SafeLog 100
Quick Start Pocket Guide &
Quick Cal Pocket Guide

QUEST® TECHNOLOGIES

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ISO 9001 Registered Company Rev. A

Quick Start Pocket Guide

Turn On:

1. Press ON/OFF/ENTER button to turn unit on. Unit will display several warm-up screens then display "---". If "BAT" appears in display, hold ON/OFF/ENTER button to turn unit off and replace the battery

Calibrate:

2. To perform calibration, see Quick Cal.

Zero Unit:

3. NOTE: BE SURE THIS PROCEDURE IS DONE IN A FRESH, CLEAN AIR ENVIRONMENT! After the unit is turned on and goes thru initialization, there will be four dashes in the display. Press the ZERO button. LVL and ZERO appear in the display with the current gas level. Press the ENTER button to perform the ZERO operation. Press the ZERO button to return to

Clear Stored Data in Memory:

4. NOTE: THIS PROCEDURE CLEARS ALL DATA STORED IN UNIT'S MEMORY. From "----" press PRINT. "SEr" appears in display. With "SEr" in display, press down arrow. "rSt" appears in display. With "rSt" in display, press and hold ENTER for 3 second count down. "----" will appear in display.

Begin Measuring:

5. While "----" is in display, the unit automatically enters the run mode if no button is pushed after 30 seconds or if ENTER is pushed. "LVL" and "RUN" along with the current gas level is displayed.

Check Unit:

6. If the calibration procedure was not performed, it is recommended that a "bump test" or "functional test" be performed by exposing the unit to calibration gas to ensure the sensors are responding properly. While in the Run mode, attach the hose to the gas cylinder regulator and cal adapter. Place the cal adapter over the top of the monitor to cover the sensor. Open the regulator knob as far as it will go. Be sure the sensor responds properly to the cal gas. If the sensor is not reading properly, check that the sensor is installed correctly and perform the calibration procedure.

7. Attach instrument to employee's belt or waistband or use the optional carrying case.

View Data:

8. Summary data may be reviewed while in run mode by pressing the arrow keys.

End Measuring:

9. Press and hold ON/OFF/ENTER for the 3 second count down to close the session.

Turn Off:

10. Press and hold the ON/OFF/ENTER key until unit completes 3 second OFF countdown. Data is saved in memory while the unit is off.

Download:

11. Connect to printer or computer for download (refer to manual for instructions). Will download to QuestSuite® for Windows®.

Quick Cal Pocket Guide

Turn Unit On:

1. Press ON/OFF/ENTER button to turn unit on. Unit will display several warm-up screens then display "----". If "BAT" appears in display, hold ON/OFF/ENTER button to turn unit off and replace the battery.

Zero Unit:

2. NOTE: BE SURE THIS PROCEDURE IS DONE IN A FRESH, CLEAN AIR ENVIRONMENT! With "----" in display, press the SETUP button. Use the arrow and ENTER buttons to enter the four digit security code. LVL and ZERO appear in the display with the current gas level. Press the ENTER button to perform the ZERO operation.

Check Cal Level:

3. From LVL and ZERO, press the down arrow once to display "LVL" and "CAL". The level in the display should match the concentration of the calibration gas cylinder. If they differ, press ENTER and the first digit will flash. Use the arrow and ENTER buttons to change the level.

Calibrate:

4. Attach hose to cal gas cylinder regulator and the cal adaptor. Place the cal adaptor over the top of the monitor (to cover the sensor). Open regulator knob as far as it will go (check minimum flow rate table on opposite side of pocket guide). Press the down arrow so only "CAL" appears in the display along with the current gas level.

Allow level to stabilize in the display. When the level stabilizes, press the ENTER key again. "CAL" appears in the display and the unit calibrates itself. Press the SETUP button to return to "----".

Common Gas Terms
Quick Reference Guide

Asphyxiants - a class of dangerous gases that replace oxygen and cause unconsciousness or death by suffocation (lack of oxygen).

Engulfment - is the surrounding and effective capture of a person by a liquid or finely divided (flowable) substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction or crushing.

Flammable Atmosphere - generally arises from enriched oxygen atmospheres, vaporization of flammable liquids, byproducts of work, chemical reactions, concentrations of combustible dusts, and desorption of chemicals.

Hazardous Atmosphere - is one that may expose employees to risk of death, incapacitation, impairment of ability to self-rescue (escape unaided from a permit space), injury, or acute illness from:

a. a flammable gas, vapor, or mist in excess of 10% of its LEL;
b. an airborne combustible dust at a concentration that meets or exceeds its LEL. This concentration may be approximated as a condition where a dust obscures vision at a distance of 5 ft. (1.5 m) or less;
c. an atmospheric oxygen concentration below 19.5% or above 23.5%;

Minimum Flow Rate Table

Gas	Minimum Flow Rate (ml/min)	Regulator Stock Number
Carbon Monoxide	150	54-971/54-972
Hydrogen Sulfide	250	54-971/54-972
Sulphur Dioxide	400	54-971/54-972
Nitric Oxide	250	54-971/54-972
Nitrogen Dioxide	400	54-971/54-972
Chlorine	1000	54-972
Hydrogen Cyanide	400	54-971/54-972
Ammonia	250	54-973
Ethylene Oxide	1000	54-972
Oxygen	500	54-971

Quest Sensor Gas Specific Data

GAS	MEAS. RANGE	HIGH* ALARM	LO* ALARM	STEL* ALARM	TWA* ALARM
CO	0-999ppm	200ppm	N/A	100ppm	35ppm
H_2S	0-500ppm	20ppm	N/A	15ppm	10ppm
Cl_2	0-20ppm	1ppm	N/A	1ppm	.5ppm
HCN	0-50ppm	10ppm	N/A	4.7ppm	4.7ppm
NH_3	0-50ppm	50ppm	N/A	35ppm	25ppm
SO_2	0-50ppm	10ppm	N/A	5ppm	2ppm
NO	0-100ppm	50ppm	N/A	25ppm	25ppm
NO_2	0-50ppm	8ppm	N/A	5ppm	2ppm
ETO	0-20ppm	5ppm	N/A	5ppm	1ppm
O_2	0-30%	23.5%	19.5%	N/A	N/A

*Factory default setting.

d. an atmospheric concentration of any substance for which a dose or a published permissible exposure limit (PEL) has been exceeded and could result in employee exposure in excess of its dose or PEL;
e. any atmospheric condition recognized as immediately dangerous to life or health (IDLH).

Immediately Dangerous to Life or Health (IDLH) - is any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit-required confined space.

Lower Explosive Limit (LEL) - is the lowest concentration of an air-fuel mixture that can be ignited. Below the LEL the gas vapor will typically not explode if the gas contacts an ignition source.

Oxygen Deficient Atmosphere - is one containing less than 19.5% oxygen by volume and poses the risk of asphyxiation.

Oxygen Enriched Atmosphere - is one containing more than 23.5% oxygen by volume and presents a serious fire hazard.

PPM - means Parts Per Million. 1% by volume = 10,000 ppm.

Short Term Exposure Level (STEL) - is the average toxic gas exposure level over any fifteen minute interval.

Time Weighted Average (TWA) - sampled gas averaged over 8 hours.

Upper Explosive Limit (UEL) - is the highest concentration of an air-fuel mixture that can be ignited. Above the UEL the gas or vapor will not explode if the gas contacts an ignition source.

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