

DLW

Product Manual

DLW L4019C4B IP

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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.

Warning!	Warning! See user documentation.	Warning! Hazardous voltage.Risk of lethal or severe electric shock.	Properly grounded	Warning! Intense light emission.	Warning! High surface temperature Don't touch!	Warning! Must wear gloves!
Warning! Fire hazard.	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 protection level rate is IP66.
- 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 6 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.
- When replacing the fuse of a fixture, please check whether the fuse meets the specified technical requirements. Do not replace or short-circuit it without allowed. Please confirm whether the input voltage meets the specified technical requirements and is correctly grounded before powering on.
- 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: 5m.
- when the fixture working stably, the maximum surface temperature: $t_c = 75^{\circ}\text{C}$.
- 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 75°C .
- The fixture must be positioned in such a way that it is not subjected to prolonged observation from a distance of less than 3.5 meters.
- 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 15minutes before packing the fixture.
- Lock the protection lock for tilt well.
- 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 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
Safety Chain	1
Signal Cable	1
Power Cable	1

Product Technical Specifications

Electrical parameters

AC100 - 240V 50 / 60 Hz

Input Power:800W rated electrical current:8A,PF≥0.98

Light Source parameters

- Light source: LED 40W*19PCS RGBW 4 in 1.
- LED module expected lifespan:50000Hrs.

Optics parameters

- Zoom range: 4°~40°

Effect configuration

- Individual control.
- Color temperature 2700K-8000K linear change.
- Front lens infinite rotation to make kaleidoscope effect, beautiful and colorful beam.
- 0-100% linear adjustment.
- Electric strobe 1-25Hz,multiple strobe effects.

Fixture movement

- PAN=540°, 16bit.
- TILT=220°, 16 bit.

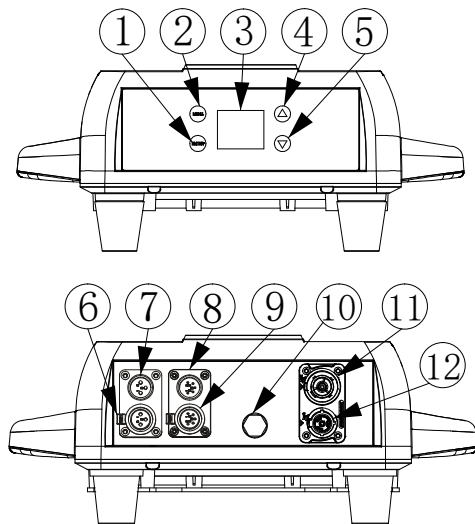
Electronic Control

- Channel:21/23/35/78/92/97/99Ch.
- Control Protocols:DMX512,RDM,Art-Net,sACN(optional).
- Interface Protocol:XLR-3+XLR-5;RJ45(optional).
- Menu display: 1.77" LCD screen; choice of Chinese and English language, menu available to be displayed 180° reversely.
- Electronic sensors testing, fan intelligent detect and controllable.
- Eco mode(sleep mode when standby)
- Non-touching magnetic encoder positionable system for pan/tilt.

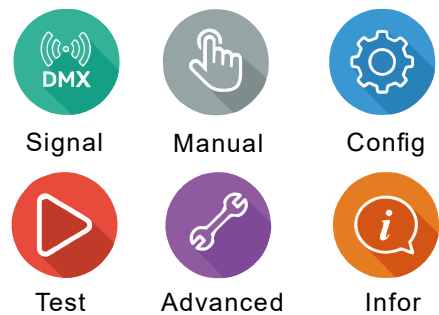
Fixture Size& Weight:

- Fixture size:390X390X520mm
- Net weight:19Kg
- IP Grade:IP66

Operation Panel Instruction



① Display contents



Pic1

As shown in pic 1:

- | | | | |
|--------------------|--------------------|-------------------|-------------------|
| 1.Enter | 2.Menu(Return) | 3.LCD Display | 4.UP |
| 5.Down | 6.3-XLR DMX Output | 7.3-XLR DMX Input | 8.5-XLR DMX Input |
| 9.5-XLR DMX Output | 10.Air valve | 11.Power Output | 12.Power Input |

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):Black screen password, press and hold buttons of "Menu", "Up", "Confirm", "Down" for 1 second each, release when "*" appears.

Detailed Operation Table of Display panel

Signal 	DMX	001-512	Test 	Auto_Voice	OFF
	Run mode	DMX			Auto1
	Channel	XXCH			Auto2
					Sound
					
Manual 				Reset Effect	
				Reset Scan	
	Reset			Reset All	
Config 			Advanced 	PAN	000-255
	Invert pan	ON			
		OFF			
	Invert Tilt	ON		Change password	
		OFF		Load Default	
	Hall Crct	ON	Infor 	Clear time	
		OFF			
	Encoder Crct	ON		Reset Info	
		OFF		DMX Date	
	Signal keep	ON		Sensor Infor	Hall
		OFF			X Enco
	Screen Saver	ON			Y Enco
		OFF		Running Time	Running:XXXXX XXXXXXX
	Invert Screen	Auto			Power-on: XXXXXXXXXXXX
		ON			
		OFF		Version ID	LCD: XXXXXXXXXXXX
	Update Slave	ON			XY: XXXXXXXXXXXX
		OFF			LED: XXXXXXXXXXXX
	Language	中文			
		EN			
	Screen Lock	ON			
		OFF			
	Speed Mode	Normal			
		Fast			
	Scene Mode	Auto			
		Silence			
		Theatre			
		Full			
	Dimmer Curve	Curve 1			
		Curve 2			
		Curve 3			
		Curve 4			
	Frequency	1.2K,24K, 12K,6K			

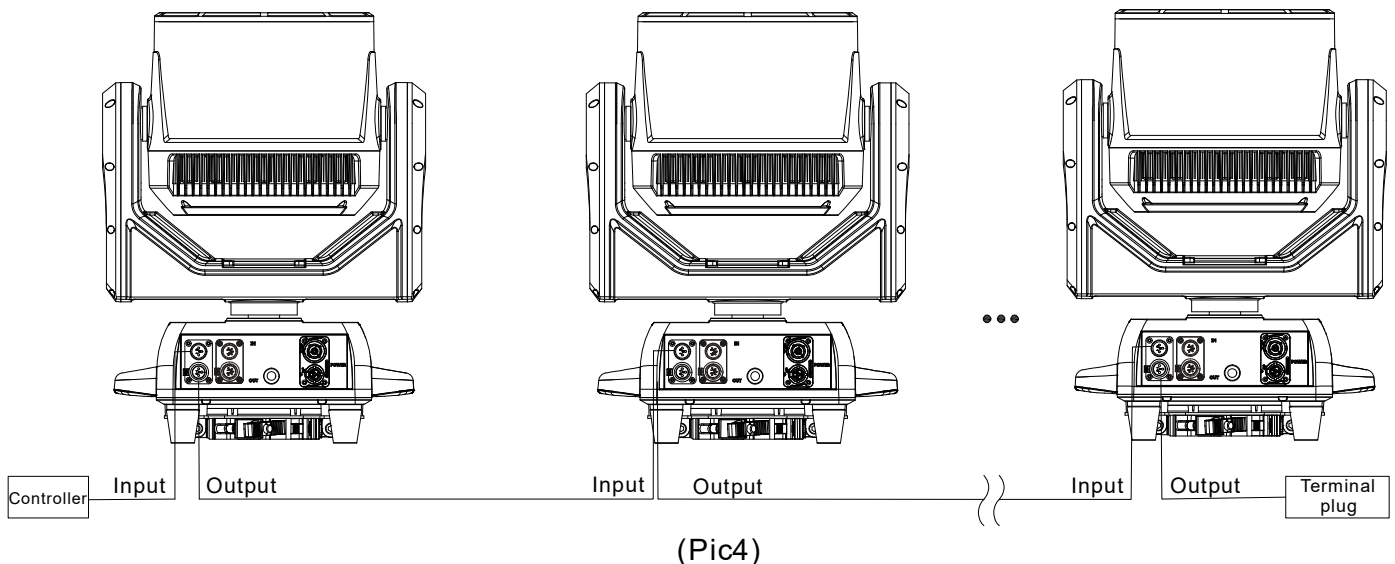
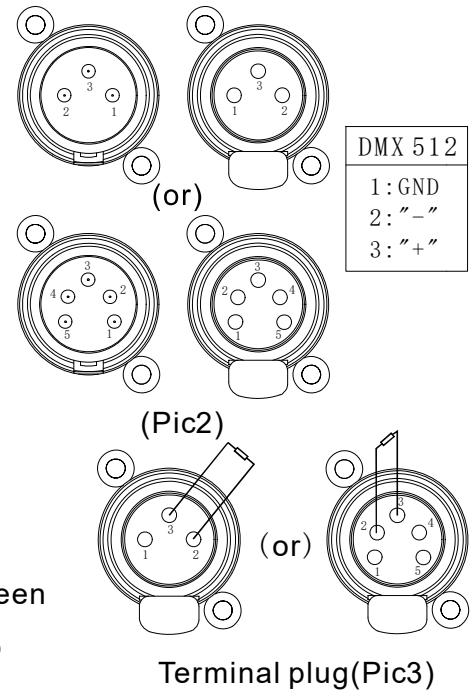
Signal connection

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"+"(Pic2).

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. (Pic3)

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 3) The method of connection as show bellow. (Pic 4)



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

	Live or L	Neutral or N	Earth, Ground or ⊕
US system	Black	White	Green
EU system	Brown	Blue	Yellow/green

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).
- AC110V: Lighting fixture connection not surpass 2 units(12AWG).

Installation instruction& Requirement

The user need to arrange regular safety inspection for the fixtures and parts that are connected to the fixture. Please have professionals to operate if operating conditions and professional instructions are insufficient. Incorrect installation by non-professionals may leading to property loss or life danger.

Make sure there is no damage to rigging and clamps and they can bear at least 6 times weight of the fixture. Check if the truss or pipe construction can bear at least 6 times total weight of all equipment, like clamps, cables and other accessories.

G-clamp Installation

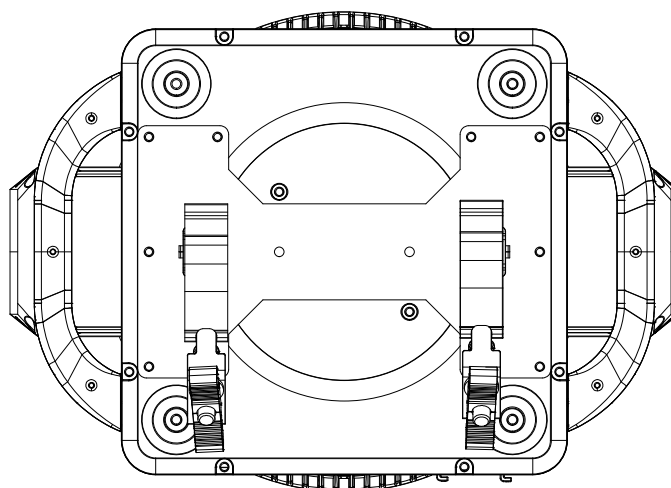
Install the G-clamp onto the base of the fixture, plug the G-clamp into the installation hole of the fixture's base. Rotate the quick lock plate into the slot tightly. Use the same installation method for the second G-clamp. (Pic5)

Fixture Installation

Fixture is installed on the stage or truss, and the G-clamp can be locked on the truss tightly and quickly. (Pic6)

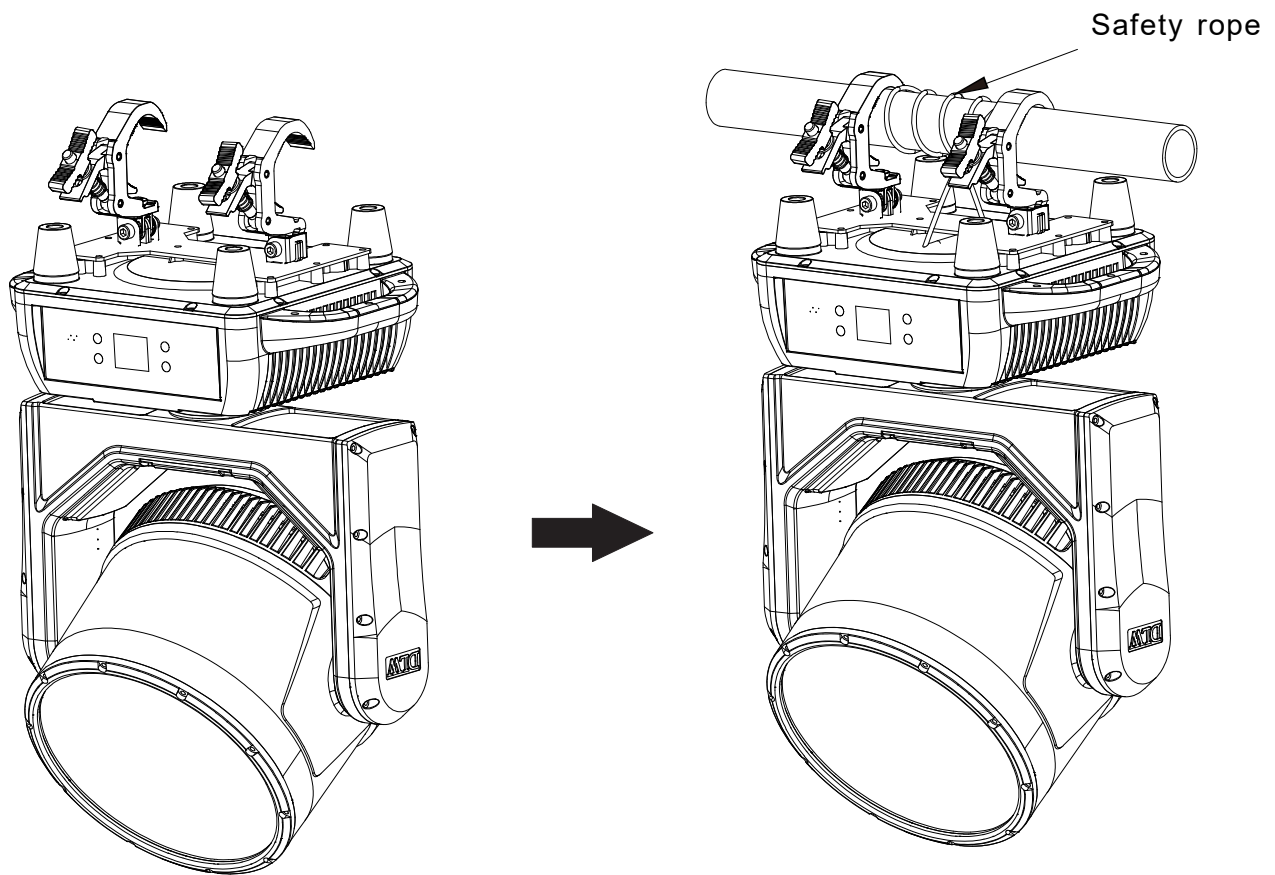
Notice:

- User must check if the G-clamp and safety chain are damaged or not.
- When hanging a fixture, the safety rope must pass through the handle.
- Please unlock the lock of tilt before power on.
- Side hanging for long time is not recommended.



Pan position

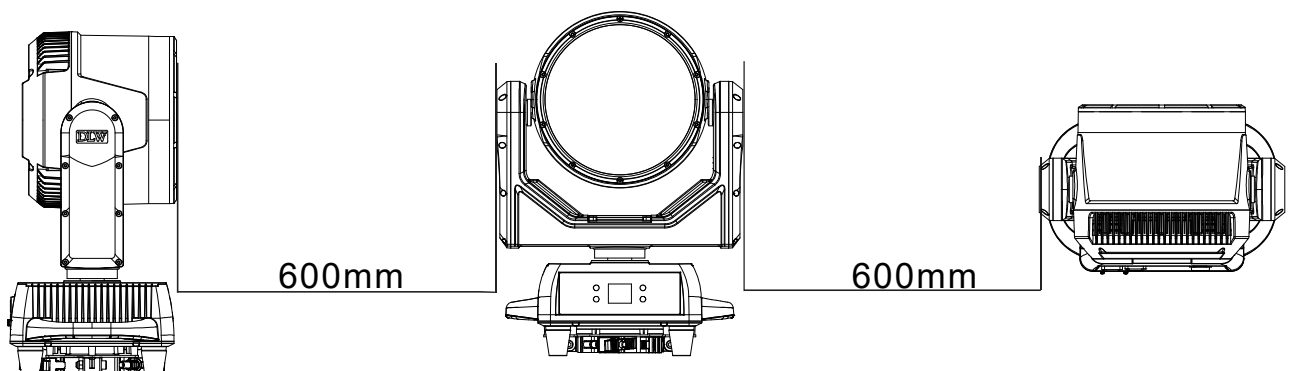
Pic5



Pic6

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 ≥ 0.6 m when they are working. Fixtures installation show as follow (pic 7).



Pic7

DMX Channel Sheet (Brief)

Channel	21CH	Channel	23CH	Channel	SHAPE 35CH	Channel	RGB(78)CH	Channel	RGB(97)CH
1	Red	1	Pan	1	Red	1	Red	1	Red
2	Red fine	2	Pan fine	2	Red fine	2	Red fine	2	Red fine
3	Green	3	Tilt	3	Green	3	Green	3	Green
4	Green fine	4	Tilt fine	4	Green fine	4	Green fine	4	Green fine
5	Blue	5	motor speed	5	Blue	5	Blue	5	Blue
6	Blue fine	6	Zoom	6	Blue fine	6	Blue fine	6	Blue fine
7	White	7	Zoom rotation	7	White	7	White	7	White
8	White fine	8	Dimmer	8	White fine	8	White fine	8	White fine
9	Linear CTO	9	Strobe	9	Linear CTO	9	Linear CTO	9	Linear CTO
10	Marco color	10	Red	10	Marco color	10	Marco color	10	Marco color
11	Strobe	11	Green	11	Strobe	11	Strobe	11	Strobe
12	Dimmer	12	Blue	12	Dimmer	12	Dimmer	12	Dimmer
13	Dimmer fine	13	White	13	Dimmer fine	13	Dimmer fine	13	Dimmer fine
14	Pan	14	Linear CTO	14	Pan	14	Pan	14	Pan
15	Pan fine	15	Marco color	15	Pan fine	15	Pan fine	15	Pan fine
16	Tilt	16	Static effect	16	Tilt	16	Tilt	16	Tilt
17	Tilt fine	17	Dynamic effect	17	Tilt fine	17	Tilt fine	17	Tilt fine
18	Function	18	function speed	18	Function	18	Function	18	Function
19	Reset	19	Background red	19	Reset	19	Reset	19	Reset
20	Zoom	20	Background blue	20	Zoom	20	Zoom	20	Zoom
21	Zoom rotation	21	Background green	21	Zoom rotation	21	Zoom rotation	21	Zoom rotation
		22	Background white	22	Shape selection	22	Red LED1	22	Red LED1
		23	Reset	23	Shape speed	23	Green LED1	23	Green LED1
				24	Shape fade	24	Blue LED1	24	Blue LED1
				25	Shape red	...	Red LED	25	White LED1
				26	Shape green	...	Green LED	26	Red LED2
				27	Shape blue	...	Blue LED	27	Green LED2
				28	Shape White	76	Red LED19	28	Blue LED2
				29	Shape dimmer	77	Green LED19	29	White LED2
				30	Background dimmer	78	Blue LED19	...	Red LED
				31	Shape transition			...	Green LED
				32	Shape offset			...	Blue LED
				33	foreground strobe			...	White LED
				34	Background strobe			94	Red LED19
				35	Background selection			95	Green LED19
								96	Blue LED19
								97	White LED19

DMX Specific Channel Sheet

21CH	23CH	35CH	78CH	97CH	Specifications	DMX Value	Function
1	10	1	1	1	Red	0-255	Red
2	-	2	2	2	Red fine	0-65535	Red fine
3	11	3	3	3	Green	0-255	Green
4	-	4	4	4	Green fine	0-65535	Green fine
5	12	5	5	5	Blue	0-255	Blue
6	-	6	6	6	Blue fine	0-65535	Blue fine
7	13	7	7	7	White	0-255	White
8	-	8	8	8	White fine	0-65535	White fine
9	14	9	9	9	Linear CTO	0-9	Unused range
						10-255	Linear CTO from 8000K-2500K
10	15	10	10	10	Macro color	0-9	Macro color OFF
						10-255	Macro color
11	9	11	11	11	Strobe	0-3	Closed
						4-103	Strobe from slow to fast 1Hz-25Hz
						104-107	Open
						108-207	Pulsation from strobe slow to fast 1Hz-25Hz
						208-212	Open
						213-251	Random Strobe from slow to fast
						252-255	Open
12	8	12	12	12	Dimmer	0-255	Dimmer
13	-	13	13	13	Dimmer fine	0-65535	Dimmer fine
14	1	14	14	14	Pan	0-255	Movement 0°-540°
15	2	15	15	15	Pan fine	0-65535	Movement fine 0°-540°
16	3	16	16	16	Tilt	0-255	Movement 0°-220°
17	4	17	17	17	Tilt fine	0-65535	Movement fine 0°-220°
-	5	-	-	-	Motor speed	0-255	Motor speed from fast to slow
18	-	18	18	18	Function	0-255	Function
19	23	19	19	19	Reset	0-25	Unused range
						26-76	Zoom reset
						77-127	Pan/tilt reset
						128-255	Complete reset
20	6	20	20	20	Zoom	0-255	Zoom from small to large
21	7	21	21	21	Zoom	0-127	Linear Rotation 0°-360°
						128-190	Rotation from fast to slow
						191-192	stop
						193-255	Rotation from fast to slow
-	-	22	-	-	Shape selection	0-7	Function OFF
						8-70	Shape selection
						71-255	Reserved
-	-	23	-	-	Shape speed	0-63	Static shape
						64-158	Speed from fast to slow
						159-160	stop
						161-255	Speed from slow to fast
-	-	24	-	-	Shape fade	0-15	Snap effect
						16-255	Fade effect and gamma selection

-	-	25	-	-	Shape red	0-255	Shape R
-	-	26	-	-	Shape green	0-255	Shape G
-	-	27	-	-	Shape blue	0-255	Shape B
-	-	28	-	-	Shape white	0-255	Shape W
-	-	29	-	-	Shape dimmer	0-255	Shape dimmer
-	-	30	-	-	Background dimmer	0-255	Background dimmer
-	-	31	-	-	Shape transition (Reserved)	0-4	Transition free
						5-255	Transition delay from 100ms to 4s
-	-	32	-	-	Shape offset	0-255	Shape angle and density adjustment
-	-	33	-	-	Foreground strobe	0-3	Closed
						4-103	Strobe from slow to fast 1Hz-25Hz
						104-107	Open
						108-207	Pulsation from strobe slow to fast 1Hz-25Hz
						208-212	Open
						213-251	Random Strobe from slow to fast
						252-255	Open
-	-	34	-	-	Background strobe	0-3	Closed
						4-103	Strobe from slow to fast 1Hz-25Hz
						104-107	Open
						108-207	Pulsation from strobe slow to fast 1Hz-25Hz
						208-212	Open
						213-251	Random Strobe from slow to fast
						252-255	Open
-	-	35	-	-	Background select	0-7	NO Selection
						8~23	Background shape rotation
						24-254	Wash mode
						255	Mirror effect with background color (Reserved)
-	-	-	22	22	Red LED1	0-255	Red LED1
-	-	-	23	23	Green LED1	0-255	Green LED1
-	-	-	24	24	Blue LED1	0-255	Blue LED1
-	-	-	...	25	White LED1	0-255	White LED1
-	-	-	...	...	...	...	...
-	-	-	...	...	...	...	...
-	-	-	...	...	...	...	...
-	-	-	...	...	...	...	...
-	-	-	76	94	Red LED19	0-255	Red LED19
-	-	-	77	95	Green LED19	0-255	Green LED19
-	-	-	78	96	Blue LED19	0-255	Blue LED19
-	-	-	-	97	White LED19	0-255	White LED19

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: channel failure:

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

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.

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.

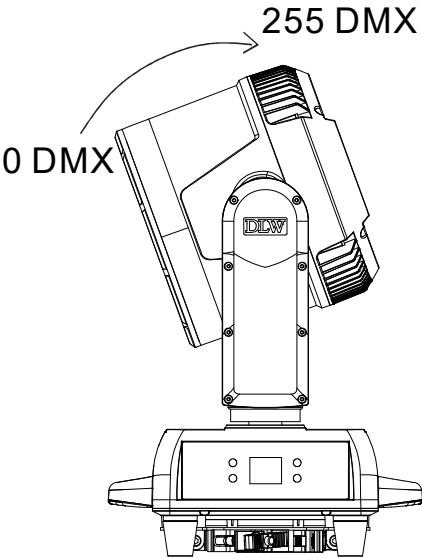
Attachment 1 Angle range and the measurement figure of the fixture

● Angle range of the fixture

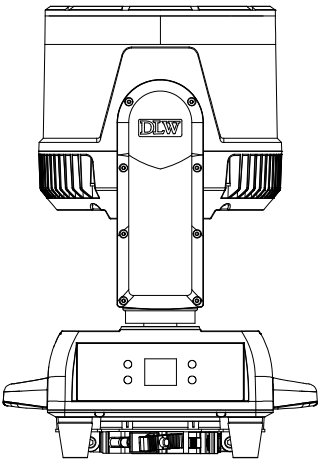
Tilt= 0 DMX

Tilt= 128 DMX

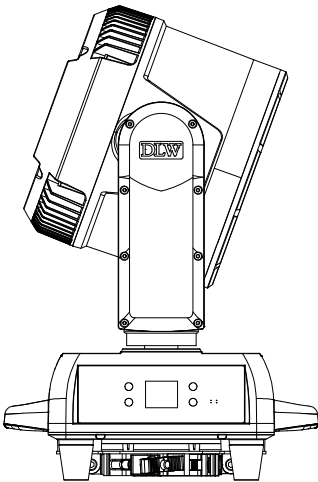
Tilt= 255 DMX



Dispaly
Pan= 0 DMX



Dispaly
Pan= 0 DMX

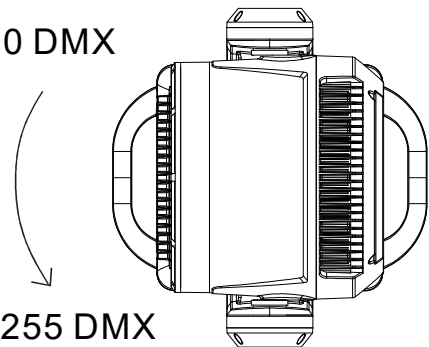


Dispaly
Pan= 0 DMX

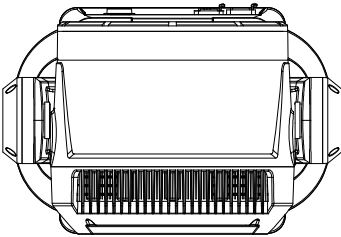
Pan= 0 DMX
Power cord

Pan= 128 DMX
Power cord

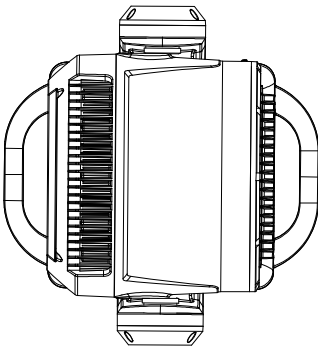
Pan= 255 DMX
Power cord



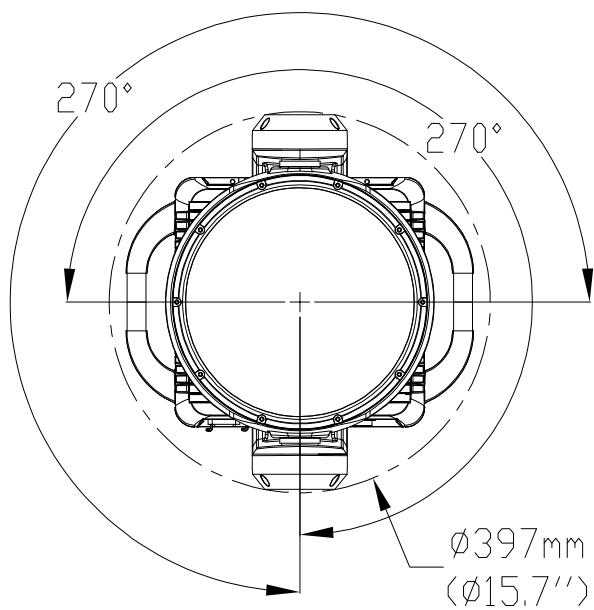
Dispaly
Tilt= 45 DMX



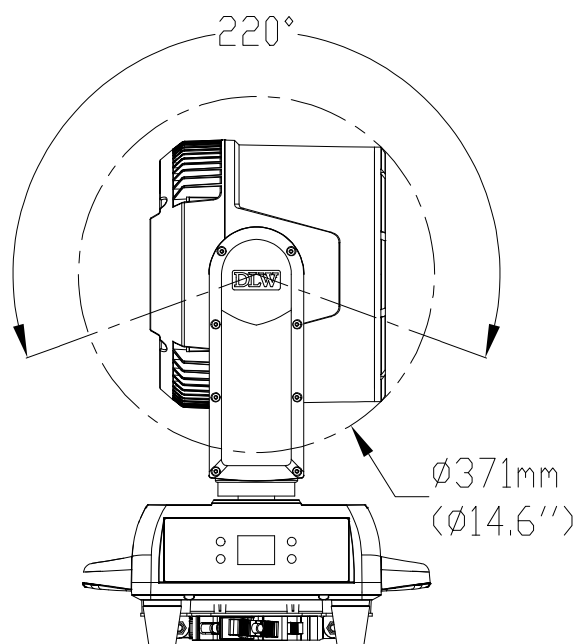
Dispaly
Tilt= 45 DMX



Dispaly
Tilt= 45 DMX

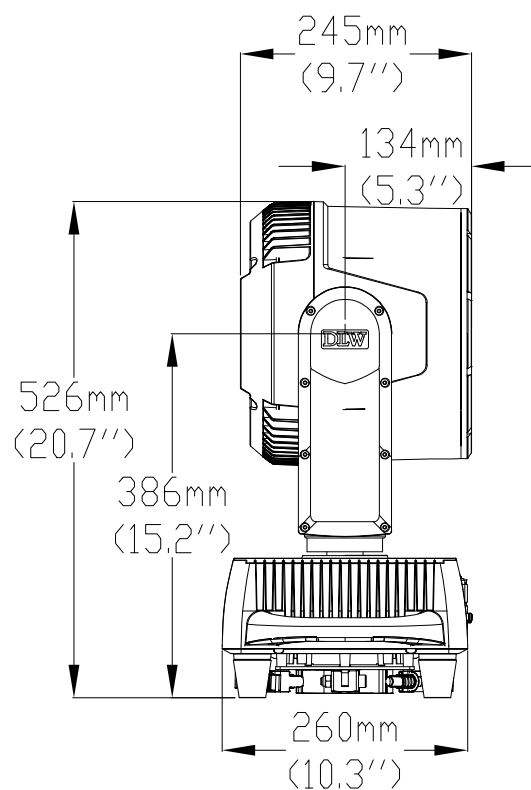
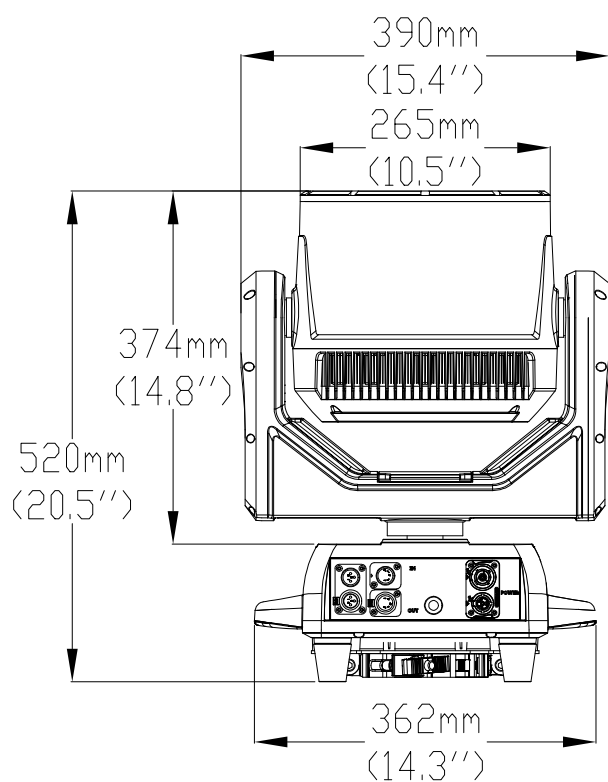


Horizontal direction

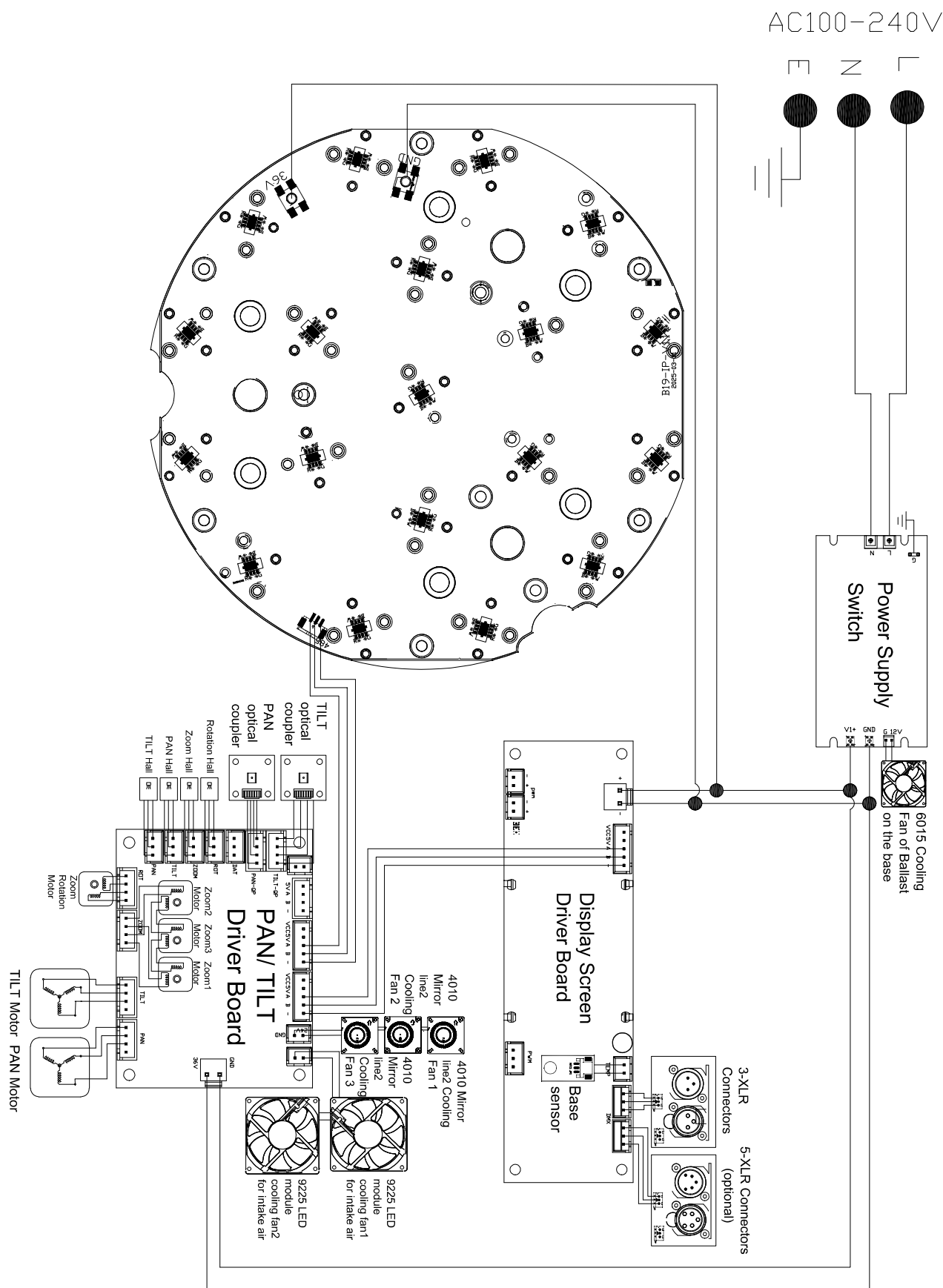


Vertical direction

● **The measurement figure of the fixture**



Attachment 2:Electrical Diagram



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