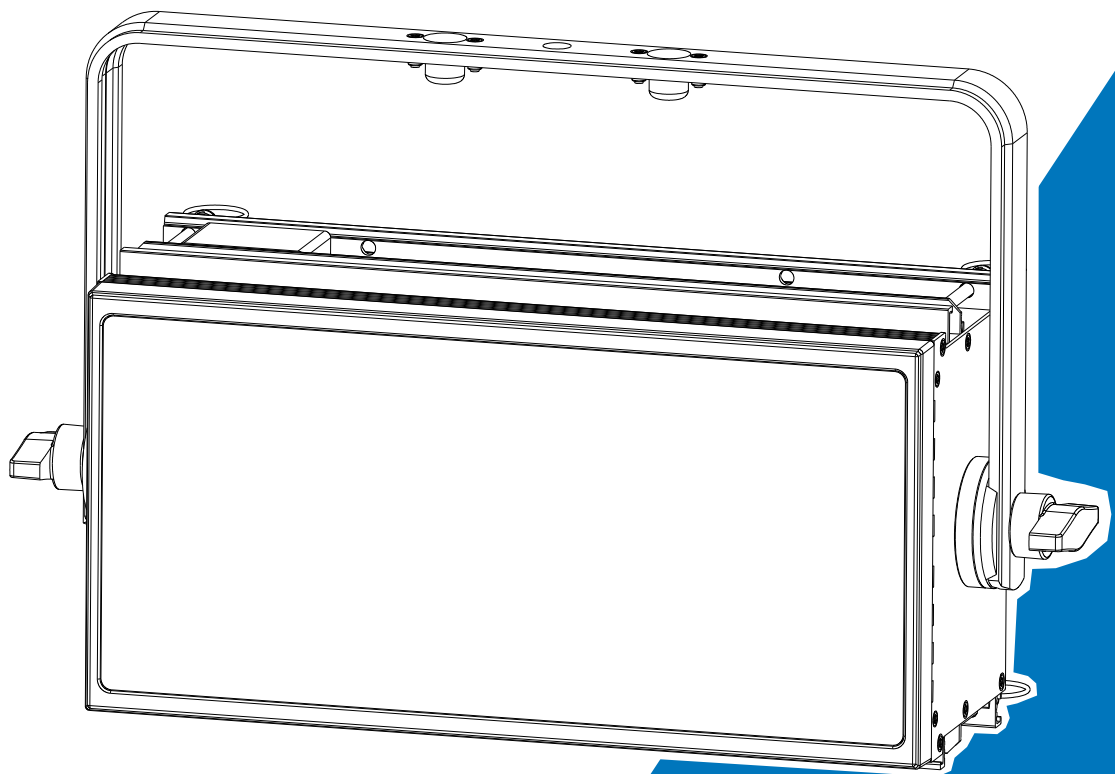


Acme[®]

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

Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- This product is suitable for wet locations. Do not immerse in water.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: -10°C. Maximum ambient temperature TA: 40°C. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- Keep flammable materials away from the fixture while operating to avoid fire hazard.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to 65°C. DO NOT touch the housing bare-handed during its operation.

- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.
- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- The minimum distance to objects/surface must be more than 0.5 meters.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- DO NOT open the housing as there are no user serviceable parts inside.
- DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect this product from its power source before servicing.
- DO use the original packaging if the device is to be transported.
- Avoid direct eye exposure to the light source while the product is on.
- DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.

01/ Consignes de sécurité



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

ATTENTION

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

Important:

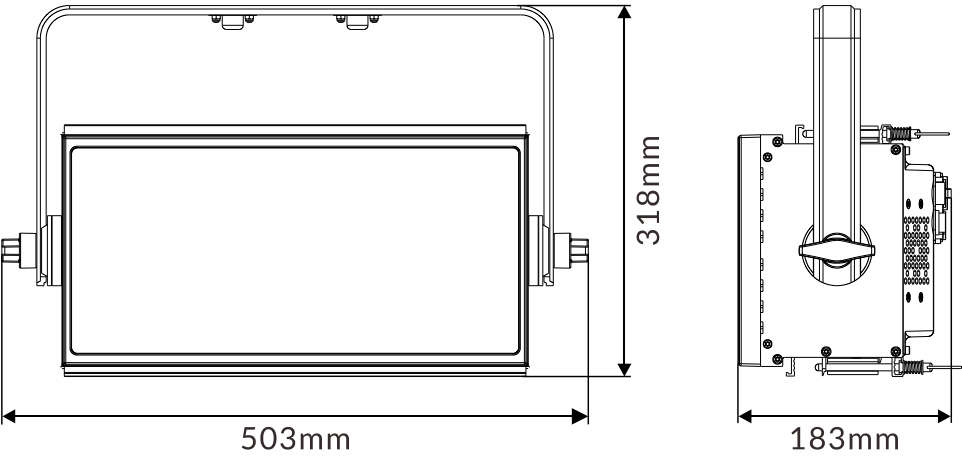
Les dommages causés par le non-respect de ce manuel d'utilisation ne sont pas couverts par la garantie. Le revendeur n'acceptera aucune responsabilité pour les défauts ou problèmes qui en résultent.

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

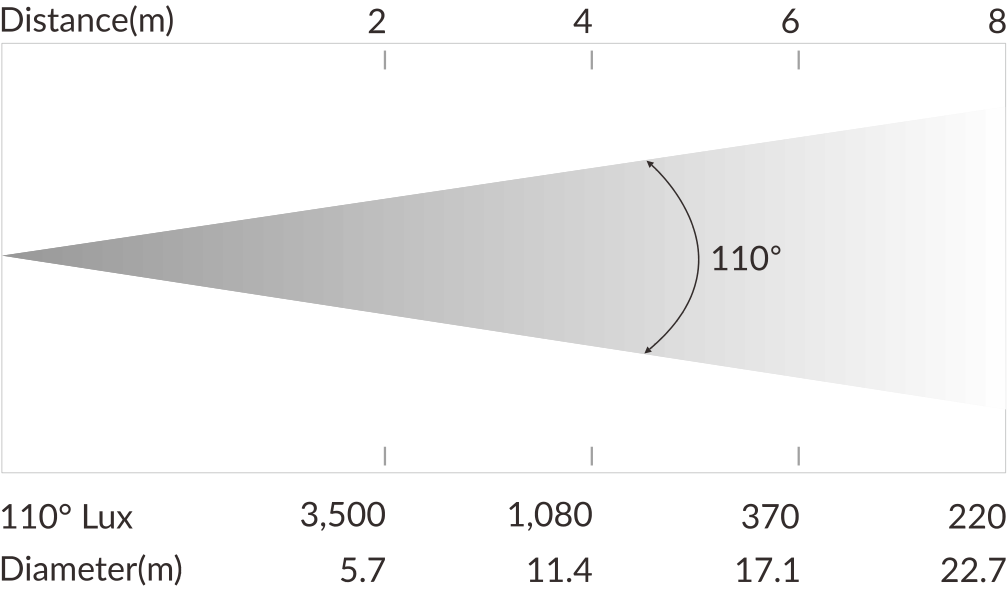
- Assurez-vous que le cordon d'alimentation n'est pas pincé ou endommagé; remplacez-le immédiatement s'il est endommagé.
- La température de surface de l'unité peut atteindre 65°C. NE PAS toucher les capots à mains nues pendant son fonctionnement.
- Évitez que des liquides inflammables, de l'eau ou du métal ne pénètrent dans l'appareil. Si cela se produit, coupez immédiatement l'alimentation secteur.
- NE PAS utiliser le luminaire dans un environnement sale ou poussiéreux. Cette appareil doit être nettoyer régulièrement.
- NE touchez AUCUN file pendant le fonctionnement car il pourrait y avoir un risque de choc électrique.
- Évitez l'enchevêtrement du cordon d'alimentation avec d'autres fils.
- La distance minimale de projection sur des objets ou sur des surfaces doit être supérieure à 0.5 mètres.
- En cas de problème de fonctionnement grave, arrêtez immédiatement d'utiliser l'appareil.
- N'allumez et n'éteignez jamais ce luminaire à maintes reprises.
- Le boîtier, les lentilles ou le filtre ultraviolet doivent être remplacés s'ils sont visiblement endommagés.
- NE PAS ouvrir le boîtier car il ne contient aucune pièce réparable par l'utilisateur.
- NE PAS mettre ce luminaire en fonctionnement s'il est endommagé. N'effectuez pas de réparations vous-même. Les réparations ne doivent être effectuées par des personnes non qualifiées, cela peut entraîner des dommages ou des dysfonctionnements. Veuillez contacter le centre d'assistance technique agréé le plus proche si nécessaire.
- Débranchez ce produit du secteur avant de procéder à l'entretien.
- Utiliser l'emballage d'origine si l'appareil doit être transporté.
- Évitez une exposition directe des yeux à la source lumineuse lorsque le produit est allumé.
- N'utilisez PAS ce produit si vous constatez des dommages sur le boîtier, les blindages ou les câbles. Faites remplacer immédiatement les pièces endommagées par un technicien agréé.

02/ Technical Specifications

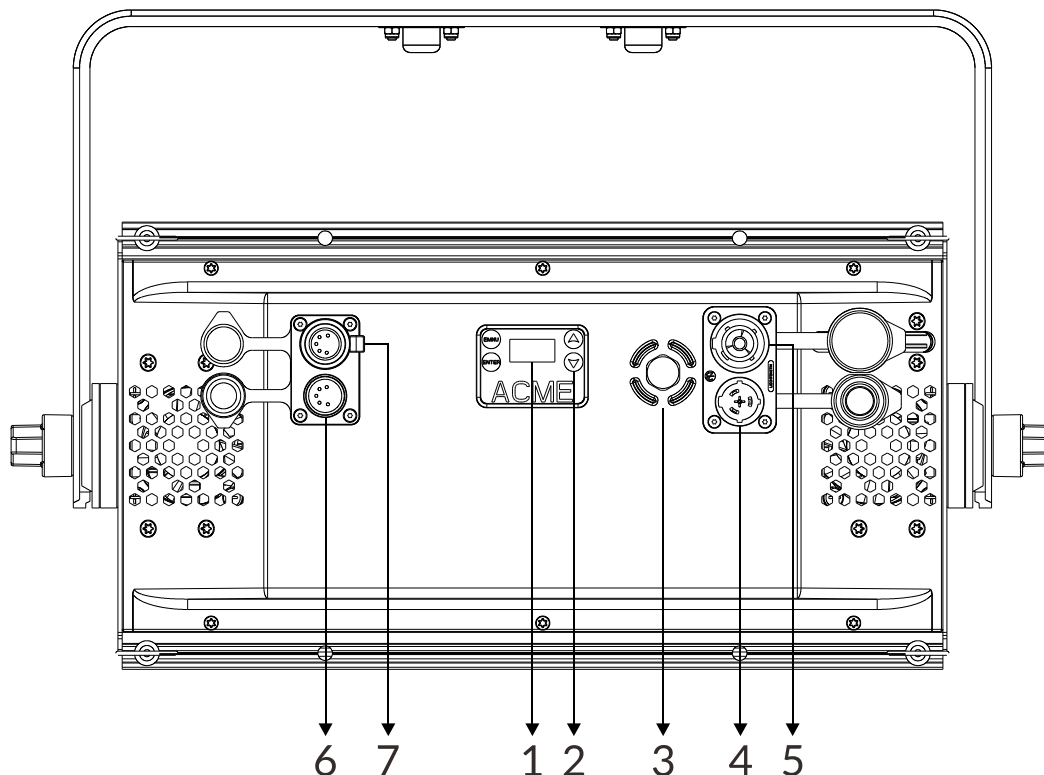
AC Power	100-240Vac; 50/60Hz	
Max. Power Consumption	860W	
Light Source	1188x0.8W RGBW LED	
Color Temperature	2500K-8000K	
Beam Angle	110°	
Control and Programming	DMX Channels	4 CH / 8 CH 16 bit / 8 CH / 9 CH 16 bit / 16 CH
	Protocols	DMX512
		RDM
	Firmware Update	via DMX
Construction	Display	LCD display
	DMX and RDM Data In/Out	5-pin IP XLR (optional with 3-pin IP XLR)
	Power In/Out	Waterproof Power Connector in/out
	Protection Rating	IP66
Dynamic Effects	3 LED zones with individual controlled	
	0-100% continuous dimming and strobe effects	
	Choice of four dimming curves	
	Outstanding color mixing	
	Variable color temperature control	
Included Items	Power Cable	
	One omega bracket with 1/4-turn fasteners	
	One large hanging bracket + one small hanging bracket	
	User Manual (this document)	
Dimensions	503x183x318mm	19.8"x7.2"x12.5"
Weight	10 kg	22 lbs



Photometric Diagram:



03/ Overview



1. Display	To show the various menus and the selected function	
2. Buttons	MENU	To enter into move backward or leave the menu
	▲ UP	To go backward to move up in the menu
	▼ DOWN	To go forward to move down in the menu
	ENTER	To perform the desired functions
3. RELEASE VALVE		
4. POWER IN	To connect to supply power	
5. POWER OUT	To connect to the next fixture	
6. 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)	
7. DMX OUT	For DMX512 link, use 5-pin XLR cable to link the next units to output DMX signal (optional with 3-pin IP XLR)	

04/ Connecting Power and Data

4.1 Connecting Power

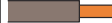
This fixture can operate on any 100-240Vac; 50/60Hz AC mains power supply.

The maximum power consumption is 860W.

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 that 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 Technology (Ningbo) 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!

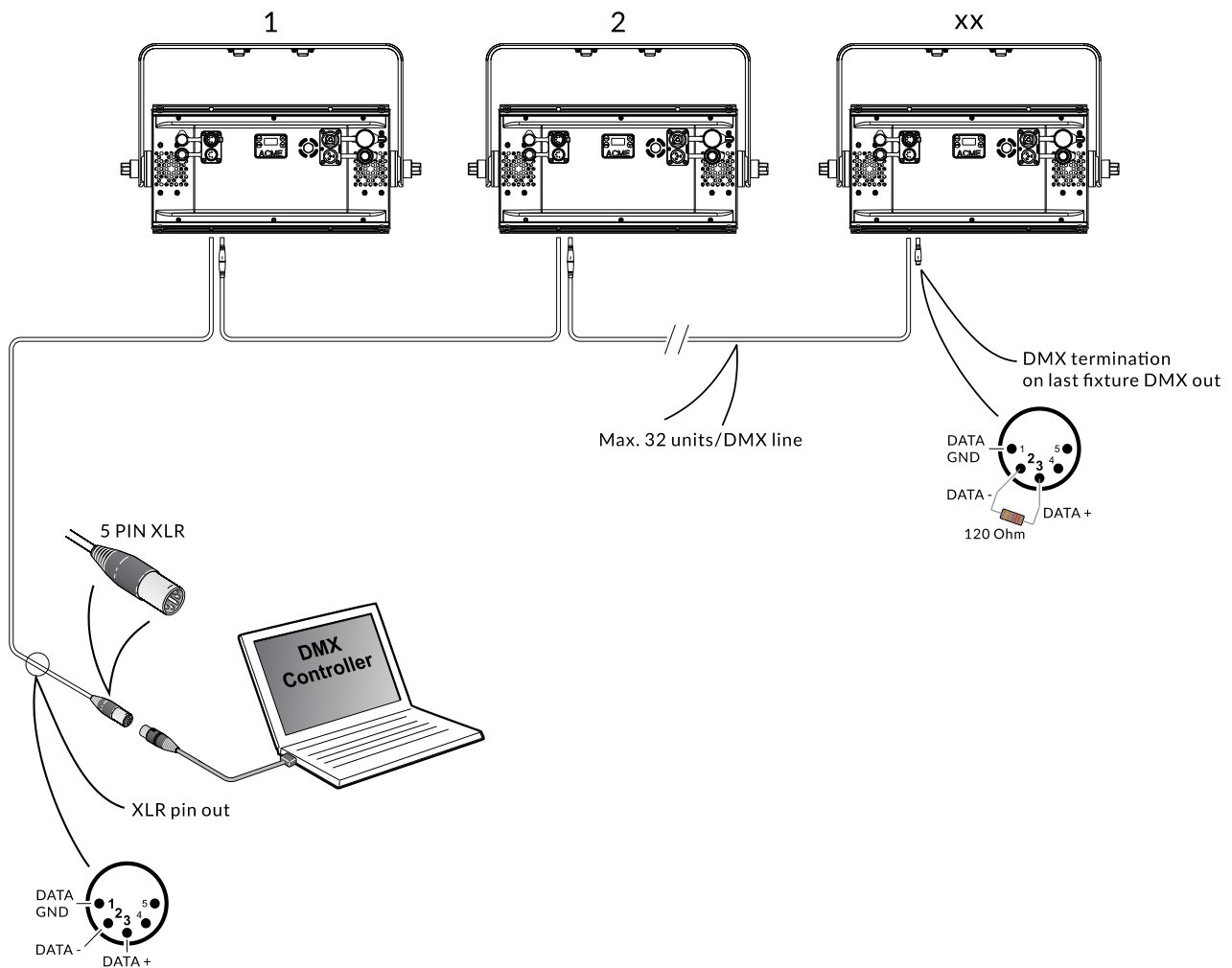
DO NOT CONNECT THE FIXTURE TO AN ELECTRICAL DIMMER SYSTEM AS DOING SO MAY CAUSE DAMAGE.

4.2 Connecting Data

The fixture is equipped with 5-pin (or 3-pin) XLR sockets for DMX input and output. Use a high-quality DMX cable designed for RS-485 and 5-pin (or 3-pin) XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another. For outdoor installations, use only IP-rated XLR connectors suitable for outdoor use.

Building a serial DMX chain:

Connect the DMX data output from the controller to the fixture's data input socket. Connect the DMX output of the first fixture in the DMX chain with the DMX input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected. Up to 32 fixtures can be connected to the same DMX link. Terminate the DMX out cable of the last fixture in the data link with a 120 ohm DMX terminator.



05/ Fixture Installation

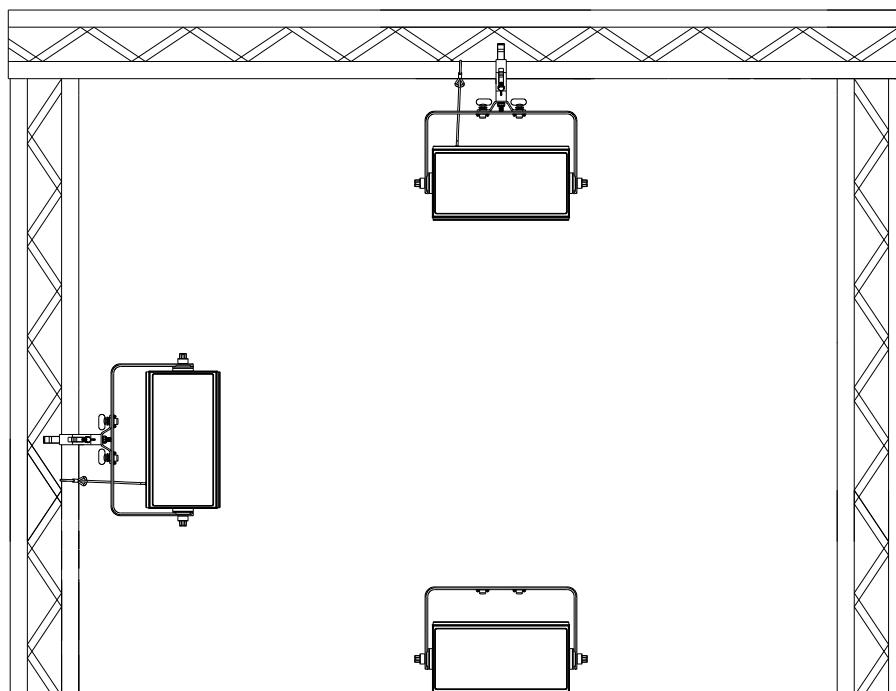
The fixture is IP66-rated and designed for both indoor and outdoor events. This means that it is protected from:

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

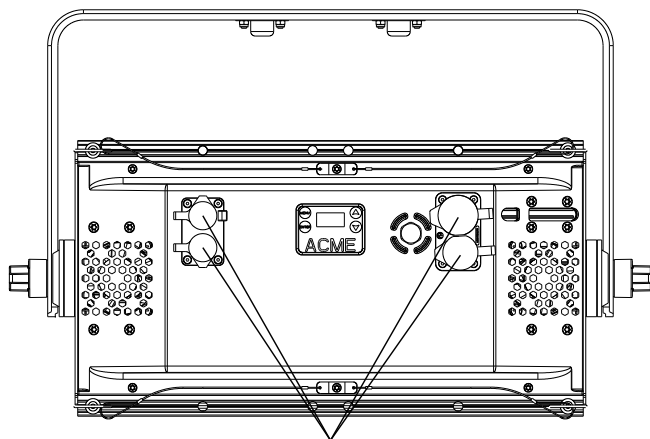
DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas where unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.

Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always attach a safety cable (by others) 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 trussing, mounted sideways on trussing, or standing on the floor. Always use and install a safety cable (by others) as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

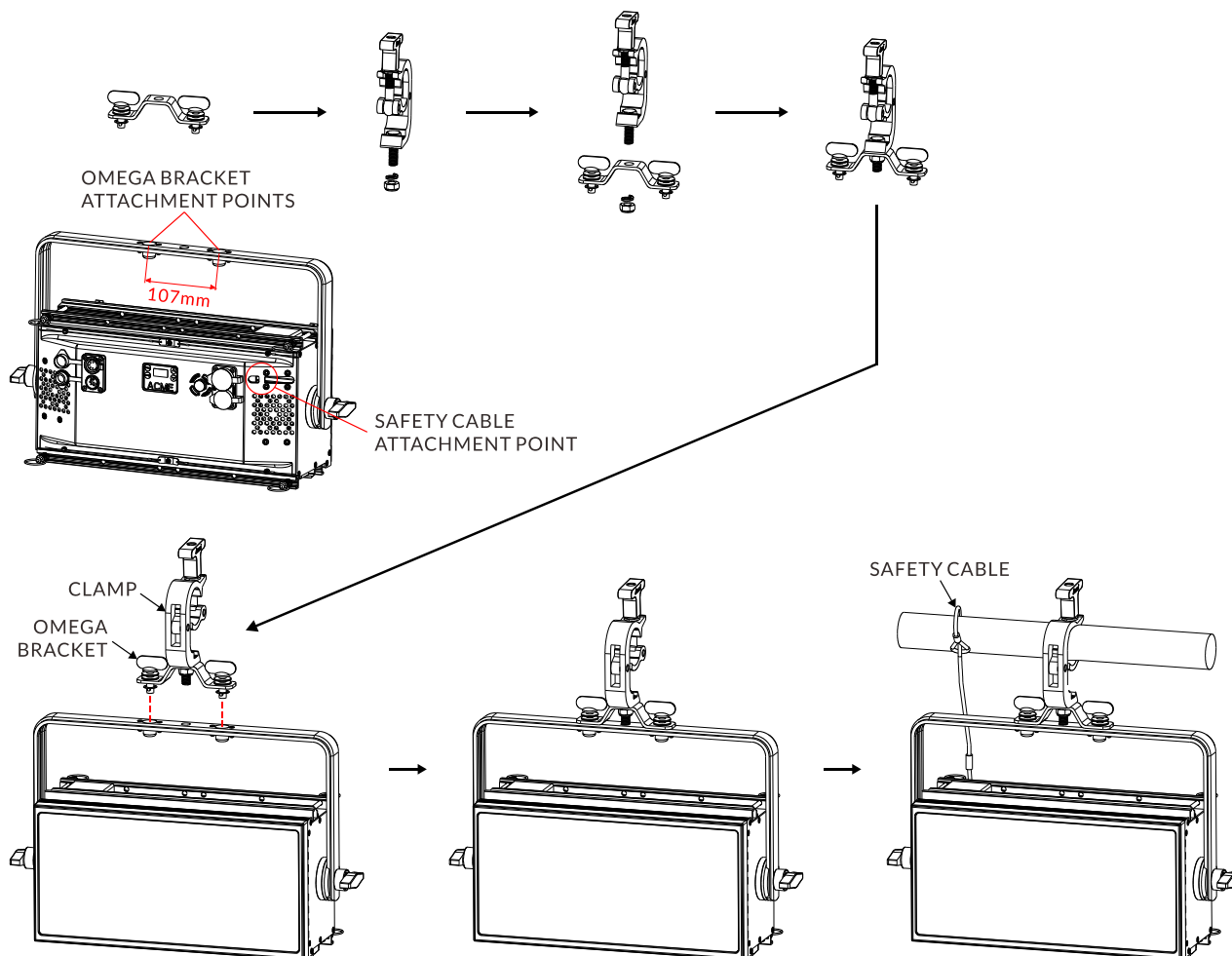


- Use only IP-rated power cords and connectors suitable for outdoor use.
- Visually check panel connectors on accidental water leaks and dust before connecting related cable connectors.
If some water appears in panel connectors, do not connect cable connectors, especially power!
- Fixtures require regular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

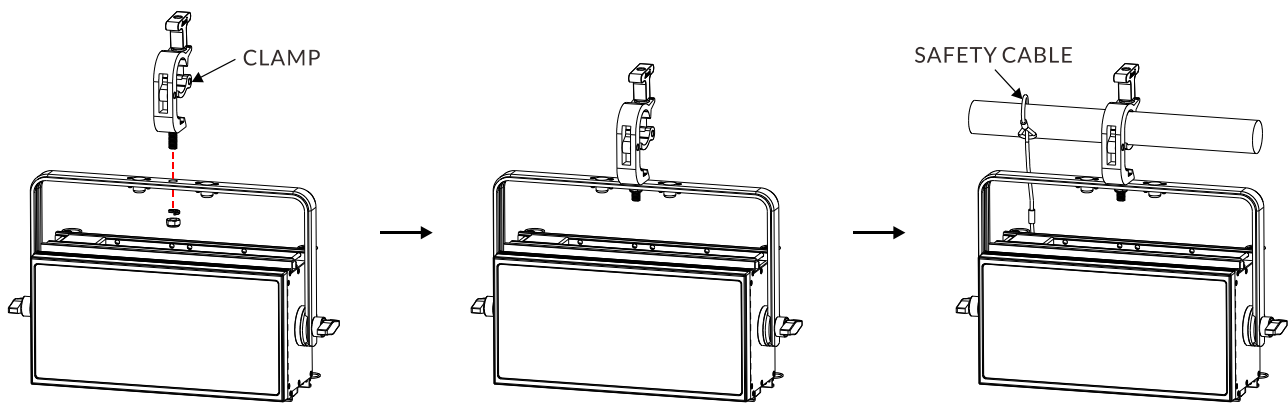


All unused panel connectors have to be sealed by the rubber caps to avoid contact with water, especially seawater.

Steps for installing omega bracket (supplied) and clamp (by others):

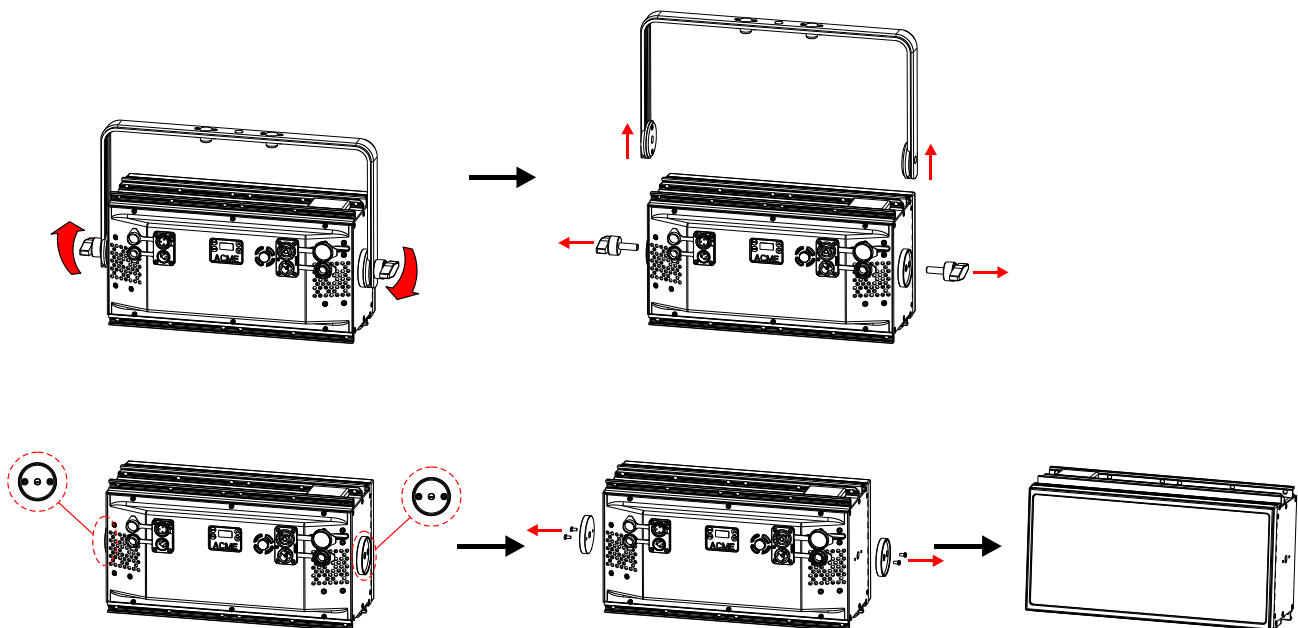


Steps for installing clamp (by others):

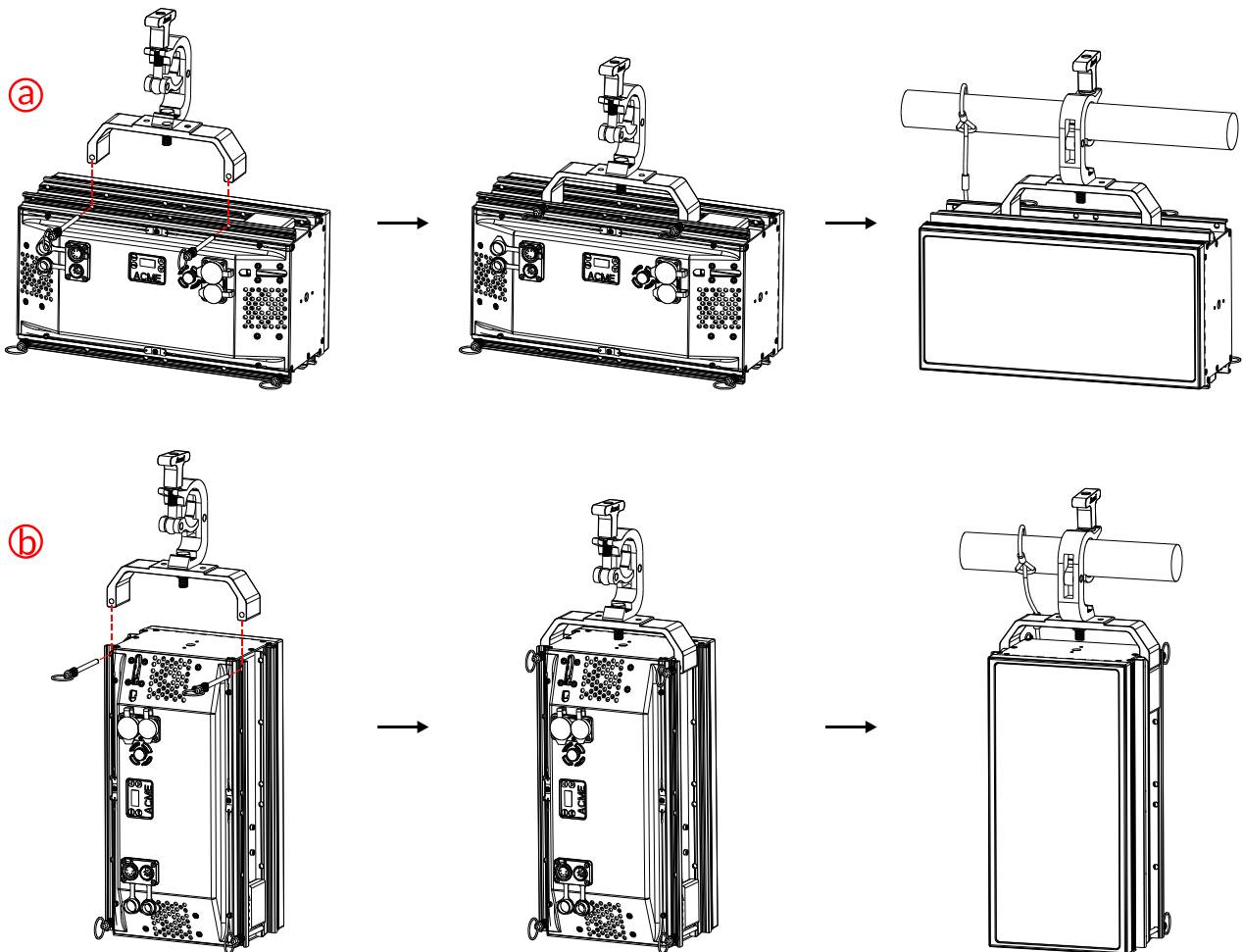
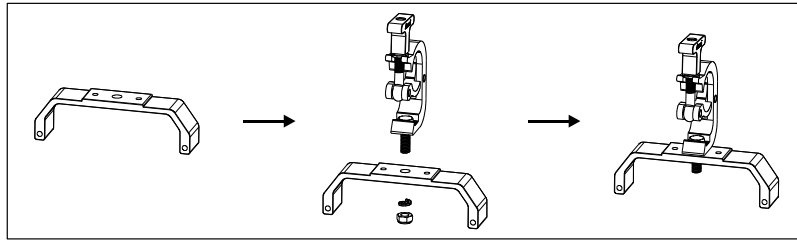


Separate the large hanging bracket (supplied):

- Unscrew the knobs on both sides of the fixture and remove the large hanging bracket.
- Unscrew four screws on both sides of the fixture and remove both pivot cups. The large hanging bracket is now disassembled.
- To reassemble the large hanging bracket, follow the above steps in reverse order.



Steps for installing the small hanging bracket (supplied):

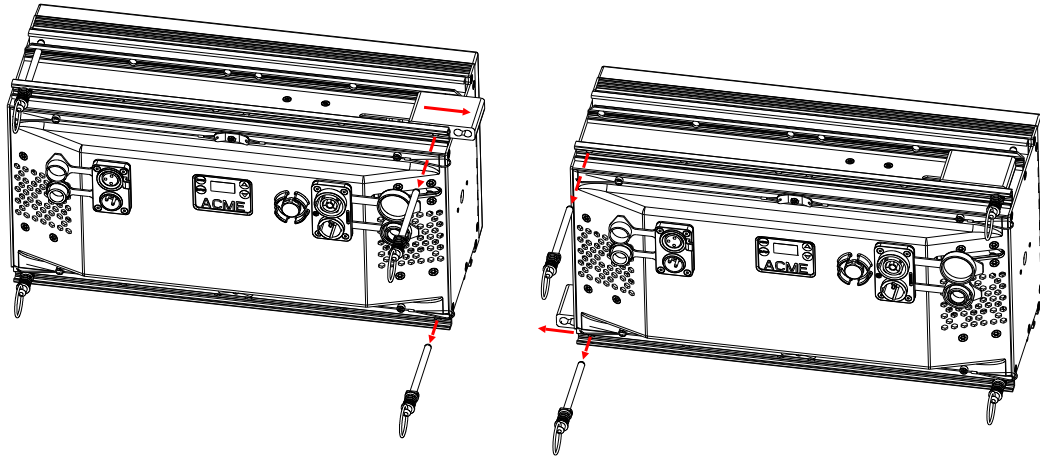


Connecting and Aligning Multiple Fixtures:

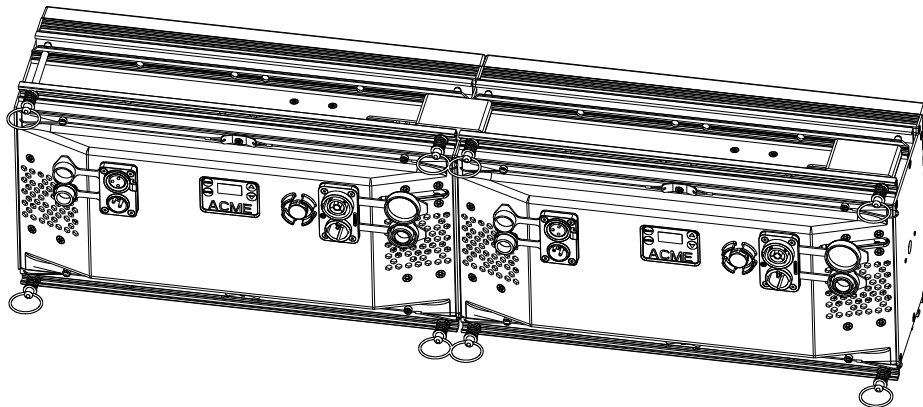
1. Connecting and aligning fixtures horizontally:

Note: All locking pins are fixed to fixture by a short retaining cable.

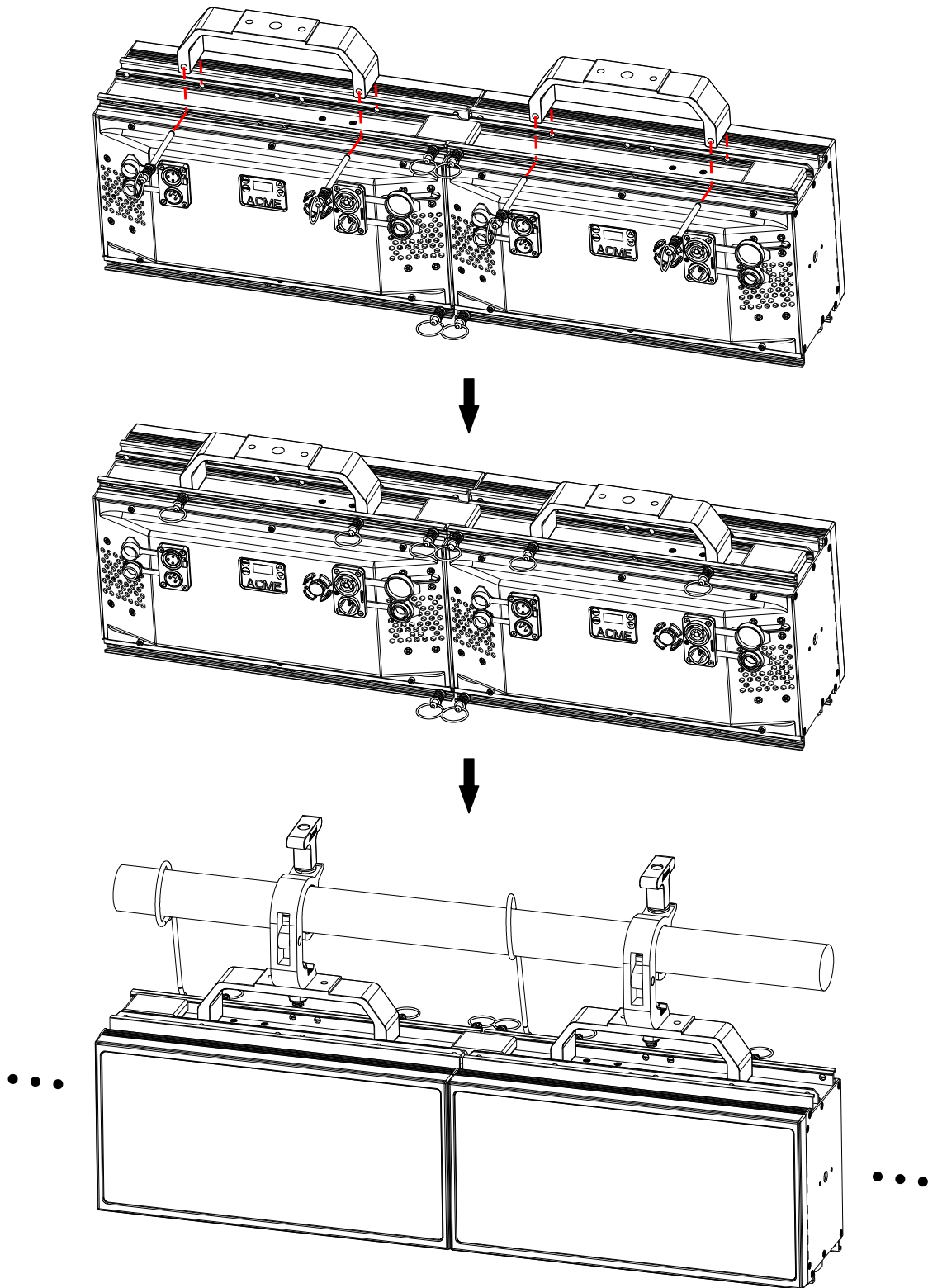
- a. Remove the four locking pins from the fixtures and press the two sliders to pop them out.



- b. Align and fit the fixtures together. Insert and lock the locking pins.



c. Install the small hanging brackets to the fixtures. Hang the fixtures by attaching and securing the hanging clamps to truss.



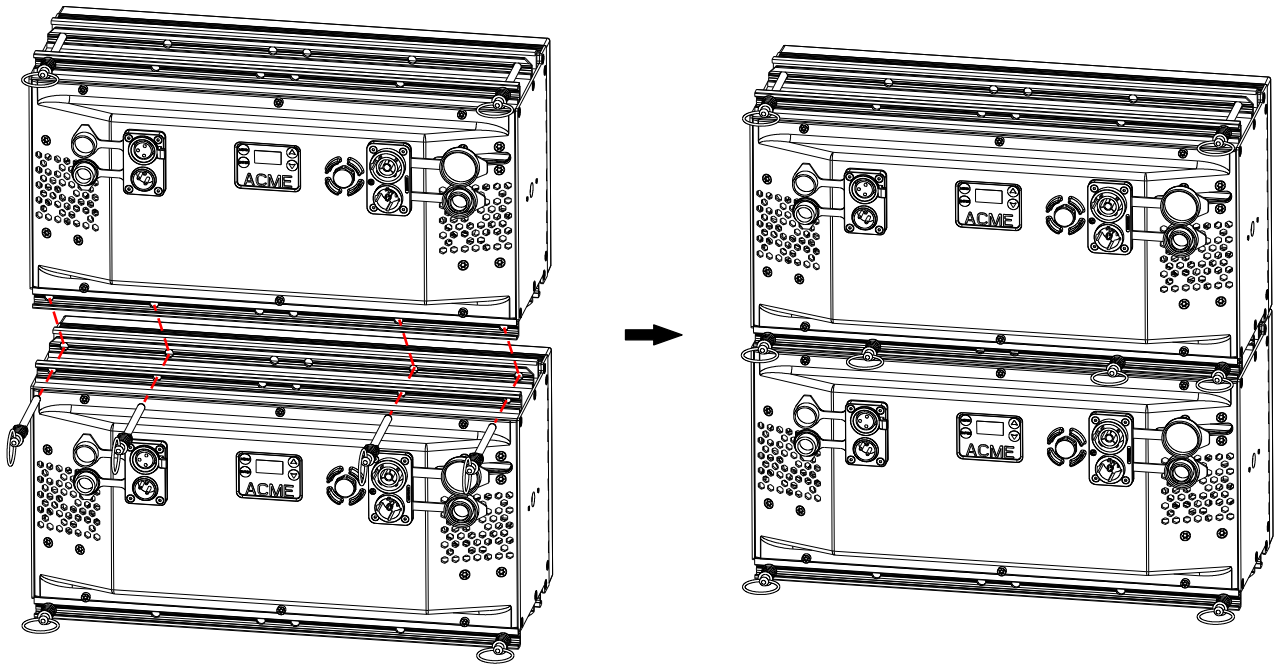
d. If you need to align more fixtures, repeat the steps above.

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

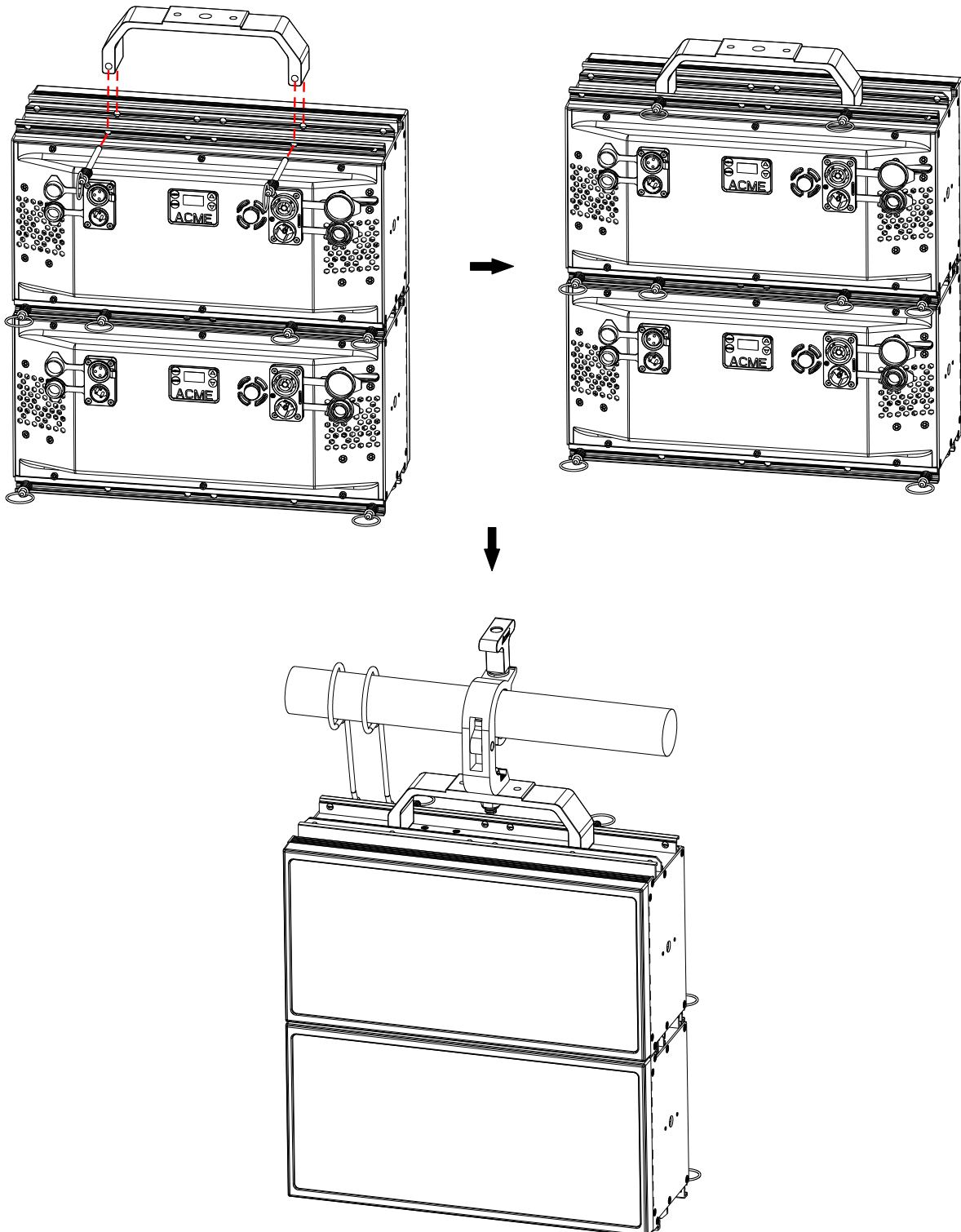
2. Connecting and aligning fixtures vertically:

Note: All locking pins are fixed to fixture by a short retaining cable.

- a. Remove the four locking pins from the fixtures.
- b. Align and fit the fixtures together. Insert and lock the locking pins.



c. Install the small hanging bracket to the fixture. Hang the fixtures by attaching and securing the hanging clamps to truss.



•
•
• Max. 4 fixtures

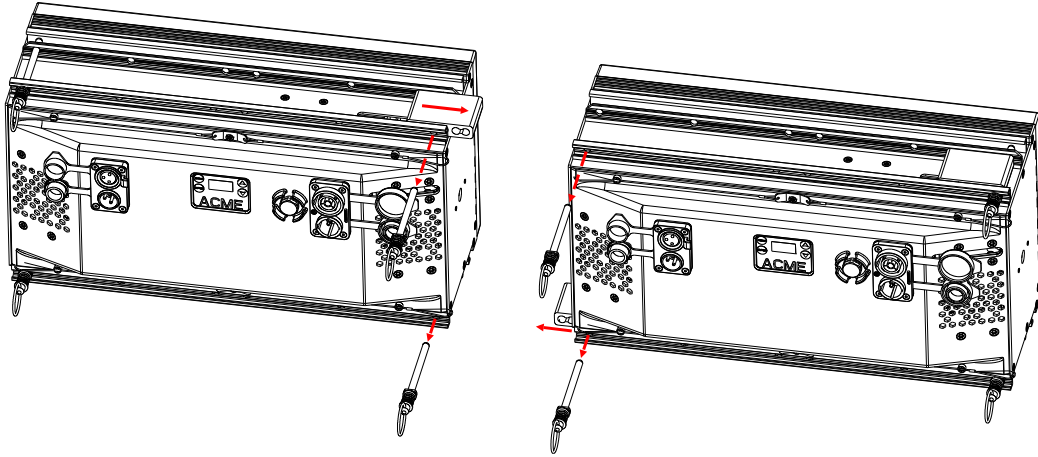
d. If you need to align more fixtures, repeat the steps above.

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

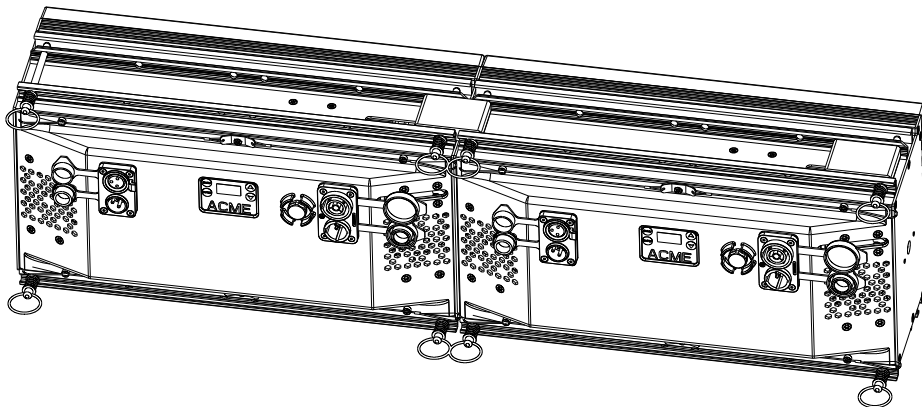
3. Connecting and aligning fixtures into the following shapes:

Note: All locking pins are fixed to fixture by a short retaining cable.

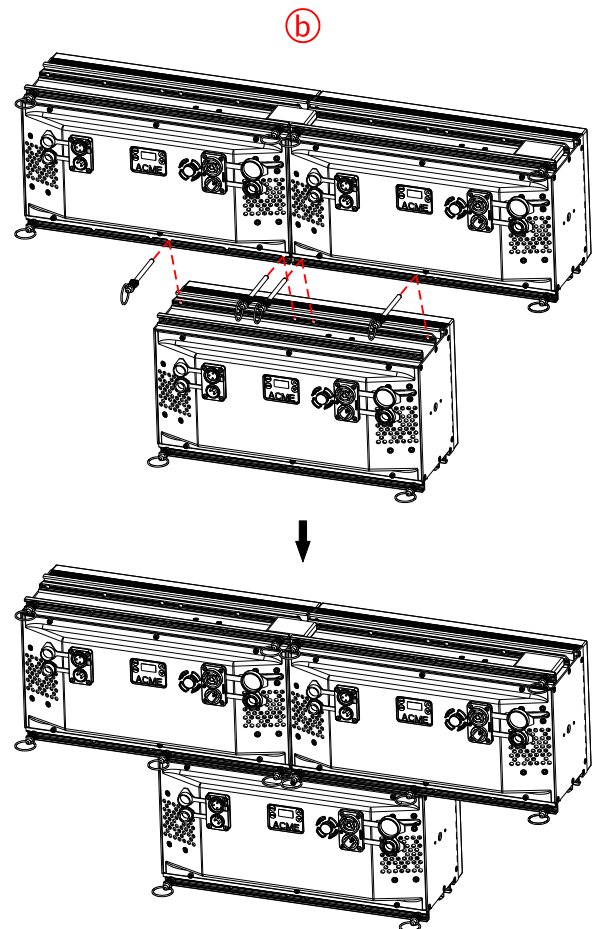
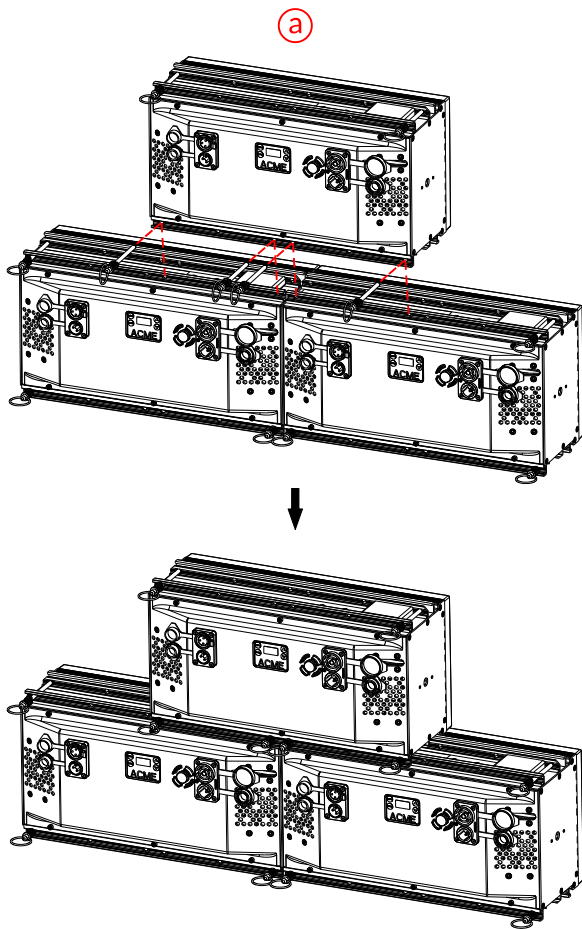
- a. Remove the four locking pins from the fixtures and press the two sliders to pop them out.



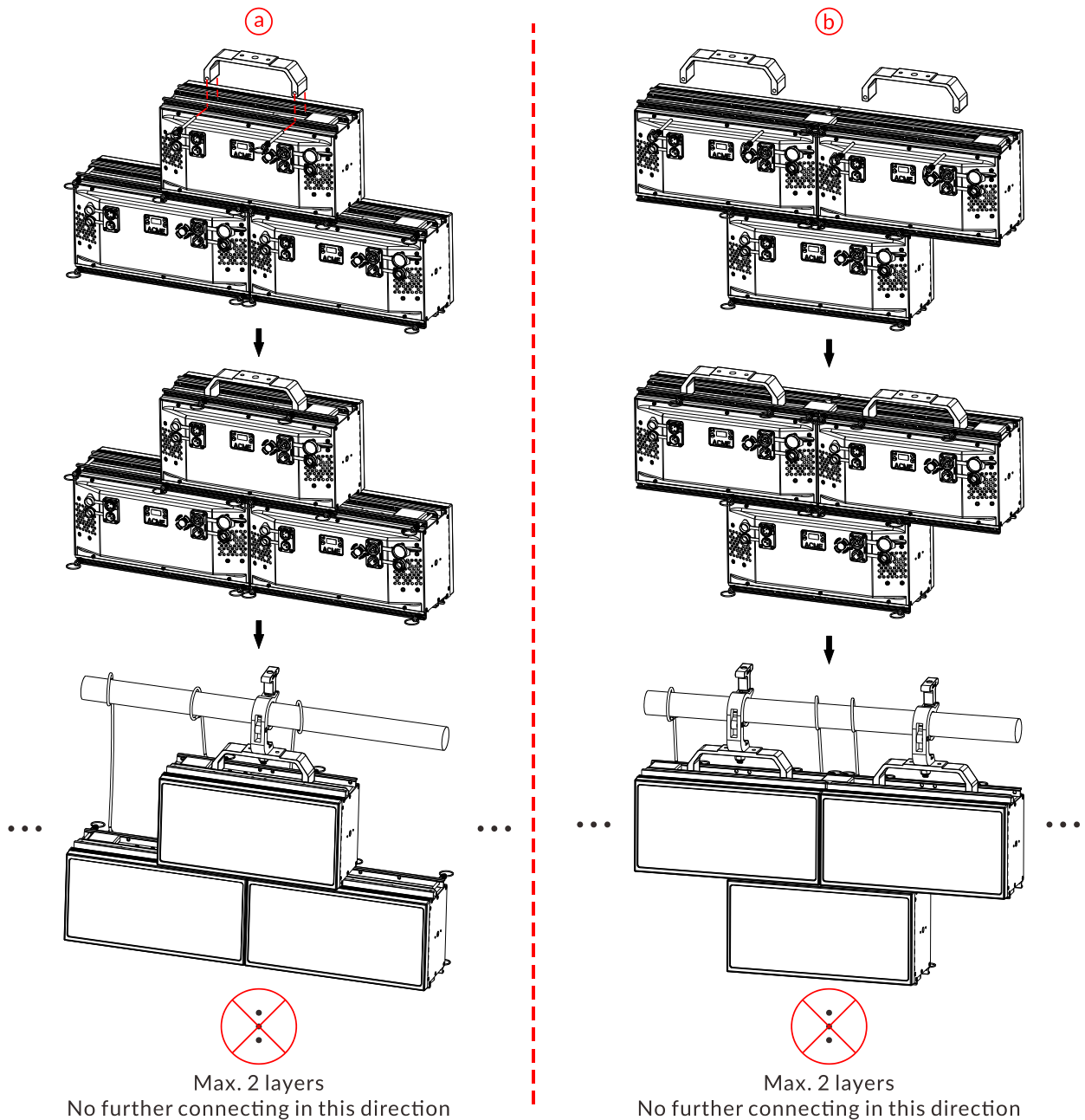
- b. Align and fit the fixtures together. Insert and lock the locking pins.



- c. Prepare another fixture and remove the four locking pins from the fixtures.
- d. Center, align and fit the third fixture with the two previously connected fixtures together. Insert and lock the locking pins.



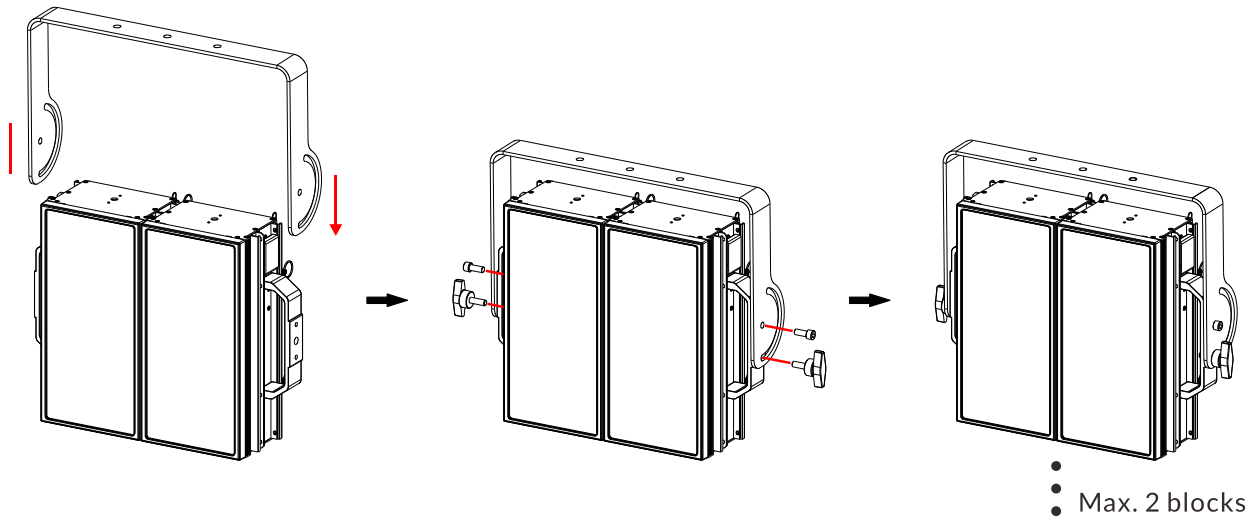
e. Install the small hanging bracket(s) to the fixture(s). Hang the fixtures by attaching and securing the hanging clamps to truss.



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

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

The large double vertical hanging bracket assembly installation:



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

The main functions are shown below:

MAIN MENU	SUBMENU	CHOICES/VALUES		
DMX Settings	DMX Address	1-509 (4 CH)		(Default=1)
		1-505 (8 CH 16 bit)		
		1-505 (8 CH)		
		1-504 (9 CH 16 bit)		
		1-497 (16 CH)		
	DMX Channel Mode	4 CH		
		8 CH 16 bit		
		8 CH		
		9 CH 16 bit		
		16 CH		
	No DMX Status	Blackout		
		Hold		
		Manual		
	View DMX Value			
Fixture Settings	Dimmer Curve	Linear		
		Square Law		
		Inv SQ Law		
		S Curve		
	Dimmer Speed	Fast		
		Smooth		
	White Balance	Red	125-255	
		Green	125-255	
		Blue	125-255	

MAIN MENU	SUBMENU	CHOICES/VALUES				
		Red 1		125-255		
		Green 1		125-255		
		Blue 1		125-255		
		Red 2		125-255		
		Green 2		125-255		
		Blue 2		125-255		
		Red 3		125-255		
		Green 3		125-255		
		Blue 3		125-255		
	Refresh Rate	900Hz				
		1000Hz				
		1100Hz				
		1200Hz				
		1300Hz				
		1400Hz				
		1500Hz				
		2500Hz				
		4000Hz				
		5000Hz				
		6000Hz				
		10000Hz				
		15000Hz				
		20000Hz				
		25000Hz				
		Invert Pixel Order	No			
			Yes			
		Display Settings	Display Invert	No		
	Yes					
	Temperature Unit		°C			
°F						
Fixture Test	Auto Test	Single				
		Cycle				
	Manual Test	Mode 1		Mode 2		
		Clear	No/Yes	Clear	No/Yes	
		Red	0-255	Strobe	0-255	
		Green	0-255	Dimmer	0-255	
		Blue	0-255	Red 1	0-255	
		White	0-255	Green 1	0-255	

MAIN MENU	SUBMENU	CHOICES/VALUES			
		Intensity	0-255	Blue 1	0-255
		Duration	0-255	White 1	0-255
		Rate	0-255	Red 2	0-255
		Effect	0-255	Green 2	0-255
				Blue 2	0-255
				White 2	0-255
				Red 3	0-255
				Green 3	0-255
				Blue 3	0-255
				White 3	0-255
Information	Use Hour	Fixture			
		Light Source	Total		
			Light On		
			Reset	Password=50	
	Temperature			Current	Max temp
		Light 1			
		Light 2			
		Light 3			
	Fan State	Fan 1			
		Fan 2			
		Fan 3			
	Firmware Version				
	RDM UID				
	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 Channel Mode**, **No DMX Status** or **View DMX Value**.

DMX Address

Select **DMX Address**, press ENTER.

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

CHANNEL MODE	DMX ADDRESS
4 CH	1-509
8 CH 16 bit	1-505
8 CH	1-505
9 CH 16 bit	1-504
16 CH	1-497

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

DMX Channel Mode

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

Use UP/DOWN button to select between **4 CH**, **8 CH 16 bit**, **8 CH**, **9 CH 16 bit** and **16 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.

Fixture Settings

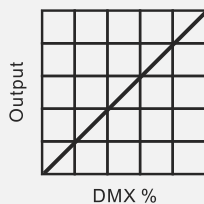
Enter the control menu and select **Fixture Settings**, press ENTER. Use the UP/DOWN button to select **Dimmer Curve**, **Dimmer Speed**, **White Balance**, **Refresh Rate** or **Invert Pixel Order**.

Dimmer Curve

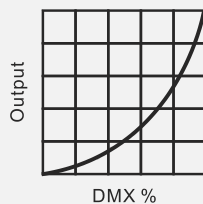
Select **Dimmer Curve**, press ENTER.

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

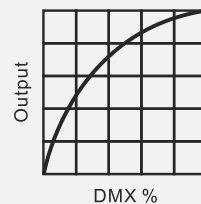
Dimmer Modes



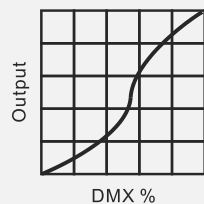
Optically Linear



Square Law



Inverse Square Law



S-curve

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

Dimmer Speed

Select **Dimmer Speed**, press ENTER.

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

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

White Balance

Select **White Balance**, press ENTER.

Use UP/DOWN button to select **Red, Green, Blue, Red 1, Green 1, Blue 1, Red 2, Green 2, Blue 2** or **Red 3, Green 3, Blue 3**, confirm your selection with ENTER.

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

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.

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.

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 Test**.

Auto Test

Select **Auto Test**, press ENTER.

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

To exit the menu, press MENU.

Manual Test

Select **Manual Test**, press ENTER.

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

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

To exit the menu, press MENU.

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

Information

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

Use Hour

Select **Use Hour**, use UP/DOWN button to select Fixture or Light Source, press ENTER.

Select Light Source, 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. If you wish to reset the Light Source 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 Light Source operating hours is reset.

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

Temperature

Select **Temperature**, press ENTER.

The device temperature is displayed.

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

Fan State

Select **Fan State**, press ENTER.

The fan status is displayed.

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

Firmware Version

Select **Firmware Version**, press ENTER.

The firmware version is displayed.

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

RDM UID

Select **RDM UID**, press ENTER.

The RDM UID is displayed.

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

Error Logs

Select **Error Logs**, press ENTER.

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

The error list is displayed.

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

If you wish to reset the relevant error logs, select **Yes**. If you do not wish to reset anything, select **No**. Confirm your selection with ENTER.

If you select **Yes**, use UP/DOWN button to set the password 050, confirm your selection with ENTER. The relevant error logs are reset.

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

Factory Restore

Select **Factory Restore**, press ENTER.

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

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

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

protocol.

The parameter IDs are implemented as follows for different commands:

Parameter ID	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		✓	✓

✓ -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(Hz)	1072~1327
Red	-128~127
Green	-128~127
Blue	-128~127
White	-128~127
Red 1	-128~127
Green 1	-128~127
Blue 1	-128~127
White 1	-128~127
Red 2	-128~127
Green 2	-128~127
Blue 2	-128~127
White 2	-128~127
Red 3	-128~127
Green 3	-128~127
Blue 3	-128~127
White 3	-128~127

Frequency(Hz)

Select **Frequency(Hz)**, press ENTER.

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

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

Frequency	VALUES
900Hz	772~1027
1000Hz	872~1127
1100Hz	972~1227
1200Hz	1072~1327
1300Hz	1172~1427
1400Hz	1272~1527
1500Hz	1372~1627
2500Hz	2372~2627
4000Hz	3872~4127
5000Hz	4872~5127
6000Hz	5872~6127
10000Hz	9872~10127
15000Hz	14872~15127
20000Hz	19872~20127
25000Hz	24872~25127

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.

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 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.

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 3

Select **Red 3**, 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 3

Select **Green 3**, 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 3

Select **Blue 3**, 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 3

Select **White 3**, 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 4 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 5. As the first fixture uses all the first 4 DMX channels, the next available channel is 5 ($4+1=5 \gg 5$).

See the chart below for more details:

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address	Unit xxx Address
4 channels	1	5	9	13	
8 channels 16 bit	1	9	17	25	
8 channels	1	9	17	25	
9 channels 16 bit	1	10	19	28	
16 channels	1	17	33	59	

7.2 DMX Protocol

Valid from firmware version: V1.4

CHANNEL					VALUE	FUNCTION
4ch	8ch 16 bit	8ch	9ch 16 bit	16ch		
1	1	1	1		000-255	RED 0%→100%
	2		2		000-255	RED FINE
2	3	2	3		000-255	GREEN 0%→100%
	4		4		000-255	GREEN FINE
3	5	3	5		000-255	BLUE 0%→100%
	6		6		000-255	BLUE FINE
4	7	4	7		000-255	WHITE 0%→100%
	8		8		000-255	WHITE FINE
				1	000-255	RED 1 0%→100%
				2	000-255	GREEN 1 0%→100%
				3	000-255	BLUE 1 0%→100%
				4	000-255	WHITE 1 0%→100%
				5	000-255	RED 2 0%→100%
				6	000-255	GREEN 2 0%→100%
				7	000-255	BLUE 2 0%→100%
				8	000-255	WHITE 2 0%→100%
				9	000-255	RED 3 0%→100%
				10	000-255	GREEN 3 0%→100%
				11	000-255	BLUE 3 0%→100%
				12		WHITE 3

CHANNEL					VALUE	FUNCTION
					000-255	0%→100%
		5		13	000-255	DIMMER 0%→100%
		6		14	000-255	STROBE DURATION 0%→100%
		7		15	000-006 007-255	STROBE RATE Blackout Strobe from Slow to Fast
		8		16	000-005 006-050 051-100 101-150 151-200 201-255	STROBE EFFECT Null Ramp up Ramp down Ramp up-down Lightning Random
			9		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	CTO (8000K-2500K) 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

CHANNEL					VALUE	FUNCTION
					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

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 Error

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

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

Light 1/2/3 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.

Light Timeout Use

Light Too Hot Off

When the fixture temperature reaches 78°C, it will automatically turn off to protect the fixture.

Fan 1/2/3 Start Err

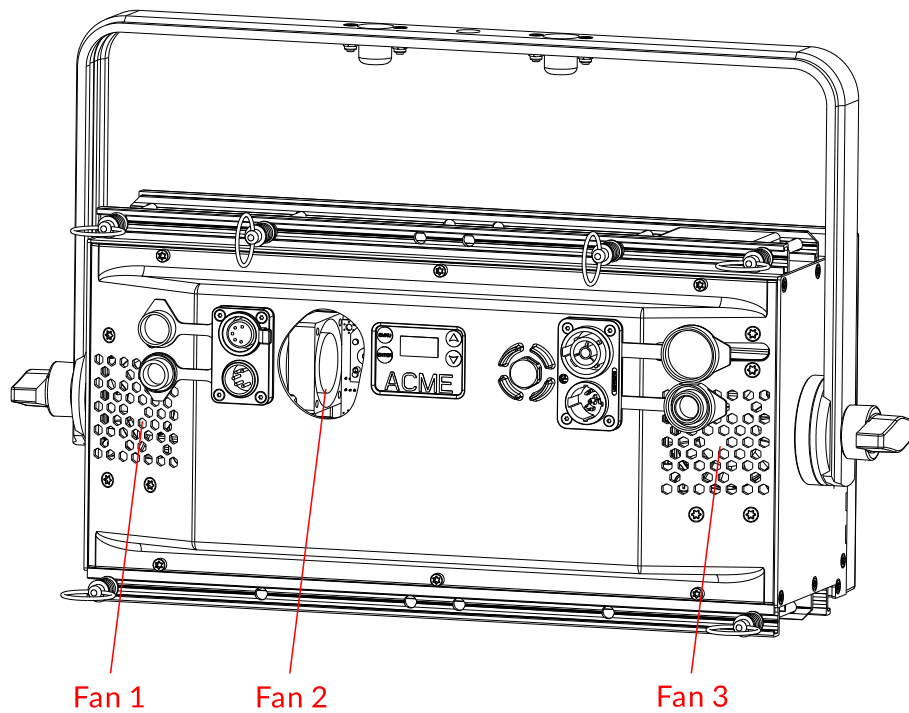
Check whether the fan is not running.

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
Fan 1	3014001394	DC 24V	2.2+/-10%W	Main Board
Fan 2	3014001322	DC 24V	2.4W	Main Board
Fan 3	3014001394	DC 24V	2.2+/-10%W	Main Board

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/ 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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