

## CONSTRUCTION TOTAL STATIONS



one-person operation for all your layout needs.



### PowerFuL FEATurES For iMProVED ProDuCTiVITy

#### MAXiMuM FLEXiBiLITy AND CoST SAViNGS

Application programs let you set up anywhere faster and perform all jobsite layout and measurement tasks yourself. You'll reduce your need for outsourcing and lower your costs.

#### EASy To LEArN AND uSE

Easy-to-follow user interface shortens the learning curve and speeds up operation. With minimal training, you'll find you don't need to be a surveyor to use these total stations.

#### oNE-PERSoN oPERATioN

Handle all layout tasks with only one person. Regardless of the complexity, your layout will be quick and accurate.



efficient equipment use.



### ETuPS

tion programs let you set up  
re, without worrying about  
ing over a control point.

# SPECIFICATIONS

PERFORMANCE SPECIFICATIONS	TRIMBLE SPS710 ROBOTIC TOTAL STATION	TRIMBLE SPS610 ROBOTIC TOTAL STATION	SPECTRA PRECISION TS515 MECHANICAL TOTAL STATION	SPECTRA PRECISION TS415 MECHANICAL TOTAL STATION
Type	Robotic, Autolock, Servo	Robotic, Autolock, Servo	Conventional mechanical	Conventional mechanical
<b>ANGLE MEASUREMENT</b>				
Accuracy (Standard deviation based on DIN 18723)	Horizontal: 3" (1.0 mgon) Vertical: 2" (0.6 mgon)	Horizontal: 5" (1.5 mgon) Vertical: 5" (1.5 mgon)	5" (1.5 mgon)	5" (1.5 mgon)
Angle reading increments	Standard: 1" (0.1 mgon) Tracking: 1" (0.1 mgon)	Standard: 1" (0.1 mgon) Tracking: 1" (0.1 mgon)	1"/5"/10" (0.2 mgon/1 mgon/2 mgon)	1"/5"/10" (0.2 mgon/1 mgon/2 mgon)
Automatic level compensator	Dual-axis compensator	Dual-axis compensator	Dual-axis compensator	Dual-axis compensator
<b>DISTANCE MEASUREMENT</b>				
<b>Prism Mode</b>				
Standard Measurement	± 3 mm + 2 ppm (0.01ft + 2 ppm)	± 2 mm + 2 ppm (0.01 ft + 2 ppm)	±3 mm + 2 ppm (0.01 ft +2 ppm)	±3 mm + 2 ppm (0.01 ft +2 ppm)
Tracking	± 10 mm + 2 ppm (0.032 ft + 2 ppm)	±5 mm + 2 ppm (0.16 ft + 2 ppm)	±10 mm + 3 ppm (0.032 ft +3 ppm)	±10 mm + 2 ppm (0.032 ft +2 ppm)
<b>Direct reflex</b>				
Standard Measurement	± 3 mm + 2 ppm (0.01 ft + 2 ppm)	±3 mm + 3 ppm (0.1 ft +3 ppm)	±5 mm + 2 ppm (0.016 ft +2 ppm)	N/A
Tracking	± 10 mm + 2 ppm (0.032 ft + 2 ppm)	±10 mm + 3 ppm (0.032 ft +3 ppm)	±5 mm + 3 ppm (0.016 ft +3 ppm)	N/A
Shortest Possible range	2.0 m (6.56 ft)	1.5 m (4.9 ft)	1.6 m (5.2 ft)	N/A
<b>MEASURING TIME</b>				
<b>Prism Mode</b>				
Standard Measurement	1.2 s	2.0 s	1.3 s	1.6 s
Tracking	0.4 s	0.4 s	0.5 s	1.0 s
<b>Direct reflex Mode</b>				
Standard Measurement	1-5 s	3-15 s	1.6 s	N/A
Tracking	0.4 s	0.4 s	0.8 s	N/A
<b>RANgE (AT STANDARD CLEAR*)</b>				
<b>Measurement to prism</b>				
1 Prism (50 mm dia.)	2,500 m (8,202 ft)	3,000 m (9,800 ft)	2,300 m (7,500 ft)	2,300 m (7,500 ft)
3 Prisms	3,500 m (11,482 ft)	5,000 m (16,400 ft)	3,000 m (9,800 ft)	3,000 m (9,800 ft)
<b>RANgE (AT STANDARD CLEAR*)</b>				
<b>range Direct reflex measurement</b>				
Kodak Gray (18% reflective)	>300 m (984 ft)	>120 m (394 ft)	>70 m (229 ft)	N/A
Kodak Gray (90% reflective)	>800 m (2625 ft)	>150 m (492 ft)	>100 m (328 ft)	N/A
<b>gENERAL SPECIFICATIONS</b>				
optical Plummet	Optical 2.4x	Optical 2.4x	Optical 2x	Optical 2x
<b>Telescope</b>				
Magnification	30x	30x	26x	26x
Aperture	40 mm (1.57 in)	40 mm (1.57 in)	40 mm (1.57 in)	45 mm (1.77 in)
illuminated Crosshair	Variable (10 steps)	Variable (10 steps)	Yes	Yes
Display Screen	LM80	LM80	Backlighted graphical LCD 128 x 32 pixels	Backlighted graphical LCD 128 x 32 pixels
operating Temperature	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-5 °F to +122 °F)	-20 °C to +50 °C (-5 °F to +122 °F)	-20 °C to +50 °C (-5 °F to +122 °F)
<b>Battery</b>				
Type	Rechargeable Li-Ion battery 11.1 V, 4.4 Ah	Rechargeable Li-Ion battery 11.1 V, 4.4 Ah	Internal NiMH battery pack, rechargeable	Internal NiMH battery pack, rechargeable
Charge time	6-hour charging time	6-hour charging time	2-hour charging time	2-hour charging time
operating time	Approx. 6 hours on a single battery	Approx. 6 hours on a single battery	Approx. 27 hours	Approx. 27 hours
Class II laser product label	Yes	Yes	No	No
<b>DATA TRANSFER AND RECORDING</b>				
Memory Capacity	Via LM80	Via LM80	Recording; internal data memory 10,000 data lines, 32 jobs	Recording; internal data memory 10,000 data lines, 32 jobs
Data input/output	RS232	RS232	RS232	RS232
LM80 interface	Required	Required	Optional	Optional

\* Standard clear: No haze, overcast or moderate sunlight with very light heat shimmer. Range and accuracy are dependent on atmospheric conditions and background radiation.



Productivity is...

#### Site Prep

that is faster and more accurate with laser-guided machines.

#### Layout

tools that let you take control of your job site and reduce errors.

#### Level

with precision tools that can stand up to tough jobsite conditions.

#### Align

with portable tools that give you convenience, speed and accuracy.

Productivity is the key to profitability... getting the job done faster with less machine time and personnel. Only one company can support your productivity with the broadest, deepest and most advanced construction solutions in the industry. Productivity is... Trimble.

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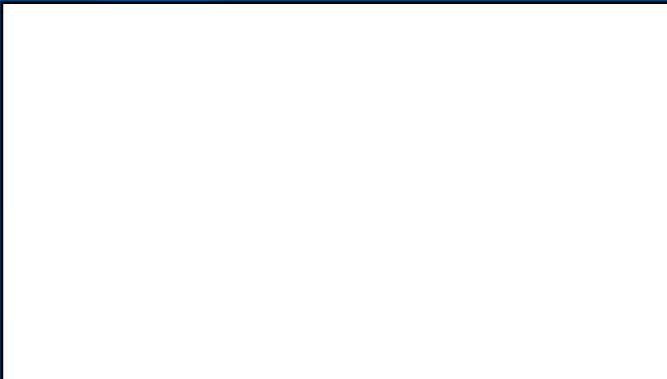
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