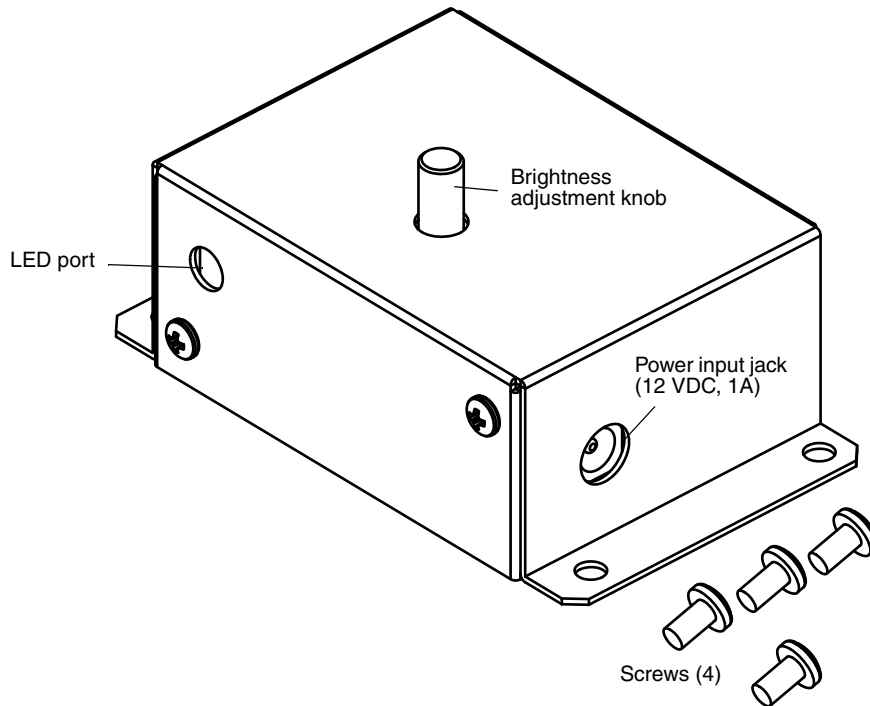




For Use with AP-8210
Millikan LED Light Source
 AP-8212



Included Items	Part Number
Millikan LED Light Source Assembly	AP-8212
Screw, 6-32 x 1/4" phillips head (4)	610-041

Introduction

The AP-8212 Millikan LED Light Source is designed for use with the AP-8210 Millikan Oil Drop Apparatus. You can use the AP-8212 Millikan LED (light emitting diode) Light Source to replace the Light Source Assembly on the AP-8210. The Millikan LED Light Source is brighter than the original light source on the AP-8210, and the brightness of the LED Light Source is adjustable. The very long expected life span of the LED means that the LED Light Source should never need replacement. (NOTE: If the LED does fail, do not attempt to replace it. Contact PASCO about returning it for repair.)

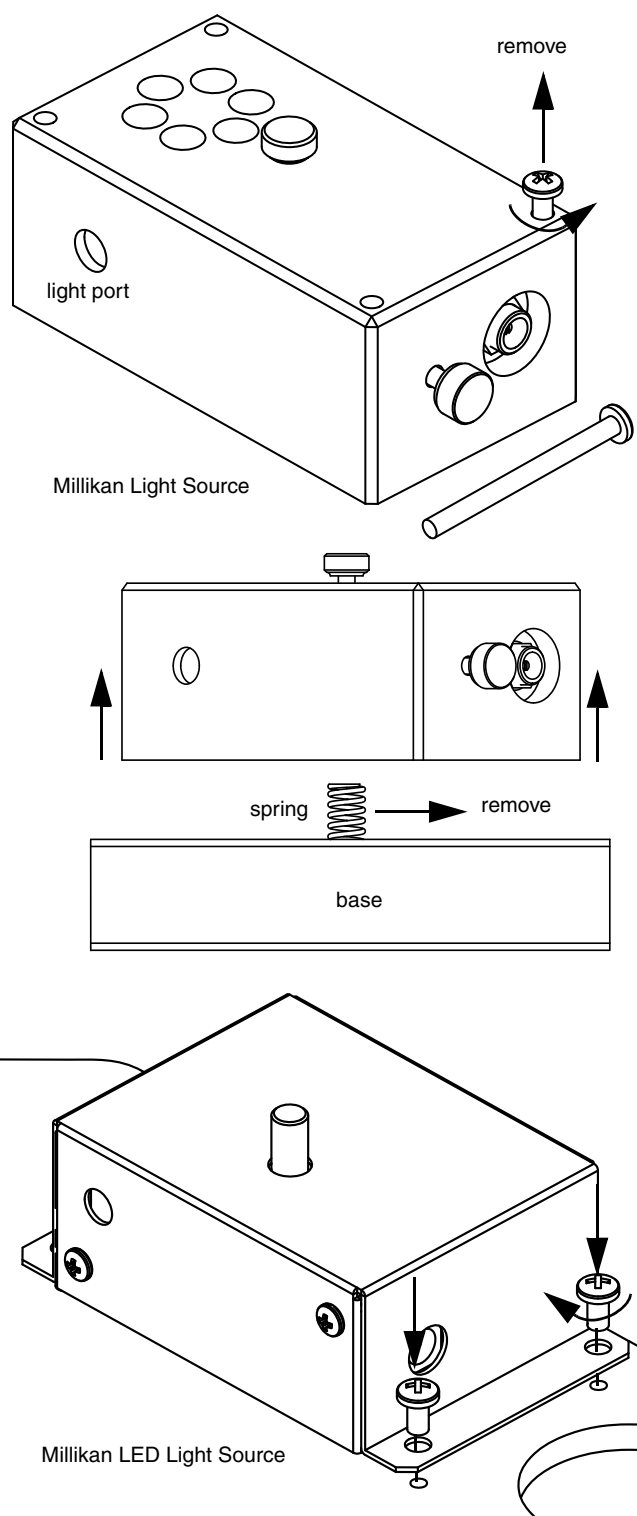
The Millikan LED Light Source includes the LED assembly and four screws for attaching the LED assembly to the base of the AP-8210 Millikan Oil Drop Apparatus. The Millikan LED Light Source uses the same power supply (100 to 240 VAC, 10 VDC, 1 A) as the Light Source Assembly that it replaces. The LED brightness adjustment knob is on the top of the LED Light Source. Turn the knob clockwise to increase brightness and counterclockwise to decrease brightness. Note that when the LED brightness knob is turned fully counterclockwise, the LED may be completely dimmed or it may still be slightly illuminated.

Caution

If the LED of the Millikan LED Light Source does fail, do not attempt to replace it. The LED is a surface mount component that is soldered to the printed circuit board inside the light source. Contact PASCO about returning the Millikan LED Light Source or the entire Millikan Oil Drop Apparatus.

Replacing the Light Source

- Make sure that the power supply is disconnected from the light source on the Millikan Oil Drop Apparatus.
- Use a phillips head screwdriver to remove the four screws from the light source assembly.
- Carefully lift the light source assembly off the base and set it aside.
- Remove the stainless steel spring that sits on the base under the light source assembly.
- Place the AP-8212 Millikan LED Light Source on the base with the same orientation as the light source you removed.
- Use the four small screws provided to secure the LED Light Source to the base.



Technical Support

For assistance with any PASCO product, contact PASCO at:

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

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

Fax: (916) 786-3292

Web: www.pasco.com

Email: support@pasco.com

For the latest information about the AP-8212 Millikan LED Light Source, go to the PASCO web site at www.pasco.com and enter AP-8212 in the 'Search' field.

Limited Warranty For a description of the product warranty, see the PASCO catalog.

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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 and on the product or its packaging indicates that this product **must not** be disposed of in a standard waste container.

