GETTING A GOOD IMAGE

The following controls are for different views on the television set.

CONTRAST: (use manual)

Manual (quicker than auto and you can get about the same contrast)
1) Press the Auto contrast button to the Manual setting

2) Press the ***** button one time.

3) Look at the right television screen- there should be a frozen line scan.

4) Adjust the brightness and contrast knobs to move the line up and down. Move the line so that about 90% of it is in the “bright” section that you can see near the center of the screen.

5) You can check to see what your image looks like by pressing one of the image scan buttons shown above.

Auto:
1) Press the Auto contrast button to the Auto setting.

2) Press the ABC button

3) Wait five seconds until contrast is ready.

FOCUS: (use auto)

Auto:
1) Press the Focus switch so that it is in the auto setting.

2) Press the coarse focus button.

3) Listen for a beep. Then press the focus fine button.

STIGMATISM:

Auto:
1) Press the auto stigmater button. Wait for the beep.
DISTANCE OF SAMPLE TO SEM:
You want to be about 6mm away for fine resolution (with coated samples) and 10mm away with the backscatter (N-SEM non-coated samples)

To move sample to correct distance:
1) Press one of the focusing buttons once. The focal distance from the sample to the SEM will be shown in the magnification window.
2) ****Press the “focusing” button up or down to make your focal plane at the correct distance from your sample.
3) Then, when the focal plane is correct, use the manual Z bar on the front of the SEM to move your sample into focus.
4) Refocus using auto focus.

BEAM SIZE:
This refers to the size of the electron beam that is scanning your sample. You want a big spot for low magnification (fly eyes are low mag at 100x). A smaller beam will focus the electrons on your sample in a much smaller area and can ruin your sample. So only use a smaller beam for much higher mag (10,000x).
To adjust the beam:

FILTERS:
You probably want all the filters off. To set the filters off (or on):
1) Press either the one triangle or two triangle scanning buttons.
2) Press F3.
3) Turn all filters off.

BRIGHTNESS:
By playing with these controls with your frozen image you might be able to get a better looking image by highlighting important features. You can only do this with a frozen image.
1) Freeze the image by pressing the **** button.
2) Press F7.
3) Adjust the controls with the arrow keys.