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GENERAL INFORMATION

SUPPORTED MODELS

This firmware is used on the following Keithley Instruments products: Model 2701 with D0x firmware

UPGRADE CONSIDERATIONS

This firmware applies to units with revision D firmware only. Do not attempt to upgrade units with older A, B or C firmware.

Due to hardware differences, the instrument must be at firmware revision D01 or higher to upgrade to D06. If the instrument has A, B, or C firmware revision, the instrument cannot be upgraded to revision D firmware. Attempting to upgrade from version AXX, BXX, or CXX to DXX without needed hardware requirements will damage the instrument so that it cannot be used. Contact Keithley Service Center for instructions and cost to upgrade firmware from version AXX, BXX, or CXX to DXX.

FIRMWARE UPGRADE INSTRUCTIONS

Download the following from the [Keithley Support Website](http://www.keithley.com/support) (<http://www.keithley.com/support>):

- Keithley Flash Wizard program (if you do not already have this)
 - Unzip the files in a folder of your choice and then run the `setup.exe` program.
 - Follow the instructions to install the program.
- The firmware revision image file you want to install on your Model 2701 instrument.

Perform the following steps to install the firmware revision onto the instrument:

1. Run the Flash Wizard program.
2. Select the appropriate interface at the Communications Select screen and follow any subsequent instructions.
3. The program should auto-detect the 2701.
4. You are asked to specify the firmware file.
5. The upgrade proceeds from there.

Contact Keithley (<https://www.tek.com/keithley>) if you have any problems.

VERSION D06 RELEASE NOTES

RESOLVED ISSUES

Issue Number:	PR-61718
Symptom:	When data is formatted as either <code>SREa1</code> or <code>DREa1</code> , occasionally bytes of <code>0x00</code> are missing in the buffer.
Resolution:	The buffer now contains all data.
Issue Number:	PR-52258
Symptom:	The averaging filter can produce incorrect results if the filter type, window, or count are altered while the filter state is enabled.
Resolution:	Changing the filter type, window, or count while the filter state is enabled no longer causes incorrect results.

ENHANCEMENTS

There are no enhancements in this update.

VERSION D05 RELEASE NOTES

OVERVIEW

The Model 2701 firmware version D05 corrected an error which prevented operation of the save/recall setup memory.

RESOLVED ISSUES

Issue Number:	PR-44504
Symptom:	Recalling a saved user setup results in -314 "save/recall memory error"
Resolution:	The issue has been resolved

ENHANCEMENTS

There are no enhancements in this update.

VERSION D04 RELEASE NOTES

OVERVIEW

The Model 2701 firmware version D04 corrected an error which could lead to loss of the MAC address.

RESOLVED ISSUES

Issue Number:	PR-42593
Symptom:	Some units may lose MAC address information.
Resolution:	The issue has been resolved.

ENHANCEMENTS

There are no enhancements in this update.

VERSION D03 RELEASE NOTES

OVERVIEW

The Model 2701 firmware version D03 corrected an error which prevented saving user setups properly.

RESOLVED ISSUES

Issue Number:	PR-42454
Symptom:	Error -314 appears when user setups are saved.
Resolution:	Firmware version D03 corrects this problem.

ENHANCEMENTS

There are no enhancements in this update.

VERSION D02 RELEASE NOTES

OVERVIEW

The Model 2701 firmware version D02 improves the operation of the instrument when it is attached to a local area network (LAN).

RESOLVED ISSUES

Issue Number:	PR-42039
Symptom:	Occasionally, the instrument does not respond with the first requested reading taken after switching from DCV to ACV, frequency, or period measurement functions.
Resolution:	Firmware version D02 corrects this problem.

ENHANCEMENTS

Issue number:	PR-41206
Enhancement	A new command was added (:SYSTem:ETHernet:SOCKet:CLOSe) to close the primary socket using a secondary connection on port 2842. This command can only be sent over port 2842. It will close any socket currently open on port 1394.

VERSION D01 RELEASE NOTES

OVERVIEW

The Model 2701 firmware version D01 release added support for new local area network (LAN) communication hardware.

RESOLVED ISSUES

There are no resolved issues in the Model 2701 firmware version D01 release.

ENHANCEMENTS

The instrument-hosted web page is faster to download and is now compatible with modern web browsers including Microsoft® Internet Explorer®, Mozilla® Firefox®, Opera™, and Google Chrome™. The web page also has a separate password to control access to the web page, which is now separate from the system password. The new password can be set and controlled from the web page.

VERSION C01 RELEASE NOTES

RESOLVED ISSUES

There are no resolved issues in the Model 2701 firmware version C01 release.

ENHANCEMENTS

Issue number:	PR-41343
Enhancement	Release new firmware required to support flash upgrades for the new flash memory device. This firmware also prevents downgrades to a version that cannot support a newer flash part.

VERSION B03 RELEASE NOTES

OVERVIEW

The Model 2701 firmware version B03 release addressed an FRAM timing problem that can lead to lost settings.

RESOLVED ISSUES

Issue Number:	PR-39045
Symptom:	Information such as communication settings, MAC address, serial numbers, and so on are lost from nonvolatile memory.
Resolution:	This firmware revision corrects this problem; however, you will need to reprogram the lost settings (you may need assistance from Keithley applications or repair personnel).

ENHANCEMENTS

There are no enhancements in this update.

VERSION B02 RELEASE NOTES

OVERVIEW

The Model 2701 firmware version B02 release addressed an Ethernet connection failure seen on some units. To eliminate the connection failure, you must also make a hardware modification, or the correction will not be implemented.

RESOLVED ISSUES

Issue Number:	PR-38977
Symptom:	Some units power up with the Ethernet interface not responding.
Resolution:	Return the instrument to Keithley for firmware upgrade and hardware modification.

ENHANCEMENTS

There are no enhancements in this update.

VERSION B01 RELEASE NOTES

OVERVIEW

The Model 2701 firmware version B02 release addressed an Ethernet connection failure seen on some units. To eliminate the connection failure, you must also make a hardware modification, or the correction will not be implemented.

CAUTION

Do not downgrade from versions B01 or later because the Ethernet connection may not work (depending upon what hardware you downgrade).

RESOLVED ISSUES

There are no resolved issues in the Model 2701 firmware version B01 release.

ENHANCEMENTS

There are no enhancements in this update.