CASE CONSTRUCTION

SINCE 1842

LEICA iCON FIELD SOLUTIONS

CONSTRUCTION SITE TOOLS

CASE® CONSTRUCTION | SiteControl

WHY CASE MACHINE CONTROL TOOLS

Your work requires more quality and precision than ever before to stay ahead of deadlines—and your competitors. CASE SiteControl solutions from CASE Construction Equipment feature industry-leading Leica Geosystems technologies—from on-machine to construction site tools—that immediately deliver greater productivity and efficiency in your earthmoving and finishing work. This includes the Leica iCON portfolio of products and software built for various applications in the construction industry. Choose CASE SiteControl for solutions that are easy to deploy, easy to use, and will stand up to the demands that you and your jobsites face every day.

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Leica Geosystems

Revolutionizing the world of measurement and survey for nearly 200 years, Leica Geosystems, part of Hexagon, is the industry leader in measurement and information technologies. Known for innovative product and solution development, professionals in a diverse mix of industries, such as surveying and engineering, building and heavy construction, safety and security, and power and plant trust Leica Geosystems for all their geospatial needs. With precise and accurate instruments, sophisticated software, and trusted services, Leica Geosystems delivers value every day to those shaping the future of our world. Learn more about Leica Geosystems at https://leica-geosystems.com/

LEICA iCON SOLUTIONS

Fully understanding construction carried us beyond the ordinary. The Leica iCON portfolio through CASE Construction Equipment offers you tailor-made hardware and software solutions for all positioning and measuring tasks in road and general construction. This allows you to invest in the solution you need today with the flexibility to expand as your needs grow. Intelligent and easy to use, the customizable solutions enable you to enhance your performance and increase your profitability through perfecting your workflow.

LEICA iCON GPS 70T

GNSS Rover featuring permanent tilt compensation, resistance to magnetic interferences and calibration-free operation.

LEICA iCON GPS 60

Versatile SmartAntenna for multi-purpose positioning tasks.

LEICA iCON iCR80

High-end robotic construction total station with unmatched automated-aiming, lock and re-lock technology and Leica iCON on board.

CONX

Cloud-based service to store project data, monitor the construction progress and share data between the office and field.

LEICA iCON SITE FIELD SOFTWARE

Core central interface to all Leica iCON sensors and devices with unmatched simplicity but no compromises on functionality.

LEICA iCON iCR70

High-end robotic construction total station with unmatched automated-aiming, lock and re-lock technology.

LEICA iCON CC80

Robust, extremely lightweight field controller with multi-touchscreen and versatile communication capabilities.

LEICA iCON CC70

Entry-level field controller for routine construction positioning tasks.

LEICA iCON SITE FIELD SOFTWARE

Custom-built solutions for site construction.

Leica iCON site is the most tailored software solution for any segment in the heavy construction industry. A straightforward user interface and custom-built apps are designed specifically for construction professionals such as site workers, grade checkers or foremen.

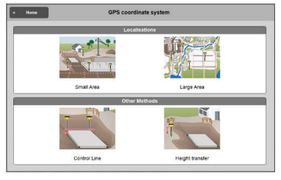
Leica iCON site is designed to increase your productivity and enable you to adapt to any given scenario on site. If you work with machines on site, use Leica iCON site to check your progress to determine if you are working to the correct depth, profile, grade or surface, without having to wait for an engineer or surveyor to carry out these tasks.

The exceptional features and unmatched graphical support within Leica iCON site allows you to carry out specific tasks on site in an easier, straightforward way. Use Leica iCON site for checking dimensions, volumes, positions, and the status of key site elements. Leica iCON site allows the user to complete all site related tasks from one measuring device ensuring an effortless process from start to finish.

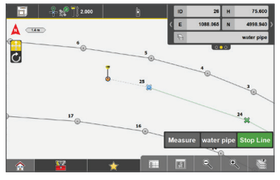
Features

+ Real-time project information and statistics in the field
+ Update site personnel with new design files and work orders
+ Increase machine utilization and reduce costs by minimizing errors that may result in costly rework
+ Calculate the exact volume of excavated dirt or fill materials needed to optimize material savings
+ Conduct simple site measurements and calibrations without waiting for a surveyor to do the work—reducing machine downtime and increasing productivity
+ Navigate to points-of-interest, such as control points or site boundaries

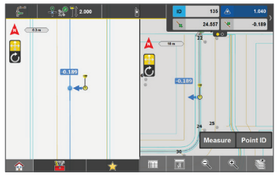
BASIC LICENSES	
LG793852	Leica iCON site
LG793842	Leica iCON site plus



Site Infrastructure

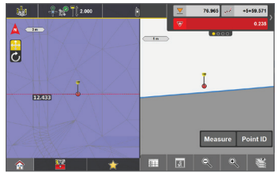


Measure

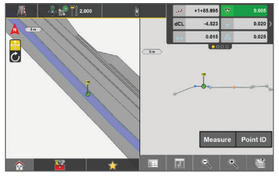


Stakeout

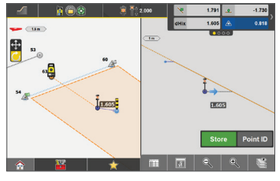
Volumes & Surfaces



Cut & Fill



Roading



Slopes

LEICA iCON CC70/CC80 CONTROLLERS

Rugged, lightweight tablets for uncompromising site work.

Leica iCON CC70/CC80 versatile tablet PC's are designed to transport a user's office directly to the field. The rugged, lightweight devices have a clear and easy-to-use 7" touchscreen designed to facilitate with data collection tasks on site, while at the same time communicating with the central office, real-time data transfer is made easy!

With the broad range of Leica iCON software configuration options and flexible communication, Leica iCON CC70/CC80 are the ideal controllers for site workers and foremen.

Features

+ Large 7" sunlight readable multi-touchscreen features up to 16 hours of battery life
+ Microsoft Windows® 10 Enterprise LTSC operation system, multi-lingual, multi-touch operating system
+ Various wireless communication possibilities including Bluetooth®, Wi-Fi and integrated 4G/LTS multi-carrier mobile broadband
+ Fully rugged design for use in the toughest conditions
+ Highly productive positioning work with Leica iCON site and Leica iCON build application software

CONTROLLERS	
LG878812	CC80-21, Rugged 7" Tablet PC
LG881164*	CC70-1, Rugged 7" Tablet PC

MODEL	CC80	CC70
GENERAL		
Operating System	Microsoft Windows 10 Enterprise LTSC	
CPU Platform	Core i5-7Y57 vPro, up to 3.3 GHz with Intel Turbo Boost Technology	Core i5-7Y57, 1.0 GHz
RAM	4 GB SDRAM (LPDDR3)	
Data Storage	128 GB SSD with heater	
Display	7" widescreen, 1280×800 resolution, 700 cd/m2 (Nits), sunlight readable, Gorilla Glass 3, 10-finger multi-touch	
I/O Ports	1 × USB 3.0; 1 × DC power input; Docking connector (24 pin); 1× audio out, mini-jack stereo; integrated microphone and speaker	
COMMUNICATIONS		
Integrated Communications[1]	Integrated 4G LTE multi carrier mobile broadband; Intel® Dual Band Wireless AC8260 Wi-Fi 802.11 a/b/g/n/ac; Bluetooth® v4.1 (Class 1) + EDR	
Integrated GPS	L1 GPS integrated (depending on country variant)	
Integrated Camera	2 MP front webcam with microphone, 8 MP rear camera with auto focus and LED light	
TPS 1-Man Mode Working Range[2]	Typical 150 m (490 ft); up to 200 m (650 ft) with direct line of sight	
POWER MANAGEMENT		
Battery	Li-ION "Long life" battery: 7.2 V, 7100 mAh	Standard battery 7.2 V, 3200 mAh
Operating Time[3]	16 h (max. load test)	8 h (max. load test)
SPECIFICATIONS		
Size	203 mm (7.98") × 132 mm (5.20") × 25 mm (0,98"), incl. Long-life battery	203 mm (7.98") × 132 mm (5.20") × 18 mm (0.71")
Weight	640 g	540 g

**Not compatible with Leica iCON iCG70T, Leica iCON "Roading", or Leica iCON "Objects"*

[1]Availability of 4G LTE modem dependent on country variant.
[2]Long-range Bluetooth handle on TPS and Standard Bluetooth on CC70/CC80 are required. Range varies depending on local conditions.
[3]In continuous field operation mode. May vary with temperature, battery age etc.

CONX

Real-time data-sharing for an entire construction project.

Personnel and machines on the jobsite need to share the same data and stay in sync so work can be carried out effectively, on time and in budget. ConX is a cloud enabled solution and web interface to manage, visualize, aggregate, and share 3D construction and survey data in real-time for heavy construction projects. ConX simplifies the data handling for your machine control operations, significantly reducing your downtime.

Features

+ Visualize and validate data used and generated on-site in 2D and 3D localized on interactive maps to collaborate and communicate with everyone on site
+ Share updates and corrections to reference model data in real-time across the project to guarantee transparency and quick reaction to design updates
+ Convert formats to integrate third party platforms, increase connectivity and integrate existing workflows
+ Monitor machine control operations remotely by assigning work and providing positing and reference data to operators and grade checkers ensuring you avoid costly rework and errors
+ Report productivity for the work that has been performed to validate what work has been completed and that the results are to specification

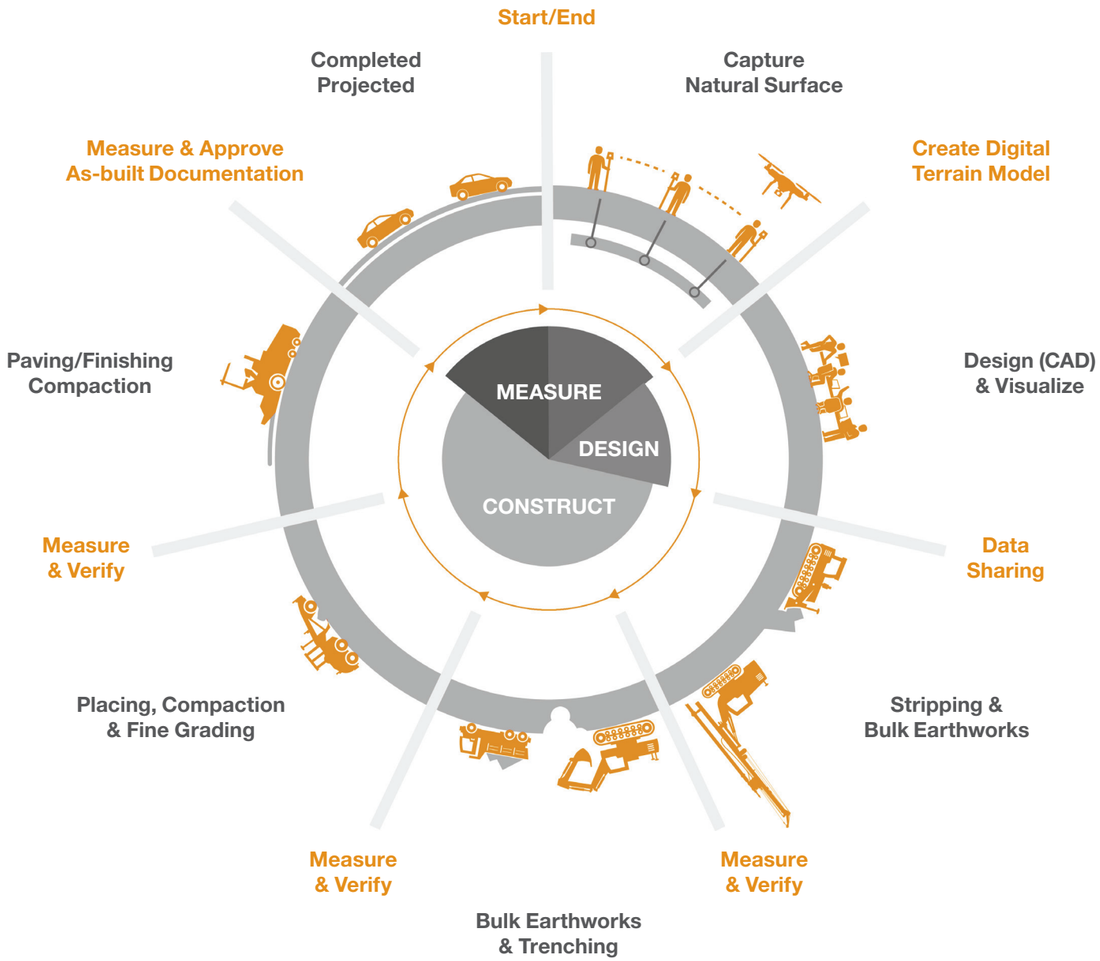
BASIC LICENSES*	
LG818727	ConX Field, 1 Year
LG822545	ConX for iCG60, 1 Year
LG827097	ConX for iCG80, 1 Year
LG879719	ConX for iCR80, 1 Year
LG6007648	ConX for Leica iCON 3D, 1 Year
LG847504	ConX for MC1, 1 Year
LG847505	ConX Connection, 1 Year

**Subscriptions also available in 2, 3, 4, and 5 year options*

CONX

Manage, monitor and share construction and survey data in real time, everywhere.

With ConX, machine operators, surveyors and data preparation specialists are always synchronized with the latest project data from the office and field so work can be carried out effectively, on time and within budget. Once work begins, data acquisition and wireless connectivity allow a seamless sharing of as-built data back to the office to be aggregated, visualized, and shared for real-time productivity analysis and project reporting. Positioning, reference model and constructed as-built data can be managed from Leica iCON office or uploaded directly to ConX to be visualized and shared from the office to the field and back.



LEICA iCON ROBOTIC TOTAL STATIONS

Robotic total stations for one-person operation.

Prepare and execute construction tasks faster, simpler, and more accurately. Tailored to your construction needs, Leica iCON robotic total stations are designed for one-person operation, giving you increased productivity over other conventional stakeout practices. The iCR70 and iCR80 simplify your work on site, helping you to keep on schedule and under budget. Experience efficient layout with flexible, in-field handling of fully rendered 3D design models.

LEICA iCON iCR80 ROBOTIC TOTAL STATION

When a high degree of accuracy is required for your earthmoving projects, let the Leica iCON iCR80 robotic total station take over the control! With the construction-tailored Leica iCON site software onboard, control a wide variety of construction machines, such as graders or dozers.

Leica iCON iCR70

Leica iCON iCR80

Features

+ Faster prism search using patented PowerSearch technology
+ Stable data communication with long-range Bluetooth® (up to 400m)
+ Easy hand-over control from pole to machine and vice versa
+ “Tune out targets” feature to ignore other distractions in the field
+ Fastest re-lock in case of interrupted line of sight

PART NO.	DESCRIPTION
LG866358	iCR80 1" R1000
LG866359	iCR80 2" R1000
LG866360	iCR80 5" R1000
LG870494	iCR80 1" R30
LG870495	iCR80 2" R30
LG870496	iCR80 5" R30
LG879708	iCR80S 1" R30
LG879709	iCR80S 2" R30
LG879710	iCR80S 5" R30

LEICA iCON iCR70 ROBOTIC TOTAL STATION

The Leica iCON iCR70, facilitates the move from traditional analogue measurement methods to modern digital stakeout techniques, which are a necessity within modern BIM processes and achieve the high productivity and accuracies demanded by the heavy construction industry. iCR70 can be used by the existing construction workforce with minimal training. The iCR70 delivers super-modern technology for good old-fashioned accuracy.

Features

+ 4 button keyboard for simple operation
+ Fast prism search by patented technology SpeedSearch
+ Stable data communication with long-range Bluetooth® (up to 400m)

PART NO.	DESCRIPTION
LG866350	iCR70 2" R500
LG866351	iCR70 5" R500

LEICA iCON iCR70 & iCR80 TOTAL STATIONS

TECHNICAL DATA		LEICA iCON iCR70	LEICA iCON iCR80
ANGULAR MEASUREMENT			
Accuracy[1] Hz & V	Absolute, continuous, diametrical	2" (0.6 mgon), 5" (1.5 mgon)	1" (0.3 mgon), 2" (0.6 mgon), 5" (1.5 mgon)
DISTANCE MEASUREMENT			
Range[2]	Prism (GPR1, GPH1P)[3] Non-Prism/Any surface[4]	1.5m to 3500m R500: 1.5m to >500m	1.5m to 3500m R30: 1.5m to 30m, R1000: 1.5m to >1000m
Accuracy/Measurement Time	Single (prism)[2,5] Single (any surface)[2,4,5]	1mm + 1.5ppm/typically 2.4s 2mm + 2ppm/typically 3s	1mm + 1.5ppm/typically 2.4s 2mm + 2ppm/typically 3s[6]
Laser Dot Size	At 50m	8mm × 20mm	8mm × 20mm
Measurement Technology	System analyzer	Coaxial, visible red laser	Coaxial, visible red laser
AUTOMATIC AIMING			
Target Aiming Type		ATR	ATRplus
Target Aiming Range[2]/ Target Locking Range[2]	Circular prism (GPR1, GPH1P) 360° prism (GRZ4, MPR122)	1000m/800m 800m/600m	1500m/1000m 1000m/1000m
Accuracy[1,2]/Measurement Time	ATR angle accuracy Hz, V	2" (0.6 mgon), 5" (1.5 mgon)/ typically 3-4s	1" (0.3 mgon), 2" (0.6 mgon), 5" (1.5 mgon)/typically 3-4s
PRISM FAST SEARCH			
Prism Search Type		SpeedSearch	PowerSearch
Range/Search Time	360° prism (GRZ4, MPR122)	300m/typically 7s	300m/typically 5s
GUIDE LIGHT (EGL)			
Working Range/Accuracy		5–150m/typically 5cm @ 100m	5–150m/typically 5cm @ 100m
GENERAL			
Field Software	Leica iCON field software	Leica iCON Field Software running on field controller (CC80) connected via Radio or cable	Leica iCON Field Software running on the instrument
Machine Control Capability	With optional Machine Control App	No	Yes
Display & Keyboard		4 button keyboard with status LEDs	5", WVGA, color, touch, face I standard/face II optional, 22 keys, illumination
Processor	TI OMAP4430 1GHz Dual-core ARM® Cortex™ A9 MPCore™	Operating system – Windows EC7	Operating system – Windows EC7
Power Management	Exchangeable Lithium-Ion Battery	Operating time 8-10h	Operating time 6-8h
Data Storage	Internal memory Memory card	N/A 1 GB (for upload functions only)	2 GB SD card 1 GB or 8 GB
Interfaces		RS232, Bluetooth®	RS232, USB, Bluetooth®, WLAN
Weight	Total station including batter	5.0kg	5.3kg
Environmental Specifications	Working temperature range Dust Water (IEC 60529)/Humidity	–20°C to +50°C IP55/95%, non-condensing	–20°C to +50°C IP55/95%, non-condensing

[1]Standard deviation ISO 17123-3
[2]Overcast, no haze, visibility about 40 km, no heat shimmer
[3]1.5m to 2000m for 360° prisms (GRZ4, GRZ122)
[4]Object in shade, sky overcast, Kodak Gray Card (90% reflective)
[5]Standard deviation ISO 17123-4
[6]Distance > 500m: Accuracy 4mm + 2ppm, Measurement time typically 6s

LEICA iCON GPS 60

Precise positioning on any construction site.

The Leica iCON GPS 60 GNSS Smart Antenna, working in combination with Leica iCONstruct field solution, is the perfect tool for any positioning tasks on any construction site. Featuring superior GNSS technology and integrated communication options, it enables you to carry out reliable positioning tasks on site much faster than before.

The Leica iCON GPS 60 Smart Antenna delivers unmatched precision and performance in a rugged, compact unit that is designed to stand up to the harsh conditions typically found on construction sites.

Features

+ Multi-purpose GPS solution. Can be used as construction site GNSS Base, Rover or NetRover, in supervisor vehicle on site and entry level machine control mounted inside a machine to increase machine productivity
+ SmartTrack+ and SmartCheck+ provides continuous checks to guarantee correct results
+ SmartLink increases productivity by maintaining high accuracy positions even after RTK signal loss for up to 10 minutes
+ Unique communication flexibility, featuring integrated radio, 4G modem, and Bluetooth®
+ Integrated NTRIP Server and Caster for internet-based Reference Station, means no radio frequency interference or radio range limitations. GNSS measurements are made even easier
+ No controller required for base station set-up

PART NO.	DESCRIPTION
LG878893	Leica iCON GPS 60 Smart Antenna, Advanced
LG878896	Leica iCON GPS 60 Smart Antenna, Performance Plus

	iCG60 PERFORMANCE	iCG60 ADVANCED
SUPPORTED GNSS SYSTEMS		
GPS L2/L5	√ / -	√ / √
GLONASS/Galileo/BeiDou	√ / - / -	√ / √ / √
RTK PERFORMANCE		
Low Accuracy RTK (50/2)	√	√
High Accuracy RTK	√	√
RTK Unlimited/Network RTK	√ / √	√ / √
SmartLink Fill	-	√
POSITION UPDATE & DATA RECORDING		
10 Hz/20 Hz Positioning	√ / -	√ / √
Raw Data RINEX Logging	√	√
NMEA Output	-	√
ADDITIONAL FEATURES		
RTK Reference Station Functionality	√	√

√ Standard
- Optional

LEICA iCON GPS 70/70T

Ultimate performance for your construction site.

The Leica iCON GPS 70 series is the ultimate GNSS rover and field solution for maximum efficiency. Efficiency on a construction site is enhanced by collecting as-built field data and staking out designs faster, while increasing accuracy and reducing errors. Without time-consuming procedures, users measure where it was not possible before with improved quality control. The seamless integration of the Leica iCON GPS 70 Series into the Leica iCON field software leads to simple workflows which require less training and avoid costly downtime.

Combining the latest GNSS technology and inertial measurement unit (IMU), the Leica iCON GPS 70T is equipped with permanent tilt compensation and is resistant to any magnetic interferences. Being calibration-free, the Leica iCON GPS 70T is ready when you are—anytime, anywhere. The Leica iCON GPS 70T releases the limitations of working with the pole in vertical positions and increases the productivity compared to conventional methods.

Features

+ Calibration-free permanent tilt compensation resists magnetic interfaces and increases measurement productivity while reducing human error[1]
+ Compact and lightweight housing, yet robust enough for most demanding sites
+ SmartTrack+ and SmartCheck+ provides continuous checks to guarantee correct results
+ Seamlessly integrates with Leica iCON field solution and ConX for real-time 3D data exchange

[1]Only available for Leica iCON GPS 70T

PART NO.	DESCRIPTION
LG868632	Leica iCON GPS 70 Performance
LG868633	Leica iCON GPS 70 Ultimate

PART NO.	DESCRIPTION
LG868644	Leica iCON GPS 70T Performance
LG868645	Leica iCON GPS 70T Ultimate

	PERFORMANCE	ULTIMATE
SUPPORTED GNSS SYSTEMS		
L5	-	√
GPS/GLONASS/Galileo/BeiDou	√ / √ / - / -	√ / √ / √ / √
RTK PERFORMANCE		
DGPS/RTCM, RTK Unlimited, Network RTK	√	√
SmartLink Fill/SmartLink	- / -	√ / -
POSITION UPDATE & DATA RECORDING		
5 Hz/20Hz Positioning	√ / √	√ / √
RINEX Data Logging	√	√
ADDITIONAL FEATURES		
RTK Reference Station Functionality	√	√
UHF Radio (Receive & Transmit) Modem	-	-

√ Standard
- Optional

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PM-21071 Issued 07/2021 Replaces: None

IMPORTANT: CASE Construction Equipment Inc. reserves the right to change these specifications without notice and without incurring any obligation relating to such change. Availability of some models and equipment builds vary according to the country in which the equipment is used. The illustrations and text may include optional equipment and accessories and may not include all standard equipment. Your CASE dealer/distributor will be able to give you details of the products and their specifications available in your area.

Biodiesel Ready

CASE Construction Equipment is biodiesel-friendly. NOTE: All engines meet current EPA emissions regulations. All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

SAFETY™ NEVER HURTS

Always read the Operator's Manual before operating any equipment. Inspect equipment before using it, and be sure it is operating properly. Follow the product safety signs and use any safety features provided.