KEITHLEY
A Tektronix Company

Model 6517B

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Version A14 Firmware Release Notes

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GENERAL INFORMATION

SUPPORTED MODELS

This firmware is used on the following Keithley Instruments product models:

Model 6517B

INSTALLATION INSTRUCTIONS

Use Keithley Flash Wizard version C09 or later to upgrade the Model 6517B.

UPGRADE CONSIDERATIONS FOR THE MODEL 6517B

The following table outlines the considerations that should be made when deciding whether to upgrade to this version from any previous version.

Consideration	From previous releases
Recalibration required	No
Requalification suggested	Yes[1]
Should you upgrade?	Review[2]

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[1] If any features are used related to any of the corrected issues, requalification is suggested to ensure compatibility.
[2] As needed to correct problems addressed by previous firmware releases.

VERSION A14 RELEASE NOTES

OVERVIEW

Version A14 is a maintenance release of the 6517B firmware to address critical fixes.

CRITICAL FIXES

Reference number:	PR-61687
Symptom:	Time stamp data can become corrupted, which affects the visual accuracy of the KickStart Step Response graph (time-base scaling).
Resolution:	This issue has been corrected.
Reference number:	PR-61686
Symptom:	If the relative time stamp has overflowed and the reading is formatted as ASCII, the reading string is malformed.
Resolution:	This issue has been corrected.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" section for more information about release content.

VERSION A13 RELEASE NOTES

OVERVIEW

Version A13 is a maintenance release of the 6517B firmware to address critical fixes.

CRITICAL FIXES

Reference number:	PR-42991
Symptom:	Turning all reading elements on when reading buffer data does not return reading element.
Resolution:	All reading elements are returned properly when they are enabled.
Reference number:	PR-45257
Symptom:	Source bypass does not work properly when TIMER is the arm layer source
Resolution:	All arm layer sources work properly when source bypass is set to SOURCE.
Reference number:	PR-50815
Symptom:	Manual ohms range is reported incorrectly for the 20uA range over bus, reports 20nA
Resolution:	The 20uA range reports correctly when queried over the bus.
Reference number:	PR-51425
Symptom:	When using the Model 6517B with model 6522 scanner, the 6522-scanner card does not configure unused channels correctly when scanning mode is set for current, they are left open circuited.
Resolution:	Unused channels are configured correctly for voltage and current scanning modes.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" section for more information about release content.

VERSION A12 RELEASE NOTES

OVERVIEW

Version A12 is a maintenance release of the 6517B firmware to address critical fixes.

CRITICAL FIXES

Reference number:	PR-43787
Symptom:	Alternating Polarity Resistivity only reads ohm-cm (volume resistivity) when using the 8009 fixture, even though the Model 6517B may be configured for surface resistivity
Resolution:	The Model 6517B now reads the 8009-fixture switch setting correctly.
Reference number:	PR-44571
Symptom:	Some Model 6521 and 6522 scanner cards are not recognized by the Model 6517B.
Resolution:	This issue has been corrected.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" section for more information about release content.

VERSION A11 RELEASE NOTES

OVERVIEW

Version A11 is a maintenance release of the 6517B firmware to address critical fixes and an enhancement.

CRITICAL FIXES

Reference number:	PR-42116
Symptom:	Voltage source settings are not returned when a sweep is performed and the buffer results are returned.
Resolution:	This issue has been corrected.
Reference number:	PR-42206
Symptom:	Real time stamp is not stored in buffer.
Resolution:	This issue has been corrected.
Reference number:	PR-42332
Symptom:	Default trigger link lines do not operate correctly. It is necessary to specify the input and output trigger link lines.
Resolution:	This issue has been corrected.

ENHANCEMENTS

Reference number:	PR-42238
Enhancement:	Add meaningful compliance indication to voltage source values stored in buffer.
Resolution:	Front panel now shows a blinking voltage source readout in the buffer recall display if the voltage source was in compliance. Buffer results returned over the bus will show +9999.9 volts if the voltage source was in compliance.

VERSION A10 RELEASE NOTES

OVERVIEW

Version A10 is a maintenance release of the 6517B firmware to address a critical fix.

CRITICAL FIXES

Reference number:	PR-41677
Symptom:	Units may have slight offsets in measurements when calibrated while operating on 60 Hz power.
Resolution:	This issue has been corrected.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" section for more information about release content.

VERSION A9 RELEASE NOTES

OVERVIEW

Version A9 is a maintenance release of the 6517B firmware to address critical fixes.

CRITICAL FIXES

Reference number:	PR-41581
Symptom:	Noise and offsets may appear in lower current ranges when operating on 50Hz power due to aperture being set incorrectly.
Resolution:	This issue has been corrected.
Reference number:	PR-41462
Symptom:	Selecting scientific notation for the number format in charge measurements causes the unit to stop responding.
Resolution:	This issue has been corrected.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" section for more information about release content.

VERSION A8 RELEASE NOTES

OVERVIEW

Version A8 is a maintenance release of the 6517B firmware to address a critical fix.

CRITICAL FIXES

Reference number:	PR-40525
Symptom:	Resistance, current, and voltage measurements may be different from expected, due to relays not latching properly.
Resolution:	This issue has been corrected.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" section for more information about release content.

VERSION A7 RELEASE NOTES

OVERVIEW

Version A7 is a maintenance release of the 6517B firmware to address a critical fix.

CRITICAL FIXES

Reference number:	PR-40525
Symptom:	Resistance, current, and voltage measurements may be different from expected, due to relays not latching properly.
Resolution:	This issue has been corrected.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" section for more information about release content.

VERSION A6 RELEASE NOTES

OVERVIEW

Version A6 is a maintenance release of the 6517B firmware to address critical fixes.

CRITICAL FIXES

Reference number:	PR-39774
Symptom:	Alternating polarity resistance test sequence delays are shorter than expected.
Resolution:	This issue has been corrected.
Reference number:	PR-39898
Symptom:	Voltage source output may be zero when turned on.
Resolution:	This issue has been corrected.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" section for more information about release content.

VERSION A5 RELEASE NOTES

OVERVIEW

Version A5 is a maintenance release of the 6517B firmware to address critical fixes.

NOCRITICAL FIXES

Reference number:	PR-38989
Symptom:	The menu option to configure the buffer count to use the trigger model count causes the front panel to stop responding.
Resolution:	This issue has been corrected.
Reference number:	PR-39438
Symptom:	Real time clock can jump ahead by several hours.
Resolution:	This issue has been corrected.
Reference number:	PR-39637
Symptom:	Using the trigger count setting for the buffer count causes "Buffer Data Lost" errors if no readings are stored.
Resolution:	This issue has been corrected.
Reference number:	PR-39641
Symptom:	"Buffer Data Lost" errors occur if the buffer count is set, but no readings are stored.
Resolution:	This issue has been corrected.
Reference number:	PR-39651
Symptom:	Readings are noisier unless line sync is turned off and then turned back on.
Resolution:	This issue has been corrected.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" section for more information about release content.

VERSION A4 RELEASE NOTES

OVERVIEW

Version A4 is a maintenance release of the 6517B firmware to address critical fixes.

CRITICAL FIXES

Reference number:	PR-38548
Symptom:	Clock time reported incorrectly over GPIB and RS232 between 12M and 1PM.
Resolution:	This issue has been corrected.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" section for more information about release content.

VERSION A3 RELEASE NOTES

OVERVIEW

Version A3 is a maintenance release of the 6517B firmware to address critical fixes.

CRITICAL FIXES

Reference number:	PR-37667
Symptom:	Hi limit settings do not allow values beyond 9.9E8.
Resolution:	This issue has been corrected.
Reference number:	PR-37767
Symptom:	Buffer readings do not include temperature or humidity when retrieved over GPIB or RS232.
Resolution:	This issue has been corrected.
Reference number:	PR-37871
Symptom:	Clock time does not change between AM and PM until 1:00.
Resolution:	This issue has been corrected.
Reference number:	PR-37889
Symptom:	External feedback function does not work properly.
Resolution:	This issue has been corrected.
Reference number:	PR-37907
Symptom:	Math percent function does not allow values over 5E9.
Resolution:	This issue has been corrected.
Reference number:	PR-38200
Symptom:	:sour:volt:range MIN|MAX|DEF arguments do not work properly.
Resolution:	This issue has been corrected.
Reference number:	PR-38394
Symptom:	Self-test query (*TST?) reports failure (1).
Resolution:	This issue has been corrected.
Reference number:	PR-38397
Symptom:	Resistance measurements show different current values in resistance function when using the "next" display to show measured current, and in current function when measuring current.
Resolution:	This issue has been corrected.

Reference number:	PR-38398
Symptom:	Pressing Local causes voltage source to go to zero volts, but output is still on. Sending a device clear command causes similar behavior.
Resolution:	This issue has been corrected.
Reference number:	PR-38441
Symptom:	Can't change temperature units from degrees C.
Resolution:	This issue has been corrected.

NONCRITICAL FIXES

Reference number:	PR-38202
Symptom:	During calibration, the current offset is excessive if the current offset calibration steps fail.
Resolution:	This issue has been corrected.

ENHANCEMENTS

There were no enhancements included in this release. See the "Critical fixes" and "Noncritical fixes" sections for more information about release content.