

SPECIFICATIONS

Model	ATS-120A			
Angle Measurement				
Measurement Method	Absolute Encoding			
Minimum Readout	1"			
Accuracy	2"			
Telescope				
Magnification	30X			
Field of View	1°30'			
Minimum Focusing Distance	1.5m			
Reticle	Illuminated			
Compensator				
System				
Working Range	±3'			
Accuracy	1"			
Distance Measurement (with Reflector)				
Single Prism (Under general/good conditions)	4000m/5000m			
Reflective Sheet	1000m			
Accuracy	2mm+2ppm			
Measuring Time(Fine/Tracking)	0.8s/0.4s		0.8s/0.3s	
Distance Measurement (Reflectorless)				
Reflectorless Range (Calculated by Kodak Gray Card white side with 90% reflective)	400m	600m	800m	1000m
Accuracy	3mm+2ppm			
Measuring Time	1.5s			
Communication				
Internal Data Memory	Approx.20000 Points/SD Card			
Interface	Standard RS232,Mini-B,USB pen drive			
Wireless Communication	Buletooth			
Data Format	ASCII			
Operation				
System	Real-time Operating System			
Disply	True color ,320*240 TFT Screen			
Keyboard	2 sides Alphanumeric backlit crystal keyboard			
Laser Plummet				
Type	Laer point,4 brightness levels adjustment/Optical plummet(optional)			
Centering Accuracy	1mm at 1.5m instrument height			
Environmental				
Operating Temperature	-20°C- +50°C(-4F to +122F)			
Storage Temperature	-40°C- +70°C(-40F to +158F)			
Temperature&Pressure	Auto input			
Dust&Water Proof (IEC60529 Standard)	IP55			
Power Supply				
Battery Type	Li-ion battery			
Voltage/Capacity	ZBA-400:7.4V(DC)/3000mAh			
Operating Time With ZBA-400	Optimal 16 hours(Continuous angle measurement every 30 seconds)/10 hours(Typical)			
Measuring Times	Approx.12000 times			



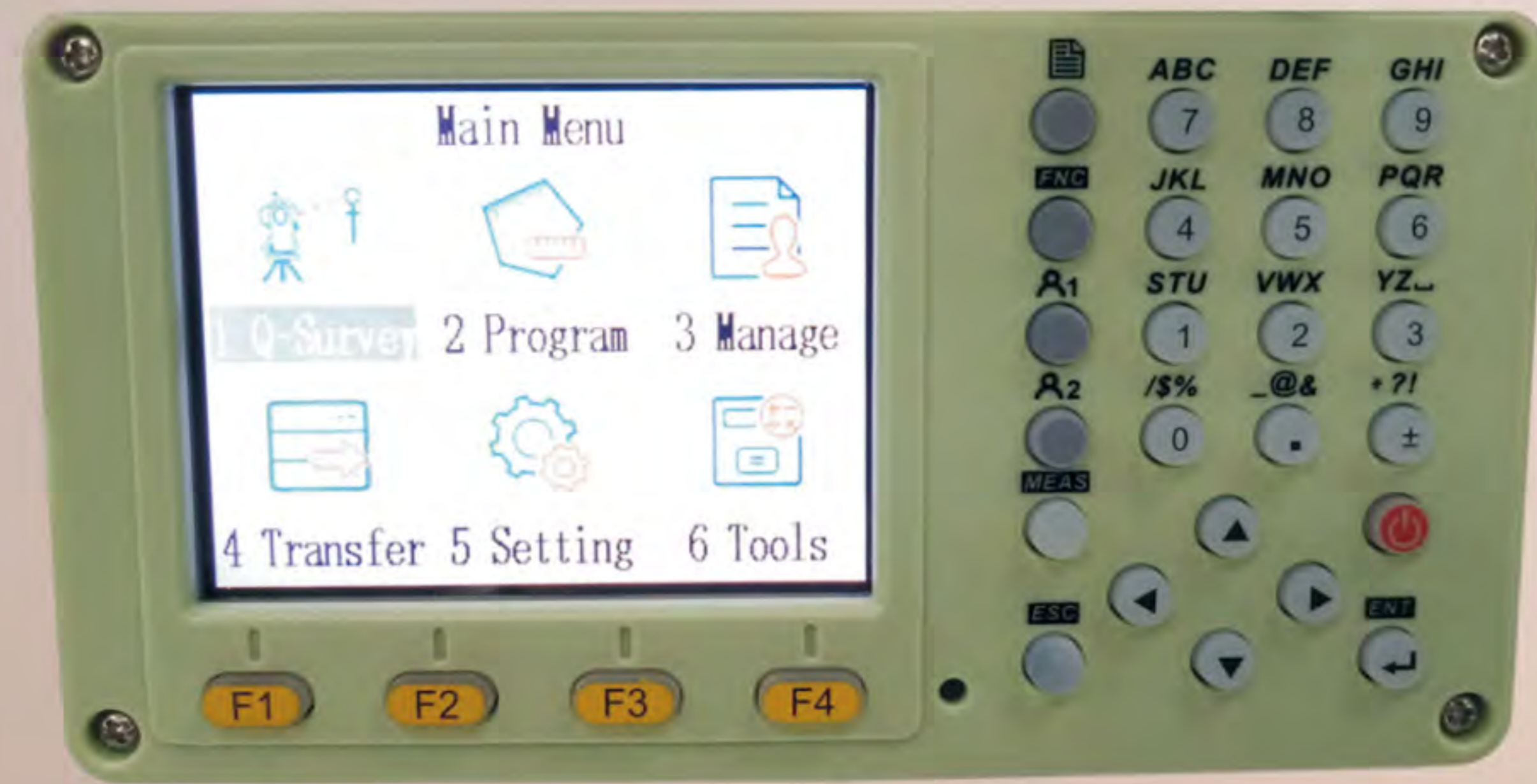
ATS-120 series Total Station

- ⊙ New-Design Optical Path
- ⊙ Full-Seal Encode Disk
- ⊙ True Color Screen
- ⊙ Temp-Pressure Sensor
- ⊙ Powerful and Fast EDM Capability
- ⊙ STM32 Architecture
- ⊙ Stable Dual-axis Compensation
- ⊙ Light-Reduction Step Motor
- ⊙ Absolute Encoder Angle Measurement
- ⊙ Rich Communication and Transmission
- ⊙ Intelligent Callibration Software
- ⊙ Laser Pointing and Laser Plummet



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Product Introduction

ATS-120 series Total Station

ATS-120A Total Station is widely used in engineering, produced by Suzhou Sunway Technology Co.,Ltd, a subsidiary of Hi-Target Group. It's equipped with true-color screen full-seal encode disk, step-motor, new-design optical path which enable ATS-120A get excellent angle&distance measuring performance.

ATS-120 series total station is configured with rich communication interfaces and smart online calibration software, which enable ATS-120A a rich selection of data transmission and real-time detection function.

Technical Features



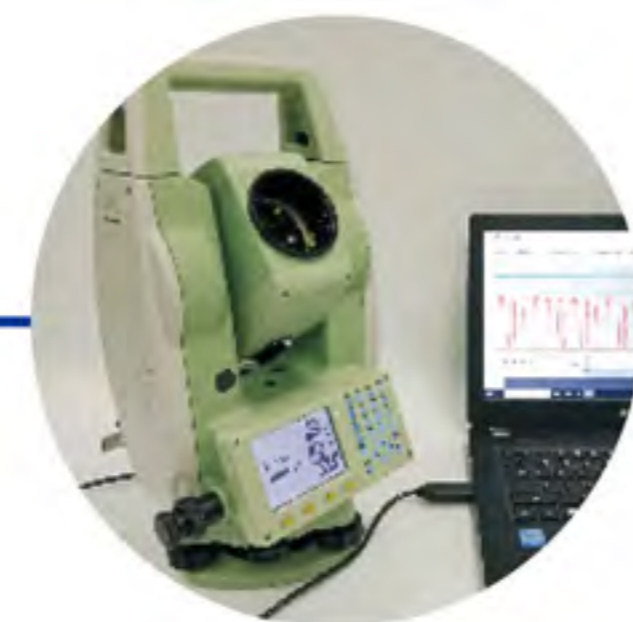
Fast and accurate EDM Capability

- New-design optical path improve the distance measurement accuracy and speed.
- Reflectorless 800m/600m.
- Fine 0.8s, track measurement 0.3s.



STM32 Architecture

- The STM32 MCU enables the total station have high processing speed and low-power consumption.



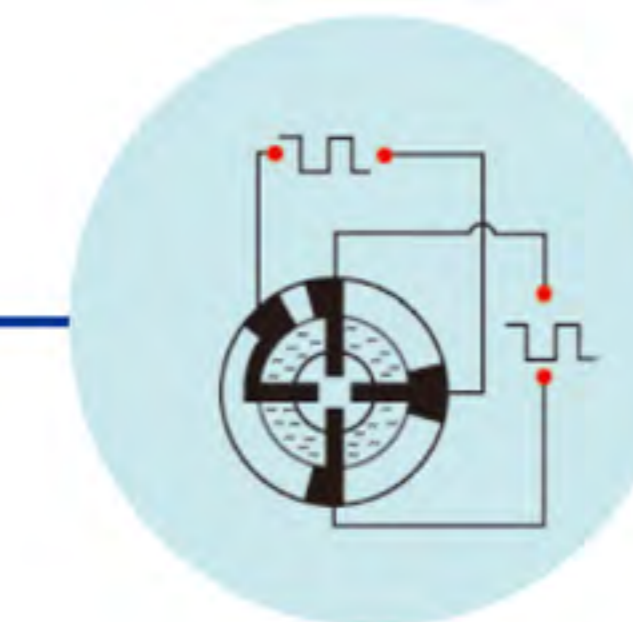
Intelligent trouble shooting software

- Sunway developed out an intelligent total station trouble-shooting software, it can diagnose 90% problems. Which is a strong tool for maintenance and repair people.



Full-seal Absolute Encoding Unit

- Full-seal absolute encoding unit avoid moisture& dust enter;
- Previous information remain after restart or power off, initialization not required.
- All series angle accuracy:2"



Stable Dual-axis Compensation

- Configured for auto accuracy compensation.
- Compensation range: $\pm 3'$
- Vivid graphic electronic bubble display.



Rich Communication and Transmission

- Rich data transfer options for variable needs. Eg. USB pen drive, SD card, Mini USB interface
- Bluetooth enables wireless data transfer
- Support handbook.

Suzhou Highly Star Electronics Co.,Ltd.is a subsidiary of Hi-Target Surveying Instrument Co.,Ltd, engaged in Sales&Marketing of Sunway products and other products in surveying field.

Established in 2005, SUNWAY is mainly engaged in manufacturing, R&D of photoelectric products such as optical instruments, angle measurement &checking devices, and surveying accessories.

As a leading total station manufacturer in China, SUNWAY has developed out the most advanced total station quality check devices in China. 99% of the quality check are performed by detection software and devices, which avoids the workman error.

In 2012, We join Hi-Target Group. By using Hi-Target's influence, strong financial strength and sales network, we broaden the product range, expanding the production scale and enhance core competitiveness.

In 2014, We realized sales of over 10,000 units of Total Stations, and pioneered the Miniaturized Total Station.

In 2015, We realized production and sales of 15000 sets Total station.

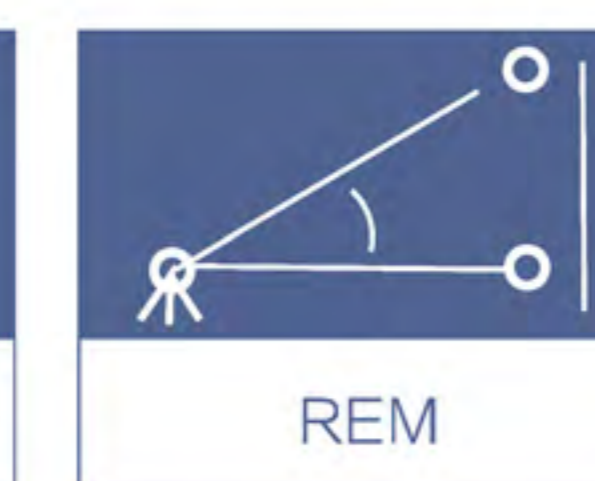
In 2015, In Suzhou, Hi-Target Group start building a new high-end photoelectric instrument manufacturing base with annual output capacity of 10million total stations, the new plant will be put into use in 2020.

The pattern has changed.

Software Features



Coordinate Measurement



REM



MLM



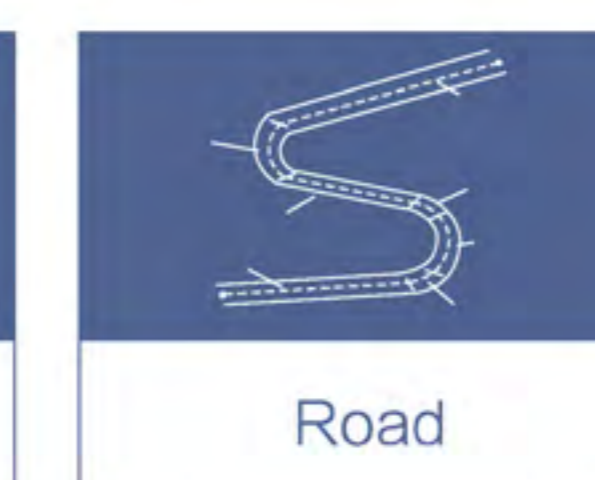
Distance Offset



Plane Offset



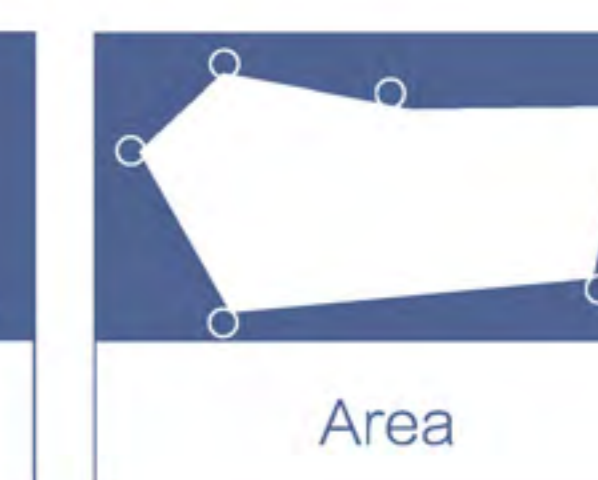
Resection



Road



Angle Offset



Area



Column Offset