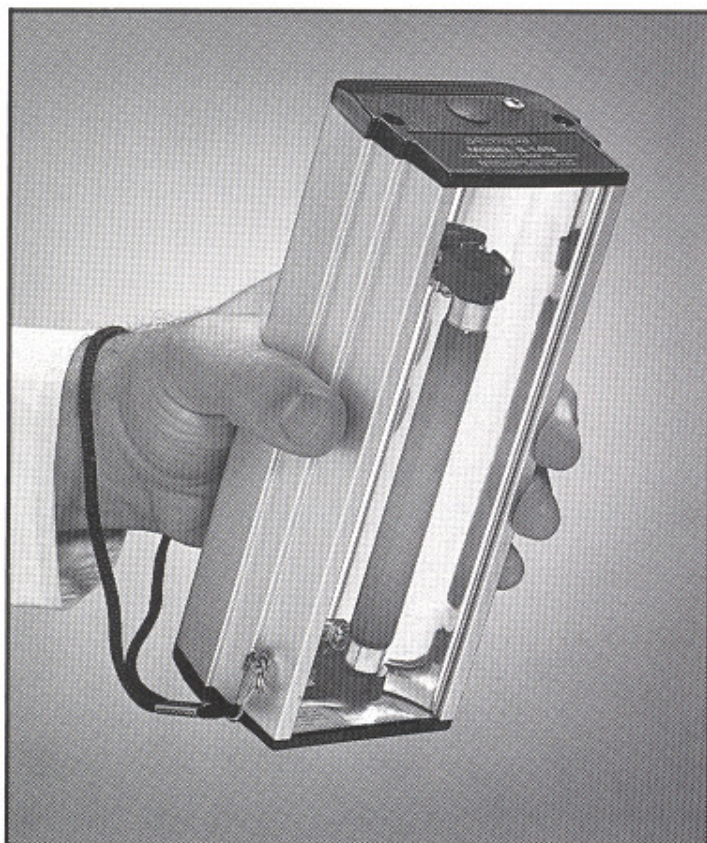

OPERATOR'S MANUAL

SPECTROLINE® B-Series

Battery-Operated UV Lamps



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Congratulations on choosing a Spectroline® B-Series Battery-Operated UV Lamp. Spectronics Corporation has designed it to provide the most desirable features, best performance and, when used properly, years of trouble-free operation. Please read the instructions in this manual carefully *before* using the lamp.

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 performance as soon as possible according to the GENERAL FUNCTIONAL CHECKS outlined in the "OPERATION" section of this manual.

OPERATION

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

WARNING

Spectroline B-Series Battery-Operated UV 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. In addition, protective clothing should be used when skin is exposed to short wave UV.

BATTERY INSTALLATION AND REPLACEMENT

NOTE: *Only* alkaline batteries are recommended for use in the BEA-140, BEF-140C, BEA-160, BEB-160C and BEF-160C lamps. Either rechargeable NiCad or alkaline batteries may be used in the B-14N and B-14F lamps. The BEA-140, BEF-140C, BEA-160, BEB-160C and BEF-160C also have the capability of running on *115 volt AC* line current through the use of optional Spectroline AC Adapters (see "115 VOLT AC OPERATION" section).

For BEA-160, BEB-160C and BEF-160C

1. To load batteries into the BEA-160, BEB-160C or BEF-160C, carefully remove the two screws securing the rear endcap (the end *without* the AC adapter jack) to the lamp housing. This will expose the battery chamber.
2. The battery holders are mounted on a sliding tray. Unplug the battery connector, pulling it downward and out of the way. Pull on the small, stainless-steel tab; this will release the sliding tray and allow for battery installation.
3. Install eight C-cell, 1.5 volt alkaline batteries according to the diagram on the inside of the lamp housing.
4. After the batteries are installed, slide the tray back into the lamp housing and reattach the battery connector.
5. Reverse the procedure in Step #1 to re-install the endcap.

For B-14N, B-14F, BEA-140 and BEF-140C

1. Carefully remove the two screws securing the rear endcap (the end *without* the power receptacle) to the lamp housing. This will expose the battery chamber.
2. Place five C-cell, 1.25 volt NiCad rechargeable batteries (Spectrolite 3B156 or equivalent) or five C-cell, 1.5 volt alkaline batteries into the chamber. Be sure the batteries are inserted according to the diagram on the inside of the endcap.
3. Reverse the procedure in Step #1 to re-install the endcap.

NOTE: NiCad batteries in the B-14N and B-14F can be recharged *without removing* them from the lamp (see "RECHARGING BATTERIES" section on page 6). However, NiCad batteries in the BEA-140 and BEF-140C must be *removed* and recharged in a commercially available charging unit.

115 VOLT AC OPERATION

(BEA-140, BEF-140C, BEA-160, BEB-160C & BEF-160C ONLY)

At the power-switch end of the unit there is an electrical receptacle. For 115 volt operation use the Model BAC-14 (P/N A-90115-33) AC Adapter for the BEA-140 and BEF-140C or the Model BAC-16 (P/N A-88107-27) AC Adapter for the BEA-160, BEB-160C and BEF-160C. It is *not* necessary to remove the batteries. Insert the jack of the adapter into the lamp receptacle and then plug it into a 115 volt wall outlet. The unit can now be operated without draining the batteries.

NOTE: If the lamp will not be used for an extended period of time, remove the batteries in order to prevent corrosion.

GENERAL FUNCTIONAL CHECKS

1. After the batteries are installed, light the lamp by pressing the large ON switch for approximately 5 seconds.
2. To turn off the lamp, depress the small OFF switch.

NOTE: If the lamp fails to light, check to be sure the batteries are installed properly.

OPERATOR SERVICING

The following servicing instructions are intended for limited maintenance of the lamp. **Do not perform any servicing other than that contained in these instructions.** Return the lamp to the factory for maintenance not covered in this section.

WARNING

To avoid the risk of electrical shock, always be sure the lamp is turned off before cleaning or servicing.

TUBE REPLACEMENT

If the lamp fails to operate properly, review the steps outlined in the "OPERATION" section. If the problem persists and it is found necessary to replace the tube, turn the lamp off before proceeding.

1. Remove the two screws securing the rear endcap (the end *without* the power receptacle) to the lamp housing and remove the endcap.
2. Slide the plastic tube guard (B-14N, BEA-140 or BEA-160) or filter assembly (B-14F, BEF-140C, BEB-160C or BEF-160C) off of this open end.
3. Grasp the tube by the metal bases located at each end. Applying even pressure, gently rotate the tube $\frac{1}{4}$ of a turn until it loosens. The tube may now be easily removed from its sockets.
4. Install the new tube by reversing the above procedure.
5. 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.

6. After the new tube is installed, replace the tube guard or filter assembly and the endcap by reversing the procedure in Steps #1 and 2 above.

RECHARGING BATTERIES (B-14N AND B-14F ONLY)

Leave the five NiCad batteries in the lamp. Plug the modular jack of the Spectrolite RB-1400 or RB-1400/F Recharger into the charger receptacle on the front endcap of the lamp. Connect the AC plug of the recharger to an appropriate power source. Batteries require 14 hours to fully recharge.

CAUTION: Batteries may explode if disposed of in fire.

HOUSING AND TUBE GUARD MAINTENANCE

The 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 plastic tube guard (B-14N, BEA-140 and BEA-160 only) 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 of this manual. 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.

FILTER MAINTENANCE

To clean the filter in the B-14F, BEF-140C, BEB-160C or BEF-160C, remove the filter assembly according to the appropriate instructions outlined in the "TUBE REPLACEMENT" section of this manual. Clean with a soft cloth and a glass cleaner.

FILTER REPLACEMENT

If it is necessary to replace the filter in the B-14F, BEF-140C, BEB-160C or BEF-160C, follow the appropriate instructions in the "TUBE REPLACEMENT" section to remove the old filter assembly. Carefully install the new filter assembly by reversing this procedure.

WARRANTY

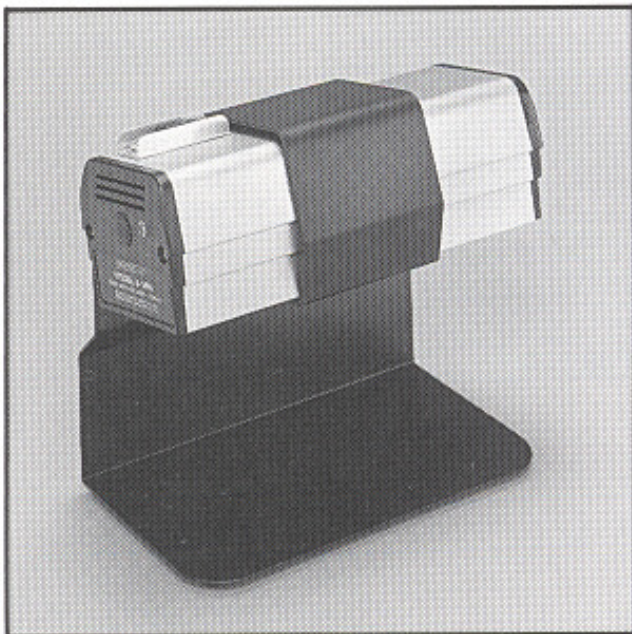
The warranty policy for the B-Series UV Lamps is provided on the Certificate of Limited Warranty enclosed separately with each unit.

NOTE: For assistance of any kind, including help with a lamp under warranty, contact the Customer Service Department at Spectronics Corporation. In the U.S. and Canada, call toll-free 1-800-274-8888. 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. Out-of-warranty service work will not be performed without customer approval.

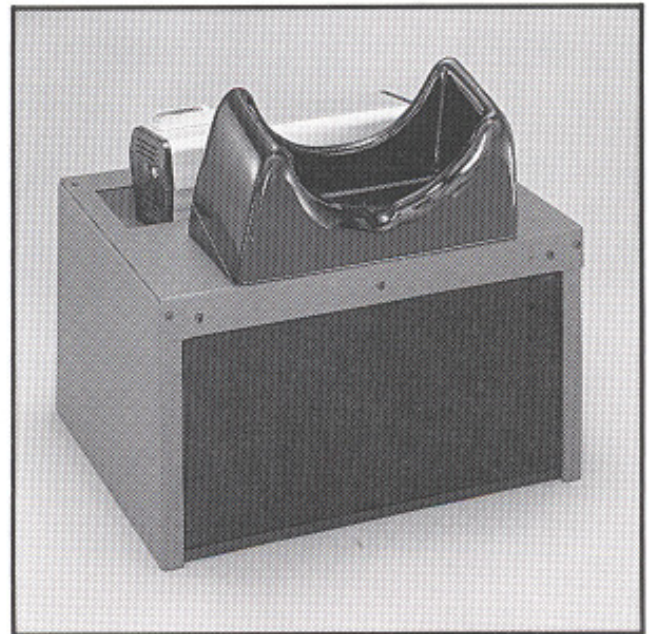
SHIPPING

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

ACCESSORIES



SE-140 Lamp Stand



CM-10 UV Viewing Cabinet

ORDERING INFORMATION

Description	Part No.
TUBE—Long Wave UV (for B-14N and BEA-140)	BLE-220B
TUBE—Short Wave UV (for B-14F and BEF-140C)	BLE-2537S
TUBE—Long Wave UV (for BEA-160)	BLE-480B
TUBE—Medium Wave UV (for BEB-160C)	BLE-6T312
TUBE—Short Wave UV (for BEF-160C)	BLE-6254S
FILTER ASSEMBLY (for B-14F and BEF-140C)	2F001
FILTER ASSEMBLY (for BEB-160C and BEF-160C)	2F018
TUBE GUARD (for B-14N and BEA-140)	TG140
TUBE GUARD (for BEA-160)	TG160
CARRYING HANDLE (for B-14N, B-14F, BEA-140 and BEF-140C)	CH-180
BATTERY—NiCad Rechargeable, 1.25 Volt, Five Required (for B-14F and B-14N)	3B156
RECHARGERS (for B-14F and B-14N)	RB-1400 (115V/60Hz) RB-1400/F (230V/50Hz)
A.C. ADAPTERS, 115 Volt (for BEA-140 and BEF-140C)	BAC-14
(for BEA-160, BEB-160C and BEF-160C)	BAC-16