

## Atlas LCR (Model LCR40) Software Revisions

Revision	Notes
R1.0	Original release.
R1.1	Probe compensation out-of-range detection.
R1.2	Accepts negative inductance offset during probe compensation.
R1.3	Longer watchdog timeout to allow for very large capacitor measurements to complete. Improved special LCD character definitions.
R1.4	Removed option for user to clear calibration data (useful for factory only).
R1.5	Added factory serial comms for improved calibration procedure.
R1.6	Improved Resistor/Inductor distinction.
R1.7	Added more self-diagnostics and error codes.
R1.8	Adjusted self-test thresholds.
R1.9	Improved polynomial performance for capacitance calibration.
R2.0	Display of serial number on start-up. Allowed abort of probe compensation if started accidentally.
R2.1	Small adjustment of self-test thresholds.
R2.2	Reduced harmonic content of 1kHz and 15kHz sine-wave code.
R2.3	Slight improvement in auto-range selection for inductance measurement.
R2.4	Added unique polynomials for each of the 3 test frequencies to improve inductance calibration.
R2.5	Added unique polynomials for each of the 6 drive levels to improve inductance calibration. Re-organised EEPROM calibration storage to allow for more floating point calcs to be stored.
R2.6	Added leading zero suppression for floating point numbers. Improved 15kHz drive levels.
R2.7	Up-issued to reflect correction in calibration system.
R2.8	Improved EEPROM write protection to reduce chance of corruption if charge on probes. Improved power management when idle.
R2.9	Support for new board design with new synchronous rectifier. Improved power management when idle.
R3.0	Introduced hardware versioning in the software build for backward PCB compatibility.
R3.2	Display of hardware version as part of overall build version.
R3.3	Improved power management for PCBs that have controllable analogue power rail.
R3.5	Support for new LCD modules and new special character definitions.
R3.60	Removed milli-Farads (mF), units remain in micro-Farads ( $\mu$ F) even for large capacitors. Inductance milli-Henries (mH) not affected by this change.
R3.61	Improved internal calculation resolution. Enabled negative resistance display (in case of probe compensation offset).
R3.62	Moved some operational thresholds to EEPROM.
R3.63	Reduced jitter in sine-wave generating code. Extended auto-power-off time to 60 seconds.
R3.64	Improved inductance calculation if Rdc negative (in case of probe compensation offset).
R3.65	Improved power-up performance.
R3.70	Improved low inductance resolution (for $L < 1\mu$ H).
R3.72	Support for new micro.

**Please note that upgrades can only be performed by Peak Electronic Design Ltd.**  
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