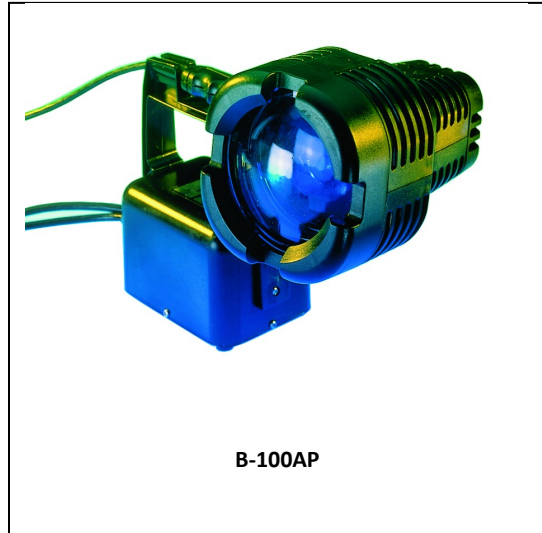


B-100 Series Ultraviolet Lamps

Operating Instructions

These Instructions cover Analytik Jena's high-intensity 100-watt B-100 series lamps (115V and 220V). The B-100AP, B-100AP/R and B-100YP models are manufactured with AJ's Cool-Touch™ plastic housing. B-100A, B-100A/R and B-100Y models are manufactured of a durable scratch-resistant, powder-painted aluminum. The B-100Y and B-100YP models feature a yellow filter. Lamp and accessory drawings and replacement parts lists for each model are included in these instructions. This manual covers the following lamp part numbers:



Part Numbers

Model	115V	230V
B-100AP	95-0127-01	95-0127-02
B-100AP/R	95-0127-06	95-0127-07
B-100YP	95-0127-03	95-0127-04
B-100Y	95-0044-24	95-0044-18
B-100A	95-0044-22	95-0044-02
B-100A/R	95-0044-03	95-0044-03

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. AJ Model UVC-503 Safety Goggles are recommended to eliminate blue haze resulting from eye fluorescence caused by reflected longwave ultraviolet radiation.

Installation

An 8-foot primary and secondary line cord is supplied on all units except the B-100AP/R and B-100A/R which come with 20-foot primary and 20-foot secondary line cords. If the receptacle is not fitted with 3-prong plug, use a 2-prong adapter and attach grounding lead to screw center of receptacle plate. Some units may ship with bare wire leads. Connect the appropriate plug for your area.

Operation

Turn on/off switch on transformer base to ON position for starting. Although a cool lamp starts immediately, allow approximately 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 360°. For handheld use, detach the lamp housing from the transformer base.

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Replacement Parts List

Parts lists are provided for the B-100 lamp models. Two parts lists are shown: one for the Cool-Touch housing lamps and one for the aluminum housing lamps. For additional ordering information or an authorized dealer, contact:

Analytik Jena US Upland, California | (909)946-3197

Ultra-Violet Products Ltd., Cambridge UK
+44(0)1223 420022

NOTE: An RGA (returned goods authorization) number is required prior to returning any products to AJ. Contact AJ's offices to obtain a number.

B-100A, B-100A/R, B-100Y

115 VOLT, 60 Hz; 220 VOLT, 50 Hz
(Note: B-100A/R NSN 6635-611-5617 ordering number)

PART NO. PART NAME

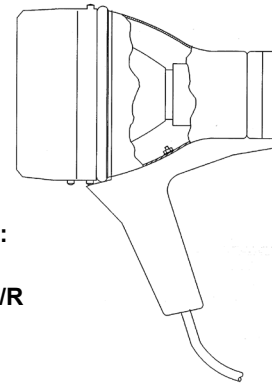
34-0054-01	SPOT BULB
36-0043-02	SOCKET, MEDIUM BASE
38-0168-03	BEZEL & UV FILTER ASSEM.
38-0168-04	BEZEL & YELLOW FILTER ASSEM.
77-0005-01	LAMP HEAD ASSEMBLY WITH 8ft. CORD, 115V
77-0005-02	LAMP HEAD ASSEMBLY WITH 8ft. CORD, 220V
77-0005-03	LAMP HEAD ASSEM. WITH 20ft. CORD, 115V
77-0005-04	LAMP HEAD ASSEM. WITH 20ft. CORD, 220V
88-0016-01	BALLAST REPLACEMENT KIT, 115V
88-0016-02	BALLAST REPLACEMENT KIT, 220V
19-0124-01	LAMP VISOR

B-100AP, B-100AP/R, B-100YP

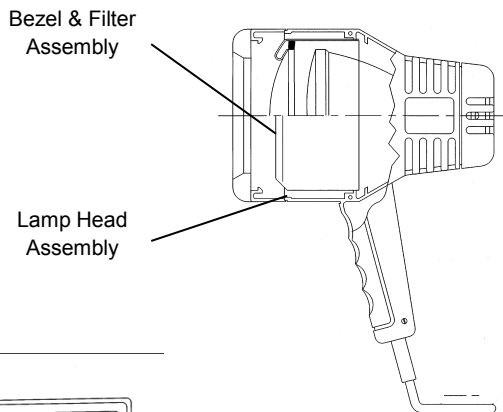
115 VOLT, 60 Hz; 220 VOLT, 50 Hz

PART NO. PART NAME

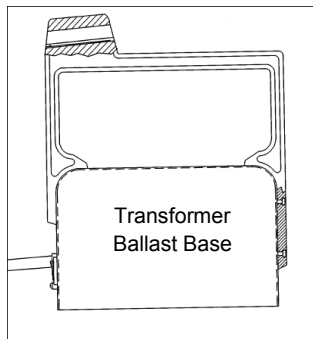
34-0054-01	SPOT BULB
36-0043-02	SOCKET, MEDIUM BASE
38-0168-01	BEZEL AND UV FILTER ASSEMBLY
38-0168-02	BEZEL & YELLOW FILTER ASSEM.
88-0016-01	BALLAST REPLACEMENT KIT, 115V
88-0016-02	BALLAST REPLACEMENT KIT, 220V
77-0007-01	B-100AP LAMP HEAD ASSEMBLY, 115V
77-0007-04	B-100AP LAMP HEAD ASSEMBLY, 220V
77-0007-05	B-100AP LAMP HEAD ASSEMBLY, 115V
77-0007-06	B-100AP/R LAMP HEAD ASSEMBLY, 220V
77-0007-07	B-100YP LAMP HEAD ASSEMBLY, 115V
77-0007-08	B-100YP LAMP HEAD ASSEMBLY, 220V



Models:
B-100A
B-100A/R
B-100Y



**Models: B-100A,
B-100A/R, B-100Y**



**Transformer
Ballast 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.

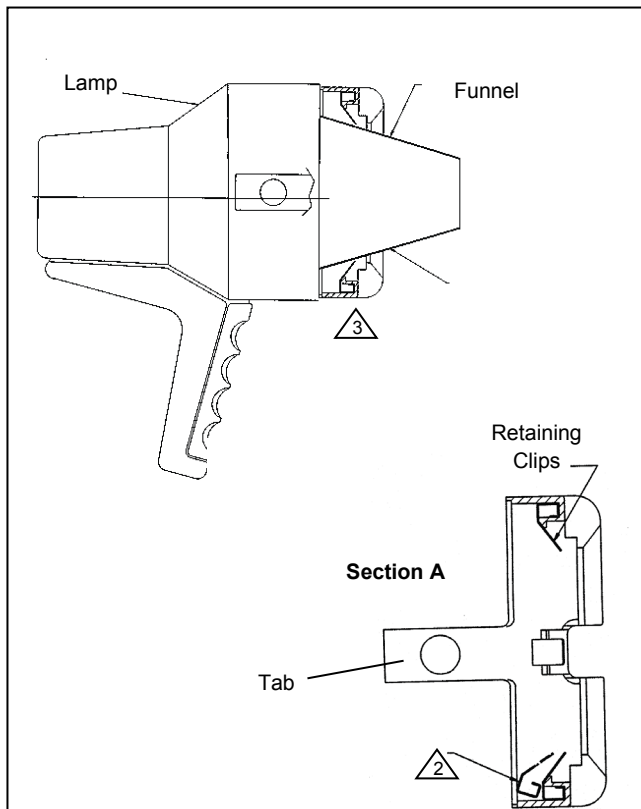
The UVX Radiometer and UVX-36 sensor or the J-221 UV Meter employ a dense ultraviolet filter and is specifically calibrated to read ultraviolet intensity of 365nm in mW/cm² from a line source lamp. An ordinary light meter will not deliver readings of ultraviolet energy.

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.
5. B-100A, B-100A/R and B-100Y lamp housings become hot during operation and care should be taken not to touch them. Lamp handles do not heat even after several hours of use.

Accessories

The **Lamp Funnel**, for use with the Cool-Touch models, can be used to direct the UV source directly where you want it, eliminating stray UV radiation. To attach, remove the plastic bezel from lamp by pulling side tabs apart and sliding the bezel off the housing. Insert the retaining clips in the four slots of the interior bezel as shown in Section A . Place the funnel in the lamp housing, reattach the bezel, over funnel, by pulling tabs on the side of the lamp apart and snapping into place. 



PART NO. PART NAME (Where Used)

The **Lamp Visor** shields the user's eyes from the UV and directs the UV onto the object of analysis. The Visor clips onto the sides of the lamp head. Side and front facing views shown. **Fig. 1** shows installation of the Visor on the B-100A, B-100A/R and B-100Y models.

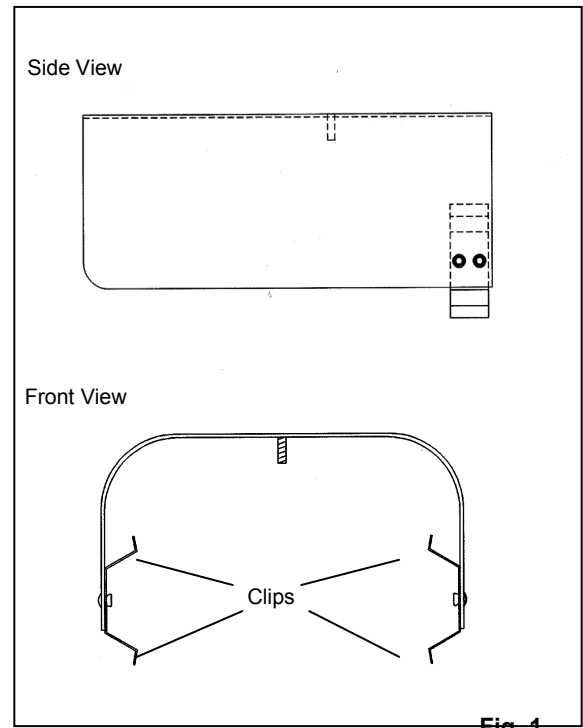
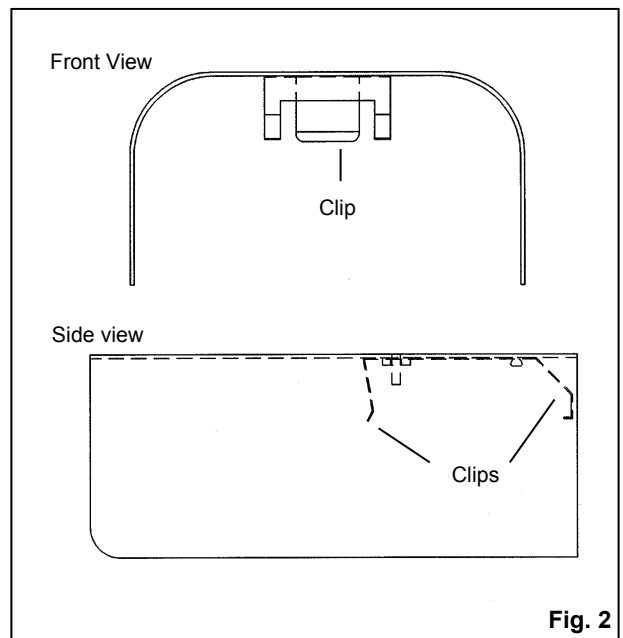


Fig. 2 Visor shown below is used with Cool-Touch lamps. Visor clips onto the top of the lamp head. Front and side facing views shown.



PART NO. PART NAME (Where Used)

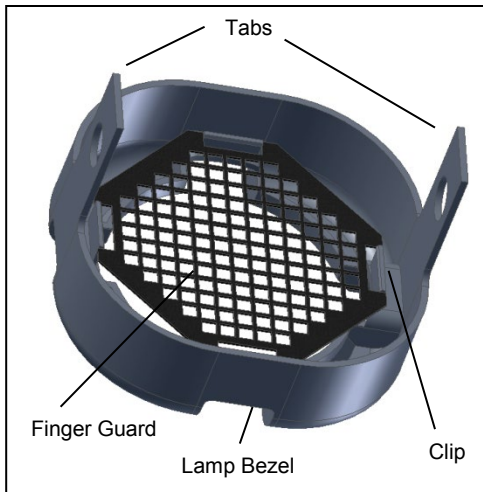
19-0124-01 LAMP VISOR (for B-100A, Y models)

19-0125-01 LAMP VISOR (for B-100AP, YP models)

✓ R

19-0126-01 LAMP FUNNEL (for B-100AP, YP models)

The **Finger Guard**, to keep fingers away from the filter glass, easily snaps into place on the face of the Cool-Touch lamps. To install, remove the lamp bezel by slightly pulling the tabs outwards on each side of the lamp to release. Lift the bezel off the lamp. Turn the bezel over so the side tabs are facing up. Place the finger guard in the lamp housing so that the four clips can be snapped over the finger guard.



PART NO.	PART NAME
89-0068-01	Finger Guard (for B-100AP)

Use the optional **Exposure Box** for exposure of samples at close range to the UV source in a semi-enclosed area.

Installation: Slide the Box onto the lamp housing, placing the metal tabs on the top of the Box into the "fins" on the body of the Lamp.



PART NO.	PART NAME
76-0055-01	Exposure Box (for B-100AP, B-100YP)

Product Warranty

Analytik Jena's products are guaranteed to be free of defects in materials, workmanship and manufacture for one (1) years from the date of purchase; transilluminators are guaranteed for (2) years. Consumable and disposable parts including, but not limited to bottles, tubes and filters, are guaranteed to be free from defects in manufacture and materials for ninety (90) days from date of purchase. If equipment failure or malfunction occurs during the warranty period, AJ shall examine the inoperative equipment and have the option of repairing or replacing any part(s) which, in the judgment of AJ, were originally defective or became so under conditions of normal usage and service.

No warranty shall apply to any instrument, or part thereof, that has been subject to accident, negligence, alteration, abuse or misuse by the end-user. Moreover, AJ makes no warranties whatsoever with respect to parts not supplied by AJ or that have been installed, used and/or serviced other than in strict compliance with the instructions appearing in the operational manual supplied to the end-user.

In no event shall AJ be responsible to the end-user for any incidental or consequential damages, whether foreseeable or not, including, but not limited to property damage, inability to use equipment, lost business, lost profits, or inconvenience arising out of or connected with the use of instruments produced by AJ. Nor is AJ liable or responsible for any personal injuries occurring as a result of the use, installation and/or servicing of equipment. This warranty does not supersede any statutory rights that may be available in certain countries.

