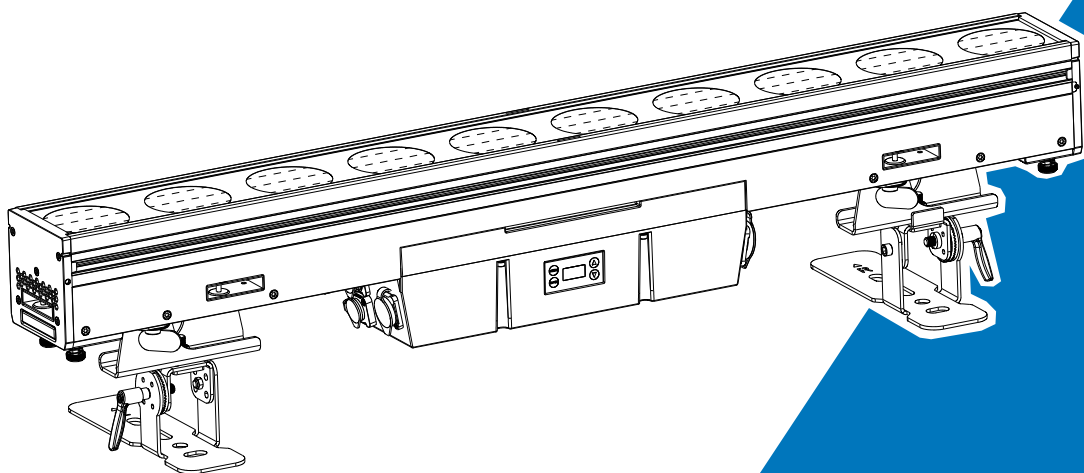




LINEFORCE 10 IP



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.

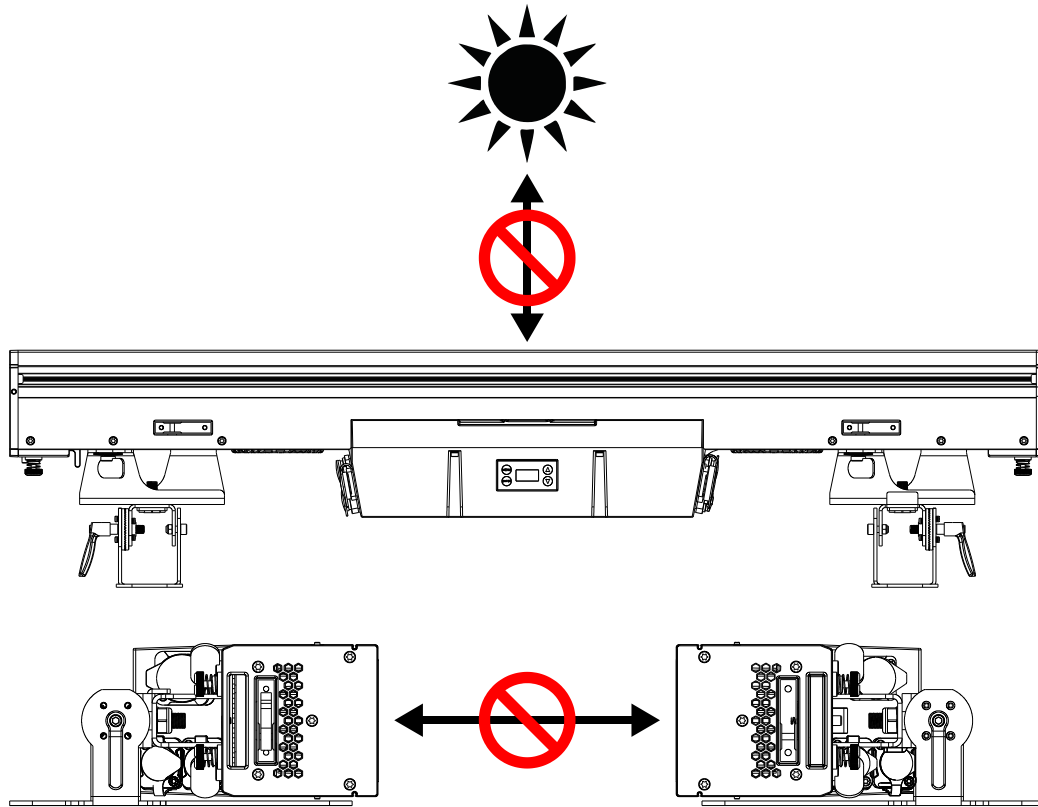
Important:

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

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

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

Important:

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

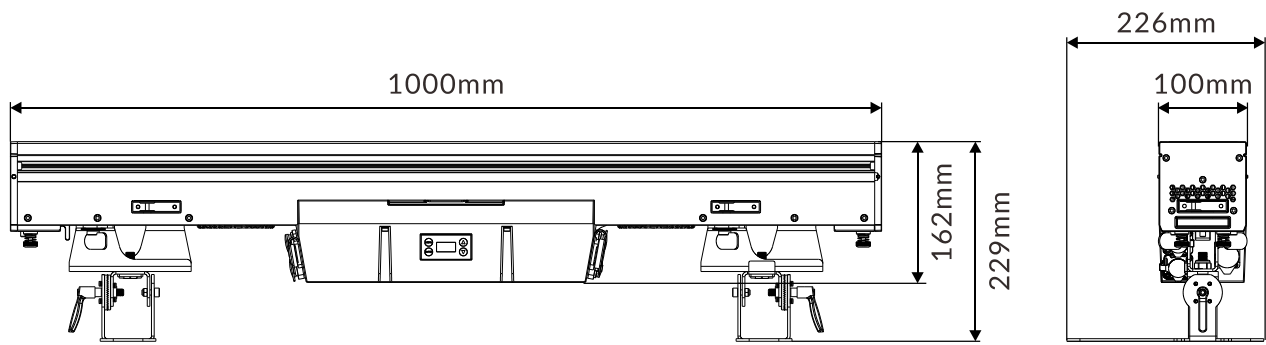
- Déballer et vérifier soigneusement qu'il n'y a pas de dommages dus au transport avant d'utiliser l'appareil.
- Ce produit est adapté aux endroits humides. Ne pas immerger dans l'eau.
- FAIRE installer et utiliser par un opérateur qualifié.
- NE PAS laisser les enfants manipuler l'appareil.
- Utiliser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

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

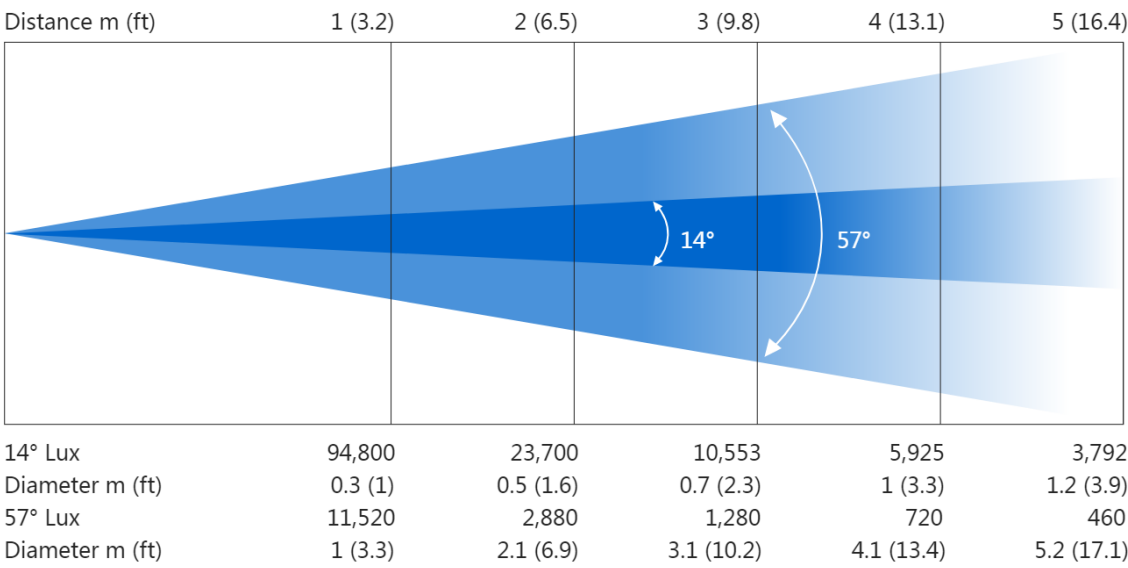
- L'appareil NE DOIT PAS être allumé immédiatement s'il a été exposé à de fortes variations de température (par exemple après un transport), car de la condensation pourrait se former à l'intérieur. Veuillez laisser l'appareil éteint jusqu'à ce qu'il ait atteint la température ambiante.
- Les sources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

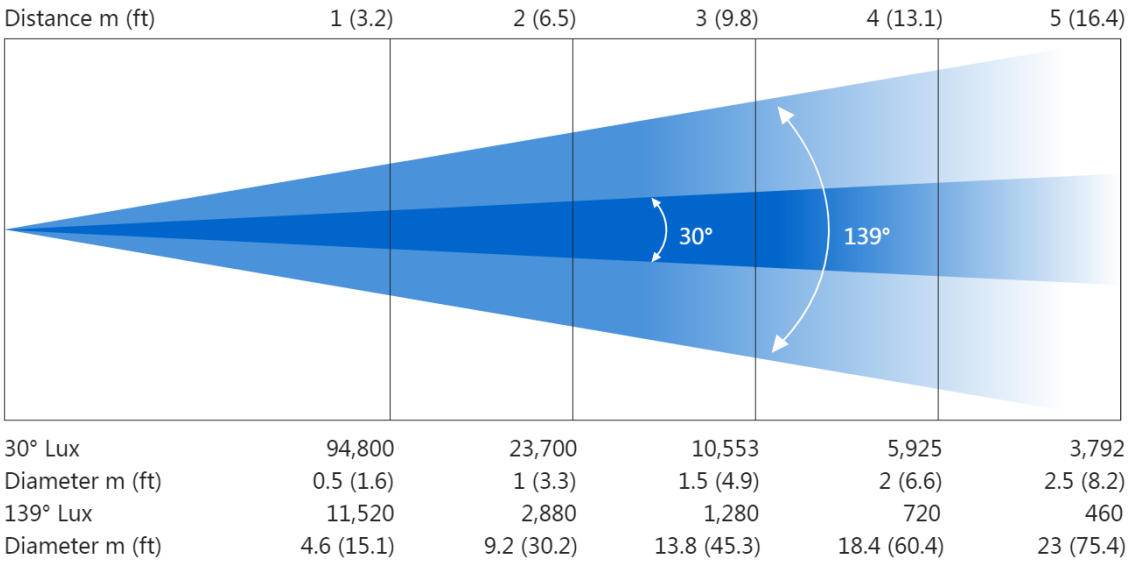
AC Power	100-240Vac; 50/60Hz	
Max. Power Consumption	625W	
Light Source	10x120W RGBWAC+UV LED	
Beam Angle	14°-57°	
Field Angle	30°-139°	
Control and Programming	DMX Channels	10/12/16/18/19/21/79/82
	Protocols	DMX512
		RDM
		Art-Net
		sACN
	Firmware Update	via DMX
Construction	Display	OLED display
	DMX 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	10 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 omega brackets	
	Two floor stands	
	User Manual (this document)	
Dimensions	1000x226x229mm	39.4"x8.9"x9"
Weight	15.6 kg	34.4 lbs



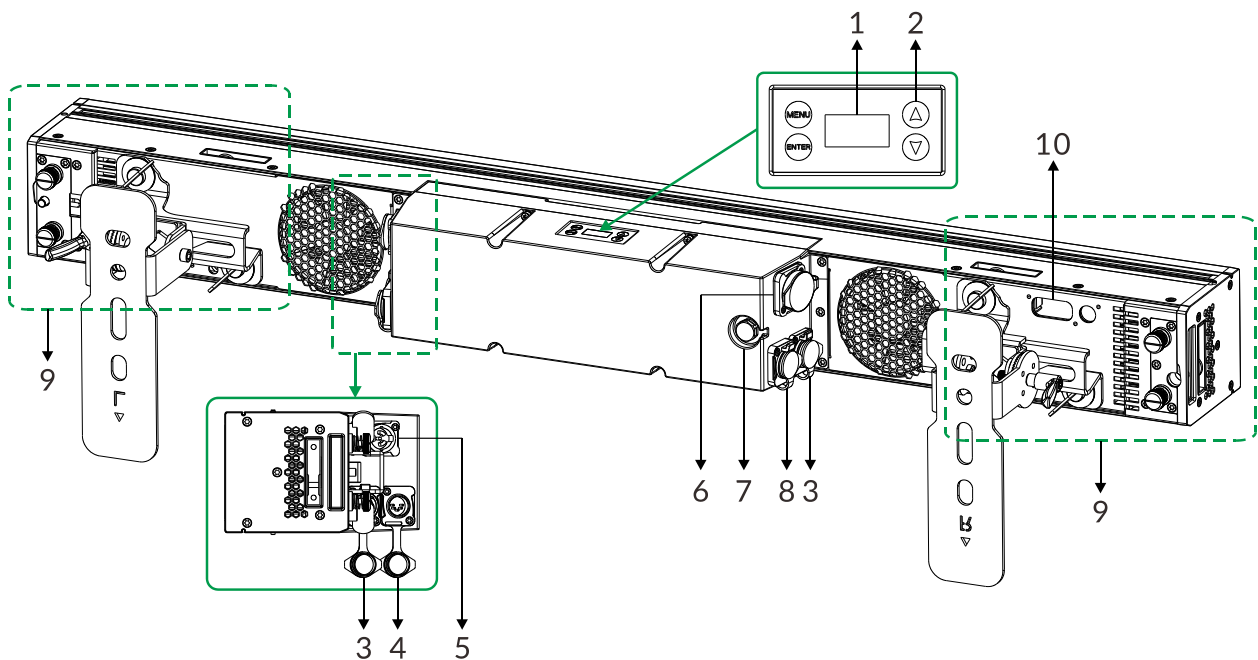
Photometric Diagram (Beam Angle):



Photometric Diagram (Field Angle):



03/ Overview



1. Display	To show the various menus and the selected function	
2. Buttons	MENU	To enter into, move backward or leave the menu
	▲ UP	To go backward 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. POWER OUT	To connect to the next fixture	
7. RELEASE VALVE		
8. 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)	
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 625W.

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

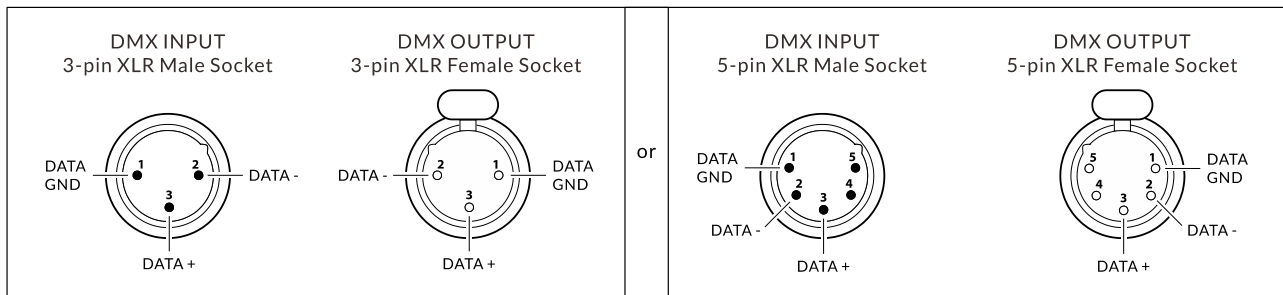
CAUTION!

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

4.2 Connecting Data

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

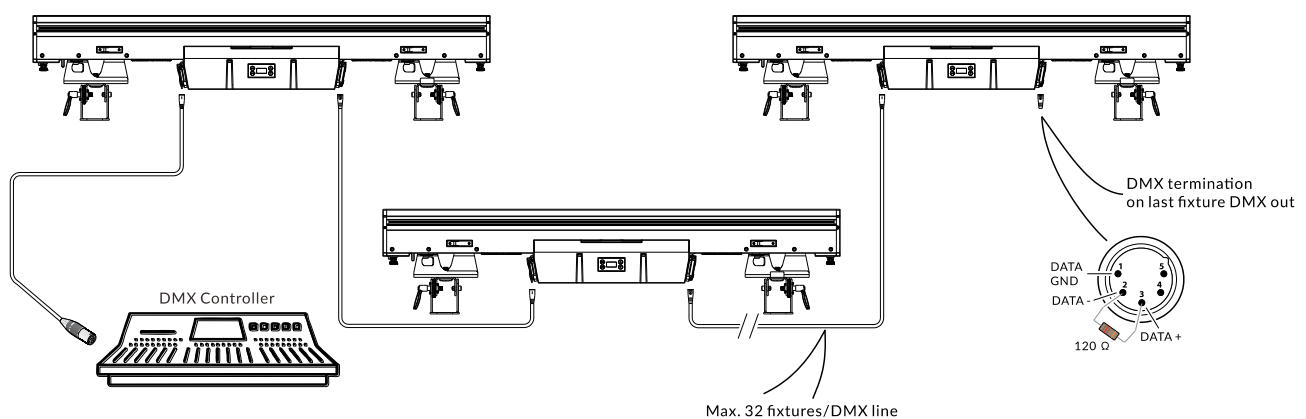


Building a serial DMX chain:

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

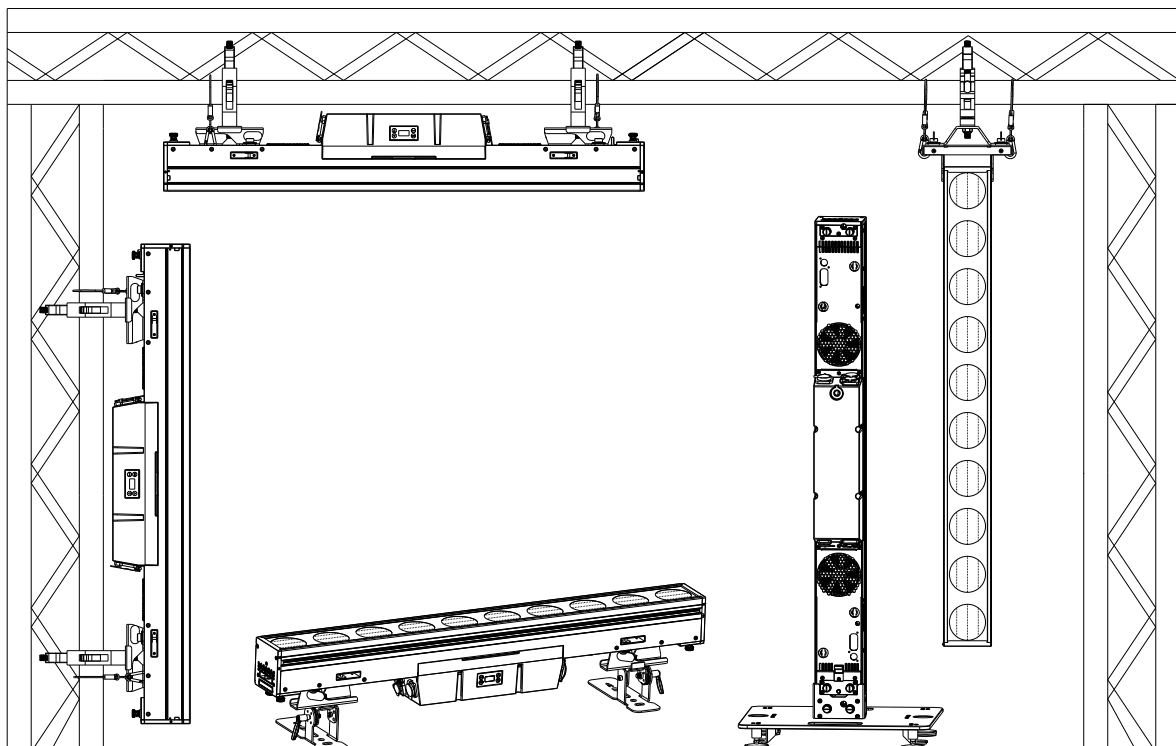
The fixture is IP66-rated and designed for both indoor and outdoor events. This means that it is protected from:

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

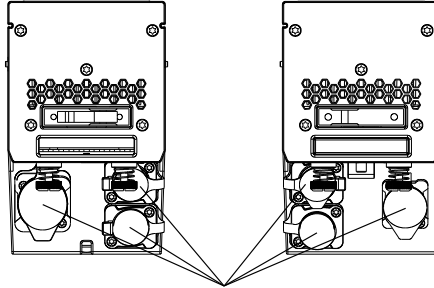
DO install and operate by qualified operator. Fixture(s) should be installed in areas clear of walking paths, seating areas, or away from areas where unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.

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.



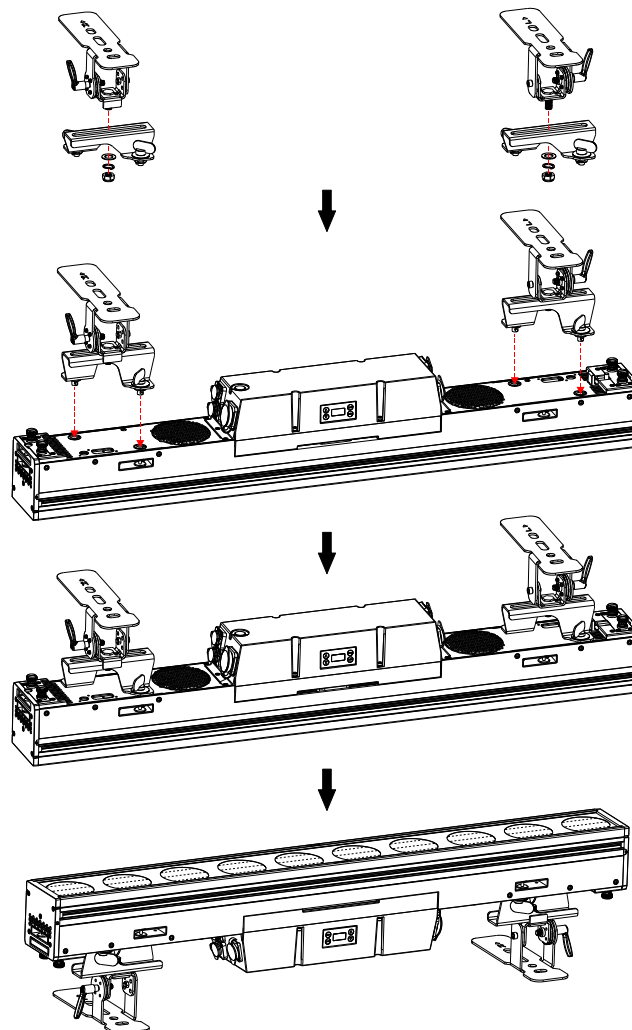
- Use only IP-rated power cords and connectors suitable for outdoor use.
- Visually check panel connectors on accidental water leaks and dust before connecting related cable connectors.
If some water appears in panel connectors, do not connect cable connectors, especially power!
- Fixtures require regular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

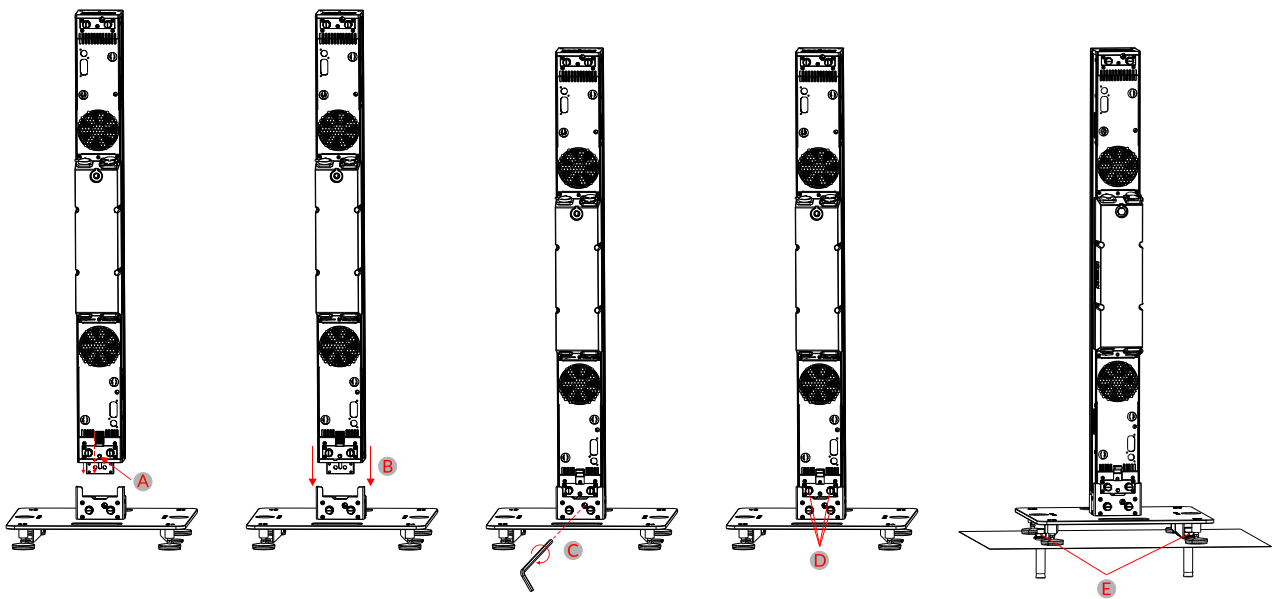
5.1 Stand the Fixture on the Floor

Floor Stand: Utilizing two omega brackets (supplied) and two floor stands (supplied):



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

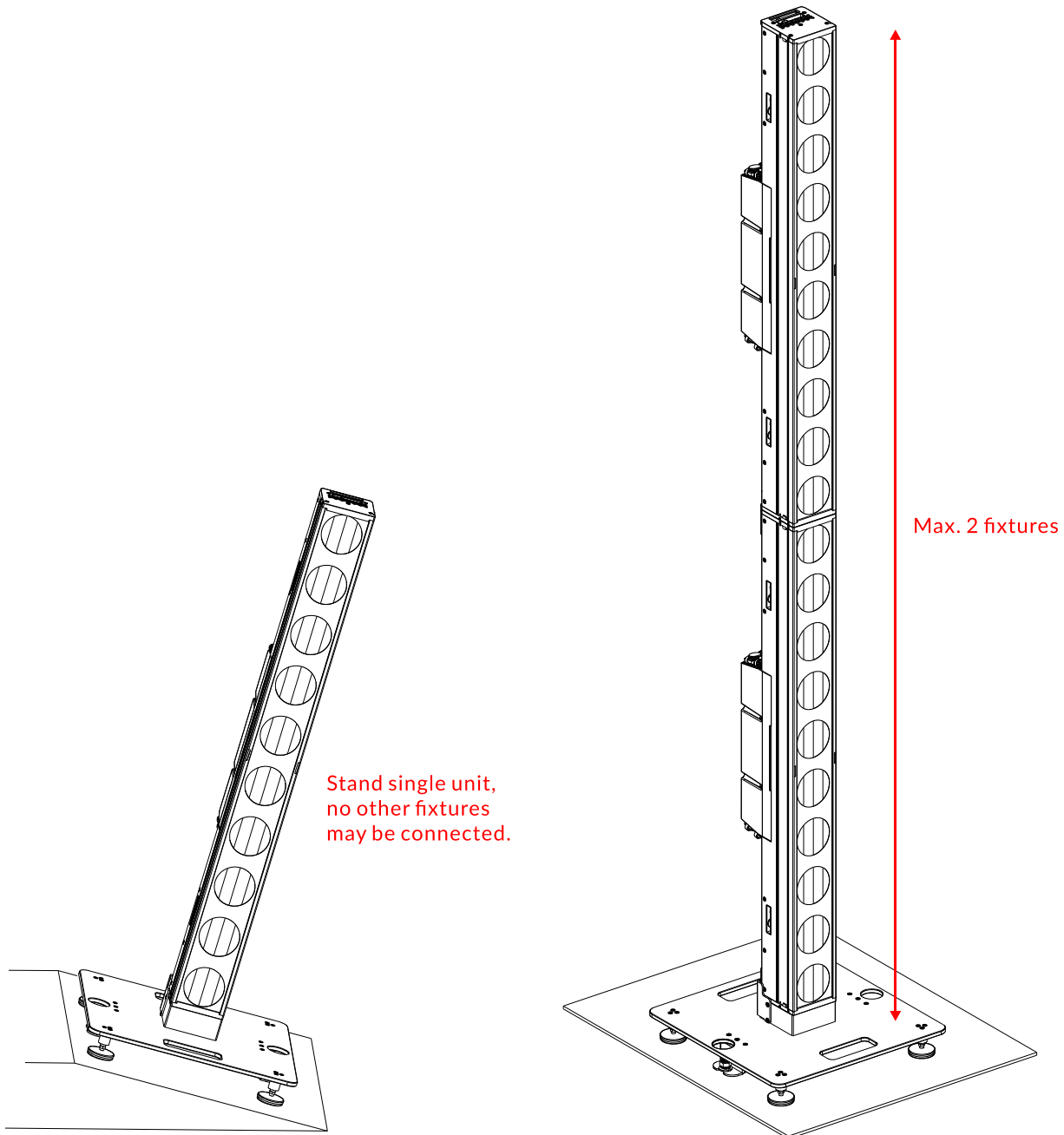
- A. Press the button: automatically the slide comes out completely.
- B. Place the fixture against the base stand in line so that the slide fits into the base stand.
- C. Insert the hex wrench into the hexagonal slot and tighten it clockwise to release and secure the locking mechanism inside the base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

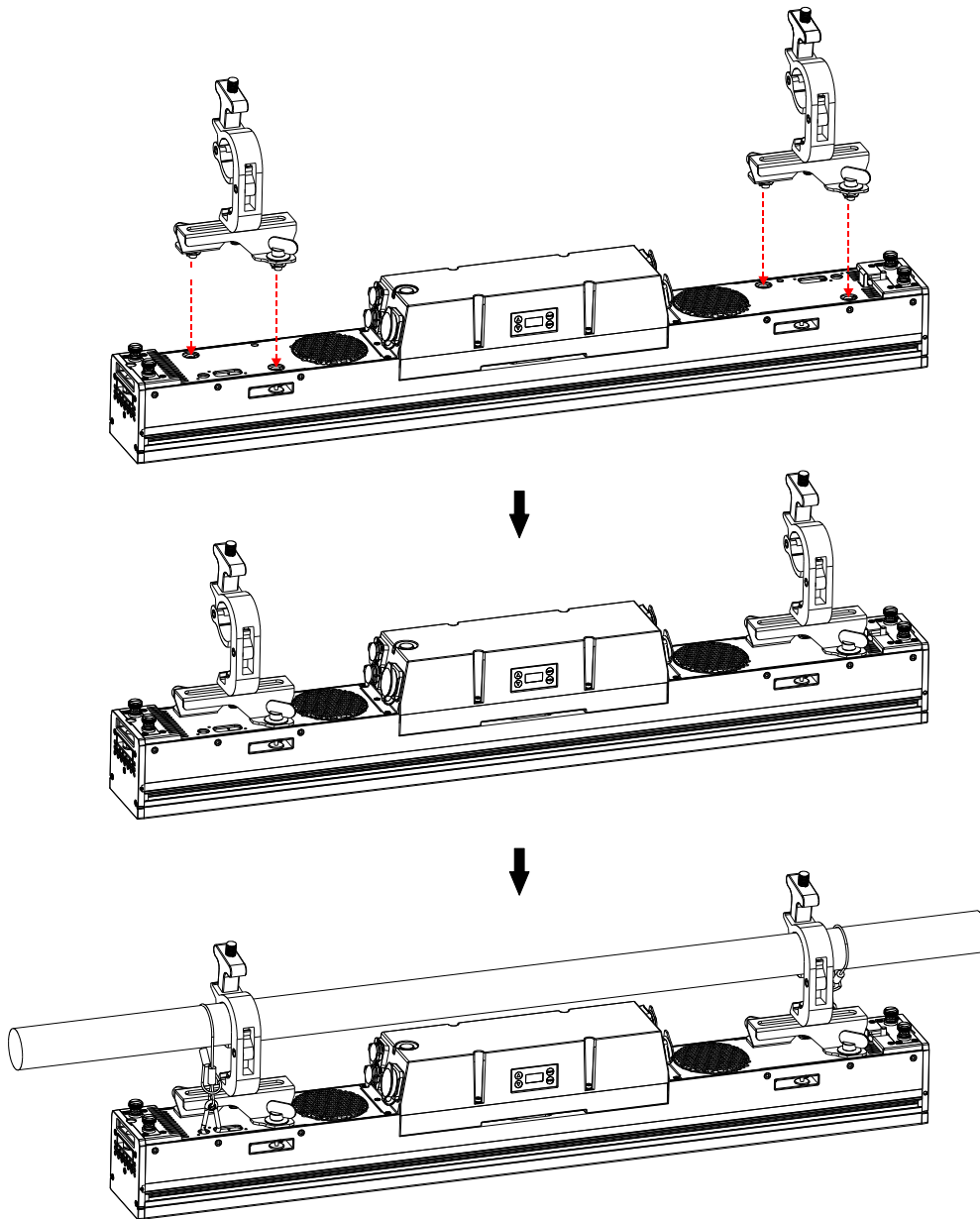
Note: Hold down the button and pull the slide back simultaneously to retract it to its original position.

- Note: 1. When installed at a tilt, stand single unit only, no other fixtures may be connected.
2. When stand vertically, a maximum of 2 fixtures may be connected.

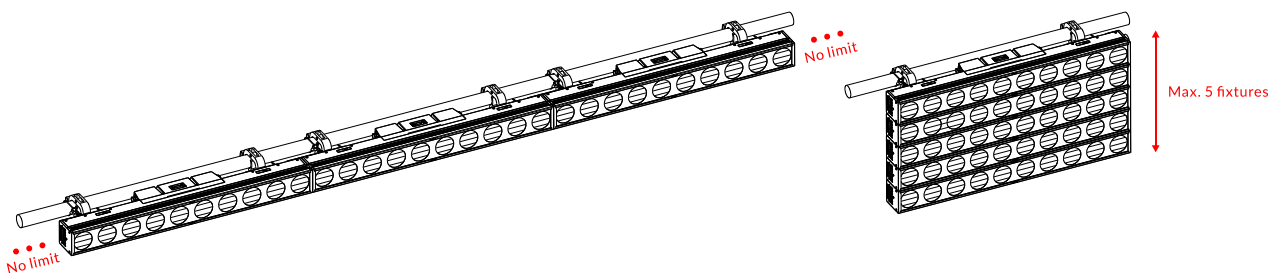


5.2 Hanging the Fixture

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

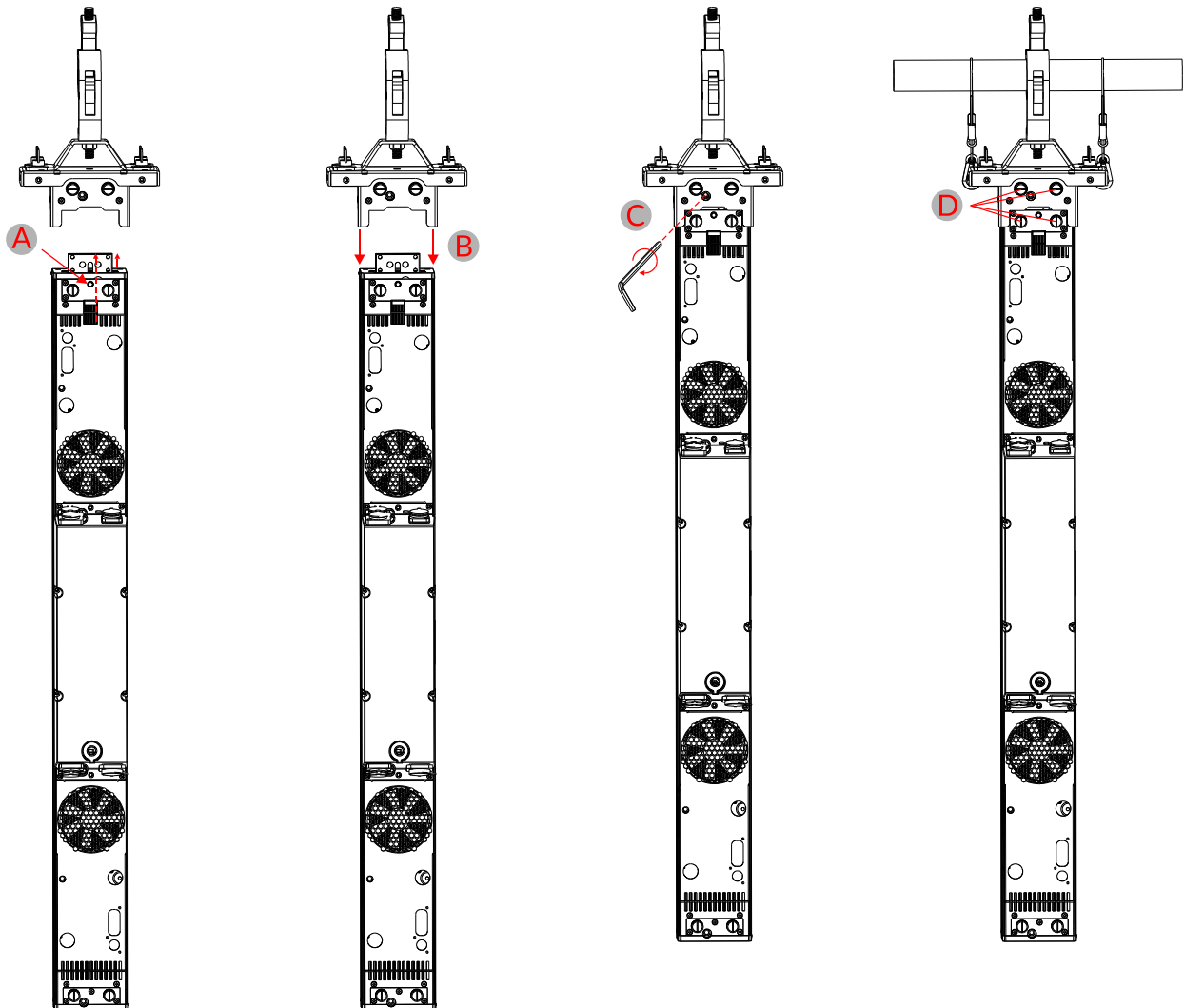


Note: When hanging horizontally, there is no limit to the number of fixtures in the horizontal direction, and a maximum of 5 fixtures may be connected in the vertical direction.



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

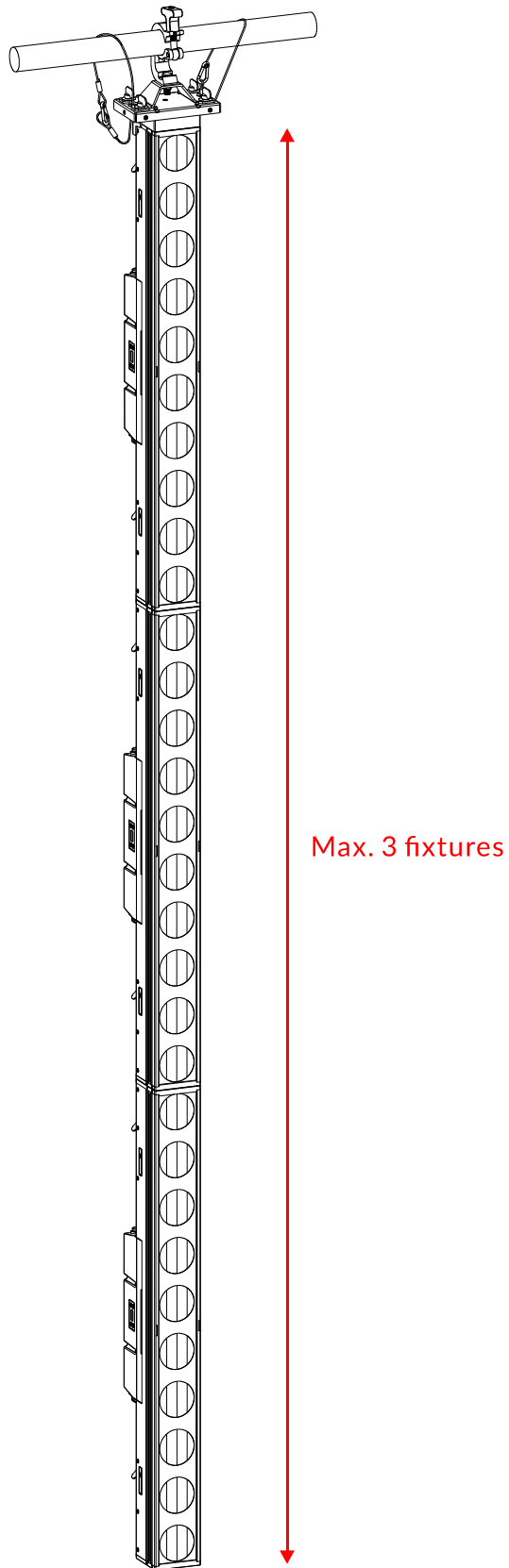
- A. Press the button: automatically the slide comes out completely.
- B. Place the hanging bracket with clamp against the fixture in line so that the slide fits into the hanging bracket.
- C. Insert the hex wrench into the hexagonal slot and tighten it clockwise to release and secure the locking mechanism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

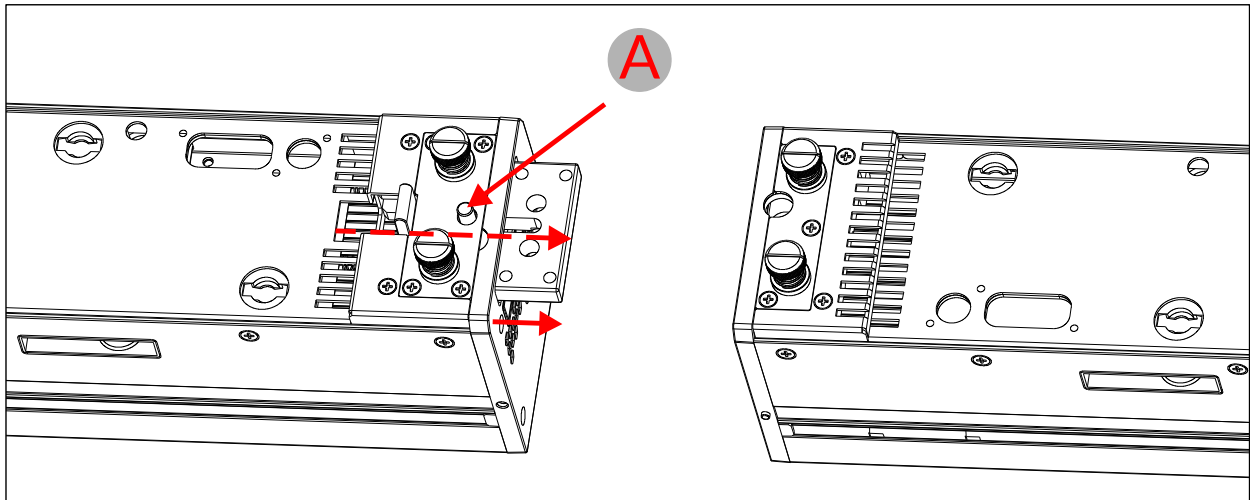
Note: When hanging vertically, a maximum of 3 fixtures may be connected.



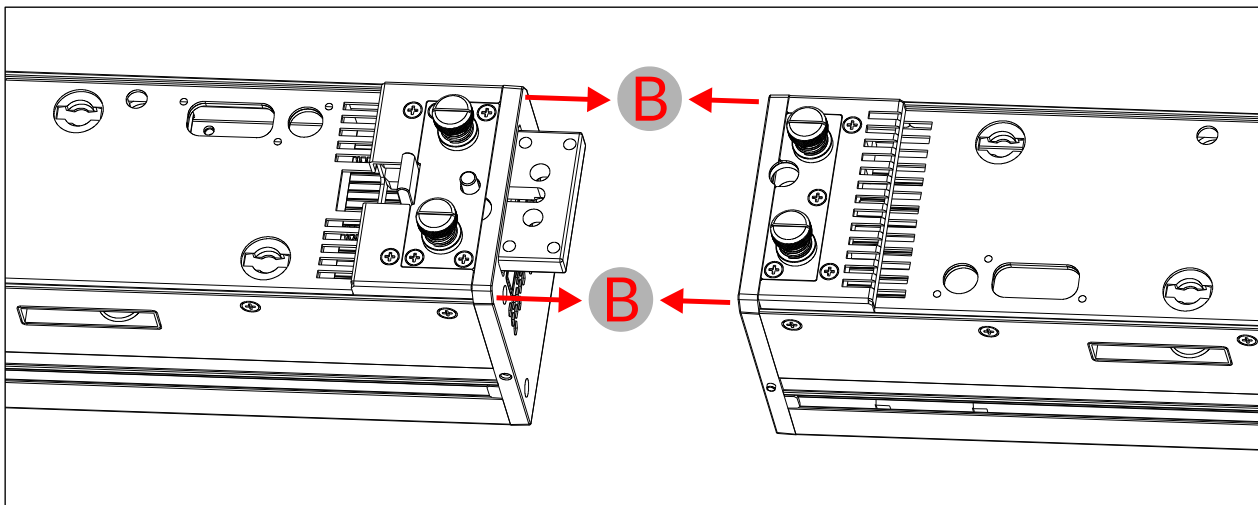
5.3 Connecting and Aligning Multiple Fixtures

Connecting and aligning fixtures horizontally:

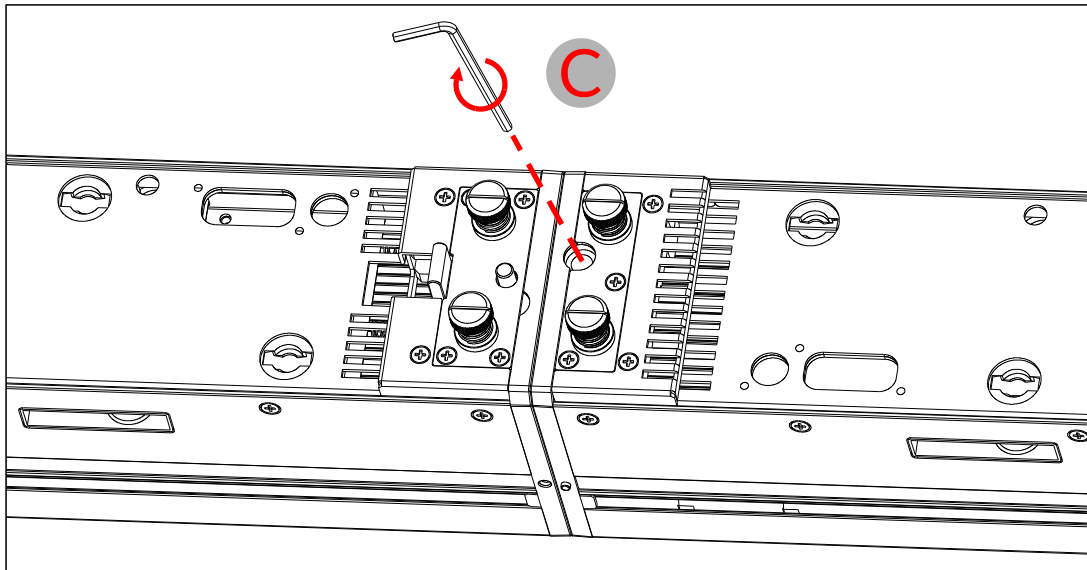
A. Press the button: automatically the slide comes out completely.



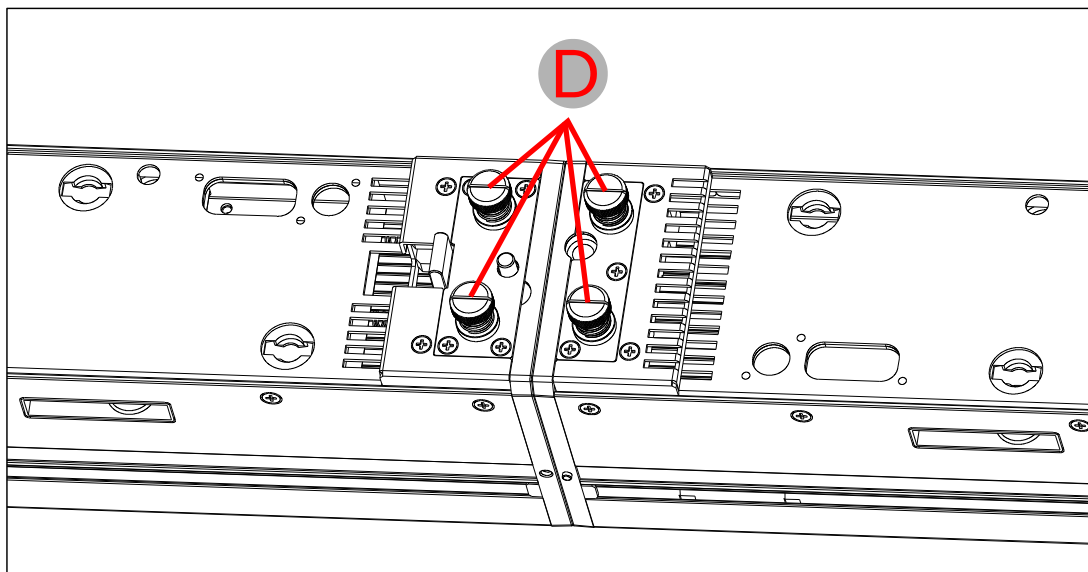
B. Place both fixtures against each other in line so that the slide fits into the other fixture.



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.



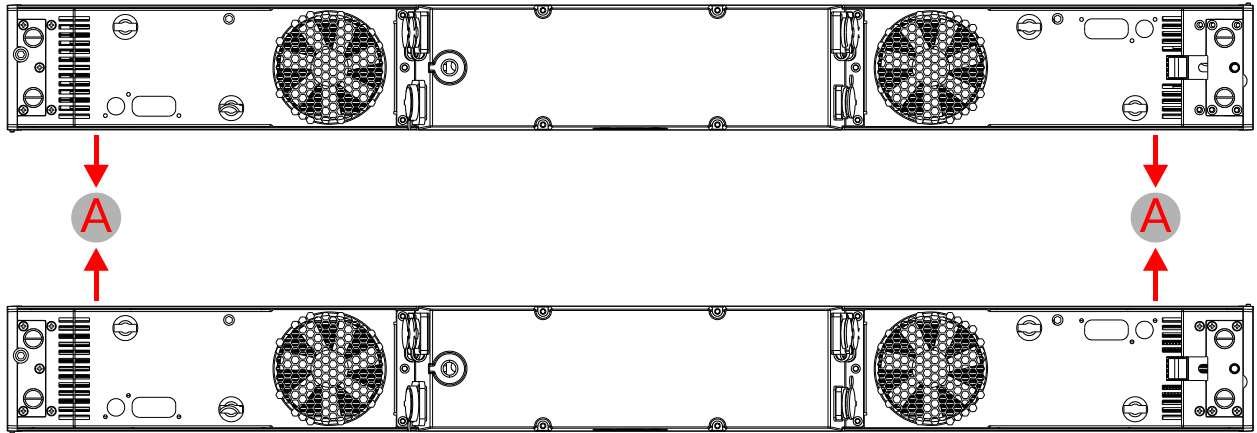
If you need to connect and align more fixtures, repeat the steps above.

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

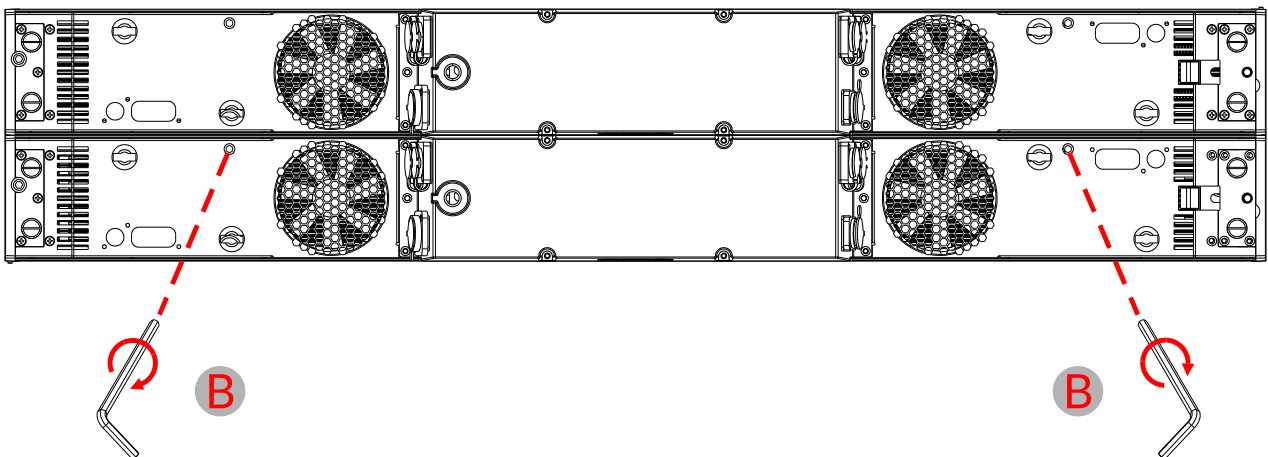
Note: Hold down the button and pull the slide back simultaneously to retract it to its original position.

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	1-503(10 CH)	(Default=1)
		1-501(12 CH)	
		1-497(16 CH)	
		1-495 (18 CH)	
		1-494 (19 CH)	
		1-492 (21 CH)	
		1-434 (79 CH)	
		1-431 (82 CH)	
	DMX Channel Mode	10 CH	
		12 CH	
		16 CH	
		18 CH	
		19 CH	
		21 CH	
		79 CH	
		82 CH	
	No DMX Status	Blackout	
		Hold	
		Manual	
	View DMX Value		
	Connection Option	Auto	
		DMX	
		Art-Net	

MAIN MENU	SUBMENU	CHOICES/VALUES		
		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 A/B	0-15	(Default=0)
	sACN Settings	sACN Universe	1-32000	(Default=1)
		sACN Priority	0-200	(Default=100)
Fixture Settings	Network to DMX	No		
		Yes		
	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	
		Amber	125-255	
		Cyan	125-255	
		UV	125-255	
		Red 1	125-255	
		Green 1	125-255	
		Blue 1	125-255	
		White 1	125-255	
		Amber 1	125-255	
		Cyan 1	125-255	
		UV 1	125-255	
				
		Red 10	125-255	
		Green 10	125-255	
		Blue 10	125-255	
		White 10	125-255	

MAIN MENU	SUBMENU	CHOICES/VALUES	
		Amber 10	125-255
		Cyan 10	125-255
		UV 10	125-255
	Refresh Rate	900Hz	
		1000Hz	
		1100Hz	
		1200Hz	
		1300Hz	
		1400Hz	
		1500Hz	
		2500Hz	
		4000Hz	
		5000Hz	
		6000Hz	
		10000Hz	
		15000Hz	
		20000Hz	
		25000Hz	
	Fan Mode	Standard Mode	Auto
			Super Quiet
			Quiet
		Boost Mode	Auto
			Super Quiet
			Quiet
	Invert Pixel Order	No	
		Yes	
	Color Cal	Off	
		On	
	Cal Mode	Hi CRI	
		Hi Output	
	Dim. Start Mode	High	
		Low	
	DUV Calibration	-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
	Clear		No/Yes	Clear	No/Yes
	Frost 1		0-255	Strobe	0-255
	Frost 2		0-255	Dimmer	0-255
	Frost 3		0-255	CTO	0-255
	Frost 4		0-255	Color	0-255
	Red 1		0-255	Macro	0-255
	Green 1		0-255	Speed	0-255
	Blue 1		0-255	Frost	0-255
	White 1		0-255	Red	0-255
	Amber 1		0-255	Green	0-255
	Cyan 1		0-255	Blue	0-255
	UV 1		0-255	White	0-255
	.....		.....	Amber	0-255
	Red 10		0-255	Cyan	0-255
	Green 10		0-255	UV	0-255
	Blue 10		0-255		
	White 10		0-255		
	Amber 10		0-255		
	Cyan 10		0-255		
	UV 10		0-255		
	Fixture Information	Use Hour	Fixture		
Light Source			Total		
			Light On		
			Reset	Password=50	
Temperature		LED 1-10		Current	
				Max temp	
Fan State		Fan 1			
		Fan 2			
		Fan 3			
Firmware Version					
RDM UID					
Error Logs		Fixture Errors			
		Reset Error Log	No		
	Yes		Password=50		

MAIN MENU	SUBMENU	CHOICES/VALUES
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 Channel Mode**, **No DMX Status**, **View DMX Value**, **Connect Option**, **Network**, **Art-Net Settings**, **sACN Settings** or **Network to DMX**.

DMX Address

Select **DMX Address**, press ENTER.

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

CHANNEL MODE	ADDRESS
10 CH	1-503
12 CH	1-501
16 CH	1-497
18 CH	1-495
19 CH	1-494
21 CH	1-492
79 CH	1-434
82 CH	1-431

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

DMX Channel Mode

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

Use UP/DOWN button to select one of the following status: **10CH**, **12CH**, **16CH**, **18CH**, **19CH**, **21CH**, **79CH** or **82CH**, 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

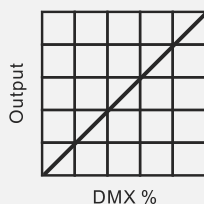
Enter the control menu and select **Fixture Settings**, press ENTER. Use the UP/DOWN button to select **Dimmer Curve**, **Dimmer Speed**, **White Balance**, **Refresh Rate**, **Fan Mode**, **Invert Pixel Order**, **Color Cal**, **Cal Mode**, **Dim. Start Mode** or **DUV Calibration**.

Dimmer Curve

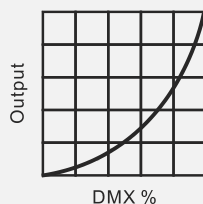
Select **Dimmer Curve**, press ENTER.

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

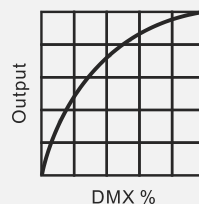
Dimmer Modes



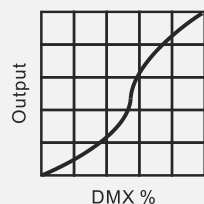
Optically Linear



Square Law



Inverse Square Law



S-curve

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

Dimmer Speed

Select **Dimmer Speed**, press ENTER.

Use UP/DOWN button to select **Fast**, **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**, **Red 1**, **Green 1**, **Blue 1**, **White 1**, **Amber 1**, **Cyan 1**, **UV 1.....** or **Red 10**, **Green 10**, **Blue 10**, **White 10**, **Amber 10**, **Cyan 10**, **UV 10**, confirm your selection with ENTER.

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

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

Refresh Rate

Select **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.

Fan Mode

Select **Fan 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 **Auto**, **Super Quiet** or **Quiet**, 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 Calibration

Select **DUV Calibration**, press ENTER.

Use UP/DOWN button to adjust the value -100-100, 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 **Use Hour**, **Temperature**, **Fan State**, **Firmware Version**, **RDM UID** or **Error Logs**.

Use Hour

Select **Use Hour**, press ENTER.

Use UP/DOWN button to select **Total** (total time) or **Light On** (current switch-on time), confirm your selection with ENTER.

The total time or current switch-on time is displayed.

Use UP/DOWN button to select **Reset**, confirm your selection with ENTER.

Use UP/DOWN button to set the password 050, confirm your selection with ENTER. The 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:

Standard RDM Parameter ID

Parameter ID	Discovery command	SET command	GET command
DISC_UNIQUE_BRANCH	✓		
DISC_MUTE	✓		
DISC_UN_MUTE	✓		
DEVICE_INFO			✓
SUPPORTED_PARAMETERS			✓
SOFTWARE_VERSION_LABEL			✓
DMX_START_ADDRESS		✓	✓
IDENTIFY_DEVICE		✓	✓
DEVICE_MODEL_DESCRIPTION			✓
PARAMETER_DESCRIPTION			✓

MANUFACTURER_LABEL			✓
DEVICE_LABEL		✓	✓
FACTORY_DEFAULTS		✓	✓
BOOT_SOFTWARE_VERSION_ID			✓
BOOT_SOFTWARE_VERSION_LABEL			✓
DMX_PERSONALITY		✓	✓
DMX_PERSONALITY_DESCRIPTION			✓
SLOT_INFO			✓
SLOT_DESCRIPTION			✓
SENSOR_DEFINITION			✓
SENSOR_VALUE			✓
DEVICE_HOURS			✓
LAMP_HOURS			✓
RESET_DEVICE		✓	
CURVE		✓	✓
DMX_STATE		✓	✓
DIMMER_SPEED		✓	✓
WHITE_BALANCE		✓	✓
POWER_MODE		✓	✓
INVERT_PIXEL_ORDER		✓	✓

✓ -Command implemented for the respective parameter ID

Manufacturer-specific RDM Parameter ID

Parameter ID	Discovery command	SET command	GET command	Note
VU_CALDATA_TO_IC		✓	✓	
VU_CALDATA_TO_DEVICE		✓	✓	
DMX_STATUS		✓	✓	0:Blackout 1:Hold 2:Manual
INVERT_PIXEL_ORDER		✓	✓	0:No 1:Yes
DIMMER_SPEED		✓	✓	0:Fast 1:Smooth
FAN_MODE		✓	✓	0:Auto 1:Quiet 2:SuperQuiet
ERROR_LOG		✓	✓	
OFFSET		✓	✓	
CALIBRATION_ONOFF		✓	✓	0:Off 1:On
CALIBRATION_MODE		✓	✓	0:Cri 1:Output

E137_1_CURVE		✓	✓	1:Line 2:Sq 3:Inv Sq 4:S
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✓ -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 10	0~2000
Green 10	0~2000
Blue 10	0~2000
White 10	0~2000

Amber 10	0~2000
Cyan 10	0~2000
UV 10	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 10

Select **Red 10**, 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 10

Select **Green 10**, 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 10

Select **Blue 10**, 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 10

Select **White 10**, 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 10

Select **Amber 10**, 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 10

Select **Cyan 10**, 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 10

Select **UV 10**, 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
10 Channel	1	11	21	31	.....
12 Channel	1	13	25	37	.....
16 Channel	1	17	33	49	.....
18 Channel	1	19	37	55	.....
19 Channel	1	20	39	58	.....
21 Channel	1	22	43	64	.....
79 Channel	1	80	159	238	.....
82 Channel	1	83	165	247	.....

7.2 DMX Protocol

Valid from firmware version: V1.4

10CH/12CH/16CH/18CH/19CH/21CH:

CHANNEL						VALUE	FUNCTION
10CH	12CH	16CH	18CH	19CH	21CH		
1	1	1	1	1	1	000-029 030-039 040-049 050-059 060-069 070-079 080-089 090-099	SPECIAL FUNCTION (To activate following functions, stop in DMX value for at least 3 seconds.) Null Dimmer Curve: Linear Dimmer Curve: Square Law Dimmer Curve: Inv SQ Law Dimmer Curve: S Curve Fan Mode Auto Fan Mode Super Quiet Fan Mode Quiet

CHANNEL						VALUE	FUNCTION
						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	No Function
						190-199	No Function
						200-209	Dimmer Speed: Fast
						210-219	Dimmer Speed: Smooth
						220-229	Dimmer Speed: UND
						230-231	Standard Mode
						232-233	Boost Mode
						234-235	Led Pixel Order On
						236-237	Led Pixel Order Off
						238-239	Dimmer Start Mode: High
						240-241	Dimmer Start Mode: Low
						242-255	Null
2	2	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
						182-189	Fast
						190-231	Open
						232-239	Slow Open Fast Close from Slow to
						240-247	Fast
						248-255	Open
							Random Strobe from Slow to Fast

CHANNEL						VALUE	FUNCTION
							Open
3	3	3	3	3	3	000-012 013-255 000-000 001-255	DIMMER No Function Dimmer(High) No Function Dimmer(Low)
4	4	4	4	4	4	000-255	DIMMER FINE
5	5	5	5	5	5	000 001-004 005-009 010-013 014-018 019-022 023-027 028-031 032-036 037-040 041-045 046-049 050-054 055-058 059-063 064-067 068-072 073-076 077-081 082-085 086-090 091-094 095-099 100-103 104-108 109-112 113-117 118-121 122-126 127-130 131-135 136-139 140-144 145-148 149-153 154-157 158-162	CTO Null 8000K 7900K 7800K 7700K 7600K 7500K 7400K 7300K 7200K 7100K 7000K 6900K 6800K 6700K 6600K 6500K 6400K 6300K 6200K 6100K 6000K 5900K 5800K 5700K 5600K 5500K 5400K 5300K 5200K 5100K 5000K 4900K 4800K 4700K 4600K 4500K

CHANNEL						VALUE	FUNCTION
						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
	6		6		6	000	G/M Tint
						001-127	White
						128	Magenta shift
						129-255	White(default)
							Green shift
6	7	6	7	6	7	000-009	COLOR MACRO
						010-014	Null
						015-019	Medium Yellow
						020-024	Fire
						025-029	Gold Amber
						030-034	Sunset Red
						035-039	Medium Pink
						040-044	Light Lavender
						045-049	Lavender
						050-054	Sky Blue
						055-059	Just Blue
						060-064	Lime Green
						065-069	Moss Green
						070-073	Dark Yellow Green
						074-078	Spring Yellow
						079-083	Yellow
						084-088	Light Amber
						089-093	Straw
						094-098	Deep Amber
						099-103	Orange
							Dark Pink

CHANNEL						VALUE	FUNCTION
						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 (3200K to 5700K)
						242-246	Half C.T. Blue (3200K to 4300K)
						247-251	Lighter Blue
						252-255	Millennium Gold
	8		8		8	000-255	Cross Fade
							MACRO
						000-007	Null
						008-024	Macro 1
						025-041	Macro 2
						042-058	Macro 3
						059-075	Macro 4
		7	9	7	9	076-092	Macro 5
						093-109	Macro 6
						110-126	Macro 7
						127-143	Macro 8
						144-160	Macro 9
						161-177	Macro 10
						178-194	Macro 11

CHANNEL						VALUE	FUNCTION
						195-211 212-228 229-245 246-255	Macro 12 Macro 13 Macro 14 Macro Rainbow
		8	10	8	10	000-127 128-255	MACRO SPEED Standard Inverse
		9	11			000-042 043-085 086-127 128-255	FROST No Function Frost 1 (30°) Frost 2 (50°) 0%→100%
		10	12	9	11	000-255	RED 0%→100%
		11	13	10	12	000-255	GREEN 0%→100%
		12	14	11	13	000-255	BLUE 0%→100%
		13	15	12	14	000-255	WHITE 0%→100%
		14	16	13	15	000-255	AMBER 0%→100%
		15	17	14	16	000-255	CYAN 0%→100%
		16	18	15	17	000-255	UV 0%→100%
7	9			16	18	000-042 043-085 086-127 128-255	FROST 1 No Function Frost 1 (30°) Frost 2 (50°) 0-100%
8	10			17	19	000-042 043-085 086-127 128-255	FROST 2 No Function Frost 1 (30°) Frost 2 (50°) 0-100%
9	11			18	20	000-042 043-085 086-127 128-255	FROST 3 No Function Frost 1 (30°) Frost 2 (50°) 0-100%
10	12			19	21	000-042 043-085	FROST 4 No Function Frost 1 (30°)

CHANNEL						VALUE	FUNCTION
						086-127 128-255	Frost 2 (50°) 0-100%

79CH/82CH:

CHANNEL		VALUE	FUNCTION
79CH	82CH		
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	Fan Mode Auto
		080-089	Fan Mode Super Quiet
		090-099	Fan Mode Quiet
		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	No Function
		190-199	No Function
		200-209	Dimmer Speed: Fast
		210-219	Dimmer Speed: Smooth

CHANNEL		VALUE	FUNCTION
		220-229 230-231 232-233 234-235 236-237 238-239 240-241 242-255	Dimmer Speed: UND Standard Mode Boost Mode Led Pixel Order On Led Pixel Order Off Dimmer Start Mode: High Dimmer Start Mode: Low Null
2	2	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
3	3	000-012 013-255 000-000 001-255	DIMMER No Function Dimmer(High) No Function Dimmer(Low)
4	4	000-255	DIMMER FINE
5	5	000 001-004 005-009 010-013 014-018 019-022 023-027 028-031 032-036 037-040 041-045 046-049 050-054 055-058 059-063 064-067 068-072 073-076 077-081	CTO Null 8000K 7900K 7800K 7700K 7600K 7500K 7400K 7300K 7200K 7100K 7000K 6900K 6800K 6700K 6600K 6500K 6400K 6300K

CHANNEL		VALUE	FUNCTION
		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
	6	000	G/M Tint
		001-127	White
		128	Magenta shift
		129-255	White(default)
			Green shift
	7	000-009	COLOR MACRO
		010-014	Null
			Medium Yellow

CHANNEL		VALUE	FUNCTION
		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 (3200K to 5700K)

CHANNEL		VALUE	FUNCTION
		242-246 247-251 252-255	Half C.T. Blue (3200K to 4300K) Lighter Blue Millennium Gold
	8	000-255	Cross Fade
6	9	000-042 043-085 086-127 128-255	FROST 1 No Function Frost 1 (30°) Frost 2 (50°) 0-100%
7	10	000-042 043-085 086-127 128-255	FROST 2 No Function Frost 1 (30°) Frost 2 (50°) 0-100%
8	11	000-042 043-085 086-127 128-255	FROST 3 No Function Frost 1 (30°) Frost 2 (50°) 0-100%
9	12	000-042 043-085 086-127 128-255	FROST 4 No Function Frost 1 (30°) Frost 2 (50°) 0-100%
10	13	000-255	RED 1 0%→100%
11	14	000-255	GREEN 1 0%→100%
12	15	000-255	BLUE 1 0%→100%
13	16	000-255	WHITE 1 0%→100%
14	17	000-255	AMBER 1 0%→100%
15	18	000-255	CYAN 1 0%→100%
16	19	000-255	UV 1 0%→100%
17	20	000-255	RED 2 0%→100%
18	21	000-255	GREEN 2 0%→100%
19	22		BLUE 2

CHANNEL		VALUE	FUNCTION
		000-255	0%→100%
20	23	000-255	WHITE 2 0%→100%
21	24	000-255	AMBER 2 0%→100%
22	25	000-255	CYAN 2 0%→100%
23	26	000-255	UV 2 0%→100%
24	27	000-255	RED 3 0%→100%
25	28	000-255	GREEN 3 0%→100%
26	29	000-255	BLUE 3 0%→100%
27	30	000-255	WHITE 3 0%→100%
28	31	000-255	AMBER 3 0%→100%
29	32	000-255	CYAN 3 0%→100%
30	33	000-255	UV 3 0%→100%
31	34	000-255	RED 4 0%→100%
32	35	000-255	GREEN 4 0%→100%
33	36	000-255	BLUE 4 0%→100%
34	37	000-255	WHITE 4 0%→100%
35	38	000-255	AMBER 4 0%→100%
36	39	000-255	CYAN 4 0%→100%
37	40	000-255	UV 4 0%→100%
38	41	000-255	RED 5 0%→100%
39	42	000-255	GREEN 5 0%→100%
40	43		BLUE 5

CHANNEL		VALUE	FUNCTION
		000-255	0%→100%
41	44	000-255	WHITE 5 0%→100%
42	45	000-255	AMBER 5 0%→100%
43	46	000-255	CYAN 5 0%→100%
44	47	000-255	UV 5 0%→100%
45	48	000-255	RED 6 0%→100%
46	49	000-255	GREEN 6 0%→100%
47	50	000-255	BLUE 6 0%→100%
48	51	000-255	WHITE 6 0%→100%
49	52	000-255	AMBER 6 0%→100%
50	53	000-255	CYAN 6 0%→100%
51	54	000-255	UV 6 0%→100%
52	55	000-255	RED 7 0%→100%
53	56	000-255	GREEN 7 0%→100%
54	57	000-255	BLUE 7 0%→100%
55	58	000-255	WHITE 7 0%→100%
56	59	000-255	AMBER 7 0%→100%
57	60	000-255	CYAN 7 0%→100%
58	61	000-255	UV 7 0%→100%
59	62	000-255	RED 8 0%→100%
60	63	000-255	GREEN 8 0%→100%
61	64		BLUE 8

CHANNEL		VALUE	FUNCTION
		000-255	0%→100%
62	65	000-255	WHITE 8 0%→100%
63	66	000-255	AMBER 8 0%→100%
64	67	000-255	CYAN 8 0%→100%
65	68	000-255	UV 8 0%→100%
66	69	000-255	RED 9 0%→100%
67	70	000-255	GREEN 9 0%→100%
68	71	000-255	BLUE 9 0%→100%
69	72	000-255	WHITE 9 0%→100%
70	73	000-255	AMBER 9 0%→100%
71	74	000-255	CYAN 9 0%→100%
72	75	000-255	UV 9 0%→100%
73	76	000-255	RED 10 0%→100%
74	77	000-255	GREEN 10 0%→100%
75	78	000-255	BLUE 10 0%→100%
76	79	000-255	WHITE 10 0%→100%
77	80	000-255	AMBER 10 0%→100%
78	81	000-255	CYAN 10 0%→100%
79	82	000-255	UV 10 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 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 1/2/3/4/5/6/7/8/9/10 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

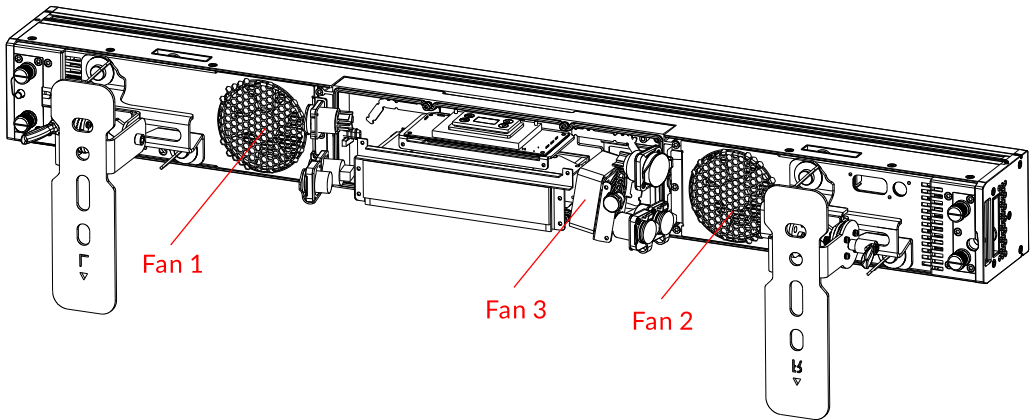
Check if the color calibration IC is damaged.

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
Fan 1	3014001393	DC 24V	3.6W	Main Board
Fan 2				
Fan 3	3014001437	DC 24V	3.4W	

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/ Cleaning and Maintenance

- To ensure the normal and stable operation of the luminaire, the fixture should be kept clean. Acetone may be used to clean the lens. It is recommended to clean the body, fan, and air intake vents every 15 days. The lens and dichroic filters should also be cleaned regularly to maintain optimal lighting effects. When cleaning the dichroic filters, do not use any solvent-based cleaners to avoid damage to the luminaire.
- When the luminaire is used continuously, it is recommended not to exceed 4 hours per session, otherwise the service life of the luminaire will be significantly shortened. This issue can be addressed by using a rotation/rest method.
- Before performing maintenance or disassembly on the luminaire, always disconnect the power supply and never operate with live electricity. After disconnecting the power, all components of the luminaire must cool down for approximately 10 minutes before disassembly or assembly. If the bulb needs to be replaced, wait an additional 20 minutes or more for the bulb to cool completely to avoid burns.
- The lenses, optics, and other rotating parts of the luminaire must be inspected regularly to ensure they remain clean and stable. If any obvious damage or looseness is found, they must be replaced or reinforced promptly to prevent accidents.
- This luminaire product employs forced-air cooling and tends to accumulate dust. It must be cleaned at least once every two weeks, especially at the air intake and exhaust vents for heat dissipation.
- After performances using color gels, check whether any paper debris is stuck in or has been drawn into the air intake and exhaust vents. Such debris must be removed completely; otherwise, it may damage the fan and cause a fire hazard.

12 Approvals and Certifications

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

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



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

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