

Of a Survey on Section ..... T ..... R ..... E. of the 4 P. M. in ..... Township

Rock County, Wisconsin, made ..... the ..... 19 .....

I hereby certify that the following is a correct record of said survey as made by me.

County Surveyor.

**SPECIFICATIONS**

Range:

1 mile (1500 Meters) with triple prism assembly.  
1500 Feet (500 Meters) with single prism.

Accuracy:

±(0.02 ft. + 0.01 ft. per 1000 ft.) mean square error  
@ 15°F to 105°F.  
±(0.007M + 0.01M per 1000M) mean square error  
@ -10°C to 40°C.  
±(0.04 ft. + 0.03 ft. per 1000 ft.) mean square error  
@ -5°F to 15°F and 105°F to 130°F.  
±(0.014M + 0.03M per 1000M) mean square error  
@ -20°C to -10°C and 40°C to 55°C.

Some of the major factors that are included in the above specifications are:

- Environmental Correction
- Miscellaneous Offset errors
- Heat Shimmer
- Aiming error
- Transmitter Frequency Stability
- Instrument Linearity

Readout:

Automatic digital LED display 0000.00 to 9999.99 Feet;  
Least count 0.01 Feet.  
000.000 to 999.999 Meters  
Least count 0.001 Meter.

Unit of Measurement:

Feet or Meters selectable from front panel.

Power Requirement:

12 VDC (11.0 to 15 V) source at 1.2 Amps or the Nickel-Cadmium Battery Pack that mounts directly to the bottom of the instrument.

Dimensions:

13" X 10.3" X 5.8" (33cm X 26.2 cm X 14.7cm)

Weight:

Tripod: 17 lbs. (7.91 kg) Carrying: 22.3 lbs. (10.4 kg)  
Shipping: 35.5 lbs. (16.5 kg)

Tilt Range:

±30° from Horizontal

Aiming Scope:

18X Variable focus

Accessories Provided:

Shipping case, back pack carrying case, operating manual, Power cable, attenuator cap, operating cards.

Optional Power Pack:

Nickel-Cadmium rechargeable battery pack that mounts directly to the bottom of the instrument. Operating time approximately 2.0 hours.

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<b>Accuracies</b>	± 2" / ± 0.5 mgrad
Horizontal angle measurement	± 2" / ± 0.5 mgrad
Vertical angle measurement	± 3 mm + 3 ppm
Distance measurement	
<b>Telescope</b>	30X
Magnification	45 mm
Aperture	170 mm
Telescope length	2.4 m
Field of view at 100 m	1.2 m
Shortest focussing distance	
<b>Angle measurement</b>	electronic, incremental,
Hz and V circles	zero point encoder for Hz and V circles
Measuring units	360° DMS
	400 grads
	6400 (mils)
Vertical reference system	zenith angle
	vertical angle
	height angle
	slope in percent
Least unit Hz and V circles	1" / 0.2 mgrad
<b>Compensator</b>	two-axis compensator
Type	± 2' 40"
Range	± 1"
Setting accuracy	
<b>Levelling</b>	
Circular level	10/2 mm on tribrach
Tubular level	30"/2 mm
with compensator	display of residual vertical axis inclination in sighting and trunnion axis directions
<b>Distance measurement</b>	electro-optical, modulated infrared light
Transmitting/receiving optics	coaxial, in theodolite telescope
<b>Measuring range in favourable atmospheric conditions</b>	
with 1 prism	1600 m
with 3 prisms	2000 m
maximum	5000 m
<b>Clamps and slow motions</b>	coaxial, parallel
<b>Data recording</b>	via RS 232 C (V24) interface
Carl Zeiss recorders	- Rec 200* with MEM 800
	- Rec 500
Storage capacity	
Rec 200* / MEM 800	800 numeric records
Rec 500	2000 alphanumeric records
<b>Display</b>	two quadruple LCDs
Illumination	LED