WARRANTY

Your **TRAK-IT®III CGI** is warranted to be free from defects in materials and workmanship for a period of two years after purchase (excluding calibration and batteries). The percent gas sensor (TC) is 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 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.

SHIPPING ADDRESS
SENSIT TECHNOLOGIES
851 Transport Drive
Valparaiso, IN 46383

Phone: (888) 4 SENSIT (473-6748)
or (219) 465-2700
Fax: (219) 465-2701
www.gasleaksensors.com

MADE IN THE USA

(6/08) 3/06 UL V6

TRAK-IT®III CGI

INSTRUCTION MANUAL

For use with Combustible Gases and optionally available Oxygen and Toxic Gase

Read and understand instructions before use.

CLASSIFIED UL
7WA6

Approved UL913, For Class 1, Division 1, Groups C & D, T4 hazardous locations when used with alkaline batteries.

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

For more information contact:
SENSIT TECHNOLOGIES
851 Transport Drive
Valparaiso, IN 46383
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Fax: (219) 465-2701
gasleaksensors.com

SENSIT Technologies

CONTENTS

NOTICE

⚠ CAUTION

This safety symbol is use to indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

PARTS AND ACCESSORIES

Standard Accessories (included)
Carrying Pouch
Fiberglass Bar-Hole Probe with Filter
Alkaline "D" Batteries
Reference Card
Instruction Manual

Accessories and Replacement Parts

AT30128 Hydrocarbon Filter (6)
AT302023 Hot Air Probe Assembly
AT302017 32" Fiberglass Bar Hole Probe with Filter
(PJN0110 replacement Sensor cap w/ O ring, filter)
AJN02013 Confined Space Probe with Tubing
AJN02021 Printer
A0156 Dirt and Water Filter Assembly
Calibration Kits - Contact us with instrument model number for correct Calibration Kit.

CALIBRATION *continued from page 25*

OXYGEN (O2) CALIBRATION

There is no menu option to select oxygen (O2) calibration. Calibration for this sensor is automatically performed at start up by the electronics. Calibration is also performed during any manual zeroing. Calibration can be verified using 100% nitrogen. The readings should be less than 0.4%.

NOTE: **Improper calibration is indicated by "Bad Cal" when save is attempted. Calibration will be based on the last successful calibration. Recalibration is recommended. The calibration due date will not be updated until successful calibration has occurred. Any instrument that does not calibrate requires service. Contact SENSIT TECHNOLOGIES for details.**

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

From the working display press and hold the MENU/BH TEST BUTTON until the top line reads **USER MENU**. Press and release the SAVE/ZERO BUTTON once, the bottom line will read **CALIBRATION**. Press and release the MENU/BH TEST BUTTON once. The bottom line will read **CO 100 PPM**. Press and release the SAVE/ZERO BUTTON three times. The bottom line will display **PROPANE**. Now apply 1.1% propane/air (50%LEL) gas mixture and immediately press and release the MENU/BH TEST BUTTON to start the calibration process.

At this point, the first of two propane calibrations is indicated when the display reads **PROPANE 1.1%**. When this portion is complete, the display will show **DATA SAVED**. The second propane calibration will start automatically as indicated when the display reads **50% LEL PRO**. When this is complete, the display will show **DATA SAVED** followed by **CALIBRATION** on the top line and **PROPANE** on the bottom line. Propane calibration is now complete. The date for **CAL PAST DUE** has now been automatically reset.

NOTE: **Unsuccessful propane calibration requires the instrument to sit for 10 minutes in the ON position, manual zeroing and recalibrating. If calibrating both methane and propane, perform methane calibrations first.**

(Continued on page26)

The **TRAK-IT®III CGI** is designed to detect combustible gases, oxygen content and toxic gases when so equipped with the available sensors. Each model of the **TRAK-IT®III CGI** provides specific detection features based on available sensor options. Each **TRAK-IT®III CGI** can be re-configured or upgraded by the manufacturer for an additional charge should your sensing requirements change. Consult SENSIT TECHNOLOGIES for a listing of new sensors available for use with the **TRAK-IT®III CGI.**

SENSING FEATURES

TRAK-IT III CGI INSTRUMENTS	LEL ALARMS	LEL/%GAS DISPLAY	LEAK DETECTION	CARBON MONOXIDE	OXYGEN	HYDROGEN SULFIDE
MODEL CGI EX	●	●	●			
MODEL CGI EX-CO	●	●	●	●		
MODEL CGI EX*Plus*	●	●	●		●	
MODEL CGI EX-CO*Plus*	●	●	●	●	●	
MODEL CGI EX-TOX	●	●	●			●
MODEL CGI EX-TOX*Plus*	●	●	●		●	●
MODEL CGI 4GAS	●	●	●	●	●	●

All **TRAK-IT®III CGI** instruments incorporate an advanced low power semiconductor sensor to measure combustible gases in PPM (Parts Per Million), LEL (Lower Explosive Limit) range and an advanced thermoconductivity based sensor to measure combustible gases in the percent volume range. The user may select either methane or propane gas readings from a user menu depending on the sensing requirements. An automatically backlit display shows all gas concentrations being measured. A LED located on the front of the instrument indicates preset visual warning of gas concentrations. All gases are continuously sampled with the use of an internal pump.

(Continued on page 3)

GENERAL DESCRIPTION *continued from page 2*

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 from 50% LEL (2.5% methane or 1.1% propane) to 17% methane (12% propane). 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 **TRAK-IT®III CGI** is approved by Underwriters Laboratories to UL913, for Class 1, Division 1, Group D hazardous locations when used with alkaline batteries.

SPECIFICATIONS

SENSOR SPECIFICATIONS

TYPE	RESOLUTION	RANGE	ACCURACY
PPM(option)	1 or 10	0-2000	±N/A
LEL	0.1%*	0-50%	±10%
%GAS	0.1%	2.5-100%	±5%
O_2	0.1%	0-25%	±0.2% or 2%**
CO	1ppm	0-2000ppm	±5ppm or 5%**
H_2S	1ppm	0-100ppm	±2ppm or 5%**

* % 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:	0 to 120° F
Storage Temp:	-20° to 132° F
Battery Life:	4 “D” Alkaline: 20 hrs. continuous

CALIBRATION *continued from page 23*

COMBUSTIBLE GAS CALIBRATION (50% LEL NAT)

Perform STEP 1 first. To calibrate LEL, push the MENU/BH TEST button when the top line reads **CALIBRATION** and the bottom line reads **50% LEL NAT**. Immediately apply 50% LEL methane (balance air). When the reading is satisfactory, the display will read **DATA SAVED** indicating calibration is complete. The date for CAL PAST DUE is automatically reset at this point. Press the ZERO/SAVE button to advance to another gas to be calibrated as indicated by the
top line of the display reading **CALIBRATION** and the bottom line reading another gas. Pressing the POWER/MUTE button will return the instrument to the working (gas readings) display. Remove the gas.

COMBUSTIBLE GAS CALIBRATION (METHANE 100%)

Perform STEP 1 first. To calibrate METHANE, push the MENU/BH TEST button when the top line reads **CALIBRATION** and the bottom line reads **METHANE 100%**. Immediately apply 100% methane or 100% natural gas (from gas line). When the reading is satisfactory, the display will read **DATA SAVED** indicating calibration is complete. The date for CAL PAST DUE is automatically reset at this point. Press the ZERO/SAVE button to advance to another gas to be calibrated as indicated by the top line of the display reading **CALIBRATION** and the bottom line reading another gas. Pressing the POWER/MUTE button will return the instrument to the working (gas readings) display. Remove the gas.

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CARBON MONOXIDE (CO) CALIBRATION (CO - 100PPM)

Perform STEP 1 first. To calibrate CO, push the MENU/BH TEST button when the top line reads **CALIBRATION** and the bottom line reads **CO 100 PPM**. Immediately apply 100 ppm CO (balance air).

When the reading is satisfactory, the display will read **DATA SAVED** indicating calibration is complete. The date for CAL PAST DUE is automatically reset at this point. Press the ZERO/SAVE button to advance to another gas to be calibrated as indicated by the top line of the display reading **CALIBRATION** and the bottom line reading another gas. Pressing the POWER/MUTE button will return the instrument to the working (gas readings) display. Remove the gas.

HYDROGEN SULFIDE (H2S) CALIBRATION (H2S-25 PPM)

Perform STEP 1 first. To calibrate H2S, push the MENU/BH TEST button when the top line reads **CALIBRATION** and the bottom line reads **H2S 25 PPM**. Immediately apply 25ppm H2S (balance air). When the reading is satisfactory, the display will read DATA SAVED indicating calibration is complete. The date for CAL PAST DUE is automatically reset at this point. Press the ZERO/SAVE button to advance to another gas to be calibrated as indicated by the top line of the display reading **CALIBRATION** and the bottom line reading another gas. Pressing the POWER/MUTE button will return the instrument to the working (gas readings) display. Remove the gas.

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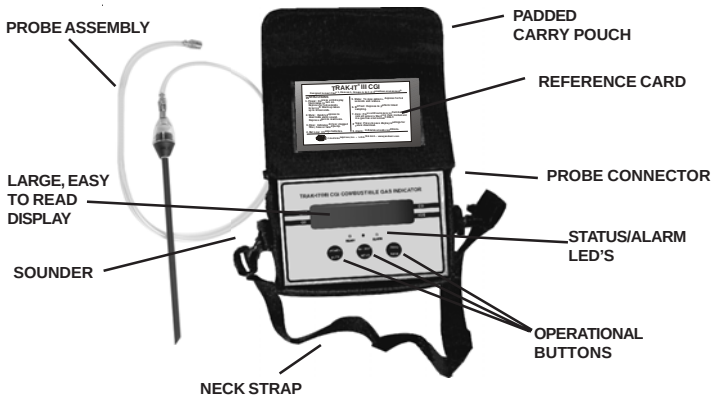

TRAK-IT®III CGI instruments are constructed of durable stainless steel to withstand the rigors of field use.

All **TRAK-IT®III CGI** instruments require 4 “D” type alkaline or rechargeable batteries. *Duracell MN 1300BK* batteries provide 20 hours of continuous use.

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

(Continued on page 5)

PRODUCT FEATURES *continued from page 4*

An **infrared LED** is located on the right side to allow the **TRAK-IT®III CGI** instruments to download calibration data and readings the operator has elected to save to the instrument's onboard memory.

A **two line 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®III CGI**.

• **POWER/MUTE BUTTON:** Displaying ***power*** and ***mute*** features.

• **MENU/BH TEST BUTTON:** Displays **Bar Hole** (**BH**) **Test** mode to assist in pinpointing underground leakage and displays the ***user menu*** to calibrate, download and set the clock.

• **ZERO/SAVE BUTTON:** Activates the ***save*** feature and performs a manual ***zeroing*** of the sensors.

Pressing any button will produce a click sound.

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 minutes in a room environment free of combustible, CO and H2S gases. Manually zero the instrument prior to beginning the calibration process.

⚠ **CAUTION**: **Using calibration kits other than recommended by J And N Enterprises may cause inaccurate readings. Repairs are required if any sensor fails to calibrate. Consult J And N 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.

STEP 1

From the working display access the menu by pressing and holding the MENU/BH TEST button until the top line of the display reads **USER MENU**. Press and release the ZERO/SAVE button until the bottom line displays **CALIBRATION**. Press the MENU/BH TEST button. The top line will now read **CALIBRATION**.

Use the ZERO/SAVE button to view the CO 100ppm, H2S 25ppm, 50% LEL NAT, METHANE 100%, PROPANE and Smart-Cal calibration options. If the instrument cannot calibrate properly to the calibration gas applied **BAD CAL** will appear after 2 minutes. Calibration readings update on the display every 5 seconds.

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At the end of the test the instrument will beep 3 times and display **PASS or FAIL**. Retry the test if necessary by pressing the proper button on the Smart-Cal Station again. Press the left button to return the working display, remove the tubing and return instrument to service or send instrument to the proper place for repair per company procedures.

SHORTCUT TO ACCESS SMART-CAL: Place the instrument into the cradle provided on the left side of the Smart-Cal calibration Station. Attach the tubing from the station to the inlet side of the instrument. While in the working display press the POWER/MUTE button for 2-3 seconds and release. The display will show "**SMART CAL Communicating**" and the pump will turn off. Perform all tests as described in the SMART CAL section.

BH TIME

From the working display access the menu by pressing and holding the MENU/BH TEST button until the top line of the display reads **USER MENU**. Press and release the ZERO/SAVE button until the bottom line displays **SHOW BH TEST**. Press the MENU/BH TEST button. Use the ZERO/SAVE BUTTON TO INCREASE the bar hole test time. Use the MENU/BH TEST BUTTON TO DECREASE the bar hole test time. Press the POWER/MUTE button to save and return to the user memu. Press the POWER/MUTE button one more time to return to the working display. The factory set time is 15 seconds.

Combustible Gas Sensor

All **TRAK-IT®III CGI** instruments incorporate a highly sensitive semiconductor type 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 as low as 1ppm of methane (natural) gas up to 100% LEL. Concentrations above 50% LEL, 1.1% propane or 2.5% methane by volume are measured with a state-of-the-art thermoconductivity 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®III CGI** 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. All gases are displayed simultaneously on the display.

The Pump

The **TRAK-IT®III CGI** is equipped with a powerful and efficient 2 speed rotary vane pump. The filter assembly connected to the probe protects the pump from foreign material. An additional internal filter protects 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

Battery replacement is necessary when the display reads **BAT LOW**, an audible alarm sounds and the green ready LED flashes. When the instrument remains in **BAT LOW**, a countdown will appear starting at 300 seconds (5 minutes) which is the maximum time remaining before “Shut Down”.

⚠CAUTION: Always change batteries in an environment free of combustible gases.

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 “D” approved batteries into the battery holder. Observe the polarity markings on the inside of the battery holder. Replace and secure the battery door. **NOTE:** Improper battery installation will disable the instrument.

ADJUSTABLE FEATURES (FACTORY ONLY)

FEATURE	*RANGE*	*DEFAULT*
Session Saves / BH Saves	1-16	6
Extended Memory	Up To 1600	Off
Purge Time	0-30 Seconds	10 Seconds
PPM	1 or 10ppm Resolution	Off
%GAS or %LEL	NA	%LEL
Alarm - LEL	0-99%	50%
Alarm - %GAS (off)	5-99.9%	17% CH_4 - 12% PRO
Alarm - O2 (low only)	0.1-20.0%	19.5% (OSHA)
Alarm - CO	0-999ppm	35ppm
Alarm - H2S	0-30ppm	10ppm
Cal Due Interval	30, 45, 60, 90, 180, 360 Days	30 Days
Show Session Log*	1-16	6
Show BH Test*	1-16	6

* Can be disabled.

MENU *continued from page 19*

BUMP TEST

From the working display access the menu by pressing and holding the MENU/BH TEST button until the top line of the display reads **USER MENU**. Press and release the ZERO/SAVE button until the bottom line displays **BUMP TEST**. Prepare 50% LEL, 100ppm CO and/or 25ppm H2S gases for application to the instrument.

Attach the hose to the inlet connection. Turn on the gas. Press the MENU/BH TEST button. EACH GAS must read 80% of calibrated value within 45 seconds. The readings are on the left and the timer is on the right side of the display. If the instrument passes, the display will read **BUMP TEST PASSES** and a beep will sound. If the instrument fails, the display will read **BUMP TEST FAILED** and a beep will sound. At the end of any bump test press the POWER/MUTE button to return to the working display.

SMART-CAL

From the working display access the menu by pressing and holding the menu button until the top line of the display reads **USER MENU**. Press and release the right button until the bottom line displays **SMART CAL**. Place the instrument into the cradle provided on the left side of the Smart-Cal Calibration Station. Attach the tubing from the station to the inlet side of the instrument. Press the center button. The display will show “**SMART CAL Communicating**” and the pump will turn off. Select the test from the Smart-Call Station to be performed.

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gas readings. Press the left button to return to SESSION (No.) and pressing the right button will allow you to review all previously saved SESSION's by date. Press the center button to review the gas data. Pressing the left button 3 times will return you to the USER MENU. Pressing the left button once more returns you to the working display. The number of stored session log saves is factory set at 6. It can store up to 16 by changing factory settings (contact factory for instructions).

SHOW BH TEST

From the working display access the menu by pressing and holding the menu button until the top line of the display reads USER MENU. Press and release the right button until the bottom line displays SHOW BH TEST. Press the center button. Use the right button to scroll to the bar hole test you wish to review. BH TEST 1 is the most recent bar hole test saved. (NOTE: Bar hole data is automatically saved only at the completion of the bar hole test time.) Pressing the center button will display the date and time of that BH test. Pressing the center button again will display the sustained (ON) and peak (PK) readings. Pressing the right button again will allow you to scroll through all other saved BH TEST data. Pressing the left button 3 times will return you to the USER MENU. Pressing the left button once more returns you to the working display. The number of stored BH TEST saves is factory set at 6. It can store up to 16 by changing factory settings (contact factory for instructions).

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CAUTION: Always start any **TRAK-IT®III CGI** in a gas free environment to insure a proper zero.

1. Push and hold the POWER button to initiate operation. A beep will be heard during activation.

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

3. Upon successful start-up, the pump will start and the display will illuminate. The instrument will then display:

a. Product name and number version.
b. System check for proper pump operation.
c. Date and Time.
d. Gas Type
e. Serial Number.
f. "CAL PAST DUE" and the sensor type when calibration is overdue. The warm-up process will resume after the alert.
g. Warm-up countdown for 10 seconds.
h. "AUTOZERO" indicating the zeroing of all sensors
i. Any sensor that is completely inoperable during start up will be indicated by "FAIL" on the display in the location where readings would normally be located. The GREEN READY LIGHT will not illuminate indicating the instrument requires service.
   The warm-up process is not halted by such an event.
j. Display all available readings while displaying an "X" for sensors not installed.

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4. The display will indicate PPM or LEL readings (if so equipped) by displaying “PPM” or “% L” next to the GAS number. PPM readings have a resolution of 1 or 10ppm depending on customer requirements. All LEL readings have a resolution of 0.1% LEL. When the gas concentration exceeds the LEL range the display will no longer show the “L” indicating LEL readings. The display will display a percent symbol (%) and indicate the type of gas the instrument is calibrated to by displaying an “N” for natural gas or “P” for propane gas. If the instrument has been configured to read percent gas readings only, the percent symbol and the “N’ or “P” will remain on the display at all times. The display resolution in the range of 0-2.5% gas will be 0.01%. All readings greater than 2.5% gas will have a resolution of 0.1%.

5. It may be necessary to manually ZERO the instrument based on company practices and environmental conditions. If LEL levels are present, zeroing will not be possible.

6. Prior to use, test the integrity of the sampling system by first blocking the inlet of the stainless steel probe connector (luer) located on the right side of the instrument by placing your finger over the opening. The display will read FLOW BLOCKED if all internal seals are intact. Attach the probe assembly and block the air inlet(s) of the probe assembly to test the integrity of any tubing and filters. If the instrument fails to display FLOW BLOCKED after 10 seconds, check and repair any leaky connections. During pump flow block, a beep will occur every 2 seconds until the pump restarts and adequate flow is present.

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button at this time to scroll to another menu function as indicated by the top line reading USER MENU. Pressing the left button will return the instrument to the working (gas readings) display.

SHOW CAL LOG

From the working display access the menu by pressing and holding the menu button until the top line of the display reads USER MENU. Press and release the right button until the bottom line displays SHOW CAL LOG. Press the center button. At this time one of the gases and the last calibration date will be displayed. Use the right button to review all other calibrations dates and their respective gases. After review of the last available gas the instrument will automatically return to the user menu as indicated by the top line reading USER MENU. Pressing the left button will return the instrument to the working (gas readings) display.

SHOW SES LOG

From the working display access the menu by pressing and holding the menu button until the top line of the display reads USER MENU. Press and release the right button until the bottom line displays SHOW SES LOG. Press the center button. Use the right button to scroll to the saved session you wish to review. SESSION 1 is the most recent data saved. Pressing the center button will display the date and time of that session. Pressing the center button again will display the gas reading. Pressing the right button will allow you to scroll through all other

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adjustment. Use the right button at this time to scroll to another menu function as indicated by the top line reading USER MENU. Pressing the left button will return the instrument to the working (gas readings) display.

POWER OFF

From the working display access the menu by pressing and holding the menu button until the top line of the display reads USER MENU. Press and release the right button until the bottom line displays POWER OFF. Press the center button. Use the right button to increase the number of minutes of run time and the center button to reduce them. Setting the timer to 0 will cause the unit to always remain on. After adjusting the number, press and release the left button to save the adjustment. Use the right button at this time to scroll to another menu function as indicated by the top line reading USER MENU. Pressing the left button will return the instrument to the working (gas readings) display.

SET CLOCK

From the working display access the menu by pressing and holding the menu button until the top line of the display reads USER MENU. Press and release the right button until the bottom line displays SET CLOCK. Press the center button. The day will flash upon entering the SET CLOCK option. The right button advances to the next item and the center button changes the flashing item. All settings are based on US time and date settings using a 24 hour clock. After adjusting all numbers press and release the left button to save the adjustment. Use the right

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7. When testing areas with elevated temperatures such as appliance vents or flues always attach the optional hot air probe assembly. Attach the probe by twisting the connector of the probe onto the luer connector on the right side of the instrument. These connections need only be finger tight. It is necessary to use a particle filter and desiccant when performing flue testing. The use of an unapproved probe assembly may void the warranty.

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

8. When testing remote areas with dirt, water or debris it may be necessary to clean the filter assembly located in the tubing of the probe assembly. To clean this, twist the top section counterclockwise from the body of the filter. Empty the contents, clean or replace the filter element as necessary, reattach the top. Always test for air leakage after reassembly to insure proper sampling (see page 9, number 6 for reference).

9. When testing 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 LED will flash and the alarm will sound. Additionally, the reading for the gas exceeding the alarm set point will also flash.

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NOTE: These instruments have cross sensitivities to a variety of gases. SENSIT TECHNOLOGIES is continuing to create a cross sensitivity chart based on methane calibrations for the combustible sensor. Other sensors have limited cross sensitivity properties though they do exist. Be sure to contact SENSIT TECHNOLOGIES for the latest information.

10. To disable the audible alarm press and release the left button (MUTE). To enable the alarm press it again. During an alarm the gas that has exceeded the preset alarm point will flash on the display and the RED LED will flash indicating a potentially unsafe condition.

11. To assist in accurately pinpointing underground gas leaks see the BH TEST portion of this manual located on page 13, under Bar Hole Test.

12. At any time the operator may save the readings on the display by pressing the SAVE button on the right. This will save all readings for download at a later time. The memory will hold a maximum of 16 events. It is factory set at 6. The most recent save is first during download.

13. If the instrument encounters a gas it is not calibrated to, it may read “NSR” followed by a number. If the instrument is calibrated for natural gas “NSR” likely indicates a heavy gas (i.e.: heavier than air, such as gasoline, propane, carbon dioxide, etc.). If the instrument is calibrated for propane, “NSR” likely indicates gas lighter than air such as hydrogen, helium, methane or natural gas.

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PRINT MENU

From the working display access the menu by pressing andholding the menu button until the top line of the display reads USER MENU. The bottom line will read PRINT MENU. Press the center button to access the PRINT MENU options. Use the right button to select the CAL LOG, SESSION LOG or BAR HOLE TEST LOG option.

At this time prepare the printer. Aim the IR LED on the right side of the instrument to the IR receptor on the printer. Position the instrument 6-12” from the IR receptor and press the center button. Downloading will begin immediately. When the display no longer reads PRINTING... use the right button at this time to scroll to another PRINT MENU function as indicated by the top line reading PRINT MENU. Pressing the left button will reenter the USER MENU. Use the right button at this time to scroll to another menu function as indicated by the top line reading USER MENU. Pressing the left button will return the instrument to the working (gas readings) display.

GAS TYPE

From the working display access the menu by pressing and holding the menu button until the top line of the display reads USER MENU. Press and release the right button until the bottom line displays GAS TYPE. Press the center button. Use the right button to select natural gas (NAT) or the center button to select propane (PRO) as the calibrated gas readings. After selecting, press and release the left button to save the

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MENU

The **TRAK-IT®III CGI** has several user adjustable features in the USER MENU.To access the menu, press and hold the MENU button until the ticking sound stops and a beep is heard (5 seconds). PRINT MENU will be displayed on the screen. Using the right button it is possible to scroll through the menu options. Pressing the left button at this time will return the instrument to the working (gas reading) display. The center button accesses the menu option.
These include:

PRINT MENU:Printing session, calibration, Bar Hole Test logs and accessing Smart-Cal Automatic Calibration Station.

CALIBRATION:Calibrate CO, H2S, LEL, % methane, propane and access Smart-Cal Automatic Calibration Station.

GAS TYPE:Select Natural/Methane or Propane as primary gas to be sensed.

POWER OFF:Set the automatic shut off timer in minutes.

SET CLOCK:Set date and time.

SHOW CAL LOG:Display last calibration of all gasses.

SHOW SES LOG:Display saved gas reading data with date and time.

SHOW BH TEST:Display up to the last16 completed Bar Hole Tests.

BUMP TEST:Perform automatic test for response to minimum of 80% of calibrated gas value within 45 seconds.

SMART-CAL:Access automatic calibration station.

BH TIME:Set the Bar Hole Test time in seconds.

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OPERATION AND USE *continue from page 11*

14. 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 flue gases. During sampling the respective readings may change. Audible and visual alarms will activate when the preset limits are reached.

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

16. To turn instrument off, push and hold the power button for 5-6 seconds until “POWER DOWN” appears on the display. It is not necessary to clear the sensors of gas readings prior to shut off.

BAR HOLE TEST

To assist pinpointing the location of underground leaks the Bar Hole Test feature may be used. When used, a timed sample of 15 seconds (at higher sampling rate than normal operation) will display both sustained and peak readings.

1. To access the Barhole feature from the working display press the BH TEST button. Pressing the button for more than 5 seconds will access the user menu. Only press the button for 1-2 seconds.

2. To go back to the working display at any time press the left button.

3. Prepare the tubing and probe assembly by attaching to the luer fitting on the right side of the instrument.

4. Press the center button. The pump will stop and the display will show "BAR HOLE TEST, START". Insert the probe assembly into the area to be tested.

5. Press the center button again. The pump will start as indicated by "BH PUMP ON" followed by the timer showing the number of seconds remaining in the test.

6. At the end of the test, the pump will turn off as indicated by "BH PUMP OFF". The sustained concentration is indicated by the "%ON" while the peak or accumulated concentration is indicated by "%PK". Both of these readings will remain on the screen until the ZERO button is held and the gas is cleared from the probe assembly. Both readings are presented as % gas by volume.

(continued on page 14)

BAR HOLE TEST *continued from page13*

7. To test the next area press and hold the ZERO button until all readings are at 0%. With the ZERO button still held down, place the probe assembly (attached to the instrument) into the next hole to be tested. Release the ZERO button and the timer will restart.

8. Pressing the left button at any time will take you back to the working display.

9. A gas reading from a gas other than what the instrument is calibrated to will be indicated by an "NSR" reading. To locate a leak of this type go to the GAS TYPE selection in the menu and change to the other gas listed. Heavy hydrocarbons are best located using the "PROPANE" selection. Methane is best located using the "NATURAL" selection. A hydrocarbon filter may be necessary when both natural gas and a heavy hydrocarbon such as gasoline or propane are present.

CALIBRATION CHECK

To verify the accuracy of any **TRAK-IT®III CGI,** 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. Anytime it is suspected the **TRAK-IT®III CGI** is not working properly, check calibration.