OS

TOPCON

Standard Package Components

- OS main unit
- Battery (BDC72)
- Battery charger (CDC77)
- Power Cable
- Lens cap
- Lens hood
- Tool pouch
- Precision screwdriver
- Lens brush
- Adjusting pin×2
- Silicon cloth
- Quick manual
- USB flash drive(Manual)
- Laser caution sign-board
- Carrying case
- Carrying strap

SPECIFICATIONS

		OS-201	OS-202
Telescope			
Magnification / Resolving power		30x / 2.5"	
Others		Length: 171mm (6.7in.), Objective aperture: 45mm (1.8in.) (48mm (1.9in.) for EDM), Image: Erect, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.), Reticle illumination: 5 brightness levels	
Angle measurement			
Display resolution		0.5" / 1" (0.0001 / 0.0002gon, 0.002 / 0.005mil)	
Accuracy (ISO 17123-3:2001)		1"	2"
Dual-axis compensator / Collimation compensation		Dual-axis liquid tilt sensor, working range: ±6' (±111mgon) / Collimation compensation available	
Distance measurement			
Laser output[*1]		Reflectorless mode: Class 3R / Prism/sheet mode: Class 1	
Measuring range (under average conditions[*2])	Reflectorless[*3]	0.3 to 800m (2,620ft.) / Under good conditions[*6] : 1,000m (3,280ft.)	
	Reflective sheet[*4 *5]	RS90N-K: 1.3 ～ 500m、RS50N-K: 1.3 ～ 300m、RS10N-K: 1.3 ～ 100m	
	Mini prism	1.3 to 500m (1,640ft.)	
	One prism	1.3 to 5,000m (4.3 to 16,400ft.) / Under good conditions[*6]: 1.3 to 6,000m (19,680ft.)	
Display resolution	Fine/Rapid measurement	0.0001m(0.001ft. / 1/16in.) / 0.001m (0.005ft. / 1/8in.) (selectable)	
	Tracking/Road measurement	0.001m (0.005ft. / 1/8in.) / 0.01m (0.1ft. / 1/2in.) (selectable)	
Accuracy[*2] (ISO 17123-4:2001) (D=measuring distance in mm)	Reflectorless[*3]	(2 + 2ppm x D) mm[*7]	
	Reflective sheet[*4]	(2 + 2ppm x D) mm	
	Prism	(1.5 + 2ppm x D) mm	
Measuring time[*8]		Fine: 0.9s (initial 1.5s), Rapid: 0.6s (initial 1.3s), Tracking: 0.4s (initial 1.3s)	
OS, Interface and Data management			
Operating system		Windows Embedded Compact7	
Display / Keyboard		3.5inch, Transmissive TFT QVGA color LCD with LED backlight, Touch screen, Automatic brightness control / 29 keys with backlight	
Control panel location[*9]		On both faces (Face 2 is only touch screen display)	
Trigger key		On right instrument support	
Data storage	Internal memory	1GB internal memory (includes memory for program files)	
	Plug-in memory device	USB flash memory	
Interface		Serial RS-232C, USB2.0 (Type A / mini B)	
Bluetooth modem (Factory Option)[*9]		Bluetooth Class 1, Operating range: up to 10m[*10]	
General			
Guide light[*11]		Green LED (524nm) and Red LED (626nm), Operating range: 1.3 to 150m (4.3 to 490ft.)[*2]	
Laser-pointer[*11]		Coaxial red laser using EDM beam	
Calendar / clock function		Yes	
Levels	Graphic	6'(inner circle)	
	Circular level	10' / 2mm	
Optical plummet		Magnification: 3x, Minimum focus: 0.3m (11.8in.) from tribrach bottom	
Laser plummet (option)		Red laser diode (635nm±10nm), Beam accuracy: <=1.0mm@1.3m, Class 2 laser product	
Tribrach		Detachable	
Dust and water protection		IP65 (IEC 60529:2001)	
Operating temperature[*11]		-20 to 60℃ (-4 to 140°F)	
Size (with handle)		191(W)x190(D)x348(H)mm	
Instrument height		192.5mm from tribrach mounting surface 236mm +5/-3mm from tibrach bottom	
Weight with battery & tribrach		Approx. 5.7kg (12.3 lb.)	
Power supply			
Battery	BDC72	Li-ion rechargeable battery	
Operating time（20℃）	BDC72	Approx. 20hours (single distance measurement every 30 seconds)	

*1 IEC60825-1:Ed.2.0:2007 / FDA CDRH 21 CFR Part 1040.10 and 11
*2 Average conditions: Slight haze, visibility about 20km (12 miles), sunny periods, weak scintillation.
*3 Fine mode. With Kodak Gray Card White Side (90% reflective). When brightness on measured surface is 30,000 lx. or less. Reflectorless range/accuracy may vary according to measuring objects, observation situations and environmental conditions.
*4 When the measuring beam's incidence angle is within 30° in relation to the reflective sheet target.
*5 Measuring range in temperatures of -30 to -20℃ (-22 to -4°F) with Low Temperature models and 50 to 60℃ (122 to 140°F) with High Temperature models: RS90N-K: 1.3 to 300m (4.3 to 980ft.), RS50N-K: 1.3 to 180m (4.3 to 590ft.), RS10N-K: 1.3 to 60m (4.3 to 190ft.)
*6 Good conditions: No haze, visibility about 40km (25 miles), overcast, no scintillation.
*7 Measuring range:0.3 to 200m
*8 Typical, under good conditions. Reflectorless measurement time may vary according to measuring objects, observation situations and environmental conditions.
*9 Usage approval of Bluetooth wireless technology varies according to country. Please consult your local oce or representative in advance.
*10 No obstacles, few vehicles or sources of radio emissions/interference in the near vicinity of the instrument, no rain.
*11 The laser-pointer and the guide light do not work simultaneously.
*12 Low Temperature models:-30 to 50 ℃ (-22 to 122°F) is available on built-to-order basis.

TOPCON

Your local Authorized Dealer is:

OS

TOPCON

OS-200series
Onboard Station
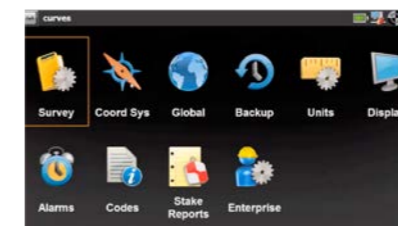
For professionals like you

- High performance EDM for rapid, repeatable measurements
- Modern, intuitive onboard MAGNET® Field software
- Convenient EDM trigger key
- Reflectorless laser measurement

Field

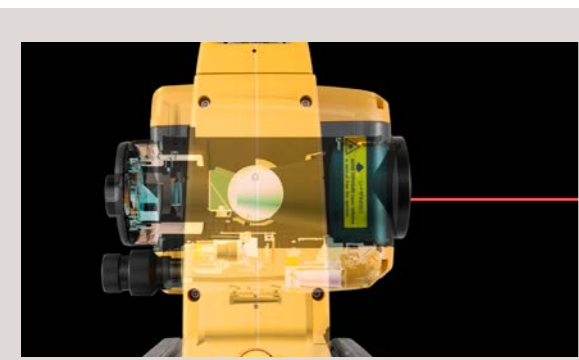# Professional results from basic to advanced applications

Survey

Construction

Boundary and Cadastral Survey
Quickly and easily calculate areas with the Area function. Determine the center point for objects such as columns or electrical poles which cannot be directly measured by using the Offset calculation.

Topographic Survey
The trigger key, or measuring distance key, helps you perform topography quickly while continuously viewing through the telescope. Also, the long distance measuring range reduces the number of the instrument changes for more efficient working time.

Traverse Adjustment
Adjust and correct closure errors for latitudes, departures, angles and/or elevations directly from the MAGNET Field onboard software.

Stake Points
A complete solution for every type of layout and stakeout is included in the software. Points, lines, offsets, roads, surfaces, slopes, and real-time roads are all available.

Topographic Survey
Collect points, lines, areas, cross sections, and surfaces including automatic topo point capture. Select Map or Measurement View and even record offset shots all while within Topo Survey.

Road/Cross-Sectional Survey
All the road stakeout information can be seen on one screen as you stake anywhere along the road design in real-time. Be more productive with real-time roads information.

Improve topography and stake out with features to achieve faster and more efficient workflows

Newly Designed High-Performance Class EDM
Especially effective in surveying control points that require high-accuracy, and in cross sectional surveying in large areas with reflectorless measurement mode.

All Features are at Top Class

	Accuracy	Measuring Range
Prism-Mode	1.5mm+2ppm	6,000m*
Reflectorless	2.0mm+2ppm	1,000m*

* Good atmospheric condition

Distance Measurement Accuracy (Prism Mode)

OS-200	Accuracy
	1.5mm+2ppm
Previous Model	2.0mm+2ppm

Measuring Range (Reflectorless Mode)

OS-200	Distance **1,000m**
Previous Model	500m

Total station Line up

Entry Model	Onboard Model	High-end Model
		Automatic collimation / tracking
GM-100	OS-200	GT-1200/600
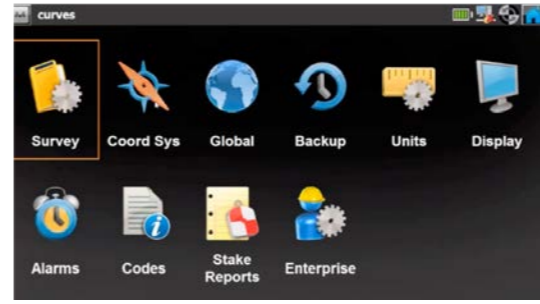
Discover MAGNET Field features and benefits.
- Intuitive user interface
- Advanced roading tool set
- Vast library of Import / Export file formats
- Calculate, contour, and compare surfaces
- Surface staking with automatic Digital Terrain Model creation
- Colorized cut and fill indicators, as well as volume calculations
- Direct connectivity to your private Company Account for easy data exchange and quick chat
- Microsoft Bing Maps® for real-time images behind your points, lines, and imported design files
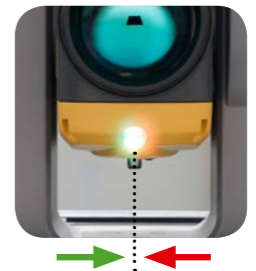
Guide Light System
Anybody can move to Stake Out Line easily. Green and Red colored lights will show you the direction to move.

Move to right on Green light — Layout line — Move to left on Red light

Target Key & Screw System
By using tangent screws for sighting, you can measure a distance with a single-button click. Work efficiently and increases productivity for sighting task such as Stake Out, Topography, and Elevation Stakes.