



Series 2280S Precision Measurement DC supply

Version 1.06 Firmware Release Notes

Keithley Instruments, Inc.
28775 Aurora Road
Cleveland, Ohio 44139-1891
1-888-KEITHLEY
www.keithley.com

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General Information

Supported models

This firmware is intended for use on the following Keithley Instruments product models:

2280S-32-6,
2280S-60-3,

Firmware Upgrade/Downgrade Instructions

NOTE: Do not turn off power or remove the USB flash drive until the upgrade process is complete.

From the front panel:

1. Copy the firmware upgrade file to a USB flash drive. The file is: `ki_2280_v01_06.tfb`.
2. Verify that the upgrade file is in the root subdirectory of the flash drive. 2280 firmware files end with the file extension `.tfb`. (example: `H:\ki_2280_v01_06.tfb`)
3. Disconnect any input and output terminals that are attached to the instrument.
4. Turn on instrument power.
5. Insert the flash drive into the USB port on the front panel of the instrument.
6. From the instrument front panel, press the **MENU** key.
7. Under System, select **Manage**.
8. Select the type of upgrade you want to do:
To upgrade to a newer version of firmware: Select **New**.
To force downgrading to an older version of firmware: Select **Older**.
9. When the upgrade is complete, reboot the instrument.

Upgrade considerations for all Series 2280S models

The following table lists the considerations that should be made when deciding whether or not to upgrade your Series 2280S instrument firmware to version 1.06.

Consideration for upgrade	From versions 1.03
Recalibration required?	No
Backward compatibility concerns?	Yes
Requalification recommended?	No
Should you upgrade?	Review ¹

¹ Review the entire list of changes made in all firmware versions between your current version and version 1.06. Upgrade if any of the fixes or enhancements are desired.

Version 1.06 Release

Overview

Version 1.06 is a maintenance and function enhancement release of the Series 2280S firmware. This release addresses one critical issue, which was introduced in version 1.03, as well as correcting some noncritical issues and providing a few enhancements.

Compatibility concerns

Compare with version 1.03, Version 1.06 has these changes,

1. Removed start zero function in List Mode. Remove related SCPI command.
2. Add OPS report in Oxp status vector, which means Open Lead Fault.
3. Changed default filter window to 1 from 0.1.

Critical fixes

CR00484506 **Models affected:**

2280S-32-6, 2280S-60-3

Symptom:

Enabled List demo function and reenter the Information menu, the instruments may reboot.

Resolution:

This issue has been corrected.

CR00477649 **Models affected:**

2280S-32-6, 2280S-60-3

Symptom:

Unit sometimes locks up after several OCP eventst.

Resolution:

This issue has been corrected.

Enhancements

CR00502662 **Models affected:**

2280S-32-6, 2280S-60-3

Enhancement:

Implement only V and only I measurement in List mode.

CR00502663 **Models affected:**

2280S-32-6, 2280S-60-3

Enhancement:

Implement separate TIME mode and POINT mode.

CR00502665 Models affected:

2280S-32-6, 2280S-60-3

Enhancement:

Implement Level Trigger function. It can capture specific wave form.

CR00502667 Models affected:

2280S-32-6, 2280S-60-3

Enhancement:

Add Auto Load ability after power up.

CR00502668 Models affected:

2280S-32-6, 2280S-60-3

Enhancement:

Enhance measurement displaying for only V and only I.

CR00502670 Models affected:

2280S-32-6, 2280S-60-3

Enhancement:

Add raw socket connection for SCPI access at TCP 5025

CR00502671 Models affected:

2280S-32-6, 2280S-60-3

Enhancement:

Implement Data Logging function. PC can store measurement result simultaneously, and export them into Excel.

CR00502674 Models affected:

2280S-32-6, 2280S-60-3

Enhancement:

Enhance the SCPI console. User can run a batch of SCPI commands through LXI interface.

CR00502675 Models affected:

2280S-32-6, 2280S-60-3

Enhancement:

Add Fetch Data and Snapshot function to VFP. User can take snapshot on VFP screen and all data in Data Buffer and save them to PC.

Noncritical fixes

CR00477046 Models affected:

2280S-32-6, 2280S-60-3

Symptom:

The resolution of the :SOURce:DElay command is insufficient at 1ms. Resolution should be 100us or better.

Resolution:

This issue has been corrected by optimizing code to support 20us.

CR00476895 Models affected:

2280S-32-6, 2280S-60-3

Symptom:

Resolution changed will let DUT work abnormal. turn on Rel and Math, change resolution from 6.5 to 5.5, then turn off and turn on Rel, all parameters are fixed.

Resolution:

Rewrite the code to avoid task block during the Rel status changes.

CR00478423 Models affected:

2280S-32-6, 2280S-60-3

Symptom:

The *RST command doesn't reset the filter value to default.

Resolution:

This issue has been corrected

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Known issues

The list mode in 1.06 is not compatible with KickStart 1.5 or below because KickStart doesn't recognize the mode selection command [:SOURce[n]]:LIST:HTIME.

Version 1.03 Release

Overview

Version 1.03 is the initial release for 2280S. It provides the functionality of 2280S series power supply. No fixes are listed since this is the very first firmware release. Known Issues, Usage Notes, and Upcoming Enhancements are listed below in this document.

Compatibility concerns

N/A

Critical fixes

N/A

Enhancements

N/A

Noncritical fixes

N/A

Known issues

N/A