SPECIFICATIONS

		N7	N7H	N7 Plus
Distance Measurement				
EDM System		Laser Class 3R*¹		
		Wave legnth: 650 - 690 nm. 150MHz Frequency		
Measurement Range	Single Prism*²	5000m		
	Reflective Sheet*³	1000m		
	Reflectorless*⁴	1000m		
Accuracy	Single Prism	±(2+2ppm.D)mm		
	Reflective Sheet	±(3+2ppm.D)mm		
	Reflectorless	±(3 + 2ppm×D)mm*⁵		
Measuring Time	Prism	Tracking < 0.1s, Fine < 0.3s		
	Sheet	< 0.3s		
	Reflectorless	0.3-3s*⁶		
Atmospheric Correction		Manual Input, Auto Correction		
Prism Constant		Manual Input		
Dist. Unit		Freecale Sensor		
Reading				
Measuring Time		Fine Mode < 0.3s; Tracking Mode < 0.1s		
Atmospheric Correction		Auto Correction		
Prism Constant		Manual Input		
Angle Measurement				
Measurement Method		Absolute Encoding		
Diameter of Absolute Encoding Disk		79mm		
Minimum Reading		0.1" or 1" option		
Accuracy		2″		
Detection Method		Horizontal: 4 path, Vertical: 4 path		
Endless Drives		-		Smooth movements with no delayed response time
Telescope				
Image		Erect		
Effective Aperture		48mm		
Magnification		30 X		
Field of View		1°30'		
Minimum Focusing Distance		1.4m		
Automatic Compensator				
System		Dual-Axis Liquid-electric Sensor Compensation		
Working Range		±4'		
Accuracy		1″		
Sensitivity of Vial				
Plate Vial		30″/2mm		
Circular Vial		8″/2mm		
Laser Plummet (Default)				
Accuracy		±1.5mm (in 1.5m InsHt)		
Wave Length		630nm-670nm		
Laser Power		≤ 0.4mW		
Auto Height				
Working Range		-	0.5-3m	
Min. Reading		-	1mm	
Accuracy		-	±1.5mm	
Optical Plummet (Option)				
Image		Erect		
Magnification		3X		
Focusing Range		0.5m - ∞		
Field of View		5°		
Guide Light				
Type		LED		
Wavelength		Red 635nm/ Green 590nm		
Effective Range		200m		
General				
Operate System		Windows CE 6.0		
Processor		Intel PXA310 624Mhz		
Memory		128M DDR, 512M NAND Flash		
Display		3.5inches LCD Touch Screen 640*480dpi		
Communication		RS-232, Mini USB, USB OTG, SD card; Bluetooth V2.0+EDR, 10m range; WIFI 802.11		
Battery		Rechargeable Lithium Battery		
Voltage		7.4V DC		
Capacity		5000mA		
Operation Time		10 hours		
Environment		-20°C ~ ±50°C		
IP Standard		IP55		
Dimension and Weight		196×192×360mm, 6.2kg		

Note: all information above is subject to change without any prior notice.

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

You Local Authorized Dealer

STANDARD PACKING LIST

Main unit	1x
Lens cover	1x
Battery holder	1x
Battery LB-01	2x
Tools pouch	1x
Plummet	1x
SD card	1x
Manual	1x
Warranty card	1x
Charger LC-01	1x
Reflective sheet	1x
Carry case	1x
Belt	2x
Mini USB cable	1x

*1. EN60825-1: 2007 *2. Good conditions: No haze, visibiliity about 40km. Overcast, no scintillation *3. Good conditions. With Koada gray card white side (90%) reflective. sheet size 60*60mm. 400m under good conditions with koada gray card grey side (18%) *4. With Kodak gray card white side (90%) reflective. Reflectorless range /accuracy may vary according to measuring objects, observation situations and environmental conditions *5. Range less than 200m. When 200m to 500m, 5+2ppm and measurement time maximum less than 10 second *6. Typical, under good conditions. Range less than 500m. It also depend on object surface. Maximum less than 10s

OPTIONAL ACCESSORIES

ATS-2 Wooden Tripod
NLS-15 Prism Pole
TK21T Prism Set

SOUTH
Target your success

N7 Series
Win-CE Total Station

- World's first dual-laser EDM model
- 2"angle accuracy
- Reflectorless range up to 2000m
- Smaller laser spot for minimal measuring error
- Windows CE 6.0 OS, with software WinTS, WinEG, WinMG on board, featuring field-to-office programs like COGO, Road, Resection, Stake-out, Construction Deformation, Mapping & Drawing, etc.

Version: N7 series 1.0

What is new for N7 series

How does dual laser works

Brand new dual laser EDM, it switches in & out light path by electronic laser circuit instead of motor control by mechanical parts.

Combine with updated EDM processor CORTEX M4, dual laser EDM will largely decrease the interval of measurement with stronger return signal.

Through improved noise reduction, weak signal processing is optimized (SNR increased 4 times).

Less light refraction and crosstalk with optimized optical structure.

Better alignment with coaxis mechanical improvement.

Multiple methods for data transfer.

Long-Range EDM

Up to 2000m reflectorless range with quick response in 0.3s. N7 series can easily handle the target in tough conditions, eg. roof, wires. Also enables N7 series to achieve accurate (2+2ppm) measurement in 5.0km with prism.

Smaller Laser Spot

At the distance: 5m, 35m and 50m, N7 series's the laser spot of N7 series have improved to an accurate size in 3mm, 12mm and 16mm. The smaller laser spot provides a precise guidance for target aiming.

Endless Drive

Instead of worrying about mishandling the device, damaging it or slowing it down, the endless drive screw stable angle measurements.
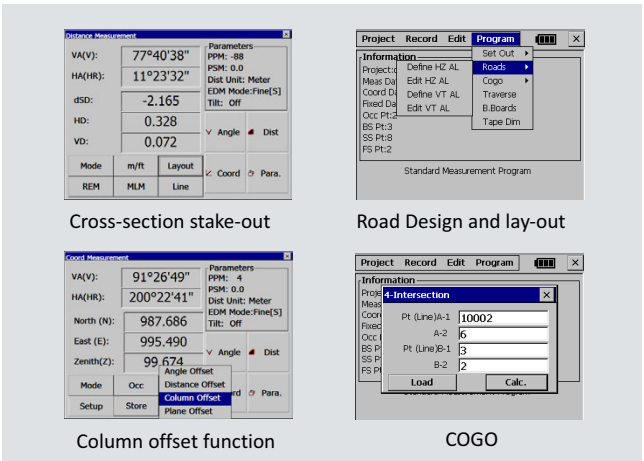

Easy-to-use Onboard System

N7 series total station with fully-open Windows CE 6.0 operate system, featured South EGStar, MGStar, with unique applications.

- Reference Line
- Alignment Setout
- Cross-section Measurement and Stake Out
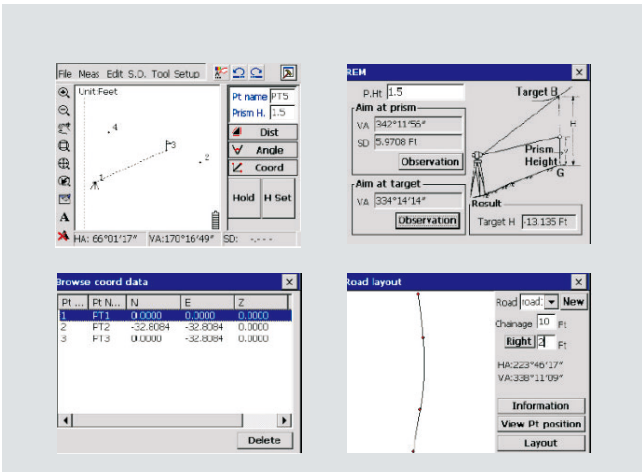- Slope Measurement
- Road Design and Stake Out
- COGO, etc.

N7 offers the versatility of third-field software options to choose from, for example Microsurvey's Field Genius, Carlson's SurvCE or any other localized software. It allows you working in your best users experience and run your own developments under standard VGA display unit.

Cross-section stake-out   Road Design and lay-out

Column offset function   COGO

Onboard System

The large graphic display improves the efficiency to access menus and functions by fluent working-flow. N7 affords a complete field-to-office solution to users, includes key features such as COGO Routines, Road Program, Coding, Resection, Stake-out, Reference Line, etc.

Windows CE 6.0 operating system also allows the user run the local software based on different market requirements.
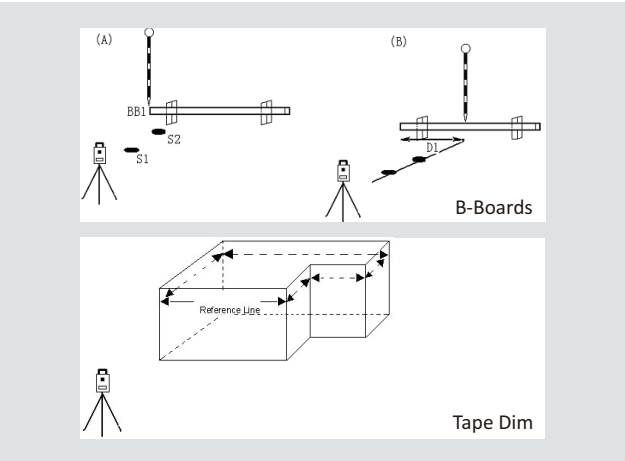

Unique Functions

B-Boards
When stake-out points, particularly for building plots, it is usually necessary to mark a point with an offset.

Tape Dimensions
Tape dim is a program which integrates surveying using a total station and a measuring tape when a quick survey of an object is required.

String Setout
Setting out of points by string (point code) allows the setting out of points on a line created in design software.

B-Boards

Tape Dim

Advanced Applications

N7 series total station with the fully open Windows CE 6.0 operate system, featuring South EGStar, MGStar, Field Genius, SurvCE or any other localized software. It can meet different kinds of request or demands with a highest capability, easier the measurement than normal.

With advanced roading, surfacing, slope staking, smart-points, N7 is the best choice for your daily work.

EG. MicroSurvey Field Genius