CLAIR LIGHTING

LED Q80 Movinghead

User's Manual

1. Product Introduction:

1.1 Before unpack the fixture, pls make sure that the packing is in good condition, following items will be found in the box:

-The fixture
-This users guide
-3m DMX cable
-1.5m power cable with powercon
-Omega bracket for hanging installation
-Safety chain

1.2 Specification

Source

- Light source: 75w white led
- Led life: 60.000 hours
- Luminous Flux: 6400lumen, 6990lux@2.5m
- Control: Remote on/off via DMX
- Ballast: switching mode power supply

Optical System

- Beam angle: 13° to 18°

X/Y

- Pan: 630° (4.0 sec) or 540°(3.58 sec), Tilt: 265° (2.8 sec)
- 16-bit resolution
- Auto repositioning

Colors

- 8+open, interchangeable, indexable and bidirectional rainbow effect
- New color bounce effect

Gobos

- Outside ℄ 23mm, inside ℄ 18mm
- 7+ open custom interchangeable position for rotating gobo wheel
- Real indexable and gobo shaking
- Distinctive gobo animation effect

Features

- DMX channels: 11/14
- Color wheel: 8+1 colors
- Rotating gobo wheel: 7+1 gobos
- Motorized focus
- Manual zoom from 13° to 18°
- Full range 0-100% dimmer
- Various strobe
- 3 facets prism
- Software upgrade via DMX
- Hibernation when lost DMX for preset time
- Fan speed auto change according to temperature

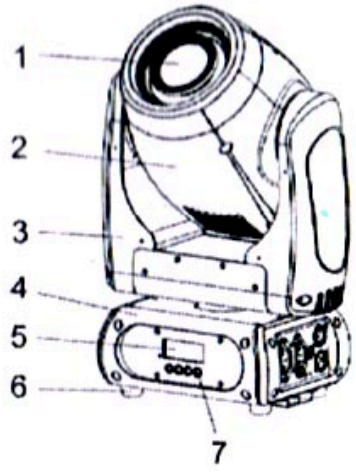
Display

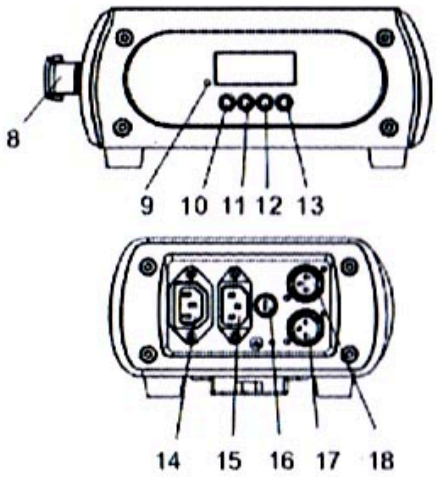
- LED display
- Flip

- Back-up communicating IC

1.3 Description of the Device

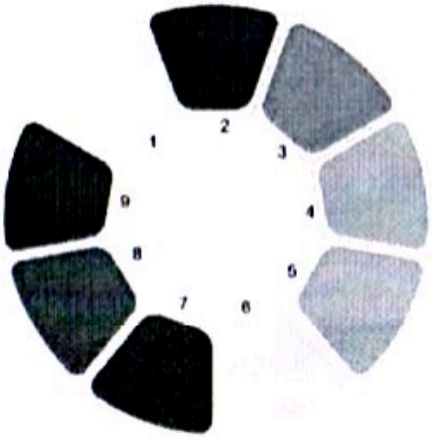
1. Project lens
2. Head
3. Arm
4. Base
5. Display
6. Foot stand
7. Operation button





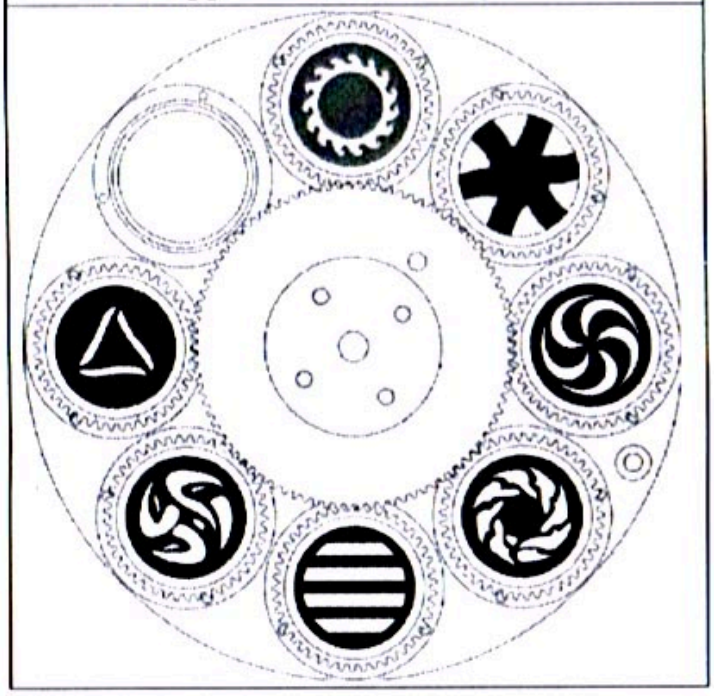
8. Handle
9. Mic
10. MODE/ESC button
11. Down button
12. Up buttom
13. Enter button
14. Powercon in
15. Powercon out
16. Fuse
17. 3-pin DMX out
18. 3-pin DMX in

1.4 Colors and Gobos



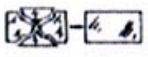
1	Open	
2		Magenta
3		Orange
4		Sky blue
5		Pink
6		Yellow
7		Green
8		Blue
9		Red

Rotating gobo wheel (slot-in-out gobos)



2. Safety and maintenance Information

2.1 Safety Info

	Before operate this unit, please carefully read this users guide and keep if needed in future. It's necessary to respect following rules.
	The disposal of the device after lifecycle could damage the environment, need to take it to special company for recycling or return to authorized dealer.
CE	The products referred to in this manual conform to the European Community Directives and are therefore marked with CE logo.
	Keep this device away from children and unauthorized users, the manufacturer will not take responsibility for the damage due to any disregard of the information provided in this manual and wrong operation.
	Before operate the device, pls make sure the fixture is in good housing, ensure pan and tilt can rotate in its complete range.
	Pls make sure minimal 0.5m distance need to kept between the fixture to any flammable material.
	The device can only run with 100-240v voltage, 50/60Hz power, don't connect to any other wrong power. Disconnect the device from main power before open the shield or maintenance.
	The device is designed only for indoor usage, pls keep it away from moisture. Do not expose the device under the sun or directly to any other lighting source.
	Never look directly into the projecting lens when the fixture is power on, the light may trigger epileptic seizures in photosensitive persons or persons with epilepsy. Especially at beam effect, extreme caution and observance of these safety instructions is mandatory.
	Don't put or install the device on a surface that subject to vibration or bumps.
Ta=45℃	The device is supposed to work in the temperate range -15° C and +45° C, do not use the device when the temperate exceed this range.
	The lens, shield need to be replaced when obviously broken, never use the device when the shield is not completed closed.
	Safety I class device, need to be earth connected.
	When the fixture is hanged overhead, the safety rope must be fixed to the bottom of the device to the appropriate fixing point.
	Always carry the device by the handles, do not take the head or arm directly for transportation.

2.2 Maintenance

2.2.1 Operation only allowed to qualified person, damages due to unprofessional operation or remove of any parts inside will not be considered in warranty service. There are no serviceable parts inside the device or package, service only leaves to authorized dealers.

2.2.3 Never allow the optical components contact with oil, fat or any other liquid.

2.2.4 A regular clearance of the device is needed for long-term usage, this is very helpful to maintain the lifetime and brightness need to use a soft and lint-free cloth to clean the optical system, fan and air flowing tunnel.

2.2.5. Trouble Shooting

Problems	Possible reasons	Checking or solutions
Device not power up	Powercon or power cable damaged	Change a good power cable to try
	Faulty power supply	Replace new power supply
Pan/Tilt error or vibrate	Faulty Pan/Tilt PCB	Replace PT001 PCB
	Faulty opto sensor	Replace opto sensor OP001
	Cable loosen	Check the cable connect to OP001
LED off	Temperature protection	Check the temperature from menu
	Fan not working	Check the fan speed info from menu
	Faulty LED	Replace new LED
	Dimmer and strobe set at 0	Set dimmer and strobe channel at 255
	Faulty power supply	Replace new power supply
Device not response to DMX	Faulty communication IC	Replace the IC with back-up one in the display PCB
	Faulty display PCB	Replace new display PCB
	Wrong DMX addressing	Check the address and setting
	Faulty DMX cable	Change to a good DMX cable

2.2.6 Replacement of the fuse

Need to replace with same type and rating, which originally installed in the device.

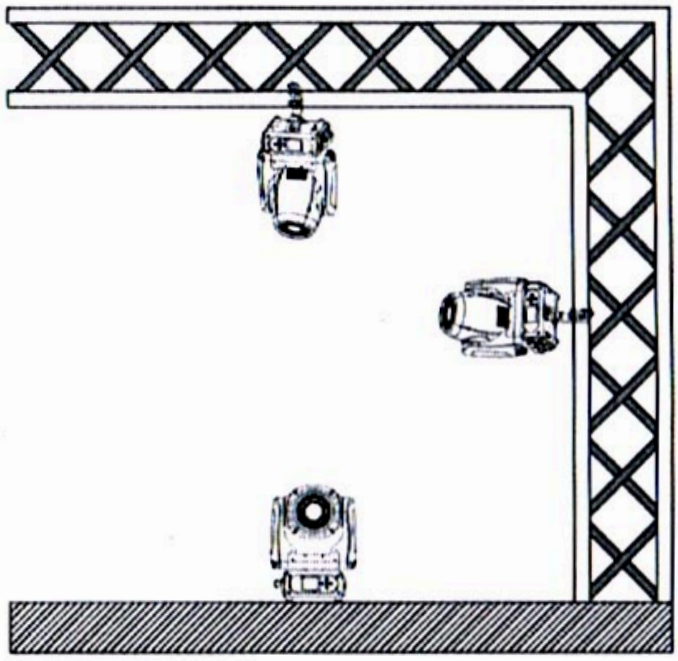
Step One: Unplug power cable from main power.

Step Two: Unscrew the fuse holder out of the housing with a screwdriver.

Step Three: Remove the broken fuse and replace with an exact same type of new fuse.

Step Four: Insert the fuse holder back to the housing and screw tight and reconnect power.

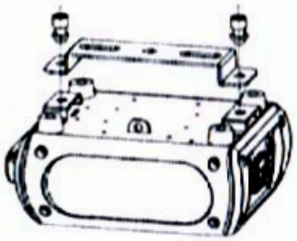
3. Installation

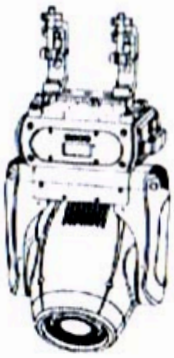


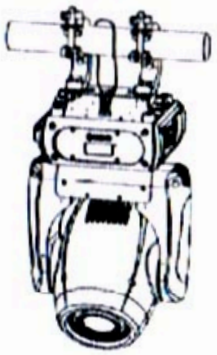
3.1 The device could be either put on a solid and even surface, or mounted upside down or sideways like left picture.

3.2 The mounting place must be sufficient stable and be able to support a weight of 10 times of the unit's weight. When the fixture is hanged, always additionally secure the device with the safety chain; fasten the safety rope at a suitable position so that the maximum fall of the projector will be 20 cm

3.3 How to do mounting installation.







Step one: Installation the clamp onto the omega bracket;
Step two: Install the clamp and bracket on the bottom of panel, fasten the quick-locks;
Step three: Install the whole device onto appropriate truss and fasten the clamps, tight the safety rope with the truss or other fixing point at a suitable position that drop down distance not exceed 20 cm.

4. Control menu

4.1 Meaning of the icon in menu

CONNECT	LIGHT	INFOMATION	SET	PROGRAM
				

4.2 Menu tree

Default setting shadowed. Mark with ①can be basic reloaded, ② be program reloaded, ③can be private reloaded.

Mode	Addr	XXX		DMX address setting
	Slav			Choose Slave mode
	Sequ	Alon/Mast		Choose Sequence mode
	Sund	Alon/Mast		Choose Sound mode
Lamp	Temp	80~139℃, 80℃		Lamp off if temperature continuously over for 5 minutes
	Adju	CHxx=XXX.....		Adjust value of each channels
Info	DriT	XXXC		Temperature of driver
Set	Rest			Reset
	Move	RPan	ON/OFF	Pan Reverse
		RTilt	ON/OFF	Tilt Reverse
		Degr	630/540	Choose Pan Degree
		Enco	ON/OFF	Encoder wheel on/off

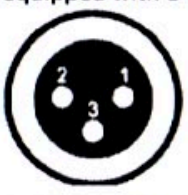
		Mode	Mod1/Mod2	Choose pan/tilt mode
	UI	Mic Sign Fan Hibe Back Flip User	0~99%,60% Close/Hold/Auto/Music Auto Speed /High Speed OFF, 01M~99M, 15M 02~60m 02m ON/OFF Use1/Use2	Sensitivity of Mic Mode when no signal Fans mode Sleeping mode Show backlight time Display 180° reverse Users mode
	Cali	Code CHxx	XXX XXX	Password: 050 Calibrate channel value
	Ver	X1.0.0		IC Version
	load	ON/OFF		Reload Default

5. DMX connection and DMX protocol

5.1 DMX addressing:

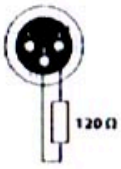
5.1.1 The device is controlled by universal DMX 512 protocol, DMX address is the start channel used to receive instructions from the external controller. For independent control, each fixture must be assigned its unique address control channels. For example, this device has four channel modes: 11/14, if we set the mode at standard 11 channels mode, and there are several models need to be independently controlled, we just simply address first fixture at 1, and second fixture at 12, third one at33, etc.
If the devices have the same address, they will behave synchronically.
DMX addressing is limited, don't set the address so high that without enough control channels for the fixtures.
Display is flashing when no DMX signal is received.

5.1.2 This device is equipped with 3-pins DMX in and out sockets only.

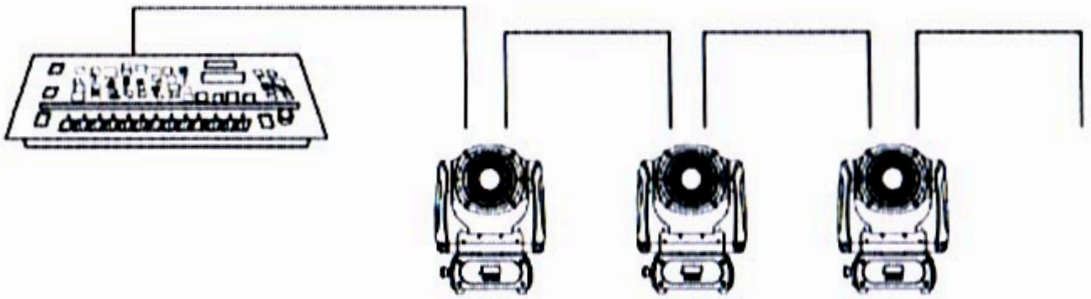


Pin 1 = GND
Pin 2 = Signal (-)
Pin 3 = Signal (+)

5.1.3 The termination is prepared by soldering a 120Ω resistor between pins 2 and 3.



5.1.4 Connection: us DMX cable with 3-pin XLR-plugs to connect the controller with the fixture or one fixture with another.



5.2 DMX chart

Channel				name	function	Min DMX	Max DMX
St	Ex						
1	1			Pan	Pan Coarse	0	255
	2			Pan fine	Pan Fine	0	255
2	3			Tilt	Tilt Coarse	0	255
	4			Tilt fine	Tilt Fine	0	255
3	5			Movment Speed	fastest to Slowest	0	255
	6			Movment Function	Normal	0	15
					Movement With Backout	16	31
					TBD	32	255
4	7			Shutter	Shutter closed	0	31
					No function (shutter open)	32	63
					Strobe effect slow to fast	64	95
					No function (shutter open)	96	127
					Pulse-effect in sequences	128	159
					No function (shutter open)	160	191
					Random strobe effect slow to fast	192	223
					No function (shutter open)	224	255
5	8			Dimmer	Dimmer(Close to Open)	0	255
6	9			Color	Indexed		
					Position 1 (Open)	0	2
					Position 2 ~ Position 18	3	53
					Indexed With Backout		
					Position 1 (Open)	54	56
					Position 2 ~ Position 18	57	106
					Indexed With Bounce		
					Position 1	107	119
					Position 2 ~ Position 10	120	223
					Forward Wheel Spin		
					Stop to fastest	224	239

					Reverse Wheel Spin		
					Stop to fastest	240	255
7	10			Rot Gobo	Indexed		
					Position 1 (Open)	0	5
					Position 2 ~ Position8	6	47
					Indexed With Backout		
					Position 1 (Open)	48	53
					Position 2 ~ Position8	54	95
					Indexed With Shake		
					Position 2	98	115
					Position 3 ~ Position8	116	223
					Forward Wheel Spin		
					Stop to fastest	224	239
					Reverse Wheel Spin		
					Stop to fastest	240	255
8	11			Gobo Rot	Continuous		
					Positioning from 0-360 degrees	0	191
					Forward Animate Rotate		
					Stop to fastest	192	207
					Reverse Animate Rotate		
					Stop to fastest	208	223
					Forward Spin		
					Stop to fastest	224	239
					Reverse Spin		
					Stop to fastest	240	255
9	12			Prism & Prism Rot	Prism		
					Position 1 (Open)	0	3
					Prism Rot Forward Spin		
					Stop to fastest	4	127
					Prism Rot Reverse Spin		
					Stop to fastest	128	255
10	13			Focus	Continuous		
					Focus In to Focus Out	0	255
11	14			Control	Normal	0	7
					Reset All	8	15
					Pan&Tilt Reset	16	23
					Color Reset	24	31
					Gobo Reset	32	39
					TBD	40	47
					Other Reset	48	55
					Display Off	56	63
					Display On	64	71
					TBD	72	87
					Hibernation	88	95
					TBD	96	255

6. Unique Features

6.1 RDM, stand for "Remote Device Management", with this function, users can realize remote control of the device, such as remotely changing DMX address, reverse pan/tilt setting, check a lot of useful information such as temperature, power consumption, fan speed. Etc. Every single device has a unique RDM code before left factory to distinguish from each other, usually not suggest users change this code freely.

6.2 Software upgrade function via DMX cable, if there is any new firmware for this device come out, it can be upgraded simply via a software upgrade box, no need to change any mechanical parts. The upgrade box is not included in the package, if need any further assistance pls just contact authorized dealers.

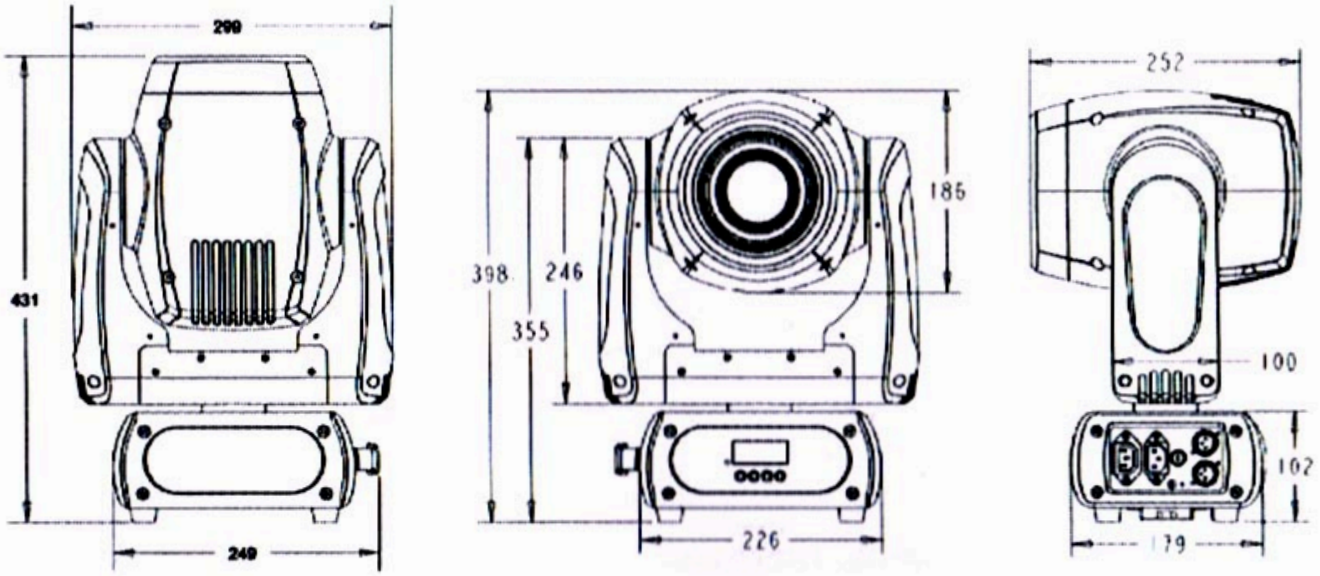
6.3 Hibernation, the device will enter sleeping mode if activated after a period of disconnecting DMX signal to save the power consumption, and will return immediately as soon as the DMX signal is sent again.

6.4 Display battery, this function is prepaid in the display PCB, users just need to install a normal 10440 600mAh 3.7V rechargeable lithium battery, then users could power on the display and do setting without connect to main power.

6.5 Display back-up communication IC, there is a back-up communication IC installed in the display PCB, so users could replace at once if the working one is broken, no need to wait long time from service.

6.6 Display flip, by press up and down button for more than 3 seconds, the display will flip automatically, this function is useful to read menu conveniently when device is hanged.

8. Dimensions Drawing



9. Technical specification

Power supply	100-240 V AC, 50/60 Hz ~
Power consumption	160W
LED	75w white led
DMX channels	11/14 modes
Beam angle	13° to 18°
Luminous flux	6400lumen, 6990lux@2.5m
Fuse	T 3.15 A, 250 V
Device dimensions	299x252x431mm
Net Weight	10KG