

# CR+

## Robotic Total Stations



### Advanced Technology

The advanced positioning technology of STReAM360, X-motion hybrid drives & accXess EDM Technology incorporated in Carlson's super reliable CR2+ and CR5+ robotic total stations provides the most efficient way to survey. Carlson works for you.

### AND More...

- X-MOTION™ Hybrid Drives
- Full Connectivity
- Robustness
- accXess™ EDM Technology
- NavLight™

### Made for Carlson SurvCE

Get all you need for your daily work with Carlson SurvCE data collection software on the Carlson CR2+ and CR5+ robotic total stations - these instruments are quick to set up and have easy-to-use functions that simplify the entire process even more.



BREAK NEW GROUND

## X-MOTION™ Hybrid Drives

The CR2+ and CR5+ incorporate highly innovative X-motion hybrid drives, promoting up to 20% automation performance compared to conventional drives. It follows your target at 90 km/h at 100m distances.

## Full Connectivity

The CR2+ and CR5+ are made to meet all connectivity needs. Use its built-in Bluetooth® for medium range data transfer or its Bluetooth® handle for high performance Long-Range Bluetooth®. Either way, it is ideal for one-man robotic surveys.

Store data on the extra large internal memory, on the removable SD card or the USB stick using plug and play technology.

## Robustness

The CR2+ and CR5+ instruments are built to withstand the toughest conditions and designed and tested to be dust-proof and fully protected against water jets.

## accXess™ EDM Technology

Get leading reflectorless measurements up to 500m with accXessEDM Technology. The extra small laser footprint and the

sophisticated signal-processing technology ensure maximum accuracy – regardless of the distance or conditions.

## NavLight™

Fitted as standard in the telescope, the NavLight is an efficient alignment aid, helping to speed up work while setting out. Its flashing red and yellow lights will guide you quickly and exactly to the line of sight.

## STReAM360: Fully Robotic

### Scout

Scans the entire working area within seconds to quickly find the target.

### TRack

Continuously track targets. Once locked onto, the instrument remains accurately aimed on the moving target.

### AiM

The telescope is accurately aimed at any prism, without needing to look through the telescope. Measurements are performed automatically with consistently high and repeatable dependability.

## Technical specifications:

### Angle Measurements

Accuracy	1" (0.3 mgon), 2" (0.6 mgon), 5" (1.5 mgon)
Display resolution	0.1" (0.1 mgon)
Method	Absolute, continuous, diametrical
Compensation	Quadruple axis

### Telescope

Magnification	30x
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### Distance Measurements – Prism

Range	Standard mode: 3500 m / 1 mm + 1.5 ppm / typ. 0.8sec*
Accuracy	Long mode: >10,000 m / 5 mm + 2 ppm / typ. 2.5sec

### Distance Measurements – Reflectorless

Range	accXess5	500m
Accuracy	2 mm + 2 ppm**	
Time	typ. 3sec	
Precise capture	8x20 mm at 50 m	

### Motorization

Technology	Hybrid Drives
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### Scout

Range	300m at round prism
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### TRack

Range	500 m at round prism
Max speed	90 km / h at 100 m

### AIM

Range	500 m at round prism
Hz/V accuracy	1"
Technique	Image processing

### NavLight™

Range	5 m at 150 m
Accuracy	5 cm at 150 m

### Interface

Keyboard	Two full alphanumeric; 35 keys; illuminated (2nd optional)
Display	Full VGA 640 x 480 color and touch with LED backlight
Data recording	1 GB internal memory; removable SD card and USB stick
Ports	Serial; USB; internal Bluetooth; long-range Bluetooth handle and external power
Operating system	Microsoft Windows CE 6.0

### Physical Specifications

Weight	5.0 - 5.3 kg (w/o battery and tribrach)
Operating / storage temperature	-20°C to 50°C / -40°C to +70°C
Protection class	IP55 dust and waterproof rating
Humidity	95%, non-condensing

### Power Supply

Internal battery	Removable Li-Ion 4.4 Ah / 7.4 V
Operating time	7-10 h***

### Plummet

Type	Laser point, adjustable brightness
Accuracy	1.5 mm at 1.5 m instrument height

\* Fast mode; \*\* > 500 m: 4 mm + 2 ppm; \*\*\* Single measurement every 30 second at 25° C. Battery time may be shorter depending on conditions.

Distance meter (reflector mode): Laser class 1 in accordance with IEC 60825-1 resp. EN 60825-1; Laser plummet: Laser class 2 in accordance with IEC 60825-1 resp. EN 60825-1; Distance meter (reflectorless mode): Laser class 3R in accordance with IEC 60825-1 resp. EN 60825-1.

