

# Quick Start Guide for the EAGLE2

This document serves as a quick reference guide and is not intended to replace the user manual. It is recommended to consult the user manual for more detail. Geotechnics has relied on the information in the user manual to develop this guide and makes no representation of warranty as to the accuracy of the guide.

## 1. About the EAGLE2

The sampling probe for the EAGLE2 has a particle and a hydrophobic filter disc which can be changed on-site. Always ensure that the inlet of the sampling probe is clear of any obstructions before attaching it to the body of the EAGLE2 via the metal quick-connect fittings. Using the sampling hose is optional. This particular EAGLE2 unit is equipped with the combustible sensor which is programmed for Methane (CH<sub>4</sub>).

## 2. Turning the EAGLE2 On

- a. Ensure that the inlet of the sampling probe is clear of any obstruction and attach the male quick-connect to the female quick-connect fitting of the EAGLE2.
- b. If using the black sampling tube, attach this to the sampling probe and then to the EAGLE2.
- c. Press and hold the 'POWER/ENTER/RESET' button until the unit beeps and turns on.
- d. When prompted with a 'FAIL LOW FLOW LEVEL' message on screen with audible alarms, press the same button to acknowledge the alarm test and begin the start-up sequence.
- e. Select 'Normal Operation' when the option appears and press the 'POWER/ENTER/RESET' button.

## 3. Measuring Mode (Home Screen)

- a. Leave the unit running for ~5 minutes to warm up. The screen will display 'CH<sub>4</sub>' and the concentration, which may rise during the process.
- b. After warming up, the readings will stabilise and a fresh air adjustment is required.

## 4. Fresh Air Adjustment

- a. Press and hold the 'AIR YES' button until the display prompts to release.
- b. Concentration readings should show 0ppm, 0%vol. or 0%LEL, depending on the settings.
- c. The unit is now measuring and ready to use.

## 5. Turning the EAGLE 2 Off

- a. Press and hold the 'POWER/ENTER/RESET' button.
- b. Release the button when 'GOODBYE' appears on the screen.
- c. The unit has turned off.

## 6. Alarms

Reading	HIGH	LOW	OVER
% LEL	20	10	>100%LEL
ppm	5,000	2,500	>50,000ppm
%Vol	OFF	OFF	-

The EAGLE2 has audible and visual alarms set to trigger at pre-adjusted gas concentrations.

## 7. Tips

### 7.1 Changing Unit of Measurement

a. The EAGLE2 can display gas concentrations in the following units of measurements:

- Parts per million (ppm)
- Percent of Lower Explosive Limit (%LEL)
- Percent Volume (%Vol.)

b. Press and release the 'RANGE SHIFT' button to cycle through the options.

### 7.2 Pump/Sample Train Integrity Test

a. Place a finger over the tip of the inlet probe, allowing the unit to go into flow fail, stopping the pump and activating the alarms.

b. Press the 'ENTER/RESET/SILENCE' to restart the pump and turn off the alarm.

c. If the pump does not shut off and activate alarms, check if the probe and/or hose are properly connected.

## 8. Troubleshooting

Symptom		Possible Cause(s)	Recommended actions
1	The Unit cannot turn on	Flat/defective battery	Disconnect and re-connect battery pack Re-charge the lithium-ion batteries Use alkaline batteries, keeping the Ni-MH batteries in the case
2	Abnormally high readings and/or fluctuating readings after Fresh Air calibration	Dirty filters in sampling probe Insufficient warm-up time Incorrect calibration gas used Sensor showing abnormal readings; may need replacing	Clean the particle filter in the probe body and check that the filter disc is clean Leave the EAGLE2 running for a further ~5mins and then perform a Fresh Air Adjustment Return to Geotechnics if the problem continues
3	The display continues to indicate flow failure after the initial prompt and after pressing 'POWER/ENTER/RESET' at start-up	Sample probe tube is clogged Hydrophobic filter disc in the sample probe body is dirty Sample hose (if used) has a kink or obstruction The internal hydrophobic filter is dirty	Ensure the sample probe tube and sampling hose are clear of any obstruction Clean or replace the hydrophobic filter disc in the probe body Return to Geotechnics to replace internal hydrophobic filter if the problem continues
4	Readings are not registering	Leak in the sample train Pump diaphragm damaged	Check the flow integrity Return to Geotechnics if the problem continues