



## **GF5.8: 5000 Series External Battery Pack Instructions**

**Features:** The GF5.8 External Battery Pack is designed to work with all 5000 series instruments and their accessories with the exception of the original 5000 series 3-pin charger and the previous generation LANDTEC external battery pack. A new charger with a 7-pin connector is supplied with the GF5.8 External Battery Pack and can be plugged into the port labelled "Power". A 5000 series temperature probe can be plugged into the port labelled "Temp Probe". The supplied GEM lead can be plugged into the port labelled "Power" and used to connect the pack to the instrument's charger connector. As long as the External Battery Pack has some charge remaining, the blue "ON" LED will start flashing, once the GEM lead is plugged into the pack, indicating that the pack's output has been switched ON. If the External Battery Pack is discharged, the blue "ON" LED will not flash but rather the red "TRIP" LED will illuminate to indicate that the pack's output has been disabled. Note that the External Battery Pack includes circuitry to switch OFF the "TRIP" LED if the cells become discharged to a very low level in order to prevent the cells from being damaged. It is therefore possible, if the pack has been left for a long time with the lead connected, that no LEDs will be illuminated. **Note:** The GF5.8 External Battery Pack has not been designed to be ATEX/IECEX/UL/cCSAus approved for use in potentially explosive atmospheres.

**Recommended Use:** For best results, charge and discharge the GF5.8 External Battery Pack and GEM instrument at the same time. They can be charged at the same time using their individual chargers. The External Battery Pack can be used as an emergency battery and plugged in after the internal battery has been discharged, however the battery indicator on the GEM will show inaccurate charge status as the External Battery Pack outputs a regulated voltage.

**Fault Protection:** The GF5.8 External Battery Pack includes several fault protection systems to increase safety and reliability in the event of a fault. If a fault is detected, the output of the External Battery Pack will trip OFF and the "TRIP" LED will illuminate. The protection circuitry will be reset once the GEM lead is disconnected. If the fault was with the equipment connected to the pack, i.e. the lead or the instrument, then once fault-free equipment is re-connected the pack should start working again. If the fault is within the External Battery Pack, then it will need to be returned for servicing. **Note:** Do not forget that the "TRIP" LED also indicates that the External Battery Pack is discharged.

**Charging:** It is recommended, but not essential, to charge the GEM instrument and External Battery Pack at the same time using their individual chargers. Typically, it will take six to eight hours to charge the External Battery Pack from full discharge. Charging overnight typically provides best results. The charger should not be left attached for long periods of time (more than a day or two). **Note:** The GF5.8 External Battery Pack is shipped with a minimal charge. Upon receipt, attach the External Battery Pack to the charger provided and charge for 6-8 hours, until a full charge is achieved.



**Storing:** It is recommended to store the GF5.8 External Battery Pack charged and without the charger or GEM lead connected. Even when not in use, the External Battery Pack will discharge slowly with time. It will discharge faster if the GEM lead is left connected. If not used for long periods, the External Battery Pack will need to be charged and discharged a couple of times to reach full capacity. It is recommended to discharge and recharge the External Battery Pack at least once a quarter.

**Warranty:** One year parts and workmanship.