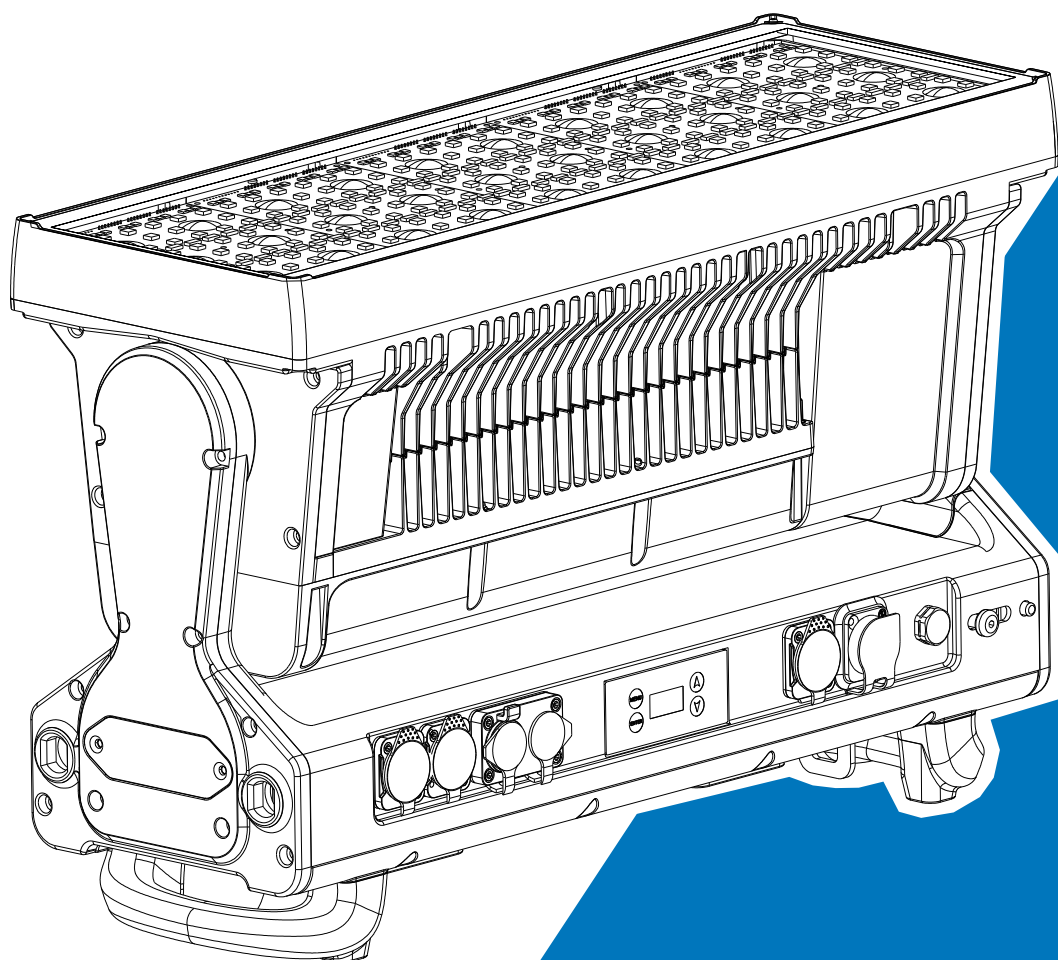




LIGHTNING X



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.

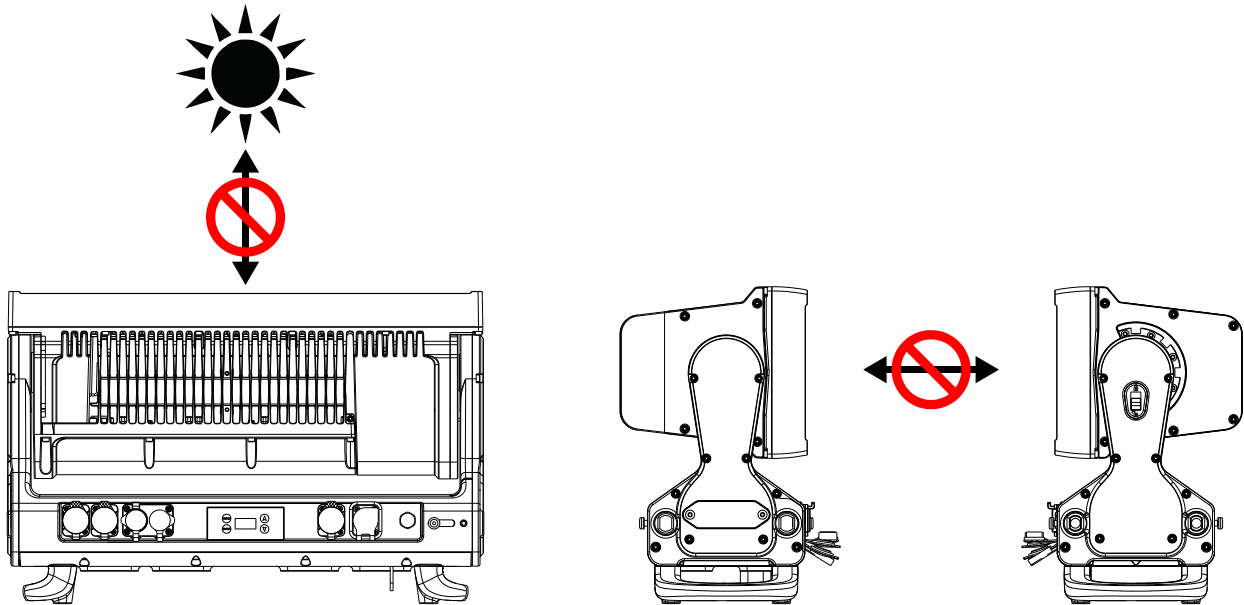
Important:

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 suitable for wet locations. Do not immerse in water.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain (made of steel, min. diameter 2.0mm) when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: -10°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 70°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 0.5 meters.
- 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.
- 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.
- The device MUST NOT be switched on immediately if it has been exposed to strong temperature fluctuations (e.g. after transport) as condensation may occur inside. Please leave the device switched off until it has reached to room temperature.

- 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

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

Veuillez 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 adapté aux endroits humides. Ne pas immerger dans l'eau.
- 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): -10°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.

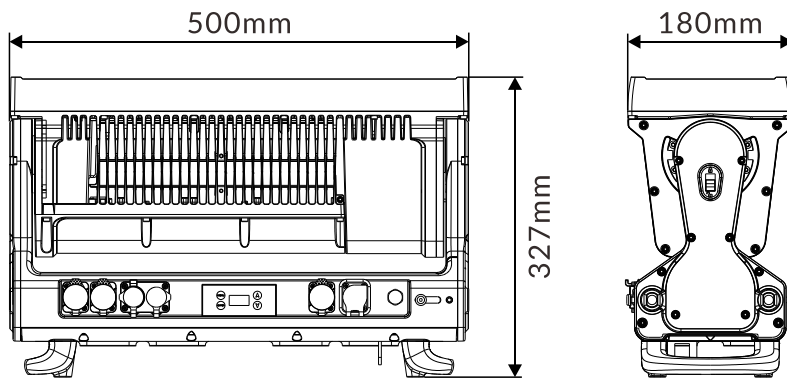
- Vérifier que le cordon d'alimentation n'est ni écrasé ni endommagé; le remplacer immédiatement s'il est endommagé.
- La température de surface de l'appareil peut atteindre jusqu'à 70°C. NE PAS toucher le boîtier à mains nues pendant son fonctionnement.
- Évitez que des liquides inflammables, de l'eau 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.

- L'appareil NE DOIT PAS être allumé immédiatement s'il a été exposé à de fortes variations de température (par exemple après un transport), car de la condensation pourrait se former à l'intérieur. Veuillez laisser l'appareil éteint jusqu'à ce qu'il ait atteint la température ambiante.
- 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.

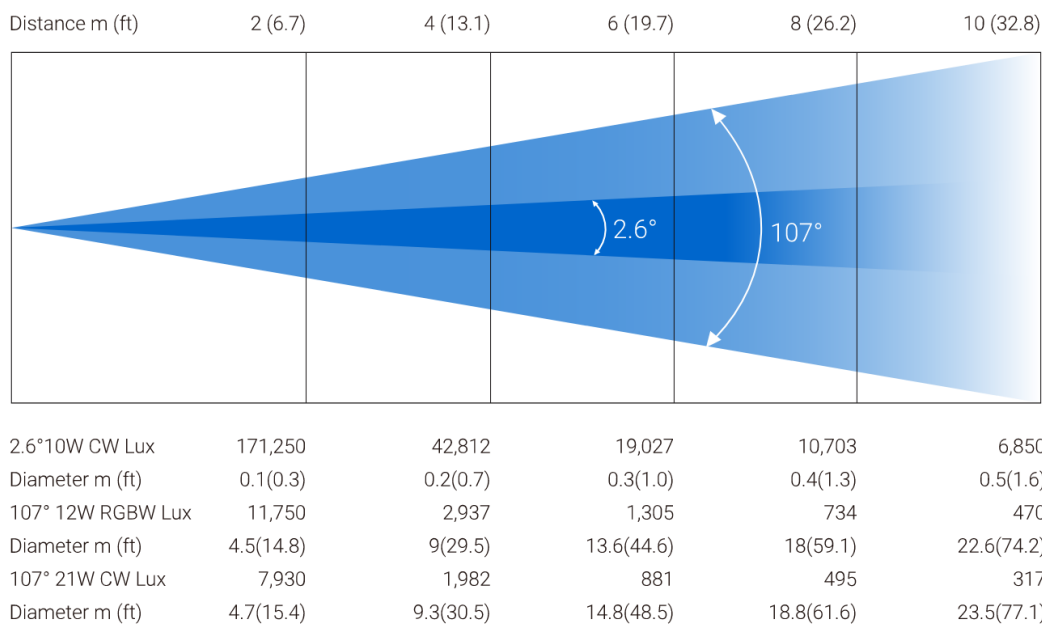
02/ Technical Specifications

AC Power	100-240Vac; 50/60Hz	
Max. Power Consumption	1135W	
Light Source	30x10W CW LED	
	240x12W RGBW LED	
	80x21W CW LED	
	50x2W CW LED	
	50x2W WW LED	
	50x0.5W RGB LED	
Beam Angle	2.6° (10W CW LED)	
	107° (12W RGBW LED)	
	107° (21W CW LED)	
Movement	Tilt	185°
	16 bit movement resolution	
	Automatic tilt repositioning	
	Mechanical tilt lock for safe transportation and maintenance	
Control and Programming	DMX Channels	31/230/43/100/20+80/20+210
	Protocols	DMX512
		RDM
		Art-Net
		sACN
	Firmware Update	via DMX or USB memory device
Construction	Display	OLED display
	Battery backup for user setup without mains connection	
	DMX and RDM Data In/Out	5-pin IP XLR (optional with 3-pin IP XLR)
		RJ45 Connectors
	Power In/Out	Waterproof Power Connector in
Dynamic Effects	Protection Rating	IP66
	30x10W CW LEDs with individual control	
	240x12W RGBW LEDs (divided into 30 individually controllable zones)	
	80x21W CW LEDs (divided into 10 individually controllable zones)	
	50x2W CW LEDs (divided into 10 individually controllable zones)	
	50x2W WW LEDs (divided into 10 individually controllable zones)	

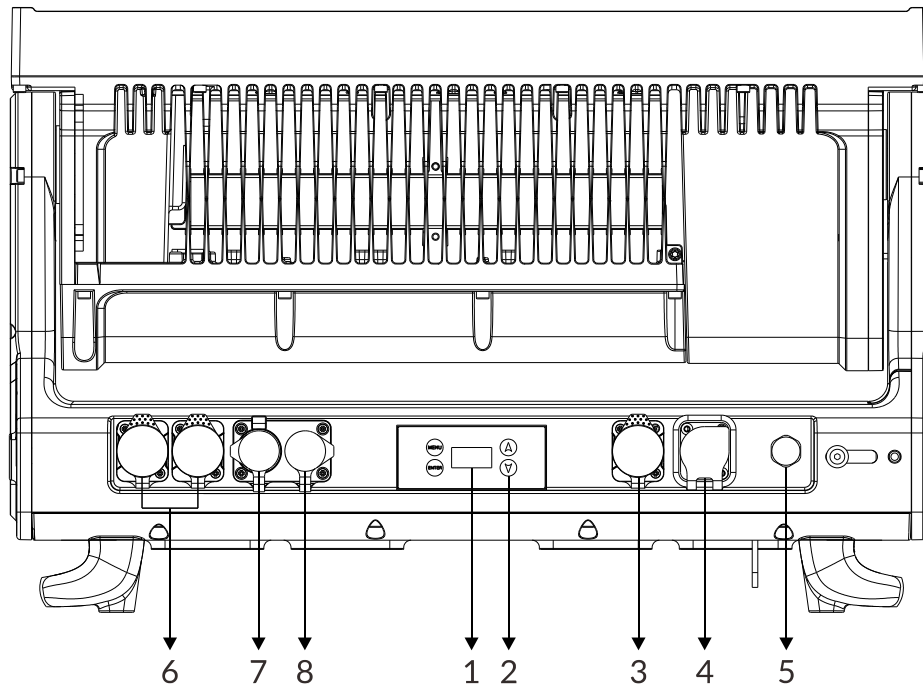
	50x0.5W RGB LEDs (divided into 10 individually controllable zones)	
	0-100% continuous dimming and strobe effects	
	Choice of four dimming curves	
	Patented Smart Glass Technology for frost effects	
	Outstanding color mixing	
	Variable color temperature control	
	Equipped with an inventive quick-release mechanism that allows you to quickly connect and align multiple fixtures	
Included Items	Power Cable	
	Two omega brackets	
	User Manual (this document)	
Dimensions	500x180x327mm	19.7"x7.1"x12.9"
Weight	19 kg	41.9 lbs



Photometric Diagram:



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 to move up in the menu
	▼ DOWN	To go forward to move down in the menu
	ENTER	To perform the desired functions
3. FIRMWARE UPGRADE	Used to upgrade fixture's firmware	
4. POWER IN	To connect to supply power	
5. RELEASE VALVE		
6. ETHERNET	Transfers fixture's information to a main controller	
7. DMX OUT	For DMX512 link, use 5-pin IP XLR cable to link the next units to output DMX signal (optional with 3-pin IP XLR)	
8. 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)	

3.1 Battery Power

This product contains a rechargeable battery.

Battery type: 14500 Lithium-ion battery (3.7V, 800mAh, 2.96Wh), compliant with the new EU battery regulation EU2023/1542.



Do not expose the fixture or battery to excessive temperatures.

Be aware of the risk of terminals of the battery-operated fixture or battery being short-circuited by metal objects.

This fixture contains battery that is only replaceable by skilled persons.

Different types of batteries or new and used batteries are not to be mixed.

Exhausted batteries are to be removed from the fixture and safely disposed of.

If the fixture is to be stored unused for a long period, the batteries should be removed.

Do not use non-rechargeable batteries in place of rechargeable batteries.

Do not use modified or damaged batteries.

Replacing the battery with an incorrect type can defeat a safeguard and pose a risk of fire or explosion.

Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.

Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.

Using the control panel with battery power:

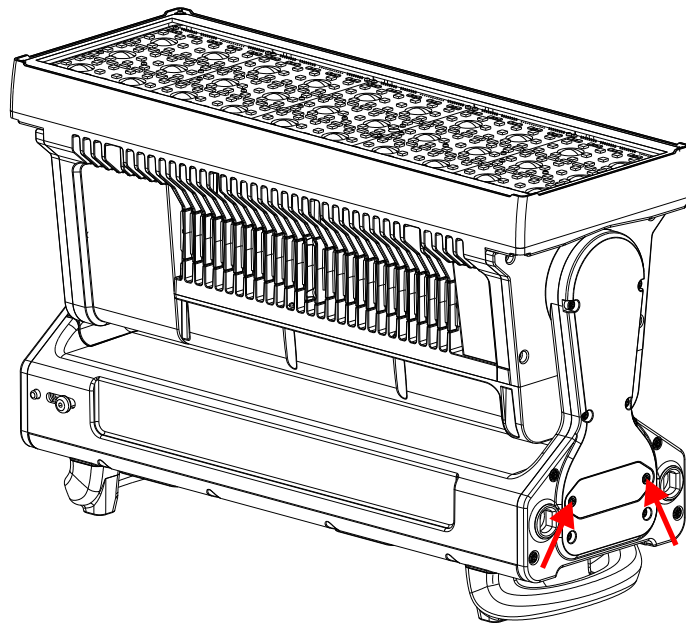
The fixture contains a battery that enables you to use the control panel to set up the fixture even when it is not connected to the main power supply. The battery charges during fixture operation. All of the main setup options in the control panel are accessible on battery power, but the 'Auto Test', 'Manual Test' and 'Reset Functions' are not available.

To activate the display when the fixture is not connected to power, press and hold the [▲ UP] button for 3 seconds. The display extinguishes after 30 seconds with no user input. Press and hold the [▲ UP] button for 3 seconds again to re-activate.

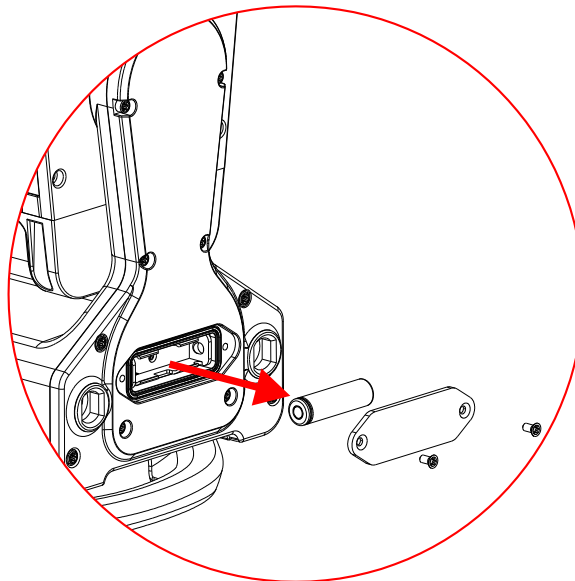
Battery Replacement:

Warning! Disconnect the fixture from AC power before replacing its battery. Replace the battery with one of the same type only.

1. Disconnect the fixture from AC mains power and allow to cool.
2. Remove two screws that secure the battery cover at the arm of the fixture and then remove the battery cover.



3. Remove the exhausted battery and insert a new one (only the same type) into the battery holder (Negative (-) towards the spring, Positive (+) away from the spring).



4. Reinstall the battery cover.

04/ Connecting Power and Data

4.1 Connecting Power

To apply power, first check that the head tilt lock is released.

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

The maximum power consumption is 1135W.

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 SJOW flexible cord with rating: 300V, 105°C, VW-1, 16AWG x 3C, molded with 5-15P attachment plug and terminated with cord connector model RCAC3F-X-000-01 with rating 250V, 16A by NEUTRIK AG. The power cord shall be at least 914mm (It is to be measured from the face of attachment plug to the face of connector).

CAUTION!

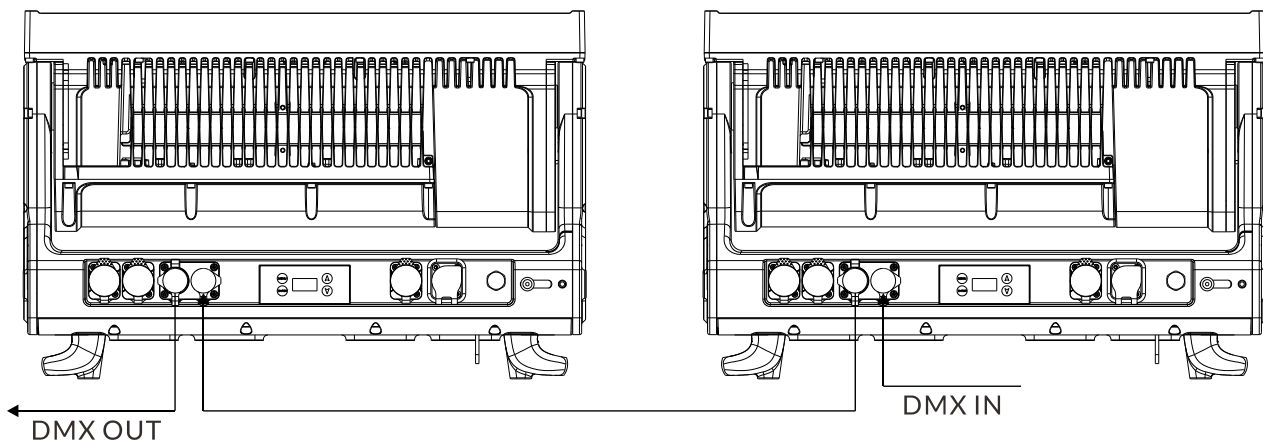
DO NOT CONNECT THE FIXTURE TO AN ELECTRICAL DIMMER SYSTEM AS DOING SO MAY CAUSE DAMAGE.

4.2 Connecting Data

The fixture is equipped with 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. For outdoor installations, use only IP-rated XLR connectors suitable for outdoor use.

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

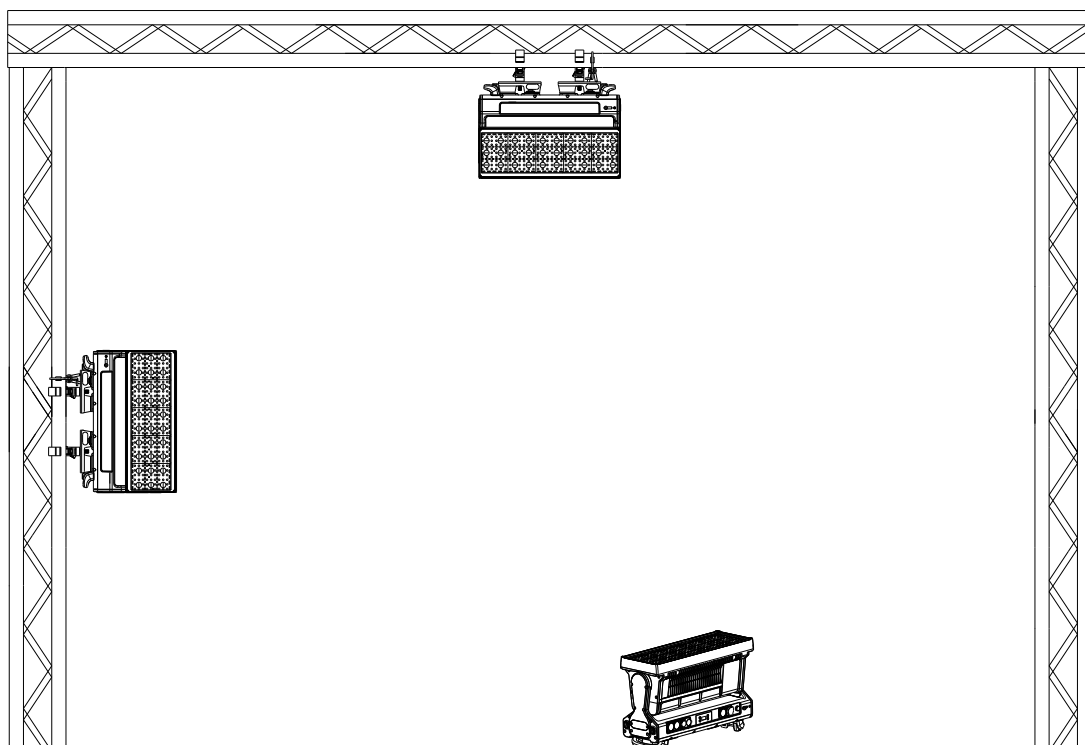
The fixture is IP66-rated and designed for both indoor and outdoor events. This means that it is protected from:

- ▶ Dust, to the degree that dust cannot enter the device in sufficient quantities as to interfere with its operation.
- ▶ Water jets from any direction.

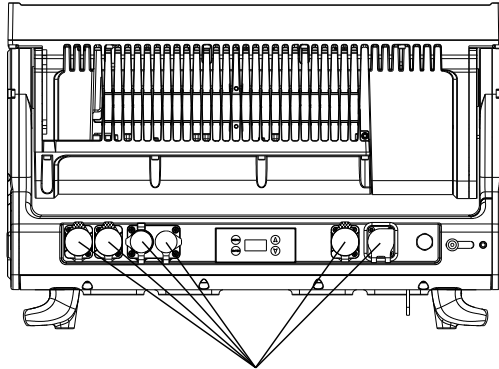
DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas where unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.

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 trussing, or standing on the 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.

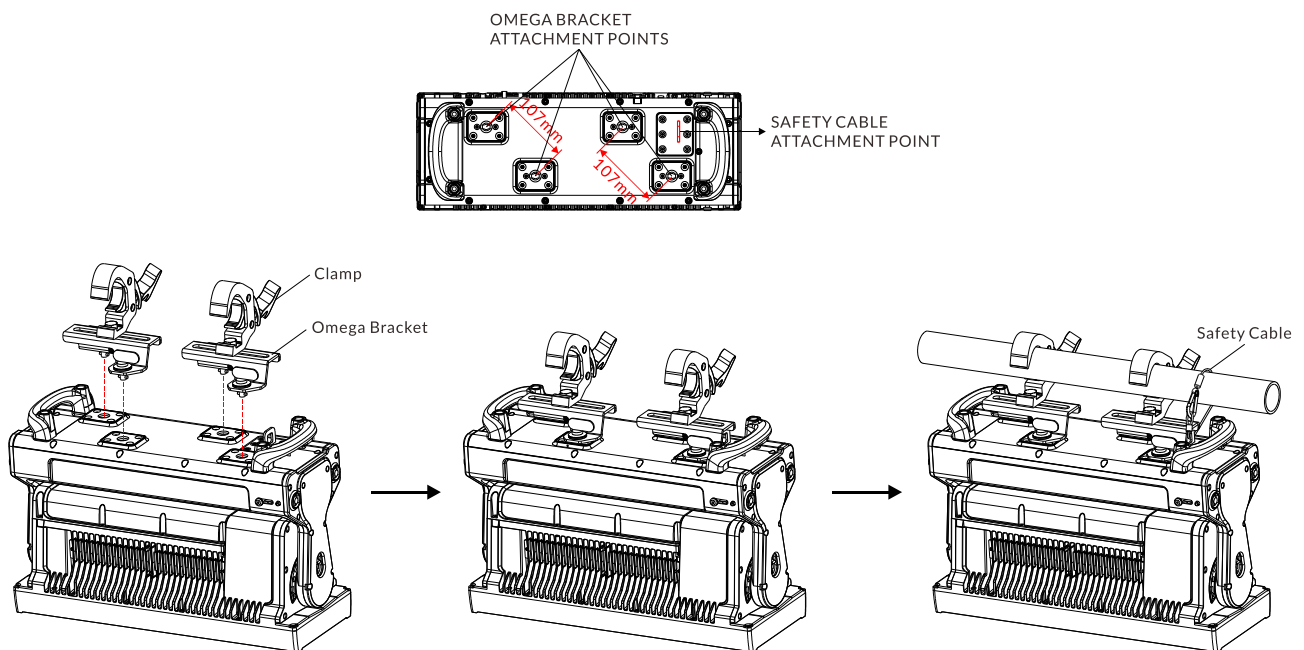


- Use only IP-rated power cords and connectors suitable for outdoor use.
- Visually check panel connectors on accidental water leaks and dust before connecting related cable connectors.
If some water appears in panel connectors, do not connect cable connectors, especially power!
- Fixtures require regular maintenance.
Carefully check panel connectors for corrosion and scorching, and replace them promptly if damaged.



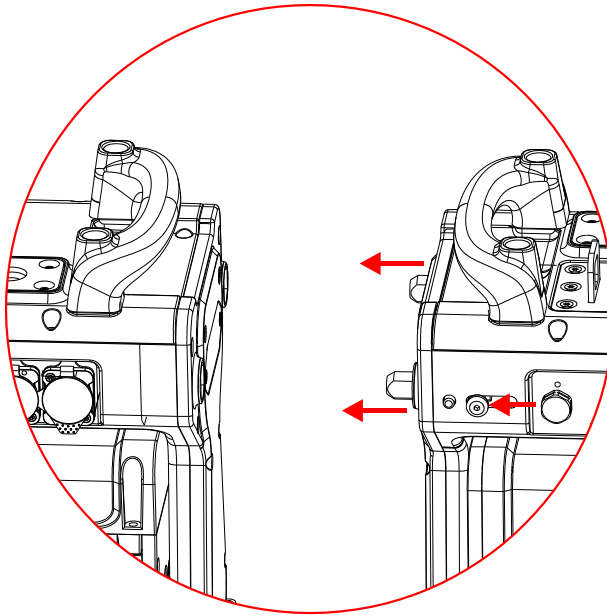
All unused panel connectors have to be sealed by the rubber caps to avoid contact with water, especially seawater.

5.1 Hanging the Fixture

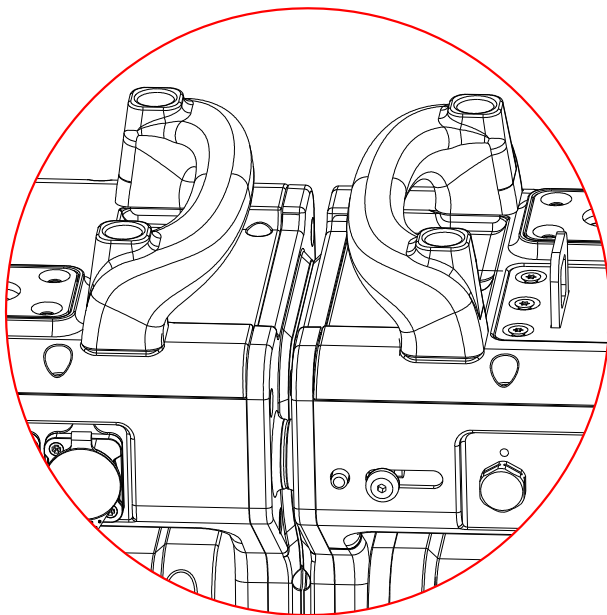


5.2 Connecting and Aligning Multiple Fixtures

- a. Toggle the levers on the base of the fixture to push out the slides.



- b. Place both fixtures against each other in line so that the slides fit into the other fixture.



Note: Pressing the reset button will retract the slides completely and unlock the fixtures.

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 screen locks after 30 seconds of inactivity.
Press and hold the [MENU] button to unlock the screen.

The main functions are shown below:

MAIN MENU	SUBMENU	CHOICES/VALUES		
DMX Settings	DMX Address	1-482 (31 CH)		(Default=1)
		1-283 (230 CH)		
		1-470 (43 CH)		
		1-413 (100 CH)		
		Main Address: 1-493 Pixel Address: 1-433	20+80 CH	
		Main Address: 1-493 Pixel Address: 1-303	20+210 CH	
	DMX CH Mode	Mode 1 (31)		
		Mode 2 (230)		
		Mode 3 (43)		
		Mode 4 (100)		
		Mode 5 (20+80)		
		Mode 6 (20+210)		
	No DMX Status	Blackout		
		Hold		
		Manual		
	View DMX Value			
	Connect Option	Auto		31/230/43/100 CH
		DMX		
		Art-Net		
		sACN		

MAIN MENU	SUBMENU	CHOICES/VALUES	
		Auto	20+80/20+210 CH
		DMX+Art-Net	
		DMX+sACN	
		Art-Net+Art-Net	
		sACN+sACN	
	Network	IP Address	Default 1:002.xxx.xxx.xxx
			Default 2:010.xxx.xxx.xxx
			Manual:xxx.xxx.xxx.xxx
		Subnet Mask	xxx.xxx.xxx.xxx
	Art-Net Settings	0-1024 (Default=0)	
		Main Universe	0-1024 (Default=0)
		Pixel Universe	0-1024 (Default=0)
	sACN Settings	Universe	1-32000 (Default=1)
		Priority	0-200 (Default=100)
		Main Universe	Universe 1-32000 (Default=1)
		Priority	0-200 (Default=100)
		Pixel Universe	Universe 1-32000 (Default=1)
		Priority	0-200 (Default=100)
	Network to DMX	No	
		Yes	
Fixture Settings	Tilt Invert	No	
		Yes	
	Tilt Feedback	No	
		Yes	
	Dimmer Curve	Linear	
		Square Law	
		Inv SQ Law	
		S Curve	
	Dimmer Speed	Fast	
		Smooth	
	White Balance	Zone Red	125-255
		Zone Green	125-255
		Zone Blue	125-255
		Line 2 Red	125-255
		Line 2 Green	125-255
		Line 2 Blue	125-255
		Zone Red 1	125-255
		Zone Green 1	125-255

MAIN MENU	SUBMENU	CHOICES/VALUES	
		Zone Blue 1	125-255
			
		Zone Red 30	125-255
		Zone Green 30	125-255
		Zone Blue 30	125-255
		Line 2 Red 1	125-255
		Line 2 Green 1	125-255
		Line 2 Blue 1	125-255
			
		Line 2 Red 10	125-255
		Line 2 Green 10	125-255
		Line 2 Blue 10	125-255
	LED Refresh Rate	900Hz	
		1000Hz	
		1100Hz	
		1200Hz	
		1300Hz	
		1400Hz	
		1500Hz	
		2500Hz	
		4000Hz	
		5000Hz	
		6000Hz	
		10KHz	
		15KHz	
		20KHz	
		25KHz	
	Invert Pixel Order	No	
		Yes	
	Line Power Mode	Off	
		On	
	Dim. Start Mode	High	
		Low	
Display Settings	Display Invert	No	
		Yes	
	Temperature Unit	°C	
		°F	

MAIN MENU	SUBMENU	CHOICES/VALUES		
	Language	English		
		Chinese		
Auto Test	Single			
	Cycle			
Manual Test	Mode 1		Mode 2	
	Clear	No/Yes	Clear	No/Yes
	Tilt	0-255	Tilt	0-255
	Frost	0-255	Frost	0-255
	B. Strobe	0-255	B. Strobe	0-255
	B. Dimmer	0-255	B. Dimmer	0-255
	Z. Strobe	0-255	Z. Strobe	0-255
	Z. Dimmer	0-255	Z. Dimmer	0-255
	L1 Strobe	0-255	L1 Strobe	0-255
	L1 Dimmer	0-255	L1 Dimmer	0-255
	L2 W Strobe	0-255	L2 W Strobe	0-255
	L2 W Dimmer	0-255	L2 W Dimmer	0-255
	L2 RGB Strobe	0-255	L2 RGB Strobe	0-255
	L2 RGB Dimmer	0-255	L2 RGB Dimmer	0-255
	B. CW 1	0-255	B. CW	0-255
	.....	0-255	B. Macro	0-255
	B. CW 30	0-255	B. Macro Speed	0-255
	Z. Red 1	0-255	Z. Red	0-255
	Z. Green 1	0-255	Z. Green	0-255
	Z. Blue 1	0-255	Z. Blue	0-255
	Z. White 1	0-255	Z. White	0-255
	.....	0-255	Z. Color Macro	0-255
	Z. Red 30	0-255	Z. Macro	0-255
	Z. Green 30	0-255	Z. Macro Speed	0-255
	Z. Blue 30	0-255	L1 CW	0-255
	Z. White 30	0-255	L1 CW Macro	0-255
	L1 CW 1	0-255	L1 CW M. Speed	0-255
	.....	0-255	L2 CW	0-255
	L1 CW 10	0-255	L2 WW	0-255
	L2 CW 1	0-255	L2 CCT	0-255
	.....	0-255	L2 W Macro	0-255
	L2 CW 10	0-255	L2 W M. Speed	0-255
	L2 WW 1	0-255	L2 Red	0-255
	.....	0-255	L2 Green	0-255

MAIN MENU	SUBMENU		CHOICES/VALUES		
	L2 WW 10	0-255	L2 Blue	0-255	
	L2 Red 1	0-255	RGB Macro	0-255	
	L2 Green 1	0-255	RGB M. Speed	0-255	
	L2 Blue 1	0-255			
	.....	0-255			
	L2 Red 10	0-255			
	L2 Green 10	0-255			
	L2 Blue 10	0-255			
Information	Fixture Use Hour				
	LED Use Hour	Total LED Hour			
		LED On Hour			
		LED Hours Reset	No		
			Yes	Password=050	
	Humidity	Base	Current		
			Max		
	Temperature	LED 1-4	Current		
			Max temp		
	Fan State	Base			
		Head 1			
		Head 2			
		Head 3			
	Firmware Version				
	RDM UID				
	Error Logs	Fixture Errors			
		Reset Error Log	No		
			Yes	Password=050	
Reset Functions	All Reset	No			
		Yes			
Special Functions	USB Upgrade	No			
		Yes			
	Send Upgrade	No			
		Yes			
	Firmware Restore	No			
		Yes			
	Factory Settings	No			
		Yes			

DMX Settings

Enter the control menu and select **DMX Settings**, press ENTER. Use the UP/DOWN button to select **DMX Address**, **DMX CH 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
Mode 1 (31)	1-482
Mode 2 (230)	1-283
Mode 3 (43)	1-470
Mode 4 (100)	1-413
Mode 5 (20+80)	Main Address: 1-493 Pixel Address: 1-433
Mode 6 (20+210)	Main Address: 1-493 Pixel Address: 1-303

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 (31)**, **Mode 2 (230)**, **Mode 3 (43)**, **Mode 4 (100)**, **Mode 5 (20+80)** and **Mode 6 (20+210)**, 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**, **sACN** or **Auto**, **DMX+Art-Net**, **DMX+sACN**, **Art-Net+Art-Net**, **sACN+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 **0-1024** or **Main Universe, Pixel 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, Priority** or **Main Universe, Pixel Universe**, 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.

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 **Tilt Invert, Tilt Feedback, Dimmer Curve, Dimmer Speed, White Balance, LED Refresh Rate, Invert Pixel Order, Line Power Mode** or **Dim. Start Mode**.

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.

Tilt Feedback

Select **Tilt Feedback**, press ENTER.

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

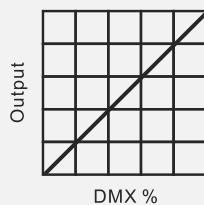
To exit the menu, press MENU, or wait 30 seconds.

Dimmer Curve

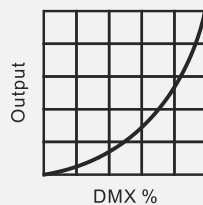
Select **Dimmer Curve**, press ENTER.

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

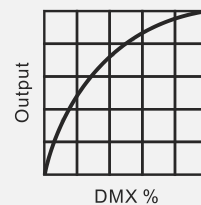
Dimmer Modes



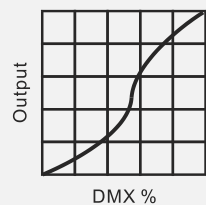
Optically Linear



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 **Zone Red**, **Zone Green**, **Zone Blue**, **Line 2 Red**, **Line 2 Green**, **Line 2 Blue**, **Zone Red 1**, **Zone Green 1**, **Zone Blue 1**, **Zone Red 30**, **Zone Green 30**, **Zone Blue 30**, **Line 2 Red 1**, **Line 2 Green 1**, **Line 2 Blue 1**, or **Line 2 Red 10**, **Line 2 Green 10**, **Line 2 Blue 10**, 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.

Invert Pixel Order

Select **Invert Pixel Order**, 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.

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.

Dim. Start Mode

Select **Dim. Start Mode**, press ENTER.

Use UP/DOWN button to select **High** (high dimming start) or **Low** (low dimming start), 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.

Auto Test

Select **Auto Test**, press ENTER.

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

To 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**, **Humidity**, **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 relevant 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.

Humidity

Select **Humidity**, press ENTER.

The device humidity is displayed.

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 **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.

Special Functions

Enter the control menu and select **Special Functions**, press ENTER. Use the UP/DOWN button to select **USB Upgrade**, **Send Upgrade**, **Firmware Restore** or **Factory Settings**.

USB Upgrade

Select **USB Upgrade**, press ENTER.

The upgrade files are displayed. (See the 'Updating Software' section for details.)

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

Send Upgrade

Select **Send Upgrade**, press ENTER.

If you wish to send upgrade files from this fixture to next fixtures to upgrade their firmware, select **Yes**. Once Yes is selected, the display of this fixture will show "**Sending Packet, CPU-xx, xx%**" while the display of next fixtures will show "**CPU-xx,**". After the update is complete, fixtures will perform a reset (this can take some time).

If you do not wish to send anything, select **No**. Confirm your selection with ENTER.

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

Firmware Restore (After replacing fixture's vice board(s), this function allows you to synchronize the main board's software to all vice board(s), as the software version of the replaced vice board(s) may not consistent with that of the main board.)

Select **Firmware Restore**, press ENTER.

If you wish to restore fixture's firmware, select **Yes**. Once Yes is selected, the display will show "**CPU-xx, xx%**". After the update is complete, the fixture will perform a reset (this can take some time).

If you do not wish to restore anything, select **No**. Confirm your selection with ENTER.

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

Factory Settings

Select **Factory Settings**, 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.

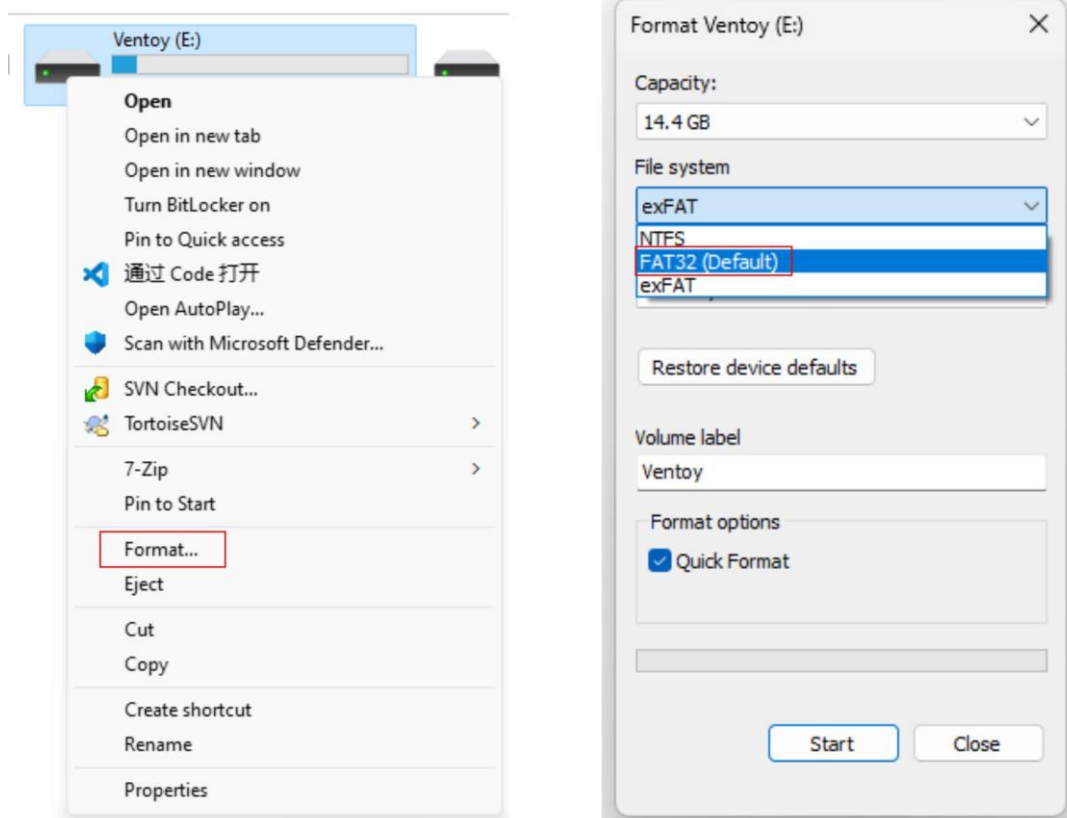
6.2 Updating Software

Only qualified technicians should perform this function! Note all menu settings before updating software! Please note, up to 32 fixtures can be connected together and updated at the same time.

Note: Before using the USB flash drive to update the software, please ensure that the USB flash drive is formatted with the FAT32 file system. Otherwise, you will need to reformat the USB flash drive to FAT32 before transferring the .yfu files, as the fixture will only recognize the files stored on a FAT32 formatted drive.

Format the USB flash drive:

- ▶ Connect the USB flash drive to the computer.
- ▶ Right-click on the USB flash drive disk.
- ▶ Click "Format".
- ▶ Select the "FAT32" file system and click "Start".



Updating Software:

1. Download the software update files from the ACME website.
2. Copy the software files to a compatible USB flash drive.

Note: To avoid the risk of uploading the wrong file to the fixture, make sure that there are no other files on your flash drive.

3. Disconnect DMX and Ethernet connections and power the fixture on.
4. Insert the USB flash drive into the **FIRMWARE UPGRADE** port located on the front panel of the fixture.
5. Locate **"Special Functions"** within the system menu and press ENTER. Scroll to the **"USB Upgrade"** submenu and press ENTER.
6. Two software files will be displayed as downloaded earlier. Highlight the first file (V00) and press ENTER. Select **"Yes"** to begin the first of two updating processes. Once Yes is selected, the display will show **"Copying Files, Please Wait... xx%"**. After copying is complete, the display will show **"CPU-xx, xx%"**.
7. After the first update is complete, the fixture will perform a reset (this can take some time).
8. Once the reset is complete, scroll to the **"Special Functions"** menu again and press ENTER. Scroll to the **"USB Upgrade"** submenu and press ENTER.
9. Highlight the second file (Vxx) this time and press ENTER. Select **"Yes"** to begin the second and final updating process. Once Yes is selected, the display will show **"Copying Files, Please Wait... xx%"** again. After copying is complete, the display will show **"CPU-xx, xx%"**.
10. After the second update is complete, the fixture will perform another reset (this can take some time as well).
11. Remove the USB flash drive.
12. After the reset process is complete, check the new software version to confirm it is updated to the most recent software.

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			✓
TILT_INVERT		✓	✓
PAN_TILT_FEEDBACK		✓	✓
RESET_DEVICE		✓	
CURVE		✓	✓
DMX_STATE		✓	✓
DIMMER_SPEED		✓	✓
WHITE_BALANCE		✓	✓
INVERT_PIXEL_ORDER		✓	✓

✓ -Command implemented for the respective parameter ID

6.3 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	1072~1327
Tilt	-128~127
Line 2 CW	-1000~1000
Line 2 WW	-1000~1000
Line 2 Red	-1000~1000
Line 2 Green	-1000~1000
Line 2 Blue	-1000~1000
L2 CW 1	-1000~1000
.....	
L2 CW 10	-1000~1000
L2 WW 1	-1000~1000
.....	
L2 WW 10	-1000~1000
L2 Red 1	-1000~1000
L2 Green 1	-1000~1000
L2 Blue 1	-1000~1000
.....	
L2 Red 10	-1000~1000
L2 Green 10	-1000~1000
L2 Blue 10	-1000~1000

Frequency

Select **Frequency**, 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

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.

Line 2 CW

Select **Line 2 CW**, press ENTER.

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

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

Line 2 WW

Select **Line 2 WW**, press ENTER.

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

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

Line 2 Red

Select **Line 2 Red**, press ENTER.

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

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

Line 2 Green

Select **Line 2 Green**, press ENTER.

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

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

Line 2 Blue

Select **Line 2 Blue**, press ENTER.

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

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

L2 CW1

Select **L2 CW1**, press ENTER.

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

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

.....

L2 CW10

Select **L2 CW10**, press ENTER.

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

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

L2 WW 1

Select **L2 WW 1**, press ENTER.

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

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

.....

L2 WW 10

Select **L2 WW 10**, press ENTER.

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

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

L2 Red 1

Select **L2 Red 1**, press ENTER.

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

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

L2 Green 1

Select **L2 Green 1**, press ENTER.

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

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

L2 Blue 1

Select **L2 Blue 1**, press ENTER.

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

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

.....

L2 Red 10

Select **L2 Red 10**, press ENTER.

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

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

L2 Green 10

Select **L2 Green 10**, press ENTER.

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

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

L2 Blue 10

Select **L2 Blue 10**, press ENTER.

Use UP/DOWN button to select a value between -1000 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 31 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 32. As the first fixture uses all the first 31 DMX channels, the next available channel is 32 ($31+1=32 \gg 32$).

See the chart below for more details:

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address	Unit xxx Address
31 channels	1	32	63	94	.....
230 channels	1	231	461	/	/
43 channels	1	44	87	130	.....
100 channels	1	101	201	301	.....
20+80 channels (Controlled by DMX)	1	21	41	61	.....
20+80 channels (Controlled by Art-Net)	1	81	161	241	.....
20+210 channels (Controlled by DMX)	1	21	41	61	.....
20+210 channels (Controlled by Art-Net)	1	211	421	/	/

7.2 DMX Protocol

CHANNEL				VALUE	FUNCTION
31ch	230ch	43ch	100ch		
1	1	1	1	000-255	TILT 0°→185°
2	2	2	2	000-255	TILT FINE
3	3	3	3	000-255	TILT SPEED Fast to Slow
4	4	4	4	000-255	FROST 0%→100%
5	5	5	5	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
6	6	6	6	000-255	BEAM DIMMER 0%→100%
7	7	7	7	000-255	BEAM DIMMER FINE
8	8	8	8	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
9	9	9	9	000-255	ZONE DIMMER 0%→100%
10	10	10	10	000-255	ZONE DIMMER FINE
11	11	11	11	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239	LINE 1 CW 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	12	12	000-255	LINE 1 CW DIMMER 0%→100%
13	13	13	13	000-255	LINE 1 CW DIMMER FINE
14	14	14	14	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	LINE 2 CW/WW 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	15	15	000-255	LINE 2 CW/WW DIMMER 0%→100%
16	16	16	16	000-255	LINE 2 CW/WW DIMMER FINE
17	17	17	17	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	LINE 2 RGB 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	18	18	000-255	LINE 2 RGB DIMMER 0%→100%
19	19	19	19	000-255	LINE 2 RGB DIMMER FINE
20	20	20	20	000-029 030-039 040-049 050-059 060-069 070-099 100-109 110-119 120-122 123 124 125 126 127 128	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

				129 130 131 132 133 134 135 136 137 138-139 140-159 160-169 170-179 180-199 200-209 210-219 220-229 230-239 240-249 250-251 252-253 254-255	1500Hz 2500Hz 4000Hz 5000Hz 6000Hz 10KHz 15KHz 20KHz 25KHz Null Null Invert Pixel Order: Yes Invert Pixel Order: No Null All Reset Dimmer Speed: Fast Dimmer Speed: Smooth Line Power Mode: Off Line Power Mode: On Dimming Start Mode: High Dimming Start Mode: Low Null
21		21		000-255	BEAM CW 0%→100%
	21		21	000-255	BEAM CW 1 0%→100%
	22		22	000-255	BEAM CW 2 0%→100%
	23		23	000-255	BEAM CW 3 0%→100%
	24		24	000-255	BEAM CW 4 0%→100%
	25		25	000-255	BEAM CW 5 0%→100%
	26		26	000-255	BEAM CW 6 0%→100%
	27		27	000-255	BEAM CW 7 0%→100%
	28		28	000-255	BEAM CW 8 0%→100%
	29		29	000-255	BEAM CW 9 0%→100%
	30		30	000-255	BEAM CW 10 0%→100%
	31			000-255	BEAM CW 11 0%→100%
	32			000-255	BEAM CW 12 0%→100%
	33			000-255	BEAM CW 13 0%→100%
	34			000-255	BEAM CW 14 0%→100%

	35			000-255	BEAM CW 15 0%→100%
	36			000-255	BEAM CW 16 0%→100%
	37			000-255	BEAM CW 17 0%→100%
	38			000-255	BEAM CW 18 0%→100%
	39			000-255	BEAM CW 19 0%→100%
	40			000-255	BEAM CW 20 0%→100%
	41			000-255	BEAM CW 21 0%→100%
	42			000-255	BEAM CW 22 0%→100%
	43			000-255	BEAM CW 23 0%→100%
	44			000-255	BEAM CW 24 0%→100%
	45			000-255	BEAM CW 25 0%→100%
	46			000-255	BEAM CW 26 0%→100%
	47			000-255	BEAM CW 27 0%→100%
	48			000-255	BEAM CW 28 0%→100%
	49			000-255	BEAM CW 29 0%→100%
	50			000-255	BEAM CW 30 0%→100%
		22		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	BEAM MACRO Null Built-in Effect 1 Built-in Effect 2 Built-in Effect 3 Built-in Effect 4 Built-in Effect 5 Built-in Effect 6 Built-in Effect 7 Built-in Effect 8 Built-in Effect 9 Built-in Effect 10 Built-in Effect 11 Built-in Effect 12 Built-in Effect 13 Built-in Effect 14 Built-in Effect 15 Built-in Effect 16 Built-in Effect 17

				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	Built-in Effect 18 Built-in Effect 19 Built-in Effect 20 Built-in Effect 21 Built-in Effect 22 Built-in Effect 23 Built-in Effect 24 Built-in Effect 25 Built-in Effect 26 Built-in Effect 27 Built-in Effect 28 Built-in Effect 29 Built-in Effect 30 Built-in Effect 31
		23		000-127 128-255	BEAM MACRO SPEED Slow to Fast without Fade Slow to Fast with Fade
22		24		000-255	ZONE RED 0%→100%
23		25		000-255	ZONE GREEN 0%→100%
24		26		000-255	ZONE BLUE 0%→100%
25		27		000-255	ZONE WHITE 0%→100%
	51		31	000-255	ZONE RED 1 0%→100%
	52		32	000-255	ZONE GREEN 1 0%→100%
	53		33	000-255	ZONE BLUE 1 0%→100%
	54		34	000-255	ZONE WHITE 1 0%→100%
	55		35	000-255	ZONE RED 2 0%→100%
	56		36	000-255	ZONE GREEN 2 0%→100%
	57		37	000-255	ZONE BLUE 2 0%→100%
	58		38	000-255	ZONE WHITE 2 0%→100%
	59		39	000-255	ZONE RED 3 0%→100%
	60		40	000-255	ZONE GREEN 3 0%→100%
	61		41	000-255	ZONE BLUE 3 0%→100%
	62		42	000-255	ZONE WHITE 3 0%→100%
	63		43	000-255	ZONE RED 4 0%→100%

	64		44	000-255	ZONE GREEN 4 0%→100%
	65		45	000-255	ZONE BLUE 4 0%→100%
	66		46	000-255	ZONE WHITE 4 0%→100%
	67		47	000-255	ZONE RED 5 0%→100%
	68		48	000-255	ZONE GREEN 5 0%→100%
	69		49	000-255	ZONE BLUE 5 0%→100%
	70		50	000-255	ZONE WHITE 5 0%→100%
	71		51	000-255	ZONE RED 6 0%→100%
	72		52	000-255	ZONE GREEN 6 0%→100%
	73		53	000-255	ZONE BLUE 6 0%→100%
	74		54	000-255	ZONE WHITE 6 0%→100%
	75		55	000-255	ZONE RED 7 0%→100%
	76		56	000-255	ZONE GREEN 7 0%→100%
	77		57	000-255	ZONE BLUE 7 0%→100%
	78		58	000-255	ZONE WHITE 7 0%→100%
	79		59	000-255	ZONE RED 8 0%→100%
	80		60	000-255	ZONE GREEN 8 0%→100%
	81		61	000-255	ZONE BLUE 8 0%→100%
	82		62	000-255	ZONE WHITE 8 0%→100%
	83		63	000-255	ZONE RED 9 0%→100%
	84		64	000-255	ZONE GREEN 9 0%→100%
	85		65	000-255	ZONE BLUE 9 0%→100%
	86		66	000-255	ZONE WHITE 9 0%→100%
	87		67	000-255	ZONE RED 10 0%→100%
	88		68	000-255	ZONE GREEN 10 0%→100%

	89		69	000-255	ZONE BLUE 10 0%→100%
	90		70	000-255	ZONE WHITE 10 0%→100%
	91			000-255	ZONE RED 11 0%→100%
	92			000-255	ZONE GREEN 11 0%→100%
	93			000-255	ZONE BLUE 11 0%→100%
	94			000-255	ZONE WHITE 11 0%→100%
	95			000-255	ZONE RED 12 0%→100%
	96			000-255	ZONE GREEN 12 0%→100%
	97			000-255	ZONE BLUE 12 0%→100%
	98			000-255	ZONE WHITE 12 0%→100%
	99			000-255	ZONE RED 13 0%→100%
	100			000-255	ZONE GREEN 13 0%→100%
	101			000-255	ZONE BLUE 13 0%→100%
	102			000-255	ZONE WHITE 13 0%→100%
	103			000-255	ZONE RED 14 0%→100%
	104			000-255	ZONE GREEN 14 0%→100%
	105			000-255	ZONE BLUE 14 0%→100%
	106			000-255	ZONE WHITE 14 0%→100%
	107			000-255	ZONE RED 15 0%→100%
	108			000-255	ZONE GREEN 15 0%→100%
	109			000-255	ZONE BLUE 15 0%→100%
	110			000-255	ZONE WHITE 15 0%→100%
	111			000-255	ZONE RED 16 0%→100%
	112			000-255	ZONE GREEN 16 0%→100%
	113			000-255	ZONE BLUE 16 0%→100%

	114			000-255	ZONE WHITE 16 0%→100%
	115			000-255	ZONE RED 17 0%→100%
	116			000-255	ZONE GREEN 17 0%→100%
	117			000-255	ZONE BLUE 17 0%→100%
	118			000-255	ZONE WHITE 17 0%→100%
	119			000-255	ZONE RED 18 0%→100%
	120			000-255	ZONE GREEN 18 0%→100%
	121			000-255	ZONE BLUE 18 0%→100%
	122			000-255	ZONE WHITE 18 0%→100%
	123			000-255	ZONE RED 19 0%→100%
	124			000-255	ZONE GREEN 19 0%→100%
	125			000-255	ZONE BLUE 19 0%→100%
	126			000-255	ZONE WHITE 19 0%→100%
	127			000-255	ZONE RED 20 0%→100%
	128			000-255	ZONE GREEN 20 0%→100%
	129			000-255	ZONE BLUE 20 0%→100%
	130			000-255	ZONE WHITE 20 0%→100%
	131			000-255	ZONE RED 21 0%→100%
	132			000-255	ZONE GREEN 21 0%→100%
	133			000-255	ZONE BLUE 21 0%→100%
	134			000-255	ZONE WHITE 21 0%→100%
	135			000-255	ZONE RED 22 0%→100%
	136			000-255	ZONE GREEN 22 0%→100%
	137			000-255	ZONE BLUE 22 0%→100%
	138			000-255	ZONE WHITE 22 0%→100%

	139			000-255	ZONE RED 23 0%→100%
	140			000-255	ZONE GREEN 23 0%→100%
	141			000-255	ZONE BLUE 23 0%→100%
	142			000-255	ZONE WHITE 23 0%→100%
	143			000-255	ZONE RED 24 0%→100%
	144			000-255	ZONE GREEN 24 0%→100%
	145			000-255	ZONE BLUE 24 0%→100%
	146			000-255	ZONE WHITE 24 0%→100%
	147			000-255	ZONE RED 25 0%→100%
	148			000-255	ZONE GREEN 25 0%→100%
	149			000-255	ZONE BLUE 25 0%→100%
	150			000-255	ZONE WHITE 25 0%→100%
	151			000-255	ZONE RED 26 0%→100%
	152			000-255	ZONE GREEN 26 0%→100%
	153			000-255	ZONE BLUE 26 0%→100%
	154			000-255	ZONE WHITE 26 0%→100%
	155			000-255	ZONE RED 27 0%→100%
	156			000-255	ZONE GREEN 27 0%→100%
	157			000-255	ZONE BLUE 27 0%→100%
	158			000-255	ZONE WHITE 27 0%→100%
	159			000-255	ZONE RED 28 0%→100%
	160			000-255	ZONE GREEN 28 0%→100%
	161			000-255	ZONE BLUE 28 0%→100%
	162			000-255	ZONE WHITE 28 0%→100%
	163			000-255	ZONE RED 29 0%→100%

	164			000-255	ZONE GREEN 29 0%→100%
	165			000-255	ZONE BLUE 29 0%→100%
	166			000-255	ZONE WHITE 29 0%→100%
	167			000-255	ZONE RED 30 0%→100%
	168			000-255	ZONE GREEN 30 0%→100%
	169			000-255	ZONE BLUE 30 0%→100%
	170			000-255	ZONE WHITE 30 0%→100%
		28		000-009 010-016 017-023 024-030 031-037 038-044 045-051 052-058 059-065 066-072 073-079 080-086 087-093 094-100 101-107 108-114 115-121 122-128 129-135 136-142 143-149 150-156 157-163 164-170 171-177 178-184 185-191 192-198 199-205 206-212 213-219 220-226 227-233 234-255	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 LEE 105 – Orange LEE 021 – Gold Amber LEE 778 – Millennium Gold LEE 135 – Deep Gold Amber LEE 164 – Flame Red
		29		000-007 008-015 016-023	ZONE MACRO Null Built-in Effect 1 Built-in Effect 2

				024-031	Built-in Effect 3
				032-039	Built-in Effect 4
				040-047	Built-in Effect 5
				048-055	Built-in Effect 6
				056-063	Built-in Effect 7
				064-071	Built-in Effect 8
				072-079	Built-in Effect 9
				080-087	Built-in Effect 10
				088-095	Built-in Effect 11
				096-103	Built-in Effect 12
				104-111	Built-in Effect 13
				112-119	Built-in Effect 14
				120-127	Built-in Effect 15
				128-135	Built-in Effect 16
				136-143	Built-in Effect 17
				144-151	Built-in Effect 18
				152-159	Built-in Effect 19
				160-167	Built-in Effect 20
				168-175	Built-in Effect 21
				176-183	Built-in Effect 22
				184-191	Built-in Effect 23
				192-199	Built-in Effect 24
				200-207	Built-in Effect 25
				208-215	Built-in Effect 26
				216-223	Built-in Effect 27
				224-231	Built-in Effect 28
				232-239	Built-in Effect 29
				240-247	Built-in Effect 30
				248-255	Built-in Effect 31
		30		000-127	ZONE MACRO SPEED
				128-255	Slow to Fast without Fade
					Slow to Fast with Fade
26		31		000-255	LINE 1 CW
					0%→100%
	171		71	000-255	LINE 1 CW 1
					0%→100%
	172		72	000-255	LINE 1 CW 2
					0%→100%
	173		73	000-255	LINE 1 CW 3
					0%→100%
	174		74	000-255	LINE 1 CW 4
					0%→100%
	175		75	000-255	LINE 1 CW 5
					0%→100%
	176			000-255	LINE 1 CW 6
					0%→100%
	177			000-255	LINE 1 CW 7
					0%→100%
	178			000-255	LINE 1 CW 8
					0%→100%
	179			000-255	LINE 1 CW 9
					0%→100%

	180			000-255	LINE 1 CW 10 0%→100%
		32		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 1 CW MACRO Null Built-in Effect 1 Built-in Effect 2 Built-in Effect 3 Built-in Effect 4 Built-in Effect 5 Built-in Effect 6 Built-in Effect 7 Built-in Effect 8 Built-in Effect 9 Built-in Effect 10 Built-in Effect 11 Built-in Effect 12 Built-in Effect 13 Built-in Effect 14 Built-in Effect 15 Built-in Effect 16 Built-in Effect 17 Built-in Effect 18 Built-in Effect 19 Built-in Effect 20 Built-in Effect 21 Built-in Effect 22 Built-in Effect 23 Built-in Effect 24 Built-in Effect 25 Built-in Effect 26 Built-in Effect 27 Built-in Effect 28 Built-in Effect 29 Built-in Effect 30 Built-in Effect 31
		33		000-127 128-255	LINE 1 CW MACRO SPEED Slow to Fast without Fade Slow to Fast with Fade
27		34		000-255	LINE 2 CW 0%→100%
	181		76	000-255	LINE 2 CW 1 0%→100%
	182		77	000-255	LINE 2 CW 2 0%→100%
	183		78	000-255	LINE 2 CW 3 0%→100%
	184		79	000-255	LINE 2 CW 4 0%→100%
	185		80	000-255	LINE 2 CW 5 0%→100%
	186			000-255	LINE 2 CW 6 0%→100%

	187			000-255	LINE 2 CW 7 0%→100%
	188			000-255	LINE 2 CW 8 0%→100%
	189			000-255	LINE 2 CW 9 0%→100%
	190			000-255	LINE 2 CW 10 0%→100%
28		35		000-255	LINE 2 WW 0%→100%
	191		81	000-255	LINE 2 WW 1 0%→100%
	192		82	000-255	LINE 2 WW 2 0%→100%
	193		83	000-255	LINE 2 WW 3 0%→100%
	194		84	000-255	LINE 2 WW 4 0%→100%
	195		85	000-255	LINE 2 WW 5 0%→100%
	196			000-255	LINE 2 WW 6 0%→100%
	197			000-255	LINE 2 WW 7 0%→100%
	198			000-255	LINE 2 WW 8 0%→100%
	199			000-255	LINE 2 WW 9 0%→100%
	200			000-255	LINE 2 WW 10 0%→100%
		36		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	LINE 2 CW/WW CCT Null Null Null Null Null Null Null Null Null Null Null Null Null Null Null Null 6500K 6400K 6300K 6200K 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
				LINE 2 CW/WW MACRO	
				000-007	Null
				008-015	Built-in Effect 1
				016-023	Built-in Effect 2
				024-031	Built-in Effect 3
				032-039	Built-in Effect 4
				040-047	Built-in Effect 5
				048-055	Built-in Effect 6
				056-063	Built-in Effect 7
				064-071	Built-in Effect 8
				072-079	Built-in Effect 9
				080-087	Built-in Effect 10
				088-095	Built-in Effect 11
				096-103	Built-in Effect 12
				104-111	Built-in Effect 13
				112-119	Built-in Effect 14
				120-127	Built-in Effect 15
				128-135	Built-in Effect 16

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				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	Built-in Effect 17 Built-in Effect 18 Built-in Effect 19 Built-in Effect 20 Built-in Effect 21 Built-in Effect 22 Built-in Effect 23 Built-in Effect 24 Built-in Effect 25 Built-in Effect 26 Built-in Effect 27 Built-in Effect 28 Built-in Effect 29 Built-in Effect 30 Built-in Effect 31
		38		000-127 128-255	LINE 2 CW/WW MACRO SPEED Slow to Fast without Fade Slow to Fast with Fade
29		39		000-255	LINE 2 RED 0%→100%
30		40		000-255	LINE 2 GREEN 0%→100%
31		41		000-255	LINE 2 BLUE 0%→100%
	201		86	000-255	LINE 2 RED 1 0%→100%
	202		87	000-255	LINE 2 GREEN 1 0%→100%
	203		88	000-255	LINE 2 BLUE 1 0%→100%
	204		89	000-255	LINE 2 RED 2 0%→100%
	205		90	000-255	LINE 2 GREEN 2 0%→100%
	206		91	000-255	LINE 2 BLUE 2 0%→100%
	207		92	000-255	LINE 2 RED 3 0%→100%
	208		93	000-255	LINE 2 GREEN 3 0%→100%
	209		94	000-255	LINE 2 BLUE 3 0%→100%
	210		95	000-255	LINE 2 RED 4 0%→100%
	211		96	000-255	LINE 2 GREEN 4 0%→100%
	212		97	000-255	LINE 2 BLUE 4 0%→100%
	213		98	000-255	LINE 2 RED 5 0%→100%

	214		99	000-255	LINE 2 GREEN 5 0%→100%
	215		100	000-255	LINE 2 BLUE 5 0%→100%
	216			000-255	LINE 2 RED 6 0%→100%
	217			000-255	LINE 2 GREEN 6 0%→100%
	218			000-255	LINE 2 BLUE 6 0%→100%
	219			000-255	LINE 2 RED 7 0%→100%
	220			000-255	LINE 2 GREEN 7 0%→100%
	221			000-255	LINE 2 BLUE 7 0%→100%
	222			000-255	LINE 2 RED 8 0%→100%
	223			000-255	LINE 2 GREEN 8 0%→100%
	224			000-255	LINE 2 BLUE 8 0%→100%
	225			000-255	LINE 2 RED 9 0%→100%
	226			000-255	LINE 2 GREEN 9 0%→100%
	227			000-255	LINE 2 BLUE 9 0%→100%
	228			000-255	LINE 2 RED 10 0%→100%
	229			000-255	LINE 2 GREEN 10 0%→100%
	230			000-255	LINE 2 BLUE 10 0%→100%
		42		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	LINE 2 RGB MACRO Null Built-in Effect 1 Built-in Effect 2 Built-in Effect 3 Built-in Effect 4 Built-in Effect 5 Built-in Effect 6 Built-in Effect 7 Built-in Effect 8 Built-in Effect 9 Built-in Effect 10 Built-in Effect 11 Built-in Effect 12 Built-in Effect 13 Built-in Effect 14 Built-in Effect 15

				128-135	Built-in Effect 16
				136-143	Built-in Effect 17
				144-151	Built-in Effect 18
				152-159	Built-in Effect 19
				160-167	Built-in Effect 20
				168-175	Built-in Effect 21
				176-183	Built-in Effect 22
				184-191	Built-in Effect 23
				192-199	Built-in Effect 24
				200-207	Built-in Effect 25
				208-215	Built-in Effect 26
				216-223	Built-in Effect 27
				224-231	Built-in Effect 28
				232-239	Built-in Effect 29
				240-247	Built-in Effect 30
				248-255	Built-in Effect 31
		43		000-127	LINE 2 RGB MACRO SPEED
				128-255	Slow to Fast without Fade
					Slow to Fast with Fade

20+80 Channels (Mode 5) / 20+210 Channels (Mode 6):

CHANNEL		VALUE	FUNCTION
20+80ch	20+210ch		
Controlled by DMX			
1	1	000-255	TILT 0°→185°
2	2	000-255	TILT FINE
3	3	000-255	TILT SPEED Fast to Slow
4	4	000-255	FROST 0%→100%
5	5	000-007	BEAM STROBE Close
		008-015	Open
		016-131	Strobe from Slow to Fast
		132-139	Open
		140-181	Fast Open Slow Close from Slow to Fast
		182-189	Open
		190-231	Slow Open Fast Close from Slow to Fast
		232-239	Open
		240-247	Random Strobe from Slow to Fast
		248-255	Open
6	6	000-255	BEAM DIMMER 0%→100%
7	7	000-255	BEAM DIMMER FINE
8	8	000-007	ZONE STROBE Close
		008-015	Open
		016-131	Strobe from Slow to Fast
		132-139	Open
		140-181	Fast Open Slow Close from Slow to Fast
		182-189	Open
		190-231	Slow Open Fast Close from Slow to Fast
		232-239	Open
		240-247	Random Strobe from Slow to Fast
		248-255	Open
9	9	000-255	ZONE DIMMER 0%→100%
10	10	000-255	ZONE DIMMER FINE
11	11	000-007	LINE 1 CW STROBE Close
		008-015	Open
		016-131	Strobe from Slow to Fast
		132-139	Open
		140-181	Fast Open Slow Close from Slow to Fast
		182-189	Open
		190-231	Slow Open Fast Close from Slow to Fast
		232-239	Open

		240-247 248-255	Random Strobe from Slow to Fast Open
12	12	000-255	LINE 1 CW DIMMER 0%→100%
13	13	000-255	LINE 1 CW DIMMER FINE
14	14	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	LINE 2 CW/WW 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	LINE 2 CW/WW DIMMER 0%→100%
16	16	000-255	LINE 2 CW/WW DIMMER FINE
17	17	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	LINE 2 RGB 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 2 RGB DIMMER 0%→100%
19	19	000-255	LINE 2 RGB DIMMER FINE
20	20	000-029 030-039 040-049 050-059 060-069 070-099 100-109 110-119 120-122 123 124 125 126 127 128	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

		129	1500Hz
		130	2500Hz
		131	4000Hz
		132	5000Hz
		133	6000Hz
		134	10KHz
		135	15KHz
		136	20KHz
		137	25KHz
		138-139	Null
		140-159	Null
		160-169	Invert Pixel Order: Yes
		170-179	Invert Pixel Order: No
		180-199	Null
		200-209	All Reset
		210-219	Dimmer Speed: Fast
		220-229	Dimmer Speed: Smooth
		230-239	Line Power Mode: Off
		240-249	Line Power Mode: On
		250-251	Dimming Start Mode: High
		252-253	Dimming Start Mode: Low
		254-255	Null
Controlled by Art-Net			
1	1	000-255	BEAM CW 1 0%→100%
2	2	000-255	BEAM CW 2 0%→100%
3	3	000-255	BEAM CW 3 0%→100%
4	4	000-255	BEAM CW 4 0%→100%
5	5	000-255	BEAM CW 5 0%→100%
6	6	000-255	BEAM CW 6 0%→100%
7	7	000-255	BEAM CW 7 0%→100%
8	8	000-255	BEAM CW 8 0%→100%
9	9	000-255	BEAM CW 9 0%→100%
10	10	000-255	BEAM CW 10 0%→100%
	11	000-255	BEAM CW 11 0%→100%
	12	000-255	BEAM CW 12 0%→100%
	13	000-255	BEAM CW 13 0%→100%
	14	000-255	BEAM CW 14 0%→100%

	15	000-255	BEAM CW 15 0%→100%
	16	000-255	BEAM CW 16 0%→100%
	17	000-255	BEAM CW 17 0%→100%
	18	000-255	BEAM CW 18 0%→100%
	19	000-255	BEAM CW 19 0%→100%
	20	000-255	BEAM CW 20 0%→100%
	21	000-255	BEAM CW 21 0%→100%
	22	000-255	BEAM CW 22 0%→100%
	23	000-255	BEAM CW 23 0%→100%
	24	000-255	BEAM CW 24 0%→100%
	25	000-255	BEAM CW 25 0%→100%
	26	000-255	BEAM CW 26 0%→100%
	27	000-255	BEAM CW 27 0%→100%
	28	000-255	BEAM CW 28 0%→100%
	29	000-255	BEAM CW 29 0%→100%
	30	000-255	BEAM CW 30 0%→100%
11	31	000-255	ZONE RED 1 0%→100%
12	32	000-255	ZONE GREEN 1 0%→100%
13	33	000-255	ZONE BLUE 1 0%→100%
14	34	000-255	ZONE WHITE 1 0%→100%
15	35	000-255	ZONE RED 2 0%→100%
16	36	000-255	ZONE GREEN 2 0%→100%
17	37	000-255	ZONE BLUE 2 0%→100%
18	38	000-255	ZONE WHITE 2 0%→100%
19	39	000-255	ZONE RED 3 0%→100%

20	40	000-255	ZONE GREEN 3 0%→100%
21	41	000-255	ZONE BLUE 3 0%→100%
22	42	000-255	ZONE WHITE 3 0%→100%
23	43	000-255	ZONE RED 4 0%→100%
24	44	000-255	ZONE GREEN 4 0%→100%
25	45	000-255	ZONE BLUE 4 0%→100%
26	46	000-255	ZONE WHITE 4 0%→100%
27	47	000-255	ZONE RED 5 0%→100%
28	48	000-255	ZONE GREEN 5 0%→100%
29	49	000-255	ZONE BLUE 5 0%→100%
30	50	000-255	ZONE WHITE 5 0%→100%
31	51	000-255	ZONE RED 6 0%→100%
32	52	000-255	ZONE GREEN 6 0%→100%
33	53	000-255	ZONE BLUE 6 0%→100%
34	54	000-255	ZONE WHITE 6 0%→100%
35	55	000-255	ZONE RED 7 0%→100%
36	56	000-255	ZONE GREEN 7 0%→100%
37	57	000-255	ZONE BLUE 7 0%→100%
38	58	000-255	ZONE WHITE 7 0%→100%
39	59	000-255	ZONE RED 8 0%→100%
40	60	000-255	ZONE GREEN 8 0%→100%
41	61	000-255	ZONE BLUE 8 0%→100%
42	62	000-255	ZONE WHITE 8 0%→100%
43	63	000-255	ZONE RED 9 0%→100%
44	64	000-255	ZONE GREEN 9 0%→100%

45	65	000-255	ZONE BLUE 9 0%→100%
46	66	000-255	ZONE WHITE 9 0%→100%
47	67	000-255	ZONE RED 10 0%→100%
48	68	000-255	ZONE GREEN 10 0%→100%
49	69	000-255	ZONE BLUE 10 0%→100%
50	70	000-255	ZONE WHITE 10 0%→100%
	71	000-255	ZONE RED 11 0%→100%
	72	000-255	ZONE GREEN 11 0%→100%
	73	000-255	ZONE BLUE 11 0%→100%
	74	000-255	ZONE WHITE 11 0%→100%
	75	000-255	ZONE RED 12 0%→100%
	76	000-255	ZONE GREEN 12 0%→100%
	77	000-255	ZONE BLUE 12 0%→100%
	78	000-255	ZONE WHITE 12 0%→100%
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	80	000-255	ZONE GREEN 13 0%→100%
	81	000-255	ZONE BLUE 13 0%→100%
	82	000-255	ZONE WHITE 13 0%→100%
	83	000-255	ZONE RED 14 0%→100%
	84	000-255	ZONE GREEN 14 0%→100%
	85	000-255	ZONE BLUE 14 0%→100%
	86	000-255	ZONE WHITE 14 0%→100%
	87	000-255	ZONE RED 15 0%→100%
	88	000-255	ZONE GREEN 15 0%→100%
	89	000-255	ZONE BLUE 15 0%→100%

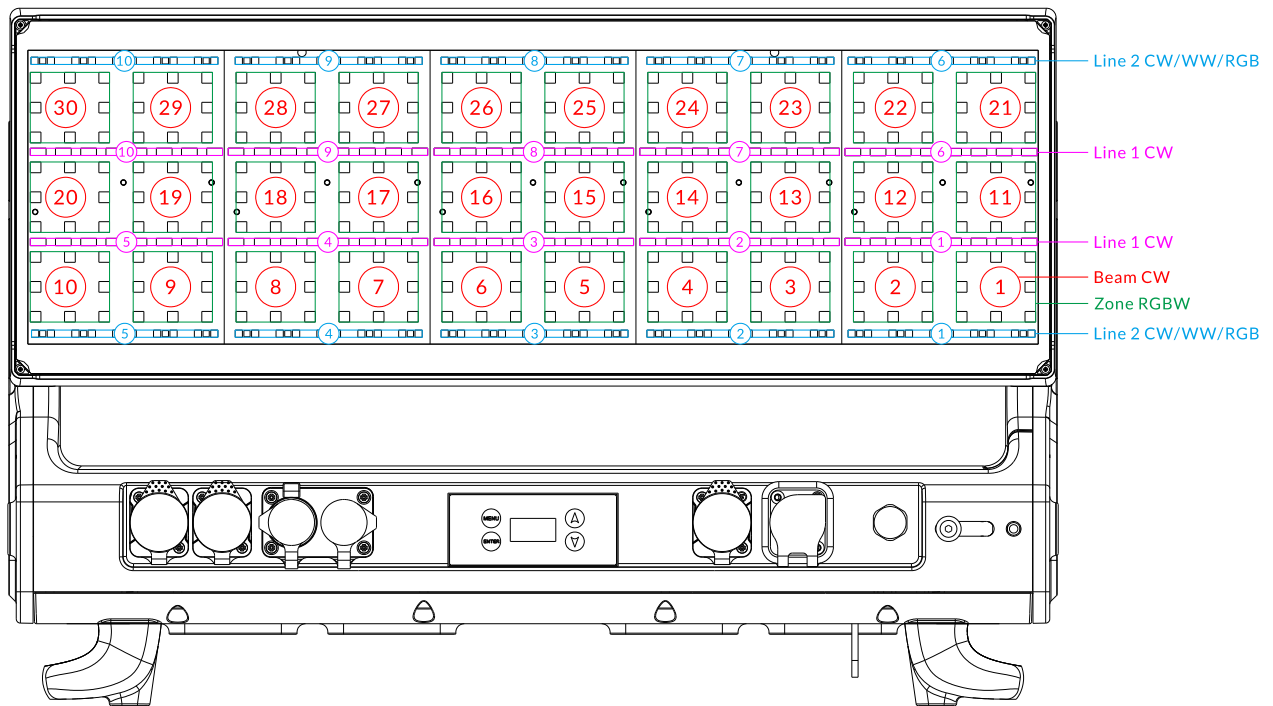
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	91	000-255	ZONE RED 16 0%→100%
	92	000-255	ZONE GREEN 16 0%→100%
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	94	000-255	ZONE WHITE 16 0%→100%
	95	000-255	ZONE RED 17 0%→100%
	96	000-255	ZONE GREEN 17 0%→100%
	97	000-255	ZONE BLUE 17 0%→100%
	98	000-255	ZONE WHITE 17 0%→100%
	99	000-255	ZONE RED 18 0%→100%
	100	000-255	ZONE GREEN 18 0%→100%
	101	000-255	ZONE BLUE 18 0%→100%
	102	000-255	ZONE WHITE 18 0%→100%
	103	000-255	ZONE RED 19 0%→100%
	104	000-255	ZONE GREEN 19 0%→100%
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	109	000-255	ZONE BLUE 20 0%→100%
	110	000-255	ZONE WHITE 20 0%→100%
	111	000-255	ZONE RED 21 0%→100%
	112	000-255	ZONE GREEN 21 0%→100%
	113	000-255	ZONE BLUE 21 0%→100%
	114	000-255	ZONE WHITE 21 0%→100%

	115	000-255	ZONE RED 22 0%→100%
	116	000-255	ZONE GREEN 22 0%→100%
	117	000-255	ZONE BLUE 22 0%→100%
	118	000-255	ZONE WHITE 22 0%→100%
	119	000-255	ZONE RED 23 0%→100%
	120	000-255	ZONE GREEN 23 0%→100%
	121	000-255	ZONE BLUE 23 0%→100%
	122	000-255	ZONE WHITE 23 0%→100%
	123	000-255	ZONE RED 24 0%→100%
	124	000-255	ZONE GREEN 24 0%→100%
	125	000-255	ZONE BLUE 24 0%→100%
	126	000-255	ZONE WHITE 24 0%→100%
	127	000-255	ZONE RED 25 0%→100%
	128	000-255	ZONE GREEN 25 0%→100%
	129	000-255	ZONE BLUE 25 0%→100%
	130	000-255	ZONE WHITE 25 0%→100%
	131	000-255	ZONE RED 26 0%→100%
	132	000-255	ZONE GREEN 26 0%→100%
	133	000-255	ZONE BLUE 26 0%→100%
	134	000-255	ZONE WHITE 26 0%→100%
	135	000-255	ZONE RED 27 0%→100%
	136	000-255	ZONE GREEN 27 0%→100%
	137	000-255	ZONE BLUE 27 0%→100%
	138	000-255	ZONE WHITE 27 0%→100%
	139	000-255	ZONE RED 28 0%→100%

	140	000-255	ZONE GREEN 28 0%→100%
	141	000-255	ZONE BLUE 28 0%→100%
	142	000-255	ZONE WHITE 28 0%→100%
	143	000-255	ZONE RED 29 0%→100%
	144	000-255	ZONE GREEN 29 0%→100%
	145	000-255	ZONE BLUE 29 0%→100%
	146	000-255	ZONE WHITE 29 0%→100%
	147	000-255	ZONE RED 30 0%→100%
	148	000-255	ZONE GREEN 30 0%→100%
	149	000-255	ZONE BLUE 30 0%→100%
	150	000-255	ZONE WHITE 30 0%→100%
51	151	000-255	LINE 1 CW 1 0%→100%
52	152	000-255	LINE 1 CW 2 0%→100%
53	153	000-255	LINE 1 CW 3 0%→100%
54	154	000-255	LINE 1 CW 4 0%→100%
55	155	000-255	LINE 1 CW 5 0%→100%
	156	000-255	LINE 1 CW 6 0%→100%
	157	000-255	LINE 1 CW 7 0%→100%
	158	000-255	LINE 1 CW 8 0%→100%
	159	000-255	LINE 1 CW 9 0%→100%
	160	000-255	LINE 1 CW 10 0%→100%
56	161	000-255	LINE 2 CW 1 0%→100%
57	162	000-255	LINE 2 CW 2 0%→100%
58	163	000-255	LINE 2 CW 3 0%→100%
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60	165	000-255	LINE 2 CW 5 0%→100%
	166	000-255	LINE 2 CW 6 0%→100%
	167	000-255	LINE 2 CW 7 0%→100%
	168	000-255	LINE 2 CW 8 0%→100%
	169	000-255	LINE 2 CW 9 0%→100%
	170	000-255	LINE 2 CW 10 0%→100%
61	171	000-255	LINE 2 WW 1 0%→100%
62	172	000-255	LINE 2 WW 2 0%→100%
63	173	000-255	LINE 2 WW 3 0%→100%
64	174	000-255	LINE 2 WW 4 0%→100%
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	177	000-255	LINE 2 WW 7 0%→100%
	178	000-255	LINE 2 WW 8 0%→100%
	179	000-255	LINE 2 WW 9 0%→100%
	180	000-255	LINE 2 WW 10 0%→100%
66	181	000-255	LINE 2 RED 1 0%→100%
67	182	000-255	LINE 2 GREEN 1 0%→100%
68	183	000-255	LINE 2 BLUE 1 0%→100%
69	184	000-255	LINE 2 RED 2 0%→100%
70	185	000-255	LINE 2 GREEN 2 0%→100%
71	186	000-255	LINE 2 BLUE 2 0%→100%
72	187	000-255	LINE 2 RED 3 0%→100%
73	188	000-255	LINE 2 GREEN 3 0%→100%
74	189	000-255	LINE 2 BLUE 3 0%→100%

75	190	000-255	LINE 2 RED 4 0%→100%
76	191	000-255	LINE 2 GREEN 4 0%→100%
77	192	000-255	LINE 2 BLUE 4 0%→100%
78	193	000-255	LINE 2 RED 5 0%→100%
79	194	000-255	LINE 2 GREEN 5 0%→100%
80	195	000-255	LINE 2 BLUE 5 0%→100%
	196	000-255	LINE 2 RED 6 0%→100%
	197	000-255	LINE 2 GREEN 6 0%→100%
	198	000-255	LINE 2 BLUE 6 0%→100%
	199	000-255	LINE 2 RED 7 0%→100%
	200	000-255	LINE 2 GREEN 7 0%→100%
	201	000-255	LINE 2 BLUE 7 0%→100%
	202	000-255	LINE 2 RED 8 0%→100%
	203	000-255	LINE 2 GREEN 8 0%→100%
	204	000-255	LINE 2 BLUE 8 0%→100%
	205	000-255	LINE 2 RED 9 0%→100%
	206	000-255	LINE 2 GREEN 9 0%→100%
	207	000-255	LINE 2 BLUE 9 0%→100%
	208	000-255	LINE 2 RED 10 0%→100%
	209	000-255	LINE 2 GREEN 10 0%→100%
	210	000-255	LINE 2 BLUE 10 0%→100%

LED PIXEL ZONES:

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/G/H/I/J 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.

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 damaged.

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.

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 Temperature 1/2/3/4 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 86°C, it will automatically turn off to protect the fixture.

Base Fan Start Err

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 Start Err

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 Humi. Too High

Disassemble the housing of the fixture to dehumidify.

Base Humi. Too High

Disassemble the housing of the fixture to dehumidify.

Head Humi. Error

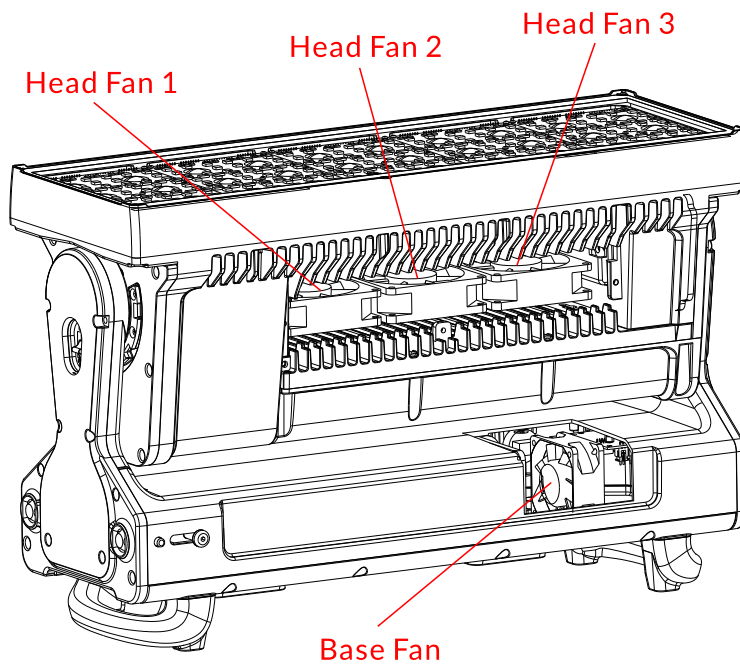
Check whether the humidity sensor is faulty.

Check whether the lead connecting the humidity sensor is installed in place or disconnected.

Base Humi. Error

Check whether the humidity sensor is faulty.

Check whether the lead connecting the humidity sensor is installed in place or disconnected.

Position of cooling fans:

Cooling Fans	Part Number	V	W	Position
Base Fan	3014001293	DC 24V	4.8W	Base - A
Head Fan 1	3014003009	DC 24V	3.6W	Head - D
Head Fan 2				
Head Fan 3				

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.
Tilt is skipping / shuddering	Tilt lock is not released.	Release the tilt lock.
	Obstacles are within the required tilt clearance.	Inspect and remove any obstacles constraining free operation of the 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.

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www.acmelighting.com