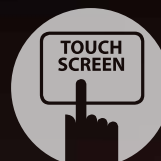


PENTAX | W-800

A TRULY INTEGRATED SYSTEM



80th
PENTAX
SURVEYING
SINCE 1933
TI Asahi Co., Ltd.
anniversary

PENTAX

W-800

**SIMPLE OPERATION
MODULAR SOFTWARE**



Long Range
Extended EDM Performance

Ergonomic grip



Large easy to use
Color graphical
touch display,
alphanumeric
keyboard



CF-Card slot

Triple axis
compensator on
the W-821NX (1"),
the W-822NX (2")
and W-823NX (3")
models



Auto Focus



Standard
Ni-MH Battery



Advanced connectivity
USB, SD-Card slot,
RS-232C Data port

Incorporated
date clock



PENTAX | W-800 OUTSTANDING FEATURES

W-800 BENEFITS

- Customization is now a breeze
- Modular software upgrading path grows with you and your applications
- From Entry Level: for the occasional user to the more demanding survey tasks of the advanced users



PENTAX SOLUTION PARTNER

MANY SURVEY CHALLENGES, ONE LOGICAL SOLUTION: OPEN PLATFORM

By collaborating with selected Software Solution Partner, MicroSurvey, Pentax can offer a broad range of functionalities to cover almost every specific task.



EXTENDED EDM PERFORMANCE

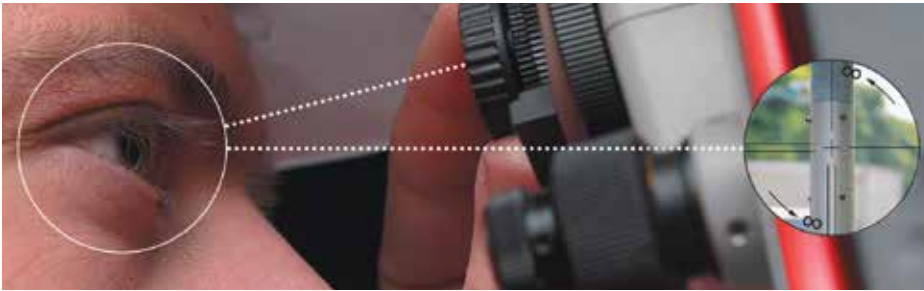
Measures distances in reflectorless mode over 550m and over 7000m to a single prism while maintaining the same high level of accuracy.

Benefits: Its extended measuring range prevents you of making additional instrument setups.



PENTAX'S EXCLUSIVE AUTO FOCUS SYSTEM

Benefits: Always an instant razor sharp image.



MORE FLEXIBILITY FASTER TURNAROUND

Connectivity: In its standard configuration, the Pentax W-800 is equipped with multiple data-interfaces (mini-USB data port, CF-card slot and SD-card slot, RS-232C data port) providing seamless data-transfer to a PC or laptop for further data processing.



TRI-AXIS CORRECTION

The W-821NX, W-822NX and W-823NX models feature a unique precision Tri-axis correction to provide automatic error compensation, in addition to dual-axis correction. The error occurs where the vertical, horizontal and sight axis intersect.



PENTAX W-800 Series Technical Specifications

Model	W-800	W-821NX	W-822NX	W-823NX	W-825NX	W-835NX
Telescope	Magnification			30 x		
	Effective aperture			45 mm (EDM 45 mm)		
	Resolving power			3.0"		
	Field of view			2.6 % (1°30')		
	Minimum focus			1.0 m		
	Focus			Auto focus / Power focus / Manual		
Distance measurement	Laser class		Visible laser: Class III a (3R) (Reflectorless) / Class II (2) (Prism, sheet)			
Measurement range	Reflectorless (*1)			1.5 ~550 m		
(Good conditions) (*3)	Reflector sheet (*2)			1.5 ~ 600 m (800 m)		
	Mini prism			1.5 ~ 2500 m (3000 m)		
	1P			1.5 ~ 7000 m (9000 m)		
	3P			1.5 ~ 9000 m (9999 m)		
Accuracy (*4)	Prism / Reflector sheet			± (2 + 2 ppm x D) mm		
	Reflectorless	1.5m ~ 150m : ±(3+2ppm x D)mm / 150m ~ : ±(5+2ppm x D)mm / 300m ~ : ±(7+10ppm x D)mm				
	At Auto-ATM. Correction					
	Prism / Reflector sheet			± (2 + 10 ppm x D) mm		
	Reflectorless			1.5 ~ 300 m: ± (5 + 10 ppm x D) mm / 300 m ~: ± (7 + 18 ppm x D) mm		
	Minimum count			0.1 mm (Fine mode) / 1 mm (Normal mode) / 10mm (Track mode)		
Measuring time (*5)	Repeat meas.	Normal (1 mm)		Prism / Reflector sheet 2.0 sec - Reflectorless 2.0 sec		
		Quick (1 mm)		Prism / Reflector sheet 1.2 sec (*6)		
		Track (10 mm)		Prism / Reflector sheet 0.4 sec - Reflectorless 0.4 sec		
	Initial meas.	Normal (1 mm)		Prism / Reflector sheet 2.5 sec - Reflectorless 2.4 sec		
		Quick (1 mm)		Prism / Reflector sheet 1.7 sec (*6)		
		Track (10 mm)		Prism / Reflector sheet 2.5 sec - Reflectorless 2.5 sec		
Angle measurement	Measurement method			Absolute rotary encoder		
	Detection method			Vertical / horizontal angle: 2 sides		
	Minimum count			0.5°/1°/5° selectable		
	Accuracy (ISO 17123-3)	1"	2"	3"	5"	
Compensator	Axis		3 Axis (*7)		2 Axis	
	Range			± 3'		
Target screw			2 speed		1 speed	
Sensitivity of vials	Plate level (electronic)			30" / 1 div.		
	Circular level			8' / 2 mm		
Laser Plummet			Visible laser: ± 0.5mm (instrument height: 1.5m) (Optical Plummet is optional)			
Base				Detachable		Shifting
Dust & water resistance				IP54 (instrument only)		
Ambient temperature				-20°C ~ +50°C / -4°F ~ 122°F (working range)		
Tripod thread				5/8" x 11		35 mm P2
Dimensions / Weight	Dimensions			197 (W) x 347 (H) x 217 (L) mm		
	Weight (incl. battery)			6.3 kg		6.2 kg
	Carrying case			380 (W) x 292 (H) x 475 (L) mm / 3.2 kg		
Battery pack BP02	Power source			Ni-MH 4300 mAh (rechargeable) DC 6.0 V		
	Operation time			Approx. 5.5 hrs (ETH+EDM / Single Reflectorless measurement every 60 seconds)		
	Weight			380 g		
Battery charger BC03 and AC adapter AC01	Input Voltage (AC01)			AC 100 ~ 240 V		
	Output Voltage (BC03)			DC 7.5 V		
	Weight			280 g		
Data Process	CPU, Clock frequency			Intel® - XScale, 400 MHz		
	OS			Microsoft® - Windows® CE 4.2		
	Application software			Selectable		
	Internal memory			SDRAM = 64 MB / FLASH = 128MB (built-in)		
	Memory card			2GB (Max) (*8)		
	I / F			RS-232C or Bluetooth(Optional), CF Type II, SD CARD, USB		
Display / keyboard	Display type		3.7 inch - Color LCD, 640 x 480 pixels (*9) with back light and touch panel function			
	Quantity		2		1 (2nd optional)	
	Keys			33 each (12 numeric / 11 function / 10 special)		
	Display back light			Intensity settings: 10 steps		
Laser Pointer				Yes		
Date clock				Yes		

*1 The measurement range and accuracy of reflectorless, and time required to measure may vary by the shape, size of surface area and reflection rate of the target and its environment. The measurement range of reflectorless is determined by the white side of the Kodak Gray Card.

*2 Reflector sheet: PENTAX genuine Reflector sheet

*3 The measurement range may vary by conditions of the environment. Normal conditions: 20 km visibility with slight shimmer. Good conditions: 40 km visibility, overcast, no heat, no shimmer and moderate wind.

*4 When automatic atmospheric correction is on, the EDM error is 10 ppm in prism and reflector sheet mode.

Remarks: 1) Microsoft and Windows are a trademark or a registered trademark of Microsoft Corporation in the United States and other countries.

2) Intel is a registered trademark of Intel Corporation in the United States and other countries.

*5 EDM measuring time is determined in good conditions. It may takes longer than usual to measure the distance exceeding 4000 m in prism mode and 300 m in reflectorless mode.

*6 Quick mode, which functions with prism and reflector sheet, is effective only under normal mode (1 mm) and up to 500 m.

*7 In addition to dual-axis correction in the (X) and (Y) direction, mechanical error in the instrument is corrected.

*8 Memory card is not supplied with the instrument.

*9 Depending on application software.

You should be able to use any SD card in your camera. While Pentax does not guarantee compatibility with any particular manufacturer or model, we have seen consistent compatibility with SD cards from Panasonic (1GB, 2GB), SanDisk (1GB, 2GB), and Toshiba (1GB, 2GB)

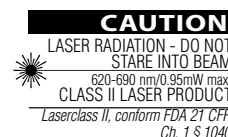
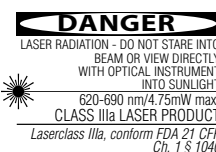
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Visit the W-800 series at:
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The CE marking assures that this product complies with the requirements of the EC directive for safety.



Member symbol of the Japan Surveying Instruments Manufacturers' Association representing the high quality surveying products.