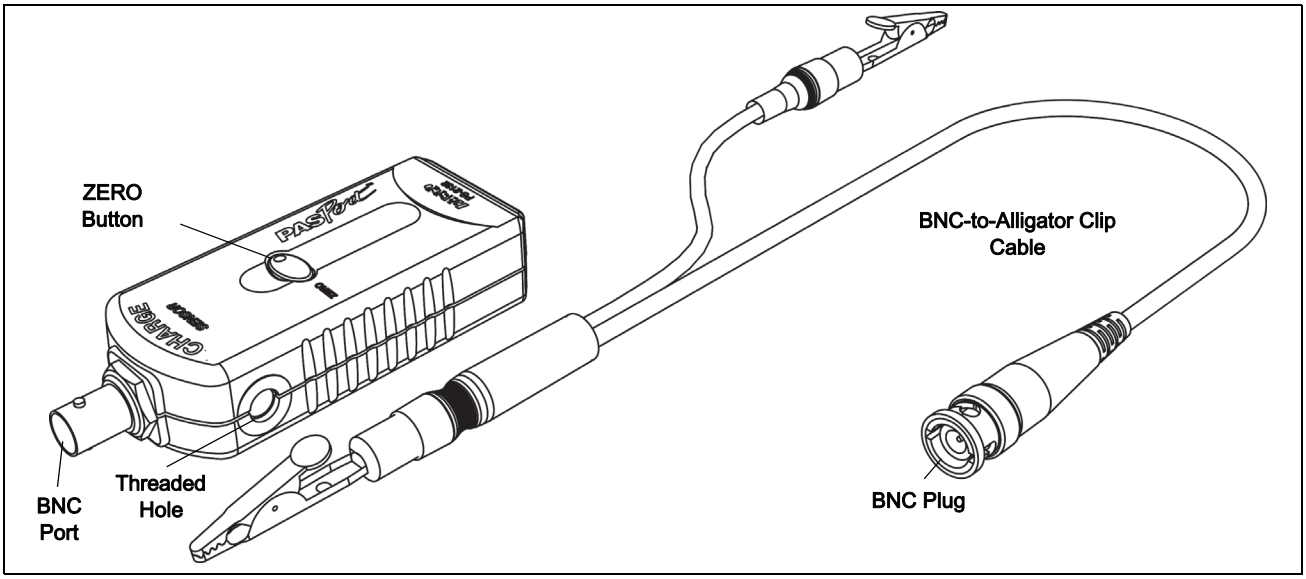
Charge Sensor

PS-2132



Included Items
Charge Sensor
BNC-to-Alligator Clip Cable

Required Items*
PASCO Interface
PASCO Data Collection Software

*See the PASCO catalog or the PASCO web site at

www.pasco.com/software

for more information.

Recommended Items*
Faraday Ice Pail (ES-9042A)
Charge Producers and Proof Plane (ES-9057C)
PASPORT Sensor Extension Cable (PS-2500)

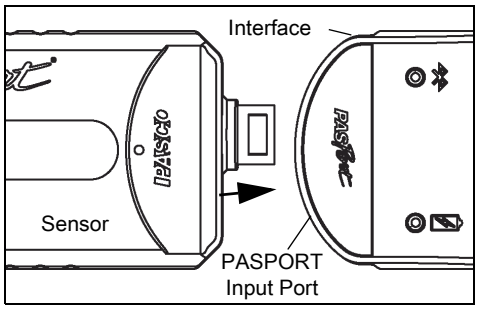
Introduction

The PS-2132 Charge Sensor measures charge in coulombs (C) and voltage in volts (V). The sensor is designed to work with a PASPORT-compatible interface and PASCO data collection software to measure charge and voltage.

The sensor includes a BNC-to-Alligator Clip cable that can be connected to the BNC port on the sensor and to electrostatic equipment such as the Faraday Ice Pail. The sensor also has a “ZERO” button that can be used to zero the sensor by removing residual charge.

Setup the Sensor

- Plug the sensor into a PASPORT input port of a PASCO interface and start the data collection software.



NOTE: If more distance is needed between the sensor and the interface, plug the sensor into a Sensor Extension Cable (optional), and then plug the cable into the interface.

Software Setup

See the SPARKvue Help or PASCO Capstone Help for information about collecting, displaying, and analyzing data.

- In SPARKvue, select the **HELP** button (?) in any screen including the Home Screen.
- In PASCO Capstone, select **PASCO Capstone Help** from the **Help** menu, or press **F1**.

SPARKvue

Collect Data

- In the SPARKvue **Home Screen**, select a measurement from the list under the sensor's name. A graph of the measurement versus time opens.
- In SPARKvue, select the **Start** button (▶) to begin collecting data.

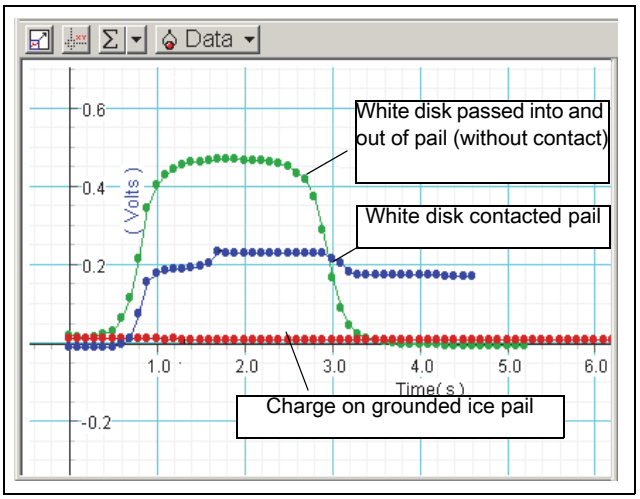
PASCO Capstone

Collect Data

- In PASCO Capstone, select a display in the main window or from the **Display** palette. In the display, use the **<Select Measurement>** menu to pick a measurement to be shown.
- Select **Record** to begin collecting data.

Sample Data

The following graph display shows data for charging by induction and charging by contact using Charge Producers and a Faraday Ice Pail.



Specifications

Item	Value
Ranges:	**±0.1 microcoulomb (μC), charge ±10 volts (V), voltage**
Resolution:	**5 picocoulombs (C), charge 500 microvolts (μV), voltage**
Input Resistance:	**10^{12} ohms**
Input Capacitance:	**0.01 microfarads (μF) ±5%**
Maximum Input Voltage:	**±150 V direct current (DC)**

More Information

For the latest information about the sensor, visit

www.pasco.com

and enter "PS-2132" in the Search window.

Technical Support

For assistance with any PASCO product, contact PASCO at:

Address: PASCO scientific
10101 Foothills Blvd.
Roseville, CA 95747-7100

Phone: +1 916-786-3800 (worldwide)
800-772-8700 (U.S.)

E-mail: support@pasco.com

Web www.pasco.com

For the latest revision of the instruction sheet, go to the PASCO website at:

www.pasco.com/manuals

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Product End of Life Disposal Instructions:

This electronic product is subject to disposal and recycling regulations that vary by country and region. It is your responsibility to recycle your electronic equipment per your local environmental laws and regulations to ensure that it will be recycled in a manner that protects human health and the environment. To find out where you can drop off your waste equipment for recycling, please contact your local waste recycle/disposal service, or the place where you purchased the product.

The European Union WEEE (Waste Electronic and Electrical Equipment) symbol (to the right) and on the product or its packaging indicates that this product must not be disposed of in a standard waste container.