



Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Quotation

HST1101

1

ADDRESS CORRESPONDENCE TO ATTENTION OF

FRANK WHITTAKER
 304-558-2316

*614154427 615-778-7562
 SPURLOCK VEHICLES INC
 5543 EDMONDSON PIKE STE 200
 NASHVILLE TN 37211

HEALTH, SAFETY AND TRAINING
 OFFICE OF MINERS'
 1615 WASHINGTON STREET EAST
 CHARLESTON, WV
 25311

RODZEV

SHIP TO

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/19/2010	To BE NEGOTIATED	DRIVE-A-WAY	CHARLESTON, WV	INCLUDED

BID OPENING DATE: 09/14/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		070-57	820,502.61	802,502.61
MOBILE MINE LABORATORY THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA MINERS' HEALTH SAFETY & TRAINING, IS SOLICITING BIDS FOR ONE (1) MOBILE MINE EMERGENCY LABORATORY PER THE ATTACHED SPECIFICATIONS. ALL TECHNICAL QUESTIONS MUST BE SUBMITTED IN WRITING TO FRANK WHITTAKER IN THE WV PURCHASING DIVISION VIA EMAIL AT FRANK.M.WHITTAKER@WV.GOV OR VIA FAX AT 304-558-4115. DEADLINE FOR TECHNICAL QUESTIONS: 09/01/10 AT 4:00 PM. ALL TECHNICAL QUESTIONS WILL BE ADDRESSED BY ADDENDUM AFTER THE DEADLINE. ADDENDUM ACKNOWLEDGEMENT I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC. ADDENDUM NOS. : NO. 1 NO. 2 NO. 3 NO. 4 NO. 5						

RECEIVED
 2010 SEP 13 A 9:05
 PURCHASING DIVISION
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>[Signature]</i>	TELEPHONE 615 778 7562	DATE 9/10/2010
TITLE <i>Pass. Div. T</i>	FEIN 83-0453932	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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 SPURLOCK VEHICLES INC
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SHIP TO

HEALTH, SAFETY AND TRAINING
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 1615 WASHINGTON STREET EAST
 CHARLESTON, WV
 25311

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/19/2010	To BE NEGOTIATED	DRIVE - 4 - Wty	CHARLESTON, WV	INCLUDED

BID OPENING DATE: 09/14/2010 BID OPENING TIME 01:30PM

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<p>I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF THE BIDS.</p> <p>VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p>.....<i>CF</i>.....SIGNATURE PRESIDENT.....COMPANY 9/10/2010.....DATE</p> <p>REV. 11/96</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p style="text-align: center;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>CF</i>	TELEPHONE 615 778 7562	DATE 9/10/2010	
TITLE PRESIDENT	FEIN 83-0453932	ADDRESS CHANGES TO BE NOTED ABOVE	

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Quotation

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3

ADDRESS CORRESPONDENCE TO ATTENTION OF:

FRANK WHITTAKER
 304-558-2316

*614154427 615-778-7562
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DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B	FREIGHT TERMS
08/19/2010	To Be Negotiated	DRIVE-A-WAY	CHARLESTON, WV	INCLUDED

BID OPENING DATE: 09/14/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
BUYER: 44 REQ. NO.: HST1101 BID OPENING DATE: 09/14/2010 BID OPENING TIME: 1:30 PM PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID: ----- 615-468-6363 ----- PLEASE PRINT OR TYPE NAME OF PERSON TO CONTACT CONCERNING THIS QUOTE: ----- C KYRE (KC) SPURLOCK INC ----- ***** THIS IS THE END OF RFQ HST1101 ***** TOTAL: <u>802,502.61</u>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>[Signature]</i>	TELEPHONE 615 778 7562	DATE 9/10/2010
TITLE PRESIDENT	FEIN 83-0453932	ADDRESS CHANGES TO BE NOTED ABOVE

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MOBILE MINE EMERGENCY LABORATORY REQUIREMENT

SUMMARY

The objective of this procurement is to take possession of a vehicle and necessary laboratory equipment as soon as possible that is capable of the analysis of mine atmospheres and other materials required to make time critical decisions during an ongoing underground mine emergency and to perform on-site baseline mine atmospheric testing of all West Virginia underground mines.

The testing equipment selection is an evolution over that utilized by U.S. Mine Safety and Health Administration, the National Institute for Occupational Safety and Health, and Australian Mine Rescue Service. Based upon our experience and the recommendations from those groups the best hardware and software specifically designed for mine emergency support have been selected. The equipment will be able to process in excess of 300 gas sample bags per 24 hours and detect parts per million carbon monoxide, hydrogen, oxygen, nitrogen, methane, carbon dioxide, ethylene, acetylene and ethane along with trace levels of propylene, propane, i-butane, n-butane, i-pentane, and n-pentane. This combination will provide valuable information to the mine emergency managers on the condition in the mine and the existence and extent of ongoing fires.

Summary Specifications:

Gas Chromatographs: (4) Micro GC with 4-Columns able to interact with Galaxie sampling/SmartGas analysis software

Computers: (4) IBM compatible desktop with Windows XP Pro installed and data acquisition and network cards and a networked laser printer.

Vehicle: The vehicle must be of fire equipment quality, provide at least 230 square feet of workspace, capable of transversing newly cut mine roads with up to 25% grades at speeds of 40 miles per hour and self-sustainably operate chemical analysis of gases and other materials from an advanced location in support of mine emergency decisions with the multi-media communications capabilities remain in contact with the command center regardless of its location.

Summary Specifications:

Overall Length: Not more than 22'

Overall Width: Not more than 102"

Ground Clearance: At least 12"

Maximum Height: Not more than 13' 3"

Maximum Turning Radius: Not more than 31'

Usable Floor Space: At least 230 sq ft

MINE EMERGENCY LABORATORY REQUIREMENTS

The respondent must demonstrate that the proposed product meets or is functionally equivalent to the following technical requirements:

- (4) Micro GC's able to interact with Galaxie sampling/SmartGas analysis software
- Each Micro-GC main frame must include:

External Sample Filter Kit with 5 Filters

Ethernet card and cross over cable

Able to operate on power line or battery power

Have one sample inlet

Have one sample inlet front unheated

Have one each; molecular sieve with argon, molecular sieve with helium, porous polymer (PPU) column with helium, & alumina with helium

This equipment must be installed in vehicle when received vendor to provide commissioning of installation, and training of operators

LABORATORY SPACE REQUIREMENTS

The respondent must demonstrate that the proposed product meets or is functionally equivalent to the following technical requirements:

Exterior Construction: 0.080 pre painted aluminum panels, edge butted, riveted and adhered with industrial bonding tape and/or adhesive. exterior edges trimmed with aluminum extrusion insulated with 1.5" sprayed foam.

Side Posts: 0.125 wall aluminum extrusion

Roof: One piece, 0.040 aluminum, edges captured with aluminum extrusion and sealed

Roof Bows: 0.125 wall aluminum extrusion

Rear Wall: 2" x 2" x 0.125 wall 1018 mild steel structural tubing framing with appropriate spacing to attach ECU

Entry Door: Tubing frame, sheeted inside with aluminum. Exterior skin same as balance of unit. Rubber gasket weather stripping. Fold down steps with hand rails. Window in entry door.

Hydraulics: 5 hp 120 VAC electric pump motor, hydraulic pump, reservoir, high pressure hydraulic hoses and fittings. 12 VDC secondary hydraulic pump. Hydraulic control system with wireless remote. Synthetic hydraulic fluid.

Exterior Misc.: Belly storage boxes, 12 VDC lighting. Gas struts. lateral arm awning 22' x 9' 9".

Slide Out: (1) 20' long, 3' extension of aluminum structural construction.

Power: 20 kW generator, single phase, 120/240 VAC, 60 Hz. Diesel fuel injected, water cooled engine. Fuel tank and/or transfer system from prime mover. Installed under body, on air bags in a sound attenuated enclosure.

Electric Panel: 100 amp breaker box and wiring. Shore power connection, Shore power, auto transfer, cable 50'.

Exterior Lighting: (4) 50W halogen docking lighting, (6) 150W halogen scene lighting, emergency warning light package with ultra bright, ultra wide-angle LED technology providing heavy-duty, long life operation with low, low current draw.

DOT Lights: Color coded 12-volt wiring system, internal ground, LED lamps

Internal Lighting: 120 VAC florescent, supplemental 12 VDC lighting, under cabinet task lighting, white/red.

Environmental Control Unit: (1) 3.5 ton ECU, ducting through ceiling, electronic thermostat with digital readout.

Separator Wall: (1) Separating laboratory area and communication with pocket door.

Cabinetry: Manufactured with aluminum extrusion. Door fronts magnetic/dry erase material. Lab tables and work stations of wood construction and laminated. 120 VAC, 12VDC, RJ45 at all tables and work stations.

Wall Treatments: Sheeted with pre-painted aluminum and/or magnetic/dry erase materials. LonCoin or equivalent on lower walls.

Flooring: The slip floor covering throughout with texturing on the embossed coin surfaces, scuff resistant, made with recycled content; LEED MR 4.1, 4.2 compliant.

Ceilings: Center ceiling aluminum panels in grid. Slide ceiling aluminum sheeted.

Interior Misc.: (12) Swiveling, adjustable office chairs with retention system for transport. Elevating Communication console, tables for 4 gas chromatographs and associated computers. Shelving for staging of samples, conference table.

Safety: Warning and instructional placards as appropriate and (3) ABC fire extinguishers. \$5,000.00 graphics budget.

The roof hatch mast bay must be electrically operated with mast access door. All appropriate wire/cable traces, color back-up camera with at least a 7" LCD . Ability for external communication desk. Scene lighting made using aircraft grade aluminum alloy to save weight and add strength, engineered to be easily mounted on the roofs of vehicles, or anywhere on a vehicle that has the space and strength, and require only electricity to perform all functions. Light need to have the ability to extend up to 10.5 feet above their mounted surface and be operated from the ground using an umbilical remote control. Ability to monitor, activate automation and control all hydraulic and electrical subsystems.

LABORATORY ELECTRONICS REQUIREMENTS

Communications: Data processing and communications access is crucial to the function of the forward based emergency laboratory. In all but the rarest of situations terrestrial communications infrastructure is unavailable, therefore, satellite-based communications must provide the lifeline for people on the front lines and those managing the response. The respondent must provide an integrated system of components capable of meeting these needs. The respondent must demonstrate that the proposed

integrated system meets or is functionally equivalent to the performance and interoperability of the following:

1.2M Satellite antenna, ICS tactical IP Satellite Service, ICS Tactical Voice Satellite Service, Cisco 2811 ISR router with Advanced IP Network, (7) Cisco 7941 IP Phones, MDBS-AA2000 Satcom satellite antenna for mobile TV reception, Dell SC1425 server, Pelco ES31C22-SN camera system, Tellular SX5e Cellular terminal, Mitsubishi 40" LCD flat screen monitor, Phillips 15" multi-function flat screen monitor with TV tuner, Wingard Sensor III, RV3090 Broadcast TV antenna with amp, Vtune pro rack-mount 181 channel TV tuners, Sony Progressive Scan DVD/VCR, Nuvico EV-16750N 16 channel MPEG-4 compression DVR with 750GB hard drive and rack mount kit, Cisco catalysts 2960 48 10/100 + 2 1000BT LAN base image, one Panasonic high speed laser fax/copier, and a 40" plasma display with Smart Board overlay model PX340.

Antenna Array: Mounted on roof, non powered mobile 42 foot mast system designed to allow for the rapid, safe, and successful deployment of tactical antenna arrays in the field, under all conditions, by one person. The mast must be completely self-contained, require no special training or tools for deployment, and can be erected by one person in less than five minutes.

Weather Alert System

Since there is relationship between surface atmospheric conditions and those in the underground mine and because lightening has been shown to trigger explosion of underground gassy environments and since the mobile laboratory will be situated away from the influence of human activity associated with the response thus less susceptible to their influence on readings it is desirable to have a vehicle mounted weather station with micro server and display capable of providing monitoring and alerts.

The respondent must demonstrate that the proposed product meets or is functionally equivalent to the following technical requirements:

Capable of operating from the power supply associated with the vehicle or be self powered.

Provide data such that;

Wind Speed is known within,

Range: 0-112mph (0-50 m/s)

Accuracy: +/-0.5 m/s or 5% of reading

Resolution: 1 mph (1 m/s)

Units Available: knots, mph, km/hr, m/s

Temperature is known within,

Range: -58 to +122°F (-50 to +50°C)

Accuracy: ±0.2°C

Resolution: 0.1°C

Units Available: °F, °C

Relative Humidity is known within,

Range: 0 - 100%

Accuracy: ±3%

Resolution: 1%

Units Available: %RH

Wind Direction is known within,

Azimuth: 0-360°

Accuracy: $\pm 5^\circ$ at wind speed > 2.2 m/s

Resolution: 1°

Units Available: ° Azimuth

Barometric Pressure is known within,

Range: 17.50 to 32.50 InHg (600 to 1100 hPa)

Accuracy: ± 0.35 hPa (at 25°C)

Resolution: 0.1 hPa

Units Available: Kpa, mbar, InHg

Compass direction is known within:

Accuracy: $\pm 2^\circ$

Resolution: 1°

Lightning Detector hardware and software capable of displaying live lightning map on the laboratory's computer within milliseconds of a lightning strike. The system must also provide a direction-finding antenna capable of measuring the strike's direction and estimating its distance.

CAB/DRIVE TRAIN REQUIREMENTS

In order to locate the mobile laboratory as close as possible to the sampling point it has been determined that vehicle's cab and drive train must of a design and construction similar to those of emergency response vehicles utilized by fire departments and the military. In order to define the minimum requirement the following detailed specifications are provided from a representative vehicle.

The respondent must demonstrate that the proposed product meets or is functionally equivalent to the following technical requirements:

Engine: Diesel 330 HP, 950 lb-ft torque@ 1200 RPM or equivalent

Transmission: Automatic

Axles: Front wide track, I-Beam Type 14,000-lb capacity, Rear Single reduction, standard track, 26,000-lb capacity and "R" wheel ends gear ratio of 5.38 or greater

Cab: Conventional

Tires: Front (2) 12R22.5 G149 RSA, Rear (4) 12R22.5 G124 M+S or better

Suspension: Vari-Rate: 31,000-lb capacity with 4599-lb auxiliary rubber spring of better

Frame Reinforcement: Outer "C" channel, heat treated alloy steel (120,000 psi yield); 10.813" x 3.892" x 0.312"; 480.0" maximum OAL

Those knowledgeable in the supply of heavy trucks for emergency services will be able to determine and demonstrate that their product meets or is equivalent to the performance of the representative systems described by the following Navistar International product codes:

SA62500 - Base Chassis, model 7400 SBA 4x2 with 215.0 wheelbase, 147.9 CA and 59.0 axle to frame
 1570 - Tow hook, front (2) inside rail, frame mounted
 1CUB - Frame rails heat treated alloy steel (120,000 psi yield; 10.125" x 3.580" x 0.312"
 1LMY - Bumper, full width chrome steel 0.189"
 1WGS - Wheelbase range 189" through 256"
 2ARV - Axle front Wide track. I-Beam type, 14,000-lb capacity
 4091 - Air brake system
 4722 - Automatic drain valve with heater for air tanks
 4773 - Rear brake shoes
 4AZA - ABS air brakes full vehicle wheel control
 4EBT - Air dryer with heater
 4JBL - Front air brakes S-Cam; 16.5" x 5.0" with 20 sq in MGM long stroke brake chambers
 4NCE - Rear air brakes 16.5" x 7.0" with MGM TR3030 long stroke brake chambers and parking brake
 4SBS - Air compressor
 4VBS - Air dryer
 5708 - Tilting steering wheel
 5CAL - 2-spoke 18" steering wheel
 5PSA - Power Steering
 7ABX - Stainless steel muffler
 7SCJ - DLogic Exhaust Brake, electronically activated
 8000 - 12 VDC electrical system
 8630 - Keyless ignition switch
 8GDY - 12 VDC 270 amp alternator
 8HAB - Heavy duty wiring system
 8MKL - (3) 12VDC battery system
 8WCL - Air horn
 8WTB - Starting Motor with thermal over-crank protection
 8XAH - circuit breakers
 9HAD - Chrome grill
 9WAY - Tilting frontend
 9WBB - Ember Screen Grill
 12NRB - Diesel Engine, 50 state, 330 HP, 950 lb-ft torque@1200 RPM, 2200 RPM governed speed
 12HTH - Two speed fan drive
 12UVW - 940 sq in aluminum radiator and 1025 sq in charge air cooler
 12UXV - Federal emission control package
 12VBC - Single element air cleaner
 12VXT - Hand control throttle
 12VXY - Remote mounted engine control
 12WYT - Heavy Duty Charge Air Cooler
 13AJV - Allison Automatic Transmission
 13WAW - Transmission oil cooler (water to oil)
 13WBN - Allison transmission shift control
 13WUE - Allison spare input for emergency vehicles
 14ARZ - Single rear axle, standard track, 26,000-lb, "R" wheel ends
 14VAJ - Single spring suspension, 31,000-lb capacity with 4500-lb aux rubber spring
 15SCD - 50 gallon fuel tank
 16030 - Conventional Cab
 16HBA - Gauge cluster

16HGH - Transmission temp gauge
16HHE - Air cleaner restriction gauge
16JJE - Driver's seat
16PHJ - Two passenger seat
16WKB - Cab air conditioner

22' Mine Laboratory / Command Unit Specifications - WV RFQ # HST1101

General

Length	Exterior 22'-0" (Body Length)
Width	Exterior 102"
Exterior	.080 pre painted aluminum panels, edges butted, riveted, and adhered with industrial bonding tape and/or adhesive Exterior edges trimmed with aluminum extrusion Insulated with 1.5" sprayed foam.
Side Posts	.125 wall aluminum extrusion.
Roof	One piece, .040 aluminum, edges captured with aluminum extrusion and sealed.
Roof Bows	.125 wall aluminum extrusion.
Rear Wall	2" x 2" x .125 wall 1018 mild steel structural tubing framing with appropriate spacing to attach ECU.
Entry Door	Tubing frame, sheeted inside with aluminum Exterior skin same as balance of unit. Rubber gasket weather stripping. Fold down steps with hand rails. Window in entry door
DOT Lights	Color coded 12-volt wiring system, internal ground, LED lamps
Hydraulics	5 hp 120 VAC electric pump motor, hydraulic pump, reservoir, high pressure hydraulic hoses and fittings. 12 VDC secondary hydraulic pump Synthetic fluid.
Misc.	Belly storage boxes 12 VDC lighting Gas struts Girard lateral arm awning 22' x 9'-9" Graphics (5,000.00 budget)



Slide (1) 20' long, 3' extension
Aluminum structural tubing construction.

Prime Mover

Note: See attached chassis specification sheet

Chassis Prep Kussmaul Pump Plus 1200
Diamond plate aluminum entry steps
Auxiliary dome lights
Spot Light
Master battery shutoff
Pro-Vision color back-up camera with 7" color LCD

Electrical

Power Kohler, 20kW, single phase, 120/240 VAC, 60 HZ.
Fuel injected engine, water cooled. Fuel tank and/or transfer system from prime mover. Installed under body, on air bags, in sound attenuated enclosure.

Panel 100 amp electric panel box, with breakers and wiring.
Shore power connection.
Shore power, auto transfer, cable 50'

Ext. Lights Innovative (4) 50W halogen docking
Havis-Shields (6) 150W halogen scene
SuperVac Command light

Whelen NFPA compliant emergency warning lighting package includes light bar

Int. Lighting 120 VAC fluorescent
Supplemental 12 VDC lighting
Under cabinet task lighting, white/red.

Environmental

ECU (1) 3.5 ton ECU
Ducting through ceiling
(1) Electronic thermostat with digital readout.



Interior

- Separator Wall** (1) Separating command area and communications with pocket door.
- Cabinetry** All cabinetry manufactured with aluminum extrusion. Door fronts magnetic/dry erase.
- Conference table and workstation tops are of wood construction and laminated.
- 120 VAC (2), 12 VDC, RJ45 (2) at all work stations and conference table.
- Wall Treatments** Sheeted with pre-painted aluminum and/or magnetic/dry erase
- LonCoin on lower walls
- Flooring** LonCoin throughout.
- Ceilings** Center ceiling aluminum panels in grid. Slide ceiling, aluminum sheeted.
- Misc.** (12) Swiveling, adjustable office chairs with retention system for transport.
- Elevating comm. console, conference room table

Electronics / Communications

- Satellite** AvL/TracStar 1.2 meter VSAT
- MDBS-AA2000 SatCom for mobile TV reception
- Satellite Service** ICS tactical IP (1 year base service)
- ICS tactical voice VoIP 2 lines, (1 year base service)
- Electronics Rack** Middle-Atlantic 42 ru



**Rack Mounted
Equipment**

Cisco 2811 ISR router w/ advanced IP network

Cisco Catalyst 2960 48 10/100 +2 1000BT LAN base

(4) Tellular SX5e cellular terminal

Dell PowerEdge SC1425 server

Sony progressive scan DVD/VCR player

Nuvico EV-16750N 16 channel MPEG-4 compression DVR
750 GB hard drive

Vtune Pro 181 channel TV tuner

Extron video switcher

Desk set

(7) Cisco 7941 IP phone

Antenna Array

Mounted on roof, non-powered

Mast

Will-Burt 7-42, non-locking, remote operation, Lukon
coating, Nycoil, air from chassis.

Pelco ES31C22-5N Camera System

Mast Bay

Roof hatch, electrically operated
Mast access door

Displays

40" NEC plasma
Smart Board overlay model # PX340

Mitsubishi 40" LCD Flat Screen Monitor

(3) Phillips 15" Multi-Function Flat Panel Monitor w/ TV Tuner

**Weather
Station**

Columbia Magellan

Note: See attached information sheet



**Lightning
Detection**

Boltek strike detection system w/ GPS
Note: See attached information sheet

Astrogenic NexStorm software – GPS - Google Earth
NGinterlink module

imacs™

Integrated Monitoring, Automation & Control System
Interfaces with hydraulics and electrical.

Training

2 days, electronics/communications, on-site

Misc.

Wire/cable traces.

High Speed Laser Fax/Copier

External command desk

Winegard-Sensar III RV 3090 broadcast TV antenna

Laboratory Equipment

**Gas
Chromatograph**

(4) Varian Micro 4 column GCs
(4) IBM compatible Intel Core 2 Duo processor
Windows XP Professional
Galaxy and Star 6.41 Workstation
Note: See attached for full specifications
Installation, pneumatics control, regulators, etc

Stardock Multiplicity Professional Software
Note: See attached information sheet

Monitors

(4) ViewSonic 19" LED Monitor
mounting 2 x 2 configuration

Printer

Color laser, networked

Training

4 days, GCs, equipment & software, on-site



Safety

- Placards** Warning and instructional.
- Fire Ext.** ABC fire extinguishers (3)

Operations Manual

Spurlock Vehicles will provide an operations manual to contain;
Instructions on operation of imacs™.
Spec sheets and manuals on all installed components.

Warranty

- 1 Year – Interior
3 Year – Body

Optional

Gas Chromatograph Service Agreement	Online technical support and modem/internet calibration of system (1 year)	9,900.00
Repeater	Cellular repeater/amplifier w/ 2 antennas	12,950.00
PC	HP TouchSmart all-in-one PC w/ 23" HD screen (For use with weather and/or lighting detection ILO running through on-board server and monitors Includes mounting, system integration, etc.)	each 2,000.00
Training	Communications systems, hardware, software, etc on-site, 2 days	5,000.00



Model Profile
2007 7400 SBA 4X2 (SA625)

APPLICATION: Fire/Pumper (Emergency)
MISSION: Requested GVWR: 44000. Calc. GVWR: 40000
Calc. Start / Grade Ability: 25.30% / 2.88% @ 55 MPH
Calc. Geared Speed: 67.9 MPH
7.93 MPG @ 55 MPH

FUEL ECONOMY: Wheelbase: 215.0, CA: 147.9, Axle to Frame: 59.0
DIMENSION: (International DT570) 50 State, 330 HP, 950 lb-ft Torque @ 1200 RPM, 2200 RPM Governed
ENGINE, DIESEL: Speed. # 2 Bell Housing
(ALLISON 3000EVS P) 4th Generation Controls, Close Ratio, 5-Speed, With Overdrive,
Includes Oil Level Sensor, With Provision for PTO, Less Retarder, Max. GVW N/A
Omit Item (Clutch & Control)

TRANSMISSION, AUTOMATIC: (Meritor MFS-14-143A) Wide Track, I-Beam Type, 14,000-lb Capacity
CLUTCH: (Meritor RS-26-185) Single Reduction, Standard Track, 26,000-lb Capacity, and "R" Wheel
AXLE, FRONT NON-DRIVING: Ends Gear Ratio: 5.36
AXLE, REAR, SINGLE: Conventional

CAB: (2) 12R22.5 G149 RSA (GOODYEAR) 483 rev/mile, load range H, 16 ply
TIRE, FRONT: (4) 12R22.5 UNISTEEL G124 M+S (GOODYEAR) 482 rev/mile, load range H, 16 ply
TIRE, REAR: Vari-Rate, 31,000-lb Capacity, With 4500 lb Auxiliary Rubber Spring
SUSPENSION, RR, SPRING, SINGLE: Outer "C" Channel, Heat Treated Alloy Steel (120,000 PSI Yield); 10.813" x 3.892" x 0.312";
(274.6mm x 98.9mm x 8.0mm); 480.0" (12192mm) Maximum OAL
FRAME REINFORCEMENT: Cab Schematic: 100GN
Location 1: 2810,
Chassis Schematic 932GN
Wheel: 2810,

PAINT:

INTERNATIONAL®**Vehicle Specifications
2007 7400 SBA 4X2 (SA625)**

<u>Code</u>	<u>Description</u>
SA62500	Base Chassis, Model 7400 SBA 4X2 with 215.0 Wheelbase, 147.9 CA, and 59.0 Axle to Frame.
1570	TOW HOOK, FRONT (2) Inside Rail, Frame Mounted.
1CBU	FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.125" x 3.580" x 0.312" (257.2mm x 90.9mm x 8.0mm); 480.0" (12192) Maximum OAL
1GBP	FRAME REINFORCEMENT Outer "C" Channel, Heat Treated Alloy Steel (120,000 PSI Yield); 10.813" x 3.892" x 0.312"; (274.6mm x 98.9mm x 8.0mm); 480.0" (12192mm) Maximum OAL
1LMY	BUMPER, FRONT Full Width, Aerodynamic, Chrome Plated Steel; 0.189" Material Thickness
1WGS	WHEELBASE RANGE 189" (480cm) Through and Including 256" (650cm)
2ARV	AXLE, FRONT NON-DRIVING {Meritor MFS-14-143A} Wide Track, I-Beam Type, 14,000-lb Capacity
3ADD	SUSPENSION, FRONT, SPRING Parabolic, Taper Leaf; 14,000-lb Capacity; With Shock Absorbers
	<u>Includes</u> : SPRING PINS Rubber Bushings, Maintenance-Free
4091	BRAKE SYSTEM, AIR Dual System for Straight Truck Applications
	<u>Includes</u> : AIR COMPRESSOR AIR SUPPLY LINE International Engines Naturally-Aspirated : BRAKE CHAMBERS, SPRING (2) Rear Parking : BRAKE LINES Color Coded Nylon : DRAIN VALVE Twist-Type : DUST SHIELDS, FRONT BRAKE : DUST SHIELDS, REAR BRAKE : GAUGE, AIR PRESSURE Air 1 and Air 2 Gauges; Located in Instrument Cluster : PARKING BRAKE VALVE Color-Coded Yellow Knob, Located on Instrument Panel : SLACK ADJUSTERS, FRONT Automatic : SLACK ADJUSTERS, REAR Automatic : SPRING BRAKE MODULATOR VALVE
4722	DRAIN VALVE, AUTOMATIC {Bendix DV-2} With Heater, for Air Tank
4773	BRAKE SHOES, REAR Cast
4AZA	AIR BRAKE ABS {Bendix AntiLock Brake System} Full Vehicle Wheel Control System (4-Channel)
4EBT	AIR DRYER {Bendix AD-IP} With Heater
4JBL	BRAKES, FRONT, AIR CAM S-Cam; 16.5" x 5.0"; Includes 20 Sq. In. MGM Long Stroke Brake Chambers
	<u>Includes</u> : DUST SHIELDS, FRONT BRAKE
4NCE	BRAKES, REAR, AIR CAM 16.5" x 7.0"; Includes MGM TR3030 Long Stroke Brake Chamber and Heavy Duty Spring Actuated Parking Brake
4SBC	AIR COMPRESSOR {Bendix Tu-Flo 550} 13.2 CFM Capacity
4VBC	AIR DRYER LOCATION Mounted To Battery Box, Left side, Under Cab
570B	STEERING COLUMN Tiling
5CAL	STEERING WHEEL 2-Spoke, 18" Diam., Black
5PSA	STEERING GEAR {Sheppard M-100} Power
7ABX	EXHAUST SYSTEM Single, Horizontal, Stainless Steel Muffler, With Internal Catalytic Converter, Short Tail Pipe, Front of Muffler is 30" BOC, Mounted Right Side, for 2004 Emissions Standards with International I6 Engines

INTERNATIONAL®**Vehicle Specifications
2007 7400 SBA 4X2 (SA625)**

<u>Code</u>	<u>Description</u>
7SCJ	EXHAUST BRAKE, DLOGIC {Diamond Logic} for DT570 and HT570 Engines; Exhaust Brake, Electronically Activated
8000	ELECTRICAL SYSTEM 12-Volt, Standard Equipment <u>Includes</u> : BATTERY BOX Steel with Fiberglass Cover; Mounted Right Side, Back of Cab : DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab : HEADLIGHTS (2) Sealed Beam Halogen, 5" X 7" Rectangular, with Chrome Plated Bezels : HORN, ELECTRIC Single : PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light : RUNNING LIGHT (2) Daytime : STARTER SWITCH Electric Key Operated : STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector : TURN SIGNAL SWITCH Self-Cancelling, Headlight Dimmer (with Flash-To-Pass Feature) : TURN SIGNALS, FRONT Includes Reflectors and Auxiliary Side Turn Signals, Solid State Flashers; Flush Mounted : WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature, Integral with Turn Signal Switch : WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted : WIRING, CHASSIS Color Coded and Continuously Numbered
8518	CIGAR LIGHTER
8630	IGNITION SWITCH Keyless
8GDY	ALTERNATOR {Leece-Neville 4949PA} Brush Type; 12 Volt 270 Amp. Capacity, Pad Mounted
8HAB	BODY BUILDER WIRING Back of Standard Cab at Left Frame or Under Extended or Crew Cab at Left Frame; Includes Sealed Connectors for Tail/Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn
8MKL	BATTERY SYSTEM {International} Maintenance-Free, (3) 12-Volt 1950CCA Total
8WCL	HORN, AIR {Grover} Black, Single Trumpet, Air Solenoid Operated, Mounted Behind Bumper on Right Rail
8WPJ	COURTESY LIGHT (2) Mounted Under Instrument Panel
8WTB	STARTING MOTOR {Leece-Neville MS2} 12 Volt; with Thermal Over-Crank Protection
8XAH	CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III With Trip Indicators, Replaces All Fuses Except For 5-Amp Fuses
9HAD	GRILLE Chrome
9WAY	FRONT END Tilting, Fiberglass, With Three Piece Construction
9WBB	GRILLE EMBER SCREEN Mounted to Grille to Keep Hot Embers out of Engine Air Intake System
10060	PAINT SCHEMATIC, PT-1 Single Color, Design 100 <u>Includes</u> : PAINT SCHEMATIC ID LETTERS "GN"
10632	PAINT IDENTITY, PT-2 Single Color, Instruction No. 932. Wheels
10761	PAINT TYPE Base Coat/Clear Coat, 1-2 Tone
10771	PAINT CLASS Single Custom Color.
10WB E	KEYS,- ALL ALIKE, ID Z-001
11001	CLUTCH Omit Item (Clutch & Control)
12NRB	ENGINE, DIESEL {International DT570} 50 State, 330 HP, 950 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed, # 2 Bell Housing

INTERNATIONAL®**Vehicle Specifications
2007 7400 SBA 4X2 (SA625)**

<u>Code</u>	<u>Description</u>
	<u>Includes</u> : COLD STARTING EQUIPMENT Intake Manifold Electric Grid Heater with Engine ECM Control : CRUISE CONTROL Electronic; Controls Integral to Steering Wheel : ENGINE OIL DRAIN PLUG Magnetic : ENGINE SHUTDOWN Electric, Key Operated : FAN Optimized Position : FUEL/WATER SEPARATOR and FUEL FILTER in a Single Assembly, Mounted on Engine : GOVERNOR Road Speed, Electronic : OIL FILTER, ENGINE Spin-On Type : WET TYPE CYLINDER SLEEVES
12THT	FAN DRIVE {Horton Drivemaster} "Two Speed" Direct Drive, With Residual Torque Device for Disengaged Fan Speed <u>Includes</u> : FAN Nylon
12UVW	RADIATOR Cross Flow, Series System; 940 SqIn Aluminum Radiator Core and 1025 SqIn Charge Air Cooler <u>Includes</u> : ANTI-FREEZE Shell Rotella Extended Life Coolant -40F (-40C) : DEAERATION SYSTEM with Surge Tank : RADIATOR HOSES Premium, Rubber
12UXV	FEDERAL EMISSIONS for 2004; for International VT365, DT466 and DT570 Engines
12VBC	AIR CLEANER Single Element
12VXT	THROTTLE, HAND CONTROL Engine Speed Control; Electronic, Stationary, Variable Speed; Mounted on Steering Wheel
12VXY	ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Module and Connector for Body Builder Installation of Remote Engine Speed Control, With SAE J1939 Communication
12WYK	ENGINE WATER COOLER {Sen-Dure} Auxiliary, For Use With Fire Trucks
12WYS	EXPANDED ENGINE TEMP EFFECTS to Allow Higher Engine Operating Temperature Range; Includes Nylon Surge Tank and 15 psi Pressure Cap
12WYT	CHARGE AIR COOLER Heavy Duty, for Increased Temperature and Pressure Capability, for International Engines
13AJV	TRANSMISSION, AUTOMATIC {ALLISON 3000EVS_P} 4th Generation Controls; Close Ratio, 5-Speed; With Overdrive, Includes Oil Level Sensor, With Provision for PTO, Less Retarder, Max. GVW N/A <u>Includes</u> : TRANSMISSION OIL PAN Magnet in Oil Pan
13WAW	OIL COOLER, AUTO TRANSMISSION {Modine} Water to Oil, for Allison or CEEMAT Transmission
13WBN	TRANSMISSION SHIFT CONTROL {ALLISON} T-Bar Type; for Allison 3000 & 4000 Transmission
13WUE	ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS); Fire/Pumper, Tank, Aerial/Ladder
14ARZ	AXLE, REAR, SINGLE {Meritor RS-26-185} Single Reduction, Standard Track, 26,000-lb Capacity, and "R" Wheel Ends <u>Includes</u> : REAR AXLE DRAIN PLUG (1) Magnetic
14VAJ	SUSPENSION, RR, SPRING, SINGLE Vari-Rate; 31,000-lb Capacity, With 4500 lb Auxiliary Rubber Spring
15SCD	FUEL TANK Top Draw; D Style, Steel, 50 U.S. Gal., 189 L Capacity, 16" Deep, With Quick Connect Outlet, Mounted Right Side, Under Cab

INTERNATIONAL®**Vehicle Specifications
2007 7400 SBA 4X2 (SA625)**

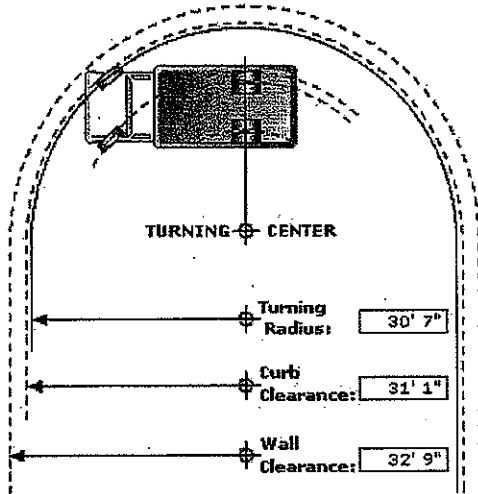
<u>Code</u>	<u>Description</u>
	<u>Includes</u> : FUEL LINES Nylon Tubing With O-Ring Snap-On Quick-Connect Fittings at Both Ends
16030	CAB Conventional
	<u>Includes</u> : ARM REST (2) Molded Plastic, Smoke Gray; One Each Door : CLEARANCE/MARKER LIGHTS (5) Flush Mounted : COAT HOOK Located on Rear Wall, Centered Above Rear Window : FLOOR COVERING Rubber, Black : GLASS, ALL WINDOWS Tinted : GRAB HANDLE, CAB INTERIOR (1) "A" Pillar Mounted, Passenger Side : GRAB HANDLE, CAB INTERIOR (2) "B" Pillar Mounted, One Each Side : STEP (2) Two Steps Per Door
16HBA	GAUGE CLUSTER English With English Electronic Speedometer
	<u>Includes</u> : GAUGE CLUSTER (6) Engine Oil Pressure (Electronic), Water Temperature (Electronic), Fuel (Electronic), Tachometer (Electronic), Voltmeter, Washer Fluid Level : ODOMETER DISPLAY, Miles, Trip Miles, Engine Hours, Trip Hours, Fault Code Readout : WARNING SYSTEM Low Fuel, Low Oil Pressure, High Engine Coolant Temp, and Low Battery Voltage (Visual and Audible)
16HGH	GAUGE, OIL TEMP, ALLISON TRAN
16HHE	GAUGE, AIR CLEANER RESTRICTION {Filter-Minder} With Black Bezel Mounted in Instrument Panel
16JJE	SEAT, DRIVER {National 2000} NFPA Compliant, Air Suspension, High Back With Integral Headrest, Vinyl, Isolated, With 2 Position Front Cushion Adjustment, -3 to +14 Degree Seat Back Adjustment, Single Chamber Air Lumbar Support
	<u>Includes</u> : SEAT BELT 3-Point, Lap and Shoulder Belt Type
16PHJ	SEAT, TWO-MAN PASSENGER {Gra-Mag} With Two Integral Headrest, Vinyl, With Fixed Back, Less Under Seat Storage Compartment
	<u>Includes</u> : SEAT BELT (2) One 3-Point Shoulder Belt and One 2-Point Lap Belt (Center Position)
16SDC	GRAB HANDLE (2) Chrome Towel Bar Type With Anti-Slip Rubber Inserts; for Cab Entry Mounted Left and Right
16SDP	MIRRORS (2) {Lang Mekra} Styled; Rectangular, 7.09" x 15.75", Brackets Breakaway Type, With 102" Wide Spacing, With Integral Convex Both Sides, With All Heated Heads, Thermostatically Controlled, With Bright Finish Heads and Brackets
16VBZ	SEAT BELT All Red; 1 to 3
16WJS	INSTRUMENT PANEL Center Section, Flat Panel
16WKB	AIR CONDITIONER {International Blend-Air} With Integral Heater & Defroster
	<u>Includes</u> : FRESH AIR FILTER : HEATER HOSES Premium : REFRIGERANT Hydrofluorocarbon HFC-134A
16WKY	FRESH AIR FILTER for HVAC
16WRX	CAB INTERIOR TRIM Deluxe
	<u>Includes</u> : "A" PILLAR COVER Molded Plastic, Smoke Gray

INTERNATIONAL®

**Vehicle Specifications
2007 7400 SBA 4X2 (SA625)**

<u>Code</u>	<u>Description</u>
	: CAB INTERIOR TRIM PANELS Molded Plastic, Full Height; All Exposed Interior Sheet Metal is Covered Except for the Following: with a Two-Man Passenger Seat the Back Panel is Only Partially Covered and with a Full Bench Seat the Back Panel is
	: CONSOLE, OVERHEAD Molded Plastic with Dual Storage Pockets and Retainer Nets and CB Radio Pocket; Smoke Gray with Black Netting Over Storage Pockets
	: DOME LIGHT, CAB Rectangular, Door Activated, Timed Theater Dimming, Center Mounted, Integral to Console
	: DOOR TRIM PANELS (2) Molded Plastic; Driver and Passenger Doors
	: HEADLINER Printed Cloth
	: INSTRUMENT PANEL TRIM Molded Plastic, Drawbridge Gray with Black Center Section, Hidden Cup Holder and Ash Tray (Pull-Out)
	: STORAGE POCKET, DOOR (1) Molded Plastic, Smoke Gray, Full-Length; Driver Door
	: SUN VISOR (2) Padded Vinyl with Driver Side Toll Ticket Strap, Integral to Console
16VSK	CAB REAR SUSPENSION Air Bag Type
27DMA	WHEELS, FRONT DISC; 22.5" Painted Steel, 2 Hand Hole, 10 Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With Steel Hubs.
	<u>Includes</u>
	: PAINT IDENTITY, FRONT WHEELS White
	: WHEEL SEALS, FRONT Oil Lubricated, Includes Wheel Bearings
28DMA	WHEELS, REAR DUAL DISC; 22.5" Painted Steel, 2 Hand Hole, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With Steel Hubs
	<u>Includes</u>
	: PAINT IDENTITY, REAR WHEELS White
	: WHEEL SEALS, REAR Oil Lubricated, Includes Wheel Bearings
7382150155	(2) TIRE,FRONT 12R22.5 G149 RSA (GOODYEAR) 483 rev/mile, load range H, 16 ply
7382150192	(4) TIRE,REAR 12R22.5 UNISTEEL G124 M+S (GOODYEAR) 482 rev/mile, load range H, 16 ply
	STEEL SURCHARGE

Turning Radius Summary
2007 7400 SBA 4X2 (SA625)



Series: 7000
 Model: SA625
 Description: 7400 SBA 4X2
 Model Year: 2007

Calculation Factors

Wheelbase: 215
 Front Axle: 0002ARV
 Description: AXLE, FRONT NON-DRIVING, {Meritor MFS-14-143A} Wide Track, I-Beam Type, 14,000-lb Capacity
 Front Wheel: 0027DMA
 Description: WHEELS, FRONT, DISC; 22.5" Painted Steel, 2 Hand Hole, 10 Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With Steel Hubs.
 Front Tire: 07382150155
 Description: TIRES, 12R22.5 G149 RSA (GOODYEAR) 483 rev/mile, load range H, 16 ply
 Steering Gear: 0005PSA
 Description: STEERING GEAR, {Sheppard M-100} Power

Turning Radius Statistics

General Information

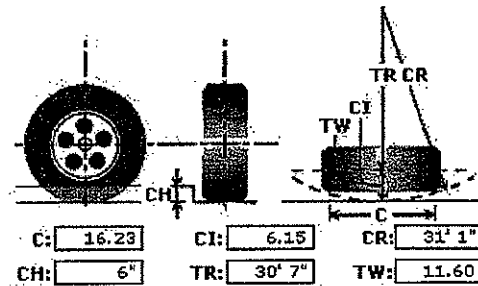
Inside Turn Angle: 45 Degrees
 Radial Overhang: 26

Axle Information

KingPin Inclination: 6.25 Degrees
 KingPin Center: 71.5

Turning Radius - Curb View

C - Curb Contact Length: 16.23
 CI - Curb Clearance Increment: 6.15
 CR - Curb Clearance Radius: 31' 1"
 CH - Curb Height: 6"
 TR - Turning Radius: 30' 7"
 TW - Tire Width: 11.60



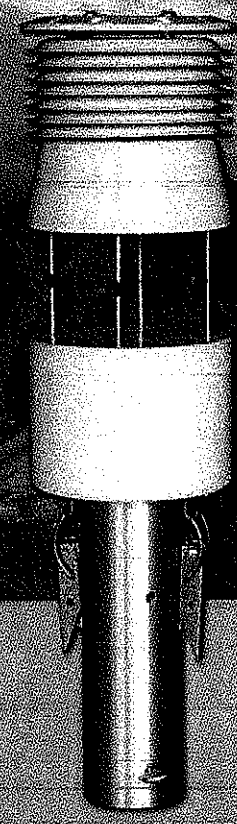
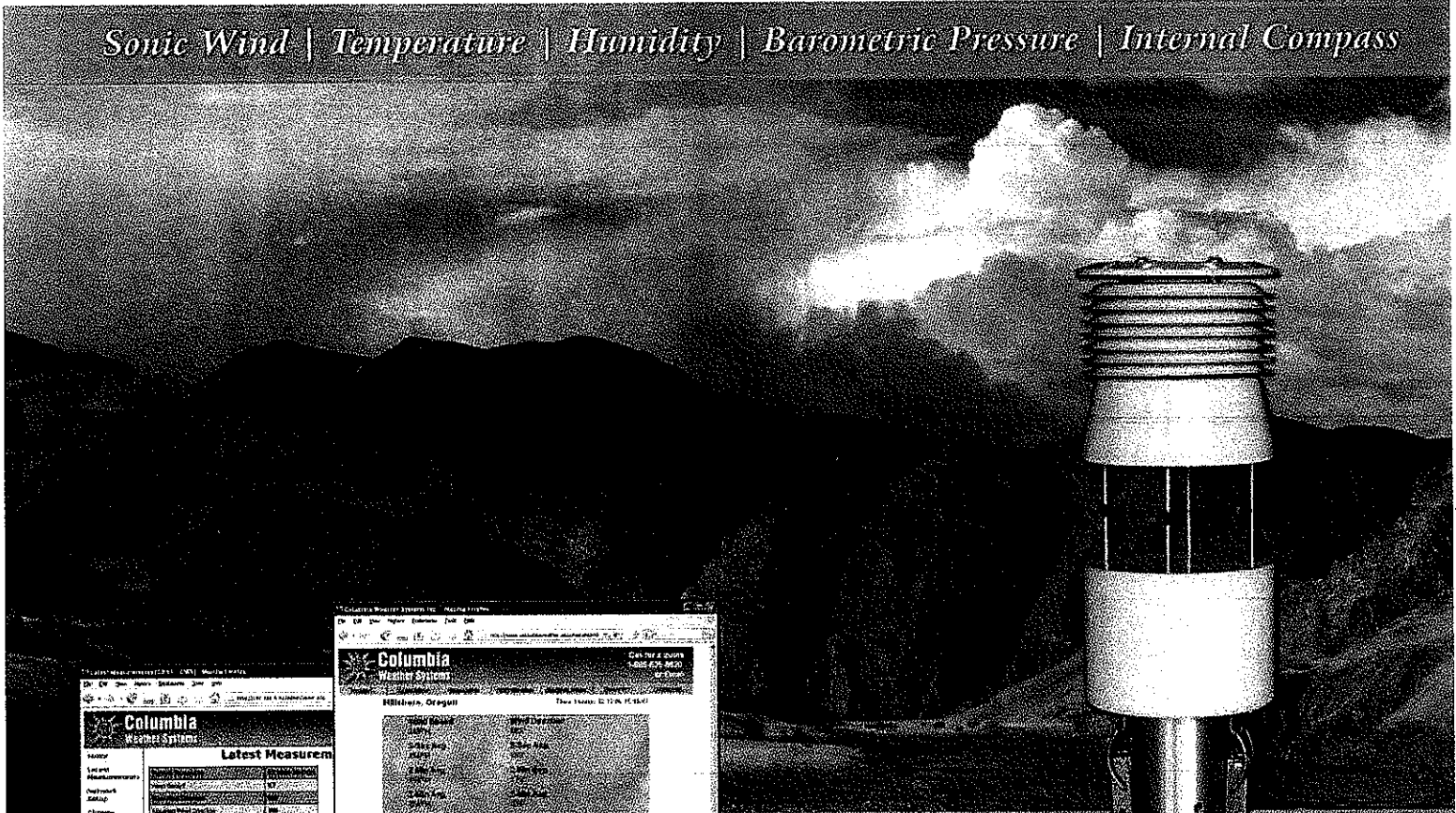
* All Measurements are in inches, unless otherwise specified.

This information is based on engineering information available at this time. Actual figures may vary. International Truck and Engine Corporation cannot accept liability for consequences due to this variance.



MagellanTM Weather Stations

Sonic Wind | Temperature | Humidity | Barometric Pressure | Internal Compass

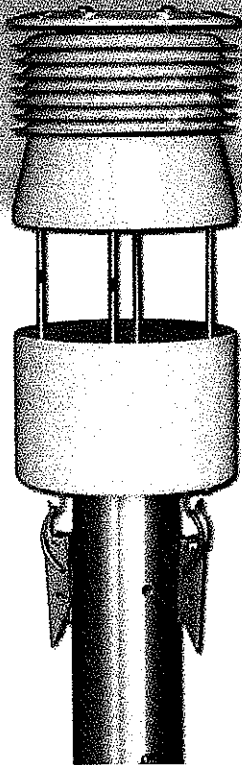


Parameter	Value
Temperature	51.2
Relative Humidity	64.0
Barometric Pressure	30.09
Wind Speed	6
Wind Direction	220
Altitude	336

Parameter	Value
Station Name	Hillsboro, Oregon
Latitude	45.5289
Longitude	-122.9820
Altitude	336
Time Zone	PST

Parameter	Value
Temperature	51.2
Relative Humidity	64.0
Barometric Pressure	30.09
Wind Speed	6
Wind Direction	220
Altitude	336

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Innovative Weather Monitoring

For cutting-edge weather monitoring in a harsh environment, the Magellan Weather Station combines a rugged multi-parameter weather sensor with an internal compass for automatic wind direction alignment.

The all-in-one Magellan sensor module integrates:

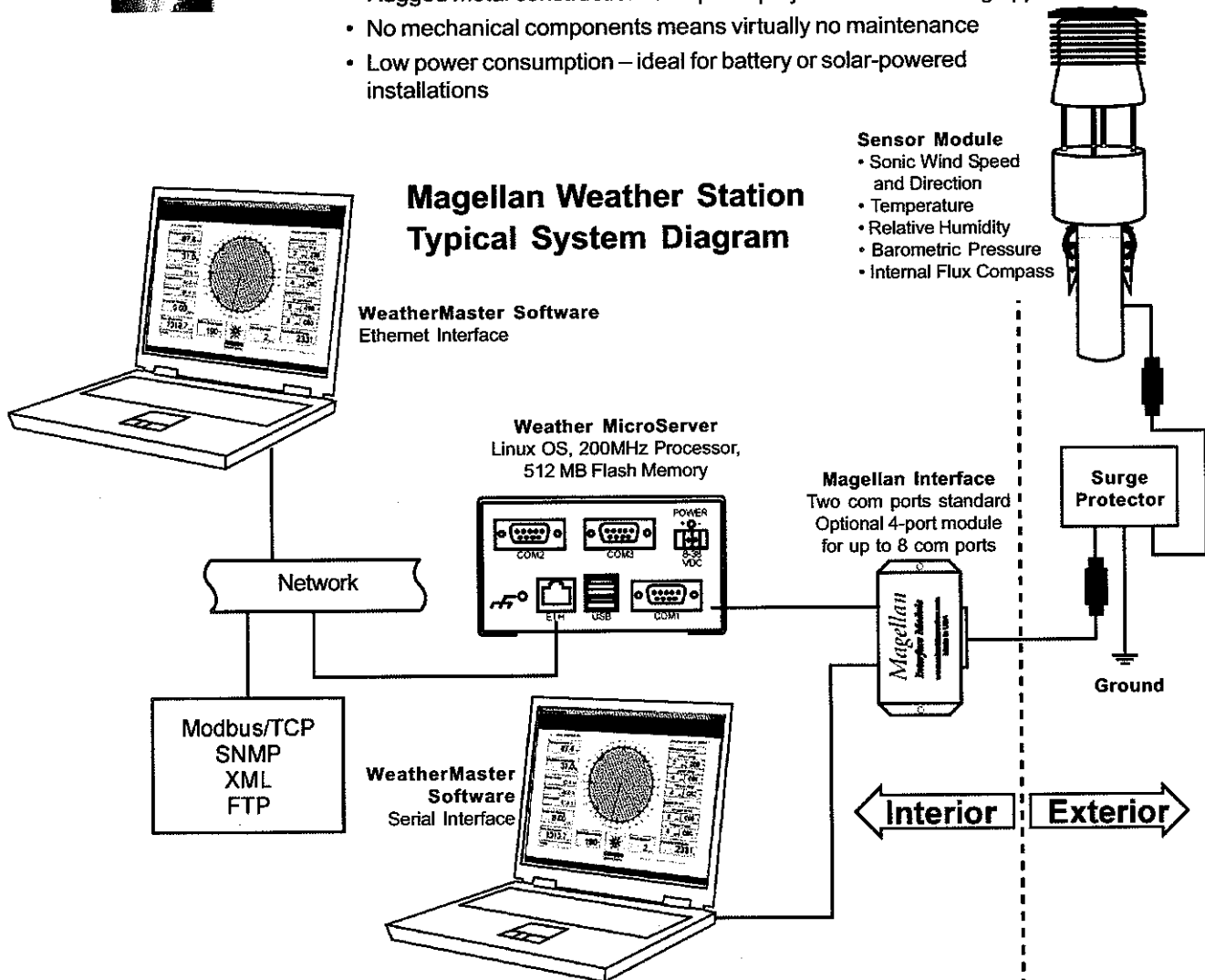
- a sonic anemometer for **wind speed** measurement
- multi-element sensor for highly accurate and stable **temperature** readings
- fast-response, capacitive relative **humidity** sensor
- state-of-the-art **barometric pressure** sensor
- internal fluxgate **compass** for automatic alignment of **wind direction**

Weather monitoring options include WeatherMaster™ Software and the Weather MicroServer™ for internet-ready weather data and industrial protocols.

Magellan Weather Station Features

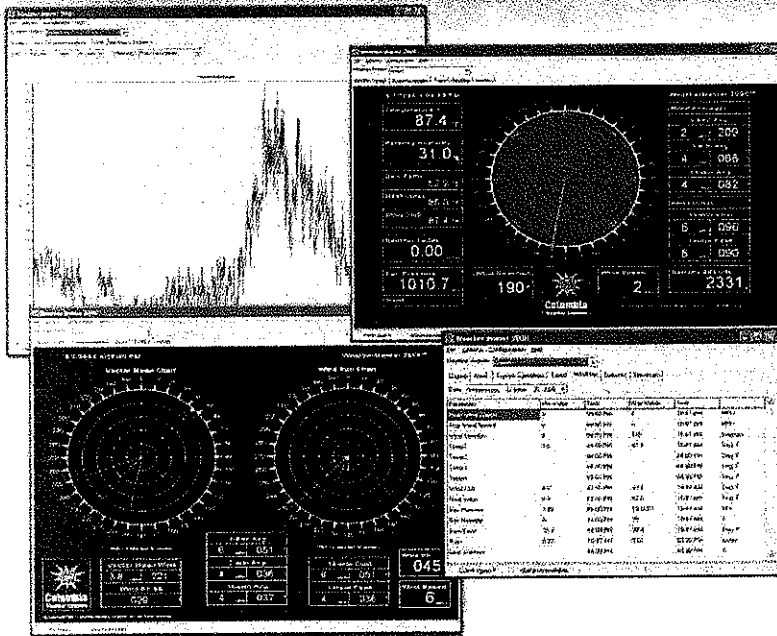
- Weather-protected sensor unit designed for maximum portability and utility
- Integrated sonic wind sensor
- Automatic self-alignment using internal fluxgate compass
- Rugged metal construction for rapid deployment in demanding applications
- No mechanical components means virtually no maintenance
- Low power consumption – ideal for battery or solar-powered installations

Magellan Weather Station Typical System Diagram



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Magellan™ Weather Stations

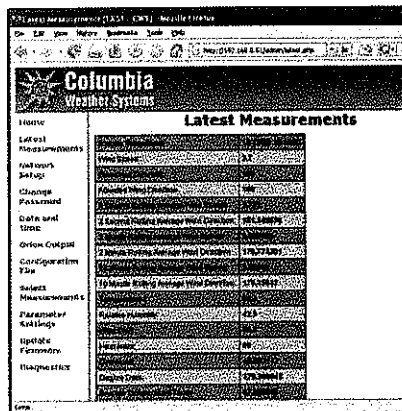


WeatherMaster can be customized to meet specific requirements.

WeatherMaster™ Software

Designed to optimize the capabilities of Magellan Weather Stations, this professional software provides real-time computer weather monitoring:

- Display and automatic logging of all measured and calculated parameters
- Downwind vector wind and wind character-plotting screens
- An open Microsoft Access® database for archival with easy retrieval and compatibility with other Windows® programs
- On-the-fly graphing and trend display of all parameters
- Alarm notification via computer, email, pager or cell phone
- Multi-station monitoring and data acquisition
- Quick-North orientation
- Interface with CAMEO/ALOHA software for plume modeling and evacuation corridor predictions



Weather MicroServer™

The Weather MicroServer is a self-contained, proprietary computer utilizing an embedded Linux operating system. It creates an "Internet-ready" weather monitoring system by automatically providing FTP output, XML web service, and Internet browser user interface.

Weather MicroServer Optional Sensors:

For applications requiring additional **wind speed and direction**, the Orion LT wind-only sensor module offers ultrasonic technology for high accuracy and stability. Triangular design ensures excellent data availability and 360° measurement accuracy with a starting threshold of virtually zero. A heated model is available.

The pyranometer or **solar radiation** sensor is calibrated to measure the shortwave radiation reaching the Earth's surface, measured in Watts/m². Self-cleaning dome-shaped head prevents water accumulation. The sensor head is potted solid to prevent internal condensation in humid environments.

The **visibility** sensor measures atmospheric visibility (meteorological optical range) by determining the amount of light scattered by particles (smoke, dust, haze, fog, rain, and snow) in the air that pass through the optical sample volume. A 42-degree forward scatter angle is used to ensure performance over a wide range of particle sizes.

SNMP and Modbus/OPC communication protocols are standard for Industrial Management applications.

The Weather MicroServer has datalogging capability. It connects to your network with an included Ethernet cable.

Two serial ports offer interface to both the Weather Display Console and additional peripheral devices or sensors such as visibility and the Orion LT wind-only sensor.

The Weather MicroServer can provide real-time weather data to WeatherMaster Software over the network. This allows users to simultaneously monitor the weather using WeatherMaster on any network computer.

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Sensor Specifications

Temperature

Range: -50 to +50°C (-58 to +122°F)
Accuracy: ±0.2°C (0.36°F)
Resolution: 0.1°C (0.1°F)
Operating Temperature: -50 to +70°C

Barometric Pressure

Range: 600 to 1100 mbar (17.72 to 32.48 inHg)
Accuracy: ±0.35 mbar (±0.01 inHg)
Resolution: 0.1 mbar (0.01 inHg)

Wind Speed

Range: 0 to 50 m/sec (0 to 112 mph)
Accuracy: ±0.5 m/s or 5% of reading
Resolution: 1 m/s (1 mph)

Wind Direction

Range: 0 to 360°
Accuracy: ± 5° @ wind speed > 2.2 m/s
Resolution: 1.0°

Relative Humidity

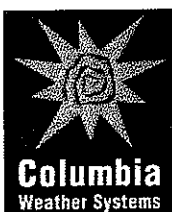
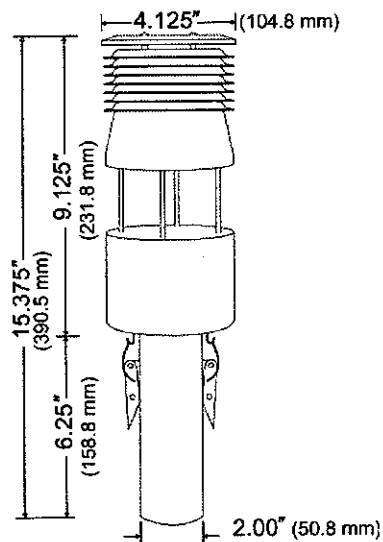
Range: 0 to 100%
Accuracy: ±3%
Resolution: 1.0%

Compass

Accuracy: ±2°
Resolution: 1°

Physical

Construction Materials:
Anodized aluminum and stainless steel
Weight: 0.91 kg (2.0 lbs)
Mounting: Accepts 1" (25.4mm) OD pole
Color: Gloss white powder coat



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info@columbiaweather.com
www.columbiaweather.com

Magellan™ Weather Stations

Parameter Measurements

Temperature

The temperature sensor in the Magellan uses a precision triple-element thermistor. This provides highly accurate and stable temperature readings.

Humidity

The relative humidity sensor is a capacitive polymer sensor. The humidity sensor elements' construction provides excellent resistance to wetting, dust, dirt, oils, and common environmental chemicals.

Barometric Pressure

The barometric pressure sensor is a stable transducer using nano-technology, yielding a linear and repeatable sensor with low hysteresis. The piezoresistive pressure sensor module is mounted on a small electronic circuit board.

A microcontroller controls the operation of the sensor and the data interface. The microcontroller polls the pressure sensor module once per second for the barometric pressure and ambient temperature. The raw readings are temperature corrected by the microcontroller.

Wind Measurement

A unique folded-path, low-power sonic anemometer operates on the principle that the speed of the wind affects the time it takes for sound to travel from one point to a second point. If the sound is traveling in the direction of the wind, then the transit time is decreased. If the sound is traveling in a direction opposite the wind, then the transit time is increased.

Fluxgate Compass

The internal compass module is low power and compact. It employs a pair of magneto-inductive sensors which change inductance with varying magnetic field strengths, to sense the Earth's magnetic field.

The microprocessor measures the output of the internal compass and then corrects wind direction data for the orientation of the sensor. The output of the wind direction is relative to magnetic North. A user programmable value of Magnetic Declination may be entered through terminal mode to enable output relative to True North rather than Magnetic North.

Additional Calculated Parameters

Through WeatherMaster Software or the Weather MicroServer, data from these sensors are computed to provide calculated parameters including Dew Point, Heat Index, Wind Chill, Degree-Day Temperatures and Density Altitude.

System Configurations

Magellan weather stations are available in Fixed-Mount, Vehicle-Mount and Portable system configurations.

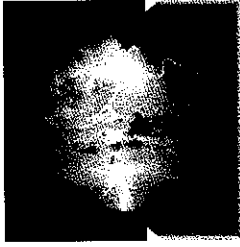
Fixed-Mount Weather Stations include 50-ft cable. Optional accessories:

- Sensor mast and mounting hardware options
- Extra cable length
- Wireless Transceivers

Vehicle-Mount Weather Stations include a detachable 8-ft telescoping sensor mast and mounting hardware.

Portable Weather Stations include wireless transceivers, batteries, transportation case and tripod with telescoping mast.

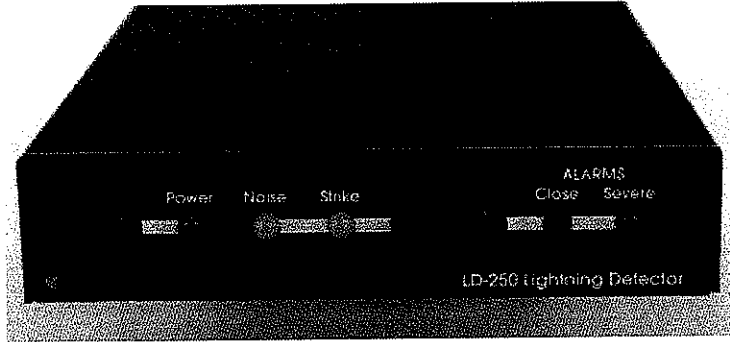
Please contact us today for a free quotation!



BOLTEK

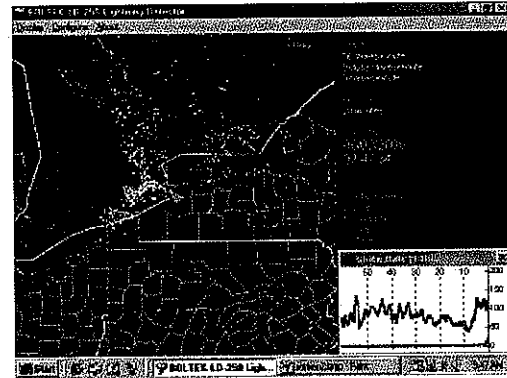
LD-250 Lightning Detector USB/RS232 Lightning Detection System

- About BOLTEK
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- LD-250
- EFM-100
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- Accessories
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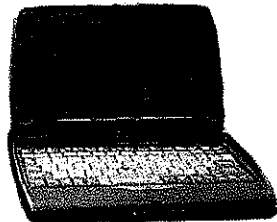


The Boltek LD-250 Lightning Detector puts a live lightning map on your laptop or desktop computer. Within milliseconds of a lightning strike the detector beeps and your computer displays the strike location. The LD-250's direction-finding antenna measures lightning strike direction while the LD-250's receiver estimates distance from received signal strength. Advanced signal processing in software improves distance accuracy, reducing the effects of strike-to-strike variations in strike energy. The LD-250 can warn of both close and severe thunderstorms. If a storm is detected closer than a preset distance or the strike rate exceeds a preset limit, the LD-250 sounds its internal alarm and activates the computers alarm tone or WAV file notification. Both the **Close Storm** and **Severe Storm** strike rates are displayed on the **Minute and Total Strikes / Minute** graph on the panel.

Three display ranges, 100, 200 and 300 miles (160, 320 and 480 km) allow you to zoom into the region of interest. Zoom out to the maximum range of 300 miles (600 miles across) or zoom in to 100 miles to see 250 lightning strikes.

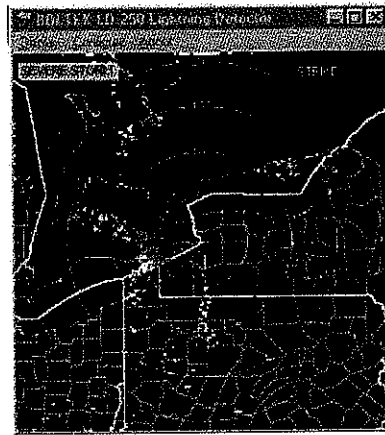


LD-250 Lightning Detector is here! Your computer beeps and displays the strike within milliseconds of the strike happening! With the LD-250 Lightning Detector you are actually detecting the lightning strikes themselves. There are no on-line or recurring charges of any kind.



The LD-250 connects to your computer's USB or RS232 (COM) port making it suitable for use with both laptop and desktop computers. The LD-250 will even detect lightning when your computer is turned off. When the LD-250 starts beeping or the **Strike** light starts flashing you can turn on your computer to see where the storms are located.

LD-250 Lightning Detector has two built-in alarms: a **Close Storm Alarm** and a **Severe Storm Alarm**. The **Close Storm Alarm** will activate if a thunderstorm is detected closer than a preset distance. The **Severe Storm Alarm** activates if the number of lightning strikes per minute exceeds a preset limit. The LD-250 will sound an alarm tone when either alarm activates. Front panel pushbuttons allow both the Strike tone and Alarm tones to be disabled. The computer can also be configured to sound an alarm tone and/or pop up a notification window when an alarm activates. Alarm status is indicated by the color of the **Close Storm** distance circle and **Severe Storm** status indicator in the top left corner of the map window.

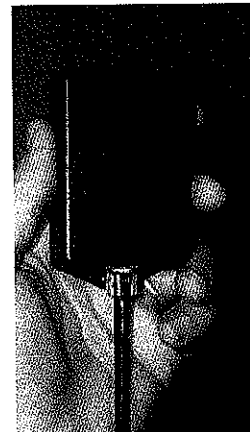


Connect an optional Boltek LDGPS-1 GPS Receiver or LDC-1 Fluxgate Compass to your LD-250 and track lightning from your car, truck or boat.

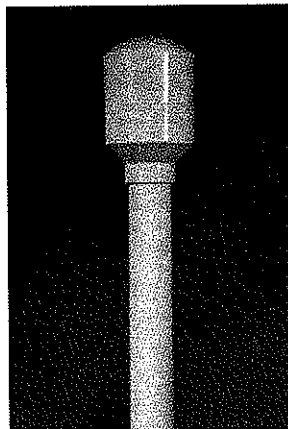
Turn on the LD-250's heading indicator when running mobile. The blue triangle in the center of the screen rotates as your vehicle turns to show the LD-250 is using the GPS or compass to correct for changes in your vehicle's direction.

The LD-250 uses a small active antenna to receive the radio signals from lightning strikes. These signals are the crackling you hear on an AM radio during a thunderstorm. The direction-finding antenna is able to tell which direction the signal is coming from. The software measures the strength of the received signals to estimate distance. Special signal processing in software reduces the effects of strike-to-strike energy variations providing more accurate distance information.

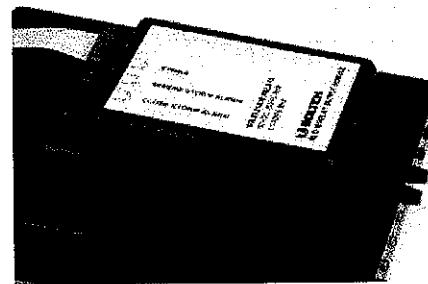
The antenna may be mounted indoors (in a wood framed house) or outdoors. For mobile installations it is mounted outside on the roof of the vehicle.



LD-250 Antenna



Optional ENC-1 Outdoor



Optional RLO-10 Relay Output Module



CMTS

(Coal Mines Technical Services)
(A Mines Rescue, Compliance & Regulation Division of CSPL)
A NATA Accredited Facility
ABN 32 347 731 554



VARIAN 490-GC MICRO GAS CHROMATOGRAPH, FOUR MODULE 'SMARTGAS' SYSTEM - GENERAL SPECIFICATIONS -

Attention: C. Kyle (KC) Spurlock III
President & CEO
Spurlock Vehicles, Inc
5543 Edmondson Pike
Suite 200 Nashville, TN 37211

GENERAL SYSTEM SPECIFICATIONS FOR 'SMARTGAS' SYSTEM QUOTATION

Varian 490-GC Quad Micro-GC, four channel system:

Includes dual carrier gases (Helium/Argon), single sample inlet, external sample filter kit with 5 filters, user manual (CD ROM), cable DSUB9 male-female (1yard), four GC channel system, power supply for 110V, 50-60Hz operation (12 VDC output, maximum 130 W). GC channel configurations as follows:

1. **GC Channel # 1** for 490-GC, 10 m x 0.25mm ID Molecular Sieve 5A PLOT column. Includes: Variable Volume Injector (10 ul), with ultra low volume Thermal Conductivity Detector (TCD). Argon carrier for the separation and determination of ppm to percentage levels of carbon monoxide
2. **GC Channel # 2** for 490-GC, 10 m x 0.25mm ID Molecular Sieve 5A PLOT column. Includes: Variable Volume Injector (10 ul), with ultra low volume TCD. Helium carrier for the separation and determination of ppm to percentage levels of hydrogen, oxygen, nitrogen and methane
3. **GC Channel # 3** for 490-GC, Standard 10 m x 0.25mm ID PoraPLOT 'U' column. Includes: Variable Volume Injector (10 ul), with ultra low volume TCD. Helium carrier for the separation and determination of ppm to percentage levels of carbon dioxide, ethylene, acetylene and ethane
4. **GC Channel # 3** for 490-GC, Standard 10 m x 0.25mm ID Alumina KCL PLOT column. Includes: Variable Volume Injector (10 ul), with ultra low volume TCD. Helium carrier for the separation and determination of ppm to percentage levels of propylene, propane, i-butane, n-butane, i-pentane, n-pentane

System configuration pre delivery:

- Strip, examine and re-build all hardware components
- Control/ data handling software installed and configured
- Confirm by practical analysis the TCD minimum detectable limits for each module
- Analytical methods for the analysis of coal mine atmospheres developed
- Pre-delivery commissioning of full system

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NSW 2500 Australia
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Fax. +61 2 4229 3133

1/25 Ginger Street
Paget (Mackay)
QLD 4740 Australia
Tel. +61 7 4952 2500
Fax. +61 7 4952 4055

e-mail: cmts@cmts.com.au

System control:

- Independent control of each analytical channel
- Injector, column, and detector settings user controlled
- Pneumatics, including time-based column pressure programming user controlled

Injectors:

- Micro-machined injector with no moving parts
- Injection volume 1 μ L to 10 μ L, software selectable

Column Oven:

Temperature range up to 355 °F (180 °C), isothermal

Detectors:

- Micro-machined Thermal Conductivity Detector (TCD)
- Dual-channel TCD (sample and reference flow)
- Internal volume, 200 nL per channel
- Filaments, 4

Detection Limits, TCD:

- WCOT (wall coated open tubular) columns, 1 ppm
- Micro-packed/PLOT columns, 10 ppm

Operating Range, TCD:

- Concentration, 1 ppm to 100% level
- Linear dynamic range, 10^6

Repeatability:

< 0.5% RSD for propane at 1 mol % level for WCOT columns at constant temperature and pressure

Carrier gases

- He, H₂, N₂, or Ar, 80 \pm 1.5 psig (550 \pm 10 kPa) input
- Up to two different types of carrier gases can be used
- Inlet connection, 1/8 in. (3.2 mm) stainless steel compression fitting (Swagelok®)

Sampling:

- Sample inlet, 1/16 in. (1.6 mm) stainless steel Valco® fitting with replaceable 5 μ m stainless steel filter
- Sample conditions, non-condensing gas of 0 °C to 110 °C
- Maximum sample inlet pressure, 14.5 psi (100 kPa)
- Software selectable sample pump or continuous flow

Communication:

- Analog input, 6 signals (0-10 V)
- LAN (TCP/IP)
- Serial (RS232) for control of a stream selection valve
- Webserver, display instrument status on standard Internet browser

Control/Data Handling Software:

Galaxie™ Chromatography data acquisition software ('Star' data acquisition package also supplied and installed). Custom calculation and reporting.

Control PC:

IBM (or equivalent) Intel(R) Core(TM) 2 Duo Processor desktop PC or equivalent, with "Galaxy" and "Star" data acquisition software installed and configured for coal mine atmospheric analysis.

Options quoted:

Optional 4 channel field/portable case (14.57" high x 11.42cm wide x 28.35" deep) (tare weight approx. 22 lbs) with two separate carrier gases and two battery packs (1 x internal) (8 hours total operation). Also includes:

- Refillable gas container with maximum pressure of 12,000 kPa (1,740psi)
- Carrier gas re-filler Assembly
- External charger for Micro-GC battery pack
- Micro-GC aux. Power cable cigarette lighter

CMTS standard terms and conditions apply.

Regards

P Mason
Manager

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Stardock®

 **MULTIPLICITY**

Introduction

Multiplicity is a program that enables a user to control multiple local personal computers as a single computing platform.

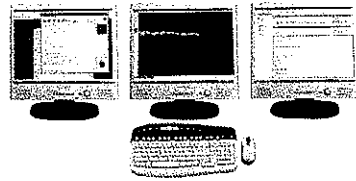
It works in a similar manner to a single machine with multiple monitors. Except in this case, each monitor is connected to its own computer. The primary computer has a keyboard and mouse connected to it while the client computers do not. When the user moves their mouse cursor onto a different monitor, they are controlling the computer that the monitor is connected to.

Multiplicity also provides a universal clipboard between all machines. The Pro version of Multiplicity adds the ability to use the clipboard to copy files and folders seamlessly between machines.

The result is that a user who has more than one computer in their office can put them together and control them all from a single keyboard and mouse.

Features

Multiplicity works via a network connection. When Multiplicity is installed on the PCs you wish to control, the primary machine will seek out other machines on your network that have the client installed and set them up for you. It is designed to be easy to set up and the responsiveness of the mouse on client machines is the same as it would be normally (even in games).



Here are some of the features of Multiplicity:

- **Easy to use configuration.** Multiplicity is designed to be very easy to use. It has a friendly interface so that even novice computer users should be able to set it up.
- **Clipboard sharing.** Users can copy and paste images and text between the machines using the Windows clipboard.
- **Screen Locking.** Users can lock the mouse to a particular desktop (useful in games) and even have this be the automatic behavior when a game is launched.
- **Extra Mouse Button Support.** Users who don't want to have seamless switching (when the mouse moves to the edge of the screen) can also set additional mouse buttons to determine which computer is the active one.
- **Hot Key Support.** Users can also set hot keys to instantly control a particular computer.
- **Security.** Users can put a password on their machines to ensure no one else on the LAN can control their machine (note: Since Multiplicity is *not* a remote control program, a user has to be local to the machine to be able to see what they are controlling).
- **File Copying.** The Pro version of Multiplicity enables users to copy files and folders between machines.

Multiplicity comes in two flavors: Multiplicity Standard and Pro. The difference between the two is that Multiplicity Pro can control an unlimited number of client computers (Multiplicity Standard is for a dual-PC setup) and Multiplicity Pro enables file copying between computers.

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with West Virginia Code, §5A-3-37. (Does not apply to construction contracts). West Virginia Code, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the West Virginia Code. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

- 1. Application is made for 2.5% resident vendor preference for the reason checked: Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2. Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3. Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4. Application is made for 5% resident vendor preference for the reason checked: Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: _____ Signed: _____

Date: _____ Title: _____

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (**West Virginia Code §61-5-3**), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: SPURLOCK VEHICLES, INC.

Authorized Signature: [Signature] Date: 9/10/2010

State of TENNESSEE

County of DAVIDSON, to-wit:

Taken, subscribed, and sworn to before me this 10 day of SEPTEMBER, 20 10.

My Commission expires SEPTEMBER 8TH, 20 13.



NOTARY PUBLIC [Signature]