



CS-400RGB

USER MANUAL



Please read this manual carefully before use!

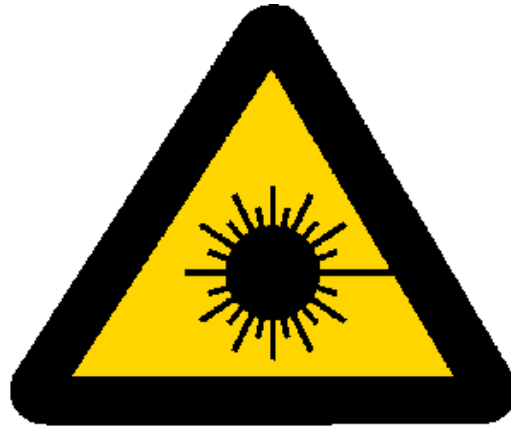
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Checking Parts

Please check if the following parts are included:

- 1 x CS-400RGB Laser
- 1 x Power cable
- 1 x User manual



DANGER LASER RADIATION!

Avoid direct eye exposure!

Laser radiation can cause eye damage and/or skin damage

All protective measures for a safe operation of this laser must be applied.

1. SAFETY INSTRUCTIONS

- If the device has been exposed to drastic temperature fluctuation, do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- 1. The laser must only be used for shows. The operation is only allowed if it is controlled by a skilled and well-trained operator.
- Never leave this device running unattended and keep it away from children and unauthorized persons.
- 2. Keep away from heaters and other heating sources. In order to safeguard sufficient ventilation, leave 50 cm of free space around the device.
- 3. Never direct the laser beam to people or animals.
- 4. CAUTION LASER DIODE: Never unscrew the housing!
There are no serviceable parts inside the device. Maintenance and service operations shall only be carried out by authorized dealers.
- 5. Always disconnect from the mains when the device is not in use or before cleaning it.
- **HEALTH HAZARD! Never look directly into the light source, as sensitive persons may suffer an epileptic shock!**

2. OPERATING DETERMINATIONS

6. The operator has to make sure that laser radiation – also reflected laser radiation – higher than the highest allowed level is avoided by technical or organisational measures.
7. Make sure that the used voltage is : AC 220V~240V, 50/60Hz
8. If the device is used in a flying installation, the mounting brackets and an appropriate safety-rope must be fixed.
9. Laser effects are not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
10. In some countries, the operator must notify the accident insurance and the authority for industrial safety, before operating a laser. For more information, contact the relevant authorities.
11. Please consider that unauthorized modifications on the device are forbidden due to safety reasons!
12. If this device will be operated in any way differently than described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, etc.

Thank you for using the Club series RGB („7 colors“) laser projector. For the sake of safety and better Operation of this projector, please read this manual carefully before use and operate the projector , lest incur any personal injury or damage to the projector.

3. PACKAGE LIST

When you unpack the case, please take time to examine the items as follow:

- projector 1
- Power cord 1
- Owner's manual 1
- projector sling 1

4. PRODUCT INTRODUCTION

Club Laser RGB laser performance System adopts the latest appearance design to make it compact and light.

Club Laser RGB laser projector adopts the semiconductor laser source. Red laser wavelength is 650nm, and green laser wavelength is 532nm, and blue is 473nm. It is seven colors. Laser generator is double-temperature -controlled power supply. The laser light source has a long life span and highly stability, complying with the international Standard.

There are 85pcs latest patterns in it and 25pcs animation effect performances (4pcs patterns can be operated individually at one time), can be used for word performance, animation performance, laser beam performance, with spatial, projection and animation effects. The scientific laser beam route design and fast laser vibratory mirror System will announce a new era of laser lighting performance. Control mode.- It has 6 DMX-512 Signal control channels, multiple control modes : DMX-512signal control, music control, automatic , master/slave and ILDA Controller. There are 85pcs patterns in it, with different laser performance at the same time 7 colors laser projector was applied for the place of public entertainment such as disco, night club, TV Station and theater etc.

5. FUNCTION INTRODUCTION

RGB laser projector has much function. Abundant laser effect patterns, automatic-switch ILDA connector, DMX-512 double-frame patterns controlling and preprogrammed four- frame pattern individually controlling effect ;and 18pcs different color controlling> perfect master & slave synchronization effect, this is will be more convenient for your edition and performance, with the latest laser performance —rotation, turning, moving, gradual drawing, dotting & breakpoint etc. This laser product has 6 channels DMX-512 Signal control, can perform many different laser effects, such as laser brightness adjustment ,laser strobe effect, time tunnel effect, 3D effect and so on. Meanwhile, it can be also controlled by the music, and the sound active effect can be controlled by the rhythm.

6. INSTRUCTIONS

After unpacking, check whether the laser lighting has been damaged by transport such as any screw loosening, lighting tube broken, etc. If everything is OK, select a proper location, hang the light and adjust its angle properly, then connect the power cord and the ground wire before switch on at the means.

This product belongs to grade-1 protective equipment. Notice that while using this laser lighting the green and yellow wire has to connect the ground properly by Professionals. Please examine the electrics and voltage before power on it. We suggest customer apply 110V/230V or a transformer. 20 seconds after powered on the projector, it will self-check and then can be used.

Because of the radiate laser generator's own characteristic and to secure the laser's long life span. please terminate it for 10 minutes after using it for 30 minutes. Avoid

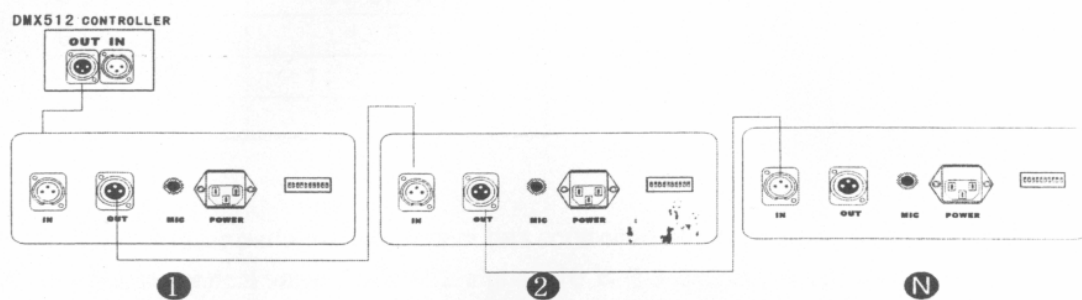
being interfered by other Signals while controlled by Fire Phoenix Software or using the DMX-512 Signal Controller, such as wireless interphone & high radiated source.

7. CHANNEL'S FUNCTION

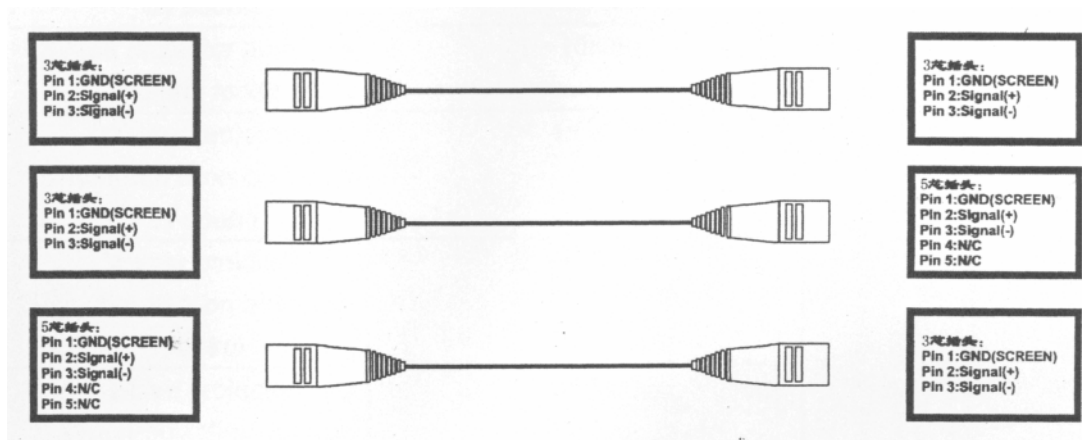
Channel		DMX-512 numerical value 0~255	controlling
CH1	Control modes selection	0~41	Laser light switch off
		42~83	DMX-512: Primary programmed laser effects performance
		84~125	DMX-512: Double patterns A
		126~167	DMX-512: Double patterns B controlling
		168~209	DMX-512: Automatic control
		210~255	DMX-512: Sound active control
CH2	Effects mode	0~255	Select the primary programmed laser effects
	Double patterns		Patterns selection of double patterns A or double patterns B
CH3	Effects mode	0~255	Dot horizontal movement
	Double patterns		Different controlling effect selection of double patterns A or B.
CH4	Effects mode	0~255	Dot vertical movement
	Double patterns	0~127	Moving speed adjustment of double patterns A or B
		128~255	Double patterns changes into single pattern; moving speed adjustment.
CH5	Color	0~255	18 colors effect control mode.
CH6	Color speed	0~255	Adjust the colors changing speed from fast to slow.

8. SIGNAL CONNECTION AND ADDRESS DIALING

When the Controller transmits DMX512 Standard Signals, the connection of which is accomplished through the "input" and "output" 3-pin XLR socket. When a console Signal Outputs to the unit, it must correspond to the Pin 1 Ground, Pin 2 Positive and Pin 3 Negative of the XLR socket on the unit. If it does not work just try exchanging the Pin 2 and Pin 3 (these 2 pins are generally do not need exchanged for consoles). The Signal wire length should not exceed 100m in order to avoid the interference of the other Signals by any other electric appliances.



If your DMX-512signal Controller adopt 5 pins XLR plug, you need one transfer line- from 5 pins to 3 pins the transfer method as following:



When control Signals from the console inputs into 7 colors laser performance System. The projector must be assigned a data Start address code, so that a unit may act on the corresponding control Signal. Thus, when any Controller is used, every unit must have its own data Start address Accordingly, the address of the first unit is set as 1, the second unit has also channels based on the first code, so its address code is 7, the third unit is set at 13, so on and so forth (the setting method will also depend on the specific console, the above is just for general cases).

The details of DMX-512 Signal control mode address switch as follow:

Lamp no:	Start address	Control switch (ON)
1	1	1
2	7	1, 2, 3
3	13	1, 3, 4
4	19	1, 2, 5
5	25	1, 4, 5
6	31	1, 2, 3, 4, 5
7	37	1, 3, 6
8	43	1, 2, 4, 6
9	49	1, 5, 6
10	55	1, 2, 3, 5, 6
:	:	:

This 7 colors laser performance System has controlled by on/off switch address code. 1 to 9 are the numerical value DMX 512 Signal, 10 is the exchange switch of DMX512 Signal control and music control, automatic, master and slave. Control mode set up detail as bellow:

MODE	Control switch (ON)
1 DMX-512	10:ON
2 Single projector controlled by sound	1:ON
3 Single projector automatic control	1— 10:OFF
4 master projector synchronization controlled by sound	1:ON
5 Master projector synchronization automatic control	1— 10:OFF
6 Slave projector synchronization control mode	2:ON

Under sound active control mode: There is a sound sensitivity adjustment function, so you can adjust it to the Optimum sound according to your requirement.

Scanning Operation of seven colors selection and color change (The address code is under DMX-512 control)

Channel	Value	Function
1	42-83	
2	0-9	
3		Horizontal scanning adjustment
4		Vertical scanning adjustment
5	0-247	Seven colors selection
	248-255	Color change
6		Adjustment of color changing speed(fast to slow)

Attention: The light will shutoff automatically when the dotting scanning function keeps still for 15seconds.

When the value of both Channel 3 and Channel 4 is 0, the dotting will be in the middle and lighting after 15 seconds' stagnation.

Operation of double-pattern control mode
(The address code is under DMX-512 control)

Channel	Value	Function
1	84-125	Pattern A control
	126-127	Pattern B control
2		Pattern selection
3		Control mode selection
4	0-127	Double pattern moving speed adjustment (slow to
	128-255	Single pattern moving speed adjustment(slow to fast), double pattern to single pattern (pattern A or pattern
5		Color control selection
6		Color changing speed adjustment (fast to slow)

Operation under ILDA connector control mode:

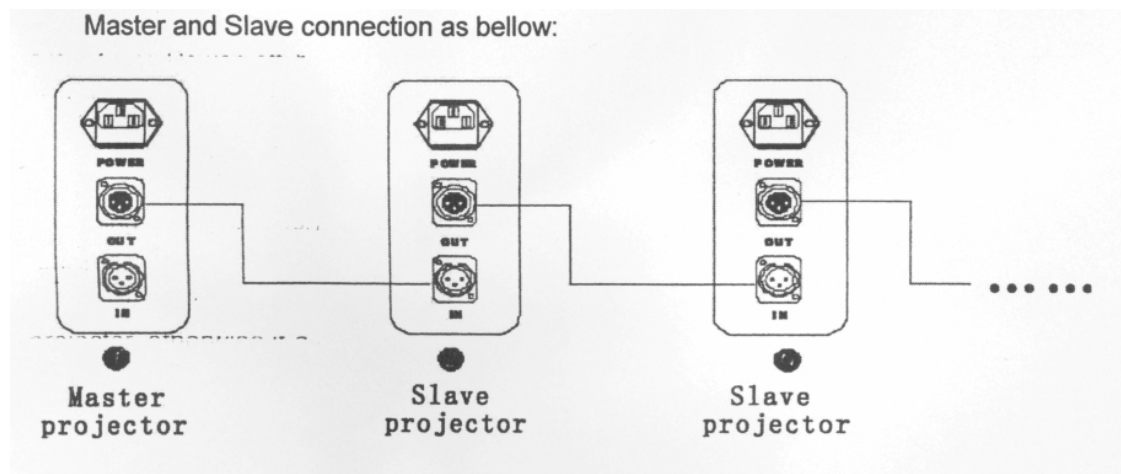
Connected to ILDA Signal, the switch will automatically turn to ILDA connector control mode.

Attention: Power off before the connection of ILDA Signal to avoid the damage of the projector.

Attention of Master/Slave Control Mode:

1 .You can not connect to the DMX-512 Controller when the master and slave projector are operating synchronously, otherwise the master and slave synchronous functions can't be realized;

2. When operating the master and slave controlling, it must be only one master projector, otherwise it can not be operated synchronously.



9. SAFETY MARKS



- Before maintenances, please refer to eligible personnel.
- Please make sure to switch off the power before Installation or maintenance.
- Please do not use power and lasers that do not conform to the current specifications.
- Please do not see the laser light directly, in case it might damage the eyes.
- Avoid electric shock! Bulb overheating;
- Do not use any power voltage and light type of different specifications
- Do not expose to the laser light outside.
- Do not use it frequently under the humid atmosphere.
- Keep the reflecting mirror clean and dry.

10. MAINTENANCE

Maintenance should be performed every 15-day period, by using a sponge which is dipped with alcohol, rather than wet cloth or other chemical liquid, to clean the mirror.

Always disconnect from the mains when the device is not in use or before cleaning it.

There are no serviceable parts inside the device. Maintenance and service operations are only to be carried out by authorized dealers.

Never look directly into the light source.

Always disconnect from the mains when the device is not in use or before cleaning it.

11. TECHNICAL SPECIFICATIONS

Power supply: AC 110V/AC 220V, 50/60 Hz

DMX 512: 10 channels

Condition temperature: -10°C ~ +35°C

Operating Environment: indoor

Signal input power: -5V~+5V

Power consumption: 150W

Working mode: DMX512, Live Play @ Music (Sound Programme), ILDA

Optical power: ca. 400mW RGB (white)

Green: ca. 100mW / 532nm; Red: ca. 250mW / 650nm;

Blue: ca. 75mW / 473nm

Laser classification: 3b

Weight: 20 kg

Dimensions: 560 x 410 x 230 mm (L x W x H)

PLEASE NOTE

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

Laserworld cannot be made liable for damages caused by incorrect installations and unskilled operation!

EU- Declaration of Conformity



We hereby confirm that the following device

Laserworld Club CS-400RGB Laser Projector

complies with the essential safety requirements, laid down in the regulations of the committee to assimilate the provisions of law of all participating EU states on the electromagnetic compatibility (89/446/EEG).

The device has been classified considering the following EU-norms on electromagnetic compatibility:

DIN EN 55103-1: 1996

DIN EN 55103-2: 1996

DIN EN 61000-3-2:2000 + A2: 2005

DIN EN 61000-3-3:1995 + A1: 2001

Assessment of compliance of the product with the requirements relating to the Low Voltage Directive (LVD) was based on the following standards:

DIN EN 60065 : 2002

Furthermore, the device is verified in correspondence to the laser class regulations DIN EN 60825-1, if properly set up according to the upper mentioned laser safety regulation.

After installing the device, an inspection and official approval is indispensable for the overall setup. The inspection must follow the European guidelines EN 60825-1 and corresponding regulations for the prevention of accidents BGV-B2. This declaration is executed on behalf of the CS-400RGB Laser manufacturer

Laserworld (Switzerland) AG

based in:

Rheinblick Residenz
Oberstrasse 1
8274 Tägerwil
SWITZERLAND

Authorized person:
Supervisory board Ms Rhea Gössel

place of business: 8274 Tägerwil / Schweiz
company number: CH-440.3.020.548-6
Commercial Registry Kanton Thurgau

Laserworld (Switzerland) AG
c/o LOG.ON GmbH
Raiffeisenstrasse 8
78658 Zimmern ob Rottweil
GERMANY

VAT number: DE252331844
WEEE-Reg.-Nr.: DE 93014361

www.laserworld.com
info@laserworld.com