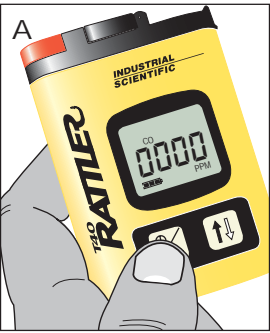


T40 RATTLER™

OPERATING INSTRUCTIONS

The T40 Rattler is a single gas monitor designed to alert the user to rising concentrations of either Carbon Monoxide (CO) or Hydrogen Sulfide (H₂S). The T40 Rattler will continuously display the ambient concentration of the designated gas and activate its audible, visual and vibrating alarms whenever the preset limits are exceeded.

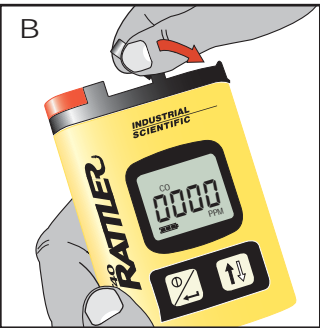
Turning the T40 Rattler ON/OFF



On/Off To turn the unit on, press and hold the 'On/Off' button until the word "On" appears on the display.

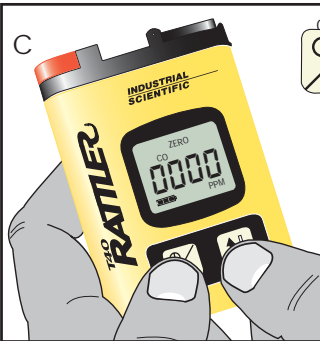
The T40 Rattler will power up and begin a warm up routine which includes tests of the display, audible, visual, and vibrating alarms. Following this brief warm up, the T40 Rattler enters the gas readings mode signified by the four digit display and gas identifier icon. To turn off the T40 Rattler, simply press and hold 'On/Off' for five seconds (four beeps).

Zeroing / Calibrating the T40 Rattler



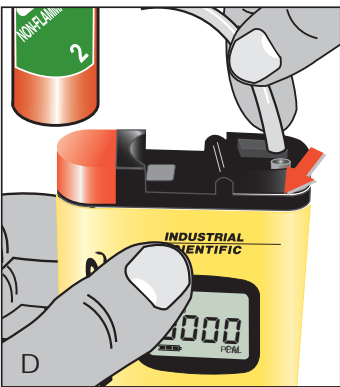
A function or "bump" test, using a known concentration of calibration gas, should be performed periodically based on instrument use, exposure to gas, and environmental conditions. The frequency is best determined by company policy or local regulatory agencies. If an instrument fails a function or "bump" test, or, if it is dropped, submerged, or appears damaged, a full calibration is recommended.

The safest approach is to perform a function or "bump" test prior to each day's use. Industrial Scientific is not responsible for establishing customer safety practices and policies.



On/Off **Mode** To zero the T40 Rattler, press 'On/Off' and 'Mode' simultaneously (C). The T40 Rattler will automatically zero and beep after approximately 10 seconds, signaling that the zeroing process is complete. If you do not wish to perform a span calibration, flip the calibration adapter back to its original position and the T40 Rattler will return to the gas reading mode.

Note: Never zero the T40 Rattler in an environment that is known to contain a background of CO or H₂S. For these environments, use zero air gas.



After the zeroing process is complete, the T40 Rattler will beep, signaling it is ready to be span calibrated. To perform a span calibration, connect the supplied tubing between the regulator and calibration adapter as shown (D), turn the regulator's flow control to "open," and press 'On/Off' and 'Mode' simultaneously. The T40 Rattler will begin to show its response to the applied gas as a full span on the display. After approximately 1.5 minutes, the T40 Rattler will finish the calibration routine and display the status of the sensor. Remove tubing and flip calibration adapter back to its original position.

The three status conditions are: GOOD – the sensor is healthy and should operate for an extended period of time; PASS – the sensor passed calibration but had a marginal response; or FAIL – the sensor did not pass calibration, meaning the sensor has reached the end of its useful life, or the calibration gas source was not accurate or has run out. *Note: The T40 Rattler is factory programmed to accept 100 ppm (CO) and 25 ppm (H₂S) span gas inputs. Gases in other concentrations will result in inaccurate or failed calibrations.*

Alarm Conditions / Operational Modes



The T40 Rattler is equipped with audible, visual, and vibrating alarms to alert you when the ambient gas concentration exceeds one of the two alarm levels (low and high). For CO, the T40 Rattler is preset to alarm at 35 and 70 ppm. For H₂S, the preset alarm levels are 10 and 20 ppm. To change these low and high settings, see 'Setting the Configuration' below.

At any time during operation, you can access the peak reading and alarm set point screens by pressing 'Mode.' The peak reading screen displays the highest concentration of gas detected since the peaks were last reset. To reset the peak reading, press 'On/Off.' The peak screen will reset to current reading at the time of reset.

Pressing 'Mode' once more will show you the low alarm set point. Pressing 'Mode' again will show you the high alarm set point. Pressing 'Mode' again will return you to the gas readings mode.

Changing the Batteries



The T40 Rattler operates for up to 1,500 hours on a single "AA" alkaline battery (additional replacement battery included). The icon on the display continuously shows battery life. The T40 Rattler will alert you of a low battery condition by emitting a beep once every 30 seconds. To change the battery, simply insert the supplied hex tool into the battery cap, rotate 1/8 turn counterclockwise, and remove battery (E). Install new battery, being sure to observe proper polarity.

Replace the battery cap and turn clockwise with hex tool. Use only Varta 4006, Kodak LR6, Rayovac 815, Eveready EN91 or LR6, Duracell MN1500 or PC1500, Panasonic AM-3, Sears Diehard NEDA 15A, or Gold Peak 15A Batteries. Warning: Replace battery only in non-hazardous location. Substitution of components may impair intrinsic safety.

Warranty

E The T40 Rattler carries a two-year warranty from the date of shipment. See included warranty certificate for coverage details.

Setting the Configuration

Press and release the 'On/Off' and 'Mode' keys simultaneously during the warm up routine when the countdown reaches between 15 and 10 seconds. Four options will be available to configure: High alarm value, Low alarm value, Calibration gas concentration and Display. Press the 'On/Off' key to change the displayed value. Use the 'Mode' key to adjust the value. Once the desired value is met, press the 'On/Off' key to accept the value. If no buttons are pressed, the T40 will scroll to the next item.

When the display configuration is turned off, the T40 will display Safe, Low, and High conditions instead of actual PPM levels.

After going through all configurations, the T40 will return to the warm up routine. All changes are saved to memory when the unit is turned off.

Approvals

UL and cUL – Class I, Groups A, B, C, D

CSA – Ex ia IIC T4

Australia – AUS Ex ia IIC T4


CE-Mark (ATEX) –  II 2G, DEMKO 02 ATEX 021349X EEx ia IIC T4

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