

## OPERATION

All display lamps are turned on and off with a single switch. Each lamp is supplied with an eight-foot cord and plus brackets for hanging the lamp.

## REPLACING A FILTER

Shortwave filters are subject to deterioration due to solarization, and need replacement periodically. Depending on the application, a lifetime of 500 to 1000 or more hours of operation can be expected. A display lamp is normally in a fixed position. Not all fluorescent minerals have the same brightness response. The brighter specimens will often respond for over 1000 hours if within a reasonably close range, but if you are showing specimens of lower level of fluorescent response, you may have to bring the lamp closer or replace filters earlier than normal.

To change the filter, remove the two screws on the filter frame and remove end bracket. Replace the filter/frame assembly and screws.

## REPLACING THE TUBES

To replace the tubes in the lamps, remove the two screws on each side of the unit and remove the filter cover. Carefully twist tubes out using care when removing. Note that the reflector is not screwed into the housing. If lamp does not light after replacing the bulbs, replace the starter. For any other questions, contact UVP's offices.

## MOUNTING INSTRUCTIONS

All lamps come with wall mounting brackets attached to the housing. Simply bolt or screw the brackets to the desired location. The lamp can be mounted horizontally or vertically.

## REPLACEMENT PARTS

Model	Filter/Frame Assembly	Tubes
UVM-225D	38-0207-01	34-0072-01 (302nm Midrange)
UMLS-225D	38-0207-01	34-0073-01 and 34-0060-01
UVS-225D	38-0207-01	34-0073-01 (254nm Shortwave)
UVL-225D	38-0207-02	34-0060-01 (365nm Longwave)

## REPAIRS

Contact UVP's offices with any questions. To return a unit to the factory for repair, call UVP's customer service department for a **Return Authorization (RA)** number prior to sending the unit.

## ACCESSORIES

**Blak-Ray® Safety Goggles and Contrast Control Spectacles ...** Eyewear is recommended when using any shortwave UV product. Special formula lenses reduces "blue haze" interference while protecting eyes from harmful bands of UV. UVC-503 Goggles provide maximum protection from extended or high intensity UV light sources while the UVC-303 Spectacles are used for sporadic lower intensity UV light sources and can be worn comfortably over prescription glasses.

**Ultraviolet Intensity Meters ...** For widest energy range measurements, highest accuracy, and interchangeable sensors (ordered separately) for measurements at 365nm, 300nm and 254nm, the new UVX Digital Radiometer can be used. Units are hand-held, battery operated, and have compact sensors with 3' electrically shielded cord. Also available are Blak-Ray Meters in models J-221, which measures longwave (365nm), or J-225 shortwave (254nm) ultraviolet. Compact (fits in the hand). Removable sensors call for ease of operation. Highly accurate. For measuring ultraviolet intensity from ultraviolet sources.

## WARRANTY

UVP, LLC warrants its ultraviolet lamps to be free of defects in materials and workmanship for a period of one (1) year from the date of purchase. Bulbs and filters are warranted for 90 days. The foregoing warranty of UVP shall be of no force and effect if buyer has modified or damaged the product.

All warranties or merchantability and fitness for any purpose and all other warranties, expressed or implied, except those expressly set forth herein, are deemed waived and excluded.

UVP's duty under the warranty is limited to replacement and/or repair of the defective part at the option of UVP, LLC. UVP shall not be liable for any expenses or damages incurred by the purchaser except as expressly set forth herein, and in no event shall UVP be liable for any special, incidental or consequential damages of any kind. This warranty does not supersede any statutory rights that may be available in certain countries.



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81-0019-03 Rev D

## OPERATING INSTRUCTIONS MINERALIGHT® DISPLAY LAMPS

### WARNING

**Do not look into a lighted shortwave Mineralight lamp as it can quickly sunburn your eyes and skin. Always hold Mineralight lamps so that the light beams are away from you. Use protective eyeface wear and clothing.**

### ULTRAVIOLET LIGHT

UV energy cannot be detected by the human eye. A bluish light will be visible through the filter of your lamp. This is due to the emission of visible light from the tube. The special filter eliminates most of this visible light interference.

**Shortwave ...** The ultraviolet energy farthest from visible light, shorter than rays in sunlight and primarily noted for its ability to fluoresce minerals for chemical analysis and for its germicidal effects.

**Midrange ...** The ultraviolet energy representing the shortest wavelengths found in sunlight, causing sunburn, and used to fluoresce certain substances more effectively than shortwave or longwave UV light.

**Longwave ...** The ultraviolet energy nearest to the visible light range (commonly called blacklight), activates fluorescence in numerous natural substances and manufactured materials.

