Firmware Upgrade

> *Note*
>
> *The latest version of the firmware is available for download on the Fluke Calibration web site, http://www.flukecal.com. See the Main Product and Support pages to access the download link.*

> *Note*
>
> *Do not shut off the power during the firmware installation. The Product can cease functioning if its power is interrupted during the firmware install operation.*

The firmware within the Product is stored in flash and can be restored or upgraded by transmission over a serial link from a PC to the Product.

Equipment Required for the Restore or Upgrade

These items are required to perform a firmware restore or upgrade:

- A PC running Microsoft Windows 7 or Windows 8. This computer must have either a 9-pin serial port (RS232) or a USB port.

- Using the serial port requires a null modem serial cable with a female DB-9 connector at each end. The pin assignments of the serial cable (RS232) are as follows:

    - PC pin 2 <=> Product pin 3
    - PC pin 3 <=> Product pin 2
    - PC pin 5 <=> Product pin 5

  Connect only the pins above.

  A USB port requires a USB-to-serial converter with a male DB-9 RS232 connector. Use the serial cable above to connect the USB converter to the Product. If the USB-to-serial converter needs a software driver, install the driver on the PC before beginning the firmware upgrade.

Firmware Installation

Use this 3-stage procedure to install the firmware:

- Stage 1 - Configure the Product for upgrade.
- Stage 2 - Upload the firmware.
- Stage 3 - Restore the Product to normal operation.

Stage 1

1. Power off the Product.

2. Connect the Product and PC together using the RS232 cable (the Product's RS232 port is on the rear panel).

   Or, if using USB, connect together the PC, and the USB converter using a USB cable, and then connect together the USB converter and the Product using the RS232 cable.

3. Use the FACTORY SET dip switches on the Product back panel to configure the Product for file uploading; set dip switch 6 to its up position.

4. Turn on the Product. A yellow screen with an empty progress bar should appear on the screen of the Product.

5. The firmware can be downloaded from the Fluke Calibration website. Execute the file from the download location.

Note

This firmware update process runs a stand-alone .EXE application and does not install any files to the PC.

6. The **PC** loader application automatically looks for the Product on serial port COM1. If the Product is located, then the Serial Port Name dropdown box is grayed out and the message Connection Established is shown in the message box. Proceed to Stage 2.

7. If the **PC** loader application has not found the Product automatically, ensure that the correct serial port is selected (USB users should also find their converter listed here too) and press the Connect button to retry. It can be necessary to power cycle the Product again (a yellow screen with empty progress bar will re-appear).

Stage 2

1. Ensure a link has been established between the PC application and the Product.

   The application status box indicates when a connection is established and the software version of the application. A connection is considered ready when the line Connection Established.

2. Press Next.

   The PC application automatically uploads the necessary firmware components. A progress bar gives an indication of the status.

   The Product also shows a progress bar for erasure and uploading of the firmware components.

   "Upgrade complete: All files transferred successfully" shows on the PC install screen when the upgrade process is finished.

Stage 3

1. Close the PC application by selecting finish (or pressing the close icon).

2. Restore normal Product operation by setting switch 6 (of the FACTORY SET dip switches) back in its down position.

3. Power cycle the Product.

The new version of the firmware shows on the start-up screen (and can also be viewed on the setup screen).