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General Information

Supported Models

This firmware is used on the following Keithley products:

6220 and 6221.

Because this firmware is used on multiple models, this version of firmware may be available for use on one or more models while still being unqualified for use on the others. Please refer to the upgrade considerations section below for the product of interest for more details.

Installation Instructions

Use Keithley Flash Wizard to install D04.

Upgrade considerations for all 6220 and 6221 models

The following table lists the considerations that should be made when deciding whether to upgrade your 6220 or 6221 instrument firmware to version D04.

Consideration for upgrade	From version Axx	From version D01 D02 D03
Recalibration required?	---	No
Backward compatibility concerns?	---	No
Requalification recommended?	---	No
Should you upgrade?	No	Review ¹

'A' versions of 6220 and 6221 such as A05 are incompatible with version D03 and should not be upgraded to any 'D' versions. Contact Keithley Instruments if you require upgrades.

¹ Review the entire list of changes made in all firmware versions between your current version and version D04. Upgrade if any of the fixes or enhancements are needed.

D04 Release

Overview

The D04 release was to correct the external-triggering operation of the Waveform output on the 6221. No enhancements took place.

Critical Fixes

PR51707 **Models Affected:**

6221

Symptom:

Ethernet communication could lock up during high traffic.

Resolution:

Ethernet communication will no longer lock up due to high amounts of traffic.

PR61720 **Models Affected:**

6221

Symptom:

When data is formatted as either SREal or DREal, occasionally bytes of 0x00 are missing in the buffer.

Resolution:

Buffer now contains all data.

PR45858 **Models Affected:**

6220, 6221

Symptom:

Queries for SOUR:DCON:DELT?, SOUR:DCON:START?, SOUR:DCON:STOP?, and SOUR:DCON:STEP? returned data in decimal format instead of exponent format.

Resolution:

Queries for SOUR:DCON:DELT?, SOUR:DCON:START?, SOUR:DCON:STOP?, and SOUR:DCON:STEP? now return data in exponent format.

D03 Release

Overview

The D03 release was to correct the external-triggering operation of the Waveform output on the 6221. No enhancements took place.

D02 Release

Overview

The D02 release was to correct Built-in-test 102.1 on the 6221. No enhancements or bug fixes took place.

D01 Release

Overview

The D01 release was to support new Ethernet hardware on the 6221 and to support new flash devices on both models. No enhancements or fixes took place.

A05 Release

Overview

Critical Fixes

PR32266 **Models Affected:**

6221

Symptom:

:SOUR:PDEL:SWE ON command causes syntax error

Resolution:

Fixed :SOUR:PDEL:SWEep command to accept ON or OFF as arguments. Previously only took 1 or 0 as arguments.

PR32952 **Models Affected:**

6220, 6221

Symptom:

:SOUR:LIST:COMP:APP command does not append compliance values correctly.

Resolution:

Fixed :SOUR:LIST:COMP:APP command so that compliance values are appended.

PR27279 **Models Affected:**

6221

Symptom:

Selecting wave duration in cycles as an option does not show up correctly when re-entering the menu; it will show SET-TIME instead of SET-CYCLES unless the number of cycles is entered.

Resolution:

Fixed menu so that the menu option is displayed correctly, even if the number of cycles is left at default.

Enhancements

No enhancements have been made.

Known Issues

No known issues.