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Instructions for Mounting and Operation of ARC Model TS-428 250 Watt Tungsten-Halogen Light Source

Ver 2.0

TS-428.DOC

Description:
The ARC Model TS-428 is a 250 watt tungsten-halogen light source system designed for use with ARC SpectraPro™ series spectrometers. It consists of a 250 watt lamp as specified on the enclosed drawing, a housing with light collection mirror, and power supply with variable brightness control (250 watts to approximately 10% of maximum). The lamp 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 spectrometer. The light collection mirror, located in the lamp housing, is designed to focus light from the lamp onto the entrance slit of the spectrometer. To mount the lamp housing to entrance slit, use the following procedure:

1. Locate the two (2) shoulder screws and the two (2) 8-32 cap screws supplied with the TS-428. Insert the shoulder screws into the tow bottom outside tapped holes of the entrance slit of the spectrometer 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.

Do not touch the lamp (bulb) 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 shoulder screws in the entrance slit of the spectrometer. Insure that the top tow holes of the lamp housing mounting flange align properly with the top tow tapped holes of the spectrometer entrance slit.

4. Insert the two (2) 8-32 cap screws in the top tow holes of the lamp housing mounting flange and tighten.

5. Replace the lamp housing cover.

Operation:
For operation, connect the cable between the lamp housing and power supply, then plug in the power supply. Press the power on/off button on the front of the power supply and adjust brightness to desired level. To shut off the light source, press the power on/off button.

Note: The light source may be turned on or off at any of the brightness settings without damage to the lamp.

6. Remove the (2) shoulder screws from the plastic bag. Insert the (2) shoulder screws in the (2) tapped holes along the lower edge of the adapter plate.

7. Remove the four (4) slotted screws from the top of the light source, then remove the cover.

Do not touch the lamp (bulb) or the surface of the focusing mirror

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8. Carefully slide 2 of the 3 "key hole" type slots in the light source mounting flange over the 2 shoulder screws in the adapter plate. The light source mounting flange has (4) clearance holes in line near the top edge. Assure that the inner pair of clearance holes in the light source mounting flange align properly with the two tapped holes along the upper edge of the adapter plate.

9. Insert the (2) 8-32 x ½" cap screws from the plastic bag in the inner pair of clearance holes in the light source mounting flange and tighten.

10. Replace the light source cover.

The FA-448 Filter Assembly and Modified Light Source are now ready for use. Refer to the filter assembly and the light source instructions for operation.

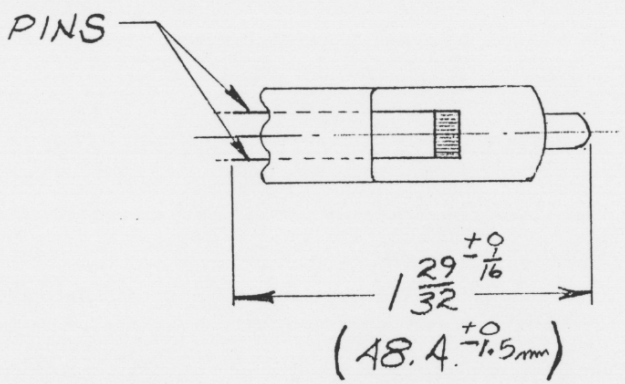
Supplemental Instructions
for TS-428DC
Tungsten-Halogen Light Source

The TS-428DC is a 250 watt tungsten-halogen light source powered by an adjustable regulated DC power supply. The lamp is rated for 250 watts at 24 volts. Refer to the TS-428 instruction manual for mounting the source housing into the SpectraPro monochromator. Refer to the enclosed OEM instruction manual for operation of the DC power supply and delete the section in the TS-428 instruction manual referring to the standard issue power supply. Connect the power cable supplied with the TS-428DC between the lamp housing land the circular connector on the rear panel of the DC power supply. Adjust the current limit to the maximum on the power supply and use the voltage control of the power supply to adjust the intensity of the lamp. When the power switch to the DC power supply is turned on, the fan in the lamp housing will turn on simultaneously.

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REV.	DESCRIPTION	DATE

IF NECESSARY, TRIM PINS WITH WIRE CUTTERS TO LENGTH SHOWN



NOTES:

1. DUE TO SIZE RESTRICTIONS, LAMPS MUST BE GTE/SYLVANIA TYPE EHJ DATE CODE "XT" OR LATER (NO SUBSTITUTIONS).
2. DO NOT HANDLE LAMP WITH BARE FINGERS. USE WHITE GLOVES OR PROTECTIVE PAPER SLEEVE SUPPLIED WITH LAMP.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ON FRACTIONS ± 1/64 DECIMALS .xx ± .010 .xxx ± .005 ANGLES ± 15 MIN MACH. SURFACE 32 MAX. REMOVE ALL BURRS & BREAK SHARP EDGES .010R. MAX.	MATERIAL SEE NOTE #1	FINISH SEE NOTE #2
	SCALE: FULL	1ST #12847
	DATE: 12-6-90	NEXT ASS'Y
		DRAWN BY KRA
		QTY 1
	ARC ACTON RESEARCH CORPORATION	BOX 215/525 MAIN ST. ACTON, MA 01720
DWG. TITLE 250 WATT LAMP SPECIFICATIONS	SIZE A	DWG NO. 8401-107-17
		REV.

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