

# Leica Captivate GNSS Equipment List



- when it has to be **right**

**Leica**  
Geosystems

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# GS18 GNSS Receiver

## 1 GS18 I GNSS Receiver



949 985	<b>GS18</b>	Leica GS18 I LTE Basic SmartAntenna *
982 453	<b>GS18</b>	Leica GS18 I LTE Regional SmartAntenna *
864 380	<b>GS18</b>	Leica GS18 I LTE Performance SmartAntenna
864 381	<b>GS18</b>	Leica GS18 I LTE Unlimited SmartAntenna
949 986	<b>GS18</b>	Leica GS18 I LTE & UHF Basic SmartAntenna *
982 454	<b>GS18</b>	Leica GS18 I LTE & UHF Regional SmartAntenna *
864 383	<b>GS18</b>	Leica GS18 I LTE & UHF Performance SmartAntenna
864 384	<b>GS18</b>	Leica GS18 I LTE & UHF Performance SmartAntenna (NAFTA)
879 671	<b>GS18</b>	Leica GS18 I LTE & UHF Performance SmartAntenna (JP)
864 385	<b>GS18</b>	Leica GS18 I LTE & UHF900 Performance SmartAntenna *
864 386	<b>GS18</b>	Leica GS18 I LTE & UHF Unlimited SmartAntenna

\* Available in selected countries only.

	Leica GS18 I Basic *	Leica GS18 I Regional *	Leica GS18 I Performance	Leica GS18 I Unlimited
<b>Supported GNSS Systems</b>				
Multi-frequency (L1, L2, L5, L-band)	●	●	●	●
GLONASS	○	○	○	●
Galileo	○	○	○	●
BeiDou	○	○	○	●
QZSS / NavIC	○	○	○	●
<b>RTK performance</b>				
DGPS	●	●	●	●
RTK unlimited	○	●	●	●
Network RTK	○	●	●	●
HxGN SmartNet Global	○	○	○	○
Interference mitigation	○	○	○	○
<b>Position update &amp; data recording</b>				
20 Hz positioning	●	●	●	●
Raw data logging	●	●	●	●
RINEX logging	○	○	○	●
NMEA out	○	○	○	●
<b>Additional features</b>				
Tilt compensation	●	●	●	●
Image point measurement	●	●	●	●
RTK Reference Station functionality	○	●	●	●
No country limitation	●	○	●	●

● Standard

○ Optional

## 2 GS18 T GNSS Receiver



949 983	<b>GS18</b>	Leica GS18 T LTE Basic SmartAntenna *
899 218	<b>GS18</b>	Leica GS18 T LTE Regional SmartAntenna *
855 300	<b>GS18</b>	Leica GS18 T LTE Performance SmartAntenna
855 301	<b>GS18</b>	Leica GS18 T LTE Unlimited SmartAntenna
949 984	<b>GS18</b>	Leica GS18 T LTE & UHF Basic SmartAntenna *
899 220	<b>GS18</b>	Leica GS18 T LTE & UHF Regional SmartAntenna *
855 303	<b>GS18</b>	Leica GS18 T LTE & UHF Performance SmartAntenna
855 304	<b>GS18</b>	Leica GS18 T LTE & UHF Performance SmartAntenna (NAFTA)
865 980	<b>GS18</b>	Leica GS18 T LTE & UHF Performance SmartAntenna (JP)
945 113	<b>GS18</b>	Leica GS18 T LTE & UHF900 Performance SmartAntenna *
855 305	<b>GS18</b>	Leica GS18 T LTE & UHF Unlimited SmartAntenna

\* Available in selected countries only.

	Leica GS18 T Basic *	Leica GS18 T Regional *	Leica GS18 T Performance	Leica GS18 T Unlimited
<b>Supported GNSS Systems</b>				
Multi-frequency (L1, L2, L5, L-band)	●	●	●	●
GLONASS	○	○	○	●
Galileo	○	○	○	●
BeiDou	○	○	○	●
QZSS / NavIC	○	○	○	●
<b>RTK performance</b>				
DGPS	●	●	●	●
RTK unlimited	○	●	●	●
Network RTK	○	●	●	●
HxGN SmartNet Global	○	○	○	○
Interference mitigation	○	○	○	○
<b>Position update &amp; data recording</b>				
20 Hz positioning	●	●	●	●
Raw data logging	●	●	●	●
RINEX logging	○	○	○	●
NMEA out	○	○	○	●
<b>Additional features</b>				
Tilt compensation	●	●	●	●
RTK Reference Station functionality	○	●	●	●
No country limitation	●	○	●	●

● Standard

○ Optional

### 3 GS18 GNSS Receiver



939 670	<b>GS18</b>	Leica GS18 LTE Basic SmartAntenna *
939 669	<b>GS18</b>	Leica GS18 LTE Regional SmartAntenna *
939 671	<b>GS18</b>	Leica GS18 LTE Performance SmartAntenna
939 672	<b>GS18</b>	Leica GS18 LTE Unlimited SmartAntenna
939 674	<b>GS18</b>	Leica GS18 LTE & UHF Basic SmartAntenna *
939 673	<b>GS18</b>	Leica GS18 LTE & UHF Regional SmartAntenna *
939 675	<b>GS18</b>	Leica GS18 LTE & UHF Performance SmartAntenna
939 677	<b>GS18</b>	Leica GS18 LTE & UHF Performance SmartAntenna (NAFTA)
939 679	<b>GS18</b>	Leica GS18 LTE & UHF Performance SmartAntenna (JP)
939 678	<b>GS18</b>	Leica GS18 LTE & UHF900 Performance SmartAntenna *
939 676	<b>GS18</b>	Leica GS18 LTE & UHF Unlimited SmartAntenna

\* Available in selected countries only.

	Leica GS18 Basic *	Leica GS18 Regional *	Leica GS18 Performance	Leica GS18 Unlimited
<b>Supported GNSS Systems</b>				
Multi-frequency (L1, L2, L5, L-band)	●	●	●	●
GLONASS	○	○	○	●
Galileo	○	○	○	●
BeiDou	○	○	○	●
QZSS / NavIC	○	○	○	●
<b>RTK performance</b>				
DGPS	●	●	●	●
RTK unlimited	○	●	●	●
Network RTK	○	●	●	●
HxGN SmartNet Global	○	○	○	○
Interference mitigation	○	○	○	○
<b>Position update &amp; data recording</b>				
20 Hz positioning	●	●	●	●
Raw data logging	●	●	●	●
RINEX logging	○	○	○	●
NMEA out	○	○	○	●
<b>Additional features</b>				
RTK Reference Station functionality	○	●	●	●
No country limitation	●	○	●	●

● Standard  
○ Optional

## 4 Additional GS18 Receiver Options

### GNSS software options

856 074	<b>LOP60</b>	GLONASS option, enables GLONASS tracking on a GS18 receiver.
856 075	<b>LOP61</b>	Galileo option, enables Galileo tracking on GS18 receiver.
856 076	<b>LOP62</b>	BeiDou option, enables BeiDou tracking on GS18 receiver.
856 077	<b>LOP63</b>	QZSS / NavIC option, enables QZSS and NavIC tracking on GS18 receiver.
865 277	<b>GRL206</b>	Interference mitigation option for GR30, GR50, GM30 and GS07, GS10, GS16, GS18 and GS25 receiver.

### Position rate and data recording options


856 080	<b>LOP65</b>	RINEX option, allows logging of RINEX data on GS18 receiver.
856 081	<b>LOP66</b>	NMEA out option, enables NMEA to be streamed from GS18 receivers.

### RTK related options

856 083	<b>LOP68</b>	Unlimited RTK option, enables RTK positions to be computed from a single base station with no limit of distance.
856 084	<b>LOP69</b>	Unlimited RTK and Network RTK, enables RTK position to be computed from a single base station and within a RTK network.
856 085	<b>LOP70</b>	Upgrade option for GS18 receivers from RTK unlimited only to RTK unlimited including RTK Network. (LOP68 to LOP69)

### Other options

856 086	<b>LOP71</b>	RTK Reference station option, allows a GS18 receiver to transmit RTK data
905 770	<b>LOP68</b>	GS18 Regional upgrade to Performance, removes country/region lock from GS18 Regional and upgrades its capabilities to same options as Performance.

 Please refer to chapter 59 for the available HxGN SmartNet Global options.

## 5 RTK Modems

The GS18 LTE models are equipped with an internal modem for RTK Rover and RTK Base usage. The LTE modem requires an external antenna. For UHF RTK Rover or Base usage external radio modems can be connected. The GS18 UHF models are equipped with internal modem and internal UHF radio for RTK Rover and RTK Base usage. The UHF modem requires an external antenna.

### 5.1 Satellite Radio Modem



#### Satellite modem

828 005	<b>GFU30</b>	Satellite TR4+ 403-470 MHz RX/TX radio in GFU housing. Transceiver UHF radio module. User manual and CE Declaration of Conformity included.
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#### Cables for Satellite modem

733 297	<b>GEV171</b>	1.8m Y-cable to program the Satellite radio modem inside the GFU housing.
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### 5.2 Satellite High Power Radio



789 636	<b>HPR2</b>	Satellite Easy Pro 35W high power radio, 403-473 MHz RX/TX radio. Includes power cable for connecting to 12V battery and programming cable.
982 340	<b>HPR4</b>	Satellite-EASY Pro+ 35W, 403-473 MHz RX/TX radio. Includes power cable to connect to 12V battery and programming cable.
799 776	<b>GEV266</b>	Data cable to connect Satel HPR radio to GS14/GS16/GS18 GNSS receiver.
806 097	<b>GVP712</b>	Container for Satel HPR High Power Radio.

## 6 External RTK Antennas

### 6.1 External RTK Antennas



#### GS18 RTK antennas

834 668	<b>GAT27</b>	Multiband Antenna for 700-2700 MHz GSM/UMTS/LTE mobile networks and 900 MHz radio.
849 256	<b>GAT28</b>	UHF radio antenna for GS18 SmartAntenna (frequency range 403-473 MHz).

#### RTK antenna arm

855 149	<b>CA41</b>	Arm to mount external UHF antenna to GS18 SmartAntenna for SmartPole use.
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#### Gainflex radio antennas

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

### 6.2 Accessories for Mounting External RTK Antenna on Second Tripod (Base)



#### RTK antenna cables

772 002	<b>GEV238</b>	1.2m external antenna cable. Connects GS18 to GEV142 extension cable.
667 201	<b>GEV142</b>	1.6m extension antenna cable.

#### Telescopic rod, antenna arm and base for telescopic rod

667 228	<b>GAD32</b>	Telescopic rod with 5/8" screw. Fits in base 667 236.
667 220	<b>GAD34</b>	Arm 3cm long, screws on telescopic rod. Gainflex antenna fits on arm. Antenna cable connects to arm.
667 236	<b>GHT36</b>	Base with 5/8" screw, for setting up telescopic rod on tripod.

## 7 Accessories for Using External Radios with GS18 Receiver



#### Brackets and holders for GFU radios

748 417	<b>GHT58</b>	Bracket to mount a radio built into the Leica GFU radio housing on a tripod.
767 896	<b>GHT64</b>	Holder for GFU radios. Attaches to all GNSS poles.

#### Cables for external radios

733 297	<b>GEV171</b>	1.8m Y-cable to program the Satelline radio modem inside the GFU housing.
796 492	<b>GEV264</b>	1.8m Y-cable for RTK reference setup, connects GS14/GS16/GS18 receiver to a GEB373 external battery and a Leica GFU radio.
811 818	<b>GEV274</b>	Y-cable for RTK reference setup, connects GS10/GS14/GS15/GS16/GS18 receiver to a power source (SAE plug) and a Satel HPR radio.

## 8 Additional Accessories for GS18 Pole Setups - GNSS Rover

### 8.1 Survey Poles



#### Poles with 5/8" screw

752 292	<b>GLS30</b>	Telescopic carbon GNSS pole with 5/8" screw. Snap locks at 1.80m and 2.00m. Includes circular bubble.
855 146	<b>CRP15</b>	Quick Snap Connector. Allows fast and easy mounting of the GS SmartAntenna on the pole.

### 8.2 Holder and Clamp for Poles



767 880	<b>GHT63</b>	Clamp arrangement for attaching the GHT62 or GHT66 to all poles (except mini reflector poles).
807 157	<b>GHT66</b>	Pole holder base plate for CS20 field controller.
925 664	<b>GHT81</b>	Tablet holder for attaching a CS30 Tablet with a GHT63 clamp to a pole. GHT63 is not included.
998 120	<b>GHT89</b>	Holder and cradle for attaching GKP100 Leica Captivate keypad and CS30 tablet to a pole. GHT63 is not included.
972 107	<b>CMB16</b>	Holder for CC200 Tablet. Can be attached to a pole with a GHT63 clamp (not included), or in a vehicle with a 6010273, Vehicle holder package (not included).

### 8.3 QuickStand



560 138	<b>GST6</b>	Quickstand with 3 telescopic legs, for aluminium poles.
667 319	<b>GSR111</b>	Dual-strut support, for all GLS poles.

## 9 Additional Accessories using the GS18 Receiver in a SmartPole Setup



Please refer to the Leica Nova TPS Equipment lists for additional accessories using the GS18 receiver in a SmartPole setup.



## 10 Additional Accessories for GS18 Tripod Setups - GNSS Base

### 10.1 Tribrachs



777 508	<b>GDF321</b>	Tribrachs Series 5000, without optical plummet.
777 509	<b>GDF322</b>	Tribrachs Series 5000, with optical plummet.
842 062	<b>GDF312</b>	Tribrachs Series 3000, with optical plummet.

### 10.2 Tripods



399 244	<b>GST05</b>	Wooden tripod with polymer coating, with accessories.
563 630	<b>GST05L</b>	Aluminium tripod, telescopic, with accessories.
667 301	<b>GST120-9</b>	Heavy duty tripod, self-closing, with side clamp screws and carrying strap.

### 10.3 Carriers



<b>Carrier with 5/8" screw</b>		
667 216	<b>GRT146</b>	Carrier with 5/8" screw, GNSS antenna screws on directly.
<b>Carriers with stub</b>		
667 313	<b>GRT144</b>	Carrier with stub.
667 217	<b>GAD31</b>	Screw-to-stub adapter for fitting GNSS antenna on carriers with stub and poles with stub.

### 10.4 Height Hook



667 244	<b>GZS4-1</b>	Height hook with integrated tape measure. Supplied with additional tape graduated in feet and inches.
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## 11 Containers for GS18 Receiver



833 516	<b>GVP716</b>	Backpack carrying systems for all large TPS and GNSS containers.
833 517	<b>GVP717</b>	Sidebag for large GNSS container (current version).
833 518	<b>GVP718</b>	Basic backstrap for large GNSS container (current version).
833 519	<b>GVP719</b>	Shoulderstrap for large GNSS container (current version).
980 902	<b>GVP753</b>	Hard container for SmartAntenna, CS field controller and accessories for a Rover setup.
980 903	<b>GVP754</b>	Hard container for 2 SmartAntennas, CS field controller and accessories for a Base and Rover setup.
980 899	<b>GVP750</b>	Hard container for SmartAntenna, CS field controller and accessories for a SmartPole and SmartStation setup.

# GS16 GNSS Receiver

## 12 GS16 GNSS Receiver



851 142	<b>GS16</b>	Leica GS16 Basic SmartAntenna EG *
947 069	<b>GS16</b>	Leica GS16 Basic SmartAntenna *
939 764	<b>GS16</b>	Leica GS16 UHF Basic SmartAntenna *
939 763	<b>GS16</b>	Leica GS16 UHF Regional SmartAntenna *
939 767	<b>GS16</b>	Leica GS16 UHF Performance SmartAntenna
939 768	<b>GS16</b>	Leica GS16 UHF Unlimited SmartAntenna

\* Available in selected countries only.

	Leica GS16 Basic *	Leica GS16 Regional *	Leica GS16 Performance	Leica GS16 Unlimited
<b>Supported GNSS Systems</b>				
Multi-frequency (L1, L2, L5, L-band)	●	●	●	●
GLONASS	○	○	○	●
Galileo	○	○	○	●
BeiDou	○	○	○	●
QZSS / NavIC	○	○	○	●
<b>RTK performance</b>				
DGPS	●	●	●	●
RTK unlimited	○	●	●	●
Network RTK	○	●	●	●
HxGN SmartNet Global	○	○	○	○
Interference mitigation	○	○	○	○
<b>Position update &amp; data recording</b>				
20 Hz positioning	●	●	●	●
Raw data logging	●	●	●	●
RINEX logging	○	○	○	●
NMEA out	○	○	○	●
<b>Additional features</b>				
RTK Reference Station functionality	○	●	●	●
No country limitation	●	○	●	●

● Standard

○ Optional

## 13 Additional GS16 Receiver Options

### GNSS software options

843 513	<b>LOP54</b>	GLONASS option, enables GLONASS tracking on a GS10, GS15, GS16 or GS25 receiver.
843 514	<b>LOP55</b>	Galileo option, enables Galileo tracking on GS10, GS15, GS16 or GS25 receiver.
843 515	<b>LOP56</b>	BeiDou option, enables BeiDou tracking on GS10, GS15, GS16 or GS25 receiver.
856 090	<b>LOP73</b>	QZSS / NavIC option, enables QZSS and NavIC tracking on GS10, GS15, GS16 or GS25 receiver.
865 277	<b>GRL206</b>	Interference mitigation option for GR30, GR50, GM30 and GS07, GS10, GS16, GS18 and GS25 receiver.

### Position rate and data recording options


767 811	<b>LOP8</b>	RINEX option, allows logging of RINEX data on GS10, GS15, GS16 or GS25 receiver.
767 818	<b>LOP15</b>	NMEA out option, enables NMEA to be streamed from GS10, GS15, GS16 or GS25 receivers.

### RTK related options

767 813	<b>LOP10</b>	Unlimited RTK option, enables RTK positions to be computed from a single base station with no limit of distance.
767 815	<b>LOP12</b>	Unlimited RTK and Network RTK, enables RTK position to be computed from a single base station and within a RTK network.
767 817	<b>LOP14</b>	Upgrade option for GS10, GS15, GS16 or GS25 receivers from RTK unlimited only to RTK unlimited including RTK Network. (LOP10 to LOP12)

### Other options

767 816	<b>LOP13</b>	RTK Reference station option, allows a GS10, GS15, GS16 or GS25 receiver to transmit RTK data
905 769	<b>LOP67</b>	GS16 Regional upgrade to Performance, removes country/region lock from GS16 Regional and upgrades its capabilities to same options as Performance.

 Please refer to chapter 59 for the available HxGN SmartNet Global options.

## 14 RTK Modems

For UHF RTK Rover or Base usage external radio modems can be connected.  
The GS16 UHF models are equipped with internal modem and internal UHF radio for RTK Rover and RTK Base usage. The UHF modem requires an external RTK antenna.

### 14.1 Satellite Radio Modem



#### Satellite modem

828 005	<b>GFU30</b>	Satellite TR4+ 403-470 MHz RX/TX radio in GFU housing. Transceiver UHF radio module. User manual and CE Declaration of Conformity included.
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#### Cables for Satellite modem

733 297	<b>GEV171</b>	1.8m Y-cable to program the Satellite radio modem inside the GFU housing.
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### 14.2 Satellite High Power Radio



789 636	<b>HPR2</b>	Satellite Easy Pro 35W high power radio, 403-473 MHz RX/TX radio. Includes power cable for connecting to 12V battery and programming cable.
982 340	<b>HPR4</b>	Satellite-EASY Pro+ 35W, 403-473 MHz RX/TX radio. Includes power cable to connect to 12V battery and programming cable.
799 776	<b>GEV266</b>	Data cable to connect Satel HPR radio to GS14/GS16/GS18 GNSS receiver.
806 097	<b>GVP712</b>	Container for Satel HPR High Power Radio.

## 15 External RTK Antennas

### 15.1 External RTK Antennas



#### RTK antenna arm

767 790	<b>GAD108</b>	Arm to mount external UHF antenna to GS14/GS16 SmartAntenna.
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#### Radio antennas

639 964	<b>GAT1</b>	Gainflex radio antenna (frequency range 400-435 MHz).
667 243	<b>GAT2</b>	Gainflex radio antenna (frequency range 435-470 MHz).
782 500	<b>GAT18</b>	Multiband Antenna for 824-2170 MHz GSM/UMTS mobile networks and 900 MHz radio.
979 949	<b>GAT33</b>	Multiband (698-960MHz; 1710-2400MHz and 2496-2690MHz) Antenna for GSM/UMTS/LTE mobile networks & radio, with TNC connector.

### 15.2 Accessories for Mounting External RTK Antenna on Second Tripod (Base)



#### Adapter

767 791	<b>GAD109</b>	Transition adapter from external UHF antenna connector of a GS14/GS16 SmartAntenna to standard TNC connector. Allows to connect an external UHF antenna directly or via gainflex cable.
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#### RTK antenna cables

636 959	<b>GEV120</b>	2.8m antenna cable.
667 201	<b>GEV142</b>	1.6m extension antenna cable.

#### Telescopic rod, antenna arm and base for telescopic rod

667 228	<b>GAD32</b>	Telescopic rod with 5/8" screw. Fits in base 667 236.
667 220	<b>GAD34</b>	Arm 3cm long, screws on telescopic rod. Gainflex antenna fits on arm. Antenna cable connects to arm.
667 236	<b>GHT36</b>	Base with 5/8" screw, for setting up telescopic rod on tripod.

## 16 Accessories for Using External Radios with GS16 Receiver



#### Brackets and holders for GFU radios

748 417	<b>GHT58</b>	Bracket to mount a radio built into the Leica GFU radio housing on a tripod.
767 896	<b>GHT64</b>	Holder for GFU radios. Attaches to all GNSS poles.

#### Cables for external radios

733 297	<b>GEV171</b>	1.8m Y-cable to program the Satelline radio modem inside the GFU housing.
796 492	<b>GEV264</b>	1.8m Y-cable for RTK reference setup, connects GS14/GS16 receiver to a GEB373 external battery and a Leica GFU radio.
811 818	<b>GEV274</b>	Y-cable for RTK reference setup, connects GS10/GS14/GS15/GS16/GS18 receiver to a power source (SAE plug) and a Satel HPR radio.

## 17 Additional Accessories for GS16 Pole Setups - GNSS Rover


### 17.1 Survey Poles



#### Poles with 5/8" screw

865 473	<b>GLS102</b>	Telescopic carbon and aluminium GNSS pole with 5/8" screw. Locks at 1.60m, 1.80m, 2.00m and 2.20m. Includes circular bubble.
768 226	<b>GLS13</b>	Telescopic aluminium GNSS pole with 5/8" screw. Snap locks at 1.80m and 2.00m. Includes circular bubble.
752 292	<b>GLS30</b>	Telescopic carbon GNSS pole with 5/8" screw. Snap locks at 1.80m and 2.00m. Includes circular bubble.

#### Pole with stub

 Requires GAD31 screw to stub adapter for GS16 receiver to be mounted on these poles.

766 359	<b>GLS31</b>	Telescopic carbon Total Station reflector pole with stub. Snap locks at 2.00m for GNSS antennas.
667 217	<b>GAD31</b>	Screw to stub adapter.

### 17.2 Holder and Clamp for Poles



767 880	<b>GHT63</b>	Clamp arrangement for attaching the GHT62 or GHT66 to all poles (except mini reflector poles).
807 157	<b>GHT66</b>	Pole holder base plate for CS20 field controller.
925 664	<b>GHT81</b>	Tablet holder for attaching a CS30 Tablet with a GHT63 clamp to a pole. GHT63 is not included.
998 120	<b>GHT89</b>	Holder and cradle for attaching GKP100 Leica Captivate keypad and CS30 tablet to a pole. GHT63 is not included.
972 107	<b>CMB16</b>	Holder for CC200 Tablet. Can be attached to a pole with a GHT63 clamp (not included), or in a vehicle with a 6010273, Vehicle holder package (not included).

### 17.3 QuickStand



560 138	<b>GST6</b>	Quickstand with 3 telescopic legs, for aluminium poles.
667 319	<b>GSR111</b>	Dual-strut support, for all GLS poles.

## 18 Additional Accessories using the GS16 Receiver in a SmartPole Setup

 Please refer to the Leica Viva TPS and Leica Nova TPS Equipment lists for additional accessories using the GS16 receiver in a SmartPole setup.

## 19 Additional Accessories using the GS16 Receiver in a SmartStation Setup

 Please refer to the Leica Viva TPS and Leica Nova TPS Equipment lists for additional accessories using the GS16 receiver in a SmartStation setup.

## 20 Additional Accessories for GS16 Tripod Setups - GNSS Base

### 20.1 Tribachs



777 508	<b>GDF321</b>	Tribachs Series 5000, without optical plummet.
777 509	<b>GDF322</b>	Tribachs Series 5000, with optical plummet.
842 062	<b>GDF312</b>	Tribachs Series 3000, with optical plummet.

### 20.2 Tripods



399 244	<b>GST05</b>	Wooden tripod with polymer coating, with accessories.
563 630	<b>GST05L</b>	Aluminium tripod, telescopic, with accessories.
667 301	<b>GST120-9</b>	Heavy duty tripod, self-closing, with side clamp screws and carrying strap.

### 20.3 Carriers



<b>Carrier with 5/8" screw</b>		
667 216	<b>GRT146</b>	Carrier with 5/8" screw, GNSS antenna screws on directly.
<b>Carriers with stub</b>		
667 313	<b>GRT144</b>	Carrier with stub.
667 217	<b>GAD31</b>	Screw-to-stub adapter for fitting GNSS antenna on carriers with stub and poles with stub.

### 20.4 Height Hook



667 244	<b>GZS4-1</b>	Height hook with integrated tape measure. Supplied with additional tape graduated in feet and inches.
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## 21 Containers for GS16 Receiver



833 516	<b>GVP716</b>	Backpack carrying systems for all large TPS and GNSS containers.
833 517	<b>GVP717</b>	Sidebag for large GNSS container (current version).
833 518	<b>GVP718</b>	Basic backstrap for large GNSS container (current version).
833 519	<b>GVP719</b>	Shoulderstrap for large GNSS container (current version).
980 902	<b>GVP753</b>	Hard container for SmartAntenna, CS field controller and accessories for a Rover setup.
980 903	<b>GVP754</b>	Hard container for 2 SmartAntennas, CS field controller and accessories for a Base and Rover setup.
980 899	<b>GVP750</b>	Hard container for SmartAntenna, CS field controller and accessories for a SmartPole and SmartStation setup.

# GS05 GNSS Receiver

## 22 GS05 GNSS Receiver

949 989	<b>GS05</b>	Leica GS05 UHF Regional Rover SmartAntenna *
949 993	<b>GS05</b>	Leica GS05 UHF Regional Base SmartAntenna *
1003096	<b>GS05</b>	Leica GS05 UHF Rover SmartAntenna
1003097	<b>GS05</b>	Leica GS05 UHF Base SmartAntenna
949 990	<b>GS05</b>	Leica GS05 LTE Regional Rover SmartAntenna *
949 991	<b>GS05</b>	Leica GS05 LTE Rover SmartAntenna
949 992	<b>GS05</b>	Leica GS05 LTE SmartNet Rover SmartAntenna **

\* Available in selected countries only.

\*\* Available in countries with HxGN SmartNet NRTK coverage. Refer to: [www.hxgnsmartnet.com/coverage](http://www.hxgnsmartnet.com/coverage)

	Leica GS05 UHF Rover	Leica GS05 UHF Base	Leica GS05 LTE Rover	Leica GS05 LTE SmartNet Rover
<b>Supported GNSS Systems</b>				
GPS (L1, L2C)	●	●	●	●
GLONASS (L1, L2C)	●	●	●	●
Galileo (E1, E5b)	●	●	●	●
BeiDou (B1I, B2I)	●	●	●	●
QZSS (L1, L2C)	●	●	●	●
<b>Positioning performance</b>				
RTK Reference Station functionality	●	●	●	●
RTK Rover	●	○	●	●○ *
HxGN SmartNet Rover GS05	○	○	○	○
Tilt compensation (up to 30°)	○	○	○	○
<b>Position update &amp; data recording</b>				
10 Hz positioning	●	●	●	●
Raw data logging	●	●	●	●
RINEX logging	○	○	○	○
NMEA out	○	○	○	○
No country limitation	●○ **	●○ **	●○ **	●

● Standard

○ Optional

\* **Standard** for HxGN SmartNet NRTK GS05 subscriptions and **Optional** for Single Baseline RTK and the rest of Network RTK corrections providers.

\*\* **Optional** for Regional variants.

## 23 Additional GS05 Receiver Options

### Data recording options

1006937	<b>RINEX</b>	Enables logging of RINEX data on a GS05 receiver.
1006938	<b>NMEA out</b>	Enables NMEA data to be streamed out from a GS05 receiver.

### Positioning performance related options

1006933	<b>RTK Rover</b>	Enables RTK positions to be computed from a single base station and from an RTK network on a GS05 UHF Base receiver.
1006935	<b>RTK Rover for GS05 SmartNet</b>	Enables RTK positions to be computed from a single base station and from an RTK network on a GS05 LTE SmartNet Rover receiver.
1006940	<b>Tilt compensation</b>	Enables tilt compensation up to 30° on a GS05 receiver.

### HxGN SmartNet options

5312575	<b>SmartNet NRTK GS05, 1 yr</b>	Yearly subscription to nationwide Network RTK corrections for GS05 Sensor only. The subscription includes Network RTK access through Sensor ID only and 500 hours of RINEX download.
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### Other options

1006944	<b>No Region limitation</b>	Removes country/region lock from GS05 Regional.
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## 24 External RTK Antennas

### 24.1 Radio antennas



956 490	<b>GAT36</b>	External LTE Antenna for GS05, 700-960 & 1710-2200 MHz.
981 792	<b>GAT35</b>	External UHF Antenna for GS05 (frequency range 400-470Mhz).

## 25 Additional Accessories for GS05 Pole Setups - GNSS Rover


### 25.1 Survey Poles



#### Poles with 5/8" screw

865 473	<b>GLS102</b>	Telescopic carbon and aluminium GNSS pole with 5/8" screw. Locks at 1.60m, 1.80m, 2.00m and 2.20m. Includes circular bubble.
768 226	<b>GLS13</b>	Telescopic aluminium GNSS pole with 5/8" screw. Snap locks at 1.80m and 2.00m. Includes circular bubble.
752 292	<b>GLS30</b>	Telescopic carbon GNSS pole with 5/8" screw. Snap locks at 1.80m and 2.00m. Includes circular bubble.

#### Pole with stub

 Requires GAD31 screw to stub adapter for GS05 receiver to be mounted on these poles.

766 359	<b>GLS31</b>	Telescopic carbon Total Station reflector pole with stub. Snap locks at 2.00m for GNSS antennas.
667 217	<b>GAD31</b>	Screw to stub adapter.



## 25.2 Holder and Clamp for Poles




767 880	<b>GHT63</b>	Clamp arrangement for attaching the GHT62 or GHT66 to all poles (except mini reflector poles).
807 157	<b>GHT66</b>	Pole holder base plate for CS20 field controller.
925 664	<b>GHT81</b>	Tablet holder for attaching a CS30 Tablet with a GHT63 clamp to a pole. GHT63 is not included.
998 120	<b>GHT89</b>	Holder and cradle for attaching GKP100 Leica Captivate keypad and CS30 tablet to a pole. GHT63 is not included.
972 107	<b>CMB16</b>	Holder for CC200 Tablet. Can be attached to a pole with a GHT63 clamp (not included), or in a vehicle with a 6010273, Vehicle holder package (not included).

## 25.3 QuickStand



560 138	<b>GST6</b>	Quickstand with 3 telescopic legs, for aluminium poles.
667 319	<b>GSR111</b>	Dual-strut support, for all GLS poles.

## 26 Additional Accessories using the GS05 Receiver in a SmartPole Setup

945 956	<b>GAD54</b>	Extension (height adapter) to mount the GS05 with external UHF and LTE antenna and GRZ122 prism in a SmartPole setup.
 Please refer to the Leica Viva TPS and Leica Nova TPS Equipment lists for additional accessories using the GS05 receiver in a SmartPole setup.		

## 27 Additional Accessories for GS05 Tripod Setups - GNSS Base

### 27.1 Tribrachs



777 508	<b>GDF321</b>	Tribrachs Series 5000, without optical plummet.
777 509	<b>GDF322</b>	Tribrachs Series 5000, with optical plummet.
842 062	<b>GDF312</b>	Tribrachs Series 3000, with optical plummet.

### 27.2 Tripods



399 244	<b>GST05</b>	Wooden tripod with polymer coating, with accessories.
563 630	<b>GST05L</b>	Aluminium tripod, telescopic, with accessories.
667 301	<b>GST120-9</b>	Heavy duty tripod, self-closing, with side clamp screws and carrying strap.

### 27.3 Carriers



#### Carrier with 5/8" screw

667 216	<b>GRT146</b>	Carrier with 5/8" screw, GNSS antenna screws on directly.
945 956	<b>GAD54</b>	Extension (height adapter) to mount the GS05 with external UHF antenna on the tripod carrier (GRT146).

#### Carriers with stub

667 313	<b>GRT144</b>	Carrier with stub.
667 217	<b>GAD31</b>	Screw-to-stub adapter for fitting GNSS antenna on carriers with stub and poles with stub.

### 27.4 Height Hook



667 244	<b>GZS4-1</b>	Height hook with integrated tape measure. Supplied with additional tape graduated in feet and inches.
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## 28 Containers for GS05 Receiver



833 516	<b>GVP716</b>	Backpack carrying systems for all large TPS and GNSS containers.
833 517	<b>GVP717</b>	Sidebag for large GNSS container (current version).
833 518	<b>GVP718</b>	Basic backstrap for large GNSS container (current version).
833 519	<b>GVP719</b>	Shoulderstrap for large GNSS container (current version).
980 899	<b>GVP750</b>	Hard container for a SmartAntenna, CS field controller and accessories for a SmartPole and SmartStation setup.
980 902	<b>GVP753</b>	Hard container for SmartAntenna, CS field controller and accessories for a Rover setup.
980 903	<b>GVP754</b>	Hard container for 2 SmartAntennas, CS field controller and accessories for a Base and Rover setup.

# GS07 GNSS Receiver

## 29 GS07 GNSS Receiver



869 374	<b>GS07</b>	GS07 SmartAntenna. Geodetic 320 channels GNSS receiver, includes GPS, QZSS / NavIC, multi-frequency, network RTK, raw and RINEX data logging and 5 Hz positions. Easily upgradeable to Glonass, Galileo and BeiDou.
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## 30 Additional GS07 Receiver Software Options

### GNSS Software options (to be loaded on GS07)

869 410	<b>LOP74</b>	GS07 Glonass option.
869 412	<b>LOP75</b>	GS07 Galileo option.
869 413	<b>LOP76</b>	GS07 BeiDou option.
869 414	<b>LOP77</b>	GS07 3rd party RTK Rover option, enables RTK on a GS07 receiver when being used with Zeno Connect, Zeno Mobile and Field Genius software. Requires multi-frequency.
865 277	<b>GRL206</b>	Interference mitigation option for GR30, GR50, GM30 and GS07, GS10, GS16, GS18 and GS25 receiver.



Please refer to chapter 59 for the available HxGN SmartNet Global options.

## 31 Additional Accessories for GS07 Pole Setups - GNSS Rover

### 31.1 Survey Poles



#### Poles with 5/8" screw

865 473	<b>GLS102</b>	Telescopic carbon and aluminium GNSS pole with 5/8" screw. Locks at 1.60m, 1.80m, 2.00m and 2.20m. Includes circular bubble.
768 226	<b>GLS13</b>	Telescopic aluminium GNSS pole with 5/8" screw. Snap locks at 1.80m and 2.00m. Includes circular bubble.
752 292	<b>GLS30</b>	Telescopic carbon GNSS pole with 5/8" screw. Snap locks at 1.80m and 2.00m. Includes circular bubble.

#### Pole with stub



Requires GAD31 screw to stub adapter for GS07 receiver to be mounted on these poles.

766 359	<b>GLS31</b>	Telescopic carbon Total Station reflector pole with stub. Snap locks at 2.00m for GNSS antennas.
667 217	<b>GAD31</b>	Screw to stub adapter.

### 31.2 Holder and Clamp for Poles



767 880	<b>GHT63</b>	Clamp arrangement for attaching the GHT62 or GHT66 to all poles (except mini reflector poles).
807 157	<b>GHT66</b>	Pole holder base plate for CS20 field controller.
998 120	<b>GHT89</b>	Holder and cradle for attaching GKP100 Leica Captivate keypad and CS30 tablet to a pole. GHT63 is not included.
972 107	<b>CMB16</b>	Holder for CC200 Tablet. Can be attached to a pole with a GHT63 clamp (not included), or in a vehicle with a 6010273, Vehicle holder package (not included).

### 31.3 QuickStand



560 138	<b>GST6</b>	Quickstand with 3 telescopic legs, for aluminium poles.
667 319	<b>GSR111</b>	Dual-strut support, for all GLS poles.

## 32 Containers for GS07 Receiver



833 516	<b>GVP716</b>	Backpack carrying systems for all large TPS and GNSS containers.
833 517	<b>GVP717</b>	Sidebag for large GNSS container (current version).
833 518	<b>GVP718</b>	Basic backstrap for large GNSS container (current version).
833 519	<b>GVP719</b>	Shoulderstrap for large GNSS container (current version).
980 902	<b>GVP753</b>	Hard container for SmartAntenna, CS field controller and accessories for a Rover setup.
980 903	<b>GVP754</b>	Hard container for 2 SmartAntennas, CS field controller and accessories for a Base and Rover setup.
980 899	<b>GVP750</b>	Hard container for SmartAntenna, CS field controller and accessories for a SmartPole and SmartStation setup.

# GS25 GNSS Receiver

## 33 GS25 GNSS Receiver



949 988	<b>GS25</b>	<b>Leica GS25 Basic receiver *</b>
843 495	<b>GS25</b>	<b>Leica GS25 Performance receiver</b>
838 043	<b>GS25</b>	<b>Leica GS25 Unlimited receiver</b>

\* Available in selected countries only.

	Leica GS25 Basic *	Leica GS25 Performance	Leica GS25 Unlimited
<b>Supported GNSS Systems</b>			
Multi-frequency (L1, L2, L5, L-band)	●	●	●
GLONASS	○	○	●
Galileo	○	○	●
BeiDou	○	○	●
QZSS / NavIC	○	○	●
<b>RTK performance</b>			
DGPS	●	●	●
RTK unlimited	○	●	●
Network RTK	○	●	●
HxGN SmartNet Global	○	○	○
Interference mitigation	○	○	○
<b>Position update &amp; data recording</b>			
20 Hz positioning	●	●	●
Raw data logging	●	●	●
RINEX logging	○	○	●
NMEA out	○	○	●
<b>Additional features</b>			
RTK Reference Station functionality	○	●	●
Event & PPS Output ports	●	●	●

- Standard
- Optional

# GS10 GNSS Receiver

## 34 GS10 GNSS Receiver



949 987	<b>GS10</b>	<b>Leica GS10 Basic receiver *</b>
838 030	<b>GS10</b>	<b>Leica GS10 Performance receiver</b>
838 032	<b>GS10</b>	<b>Leica GS10 Unlimited receiver</b>

\* Available in selected countries only.

	<b>Leica GS10 Basic *</b>	<b>Leica GS10 Performance</b>	<b>Leica GS10 Unlimited</b>
<b>Supported GNSS Systems</b>			
Multi-frequency (L1, L2, L5, L-band)	●	●	●
GLONASS	○	○	●
Galileo	○	○	●
BeiDou	○	○	●
QZSS / NavIC	○	○	●
<b>RTK performance</b>			
DGPS	●	●	●
RTK unlimited	○	●	●
Network RTK	○	●	●
HxGN SmartNet Global	○	○	○
Interference mitigation	○	○	○
<b>Position update &amp; data recording</b>			
20 Hz positioning	●	●	●
Raw data logging	●	●	●
RINEX logging	○	○	●
NMEA out	○	○	●
<b>Additional features</b>			
RTK Reference Station functionality	○	●	●

● Standard

○ Optional

## 35 Additional GS10/GS25 Receiver Options

### GNSS software options

843 513	<b>LOP54</b>	GLONASS option, enables GLONASS tracking on a GS10, GS15, GS16 or GS25 receiver.
843 514	<b>LOP55</b>	Galileo option, enables Galileo tracking on GS10, GS15, GS16 or GS25 receiver.
843 515	<b>LOP56</b>	BeiDou option, enables BeiDou tracking on GS10, GS15, GS16 or GS25 receiver.
856 090	<b>LOP73</b>	QZSS / NavIC option, enables QZSS and NavIC tracking on GS10, GS15, GS16 or GS25 receiver.
865 277	<b>GRL206</b>	Interference mitigation option for GR30, GR50, GM30 and GS07, GS10, GS16, GS18 and GS25 receiver.

### Position rate and data recording options

767 811	<b>LOP8</b>	RINEX option, allows logging of RINEX data on GS10, GS15, GS16 or GS25 receiver.
767 818	<b>LOP15</b>	NMEA out option, enables NMEA to be streamed from GS10, GS15, GS16 or GS25 receivers.

### RTK related options

767 813	<b>LOP10</b>	Unlimited RTK option, enables RTK positions to be computed from a single base station with no limit of distance.
767 815	<b>LOP12</b>	Unlimited RTK and Network RTK, enables RTK position to be computed from a single base station and within a RTK network.
767 817	<b>LOP14</b>	Upgrade option for GS10, GS15, GS16 or GS25 receivers from RTK unlimited only to RTK unlimited including RTK Network. (LOP10 to LOP12)

### Other options

767 816	<b>LOP13</b>	RTK Reference station option, allows a GS10, GS15 or GS25 receiver to transmit RTK data.
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Please refer to chapter 59 for the available HxGN SmartNet Global options.

## 36 GNSS Antennas



Select the antenna for GS10/GS25 receiver.

Choke ring antennas are only required for special applications such as when using a GS10/GS25 receiver as a permanent reference station receiver.

### 36.1 GNSS Single and Multi-Frequency Antennas



892 427	<b>AS11</b>	GPS/GLONASS/Galileo/BeiDou multi-frequency antenna, includes L-Band signals.
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### 36.2 Field Base GNSS Antennas



773 758	<b>AR10</b>	GPS/GLONASS/Galileo/BeiDou multi-frequency reference station antenna, includes L-Band signals. With integrated radome.
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### 36.3 Choke Ring Antennas



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

## 37 GNSS Antenna Cables for GS10/GS25 Receiver

### 37.1 GNSS Antenna Cables for GS10/GS25 using as Rover



667 200	<b>GEV141</b>	1.2m antenna cable.
667 201	<b>GEV142</b>	1.6m extension for antenna cable.
724 969	<b>GEV194</b>	1.8m antenna cable.

### 37.2 GNSS Antenna Cables for GS10/GS25 Base Setup



#### Short cables

667 200	<b>GEV141</b>	1.2m antenna cable.
724 969	<b>GEV194</b>	1.8m antenna cable.

#### Medium cables

636 959	<b>GEV120</b>	2.8m antenna cable.
632 372	<b>GEV119</b>	10m antenna cable.

#### Extra long cables

632 390	<b>GEV108</b>	30m antenna cable.
664 813	<b>GEV134</b>	50m antenna cable.

### 37.3 PPS/Event Cables for GS25



667 744	<b>GEV150</b>	PPS output cable for GS25 (port PPS) with BNC connector.
403 448	<b>GEV42</b>	Event input cable for GS25 (port E1) with BNC connector.
789 061	<b>GEV262</b>	Event input cable for GS25 (port E2) with BNC connector.

## 38 RTK Modems

### 38.1 Satellite Radio Modems for GS10 Receiver



#### Satellite modems

828 005	<b>GFU30</b>	Satellite TR4+ 403-470 MHz RX/TX radio in GFU housing. Transceiver UHF radio module. User manual and CE Declaration of Conformity included.
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#### Cables for Satellite modems

733 297	<b>GEV171</b>	1.8m Y-cable to program the Satellite radio modem inside the GFU27 housing.
639 968	<b>GEV125</b>	Cable for Satellite radios without GFU housing to be connected to GS10/GS15.

### 38.2 Satellite Radio Modems for GS25 Receiver



#### Satellite modems

828 007	<b>SLR6-1</b>	Satellite TR4+ 403-470 MHz RX/TX radio for GS25. Transceiver UHF radio module. User manual and CE Declaration of Conformity included.
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#### Cables for Satellite modems

639 968	<b>GEV125</b>	Cable for Satellite radios without GFU housing to be connected to GS10/GS15/GS25.
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### 38.3 Satellite High Power Radios



789 636	<b>HPR2</b>	Satellite Easy Pro 35W high power radio, 403-473 MHz RX/TX radio. Includes power cable for connecting to 12V battery and programming cable.
982 340	<b>HPR4</b>	Satellite-EASY Pro+ 35W, 403-473 MHz RX/TX radio. Includes power cable to connect to 12V battery and programming cable.
817 713	<b>GEV275</b>	Data cable to connect Satel HPR radio to GS10/GS25 GNSS receiver.
806 097	<b>GVP712</b>	Container for Satel HPR High Power Radio.



## 38.4 Mobile Phones for GS10



767 861	<b>GFU29</b>	GFU29, 5 band UMTS module for global use in GFU housing. Compatible with GSM, GPRS, EDGE, HSDPA networks.
979 946	<b>GFU31</b>	4G/LTE Cat. 1 module for global use in GFU housing. Provides full flexibility due to multi-band technology (700/800/850/900/1800/1900/2100/2300/2500/2600 Mhz) supporting all GSM, GPRS, EDGE, UMTS and LTE FDD/TDD network providers.

## 38.5 Mobile Phones for GS25



776 236	<b>SLG1-2</b>	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.
979 947	<b>SLG31</b>	4G/LTE Cat. 1 mobile modem for global use. Provides full flexibility due to multi-band technology (700/800/850/900/1800/1900/2100/2300/2500/2600 Mhz) supporting all GSM, GPRS, EDGE, UMTS and LTE FDD/TDD network providers. Can easily be plugged into the GS25 and GR/GM GNSS receivers.

## 39 RTK Antennas

### 39.1 External RTK Antennas



#### Gainflex radio antennas

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

#### Antennas for mobile phones

782 500	<b>GAT18</b>	Multiband GSM/UMTS Antenna for 850/1900 MHz, for 900/1800 MHz and for 2100 MHz mobile networks
979 949	<b>GAT33</b>	Multiband (698-960MHz; 1710-2400MHz and 2496-2690MHz) Antenna for GSM/UMTS/LTE mobile networks & radio, with TNC connector.

### 39.2 Accessories for Mounting RTK Antenna on the AS11 Antenna



#### Antenna cables

667 200	<b>GEV141</b>	1.2m antenna cable.
667 201	<b>GEV142</b>	1.6m extension for antenna cable.
724 969	<b>GEV194</b>	1.8m antenna cable.
636 959	<b>GEV120</b>	2.8m antenna cable.

#### RTK antenna arm

667 219	<b>GAD33</b>	15cm, attaches to GNSS antenna. Gainflex antenna fits on arm. Antenna cable connects to arm.
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### 39.3 Accessories for Mounting RTK Antenna on Second Tripod (Base)



#### RTK antenna cables

636 959	<b>GEV120</b>	2.8m antenna cable.
667 201	<b>GEV142</b>	1.6m extension for antenna cable.

#### Telescopic rod, antenna arm and base for telescopic rod

667 228	<b>GAD32</b>	Telescopic rod with 5/8" screw. Fits in base 667 236.
667 220	<b>GAD34</b>	Arm 3cm long, screws on telescopic rod. Gainflex antenna fits on arm. Antenna cable connects to arm.
667 236	<b>GHT36</b>	Base with 5/8" screw, for setting up telescopic rod on tripod.

## 40 Additional Accessories for GS10/GS25 Pole Setups - GNSS Rover

### 40.1 Survey Poles



#### Poles with 5/8" screw

865 473	<b>GLS102</b>	Telescopic carbon and aluminium GNSS pole with 5/8" screw. Locks at 1.60m, 1.80m, 2.00m and 2.20m. Includes circular bubble.
768 226	<b>GLS13</b>	Telescopic aluminium GNSS pole with 5/8" screw. Snap locks at 1.80m and 2.00m. Includes circular bubble.
752 292	<b>GLS30</b>	Telescopic carbon GNSS pole with 5/8" screw. Snap locks at 1.80m and 2.00m. Includes circular bubble.

#### Poles with stub



Requires GAD31 screw to stub adapter for AS11 antenna to be mounted on these poles.

754 391	<b>GLS12</b>	Telescopic aluminium Total Station reflector pole with stub. Snap locks at 2.00m for GNSS antennas.
766 359	<b>GLS31</b>	Telescopic carbon Total Station reflector pole with stub. Snap locks at 2.00m for GNSS antennas.
667 217	<b>GAD31</b>	Screw to stub adapter.

### 40.2 Minipack Setup



#### Backpack

770 707	<b>GVP647</b>	Minipack, holds GS10 GNSS Receiver.
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#### Holders

767 880	<b>GHT63</b>	Clamp arrangement for attaching the GHT62 or GHT66 to all poles (except mini reflector poles).
807 157	<b>GHT66</b>	Pole holder base plate for CS20 field controller.
925 664	<b>GHT81</b>	Tablet holder for attaching a CS30 Tablet with a GHT63 clamp to a pole. GHT63 is not included.
998 120	<b>GHT89</b>	Holder and cradle for attaching GKP100 Leica Captivate keypad and CS30 tablet to a pole. GHT63 is not included.


#### Antenna cables

667 200	<b>GEV141</b>	1.2m antenna cable.
667 201	<b>GEV142</b>	1.6m extension antenna cable.
636 959	<b>GEV120</b>	2.8m antenna cable.

#### Telescopic rod and RTK antenna arm

667 228	<b>GAD32</b>	Telescopic rod with 5/8" screw. Fits in Minipack 667 137. Fits in base 667 236.
667 220	<b>GAD34</b>	Arm 3cm long, screws on telescopic rod. Gainflex antenna fits on arm. Antenna cable connects to arm.
734 388	<b>GAD46</b>	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.

## 40.3 All on the Pole Setup

 Only possible when using GLS12/GLS13 poles.



### Holders

733 265	<b>GHT40</b>	Holder for all variants of GS10 for balanced all-on-the-pole setup.
767 879	<b>GHT62</b>	Pole holder base plate for CS15 field controller.
767 880	<b>GHT63</b>	Clamp arrangement for attaching the GHT62 or GHT66 to all poles (except mini reflector poles).
807 157	<b>GHT66</b>	Pole holder base plate for CS20 field controller.
925 664	<b>GHT81</b>	Tablet holder for attaching a CS30 Tablet with a GHT63 clamp to a pole. GHT63 is not included.
998 120	<b>GHT89</b>	Holder and cradle for attaching GKP100 Leica Captivate keypad and CS30 tablet to a pole. GHT63 is not included.

### Antenna cable for GNSS antenna and RTK antenna

724 969	<b>GEV194</b>	1.8m antenna cable.
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### RTK antenna arm

667 219	<b>GAD33</b>	15cm, attaches to GNSS antenna. Gainflex antenna fits on arm. Antenna cable connects to arm.
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## 40.4 QuickStand



560 138	<b>GST6</b>	Quickstand with 3 telescopic legs, for aluminium poles.
667 319	<b>GSR111</b>	Dual-strut support, for all GLS poles.

## 41 Additional Accessories for GS10/GS25 Tripod Setups - GNSS Base

### 41.1 Tribrachs



777 508	<b>GDF321</b>	Tribrachs Series 5000, without optical plummet.
777 509	<b>GDF322</b>	Tribrachs Series 5000, with optical plummet.
842 062	<b>GDF312</b>	Tribrachs Series 3000, with optical plummet.

### 41.2 Tripods



667 301	<b>GST120-9</b>	Heavy duty tripod, self-closing, with side clamp screws and carrying strap.
399 244	<b>GST05</b>	Wooden tripod with polymer coating, with accessories.
563 630	<b>GST05L</b>	Aluminium tripod, telescopic, with accessories.

### 41.3 Carriers



#### Carrier with 5/8" screw

667 216	<b>GRT146</b>	Carrier with 5/8" screw, GNSS antenna screws on directly.
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#### Carriers with stub

667 313	<b>GRT144</b>	Carrier with stub.
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667 217	<b>GAD31</b>	Screw-to-stub adapter for fitting GNSS antenna on carriers with stub and poles with stub.
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### 41.4 Height Hook




667 244	<b>GZS4-1</b>	Height hook with integrated tape measure. Supplied with additional tape graduated in feet and inches.
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## 42 Mounting Kits for GS25



#### Mounting kits for GS25 receiver


774 439	<b>GEV249</b>	Rack mount shelf for GS25 receiver. For fitting the receiver to standard IT rack (requires 2 U in the rack).
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 Requires GEV250 Wall mount kit (774 440) to mount the receiver on the shelf.

774 440	<b>GEV250</b>	Wall Mount Kit for GS25 receiver. For attaching the receiver to a wall bench, table or cabinet.
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## 43 Container for GS10/GS25 Receiver



 All GS10/GS25 need to be ordered with at least one container.

833 516	<b>GVP716</b>	Backpack carrying systems for all large TPS and GNSS containers.
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833 517	<b>GVP717</b>	Sidebag for large GNSS container (current version).
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833 518	<b>GVP718</b>	Basic backstrap for large GNSS container (current version).
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833 519	<b>GVP719</b>	Shoulderstrap for large GNSS container (current version).
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980 901	<b>GVP752</b>	Hard container for GNSS Receiver, CS field controller and accessories for a Base setup.
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# Additional Accessories for GS Receivers

## 44 Power Supply

### 44.1 Internal Batteries for GS14, GS15, GS16 and GS07 Receiver



772 806	<b>GEB212</b>	Lithium-Ion battery, 7.4V/2.6Ah, rechargeable. To be used with GS14, GS15, GS16 or GS07 receiver.
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### 44.2 Internal Batteries for GS18 Receiver



954 518	<b>GEB334</b>	Lithium-Ion battery, 10.8V/3.45Ah, rechargeable.
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### 44.3 Internal Batteries for GS10 Receiver



733 270	<b>GEB221</b>	Lithium-Ion battery, 7.4V/4.4Ah, rechargeable. To be used with GS10 receiver.
793 973	<b>GEB222</b>	Lithium-Ion battery, 7.4V/6Ah, rechargeable. To be used with GS10 receiver.

### 44.4 Internal Batteries for GS25 Receiver



793 975	<b>GEB242</b>	Lithium-Ion battery, 14.8V/5.8Ah, rechargeable, for GS25 receiver.
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### 44.5 External Power Supply



<b>External battery</b>		
905 305	<b>GEB373</b>	External universal battery, Li-Ion, 13 V, 289 Wh, rechargeable.
<b>Power cables</b>		
758 469	<b>GEV219</b>	Power cable, 1.8m, connects GS10/GS14/GS15/GS16/GS18 receiver to external GEB373 battery.
439 038	<b>GEV71</b>	4m car battery cable, connects all battery cables to 12V car battery.
<b>Power cables for GS10/GS25</b>		
560 130	<b>GEV97</b>	Power cable, 1.8m, connects GS10/GS25 receiver to external GEB373 battery.
733 298	<b>GEV172</b>	Power cable, 2.8m, connects GS10/GS25 receiver to 2 external GEB373 batteries.
<b>Power supply unit</b>		
807 696	<b>GEV270</b>	Power supply unit for TPS/GPS/DNA, for indoor use only. Input 90-264 VAC to output 13.2VDC 40W, with Lemo connection for power cables.
<b>Power Adapter</b>		
983 714	<b>GEV302</b>	Power adapter for GS05. 30W output with USB-C connection for power cables. Includes sockets for EU/UK/US/AUS.

### 44.6 Battery Chargers



799 185	<b>GKL311</b>	Single-bay Charger Professional 3000. Charger for one Li-Ion battery (GEB211, GEB212, GEB221, GEB222, GEB241, GEB242 and GEB331), including AC/DC adaptor and cigarette lighter cable.
799 187	<b>GKL341</b>	Multi-bay Charger Professional 5000. Charges up to 4 batteries (GEB211, GEB212, GEB221, GEB222, GEB241, GEB242 and GEB331), including power cable.
734 389	<b>GDC221</b>	Car adapter for the GKL341 charger. Allows the use of the GKL341 with a cigarette lighter; 12V/24V DC/DC converter. Can also be used to power CS15 field controller directly from a cigarette lighter.
774 437	<b>GEV242</b>	Charger for GEB373 external battery.

## 45 Data Storage and Data Transfer

### 45.1 Memory Devices for GS10, GS18 and GS25 Receiver



767 856	<b>MSD1000</b>	SD memory card 1 GB for GS10/GS18/GS25 receiver and CS field controller, industrial grade.
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### 45.2 Memory Devices for GS16 Receiver



795 993	<b>MMSD01</b>	microSD card 1 GB for GS16 receiver, includes SD card adapter.
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### 45.3 Card Reader



767 895	<b>MCR7</b>	Card reader for SD/CF cards.
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### 45.4 Data Transfer Cables



#### Serial cables

733 280	<b>GEV160</b>	Serial data transfer cable, 2.8m, connects GS10/GS25 receiver (port 2) to PC. (Lemo to 9pin RS232)
733 282	<b>GEV162</b>	Serial data transfer cable, 2.8m, connects GS receiver (port 1) or CS field controller to PC. (Lemo to 9pin RS232)
806 094	<b>GEV268</b>	Serial data transfer cable, converter cable USB to serial (Lemo to USB connector), 2.0m, connects GS10/GS25 receiver (port 2) to PC. PC driver included on CD.
806 095	<b>GEV269</b>	Serial data transfer cable, converter cable USB to serial (Lemo to USB connector), 2.0m, connects GS receiver (port 1) or CS field controller to PC. PC driver included on CD.



#### USB cable

767 899	<b>GEV234</b>	USB cable, 1.65m, connects GS (Port 1) receiver or CS field controller to USB port of a PC. (Lemo to USB)
879 372	<b>GEV284</b>	USB-A type to USB-C type cable, 1.5m, allows a connection between the USB type A port of a PC to a GS05.
879 634	<b>GEV278</b>	USB-C type to USB-C type cable, 1m, allows a connection between the USB type C port of a PC to a GS05. Included in all GS05 orders.
938 393	<b>GEV288</b>	USB-C type to USB-C type cable, 1.5m, allows a connection between the USB type C port of a PC to a GS05.

## 46 Cables to connect GS05/GS10/GS16/GS18/GS25 to CS Field Controller



In cases where high data speed communication is required between GS and CS field controller, cables should be used instead of a Bluetooth connection.



#### USB cables

767 899	<b>GEV234</b>	USB cable, 1.65m, connects GS10/GS16/GS18/GS25 receiver or CS field controller to USB port of a PC. (Lemo to USB)
772 807	<b>GEV237</b>	USB cable, 1.65m, connects GS10/GS16/GS18/GS25 receiver to CS field controller. (Lemo to Lemo)
879 372	<b>GEV284</b>	USB-A type to USB-C type cable, 1.5m, allows USB connection between CS30/CC200 Tablets and GS05.
879 634	<b>GEV278</b>	USB-C type to USB-C type cable, 1m, allows USB connection between CS30/CC200/CC180 Tablets and GS05. Included in all GS05 orders.
938 393	<b>GEV288</b>	USB-C type to USB-C type cable, 1.5m, allows USB connection between CS30/CC200/CC180 Tablets and GS05.

## 47 Radio Accessories

806 098	<b>GST74</b>	Antenna mast including tripod, extendable up to 5m.
806 096	<b>GVP711</b>	Soft bag for car battery, including 2 cables with SAE adapter.
806 101	<b>GAD117</b>	Adapter antenna to mast, required for GAT23/GAT24 UHF antenna, includes 5m antenna cable with TNC connector.
806 099	<b>GAT23</b>	UHF radio antenna (frequency range 430-450 Mhz, 5.5dBi gain).
806 100	<b>GAT24</b>	UHF radio antenna (frequency range 450-470 Mhz, 5.5dBi gain).
811 818	<b>GEV274</b>	Y-cable for RTK reference setup, connects GS10/GS14/GS15/GS16/GS18 receiver to a power source (SAE plug) and a Satel HPR radio.
817 713	<b>GEV275</b>	Data cable to connect Satel HPR radio to GS10/GS25 GNSS receiver.
806 097	<b>GVP712</b>	Container for Satel HPR High Power Radio.

# Field Controller



## 48 CS20 Field Controller

### 48.1 CS20 Field Controller



971 176	<b>CS20</b>	<b>CS20 Basic Field Controller</b> Ruggedized field controller with 5" WVGA touch display, 4GB eMMC Flash Memory, 1GB SDRAM, SD card slot, 5MP rear camera and LED flash. Includes internal Bluetooth/WLAN module, internal TS communication module, QWERTY keypad, stylus.
971 177	<b>CS20 LTE</b>	<b>CS20 LTE Field Controller</b> Ruggedized field controller with 5" WVGA touch display, 4GB eMMC Flash Memory, 1GB SDRAM, SD card slot, 5MP rear camera and LED flash. Includes internal Bluetooth/WLAN module, 4G GSM/UMTS/LTE module, internal TS communication module, QWERTY keypad, stylus.
971 178	<b>CS20 LTE (US/CA)</b>	<b>CS20 LTE Field Controller (US, CA)</b> Ruggedized field controller with 5" WVGA touch display, 4GB eMMC Flash Memory, 1GB SDRAM, SD card slot, 5MP rear camera and LED flash. Includes internal Bluetooth/WLAN module, 4G GSM/UMTS/LTE module, internal TS communication module, QWERTY keypad, stylus.
876 478	<b>CS20 LTE Disto</b>	<b>CS20 LTE Disto Field Controller</b> Ruggedized field controller with 5" WVGA touch display, 4GB eMMC Flash Memory, 2GB SDRAM, SD card slot, 5MP rear camera and LED flash. Includes internal Bluetooth/WLAN module, 4G GSM/UMTS/LTE module, internal TS communication module, integrated Disto-Lasermeter QWERTY keypad, stylus.
876 480	<b>CS20 LTE Disto (US/CA)</b>	<b>CS20 LTE Disto Field Controller (US, CA)</b> Ruggedized field controller with 5" WVGA touch display, 4GB eMMC Flash Memory, 2GB SDRAM, SD card slot, 5MP rear camera and LED flash. Includes internal Bluetooth/WLAN module, 4G GSM/UMTS/LTE module, internal TS communication module, integrated Disto-Lasermeter QWERTY keypad, stylus.



-  Only CS20 LTE Disto variants have onboard-charging.
-  Only CS20 LTE Disto variants can be used for GS18I Image Processing tasks due to RAM size.

### 48.2 CGR UHF RTK Expansion Pack





798 497	<b>CGR4</b>	UHF RTK radio expansion pack for receiving GNSS RTK corrections, 403-470 MHz. GAT26 RTK radio antenna not included.
817 014	<b>GAT26</b>	UHF radio antenna for CGR4 radio, 400-470MHz.

### 48.3 CTR20 TS Communication Expansion Pack



6010023	<b>CTR20 expansion pack set</b>	TS communication expansion pack set including CTR20 module and GAT25 radio antenna.
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-  Not available in EU countries due to EN 300 328 V.1.8.1.
-  Recommended only for robotic applications systematically exceeding ranges beyond 400 m.



## 49 Leica Captivate Software and Apps - CS20 Field Controller

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### 49.1 Leica Captivate Software for CS20 Field Controller

827 698

Leica Captivate - Measure and Stake for CS20.

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### 49.2 Apps included in Leica Captivate for CS20 Field Controller



The following apps are included in Leica Captivate for CS20 (827 698).

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**Measure includes:**

- Measure
  - Code points
  - Automatically measure points
  - Remote Heights
  - Target Offset calculations
- 

**Setup includes:**

- Get station coordinates from GNSS, from Job or enter manually
  - Orientation by known Azimuth
  - Orientation by known Backsight
  - Orientation & Height transfer to up to 10 target points
  - Resection up to 10 target points
  - Resection Helmert
  - Orientate to object
- 

**Stake points includes:**

- Navigate to point using various methods: from and behind instrument, point, base line, arrow, North
  - Quality control - checking of coordinate differences before storing
  - Automatically select next closest point
  - Graphical selection of point from map
  - Edit heights and offset heights of points
  - Acoustic beep getting faster when getting closer to point
- 

**COGO includes:**

- Inverse
  - Traverse
  - Intersections
  - Angle calculations
  - Line & arc calculations
  - Bearing & distance calculations
  - Shift, Rotate, Scale (manual & matching points)
  - Triangle calculations
- 

**Determine coordinate system:**

- 1 step, 2 step, 3D Transformation
  - All common projections
- 

**Alignment Editor:**

- Horizontal alignments
  - Vertical alignments
  - Cross sections
  - Chainage equations
- 

**Control data:**

Create points and lines

---

**Data import:**

ASCII, XML, DXF, DTM, alignments

---

**Data export:**


ASCII, Custom, DXF, XML, Style Sheets, FBK, RW5, RAW and local formats

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**3rd party total station control:**

- Topcon total station control
  - Nikon total station control
  - SOKKIA total station control
-

### 49.3 Optional Apps for Leica Captivate for CS20 Field Controller


 The following apps require a valid license key.

827 701	Area Division
827 702	Stake DTM
827 699	Measure and Stake to Line
827 700	Measure to Plane / Grid
827 704	Check and Stake Road
827 705	Check and Stake Tunnel
827 706	Check and Stake Rail
827 711	Sets of Angles
827 703	Volume Calculation
827 708	Hidden Point
827 709	Traverse
827 712	QuickVolume
839 679	Inspect Surfaces
836 670	Tunnel Profile Generator

### 49.4 Optional Licences for Leica Captivate for CS20 Field Controller

827 714	Active Assist
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### 49.5 Local Applications and licenses for CS20 Field Controller

 The following apps require a valid license key.

834 295	Captivate Offset+ CS20
834 299	Captivate Zenith Line CS20
834 303	Captivate Quick Setup CS20
834 305	Captivate Auto Setup CS20
836 670	Captivate Tunnel Profile Generator CS20
839 679	Captivate Inspect Surfaces CS20
846 827	Captivate TPS Survey Streaming CS20
848 372	Captivate Inspect Road
848 374	Captivate Inspect Tunnel
848 370	Captivate TPS Monitoring for CS20
850 623	Captivate ESRI Shapefile Exporter for CS20
865 658	Captivate Compaction Control CS20
867 334	Captivate Stakeout Auto Points CS20
869 756	Captivate Structural Steel CS20
848 368	Captivate Inventory (Mtl) CS20
944 939	Captivate Custom Field Data Export CS20
834 323	Captivate Piling for CS20

## 50 CC200 Tablet

### 50.1 CC200 Tablet



996 657	<b>CC200-0-Cap, Tablet, Win 10, EU</b>	<b>CC200-0-Cap Tablet</b> Ruggedized Win10 Tablet PC with 10" screen, EU version, 10-point capacitive multi-touch daylight-readable screen, Intel Core i5-10310U vPro 1.7 GHz with Turbo Boost up to 4.46Hz, 500 GB SSD hard drive, 16 GB SDRAM, Intel® Wi-Fi6 AX201, Bluetooth v5.1, integrated 4G module, Integrated L1 GPS, extended battery (6300 Ah), up to 8MP camera with autofocus with LED flash, Stylus, AC/DC adaptor and pre-loaded with Captivate.
996 658	<b>CC200-1-Cap, Tablet, Win 10, US/CA/MX</b>	<b>CC200-1-Cap Tablet</b> Ruggedized Win10 Tablet PC with 10" screen, US/CA/MX version, 10-point capacitive multi-touch daylight-readable screen, Intel Core i5-10310U vPro 1.7 GHz with Turbo Boost up to 4.46Hz, 500 GB SSD hard drive, 16 GB SDRAM, Intel® Wi-Fi6 AX201, Bluetooth v5.1, integrated 4G module, Integrated L1 GPS, extended battery (6300 Ah), up to 8MP camera with autofocus with LED flash, Stylus, AC/DC adaptor and pre-loaded with Captivate.
996 659	<b>CC200-2-Cap, Tablet, Win 10, JP</b>	<b>CC200-2-Cap Tablet</b> Ruggedized Win10 Tablet PC with 10" screen, JP version, 10-point capacitive multi-touch daylight-readable screen, Intel Core i5-10310U vPro 1.7 GHz with Turbo Boost up to 4.46Hz, 500 GB SSD hard drive, 16 GB SDRAM, Intel® Wi-Fi6 AX201, Bluetooth v5.1, Integrated L1 GPS, extended battery (6300 Ah), up to 8MP camera with autofocus with LED flash, Stylus, AC/DC adaptor and pre-loaded with Captivate.
996 660	<b>CC200-3-Cap, Tablet, Win 10, KR</b>	<b>CC200-3-Cap Tablet</b> Ruggedized Win10 Tablet PC with 10" screen, KR version, 10-point capacitive multi-touch daylight-readable screen, Intel Core i5-10310U vPro 1.7 GHz with Turbo Boost up to 4.46Hz, 500 GB SSD hard drive, 16 GB SDRAM, Intel® Wi-Fi6 AX201, Bluetooth v5.1, Integrated L1 GPS, extended battery (6300 Ah), up to 8MP camera with autofocus with LED flash, Stylus, AC/DC adaptor and pre-loaded with Captivate.
996 661	<b>CC200-4-Cap, Tablet, Win 10, CN</b>	<b>CC200-4-Cap Tablet</b> Ruggedized Win10 Tablet PC with 10" screen, China version, 10-point capacitive multi-touch daylight-readable screen, Intel Core i5-10310U vPro 1.7 GHz with Turbo Boost up to 4.46Hz, 500 GB SSD hard drive, 16 GB SDRAM, Intel® Wi-Fi6 AX201, Bluetooth v5.1, Integrated L1 GPS, extended battery (6300 Ah), up to 8MP camera with autofocus with LED flash, Stylus, AC/DC adaptor and pre-loaded with Captivate.
996 662	<b>CC200-5-Cap, Tablet, Win 10, AUS/NZ</b>	<b>CC200-5-Cap Tablet</b> Ruggedized Win10 Tablet PC with 10" screen, AUS/NZ version, 10-point capacitive multi-touch daylight-readable screen, Intel Core i5-10310U vPro 1.7 GHz with Turbo Boost up to 4.46Hz, 500 GB SSD hard drive, 16 GB SDRAM, Intel® Wi-Fi6 AX201, Bluetooth v5.1, integrated 4G module, Integrated L1 GPS, extended battery (6300 Ah), up to 8MP camera with autofocus with LED flash, Stylus, AC/DC adaptor and pre-loaded with Captivate.

### 50.2 GKP100 Keypad



995 129	<b>GKP100</b>	<b>GKP100 Keypad</b> GKP100, Leica Captivate keypad.
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## 51 CC180 Tablet

### 51.1 CC180 Tablet



1008047	<b>CC180-0 Capt, Tablet, Win 10, EU/AUS/NZ</b>	<b>CC180-0 Capt Tablet</b> Ruggedized Win10 Tablet PC with 8", daylight-readable screen, 800 nits, Intel(R) Pentium(R) Gold 8500 1.0 GHz, 128 GB NVMe PCIe SSD, 8 GB SDRAM, Intel® Wi-Fi 6 AX211, Bluetooth v5.3, USB Type C (Support DP), Multicarrier 4G LTE Mobile Broadband & GPS Combo, extended battery (7200 mAh), 2.0 MP front-facing camera & 8.0 MP auto-focus rear camera with flash, Stylus, AC/DC adaptor and pre-loaded with Captivate.
1008048	<b>CC180-1-Capt, Tablet, Win 10, US/CA</b>	<b>CC180-1 Capt Tablet</b> Ruggedized Win10 Tablet PC with 8", daylight-readable screen, 800 nits, Intel(R) Pentium(R) Gold 8500 1.0 GHz, 128 GB NVMe PCIe SSD, 8 GB SDRAM, Intel® Wi-Fi 6 AX211, Bluetooth v5.3, USB Type C (Support DP), Multicarrier 4G LTE Mobile Broadband & GPS Combo, extended battery (7200 mAh), 2.0 MP front-facing camera & 8.0 MP auto-focus rear camera with flash, Stylus, AC/DC adaptor and pre-loaded with Captivate.

### 51.2 GKP100 Keypad



995 129	<b>GKP100</b>	<b>GKP100 Keypad</b> GKP100, Leica Captivate keypad.
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## 52 CS30 Tablet

### 52.1 CS30 Tablet



925 660	<b>CS30 LTE</b>	<b>CS30 LTE Tablet</b> Ruggedized Win10 LTSC 64-bit Tablet Computer including: 7" touch-widescreen, 64 GB eMMC hard drive, 4 GB RAM, WLAN 802.11 b/g/n/a/ac, 3G/4G Integrated Mobile Broadband module, Bluetooth v4.2, 8MP rear camera with flash, 1x GEV228 Power Supply unit, 1x GDZ80 Capacitive Stylus. Captivate pre-loaded.
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926 415	<b>CS30 LTE LRBT</b>	<b>CS30 LTE LRBT</b> Ruggedized Win10 LTSC 64-bit Tablet Computer including: 7" touch-widescreen, 64 GB eMMC hard drive, 4 GB RAM, WLAN 802.11 b/g/n/a/ac, 3G/4G Integrated Mobile Broadband module, Bluetooth v4.2, 8MP Rear camera with flash, CTR30 Long-Range Bluetooth Module, 1x GEV228 Power Supply unit, 1x GDZ80 Capacitive Stylus.
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### 52.2 GKP100 Keypad



995 129	<b>GKP100</b>	<b>GKP100 Keypad</b> GKP100, Leica Captivate keypad.
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## 53 Leica Captivate Software and Apps - CS3x/CCx Tablet

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Leica Captivate articles can be purchased either as permanent or as subscription articles.



Some Apps are included per default within Leica Captivate.

### 53.1 Apps included in Leica Captivate for CS3x/CCx Tablet



The following apps are included per default within Leica Captivate.

---

**Measure includes:**

- Measure
- Code points
- Automatically measure points
- Remote Heights
- Target Offset calculations

---

**Setup includes:**

- Get station coordinates from GNSS, from Job or enter manually
- Orientation by known Azimuth
- Orientation by known Backsight
- Orientation & Height transfer to up to 10 target points
- Resection up to 10 target points
- Resection Helmert
- Orientate to object

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**Stake points includes:**

- Navigate to point using various methods: from and behind instrument, point, base line, arrow, North
- Quality control - checking of coordinate differences before storing
- Automatically select next closest point
- Graphical selection of point from map
- Edit heights and offset heights of points
- Acoustic beep getting faster when getting closer to point

---

**COGO includes:**

- Inverse
- Traverse
- Intersections
- Angle calculations
- Line & arc calculations
- Bearing & distance calculations
- Shift, Rotate, Scale (manual & matching points)
- Triangle calculations

---

**Determine coordinate system:**

- 1 step, 2 step, 3D Transformation
- All common projections

---

**Alignment Editor:**

- Horizontal alignments
- Vertical alignments
- Cross sections
- Chainage equations

---

**Control data:**

Create points and lines

---

**Data import:**

ASCII, XML, DXF, DTM, alignments

---

**Data export:**

ASCII, Custom, DXF, XML, Style Sheets, FBK, RW5, RAW and local formats

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**3rd party total station control:**


- Topcon total station control
  - Nikon total station control
  - SOKKIA total station control
-

## 53.2 Leica Captivate Permanent Software Articles

### Leica Captivate Software for CS3x/CCx Tablet


827 719	Leica Captivate - Measure and Stake for CS3x/CCx.
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### Optional Leica Captivate Software and Apps - CS3x/CCx Tablet

 The following apps require a valid license key.

827 720	Leica Captivate Measure Stake Line CS3x/CCx
827 721	Leica Captivate Measure Plane Grid CS3x/CCx
827 722	Leica Captivate Area Division CS3x/CCx
827 723	Leica Captivate DTM Stakeout CS3x/CCx
827 724	Leica Captivate Volume Calculation CS3x/CCx
827 725	Leica Captivate Road CS3x/CCx
827 726	Leica Captivate Tunnel CS3x/CCx
827 727	Leica Captivate Rail CS3x/CCx
827 728	Leica Captivate TS Hidden Point CS3x/CCx
827 729	Leica Captivate Traverse CS3x/CCx
827 730	Leica Captivate Sets of Angles CS3x/CCx
827 731	Leica Captivate QuickVolume CS3x/CCx
889 053	Leica Captivate ADSK BIM360 Docs CS3x/CCx
889 056	Leica Captivate ADSK BIM360 1y Lic CS3x/CCx
903 363	Leica Captivate ConX 1y Lic CS3x/CCx
903 365	Leica Captivate ConX 2y Lic CS3x/CCx
903 366	Leica Captivate ConX 3y Lic CS3x/CCx
923 924	Leica Captivate Bricsys 24/7 1y CS3x/CCx
923 927	Leica Captivate Bricsys 24/7 2y CS3x/CCx
923 932	Leica Captivate Bricsys 24/7 3y CS3x/CCx

### Loadable Applications - CS3x/CCx Tablet

 The following apps require a valid license key.

834 682	Captivate Offset+ CS3x/CCx
834 686	Captivate Zenith Line CS3x/CCx
834 689	Captivate Quick Setup CS3x/CCx
834 691	Captivate Auto Setup CS3x/CCx
836 671	Captivate Tunnel Profile Generator CS3x/CCx
839 681	Captivate Inspect Surfaces CS3x/CCx
846 828	Captivate TPS Survey Streaming for CS3x/CCx
848 371	Captivate TPS Monitoring for CS3x/CCx
848 373	Captivate Inspect Road CS3x/CCx
848 375	Captivate Inspect Tunnel CS3x/CCx
865 659	Captivate Compaction Control CS3x/CCx
867 336	Captivate Stakeout Auto Points CS3x/CCx
869 757	Captivate Structural Steel for CS3x/CCx
937 674	Captivate Inspect Layer for CS3x/CCx
850 624	Leica Captivate ESRI Shapefile Exporter CS3x/CCx

## 53.3 Leica Captivate Subscription Software Articles

### Leica Captivate Software for CS3x/CCx Tablet

5310149	Captivate Meas&Stake Subscription 1y
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### Optional Leica Captivate Software and Apps - CS3x/CCx Tablet

 The following apps require a valid license key.

5310648	Leica Captivate Meas Stake Line Subription 1y
5310649	Leica Captivate Meas Plane Grid Subription 1y
5310650	Leica Captivate Area Division Subription 1y
5310651	Leica Captivate DTM Stakeout Subription 1y
5310652	Leica Captivate Volume Calc Subription 1y
5310653	Leica Captivate Road Subription 1y
5310654	Leica Captivate Rail Subription 1y
5310655	Leica Captivate Tunnel Subription 1y
5310656	Leica Captivate TS Hidden Point Subription 1y
5310657	Leica Captivate Traverse Subription 1y
5310658	Leica Captivate Sets of Angles Subription 1y
5310659	Leica Captivate Quick Volume Subription 1y
5310663	Leica Captivate ADSK BIM360 Docs Subription 1y
5310664	Leica Captivate ConX Subription 1y
5310665	Leica Captivate Bricsys 24/7 Subription 1y

### Loadable Applications - CS3x/CCx Tablet

 The following apps require a valid license key.

5310680	Leica Captivate NEN Subription 1y
5310681	Leica Captivate Inspect Surface Subription 1y
5310756	Leica Captivate Inspect Road Subription 1y
5310757	Leica Captivate Inspect Tunnel Subription 1y
5311021	Captivate ESRI Shapefile Export Subription 1y
5311884	Captivate Stakeout Auto Points Subription 1y
5312116	Captivate Auto Setup Subription 1y
5312117	Captivate TPS Monitoring Subription 1y
5312118	Captivate Offset+ Subription 1y
5312119	Captivate Compaction Control Subription 1y
5311483	Captivate Quick Setup Subription 1y

## 54 Leica CSX8 Packages



### Leica CSX8 and FieldGenius for Android packages

6019203	<b>Leica CSX8</b>	<b>Leica CSX8 package contains:</b> Can be combined with any Leica GS07*, Leica GS16 or Leica GS18 T SmartAntenna. 971 100 Leica CSX8 Tablet (EU) 929 319 FieldGenius for Android 971 102 GHT87 Holder for CSX8 Tablet 767 880 GHT63 Clamp arrangement for attaching the GHT87 to all poles
6019204	<b>Leica GS07 NetworkRTK Rover package</b>	<b>Leica GS07 Network RTK Rover package contains:</b> 869 374 GS07 SmartAntenna 869 410 LOP74 GS07 Glonass option 869 414 LOP77 GS07 3rd party RTK Rover option 971 100 Leica CSX8 Tablet (EU) 929 319 FieldGenius for Android 971 102 GHT87 Holder for CSX8 Tablet 767 880 GHT63 Clamp arrangement for attaching the GHT87 to all poles 865 473 GLS102 Telescopic GNSS carbon / aluminium pole 2x 772 806 GEB212 Lithium-Ion battery, 7.4V/2.6Ah, rechargeable. 799 185 GKL311 Single-bay Charger Professional 3000 873 933 GVP738 Hard container for Leica GS07 and Zeno GG04 plus Rover * Leica GS07 needs 869 414 LOP77 GS07 3rd party RTK Rover option.

The Leica CSX8 features a 8" screen, Android 12, Google Mobile Services, 8 GB RAM, 256GB Flash, WiFi, Bluetooth, USB-A and USB-C plug, MicroSD card slot, 32 MPix Camera with dual flash, 8 MPix Camera front, 4G/5G LTE module, Dual frequency GNSS, IP66/68 environmental protection. Includes 1 Li-Ion battery, 1 USB-C charging cable with EU/UK/US/AUS power adapter, hand strap, and Quick Guide. 2 years warranty.

All packages available in selected countries only.

929 319 FieldGenius for Android is only sold within the above predefined packages.



# Accessories for Field Controller

## 55 Accessories for CS20 Field Controller

### 55.1 Internal Batteries



954 518	<b>GEB334</b>	Lithium-Ion battery, 10.8V/3.45Ah, rechargeable.
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### 55.2 Battery Chargers



799 185	<b>GKL311</b>	Single-bay Charger Professional 3000. Charger for one Li-Ion battery (GEB211, GEB212, GEB221, GEB222, GEB241, GEB242 and GEB331), including AC/DC adaptor and cigarette lighter cable.
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799 187	<b>GKL341</b>	Multi-bay Charger Professional 5000. Charges up to 4 batteries (GEB211, GEB212, GEB221, GEB222, GEB241, GEB242 and GEB331), including power cable.
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734 389	<b>GDC221</b>	Car adapter for the GKL341 charger. Allows the use of the GKL341 with a cigarette lighter; 12V/24V DC/DC converter. Can also be used to power CS10/CS15 field controller directly from a cigarette lighter.
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### 55.3 Memory Devices



767 856	<b>MSD1000</b>	SD memory card 1 GB for total stations, GNSS receivers and field controllers, industrial grade.
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789 139	<b>MSD08</b>	SD memory card 8 GB for total stations, GNSS receivers and field controllers, industrial grade.
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765 199	<b>MS1</b>	USB memory stick, 1 GB, for total stations and field controllers, industrial grade.
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### 55.4 Card Reader & Adapter

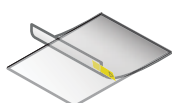


767 895	<b>MCR7</b>	Card reader for SD/CF cards.
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### 55.5 Pen and Screen Protections Foils



Pen		
813 914	<b>GDZ71</b>	Pen with tether clip interface for CS20 field controller and TS16/MS60/TS60 instruments.
813 582	<b>GHT76</b>	Tether to connect GDZ71 Pen to CS20 field controller.



Screen Protection Foil set		
813 781	<b>SPF05</b>	5" WVGA screen protection foils for CS20 field controller and TS16/MS60/TS60 instruments.

### 55.6 Additional Power Accessories



822 787	<b>GEV276</b>	Power supply unit for CS20, for indoor use only. Input 100-240 VAC to output 15.0 VDC, 40 W.
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### 55.7 Pole Accessories



807 157	<b>GHT66</b>	Holder attaching a CS20 with a GHT63 clamp to a pole. GHT63 is not included.
767 880	<b>GHT63</b>	Clamp arrangement for attaching the GHT66 and GHT78 to all poles.

## 55.8 Utility Hook and Hand Strap



### Utility hook

807 245	<b>GHT68</b>	Utility hook for CS20 field controller for attaching to belt or tripod.
845 832	<b>GHT70</b>	Clamp arrangement for attaching the GHT66 and GHT78 to all tripods.

### Hand strap

807 158	<b>GHT67</b>	Hand strap for CS20 field controller.
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## 56 Accessories for CS30 Tablet

### 56.1 Internal Batteries




925 663	<b>GEB260</b>	Battery int Li-Ion 11.4V/3000mAh.
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### 56.2 Battery Chargers



926 459	<b>GKL260</b>	Multi-Bay Charger for GEB260.
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 Country specific AC power cable needs to be ordered with every GEV288 or GKL260.

### 56.3 Power Supplies



925 665	<b>CCS02</b>	CS30 Docking station including: 1 x Ethernet port, 1 x HDMI port, 2 x USB Type A ports.
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925 661	<b>GEV288</b>	Power Supply unit for CS30 and CCS02.
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 Country specific AC power cable needs to be ordered with every GEV288 or GKL260.

### 56.4 Memory Devices



765 199	<b>MS1</b>	USB memory stick, 1 GB, for total stations and field controllers, industrial grade.
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### 56.5 Pen and Screen Protection Foils




#### Pen

925 666	<b>GDZ80</b>	Stylus for CS30.
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#### Screen Protection Foil set

925 662	<b>SPF10</b>	Screen protection foil for CS30.
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 All CS30 Tablets come with a GDZ80 Stylus and are fitted with a Screen Protection Foil from factory.

## 56.6 Pole Accessories



925 664	<b>GHT81</b>	Tablet holder for attaching a CS30 Tablet with a GHT63 clamp to a pole. GHT63 is not included.
767 880	<b>GHT63</b>	Clamp arrangement for attaching the GHT66, GHT78, and GHT81 to all poles.
998 120	<b>GHT89</b>	Holder and cradle for attaching GKP100 Leica Captivate keypad and CS30 tablet to a pole. GHT63 is not included.

## 57 Accessories for CC200 Tablet

### 57.1 General Accessories



767 880	<b>GHT63</b>	Pole clamp for CMB16 Tablet holder.
972 106	<b>CA55</b>	Hand strap for CC200 Tablet
972 107	<b>CMB16</b>	Holder for CC200 Tablet. Can be attached to a pole with a GHT63 clamp (not included), or in a vehicle with a 6010273, Vehicle holder package (not included).
972 108	<b>CA57</b>	Display protection foil for CC200 Tablet PC. Incl. iCON branding. Required for CC200-0/1/2/3/4/5.
972 110	<b>CA54</b>	Stylus for CC200 Tablet PC.
972 104	<b>CBC16</b>	Docking Station for CC200 tablet. AC/DC Adapter not included, the adapter delivered together with the CC200 tablet can be used. Otherwise please order CBC14 and power cord CA35/36/37/38/39 separately.

### 57.2 Battery Pack and Charger



972 099	<b>CBA4</b>	Li-Ion Battery for CC200 Tablet PC. Chargeable.
972 102	<b>CBC15</b>	4-bay Battery Charger for Batteries CBA4 for CC200. AC/DC adapter not included, please order CBC14 separately.
972 103	<b>CBC17</b>	Vehicle Adapter and Charger for CC200 Tablet PC. Can be used to power and charge the CC200 directly from a cigarette lighter.

### 57.3 Power Adaptors



834 379	<b>CA35</b>	Power cord (UK) for AC/DC Adapter with 3-prong plug, e.g. CBC4, CBC12
834 380	<b>CA36</b>	Power cord (US) for AC/DC Adapter with 3-prong plug, e.g. CBC5, CBC12
834 381	<b>CA37</b>	Power cord (AUS) for AC/DC Adapter with 3-prong plug, e.g. CBC6, CBC12
834 382	<b>CA38</b>	Power cord (CH) for AC/DC Adapter with 3-prong plug, e.g. CBC7, CBC12
834 383	<b>CA39</b>	Power cord (JP) for AC/DC Adapter with 3-prong plug, e.g. CBC10, CBC12
972 101	<b>CBC14</b>	AC/DC Adapter for 4-bay Charger CBC15 and Docking station CBC16.

## 58 Accessories for CC180

### 58.1 General Accessories



999 250	<b>CBC21</b>	Docking station for CC180.
999 251	<b>CA61</b>	Hand strap for CC180.
999 253	<b>CA63</b>	Display protection foil with branding for CC180.
999 254	<b>CB62</b>	Stylus for CC180 Tablet PC.

### 58.2 Battery Pack and Charger



999 248	<b>CBC20</b>	2-bay Charger for Batteries CBA5. CBC19 AC/DC Adapter not included, can be ordered separately.
999 246	<b>CBA5</b>	Li-ion Battery for CC180, chargeable.

### 58.3 Power Adaptors



999 247	<b>CBC19</b>	AC/DC Adapter for CC180, CBC20, CBC21.
999 249	<b>CBC22</b>	Vehicle Adaptor and Charger for CC180 Tablet PC. Can be used to power and charge the CC180 directly from the vehicle (cigarette lighter).
834 379	<b>CA35</b>	Power cord (UK) for AC/DC Adapter.
834 380	<b>CA36</b>	Power cord (US) for AC/DC Adapter.
834 381	<b>CA37</b>	Power cord (AUS) for AC/DC Adapter.
834 382	<b>CA38</b>	Power cord (CH) for AC/DC Adapter.
834 383	<b>CA39</b>	Power cord (JP) for AC/DC Adapter.

# HxGN SmartNet Global

## 59 HxGN SmartNet Global



HxGN SmartNet Global is a family of correction services that best ensure high precision cm-level real-time work in Leica Geosystems GS07/GS10/GS16/GS18/GS25 smart antennas and receivers.

### HxGN SmartNet Global

5310899	<b>1-year HxGN SmartNet PRO</b>	Includes access to Network RTK correction services, RTK bridging to fill interruptions and global PPP with no dependency on RTK coverage. Only available for Leica GS07/GS10/GS16/GS18/GS25 Sensors. Network RTK is available in HxGN SmartNet NRTK coverage areas. *
5310898	<b>1-year HxGN SmartNet+</b>	Includes access to Network RTK correction services and RTK bridging to fill interruptions. Only available for Leica GS07/GS10/GS16/GS18/GS25 Sensors. Available in HxGN SmartNet NRTK coverage areas. *
5311279	<b>1-year HxGN SmartNet+ State/Region **</b>	Includes access to Network RTK correction services and RTK bridging to fill interruptions. Only available for Leica GS07/GS10/GS16/GS18/GS25 Sensors. Available in HxGN SmartNet NRTK coverage areas. * HxGN SmartNet+ but limited to a smaller region or a state. Available in North America and Australia only.
5310900	<b>1-year HxGN SmartNet PPP</b>	Includes access to global PPP with no dependency on RTK coverage and RTK bridging to fill interruptions. Only available for Leica GS07/GS10/GS16/GS18/GS25 Sensors.
5311280	<b>1-month HxGN SmartNet PPP Trial</b>	1-month HxGN SmartNet PPP trial.

\* HxGN SmartNet NRTK coverage [www.hxgnsmartnet.com/coverage](http://www.hxgnsmartnet.com/coverage)

\*\* Available in selected countries only.



In order to use the HxGN SmartNet Global articles on your Leica Geosystems GS07/GS10/GS16/GS18/GS25 smart antenna it is needed to have a "network RTK" option on your device.

	HxGN SmartNet PRO	HxGN SmartNet+	HxGN SmartNet PPP
<b>Technologies</b>			
Network RTK	●	●	-
RTK Bridging	●	●	●
PPP	●	-	●

● Standard

- Not applicable

# HxGN GeoCloud

## 60 GeoCloud Drive



GeoCloud Drive is a data transfer and cloud storage service from the HxGN GeoCloud service suite. The GeoCloud Drive provides flexible access to your data from anywhere at any time.

979 637	<b>GeoCloud Drive Trial 30d</b>	GeoCloud Drive Trial 30d. License to start a cloud storage Trial account within the HxGN GeoCloud portal. The Trial runs for 30 days and includes 25GB cloud storage and 5 users.
5311646	<b>GeoCloud Drive Subscription 1yr</b>	GeoCloud Drive Subscription 1yr. Yearly subscription for a cloud storage on the HxGN GeoCloud. The subscription includes 25GB storage and 1 user.
5311647	<b>GeoCloud Drive add User Subscription 1yr</b>	GeoCloud Drive add User Subscription 1yr. Yearly subscription to extend a cloud storage on the HxGN GeoCloud by 1 user and 25GB storage.
5311648	<b>GeoCloud Drive add Data Subscription 1yr</b>	GeoCloud Drive add Data Subscription 1yr Yearly subscription to extend a cloud storage on the HxGN GeoCloud by 100GB.

# Care Packages

## 61 Customer Care Packages

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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.

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# Trademarks

## 62 Trademarks

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- Windows® is a registered trademark of Microsoft Corporation in the United States and other countries
- SD Logo is a trademark of SD-3C, LLC.
- Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

All other trademarks are the property of their respective owners.

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# GNSS and Field Controllers overview

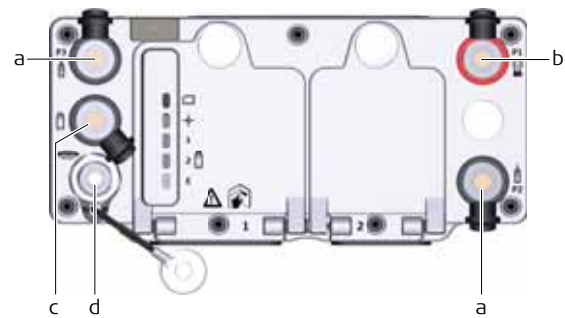
## GS25 Receiver



## GS05 Receiver



## GS10 Receiver



## GS07 Receiver



- a) Lemo1, 8pin, 30°
- b) Lemo1, 8pin, 135°
- c) Lemo1, 5pin, 0°
- d) TNC connector
- e) USB type A
- f) Mini USB AB
- g) QN connector
- h) Lemo FFA
- i) H&S QLA connector
- j) SMB connector
- k) USB-C type
- l) RP-SMA connector

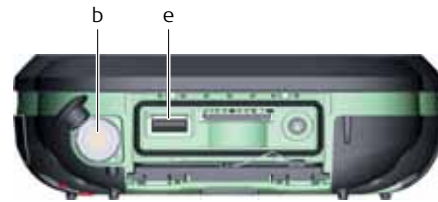
## GS16 Receiver



## GS18 Receiver



## CS20 Controller



## CS30 Tablet



## Power cables

Art. no	Name	Connector 1	Connector 2	Description
560 130	GEV97	Lemo1, 5pin, 0°	Lemo1, 5pin, 0°	Length 1.8 m Allows GS10 (power port) to be externally powered.
758 469	GEV219	Lemo1, 8pin, 135°	Lemo1, 5pin, 0°	Length 1.8 m Allows GS10/GS14/GS15/GS16/GS18 (port 1) to be externally powered.
822 787	GEV276	5.5 mm barrel connector	Mains plug	Length 1.2 m, + 1.5 m Allows CS20 to be externally powered via the power jack. AC/DC mains plug type is country specific.
439 038	GEV71	Lemo1, 5pin, 0° (female)	Crocodile clips	Length 4.0 m Allows powering of GS10/GS15/GS14/GS16/GS18 from car battery.
809 028	GEV272	Lemo, 4pin, 0°	SAE	Length 2.0 m Allows powering of Satel HPR2 from the GVP711 battery soft bag.
982 339	GEV300	Lemo, 2pin, 0°	Crocodile clips	Length 2.0 m Allows powering of Satel HPR4 from the GVP711 battery soft bag.
807 696	GEV270	Lemo1, 5pin, 0° (female)	Mains plug	Length 0.8 m + 1.5 m Allows powering of GS10/GS15/GS14/GS16/GS18 from standard mains socket (country specific).
879 372	GEV284	USB type A	USB type C	Length 1.5 m Allows GS05 to be externally powered by an AC/DC adapter with USB type A connector.
879 634	GEV278	USB type C	USB type C	Length 1.0 m Allows GS05 to be externally powered by an AC/DC adapter with USB type C connector.
938 393	GEV288	USB type C	USB type C	Length 1.5 m Allows GS05 to be externally powered by an AC/DC adapter with USB type C connector.

## Y - power cables

Art. no	Name	Connector 1	Connector 2	Connector 3	Description
733 298	GEV172	Lemo1, 5pin, 0°	Lemo1, 5pin, 0°	Lemo1, 5pin, 0°	Length 2.8 m Allows GS10 (power port) to be externally powered by 2 external batteries.
756 365	GEV215	Lemo1, 8pin, 135°	Lemo1, 8pin, 135°	Lemo1, 5pin, 0°	Length 2.0 m Allows connection between CS20 and GS10/GS14/GS15/GS16/GS18 (port 1) while being powered from the GEB373.

Art. no	Name	Connector 1	Connector 2	Connector 3	Description
796 492	GEV264	Lemo1, 8pin, 135°	Lemo1, 8pin, 30° (female)	Lemo1, 5pin, 0°	Length 1.8 m Allows connection between GS14/GS16/GS18, external radio in GFU housing and GEB373 with GS and radio being externally powered.
811 818	GEV274	Lemo1, 8pin, 135°	Lemo1, 8pin, 30°	SAE	Length 2.8 m Allows connection between GS10/GS14/GS15/GS16/GS18 (port1), Satel HPR radio with GS being externally powered.

## Radio programming cables

Art. no	Name	Connector 1	Connector 2	Connector 3/4	Description
767 803	GEV231	15pin (GS15 slot-in port) (female)	RS232 serial, 9pin	Lemo1, 5pin, 0°	Length 1.8 m Allows an SLR radio device to be externally powered and programmed by a PC.
733 297	GEV171	Lemo1, 8pin, 30° (female)	RS232 serial, 9pin	Lemo1, 5pin, 0°	Length 1.8 m Allows a radio within a GFU device to be externally powered and programmed by a PC.
793 364	GEV261	Lemo1, 8pin, 135°	RS232 serial, 9pin	Lemo1, 5pin, 0° and USB type A	Length 1.8 m Allows a GS14/GS16/GS18 radio to be programmed by a PC.
982 338	GEV301	Lemo2, 8pin, 30°	USB type A		Length 1.8 m Allows a Satel HPR radio to be programmed by a PC.

## Radio cables

Art. no	Name	Connector 1	Connector 2	Description
767 897	GEV232	Lemo1, 8pin, 30°	Lemo1, 8pin, 30° (female)	Length 2.8 m Allows GFU devices to be connected to a GS10 (port 2 and 3), or GS25 (port 2 and 4).
767 898	GEV233	Lemo1, 8pin, 30°	Lemo1, 8pin, 30° (female)	Length 0.8 m Allows GFU devices to be connected to a GS10 (port 2 and 3), or GS25 (port 2 and 4).
639 968	GEV125	Lemo1, 8pin, 30°	15pin, RS232 serial	Length 1.8 m Allows a Sateline modem (not inside housing) to be connected to a GS10 (port 2 and 3), or GS25 (port 2 and 4).
817 713	GEV275	Lemo1, 8pin, 30°	Lemo2, 8pin, 30°	Length 1.8 m Data cable to connect Satel HPR (35W) high power radio to GS10/GS25 GNSS receiver.
799 776	GEV266	Lemo1, 8pin, 135°	Lemo2, 8pin, 30°	Length 1.8 m Data cable to connect Satel HPR (35W) high power radio to GS14/GS16/GS18 GNSS receiver.

## Serial data transfer cables

Art. no	Name	Connector 1	Connector 2	Description
733 280	GEV160	Lemo1, 8pin, 30°	RS232 serial, 9pin	Length 2.8 m Allows serial connection between GS10 (port 2 and 3), or GS25 (port 2 and 4) to PC to stream NMEA or RTK data.
733 282	GEV162	Lemo1, 8pin, 135°	RS232 serial, 9pin	Length 2.8 m 1. Allows serial connection between GS (port 1) to PC to stream NMEA or RTK data. 2. Allows serial connection between CS20 and hidden point device, ASCII input device, PC etc.
733 283	GEV163	Lemo1, 8pin, 135°	Lemo1, 8pin, 135°	Length 1.8 m Allows serial connection between CS20 and GS10/GS25 port 1.

## USB to serial converter cables

Art. no	Name	Connector 1	Connector 2	Description
806 094	GEV268	Lemo1, 8pin, 30°	USB type A	Length 2.0 m Allows GS10 (port 2 and 3) or GS25 (port 2 and 4) to be connected to a PC where a serial connection is required, but no 9pin RS232 port physically exists on the PC. This cable allows a serial connection through the USB port of the PC to the CS or GS hardware.
806 095	GEV269	Lemo1, 8pin, 135°	USB type A	Length 2.0 m Allows CS20 and GS port 1 to be connected to a PC where a serial connection is required, but no 9pin RS232 port physically exists on the PC. This cable allows a serial connection through the USB port of the PC to the GS hardware.

## USB data transfer cables

Art. no	Name	Connector 1	Connector 2	Description
767 899	GEV234	Lemo1, 8pin, 135°	USB type A	Length 1.65 m 1. Allows a CS20 to connect to a GS (port 1). 2. Allows a USB connection between the USB port of a PC to a GS (port 1). 3. Allows a USB connection between the USB port of a PC to a CS20.
772 807	GEV237	Lemo1, 8pin, 135°	Lemo1, 8pin, 135°	Length 1.65 m Allows a CS20 to connect to a GS (port 1).
879 372	GEV284	USB type A	USB type C	Length 1.5 m Allows a USB connection between the USB type A port of a PC to a GS05.
879 634	GEV278	USB type C	USB type C	Length 1.0 m Allows a USB connection between the USB type C port of a PC to a GS05.
938 393	GEV288	USB type C	USB type C	Length 1.5 m Allows a USB connection between the USB type C port of a PC to a GS05.

## PPS/Event cables

Art. no	Name	Connector 1	Connector 2	Description
667 744	GEV150	Lemo FFA	BNC	Length 2.0 m PPS output cable for GS25 (port PPS) with BNC connector.
403 448	GEV42	H&S QLA	BNC	Length 2.0 m Event input cable for GS25 (port E1) with BNC connector.
789 061	GEV262	Lemo1, 8pin, 30°	BNC	Length 2.0 m Event input cable for GS25 (port E2) with BNC connector.

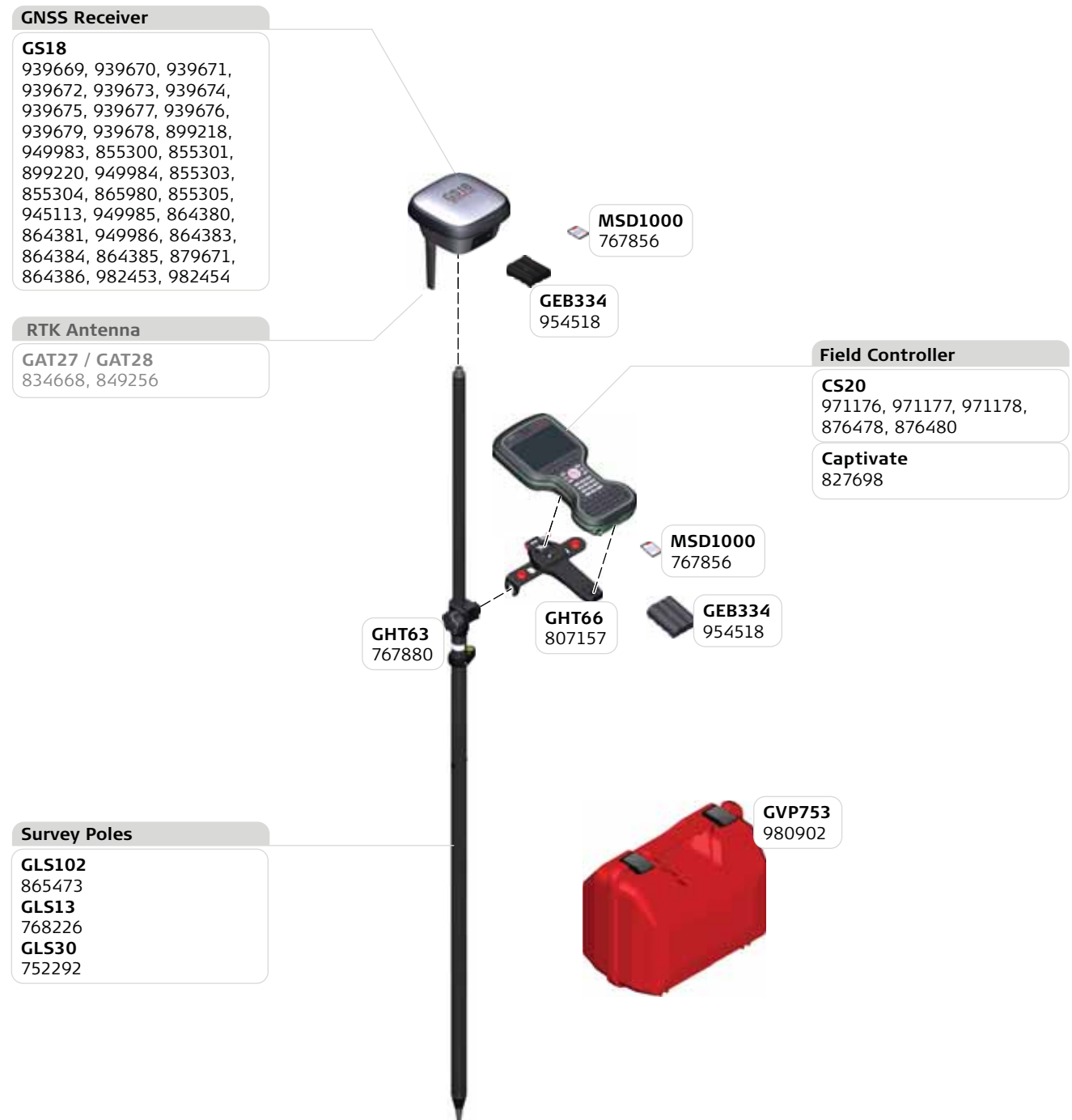
## Antenna cables for connecting GNSS antennas or RTK antennas


Art. no	Name	Connector 1	Connector 2	Description
667 200	GEV141	TNC connector	TNC connector	Length 1.2 m
772 002	GEV238	TNC connector	SMB connector	Length 1.2 m
667 201	GEV142	TNC connector	TNC connector (male)	Length 1.6 m Extension cable.
636 959	GEV120	TNC connector	TNC connector	Length 2.8 m
632 372	GEV119	TNC connector	TNC connector	Length 10 m
632 390	GEV108	TNC connector	TNC connector	Length 30 m
664 813	GEV134	TNC connector	TNC connector	Length 50 m

# Suggested GNSS Setups

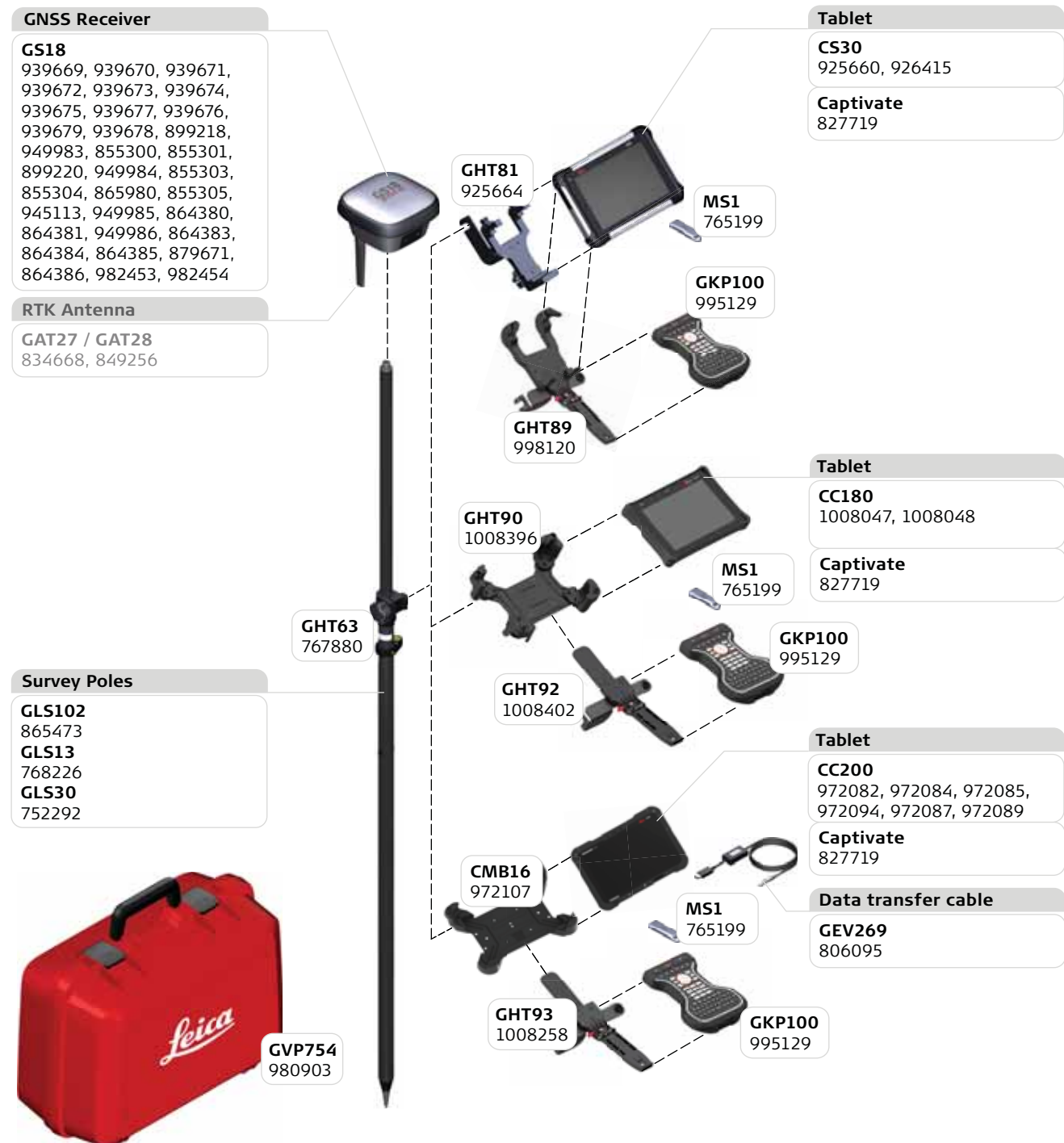
## 63 GS18 Real Time Rover

### 63.1 Using CS20 Field Controller



 Please refer to the Leica Nova TPS Equipment lists for the usage of a GS18 receiver in a SmartPole setup.

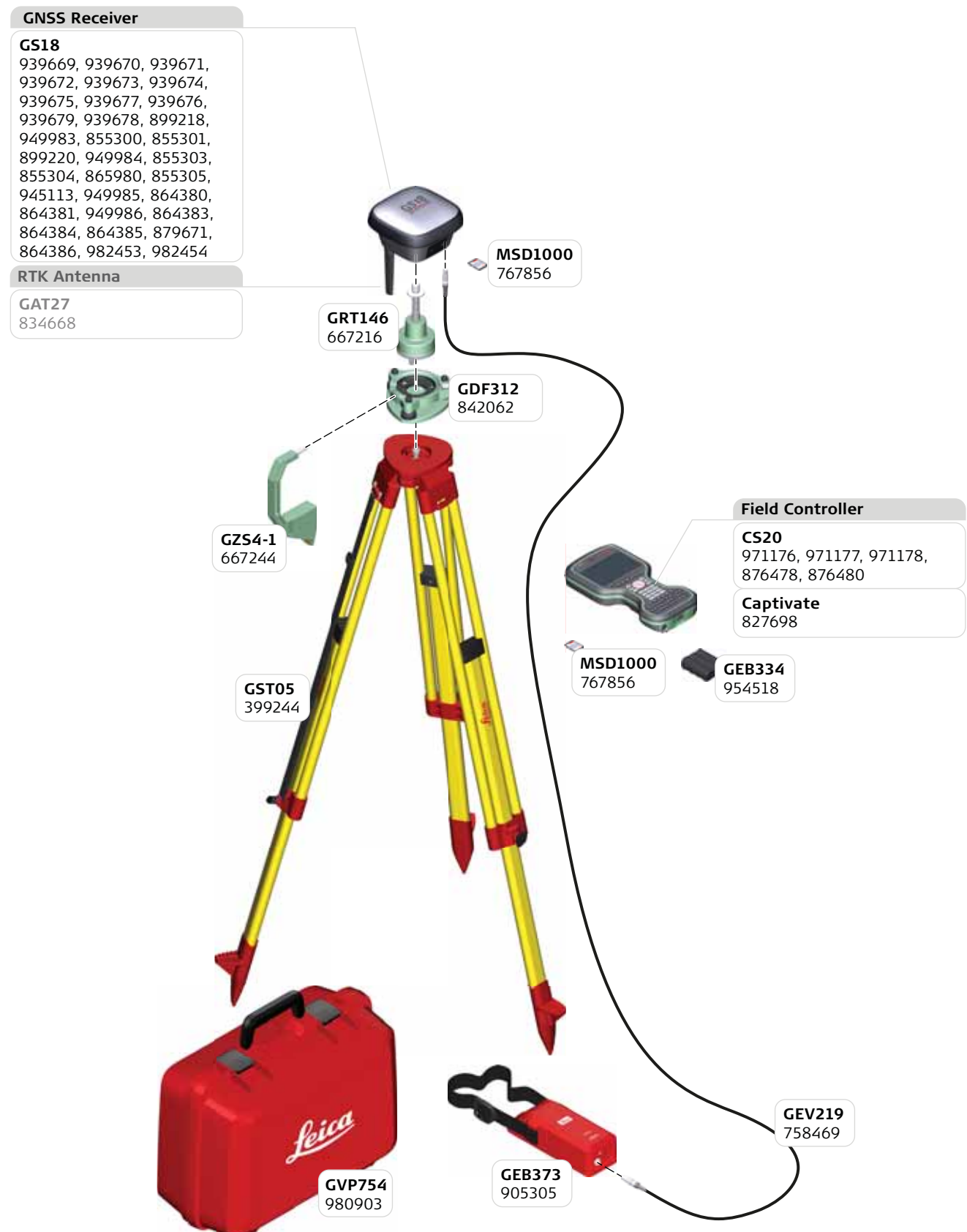
## 63.2 Using CS30/CC200/CC180 Tablet



- Please refer to the Leica Nova TPS Equipment lists for the usage of a GS18 receiver in a SmartPole setup.
- Please refer to the Leica Nova TPS Equipment lists for the usage of a GS18 receiver in a SmartPole setup.

## 64 GS18 Real Time Reference - Tripod Setup

### 64.1 Using GS18 phone modem and CS20 Field Controller





## 64.2 Using GS18 phone modem and CS30/CC180/CC200 Tablet

### GNSS Receiver

#### GS18

939669, 939670, 939671,  
939672, 939673, 939674,  
939675, 939677, 939676,  
939679, 939678, 899218,  
949983, 855300, 855301,  
899220, 949984, 855303,  
855304, 865980, 855305,  
945113, 949985, 864380,  
864381, 949986, 864383,  
864384, 864385, 879671,  
864386, 982453, 982454

### RTK Antenna

#### GAT27

834668

**GRT146**  
667216

**GDF312**  
842062

**GZS4-1**  
667244

**GST05**  
399244

**MSD1000**  
767856

### Tablet

#### CS30

925660, 926415

#### Captivate

827719

### Tablet

#### CC180

1008047, 1008048

#### Captivate

827719

### Tablet

#### CC200

972082, 972084, 972085,  
972094, 972087, 972089

#### Captivate

827719

### Data transfer cable

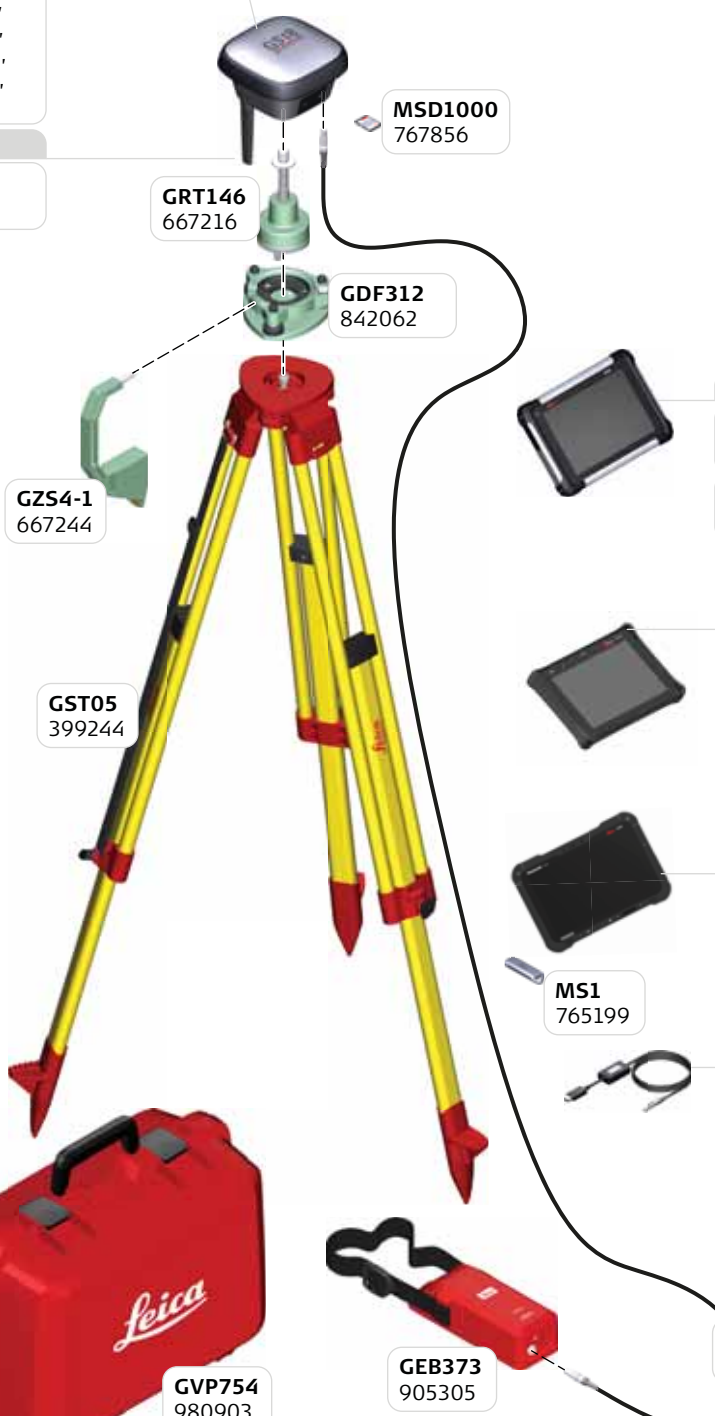
**GEV269**  
806095

**MS1**  
765199

**GEB373**  
905305

**GEV219**  
758469

**GVP754**  
980903





## 64.3 Using GS18 radio modem and CS20 Field Controller

### GNSS Receiver

#### GS18

939669, 939670, 939671,  
939672, 939673, 939674,  
939675, 939677, 939676,  
939679, 939678, 899218,  
949983, 855300, 855301,  
899220, 949984, 855303,  
855304, 865980, 855305,  
945113, 949985, 864380,  
864381, 949986, 864383,  
864384, 864385, 879671,  
864386, 982453, 982454

### RTK Antenna

#### GAT28

849256

#### MSD1000

767856

#### GRT146

667216

#### GDF312

842062

#### GZS4-1

667244

#### GST05

399244

### Field Controller

#### CS20

971176, 971177, 971178,  
876478, 876480

#### Captivate

827698

#### MSD1000

767856

#### GEB334

954518

#### GVP754

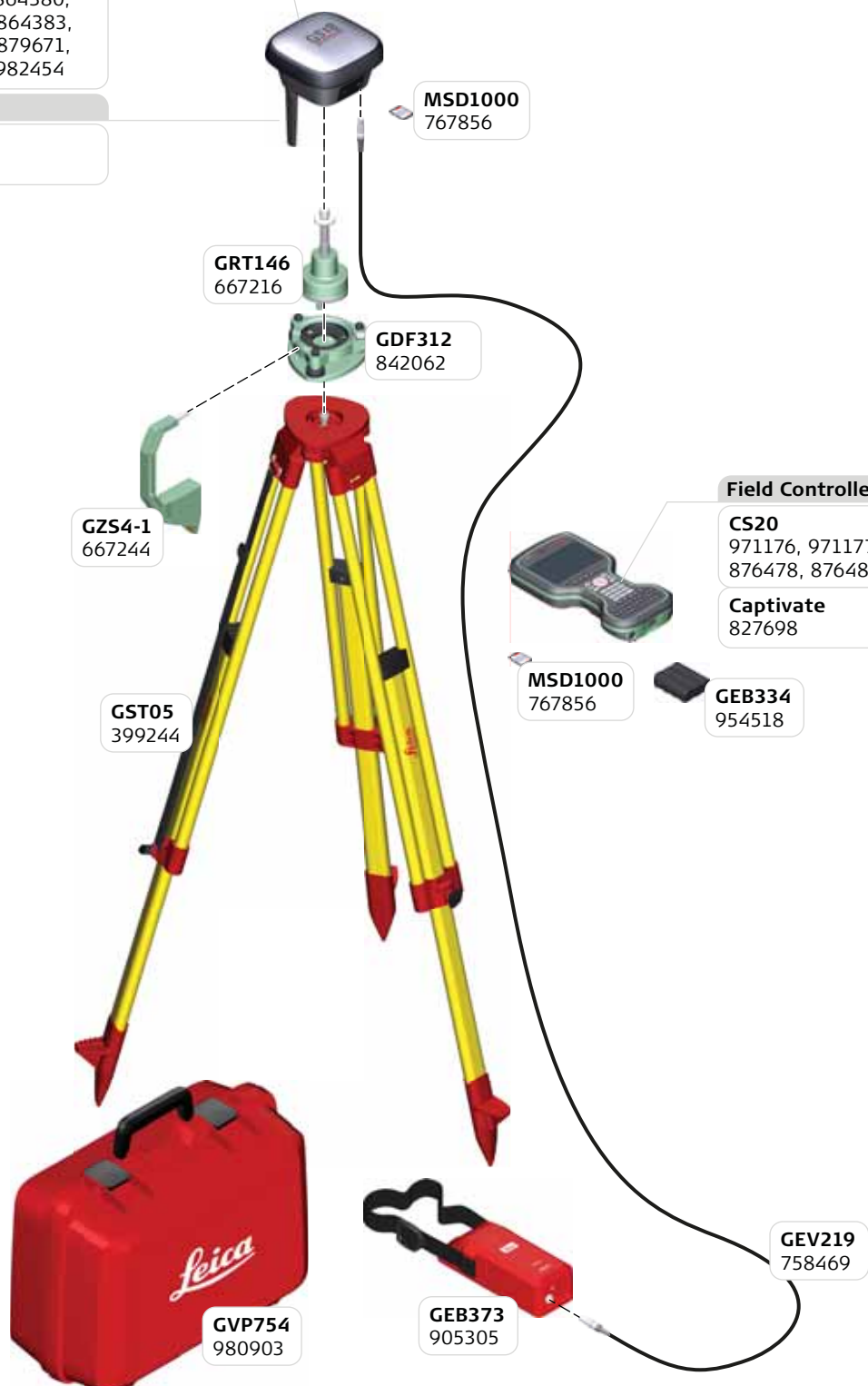
980903

#### GEB373

905305

#### GEV219

758469



## 64.4 Using GS18 radio modem and CS30/CC180/CC200 Tablet

### GNSS Receiver

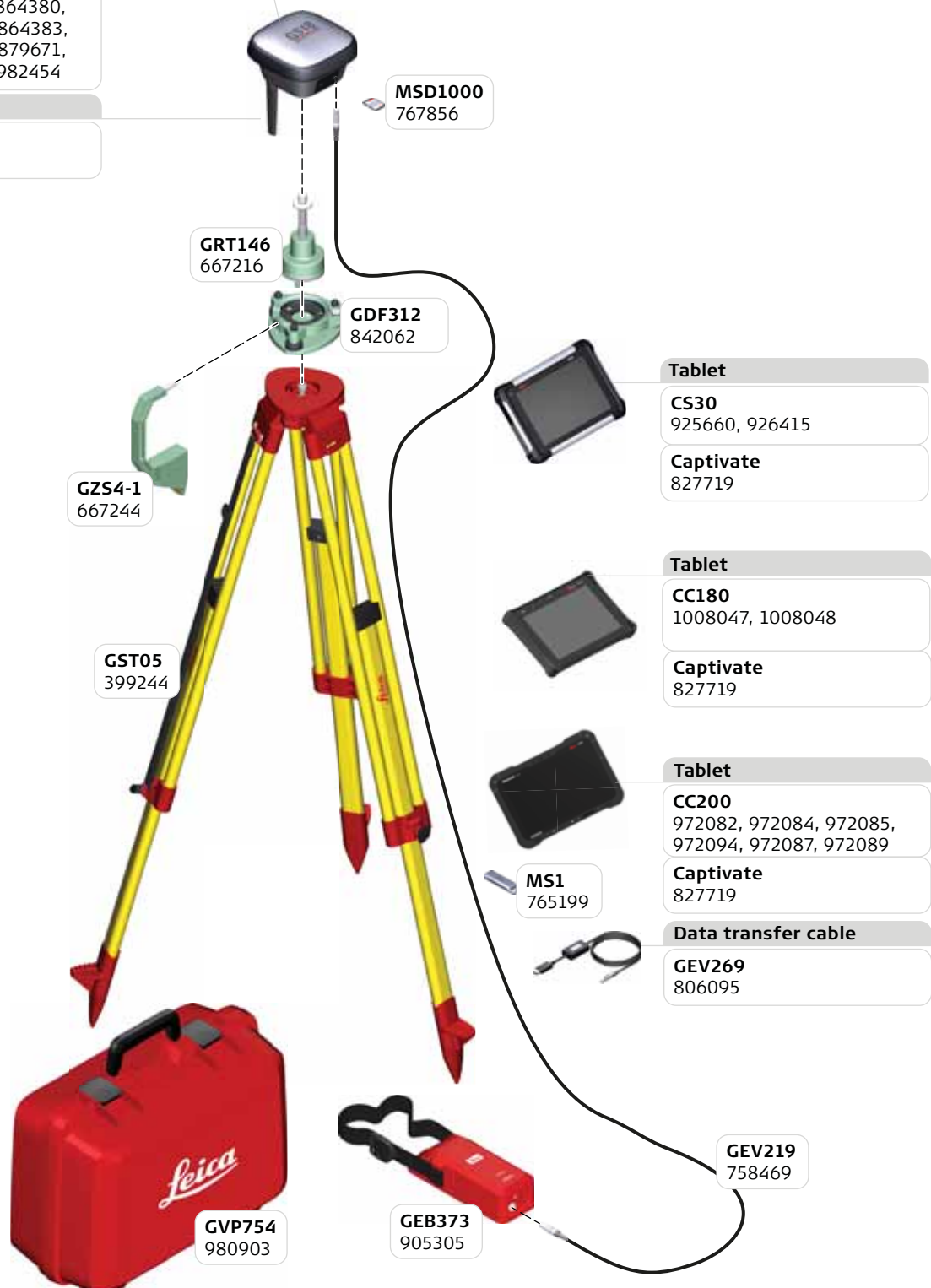
#### GS18

939669, 939670, 939671,  
939672, 939673, 939674,  
939675, 939677, 939676,  
939679, 939678, 899218,  
949983, 855300, 855301,  
899220, 949984, 855303,  
855304, 865980, 855305,  
945113, 949985, 864380,  
864381, 949986, 864383,  
864384, 864385, 879671,  
864386, 982453, 982454

### RTK Antenna

#### GAT28

849256



### Tablet

#### CS30

925660, 926415

#### Captivate

827719

### Tablet

#### CC180

1008047, 1008048

#### Captivate

827719

### Tablet

#### CC200

972082, 972084, 972085,  
972094, 972087, 972089

#### Captivate

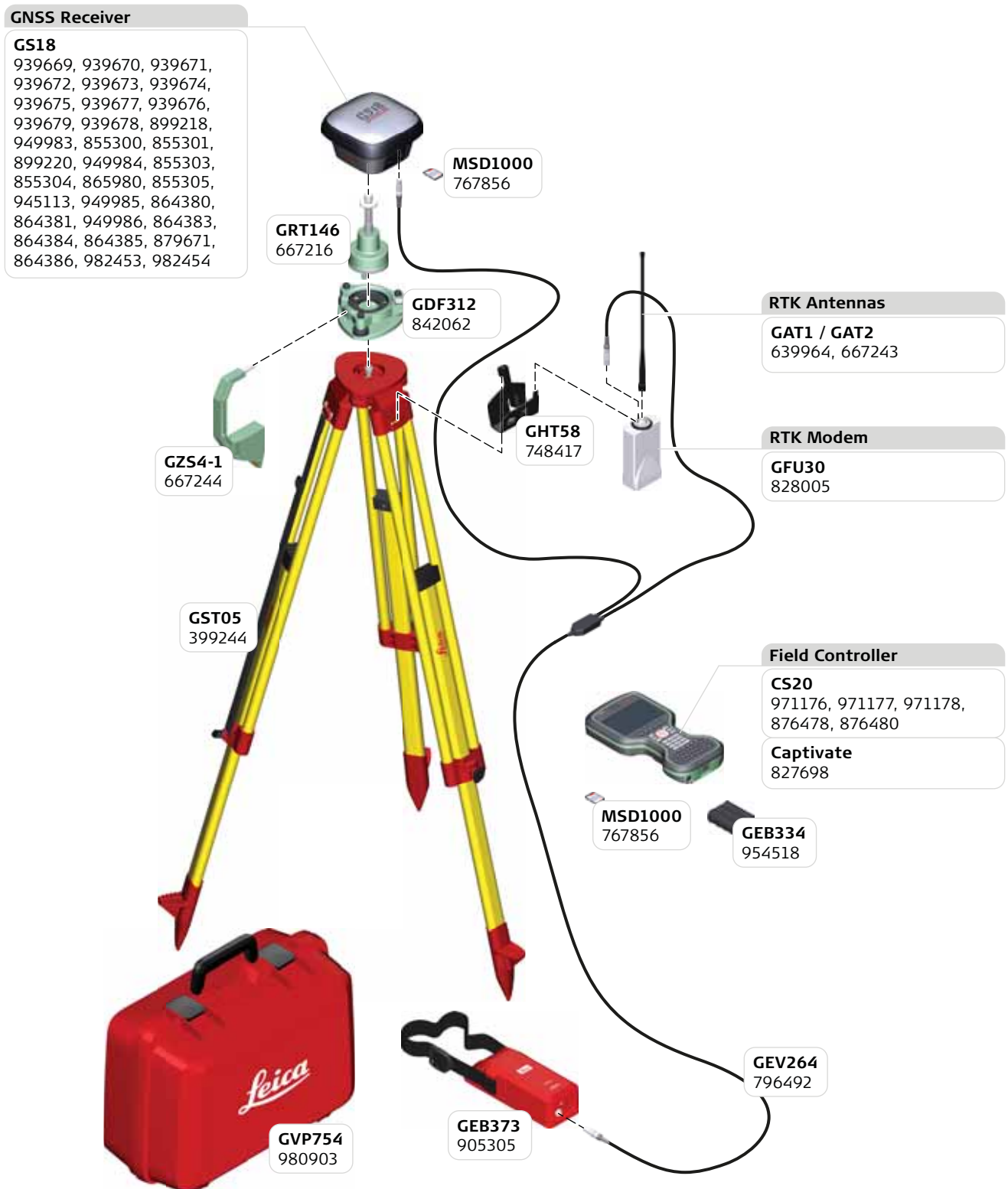
827719

### Data transfer cable

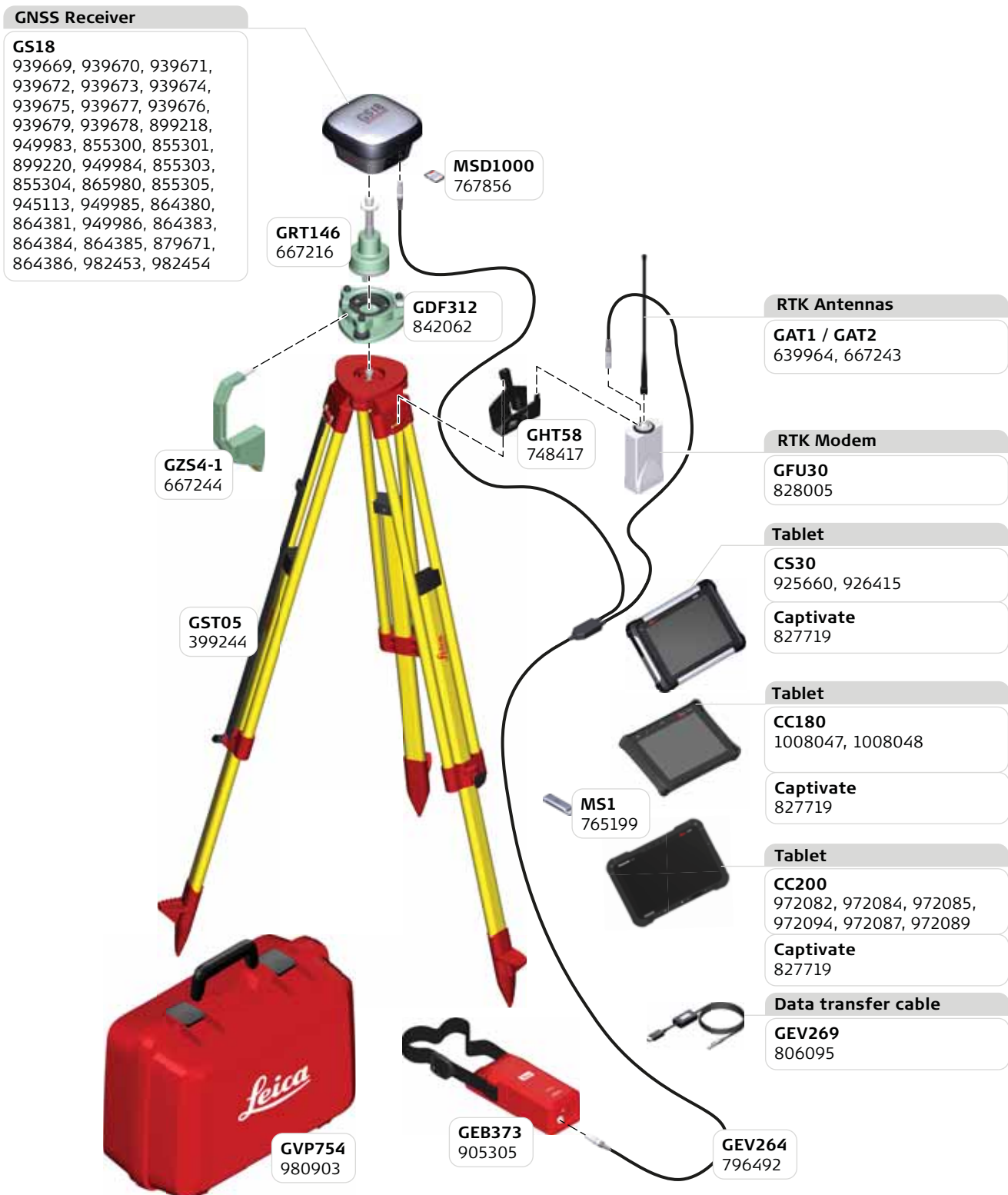
#### GEV269

806095

## 64.5 Using external RTK module and CS20 Field Controller

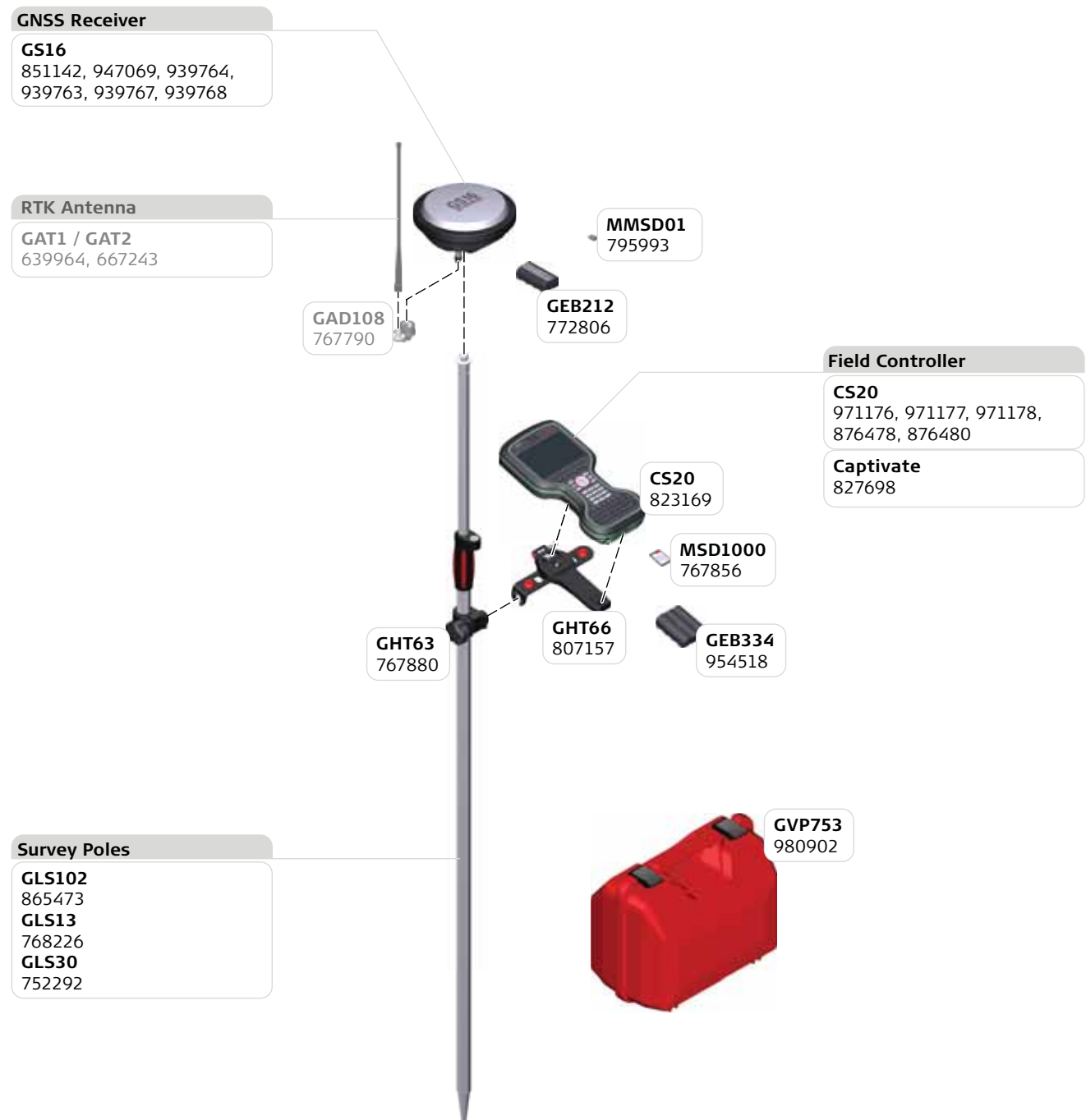



## 64.6 Using external RTK module and CS30/CC180/CC200 Tablet



## 65 GS16 Real Time Rover

### 65.1 Using CS20 Field Controller



 Please refer to the Leica Viva TPS or Leica Nova TPS Equipment lists for the usage of a GS16 receiver in a SmartPole or SmartStation setup.

## 65.2 Using CS30/CC200/CC180 Tablet

### GNSS Receiver

#### GS16

851142, 947069, 939764,  
939763, 939767, 939768

### RTK Antenna

#### GAT1 / GAT2

639964, 667243

GAD108  
767790

MMSD01  
795993

GEB212  
772806

### Tablet

#### CS30

925660, 926415

#### Captivate

827719

GHT81  
925664

MS1  
765199

GKP100  
995129

GHT81  
925664

GHT89  
998120

### Tablet

#### CC180

1008047, 1008048

#### Captivate

827719

GHT90  
1008396

MS1  
765199

GKP100  
995129

GHT92  
1008402

### Tablet

#### CC200

972082, 972084, 972085,  
972094, 972087, 972089

#### Captivate

827719

CMB16  
972107

MS1  
765199

### Data transfer cable

#### GEV269

806095

GHT93  
1008258

GKP100  
995129

### Survey Poles

#### GLS102

865473

#### GLS13

768226

#### GLS30

752292

GHT63  
767880

### Containers

#### GVP754

980903

#### GVP750

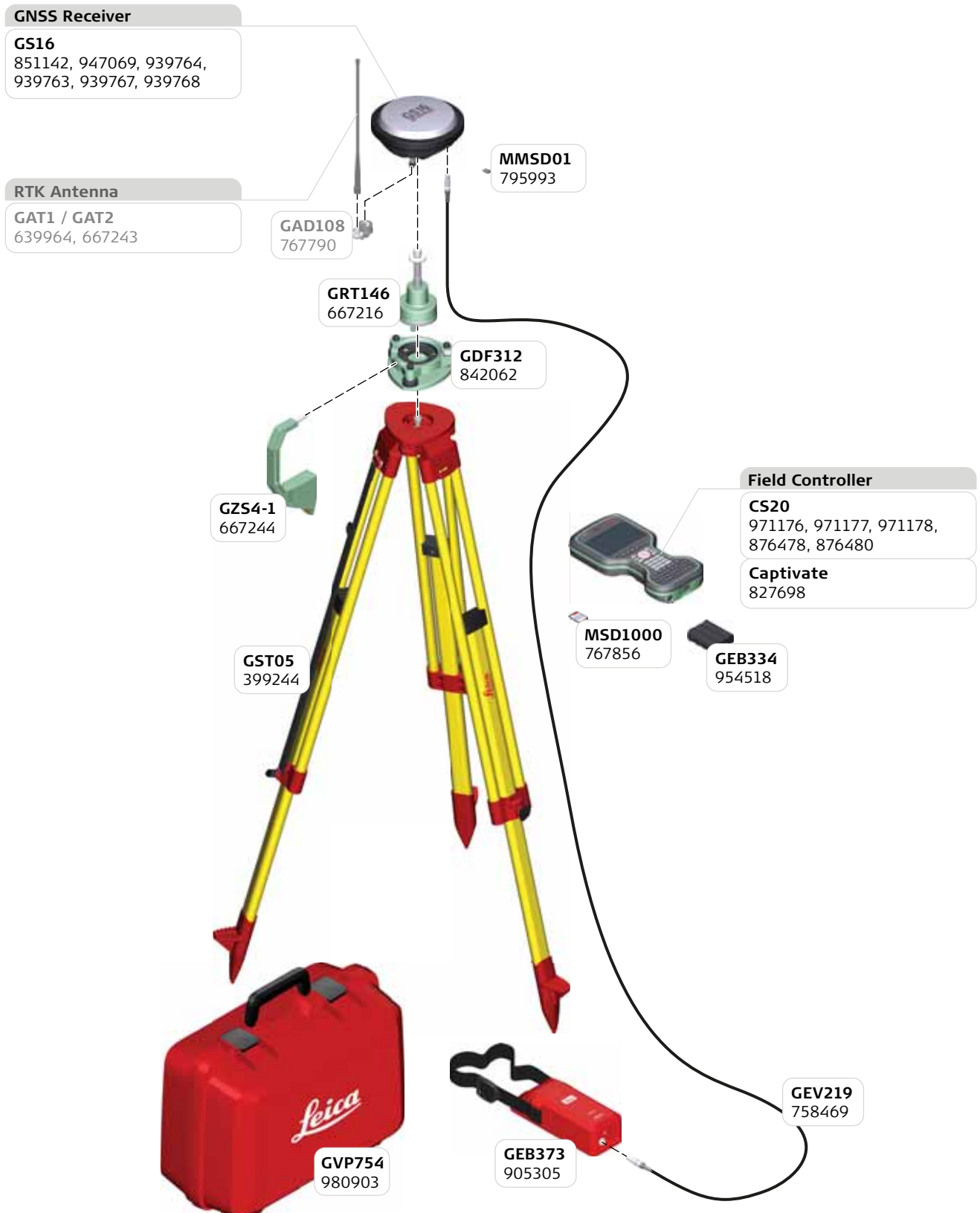
980899



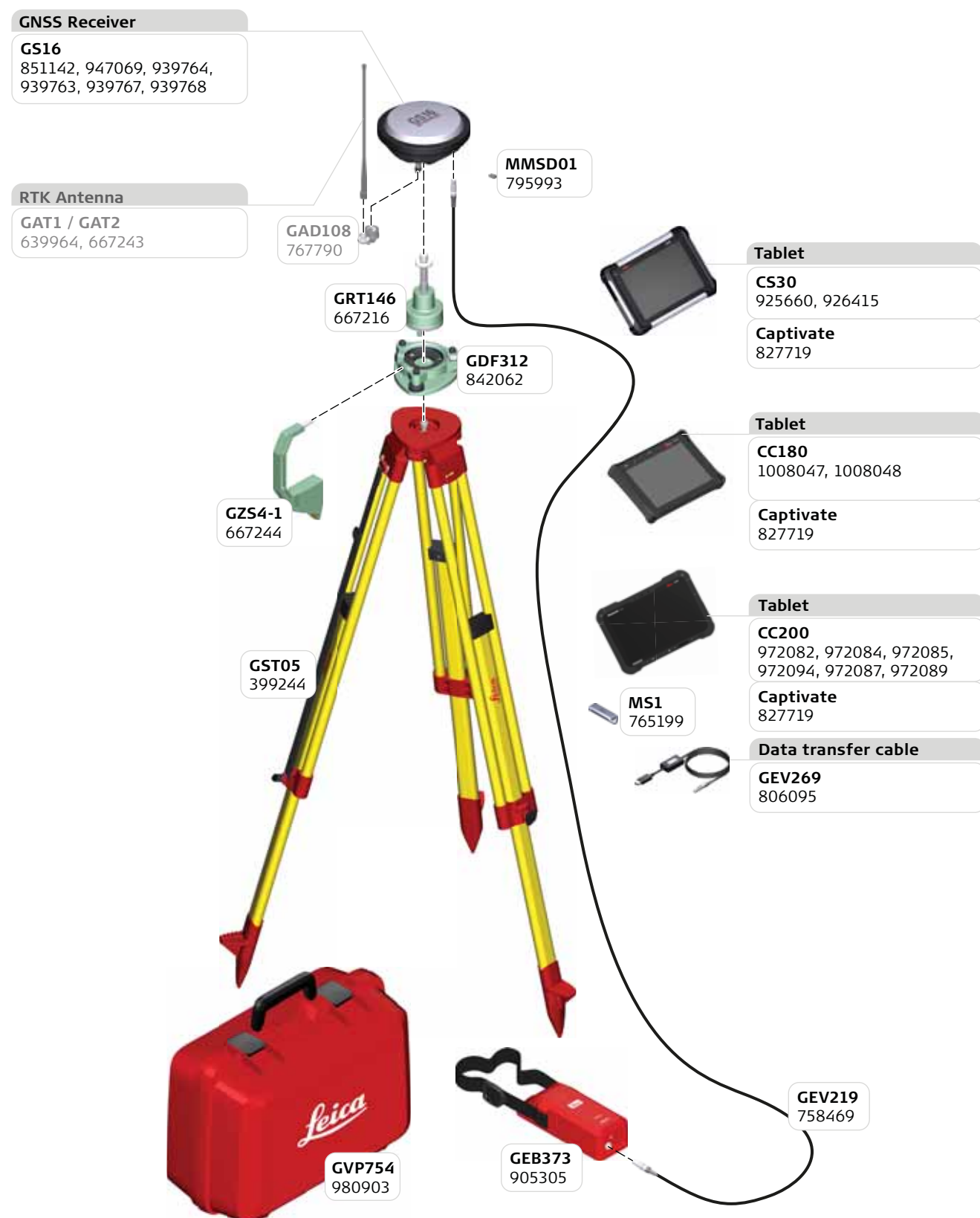


## 66 GS16 Real Time Reference - Tripod Setup

### 66.1 Using GS16 radio modem and CS20 Field Controller

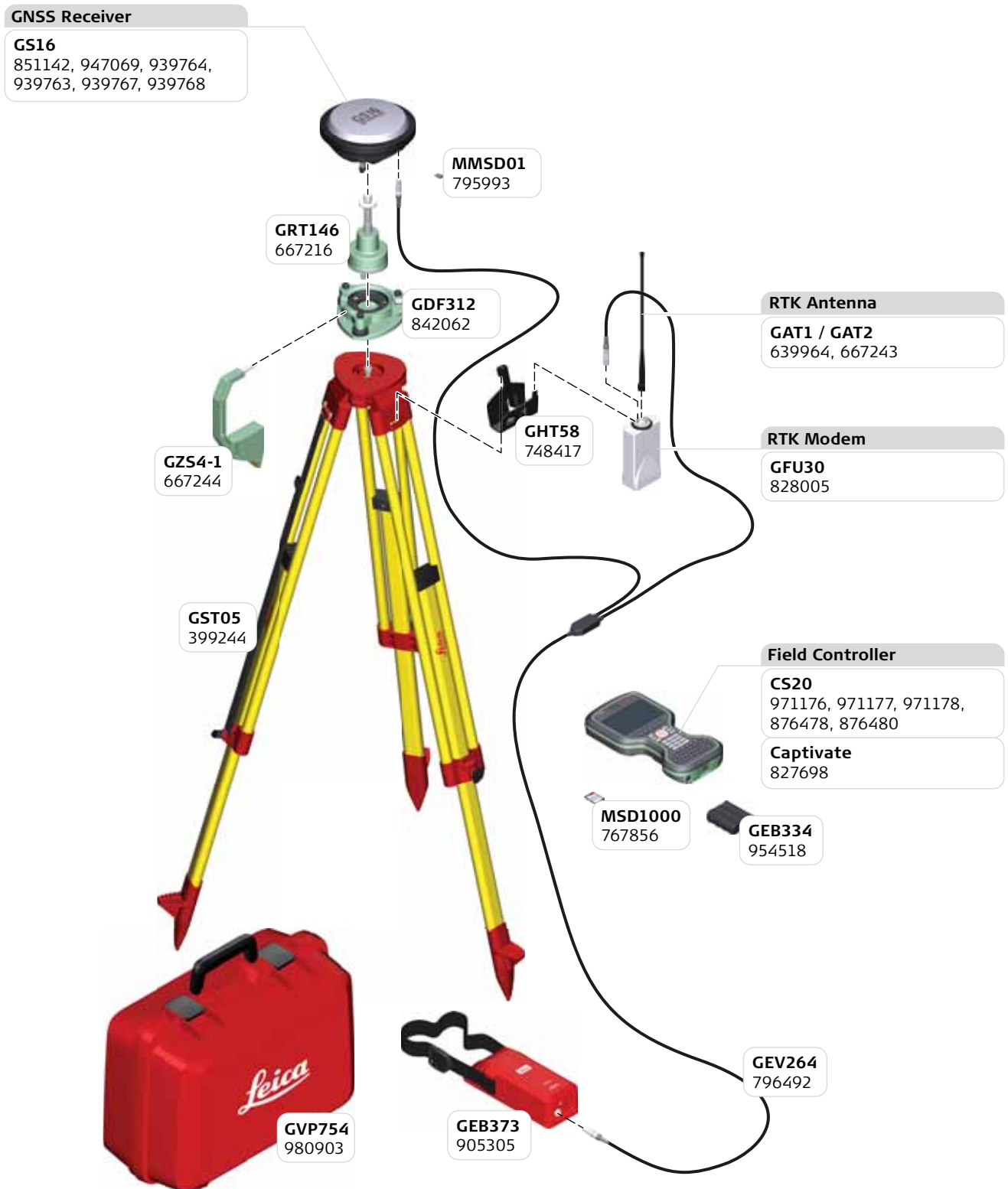


## 66.2 Using GS16 radio modem and CS30/CC180/CC200 Tablet





## 66.3 Using external RTK module and CS20 Field Controller



## 66.4 Using external RTK module and CS30/CC180/CC200 Tablet

### GNSS Receiver

#### GS16

851142, 947069, 939764,  
939763, 939767, 939768

**MMSD01**  
795993

**GRT146**  
667216

**GDF312**  
842062

**GZS4-1**  
667244

**GST05**  
399244

**GHT58**  
748417

### RTK Antenna

**GAT1 / GAT2**  
639964, 667243

### RTK Modem

**GFU30**  
828005

### Tablet

**CS30**  
925660, 926415

**Captivate**  
827719

### Tablet

**CC180**  
1008047, 1008048

**Captivate**  
827719

### Tablet

**CC200**  
972082, 972084, 972085,  
972094, 972087, 972089

**Captivate**  
827719

### Data transfer cable

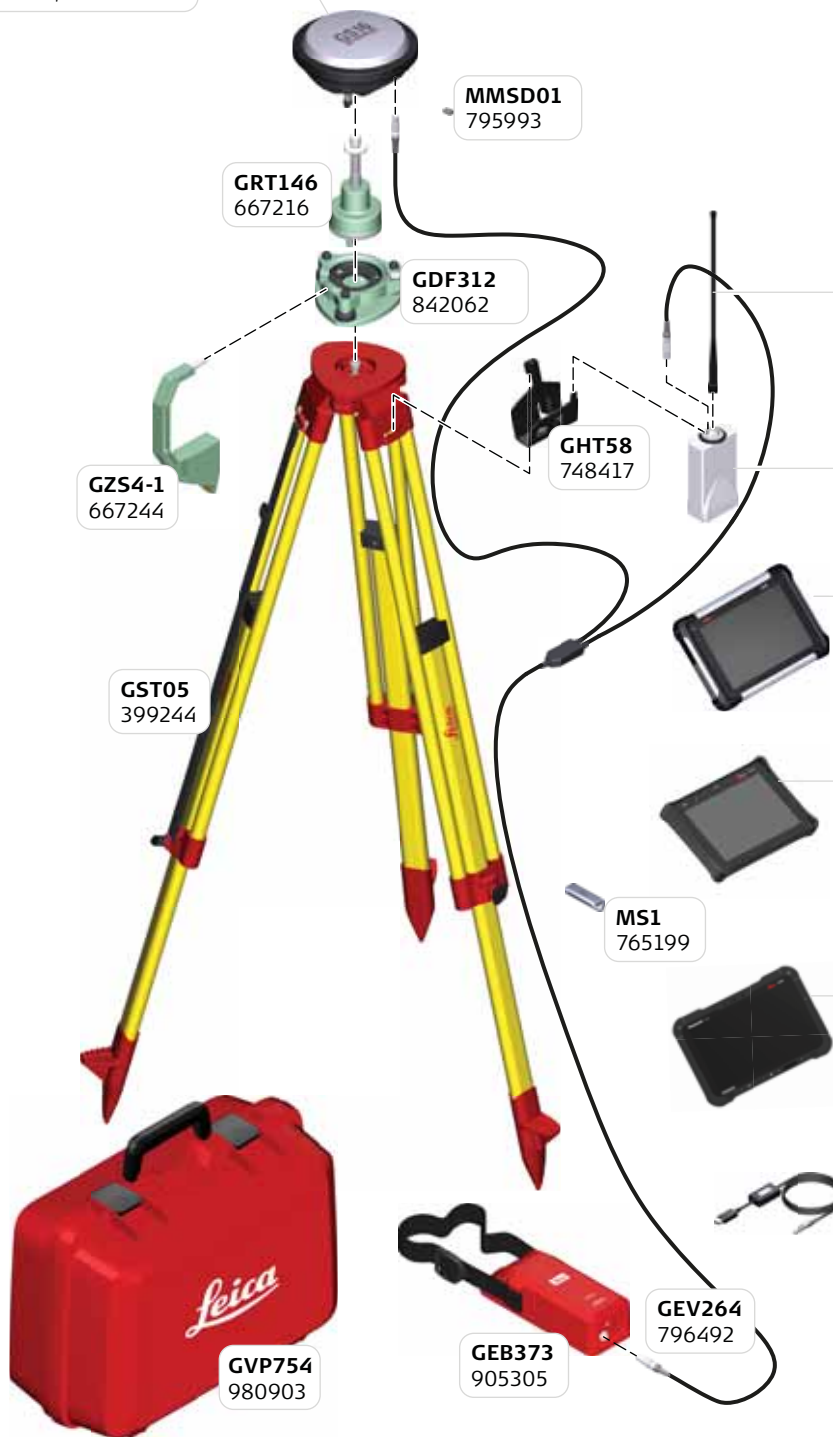
**GEV269**  
806095

**MS1**  
765199

**GEV264**  
796492

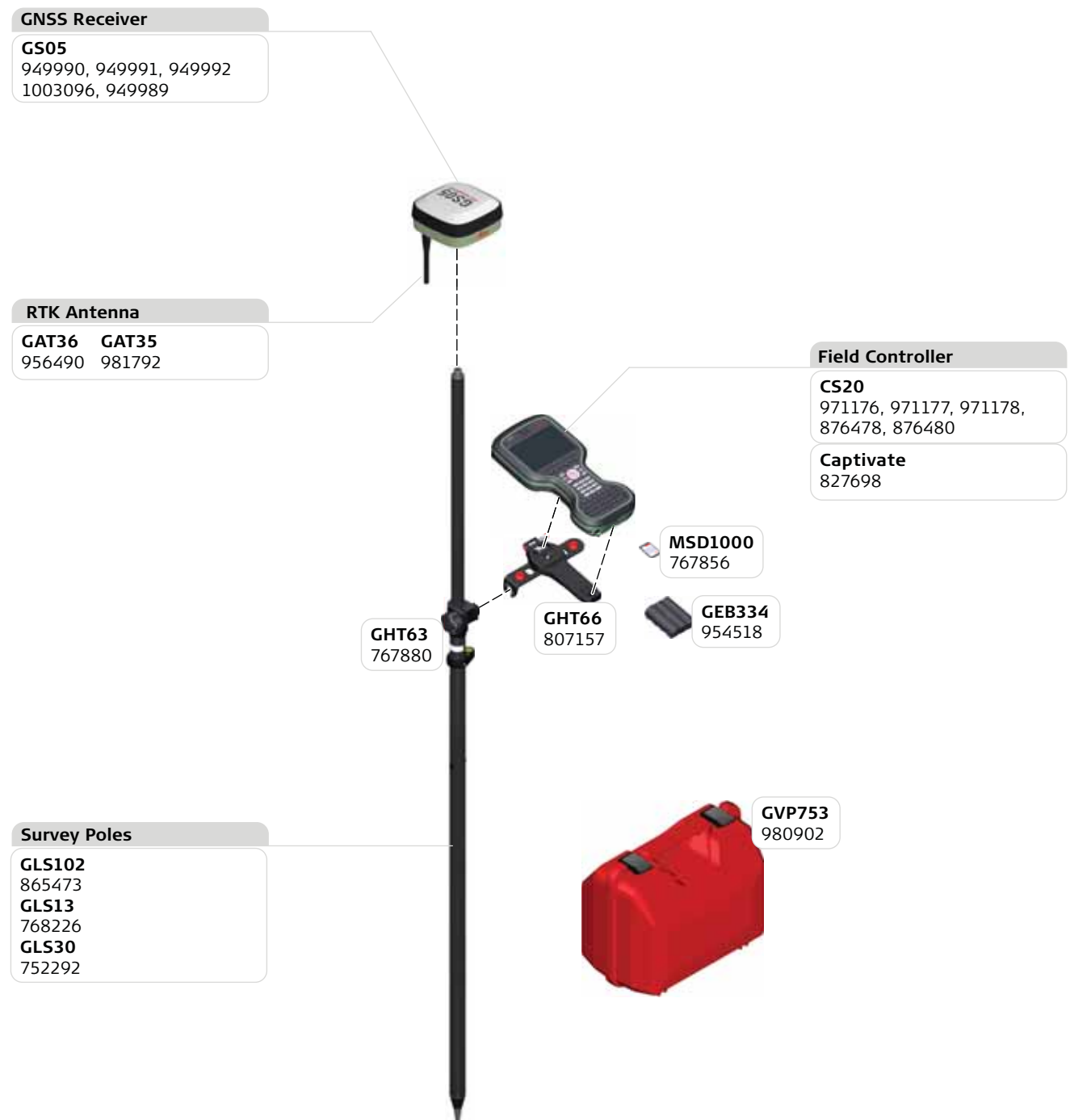
**GEB373**  
905305


**GVP754**  
980903



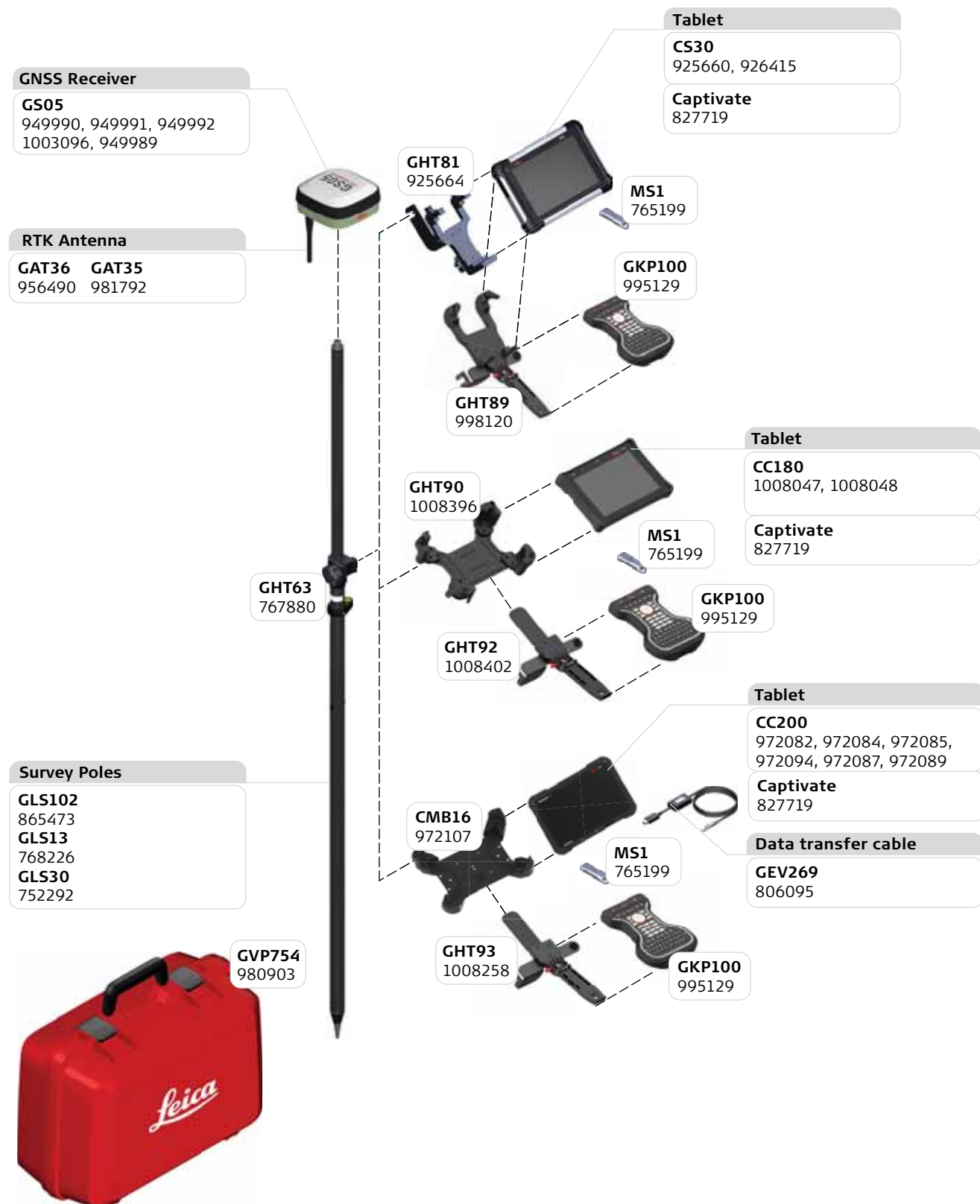
## 67 GS05 Real Time Rover

### 67.1 Using CS20 Field Controller



 Please refer to the Leica Nova TPS Equipment lists for the usage of a GS05 receiver in a SmartPole setup.

## 67.2 Using CS30/CC200/CC180 Tablet



Please refer to the Leica Nova TPS Equipment lists for the usage of a GS05 receiver in a SmartPole setup.

## 68 GS05 Real Time Reference - Tripod Setup

### 68.1 Using GS05 phone modem and CS20 Field Controller

#### GNSS Receiver

##### GS05

949990, 949991, 949992

#### RTK Antenna

##### GAT36

956490

##### GRT146

667216

##### GDF312

842062

##### GZS4-1

667244

##### GST05

399244

#### Field Controller

##### CS20

971176, 971177, 971178,  
876478, 876480

##### Captivate

827698

##### MSD1000

767856

##### GEB334

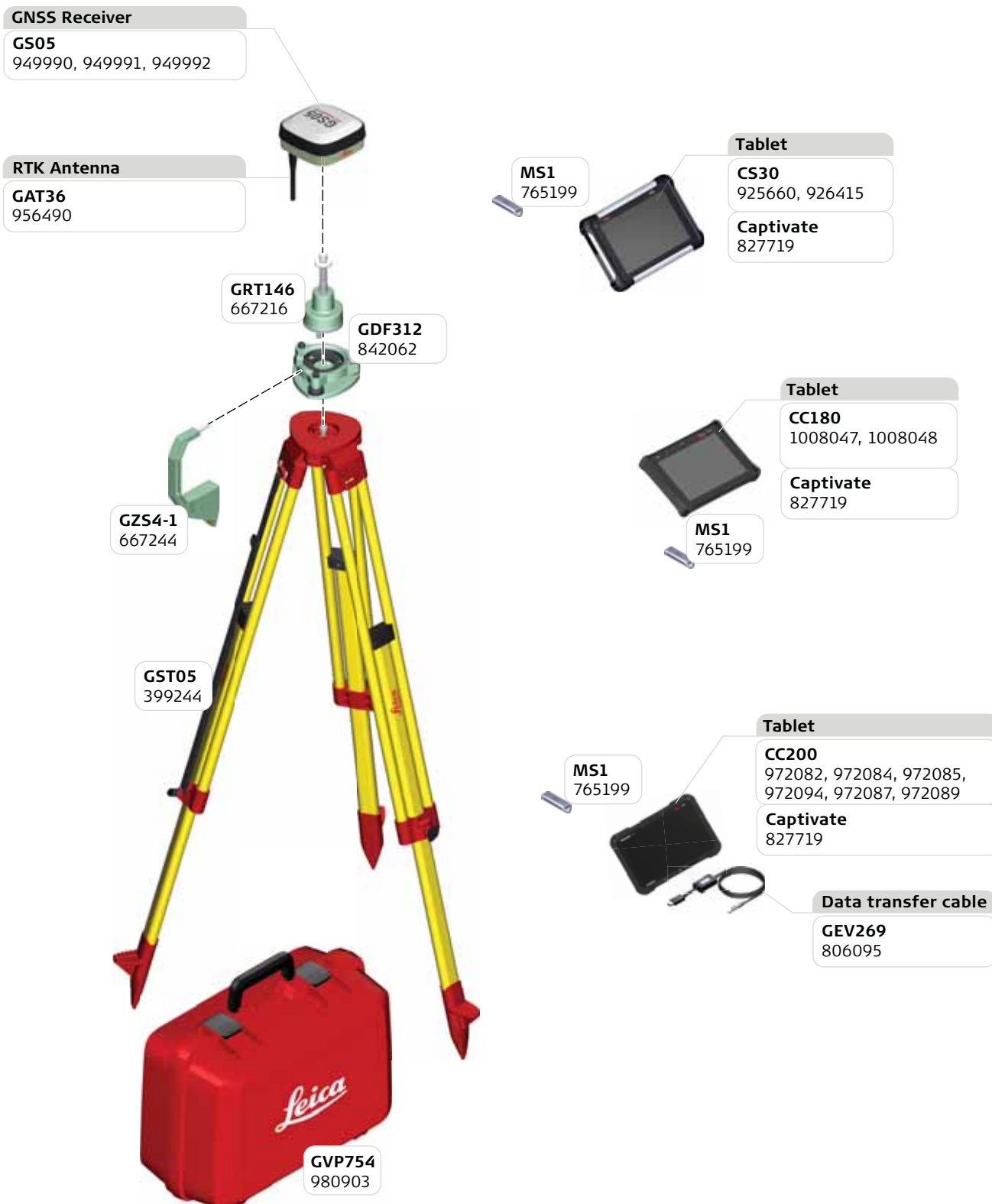
954518



##### GVP754

980903

## 68.2 Using GS05 phone modem and CS30/CC200/CC180 Tablet



## 68.3 Using GS05 radio modem and CS20 Field Controller

### GNSS Receiver

#### GS05

949989, 949993, 1003096,  
1003097

### RTK Antenna

**GAT35**  
981792

**GAD54**  
945956

**GRT146**  
667216

**GDF312**  
842062

**GZS4-1**  
667244

**GST05**  
399244

### Field Controller

#### CS20

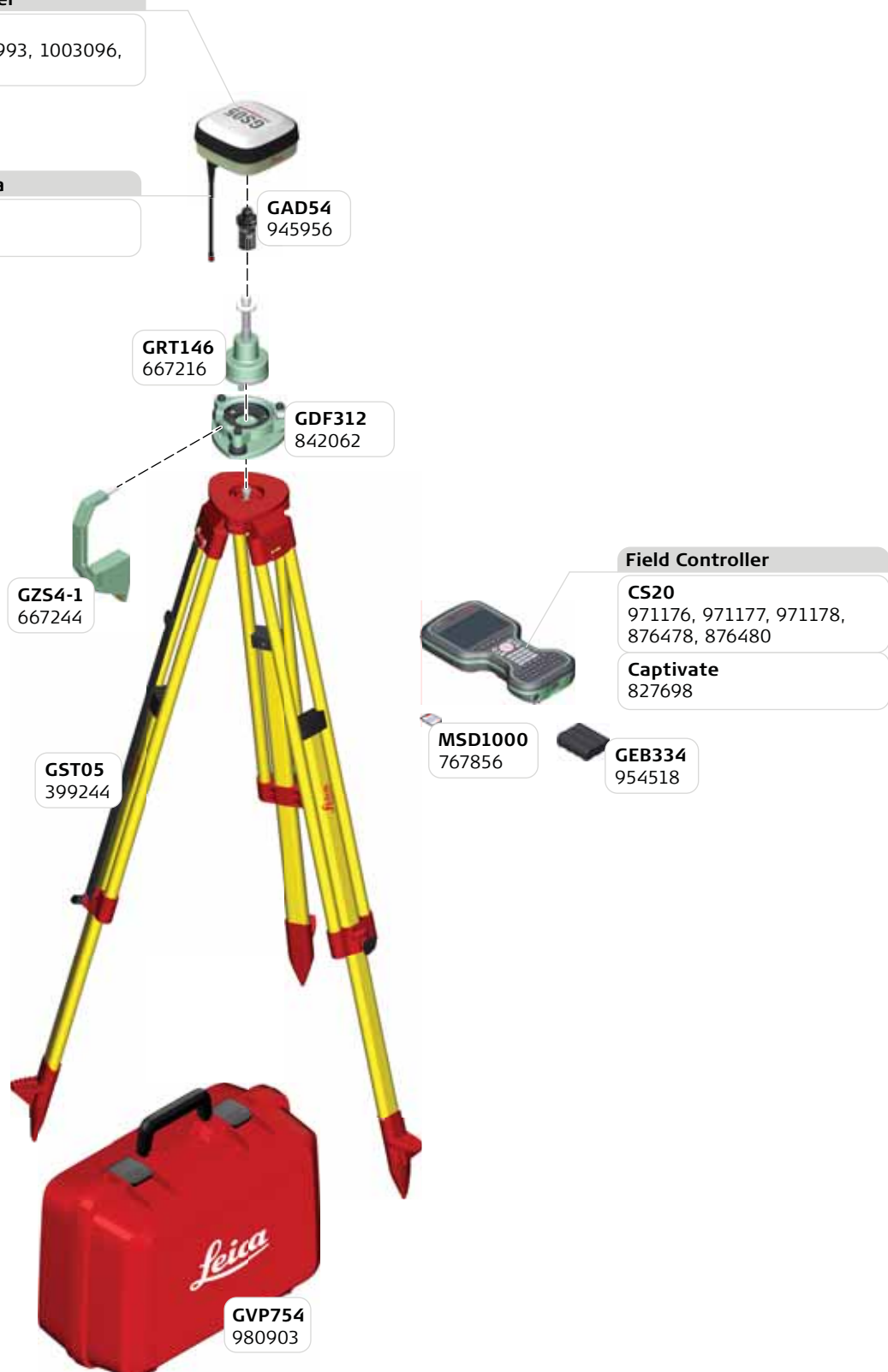
971176, 971177, 971178,  
876478, 876480

**Captivate**  
827698

**MSD1000**  
767856

**GEB334**  
954518

**GVP754**  
980903





## 68.4 Using GS05 radio modem and CS30/CC200/CC180 Tablet

### GNSS Receiver

#### GS05

949989, 949993, 1003096,  
1003097

### RTK Antenna

#### GAT35

981792

#### GAD54

945956

#### GRT146

667216

#### GDF312

842062

#### GZS4-1

667244

#### GST05

399244

### Tablet

#### CS30

925660, 926415

#### Captivate

827719

#### MS1

765199

### Tablet

#### CC180

1008047, 1008048

#### Captivate

827719

#### MS1

765199

### Tablet

#### CC200

972082, 972084, 972085,  
972094, 972087, 972089

#### Captivate

827719

#### MS1

765199

### Data transfer cable

#### GEV269

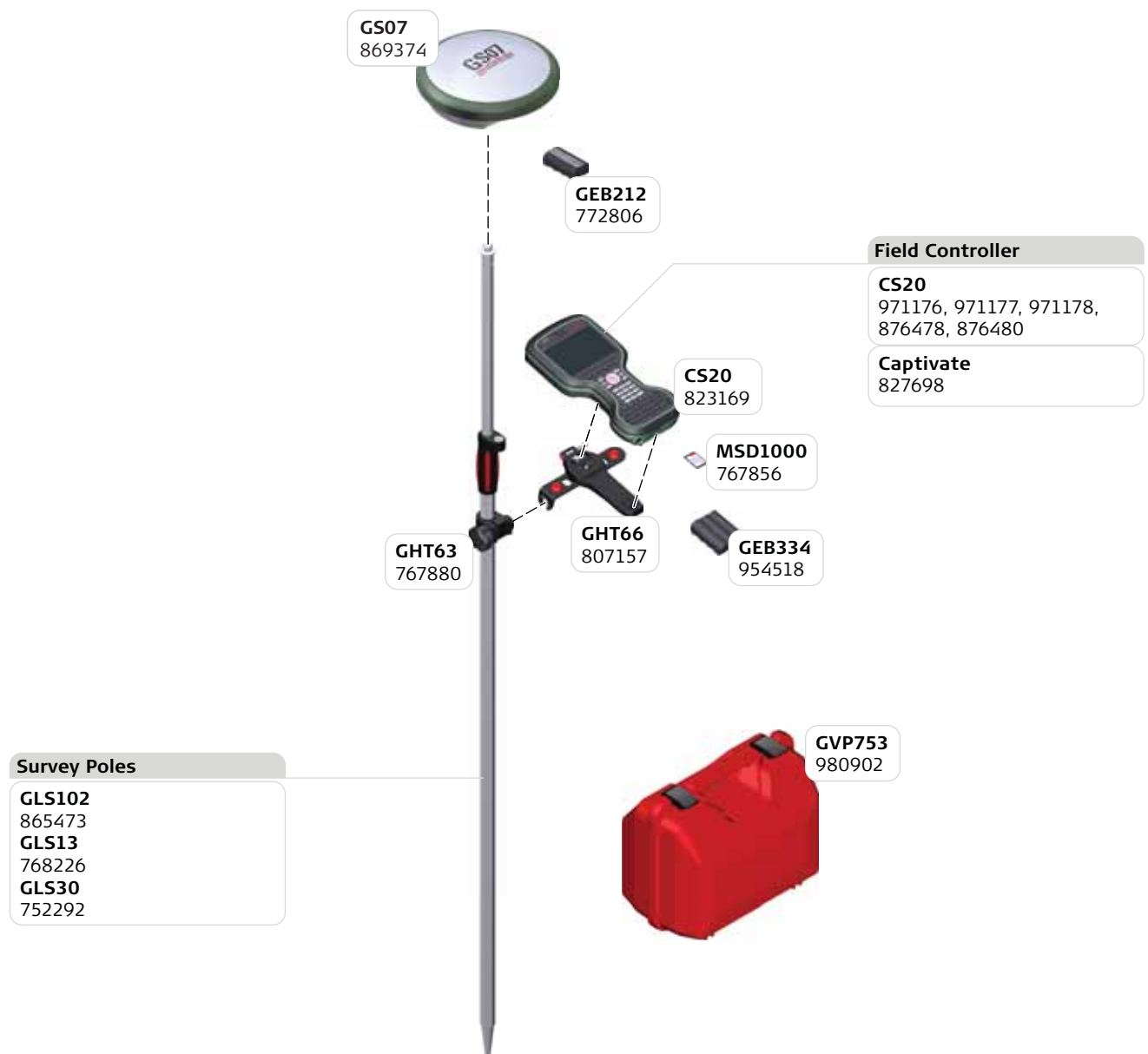
806095



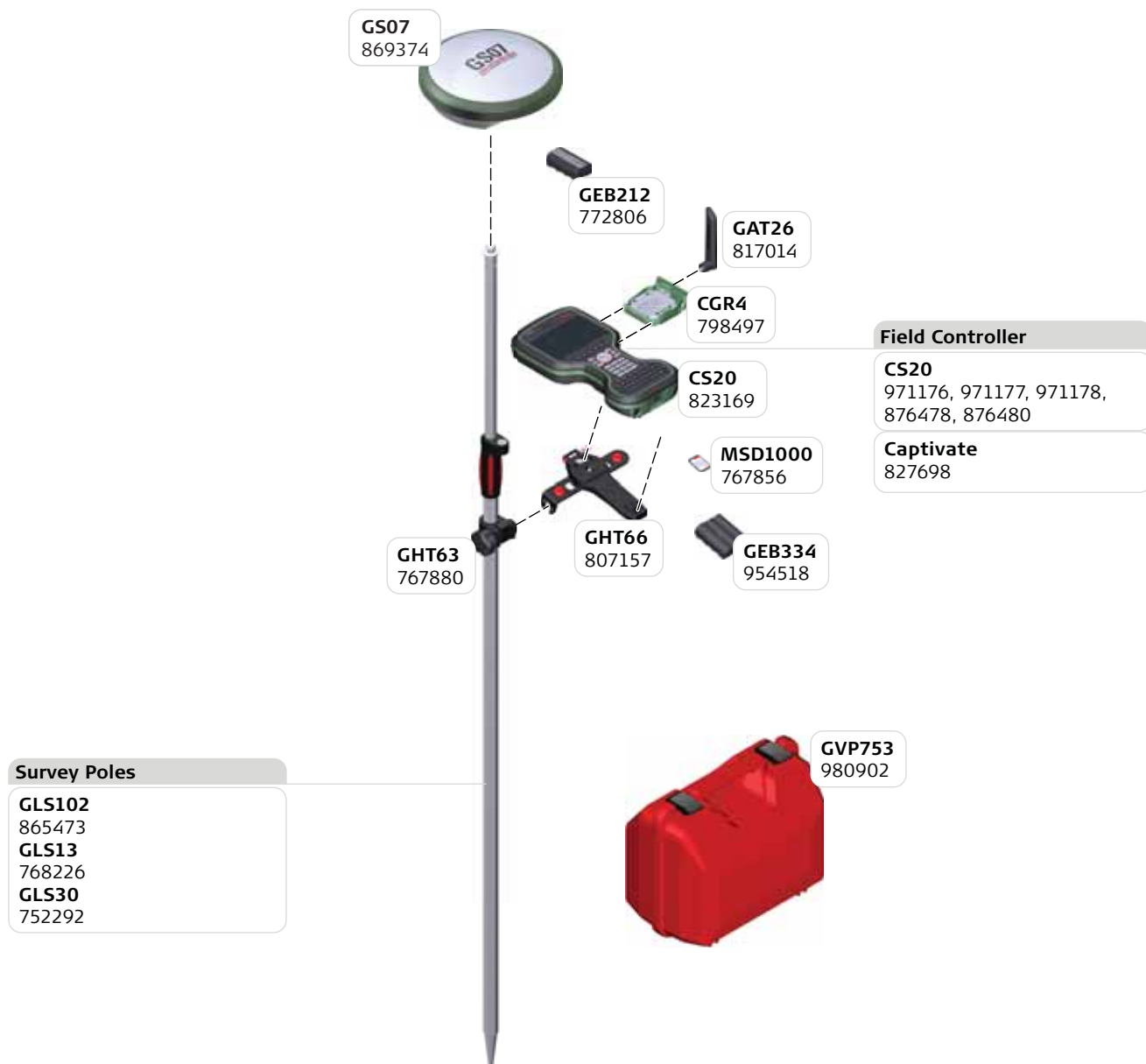


## 69 GS07 Real Time Rover

### 69.1 Using CS phone modem

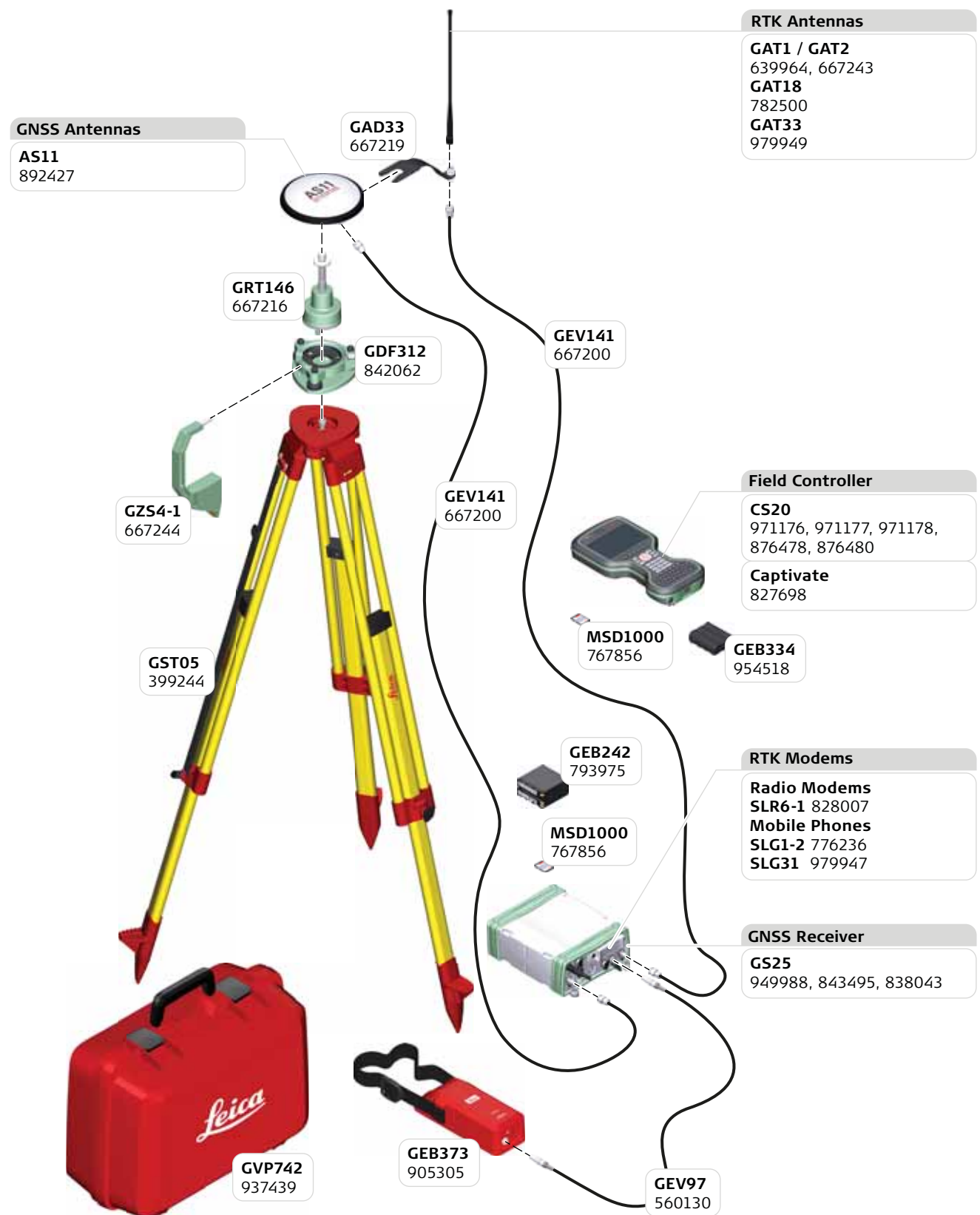


## 69.2 Using CGR UHF radio expansion pack

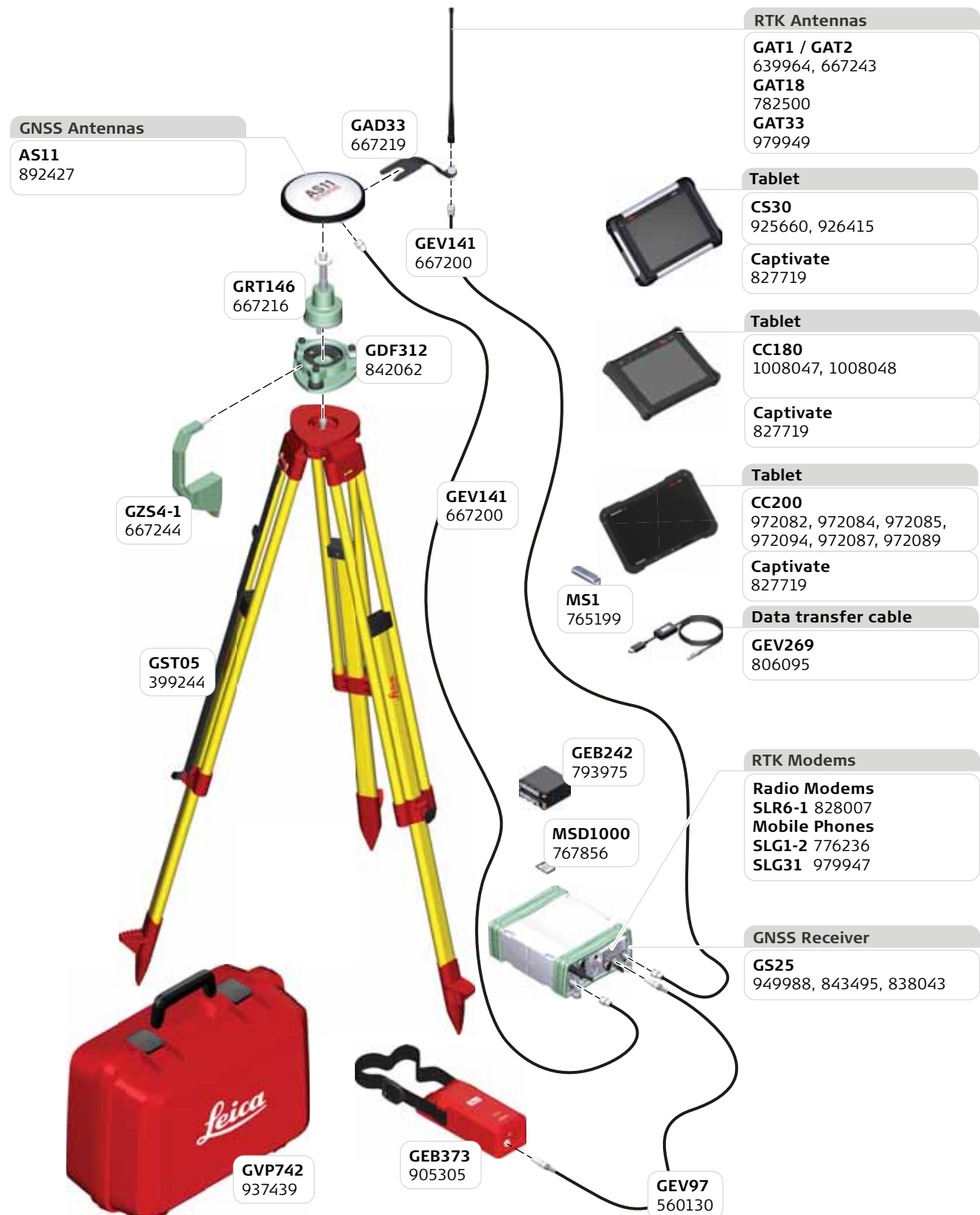


## 70 GS25 Real Time Reference - Tripod Setup

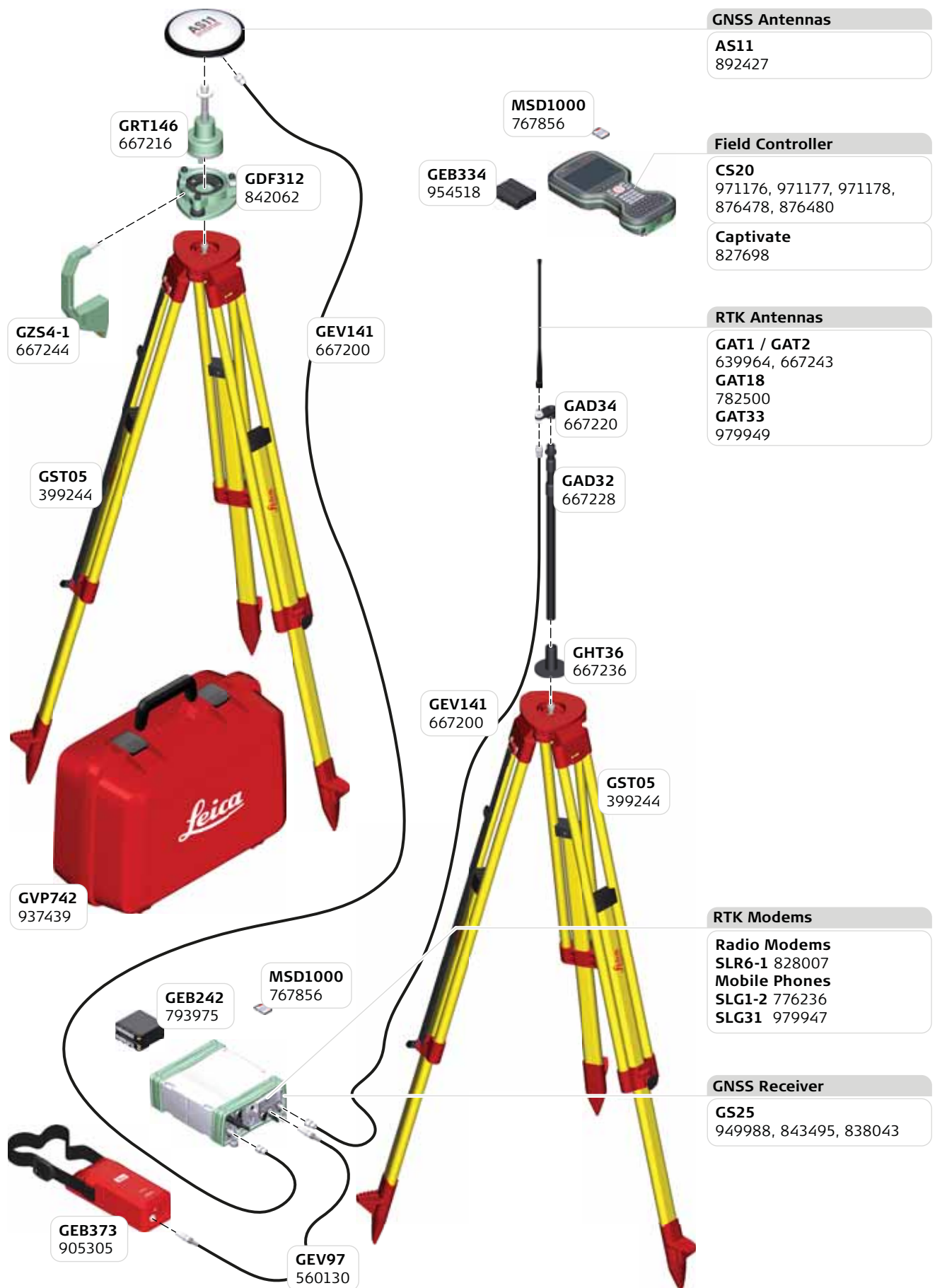
### 70.1 Using One Tripod and CS20 Field Controller



“I am not a doctor,” he said. “I am a scientist.”



## 70.3 Using Two Tripods and CS20 Field Controller



## 70.4 Using Two Tripods and CS30/CC180/CC200 Tablet



### GNSS Antennas

**AS11**  
892427

### Tablet

**CC180**  
1008047, 1008048

### Tablet

**CC200**  
972082, 972084, 972085,  
972094, 972087, 972089

**Captivate**  
827719

### Data transfer cable

**GEV269**  
806095

### RTK Antennas

**GAT1 / GAT2**  
639964, 667243  
**GAT18**  
782500  
**GAT33**  
979949

### RTK Modems

**Radio Modems**  
**SLR6-1** 828007  
**Mobile Phones**  
**SLG1-2** 776236  
**SLG31** 979947

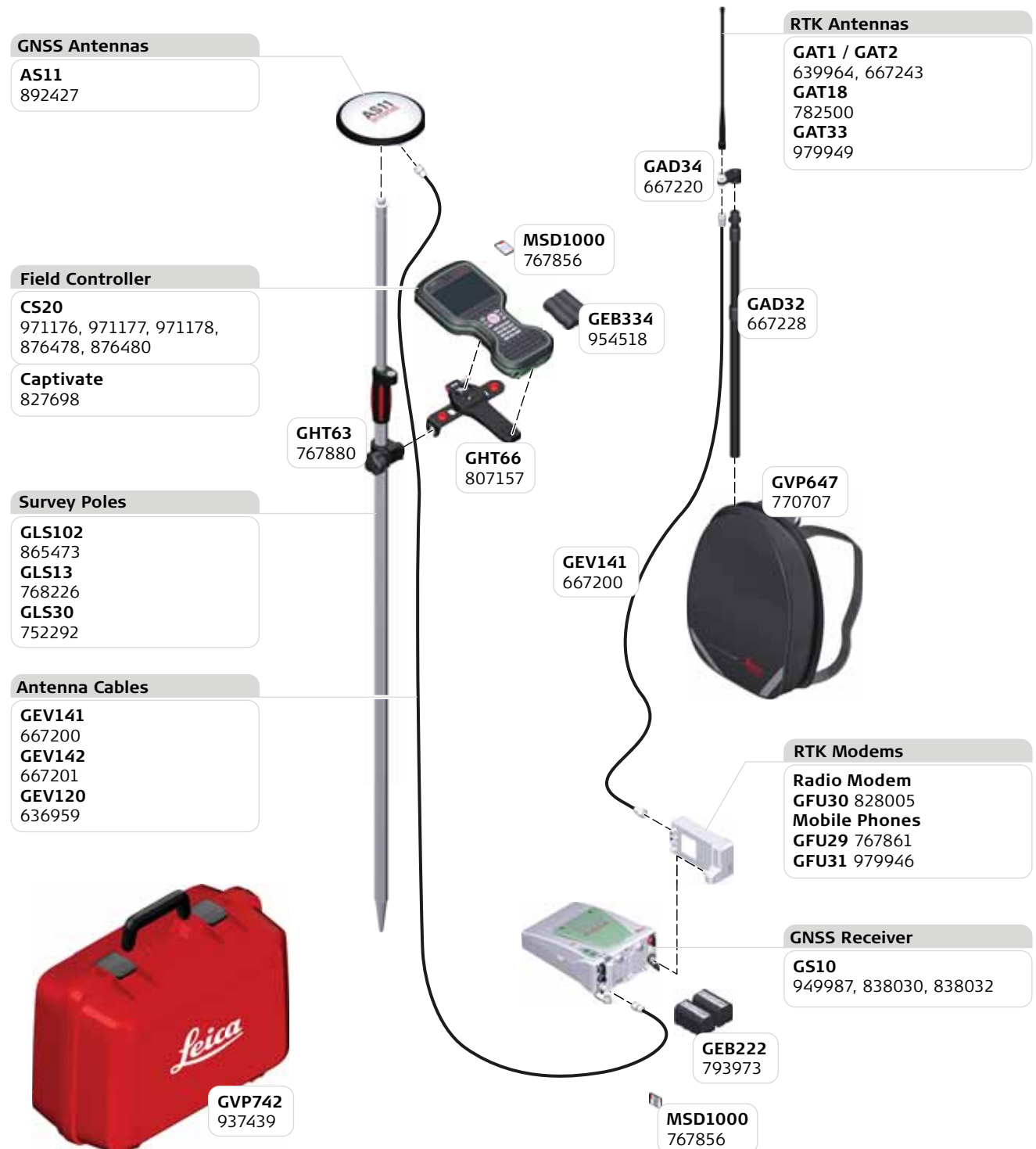
### GNSS Receiver

**GS25**  
949988, 843495, 838043

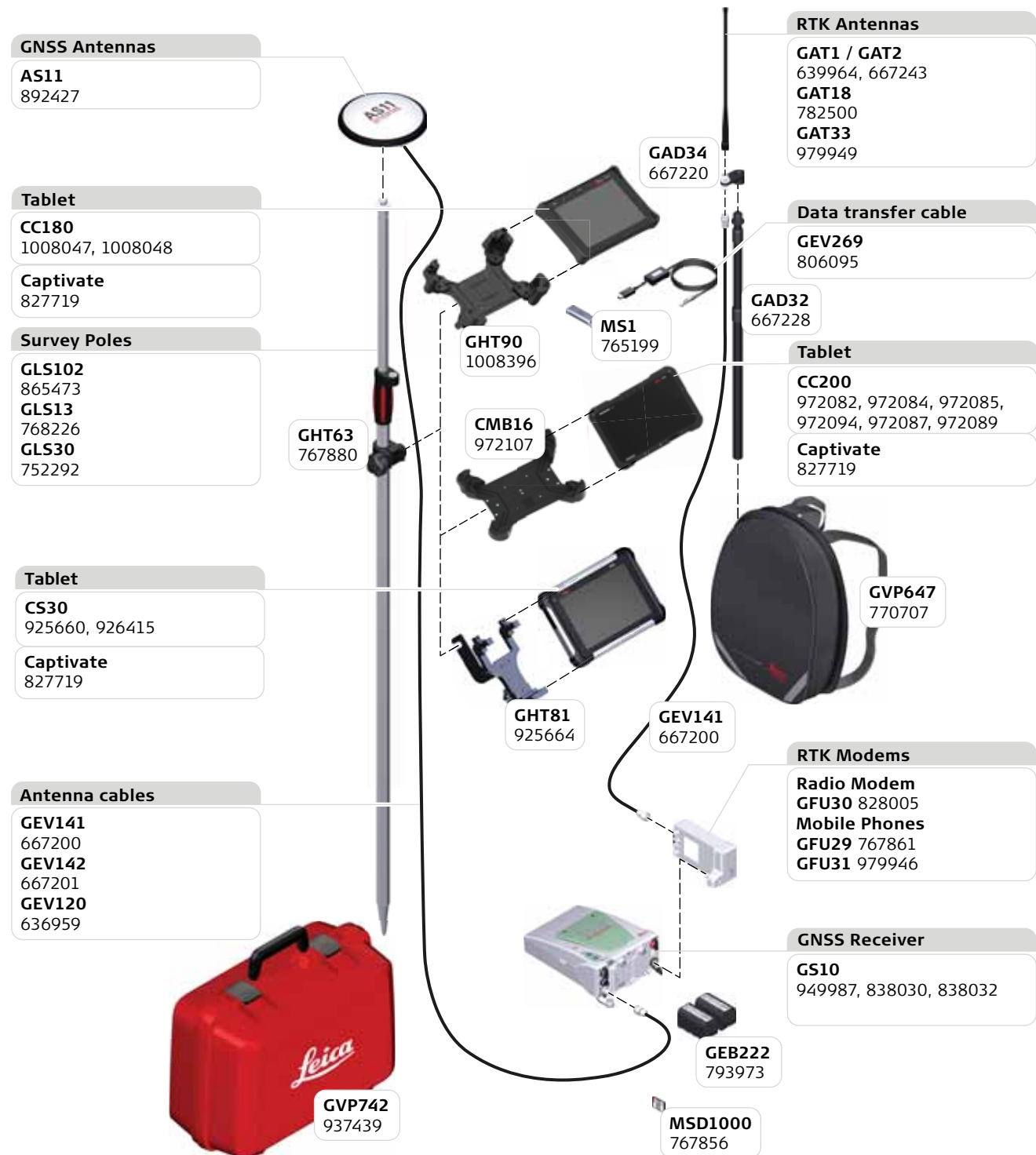


## 71 GS10 Real Time Rover - Pole plus Minipack Setup

### 71.1 Using Pole plus Minipack and CS20 Field Controller



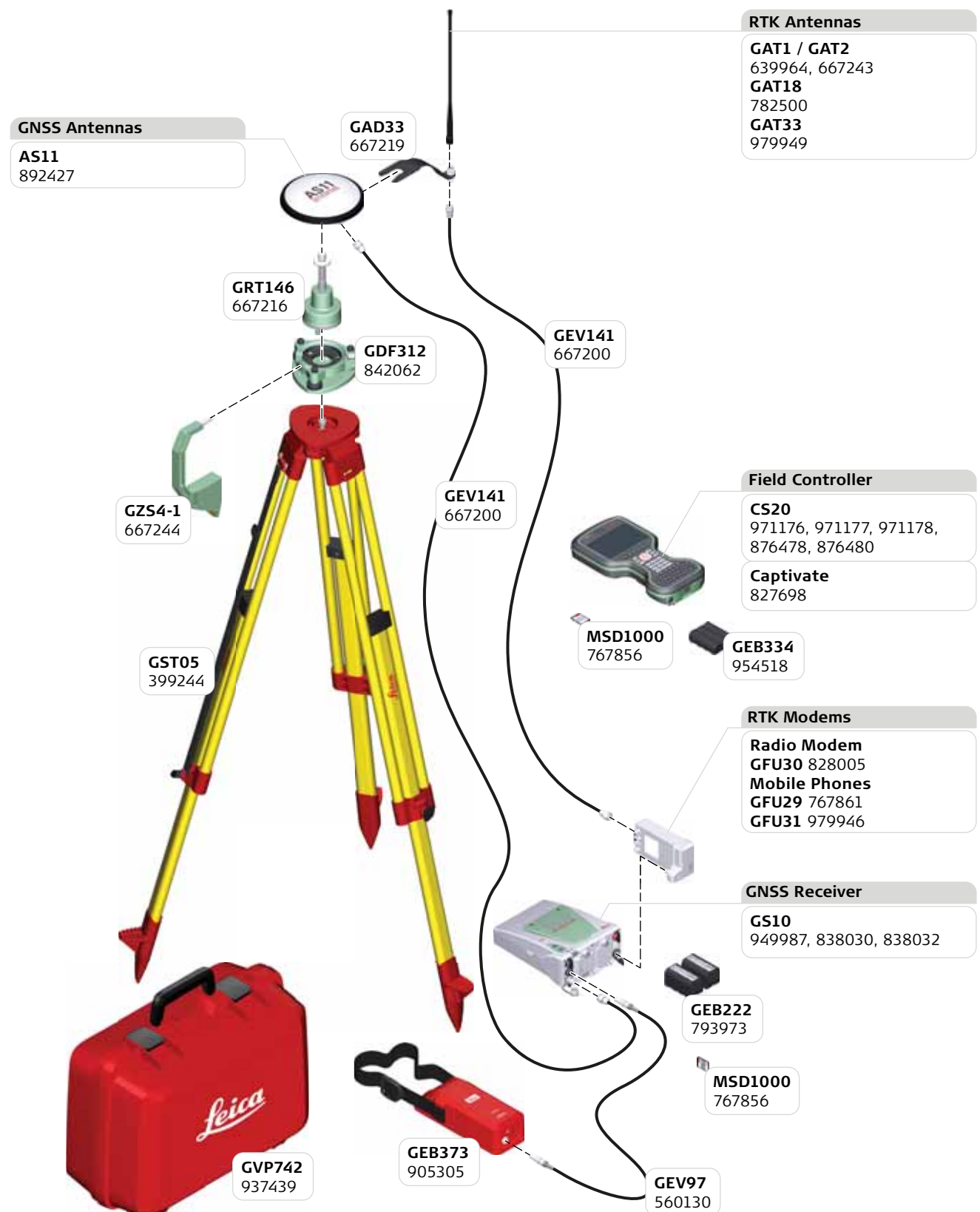
## 71.2 Using Pole plus Minipack and CS30/CC180/CC200 Tablet



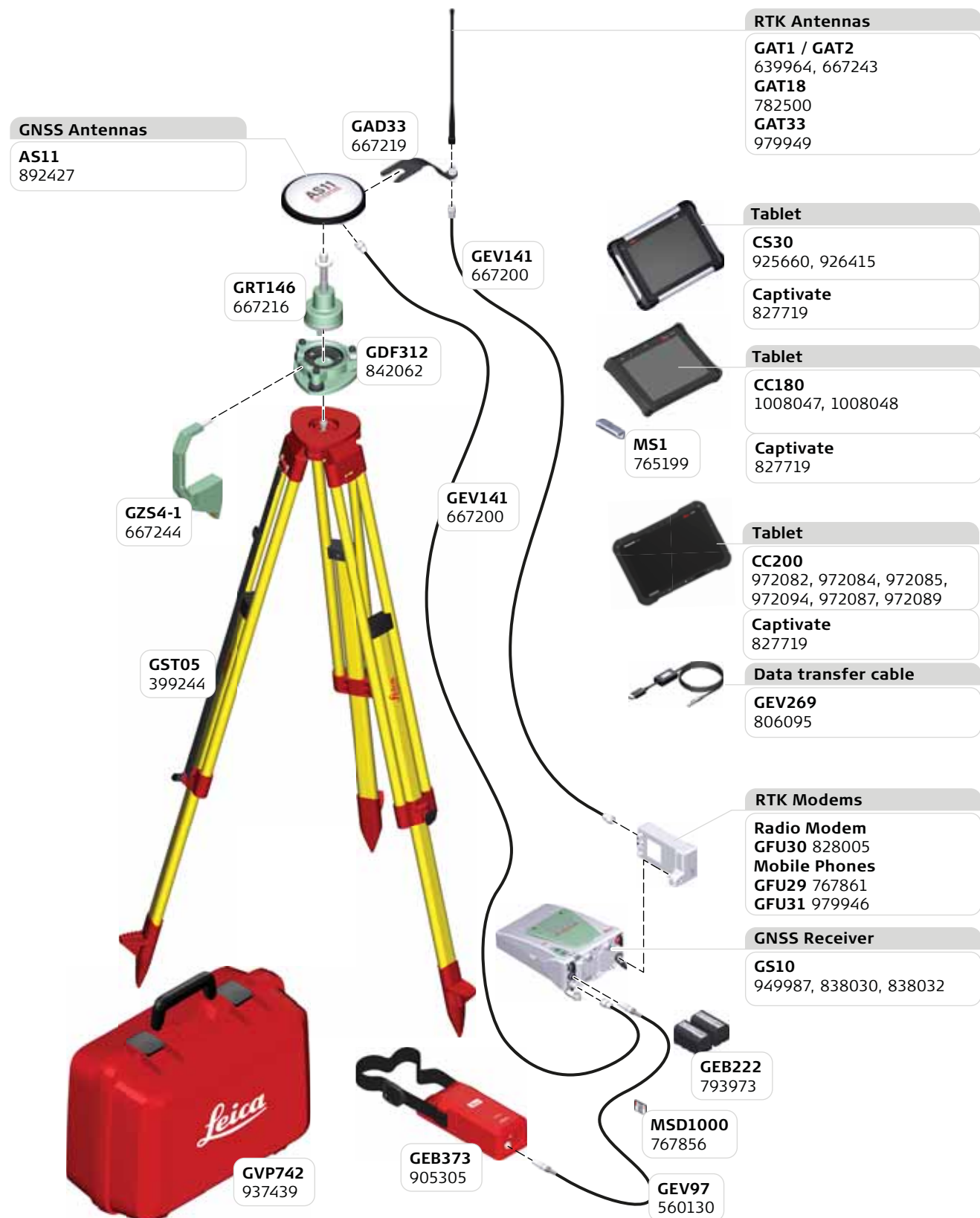


## 72 GS10 Real Time Reference - Tripod Setup

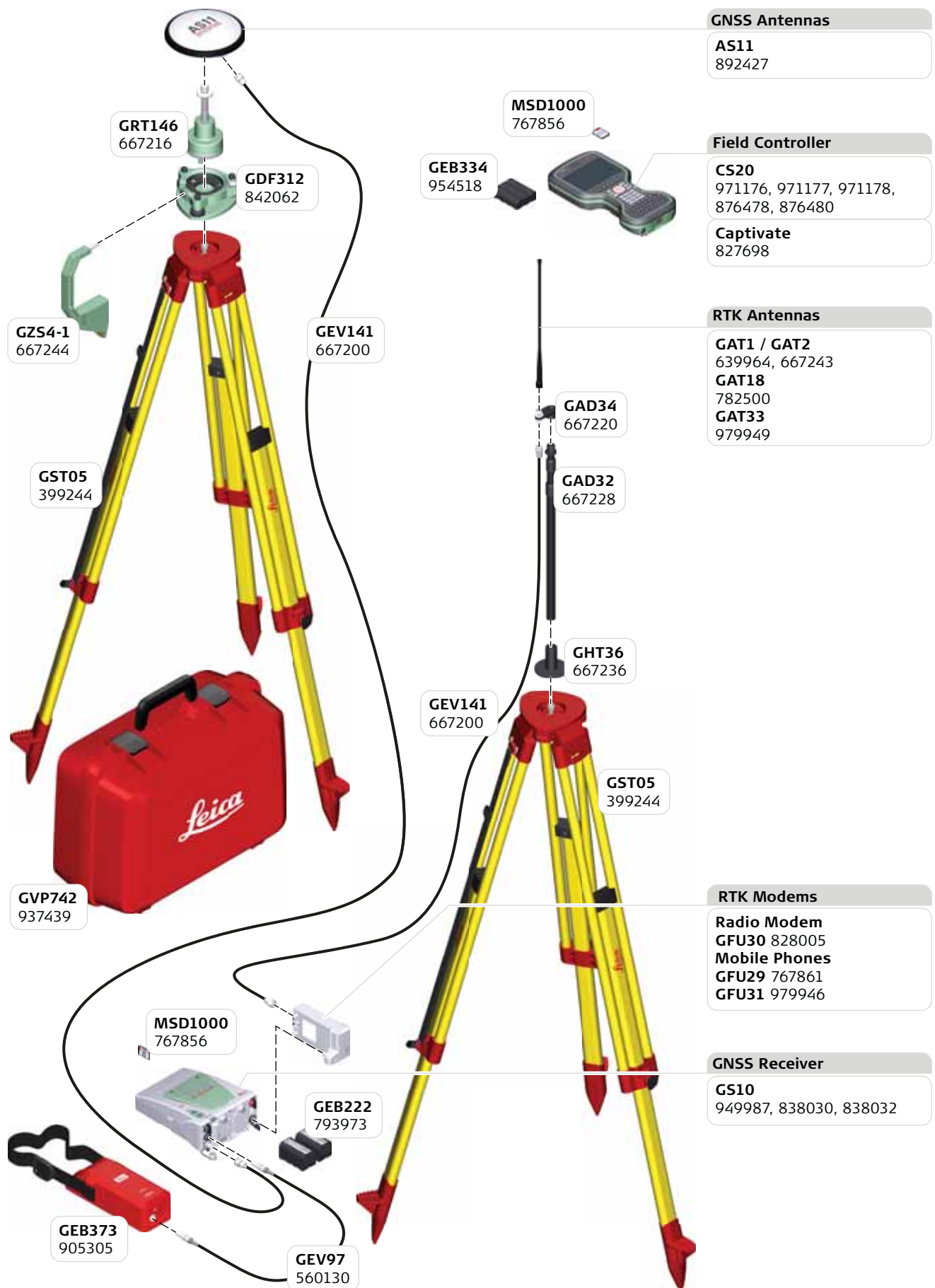
### 72.1 Using One Tripod and CS20 Field Controller



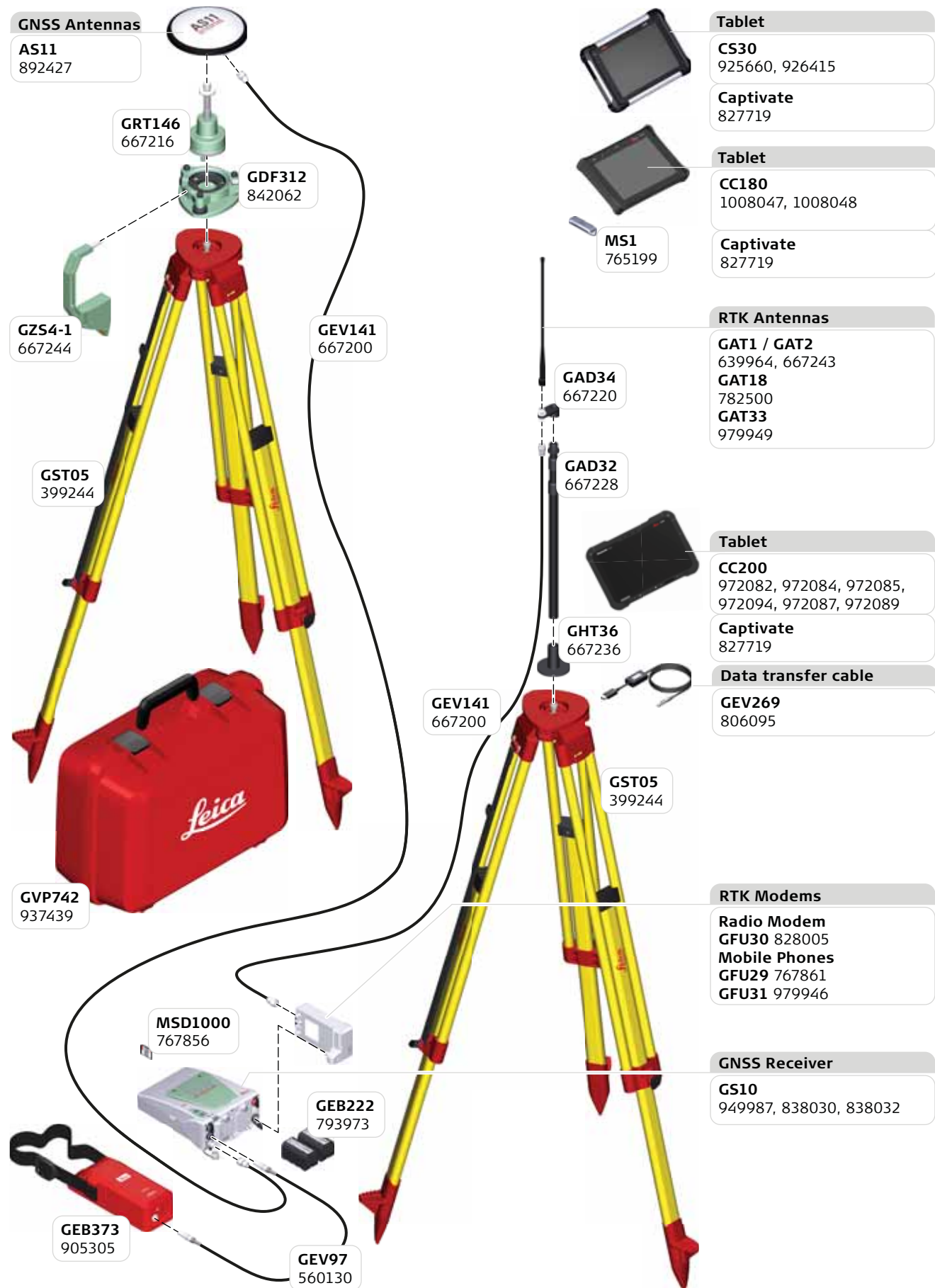
## 72.2 Using One Tripod and CS30/CC180/CC200 Tablet



## 72.3 Using Two Tripods and CS20 Field Controller



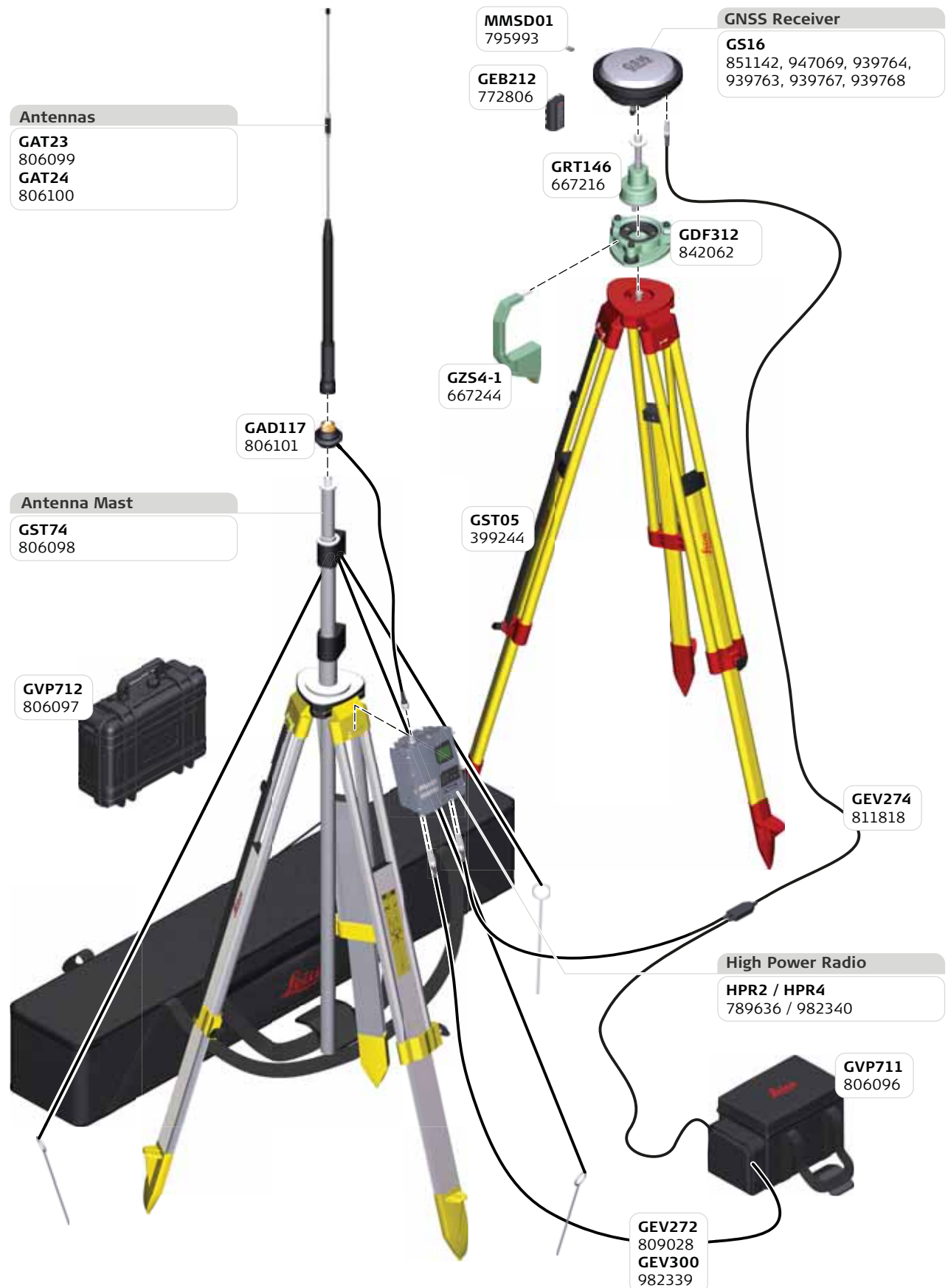
## 72.4 Using Two Tripods and CS30/CC180/CC200 Tablet



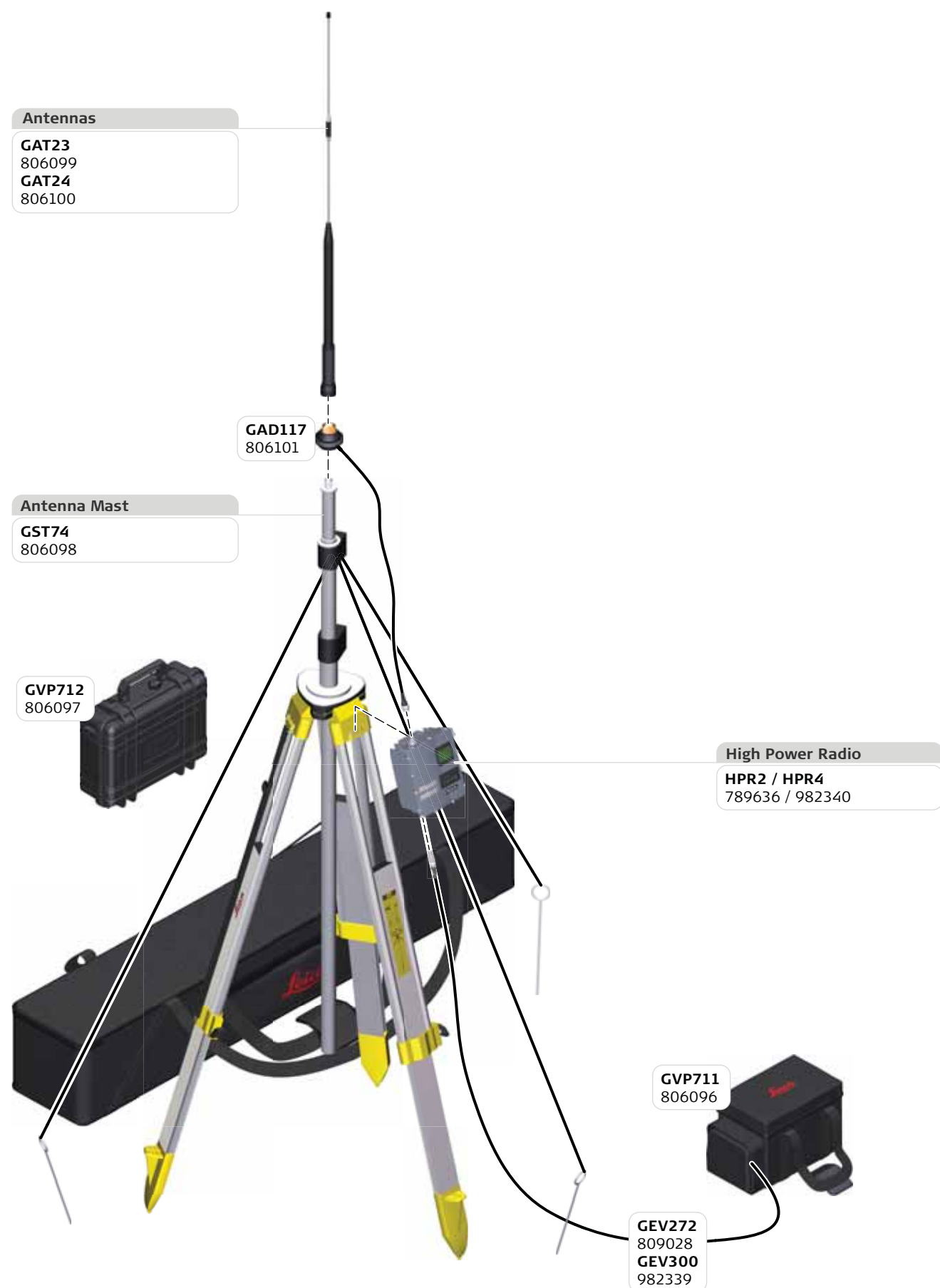


## 73 Sateline High Power Radio (HPR)

### 73.1 Sateline High Power Radio Setup with GS16



## 73.2 Satellite High Power Radio Setup - Standalone





Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Geosystems division provides a comprehensive portfolio of digital solutions that capture, measure, and visualise the physical world and enable data-driven transformation across industry ecosystems.

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