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## **Instructions for Mounting and Operation of ARC Model IS-434 Infrared Light Source**

**Description:**

The ARC Model IS-4343 is an infrared light source system designed for use with ARC SpectraPro™ series monochromators. It consists of an infrared light source element, housing with light collection mirror, and power supply. The light source element is factory installed and aligned prior to shipment. Adjustments are provided on the light collecting mirror mount in the event that realignment becomes necessary.

**Mounting:**

For proper operation, the lamp housing should be mounted to the entrance slit of the monochromator. The light collection mirror, located in the lamp housing, is designed to focus light from the light source element onto the entrance slit of the spectrometer. To mount the lamp housing to the entrance slit, use the following procedure:

1. Locate the two (2) shoulder screws and the two (2) 8-32 cap screws supplied with the IS-434. Insert the shoulder screws into the two bottom outside tapped holes of the entrance list of the monochromator and tighten. These are used to mount the lamp housing.
2. Remove the four (4) slotted screws from the top of the lamp housing, then remove the cover.

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**Do not touch the light source element or the surface of the focusing mirror**

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3. Carefully slide the two (2) “key hole” type slots of the lamp housing mounting flange over the should screws in the entrance slit of the monochromator. Insure that the top two holes of the lamp housing mounting flange align properly with the top two tapped holes of the monochromator entrance slit.
4. Insert the two (2) 8-32 cap screws in the top two holes of the lamp housing mounting flange and tighten.

5. Replace the lamp housing cover.

**Operation:**

1. Connect the cable between the lamp housing and power supply, then plug in the power supply.
2. Press the power supply on/off button to the “ON” position.
3. This light source operates at a temperature of approximately 1000 degrees K when operated at 11 volts and approximately 12 amperes. Adjust the knob on the power supply so that the panel meter reads 11 volts in the VOLTS position. Switch to the AMPERES position and check to see that the panel meter reads approximately 12 amperes.
4. The adjustment knob may be locked at the above setting, if desired.

To shut off the light source, press the power on/off button to the “OFF” position.