ATI AirTest Technologies, Inc
#9, 1520 Cliveden Avenue
Delta, BC, V3M 6J8
Ph. 604-517-3888
Fx. 604-517-3900
e-mail sales@airtesttechnologies.com
website www.airtesttechnologies.com

AirTest Technologies, Inc

MODEL CT-1000
OPERATION MANUAL

SINGLE CHANNEL MONITOR

INSTALLATION:

1. Separate the enclosure lid from the body. There is a connector on the lid wiring.

2. Locate a flat surface to mount the enclosure so that the sensor can face downward.

3. Mount the enclosure to the wall using the two mounting hole locations.

4. There is a power entry location provided on the end opposite the sensor.

5. Connect the electrical fittings to the enclosure and bring in the electrical wires. Connect the wires to the removable connector plugs. If the unit is a 115 VAC model apply power to AC HOT, AC NEUT & GND at TM1. If the unit is a 24 VAC model apply power to AC HOT & AC NEUT at TM1. NOTE: BE SURE WIRING IS DONE ACCORDING TO THE LOCAL ELECTRICAL CODE REQUIREMENTS.

6. Re-connect the enclosure lid.

7. If connecting a remote 4-20 mA sensor to the CT1000 use 18 gauge minimum wire. It is recommended that shielded wire be used if it is not being run in metal conduit

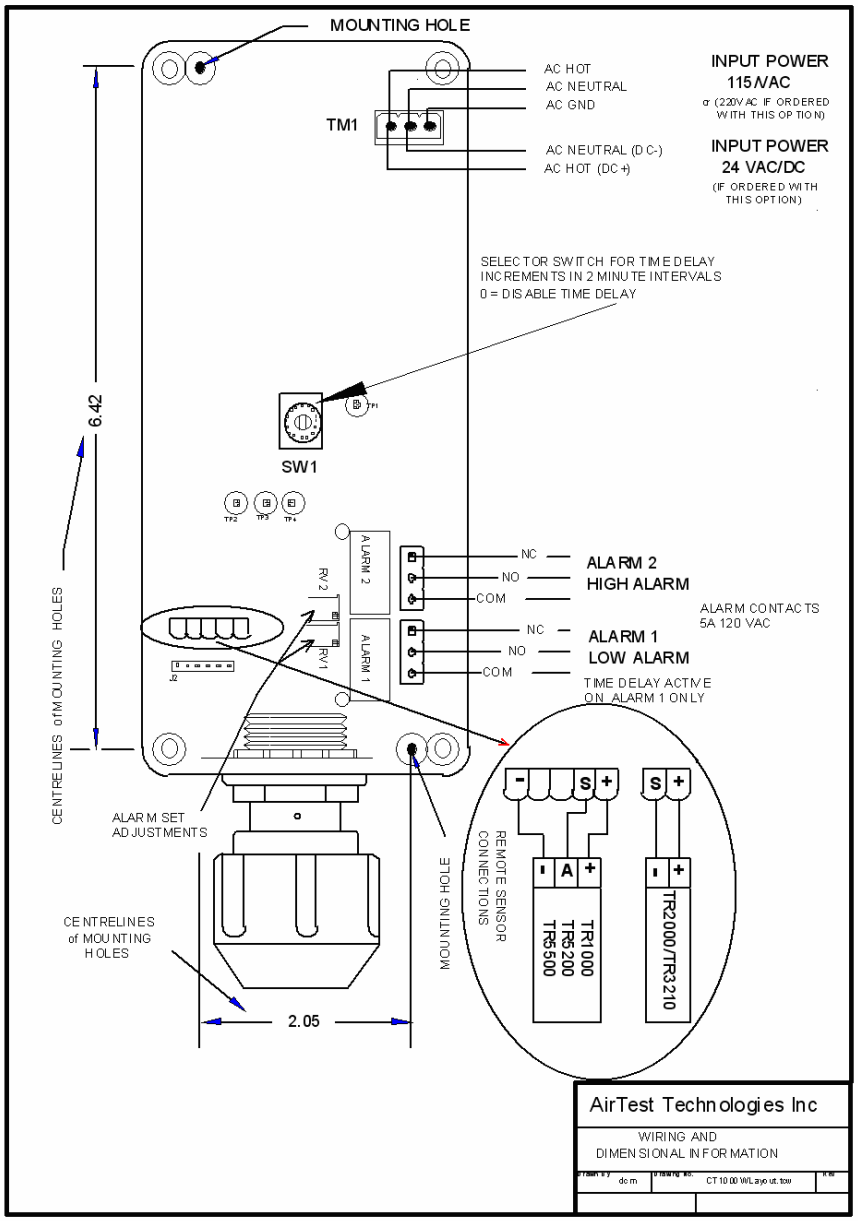
START-UP:

1. The power LED will come on after about 5 seconds as the sensor warms up. If the power LED does not come on, then either the sensor is faulty, not connected properly or there is no power to the sensor. The power LED is actually monitoring the sensor output and is looking for a minimum signal to be present.

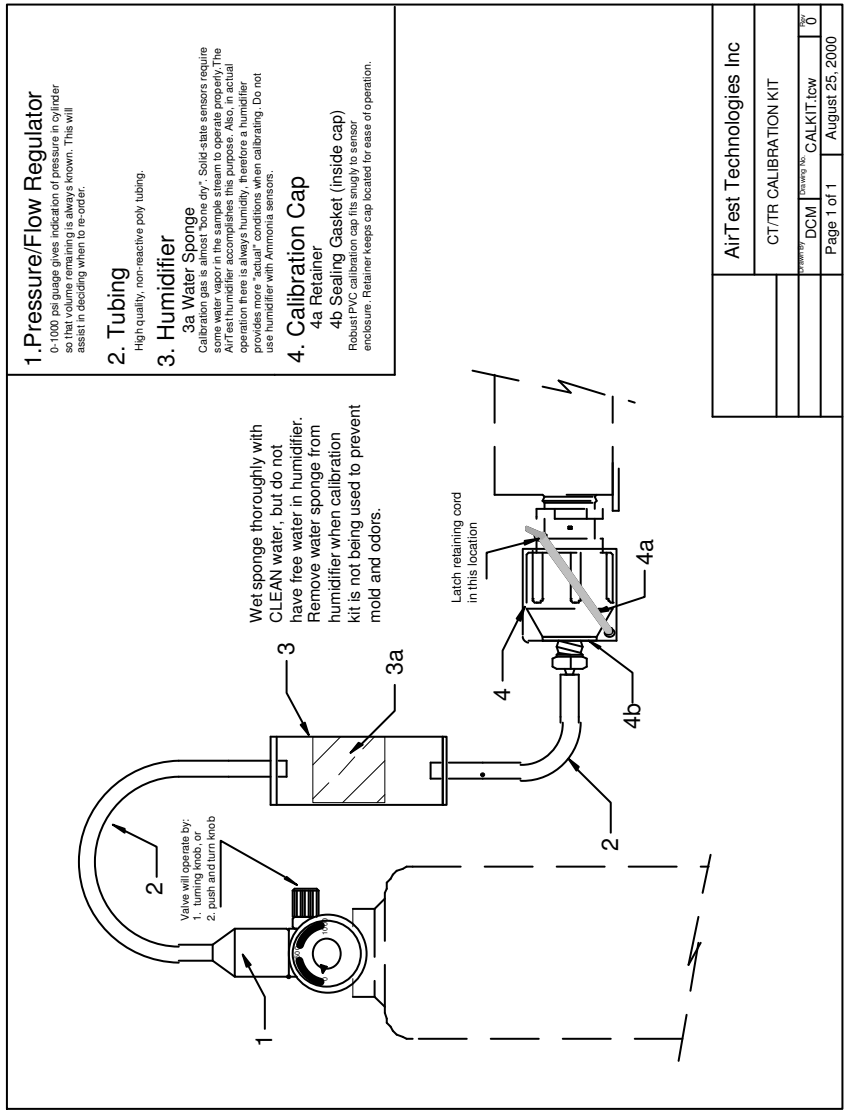
2. During the first minute all alarms will activate and then de-activate

3. It is not necessary to calibrate the unit on installation. This has been done at the factory.

NOTES:



MOS SENSOR CALIBRATION KIT:



SPECIFICATIONS:

Sensing Element(onboard)	*Solid-state*
Standard Range	CO 0 to 400 ppm LEL 0 to 40 % NH_3 0 to 500 ppm Halocarbon 0 to 3000 ppm
Sensing Element(remote)	*Electrochemical, solid-state, Catalytic Bead or Infrared. Most manufacturers 2/3 wire 4-20 mA or voltage output.*
Operating Temperature	-20°C to +50°C -4°F to +122°F
Humidity (non-cond.)	*5 to 90%*
Enclosure Material	Cast Aluminum
Weight	*22 oz./625 grams*
Gas Sampling Method	*Diffusion*
Warm-up Time	24 hours
Power Requirement	*115VACstandard 230/24 VAC opt. 12-24 VDC opt*
Power Consumption	2.5 VA Max
Relays – alarm	*2 @ 5A 250VAC 30 VDC*
Relays – trip points	Trimpot adjust
Relays–time delay setting	*16 ON selections on alarm 1;2 min intervals*
Dimensions(LxWxD) in.	9 x 3 x 2.3 cm. 23 x 7.6 x 5.7

CO= Carbon Monoxide, NH_3= Ammonia, LEL= Lower Explosive Limit of Combustible Gas, Halon= HCFC's, HFC's (R22, R134a, etc)

AirTest continues to work on product improvement, specifications are subject to change without notice

Note Regarding Sensor Coverage: Not sensor dependent. Common industry practice is to position sensors so that each sensor covers 5,000 to 7,000 sq feet of floor area. In no case should coverage exceed 10,000 sq ft. Local codes may have specific requirements regarding sensor coverage.

CALIBRATION - SOLID STATE SENSORS:

The CT-1000 has been factory calibrated and is ready for use. If however there is a level of background gases, it should be calibrated on site. If the range is to be changed, the CT-1000 must be re-calibrated.
NOTE: Wait 24 hours prior to a cold start calibration. If the unit has been without power for less than 20 minutes, then only a 10-minute wait is required.

1. Open the enclosure and let the lid hang so that the LED indicator lamps can be viewed, or the lid can be removed by unplugging the LED indicator lamp connector and using the internal relay indicator lamps for calibration.

2. Disconnect the relay connectors (TM2, TM3) so that motors and/or alarms are not being turned off and on during calibration.

3. Set SW1, time delay setting for alarm 1, to 0 (zero).

4. Use a calibration flow rate of 0.2 LPM (0.4 SCFH) and apply the gas mixture through a humidifier for two minutes before adjusting the alarm point. Note: The calibration mixture must be AIR based not Nitrogen based. Turning the alarm adjustment potentiometers RV1 and RV2 clockwise will activate the alarm relays, turning counterclockwise will de-activate the alarm relays.

5. Through a humidifier (see Calibration Kit drawing), apply a test gas mixture to the sensor equal to the level required for the LOW alarm point. Adjust alarm 1 (RV1) so that the relay 1 LED comes on. (Yellow LED on front cover or yellow LED next to relay).

6. Through a humidifier (see Calibration Kit drawing), apply a test gas mixture to the sensor equal to the level required for the HIGH alarm point. Adjust alarm 2 (RV2) so that the relay 2 LED comes on. (Red LED on front cover or red LED next to relay)).

7. Set time delay setting for alarm 1 to desired setting. (SW1). Each number increment adds approximately 2 minutes delay to the activation of the alarm 1 relay. NOTE: During this time delay (when activated), the indicator lamp for alarm 1 will flash.

8. Connect the alarm relay connectors (if removed) also the LED connector (if removed) and install the enclosure lid.

Text