

Calibration Update

May 1, 2023

DICKEY-JOHN GAC 2500-UGMA PRODUCT CALIBRATION DOWNLOAD

FORWARD

AMS'S Federal Grain Inspection Service (FGIS) offers product calibration files for loading to the DICKEY-john GAC 2500-UGMA Grain Moisture Analyzer.

NOTE: For technical assistance, please contact DICKEY-john technical support at 1-800-637-3302

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1. DOWNLOAD CALIBRATIONS FROM FGIS WEBSITE

If a USB memory device with preloaded calibration files is already in your possession, proceed to the “Load Calibrations to GAC 2500-UGMA” section.

NOTE: Before downloading calibrations verify the USB memory device is 2-4 GB and formatted as FAT and NOT FAT32. See “Formatting USB Memory Device” section for formatting instructions.

To download calibrations to a USB memory device:

- a. Visit the FGIS Moisture website at <https://www.ams.usda.gov/services/fgis/standardization/moisture-equipment>.
- b. Insert USB memory device into computer’s USB drive.
 - Remove all existing files from USB memory device.
- c. Scroll down to the “Official Moisture Calibrations” section and right click on “Download all official moisture calibration files for DICKEY-john GAC 2500-UGMA/GAC 2700-UGMA”.

Product calibration files are saved in a zip format and require extraction before loading to the GAC 2500 instrument.

IMPORTANT: All official calibrations must be downloaded to the USB memory device.

- d. Select “Save Link As” and save the zip folder to the root directory of the USB memory device. (Some computers may display “Save Target As”.)
- e. In Windows Explorer, double click on the directory named: “MonthYearRelease_GAC2500_UGMA_NTEP_withUpdater.zip”

ex: May 2019 Release_GAC2500_UGMA_NTEP.zip.
- f. Select all files in the directory (Edit/Select All).
- g. Copy all files (right click/copy).
- h. Paste in the root directory of the USB memory device (right click/ paste).

NOTE: Root directory (such as F:/) is the first directory that shows when opening a drive. If having issues locating the root directory, go to “Start/My Computer” and open the USB memory device. Proceed to step i.

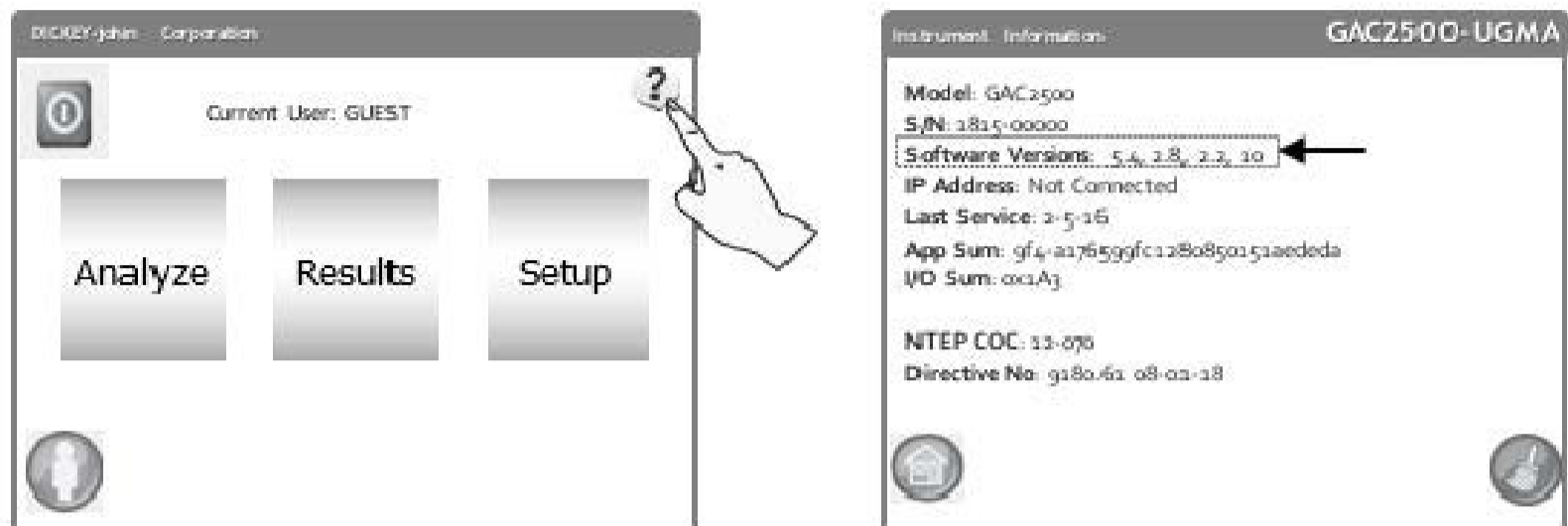
- i. Wait for files to finish copying and remove USB memory device.

IMPORTANT: Steps to download calibrations vary based on the software installed on the instrument. Check the software version of the instrument for the proper steps to follow in this instruction.

2. VERIFY INSTRUMENT SOFTWARE VERSION

At the Main Menu of the GAC® 2500, press the **Information** button. Follow the appropriate instructions below based on software version installed.

Figure 1. Information Screen



3. LOAD CALIBRATIONS TO GAC® 2500-UGMA

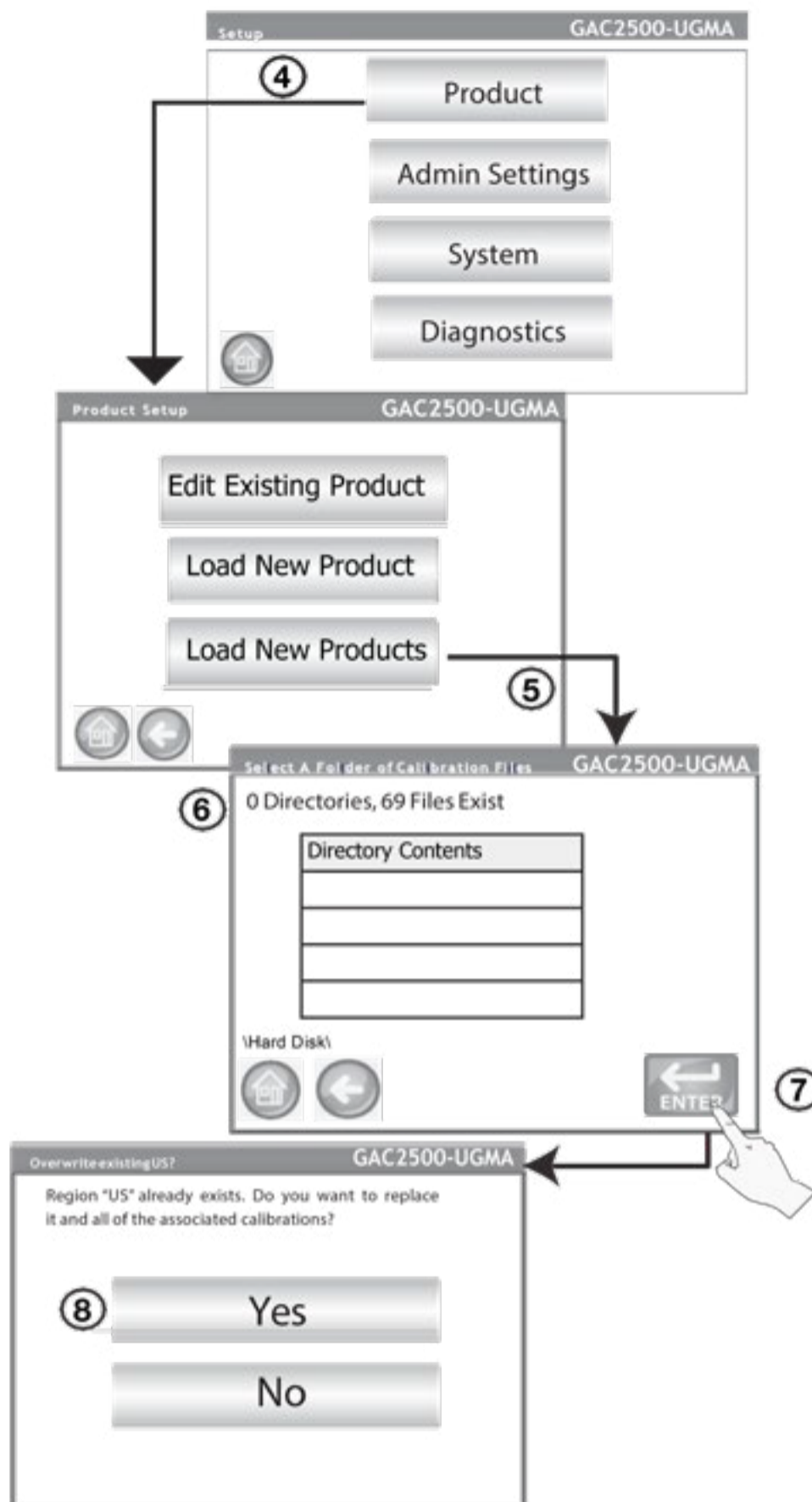
a. SOFTWARE VERSION 5.4 or ABOVE:

IMPORTANT: Any custom calibrations on the instrument should be saved to a USB memory device before starting the installation.

- 1) Insert the USB device into the instrument.
- 2) At the Main Menu screen, press the **Setup** button.
- 3) Enter the user name and password and press the **Enter** button.
- 4) At the Setup menu, press the **Product** button.
- 5) At the Product Setup screen, press the **Load New Products** button.
- 6) The next screen displays the number of files that exist on the USB memory device.
- 7) Press the **Enter** button.
- 8) Press “Yes” to begin installation of new files. Old products are removed (including custom calibrations).

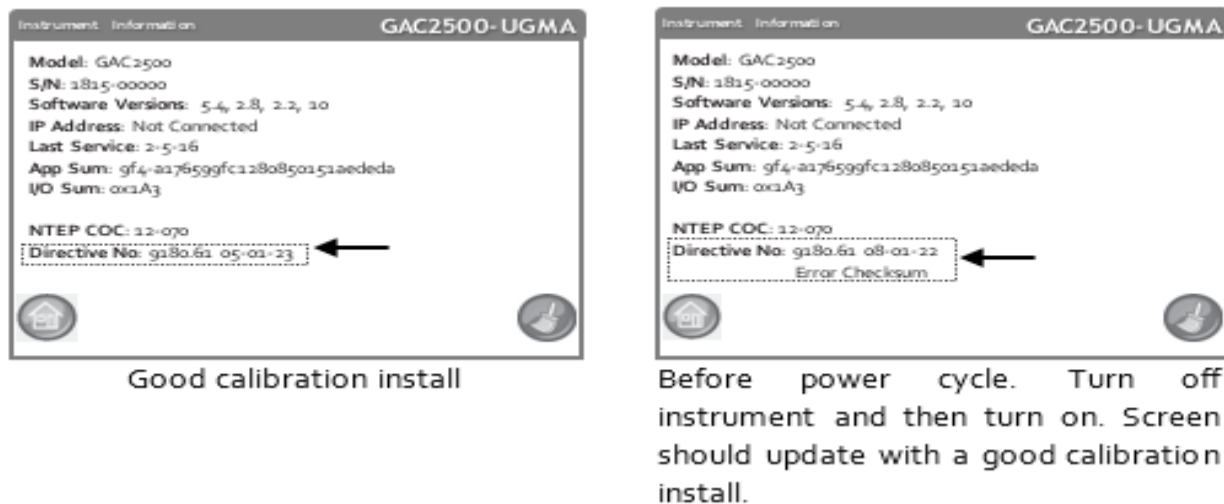
– Refer to “Reloading Custom Calibrations” section for re-installing custom calibrations.

Figure 2. Loading Calibrations with Software Version 5.4



- 9) Remove the USB device from instrument.
- 10) After loading calibrations, the Product Setup screen displays. Press the **Home** button to return to the Main Menu.
- 11) At the Main Menu, cycle power.
- 12) After power up, press the **Information** button to verify that "05-01-23" displays as the new date at the Directive No, shown in Figure 3, as a good calibration install.

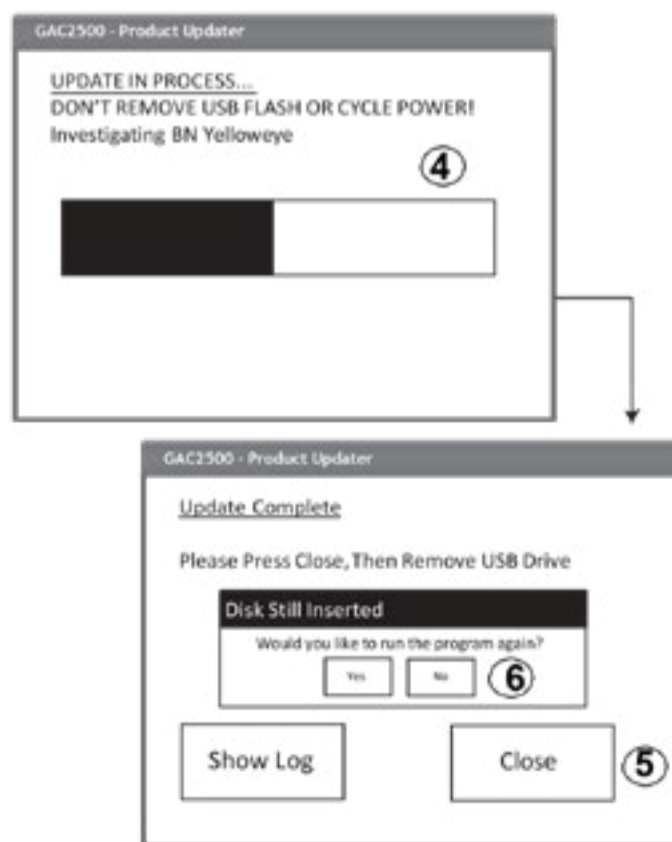
Figure 3. Information Screen



b. **SOFTWARE VERSION 5.1 OR BELOW**

- 1) Power OFF the GAC® 2500-UGMA.
- 2) Insert the USB memory device into the GAC® 2500-UGMA USB port located on the front panel.
- 3) Power on instrument.
- 4) Files automatically begin loading to the instrument. The program will back up all existing calibration files and install the new ones.
- 5) Press the **Close** button to exit.
- 6) When update is complete, press 'No' to avoid running the program again.

Figure 4. Product Updater



- 7) Remove the flash drive and the instrument continues to powerup.
- 8) Once the machine is powered on, custom calibrations that were not included in the updater package can be restored by navigating to the backup directory on the flash drive named <machine serial number>_OldCals_<date(yyyyMMdd)>_<time(HH:mm)>. These calibrations can be reloaded from the Setup menu.

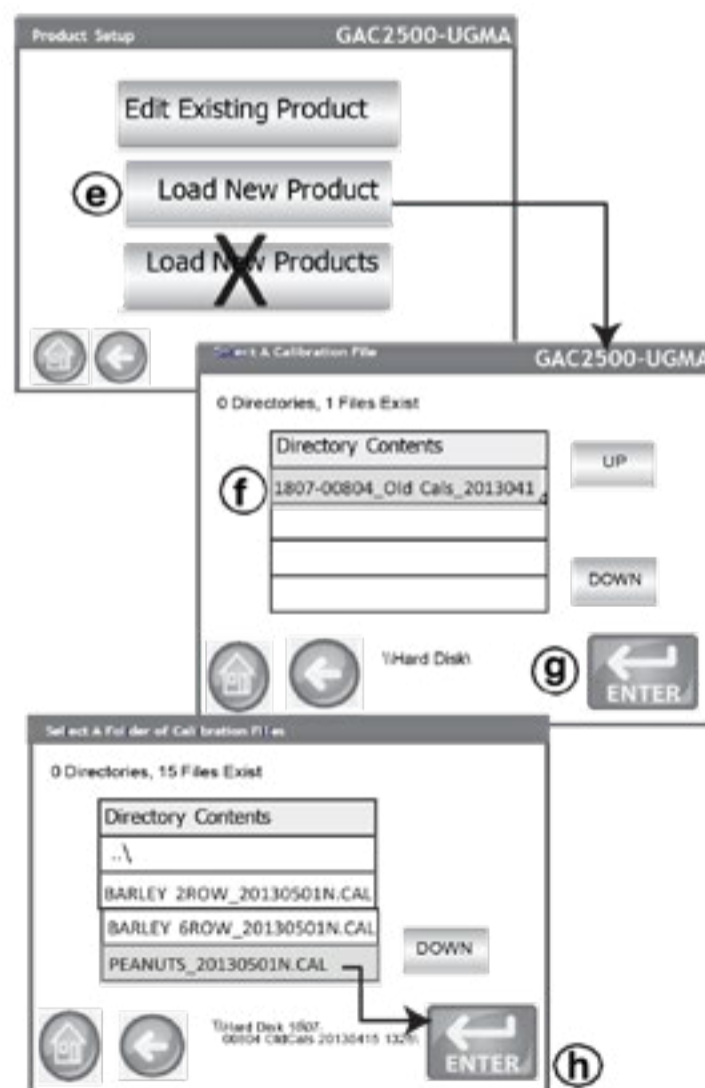
4. RELOADING CUSTOM CALIBRATIONS TO GAC 2500-UGMA

- a. Insert USB memory device into the GAC 2500-UGMA USB port located on the front panel.
- b. At the Main Menu screen, press the **Setup** button.
- c. Enter the Name and Password, if required, or press **Enter** to proceed.
- d. At the Setup screen, press the **Product** button.
- e. At the Product Setup screen, press the **Load New Product** button. **Do not use the Load New Products button to reload custom calibrations.**

NOTE: The USB memory device must be inserted into the instrument to display the Load New Product button.

- f. To load a single product, press the directory contents file to highlight.
- g. Press the **Enter** button to open the directory.
- h. In the Directory Contents window, press the custom calibration to highlight and press the **Enter** button.

Figure 5. Re-Load Custom Calibrations



Directory structure to find custom calibrations:
<machine serial number>_OldCals_<date(yyyyMMdd)>_<time>(HHmm)>

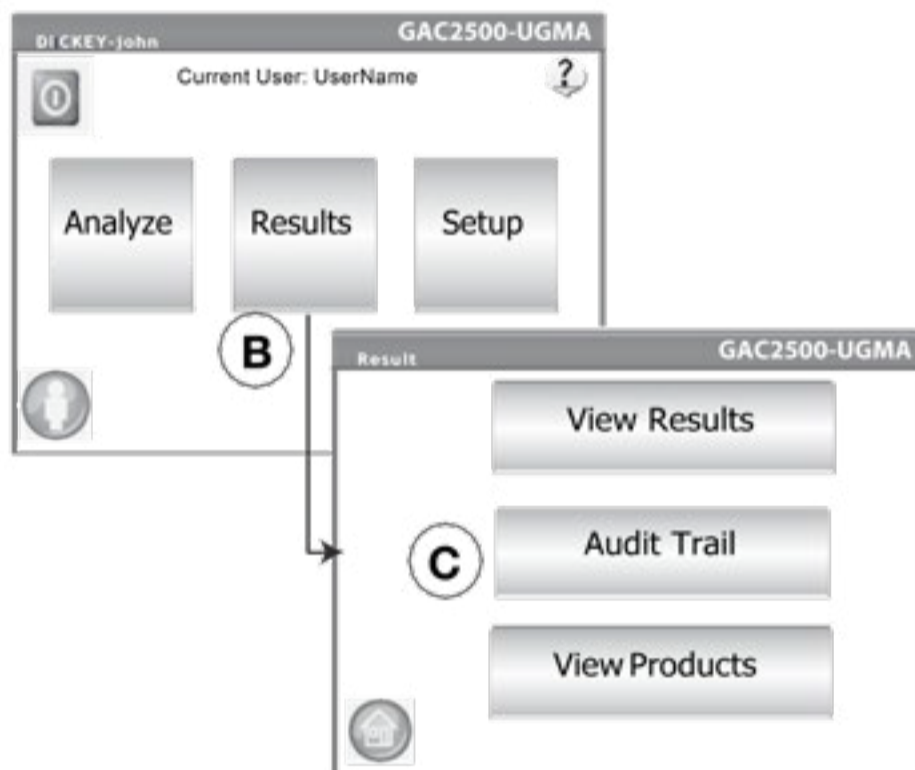
5. EXPORT LOG FILE/AUDIT TRAIL (OFFICIAL USERS ONLY)

After calibrations are loaded to the instrument, the log file/audit trail data must be saved to the USB memory device and retained at the central agency office to document that calibrations were installed successfully.

IMPORTANT: This final step is required for verification that calibrations loaded successfully.

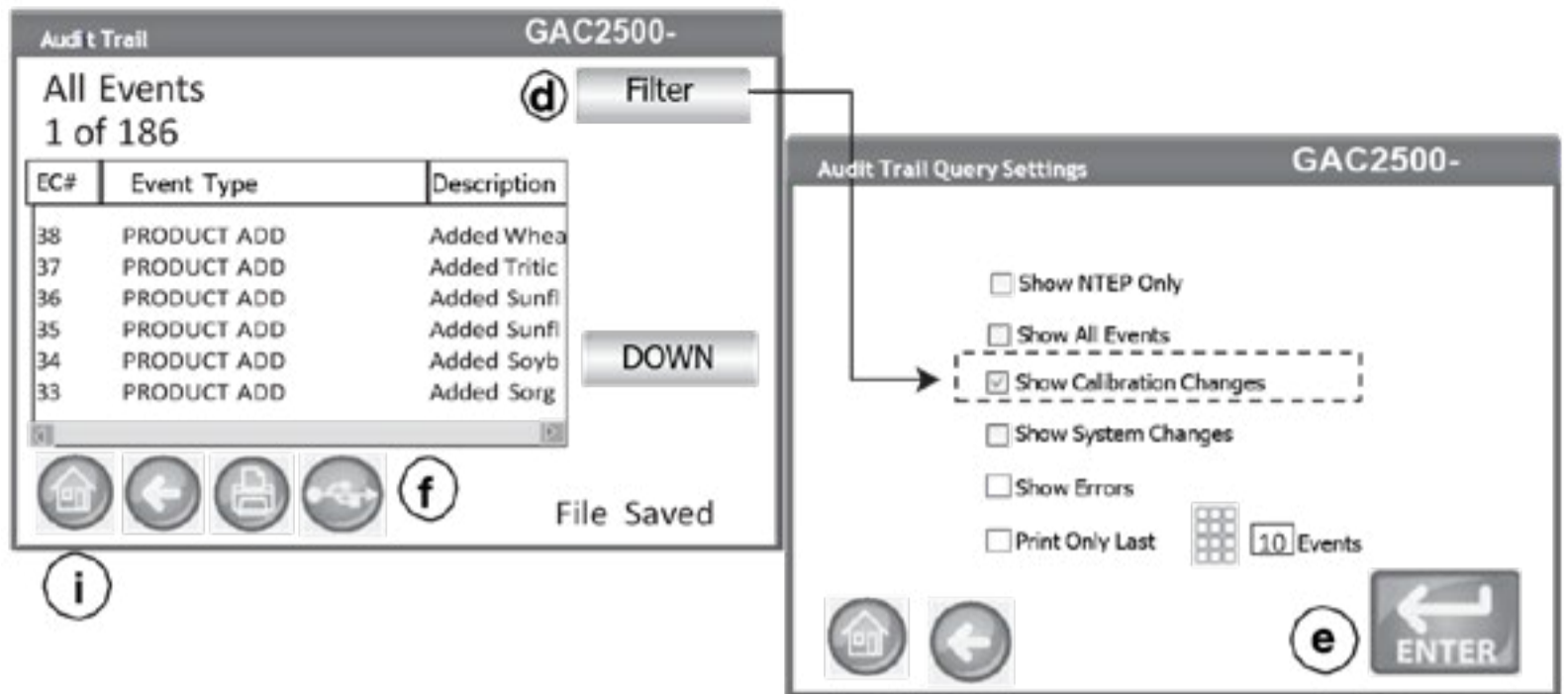
- a. Insert USB memory device into the USB port.
- b. At the Main Menu screen, press the **Results** button.
- c. At the Results menu, press the **Audit Trail** button.

Figure 6. Save Audit Trail History



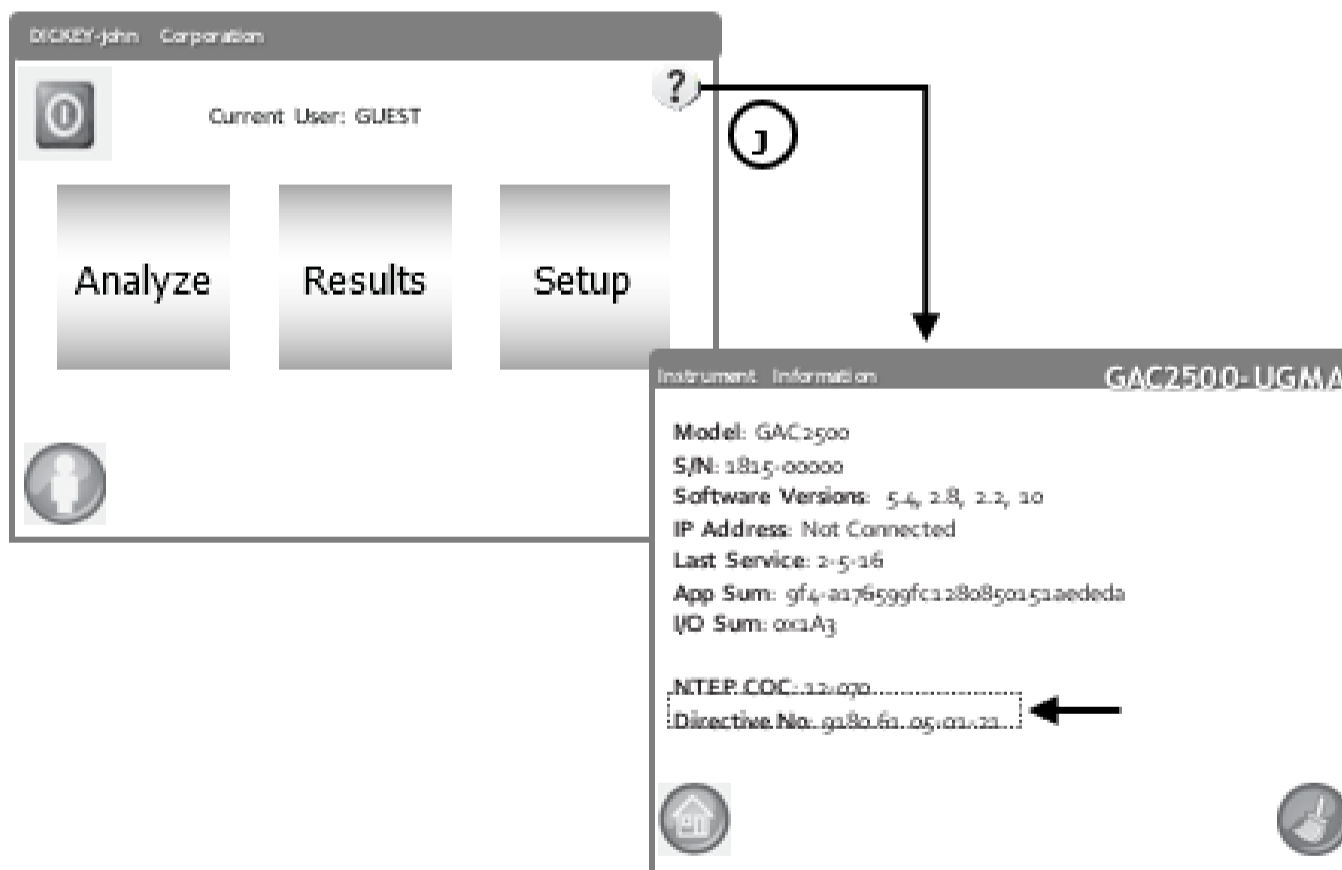
- d. At the Audit Trail screen, press the **Filter** button to verify that the **“Show Calibration Changes”** check box is selected.
- e. Press the **Enter** button to accept.
- f. Press the **USB** button to transfer Audit Trail results.
- g. Audit Trail screen will indicate 64 PRODUCT ADD entries preceded by a PRODUCT DELETE for each product previously installed on the instrument before the update.
- h. Remove the USB memory device from the instrument and retain at the central agency office to document successful completion. Audit trails for multiple units and other models can be saved on the same USB memory device.

Figure 7. Export Audit Trail



- i. Press the **Home** button.
- j. At the Home menu screen, press the **Instrument Information** button and verify the directive number reads: 9180-61 05-01-23.

Figure 8. Verify Directive Number



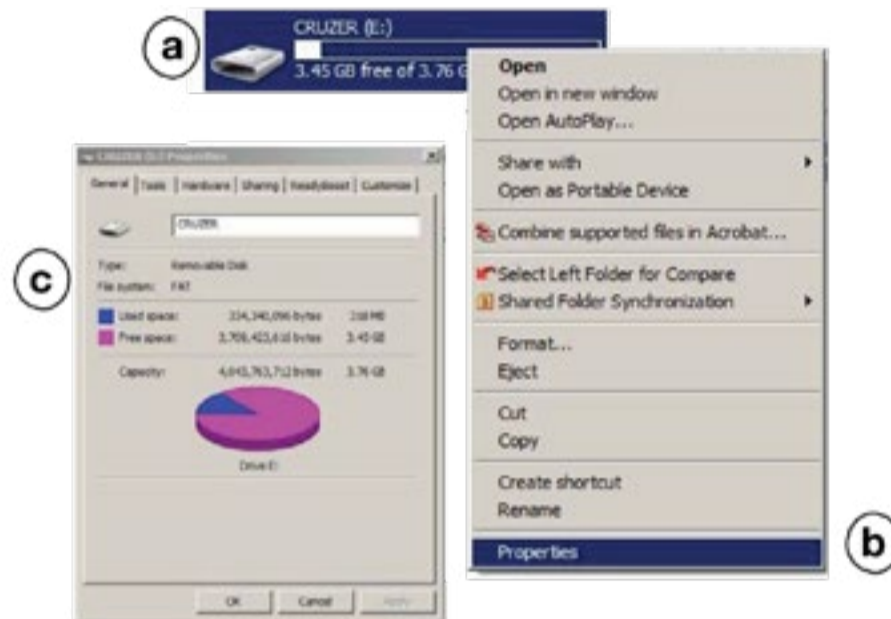
5. FORMATTING A USB MEMORY DEVICE

To verify a memory device is FAT:

- Insert the USB memory device into the computer.
- Navigate to “My Computer”, locate the directory for the memory device, and click “Properties”.
- Look at the ‘File System’ type under the General Tab and verify the device is FAT.

NOTE: USB memory device should have 2-4 GB of storage capacity.

Figure 9. Verify Formatting of USB Memory Device



Reformat memory device to FAT:

- In “My Computer”, right click on the memory device directory.
- Click “Format”.
- Select “FAT” as the file system format.
- Click “Start”. The USB memory device is now FAT formatted.

Figure 10. Formatting Memory Device to FAT

