

## Calibration Procedure: Alco-Sensor IV

Using a .038 Alcohol Gas Tank and 1.5 liter-per-minute regulator.



## Step 1: Attach Regulator

Follow instructions on the Alcohol Gas Tank to attach the regulator.



**Step 2: Purge Regulator** by pressing button/valve on regulator for approx. 8-10 seconds before running your first accuracy check of the day.



**Step 3: Determine Gas Value** by reviewing the elevation chart on the tank to calculate the alcohol concentration for the 0.038 tank at your elevation. The value can also be determined more easily by utilizing a True-Cal device.



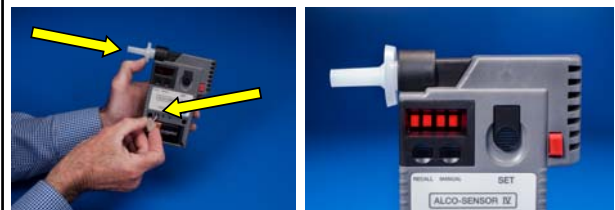
## Step 4: Locate Function switches

Remove battery cover from the front of the Alco-Sensor IV to expose the function switches (F1, F2 & F3). Carefully remove the security tape covering the holes, if present.



## Step 5: Access Calibration Mode

Depress and hold **F1** (far left hole) with switch key while inserting a new mouthpiece. Four solid blocks will appear on the display.



### Step 5 cont'd: Access Calibration Mode

Once the 4 red squares are visible, release the switch key from **F1**. The instrument will display the temp., then will flash "<" ">".

Next, the display will flash "Blnk" while the instrument performs an Air Blank.



### Step 5 cont'd: Access Calibration Mode

As soon as the Air Blank is complete, the display will read "0.00". YOU NOW HAVE 3 SECONDS TO DEPRESS THE **F3** SWITCH OR THE CALIBRATION PROCEDURE WILL BE CANCELLED.

Once the **F3** switch has been depressed, a 3-digit number will be displayed. Release the **F3** switch. This number is the value of the gas standard used for the last calibration.



### Step 6: Adjust calibration value

If the value of the gas standard being used for the current calibration is different than the value of the last calibration value displayed on the screen, use the switch keys to adjust the number up (**F1** switch) or down (**F2** switch) until the number of the current gas standard is displayed.



### Step 7: Prep instrument for gas flow

Once you have obtained the desired standard value on the display, press **F3** again. The display will flash "CAL".

Securely attach the mouthpiece to the tube on the tank regulator, creating an airtight connection.



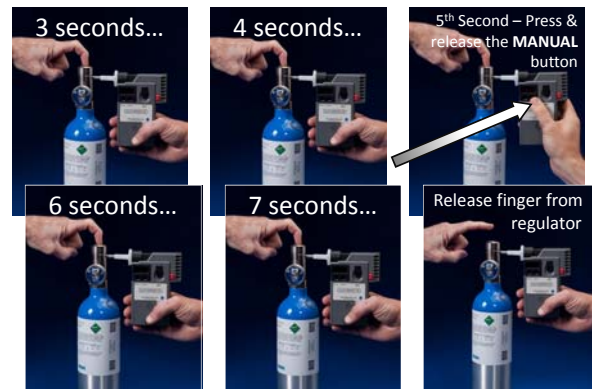
### Step 8: Start Gas Flow

Press the regulator button for 7 seconds.

On the 5<sup>th</sup> second, press the **MANUAL** button to take the gas sample.



### Step 8 cont'd: Start Gas Flow



## Additional Note on Gas Flow

NOTE 1: Gas must be flowing through the mouthpiece during the entire 7-second process, therefore continue pressing the regulator button for another 2 seconds AFTER you press & release the **ON** button during the 5th second.

## Step 9: Observe Reading & End Calibration

Detach mouthpiece/instrument from the regulator/tank.

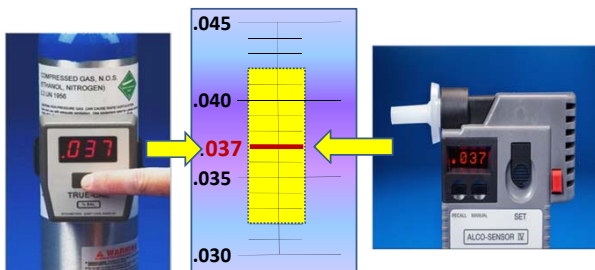
The instrument will automatically make the necessary internal calibration adjustments, and will then display the newly programmed calibration value for a few seconds.

When "SET" is displayed, press the SET button.

When you hear the intermittent BEEP, press the Red Release button to eject the mouthpiece and turn off the instrument.



## Successful Calibration Adjustment



## Step 10: Record Results

Record every Calibration Check result (and/or adjustment) in a Calibration Log to document the accuracy of the Alco-Sensor.

16

## Step 11: Verify the Calibration Adjustment

An Accuracy Check must now be performed to verify the Calibration Adjustment.

Be sure to use a new mouthpiece.

**The result should be within +/- .003 of the expected value of the standard gas reading. If not, repeat the Calibration Adjustment after waiting several minutes.**

17

For technical assistance and to order calibration supplies:

**AlcoPro, Inc.**  
**800 227-9890**  
**www.alcopro.com**