World's first support service only from Topcon
This shield is a standard feature of all new model Topcon Group total stations. Its advanced TSshield is a standard feature on all new model Topcon Group total stations.

For more detail of TSshield, please refer to the TSshield's leaflet.

Specifications subject to change without notice. ©2011 Topcon Corporation

For OS-101, OS-102 and Low Temperature models.

Good conditions: No haze, visibility about 40km (25 miles), overcast, no weak scintillation.

Typical, under good conditions. Reflectorless measurement time may vary according to measuring objects, observation situations and environmental conditions.

Your local Authorized Topcon dealer is:

www.topcon.co.jp

TOPCON CORPORATION
7-1, Hamamatsu-cho, Itabashi-ku, Tokyo 174-8580, Japan
Phone (+81)3-3558-2527/2521 Fax: (+81)3-3960-4214

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Bluetooth® and related logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Topcon is under license. Other trademarks and trade names are the property of their respective owners.

©2012 Topcon Corporation All rights reserved.
Windows® CE is ready in a lightweight, compact body
- Windows® CE provides a familiar, comfortable operating environment.
- Completely new onboard application “MAGNET™ Field” is installed as standard feature.

**MAGNET™ Field**
Data collection, stakeout, roads, and coordinate geometry.

**LongLink Data Communication**
- Long-distance communications with Bluetooth® Class 1.
- Bluetooth Class 1 communications ensures a long-distance, stable connection.
- Link between total station and rover-end data collector, both equipped with Bluetooth Class 1, facilitates quick surveying only by sighting the object.

* Offered as an option in some areas.

**Rugged Design**
- IP66 dustproof/waterproof performance
- Standard usage temperature range -20°C to +50°C. Low temperature models can be used as low as -50°C* and High temperature Models up to +60°C*

* Low and High temperature models available as options.

**Advanced Angle Measurement System**
- OS features advanced absolute encoders for long-term reliability in all work conditions.
- Dual-axis compensation ensures accurate leveling even on rough terrain.
- Motion clamp and tangent screw ensure stable angle measurement.
- OS-101 and OS-102 equipped with ground-breaking technology for extremely reliable angle measurement.

* Low and High temperature models available as options.

**Fast and Powerful Reflectless EDM**
- Fast and accurate pinpointing with phase shift technology.
- Fast distance measurement of 0.2s regardless of object.
- Minimum reflectorless measuring distance - just 30cm.
- Improved collimation with super-bright pointer.
- Smaller EDM beam spot size for minimal distance measuring error.
- Dependable measuring even at shallow incidence angles.
- Ensures accurate reflective sheet distance measurement.

**Primary Features**
Green/red Guide Light is built into the telescope as a standard feature, enhancing setting-out work efficiency in a range of 1.3 to 100m.

Trigger key lets you take a series of measurements without taking your eye off the telescope. Trigger key is ergonomically placed so that measurement can be taken at any time with just the push of a button.

Star key [ ] instantly brings up functions.

Control panel consists of 10-key pad with color LCD touch screen display for easy viewing of graphics*.

*Control panel location may vary depending on region or model.

**Primary Features**
- Built-in laser plummet is equipped for quick instrument setting.
- 5 brightness levels are ready for optimum visibility.*

*Offered as an option in some areas.

**Kit Components**
- Standard package components
- OS main unit, Battery (BDC70)
- Battery charger (CDC68)
- Power Cable
- Lens cap
- Lens hood
- Tool pouch
- Screwdriver
- Lens brush
- Adjustment pin×2
- Cleaning cloth
- Operation manual, USB memory key
- Laser caution sign-board
- Carrying case
- Carrying strap

**Kit Components**
- Long-distance communications with Bluetooth® Class 1.
- Bluetooth Class 1 communications ensures a long-distance, stable connection.
- Link between total station and rover-end data collector, both equipped with Bluetooth Class 1, facilitates quick surveying only by sighting the object.

* Offered as an option in some areas.

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All functions needed in the field are packed into a compact, lightweight body Windows® CE total station.

Windows® CE is ready in a lightweight, compact body
- Windows® CE provides a familiar, comfortable operating environment.
- Completely new onboard application "MAGNET™ Field" is installed as standard feature.

MAGNET™

Data collection, stakeout, roads, and coordinate geometry.

LongLink Data Communication*
- Long-distance communications with Bluetooth® Class 1.
- Bluetooth Class1 communications ensures a long-distance, stable connection.
- Link between total station and rover-end data collector, both equipped with Bluetooth Class1, facilitates quick surveying only by sighting the object.

Fast and Powerful Reflectorless EDM
- Fast and accurate pinpointing with phase shift technology.
- Fast distance measurement of 0.9s regardless of object.
- Maximum reflectorless measuring distance - just 30cm.
- Improved collimation with super bright pointer.
- Smaller EDM beam spot size for minimal distance measuring error.
- Dependable measuring even at shallow incidence angles.
- Ensures accurate reflective sheet distance measurement.

Advanced Angle Measurement System
- OS features advanced absolute encoders for long-term reliability in all work conditions.
- Dual-axis compensation ensures accurate leveling even on rough terrain.
- Motion clamp and tangent screw ensure stable angle measurement.
- OS-101 and OS-102 equipped with ground-breaking technology for extremely reliable angle measurement.

Rugged Design
- IP65 dustproof/waterproof performance
- Standard usage temperature range -20°C to +55°C.
- Low temperature models can be used as low as -30°C* and High temperature Models up to +60°C.*

USB Type A and Type miniB port

Long-lasting battery: one battery provides 20 hours of power.

Trigger key lets you take a series of measurements without taking your eye off the telescope. Trigger key is ergonomically placed so that measurement can be taken at any time with just the push of a button.

Green/red Guide Light is built into the telescope as a standard feature, enhancing setting-out work efficiency in a range of 1.3 to 100m.

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* Offered as an option in some areas.

MAGNET™

Cloud-based Solutions for Precise Positioning MAGNET™ is a software family that uses the cloud to seamlessly connect data in the field and office.

Real-time connections. When you need it. Where you need it. For data exchange, communications, asset tracking and more.

Standard package components
- OS main unit  
- Battery (BDC70)  
- Battery charger (CDC68)  
- Power Cable  
- Lens cap  
- Lens hood  
- Tool pouch  
- Screwdriver  
- Lens brush  
- Adjusting pin×2  
- Cleaning cloth  
- Operation manual  
- USB memory key  
- Laser caution sign-board  
- Carrying case  
- Carrying strap

* Offered as an option in some areas.
World’s first support service only from Topcon

Your local Authorized Topcon dealer is:

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>OS-101</th>
<th>OS-102</th>
<th>OS-103</th>
<th>OS-105</th>
<th>OS-107</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Telescope</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnification / Viewing power</td>
<td>20x / 5°</td>
<td>20x / 5°</td>
<td>20x / 5°</td>
<td>20x / 5°</td>
<td>20x / 5°</td>
</tr>
<tr>
<td><strong>Lenses</strong></td>
<td></td>
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</tr>
<tr>
<td>Length</td>
<td>177mm (6.6in.)</td>
<td>177mm (6.6in.)</td>
<td>177mm (6.6in.)</td>
<td>177mm (6.6in.)</td>
<td>177mm (6.6in.)</td>
</tr>
<tr>
<td>Diameter</td>
<td>40mm (1.6in.)</td>
<td>40mm (1.6in.)</td>
<td>40mm (1.6in.)</td>
<td>40mm (1.6in.)</td>
<td>40mm (1.6in.)</td>
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<tr>
<td>Angle measurement</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Display mode</td>
<td>160 x 160 (640 x 640)</td>
<td>160 x 160 (640 x 640)</td>
<td>160 x 160 (640 x 640)</td>
<td>160 x 160 (640 x 640)</td>
<td>160 x 160 (640 x 640)</td>
</tr>
<tr>
<td><strong>Accuracy (ISO 17123-3:2008)</strong></td>
<td></td>
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<tr>
<td>Dual-axis compensation / Calibration compensation</td>
<td></td>
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<tr>
<td>Dual-axis leaf tally sensor, working range: 0°C to 77°F (−4°C to 25°C)</td>
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<tr>
<td><strong>Distance measurement</strong></td>
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<tr>
<td>Laser output</td>
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<tr>
<td>Reflectorless</td>
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<tr>
<td>Reflective sheet</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Reflective sheet (cm)</td>
<td>1.3 to 100m (4.3 to 320ft.)</td>
<td>1.3 to 100m (4.3 to 320ft.)</td>
<td>1.3 to 100m (4.3 to 320ft.)</td>
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<td>1.3 to 100m (4.3 to 320ft.)</td>
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<tr>
<td><strong>Reference</strong></td>
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<tr>
<td>Measuring range (average conditions)</td>
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<tr>
<td>Reflective sheet</td>
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<td>1.3 to 100m (4.3 to 320ft.)</td>
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<tr>
<td><strong>Display installation</strong></td>
<td></td>
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</tr>
<tr>
<td>Display size</td>
<td>160 x 160 (640 x 640)</td>
<td>160 x 160 (640 x 640)</td>
<td>160 x 160 (640 x 640)</td>
<td>160 x 160 (640 x 640)</td>
<td>160 x 160 (640 x 640)</td>
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<tr>
<td><strong>OS, Interface and Data management</strong></td>
<td></td>
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<tr>
<td>Display / Keyboard</td>
<td></td>
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<tr>
<td>Bluetooth modem (option)</td>
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<tr>
<td>Bluetooth Class 1, Ver.2.1+EDR</td>
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<tr>
<td>Operating range: up to 300m (980ft.)</td>
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<tr>
<td>Interface</td>
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<tr>
<td>Data storage</td>
<td></td>
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<tr>
<td>Plug-in memory device</td>
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<tr>
<td>USB flash memory (max. 8GB)</td>
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<tr>
<td>Trigger key</td>
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<tr>
<td>500MB internal memory (includes memory for program files)</td>
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<tr>
<td><strong>Others</strong></td>
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<tr>
<td>Display resolution</td>
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<tr>
<td>0.002 / 0.001gon, 0.005 / 0.02mil</td>
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<tr>
<td>Magnification / Resolving power</td>
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<tr>
<td>30x / 3.5&quot;</td>
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<tr>
<td><strong>Instruction</strong></td>
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<tr>
<td>Operating system / Application</td>
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<tr>
<td>Windows CE 6.0 / MAGNET Field</td>
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<tr>
<td><strong>Power supply</strong></td>
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<tr>
<td>Battery</td>
<td></td>
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<tr>
<td>BDC70 detachable battery</td>
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<tr>
<td>Approx. 49 hours (single distance measurement every 30 seconds)</td>
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<td>Approx. 20 hours (single distance measurement every 30 seconds)</td>
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<tr>
<td><strong>Dimensions</strong></td>
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</tr>
<tr>
<td>Control panel on both faces: W191 x D190 x H348mm (W7.5 x D7.5 x H13.7in.)</td>
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<tr>
<td><strong>Environmental Conditions</strong></td>
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<tr>
<td>Temperature</td>
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<tr>
<td>Operating temperature</td>
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<tr>
<td>Specifications of metric models: −20 to 60°C (−4 to 140°F, No direct sunlight) are available on Low Temperature models.</td>
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<tr>
<td>Temperature models and 50 to 60°C (122 to 140°F) with High Temperature models and −30 to 50 °C (−22 to 122°F) and High Temperature models and −20 to 60°C (−4 to 140°F, No direct sunlight) are available on Low Temperature models.</td>
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<tr>
<td>Specifications of English models: −20 to 60°C (−4 to 140°F) are available on Low Temperature models.</td>
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<tr>
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<tr>
<td>Specifications of Japanese models: −20 to 60°C (−4 to 140°F, No direct sunlight) are available on Low Temperature models.</td>
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<tr>
<td>Specifications of Korean models: −20 to 60°C (−4 to 140°F, No direct sunlight) are available on Low Temperature models.</td>
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</tr>
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</tbody>
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For more detail of TSshield, please refer to the TSshield’s leaflet.