

**Addendum to SP-300  
Operating Instructions for  
Use With 300749 Scan Control Software  
and HP-48 Calculator**

When using the Acton Research Corporation 300749 software with the HP-48 calculator please note the following changes in operation from those described in the manual..

**SP300 MENUS:**

**GOTO and SCAN**                      Wavelength readout is to nearest 0.01nm

**GRAT:**                      Allows for use of up to 9 gratings using 3 turrets. Gratings are selected using A, B and C function keys. E and F function keys change turrets. Use the NXT key below the F function key to select the turret you are now on if it is not shown correctly. To exit this menu continue pressing NXT until QUIT is shown and then press the F function key to return to the previous menu.

**TURR:**                      Shows the g/mm of all gratings on all turrets and the currently selected turret.

**DIVTR:**                      Displays state of the motorized diverter mirrors which are installed in the instrument and allows setting the position of each installed mirror with the "FRNT" and "SIDE" labeled function keys. Use "QUIT" to return to SP300 menu.

**TO EXIT SP300 MENU:** Use the NXT key below the "F" function key to display the "Quit" label. Use the "F" function key to exit the menu.

## UTIL MENUS:

**INST:** Used to install gratings. There are two sets of sub-menus for this function. They are as follows:

GRAT GROV BLAZE HOL NM MCRN

UN DONE EXIT

To switch between these menus, use the NXT key below the F function key. When selected, the location, groove density and blaze of six gratings are displayed. The arrow shows the current grating position and the seventh line of the display shows the grating currently selected to be changed. If the desired grating is not shown, use the GRAT function by pressing the A function key and the list of gratings will now include the one selected.

**GRAT:** Allows selection of the grating to be installed or uninstalled. When selected the number of the grating is shown on line 7. Note that the parameters shown with the grating on line 7 are parameters for the current grating position and not the one selected to be changed.

**GROV:** Sets the groove density for the grating selected to be changed or installed. Up to four digits may be entered from the keypad.

**BLAZE:** To set the blaze, first select the units for the blaze wavelength using the D (hol), E (nm) or F (mcrn for microns). The units will show up on the seventh line. Then select the BLAZE function using the C function key. Use the left arrow key (with the small p to the right) on the second line below the function keys to space all the way to the left past the units. Enter the desired blaze wavelength. Use the SPC key on the bottom row to enter a space. Press enter when complete. When the information on the seventh line of the display is correct, press the NXT key to bring up the other set of functions and select DONE using the B function key.

To Uninstall a grating, use the GRAT function to select the grating to uninstall, use the NXT key to get to the alternate set of functions and select UN using the A function key. The selected grating will be uninstalled.

Use the F function key to Exit this menu.

- CKSU:** Computes the checksum of the installed PROM and displays this value for 5 seconds.
- INIT:** Resets the monochromator. Same as MONO-RESET command.
- GPIB:** Displays and allows changing the GPIB address. Valid addresses range from 1 to 30. The default address is 11. If it is desired to confirm and not change the address, press the enter key without entering a number.
- RESTO:** Restores factory default settings for grating calibration. Use this function with caution; it affects the calibration of the monochromator.
- MODL:** Displays the model number of the monochromator for 5 seconds.

To exit the UTIL set of menus, press the NXT key and press the F function key.