Comprehensive 850 Physics System

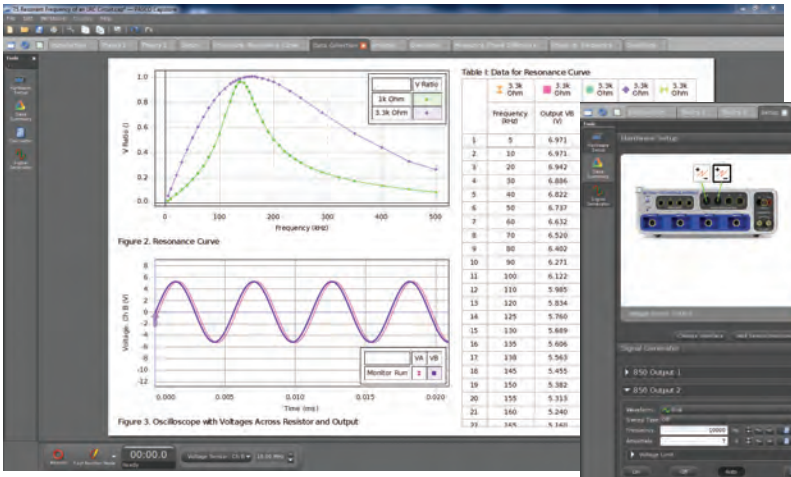
UI-5800D

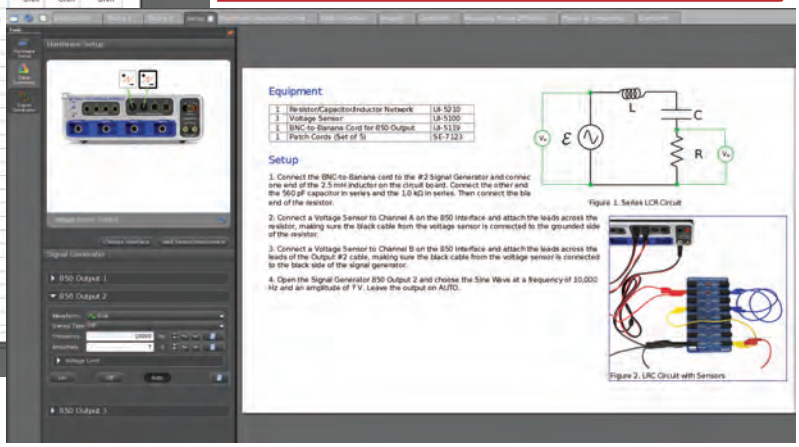
▶ Designed for the 850 Universal Interface and PASCO Capstone™ Software

NOTE: The 850 Universal Interface (UI-5000) must be purchased separately.

The 850 Comprehensive Physics System consists of 83 experiments and all the equipment and sensors needed to perform these experiments. The experiments cover topics, such as mechanics, waves, optics, thermodynamics, and electromagnetism. The included experiment manual contains instructions written in Word®, a PASCO Capstone electronic workbook, and sample data.

The key to a successful lab is a PASCO Capstone electronic workbook. These workbooks have step-by-step instructions with live, embedded displays, such as graphs, FFTs, oscilloscopes, and meters. They contain the theory, experiment set-up, procedure, data analysis, and questions designed to get the students to think about their results. These electronic workbooks can be easily modified by teachers to fit their individual needs.





See page 96 for a list of experiments in the included manual. Download free experiments at **pasco.com/850experiments**

Comprehensive 850 Mechanics Bundle

UI-5801C

(Component of the 850 Comprehensive System UI-5800D)

Includes:

- Force Sensor Track Bracket ME-6622
- Cart Adapter Accessory ME-6743
- Compact Cart Mass (2) ME-6755
- Time-of-Flight Accessory ME-6810A
- Photogate Mounting Bracket ME-6821A
- Mini Launcher ME-6825B
- Dynamics Cart Magnetic Damping ME-6828
- Mini Ballistic Pendulum Accessory ME-6829
- Spring Cart Launcher ME-6843
- PAScar (Set of 2) ME-6950
- Super Fan Cart ME-6977
- Density Set ME-8569A
- Discover Friction Accessory ME-8574
- Large Rod Base ME-8735
- 45 cm Stainless Steel Rod ME-8736
- 90 cm Stainless Steel Rod ME-8738
- Picket Fences (Smart Timer) (2) ME-8933
- Dynamics Track End Stop (2) ME-8971
- Dynamics Track Feet (Pair) ME-8972
- Mass and Hanger Set ME-8979
- Elastic Bumper ME-8998
- IDS Spring Kit (12) ME-8999
- Picket Fence ME-9377A
- Large Table Clamp ME-9472
- 1.2 m Aluminum Dynamics Track ME-9493
- Photogate Head (2) ME-9498A

- Pendulum Clamp ME-9506
- Multi-Clamp (2) ME-9507
- Variable Speed Motorized Cart ME-9781
- Centripetal Force Pendulum ME-9821
- PASPORT Motion Sensor (2) PS-2103A
- PASPORT Rotary Motion Sensor PS-2120A
- PASPORT High Resolution Force Sensor (2) PS-2189
- Wireless Acceleration/Altimeter PS-3223
- Pulley Mounting Rod SA-9242
- No-Bounce Pad SE-7347
- Braided Physics String SE-8050
- Comprehensive 850 Physics System Experiment Manual UI-5813
- Rotational Inertia Accessory ME-3420

Order Information

Comprehensive 850 Physics System..... UI-5800D

Required:

850 Universal Interface ..... UI-5000 p. 28

PASCO Capstone™ Software..... pp. 86-89

Want Mechanics Only?

Comprehensive 850 Mechanics Bundle ... UI-5801C

Interface Comparison

Compare the features and capabilities and see which interface works best in your lab.

	AirLink PS-3200	SPARKlink Air PS-2011	SPARK LXi2 PS-3600B	550 Universal Interface UI-5001	850 Universal Interface UI-5000
PASPORT Ports	1	2	2	2	4
Built-in Temp and Voltage	No	Yes	Yes	No	No
Analog Inputs	0	0	0	2 (±10 V, optional gain voltage 10x, 100x)	4 (±20 V, optional gain voltage 10x, 100x, 1000x)
Digital Inputs	0	0	0	2	4
Connects via USB	Yes	Yes	Yes	Yes	Yes
Connects via Bluetooth	Yes	Yes	Yes	Yes	No
Rechargeable battery for cordless operation	Yes	Yes	Yes	No (AC adapter only)	No (AC adapter only)
Works with PASCO Capstone Software	Yes	Yes	No	Yes	Yes
Works with SPARKvue Software	Yes	Yes	Yes	Yes	No
Accepts PASPORT Sensors	Yes	Yes	Yes	Yes	Yes
Accepts ScienceWorkshop Sensors	No*	No*	No*	Yes	Yes
Maximum Sampling Rate	Sensor-dependent <1000 Hz	Sensor-dependent <1000 Hz	Sensor-dependent <100 kHz	Up to 2 MHz on one channel	10 MHz on two channels simultaneously
Signal Generator	N/A	N/A	N/A	±8 V, at 400 mA, DC to 100 kHz	#1 ±15 V at 1 A, DC to 100 kHz #2 & #3 ±10 V at 50 mA DC to 500 kHz, independent
Included Items	USB Cable	AC adapter, USB cable, fast response temperature probe, voltage probe	AC adapter, fast response temperature probe, voltage probe	USB cable, power supply	USB cable, power supply
Expansion Port	No	No	No	No	44-pin port with voltage outputs, analog inputs, and digital I/O channels

* The AirLink, SPARKlink Air, and SPARK LXi2 can accept most ScienceWorkshop sensors with the proper adapter (see page 48), although they won't have the same high maximum sample rates. One exception is the Sound Sensor (UI-5101), which is not recommended for use with an adapter.

The PASCO 850 Universal Interface:

The Ultimate Sensor Interface for Physics and Engineering

Clear the clutter on your lab bench. The 850 Universal Interface combined with PASCO Capstone software can replace multiple expensive pieces of equipment.

An incredible value!

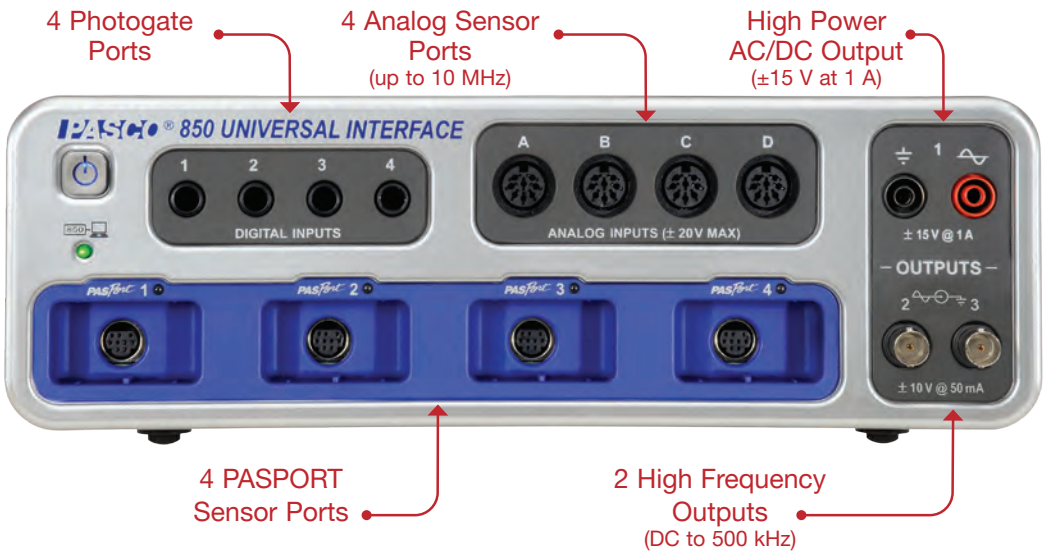
850 Universal Interface

+

PASCO Capstone Software

=

DC Power Supply, Oscilloscope, Digital Multimeter, and Function Generator



- **Study AC Circuits:** 10 MHz sample rate on two analog channels simultaneously; two independent high frequency outputs (50 mA at 10 V; DC to 500 kHz)
- **Power Speakers and String Vibrators:** High power function generator (1 A at 15 V; DC to 100 kHz)
- **Use Any Sensors You Have:** Compatible with ScienceWorkshop and PASPORT sensors; use at the same time
- **Explore Modulation:** External trigger input/output for synchronizing multiple 850s
- **Do 87 Core Physics Experiments:** Check out the Comprehensive 850 Physics Lab Manual (UI-5813; see page 78). Download online at pasco.com/comprehensivephysics
- **See detailed specifications:** www.pasco.com/850

Order Information

850 Universal Interface	UI-5000
Required:	
PASCO Capstone Software	pp. 86-89
Recommended:	
BNC Function Generator Output Cable	p. 29
Replacement Part:	
850 Universal Interface Replacement Power Supply	UI-5200