



Spectral Products

## AB300-T Automated Filter Wheel Instructions

1049497

i. **Filter Installation:** To install or change filters, the Filter Wheel Housing must be opened by removing the four 6-32 SHCS screws located in the corners of the housing with a 7/64" hex key. Using a small flat screwdriver, unscrew and remove the filter-retaining ring from the desired filter position. Place the filter in that position and replace the retaining ring, tightening until the filter is held snugly. **CAUTION:** *Assure that you document the position number of each filter for your records.*

ii. **Mounting to Monochromator:** The Filter Wheel Housing may be installed on either the entrance or exit slits of the DK240, DK242 & DK480 Monochromators as follows:

- a. Exit Slit: While the cover is off of the Filter Wheel Housing, remove the four flat head screws that surround the slit aperture from the Exit Slit Cover Plate and install the Wheel Housing Cover Plate directly over this plate with the same screws. Then install the Filter Wheel Housing by re-fastening the four screws removed in #1 above.
- b. Entrance Slit: While the cover is off of the Filter Wheel Housing, remove the four flat head screws that surround the slit aperture from the Entrance Slit Cover Plate and install the Wheel Housing Cover Plate directly over this plate with the same screws. Then install the Filter Wheel Housing by re-fastening the four screws removed in #1 above.

### iii. **Software Operation**

- a. CONTROL MODULE OPERATION (DK2400): Pressing the Source/Filter key allows for selecting the Filter Wheel option. Press 1 for Filter Wheel control. The display will then show the current filter and a choice to select other positions as illustrated below:

CURRENT FILTER = 1  
NEW FILTER ? [1-6] = \_

1. For fine tuning control, this display occurs:

FINE ADJ.?

1 = REV 7 = FWD ← QUIT

- b. RS232 OPERATION (via computer control):

FILTER command: <15><sub>D</sub> <Position Byte><sub>D</sub>

Sent to Monochromator: <15><sub>D</sub>

Echoed by Monochromator: <15><sub>D</sub>

Sent to Monochromator: <Position Byte><sub>D</sub>

(Of the 6 valid values of the position byte 1-6, select one)

Sent by the Monochromator: <Status Byte><sub>D</sub>

(The status byte is described in the Monochromator's Manual)

Action by Filter wheel: Moves to selected position

Sent by Monochromator: <24><sub>D</sub>



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- c. GPIB OPERATION: The command string "FILTER N" IS USED, where N takes the value of the filter position (1-6). For general information about GPIB command formats please consult your manual.