

MACHINE CONTROL SOLUTIONS



SiteControl

CASE

CONSTRUCTION



**SKYROCKET
YOUR BUSINESS**

www.casece.com

**EXPERTS FOR THE REAL WORLD
SINCE 1842**

In partnership with

**Genuine Parts
HIGH PERFORMANCE**



CASE USING LEICA GEOSYSTEMS intelligent CONstruction



Fully understanding construction carried us beyond the ordinary. iCON is more than a new product line and a software package, it enhances your performance and increases your profitability through perfecting your construction workflow.

iCON

intelligent CONstruction

iCONstruct

Tailor-made hardware and software solutions for positioning and measuring tasks on site.

- Custom-built
- Straightforward
- Extendable
- Interchangeable

iCONtrol

Providing you with perfect communication between construction personnel on site and our comprehensive portfolio of machine control solutions.

- Suitable for small to large sites
- Reliable and seamless sensor communication
- Streamlined workflow & data handling

iCONSult

An extensive support network, with clear guidance on intelligent CONstruction benefits to grow your business.

- Worldwide network
- Personal service
- Professional consultancy

iCONnect

Connect your system to a superior network. Wireless data transfer, easy, fast and secure.

- Instant guidance and checks
- Real-time data guarantees accurate jobs
- High productivity
- No delays

Case offers you with the iCON portfolio from Leica Geosystems tailor-made hardware and software solutions for all positioning and measuring tasks in road and building construction.

Intelligent and easy-to-use, the customisable solutions enhance your performance and increase your profitability through perfecting your workflow.



iCONstruct

SEAMLESS INTEGRATION WITH ONE USER INTERFACE



The Leica iCONstruct portfolio offers you a straightforward solution that you can customise to match the specific requirements of your road and building construction business. All the sensors and software use the same interface, making it very easy to exchange hardware between jobsites, projects and site teams, providing maximum flexibility and efficiency. Your iCONstruct solution has the capacity to evolve with your business's needs, so that you can invest in the package you need today and expand your portfolio as required. Maximum efficiency and profitability.

iCON site field software

Core central interface to all iCONstruct sensors and devices with unmatched simplicity and no compromise on functionality.



iCON robot 60

High-end robotic total station with superior technology and iCON on-board.



iCON gps 60

Versatile smart antenna for multi-purpose positioning tasks.



iCON CC66

Rugged, mobile tablet PC with enhanced connectivity and functionality.



iCON CC80

Rugged, lightweight controller for uncompromising site work.



iCON robot 50

One-person operation, saving time and increasing productivity when carrying out layout tasks and as-built checks.



iCON gps 80 GNSS

machine receiver
Versatile, powerful GNSS receiver for machine control and in-vehicle applications.



iCON office software

Data preparation and verification of simple and complex project plans.

iCONsite

PROFIT FROM YOUR INVESTMENT

Leica iCON site, solutions for site construction

Advanced user interface customised for construction personnel
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 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. iCON site is developed to seamlessly integrate with any of the iCONstruct sensors and the iCONtrol machine solutions.



Using the same, interchangeable user interface means:

- You only need to learn its functionality once resulting in less training, increased motivation and significantly reducing your investment
- The ability to exchange hardware and data between on-machine and off-machine use, projects and site personnel maximises your flexibility and reduces possible downtime



Exceptional application functionality

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

- Simply measure, stake-out or check site elements without waiting for an engineer or surveyor to do the work for you
- Benefit from quick volumes and checks by using iCON site for Site Navigation on your vehicle
- If using 2D machine control, iCON site allows the operator to mark out the required starting point or boundary of the profile to be used on the excavator or dozer



iCON CC66 / CC80

PERFECT REAL-TIME COMMUNICATION ON SITE



iCON CC66 / 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!

- Large 7" sunlight readable touchscreen display for convenient operation
- Windows 7 Ultimate Edition multi-lingual operating system
- Various communication possibilities (Bluetooth®, WLAN, 3G modem, LAN, USB, RS232) for the use with different sensors for different applications
- iCON CC66 model features 3G modem and long-range Bluetooth®
- iCON CC80 model with Various wireless communication possibilities (Bluetooth®, Wi-Fi and integrated 3G/4G multi-carrier mobile broadband) and fully rugged design for use in toughest conditions (MIL-STD-810G, IP65)



DISPLAY
iCON CC80

iCON GPS 60

SMART POSITIONING ON ANY CONSTRUCTION SITE



iCON GPS 60 IS A VERSATILE

SmartAntenna for all construction positioning tasks

- Save time and increase productivity monitoring the grade from your supervisor vehicle on site.
- iCON gps 60 is the perfect mobile base station for your construction site. You don't need a controller for base station set up. Stream corrections over the internet without radio.
- Perform many positioning tasks yourself, easily and quickly. Check grade or cut & fill, stake out points and lines and as-built checks.
- iCON gps 60 for machine control as entry level installation. The iCG60 provides more flexibility for smaller contractors who need a GNSS pole solution as well, but not all the time. They can use the same hardware on and off the machine.
- Superior GNSS technology for maximum accuracy and reliability, featuring Leica SmartTrack+ and SmartCheck+
- Future-proof satellite tracking, works with all existing and future satellite systems
- 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
- Unique communication flexibility, featuring integrated radio, modem and Bluetooth®
- HSPA modem provides excellent network performance
- 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 means you need less hardware



iCON ROBOT 60

ROBOTIC TOTAL STATION FOR ONE-PERSON OPERATION



Save time and increase your productivity by doing layout work and as-built checks yourself.

With the Leica iCON robot 60 you don't need an operator at the instrument. The robotic total station can be operated from the field controller at the prism pole, at the point you need positioning.

Leica iCON robot 50 / robot 60 are designed specifically for ease-of-use within the construction industry, simply level the instrument and go!

With the iCONstruct software, you can use it for a wide range of measuring and positioning tasks on site.

- Minimised training and support by using the same clear menus and graphics found on all iCON devices
- Designed for optimised workflows, allowing foremen and site supervisors to complete routines faster and simplifying a variety of tasks
- Fully supports the iCONstruct telematics option which connects BIM operators with their team in the field
- Setup Pilot – world's first fully automatic setup measurement method
- Cube Search – boosts prism search to a maximum
- Target Snap – ignores other prisms, just locks to yours
- ATACK support for PaveSmart 3D

iCONtrol

CUSTOM-BUILT SOLUTIONS FOR MACHINE CONTROL



iCONtrol makes it even easier for you to leverage the entire range of intelligent, tailor-made iCON products. iCONtrol solutions communicate seamlessly with the iCONstruct sensors and iCON office to provide you with a smooth workflow.

Take your workflow and performance to the next level with iCONtrol, the latest machine control solutions

Expand your possibilities with iCONnect services for remote support, easy data transfer and fleet management services. Whatever you need, iCON has the solution for enhancing your workflow.



iCONtrol POWERSNAP WIRELESS CRADLE - ALL SET IN ONE SNAP!



PowerSnap concept

Unique patented Snap-on & Snap-off capability. Contact free. Easy upgrade 2D -> 3D. Intelligent storage of machine data.



iCON excavate iXE2

2D Excavating solution
Full 2D functionality presented on multicolour panel. Simple and intuitive user interface which provides ease-of-use.



iCON grade iGx2

2D Grading solution
Easy monitoring of the blade position. Main function keys for easy operation.



iCON excavate iXE3

3D Excavating solution
Full visual guidance of the bucket – see the job as you want. Menu keys give the operator an easy overview of functions.



iCON grade iGx3

3D Grading solution
Fully customisable 3D views of your machine and job site. Auto/manual information is presented on the screen.



iCP41 & iCP42 - 3D solution

Combines full 2D with full 3D in ONE panel. Toggle between 2D and 3D by a simple touch of a button. Presented on a 7" large graphic colour touchscreen.



EXCAVATOR SYSTEMS

1D, 2D AND 3D EXCAVATING SYSTEMS

Fast return on your investment



ICON EXCAVATE

IXE1, 1D EXCAVATING SYSTEM

With the single slope system you do not need to use a laser. The cutting depth is directly presented on the control box display in the cabin.

The 1D excavator system uses three inclinometer sensors mounted on the boom, stick and bucket. The sensor on the stick also has a built-in laser receiver. The system is reset by means of a laser plane or a physically defined reference height, e.g. a grade bar or curb stone height. The desired depth and slope are entered into the control box.

With this system, you only work with a one-direction slope. The arrows on the display will indicate whether you are too low, too high or "on-grade". This information is also given by means of an audible signal, while the LED screen also displays the level in metric units or US feet.

1D EXCAVATING SYSTEM FUNCTIONS



Easy-to-use graphical display

Short learning curve thanks to smart menus

Robust and reliable construction



DEPTH
Commonly used for bases, foundations, etc.



UNDERWATER WORK
The bucket motion is shown on the graphical display.



GRADIENT
In the longitudinal direction.



SLOPE
Set the desired slope for the embankment.



GRADING WORK
Set the right depth and the desired tilt in one direction.



HEIGHT ALERT
An audible signal warns the operator if the defined limit is exceeded. Useful around bridges and overhead lines.



PIPELAYING
Set the desired depth and slope of the pipe trenches.



LASER REFERENCE
Offers the possibility of using rotating laser as a reference.

ICON EXCAVATE

iXE2, 2D EXCAVATING SYSTEM

Our dual-slope system combines the depth, pitch and roll – giving you a complete picture of the excavation works. iXE2 is suitable for small road excavation jobs, drainage work or parking lot excavations.

An additional rotation sensor on the counterweight upgrades the system to a dual-slope capability. The 2D function uses a compass to fix the slope direction. This means that you can move the machine without the system losing the direction.

The dual-slope system contains two sensors that record the pitch and roll and compensate for the tilt of the machine. The machine can thus stand at an inclined position and still carry out levelling work around the entire machine.

2D EXCAVATING SYSTEM FUNCTIONS



Easy-to-use graphical display

Short learning curve thanks to smart menus

The Snap-on, Snap-off capacity makes it easy to remove the machine control box from the cab

Arrow display indicating the bucket height



DEPTH
Commonly used for bases, foundations, etc.



GRADING WORK
Set the right depth and the desired tilt in one direction.



ROLL
Sensors record and compensate for the machine tilt.



SLOPE
Set the desired slope for the embankment.



LASER REFERENCE
Gives possibility to use rotating laser as a reference.



PITCH
Sensors record and compensate for the machine tilt.



PIPELAYING
Set the desired depth and slope of the pipe trenches.



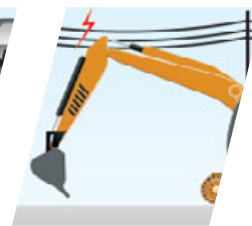
GRADIENT
The system can handle both pitch and roll.



COMPASS
The system uses a compass to establish the direction of the tilt.



UNDERWATER WORK
The bucket motion is shown in the graphical display.



HEIGHT ALERT
An audible signal warns the operator if the defined limit is exceeded. Useful around bridges and overhead lines.

ICON EXCAVATE iXE3, 3D EXCAVATING SYSTEM

With the 3D system, you will work with high precision GPS and be able to monitor the excavation position by means of a digital model. The iXE3 enables you to use the excavator for point collection and stake out activities.

iXE3 is suitable for projects requiring staking out, e.g. large road and infrastructure projects and subdivisions, industrial sites or dereliction works.

Connect the machine computer via the built-in GSM modem to get quick support and transfers files. Our 3D system enables you to take the last step towards machine control. Your efficiency rate will improve by up to 30% making it easy to gain return on the investment.

GPS/3D FUNCTIONS



Clear screen display that can be easily read in strong sunlight

LED illuminated buttons

The wireless cradle makes it easy to place and remove the computer unit from the cab



Remote site and machine access

The iCON telematics services include fast and easy data transfer from office to site and to construction machines, remote support for the operators and basic fleet management functionality.

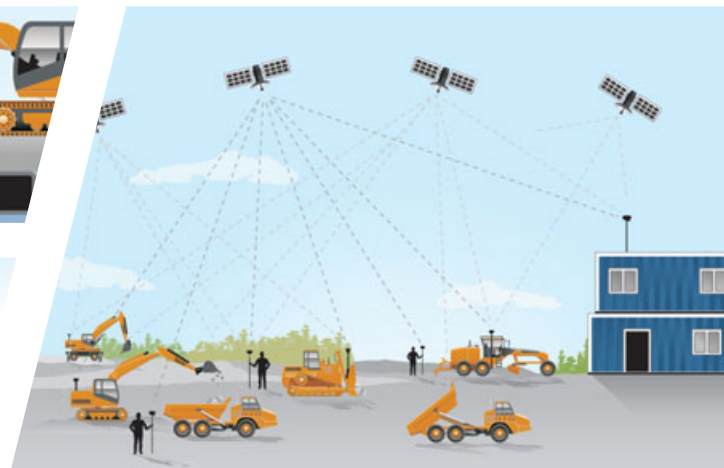
3D/GPS

Our 3D system enables you to use dual slope in 2D and reference models in 3D.



2D or 3D

Switch between the 2D and 3D screens by just pushing a button!



iCON 3D software

Complete your system with iCON 3D, the software that allows you to create terrain models directly on the screen. A function that gives you great onsite freedom.



GPS/3D on your machine

The machine computer receives the machine position through a GPS signal and the bucket position from the excavation system.

These values are then matched with the digital surface. You will see the bucket move over the design surface telling you how deep to go.

DOZER SYSTEMS

COMPLETE 2D AND 3D SOLUTIONS FOR ALL LARGE EARTH MOVING PROJECTS

Maximise your machine utilisation and return on investment



ICON GRADE IGD2, 2D DOZER SYSTEM

Fully automatic blade control



Easy-to-use graphical display

Short learning curve thanks to smart menus

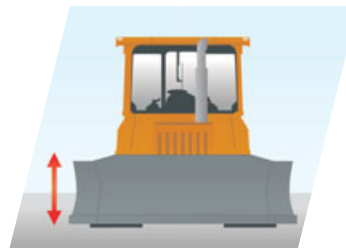
The PowerSnap system makes it easy to remove the machine control panel from the cab

Automatic tilt function

The automatic tilt function allows you to be in permanent control over the dozer blade.

BLADE TILT SENSOR

The MSS130x inclinometer sensor is mounted on the machine to detect the tilt of the blade.



Automatic height function

The laser receivers have a capture angle of 360 degrees. The MLS800 has an adjustable center point for height adjustments made from the control box.



iCON GRADE iGD3, 3D DOZER SYSTEM

Efficient grading using 3D design information



User definable views such as Plan View and Cut & Fill View

Clear screen display that can be easily read in strong sunlight

Integrated SIM card slot for connection to iCONnect services



Industry standard data formats

iCON 3D machine software supports standard file formats such as .dxf and LandXML eliminating the need for a proprietary office software Package to convert data files.

The iGD3 3D dozer system opens new dimensions in earthmoving and fine grading. It brings the design surfaces and alignments inside the cab. You are no longer dependent on stringlines, stakes or hubs. Work independently, and accurately, anywhere on the project design guided by GNSS system or iCON robot, Leica Geosystems' unique robotic total station.

iCG82 GNSS RECEIVER

iCON gps 80 is a compact and rugged GNSS receiver especially dedicated for a wide range of machine control applications to increase the overall positioning performance on all construction equipment; such as dozers, excavators, wheel loaders, drilling rigs and pavers.



ICON GRADE iGD4^{SP}, 3D DOZER SYSTEM

Multiply your dozer's performance by the power of SP!



Combining SP Technology with a dual GNSS antenna solution allows the customer to operate their machine at full speed, while the blade is angled to efficiently control material from pass to pass.

A customer can purchase an entry level GNSS system, iGD3 and then add additional components to the system as their projects dictate growing their system to a state-of-the-art iGD4SP dozer system.

DUAL GNSS CONFIGURATION

iGD4SP is ideal for customer's who have a six way (PAT) blade mounted on their bulldozer. Having a second GNSS antenna on the blade will improve the accuracies you can achieve when working in very demanding environments such as steep slopes with the blade fully angled.



SP SENSOR

Leica Geosystems sensor technology provides high precision at higher speeds

Thanks to its unrivalled speed and precision, SP technology offers you new possibilities. The improved hydraulic control allows faster grading with more consistent results. The need for rework and the need for different machines will decrease dramatically. Maintain speed without sacrificing precision.



GRADER SYSTEMS

AUTOMATIC ELEVATION AND SLOPE CONTROL WITH OUR 2D AND 3D SYSTEMS

Increase precision and save material costs



iCON GRADE

iGG2, 2D GRADER SYSTEM

Fully automatic blade control

The iCON grader systems offer new site preparation possibilities. The system regulates the elevation and crosslope by means of robust and high-tech sensors. The system helps you improve your productivity as well as save material costs.

The iGG2 system is easy to upgrade. Start with a height control solution using laser receivers or an ultrasonic tracer and upgrade your system on the basis of your needs. You can step from a laser-based 2D solution to a complete 3D solution with a robotic total station by just adding the ICP42 panel and the iCON robotic station.



Easy-to-use graphical display - the same panel is used on your dozer and grader, giving you the ultimate in equipment flexibility

Short learning curve thanks to smart menus

The wireless cradle makes it easy to place and remove the panel from the cabin



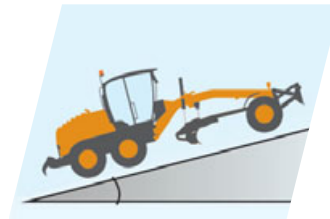
MULTI-SWITCH

Two switches are mounted on the up and down levers of the machine. You never let go of the controls.



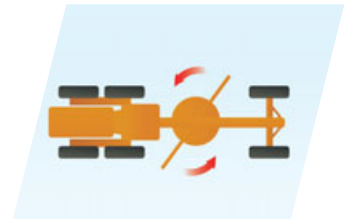
BLADE TILT SENSOR

The MSS1300 sensor, which is an inclinometer sensor, is mounted on the machine to detect the tilt of the blade.



MAINFALL SENSOR

Mainfall compensation allows for precise grade and slope control whatever the project conditions.



ROTATION SENSOR

The rotation sensor contains a potentiometer that establishes the rotation angle of the blade.

iCON GRADE iGG3, 3D GRADER SYSTEM

With optional side shift technology



Clear screen display that can be easily read in strong sunlight

LED illuminated buttons

The wireless cradle makes it easy to place and remove the wireless panel from the cab



Remote site and machine control access

The iCON telematics services include fast and easy data transfer from office to site and to construction machines, remote support for the operators and basic fleet management functionality.



iCON GRADE iGG4, 3D GRADER SYSTEM

Dual GNSS motor grader solution

Benefits

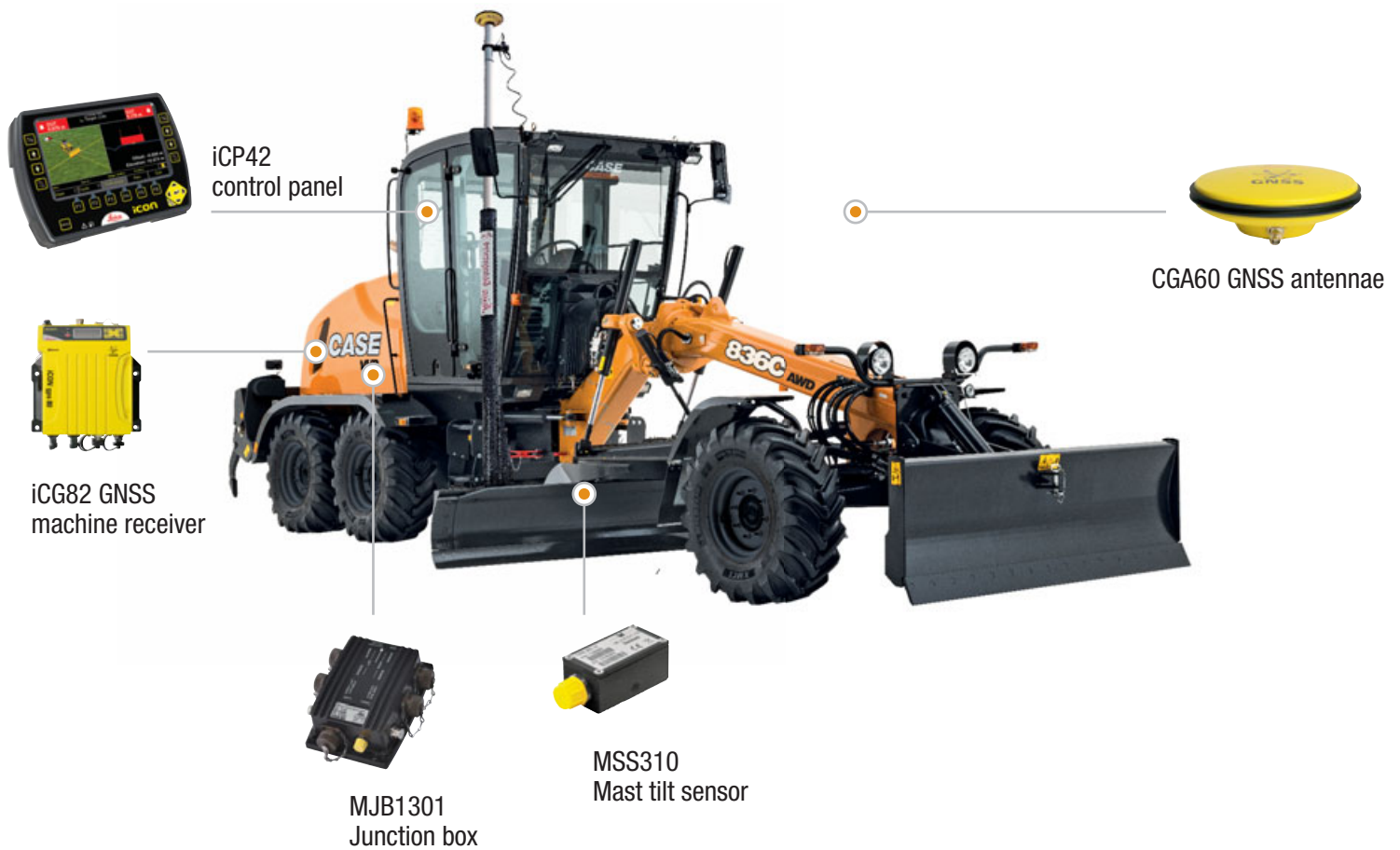
- Maximise the potential of your motor grader for a wider range of applications with higher accuracy.
- Run your machine in automatic mode, while moving with precision in any direction.
- Increase productivity and efficiency with your grader. The dual antenna configuration enhances accuracy, resulting in less rework.
- Difficult tasks are now easily done. Crab walk your motor grader to properly handle material windrows and precisely grade side slopes or create ditches.
- The scalable iCON grade solution lets you expand your grader's system as your projects grow in scope and size. You only invest in what you need.
- PowerSnap: same panel for any functionality level on any machine supported by iCON 3D.



Ultimate grade control for motor graders

To get the most out of a motor grader means using it as it is intended to be used. The Leica iGG4 for graders lets operators boost their productivity by using the latest GNSS technology to incorporate dual antennae, which calculate blade positions regardless of the way the machine itself is positioned.

SYSTEM COMPONENTS



Dual GNSS grading solution – Precision and high productivity in any application

The dual antennae configuration for motor graders offers clear advantages over single mast GNSS solutions. Regardless of how the machine is positioned, the blade is calculated accurately, allowing you to grade precisely and efficiently. Featuring the latest GNSS technology with the iCON gps 80 receiver, the iCON grade iGG4 system ensures fast and reliable grading in any application.

Leica iCON grade iGG4 allows you to finish your jobs quicker and more efficiently saving time, money and wear and tear on your machine.

PowerSnap – Providing a new level of flexibility and user convenience

- System is up and running in no time
- Rapid interchange of control panels between machines, giving you extra flexibility on site
- One PowerSnap cradle for all iCON excavate and iCON grade panels
- Easy removal of core components for overnight security
- Contact and cable free connection to control panel
- Safety shut down feature protects system and data
- Unique patented Snap on/Snap off capability

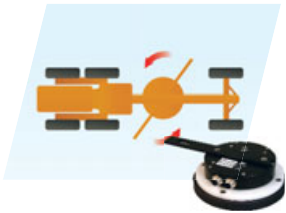
COMPONENTS FOR GRADERS

Cross Slope



MULTI-SWITCH

Mounted on the control levers allow you to stay in control at all times - safer, faster and more productive.



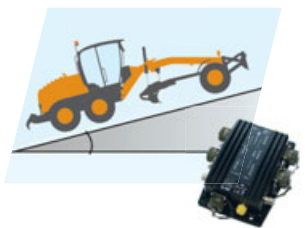
ROTATION SENSOR

The MRS1300 rotation sensor compensates the moldboard's rotation angle influence on cross-slope - set the blade exactly how you need it, iCON grade takes care of the rest.



BLADE TILT SENSOR

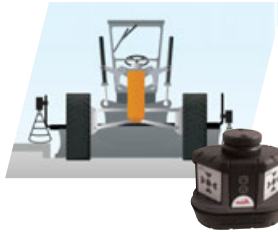
The MSS1300 tilt sensor maintains the desired cross-slope precisely.



MAINFALL SENSOR

Mainfall compensation allows for precise grade and slope control whatever the project conditions.

Elevation



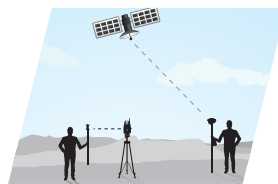
ULTRASONIC SENSORS

Using the Leica Geosystems patented Trisonic is very simple. The curbstone, adjacent road surface or a stringline provides the reference elevation for the moldboard. Ultrasound is often used as a reference on one side and cross-slope on the other.



MLS720 LASER RECEIVER

The MLS720 is a laser receiver with a 360 degree range.



TOTAL STATION/GPS

The iCON measuring equipment fits seamlessly into your machine control system and the file formats used are supported worldwide. The iCON GPS and the robotic systems will help improve your productivity and precision right from the start.



ROTATION SENSOR

The rotation sensor contains a potentiometer that establishes the rotation angle of the blade.



iCP32

iCP42

Our machine control displays

Case offers both 2D and 3D solutions.

With our unique PowerSnap system, one single 3D display can be used on your dozers, graders, excavators, and wheel loaders.

This allows you to spread your investment across more machines and obtain a mixed fleet that you can use for many different tasks.

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NOTE: Standard and optional fittings can vary according to the demands and specific regulations of each country. The illustrations may include optional rather than standard fittings - consult your Case dealer. Furthermore, CNH Industrial reserves the right to modify machine specifications without incurring any obligation relating to such changes.

Conforms to directive 2006/42/EC

CASE
00800-2273-7373

The call is free from a land line.
Check in advance with your Mobile Operator if you will be charged. Toll free number not available from all calling areas.

