



530 Main Street, Acton, MA 01720

Phone: (978)263-3584, **Fax:** (978)263-5086

Web Site: www.acton-research.com

**Instructions for Mounting and Operation of
ARC Model TS-425
20 Watt Tungsten-Halogen Light Source**

Description:

The ARC Model TS-425 is a 30 watt tungsten-halogen light source system designed for use with ARC SpectraPro™ series spectrometers. It consists of a 30 watt lamp (DZA), housing with light collection mirror, and power supply. 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.

Installation Instructions

TS-425

Important: These instructions are valid for TS-425 Light Sources bearing certain serial numbers.

If the last three digits of the serial number are 111 or greater please use these instructions. If the last three digits of the serial number are less than 111 then disregard these instructions and use the following Mounting instructions.

Your TS-425 Quartz Tungsten Halogen Light Source is shipped with an installation kit which includes the following parts.

Part	Quantity	Description	ARC Part No.
Mounting Screws	3	8-32 X 1/4" Black Alloy	100-120-015
Spacer	1	3/4"	8401-025-66
Hex Wrench	1	9/64"	700-100-008

There are two variations for the installation of the **TS-425**. One set up assumes the use of either of the two optional Filter Wheel Assemblies **FA-448** and **FA-448-2**. The other set up is designed for using the **TS-425** without a filter wheel.



Model TS-425 Light Source

Using Filter Wheel

- 1) Be sure that there are no cable connections made to the TS-425 Light Source and that it has had sufficient time to cool.
- 2) Insert the 3 1/4" Black Alloy Screws through the back of the TS-425 plate as shown in step 1.
- 3) Place the Filter Wheel on the mounting screws as shown in step 2.
- 4) Align the assembly with the corresponding holes on the entrance slit and tighten with the 9/64" hex wrench as shown in step 3.



Step 1.



Step 2.



Step 3.

No Filter Wheel

- 1) Be sure that there are no cable connections made to the TS-425 Light Source and that it has had sufficient time to cool.
- 2) Insert the 3 1/4" Black Alloy Screws through the back of the TS-425 plate as shown in step 1.
- 3) Place the Spacer on the mounting screws as shown in step 2.
- 4) Align the assembly with the corresponding holes on the entrance slit and tighten with the 9/64" hex wrench as shown in step 3.



Step 1.



Step 2.



Step 3.

Mounting (serial numbers that are less than 111 ONLY):

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 the entrance slit, use the following procedure:

1. Position the TS-425 light source module at the entrance slit of the monochromator with the connector of the light source module toward the front of the monochromator.
2. Attach the light source module to the entrance list assembly of the monochromator with the four 8-32 cap screws provided.

Do Not Touch the Lamp (Bulb) or the Surface of the Focusing Mirror

Operation: (All Serial Numbers)

For operation, connect the cable between the lamp housing and power supply, then plug in the power supply. Press the power on/off switch on the front of the power supply to the ON position. It is normal for the light source to pulse several times before coming on. To shut off the light source, press the power on/off switch to the OFF position.