

Meter memory

The meter stores configuration and logging information in non-volatile memory and a long-life memory chip.

The meter uses its non-volatile memory (NVRAM) to retain all data and metering configuration values. Under the operating temperature range specified for the meter, the NVRAM has an anticipated life of 45 years or longer. The meter stores its data logs in a memory chip, which has a life expectancy of up to 20 years under the operating temperature range specified for the meter.

Meter battery

The internal battery in the meter keeps the meter's clock running when it is powered down to help maintain the meter time.

The life expectancy of the meter's internal battery is estimated to be over 10 years at 25 °C under typical operating conditions.

Firmware version, model and serial number

You can view the meter's firmware version (including OS, RS and Ethernet versions), model and serial number from the display panel or through the meter webpages.

- Using the display panel: Navigate to **Maint > Diag > Info**.
- Using the meter webpages: Navigate to **Diagnostics > Meter Information**.

NOTE: The OS CRC value is a number that identifies the uniqueness between different OS firmware versions.

Firmware upgrades

There are a number of reasons why you may want to upgrade your meter's firmware.

- Improve meter performance (e.g., optimize processing speed)
- Enhance existing meter features and functions
- Add new functionality to the meter
- Achieve compliance to new industry standards

Meter upgrade requirements

NOTE: Refer to [Temporarily disabled configuration settings and login requirements in webpages, page 206](#) to know applicability of these features on your meter model.

There are some requirements to consider before you upgrade your meter's firmware.

In order to upgrade the meter, you need to:

- Be connected to the meter using Ethernet.

NOTE: It is recommended that you change the IP Address Acquisition Mode to Stored during the firmware upgrade. If the mode is set to DHCP, the IP address might change during the upgrade, which will result in a loss of communications with the meter.

- Make sure the meter's FTP server is enabled.
- Have Product Master credentials to login to the meter's FTP server. The FTP server uses the same user accounts as the meter's webpages.

- Download the latest upgrade files from www.se.com. The upgrade files include:
 - App2.out: this file contains the files needed to upgrade the code and initialization files that run the Ethernet communications.
 - PM5xxx_vX.Y.Z.fwa (where xxx is your meter model and X.Y.Z is the specific firmware version): this file contains all the files needed to upgrade other meter components, such as the meter's operating system, language files and webpages.
 - PM5500StartUpgrade.shtml

Save these files to a location you can access from the computer you use to perform the upgrade.

NOTE: After you use the FTP meter upgrade process, you can no longer use DLF3000 software to upgrade the meter.

NOTE: The PM5561 / PM5661 / PM5761 meter models running on firmware version 10.6.3 or later, can be upgraded to a compatible higher firmware version. However, firmware upgrades - successful and unsuccessful - are limited to 10 attempts in PM5561 / PM5661 / PM5761, after which further attempts will be blocked.

Upgrading your meter

NOTE: Refer to *Temporarily disabled configuration settings and login requirements in webpages*, page 206 to know applicability of these features on your meter model.

You can upgrade the meter's firmware, language files, webpages and Ethernet communications card using the meter's internal FTP server.

Your meter, Ethernet card and accessories do not operate normally during firmware upgrade, and your meter's digital outputs may change state during a firmware upgrade.

WARNING

UNINTENDED OPERATION OR METER DAMAGE

- Do not use this device for critical control or protection applications where human or equipment safety relies on the operation of the control circuit.
- Do not turn off power to the meter while the firmware upgrade is in progress.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

This example walks through upgrading your meter using Windows Explorer to access the meter's FTP server. You can also use other FTP clients, such as FileZilla.

1. Open Windows Explorer and connect to your meter by entering `ftp:\\<meter IP address>` replacing `<meter IP address>` with the IP address of the meter you want to upgrade.
2. Enter a Product Master username and password when prompted.
The FTP server appears, containing the folders `fw` and `www`.
3. Open another instance of Windows Explorer and navigate to the location where you saved the firmware upgrade files.
4. Copy the `PM5500StartUpgrade.shtml` file and paste it into the `www` folder on the meter's FTP server.

5. Copy the App2.out and PM5xxx_vX.Y.Z.fwa files and paste them into the fw folder on the meter's FTP server.

NOTE: If a file with the same name already exists on the meter, you are prompted to confirm whether or not you want to replace that file. Click **Yes** (to replace that one file) or **Yes to All** (to replace all files).

NOTE: If you have added a large number of custom files (such as webpages) to the meter's FTP server, there may not be enough memory on the meter's Ethernet communications card to paste the files, and you may receive an error when you try to paste the files. You may need to temporarily move some of these custom files before proceeding.

6. Exit Windows Explorer after the file copying is complete.
7. Open your browser and enter `http://<meter IP address>/PM5500StartUpgrade.shtml` to trigger the upgrade, where <meter IP address> is replaced with your meter's IP address.

Enter your login credentials when prompted.

NOTE: Accessing this webpage restarts the meter's Ethernet communications card, which initiates the upgrade process. It might take a minute or two while the meter's Ethernet communications card is reset and the upgrade initialized.

From the PM5500StartUpgrade.shtml page, you are redirected to a firmware upgrade status page where you can view information about the upgrade process.

NOTE: If the status page indicates that one of the upgrade processes failed, restart the upgrade process from the beginning by reconnecting to the meter's FTP server, recopying the files then following the rest of the procedure.

Technical assistance

Visit www.se.com for support and assistance with lost passcodes or other technical problems with the meter.

Make sure you include your meter's model, serial number and firmware version in your email or have it readily available if calling Technical Support.