

CHECKLIST

1. Check the instrument has no obvious faults.
2. Check accessories.
3. Read and understand handbook before use.
4. Switch ON (see overleaf)
5. Check battery levels.
6. Check "ZERO" in fresh air.

OPERATOR MESSAGES / FAULT FLAGS

Various messages can appear on the LCD screen to indicate instrument status.

'SAMPLE' This indicates that the pump is running and the instrument is sampling.

'OFF' This indicates that the instrument is about to switch off. This command can be cancelled by a single press of any switch.

'FAULT' When in EXT range, this message is displayed if the Semiconductor Sensor Probe is not connected.

'SAMPLE FAULT' This indicates a problem with the instrument's flow due to the sample path being blocked, water ingress, a blocked filter or pump failure.

The instrument will alarm and the pump will switch off. The sample path should be checked and Switch One pressed to clear sample fault and re-start the pump.

'CHECK ZERO' This indicates that there may have been a zero shift due to the presence of gas. Switch off the instrument and switch on again in fresh air.

'ZERO FAULT' This indicates that the zero is outwith its calibration limits. Switch the instrument off and then on again in fresh air. If the fault does not clear, return the instrument for servicing.

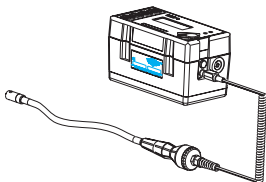
'BAT' This indicates that the batteries will soon require replacement. At this point there will be approximately 1 to 2 hours left in a set of alkaline batteries, although this figure will vary depending on battery manufacturer, temperature conditions, usage etc. With rechargeable batteries the 'BAT' flag indicates approximately 30 minutes operation left.

'BAT FAULT' This indicates that the batteries should be replaced immediately. As the battery power continues to fall, the pump switches off and the LCD flashes a 'BAT FAULT' message. Subsequently the LCD displays 'OFF' and the instrument switches off after approximately 5 minutes. The batteries should be replaced immediately.

'STORE' This flag is displayed when the instrument is in auto datalogging mode. During manual datalogging, if not already on, the flag will be displayed for approximately one second.

'EEEE' This message is displayed if the measurement in the EXT range rises above 9999 (instrument over range) or PPM flammable range measurement rises above 999.

'1' This message, which can also appear after power on, indicates that a calibration data error has been detected. The instrument should be returned for servicing.



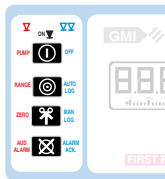
OPERATION

SWITCH 1


SWITCH 2

SWITCH 3

SWITCH 4



Switch On

Press and Hold Switch One  to switch instrument On. This initiates the instrument's warm-up cycle. All LCD segments are displayed,



followed by Instrument Type and Software version,



then Battery status, as shown.



Next the LEL alarm level and calibration gas, Methane in this example, is displayed as a scrolling message.




High CO alarm alternates between CO and HI




This display screen is followed by the current gas detection reading.

Toggle Pump ON / OFF


A single press of Switch One  when the pump is running turns the pump off and stops sampling. Pressing switch one again turns the pump back on.

Change Range


Each single press of Switch Two  changes the range. The display cycles through the

available ranges in the order: LEL - PPM - CO - EXT - LEL etc.


Zero Current Sample Reading (PPM and EXT)

A single press of Switch Three  is required, and should be carried out in fresh air.


Datalogging (Automatic)

A double press of Switch Two  toggles automatic datalogging On and Off. The STORE flag is displayed, when On


Datalogging (Manual)

A double press of Switch Three  initiates a manual datalog. This is confirmed by the buzzer sounding.

Clearing Alarms

A double press of Switch Four  acknowledges the alarm for 60 seconds if non-latching. If more than one gas alarm threshold has been exceeded, a double press of Switch Four will acknowledge each alarm in order of priority.


Audible Alarm (PPM and EXT)

When in either PPM or EXT gas detection ranges, a single press of Switch Four  will enable or disable the audible Geiger

indication. When enabled, the display changes between PPM and Aud or EXT and Aud depending on range selected.






Switch Off

A double press of Switch One  turns the instrument Off.


There is a five second shutdown sequence during which time, OFF is displayed. To abort shutdown, press any one of the four instrument switches.

Adjust Threshold Value (EXT)

When in EXT gas detection range, the Threshold value can be adjusted. Press and hold Switch

Two  to display the factory default setting. Each single press of Switch Three  will increase the threshold value by 5 ppm. Each single press of Switch Four  will decrease the threshold value by 5 ppm.

Barhole Probing Counter

To start or stop the counter (timer), press and hold Switch Three  when the current range is either LEL or Volume Gas.