Trak-It® IIIa

COMBUSTIBLE GAS INDICATOR (CGI)

INSTRUCTION MANUAL

Read and understand instructions before use.

For use with combustible gases and optionally available oxygen and toxic gases.

C CLASSIFIED UL® US
7WA6

GAS DETECTOR for use in hazardous locations only as to intrinsic safety

Approved C22.2 No. 152
and C22.2 No. 157
Intrinsically safe for use in CL I, Div. 1, Groups C & D
T4, IP20 when used with Duracell MN1400 batteries

UL 913 Class I, Div 1
Groups C and D Hazardous Locations T4, IP20 when used with Duracell MN1400 batteries (or equivalent)

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Phone: 219.465.2700 • www.gasleaksensors.com

FOR YOUR SAFETY

NOTICE: ⚠ **CAUTION**: This safety symbol is used to indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

⚠ **WARNING**: To prevent the risk of ignition of flammable atmospheres, batteries must only be changed in an area known to be non-hazardous.

⚠ **WARNING**: To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.

Do not mix batteries of different age or type.

⚠ **WARNING**: Substitution of components may impair intrinsic safety.

Not for use in atmosphere of oxygen greater than 21%

⚠ **WARNING**: To maintain intrinsic safety, service must be performed by factory authorized technicians with approved replacement parts only.

CAUTION: Lithium backup cell may explode if mistreated. Do not recharge, disassemble or dispose of in fire.

NOTICE: ⚠ CAUTION: This safety symbol is used to indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

⚠ **NOTICE**: LEL sensor should be checked for accuracy after exposure to any gases containing silicones, high sulfur content, high concentrations of propane and high concentrations of CO (above 10,000ppm) or automotive exhaust gases. Continuously low calibration check results or fluctuation of zero readings may indicate sensor end of life or failure. Consult SENSIT Technologies with any questions.

For best accuracy always zero in clean air environments similar in temperature and relative humidity to the environment where the instrument will be used.

When continuously exposed to combustible gas concentrations beyond LEL for longer than 5 minutes always perform a calibration check prior to the next use.

WARNING: To reduce the risk of ignition of a flammable atmosphere, batteries must only be changed in an area known to be nonflammable.

AVERTISSEMENT: Pour réduire le risque d'allumage d'une atmosphère inflammable, des batteries doivent seulement être changées dans un secteur connu pour être inflammables.

Do not mix batteries of different age or type.
Ne mélangez pas les batteries de l'âge ou du type différent.

Not for use in atmospheres of oxygen greater than 21%.
Pas pour l'usage en atmospheres de l'oxygène 21% plus grand que.

ONLY zero instrument in a gas free environment.
SEULEMENT l'instrument zéro dans un gas libèrent l'environnenment.

WARNING: To maintain intrinsic safety, service must be performed by factory authorized technicians with approved replacement parts only.

AVERTISSEMENT: Pour maintenir la sûreté intrinsèque, service doit être exécuté par les techniciens autorisés par usine avec les pièces de rechange approuvées seulement.

ONLY the combustible gas detection portion of this instrument has been assessed for performance.

SEULEMENT la partie combustible de détection de gaz de cet instrument a été évaluee pour l'execution.

CSA ONLY

CAUTION: Before each day's usage sensitivity must be tested on a known concentration of methane gas equal to 25-50% of full scale LEL concentration. Accuracy may be corrected by following calibration procedure.

POUR L'ATTENTION DU CANADA: Avant que La sensibilité dei'utilisation de chaque jour doive être examinée sur une concentration connue du gaz de méthane égale à 25-50% de concentration complète de LEL l'exactitude peut êgale corrigée par procédé suivant de calibrage.

LEL sensor poisoning may occur after exposure to gases that contain silicone, lead, halogens and sulfur. If exposure has occurred or may be suspected the instrument should be tested for proper operation (see Calibration Check).

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PARTS AND ACCESSORIES

Standard Accessories (Included)

360-00059	Carrying Pouch
883-00044	32” Heavy Duty Fiberglass Probe w/Hose
310-00004	Alkaline “C” Batteries
750-00053	Instruction Manual
360-00043	Shoulder Strap

Accessories and Replacement Parts

873-00019	Hydrocarbon Filter (1)
873-00013	Mini Hydorcarbon Filter (1)
883-00045	Hot Air Probe Assembly
883-00039	30” Brass Probe
870-00018	Sensor Cap with “O” Rings
883-00038	Confined Space Probe with Tubing
883-00041	32” Fiberglass Probe
883-00047	Purge Probe
874-00001	Leak Survey Drag Tube Assembly
883-00046	Telescopic Survey Probe
360-00301	Filter Inlet
874-00003	Pigtail (use for calibration)
870-00039	IR Link Interface w/ SmartLink Software
914-00000-01	Smart-Cal Automatic Calibration Station

Calibration Kits

Contact us with instrument model number for correct Calibration Kit.

GENERAL DESCRIPTION

The **TRAK-IT® IIIa** is designed to detect combustible gases in the LEL range (percent volume optionally). Additionally and optionally oxygen and two toxic sensors may be added to meet your sensing requirements. Toxic sensor configurations include carbon monoxide, hydrogen sulfide or hydrogen cyanide.

All **TRAK-IT® IIIa** instruments incorporate a low power catalytic sensor to measure combustible gases in the LEL (lower explosive limit) range and a separate advanced thermal conductivity sensor to measure percent volume (%v/v).

An automatically backlit display shows gas concentrations for all senors installed. A LED and audible horn indicate exceeding the present alarm limits. Sampling is continuous with the use of the internal sample pump.

Audible and visual alarms warn the operator of hazardous conditions being sensed. The preset alarms are indicated by a red flashing LED, display indicator and alarm sound. The combustible gas alarm is preset at 10% for LEL only models. When equipped with percent volume (%v) sensor, the alarm range is 50% LEL (2.5% methane) to 17% volume of methane.

The carbon monoxide (CO) alarm is preset at 35ppm. The oxygen (O2) alarms are preset at below 19.5% and above 23.5%. The hydrogen sulfide (H2S) alarm is preset at 10ppm. The hydrogen cyanide (HCN) is preset at 5 ppm.

The **TRAK-IT® IIIa** is approved by Underwriters Laboratories to C22.2 No. 152 and C22.2 No. 157 for Class I, Division 1, Groups C and D, T4, and UL 913 for Class I, Division 1, Groups C and D hazardous locations when used with approved batteries.

SPECIFICATIONS

SENSOR SPECIFICATIONS

TYPE	RESOLUTION	RANGE	ACCURACY
PPM*	1 or 10ppm	0-2,000ppm	±10%
LEL	0.1%** up to 2%	0-100% LEL	±10%
% GAS	0.1%	5.0-100% METHANE	±5%
	0.1%	2.2-100% PROPANE	±5%
O2	0.1%	0-25%	±0.2% or 2%***
CO	1ppm	0-2,000ppm	±5ppm or 5%***
H2S	1ppm	0-100ppm	±2ppm or 5%***
HCN	1ppm	0-30ppm	±2ppm or 5%***

*PPM Optional
** % gas only display has 0.01% resolution in LEL range
*** Whichever is greater

PRODUCT SPECIFICATIONS

Size: 6.5" x 4" x 4.25" (167 x 109 x 102mm)
Weight: 2.8 lbs. (1.27Kg)
Operational Temp: -4 to 104° F (-20° to 40° C)
Alarm: >98db @ 30cm
Battery Life: 4 "C" Alkaline: 25 hrs. continuous

C CLASSIFIED UL® US
7WA6

SENSIT® GOLD instruments are Approved UL913, Approved C22.2 No. 152 and C22.2 No. 157 Intrinsically safe for use in CL I, Div. 1, Groups C & D, T4, IP20 when used with Duracell MN1400 batteries

UL 913 Class I, Div 1, Groups C and D Hazardous Locations T4, IP20 when used with Duracell MN1400 batteries (or equivalent)

PRODUCT FEATURES

TRAK-IT® IIIa instruments are constructed of durable stainless steel to withstand the rigors of field use.

All **TRAK-IT® IIIa** instruments require 4 Duracell MN 1400 batteries (or equivalent, UL ONLY) which provide 25 hours of continuous use.

Alarms can easily be heard from the sounder located on the front of the instrument.

*__NOTE__: The following items are not covered by the UL Certification: Neck Strap, Padded Carry Pouch, Filterd Probe Connector, Probe Assembly and Printer.

PRODUCT FEATURES

An infrared communication window is located on the right side to allow the **TRAK-IT® IIIa** instruments to download calibration data and readings the operator has elected to save to the instrument's on-board memory.

A graphic display continuously updates the operator of all available gas concentrations and alarms simultaneously as well as indicates internal functions such as air flow and battery power. The red LED on the right side will flash during any alarm condition.

There are 3 operational button pads on the front of the **TRAK-IT® IIIa**.

BUTTON [A] POWER/MUTE
Displaying power and mute features.

BUTTON [B] MENU
Accesses user functions such as Bar Hole Test and user selectable features: calibration viewing data, setting clock, etc.

BUTTON [C] ZERO/SAVE
Activates the save feature and performs a manual zeroing of the sensors.

Pressing any button will produce a click sound.

SENSOR TYPES AND PUMPS

COMBUSTIBLE GAS SENSOR

All **TRAK-IT® IIIa** instruments incorporate a poison resistant catalytic bead sensor. The function and accuracy of the sensor are monitored and controlled by specialized circuitry and a microprocessor. This sensor is capable of measuring concentrations of 50ppm up to 100%LEL. When so equipped concentrations above 70% LEL are monitored or measured simultaneously with a state-of -the-art thermal conductivity sensor (TC). This sensor is capable of measuring high concentrations of gas quickly and accurately. All readings are automatically switched between the scales of LEL and % volume.

ELECTROCHEMICAL SENSORS (OPTIONAL)

All **TRAK-IT® IIIa** instruments when equipped with the following optional sensors, microprocessor and associated circuitry will measure oxygen levels from 0-25%; measure carbon monoxide (CO) levels from 0-2000ppm; measure hydrogen sulfide (H2S) levels from 0-100ppm; measure hydrogen cyanide (HCN) levels from 0-30ppm. All gases are displayed simultaneously on the display.

NOTE: H2S and HCN sensors cannot be installed simultaneously.

THE PUMP

The **TRAK-IT® IIIa** is equipped with a powerful and efficient 2 speed diaphragm pump. The filter assembly connected to the probe protects the pump from foreign material. Additional external and internal filters protect the pump from damaging debris if the primary filter is missing or damaged. There are audible and visual indicators that will show a blocked or improperly operating pump.

BATTERY INSTALLATION/REPLACEMENT

A battery strength icon is located at the lower right corner of the display which indicates the approximate battery capacity. Battery replacement is necessary when the display reads BAT LOW (4.25 Volts), an audible alarm sounds and the green ready LED flashes. When the instrument remains in BAT LOW, a count down will appear starting at 300 seconds (5 minutes) which is the maximum time remaining before shut down.

⚠ **WARNING**: Always change batteries in a non-hazardous location.

Remove the battery door from the bottom of the housing by loosening the hold down screw. Remove the cover by pulling the cover away from the two tabs that secure the opposite side of the door to the instrument.

Place 4 alkaline "C" Duracell MN 1400 (or equivalent, UL ONLY) batteries into the battery holder. Observe the polarity markings on the inside of the battery holder. Replace and secure the battery door by tightening the screw.

OPERATION AND USE

⚠ **CAUTION**: Always start any **TRAK-IT® IIIa** in a gas free environment to ensure a proper zero.

1. Push the POWER/MUTE BUTTON [A] until the instrument beeps and the display illuminates. Each of the following will be displayed:

   a. Sensit Technologies Logo
   b. System check that includes:

      i. LED check
      ii. Backlight check
      iii. Memory check
      iv. Pump check
      v. Battery check
      vi. Microprocessor check
      vii. Pressure sensor check
      viii. Clock check
      ix. Auto Log Check (alert at 50 records remaining before memory is full and overwrites)

   c. Display all active sensors
   d. Display "TRAK-IT® IIIa, Configuration Number and Software revision".
   e. Date and Time
   f. Language (English, Chinese or Turkish)
   g. Gas Type (indicating type of calibration gas)
   h. Serial Number
   i. Cal Due (up coming) or Cal Past Due
   j. Sensor Warm Up and Please Wait
   k. Autozero (all gases and pressure sensor)
   l. Auto Bump Test (optional)
   m. Working display showing all gases sensed and battery power remaining

2. If the display fails to illuminate or BAT LOW is shown on the display, replace the batteries.

3. If any sensor is past the intended calibration cycle, CAL PAST DUE will appear during the start-up sequence. The instrument will also show which sensor is due for calibration at that time.

During “Autozero” all sensors will be displayed with the zeroing result (passed or failed). Pressing and holding any button will freeze the display screen during warm-up to allow extended viewing.

4. If after the warm-up period, during autozero, if the instrument determines that a sensor is inoperable, a FAILED message will flash for that sensor. Then FAIL will show on the display for the corresponding sensor. If this occurs press and hold the ZERO/SAVE (C) button until “Autozero” is displayed to attempt to correct the error.

5. The display will indicate the type of gas used for calibration or to be sensed and the unit of measure (i.e.: LEL, PPM, % VOL) below all readings.

   See Page 46 Expert Feature Chart, for optional configurations for the combustible gas detection display. If PPM display is selected, the measurement auto-ranges to LEL at levels above 2000ppm.

   When equipped with the optional percent volume sensor, the measurement auto-ranges at 100% LEL. The display will indicate by changing the unit of measure below the reading to “%v/v”.

6. Prior to use, test the integrity of the sample system.

   Use your finger to block the inlet of the probe assembly for 4-5 seconds. The display will read FLOW BLOCKED if all seals are intact.During pump flow block, a beep will occur every 2 seconds until the pump restarts and adequate flow is present.

7. It may be necessary to manually zero the instrument based on company practices and environmental conditions. Always zero the instrument in a clean air environment.

8. When testing areas with elevated temperatures such as appliance vents or flues, always attach the optional hot air probe to the external filter. These connections need only be finger tight. Failure to use the approved probe can result in damage to the instrument and may void the warranty.

   ⚠ **CAUTION**: Do not handle the steel portion of any hot air probe after use. Burns may occur!

9. When sampling areas the appropriate sensors will cause the display to update when a gas is encountered. If any alarm condition exists for any sensor, based on their preset alarm points, the red (alarm) LED will flash and the audible alarm will sound unless it is muted.

   Additionally, the reading for the gas exceeding the alarm set point will also flash.

The standard factory preset LED indicators and alarm points are:

a. Combustible gas: Methane, audio and visual alarm indicators from 50% LEL to 17% v/v*
   Combustible gas: Propane, audio and visual alarm indicators from 50% LEL to 12% v/v*
   (LED indicator only above 17% volume Methane or 12% Propane)
   *When equipped with percent volume sensor.
b. Oxygen - below 19.5% and above 23.5%
c. Carbon Monoxide - 35ppm per utility industry standards
d. Hydrogen Sulfide - 10ppm and above per Federal OSHA guidelines
e. Hydrogen Cyanide - 5ppm and above

⚠ **CAUTION**: There are gases that can poison or be cross sensitive to the combustible gas sensor. See Page 52: LEL Cross-Sensitivity Calculation Chart

10. To disable the alarm, quickly press the POWER/MUTE BUTTON [A]. To enable the alarm press the same button again.

    During an alarm, the gas that has exceeded the preset alarm point will flash on the display and the ALARM LED will flash indicating a potentially unsafe condition. If the alarm condition no longer exists, the alarm sound will automatically deactivate.

11. At any time the operator may save the readings on the display by pressing the ZERO/SAVE BUTTON [C]. This will save all readings for download at a later time. Log size is factory set to store 6 logs, but can be increased up to 100 logs. The most recent save is first during download. An optional Auto log software of extended memory can store up to 1,600 records. (Consult factory for details.)

12. Following Federal, State, Municipal and/or Company procedures move to the areas where gas readings are suspected or must be tested. Use necessary accessories to draw samples from areas not accessible with the instrument itself, such as confined spaces or flues. During sampling, the respective readings may change. Audible and visual alarms will activate when the preset limits are reached.

13. When equipped with the percent volume sensor, if the instrument encounters a gas it is not calibrated to, it may read "NSR" or "NSC" followed by a number. If the instrument is calibrated for natural gas "NSR" (Non Standard Response) likely indicates a heavy non combustible gas (e.g.: heavier than air, such as carbon dioxide, etc.). If the response is "NSC" Non Standard Combus-

tible) the gas is likely a heavy hydrocarbon, such as gasoline, propane, butane, etc.

14. When being used in dark areas an automatic backlight will illuminate the display.

15. To turn instrument off, press/hold the POWER/MUTE BUTTON [A] until the beeping sound stops and POWER OFF appears on the display. Release the button and a purge time followed by the shut down will occur.

BAR HOLE TEST

FOR PERCENT VOLUME EQUIPPED UNITS

To assist pinpointing the location of underground leaks, the Bar Hole Test feature may be used. This feature will draw a timed sample (20 seconds) and display sustained and peak readings.

NOTE: Use an approved barhole probe with filter to prevent damage to the instrument when conducting bar hole surveys.

TO CONDUCT A BAR HOLE TEST:

Prior to the test, attach the approved bar hole probe to an operating instrument. Block the inlets of the probe to test for any air leakage. The instrument will show FLOW BLOCKED in approximately 10 seconds if all seals are good. If flow block is not detected, check the integrity of the "O" ring seals and connections on the probe and instrument. If flow block can not be achieved, contact the factory for assistance. An air tight system is crucial for accurate readings.

From the working display, press & release the MENU BUTTON [B]. SELECT TEST will appear on the top line of the display. Press & release MENU BUTTON [B] to enter the BH menu. Insert the bar hole probe into the location for the survey. Press and release MENU BUTTON [B] once more to start the test. A 20 second countdown for the test will begin. The current percent of gas by volume (no LEL or PPM reads will be displayed) detected will be displayed as % ON. The peak percent of gas by volume detected will be displayed as % PK. At the conclusion of the test, the pump will shut off and any sustained and peak readings will be shown and recorded.

If you have another test to take, press & hold the SAVE/ZERO BUTTON [C]. This will restart the pump and clear the last readings. When the readings have returned to zero, release SAVE/ZERO BUTTON [C]. The countdown timer will restart.

You may encounter NSR or NSC readings during the bar hole test (see page 16 for definition). A hydrocarbon filter kit is available to help scrub the sample if contact with heavy hydrocarbons is suspected. Please consult the factory for details. If you wish to cancel during a test or return to the working display, press & release the POWER/MUTE BUTTON [A].

LEAK SEARCH (OPTIONAL)

TO CONDUCT A LEAK SEARCH (LS):

To enter the LEAK SEARCH mode from the work display, press and release the MENU [B] button. Press and release the SAVE/ZERO [C] button until LS is displayed on the bottom of the screen. Press and release the MENU [B] button. LEAK SEARCH will be displayed on the top of the screen with 0 PPM on the bottom of the screen.

Attach a drag tube assembly or telescoping survey probe. The instrument has a preset alarm of 10ppm (adjustable, contact Sensit for details.) The instrument will read in 1ppm increments up to 5000ppm, auto range to LEL and then to %v/v.

To zero the instrument in the LS mode, press and hold the SAVE/ZERO [C] button until "Autozero" is displayed. Any alarm can be muted by pressing and releasing the POWER/MUTE [A] button once. If the alarm sound is turned off before an alarm condition is met, the alarm will remain off until activated by pressing and releasing the POWER/MUTE [A] button. If the alarm sound is muted during an alarm condition and the concentration of gas is below the alarm threshold, the alarm will activate if the concentration exceeds the alarm threshold again.

To exit the LS mode, press and hold the POWER/MUTE [A] button for 2-3 seconds to exit to the work display.

PURGE MODE

FOR PERCENT VOLUME EQUIPPED UNITS ONLY

NOTE: This feature is for purging lines into service only. For purging lines out of service with air, use the normal working display.

TO CONDUCT A PURGE:

To enter the PURGE mode from the work display, press and release the MENU [B] button. Press and release the SAVE/ZERO [C] button until PURGE is displayed on the bottom of the screen.

Press and release the MENU [B] button. PURGE TEST will be displayed on the top of the screen with %v/v on the bottom left side of the screen and O2 % on the bottom right side of the screen. If O2 (oxygen) is not installed, an "X" will appear.

Attach a purge probe. Do not create a tight seal where the purge probe is inserted for sampling. Allow for blow by so the unit does not get over pressurized.

The LEL sensor is turned off during this mode to prevent unnecessary exposure to high levels of gas for an extended period time. The O2 readings (if equipped) will reflect the amount of oxygen in the line.

To exit the PURGE mode, press and release the POWER/MUTE [A] button to exit to the work display. A "Please Wait" message will flash (the LEL sensor is being powered back on) and this message will appear for a minimum of 5 seconds up to a maximum of 5 minutes.

INERT PURGE MODE (OPTIONAL)

FOR OXYGEN (O2) EQUIPPED UNITS ONLY

NOTE: This feature is for purging lines out of service with an inert gas only and requires the dilution tube accessory. For purging lines out of service using air, use the normal working display. For purging lines into service, see the section on PURGE MODE.

TO CONDUCT AN INERT PURGE:
From the working display, press and release the MENU BUTTON [B]. The top line will read SELECT TEST. Press & release the SAVE/ ZERO BUTTON [C] until the bottom line reads IM. Press & release the MENU BUTTON [B].

The display will prompt to install the dilution tube. Install it on the inlet of the instrument and the other end to the flange/purge probe tubing. Acknowledge this has been done by pressing & releasing the MENU BUTTON [B]. The display will read 0.0 NAT or PRO (depending on GAS TYPE selection) %LEL INERT MODE.

Fully close the needle valve on the dilution tube and block the inlets of the probe to check for air leakage. After a few seconds, FLOW BLOCKED should appear on the display of the instrument if all seals are good. If flow block is not detected, check the integrity of the O-ring seals and connections on the probe, dilution tube, external filter (Trak-It IIIa) and instrument. If flow block cannot be achieved, contact the factory for assistance. Air airtight system is crucial for accurate readings.

Insert the purge probe into the gas stream. Allow the sample to be drawn for a minimum of 1 minute. Adjust the needle valve counterclockwise to induce oxygen and clockwise to restrict oxygen.

Open or close the valve until 8.0% to 9.0% O2 readings are being displayed.

⚠ **CAUTION**: Ensure that the intake of the dilution tube is pulling air from a gas free environment.

Purge the line until the desired gas reading is displayed. Be sure to maintain the 8.0% to 9.0% O2 readings. To exit the INERT MODE, press & hold the POWER/MUTE BUTTON [A] for 3-4 ticks of the speaker. The display will prompt to remove the dilution tube. Remove the dilution tube and acknowledge by pressing & releasing the MENU BUTTON [B]. The gas reading on the display will now read 0.0 NAT or PRO %LEL

NOTE: You must exit INERT MODE to gain access to the other QUICK MENU features.

If the flange/purge probe cannot be used because of application restrictions, the tubing with dilution tube (no flange/purge purge probe) can be used for sampling. The tubing must be vinyl and the flow must be vinyl and the flow must be restricted to 0.3 lpm – 0.5 lpm (liters per minute) at the point of sampling.

CO TEST (OPTIONAL)

From the working display, press & release the MENU BUTTON [B]. The top line will read SELECT TEST. once, SELECT TEST will appear on the top line of the display. Press & release the SAVE/ZERO BUTTON [C] until the bottom line reads CO.

Press & release the MENU BUTTON [B] again to enter the CO test menu. Press & release the MENU BUTTON [B] once more to start the test.

A 180 second timed test will begin. (The time for this test is factory adjustable.) A countdown timer will show the remaining seconds of the test.

During this test period, the detected ppm CO level will be displayed on the left. Simultaneously, the peak ppm CO level detected will be displayed and recorded on the right.

The test number, date, time and both sustained and peak ppm CO level will be automatically stored by the instrument for display or printout at a later date.

Press & release the MENU BUTTON [B] to repeat the test. Press & release the POWER/MUTE BUTTON [A]to return to the working display.

CF TEST

Only available as an option for instruments with CO and O2 sensors.

TO CONDUCT A CF TEST

NOTE: The hot air flue probe must be used with the instrument when conducting this test to prevent damage to the instrument and to receive proper calculations.

IMPORTANT: Air free CO levels or CF readings are calculated by the instrument based on CO and O2 levels detected during flue gas sampling of gas fired appliances.

From the working display, press & release MENU BUTTON [B]. The top line of the display will read SELECT TEST. Press & release the SAVE/ZERO BUTTON [C] until CF is displayed.

Press & release the MENU BUTTON [B] again and the instrument will auto-zero and then enter the CF test menu. Press & release the MENU BUTTON [B] once more to start the test.

A 180 second timed test will begin. (The time for this test is factory adjustable.) A countdown timer will show the remaining seconds of the test. The peak CF reading will start to flash "0PK". It will continue to flash until 20 seconds after the oxygen level drops below 18.9%. At this point, conditions are acceptable for a valid test calculation.

If this segment continues to flash during the test period, conditions for a proper test were not possible. In this case any test results are invalid. The display and printout will show N/A for the peak CF reading. The test should be repeated.

During the test period, the detected ppm CO level will be displayed on the left side of the screen. Simultaneously, the calculated ppm CF reading and the calculated peak ppm CF level will be displayed on the right side of the screen.

If the proper conditions for an accurate test existed (O2 below 18.9%), the detected CO level, calculated CF level and the peak CF level will remain on the display at the end of the test.

The CF readings are automatically recorded by the instrument and can be viewed at a later date. In addition, the peak CF reading will be stored for a printout report.

Press & release the MENU BUTTON [B] to repeat the test. Press & release the POWER/MUTE BUTTON [A] to return to the working display.CF TEST

TO SHOW A CF TEST

From the working display, press & hold MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] to scroll until the bottom line reads CF LOG.

Press & release the MENU BUTTON [B]. CF TEST 1 will appear. This represents the most recent CF test data stored.

Invalid test data will show as "N/A" for the peak CF level. Data from previous test can be viewed by scrolling with the SAVE/ZERO BUTTON [C]. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

TO PRINT A CF TEST

From the working display, press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until PRINT is displayed.

Press & release the MENU BUTTON [B] to enter this menu. Press & release the SAVE/ZERO BUTTON [C] to scroll until the bottom line reads CF LOG.

Prepare the optional IR printer. Aim the IR window on the right side of the instrument at the printer. Press & release the MENU BUTTON [B] to print the CF test data.

Invalid test data will show as "N/A" for the peak CF level. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

CALIBRATION CHECK

To verify the accuracy of any **TRAK-IT® IIIa**, it must be exposed to a known concentration of test gas that will test any sensor combination included in your particular model.

Any sensor that does not meet the specifications listed in this manual may require calibration or repair. A calibration check does not update the calibration due date. Full calibration is required to update these times.

A calibration past due message will illuminate during warm-up if calibration has not been performed per your company specified interval. Any time it is suspected that the **TRAK-IT® IIIa** is not working properly, check calibration.

USER MENU

The **TRAK-IT® IIIa** has several categories within the User Menu. The first twelve fields are standard with all instruments. The last two are only available in certain instrument models when ordered with the Extended Memory option.

SHOW TIME: Displays current date and time.
(Cannot be changed from this location.)

SET CLOCK: Set date and time. Displayed using a 24 hour clock. (User adjustable)

PRINT: Print Session Logs, Cal Log, access Smart-Cal communication, (print CO test or print CF test is optional with some extended memory units).

BUMP TEST: Perform automatic test for sensors response to calibration gas within 60 seconds or less.

CAL: Calibrate all sensors, access AUTO CAL manual calibration procedure.

O2 TEST: 20 second test to check depletion of the O2 sensor when exposed to the proper gas, such as 100% methane.

GAS TYPE: Change between Natural and Propane.

CAL LOG: Display last calibration of all sensors.

SES LOG: Display saved gas readings with the corresponding date and time.

BH LOG: Display barhole logs with the corresponding date and time.

SMART CAL: Prepare for use with calibration station.

CAL DUE: Display future calibration due dates for each gas.

NOTE: These additional fields are found on certain models ordered with the Extended Memory option.

AUTOLOG: Automatic storage of peak gas readings of up to 1,600 events.

CF LOG: Display calculated AIR FREE CO levels recorded during timed test.

USER MENU

SHOW TIME

From the working display, access the menu by pressing and holding the MENU BUTTON [B] until the display reads USER MENU/SHOW TIME. Press MENU BUTTON [B] one time to display the time and date. Press any button to return to the USER MENU.

SET CLOCK

From the working display access the menu by pressing and holding the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until the bottom line displays SET CLOCK.

Press & release the MENU BUTTON [B] once to enter the menu. The day will be the section flashing on the display. To change this section, press & release theMENU BUTTON [B] for adjustments. Press & release the SAVE/ZERO BUTTON [C] to advance to the next section (month, year or time).

Press & release the POWER/MUTE BUTTON [A] to save the selection. To exit this menu, press & release the POWER MUTE BUTTON [A].

PRINT

For all printing operations, the printer is only to be used in non-hazardous locations.

From the working display access the menu by pressing & holding the MENU BUTTON [B] until the top line of the display reads USER MENU. The bottom line will read SHOW TIME.

Press & release the SAVE/ZERO BUTTON [C] until “PRINT” is displayed. Press & release the MENU BUTTON [B] once to enter the menu.

Prepare the optional IR printer. Aim the IR window (on the right side of the instrument) at the IR window on the printer.

Press & release the SAVE/ZERO BUTTON [C] to scroll to the item you want to print. Press & release the MENU BUTTON [B] to print that item. To exit this menu, press & release the POWER/MUTE BUTTON [A] until the instrument returns to the working display.

BUMP TEST

From the working display, press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] to scroll until the bottom line reads BUMP TEST.

Prepare the appropriate certified gas mixture for your instrument model (see proper gas mixtures listed in the Calibration section).

Apply the gas to the instrument and press & release the MENU BUTTON [B] to start the BUMP TEST.

The display will show the gas value being tested on the top line with registered gas value and a 45-60 second countdown on the bottom line. The instrument will automatically check the LEL sensor and also the CO and H2S sensors, if they are installed.

If each sensor tested reads at least 80% of the value of the gas, within the time period required, the display will flash BUMP TEST PASS before returning to the USER MENU automatically. Press & release the POWER/MUTE BUTTON [A] to exit and return to the working display.

If any sensor fails, the display will show BUMP TEST FAILED. This means that calibration is required. If calibration is unsuccessful, remove the instrument from service. Consult the factory in the event of any failure.

To exit this menu, press & release the POWER/MUTE BUTTON [A] to return to the working display.

CAL

See Calibration section on Page 39.

O2 TEST

From the working display press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] to scroll until the bottom line reads O2 TEST.

Apply recommended gas mixture void of oxygen, such as 100% Methane or 100% Nitrogen and press & release the MENU BUTTON [B] to start the test.

A 20 second countdown will begin. If the sensor shows proper depletion within this period, PASSED will flash on the display.

Press & release the POWER/MUTE BUTTON [A] to return to the working display.

If the O2 sensor does not respond properly within the 20 second test, FAILED will appear on the display. Remove the instrument from service. Consult the factory in the event of any failure.

To exit this menu, press & release the POWER/MUTE BUTTON [A] to return to the working display.

GAS TYPE

From the working display press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until the bottom line reads GAS TYPE. Press & release the MENU BUTTON [B]

To change the gas type, press & release either button [B] or [C]. You can select either NAT (methane) or PRO (propane) as your primary gas. Once you have made your selection, press & release the POWER/MUTE BUTTON [A] to store the gas. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

NOTE: Prior to use, confirm that the instrument is reading accurately when switching gas types. Verification is recommended by conducting a Bump Test or Calibration.

CAL LOG

TO SHOW A CALIBRATION LOG

From the working display press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] to scroll until the bottom line reads CAL LOG.

Press & release the MENU BUTTON [B] once to enter the menu. Calibration data will be displayed. To exit this menu, press & release the POWER/MUTE BUTTON [A].

TO PRINT A CALIBRATION LOG

From the working display, press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] to scroll until the bottom line reads PRINT.

Press & release the MENU BUTTON [B] once to enter the menu. Press & release the SAVE/ZERO BUTTON [C] to scroll untill the desired log to be printed appears.

Prepare the optional IR printer. Aim the IR window on the right side of the instrument at the IR printer. Press & release the MENU BUTTON [B] to print the log.

To exit this menu, press & release the POWER/MUTE BUTTON [A] to return to working display.

SESSION LOG

TO SHOW A SESSION LOG

From the working display, press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] to scroll until the bottom line reads SES LOG. Press & release the MENU BUTTON [B] once to enter the menu. SESSION 1 will be displayed. If no saved data, instrument beeps and screen flashes - remains in USER MENU.

This is the most recent data saved. Press & release the SAVE/ZERO BUTTON [C] to scroll to the session number you want to view. The SAVE/ZERO BUTTON [C] will advance and the MENU BUTTON [B] will go back to the previous session.

The standard number of available stored sessions is factory set at 6 but is adjustable up to 100. To exit this menu, press & release the POWER/MUTE BUTTON [A] to return to the working display.

TO PRINT A SESSION LOG

From the working display, press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until PRINT is displayed. Press & release the MENU BUTTON [B] once. SES LOG will be displayed.

Prepare the optional IR printer. Aim the IR window, on the right side of the instrument, at the IR printer. Press & release the MENU BUTTON [B] to print the log. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

SHOW BH LOG

From the working display access the menu by pressing and holding the MENU BUTTON [B] until the display reads USER MENU SHOW TIME. Press the SAVE/ZERO BUTTON [C] to scroll to USER MENU SHOW BH LOG.

Press MENU BUTTON [B] to select this feature. The last record will be displayed. The heading will display BH LOG: XXX (indicating record number) and the date/time of the record. Below will include the recorded

(PK) and (ON) concentrations. The SAVE/ZERO BUTTON [C] advances to the next record while pressing the TICK/MENU BUTTON [B] returns you back to the previous record. Press the POWER/MUTE BUTTON [A] to return to the USER MENU.

SMART-CAL

From the working display, press & hold the POWER/MUTE BUTTON [A] for 2-3 seconds. The display will read SMART CAL communicating.

Place the instrument into the cradle on the left side of the Smart-Cal Calibration Station. Attach the tubing from the station to the instrument.

Press & release the CALIBRATE button on the Smart -Cal and calibration will begin automatically. If successful, CALIBRATION PASSED will show on display. If unsuccessful, CALIBRATION FAILED will show.

Let the instrument clear and repeat the calibration process. If the instrument will not pass, remove the instrument from service. Consult the factory in the event of any failure.user MENU

CAL DUE

From the working display access the menu by pressing and holding the MENU BUTTON [B] until the display reads USER MENU/SHOW TIME. Press the SAVE/ZERO BUTTON [C] to scroll to USER MENU/CAL DUE.

Press the MENU BUTTON [B] to select this feature. The heading will display CAL DUE if the sensor is past calibration or NEXT CAL indicating when the sensor is due. Press the POWER/MUTE BUTTON [A] to return to the USER MENU.

AUTOLOG

NOTE: This feature is not available by default.

With this feature the instrument will automatically save the peak readings of all sensors while the unit is operating in the working display. These peak readings are stored in Events with a maximum capacity of 1,600 events. They are stored accumulatively throughout day to day use until the maximum capacity is reached. Each use of the SAVE/ZERO BUTTON [C] to make a manual save will also record one event.

TO RETRIEVE AUTOLOG EVENTS:

Stored autolog events can be downloaded, in a non-hazardous area, to a PC using the infared computer interface IR LINK (IR LINK with software order #870-00039). Please contact the factory for more information on this accessory.

CALIBRATION

Calibration is the process of setting the readings of the instrument to equal the value of certified calibration gases. Prior to calibration allow the instrument to operate for 5 to 10 minutes in a room environment free of combustible, CO, H2S or HCN gases.

Manually zero the instrument prior to beginning the calibration process.

NOTE: Using calibration kits other than recommended by SENSIT TECHNOLOGIES may cause inaccurate readings. Repairs are required if any sensor fails to calibrate. Consult the factory for details.

NOTE: When calibrating, the numbers shown on the display represent the numbers seen by the microprocessor and should not be confused with actual gas readings.

These readings will update every 5 seconds during calibration.

DEFINITIONS

AUTO CAL	is an automatic calibration process not requiring a docking station.
METHANE 2.5% V/V	is the calibration point for the low end of the 100% volume sensor and LEL/ppm sensor.
PROPANE 1.1% V/V	is the calibration point for the low end of the 100% volume sensor and LEL/ppm sensor.
50% LEL	indicates calibration of the LEL and PPM sensors.
100 PPM CO	indicates the calibration point of the carbon monoxide sensor.
25 PPM H2S	indicates the calibration point of the hydrogen sulfide sensor.
10 PPM HCN	indicates the calibration point of the hydrogen cyanide sensor.
SMART-CAL	is the automatic calibration system using IR communication.

Prior to starting calibration prepare the necessary gases per the sensor configuration.

From the working display access the menu by pressing and holding the MENU BUTTON [B] until the display reads USER MENU SHOW TIME. Press the SAVE/ZERO BUTTON [C] to scroll to USER MENU CAL .

Press the MENU BUTTON [B] to the calibration modes. The display will now show CAL AUTO CAL. Pressing

the SAVE/ZERO BUTTON [C] will allow viewing of all other modes of calibration.

AUTO CAL

To calibrate, prepare all gases and regulators needed. Press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until CAL is displayed. Press and release the MENU BUTTON [B] one time to show AUTO CAL.

Press the MENU BUTTON [B] and apply the gas shown on the display. You have 30 seconds to attach the gas. If the gas is not sensed, the unit will beep and display FAILED until any button is pressed to acknowledge and move on to the next gas.

If the readings are satisfactory the display will show OK SAVED and begin calibrating the next gas in sequence. When finished remove and shut off the gas.

Use the POWER/MUTE BUTTON [A] to return to the working display. Calibration due date is automatically reset with a successful calibration.

MANUAL CALIBRATION

The following instructions pertain to manual calibration of the **TRAK-IT® IIIa**. If you are using the automatic Smart-Cal Calibration System, the procedure is different. See the Smart-Cal sections of this manual or consult the Smart-Cal instruction manual for details.

CARBON MONOXIDE (CO) CALIBRATION (100PPM CO/AIR)

From the working display, press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until the bottom line reads CAL.

Press & release the MENU BUTTON [B] once. The bottom line will read AUTO CAL. Scroll with the SAVE/ZERO BUTTON [C] until CO 100PPM is displayed. Apply 100ppm CO/Air calibration gas and press & release the MENU BUTTON [B] to start CO calibration.

When the reading is satisfactory, the display will flash OK SAVED indicating that calibration is complete for that sensor. The date for CAL PAST DUE is automatically reset for that sensor as well.

Scroll with the SAVE/ZERO BUTTON [C] if you need to calibrate another sensor. When finished, remove and shut off the gas supply. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

HYDROGEN SULFIDE (H2S) CALIBRATION (H2S 25 PPM)

From the working display press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until the bottom line reads CAL.

Press & release the MENU BUTTON [B] once. The bottom line will read AUTO CAL. Press & release the SAVE/ZERO BUTTON [C] until the bottom line reads H2S 25ppm.

Apply 25ppm H2S/AIR to the instrument and press & release the MENU BUTTON [B] to start H2S calibration.

When the reading is satisfactory, the display will flash OK SAVED indicating that calibration is complete for that sensor. The date for CAL PAST DUE is automatically reset for that sensor as well.

Scroll with the SAVE/ZERO BUTTON [C] if you need to calibrate another sensor. When finished, remove and shut off the gas supply. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

HYDROGEN CYANIDE (HCN) CALIBRATION (HCN 10 PPM)

From the working display press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until the bottom line reads CAL.

Press & release the MENU BUTTON [B] once. The bottom line will read AUTO CAL. Press & release the SAVE/ ZERO BUTTON [C] until the bottom line reads HCN 10ppm.

Apply 10ppm HCN/N2 to the instrument and press & release the MENU BUTTON [B] to start HCN calibration. When the reading is satisfactory, the display will flash OK SAVED, indicating that calibration is complete for that sensor.

The date for CAL PAST DUE is automatically reset for that sensor as well. Scroll with the SAVE/ZERO BUTTON [C] if you need to calibrate another sensor. When finished, remove and shut off the gas supply. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

COMBUSTIBLE GAS CALIBRATION

2.5% V/V (VOLUME) METHANE (50% LEL)

From the working display press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until the bottom line reads CAL.

Press & release the MENU BUTTON [B] once, the bottom line will read AUTO CAL. Press & release the SAVE/ ZERO BUTTON [C] once. The bottom line will read 2.5%V/V. Apply 2.5%V/V methane/air calibration gas and press & release the MENU BUTTON [B] to start 2.5%V/V calibration.

When readings stabilize, the display will read OK SAVED indicating calibration is complete for that sensor. Do not remove the gas until the second OK SAVED flashes. Two calibrations take place during the 50%LEL Methane calibration. The date for CAL PAST DUE is automatically reset for that sensor as well.

Scroll with the SAVE/ZERO BUTTON [C] if you need to calibrate another sensor. When finished, remove and shut off the gas supply. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

COMBUSTIBLE GAS CALIBRATION
100% VOLUME METHANE

NOTE: After calibration of 100% Methane, it is recommended to auto-zero the unit before use.

From the working display press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until the bottom line reads CAL. Press & release the MENU BUTTON [B] once, the bottom line will read AUTO CAL.

Press & release SAVE/ZERO BUTTON [C] to scroll until the bottom line reads 100%V/V. Apply 100% methane to the instrument. Immediately press & release the MENU BUTTON [B] to start 100% methane calibration.

When the reading is satisfactory, the display will flash OK SAVED indicating that calibration is complete for that sensor. The date for CAL PAST DUE is automatically reset for that sensor as well.

Scroll with the SAVE/ZERO BUTTON [C] if you need to calibrate another sensor. When finished, remove and shut off the gas supply. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

COMBUSTIBLE GAS CALIBRATION
(1.1% PROPANE OR 50% LEL PROPANE)

From the working display press & hold the MENU BUTTON [B] until the top line reads USER MENU. Press & release the SAVE/ZERO BUTTON [C] until the bottom line reads CAL. Press & release the MENU BUTTON [B] once. The bottom line will read AUTO CAL.

Press & release the SAVE/ZERO BUTTON [C] to scroll until the bottom line reads 1.1%V/V. Apply 1.1% propane air balance (50% LEL propane) to the instrument. Immediately press & release the MENU BUTTON [B] to start propane calibration.

When the reading is satisfactory, the display will flash OK SAVED indicating that calibration is complete for that sensor. Do not remove the gas until the second OK SAVED flashes. Two calibrations take place during the 1.1%V/V propane calibration.

The date for CAL PAST DUE is automatically reset for that sensor as well. Scroll with the SAVE/ZERO BUTTON [C] if you need to calibrate another sensor. When finished, remove and shut off the gas supply. Press & release

the POWER/MUTE BUTTON [A] to return to the working display.

OXYGEN SENSOR TEST

To determine if the O2 sensor is working properly, verify the sensors reaction by exposing it to a calibration gas void of oxygen, such as 100% methane or 100% nitrogen.

From the working display press & hold the MENU BUTTON [B] until the top line reads USER MENU. Scroll with SAVE/ZERO BUTTON [C] until the bottom line reads O2 TEST.

Apply proper gas and press & release the MENU BUTTON [B] to start the test. A 20 second countdown will begin. If the sensor shows proper depletion within this period, PASSED will flash on the display. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

If the O2 sensor does not respond properly within the 20 second test, FAILED will appear on the display.

Consult the factory in the event of any failure. Press & release the POWER/MUTE BUTTON [A] to return to the working display.

NOTE: A calibration failure is indicated on the display by FAILED. Re-calibration should be attempted. Any instrument that does not accept calibration should be taken out of service. Please contact the factory for any needed repairs.

EXPERT MENU FEATURE DEFINITIONS

CONTRAST:	Set display contrast for better viewing
TICK:	Set normal speed of tick rate when resetting
%LEL MODE:	Set to LEL display. If off readings are %V/V
100% LEL:	Set the value of LEL between 4-5% methane
LEL RESOLUTION:	Set reading increments on display
NEW O2:	Tracks install date
N COMP:	Specialized sensor compensation software
CAL DUE REMINDER:	Alert system for calibration
DUE ACK:	Requires operator to push a button when cal is overdue
PROPANE 100%:	Requires calibration to 100% propane
N2 for O2:	Requires oxygen test using N2
SHOW SES LOG:	Show the session log on display
SHOW BH LOG:	Show bar hole test logs on display
SHOW CF/CO LOG:	Show CO and CF test logs on display
ALARM SETTINGS:	Limits for alarms
LOW LED:	Concentration when first LED illuminates
POWER OFF:	Automatic shut off time
PURGE TIME:	Run time before instrument shut down after power off
BH TIME:	Adjustment for the bar hole test time
CF/CO TIME:	Adjustment for the CO test time
ERASE AUTO:	Erase the AUTO LOG
NG FACTOR:	Factor for methane content in 100% natural gas
NSR:	Disable gas distinguishing software
NSC:	Disable combustible/inert identifier
NSC LEL:	Concentration to activate NSC control
AUTO BUMP:	Enable required bump test
TICK FIRST:	Position of tick in test menu
MUTE LATCH:	If in mute, unit can remain until reactivated
ERASE LOG:	Erase all sessions, BH, CO, CF Logs
CAL RQD:	Set instrument to shut down after “Cal Past Due”

EXPERT FEATURE CHART

FEATURE	SETTINGS	DEFAULT
SERVICE:		
CONTRAST	0-63	30
% LEL MODE	ON/OFF	ON
100%LEL N	4.0-5.0	5.0
100%LEL P	1.8-2.2	2.2
RESOLUTION	0.0-2.0	0.0
N COMP	ON/OFF	OFF
CAL DUE	30,45,60,90,180,360 DAYS	30
DUE ACK	ON/OFF	OFF
N2 FOR O2	ON/OFF	OFF
SHOW SES	ON/OFF	ON
SHOW BH	ON/OFF	ON
SHOW AUTO	ON/OFF	OFF
ALARM:		
LOW O2	17.5-20.5	19.5
HIGH O2	21.5-23.5	23.5
CO	5-300	35
H2S	2-30	10
HCN	2-20	5

LEL	1.0-99.0	50.0
NAT	5.0-100.0	17.0
PRO	2.0-100.0	12.0
POWER OFF	0-480 MIN.	60 MIN.
PURGE TIME	0-120 SEC.	10 SEC.
BH TIME	5-120 SEC.	20 SEC.
ERASE AUTO	ERASE AUTO	PASSWORD REQ.
NG FACTOR	50-100	100
NSR	ON/OFF	ON
NSC	ON/OFF	ON
NSC LEL	1.0-10.0	2.0
AUTO BUMP	0-30	0
MUTE LATCH	ON/OFF	OFF
ERASE LOG	ERASE ALL SES LOG	PASSWORD REQ
LANGUAGE	ENGLISH, TURKISH, CHINESE	ENGLISH

LEL CROSS SENSITIVITY

When sensing other gases the methane calibrated reading may be lower than the actual LEL of the gas sensed.

For example 100% LEL of propane will only display as 70% LEL.

LEL CROSS SENSITIVITY CALCULATION CHART
(GAS TYPE SET TO NAT)

The chart below shows the relative reading if exposed to 50% LEL of the most common gases this instrument may be used to detect.

50%LEL Propane = 35%	50%LEL Butane= 35%
50%LEL Hexane = 22.5%	50%LEL Pentane = 25%
50%LEL Toluene = 22.5%	50%LELMethanol = 50%
50%LEL Ethanol = 35%	50%LEL MEK = 25%
50%LEL Isopropyl Alcohol = 30%	

NOTES

NOTES

EU WASTE ELECTRICAL & ELECTRONIC EQUIPMENT

(WEEE) DIRECTIVE

In August of 2005, the European Union (EU) implemented the EU WEEE Directive 2002/96/EC and later the WEEE Recast Directive 2012/19/EU requiring Producers of electronic and electrical equipment (EEE) to manage and finance the collection, reuse, recycling and to appropriately treat WEEE that the Producer places on the EU market after August 13, 2005. The goal of this directive is to minimize the volume of electrical and electronic waste disposal and to encourage re-use and recycling at the end of life.

Sensit Technologies LLC has met its national obligations to the EU WEEE Directive. Sensit Technologies LLC has also elected to join WEEE Compliance Schemes in some countries to help manage customer returns at end-of-life. If you have purchased. Sensit Technologies LLC branded electrical or electronic products in the EU and are intending to discard these products at the end of their useful life, please do not dispose of them with your other household or municipal waste. Sensit Technologies LLC has labeled its branded electronic products with the WEEE Symbol (figure above) to alert our customers that products bearing this label should not be disposed of in a landfill or with municipal or household waste in the EU.

WARRANTY

Your **TRAK-IT® IIIa** is warranted to be free from defects in materials and workmanship for a period of two years after purchase (excluding calibration and batteries). The circuit board and percent gas sensor (TC) are warranted for 5 years. If within the warranty period, your instrument should become inoperative from such defects, the unit will be repaired or replaced at our option.

This warranty covers normal use and does not cover damage which occurs in shipment or failure which results from alteration, tampering, accident, misuse, abuse, neglect or improper maintenance. Proof of purchase may be required before warranty is rendered. Units out of warranty will be repaired for a service charge. Internal repair or maintenance must be completed by a SENSIT Technologies authorized technician. Violation will void warranty. Units must be returned postpaid, insured and to the attention of the Service Dept. for warranty or repair.

This warranty gives you specific legal rights and you may have other rights which vary from state to state.

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MADE IN THE USA

WITH GLOBALLY SOURCED COMPONENTS

TRAK-IT® IIIa Instruction Manual
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