Leica iCON gps 80
Equipment List

- when it has to be **right**

Leica Geosystems

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iCON gps 80 Machine Control GNSS receiver

1 iCON gps 80 Machine Control GNSS receiver

805 249	**iCG81**	Leica iCON gps 80 Single GNSS Entry
829 248	**iCG81**	Leica iCON gps 80 Single GNSS Value
805 252	**iCG81**	Leica iCON gps 80 Single GNSS Standard
805 253	**iCG81**	Leica iCON gps 80 Single GNSS Ultimate
805 258	**iCG82**	Leica iCON gps 80 Dual GNSS Entry
829 249	**iCG82**	Leica iCON gps 80 Dual GNSS Value (Heading ready)
805 259	**iCG82**	Leica iCON gps 80 Dual GNSS Standard (Heading ready)
805 260	**iCG82**	Leica iCON gps 80 Dual GNSS Ultimate (Heading ready)
829 250	**iCG82**	Leica iCON gps 80 Dual GNSS Value Heading
805 261	**iCG82**	Leica iCON gps 80 Dual GNSS Standard Heading
805 262	**iCG82**	Leica iCON gps 80 Dual GNSS Ultimate Heading

	Single GNSS Entry (805 249)	**Single GNSS Value** (829 248)	**Single GNSS Standard** (805 252)	**Single GNSS Ultimate** (805 253)	**Dual GNSS Entry** (805 258)	**Dual GNSS Value (Heading ready)** (829 249)	**Dual GNSS Standard (Heading ready)** (805 259)	**Dual GNSS Ultimate (Heading ready)** (805 260)	**Dual GNSS Value Heading** (829 250)	**Dual GNSS Standard Heading** (805 261)	**Dual GNSS Ultimate Heading** (805 262)
Supported GNSS Systems											
GPS L2	○	●	●	●	○	●	●	●	●	●	●
GLONASS	○	●	●	●	○	●	●	●	●	●	●
GLPS L5	○	○	○	●	○	○	○	●	○	○	●
Galileo	○	○	○	●	○	○	○	●	○	○	●
BeiDou	○	○	○	●	○	○	○	●	○	○	●
RTK Performance											
Low Accuracy RTK (2/50)	○	○	○	○	○	○	○	○	○	○	○
Low Accuracy RTK (20/2)	○	●	○	○	○	●	○	○	○	○	○
High Accuracy RTK	○	○	●	●	○	○	●	●	●	●	●
RTK up to 2.5km	○	●	●	●	○	●	●	●	●	●	●
RTK unlimited	○	●	●	●	○	●	●	●	●	●	●
Network RTK	○	●	●	●	○	●	●	●	●	●	●
SmartLink (L-band)	○	○	○	●	○	○	○	●	○	○	●
Position Update & Data Recording											
2 Hz positioning	○	●	●	●	○	●	●	●	●	●	●
20 Hz positioning	○	●	●	●	○	●	●	●	●	●	●
Raw Data RINEX logging	○	○	○	●	○	○	○	●	○	○	●
Additional features											
RTK Reference Station functionality	○	○	○	●	○	○	○	●	○	○	●
NMEA out	○	○	○	●	○	○	○	●	○	○	●
Low Accuracy Heading (±20°)	-	-	-	-	○	○	○	○	●	○	○
Dual Positioning and Precise Heading	-	-	-	-	○	○	○	○	○	●	●
Open Interface License	○	○	○	○	○	○	○	○	○	○	○
iCON Telematics	○	○	○	○	○	○	○	○	○	○	○

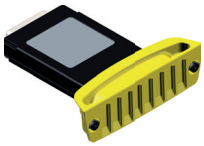
● Standard
○ Optional
- Not available / hardware upgrade required

2 Additional iCON gps 80 Receiver Options

iCON gps 80 hardware upgrade		
817 995	**CUP1**	Upgrade from iCG81 to iCG82
iCON gps 80 software upgrades		
817 433	**CSW587**	Upgrade Entry to Base Station for iCG81
829 259	**CSW904**	Upgrade Entry to Value for iCG81/82
805 308	**CSW579**	Upgrade Entry to Standard for iCG81/82
817 434	**CSW584**	Upgrade Entry to Ultimate for iCG81/82
829 260	**CSW905**	Upgrade Entry to Value heading for iCG82
817 437	**CSW585**	Upgrade Entry to Standard Heading for iCG82
817 435	**CSW586**	Upgrade Entry to Ultimate Heading for iCG82
805 307	**CSW578**	Upgrade Base Station to Ultimate for iCG81
829 262	**CSW907**	Upgrade Value Heading to Standard Heading for iCG82
829 261	**CSW906**	Upgrade Value to Standard for iCG81/82
805 309	**CSW580**	Upgrade Standard to Ultimate for iCG81/82
iCON gps 80 individual software options		
805 286	**CSW560**	RTK low Accuracy (H)
829 255	**CSW901**	RTK low Accuracy (2D)
805 287	**CSW561**	RTK high Accuracy (H)
805 289	**CSW562**	Enables Base Station
805 290	**CSW563**	Position update 2Hz
805 291	**CSW564**	Position update 20Hz
805 292	**CSW565**	RTK Baseline option 2.5km
805 294	**CSW566**	RTK unlimited Baseline
805 295	**CSW567**	RTK Network access
5306782	**CSW904**	2 years SmartLink Service
805 297	**CSW568**	GPS L2 Support
805 298	**CSW569**	GLONASS Support
805 299	**CSW570**	GPS L5 Support
805 300	**CSW571**	Galileo Support
805 301	**CSW572**	BeiDou Support
805 302	**CSW573**	Raw Data Logging
805 303	**CSW574**	NMEA streaming
805 304	**CSW575**	Open Interface
829 257	**CSW902**	RTK Low Accuracy Heading (±20°)
805 305	**CSW576**	Dual Positioning and Precise Heading
827 097	**CSW596**	iCG80 Telematics 1 Year License
827 098	**CSW597**	iCG80 Telematics 2 Year License
827 099	**CSW598**	iCG80 Telematics 3 Year License
827 100	**CSW599**	iCG80 Telematics 1 Day License
827 101	**CSW900**	iCG80 Telematics additional 1 Year License
805 306	**CSW577**	Demo License
817 430	**CSW581**	Upgrade to high accuracy
817 431	**CSW582**	Upgrade to position rate 20Hz
817 432	**CSW583**	Upgrade to unlimited baseline
829 258	**CSW903**	Upgrade from RTK Low Accuracy Heading to Dual Positioning and Precise Heading

3 Slot in Radios

The iCG81 and iCG82 receivers are equipped with a built-in GSM/GPRS/UMTS/HSPA modem as standard. A separate slot in radio can be added.



Satelline radio module		
805 272	**CCD14**	Internal Satel Radio for iCON gps 80 Machine Control GNSS Receiver. Frequency range 403-470 Mhz, TXO and RXO module. RTK transmit and receive UHF radio module incl. Radio Cover.
Intuicom radio module		
805 273	**CCD15**	Internal Intuicom Radio for iCON gps 80 Machine Control GNSS Receiver. Frequency 900 Mhz, TXO and RXO radio. RTK transmit and receive ISM / Spread-Spectrum radio module incl. Radio cover.
Configuration Toolkit		
6002544		Configuration tool kit for programming Satelline and Pacific Crest SLR RTK radio modules; includes programming cable GEV231 and configuration software CD ROM. SLR radios will be delivered pre-configured according to country-specific radio regulations. In countries where radios need to be configured locally, the configuration tool kit is to be used.

4 External RTK Antennas for Machine use

External magnetic mount for radio and modem antennas		
805 279	**CA11**	Magnetic Radio Antenna Mount for placement on machine roof. Includes 5 m/15 ft cable with TNC male connector. Radio Antenna must be purchased separately.
816 971	**CA17**	Magnetic Radio Antenna Mount with Dust Cap for placement on machine roof. Intended for '3D ready' installations when no radio/modem antenna is mounted. Includes 5 m/15 ft cable with TNC male connector. Radio Antenna must be purchased separately.
External stub radio and modem antennas		
805 281	**CA12**	Radio Antenna, Frequency range 406-440 MHz for CCD14 Satel radio. Low profile. To be used with CA11 Magnetic Radio Mount.
805 282	**CA13**	Radio Antenna, Frequency range 430-480 MHz for CCD14 Satel radio. Low profile. To be used with CA11 Magnetic Radio Mount.
805 283	**CA14**	Radio Antenna, Frequency range 698-960 MHz and 1710-2500 MHz for CCD15 Intuicom radio and internal HSPDA modem. Low profile. To be used with CA11 Magnetic Radio Mount.
Gainflex radio antennas		
639 964	**GAT1**	Gainflex radio antenna (frequency range 400-435 MHz).
667 243	**GAT2**	Gainflex radio antenna (frequency range 435-470 MHz).
Antenna for modem		
782 500	**GAT18**	Multiband GSM/UMTS Antenna.
743 283	**GAT1203**	Antenna for 900/1800 MHz mobile network.

5 GNSS Antennas and Cables

5.1 GNSS Antenna

805 284	**CGA60**	Robust GPS/GLONASS/Galileo triple frequency antenna for Machine Control Applications. Used together with iCG80 Machine GNSS Receiver or other GNSS receivers. With TNC connector and 5/8" threat.

5.2 GNSS Antenna accessories

Robust antenna cables		
807 367	**CA15**	Robust antenna cable, 5m. To be used on all machines.
818 369	**CA19**	Robust antenna cable, 7.5m. To be used on all machines.
807 368	**CA16**	Robust antenna cable, 10m. To be used on all machines.
Dozer/Grader cable package		
812 360		Cable package for Dozer/Grader installations. Includes GNSS antenna coil cable, 6m, MCC GNSS bracket and GNSS antenna cable, 40cm.

6 Containers for iCON gps 80 Receiver

805 278	**CTC4**	Carry Case for iCON gps 80 Machine Kit. Includes space for iCON gps 80, two CGA60 GNSS antennas, iCP41 Machine PC, a slope sensor and cables.
805 277	**CTC3**	Carry Case for iCON gps 80 Base Station Kit.

7 Additional Accessories for iCON gps 80 Machine Setups

Machine Brackets		
805 275	**CMB6**	Quick Release Machine Bracket for iCG80 GNSS Receiver. To mount the iCG80 on a machine with a quick release mechanism. Includes CMB7 adapter plates.
805 276	**CMB7**	Additional adapter plates to mount the iCON gps 80 to an existing CMB6 Quick Release Machine Bracket.

Power and Data cables - CAN	
761 062	Cable CAN M12 F/F, 2m
764 865	Cable CAN M12 F/F, 3.5m
761 063	Cable CAN M12 F/F, 5m
761 057	Cable CAN M12 F/F, 7.5m
761 058	Cable CAN M12 F/F, 10m
764 866	Cable JunctionBox to cradle 5P M12/open end, 5m

8 Data Storage and Data Transfer

8.1 Memory Devices

765 199	**MS1**	USB memory stick, 1GB, industrial grade.

8.2 Data Transfer Cables

Serial cables

733 280	**GEV160**	Serial data transfer cable, 2.8m, connects iCON gps 80 receiver to PC. (Lemo to 9pin RS232)
806 095	**GEV269**	Data transfer cable, converter cable Lemo to USB A connector, 2.0m, connects GNSS receiver, controller, iCG60 or TM30/TS30 to PC.
766 087		Cable cradle to GNSS receiver, Lemo/open end, 7m.

8.3 Ethernet Cables

829 251	**CA27**	Robust Ethernet cable 1.5m, to connect iCON gps 80 receiver to a network. (M12 to RJ45)

9 Power Supply

9.1 External Power Supply

Battery for iCON gps 80

818 916	**GEB371**	External universal battery, Li-Ion, 13 V, 250 Wh, rechargeable.

Power cables for iCON gps 80

762 358	**MSC1259**	1.8m cable, connects PowerBox to Lemo1-5pin.
439 038	**GEV71**	4m car battery cable, connects all battery cables to 12V car battery.
733 298	**GEV172**	Power cable, 2.8m, connects GPS receiver to 2 external GEB171 batteries.
762 356	**MSC1258**	11m cable, connects GNSS receiver to machine battery.

Permanent Power Supply

807 696	**GEV270**	Power supply unit, TPS/GPS/DNA.
731 772		Power cable, for use in USA.
731 773		Power cable, for use in the EU.
734 232		Power cable, for use in the UK.
734 233		Power cable, for use in Australia.
738 586		Power cable, for use in Switzerland.

9.2 Battery Chargers

774 437	**GEV242**	Charger for GEB371 external battery.

Care Packages

10 Customer Care Packages

A wide selection of comprehensive Customer Care Packages (CCPs) is available bundling Hardware Maintenance, Software Maintenance, Customer Support and Extended Warranty.
For more information about the CCP offering in your country please contact your local Leica Geosystems organization or distribution partner.

Trademarks

11 Trademarks

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Suggested Configurations

12 Single GNSS Machine Configuration

805 252	**iCG81**	Leica iCON gps 80 Single GNSS Standard
805 272	**CCD14**	Internal Satel Radio for iCON gps 80 Machine Control GNSS Receiver
805 279	**CA11**	Magnetic Radio Antenna Mount for placement on machine roof
805 281	**CA12**	Radio Antenna, Frequency range 406-440 MHz for CCD14 Satel radio
805 284	**CGA60**	Robust GPS/GLONASS/Galileo triple frequency antenna for Machine Control Applications
807 367	**CA15**	Robust antenna cable, 5m
761 063		Cable CAN M12 F/F, 5m
761 063		Cable CAN M12 F/F, 5m
805 278	**CTC4**	Carry Case for iCON gps 80 Machine Kit
805 275	**CMB6**	Quick Release Machine Bracket for iCG80 GNSS Receiver

13 Dual GNSS Machine Ready Configuration

805 259	**iCG82**	Leica iCON gps 80 Dual GNSS Standard (Heading ready)
805 272	**CCD14**	Internal Satel Radio for iCON gps 80 Machine Control GNSS Receiver
805 279	**CA11**	Magnetic Radio Antenna Mount for placement on machine roof
805 281	**CA12**	Radio Antenna, Frequency range 406-440 MHz for CCD14 Satel radio
805 284	**CGA60**	Robust GPS/GLONASS/Galileo triple frequency antenna for Machine Control Applications
807 367	**CA15**	Robust antenna cable, 5m
761 063		Cable CAN M12 F/F, 5m
761 063		Cable CAN M12 F/F, 5m
805 278	**CTC4**	Carry Case for iCON gps 80 Machine Kit
805 275	**CMB6**	Quick Release Machine Bracket for iCG80 GNSS Receiver

14 Dual GNSS Machine Configuration

805 261	**iCG82**	Leica iCON gps 80 Dual GNSS Standard Heading
805 272	**CCD14**	Internal Satel Radio for iCON gps 80 Machine Control GNSS Receiver
805 279	**CA11**	Magnetic Radio Antenna Mount for placement on machine roof
805 281	**CA12**	Radio Antenna, Frequency range 406-440 MHz for CCD14 Satel radio
805 284	**CGA60**	Robust GPS/GLONASS/Galileo triple frequency antenna for Machine Control Applications
805 284	**CGA60**	Robust GPS/GLONASS/Galileo triple frequency antenna for Machine Control Applications
807 367	**CA15**	Robust antenna cable, 5m
818 369	**CA19**	Robust antenna cable, 7.5m
761 063		Cable CAN M12 F/F, 5m
761 063		Cable CAN M12 F/F, 5m
805 278	**CTC4**	Carry Case for iCON gps 80 Machine Kit
805 275	**CMB6**	Quick Release Machine Bracket for iCG80 GNSS Receiver

15 Upgrade Kit Redline to iCG80 Single GNSS Machine

805 252	**iCG81**	Leica iCON gps 80 Single GNSS Standard
761 063		Cable CAN M12 F/F, 5m
761 063		Cable CAN M12 F/F, 5m
805 278	**CTC4**	Carry Case for iCON gps 80 Machine Kit
805 275	**CMB6**	Quick Release Machine Bracket for iCG80 GNSS Receiver

16 Upgrade Kit Redline to iCG80 Dual GNSS Machine

805 261	**iCG82**	Leica iCON gps 80 Dual GNSS Standard Heading
805 284	**CGA60**	Robust GPS/GLONASS/Galileo triple frequency antenna for Machine Control Applications
807 367	**CA15**	Robust antenna cable, 5m
761 063		Cable CAN M12 F/F, 5m
761 063		Cable CAN M12 F/F, 5m
805 278	**CTC4**	Carry Case for iCON gps 80 Machine Kit
805 275	**CMB6**	Quick Release Machine Bracket for iCG80 GNSS Receiver

17 iCON gps 80 System Integration Configuration

805 262	**iCG82**	Leica iCON gps 80 Dual GNSS Ultimate Heading
805 272	**CCD14**	Internal Satel Radio for iCON gps 80 Machine Control GNSS Receiver
639 964	**GAT1**	Gainflex radio antenna (frequency range 400-435 MHz)
743 283	**GAT1203**	Antenna for 900/1800 MHz mobile network
805 284	**CGA60**	Robust GPS/GLONASS/Galileo triple frequency antenna for Machine Control Applications
805 284	**CGA60**	Robust GPS/GLONASS/Galileo triple frequency antenna for Machine Control Applications
807 367	**CA15**	Robust antenna cable, 5m
807 367	**CA15**	Robust antenna cable, 5m
761 063		Cable CAN M12 F/F, 5m
762 358	**MSC1259**	1.8m cable, connects PowerBox to Lemo1-5pin
733 280	**GEV160**	Serial data transfer cable, 2.8m
807 696	**GEV270**	Power supply unit, TPS/GPS/DNA

Leica Geosystems intelligent CONstruction.
Whether you construct buildings, roads, bridges or tunnels, you benefit from intelligent CONstruction. Leica iCON is more than a new product line or software package, it enables you to enhance your performance and increase your profitability through perfecting your construction workflow.
Understanding construction demands outstanding solutions:

- Custom-built
- Complete
- Straightforward
- High performance

When it has to be right.

Swiss Technology
by Leica Geosystems

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

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Leica Geosystems