

SOKKIA

DT240 DT540S/DT740S/DT940S DT540LS/DT740LS/DT940LS Digital Theodolite

The Richest Lineup Ensuring Maximum Job Efficiency at Unparalleled Performance Levels

■ Common Features for All Models

- 2.5" – unsurpassed telescope resolving power*
- IP66 – industry's highest dust/water protection
- Absolute encoders
- Lightweight
- Standard LR6/AA batteries
- Up to 170 hours of operating time

*Except for DT940S/940LS.

■ Exclusive Features for the Laser Models

- 200m (660ft.) – long-range laser pointer
- 0.4mm@10m – ultra-small beam spot

■ Superior Performance and Durability

The Sokkia DT series theodolites feature superior optics, mechanics, advanced absolute encoder systems, and proven automatic compensators. In addition to these essential technologies for angle measurement instruments, the Sokkia DT series boasts the industry's highest IP66 dust and water protection capability to withstand the harshest worksite environments.



■ Power-Saving Technology to Save Battery Costs

Four LR6/AA alkaline batteries provide extra-long operating time from 100 to 170 hours, saving costs for replacement batteries. The DT instruments operate for two to five weeks without changing batteries*.

* When used for seven hours a day, five days a week, excluding the use of laser pointers.

■ Laser Pointer to Increase Construction Work Efficiency (Laser models)

The DT laser models feature built-in coaxial laser pointers that maximize construction work efficiency. The applications include:

- Layout/Setting-Out
- Horizontal/Vertical Alignment
- Leveling
- Grading
- Squaring



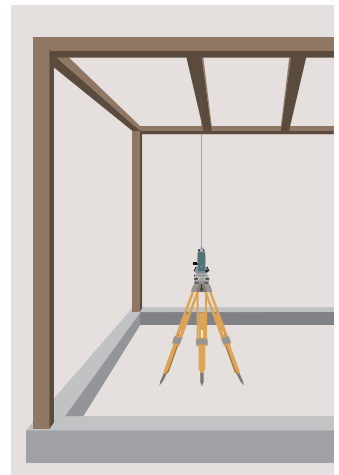
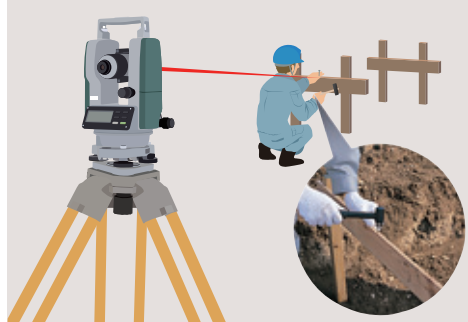
■ Long-Range Laser with Ultra-Small Beam Spot (Laser models)

The laser beam reaches 200m (660ft.) under indoor or underground conditions. Even under daylight conditions, the beam spot can be recognized at up to 50m (164ft.) away from the instrument. Red laser beam emitted from the objective lens is focused simultaneously with the telescope, meaning that the beam spot size becomes the minimum where you focus.

● Beam Spot Size (when focused)

	Distance	5m (16ft.)	10m (33ft.)	20m (66ft.)	30m (98ft.)	50m (164ft.)
DT540LS/740LS	Beam Diameter (mm)	0.1x0.2	0.2x0.4	0.5x0.7	0.7x1.1	1.2x1.9
DT940LS	Beam Diameter (mm)	0.1x0.2	0.3x0.4	0.6x0.8	0.8x1.2	1.4x2.0

The laser beam sizes are theoretical values. The visible laser beam size will vary with ambient brightness.



■ SPECIFICATIONS for Taiwan Models

Model	Digital Theodolite				Laser Digital Theodolite		
	DT240	DT540S	DT740S	DT940S	DT540LS	DT740LS	DT940LS
Laser pointer							
Type	-				Coaxial laser pointer with beam focusing capability		
Laser specifications	-				Class 2, Wavelength: 633nm, Maximum output: 0.6mW		
Laser range	Daylight	-				50m (164ft.)	
	Indoor (700 lux)	-				200m (656ft.)	
Telescope							
Length	149mm (5.9in.)				152mm (6.0in.)		
Objective aperture	45mm (1.8in.)			40mm (1.6in.)	45mm (1.8in.)		40mm (1.6in.)
Magnification	30x			26x	30x		26x
Resolving power	2.5"			3"	2.5"		3"
Image / Field of view	Erect / 1°30' (26m/1,000m)						
Minimum focus	0.9m (3.0ft.)				1m (3.3ft.)		
Stadia	Multiplication constant: 100, Additive constant: 0						
Reticle illumination	Y	Y	Y	-	Y	Y	-
Angle measurement							
Method	Absolute rotary encoder scanning						
Detecting	Horizontal	Diametrical			Single	Diametrical	
	Vertical	Diametrical			Single	Single	
Display resolutions	1" / 5" 0.2 / 1mgon		5" / 10" 1 / 2mgon		1" / 5" 0.2 / 1mgon		5" / 10" 1 / 2mgon
Accuracy	2"		7"		9"		7"
Circle diameter	71mm (2.8in.)						
Automatic compensation range	±3'(±55mgon)			-		±3'(±55mgon)	
General							
Control panel layout	On both faces			On single face	On both faces		On single face
Display	LCD, 7 digits x 2 lines, backlight						
Interface	RS-232C			-	RS-232C		-
Optical plummet	Magnification: 3x, Field of view: 3°, Minimum focus: 0.5m (1.64ft.)						
Sensitivity of levels	Plate level	30"/2mm			40"/2mm	30"/2mm	40"/2mm
	Circular level	10'/2mm	8'/2mm		10'/2mm		8'/2mm
Tribrach	Detachable						
Operating temperature	-20 to +50°C (-4 to +122°F)						
Dust and Water Protection	IP66 (IEC 60529:2001)						
Size (w/handle)	W188 x D149 x H315mm (W7.4 x D5.9 x H12.4in.)				W188 x D152 x H315mm (W7.4 x D6.0 x H12.4in.)	W188 x D152 x H313mm (W7.4 x D6.0 x H12.3in.)	W188 x D152 x H315mm (W7.4 x D6.0 x H12.4in.)
Weight (w/batteries)	4.1kg (9.0 lb.)			3.5kg (7.7 lb.)		4.2kg (9.3 lb.)	
Power supply							
Battery	LR6/AA batteries x 4						
Operating time w/alkaline batteries at 20°C (68°F)	Theodolite only	Approx.100 hrs	Approx.140 hrs	Approx.150 hrs	Approx.170 hrs	Approx.140 hrs	Approx.150 hrs
	Laser only	-				Approx.80 hrs	
	Theodolite and laser	-				Approx.45 hrs	

■ Standard accessories

- LR6/AA batteries (x4) • Lens cap • Plumb bob • Tool kit • Operator's manual • Carrying case and shoulder strap

- Designs and specifications are subject to change without notice.
- Product colors in this brochure may vary slightly from those of the actual products owing to limitations of the printing process.



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