# **Leica Captivate Controller** Equipment List





- when it has to be **right** 

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# **Field Controller**

# 1 CS20 Field Controller

#### 1.1 CS20 Field Controller

876 476	CS20	CS20 Basic Field Controller 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, QWERTY keypad, stylus.
876 477	CS20 LTE	CS20 LTE Field Controller 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, QWERTY keypad, stylus.
876 479	CS20 LTE (US/CA)	CS20 LTE Field Controller (US, CA) 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, QWERTY keypad, stylus.
876 478	CS20 LTE Disto	CS20 LTE Disto Field Controller 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	CS20 LTE Disto (US/CA)	<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.

# 1.2 CGR UHF RTK Expansion Pack

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

## 1.3 CTR20 TS Communication Expansion Pack



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6010023	CTR20 expansion pack set				
	TS communication expansion pack set including CTR20 module and GAT25 radio				
,	antenna.				
Not availabl	e in EU countries due to EN 300 328 V.1.8.1.				

Recommended only for robotic applications systematically exceeding ranges beyond 400 m.

# 2 Leica Captivate Software and Apps - CS20 Field Controller

#### 2.1 Leica Captivate Software for CS20 Field Controller

827 698

#### Leica Captivate - Measure and Stake for CS20.

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

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

Measure	includes:

٠	Me	easu	ıre	
	-			

- Code pointsAutomatically 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 sectionsChainage 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
  - 3rd party total station control:
    - Topcon total station control
    - Nikon total station control
    - SOKKIA total station control

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

 $\bigcirc$  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
855 971	RINEX Export

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

827 714 Act

## Active Assist

#### 2.5 Local Applications and licenses for CS20 Field Controller

The following apps require a valid license key.

$\sim$		
834 2	295	Captivate Offset+ CS20
834 2	299	Captivate Zenith Line CS20
834 3	303	Captivate Quick Setup CS20
834 3	305	Captivate Auto Setup CS20
836 6	570	Captivate Tunnel Profile Generator CS20
839 6	579	Captivate Inspect Surfaces CS20
846 8	327	Captivate TPS Survey Streaming CS20
848 3	372	Captivate Inspect Road
848 3	374	Captivate Inspect Tunnel
848 3	370	Captivate TPS Monitoring for CS20
850 6	523	Captivate ESRI Shapefile Exporter for CS20
865 6	58	Captivate Compaction Control CS20
867 3	334	Captivate Stakeout Auto Points CS20
869 7	756	Captivate Structural Steel CS20
848 3	368	Captivate Inventory (MtI) CS20
944 9	)39	Captivate Custom Field Data Export CS20
834 3	323	Captivate Piling for CS20

# 3 CS30 Tablet

	925 660	CS30 LTE	<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.
$\langle \rangle$	926 415	CS30 LTE LRBT	<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 Capaci- tive Stylus.

# 4 CS35 Tablet

#### 4.1 CS35 Tablet

875 363	CS35-1	CS35-1 10" Tablet, EU, RU Ruggedized Win10 64-bit Tablet Computer including: 10" touch-widescreen, 256 GB SSD hard drive, 8 GB SDRAM, WLAN 802.11 b/g/n/a/ac, 4G Integrated Mobile Broadband module, Bluetooth v4.1, Stylus, 1x Battery (4.1Ah), AC/DC adaptor and 8MP rear camera with flash.
875 364	CS35-2	CS35-2 10" Tablet, US, CA Ruggedized Win10 64-bit Tablet Computer including: 10" touch-widescreen, 256 GB SSD hard drive, 8 GB SDRAM, WLAN 802.11 b/g/n/a/ac, 4G Integrated Mobile Broadband module, Bluetooth v4.1, Stylus, 1x Battery (4.1Ah), AC/DC adaptor and 8MP rear camera with flash.
875 365	CS35-3	CS35-3 Tablet, AUS NZ Ruggedized Win10 64-bit Tablet Computer including: 10" touch-widescreen, 256 GB SSD hard drive, 8 GB SDRAM, WLAN 802.11 b/g/n/a/ac, 4G Integrated Mobile Broadband module, Bluetooth v4.1, Stylus, 1x Battery (4.1Ah), AC/DC adaptor and 8MP rear camera with flash.

All CS35 Tablets are delivered with stylus, tether, one GEB235 Lithium-Ion battery (11.1 V/4.1 Ah, rechargeable) and country specific AC/DC adaptor.

## 4.2 CTR35 Long-range Bluetooth Device



844 474CTR35Long-range Bluetooth device for CS35.

Recommended only for robotic applications requiring extended range.

# 5 Leica Captivate Software and Apps

#### 5.1 Leica Captivate Software for CS3x Tablet

827 719 Leica Captivate - Measure and Stake for CS3x.

#### 5.2 Apps included in Leica Captivate for CS3x Tablet

The following apps are included in Leica Captivate for CS3x (827 719).

Measure includes:
Measure
Code points
Automatically measure points
Remote Heights
Target Offset calculations
Setup includes:
<ul> <li>Get station coordinates from GNSS, from Job or enter manually</li> </ul>
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:
<ul> <li>Navigate to point using various methods: from and behind instrument</li> </ul>
point, base line, arrow, North
<ul> <li>Quality control - checking of coordinate differences before storing</li> </ul>
Automatically select next closest point
<ul> <li>Graphical selection of point from map</li> </ul>
<ul> <li>Edit heights and offset heights of points</li> </ul>
<ul> <li>Acoustic beep getting faster when getting closer to point</li> </ul>
COGO includes:
Inverse
Traverse
Intersections
Angle calculations
Line & arc calculations
<ul> <li>Bearing &amp; distance calculations</li> </ul>
<ul> <li>Shift, Rotate, Scale (manual &amp; matching points)</li> </ul>
Triangle calculations
Determine coordinate system:
<ul> <li>1 step, 2 step, 3D Transformation</li> </ul>
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
3rd party total station control:
Topcon total station control
Nikon total station control

# 5.3 Leica Captivate Software and Apps - CS3x Tablet

Leica Captivate Measure & Stakeout CS3x
Leica Captivate Measure Stake Line CS3x
Leica Captivate Measure Plane Grid CS3x
Leica Captivate Area Division CS3x
Leica Captivate DTM Stakeout CS3x
Leica Captivate Volume Calculation CS3x
Leica Captivate Road CS3x
Leica Captivate Tunnel CS3x
Leica Captivate Rail CS3x
Leica Captivate TS Hidden Point CS3x
Leica Captivate Traverse CS3x
Leica Captivate Sets of Angles CS3x
Leica Captivate QuickVolume CS3x
Leica Captivate ESRI Shapefile Exporter CS3x
Leica Captivate ADSK BIM360 Docs CS3x
Leica Captivate ADSK BIM360 1y Lic CS3x
Leica Captivate ConX 1y Lic CS3x
Leica Captivate ConX 2y Lic CS3x
Leica Captivate ConX 3y Lic CS3x
Leica Captivate Bricsys 24/7 1y CS3x
Leica Captivate Bricsys 24/7 2y CS3x
Leica Captivate Bricsys 24/7 3y CS3x

# 5.4 Local Applications and licenses - CS3x Tablet

834 682	Captivate Offset+ CS3x
834 686	Captivate Zenith Line CS3x
834 689	Captivate Quick Setup CS3x
834 691	Captivate Auto Setup CS3x
834 708	Captivate Piling for CS3x
836 671	Captivate Tunnel Profile Generator CS3x
839 681	Captivate Inspect Surfaces CS3x
846 828	Captivate TPS Survey Streaming for CS3x
848 369	Captivate Inventory (Mtl) for CS3x
848 371	Captivate TPS Monitoring for CS3x
848 373	Captivate Inspect Road CS3x
848 375	Captivate Inspect Tunnel CS3x
865 659	Captivate Compaction Control CS3x
867 336	Captivate Stakeout Auto Points CS3x
869 757	Captivate Structural Steel for CS3x
937 674	Captivate Inspect Layer for CS3x
944 940	Captivate Custom Field Data Export CS3x

# **Accessories for Field Controller**

# 6 Accessories for CS20 Field Controller

#### 6.1 Internal Batteries



 799 190
 GEB331
 Li-Ion battery, 11.1 V / 2.8 Ah, rechargeable, for CS20.

#### 6.2 Battery Chargers

AT	799 185	GKL311	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	GKL341	Multi-bay Charger Professional 5000. Charges up to 4 batteries (GEB211, GEB212, GEB221, GEB222, GEB241, GEB242 and GEB331), including power cable.
2	734 389	GDC221	Car adapter for the GKL341 charger. Allows the use of the GKL341 with a ciga- rette lighter; 12V/24V DC/DC converter. Can also be used to power CS10/CS15 field controller directly from a cigarette lighter.

#### 6.3 Memory Devices

-			
	767 856	MSD1000	SD memory card 1 GB for total stations, GNSS receivers and field controllers, industrial grade.
	789 139	MSD08	SD memory card 8 GB for total stations, GNSS receivers and field controllers, industrial grade.
	765 199	MS1	USB memory stick, 1 GB, for total stations and field controllers, industrial grade.

#### 6.4 Card Reader & Adapter



MCR7 Card reader for SD/CF cards.

#### 6.5 Pen and Screen Protections Foils

767 895



Pen		
813 914	GDZ71	Pen with tether clip interface for CS20 field controller and TS16/MS60/TS60 instruments.
813 582	GHT76	Tether to connect GDZ71 Pen to CS20 field controller.
Screen Pr	otection Foil	set
813 781	SPF05	5" WVGA screen protection foils for CS20 field controller and TS16/MS60/TS60 instruments.

#### 6.6 Additional Power Accessories



822 787	GEV276	Power supply unit for CS20, for indoor use only. Input 100-240 VAC to output 15.0 VDC, 40 W.

#### 6.7 Pole Accessories

1	807 157	GHT66	Holder attaching a CS20 with a GHT63 clamp to a pole. GHT63 is not included.
	767 880	GHT63	Clamp arrangement for attaching the GHT66 and GHT78 to all poles.



#### 6.8 Utility Hook and Hand Strap



#### Utility hook

Utility hoo	DK	
807 245	GHT68	Utility hook for CS20 field controller for attaching to belt or tripod.
845 832	GHT70	Clamp arrangement for attaching the GHT66 and GHT78 to all tripods.
Hand stra	Р	
807 158	GHT67	Hand strap for CS20 field controller.

## 7 Accessories for CS30 Tablet

925 661

**GEV288** 

#### 7.1 Internal Batteries

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



 926 459
 GKL260
 Multi-Bay Charger for GEB260.

 Country specific AC power cable needs to be ordered with every GEV288 or GKL260.

#### 7.3 Power Supplies



 $\bigcirc$  Country specific AC power cable needs to be ordered with every GEV288 or GKL260.

Power Supply unit for CS30 and CCS02.

#### 7.4 AC Power cables

nh	926 054	AC Power cable C5 / Type_B: US/CAN/JP.
	926 055	AC Power cable C5 / Type_F: EU.
	926 056	AC Power cable C5 / Type_G: UK/HK.
	926 057	AC Power cable C5 / Type_I: AUS/NZ/CN.
	926 058	AC Power cable C5 / Type_J: CH.

#### 7.5 Memory Devices



765 199MS1USB memory stick, 1 GB, for total stations and field controllers, industrial grade.

#### 7.6 Pen and Screen Protection Foils

Pen

# $\sim$

925 666	GDZ80	Stylus for CS30.	
Screen Pr	otection F	oil set	
925 662	SPF10	Screen protection foil for CS30.	

( All CS30 Tablets come with a GDZ80 Stylus and are fitted with a Screen Protection Foil from factory.

#### 7.7 Pole Accessories



925 664	GHT81	Tablet holder for attaching a CS30 Tablet with a GHT63 clamp to a pole. GHT63 is not included.
767 880	GHT63	Clamp arrangement for attaching the GHT66, GHT78, and GHT81 to all poles.

# 8 Accessories for CS35 Tablet

#### **8.1 Internal Batteries**



832 119	GEB235	Lithium-Ion battery, 11.1 V/4.1 Ah, rechargeable, for CS35 Tablet.
832 120	GEB236	Lithium-Ion battery, 10.8 V/8.7 Ah, rechargeable, for CS35 Tablet.

 $\bigcirc$  All CS35 Tablets are delivered with one GEB235 Lithium-Ion battery.

#### 8.2 Battery Chargers



)	832 118	GKL235	Charger for CS35 batteries GEB235 and GEB236. Country specific AC/DC adaptor (GEV280-x) not included.
	832 113	GEV280-1	AC/DC adaptor, EU. Power Supply for CS35 Tablet.
	832 114	GEV280-2	AC/DC adaptor, UK. Power Supply for CS35 Tablet.
	832 115	GEV280-3	AC/DC adaptor, US. Power Supply for CS35 Tablet.
-	832 116	GEV280-4	AC/DC adaptor, AUS. Power Supply for CS35 Tablet.
	832 117	GEV280-5	AC/DC adaptor, CH. Power Supply for CS35 Tablet.
	842 648	GEV280-6	AC/DC adaptor, JP, Power Supply for CS35 Tablet.

 $\bigcirc$  Country specific AC/DC adaptor (GEV280-x) is delivered with CS35 Tablet.

#### 8.3 Pen and Screen Protection Foils

833 343



Pen			
832 121	GDZ75	Digitiser Pen for CS35 Tablet.	
851 539	GDZ76	Digitiser Pen for CS35 Tablet, MK4 models.	
832 122	GHT77	Tether to tie GDZ75 Digitiser Pen to CS35 Tablet.	
Screen Pi	rotection Foi	l set	
832 126	SPF06	Screen protection foils for CS35 Tablet.	

All CS35 Tablets are delivered with one GDZ75 Digitiser Pen and a GHT77 Tether.

#### 8.4 Pole Accessories



832 127	GHT78	Tablet holder for attaching a CS35 Tablet with a GHT63 clamp to a pole. GHT63 is not included.
767 880	GHT63	Clamp arrangement for attaching the GHT66 and GHT78 to all poles.

#### 8.5 Hand Strap



GHT79 Hand strap for CS35 Tablet. Including 4 high corner guards.

# **Care Packages**

# 9 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

# 10 Trademarks

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