

GRS-1 – GNSS RTK NETWORK RECEIVER



Dual Frequency GNSS receiver and PDA controller

- Internal L1 + L2 GPS + GLONASS
- Quad-band internal GSM Modem
- Fast 806 MHz XScale Processor
- Windows® Mobile 6.1
- 2.0 Megapixel Camera
- Bar Code Reader
- Internal Magnetic Compass

It's time.

Topcon's new GRS-1 is the world's first fully integrated dual constellation network enabled RTK rover system. It is an all-in-one handheld GNSS receiver and field controller with high-speed processor, increased memory, built-in camera, compass and bar code reading function.

Also integrated into the new system are SD memory card slot, internal GSM modem, and wireless connectivity via WiFi and Bluetooth® technology.

The GRS-1 (Geodetic Rover System) was designed with two primary system design goals: Smaller size and weight, and lower-than-expected cost.

The new receiver has DGPS capability with internal L1 antenna for use in GIS and Navigation, add the PGA-1 external antenna and connect to your local GNSS network via the internal modem, for dual frequency, dual constellation GNSS centimeter RTK accuracy!

The GRS-1 can even be used as a static post processed receiver system.

Unlimited Applications...

The GRS-1 can be operated as a Surveying and Engineering controller with TopSURV or Pocket 3D or for GIS applications with Topcon/ESRI software. The GRS-1 operates with the Windows Mobile™ operating system giving true PDA versatility.



Small in size and weight, yet fully integrated with all the features you need.



Built-in 2.0 Megapixel Camera with Bar Code Reader

The GRS-1 comes with a 2.0 megapixel camera with autofocus for taking geo referenced pictures. Store photos on-board with the 1 GB of Flash memory or use the external SD card slot for additional memory. The digital camera also doubles as a bar code reader. Scan information directly in Topcon's survey software or bespoke applications.



Internal Magnetic Compass

Utilizing compass bearing with GNSS positioning, the magnetic compass allows storing geo referenced photos with directional information.



Versatility in you hand

The GRS-1 is a truly versatile solution. With 1 GB internal memory expandable by SD card. Internal GSM modem allows connection to Network corrections, file data transfer, Internet or even e-mail.



RH-1 Radio Pack

Add the optional RH-1 Radio pack to expand the use of the GRS-1 to work with existing RTK Base radio systems where network corrections are either not available or not required. The addition of the RH-1 with its two extra batteries also extends the working time of the GRS-1.

Bluetooth® and WiFi

Built-in Bluetooth® wireless technology and WiFi connectivity come standard. No need for expensive upgrades or CF cards. Use your device mobile or in a Hotspot to surf the web, check weather or e-mail files back to the office.



All-in-one handheld Dual Frequency GNSS Receiver and Field Controller with high-speed processor, built-in camera, compass and bar code reading function



1 Stylus Holder / hand strap

2 Removable Rechargeable Li-ion Battery

3 SD Memory Slot – USB Port
Serial Port – Power Port

4 L1 Glonass and GPS Antenna

5 L1, L2 Dual Frequency external Antenna Port

6 Ultra Sharp Color TFT Touch Screen

7 Software Support for Survey, Engineering and GIS

8 Internal GSM Sim Card Enabled Modem

9 Internal Dual Frequency GPS + Glonass Receiver

Office Software

Topcon Tools provides a powerful post-processing, solution with an intuitive operator interface that's easy to use.

SurveyMaster is a powerful CAD solution from Topcon! Improve the efficiency of your data management.

TopSURV Onboard

- Large Graphical User Interface (GUI)
- Intuitive User Interface
- Graphical Stakeout
- Map View Data Collection
- Fast Job Management and Storage



It's time.

The Leader in Positioning Technology...

Topcon products that deliver unparalleled site-wide performance and integration. Topcon's history of technological advances and our reputation for superior reliability means there's no other company positioned to provide you with a better "Total Positioning Solution."

From survey to inspection Topcon, through our dealer network, provides the innovative technology that gives surveyors, civil engineers, contractors, equipment owners and operators the competitive edge by addressing such critical issues as increasing profits, quality craftsmanship, improving productivity, lowering operating costs, and enhancing job site safety.

Full positioning integration field-to-finish: That's the goal of Topcon. When it's time for you to step up to the next level, it's time to turn to Topcon.



The Leader in Customer Satisfaction...

To ensure that your Topcon instrument maintains peak performance, your local Topcon dealer offers factory trained and certified service technicians.

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SPECIFICATIONS

GRS-1		
GNSS Receiver	GPS + GLONASS	
Number of Channels	72 GPS + Glonass L1/L2 tracking	
RTK Accuracy	H: 10 mm + 1.0 ppm	V: 15 mm + 1.0 ppm
DGPS Accuracy	30 cm HRMS	
L1 Static Function	H: RMS 3 mm + 0.8 ppm	V: RMS 4 mm + 1.0 ppm
L1 PP Kinematic Function	H: RMS 10 mm + 1.0 ppm	V: RMS 15 mm + 1.0 ppm
WAAS/EGNOS	Yes	
CORS Beacon	Yes with BR-1	

SOFTWARE	
Onboard Software	TopSURV/Pocket 3D
Office Software (post processing)	Topcon Tools™, SurveyMaster
Microprocessor	XScale PXA320
Processor Speed	806 MHz
Operating System	Windows® Mobile 6.1
Memory	256 MB SDRAM · 1 GB Flash

FEATURES	
Cellular Capability	Internal GSM
Input/Output	Bluetooth®, USB, Serial, ANT, and Power
WiFi Connectivity	Standard (Internal, 802.11.b)
Display	3.7" VGA LCD
Built-in Camera	2.0 Megapixel, Bar Code Reader
Keyboard	3 Key plus Virtual Keyboard
Magnetic Compass	Internal, 4 degree accuracy
Expansion Connector	Weatherproof Communication Port

SPECIFICATION	
Battery Life	5 hrs while in GPS mode
Battery Type	2500 mAh Removable, Li-Ion Rechargeable
Dimensions	7.76" x 3.54" x 1.81" (197 x 90 x 46 mm)
RTK Rover kit	2.3 Kg
Weight	0.7 Kg
Environmental	IP66, 1 meter drop
Operating Temperature	-20° to 50°C Operating -10° to 50°C Operating with camera -30° to 60°C Storage



Your local authorised Topcon distributor is: