ALBA box commands

The Alba box command has been recently updated. Below is a copy of the screen

The commands are divided in two channels and for each channel there is a pinhole and a lens. Each pinhole has 9 positions plus an empty position. The pinhole main position is chosen by the command in the green area. Select a pinhole main position and press the GO TO button. To calibrate a pinhole (an operation that should be done only upon installation) press the HOME button in the green area. The Home command sends the motor to the end of run position and reset the position indicator to show zero for the end of run position. The pink area shows the position and commands

The red area shows the basic manual commands for moving a single device a number of steps. Select the number of steps and then press up-down left or right. The position is the actual position of the motor in steps. Each step is 1.6um in physical space. You can also enter a position manually end then press the GO TO command to go to the selected position. To calibrate a motor, select the motor in the aqua area and press HOME.

In the blue areas, there are some commands that could facilitate the calibration of the pinhole. These commands are intended to be use in automatic mode. Note that the automatic mode only works if there is appropriate intensity as measured but the detector. If the intensity is too low or too high, the automatic calibration cannot work. All pinhole position can be edited and printed for your record. The calibrate pinhole command attempts to maximize the intensity read by the detector as the pinhole is moved in small steps around the chosen position. If the position is too far, the auto mode will not work.

To explore a range for a motor, use the commands in the aqua area. Each motor can be moved a certain amount, symmetrically from the current position. The amount explored depends on the number of points and by the step selected for each motor. The intensity measured at each position is shown on the graph. You can move a cursor on the graph and tell the motor to go to the position selected by the cursor. Then you can assign this position to the device. The coordinates will be stored as the “best: position for the device.
In summary, the preferred alignment is to select a motor (in the aqua area) and explore a region. Select the region of maximum intensity and store this position. Repeat for each motor. This is a relatively fast procedure.

I tried the automatic procedure. It works well only if the intensity is large and stable and the computer can find the maximum. If the signal is noisy, the search stops at the first partial maximum found. By looking at a range, it is very easy to decide which position is giving the best intensity.