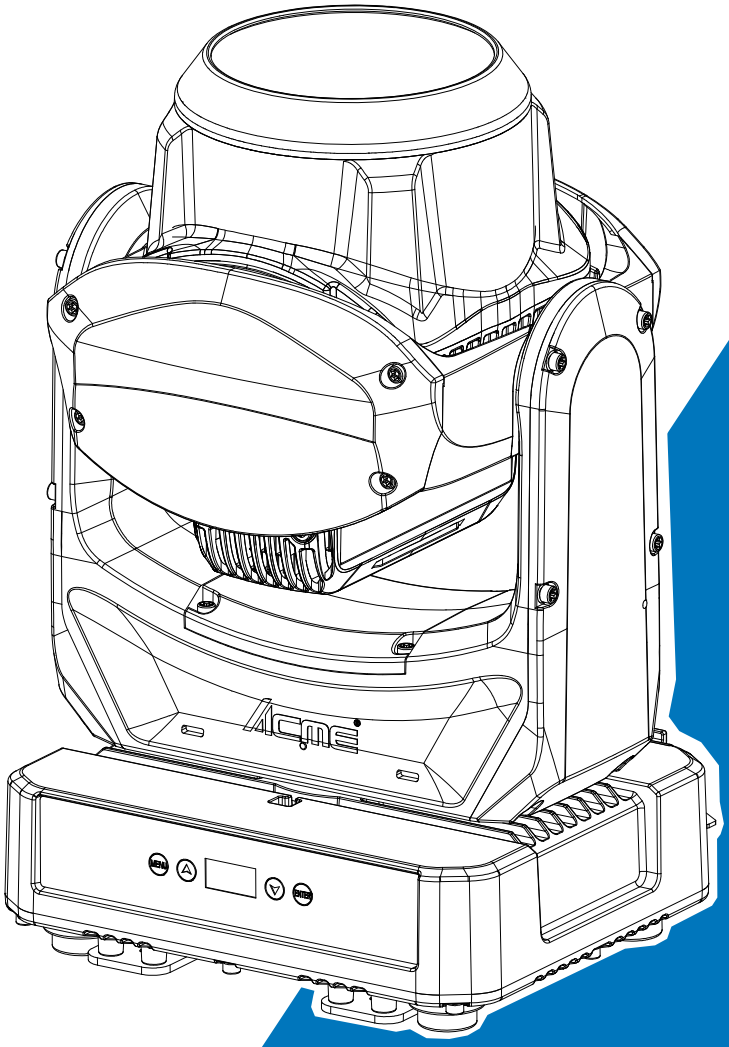
CYCLONE



User Manual

Please read the instruction carefully before use

CONTENTS

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 fixture to another user, be sure that they also receive this instruction manual.

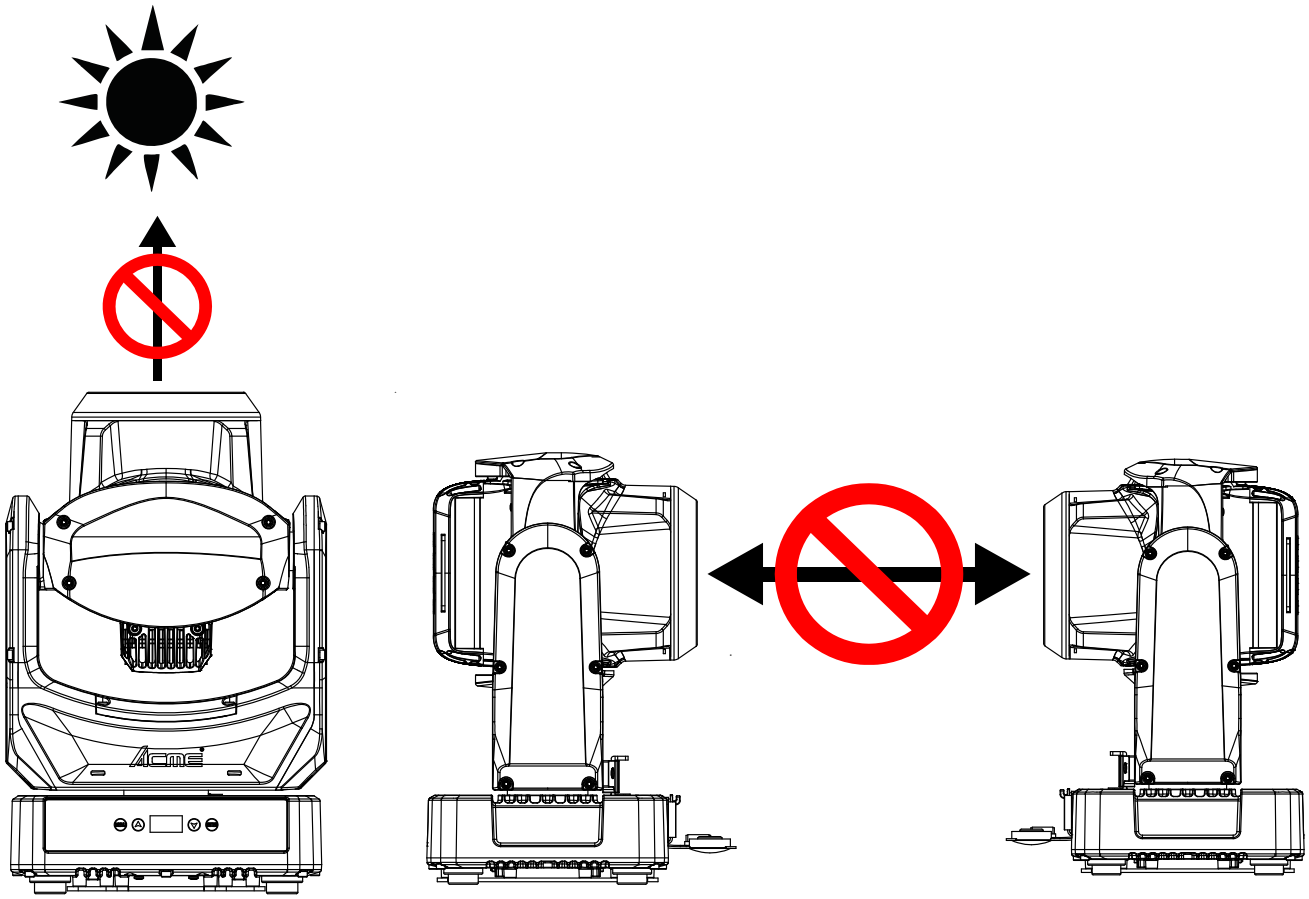
Important:

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 fixture.
- 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 cable when fixing the fixture. Handle the fixture by carrying its base instead of the head only.
- The fixture must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation holes are blocked, otherwise the fixture could over heat.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: 10˚C. Maximum ambient temperature TA: 45˚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.
- Fixture'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 fixture. If it happens, cut off the mains power immediately.
- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
- DO NOT touch any wiring during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- The minimum distance to objects/surface must be more than 0.5 meters.
- In the event of a serious operating problem, stop using the fixture immediately.
- Never turn the fixture off and on repeatedly.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- DO NOT open the housing as there are no user serviceable parts inside.
- DO NOT attempt to operate this fixture if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect this product from its power source before servicing.
- DO use the original packaging or suitable road case if the device is to be transported.
- 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 ambient 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.

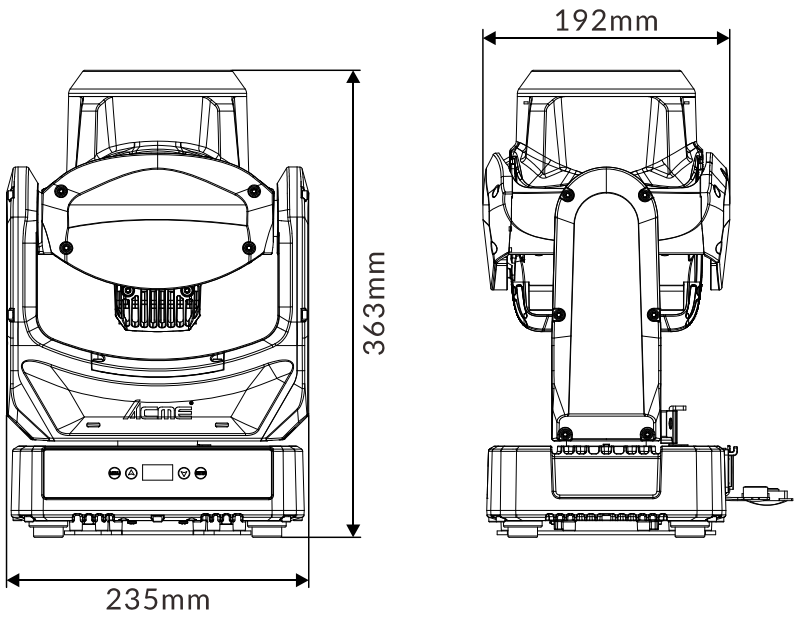
- Déballer et vérifier soigneusement qu'il n'y a pas de dommages dus au transport avant d'utiliser l'appareil.
- Ce produit est adapté aux endroits humides. Ne pas immerger dans l'eau.
- FAIRE installer et utiliser par un opérateur qualifié.
- NE PAS laisser les enfants manipuler l'appareil.
- Utiliser 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.
- Temp é rature ambiante minimale (TA): 10˚C. Temp é rature ambiante maximale (TA): 45˚C. Ne pas utiliser ce produit à une temp é rature inf é rieure ou sup é rieure.
- 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 75℃. 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.
- 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.

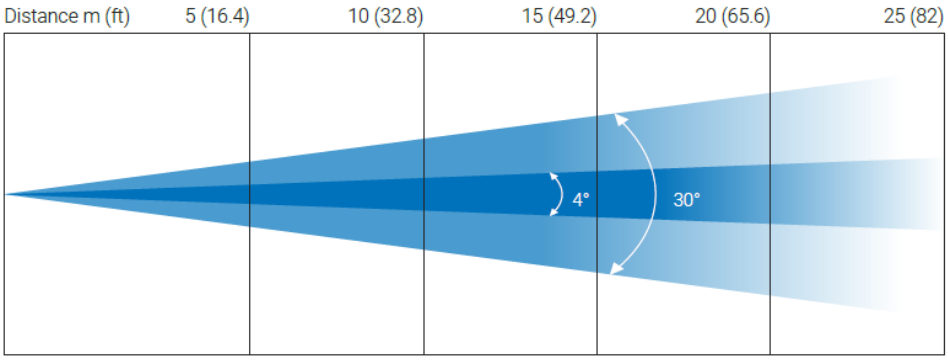
- L'appareil NE DOIT PAS être allumé immédiatement s'il a été exposé à de fortes variations de température (par exemple après un transport), car de la condensation pourrait se former à l'intérieur. Veuillez laisser l'appareil éteint jusqu'à ce qu'il ait atteint la température ambiante.
- Les sources 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	260W	
Light Source	1x150W RGBL LED	
	24x0.5W RGB LED	
Beam Angle	4°-26.5°	
Field Angle	5°-33°	
Movement	Pan	Infinity
	Tilt	220°
	16 bit movement resolution	
	Automatic pan/tilt repositioning	
Control and Programming	DMX Channels	27/50/58
	Protocols	DMX512
		RDM
		Art-Net
		sACN
	Firmware Update	via DMX
Construction	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
Dynamic Effects	0-100% continuous dimming and strobe effects	
	Smooth dimming 0-100% (4 user selectable dimming curves)	
	Variable color temperature control	
	Outstanding color mixing	
	Outstanding color macro effects	
	Beam/Wash Section:1x150W RGBL LED (Main Light)	
	Pixel/Strobe Section: 24 x 0.5W RGB LEDs (Outer Circle)	
Included Items	Power Cable	
	Two omega brackets with 1/4-turn fasteners	
	User Manual (this document)	
Dimensions	235x192x363mm	9.3"x7.6"x14.3"
Weight	8.5 kg	18.74lbs

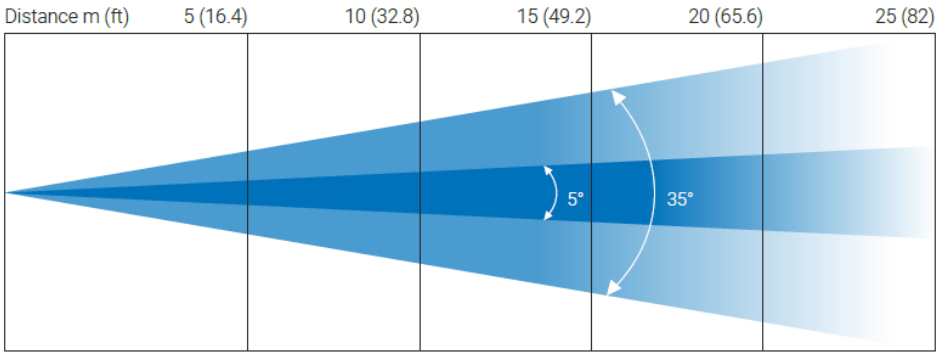


Photometric Diagram (Beam Angle):



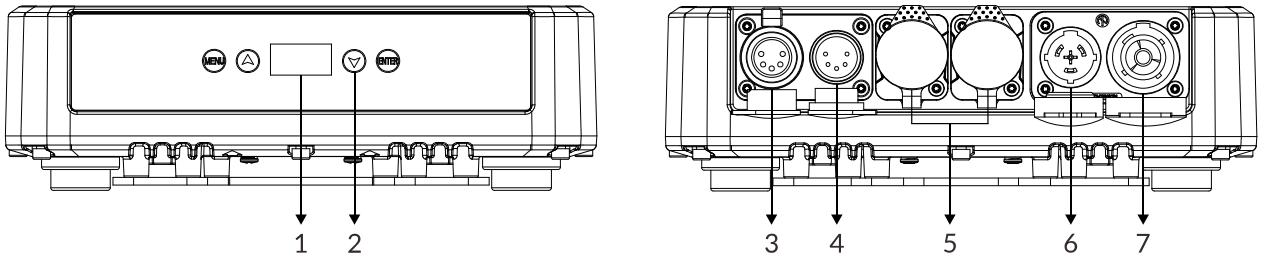
4°RGBL Lux	27,600	6,900	3,050	1,700	1,100
Diameter m (ft)	0.3 (1)	0.5 (1.6)	0.8 (2.6)	1.0 (3.3)	1.0 (3.3)
30°RGBL Lux	800	200	90	50	32
Diameter m (ft)	2.7 (8.9)	5.4 (17.7)	8.4 (27.6)	10.7 (35.1)	13.1 (43)

Photometric Diagram (Field Angle):



5°RGBL Lux	27,600	6,900	3,050	1,700	1,100
Diameter m (ft)	0.4 (1.3)	0.7 (2.3)	1.1(3.6)	1.4 (4.6)	1.8 (5.9)
35°RGBL Lux	800	200	90	50	32
Diameter m (ft)	3.2 (10.5)	6.3 (20.7)	9.5 (31.2)	12.6 (41.3)	15.8 (51.8)

03/ Overview



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

3.1 Battery Power

This product contains a rechargeable battery.

Battery type: 14500 Lithium-ion battery (3.7V, 800mA, 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 ‘Fixture Test’ and ‘Reset Function’ are not available.

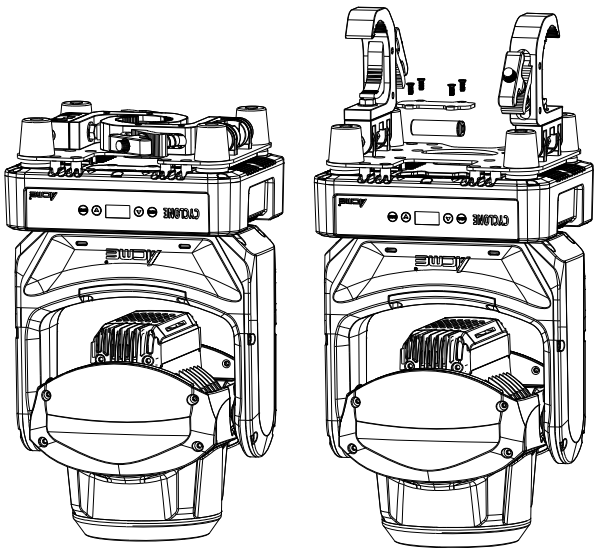
To activate the display when the fixture is not connected to power, press and hold the [▲ UP] button for 3 seconds. The display extinguishes after 30 seconds with no user input. Press and hold the [▲ UP] button for 3 seconds again to re-activate.

Battery Replacement:

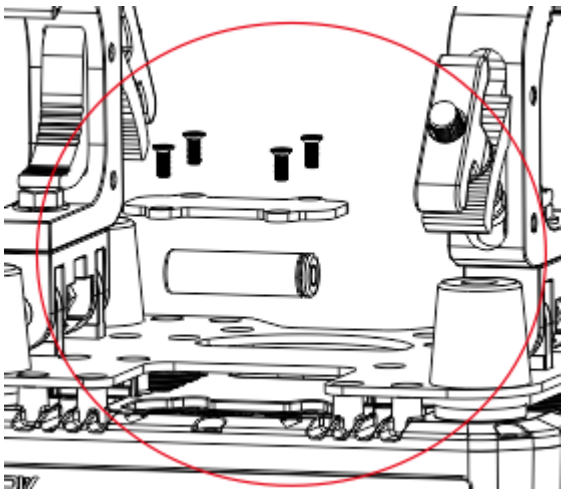
Warning! Disconnect the fixture from AC power before replacing its battery. Replace the battery with one of the same type only.

1. Disconnect the fixture from AC mains power and allow to cool.

2. Remove six screws in the button of the fixture and 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).



5. Reinstall the arm cover and check that it is close securely before reapplying power.

04/ Connecting Power and Data

4.1 Connecting Power

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

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

The maximum power consumption is 260W.

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

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

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

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

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).

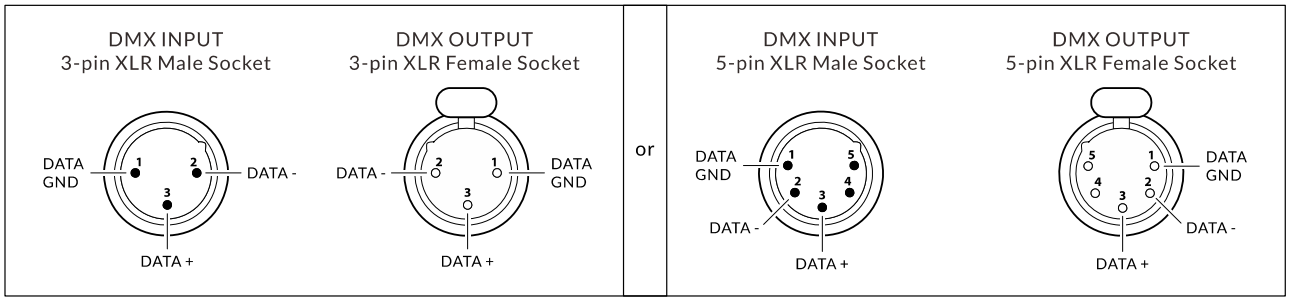
CAUTION!

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 shielded twisted-pair high-quality DMX cable designed for RS-485 fixtures in order to connect the controller with the fixture and one fixture with another. For outdoor installations, use only waterproof DMX cables suitable for outdoor use.

The default pin-out on XLR sockets is as the following diagram:



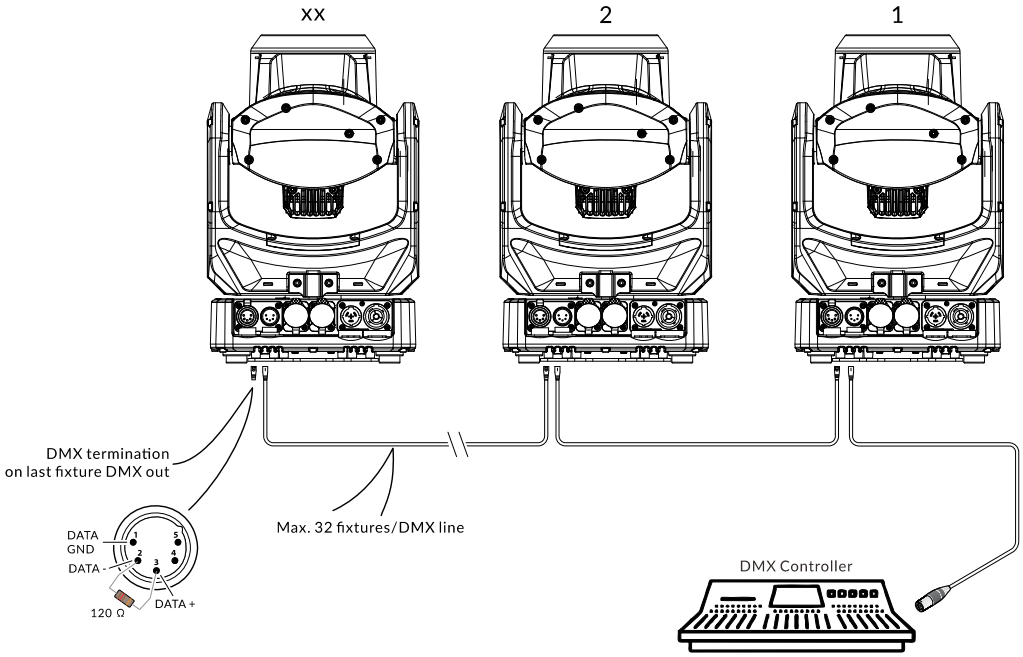
Building a serial DMX chain:

1. Connect the DMX data output from the controller to the fixture's data input socket.

2. 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.

Note: Up to 32 fixtures can be connected to the same DMX link.

3. Terminate the DMX output of the last fixture in the data link with a DMX terminator which is an XLR plug with a 120 Ω, 1/4 watt resistor connected between pins 2 and 3.



05/ Fixture Installation

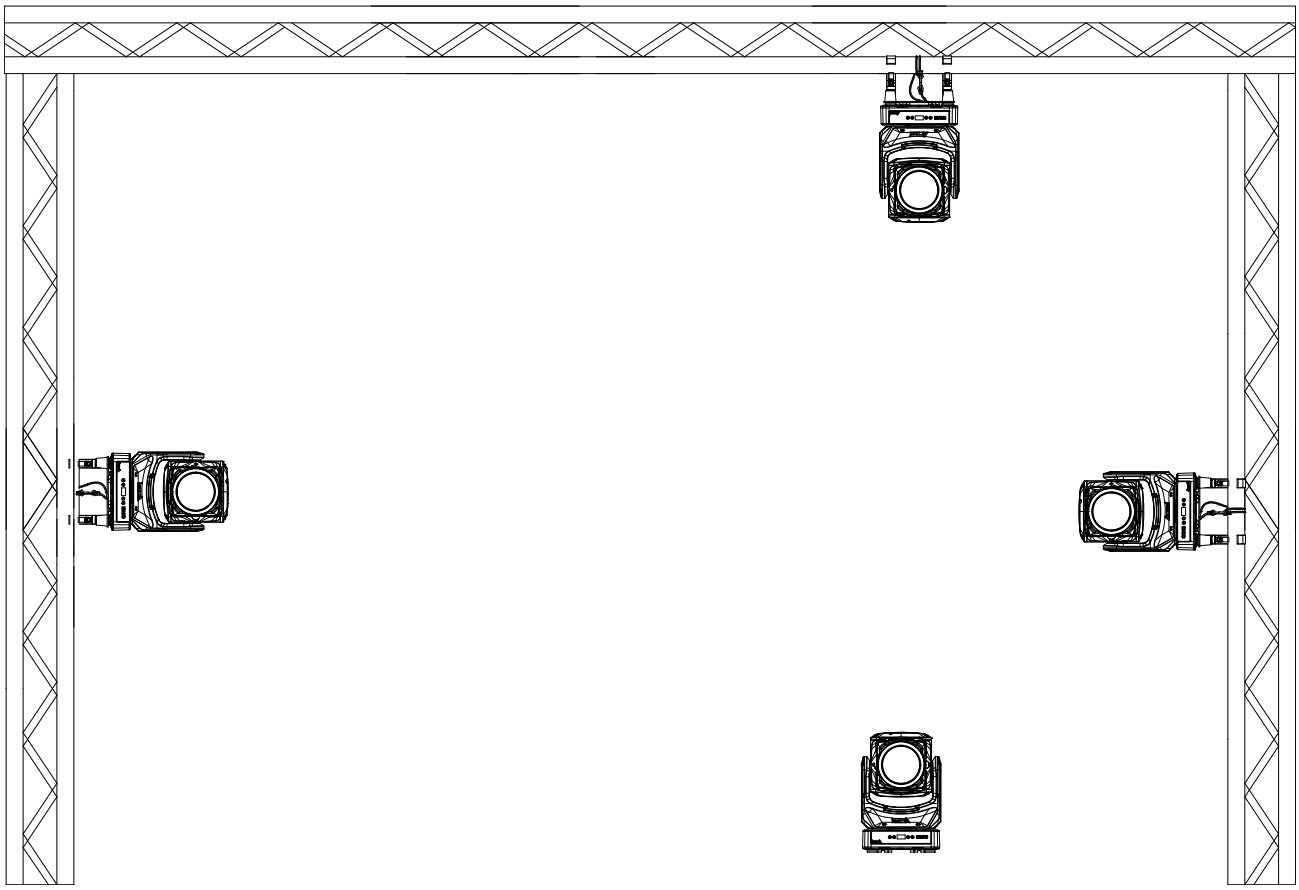
The fixture is IP66-rated and designed for both indoor and outdoor events. This means that it is protected from:

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

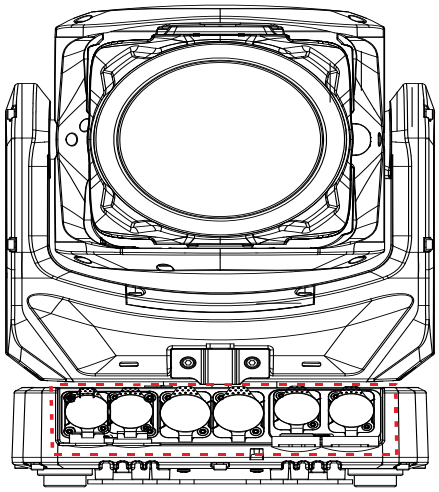
DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas were unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.

Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always attach a safety cable (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.

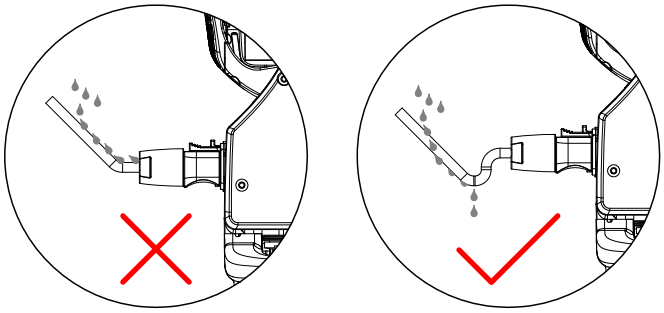
This fixture is fully operational in three different mounting positions: hanging upside-down, mounted sideways on truss, or base positioned on floor. Always use and install a safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.



- Use only waterproof 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 power and data connectors are equipped with rubber caps to prevent water ingress.
  All unused panel connectors have to be sealed by the rubber caps to avoid contact with water, especially seawater.



- When routing cables, always bring them into connectors from below. Form a service loop where needed, allowing gravity to divert condensation and water droplets away from the connectors.



- To ensure the long-term reliable performance of the fixture, it is recommended to perform external cleaning and maintenance every one to two months. Promptly remove corrosive residues such as acidic substances and sea salt deposits attached to the surface of the fixture to slow down the oxidation process of the housing. Additionally, inspect and clean protective grilles and other structures to prevent small organisms like insects from entering the interior, avoiding functional abnormalities or fan blockages caused by the accumulation of insect remains.

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	1-487 (27 CH)	(Default=1)	
		1-464 (50 CH)		
		1-456 (58 CH)		
	DMX Channel Mode	27 CH		
		50 CH		
		58 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)
		Subnet	0-15	(Default=0)
		Universe	0-15	(Default=0)
	sACN Settings	Universe	1-32000	(Default=1)

MAIN MENU	SUBMENU	CHOICES/VALUES		
		Priority	0-200	(Default=100)
	Network to DMX	No		
		Yes		
Fixture Settings	Pan Invert	No		
		Yes		
	Tilt Invert	No		
		Yes		
	Roll Invert	No		
		Yes		
	P/T Feedback	No		
		Yes		
	Dimmer Curve	Linear		
		Square Law		
		Inv SQ Law		
		S Curve		
	Dimmer Speed	Fast		
		Smooth		
	White Balance	Red	125-255	
		Green	125-255	
		Blue	125-255	
	LED Refresh Rate	900Hz		
		1000Hz		
		1100Hz		
		1200Hz		
		1300Hz		
		1400Hz		
		1500Hz		
		2500Hz		
		4000Hz		
		5000Hz		
		6000Hz		
		10KHz		
		15KHz		
		20KHz		
		25KHz		
	Fan Mode	Auto		
		Quiet		
		Super Quiet		
	Dimmer Start Mode	High		

MAIN MENU	SUBMENU	CHOICES/VALUES			
		Low			
	CCT Calibration	Off			
		On			
	Sun Protection Mode	Off			
		On			
	Pan Roll Swap	Yes			
		No			
Display Settings	Display Invert	No			
		Yes			
	Temperature Unit	°C			
		°F			
Fixture Test	Auto Test	Single			
		Cycle			
	Manual Test	Mode 1		Mode 2	
		Clear	No/Yes	Clear	No/Yes
	Use Hour	Fixture			
		Light Source	Total		
			Light On		
			Reset	Password=050	
	Temperature		Current	Max Temp	
		Light Source			
	Fan State				
	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	Send Upgrade	No			

MAIN MENU	SUBMENU	CHOICES/VALUES
		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
27 CH	1-486
50 CH	1-463
58 CH	1-455

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 **27 CH, 50 CH,** and **58 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, Subnet** 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, Roll Invert, P/T Feedback, Dimmer Curve, Dimmer Speed, White Balance, LED Refresh Rate, Fan Mode, Dimmer Start Mode, CCT Calibration, Sun Protection Mode** or **Pan Roll Swap.**

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.

Roll Invert

Select **Roll Invert,** press ENTER.

Use UP/DOWN button to select **No** (Roll invert deactivated) or **Yes** (roll 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.

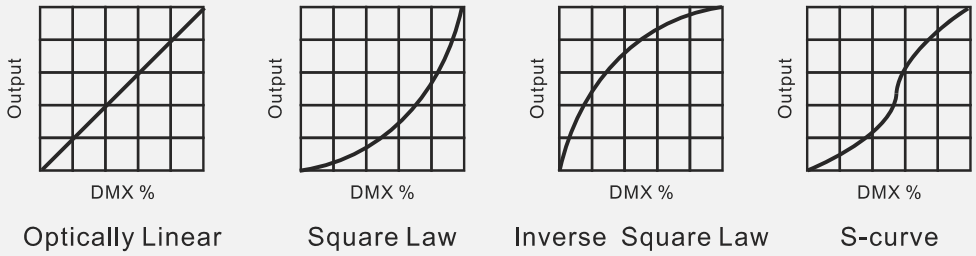
To exit the menu, press MENU, or wait 30 seconds.

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



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,** 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.

Fan Mode

Select **Fan 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.

Dimmer Start Mode

Select **Dimmer 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.

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.

Sun Protection Mode (Set the 'Sun Protection Mode' to 'On' when using the fixture outdoors.)

Select Sun Protection Mode, press ENTER.
Use UP/DOWN button to select Off (sun protection mode deactivated) or On (The fixture will turn off the light source and automatically turn its head to a horizontal position when no signal is detected, preventing damage to optical components or internal parts from prolonged direct sunlight exposure.), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Pan Roll Swap

Select **Pan Roll Swap** in the menu, then press **ENTER**.
Use the **UP/DOWN** buttons to choose **Off** (normal channel relationship) or **On** (channel relationship swapped), then press **ENTER** to confirm.
To exit the menu, press the **MENU** button, or wait **30** seconds for

Display Settings

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

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.

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 **Use Hour, Light Source, Temperature, Fan State, Firmware Version, RDM UID** or **Error Logs.**

Use Hour

Select **Use Hour,** press ENTER.
The operating hours is displayed.
To exit the menu, press MENU, or wait 30 seconds.

Light Source

Select **Light Source,** press ENTER.
Use UP/DOWN button to select **Total** (total time) or **Light On** (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 **Reset**, confirm your selection with ENTER.
Use UP/DOWN button to set the password 050, confirm your selection with ENTER. The Light Source operating hours is reset.
To exit the menu, press MENU, or wait 30 seconds.

Temperature

Select **Temperature,** press ENTER.
The device temperature is displayed.
To exit the menu, press MENU, or wait 30 seconds.

Fan State

Select **Fan State,** press ENTER.
The fan status is displayed.
To exit the menu, press MENU, or wait 30 seconds.

Firmware Version

Select **Firmware Version,** press ENTER.
The firmware version is displayed.
To exit the menu, press MENU, or wait 30 seconds.

RDM UID

Select **RDM UID,** press ENTER.
The RDM UID is displayed.
To exit the menu, press MENU, or wait 30 seconds.

Error Logs

Select **Error Logs,** press ENTER.
Use UP/DOWN button to select **Fixture Errors**, confirm your selection with ENTER.
The error list is displayed.
Use UP/DOWN button to select **Reset Error Log**, confirm your selection with ENTER.
If you wish to reset the relevant error logs, select **Yes**. If you do not wish to reset anything, select **No**. Confirm your selection with ENTER.
If you select **Yes**, use UP/DOWN button to set the password 050, confirm your selection with ENTER. The relevant error logs are reset.
To exit the menu, press MENU, or wait 30 seconds.

Reset 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 **Send Upgrade, Firmware Restore** or **Factory Settings.**

Send Upgrade

Select **Send Upgrade,** press ENTER.

If you wish to send upgrade files from this fixture to other fixtures to upgrade their firmware, select **Yes**. Then use UP/DOWN button to select **DMX** (send upgrade via DMX) or **NET** (send upgrade via Ethernet), confirm your selection with ENTER. Once selected, the display of this fixture will show "**Sending Packet, Please Wait...**" while the display of other 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 (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 "**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(Via DMX/Network)

This fixture **does NOT support local USB firmware update.**

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.

To upgrade the firmware, use another ACME fixture equipped with a USB port to function as an IU-02 transfer unit.

1. Copy the CYCLONE firmware file (e.g., CM 150 IP-V00-90024.yfu) to a USB flash drive and insert it into the transfer fixture.
2. Connect the transfer fixture and the CYCLONE via DMX cable or Ethernet network.
3. On the transfer fixture, perform the following steps in sequence:
- Enter the **[USB UPGRADE]** menu
- Select the firmware file **[CM 150 IP-V00-90024.yfu]**
- Click **[Yes]**
- Select **[Network/DMX Upgrade]** mode, and send the file to the CYCLONE
4. During the upgrade, the CYCLONE display will show "Upgrading, Please Wait...".
   Do NOT disconnect power to either fixture during the entire upgrade process.
5. After the upgrade is complete, the CYCLONE will reset automatically.

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

The parameter IDs are implemented as follows for different commands:

Standard RDM Parameter IDs

PID	Parameter IDs	Command 'Discovery'	Command 'Set'	Command 'Get'
0x0001	DISC_UNIQUE_BRANCH	√		
0x0002	DISC_MUTE	√		
0x0003	DISC_UN_MUTE	√		
0x0050	SUPPORTED_PARAMETERS			√
0x0051	PARAMETER_DESCRIPTION			√
0x0060	DEVICE_INFO			√
0x0080	DEVICE_MODEL_DESCRIPTION			√
0x0081	MANUFACTURER_LABEL			√
0x0082	DEVICE_LABEL		√	√
0x0090	FACTORY_DEFAULTS		√	√
0x00C0	SOFTWARE_VERSION_LABEL			√
0x00C1	BOOT_SOFTWARE_VERSION_ID			√
0x00C2	BOOT_SOFTWARE_VERSION_LABEL			√
0x00E0	DMX_PERSONALITY		√	√
0x00E1	DMX_PERSONALITY_DESCRIPTION			√
0x00F0	DMX_START_ADDRESS		√	√
0x0121	SLOT_DESCRIPTION			√
0x0200	SENSOR_DEFINITION			√
0x0201	SENSOR_VALUE			√
0x0343	CURVE		√	√
0x0344	CURVE_DESCRIPTION			√
0x0347	MODULATION_FREQUENCY			√
0x0348	MODULATION_FREQUENCY_DESCRIPTION			√
0x0400	DEVICE_HOURS			√
0x0401	LAMP_HOURS			√
0x0600	PAN_INVERT		√	√
0x0601	TILT_INVERT		√	√
0x1000	IDENTIFY_DEVICE		√	√
0x1001	RESET_DEVICE		√	√

√ -Command implemented for the respective parameter ID

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	-128~127
Tilt	-128~127
Pan2	-128~127
Zoom	-128~127
Effect	-128~127
Red	-128~127
Green	0~255
Blue	0~255
Lime	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
10KHz	9872~10127
15KHz	14872~15127
20KHz	19872~20127
25KHz	24872~25127

Pan

Select **Pan ,** press ENTER.

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

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

Tilt

Select **Tilt ,** press ENTER.

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

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

Pan 2

Select **Pan 2,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Zoom

Select **Zoom ,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Effect

Select **Effect,** 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.

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 to27 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 28. As the first fixture uses all the first 27 DMX channels, the next available channel is 28 (27+1=28 >> 28).
See the chart below for more details:

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address	Unit xxx Address
27 channels	1	28	55	82	.....
50 channels	1	51	101	151	.....
58 channels	1	59	117	175	.....
18 channels	1	19	37	55	
170 channels	1	171	341		

7.2 DMX Protocol

Valid from firmware version: V1.1

CHANNEL			VALUE	FUNCTION
27CH	50CH	58CH		
1	1	1	000-255	**PAN 1** 0°→60°
2	2	2	000-255	**PAN 1 FINE**
3	3	3	000-255	**TILT 1** 0°→220°
4	4	4	000-255	**TILT 1 FINE**
5	5	5	000-255	**ROLL** 0%→100%
6	6	6	000-255	**ROLL FINE** 0%→100%
7	7	7	000-127 128-189 190-193 194-255	**PAN INFINITY** No function Counter-Clockwise rotation, fast to slow Stop Clockwise rotation, slow to fast
8	8	8	000-255	**ZOOM** 0%→100%
9	9	9	000-255	**ZOOM FINE**
10			000-007 008-022 023-037 038-052	**EFFECT** No Effect Effect 1 Square Effect 2 Square Effect 1 Shaking Square

			053-067 068-082 083-097 098-112 113-127 128-147 148-167 168-187 188-221 222-255	Effect 2 Shaking Square Effect 1 Cross Effect 2 Cross Effect 1 Shaking Cross Effect 2 Shaking Cross No Effect Effect 1 Effect 2 Effect 1 Shaking Effect 2 Shaking
	10	**10**	000-147 148-167 168-187 188-221 222-255	**EFFECT** No Effect Effect1 Effect2 Effect1 Shaking Effect2 Shaking
11			000-255	**RED** 0%→100%
12			000-255	**GREEN** 0%→100%
13			000-255	**BLUE** 0%→100%
14			000-255	**LIME** 0%→100%
	11	**11**	000-255	**RED 1** 0%→100%
		12	000-255	**RED 1 FINE** 0%→100%
	12	**13**	000-255	**GREEN 1** 0%→100%
		14	000-255	**GREEN 1 FINE** 0%→100%
	13	**15**	000-255	**BLUE 1** 0%→100%
		16	000-255	**BLUE 1 FINE** 0%→100%
	14	**17**	000-255	**LIME 1** 0%→100%
		18	000-255	**LIME 1 FINE** 0%→100%
	15	**19**	000-255	**RED 2** 0%→100%
		20	000-255	**RED 2 FINE** 0%→100%
	16	**21**	000-255	**GREEN 2**

				0%→100%
		22	000-255	GREEN 2 FINE 0%→100%
	17	23	000-255	BLUE 2 0%→100%
		24	000-255	BLUE 2 FINE 0%→100%
	18	25	000-255	LIME 2 0%→100%
		26	000-255	LIME 2 FINE 0%→100%
15	19	27	000-255	Crossfade 0%→100%
16	20	28	000 001– 004 005– 009 010– 013 014– 018 019– 022 023– 027 028– 031 032– 036 037– 040 041– 045 046– 049 050– 054 055– 058 059– 063 064– 067 068– 072 073– 076 077– 081 082– 085 086– 090 091– 094 095– 099 100– 103 104– 108 109– 112 113– 117 118– 121 122– 126 127– 130 131– 135 136– 139	CTO NULL 8000K 7900K 7800K 7700K 7600K 7500K 7400K 7300K 7200K 7100K 7000K 6900K 6800K 6700K 6600K 6500K 6400K 6300K 6200K 6100K 6000K 5900K 5800K 5700K 5600K 5500K 5400K 5300K 5200K 5100K 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
17				COLOR MACRO
			000-009	Open
			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

			150-156 157-163 164-170 171-177 178-184 185-191 192-198 199-205 206-212 213-219 220-226 227-233 234-240 241-255	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 Rainbow Macro Slow->Fast
18			000-255	**RING RED** 0%→100%
19			000-255	**RING GREEN** 0%→100%
20			000-255	**RING BLUE** 0%→100%
21			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	**RING EFFECT MARCO** NO FUNCTION Macro 1 Fast->Slow Macro 2 Fast->Slow Macro 3 Fast->Slow Macro 4 Fast->Slow Macro 5 Fast->Slow Macro 6 Fast->Slow Macro 7 Fast->Slow Macro 8 Fast->Slow Macro 9 Fast->Slow Macro 10 Fast->Slow Macro 11 Fast->Slow Macro 12 Fast->Slow Macro 13 Fast->Slow Macro 14 Fast->Slow Macro 15 Fast->Slow
	21	**29**	000-255	**RING 1 RED** 0%→100%
	22	**30**	000-255	**RING 1 GREEN** 0%→100%
	23	**31**	000-255	**RING 1 BLUE** 0%→100%
	24	**32**	000-255	**RING 2 RED** 0%→100%
	25	**33**		**RING 2 GREEN**

			000-255	0%→100%
	26	34	000-255	RING 2 BLUE 0%→100%
	27	35	000-255	RING 3 RED 0%→100%
	28	36	000-255	RING 3 GREEN 0%→100%
	29	37	000-255	RING 3 BLUE 0%→100%
	30	38	000-255	RING 4 RED 0%→100%
	31	39	000-255	RING 4 GREEN 0%→100%
	32	40	000-255	RING 4 BLUE 0%→100%
	33	41	000-255	RING 5 RED 0%→100%
	34	42	000-255	RING 5 GREEN 0%→100%
	35	43	000-255	RING 5 BLUE 0%→100%
	36	44	000-255	RING 6 RED 0%→100%
	37	45	000-255	RING 6 GREEN 0%→100%
	38	46	000-255	RING 6 BLUE 0%→100%
	39	47	000-255	RING 7 RED 0%→100%
	40	48	000-255	RING 7 GREEN 0%→100%
	41	49	000-255	RING 7 BLUE 0%→100%
	42	50	000-255	RING 8 RED 0%→100%
	43	51	000-255	RING 8 GREEN 0%→100%
	44	52	000-255	RING 8 BLUE 0%→100%
22	45	53	000-255	DIMMER 0%→100%
23	46	54	000-255	DIMMER FINE 0%→100%

24	47	55		**LED STROBE**
			000-007	Close
			008-015	Open
			016-131	Strobe Slow->Fast
			132-139	Open
			140-181	Fast Open Slow Close
			182-189	Open
			190-231	Fast Close Slow Open
			232-239	Open
			240-247	Random Strobe Slow >Fast
			248-255	Open
25	48	56		**RING STROBE**
			000-007	Close
			008-015	Open
			016-131	Strobe Slow->Fast
			132-139	Open
			140-181	Fast Open Slow Close
			182-189	Open
			190-231	Fast Close Slow Open
			232-239	Open
			240-247	Random Strobe Slow >Fast
			248-255	Open
26	49	57	000-255	Pan/Tilt Speed

				FUNCTION (To activate following functions, stop in DMX value for at least 3 seconds.)
			000-029	No Function
			030-039	Dimmer Linear
			040-049	Square law
			050-059	Inv SQ law
			060-069	S curve
			070-079	Power Mode Standard
			080-089	Power Mode Quiet
			090-099	No Function
			100-109	Led Frequency Setting Enable
			110-119	Led Frequency Setting Disable
			120-122	No Function
			123	900Hz
			124	1000Hz
			125	1100Hz
			126	1200Hz
			127	1300Hz
			128	1400Hz
			129	1500Hz
			130	2500Hz
			131	4000Hz
27	50	58	132	5000Hz
			133	6000Hz
			134	10000Hz
			135	15000Hz
			136	20000Hz
			137	25000Hz
			138-139	No Function
			140-149	Pan/tilt Reset
			150-159	Effect Reset
			160-179	No function
			180-181	Sun Protection Mode: On
			182-183	Sun Protection Mode: Off
			184-199	No function
			200-209	Reset all
			210-219	Dimmer Speed Fast
			220-229	Dimmer Speed Smooth
			230	Dimming Start Mode: High
			231	Dimming Start Mode: Low
			232-237	No function
			238-239	CCT Calibration On
			240-241	CCT Calibration Off
			242-243	Pan Roll Swap: Yes
			244-245	Pan Roll Swap: No
			246	Pan Invert: Yes
			247	Pan Invert: No

			248	Tilt Invert: Yes
			249	Tilt Invert: No
			250	Roll Invert: Yes
			251	Roll Invert: No
			252-255	No function

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 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.

Light Source Timeout Use

When the fixture exceed the light source rated lifetime. Please Replace the Light Source.

Light Source Too Hot Off

When the fixture temperature reaches 75℃, it will automatically turn off to protect the fixture.

Light Source Temp. Error

Check whether the temperature detecting board is normal.
Check whether the components of the temperature detecting board are damaged.
Check whether the lead on the temperature detecting board is installed in place or disconnected.

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 Reset Error

Check whether the position of the pan where the magnet is installed falls off or is damaged.
Check whether there are obstacles in the pan operating range.
Check whether the Hall element on the pan is damaged.
Check whether the lead connecting the Hall element on the pan and the PCB board is in poor contact or disconnected.
Check whether the motor on the pan is damaged.
Check whether the related circuit of the motor drive board on the pan is damage.

Pan Encode Error

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

Pan Encode No Find

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

Pan Encode Disable

Check whether the encoder on the pan is damaged.

Tilt Reset Error

Check whether the position of the tilt where the magnet is installed falls off or is damaged.
Check whether there are obstacles in the tilt operating range.
Check whether the Hall element on the tilt is damaged.
Check whether the lead connecting the Hall element on the tilt and the PCB board is in poor contact or disconnected.
Check whether the motor on the tilt is damaged.
Check whether the related circuit of the motor drive board on the tilt is damage.

Tilt Encode Error

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

Tilt Encode No Find

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

Tilt Encode Disable

Check whether the encoder on the tilt is damaged.

Pan2 Encode No Find

Check whether the lead connecting the encoder on the pan2 and the PCB board is in poor contact or disconnected.

Pan2 Encode Disable

Check whether the encoder on the pan2 is damaged.

Pan2 Reset Error

Check whether the position of the pan2 where the magnet is installed falls off or is damaged.
Check whether there are obstacles in the pan2 operating range.
Check whether the Hall element on the pan2 is damaged.
Check whether the lead connecting the Hall element on the pan2 and the PCB board is in poor contact or disconnected.
Check whether the motor on the pan2 is damaged.
Check whether the related circuit of the motor drive board on the pan2 is damage.

Zoom 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.

Effect Reset Error

Check whether effect compatibility with your fixture model
Check whether the effect reset are installed in place or disconnected.
Check control system communication (wired/wireless)

Head Fan1 Start Error

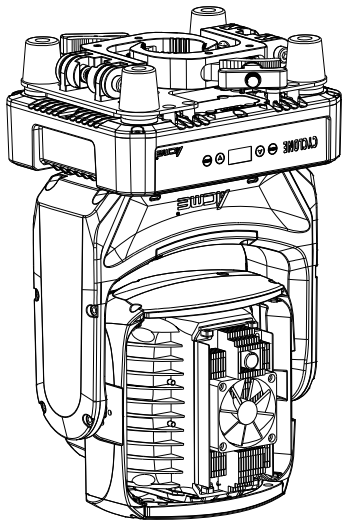
Check whether the fan is not running.
Check whether the fan leads are installed in place or disconnected.
Check whether the fan is damaged.
Check whether there are obstacles in the fan operating range.

External Flash Error

Check whether the external flash storage device is properly inserted and secured.

Check whether the flash storage device is damaged or its file format is incompatible.

Position of cooling fans:



Cooling Fans	Part Number	V	W	Position
Head Fan 1	3014001453	DC 24V	3.6W	Head - D

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.
Moisture on Lens Glass	Excessive ambient humidity or internal residual moisture	Keep the fixture powered on and lit until the moisture condenses into visible water droplets.
		Turn off the light output but keep the fixture powered on in standby mode for at least 12 hours. The built-in electrolytic dehumidifier will operate continuously to eliminate internal moisture.
		Power on and test the fixture again. If condensation remains, repeat the above steps until the moisture is completely removed.

Notes:

1. Fogging on Lens Glass procedure applies only to Tornado with S/N after TF-042600151 and AE-022609823 is referring to this instruction.

10/ Fixture Cleaning

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

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

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

Follow these precautions when cleaning the fixture:

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

11/ Approvals and Certifications

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

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

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

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