Pocket CO SCUBA - Additional Instructions

Pocket CO SCUBA (Model 300S) is an easy-to-use instrument for checking carbon-monoxide levels in SCUBA tanks. Because it is based on our general-purpose detector, Model 300, it can also be used for monitoring CO levels in your daily routine or job. The manual shipped with your instrument is for the Model 300, and thus focuses on using your Pocket CO as a general-purpose detector. This additional page discusses the additional features of your Model 300S, and how to use it for SCUBA applications.

The Manual:
When reading the rest of this manual, be aware of the following:

- Any references to "Model 300" also apply to your Model 300S instrument, except as noted below.

- A single push of the button on the Model 300 instrument (when off) will cause "12HR" to be shown on the display, indicating the start of 12-Hour Detection mode. But in Model 300S, **a single button push will enter the "TANK" mode, used for testing SCUBA tanks** (see next page). All other modes of operation, such as "12HR", have been pushed back by one button push, as shown below:
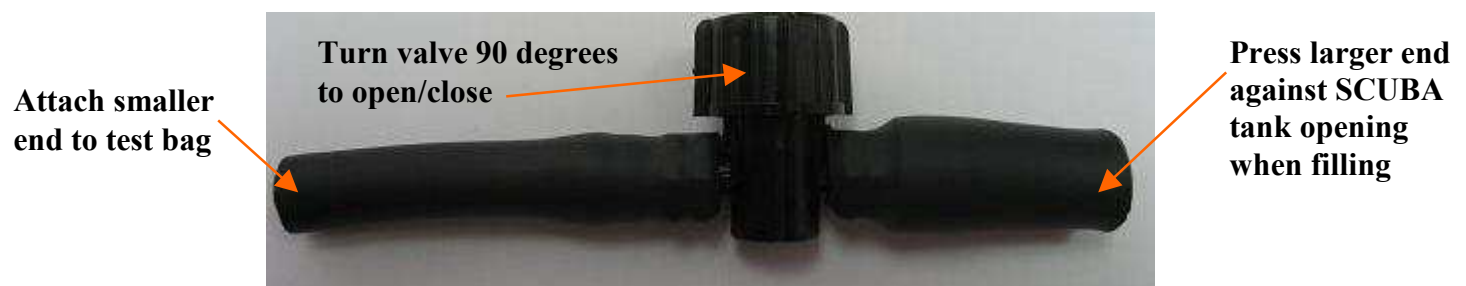
Button Pushes:	1	2	3	4	5
Model 300:	"12HR" →	"ON" →	"DOSM" →	"MENU"	
Model 300**S**:	"TANK" →	"12HR" →	"ON" →	"DOSM" →	"MENU"

    Accordingly, any instructions in the manual such as:
    "With Pocket CO off, quick-push the button *three* times",
    actually imply for Model 300S:
    "With Pocket CO off, quick-push the button *four* times".

Tank Adaptor:

Attach smaller end to test bag

Turn valve 90 degrees to open/close

Press larger end against SCUBA tank opening when filling

Tank adaptor for use with Pocket CO SCUBA, and provided test bag.

Pocket CO SCUBA – Testing Instructions

1) Leave Pocket CO in test bag. Make sure zip seal is closed well. Open valve on tank adaptor by turning 90 degrees. Squeeze as much air out of the bag as possible (rolling up and then folding the bag helps). Air will exit the bag through the tank adaptor.

2) Through the bag, press Pocket CO's button once. Pocket CO will display "TANK", followed by a self-test. Pocket CO will then display the current, ambient CO level in PPM. *To ensure an accurate result, this level must settle to 0 PPM within the first few readings.*

3) Immediately after checking initial CO level, hold larger end of tank adaptor to SCUBA tank's opening. Crack tank's valve *slightly,* allowing a *small flow* of tank air to fill the bag.

4) Once bag is *fully* inflated, close the tank adaptor by turning valve 90 degrees. Close the valve on the SCUBA tank. Be careful not to over-inflate the test bag! The red light will flash during the 3 minute test, and then the alarm will sound once. If the bag deflates significantly during the test, check valve and zip seal, or change bags. Repeat test.

5) When the alarm sounds, open the bag to check the result. The result, in PPM, will remain on the display for one minute. Ignore readings below 2 PPM**.**

When diving, the effects of CO are magnified several times due to the higher pressure encountered. **A concentration of CO that may not be lethal at atmospheric pressure can certainly be lethal when diving**, particularly if the diver is exerting herself heavily during a dive, is older, or is a smoker. The Compressed Gas Association (CGA) states a maximum limitation of 10 PPM CO in Grade E cylinders filled with air. NAUI has set a modified CGA standard for Grade E cylinders filled with Nitrox or oxygen-enriched gas mixtures of 2 PPM CO.

Pocket CO SCUBA – Calibration and Storage

Pocket CO Model 300S can be used to detect extremely low levels of CO in SCUBA tanks, with an accuracy of +/- 1ppm below 15ppm (when newly calibrated). Due to the high accuracy needed at low-levels for SCUBA, **we recommend calibration before each diving trip** of two weeks or less. For longer dive trips, we suggest recalibrating after two weeks.

Prolonged exposure to extremes in humidity can affect the accuracy of even a recently calibrated instrument. To minimize this effect, it is **highly recommended that between testing cylinders on a dive trip, Pocket CO be stored following these instructions:**

- Place Pocket CO SCUBA in its test bag. Close the zip seal on the bag well.
- Open the valve on the tank adaptor by turning it 90 degrees. Force air out of the bag by rolling it up along its longer side, and then folding in half.
- Once the bag is emptied of air, close the valve by turning it 90 degrees. Place the bag, with attached adaptor, into the case. Shut the case. Pocket CO is now properly stored.