

**Hemisphere**  
GPS



# S320

## GNSS Survey Receiver



- SMS Communication
- L-Band DGPS Support
- Internal Radio and Cellular Modem
- Auto Level Sensor

**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.



## Compatible with Other Survey Equipment

We designed S320 with compatibility in mind. The open source architecture of S320 makes it a ready-fit solution for your existing brands of survey equipment regardless of what make or model you currently use.



## SMS Communication

S320 is capable of sending real-time SMS text messages on such indicators as battery status, signal strength and positioning.



## Security Software and Asset Tracking

In conjunction with our HQ™ asset tracking software, you can keep track of your S320 from anywhere in the world.



## Select Your Options

- L1 GPS
- L1/L2 GPS
- L1/L2 GPS + GLONASS
- SBAS
- OmniSTAR®



- 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

## 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

## Internal Radio

With transmit and receive capabilities, S320's optional UHF 400 MHz or Spread Spectrum 900 MHz internal radio eliminates the need for cables on both base and rover setups. In addition, activating the internal GSM/GPRS modem makes S320 an ideal rover for network RTK. The modem is self contained within S320.



## Dual Bluetooth®

S320 is equipped with dual Bluetooth ports so you can connect a data collector while connecting an external device like a CDMA modem at the same time.

## Data Storage

With the SD/SDHC card slot secured behind the battery door, you can safely log large amounts of monitoring data, static observation data and extended survey projects onto the factory included 2GB memory card.



## Long Live S320

S320 comes standard with two long-life lithium ion batteries. That gives you more than 10 hours of battery life. The batteries are hot swappable so you can change either one during operation.

# S320

## GNSS Survey Receiver

### GPS Receiver

Receiver Type:	Multi Frequency GNSS
Positioning Modes:	RTK, OmniSTAR (VBS/HP/XP/G2), SBAS, External RTCM, Autonomous CMR, CMR+, RTCM3, ROX
RTK Formats:	VBS, HP, XP, G2
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:	
RTK:	RMS (67%) 2DRMS (95%)
OmniSTAR HP:	10 mm + 1 ppm 20 mm + 2 ppm
SBAS (WAAS):	0.1 m 0.2 m
Autonomous, no SA:	0.3 m 0.6 m
	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 LEDs 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 (-40°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:

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