

DLW

Product Manual

DLW 480 BEAM

DLW 480 BEAM-V

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Safety Information



Note: Please check the complete package after received , and please unpack and check if the fixture is damaged during shipping.
If the fixture is damaged during shipping, please do not use it and contact the manufacturer/local technicians as soon as possible.

The following identifications are used to identify the product and identify the important safety information in the user manual.

Caution!	Indoor used only!	Refer to the manual before installation/ power on/ maintenance	Caution Eelectric shock hazard!	Properly grounded	Caution wear goggles!	Caution! High surface temperature Don't touch!	Caution! Must wear gloves!
Caution Prevent fire!	Do not stare at the operating light source	Do not interfere with the track of the operating fixture	Minimum distance of illuminated objects(m)	Rated maximum ambient temperature!	Don't install the fixture on the surfact of combustible materials!	Replace any cracked protective shields	

Notes:

- The fixture is used professionally only, please don't used it for any other purposes.
- Please refer to the latest user manual before using the fixture.The fixture is out of warranty if problems are caused by any incorrect use or negligence of the user manual.
- The fixture is used indoor only; the protection level rate is IP20. Please keep the fixture dry and avoid to use the fixture under the environment of damp, overheating or dusty. Please keep the fixture away from water or any other liquids.
- In order to avoid damage the fixture, it is required more than 1 person when moving the fixture. When hanging the fixture, the hanging device must be tested. The hanging device should be able to bear more than 10 times of weight of the fixture.
Please make sure the housing and G-clamp are fixed and do not have damage after installed. Please use the safety chain to keep the fixture fixed on the truss safely.
- The fixture should be installed in a well-ventilated place. Keep the distance of the fixture and the obstacles more than 0.5 meter,and please check the fans and ventilation hole sare not blocked.

- Please don't install the fixture on the surfaces of the inflammable goods directly. ()
- Please check the voltage before the professional technicians install the fixture.
The voltage must be the same with the voltage which marked on the fixture.
Overloading protection or leakage protection are also required.
- Before power on the fixture, please check whether the fuse meets the technical requirements.
Please don't replace the fuse without professional instructions and short circuit it when the fixture is powered on. And then confirm whether the input
- voltage meets the technical requirements and the ground wire is properly connected.
- Please cut off the power supply when replacing the fuse. ()
- Rated maximum ambient temperature when the fixture is working: $t_a = 40^{\circ}\text{C}$.
- The safe/shortest distance to the illuminate object: 20m.
- when the fixture working stably, the maximum surface temperature: $t_c = 100^{\circ}\text{C}$.
- The shortest safety distance to combustible material: 0.7m.
- Please don't touch the fixture when it is working stably. It's highest surface temperature can reach 100°C .
- The distance should be longer than 3.5 m when the installation location of the fixture is designed to be stared for a long time.
- Please pay attention to severe or hazard damage caused by the shock from fire or heat, the UV violation, lamp explored or falling down.
- Please don't look at the lighting fixture without any eye protection.
- Please don't power off the lamp or cut off the power supply when it is working in 5mins, because of the special necessary of Metal halide discharge bubbles. Please reset it or move it or open it after power off for 15mins or cooling completely.
- Please don't stare at the working fixture directly without any eye protection.
- Please replace the protective cover and lens if any visible damage happened or the damage has reached the malfunction level. ()
- The fixture must be installed, operated, and maintained by professionals strictly according to the user manual.
- All the information of the user manual is for your reference only. All fixtures should be subject to the actual product, which is subject to change without prior notice.

Package & Transportation

Fixture package

- Please cut off the power supply and cool it down for over 15 minutes before packing the fixture.
- Lock the protection lock well with Pan=0°, Tilt=90°.
- Please place the fixture in the plastic bag, and then carefully put it into the flight case vertically, the accessories are placed at special area in flight case, then close the lid and lock the flight case. Please don't put it upside down.

Transport protection lock

- Protective locks for pan and tilt movement are installed in the fixture for safe transportation.

Unpacking

- Open the packing box, and then open the inner packing bag.
- Grasp the handle of the fixture, take it out from the case carefully.
- Unlock the protective lock before power on the fixture.

Notice: Please check the complete package after received the fixture, please check whether the fixture is damaged or not during shipping after opened the packing. If the fixture is damaged during shipping, please don't use it first, and contact the manufacture/local technicians as soon as possible.

Accessories with fixture

Accessories	Qty
User Manual	1
Warranty Card	1
Signal Cable	1

Product Technical Specifications

Electrical parameters

AC 100 - 240V 50 / 60 Hz

Rated Input Power:700W rated electrical current:7A,PF≥0.98

Light Source parameters

- Light source:OSRAM SIRIUS HRI 482W

Optics parameters

- Lens:High-definition lens with anti-reflective film 200mm.
- Zoom range: 1.8°

Effect configuration

- Independent frost effect.
- Mechanical dimmer 0-100%.
- Fast strobe device, multiple strobe effects optional,pulse/asynchronous/synchronous/slow-medium-fastat random.
- 8prism+48prism,can be stacked out of the multi-layer beam effect, can be Bi-directional rotation combination,Bi-directional rotation.

Fixture movement

- PAN=540°, 16bit precision adjustment.
- TILT=270°, 16bit precision adjustment.

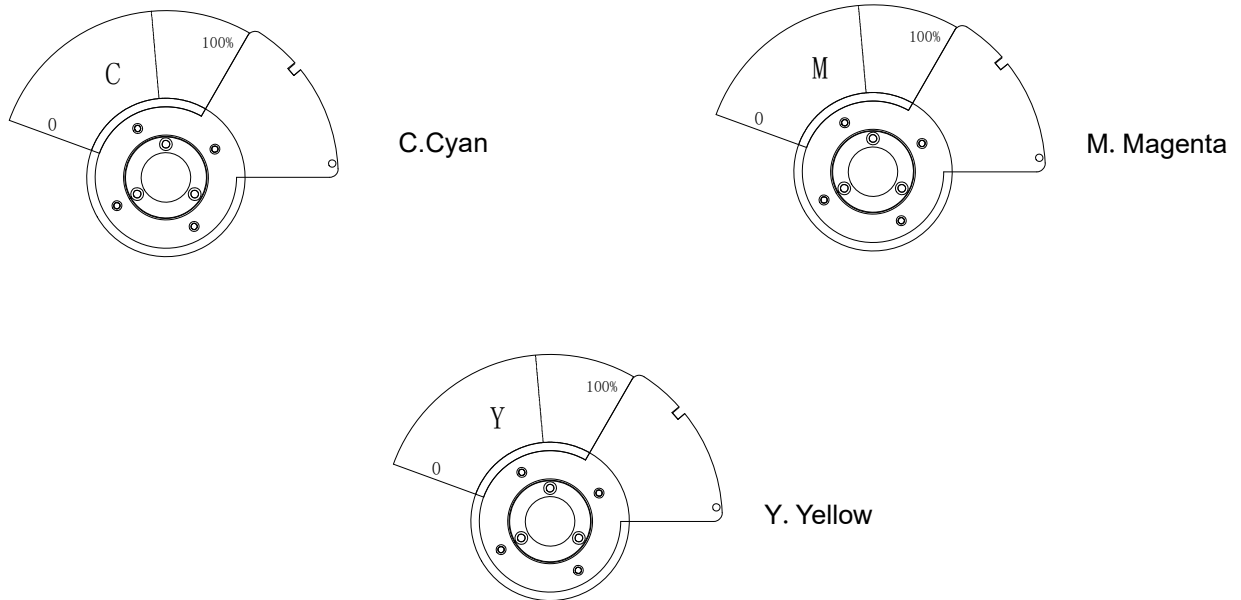
Electronic Control

- Channel:20CH/24CH/28CH.
- Control Protocols:DMX512,RDM,Art-Net,sACN,wireless function(optional).
- Control Portals: XLR-3+ XLR-5; RJ45 (optional).
- Menu display: 2.4" LCD screen; choice of Chinese and English language, menu available to be displayed 180° reversely.
- Built-in self-rechargeable battery, menu can be edited without power supply (optional version); Support connecting with power bank to enter the menu and edit address code and other settings.

Color System

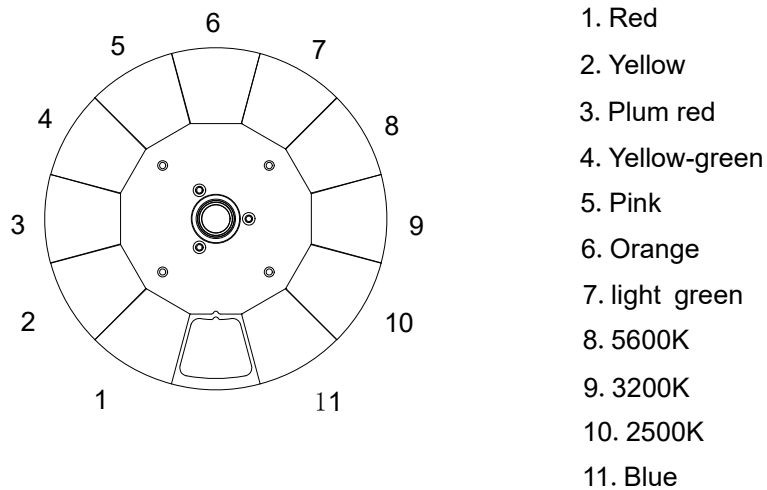
● CMY induction color mixing.

(Note: DLW 480 BEAM-V , without CMY, DMX channel is reserved.)



Pic1

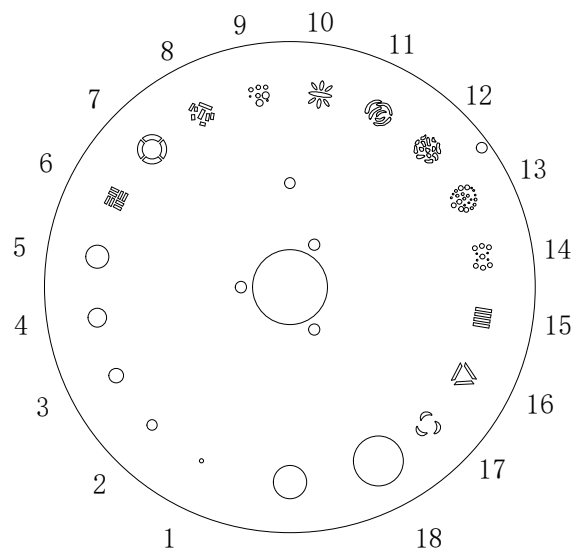
● 1 color wheels with 11color chips+1 white light,which can realize two-way color rainbow,step and sliding gradient color mode.



Pic2

Gobo System

- 1 fixed gobo wheel with 18 gobos+ white to make water running, and shaking effect. (Pic 3)

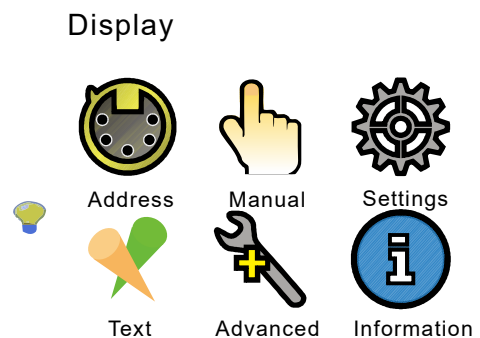
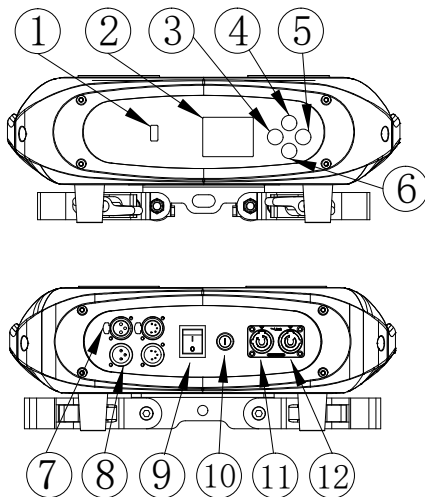


Pic3

Size & Weight

- Fixture size: 417X417X692(mm)
- Net weight of the fixture:28 kg
- IP Rate: IP20

Operation Panel



As shown:

- | | | | |
|----------------|----------|--------------|-----------------|
| 1.USB | 4.Up | 7.DMX Output | 10.Fuse box |
| 2.LCD Display | 5. Enter | 8.DMX Input | 11.Input Power |
| 3.Menu(Return) | 6. Down | 9.Switch | 12.Output Power |

Operation Panel Instructions

- Up Direction key:Select Sub-menu cyclically(upward).Circulate downward to adjust data value.
- Down Direction key: Select Sub-menu cyclically (downward). Circulate downward to adjust data value.
- Left Direction key(Back):Back to menu.
- Right Direction key(Confirm):Confirm the selected data value o rselect cyclical data window.

Detailed Operation Table of Display panel

Specification 	1.Pan Inverse	Off, On	
	2.Tilt Inverse	Off, On	
	3.PT Encoder	Off, On	
	4.PT Speed	FAST , NORMAL, SLOW	
	5.Dim Curve		
	6.LED PWM		
	7.Dim Speed	Speed1,Speed2,Speed3,Speed4	
	8.FAN mode	LOW , NORMAL, HIGH,AUTO	
	9.Display blackout	Off, On	
	10.display inverse	Off, On	
	11.Language	English,Chinese	
	12.Sleep Mode	Off, On	
	13.Fixture		
	EXIT		
Address 	1.Channel		
	1.Pan		000~255
	2.Pan fine		000~255
	3.Tilt		000~255
	4.Tilt fine		000~255
	5.Strobe		000~255
	6.Dimmer		000~255
	7.Dimmer fine		000~255
	8.Focus		000~255
	9.Zoom		000~255
	10.Cyan		000~255
	11.Magenta		000~255
	12.Yellow		000~255
	13.CTC		000~255
	14.Color wheel		000~255
	15.Gobo		000~255
	16..R-Gobo1		000~255
	17.FIX GOBO		000~255
	18.Prism1		000~255
	19.Prism2		000~255
	20.R-Prism1&2		000~255
	21.Color7		000~255
	22.Frost		000~255
	23.Macro		000~255
	24.Lamp control		000~255
	EXIT		
	2.Reset	NO, YES	
	3.Lamp control	Off, On	
	EXIT		
Address 	1.DMX512 Address	001~512	
		EXIT	
	2.Channel Mode	Basic	
		Standard	
		Extend	
		EXIT	

Information 	3.No DMX Mode	Dmx hold	
		Black out	
		EXIT	
	EXIT		
	1.Fixture Hour	Fixture Hour	XXXXXX
		LED Hour	XXXXXX
		EXIT	
	2.Version	PANEL Ver :	XXXX
		XY Ver:	XXXX
		DRV1 Ver:	XXXX
		DRV2 Ver:	XXXX
		DRV3 Ver:	XXXX
		DRV4 Ver:	XXXX
		EXIT	
	3.Tempareture	PANEL Tempareture :	XXX-XXX
		XY Tempareture:	XXX-XXX
		DRV1 Tempareture:	XXX-XXX
		DRV2 Tempareture:	XXX-XXX
		DRV3 Tempareture:	XXX-XXX
		DRV4 Tempareture:	XXX-XXX
		EXIT	
	4.Fan Speed	PANEL Fan :	XXXX-XXXX
		XY Fan:	XXXX-XXXX
		DRV1 Fan:	XXXX-XXXX
		DRV2 Fan:	XXXX-XXXX
		DRV3 Fan:	XXXX-XXXX
		DRV4 Fan:	XXXX-XXXX
		EXIT	
	5.RDM ID	XXXXXXXXX	
		EXIT	
	6.System Error	NONE	
		EXIT	
	EXIT		
Adcanced 	1.Factory Reset	NO, YES	
		EXIT	
	2.Fixture Time Reset	NO, YES	
		EXIT	
	3.LED Time Reset	NO, YES	
		EXIT	
	4.Calibration	NO, YES	
		EXIT	
	EXIT		
Test 	1.Auto test		
		NO	
		YES	
		EXIT	
	EXIT		

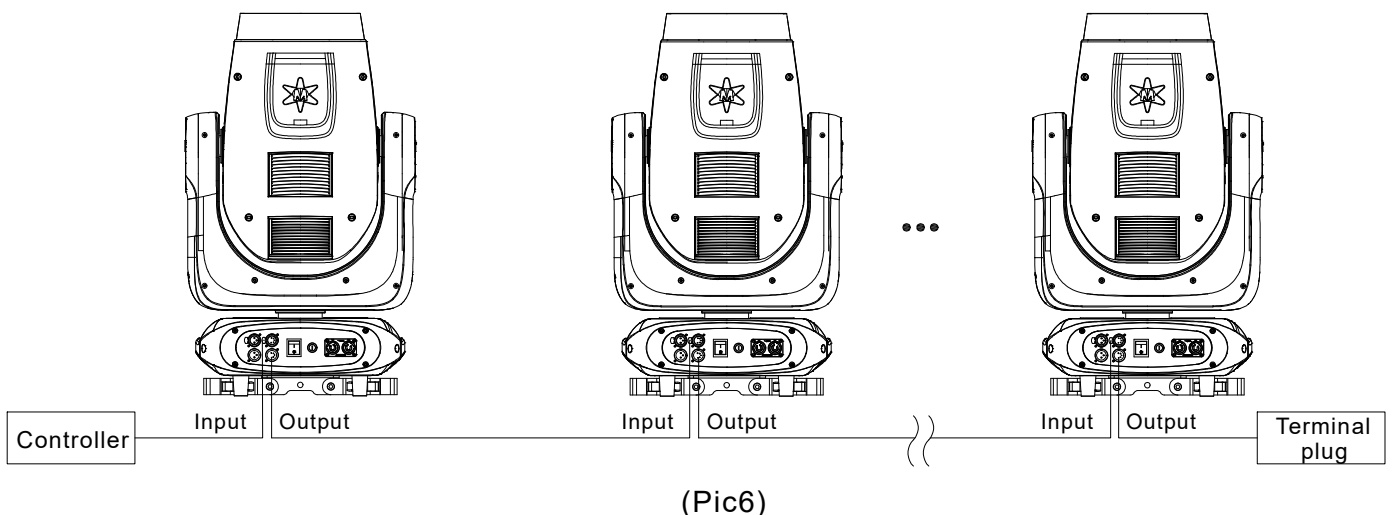
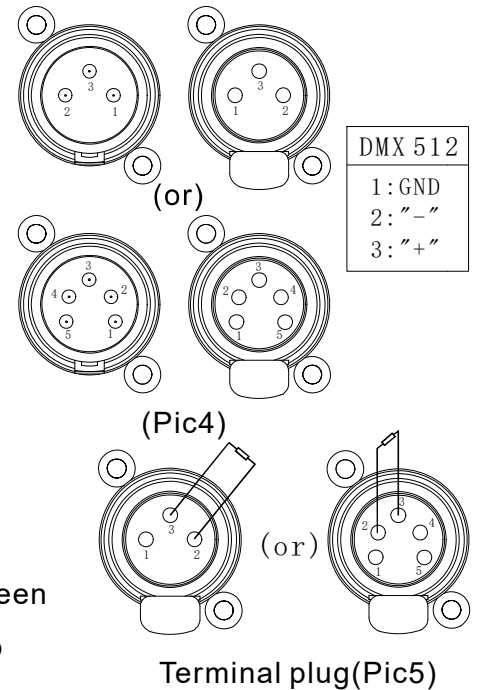
Signal connection

The fixture adopts 3pin/5pin socket to control DMX input and output, Pin1 is connected to grounded, Pin2 is connected to"-", Pin3 is connected to"+"(Pic4).

Please adopt professional DMX512 STP signal cable, usually its effective range is within 150m. When long distance signal transmission is required, please add DMX 512 signal amplifier.

To avoid the signal reflection during the transmission, please add a terminal which is 120Ω 1/4W resistance between DMX output pin2 and pin 3 of the last fixture. Plug the pin to the DMX output connector of the last fixture. (Pic5)

Connect the fixture from the DMX output of controller to DMX input of the first fixture, and then connect the first fixture's DMX output to the second fixture's DMX input and so on, until all fixtures are being connected. Then please install a terminal plug in DMX output of the last fixture. (Pic 5) The method of connection as show bellow. (Pic 6)



Notice: ● Don't use multi- output connector for connecting separately, It must connect the branch with DMX512 signal amplifier to separate them if it is required.

● Standard amplifier cable is not reliable for long-distance data transmission; Please adopt professional DMX 512 STP signal cable.

● The signal of the fixture only has one input and one output. Two input/output for each fixture are not available.

Power connection

Input voltage and frequency must be identical to the voltage and frequency marked on the fixture. When many fixtures are working at the same time, it is strongly recommended to control each fixture on/off individually.

Connection type

L(Live line)Brown wire

N(Null line)Blue wire

E(Earth line)Yellow and green wire

Notice:

- When connect power supply, please make sure the E line (yellow & green.) is properly connected. And it is corresponded with the relative electrical installation standards.
- Insulation class between LV power supply and controlling conductor: I
- Please confirm the voltage of the power supply is corresponded to the voltage on the fixture's identifications before professionals install it. Please also make sure it has overload or leakage protection.
- If the external cable is damaged, don't change it by yourself, please contact the manufacture/local as soon as possible.
- AC220V:Lighting fixture connection not surpass 3 units (2.5mm²).
- AC100V:Lighting fixture connection not surpass 2 units (2.5mm²).

Installation specification

Attention for Installation

● To prevent the dirt and oil leave on the lamp, please do not touch the lamp with bare hands when you replace the lamp. Keep the lamp clean. You can use the cleansing towel that come in with the lamp to clean the lamp.()

● Please do not install other similar lamp model or this action may lead to safety issues and damage to the fixture. We do not take any responsibility if you use other lamp model. We strongly suggested to use the original lamp model.

● For lower the risk of damage the fixture, please change the lamp before it exceed its lifespan.

● It is forbidden to use the lamp if it is damaged or scratched.

● Please check if the lamp is in right position and aim at the hole before install it into the lamp slot holder.

Installation instruction& requirement

The user need to make regularly inspect the safety fixtures and installing parts, if there is lack of operating conditions and professional standards, please operate it by professional person, to avoid to incorrect installation by non-professional person leading to property loss or life danger.

Make sure there is no damage to rigging and clamps and they can bear at least 10 times weight of the fixture. Check if the truss or pipe construction can bear at least 10 times total weight of all equipment, clamps, cables and accessories.

G-clamp Installation

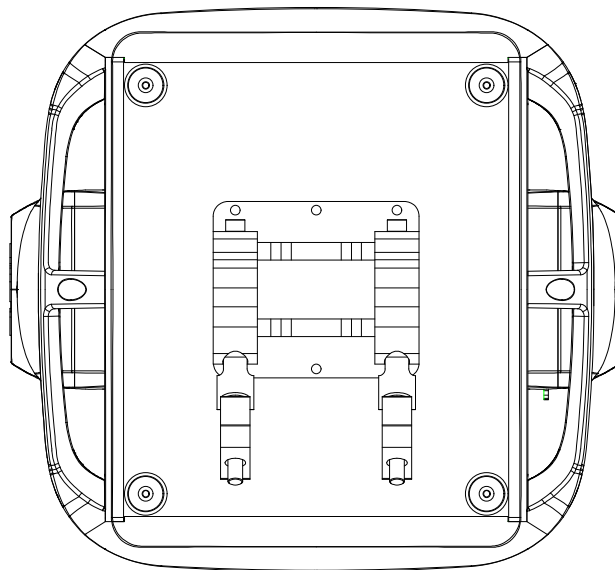
The fixture comes with the G-clamp(Pic7).

Fixture Installation

Fixture is installed on the stage or truss, and the G-clamp can be locked on the truss tightly and quickly. (Pic 8)

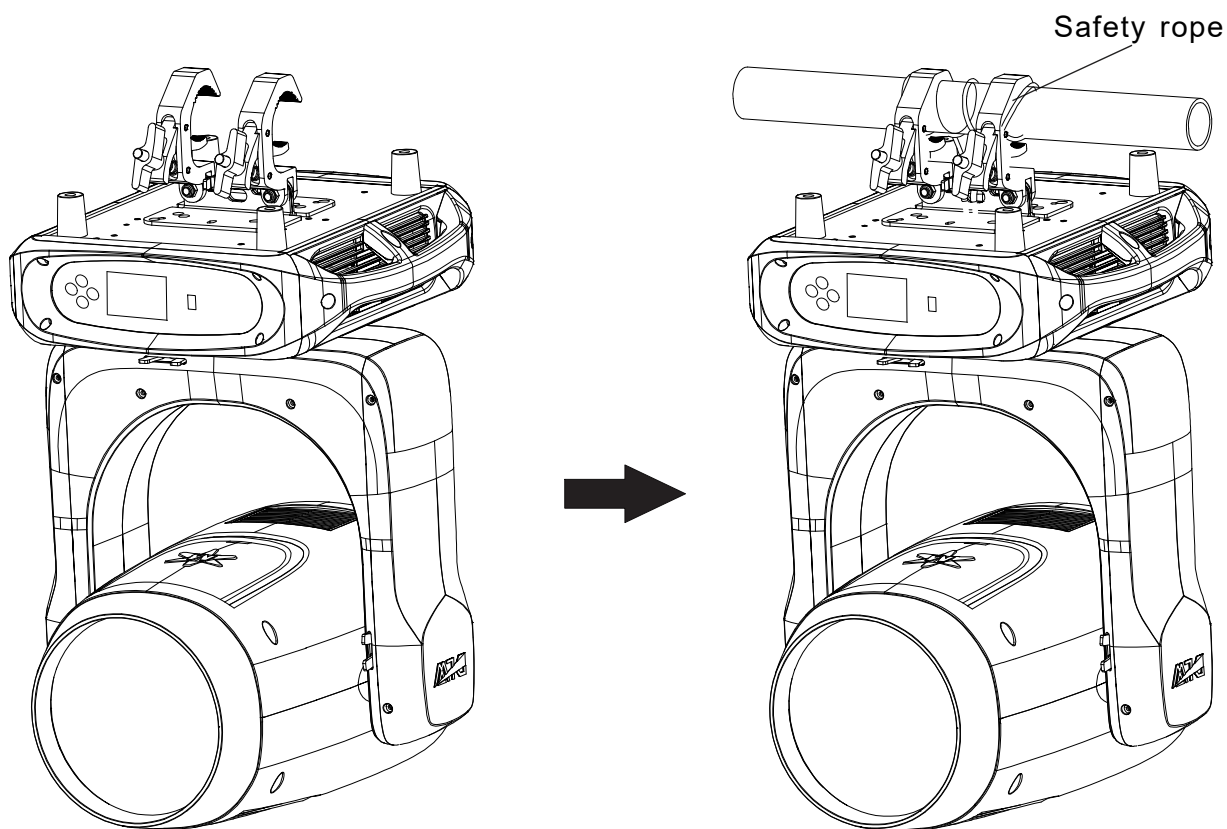
Notice:

- User must check if the G-clamp and safety chain are damaged or not.
- The fixture must be fixed by 2 G-clamps, clockwise turning them to fast-lock tightly, and adding a safety chain to connect the hole in the base, don't connect it to the handle..
- Please unlock the lock of pan/tilt before power on.
- Side hanging for lang time is not recommended.



Pan position

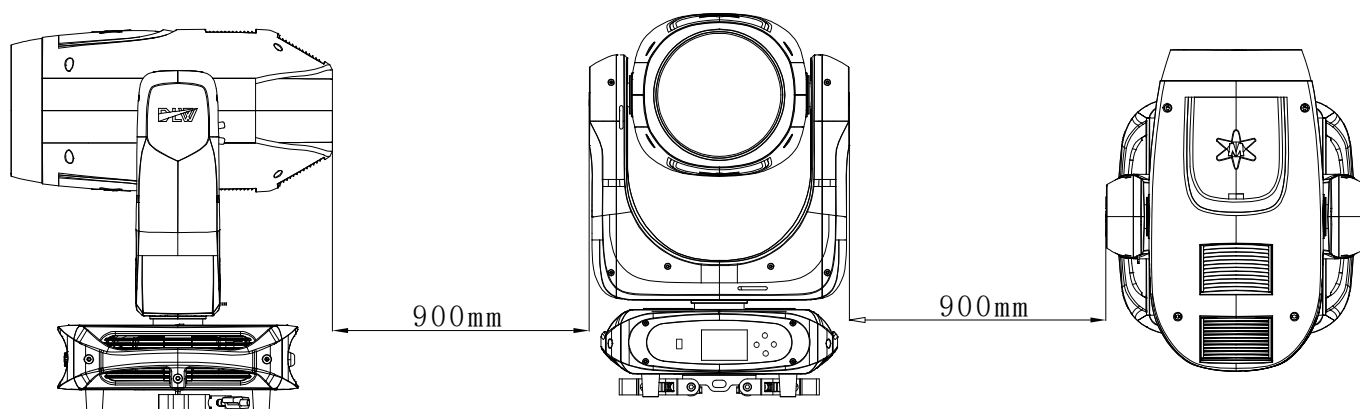
Pic7



Pic8

Fixture Placement

When place the fixture, please check there is no inflammable object or inflammable material around the fixture. Then place the fixture vertically upward. The shortest safety distance for adjacent fixtures is ≥ 0.5 m when they are working. Fixtures installation show as follow (pic12).



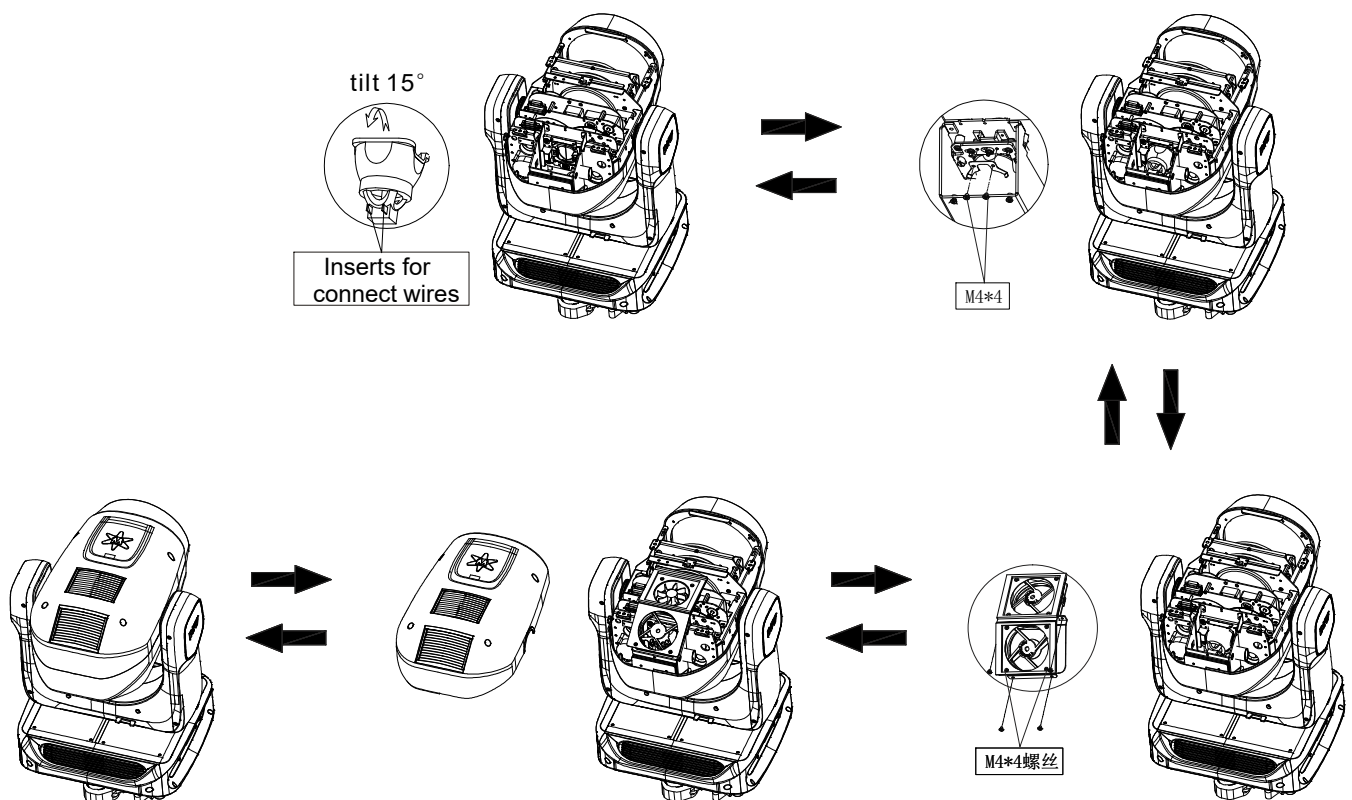
Pic9

Lamp Installation

- Light source:OSRAM SIRIUS HRI 482W

Replace the lamp

- When the lamp is on, please turn off the lamp, wait for the lamp is cooled sufficiently (usually 15 minutes) then cut off the electricity, and lock the tilt lock of the arm on pan position (Pic 10).
- When installing the lamp, please lock the fixture with tilt 135°, and avoid the internal wall of lamp touch the metal plate, gently place the lamp into the lamp slot holder with angle 15°, hold the lamp tight, push it in and give some pressure on the elastic pad, check if the angles of lamp are locked well. The installation of lamp is completed if it is locked well, otherwise it is not. Lock the fixture with tilt 135°, 45° then install the housing (Pic 10).
- When dismantle the lamp, lock the fixture with tilt 135°, 45° then dismantle the housing first, and then take out the fan, unscrew the screws for fixing the lamp, hold the lamp tight and give some pressure on the elastic pad, and wait till the other two angles of lamp are out then take out the lamp with angle of 15°. Please pay attention and avoid the clip touch the internal wall of lamp (Pic 10).



Pic10

DMX Channel Sheet (Brief)

Channel	20CH	24CH	28CH
1	Pan	Pan	Pan
2	Pan fine	Pan fine	Pan fine
3	Tilt	Tilt	Tilt
4	Tilt fine	Tilt fine	Tilt fine
5	Strobe	Strobe	Strobe
6	Dimmer	Dimmer	Dimmer
7	Dimmer fine	Dimmer fine	Dimmer fine
8	Focus	Focus	Focus
9	Cyan	Focus fine	Focus fine
10	Magenta	Cyan	Cyan
11	Yellow	Cyan fine	Cyan fine
12	Color wheel	Magenta	Magenta
13	Fixed GOBO	Magenta fine	Magenta fine
14	Fixed GOBO fine	Yellow	Yellow
15	Prism1	Yellow fine	Yellow fine
16	Prism2	Color wheel	Color wheel
17	Prism Rotate	Fixed GOBO	Fixed GOBO
18	Color7	Prism1	Prism1
19	Frost	Prism2	Prism2
20	Fixture control	Prism Rotate	Prism Rotate
21		Prism Rotate fine	Prism Rotate fine
22		Color7	Color7
23		Frost	Frost
24		Fixture control	Fixture control
25			Pan/Tilt speed
26			Color speed
27			Focus/zoom speed
28			Gobo speed

DMX Specific Channel Sheet

20CH	24CH	28CH	Features	DMX Value	Function
1	1	10	Pan	0-255	Movement (540°)
2	2	11	Pan fine		
3	3	12	Tilt	0-255	Movement (270°)
4	4	13	Tilt fine		
5	5	3	Strobe	0-19	Closed
				20-49	Open
				50-200	Strobe from slow to fast
				201-210	Open
				211-255	Random strobe from slow to fast
6	6	4	Dimmer	0-255	Closed-open(0%-100%)
7	7	–	Dimmer fine		
8	8	8	Focus	0-255	From far to near
–	9	9	Focus fine		
9	10	10	Cyan	0-255	Cyan 0-100%
–	11	11	Cyan fine		
10	12	12	Magenta	0-255	Magenta 0-100%
–	13	12	Magenta fine		
11	14	14	Yellow	0-255	Yellow 0-100%
–	15	15	Yellow fine		
12	16	16	Color wheel	0-127	0%->100%
				128-190	Anti-clockwise rotation from fast to slow
				191-192	Stop
				193-255	Clockwise rotation from slow to fast
13	17	17	Fixed GOBO	0-3	Open
				4-7	Gobo 1
				8-11	Gobo 2
				12-15	Gobo 3
				16-18	Gobo 4
				19-22	Gobo 5
				23-26	Gobo 6
				27-30	Gobo 7
				31-34	Gobo 8
				35-37	Gobo 9
				38-41	Gobo 10
				42-45	Gobo 11
				46-49	Gobo 12
				50-53	Gobo 13
				54-56	Gobo 14
				57-60	Gobo 15
				61-64	Gobo 16
				65-68	Gobo 17
				69-71	Gobo 18
				72-113	Anti-clockwise rotation from fast to slow
				114-117	Stop

				118-159	Clockwise rotation from slow to fast
				160-165	Gobo 1 shake from slow to fast
				166-170	Gobo 2 shake from slow to fast
				171-175	Gobo 3 shake from slow to fast
				176-181	Gobo 4 shake from slow to fast
				182-186	Gobo 5 shake from slow to fast
				187-191	Gobo 6 shake from slow to fast
				192-197	Gobo 7 shake from slow to fast
				198-202	Gobo 8 shake from slow to fast
				203-207	Gobo 9 shake from slow to fast
				208-213	Gobo 10 shake from slow to fast
				214-218	Gobo 11 shake from slow to fast
				219-223	Gobo 12 shake from slow to fast
				224-229	Gobo 13 shake from slow to fast
				230-234	Gobo 14 shake from slow to fast
				235-239	Gobo 15 shake from slow to fast
				240-245	Gobo 16 shake from slow to fast
				246-255	Gobo 17 shake from slow to fast
14	–	–	Fixed GOBO fine		
15	18	18	Prism1	0-127	Open
				128-255	Prism 1 Insert
16	19	19	Prism2	0-127	Open
				128-255	Prism 2 Insert
17	20	20	Prism Rotate	0-127	0~360°
				128-190	Clockwise rotation from slow to fast
				191-192	Stop
				193-255	Anti-clockwise rotation from fast to slow
–	21	21	Prism Rotate fine		
18	22	22	Color7	0-127	Null
				128-255	Color7 Insert
19	23	23	Frost	0-127	Null
				128-255	Frost insert
20	24	24	Fixture control	0-10	Null
				10-14	Fixture reset
				15-29	Specification reset
				30-34	Pan-tilt reset
				40-44	Lamp on
				45-49	Lamp off
				50-255	Reserved
–		25	Pan/Tilt speed	0-255	Stepping time from fast to slow
–		26	Color speed	0-255	Stepping time from fast to slow
–		27	Focus/zoom speed	0-255	Stepping time from fast to slow
–		28	Gobo speed	0-255	Stepping time from fast to slow

Note: DLW 480 BEAM-V , without CMY, DMX channel is reserved.

Maintenance & cleaning of the fixture

The fixture needs to be maintained and cleaned daily, because its lifespan depends on working environment and daily maintenance. Please contact our company engineer for any questions and feedback which are out of this user manual to our professional engineer.

Notes as bellow: 

- The power supply must be cut off before open the shell.
- Please open the shell after the fixture cooled completely
- Cleaning the optics components gently to avoid scratching the surface coating,
To avoid damaging plastic and scratching the surface coating,
Please don't use any harmful liquid or hard objects.
- Wiping the particulate Matter with tasteless tissue-paper or cotton cloth with clean,
distilled water. Don't wipe the surface, but blow away floating things with pressure gas,
any residues must be cleaned with distilled water from center to edge, and then dry it
with soft cotton cloth.
- Please change the lens in time when it cracks or has other damages
- It is out of warranty any damage caused by fan with overmuch dust, smoke fluidity and
abnormal using fixture.
- There is temperature protection device of the fixture, when the temperature is too high
the LED module will be off automatically. When this happens, please check if the fan is
working well or not. Plus, checking if the fan filter is blocked by dust. Please only reset the
fixture after the qualified professional technicians finish troubleshooting.
- Weekly cleaning and maintenance for the fan filters and lens is recommended. Please
do a complete maintenance half a year.

Troubleshooting

The following are some problems in process of operation, and there are some suggestions for troubleshooting:

Fixture doesn't response, when power on

- Check if power input is normal. **channel failure:**
- Check if power switch is on. ● Step motor or motor leading wire Maybe damaged.
- Check if fuse is burned. ● Drive circuit of motor may be damaged.

Lamp blinking:

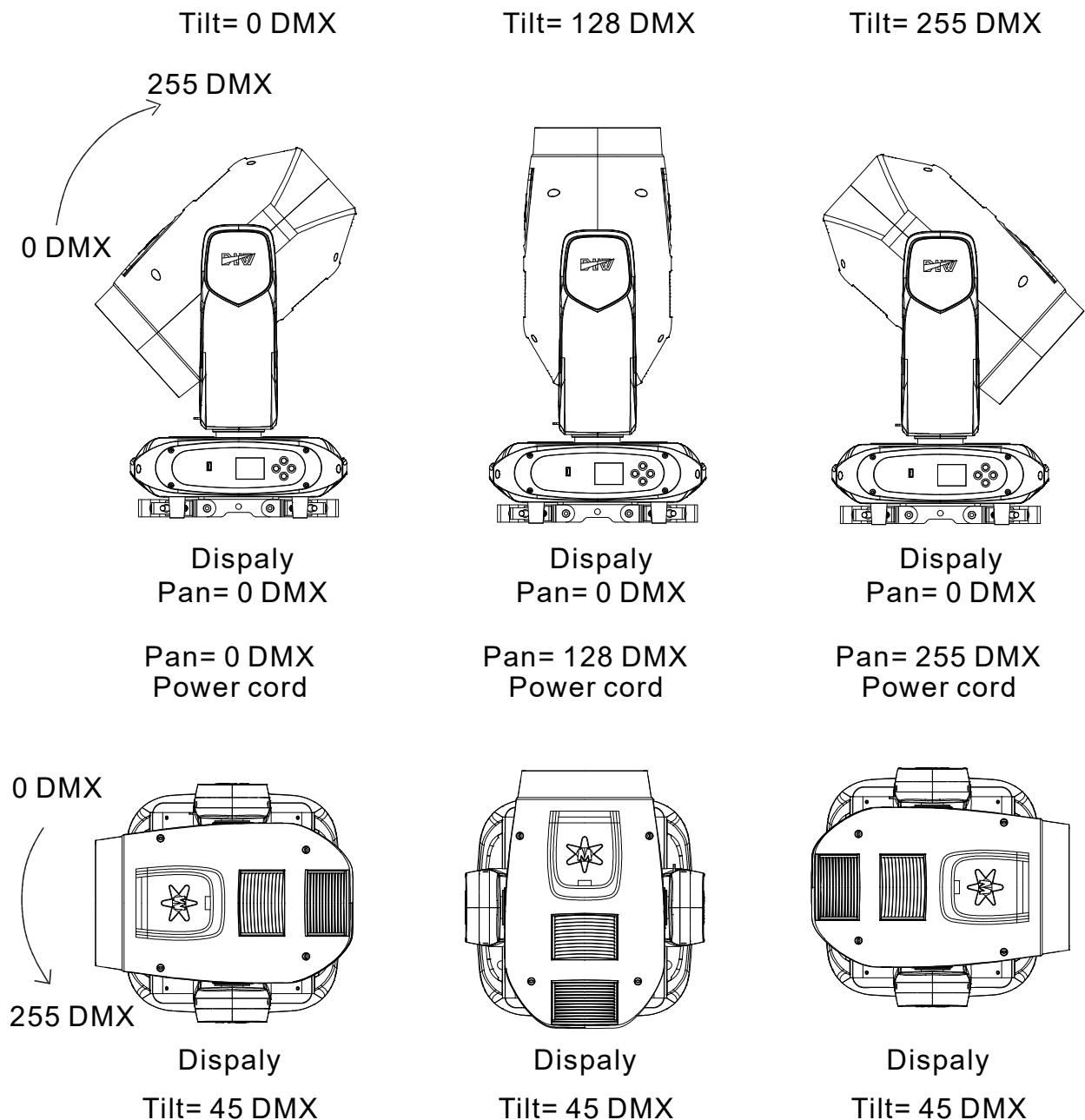
- Check if the voltage is too high or too low, when the lamp is abnormal lighting.
- It is necessary to change the fan if the inner temperature is too high.

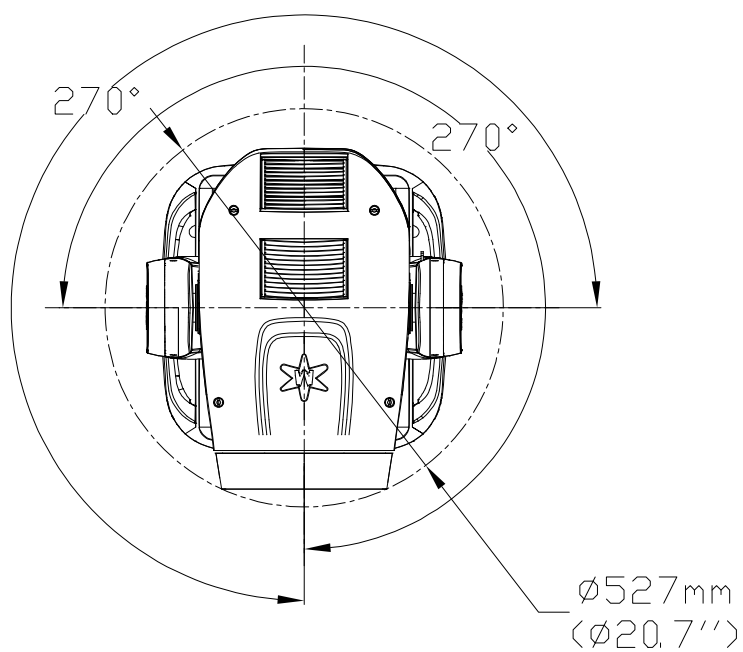
Console losing control:

- Check if the display is flicker, if yes, check if DMX signal connector and signal cable are connected well.
- If the display is not flickering, but the fixture is still have no response to the control channel instructions, please check if IP address is correctly set.
- If DMX signal is not stable, please check XLR socket and signal cable are connected well.
- Change another console for testing.

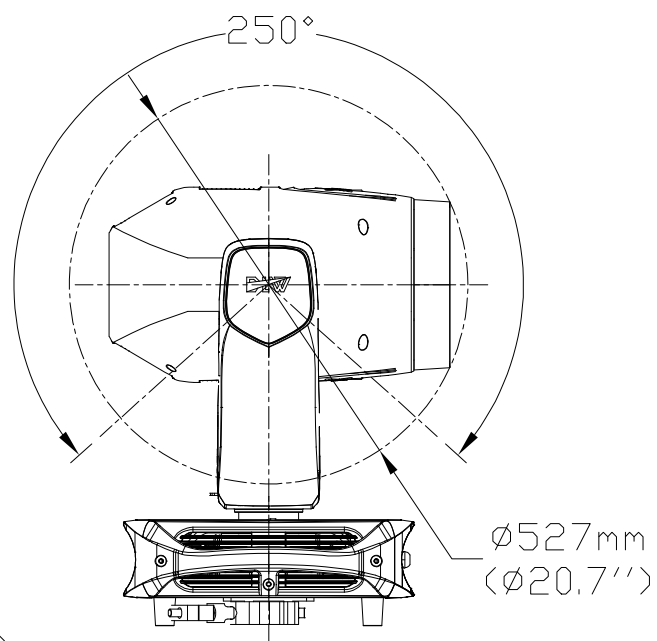
Attachment 1 Angle range and the measurement figure of the fixture

● Angle range of the fixture



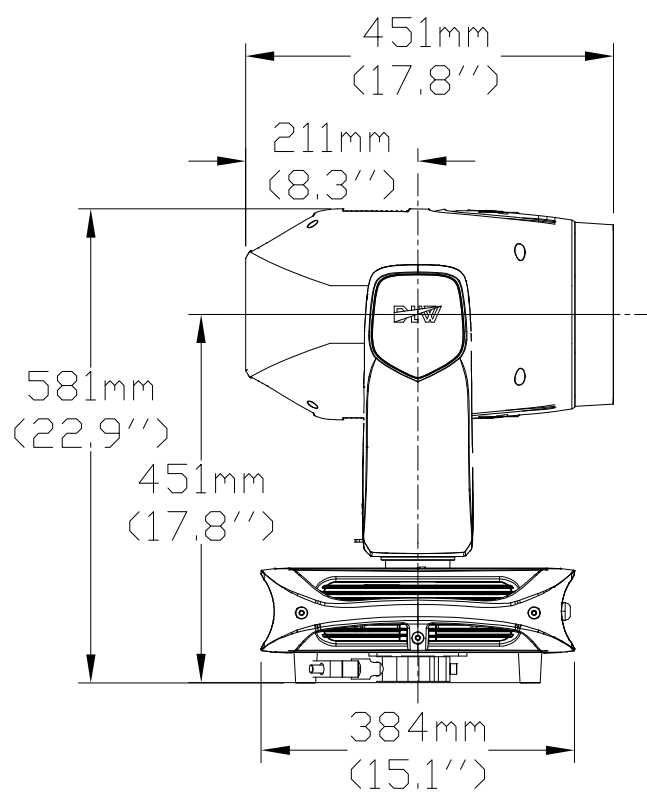
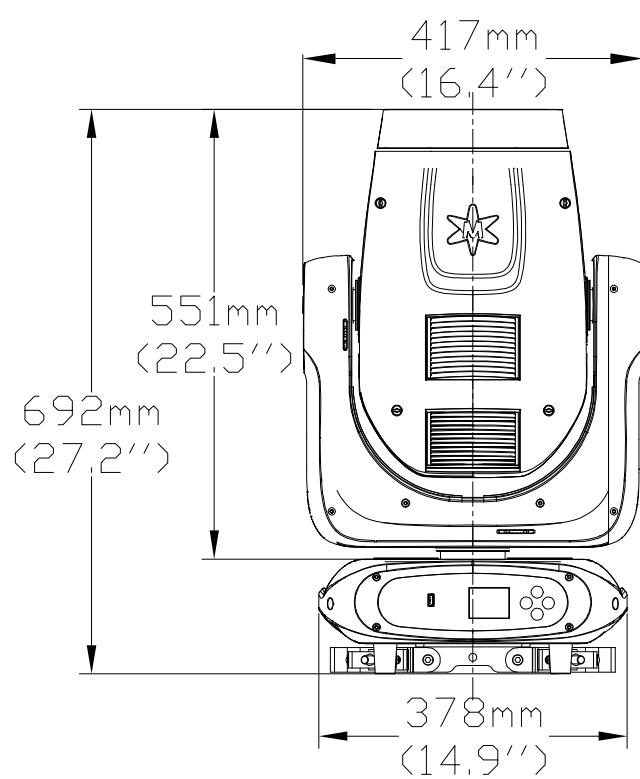


Pan position

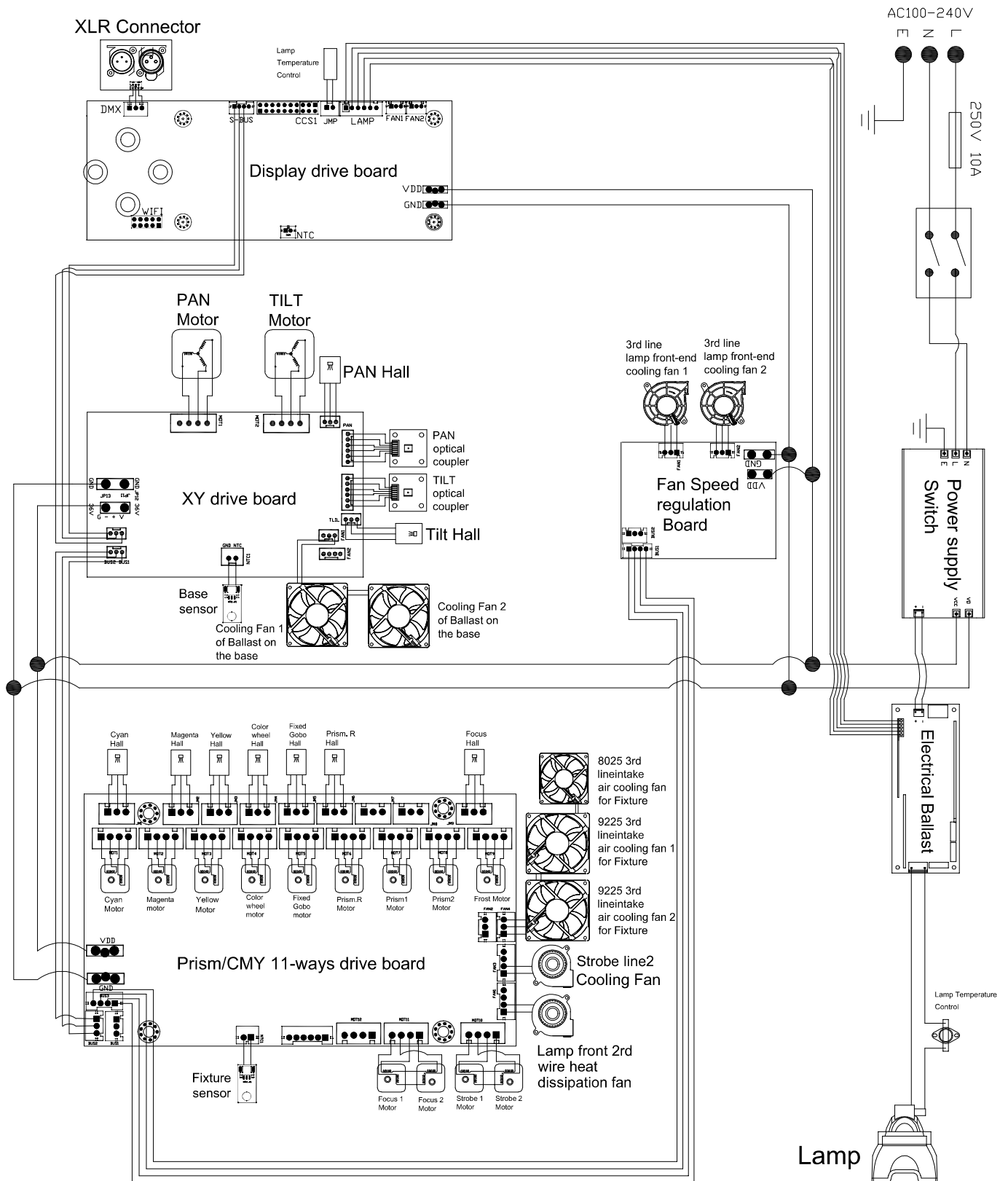


Tilt position

● **The measurement figure of the fixture**



Attachment 2 Electrical Diagram



Note: DLW 480 BEAM-V , without CMY, DMX channel is reserved.

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