



Corona Supplies Ltd

for all your corona needs

GXR Range - Fault Indicator Lamps & Conditions

WARNING

High voltages are present within the corona generator

Very high voltages are present within the corona treater station

Fault finding should only be carried out by qualified personnel

Corona Supplies service department should be contacted if in any doubt

Fault - The interlock lamp does not illuminate.

- Ensure the treater is in the closed position including all the access doors and windows.
- Ensure that the ozone extraction fan is running. Also check that the fan is rotating in the correct direction as indicated by an arrow on the motor cover.
- Ensure that the Emergency Stop button has not been depressed.
- Referring to the circuit diagram verify that all the relevant cable connections are secure, and not damaged.
- Check that the indicator bulb or LED has not failed. Check LED 1 - E on the inverter control PCB as this duplicates the interlock lamp.
- Check for 24Vdc on the inverter control PCB (LED 1 - A). If LED is not illuminated check FS4, also located on the inverter control PCB.
- **Switch off the generator.** Locate the terminal box where all the interlock switches are terminated (on the treater). Remove the cover. Check the continuity of each switch or sensor. Check/replace switch or sensor as necessary. **Warning:- Do not bypass any safety interlock switch because high voltage is present when corona discharge takes place. Any bypassed switches could damage the generator, or cause severe injury to the operators.**

Cont/d...

Fault - The up to speed lamp does not illuminate.

- Check LED 3 – B on the inverter PCB is flashing, this shows the pulses as the sensor detects the magnets.
- Check that the treater base roll(s) are rotating at the same speed as the line rollers. **Note: On webs with low tension or high slip it is possible for the web to slide over the treater rolls, causing the treater rolls to stop or only turn slowly.**
- **Magnetic Sensor** – If the base rolls have been recently removed, check they have been re-fitted correctly. In addition check that the magnet polarity alternates around the base roll (North (blue) – South (red) - North - South).
- **Magnetic Sensor** – Check the distance from the magnets to the sensor. The gap should not exceed 10mm.
- **Inductive Sensor (Orange)** – Check the distance of the sensing disc or roller from the sensor. The gap should not exceed 2mm.
- Refer to the circuit diagram checking that all cable connections are secured and not damaged.
- Check that the indicator bulb or LED has not failed. Check LED 1 - J on the inverter control PCB as this duplicates the UTS lamp.
- Check for 24Vdc on the inverter control PCB (LED 1 - A). If LED is not illuminated check FS4, also located on the inverter control PCB.

Fault - During treatment or whilst increasing the output power the trip lamp lights.

This could be for a number of reasons so all the following may need to be checked:-

- Excessive air gap. For ceramic dielectrics the air gap between the electrode and the treater roll, with the web removed should be set to 1 – 1.5mm. For other dielectrics this gap should be 2mm.
- Pin holed or cracked dielectrics (Rollers, Ceramic electrodes etc).
- Dirty or cracked insulators
- The HT connection (between the HT transformer insulator and the electrode(s)) may be loose.
- The HT transformer is incorrectly tapped.
- The electrode discharge area is too small for high power.
- A recently replaced dielectric sleeve has been cut too short.
- The humidity is too high leading to excess moisture inside the treater station.
- Dirty front plate, or loose primary connections on the HT transformer.
- Worn treater roll bearings.
- If the treater roll has recently been changed, and the roll not supplied by Corona Supplies, the dielectric constant of the new roll covering may be unsuitable.

Cont/d...

Fault - During treatment or whilst increasing the output power, the mismatch lamp illuminates.

- Excessive air gap. For ceramic dielectrics the air gap between the electrode and the treater roll, with the web removed should be set to 1 – 1.5mm. For other dielectrics this gap should be 2mm.
- Pin holed or cracked dielectrics (Rollers, Ceramic electrodes etc).
- Dirty or cracked insulators
- The HT connection (between the HT transformer insulator and the electrode(s)) may be loose.
- The HT transformer is incorrectly tapped.
- The electrode discharge area is too small for high power.
- A recently replaced dielectric sleeve has been cut too short.
- The humidity is too high leading to excess moisture inside the treater station.
- Dirty front plate, or loose primary connections on the HT transformer.
- Worn treater roll bearings.
- If the treater roll has recently been changed, and the roll not supplied by Corona Supplies, the dielectric constant of the new roll covering may be unsuitable.
- Poor matching of the generator to the load. See setting reactive power to zero.