USER MANUAL

DP2RGB

Thank you very much for choosing our product, for your safety, Please read this manual carefully before your operation. This manual included installation and using information. Please install and operate it according to the requirement of this manual.

1. WHAT IS INCLUDED

1 X Flight Case Enclosure（selectable)
1 X RGB laser projector
1 X Power Cord
1 X Emergency Stop Control Box（selectable)
1 X Emergency Stop connecting cable （selectable)
1 X Key for Emergency Stop Control Box （selectable)
1 X Key for Projector lockout control
1 X User Manual

2. UNPACKING INSTRUCTIONS

Open the flight case/ carton box carefully unpack everything inside.
Ensure all parts are present and in good condition.
Do not use any equipment that appears to be damaged.

3. SAFETY NOTES

WARNING! This projector is a Class 4 laser product. It must neverbe used for audience-scanning applications.The output beam of the projector must always be at least 3 meters above the floor in the audience. See the Proper Operation section for further information

Please read the following notes carefully! They include important safety information about the installation, usage, and maintenance of this product.

- Keep this User Manual for future consultation. If you sell this product to another user, be sure that they also receive this document.
- Always make sure that the voltage of the outlet to which you are connecting this product is within the range stated on the decal or rear panel of the product.
- This product is not designed for use outdoors in adverse weather conditions. To prevent risk of fire or shock, do not expose this product to rain or moisture.
- Always install this product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Always disconnect this product from the power source before cleaning it or replacing the fuse.
- Make sure to replace the fuse with another of the same type and rating.
- If mounting it overhead, always secure this product to a fastening device using a safety chain or cable.
- In the event of a serious operating problem, stop using the projector immediately. Never try to repair the unit except in a controlled environment under trained supervision. Repairs carried out by unskilled people can lead to damage or malfunction of the unit, as well as exposure to dangerous laser light.
- Never connect this product to a dimmer pack.
- Make sure the power cord is not crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Never carry a product from the power cord or any moving part. Always use the hanging/mounting bracket or the handles.
- Always avoid eye or skin exposure to direct or scattered light from this product.
- Lasers can be hazardous and have unique safety considerations. Permanent eye injury and blindness is possible if lasers are used incorrectly. Pay close attention to each safety REMARK and WARNING statement in this user manual. Read all instructions carefully BEFORE operating this device.
- Never intentionally expose yourself or others to direct laser light.
- This laser product can potentially cause instant eye injury or blindness if laser light directly strikes the eyes.
- It is illegal and dangerous to shine this laser into audience areas, where the audience or other personnel could get direct laser beams or bright reflections into their eyes.
- It is a US Federal offense to shine any laser at aircraft.
- No service allowed by customer. There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself.
- Service is only to be handled by the factory or authorized factory trained technicians.
- Product is not to be modified by the customer.
- **Caution** – use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

4. TECHNICAL SPECIFICATIONS

Laser:

Laser Classification: Class 4

Laser sources: Red-638nm

Green-520nm

Blub-445nm

Beam diameter (1/e2):4.5mm

Beam divergence (1/e2):<1.5mrad (full angle)

Total output power:2000mW

Projector:

Scanner:30Kpps@±22°

Aperture:4.5mm

Scan Angle Max:60°

Laser emission window: B+W antireflective coated

AC power input:AC90-250V / 50-60Hz

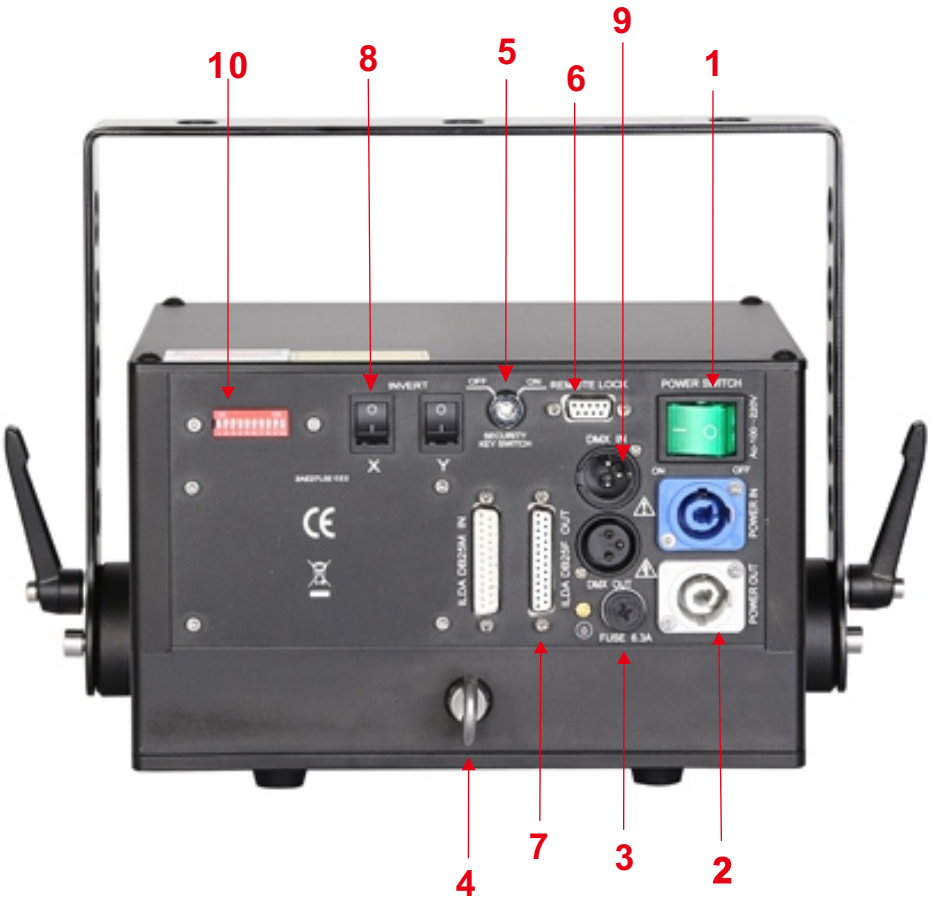
Input Singal:0-5V

Max. ambient temperature:35°C

Min. ambient temperature:-25°C

Weight: 7kgs

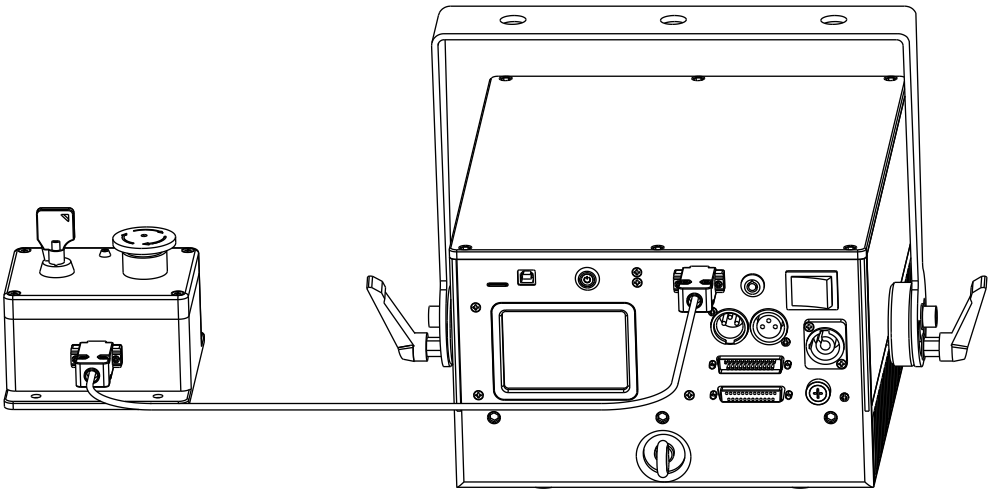
5. THE SPECIFICATION OF THE FRONT AND REAR PANEL



1. ON/OFF:POWER SWITCH
2. POWER INPUT IEC CONNECTOR
3. MAIN FUSE HOLDER
4. SAFETY SCREW
5. PROJECTOR LOCKOUT KEY SWITCH
6. INTERLOCK SAFETY OUTPUT CONNECTOR
7. DB-25-PIN ILDA IN/ILDA OUT
8. INVERT X/Y
9. DMX IN/OUT
10. DMX ADDRESS SETTINGS

6. REMOTE INTERLOCK / REMOTE E-STOP SWITCH

Connect the remote E-stop controller to the 9-pin connector on the rear of the projector using a DB-9 cable. Ensure that the other end of the cable is firmly attached to the remote box, and tighten the screws on both ends of the cable to ensure the connection remains secure.



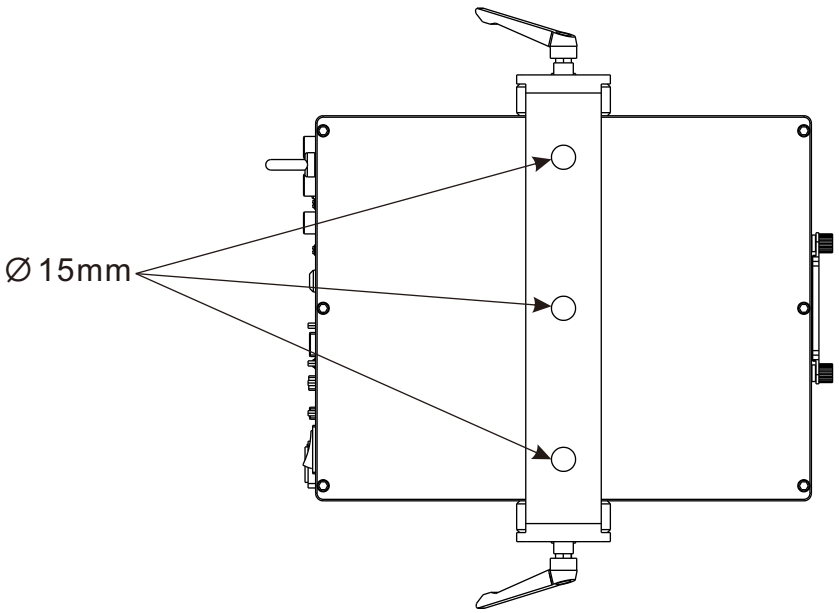
7. RIGGING

•Be sure that the structure onto which you are mounting this product can support its weight.

•Mount the product securely. You can do this with a screw, a nut, and a bolt. You may also use a mounting clamp if rigging this product onto a truss. The U-shaped support bracket has three mounting holes which may be used to secure the clamps to the projector.

•When mounting this product overhead, always use a safety cable.

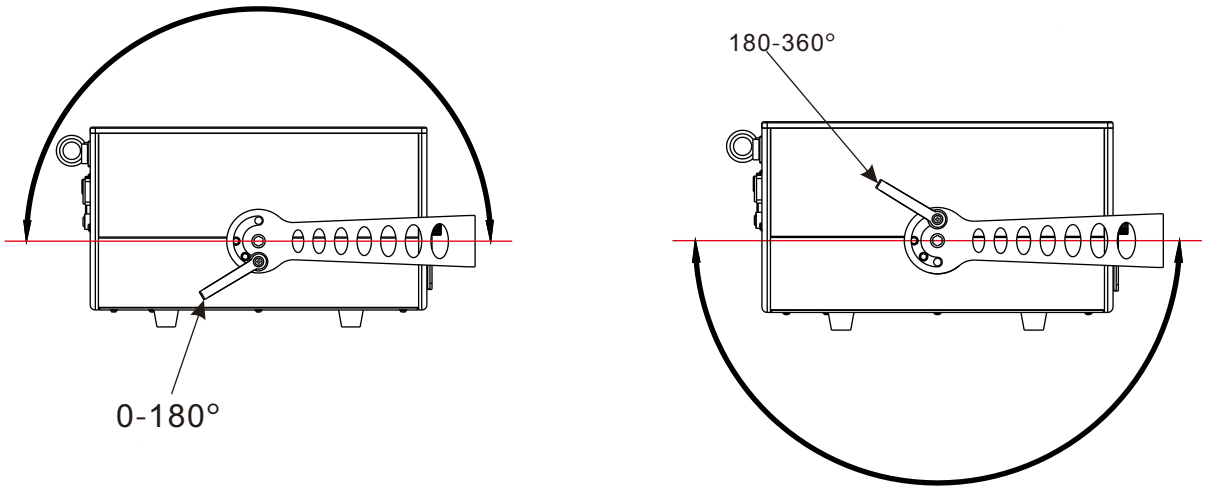
•Always consider ease of access to the unit before deciding on a location for this product



8. OPERATION OF U-TYPE BRACKET (DIFFERENT ANGLES)

1.Set the angle of the U-type bracket according to your installation

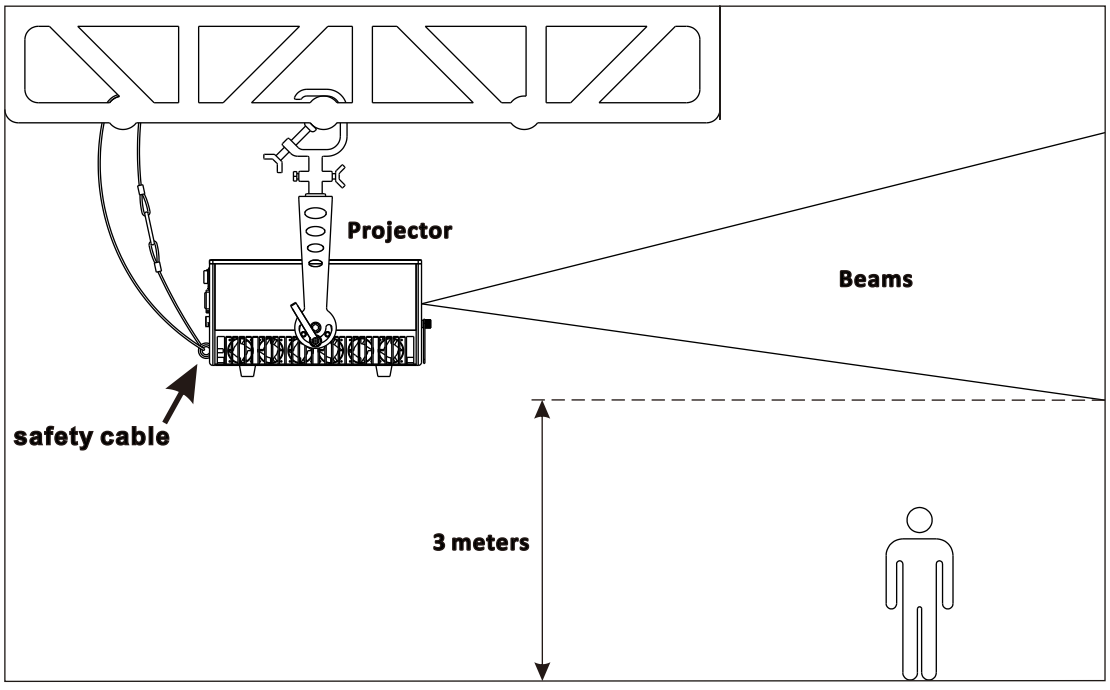
2.Monolateral angle of the U-type bracket is 0-180 degrees;
you can get 180-360 degrees by adjusting the position of the L-type screw.(As follows).



9. PROPER USE

This product is for overhead mounting only. For safety purposes, this projector should be mounted on steady elevated platforms or sturdy overhead supports using suitable hanging clamps. In all cases, you must use safety cables.

International laser safety regulations require that laser products must be operated in the fashion illustrated below, with a minimum of 3 meters (9.8 ft) of vertical separation between the floor and the lowest laser light vertically. Additionally, 3 meters of horizontal separation is required between laser light and audience or other public spaces.



Caution – use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

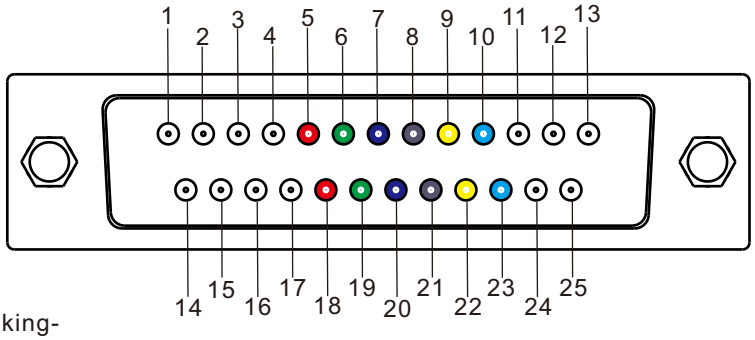
10. ILDA CONNECTION

Connect the projector to your controller using a standard 25-pin ILDA cable (DB-25).
Be sure to tighten the connecting screws to ensure the cable does not become disconnected.

This projector is wired to accept ILDA standard analog signals for X, Y and color information.
The ILDA standard uses a DB-25 cable to carry these signals from the controller to the projector.

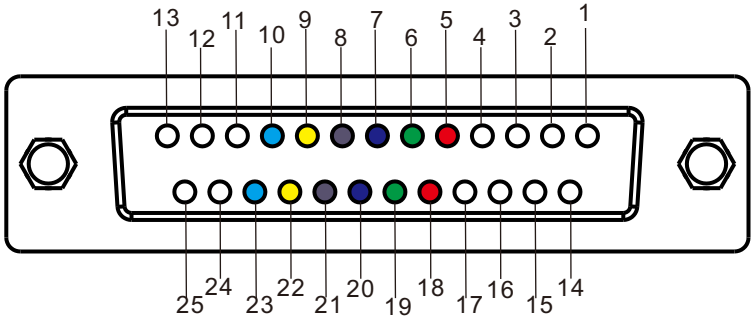
ILDA PINOUT

Pin:		Pin:	
1	X+	14	X-
2	Y+	15	Y-
3	Intensity/Blanking+	16	Intensity/Blanking-
4	Interlock A	17	Interlock B
5	Red+	18	Red-
6	Green+	19	Green-
7	Blue+	20	Blue-
8	Deep blue+	21	Deep blue-
9	Yellow+	22	Yellow-
10	Cyan+	23	Cyan-
11	Z+	24	Z-
12	Not connected	25	Ground
13	Shutter		



Above-DB25 male connector,viewed from front.

Below-DB25 female connector,viewed from front.



THE PROJECTORS ONLY USE THE FOLLOWING PINS:

PIN:		PIN:	
1	X+	14	X-
2	Y+	15	Y-
3	Intensity/Blanking+	16	Intensity/Blanking-
4	Interlock A	17	Interlock B
5	Red+	18	Red-
6	Green+	19	Green-
7	Blue+	20	Blue-
13	Shutter	25	Ground

11. DMX-512 CHANNEL ASSIGNMENT

DMX512 Channel List

The fixture can display two different patterns at the same time---24 channels version. And the 2nd pattern can move with the main pattern --11 channels version. Also you can display one pattern only---13 channels version.

The function of each channel as following .

Channel	Function	DMX512	Specification
1	Play mode	0~0	Off
		1~63	Music mode(music active)
		64~127	Auto mode(Auto active)
		128~191	Double pattern mode(manual active)
		192~255	Wave effect mode(manual active)

Auto mode(Auto active)

Channel	Function	DMX512	Specification
1	Running	63~127	Running Auto mode
2	Speed	0~255	16 Class speed(from slow to fast) 
3	Shows	0~15	Re run all
		16~31	Re run show1
		32~47	Re run show2
		48~63	Re run show3
		64~79	Re run show4
		80~95	Re run show5
		96~111	Re run show6
		112~127	Re run show7
		128~143	Re run show8
		144~159	Re run show9
		160~175	Re run show10
		176~191	Re run show11
		192~207	Re run show12
		208~223	Re run show13
		224~239	Re run show14
		240~255	Re run show15
4	No use		No use
|			
24	No use		No use

Double pattern mode (manual active)

Channel	Function	DMX512	Specification
1	Running	128~191	Double pattern mode
2	Laser On/Off	0~127	Laser Off
		128~255	Laser On
3	Main Gobo team selection	0~255	8 gobo teams(255/32=0~7)
4	Main Gobo selection	0~255	16 gobo teams(255/16=0~15)
5	Main colour	0~31	Original color
		32~63	White
		64~95	Red
		96~127	Yellow
		128~159	Green
		160~191	Cyan
		192~223	Blue
		224~255	Purple
6	Main Color gradual change	0~1	Original
		2~255	Color gradual change
7	Main drawing	0~127	Manual drawing
		128~255	Gradual drawing speed
8	Main Gobo zoom	0~127	Gobo size from big to small(manual)
		128~191	Gobo size from big to small(auto)
		192~255	Gobo size fromsmall to big(auto)
9	Main Horizontal rotation	0~127	Stationary Pan rotate angle(0~360 degree)
		128~191	Pan clockwise rotate speed
		192~255	Pan anti-clockwise rotate speed
10	Main Vertical rotation	0~127	Stationary Tilt rotate angle(0~360 degree)
		128~191	Tilt clockwise rotate speed
		192~255	Tilt anti-clockwise rotate speed
11	Main Centre rotation	0~127	Stationary centre rotate angle(0~360 degree)
		128~191	Centre clockwise rotate speed
		192~255	Centre anti-clockwise rotate speed
12	Main Horizontal move	0~127	Stationary Pan move
		128~191	Pan right move
		192~255	Pan left move
13	Main Vertical move	0~127	Stationary Tilt move
		128~191	Tilt right move
		192~255	Tilt left move

14	The 2nd Gobo team selection	0~255	8 gobo teams(255/32=0~7)
15	The 2nd Gobo selection	0~255	16 gobo teams(255/16=0~15)
16	The 2nd colour	0~31	Original color
		32~63	White
		64~95	Red
		96~127	Yellow
		128~159	Green
		160~191	Cyan
		192~223	Blue
		224~255	Purple
17	The 2nd Color gradual change	0~1	Original
		2~255	Color gradual change
18	The 2nd drawing	0~127	Manual drawing
		128~255	Gradual drawing speed
19	The 2nd Gobo zoom	0~127	Gobo size from big to small(manual)
		128~191	Gobo size from big to small(auto)
		192~255	Gobo size fromsmall to big(auto)
20	The 2nd Horizontal rotation	0~127	Stationary Pan rotate angle(0~360 degree)
		128~191	Pan clockwise rotate speed
		192~255	Pan anti-clockwise rotate speed
21	The 2nd Vertical rotation	0~127	Stationary Tilt rotate angle(0~360 degree)
		128~191	Tilt clockwise rotate speed
		192~255	Tilt anti-clockwise rotate speed
22	The 2nd Centre rotation	0~127	Stationary centre rotate angle(0~360 degree)
		128~191	Centre clockwise rotate speed
		192~255	Centre anti-clockwise rotate speed
23	Main pattern Horizontal move	0~127	Stationary Pan move
		128~191	Pan right move
		192~255	Pan left move
24	The 2nd Vertical move	0~127	Stationary Tilt move
		128~191	Tilt right move
		192~255	Tilt left move