

PSL



PQube® AC Power Monitor

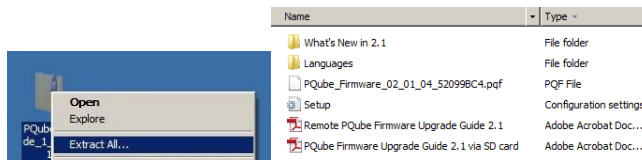
Embedded power quality and energy monitoring

Remote Firmware Upgrade Guide

If your PQube is installed with an Ethernet module (ETH1 or CTE1) **and** is connected to the network and/or Internet, you can upgrade your PQube's firmware remotely using **E-mail, Web Page and FTP**.

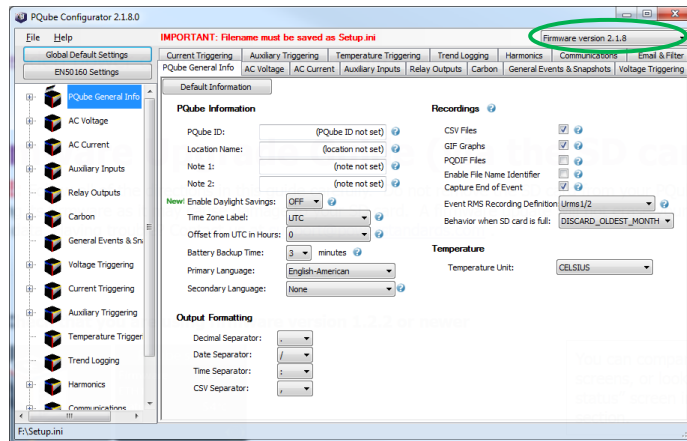
NOTE: Follow all of the directions in this guide carefully. Do not remove the SD card from your PQube while it is updating its firmware as it may cause damage to your SD card. A firmware update will not erase your existing settings or PQube data. If your PQube is currently running a firmware version prior to 1.2.2, please contact us at support@powerstandards.com

1. Download and unzip the firmware upgrade package



Download the PQube Firmware Upgrade package from the PSL website at <http://www.powerstandards.com/PQube.php#firmware> to your PC or laptop and extract (unzip) all files.

2. Update your existing setup file with new 2.1.8 features



Using the Configurator Tool, transfer settings in your existing Setup.ini file to a new Setup.ini file. Download the Configurator Tool from the PSL website at

<http://www.powerstandards.com/PQube.php#config>

Click on 'File', 'Open', select your existing setup.ini file and it will load all your current settings into the Configurator Tool. Select Firmware version 2.1.8 from the dropdown box in the upper- right corner. This will enable the new 2.1.8 features in your setup.ini file.

To save your settings, click on 'File', 'Save'.

Firmware Upgrade via E-mail

You must configure your PQube to send and receive emails. In your setup file, set **Incoming_Email=ON** to begin sending emails to your PQube. Refer to pages 32 thru 34 “Email Setup” and pages 62 thru 64 “Receiving Emails from your PQube” of your 2.1 User Manual, <http://www.powerstandards.com/Download/PQube%20Manual%202.1.pdf>.

To upgrade your PQube firmware, send your PQube an email and on the subject line, type **“PQube Firmware Update”** without the quotes. All email commands must begin with the filter word specified by the Subject_Must_Begin_With tag in your setup file. By default this word is “PQube” without the quotes. Note that the subject line is case sensitive.

Attach the firmware to your email. It should be in the format PQube_Firmware_XX_YY_ZZ_FFFFFFFF.pqf. The XX, YY, and ZZ are digits that identify the type of firmware update, and FFFFFFFF is a checksum. Do not re-name this file. If your PQube receives a valid firmware update, it will reset and perform the update. You will also receive an email reply.

To email your PQube an updated version of your setup.ini, send your PQube an email and on the subject line, type **“PQube New Setup File”** without the quotes. Don't forget to attach your updated setup.ini to your email.

If you are upgrading to a major release (i.e. 1.4.x to 2.1.x or 2.0.x to 2.1.x), you will also need to update your non-English language packs to match the major firmware release number. However, this cannot be done via email. You will need to update the language pack separately (via the SD card, FTP or web page).

Firmware Upgrade via Web Page

The Web Server is enabled by default and uses the default HTTP port 80. If you need to use a different port, change the Web_Server_port setting in the setup.ini file on your SD card. Refer to page 35 “Web Server Setup” and page 64 “Web Commands” of your 2.1 User Manual, <http://www.powerstandards.com/Download/PQube%20Manual%202.1.pdf>. Note that if you are updating your PQube's firmware over the Internet, you will need to enable port forwarding on your router to your PQube's IP address. Consult your router manual on how to Enable Port Forwarding.

To upgrade your PQube firmware, type in your PQube's IP address into your web browser. Click on “Commands” and log in with your user name and password. The default login and password are ‘admin’, ‘admin’ without the quotes. Under the “Firmware Update” section, select the PQube firmware .pqf file from your computer and click on the “Upload” button. The upload will take approximately 2 minutes. After the upload is completed, click on the “Reset PQube and Apply Firmware Update” button. The firmware update can take up to 4 minutes.

To upload an updated version of your setup.ini, under “Setup Management”, select your setup.ini from your computer and click on the “Upload” button. After verifying that your uploaded setup.ini is correct, click on the “Reset PQube and Apply the Uploaded Setup.ini File” button.

To upload your new language packs, under “Language Pack Update”, select the language .lng file from your computer and click on the “Upload” button. The upload will take approximately 1 minute. Note that you will need to reset your PQube for the new language files to apply. You may want to upload all your new language files before performing a firmware update to avoid additional PQube resets. Language pack updates are only required when upgrading to a major release (i.e. 1.4.x to 2.1.x or 2.0.x to 2.1.x).

Firmware Upgrade via FTP

The FTP Server is enabled by default with FTP port 21 (Control) and FTP port 20 (Data). If you need to use different ports, change the FTP port settings in the setup.ini file on your SD card. Refer to page 35 “FTP Setup” and pages 64 and 65 “FTP” of your 2.1 User Manual, <http://www.powerstandards.com/Download/PQube%20Manual%202.1.pdf>. If you are updating your PQube's firmware over the Internet, you will need to enable port forwarding on your router to your PQube's IP address. Consult your router manual on how to Enable Port Forwarding.

To connect to the PQube's FTP Server, you will need to install a FTP client on your computer. We recommend using FileZilla (<http://filezilla-project.org/>) or CoreFTP (<http://www.coreftp.com>). Other FTP clients work as long as they allow setting the maximum number of connection to 1. Microsoft's FTP clients (Internet Explorer, Windows Explorer, and the command line FTP) always attempt multiple connections at once and are therefore not compatible. Download our FTP App Note on how to install and configure FileZilla and CoreFTP at <http://www.powerstandards.com/Download/How%20to%20connect%20to%20your%20PQube%20via%20FTP.pdf#view=Fit>.

Once you have established a FTP connection to your PQube, transfer the PQube firmware file (.pqf) and an updated version of your setup.ini (if any) to your SD card's root directory. If you are updating your language packs, transfer your new language file(s) to the /Languages folder. Language pack updates are only required when upgrading to a major release (i.e. 1.4.x to 2.1.x or 2.0.x to 2.1.x). You will be required to reset your PQube in order for the new firmware and languages to apply.