# 1451/1455 FRA Firmware Upgrade Pack
## Installation Instructions

## Purpose

This document describes how users of the Solartron CellTest 1451 and 1455 FRAs can upgrade the firmware installed in these instruments to improve their performance.
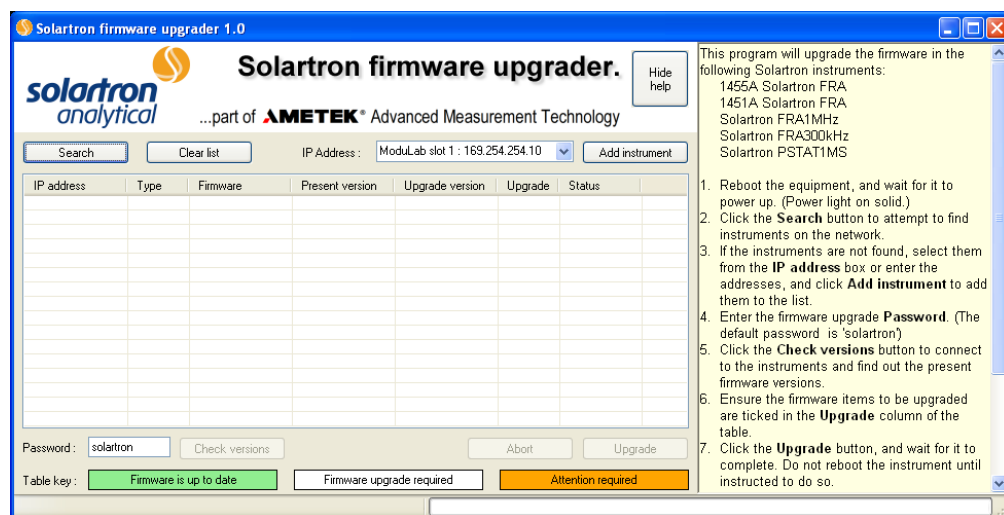
## Requirements

Before proceeding, take a few moments to check that you have the following items to hand:-

a) The CellTest chassis housing the FRAs to be upgraded.

b) A computer with the Microsoft .Net Framework 3.5 or above already installed. For Windows XP or Vista, this can be downloaded from Microsoft.com. With Windows 7, 8 and 10 this is a feature of the Operating System which needs to be enabled. Open the Start menu, and type 'Turn Windows features on or off'.

c) A working Ethernet connection between the CellTest chassis and the computer.

d) The firmware upgrader program `FirmwareUpgrade.exe,` extracted to the computer and stored to a folder on the local hard drive. To avoid any problems do not attempt to use a network drive.

## Procedure

a) Run the `FirmwareUpgrade.exe` program

b) Follow the instructions for performing the upgrade, which are displayed in the right hand window pane.

c)  If the firmware has not previously been upgraded, it will probably be necessary to perform the upgrade twice. The first time, only the 'ARM' firmware will be upgraded. The power to the CellTest chassis is then cycled, causing a reboot of the system, and the second stage will then upgrade the 'DSP' firmware.

| IP address | Type | Firmware | Present version | Upgrade version | Upgrade | Status | |
|---|---|---|---|---|---|---|---|
| 169.254.254.10 | FRA | DSP Firmware | 01.00.00 | 01.03.00 | ☑ | | |
| | | ARM Firmware | 01.00.00 | 01.03.00 | ☑ | | |
| 169.254.254.11 | Pstat | DSP Firmware | 01.00.00 | 01.07.00 | ☑ | | |
| | | ARM Firmware | 01.00.00 | 01.02.00 | ☑ | | |

⬇ ARM upgraded. Reboot.

| IP address | Type | Firmware | Present version | Upgrade version | Upgrade | Status | |
|---|---|---|---|---|---|---|---|
| 169.254.254.10 | FRA | DSP Firmware | 01.00.00 | 01.03.00 | ☑ | | |
| | | ARM Firmware | 01.03.00 | 01.03.00 | ☐ | | |
| 169.254.254.11 | Pstat | DSP Firmware | 01.00.00 | 01.07.00 | ☑ | | |
| | | ARM Firmware | 01.02.00 | 01.02.00 | ☐ | | |

⬇ DSP upgraded. Reboot.

| IP address | Type | Firmware | Present version | Upgrade version | Upgrade | Status | |
|---|---|---|---|---|---|---|---|
| 169.254.254.10 | FRA | DSP Firmware | 01.03.00 | 01.03.00 | ☐ | | |
| | | ARM Firmware | 01.03.00 | 01.03.00 | ☐ | | |
| 169.254.254.11 | Pstat | DSP Firmware | 01.07.00 | 01.07.00 | ☐ | | |
| | | ARM Firmware | 01.02.00 | 01.02.00 | ☐ | | |

d)  Cycle the power a second time, and click the "Check versions" button to verify that all modules have been upgraded. The Upgrader program can then be closed.

# Further Advice

If you require further help or assistance in performing this update then please contact our technical support via e-mail at **PARSOLSR.Support@Ametek.com**

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