**TS-807GHS**

**Description**

**FEATURES:**
- Electronic Tilt-Sensor compensator ensures more quick self leveling.
- Green beam lasers: 3 axis full line (4V4H9D) full function lasers.
- 3 axis setting-out at the same time to save more than 60% working time and 50% manpower saving.
- Sound alarm systems for pay attention in any alarm situation.

**SPECIFICATION:**
- Beam: 4V4H9D
- Laser source: 520nm laser diode / down point 650nm
- Laser safety class: Class 2M
- Accuracy: ± 1mm/7m
- Self-leveling range: ±3.5°
- Working range: Radius 30~40m (with detector)
- Power supply: 4 x AA alkaline batteries & Lithium battery
- Mounting thread: 5/8” X 11, ISO standard
- Operating temperature: -10°C~+50°C
- Size: ø130 x 200 mm
- Weight: 1.3kg
FOIF DS05

Brand: FOIF

Description

**FOIF DS05**

DS05 are used in second and third order levelling and monitoring structural deformation, also could be used in geodetic control, construction of roads and industrial applications etc. The use of automatic compensator speeds up work and improves accuracy. They can be operated in the temperature form -30°C to +50°C.

**FEATURES:**

- Level and parallel plate micrometer integration
- Standard deviation of 1km double run: ±0.3mm
- Each level passes vibratory test and temperature test from -25°C to +50°C

**SPECIFICATION:**

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FOIF DSZ 2

Brand: FOIF

Description

**FOIF DSZ 2 AUTOMATIC LEVEL**

DSZ2 is used in 3rd order leveling and in geodetic control, construction of roads and industrial applications. The DSZ2 with FS1 may be used in 2nd order leveling or in monitoring structural deformation etc. The compensator improves performance and obtaining higher efficiency.

**FEATURES:**

- Equipped with a press button for compensator checking.
- Dismountable eyepiece, assorted accessories, such as: Diagonal Eyepieces.
- Adopt crossing suspender frame and compensator of air damper.
- Easy to fit together DSZ2 level and FS1 micrometer, standard deviation 1km double run: 0.5mm/km

**SPECIFICATION:**

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FOIF AL100 SERIES

Brand: FOIF

Description

**FOIF AL100 SERIES**

AL series levels are water-proof automatic levels. They can be used in 3rd and 4th order leveling and also meet the needs of various surveying of construction engineering and leveling. The compensator improves performance and obtaining higher efficiency. Various magnification models (24X, 32X) can satisfy different survey demands.

**FEATURES:**

- Air damping for compensator
- Beautiful appearance
- Easy operating
- Temperature offset of compensator

**SPECIFICATION:**
FOIF DT400 ELECTRONIC THEODOLITE

Brand: FOIF

Description

**FEATURES:**

- Electronic Theodolite applied absolute encoders system for digital angle measurement, don't need rotate telescope to start angle measurement.
- It can achieve measurement, calculating, display and memory etc. by means of computer technology.
- It can display measuring results of horizontal and vertical angle at the same time.
- Vertical angle can switch to zenith angle or grade and so on.

**SPECIFICATION:**

TS-660R

Description

**FEATURES:**

- V and H line are with dots and It can be used outdoor under the strong sunlight.
- With Lithium battery and AA battery.
- 360 degree fine adjustment.
- Leveling alarm: buzzer and twinkling.
- With rubber protection for enhancing instrument safety.

**SPECIFICATION:**

LEICA LINO L4P1

Brand: Leica

Description

**LEICA LINO L4P1**

The Leica LINO L4P1 is a new, all-in-one 180° multi-line laser layout tool designed to handle jobs that have traditionally required both a line laser and a point laser.

The new base of this laser level is designed for fast setups. Just grab and spin the unit on its base to get close, then use the fine-tune knob to adjust the line or cross point for perfect placement.

Combined with an overhead plumb laser point, the intersections of the three 180° vertical laser lines with the horizontal laser line create a total of five layout points for easy alignment and quick height transfers from
wall-to-wall or floor-to-ceiling.

The self-leveling pendulum ensures a level line. You know your line is out of level when it blinks. If the points are out of leveling range, they shut off. Once level, the line goes solid or the dot appears. Lock the pendulum to set out angled lines or to protect the mechanism when you aren’t using it.

The L4P1 runs on both rechargeable Li-Ion batteries — good for up to 24 hours on a single charge — as well as standard alkaline batteries.

As with all our laser levels, the L4P1 is IP54 rated dust-proof and splash protected.

The four cross line lasers make this the ultimate 90° layout tool, perfect for wood or steel stud construction, point transfer for electrical installations, interior finish work and various other trade applications.

We recommend a tripod for maximum versatility like the TRI70. The L4P1 base mounts to either 1/8" or 5/8" tripod threads, so you can use a tripod you already have, or choose a Leica Geosystems tripod that best suits your needs. The L4P1 is also compatible with our RVL80 laser reciever, which extends the working range of the multi-line laser up to 50m.

FEATURES & SPECIFICATION:

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**SURVEY NAIL**

**SURVEY MARKER**

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**SUUNTO TANDEM**

Brand: SUUNTO

Description

FEATURES & SPECIFICATION:
SUUNTO PM5/360 PC
Brand: SUUNTO
Description
FEATURES & SPECIFICATION:

SUUNTO KB-20/360R
Brand: SUUNTO
Description
FEATURES & SPECIFICATION:
GARMIN GPSMAP® 64s WW
Brand: Garmin

Description

FEATURES & SPECIFICATION:

GARMIN OREGON® 750
Brand: Garmin

Description

FEATURES & SPECIFICATION:
SPECTRA PRECISION LP51 5 DOTS

Description

LP51 HIGH VISIBILITY 5-BEAM LASER POINTER
The Spectra Precision® LP51 5-Beam Laser Pointers is designed to handle a wide range of interior construction applications. This rugged red beam laser pointer offers several benefits to general and interior contractors, electricians, plumbers and a variety of tradesmen.

FEATURES:
- Automatic self-leveling and plumb assures accuracy and fast setup
- One person installation of walls, doors, ceiling track and other overhead fixtures without the need for a plumb-bob
- Fast, one person 90° layout of rooms, walls, tile, carpet squares and fixtures
- Accuracy of 3/16 inch at 50 feet (3mm @ 10)
- Working range up to 100 feet (30m)
- Dust, water and shock-resistant for improved reliability and minimal repair costs
- Durable unit with protective rubber over-molding withstands a drop of up to 3 feet (1 m) onto concrete and still maintains consistent accuracy
- Compensator lock for non-level applications and secure transport
- Exclusive 3-Year instant exchange warranty
- Ships complete in a soft pouch with magnetic mounting accessory, target, 2 x AA batteries and multi-language user guide

FOIF RTS360 SERIES WINDOWS CE

Brand------------------------------------------------------------------------------------FOIF

Description

FOIF RTS360 SERIES WINDOWS CE TOTAL STATION
- Compact design with Windows CE 5.0 operating system
- 500m-1000m long range
- Bluetooth cable-free connection, offers solution of semi automatic data collection (factory optional)
- Endless drives are applied on RTS360 series, collimate target faster with two hands operation
- “Easy Measure” trigger key mounted on the side of the instrument so the user doesn't lose sight of the target while measuring
- 3.5” colour TFT LCD (320x240 dots) touch screen, transflective sunlight readable display
- Professional onboard software: FOIF FieldGenius or CARLSON SurvCE
- Long reflectorless measuring distance 500m (R500) / 1000m (R1000)
- Illuminated keyboard with light sensor, turn on in dark surroundings automatically
- Multiple data interface: USB, mini USB, RS-232C and Bluetooth
- Smart battery managing system, display battery in real-time

SPECIFICATION:
FOIF RTS340 SERIES COLOUR DISPLAY

**Description**

FOIF RTS340 SERIES WITH COLOUR DISPLAY TOTAL STATION

- "Easy Measure" trigger key mounted on the side of the instrument so the user doesn't lose sight of the target while measuring
- Illuminated colour display (QVGA)
- LED-backlight alphanumerical keyboard
- Long reflectorless measuring distance reaches to 500m (R500) or 1000m (R1000)
- Multiple data interface: Bluetooth, mini USB, RS-232C and SD card
- Onboard software and application programs to simplify and speed up field work

**SPECIFICATION:**

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FOIF RTS330 SERIES

**Description**

FOIF RTS 330 SERIES TOTAL STATION

- Endless drives are applied on RTS330 series, collimate target faster with two hands operation
- "Easy Measure" trigger key mounted on the side of the instrument so the user doesn't lose sight of the target while measuring
- Long reflectorless measuring distance reaches to 500m (R500) or 1000m (R1000)
- Multiple data interface: mini USB, RS-232C and SD card
- 500m-1000m long range Bluetooth cable-free connection, offers solution of semi automatic data collection (factory optional)
- Onboard software and application programs to simplify and speed up field work
- Guide light system for fast stake out measurements

**SPECIFICATION:**
FOIF RTS680 SERIES

Description

**FOIF RTS680 SERIES TOTAL STATION**

- Long reflectorless measuring distance 500m (R500) / 1000m (R1000)
- High precision measurement: prism: 2mm +2ppm (R500) / 1mm +1.5ppm (R1000)
- Record or transfer data to external SD card directly
- Bluetooth cable-free connection (Factory optional)
- Can be operated with a data collector, FOIF FieldGenius or CARLSON SurvCE
- License protection for security
- Built-in temperature and pressure sensors

**SPECIFICATION:**

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FOIF RTS350 SERIES WINDOWS CE

Description

**FOIF RTS350 SERIES WINDOWS CE TOTAL STATION**

**FEATURES**

- Compact design with Windows CE 5.0 operating system
- 3.5” colour TFT LCD (320 x 240 dots) touch screen, transflective sunlight readable display
- Professional onboard software: FOIF FieldGenius or CARLSON SurvCE
- Illuminated keyboard with light sensor, turn on in dark surroundings automatically
- Multiple data interface: USB, mini USB, RS-232C and Bluetooth
- Smart battery managing system, display battery in real-time
- Guide light system for fast stake out measurements

**SPECIFICATION:**

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FOIF RTS010 SERIES WINDOWS CE 1"

Description

**FOIF RTS010 SERIES TOTAL STATION**

**FEATURES:**

- Angle measurement accuracy: 1"
- Distance measurement accuracy: 1mm +1ppm (prism)
- 1000m long range reflectorless distance measurement
- Industrial measurement instrument, distance measurement accuracy reaches to 1mm +1ppm with reflective sheet
- Ultra-narrow EDM laser beam, can precisely measure high voltage wire, walls, corners, manholes, even chain link fences and tree branches
- High Accuracy can be achieved in an easy, fast and reliable way
- Applied for high precision surveying area such as high-speed railway construction, structural monitoring and large-scale 3D measurement
- Compact design with Windows CE 5.0 operating system
- 3.5” colour TFT LCD (320x240 dots) touch screen, transflective sunlight readable display

**SPECIFICATION:**
FOIF RTS100 SERIES

Brand: FoIF

Description

**FOIF RTS100 SERIES TOTAL STATION**
- Long reflectorless measuring distance 300m (RTS100R3) / 500m (RTS100R5)
- Bluetooth cable-free connection (Factory optional)
- 120,000 points and 40 jobs can be saved
- Can be operated with a data collector, FOIF FieldGenius or CARLSON SurvCE
- IP66 environmental protection
- Alphanumeric keyboard

**SPECIFICATION:**

FOIF A30, A60, A90

Brand: FoIF

Description

**FOIF A30**
- Professional GNSS Satellite tracking (GPS, Glonass, Galileo, Beidou...)
- Equipped with industry standard GNSS engine (Trimble, NovAtel...)
- Centering the pole by built-in sensor
- Voice messages
- OLED display with superior brightness & temperature range
- Base and rover communication options to suit any application
- FOIF PRS (Portable Reference System) technology, compatible with other brands GNSS products
- 3.5G WWAN (HSDPA/WCDMA/EDGE...) module option
- Automatic correct system by 30 degree (optional)

**SPECIFICATION:**

**FOIF A60**

- **Smart Design**
  With the increasing demand for smart-design GNSS, to develop the receiver featured with miniaturization turns into our new goal until today it comes true. It is completely no doubt that small size and light weight design can greatly alleviate general field work and improve productivity a lot.
- **Brand new idea**
  In terms of cellular mobile and wireless system, we tend to introduce more
and more creativities into our product. Besides a set of Bluetooth, wireless radio and mobile network (2G&3G), we bring in the WIFI function which quite broaden data communications for GNSS.

- **Excellent performance**
  Embedded with high-sensitivity GNSS module, A60 can implement massive surveys: RTK, Dgps, (SBAS), Static, etc.

- **Powerful softwares supporting**
  A60 possesses not only sophisticated onboard software but also (ample) supply optional application programs (such as FOIF FieldGenius and Carlson SurvCE), which indicates diversities of demands for data acquisitions and multiple field solutions.

**SPECIFICATION:**

**FOIF A90**

- **Smart Design**
  With the increasing demand for smart-design GNSS, to develop the receiver featured with miniaturization turns into our new goal until today it comes true. It is completely no doubt that small size and light weight design can greatly alleviate general field work and improve productivity a lot.

- **Brand new idea**
  In terms of cellular mobile and wireless system, we tend to introduce more and more creativities into our product. Besides a set of Bluetooth, wireless radio and mobile network, we bring in the WIFI function which quite broaden data communications for GNSS.

- **Excellent performance**
  Embedded with high-sensitivity GNSS module, A90 can implement massive surveys: RTK, Dgps, (SBAS), Static, etc.

**SPECIFICATION:**

**FOIF LP400 SERIES**

- **Brand:** FOIF

- **Description**

  **FOIF LP400 SERIES THEODOLITE**
  
  - Telescope laser emitting system provides a visible laser beam can be seen up to 150 meters away outside through eyepiece in daylight
  - Laser pointer brightness and focus adjustable
  - Laser emitting system is integrated with telescope, resistant to dust, rain and harsh elements
  - With absolute encoder, angle measurements can be saved when power off
  - Compact design with wide LCD display facilitates numerical reading and operation
    
    Minimum reading: 1"/5"/10" or 0.2mgon/1mgon/2mgon
  
  - Repeated angle program which carries out continuous measuring and average calculating to get high accuracy angle value
  - Rechargeable battery and AA battery are available
  - Lower power consumption, longer working time with one battery

  **FOIF DT400 SERIES THEODOLITE**
  
  - With absolute encoder, angle measurements can be saved when power off
  - Compact design with wide LCD display facilitates numerical reading and operation
    
    Minimum reading: 1"/5"/10" or 0.2mgon/1mgon/2mgon
  
  - Repeated angle program which carries out continuous measuring and average calculating to get high accuracy angle value
  - Rechargeable battery and AA battery are available
  - Lower power consumption, longer working time with one battery

**SPECIFICATION:**
LEICA BUILDER SERIES

Brand: Leica

Description

With the Leica Builder series of total stations, Leica Geosystems has designed a perfectly tailored measuring tool for anybody who needs a simple, intuitive yet innovative and powerful measuring tool on or around a construction site. From simple tasks to professional all-day use, the Builder offers a scalable product family that meets the needs for almost any construction job.

With the Builder total stations, you benefit from:

- A product family with the widest coverage of construction tasks, enhancing the efficiency of daily workflow
- A construction tool that anybody is able to use, regardless of his/her profession
- A partner on site that keeps the promise of increased productivity, trust in reliability and excellent quality

Designed to complete construction applications with ease

The Builder is specially designed to meet the needs of anybody working on construction sites providing an easy-to-use unrivalled operation concept. Foremen, gardeners, carpenters and many other professionals are able to carry out their tasks trouble-free, accurately and much quicker than ever before. The onboard software, Leica PowerSite, provides a simple, clear and intuitive graphical user interface. The user just has to follow a displayed step-by-step description to set out profile boards, do all kinds of layouts, calculate volumes, check as-builts, transfer heights and many other tasks. The Builder is robust, withstanding wind, water and dirt.

5 models to choose from

The entry model Leica Builder 100 is a theodolite for horizontal and vertical angle measurements. The subsequent models builder 200, 300, 400, and 500 are total stations with:

- Reflectorless and/or prism measurement capabilities
- Data storage via USB memory stick
- Wireless communication and much more

All instruments are equipped with a theft protection and support many different languages of which three can be uploaded and switched at the push of a button. The Builder is delivered and packaged in a handy transport case with a set of accessories for out-of-the-box usage.

**Builder 500** - When versatility meets efficiency

The flagship total station of the Builder series, equipped with all of the features contained in the Builder series, plus these in addition:

- Wireless communication via Bluetooth
- Full laser distance measurements up to 250 m/820 ft
- Up to 1.5 mm accuracy at 100 m covering the full range of tasks to be performed on any construction site

**Builder 400** - If performance makes the deal

With an extended working range to prisms of up to 500 m/1600 ft (optional 3500 m/2.2 mi), a full alpha-numeric keyboard for rapid entry/recall of point numbers (cell phone style use), short range laser distance measurements with 15 m/50 ft for quick as-builts of inaccessible points and a huge memory of 50,000 points, builder 400 is the high performer in its league.

**Builder 300** - When a construction plan goes digital

Call up plan data and record points eliminates read and write errors, data exchange via industrial grade USB stick simplifies data handling, a direct DXF download function, tracking mode, setup any-where function, optional volumes calculation and laser distance measurements up to 120m/400ft make the Builder 300 a real workhorse.
Builder 200 - When tapes are a thing of the past

Traditional layouts require many steps and manipulations. The builder 200 reduces these steps and adds benefit by reducing the number of set ups and offers laser-aided layouts up to 80 m/260 ft. Its serial interface allows connection to any third party device/program and has up to three languages loadable.

Builder 100 - If you need to trust angles & alignments

With a laser plummet for simple and fast set up over a control line, dual axis compensation for accurate plumbing, endless drives eliminating steps, audible notice for 90° turns, graphical levelling aid for fast and convenient set up and IP55 rating, the builder 100 is an outstanding theodolite.

LEICA DISTO X3

Brand: Leica

Description

LEICA DISTO X3

- CONSTRUCTION SITE PROOF
  The Leica DISTO™ X3 is perfect for tough construction site conditions. It is drop-tested up to 2 m in height, water jet and dust protected to IP 65 standards.

- SMART ROOM
  New Leica DISTO™ technologies in combination with the Smart Room function of the Leica DISTO™ Plan app allow you to quickly create scaled floor plans on your smartphone or tablet.

- POINT TO POINT MEASUREMENT
  The Leica DST 360 transforms your hand-held laser device into a measurement station. It allows you to measure distances between any two points from one position.

- INTUITIVE
  Easy to use buttons and functions make working with the DISTO™ X3 fast and intuitive.

SPECIFICATION:

- Typ. distance measuring accuracy (ISO 16331-1 certified): ± 1.0 mm
- Range (ISO 16331-1 certified): 0.05 up to 150 m
- Measuring units: m, ft, in
- X-Range Power Technology: Yes
- Tilt sensor: Yes
- Tilt sensor accuracy to the housing: ± 0.2°
- Typ. tolerance of P2P function for use with Leica DST 360: ± 2mm at 2m, 5mm at 5m, 10mm at 10m
- Levelling range: 5° for use with Leica DST 360
- Memory of last measurement: 20
- Free software for Windows: Yes
- Free App for iOS and Android: Yes
- Smart Room function support: Yes
- General data interface: Bluetooth® Smart
- Data interface for 3D point data: Bluetooth® Smart
- Measurements per set of batteries: up to 4000(reduced when used with Bluetooth®)
- Service life of batteries: up to 8h(reduced when used with Bluetooth®)
- Multifunctional endpiece with automatic reference detection: Yes
- Batteries: 2x AA Alkaline
- Protection class: IP 65
- 2m drop tested: Yes
- Dimensions: 132 x 56 x 29 mm
- Weight with batteries: 184g
LEICA DISTO X4

Description

LEICA DISTO X4

OUTDOOR MEASURING
The Pointfinder camera allows you to precisely target and measure distant objects in bright sunlight. The target object shows clearly on the DISTO's high-resolution screen.

TRULY ROBUST
This DISTO™ is drop-tested up to 2 m in height, water jet and dust protected. Its IP65 rating means you can clean it under running water.

POINT TO POINT MEASUREMENT
Transform your DISTO™ X4 into a real measurement station with the DST 360. It allows you to measure distances between any two points, from one position.

HORIZONTAL MEASUREMENTS
Distance and tilt measurements allow you to determine horizontal distances with absolute precision. Use your laser measurement data to automatically generate realistic and scaled floor plans.

DOCUMENT AND VISUALISE
The Leica DISTO™ Plan app allows you to document and visualise your measurements. The Smart Room function makes it possible to create accurate floor plans simply by taking clockwise or counter-clockwise room measurements.

SPECIFICATION:

- Typ. distance measuring accuracy (ISO 16331-1 certified): ± 1.0 mm
- Range (ISO 16331-1 certified): 0.05 up to 150m
- Measuring units: m, ft, in
- X-Range Power Technology: Yes
- Tilt sensor: Yes
- Tilt sensor accuracy to the housing: ± 0.2°
- Typ. tolerance of the P2P function for use with Leica DST 360: ± 2mm at 2m, 5mm at 5m, 10mm at 10m
- Levelling range: 5° for use with Leica DST 360
- Pointfinder with zoom: 4x
- Memory of last measurement: 20
- Free software for Windows: Yes
- Free App for iOS and Android: Yes
- Smart Room function support: Yes
- General data interface: Bluetooth®
- Data interface for 3D point data: Bluetooth®
- Measurements per set of batteries: up to 4000(reduced when used with Bluetooth®)
- Service life of batteries: up to 8h(reduced when used with Bluetooth®)
- Multifunctional endpiece with automatic reference detection: Yes
- Batteries: 2x AA Alkaline
- Protection class: IP 65
- 2 m drop tested: Yes
- Dimensions: 132 x 56 x 29 mm
- Weight with batteries: 188g

MEASURING TAPE

Description

FOR MORE INFORMATION, PLEASE CLICK THE LINK
MYZOX TRIPOD LAN YL

Brand: MYZOX

LEICA INDUSTRIAL GRADE MEMORY CARD
**MSD1000, Industrial grade SD memory card 1GB:** Secure digital memory card. Capacity 1GB. These rugged industrial grade cards protect data even when dropped and in extreme environmental conditions.

**MSD08, Industrial grade SD memory card 8GB:** Secure digital memory card. Capacity 8GB. These rugged industrial grade cards protect data even when dropped and in extreme environmental conditions.

**MSD, Industrial grade Micro SD memory card 1GB:** Micro secure digital card. Capacity 1GB. These rugged industrial grade cards protect data even when dropped and in extreme environmental conditions.

**MCF256, Industrial grade CompactFlash card 256 MB:** CompactFlash memory card. Capacity 256 MB. These rugged industrial grade cards protect data even when dropped and in extreme environmental conditions.

**MCF1000, Industrial grade CompactFlash card 1GB:** CompactFlash memory card. Capacity 1GB. These rugged industrial grade cards protect data even when dropped and in extreme environmental conditions.

**MS1, Industrial grade USB memory stick 1GB:** Rugged USB stick in metal housing. Industrial grade with highest data security and reliability at extreme environmental conditions.

**MCR8, USB card reader for SD, CF and SRAM cards:** Omnidrive card reader for SD, CF and SRAM cards. Secure data transfers with USB connection to all PC operating systems. CF cards only with MCFAD1 usable.

**MCR7, USB card reader for SD and CF:** Omnidrive card reader for SD and CF cards. Guaranteed secure data transfers with USB connection to all PC operating systems.

**MCFAD1, CompactFlash card adapter:** Adapts a CompactFlash card to PCMCIA size. Allows use of the 32MB CompactFlash card in DNA, GPS500 and TPS1100 instruments.

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**LEICA MINI POLE GLS115**

**Description**

**GLS15, Mini pole:** Set of four screw-together sections and point with 1/4" threads. Suitable for GMP111, GRZ101 and GPR105 reflectors. Provides prism heights of 10, 40, 70, 100 or 130cm. For prisms without bubble a additional clip on bubble is available (GLI115, 747895).
**GMP101, Mini prism set:** Mini prism mounted in metal holder. Includes a circular bubble, removable target plate, spike and padded bag. Prism constant of +17.5mm, centring accuracy 1.0mm, range 2,000m (6,600ft).

**GMP111, Mini prism with holder:** Mini prism mounted in polymer holder with 1/4” thread fittings. Includes circular bubble, GLS115 four-section pole and point. Prism constant of +17.5mm, range 2,000m (6,600ft).

**GMP111-0, Mini prism with holder:** Mini prism mounted in polymer holder with 1/4” thread fittings. Includes circular bubble, GLS115 four-section pole and point. Leica 0-prism constant, max. IR range of 2,000m (6,600ft).

**GRZ101, 360° mini reflector:** Suitable for short range ATR applications. Due to its small size, the GRZ101 provides the greatest pointing accuracy of 1.5mm. With the GAD103 adapter, this reflector can be mounted on all poles with stub fitting. ATR range of 350m (1,150ft).

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**LEICA REFLECTIVE TAPE**

**Description**

**GZM29/30/31, Reflective tapes:** Self-adhesive, reflective tapes supplied in pack of 20 pieces. GZM29, 20x20mm, for measurements up to 100m (330ft). GZM30, 40x40mm, for measurements up to 200m (650ft). GZM31, 60x60mm, for measurements up to 250m (820ft).

**GPR105, Double sided reflector:** This unique reflector provides two back-to-back prisms, both with 0-constant. With 1/4” fitting, suitable for mounting on GLS105/115 reflector poles or GAD105, range 250m (820ft).

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**LEICA PRECISION PRISM GPH1P**

**Description**

**GPH1P, Precision prism:** Precisely machined reflector, for high accuracy requirements. The prism dioptr is slightly tilted to prevent any EDM reflection from the front surface, thereby increasing measurement accuracy. Centring accuracy 0.3mm, range 3,500m (11,500ft).
**MONITORING PRISM**

Brand: Leica

**Description**

**GPR112, Monitoring prism:** Large diameter monitoring prism for long range measurements. For installation on M8 or 5/8" threaded bolts. Built-in filter prevents condensation on the backside of the prism. Rain/snow cover available separately, range 2,500m (8,200ft).

**GMP104, Monitoring mini prism:** Mini monitoring prism with anti-reflex coating mounted in metal holder. Supplied with L-bar for fixed installations. The prism offset is dependant on the mounting position, range 2,000m (6,600ft).

**LEICA CIRCULAR PRISM W/ HOLDER**

Brand: Leica

**Description**

**GPR121, Circular prism with holder:** Precision circular prism with antireflex coating, mounted in metal holder. Supplied with removable target plate. Centring accuracy 1.0mm, range 3,500m (11,500ft).

**GPR111, Circular prism with holder:** Circular prism, sealed in red polymer holder. Large integrated target plate provides good visibility. Centring accuracy 2.0mm, range 2,500m (8,200ft).

**GPR113, Circular prism with holder:** Circular prism mounted in red polymer holder. Suitable for fitting of the GZT4 target plate. Centring accuracy 2.0mm, range 2,500m (8,200ft).

**GPR1, Circular prism with holder:** Precision circular prism with antireflex coating. Suitable for mounting in GPH1 and GPH3 holders. Centring accuracy 1.0mm, range 3,500m (11,500ft).

**LEICA 360° PRISM GZR4,GZR122**

Brand: Leica

**Description**

**GRZ4, 360° prism:** Suitable for all robotic TPS work performed with a survey pole. Overall 3D pointing accuracy of 5.0mm. When aiming on a side marked by a yellow arrow, an accuracy of better than 2.0mm can be achieved. ATR range of 600m (2,000ft).

**GRZ122, 360° prism:** The high performance GRZ122 allows connectivity to the Leica SmartAntenna. The built-in reflector allows the reflector to be positioned directly on a survey mark, at a height of 78mm. Overall 3D
LEICA BIPOD GSR2,GSR111

Brand: Leica

Description

GSR2, Dual strut support: With 2 telescopic legs, for rapid setup of 25mm poles.

GSR111, Dual strut support: With 2 telescopic legs, for rapid setup. Suitable for poles of all diameters.

LEICA POLE EXTENSION GZW12, GLS18

Brand: Leica

Description

GZW12, TPS pole extension: Extends all poles with stub fitting, by 1.00m (3.28ft).

GLS18, GNSS pole extension: Extends all poles with 5/8" thread by 1.00m (3.28ft).

LEICA TELESCOPIC ALUMINIUM POLE GLS12, GLS13

Brand: Leica

Description

GLS12, Telescopic aluminium SmartPole: Pole with snap locks to prevent any pole slip. Suitable for the GRZ122 360° prism and GNSS antenna.
Graduated in cm, min. length 1.39m, extendible to 2.0m, weight 950g.

GLS13, Telescopic aluminium GNSS pole: Aluminium GNSS pole with 5/8" screw. Snap locks at 1.80m and 2.00m. Min. length 1.39m, weight 950g.

LEICA TELESCOPIC CARBON FIBER POLE GLS30, GLS31

Brand: Leica

Description

GLS30, Telescopic carbon fibre GNSS pole
Carbon fibre pole with snap lock at 2.00m (6.56ft) and 1.80m (5.91ft) for rapid setup. Min. length 1.36m (4.46ft), light weight at 700g (1.55lb).

GLS31, Telescopic carbon fibre SmartPole
Carbon fibre pole with snap lock at 2.00m, 1.80m and 1.50m for GRZ122 360° prism and GNSS antenna. Min. length 1.36m (4.46ft), light weight at 700g (1.55lb).

LEICA LEVELING STAFF

Brand: Leica
LEICA EXTERNAL Li-ion BATTERY GEB371
Brand,................................................................. Leica

Description

GEB371, External Li-ion battery: High output battery for set-ups over long periods, 13V/250Wh. Requires GEV242 for charging. With a GEV277 cable the battery can be used as UPS (uninterruptible power supply). Weight 2.3kg

LEICA SOLAR FILTER GVO13
Brand,................................................................. Leica

Description

GVO13, Solar filter: Attaches to the objective of all TPS instruments. Protects eyesight and EDM electronics when sighting bright objects.

LEICA EYEPIECE & LENS COVER GSK1
Brand,................................................................. Leica

Description

GSK1, Set cover for eyepiece and lens: Fits all TPS instruments.
LEICA MINIPACK FOR GNSS RECEIVER GVP647

Brand: Leica

Description
Minipack, for GS10 receiver, allows carrying GNSS Receiver and RTK. Devices in a most ergonomic way on the back.

LEICA SOFT BAG FOR CS FIELD CONTROLLER GVP643.GVP644

Brand: Leica

Description
GVP643, Soft bag for CS10 field controller: Soft bag for CS10 field controller for transportation and protection against dirt. Including belt loop.

GVP644, Soft bag for CS15 field controller
Soft bag for CS15 field controller for transportation and protection against dirt. Including belt loop.

LEICA SOFT BAG GVP703

Brand: Leica

Description
Padded bag for accessories, controller, radios or CS25 tablet.

LEICA SOFTBAG FOR PRISM STATION GVP102

Brand: Leica

Description
Soft bag with shoulder strap, for prism station, consist of tribrach, prism carrier or laser plummet and prism.
LEICA CHARGER
GKL112, GLK311, GLK341, GLK32, GEV242, GDC221

Brand: ............................................................................. Leica

Description

GKL112, Battery charger: Simple, low-cost charger for GEB121 and GEB111 NiMh batteries. Includes car adapter cable.

GKL311, Battery charger: Easy-to-use, low cost charger for GEB211/212/221/222/241/242/331 Li-Ion batteries. Includes car adapter cable.

GLK341, Charging station: Intelligent charging ensures long battery life. Possible to charge up to 4 batteries simultaneously. GEB211/212/221/222/241/242/331. Includes country specific mains connection.

GLK32, Battery charger: Charges one GEB171 or batteries with 5-pin charging socket.

GEV242, Battery charger: Charges one GEB371 battery.

GDC221, Car adapter cable: For connecting the GLK341 to a 12V – 24V power source, at the cigarette lighter socket. Built-in electronics protect the charger from power surges.

LEICA HOLDER FOR HEIGHT METER
GHT196

Brand: ............................................................................. Leica

Description

For attachment of the GHM007 height meter to any Leica Geosystems tribrach.
LEICA HEIGHT METER GHM007

Brand: Leica

Description
For quick and easy instrument height measurement. The specially scaled tape, accurately displays the height to the centre of the TPS telescope or prism centre. The GHT196 holder is additionally required.

LEICA HEIGHT HOOK GZS4

Brand: Leica

Description
Hook to precisely measure the height of GNSS antennas and reflectors. Connects to all Leica Geosystems carriers. With integrated tape measure in mm and inches.
LEICA SCREW-TO-STUB ADAPTER GAD31

Brand, Leica

Description
For mounting of GNSS antennas to poles and carriers with stub.

LEICA PRECISION CARRIER
GZR3,GZR103,GRT114,SNLL121,GRT247,GRT

Brand, Leica

Description

**GZR3, Precision carrier with optical plummet:** With high accuracy optical plummet and longitudinal bubble for exact positioning over measurement points. Reflector centring accuracy 0.3mm, plummet accuracy 0.5mm at 1.5m.

**GZR103, Carrier with optical plummet:** Rotatable carrier with longitudinal bubble for use in tribrachs without plummet. Reflector centring accuracy 1.0mm, plummet accuracy 0.5mm at 1.5m.

**GRT144, Carrier with stub:** Simple carrier for use in tribrachs with optical plummet. Suitable for reflectors with stub fitting. Reflector centring accuracy 1.0mm.

**SNLL121, Precision carrier with laser plummet**
The laser provides convenient setting up even in conditions of poor visibility. Supplied with 4x AA-size alkaline batteries. Reflector centring accuracy 0.3mm, plummet accuracy 1.0mm at 1.5m.

**GRT247, Carrier with 5/8" thread for GS15:** Simple carrier for use in tribrachs with optical plummet. For direct fitting of GS15 GNSS receiver. Reflector centring accuracy 1.0mm.

**GRT146, Carrier with 5/8" thread:** Simple carrier for use in tribrachs with optical plummet. For direct fitting of GNSS antennas. Reflector centring accuracy 1.0mm.
LEICA TRIBRACH
GDF301, GDF302, GDF311, GDF312, GDF321, GDF322

Brand: ................................................................. Leica

Description


GDF302, Tribrach with optical plummet
A cost effective tribrach with optical plummet for use in normal environments. Suitable for GNSS antennas. Torsional stiffness <5", weight 885 grams (1.95lb).

GDF311, Tribrach without plummet: Suitable for TPS instruments with an angular accuracy of greater than 3°. The footscrews have a large diameter which permits fine adjustment even when wearing work gloves. Torsional stiffness <3", weight 800 grams (1.76lb).

GDF312, Tribrach with optical plummet
The tribrach and optical plummet are of robust construction and suitable for long period exposure in all environments. This makes the GDF312 ideal for GNSS and backsights and control points. Torsional stiffness <3", weight 885 grams (1.95lb).

GDF321, Tribrach without plummet
High accuracy, maintenance free tribrach. Individually tested. Suitable for all high angular accuracy requirements. Torsional stiffness <1", weight 760 grams (1.72lb).

GDF322, Tribrach with optical plummet
High accuracy, maintenance free tribrach. Individually tested. The optical plummet is of robust construction, virtually eliminating the need for adjustment during the lifetime of the tribrach. Torsional stiffness <1", weight 850 grams (1.90lb).

LEICA BATTERY GEB SERIES

Brand: ................................................................. Leica

Description

GEB212: High output battery with extended capacity for field controller and GNSS receiver,
7.4V / 2.6Ah.

GEB221: High output battery for all System 1200, flexline instruments, GS10 GNSS receivers and Piper 100/200, 7.4V / 4.4Ah.

GEB222: High output battery for all TS11/12/15 and flexline instrument, GS10 GNSS receivers and Piper 100/200, 7.4V / 6.0Ah.

GEB242: High output battery for TS60/MS60 and TM50 instruments, 14.8V/5.8Ah.

GEK331: High output battery for CS20 field controller, 11.1V/2.8Ah.

GEB121: Low maintenance battery for TPS400/800 and DNA instruments, 6.0V/4.2Ah.

GEB111: Low maintenance battery for TPS400/800 and DNA instruments, 6.0V/2.1Ah.
LEICA MINI POLE GLS14

Brand: Leica

Description

GLS14: Mini reflector pole for exact positioning of the reflector over a survey mark. Provides a prism height of 20cm (0.66ft).

LEICA WOODEN TRIPOD GST20,GST20-9GST40

Brand: Leica

Description

GST20: Heavy duty tripod with plumb bob, carrying strap and side clamp screws. Proven long-life, twist-proof and excellent vibration characteristics. Packaged length 110cm (3.61ft), extendible to 180cm (5.91ft), weight 6.4kg (14.1lb).

GST20-9: Heavy duty tripod with carrying strap and side clamp screws. Proven long-life, twist-proof and excellent vibration characteristics. Packaged length 110cm (3.61ft), extendible to 180cm (5.91ft), weight 6.4kg (14.1lb).

GST40: Heavy duty tripod with rigid legs, suitable for precision levelling. Proven long-life, twist-proof and excellent vibration characteristics. Length 170cm (5.58ft), weight 6.0kg (13.2lb).

GST05: Light duty tripod with water-tight plastic wrap for complete protection. Suitable for TPS-Instruments with angular measurement accuracy above 5”, reflectors and GNSS antennas. Packaged length 107cm (3.51ft), extendible to 176cm (5.77ft), weight 5.6kg (12.3lb).

LEICA TELESCOPIC POLE GLS11,GLS111,GLS112

Brand: Leica

Description

GLS11: Reflector pole with quick release clamp for easy and rapid height adjustment. Graduated in cm and ft, min. length 1.24m (4.07ft), extendible to 2.15.

GLS111: Heavy duty reflector pole with red/white markings for high visibility. Twist lock provides easy and secure tightening. Graduated in cm and ft, min. length 1.40m (4.59ft), extendible to 2.60m (8.53ft), weight 1.48kg (3.28lb).

GLS112: Heavy duty reflector pole with red/white markings for high visibility. Twist lock provides easy and secure tightening. Graduated in cm and ft, min. length 1.47m (4.82ft), extendible to 3.60m (11.81ft), weight 1.88kg (4.14lb).
LEICA MAGNIFICATION EYEPIECE FOK53
Brand: Leica
Description
Exchangable eyepiece for increasing telescope magnification to 42x (Requires fitting by a Leica Geosystems Service Centre).

LEICA DIAGONAL EYEPIECE GOK6,GFZ3,GFZ4T
Brand: BLTAN
Description
GOK6, Diagonal eyepiece: For comfortable observations of steep sights, up to 66°. Has a variable joint for the adjusting the sighting angle. Fits all TPS instruments except TS02+. Includes objective.
GFZ3, Diagonal eyepiece: For comfortable observations of steep sights, up to the zenith. Fits all TPS instruments except TS02+. Includes objective counterweight.
GFZ4T, Diagonal eyepiece: For comfortable observations of steep sights, up to the zenith. With thread connection. Fits only for Flexline plus TS02+. No counterweight needed.

LEICA TRIPOD STAR GST4
Brand: Leica
Description
For the secure set-up of tripods on slippery surfaces.
LEICA AUTOCOLIMATION EYEPIECE GOA2
Brand: Leica

Description
To perform autocollimation with any TPS instrument. The 394787 GEB62 Plug-in Lamp and 394792 GEB63 Battery Box are additionally required.

LEICA HARD CASE CONTAINER
Brand: Leica

Description
GVP717, Sidebag for containers: Can be mounted to GVP721/722/723/725 containers.
To hold additional accessories, CS35 tablet, laptop or documents.

GDZ66, Back strap: Set of two back straps, for all containers with suitable mountings. The container can still be opened while the straps are attached.

GVP716, Backpack carrying system:
Easy-to-mount backpack system for carrying all large TPS and GNSS container including TS/MS60

GVP718, Basic carrying system
Fits to GVP721/722/723/725 containers
**Brand: BLTAN**

**BL5DOTS-R/G**

**Description**

**FEATURES:**
- Electronic Tilt-Sensor compensator ensures more quick self leveling.
- 3D green beam lasers : 3 axis 360˚ line full function lasers.
- Adopt Green Beam technology which is brighter 3 times than Red beam.
- 3 axis setting-out at the same time to save more than 60% working time and 50% manpower saving.
- Manual slop function for any setting-out situation.
- Build-in repair recording software system for easy repair job.
- Sound alarm systems for any alarm situation.
- Temperature alarm system designed to keep high accuracy.

**SPECIFICATION:**
- Laser beam: 4V4H1D
- Light sources: 532nm laser diode, down point 650nm
- Anti-water class: IP-54
- Laser safety class: Class 2M
- Accuracy: ±1mm/10m
- Self-leveling range: ±3.5°
- Working range: Radius 50m ( with detector )
- Power supply: 4 x AA alkaline batteries
- Mounting thread: 5/8” X 11, ISO standard
- Operating temperature: -5°C~+45°C
- Size: Φ140x208mm
- Weight: 1.2kg (including batteries)

**Brand: BLTAN**

**BL1V1H-R**

**Description**

**Brand: BLTAN**

**TS-860GHS(Made in Taiwan)**

**Description**

**FEATURES:**
- Electronic Tilt-Sensor compensator ensures more quick self leveling 3D green beam lasers : 3 axis 360˚ line full function lasers.
- Adopt Green Beam technology which is brighter 3 times than Red beam.
- 3 axis setting-out at the same time to save more than 60% working time and 50% manpower saving.
- Manual slop function for any setting-out situation.
- Build-in repair recording software system for easy repair job.
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**SPECIFICATION:**
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- Size: Φ140x208mm
- Weight: 1.2kg (including batteries)

**Brand: Leica**

**LEICA RUGBY 320SG / 410DG /420DG**
When accuracy is the goal

The Leica Rugby 420 DG, 410 DG & 320 SG are designed for grading jobs of any size that require the most precise grade control. Ensuring the highest accuracy over long distances, Leica Rugby 420 DG, 410 DG & 320 SG are perfectly suited for agriculture, machine control and general construction applications. Save on materials and labour with the most accurate grade lasers in the Leica portfolio. When accuracy is the goal, Leica Rugby makes the grade.

The toughest players on big fields

Work reliably and accurately under any weather and jobsite conditions with Leica Rugby 420 DG, 410 DG & 320 SG grade lasers. The high-impact composite housing including the rubber over mould, case aluminum base and enclosed head deliver maximum internal component protection and as a result, assure reliable performance throughout the day.

User-friendly features for precise grade control

The Leica Rugby 420 DG, 410 DG & 320 SG grade lasers offer a wide range of valuable and easy to use features for precise grade control, such as Axis Alignment for higher grade accuracy, Beam Masking for multiple laser usage and Elevation Alert to prevent elevation errors. All these and more can be conveniently accessed and controlled by a 5-button keypad. Save time and reduce communication errors from the field to the cab of the machine by using a long-range two way remote control together with Rugby 410 DG and 420 DG grade lasers. In the development of the Leica Rugby 420 DG, 410 DG & 320 SG care was taken to ensure absolute compatibility with the widest range of machine control solutions. Invisible IR laser beam of the Rugby 410 DG is the perfect solution for applications where no red light is allowed, like railway maintenance.

SPECIFICATION:

<table>
<thead>
<tr>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self leveling compensator with transport lock - protects pendulum against damage and loss of calibration</td>
</tr>
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</tr>
<tr>
<td>3. Water resistant</td>
</tr>
<tr>
<td>4. Solid metal base and three precision leveling screws - provides stability in all weather for precision leveling</td>
</tr>
<tr>
<td>5. Both vertical horizontal Crosshairs &amp; Stadia lines - measures level and alignment and estimates distance</td>
</tr>
<tr>
<td>6. Top mount quick sight — for quick sighting of leveling rod</td>
</tr>
<tr>
<td>7. Circular bubble vial with 90-degree prism — for easy, fast set-up</td>
</tr>
</tbody>
</table>

DAL 32

Description

FEATURES

1. Self leveling compensator with transport lock - protects pendulum against damage and loss of calibration
2. Large aperture 32x-power lens - allows more light for a sharper image and excellent magnification
3. Water resistant
4. Solid metal base and three precision leveling screws - provides stability in all weather for precision leveling
5. Both vertical horizontal Crosshairs & Stadia lines - measures level and alignment and estimates distance
6. Top mount quick sight — for quick sighting of leveling rod
7. Circular bubble vial with 90-degree prism — for easy, fast set-up

SPECIFICATION:

- Magnification: 32X
- Working Range: 120m
- Height accuracy for an individual measurement: 1.6mm/30m
- Clear objective aperture: 36mm
- Compensator setting accuracy: ±0.3”
- Standard Deviation for 1km: 1.0mm
- Telescope image: Erect
- Short focusing distance: 0.3m
- Field of view: 1°30’
- Working range compensator: ±15°
- Stadia ratio: 100
- Stadia addition: 0
- Accuracy of circular vial: 8’/2mm
- Horizontal circle graduation: 1° or 1gon
- Water resistant: Yes
- Net weight: 1.8kg
- Tripod mount thread: M16 or 5/8”
LEICA NA532

Brand: Leica

Description

FEATURES:
1. Leica Geosystems is a pioneer in manufacturing levels and understands the needs of construction workers
2. Whatever your need, basic or more, Leica Geosystems levels are your answer
3. With a unique design, these levels produce the highest quality results at the best price value
4. The unique design of the Leica NA500 Series reflects the high quality of technology featured inside each level
5. The NA500 Series is ruggedly made to withstand the harshest elements
6. These levels, while highly accurate, provide quick and easy measurements
7. Unbeaten warranty and service offering
8. Leica Geosystems offers solutions for all your construction needs

SPECIFICATION:
- Standard deviation for 1 km double levelling (ISO17123-2): 1.6 mm
- Telescope image: Upright
- Magnification: 32 x
- Objective aperture: 36 mm
- Shortest target distance from instr. axis: <1.0 m
- Field of view at 100 m: <2.1 m
- Multiplication factor: 100
- Additive constant: 0
- Working range: ± 15°
- Setting accuracy (standard deviation): <0.5°
- Sensitivity: 8/2 mm
- Graduation: 360°
- Graduation interval: 1°
- Weight (net): 1.5 kg
- Operating temperature range -20° C ~ 50°C
- Protection IP56

MORE INFORMATION:

LEICA NA332

Brand: Leica

Description

LEICA NA332

The Leica NA 332 automatic (surveyors) level has been developed for professionals who are looking for the highest quality results day by day. With the many obstructions and uneven surfaces on construction and building sites, the NA332 optical levels rise to the occasion and ensure the straightest and safest construction possible. The NA300 Series is your reliable partner for accurate measurements and high quality results.

Thanks to the ergonomic design, NA 300 Series levels are convenient to operate. Add in the simple and easy handling of these levels, and you have the perfect partner on any job site.

SPECIFICATION:
- Standard deviation for 1 km double levelling (ISO17123-2): 1.8 mm
- Telescope image: Upright
- Magnification: 32 x
- Objective aperture: 36 mm
- Shortest target distance from instr. axis: <1.0 m
- Field of view at 100 m: <2.1 m
- Multiplication factor: 100
- Additive constant: 0
BL3D Green

Brand: BLTAN

Description

FEATURES:
1. Have good visibility.
2. Auto leveling by magnetic damping technology.
3. Can widely applied in interior construction, decoration, marble facing, installation for keel, air-condition, woodwork etc.
4. Have wide auto leveling range.
5. Can use it on flat surface or tripod.
6. Creates 360° laser lines by axicon lens.

SPECIFICATION:
- Wavelength: 520nm ~ 515nm
- Receive distance: <20m
- Working distance: >7m radius
- Working temperature: -10°C ~ 50°C
- Working environment: Indoor & Outdoor
- Auto level range: ±3°
- Horizontal accuracy: ±1mm/5m
- Vertical accuracy: ±1mm/5m
- Perpendicular accuracy: ±1mm/3m
- Power: 4pcs 1.5V AA Alkaline battery OR 1pc 3.7V Li-Ion 3600mAH(included)
- Screw adapter: 5/8” and 1/4”
- Weight: 0.71kg

MORE INFORMATION:
**BL668G / BL668H**

Brand: _____________________________ BLTAN

Description

Multi-Line Laser with 6 Dots on Line-BL668G/H

**FEATURES:**

- Magnetic damping
- With bright spots in laser line
- Can use power battery pack & alkaline battery
- With a fine minor adjustment mechanism which can locate objects correctly
- Outdoor and indoor using available
- It can be widely used in construction and decorating

**SPECIFICATION:**

- Laser Line: 4 vertical line and 1 horizontal line with 6 dots
- Light source: 635nm Semiconductor Diode (down point 650nm)
- Output power: ≤1mW, class II
- Line width: 1.5mm/5M (3mm/10M)
- Horizontal accuracy: ≤±1.5mm / 7m
- Vertical accuracy: ≤±1.5mm / 7m
- Down point accuracy: ≤±1mm / 1.5m
- Zenith point accuracy (right angle): ≤±1mm / 3m
- Auto leveling range: ≤±3°
- Emitting Angle: ≥110°
- Auto leveling time: ≤5 second
- Damping type: Magnetic Pendulum/Gymbal type
- Rotation degree: 360° turnable with fine adjustment function
- Working distance: Up to 10M indoor; up to 40M outdoor with detector
- Power: DC3.6V (AA batteries x 4) / lithium battery (optional)
- Working temperature: -10°C~+45°C

Dimensions (H x Φ): 195mm X Φ 90mm

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**BAOFENG WALKIE TALKIE**

Description

Baofeng Professional High Power Walkie Talkie UHF Transceiver UV8D With Rechargeable Li-ion battery. This Walkie Talkie Is a Portable, Easy to Use, Two-ways Radio That You Can Carry Almost Anywhere. It Is Skillfully Constructed to Give You Reliable Communications for Many Different Applications. Ideal for Use Around the House, in Your Boat, on Hunting and Camping Trips, on the Ski Slopes or at the Mall.

**FEATURES:**

1. 128 Channel.
2. Uhf 400-520mhz.
3. Flashlight.
4. Vox Function.
5. Pc Programming.
6. Fm Radio Receiver.
7. Emergency Alarm.
8. CTCSS/DCS Tones.
9. Low Voltage Alert.
11. Intelligent Charging.
14. TDR Dual Ptt Key Dual Standby.

**Specification:**

- Power Output: 5w
- Channel Capacity: 128
- Operated Voltage: 7.4v
- Frequency Range: Uhf 400-520mhz
- Battery Standby: About 2 Days
- Antenna Type: SMA Female
- Battery Type: 2800mAh Li-ion (BI-8)
- Operated Temperature: -30°C to +60°C
- Size: 30 * 60 * 130mm
- Weight: 0.19 Kg
Leica GS14 GNSS Antenna

Description

Easy-to-use software
The Viva GS14 smart antenna is equipped with the intuitive Leica SmartWorx Viva software. With clear graphics, practical menu structures, understandable terminology and simplified workflows, save time and effort on any site. SmartWorx Viva is incredibly easy to learn and use.

Infinite possibilities
While SmartWorx Viva captures data in the field, Leica Infinity software processes the information back in the office. A smooth data transfer ensures the project stays on track. SmartWorx Viva and Infinity work in conjunction to join previous survey data and edit projects faster and more efficiently.

Powerful handheld devices
In a controller or a tablet, take your entire office on the go when you discover the power to overcome any environment from the palm of your hand. The Leica CS10 and CS15 controller provide the ultimate in control and convenience with complete mobility.

RTK Net Available

leica-geosystems.com/products/gnss-systems/smart-antennas/leica-viva-gs14
LEICA VIVA CS15 & CS10

Brand: Leica

Description

Leica Viva CS15 & CS10 Field Controller
Comfortable and easy-to-use for all tasks

Designed for extreme environments, you can always rely on your CS15 and CS10 field controllers. They are comfortable to hold and easy-to-use, making them your perfect partner on site.

Easy-to-use software
The Viva CS15 and CS10 controllers are perfectly designed to be used with SmartWorx Viva surveying software. With clear graphics, practical menu structures, understandable terminology and simplified workflows, save time and effort on any site. SmartWorx Viva is incredibly easy to learn and use. You and your field crew will be up to speed in no time.

Work how you like
Designed as part of the Leica Viva series, the CS15 and CS10 are versatile controllers to work with many instruments and software combinations:
- Ideal for use with all Leica Viva and Nova series total stations and GNSS sensors
- Perfectly designed to be used with SmartWorx Viva surveying software
- Powerful ARM core processor for many software applications
- Flexible communication and data handling

Stay connected with a wide range of communication and data storage options. With fully integrated wireless Intenna technology (Bluetooth®, GSM/UMTS 3.5G, WiFi), a choice of two connector modules and data storage using an SD card or USB memory stick, your Viva CS15 and CS10 are ready for all challenges on site and in the office.

Customer care at a click
Through Active Customer Care, a global network of experienced professionals is only a click away to expertly guide you through any problem:
- Eliminate delays with superior technical service
- Finish jobs faster with excellent consultancy support
- Avoid costly site revisits with online service to send and receive data directly from the field.
- Control your costs with a tailored Customer Care Package, giving you peace of mind you’re covered anywhere, anytime.

LEICA FLEXLINE TS02PLUS

Brand: Leica

Description

The Leica FlexLine TS02plus is the perfect manual total station for standard measuring tasks where moderate accuracy is necessary.

Quality, precision & reliability
FlexLine plus total stations are built to the highest Swiss Technology quality standards. Users benefit from high precision and reliable instruments in order to fulfill their tasks with the requested accuracy.

Best-in-class EDM technology
With PinPoint Electronic Distance Measurement (EDM), TS02plus delivers the optimal balance in:
- Range
- Accuracy
- Reliability
- Beam visibility
- Laser dot size
- Measurement time
With a wide variety of EDM options, the TS02plus is able to measure to both prisms and direct objects without the need for a reflector.

**Intuitive onboard software**

The TS02plus is delivered with the intuitive onboard software, Leica FlexField plus. Guided workflows and easy to understand graphics and icons ensure a low learning curve when working in the field. Graphics and icons make the interpretation of measurement values or text no longer necessary, guaranteeing faster and simple operation when you need it.

**Best-in-class service & support**

FlexLine plus manual total stations are supported by superior after sales service and support. With the Active Customer Care program and myWorld customer portal, users have access to latest software updates, service and support as well as the mySecurity theft protection system. With mySecurity activated, the locking mechanism ensures the device is disabled and can no longer be used.

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**SPECIFICATION:**

**LEICA FLEXLINE TS06PLUS**

<table>
<thead>
<tr>
<th>Brand</th>
<th>Leica</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Leica FlexLine TS06plusThe Leica FlexLine TS06plus represents today’s most used type of manual total station in the mid-range market. It provides a wide range of standard features making operation simple.</td>
</tr>
<tr>
<td><strong>Quality, precision &amp; reliability</strong></td>
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<tr>
<td><strong>Best-in-class EDM technology</strong></td>
<td>With PinPoint Electronic Distance Measurement (EDM), TS06plus delivers the optimal balance in:</td>
</tr>
<tr>
<td>● Range</td>
<td>● Range</td>
</tr>
<tr>
<td>● Accuracy</td>
<td>● Accuracy</td>
</tr>
<tr>
<td>● Reliability</td>
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</tr>
<tr>
<td>● Beam visibility</td>
<td>● Beam visibility</td>
</tr>
<tr>
<td>● Laser dot size</td>
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</tr>
<tr>
<td>● Measurement time</td>
<td>● Measurement time</td>
</tr>
<tr>
<td></td>
<td>With a wide variety of EDM options, the TS06plus delivers measurements which are extremely precise.</td>
</tr>
</tbody>
</table>

**Intuitive onboard software**

The TS06plus is delivered with the intuitive onboard software, Leica FlexField plus. Guided workflows and easy to understand graphics and icons ensure a low learning curve when working in the field. Graphics and icons make the interpretation of measurement values or text no longer necessary, guaranteeing faster and simple operation when you need it.

**Flexible data exchange**

The TS06plus is equipped with a communication side cover where data can be easily transferred using a USB stick. Built-in wireless Bluetooth for cable-free connection allows connections to any data collector.
Best-in-class service & support
FlexLine plus manual total stations are supported by superior after sales service and support. With the Active Customer Care program and myWorld customer portal, users have access to latest software updates, service and support as well as the mySecurity theft protection system. With mySecurity activated, the locking mechanism ensures the device is disabled and can no longer be used.

Efficient tunnel surveying
Leica Geosystems now offers a powerful Tunnel Application for its FlexLine manual total station series. With a wide range of functions that cover design, execution process, and compute cut and fill areas, the app now enables you to have full control in tunnels, caverns and infrastructure galleries.

SPECIFICATION:

**LEICA FLEXLINE TS09PLUS**

**Brand:** Leica

**Description**
The Leica FlexLine TS09plus is the flagship total station from the FlexLine series. The wide variety of functions on this total station provides ultimate convenience for mid- to high-accuracy measurement tasks.

**Quality, precision & reliability**
FlexLine plus total stations are built to the highest Swiss Technology quality standards. Users benefit from high precision and reliable instruments in order to fulfill their tasks with the requested accuracy.

**Best-in-class EDM technology**
With PinPoint Electronic Distance Measurement (EDM), TS09plus delivers the optimal balance in:
- Range
- Accuracy
- Reliability
- Beam visibility
- Laser dot size
- Measurement time

With a wide variety of EDM options, the TS09plus delivers measurements which are extremely precise.

**Intuitive onboard software**
The TS09plus is delivered with the intuitive onboard software, Leica FlexField plus. Guided workflows and easy to understand graphics and icons ensure a low learning curve when working in the field. Graphics and icons make the interpretation of measurement values or text no longer necessary, guaranteeing faster and simple operation when you need it.

**Flexible data exchange**
The TS09plus is equipped with a communication side cover where data can be easily transferred using a USB stick. Built-in wireless Bluetooth for cable-free connection allows connections to any data collector.

**Best-in-class service & support**
FlexLine plus manual total stations are supported by superior after sales service and support. With the Active Customer Care program and myWorld customer portal, users have access to latest software updates, service and support as well as the mySecurity theft protection system. With mySecurity activated, the locking mechanism ensures the device is disabled and can no longer be used.

**Efficient tunnel surveying**
Leica Geosystems now offers a powerful Tunnel Application for its FlexLine manual total station series. With a wide range of functions that cover design, execution process, and compute cut and fill areas, the app now enables you to have full control in tunnels, caverns and infrastructure galleries.
LEICA VIVA TS11

Brand: Leica

Description

Leica Viva TS11 is the most advanced manual total station with imaging and GNSS capability and the inclusion of Leica SmartWorx Viva easy-to-use onboard software. With a complete package of easy-to-use software, your work can start immediately and be finished faster than ever before.

Add full GNSS functionality to your Viva TS11 whenever you want, combine TPS and GNSS in the most efficient way, and use imaging with the unique capture-sketch-link functionality. High resolution total station images can be captured, enhanced with sketching, and then linked to any point of interest. Costly revisits are avoided to significantly improve productivity. Every vision on any scale becomes reality with ease.

Best-in-class imaging

Optimise your productivity with exact photo documentation of site conditions. With live streaming of the total station view, you always know what the total station sees.

- Image notes – Capture an image, screenshot or template, sketch on it and link it to any object in the database
- Image assisted surveying – Use the camera’s live streaming to speed up the aiming process

Easy-to-use software

With clear graphics, practical menu structures, understandable terminology and simplified workflows, save time and effort on any site. SmartWorx Viva is incredibly easy to learn and use. You and your field crew will be up to speed in no time.

Best-in-class EDM technology

With PinPoint Electronic Distance Measurement (EDM), Viva TS11 delivers the optimal balance in:

- Range
- Accuracy
- Reliability
- Beam visibility
- Laser dot size
- Measurement time

Viva GNSS add-on

Add full GNSS functionality to your Viva TS11 total station whenever you want and combine TPS and GNSS. Use SmartStation for TPS setup without the need of control points, traverses and resections.

Customer care at a click

Through Active Customer Care, a global network of experienced professionals is only a click away to expertly guide you through any problem:

- Eliminate delays with superior technical service
- Avoid costly site revisits with online service to send and receive data directly from the field.
- Finish jobs faster with excellent consultancy support

Control your costs with a tailored Customer Care Package, giving you peace of mind you’re covered anywhere, anytime.

Leica Viva TS11 & TS15 KUMONOS - The remote concrete crack measurement system

Are you still using scaffolds for concrete crack inspections?

Valuable time and huge costs are required for crack inspections of hard-to-reach concrete structures. In a strategic partnership, Leica Geosystems and KUMONOS Corporation bring together expertise in measurement and crack monitoring technology. Using the KUMONOS Baum Station, cracks can be measured from a distance without the need of expensive scaffolding or elevated work platform.
LEICA NOVA TM50

Brand: Leica

Description

Engineering companies and contractors face increased challenges monitoring ever-changing structures. They are being charged with – and being held liable for – the condition of the structures they create and maintain. In order to surmount these challenges, engineers need to be able to measure structural movements to millimetre-level accuracy.

For equipment to manage and monitor these structures, engineers rely on the Leica Nova TM50 monitoring station – every half second counts.

Image assistance for every situation

The Nova TM50 includes an overview camera and a telescope camera with 30x magnification and autofocus. With state-of-the-art image processing technology the Nova TM50 delivers the highest quality image for complete visual documentation of the monitoring environment. Obstructions in the line of sight can be easily inspected remotely, avoiding safety concerns in high-risk environments.

Continuous operation and reliability

The Nova TM50 meets monitoring application challenges - 24 hours a day, 7 days a week and is designed to:

- Withstand the roughest use in the most severe environments
- Operate throughout a wide temperature range
- Operate fully in bright sunlight and complete darkness

Complete monitoring integration

The Nova TM50 forms one component of a unique monitoring solution that seamlessly integrates total stations, GNSS receivers and antennas, geotechnical sensors, software, and IT communication infrastructures. Leica GeoMoS software provides a highly flexible automatic deformation monitoring system that is able to combine sensors to give you peace of mind.

Customer care at a click

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LEICA NOVA TS60

Brand, _____________________________________________ Leica

Description
The only total station in the world that offers dedicated precision in the harshest conditions, the Leica Nova TS60 is designed for the highest accuracy down to the sub-millimeter and sub-second. Experience the meaning of perfected precision.

Engaging software
The Nova TS60 comes with the revolutionary Leica Captivate software, turning complex data into the most realistic and workable 3D models. With easy-to-use apps and familiar touch technology, all forms of measured and design data can be viewed in all dimensions. Captivate spans industries and applications with little more than a simple swipe, regardless of whether you work with GNSS, total stations or both.

Infinite possibilities
While Captivate captures and models data in the field, Leica Infinity processes the information back in the office. A smooth data transfer ensures the project stays on track. Captivate and Infinity work in conjunction to join previous survey data and edit projects faster and more efficiently.

Customer care at a click
Through Active Customer Care, a global network of experienced professionals is only a click away to expertly guide you through any problem:

- Eliminate delays with superior technical service
- Finish jobs faster with excellent consultancy support
- Avoid costly site revisits with online service to send and receive data directly from the field.

Control your costs with a tailored Customer Care Package, giving you peace of mind you’re covered anywhere, anytime.

ATRplus
ATRplus, born from five generations of optimisation, takes known and trusted automation performance to the next level. This superior technology maximises the total station’s ability to remain locked on your target, ignoring other distractions in the field. The Nova TS60 learns the environment, delivers accurate positions even in difficult dynamic applications, and offers the fastest re-lock in case of interrupted line of sight.

LEICA VIVA TS16

Brand, _____________________________________________ Leica

Description
Meet the world’s first self-learning total station. Automatically adjusting to any environmental conditions, the Leica Viva TS16 locks onto your, and only your, target. Regardless of how challenging the task or the amount of distractions in the field, this total station exceeds your expectations.

Cover a wide range of applications when this total station sees precisely what you see. Known for the most comprehensive imaging capability available, you can capture exact conditions for any worksite through the self-learning capability of the Viva TS16.

Engaging software
The Viva TS16 comes with the revolutionary Leica Captivate software, turning complex data into the most realistic and workable 3D models. With easy-to-use apps and familiar touch technology, all forms of measured and design data can be viewed in all dimensions. Captivate spans industries and applications with little more than a simple swipe, regardless of whether you work with GNSS, total stations or both.

Infinite possibilities
While Captivate captures and models data in the field, Leica Infinity processes the information back in the office. A smooth data transfer
ensures the project stays on track. Captivate and Infinity work in conjunction to join previous survey data and edit projects faster and more efficiently.

Customer care at a click
Through Active Customer Care, a global network of experienced professionals is only a click away to expertly guide you through any problem:

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LEICA NOVA MS60
Brand: Leica

Description
To meet the demands of our ever-changing and increasingly quicker world, we developed the world’s first MultiStation, combining all available measurement technologies in one superior instrument. Now, we’ve made that instrument even smarter. The Leica Nova MS60 MultiStation is the world’s first self-learning MultiStation, automatically and continuously adapting to any environment, despite any challenges.

Scanning with the Leica Nova MS60 has been made simpler through the instant creation of point clouds with overlaid measured points and 3D models in one view. Visualisations are clearer and easier to see on an all-new 5” screen.

The unique capabilities of the Leica Nova MultiStation truly deliver the new experience in measuring technology.

Nova MS60 MultiStation also delivers with:

Engaging software
The Nova MS60 MultiStation comes with the revolutionary Captivate software, turning complex data into the most realistic and workable 3D models. With easy-to-use apps and familiar touch technology, all forms of measured and design data can be viewed in all dimensions. Leica Captivate spans industries and applications with little more than a simple swipe, regardless of whether you work with GNSS, total stations or both.

Infinite possibilities
While Captivate captures and models data in the field, Leica Infinity processes the information back in the office. A smooth data transfer ensures the project stays on track. Captivate and Infinity work in conjunction to join previous survey data and edit projects faster and more efficiently.

Customer care at a click
Through Active Customer Care, a global network of experienced
professionals is only a click away to expertly guide you through any problem:

- Eliminate delays with superior technical service
- Finish jobs faster with excellent consultancy support
- Avoid costly site revisits with online service to send and receive data directly from the field.

Control your costs with a tailored Customer Care Package, giving you peace of mind you’re covered anywhere, anytime.

**Customisable packages**
A portfolio of intuitive software for any application gives you the freedom to choose how you want to work. Leica MultiWorx for AutoCAD, Leica Cyclone, Leica GeoMos, Leica Infinity, various Hexagon software packages and selected partner third-party software can be integrated into your workflow to create the customised solution for your specific need. Whatever you choose, you’ll enjoy an immersive experience that goes well beyond the data.

**Dynamic Lock**
The new Dynamic Lock functionality has greatly improved the lock-on capability of ATRplus in the Nova MS60 MultiStation. Get better performance with the larger search area for locking onto a moving target. The MultiStation can be used in standard surveying or high-dynamic machine control applications.

Watch the tutorial video and learn how to use the Dynamic Lock functionality.

**SPECIFICATION:**

NIKON FORESTRY PRO

LEICA NA2 / NAK2

**Description**

**LEICA NA2**

**Flexibility that pays off**
The NA series is designed to be used for all types of surveying tasks. Independent if you have to do routine levelling on construction sites, check or monitor buildings, railways or roads, with the Leica NA levels you always have the right tool at hand.

**Highest accuracy and reliability**
Get reliable and precise levelling results even on sunny days. The top-class optical quality of Leica Geosystems always delivers a high contrast image and makes the read-out precise and easy even in unfavourable light conditions. Due to the high temperature stability the Leica NA levels deliver always reliable results and are relatively insensitive to direct solar
Fast and convenient set-up
Increase your efficiency and safe time with the fast to set-up Leica NA levels. Use the coarse movement of the focusing knob for rapid setting with minimum turning. The fine movement gives the final touch for a perfect image. To check if the compensator is functioning, simply press the button. This check will take less than a second and gives you a high level of security!

**SPECIFICATION:**

**LEICA NA700 SERIES**

Brand: Leica

The Leica NA700 levels defy the toughest of building site environments. Save time and money with no need for regular checks in the workshop or constant readjustment. When it comes to extreme robustness and optimum measuring accuracy, the Leica NA700 levels are hard to beat with:

- Simple operation
- No conversion from degrees to gon
- Convenient pointing
- Comfortable read-out
- Constant clear view
- Outstanding contrast
- Impact-resistant
- IP 57 Standard - water-tight and dust-tight

**Highest reliability and accuracy at tough jobsites**
Heavy rain, dusty environment and vibrations from heavy construction machinery do not stop you to work with the NA700 levels. They are especially designed for tough jobsites and feature IP 57 protection, meaning they are dust protected and watertight. Even after being submerged into water, you can continue with your levelling tasks, getting the same reliable and accurate results.

**Minimal downtime**
No matter if it is early in the morning or late in the evening, with the NA700 levels you can measure at any time, even in unfavourable light conditions. The high luminosity always gives you an outstanding contrast and a sharp, upright image for an ergonomic look and a comfortable read-out. The nitrogen filled telescope prevents the lens from fogging up so that you always have a clear view.

**Low cost of ownership**
Reduce your cost of ownership to a minimum. Due to the most stable and reliable compensator in the market, the NA700 levels need less re-adjustments or checks in the workshop. Even on construction sites with vibrations from heavy construction machinery you can rely on accurate levelling results.

**The right level for every application**
Do you want to measure distances, as-sign datum lines, define height differences or read heights? Depending on the application and the required level of accuracy, the NA700 Series has the right level for your day-to-day tasks.

**SPECIFICATION:**
**JOGGER 20, 24, 28 & 32**

Description

Leica Jogger Automatic, Optical Levels  
Easy to use optical level for quick measurements

High efficiency and easy handling  
Increase your efficiency at a structural work sites when checking layouts or estimating heights. With the Leica Jogger levels, these jobs are done quickly. The automatic levels are easy to use. No specific instructions or trainings are necessary. Target precisely with the smooth, double-sided end-less fine drive and simply read-out the results.

Reliable at dusty construction sites  
Get reliable measuring results even at unfavourable environmental conditions. The automatic, air-damped compensator of the Leica Jogger levels ensure accurate results at any time. The optical levels are splash water and dust protected so that you can continue your work also at dusty construction sites.

The right level for every application  
Depending on the application and the required level of accuracy, the Leica Jogger series has the right level for your day-to-day tasks. Choose between four different levels of magnification!

**LEICA GPS1200+**

Description

The only future proof GNSS  
When it says future proof GNSS, it means maximum productive ity and reliability. More satellites, more GNSS signals. Today and tomorrow! With Leica GPS1200+ you can be certain that you’re ready for the future. Invest today in future proof GNSS technology and be sure that your equipment can track all satellites today and tomorrow. GPS1200+ is the only future proof GNSS System.

Fully waterproof, incredibly robust  
GPS1200+ receives are designed to work anywhere under the roughest conditions imaginable. They float, withstand falls, jolts and vibrations, operate in rain, dust, sand and snow, at temperatures from -40°C to +65°C.

GNSS/TPS standardized interface  
Keyboard and touch screen, intuitive interface data management, on-board routines and programs: all easy to

Totally versatile  
GPS1200+ can be used as a reference or rover in any mode from static to RTK.

SmartRover- extremely light weight  
SmartRover weights just 2.7kg for a complete cable free all on the pole RTK GNSS rover.

SmartCheck+  
Continuously checking provides the highest possible reliability. A unique, built-in integrity monitoring system checks all results immediately.

SmartRTK  
With Leica Geosystems SmartRTK and RTCM 3.1 correction data, performance and peace-of-mind is guaranteed

GPS1200+ receivers  
GX1230+ GNSS/ ATX1230+ GNSS  
GX1220+ GNSS  
GX1230+  
GX1220+  
GX1210+  

GNSS technology  
SmartTrack+  
Type  
Triple frequency  
Dual frequency  
Single frequency
Channels
120 channels
L1/L2/L5 GPS
L1/L2 GLONASS
E1/E5a/E5b/
Alt-BOC Galileo
Compass1
4SBAS
120 channels
L1/L2/L5 GPS
L1/L2 GLONASS
E1/E5a/E5b/
Alt-BOC Galileo
Compass1
4SBAS
(with DGPS option)
16 L1 + 16 L2 GPS
4 SBAS
16 L1 + 16 L2 GPS
4 SBAS
(with DGPS option)
16 L1 GPS
4 SBAS
(with DGPS option)
Upgrade to
GX1230+ GNSS
- Yes
- Yes
- Yes
- Yes
RTK
SmartCheck+
No
SmartCheck
No
No
Status indications
3 LED indications for GX1200+: power, tracking, memory
GPS1200+ receivers
GX1230+ (GNSSV) GX1220+ (GNSS)
GX1210+
ATX1230+ GNSS
Ports
1 power port, 3 serial ports, 1 controller port, 1 antenna port
1 power/controller port,
Bluetooth® Wireless-Technology port
Supply voltage,
Consumption
Nominal 12 VDC
4.6 W receiver + controller + antenna
Nominal 12 VDC
1.8 W
Event input and PPS
Optional:
1 PPS output port
1 PPS output port
2 event input ports
2 event input ports
Standard antenna
Built-in groundplane
SmartTrack+ AX1203+ GNSS
Built-in groundplane
SmartTrack AX1201
Built-in groundplane
SmartTrack+ ATX1230+ GNSS
Built-in groundplane
The following apply to all receivers except where stated.
Power supply
Two Li-Ion 4.4 Ah/7.4V plug into receiver. One Li-Ion
2.2 Ah/7.4 V plugs into ATX1230+ GNS and RX1250.
Plug-in Li-Ion batteries
Same for GNSS and TPS
Power receiver + controller + SmartTrack
Antenna + low power radio modem or phone for
about 11 hours (for RTK/DGPS).
Power SmartAntenna + RX1250 controller for
about 6 hours (for RTK/DGPS)

External Power

External power input 10.5 V to 28 V

Weights

Receiver 1.20 kg, Controller 0.48 kg (RX1210) and 0.75 kg (RX1250), SmartTrack antenna 0.44 kg.

SmartAntenna 1.12 kg, Plug-in Li-Ion battery 0.11 kg (2.2 Ah) and 0.2 kg (4.4 Ah)

Carbon fiber pole with SmartTrack antenna and RX1210 controller: 1.8 kg.

All on pole: carbon fiber pole with SmartAntenna, RX1250 controller and plug-in batteries: 2.74 kg.

Temperature

ISO 9022

MIL-STD-810F

Operation: Receiver -40°C to +65°C

Antennas -40°C to +70°C

Controllers -30°C to +65°C

Controller RX1250c -30°C to +50°C

Storage: Receiver -40°C to +80°C

Antennas -55°C to +85°C

Controller RX1250c -40°C to +80°C

Humidity

ISO 9022, MIL-STD-810F

Receiver, antennas and controllers:

Up to 100% humidity

Protection against

Water, dust and sand

IP67, MIL-STD-810F

Receiver, antennas and controllers:

Waterproof to 1 m temporary submersion.

Dust tight

Shock/drop onto

Hard surface

Receiver: withstands 1 m drop onto hard surface.

Antennas: withstand 1.5 m drop onto hard surface.

Hard surface.

Topple over on pole

Receiver, antennas and controllers:

Withstand fall if pole topples over.

Vibrations

ISO 9022

MIL-STD-810F

Receiver, antennas and controllers:

Withstand vibrations on large construction machines. No loss of lock.

The Compass signal is not finalized, although test signals have been tracked with GPS1200+ receivers in a test environment. As changes in the signal structure may still occur, Leica Geosystems cannot guarantee full Compass compatibility.

SmartTrack+

Advanced GNSS

Measurement technology

Time needed to acquire all satellites after switching on: typically about 50 seconds.

Re-acquisition of satellites after loss of lock (e.g. passing through tunnel):

Typically within 1 second.

Very high sensitivity: acquires more than 99% of all possible observations above 10 degrees elevation.

Very low noise. Robust tracking.

Track weak signals to low elevations and in adverse conditions.

Multipath mitigation. Jamming resistant.

Measurement precision:

Carrier phase on L1: 0.2 mm rms.

On L2: 0.2 mm rms.

Code (pseudorange) on L1 and L2: 20 mm rms

SmartCheck+

Advanced, long range

RTK technology

Initialization typically 8 seconds.

Position update rate selectable up to 20 Hz.

Latency < 0.03 secs.

Range 40 km or more in favorable conditions.

Self checking

Accuracies

Kinematic
Horizontal: 10 mm ± 1 ppm
Vertical: 20 mm ± 1 ppm
Static (ISO 17123-8)
Horizontal: 5 mm ± 0.5 ppm
Vertical: 10 mm ± 0.5 ppm
Reliability: 99.99% for baselines up to 40 km.
Formats supported for transmission and reception:
Leica proprietary (Leica, Leica 4G), CMR, CMR+
RTCM V2.1/2.2/2.3/3.0/3.1
Reference station networks
RTK rover fully compatible with Leica’s Spider
i-MAX and MAX formats. VRS and Area Correction (FKP) reference station networks.
Controllers
RX1210/RX1250
High contrast ¼ VGA display
With colour option (RX1250)
Touch screen, 11 lines × 32 characters.
Windows CE 5.0 on RX1250
Full alphanumeric QWERTY keypad.
Function keys and user definable keys.
Illumination for screen and keys.
Can also be used with TPS1200+ for alphanumeric input and extensive coding.
Operation
Controller
Same for GNSS and TPS
Via keypad and/or via touch screen.
Graphical operating concept.
Function keys and user definable keys.
All information displayed.
Display Information
All information displayed: status, tracking, data logging, database, RTK, DGPS, navigation, survey, stakeout, quality, timer, power, geographical, Cartesian, grid coordinates etc.
Graphical display of survey
same for GNSS and TPS
Graphical display (plan) of survey. Zooming.
Can access surveyed points directly via Touch screen.
Stakeout display
Same for GNSS and TPS
Graphical with zoom.
Digital, polar and orthomeric.
Accuracy: 10 mm ± 1 ppm at 20 Hz (0.05 sec)
Update rate. No degradation with High updates rates.
Operation
Without controller
GX1200+ only
Automatic on switching on.
LED status indicators.
Data logging
Same cards used
For GNSS and TPS
Capacity
On CompactFlash cards: 256MB and 1 GB
Optional internal receiver memory: 256MB.
64MB sufficient for (30% less for GPS/GLONASS):
About 500 hours L1 + L2 data logging at 60 sec rate.
About 9 000 RTK points with codes.
Data management
Same for GNSS and TPS
User definable job management.
Point identifiers, coordinates, codes, Attributes etc.
Search, filter and display routines.
Multi point averaging.
Five types of coding systems cover all requirements.
Coordinate systems
Same for GNSS and TPS
Ellipsoids, projections, geoidal models.
coordinate, transformations, transformation parameters, country specific
coordinate systems.
Fully support of RTCM 3.1 coordinate system transfer.
Application programs
Same for GNSS and TPS
Standard: Full range of COGO functions.
Hidden point.
Optional: RoadRunner, Reference Line,
DTM Stakeout, Reference Plane, Area Division
And X-Section Survey, DXF Export,
LandXML Export and Volume Calculations
Programmable
Same for GNSS and TPS
User programmable in GeoC++
Users can write and upload programs for their
Own special requirements and applications.
Communication
Data links
One or two of the following devices can be connected. Radio modem,
GSM, GPRS, CDMA.
Different frequencies and/or formats can be
received and transmitted.
Time slicing is supported.
itsht.com/download/instrument/Leica_GX1230.pdf

LEICA GS09

Description
Your tasks, your choices, our solutions!
Are you starting a new business? Have you been considering changing to
GNSS surveying? Then the Leica GS09 is the surveying system for you.
Providing a simple positioning tool that grows with your business to meet
all your future measurement requirements.
The Leica GS09 can be used in a large variety of operating modes,
providing you with a complete surveying systems. Requiring only the
GS09 SmartAntenna and CS09 Controller, combined with appropriate
accessories, many different operating choices are available.
SmartWorx Controller
The SmartWorx field software is based on the proven and familiar concept
of the Leica System 1200. Made even easier to use with icon-based
menus, ensures instant productivity.
RTK Rover
The extremely light-weight and cable free rover is comfortable to use for
the entire day. Built exceptionally rugged, the rover withstands rough use
and topple overs.
Reference Station
The easily setup RTK base station requires only the GS09 SmartAntenna,
a radio modem and battery. By connecting the CS09 Controller, raw
satellite data can be logged.
Network Rover
The Leica GS09 works perfectly in all reference networks. The network
corrections can be received with Leica GSM/CDMA modules or by using
your mobile phone.
SmartStation
Leica TPS instruments can be combined with the GS09 SmartAntenna
into one easy-to-use instrument
GNSS Technology
Measurement Engine
Leica patented SmartTrack+ technology
· Jamming resistant measurements
· High precision pulse aperture multipath correlator
· Excellent low elevation tracking technology
· Very low noise GNSS carrier phase measurements with <0.5 mm
precision
· Minimum acquisition time
No. of channels
120 channels
Reacquisition time
< 1 sec
GNSS Measurements
Satellite signals tracking
GPS: L1, L2, L2C (C/A, P, C Code)
GLONASS: L1, L2 (C/A, P narrow Code)

Measurement Performance

Accuracy

DGPS/RTCM
Typically 25 cm (rms)

RTK Rapid static (phase)
Static mode after initialization
Horizontal: 5 mm + 0.5 mm (rms)
Vertical: 10 mm + 0.5 ppm (rms)

RTK Kinematic (phase)
Moving mode after initialization
Horizontal: 3 mm + 0.5 ppm (rms)
Vertical: 6 mm + 0.5 ppm (rms)

Post Processing (phase)
Static with long observations
Horizontal: 5 mm + 0.5 ppm (rms)
Vertical: 10 mm + 0.5 ppm (rms)

One-The-Fly initialization

Reliability
Better than 99.99% using Leica SmartCheck+ Technology

Time for initialization
Typically 8 sec

RTK baseline range
Up to 50 km

User Interface

Keys
On / Off key
Led Status indicator
Satellite tracking, Bluetooth® communication and battery power

Communication ports
- Combined USB / Power port with 8-pin Lemo plug
- Integrated Bluetooth® port
- 5-pin clip on contacts for Leica SmartStation setup

Physical

Weight
1.05 kg including battery

Dimension (diameter x height)
186 mm x 89 mm

Environmental specifications
Temperature, operating
-40°C to +65°C (-40°F to +149°F)

Temperature, storage
-40°C to +80°C (-40°F to +176°F)

Humidity
100%

Sealed against water
IP67: Temporary submersion into water (max. dept 1m)

Sealed against sand and dust
Dust tight, protection against blowing dust

Vibration
Withstands vibrations in compliance with ISO9022-36-08

Drops
Withstands 1m drop onto hard surface

Topple over
Withstands topple over from a 2 m survey pole onto hard surface

Functional shock
No loss of lock to satellite signals when used on a pole setup and submitted to pole bumps up to 150 mm

Power management
Supply Voltage
Nominal 12V DC, Range 10.5 – 28V DC

Power consumption
Typically: 1.8W, 150 mA

Internal Power time
Up to 7 hours using GEB212 battery

Communications
RTK transmission
Source
Direct from GS09 (No datalogger required)

RTK format
Leica Life propriety format

Radio Modems
All Satellite and Pacific Crest radios in GFU or standard housing

Integration with TPS
SmartStation functionality
Connects to Leica TPS1200, TS30 and TM50 instruments
Leica CS09 Controller
User Interface
Standard software
Operating system
Microsoft Windows CE 5.0 software
Application software
Leica SmartWorx field software
Terminal software
Leica SmartWorx sensor control
Software control
Display
¼ VGA colour, graphics capable
Touch screen
Toughened film on glass
Keyboard
62 keys with QWERTY alphanumeric 46 function keys
Illumination
Backlight illuminated display and fully illuminated keys
Hardware
Physical
Dimension
218 mm x 123 mm x 47 mm
Weight of CS09
740g including battery
Weight of pole setup
3.47 kg for complete rover pole setup
Weight of network rover
2.85 kg for complete network rover using a Bluetooth® mobile phone
Interfaces
Data storage
Removable CF card (256 MB and 1 GB available)
Communication ports
· Combined USB/Power port with 8-pin Lemo plug)
· 2 x Bluetooth® ports Class 2
· 7-pin clip on contacts for GHT56 SmartHolder connection
Environmental Specifications
Temperature, operating
-30ºC to +65 ºC (-22 ºF to +149 ºF)
Temperature, storage
-40 ºC to +80 ºC (-40 ºF to +176 ºF)
Humidity
100%4
Sealed against water
IP67: Temporary submersion into water (max. depth 1 m)
Sealed against sand and dust
Dust tight, protection against blowing dust
Drops
Withstands 1.5 m drop onto hard surface
Vibration
Withstands vibrations in compliance with ISO9022-36-08
Power Management
Supply Voltage
Nominal 12V DC, Range 11.5 – 28V DC
Power consumption
Typically: 1.4W, 120mA
Internal Power supply
Removable 46 rechargeable Li-lon battery,
GEB211 2.2Ah / 7.4V or GEB212 2.6 Ah / 7.4 V
Operation time
Up to 13 hours using GEB212 battery
RTK specifications
Data Formats
Leica propriety formats (Leica, Leica Lite, Leica 4G) Optional CMR,
CMR+, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1)
RTK baseline
Optional 5 km maximum baseline or unlimited baseline lengths
Position update rate
1 Hz standard, Optional 5 Hz (0.2 sec)
Network Rover
VRS, FKP, iMAX, MAX, Nearest station
External Devices
Radio Modem
Satellite and Pacific Crest radios in GFU housing
(connected using GHT56 SmartHolder)
Mobile Phone
· GSM / CDMA modules in GFU housing
(connected using GHT56 SmartHolder)
Bluetooth® Mobile phones
- GS09 SmartAntenna
- USB Cable
- PC with Microsoft Windows
- USN data cable
- CF-card reader
Internet
Mobile phone using FTP protocol

1. Measurement precision and accuracy in position and accuracy in height are dependent upon various factors including number of satellites, geometry, observations time, ephemeris accuracy, ionospheric conditions, multipath etc. Figures quoted assume normal to favorable conditions. Times required are dependent upon various factors including number of satellites, geometry, ionospheric conditions, multipath etc. GPS and GLONASS can increase performance and accuracy by up to 30% relative to GPS only.

2. May vary due to atmospheric conditions, multipath, obstructions, signal geometry and number of tracked signals.

3. Compliance with ISO9022-10-08, ISO9022-11-special and MIL-STD-810F Method 502.4-II, MIL-STD-810F Method 501.4II

4. Compliance with ISO9022-13-06, ISO9022-12-04 and MIL-STD-810F Method 507.4-1

5. May vary with temperature and battery age.

Leica SmartWorx Field Software

Standard features
Operation
Always in view status information bar
Permanent display of current positioning accuracy
Data import: ASCII, DXF, GSI, DTM models
Data export: Custom ASCII, DXF, XML, Raw data
Field-to-Office data transfer using ftp
Setup Reference
Configuration of RTK base station for operation without requiring a controller
Selection of radio channel
Computation of navigated base position
GPS Resection
Provides a rapid localization of a GPS job
Positions onto existing control points
Uses a similar method as a TPS resection
Requires no knowledge of coordinate systems
Determine Coordinate Systems
For the conversion of GNSS positions to local coordinates
Provides a One-step, Two-step or Classic 3D transformation type
One point localization for rapid calibration
Display and recording of parameters and residuals
Automatic matching of measured and entered points
Coordinate Geometry
Inverse, intersections, line and arc related computations
Calculations made from entered or measured points
Graphical plot view of computations
Coding of calculated points
Survey
Manual or automated point measurement
Configurable display layout
Point, line, area or free coding
Smart and Quick coding
Measuring of hidden points using offset data
Stakeout
Orientation to north, point, line, sun or by arrow
Quality comparison between stake and design
Automatic selection of closest design point
Graphical selection of point from map display
Design height editing during stakeout
Optional features
Reference Line
Staking of line, arcs and polylines
Staking of chainages
Staking of slopes
Quality comparison between stake and design
Graphical display of design
RoadRunner
Staking of alignments:
Stringlines, single/double cross slopes, batters, surfaces
Graphical staking and quality control
Alignments can be created in the field
Importing of alignments from various design formats.
LEICA VIVA GNSS

Description

Your Vision: A Versatile GNSS System
Leica Viva GNSS is a complete range of versatile GNSS solutions for you. Form completely integrated, to totally modular solutions; Viva GNSS provides a system to master all of your tasks.

ProNSS technology
Built on years of knowledge and experience, the Leica GS10 and GS15 deliver the hallmarks of Leica GNSS – reliability and accuracy.

SmartCheck – RTK data-processing to guarantee correct results
SmartTrack – advanced four constellation tracking of all GNSS satellites today and tomorrow

SmartRTK – delivers consistent results in all networks

Work as you want to
The Leica GS10 and GS15 are designed to suit any surveying task.

Exchangeable communication devices for field base stations and RTK rovers with removable SIM cards (Built-in for GS15)

Fully scalable sensor allows you to buy only what you need today and upgrade with additional functionality as you need it

Integrated web server to configure the logging of Leica or RINEX raw data and measure with one button press in the field

Rugged
The Leica GS10 and GS15 are built for the most demanding environments.

IP67 protection against dust and immersion to 1m
Built for extreme temperatures of -40° to +65°C

Integrated antenna technology to avoid breaking, losing or forgetting antenna (for GS15)

LEICA ZENO 10 / 15

Description

Your Vision: Easy-to-use Mobile GIS
Leica Zeno 10 & Zeno 15 is designed for high-accuracy mapping in real time and post-processing.

The most rugged and versatile GNSS/GIS Handhelds in the market
High performance GNSS/GIS handhelds give you all the power you need. The perfect field tools for maintaining your GIS whether you are working for a utility company, local government, federal agency, or for anyone managing or mapping infrastructure or assets. Leica Zeno GIS series delivers the quality and reliability you can trust.

IP67 and -30°C to 60°C operation
Combine GIS and Survey equipment
High-Performance sub-meter GNSS/GIS Handhelds
Delivering consistent sub-meter accuracy both real-time and post-processed. Leica Zeno 10 and 15 handhelds combine a high-performance sub-meter GNSS sensor with a rugged handheld for anyone who needs accurate and reliable data even in the most demanding environments.

- DGPS <0.4m
- SBAS <1.2m
- Post-processed sub-meter – decimeter

Packed with power for outstanding performance
The optional docking station ensures quick, direct and easy access to the data you have measured in the field. Just plug un and field data is downloaded, post-processed and updated in Zeno Office, with just one simple click. Together with full support of all survey equipment, data maintenance has never been so easy.

Convenient wireless or wired data download & upload
Optional fully integrated wireless technology (GSM/UMTS 3.5G and WLAN)
Extend storage with SDHC cards


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LEICA LS10 / LS15

Brand: Leica

Description
Leica LS15 and LS10 digital levels alleviate demanding levelling tasks on any site. Automated functions and industry-leading 0.2mm accuracy allow users to easily demonstrate their measuring skills while effectively completing any project.

From autofocus to touchscreen displays with clean layouts, the entire measurement process is made more efficient with LS15 and LS10 digital levels. Common levelling errors, like misreading the staff or transcription mistakes, are worries of the past. Providing the most reliable results from immediately understandable line flows with image-supported colour visuals, these levelling solutions make the professional’s daily tasks a more enjoyable experience.

Users profit from Leica Geosystems' experience as inventors and industry leaders of digital levels. Honing the digital level into an art form, these solutions collect results faster with the highest accuracy available.

Infinite possibilities
The experience of Leica Geosystems LS digital levels isn't finished in the field. After easily transferring your data to the office, Leica Infinity processes your results hassle-free back in the office. This intuitive software enables easy-to-understand displays of complex levelling data.

Customer care at a click
Through Active Customer Care, a global network of experienced professionals is only a click away to expertly guide you through any problem:

- Eliminate delays with superior technical service
- Finish jobs faster with excellent consultancy support
- Avoid costly site revisits with online service to send and receive data directly from the field.

Control your costs with a tailored Customer Care Package, giving you peace of mind you're covered anywhere, anytime.

SPECIFICATION:
LEICA SPRINTER 50 / 150 / 150M / 250M

Description

DIGITAL LEVELS WITH THE HIGHEST PERFORMANCE AND ON-BOARD MEMORY

Improve your workflow and increase your productivity with the Leica SprINTER M levels. All measurements are stored in the appropriate order and can be downloaded to a PC for further use in Microsoft Excel. The different calculation options gives you a high level of flexibility. These digital levels facilitate your levelling jobs significantly.

Improved workflow and high productivity

Avoid transcription errors and improve your workflow. Store up to 2,000 measurements and download them to your personal computer via USB Interface. The Sprinter DataLoader enables a smooth data transfer to Microsoft Excel. Your measurements can also be transferred to an external data collector via RS232 interface.

High application flexibility

Be prepared for all type of construction levelling tasks with the automatic calculation programs of the Leica Sprinter M. The programs for:

- **Delta height**, calculates the height difference between points. Enter your benchmark, measure your backsight and then your various targets (foresights) for accurate calculations. The delta height is always calculated and clearly displayed.

- **Line levelling**, whether you only have back and foresights or even intermediate sights, choose the line levelling job you need. Enter your starting benchmark, measure your backsights, intermediate sights and foresights until you have reached your final point. All measurements are stored in the appropriate and convenient order.

- **Cut and fill**, this onboard application indicates the cut and fill results based on a reference level. Enter your required reference level and benchmark. Take the backsight and start measuring. The program displays now the cut and fill results, height differences, compared to your reference level.

Finish with precise tracking and monitoring to facilitate your levelling jobs significantly.

FOR SPECIFICATION, DOWNLOAD BROCHURE HERE

*For 150M & 250M only

NIKON LASER 800S

Description

Select from two measurement modes (Target Priority Switch System):

First Target Priority mode displays the range to the nearest target among multiple results obtained with a single measurement - useful when measuring the distance to a pin on a green with woods in the background.

Distant Target Priority mode displays the range to the farthest target among multiple results obtained with a single measurement - useful when hunting in heavily wooded areas.

Measurement range: 10 - 730m (11 - 800 yd.)

LCD with backlight
Distance measurement display step is 0.5m
High-quality 6x monocular with multilayer coating for bright, clear images
High-eyepoint design affords eyeglass wearers easy viewing

*For 150M & 250M only
Easy one-push measurement after the power is turned on
Compact, lightweight design enables easy, single-hand operation
Diopter adjustment function
Capable of distancing different targets in succession by keeping the button pressed
Waterproof (up to 2 meters for 5 minutes), but not for underwater usage; the battery chamber is water resistant.
Wide temperature tolerance: -10ºC to +50ºC
Internal Display
1. Distance
2. Unit of measure (m/yd.)
3. Target mark ( )
4. Laser irradiation ( )
5. First Target Priority mode
6. Battery condition
Laser 800S
Measurement range
10-730m/11-800 yd.
Distance display (Increment)
Every 0.5m/yd.
Finder
Magnification (x)
6
Effective objective diameter (mm)
21
Actual field of view (º)
6.0
Exit pupil (mm)
3.5
Eye relief (mm)
18
Dimensions (LxHxW) (mm)
126x72x37
Weight (g) (excluding battery)
210
Power source
CR2 lithium battery x 1 (DC3V)
Auto power shutoff function equipped (after 8 sec.)
Safety and EMC
VCCI class B, Class 1M laser product (IEC60825-1:2001),
Class 1 laser product (21CFR 1040.10 and 1040.11) CE,
EMC directive, Fcc Part15 subpart B Class B, c-tick, WEEE
The specifications of the product may not be achieved depending on the target object's shape, surface, texture and nature, and/or weather conditions.

NIKON LASER 550A

Description
Easy operation enables measurement of horizontal distances, height, angle and vertical separation (difference in height between two targets), in addition to the actual distance measurement function.
The results are displayed on both an internal and an external LCD panel.
The external panel shows all results simultaneously.
Select from two measurement modes (Target Priority Switch System):
First Target Priority mode displays the range to the nearest target among multiple results obtained with a single measurement - useful when measuring the distance to a pin on a green with woods in the background.
Distant Target Priority mode displays the range to the farthest target among multiple results obtained with a single measurement - useful when hunting in heavily wooded areas.
Measurement range: 10-500m/11-550 yd.
Actual Distance measurement display step is 0.5m/yd. (shorter than 100m/yd.)
High-quality 6x monocular with multilayer coating for bright, clear images
High-eyepoint design affords eyeglass wearers easy viewing
Compact, lightweight design enables easy, single-hand operation
Diopter adjustment function
Capable of distancing different targets in succession by keeping the button pressed
Waterproof (up to 1 metre for 10 minutes), but not for underwater usage; the battery chamber is water resistant.
Wide temperature tolerance: -10ºC to +50ºC
Internal display
1. Actual (linear) Distance
2. Horizontal Distance
3. Height
4. Angle
5. Height between two points
6. First Target Priority mode
7. Distant Target Priority mode
8. Battery condition
9. Distance
10. Unit of measure (m/yd.)
11. Target mark
12. Laser irradiation

External display
1. Measurement unit (m/yd.)
2. Height
3. Actual (linear) Distance
4. Horizontal Distance
5. Angle (*)

Measurement example (golf)
*The above calculation is an example of equation. The displayed measurement results can be utilised based on the user's consideration and include other usage than distance estimation.

Laser 550S
Measurement range
Distance: 10-500m/11-550 yd.
Angle: ±89º
Distance display (Increment)
[Internal Display]
Act (Actual Distance):
every 0.5m/yd. (shorter than 100m/yd.)
every 1.0m/yd. (greater than 100m/yd.)
Hor (Horizontal Distance) and Hgt (Height):
every 0.2m/yd. (shorter than 100m/yd.)
every 1.0m/yd. (greater than 100m/yd.)
Ang (Angle):
every 0.1º (less than 10º)
every 1.0º (more than 10º)
*Downward angle from the horizontal line: with display "-")
[External Display]
Act (Actual Distance): every 0.5m/yd.
Hor (Horizontal Distance) and Hgt (Height): every 0.2m/yd.
Ang (Angle): every 0.1º

Finder
Magnification (x)
6
Effective objective diameter (mm)
21
Actual field of view (*)
6.0
Exit pupil (mm)
3.5
Eye relief (mm)
18.2
Dimensions (LxHxW) (mm)
130x69x45
Weight (g) (excluding battery)
210

Power source
CR2 lithium battery x 1 (DC3V)
Auto power shutoff function equipped (after 30 sec.)

Safety and EMC
VCCI class B, Class 1M laser product (IEC60825-1:2001),
Class 1 laser product (21CFR 1040.10 and 1040.11) CE,
EMC directive, Fcc Part15 subpart B Class B, c-tick, WEEE
The specifications of the product may not be achieved depending on the target object's shape, surface texture and nature, and/or weather conditions.

Note: The origin of the technique of this Laser Rangefinder with inclinometer is the Surveying Instruments incorporated measuring capability of both distance and angle which were developed by Nikon Corporation. Among such products, especially, the first highly advanced electronic model, the Total Station DTM-1, is the root (Sold in 1985).
Description

- Select from two measurement modes (Target Priority Switch System)
  - First Target Priority mode displays the range to the nearest target among multiple results obtained with a single measurement - useful when measuring the distance to a pin on a green with woods in the background.
  - Distant Target Priority mode displays the range to the farthest target among multiple results obtained with a single measurement - useful when hunting in heavily wooded areas.

Measurement range: 10-1,100m (11-1,200 yd.)
- LCD with backlight
- Distance measurement display step is 0.5m (shorter than 1,000m/yd.)
- High-quality 7x monocular with multilayer coating for bright, clear images
- High-eyepoint design affords eyeglass wearers easy viewing
- Easy one-push measurement after the power is turned on
- Compact, lightweight design enables easy, single-hand operation
- Diopter adjustment function
- Capable of distancing different targets in succession by keeping the button pressed
- Waterproof (up to 2 meters for 5 minutes), but not for underwater usage; the battery chamber is water resistant
- Wide temperature tolerance: -10ºC to +50ºC

Internal display
1. Distance
2. Unit of measure (m/yd.)
3. Target mark (•)
4. Laser irradiation (•)
5. First Target Priority mode
6. Battery condition

Laser 1200S
Measurement range
10-1,100m (11-1,200 yd.)
Distance display (Increment)
Every 0.5m/yd. (shorter than 1,000m/yd.)
Every 1.0m/yd. (greater than 1,000m/yd.)
Finder
Magnification (x) 7
Effective objective diameter (mm) 2.5
Actual field of view (º) 5.0
Exit pupil (mm) 3.6
Eye relief (mm) 18.6
Dimensions (LxHxW) (mm) 145x82x47
Weight (g) (excluding battery) 280
Power source
CR2 lithium battery x 1 (DC3V)
Auto power shutoff function equipped (after 8 sec.)
Safety and EMC
VCCI class B, Class 1M laser product (IEC60825-1:2001), Class 1 laser product (21CFR 1040.10 and 1040.11) CE, EMC directive, Fcc Part15 subpart B Class B, c-tick, WEEE
The specifications of the product may not be achieved depending on the target object's shape, surface texture and nature, and/or weather conditions.
CASIO PROGRAMMABLE CALCULATOR
FX-5800P

ENELOOP CHARGER C/W RECHARGEABLE BATTERY

KDS DURA COAT MEASURING TAPE

KDS CUTTER & BLADE
SUUNTO KB14/360R

Brand: SUUNTO

Description

**FEATURES & SPECIFICATION:**

ALUMINIUM TRIPOD

LAISAI laser products accessory series with the elaborated design will make you use the laser product more conveniently.

GREEN AND RED LASER GLASSES

Description

LAISAI laser products accessory series with the elaborated design will make you use the laser product more conveniently.
Features

- Wearing the glass can enhance the visibility of the laser beam
- Adjustable legs to ensure you comfortable wearing
  LSG306 is for green laser

ELEVATED TRIPOD

Description

SPECIFICATION

- 3 sections retractable, lightweight and portable
- Closed length: 23 5/8” (60cm)
- Extended length: 55 1/2” (140cm)
- Centre elevating length: 14 3/16” (36cm)
- Plate diameter: 1 15/16” (5cm)
- Net weight: 3.5lbs (1.6kg)
- Gross weight: 4.85lbs (2.2kg)
- Carton size: 24 3/8” x 4 3/4” x 4 1/2” (62 x 12 x 11.5cm)

FOIF JC100

Description

JC100
Model:
JC100 Laser Plummet
Overview
Electronic auto-leveling, it could offer up and down plumb line in high precision, and improve work efficiency widely.
Product Information/Downloads/Related Video
JC100 Laser Plummet
- Electronic auto-leveling.
- Remote control.
- Upward and downward laser.

foif.com/system/files/DZJ2_JC100_Laser_Plummet_EN.pdf
FOIF DZJ200

Description
DZJ200 Laser Plummets

Model:
DZJ200 Laser Plummets

Overview
With both up and down laser beams, it is easy to locate points vertically above and directly below a given reference point. And visible laser makes your work more directly and convenient.

Product Information
Downloads
Related Video

DZJ200 Laser Plummets
- Laser Brightness and Focus Adjustable
  It is convenient to focus and adjust the laser brightness. A sharp and clear laser is available in any situation.
- Laser Spot Visible From Eyepiece
  It is safe for user to observe laser from eyepiece. The laser working distance is 100m.
- Protection Against Water/Dust
  IP54 water-resistance assures protect against splashing from any direction.
- Laser Plummets Are Available
  Standard component is optical plummet, and you can order laser plummet as you like. Also, the laser brightness and focus is adjustable.

foif.com/system/files/DZJ200_Laser_Plummet_EN.pdf

LEICA RUGBY 800 SERIES

Brand: Leica

Description

BROCHURE
LEICA RUGBY 600 SERIES

Brand: Leica

Description

FEATURES:
- Self-leveling in X-Y-Z direction with 2 motors.
- Visible or invisible rotating laser beam, horizontal scanning.
- Automatic shut off laser beam if out of leveling range, with unleveled warning lamp and battery power warning lamp.
- Sealed structure for using in various weather conditions.

SPECIFICATION:

- Model No.: GPR-R9H / GPR-G9
- Light source: Red beam / Green beam
- Wavelength: 635nm
- Anti-water class: IP-64
- Leveling accuracy: ±20"
- Safety/Quality approval: CE
- Spinning speed: 0, 60, 120, 300, 600 r.p.m.
- Directional-scanning: 0°, 10°, 45°, 90°, 180°
- Setting slope: ±5° (dual axis)
- Measuring range Dia. 500m (Using the laser detector)
- Remote controlling distance: Approximately 20m
- Power supply: DC4.8-6V(Ni-MH,rechargeable)
- Mounting thread: 5/8" X 11, ISO standard
- Working temperature: -20°C ~ +50°C
- Dimension: 160(L)x160(W)x165(H)mm
- Weight: 2kg

GPR-R9H / GPR-G9

Description

FEATURES:

SPECIFICATION:
GPR-R4H

Description

Feature:
Extremely quick automatic self-leveling for horizontal and vertical working.
Electronic self-leveling, wide leveling range, high precision and stability.
With rotating, spot and scan function for option and speed can be change.
Dual axis manual slop.
Sealed structure for using in various weather conditions.

Specification:
Model no  GPR-R4H
Leveling accuracy  +1mm/10m (+-20")
Light sources  wavelength 635nm
Down point  Accuracy : +1mm/1.5m
Anti-dust & anti-water  IP-64
Spinning speed  0, 60, 120, 300, 600 r.p.m
Self-leveling range  +5º
Directional-scanning  0º, 10º, 45º, 90º, 180º
Power supply  DC 4.8-6V (NI-MH rechargeable)
Working temperature  -20ºC~+50ºC (-4ºF~122ºF)
Mounting thread  5/8” X 11, ISO standard

Dimension
ø 225mm x 185mm
Instrument weight  2kg

GPR-G4

Description

Feature:
Extremely quick automatic self-leveling for horizontal and vertical working.
Electronic self-leveling, wide leveling range, high precision and stability.
With rotating, spot and scan function for option and speed can be change.
Dual axis manual slop.
Sealed structure for using in various weather conditions.

Specification:
Model no  GPR-G4
Leveling accuracy  +1mm/10m (+-20")
Light sources  wavelength 532nm
Down point  Accuracy : +1mm/1.5m
Anti-dust & anti-water  IP-64
Spinning speed  0, 60, 120, 300, 600 r.p.m
Self-leveling range  +5º
Directional-scanning  0º, 10º, 45º, 90º, 180º
Power supply  DC 4.8-6V (NI-MH rechargeable)
Working temperature  0ºC~+40ºC (32ºF~104ºF)
Mounting thread  5/8” X 11, ISO standard

Dimension
ø 225mm x 185mm
Instrument weight  2kg

SL-588R

Brand,--------------------------STRONG LASER

Description

Multi-Line Laser with 6 Dots on Line-SL-588R

FEATURES:
1. Magnetic dampingWith bright spots in laser line
2. Can use power battery pack & alkaline battery
3. With a fine minor adjustment mechanism which can locate objects correctly
4. Outdoor and indoor using available
**SPECIFICATION:**

- Laser Line: 4 vertical line and 1 horizontal line
- Light source: 635nm Semiconductor Diode (down point 650nm)
- Output power: ≤1mW, class II
- Line width: 1.5mm/5M (3mm/10M)
- Horizontal accuracy: ≤±1.5mm / 7m
- Vertical accuracy: ≤±1.5mm / 7m
- Down point accuracy: ≤±1mm / 1.5m
- Zenith point accuracy (right angle): ≤±1mm/3m
- Auto leveling range: ±3°
- Emitting Angle: ≥110°
- Auto leveling time: ≤5 second
- Damping type: Magnetic Pendulum/Gymbal type
- Rotation degree: 360° turnable with fine adjustment function
- Working distance: Up to 10M indoor; up to 40M outdoor with detector
- Power: DC6V (AA batteries x 4) OR lithium battery (optional)
- Time in continuous use: 8 hours
- Working temperature: -10°C ~ 45°C
- Dimensions (H x Φ): 188mm X Φ92mm

**MLG 2D PLUS**

Brand: .................................................. BLTAN

**GP-8906H**

**Description**

GP8906H 4V4H1D MOTORIZED

**FEATURES:**

- Electronic compensator ensures more quick self leveling.
- When using for outdoor, the receiver during the work can be used over 30m of radius.
- Manual slop for Y axis: This function can replace rotation laser within 50 Meter (must work with detector).
- When the instrument inclines over ±4°, the line laser gleams.
- 2 sections laser brightness adjustment: Users can adjust brightness according to the distance of working area for saving energy.

**SPECIFICATION:**

- Laser beam: 4V4H1D
- Light sources: 635nm laser diode, down point 650nm
- Anti-water class: IP-54
- Laser safety class: Class 2M
- Accuracy: ±1mm/7m
- Self-leveling range: ±4°
- Working range: Diameter over 30m (with detector)
- Power supply: 4 x AA alkaline batteries
- Mounting thread: 5/8" X 11, ISO standard
- Operating temperature: -10°C ~ +40°C
- Size: Φ130x260mm
- Weight: 1.3kg
GP-888H

Description

GP888H MOTORIZED 4V4H1D

FEATURES:

- Electronic compensator ensures quicker self-levelling.
- When using outdoor, the receiver has a range of over 80m of radius.
- Manual slope for Y axis: This function can replace rotation laser within 50 Meter (with detector).
- 3 levels of brightness adjustment: Users can adjust brightness according to the distance of working area for saving energy.
- LED indication for tilt direction.
- LED indicates “Levelling” and “Levelling is ready”

SPECIFICATION:

- Light sources: 635 nm laser diode / floor point 650nm
- Anti-dust & Anti-water: IP-54
- Laser safety class: Class 2 Class 2M
- Accuracy: ±1mm / 10m
- Self-levelling range: ±3.5°
- Working range: Radius 70~80m (with detector)
- Power supply: 4 x AA alkaline batteries / Rechargeable batteries
- Mounting thread: 5/8”X11
- Range of operating temperature: -10°C ~ +40°C
- Instrument size: 152mm x 223mm
- Instrument weight: 1.9kg (including batteries)

GP-8665

Description

GP8665 MOTORIZED 4V1H1D

FEATURES:

- Four V-lines, one H-line and one Down point are projected in one pass.
- Electronic automatic leveling ensure more quick self-leveling.
- When the instrument inclines over 5°, the line laser gleams and makes an alarm.
- Rotate fine adjustment mechanism, making it easier to find objects correctly.
- Build-in repair recording software system.
- Low battery display.
- Anti dust and anti water IP-54.

SPECIFICATION:

- Light sources: 635 nm laser diode / floor point 650nm
- Anti-dust & Anti-water: IP-54
- Laser safety class: Class 2 / Class 2M for High power
- Accuracy: ±1mm / 7m
- Self-leveling range: ±8°
- Working range: Radius 40~50m (with detector)
- Power supply: 4 x AA alkaline batteries
- Rechargeable batteries / AC adaptor
- Mounting thread: 5/8” x 11, ISO standard
- Range of operating temperature: -10°C ~ +40°C
- Instrument size: Ø110mm x 205mm
- Instrument weight: 1.4kg (including batteries)
GP-5209H

Description

GP-5209H PENDULUM 4V1H1D

FEATURES:

- Four V-lines, one H-line and one floor point are projected in one pass.
- Magnetic compensator ensures more quick self-leveling.
- When using for outdoor, the receiver during the work can be used 50m of radius.
- When the instrument inclines over ±2.5°, the line laser gleams.
- Rotate line adjustment mechanism, making it easier to find objects correctly.

SPECIFICATION:

- Laser beam: 4V1H1D
- Light sources: 635nm laser diode, down point 650nm
- Anti-water class: IP-54
- Laser safety class: Class 2M
- Accuracy: ±1mm/7m
- Self-leveling range: ±2.5°
- Working range: Radius 50m (with detector)
- Power supply: 3 x AA alkaline batteries / DC adaptor
- Mounting thread: 5/8” X 11, ISO standard
- Operating temperature: -10°C~+40°C
- Size: Φ90x195mm
- Weight: 1.5kg

GP5108H

Description

FEATURES:

- Four V-lines, one horizontal line and one floor point are projected in one pass.
- Magnetic automatic leveling ensure more quick self-leveling.
- When the instrument inclines over ±3°, the line laser gleams and makes an alarm.
- Rotate line adjustment mechanism, making it easier to find objects correctly.
- Built-in locking system can lock the compensator automatically when turning off the power.

SPECIFICATION:

- 4V1H1D (High Power)
- Light sources: 635 nm laser diode / floor point 650nm
- Laser safety class: Class 2
- Accuracy: 1mm / 5m
- Self-leveling range: ±3°
- Working range: Radius 30~40m (with detector)
- Power supply: 4 x AA alkaline batteries/Rechargeable batteries
- Mounting thread: 5/8”X11, ISO standard
- Range of operating temperature: -10°C ~ +40°C
- Instrument size: Ø126mm x 192mm
- Instrument weight: 1.4kg (including batteries)
**BL888H**

**Brand**: BLTAN

**Description**

**FEATURES:**
- Sensor-based self-leveling to obtain horizontal and vertical line automatically
- Super brightness
- Professional floor line and vertical line alignment
- Indoor and outdoor use
- Easy operation with 360° rotation function and a micro adjustment mechanism.

**SPECIFICATION**
- Laser Line: 4 vertical line and 4 horizontal line & 1 down
- Light source: 635nm Semiconductor Diode (down point 650nm)
- Output power: ≤1mW, class II
- Line width: 1.5mm/5m (3mm/10m)
- Horizontal accuracy: ≤±1.5mm / 7m
- Vertical accuracy: ≤±1.5mm / 7m
- Down point accuracy: ≤±1mm / 1.5m
- Zenith point accuracy (right angle): ≤±1mm / 3m
- Perpendicular accuracy: 90°±1°
- Auto leveling range: ±4°
- Correction system: Self leveling by sensor
- Rotation degree: 360° turnable with fine adjustment function
- Working distance: Up to 10m indoor; up to 50m outdoor with detector
- Power: Ni-MH rechargeable batteries x2 c/w 2pcs spare
- Time in continuous use: ≤8 hours
- Working temperature: -10°C ~ 45°C
- Dimensions (H x Φ): 220mm X Φ110mm

**BL688G**

**Brand**: BLTAN

**Description**

**FEATURES:**
- Strong green light laser
- Magnetic damping
- With bright spots in laser line
- Can use power battery pack & alkaline battery
- With a fine minor adjustment mechanism which can locate objects correctly
- Outdoor and indoor using available
- It can be widely used in construction and decorating

**SPECIFICATION**
- Laser Line 4 vertical line and 1 horizontal line
- Light source: 520nm Semiconductor Diode (down point 650nm) green beam
- Output power: ≤1mW, class II
- Line width: 1.5mm/5M (3mm/10M)
- Horizontal accuracy: ≤±1.5mm / 7m
- Vertical accuracy: ≤±1.5mm / 7m
- Down point accuracy: ≤±1mm / 1.5m
- Zenith point accuracy (right angle): ≤±1mm / 3m
- Auto leveling range: ±3°
- Emitting Angle: ≥110°
- Auto leveling time: ≤5 second
- Damping type: Magnetic Pendulum/Gymbal type
- Rotation degree: 360° turnable with fine adjustment function
- Working distance: Up to 10M indoor; up to 40M outdoor with detector
- Power: DC 4.5V (AA batteries x 4) / lithium battery (optional)
- Time in continuous use: 8 hours
- Working temperature: -10°C ~ 45°C
- Dimensions (H x Φ): 188mm X Φ92mm
GEOMAX EZICAT

Description

Easily avoid buried cables and pipes before excavation work. Every year site workers are injured and equipment damaged due to accidently striking buried cables and pipes. As the complexity of large underground networks continually increases, knowing the location of buried cables and pipes prior to excavation work has never been so important.

The EZISYSTEM cable avoidance equipment makes locating buried cables and pipes easy and efficient. With an EZISYSTEM i-Series locator there is no need to manually adjust the sensitivity, with the unique Automatic Pinpointing feature users can simply press the trigger and start locating.

- i500: Robust, easy-to-use locator
- i550: Locator with additional depth indication feature
- i650: Locator with fully integrated data logging and depth indication
- i750: Highly intelligent locators with fully integrated GPS technology and data logging capability

Signal transmitters that improve detection in areas of high signal interference

Videos

- How to locate a building’s electricity cable
- How to locate and trace small diameter pipes, ducts
- How to use a signal Transmitter
- How to do a sweep search
- Before you begin digging
- How to use and locate a sonde
- How to use a clamp

GEOMAX ZIPP02

Description

GEOMAX ZIPP 02 SERIES

With vertical compensation and 2” accuracy the Zipp02 provides you with the precision required for your most demanding jobs at an affordable price without adding complexity. The Zipp02 is the tool of your choice when it comes to checking angles, alignments, grade work and short range levelling.

Fully equipped

- 2” accuracy
- Compensator
- Laser plummet

Easy to operate

- Large 2 face display with back-lit
- Large glove proof buttons
- Intuitive onboard software

Rough & tough

- Dust and water resistant
- -20°C to 50°C
GEOMAX ZENITH 15 & 25 PRO

Description

The GeoMax Zenith15 is a complete and fully integrated GNSS receiver, allowing tracking GPS and GLONASS systems. Available as GSM or GSM-UHF model Zenith15 is your economic choice.

COMPACT

Integrated GSM antenna
Quick swappable SIM & microSD card
Complete control with receiver keypad

HIGH PERFORMANCE

NovAtel® technology
GPS, GLONASS & SBAS
GSM/GPRS, UHF radio & Bluetooth®

MIX & MATCH

Combine with your preferred datalogger and software
Open connectivity
Complete setup flexibility

ZENITH 25

With its internal radio and 3.75 G Penta band GSM, the full support of GPS, GLONASS, Galileo, BeiDou and SBAS systems the Zenith25 Pro Series is truly future proof. Combining all those technologies with the Q-Lock™ technology, Zenith25 is suitable for any application.

Benefitting from world class technology supporting GPS, GLONASS, Galileo, BeiDou, and SBAS systems, combined with unmatched Q-Lock™ technology, the Zenith25 Series is truly future proofed and suitable for any application. Zenith25 Pro receivers are built to last and are tough enough to withstand a 2 m drop onto a hard surface and total submersion in water.

Extremely Rugged

IP68 Dust and Waterproof
Withstands a 2 m Drop
Vibration Resistant
Future Proof

GEOMAX ZENITH35 PRO

Description

Full spectrum of satellite signals, unlimited connectivity and the unique Tilt&Go functionality all in a compact GNSS make the Zenith35 Pro series the GNSS that works when you do.

555 CHANNELS

All satellite systems and frequencies supported
NovAtel® technology
Selectable RTK modes
EASY TILT&GO

Reach and measure hidden points with tilted pole
Check & track pole verticality
Precise electronic bubble

COMPACT & RUGGED

Compact size
IP68 water and dust proof
Shock protected

app.hexagon.se/downloads/123/gmx/gmx_gnss/zenith35_pro/brochures/GeoMax%20Zenith35%20PRO_us.pdf
GEOMAX ZDL700

Description
At GeoMax we understand that you require accurate results and demand ease of use in combination with fast operation. That’s why we’ve introduced the ZDL700 digital level for the surveying and construction world. Now you can ‘go digital’ for your entire levelling task with a product that delivers outstanding price-performance and “Works when you do!”

Quick, Easy & Error-free
The super fast measurement speed of less than 3 sec. in combination with the simplicity of the one-push measure and store functionality provides faster, more economical workflow. Digital reading combined with internal memory make misreadings and operator interpretation errors a thing of the past.

Accurate
Extensive field tests verify the excellent accuracy of the ZDL700 of 0.7 mm for 1 km double-run level. This makes the ZDL700 an ideal level not only for high order levelling but also for deformation measurements and precise surveying, as well as general construction.

Large Internal Memory
To further enhance your levelling, memory for up to 2,000 points is integrated in the ZDL700. Features like the ability to switch between manual and automatic point numbering increase not only your flexibility but also allow you to document your work on the fly.

Seamless Dataflow
The data recorded on the job site can be simply downloaded by connecting the ZDL700 with a PC or laptop. Seamless dataflow from field to finish is guaranteed. In addition, external data collectors or PDAs provide you with an additional degree of flexibility for downloading or processing your measurements online.

GEOMAX ZAL324, ZAL328 & ZAL330

Brand________________________________________________________GEOMAX

Description

GEOMAX ZAL300 SERIES
Get all your tasks done with GeoMax’s flagship level. From daily levelling tasks to high accuracy, the ZAL300 Series is your first choice where robustness, comfort and accuracy count. It simply “Works when you do!”

Flexible and ergonomic
With four different types of magnifications, 20x, 24x, 28x and 30x, the ZAL300 series offers the accuracy of your choice. The patented magneX™ compensator system from GeoMax used in the ZAL300 series with magnetic dampening makes stuck a thing of the past.

Built for toughest conditions
The ZAL300s class leading optics and magneX™ compensator are...
imbedded in a sealed and shock protected housing, making it highly resistant to bumps and all weather conditions. Even following a short drop, the GeoMax ZAL300 continues to work with the same reliability and accuracy.

**SPECIFICATION:**

**GEOMAX ZAL124, ZAL128 & ZAL132**

Description

Built to Last

Suitable for outdoor as well as for indoor use the user friendly ZAL100 Auto Level Series from GeoMax is your guarantee to get the job done, accurate and on time.

With the ZAL100 Series GeoMax introduces an automatic level to the construction industry designed for your daily levelling tasks with outstanding price-to-performance ratio. Meeting the IP54 class specifications guarantees all weather operation of the ZAL100 Series and provides you with an instrument that “Works when you do!”.

[apps.hexagon.se/downloads123/gmx/gmx_levels/zal100/brochures-datasheet/GeoMax%20ZAL100%20DAT_en.pdf](apps.hexagon.se/downloads123/gmx/gmx_levels/zal100/brochures-datasheet/GeoMax%20ZAL100%20DAT_en.pdf)

**AGATEC DM100**

Description

The new Agatec DM100 is the entry-level distance meter for professionals.

Designed to be handy and robust, it measures distances up to 30 meters (100 ft) with an accuracy of 2 millimeters (0.08 in). Checking projects can now be done in a fraction of the time with precision and safety.

Easy and intuitive to use, it features instant volume and surface calculation, at the touch of a button.

Measures up to 30 m (100 ft) with 2 mm (0.08 in) accuracy

Ergonomic

Designed for professionals

[apps.hexagon.se/downloads123/aga/aga_distan/aga_dm100/brochures/Agatec%20Agatape%20DM100%20BRO_en.pdf](apps.hexagon.se/downloads123/aga/aga_distan/aga_dm100/brochures/Agatec%20Agatape%20DM100%20BRO_en.pdf)
AGATAPE 7

Description
Multipurpose Distance Meter

AREA AND VOLUME
Calculations completed in seconds

PYTHAGORAS
Ideal for measuring indirect height and width to inaccessible positions

TRACKING MODE
Helpful when searching for the diagonal or the perpendicular from surface to surface

STAKE OUT
To stake out continuous equal distances, such as layout of metal studs

FLIP-OUT ENDPIECE
For accurate measurement from a surface edge or corner

Features
Handy and light
Quick measurements, accurate to 1.5 mm
LCD illuminated display: bright and easy to read

3D-301G

Description

FEATURES:

- 3-axis (one horizontal and 2 vertical directions) 360 degree Rotation Lasers: Combining from rotary lasers and line lasers.
- Adopt Green Beam technology which is brighter 3 times than red beam, and the output of green laser beam is more than 5mw to match working range until 500M with detector.
- 3 axis setting-out at the same time to save more than 60% working time and 50% manpower saving. And no other kind of rotary lasers can be done in such short time.
- No any cutting off beam in 3-axis working area, better than line lasers with dead beam area on the ground.
- High speed rotation control technology to reach the green beam looks like static line beam as line lasers. You will no feel the beam twinkle.
- 3D-301G can be operated within 1cm from the wall by the all function fine-adjusting shifting table. No more trouble and difficult construction job for you.
- Adapt high-capacity Li-ion battery technology to reach long working time more than 8 hrs, no more working stopping by low battery problem. And 3D-301G owns 3 kinds power supply design idea.

SPECIFICATION:

- Laser beam 3D all function
- Light sources Wavelength: 532nm
- Anti-water class: IP-54
- Accuracy: ± 1mm/5m
- Self-leveling range: ±3°
- Working range Dia.: 50m (with detector)
- Power supply: Li-ion battery
- Mounting thread: 5/8" X 11
LEICA DISTO S910

Brand: Leica

Description

LEICA DISTO S910

The Leica DISTO S910 is the first laser distance measurer that captures multiple, accurate measurements in three dimensions from a single location, radically improving the efficiency of common measuring tasks.

SmartBase for the DISTO S910

Smart Base -- a biaxial pivot integrated with the circuit board -- is the key hardware innovation. Combined with a more powerful laser, a 360° tilt sensor, and new software -- SmartBase enables you to stand back from your target to measure the distances and angles between multiple points.

SmartBase facilitates three new remote measurement functions:

- **Point to Point (P2P)**: Measure the line distance between two points, even if you are hundreds of feet from your target. Shoot Point 1 then Point 2 and the DISTO S910 displays the distance between them. Widths, heights, diagonals, gaps, it doesn't matter. Just measure the start and end point and the distance is displayed.

- **Smart Area**: Shoot the corners of any polygon to determine the area of walls, floors, even complex roof shapes.

- **Smart Angle**: Shoot three points to measure any angle (including outside angles, which is a first).

Use a Tripod

For maximum accuracy the SmartBase requires a simple level check. This guarantees the electronic level of the DISTO S910 is within ± 0.1° of true level. *For the highest measuring accuracy you will want to use a tripod for the majority of P2P, Smart Angle and Smart Area functions.* The S910 includes a metal insert for a ¼” tripod thread, found at the bottom of the SmartBase (and a 5/8” adaptor is available).

FTA 360-S TRIPOD ADAPTOR

Even with a tripod and outdoor pointfinder camera, placing your laser point exactly where you want it can be challenging, especially at longer distances. The FTA 360-S is a micro-adjustable tripod adaptor. Point and shoot to get close, then tweak the knobs ever so slightly to adjust your spot by millimeters.

Capture and Export Measurement Data

The Leica DISTO S910 connects to compatible mobile apps with Bluetooth and exports DXF files over WiFi.

SPECIFICATION:
taken by the D810. Bracket your target using pointers on the touch screen to remotely measure the width of a second story window, the area of a billboard, or the diameter of an above-ground tank.

- With a 600'-plus range, the D810 Touch can acquire a target that is well beyond your eye’s ability to see the laser point, especially outside. The point finder -- a 4x zoom digital camera with cross hairs on the LCD display -- solves this problem.
- The farther you can shoot, the more obstacles there are to get in the way. Smart Horizontal allows you to shoot over obstacles so you can measure the level horizontal distance to your target.
- At distance, even a small wobble in the tool translates to the laser point bouncing in wide arcs on your target. For best results when measuring long distances, keep your dot steady with a tripod and an adapter. The D810 Pro Pack includes a D810, a TRI70 Tripod, Leica’s patented FTA360 Fine Tune Adapter, and a hard case to keep it all organized.

**SPECIFICATION:**

<table>
<thead>
<tr>
<th>Brand</th>
<th>Leica</th>
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<tr>
<td><strong>LEICA DISTO D510</strong></td>
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<tr>
<td>Description</td>
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</table>

- The Leica DISTO™ D510 is a 14 measurement mode LDM that is accurate to 1/16th of an inch. It is IP65 rated against dust, dirt and rain and features a point finder, a bright LCD screen, a 360° tilt sensor, and Bluetooth Smart.
- The D510 laser module can read a target at distances that exceed your ability to see the laser point. With the point finder -- a 4x zoom digital camera -- you find your target in the display, extending the useable range to the ~650ft max.
- The farther you can shoot, the more potential there is for something to get in the way. Smart Horizontal allows you to shoot over obstacles so you can measure the level horizontal distance to your target.
- At distance, a small wobble in the tool bounces the laser point in wide arcs. This is sub-optimal for acquiring reflected laser energy. For best results when measuring long distances, keep your dot steady with a tripod and our Fine Tune Adapter.

**SPECIFICATION:**

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<thead>
<tr>
<th>Brand</th>
<th>Leica</th>
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<tr>
<td><strong>LEICA DISTO D2 NEW</strong></td>
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<tr>
<td>Description</td>
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</tbody>
</table>

- Now with Bluetooth®, a fully integrated intelligent endpiece, a bright white display and an ISO certified measuring engine that drives 1 mm accuracy and 100 m measuring range.
- The Leica DISTO D2 is a 7 measurement mode LDM accurate to 1 mm. It features an intuitive back-lit LCD display in a 4oz package that is small enough to fit in your pocket.
- Use Bluetooth® to send measurements into apps running on mobile devices.
- The D2 measures from its base by default and can be configured to measure from the front.
- Flip out the intelligent endpiece to 90° to hook onto outside corners or extend the endpiece fully for inside corners. The D2 will automatically measure from the end of its flip-out endpiece when fully extended. Combined with the Min/Max function, the endpiece allows you to get the tool all the way into corners for accurate diagonal measurements as
The D2 calculates area and volume, and remembers the last 10 measurements taken. Use the Add/Subtract capability to combine measurements to get a precise reading of the total wall area of a room (aka “the painter function”).

The D2 includes a Pythagoras function for indirect height or width measurements. However, in a tool this size that cannot be mounted to a tripod we recommend using the Pythagoras for estimates or rough measurements. If you need precise indirect measurements, an LDM with a tilt sensor is your best bet.

**SPECIFICATION:**

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**LEICA DISTO D110**

**Brand:** Leica

**Description**

**LEICA DISTO D110**

The Leica DISTO™ D110 is a 3 measurement mode LDM with a 200’ range that is accurate to 1/16 of an inch. Its small, weighing in at 3 1/4 ounces with batteries, very easy to use, and the D110 sends measurements via Bluetooth making it -- by far -- the least expensive Bluetooth LDM available.

The ability to send distance and area measurements to mobile apps as you take them makes the D110 the ideal tool for generating estimates, or inputting accurate interior measurements into modeling software on-site.

**SPECIFICATION:**

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**LAISAI LS160-2/ LS160-2II DIGITAL LEVEL**

**Description**

**LS160-2/ LS160-2II DIGITAL LEVEL**

Laser digital level series use high accuracy electronic sensor technology to make the level digitalized, it not only keeps the features of normal level, but also has the exact digitized horizontal accuracy display function, the laser digital level also has the function of laser indication to extend the level length. The series products are widely used in indoor decoration, mechanical fitting, civil engineering, etc, and provide the exact construction reference.

**FEATURES:**

- Angle measurement and digital display
- LCD is 180° rotatable
- Audible indication for unique points
- Self-calibration function

**SPECIFICATION:**

- Measuring accuracy: ±0.1°
- Measuring range: continuous measurement from 0° to 360°, display from 0° to 90°
- Measuring mode: °, %, mm/m, in/ft
- Power: 3 AAA battery
- Size: 24” x 2 3/8” x 9 1/16” (610 x 60 x 230 mm)
LAISAI LS160-180/180II DOT LASER DIGITAL LEVEL

Description

LS160-180/ LS160-180II DOT LASER DIGITAL LEVEL(1D)

Laser digital level series use high accuracy electronic sensor technology to make the level digitalized, it not only keeps the features of normal level, but also has the exact digitalized horizontal accuracy display function, the laser digital level also has the function of laser indication to extend the level length. The series products are widely used in indoor decoration, mechanical fitting, civil engineering, etc, and provide the exact construction reference.

FEATURES:

- One dot laser could extend the using length
- Angle measurement and digital display
- LCD is 180° rotatable
- V-shape magnetic base could attach on the metal or pipe
- Audible indication for unique point
- Self-calibration function

SPECIFICATION:

- Laser wavelength: 650nm
- Laser class: Class II / III
- Measuring accuracy: ±0.1°
- Measuring unit: switchable between angle and percent
- Measuring range: continuous measurement from 0° to 360°, display from 0° to 90°
- Power: 3*AAA battery
- Size: 10 5/8” × 1 3/16” × 2 3/16” (270×31×56mm)
- Weight: 1.232 lbs (0.56 kg) (including battery)

LEICA LINO P5

Brand: ................................................................. Leica

Description

LEICA LINO P5

Precise laser projection, right to the point

ONE BUTTON OPERATION
The Leica Lino P5 point laser is very easy to use. At the push of a button, it accurately projects five reference points at exact right angles to one another.

QUICK POSITIONING
Magnetic smart adapters allow you to quickly attach your Leica Lino P5 to edges, profiles, iron pipes, tracks or bars, allowing you to complete your job faster.

SELF-LEVELLING
The Leica Lino P5 automatically adjusts its positioning if it is slightly out of level to ensure the correct transfer of angles and reference points up to ±4°. Flashing laser points mean that the tilt is outside this limit.

TRIPLE POWER CONCEPT
The Leica Lino P5 laser has a triple power concept. It comes with Alkaline batteries but it can be operated with the addition of a Li-Ion battery pack, too.

RUGGED DESIGN
The Leica Lino P5 is dust and spray water protected to IP 54 standards. This makes it a tough instrument suitable for all your jobs.
LEICA LINO L2P5/L2P5G

Brand ................................................................. Leica

Description

LEICA LINO L2P5 1V1H

The all-in-one cross line and point laser tool

CROSS LINE AND POINT LASER

The Leica Lino L2P5 is a self-levelling cross-line and point laser. This Lino is ideal for alignment tasks such as tiling, drywalling, partitioning and electrical installations as well as plumb point projection, setting out or transferring measured points.

WORKING RANGE

Leica optics enable the Lino L2P5 to project very bright and clearly visible laser lines and dots. Depending on the lighting conditions, the working range is up to 25 meters. This range can be easily extended up to 80 meters by using the laser receiver.

MAGNETIC POSITIONING

This two-in-one laser level has magnetic adapters which allow you to position the instrument quickly and with absolute precision. You can easily attach it within U-profiles, to edges, or any magnetic surfaces.

SELF-LEVELLING

The Leica L2P5 is a self-levelling cross and line laser. This means it automatically adjusts its positioning up to ± 4° when slightly out of level without any manual alignment.

CONTINUOUS POWER

Your Leica Lino L2P5 laser has a triple power concept. It runs with Li-Ion batteries for up to 44 hours on one charge. It can also be powered by alkaline batteries or its charger.

RUGGED DESIGN

The Leica Lino L2P5 is designed and built to support today’s jobsite conditions. It is dust and spray water protected to IP 54 standards.

SPECIFICATION:

- Range: up to 25 m depending on lighting conditions
- Range with laser receiver: up to 80 m depending on lighting conditions
- Levelling accuracy: ± 0.2 mm / m
- Self-levelling range: ± 4°
- Self-levelling time: < 3 s
- Number of laser dots: 2
- Number of laser lines: 2
- Beam direction: vertical, horizontal, up, down, right, left
- Dot accuracy: ± 0.2 mm / m
- Laser line width at 5m: < 2 mm
- Laser type: 635 nm / class 2 (red)
- Battery type: Li-Ion rechargeable (or AA 3 x 1.5 V)
GEOMAX ZOOM90

Brand: GEOMAX

Description

GEOMAX ZOOM 90 SERIES

GeoMax Zoom90 Series fulfills all your needs with one-man fully-operational robotic total stations. Zoom90 is the ultimate one-man system with up to 20% more automation performance, extended reflectorless measurement capability, STReAM360, accXess technologies and Windows CE open connectivity. Because a perfect solution is more than its single components, the Zoom90 seamless integration makes it the ultimate solution.

Open Windows CE

- Field software flexibility
- Complete Windows CE functionality
- Full VGA capability

Outstanding Performance

- STReAm360: Scout-TRack-AiM
- 1000 m reflectorless
- Precise capture

The Zoom90 seamless integration provides:

- Full automation
- Long range Bluetooth®
- X-MOTION hybrid™ drives

SPECIFICATION:

GEOMAX ZOOM35 PRO

Brand: GEOMAX

Description

GEOMAX ZOOM 35 PRO

With the proven accXess10 technology, the Zoom35 Pro features an intelligent distance measurement engine designed for outstanding speed and highest accuracy even on extreme long ranges. A longer measurement range means a wider operational coverage and significant less time lost with switching set ups.

Full coverage

A complete suite of applications provide the total station with the longest non-prism range in the market – making sure it “works when you do,” and give outstanding operational coverage.

Colour touch screen

With a large 3.5” Q-VGA display, quickly navigate and read results easier.
GEOMAX ZOOM30 PRO
Brand: GEOMAX

Description

GEOMAX ZOOM 30 PRO
A total station for all those demanding high performance and comThe Zoom30 Pro combines faster stake-out with NavLight™, outstanding non-prism distance measurement over 600 m, easy data transfer via USB Stick, extra large 3.5” colour touch screen, troublefree quadruple axis compensation, and built in Bluetooth® communication in the most efficient and convinient manual total station. fort that “works when you do”.

Colour touch screen
With a large 3.5” Q-VGA display, quickly navigate to the needed function and read the results easily.

Highest functionality
Be the most productive you can be with NavLight™ alignment aid, 600 m non-prism range, and 2 mm + 2 ppm reflectorless operations.

Easy connectivity
Easily connect back to the office with USB memory stick functionality, Bluetooth® transfer, and plug ‘n play technology.

SPECIFICATION:

GEOMAX ZOOM20 PRO
Brand: GEOMAX

Description

GEOMAX ZOOM20 PRO SERIES
At GeoMax we understand that you work in demanding environments and require excellent price-to-performance without compromising quality, that’s why we build products that “work when you do.” The GeoMax Zoom20 Pro manual total station includes an environmentally protected USB port that allows fast, simple and reliable data transfer between the instrument and your PC, even to other total stations.

Easy connectivity
Easily connect back to the office with USB memory stick functionality, Bluetooth® transfer, and plug ‘n play technology.

Superior display
With the largest 8-line display, the highest resolution in class, and graphical user guidance, the Zoom20 Pro is easy to read and helps you get the job done faster.

Robust performance
With a 400 m non-prism range, coaxial visible laserbeam, and sealed durable housing, the Zoom20 Pro can work in the most challenging environments.

SPECIFICATION:

GEOMAX ZIPP20 WIN CE
Brand: GEOMAX

Description

GEOMAX ZIPP20 WIN CE
than before.

Easy connectivity
Easily connect back to the office with USB memory stick functionality, Bluetooth® transfer, and plug ‘n play technology.

SPECIFICATION:
GEOMAX ZIPP20 WIN CE

Featuring GeoMax Field Genius, X-PAD, Carlson SurvCE or any localised field software, the Zipp20 WinCE allows you to work the way that best fits your needs. All this combined in a system offering a colour and touch display, long range non-prism measurement, and all your favourite Windows® CE applications makes the Zipp20 the total station that “works when you do.”

Totally open Windows® CE

Work the way you need to with an open WinCE platform that supports any field software. The Zoom20 WinCE is open for your own development, enabling you to personalise your system.

Totally connected

Easily connect back to the office with USB memory stick functionality, Bluetooth® transfer, and plug ‘n play technology.

Totally featured

With a 500 m non-prism range, coaxial visible laserbeam, and 3.5” colour and touch display, sealed durable housing, the Zipp20 WinCE can work anywhere.

SPECIFICATION:

GEOMAX ZIPP10 PRO

Description

GEOMAX ZIPP10 PRO SERIES

The Zipp10 Pro is your economic choice when price counts as much as performance. It provides seamless data flow via USB stick, coaxial reflectorless measurements and a full set of applications. These benefits are proving again the best price-to-performance.

With its 250 m reflectorless measurement range, 2” and 5” angle accuracy, a large bright display and simple to use applications, the Zipp10 Pro is your ideal tool for all surveying or construction Tasks.

- **Easy connectivity:** Easily connect back to the office with USB memory stick functionality, Bluetooth® transfer, and plug ‘n play technology.
- **Robust performance:** With a 250 m non-prism range, coaxial visible laserbeam, and sealed durable housing, the Zipp10 Pro can work in the most challenging environments.
- **Multifunctional keyboard:** With direct access to apps, quickly navigate to the needed function and read the results easily.

SPECIFICATION:
TOP SYSTEMS SDN BHD

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