

R2W Plus Total Station

- Highest accuracy
- Up to 6000 m range
- Windows based



R2WPlus

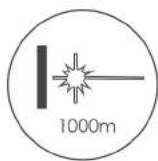
Fully customizable
TOTAL STATION

Stonex R2W Plus series is the most customizable Total Station of the market. Depending on the User needs, R2W comes with endless friction drives for continuous horizontal and vertical rotations, 2" accuracy and 600 m reflectorless range or with the highest 1" accuracy and 1.000 m range.

This advanced Total Station is fully customizable: each user can choose the software that best suits own needs. Several onboard software to be chosen, such as Microsurvey Field Genius™, Carlson SurvCE™, ANTAST™ Mobile and many Custom field applications.

In addition the TFT 320x240 touch screen display on both sides gives the Surveyor a clear, colourful and fully graphical environment, and the user friendly on board software supports the users with guided through functions for data collection, topographic surveys, staking out.

The high-precision class 3 EDM featuring millimeter accuracy even on long range distances, and the absolute encoders performing high precision angles measurements, provide reliable points calculation in every condition.



UP TO 1000 m REFLECTORLESS

By using digital phase laser ranging technology, R2W Plus guarantees high accuracy long range measurements: up to 1.000 m in reflectorless mode and up to 6.000 m using a single prism, with millimeter accuracy.



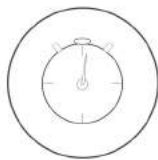
TEMPERATURE PRESSURE SENSORS

Temperature and pressure changes have a negative impact on the accuracy of distance measurements: the smart R2W Plus monitors the changes and automatically adjusts the distance calculations.



CHOOSE YOUR FAVORITE ONBOARD SOFTWARE

By choosing R2W Plus you are not forced to use the manufacturer software! A wide range of well known field software are compatible, and the user can even create his own application onboard.



FAST, ACCURATE, RELIABLE

Measuring distances and angles in one second, with mm accuracy, makes any job extremely cost effective and reliable. The big touch screen graphic display facilitates the daily work in the field.





R2W 1" 1000 m

Highest accuracy Windows™ based Total Station

R2W 1", one of the most accurate and precise Total Station on the market, gives the opportunity to any Professional Surveyor to challenge high-precision monitoring and engineering works. It is fully customizable, the user can choose a ready-to-run onboard software or develop his own application inside this smart Total Station.



ULTRA NARROW EDM LASER BEAM

Power lines, corners, remote monitoring reference points can be measured precisely thanks to the laser dot – around 1 cm at 30 m. Besides, the 1" angle accuracy guarantees an high confidence in every point position measurement.



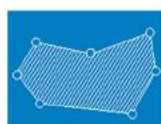
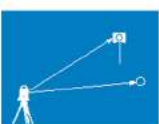
WIDE RANGE OF COMMUNICATION OPTIONS

Standard RS 232 interface, USB, SD card up to 16 Gb, Bluetooth guarantee a seamless in/out data flow to any external device. The wireless Bluetooth connection allows to connect RW Plus with handheld computers giving the possibility to use a custom field software on line with the instrument.



2 SIDES TOUCH SCREEN DISPLAY

The clear TFT 320x240 2 sides touch screen display gives the Surveyor a clear, colourful and fully graphical environment, and the user friendly on board software supports the Surveyor with guided through functions for data collection, topographic surveys, staking.



TECHNICAL FEATURES

ANGLE MEASUREMENT

Reading system	Absolute encoder
Angle Unit	360°(dms/d)/400gon/6400mil
Accuracy ¹	1"/2"

TELESCOPE

Magnification/lenght	30 x / 156 mm
Field of view	1°30'
Minimum focusing distance	1.0 m
Reticle	10 brightness levels adjustable
Objective diameter	φ 45 mm
Laser pointer	Coaxial red light

TILT SENSOR

System	Electronic dual-axis-compensator
Working range/Accuracy	± 4.0' / 1"

DISTANCE MEASUREMENT R1000/R500 RANGE

Reflectorless ²	1 to 1000 m / 2 to 600 m
Standard mode Prism	1 to 3500 m / 2 to 3000 m (Class 1)
Long mode Prism	1 to 6000 m (Class 2)
Reflective sheet	1 to 1200 m / 2 to 800 m

DISTANCE MEASUREMENT R1000/R500 ACCURACY

Reflectorless	2-4 mm + 2 ppm / 3-5 mm + 2 ppm
Standard mode Prism	1 mm + 1ppm / 2 mm + 2 ppm
Long mode Prism	2mm + 2.5 ppm
Reflective sheet	2 mm + 2 ppm / 3 mm + 2 ppm

DISTANCE MEASUREMENT

Laser class (prism)	Class 1
Laser class (Reflectorless / Reflective sheet)	Class 3R
Distance Unit	m/ft/US ft

MEASUREMENT TIME

Standard mode/Prism (Tracking/Fast/Fine)	0.4 sec / 0.6 sec / 1.0 sec
Reflectorless	1.5 sec / 5 sec

LASER PLUMMET (STANDARD)³

Accuracy	±1.0mm at 1.5 m instrument height
Laser class	Class 2/IEC60825-1
Laser wavelength	635nm
Laser spot	1.5mm/1.5m

Illustrations, descriptions and technical specifications are not binding and may change

- Standard deviation based on ISO17123-3
- Good conditions: no haze, visibility about 40km, no heat shimmer, breeze.
Reflectorless: White side of Kodak Gray Card with 90% reflective.
- Laser plummet mounted on the bottom of the vertical axis.

LEVEL VIAL SENSITIVITY

Plate level vial	30" / 2mm
Circular level vial	8' / 2mm

ENVIRONMENTAL CONDITIONS

Operating Temperature	-20° C ~ +50° C
Storage Temperature	-40° C ~ +70° C
Waterproof/Dustproof	IP55

WEIGHT

Weight including battery and tribrach	5.5 Kg
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POWER

Battery	3400mAh Li-ion rechargeable
Output voltage	7.4V
Operating period with continuous angle measurement	12 hours
Operating period with measurement every 30 seconds	Approx. 9 hours (>1000 measurements)
Charger	110V/240V
Charging time (at +20° C)	Approx. 4 hours

OTHER SPECIFICATIONS

CPU	ARM9 core
Display	Two sides, 3.5" color TFTLCD (320 x 240 pixel), touch screen
Operating System	Windows CE 7.0
Internal Memory	4 GB
Interface	RS-232C / USB slave / USB host
Bluetooth	On board
Bluetooth level	Class 2
Bluetooth effective distance	10 m
Guide Light System	On board
Sensor	Temperature/Pressure



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