

# Operation Instruction for PGL-II-E Laser

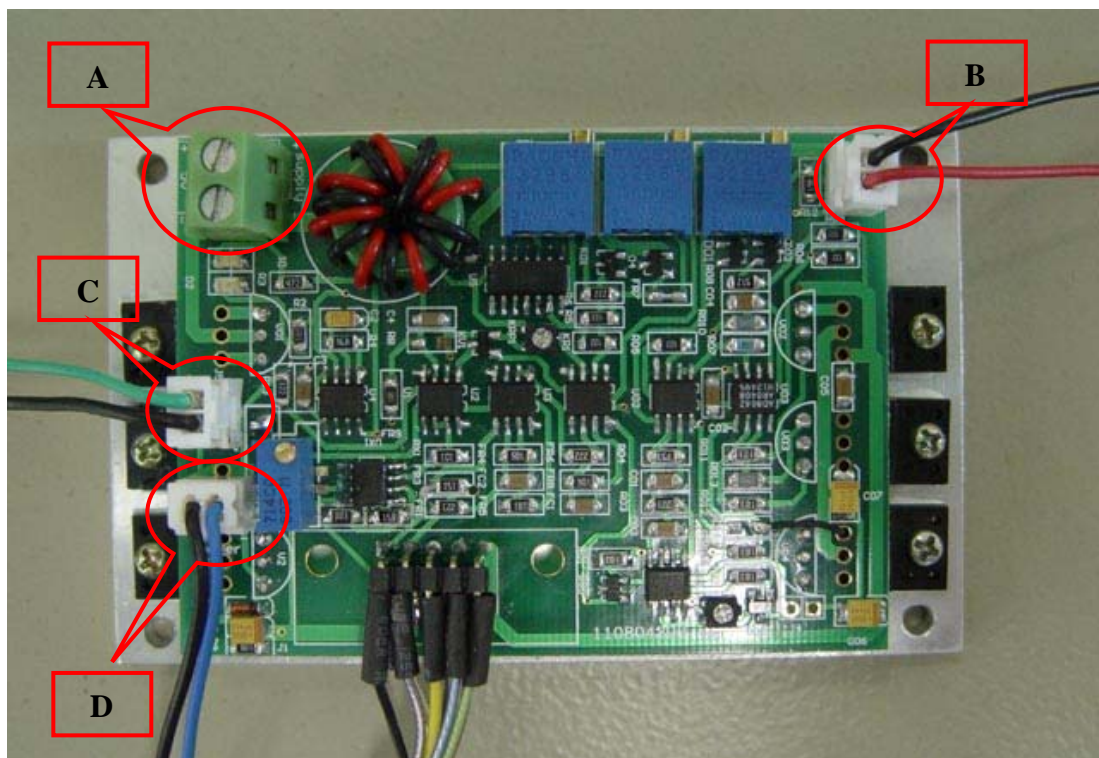
**Note:** The laser can be operated only when the temperature of the laser housing comes back near to the operating temperature is 10°C-35°C (the most proper temperature is 20°C-25°C). Otherwise, the laser may be damaged because of the large temperature differences.

## 1. Setting up the laser

- (1) Place the laser head, PC board (which must have the same serial numbers) on a stable surface. And it can transfer heat, such as metal board.

## 2. Starting the laser

- (1) REMOVE THE PROTECTIVE LABEL FROM THE EMISSION PORT OF THE LASER HEAD.
- (2) 'A' is the power plug marked as '+ 5V -' on the PC board. Connect the 5VDC according to the indication '+ 5V -' . (Parameter: 5VDC 3A/max 1.5V/TYP)
- (3) 'B' is the switch line of PC board. When the red line and black line detach, the laser emits normally; and when they combine, the laser does not emit.



- (4) 'C' is the plug for the relationship between current and voltage marked as '+ current -'. Please use the multimeter with the position of voltage to measure (Position 2V as advised). The green line is anode (+) and the black line is cathode (-). The ratio of measured voltage and working current is 1:1. eg. The measured value of voltage is 300mV, and then the corresponding current will be 300mA.

**Note:**

- 1. Before measurement, put off the short-circuit plug and connect the green/black plug. After measurement, put off the green/black plug and reconnect the short-circuit plug.**
- 2. Please make sure that the anode (+) and cathode (-) of the multimeter must be accordant with the ones of working current plug of PC, and be sure the green line and the black line are not contacted. Otherwise, the LD will be broken.**

- (5) 'D' is plug for the relationship between voltage and output power marked as '+ power -'. Please use the multimeter with the position of voltage to measure (Position 2V as advised). The blue line is anode (+), the black line is cathode (-). The ratio of measured voltage and output power is 10:1. eg. The value of measured voltage is 70mV, and then the corresponding power will be 7mW.

### **3. Shutting off the laser**

- (1) Switch off the '5VDC'.
- (2) Replace aperture label whenever laser is off to prevent dust from entering optical path.

### **4. Warranty**

The warranty on both the laser head and the power supply is one year from date of shipment from factory in Changchun.

**WARNING:** Please, observe that does not assume liability for its laser products if any of the following circumstances has occurred:

- (1) Don't touch the PC board when the laser is working.
- (2) The laser head or the PC board has been disassembled by the user.
- (3) The proper laser performance has been disturbed as a result of outer force or damage of the laser head.
- (4) The original labels with serial numbers and name have been removed.
- (5) The warranty period has expired.

### **5. Laser safety warning**

- (1) Laser light can be harmful to human eyes and skin. Therefore one must avoid direct exposure and one should NEVER point the laser beam to your own or other people's eyes.
- (2) The laser head should be placed on a stable surface. Be sure not to place any other object on the laser head or the power supply.
- (3) The laser should be operated in the temperature of 10-35°C, and a clean, dry and no static electricity environment.
- (4) The laser must not be exposed to shock or excessive oscillations.
- (5) Forbid touching elements of PC board by your hands or other electric objects, or else PC board and laser will be damaged.
- (6) Avoid modulation lines contacting PC board, or else PC board and laser will be damaged.