

University of Arizona CAMECA SX100

Post Sample Change Start-up

- Page 2** Turn on the Electron Beam
- Page 6** Select the sample holder image and move to the sample
- Page 12** Turn on BSE Z mode
- Page 19** Appendix 1 – Manually adjust BSE brightness and contrast

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CAMECA SX100**

Turn On the Electron Beam

Step 1

If Necessary - Open the Beam Setup Window.

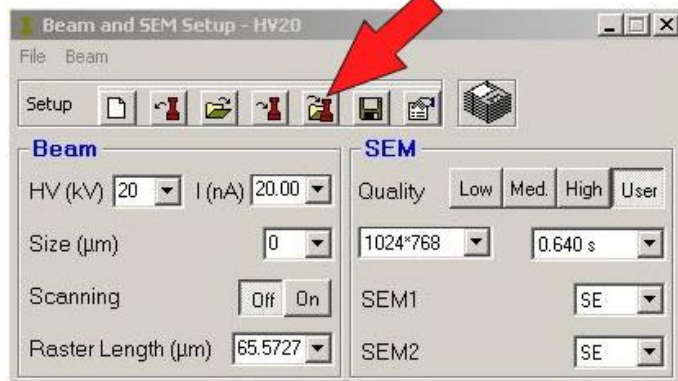


Press This Button

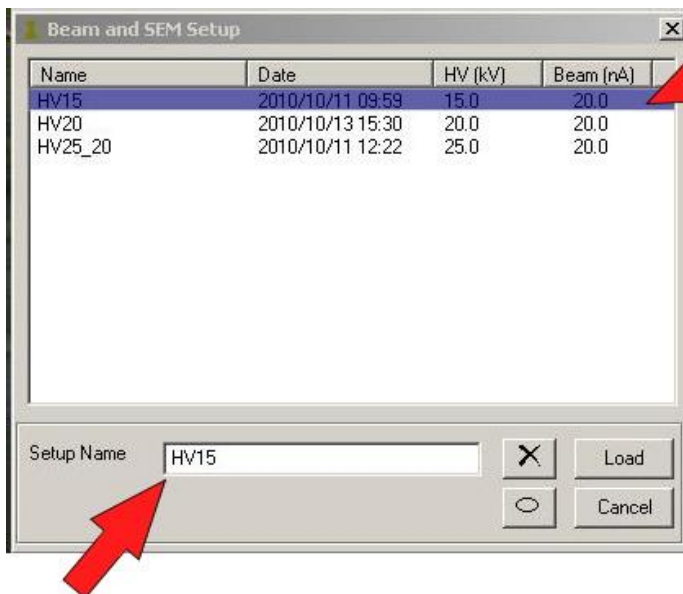
Step 2

Start the Electron Beam

Press This Button



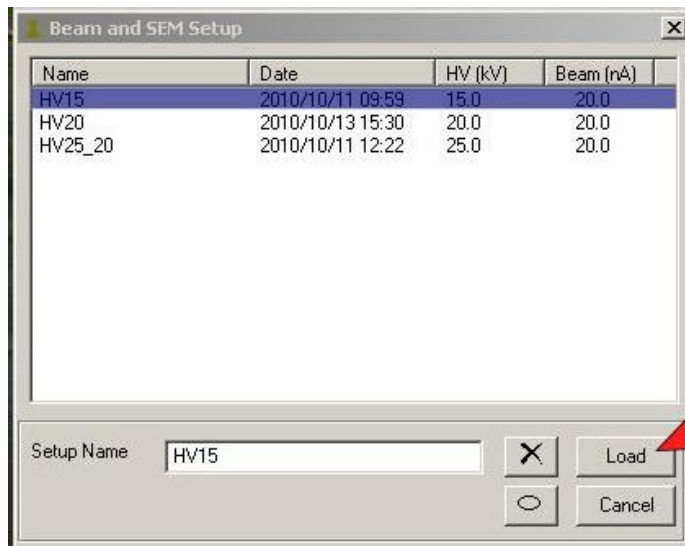
Then



Select the Beam Setup
(usually HV15)

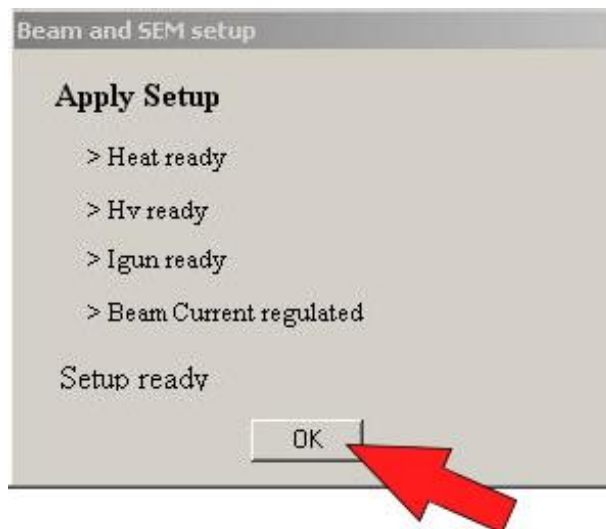
Double check that the Setup appears here

Then



Click Load

Wait for the Message window to show the OK button.



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CAMECA SX100**

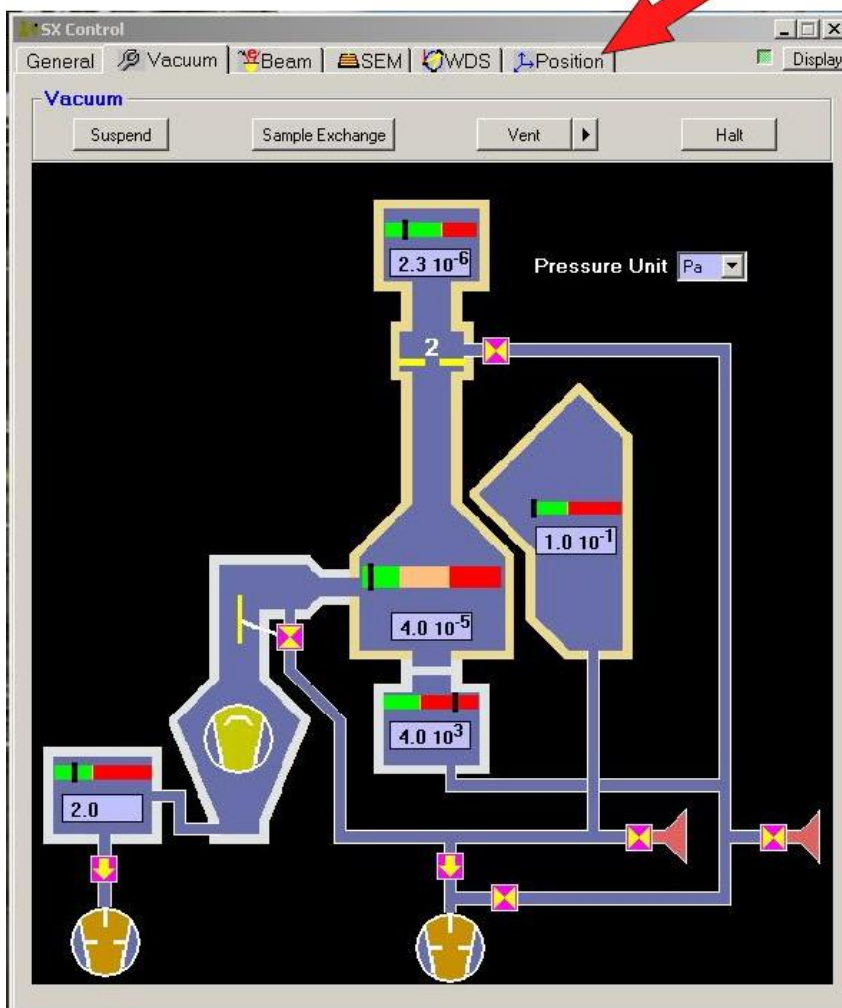
**Select the sample holder image
and move to the Sample**

Step 1

Select a Holder and Move to your Sample.

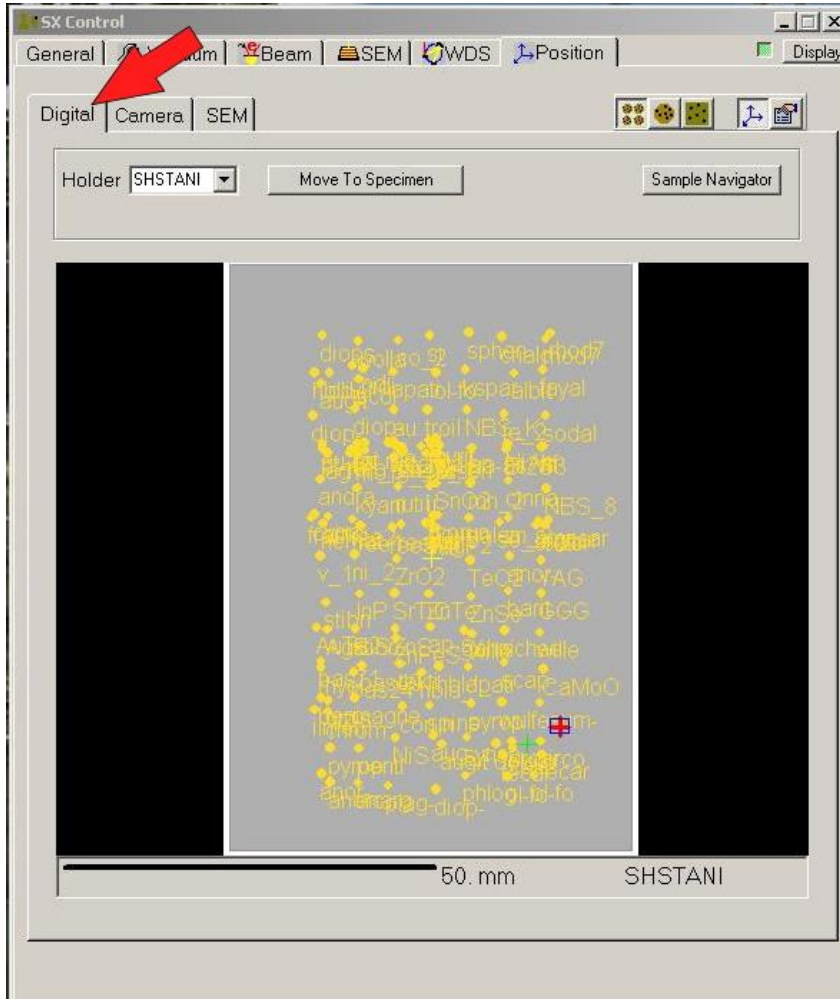
A) Open the “Position” tab.

Click This Button



B) If necessary – Change to the “Digital” sub-tab.

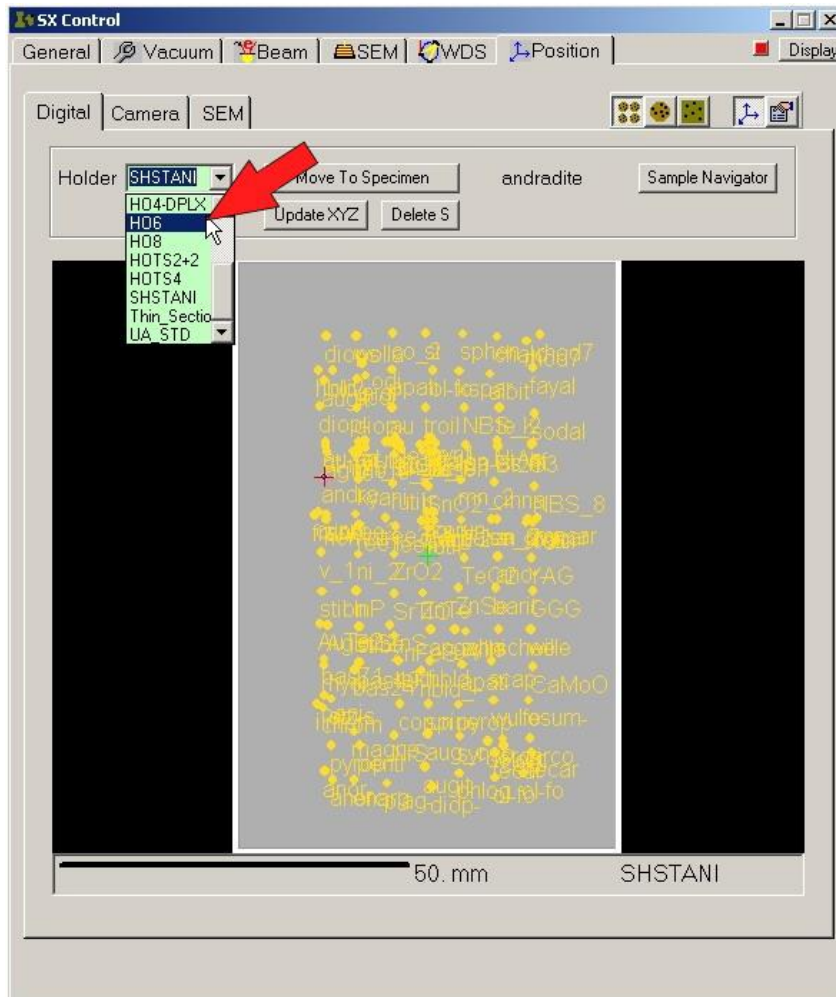
Click This Button



C) Select the Correct Holder.

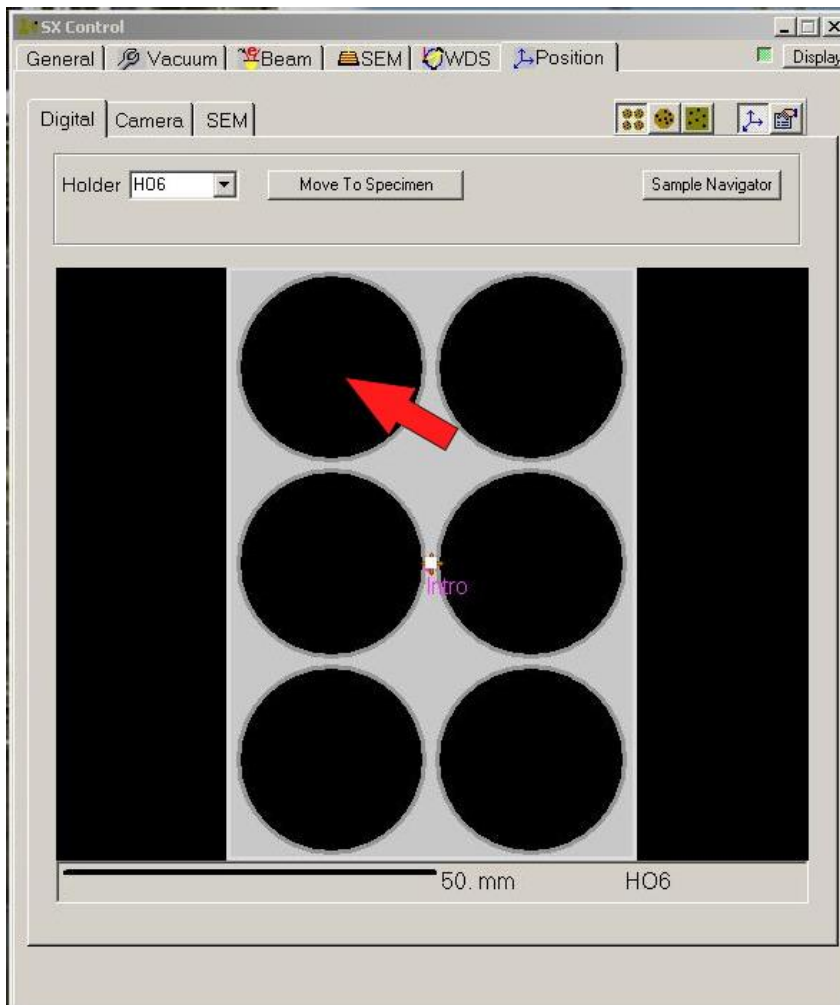
(Usually either “HO6” or “Thin Section”)

Click This Button



D) Move to your Sample.

Double click on the approximate position of your sample.

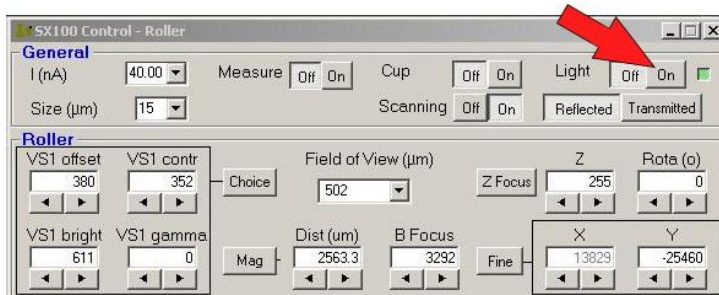


Step 2

Turn on the light and focus optically.

A) Turn the Optical Light ON

Click This Button



B) Focus Optically on the standard using either the Z wheel or the autofocus button.



Before Focusing



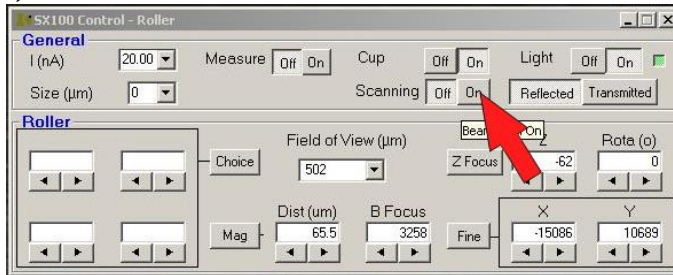
After Focusing

**University of Arizona
CAMECA SX100**

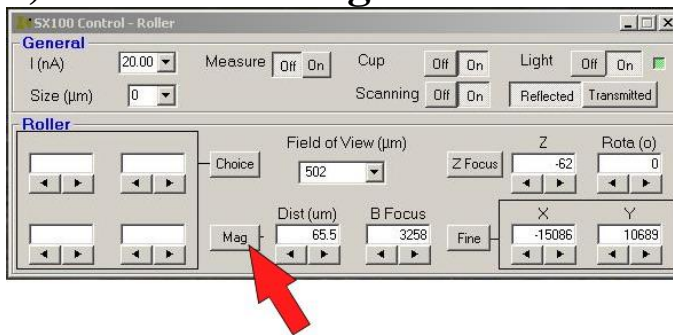
**Turn on BSE Z mode
(if necessary)**

Step 1 Turn on the SEM screen

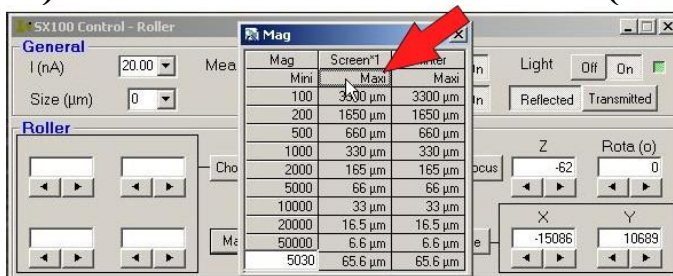
i). Turn the Scan Button ON.



ii). Click the Mag Button.



iii). Double Click on “Maxi” (Minimum Magnification).



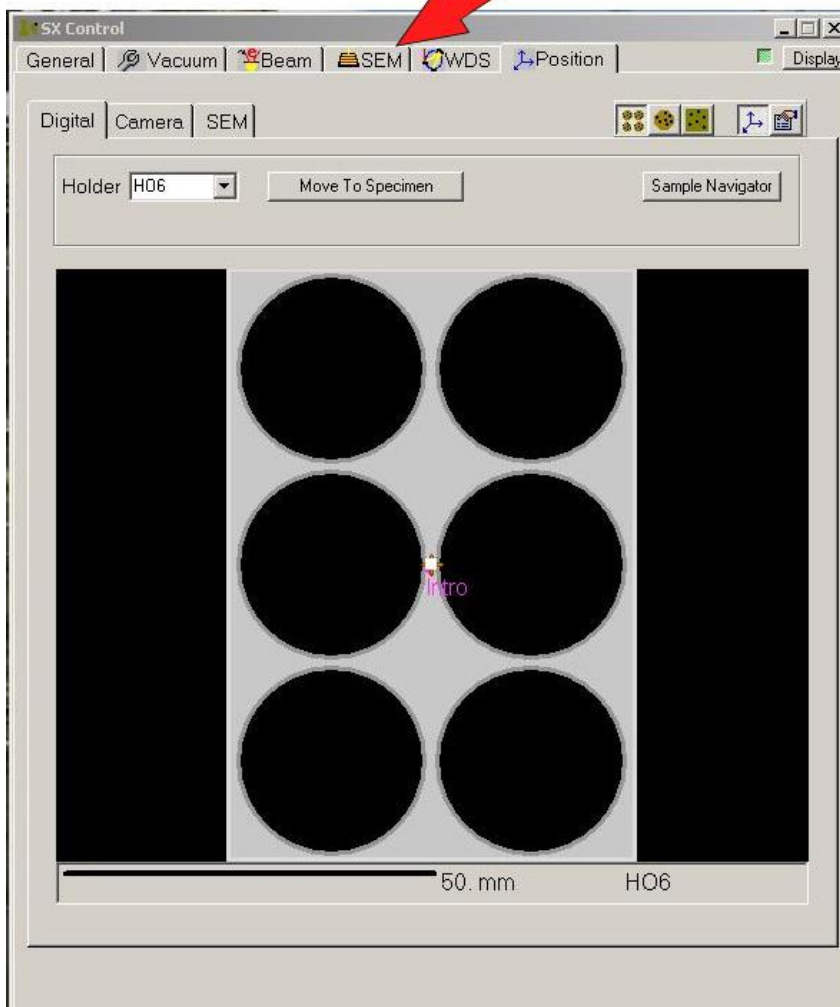
iv). Click the Cup OFF button.



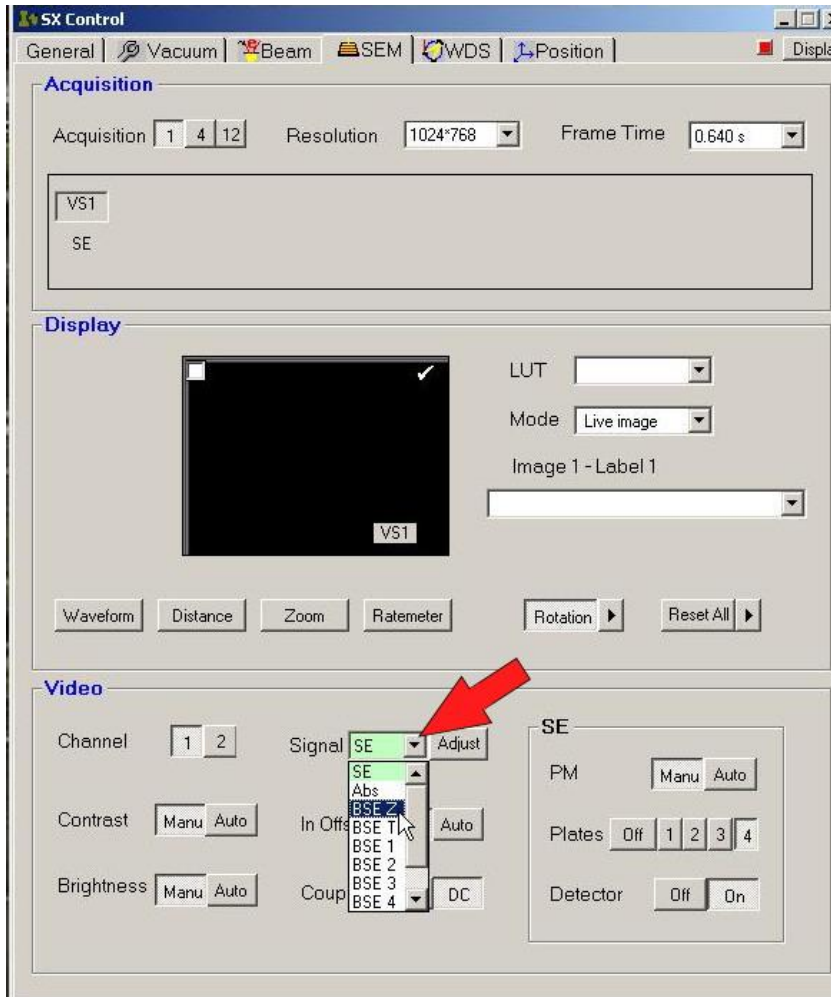
Step 2 Turn on the BSE

A) Open the “SEM” Tab

Click This Button



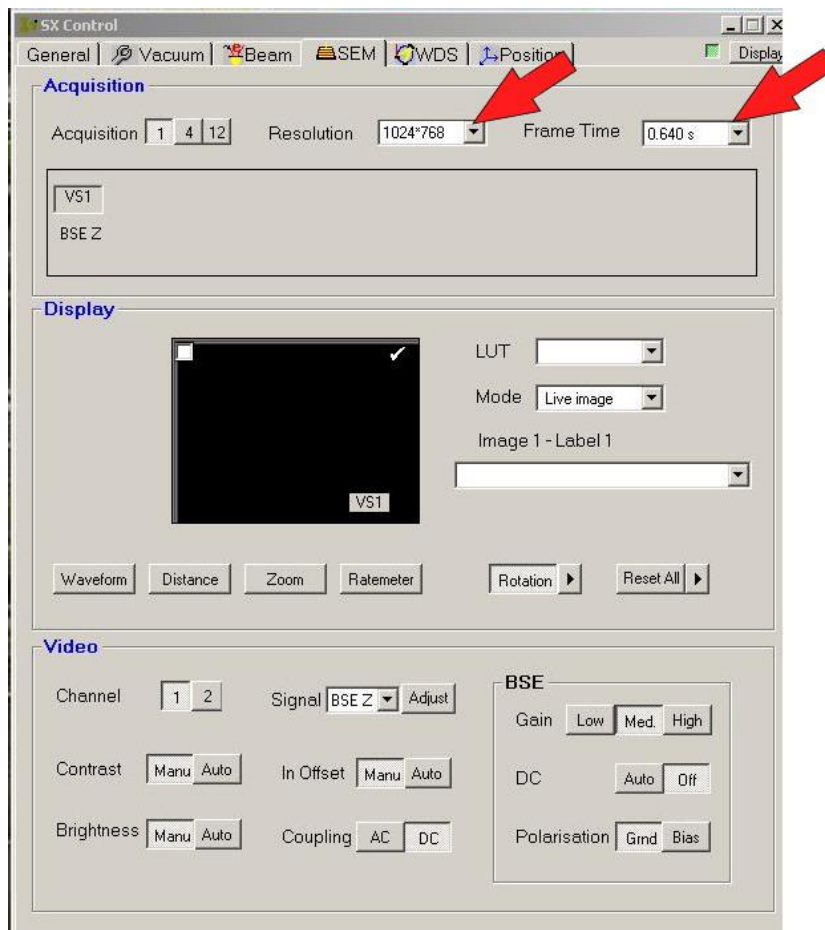
B) Turn on BSE Z mode



Click this Button and select **BSE Z** From the drop-down menu.

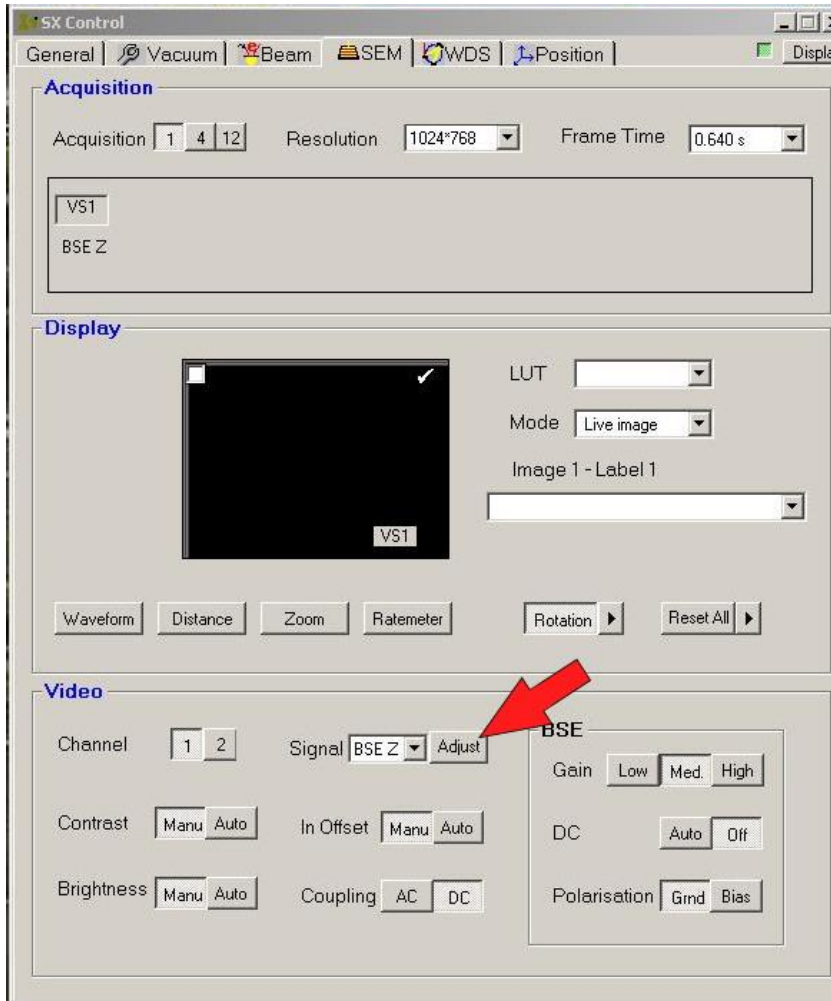
C) Check that the Resolution and Frame Time are set to their normal values

(Resolution 1024, Frame Time 0.640)



D) Adjust the magnification so that your sample fills the screen.

Then:



Click this Button.

Note: The BSE contrast should automatically adjust itself.

Step 3

If you like the BSE image then you are ready to go.

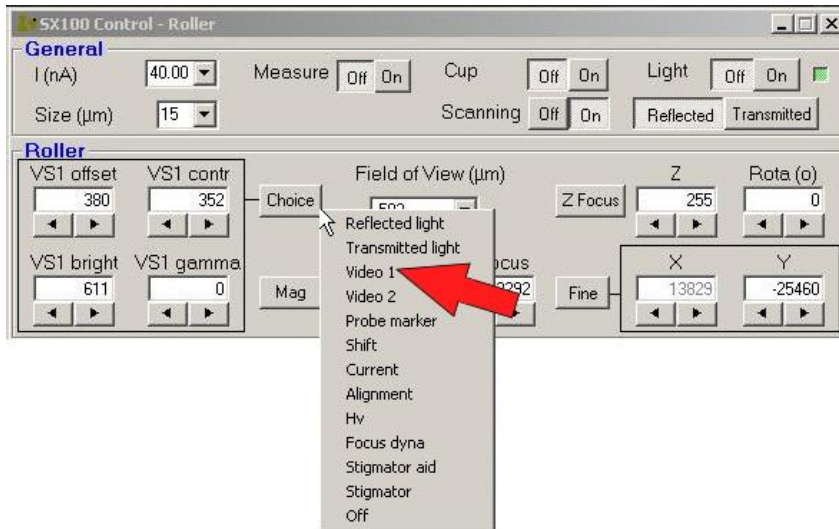
If not see Appendix 1 Manual Contrast Adjustment.

**University of Arizona
CAMECA SX100**

**Appendix 1
Manual BSE Contrast Adjustment**

Step 1

Click on the Roller Choice Button and select “Video 1” from the pull-down menu.



Step 2

Use the Roller Wheels to adjust the BSE Image.

Wheel 1 - VS1 offset - Major Light-Dark Adjust

Wheel 2 - VS1 contrast - Contrast Adjust

Wheel 3 - VS1 bright - Minor Brightness Adjust

Wheel 4 – VS1 gamma – rarely needed