

# Read this first

## Introduction

The Model 2700 requires firmware revision B03 or higher (B04, B05, etc.) to properly support the Model 7701 Low-Voltage 32-Channel Differential Multiplexer, the Model 7707 Multiplexer – Digital I/O Module, and the Model 7709 6 × 8 Matrix Module. If the firmware revision is lower than B03, a ROM upgrade will be required.

## Step 1. Determine the firmware revision of your Model 2700

The firmware revision is briefly displayed during the power-on sequence of the instrument. When the instrument is turned on, all display annunciators will turn on for a short period of time. After that, the firmware revision will be briefly displayed as follows:

REV:yyy zzz

where: yyy is the firmware revision (e.g., B03) of your Model 2700.

zzz is the display board firmware revision (e.g., A01), which does not apply to this upgrade.

To determine the firmware revision with remote control, use the \*IDN? query command. After sending the \*IDN? command and addressing the Model 2700 to talk, the following response message is sent to the computer:

KEITHLEY INSTRUMENTS INC., MODEL 2700, xxxxxxx, yyy/zzz

where: xxxxxxx is the serial number of the Model 2700.

yyy is the firmware revision (e.g., B03) of your Model 2700.

zzz is the display board firmware revision (e.g., A01), which does not apply to this upgrade.

## Step 2. Determine the next course of action

Based on the firmware revision of your Model 2700, choose the appropriate course of action:

- If the firmware revision is B03 or higher, an upgrade is not needed to use the Models 7701, 7707, or 7709 with the Model 2700.
- If the firmware revision is B02 or B01, then upgrade is required. Proceed to Step 3 to perform the upgrade.
- If the firmware revision begins with the letter A (e.g., A01, A02, etc.), DO NOT perform the upgrade. For these revisions, a hardware upgrade is also required. Contact your local Keithley service center for instructions and pricing for upgrading your Model 2700.

## Step 3. Perform the ROM upgrade (from B01 or B02 Revision)

### System requirements

The ROM upgrade is provided on the two installation disks. The minimum requirements for the PC is that it is Pentium-class running Windows 95. The firmware can be installed via the IEEE-488 bus or the RS-232 interface:

- **IEEE-488 Bus** – If using the IEEE-488 bus, a Keithley, CEC, or National Instruments IEEE-488.2 interface board must be installed in the PC. Use an IEEE-488.2 cable to connect the interface board to the Model 2700.
- **RS-232 Interface** — If using the RS-232 port, use an RS-232C cable to connect the port to the Model 2700.

### ROM upgrade procedure

1. From Windows, click Start → Settings → Control Panel → Add/Remove Program, and then remove KI Model 2700 ROM Upgrade (A02 or B02) if previously installed.
2. Install the KI Model 2700 ROM Upgrade Disk1 into the PC.
3. From Windows, click Start → Run.
4. From the Windows dialog box, run the A:\setup.exe file, and follow all the prompted instructions.
5. From Windows, click Start → Programs → KI Model 2700 ROM Upgrade (B03) and then follow all prompted instructions.
6. Perform Step 1 above (determine the firmware of your Model 2700) to verify B03 installation.

*Thanks again for choosing the Model 2700 DMM /  
Data Acquisition System and Keithley Instruments*