

Z2 CO2 Laser Tube Operating Instruction

Installation Requirement

Make sure to follow the operation instructions of model Z2 as shown in the illustration. The dedicated power DY10 should be equipped. The positive pole is in high voltage (the ignition voltage is **19kv**). It may cause the following consequence when it is failed to follow the instruction: Arcing; the inner tube will be punctured by electricity and may cause water leakage.

Operation conditions

- **Water cooling:** using purified water; 2 to 5 liter/minute; water temperature: **10°C - 40°C**.
- **The operating environment:** temperature **2 - 40°C**, humidity **10 - 60%**.
- The working current: test current is 29mA. Maximum working current is **29mA**. The running current must be kept below **27mA**. The life span can reach **8,000** hours if the current is kept below **25mA**. The ammeter indicating current must be connected to the negative electrode of the laser tube.
- When it is working under over - high current for long term, the negative pole will appear **light yellow**, and the life span will be reduced rapidly.
- To protect dust from going into the insulation sheath, please wrap it with plastic film.

Key Notes

Do not clean the exterior surface of the output window mirror with tools such as tampon; otherwise the output power will be seriously affected. The followings are the designated methods to clean up pollution in the exterior surface of window mirror:

- 1) When the mirror is polluted, do not turn on the laser.
- 2) Blow the mirror surface sideways with air blower.
- 3) Spray the pure alcohol on the mirror surface with sprayer.
- 4) Turn on the laser after the alcohol gets fully volatilized.
- 5) If the methods above don't work effectively, it is necessary to ask for the professional to use tampon with alcohol to clean the mirror surface from middle to edge. The best solution is to prevent the window from being polluted.

Attention:

It is forbidden to clean the mirror with acetone.

The screw in the front and back ends of the laser tube is not allowed to be moved, otherwise the out power will be declined and even the tube may be scrapped.

Put the acryl 300mm far away from output mirror, when testing the laser spot.

Safety

The laser beam is invisible light. Please wear protective glasses when debugging the laser. The positive pole is in high voltage. Pay attention to the security marks.

Storage and Transportation Requirement

Pour out cooling fluid in the event of storage and transportation, and cover the output terminal with a dust - proof plastic bag. The storage environment is 2 - 40℃, and the requested humidity is 10 - 60%. Pack the laser as in the original way.

Important notes: it is requested to cement the sponge together with laser tube to prevent the tube vertically sliding during transportation. The sponge in the side of output mirror must be 70mm beyond it, and the sponge in the side of reflecting mirror must be 50mm wider.

Tubes operated in wrong way will not be guaranteed by Manufacturer.

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