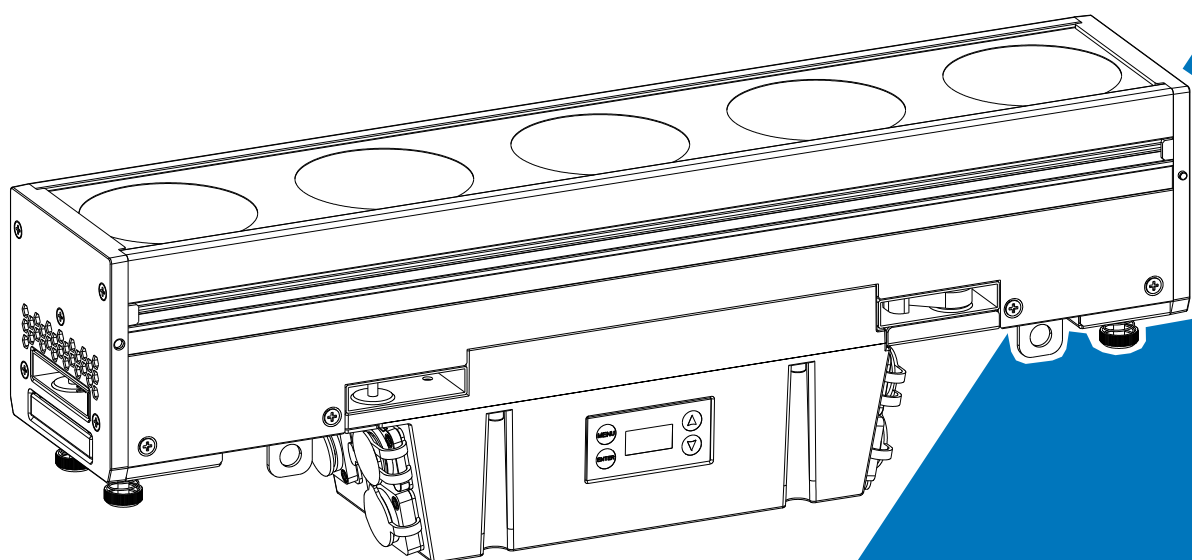




BLINDER LINE 5 IP



User Manual

Please read the instruction carefully before use

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01/ Safety Information



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

WARNING

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

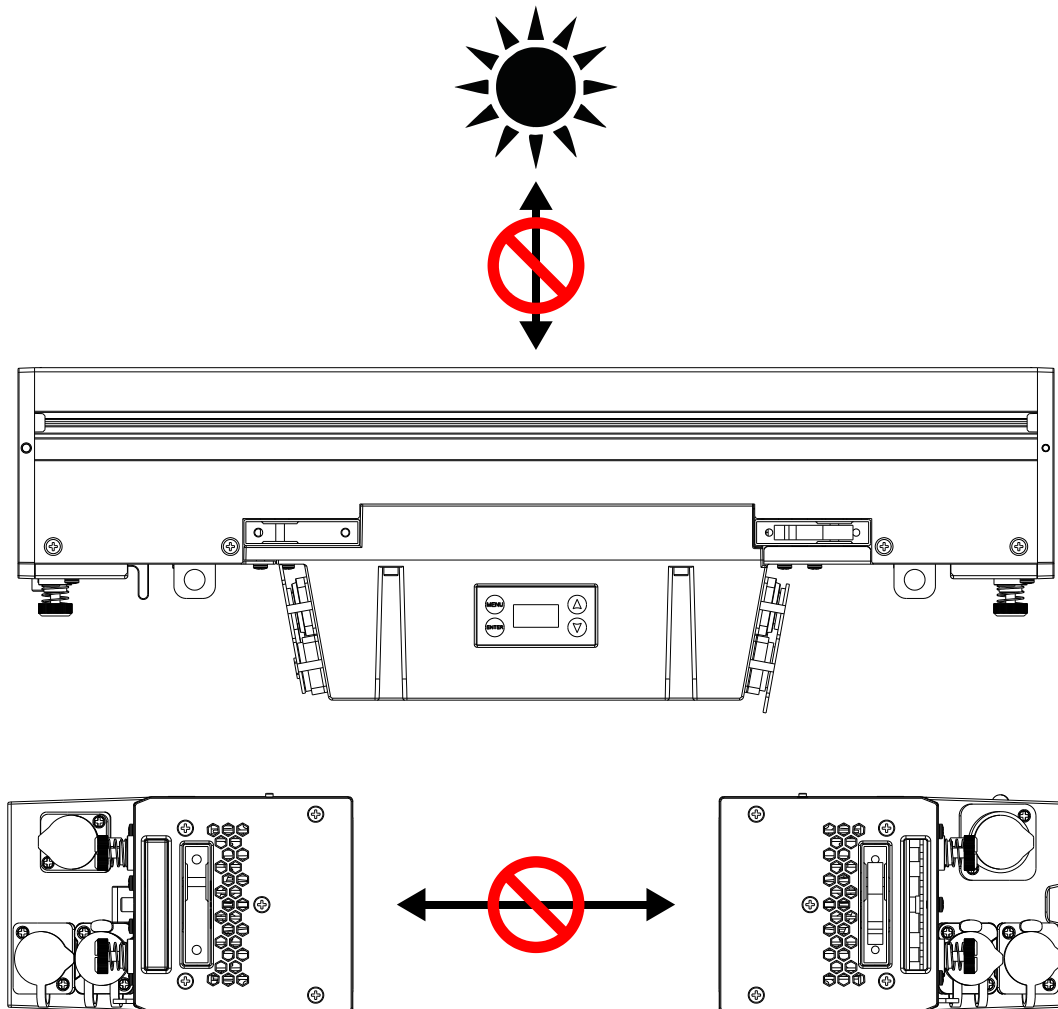
Important:

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: 40°C. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- Keep flammable materials away from the fixture while operating to avoid fire hazard.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- 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

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

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

Important:

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

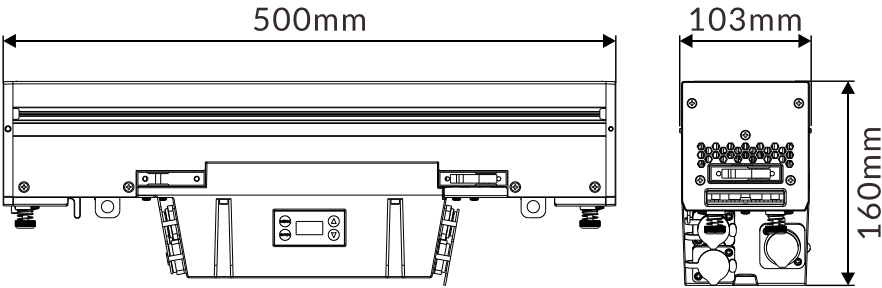
- Déballer et vérifier soigneusement qu'il n'y a pas de dommages dus au transport avant d'utiliser l'appareil.
- Ce produit est adapté aux endroits humides. Ne pas immerger dans l'eau.
- FAIRE installer et utiliser par un opérateur qualifié.
- NE PAS laisser les enfants manipuler l'appareil.
- Utiliser une chaîne de sécurité lors de la fixation de l'appareil. Manipuler l'appareil en portant sa base et non uniquement par la tête.
- L'appareil doit être installé dans un endroit bien ventilé, à au moins 50 cm des surfaces adjacentes.
- Assurez-vous qu'aucune fente de ventilation n'est obstruée, sinon l'appareil surchauffera.
- Avant utilisation, assurez-vous de connecter ce produit à la tension appropriée conformément aux spécifications de ce manuel ou à l'étiquette des spécifications du produit.
- Il est important de mettre le conducteur jaune/vert à la terre pour éviter tout risque de choc électrique.
- Température ambiante minimale (TA): -10°C. Température ambiante maximale (TA): 40°C. Ne pas utiliser ce produit à une température inférieure ou supérieure.
- NE PAS connecter l'appareil à un gradateur (dimmer pack).
- Éloigner les matériaux inflammables de l'appareil pendant son fonctionnement pour éviter tout risque d'incendie.

- Vérifier que le cordon d'alimentation n'est ni écrasé ni endommagé; le remplacer immédiatement s'il est endommagé.
- La température de surface de l'appareil peut atteindre jusqu'à 70°C. NE PAS toucher le boîtier à mains nues pendant son fonctionnement.
- Évitez que des liquides inflammables, de l'eau ou des objets métalliques ne pénètrent dans l'appareil. Si cela se produit, coupez immédiatement l'alimentation électrique.
- NE PAS utiliser l'appareil dans un environnement sale ou poussiéreux. Nettoyez régulièrement l'appareil.
- NE PAS toucher de fils pendant le fonctionnement, car cela pourrait présenter un risque de choc électrique.
- Évitez que le cordon d'alimentation ne s'emmêle avec d'autres fils.
- La distance minimale par rapport aux objets/surfaces doit être de plus de 0.5 mètres.
- En cas de problème de fonctionnement grave, cessez immédiatement d'utiliser l'appareil.
- Ne jamais allumer et éteindre l'appareil à plusieurs reprises.
- Le boîtier, les lentilles ou le filtre ultraviolet doivent être remplacés s'ils sont visiblement endommagés.
- NE PAS ouvrir le boîtier, car il ne contient aucune pièce pouvant être réparée par l'utilisateur.
- NE PAS tenter d'utiliser cet appareil s'il est endommagé. NE PAS tenter de réparations vous-même. Les réparations effectuées par des personnes non qualifiées peuvent entraîner des dommages ou un dysfonctionnement. Veuillez contacter le centre d'assistance technique agréé le plus proche si nécessaire.
- Débranchez l'appareil de sa source d'alimentation avant toute maintenance.
- UTILISEZ l'emballage d'origine si l'appareil doit être transporté.
- 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.

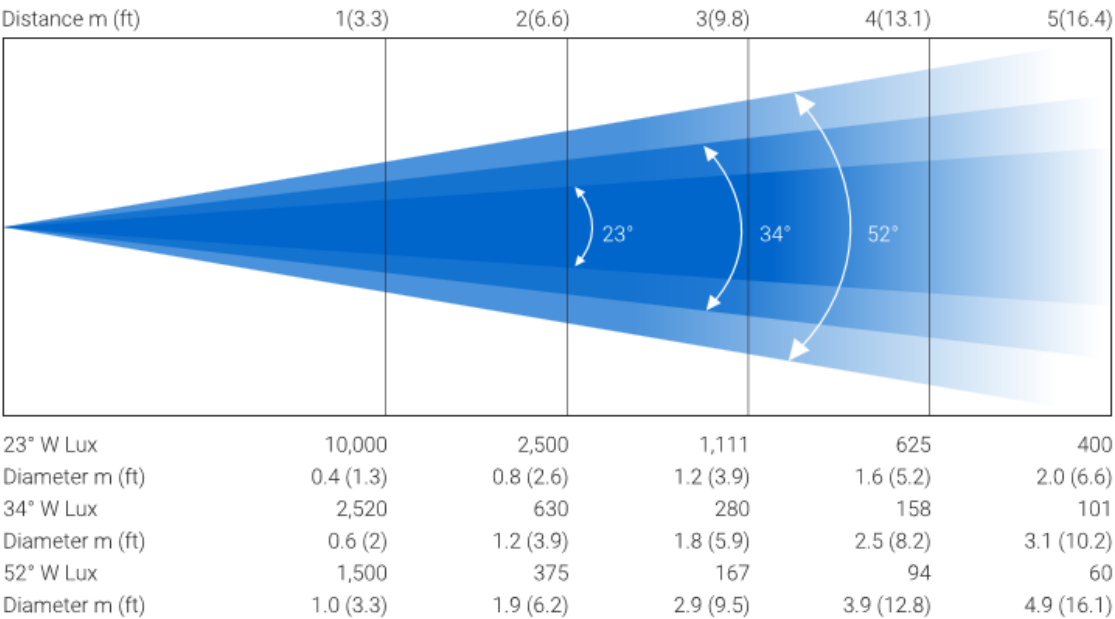
02/ Technical Specifications

AC Power	100-240Vac; 50/60Hz	
Max. Power Consumption	350W	
Light Source	TOC-YF-V2-RGBWA150x5pcs	
Beam Angle	23°/34°/52° (W)	
	24°/33°/55° (RGBA)	
Field Angle	46°/88°/127° (W)	
	48°/85°/131° (RGBA)	
Control and Programming	DMX Channels	14/30
	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
Dynamic Effects	Protection Rating	IP66
	5 x RGBWA LEDs with individual control	
	0-100% continuous dimming and strobe effects	
	Choice of four dimming curves	
	Patented Smart Glass Technology for frost effects	
	Variable color temperature control	
	Outstanding color mixing	
	Tungsten emulation during dimming	
Included Items	Equipped with an inventive quick-release mechanism that allows you to quickly connect and align multiple fixtures	
	Power Cable with true1 power connector	
	Two brackets	
Dimensions	User Manual (this document)	
	500x103x160mm	19.7"x4.1"x6.3"
Weight	7.7 kg	17 lbs

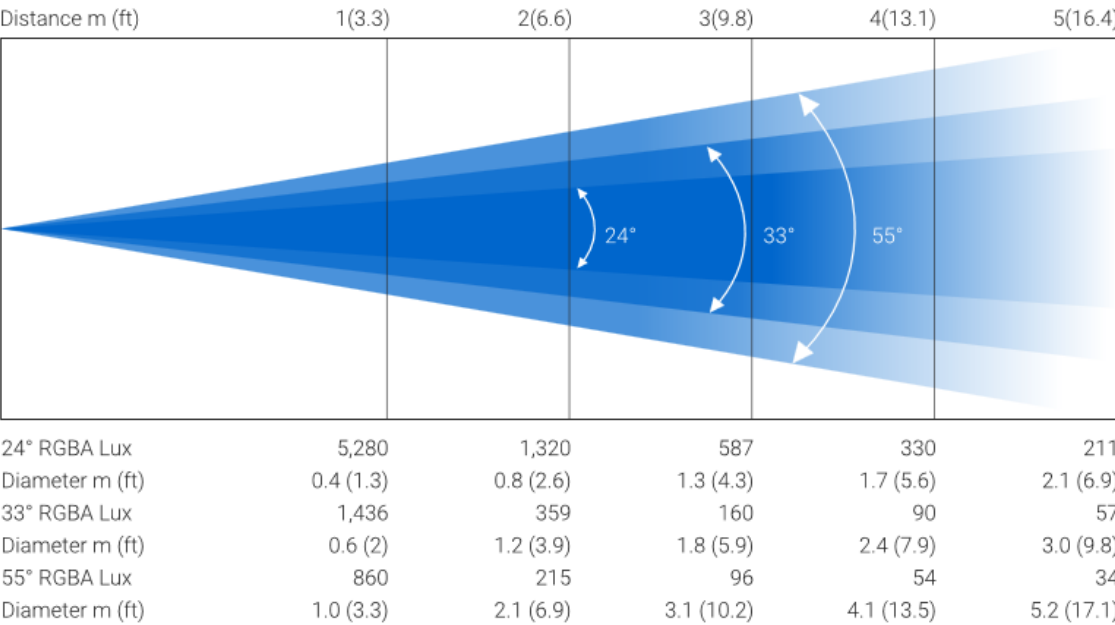


Photometric Diagram (Beam Angle):

Beam Angle (W):

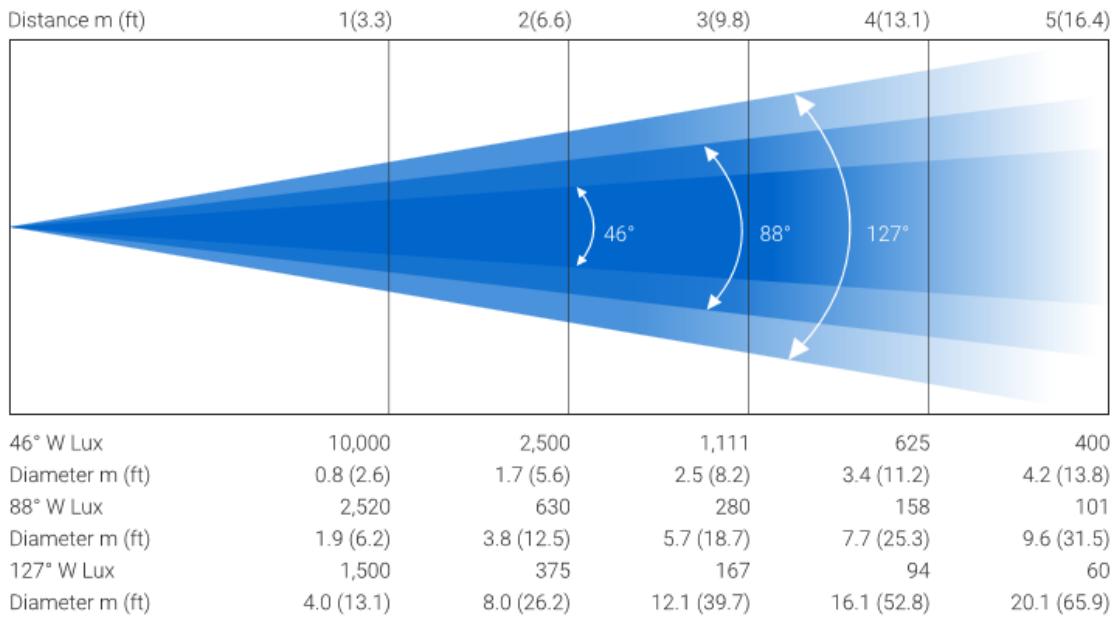


Beam Angle (RGBA):

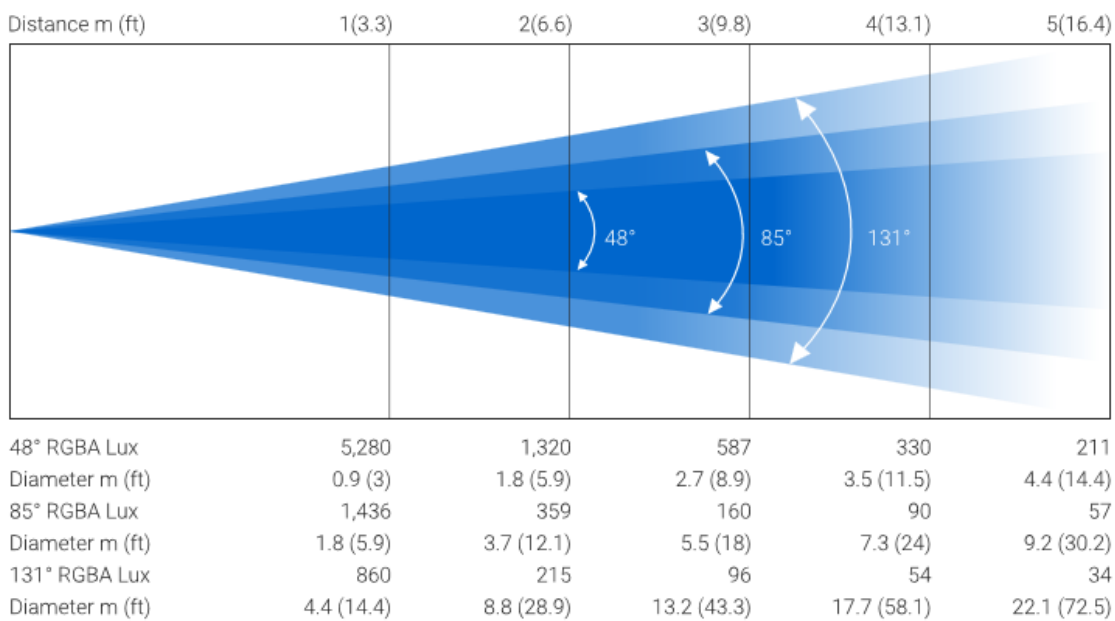


Photometric Diagram (Field Angle):

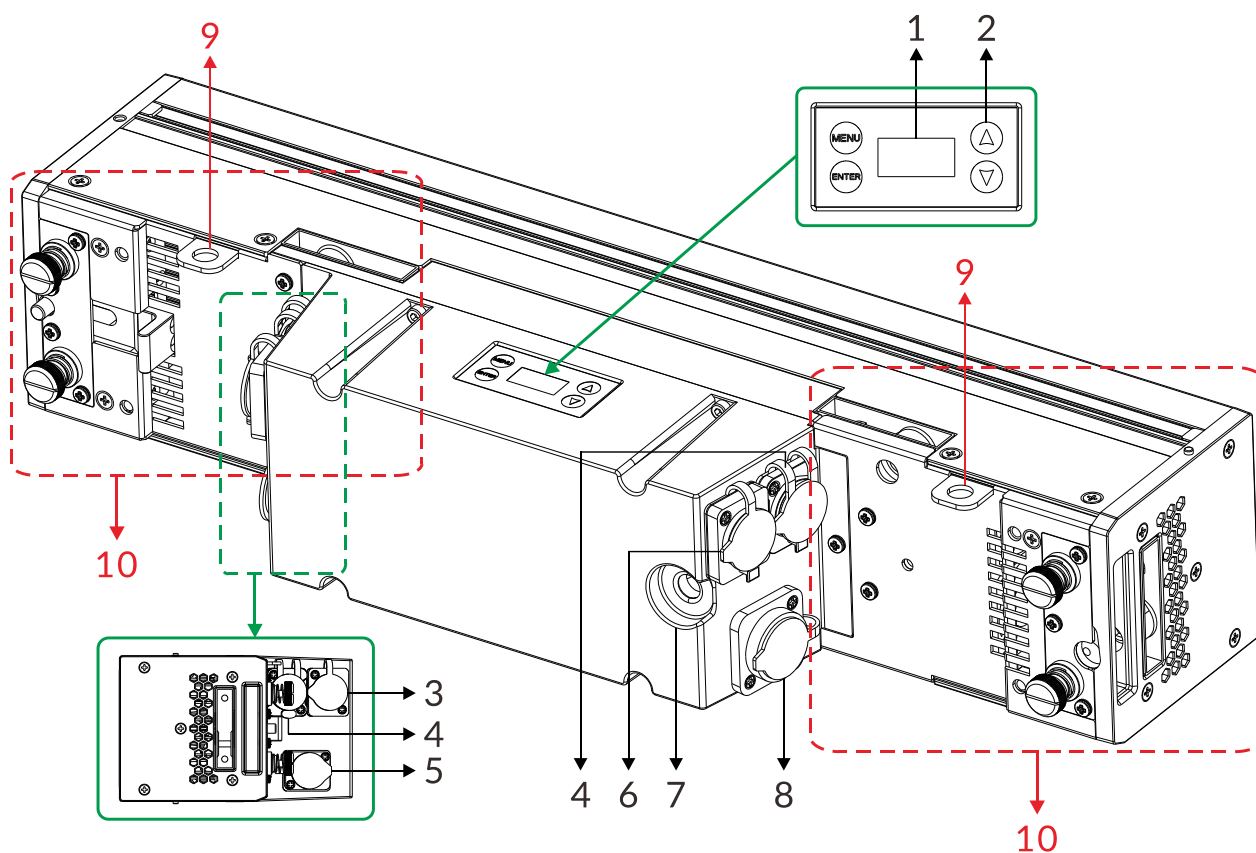
Field Angle (W):



Field Angle (RGBA):



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 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)	
4. ETHERNET	For use with sACN or Art-Net controls	
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. SAFETY CABLE ATTACHMENT POINTS		
10. COUPLER MECHANISM	The coupler mechanism makes it possible to quickly connect and align two or a long line of fixtures together	

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 350W.

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

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

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

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

Power cord set should be used: Listed SJTW flexible cord with rating: 300V, 105°C, 16AWG x 3C, molded with 5-15P attachment plug and terminated with cord connector model SAC3FX with rating 250V, 16A by Ningbo Seetronic Electronic Technology Co., Ltd. The power cord shall be at least 914mm (It is to be measured from the face of attachment plug to the face of connector).

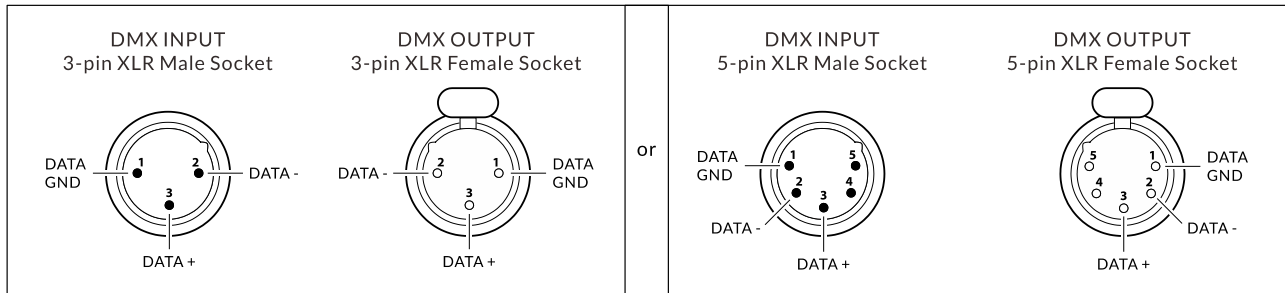
CAUTION!

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:

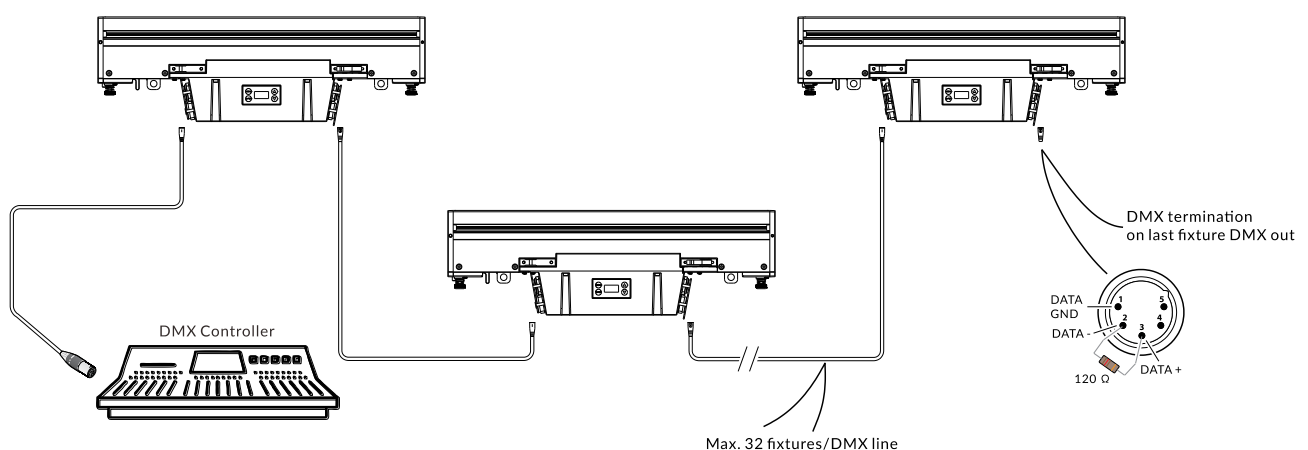


Building a serial DMX chain:

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

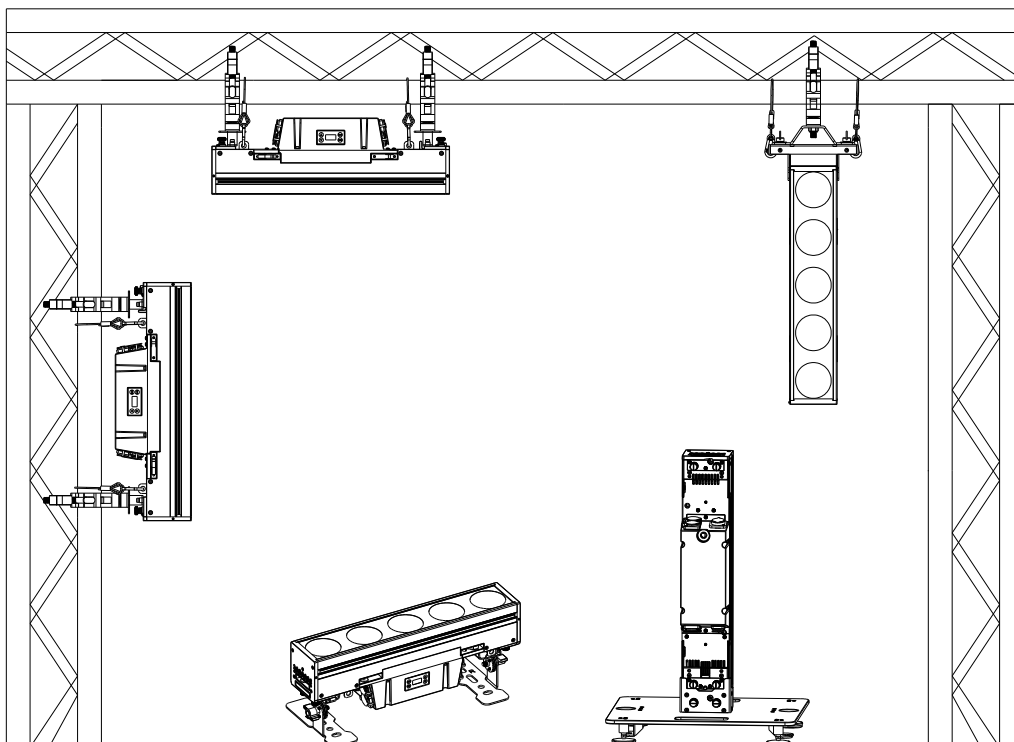
The fixture is IP66-rated and designed for both indoor and outdoor events. This means that it is protected from:

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

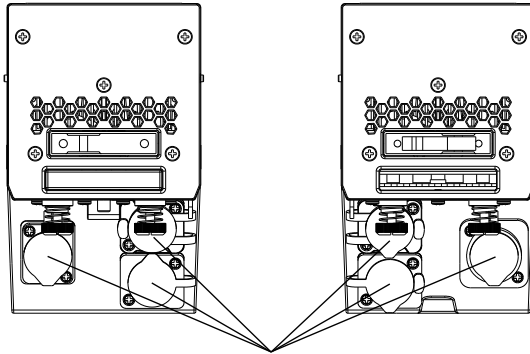
DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas where unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.

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



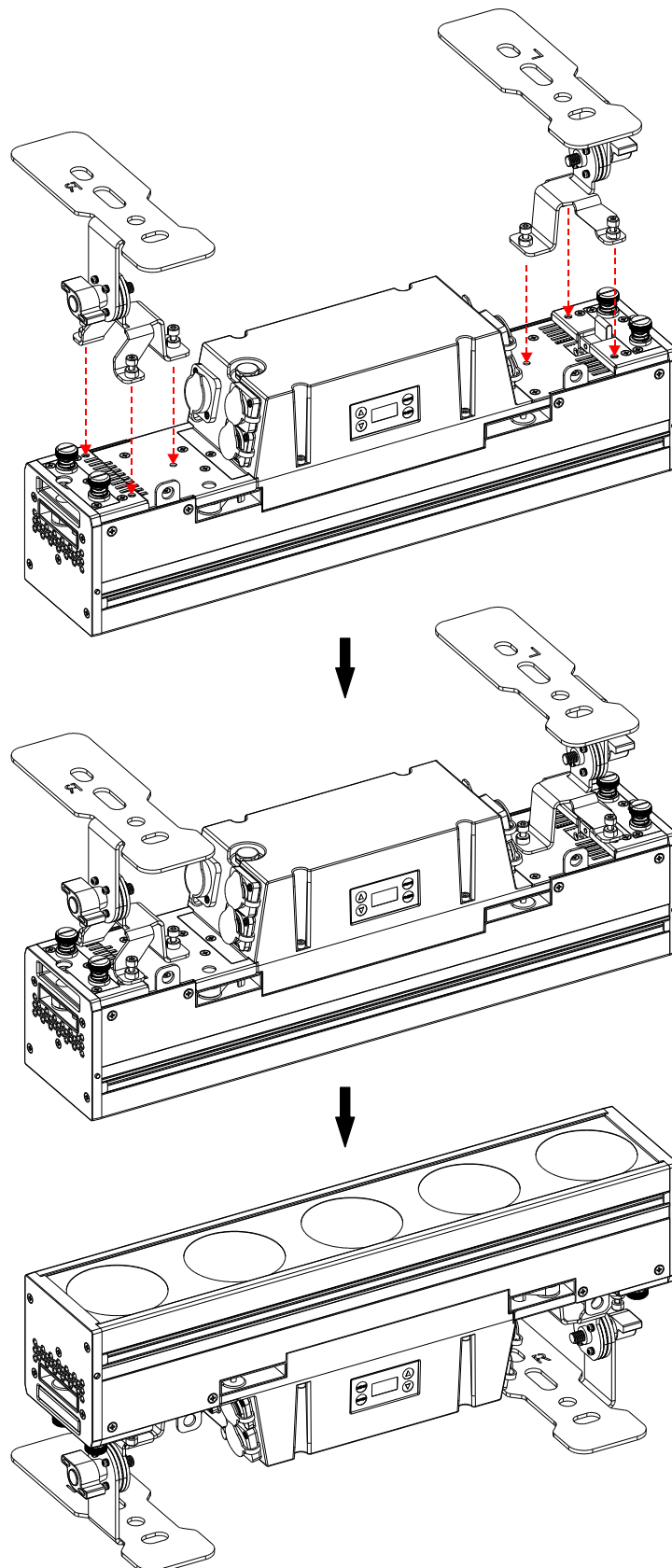
- Use only IP-rated power cords and connectors suitable for outdoor use.
 - Visually check panel connectors on accidental water leaks and dust before connecting related cable connectors.
- If some water appears in panel connectors, do not connect cable connectors, especially power!
- Fixtures require 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.

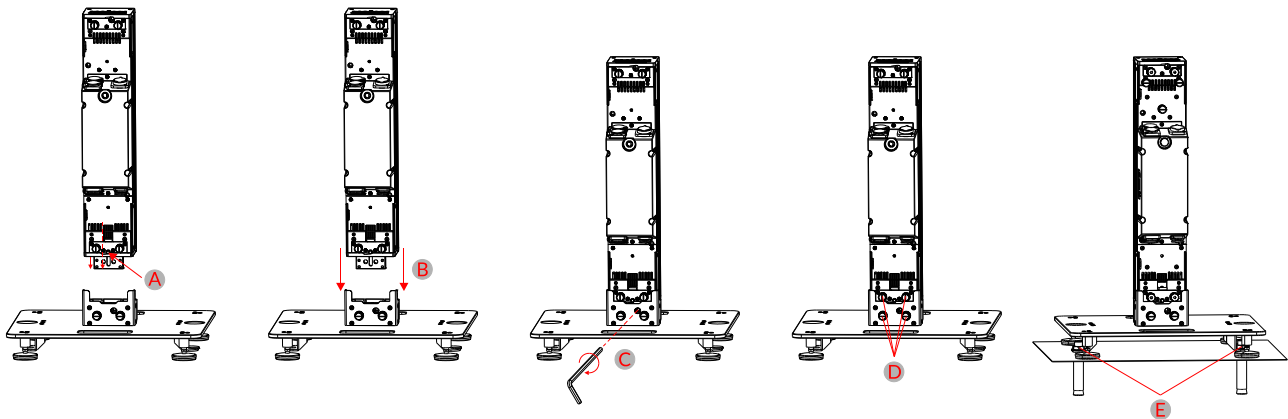
5.1 Stand the Fixture on the Floor

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



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

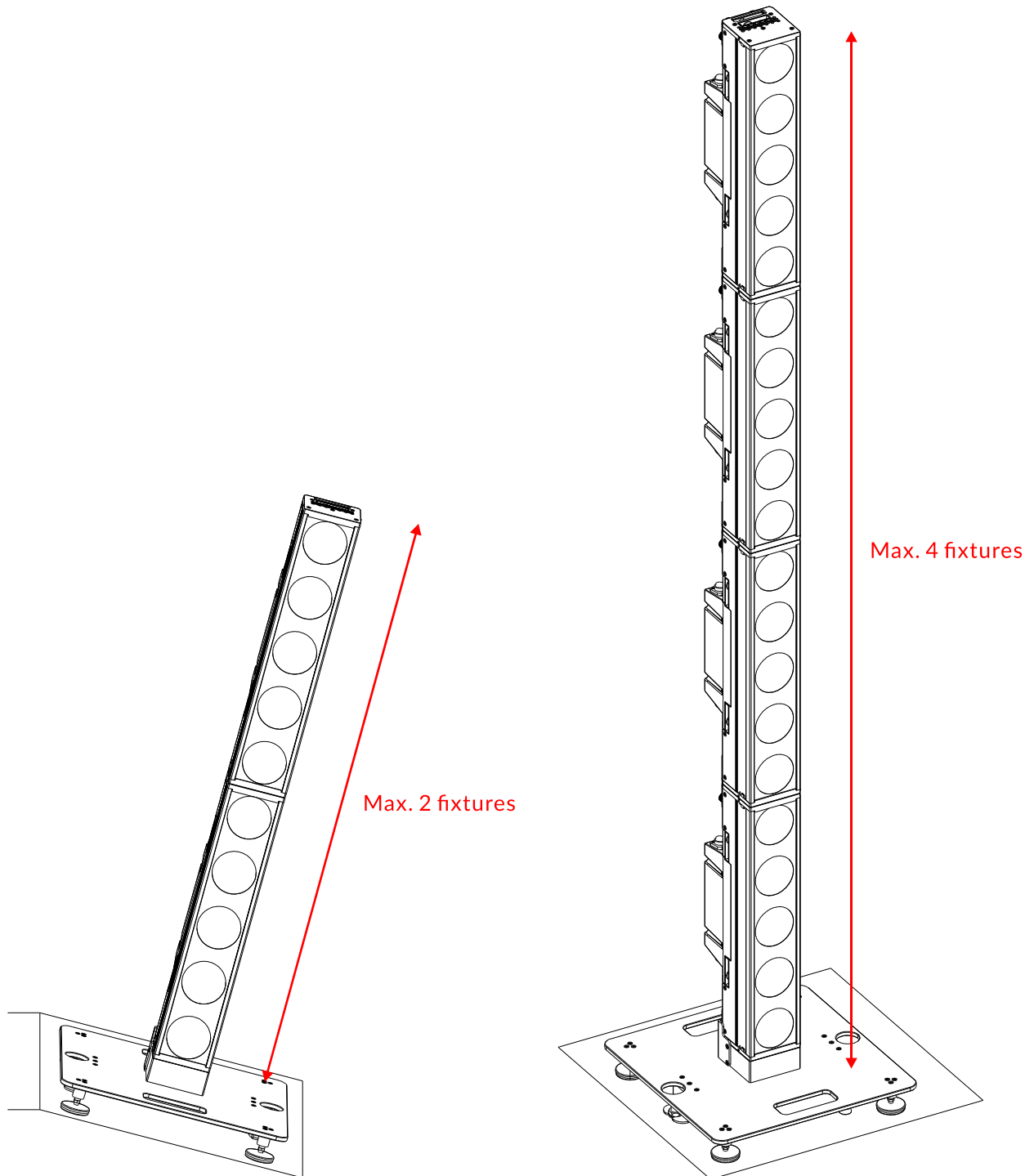
- A. Press the button: automatically the slide comes out completely.
- B. Place the fixture against the base stand in line so that the slide fits into the base stand.
- C. Insert the hex wrench into the hexagonal slot and tighten it clockwise to release and secure the locking mechanism inside the base 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.

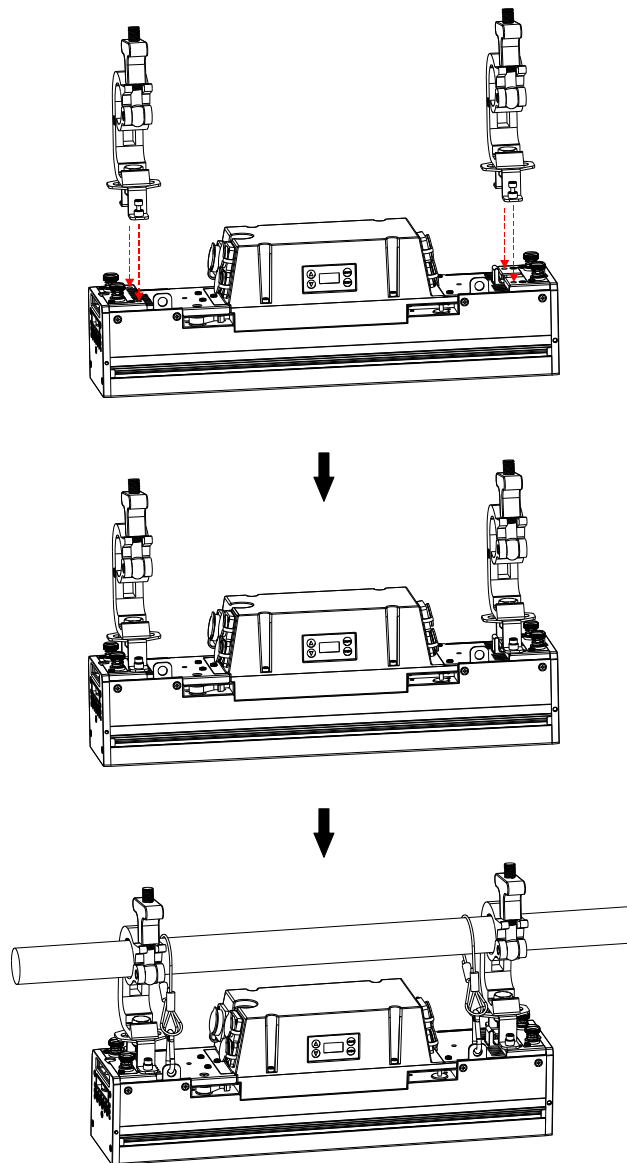
Note: Hold down the button and pull the slide back simultaneously to retract it to its original position.

- 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.

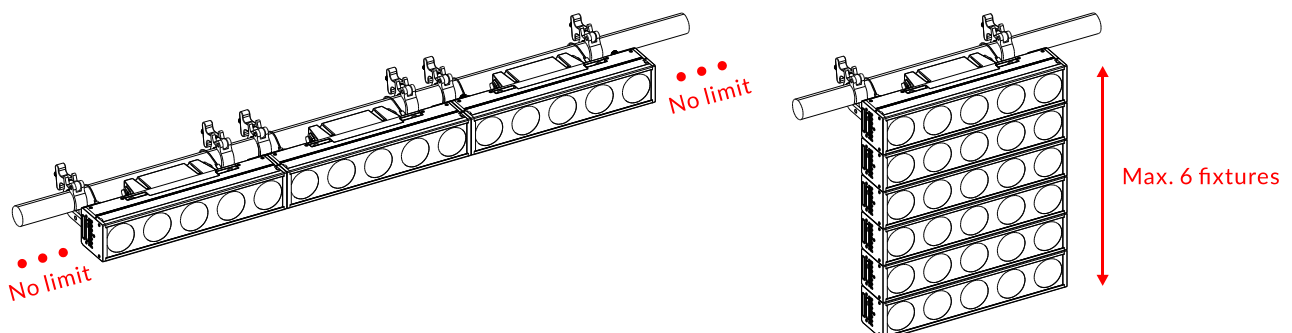


5.2 Hanging the Fixture

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

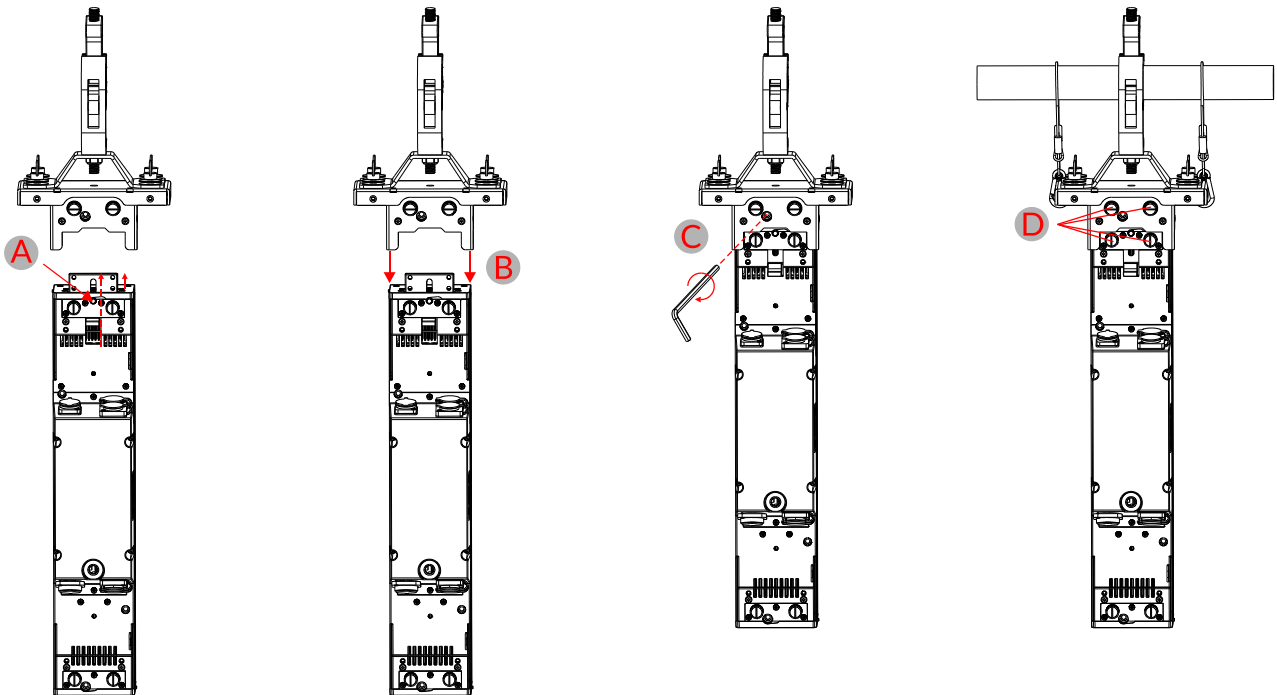


Note: When hanging horizontally, there is no limit to the number of fixtures in the horizontal direction, and a maximum of 6 fixtures may be connected in the vertical direction.



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

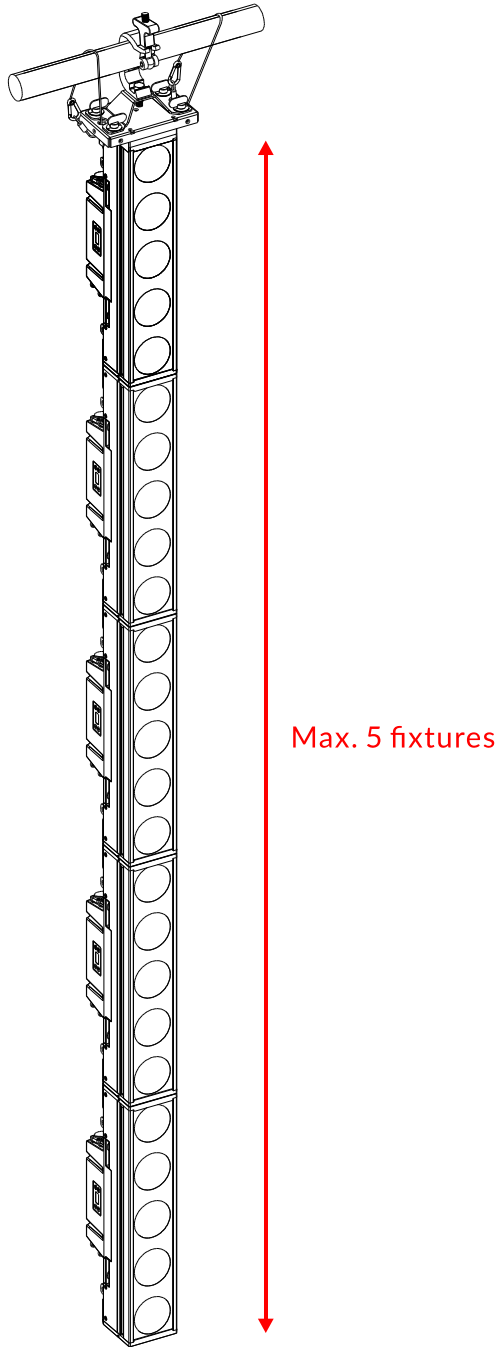
- A. Press the button: automatically the slide comes out completely.
- B. Place the hanging bracket with clamp against the fixture in line so that the slide fits into the hanging bracket.
- C. Insert the hex wrench into the hexagonal slot and tighten it clockwise to release and secure the locking mechanism 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.

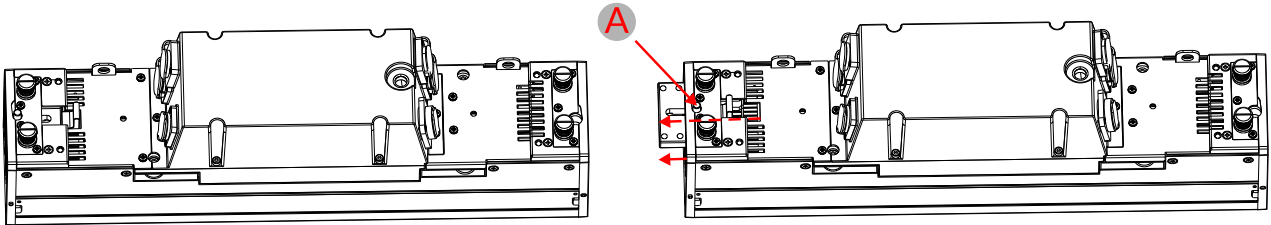
Note: When hanging vertically, a maximum of 5 fixtures may be connected.



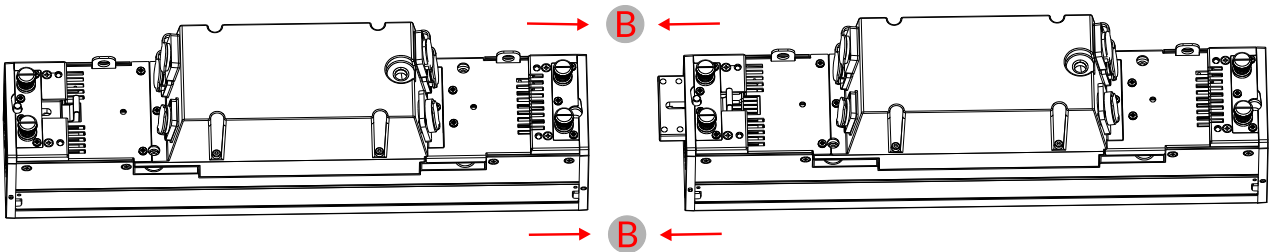
5.3 Connecting and Aligning Multiple Fixtures

Connecting and aligning fixtures horizontally:

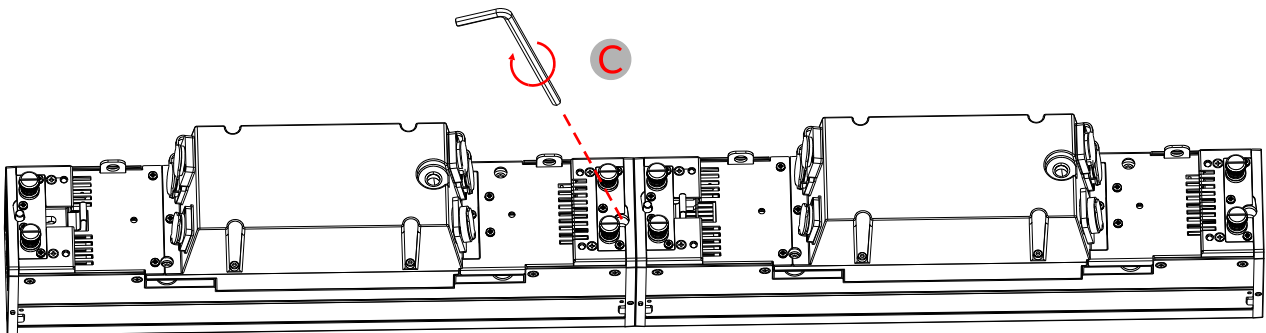
A. Press the button: automatically the slide comes out completely.



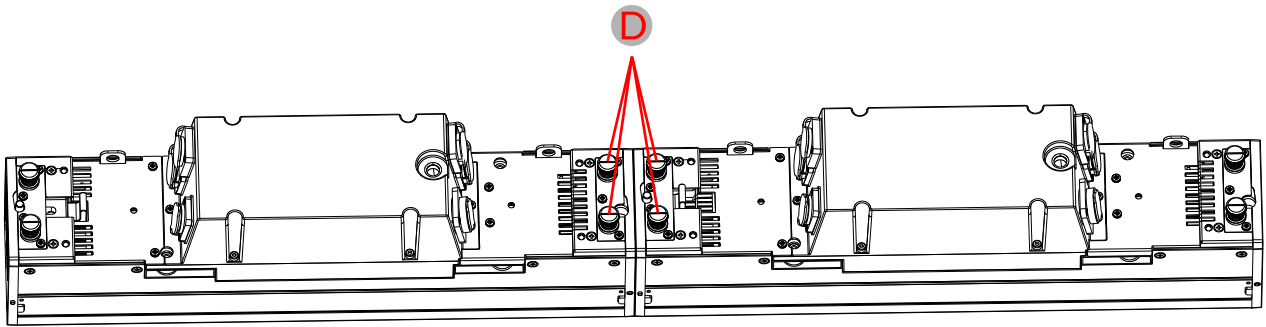
B. Place both fixtures against each other in line so that the slide fits into the other fixture.



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.



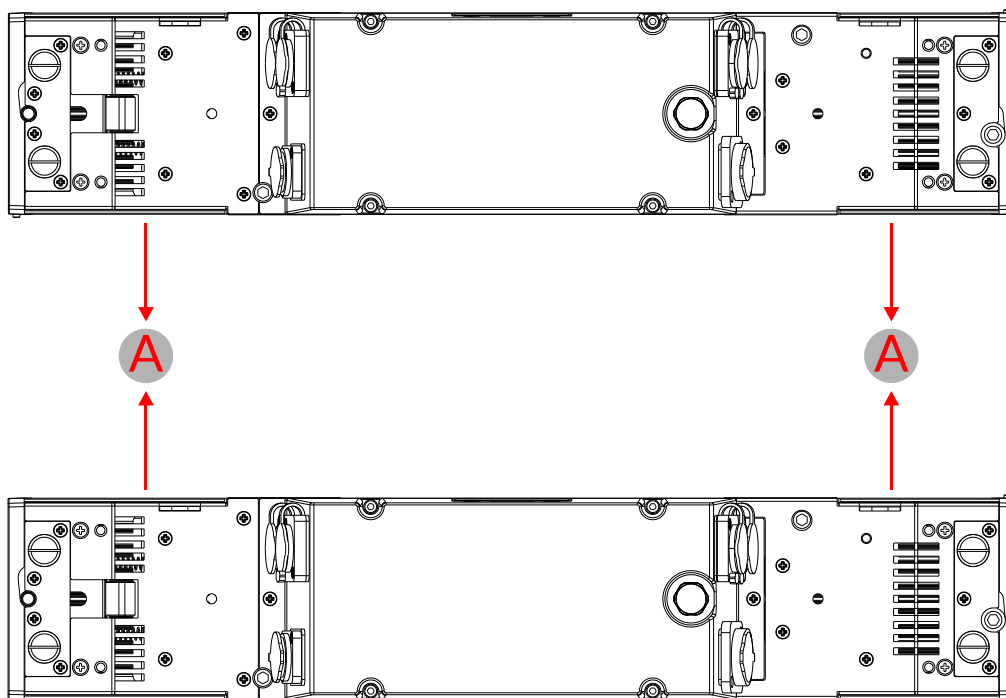
If you need to connect and align more fixtures, repeat the steps above.

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

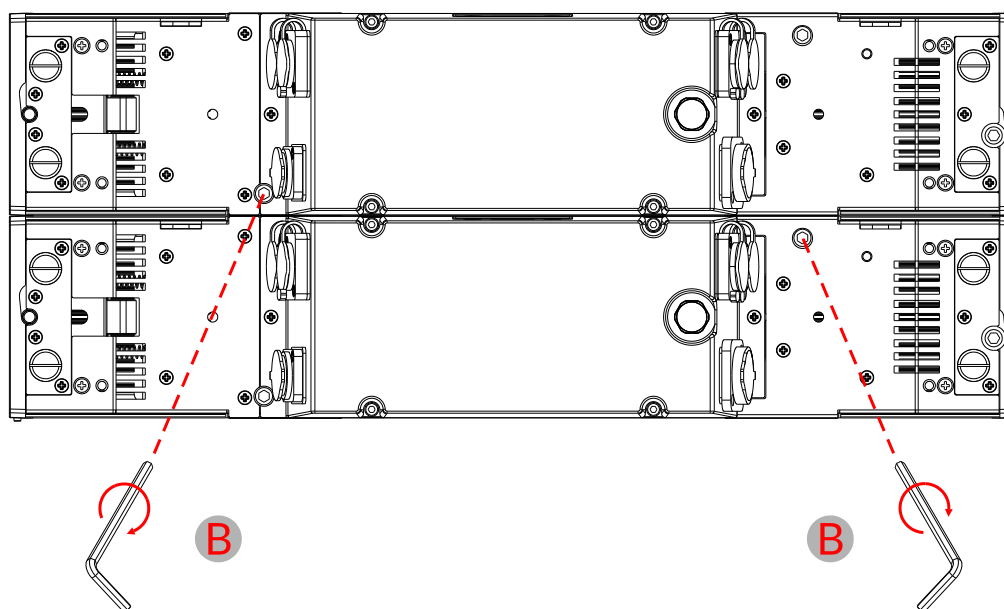
Note: Hold down the button and pull the slide back simultaneously to retract it to its original position.

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 to unlock the screen.

The main functions are shown below:

MAIN MENU	SUBMENU	CHOICES/VALUES	
DMX Settings	DMX Address	1-499 (14 CH)	(Default=1)
		1-483 (30 CH)	
	DMX CH Mode	14 CH	
		30 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)
		Priority	0-200 (Default=100)
	Network to DMX	Off	
		On	

MAIN MENU	SUBMENU	CHOICES/VALUES	
Fixture Settings	Dimmer Curve	Linear	
		Square Law	
		Inv SQ Law	
		S Curve	
	Dimmer Speed	Smooth	
		Fast	
		Tungsten	
	White Balance	Red	125-255
		Green	125-255
		Blue	125-255
		Red 1	125-255
		Green 1	125-255
		Blue 1	125-255
			
		Red 5	125-255
		Green 5	125-255
		Blue 5	125-255
	LED Refresh Rate	900Hz	
		1000Hz	
		1100Hz	
		1200Hz	
		1300Hz	
		1400Hz	
		1500Hz	
		2500Hz	
		4000Hz	
		5000Hz	
		6000Hz	
		10KHz	
		15KHz	
		20KHz	
		25KHz	
	Invert Pixel	No	
		Yes	
	Fan Mode	Auto	
		Silent	
	Dim. Start Mode	High	
		Low	

MAIN MENU	SUBMENU	CHOICES/VALUES				
Display Settings	Display Invert	No				
		Yes				
	Temperature Unit	°C				
		°F				
	Language	English				
		Chinese				
Auto Test	Single					
	Cycle					
Manual Test	Mode 1		Mode 2			
	Clear	No/Yes	Clear	No/Yes		
	Frost	0-255	Frost	0-255		
	Strobe	0-255	Strobe	0-255		
	Dimmer	0-255	Dimmer	0-255		
	White	0-255	White 1	0-255		
	Red	0-255	Red 1	0-255		
	Green	0-255	Green 1	0-255		
	Blue	0-255	Blue 1	0-255		
	Amber	0-255	Amber 1	0-255		
	CCT	0-255				
	Color	0-255	White 5	0-255		
	Effect	0-255	Red 5	0-255		
	Effect Speed	0-255	Green 5	0-255		
			Blue 5	0-255		
			Amber 5	0-255		
	Information	Fixture Use Hour				
		LED Use Hour	Total LED Hour			
LED On Hour						
LED Hours Reset			No			
		Yes	Password=50			
Temperature				Current	Max temp	
		LED's	LED1-3			
Fan State		Base 1				
		Head 1				
		Head 2				
		Head 3				
		Head 4				
Firmware Version						
RDM UID						

MAIN MENU	SUBMENU	CHOICES/VALUES		
	Error Logs	Fixture Errors		
		Reset Error Log	No	
			Yes	Password=50
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
14 CH	1-499
30 CH	1-483

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 **14 CH** and **30 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 **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 **Off** or **On**, confirm your selection with ENTER.

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

Fixture Settings

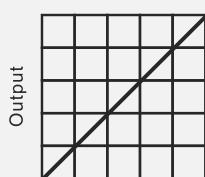
Enter the control menu and select **Fixture Settings**, press ENTER. Use the UP/DOWN button to select **Dimmer Curve**, **Dimmer Speed**, **White Balance**, **LED Refresh Rate**, **Invert Pixel**, **Fan Mode** or **Dim. Start Mode**.

Dimmer Curve

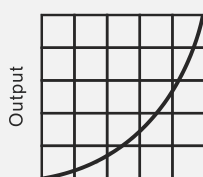
Select **Dimmer Curve**, press ENTER.

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

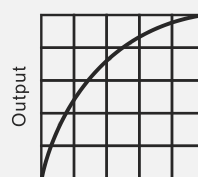
Dimmer Modes



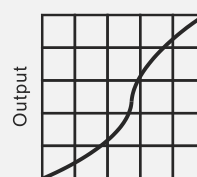
Optically Linear



Square Law



Inverse Square Law



S-curve

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

Dimmer Speed

Select **Dimmer Speed**, press ENTER.

Use UP/DOWN button to select **Smooth**, **Fast** or **Tungsten**, confirm your selection with ENTER.

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

White Balance

Select **White Balance**, press ENTER.

Use UP/DOWN button to select **Red**, **Green**, **Blue**, **Red 1**, **Green 1**, **Blue 1.....** or **Red 5**, **Green 5**, **Blue 5**, confirm your selection with ENTER.

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

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

LED Refresh Rate

Select **LED Refresh Rate**, press ENTER.

Use UP/DOWN button to select **900Hz**, **1000Hz**, **1100Hz**, **1200Hz**, **1300Hz**, **1400Hz**, **1500Hz**, **2500Hz**, **4000Hz**, **5000Hz**, **6000Hz**, **10KHz**, **15KHz**, **20KHz** or **25KHz**, confirm your selection with ENTER.

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

Invert Pixel

Select **Invert Pixel**, press ENTER.

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

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

Fan Mode

Select **Fan Mode**, press ENTER.

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

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

Dim. Start Mode

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

Use UP/DOWN button to select **High** (high dimming start) or **Low** (low dimming start), confirm your selection with ENTER.

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

Display Settings

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

Display Invert

Select **Display Invert**, press ENTER.

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

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

Temperature Unit

Select **Temperature Unit**, press ENTER.

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

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

Language

Select **Language**, press ENTER.

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

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

Auto Test

Select **Auto Test**, press ENTER.

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

To exit the menu, press MENU.

Manual Test

Select **Manual Test**, press ENTER.

Use UP/DOWN button to select the channel for which the manual test is to be performed, confirm your selection with ENTER.

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

To exit the menu, press MENU.

(The device returns to its original DMX state after the manual test. The test values are saved automatically when the device is switched off.)

Information

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

Fixture Use Hour

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

LED Use Hour

Select **LED Use Hour**, press ENTER.
Use UP/DOWN button to select **Total LED Hour** (total time) or **LED On Hour** (current switch-on time), confirm your selection with ENTER.
The total time or current switch-on time is displayed.
Use UP/DOWN button to select **LED Hours Reset**, confirm your selection with ENTER.
If you wish to reset the relevant LED operating hours, select **Yes**. If you do not wish to reset anything, select **No**. Confirm your selection with ENTER.
If you select **Yes**, use UP/DOWN button to set the password 050, confirm your selection with ENTER. The LED operating hours is reset.
To exit the menu, press MENU, or wait 30 seconds.

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.

Factory Restore

Select **Factory Restore**, press ENTER.

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

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

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

The parameter IDs are implemented as follows for different commands:

Standard RDM Parameter IDs

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

✓ -Command implemented for the respective parameter ID

Manufacturer-specific RDM Parameter IDs

PID	Parameter IDs	Command 'Discovery'	Command 'Set'	Command 'Get'
0xA004	DMX_STATUS		✓	✓
0xA007	INVERT_PIXEL_ORDER		✓	✓
0xA008	DIMMER_SPEED		✓	✓
0xA010	FAN_MODE		✓	✓
0xA018	ERROR_LOG			✓
0xA020	OFFSET		✓	✓
0xA025	DIMMER_CURVE		✓	✓
0xA026	DIMMER_FREQUENCY		✓	✓

✓ -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
White	-128~127
Red	-128~127
Green	-128~127
Blue	-128~127
Amber	-128~127
White 1	-128~127
Red 1	-128~127
Green 1	-128~127
Blue 1	-128~127
Amber 1	-128~127
.....	
White 5	-128~127
Red 5	-128~127
Green 5	-128~127
Blue 5	-128~127
Amber 5	-128~127

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

White

Select **White**, press ENTER.

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

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

Red

Select **Red**, press ENTER.

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

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

White 1

Select **White 1**, press ENTER.

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

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

Red 1

Select **Red 1**, press ENTER.

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

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

Green 1

Select **Green 1**, press ENTER.

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

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

Blue 1

Select **Blue 1**, press ENTER.

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

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

Amber 1

Select **Amber 1**, press ENTER.

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

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

.....

White 5

Select **White 5**, press ENTER.

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

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

Red 5

Select **Red 5**, press ENTER.

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

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

Green 5

Select **Green 5**, press ENTER.

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

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

Blue 5

Select **Blue 5**, press ENTER.

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

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

Amber 5

Select **Amber 5**, press ENTER.

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

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

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 14 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 15. As the first fixture uses all the first 14 DMX channels, the next available channel is 15 ($14+1=15 >> 15$).

See the chart below for more details:

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address	Unit xxx Address
14 channels	1	15	29	43	
30 channels	1	31	61	91	

7.2 DMX Protocol

Valid from firmware version: V1.4

CHANNEL		VALUE	FUNCTION
14ch	30ch		
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
		070-099	Null
		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
		140-179	Null
		180-189	Dimmer Speed: Fast
		190-199	Dimmer Speed: Smooth

		200-209 210-219 220-229 230 231 232-255	Dimmer Speed: Tungsten Invert Pixel: No Invert Pixel: Yes Dimming Start Mode: High Dimming Start Mode: Low Null
2	2	000-042 043-085 086-127 128-255	FROST Null Frost 1 Frost 2 0%→100%
3	3	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	STROBE Close Open Strobe from Slow to Fast Open Fast Open Slow Close from Slow to Fast Open Slow Open Fast Close from Slow to Fast Open Random Strobe from Slow to Fast Open
4	4	000-255	DIMMER 0%→100%
5	5	000-255	DIMMER FINE
6		000-255	WHITE 0%→100%
7		000-255	RED 0%→100%
8		000-255	GREEN 0%→100%
9		000-255	BLUE 0%→100%
10		000-255	AMBER 0%→100%
11		000 001-004 005-009 010-013 014-018 019-022 023-027 028-031 032-036 037-040	CCT Null 8000K 7900K 7800K 7700K 7600K 7500K 7400K 7300K 7200K

	041-045	7100K
	046-049	7000K
	050-054	6900K
	055-058	6800K
	059-063	6700K
	064-067	6600K
	068-072	6500K
	073-076	6400K
	077-081	6300K
	082-085	6200K
	086-090	6100K
	091-094	6000K
	095-099	5900K
	100-103	5800K
	104-108	5700K
	109-112	5600K
	113-117	5500K
	118-121	5400K
	122-126	5300K
	127-130	5200K
	131-135	5100K
	136-139	5000K
	140-144	4900K
	145-148	4800K
	149-153	4700K
	154-157	4600K
	158-162	4500K
	163-166	4400K
	167-171	4300K
	172-175	4200K
	176-180	4100K
	181-184	4000K
	185-189	3900K
	190-193	3800K
	194-198	3700K
	199-202	3600K
	203-207	3500K
	208-211	3400K
	212-216	3300K
	217-220	3200K
	221-225	3100K
	226-229	3000K
	230-234	2900K
	235-238	2800K
	239-243	2700K
	244-247	2600K
	248-255	2500K

12		000-009	COLOR MACRO
		010-016	Null
		017-023	LEE 790 – Moroccan Pink
		024-030	LEE 157 – Pink
		031-037	LEE 332 – Special Rose Pink
		038-044	LEE 328 – Follies Pink
		045-051	LEE 345 – Fuchsia Pink
		052-058	LEE 194 – Surprise Pink
		059-065	LEE 181 – Congo Blue
		066-072	LEE 071 – Tokyo Blue
		073-079	LEE 120 – Deep Blue
		080-086	LEE 079 – Just Blue
		087-093	LEE 132 – Medium Blue
		094-100	LEE 200 – Double CT Blue
		101-107	LEE 161 – State Blue
		108-114	LEE 201 – Full CT Blue
		115-121	LEE 202 – Half CT Blue
		122-128	LEE 117 – Steel Blue
		129-135	LEE 353 – Lighter Blue
		136-142	LEE 118 – Light Blue
		143-149	LEE 116 – Medium Blue Green
		150-156	LEE 124 – Dark Green
		157-163	LEE 139 – Primary Green
		164-170	LEE 089 – Moss Green
		171-177	LEE 122 – Fern Green
		178-184	LEE 738 – JAS Green
		185-191	LEE 088 – Lime Green
		192-198	LEE 100 – Spring Yellow
		199-205	LEE 104 – Deep Amber
		206-212	LEE 179 – Chrome Orange
		213-219	LEE 105 – Orange
		220-226	LEE 021 – Gold Amber
		227-233	LEE 778 – Millennium Gold
		234-255	LEE 135 – Deep Gold Amber
13			MACRO EFFECT SELECT
		000-015	Null
		016-040	Built-in Effect 1
		041-065	Built-in Effect 2
		066-090	Built-in Effect 3
		091-115	Built-in Effect 4
		116-140	Built-in Effect 5
		141-165	Built-in Effect 6
		166-190	Built-in Effect 7
		191-215	Built-in Effect 8
		216-240	Built-in Effect 9
		241-255	Built-in Effect 10

14		000 001-127 128-255	MACRO EFFECT SPEED Null Slow to Fast without Fade Slow to Fast with Fade
	6	000-255	WHITE 1 0%→100%
	7	000-255	RED 1 0%→100%
	8	000-255	GREEN 1 0%→100%
	9	000-255	BLUE 1 0%→100%
	10	000-255	AMBER 1 0%→100%
	11	000-255	WHITE 2 0%→100%
	12	000-255	RED 2 0%→100%
	13	000-255	GREEN 2 0%→100%
	14	000-255	BLUE 2 0%→100%
	15	000-255	AMBER 2 0%→100%
	16	000-255	WHITE 3 0%→100%
	17	000-255	RED 3 0%→100%
	18	000-255	GREEN 3 0%→100%
	19	000-255	BLUE 3 0%→100%
	20	000-255	AMBER 3 0%→100%
	21	000-255	WHITE 4 0%→100%
	22	000-255	RED 4 0%→100%
	23	000-255	GREEN 4 0%→100%
	24	000-255	BLUE 4 0%→100%
	25	000-255	AMBER 4 0%→100%

	26	000-255	WHITE 5 0%→100%
	27	000-255	RED 5 0%→100%
	28	000-255	GREEN 5 0%→100%
	29	000-255	BLUE 5 0%→100%
	30	000-255	AMBER 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 Error

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

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

LED Temp. Error

Check whether the temperature detecting board is normal.

Check whether the components of the temperature detecting board are damaged.

Check whether the lead on the temperature detecting board is installed in place or disconnected.

LED Too Hot Off

When the fixture temperature reaches 76°C, it will automatically turn off to protect the fixture.

LED Timeout Use

Network Error

Check whether the network module is installed.

Check whether the network module is damaged.

Head Fan 1/2/3/4 Start Err

Check whether the fan is not running.

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

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

Base Fan Start Err

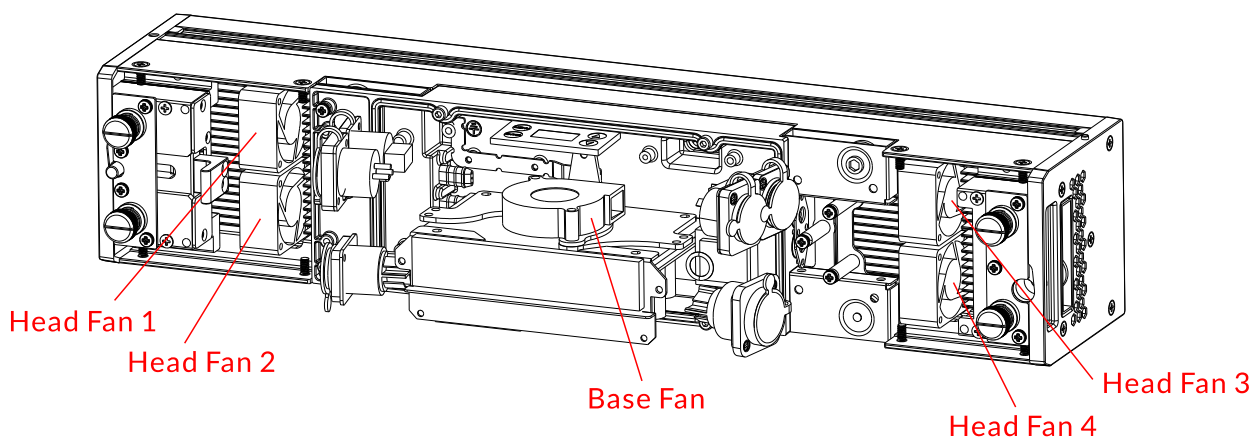
Check whether the fan is not running.

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

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

Position of cooling fans:



Cooling Fans	Part Number	V	W	Position
Base Fan	3014001318	DC 24V	2.4W	Base - A
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.
- ▶ 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



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