

Bascom-Turner Instruments

Leading the Way in Safety



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Instruments**

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A Company with a National Appeal

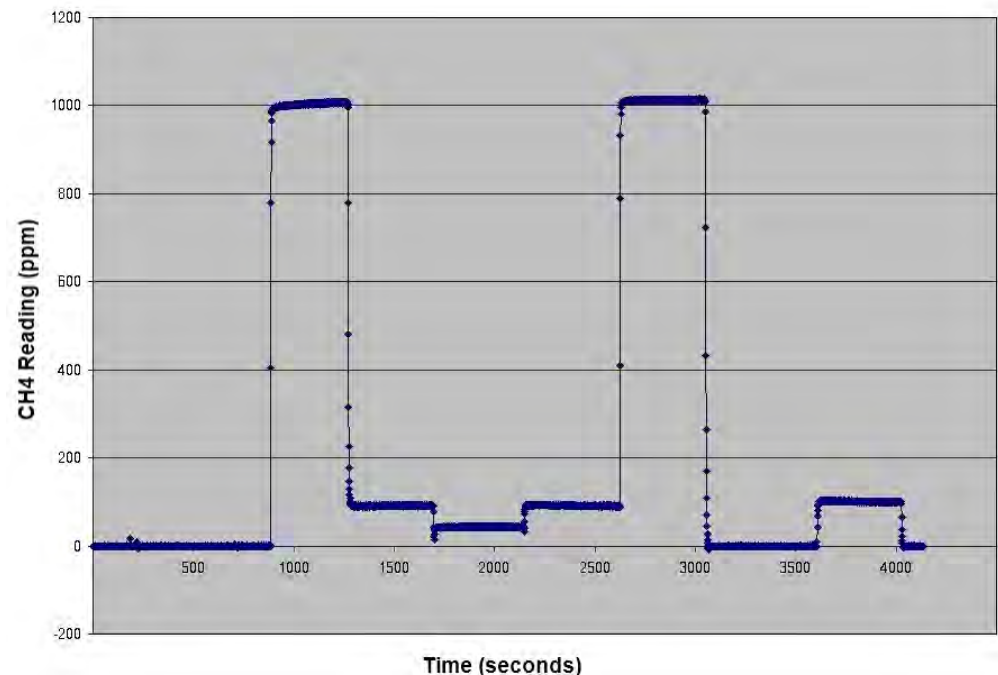


Products for All Your Gas Detection Needs



High Performance Combustion Sensor

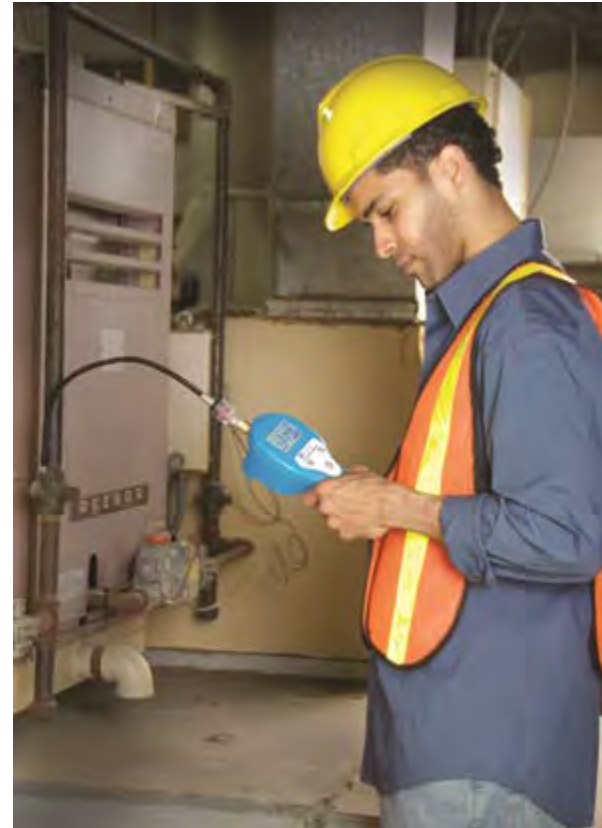
- Dual catalytic combustion, thermal conductivity filament
- Breakthroughs in nanotechnology
- Speed of Response < 1.5s
- Sensitivity and stability with PPM clarity



Instrument response at 50, 100 and 1000 PPM

Tackle Any Job with the Gas-Explorer

- 20 ppm resolution
- Intrinsically safe
- Easy to use, field serviceable
- Three distinct operating modes
- Displays instant and peak readings on large backlit LCD
- Automatic data logging
- Optional CO, Oxygen and H₂S Sensors, GPS and Electronic Leak Sheets



A New Generation of Gas Detector

The Gas Rover

- Stable dual catalytic/thermal conductivity methane sensor
- PPM Resolution
- Intrinsically Safe
- Doubles as CGI
- Lightweight
- Easy to use and maintain
- Automatic data storage
- Integrated GPS
- Affordable



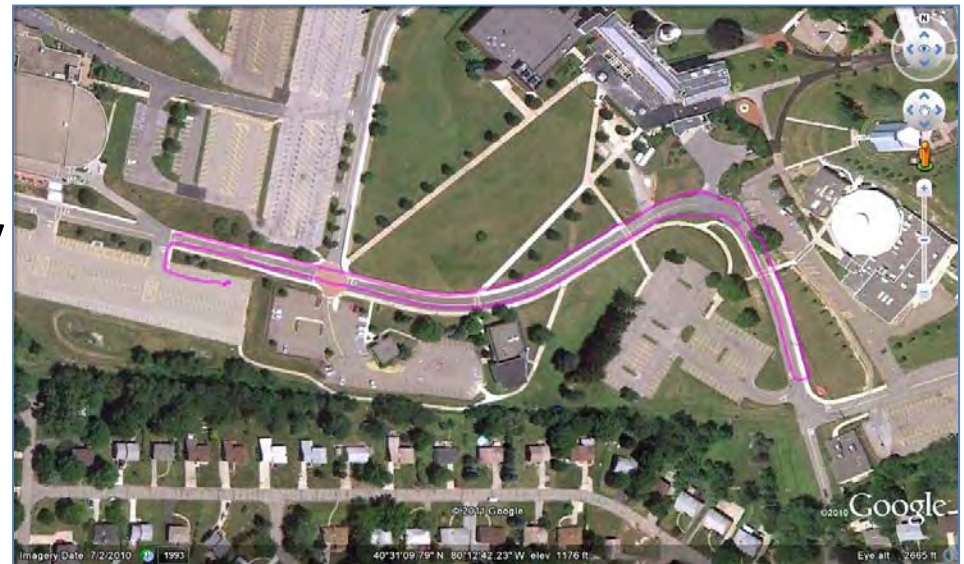
Walking Surveys with Pinpoint Accuracy



GPS enabled Gas-Rover survey at Leak City, Athens, Alabama 9/12/2011

Automatic GPS Readings Simplify Mobile Surveys

- GPS readings once per second
- External antenna for walking and mobile survey
- 1-3 M accuracy in survey mode
- Retrofits to most existing mobile systems





Imagery Date: May 29, 2010

35°59'19.97" N 115°07'40.42" W elev 2362 ft

Eye alt 3036 ft

A New Standard in Bar-Holing\Pinpointing



Transparency and Added Value

“URG has invested in innovating technology which allows for additional survey verification and data utilization. We use survey equipment that is GPS enabled, and automatically logs readings and GPS data. We feel they we thereby add a level of transparency and provide enhanced value to all surveys conducted by URG.”

- Cad Casey 2012 



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SWG realizes 9 month payback

Bascom-Turner Gas Rover

September 10, 2008

Increases Safety

- Enhanced above ground survey around entire structure by first responder
- Quicker determination of gas concentration levels
- Migrating gas from other sources identified quicker
- UGLI eliminated

Increases Efficiency

- CS first responders will have the tools and training to conduct a complete leak investigation (same as Const.)
- CS requests for Class 1 and 5 surveys eliminated
- Construction response significantly reduced (~95%)
 - 2007 – 3,700 Class 5 survey
 - 2007 – 300 Class 1 survey
 - 2009 construction will respond to approximately 200 CS generated emergencies (Code 1 / Class 1)
- UGLI eliminated (4 bar holes), will be changed to a 360° above ground survey
- CS standby time eliminated for jobs where UGLI could not be completed

Code 1/Class 1 (odor/leak call)

How is it performed today?

- Emergency call odor/leak investigation with CS responding
 - Perform an UGLI. If positive reads detected underground, they call dispatch and create the Class 1 order for construction to respond. CS standby until construction arrival.



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Code 1/Class 1 of the future

- Emergency call odor/leak investigation with CS responding
 - Perform above ground survey of service/main and 360° of property. If positive reads are detected underground, call dispatch and create the Class 1 order for construction to respond. CS will continue leak investigation and standby until construction arrives
 - No reason for issuing Class 5 Survey non-emergency orders (3,700)
 - No reason for issuing Class 1 Survey emergency orders while standing by for construction to respond (300)

Absolute Compliance Manager

One Gas Calibration and Wireless Training System



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One Gas Calibration Assures Compliance

- Both methane sensors are calibrated on a single cylinder automatically in less than one minute.
- Optional CO and O2 sensors calibrated simultaneously
- Easy vehicle mount with hundreds of calibrations per cylinder
- Calibrate anytime, anywhere



Built in Compliance Features & Data Storage

- Gas-Rovers and Gas-Explorers alerts operator when calibration is due and automatically initiates 10 day countdown.
- Defaults to calibration mode when calibration is due
- Last 24 calibrations stored on unit's internal flash memory
- Automatically logs 6-8 months of time and mode stamped readings data, GPS available
- Download via USB or Bluetooth and access data on any PC or Docking Station



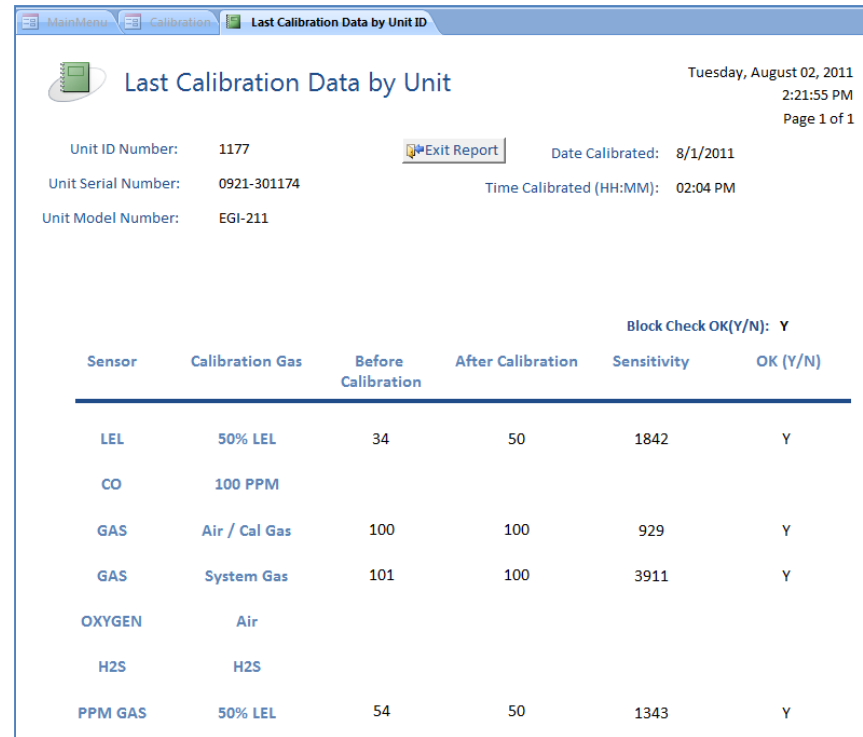
Calibration and Record Keeping Made Easy

- One Gas Calibration
- Calibration time less than 1 minute
- Securely stores data on company server
- Downloads readings and mobile calibration data
- Updates unit software
- Monthly service reports automatically generated



Manage Data with NCal4Access

- Access calibration or readings data from any networked PC
- Easily generate calibration reports
- Email reminders for calibration due or overdue
- Maintain service records



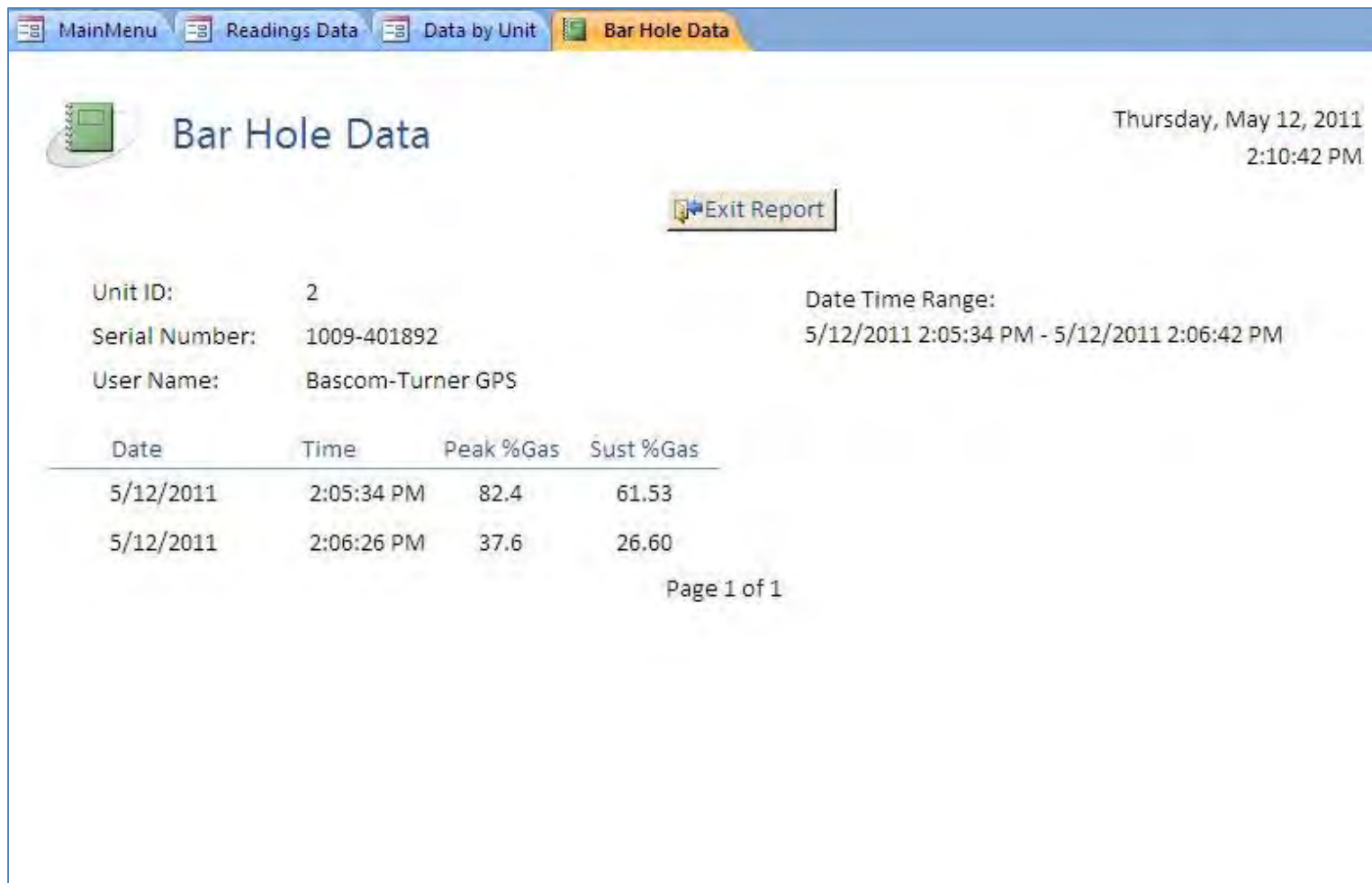
The screenshot displays the 'Last Calibration Data by Unit ID' window in the NCal4Access software. The window title bar includes 'Main Menu', 'Calibration', and 'Last Calibration Data by Unit ID'. The main content area shows the following details:

- Unit ID Number: 1177
- Unit Serial Number: 0921-301174
- Unit Model Number: EGI-211
- Date Calibrated: 8/1/2011
- Time Calibrated (HH:MM): 02:04 PM
- Block Check OK(Y/N): Y

An 'Exit Report' button is visible next to the Date Calibrated field. Below this information is a table with the following columns: Sensor, Calibration Gas, Before Calibration, After Calibration, Sensitivity, and OK (Y/N). The table contains the following data rows:

Sensor	Calibration Gas	Before Calibration	After Calibration	Sensitivity	OK (Y/N)
LEL	50% LEL	34	50	1842	Y
CO	100 PPM				
GAS	Air / Cal Gas	100	100	929	Y
GAS	System Gas	101	100	3911	Y
OXYGEN	Air				
H2S	H2S				
PPM GAS	50% LEL	54	50	1343	Y

Readings and Bar Hole Reports Made Easy



The screenshot shows a software application window titled 'Bar Hole Data'. The window has a menu bar with 'MainMenu', 'Readings Data', 'Data by Unit', and 'Bar Hole Data'. The main content area displays the following information:

Thursday, May 12, 2011
2:10:42 PM

[Exit Report](#)

Unit ID: 2
Serial Number: 1009-401892
User Name: Bascom-Turner GPS

Date Time Range:
5/12/2011 2:05:34 PM - 5/12/2011 2:06:42 PM

Date	Time	Peak %Gas	Sust %Gas
5/12/2011	2:05:34 PM	82.4	61.53
5/12/2011	2:06:26 PM	37.6	26.60

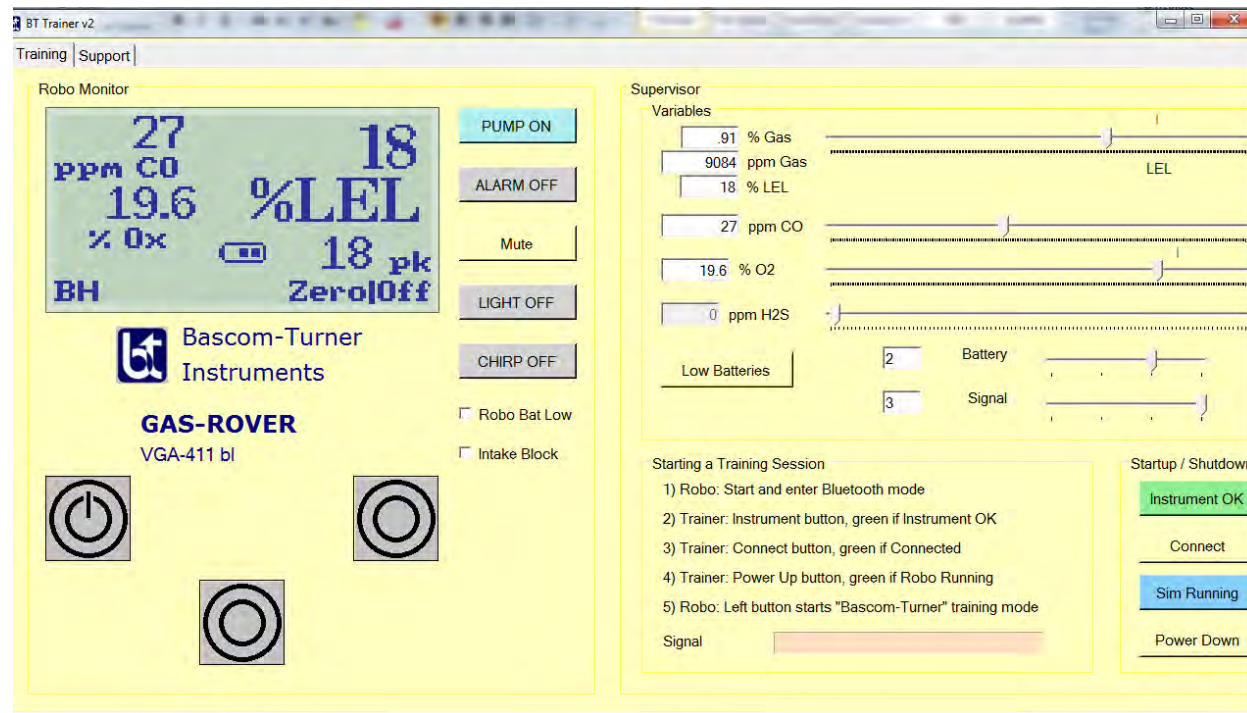
Page 1 of 1

Real World Training in a Classroom

- Windows based tablet connects via BlueTooth™ to specially equipped simulator
- Any configuration of Rover or Explorer is available
- Total interaction between Trainer and Trainee in real time
- Training session labeled and stored for OQ record keeping

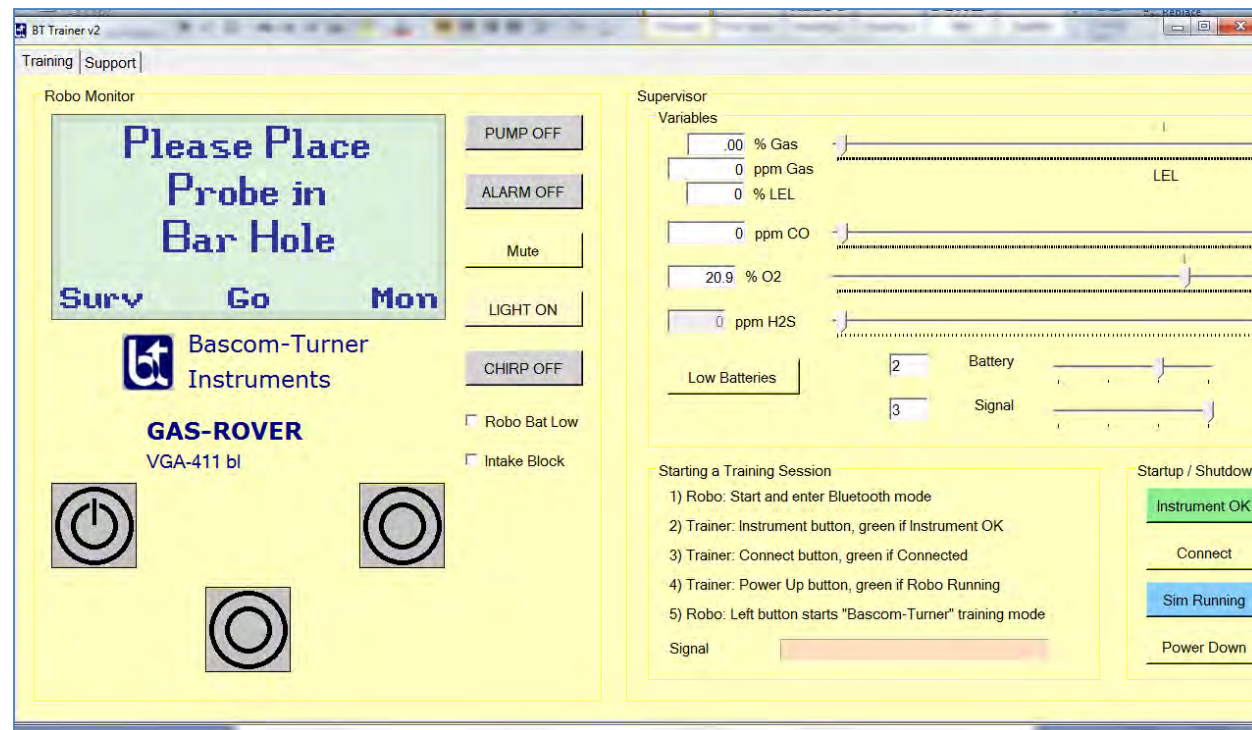


Simulate any Scenario in Real Time



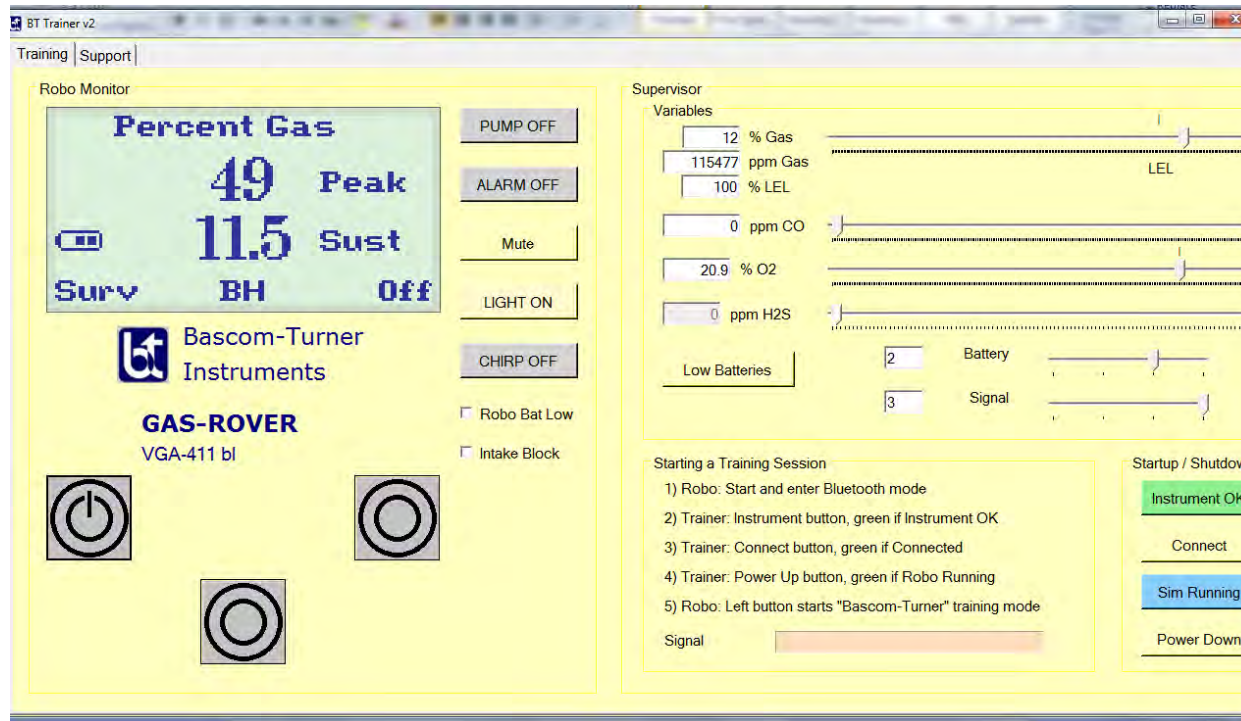
Controller displaying readings on the Simulator

Simulate any Scenario in Real Time



Bar Holing Simulation before activation

Simulate any Scenario in Real Time



Bar Holing Simulation after activation

Coming Soon

- Ethane Detection available on both Gas Explorer and Gas Rover Detectors
- Determine in Real Time presence of Ethane in bar hole samples
- Upgrade for current units available
- Available fourth quarter 2015



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**Bascom-Turner appreciates the opportunity to
present at the Natural Gas Leakage Technology Forum**