

R2 Plus Total Station



Key Features

Long Range

300m or 500m on 2" and 5" accuracy instrument and a measurement range up to 5000m with single prism

Easy Data

Communication with the mini USB port to load/download data

Powerful

Laser technology (class 3 laser with a wavelength between 650 and 690nm) for distance measurement

Easy reader

Alphanumeric keyboard on both sides with high resolution LCD display and backlight and 8 lines of 24 characters.

Capacity

Large storage capacity with 128MB internal memory and up to 2GB SD card for external memory

R2 Plus Total Station

Powerful performances at affordable prices

The STONEX R2 plus is an upgraded version of STONEX R2 Total Station range. The significant specification is the high-precision EDM measuring with millimeter accuracies while performing angular measurements in order of seconds of a degree.

The STONEX R2 Plus encompasses laser technology (class 3 laser with a wavelength between 650 and 690nm) for distance measurement and coding technology for optical angular measurements. The instrument design is characterized by its robust mechanical chassis, certified dustproof and waterproof (IP55) standards. The STONEX R2 Plus is built with high performance optics with a 30X magnification factor and illuminated reticle featuring superior sighting quality in any lighting condition.

Laser technology (class 3 laser with a wavelength between 650 and 690nm) for distance measurement



Alphanumeric keyboard on both sides with high resolution LCD display and backlight and 8 lines of 24 characters

The STONEX R2 Plus offers angular accuracies of 2" or 5", and 2mm + 2ppm accuracy on distance measurements. The instrument EDM features DR distance measurement range of 300 meters on 5" accuracy instrument, 500 meters on 2" accuracy instrument and a measurement range up to 5000 meters with single prism.

The removable storage option of SD card allows greater flexibility to increase the storage capacity and downloading of data. The instrument is facilitated with a mini USB connector for upload and downloads of data to the computer and other external devices. The instrument can be supplied with an inbuilt laser plummet or an optical plummet.

Technical features R2 Plus

R2 Plus Models		
Plus 350	R2 -2"	R2 -5"
Plus 500	R2 -2"	R2 -5"

Angle measurement	
Reading system	Absolute encoder
Display resolution	1" / 0.0002gon/0.005mil
Angle Unit	360°(dms/d)-400gon/6400mil
Accuracy	2" or 5"
Telescope	
Magnification	30 x
Field of view	1°30'
Minimum focus	1.0 m
Reticle	10 brightness levels adjustable
Objective aperture	φ 45 mm
Compensation	
System	Dual-axis-compensation
Working range	± 3.0'
Distance Measurement Range	
Without Prism	1.0 ~ 350 ¹ m - 1.0 ~ 500 ¹ m
With Prism	2.0 ~ 3000 ² 2000 ³ 1500 ⁴
With reflective sheet (60mm x 60mm)	1.0 ~ 800 m
With Mini Prism	2.0 ~ 800 m
Distance Measurement Accuracy	
Without Prism	± (3+2×10 ⁻⁶ D)mm/(2~150) m ± (5+3×10 ⁻⁶ D)mm/(150~300) m ± (10+5×10 ⁻⁶ D)mm/(300~500) m
With Prism	± (2+2×10 ⁻⁶ D) m
With reflective sheet (60mm x 60mm)	± (3+2×10 ⁻⁶ D) m
Distance Measurement	
Measuring time ⁵ (Tracking/Fast/Fine)	0.5 sec / 1.5 sec / 2.0 sec
Distance Unit	m/ft/US ft
Display Resolution	0.0001m/0.001ft/0.001ft

Specifications subject to change without notice.

¹ Visibility about 20 km, back light less than 5000 lx, no haze, no direct sunlight.
No prism target: KODAK CAT NO.E1527795 (reflectivity: 90%, size: A4).

² Visibility about 40 km, sunny, no heat shimmer.

³ Visibility about 20 km, moderate sunlight, slight heat shimmer.

⁴ Visibility about 10 km, light haze, severe heat shimmer.

⁵ Best testing condition: indoors, target is far away about 10 m, prism or KODAK board.

Laser plummet	
Laser type	635-650nm semiconductor laser
Accuracy	1.5 mm at 1.5 m instrument height
Laser spot	2.5/1.5
Level vial sensitivity	
Plate level	30 (″2mm)
Circular level	8 (′/2mm)
Environmental conditions	
Operating / Storage Temperature	-20° C ; +50° C / -30° C ; +70° C
Protection to dust and water	IP55
Weight	
Weight including battery and tribrach	5.5 Kg
Battery	
Voltage/Capacity	7.4V / 3400mAh Li-ion battery
Operating period with continuous angle measurement	36 hours
Operating period with measurement every 30 seconds	9 hours (>1.000 measurements)
Other specifications	
Display	Two sides, LCD, 240x128 dots
Internal Memory	128 MB
External Memory	2 GB SD card
Interface	RS-232C / USB/ SD card
Charger	110/220V, Charging time: about 4h
Bluetooth	Available on R2 Plus 500 - 2"

