

Leica Geosystems Catalogue 2007

The right tool for any construction site

SITE-PROOF
by Leica Geosystems



- when it has to be **right**

Leica
Geosystems

Improve your Performance with...



Leica Rugby 50 **The new one-button Construction Laser**

The Rugby 50 is dedicated to general construction contractors, being a tough, affordable and fully automatic laser with a revolutionary simple feature: Only one single button.

Press the power button to turn it on, wait until it self-levels and the head starts rotating, then work can begin. It will continue to self-level over the course of the day to ensure that work is accomplished reliably and accurately.

Read more on page 14.

Leica Rugby 55 **Designed for Interior, Built for Construction**

The Leica Rugby 55 is designed for interior construction – a versatile laser, perfect for almost any levelling and alignment job. The Rugby 55 has several unique features. The "Scan-90" feature automatically moves the scanning or stationary beam in 90° intervals through each of the four axes. The "Beam Down" feature automatically positions the beam below the laser when doing layout work for quicker setups over a point. These capabilities and a watertight seal make the Rugby 55 a great tool even for the exterior, concrete contractor.

Read more on page 16.

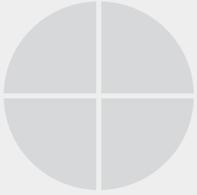


Leica Disto™ A8 **NEW - With digital Viewfinder and Tilt Sensor!**

The digital viewfinder and the integrated tilt sensor make the Leica Disto™ A8 an innovation worldwide and open up completely new possibilities. Comfortably find your target with the three-fold digital zoom made even easier with the blended in crosshairs. The tilt sensor does not only indicate angles, but also real horizontal distances and various indirect height measurements.

Read more on page 24.





Directory

Level Overview	04
Optical Levels	06
Digital Levels	10
Laser Overview	12
General Construction Lasers	14
Interior Construction Lasers	16
Grade Lasers	18
Pipe Lasers	19
Underground Service Locator	22
Laser Distancemeter	24
Machine Automation	26
Theodolites & Total Stations	30
GPS Systems	37



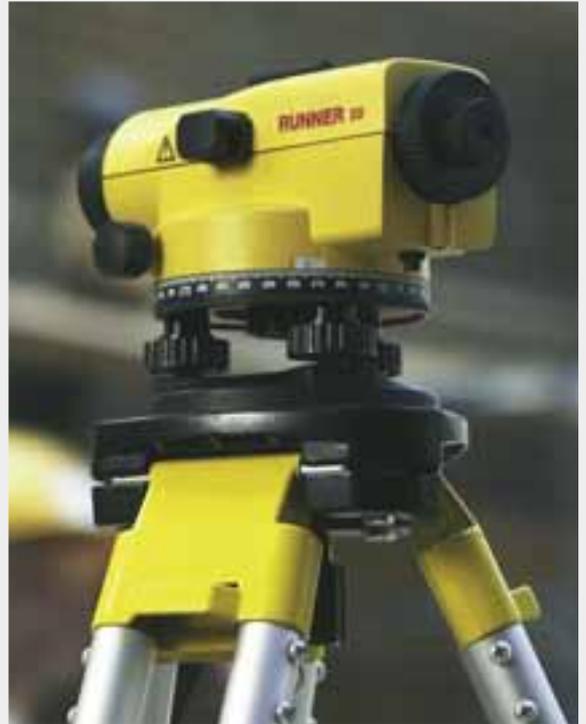
Leica Geosystems Levels

Extreme robustness, high measurement precision and an extremely competitive price. All this is making the difference! And more, Leica Geosystems levels are so easy to use. No need to spend time in training.

Our ergonomic optics are probably the finest optics in the world. Banish tired eyes forever and ensure you're really aiming accurately at the target, even in extreme light conditions.

Leica Geosystems levels can be configured to suit your work and preferences. Some levels can be read in either degrees or gons.

Just in case – some of our Leica Geosystems levels are shock resistant. So the systems can be used again straight away, even after a fall. According to ISO9022-33-05 standard. Being approved up to IP57 (total immersion) of the IEC 60529 standard, water, dust and dirt have no effect on Leica NA700 levels.



APPLICATIONS	Runner 20	Runner 24	NA720	NA724	NA728	NA730	NA2/NAK2
Daily levelling tasks: Site foremen, carpenters, construction companies, landscaping	X	X	X	X	X	X	-
Daily levelling tasks: with high demand for product robustness e.g. for construction of roads, railways and buildings	-	-	X	X	X	X	-
High accuracy levelling : even for building or engineering surveyors	-	-	-	-	X	X	X
Precision levelling: even for settlement determinations on building, deformation measurement and monitoring bridges	-	-	-	-	-	-	X
FEATURES							
Water resistant	X	X	X	X	X	X	X
Waterproof (immersion) & dustproof	-	-	X	X	X	X	-
Shock resistant	-	-	X	X	X	X	-
Rough/fine focus	-	-	-	-	X	X	-
Parallel-Plate micrometer for precise levelling (optional)	-	-	-	-	-	-	X



Levelling can be so easy with digital levels from Leica Geosystems. Push the button and heights, height differences and distances are automatically displayed. There will be no more misreading and interpretation errors in reading the staff.

It is also possible to use it as an optical level. But compared to a conventional level, the digital levels effortlessly, fast measurements could save your valuable time and reduce errors. Our digital levels even include additional error-reducing functions such as built-in tilt sensors, preventing the system from measuring if the user operates outside the compensator range.

For high measurement requirements Leica Geosystems provides additional digital levels like Leica DNA03/10. For further information please visit our homepage www.leica-geosystems.com/digitallevels.



APPLICATIONS	Sprinter 100	Sprinter 100M	Sprinter 200	Sprinter 200M
Error-free levelling for all construction applications, e.g. for construction off-road, railways and buildings	X	X	X	X
Error-free levelling for all construction applications with demand for data storage and transfer, e.g. road & building construction	-	X	-	X
High accuracy levelling in all application areas, e.g. road & building construction, civil engineering, topography and cadastral	-	-	X	X
High accuracy levelling in all areas with demand for data storage and transfer, e.g. architecture and engineers survey	-	-	-	X
FEATURES				
Optical staff reading	X	X	X	X
Automatic staff reading	X	X	X	X
Inverse staff measuring	X	X	X	X
Automatic calculation of heights & distances	X	X	X	X
Internal memory & online operations	-	X	-	X
Line Levelling application software	-	X	-	X



Leica Runner 20/24

Tough and Accurate

Leica Runner 20/24 are two robust and value-priced, automatic builder's levels. Designed to work hard on the job site. They are quick to set up, simple to use and very reliable.

The automatic compensator and the fast optics speed up measurements on site and increase accuracy.

Runner is the ideal construction level for site foremen, engineers, architects, landscape gardeners, carpenters, construction companies and many more.



Runner 20, Automatic Level

With 20x magnification,
Standard deviation per km 2.5 mm
(double-run levelling)

1

Order No: 727 585

Runner 24, Automatic Level

With 24x magnification
Standard deviation per km 2.0 mm
(double-run levelling)

Order No: 727 586

CTP103, Aluminium Tripod

Medium duty aluminium tripod with carrying strap
and side clamp screws

2

Order No: 726 833

CLR101, Telescopic Level Staff

4m length, 4 sections, dual face
E-graduation and mm-graduation

3

Order No: 727 587



3



FEATURES

FEATURES	Runner 20	Runner 24
Magnification	20x	24x
Angle Measurement	360°	360°
Standard deviation(per km double-run)	2.5 mm	2.0 mm
Dust/ Water Protection	IP55	IP55
Working Temperature	-20°C to +50°C	-20°C to +50°C
Weight	2.0 kg	2.0 kg

Leica NA700 Levels

Built for Builders, Engineers and Surveyors Levels

Nothing stops a Leica NA700 level. A short drop onto the ground, a fall into water, vibration from heavy machinery – with a Leica NA700 level you just carry on working. And, the ‘best in class’ optics enable you to always work as precisely as possible, even in twilight. The NA728 and NA730 have a rough/fine focus drive making your work even easier. What does this add up to? Reduced work downtime, thus translate into higher productivity, resulting in reliability and accuracy at an extremely reasonable price.



NA720, Automatic Level

20x telescopic magnification. The automatic level for all applications on the construction site

1

Order No: 641 982

NA724, Automatic Level

24x telescopic magnification for improved accuracy. Reliability and Robustness for the demanding construction user

Order No: 641 983

NA728, Automatic Level

28x telescopic magnification, precision compensator. The all-rounder. For building or engineering surveys

Order No: 641 984

NA730, Automatic Level

30x telescopic magnification. The most precise. Meets the highest standards in construction, engineering and topographic surveys

Order No: 641 985

BST01L, Aluminium Tripod

Light-duty aluminium tripod, with fast clamps. Extendible 178cm (5.8ft), weight 4.0kg (8.8lb)

2

Order No: 663 095

CLR101, Telescopic Level Staff

4m length, 4 sections, dual face E-graduation and mm-graduation

3

Order No: 727 587



1



2



3

FEATURES	NA720	NA724	NA728	NA730
Magnification	20x	24x	28x	30x
Angle Measurement	360°/400gon	360°/400gon	360°/400gon	360°/400gon
Standard deviation(per km double-run)	2.5 mm	2.0 mm	1.5 mm	1.0 mm
Dust/ Water Protection	IP57	IP57	IP57	IP57
Working Temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Weight	1.6 kg	1.6 kg	1.7 kg	1.7 kg

Leica NA2/NAK2

The classical Level from Leica Geosystems

The Leica NA2 universal automatic level meets all requirements - regarding precision, convenience and reliability. It was designed by surveyors and development engineers with years of experience that know what a field instrument has to be able to do. The NA2 soon pays for itself, because it can be used for all types of surveying job; on building sites for routine levelling, in engineering projects, and for geodetic control at all levels of accuracy.



NA2, Universal Automatic Level

Magnification: 32x
Standard deviation per km 0.7 mm (double-run levelling, depending on staff and technique)

1 Order No: 352 036



1

NAK2, Universal Automatic Level (400gon)

Magnification: 32x
Standard deviation per km 0.7 mm (double-run levelling, depending on staff and technique)

Order No: 352 039



2

NAK2, Universal Automatic Level (360°)

Same as before, but horizontal circle 360°, optical scale interval 10', reading by estimation 1'

Order No: 352 038

GPM3, Parallel-Plate Micrometer

In container, measuring range 10mm

2 Order No: 356 121

3

GOA2, Autocollimation Eyepiece

For all instruments

3 Order No: 199 899

4

GFZ3, Diagonal Eyepiece

Allows steep sights

4 Order No: 734 514

FOK73, 40x Eyepiece

For NA2/NAK2, exchangeable against standard eyepiece

5 Order No: 346 475

5

FEATURES	NA2	NAK2
Magnification	32x	standard: 32x FOK73 eyepiece (optional): 40x
Angle Measurement	-	360°/400gon
Standard deviation (per km double-run)	0.7 mm/km (0.3 mm with parallel-plate micrometer)	0.7 mm/km (0.3 mm with parallel-plate micrometer)
Dust/ Water Protection	IP53	IP53
Working Temperature	-20°C to +50°C	-20°C to +50°C
Weight	2.4 kg	2.4 kg

Accessories for Levels

GST20, Wooden Tripod

Heavy duty, with carrying strap, side clamp screws and plumb bob. Proven long-life, twist-proof and good vibration characteristics. Robust well-established tripod for general use. Suitable for levels, lasers, total stations and GPS, Extendible to 180cm (5.9ft), weight 6.4kg (14.1lb)

Order No: 296 632

GST40, Wooden Tripod

With rigid legs, length 1.70 m (5.6 ft), weight 6.0 kg (13.2lb) with accessories, for precision levelling

Order No: 328 422

GST4, Tripod Star

For setting up tripods on hard and slippery surfaces

Order No: 332 200

CLR102, Telescopic Level Staff

5m length, 4 sections, Dual face E-graduation and mm-graduation

Order No: 727 588

CLR103, Telescopic Level Staff

4m length, 4 sections, Dual face V-graduation and mm-graduation

Order No: 731 123

CLR104, Telescopic Level staff

5m, 5 sections

Order No: 743 420

BTL5D, Aluminium Telescopic Level Staff

Extendable to 5m, with cm-graduation on front and mm-graduation for internal dimensions on rear, with circular bubble, in transport bag

Order No: 663 131

BTL4D, Aluminium Telescopic Level Staff

Extendable to 4m, with cm-graduation on front and mm-graduation for internal dimensions on rear, with circular bubble, in transport bag

Order No: 663 130

GPLE2N, Nedo Invar Levelling Staff

2m, with circular bubble

Order No: 555 636

GPLE3N, Nedo Invar Levelling Staff

3m, with circular bubble

Order No: 555 637

GPLE3N, Nedo Invar Levelling Staff

3m with circular bubble, with expansion coefficient certificate and length calibration certificate

Order No: 560 172

GWL92N, Industrial Levelling Staff

Cm- graduation, 92 cm, invar staff with circular bubble and 2 interchangeable bases

Order No: 559 615

GWL182N, Industrial Levelling Staff

Cm- graduation, 182 cm, invar staff with circular bubble and 2 interchangeable bases

Order No: 559 616

GLUS1, Ground Plate

For level staffs

Order No: 197 000

GSL3, Pair of Struts

For GPLE3N staff

Order No: 555 638

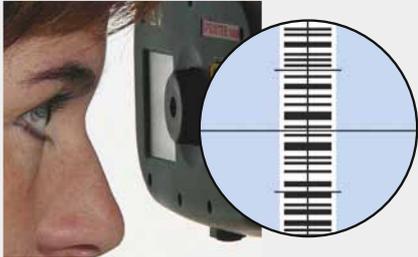
GLI20N, Nedo Staff Level

For BTL4/BTL5 levelling staff

Order No: 555 639



Leica Sprinter



1

Aim and Focus



2

Press the Key



3

Result displayed

**Error-free, reliable Measurements -
The New Standard for levelling at a breakthrough price**

Measurements have never been so easy to perform as with the new Leica Sprinter Electronic Level. The Leica Sprinter allows users to perform their job quickly and efficiently.

Leica Sprinter is a reliable and accurate electronic level that provides error-free and reliable measurements. Optical reading is no longer needed but also possible. Press the red key and just let the electronic eye do it! The Leica Sprinter bar code automatically determines height and distance.

The Sprinter 100M/200M are provided with Line Levelling Application option to increase field efficiency, prompting and guiding users to execute observations sequentially. This option offers field procedures (including Intermediate sight & Foresight) practiced by many engineers and surveyors.



No more staff reading and transcription errors



Waterproof IPX5 -
Works when you do



Tilt warning sensor -
Keeps you on the level

Sprinter 100

Standard deviation 2.0mm, electronic level, with user manual, 4 pcs AA dry cells and container

1 Order No: 738 932

Sprinter 100M

Standard deviation 2.0mm, electronic level, with user manual, 4 pcs AA dry cells and container, incl. RS232 interface & internal memory

Order No: 738 933

Sprinter 200

Standard deviation 1.5mm, electronic level, with user manual, 4 pcs AA dry cells and container

Order No: 741 867

Sprinter 200M

Standard deviation 1.5mm, electronic level, with user manual, 4 pcs AA dry cells and container, incl. RS232 interface & internal memory

Order No: 741 868



1

GKL 25, Charger

For 4xAA(R6) rechargeable batteries, European version + 4 AA(R6) SANYO 1.2V/2300mAh NiMH rechargeable batteries

2 Order No: 741 905



2

GSS 111 Dual Face Telescopic Levelling Staff

5m, 4 sections, Sprinter barcode/E-Scale cm-graduation, with circular bubble, in transport bag (Std. version)

3 Order No: 741 882

GSS 111-1, Barcode / ft-graduation (Imperial version)

Order No: 741 883

GSS 111-2, Barcode / 5mm-graduation (Japan version)

Order No: 741 885

GSS 112-3, Barcode / E-Scale cm-graduation (UK version)

4 m, 4 section staff

Order No: 741 884

GSS 112-5, Barcode / 2mm-graduation (Spain version)

Order No: 741 886

CTP103, Aluminium Tripod

Medium duty aluminium tripod with carrying strap and side clamp screws

4 Order No: 726 833



4

Upgrade Options for Sprinter 100M/200M

Line Levelling application program for Sprinter 100M/200M

Order No: 751 747

FEATURES	Sprinter 100	Sprinter 100M	Sprinter 200	Sprinter 200M
Magnification	24 x	24 x	24 x	24 x
Angle Measurement	360°	360°	360°	360°
Time for single Measurement	<3 sec *			
Standard deviation (per km double-run)	2.0 mm(with Leica Sprinter aluminium staff)	2.0 mm(with Leica Sprinter aluminium staff)	1.5 mm(with Leica Sprinter aluminium staff)	1.5 mm(with Leica Sprinter aluminium staff)
Range	2 m - 80 m (from 0.5 m -optical)			
Dust/ Water Protection	IP55	IP55	IP55	IP55
Working Temperature	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
Weight	<2.5 kg	<2.5 kg	<2.5 kg	<2.5 kg

* for range up to 80m performed under normal light conditions

Leica Geosystems Construction Laser

Whether it's general construction, pipe laying, machine control, or interior walls and ceilings, our lasers are built to handle any environment.

All construction lasers are high technology and high precision tools. Compare these features and you'll see why our Construction lasers set the standard for durability and value. Leica Geosystems lasers are water resistant that means all critical components are completely protected from all wet weather conditions. The aluminum base of the Rugby 100/100LR/200 withstands rough handling and is highly resistant to abrasion and fracture.

Construction-tough components have all undergone rigorous testing to assure long life under harsh conditions.



APPLICATIONS	Rugby 50	Rugby 100	Rugby 100LR	Rugby 55	Rugby 200
General construction: excavation, footing, concrete forming	X	X	X	X	X
Civil engineering: parking lots, runways, sports field	-	-	X	-	-
Interior construction	-	-	-	X	X
Installing ceiling grids	-	-	-	X	X
Transferring points from floor to ceiling	-	-	-	X	X
Installing septic and gravity flow pipe for drainage	-	-	-	-	-
Machine control of excavators, graders, dozers and similar equipment	X	X	X	-	-
Agricultural applications such as land levelling or tiling	-	-	X	-	-

FEATURES	Rugby 50	Rugby 100	Rugby 100LR	Rugby 55	Rugby 200
Waterproof and dustproof	IP55	IP66	IP66	IP55	IP66
Co-molded rubber bumpers	-	X	X	-	X
Elevation alert	X	X	X	X	X
Working Range up to 750 m diameter	-	-	X	-	-
Scan Modes	-	-	-	X	X
Remote Control	-	-	-	X	X
Grade entry with display	-	-	-	-	-
Manual Grade Capability	-	X	X	-	X
Dual Grade	-	-	-	-	-
Two-year plus knockdown warranty	-	X	X	-	X



Leica Geosystems' Grade Lasers are the most accurate and reliable lasers for machine control applications that require precise grade. They can be used wherever level, single or dual grades are required, and are compatible with Leica Geosystems' 2D and 3D Machine Control Systems for ultimate grade control.

Leica Geosystems' pipe lasers are built with a rugged aluminum housing and perform powerfully even in tough jobsite conditions. It easily sets up in smallest inverts. They are perfect for storm and sanitary sewer construction, gravity flow pipe lines and wherever line and grade is required.

Work with confidence with the Construction lasers from Leica Geosystems.



APPLICATIONS

	Rugby 300 SG	Rugby 400 DG
General construction: excavation, footing, concrete forming	X	X
Civil engineering: parking lots, runways, sports field	X	X
Interior construction	-	-
Installing ceiling grids	-	-
Transferring points from floor to ceiling	-	-
Installing septic and gravity flow pipe for drainage	X	X
Machine control of excavators, graders, dozers and similar equipment	X	X
Agricultural applications such as land levelling or tiling	X	X

FEATURES

	IP67	IP67
Waterproof and dustproof	IP67	IP67
High impact composite housing	X	X
Elevation alert	X	X
Working Range up to 750 m diameter	X	X
Scan Modes	-	-
Remote Control	-	X
Grade entry with display	X	X
Dual Grade	-	X



Leica Rugby 50

The simple one-button Construction Laser

Designed for general construction, the Leica Rugby 50 is a tough, affordable laser; ready to work when the user is. The Leica Rugby 50 has only one button. Press the button, wait until it self-levels and the head starts rotating, then work can begin. It will continue to self-level over the course of the day to ensure that work is accomplished reliably and accurately. H.I. Alert features monitor the Leica Rugby 50 as it works and shuts it down if it senses a bump or movement of the tripod.



Features:

- Simple, one-button operation
- High impact composite housing
- Fully sealed with protected head
- Watertight for all conditions
- Long battery life
- H.I. (Elevation) Alert protection/ Out of level indication
- Low battery indicator

Recommended Rugby 50 Package with Alkaline

Consisting of: Rugby 50 with Carrying Case, RE Classic and Bracket, Alkaline Batteries & Battery holder

Order No: 6000733

Recommended Rugby 50 Package with rechargeable Batteries

Consisting of: Rugby 50 with Carrying Case, RE Classic and Bracket, NiMH Battery Pack, Rugby 50/55 Universal Charger Adapter

Order No: 6000734

Universal Charger Adapter

1 Order No: 727 165



1

Alkaline Battery Holder

2 Order No: 752 048



2

NiMH Battery Pack

Order No: 752 049

Leica Rugby 100/100LR

The rugged Family of Construction Lasers

The Leica Rugby 100 and Leica Rugby 100LR are automatic self-levelling rotating lasers for general construction and machine control. They are designed to be rugged yet easy to use. They can make quick work of concrete forming, pad placement and framework, setting foundations and footings, etc. The Rugby 100LR with its longer distance and increased accuracy it is a perfect solution for level machine control applications.

The Leica Rugby 100 and 100LR have become the standard in general construction lasers. Ruggedness, accuracy and reliability are the key to the success of the Leica Rugby's.

Features:

- Waterproof and dust proof to work reliably in all weather and job site conditions
- Wide, stable aluminum base for maximum strength and stability
- The head is enclosed to protect the interior parts
- Rugged, high-impact carrying case
- Two-year plus knockdown warranty



Recommended Rugby 100 Package with Alkaline

Consisting of: Rugby 100 with Carrying Case, Rod-Eye Laser Sensor with Clamp, Alkaline Batteries

With rechargeable Batteries Order No. 731 559

Order No: 731 558

Recommended Rugby 100LR Package with Alkaline

Consisting of: Rugby 100LR with Carrying Case, Alkaline Battery Set, Rod-Eye Pro Laser Sensor with Clamp

With rechargeable Batteries Order No. 733 622

Order No: 733 621

NiMH Battery Pack

Order No: 726 746

Universal Charger Adapter

Order No: 727 165

Alkaline Battery Holder

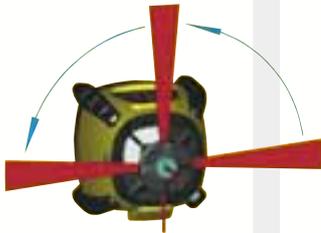
Order No: 726 747

Lasers at a glance	Rugby 50	Rugby 100	Rugby 100LR
Working Range	300 m	300 m	750 m
Accuracy	± 2.6 mm @ 30 m	± 2.6 mm @ 30 m	± 1.5 mm @ 30 m
Self-levelling	H	H	H
Waterproof	IP55	IP66	IP66
Scan function	No	No	No
Manual grade operation	No	Yes	Yes
Two-year plus knockdown warranty	No	Yes	Yes
Laser class	1	2	1

Leica Rugby 55

The multipurpose Construction Laser

Designed for the interior construction, the Leica Rugby 55 is a tough, versatile laser. It provides today's contractor with the tools needed for virtually any levelling or alignment job. The Leica Rugby 55 features an easy to use keypad, a watertight seal, variable head speeds, selectable scanning modes, a bright red beam and an alkaline or rechargeable NiMH battery pack. It is aimed at contractors who are focused on interior applications.



Scan-90

With the Leica Rugby 55 the scanning or stationary beam can be quickly positioned in 90° increments.



Beam Down Mode

By selecting zero rps with the head speed button, the rotating head automatically positions itself in a plumb down direction for alignment of the Leica Rugby 55 over a reference point.



Sleep Mode

Pressing the Up and Down buttons together on the remote will put the Leica Rugby 55 into sleep mode for two hours to save battery life without disturbing your setup.

Recommended Rugby 55 Interior Package with Alkaline Batteries

Consisting of: Rugby 55 with Interior Carrying Case, IR Remote Control, Wall Mount Bracket, Ceiling Grid Targets (2), Alkaline Battery Holder, Alkaline Batteries

With rechargeable Batteries Order No. 60000727

Order No: 6000726

Ceiling Grid Target

Order No: 732 791

Wallmount Bracket

Order No: 733 073

IR Remote Control

Order No: 755 008

NiMH Battery Pack

Order No: 752 049

Alkaline Battery Pack

Order No: 752 048

Universal Charger Adapter

Order No: 727 165

Leica Rugby 200

Tough Inside and Out

The Leica Rugby 200 is a heavy-duty, horizontal and vertical self-levelling laser. Completely sealed, the Rugby 200 is ideal, inside and out, for both general and interior construction applications. Similar to the Rugby 100/100LR it is featured with a knockdown warranty. You can use it for installing ceiling grids and laying out walls, installing raised access floors as well as exterior site preparation.

Features:

- 10" accuracy
- Fully automatic self-levelling
- Variable head speeds
- Selectable scan modes
- Manual with cross-axis self-levelling
- Automatic H.I. elevation alert
- Plumb reference point feature
- Sealed and waterproof
- Two-year plus knockdown warranty



Recommended Rugby 200 Package with Alkaline

Rugby 200 with Carrying Case, Rod-Eye Laser Sensor and Bracket, Alkaline Batteries with Holder

With rechargeable batteries Order No. 747 767

Order No: 747 766

Ceiling Grid Target

1 Order No: 732 791



Wallmount Bracket

2 Order No: 733 073



Wallmount/Laydown Bracket Rugby 200

Order No: 733 077

Infrared Remote Control Rugby 200

3 Order No: 731 645



NiMH Battery Pack

4 Order No: 726 746



Alkaline Battery Holder

Order No: 726 747



Universal Charger Adapter

5 Order No: 727 165

Lasers at a glance	Rugby 55	Rugby 200
Working Range	300 m	300 m
Accuracy	± 2.6 mm @ 30 m	± 1.5 mm @ 30 m
Self-levelling	H+V	H+V
Align Beam	Yes	Yes
Waterproof	IP55	IP66
Scan function	Yes	Yes
Remote control	Yes	Yes
Two-year plus knockdown warranty	No	Yes

Leica Rugby 300SG / 400DG



When Accuracy is the Goal, Rugby makes the Grade

Rugged and accurate, the Leica Rugby 300 SG (Single Grade) and the Leica Rugby 400 DG (Dual Grade) lasers are the optimal solution for precise grade control. They can be used wherever level, single or dual grades are required, and are compatible with Leica Geosystems' 2D and 3D Machine Control Systems for ultimate grade control.*

Their extensive features will ensure both material and labor savings, increasing your bottom line. Leica Geosystems' Grade Lasers are the most accurate and reliable lasers for machine control applications that require precise grade.

*The Leica Rugby's are compatible with Leica GradeSmart, Leica 360° Cab Sensor and Leica Depthmaster. For more information please visit our homepage www.leica-geosystems.com.

Rugby 300SG Package with Rod-Eye Sensor
With Carrying Case, NiMH Battery Pack, Charger and Rod-Eye Classic with Clamp

Order No: 741 751

Rugby 400DG Package with Rod-Eye Sensor
With Carrying Case, NiMH Battery Pack, Charger and Rod-Eye Classic with Clamp

Order No: 741 752

RF Remote Control for Rugby 400DG

1 Order No: 739 854

Scope and Mount Assembly
For Rugby 300SG/400DG

2 Order No: 739 870

Leica 360° CAB Sensor
5 Light Sensor with Carry Case, 8mm

3 Order No: 727 542



1



2



3

FEATURES	Rugby 300SG	Rugby 400DG
Working Range	750 m	750 m
Accuracy	± 1.6 mm @ 30 m	± 1.6 mm @ 30 m
Self-levelling	H+Grade	H+Grade
Grade Capability	-5 to +25% in one axis	-5 to + 25% in either axis -5 to +15% in both axis
Waterproof	IP67	IP67
Operating Temperature	-20° C to +50° C	-20° C to +50° C
Weight	5 kg	5 kg

Leica Piper 100/200

Rock solid Construction, outstanding Performance in a compact Package

Built with a rugged aluminum housing, these pipe lasers perform powerfully even in tough jobsite conditions. Powerful and compact, the Leica Piper is the only pipe laser that fits inside a 100 mm (four inch) pipe.

- Automatic grade compensation
- Long battery life
- Bright, powerful beam
- Large, easy to read display
- Alignmaster™ - Automatic target recognition (Piper 200)



... in the manhole



... in the pipe



Piper 100 with Remote, Target and Li-Ion Battery

Incl.: Piper 100 with Carrying Case, IR Remote Control, Target Assembly with small or large red insert, Lithium-Ion Battery (GEB221), 4Ah, Charger Li-Ion (GKL211), incl. AC adapter, car adapter

1

Order No: 748 704



1

Piper 200 with Alignmaster™, Remote, Target and Li-Ion Battery

Incl.: Piper 200 with Carrying Case, IR Remote Control, Target Assembly with small or large red insert, Lithium-Ion Battery (GEB221), Charger Li-Ion (GKL211) (incl. AC adapter and car adapter)

1

Order No: 748 710

Target Insert, small

Target insert 150-300mm, red

2

Order No: 725 920

Target Insert, large

Target Insert 400-550mm, red

1

Order No: 725 876



2

IR Remote Control

3

Order No: 746 157

Target Assembly, 4"/100mm

1

Order No: 748 775



3

Accessories for Lasers

Rod-Eye Pro Sensor with Bracket

Construction-tough, reliable and accurate Laser Sensor and universal Clamp with a reversible jaw for oval rods

1 Order No: 727 163

Rod-Eye Mini Sensor with Bracket

Construction-tough and reliable Laser Sensor with Rod Clamp

2 Order No: 730 463

Rod-Eye Classic Sensor with Bracket

Construction-tough, reliable and accurate Laser Sensor

3 Order No: 739 575

AC Power Cable 2-pole EU, to charger

Order No: 731 439

AC Power Cable 2-pole US, to charger

Order No: 731 440

AC Power Cable 2-pole UK, to charger

Order No: 731 441

AC Power Cable 2-pole AUS, to charger

Order No: 731 442

GLB10, Laser Glasses

Red lens glasses for improved visibility of the laser dot in bright rooms and outdoors up to 10-15m

4 Order No: 723 777



Carrying Case for Rugby 100

Order No: 726 766

Carrying Case for Rugby 100LR

Order No: 731 831

Interior Carrying Case for Rugby 200

Order No: 743 014

Standard Carrying Case for Rugby 200

Order No: 731 832

Laydown Foot Attachment for Rugby 200

Order No: 732 335

Carrying Case for Rugby 300SG

Order No: 744 365

Carrying Case for Rugby 400DG

Order No: 744 366

Battery NiMH Pack for Rugby 300SG/400DG.

Order No: 739 855

Charger NiMH for Rugby 300SG/400DG
(including separate power cable)

Order No: 741 349

GLS11, Professional Series Telescopic Reflector Pole 2.15m

With circular bubble, cm- and ft-graduation, extends to 2,15m

Order No: 385 500

GPR112, Basic Series Circular Prism

Order No: 753 492

LAT 195, Crankable Laser Tripod, 195cm

Order No: 663 099

LAT 265 Crankable Laser Tripod, 265cm

Order No: 663 100

Car Adapter Cable, 1m

Order No: 738242

Pigtail for Auto Charger, 40cm

Order No: 725 850

Pigtail for Auto Charger, 4.5 m

Order No: 725 851

**Carrying Case for Piper 100**

Order No: 746 155

Carrying Case for Piper 200

Order No: 746 156

Trivet Assembly with Mounting Bracket

Order No: 746 158

Mounting Bracket

Order No: 746 159

Scope and Mount Assembly for Piper

Order No: 746 160

Foot, 6" / 150 mm Piper

Order No: 746 161

Foot, 8" / 200 mm Piper

Order No: 746 162

Foot, 9" / 225 mm Piper

Order No: 746 163

Foot, 10" / 250 mm Piper

Order No: 746 164

Foot, 12" / 300 mm Piper

Order No: 746 165

Leica Digisystem

Safe and fast Location of Underground Services

Every year, site workers are injured due to inadvertently striking buried electricity cables or gas pipelines. With the Digisystem operators can locate, trace and mark underground services precisely and reliably prior to excavation. The Digisystem increases your onsite safety and saves effort and money. Several vital safety features built into the Digicat™ 100 and 200 models are rarely found in similarly priced units from other manufacturers. The new Digicat™ 200 GIS is an ideal solution for systems integrators seeking to integrate buried service locating with GIS and survey mapping processes, using industry standard wireless connectivity.

Features:

- Digital signal processing – robust and error free location in the construction environment
- Easy to use – requires only minimal training
- Robust, lightweight and waterproof
- Always starts in power mode at maximum sensitivity – ensures safest operating conditions
- 8 and 33 kHz tracing modes, depth estimation to 3m, accuracy typically better than $\pm 10\%$ (Digicat™ 200) – maximum flexibility
- Highly visible digital LED display – swift service location



The Digisystem offers 3 selectable Operating Modes

Power mode: locates power signals radiated by energised cables.

Radio mode: traces signals originating from distant radio transmitters. These radio signals penetrate the ground and are re-radiated by buried metallic cables and pipes.

Generator mode (8 and 33 kHz): locates a distinctive signal applied by the DIGITEX 8/33 dual frequency signal generator to a metallic underground conductor.

Leica Digicat™ 100

To find live (energised) power cables, trace buried metal services which radiate signals

1 Order No: 731 047

Leica Digicat™ 200

In addition, the Digicat™ 200 offers a non-stop depth estimation. In co-operation with the DIGITEX 8/33 the real depth and location of all services can be found

(Ft-inch display format: Order No.753 515)

2 Order No: 731 048

Leica Digicat™ 200 GIS

To integrate buried service locating with GIS and survey mapping processes, using industry standard wireless connectivity

(Ft-inch display format: Order No.755 698)

Order No: 755 697

DIGITEX 8/33 Signal Generator

Give highly accurate results via specific tracing frequencies (incl. batteries, connection cable set, earth spike & user manual)

3 Order No: 731 049

DIGITRACE 30 Service Tracer

Allows tracing of plastic ducts, clay drains and other non-metallic conduits.

4 Order No: 731 050

Medium Signal Clamp

Provides a connection from the DIGITEX 8/33 to metallic pipes, cables, etc. (max 100mm outside diameter)

5 Order No: 731 056

DIGIMOUSE 40mm dia. (sonde)

DIGIMOUSE - specific point radiator of generated signal

6 Order No: 731 053

Property Connection Cable Set EU

Cable Set to connect signal from DIGITEX 8/33 into the property power cables, European-Version

7 Order No: 731 668

Digisystem Carry Bag

Carries the two main instruments of the System (Digicat™ 100 and DIGITEX 8/33) & accessories

8 Order No: 740 307



1



2



3



5



4



6



7



8

Leica Disto™ Family

Leica Disto™ A3

Robustness and easy handling are the defining characteristics of this instrument. In addition to the well-known shortcut keys, are the minimum and maximum measurement functions, which enable horizontal and diagonal measurements e.g. in corners. The built in Power Range Technology™ permits making measurements of up to 80 m without target plates. This makes the robust one outdoor capable. To keep you from forgetting your measured values, there is also a memory function.

1

Order No: 740 687



1

Leica Disto™ A5

The Leica Disto™ A5 model stands out thanks, both to its ergonomic design and the soft rubber grip that allows it to sit well in the hand. With the unique end piece, wide range of additional functions and integrated viewfinder, you are fully equipped to tackle any measuring task. The most common calculating functions are quickly and easily accessed via the corresponding shortcut keys.

2

Order No: 740 689



2

Leica Disto™ A6

With the Leica Disto™ A6 you are equipped to meet the demands of any situation. Measuring does not end with displaying the measured values on the Leica Disto™ A6, the data can be electronically transferred to a Pocket PC or Laptop for immediate processing.

Included in the scope of delivery is the software Disto™ transfer. It transfers your measured data to Excel®, Word®, AutoCAD® or to other programs. Find out more about software providers with customised programs at: www.disto.com.

3

Order No: 751 961



3

Leica Disto™ A8

The top model of the Leica Disto™ family was developed for both indoor and outdoor measuring. It is the first hand laser distance measurement device which has an integrated digital viewfinder (3fold zoom). With this invention measurements can be made in difficult lighting conditions and even if the laser dot is not visible. Additionally the device has an integrated tilt sensor which opens a much wider variety of indirect measurements. For simple inclination measurements the housing simply has to be held at the object. Get a Leica Disto™ A8 and you will experience your new measurements possibilities.

4

Order No: 740 691



4

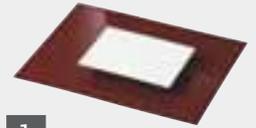


GZM26, Target Plate , large

Size: 210 x 297 mm (A4)

White side for short and brown side for long distance measurements

1 Order No: 723 385



1

GZM27, Stick-On Target Plate

Target plate held in place with kneading adhesive.

Size: 73 x 98 mm / 147 x 98 mm

2 Order No: 723 774



2

GLB10, Laser Glasses

Red lens glasses for improved visibility of the laser dot in bright rooms and outdoors up to 10-15m

3 Order No: 723 777



3

Softbag

Large carrying case for secure storage and transportation of Leica Disto™s handlasermeter and accessories. The case is supplied without content

4 Order No: 667 169

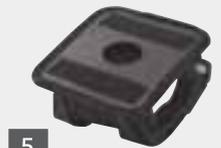


4

Arm Holder Pocket PC

For comfortable and long wear of a Pocket PC designed universal arm-holster

5 Order No: 739 200



5

Technical Data	Disto A3	Disto A5	Disto A6	Disto A8
Typical measuring accuracy	± 1.5 mm	± 2.0 mm	± 1.5 mm	± 1.5 mm
Range	0.05 m to 100	0.05 m to 200	0.05 m to 200	0.05 m to 200 m
Power Range Technology®	•	•	•	•
Measuring units	0.000 m, 0.00 m, 0.00 ft, 0.00 1/16 ft in, 0'00'' 1/16, 0.0 in, 0 1/16 in	0.000 m, 0.00 m, 0 mm, 0.00 ft, 0.00 1/32 ft in, 0'00'' 1/32, 0.0 in, 0 1/32 in	0.000 m, 0.00 m, 0 mm, 0.00 ft, 0.00 1/32 ft in, 0'00'' 1/32, 0.0 in, 0 1/32 in	0.000 m, 0.00 m, 0 mm, 0.00 ft, 0.00 1/32 ft in, 0'00'' 1/32, 0.0 in, 0 1/32 in
Distance in m			10, 50, 100 m	
Laser dot diameter in mm			6, 30, 60 mm	
Area, volume measurement	•	•	•	•
Room calculation		•	•	•
Indirect measurements with Pythagoras		•	•	•
Indirect measurements with tilt sensor				•
Tilt sensor				
Acc. to laser beam				± 0.15°
Acc. to housing				± 0.3°
Units in tilt sensor				± 90°; ± 180°; 360°; 0.00%; 0.0mm/m; 0.00 in/ft
Store constant values		1	1	1
Multifunctional end piece		•	•	•
2-fold optic telescopic viewfinder		•	•	
3-fold digital viewfinder				•
Measurements per set of batteries	Up to 5000	Up to 10000	Up to 10000 (reduced in Bluetooth® operating mode)	Up to 5000
Spray proof / dust protected IP54	•	•	•	•
Weight with batteries	145 g	241 g	270 g	280g

Leica Geosystems Machine Automation -



Grading

1D



Basic Grading System

Laser control for drainage, tractor pulled scrapers, Attachment Grader for Skid Steer Loaders and basis grading needs for dozers.

2D



Leica GradeSmart

Leica GradeSmart - Tailored for all your grading needs. Leica GradeSmart is the ideal system solution to dramatically increase your machine fleet efficiency across multiple machine types. The system works with laser and ultrasonic control and optional slope control. The side-shift feature makes the system specifically attractive for use on Graders.

3D



Leica GradeSmart 3D

Leica GradeSmart 3D is a leading Machine Automation solution for dozing and grading applications that can operate in either an indicate or automatic configuration, providing the operator with real time grade and project information.

Solutions for Digging, Grading and Paving



Digging

Basic Digging Systems

The Leica Depthmaster is an ideal tool for any kind of height control for excavators. Simply turn the excavator dipper into an integrated measuring stick without having to leave the cabin. It is simple to set-up and can be used with any rotating laser.

Leica DigSmart

Leica DigSmart is a level and dual slope solution providing excavator operators with real-time depth, reach and slope information, in relation to any reference, on an easy-to-read graphical display mounted in the cab. With the same display, the system is weighing and logging the moved material.

Leica DigSmart 3D

The Leica DigSmart 3D solution brings faster setup, easy operation, improved productivity, reliable support and Leica Geosystems quality to 3D excavator machine guidance. Leica DigSmart 3D utilises an electronic design file of the site and advanced dual GNSS technology to accurately guide the operator where to dig, and how much – with centimetre accuracy.



Paving

Leica Basic Paving Systems such as Mobamatic

Conventionally, road pavers are controlled for elevation and cross-slope by stringlines with ultrasonic or mechanical height sensors, ground-sensing ultrasonic, or laser road-scanning, height sensors, rotating laser beacon and laser receivers, or cross-slope sensors.

Paving 3D solutions

There are Leica PaveSmart 3D solutions for Slipform Pavers, Curb & Gutter machines, Trimmers, and RoadPaving covering GOMACO and WIRTGEN technology. Fully automatic grade and steer control using 3D sensor technology means you can pave exactly where and when you want to, not where you're forced to.

Leica Depthmaster

Low Cost Depth Indication System

Together with a rotating laser the excavator sensor Leica Depthmaster provides accurate elevation control and a unique, patented, built-in vertical plumb indicator for consistent accuracy. Constant Accuracy Band (C.A.B.) technology used in the Depthmaster receives the laser signal and electronically maintains consistent accuracy over distance.

Depthmaster Excavator Sensor with Clamp-on Brackets

Package includes Depthmaster with Carrying Case, Battery Pack Ni-Cad for Depthmaster, Clamp-on Bracket(2x), Charger 220V and User Manual

1 Order No: 742 438

Depthmaster Excavator Sensor with Magnetic Bracket

Package includes Depthmaster with Carrying Case, Battery Pack Ni-Cad for Depthmaster, Magnetic Bracket, Charger 220V and User Manual

2 Order No: 742 440



Main Features at a Glance

- CONSTANT ACCURACY BAND (CAB) - Maintains 'on-grade' accuracy regardless of operating distances spot size, or rotating laser type, either $\pm 1/6"$ (4 mm) or $\pm 1/2"$ (12 mm) depending on jobsite requirements.
- PATENTED PLUMB INDICATOR - Monitors the excavator's dipper arm vertically for consistent and accurate grade readings.
- MAGNETIC MOUNT - The Depthmaster is extremely convenient with its powerful magnetic mount. It takes seconds to attach to the machine. No drilling or welding is required.
- SHAKE TO WAKE - The unique 'SHAKE TO WAKE' system turns off non-essential electronics after 5 minutes of non-use. It automatically turns back on when your machine begins to move again.
- POLE MOUNT - When used with the optional clamp-on assemblies, the Depthmaster can be mounted on any machine.
- MEMORY - When the Depthmaster is out of the range of the lasers a LED will blink indicating which way to move the sensor to reacquire the laser.



1



2

Leica GradeSmart

Universal Control System for all Grading Machines

Leica Geosystem's GradeSmart Universal Control System for all Grading Machines increases the operators efficiency. Sideshift allows to precisely cut batters and grade crowns.

Easy hardware and software set-ups, advanced pilot valve control, an integrated hydraulic tuning system and automated troubleshooting will lead you into a new dimension of grading.



Features & Benefits:

- Identical Man-Machine-Interface (MMI)– operator can move between machines
- Intelligent screens with self-diagnosis function
- CAN bus – to connect all components
- Quick response to blade corrections for smooth grade surfaces
- Pilot Control for advanced Dozer performance in 2nd gear operation
- 100% slope - Slope sensors (cross fall and main fall) are able to work on slopes up to 100%
- 3D upgrade path – cost advantage

GradeSmart Package for Grader

Cross Slope System with Dual Sonic Sensor

Package includes MCP1200 Control Panel, MCB1200 Controller, Cross-Slope Sensor CAN, Rotation Sensor CAN, Junction Box with Longslope Sensor, MUS1200 Tri-Sonic Sensor CAN (2) Hydraulic Kit, diverse cables and other accessories

Order No: 747375

GradeSmart Package for Dozer

Dual Laser Receiver with Power Mast

Package includes MCP1200 Control Panel, MCB1200 Controller, Cross-Slope Sensor CAN (optional), MLS1200 Laser Receiver (2), MPM1200 Electric Mast CAN (2), Hydraulic Kit, diverse cables and other accessories

Order No: 749254

Leica Geosystems provides further packages. Please contact your local Leica Geosystems distributor for more information.



Leica Geosystems Total Stations

Easily affordable, tough total stations, built specially for site work. Use them even without experience, for fast, reliable angle & distance measurements, stake out and simple routines for standard building and construction tasks.

The era of purely mechanical or optical instruments is over. This is the digital era where digital instruments are needed to remain competitive.

Whether you have to precisely layout a construction site, perform control measurement or collect height and angle data - Leica Geosystems offers the right total station for your construction application.



APPLICATIONS & FEATURES	Builder T100	Builder T200	Builder R100	Builder R200	Builder R100M	Builder R200M
Alignment	X	X	X	X	X	X
Defining Angles	X	X	X	X	X	X
Plumbing	X	X	X	X	X	X
Measure or define slopes	X	X	X	X	X	X
Distance Measurement	-	-	X	X	X	X
Layout	-	-	X	X	X	X
Measure as-built	-	-	X	X	X	X
Measure size and perimeter of an area	-	-	X	X	X	X
Compute a block volume	-	-	X	X	X	X
Determine tie distance and height difference	-	-	X	X	X	X
Determine indirect heights	-	-	X	X	X	X
Connects to PC data logger, 3rd party software packages	-	-	-	-	X	X
Comfortably select layout data by picking points from the memory	-	-	-	-	X	X
Store data, no need for hand-writing them	-	-	-	-	X	X

All models are available in two accuracies:
 Builder T/R/R100M: 9" provides 4 mm accuracy on 100 m,
 Builder T/R/R200M: 6" provides 3 mm accuracy on 100 m



Measurements have never been so easy to perform as with a Leica Geosystems Total Station. The TPS Series allows beginners and professionals to do the job quickly and efficiently.

Especially the Leica TPS400/800 series are designed to meet your specific requirements. PinPoint EDM technology significantly improves productivity whilst maintaining maximum accuracy. Ease of use is guaranteed through an intuitive operation concept which allows beginners to become experts with ease.

Whether you want to survey a parcel of land or stake out on a construction site, a variety of application programs are available for quick results, whilst guaranteeing reliable measurements.



APPLICATIONS & FEATURES	TC400 models	TCR400 power models	TCR400 ultra models	TC800 models	TCR800 power models	TCR800 ultra models
	All TPS400 models are available with 3 different angle accuracies, 7", 5" and 3"			All TPS800 models are available with 3 different angle accuracies, 5", 3" and 2"		
Alphanumeric Keyboard	-	-	-	X	X	X
Reflectorless measurement	-	X	X	-	X	X
Long Range Reflectorless Measurement	-	-	X	-	-	X
Plumbing	X	X	X	X	X	X
Survey points with coding	X	X	X	X	X	X
Measure size and perimeter of an area	X	X	X	X	X	X
Compute block volume	X	X	X	X	X	X
Layout and measure as-built	X	X	X	X	X	X
Determine station positions, instruments heights, hidden points, tie distance and height differences, indirect heights	X	X	X	X	X	X
Reference Arc measurements	-	-	-	X	X	X
Coordinates calculations	-	-	-	X (option)	X (option)	X (option)
Road measurement and Stake-outs	-	-	-	X (option)	X (option)	X (option)
Offset measurement	X	X	X	X	X	X
Connects to PC data logger, 3rd party software packages	X	X	X	X	X	X
Comfortably select layout data by picking points from the memory	X	X	X	X	X	X
Store data, no need for hand-writing them	X	X	X	X	X	X

For high measurement requirements Leica Geosystems provides additional total stations like Leica TPS700. For further information please contact your distributor or visit our homepage www.leica-geosystems.com/totalstations.

Leica Builder

Built for Builders

With the Leica Builder, Leica Geosystems is aiming experts in the building sector who have up to now shied away from using professional measuring instruments. Its uniquely easy-to-operate control concept and the outstanding product performance accelerates common construction site jobs, e.g. layout or plumbing.

The rugged Builder stands up to the elements and takes all kinds of weather. And yet it's easily to transport in the carry case that holds most accessories in a single lightweight package.



Builder T100 SET

Theodolite with laser plummet, 1 keyboard, user manual, tribrach, battery adapter including 6 AA batteries and container

Order No: 747 827

Builder T200 SET

Theodolite with laser plummet, 1 keyboard, user manual, tribrach, battery adapter including 6 AA batteries and container

Order No: 747 828

Builder R100 SET

Theodolite with EDM, laser plummet, 1 keyboard, user manual, tribrach, battery adapter including 6 AA batteries, flat prisma, reflector pole and container

Order No: 747 829

Builder R200 SET

Theodolite with EDM, laser plummet, 1 keyboard, user manual, tribrach, battery adapter including 6 AA batteries, flat prisma, reflector pole and container

Order No: 747 830

Builder R100M SET

Theodolite with EDM, internal memory, serial RS232 interface, laser plummet, 1 keyboard, user manual, tribrach, battery adapter including 6 AA batteries, flat prisma, reflector pole, Lemo to USB transfer cable and container

Order No: 747 831

Builder R200M SET

Theodolite with EDM, internal memory, serial RS232 interface, laser plummet, 1 keyboard, user manual, tribrach, battery adapter including 6 AA batteries, flat prisma, reflector pole, Lemo to USB transfer cable and container

Order No: 747 832



Leica TPS400



Easy, Quick and Reliable

The Leica TPS400 Series is specifically designed for the construction site. It is very easy to use and impresses by a high level of functionality. With a laser plummet and electronic level the instrument is quickly set up and ready to measure.

The proven endless fine drive and the accurate telescope with 30-times magnification precisely targets each measuring point. The integrated electronic distance meter measures to target plates, prisms or even reflectorless to any given surface. With the new TCR400ultra versions reflectorless measurements up to more than 500 m are possible.

The new TPS400 firmware now supports two system languages onboard, which enables the user to switch easily between them. The "direct.dxf" functionality has been improved and additionally features the direct transfer of fixpoints into a AutoCAD® dxf-file.



Leica TC407

7"(2mgon) total station, 1 keyboard, user manual and container

Order No: 754 165

Leica TC405

5"(1.5mgon) total station, 1 keyboard, user manual and container

Order No: 754 166

Leica TC403

3"(1mgon) total station, 1 keyboard, user manual and container

Order No: 754 167

Leica TCR407power

7"(2mgon) total station with reflectorless EDM, 1 keyboard, user manual and container

Order No: 754 168

Leica TCR405power

5"(1.5mgon) total station with reflectorless EDM, 1 keyboard, user manual and container

Order No: 754 169

Leica TCR403power

3"(1mgon) total station with reflectorless EDM, 1 keyboard, user manual and container

Order No: 754 170

Leica TCR407ultra

7"(2mgon) totalstation with extended-range reflectorless EDM, 1 keyboard, user manual and container

Order No: 754 171

Leica TCR405ultra

5"(1.5mgon) totalstation with extended-range reflectorless EDM, 1 keyboard, user manual and container

Order No: 754 172

Leica TCR403ultra

3"(1mgon) totalstation with extended-range reflectorless EDM for measurements without reflector, 1 keyboard, user manual and container

Order No: 754 173

Leica TPS800



RoadWorks 3D 

Powerful, Efficient, Reliable and Intuitive

The Leica TPS800 is a true workhorse for all professionals who require an instrument that is easy to learn and optimised for field usage. The EDM provides long range measurement to all targets. The display features high resolution and good readability under all light conditions. With the TCR800ultra versions reflectorless measurements up to more than 500 m are possible.

The new TPS800 firmware now supports two system languages onboard, which enables the user to switch easily between them. The "direct.dxf" functionality has been improved and now additionally features the direct transfer of fixpoints into a AutoCAD® dxf-file.

The TPS800 "Road"-application (RoadWorks 3D) has been significantly extended and now supports full 3D functionality, combined with the upload of PC designed alignments, as well as slope measurements.



Leica TC805

5"(1.5mgon), total station, 1 keyboard, user manual and container

Order No: 754 229

Leica TC803

3"(1mgon), total station, 1 keyboard, user manual and container

Order No: 754 228

Leica TC802

2"(0.6mgon), total station, 1 keyboard, user manual and container

Order No: 754 227

Leica TCR805power

5"(1.5mgon), total station with reflectorless EDM, 1 keyboard, user manual and container

Order No: 754 232

Leica TCR803power

3"(1mgon), total station with reflectorless EDM, 1 keyboard, user manual and container

Order No: 754 231

Leica TCR802power

2"(0.6mgon), total station with reflectorless EDM, 1 keyboard, user manual and container

Order No: 754 230

Leica TCR805ultra

5"(1.5mgon), total station with extended-range reflectorless EDM for measurements without reflector, 1 keyboard, user manual and container

Order No: 754 235

Leica TCR803ultra

3"(1mgon), total station with extended-range reflectorless EDM, 1 keyboard, user manual and container

Order No: 754 234

Leica TCR802ultra

2"(0.6mgon), total station with extended-range reflectorless EDM, 1 keyboard, user manual and container

Order No: 754 233

Features of TPS400/800

PinPoint – Reflectorless Distance measurement



The PinPoint technology enables a reflectorless distance measurement to any surface and an exceptional range of over 500 m ("ultra"-models).

Direct.dxf



With "Direct.dxf" functionality, data can be read directly from the instrument in dxf-format and read into AutoCAD® on a PC without any intermediate steps. Coordinates, codes and point numbers can be stored in different layers.

Theft-protection



The PIN-code feature prevent unauthorized persons from using the instrument. Without correct code, the equipment can't be operated, data erased and makes it unattractive to steal.

GFU15, Bluetooth® Kit

Including Bluetooth® module, charger, protection cover and tripod hook

1 Order No: 821 6666



1

EGL3, Electronic Guide Light

For stake-out with all TPS400/800 instruments

2 Order No: 667 161



GST19-V2, Second Keyboard

2nd keyboard for dual face measurements for all TPS400 instruments

3 Order No: 733 370

2

GTS21, Second Keyboard

2nd keyboard for all TPS800 instruments, for telescope position 2, fitted.

4 Order No: 741 495



3

Basic Set of Accessories TPS400/800

Consisting of: 1 Tribach (GDF111-1), 2 Batteries (GEB111), 1 Charger (GKL112), 1 Data transfer cable Lemo/USB (GEV189), 1 Miniprism Set (GMP111), 1 Instrument height meter (GHM007)

Order No: 730 484



4

FEATURES	TPS403	TPS405	TPS407	TPS802	TPS803	TPS805
Angle measurements (Hz, V)						
Standard deviation (ISO 17123-3)	3" (1mgon)	5" (1.5mgon)	7" (2mgon)	2" (0.6mgon)	3" (1mgon)	5" (1.5mgon)
Compensator	Electronic 2 axis oil compensator			Electronic 2 axis oil compensator		
Infrared Distance measurement (IR)						
Measuring range with circular prism GPR1	3'500m			3'500m		
Measuring with reflective foil (60 mm x 60mm)	250m			250m		
Standard deviation (ISO 17123-4) (fine/quick/tracking)	2mm + 2ppm/5mm + 2ppm/5mm + 2ppm			2mm + 2ppm/5mm + 2ppm/5mm + 2ppm		
Time for a measurement (fine/quick/tracking)	< 1 sec/< 0.5 sec/< 0.15 sec			< 1 sec/< 0.5 sec/< 0.15 sec		
PinPoint-Reflectorless Distance measurement (RL)						
Range PinPoint R100("power")	170 m (90% reflective)			170 m (90% reflective)		
Range PinPoint R300 ("ultra")	> 500 m (90% reflective)			> 500 m (90% reflective)		
Internal data storage	10'000 data blocks			10'000 data blocks		
Interface	RS232			RS232		
Display Graphics	160 x 280 pixels, Alphanumeric 8 lines x 31 characters			160 x 280 pixels, Alphanumeric 8 lines x 31 characters		
Temperature range	-20° C to +50° C (-4° F to +122° F)			-20° C to +50° C (-4° F to +122° F)		
Dust and splash proof (IEC 60529)	IP54			IP54		
Applications	Surveying • Reference line • Remote Height • Stake out • Free Station • Tie Distance • Hidden Point • Area (plan) • Target Offset • Volume			Surveying & Orientation • Reference line & Arc • Remote Height • Stake out • Free Station • Tie Distance • Hidden Point • Area (3D) & Volume • Construction • Target Offset • Volume COGO • Road 2D		

Leica GPS900

Big Ambitions on a Budget

The Leica GPS900 uses Leica Geosystems' proven GPS technology for accurate & reliable measurements. Designed for the construction site the Leica GPS900 consists of a Leica RX900 Controller and a Leica ATX900 GPS Antenna. The all-on-the-pole GPS900 RTK rover is ideal for one-person stakeout, as-builts and for a wide range of jobs found on every site, including foundation and drainage work. Import and export directly to your design software.



Stakeout

Take your design file and stakeout points and digital terrain models (DTMs) with the stakeout program. Navigate directly using the map-view or using the large bull's-eye.



As-builts

Create your plan in the field. Record points with code information. Measure points automatically. View the job in the large, graphical map-view display.



Alignment

Stakeout relative to a 3D alignment using the RoadRunner option. Points can be staked out at any chainage (stationing) and offset. Work with a wide variety of design formats and any combination of geometric elements.

Leica GPS900

Leica RX900 Controller

WinCE GPS900 Controller with battery compartment, touch screen, alpha keyboard, stylus for touch screen, user manual. Controller for the ATX900

1 Order No: 748 414



1

Leica ATX900 GPS Antenna

L1/L2 GPS Antenna for GPS900. To be used together with the RX900 controller

2 Order No: 748 415



2

GLS30, carbon-fibre pole

GPS telescopic carbon-fibre pole with circular bubble and 5/8" screw, snap-locks at 2.00 m

3 Order No: 752 292



3

GWS596, RX900 Software Application

For Volume Calculations

Order No: 754 872

GST05L, Aluminium Tripod

Medium-duty tripod, with shoulder strap. Suitable for levels, lasers, medium weight total stations and GPS.

Extendible 176cm (5.7ft), weight 4.6kg (10.1lb)

4 Order No: 563 630



4

GPS900 Package

GPS900 is available in a variety of packages that contain the GPS900 and all necessary accessories. Please contact your dealer or Leica Geosystems representative for more information.



Multilingual function

This allows the user to choose the preferred language.



FEATURES

GPS technology	SmartTrack dual frequency 12 L1 + 12 L2
ATX900 GPS Antenna	Built-in groundplane with SmartCheck and Bluetooth® wireless technology
RX900 Controller	1/4 VGA Touch screen, Windows CE 5.0, 256 MB internal memory Bluetooth® wireless technology, RTK range: 2500 m
SmartCheck	Horizontal accuracy: 10 mm +1 ppm, kinematic Vertical accuracy: 20 mm +1 ppm, kinematic Position update rate: 1 Hz standard, option up to 2 Hz
Power supply	Li-Ion 1.9 Ah/7.2 V for GPS900 rover. Ni-MH 8.0 Ah/12 V for GPS900 reference setup. Power RTK rover for about 5 hours.
Temperature ISO9022, MIL-STD-810F	Operation: -30°C to +65°C Storage: -40°C to +80°C
Protection against water, dust and sand, IP67 (IEC60529), MIL-STD-810F	Waterproof to 1 m temporary submersion Dust tight
Weight	ATX900: 0.96 kg, RX900: 0.71 kg Entire GPS900 RTK rover: 3.49 kg

Leica Geosystems - Nothing is really closer

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Builder	TPS400/800	Piper Rugby 55	Rugby 100	Rugby 200	Rugby 50 Rugby 300/400	Disto A3/A5/A6/A8
Laser class 3R in accordance with IEC 60825-1 and EN 60825-1	• Distance meter (PinPoint R100/R300)	•		•		
Laser class IIIa in accordance with FDA 21CFR CH.I § 1040		•		•		
Laser class 2 in accordance with IEC 60825-1 and EN 60825-1	• Distance meter (RL), Laser plummet	• Laser plummet	•	•		•
Laser class II in accordance with FDA 21CFR CH.I § 1040			•	•		
Laser class 1 in accordance with IEC 60825-1 and EN 60825-1	• Distance meter (IR)				•	
LED class 1 in accordance with IEC 60825-1 and EN 60825-1	• Guide light (EGL)					



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Whether you have to precisely layout a construction site, perform control measurements, collect height and angle data, align concrete forms, install ceilings and partitions, lay gravity flow pipe, locate underground services or complete site preparation and earthworks – Leica Geosystems offers the right instrument, construction laser or machine control installation specifically designed for your construction application.

Easy-to-use, jobsite tough, accurate and reliable – Leica Geosystems instruments and lasers ensure the efficient use of your materials and resources. High quality products, such as optical and electronic levels, construction lasers, total stations and machine automation systems, provide fast results, keep you working and increase your profitability.

When it has to be right.

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