TECHNYLIGHT
Entertainment Lighting Effects

TECHNYLIGHT TRIDENT 450

TRI - COLOR LASER SHOW SYSTEM



DMX512

Marvelous Sound Activation

LINKABLE
STAND ALONE

LASER RADIATION

CE

Please read this manual carefully before you initially start-up!



Rayonnement laser

ATTENTION : exposition dangereuse de l'oeil ou de la peau au rayonnement direct ou diffus. Ne pas regarder directement le faisceau. Référez vous au manuel d'emploi.

Appareil laser de classe 3B

Laser Radiation

CAUTION : Avoid exposure to beam.

Refer to user guide.

Laser class 3B

OPEN THE BOX FOR CHECKING

Thank you for your purchase of this product TRIDENT450 tri-color Laser show System.

In order to use this product safety and reasonable, please read over this manual carefully before use and the operation must strictly according to this manual to avoid any damage to the product and personal safety.

Once you receive this product, please immediately take it out carefully and check whether the product was damaged during the transportation. Then please check if the following parts are included:

TRIDENT450 RGY tri-color laser	1pc
Power cable	1pc
DMX signal cable	1pc
User manual	1pc
Wire sling	1pc

Specifications

Laser type:	Green Laser: Diode Pumped Solid Stated Laser (DPSSL)
	Red Laser: Semiconductor Diode Laser
Laser class:	Class IIIb
Laser life:	>5000 Hours
Cooling ways:	Air-cooled.
Color:	Red@650nm
	Green@532nm
Laser output:	450mW (350mW@650nm 100mW@532nm)
Scanner system:	High speed optical scanner
Scan angle:	0°~±20°
Control mode:	Sound Active / Auto / DMX512
DMX channels:	10 channels
Power supply:	AC 90-240V 50/60Hz
Power consumption:	150W
Dimensions:	W200mm ×H260 mm ×D310 mm
Net Weight:	6.0Kg



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.

Safety instructions

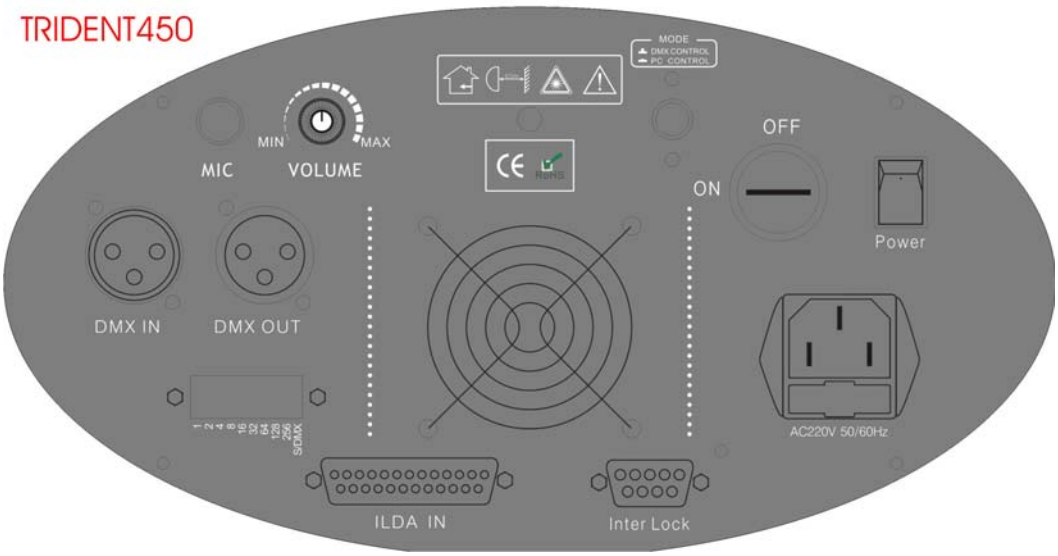
- If the device has been exposed to drastic temperature fluctuation, do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- The laser must only be used for shows. The operation is only allowed if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

Operating determinations

- The operator has to make sure that laser radiation – also reflected laser radiation – higher than the highest allowed level is avoided by technical or organizational measures.
- Make sure that the used voltage is: AC 220V~240V, 50/60Hz with ground.
- If the device is used in a flying installation, the mounting brackets and an appropriate safety-rope must be fixed.
- 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.
- In some country, the operator must notify the accidence insurance and the authority for industrial safety, before operating a laser. For more information, contact the relevant authorities.

- Please consider that unauthorized modifications on the device are forbidden due to safety reasons!
- If this device will be operated in any way different to the one 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.

Product Rear View



FUNCTION TABLE:

1	**MIC**	Audio in
2	**VOLUME**	Volume sensitive
3	**Mode Switch**	Select the operating modes
4	**POWER SWITCH**	Power switch
5	**DMX IN**	DMX 512 signal input
6	**DMX OUT**	DMX 512 signal output
7	**START ADDRESS**	Setting the DMX start address
8	**ILDA IN**	ILDA standard signal input

9	**ILDA THRU**	ILDA standard signal through
10	**Ground**	Ground conector
11	**POWER SUPPLY**	AC 220V/50-60 Hz

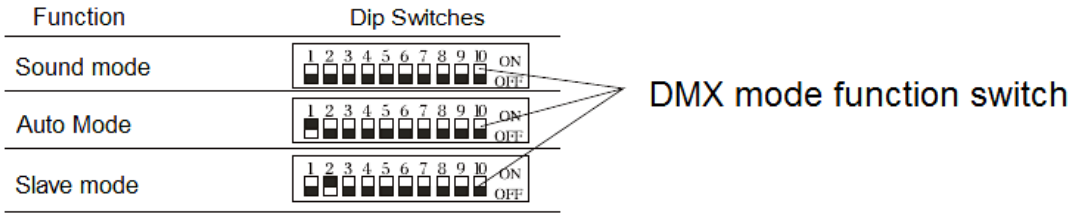
Control mode

You can choose the control mode at the dip switches:

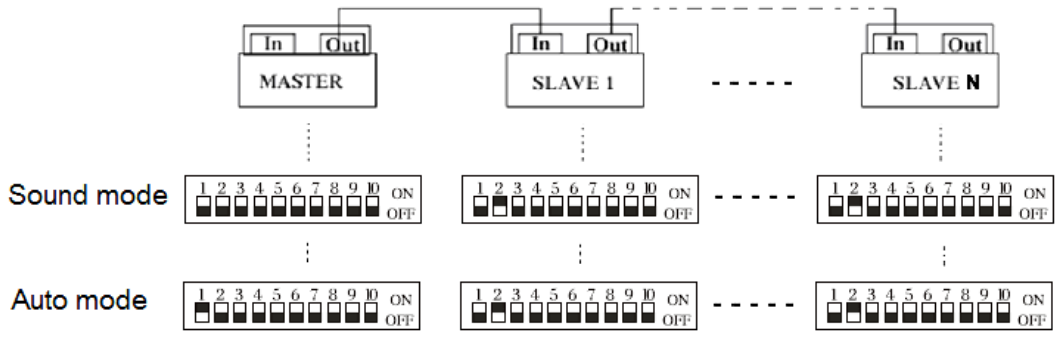
- When the 10th switch is OFF, 1-9 are function codes. Here the functions as bellows:

- If the first switch is OFF, the device is working in sound mode.
- If the first switch is ON, the device is working in automatic mode.
- For master/slave mode, put the second switch in ON position and it is the Slave device.

Function code setting



Synchronized Connections and Settings

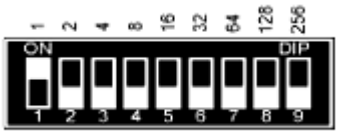
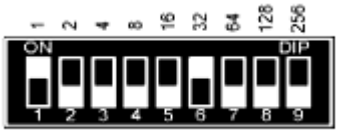
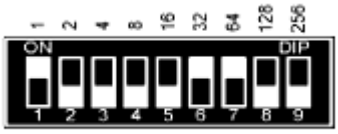
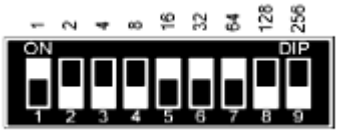
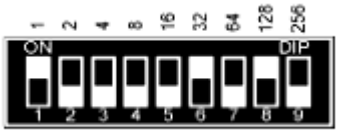
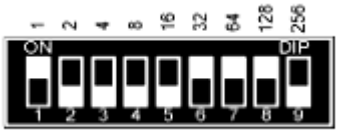


- For DMX mode, the 10th dip switch must be ON. Then, switch 1-9 can be used for adjusting the DMX base address.

DMX control

Set the DMX base address with the binary system “0” or “1” and remind that the 10th Dip switch is ON for DMX mode.

Examples:

DMX address		DMX address	
1		33	
65		113	
161		225	

DMX base adds. 1-10 setting: (ON is 1, OFF is 0)

1 ~ 10	Function
0,0,0,0,0,0,0,0,0,0	Sound Control
1,0,0,0,0,0,0,0,0,0	Auto Mode
0,1,0,0,0,0,0,0,0,0	Auto
1,1,0,0,0,0,0,0,0,0	Number from rear
x,x,x,x,x,x,x,x,x,1	DMX 512 control

The device has 10 operating channels. If you set the first on DMX address “1”, the next DMX device can follow at address 20.

DMX channels:

Channel		DMX512 VALUE	FUNCTION
1.Control Mode		0--63	Sound control (3-10ch useless)
		64--127	Auto mode (3-10ch useless)
		128--191	DMX control
		192--255	Auto mode
FIRST PATTERN GROUP	2.Blanking & Blackout	0--5	blackout
		6--15	red
		16--25	green
		26--35	yellow
		36--105	single color(auto)
		106--175	tri-color(auto)
		176--245	tri-color(move)
		246--255	bounded color
	3.Pattern	0--255	124patterns(0-255)
	4.Vertical Move	0--127	manual vertical move
		128--191	auto down, speed up accordingly
		192--255	auto up, speed up accordingly
	5.Horizontal Move	0-127	manual horizontal
		128--191	manual right, speed up accordingly
		192-255	manual left, speed up accordingly
	6.Vertical Roll	0--127	manual vertical rotation
		128--255	auto vertical rotation, speed up accordingly
	7.Horizontal Roll	0--127	manual horizontal rotation
		128--255	auto horizontal rotation
	8.Rotation	0--127	manual rotation
		128--191	auto clockwise rotation, speed up accordingly
		192--255	auto anti-clockwise rotation, speed up accordingly
	9.Zoom In & Out	0--85	from small to large, speed up accordingly
		86--170	from large to small, speed up accordingly
		171--255	large ←→ small, speed up accordingly
	10.Point Draw	0--255	0--nil 1~255—faint ~bright

Remark: Product design & subject to change without further notice.

Please note: The artificial damage or maintains the label to tear, not in maintenance scope!