S E R V I C E   N O T E

34401A Digital Multimeter

Calibration Message Strings Longer Than 39 Characters Can Cause a GPIB Bus Hang Under Certain Circumstances

Situation:

As stated in the 34401A User's Manual, Chapter 3 Calibration Section, the maximum allowable calibration message string length is 40 characters. The manual does not indicate what will happen if this string length is exceeded. The 34401A will appear to accept strings longer than 40 characters OK. However, if this length is exceeded, the result can be a GPIB Bus hang-up under the following conditions:

1. A calibration string longer than 40 characters is stored in the 34401A.

2. The 34401A power is cycled, either by using the power switch or by unplugging it.

3. The 34401A power is restored.

4. The calibration message is queried. This can be done at anytime after the 34401A power is restored, be it before or after setting any parameters, taking measurements, etc.

5. One or more additional queries are made following the query of the calibration message. This can include querying parameters, using the Basic ENTER statements, etc.

This problem is easily corrected by making sure that the calibration message is stored again with string legnth of 40 or less characters.

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ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
INFORMATION ONLY		
AUTHOR: CMC	ENTITY: 0900	ADDITIONAL INFORMATION:

Agilent Technologies