

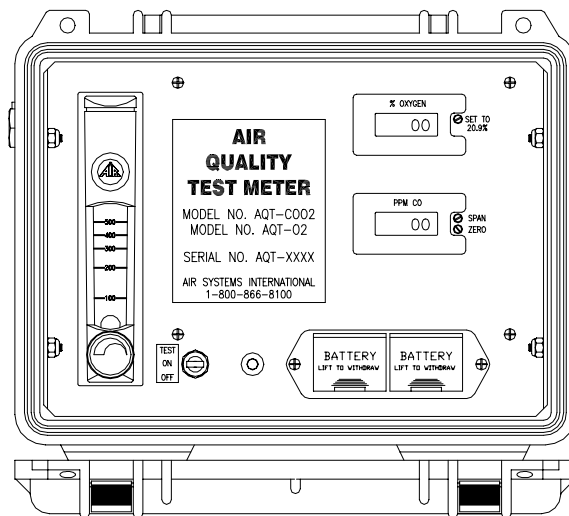
Models

AQT-02 & AQT-CO02

Manual No. MON004
(Rev 2 April 2000)



Operating Manual



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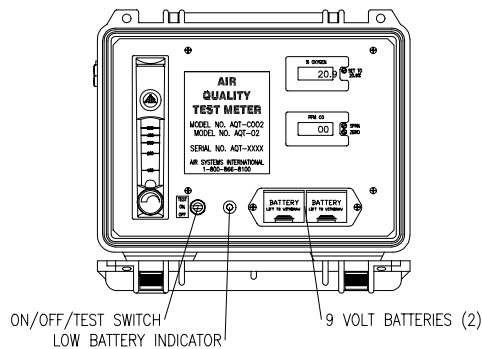
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OVERVIEW

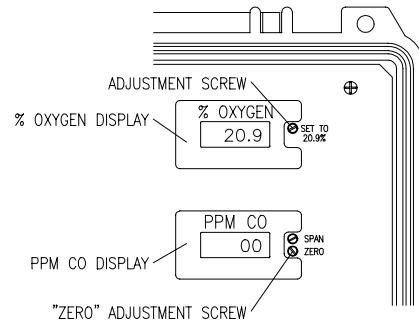
This series of meters are designed to provide accurate readings for oxygen and/or carbon monoxide levels in breathing air. The unit can be connected to a low pressure (maximum 100psi) respirator coupling found on a Grade-D filter device. Bottled air (maximum 6000psi) can also be sampled by adding the high to low pressure adapter (optional).

SETUP/OPERATION



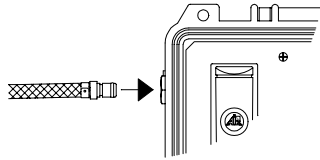
STEP 1)

Place the "on/off/test" switch in the on position. If amber light is illuminated replace the 9-volt batteries.



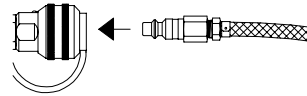
STEP 2)

After the display(s) stabilize, reading will be as follows: **% Oxygen - 20.9 PPM CO - 00***
If accuracy is in question refer to calibration procedure. *This display reading applies to Model AQT-CO02 only.



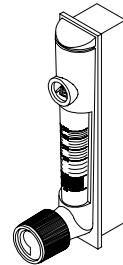
STEP 3)

Plug sample hose into coupling located on left side of box.



STEP 4)

Plug free end of sample hose (1/4" Hansen plug) into coupling on Grade-D filtration device.



STEP 5)

Open the flowmeter valve by turning the knob counterclockwise until the flow ball hovers in the "green bar area" (50-100 cc/min).

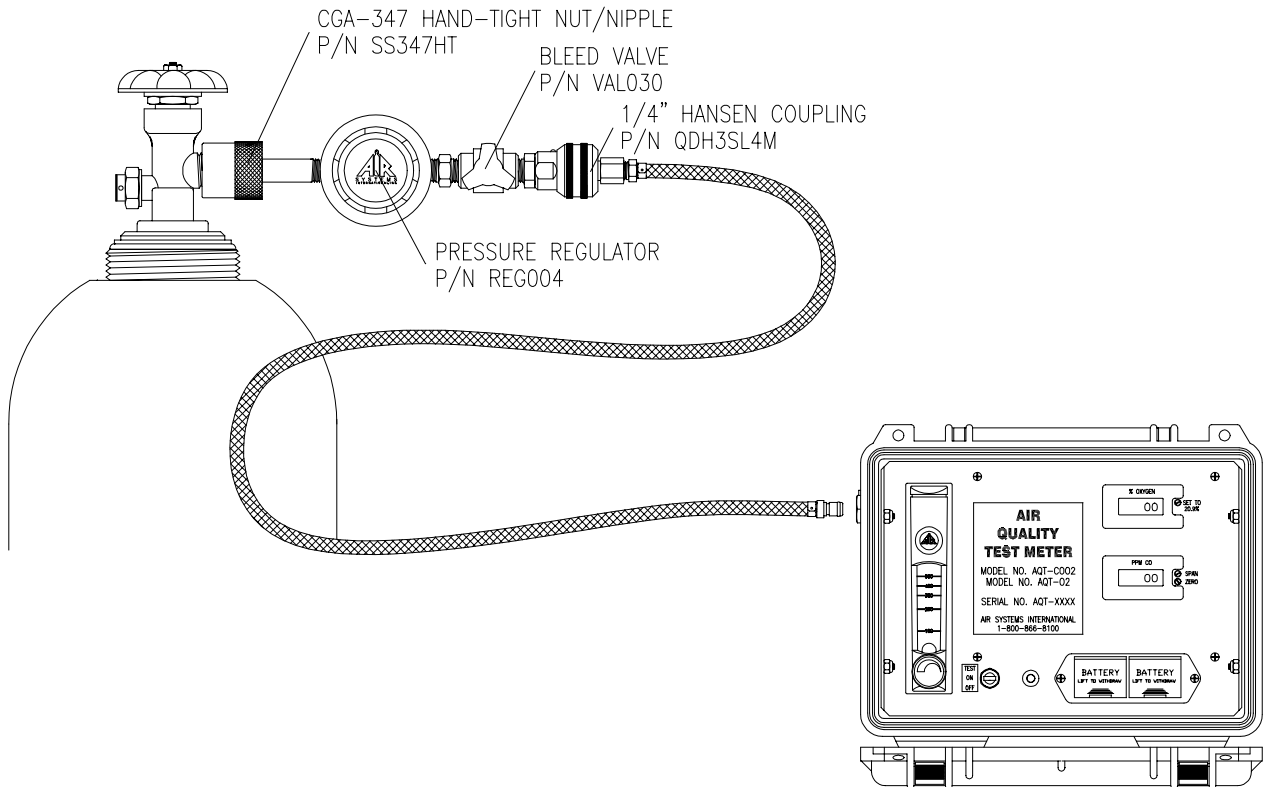
STEP 6)

Sample air flow approximately 1-2 minutes to get an accurate reading. Record Oxygen and/or Carbon Monoxide readings. *Note: Carbon Monoxide levels not to exceed 10ppm, oxygen range 19.5% - 23.5%.*

OVERVIEW - MODEL AQT-347LP

The AQT-347LP is a high to low pressure adapter which allows testing of high pressure bottles (maximum 6000psi). for carbon monoxide and/or oxygen deficient breathing air. The adapter consists of a CGA-347 hand tight nut/nipple, high pressure to low pressure regulator, bleed valve, and a 1/4" female coupling. (Note: CGA-347 will work on a CGA-346).

SETUP/OPERATION

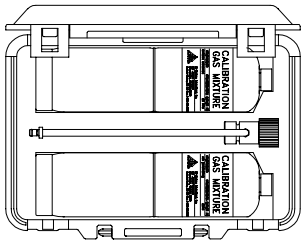


1. Connect AQT-347LP to the bottled to be tested.
2. Close bleed valve. (Turn clockwise).
3. Place the "on/off/test" switch in the on position. If amber light is illuminated replace the 9-volt batteries.
4. After the display(s) stabilize, reading will be as follows: **% Oxygen - 20.9 PPM CO - 00***
If accuracy is in question refer to calibration procedure. * This display reading applies to Model AQT-CO02 only.
5. Plug sample hose to female coupling on box and coupling on AQT-347LP.
6. Open bottle valve.
7. Open AQT-347LP regulator by turning clockwise at least 2 full turns..
8. Adjust flowmeter until the flow ball hovers in the "green bar area" (50-100cc/min).
9. Sample air flow approximately 1-2 minutes to get an accurate reading. Record Oxygen and/or Carbon Monoxide readings. **Note: Carbon Monoxide levels not to exceed 10ppm, oxygen range 19.5% - 23.5%.**

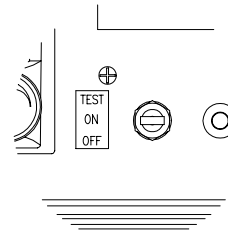
SHUTDOWN

1. Close bottle valve.
2. Disconnect sample hose from box and adapter.
3. Open bleed valve. (Turn counterclockwise).
4. Remove AQT-347LP from bottle

CALIBRATION PROCEDURE

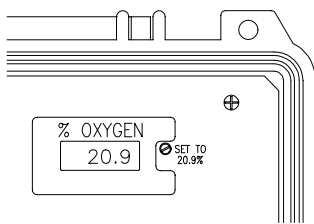


Calibration Kit - Model No. BBK-20
(Ordered Separately)



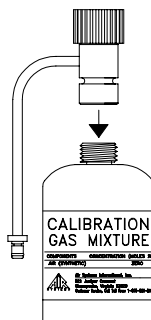
STEP 1)

Place the "on/off/test" switch in the on position and allow monitor to stabilize in a clean ambient environment.



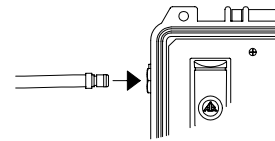
STEP 2)

Turn Oxygen Adjustment screw until a 20.9% reading is obtained.



STEP 3)

Install regulator on the cylinder of zero reference gas.



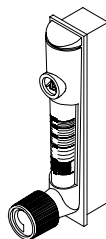
STEP 4)

Insert the male plug from the reference gas into the socket on the left side of the case.



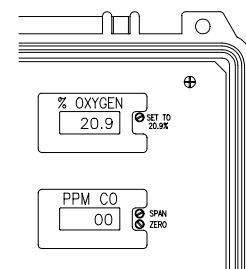
STEP 5)

Open regulator by turning the knob two turns counterclockwise.



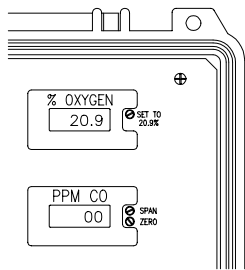
STEP 6)

Open the flowmeter valve by turning the knob counterclockwise until the flow ball hovers in the "green bar area" (50-100 cc/min).



STEP 7)

Allow digital readout to stabilize.



STEP 8)

Adjust "zero" pot adjustment screw until "00" reading is obtained.



STEP 9)

Turn off regulator and remove it from the zero air cylinder and install it on the Carbon Monoxide reference gas cylinder.
(Calibration of CO Sensor applies to AQT-CO2 Only!)

STEP 10)

Repeat steps 5 - 6.

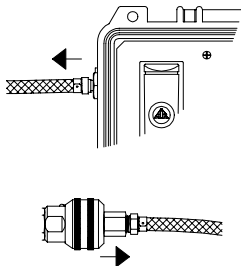
STEP 11)

Adjust the span pot adjustment screw until the ppm CO display matches the same concentration found on the CO gas cylinder.

STEP 12)

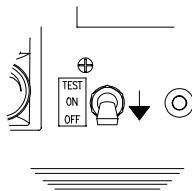
Turn off regulator and repeat zero adjustment procedure (Step 3 - 7) display should return to a "00" reading.

SHUTDOWN



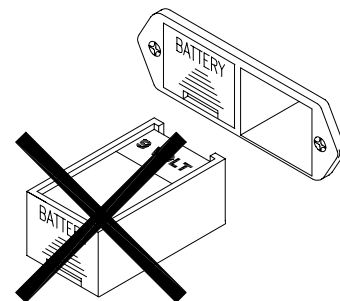
STEP 1)

Disconnect sample hose from box and coupling.



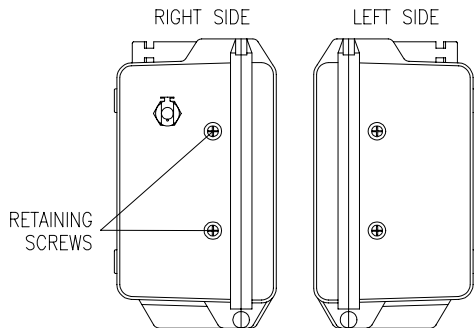
STEP 2)

Turn meter "off".



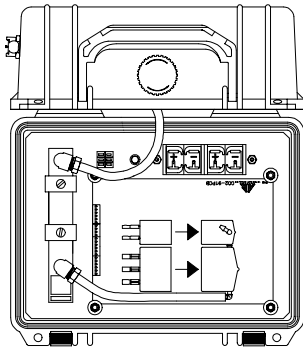
Note: Do not remove 9-volt batteries from unit. A 30 - 60 minute restabilization of the sensor(s) may be required if the batteries are removed for more than 1 hour.

SENSOR REPLACEMENT



STEP 1)

Remove the (4) screws on the right and left side of case. Open the case lid and tip the case forward. The panel should fall into your hand. If not, lightly pull on the flowmeter knob and the panel should come free.



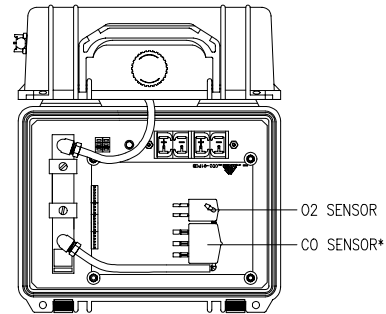
STEP 3)

Install sensor leads onto new sensors and replace in their respective cups.

SENSOR LEAD CONNECTIONS

BLUE WIRE -- REF ON CO SENSOR
RED WIRE ---TO SENS ON CO SENSOR
BLACK WIRE - TO CTR ON CO SENSOR

WHITE WIRE - (+) ON O2 SENSOR
GREY WIRE - (-) ON O2 SENSOR



STEP 2)

Carefully remove old sensor(s) from the sensor cup(s) and remove sensor leads. Inspect sensor leads for corrosion and replace if necessary.

STEP 4)

Place panel in operating position and replace in (4) mounting screws.

STEP 5)

Turn the unit on and allow 30-45 minutes for the sensor(s) to stabilize.

STEP 6)

Calibrate meter.

REPLACEMENT ITEMS

