DY13 Power Supply Instruction

I. Instruction for sub-connection wire of the controlled

1	2	3	4	5	6
5V	TH	TL	WP	G	IN

1) Footer 1 is 5V power supply. (Not needed when connecting the cardinal plate. It is used when regulating the power with potentiometer and 5V current should be less than 10 mA.
2) TH. TL refers to high and low power level respectively, and WP refers to water protection.
3) Footer 5 G refers to ground and 6 refers to input end.
4) When connecting the control plate, connect the light signal with footer 2 in the case of high power level light-emitting, (footer 3 for low power level light-emitting), connect the ground-wire with footer 5, connect footer 6 with power control analog signal, and make short circuit for footer 4 and 5.
5) PWM can also be used in footer 6, but the pulse peak is required to reach 5V, and the frequency should be above 20K.
6) For testing: 3, 4 and 5 are in short circuit (or 4, 5 are in short circuit and 3, 5 are connected to switch), the potentiometer center is connected with 6 IN, and the two other ends are connected to 5V and ground (1 and 5) respectively.
7) The high power level controls the light, 1 and 2 are connected, and 4 and 4 are in water protection.
8) It is not proposed to control laser power with high-frequency modulation, because it will have impact on the service life of the laser.
9) The model is applicable to W4 laser, it is necessary to regulate and use the current according to the laser instructions.
10) The ammeter is concatenated to the cathode line.

II. Instruction for power wire

footer 1	footer 2 footer3
ground	AC 220V 50HZ 10A

Note: The table 10A refers to the connection wire requirement, but not the actual power dissipation.

III. Instruction for laser connection wire

1） The positive red-line with high voltage is connected to the laser tail
2） The negative white-line is connected to laser output window

IV. Current limitation

To limit the working current, the potentiometer (lies in the underside of the power supply) should be rotated in counterclockwise (please refer to the schematic diagram in our website: www.recilaser.com). Limit the maximum output current as it is regulated in the operating instruction. The working current should be limited before delivery.

V. Linear scale between input signal and the output current

Turn around the potentiometer, the linear scale will be changed: for example, when the input signal is 0-5V, the output current is 0-34mA.Or when the input signal is 0-2V, the output signal is 0-34mA.

Note: when the potentiometer is turned down too much, the real output current will be brought down by the same input signal.

VI. Using current

The use standard for our power supply is under 220V, 50Hz. The fluctuation of the input voltage and frequency will affect the working current provided by the power supply, the affection is linear relative. The unstable of the input voltage will affect the output power of the laser tube. The fluctuation of the input voltage has no affection on the lifespan of the laser if only the current provided by the power supply is not over the current limitation.