SOUTH
Target your success

N40 Series

Graphic Total Station

- 1"/2" Angle Accuracy, 1000m Reflectorless EDM
- Graphic Display with 3.5 Inches Touch Screen
- Cable-Free Connection by Bluetooth or USB
- EDM Trigger Key
- Auto Instrument Height & Guide Light (*1)
- Camera for Target Aiming & Recording (*2)

Version: N40 2.0

Class-leading Performance

Graphic Display to Boost Your Daily Work

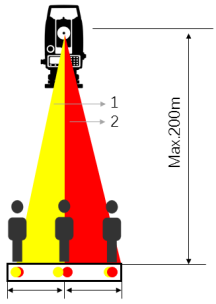
Featuring a easy-to-use O.S with graphical display, N40 series total station enriches your surveying workflow with visual possibility and productivity. With extreme long-range EDM, quadruple-axis compensator, trigger key and powerful onboard applications, it allows you to work quickly and effectively from the first day.

Advanced Accuracy with Long-Range EDM

Up to 1+1ppm, 1" angle accuracy. Or 2+2ppm with 2" angle accuracy.
With 1000m reflectorless range, N40 series total station is a powerful tool for all the surveying jobs.

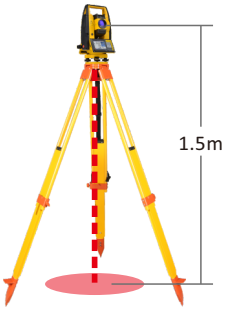
Trigger Key

The measurement can be taken at any time with just a simple button press by EDM trigger key. You can measure and get the result without taking your eye off the telescope.



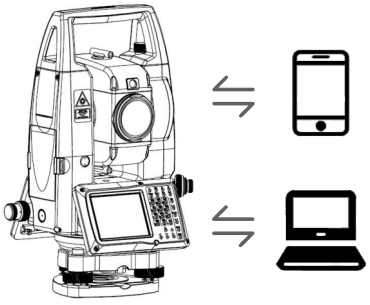
Guide Light *1

With red and yellow flash lights, the guide light is an efficient tool, helping to speed up your working when stake out.



Save Time with Auto Height *1

With integrated LPDM module on laser plummet, N40 minimizes errors and accelerates the setup process onsite. Auto height enables the operator the get the instrument height with a simple press.



Versatile Connectivity

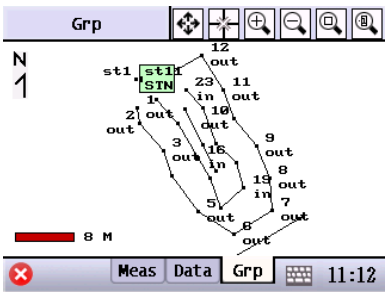
Transfer the data by versatile methods, for example SD card, USB or mini USB. It provides a faster connection to your laptop and Android mobile by Bluetooth.
Also you can export the data to data processing software via serial port.

Powerful Applications

Every N40 total station comes with a complete range of powerful applications, like stake out, area 2D&3D, volume, REM, MLM, offset, road.

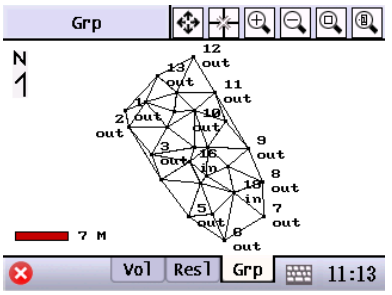
Graphic Display

With 3.5 inches high-resolution touch screen, each measured point can be linked automatically to generate a sketch intuitively and clearly.
The easy-to-use graphical interface makes your job more efficient than ever.



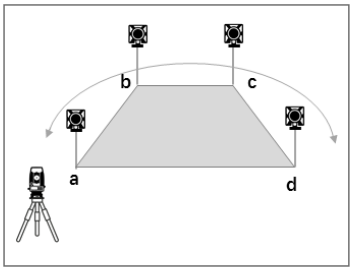
Volume

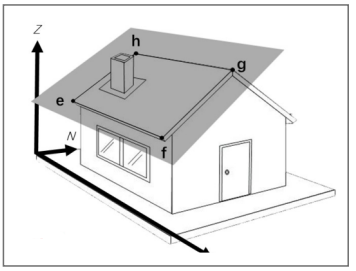
It is used to calculate the volume from points which connected by straights. Those points can be measured, selected or inputted in bulk or individually. With graphic display, N40 provides fluent workflow and brilliant readability for your daily tasks.



Area 2D & 3D

Area program can be projected onto the horizontal plane (2D) or a slope reference plane defined by 3 points (3D), which is widely used in the measurement of inclined surface (e.g. roof) or vertical surface (e.g. billboard).



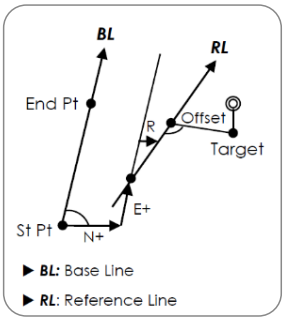


Stake-Out

Featured electronic compass, a complete solution for every type of stakeout is included in N40 series total station. Stake-out function calculates the required elements to find out the stake-out points from coordinates, angles & distance, alignment, lines and reference lines.

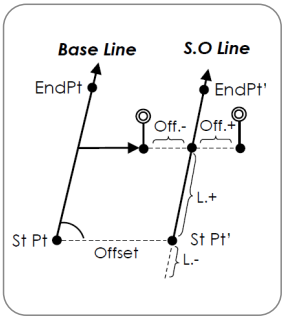
- **Reference Line**

It calculates the coordinate of stake-out point by a known base line, which defined by two know points, and the related offset. The reference line can be offset either longitudinally, parallelly or vertically to the base line, or be rotated around the base point.



- **Line S.O**

Line stake-out calculates the coordinate of stake-out points by a base line, which defined by two know points and the offset distance.



SPECIFICATIONS

		N41	N40
Angle Measurement			
Accuracy		1”	2”
Minimum Reading		0.1”/1”	1”/5”
Measure Method		Absolute Encoding Disk	
Diatmeter of Encoding Disk		79mm	
Detection Method		Horizontal: 4-path, Vertical: 4-path	
Angle Unit		360°/400gon/6400mil	
Horizontal 0/Vertical 0		V0/H0	
Distance Measurement			
Laser Class		Laser Class 3R①	
Wavelength		685nm	
Distance Unit		m/ft	
EDM System		Basic Frequency 70-150MHz	
Constant K		Auto Correction，K=0.14/0.2	
Prism Constant		Auto Correction	
Atmosperic Correction		Auto Correction	
Accuracy	Prism	1+1ppm	2+2ppm
	Reflective Sheet	3+2ppm	
	Reflectorless	3+2ppm⑤	
Measure Range	Prism②	Single: 4000m / Triple: 5000m	
	Prism Enhanced	Single: 5000m / Triple: 6000m	
	Reflective Sheet③	1200m	
	Reflectorless ④	1000m	
Meaasure Speed	Prism	Single <1.2s, Repeat <0.5s, Tracking <0.25s	
	Reflective Sheet	Single <1.0s, Repeat <0.5s, Tracking <0.25s	
	Reflectorless	Single: 0.5s-3s; Tracking: 0.25s-3s, max. 10s ⑥	
Telescope			
Image		Erect	
Magnifcation		30x	
Effective Aperture		45mm (DTM: 47mm)	
Resolution		3"	
Field of View		1°30'	
Minimum Focus		1.5m	
Tube Length		152mm	
Retical Illumination		Adjustable, 4 Levels	
Vial			
Plate Vial		30”/2mm	
Circular Vial		8'/2mm	
Compensator			
System		Dual-axis Liquid-electric Sensor	
Working Range		±6’	
Resolution		1”	
Plummet			
Laser Plummet	Laser Class	Class 2. Red Laser	
	Wavelength	635nm	
	Power	0.5mW	
	Diameter	≤2.0mm@1.5m	
	Brightness	Adjustable, 5 Levels	
Auto Height *1*2	Measure Range	0.5m-3m	
	Accuracy	±1.5mm@1.5m	
Optical Plummet	Image	-	Erect
	Magnifcation	-	3x
	Focusing Range	-	0.3m~∞
	Field of View	-	±4°
Guide Light*1			
Type		LED	
Wavelength		Red 635nm / Yellow 590nm	
Effective Distance		200m	
Camera*2			
Pixel		780,000	-
Focal Length		16mm	-
Sight of View		12.5*11.7 Degree	-
Refresh Rate		11 Frames/s	-
Depth of Field		2m-∞	-
Storage		jped	-
Digital Zoom		1x, 2x, 3x	-
White Balance		Auto	-
Brightness		Auto	-
Display Unit & Keyboard			
Display Unit		3.5 Inches Colorful LCD Touch Screen	
Resolution		320*240dpi	
Backlight		Adjustable, 8 Levels	
Keyboard		30 Keys	
Memory			
Internal Memory		98M, 120000 Points	
External Memory		USB & SD Card Available, Maximum 32G	
Data Transfer		USB, Mini USB, Bluetooth 2.1+EDR, SD Card, RS-232	
Power Supply			
Type		LI-ION Rechargeable Battery	
Voltage		7.4V	
Capacity		3900mAh, 29Wh	
Working Time		10 Hours	
Charging Time		3 Hours	
Others			
Working Temperature		−20˚C~＋50˚C	
Storage Temperature		-40˚C~＋70˚C	
Size		206mm*200mm*353mm	
Weight		6kg	

STANDARD PACKING LIST

Main unit	1x
Lens cover	1x
Battery	2x
Tools pouch	1x
SD card	1x
Manual	1x
Charger	1x
Reflective sheet	1x
Carry case	1x
Belt	2x
Mini USB cable	1x

①EN60825-1: 2007 ②Good conditions: No haze, visibiliity about 40km. Overcast, no scintillation ③Good conditions. With Koada gray card white side (90%) reflective. standard sheet size. 300m under good conditions with koada gray card grey side (18%). ④With Kodak gray card white side (90%) reflective. Reflectorless range /accuracy may vary according to measuring objects, observation situations and environmental conditions ⑤Range less than 200m. When the measure range is over 200m, the accuracy will be 5+2ppm. ⑥Typical, under good conditions. Range less than 500m. It also depend on object surface. Maximum less than 10s

*1: Available on N41, N40X total station
*2: Available on N41I total station

OPTIONAL ACCESSORIES

ATS-2B Fiberglass Tripod
NLS-15 Prism Pole
TK21T Prism Set

You Local Authorized Dealer

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SOUTH SURVEYING & MAPPING TECHNOLOGY CO., LTD.
E-mail: mail@southsurvey.com
http://www.southinstrument.com