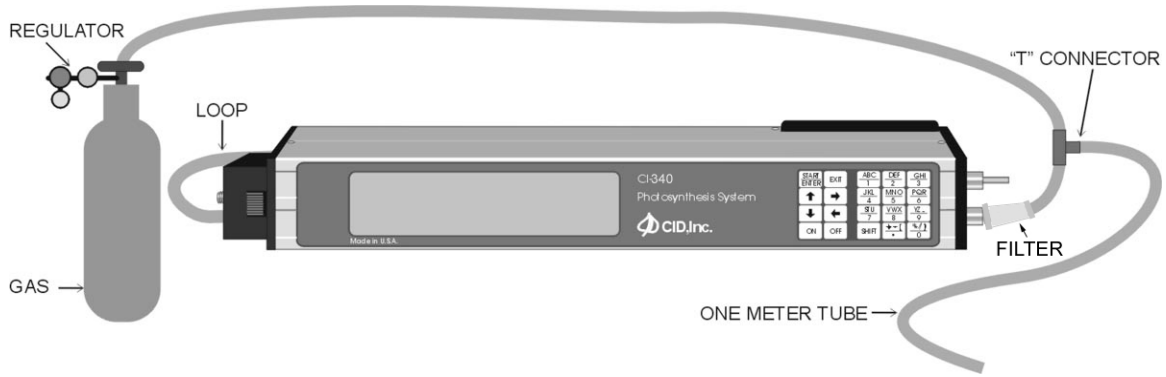
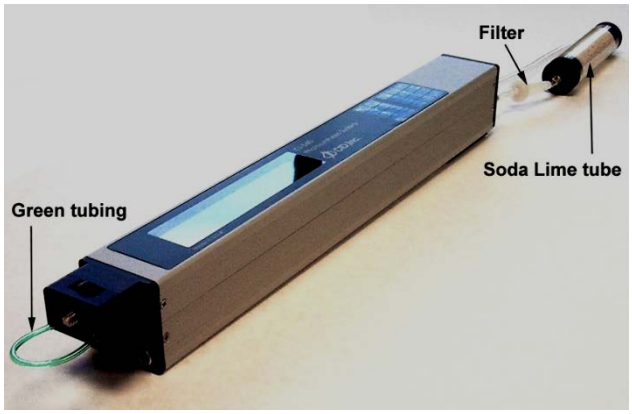
CID Bio-Science Inc.
Portable Instruments for Precision Plant Measurement

Calibrating the CI-340 CO2 Zero and CO2 Span:

1. Power on the instrument
2. Connect the soda lime tube or set the AD CO2 and H2O to zero
3. Use the up/down arrow to get to Calibrate CO2
4. Press enter
5. Instrument will begin "warming up" and count down from 300 (?)
6. Instrument will display "START to set Zero, else EXIT"
    a. Hit start to set the CO2 zero.
    b. "Use 0 ppm CO2 gas, Press START/ENTER"
    c. Hit start/enter.
    d. "Settting 0 in 60 seconds" will be displayed and the instrument will count down from 60 seconds to 0.
    e. At this point, the CO2 concentration of the gas passing the analyzer is taken as 0 ppm and the sensor is calibrated to read this level as 0. Therefore, if the gas isn't 0 ppm or hasn't been allowed enough time to run through and completely clear the system, the calibration can skew the instrument further.
7. After the CO2 zero is set, the instrument will display "Use known CO2 gas, Press START/ENTER'
8. If you wish to calibrate the CO2 Span, hit start/enter. If you only wish to calibrate the CO2 zero, press EXIT.
9. To calibrate the CO2 span, connect a gas with a known concentration of CO2.
    a. Press Start/Enter
    b. The unit will display "Concentration: ? ppm"
        i. Enter the CO2 concentration of the known gas from 100-1000 ppm
        ii. Hit Start/Enter
        iii. Instrument will count down from 60 seconds and set the CO2 span.
        iv. Press Start/Enter to save and the display will return to the "ENTER to select Calibrate CO2"

CO2 zero should be calibrated regularly (daily to weekly) depending on significant changes in ambient conditions. This could easily be once or twice a day in some areas where there are significant changes in temperature and humidity levels between morning and evening (over the course of a day taking measurements). If the environment stays relatively the same during measurements, then recalibration isn't as necessary. CO2 zero is a one point calibration, CO2 span is a two point calibration.


REGULATOR
LOOP
"T" CONNECTOR
CI340
Photosynthesis System
CID,Inc.
FILTER
GAS
ONE METER TUBE


Filter
Soda Lime tube
Green tubing