



PORTA-FID II Calibration

Standard Operating Procedure

WASTE
REDUCTION
& DISPOSAL
DIVISION

Landfill Gas Management

This instrument should be gas calibrated on a quarterly basis. Record results in PORTA FID calibration log.

Instrument Set up:

Note: – *Instrument must be calibrated in a hydrocarbon-free atmosphere (clean air). You will need a gas mixture cylinder of 100 ppm methane/balance air. Check calibration gas expiration date. If expired, obtain new calibration gas before proceeding.*

1. Connect regulator to fuel cylinder (small cylinder).
2. Slide fuel cylinder into bottle holder in bottom of Porta-FID (hand held unit).
3. Connect regulator hose to the Porta-FID by firmly pushing quick disconnect at the end of the regulator hose into a fitting under the pressure gauge at the back side of instrument.
4. Turn on the Porta-FID for five minutes to stabilize. Set the instrument on a flat horizontal surface throughout the calibration procedure.
5. Set the meter needle to zero by turning the zero control knob. The meter needle should be relatively stable on zero throughout calibration procedure.
6. Depress the 500 ppm range switch.
7. Connect calibration kit regulator assembly to calibration cylinder.
8. Attach calibration kit outlet connector (hose & fitting) to Porta-FID by pushing connector firmly into the sampling inlet quick disconnect.

Calibration Procedure:

1. Allow calibration gas to flow slowly into the instrument by turning calibration cylinder valve knob counter-clockwise (turn only 1 to 1 ½ turns).
2. Allow the unit to run for at least one half minute, then check the needle.
3. If the needle does not read 100ppm \pm 10, adjustment is needed.
4. There is an adjustment control switch within the hand-held unit located inside the bottom rear of the instrument. Adjustment control switch is accessed by un-screwing screws on bottom plate of the Porta-FID hand-held unit.
5. Adjust control to proper level to read 100ppm. Calibration is complete.
6. Repeat steps 1 through 4, Calibration Procedure, to verify calibration.

PORTA-FID II Calibration Standard Operating Procedure

Benefit of Compliance to Instruction:

- Provides quality assurance and quality control of field data
- Accurate field data is necessary in order to meet APCD permit conditions

Consequence of Non-Compliance to Instruction:

- Lack of calibration leads to inaccurate field measurements
 - Violation of calibration SOP invalidates data and violates APCD permit.
-

Environmental Management System (EMS) –ISO 14001

PROCESS MAP #: GM 3.0, GM 3.1

Reviewed by: Ray Purtee, *Senior Mechanical Engineer*

Approved by: Kip Sturdevan, *Deputy Environmental Services Director, WRAD*

The on-line version and secured hardcopy are the controlled documents. The secured hardcopy will be identified by a “Controlled Copy” stamp (in red) and WRAD Deputy Director’s signature. Any other documents are uncontrolled. Verify revision level status on-line or contact the EMR