OPERATOR'S MANUAL

SPECTROLINE® EN 140L - BV

Ultraviolet Hand Lamp

Light, Ultraviolet, Specimen Examining,
Handheld, 115/230 Volt, 50/60 Hz, AC
NSN 6530-01-292-7700
DLA 120-89-C-8520

Printed in U.S.A.

A89122

Introduction

The Spectroline EN140L-BV Lamp is a hand held, 4 Watt, long wave ultraviolet (UVA) lamp, capable of operating on 115V, 60 Hz or 230V, 50 Hz. It is used to detect materials sensitive to long wave ultraviolet radiation by fluorescence. Strong room lit conditions can make it difficult to detect fluorescence, which makes it necessary to turn off lights.

Lamp Specifications

Physical

Weight: 2.6 lb
Dims: 8 1/4" L x 3 1/4" W x 2 7/8" Deep

Electrical

Supply Voltage: 110 +/- 10%, 60Hz or 230 +/- 10%, 50Hz
Supply Current: .2 amps max.
Nominal Watts: 4

Irradiance

Nominal Peak: 300 $\mu W/cm^2$, 5.7" from edge of housing to sensor, measured with a Spectroline DM-365X Radiometer

UNPACKING AND INSPECTION

1. Carefully unpack and inspect the lamp for possible damage in shipment. If any damage is noted, immediately notify the carrier and supplier before attempting to use the lamp.

2. Save the shipping carton and packing materials for future storing and shipping of the lamp.

3. Check the lamp's electrical performance as soon as possible according to the GENERAL FUNCTIONAL CHECKS outlined in the "OPERATION" section of this manual.

OPERATION

IMPORTANT: Slide the input voltage selector switch to the rated supply voltage. This switch is mounted on the lamp housings' plastic endcap.

This section of the manual provides information required to operate the E-Series lamp in a safe and proper manner.

WARNING

Spectroline E-Series Lamps produce ultraviolet radiation which can be hazardous to the eyes and skin. Therefore, use of Spectroline UV-absorbing protective eye and face wear is recommended (i.e., UVS-30 Spectacles, UVG-50 Goggles or UVF-80 Face Shield). This eye and face wear also improves contrast between the fluorescent area and the background and eliminates "blue haze" interference.

GENERAL FUNCTIONAL CHECKS

1. Connect the plug to a power outlet either 110V, 60Hz or 220V 50Hz.

2. To light the lamp, depress the large POWER ON switch for approximately 5 seconds.

   The tube should become energized and emit a steady glow of light. The light may initially flicker, especially if the lamp is cold, but should stabilize after a few seconds.

3. To turn off the lamp, depress the red POWER OFF switch.

OPERATOR SERVICING

Only standard tools are required to service this unit.

WARNING

To avoid the risk of electrical shock, always unplug the lamp from its power source before cleaning or servicing.

HOUSING AND FILTER MAINTENANCE

The aluminum lamp housing is designed for protection of the internal parts. Using a soft cloth, immediately clean spills from the housing with water and a mild detergent and wipe dry. **Take care not to allow any liquids to leak into electrical components.** Periodically clean the filter with a glass cleaner and a soft cloth.

TUBE AND REFLECTOR MAINTENANCE

To clean the tube and/or reflector, remove the tube according to the instructions outlined in the "TUBE REPLACEMENT" section below. Using a soft cloth, the reflector may be cleaned with a glass cleaner, while the tube may be cleaned with a mild detergent solution. Wipe dry with a soft cloth.

TUBE REPLACEMENT

If a tube fails to operate correctly, review the procedures outlined in the "OPERATION" section. If the problem persists and it is found necessary to replace a tube, unplug the lamp from its power source before proceeding.

1. Lay the lamp housing on a flat, level surface.
2. Remove the 2 screws which secure the endcap opposite the power cordset. For lamps without a filter, proceed to Step #4.
3. Slide the filter assembly off the lamp housing's open end, and set aside.
4. Grasp the tube by the metal bases located at each end. Applying even pressure, gently rotate the tube 1/4 of a turn until it loosens. The tube may now be easily removed from its sockets.

5. Install the new tube by reversing the above procedure.
6. Where applicable, replace the filter assembly by reversing the procedure in Step #3.
7. Replace the endcap removed in Step #2 and test the function of the new tube.
8. If installation of the new tube fails to yield correct lamp operation, check to make sure the two pins at each end of the tube are properly connected with the two copper contacts in each socket.

FILTER REPLACEMENT

If it is necessary to replace the filter assembly, follow Step #3 in the "TUBE REPLACEMENT" section to remove the old filter. Install the new filter by reversing this procedure.

STORAGE

The unit should be kept in its' original carton, and stored in a dry location.

NOTE: For assistance of any kind, contact the Customer Service Department at Spectronics Corporation (Phone: 516-333-4840). Give full details of the difficulty and include the model and serial numbers of the unit and date of purchase. If return of the lamp to the factory is deemed necessary, shipping instructions will be provided. If an estimate of charges for non-warranty work or other service work is required, a quote will be furnished upon evaluation of the unit. Service work will not be performed without customer approval.

SHIPPING

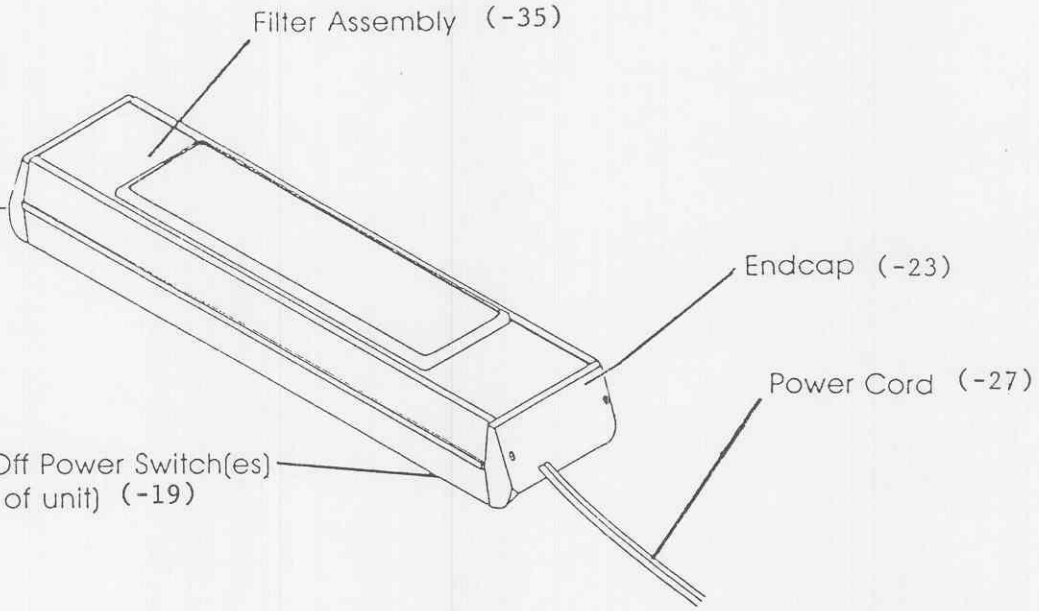
Carefully pack the lamp in the original shipping container and packing materials. Ship it prepaid to the factory and be sure to insure it for full value.

Replacement Parts List for a Spectronics Corporation Model EN140L-BV Lamp, NSN 6530-01-292-7700

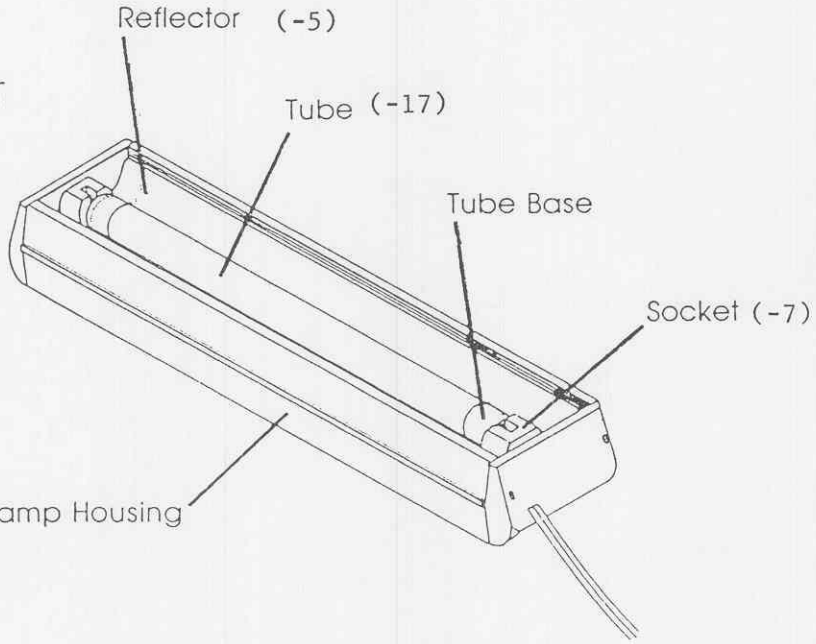
Part No.	Description	Qty/Unit
P-87101-		
5	Reflector	1
7	Socket	2
9	115 Volt Ballast	1
10	230 Volt Ballast	1
17	4 Watt UV-A Tube	1
19	On/Off Switch	1
20	Bi Voltage Switch	1
23	Plastic Housing Endcap	2
27	8 Foot Cord	1
28	115 V Hospital Grade Plug	1
35	Long Wave Filter Assy	1

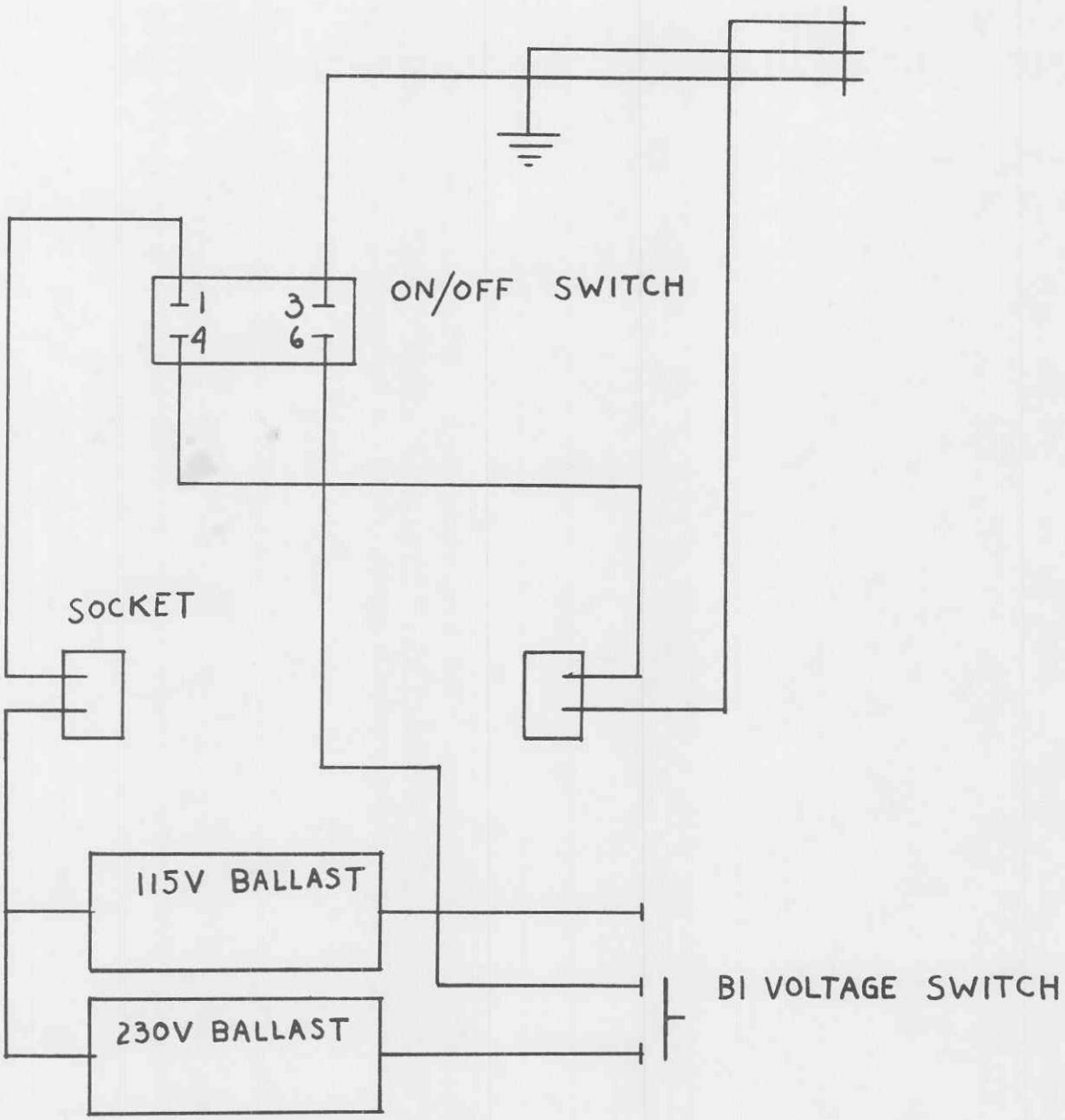
EN140L-BV

LAMP WITH
FILTER ASSEMBLY



LAMP WITHOUT
FILTER





EN 140L BV WIRING DIAGRAM