



LASER 10W RGB

User Manual



CONTENTS

INTRODUCTION _____	3
SAFETY INFORMATION _____	3
PRODUCT INFORMATION _____	4
INSTALLATION _____	4
CONNECT _____	5
DMX CHART _____	8



DANGER! LASER RADIATION. AVOID DIRECT BEAM IRRADIATION. CLASS 4 LASER PRODUCT.



WARNING! Use a clamp to secure the device. Lock the clamp with the fasteners.



WARNING! When attaching the unit to a truss or other structure at an angle other than the yoke hanging vertically downward, use a half-joint type clamp.



WARNING! Position or cover the unit so that the front optical elements are not exposed to sunlight or any other strong light source at any angle - even for a few seconds. **See Figure 1.** optical elements can focus sunlight, posing a potential fire hazard and causing damage.



IMPORTANT: Do not direct strong light from other devices to the device, as intense lighting can damage the mechanical-optical.

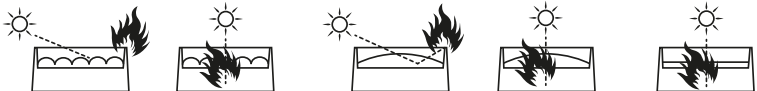


Figure 1.

INTRODUCTION

THANK YOU FOR PURCHASING **LASER 10W**. FOR SAFETY REASONS AND TO ENSURE THE TROUBLE-FREE OPERATION, CAREFULLY READ THE INSTRUCTIONS.

SAFETY INFORMATION

- Please keep this User Manual for future consultation. If you sell the fixture to another user, be sure that they also receive this instruction booklet.
- Unpack and check carefully there is no transportation damage before using the fixture.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the fixture.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Disconnect main power before servicing and maintenance.
- Use safety chain when fixes this fixture. Don't handle the fixture by taking its head only, but always by taking its base.
- Maximum ambient temperature is: 40°C Don't operate it where the temperature is higher than this.
- In the event of serious operating problem, stop using the fixture immediately. Never try to repair the fixture 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 connect the device to any dimmer pack.
- Do not touch any wire during operation and there might be a hazard of electric shock.
- To prevent or reduce the risk of electrical shock or fire, do not expose the fixture to rain or moisture.
- The housing must be replaced if they are visibly damaged.
- Do not look directly at the light spot while the fixture is on.

PRODUCT INFORMATION

- Voltage: 90-250V/AC, 50/60Hz
- Rated Power: 180W
- Waterproof Level: IP20
- Work Enviroment: outdoor and indoor, -30°C - 40°C
- Scanner: 40K Hight-speed optical scanner (+/-) 30° big angle scanning
- Laser: RGB analog modulate, 30 KHz frequency
RED laser: 3000mW, wavelength 638nm
GREEN laser: 3000mW, wavelength 525nm
BLUE laser: 4000mW, wavelength 450nm
- Beam Diameter: <6mm, Divergence <1.5mrad
- 8 Working Modes:
ILDA mode (PC control), DMX512 (18/25 CH), PRG (TF card program), ILD (TF card program), SOUD (Sound Active) Mode, AUTO Mode, Outdoor Mode, Master/Slave
- Play Program Format: .ild laser show document
- 10 Safety Configure: Security protection, Laser key switch, laser remote interlock, SFS Control (scanner faail safety control ON/OFF), flying rings bol

INSTALLATION

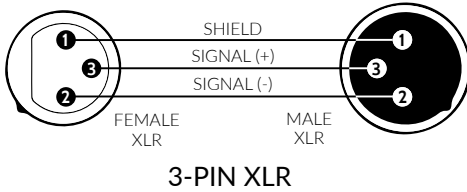
The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. Always ensure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. 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 and has no one pass by or under it.

CONNECT

The device is equipped with the following interfaces:

1. DMX (in/out): XLR 3(5)-pin socket
2. Power (in/out): powerCON socket

The connection is performed using cable with XLR-female -> XLR-Male plugs.



CAUTION! At the last fixture, the DMX signal has to be terminated with a terminator. Solder a 120Ω resistor between signal (-) and signal (+) into a XLR plug and plug it in the DMX output of the last fixture.

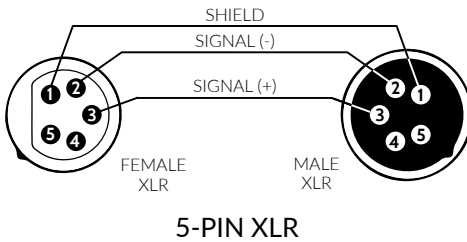


Diagram of connection of devices by DMX cable.



The connection is performed using power cable with powerCON connector (included). The device must be operated by qualified personnel.

CAUTION! In the case of cable damage do not attempt to repair. Replacement or repair can be made only on the manufacturer or by a person with appropriate permissions.

Notice

1. Do not exposure the human eye direct to laser beam.
2. Do not turn on and off the unit frequently.
3. Before using this unit make sure the power supply is ground.
4. This unit is intended for indoor use only and should be prevented form water, moisture and shake. The working temperature of this unit is -30° – 40° , do not use this continuously over 6 hours, otherwise it shortens the lifetime of the unit.
5. Use cleaning tissue to remove the dust absorbed on the external lenses periodically to optimize light output.
6. Do not remove or break the warranty label, otherwise it void the warranty.
7. Always replace with the exact same type fuse, replacement with anything other than the specified fuse can cause fire or electric shock and damage your unit, and will void your manufactures warranty.
8. Full pure diode laser with more stable performance and longer working life. Diode solid-state (DSS) laser is that when power on, the diode will have laser output directly. It can work properly between -30°C and 40°C .
9. Made of analog laser modulation. Users can dimmer the laser brightness linearly to makes the laser light more colorful.
10. Graphics & Effects: Beam show and animated graphics show patterns.
11. TF Card: 8GB, for storage build in program and downloading program.

12. Safety intelligent: PC control mode will shut off laser automatically without trigger signal. The scanner failure protection will shut off the laser signal and the shutter will block the laser output automatically, so as to avoid the single beam coming out.
13. Applicable for all kinds of large-scale outdoor performances, outdoor lighting projects.

Black: If the signal is not received, the light is black.

System priority to read TF card programs. When a TF card is detected, but the card has no ILD file, no matter what the built-in mode, laser is always closed, so the TF card must have a ILD program file, otherwise, do not insert the card.

To read a Flash memory program, you need to Load Flash the program. After downloading, you can not plug in the card, and then select PRG/ILD mode. If the card is inserted, it is read card program file.

Attention

1. The system just support short file name, file name (include folder name), most 8-bit file name and 3 extension name, file name and extension name formed by letter, number and under line. File name can't over 8 and no Chinese words, otherwise the system can't identify it.
2. CF card can't mix other file, most support 20 folders, every folder can save maximum 255 files and 10 PRG files.

Voltage Specyfication.

Input Voltage	Total Power	Frequency
90~250V AC	180W	50/60Hz

LCD table lists the functions of the menus:

1 Menu	2 Menu	3 Menu
1. Function Mode	1. DMX-512 Mode/DMX-512 2. Auto Mode 3. Music Mode 4. ILDA Mode/ILDA	
2. Show Listing	Choose List All The List	
3. Play Show	Choose List All The List	
4. Play Setup	Play Setup 1. Play Speed 2. Play Mode	1. Play Speed / 50%
		2. Loop Play / Random Play
5. Addresss Setup	Address Setup / 001	
6. Channel Setup	Normal Mode Expert Mode	
7. Laser Setup	Laser Setup 1. Scanner 20KPPS 2. Color RGB 3. Laser Analog 4. Invert Normal 5. Image Size XY 6. Position XY	1. Scan Rate / 20KPPS
		2. Color Setup/ Single
		3. Laser Type / TTL / TTL Analog
		4. Normal / XY Invert X / X Invert Y / Y invert XY/ XY
		5. Image Size / X / X Size Y/ Y
		6. Position Setup / position X / x position Y/ Y
8. General Setup	General Setup 1. Reset Default 2. Safety Protected 3. Master Setup 4. Back Light 5. Language 6. Display Setup 7. About System	1. Reset Default / Yes / No
		2. Saffety Protected / Turn ON/ Turn OFF
		3. Master Setup / Turn ON / Turn OFF
		4. Back Light / Normally ON / Delay 15s OFF / 15
		5. Language / Chinese / English
		6. Display Setup / Rotate 180 deg / Normal Display
		7. Laser System 2.9 / Software / Version 1.0 / Ver 1.0 YM: 2020030601

DMX CHART

1. STD/Normal mode: 10CH

CHANNEL		VALUE	DESCRIPTION
1	Open to turn off the lights	0	Turn off the lights
		1-255	Turn on the light 1-100%
2	Stroboscopic	1-255	Stroboscopic speed selection
3	Pattern size	0-255	Patterns are chosen from large to small
4	A horizontal position	0-255	Select the horizontal position. The value 128 is the middle position. It is valid only when CH3 is 1-255
5	Vertical position	0-255	The vertical position is selected. The value 128 is the middle position. The value is valid only when CH3 is 1-255
6	Design file	0-255	Select a pattern file from the pattern library file
7	Color	0-63	Fixed color selection
		64-95	Fixed color/change color effect speed selection
		96-127	Change color effect speed selection
		128-159	Color change effect speed selection/flow effect speed selection
		160-191	Flow effect speed selection
		192-223	Flow effect speed selection
		224-255	Gradient effect speed selection
8	Line sweep speed	0-127	Line scan speed selection
	Point sweep speed	128-255	Point scan speed selection
9	Pattern library and effect library	0-255	Select one pattern library and one effect library for every 8 values
10	Automatic trigger	0-26	Default automatic speed
	Voice control trigger	27-127	Select self-going speed
	Line sweep speed	128-255	Select voice sensitivity

1. STD/Normal mode: 34CH

CHANNEL		VALUE	DESCRIPTION
1	Open to turn off the lights	0	Turn off the lights
		1-255	Turn on the light1-100%
2	Stroboscopic	1-255	
3	Pattern size	0-255	Patterns are chosen from large to small
4	A horizontal position	0-255	Select the horizontal position. The value 128 is the middle position. It is valid only when CH3 is 1-255
5	Vertical position	0-255	The vertical position is selected. The value 128 is the middle position. The value is valid only when CH3 is 1-255
6	Design file	0-255	Select a pattern file from the pattern library file
7	Color	0-63	Fixed color selection
		64-95	Fixed color/change color effect speed selection
		96-127	Change color effect speed selection
		128-159	Color change effect speed selection/flow effect speed selection
		160-191	Flow effect speed selection
		192-223	Flow effect speed selection
		224-255	Gradient effect speed selection
8	Line sweep speed	0-127	Line scan speed selection
	Point sweep speed	128-255	Point scan speed selection
9	Pattern library and effect library	0-255	Select one pattern library and one effect library for every 8 values
10	Automatic trigger	0-26	Default automatic speed
	Voice control trigger	27-127	Select self-going speed
11	Rotate the Z	1-127	Rotate Z Angle selection
		128-255	Rotate Z speed selection
12	Rotate the X	1-127	Rotate X Angle choice
		128-255	Rotate X speed selection

CHANNEL		VALUE	DESCRIPTION
13	Rotate the Y	1-127	Rotate Y Angle choice
		128-255	Rotation Y speed choice
14	The level of mobile	1-127	Horizontal move position selection
	Vertical movement	128-255	Horizontal movement speed selection
15	The zoom	1-127	Vertical move position selection
	Gradually draw	128-255	Vertical movement speed selection
16	The level of mobile	1-127	Zoom size selection
	Vertical movement	128-255	Zoom speed selection
17	The zoom	1-255	Gradient speed selection
18	X wave	1-127	X wave speed selection
	Y wave	128-255	Y wave velocity selection
19	stroboscopic	1-255	Stroboscopic speed selection
20	Pattern size	0-255	Patterns are chosen from large to small
21	A horizontal position	0-255	Select the horizontal position. The value 128 is the middle position. It is valid only when CH3 is 1-255
22	Vertical position	0-255	The vertical position is selected. The value 128 is the middle position. The value is valid only when CH3 is 1-255
23	Design file	0-255	Select a pattern file from the pattern library file
24	Color	0-63	Fixed color selection
		64-95	Fixed color/change color effect speed selection
		96-127	Change color effect speed selection
		128-159	Color change effect speed selection/flow effect speed selection
		160-191	Flow effect speed selection
		192-223	Flow effect speed selection
		224-255	Gradient effect speed selection

CHANNEL		VALUE	DESCRIPTION
25	Line scanning speed	0-127	Line scan speed selection
	Point sweep speed	128-255	Point scan speed selection
26	Pattern library and effect library	0-255	Select one pattern library and one effect library for every 8 values
27	Rotate the Z	1-127	Rotate Z Angle selection
		128-255	Rotate Z speed selection
28	Rotate the X	1-127	Rotate X Angle choice
		128-255	Rotate X speed selection
29	Rotate the Y	1-127	Rotate Y Angle choice
		128-255	Rotate Y velocity
30	Dynamic horizontal shift	1-127	Horizontal move position selection
		128-255	Horizontal movement speed selection
31	Vertical movement	1-127	Vertical move position selection
		128-255	Vertical movement speed selection
32	The zoom	1-127	Zoom size selection
		128-255	Zoom speed selection
33	Gradually draw	1-255	Gradient speed selection
34	X wave	1-127	X Wave velocity selection
	Y wave	128-255	Y Wave velocity selection



FLASH-BUTRYM Sp.j.

Skarbimierzyce 18 • 72-002 Dołuje • POLAND

WWW.FLASH-BUTRYM.PL