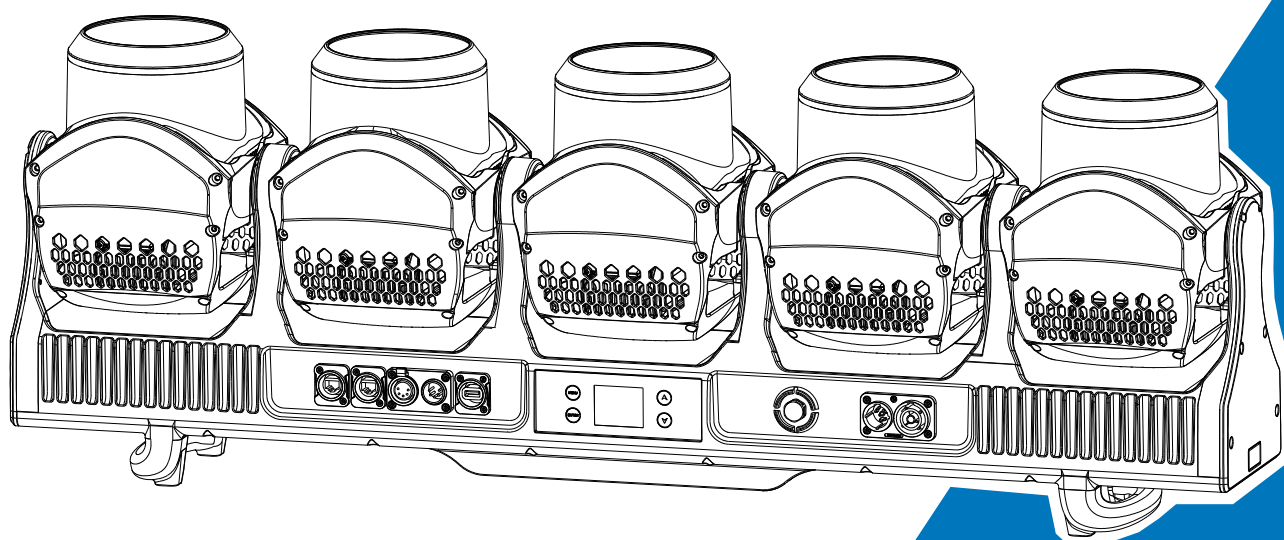


# ACME<sup>®</sup>

## TORNADO



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 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 75°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.
- 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.



## 01/ Consignes de sécurité



Veillez lire attentivement les instructions qui contiennent des informations importantes sur l'installation, l'utilisation et l'entretien.

### ATTENTION

Veillez conserver ce guide de l'utilisateur pour une 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 résultent.**

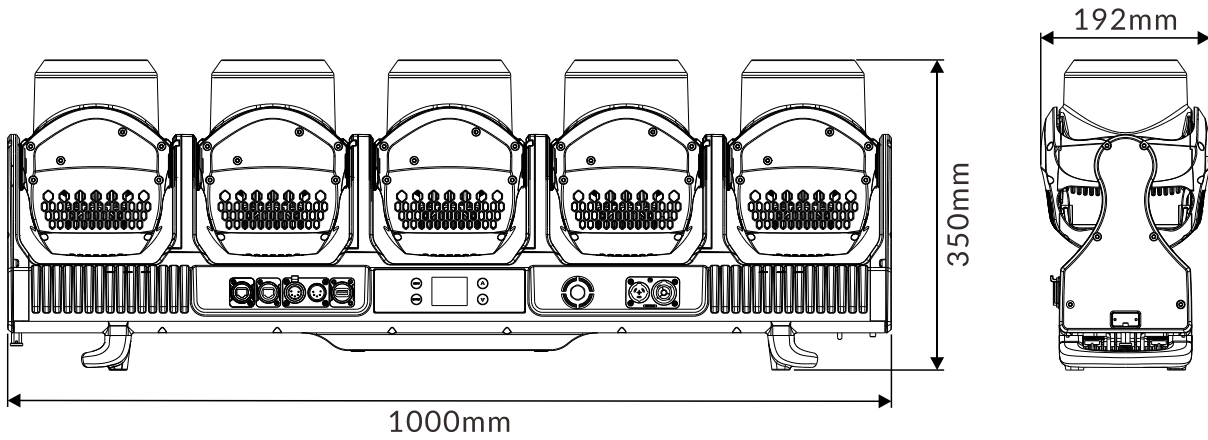
- Déballez et vérifiez soigneusement qu'il n'y a pas de dommages dus au transport avant d'utiliser l'appareil.
- Ce produit convient aux endroits humides. Ne pas immerger dans l'eau.
- L'installation et la mise en fonctionnement doit être effectué par un opérateur qualifié.
- NE PAS permettre aux enfants d'utiliser l'appareil.
- Utilisez une chaîne de sécurité lors de la fixation de l'unité. Manipulez l'appareil en portant sa base au lieu de la tête uniquement.
- L'unité doit être installée dans un endroit avec une ventilation adéquate, à au moins 50cm des surfaces adjacentes.
- Assurez-vous qu'aucune fente d'aération du luminaire n'est obstruée, sinon il risque de surchauffer.
- Avant toute utilisation, assurez-vous que vous connectez ce luminaire à la tension appropriée conformément aux spécifications que vous trouverez dans ce manuel ou sur l'étiquette des spécifications collée sur la base du luminaire.
- Il est important de relier le file jaune/vert à la terre afin d'éviter tout choc électrique.
- Température ambiante minimale TA: -10°C. Température ambiante maximale TA: 40°C. N'utilisez pas ce luminaire à des températures inférieures ou supérieures.
- NE PAS connecter le luminaire à un pack de gradateurs.
- Gardez les matériaux inflammables à l'écart du luminaire pendant le fonctionnement pour éviter tout risque d'incendie.

- Assurez-vous que le cordon d'alimentation n'est pas pincé ou endommagé; remplacez-le immédiatement s'il est endommagé.
- La température de surface de l'unité peut atteindre 75°C. NE PAS toucher les capots à mains nues pendant son fonctionnement.
- Évitez que des liquides inflammables, de l'eau ou du métal ne pénètrent dans l'appareil. Si cela se produit, coupez immédiatement l'alimentation secteur.
- NE PAS utiliser le luminaire dans un environnement sale ou poussiéreux. Cette appareil doit être nettoyer régulièrement.
- NE touchez AUCUN file pendant le fonctionnement car il pourrait y avoir un risque de choc électrique.
- Évitez l'enchevêtrement du cordon d'alimentation avec d'autres fils.
- La distance minimale de projection sur des objets ou sur des surfaces doit être supérieure à 0.5 mètres.
- En cas de problème de fonctionnement grave, arrêtez immédiatement d'utiliser l'appareil.
- N'allumez et n'éteignez jamais ce luminaire à maintes 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 réparable par l'utilisateur.
- NE PAS mettre ce luminaire en fonctionnement s'il est endommagé. N'effectuez pas de réparations vous-même. Les réparations ne doivent être effectuées par des personnes non qualifiées, cela peut entraîner des dommages ou des dysfonctionnements. Veuillez contacter le centre d'assistance technique agréé le plus proche si nécessaire.
- Débranchez ce produit du secteur avant de procéder à l'entretien.
- Utiliser l'emballage d'origine si l'appareil doit être transporté.
- Évitez une exposition directe des yeux à la source lumineuse lorsque le produit est allumé.
- N'utilisez PAS ce produit si vous constatez des dommages sur le boîtier, les blindages ou les câbles. Faites remplacer immédiatement les pièces endommagées par un technicien agréé.

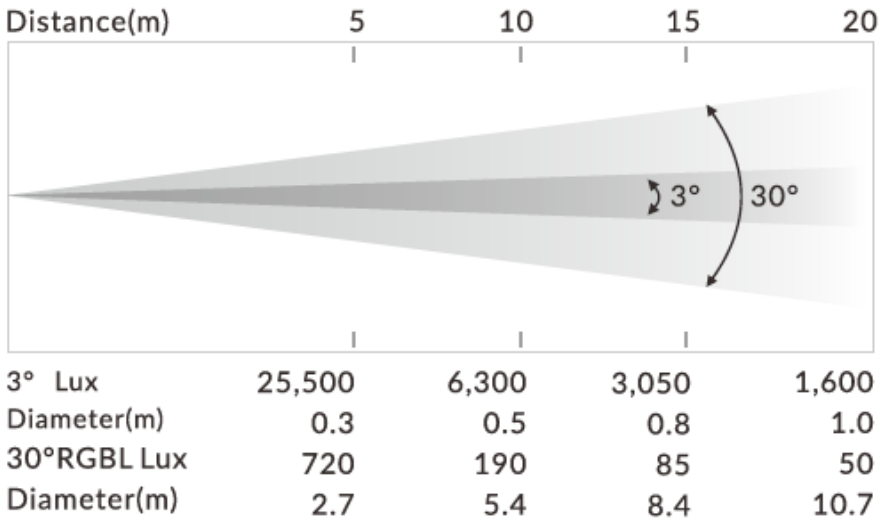
## 02/ Technical Specifications

<b>AC Power</b>	100-240Vac; 50/60Hz	
<b>Max. Power Consumption</b>	935W	
<b>Light Source</b>	5x120W RGBL LED	
	120x0.5W RGB LED	
<b>Beam Angle</b>	3°-30° (Beam Section)	
<b>Field Angle</b>	4°-35° (Beam Section)	
<b>Movement</b>	Pan	59°
	Tilt	221°
	16 bit movement resolution	
	Automatic pan/tilt repositioning	
<b>Control and Programming</b>	DMX Channels	41/71
	Protocols	DMX512
		RDM
		Art-Net
		sACN
Firmware Update	via DMX or USB memory device	
<b>Construction</b>	Display	LCD display
	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/out
Protection Rating	IP66	
<b>Dynamic Effects</b>	5 individual heads	
	Each head has one led ring (24 leds) that can be individually controlled	
	0-100% continuous dimming and strobe effects	
	Choice of four dimming curves	
	Variable color temperature control	
	Outstanding color mixing	
	Motorized zoom	
<b>Included Items</b>	Power Cable with Neutrik true1 power connector	
	Two omega brackets with 1/4-turn fasteners	
	User Manual (this document)	

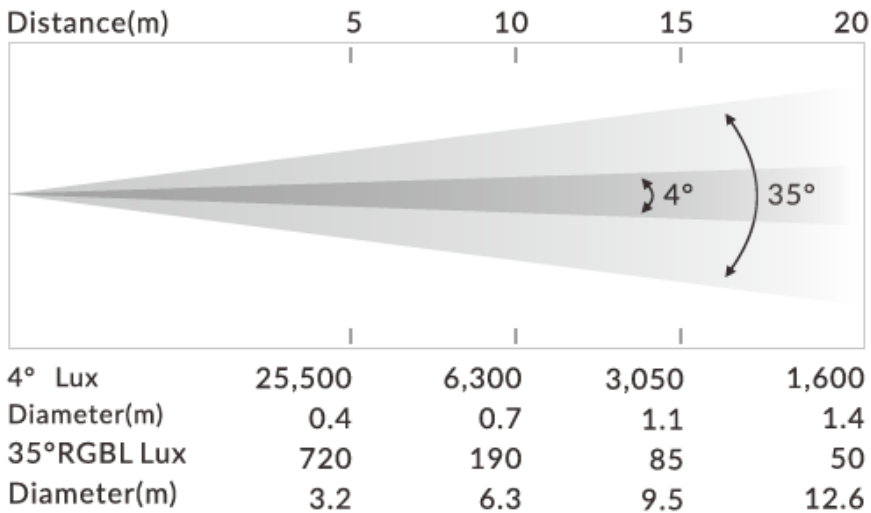
<b>Dimensions</b>	1000x192x350mm	39.4"x7.6"x13.8"
<b>Weight</b>	29.2 kg	64.4 lbs



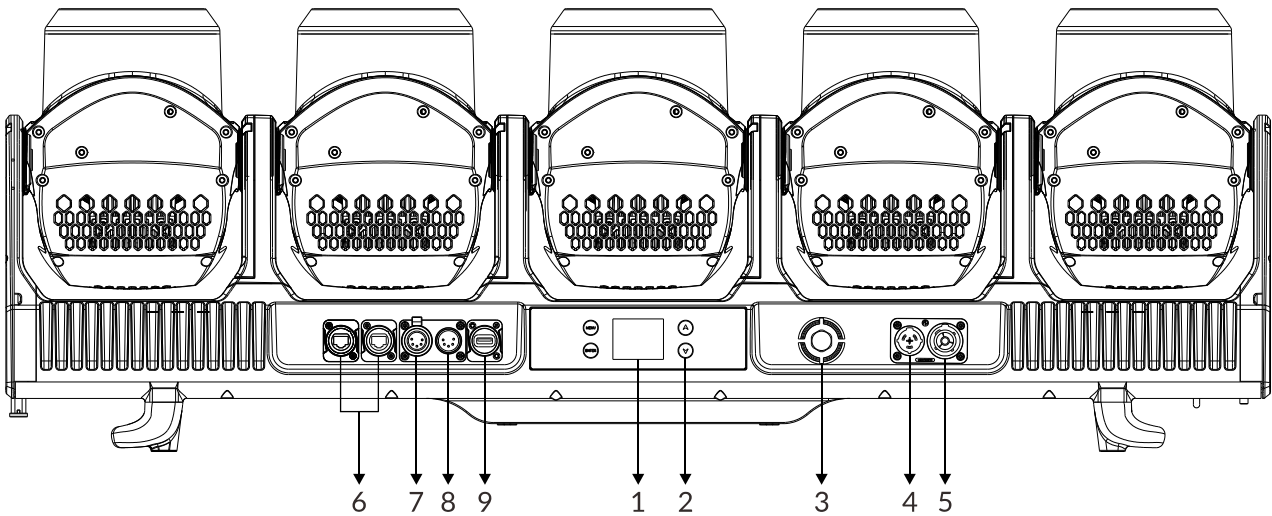
**Photometric Diagram (Beam Angle):**



**Photometric Diagram (Field Angle):**



## 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. RELEASE VALVE		
4. POWER IN	To connect to supply power	
5. POWER OUT	To connect to the next fixture	
6. ETHERNET	Transfers fixture's information to a main controller	
7. DMX OUT	For DMX512 link, use 5-pin 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 IP XLR)	
9. FIRMWARE UPGRADE	Used to upgrade fixture's firmware	

## 04/ Connecting Power and Data

### 4.1 Connecting Power

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

The maximum power consumption is 935W.

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 $\oplus$	ground (earth)

Description for power cord set should be used: Listed SJOW flexible cord with rating: 300V, 105°C, VW-1, 16AWG x 3C, molded with 5-20P attachment plug and terminated with cord connector model RCAC3F-X-000 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!**

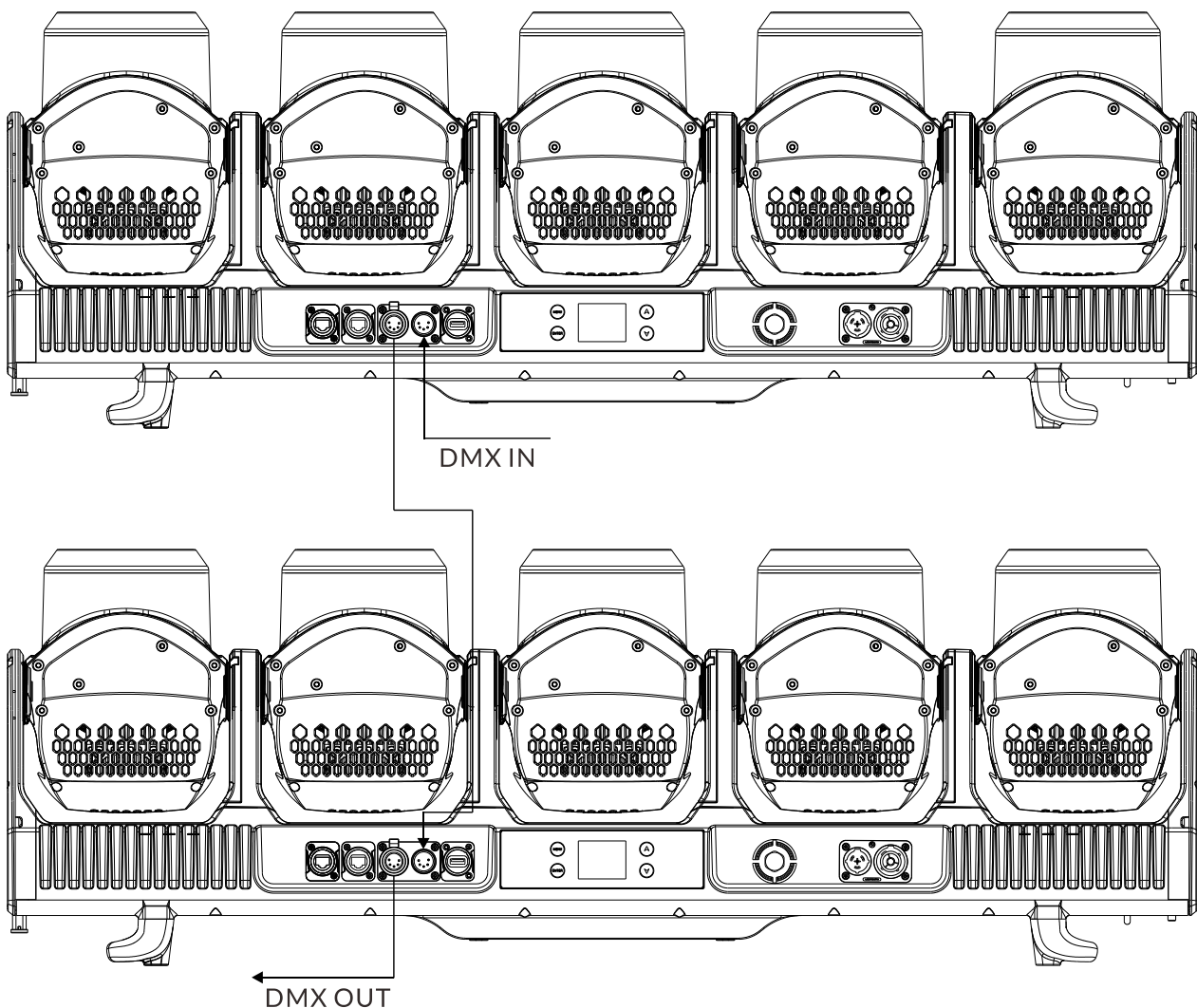
**DO NOT CONNECT THE FIXTURE TO AN ELECTRICAL DIMMER SYSTEM AS DOING SO MAY CAUSE DAMAGE.**

## 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

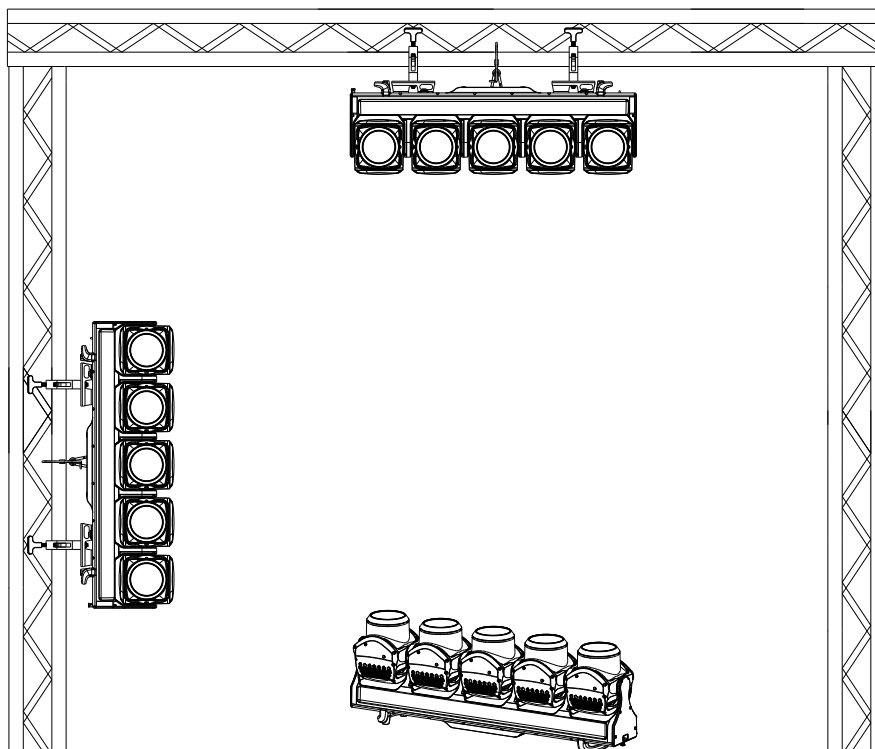
The fixture is IP66-rated and designed for both indoor and outdoor events. This means that it is protected from:

- ▶ 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.

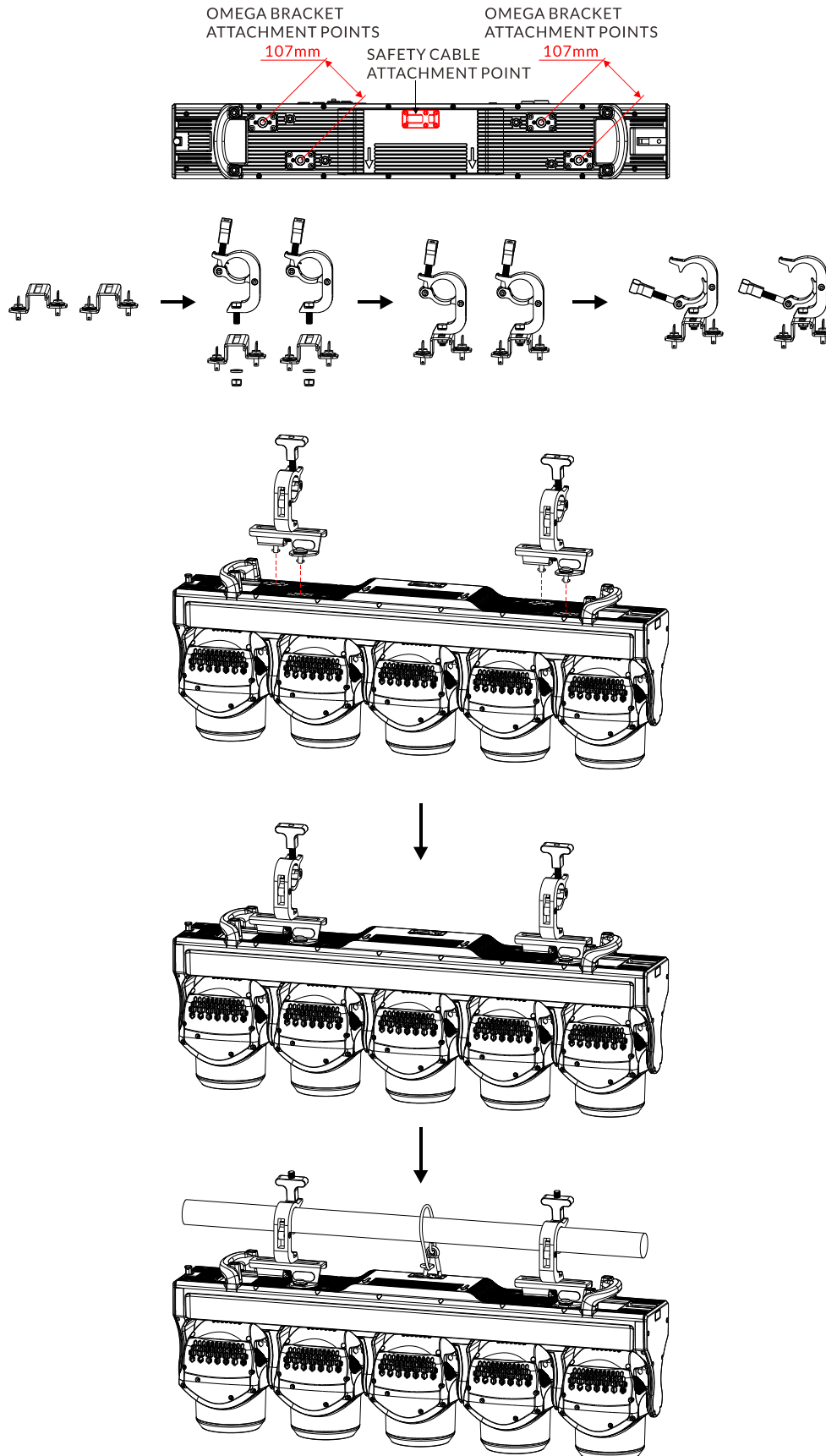
Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always attach a safety cable (made of steel, min. diameter 4.0mm) that can hold at least 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.



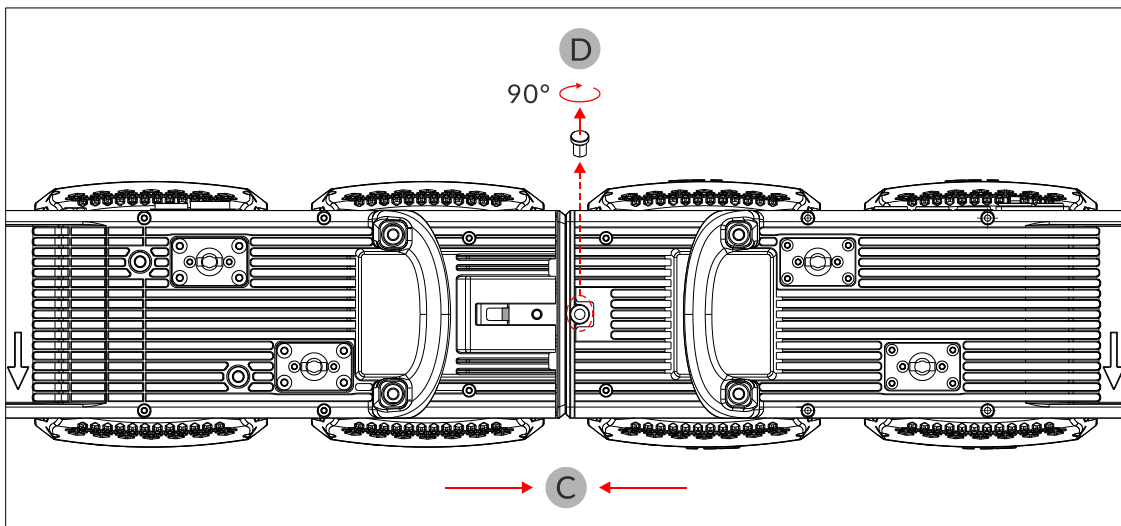
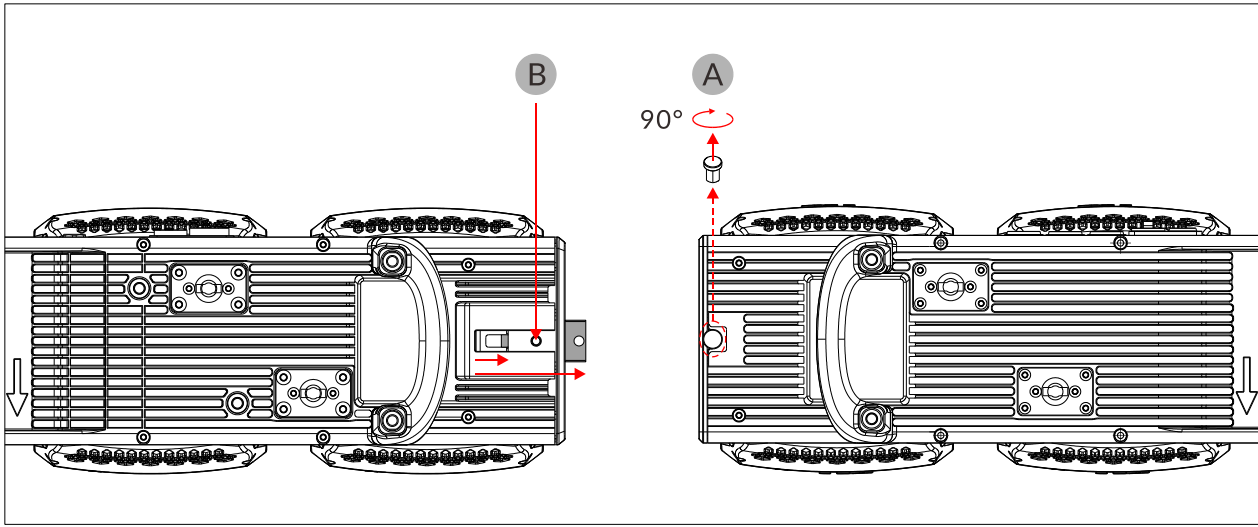


## 5.1 Hanging the Fixture



## 5.2 Connecting and Aligning Multiple Fixtures

- A. Pull the locking pin and turn it over 90° so it stays unlocked.
- B. Push the button: automatically the slide comes out completely.
- C. Place both fixtures against each other in line so that the slide fits into the other fixture.
- D. When this is done, pull the locking pin and turn it again over 90°, until the pin fits in the hole of the slide and locks both fixtures together.



If you need to connect and align more fixtures, repeat the steps above.

To detach the fixtures, simply reverse the steps mentioned above.

Note: Hold down the button and pull the slide back simultaneously to retract it to its original position.

### 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 will be automatically locked if there is no operation for a long time, and can be unlocked by long-pressing the [MENU] button.

The main functions are shown below:

MAIN MENU	SUBMENU	CHOICES/VALUES		
DMX Settings	DMX Address	1-472 (41 CH)	(Default=1)	
		1-442 (71 CH)		
	DMX Channel Mode	41 ch.		
		71 ch.		
	No DMX Status	Blackout		
		Hold		
		Manual		
	View DMX Value			
	Connect Option	Auto		
		DMX		
		Art-Net		
		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	Net	0-127	(Default=0)
		Sub-Net	0-15	(Default=0)
		Universe	0-15	(Default=0)
	sACN Settings	sACN Universe	1-32000	(Default=1)
sACN Priority		0-200	(Default=100)	
Network to DMX	No			
	Yes			

MAIN MENU	SUBMENU	CHOICES/VALUES		
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	LED R	125-255	
		LED G	125-255	
		LED B	125-255	
		LED R1	125-255	
		LED G1	125-255	
		LED B1	125-255	
		.....	.....	
		LED R5	125-255	
		LED G5	125-255	
		LED B5	125-255	
	LED Refresh Rate	900Hz		
		1000Hz		
		1100Hz		
		1200Hz		
		1300Hz		
		1400Hz		
		1500Hz		
		2500Hz		
		4000Hz		
		5000Hz		
6000Hz				
10KHz				
15KHz				
20KHz				
25KHz				
Cooling Mode	Standard			
	Quiet			

MAIN MENU	SUBMENU	CHOICES/VALUES			
	Head Invert	No			
		Yes			
	CCT Calibration	Off			
		On			
Display Settings	Display Invert	No			
		Yes			
	Backlight Intensity	1-10	(Default=10)		
	Temperature Unit	°C			
		°F			
	Language	English			
Chinese					
Fixture Test	Auto Test	Single			
		Cycle			
	Manual Test	Mode 1		Mode 2	
		Clear	No/Yes	Clear	No/Yes
		Pan	0-255	Pan 1	0-255
		Tilt	0-255	Tilt 1	0-255
		Zoom	0-255	.....	.....
		Dimmer	0-255	Pan 5	0-255
		Strobe	0-255	Tilt 5	0-255
		Ring Strobe	0-255	Zoom 1	0-255
		LED R	0-255	.....	.....
		LED G	0-255	Zoom 5	0-255
		LED B	0-255	Dimmer	0-255
		LED L	0-255	Strobe	0-255
		LED CCT	0-255	Ring Strobe	0-255
		LED Color	0-255	LED R1	0-255
		Ring R	0-255	LED G1	0-255
		Ring G	0-255	LED B1	0-255
		Ring B	0-255	LED L1	0-255
		Ring Macro	0-255	.....	.....
				LED R5	0-255
				LED G5	0-255
		LED B5	0-255		
		LED L5	0-255		
		Ring R1	0-255		
		Ring G1	0-255		
		Ring B1	0-255		

MAIN MENU	SUBMENU	CHOICES/VALUES			
				Ring Macro 1	0-255
				.....	.....
				Ring R5	0-255
				Ring G5	0-255
				Ring B5	0-255
				Ring Macro 5	0-255
Fixture Information	Fixture Use Hour				
	LED Use Hour	Total LED Hour			
		LED On Hour			
		LED Hours Reset	Password=050		
	Humidity			Current	Max
		Base			
	Temperature			Current	Max
		LED's	LED 1-5		
	Fan State	B_FAN 1-2			
		H_FAN 1-5			
	Firmware Version				
	RDM UID				
Error Logs	Fixture Errors				
	Reset Error Log	No			
		Yes	Password=050		
Reset Function	Pan/Tilt Reset	No			
		Yes			
	Effect Reset	No			
		Yes			
	All Reset	No			
		Yes			
Special Function	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 Channel Mode**, **No DMX Status**, **View DMX Value**, **Connect Option**, **Network**, **Art-Net Settings**, **sACN Settings** or **Network to DMX**.

### DMX Address

Select **DMX Address**, press ENTER.

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

CHANNEL MODE	DMX ADDRESS
41 ch.	1-472
71 ch.	1-442

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

### DMX Channel Mode

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

Use UP/DOWN button to select between **41 ch.** and **71 ch.**, confirm your selection with ENTER.

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

### No DMX Status

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

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

**Blackout** (Fixture blacks out if DMX signal stops)

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

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

Confirm your selection with ENTER.

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** or **Universe**, confirm your selection with ENTER.

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

## sACN Settings

Select **sACN Settings**, press ENTER.

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

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

## Network to DMX

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

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

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**, **Cooling Mode**, **Head Invert** or **CCT Calibration**.

### 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.

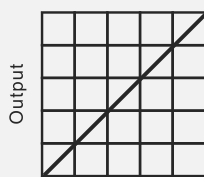
To exit the menu, press MENU, or wait 30 seconds.

### Dimmer Curve

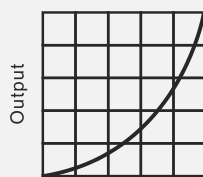
Select **Dimmer Curve**, press ENTER.

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

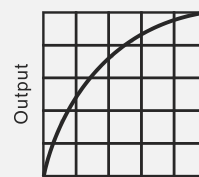
#### Dimmer Modes



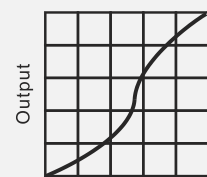
Optically Linear



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 **LED R, LED G, LED B, LED R1, LED G1, LED B1.....** or **LED R5, LED G5, LED B5**, 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.

## Cooling Mode

Select **Cooling Mode**, press ENTER.

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

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

## Head Invert

Select **Head Invert**, 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.

## CCT Calibration

Select **CCT Calibration**, 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**, **Backlight Intensity**, **Temperature Unit** or **Language**.

## Display Invert

Select **Display Invert**, press ENTER.

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

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

## Backlight Intensity

Select **Backlight Intensity**, press ENTER.

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

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

## Temperature Unit

Select **Temperature Unit**, press ENTER.

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

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

## Language

Select **Language**, press ENTER.

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

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.

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.)

## Fixture Information

Enter the control menu and select **Fixture Information**, press ENTER. Use the UP/DOWN button to select **Fixture Use Hour**, **LED Use Hour**, **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.

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 Function

Enter the control menu and select **Reset Function**, 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.

## Special Function

Enter the control menu and select **Special Function**, 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, Please Wait...**" while the display of next fixtures will show "**Upgrading, Please Wait...**". A percentage bar will also be displayed. 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

Select **Firmware Restore**, press ENTER.

If you wish to restore fixture's firmware, select **Yes**. Once Yes is selected, the display will show "**Upgrading, Please Wait...**". A percentage bar will also be displayed. 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.



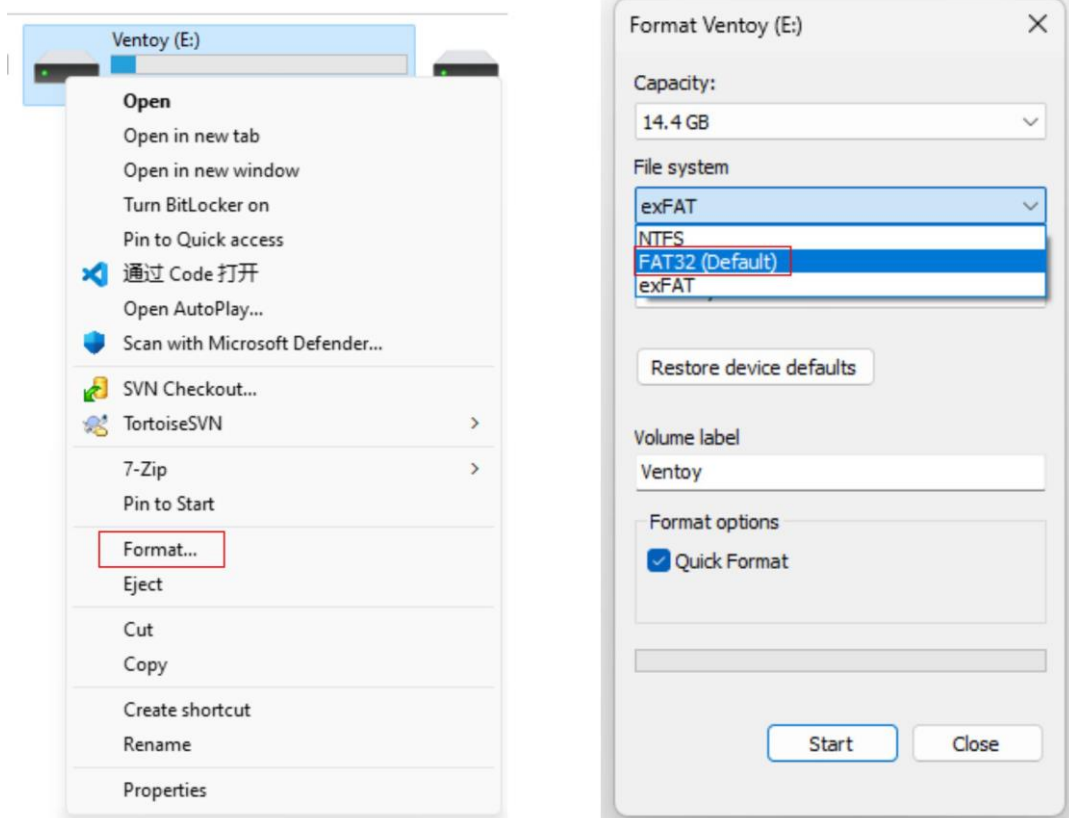
## 6.2 Updating Software

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 rear panel of the fixture.
5. Locate **“Special Function”** 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...”**. After copying is complete, the display will show **“Upgrading, Please Wait...”**. A percentage bar will also be displayed.
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 Function”** 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...”** again. After copying is complete, the display will show **“Upgrading, Please Wait...”**. A percentage bar will also be displayed.
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			✓
PAN_INVERT		✓	✓
TILT_INVERT		✓	✓
RESET_DEVICE		✓	
CURVE		✓	✓
DMX_STATE		✓	✓
DIMMER_SPEED		✓	✓

✓ -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
Pan 1	-128~127
.....	.....
Pan 5	-128~127
Tilt 1	-128~127
.....	.....
Tilt 5	-128~127
Zoom 1	-128~127
.....	.....
Zoom 5	-128~127
LED R	0~255
LED G	0~255
LED B	0~255
LED L	0~255
LED R1	0~255
LED G1	0~255
LED B1	0~255
LED L1	0~255
.....	.....
LED R5	0~255
LED G5	0~255
LED B5	0~255
LED L5	0~255

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

## Pan 1

Select **Pan 1**, 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.

.....

## Pan 5

Select **Pan 5**, 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 1

Select **Tilt 1**, 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 5

Select **Tilt 5**, 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 1

Select **Zoom 1**, 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 5

Select **Zoom 5**, 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.

## LED R

Select **LED R**, press ENTER.

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

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

## LED G

Select **LED G**, press ENTER.

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

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

## LED B

Select **LED B**, press ENTER.

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

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

## LED L

Select **LED L**, press ENTER.

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

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

## LED R1

Select **LED R1**, press ENTER.

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

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

## LED G1

Select **LED G1**, press ENTER.

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

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

## LED B1

Select **LED B1**, press ENTER.

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

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

## LED L1

Select **LED L1**, press ENTER.

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

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

.....

## LED R5

Select **LED R5**, press ENTER.

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

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

## LED G5

Select **LED G5**, press ENTER.

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

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

## LED B5

Select **LED B5**, press ENTER.

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

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

## LED L5

Select **LED L5**, press ENTER.

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

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



## 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 41 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 42. As the first fixture uses all the first 41 DMX channels, the next available channel is 42 ( $41+1=42 \gg 42$ ).

See the chart below for more details:

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address	Unit xxx Address
41 channels	1	42	83	124	.....
71 channels	1	72	143	214	.....

## 7.2 DMX Protocol

### 41 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 1 0°→59°
2	000-255	PAN 1 FINE
3	000-255	TILT 1 0°→221°
4	000-255	TILT 1 FINE
5	000-255	ZOOM 1 Wide→Narrow
6	000-255	PAN 2 0°→59°
7	000-255	PAN 2 FINE
8	000-255	TILT 2 0°→221°
9	000-255	TILT 2 FINE
10	000-255	ZOOM 2 Wide→Narrow
11	000-255	PAN 3 0°→59°
12	000-255	PAN 3 FINE
13	000-255	TILT 3 0°→221°
14	000-255	TILT 3 FINE
15	000-255	ZOOM 3 Wide→Narrow
16	000-255	PAN 4 0°→59°
17	000-255	PAN 4 FINE
18	000-255	TILT 4 0°→221°
19	000-255	TILT 4 FINE
20	000-255	ZOOM 4 Wide→Narrow
21	000-255	PAN 5 0°→59°
22	000-255	PAN 5 FINE

23	000-255	<b>TILT 5</b> 0°→221°
24	000-255	<b>TILT 5 FINE</b>
25	000-255	<b>ZOOM 5</b> Wide→Narrow
26	000-255	<b>LED RED</b> 0%→100%
27	000-255	<b>LED GREEN</b> 0%→100%
28	000-255	<b>LED BLUE</b> 0%→100%
29	000-255	<b>LED LIME</b> 0%→100%
30	000	<b>LED CCT</b> Null
	001-004	8000K
	005-009	7900K
	010-013	7800K
	014-018	7700K
	019-022	7600K
	023-027	7500K
	028-031	7400K
	032-036	7300K
	037-040	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
		<b>LED COLOR</b>
	000-009	Null
	010-016	LEE 790 – Moroccan Pink
	017-023	LEE 157 – Pink
	024-030	LEE 332 – Special Rose Pink
	031-037	LEE 328 – Follies Pink
	038-044	LEE 345 – Fuchsia Pink
	045-051	LEE 194 – Surprise Pink
	052-058	LEE 181 – Congo Blue
	059-065	LEE 071 – Tokyo Blue
	066-072	LEE 120 – Deep Blue
	073-079	LEE 079 – Just Blue
	080-086	LEE 132 – Medium Blue
	087-093	LEE 200 – Double CT Blue
	094-100	LEE 161 – State Blue
	101-107	LEE 201 – Full CT Blue
	108-114	LEE 202 – Half CT Blue
	115-121	LEE 117 – Steel Blue
	122-128	LEE 353 – Lighter Blue
	129-135	LEE 118 – Light Blue
	136-142	LEE 116 – Medium Blue Green
	143-149	LEE 124 – Dark Green
31		

	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	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
32	000-255	<b>RING RED</b> 0%→100%
33	000-255	<b>RING GREEN</b> 0%→100%
34	000-255	<b>RING BLUE</b> 0%→100%
35	000-015 016-031 032-047 048-063 064-079 080-095 096-111 112-127 128-143 144-159 160-175 176-191 192-207 208-223 224-239 240-255	<b>RING MACRO EFFECT &amp; SPEED</b> Null Macro Effect 1, Fast to Slow Macro Effect 2, Fast to Slow Macro Effect 3, Fast to Slow Macro Effect 4, Fast to Slow Macro Effect 5, Fast to Slow Macro Effect 6, Fast to Slow Macro Effect 7, Fast to Slow Macro Effect 8, Fast to Slow Macro Effect 9, Fast to Slow Macro Effect 10, Fast to Slow Macro Effect 11, Fast to Slow Macro Effect 12, Fast to Slow Macro Effect 13, Fast to Slow Macro Effect 14, Fast to Slow Macro Effect 15, Fast to Slow
36	000-255	<b>DIMMER</b> 0%→100%
37	000-255	<b>DIMMER FINE</b>
38	000-007 008-015 016-131 132-139 140-181 182-189	<b>LED STROBE</b> Close Open Strobe from Slow to Fast Open Fast Open Slow Close from Slow to Fast Open

	190-231 232-239 240-247 248-255	Slow Open Fast Close from Slow to Fast Open Random Strobe from Slow to Fast Open
39	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	<b>RING STROBE</b> 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
40	000-255	<b>PAN/TILT SPEED</b> Fast to Slow
41	000-005 006-007 008-009 010-029 030-039 040-049 050-059 060-069 070-079 080-089 090-099 100-109 110-119 120-122 123 124 125 126 127 128 129 130 131 132 133 134 135	<b>FUNCTION</b> (To activate following functions, stop in DMX value for at least 3 seconds.) Null Null Null Null Dimmer Curve: Linear Dimmer Curve: Square Law Dimmer Curve: Inv SQ Law Dimmer Curve: S Curve Cooling Mode: Standard Cooling Mode: Quiet Null Led Frequency Setting Enable Led Frequency Setting Disable Null 900Hz 1000Hz 1100Hz 1200Hz 1300Hz 1400Hz 1500Hz 2500Hz 4000Hz 5000Hz 6000Hz 10KHz 15KHz

	136	20KHz
	137	25KHz
	138-139	Null
	140-149	Pan/Tilt Reset
	150-159	Effect Reset
	160-169	Head Invert: Yes
	170-179	Head Invert: No
	180-199	Null
	200-209	All Reset
	210-219	Dimmer Speed: Fast
	220-229	Dimmer Speed: Smooth
	230-255	Null

### 71 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
1	000-255	<b>PAN 1</b> 0°→59°
2	000-255	<b>PAN 1 FINE</b>
3	000-255	<b>TILT 1</b> 0°→221°
4	000-255	<b>TILT 1 FINE</b>
5	000-255	<b>LED 1 RED</b> 0%→100%
6	000-255	<b>LED 1 GREEN</b> 0%→100%
7	000-255	<b>LED 1 BLUE</b> 0%→100%
8	000-255	<b>LED 1 LIME</b> 0%→100%
9	000-255	<b>ZOOM 1</b> Wide→Narrow
10	000-255	<b>RING 1 RED</b> 0%→100%
11	000-255	<b>RING 1 GREEN</b> 0%→100%
12	000-255	<b>RING 1 BLUE</b> 0%→100%
13	000-015 016-031 032-047 048-063 064-079	<b>RING 1 MACRO EFFECT &amp; SPEED</b> Null Macro Effect 1, Fast to Slow Macro Effect 2, Fast to Slow Macro Effect 3, Fast to Slow Macro Effect 4, Fast to Slow

	080-095 096-111 112-127 128-143 144-159 160-175 176-191 192-207 208-223 224-239 240-255	Macro Effect 5, Fast to Slow Macro Effect 6, Fast to Slow Macro Effect 7, Fast to Slow Macro Effect 8, Fast to Slow Macro Effect 9, Fast to Slow Macro Effect 10, Fast to Slow Macro Effect 11, Fast to Slow Macro Effect 12, Fast to Slow Macro Effect 13, Fast to Slow Macro Effect 14, Fast to Slow Macro Effect 15, Fast to Slow
14	000-255	<b>PAN 2</b> 0°→59°
15	000-255	<b>PAN 2 FINE</b>
16	000-255	<b>TILT 2</b> 0°→221°
17	000-255	<b>TILT 2 FINE</b>
18	000-255	<b>LED 2 RED</b> 0%→100%
19	000-255	<b>LED 2 GREEN</b> 0%→100%
20	000-255	<b>LED 2 BLUE</b> 0%→100%
21	000-255	<b>LED 2 LIME</b> 0%→100%
22	000-255	<b>ZOOM 2</b> Wide→Narrow
23	000-255	<b>RING 2 RED</b> 0%→100%
24	000-255	<b>RING 2 GREEN</b> 0%→100%
25	000-255	<b>RING 2 BLUE</b> 0%→100%
26	000-015 016-031 032-047 048-063 064-079 080-095 096-111 112-127 128-143 144-159 160-175	<b>RING 2 MACRO EFFECT &amp; SPEED</b> Null Macro Effect 1, Fast to Slow Macro Effect 2, Fast to Slow Macro Effect 3, Fast to Slow Macro Effect 4, Fast to Slow Macro Effect 5, Fast to Slow Macro Effect 6, Fast to Slow Macro Effect 7, Fast to Slow Macro Effect 8, Fast to Slow Macro Effect 9, Fast to Slow Macro Effect 10, Fast to Slow



	176-191 192-207 208-223 224-239 240-255	Macro Effect 11, Fast to Slow Macro Effect 12, Fast to Slow Macro Effect 13, Fast to Slow Macro Effect 14, Fast to Slow Macro Effect 15, Fast to Slow
27	000-255	<b>PAN 3</b> 0°→59°
28	000-255	<b>PAN 3 FINE</b>
29	000-255	<b>TILT 3</b> 0°→221°
30	000-255	<b>TILT 3 FINE</b>
31	000-255	<b>LED 3 RED</b> 0%→100%
32	000-255	<b>LED 3 GREEN</b> 0%→100%
33	000-255	<b>LED 3 BLUE</b> 0%→100%
34	000-255	<b>LED 3 LIME</b> 0%→100%
35	000-255	<b>ZOOM 3</b> Wide→Narrow
36	000-255	<b>RING 3 RED</b> 0%→100%
37	000-255	<b>RING 3 GREEN</b> 0%→100%
38	000-255	<b>RING 3 BLUE</b> 0%→100%
39	000-015 016-031 032-047 048-063 064-079 080-095 096-111 112-127 128-143 144-159 160-175 176-191 192-207 208-223 224-239 240-255	<b>RING 3 MACRO EFFECT &amp; SPEED</b> Null Macro Effect 1, Fast to Slow Macro Effect 2, Fast to Slow Macro Effect 3, Fast to Slow Macro Effect 4, Fast to Slow Macro Effect 5, Fast to Slow Macro Effect 6, Fast to Slow Macro Effect 7, Fast to Slow Macro Effect 8, Fast to Slow Macro Effect 9, Fast to Slow Macro Effect 10, Fast to Slow Macro Effect 11, Fast to Slow Macro Effect 12, Fast to Slow Macro Effect 13, Fast to Slow Macro Effect 14, Fast to Slow Macro Effect 15, Fast to Slow

40	000-255	<b>PAN 4</b> 0°→59°
41	000-255	<b>PAN 4 FINE</b>
42	000-255	<b>TILT 4</b> 0°→221°
43	000-255	<b>TILT 4 FINE</b>
44	000-255	<b>LED 4 RED</b> 0%→100%
45	000-255	<b>LED 4 GREEN</b> 0%→100%
46	000-255	<b>LED 4 BLUE</b> 0%→100%
47	000-255	<b>LED 4 LIME</b> 0%→100%
48	000-255	<b>ZOOM 4</b> Wide→Narrow
49	000-255	<b>RING 4 RED</b> 0%→100%
50	000-255	<b>RING 4 GREEN</b> 0%→100%
51	000-255	<b>RING 4 BLUE</b> 0%→100%
52	000-015	<b>RING 4 MACRO EFFECT &amp; SPEED</b> Null
	016-031	Macro Effect 1, Fast to Slow
	032-047	Macro Effect 2, Fast to Slow
	048-063	Macro Effect 3, Fast to Slow
	064-079	Macro Effect 4, Fast to Slow
	080-095	Macro Effect 5, Fast to Slow
	096-111	Macro Effect 6, Fast to Slow
	112-127	Macro Effect 7, Fast to Slow
	128-143	Macro Effect 8, Fast to Slow
	144-159	Macro Effect 9, Fast to Slow
	160-175	Macro Effect 10, Fast to Slow
	176-191	Macro Effect 11, Fast to Slow
	192-207	Macro Effect 12, Fast to Slow
208-223	Macro Effect 13, Fast to Slow	
224-239	Macro Effect 14, Fast to Slow	
240-255	Macro Effect 15, Fast to Slow	
53	000-255	<b>PAN 5</b> 0°→59°
54	000-255	<b>PAN 5 FINE</b>
55	000-255	<b>TILT 5</b> 0°→221°

56	000-255	TILT 5 FINE
57	000-255	LED 5 RED 0%→100%
58	000-255	LED 5 GREEN 0%→100%
59	000-255	LED 5 BLUE 0%→100%
60	000-255	LED 5 LIME 0%→100%
61	000-255	ZOOM 5 Wide→Narrow
62	000-255	RING 5 RED 0%→100%
63	000-255	RING 5 GREEN 0%→100%
64	000-255	RING 5 BLUE 0%→100%
65	000-015	RING 5 MACRO EFFECT & SPEED Null
	016-031	Macro Effect 1, Fast to Slow
	032-047	Macro Effect 2, Fast to Slow
	048-063	Macro Effect 3, Fast to Slow
	064-079	Macro Effect 4, Fast to Slow
	080-095	Macro Effect 5, Fast to Slow
	096-111	Macro Effect 6, Fast to Slow
	112-127	Macro Effect 7, Fast to Slow
	128-143	Macro Effect 8, Fast to Slow
	144-159	Macro Effect 9, Fast to Slow
	160-175	Macro Effect 10, Fast to Slow
	176-191	Macro Effect 11, Fast to Slow
	192-207	Macro Effect 12, Fast to Slow
	208-223	Macro Effect 13, Fast to Slow
	224-239	Macro Effect 14, Fast to Slow
240-255	Macro Effect 15, Fast to Slow	
66	000-255	DIMMER 0%→100%
67	000-255	DIMMER FINE
68	000-007	LED 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

	232-239 240-247 248-255	Open Random Strobe from Slow to Fast Open
69	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	<b>RING STROBE</b> 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
70	000-255	<b>PAN/TILT SPEED</b> Fast to Slow
71	000-005 006-007 008-009 010-029 030-039 040-049 050-059 060-069 070-079 080-089 090-099 100-109 110-119 120-122 123 124 125 126 127 128 129 130 131 132 133 134 135 136	<b>FUNCTION</b> (To activate following functions, stop in DMX value for at least 3 seconds.) Null Null Null Null Dimmer Curve: Linear Dimmer Curve: Square Law Dimmer Curve: Inv SQ Law Dimmer Curve: S Curve Cooling Mode: Standard Cooling Mode: Quiet Null Led Frequency Setting Enable Led Frequency Setting Disable Null 900Hz 1000Hz 1100Hz 1200Hz 1300Hz 1400Hz 1500Hz 2500Hz 4000Hz 5000Hz 6000Hz 10KHz 15KHz 20KHz

137	25KHz
138-139	Null
140-149	Pan/Tilt Reset
150-159	Effect Reset
160-169	Head Invert: Yes
170-179	Head Invert: No
180-199	Null
200-209	All Reset
210-219	Dimmer Speed: Fast
220-229	Dimmer Speed: Smooth
230-255	Null

## 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 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.

### LED Timeout Use

### LED Too Hot Off

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

### LED Temp. 1/2/3/4/5 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.

## Network Error

Check whether the net model is installed in place.  
Check whether the net model is damaged.  
Check whether the network is normal.

## Pan 1/2/3/4/5 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 1/2/3/4/5 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 1/2/3/4/5 Encode No Find

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

## Pan 1/2/3/4/5 Encode Disable

Check whether the encoder on the pan is damaged.

### **Tilt 1/2/3/4/5 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 1/2/3/4/5 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 1/2/3/4/5 Encode No Find**

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

### **Tilt 1/2/3/4/5 Encode Disable**

Check whether the encoder on the tilt is damaged.

## Zoom 1/2/3/4/5 Reset 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 damage.

## Base Fan 1/2 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 1/2/3/4/5 Start Error

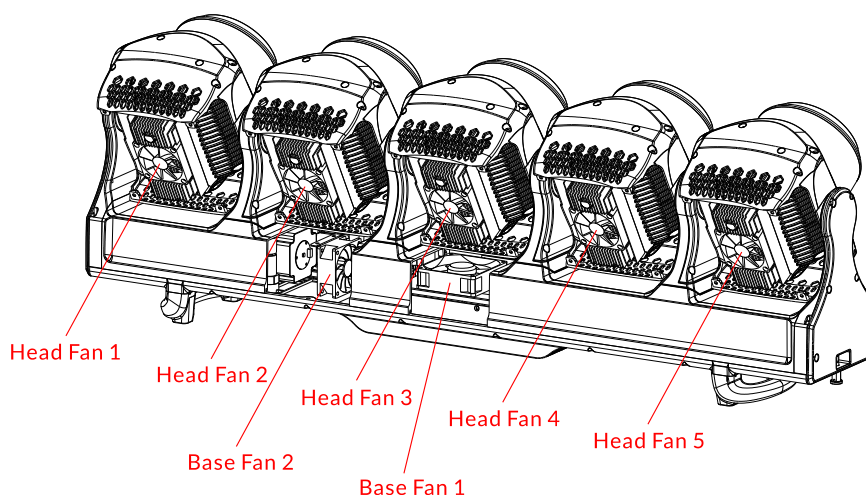
Check whether the fan is not running.

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:





## 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	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

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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

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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](http://www.acmelighting.com).



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