

# SOKKIA™

# GSR1200

## ENTRY-LEVEL GPS SYSTEM FOR SURVEYING



**Sokkia's GSR1200 entry-level GPS System offers centimeter-level accuracy, Sokkia reliability and simple operation. Plus, the GSR1200 is upgradeable to grow with your changing business.**

### Everything You Need for Centimeter-Level Accuracy

The GSR1200 provides centimeter-level survey performance. The system was designed for first time GPS buyers, so it's affordable, easy to use and complete. The system includes:

- two 12-channel, single-frequency GPS receivers with lightweight GPS antennas
- PRISM™ L1 software to graphically guide you through each step of your survey (modules include mission planning, PC data transfer and processing, least-squares adjustment, and a CAD module for survey analysis and plotting)

### GPS Productivity for Surveyors

GPS can increase your productivity over traditional optical instruments because it frees you from line-of-sight limitations. This means you can literally survey almost anywhere, at any time, as long as the sky is clear of obstructions.

The GSR1200 is ideal for control and boundary work. One person can quickly and easily establish a local network, which can free up crew members for other projects.

### Upgrade Options

As your business grows and your applications change, Sokkia's GSR1200 will grow along with you.

#### •Upgrade to Kinematic Surveying

Add an optional Husky FS/2 or HP200 handheld controller, and your GSR1200 can handle kinematic applications, such as topographic mapping, with ease—and with the same centimeter-level accuracy as the standard system. As you move along a site, the GSR1200 GPS receiver automatically records points that can be used later to create contours, boundaries or other mapping features.

#### •Upgrade to Real-Time Differential Surveying

To use your GSR1200 as either a real-time DGPS base station or field rover, simply add the optional RTCM input/output capability. An RTCM message will provide you with instant submeter accuracy while in the field for navigation applications.

#### •Upgrade to GIS Capability

For GIS work, add the software functionality of our GIR1000 System. This turns your GSR1200 survey system into one of the most capable GIS data collection tools available, with decimeter level performance for feature and attribute data collection.



## GSR1200 Specifications

### System Performance (RMS)

#### Static Surveys

- Horizontal: 1cm + 1ppm  
Vertical: 1.7cm + 1.7ppm  
Azimuth: 0.15 + 1.5/baseline length in km

#### Kinematic Surveys

- Horizontal: 1.5cm + 1ppm  
Vertical: 2.2cm + 1.7ppm  
Azimuth: 0.21 + 1.5/baseline length in km

#### Real-time DGPS

- Accuracy: <1 m (rms)

*Accuracies assume PDOP<4, min. of 5 satellites, following recommended procedures for static and kinematic surveys. High multipath areas and periods of high atmospheric activities will degrade accuracies.*

### Standard Features

- 12-channel "all-in-view" GPS receiver
- Lightweight
- Low power consumption
- 1 Mb memory for up to 37 hours of 6 satellite data at 20 sec. intervals (memory upgradeable to 2 or 5Mb)
- Single-button operation

### Accessories

- Standard: 1 serial port, compact GPS antenna, rechargeable receiver battery for 6 hours of operation, 2.3m antenna cable, battery charger, power/PC download cable, vertical antenna extension, backpack, calibrated H.I. tape, manuals
- Optional: 2 additional serial ports, session programming option, RTCM base/remote firmware, GIR1000 Software, additional Rechargeable battery, Husky FS/2 hand-held computer w/ Survey

Control software, Survey Control software for PC, HP200 hand-held computer w/ Survey Control software; UHF and spread spectrum radios, tripod, kinematic bipod and pole, shipping case

### GPS Receiver

- Tracking: 12 parallel channels, L1 C/A code & carrier
- Size: 1.9" H x 3.7" W x 6/5" D (4.8cm H x 9.4cm W x 16.5cm D)
- Weight: 1.5 lbs. (0.68kg)
- Power: 6-15 VDC, 3.5 watts
- Temperatures: Operating -40° to +131°F (-20° to +55°C); Storage -22° to +167°F (-30° to +75°C)
- Impervious to wind-driven rain and dust when cable is connected.*
- Update Rate: selectable 1-999 sec.
- Warranty: 1 year (extendable)
- Firmware Update: 1 year (extendable)
- Software Update: 1 year (extendable)

### Marine IV GPS Antenna (microstrip)

- Size: 7" Dia. x 3" H (17.8cm Dia. x 7.6cm H)
- Weight: 0.9 lbs. (0.4kg)
- Temperatures: Operating and Storage -40° to +160°F (-30° to +70°C)

*Impervious to wind-driven rain and dust*

### HUSKY FS/2 Controller (optional)

- General: MS-DOS based handheld computer, 8-line x 40-character backlit LCD screen, separate alpha and numeric keypads, die-cast magnesium alloy case

- Size: 9.3" x 5" x 1.7" (23.6cm x 12.7cm x 4.3cm)
- Weight: 1.6 lbs. (0.7kg)
- Temperatures: Operating -22° to +130°F (-30° to +55°C); Storage -22° to +140°F (-30° to +60°C)

*Waterproof against accidental immersion. Designed to withstand 6 ft. (2m) drop.*

### PRISM™-L1 Software (optional)

- Pre-mission planning for satellite availability
- Static and kinematic processing algorithms which produce precise baseline vectors and station positions
- Least-squares adjustment to facilitate blunder detection and improve positional accuracies

### Upgrades

- 2 or 5Mb extended memory
- Kinematic surveying upgrade kit includes Husky FS/2 hand-held controller with Survey Control software and multi-use data cable
- Real-time Differential GPS upgrade kit includes Husky FS/2 hand-held controller with Survey Control software, multi-use data cable, RTCM SC-104 input/output, and NMEA 0183 output
- GIR1000 GIS Submeter & Decimeter upgrade kits include Husky FS/2 hand-held controller with FAMLOG™ software; GIR1000 Processing software, and multi-use data cable

Design and specifications are subject to change without notice.

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