



# ELECTRONIC TOTAL STATION **TKS-202**

TOPCON (Beijing) Technologies Co. Ltd

***Precise Surveying Begins***







## ABOUT GOWIN

From the many years of diligent Research and Development in the China market, TOPCON (Beijing) Technologies Co. Ltd brings you **"GOWIN"**; the trusted surveying brand which specializes in high precision Total Station.

**"GOWIN"** represents our commitment and consistency to deliver to you the highest precision level and surveying standards through our expertise. Custom-made to suit the human contour, **GOWIN** Total Station is the key to demanding field jobs as they are ruggedly built to withstand harsh working conditions.

Based on rich surveying experience of TOPCON, **GOWIN** Total Station focused on offering customers the most user-friendly and all-rounded Total Station solution in the industry.

## ABOUT TOPCON (BEIJING) TECHNOLOGIES CO. LTD

TOPCON (Beijing) Technologies Co. Ltd is established on September 2004. Situated in the strategic location Beijing, it is formed through the tactical alliances of TOPCON Corporation (Japan) and TOPCON China.

TOPCON (Beijing) Technologies Co. Ltd is under the management guidance of both Japan and Chinese surveying professionals, dedicated to provide the best services and technical support to customers. We continuously strived to bring in the best accuracies testing instruments and innovative manufacturing process to ensure top quality of the Total Station.

Aiming to become the main surveying powerhouse in China, TOPCON (Beijing) Technologies Co. Ltd is committed to introducing new surveying technologies and constantly improving to offer to customers the finest surveying solutions that best suit their current needs.

For the future of surveying... ..  
**GOWIN strived to improve!**

For your choice in GOWIN... ..  
**It is absolutely right!**



## FINEST QUALITY, ONLY FROM GOWIN

Leveraging on TOPCON's optimal manufacturing excellences; **GOWIN** ensured every single production process of the TKS-202 Total Station is in compliance with international standards and went through stringent quality control.

From fully-automated EDM trials, to 48 hours of non-stop extreme environment conditional testing, **GOWIN** Total Station demonstrated its durability and operational superiority, highlighting **GOWIN** commitment to constantly improve.

Below are some of our quality production processes which display the outstanding built-up to **GOWIN** Total Station:



## ENVIRONMENTAL TESTS

Every single **GOWIN** Total Station undergoes long periods of tough atmospheric checks to ensure the instruments are operational even in extreme environmental conditions.



## AUTOMATED EDM TESTS

With the largest EDM inspection facilities in China, it ensured that the measurement accuracy of **GOWIN** Total Station is at a constant  $2 + 2\text{ppm}$ .



## HIGH FREQUENCY VIBRATION TESTS

Each **GOWIN** Total Station is required to go through a simulated external "tremor" assessment to affirm the ruggedness and long-term durable performance of the instrument.



## ANGLE COLLIMATION TESTS

The final step to **GOWIN** Total Station manufacturing excellence is the strict angle collimation review to guarantee the instrument angle accuracy at  $2''$  sharp.

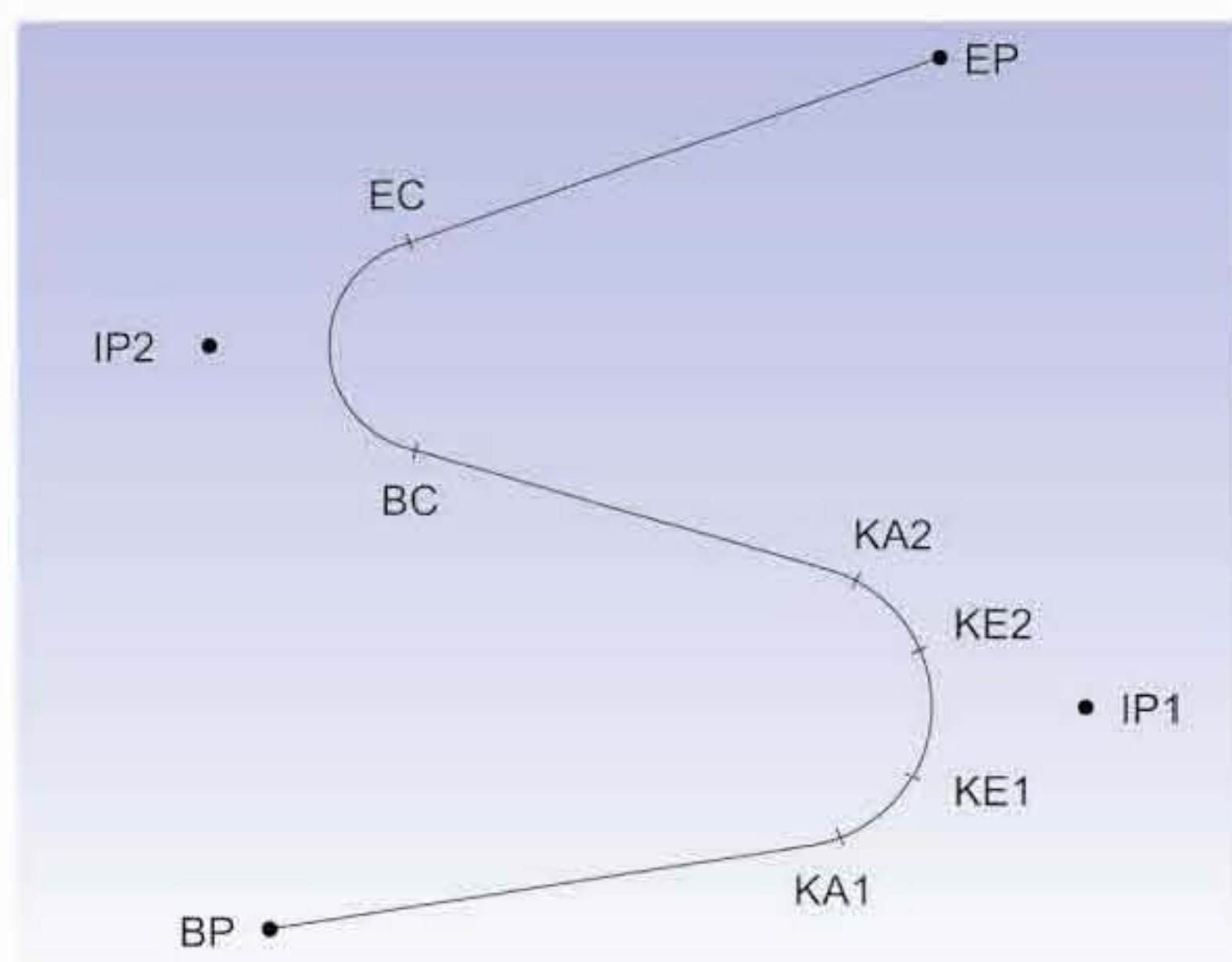




## ROBUST OPERATING SOFTWARE:

TKS-202 Total Station Series is pre-loaded with versatile software functions for high work efficiency, such as: ROAD, Missing Line Measurement (MLM), Height Measurement, Area Calculation, Resection, Coordinate Measurement, Stakeout and many other useful field application programs.

### ROAD SOFTWARE

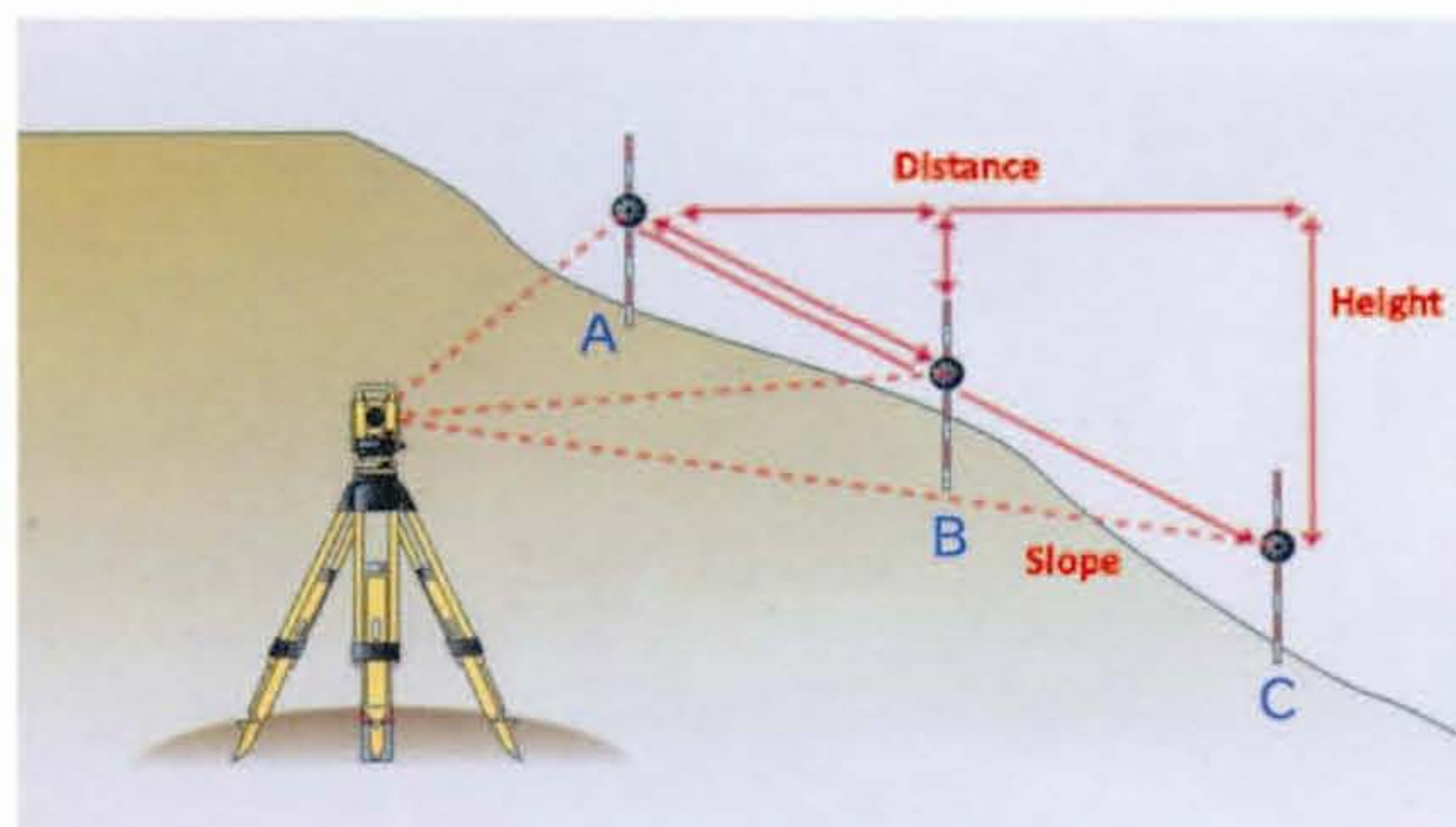


The on-board ROAD software satisfy your massive application measurement by automatically calculating complicated spiral curve and a long distance route by defining only the required points (start point, terminal point or curvilinear point) according to your needs.

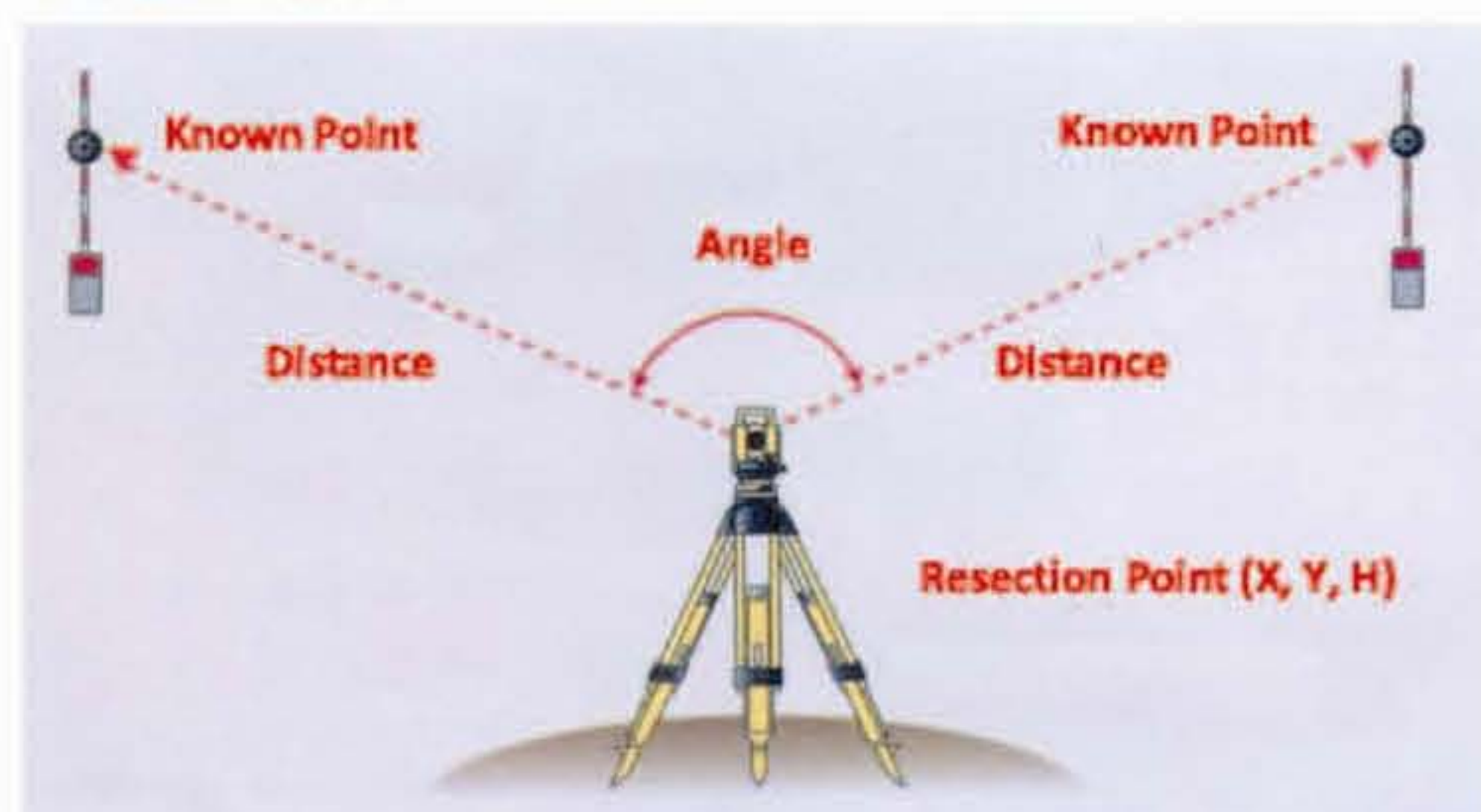
### MISSING LINE MEASUREMENT (MLM)

TKS-202 Total Station automatically measures horizontal distance, height difference and percentage of slope between two points.

F1: MLM-1(A-B,A-C)  
F2: MLM-2(A-B,B-C)



### RESECTION



TKS-202 Total Station can determine the azimuth and coordinates with certain known points. This function is especially useful if the coordinates of the specific instrument station is unknown. Elevated station from two known reference points can also be calculated, with each deviation of multiple reference points being displayed.

### LONG BATTERY LIFE

BT-L1 Lithium-ion on-board battery allows more than 14 hours of continuous operation in the angle / distance mode. One BT-L1 battery will be sufficient for a full day surveying work.

Including Distance Measurement : 14 hours  
Angle Measurement only : 60 hours

### HIGH PRECISION STANDARD

Angle Accuracy : 2"  
Distance Accuracy :  $\pm (2m + 2ppm \times D)$  m.s.e.

### LARGE INTERNAL MEMORY

With increased internal memory, TKS-202 Total Station offers you greater ease at work. The instrument can store up to 24,000 points for data collection and lay-out work. Data can be categorized into different job files for easy retrieval.

### DATA TRANSFER

Data collection and lay-out work done on TKS-202 Total Station can be transferred via PC, be it uploading or downloading. The raw data formats are compatible with TOPCON GTS-6 and GTS-7.



## STANDARD COMPONENTS



- Total Station (with lens cap) x 1
- Plastic Carrying Case x 1
- Battery Charger BC-L1 x 1
- On-board Battery BT-L1 x 1
- Plastic Rain Cover x 1
- Tool Kit with Case x 1
- Instructional Manual x 1



### Manufacturer

TOPCON (Beijing) Technologies Co. Ltd  
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 Beijing Economic Technological Development Area  
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Customer Service Hotline: 800-810-1520

Your local Authorized dealer is:

## SPECIFICATIONS

### TELESCOPE

Objective Lens Diameter	45mm (EDM: 50mm)
Magnification	30x
Image	Erect
Field of View	1°30'
Resolving Power	3.0"
Min. Focus Distance	1.3m

### ANGLE MEASUREMENT

Accuracy*	2"
Method	Absolute
Minimum Reading	1" / 5"

### DISTANCE MEASUREMENT

Distance Range:	
- 1 prism	2,000m
- 3 prisms	2,700m
Accuracy	± (2mm + 2ppm x D**) m.s.e.
Measuring Time:	
- Fine Measurement Mode	1.2 sec. (Initial 4 sec.)
- Coarse Measurement Mode	0.7 sec.
- Tracking Measurement Mode	0.4 sec.
Atmospheric Correction Range	Yes
Prism Constant Correction Range	Yes

### SOFTWARE AND MEMORY

On-Board Software Functions	Data Collection, Resection, Road, Stakeout, Area Calculation, Height Measurement, etc.
Internal Memory	24,000pts
Interface	RS-232C (Standard)

### DISPLAY

Display Unit	Graphics LCD, 2 Sides
Keyboard	24 Alpha-Numeric Key

### TILT CORRECTION (AUTOMATIC INDEX)

Tilt Sensor	Yes
Correction Method	Liquid Type
Compensating Range	± 3'

### LEVEL SENSITIVITY

Plate Level	30" / 2mm
Circular Level	10' / 2mm

### OPTICAL PLUMMET TELESCOPE

Image	Erect
Magnification	3x
Focusing Range	0.5 to infinity
Field of View	3° and above

### OTHERS

Protection against water and dust***	IP 54 (with BT-L1 Battery)
Operating Temperature	-20°C ~ +50°C (-4°F ~ +122°F)
Dimension	336 (H) x 184 (W) x 172 (L) mm
Weight (with battery)	4.8kg
On-Board Battery	BT-L1 (Lithium - Ion)
Battery Charger	BC-L1
Maximum Operating Time	
- Including distance measurement	14 hours
- Angle measurement only	60 hours
- Output Voltage	DC 10V

\* Standard deviation based on DIN18723

\*\* Distance measurement based on mm

\*\*\* Based on the standard IEC60529

**Important:** In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operations