

Appendix C. Updating the Firmware in the Field

C.1 Introduction

The AT600 firmware can be updated in the field. However, before attempting a firmware update, read the information in this section thoroughly to ensure a successful update process.

C.1.1 System Requirements

Make sure that your AT600 flow meter system meets the following requirements:

- Verify that your current AT600 firmware version is 01.02.25 or later.
- Verify that you have the AquaTrans flow meter software update version 20161117V1.2 or later available to run on your PC.
- Verify that your AT600 service port has a 2-wire RS485 connection to your PC, and that the connection baud rate is set to 115200 baud.
- Verify that your AT600 firmware binary file is version 1.02.25 or later.

C.1.2 Preparation

To ensure a successful firmware update, be prepared for the following:

- Allow about 10 minutes for the firmware update to complete.
- Before starting the firmware update, make sure that the AT600 is in normal measurement mode.
- The AT600 main power must remain ON throughout the firmware update. DO NOT turn the main power OFF until the firmware update has been completed.
- Because the firmware update uses the AT600 Modbus/service port, you must NOT allow any other AT600 Modbus activity during the firmware update.
- During the firmware update, the AT600 will attempt to validate the new firmware image file. At the end of the update process, if the validation was successful, the AT600 will reboot with the updated firmware installed. However, if the validation was not successful, the original firmware will still be installed after the reboot.

C.2 Performing the Firmware Update

If your AT600 flow meter system meets all of the requirements discussed on the previous page and you are prepared to perform the firmware update according to those guidelines, proceed with the instructions in this section.

C.2.1 Check the Current Firmware Version

To determine the firmware version currently installed in your AT600, access the following information screen:

Main menu > program > advanced > flow meter data > main board > SW version

For reference, an example of this screen is shown in *Figure 36* below.

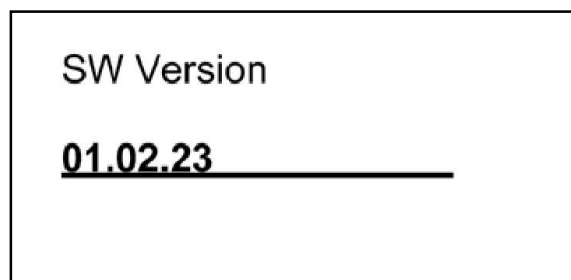


Figure 36: Example Software Version Screen

Note: As indicated on the previous page, the current version of your AT600 firmware must be 01.02.23 or later. If your version is older than this, you cannot use this update method. Software versions 01.02.24, 01.03.xx, 02.xx.xx are examples of acceptable versions.

C.2.2 Update Steps

If your AT600 firmware version qualifies for the field firmware update process, complete the following steps:

1. Prepare the RS485 Modbus connection:
 - a. Disconnect the main power from the AT600.
 - b. Wire the Modbus connection as described in *“Wiring the Modbus Communication”* on page 23.
2. Locate the AquaTrans flow meter Software update (version 20161117V1.2 or later) software on your PC. If the folder containing the software is zipped, you must unzip it prior to use.
3. Run the update software by clicking on the upgrade.exe file (see *Figure 37* below). Installation of the software on the PC is not required.

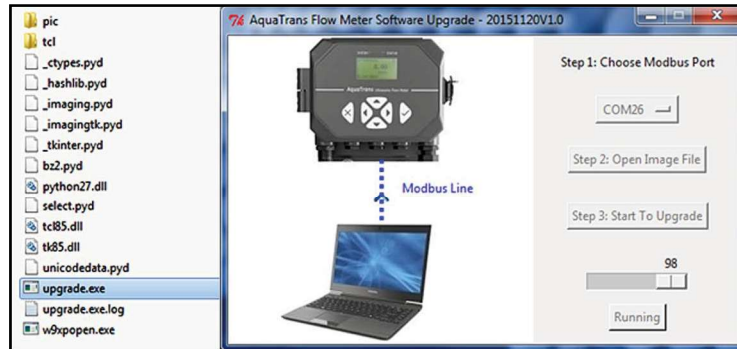


Figure 37: Running the update.exe Software

4. Click on the COM port button and enter the specific com port on the PC that is connected to the AT600 Modbus/service port.
5. Click on the open image file button, and open the Panametrics image file to be used for the AT600 firmware update.
6. Click on the start To upgrade button. After verifying that the selected image file and Com port are correct, click the OK button to start the update process.
7. After the progress bar indicates that the firmware update is 100% complete (about 10 minutes), the message shown in *Figure 38* below will be displayed. Note that the AT600 will automatically reboot in 30 seconds.

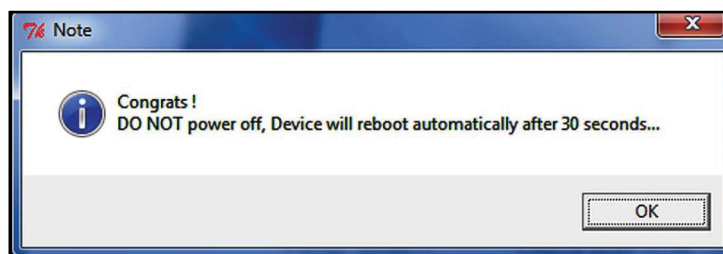


Figure 38: Reboot Message

8. After the reboot is complete, refer to *“Check the Current Firmware Version”* on page 147 and confirm that the new firmware version has been installed. If the original firmware version is still installed, the AT600 was not able to validate the image file that was used – contact Panametrics for assistance.