

## REPLACEMENT PARTS/ACCESSORIES

MODEL	TUBE	FILTER/FRAME
UVG-47 Lamp	34-0013-01	98-0009-04
UVGL-48 Lamp	34-0015-01	98-0010-04
ML-49 Lamp	34-0016-01	
J-144 Standard 6V Battery (Qty 1)	45-0005-01 (2 required)	
J-145 Recharge. 6V Battery (Qty 1)	45-0005-02 (2 required)	
J-145R Battery Charger	58-0136-01	
Goggles	98-0002-02	
Spectacles	98-0002-01	

**Blak-Ray UV Blocking Goggles and Spectacles ...** reduce "blue haze" interference while providing maximum safety from extended or high intensity UV light sources. Goggles can be worn comfortably over prescription glasses.

**Ultraviolet Intensity Meters ...** are highly accurate instruments for measuring UV intensity from UV sources. Call UVP for detailed information.

### TECHNICAL SUPPORT OR REPAIR

Contact UVP's offices with any questions on use of these products. A **Returned Goods Authorization (RGA)** number must be obtained from UVP prior to returning any product to UVP.

### WARRANTY

The UVP Lamps are guaranteed to be free of defects in materials, workmanship, and manufacture for one (1) year from date of purchase. Consumable parts, including but not limited to tubes, are guaranteed for ninety (90) days from date of purchase.



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## OPERATING INSTRUCTIONS

### Mineralight and Blak-Ray Portable Ultraviolet Lamps

### WARNING

Do not look into a lighted shortwave or multi-band Mineralight lamp as it can quickly sunburn your eyes and skin. Always hold Mineralight lamps so that the light beams are away from you.

The Blak-Ray lamp's longwave ultraviolet is generally considered harmless to the average person. Individuals that are photosensitive or are subject to long term exposures may expect adverse reactions if they do not have adequate protection.



This lamp is designed for easy, fatigue-free use. It is very important that, for maximum comfort and effortless carrying, the lamp is held with the arm hanging straight down the side of the body. This eliminates arm strain caused by incorrectly holding the lamp with the arm either in a bent position or out in front of the body. (Let the shoulder carry the lamp.)

### ULTRAVIOLET LIGHT

Ultraviolet 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 the visible light interference. Ultraviolet energy is just shorter in wavelength than visible violet light, and can be divided into two groups:

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

**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.



## USING THE ULTRAVIOLET LAMP

Certain minerals, such as Monazite and Bastnasite of the Cerium group, have no fluorescent response whatever but will show a dull emerald green color under the unfiltered shortwave ultraviolet. These ultraviolet lamps are designed for use in as dark an area as possible for greatest fluorescence on the material and the varying degrees of brightness of different colors. All lamps have a built-in flashlight. Models UVG-47 and UVGL-48 detect rare earths with the filter assembly removed.

## LAMP OPERATION

Models UVGL-48 multi-band, UVG-47 shortwave and ML-49 longwave are ultraviolet lamps designed for operation on:

- a) Two J-144 standard 6 Volt lantern batteries in series or
- b) Two J-145 rechargeable 6 Volt lantern batteries.

Standard batteries have 20 hours+ life under normal usage. Rechargeable batteries (5 Amp Hour) will support approximately eight hours of continuous use (4 Amp Hour batteries support about 6.5 hours of continuous use). Rechargeable batteries are good for about 500 charges.

**NOTE:** With use of rechargeable batteries, the optional battery charger is required. DO NOT attempt to charge standard batteries as it will result in permanent battery and/or lamp damage.

## BATTERY REPLACEMENT

To install batteries; remove battery cover plate. Place lamp face down on clean smooth surface. Place the first battery, coil side pointing in-ward, into the battery cavity with the positive (+) coil on the bottom right. Place the second battery on top of the first in the same position. Re-attach the plate to the lamp.

## TO CHARGE THE RECHARGEABLE BATTERIES

With the rechargeable batteries inserted into the lamp, plug the charger cord into the port on the back of the lamp. Plug the charger unit into a wall outlet (for indoor use only). **NOTE:** It is very important that you charge the batteries for at least 16 hours for the initial charge, since the initial charge will determine how much of a charge your battery will hold thereafter. *If you skimp on the initial charge, your battery will not hold its maximum charge and will need recharging more frequently.*

## LAMP HANDLE

Adjust the lamp to the desired beaming angle (up, down, or straight ahead) by simply moving your hand forward or backward on the curved carrying

handle. Again, be sure to carry the lamp with the arm hanging straight down for maximum comfort.

## LAMP SELECTOR SWITCH

The lamp uses a 3-position switch. In center position, the lamp is off. To operate ultraviolet light, push switch to the left. To operate the flashlight, push switch to the right. Be sure to turn switch off when not in use.

## USING THE UVGL-48 WAVELENGTH SELECTOR

This is a multi-band ultraviolet lamp, half longwave and half shortwave. The wavelength selector slides up and down to give you either wavelength. The upper half of the lamp (flashlight end) is shortwave, the lower half is longwave. The wavelength selector snaps on or off easily. When not used, it can be stored in the battery compartment between battery and lamp housing wall close to the handle.

## FILTER ASSEMBLY REPLACEMENT

TO REMOVE, hold lamp handle in one hand directly over the switch. With other hand, grab top half of filter frame, with a rolling motion pull filter frame away from lamp body until it breaks free from its position. Then lift off. TO REPLACE, place the two locking nipples located inside of top end of lamp housing, then apply pressure on bottom part of filter frame until it snaps into locking position. Shortwave filters on UVG-47 and UVGL-48 have a rated average life of 1000 hours. The ML-49 has no separate filter; its BLB tube contains the filter.

## FILTER REPLACEMENT

Replacement filters for UVG-47, UVGL-48 come housed in new frames. To replace filter, remove the filter assembly as described above, and replace with the new assembly.

## TUBE AND BULB REPLACEMENT

**WARNING:** Always remove the batteries from the housing before replacing the ultraviolet tube. If the switch is accidentally turned on while the tube is removed and the batteries are still connected, it can damage the circuit.

To change the ultraviolet tube or flashlight bulb, remove the filter assembly as described under FILTER ASSEMBLY. Remove the tube or light bulb by twisting it loose between your thumb and forefinger. Insert the new tube or bulb in the same manner. Put the filter assembly back in position as described under FILTER ASSEMBLY.