Upgrading your ITX System Firmware

Changes in v09609 –

This maintenance release includes support for the following functions. If you do not have a need for these functions, you do not need to update the firmware.

- Unit will turn the vacuum pump off automatically if a measurement is completed and the system loses communication with the PC.
- Modified the minimum profile size that can be scanned in a profile or custom chart measurement. (note: need version ITX v1.5 or higher to use this feature).

The ITX hardware must be configured at factory defaults prior to beginning the firmware upgrade. For most customers this is the normal circumstance. Factory default uses static IP addressing and the provided crossover (yellow) interface cable. The notes that follow detail the upgrade process.

Setting Static IP mode –

1. Ensure that the computer and the ITX track are connected with the provided crossover (yellow) interface cable.

2. Gently pull the head away from the station (about 6 to 8 inches). The status indicator will turn to a steady orange.

3. Press and <u>hold</u> the station button. Continue to hold until the status indicator begins to flash green (about three seconds).

4. Release the button and then press it four more times. The status indicator will go from flashing green, to flashing orange, to flashing red, and finally to alternating orange and green.

5. After the forth press, wait about two seconds and then press and <u>hold</u> the station button again. In approximately three seconds, the scanning head will return to the station. The status indicator will continue to flash orange and green and then will become a steady green after a few seconds.

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Flashing the Firmware –

1. Shutdown any and all firewall and anti-virus software that you may be running. If you are unsure please seek assistance from your Information Technology department.

2. Insert your upgrade CD into the optical disk drive.

3. Launch the ITX program.

4. Click on the "**ToolCrib**" icon.
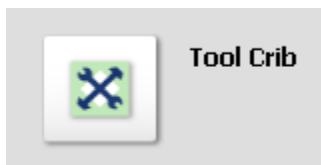
5. You will be prompted to enter your password.

6. Ensure that "ITX" is selected in the "**ToolCrib**" dialog. Then click on "**Go**".
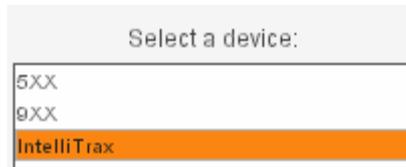
7. Using the "**Setup**" tool, select the first tab, "**Download**". The Instrument Information dialog will show your current hardware status. In the screen below, the hardware has just been updated to v06502 and v07727.


STOP: Ensure that your existing firmware number begins with "v06 or v07". Older firmware cannot be updated in the field.
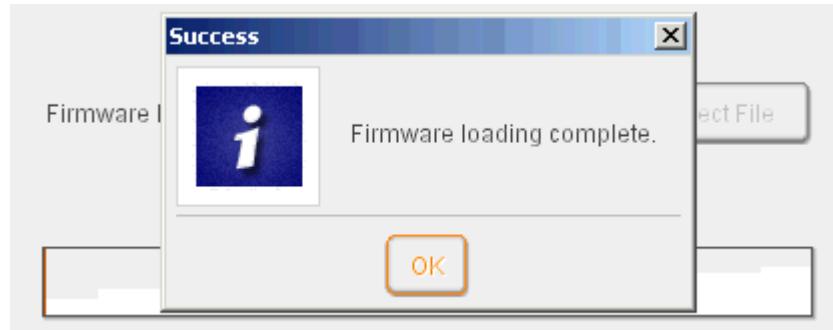
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8. Click on the "**Select File**" button and browse to the upgrade CD. Select the **.hex** file on the CD and click **OK.**

9. You are now ready to load the firmware. To continue, select the "**Load Firmware**" button.

10. The upgrade process will take almost 10 minutes to complete. During this time you will see a progress bar beneath the load firmware button. Do not interrupt this process! If this process is aborted, the hardware will be left inoperable and will require factory repair.

a.

Flashing Das

b.

Sending Flash command to Station

c.

Flashing Tracking
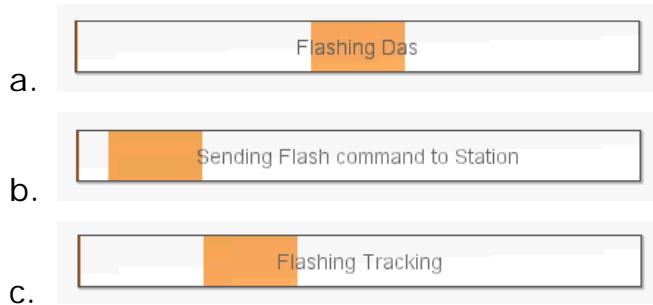
11. As the process nears completion the track will perform a reset. When this occurs there will be a brief loss of communications between the computer and the scanning hardware. THIS IS NORMAL. The equipment will recover in 10 to 15 seconds.

Reestablishing connection

Done!
Almost!

Success

Firmware loading complete.

OK

12. You may now remove the CD from the drive and store in a safe place. Your system firmware has been successfully upgraded.

13. Continue with the NCIS Black and White Calibration.

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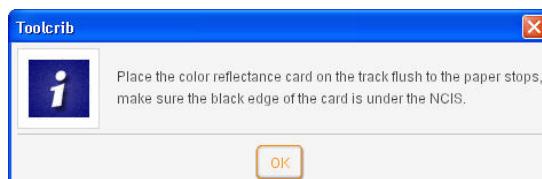
NCIS Black and White Calibration –

1. Using the "**Terminal**" tool, select the second tab, "**Calibration**".

2. Click on the **"NCIS Black and White Calibration"** button.
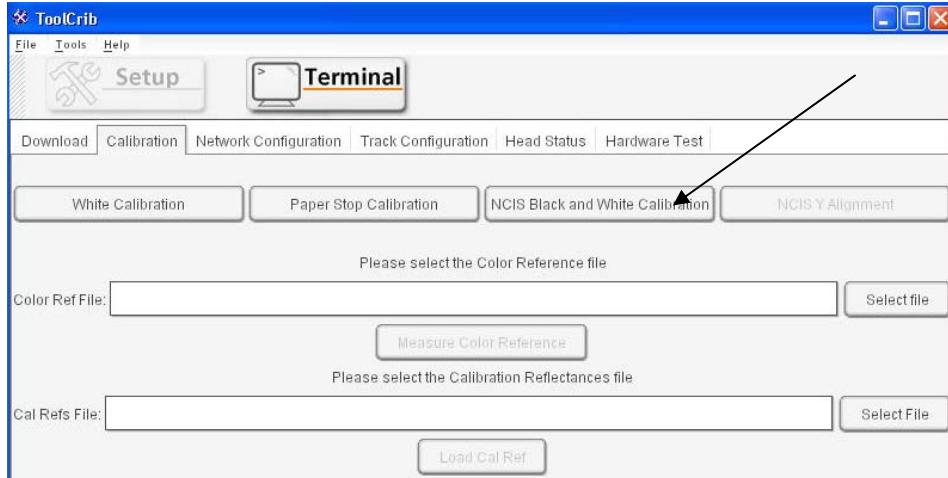
3. Place the reference card on the track. Make sure the card is placed firmly against the paper stops and is placed on the track with the large black strip under the NCIS sensor.
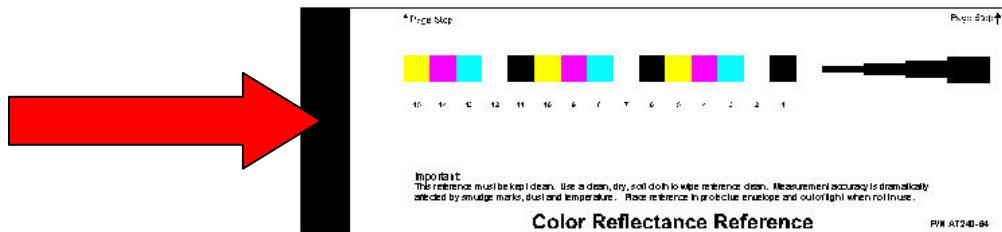
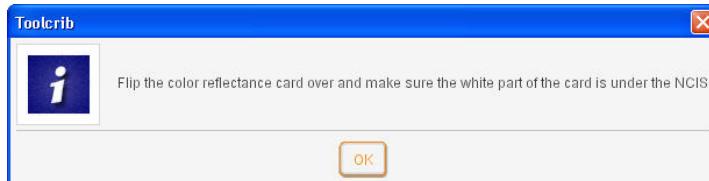4. Click on the **"OK"** button. The NCIS sensor will read the Black Strip.

5. Once the 'black' calibration has completed; flip the card over with the large white area under the NCIS sensor.
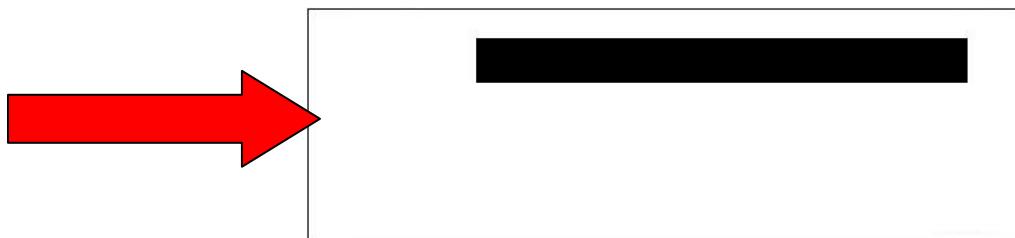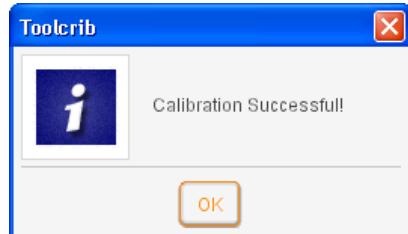
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6. Click on the **"OK"** button.

7. After the 'white' calibration has completed, click on the **"OK"** button.

8. Disconnect and reconnect the power from the ITX. Reconnect to ToolCrib and run through the **"Head Status"** routine.