

InfraCal TOG/TPH Analyzer, Model CVH *Calibration*




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simple analytical solutions

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Calibration Oil

- Heavy hydrocarbon
- No volatiles
- No Additives

Mixing Standards – Volume/volume

ppm

Oil

Solvent

400

40ul

10 ml

300

30ul

10 ml

200

20ul

10 ml

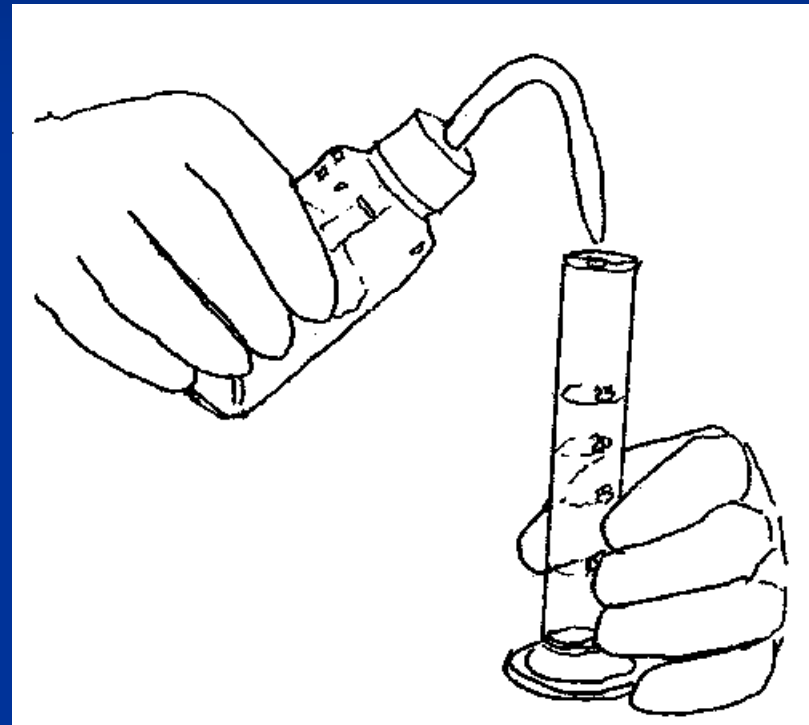
100

10 ul

10 ml

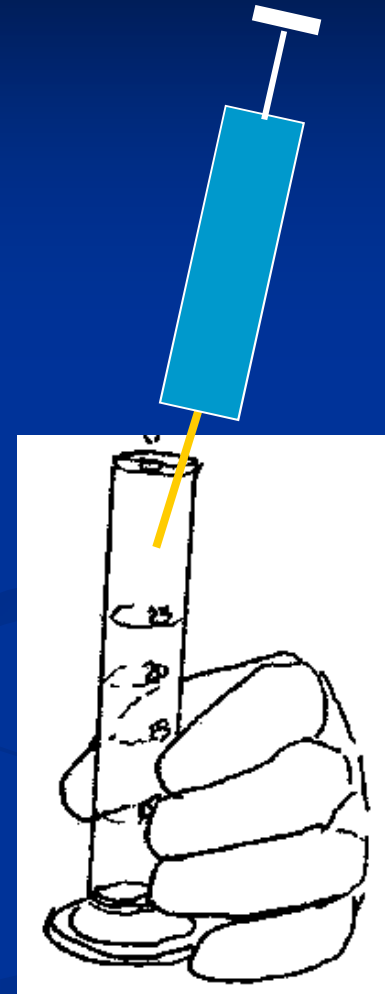
First Standard: 100 ppm

- Add 10-ml of solvent to the 10-ml graduated cylinder



First Standard: 100 ppm

- Add 10-ml of solvent to the 10-ml graduated cylinder
- Using the syringe add 10 microliters of oil to 10-ml of solvent in the graduated cylinder

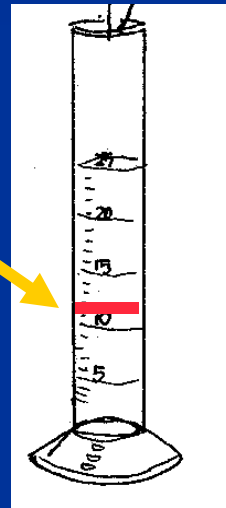


First Standard: 100 ppm

- Add 10-ml of solvent to the 10-ml graduated cylinder
- Using the syringe add 10 microliters of oil to 10-ml of solvent in the graduated cylinder
- Pour this standard into a vial labeled "100 ppm"
- Shake to mix

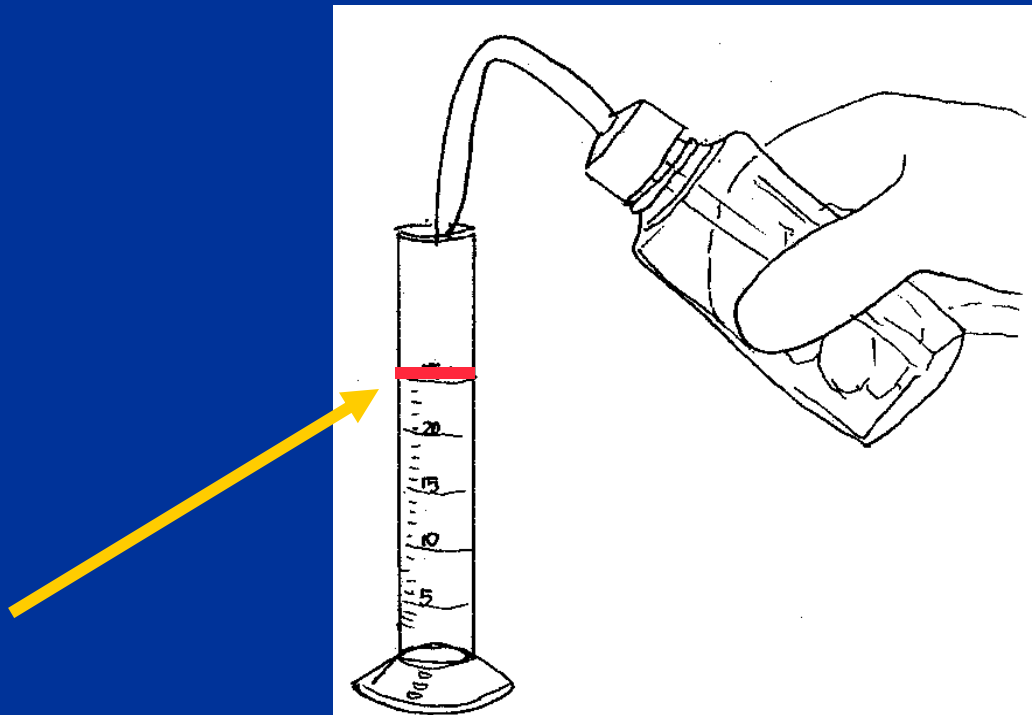
Second Standard: 50 ppm

- Pour 5-ml of the 100 ppm standard back into the 10-ml graduated cylinder



Second Standard: 50 ppm

- Pour 5-ml of the 100 ppm standard back into the 10-ml graduated cylinder
- Fill the cylinder to 10-ml with clean solvent

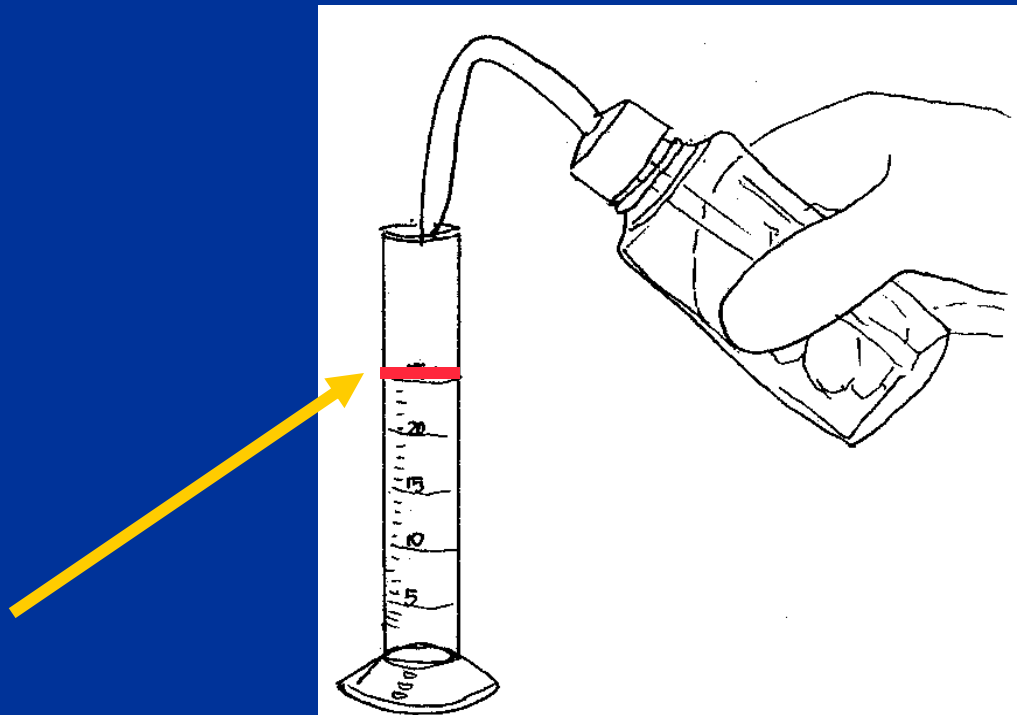


Second Standard: 50 ppm

- Pour 5-ml of the 100 ppm standard back into the 10-ml graduated cylinder
- Fill the cylinder to 10-ml with clean solvent
- This will cut the 100 ppm standard in half to be 50 ppm
- Pour this standard into a vial labeled "50 ppm"
- Shake to mix

Third Standard: 25 ppm

- Pour 5-ml of the 50 ppm standard back into the 10-ml graduated cylinder
- Fill the cylinder to 10-ml with clean solvent



Third Standard: 25 ppm

- Pour 5-ml of the 50 ppm standard back into the 10-ml graduated cylinder
- Fill the cylinder to 10-ml with clean solvent
- This will cut the 50 ppm standard in half to be 25 ppm
- Pour this standard into a vial labeled "25 ppm"

Calibration to Prepared Standards

- Make sure InfraCal has been on for 1 hour
- Make sure cuvette is clean
- Zero InfraCal

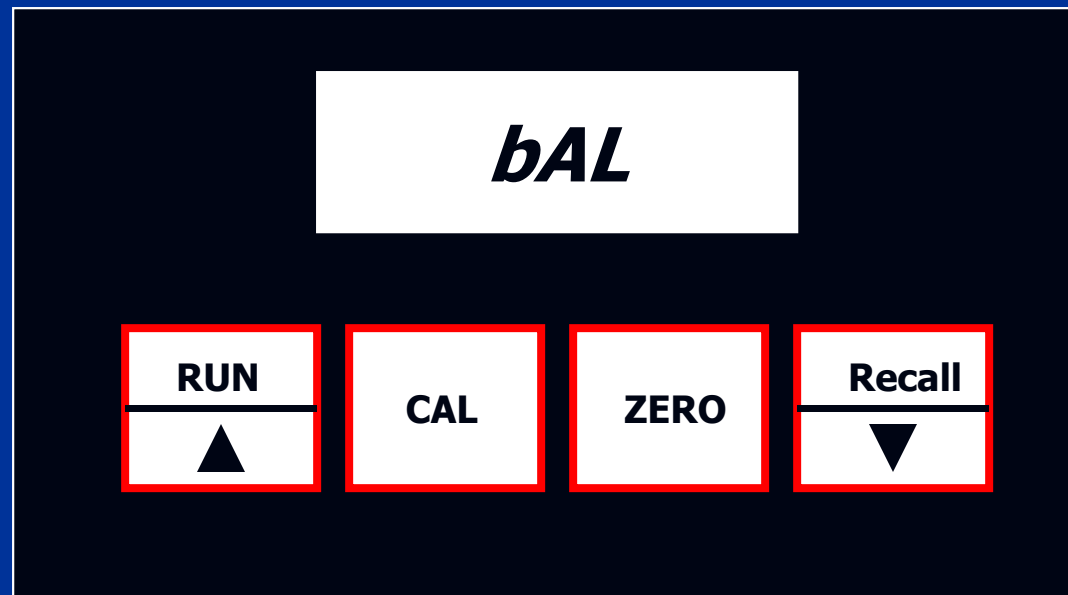
Zeroing

- Fill the cuvette with clean solvent and place in the sample stage with the frosted side facing front.



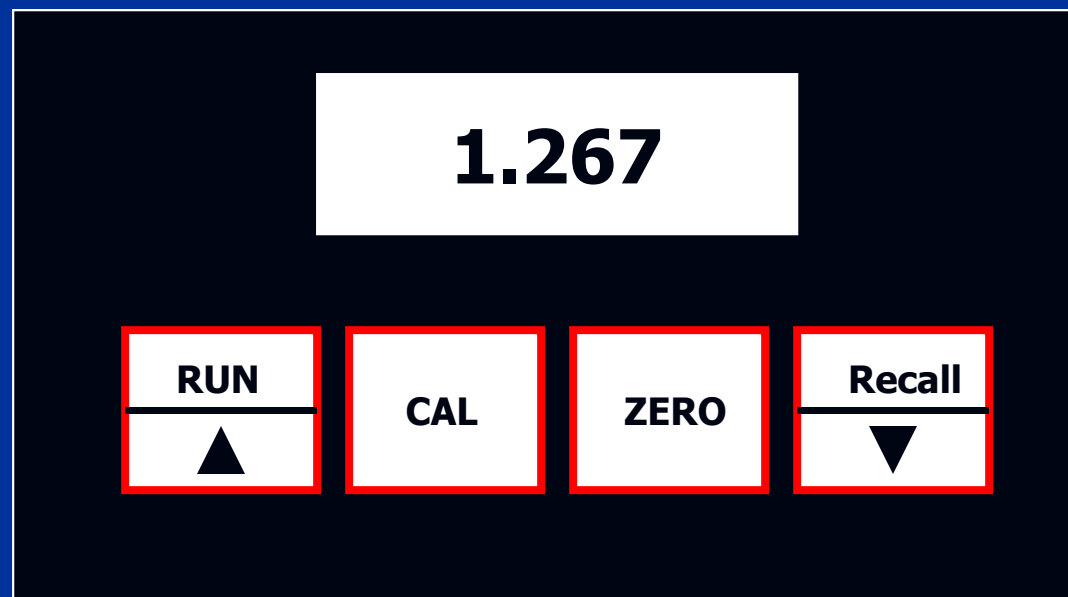
Zeroing

- Press and hold the **ZERO** button until the display reads ***bAL***.



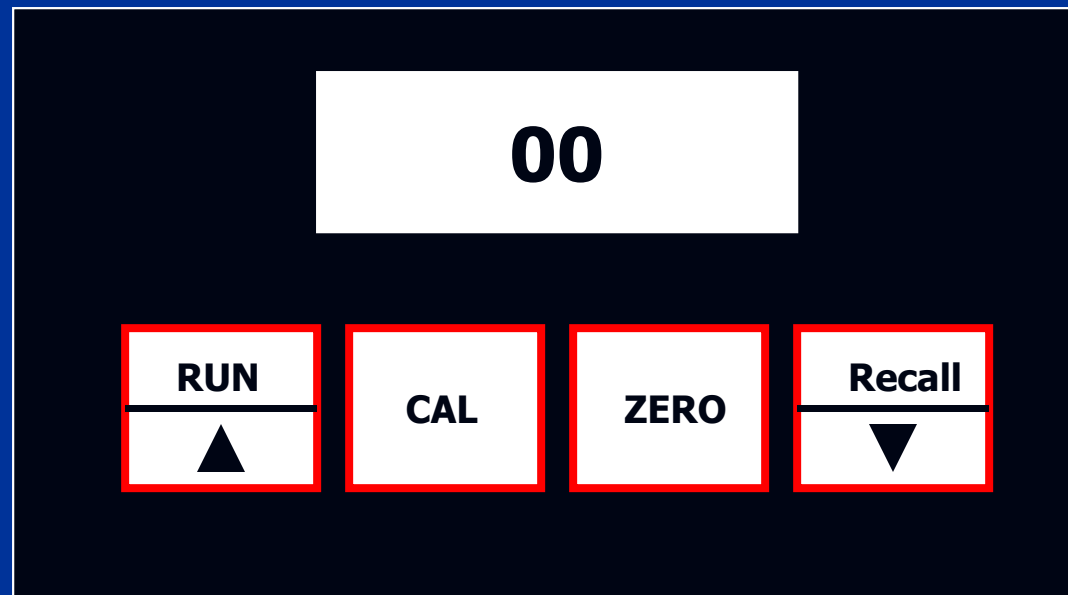
Zeroing

- A multiplier value to 3 decimal places will be displayed when zero is established. The actual value is only of interest when reporting problems to the factory



Zeroing

- Press **RUN**. The display should read 00 ± 02
If not, repeat the zero process



Calibration to Prepared Standards

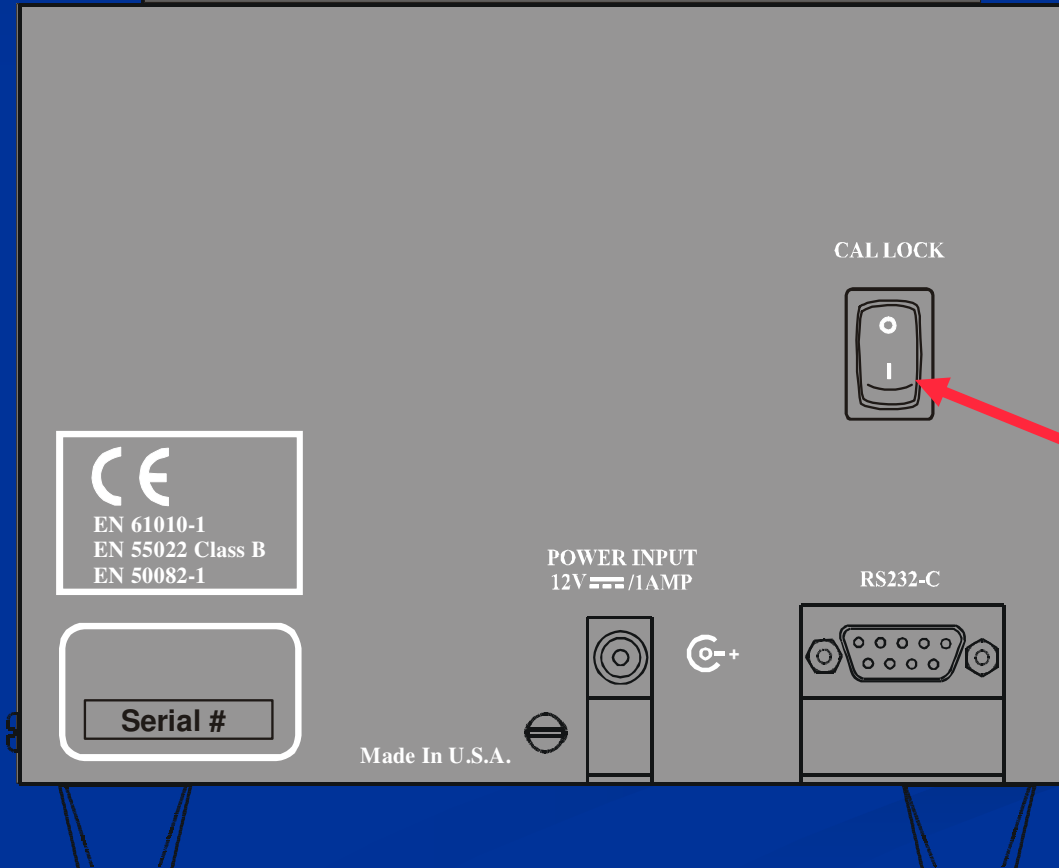
- Run each standard at least 3 times on the InfraCal
- Average results for each standard
- Enter averaged results under the "A" in the manual on page 13 or 14 and the corresponding calibration value in the C column

Example Calibration Table

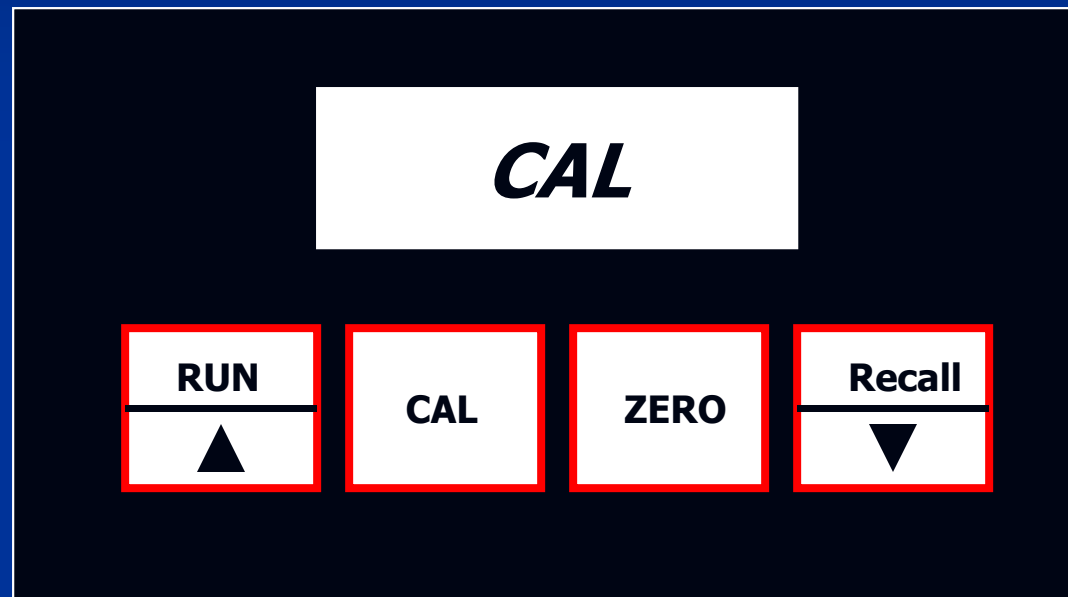
A	C
Absorbance	Calibration Standard
AO1= 42	CO1= 25
AO2= 81	CO2= 50
AO3= 149	CO3= 100

Entering Values into EDIT program

Make sure Cal Lock switch on the back of the InfraCal is in the "I" position



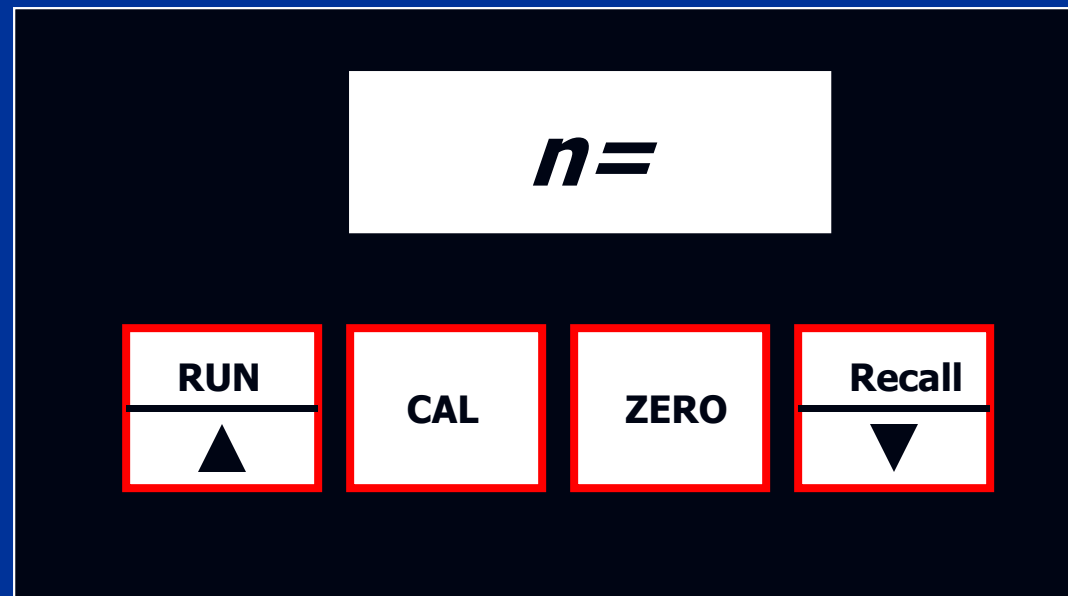
- Press the **CAL** button for two seconds, until **CAL** appears on the display



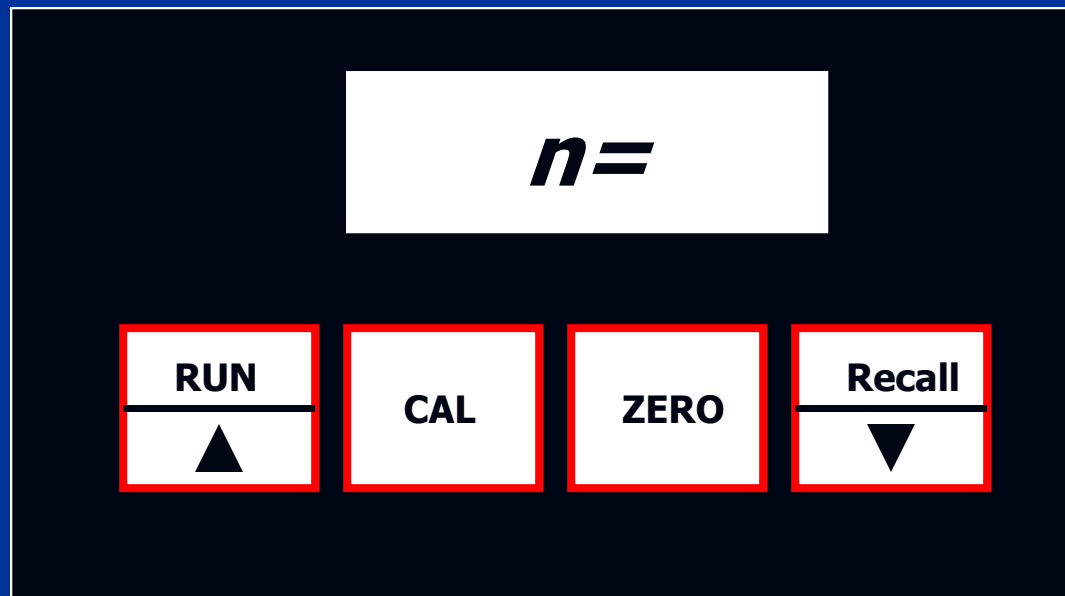
- Press **RECALL** until *Edit* is displayed



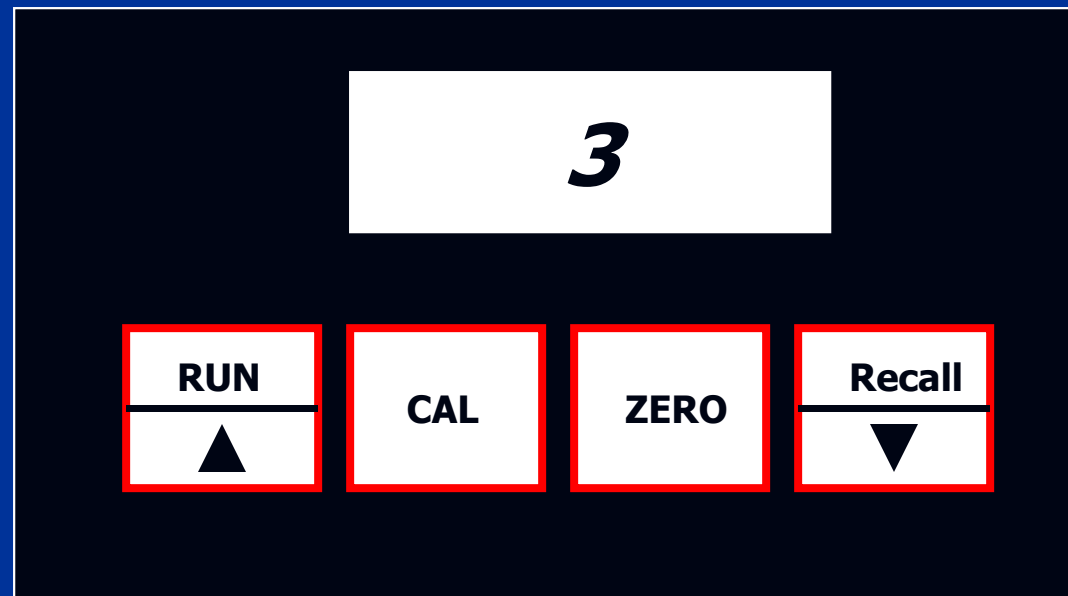
- Press **CAL** and the display will read ***n=*** for a short time



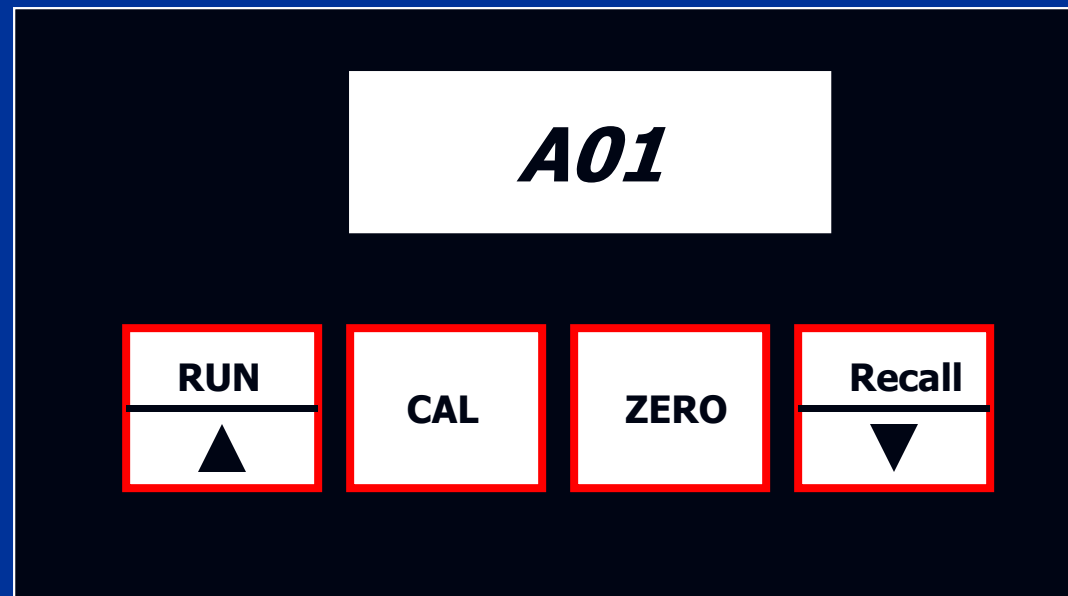
- Set $n=$ to the number standards using the up and down arrows



- Set $n=$ to the number standards using the up and down arrows (for our example it will be 3)



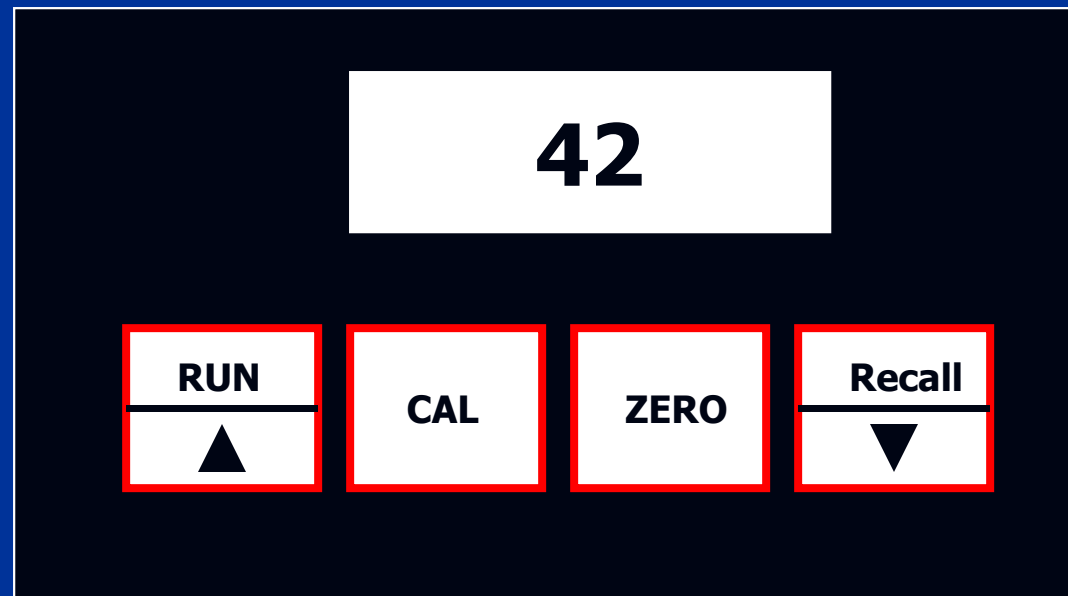
- Press CAL and the display will read ***A01=*** for a short time



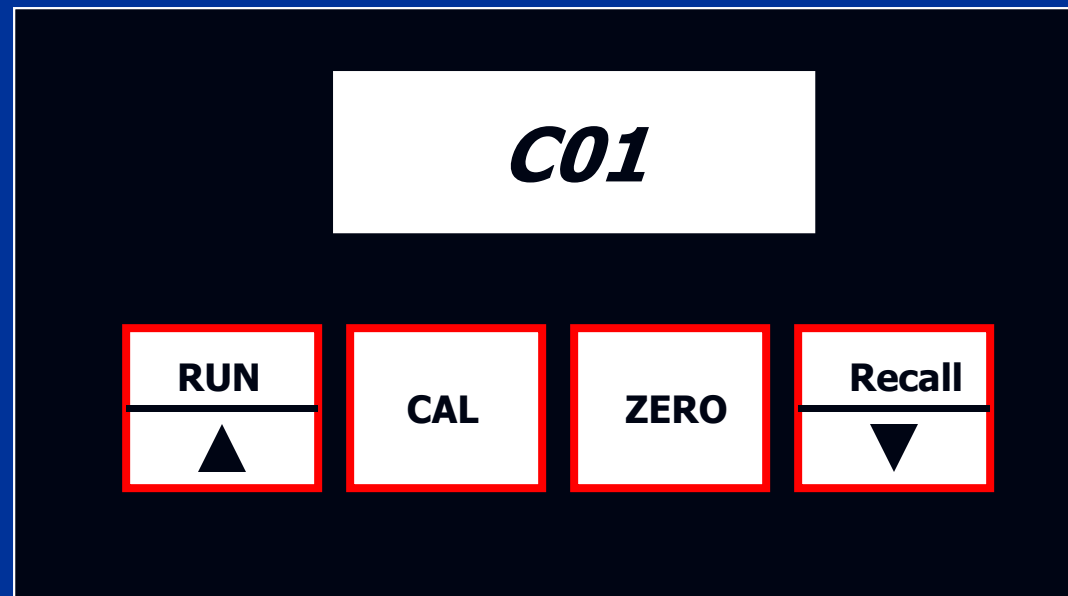
- Using the up and down arrows, scroll to the first absorbance value (for our example it will be 42)

Absorbance	Calibration Standard
AO1= 42	CO1= 25
AO2= 81	CO2= 50
AO3= 149	CO3= 100

- Using the up and down arrows, scroll to the first absorbance value (for our example it will be 42)



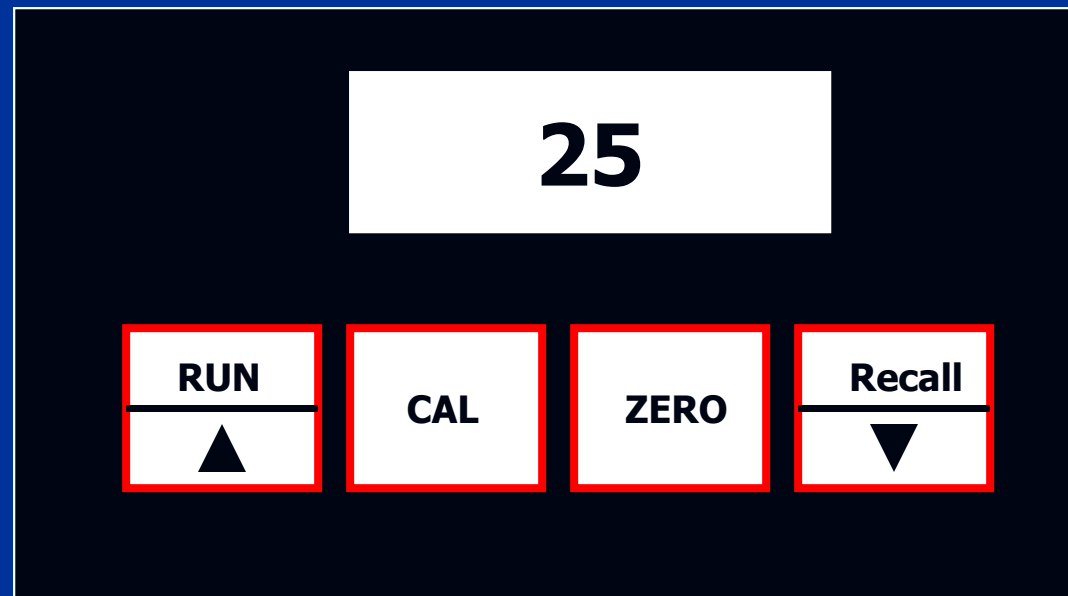
- Press **CAL** again and the display will read ***C01=***



- Using the up and down arrows, scroll to the first calibration value (for our example it will be 25)

Absorbance	Calibration Standard
AO1= 42	CO1= 25
AO2= 81	CO2= 50
AO3= 149	CO3= 100

- Using the up and down arrows, scroll to the first calibration value (for our example it will be 25)



- Press **CAL** and the display will read **A02=** for a short time. Using the up and down arrows, scroll to the first calibration value (for our example it will be 81)

Absorbance	Calibration Standard
AO1= 42	CO1= 25
AO2= 81	CO2= 50
AO3= 149	CO3= 100

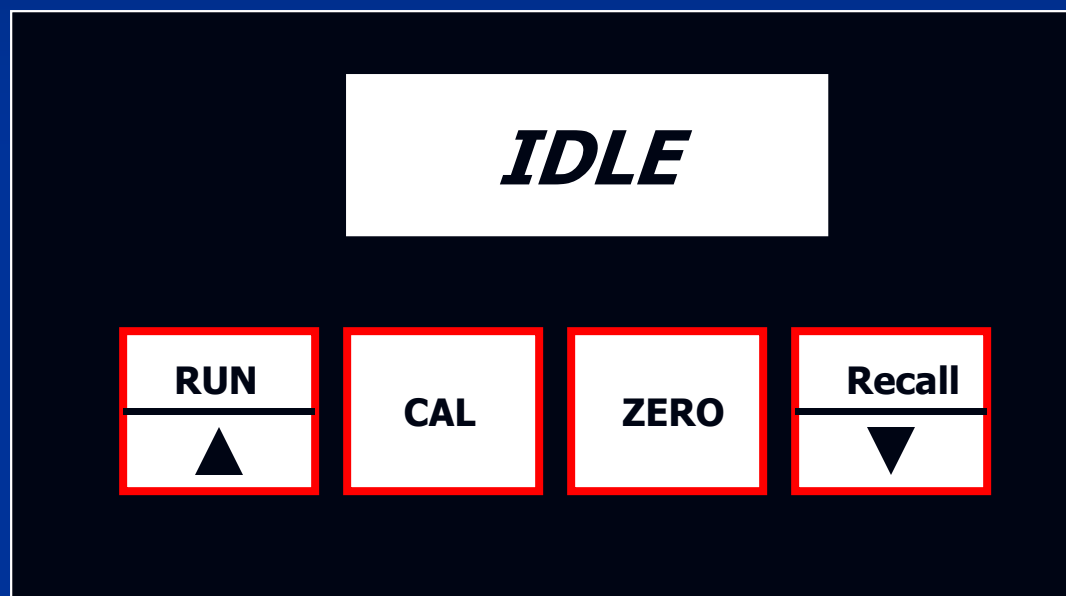
- Press **CAL** again and the display will read **CO2=**
Scroll this to the second calibration value

Absorbance	Calibration Standard
AO1= 42	CO1= 25
AO2= 81	CO2= 50
AO3= 149	CO3= 100

- Do the same for AO3 and CO3

Absorbance	Calibration Standard
AO1= 42	CO1= 25
AO2= 81	CO2= 50
AO3= 149	CO3= 100

- Press CAL again and the display will read IDLE



**The calibration is now stored and
the calibration is now active in the InfraCal**

InfraCal TOG/TPH Analyzer, Model CVH *Calibration*



*For questions please contact us at:
tech@WilksIR.com, or 203-855-9136*