

Equipment List For GNSS Networks and Reference Stations



- when it has to be right



GNSS Reference Station with GPS Spider Software

Essential Items:

For Data logging only:

- a - Power supply
- e - GPS receiver
- f, g, h - optional radome, GPS Antennas,
- i, j - Antenna cable, optional surge arrester
- k - CF Card
- o - PC running GPS Spider software
- q - Cable GPS receiver to PC or communication device

Note:

GPS antenna has to be set up on pillar or fixture with 5/8 inch thread.

For transmitting RTK/DGPS data:

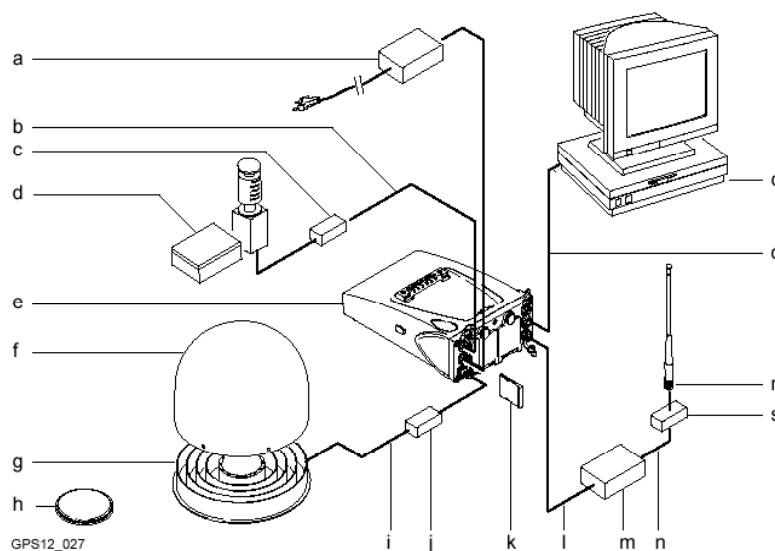
- l - Cable from GPS receiver to modem
- m - Radio/GSM modem
- n - Cable from modem to antenna
- r - Radio/GSM antenna
- s - optional surge arrester

Note:

A mount is needed to set up radio antenna .
Choice of radio modem may depend upon radio modems used by RTK/DGPS rovers. GSM phone may be used instead of radio modem.

Optional external devices:

- b - Interface cable
- c - optional DB9 surge arrester with 12V DC pass through
- d - Meteorological sensor
- d - Tilt sensor

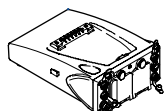


- Regional and local Leica reference station support specialists will help you selecting the optimal equipment configuration.
- A support and maintenance contract is strongly recommended for all reference station systems.

GNSS Receivers and Antennas

1. GNSS Receivers

Select the GNSS receiver



- 744 589 GRX1200 Lite, Permanent GPS Dual Frequency Reference Station Receiver for RTK-only with TX1200 total stations with ATX1230 smart antenna
- 733 246 GRX1200 Classic, Permanent GPS Dual Frequency Reference Station Receiver
- 733 248 GRX1200 Pro, Permanent GPS Dual Frequency Reference Station Receiver, Professional, with Event Input, PPS Output, Extern. Frequency Input and Ethernet connectivity
- 748 102 GRX1200 GG Pro, GPS/GLONASS Dual Frequency Reference Station Receiver, Professional, with Event Input, PPS Output, Extern. Oscillator Input and Ethernet connectivity. Includes L2C. GLONASS is enabled every Wednesday. Can be upgraded to a full-time GPS/GLONASS receiver with GSW 567

Can also be used

- Surveying receiver
- 733 243 GX1210, GPS Single Frequency Survey Receiver
- 733 244 GX1220, Geodetic GPS Dual Frequency Receiver
- 733 245 GX1230, Geodetic GPS Dual Frequency RTK Receiver
- 747 956 GX1230 GG, Geodetic GPS Dual Frequency RTK Receiver with GLONASS option
- Monitoring receiver
- 748 877 GMX902, GPS Dual Frequency Receiver for Monitoring Applications

Purchasable Options

- 751 225 GSW567, GLONASS option for GRX 1200 GG Pro. Without the GLONASS option, GLONASS is only enabled on Wednesdays.
- 752 215 GSW578, FTP Push and RINEX option for GRX1200 Classic/Pro. For onboard RINEX conversion and scheduled FTP Push of raw data and RINEX files.
- 752 216 GSW579, Campaign option for GRX1200 Classic/Pro. Static raw data logging can be configured and started in the field with the RX1210 or RX1210T controller. Without this option, the GRX web interface or GPS Spider are needed for raw data logging.

The receivers types GX1210, GX1220, GX1230 require the following firmware option for operation with GPS Spider:

- 737 643 GSW421, GPS1200 extended OWI/LB2 remote control: Allows full sensor steering and communication via OWI/LB2 commands.

Extended warranty

- 89320 1 year extended warranty for GRX1200
- 89332 1 year extended warranty for GMX902 GPS monitoring sensor

Receiver Conversion

- 744 590 GSW475, Sensor upgrade from GRX1200 Lite to GRX1200 Classic

2. GNSS Antennas

Select the antenna for the receiver. Compact SmartTrack antennas are suitable for most geodetic applications. Choke ring antennas are for special applications, including high-precision geodetic surveying.

All antennas have a 5/8 inch thread. For set-ups on carriers with stub, a screw-to-stub adapter is needed for the antenna.

2.1 Choke ring, geodetic antenna

- | | |
|---------|---|
| 667 132 | AT504 dual-frequency choke-ring antenna for GPS receivers. Dorne Margolin, JPL design. Conforms to IGS 'type T' specification for GPS antennas. For GX1220 / 1230, GRX1200 and GMX902 Receivers |
| 755 267 | AT504 GG, GPS/GLONASS dual-frequency choke-ring antenna for GPS/GLONASS receivers. Dorne-Margolin antenna element, JPL design. Conforms to IGS "Typ T" specification for GPS antennas. For GX1220 / 1230, GRX1200 and GMX902 Receivers. |
| 667 140 | Weather-protection radome for AT504 choke ring antenna. |

2.2 Compact SmartTrack, geodetic antennas



- | | |
|---------|--|
| 747 958 | AX1202 GG, Dual Frequency GPS/GLONASS Antenna for GMX902, GX1220/1230 and GRX 1200 Series Receivers. |
| 733 251 | AX1201, Single Frequency Antenna for GX1210 Receiver |

2.3 Screw-to-Stub Adapter for GPS Antennas

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|---------|--|
| 667 217 | Screw-to-stub adapter for fitting GPS antenna on carriers with stub and poles with stub. |
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3. Antenna Cables

3.1 Short and Medium Length Antenna Cables

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|---------|--|
| 667 200 | 1.2m antenna cable. |
| 667 201 | 1.6m extension for antenna cable. |
| 724 969 | 1.8m antenna cable. To be used for the balanced all-on-the-pole setup. |
| 636 959 | 2.8 m antenna cable |
| 632 372 | 10 m antenna cable |

3.2 Extra Long Antenna Cables

- | | |
|---------|--------------------|
| 632 390 | 30m antenna cable. |
| 664 813 | 50m antenna cable. |
| 713 483 | 70m antenna cable. |
- Longer antenna cables and signal amplifiers can be supplied on request.*

Power Supply, Data Logging and Transfer

4. Power Supply Equipment

4.1 Continuous 12V Power supply

A permanent 12V power supply is needed for a reference-station receiver

- 722 409 Power-supply unit for GPS receiver, for indoor use only, input 100V-240VAC 50-60HZ, output 12VDC, cable with 5-pin Lemo to connect to receiver.
Standard mains/line cable select from following list.

Select power cords for 12V power supply unit 722 409:

- 731 772 Power Cord for Dual Bay Charger GKL24 or GPS Power supply unit, US-Version.
731 773 Power Cord for Dual Bay Charger GKL24 or GPS Power supply unit, EU-Version.
734 232 Power Cord for Dual Bay Charger GKL24 or GPS Power supply unit, UK-Version.
734 233 Power Cord for Dual Bay Charger GKL24 or GPS Power supply unit, AUS-Version.
738 586 Power Cord for Dual Bay Charger GKL24 or GPS Power supply unit, CH-Version.

For suitable batteries and chargers please refer to the Leica GPS1200 Series equipment list.

4.2 Power Cables

To connect battery, car battery or alternate power supply to GPS receiver.

- 722 411 Cable with protection fuse to connect 12V power supply to GPS receiver.
439 038 GEV71, 4m car battery cable connects GPS Receiver to 12V car battery.
560 130 1.8m cable, connects GEB171 external battery to GPS receiver.
636 972 0.5m cable, connects GEB171 external battery to GPS receiver.

To connect two independent external power supplies:

- 733 298 GEV172, 2.8m Y-cable connects GPS Receiver with two external power supplies.

5. Data Recording, Transfer & Receiver communication

Select the data recording medium. The normal medium is a CompactFlash card. At least one 32 MB CompactFlash card will be needed for each receiver.

For direct data transfer from CompactFlash cards, use the card slot available on many PCs. If no card slot is fitted, a card reader will be needed.

5.1 CompactFlash Cards and Card Reader



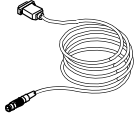
- 734 275 MCF64, Compact Flash card 64MB
733 257 MCF256, CompactFlash card 256 MB
745 995 MCF1000, CompactFlash card 1 GB
733 258 MCFAD1, CompactFlash PC Card adapter



- 733 259 MCR5, Card reader for CompactFlash card
667 072 Card reader for flash and SRAM PCMCIA cards, power from PC

5.2 Data Transfer and Receiver communication cables

Essential cable, at least one should be ordered for each GPS receiver.



Direct serial connection:

- 733 280 GEV160, 2.8m Data transfer cable. Connects GPS1200 receiver Ports 1, 2 and 3, RX1220 or GMX902 to PC for data transfer, firmware upload etc. Lemo to 9 pin RS232 serial connector.
- 733 282 GEV162, 2.8m Data transfer cable. Connects GPS Receiver RX Controller Port to PC for data transfer, firmware upload etc.. Lemo to 9 pin RS232 serial connector.

Modem connection:

- 563 809 GEV113, 2.8m Modem cable. Connects GPS1200 receiver Ports 1, 2 and 3, or GMX902 to modem (LEMO 8 Pin to RS232 9 Pin male).
- 736 915 GEV191, 2.8m Modem cable. Connects GPS1200 receiver RX Controller Port to modem (LEMO 8 Pin to RS232 9 Pin male).

Network connection:

- 733 290 GEV168, 5.0m cable, connecting GRX1200 Pro Receiver with Ethernet LAN / RJ45 (ruggedised connector to GPS receiver).

Longer cables on request.

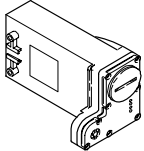
For Transmitting RTK /DGPS data

Use a suitable radio. The choice of radio may depend on radios used at rover units.
Set up the radio antenna as high as possible.

6. Radio Modem, Radio Antennas and Accessories

For use with GRX1200 Series for real-time or DGPS

6.1 Satellite Radio Modems and Accessories



- | | |
|---------|---|
| 733 275 | GFU14-0, Satellite 3AS radio modem (433.525 MHz, 25.0 kHz channel spacing, 0.5 W) already integrated into housing, fits on side of GPS Receiver. |
| 733 276 | GFU14-1, Satellite 3AS radio modem (406.425 MHz, 25.0 kHz channel spacing, 1.0 W) already integrated into housing, fits on side of GPS Receiver. |
| 738 272 | GFU14-2, Satellite 3AS radio modem (445.000 MHz, 12.5 kHz channel spacing, 0.5 W) already integrated into housing, fits on side of GPS Receiver. |
| 738 273 | GFU14-3, Satellite 3AS radio modem (443.000 MHz, 12.5 kHz channel spacing, 0.5 W) already integrated into housing, fits on side of GPS Receiver. |
| 738 274 | GFU14-4, Satellite 3AS radio modem (440.550 MHz, 25.0 kHz channel spacing, 0.5 W) already integrated into housing, fits on side of GPS Receiver. |
| 738 275 | GFU14-5, Satellite 3AS radio modem (458.150 MHz, 12.5 kHz channel spacing, 0.5 W) already integrated into housing, fits on side of GPS Receiver. |
| 738 276 | GFU14-6, Satellite 3AS radio modem (439.8625 MHz, 12.5 kHz channel spacing, 1.0 W) already integrated into housing, fits on side of GPS Receiver. |
| 639 968 | 1.8m Cable, 15 pin RS232 to 8 pin LEMO. Connects Satellite radio modem to GPS receiver. Only required if housing not used. |

6.1.1 Programming Cable for Satellite Radio Modem

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|---------|--|
| 733 297 | GEV171, 1.8m cable to program the Satellite 3AS radio modem inside the GFU14 housing |
|---------|--|

6.2 Pacific Crest Radio Modems

Pacific Crest Radio Modems must be ordered directly from your local Pacific Crest Office or Representative.

PDL receive only modems built into the Leica GFU radio housing with 12.5 or 25kHz channel spacing within the following frequency bands are available:

- 410 - 430MHz
- 430 - 450MHz
- 450 - 470MHz
- 223 - 235MHz

6.3 Gainflex Radio Antennas

Select according to frequency of radio modem



- | | |
|---------|---|
| 639 964 | Gainflex radio antenna, frequency range 400 – 435 MHz |
| 667 243 | Gainflex radio antenna, frequency range 435 – 470 MHz |

6.4 Antenna Cables Connecting Radio Modem to Gainflex Radio Antenna

Note that the cables are the same as for GPS antennas.

667 200	1.2m antenna cable.
636 959	2.8m antenna cable.
632 372	10 m antenna cable
667 201	1.6m extension for antenna cable.

6.5 GFU Connection Cable

733 288	GEV167, 0.5m, connects System 500 GFU housing to GRX1200 / GRX1200 Pro GPS Receiver
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6.6 Modem Cables

563 809	2.8m Modem cable. Connects GPS1200 receiver Ports 1, 2 and 3 to modem (LEMO 8 Pin to RS232 9 Pin male).
736 915	GEV191, 2.8m Modem cable. Connects GPS1200 receiver RX Controller Port to modem (LEMO 8 Pin to RS232 9 Pin male).

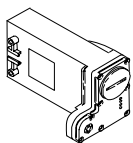
6.7 Accessories Needed to Set-up Gainflex Radio Antenna on Telescopic Rod



667 228	Telescopic rod with 5/8 inch screw. Fits in base 667236.
667 220	Arm 3cm long, screws on telescopic rod. Gainflex antenna fits on arm. Antenna cable connects to arm.
734 388	GAD46, Double arm adapter, screws on telescopic rod. Allows to connect up to 2 mobile phone/radio antennas and up to 2 antenna cables on arm.
667 236	Base with 5/8 inch screw, for setting up telescopic rod on tripod.

7. Mobile Phones and Accessories

7.1 Mobile Phones



733 278	GFU17, Housing with Siemens MC45 mobile phone (900, 1800, 1900 Mhz), fits on side of GPS Receiver.
744 754	GFU19, US CDMA cellular phone Multitech MTMMC-C, integrated into housing, fits on side of GPS1200 receiver.
750 243	GFU25, CDMA cellular phone for Canada, Multitech MTMMC-C-N12 for Bell Mobility network, integrated into housing, fits on side of GPS1200 receiver.
750 242	GFU24, Housing with Siemens MC75 GSM/GPRS Module (Quad-Band GSM 850/900/1800/1900 MHz), fits on side of GPS Receiver.

7.2 Antennas for Mobile Phones

667 237	Antenna for 900/1800 MHz mobile network.
734 756	GAT5, Antenna for US mobile network (800/1900MHz).

Other Accessories

8. Receiver Firmware Maintenance

734 393 GSW380, One year maintenance for GPS1200 firmware and application software.

A separate comprehensive support and maintenance contract for the complete Reference Station solution is strongly recommended.

9. Cables for pps output , event input, external frequency input

667 744 2m pps output cable for GPS receiver, with BNC connector
403 448 2m event input cable for GPS receiver, with BNC connector
733 293 GEV169, 2.0m cable, connecting GPS Receiver with External Oscillator device.

10. To mount GPS receiver

Holder for fixed mounting of GPS receiver.

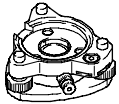
742 005 GHT53, Holder for GRX1200 Series or GX1230, GX1220, GX1210. For attaching the receiver to wall bench, table. etc.

11. To set up GPS Antenna

Screw antenna directly onto a 5/8inch screw, or use tribrach + carrier.

11.1 Tribrachs

Tribrach with optical plummet is needed for GRT144 and GRT146 carriers. Tribrach without optical plummet is needed for SNLL laser plummet carrier.

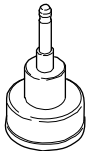


667 307 Tribrach GDF122 PRO, with optical plummet, pale green.
667 308 Tribrach GDF112 BASIC, with optical plummet, pale green/red.
667 304 Tribrach GDF121 PRO, without optical plummet, pale green.
667 305 Tribrach GDF111 BASIC, without optical plummet, pale green/red.

11.2 Carriers

The GRT146 carrier has a 5/8" screw. The GPS antenna screws on directly.

The GRT144 and SNLL carriers have a stub fitting. The GPS antenna must be fitted with a screw-to-stub adapter for setting-up on these carriers.



667 216 GRT146 Carrier with 5/8 inch screw, GPS antenna screws on directly.
667 313 Carrier GRT144 for GPS antenna, EDM reflectors and target plates, pale green.
667 316 SNLL121, Sensor nadir laser plummet, pale green, with user manual.

12. Controller

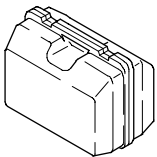
Display and keyboard for GPS receiver. Typically not needed for receiver connected to PC with GPS Spider Software.

The controller can connect directly to the GPS receiver or can be connected using a cable. For GRX1200 and GRX1200 Pro the Controller allows receiver configuration and shows the receiver status, but cannot be used to operate the receiver for data logging or transmitting RTK.



- 733 260 RX1210T, System 1200 Controller with touch screen, alpha keyboard, 2 x GDZ56 pens for touch screen, user manual. Can be used as GPS1200 Controller or TPS1200 remote control (with ext. battery and ext. radio).
- 738 375 RX1210, System 1200 Controller with alpha keyboard, user manual. Can be used as GPS1200 Controller or TPS1200 remote control (with ext. Battery and ext. Radio).
- 733 266 GHT41, Hand strap for RX1200 Series Controller with utility hook for attaching to belt or tripod.
- 733 283 GEV163, 1.8m controller cable connecting RX1200 Controller series to GX1200 GPS Receiver
- 733 284 GEV164, 1.0m cable, connecting the RX1200 Controller series to GPS Receiver. To be used for the balanced all-on-the-pole setup

13. Transport Container



- 733 267 GVP623, Hard container for GX1210 / GX1220 / GX1230 and GRX1200 Receivers, AX1201 / AX1202 Antenna, RX1200 Controller series, cables and accessories

Not needed for GRX1200 or GRX1200 Pro at reference station.

14. External devices and accessories

14.1 Meteorology sensor

Meteorology sensor for temperature, pressure and humidity with cable to GPS receiver, on request.

14.2 Tilt sensor

- 576 198 NIVEL210, inclination sensor with RS232 interface.

See also Equipment List "NIVEL210 and NIVEL220"

Other tilt sensor with cable to GPS receiver, on request

14.3 Lightning protection device

In line protection device, between GPS antenna and GPS receiver, on request

Please contact your local Leica Geosystems representative for recommended third party devices and accessories.

Software for Reference Stations and Networks

15. Leica GPS Spider Software

Leica GPS Spider makes use of the Microsoft SQL database. With Leica GPS Spider the free version Microsoft SQL Server 2005 Express is provided and will be installed, if no SQL server is available.

15.1 Leica GPS Spider Software

- 740 244 Leica GPS Spider, GPS Reference Station Software, general license with documentation. Supports full receiver control and configuration, manual downloads and firmware upgrade. Not protected.

15.2 Software Protection Keys for additional options

- 734 712 Software protection key (parallel) for single user licence.
- 734 713 Software protection key (USB) for single user licence.

15.3 Leica GPS Spider – Site Server, Protected Options

15.3.1 File Product Service Options

- 744 904 GPS Spider, File Products Service (FPS) option.
Provides automated data download and management for multiple sites with automated RINEX conversion, quality control, event logging, FTP transfer for distributing GPS Spider product files on the Internet. Option includes one (1) site/sensor license. For more site/sensor licenses for a GPS Spider FPS, order one or more "GPS Spider, FPS Additional Site License" as required.
- 734 613 GPS Spider, FPS Additional Site License.
Required for each GPS site/sensor that shall be used with GPS Spider File Product Service in addition to the default one (1) site/sensor, which is included as standard.

15.3.2 Other Site Server Options

- 734 614 Event E-mail & Messaging Option. For managing and distribution of GPS Spider event information via e-mail and/or network messaging.
- 744 908 GPS Spider RTK-Product Service for Site Server, not related to site licenses.
Provides output of RTK data for all connected sites, which are capable of streaming their GPS raw observation to the Site server. Supported real time message formats are standard RTCM (V2.x, V3.0) and proprietary formats (Leica, CMR, CMR+), through various communication channels (Serial, Modem or TCP/IP). This option is not required if RTK-products shall be created and output through the GPS Spider Network Server Advanced RTK-Proxy Service (744915).
- 744 912 GPS Spider, Positioning Site license.
Required for each GPS site/sensor that shall be used for the GPS Spider position processing. A minimum of two (2) of these licenses is needed for positioning.

15.4 GPS Spider - Network Server, protected Options

15.4.1 GPS SpiderNET, Options for Network RTK

- 744 913 GPS SpiderNET, Option for Network RTK.
Provides real-time network processing and error estimation with advanced network processing algorithm.
A basic RTK-Proxy server for real time network correction output, Leica MAX, in standard RTCM V3.0 (Network messages) format and individualised network corrections, Leica i-MAX, in standard (RTCM V2.3, 3.0) baseline message formats. Supports various communication channels (Serial, Modem or TCP/IP). Includes support for up to five (5) sites to be assigned in network processing. For each additional site one "SpiderNET Additional Site License" (744914) is needed.
- 744 914 GPS SpiderNET, Additional Site License.
Required for each GPS site/sensor that shall be assigned in GPS SpiderNET Network server processing in addition to the default five (5) sites/sensors that are included in the "GPS SpiderNET, Option for Network RTK" (744 913).

15.4.2 Other Network Server Options, not related to site licenses

- 744 915 GPS Spider, Advanced RTK-Proxy Service option.
Provides advanced distribution of real time single site or network corrections with automatic nearest site or cell selection based on rover location.
Includes NTRIP Caster functionality.
Supported real time formats are standard RTCM (V2.x, V3.0) or proprietary (Leica, CMR, CMR+) real time message formats, through various communication channels (Serial, Modem or TCP/IP).
Can be used with "GPS SpiderNET, Option for Network RTK" (744913).
Can also be used with GPS Spider Site server, instead of "GPS Spider, RTK-Product Service" (744908).
- 744 916 GPS Spider, RTK-User Management Service.
For advanced real-time user management with authentication, authorisation and accounting support, plus real time user auditing and creation of user activity logs.
Can only be used together with "GPS SpiderNET, Option for Network RTK" (744913) or "Advanced RTK-Proxy Service Option" (744915).
Recommended option if Advanced RTK-Proxy Server NTRIP Caster functionality is used.
- 744 917 GPS Spider, Re-Processing.
Provides full re-processing functionality for GPS Spider (Site server) and GPS SpiderNET (Network server) from raw RINEX or Leica binary raw data files (simulated sites). This option does not require any of the other GPS Spider protected options.

15.5 Leica GPS Spider Upgrades

- 755 816 GSW606, GPS Spider, V.2.2/Update V1.x/2.0
- 734 616 GPS Spider Site Server Upgrade from ControlStation. Full upgrade from existing ControlStation licence. Includes GPS Spider Site Server File Product Service option with one site licence.
- 734 617 GPS Spider Site Server Upgrade from CRNet Lite. Full upgrade from existing CRNet Lite licence. Includes already purchased number of CRNet site licences, GPS Spider Site Server File Product Service and Event E-mail & Messaging options.

16. Leica GNSS QC Software

Leica GNSS QC is a stand-alone software for quality control and analysis of GPS reference station data. It may run alongside Leica GPS Spider or other reference station software.

A hardware protection key must be ordered separately.

16.1. Leica GNSS QC Software

749 319 Leica GNSS QC, GPS Reference Station software with documentation. For data analysis and quality control of GPS reference station data. Dongle protected.

16.2 Leica GNSS QC Options

- 751 824 GNSS QC, Advanced Coordinate Analysis option. High speed calculation and graphing of displacement, messaging and limit checks for real time NMEA and GPS Spider Post Processing coordinate data. Dongle protected.
- 749 320 GNSS QC, Automatic Processing option. Automatic processing of data from a GPS reference station network including web page generation, graphs, reports and email messaging. Includes one site licence. Dongle protected.
- 749 321 GNSS QC, Additional site license for Automatic Processing option. Up to 256 additional site licences may be configured. Dongle protected

17. Leica SpiderWeb Software

Leica SpiderWeb is a web-server-based advanced solution for convenient distribution of GPS reference data over the Internet.

A hardware protection key must be ordered separately.

17.1. Leica SpiderWeb Software

751 352 Leica SpiderWeb Basic License, Software with documentation. Dongle protected. Requires as minimum one SpiderWeb site license.

17.2 Leica SpiderWeb Options

- 751 353 Leica SpiderWeb Site License. Required for each Site that shall be used in SpiderWEB.
- 755 125 Leica SpiderWeb GNSS QC Option.
Requires following GNSS QC Options on same software protection key:
- 749319 Leica GNSS QC Software with documentation.
- 749320 GNSS QC, Automatic Processing option.
1x per each SpiderWeb Site:
- 749321 GNSS QC, Additional site license.
- 755 126 Leica SpiderWeb Option for automated Coordinate Computation Service.
Requires also the following LGO Options on same software protection key:
- 734719 L1/L2 data-processing for GPS
- 734720 RINEX Import for GPS
- 734725 Design & Adjustment 3D

18. Product Maintenance, Support & Service



A powerful and competent worldwide service and support network backs up Leica Geosystems Networked Reference Station solutions.

Leica Geosystems' customers benefit from service and support that spans time zones and geography. Our Active Customer Care program has packages to suit your needs, whether you use our simplest distance measuring device or the most sophisticated integrated solution. Active Customer Care is a true partnership – it's our commitment to continue to provide the level of support and collaboration you have come to expect when you put your trust in Leica Geosystems.

True Global Coverage

Leica Geosystems has the most comprehensive service and support network in the world.

- 128 authorized Support & Service Centers
- Offices and Dealers covering every continent
- Customer Support and Information Hot Lines
- Transportation options to suit the most time critical requirements

Flexibility to meet your needs

Our range of service and support packages ensure we can satisfy your requirements.

- Service Levels range from routine maintenance to support for mission critical applications
- Web based service and support, allowing you to access our support organization when it suits you

First Class Training = First Class Productivity

Get your team up to speed with:

- Scheduled Training Courses
- Informative Seminars and Web Broadcasts
- Customized Training Courses
- Consultancy Services

Keep your Equipment up to date and in Top Condition

- Technical Service
- Repair
- All inclusive maintenance contracts
- Hardware and Software upgrades

Because a true partnership delivers maximum productivity

Since 1921, Leica Geosystems' customers have trusted us to provide the most reliable, innovative, robust measuring solutions. Most importantly, these customers continue to work with Leica Geosystems because we provide truly exceptional support and service anywhere around the globe. We help their employees get up to speed, we support them during their learning curve and we make sure that their equipment is in top condition. Leica Geosystems solutions guarantee a new level of productivity.

We are proud to announce the Active Customer Care program – taking the Leica Geosystems service to an even greater new level.

Whether providing corrections from just a single reference station, or an extensive range of services from a nationwide RTK network – innovative reference station solutions from Leica Geosystems offer tailor-made yet scalable systems, designed for minimum operator interaction whilst providing maximum user benefit. In full compliance with international standards, Leica's proven and reliable solutions are based on the latest technology.

Precision, value, and service from Leica Geosystems.

When it has to be right.

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