

Technical Specifications

Telescopes

Magnification	30x
Tube Length	154mm
Field of View	1°30′
Minimum Focus	1.2m

Angular Measurement

Reading System	Absolute Continuous Encoding
Circle Diameter	79mm
Minimum Increment	0.1"/1" optional
Accuracy	1"
Detection Method	Horizontal: Quad Vertical: Quad
Compensation Type	Dual Axis, Liquid, Photoelectric

Distance Measurement with Reflector

Range (Prism) ¹	3500m
Accuracy	±(1mm + 1 x ppm)
Measurement Time	Fine: 0.3s Traking: 0.1s

Distance Measurement without Reflector

Range (Without Prism) ²	1000m
Accuracy	D < 500m: (±(2mm + 2 x ppm) D > 500m: (±(5mm + 2 x ppm)
Measurement Time	0.3~3s

Motor System

Type	DC Servo Motor
Rotate Speed	45° /s

ATR

Range	3~1200m (Prism)
Tracking Time	3~5s
Standard Field of View	+1.5°
Minimum Viewing Distance	9'

Prism-Search

Range	3~300m (Prism)
Searching Time	Standard 90°: 3.5s
Accuracy	0.1"/1" optional
Searching Range	±18°

System Config

Operating System	Android 11
Internal Memory	RAM: 4GB, ROM: 64GB

Communication

Buttons	Power, Function, etc.
Interface	USB-TypeC, TF Card, SIM Card, Micro-SIM, RS232, External Power
Display	5" 720*1280TFT Screen
Microphone/Speaker	Available
Network	5G, Bluetooth, WIFI, USB-OTG
Remote Control	450m

Physical

Size	217mm* 198mm*378mm
Weight(battery included)	7KG
Waterproof & Dustproof	IP65

¹ Good weather: cloudy, light wind, no fog, visibility about 40km, D is the measured distance in millimeters.

² Specifications subject to change without notice.

ComNavTech

Total Station

Ver.2025.07.20



TS-R900
Robotic Total Station

YOUR ALL-IN-ONE SURVEYING SOLUTION

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| Features

Designed to tackle any challenging tasks or projects with unparalleled accuracy. Featuring advanced Prism-Search and ATR functions, the TS-R900 effortlessly detects the most minute changes and adapts seamlessly to all-weather monitoring projects. With an impressive accuracy of 1", the TS-R900 excels in high-precision endeavors like high-speed railways, subways, bridges, and tunnels, providing unparalleled advantages for your most demanding projects.



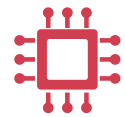
ATR

Automatic target recognition under any environmental circumstance



Prism-Search

Prism-Search helps you survey easily within 300 meters.



Powerful Core

8-Core CPU boosts speed and responsiveness.



Smart System

Android 11 makes it simple for users to get started.



Touch Screen

Clear and intuitive, easy to operate.



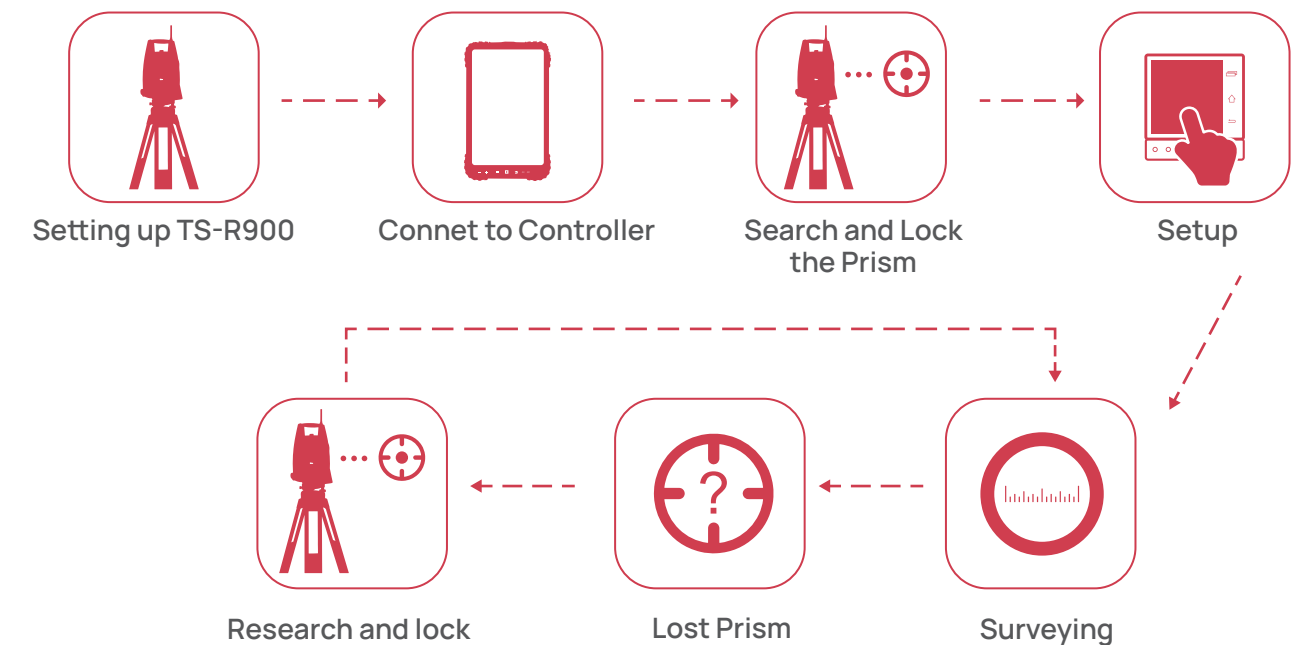
Adaptable

Stable Signal defies dark and cloudy.



| One-Person Surveying

With long-range data link, the TS-R900 can connect to the P8 Tablet at distances of up to 450m, enabling flexible and agile remote control for one-person surveying operation.



| Application Scenarios

The total station is used in various industries, such as civil engineering, architecture, construction site engineering, subways engineering, railways engineering and airport design



Civil Engineering



Architecture



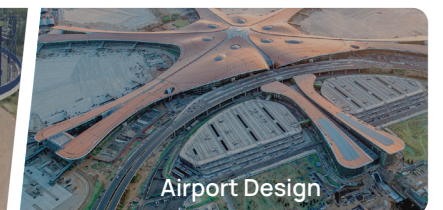
Construction Site Engineering



Subways Engineering



Railways Engineering



Airport Design