



S320



GNSS Survey Receiver

- SMS Communication
- GSM Auto Corrections
- GNSS Configurable
- SureTrack™ Intelligence
- L-band DGNSS/HP/XP Support

Surveyor Tough

S320

S320 GNSS Survey Receiver

Hemisphere GPS has been designing and manufacturing GNSS technology for more than 20 years. We take pride in building rugged and reliable products for a wide range of industries from agriculture to construction and marine navigation to surveying. Hemisphere GPS' S320 survey receiver provides the quality one can expect from a trusted and experienced manufacturer. So whether you are doing GIS, mapping, land surveying or construction, S320 can be tailored to meet your needs.



Complete Package

Hemisphere GPS supplies surveyors with the complete survey solution. Our survey kit comes with:

- S320 base/rover combo
- XF2 data collector
- Carlson SurvCE software
- (2) battery chargers
- Hard case with tools

XF2 Data Collector

- Windows Mobile 6.5 handheld computer
- 128MB SDRAM, 256M NAND flash
- Wi-Fi, Bluetooth v2.0 and GSM connectivity
- Built-in 3.0 MP camera, microphone and speaker
- QVGA 3.5" TFT sunlight-readable color touch screen
- 3000 mAH Li-ion battery (10 hours)
- Operating Temperature: -10C to +60C
- IP66 waterproof/dustproof
- Dimensions: 179.5 mm x 91.2 mm x 31.5 mm
- Weight: 250 g (without battery)



Carlson SurvCE Software

Carlson SurvCE is a complete data collection system for Real



Time Kinematic (RTK) GPS and Total Stations with in-field coordinate geometry.

It supports the widest range of popular and new release RTK GPS and conventional/robotic total stations.





- 1 Power Button
- 2 UHF Radio/GSM LED Indicator
- 3 GPS Lock LED Indicator
- 4 DGPS Lock LED Indicator
- 5 Left Battery LED Indicator
- 6 Right Battery LED Indicator
- 7 External Power LED Indicator
- 8 Bluetooth® LED Indicator
- 9 SD Card Logging LED Indicator
- 10 Select Button
- 11 Li-ion Hot-Swappable Batteries
- 12 SD Card Slot
- 13 SIM Card Slot
- 14 Internal Radio
- 15 Tape Measure Hooks
- 16 2-pin Circular Power Input
- 17 9-pin Circular Multi-use
- 18 Radio Antenna Connector
- 19 Serial Port

S320 Survey Solution Features

- **SMS Communication**
Send and receive status messages via SMS
- **GSM Auto Corrections**
Inter-unit SMS, no fixed IP address required
- **GNSS Configurable**
Select your options:
L1 GPS
L1/L2 GPS
L1/L2 GPS + GLONASS
SBAS
L-band DGPS
- **Internal Radio SS/UHF & GSM Cellular**
Optional UHF 400 MHz or 900 MHz internal radio eliminates the need for cables on both base and rover setups
- **Cross-Compatibility**
Ready-fit solution for your existing brands of survey equipment regardless of what make/model you currently use



- **Dual Bluetooth Ports**
Connect a data collector while connecting an external device like a CDMA modem at the same time
- **Dual hot-swap batteries**
Includes two lithium ion batteries, which provides more than 10 hours of battery life
- **2 GB SD Memory Card**
Removable SD card for data logging with powerful scripting capabilities
- **HQ Asset Tracking**
In conjunction with our HQ™ asset tracking software, you can keep track of your S320 from anywhere in the world

SureTrack™ Intelligence for RTK

Hemisphere GPS' exclusive SureTrack intelligence delivers superior RTK performance:

- Long-range RTK baselines
- Reliable RTK in congested environments
- Removes concerns of mixing GNSS data from various manufacturers
- With GPS-only base, rover can deliver complete GNSS performance where others may not
- RTK rover uses every satellite it's tracking, even satellites not tracked at the base



S320

GNSS Survey Receiver

GPS Receiver

Receiver Type:	Multi Frequency GNSS
Positioning Modes:	RTK, L-band DGNSS/HP/XP, SBAS, External RTCM, Autonomous
Channels:	270
RTK Formats:	CMR, CMR+, RTCM3, ROX
OmniSTAR Formats:	VBS, HP, XP, G2
Update Rate/Recording Interval:	Selectable from 1, 2, 4, 5, 10 Hz (20 Hz available)

Performance

Static Performance:	Horizontal 5 mm + 0.5 ppm	
DGPS Performance:	0.3 m	
Horizontal Accuracy:		
	RMS (67%)	2DRMS (95%)
RTK:	10 mm + 1 ppm	20 mm + 2 ppm
OmniSTAR HP:	0.1 m	0.2 m
SBAS (WAAS):	0.3 m	0.6 m
Autonomous, no SA:	1.2 m	2.5 m

Communication

Bluetooth:	Dual port
Radio GSM Options:	Integrated
	1 x GSM/GPRS
	1 x SS 900 MHz or UHF Range: 400 MHz
	CDMA capable

User Interface

LED Display:	8 status LED's with audible "buzzer" alarm
Buttons:	On/off, function select
Data Storage:	Removable SD/SDHC card, USB flash drive

Ports

	1 x Power Input (2-pin circular)
	1 x RS232 (9-pin Circular, multi-use)
	1 x RS232 (DSUB 9-pin)
	1 x Radio Antenna Connector

Environmental

Operating Temperature:	-30°C to +70°C (-22°F to +158°F)
Storage Temperature:	-40°C to +85°C (-40°F to +185°F)
Humidity:	Up to 100%
Enclosure:	IP67, EP455, waterproof, dustproof
Shock:	2 m (6.56') pole drop

Power

Battery:	2 x Li-ion 5.2 Ah total, 7.4V (10-hour hot-swappable battery life)
External Voltage:	9 to 32 VDC

Mechanical

Dimensions:	114 mm H x 197 mm D (4.49" H x 7.76" D)
Weight:	1.51 kg (3.33 lbs)
Material:	Lexan™ EXL resin



About Hemisphere GPS

Hemisphere GPS designs and manufactures innovative GNSS products for surveying, construction, marine, agriculture and other markets. The company is headquartered in Calgary, Alberta, with major product development, sales and marketing facilities in Arizona, Kansas and Brisbane, Australia. Hemisphere GPS is listed on the Toronto Stock Exchange (TSX) trading under the symbol "HEM" and is one of the TSX Cleantech designated companies.

Authorized Distributor:



HEMISPHERE GPS
4110 - 9th Street S.E.
Calgary, AB T2G 3C4
Canada

Phone: 403.259.3311
Fax: 403.259.8866
precision@hemispheregps.com
www.hemispheregps.com



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