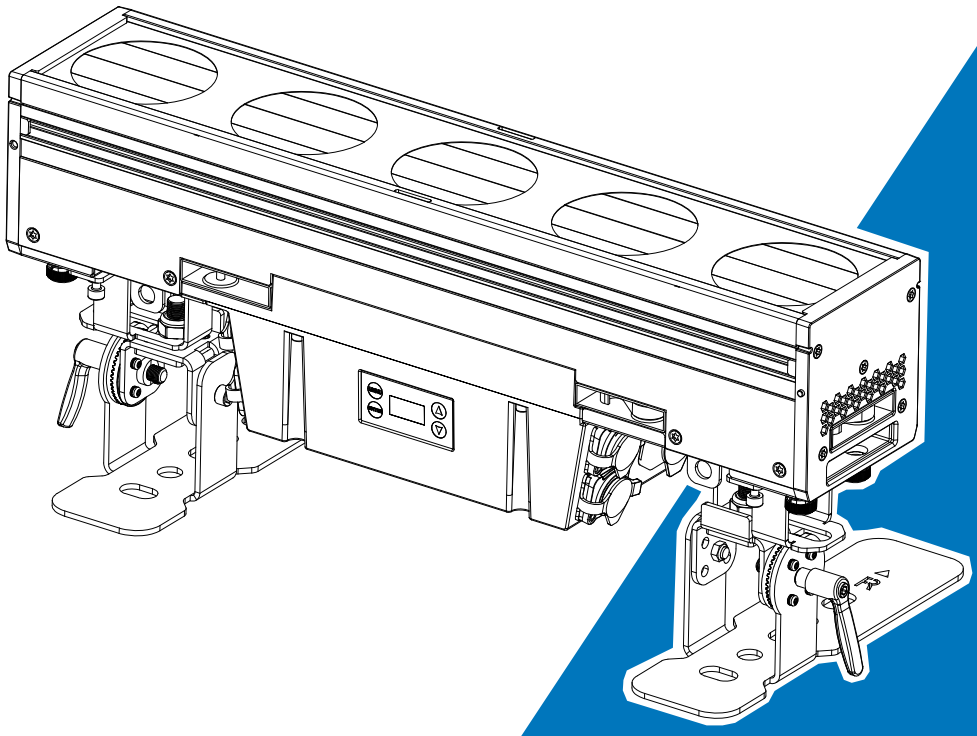
LINEFORCE 5 IP



User Manual

Please read the instruction carefully before use

CONTENTS

01/ Safety Information 2
01/ Informations de sécurité 5
02/ Technical Specifications 8
03/ Overview 10
04/ Connecting Power and Data 11
4.1 Connecting Power 11
4.2 Connecting Data 12
05/ Fixture Installation 13
5.1 Stand the Fixture on the Floor 14
5.2 Hanging the Fixture 17
5.3 Connecting and Aligning Multiple Fixtures 20
06/ Operation 22
6.1 Control Menu 22
6.2 Home Position Adjustment 37
07/ Configuring the Device for DMX Control 41
7.1 Address Setting 41
7.2 DMX Protocol 42
08/ Error Information 48
09/ Troubleshooting 51
10/ Fixture Cleaning 51
11/ Approvals and Certifications 52

01/ Safety Information

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

WARNING

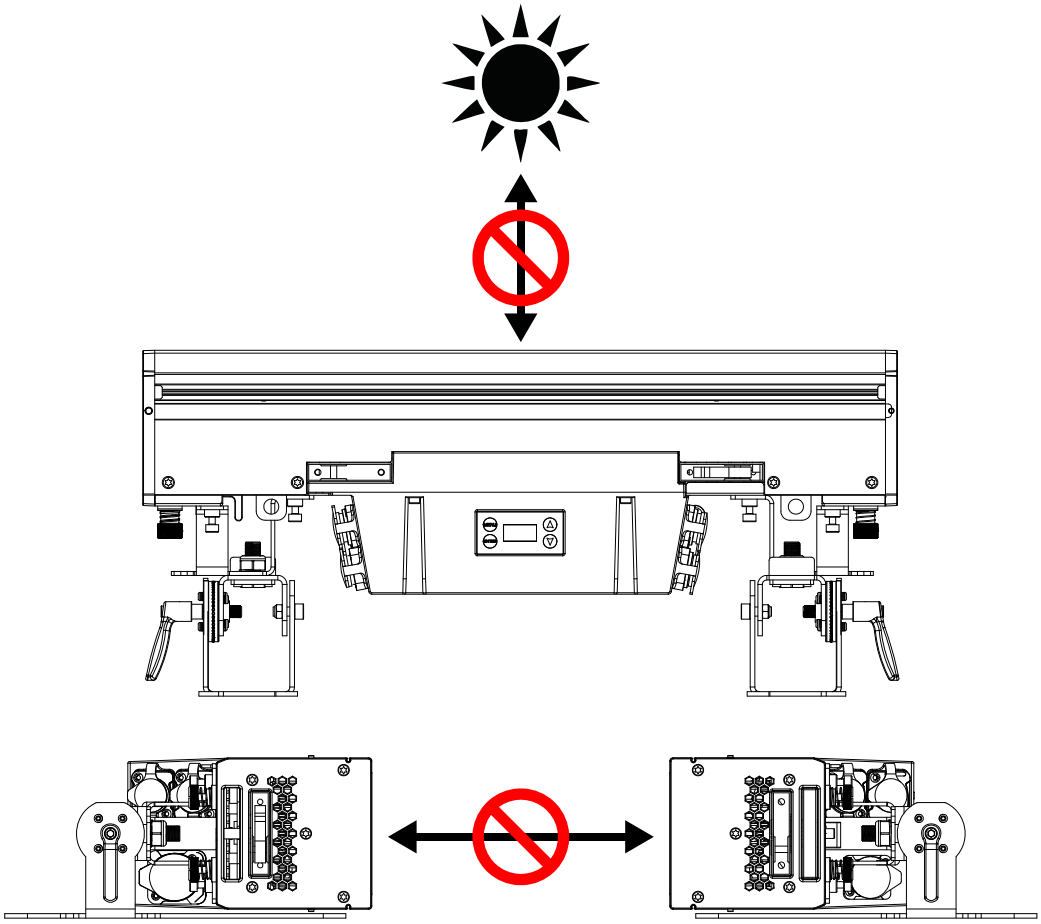
Please keep this User Manual for future consultation. If you sell the fixture to another user, be sure that they also receive this instruction manual.

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 70˚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.

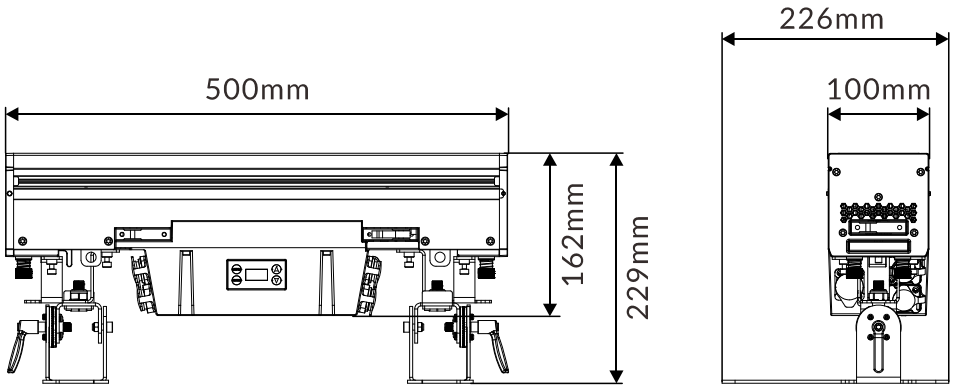
- Vérifier que le cordon d'alimentation n'est ni écrasé ni endommagé; le remplacer immédiatement s'il est endommagé.
- La température de surface de l'appareil peut atteindre jusqu'à 70℃. NE PAS toucher le boîtier à mains nues pendant son fonctionnement.
- Évitez que des liquides inflammables, de l'eau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

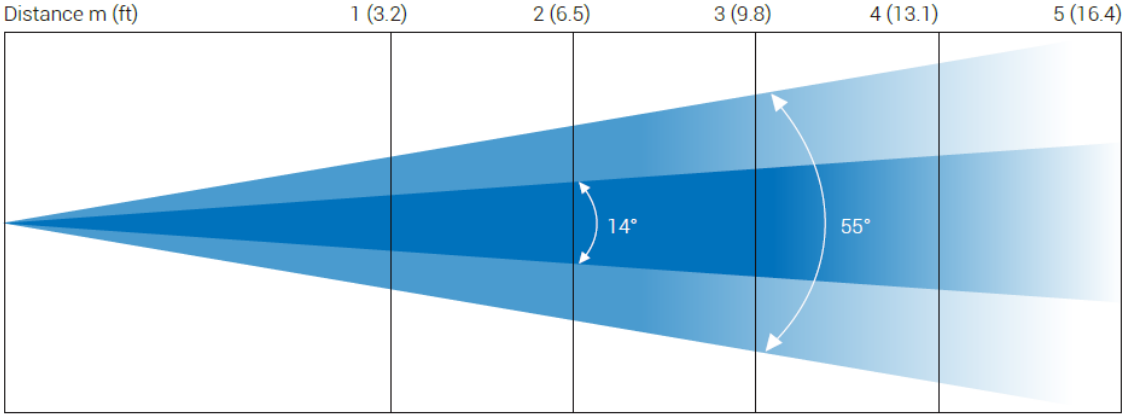
02/ Technical Specifications

AC Power	180-240Vac; 50/60Hz	
Max. Power Consumption	325W	
Light Source	5x120W RGBWAC+UV LEDs	
Beam Angle	14°-55°	
Field Angle	29°-136°	
Control and Programming	DMX Channels	16/44/19/10
	Protocols	DMX512
		RDM
		Art-Net
		sACN
	Firmware Update	via DMX
Construction	Display	OLED 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	5 x LEDs with individual control	
	0-100% continuous dimming and strobe effects	
	Choice of four dimming curves	
	Tungsten emulation during dimming	
	Variable color temperature control	
	Outstanding color mixing	
	Patented Smart Glass Technology for frost effects	
	Equipped with an inventive quick-release mechanism that allows you to quickly connect and align multiple fixtures	
Included Items	Power Cable	
	Two floor stands	
	Two brackets	
	User Manual (this document)	
Dimensions	500x100x162mm	19.7"x3.9"x6.4"
Weight	8.6 kg	19 lbs



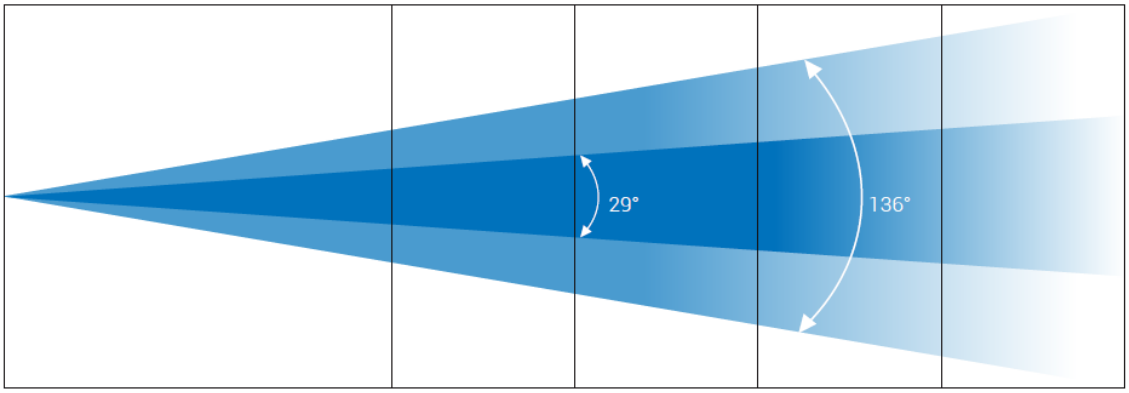
Photometric Diagram (Beam Angle):

Beam Angle:



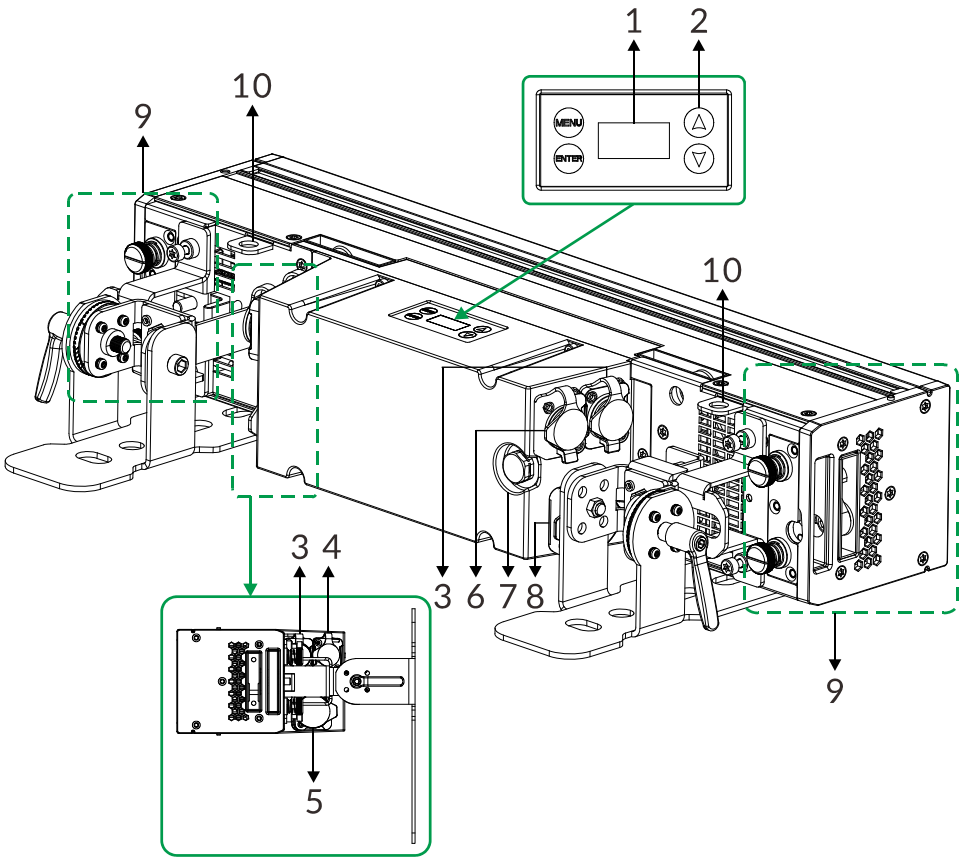
Distance m (ft)	1 (3.2)	2 (6.5)	3 (9.8)	4 (13.1)	5 (16.4)
14°Lux	74,800	18,700	8,311	4,675	2,922
Diameter m (ft)	0.2 (0.8)	0.5 (1.6)	0.7 (2.4)	1 (3.2)	1.2 (4.0)
55°Lux	5,560	1,390	617	347	222
Diameter m (ft)	1 (3.3)	2.1 (6.9)	3.1 (10.2)	4.1 (13.4)	5.2 (17.1)

Photometric Diagram (Field Angle):



Distance m (ft)	1 (3.2)	2 (6.5)	3 (9.8)	4 (13.1)	5 (16.4)
29°Lux	74,800	18,700	8,311	4,675	2,922
Diameter m (ft)	0.5 (1.6)	1 (3.3)	1.5 (4.9)	2 (6.6)	2.5 (8.2)
136°Lux	5,560	1,340	595	335	214
Diameter m (ft)	4.9 (16.2)	9.9 (32.5)	14.8 (48.5)	19.8 (65)	24.7 (81.2)

03/ Overview



1. Display	To show the various menus and the selected function	
2. Buttons	MENU	To enter into, move backward or leave the menu
	▲ UP	To go backward or move up in the menu
	▼ DOWN	To go forward or move down in the menu
	ENTER	To perform the desired functions
3. ETHERNET	For use with sACN or Art-Net controls	
4. DMX IN	For DMX512 link, use 5-pin XLR cable to link the unit and DMX controller to input DMX signal (optional with 3-pin IP XLR)	
5. POWER IN	To connect to supply power	
6. 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)	
7. RELEASE VALVE		
8. POWER OUT	To connect to the next fixture	
9. COUPLER MECHANISM	The coupler mechanism makes it possible to quickly connect and align two or a long line of fixtures together	
10. SAFETY CABLE ATTACHMENT POINTS		

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 325W.

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

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

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

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

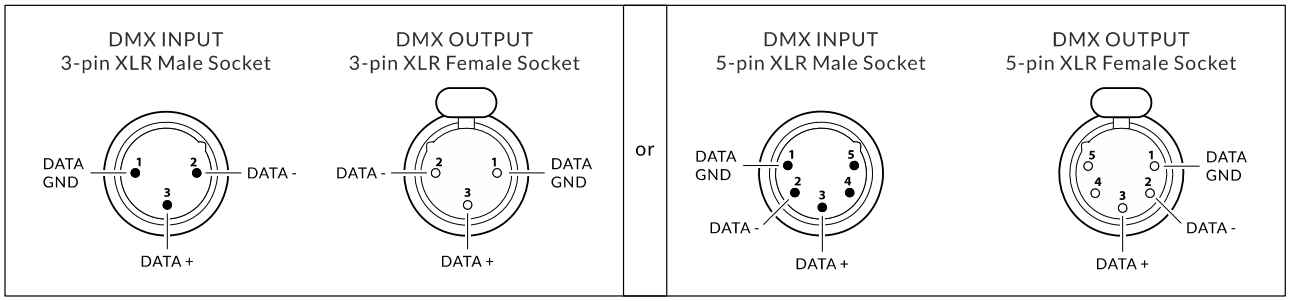
CAUTION!

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

4.2 Connecting Data

The fixture is equipped with 5-pin (or 3-pin) XLR sockets for DMX input and output. Use 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:



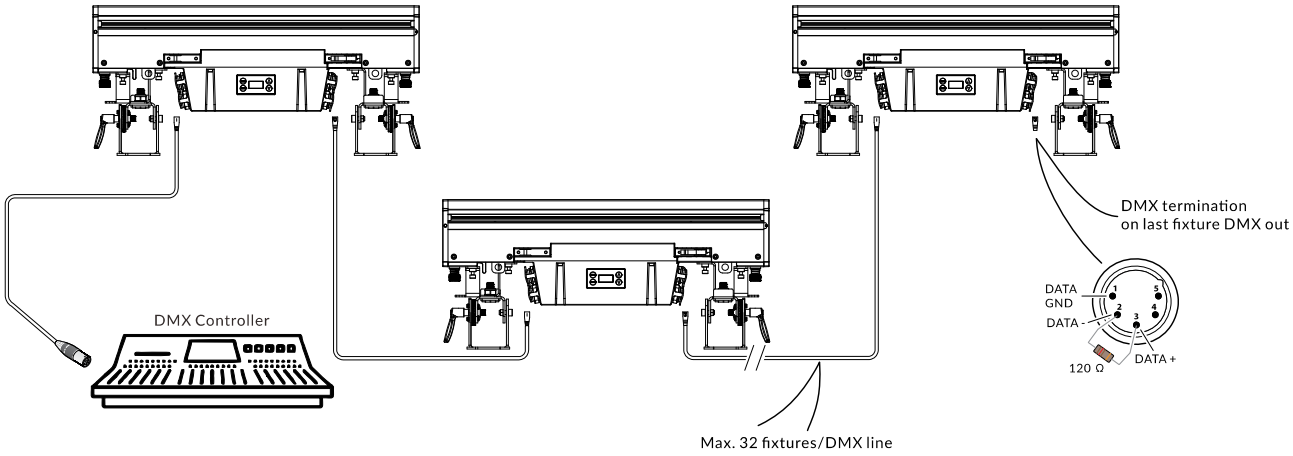
Building a serial DMX chain:

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

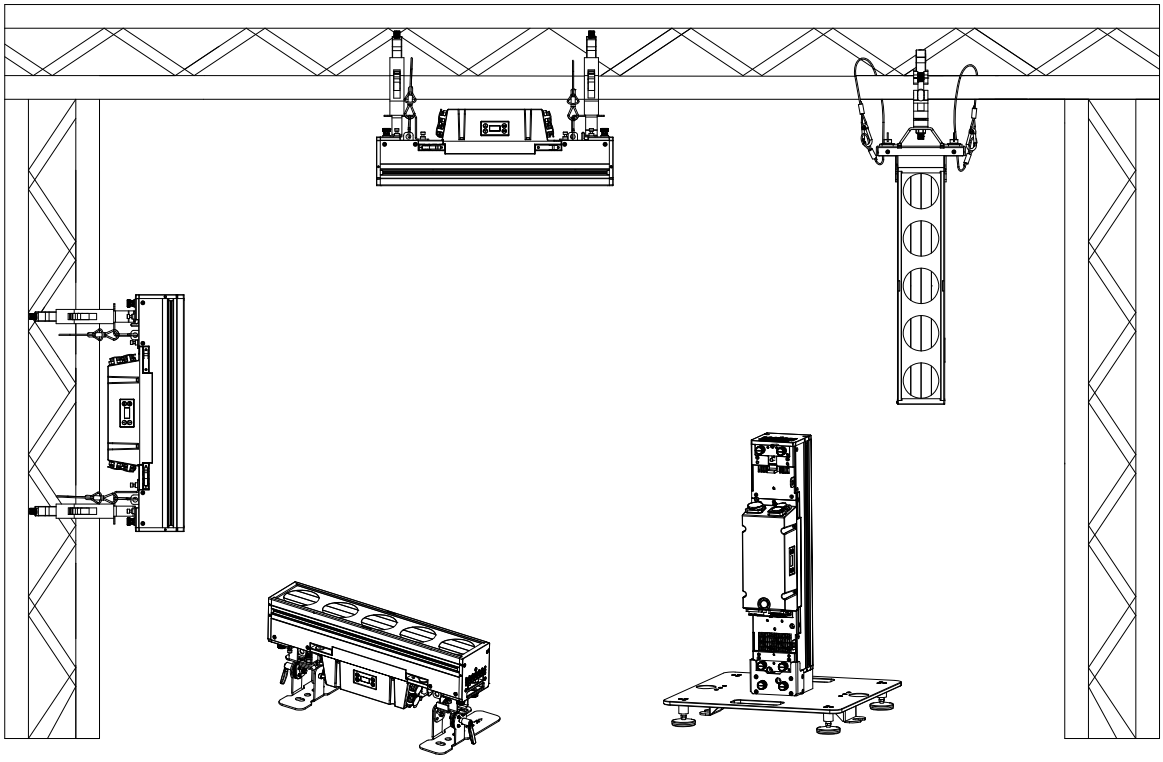
The fixture is IP66-rated and designed for both indoor and outdoor events. This means that it is protected from:

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

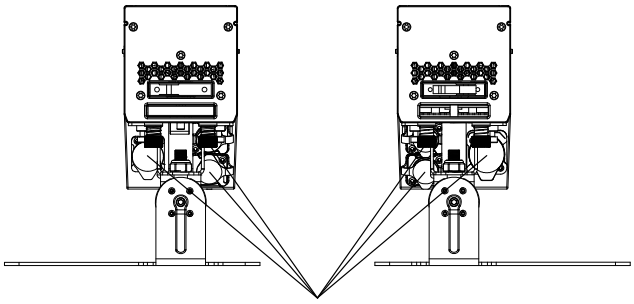
DO install and operate by qualified operator. Fixture(s) should be installed in areas clear of walking paths, seating areas, or away from areas were unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.

Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always attach a safety cable that can hold at least 12 times the weight of the fixture whenever installing this fixture in a suspended environment to ensure that the fixture will not fall if the clamp fails.

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



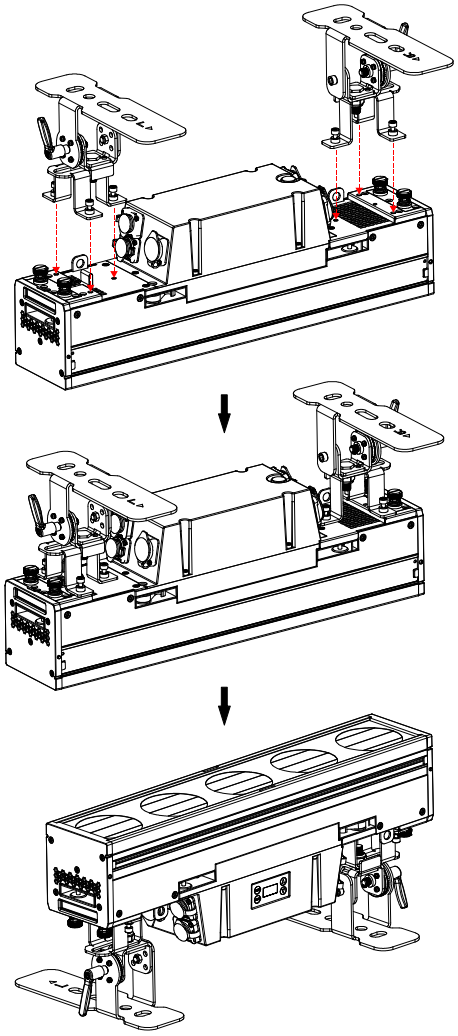
- Use only IP-rated power cords and connectors suitable for outdoor use.
- Visually check panel connectors on accidental water leaks and dust before connecting related cable connectors.
  If some water appears in panel connectors, do not connect cable connectors, especially power!
- Fixtures require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



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

5.1 Stand the Fixture on the Floor

Floor Stand: Two floor stands (supplied) may be attached to base of unit:



Vertical Stand: Mounted to base stand (sold separately):

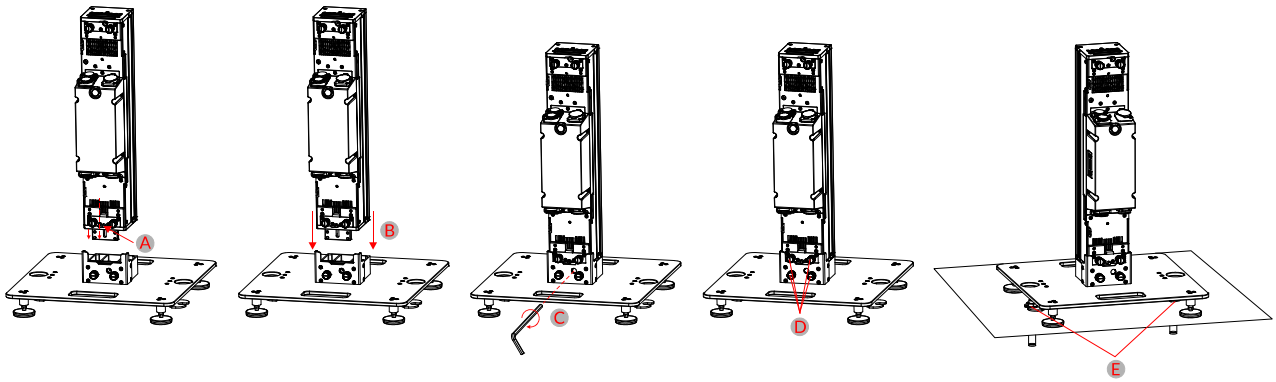
A. Press the button: automatically the slide comes out completely.

B. Place the fixture against the base stand in line so that the slide fits into the base stand.

C. Insert the hex wrench into the hexagonal slot and tighten it clockwise to release and secure the locking mechanism inside the base stand with the fixture.

D. Tighten the four rivet screws to secure the base stand.

E. Finally, securely mount the base stand to the floor with two expansion screws.

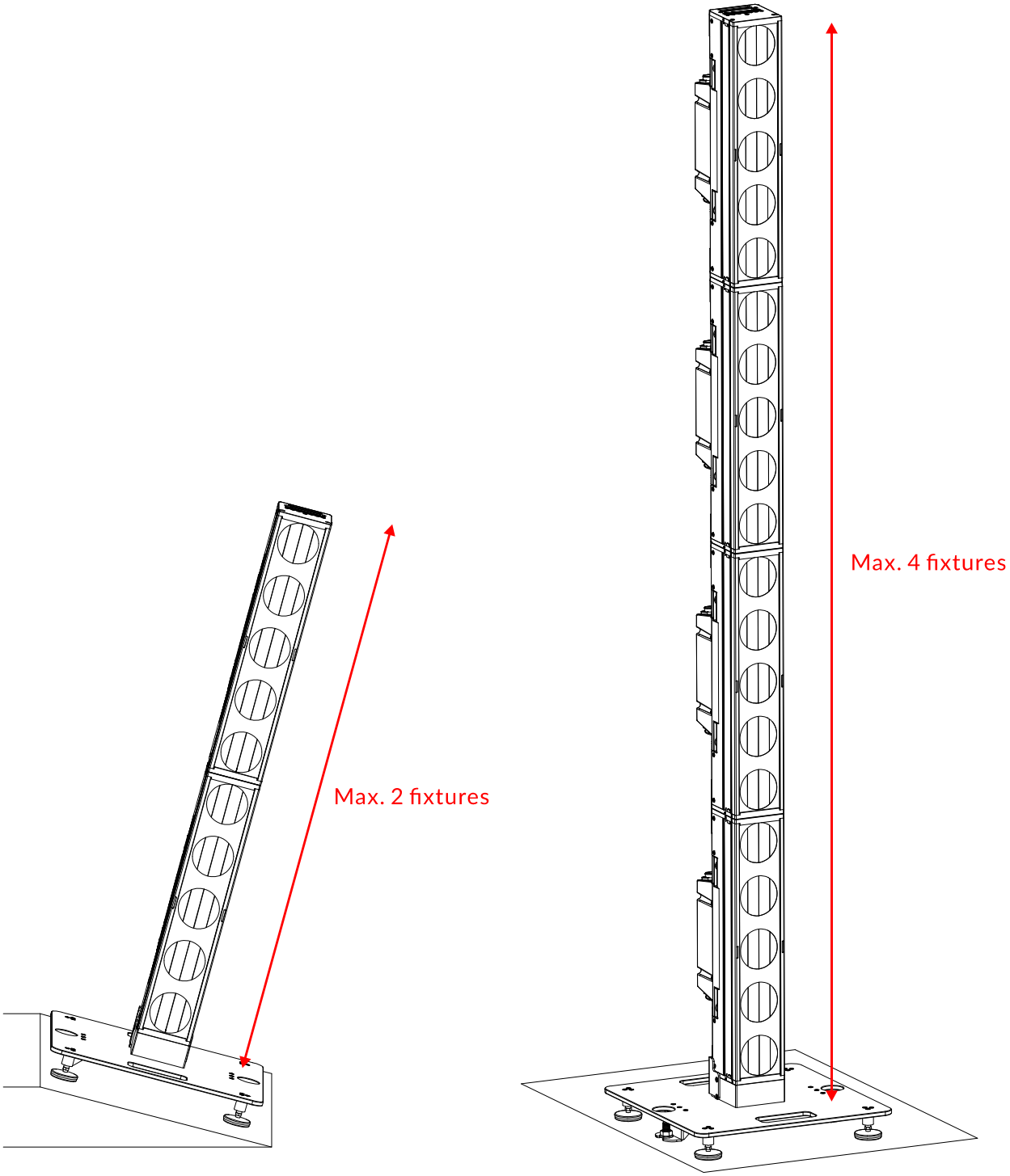


To separate the fixture from the base stand, follow the above steps in reverse order.

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

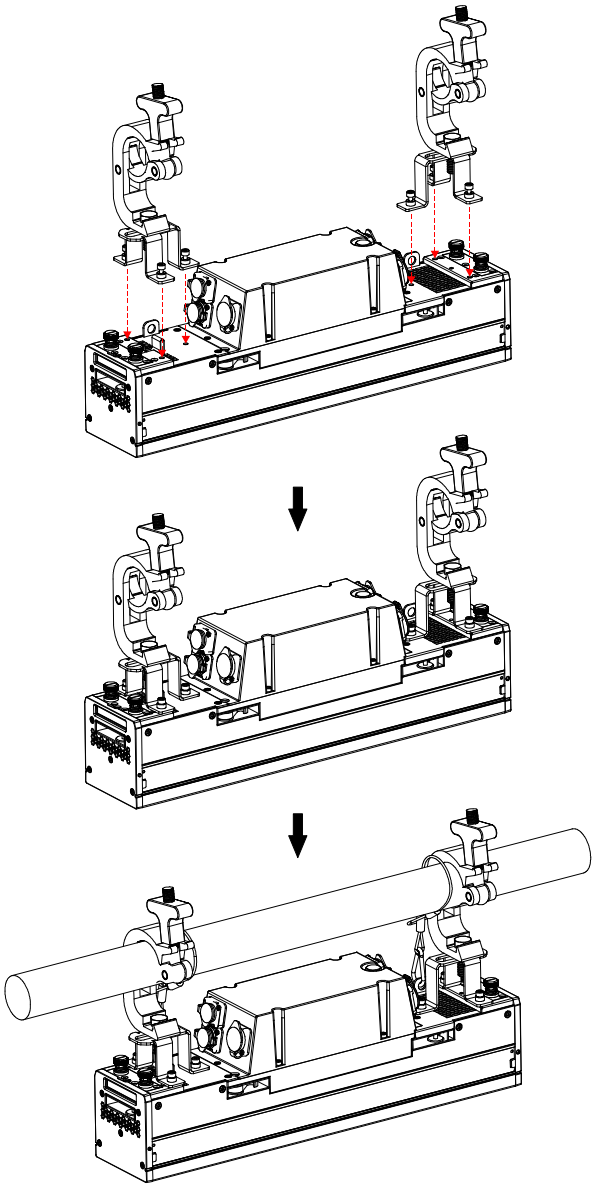
Note: 1. When installed at a tilt, a maximum of 2 fixtures may be connected.

2. When stand vertically, a maximum of 4 fixtures may be connected.

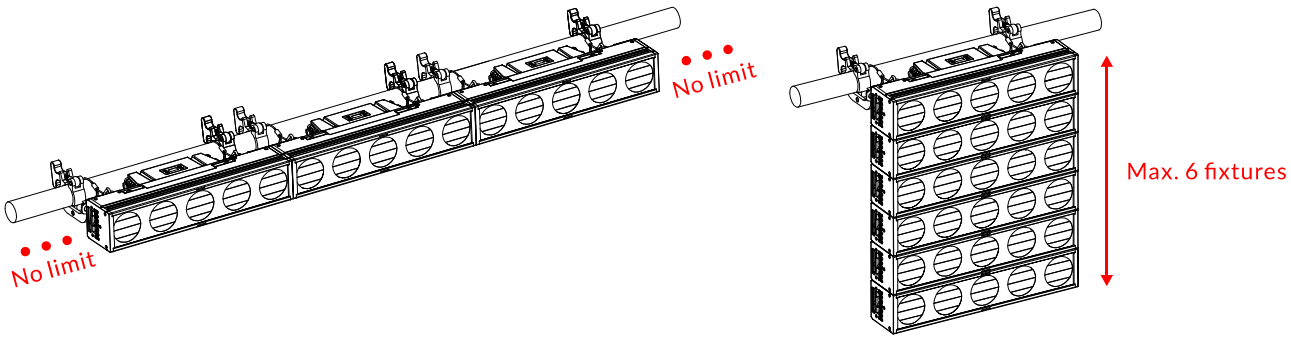


5.2 Hanging the Fixture

Horizontal: Utilizing two brackets (supplied) and clamps (by others):



Note: When hanging horizontally, there is no limit to the number of fixtures in the horizontal direction, and a maximum of 6 fixtures may be connected in the vertical direction.



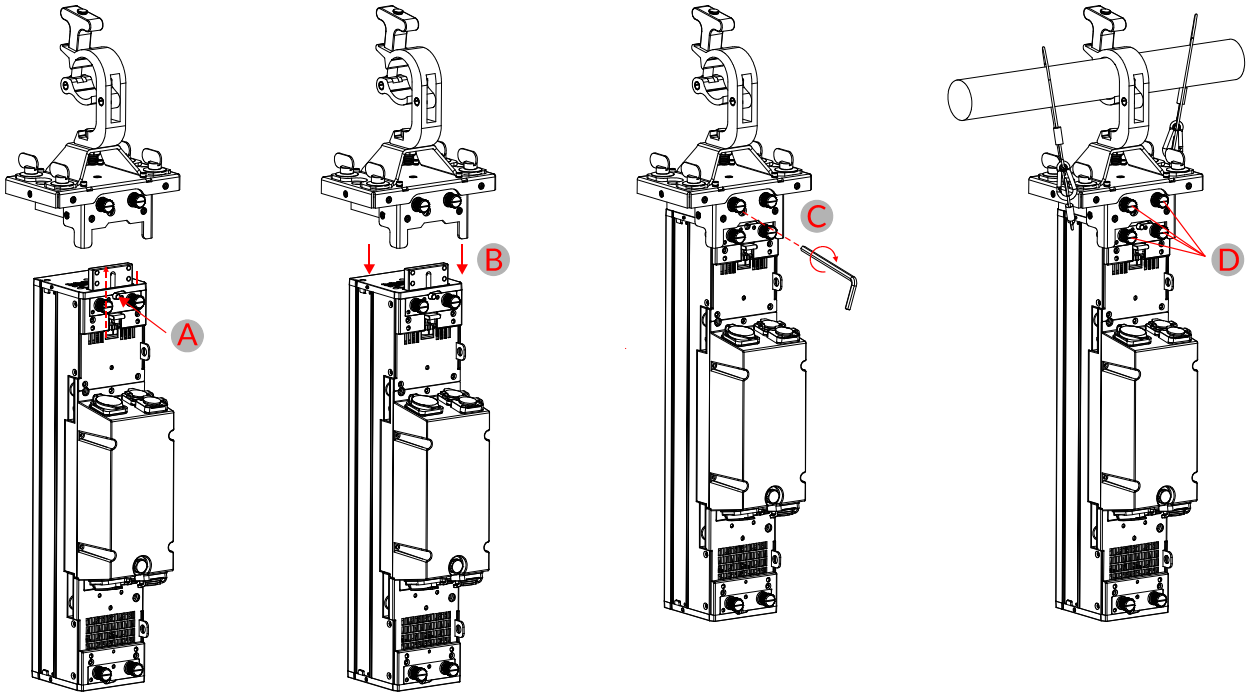
Vertical: Using one hanging bracket (sold separately) with clamp (by others):

A. Press the button: automatically the slide comes out completely.

B. Place the hanging bracket with clamp against the fixture in line so that the slide fits into the hanging bracket.

C. Insert the hex wrench into the hexagonal slot and tighten it clockwise to release and secure the locking mechanism inside the hanging bracket with the fixture.

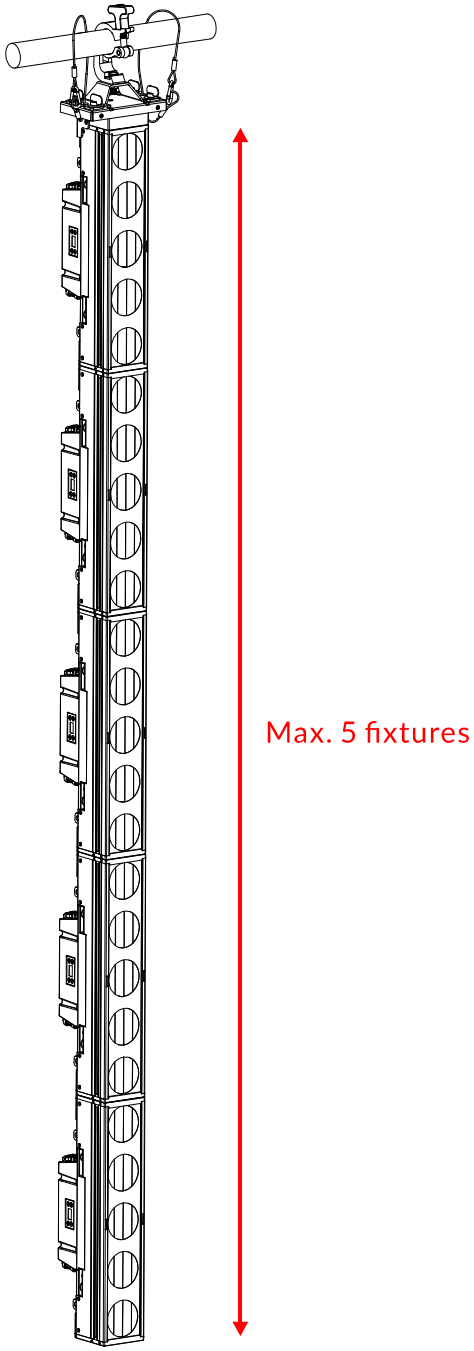
D. Finally, tighten the four rivet screws to secure the hanging bracket.



To separate the fixture from the hanging bracket, follow the above steps in reverse order.

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

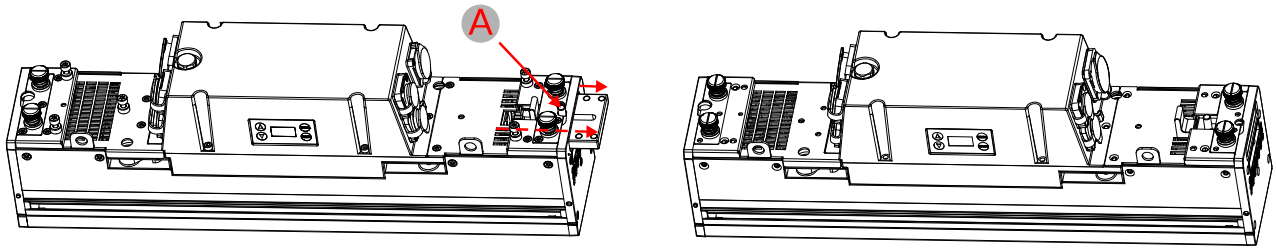
Note: When hanging vertically, a maximum of 5 fixtures may be connected.



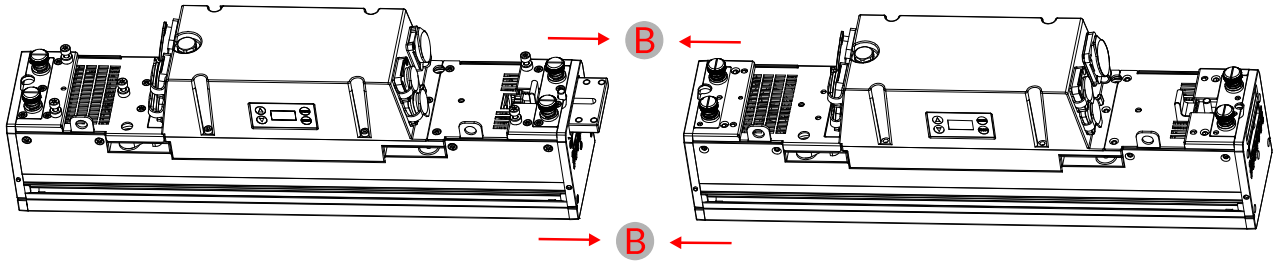
5.3 Connecting and Aligning Multiple Fixtures

Connecting and aligning fixtures horizontally:

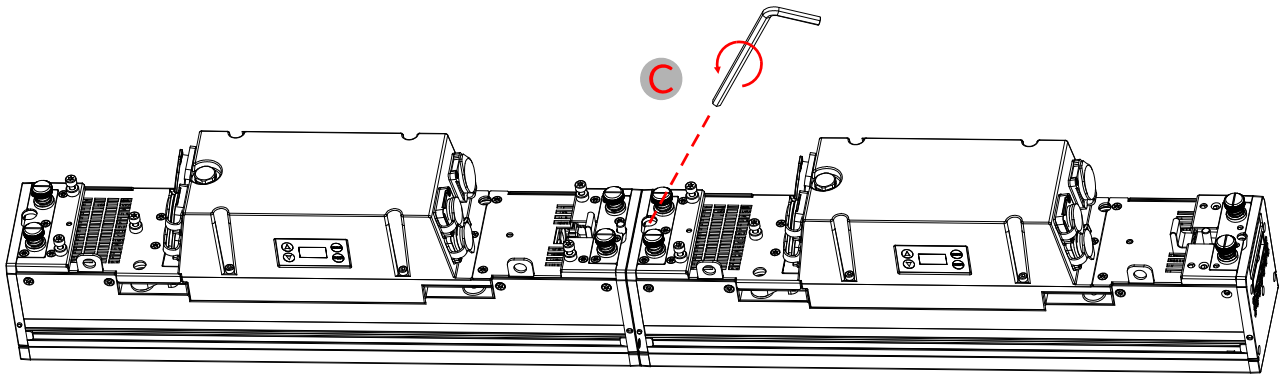
A. Press the button: automatically the slide comes out completely.



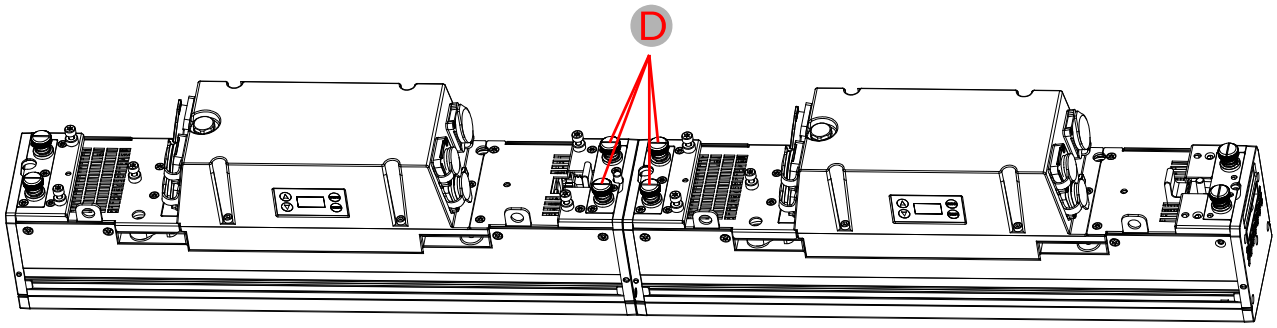
B. Place both fixtures against each other in line so that the slide fits into the other fixture.



C. Insert the hex wrench into the hexagonal slot and tighten it clockwise to release and secure the locking mechanism inside the fixture with the other fixture.



D. Finally, tighten the four rivet screws to secure both fixtures.



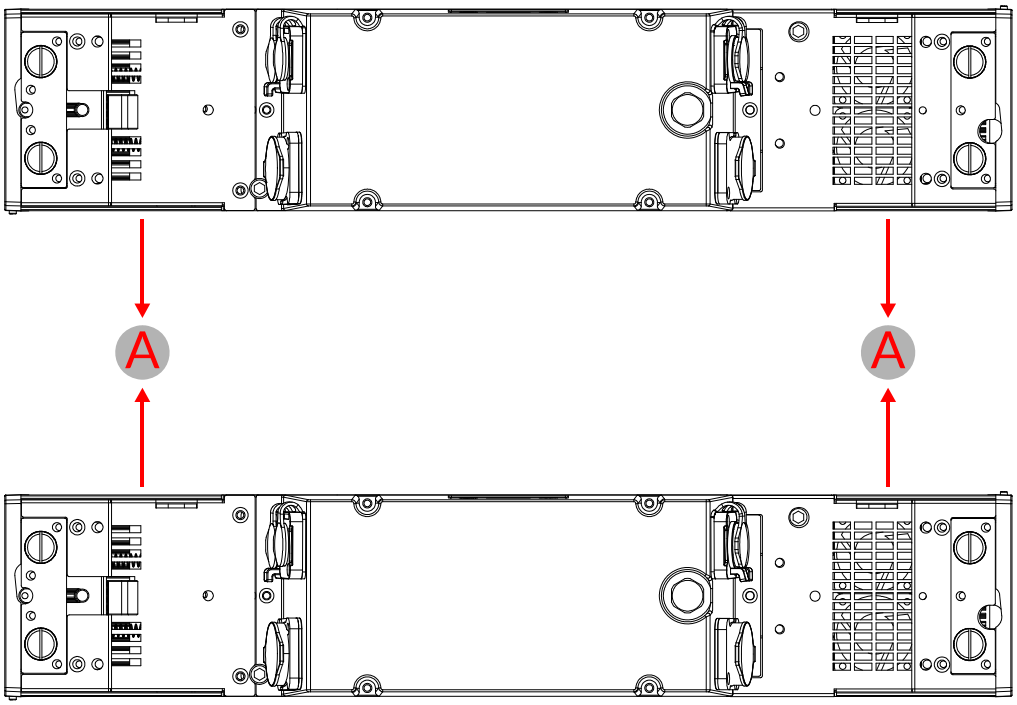
If you need to connect and align more fixtures, repeat the steps above.

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

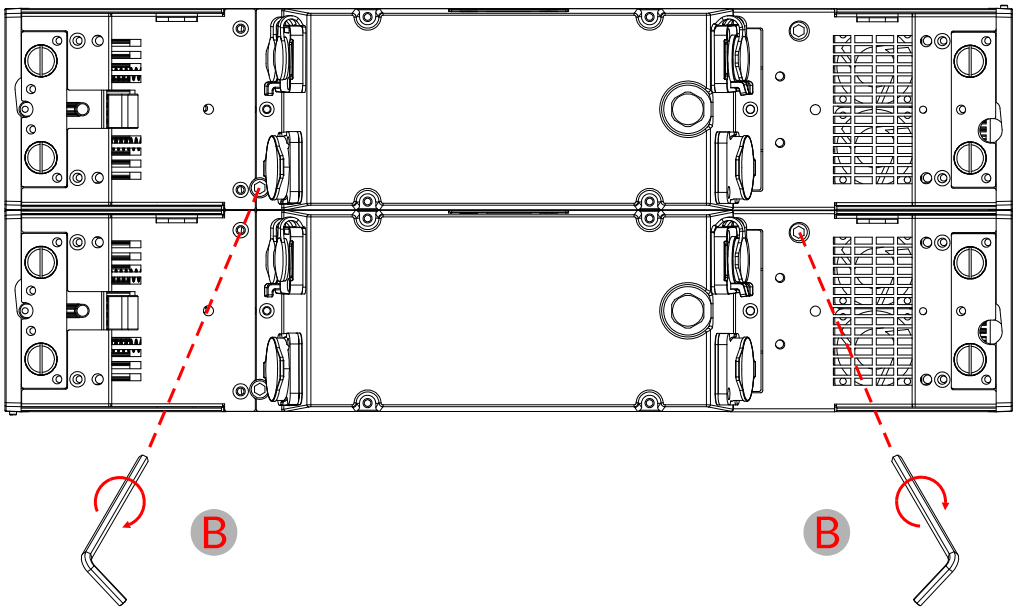
Note: Hold down the button and pull the slide back simultaneously to retract it to its original position.

Connecting and aligning fixtures vertically:

A. Place both fixtures against each other in line.



B. Insert the hex wrench into the hexagonal slots and tighten them clockwise to release and secure the locking mechanisms inside the fixture with the other fixture.



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

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

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 until the timer counts down to unlock the screen.

The main functions are shown below:

MAIN MENU	SUBMENU	CHOICES/VALUES		
DMX Settings	DMX Address	1-497 (16 CH)		(Default=1)
		1-469 (44 CH)		
		1-494 (19 CH)		
		1-503 (10 CH)		
	DMX CH Mode	16 CH		
		44 CH		
		19 CH		
		10 CH		
	No DMX Status	Hold		
		Blackout		
		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)
		Priority	0-200	(Default=100)
	Network to DMX	No		
		Yes		
Fixture Settings	Dimmer Curve	Linear		
		Square Law		
		Inv SQ Law		
		S Curve		
	Dimmer Speed	Fast		
		Smooth		
		UND		
	White Balance	Red	125-255	
		Green	125-255	
		Blue	125-255	
		White	125-255	

MAIN MENU	SUBMENU	CHOICES/VALUES	
		Amber	125-255
		Cyan	125-255
		UV	125-255
	LED Refresh Rate	900Hz	
		1000Hz	
		1100Hz	
		1200Hz	
		1300Hz	
		1400Hz	
		1500Hz	
		2500Hz	
		4000Hz	
		5000Hz	
		6000Hz	
		10000Hz	
		15000Hz	
		20000Hz	
		25000Hz	
	Power Mode	Standard Mode	Standard
			Quiet
			Theater
		Boost Mode	Standard
			Quiet
			Theater
	Invert Pixel Order	No	
		Yes	
	Color Cal	Off	
		On	
	Cal Mode	Hi CRI	
		Hi Output	
	Dim. Start Mode	High	
		Low	
	DUV	-100~100	(Default=0)
Display Settings	Display Invert	No	
		Yes	
	Temperature Unit	°C	
		°F	
	Language	English	

MAIN MENU	SUBMENU	CHOICES/VALUES		
		Chinese		
Fixture Test	Auto Test	Single		
		Cycle		
	Manual Mode	Mode 1		
		Mode 2		
Fixture Information	Fixture Use Hour			
	LED Use Hour	Total LED Hour		
		LED On Hour		
		LED Hours Reset	Password=50	
	Temperature	LED 1-5	Current	
			Max temp	
	Fan State			
	Firmware Version			
	RDM UID			
	Error Logs	Fixture Errors		
		Reset Error Log	No	
			Yes	Password=50
Special Functions	Send Upgrade	No		
		Yes		
	Firmware Restore	No		
		Yes		
	Factory Restore	No		
		Yes		

DMX Settings

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

DMX Address

Select **DMX Address,** press ENTER.

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

CHANNEL MODE	ADDRESS
16 CH (Channel Mode)	1-497
44 CH (Channel Mode)	1-469
19 CH (Channel Mode)	1-494
10 CH (Channel Mode)	1-503

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

DMX CH Mode

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

Use UP/DOWN button to select between **16 CH, 44 CH, 19 CH** and **10 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:

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

Blackout (Fixture blacks out if DMX signal stops)

Manual (The device accepts the DMX value stored in the 'Manual Mode' 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 **Universe** or **Priority**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Network to DMX

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

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

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

Fixture Settings

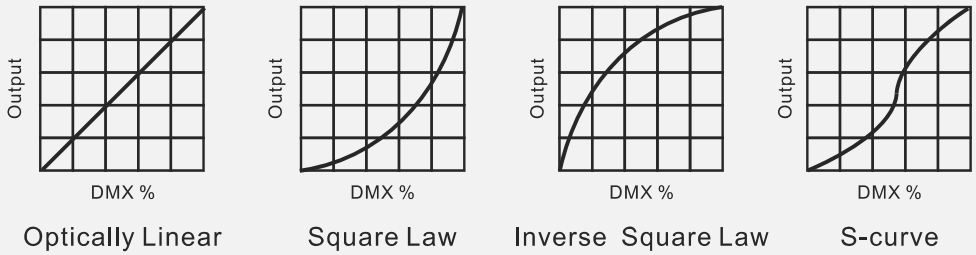
Enter the control menu and select **Fixture Settings**, press ENTER. Use the UP/DOWN button to select **Dimmer Curve, Dimmer Speed, White Balance, LED Refresh Rate, Power Mode, Invert Pixel Order, Color Cal, Cal Mode, Dim. Start Mode** or **DUV.**

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, Smooth** or **UND**, confirm your selection with ENTER.

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

White Balance

Select **White Balance,** press ENTER.
Use UP/DOWN button to select **Red, Green, Blue, White, Amber, Cyan, UV,** 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, 10000Hz, 15000Hz, 20000Hz** or **25000Hz**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Power Mode

Select **Power Mode,** press ENTER.
Use UP/DOWN button to select **Standard Mode** or **Boost Mode**, confirm your selection with ENTER.
Use UP/DOWN button to select **Standard, Quiet** or **Theater**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Invert Pixel Order

Select **Invert Pixel Order,** press ENTER.
Use UP/DOWN button to select **No** or **Yes**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Color Cal

Select **Color Cal,** 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.

Cal Mode

Select **Cal Mode,** press ENTER.
Use UP/DOWN button to select **Hi CRI** or **Hi Output**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Dim. Start Mode

Select **Dim. Start Mode,** press ENTER.
Use UP/DOWN button to select **High** (high dimming start) or **Low** (low dimming start), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

DUV

Select **DUV,** press ENTER.
Use UP/DOWN button to select a value between **-100** and **100**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Display Settings

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

Display Invert

Select **Display Invert,** press ENTER.
Use UP/DOWN button to select **No** (display normal) or **Yes** (display inverted), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Temperature Unit

Select **Temperature Unit,** press ENTER.
Use UP/DOWN button to select **°C** or **°F**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Language

Select **Language,** press ENTER.
Use UP/DOWN button to select **English** or **Chinese**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Fixture Test

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

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 Mode

Select **Manual Mode,** press ENTER.
Use UP/DOWN button to select the channel for which the manual test is to be performed, confirm your selection with ENTER.
Use UP/DOWN button to select a value, confirm your selection with ENTER.
To exit the menu, press MENU.
(The device returns to its original DMX state after the manual test. The test values are saved automatically when the device is switched off.)

Fixture Information

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

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.

Special Functions

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

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**. Once Yes is selected, the display of this fixture will show "**Send Packet, CPU-xx, xx%**" while the display of other fixtures will show "**CPU-xx**". After the update is complete, fixtures will perform a reset (this can take some time).

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

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

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

Select **Firmware Restore,** press ENTER.

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

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

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

Factory Restore

Select **Factory Restore,** press ENTER.

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

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

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

The parameter IDs are implemented as follows for different commands:

Parameter ID	Command 'Discovery'	Command 'Set'	Command 'Get'
CAL_RED			
CAL_GREEN			
CAL_BULE			
CAL_WHITE			
CAL_CONTROL			
CAL_DATA			
CAL_CC			
VU_CALDATA_TO_IC		√	√
VU_CALDATA_TO_DEVICE		√	√
SHOW_MODE			
PRIM_SEC			
DMX_STATUS		√	√
DMX_STATUS_DIRECTION			
FADE_TIME			
WAIT_TIME			
INVERT_PIXEL_ORDER		√	√
DIMMER_SPEED		√	√
SOUND_MODE			
SOUND_SENSE			
BACK_LIGHT			
MOTOR_OFFSET			
FLOWING_LED_DIRECTION			

FUNCTION_DELAY			
WHITE_BALANCE			
FAN_MODE		√	√
CONSTANT_COLOR			
GAMMA_CORRECTION			
PORT_ADDRESS			
WIRELESS_ONOFF			
PHOTOSENSITIVE_ONOFF			
PHOTOSENSITIVE_SENSE			
PHOTOSENSITIVE_HOUR			
ERROR_LOG		√	√
MENU_INFO			
OFFSET		√	√
PAN_TILT_FEEDBACK			
BLACKOUT_WHEN_PANTILT_MOVE			
CALIBRATION_ONOFF		√	√
CALIBRATION_MODE		√	√
E137_1_CURVE		√	√
DIMMER_FREQUENCY			
HEAD_INVERT			

√ -Command implemented for the respective parameter ID

6.2 Home Position Adjustment

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

OFFSET MENU	VALUES
Frequency	1072~1327
Red	0~2000
Green	0~2000
Blue	0~2000
White	0~2000
Amber	0~2000
Cyan	0~2000
UV	0~2000
Red 1	0~2000
Green 1	0~2000
Blue 1	0~2000
White 1	0~2000
Amber 1	0~2000
Cyan 1	0~2000
UV 1	0~2000
.....	.....
Red 5	0~2000
Green 5	0~2000
Blue 5	0~2000
White 5	0~2000
Amber 5	0~2000
Cyan 5	0~2000
UV 5	0~2000

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

Red

Select **Red,** press ENTER.

Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.

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

Green

Select **Green,** press ENTER.

Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.

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

Blue

Select **Blue,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

White

Select **White,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Amber

Select **Amber,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Cyan

Select **Cyan,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

UV

Select **UV,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

.....

Red 5

Select **Red 5,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Green 5

Select **Green 5,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Blue 5

Select **Blue 5,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

White 5

Select **White 5,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Amber 5

Select **Amber 5,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Cyan 5

Select **Cyan 5,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

UV 5

Select **UV 5,** press ENTER.
Use UP/DOWN button to select a value between 0 and 2000, 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 16 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 17. As the first fixture uses all the first 16 DMX channels, the next available channel is 17 (16+1=17 >> 17).
See the chart below for more details:

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address	Unit xxx Address
16 channels	1	17	33	49	.....
44 channels	1	45	89	133	.....
19 channels	1	20	39	58	.....
10 channels	1	11	21	31	.....

7.2 DMX Protocol

Valid from firmware version: V1.0

CHANNEL				VALUE	FUNCTION
16ch	44ch	19ch	10ch		
1	1	1	1		**SPECIAL FUNCTION** (To activate following functions, stop in DMX value for at least 3 seconds.)
				000-029	Null
				030-039	Dimmer Curve: Linear
				040-049	Dimmer Curve: Square Law
				050-059	Dimmer Curve: Inv SQ Law
				060-069	Dimmer Curve: S Curve
				070-079	Power Mode: Standard
				080-089	Power Mode: Quiet
				090-099	Power Mode: Theatre
				100-109	Led Frequency Setting Enable
				110-119	Led Frequency Setting Disable
				120-122	Null
				123	900Hz
				124	1000Hz
				125	1100Hz
				126	1200Hz
				127	1300Hz
				128	1400Hz
				129	1500Hz
				130	2500Hz
				131	4000Hz
				132	5000Hz
				133	6000Hz
				134	10KHz

				135	15KHz
				136	20KHz
				137	25KHz
				138-139	Null
				140-159	Null
				160-169	Color Calibration: On
				170-179	Color Calibration: Off
				180-189	Calibration Mode: High CRI
				190-199	Calibration Mode: High Output
				200-209	Dimmer Speed: Fast
				210-219	Dimmer Speed: Smooth
				220-229	Dimmer Speed: UND
				230-231	Power Mode: Standard Mode
				232-233	Power Mode: Boost Mode
				234-235	Invert Pixel Order: Yes
				236-237	Invert Pixel Order: No
				238-239	Dimming Start Mode: High
				246-241	Dimming Start Mode: Low
				252-255	Null
2	2	2	2		**STROBE**
				000-007	Close
				008-015	Open
				016-131	Strobe from Slow to Fast
				132-139	Open
				140-181	Fast Open Slow Close from Slow to Fast
				182-189	Open
				190-231	Slow Open Fast Close from Slow to Fast
				232-239	Open
				240-247	Random Strobe from Slow to Fast
				248-255	Open
3	3	3	3		**DIMMER**
				000-255	0%→100%
4	4	4	4	000-255	**DIMMER FINE**
5	5	5	5		**CTO**
				000	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
					COLOR MACRO
6		6	6	000-009	Null
				010-014	Medium Yellow

				015-019	Fire
				020-024	Gold Amber
				025-029	Sunset Red
				030-034	Medium Pink
				035-039	Light Lavender
				040-044	Lavender
				045-049	Sky Blue
				050-054	Just Blue
				055-059	Lime Green
				060-064	Moss Green
				065-069	Dark Yellow Green
				070-073	Spring Yellow
				074-078	Yellow
				079-083	Light Amber
				084-088	Straw
				089-093	Deep Amber
				094-098	Orange
				099-103	Dark Pink
				104-108	Peacock Blue
				109-113	Medium Blue-Green
				114-118	Steel Blue
				119-123	Light Blue
				124-128	Deep Blue
				129-132	LEE Green
				133-137	Fern Green
				138-142	Dark Green
				143-147	Mauve
				148-152	Bright Pink
				153-157	Medium Blue
				158-162	Deep Golden Amber
				163-167	Pale Lavender
				168-172	Special Lavender
				173-177	Pale Green
				178-182	Primary Green
				183-187	Bright Blue
				188-192	Apricot
				193-196	Pale Gold
				197-201	Pink
				202-206	Bastard Amber
				207-211	Flame Red
				212-216	Daylight Blue
				217-221	Deep Lavender
				222-226	Congo Blue
				227-231	Surprise Pink
				232-236	Alice Blue
				237-241	Full C.T. Blue
				242-246	Half C.T. Blue
				247-251	Lighter Blue

				252-255	Millennium Gold
7		7		000-007 008-024 025-041 042-058 059-075 076-092 093-109 110-126 127-143 144-160 161-177 178-194 195-211 212-228 229-245 246-255	**MACRO EFFECT SELECT** Null Built-in Effect 1 Built-in Effect 2 Built-in Effect 3 Built-in Effect 4 Built-in Effect 5 Built-in Effect 6 Built-in Effect 7 Built-in Effect 8 Built-in Effect 9 Built-in Effect 10 Built-in Effect 11 Built-in Effect 12 Built-in Effect 13 Built-in Effect 14 Rainbow Effect
8		8		000 001-127 128-255	**MACRO EFFECT SPEED** Null Normal, Slow to Fast Inverse, Slow to Fast
9				000-255	**FROST** 0%→100%
10		13		000-255	**RED** 0%→100%
11		14		000-255	**GREEN** 0%→100%
12		15		000-255	**BLUE** 0%→100%
13		16		000-255	**WHITE** 0%→100%
14		17		000-255	**AMBER** 0%→100%
15		18		000-255	**CYAN** 0%→100%
16		19		000-255	**UV** 0%→100%
	6	9	7	000-255	**FROST 1** 0%→100%
	7	10	8	000-255	**FROST 2** 0%→100%
	8	11	9	000-255	**FROST 3** 0%→100%

	9	12	10	000-255	FROST 4 0%→100%
	10			000-255	RED 1 0%→100%
	11			000-255	GREEN 1 0%→100%
	12			000-255	BLUE 1 0%→100%
	13			000-255	WHITE 1 0%→100%
	14			000-255	AMBER 1 0%→100%
	15			000-255	CYAN 1 0%→100%
	16			000-255	UV 1 0%→100%
	17			000-255	RED 2 0%→100%
	18			000-255	GREEN 2 0%→100%
	19			000-255	BLUE 2 0%→100%
	20			000-255	WHITE 2 0%→100%
	21			000-255	AMBER 2 0%→100%
	22			000-255	CYAN 2 0%→100%
	23			000-255	UV 2 0%→100%
	24			000-255	RED 3 0%→100%
	25			000-255	GREEN 3 0%→100%
	26			000-255	BLUE 3 0%→100%
	27			000-255	WHITE 3 0%→100%
	28			000-255	AMBER 3 0%→100%
	29			000-255	CYAN 3 0%→100%
	30			000-255	UV 3 0%→100%

	31			000-255	RED 4 0%→100%
	32			000-255	GREEN 4 0%→100%
	33			000-255	BLUE 4 0%→100%
	34			000-255	WHITE 4 0%→100%
	35			000-255	AMBER 4 0%→100%
	36			000-255	CYAN 4 0%→100%
	37			000-255	UV 4 0%→100%
	38			000-255	RED 5 0%→100%
	39			000-255	GREEN 5 0%→100%
	40			000-255	BLUE 5 0%→100%
	41			000-255	WHITE 5 0%→100%
	42			000-255	AMBER 5 0%→100%
	43			000-255	CYAN 5 0%→100%
	44			000-255	UV 5 0%→100%

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 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.

Fan 1/2/3/4/5 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.
Check whether the fan circuit on the motherboard breaks down.
Check whether the component is damaged.
Check whether the fan is out of order.

Temperature 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.

Timeout Error

Too Hot Off

When in Standard Mode, the fixture starts to reduce power from 53°C and turns off when the temperature reaches 63°C. It will turn back on when the temperature drops to 48°C.
When in Boost Mode, the fixture starts to reduce power from 61°C and turns off when the temperature reaches 71°C. It will turn back on when the temperature drops to 56°C.

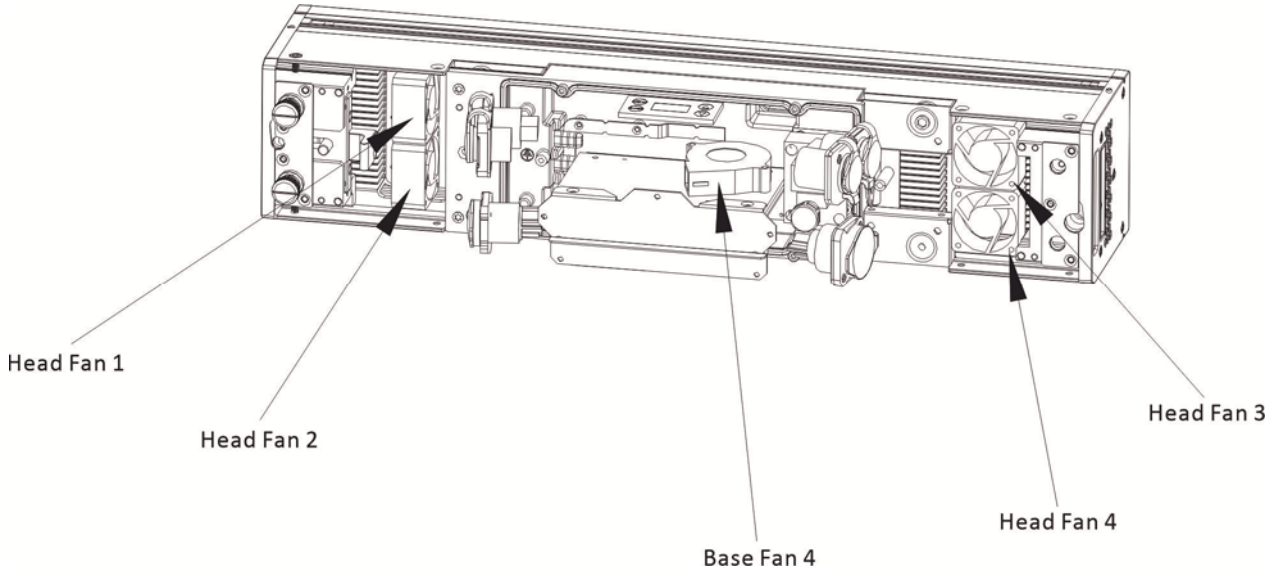
Network Error

Check whether the network module is installed.
Check whether the network module is damaged.

Color Cal Error

Check if the color calibration IC is damaged.
Check whether the color calibration IC board is inserted well and whether the electronic components are well soldered.
Check if the motherboard is malfunctioning.
Check whether the R76 bit resistors and other components on the motherboard are well soldered.

Position of cooling fans:



Cooling Fans	Part Number	V	W	Position
Base Fan	3014001318	DC 24V	2.4W	Base-A Board
Head Fan 1	3014001395	DC 24V	0.96+/-10%W	
Head Fan 2				
Head Fan 3				
Head Fan 4				

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.

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.
- Clean with a soft cloth using normal glass cleaning products.
- Always dry the parts carefully.

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

Intertek
5000057

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

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