KEITHLEY

Model 6517B

Version A13 Firmware Release Notes

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Contents

General Information

Supported models

This firmware is used on the following Keithley Instruments products:

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 A11
Recalibration required	No
Requalification suggested	Yes[1]
Should you upgrade?	Review[2]

A13 Release

Overview

Critical Fixes

PR42991 **Models affected:**

Model 6517B

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.

PR45257 **Models affected:**

Model 6517B

Symptom:

Source bypass does not work properly when TIMER is the arm layer source.

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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 version A09.

Resolution:

All arm layer sources work properly when source bypass is set to SOURCE.

PR50815 **Models affected:**

Model 6517B

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.

PR51425 **Models affected:**

Model 6517B with model 6522 scanner

Symptom:

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.

A12 Release

Overview

Critical Fixes

PR43787 **Models affected:**

Model 6517B

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.

PR44571 **Models affected:**

Model 6517B

Symptom:

Some Model 6521 and 6522 scanner cards are not recognized by the Model 6517B.

Resolution:

The issue has been resolved.

Non-critical fixes

There are no non-critical fixes in the A12 firmware release.

Enhancements

There are no enhancements in the A12 firmware release.

A11 Release

Overview

Critical Fixes

PR 42116   **Models affected:**

Model 6517B

Symptom:

Voltage source settings are not returned when a sweep is performed and the buffer results are returned.

Resolution:

The issue has been repaired.

PR 42206   **Models affected:**

Model 6517B

Symptom:

Real time stamp is not stored in buffer.

Resolution:

The issue has been repaired.

PR 42332   **Models affected:**

Model 6517B

Symptom:

Default trigger link lines do not operate correctly. It is necessary to specify the input and output trigger link lines.

Resolution:

The issue has been repaired.

Enhancements

PR 42238   **Models affected:**

Model 6517B

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.

A10 Release

Overview

Critical fixes

PR 41677   **Models affected:**

Model 6517B

Symptom:

Units may have slight offsets in measurements when calibrated while operating on 60 Hz power.

Resolution

The issue has been repaired.

Enhancements

No enhancements have been added in version A10.

A09 Release

Overview

Critical fixes

PR 41581   **Models affected:**

Model 6517B

Symptom:

Noise and offsets may appear in lower current ranges when operating on 50Hz power due to aperture being set incorrectly.

Resolution:

The issue has been repaired.

PR 41462   **Models affected:**

Model 6517B

Symptom:

Selecting scientific notation for the number format in charge measurements causes the unit to stop responding.

Resolution:

The issue has been repaired.

Enhancements

No enhancements have been added in version A09.

A08 Release

Overview

Critical fixes

PR40525   **Models affected:**

Model 6517B

Symptom:

Resistance, current, and voltage measurements may be different from expected, due to relays not latching properly.

Resolution:

The issue has been repaired.

Enhancements

No enhancements have been added in version A08.

A07 Release

Overview

Critical fixes

PR40525   **Models affected:**

Model 6517B

Symptom:

Resistance, voltage, and current measurements may be different from expected, due to relays not latching properly.

Resolution:

The issue has been repaired.

Enhancements

No enhancements have been added in version A07.

A06 Release

Overview

Critical Fixes

PR39774   **Models affected:**

Model 6517B

Symptom:

Alternating polarity resistance test sequence delays are shorter than expected.

Resolution:

The issue has been repaired.

PR39898   **Models affected:**

Model 6517B

Symptom:

Voltage source output may be zero when turned on.

Resolution:

The issue has been repaired.

Enhancements

No enhancements have been added in version A06.

A05 Release

Overview

Critical fixes

PR38989   **Models affected:**

Model 6517B

Symptom:

The menu option to configure the buffer count to use the trigger model count causes the front panel to stop responding.

Resolution:

The issue has been repaired.

PR39438   **Models affected:**

Model 6517B

Symptom:

Real-time clock can jump ahead by several hours.

Resolution:

The issue has been repaired.

PR39637   **Models affected:**

Model 6517B

Symptom:

Using the trigger count setting for the buffer count causes "Buffer Data Lost" errors if no readings are stored.

Resolution:

The issue has been repaired.

PR39641   **Models affected:**

Model 6517B

Symptom:

"Buffer Data Lost" errors occur if the buffer count is set, but no readings are stored.

Resolution:

The issue has been repaired.

PR39651   **Models affected:**

Model 6517B

Symptom:

Readings are noisier unless line sync is turned off and then turned back on.

Resolution:

The issue has been repaired.

Enhancements

No enhancements have been made in version A05.

A04 Release

Overview

Critical fixes

PR38548 **Models affected:**

Model 6517B

Symptom:

Clock time reported incorrectly over GPIB and RS232 between 12M and 1PM.

Resolution:

The issue has been repaired.

Enhancements

No enhancements have been made in A04.

A03 Release

Overview

Critical fixes

PR37667   **Models affected:**

Model 6517B

Symptom:

Hi limit settings do not allow values beyond 9.9E8.

Resolution:

The issue has been repaired.

PR37767   **Models affected:**

Model 6517B

Symptom:

Buffer readings do not include temperature or humidity when retrieved over GPIB or RS232.

Resolution:

The issue has been repaired.

PR37871   **Models affected:**

Model 6517B

Symptom:

Clock time does not change between AM and PM until 1:00.

Resolution:

The issue has been repaired.

PR37889   **Models affected:**

Model 6517B

Symptom:

External feedback function does not work properly.

Resolution:

The issue has been repaired.

PR37907   **Models affected:**

Model 6517B

Symptom:

Math percent function does not allow values over 5E9.

Resolution:

The issue has been repaired.

PR38200 **Models affected:**

Model 6517B

Symptom:

:sour:volt:range MIN|MAX|DEF arguments do not work properly.

Resolution:

The issue has been repaired.

PR38394 **Models affected:**

Model 6517B

Symptom:

Self test query (*TST?) reports failure (1).

Resolution:

The issue has been repaired.

PR38397 **Models affected:**

Model 6517B

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:

The issue has been repaired.

PR38398 **Models affected:**

Model 6517B

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:

The issue has been repaired.

PR38441 **Models affected:**

Model 6517B

Symptom:

Can't change temperature units from degrees C.

Resolution:

The issue has been repaired.

Enhancements

No enhancements have been made in A03.

Non-critical fixes

PR38202   **Models affected:**

Model 6517B

Symptom:

During calibration, the current offset is excessive if the current offset calibration steps fail.

Resolution:

The issue has been repaired.

Known issues

There are no known issues in A03.