

August 13, 2009

Destruction of Data in Non-Volatile Memory in the Keithley Model 7002

The Keithley Model 7002 contains memory devices to hold firmware code that is executed by an internal microprocessor to operate the product and memory to save setup information. The following sections describe how the data stored in the memory devices may be cleared or destroyed.

Warning: Some of the procedures in this document may expose hazardous voltage and the risk of electric shock or death. Only trained, qualified, technical persons experienced with the risks and precautions of working with electrical instruments should perform these procedures.

Description of memory devices and their use:

1. 1 of 256k by 16 bit ROM: Stores firmware for the instrument.
2. 2 of 128k by 8 bit SRAM: Stores relay setup information as programmed by the user.
3. 1 of 2k by 8 bit EEPROM: Stores information on the unit (serial number, etc.)
4. 1 of Altera EPM 5064 TM (or equivalent) programmable logic device: This part is programmed to emulate hardware controls and is not re-programmable in the field.
5. The microprocessor is a Motorola 68302 TM (or equivalent) and contains 1152 bytes of SRAM.

The SRAM and microprocessor SRAM are battery backed up.

Procedure for clearing memory content:

Note: If the Model 7002 starts and operates properly when powered on, it is very unlikely that the ROM memory was compromised. The microprocessor does a self test including a checksum. Any difference in the ROM contents from the original programming will usually cause a checksum error or the unit will not function.

1. 1 of 256k by 16 bit ROM: This is not field alterable.
2. 2 of 125k by 8 bit SRAM: Remove the battery on the digital board and leave the unit off for 1 minute.
3. 1 of 2k by 8 bit EEPROM: Stores information on the unit (serial number, etc.): Use the front panel menu and select RESET to reset the instrument to the default setup conditions (see Table 4-4 in the manual). Some items are not changed by this command and must be reset manually (e.g. language).



A G R E A T E R M E A S U R E O F C O N F I D E N C E

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4. 1 of Altera EPM 5064 TM (or equivalent) programmable logic device: This part is programmed to emulate hardware controls and is not re-programmable in the field.
5. The microprocessor SRAM: Remove the battery on the digital board and leave the unit off for 1 minute.

If you have any further questions or comments, please feel free to contact my office at anytime.

Regards,

A handwritten signature in black ink that reads "W. Pelster". The signature is written in a cursive, flowing style.

William Pelster
Director of Quality