

GXR Range - Generator Indicator Lamps & Front Panel Controls

Interlocks Closed Indicator.

If this lamp is illuminated, it indicates that all the safety switches fitted on the treater are closed i.e. all doors/windows are shut, the ozone extraction fan is running and (if fitted) the emergency stop has not been depressed. **Note: This lamp, together with the up to speed lamp must be illuminated otherwise the corona discharge will not start.**

Up To Speed Indicator.

In order to eliminate a corona discharge onto a stationary web, all Corona Supplies treaters supplied with a rotating roll are fitted with a zero speed switch. Once the line is up to speed this lamp should illuminate (and corona discharge will occur). If for any reason the line is stopped, the corona will be switched off automatically, and will only re-start once the line is again up to speed. **Note: As with the interlock lamp, this must be alight before corona discharge can take place.**

Treat On Indicator.

This lamp illuminates once the corona is discharging at the treater. **Note: the following conditions must first be met:-**

- The interlocks closed lamp must be on.
- The up to speed lamp must be on.
- The Start/Stop button must be depressed.

Trip Indicator.

This lamp when illuminated indicates a problem at the treater station. It shows that there is a short circuit of the HT potential to ground or there is a fault with the running of the generator.

Mains On Indicator.

If this lamp is illuminated, then voltage is present to the generator and the circuit breaker is switched on.

Start/Stop Button.

Assuming the mains power is switched on at the circuit breaker, and the interlocks and up to speed lamps are illuminated. Depressing the start button once allows the output stage of the generator to become energised and the treatment process to begin. Depressing the same button again causes the treatment to cease.

Overtemperature Indicator.

This lamp, when illuminated, means that the inverter is running too hot. The generator will shut down until such time as the inverter has reached a lower temperature and the temperature sensitive switch has reset.

Mismatch Indicator.

This lamp is used to indicate that the HT transformer tapping is incorrectly set, that the electrode discharge gap is incorrectly set, or the HT transformer is defective. Alternatively, the reactive power has exceeded a predetermined safe level.

Shutdown Indicator.

This lamp if illuminated means one of two things. Either the generator isolator has been switched on but the corona has not been started, or if it illuminates during a production run then a fault has occurred (identified by either the mismatch or trip light illuminating). Whilst this lamp is lit treatment cannot take place.

Digital Meter.

Depending on the position of the selector switch this meter will display one of three things:-

- The true power of the corona discharging on to the web measured in kilowatts
- The reactive power which can be explained simply as the system losses measured in kVAR or kW.
- The frequency at which the inverter of the generator is running measured in kHz

Selector Switch.

The position of this switch allows the operator to view either the true power, reactive power or the operating frequency of the generator. These values will be displayed on the digital meter.

Frequency Potentiometer.

On most generators, which use an inverter control PCB above issue 6, this potentiometer may well not be used. Depending on the position of SW1/A (on the inverter control card), this allows the operator to manually control the frequency of the generator. Otherwise, the generator will automatically find its own operating frequency.

Output Control Potentiometer.

This potentiometer is used to manually control the amount of power delivered from the generator to treat the web.

High/Low Alarm Lamps.

The low alarm lamp is always illuminated if the treatment process is stopped. It indicates treatment is not taking place. During a production run the upper and lower alarm thresholds can be set by adjusting the two potentiometers. **Note: The corona will continue to discharge with either of the alarm lamps illuminated. The lamps are only for High/Low output indication.**

External Alarm Switch.

External alarm contacts are provided on Socket 5 at the rear (or top) of the generator. The operator can control the external alarm using this switch. Provided that the switch is in the on position, should the generator output be too high or too low, the external alarm will be triggered in addition to the high/low alarm lamp fitted to the generator.

Reset Button.

If a "Trip" or "Mismatch" condition occurs, the generator will not operate until the condition has been reset. To prevent damage to the generator excessive use of this switch should be avoided.