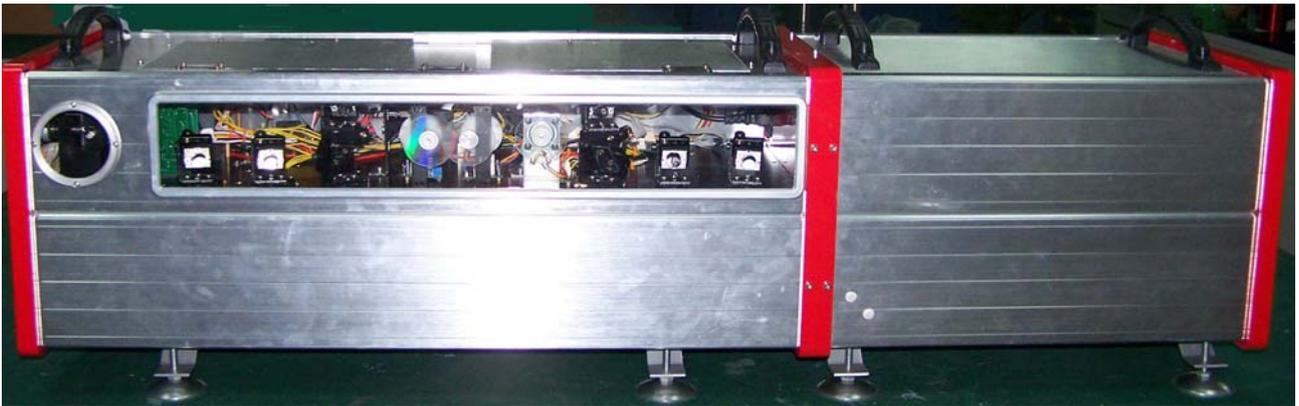




LASERTECH 1500



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5. Accessories	17

Notices :

- 1、 Due attention should be paid to this user instruction before applying this projector.
- 2、 Professional installer and a licensed Electrician install projector.
- 3、 Keep it dry and put it in the well-ventilated place, vibration and bump avoid.
- 4、 Avoid direct exposure!
- 5、 Ambient temperature: 10~35°

Projector Introduction

The LASERTECH 1500 is designed convenient for customers with control system in one housing and lasers in another, different output laser housing changeable to meet unique requirement. It is the combo to be able to play animation, DG effect, beam effect and at same time boasts linear adjustable DPSS lasers, easier to operate Pangolin build in control system, Cyperlite control software, high speed USB connector, ILDA DB 25, larger memory. All of the above features are enough to guarantee you pleasure laser show feast.

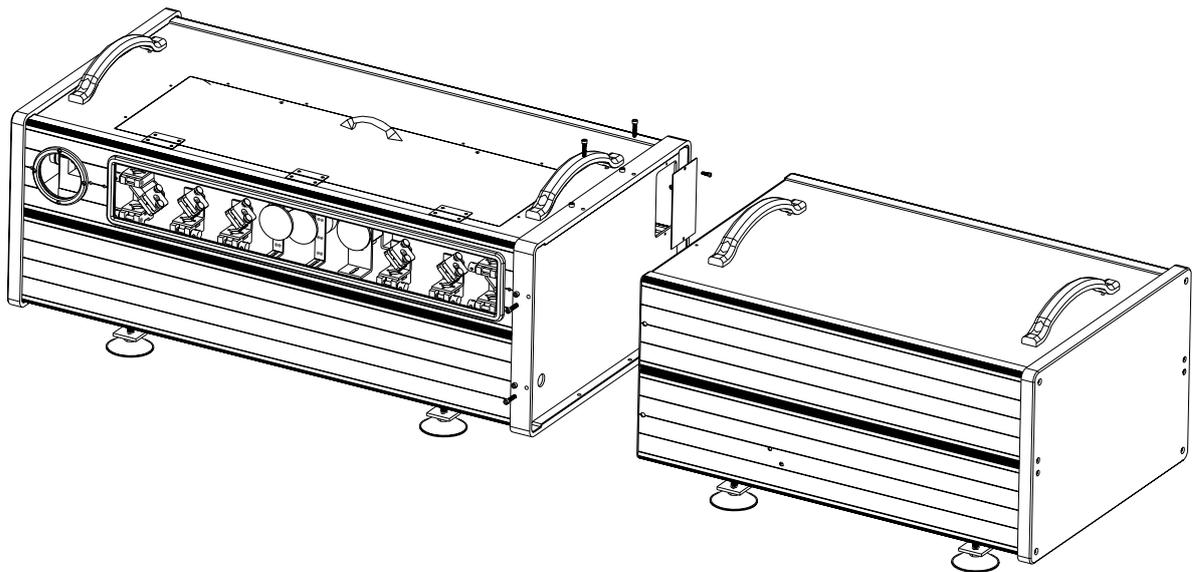
- ◆ Mode : DMX mode、 Projector is capable to be controlled by computerized soft through USB and by ILDA signal.
- ◆ DMX Channel : 4、 8、 12、 24 Channels selectable
- ◆ Show : More than 400 show (editable)
- ◆ Laser : R > 800mw 635nm 、 G > 2000mw 532nm、 B > 400mw 473nm
- ◆ Scan System : ILDA24K
- ◆ Control System : Pangolin built in system
- ◆ Beam Effect: 6 Beam Turret Positions, 10 Total Targeting Beams, 20 Position Rotating/ Selectable DG, Dual counter Rotating DG effect, 180°Static Linear DG Effect, 180*180 Static Grid DG effect
- ◆ Memory : 128MB
- ◆ Input Voltage : AC 110V~240V 60/50Hz
- ◆ Power : 240W
- ◆ Dimension : 1393×426×(365~395)mm
- ◆ Weight : ***Kg

Installation Instruction

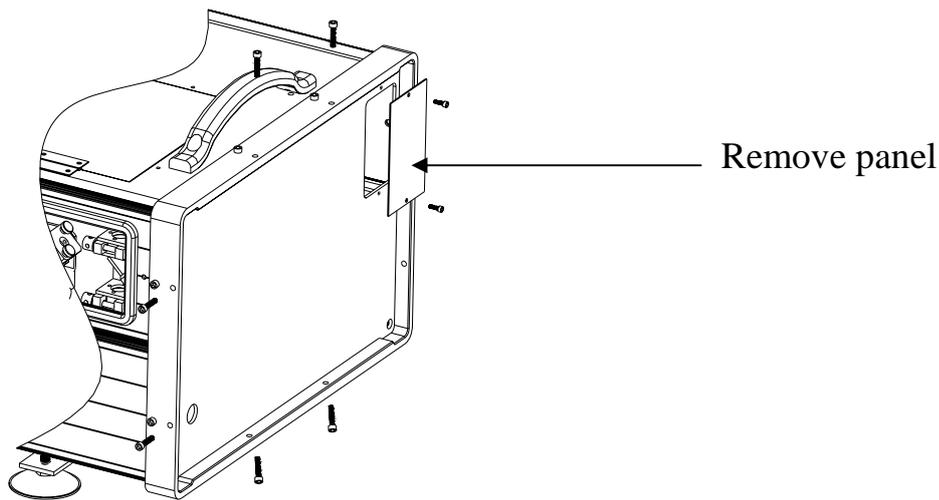
Installation

Please assemble laser and control housing together as follows:

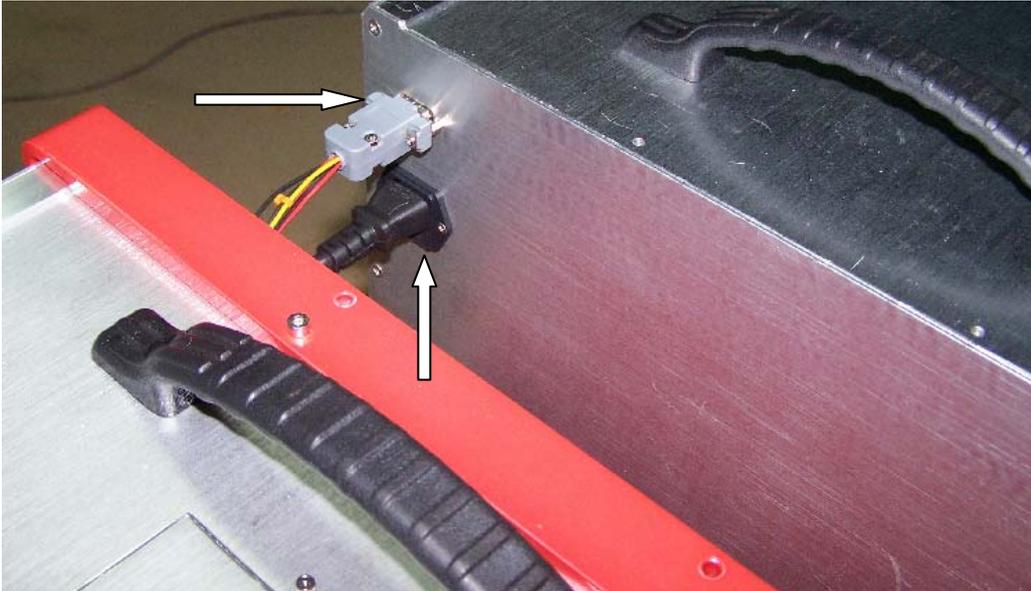
1. Place two parts on the platform and adjust them to the same height.



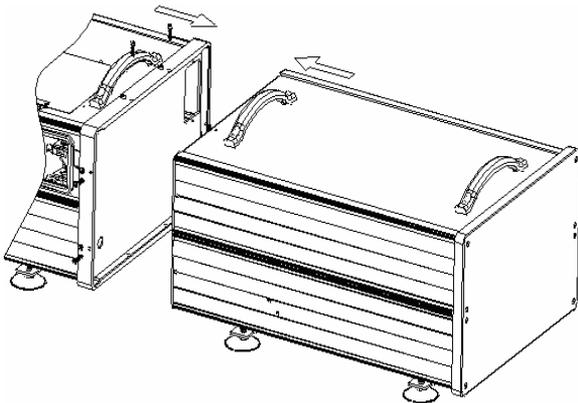
1. Remove the panel as illustrated:



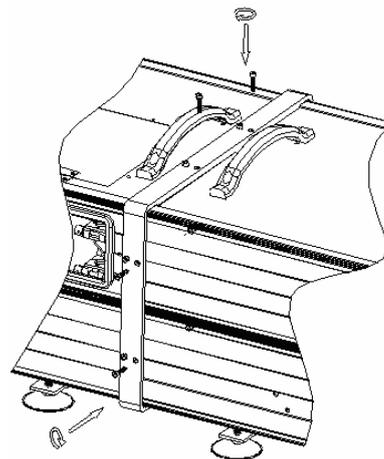
2. Keep smooth connection of power and DB9 connector between two parts of the projector. Then screw them tightly.



3、 Insert laser housing to control housing and then fix joint with screws.

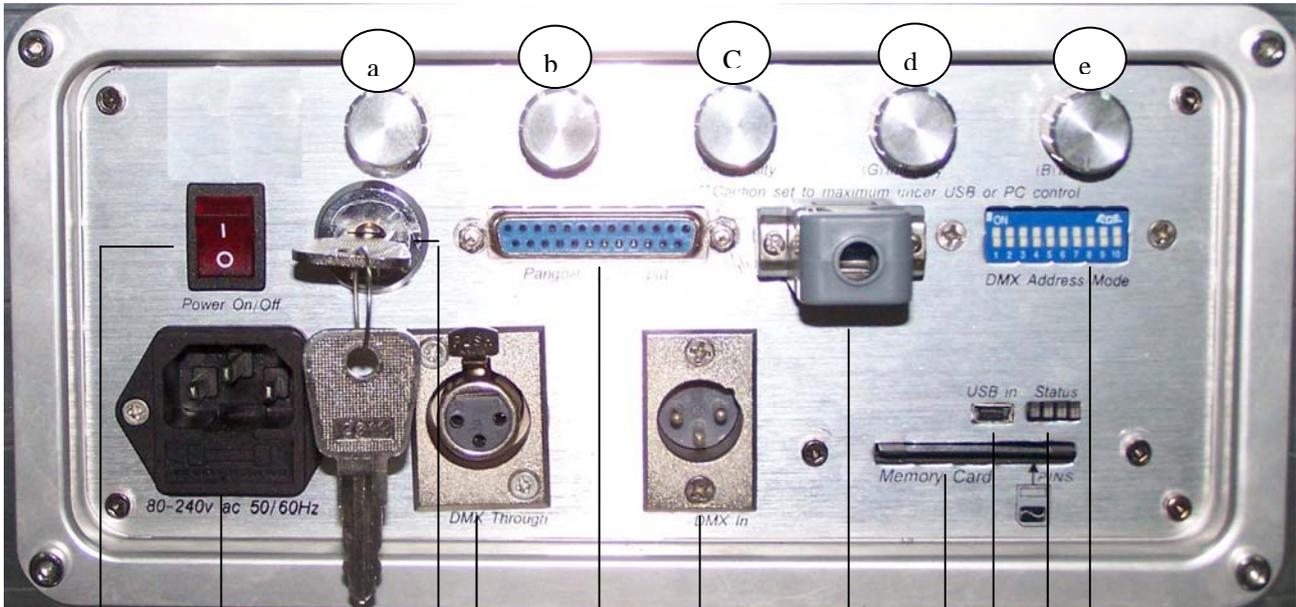


Joint two parts
together



Drive 8 screws in joint

Control Panel



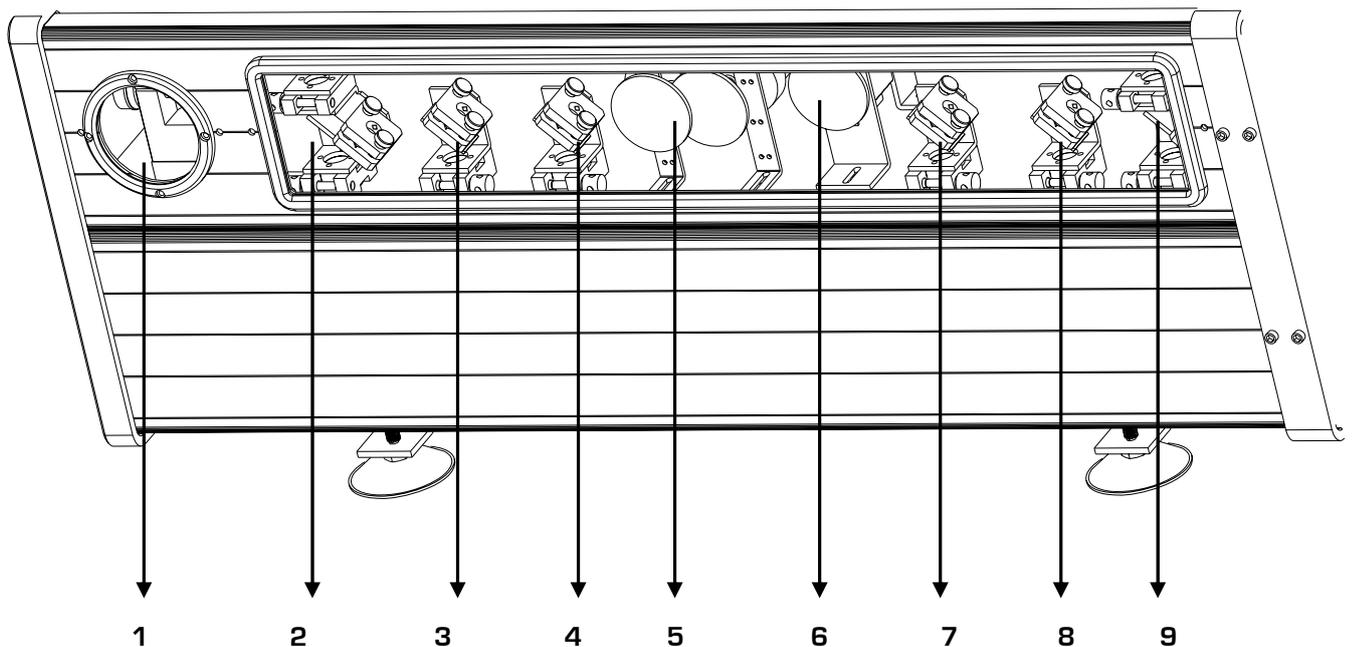
- | | |
|--|---|
| <p>1、 Power Switch</p> <p>3、 Key Switch</p> <p>5、 ILDA DB25</p> <p>7、 Emergency</p> <p>9、 mini USB Connector</p> <p>11、 DMX Dipswitch</p> <p>a—X Gain</p> <p>c—Red Intensity</p> <p>e—Blue Intensity</p> | <p>2、 AC Power (W/FUSE)</p> <p>4、 DMX Through (linking)</p> <p>6、 DMX Input</p> <p>8、 Memory Card Slot</p> <p>10、 Status Indicator</p> <p>b—Y Gain</p> <p>d—Green Intensity</p> |
|--|---|

Connectors

- ◇ DMX connector: used for DMX and linking mode. Only one of the effective consoler and master respectively are required in one chain, otherwise signal will be disturbed thus problems are resulted in projector.

- ◇ ILDA DB25 connector: User will find an easier way to input ILDA signal form here which supports “plug n in” function, which will be given the priority rather than DMX signal. However, it is advised never to pull out of the connector during projector running.
- ◇ Key switch: laser power is controlled by this switch. When it is turned to horizontal position (the key could not be removed), this unit emits laser in 15 seconds; in vertical position, unit stops emitting laser. For safety purpose, when not in use, please remove the key from this unit.
- ◇ DB9 connector: DB9 connects witch Estop through pin 5 and 9 the voltage between which is 24V. User holds choices where to set the Estop with 18# cable, typically 150 meters.

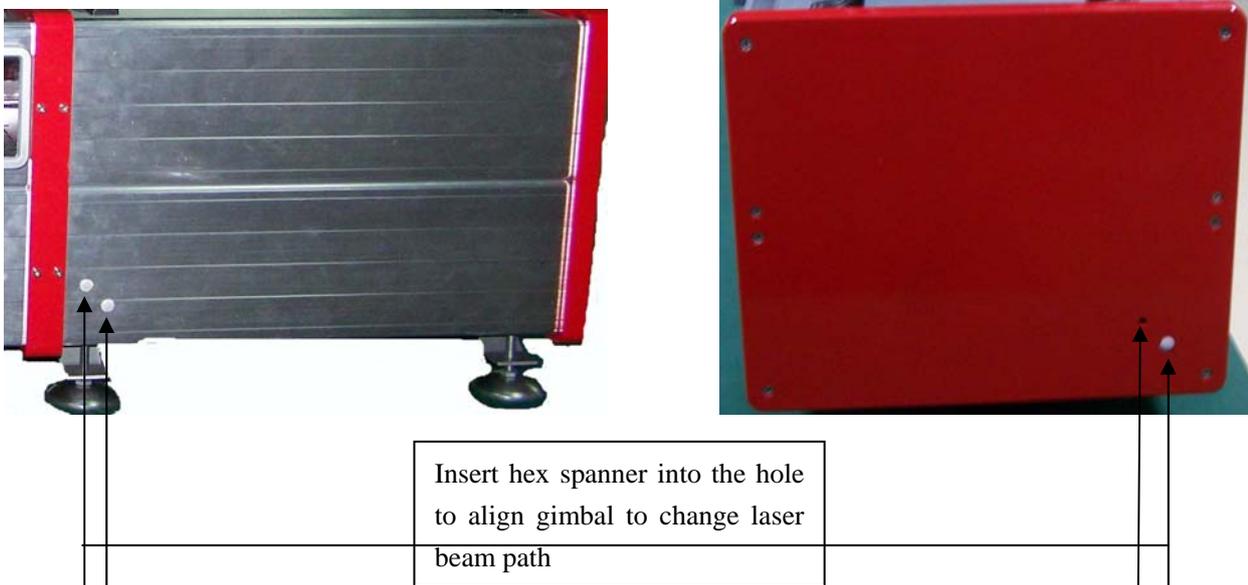
Laser Aperture



- | | |
|-----------------------------|----------------------------|
| 1、 Scanned beam aperture | 2、 Beam Turret Positions |
| 3、 Beam Turret Positions | 4、 Beam Turret Positions |
| 5、 Dual counter rotating DG | 6、 20 Position Rotating DG |
| 7、 Beam Turret Positions | 8、 Beam Turret Positions |
| 9、 Beam Turret Positions | |

Beam Path Alignment

If laser beam distracts from the original way during transportation, please follow the instruction below to align beam path.

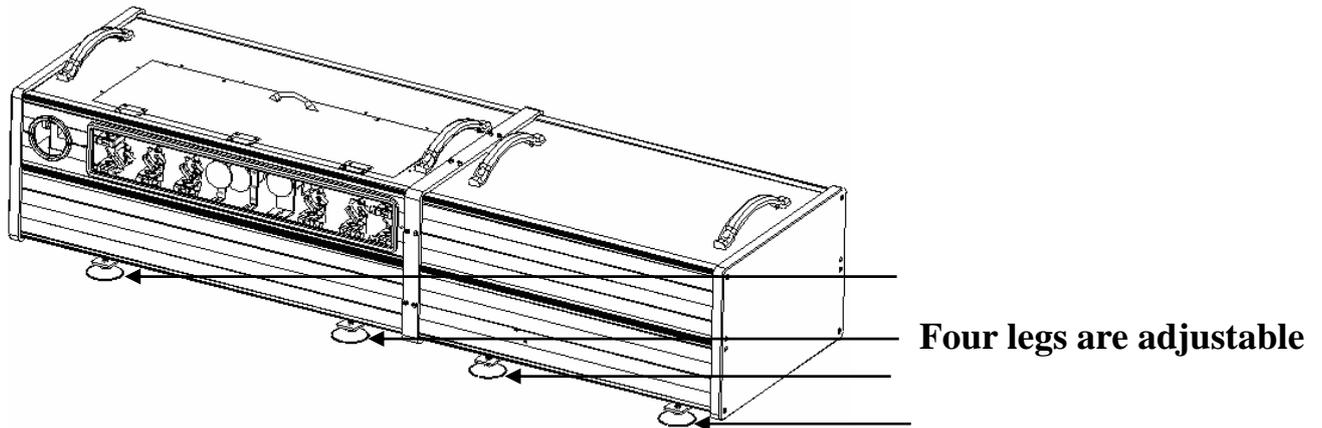


- 1、 Pull out of the plastic cap from the projector illustrated above.
- 2、 Insert M4 spanner included into hole
- 3、 Turn the spanner slowly to check the angle of inside gimbal
- 4、 Align screws in two holes till expected path you find
- 5、 Take out off spanner and cap two holes.

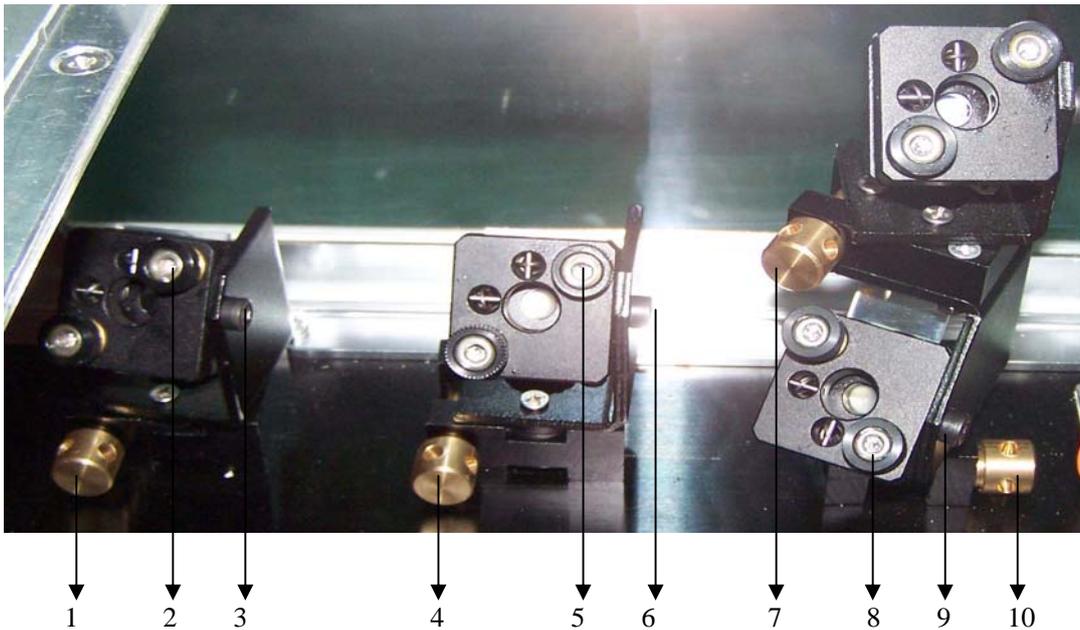
Target Beam setting

This projector is designed with flexible target beam setting means. One is to align inside gimbal introduced above; Now we will introduce another mean.

1、 Adjustable legs



2、 How to Set Target Beam



1、 4、 7、 10 Screw to adjust gimbal mount

3、 6、 9 Screw to fix gimbal

2、 5、 8 Screw to micro adjust gimbal

Operation Instruction

AC Power the Projector

The projector input voltage is AC110 ~ 240V 60/50Hz must be well grounded to ensure stable power. Remove the fuse holder and insert the fuse with AC 220V 50Hz 5A in the fuse holder, then insert the fuse holder in the empty slot in the mains input socket. The order to power the projector is the turn the main power on and then laser. To plug or remove connectors during operation of the laser projector may cause problems to laser projector. Therefore it is advised to ensure all connectors are well plugged prior to operation.

DMX Mode

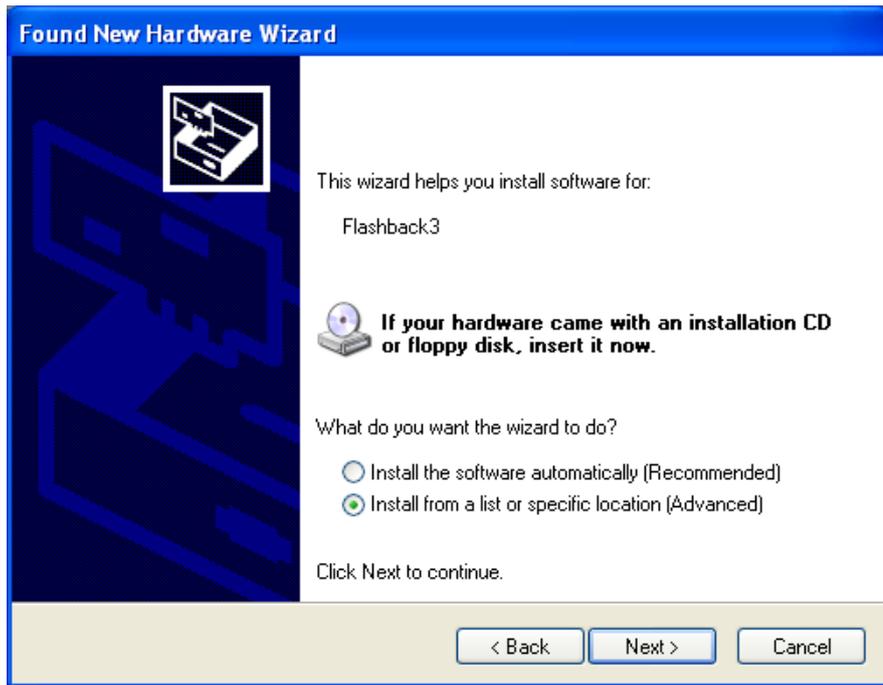
This projector is ready to be controlled in DMX mode through DMX address settings. Alternatively as per unique demand, 4, 8, 12, 24 channels are selectable at one time to realize certain customized functions.

Flashback 3 SE with extended BT - FW 6.20

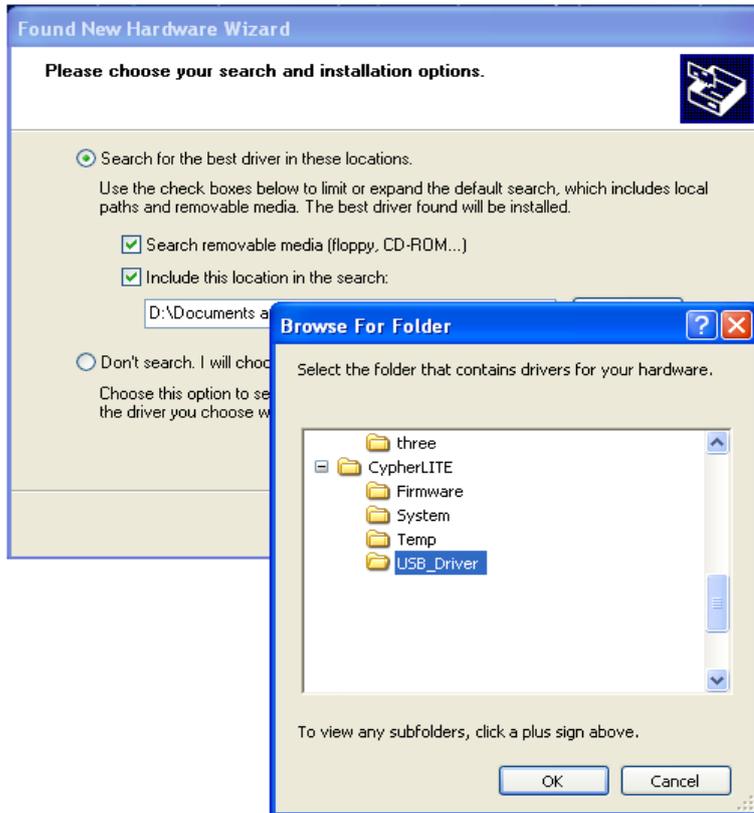
CHANNEL 1	0-31	33-95					97-159					161-223				225-255									
ACCESS	BLACKOUT	BASIC RANGE					STANDARD RANGE					EXTENDED RANGE				FULL RANGE									
CHANNEL 2	0-15	17-31	33-47	49-63	65-79	81-95	97-111	113-127	129-143	145-255															
PAGE	1	2	3	4	5	6	7	8	9	9 continued... (ALL 9 PAGES IN SOUND TRIG)															
CHANNEL 3	0-31		CUE1 = 33-35, CUE2 = 37-39, ..., CUE48 = 221-223										225-255												
CUE	BLACKOUT	1	2	3	7	8	9	10	... 48						SOUND TRIG										
CHANNEL 4	0-15	17-31	33 ...	... 64 ...	... 128 ...					... 255								
SPEED	100%	PAUSE	25% ...	... 50% ...	... 100% ...					... 200%								
CHANNEL 5	0-255										... Full brightness														
FADE	Black ...										... Full brightness				
CHANNEL 6	0-255										... Full size														
ZOOM	Zero size ...										... Full size				
CHANNEL 7	0-255										... Positive full size														
X SIZE	Negative full size ...					Zero size					... Positive full size														
CHANNEL 8	0-255										... Positive full size														
Y SIZE	Negative full size ...					Zero size					... Positive full size														
CHANNEL 9	0-255										... 360 degrees														
Z ANGLE	0 degrees ...										... 360 degrees				
CHANNEL 10	0-255										... Right														
X POSITION	Left ...					Center					... Right														
CHANNEL 11	0-255										... Up														
Y POSITION	Down ...					Center					... Up														
CHANNEL 12	0-255										... All points visible														
VISIBLE POINTS	No visible										... All points visible														
CHANNEL 13	0-31	33 ...	... 64 ...	... 128 ...					... 255									
SCAN RATE	DEFAULT	25% ...	... 50% ...	... 100% ...					... 200%									
CHANNEL 14	0-31	33 ...	... 255																					
RELEASE TIME	NONE	0.1	... 4 sec																						
CHANNEL 15	0-31	33-223										225-255													
COLOR	DEFAULT	RED - ORANGE - YELLOW - LIME - GREEN - CYAN - BLUE - PURPLE - PINK - RED										WHITE													
CHANNEL 16	0-31	33-255																							
FX-1	OFF	ON																							
CHANNEL 17	0-31	33-255																							
FX-2	OFF	ON																							
CHANNEL 18	0-31	33-255																							
FX-3	OFF	ON																							
CHANNEL 19	0-31	33-255																							
FX-4	OFF	ON																							
CHANNEL 20	0-31	G1 = 33-39, G2 = 41-47, ..., G20 = 185-191																		193-207	209-223	225-239	241-255		
FX-5 (Holo 20)	OFF	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	WALK	JOG	RUN	WARP
CHANNEL 21	0-31	33 ...	137-151										... 255												
FX-6 (Mach 1)	OFF	FULL SPEED CCW ...					STILL					... FULL SPEED CW													
CHANNEL 22	0-31	33 ...	137-151										... 255												
FX-6 (Mach 2)	OFF	FULL SPEED CCW ...					STILL					... FULL SPEED CW													
CHANNEL 23	0-31	33-255																							
FX-7	OFF	ON																							
CHANNEL 24	0-31	33-255																							
FX-8	OFF	ON																							

Cypher Lite Software Control

The projector is also capable to be control by the Cypher lite Software include in CD only if it is connected by above USB2.0 connector with computer, who will recognize the related hardware in the laser projector automatically. However, if it is the first time to use Cypher lite software to control this projector, it is required to intall “USB drive” in then same CD first as steps showed below.



Click “next”, the following window will jump to the screen.



Click "Browse" and select "USB_Driver" folder in new window, then press "OK" to return last step and by clicking "next" to finish the installation of "USB Drive".

Please copy the whole folder in CD to hard drive of your computer. Open CYPHERLT.EXE  the executive file offering you simply way to edit and play

DG effect, beam effect and other laser shows. As for detail how to use this file, please refer to "help file" inside this software. It will guarantee you smooth laser animation performance if it is downloaded in the memory card

ILDA Signal Control

Once this laser projector receives effective ILDA signal, it will give priority to be controlled under such signal even in the mode.

Safety Identification

Warning Identification



Warning: Avoid exposure to beam: avoid direct eye contact with laser light. Never intentionally expose your eyes or others to direct laser radiation.

Class Identification



This laser product is a ClassIV laser and has an interlocked housing. Avoid direct exposure to beam

Warranty Void Information



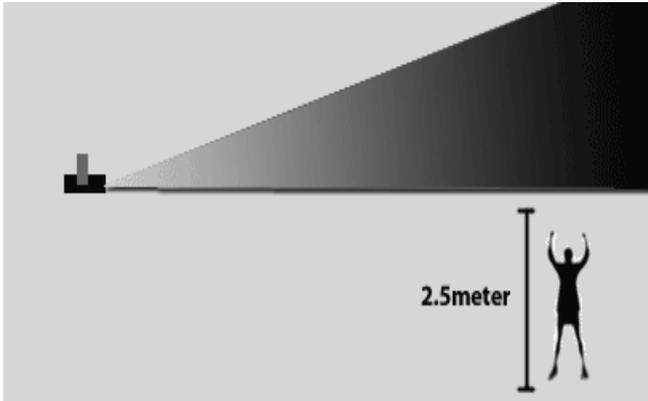
There are no user serviceable parts inside. Tampering or removing warranty seals will void your products limited warranty.

Product Information



A Combo label with the Product Model Number, Serial Number, Date of Manufacture, Laser Light Warning Label, Warranty Void Label and Interlocked Housing Label

Safety Installation

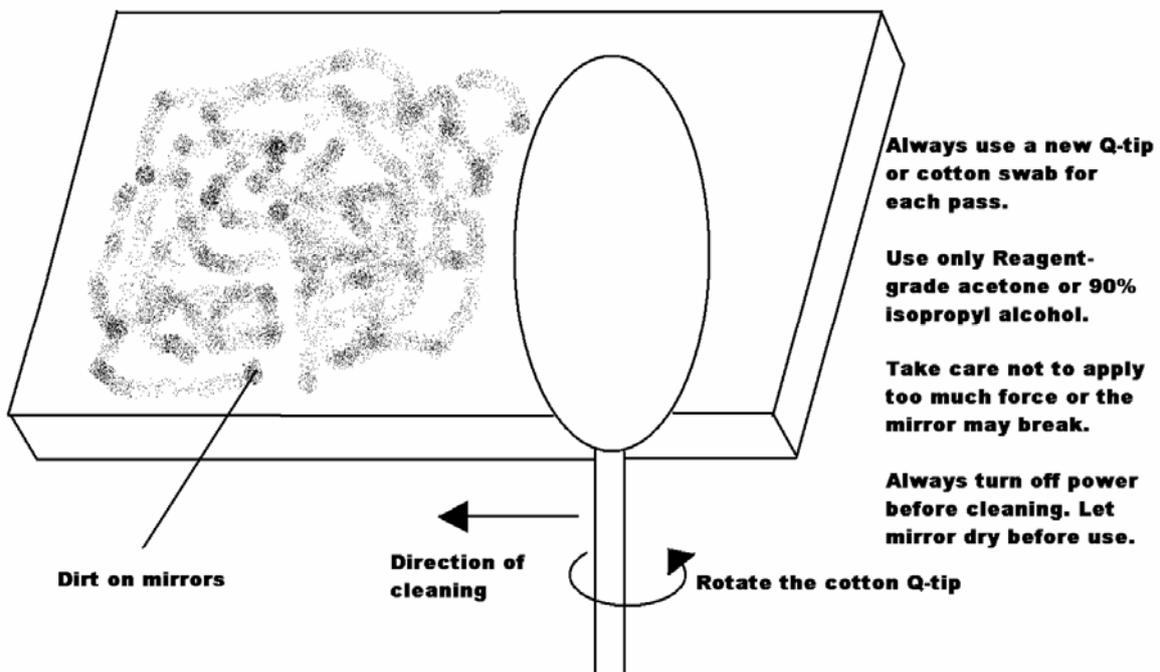


According to FDA Regulations you should operate this product in the fashion illustrated to the left.

Cleaning the Optics

One of the most critical components in laser projector is the optics. If the optics are dirty, you will experience a loss in power output. To ensure that your projector output is at its maximum power follow these simple instructions illustrated below. It is advisable that you do this on a regular basis, especially if the projector is installed in a location which is subject to large amounts of dust.

NOTE: Do not use any coarse material such as newspaper to clean the optics. This will scratch the surface and ultimately will lead to loss in power output.



Accessories

LASERTECH 1500
M4 Pan Hex Spanner
DB25 Cable
DMX Cable

User Manual
Power Cable
USB Cable
CD

Notice: the quantity is limited to 1 PC.

ILDA DB25 REFERENCE CHART

PIN	SIGNAL	VOLTAGE
1	X+	5V to 5V
2	Y+	5V to 5V
3	Intensity/Blanking+	0V to 2.5V
4	Interlock A	Connected to pin 17 inside
5	Red+	0V to 2.5V
6	Green+	0V to 2.5V
7	Blue+	0V to 2.5V
8	Deep blue+	0V to 2.5V
9	Yellow+	0V to 2.5V
10	Cyan+	0V to 2.5V
11	Z+	Depth Z 5V to 5V
12	Not connected	
13	Shutter	0V to 5V
14	X-	5V to 5V
15	Y-	5V to 5V
16	Intensity/Blanking-	0V to 2.5V
17	Interlock B	Connected to pin 4 inside
18	Red-	0V to 2.5V
19	Green-	0V to 2.5V
20	Blue-	0V to 2.5V
21	Deep blue-	0V to 2.5V
22	Yellow-	0V to 2.5V
23	Cyan-	0V to 2.5V
24	Z-	5V to 5V
25	Ground	Cable shield