

# ModuLab Pstat Firmware History

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## Purpose

This document summarizes the changes made to the firmware fitted to the following Solartron ModuLab Pstat1MS/s module since the initial release.

## ModuLab Pstat Firmware History

The Pstat requires two different types of firmware to operate, one for the ARM processor, which supports communications, and the other for the instrument's DSP. Each set of firmware has its own version number. The table below lists the major firmware revisions for the combination of the two.

Revision	Date	Changes Included
ARM 01.02.00 DSP 01.11.00	April 2010	Bug Fixes: <ul style="list-style-type: none"><li>• Solve OC reading 11.5V &amp; end of experiment marker appearing in wrong place</li><li>• Correct reject cal constants being applied for IRComp</li><li>• Cyclic with vertex1 V.Previous followed by sweep</li><li>• Linear sweep when start value = end value</li></ul>
ARM 01.02.00 DSP 01.10.00	Jan 2010	Bug Fixes: <ul style="list-style-type: none"><li>• Use of Aux channels causes voltage to go to zero when doing impedance.</li><li>• DC current not giving correct level when IR Compensation being applied.</li></ul>
ARM 01.02.00 DSP 01.09.00	June 2009	Bug Fixes: <ul style="list-style-type: none"><li>• Pulse steps not returning results in some cases.</li><li>• When performing a Cyclic Voltammetry step with step termination set the end value was not reached</li></ul>
ARM 01.02.00 DSP 01.08.00	May 2009	Enhancements: <ul style="list-style-type: none"><li>• Added support for Decision steps to run different sets of steps depending on measured values.</li></ul> Bug Fixes: <ul style="list-style-type: none"><li>• Incompatible firmware could be loaded into the Pstat.</li><li>• Voltage vs. Previous was not working in some situations</li><li>• 2A booster instability/ trip on auto current range</li></ul>

## ModuLab Pstat - Firmware History

ARM 01.01.00 DSP 01.06.00	March 2009	<p>Enhancements:</p> <ul style="list-style-type: none"> <li>•Improved Impedance auto current range selection</li> <li>•Voltage vs. Previous now uses logical value instead of measured value where possible.</li> </ul> <p>Bug Fixes:</p> <ul style="list-style-type: none"> <li>•Charge was not being measured correctly with On Pulse measurement</li> <li>•Voltage vs. Previous following a SWV step was using the wrong voltage</li> <li>•Impedance steps would not run for longer than 70 minutes</li> <li>•LSV and CV steps with slow scan rates did not work</li> <li>•Fixed voltage vs. OC for CV step when not the first step.</li> </ul>
ARM 01.01.00 DSP 01.05.00	January 2009	<p>Enhancements:</p> <ul style="list-style-type: none"> <li>•Current vs. Previous now supported.</li> </ul> <p>Bug Fixes:</p> <ul style="list-style-type: none"> <li>•FRA generator amplitude in gstat was not set correctly in some situations.</li> <li>•Experiments with external boosters were not validated correctly.</li> <li>•Step termination within loops was not working correctly.</li> </ul>
ARM 01.01.00 DSP 01.04.00	January 2009	<p>Bug Fixes:</p> <ul style="list-style-type: none"> <li>•IR compensation was not working correctly with auto current range</li> <li>•Communications did not recover from transmission error</li> <li>•FRA generator amplitude was not set correctly in some situations</li> <li>•An experiment requiring an HV module would attempt to run even if one is not fitted</li> </ul>
ARM 01.01.00 DSP 01.03.00	December 2008	<p>Bug Fixes:</p> <ul style="list-style-type: none"> <li>•Fixed occasional lockup on impedance steps</li> </ul>



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ARM 01.00.00 DSP 01.02.00	December 2008	Bug Fixes: <ul style="list-style-type: none"><li>•Some experiments with External Booster were incorrectly reported as invalid.</li><li>•NPV waveforms were not generated correctly in some situations.</li><li>•Staircase waveforms were not generated correctly in some situations.</li><li>•Improved pstat-gstat transitions with Booster 2A.</li><li>•Polarography was output was not working correctly.</li><li>•DPV as not working correctly with Aux channel enabled.</li><li>•Voltage vs. Previous step did not work if the previous step was gstat.</li><li>•Loop termination was not working if there was no step after the loop.</li></ul>
ARM 01.00.00 DSP 01.00.00	November 2008	Initial release.