
- FAIRE installer et utiliser par un opérateur qualifié.
- NE PAS laisser les enfants manipuler l'appareil.
- Utiliser une chaîne de sécurité lors de la fixation de l'appareil. Manipuler l'appareil en portant sa base et non uniquement par la tête.
- L'appareil doit être installé dans un endroit bien ventilé, à au moins 50 cm des surfaces adjacentes.
- Assurez-vous qu'aucune fente de ventilation n'est obstruée, sinon l'appareil surchauffera.
- Avant utilisation, assurez-vous de connecter ce produit à la tension appropriée conformément aux spécifications de ce manuel ou à l'étiquette des spécifications du produit.
- Il est important de mettre le conducteur jaune/vert à la terre pour éviter tout risque de choc électrique.
- Température ambiante minimale (TA): 0°C. Température ambiante maximale (TA): 40°C. Ne pas utiliser ce produit à une température inférieure ou supérieure.
- NE PAS connecter l'appareil à un gradateur (dimmer pack).
- Éloigner les matériaux inflammables de l'appareil pendant son fonctionnement pour éviter tout risque d'incendie.

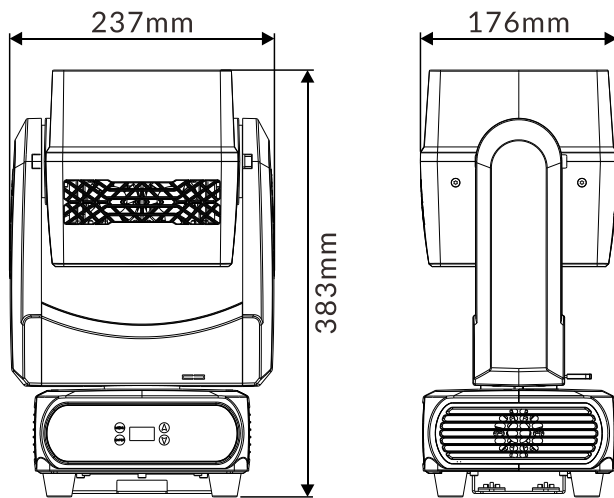
- Vérifier que le cordon d'alimentation n'est ni écrasé ni endommagé; le remplacer immédiatement s'il est endommagé.
- La température de surface de l'appareil peut atteindre jusqu'à 65°C. NE PAS toucher le boîtier à mains nues pendant son fonctionnement.
- Évitez que des liquides inflammables, de l'eau ou des objets métalliques ne pénètrent dans l'appareil. Si cela se produit, coupez immédiatement l'alimentation électrique.
- NE PAS utiliser l'appareil dans un environnement sale ou poussiéreux. Nettoyez régulièrement l'appareil.
- NE PAS toucher de fils pendant le fonctionnement, car cela pourrait présenter un risque de choc électrique.
- Évitez que le cordon d'alimentation ne s'emmêle avec d'autres fils.
- La distance minimale par rapport aux objets/surfaces doit être de plus de 0.5 mètres.
- En cas de problème de fonctionnement grave, cessez immédiatement d'utiliser l'appareil.
- Ne jamais allumer et éteindre l'appareil à plusieurs reprises.
- Le boîtier, les lentilles ou le filtre ultraviolet doivent être remplacés s'ils sont visiblement endommagés.
- NE PAS ouvrir le boîtier, car il ne contient aucune pièce pouvant être réparée par l'utilisateur.
- NE PAS tenter d'utiliser cet appareil s'il est endommagé. NE PAS tenter de réparations vous-même. Les réparations effectuées par des personnes non qualifiées peuvent entraîner des dommages ou un dysfonctionnement. Veuillez contacter le centre d'assistance technique agréé le plus proche si nécessaire.
- Débranchez l'appareil de sa source d'alimentation avant toute maintenance.
- UTILISEZ l'emballage d'origine si l'appareil doit être transporté.
- Vérifiez que le verrou d'inclinaison de la tête est libéré avant l'emballage pour le transport.
- Évitez une exposition directe des yeux à la source lumineuse lorsque l'appareil est allumé.
- NE PAS utiliser ce produit si vous constatez des dommages sur le boîtier, les protections ou les câbles. Faites remplacer les pièces endommagées par un technicien agréé immédiatement.

- Les sources externes de rayons lumineux, comme la lumière directe du soleil ou toute autre source lumineuse intense, qui pénètrent à travers la lentille frontale des appareils d'éclairage, peuvent causer des dommages internes graves. NE PAS exposer la lentille frontale de l'appareil à des rayons lumineux provenant de la lumière directe du soleil ou de toute autre source lumineuse intense, sous quelque angle que ce soit, lors du déballage, de l'installation, de l'utilisation ou de périodes d'inactivité prolongées à l'extérieur. NE PAS diriger un faisceau lumineux d'un appareil d'éclairage directement vers un autre.

02/ Technical Specifications

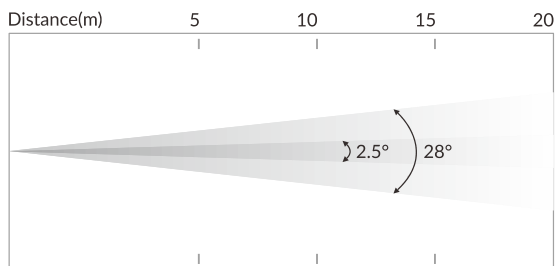
AC Power	100-240Vac; 50/60Hz	
Max. Power Consumption	600W	
Light Source	4x60W RGBW LED	
	9x10W CW LED	
	108x0.5W RGB LED	
	96x3W CW LED	
Beam Angle	2.5°-28°	
Field Angle	4.4°-36°	
Movement	Pan	Infinite
	Tilt	Infinite
	16 bit movement resolution	
	Automatic pan/tilt repositioning	
	Mechanical pan/tilt lock for safe transportation and maintenance	
Control and Programming	DMX Channels	24/39/97/21+
	Protocols	DMX512
		RDM
		Art-Net
		sACN
	Firmware Update	via DMX
Construction	Display	OLED display
	DMX and RDM Data In/Out	3-pin XLR (optional with 5-pin XLR)
		RJ45 Connectors
	Power In/Out	Power Connector in/out
Dynamic Effects	Protection Rating	IP20
	0-100% continuous dimming and strobe effects	
	Choice of four dimming curves	
	Motorized zoom	
	Variable color temperature control	
	Outstanding color mixing	
	Wash Section: 4 x RGBW LEDs with individual control	
	Strobe Section: 9 x CW LEDs with individual control 9 x RGB LED zones with individual control 24 x CW LED zones with individual control	

Dimensions	237x176x383mm	9.3"x6.9"x15.1"
Weight	11 kg	24.3 lbs

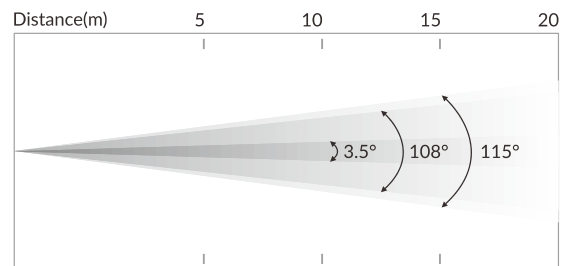


Photometric Diagram (Beam Angle):

4x60W RGBW:



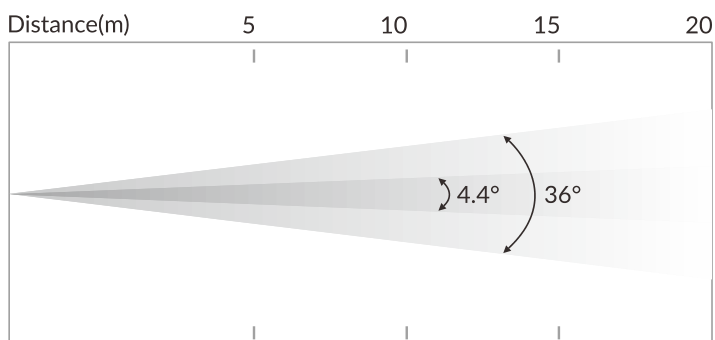
2.5° Lux	37,640	9,410	3,690	2,353
Diameter(m)	0.2	0.5	0.7	0.9
28° Lux	940	235	92.2	58.8
Diameter(m)	2.5	4.9	7.4	9.8



9x10W CW: 3.5° Lux	20,120	5,030	2,236	1,258
Diameter(m)	0.3	0.7	1.0	1.3
108x0.5W RGB: 115° Lux	79	19.8	8.8	5
Diameter(m)	15.8	31.5	47.3	63.0
96x3W CW: 108° Lux	390	97.5	43.3	24.4
Diameter(m)	13.7	27.4	41.1	54.8

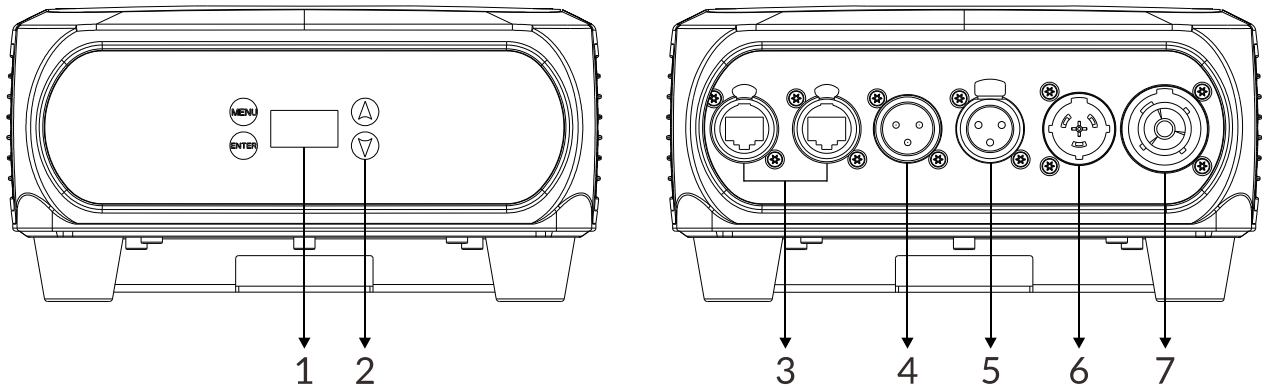
Photometric Diagram (Field Angle):

4x60W RGBW:



4.4° Lux	37,640	9,410	3,690	2,353
Diameter(m)	0.4	0.8	1.2	1.6
36° Lux	940	235	92.2	58.8
Diameter(m)	3.3	6.5	9.8	13.0

03/ Overview



1. Display	To show the various menus and the selected function	
2. Buttons	MENU	To enter into, move backward or leave the menu
	▲ UP	To go backward or move up in the menu
	▼ DOWN	To go forward or move down in the menu
	ENTER	To perform the desired functions
3. ETHERNET	For use with sACN or Art-Net controls	
4. DMX IN	For DMX512 link, use 3-pin XLR cable to link the unit and DMX controller to input DMX signal (optional with 5-pin XLR)	
5. DMX OUT	For DMX512 link, use 3-pin XLR cable to link the next units to output DMX signal (optional with 5-pin XLR)	
6. POWER IN	To connect to supply power	
7. POWER OUT	To connect to the next fixture	

04/ Connecting Power and Data

4.1 Connecting Power

To apply power, first check that the head pan and tilt locks are released.

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

The maximum power consumption is 600W.

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	$\perp$ or 	ground (earth)

Power cord set should be used: Listed SJT flexible cord with rating: 300V, 105°C, 16AWGx3C, molded with 5-20P attachment plug and terminated with cord connector model SAC3FX with rating 250V, 16A by NINGBO SEETRONIC ELECTRONIC TECHNOLOGY CO., LTD. The power cord shall be at least 914mm (It is to be measured from the face of the attachment plug to the face of connector).

CAUTION!

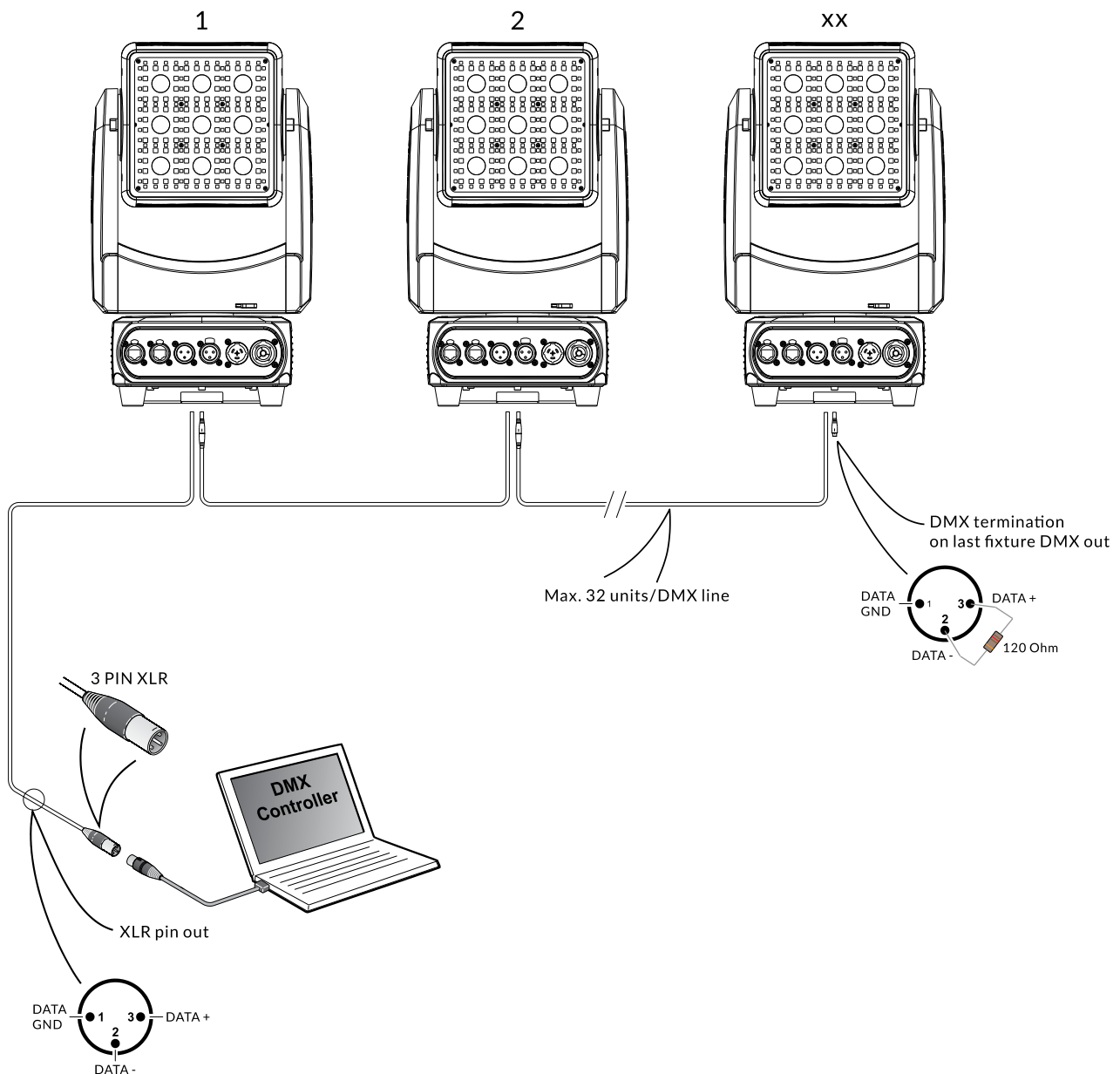
DO NOT CONNECT THE FIXTURE TO AN ELECTRICAL DIMMER SYSTEM AS DOING SO MAY CAUSE DAMAGE.

4.2 Connecting Data

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

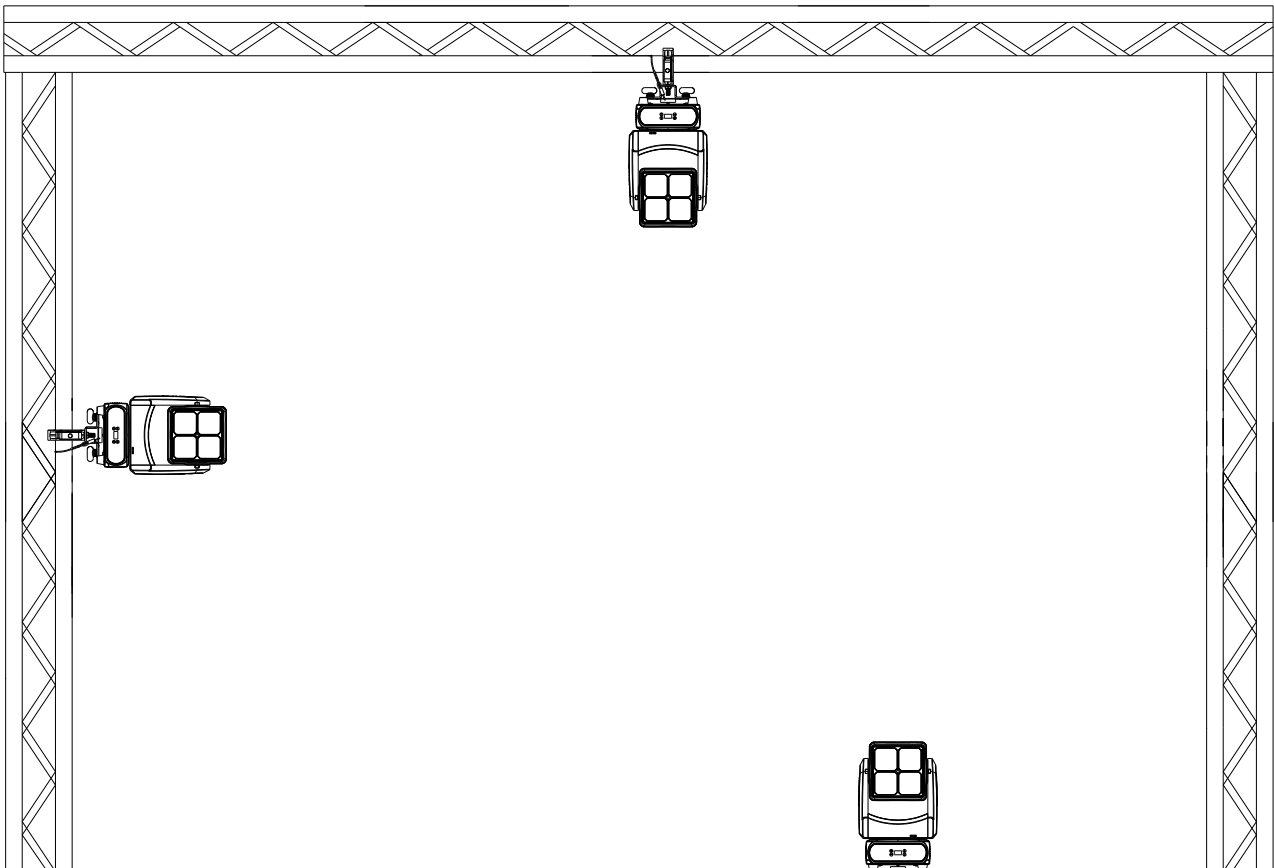
Building a serial DMX chain:

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.

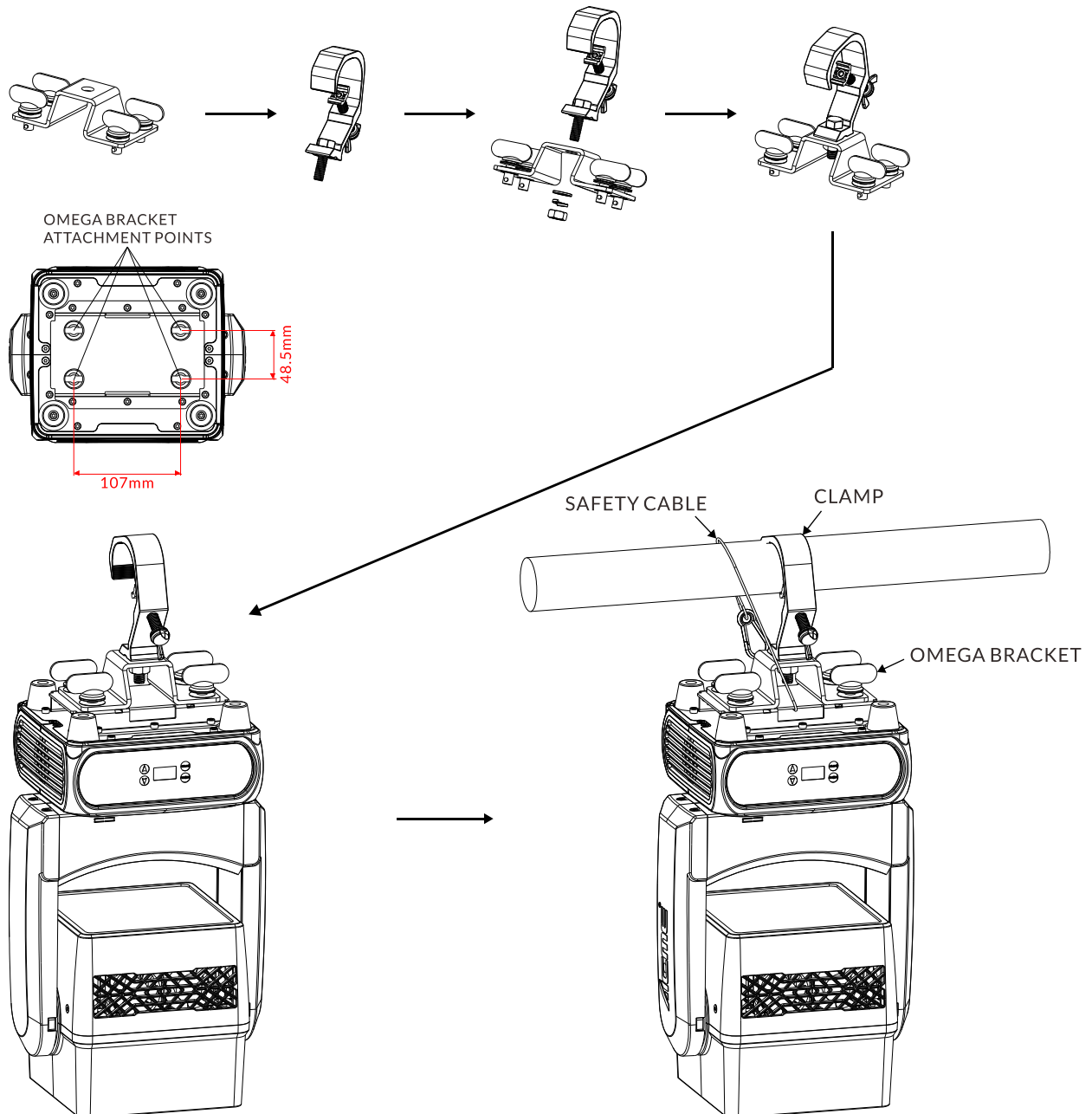


05/ Fixture Installation

- ▶ DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas where 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 (made of steel, min. diameter 2.0mm) 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 three different mounting positions: hanging upside-down, mounted sideways on truss, or base positioned on floor. Always use and install a safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.



Steps for installing omega brackets to the fixture:



06/ Operation

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		
DMX Settings	Port A Address	1-489 (24 CH)		(Default=1)
		1-474 (39 CH)		
		1-416 (97 CH)		
		1-492 (21+ CH)		
	Port B Address	1-437 (21+ CH)		(Default=1)
	DMX CH Mode	Mode 1 (24)		
		Mode 2 (39)		
		Mode 3 (97)		
		Mode 4 (21+)		
	No DMX Status	Blackout		
		Hold		
		Manual		
	View DMX Value			
	Connect Option	Auto		
		DMX		
		Art-Net		
		sACN		
	Network	IP Address	Default 1	
			Default 2	
			Manual	
		Subnet Mask	XXX.XXX.XXX.XXX	
	Art-Net Setting	Net	0-127	(Default=0)
		Sub-Net	0-15	(Default=0)
		Universe A	0-15	(Default=0)
		Universe B	0-15	(Default=0)

MAIN MENU	SUBMENU	CHOICES/VALUES		
	sACN Settings	sACN Universe	1-32000	(Default=1)
		sACN Priority	0-200	(Default=100)
	Artnet to DMX	No		
		Yes		
Fixture Settings	Pan Invert	No		
		Yes		
	Tilt Invert	No		
		Yes		
	P/T Feedback	No		
		Yes		
	Dimmer Curve	Linear		
		Square Law		
		Inv SQ Law		
		S Curve		
	Dimmer Speed	Fast		
		Smooth		
	White Balance	Red	125-255	
		Green	125-255	
		Blue	125-255	
		Red 1	125-255	
		Green 1	125-255	
		Blue 1	125-255	
				
		Red 4	125-255	
		Green 4	125-255	
		Blue 4	125-255	
		Zone Red	125-255	
		Zone Green	125-255	
		Zone Blue	125-255	
		Zone Red 1	125-255	
		Zone Green 1	125-255	
		Zone Blue 1	125-255	
				
		Zone Red 9	125-255	
		Zone Green 9	125-255	
		Zone Blue 9	125-255	

MAIN MENU	SUBMENU	CHOICES/VALUES	
	LED Refresh Rate	900Hz	
		1000Hz	
		1100Hz	
		1200Hz	
		1300Hz	
		1400Hz	
		1500Hz	
		2500Hz	
		4000Hz	
		5000Hz	
		6000Hz	
		10KHz	
		15KHz	
		20KHz	
		25KHz	
		Power Mode	Auto
			Quiet
	Invert Pixel	No	
		Yes	
	Zoom Mode	Long	
		Short	
	Line Power Mode	Off	
		On	
Display Settings	Display Invert	No	
		Yes	
	Temperature Unit	°C	
		°F	
	Language	English	
Chinese			

MAIN MENU	SUBMENU	CHOICES/VALUES			
Fixture Test	Auto Test				
	Manual Test	Mode 1		Mode 2	
		Clear	No/Yes	Clear	No/Yes
		Pan	0-255	Pan	0-255
		Tilt	0-255	Tilt	0-255
		Pan Infinity	0-255	Pan Infinity	0-255
		Tilt Infinity	0-255	Tilt Infinity	0-255
		Pan/Tilt Speed	0-255	Pan/Tilt Speed	0-255
		Zoom	0-255	Zoom	0-255
		Wash Strobe	0-255	Wash Strobe	0-255
		Wash Dimmer	0-255	Wash Dimmer	0-255
		Wash Red 1	0-255	Wash Red	0-255
		Wash Green 1	0-255	Wash Green	0-255
		Wash Blue 1	0-255	Wash Blue	0-255
		Wash White 1	0-255	Wash White	0-255
		.....	.....	Wash Clr. Mac.	0-255
		Wash Red 4	0-255	Wash CCT	0-255
		Wash Green 4	0-255	Beam Strobe	0-255
		Wash Blue 4	0-255	Beam Dimmer	0-255
		Wash White 4	0-255	Beam White	0-255
		Beam Strobe	0-255	Beam Macro	0-255
		Beam Dimmer	0-255	Beam Mac. Sp.	0-255
		Beam White 1	0-255	Zone Strobe	0-255
		.....	.....	Zone Dimmer	0-255
		Beam White 9	0-255	Zone Red	0-255
		Zone Strobe	0-255	Zone Green	0-255

MAIN MENU	SUBMENU	CHOICES/VALUES			
		Zone Dimmer	0-255	Zone Blue	0-255
		Zone Red 1	0-255	Zone Clr. Mac.	0-255
		Zone Green 1	0-255	Zone Macro	0-255
		Zone Blue 1	0-255	Zone Mac. Sp.	0-255
		.....	.....	Line Strobe	0-255
		Zone Red 9	0-255	Line Dimmer	0-255
		Zone Green 9	0-255	Line White	0-255
		Zone Blue 9	0-255	Line Macro	0-255
		Line Strobe	0-255	Line Mac. Sp.	0-255
		Line Dimmer	0-255		
		Line White 1	0-255		
					
		Line White 24	0-255		
		Information	Fixture Use Hour		
LED Use Hour	Total LED Hour				
	LED On Hour				
	LED Hours Reset		No		
Yes			Password=050		
Temperature	LED's			Current	Max temp
			LED 1		
			LED 2		
			LED 3		
			LED 4		
Fan State	Base 1				
	Head 1				
	Head 2				
	Head 3				
	Head 4				
Firmware Version					
RDM UID					

MAIN MENU	SUBMENU	CHOICES/VALUES		
	Error Logs	Fixture Errors		
		Reset Error Log	No	
			Yes	Password=050
Reset Functions	Pan/Tilt Reset	No		
		Yes		
	Effect Reset	No		
		Yes		
	All Reset	No		
		Yes		
Factory Restore	No			
	Yes			

DMX Settings

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

Port A Address

Select **Port A Address**, press ENTER.

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

CHANNEL MODE	DMX ADDRESS
Mode 1 (24)	1-489
Mode 2 (39)	1-474
Mode 3 (97)	1-416
Mode 4 (21+)	1-492

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

Port B Address

Select **Port B Address**, press ENTER.

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

CHANNEL MODE	ADDRESS
Mode 4 (21+)	1-437

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

DMX CH Mode

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

Use UP/DOWN button to select between **Mode 1 (24)**, **Mode 2 (39)**, **Mode 3 (97)** and **Mode 4 (21+)**, 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.

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

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**, **Universe A** or **Universe B**, 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 **sACN Universe** or **sACN Priority**, confirm your selection with ENTER.

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

Artnet to DMX

Select **Artnet to DMX**, press ENTER.

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

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

Fixture Settings

Enter the control menu and select **Fixture Settings**, press ENTER. Use the UP/DOWN button to select **Pan Invert**, **Tilt Invert**, **P/T Feedback**, **Dimmer Curve**, **Dimmer Speed**, **White Balance**, **LED Refresh Rate**, **Power Mode**, **Invert Pixel**, **Zoom Mode** or **Line Power Mode**.

Pan Invert

Select **Pan Invert**, press ENTER.

Use UP/DOWN button to select **No** (pan invert deactivated) or **Yes** (pan invert activated), confirm your selection with ENTER.

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

Tilt Invert

Select **Tilt Invert**, press ENTER.

Use UP/DOWN button to select **No** (tilt invert deactivated) or **Yes** (tilt invert activated), confirm your selection with ENTER.

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

P/T Feedback

Select **P/T Feedback**, press ENTER.

Use UP/DOWN button to select **No** (pan/tilt feedback deactivated) or **Yes** (pan/tilt feedback activated), confirm your selection with ENTER.

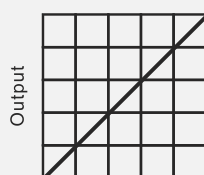
To exit the menu, press MENU, or wait 30 seconds.

Dimmer Curve

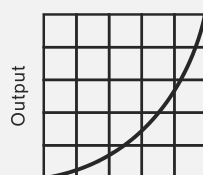
Select **Dimmer Curve**, press ENTER.

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

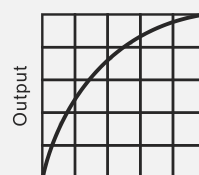
Dimmer Modes



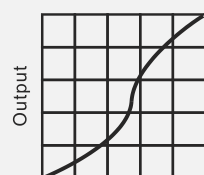
Optically Linear



Square Law



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, Red 1, Green 1, Blue 1.....** or **Zone Red 9, Zone Green 9, Zone Blue 9**, confirm your selection with ENTER.

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

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

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, 10KHz, 15KHz, 20KHz** or **25KHz**, confirm your selection with ENTER.

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

Power Mode

Select **Power Mode**, press ENTER.

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

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

Invert Pixel

Select **Invert Pixel**, press ENTER.

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

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

Zoom Mode

Select **Zoom Mode**, press ENTER.

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

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

Line Power Mode

Select **Line Power Mode**, press ENTER.

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

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

Display Settings

Enter the control menu and select **Display Settings**, press ENTER. Use the UP/DOWN button to select **Display Invert**, **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.

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.

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

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.

The device immediately performs an automatic self-test.

To end the automatic self-test and exit the menu, press MENU.

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.)

Information

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

Fixture Use Hour

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

The operating hours is displayed.

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

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.

If you wish to reset the LED operating hours, 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 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.

Fan State

Select **Fan State**, press ENTER.

The fan status 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.

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

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 **Pan/Tilt Reset**, **Effect Reset** or **All Reset**.

Pan/Tilt Reset

Select **Pan/Tilt Reset**, press ENTER.

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

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

Effect Reset

Select **Effect Reset**, press ENTER.

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

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

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.

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

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:

Standard RDM Parameter IDs

PID	Parameter IDs	Command 'Discovery'	Command 'Set'	Command 'Get'
0x0001	DISC_UNIQUE_BRANCH	✓		
0x0002	DISC_MUTE	✓		
0x0003	DISC_UN_MUTE	✓		
0x0050	SUPPORTED_PARAMETERS			✓
0x0051	PARAMETER_DESCRIPTION			✓
0x0060	DEVICE_INFO			✓
0x0080	DEVICE_MODEL_DESCRIPTION			✓
0x0081	MANUFACTURER_LABEL			✓
0x0082	DEVICE_LABEL		✓	✓
0x0090	FACTORY_DEFAULTS		✓	✓
0x00C0	SOFTWARE_VERSION_LABEL			✓
0x00C1	BOOT_SOFTWARE_VERSION_ID			✓
0x00C2	BOOT_SOFTWARE_VERSION_LABEL			✓
0x00E0	DMX_PERSONALITY		✓	✓
0x00E1	DMX_PERSONALITY_DESCRIPTION			✓
0x00F0	DMX_START_ADDRESS		✓	✓
0x0200	SENSOR_DEFINITION			✓
0x0201	SENSOR_VALUE			✓
0x0343	CURVE		✓	✓
0x0400	DEVICE_HOURS			✓
0x0401	LAMP_HOURS			✓
0x0600	PAN_INVERT		✓	✓
0x0601	TILT_INVERT		✓	✓
0x1000	IDENTIFY_DEVICE		✓	✓
0x1001	RESET_DEVICE		✓	✓

✓ -Command implemented for the respective parameter ID

Manufacturer-specific RDM Parameter IDs

PID	Parameter IDs	Command 'Discovery'	Command 'Set'	Command 'Get'	Note
0xA004	DMX_STATUS		✓	✓	0:Blackout 1:Hold 2:Manual
0xA008	DIMMER_SPEED		✓	✓	0:Fast 1:Smooth
0xA018	ERROR_LOG			✓	
0xA020	OFFSET		✓	✓	
0xA021	PAN_TILT_FEEDBACK		✓	✓	0:No 1:Yes

✓ -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
Pan	-128~127
Tilt	-128~127
Zoom	-128~127
Red	0~1000
Green	0~1000
Blue	0~1000
White	0~1000
Red 1	0~1000
Green 1	0~1000
Blue 1	0~1000
White 1	0~1000
.....	
Red 4	0~1000
Green 4	0~1000
Blue 4	0~1000
White 4	0~1000
Beam White	-75~1000
Beam White 1	-75~1000
.....	
Beam White 9	-75~1000
Zone Red	0~1000
Zone Green	0~1000
Zone Blue	0~1000
Zone Red 1	0~1000

Zone Green 1	0~1000
Zone Blue 1	0~1000
.....	
Zone Red 9	0~1000
Zone Green 9	0~1000
Zone Blue 9	0~1000
Line White	0~1000
Line White 1	0~1000
.....	
Line White 24	0~1000

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
10000Hz	9872~10127
15000Hz	14872~15127
20000Hz	19872~20127
25000Hz	24872~25127

Pan

Select **Pan**, 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.

Tilt

Select **Tilt**, 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.

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.

Red

Select **Red**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, 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 1000, 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 1000, confirm your selection with ENTER.

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

White

Select **White**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Red 1

Select **Red 1**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Green 1

Select **Green 1**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Blue 1

Select **Blue 1**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

White 1

Select **White 1**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

.....

Red 4

Select **Red 4**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Green 4

Select **Green 4**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Blue 4

Select **Blue 4**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

White 4

Select **White 4**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Beam White

Select **Beam White**, press ENTER.

Use UP/DOWN button to select a value between -75 and 1000, confirm your selection with ENTER.

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

Beam White 1

Select **Beam White 1**, press ENTER.

Use UP/DOWN button to select a value between -75 and 1000, confirm your selection with ENTER.

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

.....

Beam White 9

Select **Beam White 9**, press ENTER.

Use UP/DOWN button to select a value between -75 and 1000, confirm your selection with ENTER.

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

Zone Red

Select **Zone Red**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Zone Green

Select **Zone Green**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Zone Blue

Select **Zone Blue**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Zone Red 1

Select **Zone Red 1**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Zone Green 1

Select **Zone Green 1**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Zone Blue 1

Select **Zone Blue 1**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

.....

Zone Red 9

Select **Zone Red 9**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Zone Green 9

Select **Zone Green 9**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Zone Blue 9

Select **Zone Blue 9**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Line White

Select **Line White**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

Line White 1

Select **Line White 1**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

.....

Line White 24

Select **Line White 24**, press ENTER.

Use UP/DOWN button to select a value between 0 and 1000, confirm your selection with ENTER.

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

07/ Configuring the Device for DMX Control

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 24 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 25. As the first fixture uses all the first 24 DMX channels, the next available channel is 25 ($24+1=25 >> 25$).

See the chart below for more details:

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address	Unit xxx Address
24 channels	1	25	49	73	.....
39 channels	1	40	79	118	.....
97 channels	1	98	195	292	.....
21+ channels (Controlled by DMX)	1	22	43	64	.....
21+ channels (Controlled by Art-Net)	1	77	153	229	.....

7.2 DMX Protocol

Valid from firmware version: V1.1

24 Channels (Mode 1) / 39 Channels (Mode 2) / 97 Channels (Mode 3):

CHANNEL			VALUE	FUNCTION
24ch	39ch	97ch		
1	1	1	000-255	PAN 0°→540°
2	2	2	000-255	PAN FINE
3	3	3	000-255	TILT 0°→450°
4	4	4	000-255	TILT FINE
5	5	5	000-127 128-189 190-193 194-255	PAN INFINITY Null Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
6	6	6	000-127 128-189 190-193 194-255	TILT INFINITY Null Clockwise Rotation, Fast to Slow Stop Counter-Clockwise Rotation, Slow to Fast
7	7	7	000-255	PAN/TILT SPEED Fast to Slow
8	8	8	000-255	ZOOM Wide→Narrow
9			000-255	DIMMER 0%→100%
10			000-255	DIMMER FINE
	9	9	000-255	WASH_DIMMER 0%→100%
	10	10	000-255	WASH_DIMMER FINE
11	11	11	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239	WASH_STROBE 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

			240-247 248-255	Random Strobe from Slow to Fast Open
	12	12	000-255	BEAM_DIMMER 0%→100%
	13	13	000-255	BEAM_DIMMER FINE
12	14	14	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	BEAM_STROBE 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
	15	15	000-255	ZONE_DIMMER 0%→100%
	16	16	000-255	ZONE_DIMMER FINE
13	17	17	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	ZONE_STROBE 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
	18	18	000-255	LINE_DIMMER 0%→100%
	19	19	000-255	LINE_DIMMER FINE
14	20	20	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	LINE_STROBE 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

15	21	21		SPECIAL FUNCTION (To activate following functions, stop in DMX value for at least 3 seconds.)
			000-009	Null
			010-019	Zoom Mode: Short
			020-029	Zoom Mode: Long
			030-039	Dimmer Curve: Linear
			040-049	Dimmer Curve: Square law
			050-059	Dimmer Curve: Inv SQ law
			060-069	Dimmer Curve: S Curve
			070-079	Null
			080-089	Power Mode: Auto
			090-099	Power Mode: Quiet
			100-109	Led Frequency Setting Enable
			110-119	Led Frequency Setting Disable
			120-122	Null
			123	900Hz
			124	1000Hz
			125	1100Hz
			126	1200Hz
			127	1300Hz
			128	1400Hz
			129	1500Hz
			130	2500Hz
			131	4000Hz
			132	5000Hz
			133	6000Hz
			134	10KHz
			135	15KHz
			136	20KHz
			137	25KHz
			138-139	Null
			140-149	Pan/Tilt Reset
			150-159	Effect Reset
			160-199	Null
			200-209	Reset All
			210-219	Dimmer Speed: Fast
			220-229	Dimmer Speed: Smooth
			230-239	Line Power Mode: Off
			240-249	Line Power Mode: On
			250-255	No Function
16	22		000-255	WASH_RED 0%→100%
17	23		000-255	WASH_GREEN 0%→100%
18	24		000-255	WASH_BLUE 0%→100%

19	25		000-255	WASH_WHITE 0%→100%
		22	000-255	WASH_RED 1 0%→100%
		23	000-255	WASH_GREEN 1 0%→100%
		24	000-255	WASH_BLUE 1 0%→100%
		25	000-255	WASH_WHITE 1 0%→100%
		26	000-255	WASH_RED 2 0%→100%
		27	000-255	WASH_GREEN 2 0%→100%
		28	000-255	WASH_BLUE 2 0%→100%
		29	000-255	WASH_WHITE 2 0%→100%
		30	000-255	WASH_RED 3 0%→100%
		31	000-255	WASH_GREEN 3 0%→100%
		32	000-255	WASH_BLUE 3 0%→100%
		33	000-255	WASH_WHITE 3 0%→100%
		34	000-255	WASH_RED 4 0%→100%
		35	000-255	WASH_GREEN 4 0%→100%
		36	000-255	WASH_BLUE 4 0%→100%
		37	000-255	WASH_WHITE 4 0%→100%
	26		0 001-004 005-009 010-013 014-018 019-022 023-027 028-031 032-036 037-040	WASH_CCT Null 8000K 7900K 7800K 7700K 7600K 7500K 7400K 7300K 7200K

041-045	7100K
046-049	7000K
050-054	6900K
055-058	6800K
059-063	6700K
064-067	6600K
068-072	6500K
073-076	6400K
077-081	6300K
082-085	6200K
086-090	6100K
091-094	6000K
095-099	5900K
100-103	5800K
104-108	5700K
109-112	5600K
113-117	5500K
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
163-166	4400K
167-171	4300K
172-175	4200K
176-180	4100K
181-184	4000K
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

			000-009 010-016 017-023 024-030 031-037 038-044 045-051 052-058 059-065 066-072 073-079 080-086 087-093 094-100 101-107 108-114 115-121 122-128 129-135 136-142 143-149 150-156 157-163 164-170 171-177 178-184 185-191 192-198 199-215 216-222 223-229 230-236 237-243 244-255	WASH_COLOR MACRO Null LEE 790-Moroccan Pink LEE 157-Pink LEE 332-Special Rose Pink LEE 328-Follies Pink LEE 345-Fuchsia Pink LEE 194-Surprise Pink LEE 181-Congo Blue LEE 071-Tokyo Blue LEE 120-Deep Blue LEE 079-Just Blue LEE 132-Medium Blue LEE 200-Double CT Blue LEE 161-State Blue LEE 201-Full CT Blue LEE 202-Half CT Blue LEE 117-Steel Blue LEE 353-Lighter Blue LEE 118-Light Blue LEE 116-Medium Blue Green LEE 124-Dark Green LEE 139-Primary Green LEE 089-Moss Green LEE 122-Fern Green LEE 738-JAS Green LEE 088-Lime Green LEE 100-Spring Yellow LEE 104-Deep Amber LEE 179-Chrome Orange LEE 105-Orange LEE 021-Gold Amber LEE 778-Millennium Gold LEE 135-Deep Gold Amber LEE 164-Flame Red
20	27			
			000-255	BEAM_WHITE 0%→100%
		38	000-255	BEAM_WHITE 1 0%→100%
		39	000-255	BEAM_WHITE 2 0%→100%
		40	000-255	BEAM_WHITE 3 0%→100%
		41	000-255	BEAM_WHITE 4 0%→100%
		42	000-255	BEAM_WHITE 5 0%→100%

		43	000-255	BEAM_WHITE 6 0%→100%
		44	000-255	BEAM_WHITE 7 0%→100%
		45	000-255	BEAM_WHITE 8 0%→100%
		46	000-255	BEAM_WHITE 9 0%→100%
	29		000-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-071 072-079 080-087 088-095 096-103 104-111 112-119 120-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255	BEAM_MACRO Null Macro Effect 1 Macro Effect 2 Macro Effect 3 Macro Effect 4 Macro Effect 5 Macro Effect 6 Macro Effect 7 Macro Effect 8 Macro Effect 9 Macro Effect 10 Macro Effect 11 Macro Effect 12 Macro Effect 13 Macro Effect 14 Macro Effect 15 Macro Effect 16 Macro Effect 17 Macro Effect 18 Macro Effect 19 Macro Effect 20 Macro Effect 21 Macro Effect 22 Macro Effect 23 Macro Effect 24 Macro Effect 25 Macro Effect 26 Macro Effect 27 Macro Effect 28 Macro Effect 29 Macro Effect 30 Macro Effect 31
	30		000 001-127 128 129-255	BEAM_MACRO SPEED Null Slow to Fast without Fade Null Slow to Fast with Fade

21	31		000-255	ZONE_RED 0%→100%
22	32		000-255	ZONE_GREEN 0%→100%
23	33		000-255	ZONE_BLUE 0%→100%
		47	000-255	ZONE_RED 1 0%→100%
		48	000-255	ZONE_GREEN 1 0%→100%
		49	000-255	ZONE_BLUE 1 0%→100%
		50	000-255	ZONE_RED 2 0%→100%
		51	000-255	ZONE_GREEN 2 0%→100%
		52	000-255	ZONE_BLUE 2 0%→100%
		53	000-255	ZONE_RED 3 0%→100%
		54	000-255	ZONE_GREEN 3 0%→100%
		55	000-255	ZONE_BLUE 3 0%→100%
		56	000-255	ZONE_RED 4 0%→100%
		57	000-255	ZONE_GREEN 4 0%→100%
		58	000-255	ZONE_BLUE 4 0%→100%
		59	000-255	ZONE_RED 5 0%→100%
		60	000-255	ZONE_GREEN 5 0%→100%
		61	000-255	ZONE_BLUE 5 0%→100%
		62	000-255	ZONE_RED 6 0%→100%
		63	000-255	ZONE_GREEN 6 0%→100%
		64	000-255	ZONE_BLUE 6 0%→100%
		65	000-255	ZONE_RED 7 0%→100%

		66	000-255	ZONE_GREEN 7 0%→100%
		67	000-255	ZONE_BLUE 7 0%→100%
		68	000-255	ZONE_RED 8 0%→100%
		69	000-255	ZONE_GREEN 8 0%→100%
		70	000-255	ZONE_BLUE 8 0%→100%
		71	000-255	ZONE_RED 9 0%→100%
		72	000-255	ZONE_GREEN 9 0%→100%
		73	000-255	ZONE_BLUE 9 0%→100%
	34		000-009 010-016 017-023 024-030 031-037 038-044 045-051 052-058 059-065 066-072 073-079 080-086 087-093 094-100 101-107 108-114 115-121 122-128 129-135 136-142 143-149 150-156 157-163 164-170 171-177 178-184 185-191 192-198 199-215	ZONE_COLOR MACRO Null LEE 790-Moroccan Pink LEE 157-Pink LEE 332-Special Rose Pink LEE 328-Follies Pink LEE 345-Fuchsia Pink LEE 194-Surprise Pink LEE 181-Congo Blue LEE 071-Tokyo Blue LEE 120-Deep Blue LEE 079-Just Blue LEE 132-Medium Blue LEE 200-Double CT Blue LEE 161-State Blue LEE 201-Full CT Blue LEE 202-Half CT Blue LEE 117-Steel Blue LEE 353-Lighter Blue LEE 118-Light Blue LEE 116-Medium Blue Green LEE 124-Dark Green LEE 139-Primary Green LEE 089-Moss Green LEE 122-Fern Green LEE 738-JAS Green LEE 088-Lime Green LEE 100-Spring Yellow LEE 104-Deep Amber LEE 179-Chrome Orange

			216-222 223-229 230-236 237-243 244-255	LEE 105-Orange LEE 021-Gold Amber LEE 778-Millennium Gold LEE 135-Deep Gold Amber LEE 164-Flame Red
	35		000-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-071 072-079 080-087 088-095 096-103 104-111 112-119 120-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255	ZONE_MACRO Null Macro Effect 1 Macro Effect 2 Macro Effect 3 Macro Effect 4 Macro Effect 5 Macro Effect 6 Macro Effect 7 Macro Effect 8 Macro Effect 9 Macro Effect 10 Macro Effect 11 Macro Effect 12 Macro Effect 13 Macro Effect 14 Macro Effect 15 Macro Effect 16 Macro Effect 17 Macro Effect 18 Macro Effect 19 Macro Effect 20 Macro Effect 21 Macro Effect 22 Macro Effect 23 Macro Effect 24 Macro Effect 25 Macro Effect 26 Macro Effect 27 Macro Effect 28 Macro Effect 29 Macro Effect 30 Macro Effect 31
	36		000 001-127 128 129-255	ZONE_MACRO SPEED Null Slow to Fast without Fade Null Slow to Fast with Fade
24	37		000-255	LINE_WHITE 0%→100%
		74	000-255	LINE_WHITE 1 0%→100%

		75	000-255	LINE_WHITE 2 0%→100%
		76	000-255	LINE_WHITE 3 0%→100%
		77	000-255	LINE_WHITE 4 0%→100%
		78	000-255	LINE_WHITE 5 0%→100%
		79	000-255	LINE_WHITE 6 0%→100%
		80	000-255	LINE_WHITE 7 0%→100%
		81	000-255	LINE_WHITE 8 0%→100%
		82	000-255	LINE_WHITE 9 0%→100%
		83	000-255	LINE_WHITE 10 0%→100%
		84	000-255	LINE_WHITE 11 0%→100%
		85	000-255	LINE_WHITE 12 0%→100%
		86	000-255	LINE_WHITE 13 0%→100%
		87	000-255	LINE_WHITE 14 0%→100%
		88	000-255	LINE_WHITE 15 0%→100%
		89	000-255	LINE_WHITE 16 0%→100%
		90	000-255	LINE_WHITE 17 0%→100%
		91	000-255	LINE_WHITE 18 0%→100%
		92	000-255	LINE_WHITE 19 0%→100%
		93	000-255	LINE_WHITE 20 0%→100%
		94	000-255	LINE_WHITE 21 0%→100%
		95	000-255	LINE_WHITE 22 0%→100%
		96	000-255	LINE_WHITE 23 0%→100%

		97	000-255	LINE_WHITE 24 0%→100%
	38		000-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-071 072-079 080-087 088-095 096-103 104-111 112-119 120-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255	LINE_MACRO Null Macro Effect 1 Macro Effect 2 Macro Effect 3 Macro Effect 4 Macro Effect 5 Macro Effect 6 Macro Effect 7 Macro Effect 8 Macro Effect 9 Macro Effect 10 Macro Effect 11 Macro Effect 12 Macro Effect 13 Macro Effect 14 Macro Effect 15 Macro Effect 16 Macro Effect 17 Macro Effect 18 Macro Effect 19 Macro Effect 20 Macro Effect 21 Macro Effect 22 Macro Effect 23 Macro Effect 24 Macro Effect 25 Macro Effect 26 Macro Effect 27 Macro Effect 28 Macro Effect 29 Macro Effect 30 Macro Effect 31
	39		000 001-127 128 129-255	LINE_MACRO SPEED Null Slow to Fast without Fade Null Slow to Fast with Fade

21+ Channels (Mode 4):

CHANNEL	VALUE	FUNCTION
Controlled by DMX		
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→450°
4	000-255	TILT FINE
5	000-127 128-189 190-193 194-255	PAN INFINITY Null Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
6	000-127 128-189 190-193 194-255	TILT INFINITY Null Clockwise Rotation, Fast to Slow Stop Counter-Clockwise Rotation, Slow to Fast
7	000-255	PAN/TILT SPEED Fast to Slow
8	000-255	ZOOM Wide→Narrow
9	000-255	WASH_DIMMER 0%→100%
10	000-255	WASH_DIMMER FINE
11	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	WASH_STROBE 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
12	000-255	BEAM_DIMMER 0%→100%
13	000-255	BEAM_DIMMER FINE
14	000-007	BEAM_STROBE Close

	008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	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
15	000-255	ZONE_DIMMER 0%→100%
16	000-255	ZONE_DIMMER FINE
17	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	ZONE_STROBE 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
18	000-255	LINE_DIMMER 0%→100%
19	000-255	LINE_DIMMER FINE
20	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	LINE_STROBE 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
21	000-009 010-019 020-029 030-039 040-049 050-059	SPECIAL FUNCTION (To activate following functions, stop in DMX value for at least 3 seconds.) Null Zoom Mode: Short Zoom Mode: Long Dimmer Curve: Linear Dimmer Curve: Square law Dimmer Curve: Inv SQ law

	060-069	Dimmer Curve: S Curve
	070-079	Null
	080-089	Power Mode: Auto
	090-099	Power Mode: Quiet
	100-109	Led Frequency Setting Enable
	110-119	Led Frequency Setting Disable
	120-122	Null
	123	900Hz
	124	1000Hz
	125	1100Hz
	126	1200Hz
	127	1300Hz
	128	1400Hz
	129	1500Hz
	130	2500Hz
	131	4000Hz
	132	5000Hz
	133	6000Hz
	134	10KHz
	135	15KHz
	136	20KHz
	137	25KHz
	138-139	Null
	140-149	Pan/Tilt Reset
	150-159	Effect Reset
	160-199	Null
	200-209	Reset All
	210-219	Dimmer Speed: Fast
	220-229	Dimmer Speed: Smooth
	230-239	Line Power Mode: Off
	240-249	Line Power Mode: On
	250-255	No Function
Controlled by Art-Net		
1	000-255	WASH_RED 1 0%→100%
2	000-255	WASH_GREEN 1 0%→100%
3	000-255	WASH_BLUE 1 0%→100%
4	000-255	WASH_WHITE 1 0%→100%
5	000-255	WASH_RED 2 0%→100%
6	000-255	WASH_GREEN 2 0%→100%

7	000-255	WASH_BLUE 2 0%→100%
8	000-255	WASH_WHITE 2 0%→100%
9	000-255	WASH_RED 3 0%→100%
10	000-255	WASH_GREEN 3 0%→100%
11	000-255	WASH_BLUE 3 0%→100%
12	000-255	WASH_WHITE 3 0%→100%
13	000-255	WASH_RED 4 0%→100%
14	000-255	WASH_GREEN 4 0%→100%
15	000-255	WASH_BLUE 4 0%→100%
16	000-255	WASH_WHITE 4 0%→100%
17	000-255	BEAM_WHITE 1 0%→100%
18	000-255	BEAM_WHITE 2 0%→100%
19	000-255	BEAM_WHITE 3 0%→100%
20	000-255	BEAM_WHITE 4 0%→100%
21	000-255	BEAM_WHITE 5 0%→100%
22	000-255	BEAM_WHITE 6 0%→100%
23	000-255	BEAM_WHITE 7 0%→100%
24	000-255	BEAM_WHITE 8 0%→100%
25	000-255	BEAM_WHITE 9 0%→100%
26	000-255	ZONE_RED 1 0%→100%
27	000-255	ZONE_GREEN 1 0%→100%
28	000-255	ZONE_BLUE 1 0%→100%

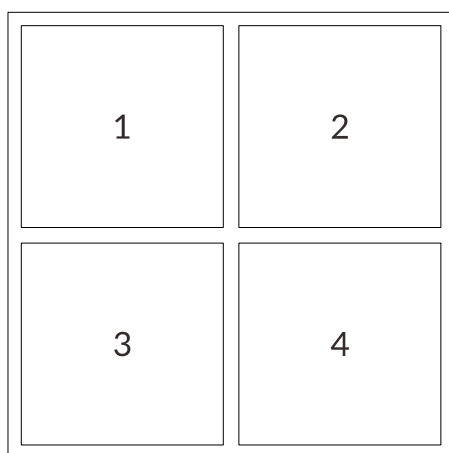
29	000-255	ZONE_RED 2 0%→100%
30	000-255	ZONE_GREEN 2 0%→100%
31	000-255	ZONE_BLUE 2 0%→100%
32	000-255	ZONE_RED 3 0%→100%
33	000-255	ZONE_GREEN 3 0%→100%
34	000-255	ZONE_BLUE 3 0%→100%
35	000-255	ZONE_RED 4 0%→100%
36	000-255	ZONE_GREEN 4 0%→100%
37	000-255	ZONE_BLUE 4 0%→100%
38	000-255	ZONE_RED 5 0%→100%
39	000-255	ZONE_GREEN 5 0%→100%
40	000-255	ZONE_BLUE 5 0%→100%
41	000-255	ZONE_RED 6 0%→100%
42	000-255	ZONE_GREEN 6 0%→100%
43	000-255	ZONE_BLUE 6 0%→100%
44	000-255	ZONE_RED 7 0%→100%
45	000-255	ZONE_GREEN 7 0%→100%
46	000-255	ZONE_BLUE 7 0%→100%
47	000-255	ZONE_RED 8 0%→100%
48	000-255	ZONE_GREEN 8 0%→100%
49	000-255	ZONE_BLUE 8 0%→100%
50	000-255	ZONE_RED 9 0%→100%

51	000-255	ZONE_GREEN 9 0%→100%
52	000-255	ZONE_BLUE 9 0%→100%
53	000-255	LINE_WHITE 1 0%→100%
54	000-255	LINE_WHITE 2 0%→100%
55	000-255	LINE_WHITE 3 0%→100%
56	000-255	LINE_WHITE 4 0%→100%
57	000-255	LINE_WHITE 5 0%→100%
58	000-255	LINE_WHITE 6 0%→100%
59	000-255	LINE_WHITE 7 0%→100%
60	000-255	LINE_WHITE 8 0%→100%
61	000-255	LINE_WHITE 9 0%→100%
62	000-255	LINE_WHITE 10 0%→100%
63	000-255	LINE_WHITE 11 0%→100%
64	000-255	LINE_WHITE 12 0%→100%
65	000-255	LINE_WHITE 13 0%→100%
66	000-255	LINE_WHITE 14 0%→100%
67	000-255	LINE_WHITE 15 0%→100%
68	000-255	LINE_WHITE 16 0%→100%
69	000-255	LINE_WHITE 17 0%→100%
70	000-255	LINE_WHITE 18 0%→100%
71	000-255	LINE_WHITE 19 0%→100%
72	000-255	LINE_WHITE 20 0%→100%

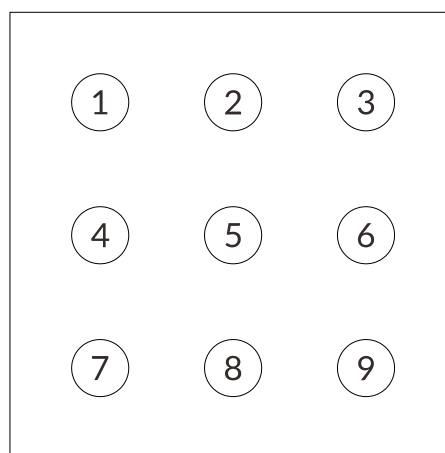
73	000-255	LINE_WHITE 21 0%→100%
74	000-255	LINE_WHITE 22 0%→100%
75	000-255	LINE_WHITE 23 0%→100%
76	000-255	LINE_WHITE 24 0%→100%

LED PIXEL ZONES:

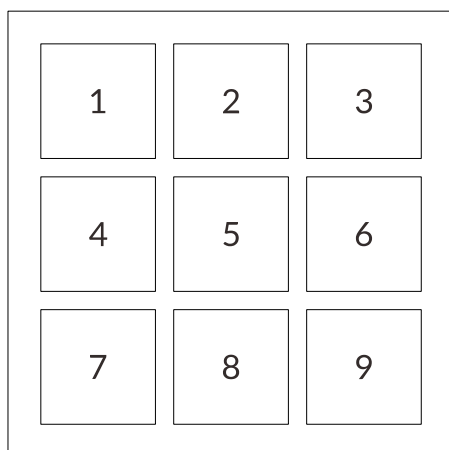
WASH R/G/B/W



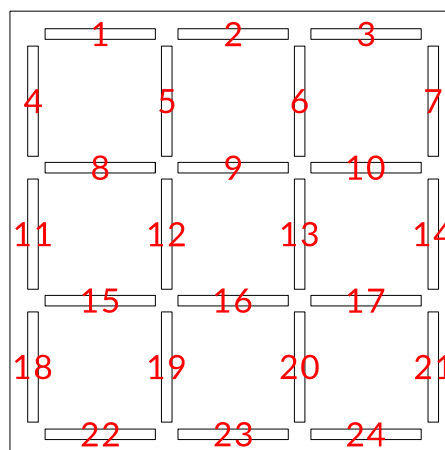
BEAM WHITE



ZONE R/G/B



LINE WHITE



08/ Error Information

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

CPU-B/C/D/E/F Error

Check whether the 485 (DATA) leads on the PCB board are installed in place or disconnected.

Check whether the related 485 (DATA) signal circuit on the PCB board is damaged.

Network Error

Check whether the net model is installed in place.

Check whether the net model is damaged.

Check whether the network is normal.

LED Temp. Error

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.

LED Timeout Use

LED Too Hot Off

When the fixture temperature reaches 85°C, it will automatically turn off to protect the fixture.

Pan Reset Error

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

Check whether there are obstacles in the pan operating range.

Check whether the Hall element on the pan is damaged.

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

Check whether the motor on the pan is damaged.

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

Pan Encode Error

Check whether the encoder on the pan is damaged.

Check whether the lead connecting the encoder on the pan and the PCB board is in poor contact or disconnected.

Pan Encode No Find

Check whether the lead connecting the encoder on the pan and the PCB board is in poor contact or disconnected.

Pan Encode Disable

Check whether the encoder on the pan is damaged.

Tilt Reset Error

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

Check whether there are obstacles in the tilt operating range.

Check whether the Hall element on the tilt is damaged.

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

Check whether the motor on the tilt is damaged.

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

Tilt Encode Error

Check whether the encoder on the tilt is damaged.

Check whether the lead connecting the encoder on the tilt and the PCB board is in poor contact or disconnected.

Tilt Encode No Find

Check whether the lead connecting the encoder on the tilt and the PCB board is in poor contact or disconnected.

Tilt Encode Disable

Check whether the encoder on the tilt is damaged.

Zoom Error

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 damaged.

Base Fan Start Error

Check whether the fan is not running.

Check whether the fan leads are installed in place or disconnected.

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

Head Fan 1/2/3/4 Start Error

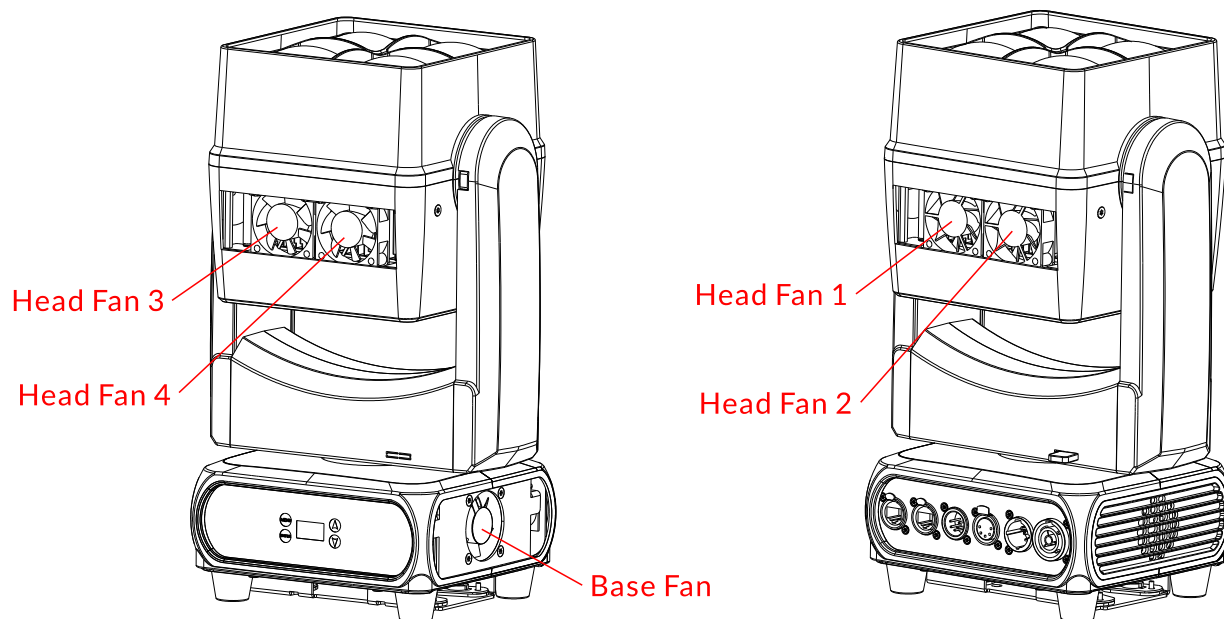
Check whether the fan is not running.

Check whether the fan leads are installed in place or disconnected.

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

Position of cooling fans:



Cooling Fans	PCB Printing	Part Number	V	W	Position	Print Error Message
Base Fan	FAN1	3014001322	DC 24V	2.4W	Base - A	Base Fan Start Error
Head Fan 1	FAN1	3014001322	DC 24V	2.4W	Head - C	Head Fan 1 Start Error
Head Fan 2	FAN3	3014001322	DC 24V	2.4W	Head - C	Head Fan 2 Start Error
Head Fan 3	FAN2	3014001322	DC 24V	2.4W	Head - C	Head Fan 3 Start Error
Head Fan 4	FAN4	3014001322	DC 24V	2.4W	Head - C	Head Fan 4 Start Error

09/ Troubleshooting

Problem	Potential cause(s)	Remedies
Fixture does not respond or appears to be off.	No power to the fixture.	Confirm that the power is switched on and cables are plugged in.
	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.
Fixture operates irregularly / abnormal.	Incorrect DMX address or DMX mode.	Inspect and enter the correct DMX address or mode.
	DMX link is not terminated.	Install a XLR 120ohm DMX termination at the end of the DMX link.
	Bad data link.	Replace or repair defective cables and/or connections.
	One of the fixtures is defective and is disturbing data transmission on the link.	Track and isolate the corrupted fixture. Have the fixture serviced by a qualified technician.
Pan / tilt is skipping / shuddering	Pan/ tilt locks are not released.	Release the pan / tilt locks.
	Obstacles are within the required pan / tilt clearance.	Inspect and remove any obstacles constraining free operation of the pan / tilt.
	The Hall element is damaged.	Replace the Hall element.
	The magnetic steel fell out.	Replace the magnetic steel.

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.

11/ Approvals and Certifications

This product has been tested and found to comply with the following standards:

- 2014/30/EU - Electromagnetic Compatibility (EMC)
- 2014/35/EU - Low Voltage Directive (LVD)
- cETLus Approved (Control #5000057)
- UK SI 2016 No. 1091: Electromagnetic Compatibility Regulations 2016
- UK SI 2016 No. 1101: The Electric Equipment (Safety) Regulations 2016



The information in this document is subject to change without notice.

For the latest information, visit www.acmelighting.com.



www.acmelighting.com