



Engineering Products

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A1

Android Total Station

INFINITE POSSIBILITIES

BUILT FOR DEVELOPER

– World's First Android Total Station



Benefit from Android 5.1 operating system, A1 realized the quick accessibility to the third-party apps, easier for your customization demands or secondary development.

The released server and client demo APK used for software developer.



You can use the client-source codes to adapt your own software with server, then the software will directly access the data of angle, distance, coordinate from total station.

cr. Field Genius

ICONIC ONBOARD SOFTWARE

Professional Framing – offers a fluent workflow. Behind each simple step on A1 is our unremitting efforts with optimized algorithm.

Built-in Toolbar – integrates the basic settings in toolbar, for example the swift of measure mode, target and sensor.

Stake-Out Guidance – features electric compass, driving the new premium extras.

Graphic Drawing – in A1 realizes the data viewing and outputs in real time.

A1 considered all the possible requests by summing up the user's feedback over the years.

SAVE TIME WITH AUTO-HEIGHT (optional)

The revolutionary function enables A1 to automatically measure, read and set its own height. Changing the traditional setup steps onsite. The auto-height function is available as an option for A1.



FREE FROM CONNECTIVITY

Combine with mobile internet access, you can share the data online, or transfer your job freely by flash disk, micro USB and Bluetooth.

SPECIFICATION

Distance Measurement		A1 1"	A1 2"	Telescope	
Range	Single Prism	5000m		Image	Erect
	Sheet	1200m		Magnification	30X
	Reflectorless	1000m		Effective Aperture	45mm (DTM: 47mm)
Accuracy	Prism	1+1ppm	2+2ppm	Resolving Power	3"
	Reflectorless	3+2ppm		Field of View	1°30'
Measure Interval	Single Prism	1.2s		Minimum Focus	1.5m
	Sheet	1.0s		Tube Length	152mm
Reflectorless	0.5-3s		Tilt Sensor		
	Unit	M, Ft		Type	Dual-axis
Angle Measurement				Method	Liquid-electric detect
Accuracy	1"	2"		Compensation	±3.0'
Minimum Reading	0.1"/1"		1"	Laser Plummet (Default)	
Reading System	Absolute Encoding		Laser Level	Level II, red laser	
Circle Diameter	79mm		Accuracy	1.5mm (InsHt 1.5m)	
Unit	Degree/ Gon/ Mil		Diameter	2.5mm (InsHt 1.5m)	
Onboard System				Communications	
Memory	ROM	16GB		Comm Port	1 x Serial (RS-232)
	RAM	2GB		Data Interface	Flash-disk, micro USB, Bluetooth
	CPU	MT6735			
Features	Input	Touch Screen		Power	
	GPS	Available		Output Voltage	7.4V DC
	Recorder	Available		Operating Time	8 Hours
Network	GSM 850/900/1800MHz		Others		
	CDMA/EVDO BCO		Vial	Plate	30"/2mm
	WCDMA Band 1/2/5/8			Circular	8"/2mm
	TD-SCDMA Band 34/39		Display Unit		LCD, graphic display
	TDD-LTE Band 38/39/40/41		Working Temp.		-20°C to + 50°C
	FDD-LTE Band 1/3		Dimension		206*200*353mm
System (until 2019.4)	Android 5.1		Weight	6.0kgs	

N9

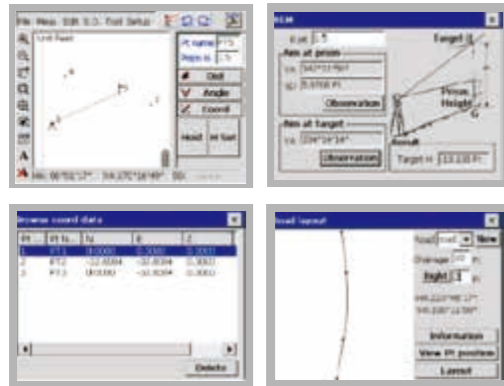
1" Total Station

Features

- 1" angle accuracy
- Fast (0.3s) and accurate (1mm+1ppm) distance measurement
- South WinTS, WinEG and WinMG onboard
- Windows CE 6.0 O.S
- Endless tangent screw optional

With the improved 1000m non-prism EDM, N9 start a new level of high-accuracy measurement in 1". The integrated straight through axis keep the excellent stability of surveying in a long range. A new optical path design can avoid the light interruption and improve the performance efficiently for N9. The wide application compatibility in Windows CE operation system afford various solutions and options for surveyors to meet their different kinds of requests. All this in combination with the large colorful LCD touch screen, Bluetooth & WIFI connection, USB memory makes N9 becoming a powerful model in total station.

Onboard System



The large graphic display improves the efficiency to access menus and functions by fluent working-flow. The on-board system afford a complete field-to-office solution to users. The solution includes key features such as COGO Routines, Road Program, Coding, Resection, Stake-out, Reference Line, Remote Elevation, Construction Deformation. Windows CE 6.0 operating system also allows the user run the local software based on different market requirements.

Advanced Applications

N9 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. N9 can meet different kinds of request or demands with a highest capability, easier the measurement than normal.

EG. MicroSurvey Field Genius



Code-free linework: Linework is created automatically without entering codes and is instantly displayed, eliminating the need for a separate sketch.

Advanced display with high-def graphics and intuitive interface.

Easy stakeout: Choose between graphical compass, grid, and map staking modes to easily stake out points.

Plus advanced roading, surfacing, slope staking, smart-points, DXF & Land XML import/ export. N9 with Field Genius is the choice of organizations that value productivity.

Endless Tangent Screw (optional)

Re-design the horizontal and vertical tangent unit with endless drive. It provides an unlimited control for target aiming with the smaller error, than normal coaxial tangent screw. The minimized error for N9 will largely improve the accuracy of total station.



Specifications

- Distance Measurement	- Sensitivity of Vial
Max Range:	Plate Vial:
1000m in non-prism mode;	30" /2mm
3500m in prism mode	Circular Vial:
Accuracy:	8' /2mm
$\pm(1+1\text{ppm}\times D)\text{mm}$ in prism mode	- Optical Plummet (Option)
- Reading	Image:
Measuring Time:	Erect
Fine mode <0.3s;	Magnification:
Tracking mode <0.1s	3x
Atmospheric Correction:	Focusing Range:
Manual input, auto correction	0.5m - ∞
Prism Constant:	Field of View:
Manual input, auto correction	5"
- Angle Measurement	- Laser Plummet (Default)
Measurement Method:	Accuracy:
Absolute encoding	1.5mm (in 1.5m InsHt)
Diameter of Absolute Encoding Disk:	Diameter:
79mm	2.5mm (in 1.5m InsHt)
Minimum Reading:	Wave Length:
0.1" or 1" option	630nm~670nm
Accuracy:	Laser Power
1"	$\leq 0.4\text{mW}$
Detection Method:	- Display
4 path detection	3.5 Inches, 640*480dpi,
- Telescope	High-resolution LCD Touch Screen
Image:	- Communication
Erect	Data Support:
Effective Aperture:	RS-232, Mini USB, USB OTG, SD CARD
48mm	- On-board Battery
Magnification:	Rechargeable Lithium Battery
30x	Voltage:
Field of View:	7.4V dc
1° 30'	Operating Time:
Minimum Focusing Distance:	6 hours
1.4m	- Working Environment
- Automatic Compensator	Temperature:
System:	- 20°C ~ + 50°C
Dual-Axis Liquid-electric Sensor	- Size
Working Range:	Dimension:
$\pm 4'$	196×192×360mm
Accuracy:	Weight:
1"	6.2kg
	IP standard:
	IP55



Long Range



Touch Screen



Sharp Screen



Smart T-P Sensor



Wireless Transfer



Bluetooth



Windows CE 6.0

N41

1" Total Station

Features

- 1" accuracy, $\pm(1+1\text{ppm}\times D)\text{mm}$
- EDM trigger key
- Graphic display
- Camera option for recording and target aiming
- Unique tunnel system



Various applications in deformation monitoring, constructions, etc.



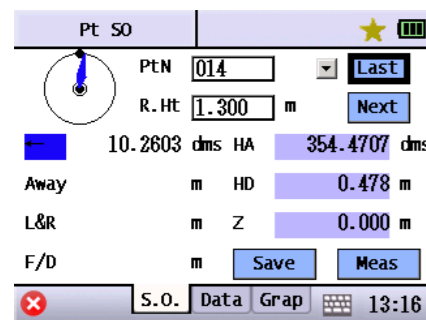
Camera Optional for N41 Easier for target aiming and record



Extra large 3.5 inch colorful touch screen, provides the readability even under sunlight

Onboard System

With the highly productive function and performance on each level, N41 has a wide range of applications such as surveying, engineering and constructions. The internal Bluetooth, SD Card port and USB afford a direct and fast data transfer between total station and PC.



The user-friendly interface design, make N4 series easy to use by its modularized function in each page. Simply and clearly to allows you working in the way you

Together with the 3.5inch LCD colorful touch screen, the graphical interface makes regular tasks, for example the stake-out and data collection easier than ever before.



Unique EDM trigger key design

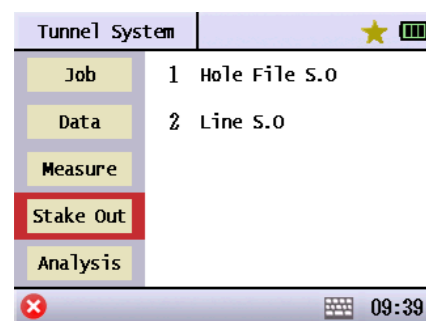


Easy connectivity by USB, SD Card, Bluetooth

Specifications

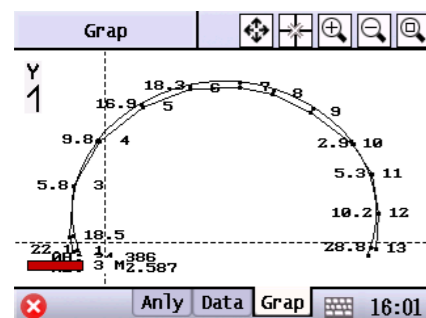
- Telescope		Measuring system	
Image	Erect	Basic frequency	70-150 Mhz
Magnification	30x	Wave length	685nm
Effective aperture	45mm	Atmospheric correction	Auto Correction
Distance meter	47mm	Atmospheric refraction & earth curvation correction	Auto Correction. K= 0.14/0.20
Resolving power	3"	Reflector constant correction	Input parameter and auto correction
Field of view	1° 30'		
Minimum focus	1.5m		
Telescope length	152mm	- Vial	
- Angle Measurement		Circular vial	8' /2mm
Measuring method	Absolute Encoding	Plate vial	30" /2mm
Diameter of disk	79mm	- Compensator	
Minimum reading	0.1" /1" Optional	System	Dual axis liquid-electric sensor compensation
Detection method	4 path	Compensating range	$\pm 4'$
Unit	Degree/Gon/ Mil optional	Resolving power	1"
Vertical angle 0	Azimuth 0/ Horizontal 0 optional	- Display	
		3.5 inches LCD, 320*240dpi Touch Screen	
		- Input Mode	
		TypeTouch Screen; Alphanumeric keys	
Accuracy	1"	- Data Transfer	
- Distance Measurement		- Storage	
Non-prism	1000m	Internal memory	
Single prism	3500m	(flash & card)	
Triple prism	5000m	External memory	
Reflecting sheet	1200m	SD Card	
Unit	m/feet	- Battery	
Accuracy		Battery	Li-battery
With prism	$\pm(1+1\text{ppm}\times D)\text{mm}$	Voltage	7.4V(dc)
W/O prism	$\pm(3+2\text{ppm}\times D)\text{mm}$	Operating time	8hrs
Measuring time (initial)		- Operation Environment	
Fine measure	1.3s	Operation temperature	
Repeat	0.2s	- 20°C ~ + 50°C	
Tracking	0.4s	- Size & Weight	
		Size	206×200×353mm
		Weight	6.0kg

Tunnel System



With the characteristics of simple operation, graphical display, rapid and accurate calculation, it can easily realize the section data acquisition, analysis, construction stake-out, random detection in real-time. This software is convenient for operator to finish the tunnel project, also meet all the requirement of saving money and time.

- Real-time graphic display for data collection.
- Reliable analysis of section measurement result, fast calculation for tunnel overbreak and underbreak.
- Auto-match and calculation among designed flat curve, designed vertical curve, theoretical section and actual measuring data.
- 3D coordinate of blast hole profile, can stake-out directly in tunnel.



N7 Series

2" Total Station

Features

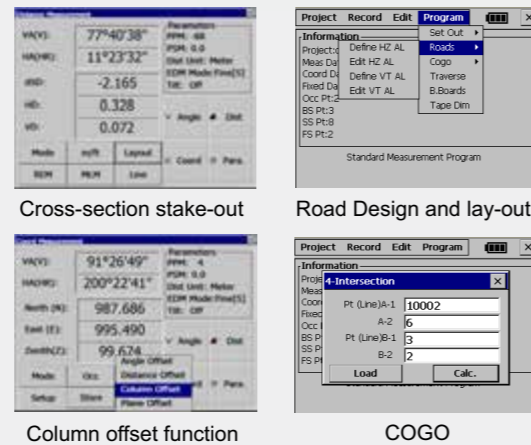
- 1000m/600m reflectorless EDM
- 3.5 inch high-resolution touch screen with ergonomic keyboard
- Versatile applications on Windows CE 6.0 O.S
- Fully featured Win TS, WinEG and WinMG onboard



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

Specifications



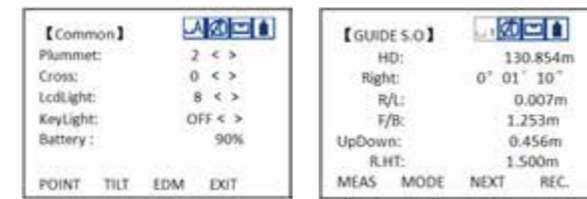
	N70	N7	N70	N7
Distance Measurement				
Max.Range	Reflectorless	1000m	600m	
	Single Prism	5000m		
	Sheet	1000m	600m	
* Object in shade, or sky overcast				
Accuracy	Reflectorless	$\pm(3+2\text{ppm}\times D)$ mm		
	Reflector	Single Prism	$\pm(2+2\text{ppm}\times D)$ mm	
		Sheet	$\pm(3+2\text{ppm}\times D)$ mm	
Reading	Max: 99999999.9999m Min: 0.1mm			
Measuring Time	Fine Mode: <0.3s; Tracking Mode: <0.1s			
Atmospheric Correction	Manual Input, Auto Correction			
Prism Constant	Manual Input, Auto Correction			
Temperature Sensor	Freecale Sensor in Realtime, accuracy +/-0.2ppm			
Angle Measurement				
Measuring Method	Absolute Encoding			
Dia. of Encoder Disk	79mm			
Minimum Reading	0.1" or 1" option			
Accuracy	2"			
Detection Method	4 path detection			
OS and Hardware Platform				
Operating System	WINDOWS CE 6.0			
Display	640x480 Highlighted Touch Screen			
Data Communication	RS232, Mini USB, SD Card, OTG Supportable			
Processor	Intel PXA310 624MHZ			
Memory	128m DDR, 512M NAND Flash			
Bluetooth	30m range. Class II, V2.0+EDR			
WiFi	802.11			
Power Control Processor	Auto Adjust Voltage and Frequency, Save energy			
Vial				
Plate Vial	30" / 2mm			
Circular Vial	8' / 2mm			
Telescope				
Image	Erect			
Tube Length	154mm			
Effective Aperture	48mm, (EDM:50mm)			
Magnification	30x			
Field of View	1° 30'			
Minimum Focus Distance	1.4m			
Resolving Power	3"			
Auto Compensator				
System	Dual Axis Liquid-electric			
Working Range	$\pm 4'$			
Accuracy	1"			
Laser Plummet (Default)				
Accuracy	$\pm 1.5\text{mm}$ (in 1.5m InsHt)			
Wave Length	630nm~670nm			
Laser Power	$\leq 0.4\text{mW}$			
Optical Plummet (Option)				
Image	Erect			
Magnification	3x			
Focusing Range	0.5m - ∞			
Field of View	5"			
On-Board Battery				
Type	Rechargeable Lithium Battery			
Voltage	DC 7.4V			
Continuous Operation Time	6 hrs.			
Others				
Endless Tangent Screw	Optional			
Keyboard	Alphanumeric 28 keys			
Working Temperature	- 20°C ~ + 50°C			
Dimension and Weight	196x192x360mm, 6.2kg			
Plummet	Optical or Laser Plummet Optional			

N8 Series

2" Total Station

Features

- 600m/1000m reflectorless EDM
- Ultra fast measure speed in 0.1s
- Bluetooth remote control
- Casio industrial screen



Star key function

Stake-out



Powerful program.
Eg. REM, MLM, Area & volume calculation, etc.

Road design and measurement

Measurements are captured faster than ever, the N8 series was designed with a easy and sleek structions.

Extend applications
By the intergrated Bluetooth module, you can connect the controller for extended applications with the highest flexibility.



Powerful application platform
Increasing efficiency with data controller

Flexible software with different kinds of fieldwork
Compatilde with South EGSTAR, South GISTAR, MicroSurvey Field Genius, etc.



Specifications



	N80	N8	N80	N8
Distance Measurement				
Max.Range	Reflectorless	1000m	600m	
	Single prism	5000m		
	Sheet	1000m	600m	
* Object in shade, or sky overcast				
Accuracy	Reflectorless	$\pm(3+2\text{ppm}\times D)$ mm		
	Reflector	Single Prism	$\pm(2+2\text{ppm}\times D)$ mm	
		Sheet	$\pm(3+2\text{ppm}\times D)$ mm	
Reading	Max: 99999999.9999m Min: 0.1mm			
Measuring Time	Fine Mode: <0.3s; Tracking Mode: <0.1s			
Atmospheric Correction	Manual Input, Auto Correction			
Prism Constant	Manual Input, Auto Correction			
Temperature Sensor	Freecale Sensor			
Auto Compensator				
System	Dual Axis Liquid-electric			
Working Range	$\pm 4'$			
Accuracy	1"			
Laser Plummet (Default)				
Accuracy	$\pm 1.5\text{mm}$ (in 1.5m InsHt)			
Wave Length	630nm~670nm			
Laser Power	$\leq 0.4\text{mW}$			
Optical Plummet (Option)				
Image	Erect			
Magnification	3x			
Focusing Range	0.5m - ∞			
Field of View	5"			
Vial				
Plate Vial	30" / 2mm			
Circular Vial	8' / 2mm			
On-Board Battery				
Type	Rechargeable Lithium Battery			
Voltage	DC 7.4V			
Continuous Operation Time	8 hrs.			
Others				
Data Communication	RS-232, USB, SD card			
Keyboard	Alphanumeric 28 keys			
Working Temperature	- 20°C ~ + 50°C			
Dimension and Weight	165x150x335mm, 5.2kg			
Plummet	Optical or Laser Plummet Optional			
Telescope				
Image	Erect			
Tube Length	154mm			
Effective Aperture	48mm, (EDM:50mm)			
Magnification	30x			
Field of View	1° 30'			
Minimum Focus Distance	1.4m			
Resolving Power	3'			

N4 Series

2" Total Station

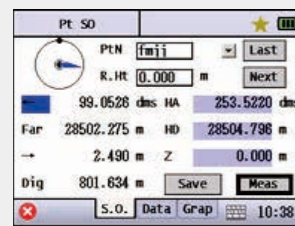
Features

- EDM Trigger Key
- Colorful LCD touch screen with graphic display
- Wireless Bluetooth 4.0 communication
- Camera and tunnel system option for N40

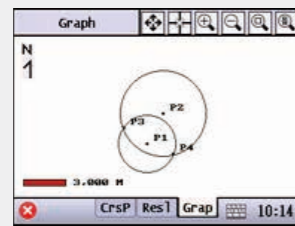


N4 with 3.5inch high-resolution touch screen, provides a fluent workflow to access the functions in fast and convenient data management. Smart onboard design with electric compass, graphic display and edit, N4 can also be a best choice for construction layout work. N4 series are reliable and stable on your every day work to achieve the maximum efficiency. It can easily meet your requirements such as:

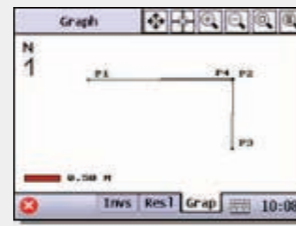
- Volume calculation
- Road design and layout
- One-step setting for occupied point
- REM/MLM



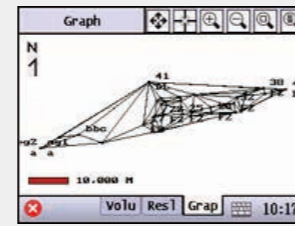
Stake-out function



2 points intersection



Point to line inverse



Volume calculation

Specifications



	N4	N40	N4	N40
Distance Measurement			Telescope	
Max. Range	Reflectorless 600m	1000m	Image	Erect
	1 Prism 3500m	under good condition 4000m	Length	152mm
	3 Prism 5000m		Effective Aperture	45mm, (DTM: 47mm)
	Mini Prism 800m		Magnification	30x
	Sheet 600m	1000m	Field of View	1° 30'
Accuracy	Reflectorless $\pm(3+2\text{ppm}\times D)$ mm		Minimum Focus	3"
ISO 17123-4	Reflector $\pm(2+2\text{ppm}\times D)$ mm		Minimum Focussing Distance	1.5m
Reading	Maximum: 99999999.999m; Minimum: 1mm		General	
Measuring Time	Fine Mode: <1.3s; Tracking Mode: <0.4s Repeat: <0.2s		Display	3.5 inches LCD, 320×240dpi Touch Screen
Atmospheric Correction	Auto Correction		Keyboard	Alphanumeric Keyboard/30 keys
Prism Constant	Auto Correction		Laser Pointer	Easy to Find Target
Angle Measurement			Guide Light (optional)	Indicates Correct Position Fast and Easy
Measurement Method	Absolute Encoding		Bluetooth	Bluetooth 4.0, stable connection and data transfer
Dia. of Encoder Disk	79mm		EDM Trigger Key	Quick Measure Key on the Side Cover
Minimum Reading	0.1" / 1" Optional		On-board Battery	
Accuracy ISO 17123-3	2"		Power Supply	Rechargeable Lithium Battery
Detection Method	4 path detection		Voltage	7.4 VDC
Sensitivity of Vial			Operating Time	8 hrs
Plate Vial	30" / 2mm		Others	
Circular Vial	8' / 2mm		Data Communication	RS-232, USB, SD card, Mini USB, Bluetooth
Automatic Compensator			Keyboard	Alphanumeric 30 keys
System	Dual Axis Liquid-electric Sensor		Working temperature	- 20°C ~ + 50°C
Working Range	$\pm 4'$		Dimension and Weight	206×200×353mm, 6.0kg
Accuracy	1"		Plummet	Optical or Laser Plummet Optional

N3

2" Total Station

Features

- Stable prism (3.5km) and reflectorless (600m) measurement
- EDM trigger key
- 3.0 inch LCD touch screen
- Ergonomic keyboard, direct numeric input and back-light design



Ergonomic display unit

Easy-to-read graphic display unit combine with ergonomic keypad, it makes the work more convenient under different situations

Modulized interface makes the operation system better for measurement.



Fast measurement

Ultra fast measure speed in 0.2s provide a quick response for the signals.

Advanced EDM trigger key function can help you measure the target in one key, which will largely increasing the efficiency for measurement.



Enhanced encoding disk

Absolute encoding disk technology improve the stability for angle measurement in 2".

New co-axis laser plummet can decrease the tolerance substantially in laser refraction. It will also avoid the unnecessary damage when disassemble or repair.

Specifications



	N3	N3	
Distance Measurement		Automatic Compensator	
Max. Range	Reflectorless 600m	System	
	1 Prism 3500m	Working Range	
	3 Prism 6000m	Accuracy	
	Sheet 1.2km	Sensitivity of Vial	
Accuracy	Reflectorless $\pm(3+2\text{ppm}\times D)$ mm	Plate Vial	
	Reflector $\pm(2+2\text{ppm}\times D)$ mm	Circular Vial	
Reading		Optical Plummet(option)	
Measuring Time	Fine Mode: <1.3s; Tracking Mode: <0.4s; Repeat: <0.2s	Image	
Atmospheric Correction	Auto Correction	Magnification	
Prism Constant	Auto Correction	Focusing Range	
Angle Measurement		Field of View	
Measuring Method	Absolute Encoding	Laser Plummet(option)	
Dia. of Encoder Disk	79mm	Laser Level	
Minimum Reading	1"	Accuracy	
Accuracy	2"	Diameter	
Detection Method	Horizontal: Dual, Vertical: Dual	2.5mm(in 1.5m InsHt)	
Telescope		Communication	
Image	Erect	SD Card	
Length	152mm	Supportable	
Effective Aperture	45mm, (DTM: 47mm)	Serial I/F Port	
Magnification	30x	RS-232C/USB/Bluetooth/SD Card	
Field of view	1° 30'	On-Board Battery	
Minimum Focus	3"	Power Supply	
Minimum Focus Distance	1.5m	Voltage	
Display		Operation Time	
Type	3.0 Inches, LCD Touch Screen	8 hrs	
		Size	
		Dimension	
		Weight	

N6 Series

Total Station

Features

- 2" / 5" angle accuracy
- Fast (0.3s) and stable (600m) reflectorless measurement
- New-designed road program
- 32,000 points storage, up to external 32G memory
- Tough and reliable under all-weather construction



New-designed Road Program!

The new road program offers the convenient measurement, managing, editing and laying out your job on the site blueprint. It can calculate the horizontal and vertical curve in arbitrary geometric design and allows the radius of horizontal curve discontinuous changing and coordinates inverse & resection measurement.

One-key Data Export: support 300/600 original data, .DAT coordinate data, .CSV coordinate data and .DXF format, which can be seamless converse to the third-party software, for example AutoCAD to finish the job.

Easier Coding: extended the coding characters in 19 digit.

New Icon on Side: for a clear status of equipments.

Optimized Interface: support Bluetooth communications to external data collectors.



Specifications

	N6 2"	N6 5"		N6 2"	N6 5"
Distance Measurement			Magnification	30x	
Max. Range	Reflectorless	600m	Field of view	1° 30'	
	Single Prism	5000m	Minimum Focus Distance	1.4m	
*Object in shade, or sky overcast			Resolving Power	3"	
Accuracy	Reflectorless	$\pm (3+2\text{ppm} \times D)\text{mm}$	Reticle Illumination	Adjustable	
	Reflector	$\pm (2+2\text{ppm} \times D)\text{mm}$	Automatic Compensator		
Reading	Max: 99999999.9999m Min: 0.1mm		System	Dual axis Liquid-electric	
Measuring Time	Reflectorless	0.3-3s	Working Range	$\pm 4'$	
	Reflector	Fine < 0.3s; Tracking < 0.1s;	Accuracy	1"	
Atmospheric Correction	Manual Input, Auto Correction		Vial		
Atmospheric Refraction and Earth Curvature Correction	Manual Input, Auto Correction		Plate Vial	30" / 2 mm	
Prism Constant	Manual Input, Auto Correction		Circular Vial	8' / 2 mm	
Dist. Unit	Meter/US. Feet/International Feet/ Feet-inch optional		Optical Plummet(option)		
Angle Measurement			Image	Erect	
Measuring Method	Absolute Continuous		Magnification	3x	
Dia. of Encoder Disk	79mm		Focusing Range	0.5m - ∞	
Minimum Reading	1" / 5"		Field of View	5°	
Accuracy	2" / 5"		On-Board Battery		
Detection Method	Horizontal: Dual, Vertical: Dual		Type	Rechargeable Lithium Battery	
Telescope			Voltage	7.4V dc	
Image	Erect		Continuous Operation Time	8 hrs	
Tube Length	154mm		Others		
Effective Aperture	45mm, (EDM 50mm)		IP Standard	IP55	
			Keyboard	Alphanumeric 24 keys	
			Display	LCD 6 lines, Digital Screen	
			Data Communication	RS-232, USB, SD card	
			Temperature	- 20°C ~ + 50°C	
			Dimension and weight	160 × 150 × 330mm, 5.2kg	

NTS-332R6

Total Station

Features

- Laser pointer for reflectorless measurement and layout
- Quick response and feedback
- Simple but powerful onboard system including road



Measuring for Any Targets

Upgraded EDM technology in NTS-332R6 allows measuring distance up to 600m range without a reflector. It's a good choice for your quick and efficient measuring works to avoid touching any dangerous objects, for example the transmission tower.

Simplified Onboard System with Alphanumeric Keyboard

The simplified onboard system, concentrating on increase efficiency for your job in data collection, construction layout, and road tasks. The digital screen with 28-keys alphanumeric keyboard afford a quick response and clear feedback for inputting jobs, numbers, codes, data or the other information in any tough conditions.

Specifications

	NTS-332R6		NTS-332R6	
Distance Measurement			Telescope	
Range	Prism	5000m	Image	Erect
	Sheet	1200m	Magnification	30X
	Reflectorless	600m	Effective Aperture	45mm (DTM: 47mm)
Accuracy	Prism	$\pm (2+2\text{ppm} \times D)\text{mm}$	Resolving Power	3"
	Reflectorless	$\pm (3+2\text{ppm} \times D)\text{mm}$	Field of View	1° 30'
Measuring Interval (Prism Mode)	Fine	< 1.2s	Minimum Focus	1.5m
	Continuous	< 0.5s	Tube Length	152mm
	Tracking	< 0.25s	Tilt Sensor	
Unit	m/ft		Type	Dual-axis
Angle Measurement			Method	Liquid-electric detect
Accuracy	2"		Compensation	$\pm 3.0'$
Minimum Reading	1" / 5"		Laser Plummet (Default)	
Reading System	Absolute Encoding		Laser Level	Level II, red laser
Circle Diameter	79mm		Accuracy	1.5mm (InsHt 1.5m)
Unit	Degree/Gon/Mil		Diameter	2.5mm (InsHt 1.5m)
Others			Power Supply	
Plate Vial	30" / 2mm		Output Voltage	7.4V DC
Circular Vial	8' / 2mm		Operating Time	8 Hours
Display Unit	2.6 inch digital screen		Dimension and Weight	
Keyboard	Alphanumeric 28 keys		Dimension	206 x 180 x 353 mm
IP Protection	IP55		Weight	5.4kg

Comparison

General		A1	N7/N9	N8	N6	N4	N3	332R6	
LCD Touch Screen		✓	✓	×	×	✓	✓	×	
EDM Trigger Key		✓	×	×	×	✓	✓	×	
Bluetooth		✓	✓	✓	○	✓	×	×	
Wifi Connection		✓	✓	×	×	×	×	×	
Camera		○	×	×	×	○	×	×	
Program									
Job Management	Including informations, data edit, data import & export, etc	✓	✓	✓	✓	✓	✓	✓	
Basic Survey	Angle, distance, coordinate measurement	✓	✓	✓	✓	✓	✓	✓	
Graphic Display	To view the measured point in a graphic map	✓	✓	×	×	✓	×	×	
Offset	Angle, distance, column, plane offset	✓	✓	✓	✓	✓	✓	✓	
Stake Out	Stake out the point, angle & distance and alignment based on the guide	✓	✓	✓	✓	✓	✓	✓	
COGO	Various methods of calculation of coordinate geometry	✓	✓	✓	✓	✓	✓	✓	
Inverse	Calculate angle and distance between two known points	✓	✓	×	×	✓	✓	×	
Area & Perimeter	Measure and calculate the areas	✓	✓	✓	✓	✓	✓	✓	
Volume	Measure and calculate the DTM-Volumes	✓	✓	×	×	✓	×	×	
REM	Measure a known point and change the vertical angle to get the elevation	✓	✓	✓	✓	✓	✓	✓	
MLM	Measure the horizontal, slide & elevation distance and horizontal angle between two targets	✓	✓	✓	✓	✓	✓	✓	
Radiation	To calculate the coordinate of a point based on known azimuth and distance	✓	✓	×	✓	✓	✓	×	
Point to Line	To obtain the coordinate based on the origin point and a line as an axis to calculate the unknown occupied point	✓	✓	✓	✓	✓	✓	✓	
Resection	Calculate the coordinate of a new point by using the coordinates of those known points	✓	✓	✓	✓	✓	✓	✓	
Reference Line	Define lines and checking points based on the lines	✓	✓	×	×	✓	✓	×	
Road	Define straights, curves, and checking points based on the defined elements	✓	✓	✓	✓	✓	✓	✓	
Cross-section Setout	Define and setout the designed cross-section	×	✓	×	×	×	×	×	
Tunnel	Measure and stake-out the sections, horizontal and vertical alignment and points in tunnel	○	×	×	×	✓	×	×	
Mining	Define and set out the grade lines and pegs in mining project	×	○	×	×	×	×	×	

✓ - Available × - Not Available ○ - Optional

* Tunnel system is the standard package on N41/N40, optional on N4. Camera is optional on N41/N40.

NT-023

Multi-functional Theodolite



Features

- Disruptive innovations in Theodolite, 300m distance measurement
- Numeric keyboard with 2.7 inch screen
- Angle, distance, axis onboard program

Ang Dist Axis

UA : 252° 24' 28"

HL : 329° 20' 07"

θSet HSet U% R/L

Ang Dist Axis

UD : -0.271 m

HD : 6.353 m

SD : 6.359 m

Meas S.O. Mode

Ang Dist Axis

Meas Close to 0

H Diff: -0° 00' 01"

+↑ /-↓ :

+L /-R :

Dist SwPt

Ang Dist Axis

Set on A, Aim Axes

Point B θSet

HA 30° 39' 51"

θSet Next

(Menu)

F1.QuickSet

F2.Set

F3.Cal.

F4.Info

(Dist.Set)

Target :Prism

PrismCons: -30 mm

MeasMode:N Times

Times :1 Time

Back ← → OK

Redefined the theodolite

300m distance measurement with laser pointer
Redefined the Theodolite by its small size but strong performance

Axis Stake Out

The building axis is the basis of constructions. You can choose the relative axis to stake out based on the points' position when doing the project. With this powerful Axis Stake Out function, NT-023 will help you find the stake out point precisely in an easier method

The users can set the station on one end of the axis or an arbitrary point on ground

Specifications

		NT-023	Additive Constant	0
Distance Measurement(Single Prism)			Stadia Accuracy	≤0.40%/L
Max. Range	300m		Tube Length	155mm
Accuracy	±(3mm+2ppm*D)	Compensator		
Measure Time	Continuous: 0.35s, Single 1.5s	Type	Single Axis	
Atmosphere Correction	Automatic	Working Range	±3'	
Prism Constant	Automatic	Accuracy	±3"	
Angle Measurement		Laser Plummet		
Measuring Method	Absolute Encoding	Accuracy	±1.5mm(@1.5m)	
Dia. of Encoder Disk	79mm	Spot Diameter	±2.5mm(@1.5m)	
Minimum Reading	1"	Wave Length	635±20mm	
Accuracy	2"	Display Unit		
Detection Method	Horizontal: Dual, Vertical: Dual	Type	2.7 Inch, 160*96 LCD Screen	
Telescope		Power Supply		
Image	Erect	Battery	7.4V Lithium Rechargeable Battery	
Magnification	30x	Environment		
Effective Aperture	152mm	Working Range	- 20℃ ~ + 50℃	
Resolving Power	3"	Dimension		
Field of view	1° 30'	Size	165×160×340mm	
Minimum Focus Range	1.5m	Weight	4.7kg	
Multiple Constant	100			

ET Series

Theodolite

Features

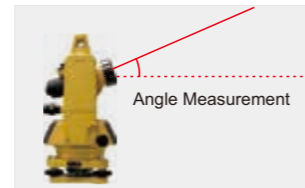
- 2"/5" Accuracy in option
- Laser plummet and laser pointer function for ET-02L/05L
- Movable tribrach for ET-02F/05F
- Competitive performance



HOLD
Press the key twice, hold the horizontal angle.

FUNC
Select the second function

Power switch

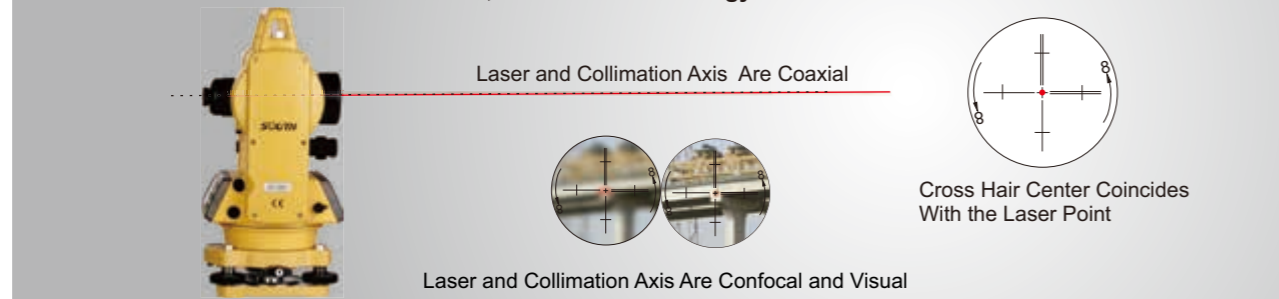


L/R
Press the key, horizontal angle option.

OSET
Press the key twice, horizontal angle 0 setting.

V/%
Vertical angle /slope angle percentage

Laser and Collimation Axis Coaxial, and VisualTechnology



Specifications

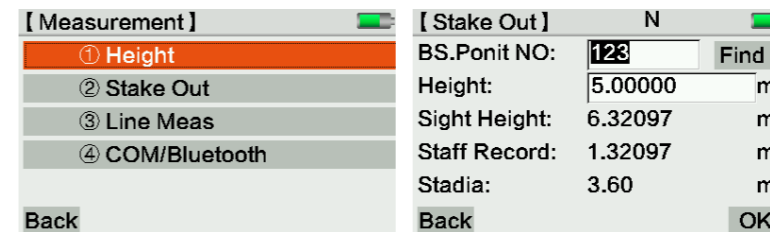
	ET-02/ET-02L	ET-05/ET-05L	Memory
Telescope			Internal Memory Space for 256 Pairs of H. & V. Angle
Image	Erect		Level Sensitivity
Magnification	30x		Plate Level 30" /2mm (30" per 2mm)
Effective Aperture	45mm		Circular Level 10" /2mm (10" per 2mm)
Resolving Power	3"		Auto Vertical Compensator
Field of View	1° /5' 30"		System Liquid-Electric Detection
Minimum Focusing Distance	1.4m		Working Range ±3'
Stadia Ratio	100		Accuracy 1"
Stadia Constant	0		Optical Plummet Telescope
Tube Length	157mm		Image Erect
Angle Measurement			Magnification 3x
Reading System	Absolute Encoding		Focusing Range 0.5m - ∞
Diameter of Circle(VHz)	79mm		Field of View 5°
Minimum Reading	1" /5" (Selectable)		Physical Characteristics
Accuracy	2" /5"		Operating Temperature -20°C ~ +50°C
Horizontal Angle	Dual		Internal Power Supply Rechargeable Ni-H battery/ AA battery
Vertical Angle	Dual		Voltage 6 VDC
Display			Operating Time 10 hours
(LCD)Display Type	2 sides		Dimension 145mm×318mm×179mm
Laser Pointer			Weight 5.2 kg
Laser Range	Be Seen Up to 100 Meters Away		

DL-2003A

High-Accuracy Digital Level

Features

- Advanced Accuracy
- Height: 0.3mm; Distance: D*0.001mm
- Dual-bubble Compensator
- 3.0 inch Colorful LCD Touch Screen
- Stable Bluetooth Remote Control



Intelligent Onboard System
Iconic interface with graphic display, simplify the leveling into one-key operation.

Seamless Transfer from equipment to PC
Support by multiple data transform methods, the users can process the data easily by South Data Post-processing software. It contains adjustment routines for dynamic adjustment of horizontal & vertical control network and angle & direction adjustment.

Specifications

	DL-2003A	DL-2003A
Height		Display Unit
Electronic Measurement	0.3mm	Type
Optical Measurement	2.0mm	3.0inch Colorful LCD touch screen
Distance Measurement		Data Storage
Accuracy	Distance≤10m: 10mm	Internal
	Distance>10m: D*0.001mm	Point name
Range	2m-110m	Interface
		Comm Port
		RS-232, Bluetooth
Electronic Measurement		Compensator
Resolution Height Measurement	0.01mm/ 0.1mm/ 1mm	Type
Resolution Distance Measurement	0.01mm	Magnetic damping
Measure Time	Less than 3 secretary	Compensation range
		≥12'
Environmental		Sensor
Operating Temperature	-20°C ~ +50°C	Single Axis
Dust and water proof	IP65	Accuracy
		0.20" /1'
		Circular level sensitivity
		8' /2mm
Telescope		Power Supply
Magnification	32x	2pcs Rechargeable Lithium battery, 3400mAh, 7.4V
Resolution	3"	Invar Staff SI-2M
Field of View	1° 21'	Circle Bubble
Multiple Constant	100	≤12' / 2mm
Additive Constant	0	Surface curvature distinction
		≤4mm
Size		Vertical of central axis and underside
Dimensions (L*W*H)	230×225×203mm	Tolerance of zero point
Weight	3.1kg	≤0.05mm
		Basic barcode graduation
		Deviation
		≤0.02mm
		Standard deviation
		≤0.013mm
		Interval tolerance
		≤0.04mm

DL Series

Digital Level

Features

- Automatic Reading and Saving
- High Accuracy
- One-key Operation
- Advanced Efficiency, realize the integration between fieldwork and data processing on PC via the seamless data transfer



Versatile Onboard Program

South DL series Digital Level guarantee your fast and efficient operation in leveling by its powerful onboard program. Combine with the automatic processing, station checking and over-tolerance alarming function, South DL Series Digital Level can easily calculate the height difference and the cumulative stadia difference on the field.



Wide Applications

- Topographic survey**
(detail and area measurement, contour line and occupied point settlement)
- Tunnel, railway and road constructions**
(cross-section leveling, slope control, abrasion monitoring, etc.)
- Deformation monitoring**
(settlement observation, loading check)
- Industrial measurement**
(The leveling for base or foundation settlement about machines, ground and platform.)

Specifications

	DL-202	DL-2007	DL-202	DL-2007
Height Accuracy (standard deviation for 1km double run leveling)			Compensator	
Digital Reading	1.5mm	0.7mm	Type	Magnetic damping
Optical Reading	2.0mm		Range	≥12'
Distance Accuracy			Accuracy	0.5" / 1' 0.3" / 1'
Digital Reading	D≤10m:10mm; D>10m:D*0.001		Data Storage	
Distance Range			Storage	16MB
Digital Reading	2m-110m		Point Name	Increasing/Decreasing /Customized
Minimum Display			Connection	USB
HD	1mm/0.1mm		External Storage	-- SD Card
Distance	0.1/1cm		Others	
Measuring Time			Circular Vial Accuracy	8' /2mm
Magnification	Within 3s in Normal Condition		Auto Power Off	5minutes Off
Telescope			Horizontal Dial	1°
Magnification	32x		Display	128*32dpi LCD with illumination 160*64dpi LCD with illumination
Resolving Power	3"		Working Temperature	- 20°C ~ + 50°C
Field of View	1° 30'		Dimension	230×150×210mm
Multiple Constant	100		Weight	2.5kg
Additive Constant	0			

DSZ Series

Automatic Level

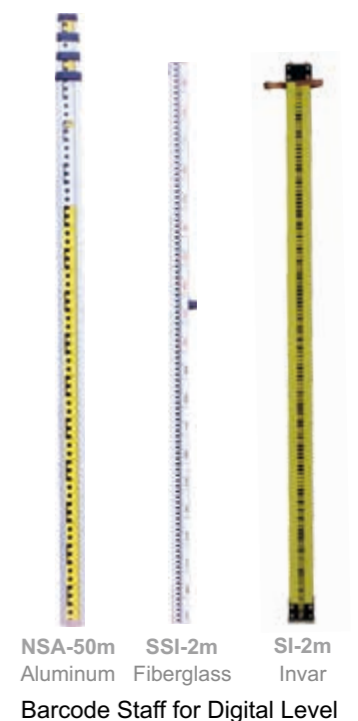
Features

- DSZ2**
 - High resolution 32X telescope
 - ±0.3" compensator accuracy
 - Standard deviation: 1.0mm
- DSZ3**
 - High resolution 28X telescope
 - ±0.4" compensator accuracy
 - Standard deviation: 1.5mm
- DSZ2+Micrometer FS1**
 - Up to 0.5mm accuracy



Specifications

	DSZ2	DSZ3
Magnification	32x	28x
Effective Objective Aperture	45mm	40mm
Image	Erect	
Reticle	Cross Reticle	
Field of View	1° 30' (2.6m/100m)	
Minimum Focus Distance	0.6m	
Multiplication Constant	100	
Additive Constant	0	
Compensator Type	Magnetic Damping	
Compensator Range	±15'	
Compensator Setting Time	<1s	<1s
Compensator Setting Accuracy	±0.3"	±0.4"
Standard 1km Deviation	1.0mm	1.5mm
Sensitivity of Bubble	8' /2mm	
Circle Graduation	360° or 400 gon (Minimum 1° or 1 gon)	
Protection Class	IP65	
Working Temperature	- 20°C ~ + 50°C	
Storage Temperature	- 40°C ~ + 70°C	
Net Weight per Unit	2.2kg	1.9kg
Package Size (4 PCS/CTN)	465×340×445(mm)	440×320×440(mm)
Gross Weight (4 PCS/CTN)	15kg	14kg



NSA-50m Aluminum SSI-2m Fiberglass SI-2m Invar
Barcode Staff for Digital Level

NL Series

Automatic Level

Features

- Dependable and durable tools for leveling
- Different types of magnification for option
- Excellent shockproof design



- NL G Style**
- Magnification available in 20x 24x 28x 32x
 - Magnetic damping compensator



- NL-A32**
- Worldwide-proven magnetic damping compensator



- NL-C32**
- Air damping compensator

Specifications

	NL20G	NL24G	NL28G	NL32G	NL-C32	NL-A32
Magnification	20x	24x	28x	32x	32x	32x
Effective Objective Aperture	34mm	36mm	36mm	38mm	40mm	40mm
Image	Erect				Erect	
Reticle	Cross Reticle				Cross Reticle	
Field of View	1° 20' (2.6m/100m)				1° 20' (2.3m/100m)	
Minimum Focus Distance	0.6m				0.3m	
Multiplication Constant	100				100	
Additive Constant	0				0	
Compensator Type	Magnetic Damping				Air Damping	Magnetic Damping
Compensator Range	±15'				±15'	
Compensator Setting Time	<2s	<2s	<2s	<2s	<3s	<1s
Compensator Setting Accuracy	±0.6"	±0.6"	±0.6"	±0.6"	±0.3"	±0.3"
Standard 1km Deviation	2.5mm	2.0mm	1.5mm	1.0mm	1.0mm	1.0mm
Sensitivity of Bubble	8' /2mm				8' /2mm	
Circle Graduation	360° or 400 gon (Minimum 1° or 1 gon)				360° or 400 gon (Minimum 1° or 1 gon)	
Protection Class	IP54				IP54	
Working Temperature	-20°C ~ +50°C				-20°C ~ +50°C	
Storage Temperature	-40°C ~ +70°C				-40°C ~ +70°C	
Net Weight Per Unit	1.8kg				1.8kg	2.0kg
Package Size (4 PCS/CTN)	220×420×590mm				440×320×440mm	440×320×440mm
Gross Weight (4 PCS/CTN)	11kg				10kg	12kg

PD Series

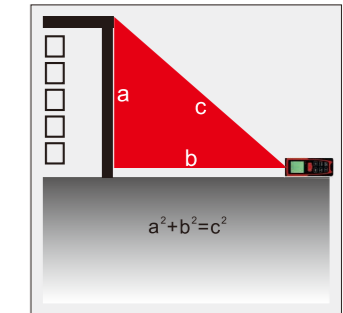
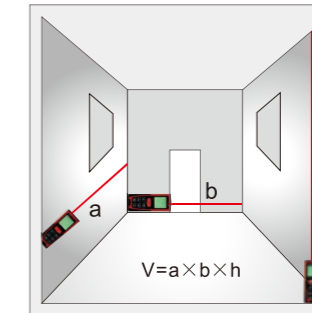
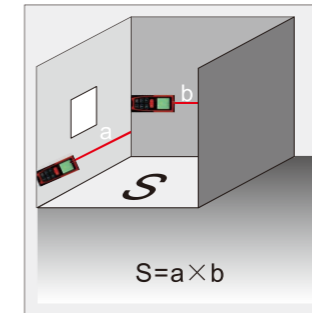
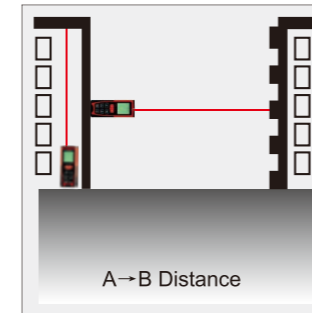
Hand-held Distance Meter

Features

- Easy portable for the small size
- Measure range from 30m to 200m optional
- Extended edge measurement for PD-54N/56N
- Distance stake-out for PD-58N
- Graphic auxiliary for PD-520N



PD-53N PD-54N PD-56N PD-58N PD-520N



Specifications

	PD-53N	PD-54N	PD-56N	PD-58N	PD-520N
Measuring Range	0.05-30m	0.05-40m	0.05-60m	0.05-80m	0.05-200m with reflector plate
Measuring Precision (typical)	±1.5mm				
Laser Class	620-690nm, <1mW				
Laser Type	II				
Type	indoor	indoor	indoor	Outdoor	Outdoor
Selectable Datum Side	●	●	●	●	●
Display Illumination	●	●	●	●	●
Single/ Continuous Measurement	●	●	●	●	●
Area Measurement	●	●	●	●	●
Volume Measurement	●	●	●	●	●
Single Pythagoras	●	●	●	●	●
Double Pythagoras	○	●	●	●	●
Plus/minus Calculation	○	●	●	●	●
Measuring Extended Edge	○	●	●	●	●
Time Delay Measurement	○	●	●	●	●
Dip Angle Measurement	○	○	○	●	●
Distance Stake-out	○	○	○	●	●
Data Storage	○	○	20	99	99
Metope Measurement	○	○	○	○	●
Triangle Area	○	○	○	○	●
Trapezoidal Measurement	○	○	○	○	●
Graphics Auxiliary Targeting	○	○	○	○	CMOS
Display Unit	Two lines stroke segment	Three lines stroke segment			2.2" color screen
Unit Conversion	m/ft	M/ft/inch			
Key	three keys	seven keys	seven keys	nine keys	twelve keys
Battery	2×1.5V AAA battery				Rechargeable lithium battery
Battery Life	5000 times				20000 times
Size (mm)	112×38×24	122×45×26			137×52×29

Rebound Hammer

TR-1

Features

South TR series rebound hammer features 2.207J standard energy, and direct reading display system. Compared with the same kind of concrete testing equipment, it has the advantages over good fatigue resistant property, low damage rate for parts and low failure rate for equipment.



- Full CNC Numerical Control Machining**
- Integrated stainless steel with stable performance
 - Grinding and smoothing surface for measurement



- HQ NBR Dust-proof Pressing Ring**
- Multilayer structure, keep the machinery cleaning
 - Prolonging the service life on the field



- SWP Spring**
- Durable SWP spring, with metal snap ring, integrated processing technology
 - Excellent resilience and intensity



- Acrylic Scale**
- High transparency and stable chemical properties
 - Avoid falling-off and color loosen

Specifications

Pointer	20.0 ± 0.2mm
Friction Force of Pointer	0.65 ± 0.15N
Radius at the End of Projectile	25 ± 1.0mm
Unhook Position of Projectile Hammer	At scale 100
Rigidity of Spring	785.0 ± 30 (N/m)
Effective Length of Spring	61.5 ± 0.3mm
Stretch Length of Projectile Hammer	75 ± 0.3mm
Starting Position of Projectile Hammer	At scale 0
Rate	80 ± 2 (in default)

Applications

Widely applied in compression test on construction, bridges and concrete components.



Bridge Pier Testing

Concrete Building

Pavement Engineering




Accessories

Prism System	23-32
Prism System	24-25
Prism Set	26-27
Mini Prism System	28-29
Prism	30
Tribrach	31
Adapter	32
Pole	33-35
Prism Pole	33-34
Range Pole	35
Staff	36
Tripod	37-39

Prism System


TPS11



- A 64mm prism TY01 assembly with yellow ABS canister
- This kit comes with a fixed adapter TL10 with optical plummet and plate vial
- Also included a yellow tribrach TJ13, which features three-screw leveling with center line and a 10' bubble
- Included hard shell case AX05

PN	Diameter	Offset	Adapter	Target	Wt.	Case
AD0001	64mm	0/-30mm	5/8	140*140mm	1.85kg	Yellow


TPS16



- A 65mm prism CPR1 assembly with copper coated and metal canister
- This kit comes with a fixed adapter CRT-10
- Also included is a green tribrach TJ10, which features three-screw leveling with optical plummet and a 10' bubble
- Included hard shell case AX02

PN	Diameter	Offset	Adapter	Target	Wt.	Case
AD0011	65mm	-34.4mm	stub fitting	180*168mm	1.65kg	Red


TPS17



- A 64mm prism TY01 assembly with red ABS canister
- This kit comes with a fixed adapter TL10 with optical plummet and plate vial
- Also included is a gray tribrach TJ13, which features three-screw leveling with a 10' bubble
- Included hard shell case AX05

PN	Diameter	Offset	Adapter	Target	Wt.	Case
AD0004	64mm	0/-30mm	5/8	200*160mm	1.8kg	Yellow


TPS21



- A 64mm prism TY02 assembly with red ABS canister and black pressing-ring
- This kit comes with a fixed adapter TL10 with optical plummet
- Also included is a gray tribrach TJ13, which features three-screw leveling with center line and a 10' bubble
- Included hard shell case AX09

PN	Diameter	Offset	Adapter	Target	Wt.	Case
AD0007	64mm	0/-30mm	5/8	180*140mm	1.8kg	Yellow


TPS26



- A 65mm prism CPR1 assembly with cooper coated and metal canister
- This kit comes with a fixed adapter TL10L with optical plummet and plate vial
- Also included is a green tribrach TJ10, which features three-screw leveling with a 10' bubble
- Included hard shell case AX02
- Erect image

PN	Diameter	Offset	Adapter	Target	Wt.	Case
AD0003	65mm	-34.4mm	stub fitting	180*168mm	1.8kg	Red


TPS27



- A 64mm prism TY06 assembly with red ABS canister
- This kit comes with a fixed adapter TL10 with optical plummet
- Also included is a gray tribrach TJ13, which features three-screw leveling with center line and a 10' bubble
- Included hard shell case AX02

PN	Diameter	Offset	Adapter	Target	Wt.	Case
AD0008	64mm	-30/-40mm	5/8	200*185mm	1.8kg	Red


TPS30



- Includes three sealed 64mm prisms TY01 in red ABS canister
- Tilting holder is constructed by aluminum-alloy and holds one to three prisms, compatible with most screw-in prisms
- Fixed adapter and tribrach features 10' sensitivity for compensation, with optical plummet
- Included hard shell case AX05

PN	Diameter	Offset	Adapter	Target	Wt.	Case
AD0012	64mm	0/-30mm	5/8	None	1.95kg	Yellow


TPS49





- A 64mm prism TY01 assembly with red ABS canister
- This kit comes with a fixed adapter TL10 with optical plummet and plate vial
- Also included is a gray tribrach TJ13, which features three-screw leveling with a 10' bubble
- Included hard shell case AX05


PN	Diameter	Offset	Adapter	Target	Wt.	Case
AD0010	64mm	0/-30mm	5/8	175*140mm	1.8kg	Yellow


Prism Set


TK10T							
	<ul style="list-style-type: none"> • Features a 30mm offset and a 64mm prism TY01, with accuracy of < 5 seconds, sealed in red canister made by durable ABS • Mounting base features standard female 5/8 thread with Zinc-aluminum + ABS holder TK10 • Included carry bag AB14 						
	PN	Diameter	Offset	Holder	Target	Wt.	Center Ht
	HG0004	64mm	0/-30mm	Zinc-aluminum+ABS	200*170mm	0.51kg	77mm


TK11T							
	<ul style="list-style-type: none"> • Features a -30mm offset and a 64mm prism TY01, with accuracy of < 5 seconds, sealed in yellow canister made by durable ABS • Mounting base features standard female 5/8 thread with Zinc-aluminum holder TK11 • Included carry bag AB09 						
	PN	Diameter	Offset	Holder	Target	Wt.	Center Ht
	HG0005	64mm	0/-30mm	Zinc-aluminum	140*140mm	0.68kg	77mm


TK16T							
	<ul style="list-style-type: none"> • Features a -34.4mm offset and a 65mm copper-coated prism CPH1, achieved 1.0 mm accuracy in 3,500m • Tilt holder is constructed by polycarbonate with an easy-locked thread • Included carry bag AB09 						
	PN	Diameter	Offset	Holder	Target	Wt.	Center Ht
	HG0007	65mm	-34.4mm	PC (Black)	180*168mm	0.53kg	87mm

TK17T							
	<ul style="list-style-type: none"> • Features 0mm/-30mm offset and a 64mm prism TY01, with accuracy of < 5 seconds, sealed in red canister made by durable ABS • Mounting base features standard female 5/8 thread with Zinc-aluminum+ABS holder • Included carry bag AB09 						
	PN	Diameter	Offset	Holder	Target	Wt.	Center Ht
	HG0008	64mm	0/-30mm	Zinc-aluminum+ABS	200*160mm	0.68kg	77mm

TK21T							
	<ul style="list-style-type: none"> • Features 0/30mm offset and a 64mm prism TY02, with accuracy of < 5 seconds, light but durable ABS canister with a black pressing ring to prevent water and dust from getting inside • Mounting base features standard female 5/8 thread with Zinc-aluminum holder • Included carry bag AB09 						
	PN	Diameter	Offset	Holder	Target	Wt.	Center Ht
	HG0011	64mm	0/-30mm	Zinc-aluminum	180*140mm	0.67kg	77mm

TK25T							
	<ul style="list-style-type: none"> • Features 0/-30mm offset and a 64mm prism TY01, with accuracy of < 5 seconds, sealed in red canister made by durable ABS • Mounting base features standard female 5/8 thread with Zinc-aluminum holder • Included carry bag AB09 						
	PN	Diameter	Offset	Holder	Target	Wt.	Center Ht
	HG0017	64mm	0/-30mm	Zinc-aluminum	175*140mm	0.64kg	77mm









TK27T							
	<ul style="list-style-type: none"> • Features -30/-40mm offset and a 64mm prism TY06, with aluminum-coated, sealed in red canister made by ABS • Mounting base features standard female 5/8 thread with ABS holder • Included carry bag AB20 						
	PN	Diameter	Offset	Holder	Target	Wt.	Center Ht
	HG0012	64mm	-30/-40mm	ABS	200*185mm	0.63kg	85mm

TK49T							
	<ul style="list-style-type: none"> • Features 0/-30mm offset and a 64mm prism TY01, with accuracy of < 5 seconds, sealed in red canister made by durable ABS • Mounting base features standard female 5/8 thread with Zinc-aluminum holder • Included carry bag AB09 						
	PN	Diameter	Offset	Holder	Target	Wt.	Center Ht
	HG0014	64mm	0/-30mm	Zinc-aluminum+ABS	175*140mm	0.63kg	77mm

Mini Prism System









<p>TPSmini101</p>  <ul style="list-style-type: none"> • 25.4mm prism encased in ABS holder, 0/-30mm offset • Mounting base features standard 5/8 thread • An adjustable 30' circle vial • Included soft bag AB02, connector AD013 and S hook • Optional: U bracket 	<p>TPSmini102</p>  <ul style="list-style-type: none"> • 25.4mm prism encased in aluminum-alloy holder, 0/-30mm offset • Mounting base features standard 5/8 thread • An adjustable 15' circle vial • Included soft bag AB02, connector AD013/AD014 and S hook
<p>TPSmini103</p>  <ul style="list-style-type: none"> • 25.4mm silver-coated prism encased in aluminum-alloy holder, 0mm offset • An adjustable 60' circle vial • Included soft bag AB08, cap, poles ADS103 and S hook <p>▶ 60mm*3, φ10mm</p>	<p>TPSmini104</p>  <ul style="list-style-type: none"> • 25.4mm silver-coated prism encased in aluminum-alloy holder, 0/-30mm offset • Mounting base features standard female 5/8 thread • An adjustable 30' circle vial • Included soft bag AB03, connector AD013/AD014 and S hook • Optional: U bracket
<p>TPSmini105A/105B</p>  <ul style="list-style-type: none"> • 38mm/25.4mm silver-coated prism encased in aluminum-alloy holder, 0/-30mm offset • Mounting base features standard female 5/8 thread, An adjustable 30' circle vial • Included soft bag AB04, connector AD014, cap and poles ADS112 <p>▶ 30mm*4, φ12mm</p>	<p>TPSmini112A/112B</p>  <ul style="list-style-type: none"> • 25.4mm, copper-coated prism and light & durable PC holder • Prism constant: -17.5 for TPSmini112A, 0/-30 for TPSmini112B • Assembly slides up & down the poles • An adjustable 15' circle vial • Included soft bag AB02 and poles ADS112 <p>▶ 30mm*4, φ12mm</p>
<p>TPSmini114A/114B</p>  <ul style="list-style-type: none"> • 25.4mm copper coating prism mounted in metal holder, making the waterproof and dust-proof protection • 3 inches L-bar for 114A 9 inches L-bar for 114B • Tilting screw uses an 8mm hex wrench to loosen and tighten 	<p>TPSmini114D</p>  <ul style="list-style-type: none"> • 25.4mm copper coating prism mounted in metal holder, making the waterproof and dust-proof protection • Features 3 inches L-bar • Tilting screw uses an 8mm hex wrench to loosen and tighten

Part No.	Type	Diameter	Offset	Center Height	Wt
MN0004	TPSmini101	25.4mm	0/-30mm	50mm	0.08kg
MN0006	TPSmini102	25.4mm	0/-30mm	70mm	0.16kg
MN0008	TPSmini103	25.4mm	0mm	None	0.15kg
MN0010	TPSmini104	25.4mm	0/-30mm	70mm	0.16kg
MN0011	TPSmini105A	38mm	0/-30mm	60mm	0.29kg
MN0027	TPSmini105B	25.4mm	0/-30mm	60mm	0.25kg
MN0015	TPSmini112A	25.4mm	-17.5mm	50mm	0.11kg
MN0017	TPSmini112B	25.4mm	0/-30mm	50mm	0.11kg
MN0019/MN0021	TPSmini114A/114B	25.4mm	-25.3mm	60mm/214.6mm	0.20kg
MN0020	TPSmini114D	25.4mm	-25.3/-6.5mm	60mm	0.27kg

<p>TPSmini115</p>  <ul style="list-style-type: none"> • 35mm silver coated sliding prism, 0 offset • Prism assembly slides up and down the poles easily by stainless screw • An Adjustable 30' circular vial • Included soft bag AB08 and poles ADS115 <p>▶ 30mm*5, φ9mm</p>	<p>TPSmini116</p>  <ul style="list-style-type: none"> • 38mm silver coated standing prism, 0 offset, it can be disassemble and using as a sliding prism • Holder is constructed by aluminum alloy • An Adjustable 30' circular vial • Included soft bag AB03, poles ADS116 and stand <p>▶ 55mm*3, φ9mm</p>
<p>TPSmini118</p>  <ul style="list-style-type: none"> • 25.4mm silver-coated prism encased in aluminum-alloy holder, 0/-30mm offset • MIO Thread • An adjustable 30' circle vial 	<p>TPSmini120/120C</p>  <ul style="list-style-type: none"> • Large diameter monitoring prism ball for long-range measurement. • Mini120 features 25.4mm silver-coated prism • Mini120C features 45mm copper-coated prism, encased in a heavy-duty canister with a rain/snow cover
<p>TPSmini122</p>  <ul style="list-style-type: none"> • 39mm silver-coated prism ball encased in a heavy-duty canister, -17.5mm offset • Mounting base features M6 thread • Accuracy achieved >0.1mm • Coincide accuracy between optical center and structure center <0.3mm 	<p>TPSmini128</p>  <ul style="list-style-type: none"> • 25.4mm silver-coated prism ball encased in a heavy-duty canister, -17.5mm offset • Magnetic prism with Φ12mm connector • Effective magnetism: 35kg • Accuracy achieved ±0.3mm
<p>TPS107</p>  <ul style="list-style-type: none"> • 360° silver-coated prism makes the reflector to be positioned quickly on land survey. It allows for various measurement in different height • Prism offset 9.4mm, diameter: 16mm • Replaceable aluminum alloy top cover and stainless steel point • It can be assembly slides on 9mm poles 	<p>TPS360</p>  <ul style="list-style-type: none"> • 360° copper-coated prism suitable for robotic total station, performed with a pin pole • Features trigonal prism with the diameter: 48*19.6mm, -10mm offset • Light but durable aluminum alloy holder with improved locking thumb screw







Part No.	Type	Diameter	Offset	Center Height	Wt
MN0022	TPSmini115	35mm	0mm	None (with poles)	0.10kg
MN0024	TPSmini116	38mm	0mm	None (with poles)	0.26kg
MN0001	TPSmini118	25.4mm	-17.5mm	30mm	0.1kg
MN0028	TPSmini120	25.4mm	-17mm	25mm	0.13kg
MN0029	TPSmini120C	45mm	-17mm	22.5mm	0.18kg
MN0030	TPSmini122	39mm	-17.5mm	40mm	0.23kg
MN0002	TPSmini128	25.4mm	-17.5mm	None	0.40kg
MN0013	TPS107	16mm	9.4mm	None (with poles)	0.23kg
JT0016	TPS360	48*19.6mm	-10mm	83.5mm/97mm	0.28kg

Prism

TY01	 <ul style="list-style-type: none"> • 64mm prism with ABS canister • Features <5" accuracy • Optional in red and yellow • Compatible with TK10T, TK17T, TK25T, TK49T, etc.
TY02	 <ul style="list-style-type: none"> • 64mm prism with ABS canister, black pressing ring • Features <5" accuracy • Optional in red and yellow • Compatible with TK21T, etc.
TY03	 <ul style="list-style-type: none"> • 64mm prism with sealed canister, black pressing ring • Features <5" accuracy • Optional in red and yellow • Compatible with TK20T, etc.
TY06	 <ul style="list-style-type: none"> • 64mm prism with ABS canister • Features <5" accuracy • Red color • Compatible with TK27T, etc.
CPR1	 <ul style="list-style-type: none"> • 65mm copper-coated prism with polycarbonate canister • Compatible with TK16T
TYmini25	 <ul style="list-style-type: none"> • 25mm copper-coated or silver-coated optional in metal canister • Compatible with TPSmini101/102/103/104 /105B/112A/112B, etc.
TYmini35	 <ul style="list-style-type: none"> • 35mm copper-coated or silver-coated optional in metal canister • Compatible with TPSmini115, etc.
TYmini38	 <ul style="list-style-type: none"> • 38mm copper-coated or silver-coated optional in metal canister • Compatible with TPSmini105A/116, etc.

Part No.	Type	Diameter	Coating	Canister	Standard
JT0006	TY01-RED	64mm	None	ABS Plastic	TPS17, TPS30, TPS49
JT0019	TY01-YOW				TPS11
JT0007	TY02-RED	64mm	None	ABS Plastic	TPS21
JT0017	TY02-YOW				-
JT0008	TY03-RED	64mm	None	ABS Plastic	TPS20
JT0018	TY03-YOW				-
JT0010	TY06	64mm	None	ABS Plastic	TPS27
JT0013	CPR1	65mm	Copper-coated	ABS Plastic	TPS16
JT0019	TYmini25-0	25.4mm	None	ABS Plastic	TPSmini101
JT0020	TYmini25-1		None	Metal	TPSmini102, TPSmini103,
JT0021	TYmini25-2		Copper-coated	Metal	TPSmini104, TPSmini105B,
JT0001	TYmini25-3		Silver-coated	Metal	TPSmini112A/B
JT0002	TYmini35-1		35mm	None	Metal
JT0022	TYmini35-2	Copper-coated		Metal	
JT0023	TYmini35-3	Silver-coated		Metal	
JT0024	TYmini38-1	38mm	None	Metal	TPSmini105A,
JT0003	TYmini38-2		Copper-coated	Metal	TPSmini116
JT0005	TYmini38-3		Silver-coated	Metal	

Tribrach

TJ10	 <ul style="list-style-type: none"> • The tribrach and optical plummet are robust construction and suitable for long period exposure on the field • Available in yellow, gray, camel, green and black • Circular vial: 10' • Weight: 0.84kg 	TJ13	 <ul style="list-style-type: none"> • A cost effective tribrach suitable for use. • Copper footscrews • Features locking forced-centering knob and a 10' circular vial • Available in yellow, gray, camel, green and black • Weight: 0.67kg
TJ13L	 <ul style="list-style-type: none"> • A cost effective tribrach, suitable for the adapters with laser plummet • Features a 10' circular vial • Green color • Weight: 0.67kg 	TJ16	 <ul style="list-style-type: none"> • High-precision tribrach with laser plummet, suitable for robust construction • Bright 650nm focused laser dot. • Circular vial: 10' • Weight: 0.80kg
TJ19	 <ul style="list-style-type: none"> • Tribrach for optical plummet adjustment • Weight: 1.52kg 	TJ23	 <ul style="list-style-type: none"> • Features locking forced-centering knob and a 10' circular vial. • Weight: 0.70kg

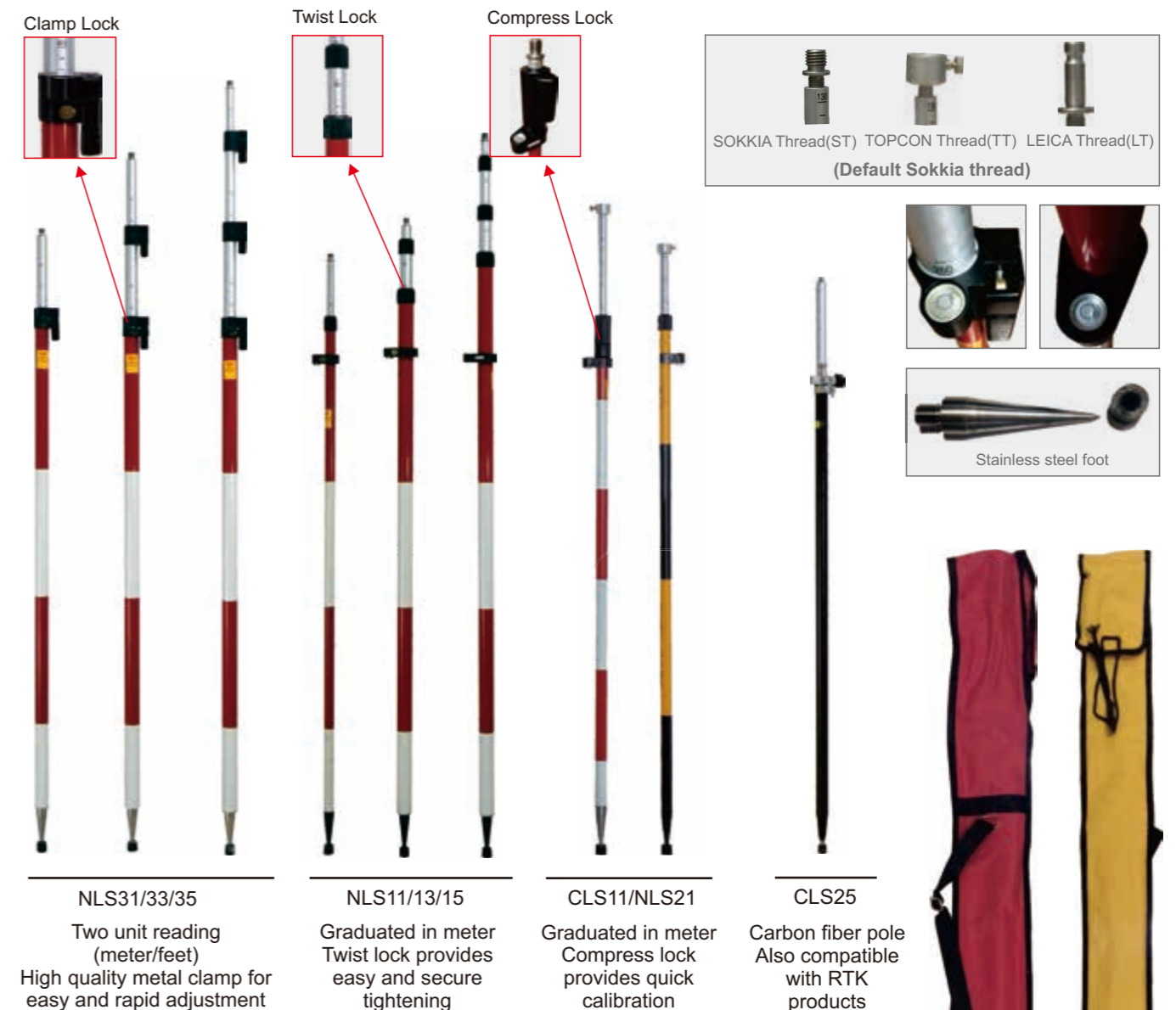
Part No.	Type	Color	Diameter	Leveling Screw	Bubble	Weight
JZ0006	TJ10-YOW	Yellow	Foot ϕ 13mm	Copper Screw	10'	0.84kg
JZ0004	TJ10-GRY	Gray	Clutch-system ϕ 80mm			
JZ0015	TJ10-CAL	Camel				
JZ0007	TJ10-GRE	Green				
JZ0005	TJ10-BLK	Black	Foot ϕ 13mm Clutch-system ϕ 80mm	Aluminum Screw	10'	0.67kg
JZ0003	TJ13-YOW	Yellow				
JZ0001	TJ13-GRY	Gray				
JZ0016	TJ13-CAL	Camel				
JZ0017	TJ13-GRE	Green				
JZ0002	TJ13-BLK	Black				
JZ0011	TJ15-CAL	Camel				
JZ0012	TJ15-YOW	Yellow				
JZ0018	TJ16-YOW	Yellow	Foot ϕ 13mm Clutch-system ϕ 80mm	Copper Screw	10'	0.80kg
JZ0013	TJ16-GRY	Gray				
JZ0019	TJ16-CAL	Camel				
JZ0020	TJ16-GRE	Green				
JZ0021	TJ16-BLK	Black				
JZ0010	TJ19	Black&Yellow	Foot ϕ 13mm Clutch-system ϕ 80mm	Copper Screw	10'	1.52kg
JZ0014	TJ23	Yellow	Clutch-system ϕ 80mm	Copper Screw	10'	0.70kg

Adapter

TL10  <ul style="list-style-type: none"> Fixed adapter, available in camel, green, yellow, black and gray Plate vial: 60" Erect image 	TL10L  <ul style="list-style-type: none"> Fixed green adapter, suitable for reflectors with stub fitting Plate vial: 60" Erect image
TL13  <ul style="list-style-type: none"> Fixed adapter, available in yellow, gray and camel Plate vial: 60" Erect image 	TL14  <ul style="list-style-type: none"> Non-rotatable adapter with 5/8 thread for GNSS receiver Clutch-system ϕ 80mm Erect image
TL15  <ul style="list-style-type: none"> Includes rotating screw with 5/8 thread for GNSS receiver Clutch-system ϕ 80mm Erect image 	TL16  <ul style="list-style-type: none"> Fixed adapter with laser plummet, available in camel, black, yellow, gray Plate vial: 60" Erect image
TL23  <ul style="list-style-type: none"> Simple adapter for use Suitable for GPS carrier with 5/8 thread Erect image 	TL23LG  <ul style="list-style-type: none"> Socket adapter Suitable for reflectors with direct fitting Erect image
CRT10  <ul style="list-style-type: none"> Simple adapter for use Suitable for reflectors with direct fitting Erect image 	CRT11  <ul style="list-style-type: none"> Simple adapter for use Suitable for reflectors with direct fitting Erect image

Part No.	Type	Color	Clutch-system	Material	Bubble	Weight
AL0008	TL10-YOW	Yellow	80mm	Zinc-aluminum Alloy	60"	0.50kg
AL0009	TL10-GRY	Gray				
AL0010	TL10-CAL	Camel				
AL0011	TL10-GRE	Green				
AL0012	TL10-BLK	Black				
AL0013	TL10L	Green	80mm	Zinc-aluminum Alloy	60"	0.57kg
AL0014	TL13-YOW	Yellow	80mm	Zinc-aluminum Alloy	60"	0.49kg
AL0015	TL13-GRY	Gray		Zinc-aluminum Alloy		
AL0016	TL13-CAL	Camel		Zinc-aluminum Alloy		
AL0017	TL14	Black		80mm		
AL0001	TL15	Black	80mm	Zinc-aluminum Alloy	None	0.32kg
AL0018	TL23	Yellow	80mm	Zinc-aluminum Alloy	None	0.44kg
AL0020	TL23LG	Yellow	80mm	Zinc-aluminum Alloy	None	0.5kg
AL0021	CRT10	Green	80mm	Zinc-aluminum Alloy	None	0.28kg
AL0002	CRT11	Green	80mm	Zinc-aluminum Alloy	None	0.42kg

Prism Pole



Clamp Lock Twist Lock Compress Lock

SOKKIA Thread(ST) TOPCON Thread(TT) LEICA Thread(LT)
(Default Sokkia thread)

Stainless steel foot

NLS31/33/35
Two unit reading (meter/feet)
High quality metal clamp for easy and rapid adjustment

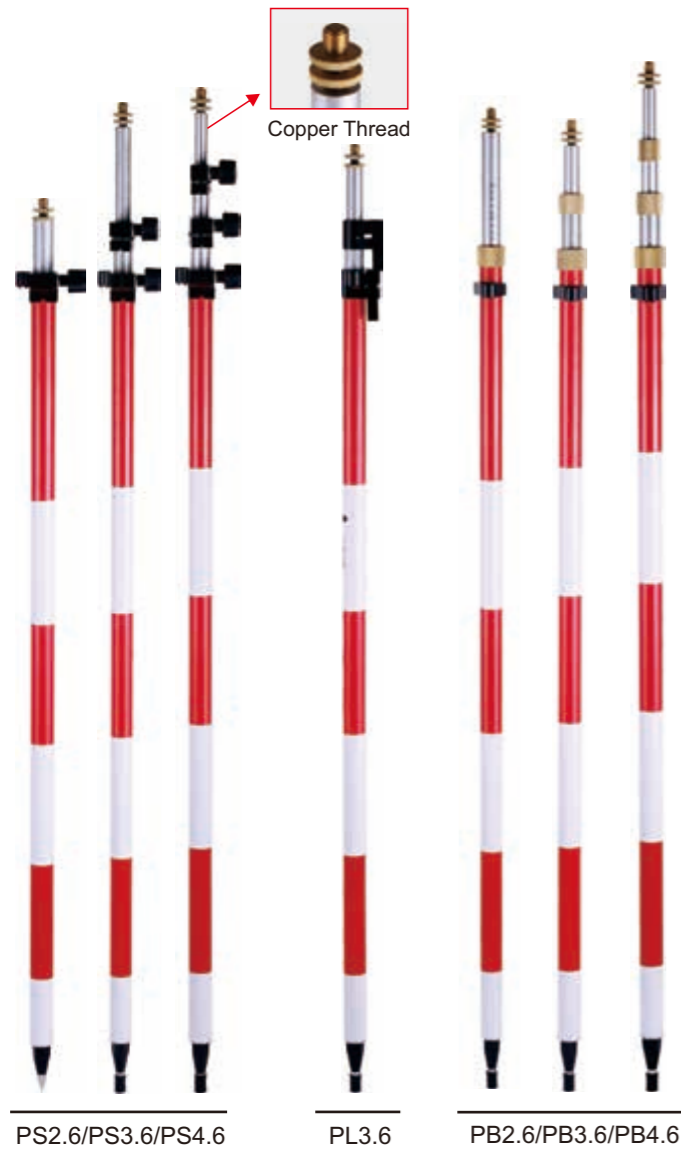
NLS11/13/15
Graduated in meter
Twist lock provides easy and secure tightening

CLS11/NLS21
Graduated in meter
Compress lock provides quick calibration

CLS25
Carbon fiber pole
Also compatible with RTK products

Model	PN	Pole Φ	Sections	Full length	Min. Length	Lock Type	Net. Wt
CLS11	18.13.001	25mm	2 sections	2150mm	1300mm	Compress	1.4kg
NLS11	18.13.004	24mm	2 sections	2500mm	1370mm	Twist	1.3kg
NLS13	18.13.005	36mm	3 sections	3600mm	1550mm	Twist	2.0kg
NLS15	18.13.006	36mm	4 sections	5000mm	1700mm	Twist	2.3kg
NLS21	18.13.002	24mm	2 sections	2150mm	1300mm	Twist	1.1kg
NLS31	18.13.007	32mm	2 sections	2500mm	1370mm	Clamp	1.8kg
NLS33	18.13.009	36mm	3 sections	3600mm	1600mm	Clamp	2.3kg
NLS35	18.13.011	36mm	4 sections	5000mm	1700mm	Clamp	2.7kg
CLS25	18.13.015	30mm	2 sections	2500mm	1000mm	Side twist	1.0kg

Prism Pole



Side Twist
The soft rubber knob is easy for tighten and loosen



Clamp Lock
Quick-release clamp lock allows for a simple and fast setup



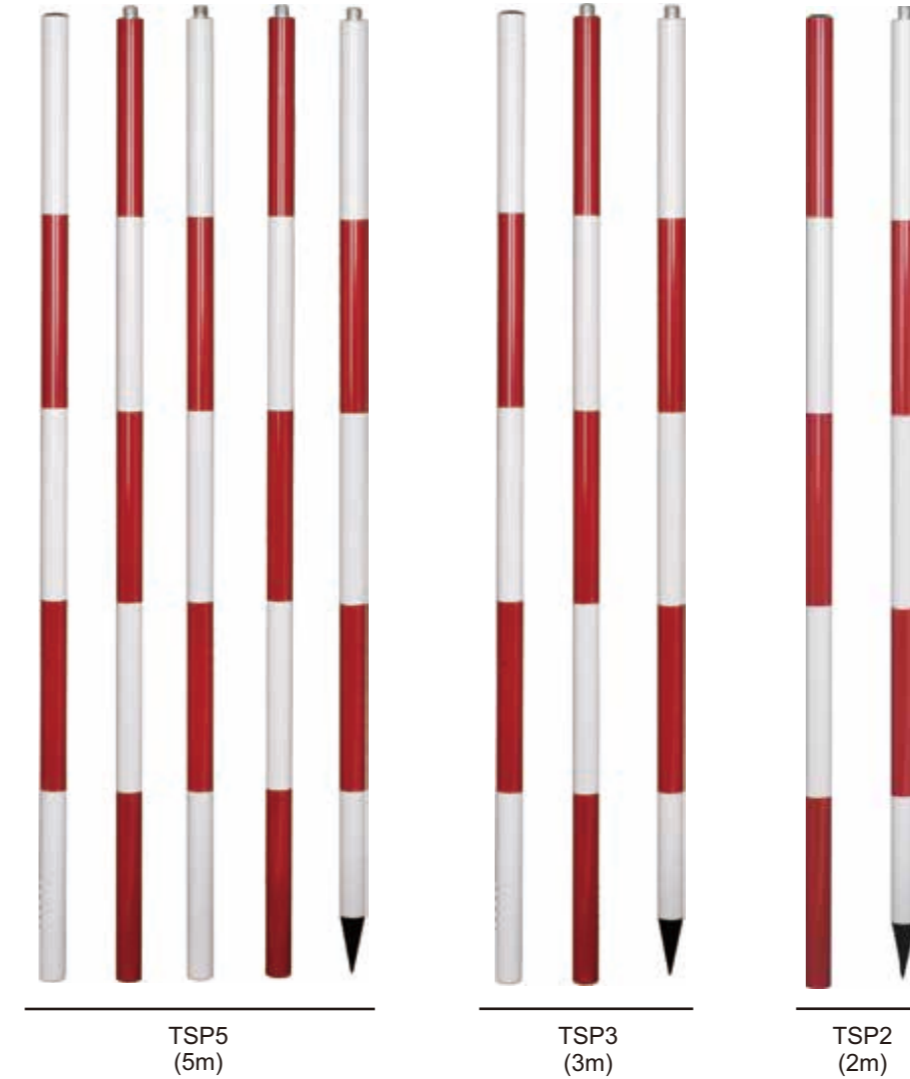
Twist Lock
Constructed of sturdy copper locking mechanism



Adjustable Tip
Features an anodized aluminum body with an easy-to-replace steel point

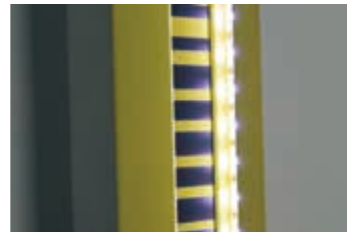
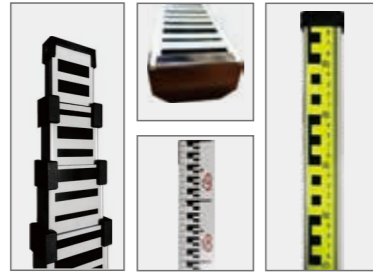
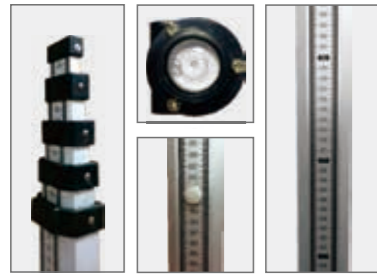
Model	PN	Pole Φ	Sections	Grads	Full length	Min. Length	Lock Type	Net. Wt
PS2.6	19.01.001	34.6mm	2 sections	Dual	2600mm	1470mm	Side Twist	1.45kg
PS3.6	19.01.002	34.6mm	3 sections	Dual	3600mm	1520mm	Side Twist	1.84kg
PS4.6	19.01.003	34.6mm	4 sections	Dual	4650mm	1570mm	Side Twist	2.30kg
PL2.6	19.01.004	34.6mm	2 sections	Dual	2600mm	1470mm	Clamp	1.47kg
PL3.6	19.01.005	34.6mm	3 sections	Dual	3600mm	1520mm	Clamp	1.89kg
PL4.6	19.01.006	34.6mm	4 sections	Dual	4650mm	1570mm	Clamp	2.25kg
PB2.6	19.01.007	34.6mm	2 sections	Dual	2600mm	1470mm	Twist	1.37kg
PB3.6	19.01.008	34.6mm	3 sections	Dual	3600mm	1520mm	Twist	1.86kg
PB4.6	19.01.009	34.6mm	4 sections	Dual	4650mm	1570mm	Twist	2.14kg

Range Pole

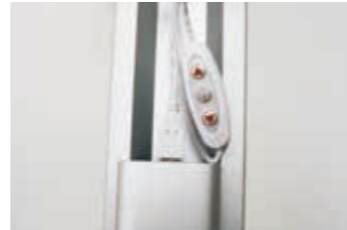


Model	PN	Each Stripe	Overall length deviation	Each meter deviation	Interval deviation	Net. Wt
TSP2	21.13.0010	20cm	±2mm	±1mm	±2mm	0.5kg
TSP3	21.13.0011	20cm	±3mm	±1mm	±3mm	0.8kg
TSP5	21.13.0012	20cm	±3mm	±1mm	±4mm	1.4kg
ESP2	21.13.0007	20cm	±2mm	±1mm	±2mm	0.5kg
ESP3	21.13.0008	20cm	±3mm	±1mm	±2mm	0.8kg
ESP5	21.13.0009	20cm	±4mm	±1mm	±2mm	1.3kg

Staff



LED illumination optional



Rechargeable by USB



Precised circle bubble



Humanized handle design

AGR3/4/5
(3m/4m/5m Telescopic Staff)

NSA-50M/SSI-2M
(5m/2m Code Staff)

SI-2M
(2m Invar Staff)

Model	PN	Material	Sections	Overall length deviation	Each meter deviation	Invar Staff Specification	
AGR3	21.13.0001	Aluminum	3m, 3 sections	±2mm	±0.5mm	Circle Bubble	≤12' /2mm
AGR4	21.13.0002	Aluminum	4m, 4 sections	±3mm	±0.5mm	Surface curvature distinction	≤4mm
AGR5	21.13.0003	Aluminum	5m, 5 sections	±3mm	±0.5mm	Vertical of central axis and underside	≤5'
AGR7	21.13.0005	Aluminum	7m, 5 sections	±3mm	±0.5mm	Tolerance of zero point	≤0.05mm
NSA-50M	1.08.003.0014	Aluminum	5m, 5 sections	±1.2mm	±0.35mm	Barcode graduation tolerance	Deviation ≤0.02mm
					Standard Deviation ≤0.013mm		
SSI-2M	6.07.314.0001	Fiber Glass	2m, 1 section	±1mm	±0.35mm	Interval tolerance	≤0.04mm
						PN	6.07.181.0001

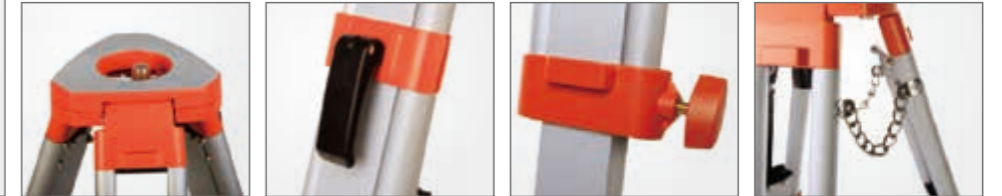
Tripod

Aluminum Tripod



Aluminum tripod with carrying straps and side optional screws

- Light-weight and durable aluminium design
- No shrinking or swelling in tough conditions
- Flat head; Tripod thread: 5/8" M16
- Decorative chain available for JP series tripod



Model	PN	Full Length	Min.Length	Lock	Head (Outer)	Head (Inner)	Leg	Weight
ATS-1	20.13.0001	1650mm	970mm	Twist	158mm	66mm	Quadrate	3.5kg
	Clamp							
ATS-3	20.13.0005	1700mm	1000mm	Twist	158mm	66mm	Round	3.7kg
	Clamp							
ATS-5	20.13.0007	1600mm	970mm	Twist	120mm	45mm	Round	3.0kg
	Clamp							
ATS-JP1	20.18.0001	1645mm	1030mm	Clamp	160mm	67.5mm	Round	4.0kg
ATS-JP2	20.18.0002	1655mm	1030mm	Twist	160mm	67.5mm	Round	4.0kg
ATS-JP3	20.18.0003	1645mm	1030mm	Twist & Clamp	160mm	67.5mm	Round	4.2kg
NAT-81CT	20.13.0015	1700mm	1000mm	Twist & Clamp	158mm	66mm	Quadrate	5.0kg

Wooden Tripod



Wooden tripod with long lasting coat of painting, widely used for Total Station/ GPS System

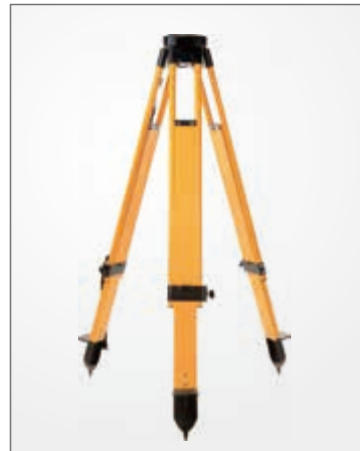
- Joints and shoe points made by stable metal.
- Extra stability due to double banded legs
- Supplied with shoulder strap
- Round head optional for ATS-MR3



Model	PN	Full Length	Min.Length	Lock	Head (Outer)	Head (Inner)	Weight
ATS-MP1	20.18.0004	1755mm	1090mm	Clamp	160mm	67.5mm	7.5kg
ATS-MP2	20.18.0005	1780mm	1090mm	Twist	160mm	67.5mm	7.5kg
ATS-MP3	20.18.0006	1755mm	1090mm	Twist & Clamp	160mm	67.5mm	7.5kg
ATS-MR3	20.18.0007	1755mm	1090mm	Twist & Clamp	167mm	68.5mm	8.4kg

Tripod

Fiberglass Tripod



Fiberglass tripod provide the excellent stability and strong resistance in tough conditions

- Long-lasting coated for hardware
- Quick and easy release for extended height
- Flat head



ATS-4B

ATS-6B



Model	PN	Full Length	Min.Length	Lock	Head (Outer)	Head (Inner)	Weight
ATS-2B	20.18.0041	1800mm	1080mm	Twist	158mm	66mm	5.88kg
ATS-4B	20.18.0042	1630mm	970mm	Twist	158mm	66mm	4.5kg
ATS-6B	20.18.0043	1550mm	940mm	Twist	120mm	45mm	3.5kg
ATS-FP1	20.18.0008	1755mm	1090mm	Clamp	160mm	67.5mm	8.2kg
ATS-FP2	20.18.0009	1780mm	1090mm	Twist	160mm	67.5mm	8.0kg
ATS-FP3	20.18.0010	1755mm	1090mm	Twist&Clamp	160mm	67.5mm	8.5kg

Heavy-Duty Tripod



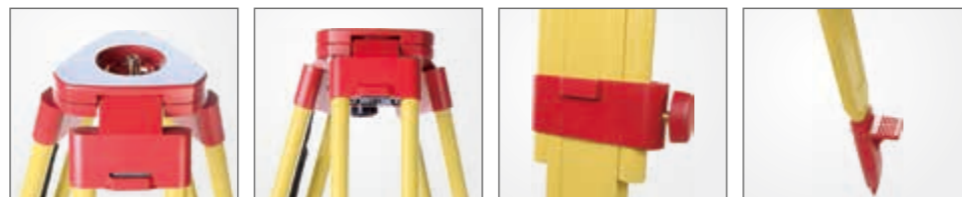
Heavy duty tripod with side twist lock

- Use for Total Station/ GPS System
- Proven long-life, twist-proof and excellent vibration characteristics
- Including heavy-duty shoulder trap for easier carrying



ATS-22

ATS-24



Model	PN	Full Length	Min.Length	Lock	Head (Outer)	Head (Inner)	Weight
ATS-20	20.13.0028	1700mm	1000mm	Twist	158mm	66mm	6.0kg
ATS-22	20.13.0029	1700mm	1090mm	Twist	160mm	66mm	7.0kg
ATS-24	20.13.0030	1700mm	1000mm	Twist&Clamp	160mm	66mm	7.0kg

Tripod

Elevator Tripod



Aluminum elevator tripod provide an adjustable and smooth mounting base

- EATS is a kind of light weight elevator tripod which features a flat in 124mm head and an elevator column extends to 110 cm
- A gear box controls the lift and descent of the flat
- Widely used in leveling and scanning



Model	PN	Full Length	Min.Length	Lock	Screw	Weight
EATS	20.13.0045	3000mm	1100mm	Twist	5/8"	5.8kg

Bipod



ADS115/116

ADS22

ADS33

GSR23+NLS15