

light
BIG

DESIGN BY GERMANY

SCAN GRATING LASER

GREEN AND BLUE SERIES

MODEL: BE-FS008GB

USER GUIDE

Service and repair

The Laser Show equipment has no major serviceable parts. Repair of electronic components (transistors, IC's) or changing other parts are not allowed by untended operation. If there is a problem with the Laser Show equipment, your local service organization will help you with repair or replacement. We recommend buying the Laser Show equipment at the manufacturer for replacement.

Attachments

1 Laser Light	SPC
2 Laser Light	FPC
3 Laser Light	SPC

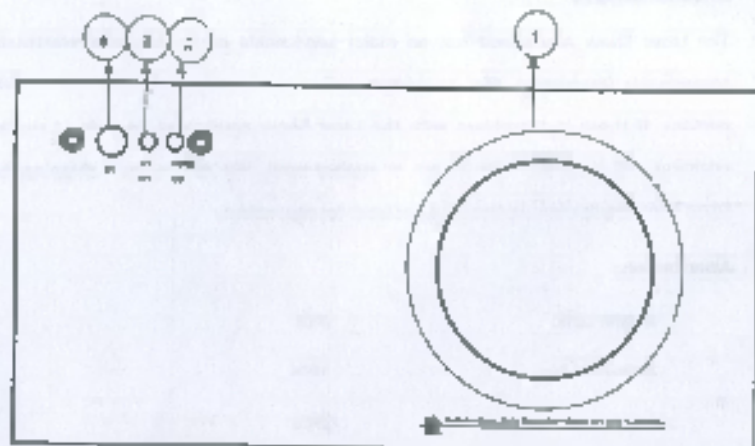
Warnings

- Do not look directly at laser light. Direct beam can damage the cornea eye and the skin or extremities. Do not look at the Laser Light directly.
- Do not use the Laser Show with the small children. If you are a parent, please use a soft cloth with a cover or Laser Show paper.
- Do not use eyes or optical instruments. If the direct beam is reflected, it may result.
- In the working Laser Show you have some electrical, fire smoke and excessive heat or smell. Please do not immediately stop the power and the power switch your monitor. Level of use may result in burn or electrical shock.
- Do not use hazardous tools on this equipment. Use the safe tools. Sparks or flammable liquids on the equipment is bad. After the equipment and contact the electronic parts. Use of electrical don't use risk. If anything happen the equipment, immediately stop the power and the power switch your monitor.

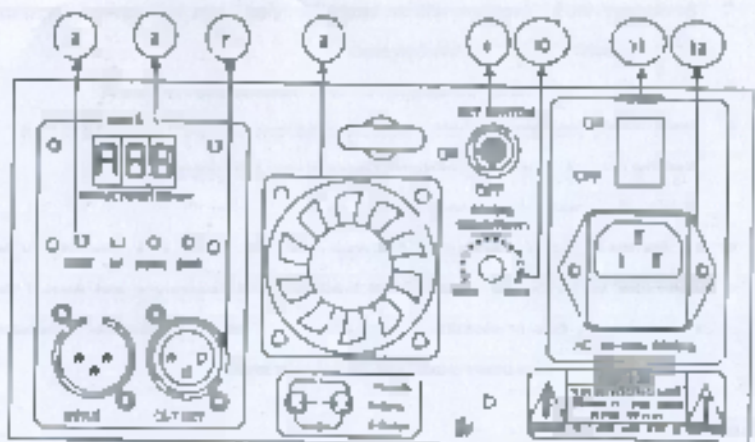
Installation

1. Carefully inspect your Laser Show eye before start eye. If any damage is evident, such as spots or scratches on the cornea or lens, consult your doctor, optometrist or ophthalmologist immediately.
2. Plug up the equipment to the safe place. Do not have any fire and of fire of the Laser Show.

Front and Rear panel view



1 LED display 2 Power PWR 3 MIC & TEL 4 Microphone



1. RS-232C serial port 2. Display & D screen 3. RS-485 linking port
 4. Linking SW 5. Key lock 6. RS-485 serial port & key
 7. RS-232C serial port 8. Power Jack

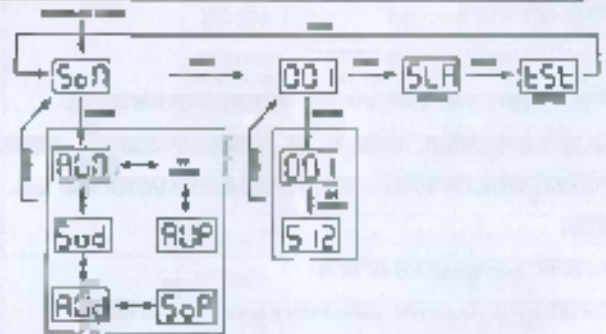
Features of the system.

- 1. Laser power: 300mW InGaAs laser @780nm, emitting area: 0.5mm²
- 2. Laser AB system: Micro computer control
- 3. Working Wavelength: 780nm, 808nm, 980nm, 1064nm, 1310nm, 1550nm, 1625nm
- 4. Interface: 2 pins RS-485 port for DMS or RS-232C serial port
- 5. Laser parameter: 250V/200W, 50/100W, 100/200W, 250W
- 6. Power supply: 220V/50Hz or 240V/60Hz or 270V/50Hz

Function and Setting

When laser is switched on, LED display on rear panel shows the current operating temperature mode of DMS address of each mode. With help of LED control panel it is easy to find and change the operating mode of each channel easily resulting the desired mode and mode information will be shown on LED display on rear panel as

- Mode/function Output, or channel the operating mode of laser.
- Laser DMS address, or channel the operating mode, parameter at DMS address.
- Confirmation or confirm the setting at one type of LED control panel.



Fixed Alarm Programming of Laser Panel

- 1. Press F1/F2 to enter MODE OPTION
- 2. Press LED panel shows 2R/W use of Act, Aux, Add & Sub.
- 3. Press UP or DOWN to select your desired Fixed Alarm mode as above

- Press ENTER to confirm the address.

The label is working to send data. Just like when you have your laser pen will have the following label show:



In the MENU OPTION select the stand name that show then you are going to show, it is flashing. Press UP or DOWN to change stand effect laser show, you will have 6 different stand effect preprogrammed laser show. Their DISABLE and EFFECT are listed below:

CODE	NAME	EFFECT
020	Stand activated	stand effect + Gating effect
021	Auto running	stand effect + Gating effect
022	Stand activated	gating effect show
023	Auto running	gating effect show
024	Stand activated	stand effect show
025	Auto running	stand effect show

MASTER/SLAVE MODE

- Press RUN to enter MODE OPTION
- Press UP or DOWN to select the stand name that you want to use as MASTER or SLAVE. The label is working in SLAVE MODE. Connect MASTER laser and SLAVE laser with DMX to let the SLAVE laser be able to copy MASTER laser show.

DMX MODE

- Press RUN to enter MODE OPTION
- Press UP or DOWN to select the stand name that you want to use as MASTER or SLAVE. The label is working in DMX MODE. In the help of UP/DOWN button, it can be



change the DMX address of the laser.

Instructions for DMX channels

Channel	Function	Code	Effect
CH 1	Main effect	000-024	Laser Off
		025-047	Start, stand model show
		048-070	Stand, stand activated stand effect
		071-094	Auto, auto running effect show
		100-124	Stand, stand activated pattern effect show
		125-148	Auto, auto running effect show
		150-174	Stand, stand activated gating effect show
		175-199	DMX, DMX mode with gating effect
		200-224	DMX, DMX mode with gating effect
225-250	DMX, DMX mode with functional pattern effect		

Scrolling laser effect show, stand control & show at 170-200

Channel	Function	Code	Effect
CH 2	X-AXIS	000-024	120 different stand position x & z
		025-047	Limiting moving
		048-070	Anti-collision moving
CH 3	Y-AXIS	000-024	120 different stand position x & z
		025-047	Collision moving
		048-070	Anti-collision moving
CH 4	DMX Channel	000-024	Laser Off
		025-047	RG on or B & G strobing
		048-070	Max on or that stand B green off
CH 5	Strobe	071-094	DMX on or Green red & blue off
		095-119	RG on or B & G alternately strobing
		120-144	No strobing
CH 6	Strobe	025-047	Strobing speed
		048-070	Strobing to count
		071-094	DMX on or B & G alternately strobing
CH 7	Strobe	000-024	DMX on or B & G alternately strobing
		025-047	Step
		048-070	Anti-collision moving

Grinding Parameters Effect Testing when channel 1 is channel 200-226

CH2	Z-axis gr	000-225	11 grinding passes
		0-127	200% F% feed
		128-225	7 passes in
		226-228	20mm gap
CH2	Z-axis gr	210-225	Z-axis in & out
		000-127	0-355 degree feed Y axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	Y-axis rolling	000-127	A-355 degree feed Y axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	X-axis rolling	000-127	A-355 degree feed X axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	Z-axis rolling	000-127	A-355 degree feed Z axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	Y-axis rolling	000-127	A-355 degree feed Y axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	X-axis rolling	000-127	A-355 degree feed X axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	Color Change	000-026	None
		017-031	D Pink
		032-046	Mag & Green (Cyan)
		000-225	Color Rolling
CH2D	E-axis rolling	0	No grinding rotating
		1-75	Clockwise grinding rotating
		76-149	No grinding rotating
		150-225	Anti-clockwise grinding rotating

Grinding Parameters Effect Testing when channel 1 is channel 200-226

CH2	Z-axis gr	000-225	11 grinding passes
		0-127	200% F% feed
		128-225	Z-axis in
		226-228	Z-axis out
CH2	Z-axis gr	250-255	Z-axis in & out
		000-127	A-355 degree feed Y axis rotate
		128-225	Clockwise rolling
		226-255	Anti-clockwise rolling
CH2	Y-axis rolling	000-127	A-355 degree feed Y axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	X-axis rolling	000-127	A-355 degree feed X axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	Z-axis rolling	000-127	A-355 degree feed Z axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	Y-axis rolling	000-127	A-355 degree feed Y axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	X-axis rolling	000-127	A-355 degree feed X axis rotate
		128-191	Clockwise rolling
		192-255	Anti-clockwise rolling
CH2	Color Change	000-026	Orange Color
		037-035	Blue
		036-042	Green
		043-042	Cyan
CH2	Y-axis rolling	000-227	220 different feed positions on Y
		128-135	End type moving
CH2	X-axis rolling	252-255	Anti-clockwise moving
		520-525	Clockwise moving
CH2	Z-axis rolling	526-527	220 different feed positions on X
		528-535	Clockwise moving
CH2	Y-axis rolling	536-537	220 different feed positions on Y
		538-535	Anti-clockwise moving
CH2	Color Change	000-026	Orange Color
		037-035	Blue
		036-042	Green
		043-042	Cyan
		043-041	Single color no rotating - pass
		526-225	At a color alternating speed

TROUBLE SHOOTING

1. If the motor capacity indicator is off and the laser doesn't work, please check the power supply and the laser voltage.
2. In some cases during the power supply adjustment, the laser sound is not heard or the laser scale does not work.
 - A. Because the laser is not set up correctly, please increase the step, increase the motor speed and the laser level on the panel.
 - B. Please check if the laser is set up in slave mode or DMX mode.
3. In some cases, the laser will not function. Please check the below.
 - A. Motor scale shows only one step in the chart and the chart are set in slave mode.
 - B. Make sure to control the unit without DMX controller.
4. If the output sound direction shows a problem, please verify the unit.

After trying the above solution, you still cannot get out the product, please contact us at sales@hitec.com or service@hitec.com for service.