Please read this instruction before touching the devices

The laser head and power supply has the same S/N number. Don't mismatch.

OPERATION INSTRUCTIONS

Note: **The laser can only be operated after the case temperature of the laser system return to the room temperature to avoid the damage of the big temperature shift.**

1. Product features

1.1. Place the laser head which has the same serial number with the power supply on a stable and better heat-conducting plate, such as metal plate.

Note: The heat-sink at the bottom of laser-head is air duct.
A. The air duct should not be blocked, and make sure there is nothing placed within 5cm-10cm.
B. If the laser system needs to be installed into equipment, please make sure the airflow clear.

C. If a cooling fan is needed in the equipment, please make sure the wind direction is the same as the laser, from front to end..

1.2. Check the main power and make sure it is at "OFF" state.

1.3. Check the key switch and make sure it is at "OFF" state.

1.4. Emergency switch: When unexpected accident occurs, you can press it down to switch off the laser. You need to reset the main power and key switch to restart the laser.

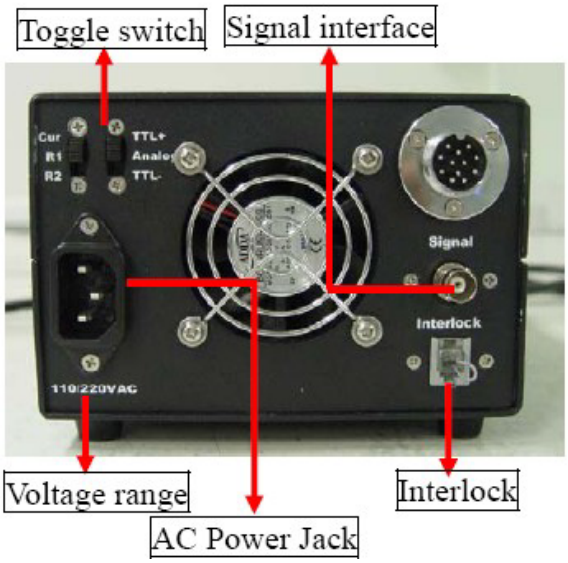
1.5. Lock: It is the lock of the power control knob. Unlock position see figure.
Knob: The knob is fixed on the maximum current position as factory default. Please unlock it before adjusting the knob.
Turn the knob counter-clockwise, the current thus output power is decreased.

1.6. Display: it shows the current of laser diode.

1.7. Make sure your local voltage is in the range showed at the back panel.

1.8. Interlock: After pulling it out, the laser system will stop working. You need to install the interlock, and then reset the main power and key switch to restart the laser.

1.9. TTL or Analogue external control signal interface.



1.10. Toggle switch:

1.10.1. Toggle switch for modulation

TTL+:
Toggle switch at "TTL+": It works under standard TTL function. The laser is on when input high level, and the laser is off when input low level.
Toggle switch at "TTL-": The laser is off when input high level, and the laser is on when input low level.
Analog:
Laser system works under analog function 0-5V DC input voltage.

1.10.2. Toggle switch for display
Toggle switch at "Cur": display at front panel shows the current of laser diode
Toggle switch at "R1.": display shows the value of thermal resistance for laser diode (KΩ).
Toggle switch at "R2.": display shows the value of thermal resistancealue for crystal (KΩ).
Note: Make sure the key switch is at "OFF" state before changing the toggle switch.

2. Operation

2.1 Plug the connector of the laser head to the power supply, fasten the locking ring, make sure the connection is firm.
2.2 Plug the power cord of the power supply to 110/220V AC power.
2.3. Remove the aperture seal on laser head.
2.4. Turn on the switch of main power. The red LED "Power" comes on. Then turn on the key switch. The laser starts to work after about 5 seconds. The green LED "Laser" comes on.

2.5. Only for unexpected accident occurs, the red LED "Alarm" will come on. When the Alarm LED comes on, please turn off the main power switch. Please reset the mains power and key switch after a few minutes, then to restart the laser system again.

2.6 TTL and analogue modulation are optional. As for TTL or Analog modulation, please refer to "Notes for TTL Modulation" and "Notes for Analog Modulation".
2.7. Closing the laser system: Turn off the key switch first, then turn off the main power switch.
2.8. Put on the aperture seal to prevent the optics from dust.

3. Warranty

3.1. The warranty is one year from the shipping date.
3.2. This warranty will not apply to those products which have been
3.2.1 Repaired or altered other than in accordance with the terms of th
3.2.2. Abused, misused, improper handling in use, or storage, or used in an unauthorized or improper manner without following written procedures supplied by manufacturer.
3.2.3. Original identification markings or labels have been removed, defaced or altered.
3.2.4. Any other claims not arising directly from material defects in material or workmanship.

4. Laser Safety

4.1. All lasers have intrinsic dangers –even laser pointers! Obserevation of laser safety rules and the specific safety regulations of the jurisdiction in which you operate are essential.
4.2. Safety with high powered lasers is a critical issue that cannot be overlooked. Despite their brilliant beam and ability to burn, high power laser pointers and portable lasers are only a danger to your eyes. The danger that lasers represent to your eyes though is very serious. The visual receptors in your eyes are part of your central nervous system which means if your eyes are damaged, they do not heal or recover.
4.3. As far as power output, laser pointers and portable lasers do not release that much power. Especially not when compared to a normal 75W or 100W light bulb. What makes the light from lasers so dangerous is that it has two unique properties.
4.3.1. Coherent and focused. The energy is focused on a very small area similar to the way a mangnifying glass focusing the sun.

4.3.2. Collimated. The laser light stays a narrow beam from near to far distance. So the laser is still dangerous from far distance.

This is not to say you should be afraid of lasers. You can use lasers safely, by treating the lasers with respect, being aware of their dangers and following some basic guidelines to ensure your safety.