



Positioning Tools Catalogue



Construction Lasers | Slope Lasers | Pipe Lasers | Laser Receivers | 2D Machine Control Systems
3D Layout Tools | Automatic Levels | Digital Theodolites

Topcon Positioning Tools: Always one step ahead

Topcon Positioning Group, always one step ahead in technology and customer benefits, is an industry leading designer, manufacturer and distributor of precision measurement instruments and workflow solutions for the global construction, geospatial and agriculture markets. The positioning tools range is the result of a rich history in the measuring industry, a market driven R&D department

and our dedication to provide solutions that exceed customers' needs. The positioning tools range is far ahead of the competition in terms of functionality and quality. Topcon positioning tools are fast, dependable, durable, and accurate with technologies like Topcon's GreenBeam® that make Topcon lasers 4 times more visible than regular lasers. The high quality components used in the production of Topcon

laser tools give us the confidence to offer a warranty period of 5 years on parts. Topcon understands that in today's demanding work environment every minute of downtime on a measuring tool, is a minute lost. That's why we guarantee to solve any problem; swiftly and without restrictions.



This catalogue provides an overview of our product range. It's an easy way to find the measuring tool that best fits your needs and budget. Our goal is to provide you with right business solutions; today, tomorrow and in the future.



We proudly stand behind the quality of our products so Topcon lasers and receivers have a part warranty for a period of **5 years*** from the date of purchase.

* LS-100D receiver is excluded

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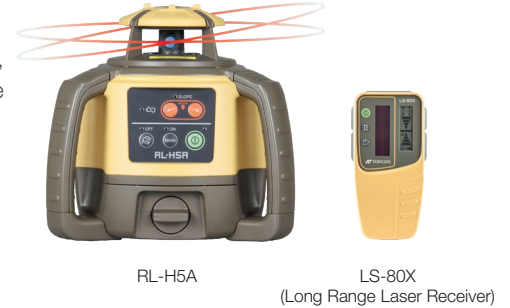




Self-Leveling Construction Laser

RL-H5 Series – Horizontal, slope and long range capabilities in one tough package. Its super-fast self-leveling motors are accurate to 1.5mm per 30m meaning whether you're checking grade or setting batter boards you're going to be accurate the first time. Its high-power diode means you have a 800m diameter working radius making it a great reference for machine mounted receivers. With all of these

features plus the rechargeable battery pack, the RL-H5A offers the functionality of three lasers in one.



Specifications	RL-H5A
Accuracy	H: ±10 arc seconds
Self-Leveling Range	Horizontal ±5°
Operating range (radius)	400 m
Rotation Speed	600 rpm
Dust / Water Protection	IP66
Operating Time	Up to 100 hrs
Operating Temperature	-20°C to 50°C
Size	205 x 211 x 172 mm

LS-100D Laser Receiver

- Working range radius 400m
- Five on-grade precision settings
- Dual display w/ 9-channel grade indicators
- Digital readout for quick, precise reading
- Extra-wide beam capture sensor
- Built-in level vial for precise alignment

Kit Components

- Instrument
- Laser receiver
- Sensor holder
- Tough carrying case
- Charger
- Battery pack

LS-80X Long Range Receiver

- Working range radius 400m
- Two on-grade precision settings
- 9-channel grade indication
- Dual LCD display
- Loud/Low/Off buzzer for audible alerts
- Up to 120 hours run time

Laser Receiver	LS-80X
Grade indication	9 channels
On-Grade precision	High precision: ±1 mm, Normal precision: ±2 mm
Audible on-grade alarm	Yes
Power	2 x AA Alkaline batteries
Battery life	Up to 120 hrs
Auto shut-off	After 30 minutes w/o beam detection

RL-H5A Self-Leveling Construction Laser

- Long-range operation radius 400m
- Smart long-range receiver
- Simple, intuitive manual slope capability
- ±10 Arc second horizontal accuracy
- Extra long battery life up to 100 hours

Laser Receiver	LS-100D
Grade indication	9 channels
On-Grade precision	High precision: ±0,5 mm
Audible on-grade alarm	Yes
Power	One AA Alkaline batterie / LR6 battery
Battery life	Up to 45 hrs
Auto shut-off	After 30 minutes w/o beam detection



Multi-Task Slope Laser

RL-SV Series – When you need a laser for horizontal, single slope, dual slope and vertical applications don't look further. The RL-SV2S high accuracy dual slope laser sets new standards for simplicity. Rugged, lightweight and compact, it's twice the laser at an amazingly affordable price! The RL-SV2S with vertical function, large backlit high-contrast

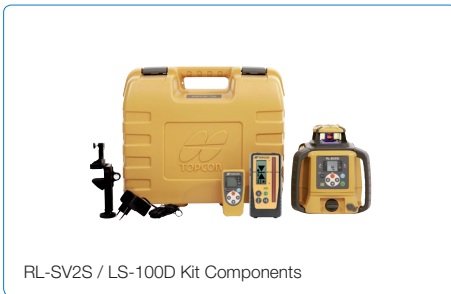
graphical display and possibilities to change grade, select menu settings, check operational status and even verify battery life, all without touching the laser.



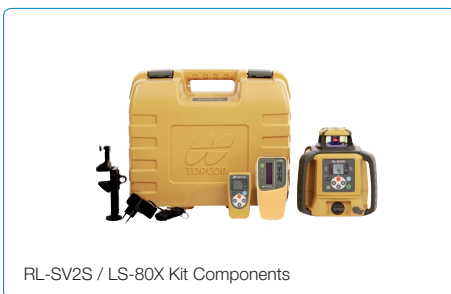
RL-SV2S



RC-60
(Radio Remote)



RL-SV2S / LS-100D Kit Components



RL-SV2S / LS-80X Kit Components



LS-80X Long Range Laser Receiver

RC-60 Radio Remote

- Range up to 100 m
- LCD display
- Uses 2 x AA dry cell batteries
- IP66 dust and water protection
- Weighs only 180g

RL-SV2S Multi-Task Slope Laser

- Horizontal, vertical, single, and dual slope applications
- Full-function radio remote
- Long-range operation radius 400m
- Extra-long battery life up to 120 hours



Details about Laser Receivers LS-80X and LS-100D on page 3

Kit Components

- Instrument
- Battery pack
- Laser receiver
- Sensor holder
- Remote control
- Charger
- Tough carrying case

Specifications	RL-SV2S
H&V Accuracy	±2.4 mm per 50 m
Self leveling range	±5 degrees
Grade settings	Dual, ±15%
Operating range (radius)	400 m
Rotation speed	300, 600 rpm
Dust / Water Protection	IP66
Operating time	Up to 120 hrs
Operating temperature	-20 to 50°C
Laser class	Class 3R
Output power	2.4mW
Laser wave length	635 nm



Slope Lasers

RL-200 Series – The new standard for simplicity and accuracy. Rugged, lightweight, and compact, it's twice the laser at an amazingly affordable price!

Choose from two models, RL-200 1S single slope, or RL-200 2S dual slope. The RL-200 1S provides single slopes from -5%

up to +25%. The RL-200 2S provides dual slopes up to +/-10% in the X axis, or up to an industry leading -5 to +25% in the Y axis. When the RL-200 2S is operating, the RC-400 displays all operating information up to 300m away.



RL-200 2S

RC-400
(Radio Remote)



RL-200 2S / LS-80X Kit



RL-200 2S / LS-100D Kit



RL-200 1S Single Grade Laser

RC-400 Radio Remote

- Range up to 300m
- Transmits & displays the data from the laser to the remote
- Made of durable plastic with bright yellow finish
- Battery life up to 3 months
- Weighs only 225g

RL-200 Slope Laser

- Wide range (up to 25% slope)
- Up to 100 hours of battery life
- Increased working diameter - radius 550m
- Clear graphical display



Details about Laser Receivers LS-80X and LS-100D on page 3

Kit Components

- Instrument
- Battery pack
- Laser receiver
- Sensor holder
- Remote control
- Charger
- Tough carrying case

Specifications	RL-200 1S	RL-200 2S
Repeatability	±1.2 mm	
Horizontal Accuracy	±7 arc seconds	
Horizontal Grade Range	-5% to +25% (single)	±10% / -5% to +25% (dual)
Operating range (radius)	550 m	
Wave Length	685 nm visible	
Laser Class	Class 3R	
Dust / Water Protection	IP66	
Rotation speed	300, 600, or 900 rpm	
Operating time	Up to 100 hrs	
Operating temperature	-20 to 50°C	
RC-400 (Remote Control)	Option	Yes
Range		two-way 300 m



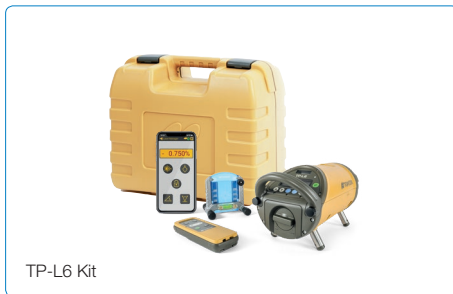
Pipe Lasers

TP-L6 Series – A combination of features and technology of alignment lasers whether in the trenches, over-the-top, or laser guidance in mining and tunneling, the TP-L6 is the industry standard. Available with red beam and GreenBeam®. When combined with features like SmartLine® auto-alignment, the world's

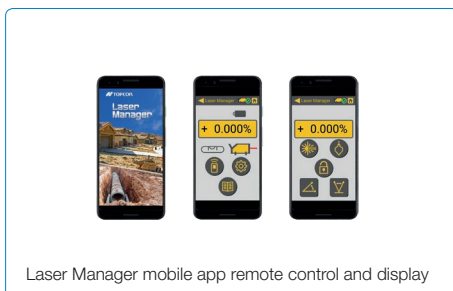
most accurate grade mechanism, power options that keep you working when other lasers have given up, it's no wonder Topcon has set the standard. There are four TP-L6 models to choose from, which means four ways to get there within your budget.



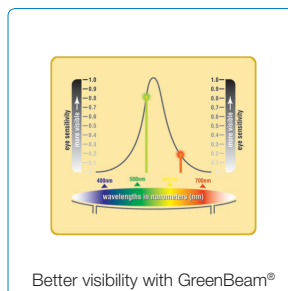
TP-L6G



TP-L6 Kit



Laser Manager mobile app remote control and display



Better visibility with GreenBeam®

Why Green? – Simple. You can see our GreenBeam® anywhere and under any conditions. It's the most visible construction laser ever! In fact, the TP-L6G GreenBeam® is four times easier to find in bright sunlight than conventional beams. So setup, grading and pipe installation is fast and easy.

TP-L6 Pipe Laser

- Compact design adds flexibility
- -15% to 40% grade setting range
- Red/Green laser
- 60-hour battery
- Self-leveling
- Optional plumb beam
- Android mobile app remote control and display
- Bluetooth connection

Kit Components

- Instrument
- 200 mm leg sets
- Tough carrying case
- Adjustable target
- Remote control RC-200
- NiCad battery
- Battery charger

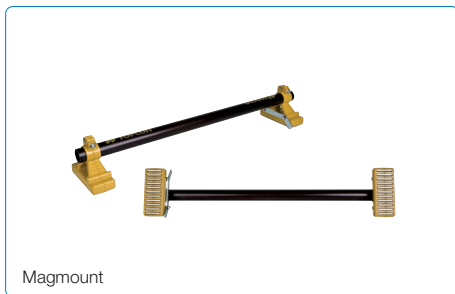
Specifications	TP-L6B	TP-L6A	TP-L6BG	TP-L6G
Laser source	633 nm	633 nm	532 nm	532 nm
Beam color	red	red	green	green
SmartLine® auto alignment	no	yes	no	yes
Auto line centering	yes	yes	yes	yes
Auto grade zeroing	yes	yes	yes	yes
Plumb reference	yes	yes	yes	yes
Plumb reference type	LED	LED	LED	LED
SmartLine® operating range	N/A	150 m	N/A	150 m
Grade range	-15% to +40%			
Line range	±15%			
Horizontal accuracy	±2.4 mm per 50 m			
Battery life	Up to 60 hrs			
Housing construction	Cast aluminium			
Laser Class	Class 3R			
Waterproof depth	At least 5 m for 24 hours			
Operating temperature	-20 to 50°C			



Laser Receivers and Remote Displays

LS-B Series – The LS-B Series of machine mounted laser sensors are affordable grade indicate systems designed to improve grading and excavating production and accuracy. These easy-to-use depth control sensors can be mounted to earthmoving machines in minutes.

When attached, just turn it on, and go to work. No more waiting for a grade checker or jumping of your machine to check grade yourself. Combine the LS-B10W / LS-B110W sensors with a remote display and you are good to go on larger machines or where the sensor is out of view.



Magmount



RD-100W Remote Display

RD-100W Remote Display

Shows the Laser sensors information in the cab of the machine. Productivity increases on the job because the operator focuses on the grade information in the cab.

Improved jobsite safety

With an LS-B Series laser sensor on your machines your jobsite is a safer place to work. The equipment operator has all of the grade information he/she needs without exiting the machine, no more relying on a grade checker. The whole crew is more productive and safer.

Specifications	LS-B10	LS-B10W	LS-B100	LS-B110	LS-B110W
Detective Range	120 mm		175 mm	250 mm	
Detective Angle	270°		360°		
Detective Precision					
Mode 1	±2 mm		±3 mm		
Mode 2	±6 mm		±6 mm		
Mode 3	±12 mm		±15 mm		
Mode 4	±30 mm		±30 mm		
Detectable Laser	Wave Length 633 to 785 nm				
Laser Detecting Range	(diameter) 800 m (using RL-200 1S/2S)				
Wireless Communication with RD-100W	-	Yes	-	-	Yes
Internal Battery	C-size dry cells 4 pcs. Battery pack BT-68Q (sold separately)				
External Power Supply	DC 10V to 30V				-
Operating Time (+20°C) Alkaline dry cells Battery pack BT-68Q	100 h	20 h	100 hours 50 hours	80 hours 40 hours	40 hours 18 hours
Operating Temperature	-20°C to 50°C				
Water Proof	IP66				
Dimensions (W/D/H)	110 x 36 x 176 mm		158 x 166 x 357 mm (With clamp)		
Weight (Without cells)	< 500 g		2.0 kg		

Specifications	RD-100W - Remote Display
Wireless Communication	20 m (may vary depending on obstacles between the two instruments as well as other communication)
Internal Battery	AA-size dry cells 3 pcs.
Operating time	40 hours
Dimensions (W/D/H)	110 x 36 x 176 mm
Weight	0.5 kg

X-52x - 2D Machine Control System for Excavators

X-52x – Modern 2D excavator system with 3D upgrade readiness. The X-52x 2D system with hydraulic controller, tilt sensors on bucket, stick, boom and body and in-cabin control box gets you to grade cost-effectively. Adding a Topcon laser with a LS-B10W laser receiver on the stick allows you to stay on grade without needing to restring.

When future projects dictate GNSS location and precision, the X-52x system is easily upgradeable to the full 3D-capable X-53x system.



GX-55 (Control Box)



X-52x Kit



TS-i3 Tilt Sensor and MC-X1 Controller



LS-B10W Laser Receiver

Specifications	GX-55 Control Box
Display Panel	640 x 480 Color VGA, Touchscreen
Operating System	Windows® CE 6.0
Ports	2x USB, Ethernet, RS-232, 2x CANBus, 2x Digital inputs
Power	9 to 32VDC
Operating Temperature	-40°C to 70°C
Dust / Water Protection	IP67

2D Excavator System

- Work from an existing elevation reference or laser
- Create, cut, and check complex designs from the cab
- Lightbar grade for visual guidance
- Easy upgradable to full 3D Solution

TS-i3 Tilt Sensors

Mounted along the bucket, stick, boom, and body for bucket control at any angle.

Improved jobsite safety

With an LS-B Series laser sensor on your machines your jobsite is a safer place to work. The equipment operator has all of the grade information he/she needs without exiting the machine, no more relying on a grade checker. The whole crew is more productive and safer.

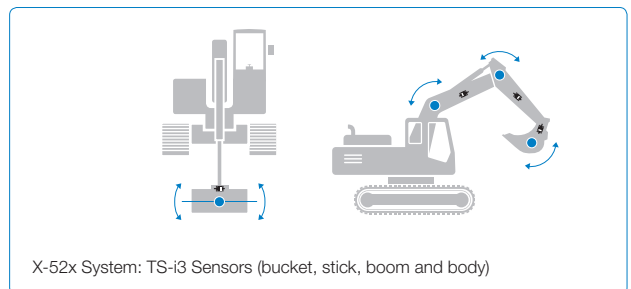


Details about Laser Receiver LS-B10W on page 7

Kit Components

- 2D MC-X1 Excavator hardware kitting parts
- GX-55 Control box
- Cable from GX-55 to MC-X1
- MC-X1 – Control box
- MC-X1 Mounts
- 3DMC 2D Software
- 3x TS-i3 – Single axis tilt sensor
- 1x TS-i3 – Dual axis tilt sensor
- GX-55 Control box bracket

Specifications	TS-i3 Sensor
Axis	Single/Dual
Resolution	0.01 degrees
Accuracy	0.1 degrees
Power	10 to 30VDC
Shock	25g, 11ms, any axis
Dust / Water Protection	IP69K



X-52x System: TS-i3 Sensors (bucket, stick, boom and body)

3D Layout Tool

LN-150 – takes you from paper plans and tape measures into digital layout and construction verification workflows. This tool is as easy to use as a laser level with the performance of a total station. No more surveyors and string lines. With the press of a button, the LN-150 automatically self-levels and guides you through the layout of the project, preventing

mistakes. You can check your work throughout the build to make sure everything is right, saving money on lost time, wasted materials and re-work. Pair it with a hand-held, touchscreen controller and MAGNET Field software and you are ready to go to work.



LN-150 (3D Layout Navigator)



LN-150 Kit



FC-6000 Field Controller

Kit Components

- Instrument
- Battery
- Charger
- Tough carrying case

Specifications

Specifications	LN-150
Horizontal Angle	360°
Vertical Angle	+55° to -30°
Prism Tracking Range	130 m
Accuracy	±3 mm
Leveling Range	6°
Compensation	12'
Wi-Fi	802.11 b/g/n
Bluetooth®	Class 1 LongLink™
Dimensions	185 x 198 x 332 mm
Dust / Water Protection	IP65
Operating Temperature	-20°C to 50°C
Laser Plummet	Yes

LN-150 3D Layout Tool

- Digital Layout for building and infrastructure
- Replaces paper plan, tape measure workflow
- Single-operator solution
- Easy one-button self-leveling setup
- WIFI and long-range Bluetooth®
- Cloud-connected workflows with Autodesk, Bentley, and Topcon's MAGNET Software Suite
- Optional MAGNET Construct mobile app for positioning layout and as-built applications

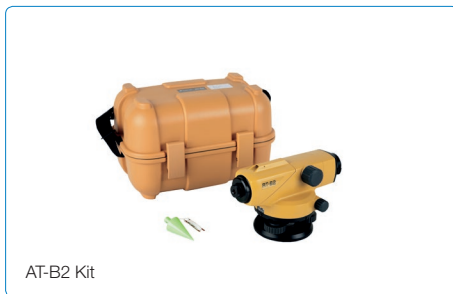
Automatic Levels

AT-B Series – Automatic levels – Three choices... limitless applications. One thing in common: Topcon precision. All AT-B series levels feature a finely tuned magnetic damping system with a superior resistance to cold, heat and shock. Horizontal angles can be directly read in 1° or 1 gon units. Free rotation feature allows you to read any angle from zero.

With the IPX6 rating, the instrument is protected against powerful water jets from all directions, meaning the AT-B series withstands a sudden shower or torrential rainfall. The advanced protection design also deters clouding or condensation inside the telescope.



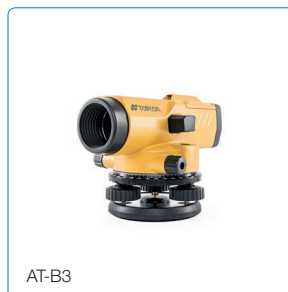
AT-B4



AT-B2 Kit



AT-B2



AT-B3

Specifications	AT-B2	AT-B3	AT-B4
Effective diameter lens	42 mm	36 mm	32 mm
Magnification	32x	28x	24x
Field of view (at 100 m)	1°20' (2.3 m)	1°25' (2.5 m)	1°25' (2.5 m)
Minimum focus / Horizontal circle	0,2 m / 1°(1g)	0,2 m / 1°(1g)	0,2 m / 1°(1g)
Working Range	±15'	±15'	±15'
Accuracy	0.7 mm	1.5 mm	2.0 mm
Dust / Water Protection	IPX6	IPX6	IPX6

AT-B Automatic levels

- 3 Models - 32x, 28x and 24x magnifications
- Rapid, accurate and stable automatic compensation
- Ultra-short 20 cm focusing
- All-weather dependability
- Endless fine horizontal adjustments

Kit Components

- Instrument
- Tough carrying case

Advanced Digital Theodolite

DT-300 – With our high precision digital theodolites you'll be up and working fast, thanks to its simple interface and large, easy-to-see backlit LCD. There's an optical plummet that makes set up over a control point easy, and a tilt sensor that provides ± 3 minute angle correction. With a range of angular accuracies available, only Topcon can offer the precision,

durability, and advanced technology found in the DT-300 series. Perfect for Construction Layout and Survey!



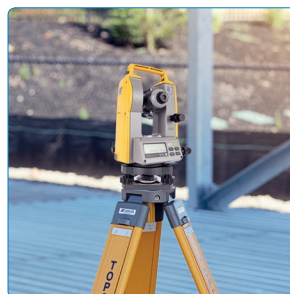
DT-300



DT-300 Kit



DT-300 Digital Theodolite



DT-300 Theodolite

- High-accuracy measurements (5", 7", 9" models)
- Ultra-rugged IP66 dust and heavy rain protection
- Laser accurate (L Series)
- Compact and light weight
- Long-lasting Li-ion or AA battery life
- Easy-to-use LCD backlit display(s)
- Precise laser pointer guidance
- Embedded tilt sensor for 5" and 7" models

Kit Components

- Instrument
- Lint free lens cloth
- Plumb bob (optional)
- Tough carrying case
- Tool kit

Easy to use

- Simple Operation
- Large, high-contrast, back-lit LCD's
- Simple five button interface panel
- Horizontal and vertical angles
- Slope by percent on angle

Specifications

DT-300

Telescope - Objective lens	45 mm
Telescope - Magnification	30x / 26x (9")
Telescope - Laser Pointer, class	Class 2
Minimum reading	2 mgon / 5 mgon
Accuracy	3.0 mgon
Angle Accuracy	2", 5", 7", 9"
Display	2 sides / 1 side (9")
Plummet	Optical
Data Output	RS-232C (2")
Compensator - Tilt sensor	1 Axis (2", 5", 7")
Compensator - Plate level	40" / 2 mm
Compensator - Circular level	10' / 2 mm
Dust / Water Protection	IP66
Operating time Theodolite Only	230 hours, 4x AA (Optical Li-ion: BDC71)
Operating Temperature	-20°C to 50°C
Dimensions (D x W x H)	173 x 181 x 318 mm
Weight	4.1 kg



Our mission is simple – to help grow your business. Sure, that helps us grow ours, and together we can help ensure that a growing world is a healthy world.

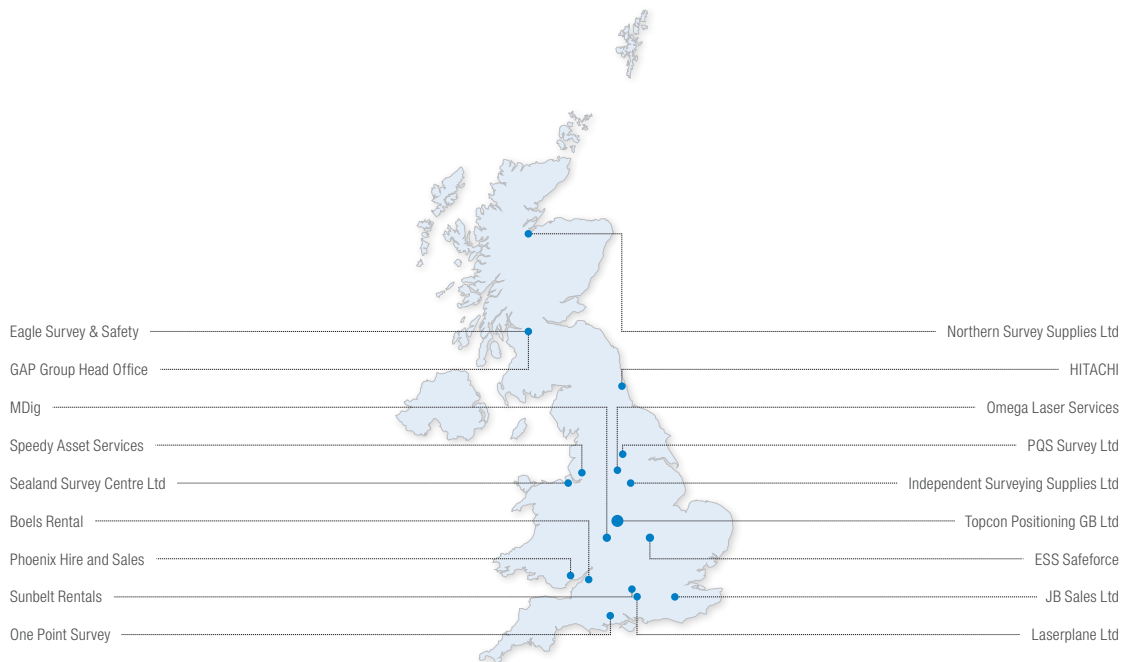
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documents, software and firmware updates, plus technical tips and expert opinions - right from your computer or mobile device.

Topcon Positioning Group – is an industry leading designer, manufacturer and distributor of precision measurement and workflow

solutions for the global construction, geospatial and agriculture markets. The positioning tools program is the result of a rich history in the measuring industry, a market driven R&D department and our dedication to provide solutions that meet customer needs.

Authorised dealers



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