PS series

TOPCON

PS

Power Station

Connected to the Future

- Advanced Tracking Technology and New Remote Control System
- Fast and Powerful Reflectorless EDM
- LongLink™ Data Communication
- Advanced Angle Measurement System
- Rugged and User-friendly Design
- MAGNET™ Field On-Board Application Software

Exclusive
TSshield
technology built-in

World's First
integrated support service

PS A models :

PowerTrac + RC-5

Advanced Auto-Tracking Technology

Connected to Perfect Remote Control

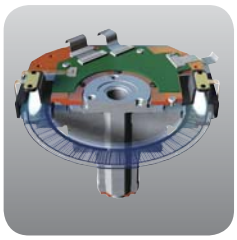
Advanced Tracking Technology and New Remote Control System

Advanced tracking algorithms with enhanced ability to predict future prism positions dramatically improves tracking stability.
The revolutionary PowerTrac engine increases power for prism tracking even under extreme conditions of frequent interruptions or strong reflections. Combined with the RC-5, the PS has the most advanced auto tracking available.

LongLink™ Data Communication*

The exclusive LongLink™ communication functionality in every PS Series model provides operational capabilities never before offered in a robotic total station. With a 600m wireless communication range, you can now operate the data collector from the "smart-spot" of the crew, the prism pole. Topcon's new LongLink™ technology brings a whole new level of flexibility to your manual field crew.

* Offered as an option in some areas.



Advanced Angle Measurement System

- All PS series Total Stations 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.
- PS-101 and PS-102 are equipped with groundbreaking technology for extremely reliable and accurate angle measurement.

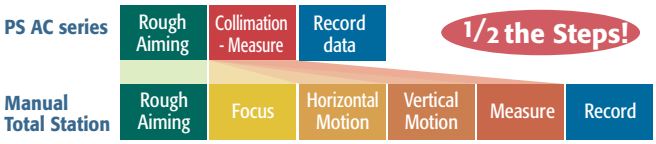
PS AC models :

Revolutionary 2-Person Survey System

Quick Auto-Collimating

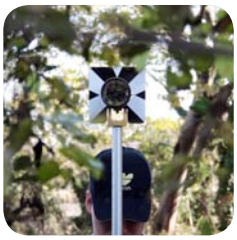
Simply tap the display screen, and the PS AC series automatically collimates to the prism center. There is no need to look into an eyepiece. Just roughly turn the telescope to a prism, and the PS does the rest. Using a standard prism, the PS AC series provides an wide auto-collimating range from 1.5m to 1,000m.

Dramatic time saving



More than What Human Eyes Can Do

- PS AC series quickly locates a prism though bushes or tree branches, in dim or dark conditions where it is difficult for an operator to visually find a prism.
- PS AC series provides consistent collimation accuracy and speed regardless of operator's skill levels.



Higher Productivity

Accomplish more work, ahead of schedule, with the PS AC series. It's time saving, high-precision performance lets you finish the job quicker. That means more profit from that job, and you can start the next job sooner!

Fast and Powerful Reflectorless EDM

- Fast and accurate pinpoint distance measurement with phase shift technology.
- Fast distance measurement of 0.9s regardless of type of the object type.
- Minimum reflectorless measurement distance as close as 30cm.
- Improved visibility of collimation with super-bright laser pointer.
- Smaller EDM beam spot size for maximum distance measuring precision.
- Dependable measuring even at shallow incidence angles.
- Ensures accurate measurement with reflective sheet.

Rugged Design

- IP65 dustproof/waterproof performance.
- Ambient temperature range -20°C to +50°C.

PRIMARY FEATURES

Green/Red Guide Lights are built into the telescope as a standard feature, enhancing setting-out work efficiency in a range of 1.3 to 150m.

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 menu.

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.

Built-in laser plummet is equipped for quick instrument set up.
5 brightness levels are ready for optimum visibility.* *Offered as an option in some areas.

Connected to MAGNET

MAGNET™

Cloud-based Solutions for Precise Positioning

MAGNET™ is a software family that uses the cloud to seamlessly connect the field and office for data exchange, communications, asset tracking and more.
Real-time connections when you need it, where you need it .

KIT COMPONENTS

Standard package components

- PS Main unit • Battery (BDC70) × 2
- Battery charger (CDC68) • Power cable
- Stylus pen • Lens cap • Lens hood
- Tool pouch • Screwdriver • Lens brush
- Adjusting pin × 2 • Vinyl cover
- Wiping cloth • Quick Manual
- USB memory (PDF Manual)
- Main unit Operator's Manual
- Laser caution sign-board • Carrying case
- Carrying strap × 2

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SPECIFICATIONS

PSseries Specifications

Product Type		Auto-Tracking Model				Auto-Collimating Model			
Model		PS-101A	PS-102A	PS-103A	PS-105A	PS-101AC	PS-102AC	PS-103AC	PS-105AC
Auto-Collimating / Auto-Tracking / Motor Drive									
Auto-Tracking		●	●	●	●	-	-	-	-
Auto-Collimating		●	●	●	●	●	●	●	●
Rotation speed / Auto Tracking speed		85°/sec (at 20°C) / 20°/sec							
Operating range		360° Prism ATP1: 2m to 600m、Prism Type 5:1.3m to 600m							
		Prism Type 2: 1.3m to 1,000m							
Angle Measurement		Rotary absolute encoder scanning.							
Minimum Reading		0.5"/1"		1"/5"		0.5"/1"		1"/5"	
Angle Measurement		1"	2"	3"	5"	1"	2"	3"	5"
Tilt Compensation		Dual Axis, Compensation Range: ±6'							
Distance Measurement									
Prism Mode	Measuring Range With 1 AP prism	1.3 to 5,000m (4.3 to 16,404ft.) / to 6,000m (to 19,685ft.) under good conditions*1							
	Measuring Range With 3 AP prism	1.3 to 8,000m (4.3 to 26,240ft.) / to 10,000m (to 32,800ft.) under good conditions*1							
	Accuracy	(1.5 + 2ppm x D)mm (D=measuring distance in mm)							
Sheet target	Measuring Range	RS90N-K:1.3m to 500m、RS50N-K:1.3m to 300m、RS10N-K:1.3m to 100m							
	Accuracy*2	(2 + 2ppm x D) mm							
Non-Prism Mode	Measuring Range	0.3m to 1,000m							
	Accuracy*2	(2 + 2ppm x D) mm							
Interface and Data management									
Operating System / Processor		Windows® Embedded CE.6.0							
Display		3.5 inch / Transmissive TFT QVGA color LCD							
Memory		500MB internal memory, USB flash memory (up to 8GB)							
Interface		USB2.0 (Type A/mini B) / RS-232C							
Wireless Communication									
Bluetooth		Class 1, Communication range: 600m*3							
Spread Spectrum Radio		-							
General									
Dust/Water Protection		IP65 (IEC 60529:2001)							
Operating Temperature		-20ºC to +50ºC							
Laser Pointer		Coaxial red laser pointer using EDM measuring beam, Class 3R laser							
Guide light		Green and Red LED, Working range: 1.3 to 150m (4.3 to 492ft.)							
Size		230 (W) x 207 (D) x 393 (H) mm							
Weight		Approx.6.9kg (15.2 lb.)							
Power Supply									
BDC70 standard battery		7.2V,5.2Ah							
Operating time		Approx. 4 hours*4							
Signal source / Laser output		Red laser diode (690nm) / Reflectorless mode: Class 3R, Prism / Sheet mode: Class 1 equivalent							

RC-5 Remote Control System (Optional of Auto-Collimating Model)

Operating range (slope distance)	Far mode: 2 to 300m (6.6 to 984ft.) / Standard mode: 2 to 100m (6.6 to 328ft.)
Measuring time	15 sec

*1 Condition 1: No haze with visibility about 40km, overcast with no heat shimmer.
*2 Kodak gray card white surface.
*3 Wireless communication range may vary depending on obstruction and other environmental conditions.
*4 Continuous face-1 and face-2 observations by using Auto-Collimating.

Connected to TSshield

World's first support service only from Topcon

TSshield is a standard feature on all new model Topcon Group total stations. Its advanced communication system provides new opportunities to secure and maintain your instrument.

*For more detail of TSshield, please refer to the TSshield leaflet.
*This service may not be available in some areas.

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