



Easy to use, rugged, all-weather construction, plus superior Nikon optics

Nikon Designed for general construction and survey applications, Nikon® NE-101 and NE-100 electronic digital theodolites from Tripod Data Systems™ (TDS) combine rugged, all-weather durability with ease of use and affordability. An ergonomic keypad with one-touch keys for all functions and a large text display with backlight help you work productively in the field. Nikon's world-renowned optics and a 30x telescope give you brighter, clearer images. And while lightweight, the NE-101/100 are solidly built and come with an IPX4 rating so you can count on reliable performance in tough field conditions and inclement weather. Plus, you can work up to 48 hours on six AA alkaline batteries.

One-touch keys for common functions make field operation simple, efficient

NE-101/100 theodolites feature five one-touch keys, and it only takes minutes to learn their functions. Press the %/VA key to instantly convert vertical angles to percent of grade. Besides standard clockwise angle measurements, you can select counterclockwise horizontal angle measurement by pressing the R/L key. Press the RESET key for about a second to reset the horizontal angle to zero. And, by pressing the HOLD key, you can lock the horizontal angle displayed on the LCD while you reposition the instrument. Press the HOLD key a second time to release the angle and continue measuring. You can also select repeat measurement by pressing the HOLD key for about a second.

See brighter, sharper images with focus to 2.3 ft.

You'll see the difference when you look through a Nikon theodolite. Nikon's famous optics effectively let in more light. The result is brighter, sharper images, especially in low-visibility conditions. You'll see much more detail and experience less distortion. Better optics help you aim more precisely, and they're much easier on your eyes—something you'll really appreciate on long workdays.

The NE-101/100 feature a 30x telescope with Nikon's unique linear focusing mechanism to improve focusing at both short and long distances. The minimum focus-



The NE-101/100 theodolites feature a large, backlit LCD graphic display and keypad. One-touch keys provide fast access for all functions.

ing distance is 2.3 ft (0.7 m) so you can see sharp images even in confined spaces or on steep slopes.

Works longer on standard AA batteries

Unlike other instruments that require specialized batteries, the NE-101/100 use six standard AA alkaline batteries.

What's more, those batteries can power the NE-101/100 for about 48 hours. A three-level bar graph on the LCD screen displays remaining battery power.



Data Collection



GPS/GIS



Office Software



Construction

Bright lighting improves visibility in dim conditions

NE-101/100 theodolites feature a built-in reticle illuminator and backlit LCD display that allow you to work inside buildings as well as in tunnels, mines and other environments with little or no light. These features also come in handy during low-light outdoor conditions, such as near dawn or dusk.

Measure accurately in multiple applications

The NE-101 offers 7" and the NE-100 offers 10" angle accuracy for both horizontal and vertical angle measurements. You can use several positioning techniques: 90-degree layout, checking angles, alignment and plumb, along with short-range grade work and leveling. That makes the NE-101/100 ideal for multiple survey and construction applications, including staking out building pads, footings and foundations; determining locations for equipment, wiring and plumbing; and checking the position and alignment of concrete forms, anchor bolts and steel columns.

Standard accessories

- Carrying case
- Tool set
- Six AA batteries
- Instruction manual
- Dust cover

Optional accessories

- High (36x) and low (18x) power eyepiece lenses
- Diagonal eyepiece prism
- Zenith prism
- Solar prism
- Tubular compass and adapter
- Solar filter

Electronic Digital Theodolites

NE-101/100 Specifications

	NE-101	NE-100
TELESCOPE		
Effective diameter of objective:	1.77 in (45 mm)	1.77 in (45 mm)
Magnification:	30x	30x
Image:	erect	erect
Field of view (@ 100 ft/100 m):	1°20' (2.3 ft/2.3 m)	1°20' (2.3 ft/2.3 m)
Shortest focusing distance:	2.3 ft (0.7 m)	2.3 ft (0.7 m)
Stadia multiplier constant:	100	100
Stadia additive constant:	0	0
Reticle illuminator:	provided	provided
ANGLE MEASUREMENT		
Reading system:	photoelectric incremental encoder	photoelectric incremental encoder
Circle diameter:	3.1 in (79 mm)	3.1 in (79 mm)
Unit of reading:	degree/gon/mil (selectable)	degree/gon/mil (selectable)
Minimum digital reading:	5/10", 1/2 mgon, 0.02/0.05 mil (selectable)	10/20", 2/5 mgon, 0.05/0.1 mil (selectable)
Accuracy (DIN 18723):	7"/2 mgon	10"/3 mgon
DISPLAY		
Type:	dot-matrix LCD, single 20 characters x 2 lines	dot-matrix LCD, single 20 characters x 2 lines
Illumination:	backlight illumination provided	backlight illumination provided
KEYPAD		
Location:	one side	one side
OPTICAL PLUMMET		
Magnification:	2.2x	2.2x
Field of view:	5°	5°
Focus range:	4.3 ft (1.3 m) fixed	4.3 ft (1.3 m) fixed
LEVEL SENSITIVITY		
Plate level:	40"/2 mm	60"/2 mm
Circular level:	10"/2 mm	10"/2 mm
LEVELING BASE		
Type:	detachable	detachable
INTERNAL POWER SOURCE		
Type of batteries:	1.5V alkaline AA x 6	1.5V alkaline AA x 6
Continuous operating time (at 68 °F/20 C)	48 hrs	48 hrs
AMBIENT TEMPERATURE RANGE		
	-4 to 122 °F (-20 to 50 C)	-4 to 122 °F (-20 to 50 C)
DIMENSIONS (W x D x H)		
Instrument:	6.0 x 6.8 x 13.1 in 153.5 x 172 x 334 mm	6.0 x 6.8 x 13.1 in 153.5 x 172 x 334 mm
WEIGHT		
Instrument:	9.8 lbs (4.5 kg)	9.8 lbs (4.5 kg)
Plastic carrying case:	5.4 lbs (2.5 kg)	5.4 lbs (2.5 kg)

Your local TDS dealer



TRIPOD DATA SYSTEMS
A TRIMBLE COMPANY

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