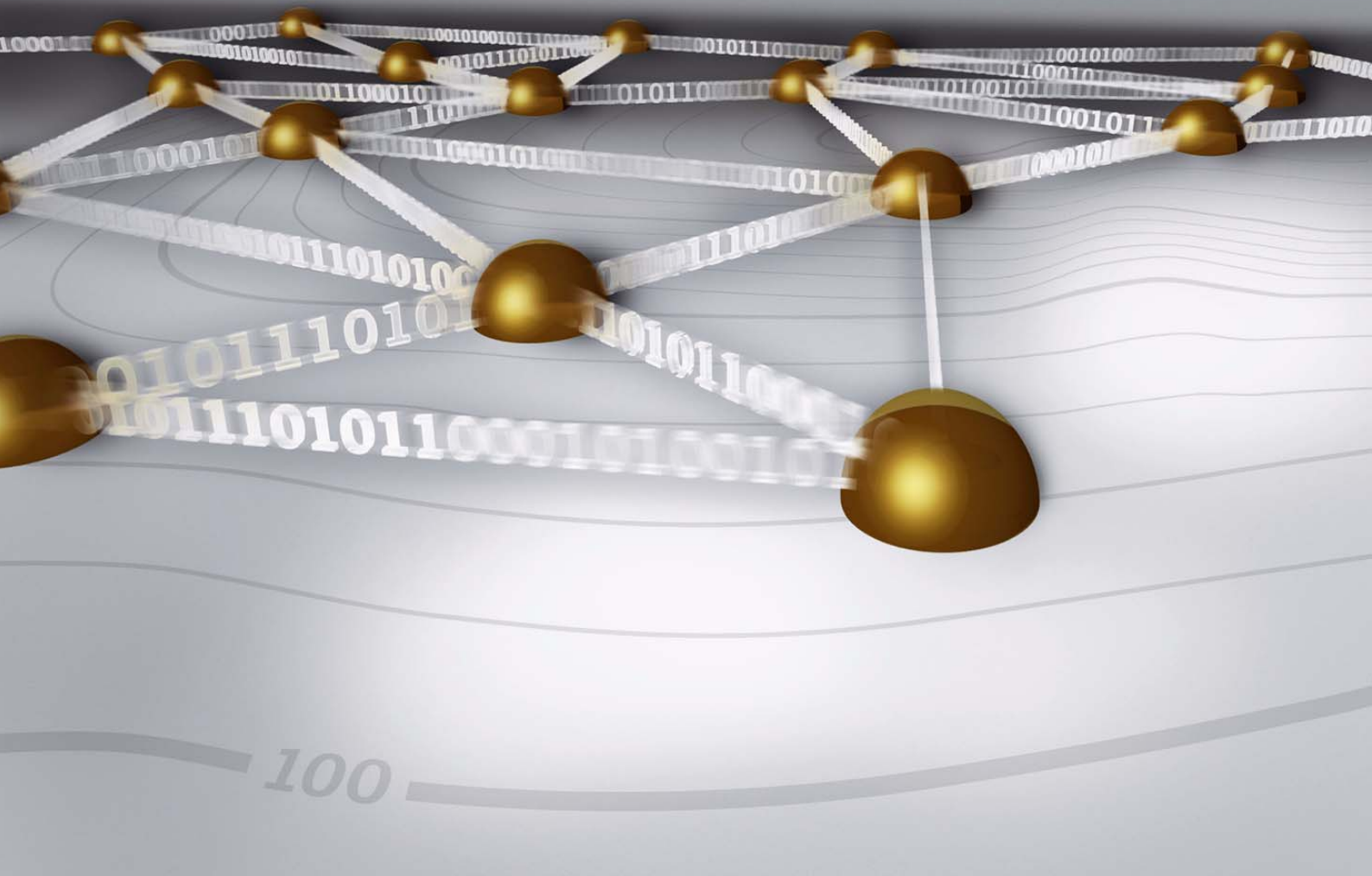


Leica Spider Equipment List



- when it has to be **right**

Leica
Geosystems

Table of Contents

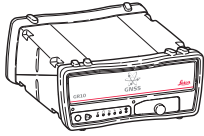
GNSS Receivers	5
1 GNSS Receiver	5
1.1 GR GNSS Receiver Series	5
1.2 Purchasable Options for GR10/GR25	6
2 GRX1200+ Receiver Series	7
2.1 Purchasable Options for GRX1200+	7
2.2 Receiver Conversion for GRX1200+	7
3 GMX900 Series	7
3.1 GMX901 and GMX902 Receivers	7
3.2 Extended Warranty for GMX900 Receivers	7
GNSS Antennas and Antenna Cables	8
4 GNSS Antennas	8
4.1 Choke Ring Geodetic Reference Station Antenna	8
4.2 Geodetic Reference Station Antenna	8
4.3 Compact Geodetic Antenna	8
4.4 Extended Warranty for Antennas	8
5 Antenna Cables	9
6 Antenna calibration service	9
Power Supply, Data Logging and Transfer	10
7 Power Supply Equipment	10
7.1 Mains Power Supply	10
7.2 Power Cables	10
7.3 Batteries	10
8 Data Storage and Data Transfer	11
8.1 Memory Devices	11
8.2 Card Reader	11
8.3 Data Transfer Cables	11
RTK/DGPS Modems and Antennas	12
9 Slot-in Devices	12
10 External Serial Devices	12
10.1 Satellite Radio Modems	12
10.2 Pacific Crest Radio Modems	12
10.3 Satellite High Power Radios	12
10.4 Mobile Phones	13
11 External RTK Antennas	13
11.1 External RTK Antennas	13
11.2 External RTK Antenna Cables	13
11.3 Accessories for RTK antennas	14
Accessories for Permanent Installations	15
12 Holder and Mounting Kits for GR10/GR25 and GRX1200+	15
13 Cables for PPS Output, Event Input, External Frequency Input	15
14 External Devices and Accessories	15
14.1 Meteorology Sensor	15
14.2 Tilt Sensor	15

Accessories for Campaign Use	16
15 Mounting for Campaign Use	16
15.1 Tribrachs for Mounting GNSS Antennas	16
15.2 Carriers for Mounting GNSS Antennas	16
16 GNSS/GIS Field Controller for Campaign Use	16
16.1 GNSS/GIS Field Controller for GR10/GR25	16
16.2 Connector Modules for CS10/CS15 Field Controller	16
16.3 Internal Batteries for CS10/CS15 Field Controller	17
16.4 Docking Station for CS10/CS15 Field Controller	17
16.5 Additional Power Accessories for CS10/CS15 Field Controller	17
17 CS09 Field Controller for Campaign Use	17
17.1 CS09 Field Controller for GRX1200+	17
17.2 Data Transfer Cables for CS09 Field Controller	17
17.3 Internal Batteries for CS09 Field Controller	17
17.4 Hard Container and Hand Strap for CS09 Field Controller	18
18 Power Supply for Campaign Use	18
18.1 Batteries for Campaign Use	18
18.2 Battery Chargers for Campaign Use	18
Software	19
19 Software Protection Keys (Dongle) for Protected Options	19
20 Leica GNSS Spider Software	19
20.1 Leica GNSS Spider Software	19
20.2 Leica GNSS Spider – Site Server, Protected Options	19
20.3 Leica GNSS Spider - Network Server, Protected Options	20
21 Leica SpiderQC Software	21
21.1 Leica SpiderQC Software	21
21.2 Leica SpiderQC Options	21
22 Leica SpiderWeb Software	22
22.1 Leica SpiderWeb Software	22
22.2 Leica SpiderWeb Protected Options	22
Services for GNSS Networks and Reference Stations	23
23 Leica CrossCheck	23
23.1 Single Computation Service	23
23.2 Monitoring Service	24
24 Other Services	24
24.1 Commissioning / Installation / Customizing	24
24.2 Training	24
25 Active Customer Care	25
26 Customer Care Packages	25
Suggested GNSS Setups	26
27 GR10 Network RTK	26
28 GR25 Network RTK	27
29 GR10 Single Base RTK - Direct RTK Output via Radio/GSM/GPRS/UMTS	28
30 GR25 Single Base RTK - Direct RTK Output via Radio/GSM/GPRS/UMTS	29
31 GR10 Campaign - Dual Battery	30
32 GR25 Campaign - Tripple Battery	31
33 GR25 Single Base RTK - High Power Radio	32

GNSS Receivers

1 GNSS Receiver

1.1 GR GNSS Receiver Series




GR10		
774 409	GR10 Basic	L1/L2 GPS reference receiver, 1Hz logging and streaming, 120 channels, external oscillator input and ethernet connectivity. Includes L2C/L2P tracking in parallel.
778 848	GR10 Performance	L1/L2 GPS reference receiver, 1Hz logging and streaming, 120 channels, external oscillator input and ethernet connectivity. Includes L2C/L2P tracking in parallel. Includes as standard the RINEX, FTP Push and Multi-Client options.
778 849	GR10 Professional	L1/L2/L5 GPS/GLONASS/Galileo reference receiver, 1Hz logging and streaming, 120 channels, external oscillator input and ethernet connectivity. Includes L2C/L2P tracking in parallel. Includes as standard the RINEX, FTP Push, Multi-Client, GPS L5, GLONASS and Galileo options.
GR25 Bluetooth		
774 410	GR25 Basic	GR25 Basic, GNSS reference receiver with 1Hz raw data logging and streaming, including PPS Output, External Oscillator, USB Host and Client, Battery Slot, Bluetooth and Ethernet connectivity.
789 054	GR25 Performance	GR25 Performance, GNSS reference receiver. As for the GR25 Basic but with the following options included: Multi Client, RINEX and FTP Push.
789 055	GR25 Professional	GR25 Professional, GNSS reference receiver. As for the GR25 Performance but with the following options included: GNSS Signals (GPS L5, GLONASS L1 and L2, Galileo E1, E5ab, AltBOC).
GR25 WLAN		
799 085	GR25W Basic	GR25W Basic, GNSS Reference Receiver with 1Hz raw data logging and streaming, including PPS Output, External Oscillator, USB Host and Client, Battery Slot and Ethernet connectivity. WLAN ready, needs GRL120 WLAN option for using WLAN connectivity.
799 088	GR25W Performance	GR25W Performance, GNSS Reference Receiver. As for the GR25W Basic but with the following options included: Multi Client, RINEX and FTP Push.
799 090	GR25W Professional	GR25W Professional, GNSS Reference Receiver. As for the GR25W Performance but with the following options included: GNSS Signals (GPS L5, GLONASS L1 and L2, Galileo L1, E5ab, AltBOC).

	GRX1200+ (766 730)	GRX1200+ GNSS (766 733)	GR10 Basic (774 409)	GR10 Performance (778 848)	GR10 Professional (778 849)	GR25 WLAN Basic (799 085)	GR25 WLAN Performance (799 088)	GR25 WLAN Professional (799 090)	GR25 Bluetooth Basic (774 410)	GR25 Bluetooth Performance (789 054)	GR25 Bluetooth Professional (789 055)
Supported GNSS Systems											
GPS L1 & L2 (including L2C)	●	●	●	●	●	●	●	●	●	●	●
GPS L5	-	○	○	○	●	○	○	●	○	○	●
GLONASS L1 & L2	-	○	○	○	●	○	○	●	○	○	●
GLONASS L2c	-	-	●	●	●	●	●	●	●	●	●
Galileo E1/E5a/E5b/AltBoC	-	○	○	○	●	○	○	●	○	○	●
Position update & data recording											
1Hz logging and streaming	●	●	●	●	●	●	●	●	●	●	●
2-20Hz logging and streaming	●	●	○	○	○	○	○	○	○	○	○

	GRX1200+ (766 730)	GRX1200+ GNSS (766 733)	GR10 Basic (774 409)	GR10 Performance (778 848)	GR10 Professional (778 849)	GR25 WLAN Basic (799 085)	GR25 WLAN Performance (799 088)	GR25 WLAN Professional (799 090)	GR25 Bluetooth Basic (774 410)	GR25 Bluetooth Performance (789 054)	GR25 Bluetooth Professional (789 055)
50Hz logging and streaming	-	-	○	○	○	○	○	○	○	○	○
RINEX logging	○	○	○	●	●	○	●	●	○	●	●
Additional features											
FTP Push	○	○	○	●	●	○	●	●	○	●	●
Extended Formats	●	●	○	○	○	○	○	○	○	○	○
Multi-Clients/Ntrip caster (Ntrip caster available on GR10/GR25 only)	○	○	○	●	●	○	●	●	○	●	●
Wake Up	●	●	○	○	○	○	○	○	○	○	○
Campaign	○	○	●	●	●	●	●	●	●	●	●
Extended OWI (Not required on GR10/GR25 for use with GNSS Spider)	●	●	○	○	○	○	○	○	○	○	○
WLAN	-	-	-	-	-	○	○	○	-	-	-
Site monitor	-	-	○	○	○	○	○	○	○	○	○
● Standard ○ Optional - Needs Upgrade											

1.2 Purchasable Options for GR10/GR25

774 411	GRL100	GPS_L5 option for the GR GNSS receiver.
774 422	GRL101	GLONASS_L1+L2 option for GR GNSS receiver.
774 424	GRL103	Galileo_L1_E5ab_AltBOC option for GR GNSS receiver.
774 428	GRL107	RINEX option for GR GNSS receiver.
774 432	GRL111	FTP Push option for GR GNSS receiver.
774 429	GRL108	Extended Formats option for GR GNSS receiver. Includes BINEX / CMR / CMR+
774 430	GRL109	2-20Hz logging and streaming option for GR GNSS receiver.
774 431	GRL110	50Hz logging and streaming option for GR GNSS receiver.  Requires GRL109.
774 436	GRL115	Multi-Client and Ntrip caster option for GR GNSS receiver.
778 851	GRL116	Wake-Up option for GR GNSS receiver.
774 435	GRL114	Site Monitor option for GR GNSS receiver.
805 687	GRL120	GR25 WLAN option (for GR25 WLAN ready units only).

2 GRX1200+ Receiver Series




2.1 Purchasable Options for GRX1200+

751 225	GSW567	GLONASS option for GRX1200 GG Pro and GRX1200+ GNSS receiver. Without the GLONASS option, GLONASS is only enabled on Wednesdays.
766 734	GSW684	Galileo option for the GRX1200+ GNSS receiver.
768 855	GSW707	GPS L5 option for the GRX1200+ GNSS and GRX1200+ receiver.
6002845		Multi-GNSS Signal Bundle for the GRX1200+ GNSS receiver, consists of GLONASS option, Galileo option and the GPS L5 option.
752 215	GSW578	FTP Push and RINEX option for GRX1200 Pro Series and GRX1200+ Series. For onboard RINEX conversion and scheduled FTP Push of raw data and RINEX files.
752 216	GSW579	Campaign option for GRX1200 Series. Static raw data logging can be configured and started in the field with the CS09 controller. Without this option, the GRX web interface or GNSS Spider are needed for raw data logging.
755 277	GSW601	RTK Multiplexer Option GRX1200 Pro Series and GRX1200+ Series. Allows up to 10 rover connections from the LAN/WAN to an RTK Stream from a single sensor NET port. Without this option only one rover at a time can connect to a sensor NET port transmitting RTK corrections.

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

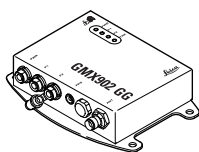
737 643	GSW421	GPS1200 extended OWI/LB2 remote control: Allows full sensor steering and communication via OWI/LB2 commands.
---------	---------------	--

2.2 Receiver Conversion for GRX1200+

758 420	GSW619	Receiver Upgrade from GRX1200 Pro to GRX1200 GG Pro incl. permanent GLONASS functionality.  This option is only available for GRX1200 Pro receivers with serial numbers between 355001 and 360000. No upgrade from GRX1200 Pro to GRX1200 GG Pro is available for receivers outside of this range of serial numbers. For all GRX1200 Pro and GRX1200 GG Pro receivers an upgrade to GRX1200+ is possible and needs to be done by service.
766 735	GSW685	Receiver Upgrade from GRX1200+ to GRX1200+ GNSS.  For full time GLONASS, Galileo and GPS L5 functionality, the respective software options need to be ordered additionally.  Upgrades for non GRX1200+ receivers (i.e. GRX1200 Pro, GRX1200 GG Pro) to GRX1200+ GNSS receivers need to be done by service.

3 GMX900 Series

3.1 GMX901 and GMX902 Receivers



773 974	GMX902 GNSS	GPS/GLONASS/Galileo multi frequency receiver
758 600	GMX902 GG	GPS/GLONASS dual frequency receiver
755 231	GMX901	GPS single frequency smart antenna

3.2 Extended Warranty for GMX900 Receivers

GMX902 GG and GMX902 GNSS

89332	1 year extended warranty for GMX902 GG/GNSS.
5301720	2 year extended warranty for GMX902 GG/GNSS.
5301721	Additional 1 year GMX902 GG/GNSS Warranty Extension.

GMX901

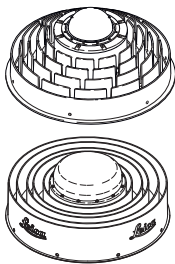
5301722	1 year extended warranty for GMX901.
5301723	2 year extended warranty for GMX901.
5301724	Additional 1 year GMX901 Warranty Extension.

GNSS Antennas and Antenna Cables

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

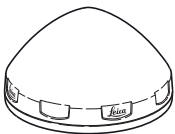
4 GNSS Antennas

4.1 Choke Ring Geodetic Reference Station Antenna



765 733	AR25	GNSS choke ring antenna for GPS/GLONASS/Galileo/Compass receivers. Includes Galileo E6 and L-Band signals. Dorne-Margolin antenna element.
765 734	GVP653	Weather-protection radome for AR25 GNSS choke ring antenna.
794 207	AR20	GNSS choke ring antenna for GPS/GLONASS/Galileo/Compass/QZSS receivers. Includes Galileo E6 and L-Band signals. Planar structure element and choke ring.
794 208	GVP705	Weather protection radome for AR20 GNSS choke ring antenna.

4.2 Geodetic Reference Station Antenna



773 758	AR10	GNSS reference station antenna for GPS/GLONASS/Galileo/Compass receivers. Includes Galileo E6 and L-Band signals. Built-in ground plane and integrated radome.
---------	-------------	--

4.3 Compact Geodetic Antenna



770 701	AS10	GPS/GLONASS/Galileo triple frequency surveying antenna.
---------	-------------	---

4.4 Extended Warranty for Antennas

AR10

5303389	1 yr AR10 Extended Warranty
5303390	2 yr AR10 Extended Warranty
5303391	Additional 1 yr AR10 Extended Warranty

AR25

5302680	1 yr AR25 Extended Warranty
5302681	2 yr AR25 Extended Warranty
5302682	Additional 1 yr AR25 Extended Warranty

AR20

5304398	1 yr AR20 Extended Warranty
5304399	2 yr AR20 Extended Warranty
5304400	Additional 1 yr AR20 Extended Warranty

5 Antenna Cables



Short cables

667 200	GEV141	1.2m antenna cable (5mm).
667 201	GEV142	1.6m extension for antenna cable (5mm).
724 969	GEV194	1.8m antenna cable (5mm).
788 145	GEV253	2m antenna cable (11mm).

Medium cables

636 959	GEV120	2.8m antenna cable (5mm).
632 372	GEV119	10m antenna cable (5mm).
788 146	GEV254	10m antenna cable (11mm).

Extra Long cables

632 390	GEV108	30m antenna cable (11mm).
664 813	GEV134	50m antenna cable (11mm).
713 483		70m antenna cable (11mm).

6 Antenna calibration service

Any antenna can be calibrated. Separate calibrations required with or without weather protection radome.

5002610	Antenna calibration service (GPS only).
5002611	Antenna calibration service (GPS+GLONASS).

Power Supply, Data Logging and Transfer

7 Power Supply Equipment

7.1 Mains Power Supply



Power supply for GR25, GR10, GRX1200+, GMX902


774 437	GEV242	Power supply for GR and GRX1200 receivers, for indoor use only, input 100V-240VAC 50-60HZ, output 24VDC, cable with 5-pin Lemo to connect to receiver. Standard mains/line cable select from following list.
722 409	GEV251	Power supply unit for GRX1200+, GR10 or GMX902 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.

Power cords for power supply unit 774 437 and 722 409

731 772	1.5m power cable. Allows receiver to be externally powered via the power jack. Usable in the US.
731 773	1.5m power cable. Allows receiver to be externally powered via the power jack. Usable in the EU.
734 232	1.5m power cable. Allows receiver to be externally powered via the power jack. Usable in the UK.
734 233	1.5m power cable. Allows receiver to be externally powered via the power jack. Usable in Australia.
738 586	1.5m power cable. Allows receiver to be externally powered via the power jack. Usable in Switzerland.


7.2 Power Cables

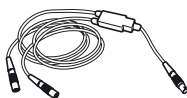
Cables to connect battery, car battery or alternate power supply

722 411	Cable with protection fuse to connect 12V power source to GRX1200+, GR10 or GMX902 receiver. Open ended to Lemo-1, 5 pin, male.
439 038	GEV71 4m car battery cable, connects battery cables Lemo-1, 5 pin, female to 12V car battery.  GRX1200+, GR10 and GMX902 receivers require 560 130 in addition.
560 130	GEV97 Power cable, 1.8m, connects GRX1200+ or GR10 receiver to external GEB171 battery. Lemo-1, 5 pin, male to Lemo-1, 5 pin, male.

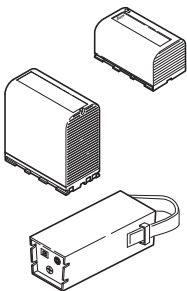


Y-cable to connect two power supplies

733 298	GEV172 Power cable, 2.8m, connects GRX1200+ or GR10 receiver to 2 external GEB171 batteries or two 722409 power supplies.  For GR10 this cable should only be used to connect any combination of 722 409 power supply or external batteries. To connect one 774 437 power supply, use the 774 438 Y cable.
774 438	GEV243 Y Cable, 2.8m, connects GR10 to 774 437 GR10 power supply and external battery. One Lemo-1, 5 pin male connector, two Lemo-1,5 pin female connectors or 722 409 power supply.



7.3 Batteries



Internal Battery for GRX1200+


733 270	GEB221 Lithium-Ion battery, 7.4V/4.4Ah/32.5Wh, rechargeable. To be used with GRX1200+ receiver.
---------	---

Internal Battery for GR25

754 834	GEB241 Lithium-Ion battery, 14.8V/4.8Ah/71.0Wh, rechargeable. To be used with GR25 server.
793 975	GEB242 Lithium-Ion battery 14.8V/5.8Ah/85.8Wh, rechargeable. To be used with GR25 server.

Battery for GRX1200+ and GR10/GR25

727 367	GEB171 External universal battery, NiMH, 12V/9Ah/108Wh, rechargeable.
---------	---

 For Chargers see section "18.2 Battery Chargers for Campaign Use".

8 Data Storage and Data Transfer

Select the data recording medium. The normal medium is SD card for the GR10/GR25 and CF card for the GRX1200+ series. At least one memory card is needed for each receiver to log data. The GR10/GR25 are able to stream data without the SD card present.

For direct data transfer from SD or CF cards, use the card slot available on many PCs. If no card slot is fitted, a card reader will be needed. Leica GNSS Spider and the onboard FTP server can also be used to download data.

8.1 Memory Devices



SD Cards

767 856	MSD1000	SD memory card 1GB for GR receivers.
776 232	MSD04	SD memory card 4GB for GR receivers.
789 139	MSD08	SD memory card 8GB for GR receivers.



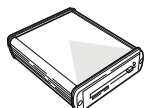
CF Cards

733 257	MCF256	CompactFlash card 256MB for GRX1200+ receiver.
745 995	MCF1000	CompactFlash card 1GB for GRX1200+ receiver.
772 567	MCF8000	CompactFlash card 8GB for GRX1200+ receiver.

USB Drive

765 199	MS1	USB memory stick, 1GB, for GR10/GR25, industrial grade.
---------	------------	---

8.2 Card Reader



767 895	MCR7	Card reader for SD/CF cards.
---------	-------------	------------------------------

8.3 Data Transfer Cables

Essential cables, at least one should be ordered for each GNSS receiver

Serial cables

733 280	GEV160	Serial data transfer cable, 2.8m, connects GRX1200+, GR25, GR10, GMX902 or CS09 to PC for data transfer, firmware upload etc. Lemo 8 to 9 pin RS232 serial connector.
733 282	GEV162	Serial data transfer cable, 2.8m, connects GRX1200+ receiver RX Controller Port to PC for data transfer, firmware upload etc. Lemo to 9 pin RS232 serial connector.

Modem cables

563 809	GEV113	2.8m Modem cable. Connects GRX1200+ receiver Ports 1, 2 and 3, GR10/GR25 or GMX902 to modem (Lemo 8 pin to 9 pin RS232 male serial connector).
---------	---------------	--

Network cable

733 290	GEV168	5.0m network cable. Connects GRX1200+ or GR10/GR25 receiver with Ethernet LAN / RJ45 (ruggedised connector to GNSS receiver).
---------	---------------	---

Antenna communication cables

750 073	GEV212	Interface Cable, 5m, GMX901 to unterminated, connects GMX901 to a custom installation.
743 389	GEV197	2.8m Y-cable. Connects GMX901 antenna to PC for data transfer (Lemo 8 pin to RS232 9 pin female), and to external power supply (Lemo 5 pin).

USB cable

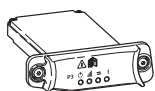
764 700	GEV223	1.8m USB Data Cable, USB A to Mini B, connects GR10/GR25 to a PC or CS10/CS15/CS25.
---------	---------------	---

RTK/DGPS Modems and Antennas

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.

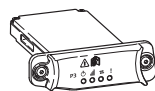
9 Slot-in Devices

For use with GR10 for transmitting RTK or DGPS corrections.



Satellite radio modules

788 725	SLR5-1	Satellite M3-TR1 403-470 MHz transmit/receive UHF radio module to be easily plugged into the GR receiver.
6002544		Configuration tool kit for programming Satellite SLR RTK radio modules; includes programming cable GEV231 and configuration software CD ROM.
SLR radios will be delivered pre-configured according to country-specific radio regulations. In countries where radios need to be configured locally, the configuration tool kit is to be used.		



Mobile phone modules

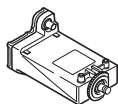
776 236	SLG1-2	5-Band (850/900/1800/1900/2100 MHz) Telit 3G GSM/GPRS/UMTS module. Provides full flexibility due to 5-band technology, supports all GSM, GPRS, EDGE and UMTS network providers. Can easily plugged into the GR receiver.
776 237	SLG2-2	4-Band (850/900/1800/1900 MHz) MC75i GSM/GPRS/EDGE module. Universal 4-band technology, supports GSM, GPRS and EDGE network providers. Can easily plugged into the GR receiver.

External high power radios such as Satellite Epic Pro (10, 35W), Pacific Crest (2, 35W) or GFU radios can be used for RTK communication instead of the slot-in RTK modems.

10 External Serial Devices

For use with GRX1200+ or GR10/GR25 for transmitting RTK or DGPS corrections. To connect a GFU device to GR10 requires the 733 288 cable.

10.1 Satellite Radio Modems



Satellite modems

767 859	GFU27	Satellite M3 TR1 403-470MHz RX/TX radio in GFU housing. Transceiver UHF radio module. User manual and CE Declaration of Conformity included.
---------	--------------	--

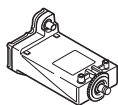
Cables for Satellite modems

639 968	GEV125	1.8m, 15 pin RS232 to 8 pin LEMO. Cable for Satellite radios without GFU housing to be connected to GNSS receiver.
---------	---------------	--

10.2 Pacific Crest Radio Modems



Pacific Crest radio modems must be ordered directly from your local Pacific Crest office or representative.



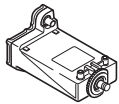
PDL receive only modems built into the Leica GFU radio housing with 12.5 or 25kHz channel spacing within the following frequency bands are available:

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

10.3 Satellite High Power Radios

789 636	HPR2	Satellite-EASY Pro 35W high power radio, 403-473 MHz RX/TX radio. Includes power cable for connecting to 12V battery.
636 805	GEV114	Data cable to connect Satellite 3ASd Epic Pro (35W) high power radio to GS GNSS receiver.

10.4 Mobile Phones



750 243	GFU25	CDMA cellular phone for Canada, Multitech MTMMC-C-N12 for Bell mobility network, integrated into housing, fits on side of GRX1200+ receiver.
767 860	GFU28	5-Band (850/900/1800/1900/2100MHz) Telit 3.5G GSM/GPRS/UMTS module in GFU housing. Provides fully flexibility due to 5-band technology and therefore global compatible to all GSM, GPRS, EDGE and UMTS network providers.
783 170	GFU28-1 (US)	5-Band (850/900/1800/1900/2100 MHz) Telit 3G GSM/GPRS/UMTS module for US only. Provides fully flexibility due to 5-band technology and therefore compatible to GSM,GPRS,EDGE and UMTS network providers in US.
784 404	GFU28-2 (CAN)	5-Band (850/900/1800/1900/2100 Mhz) Telit 3G GSM/GPRS/UMTS module for Canada only. Provides fully flexibility due to 5-band technology and therefore compatible to GSM,GPRS,EDGE and UMTS network providers in US and CAN.
784 405	GFU28-3 (AUS)	5-Band (850/900/1800/1900/2100 Mhz) Telit 3G GSM/GPRS/UMTS module for Australia only. Provides fully flexibility due to 5-band technology and therefore compatible to GSM,GPRS,EDGE and UMTS network providers in Australia.
744 754	GFU19	US CDMA cellular phone Multitech MTMMC-C-N3 for Verizon network, integrated into housing, fits on side of GRX1200+ receiver.

11 External RTK Antennas

11.1 External RTK Antennas



Gainflex radio antennas

639 964	GAT1	Gainflex radio antenna (frequency range 400-435MHz).
667 243	GAT2	Gainflex radio antenna (frequency range 435-470MHz).

Antennas for mobiles phones

782 500	GAT18	Multiband GSM/UMTS Antenna for 850/1900MHz, for 900/1800MHz and for 2100MHz mobile networks.
---------	--------------	--

Antennas for Bluetooth (GR25 only)

762 858	GEV263	Bluetooth Antenna, reverse SMA for GR25 server.
---------	---------------	---

11.2 External RTK Antenna Cables



Cables for connecting Radio Modem to Gainflex Radio Antenna

667 200	GEV141	1.2m antenna cable.
636 959	GEV120	2.8m antenna cable.
632 372	GEV119	10m antenna cable.
667 201	GEV142	1.6m extension for antenna cable.

Special cables for external radios

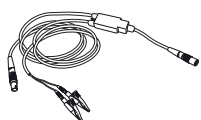
636 805	GEV114	Data cable to connect Sateline 3ASd Epic Pro (35W) high power radio to GR10 receiver.
762 026	GEV221	Y-cable, connects Sateline 3AS Epic Pro (10W) to GRX1200+ receiver and 12V car battery.
733 297	GEV171	1.8m Y-cable to program the Sateline 3AS radio modem inside the GFU14 housing.

GFU Connection cable

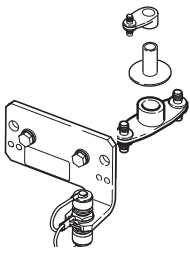
767 897	GEV232	Length 2.8 m, Allows Sytem1200 GFU housings to be connected to a GRX1200+ or GR10/GR25 receiver.
767 898	GEV233	Length 0.8 m, Allows Sytem1200 GFU housings to be connected to a GRX1200+ or GR10/GR25 receiver.

Modem cables

563 809		2.8m Modem cable. Connects GRX1200+ receiver Ports 1, 2 and 3 or GR10/GR25, to modem (Lemo 8 Pin to RS232 9 Pin male).
---------	--	--



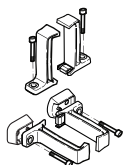
11.3 Accessories for RTK antennas



667 228	GAD32	Telescopic rod with 5/8" screw. Fits in base 667 236 and minipack 667 137.
667 220	GAD34	Arm 3cm long, screws on telescopic rod. Gainflex antenna fits on arm. Antenna cable connects to arm.
667 236	GHT36	Base with 5/8" screw, for setting up telescopic rod on tripod.
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.
779 108	GEV246	Wall mounting bracket. Fits antenna cable to Gainflex antenna.

Accessories for Permanent Installations

12 Holder and Mounting Kits for GR10/GR25 and GRX1200+



Holder for fixed mounting of GRX1200+ receiver

742 005	GHT53	Holder for GRX1200+ receiver. For attaching the receiver to wall bench, table, etc.
---------	--------------	---

Mounting kits for GR10 receiver

774 439	GEV249	Rack Mount Kit for GR10/GR25 receiver. For fitting the receiver to standard IT rack (requires 2 U in the rack).
774 440	GEV250	Wall Mount Kit for GR10/GR25 receiver. For attaching the receiver to a wall bench, table or cabinet.

Adjustable Tilt Monument Mount

8221829	SECO 2072-33	Adjustable Tilt Monument Mount. Stainless steel adapter with brass 5/8 x 11 adapted. Can be levelled by three adjusting screws with a tilt range of +/- 7 degrees. Adjustable in azimuth to permit orientation of the antenna to north.
---------	---------------------	---



This is a third party product of SECO Manufacturing Company Incorporated.

13 Cables for PPS Output, Event Input, External Frequency Input



667 744	GEV150	PPS output cable for GRX1200+ or GMX902 receiver, 2m long, connects the receiver time mark output to another device with BNC connector.
403 448	GEV42	2m cable, connects GRX1200+ receiver event input to another device with BNC connector.
789 061	GEV262	2m cable, connects GR25 event port to another device with BNC connector. Use GR25 serial port 2 connector.
733 293	GEV169	2m cable, with BNC connector. Connects GRX1200+ or GR10/GR25 receiver with External Oscillator device.

14 External Devices and Accessories

External meteo and tilt sensors can be connected to the GRX1200+ and GR10/GR25 receivers for various reference station and monitoring applications.

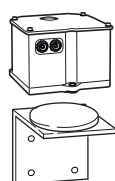


Please contact your local Leica Geosystems dealer for recommended third party devices and accessories.

14.1 Meteorology Sensor

788 147	GEV255	MET4A cable for GRX/GR receivers, 2.8m.
788 148	GEV256	MET4A cable for GRX/GR receivers, 10m.
788 149	GEV257	WXT520 cable for GRX/GR receivers, 2.8m.
788 150	GEV258	WXT520 cable for GRX/GR receivers, 10m.
Third party metrology sensor for temperature, pressure and humidity with cable to GNSS receiver on request. Information on supported meteo sensors is available from Leica Geosystems.		

14.2 Tilt Sensor

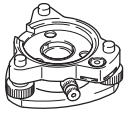


576 198	NIVEL210	Inclination sensor with RS232 interface.
749 916	GEV209	Cable, connects NIVEL210 to GRX1200+, GR10/GR25, 1.8m.
749 031	GHT59	Wall mounting kit for NIVEL200 series. Refer to the Structural Monitoring Equipment List for further Nivel accessories.
Third party tilt sensor with cable to GRX1200+. Information on supported tilt sensors is available on request.		

Accessories for Campaign Use

15 Mounting for Campaign Use

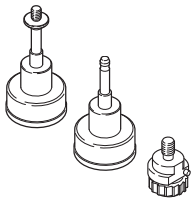
15.1 Tribachs for Mounting GNSS Antennas



667 304	GDF121	Tribach, without optical plummet, pale green.
667 307	GDF122	Tribach, with optical plummet, pale green.
667 308	GDF112	Tribach, with optical plummet, pale green/red.

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

15.2 Carriers for Mounting GNSS Antennas



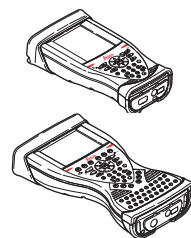
Carriers with 5/8" screw		
667 216	GRT146	Carrier with 5/8" screw, GNSS antenna screws on directly.
Carriers with stub		
667 313	GRT144	Carrier with stub, pale green.
667 217	GAD31	Screw-to-stub adapter for fitting GPS antenna on carriers with stub and poles with stub.
SNLL Carriers		
667 216	SNLL121	Sensor nadir laser plummet, pale green, with user manual.

The GRT146 carrier has a 5/8" screw. The GNSS antenna screws on directly. The GRT144 and SNLL carriers have a stub fitting. The GNSS antenna must be fitted with a screw-to-stub adapter for setting-up on these carriers.

16 GNSS/GIS Field Controller for Campaign Use

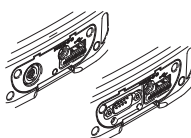
Display and keyboard for GNSS receiver. Typically not needed for receiver connected to PC with GNSS Spider Software or receiver with web interface (GRX1200+ and GR10) connected to LAN.

16.1 GNSS/GIS Field Controller for GR10/GR25



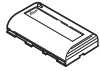
Field Controller		
771 874	CS10 GIS Field Controller	CS10 GIS Field Controller. Ruggedized WinCE GNSS/GIS Handheld including: 1GB NAND Flash Memory, 512MB SDRAM, Bluetooth, Numeric keypad, Charging Cable, Stylus.
771 877	CS15 GIS Field Controller	CS15 GIS Field Controller. Ruggedized WinCE handheld including: 1GB NAND Flash Memory, 512MB SDRAM, Bluetooth, QWERTY keypad, Charging Cable, Stylus.
784 919	CS25	Leica CS25 Ruggedized Win7 (Ultimate Edition) tablet computer including: 7" touchwide-screen, 64 GB SSD hard drive, 2 GB SDRAM, WLAN 802.11 b/g/n, integrated EDGE/HSPDA/GSM/UMTS/CDMA module, Bluetooth v2.0, stylus, integrated MediaTek GPS, and 2MP camera with flash.
Extra pen		
767 876	GDZ68	Extra pen with screw driver for CS10 and CS15 field controller.
Anti-glare display foils		
767 907	SPF01	Anti-glare display foils for CS10 and CS15 field controller.

16.2 Connector Modules for CS10/CS15 Field Controller



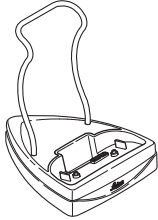
767 874	CBC01	Lemo connector module with power jack, Lemo (USB and Serial) and USB A host for CS10 and CS15 field controller. Can only be ordered with CS10/CS15 field controller.
767 875	CBC02	DSUB connector module with power jack, DSUB 9-pin, USB A host and USB mini AB for CS10 and CS15 field controller. Can only be ordered with CS10/CS15 field controller.

16.3 Internal Batteries for CS10/CS15 Field Controller



733 269	GEB211	Lithium-Ion battery, 7.4V/2.2Ah, rechargeable. To be used with CS10/CS15 field controller or GS15 receiver.
772 806	GEB212	Lithium-Ion battery, 7.4V/2.6Ah, rechargeable. To be used with CS10/CS15 field controller or GS15 receiver.

16.4 Docking Station for CS10/CS15 Field Controller



767 906	CCS01	Docking station for CS10 and CS15 field controller for charging and data transfer to PC, includes: GEV223 (USB A to USB mini data transfer cable).
---------	--------------	--

16.5 Additional Power Accessories for CS10/CS15 Field Controller

767 900	GEV235	1.5m power cable. Allows CS10/CS15 controller to be externally powered via the power jack. Usable in the EU.
773 753	GEV235-1	1.5m power cable. Allows CS10/CS15 controller to be externally powered via the power jack. Usable in the US.
773 754	GEV235-2	1.5m power cable. Allows CS10/CS15 controller to be externally powered via the power jack. Usable in Japan.
773 755	GEV235-3	1.5m power cable. Allows CS10/CS15 controller to be externally powered via the power jack. Usable in the UK.
773 756	GEV235-4	1.5m power cable. Allows CS10/CS15 controller to be externally powered via the power jack. Usable in Australia.
734 389	GDC221	Car adapter for the GKL221 charger. Allows the use of the GKL221 with a cigarette lighter; 12V/24V DC/DC converter. Can also be used to power CS10/CS15 field controller directly from a cigarette lighter.

17 CS09 Field Controller for Campaign Use

17.1 CS09 Field Controller for GRX1200+



Field Controller		
769 647	CS09	WinCE CS09 Controller with colour display, touch screen, CF card slot, alphanumeric key board, stylus for touch screen and user manual.

17.2 Data Transfer Cables for CS09 Field Controller

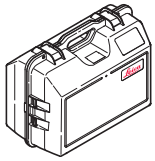
733 283	GEV163	1.8m controller cable connecting CS09 field controller to all System 1200 receivers.
733 284	GEV164	1m cable, connecting the CS09 field controller to all System 1200 receivers.

17.3 Internal Batteries for CS09 Field Controller



733 269	GEB211	Lithium-Ion battery, 7.4V/2.2Ah, rechargeable. To be used with CS09 field controller or GS15 receiver.
772 806	GEB212	Lithium-Ion battery, 7.4V/2.6Ah, rechargeable. To be used with CS09 field controller or GS15 receiver.

17.4 Hard Container and Hand Strap for CS09 Field Controller



Hard Container

733 267	GVP623	Hard container for GRX1200+ receivers, AS10 antenna, CS09 controller series, cables and accessories.
---------	---------------	--

Not needed for GRX1200+ receiver at reference station.

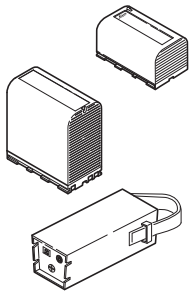
790 636	GVP704	Hard container for the GR10/GR25 receiver.
---------	---------------	--

Hand strap

733 266	GHT41	Hand strap for CS09 controller with utility hook for attaching to belt or tripod.
---------	--------------	---

18 Power Supply for Campaign Use

18.1 Batteries for Campaign Use



Internal Battery for GRX1200+

733 270	GEB221	Lithium-Ion battery, 7.4V/4.4Ah/32.5Wh, rechargeable. To be used with GRX1200+ receiver.
---------	---------------	--

Internal Battery for GR25

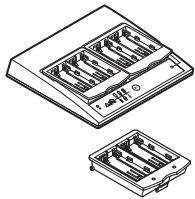
754 834	GEB241	Lithium-Ion battery, 14.8V/4.8Ah/71.0Wh, rechargeable. To be used with GR25 server.
---------	---------------	---

793 975	GEB242	Lithium-Ion battery 14.8V/5.8Ah/85.8Wh, rechargeable. To be used with GR25 server.
---------	---------------	--

Battery for GRX1200+ and GR10/GR25

727 367	GEB171	External universal battery, NiMH, 12V/9Ah/108Wh, rechargeable.
---------	---------------	--

18.2 Battery Chargers for Campaign Use



733 271	GKL221	Charger, to be used with up to two charging adapters GDI221 or GDI222, charger cable and net adapter included. To charge GEB242, GEB241, GEB221 and GEB171 batteries.
---------	---------------	---

733 323	GDI221	Adapter for GKL221 for charging 2 Li-Ion batteries GEB241, GEB242, GEB221, GEB211 or GEB212.
---------	---------------	--

734 389	GDC221	Car adapter for the GKL221 charger. Allows the use of the GKL221 with a cigarette lighter; 12V/24V DC/DC converter. Can also be used to power CS10/CS15 field controller directly from a cigarette lighter.
---------	---------------	--

Software

With every software, comprehensive Customer Care Packages (CCPs) are available and strongly recommended. CCPs bundle software maintenance and customer support. For more details see section Active Customer Care below.

19 Software Protection Keys (Dongle) for Protected Options

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

20 Leica GNSS Spider Software

20.1 Leica GNSS Spider Software

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

A software protection key (dongle) must be ordered separately for protected options.


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

20.2 Leica GNSS Spider – Site Server, Protected Options

File Product Service Options



744 904	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 Spider product files on the Internet. Option includes one (1) site/sensor license. For more site/sensor licenses for a Spider FPS, order one or more Spider, FPS Additional Site License as required.
734 613	Spider, FPS Additional Site License Required for each GNSS site/sensor that shall be used with Spider File Product Service in addition to the default one (1) site/sensor, which is included as standard.

Other Site Server Options

734 614	Spider, Event E-mail & Messaging Option For managing and distribution of GNSS Spider event information via e-mail and/or network messaging.
744 908	Spider RT-Product Service for Site Server not related to site licences Provides output of RTK data for all connected sites, that are capable of streaming their GNSS 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 RT-products shall be created and output through the Spider Network Server Advanced RT-Proxy Service (744 915).
744 912	Spider, Positioning Site license Required for each GNSS site/sensor that shall be used for the Spider position processing. A minimum of two (2) of these licenses is needed for Positioning.  Positioning Site Licences are cumulative between Real-Time and Post-Processing Positioning Products. For example, to use 10 sites simultaneously in both Real-Time and Post-Processing Products requires 20 Positioning Site Licences. There is no limit to the number of Positioning Products (baselines) that may be configured if the number of sites used (including reference and rover sites) does not exceed the number of Positioning Site Licences.

20.3 Leica GNSS Spider - Network Server, Protected Options

Leica GNSS SpiderNET, Options for Network RTK

744 913	SpiderNET, Option for GPS Network RTK/DGPS Provides real-time GPS network processing and error estimation with an advanced network processing algorithm. A basic RT-Proxy server for real time network correction outputs, including Leica MAX, in standard RTCM V3.1 (Network messages) format and individualised network RTK & DGPS corrections; and Leica i-MAX, in standard (Leica, CMR, CMR+, RTCM V2.3, 3.0/3.1) baseline message formats. Supports various communication channels (Serial, Modem or TCP/IP). Includes support for up to five sites to be assigned in network processing. For each additional site one SpiderNET Additional Site License (744 914) is needed.
744 914	SpiderNET, Additional Site License Required for each site that shall be assigned in SpiderNET Network server processing in addition to the default five (5) sites/sensors that are included in the SpiderNET, Option for GPS Network RTK (744 913).
762 472	SpiderNET, GLONASS network processing extension Provides real-time GLONASS network processing and error estimation with advanced network processing algorithm.  Requires the SpiderNET, Option for GPS Network RTK (744 913).
766 766	SpiderNET, Extension for legacy Network RTK methods Provides in addition to MAX and i-MAX the following legacy methods for Network RTK: <ul style="list-style-type: none"> • FKP (Area Correction Parameters) • Virtual Reference Station  Requires the SpiderNET, Option for GPS Network RTK (744 913).

Other Network Server Options, not related to site licenses


744 915	Spider, Advanced RT-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 also support for RTCM transformation data messages and Ntrip Caster&Server functionality. Supported real time formats are standard RTCM (V2.x, V3.x) or proprietary (Leica, CMR, CMR+) real time message formats, through various communication channels (Serial, Modem, Access Router or TCP/IP). Can be used with SpiderNET, Option for Network RTK (744 913). Can also be used with GNSS Spider Site server, instead of Spider, RT-Product Service (744 908).
744 916	Spider Business Center Option For advanced real-time user access management with authentication, authorisation and accounting support, plus real time user auditing and creation of user activity logs. Web front end supports online service products and subscription management. Can be used together with SpiderNET, Option for Network RTK (744 913) or Advanced RT-Proxy Service Option (744 915). Recommended option if Advanced RT-Proxy Server NTRIP Caster functionality is used.
744 917	Spider, Re-Processing Provides full re-processing functionality for GNSS Spider (Site server) and SpiderNET (Network server) from raw RINEX or Leica binary raw data files (simulated sites). This option does not require any of the other GNSS Spider protected options.

Leica GNSS Spider Upgrades

734 616	GNSS Spider Site Server Upgrade from ControlStation Full upgrade from existing ControlStation licence. Includes GNSS Spider Site Server File Product Service option with one site licence.
734 617	GNSS Spider Site Server Upgrade from CRNet Lite Full upgrade from existing CRNet Lite licence. Includes already purchased number of CRNet site licences, GNSS Spider Site Server File Product Service and Event E-mail & Messaging options.

21 Leica SpiderQC Software

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

 A software protection key (dongle) must be ordered separately.

21.1 Leica SpiderQC Software


749 319	GSW549	Leica SpiderQC For data analysis and quality control of GNSS reference station data. Dongle protected.
---------	---------------	--

21.2 Leica SpiderQC Options


751 824	GSW576	SpiderQC, Advanced Coordinate Analysis option High speed calculation and graphing of displacement, messaging and limit checks for real time NMEA and GNSS Spider Post Processing coordinate data. Dongle protected.
762 826	GSW624	SpiderQC, Advanced Network Analysis option For analysis of ionosphere and troposphere error from a GNSS Spider Network. Dongle protected. Requires Leica GNSS Spider v3.0 or later with Network RTK. This option only works together with Leica GNSS Spider v.3.0 or later with SpiderNet option (744 913).
759 039	GSW623	SpiderQC, Advanced Data Analysis option Zero, single, double and triple difference residual analysis of GNSS code and phase data. Dongle protected.
749 320	GSW550	SpiderQC, Automatic Quality Check option Automatic processing of data from a GNSS reference station network including web page generation, graphs, reports and email messaging. Includes one site licence. Dongle protected.
749 321	GSW551	SpiderQC, Additional site license for Automatic Processing option Up to 256 additional site licences may be configured. Dongle protected.

22 Leica SpiderWeb Software






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

 A hardware protection key must be ordered separately.

22.1 Leica SpiderWeb Software

751 352	Leica SpiderWeb Basic License, Software with documentation Without protection key runs as SpiderWeb Lite version to support complete web server configuration, site management and data access via link to a FTP server.  Without user access management.
---------	---

22.2 Leica SpiderWeb Protected Options

764 662	SpiderWeb, RINEX Job Service Enables automated, user specific and job based RINEX Service. Includes advanced user management and one SpiderWeb site license. For more site licenses order one or more Leica SpiderWeb additional site license (751 353) as required.
751 353	Leica SpiderWeb additional site license Required for each additional site that shall be used with SpiderWeb, RINEX Job service option (764 662) in addition to the default one site, which is included.
764 663	SpiderWeb, Extension for Virtual RINEX Enables creation of Virtual RINEX data based on a GNSS Spider network processing solution.  Requires SpiderWeb, RINEX Job service option (764 662).
755 125	Leica SpiderWeb SpiderQC Option Recommended with SpiderWeb, RINEX Job service option (764 662).  Requires following SpiderQC Options on the same software protection key: <ul style="list-style-type: none">• 749 319 Leica SpiderQC Software with documentation.• 749 320 SpiderQC, Automatic Processing option. 1x per each SpiderWeb Site: <ul style="list-style-type: none">• 749 321 SpiderQC, Additional site license.
755 126	Leica SpiderWeb Option for automated Coordinate Computation Service  Requires SpiderWeb, RINEX Job service option (764 662).  Also requires the following Leica Geo Office (LGO) Options (floating license type is recommended): <ul style="list-style-type: none">• 778 073 LGO L1/L2 data processing for GPS• 778 079 LGO RINEX Import• 778 084 LGO Design & Adjustment 3D <p>Following LGO options can also be added:</p> <ul style="list-style-type: none">• 778 075 LGO GLONASS data processing option. Can only be ordered in addition to L1/L2 data-processing option for GPS (778 073)• 778 086 LGO Datum & Map transformation <p>For LGO options with floating license, following article has to be included:</p> <ul style="list-style-type: none">• 778 065 Leica Geo Office Software Licence (Floating) <p>We recommend, ordering the following LGO bundle plus LGO Adjustment, instead of the individual options:</p> <ul style="list-style-type: none">• 779 314 Leica Geo Office GNSS-PP Bundle (Floating). Includes LandXML Import/Export, COGO calculations, L1/L2 GNSS processing, GLONASS, RINEX Import and Datum&Map.• 778 084 LGO Design & Adjustment 3D  Please refer to the Leica Geo Office equipment list for full detailed information.

Services for GNSS Networks and Reference Stations

23 Leica CrossCheck

Leica CrossCheck is a web based service for GPS/GNSS reference network coordinate calculation, integrity monitoring and deformation monitoring.

Two types of services are offered:

- **Single Computation Service**
- **Monitoring Service**

In both services, engineers from Leica Geosystems use the Bernese GPS Software v5.0 (or later) to process the customer's data. The processing strategy is optimized to provide highest possible accuracy.

Billing

- The initial setup fee will be invoiced after sending the entitlement number.
- The Single Computation Service will be invoiced once the service has been completed.
- The Monitoring Service will be invoiced quarterly at the end of the period, if not cancelled.

Service Change Requests

The amount of Quarterly Subscription Per Site of the Leica CrossCheck Monitoring Service can be changed at a month's notice for the next billing period. An administration fee (5002120) is incurred each time the number of points is increased or decreased.

Cancellation

- The Leica CrossCheck Monitoring Service can be cancelled with a month's notice for the next quarter.
- The cancellation notice must be given in written form.

23.1 Single Computation Service

The Single Computation Service enables customers to obtain high accuracy coordinates for their reference station network without the need to invest in specialist GNSS processing expertise, software or IT infrastructure. The site coordinates are computed in the customer's chosen datum. A PDF report with site coordinates and accuracies is provided via email to the customer.

The Single Computation Service consists of a base fee and a per site fee.

5002093	CrossCheck Coordinate Service Base Fee
5002076	CrossCheck Coordinate Service Site Fee



The CrossCheck Coordinate Service Base Fee includes a single processing of data from one or more GNSS sites according to the number of CrossCheck Coordinate Service Site Fee that are purchased. A combined network adjustment is computed using all sites and multiple days of data (if available). One processing report is provided for each CrossCheck Coordinate Service Base Fee purchased.

23.2 Monitoring Service

The Monitoring Service provides for detection and warning of antenna movements in near real time for networks of GNSS reference stations or monitoring sites. Site coordinates are calculated at a user defined interval. The solution is tailored to the needs of the customers network/project, including the processing interval, processing strategy, coordinate datum, limit checks and content of the secure online web service. An email messaging service is offered to provide warning when a significant movement occurs.

The Monitoring Service consists of a one-time setup fee and then a quarterly subscription comprised of a base fee and a per site fee.

5002094	CrossCheck Monitoring Setup Fee
5302771	CrossCheck Quarterly Subscription Base Fee
5302772	CrossCheck Quarterly Subscription Per Site
5002120	Administration Fee



The CrossCheck Monitoring Setup Fee is a one time fee to setup the automatic processing service and web access. The ongoing processing of the GNSS data is provided by the CrossCheck Quarterly Subscription Base Fee and CrossCheck Quarterly Subscription Per Sites fees. Customers requested modifications to the service subsequent to the initial setup require a CrossCheck Administration Fee to be paid. Changes to the service include: adding, removing or changing sites, changing the processing strategy, changing the processing interval.

24 Other Services

The following services are available on request at daily rates.

24.1 Commissioning / Installation / Customizing

5001441	Commissioning GRX1200
5002475	Commissioning GR10/GR25
5002021	Installation support per day for NRS software, excluding travel expenses.
5000022	Customizing per day for NRS software.

24.2 Training

5001440	GRX1200 Full Day Workflow Training
5002474	GR10/GR25 Full Day Workflow Training
5002020	Training at customers site per day for NRS software, excluding travel expenses.

25 Active Customer Care

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.

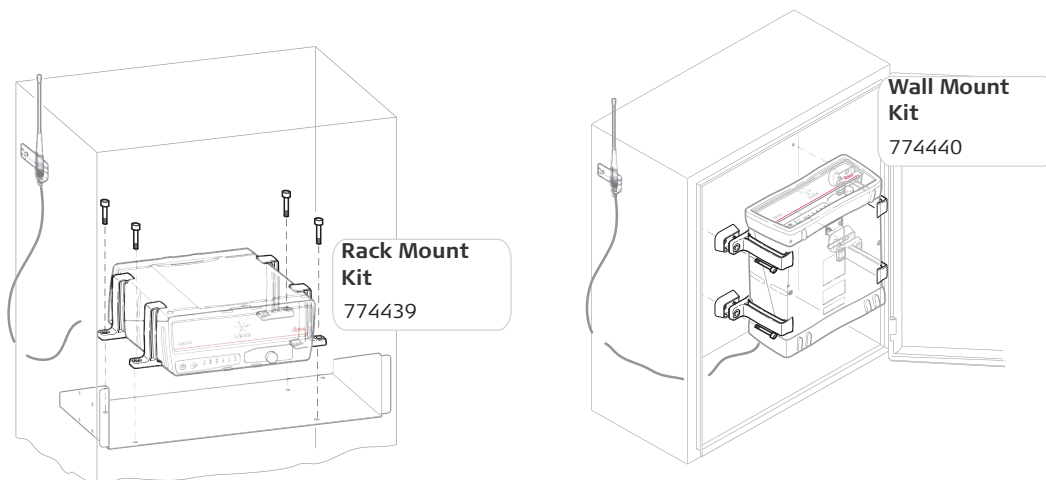
26 Customer Care Packages



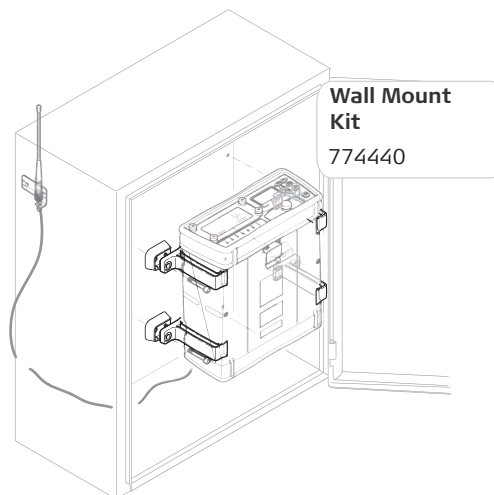
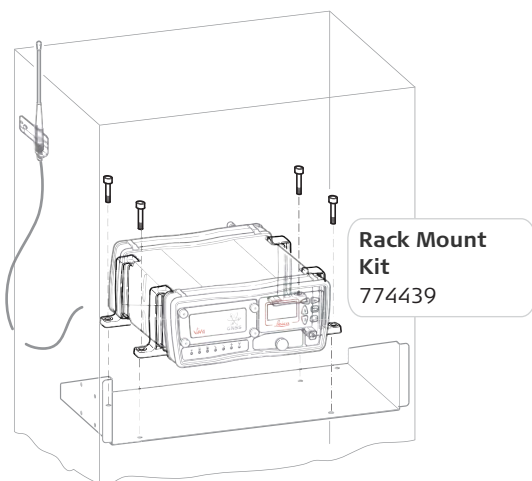
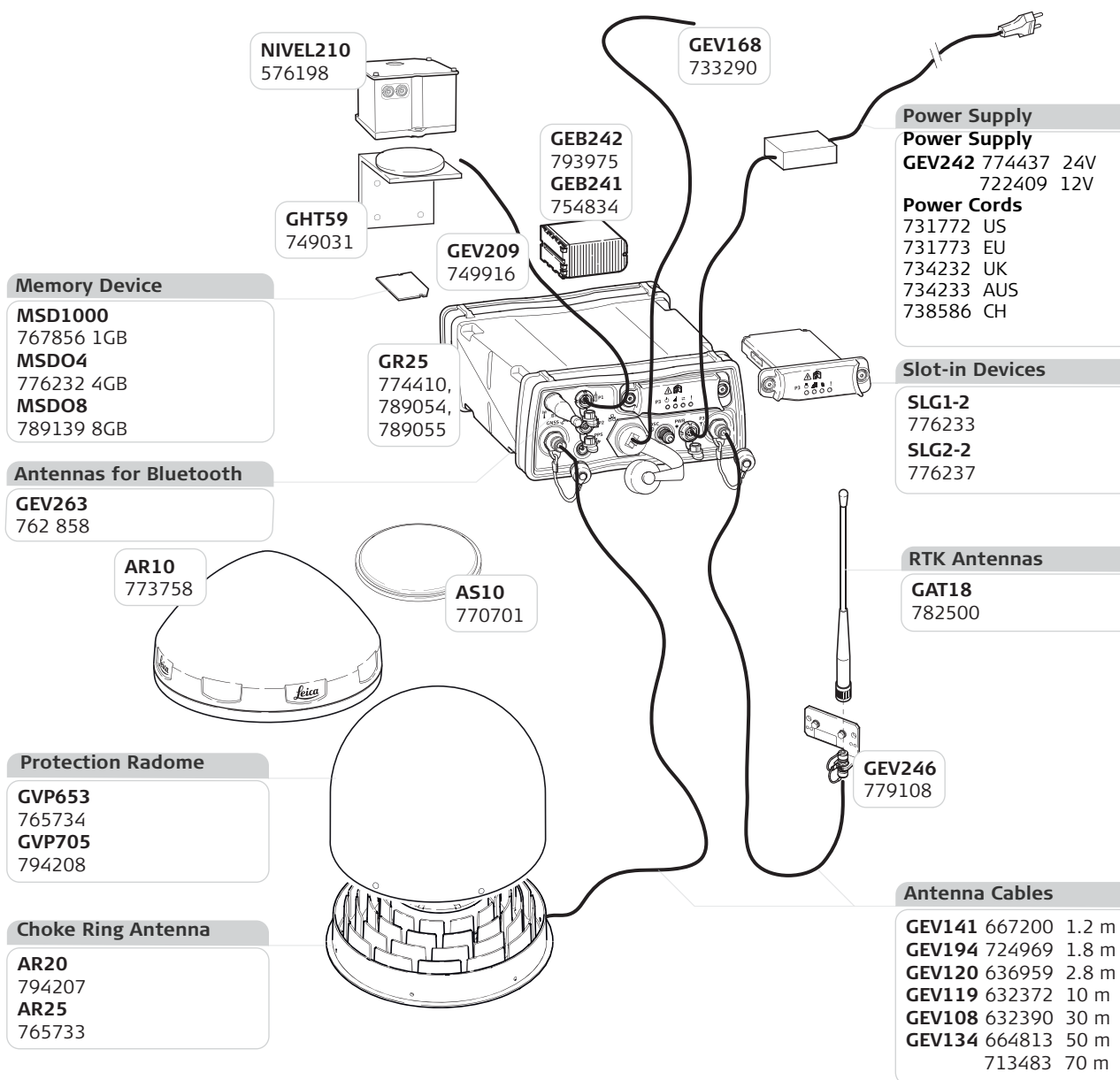
A wide selection of comprehensive Customer Care Packages (CCPs) is available bundling Hardware Maintenance, Software Maintenance, Customer Support and Extended Warranty.

For more information about the CCP offering in your country please contact your local Leica Geosystems organization or distribution partner.

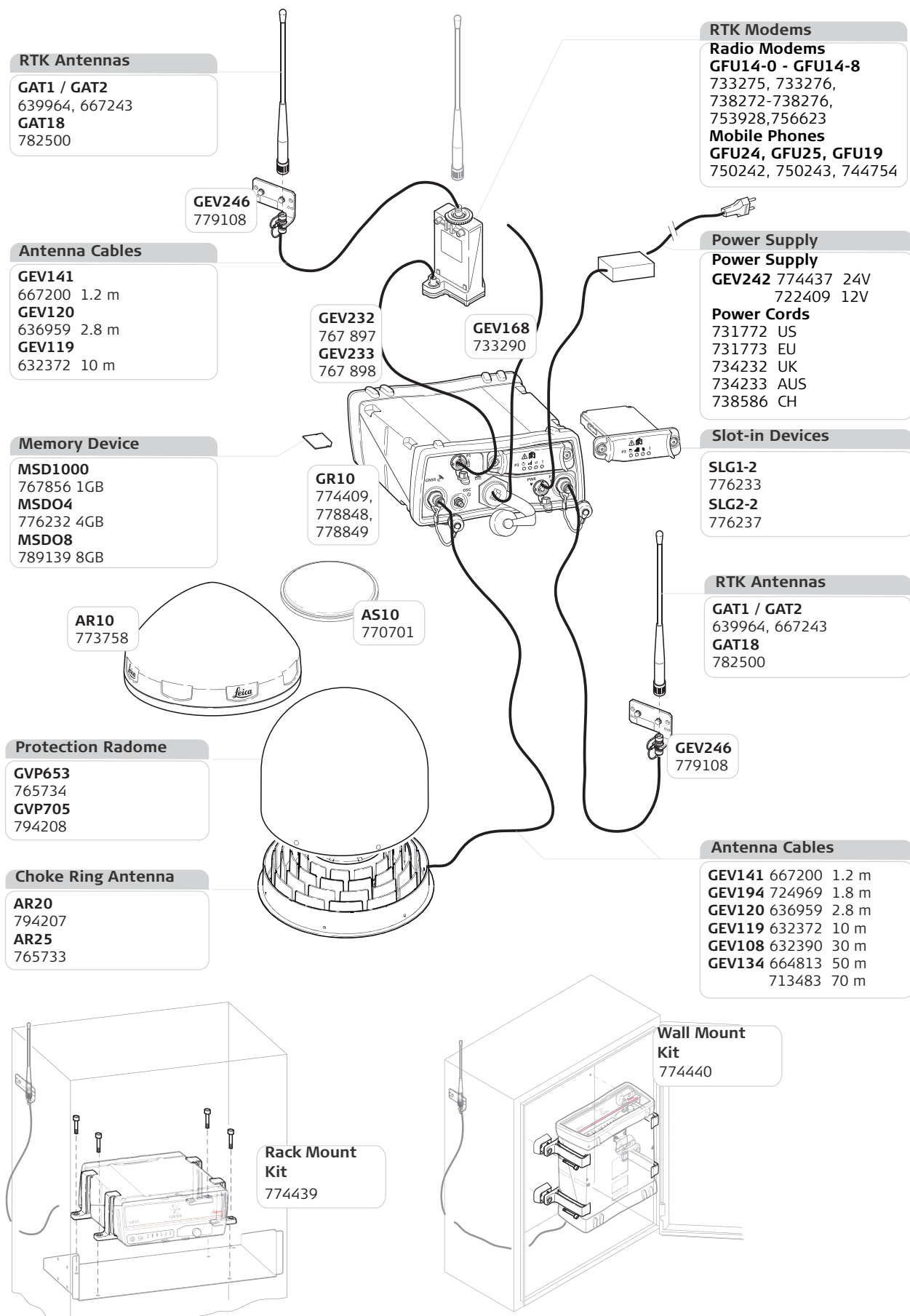
27 GR10 Network RTK



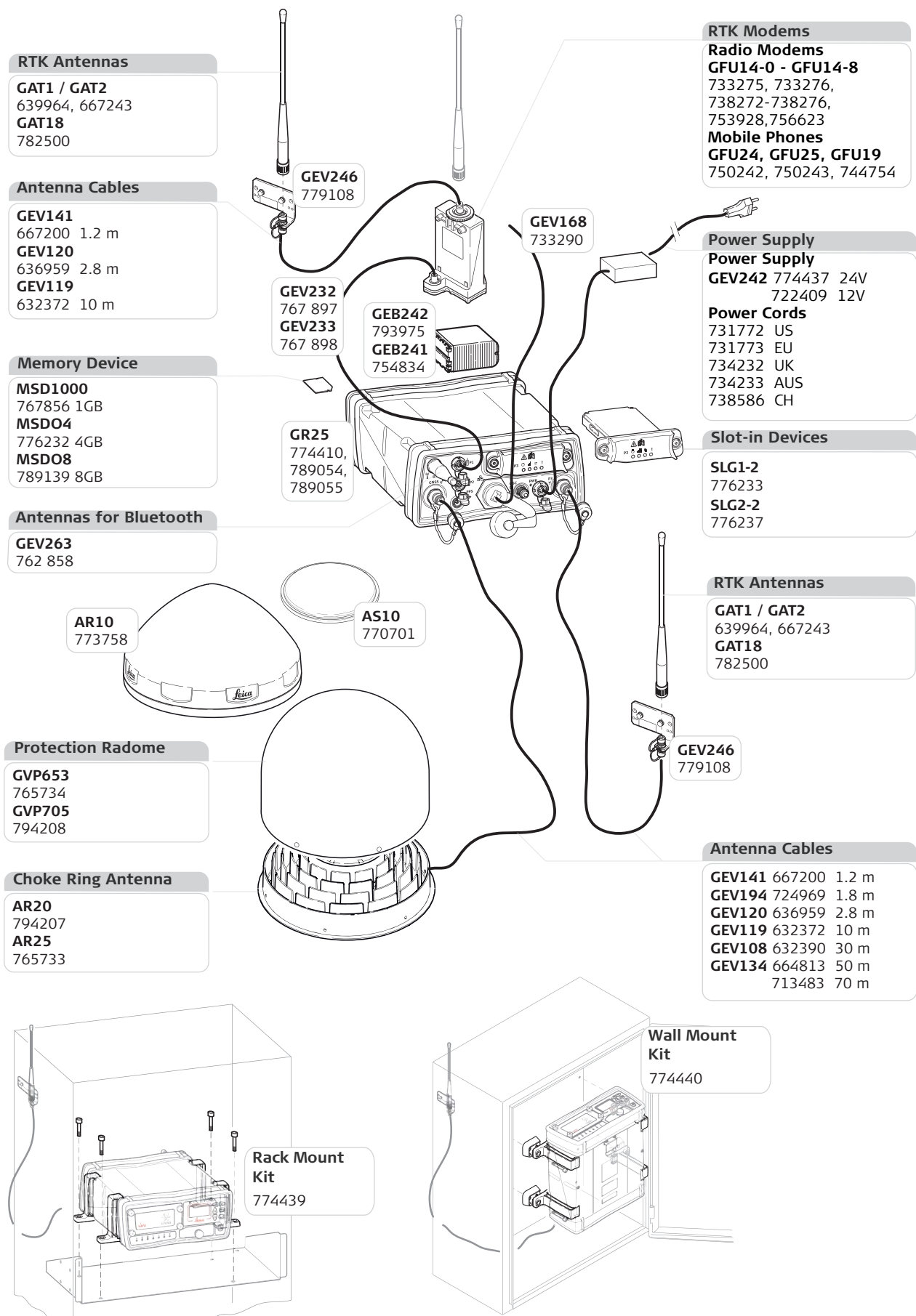
28 GR25 Network RTK



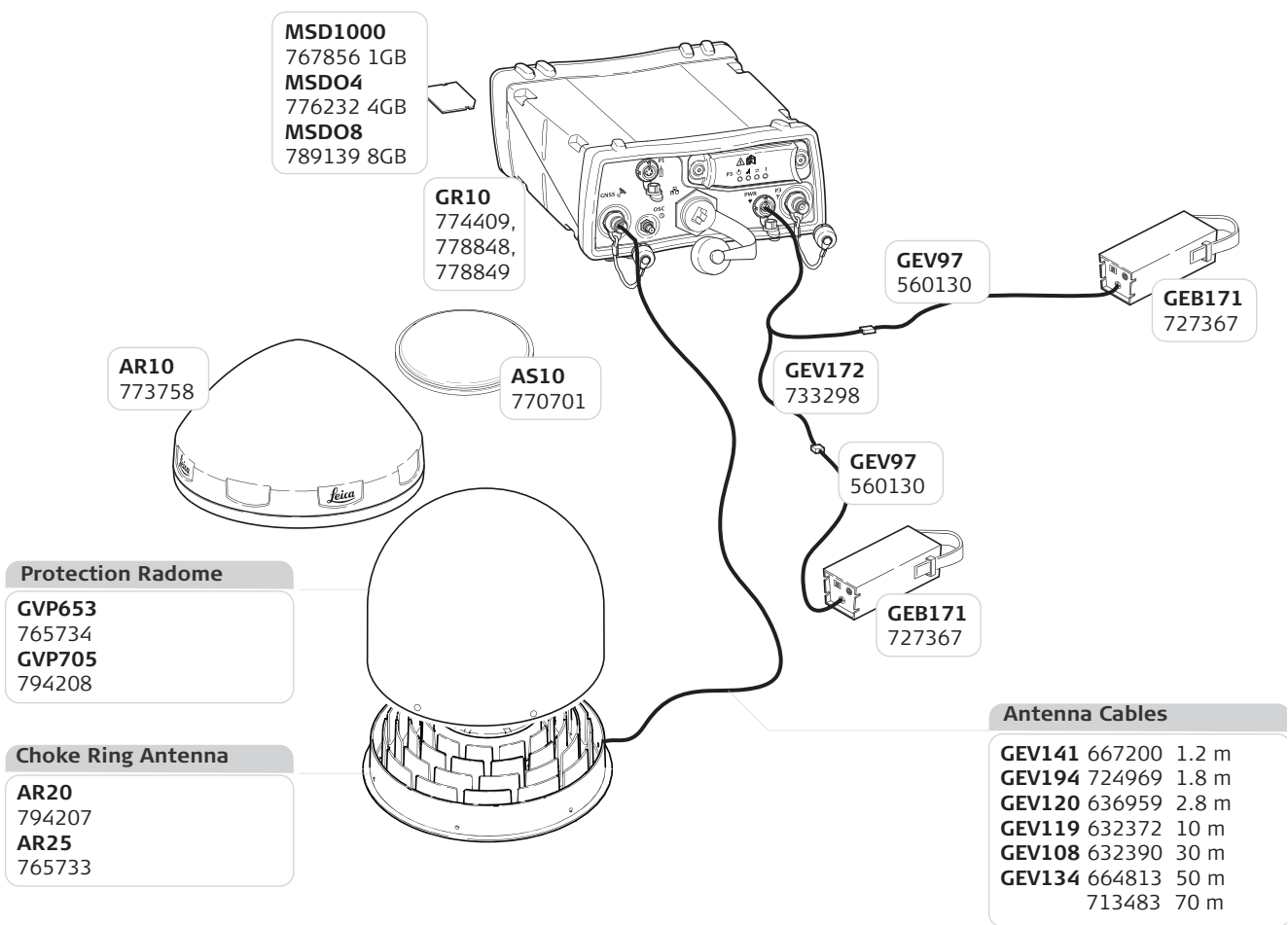
29 GR10 Single Base RTK - Direct RTK Output via Radio/GSM/GPRS/UMTS



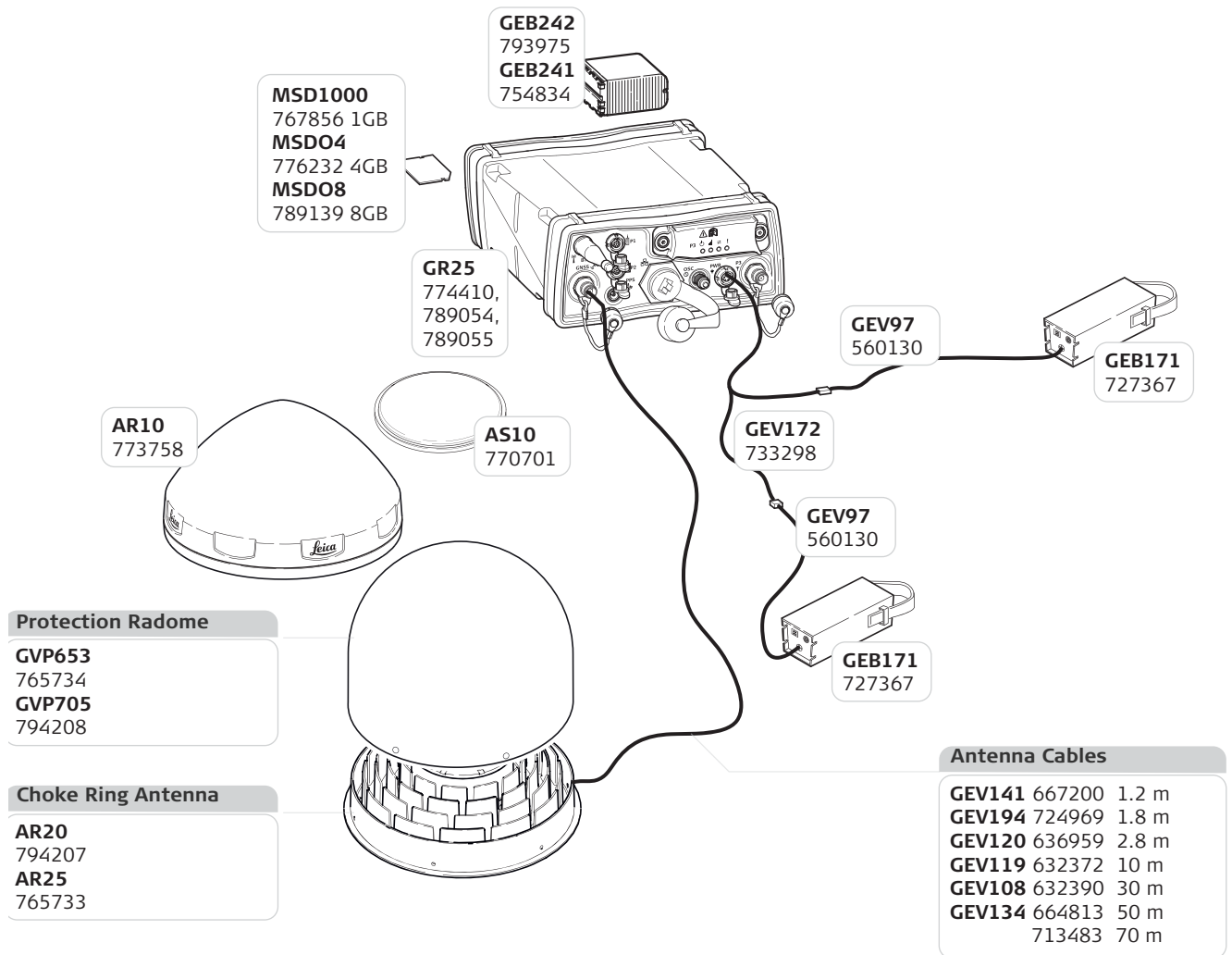
30 GR25 Single Base RTK - Direct RTK Output via Radio/GSM/GPRS/UMTS



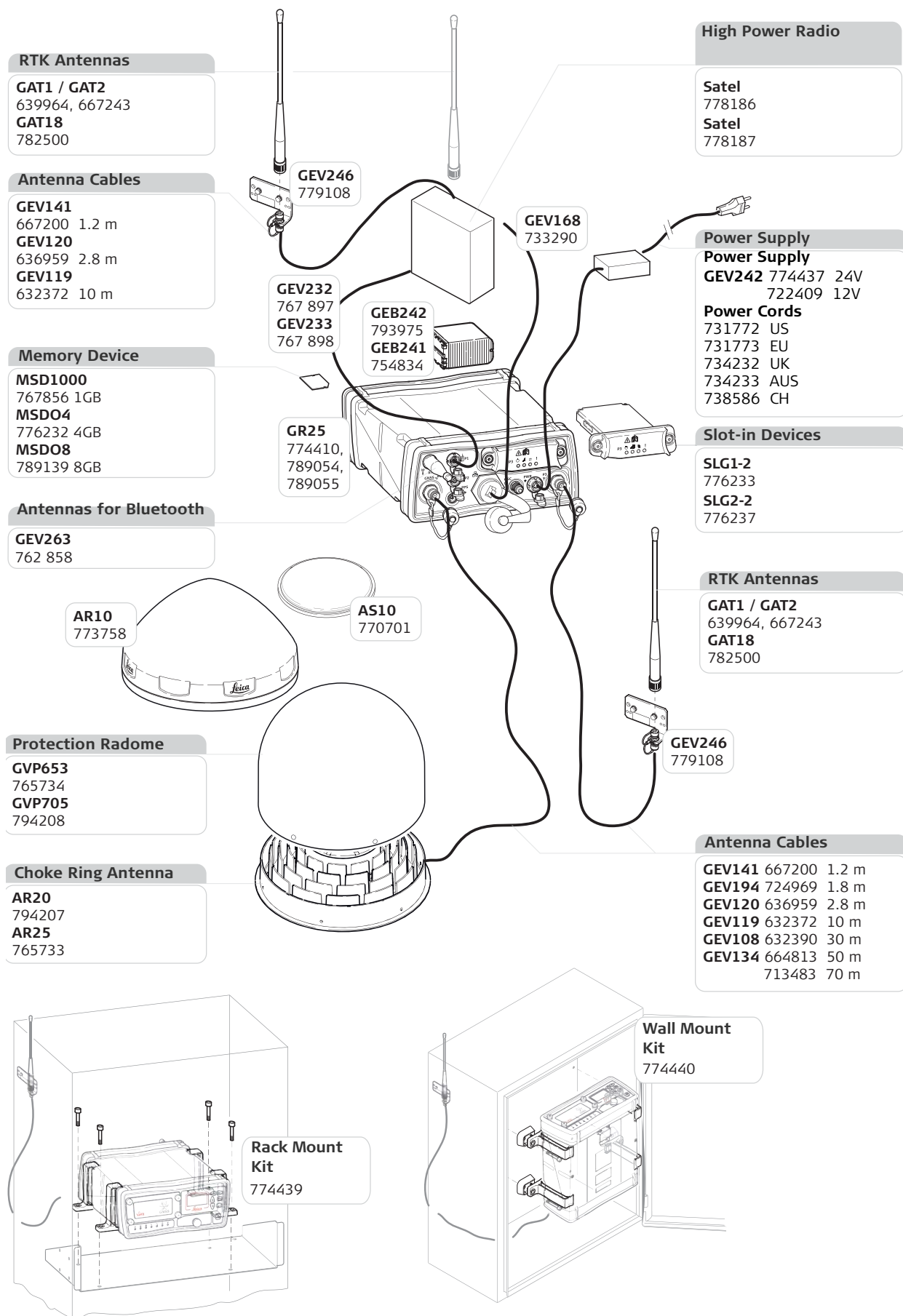
31 GR10 Campaign - Dual Battery



32 GR25 Campaign - Tripple Battery



33 GR25 Single Base RTK - High Power Radio



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.

When it has to be right.



**Total Quality Management -
our commitment to total
customer satisfaction.**

The **Bluetooth®** word mark and logos are owned by Bluetooth SIG, Inc. and any use of such marks by Leica Geosystems AG is under license. Other trademarks and trade names are those of their respective owners.

SD is a trademark of the SD Card Association.

Illustrations, descriptions and technical specifications are not binding and may change.
Printed in Switzerland - Copyright Leica Geosystems AG, Heerbrugg, Switzerland, 2013.
745972-4.2.0en - III.13

Leica Geosystems AG
Heinrich-Wild-Strasse
CH-9435 Heerbrugg
Switzerland
Phone +41 71 727 31 31
www.leica-geosystems.com

- when it has to be **right**

Leica
Geosystems