

**INSTRUCTION MANUAL**  
**CAT. 72414, 72415**  
**Hi-Intensity UV Lamps, 115V and 220V**



Electron Microscopy Sciences  
1560 Industry Road Hatfield, PA 19440  
TEL: 215-412-8400 FAX: 215-412-8450 TOLL FREE: 1-800-523-5874  
EMAIL: [sgkcck@aol.com](mailto:sgkcck@aol.com) WEB: [www.emsdiasum.com](http://www.emsdiasum.com)

## General Information for Ultraviolet Inspection

Make tests in a darkened area for best contrast. Fluorescence may be bright or dim, depending on amount of fluorescing agent present. Be careful to distinguish fluorescence from blue light reflection on polished metal surfaces.

### Operation

Turn on/off switch on transformer base to ON position for starting. Although a cool lamp starts immediately, allow about five minutes to reach full brilliance. When use is intermittent, it is preferable to leave the lamp burning. This assures longer bulb life and avoids delay in restarting. Restarting does not take place immediately as the mercury vapor within the bulb must cool. Delay is typically 4 to 8 minutes. Any interruption in the power supply, such as an excessive drop in voltage, will extinguish the arc. Restarting typically will be delayed while the mercury vapor cools. Full voltage must be restored to permit the arc to strike.

While mounted on the transformer base, the lamp housing can rotate a full 360°. For handheld use, detach the lamp housing from the transformer base.

### Bulb Replacement

To replace the bulb, first remove the filter assembly: Expand front bezel tabs and slide front bezel off the lamp assembly. Expand the two silver filter assembly spring clips outward to release filter assembly from the lamp body.

When replacing the bulb, screw bulb in tightly to prevent loosening from heat expansion and contraction during lamp operation.

### Bulb Standardization

For testing uniformity, a standard bulb intensity is required.

A special light meter calibrated for measuring ultraviolet intensity is required to check bulb standardization.

An ordinary light meter will not deliver readings of ultraviolet energy.

### CAUTION

1. Wear hand and eye protection if filter glass is cracked. Replace filter as soon as possible.
2. To avoid electrical shock hazard, unplug lamp before servicing.
3. Bulb runs very hot; allow unit to fully cool before servicing.
4. Bulb contains mercury. If bulb breaks, wear gloves to remove. Dispose according to local regulations.

**Contact**

For any questions regarding installation, operation, or replacement parts, please contact Electron Microscopy Sciences at 215-412-8400.

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