

The use manual

6 heads laser bar with scanner



Please spend a few minutes to read this manual fully before operating this laser!

1. Product and Package Contents

Please check if all listed parts are included and undamaged. Included in delivery:

- 1 x laser projector
- 1 x key (for key switch)
- 1 x Interlock connector
- 1 x powercon power cable
- 1 x manual

2. Preliminary Warning Notices

1. Please use this device only according to these operating instructions.
2. Do not use the device if there are any visible damages on housing, connector panels, power supplies or power cords.
3. Never look directly into the light source of a laser projector. Danger of damage to the eyes or even blindness in extreme circumstances!
4. Do not operate the device at high humidity or in the rain.
5. Protect device against dripping or splashing water. Do not place any liquid filled containers near to this device.

Any warranty claims are void if the warranty label is removed or tampered with in any way.

3. Initial Operations, Safety Instructions

1. Make sure to use correct voltage; see information on device & in this manual.
2. Make sure that the device is not connected to mains during installation.
3. Installation has to be done by technical experienced and qualified persons according to safety regulations of the respective country.
4. Always ensure that maximum permissible exposure (MPE) is not exceeded in areas accessible to the public or members of staff.
5. In some countries an additional inspection by technical control institutes could be necessary.
6. Connect an easily accessible interlock connector or circuit breaker to the projector.
7. The power supply should be easily accessible.
8. When installing the laser mount it with a minimum distance of 15 cm from walls and objects.
9. For safe setup e.g. on walls or ceilings please use a safety cord. The safety cord should be able to withstand tenfold the weight of the device. Please follow the accident prevention regulations of professional associations and/or comparable regulations for accident prevention.
10. If the device has been exposed to great temperature changes, do not switch it on immediately. Condensation (or any moisture/water formed) may damage this device.
11. Never use dimmer, RC or other electronically switched sockets. Whenever possible, do not use the laser projector together with large appliances (especially fog machines) on the same mains!
12. Ensure sufficient ventilation and do not place the device on any warm or heat radiating surface. Especially the ventilation openings must not be covered!

13. Ensure that device does not get over-heated. Make sure that the device is not exposed to spotlights (especially moving heads). Heat of spotlights could overheat laser in a little while and leads to a degradation of performance.



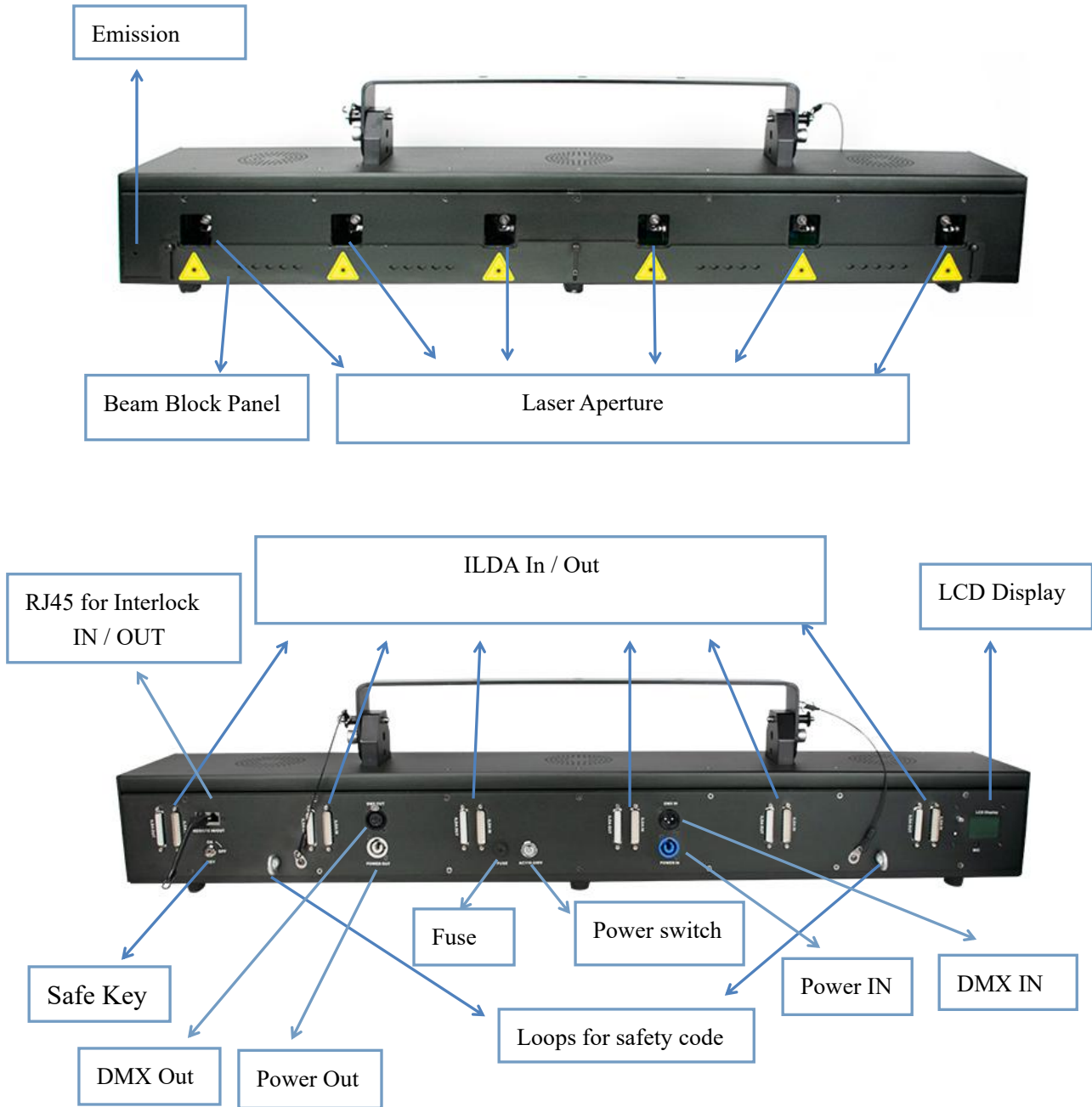
4. Working on the Device

- 1.This product has no user serviceable parts inside and should only be maintained and serviced by a qualified engineer.
- 2.Be sure that the mains plug is not connected to the power supply while installing the device.
- 3.Take off all reflecting things like rings, watches etc. before starting to work with or at the projector.
- 4.Only use non-reflecting tools to work on device. Wear protective clothing (like goggles, gloves etc.) according to laser power and wave- length of the laser.

5.Service Notes

- Moisture and heat can reduce lifetime of the laser system dramatically and expires any warranty claim.
- Quick on/off switching of this device will reduce durability of the laser diode dramatically.
- Avoid sharp knocks and shocks to this device and ensure sufficient protection during transportation. Look after your product.
- To increase durability of your laser, protect device against overheating:
 - Always ensure sufficient ventilation.
 - Do not face spotlights (especially moving heads) to the device.
 - Check temperature after approx. 30 minutes with each new installation.If necessary install the projector at a place with different temperature.
- Keep the device dry. Protect it from moisture, rain and damp.
- Switch off device when it is not needed. Diodes are switched on and can wear out even if there is no visible laser output.
- **Removal of the warranty label as well as damages to the device caused by improper handling, neglect of the safety instructions and service notes will void the warranty.**

Device & Connections



Operation

1. Power

Make sure that your device is provided with the correct voltage. Wrong voltage could lead to irreparable damages. Please find the correct voltage data in the synoptical table at the end of this manual as well as at the rear side of the device. It must be ensured that the device is not directed to people or inflammable objects during installation. Connect the power cable to 'Power in' at the device and then to the mains.

2. DMX in / DMX out

The device can be controlled via DMX. There are a 'DMX in' (DMX input) and a 'DMX out' (DMX through) interface on the rear side of the device. Connect 'DMX in' via a DMX cable to a DMX controller. 'DMX out' is intended to Daisy Chain the control signal to the 'DMX in' interface of a further RTI NEO device. The LED shows if there is any signal present. It does not flash if there is a corrupt signal coming in.

The device offers 92 channels, starting from the selected start address. Each universe can control a maximum of 8 devices and each of the 6 outputs can be controlled individually.

3. Interlock (RJ45 Interlock)

There are a 'Interlock in' and a 'Interlock out' (Interlock loop) interface on the rear side of the device. The RJ45 interlock connector is provided for testing purposes. If the 'Interlock in' is plugged in the laser sources of the devices get enabled (if key switch is in 'ON' position). Always use the Interlock connector located on the left of the 'DMX active' LED as an input. 'Interlock out' can be used as interlock loop to switch all connected devices simultaneously with only one E-Stop.

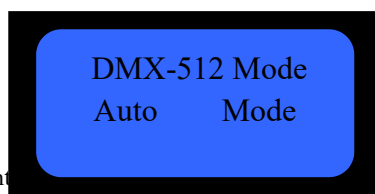
4. Key Switch

There is a key switch on the rear side of the device. Please insert the key into the key switch and turn it to 'On' position to enable laser output. Turn the key to 'Off' to switch off the device. Please remove the key to avoid unauthorized access.

5. Fuse

There is a fuse at the rear side of the device. If the fuse should blow, please change it by a new 5AT fuse. If the problems recurs, please contact your dealer service department.

6. LCD Display



 LED pilot



Select Menu

1) LED Pilot manual

Laser Key RG:flash Slowly
 Safety Protected R: ON G:OFF
 DMX And Slave Mode RG:flash Fast
 Auto Mode R: OFF G:Slow
 Music Mode, R: flash Fast G:ON
 ILDA Mode R: OFF G: Flash Fast

2) Select Menu

Select the desired function menu by rotating left and right. When the menu height is selected, press the OK/Back to select the function.

2: LCD English Menu Function list:

Main Menu	Secondary menu	Third level menu
1、 DMX-512 Mode	DMX-512 Mode Address 001 Channel Expert	Address Setup 001
		Channel Setup Normal Mode Expert Mode
2、 Auto Mode	Auto Mode Effect Mix Auto Speed 50%	Auto Effect Mix Show Lines Show Beams Show
		Auto Speed 50%
3、 Music Mode	Music Mode Effect Mix Music Speed 50%	Music Effect Mix Show Lines Show Beams Show
		Music Speed 50%
4、 Laser Light	Laser Light/ Scanner 20KPPS Color RGB Laser Analog Invert Normal Image Size X Y Position X Y	Scan Rate 10-40kpps selection
		Color Setup Single RGY RBP GBC RGB

		WYPC
		Laser Type TTL Analog
		Normal XY invert X invert Y invert XY
		Image Size Size X Size Y
		Position Setup position X position Y
5、 Settings	Settings Reset Default Safety Protected Master Setup Back Light Language Display Setup About System	Reset Default Yes No
		Safety Protected Turn ON Turn OFF
		Master Setup Turn ON Turn OFF
		Back Light Normally ON Delay 15S OFF
		Language Chinese English
		Display Setup Rotate 180deg Normal Display
		LaserSystem2.9 Software Version 1.0/Ver1.0 YM:20190301001

3: DMX-512 Channel:

1) Normal Mode 17CH:

CH	Value	Function
CH1	Dimmer	0~255 Total Dimmer 0~100%
CH2	R dimmer	0~255 Red dimmer 0~100%
CH3	G dimmer	0~255 Green dimmer 0~100%
CH4	B dimmer	0~255 Blue dimmer 0~100%
CH5	Pattern selection	0~255 Per 3 value for 1 pattern
CH6	Pan	1~255 horizontal position selection
CH7	Pan fine	1~255 horizontal position selection
CH8	Tilt	1~255 Vertical position selection
CH9	Tilt fine	1~255 Vertical position selection
CH10	Pattern size	0~255 Pattern size (from big to small)
CH11	Line scan speed	0~127 Line scan speed selection
	Point scan speed	128~255 Point scan speed selection
CH12	strobe	1~127 Strobe speed selection
	Gradually draw	128~255 Gradually draw position selection
CH13	Z rotation	0~255 Rotation position
CH14	X rotation	0~255 Rotation position
CH15	Y rotation	0~255 Rotation position
CH16	Pattern/effect library	0~127 Line effect library
		128~255 Point effect library
CH17	Model selection	0~26 Manual control mode
		27~127 Auto mode speed selection
		128~255 Music mode speed selection

2) Expert Mode 92CH:

1> The Function of each head CH (each head is same: 60CH=10CH*6).

CH	Value	Function
CH1	Dimmer	Head 1 Total Dimmer 0~100%
CH2	R dimmer	Head 1 Red dimmer 0~100%
CH3	G dimmer	Head 1 Green dimmer 0~100%
CH4	B dimmer	Head 1 Blue dimmer 0~100%
CH5	Pattern selection	Head 1 Per 3 value for 1 pattern
CH6	Pan	Head 1 horizontal position selection
CH7	Pan fine	Head 1 horizontal position selection
CH8	Tilt	Head 1 Vertical position selection
CH9	Tilt fine	Head 1 Vertical position selection
CH10	Pattern size	Head 1 Pattern size (from big to small)

CH11	Line scan speed	0~127	Head 1 Line scan speed selection
	Point scan speed	128~255	Head 1 Point scan speed selection
CH12	strobe	1~127	Head 1 Strobe speed selection
	Gradually draw	128~255	Head 1 Gradually draw position selection
CH13	Z rotation	0~255	Head 1 Rotation position
CH14	X rotation	0~255	Head 1 Rotation position
CH15	Y rotation	0~255	Head 1 Rotation position
CH16	Dimmer	0~255	Head 2 Total Dimmer 0~100%
CH17	R dimmer	0~255	Head 2 Red dimmer 0~100%
CH18	G dimmer	0~255	Head 2 Green dimmer 0~100%
CH19	B dimmer	0~255	Head 2 Blue dimmer 0~100%
CH20	Pattern selection	0~255	Head 2 Per 3 value for 1 pattern
CH21	Pan	1~255	Head 2 horizontal position selection
CH22	Pan fine	1~255	Head 2 horizontal position selection
CH23	Tilt	1~255	Head 2 Vertical position selection
CH24	Tilt fine	1~255	Head 2 Vertical position selection
CH25	Pattern size	0~255	Head 2 Pattern size (from big to small)
CH26	Line scan speed	0~127	Head 2 Line scan speed selection
	Point scan speed	128~255	Head 2 Point scan speed selection
CH27	strobe	1~127	Head 2 Strobe speed selection
	Gradually draw	128~255	Head 2 Gradually draw position selection
CH28	Z rotation	0~255	Head 2 Rotation position
CH29	X rotation	0~255	Head 2 Rotation position
CH30	Y rotation	0~255	Head 2 Rotation position
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CH91	Pattern/effect library	0~127	Line effect library
		128~255	Point effect library
CH92	Model selection	0~26	Manual control mode
		27~127	Auto mode speed selection
		128~255	Music mode speed selection

Product technical parameters:

1:Voltage: AC110v/240v; 50/60Hz

2:Power: 400w

3:Laser source: Laser diode

4:Laser power / wavelength:

RGB4w (Red 1w/638nm x 6;Green 1w/520nm x 6;Blue 2w/450nm x 6)

RGB3w (Red 500mw/638nm x 6;Green 800mw/520nm x 6;Blue 1800mw/450nm x 6)

RGB2w (Red 500mw/638nm x 6;Green 500mw/520nm x 6;Blue 1000mw/450nm x 6)

RGB0.5w (Red 170mw/638nm x 6;Green 100mw/520nm x 6;Blue 200mw/450nm x 6)

5: Beam size:3x4mm at aperture

6: Divergence: <1.5mrad

7: Color: Full color

8: External modulation: 100K Analog / TTL

9: DMX: 17Ch / 92Chs

10: Scanner system: 20k / 25kppts x 6

11: Control way: DMX; ILDA

12: Net weight:18kg

13: Size: 106 (L)*19(W)*21(H)cm without bracket

Note: When the power is off suddenly, then please wait 15 seconds to power on again