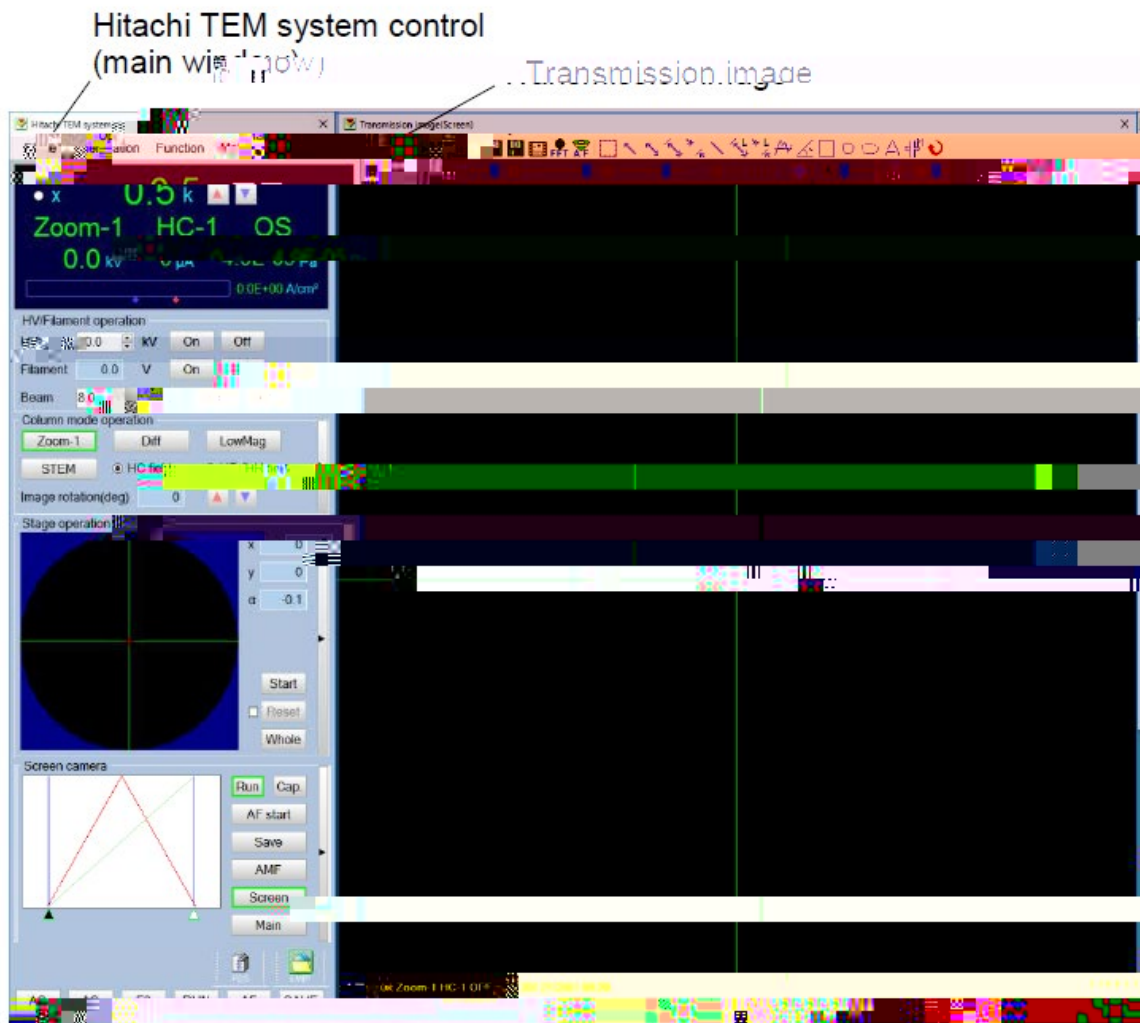
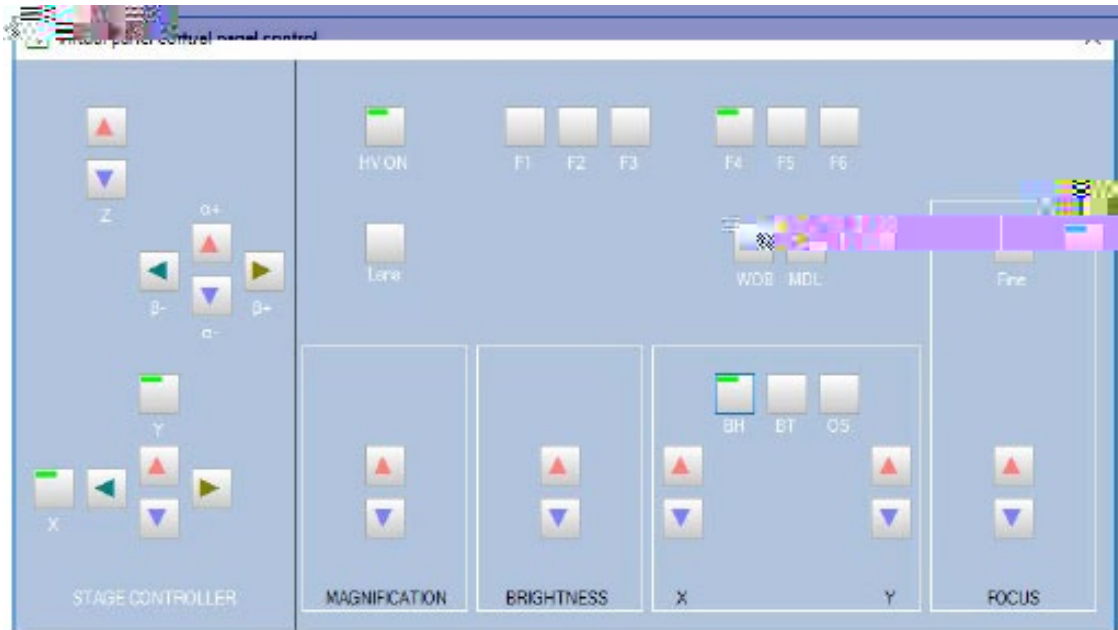


HT7800 Transmission Electron Microscope Instruction (remote)

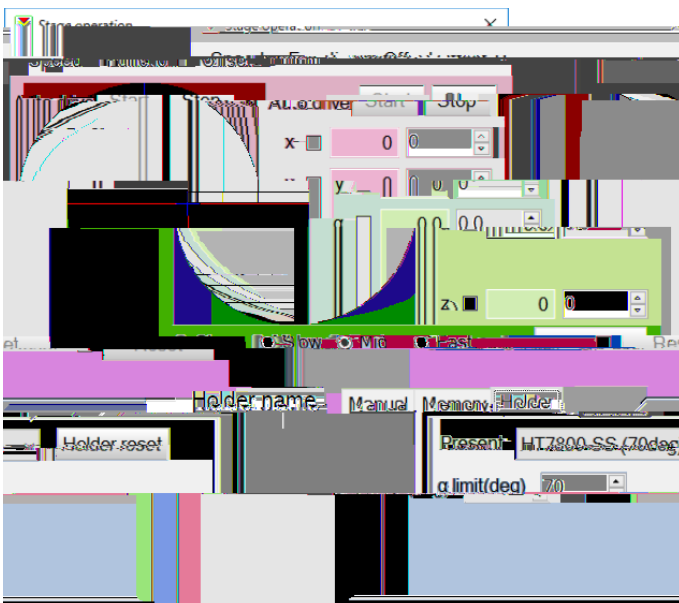
Startup procedure:

1. In Hitachi TEM system control window, make sure HV is on (the “on” button next to the HV tab is green), then turn on filament by clicking “on” button next to filament tab and turn on emission by clicking “on” button next to emission tab in HV/filament operation section of TEM system control window.
2. In Hitachi TEM system control window, select “Zoom-1” and “HC”; Click “Maintenance” pull down menu, select “open virtual control panel”; then press “BH” button. At last, make sure in the information area of the TEM system control panel shows “Zoom-1”, “HC-1”, “BH”.





3. In TEM system control window, click on “**Screen**” button in camera section to choose screen camera.
4. In Transmission emission window (this window can be open by click on the small black triangle on the right side of screen camera section in TEM system control window), check on “**auto LUT**”, click on **R** button to reset gain and offset.
5. In TEM system control window, click on the small black triangle on the right side of stage operation section. Click on **Holder tab** and choose the appropriate sample holder you are using. Then check on “**holder reset**” button to reset sample holder.



6. On the Virtual panel control, Click **“lens”** button to reset lens.
7. **Centering the beam:** On the Virtual panel control, centering the beam by changing the **brightness button** to let the beam form a spot, then use the **X and Y button in the BH section** to center the beam spot.
8. **Change magnification and move sample position:** On the Virtual panel control, change the magnification by click on the **Magnification** up or down button; Moving sample position by **X left or right button**, or **Y up and down button**.
9. **Focus image:** Click on the **“AF start”** button in screen camera section of TEM system control window. Image can also be fine focused by using the **focus up and down button** in the Virtual panel control.
10. **Before capturing images:** REDUCING the brightness of the image by using the **brightness button** on the Virtual panel control; Then on TEM system control window, click on **“main”** button in camera section to switch to main camera. In the Transmission imaging window, check on **“auto LUT”**, and click **“R”** button to reset gain and offset.
11. **Capturing images:** In TEM system control window, in camera section, click **“save”** button to capture and save image by choose file folder and type in image file name. (* all the user images should ONLY be saved in **“user”** folder on desktop. Recommending building a new folder with your name on it in the **“user”** folder.)

Turnoff procedure:

1. **Back to screen camera** by click on **“screen”** button in the TEM system control window
2. **Reset lens** by Click **“lens”** button in Virtual panel control.
3. **Turn off emission** by clicking **“off”** button next to emission tab in HV/filament operation section of TEM system control window.
4. **Turn off filament** by clicking **“off”** button next to filament tab in HV/filament operation section of TEM system control window.