

Kilovolt Power Supply

SE-9586

Introduction

The Kilovolt Power Supply delivers a stabilized DC voltage, adjustable between 0 kV and 6 kV. For safety reasons, the current is limited by a built-in series resistance, with a maximum short circuit current of 2 mA. Under load, the voltmeter shows the actual output voltage. The power supply also offers a fixed AC output of 6.3 V AC, which is the standard filament voltage for electron guns. A maximum current of 3 A may be drawn from this output.

The high voltage section is designed to be "floating" relative to ground. This means that either the black (negative) terminal or the red (positive) terminal may be connected to ground. Connecting the black terminal to ground allows the Kilovolt Power Supply to output DC voltage in the range of 0 to +6 kV. Connecting the red terminal to ground allows the Kilovolt Power Supply to output DC voltage in the range of -6 to 0 kV.

Components

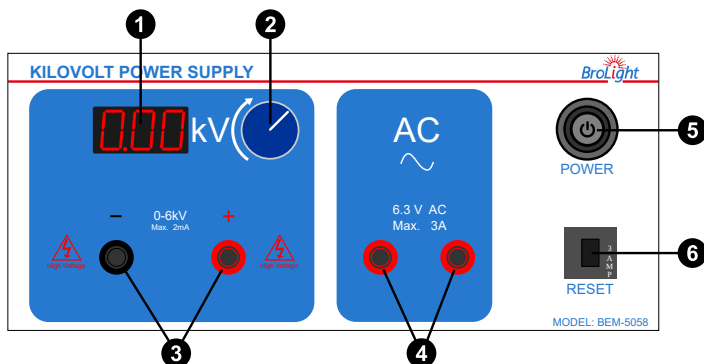
Included components:

- Kilovolt Power Supply (SE-9586)
- Power cable
- High voltage patch cords

Recommended replacement parts:

- High Voltage Patch Cord Set (SE-9269)

Features



- 1 Voltage display
- 2 Voltage adjust knob
- 3 DC voltage output jacks
- 4 AC voltage output jacks
- 5 Power button
- 6 AC reset button

Operation

1. By default, the Kilovolt Power Supply is designed to connect to a 110 V wall outlet. If using a 220 V outlet, unscrew the clear plastic cover on the back of the device, move the red switch to the **230** position, and replace the cover.
2. Use the provided power cable to connect the Kilovolt Power Supply to an appropriate standard electrical outlet.
3. Turn the voltage adjust knob counterclockwise until it stops, then press the power button to turn the power supply on. Both the button and the LED voltage display will light up.
4. Connect the circuit which will be driven to either the DC or AC voltage output jacks via the included High Voltage Patch Cords.

⚠ WARNING: Do NOT connect ordinary banana plugs to the output jacks! Doing so may result in electric shock.

5. Slowly turn the voltage adjust knob clockwise until it reaches the desired voltage for your experiment.

To disconnect the power supply, first turn the voltage down to 0 V, then remove the wires from the output jacks, and finally press the power button again.

Safety

For safety reasons, the Kilovolt Power Supply must **always** be connected to ground when in use. The included power cable is provided with ground connectors. If the outlet to which the Kilovolt Power Supply is connected is not grounded, you must use the grounding port on the back of the device. To avoid eventual on/off transient signals, always follow the specified order of steps when connecting and disconnecting sensitive equipment.

AC reset

If the current from the AC output exceeds the maximum value of 3 A, the AC output will drop to 0 V to prevent damage to the unit. If this occurs, disconnect the Kilovolt Power Supply from the circuit and press the AC reset button next to the AC output jacks. This will reset the AC output to its default amplitude of 6.3 V.

Replace the fuse

If the Kilovolt Power Supply's fuse burns out, it should be replaced *only* with an identical F2AL250V fuse. A single extra fuse is provided with the product and is stored in the fuse compartment. To replace the fuse:

1. Make sure the Kilovolt Power Supply is **completely** unplugged from the wall and all other devices.
2. The fuse is located on the back of the device, in a slot adjacent to the port for the power cord. Using a fingernail or a slotted screwdriver, pry open the slot's lid and remove the fuse holder.
3. Remove the burnt out fuse from the holder and discard it appropriately.
4. Remove the new fuse from its storage position and insert it into the position previously occupied by the old fuse.
5. Insert the holder back into its slot. Press inward to make sure that the holder is secured in place again.

Specifications and accessories

Visit the product page at [pasco.com/product/SE-9586](https://www.pasco.com/product/SE-9586) to view the specifications and explore accessories.

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](https://www.pasco.com)
- 📞 Phone 1-800-772-8700 x1004 (USA)
+1 916 462 8384 (outside USA)
- ✉ Email support@pasco.com

Limited warranty

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

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Product end-of-life disposal



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 or disposal service, or the place where you purchased the product. The European Union WEEE (Waste Electronic and Electrical Equipment) symbol on the product or its packaging indicates that this product must not be disposed of in a standard waste container.

CE statement

This device has been tested and found to comply with the essential requirements and other relevant provisions of the applicable EU Directives.