

Enhanced Bloodhound®

Infrared Gas Detection & Chromatography System

By iBall Instruments®



DSP Accuracy to 10,000 Gas Units
Electrically Isolated Inputs
10,000 Hour Medical Grade Brushless Pumps
Rugged Plastic Hardened Pelican Case
4G/5G Cellular Connectivity
Multiport Embedded Ethernet Switch
Internal Triple Redundancy of Data

Gas Chromatography C1 - NC5
Mud Log Software Compatible
1 µm Medical Grade Inlet Filtration
WITS I/O Via RS-422/RS-232
Reliable Hardened Electronic Design
World-Wide Power Compatibility
Fully Temperature Stabilized

The Bloodhound is the most advanced portable mud logging gas detection system available. Gone are the days of drifting and zero adjustments due to temperature changes and the carbonizing of hot-wire elements or catalytic beads (Pellistors). Gone are the days of lugging around huge Hydrogen bottles only to run out at the most critical times!

With internal medical grade 10,000 brushless pumps included with every unit, the reliability of the system has become second to none.

View real-time logging data via the Internet anytime, anywhere. The Bloodhound connects via Ethernet, satellite or Cellular wireless with a powerful cellular modem for instant access world-wide to the Bloodhound System.

Because of the advanced embedded DSP technology, the Bloodhound is immune to Natural Gas saturation and can detect 0 to 10,000 Gas Units without manual intervention. Also, the Bloodhound can be set up to emulate other types of gas detection equipment such as Hot-Wire, Flame Ionization Detection, Mass Spectrometry, and similar devices.

The Bloodhound can also connect your computer to the Internet with the Integrated Wireless System with high speed data reliability.

Data is stored locally in the Bloodhound, at the server system, and also the connected computer.

The system is calibrated utilizing National Institute of Standards Technology (NIST) calibration gases and is able to utilize new technology that allows the sensors to read each other as well as themselves.

Also the Data is stored in an industry standard comma-delimited form for compatibility with Well Sight Systems, MainLog and **all** other mud logging software via LAS and XLS files.

With this new **patented technology**, the sensors can re-adjust themselves on the fly in real time and correct for calibration drift and errors. The system can even shut down failed sensor(s) and rely on back up sensors.

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Enhanced Bloodhound® Specifications

ITEM	NOMINAL	RANGE	DETAIL/NOTES
VOC DETECTION	Hydrocarbon	0 - 10,000 Gas Units	Infrared Sensor detection of Hydrocarbons
O₂ DETECTION	+/- 0.2	0 - 20.9%	Electro-Chemical O ₂ Sensor
CO₂ DETECTION	+/- 0.05	0 - 5%	Infrared CO ₂ Sensor
H₂S DETECTION	+/- 5 PPM	0 – 500 PPM	0.00 to 100.00 PPM range*
VOC DETECTION ACCURACY	+/- 2 @ 250 GU	0 -10,000 Gas Units	Every six (6) seconds of detection data is recorded
DATA COLLECTION and RETRIEVAL	All data applications included Upgrades provided at no charge	Application backward compatible to Windows XP	User access options: iBall Instruments Raw Data Viewer (Internet and local access) iBall Instruments Gas Chart (Internet and local access) iBall Instruments Remote (no software required) iBall Instruments Multiview (no software required)
DATA TRANSFER	RS-232 serial	115,200 bps	Serial port speeds are configurable to allow connection to computer devices or other external hardware
	USB 2.0 type B	115,200 bps	Reprogramming and communications via RS-232 or USB ports for software upgrades and future functionality
DATA BACKUP	USB	512 MB to 4 GB	Removable USB Memory Flash Drive on front panel
DISPLAY	Graphical LCD		Back lit transfective LCD
DATA COMPATIBILITY	File Format		CSV, Custom, and LAS
	Applications		All file formats are compatible with Microsoft Access & EXCEL
BRUSHLESS DC PUMPS		> 10,000 hrs	Medical Grade Pumps for CG and Sample
EDR SYSTEM INTERFACE	<i>PASON</i>	Level 0	WITS 8-pin RS-422 Connector, RS-343 Pason compatible
	<i>M/D TOTCO</i>	Serial / Ethernet	RS-232 Serial Interface or RJ-45 Ethernet connection
	<i>EPOCH</i>	Serial / Ethernet	RS-232 Serial Interface or RJ-45 Ethernet connection
	<i>Auto-Dril</i>	Serial / Ethernet	RS-232 Serial Interface or RJ-45 Ethernet connection
RF MODEM	128Mb to 1Gb	4G/5G with WiFi	GPRS / LTE Cellular Radio Modem System – Verizon or ATT
POWER	110 VAC or 220 VAC or 12 VDC	90-260 VAC 9.5 -13.5 VDC	Designed to work with drilling rig power generation. Protection against over voltage, under voltage, unstable frequencies, high voltage spike protection and power surges.
	2,500 mA DC	100-500 mA AC	Efficient, Low-Current design
	Backup Battery	1 to 2 Hours	Gel Cell Battery Backup powers the Bloodhound System in the event of an AC Power failure.
	External Device	12 Volts DC	Powers external Cavitator or DC Powered System
ENVIRONMENT	60° to 120° F	-20° to 150° F 95% Rel. Humidity (Non Condensing)	Internal Case Temperature, Sensor, and Alarm
	2mmHg Positive Case Pressure	Positive Case Pressure, Automatic Cooling Fan and Air Filtration (disposable filters)	
PHYSICAL	Reinforced Engineered Resin Case Dimensions: 22.06" x 17.93" x 10.43" (56 x 45.5 x 26.5 cm), Weight: 29 lbs (13.18 kg)		

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*Not to be used as a primary source of H₂S protection