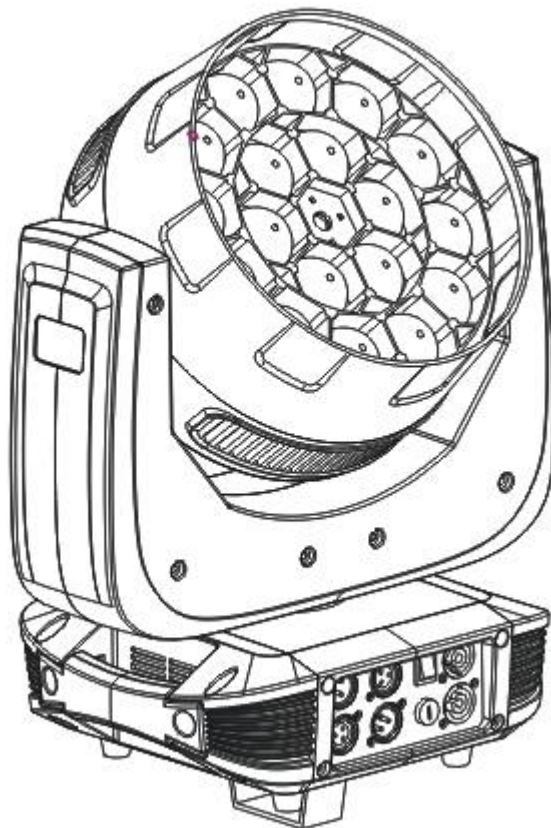


# **BY-DIAMOND-18**

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**18\*4in1 15w Diamond moving**



User manual

Please read the instructions carefully before use

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### statement

The product has well capability and intact packing when leave factory. All of the user should comply with warning item and manual, any misuse cause of the damages are not included in our guarantee, and also can not be responsible for any malfunction & problem owing to ignore the manual.

# 1. Safety Instructions

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.

- ⚠️ Unpack and check carefully there is no transportation damage before using the unit.
- ⚠️ Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- ⚠️ It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- ⚠️ The unit is for indoor use only. Use only in a dry location.
- ⚠️ The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- ⚠️ Disconnect main power before replacement or servicing.
- ⚠️ Make sure there are no flammable materials close to the unit while operating as it is fire hazard.
- ⚠️ Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- ⚠️ Maximum ambient temperature is  $T_a$ : 40°C. DO NOT operate it where the temperature is higher than this Unit surface temperature may reach up to 85°C. DO NOT touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- ⚠️ In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type

spare parts.

⚠ DO NOT touch any wire during operation as high voltage might be causing electric shock.

### **Warning:**

⚠ To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.

⚠ DO NOT open the unit within five minutes after switching off.

⚠ The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

### **Caution:**

There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

### **Installation:**

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people.

## 2. Technical Specifications

**Light Sources:** 18x 15W 4in1 RGBW LED

Beam Angle: 2.2°

Power Consumption: 352W

Power Voltage: AC 100-240V, 50/60Hz

Dimension: **33\*23\*39cm**

Packing: 34.5x24x39cm

Net Weight: 9.86Kgs

Gross Weight: 12Kgs

### **Control**

DMX Channel: 20/40 Channel

Control Modes: DMX512,

### **Pan/Tilt**

Pan/Tilt: 540°/ 180°

Pan/Tilt Resolution: 16 bit

### **Construction**

Display: LCD Display

Data In/Out socket: 3-pin & 5-pin XLR sockets

Power Socket: Powercon in/out

Protection Rating: IP20

### **Features**

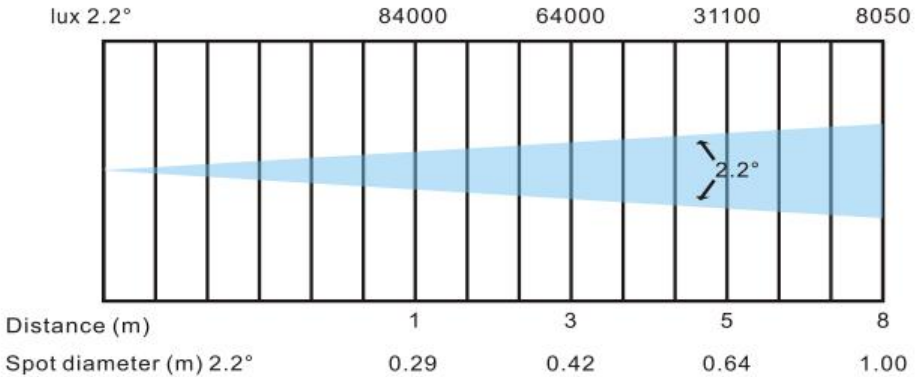
Dimmer: 0~100% smooth dimming

6sectors can individual control run+rotate panel

Fast, quiet operation and flicker free

### 3. Lux Data

Zoom beam Angle =  $2.2^\circ$



### 4. How To Control The Unit

The DMX512 is widely used in intelligent lighting control, with a DMX 512 controller. connect several lights together, dmx in and dmx out, 3 pin XLR connectors: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

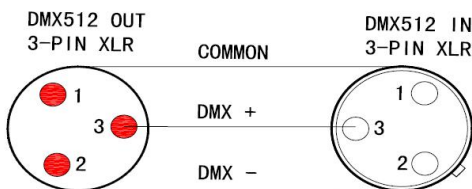
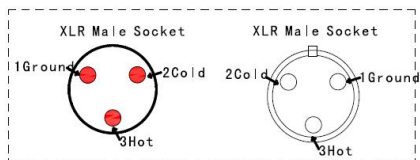


Figure2



XLR Pin Configuration	
pin1=	Ground
pin2=	Data Compliment (negative)
pin3=	Data true (positive)

## Display:

MENU	To select the programming functions
DOWN	To go backward in the selected functions
uP	To go forward in the selected functions
ENTER	To confirm the selected functions

## Set DMX Address Code

- 1 Press "**Menu**" to "Set DMX Address",and press"**ENTER**" keys to enter into
- 2 Show "Set DMX Address DMX Address:**001**",Press the "**UP and DOWN**" keys to amended
- 3 Press "**ENTER**"keys to save and Exit,Press the"**MENU**"Keys does not save and Exit

<b>function</b>	Address	Address001~XXX		Change address
	CH Value	PAN.....		Show each channel value
	Set to Slave	Slave		Slave receive position select
	Auto program	Master-Auto / Alone-Auto		auto run mode
<b>inform</b>	Music control	Master-Music / Alone-Music		Sound auto run
	Temp Inf	Head	XXX°C/°F	current temperature

		Temperature		
	Soft Inf	VX.X.X...		software version
<b>Person</b>	Status	Pan Rev Tilt Rev P-Degree M Speed Mic Sens	ON/OFF ON/OFF 540/360 Speed 1~ 2 0~99%(70)	Pan scan opposition title scan opposition scan angle select scan mode select mic sensitivity
	Temp C/F	C/F		reload the default parameter
	Reset Default	ON/OFF		Re-load all delivery parameter
<b>Reset</b>	Reset All			Reset the light
Adjust	CaliT CH	<b>Password</b>  <b>PAN</b>  <b>TILT</b>  <b>ZOOM-ROT</b>	<b>Password=XXX</b>  <b>PAN=XXX</b>  <b>TILT</b>  <b>ZOOM-ROT</b>	channels' data calibrate code :050 PAN channel data calibrate <b>TILT</b> channel data calibrate ZOOM-ROT channel data change
mode set	Standard Shape			

**DMX channel’s functions and values (20/40 DMX channels):**

Mode/Channel	Value		Function
Standard	Shape		



1	1		<b><u>PAN Movement 8bit :</u></b>
		0-255	Pan Movement
2	2		<b><u>Pan Fine 16bit</u></b>
		0-255	Fine control of Pan movement
3	3		<b><u>TILT Movement 8bit :</u></b>
		0-255	Tilt Movement
4	4		<b><u>Tilt Fine 16bit</u></b>
		0-255	Fine control of Tilt movement
5	5		<b><u>Speed Pan/Tilt movement:</u></b>
		0-225	max to min speed
		226-255	no function
6	6	0-255	<b><u>Strobe</u></b>
7	7		<b><u>Dimmer intensity:</u></b>
		0-255	Intensity 0 to 100%
8	8		<b><u>Dimmer Mode:</u></b>
		0-49	Dimmer1
		50-99	Dimmer2
		100-149	Dimmer3
		150-255	Dimmer4
9	9		<b><u>Rotation:</u></b>
		0-127	0-60 locating
		128-190	Rotation Reverse max to min speed
		191-192	Rotation Stop
		193-255	Rotation Forward min to max speed
10			<b><u>Red LED -all arrays :</u></b>
		0-255	Red ( 0-Black , 255-100% Red )

11			<b><u>Green LED-all arrays :</u></b>
		0-255	Green ( 0-Black , 255-100% Green )
12			<b><u>Blue LED -all arrays :</u></b>
		0-255	Blue ( 0-Black , 255-100% Blue )
13			<b><u>White LED -all arrays :</u></b>
		0-255	White ( 0-Black , 255-100% White )
	10		<b><u>Red LED -array 1 :</u></b>
		0-255	Red ( 0-Black , 255-100% Red )
	11		<b><u>Green LED-array 1 :</u></b>
		0-255	Green ( 0-Black , 255-100% Green )
	12		<b><u>Blue LED -array 1 :</u></b>
		0-255	Blue ( 0-Black , 255-100% Blue )
	13		<b><u>White LED -array 1 :</u></b>
		0-255	White ( 0-Black , 255-100% White )
	14		<b><u>Red LED -array 2 :</u></b>
		0-255	Red ( 0-Black , 255-100% Red )
	15		<b><u>Green LED-array 2 :</u></b>
		0-255	Green ( 0-Black , 255-100% Green )
	16		<b><u>Blue LED -array 2 :</u></b>
		0-255	Blue ( 0-Black , 255-100% Blue )
	17		<b><u>White LED -array 2 :</u></b>
		0-255	White ( 0-Black , 255-100% White )
	18		<b><u>Red LED -array 3 :</u></b>
		0-255	Red ( 0-Black , 255-100% Red )
	19		<b><u>Green LED-array 3 :</u></b>
		0-255	Green ( 0-Black , 255-100% Green )
	20		<b><u>Blue LED -array 3 :</u></b>

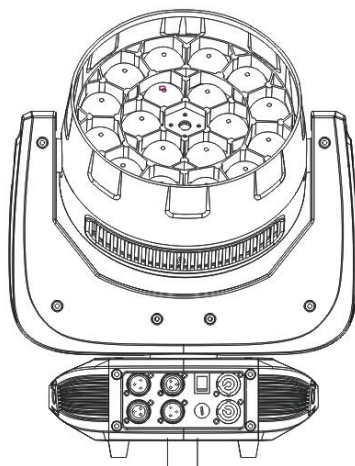
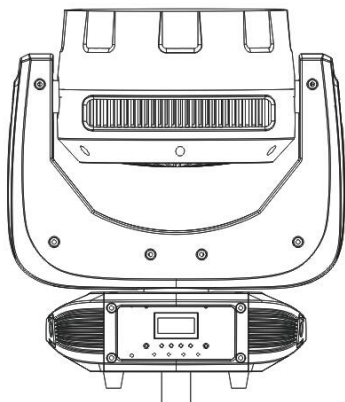
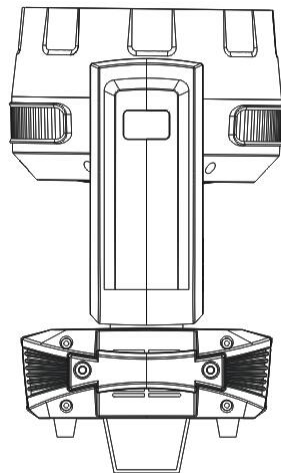
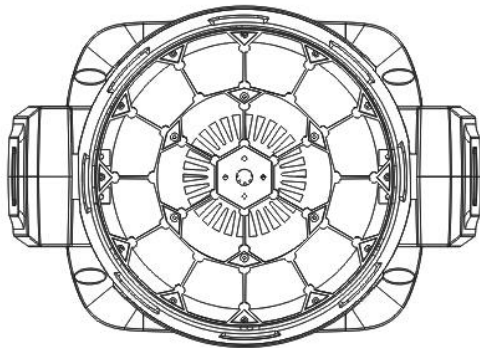
		0-255	Blue ( 0-Black , 255-100% Blue )
	21		<u>White LED -array 3:</u>
		0-255	White ( 0-Black , 255-100% White )
	22		<u>Red LED -array 4 :</u>
		0-255	Red ( 0-Black , 255-100% Red )
	23		<u>Green LED-array 4 :</u>
		0-255	Green ( 0-Black , 255-100% Green )
	24		<u>Blue LED -array 4 :</u>
		0-255	Blue ( 0-Black , 255-100% Blue )
	25		<u>White LED -array 4 :</u>
		0-255	White ( 0-Black , 255-100% White )
	26		<u>Red LED -array 5 :</u>
		0-255	Red ( 0-Black , 255-100% Red )
	27		<u>Green LED-array 5 :</u>
		0-255	Green ( 0-Black , 255-100% Green )
	28		<u>Blue LED -array 5 :</u>
		0-255	Blue ( 0-Black , 255-100% Blue )
	29		<u>White LED -array 5 :</u>
		0-255	White ( 0-Black , 255-100% White )
	30		<u>Red LED -array 6 :</u>
		0-255	Red ( 0-Black , 255-100% Red )
	31		<u>Green LED-array 6 :</u>
		0-255	Green ( 0-Black , 255-100% Green )
	32		<u>Blue LED -array 6 :</u>
		0-255	Blue ( 0-Black , 255-100% Blue )
	33		<u>White LED -array 6:</u>
		0-255	White ( 0-Black , 255-100% White )

14	34		<b><u>Rainbow:</u></b>
		0-4	No function
		5-29	R
		30-54	G
		55-79	B
		80-104	W
		105-129	Rainbow colours
		130-154	Rainbow colours
		155-174	Rainbow colours
		175-179	Rainbow colours
		180-184	Rainbow colours
		185-189	Rainbow colours
		190-210	Rainbow colours
		211-255	Crossfading colours from slow to fast
15	35		<b><u>Color Presets:</u></b>
		0-4	No function
		5--9	White1
		10--14	White2
		15-19	White3
		20-24	White4
		25-29	White5
		30-34	White6
		35-39	Color1
		40-44	Color2
		45-49	Color3
		50-54	Color4
		55-59	Color5

		60-64	Color6
		65-69	Color7
		70-74	Color8
		75-79	Color9
		80-84	Color10
		85-89	Color11
		90-94	Color12
		95-99	Color13
		100-104	Color14
		105-109	Color15
		110-114	Color16
		115-119	Color17
		120-124	Color18
		125-129	Color19
		130-134	Color20
		135-139	Color21
		140-144	Color22
		145-149	Color23
		150-154	Color24
		155-159	Color25
		160-164	Color26
		165-169	Color27
		170-255	Reserved
16	36		<b><u>Color Presets Dimmer:</u></b>
		0-255	Dimmer 100 to 0%
17	37		<b><u>Chase Patterns:</u></b>
		1--14	Led trun off

		15-30	Chase 1
		31-46	Chase 2
		47-62	Chase 3
		63-78	Chase 4
		79-94	Chase 5
		95-110	Chase 6
		111-126	Chase 7
		127-142	Chase 8
		143-158	Chase 9
		159-174	Chase 10
		175-190	Chase 11
		191-206	Chase 12
		207-222	Chase 13
		223-238	Chase 14
		239-255	Chase 15
18	38		<b><u>Chase Speed:</u></b>
		0-125	Fast to Slow Backward
		126-130	Stop(Speed=0)
		131-255	Slow to Fast Forward
19	39	0-255	<b><u>Chase Fade:</u></b>
20	40		<b><u>Lamp on/off, reset, internal programs:</u></b>
		0-79	Normal
		80-99	All motor reset
		100-255	Normal

## 5. shape



## 6. Trouble shooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

### **A. The unit does not work, no light and the fan does not work**

1. Check the connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

### **B. Not responding to DMX controller**

1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

### **C. One of the channels is not working well**

1. The stepper motor might be damaged or the cable connected to the PCB is broken.



2. The motor's drive IC on the PCB might be out of condition.

## **7. Fixture Cleaning**

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

- **Clean with soft cloth using normal glass cleaning fluid.**
- **Always dry the parts carefully.**
- **Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.**