

## ***GEM 2000 Calibration Easy Steps***

### **Field Calibration**

Turn Instrument On (By pressing on the Red Button).

After the instrument has finished it's initial process, it will enter the Main Screen

Press 1 Menu

Use your Up(2) or Down(8) keys to scroll the "Field Calibration" then press Enter in your instrument

Press 3 Edit target Concentrations

Enter manually the target concentrations for CH<sub>4</sub>

Press Enter to move to CO<sub>2</sub>, Enter CO<sub>2</sub> Target Concentration

Press Enter to move to O<sub>2</sub>, Enter O<sub>2</sub> Target Concentration

Press Enter to complete.

Connect Calibration (CAL) Gas Bottle with 0% CH<sub>4</sub> (example 4% O<sub>2</sub>, Bal N<sub>2</sub>)

Allow gas to flow for approximately 30 seconds to ensure a complete purge of any gas in instrument

Press Enter to bring up Calibration Menu

Choose Zero Channels, Press Enter

Choose Zero CH<sub>4</sub> Press Enter when done.

If Calibration was successful you should see the following message "User Zero Complete"

Connect CAL Gas Bottle With 0% O<sub>2</sub> (example 50% CH<sub>4</sub> 35%CO<sub>2</sub> Bal N<sub>2</sub>)

Allow gas to flow for approximately 30 seconds to ensure a complete purge of any gas in instrument

Press Enter to bring up Calibration Menu

Choose Zero Channels press Enter

Choose Zero O<sub>2</sub> press Enter when done

If Calibration was successful you should see the following message "User Zero Complete"

Press Enter to go to Calibration Menu

Choose Span Channels, Press Enter

Choose Span CH<sub>4</sub>

Verify that CH<sub>4</sub> Calibration (CAL) Gas is still connected to instrument (Wait 30 seconds for gas to flow thru instrument)

Press Enter to Set CH<sub>4</sub> Span

The following message should appear "Calibration Complete"

Press Enter to go to Calibration Menu

Choose Span Channels, Press Enter

Choose Span CO<sub>2</sub>

Verify that CH<sub>4</sub> CAL Gas is still connected to instrument (Wait 30 seconds for gas to

flow thru instrument)

Press Enter to Set CO<sub>2</sub> Span

The following message should appear "Calibration Complete"

Connect Gas Bottle With 4% O<sub>2</sub> (example. 0% CH<sub>4</sub> 0% CO<sub>2</sub> 4%O<sub>2</sub>)

Allow gas to flow for approximately 30 seconds to ensure a complete purge of any gas in instrument

Press Enter to go to Calibration Menu

Choose Span Channels, Press Enter

Choose Span O<sub>2</sub>

Press Enter to Set O<sub>2</sub> Span

"Field Calibration is Complete"

We suggest taking a reading from CAL GAS Bottles in the normal gas readings screen to verify that calibration has been done correctly.

The N/A section on the Calibration Gas Reading Screen is for external Gas pods when attached (example H<sub>2</sub>S)

If you have problems with a completed calibration try going to the calibration menu and select factory settings You will receive the message [resetting please waite]

Then do the field calibration again