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General Information

Supported models

This firmware is used on the following Keithley Instruments products:

Models 707B, 708B, and all compatible cards

Installation instructions

For other releases, firmware installation instructions are given in the “Appendix A: Maintenance – Upgrading Firmware” section in the 707B and 708B Reference Manual (document number: 707B-901-01). This manual is available the Keithley Instruments website at <http://www.keithley.com/support>. Alternatively, you can get upgrade assistance from Keithley by calling your local Keithley support office.

Upgrade considerations for Models 707B, 708B

This release updates the firmware for the 707B and 708B mainframe.

The following table lists the considerations that should be made when deciding whether or not to upgrade to this version from any previous version.

Upgrade considerations				
Existing firmware version	Recalibration required?	Requalification suggested?	Backward compatibility concerns?	Should you upgrade?
1.03	No	Yes	No	Yes
1.02	No	Yes	No	Yes
1.01	No	Yes	No	Yes
1.00	No	Yes	No	Yes

Version 1.04c Release

Overview

The 707B and 708B version 1.04c firmware added support for the model 7531 card.

The following table lists the version numbers of the available 707B and 708B components when the firmware upgrade is complete.

Model	Version
707B or 708B Mainframe	1.04c
7072 Semiconductor Matrix	2.XXx
7072-HV High Voltage Semiconductor Matrix	2.XXx
7072-HVD High Voltage Semiconductor Matrix	2.XXx
7073 High Frequency Coaxial Matrix	2.XXx
7173-50 2-Pole High Frequency Matrix	2.XXx
7174A High Speed Low Current Matrix	2.XXx
7177 Calibration Card	2.XXx
7150 Test Card	1.40a
7530 High Speed Low Current Matrix	2.XXx
7531 High Speed Low Current Matrix	2.XXx

(Note: 2.XXx refers to multiple possible versions which start with a major revision of 2.)

Enhancements

The 707B and 708B version 1.04c firmware added functionality for use in the S530.

Version 1.03h Release

Overview

The 707B and 708B version 1.03h firmware added support for the model 7072-HVD card.

NOTE: Since this upgrade contains Java applet changes, the web browser needs to be restarted after the firmware update is complete. It may also be necessary to delete the temporary cache for the web browser.

Enhancements

The 707B and 708B version 1.03h firmware is needed to recognize the model 7072-HVD card, used in the S530. This card allows discharging of high voltages to avoid hot-switching of the relays.

Version 1.03g Release

Overview

The 707B and 708B version 1.03 firmware is a problem fix release that also adds functionality. Some problem corrections may impact compatibility, please review the corrections prior to installation.

The following table lists the exact version numbers of the available 707B and 708B components when the firmware upgrade is complete.

Model	Version
707B or 708B Mainframe	1.03g
7072 Semiconductor Matrix	2.XXx
7072-HV High Voltage Semiconductor Matrix	2.XXx
7072-HVF High Voltage Semiconductor Matrix	2.XXx
7073 High Frequency Coaxial Matrix	2.XXx
7173-50 2-Pole High Frequency Matrix	2.XXx
7174A High Speed Low Current Matrix	2.XXx
7177 Calibration Card	2.XXx
7150 Test Card	1.40a
7530 High Speed Low Current Matrix	2.XXx

(Note: 2.XXx refers to multiple possible versions which start with a major revision of 2.)

Critical fixes

None

Enhancements

PR45831 **Models affected:**
707B

Features:

- Added All Slots view. (Shows all 6 slots)
- Added mirroring of both lines of the User Screen on the web applet. (Only in All Slots view)
- Added the Cross Point Toggle text box to allow toggling the state of a channel. (Only in All Slots view)
- Fixed login dialog window resolution issue.
- Fixed issue with card views that do not show properly at start of applet until window is resized.

Resolution:

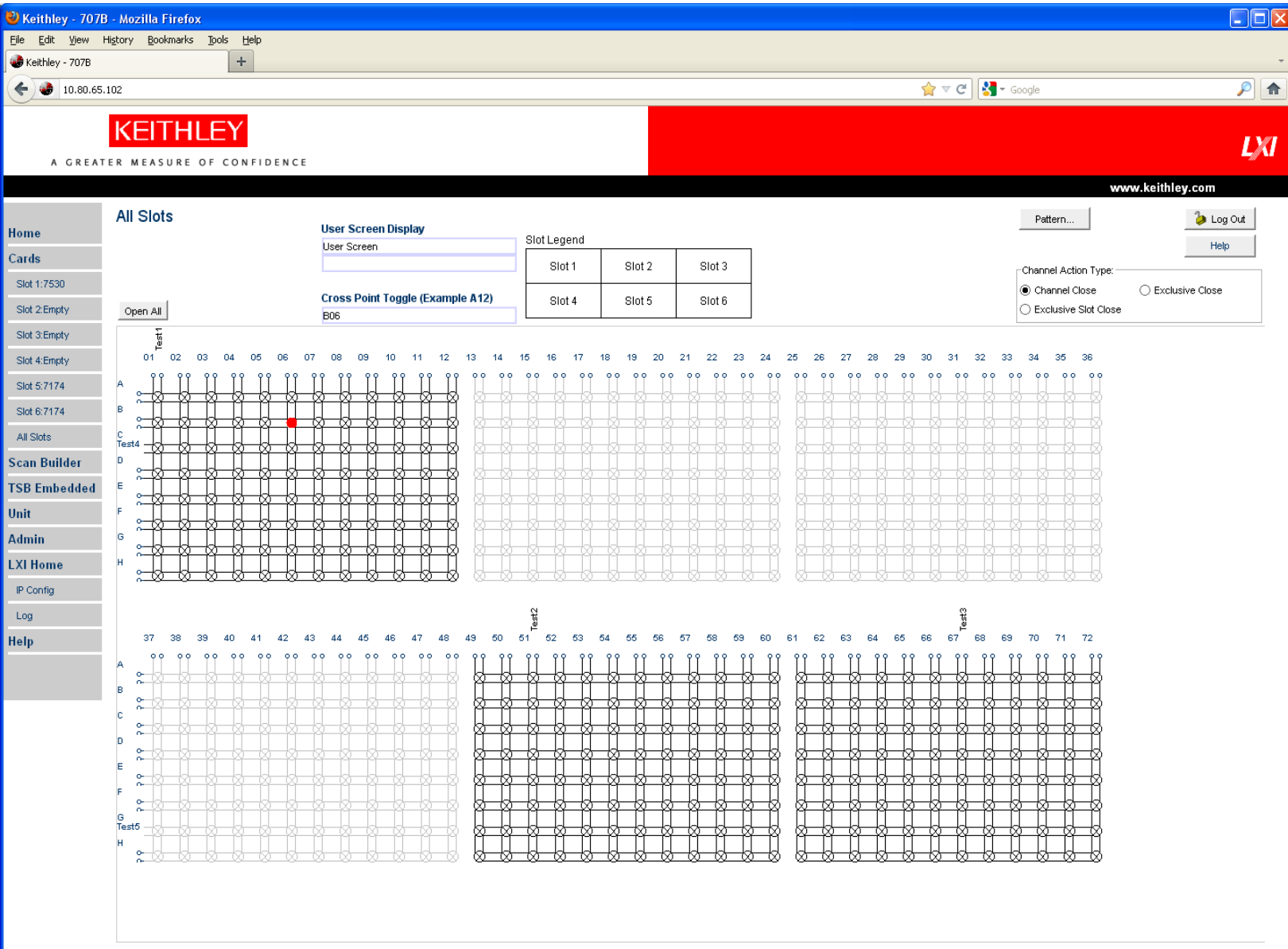
-The All Slots view functions identically to the existing slots views with the following exceptions. The All Slots view shows all 6 slots in a single view. Each row and column has a static label and a user settable label. The user settable labels correspond to the labels that are displayed on the front panel and the other slot views in the applet. If the user settable labels have not been changed from their default values then they will not appear in the All Slots view. To change the user settable labels a TSB script can be run, a user settable label can be set in the single panel views of the applet or the user can right click on any of the static labels and modify the corresponding user settable label. The first set of user settable row labels are linked to the first card that is populated in slots 1, 2 or 3. The second set of user settable row labels are linked to the first card that is populated in slots 4, 5 or 6. A picture of the All Slots view is provided on the next page.

-The text boxes that display the User Screen will show both lines. They update automatically if the User Screen is updated and they do not require the user to login to the applet.

-The Cross Point Toggle text box accepts a channel address that is 1 character and 2 digits, the first is the letter corresponding to the row and the next 2 digits are the number of the column. Example: A12. The address is not case sensitive. After entering an address pressing the Enter key will cause the corresponding channel to toggle states. Continuing to press the Enter key will cause the channel to continue toggling states. This text box requires the user to login to the applet.

-Removed the pack() command and increased the resolution of the login dialog window.

-An issue with the card views was fixed. The card views were shown too early when the applet was starting and this caused their resolution to be incorrect. The temporary solution was to resize the web browser.



PR45850 Models affected:

707B 708B

Features:

- The internal web server was updated to support the All Slots view on the 707B.
- The internal web server was updated to support changing applet views in the Chrome web browser.

Resolution:

- When the web page detects the Chrome web browser the applet tag is used to embed the applet.

PR45852 Models affected:

707B 708B

Features:

- Added support for the 7530 card.
- Added support for the 7072-HVF card.

Resolution:

- All functionality was added.

PR45853 Models affected:

707B

Features:

- Send the User Screen to the applet to display on the All Slots view.

Resolution:

- All functionality was added as well as the ability to modify the User Screen.

PR45854 Models affected:

707B 708B

Features:

- Display the GPIB address and DDC mode on the front panel at boot.

Resolution:

- At boot the GPIB address is display on the front panel to the right of the model number. After a delay this is changed to the DDC mode. The DDC mode will either be 70xA, 70xB or OFF.

PR45914 Models affected:

707B

Features:

In the web interface the help page was updated to include All Slots.

Resolution:

Information concerning the All Slots panel was added to help.html.

Noncritical fixes

PR45849 Models affected:

707B 708B

Symptom:

The error mode for DDC was set to SERIOUS. This was considered too severe.

Resolution:

The error mode for DDC was set to RECOVERABLE.

PR45855 Models affected:

707B

Symptom:

- When using custom column labels the selected column was not changing when switching slots.
- When pressing exit from the column focus while using a custom column label the selected column would revert to 01.
- When using a custom column label switching slots would cause the front panel to become confused about what channel was selected.

Features:

- Modified the functionality of the scroll wheel on the front panel when selecting a channel. The first click will take you to the row selector. The second click will take you to the column selector. The third click selects the channel. Any click after will toggle the state of the selected channel. Pressing exit 1 time takes you back to the row selector, 2 times takes you back to the main menu.

Resolution:

- When switching slots the firmware will display the corresponding column label of the new slot.
- The firmware now retains the chosen custom column label when using the exit key.
- The firmware can now change slots when using custom column labels.

PR43236 Models affected:

707B 708B

Symptom:

When upgrading the firmware the first dialogue showed in the title bar "Download Complete".

Resolution:

The dialogue was changed to "Upgrade Firmware"

PR45889 Models affected:

707B 708B

Symptom:

In the web interface the Help tab was a broken link.

Resolution:

The Help tab was corrected.

Known issues

None

Version 1.02 Release

Overview

The 707B and 708B version 1.02 firmware is a problem fix release. Some problem corrections may impact compatibility, please review the corrections prior to installation.

The following table lists the exact version numbers of the available 707B and 708B components when the firmware upgrade is complete.

Model	Version
707B or 708B Mainframe	1.02a
7072 Semiconductor Matrix	2.XXx
7072-HV High Voltage Semiconductor Matrix	2.XXx
7073 High Frequency Coaxial Matrix	2.XXx
7173-50 2-Pole High Frequency Matrix	2.XXx
7174A High Speed Low Current Matrix	2.XXx
7177 Calibration Card	2.XXx
7150 Test Card	1.40a

(Note: 2.XXx refers to multiple possible versions which start with a major revision of 2.)

Critical fixes

PR43369 Models affected:

707B 708B

Symptom:

Some units may fail to initialize (three dots will appear on the front panel display) or may operate unpredictably at high temperatures.

Resolution:

The unit now operates properly.

Enhancements

None

Noncritical fixes

None

Known issues

None

Version 1.01 Release

Overview

The 707B and 708B version 1.01 firmware is a problem fix release. Some problem corrections may impact compatibility, please review the corrections prior to installation.

The following table lists the exact version numbers of the available 707B and 708B components when the firmware upgrade is complete.

Model	Version
707B or 708B Mainframe	1.01a
7072 Semiconductor Matrix	2.XXx
7072-HV High Voltage Semiconductor Matrix	2.XXx
7073 High Frequency Coaxial Matrix	2.XXx
7173-50 2-Pole High Frequency Matrix	2.XXx
7174A High Speed Low Current Matrix	2.XXx
7177 Calibration Card	2.XXx
7150 Test Card	1.40a

(Note: 2.XXx refers to multiple possible versions which start with a major revision of 2.)

Critical fixes

PR43154 Models affected:

707B

Symptom:

A scan using a card in slot six will not complete. The scan stops on a step which includes slot six.

Resolution:

A scan completes as expected on all slots.

PR43216 Models affected:

707B, 708B

Symptom:

A scan which steps from one slot to another slot may sometimes stop on the slot transition.

Resolution:

A scan completes as expected when crossing slots.

Enhancements

None

Noncritical fixes

None

Known issues

None

Version 1.00 Release

Overview

Initial product release.