InfraCal TOG/TPH Analyzer
Calibration



wilks
simple analytical solutions

www.WilksIR.com

Calibration Oil

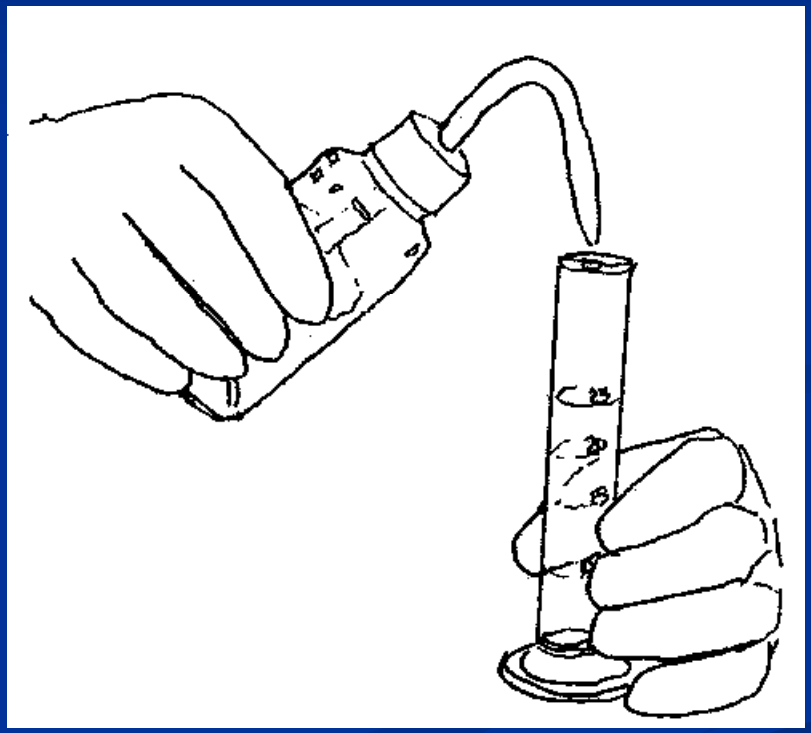
- Heavy hydrocarbon
- No volatiles
- No Additives

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

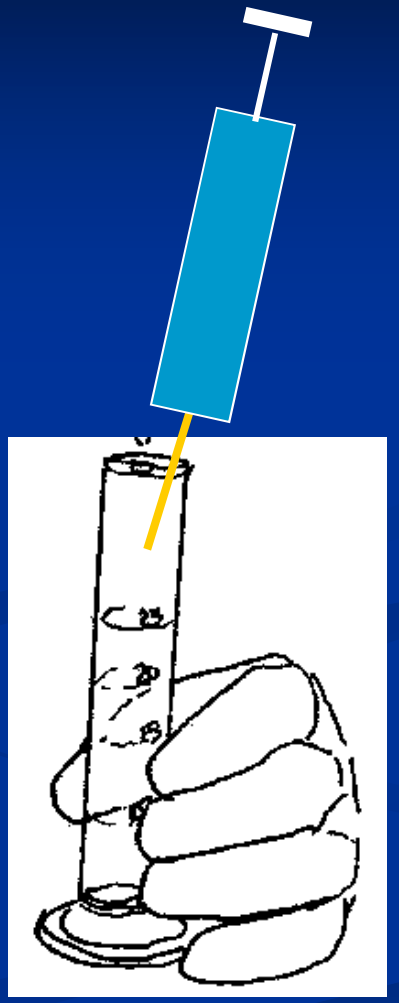
- Add 10-ml of solvent to the 10-ml graduated cylinder



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”

First Standard: 100 ppm

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

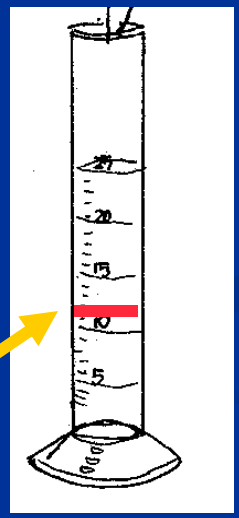
- Using the syringe add 10 microliters of oil to 10-ml of solvent in the graduated cylinder

- Pour this standard into a vial labeled “100 ppm”

- Shake to mix

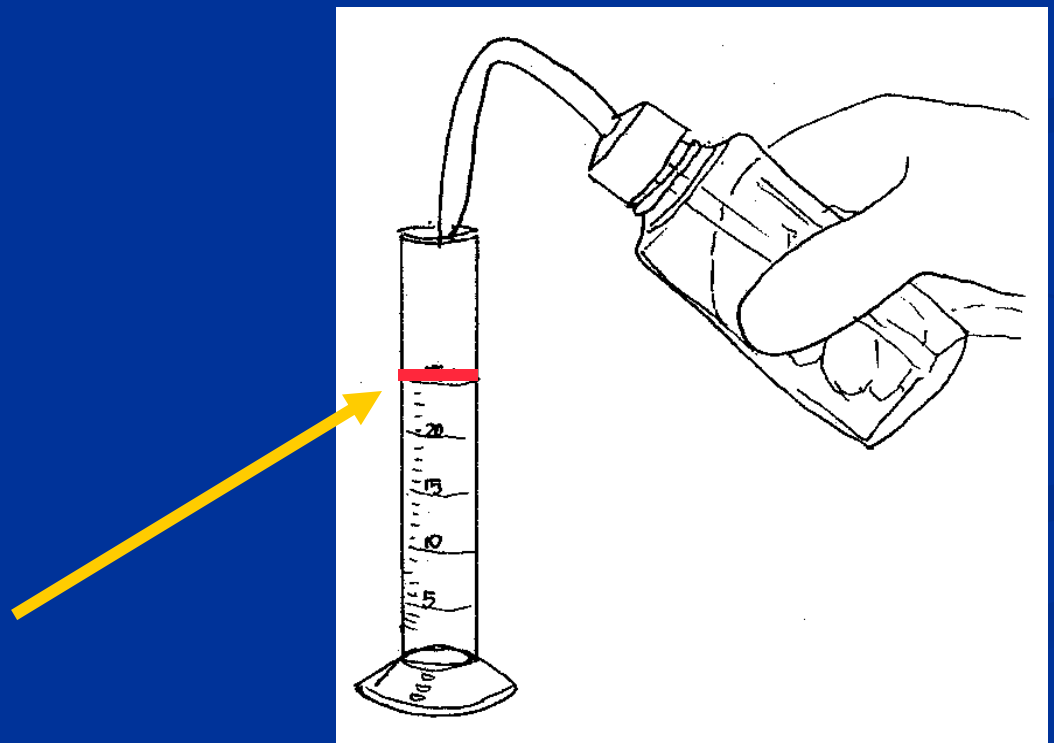
Second Standard: 50 ppm

- 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

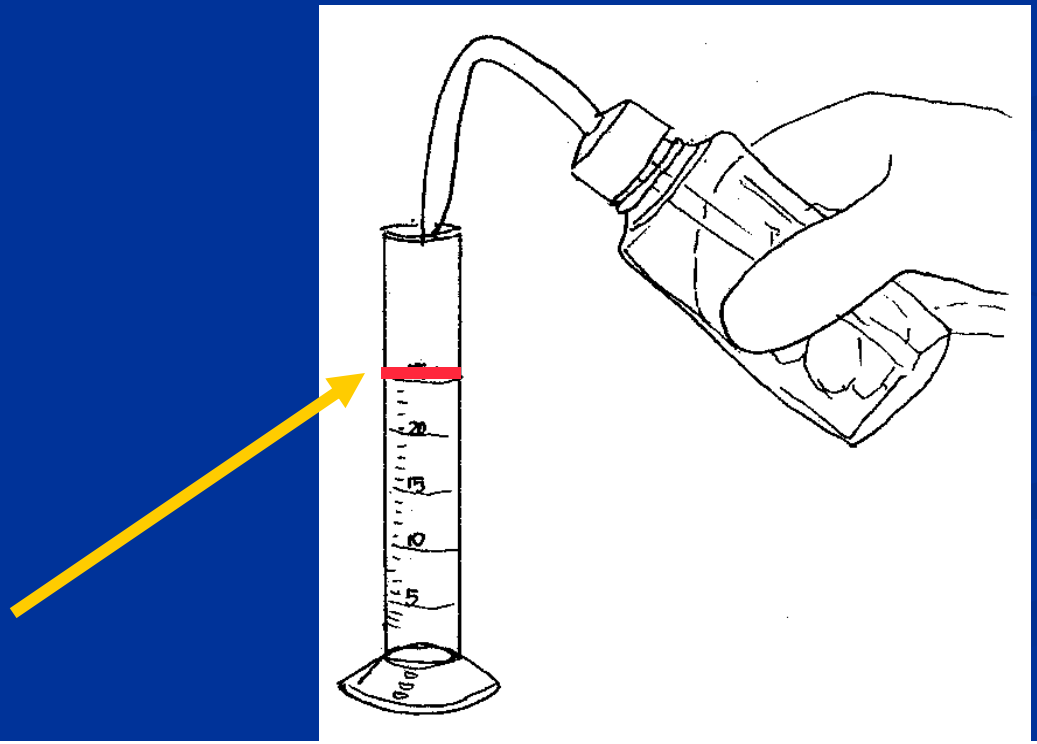


Second Standard: 50 ppm

- 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 sample plate is clean
- Zero InfraCal

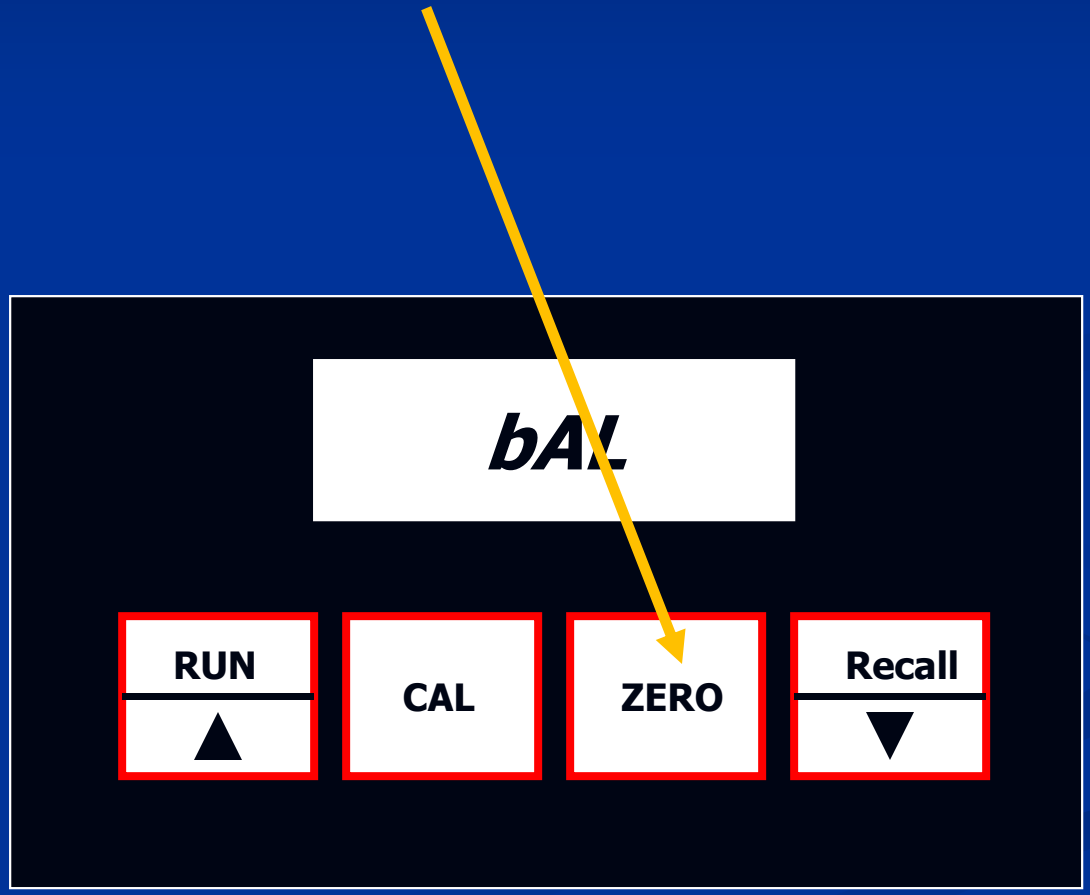
Cleaning the InfraCal HATR-T2 Trough Crystal

- Add enough solvent to cover crystal
- Wipe slowly across the crystal in *one direction*, wiping back and forth tends to spread residual oil
- For high TOG/TPH levels, repeat cleaning 2 or 3 times



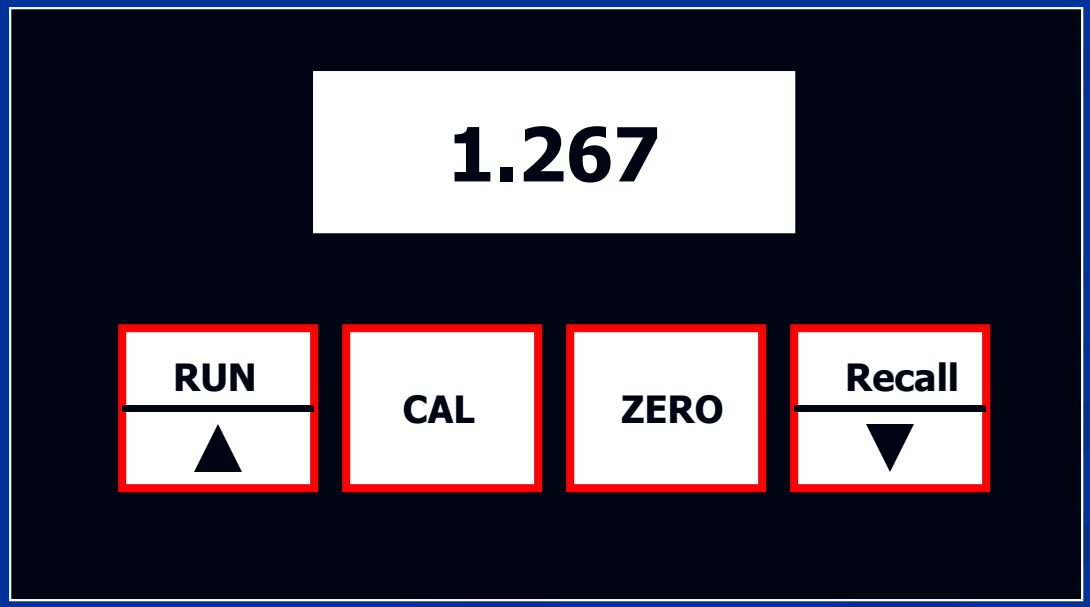
Zeroing

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



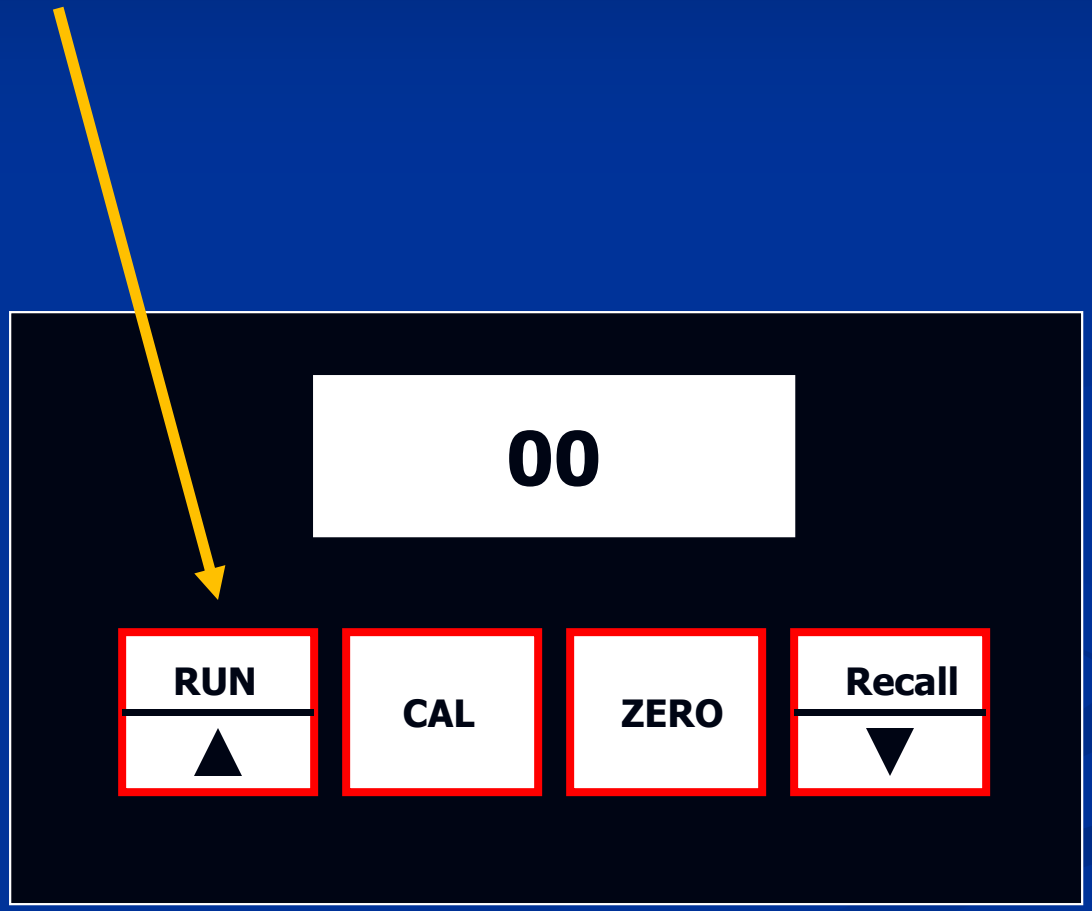
Zeroing

- 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

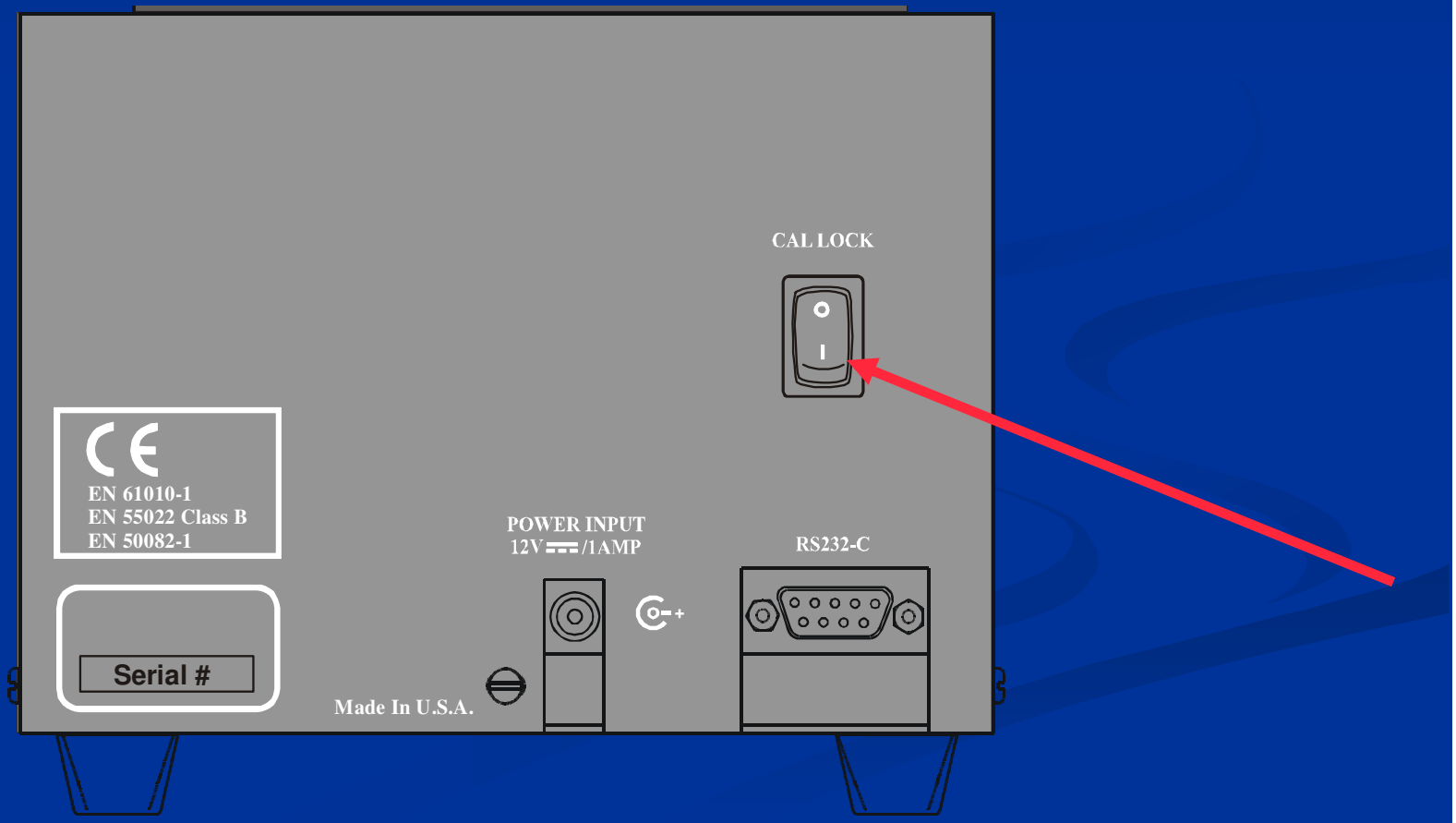
- Run each standard at least 3 times on the InfraCal
- Average results for each standard
- Enter averaged results under the “A” in the manual on page 13 or 14 and the corresponding calibration value in the C column

Example Calibration Table

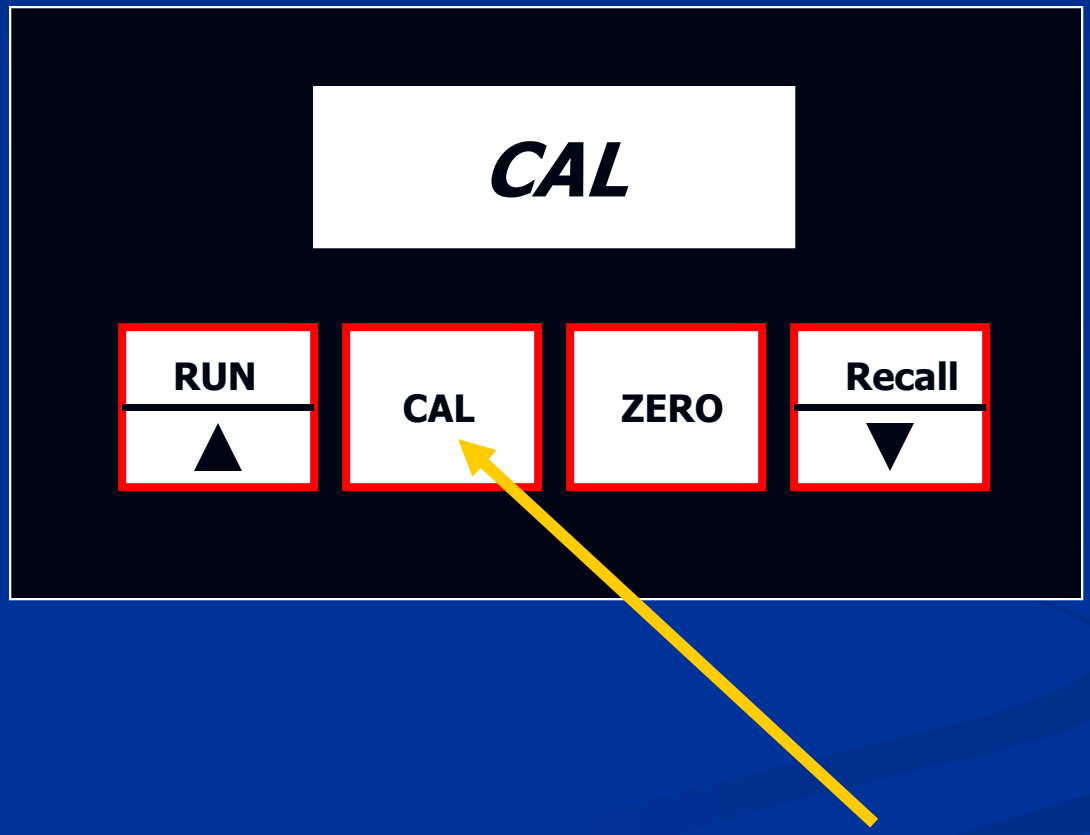
A Absorbance	C Calibration Standard
AO1= 42	CO1= 25
AO2= 81	CO2= 50
AO3= 149	CO3= 100

Entering Values into EDIT program

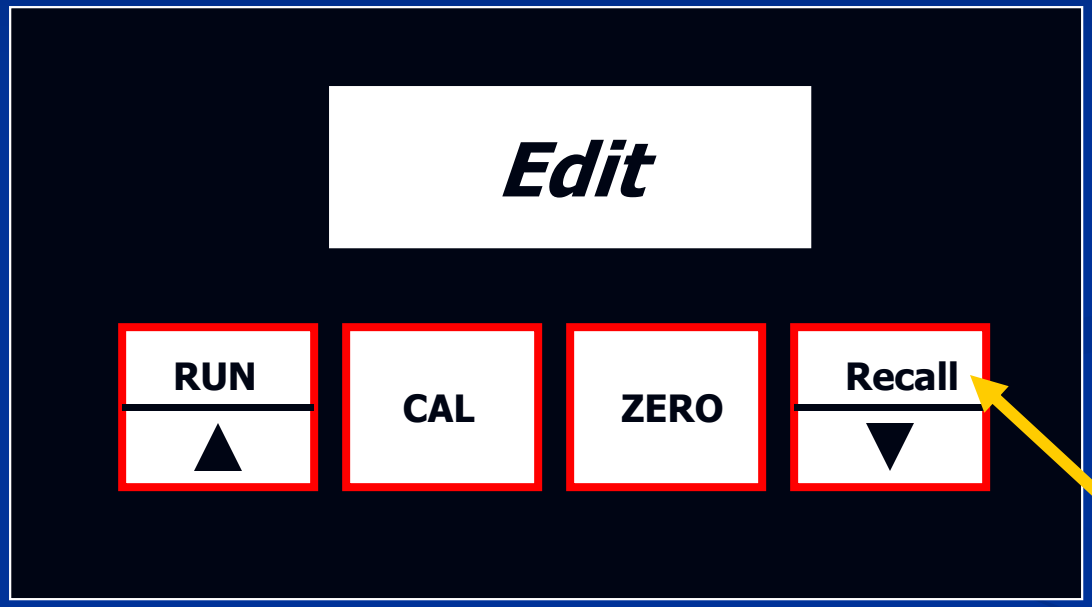
Make sure Cal Lock switch on the back of the InfraCal is in the "I" position



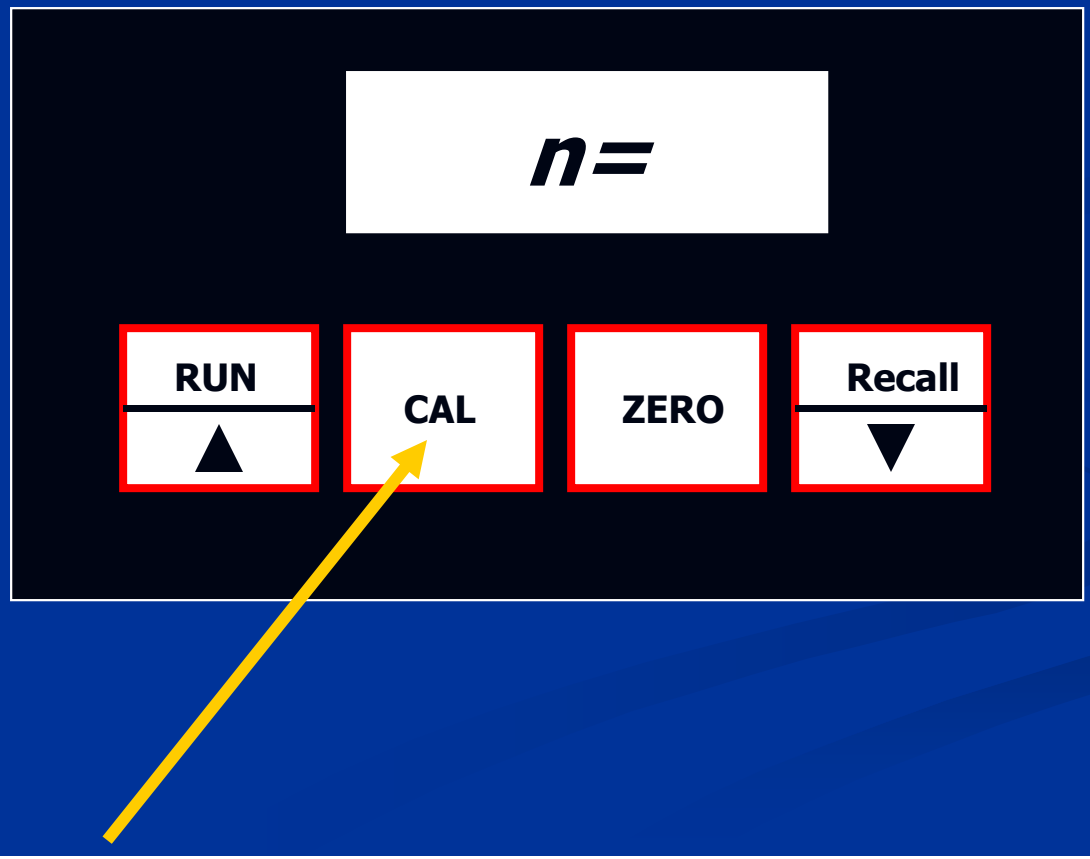
- Press the **CAL** button for two seconds, until ***CAL*** appears on the display



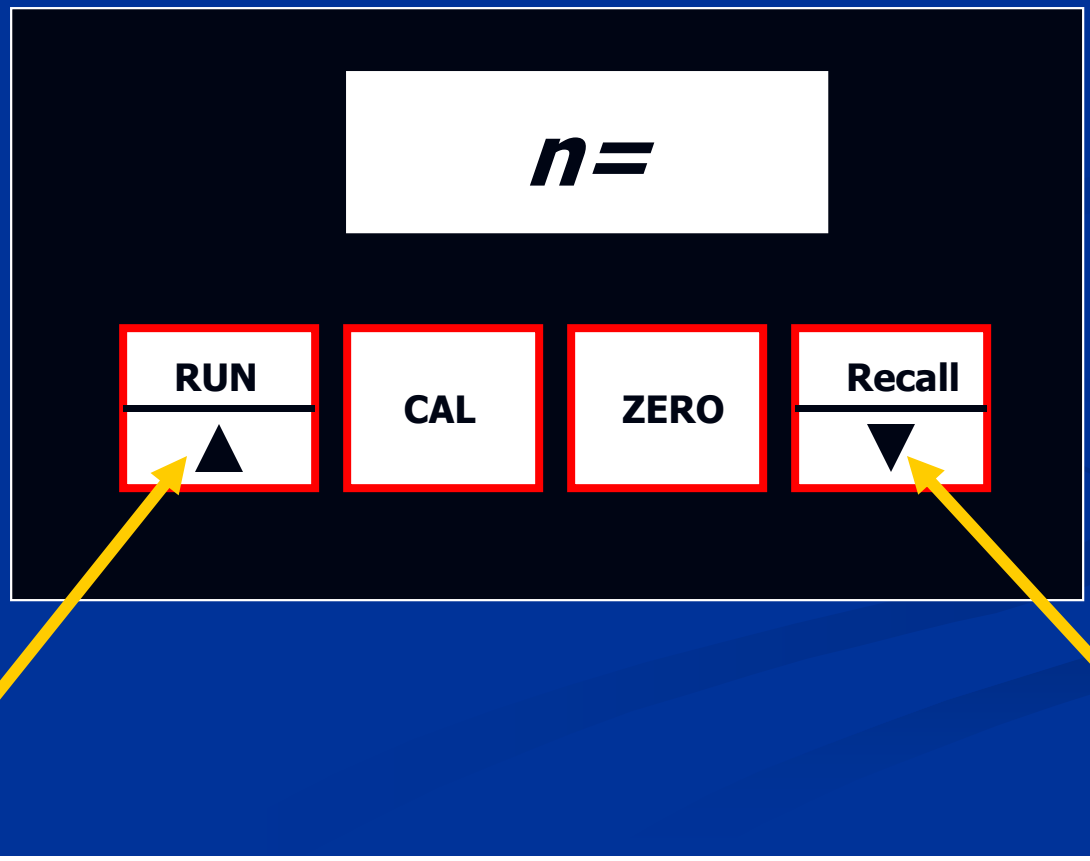
- Press **RECALL** until ***Edit*** is displayed



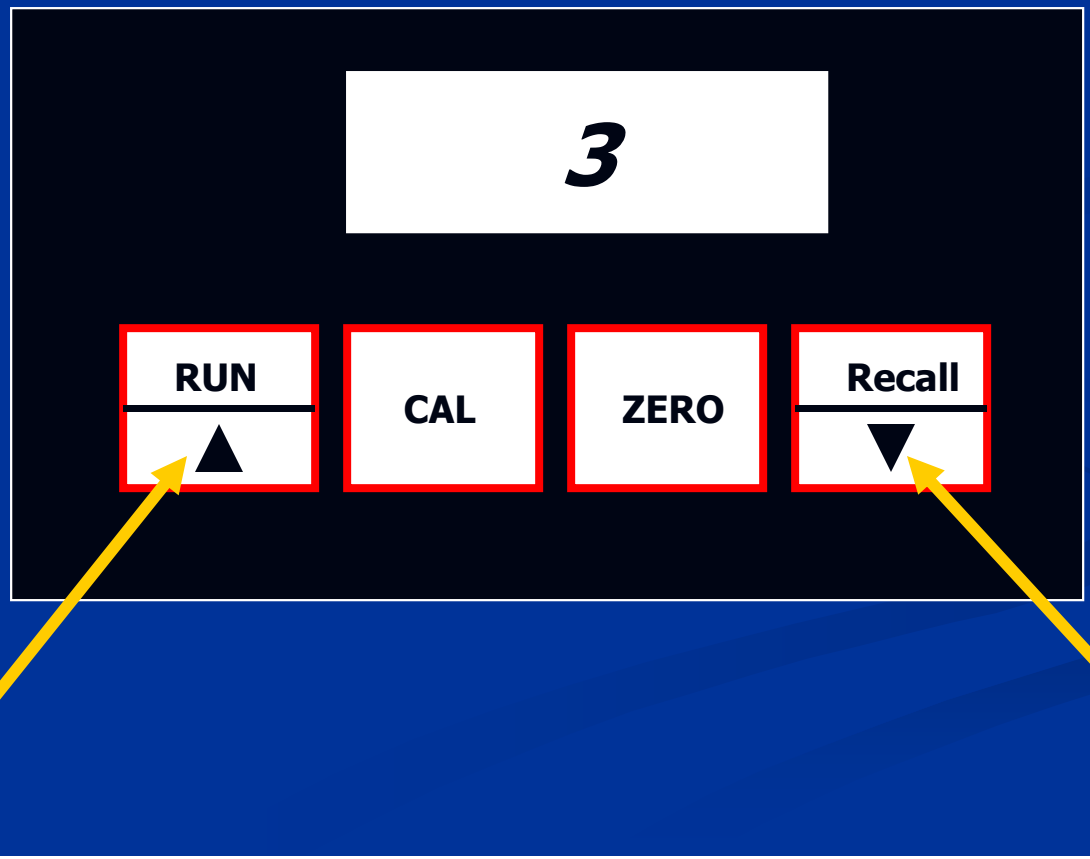
- Press **CAL** and the display will read ***n=*** for a short time



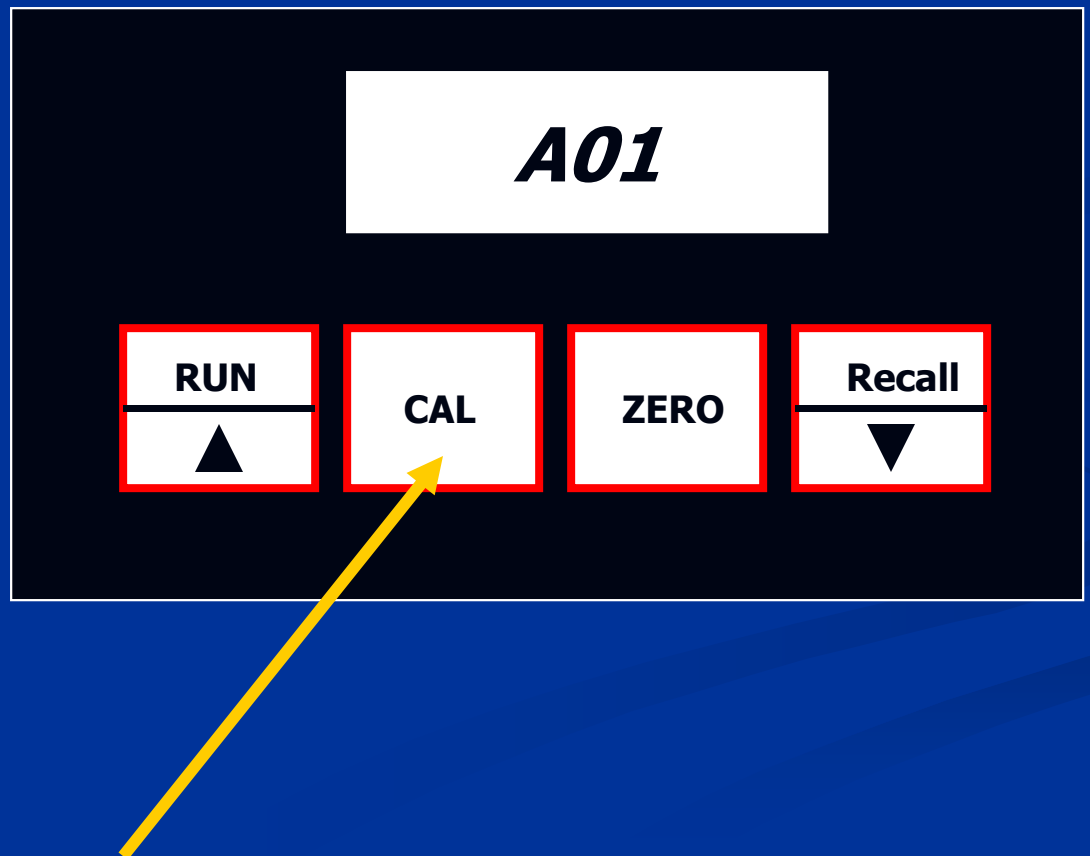
- Set ***n=*** to the number standards using the up and down arrows



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



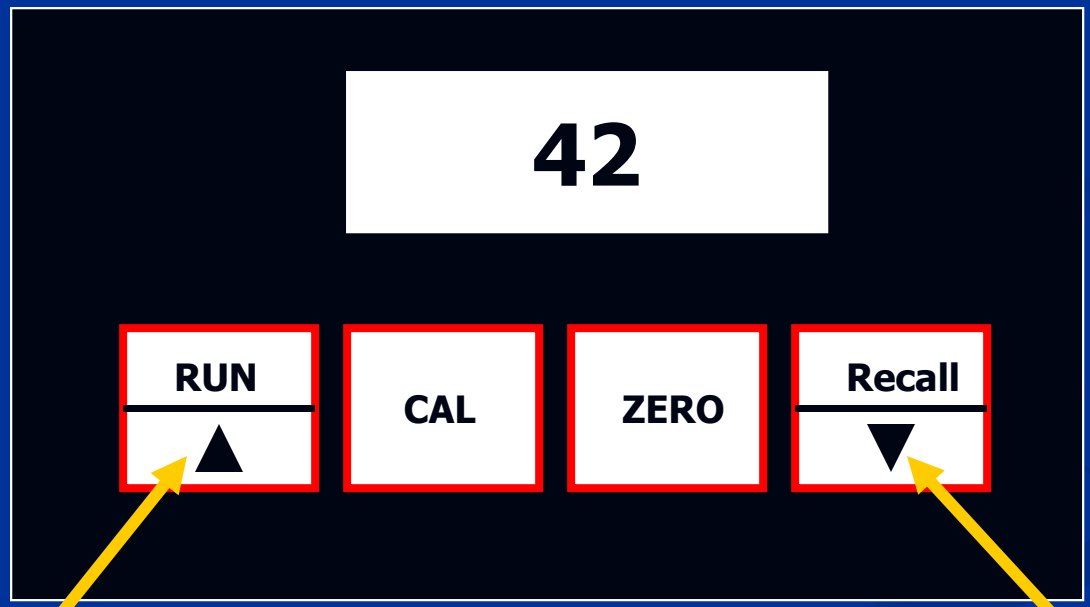
- Press CAL and the display will read ***A01=*** for a short time



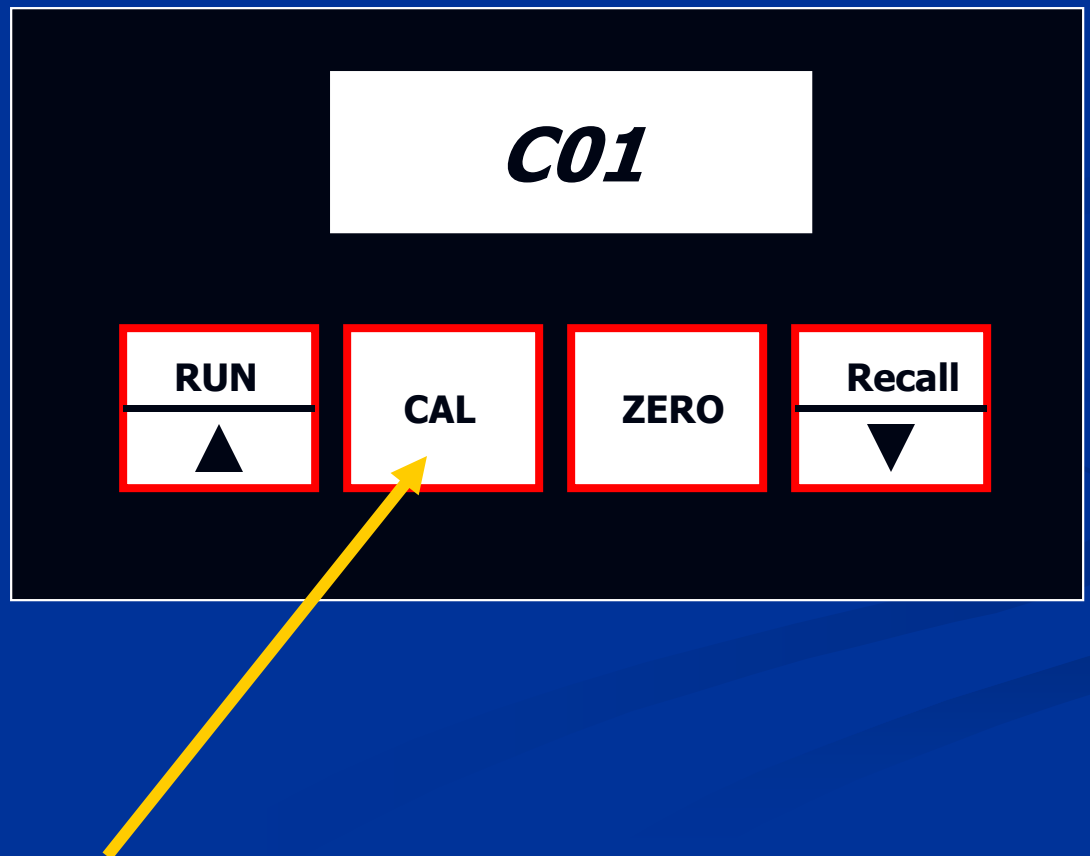
- Using the up and down arrows, scroll to the first absorbance value (for our example it will be 42)

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)



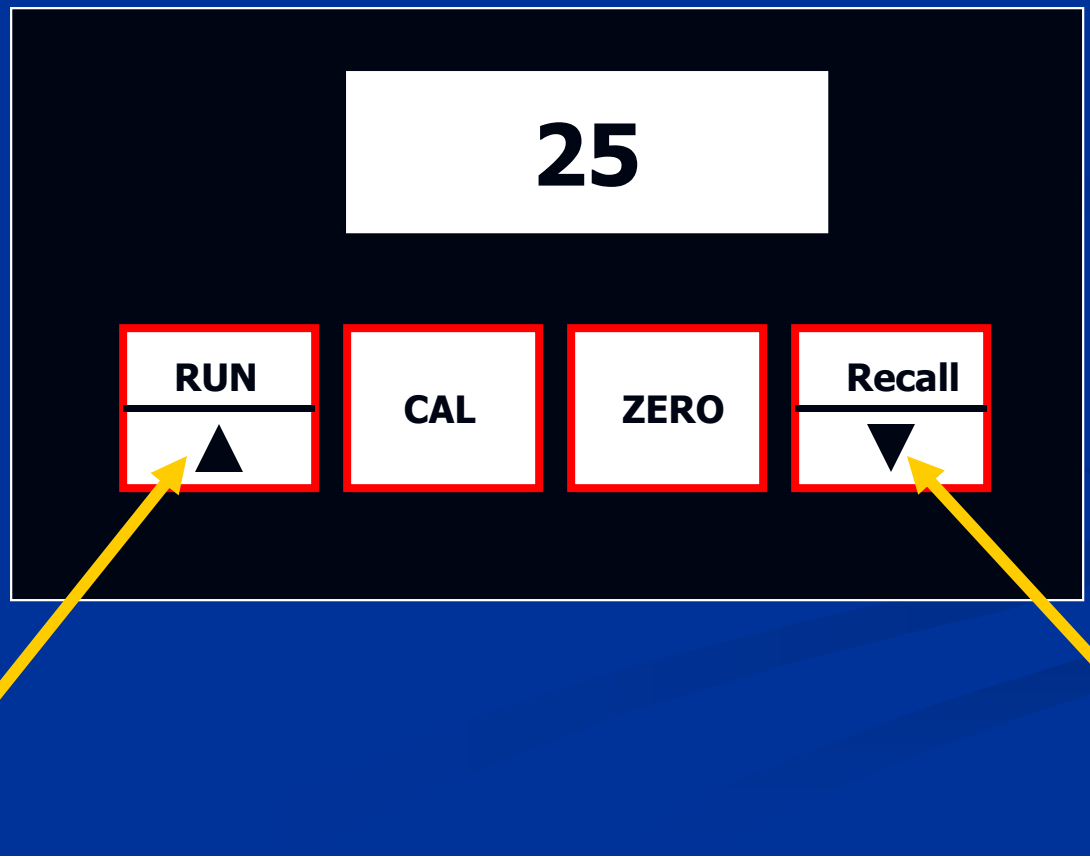
- Press **CAL** again and the display will read ***C01=***



- 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)



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Calibration



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For questions please contact us at:

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