

SPECIFICATIONS

Model	ZTS-320R
Angle Measurement	
Angle measuring method	Absolute Encoding
Minimum Readout	1"/5"/10" (0.3mgon/1.5mgon/3mgon) adjustable
Accuracy1*	2"
Distance Measurement (Prism mode)	
Single prism	3000m (9,842ft.) under good condition3*
Three Prisms	6000m (19,685ft.) under good condition3*
Reflective Sheet	800m (2,624 ft.)
Accuracy	2mm+2ppm
Measuring Time (Fine/Quick/Tracking)	1.5s/1s/0.5s
Distance Measurement (Reflectorless)	
Reflectorless2* Range (The target is Kodak white board with reflect rate 90%)	600m(1,969 ft.)
Single Prism	>7500m (24,606ft.)
Accuracy	3mm+2ppm
Measuring Time	1.5s
Telescope	
Magnification	30x
Field of View	1°30' (2.7m at 100m)
Minimum Focusing Distance	1.5m
Reticle	Illuminated
Compensator	
System	Dual-axis liquid tilt sensor
Working Range	±3'
Accuracy	1"
Communication	
Interface	Standard RS232, SD card4*, Mini USB
Internal Data Memory	Approx. 20,000 Points
Wireless communication	Bluetooth
Operation	
Operation system	Real-time Operating System
Display	High resolution backlight black and white display with contrast adjustment/ graphics 192 x 96 pixels Character: 6 lines x 25 characters
Keyboard	2 sides Alphanumeric backlit crystal keyboard
Laser Plummet	
Type	Laser point, 4 brightness levels adjustment
Centering Accuracy	1 mm at 1.5m instrument height
Power Supply	
Battery Type	Rechargeable Li-ion battery
Voltage/Capacity	BT10:7.4V (DC) / 3000mAh
Operating Time With BT10	Optimal 16 hours5* (Continuous angle measurement every 30 seconds) / 10 hours (typical)
Measuring Times	Approx. 12000 times
Weight	
Weight (Incl. Battery&Tribrach)	Approx. 5.5kg (12.1lb.)
Environmental	
Operating Temperature	-20°C ~ + 50°C (-4°F to +122°F)
Storage Temperature	-40°C ~ + 70°C (-40°F to +158°F)
Dust&Water Proof (IEC60529 Standard)/Humidity	IP65, 95%, non-condensing

Reminding:

1* Standard deviation based on ISO 17123-3.

2* Calculated by Kodak Gray Card white side (90% reflective), exact distance depends on measuring object, observation and environment conditions.

3* Good condition: no haze, visibility about 40km, moderate sunlight.

4* Maximum extension up to 32GB.

5* Battery life specification at 25°C. It might be shorter in low temperature or if the battery is old.



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ZTS-320R

Total Station



ZTS-320R

Dual-axis Compensation :

The ZTS-320R is configured with advanced dual-axis compensator for auto error elimination and auto accuracy compensation.



Data Storage :

Diversified data transfer options such as SD card, Mini USB, U-disk.



High-performance MCU STM32:

The STM32 MCU based on ARM Cortex™-M processor enables the ZTS-320R has extra high processing speed and low-power consumption.



Backlight :

The display and keyboard with backlight for working in the dark.



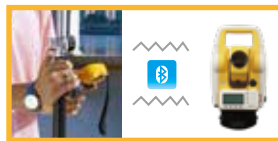
Calibration Software :

The proprietary HI-TARGET calibration software is accessible for real-time diagnosis to ensure trouble-free operation.



Absolute Encoding :

The absolute encoding disk ensures high accuracy, efficiency and stable performance. Initialization is needless but to measure the angle immediately as the ZTS-320R is turned on. The azimuth information won't be missed even the ZTS-320R is power-off unexpectedly.



Bluetooth :

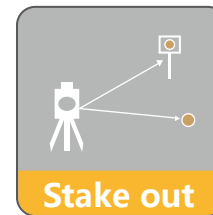
The Bluetooth wireless technology makes ZTS-320R accessible to any data collector for real-time communication. The third party field software such as Carlson SurvCE is fully compatible with the ZTS-320R.



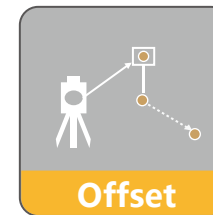
Reflectorless 600m :

Use the function of the reflectorless can accomplish the survey task commendably for the target that can't be access favorably.

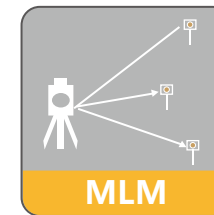
Function



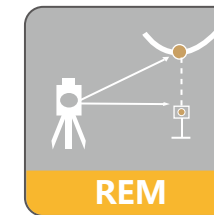
Stake out



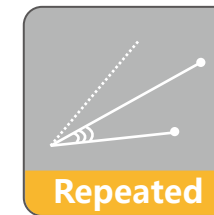
Offset



MLM



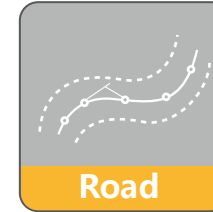
REM



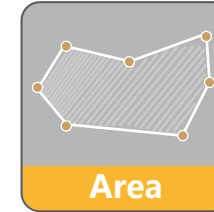
Repeated



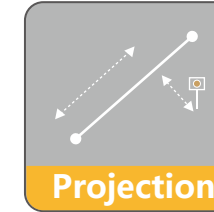
Resection



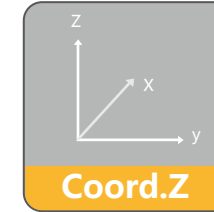
Road



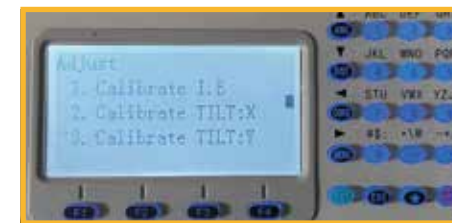
Area



Projection



Coord.Z



● Built-in multi-function calibration software.

● TS-Check.Failure checking.

Application



Control Surveys



Construction



Mining



Tunnel



Railway



Road