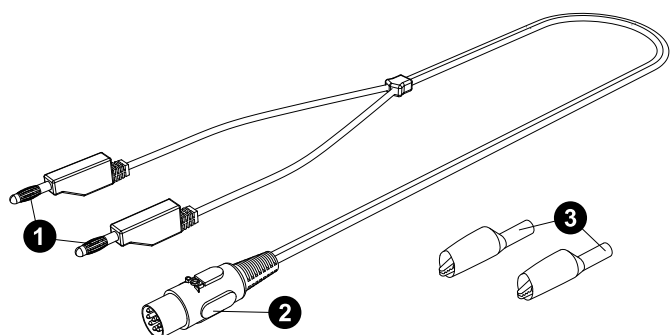# Voltage Probe (UI-5100)
Shrouded Voltage Probe (UI-5110)

Introduction

The Voltage Probe (UI-5100) and the Shrouded Voltage Probe (UI-5110) are designed to work with a PASCO analog interface and data collection software, allowing students to measure voltage. The 1.2 m cables have an 8-pin DIN plug at one end and two stackable banana plugs at the other end. Each probe comes with two alligator clips that work with shrouded or unshrouded banana plugs. The probes can also connect to PASPORT interfaces using an Analog Adapter (PS-2158).
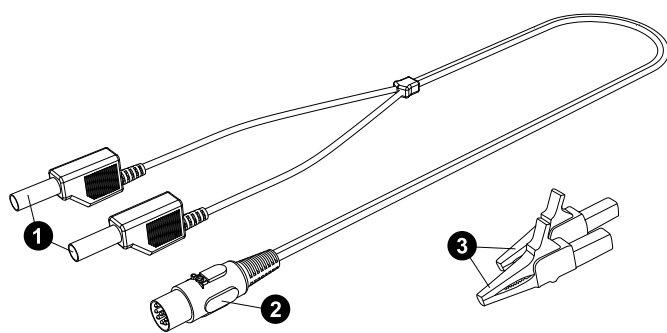
Equipment breakdown

Features of the Voltage Probe (UI-5100):

❶ Banana plug connectors

❷ 8-pin DIN connector

❸ 2× alligator clip with insulator cover (one red, one black)

Features of the Shrouded Voltage Probe (UI-5110):

❶ Shrouded banana plug connectors

❷ 8-pin DIN connector

❸ 2× large safety alligator clip (one red, one black)

Required equipment:

- PASCO analog interface, such as the 850 Universal Interface (UI-5000) or 550 Universal Interface (UI-5001)
- PASCO Capstone or SPARKvue data collection software

Optional equipment:

- 8-Pin DIN Extension Cable (UI-5218)

Get the software

You can use the sensor with SPARKvue or PASCO Capstone software. If you're not sure which to use, visit pasco.com/products/guides/software-comparison.

SPARKvue is available as a free app for Chromebook, iOS, and Android devices. We offer a free trial of SPARKvue and Capstone for Windows and Mac. To get the software, go to pasco.com/downloads or search for **SPARKvue** in your device's app store.

If you have installed the software previously, check that you have the latest update:

⊡ SPARKvue

Go to Main Menu **☰** > **Check for Updates**

◈ PASCO Capstone

Go to **Help** > **Check for Updates**

About the probes

The Voltage Probe and Shrouded Voltage Probe connect to an 8-pin DIN jack, such as the analog ports on the 850 Universal Interface (UI-5000). Both probes have a built-in automatic identification ("auto ID") chip. When connected to the 850 or 550 Universal Interface, the software automatically detects that the probe has been plugged in and identifies the type of probe.

Indent

The small indent on one side of the metal part of the DIN plug should face upward when the probe is plugged into the interface, as shown at left. The probes can be used to measure either direct current (DC) or alternating current (AC).

⚠ **IMPORTANT:** The probes are not designed to measure line voltage. Do not connect *any* PASCO probe or sensor into a wall socket. Line voltage such as 100 to 240 volts will damage the probes and the interface.

The 8-Pin DIN Extension Cable (UI-5218) is 1.8 meters long, with an 8-pin male DIN plug at one end and an 8-pin female DIN plug at the other end. You may use this cable to extend the distance that the probe can reach.

Connect the probe to software

⊡ SPARKvue

1. Start SPARKvue, then click **Sensor Data**.

2. Connect your chosen interface to SPARKvue. For more information on this, see to the manual for the interface and the SPARKvue online help.

3. Plug the 8-pin DIN jack of the Voltage Probe or Shrouded Voltage Probe into an analog port on the chosen interface. SPARKvue should automatically detect the probe and identify its type.

PASCO®

🔺 PASCO Capstone

1. Start Capstone, then select the **Hardware Setup** tool from the **Tools** palette.

2. Connect your chosen interface to Capstone. For more information on this, see to the manual for the interface and the Capstone online help.

3. Plug the 8-pin DIN jack of the Voltage Probe or Shrouded Voltage Probe into an analog port on the chosen interface. Capstone should automatically detect the probe and identify its type.

Pinout diagram

The following figure and table provide the pinout information for both the Voltage Probe and the Shrouded Voltage Probe.
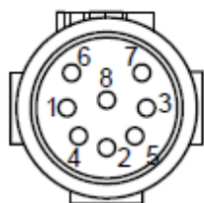
PIN#	WIRE COLOR
1	RED
2	BLK
3	U1 PIN 2
4	NC
5	U1 PIN 1
6	NC
7	NC
8	NC

Software help

The SPARKvue and PASCO Capstone Help provide additional information on how to use this product with the software. You can access the help within the software or online.

⬚ SPARKvue

Software: Main Menu 🟦 > Help

Online: help.pasco.com/sparkvue

🔺 PASCO Capstone

Software: Help > PASCO Capstone Help

Online: help.pasco.com/capstone

Specifications and accessories

Visit the product pages at pasco.com/product/ui-5100 and pasco.com/product/ui-5110 to view the specifications and explore accessories. You can also download experiment files and support documents from the product page.

Experiment files

Download one of several student-ready activities from the PASCO Experiment Library. Experiments include editable student handouts and teacher notes. Visit pasco.com/freelabs/ui-5100.

Technical support

Need more help? Our knowledgeable and friendly Technical Support staff is ready to answer your questions or walk you through any issues.

💬 Chat	pasco.com
📞 Phone	1-800-772-8700 x1004 (USA)
	+1 916 462 8384 (outside USA)
✉ Email	support@pasco.com

Regulatory information

Limited warranty
For a description of the product warranty, see the Warranty and Returns page at www.pasco.com/legal.

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