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July 12, 2022

Erasing memory content in the
Keithley Model 3706A System Switch / Multimeter

The Keithley Model 3706A product family contains memory devices to hold firmware code that is executed by an internal microprocessor to operate the product and memory to save setup and data. The following sections describe how the data stored in the memory devices may be erased.

<mark>NOTE: The erasing process described in this document clears pointers to the data and does NOT sanitize the underlying data. To sanitize the instrument's data, the integrated circuit flash memories must be removed and destroyed.</mark>

Description of memory:
The 3706A contains 64MByte of SDRAM for use by the main processor and switch functions. It also contains 32MByte of Flash memory to store the operating firmware, calibration constants, user TSB code, relay patterns, and readings.

The instrument may also contain a digital multimeter (DMM). If this is present, then an additional 32MByte of SDRAM and 4MByte of Flash will be present to support the DMM firmware and memory needs.

The instrument also has a battery backed up clock that is only used for real time function (no stored data).

Note: If the Model 3706A starts and operates properly when powered on, it is unlikely that operating firmware was compromised.

Note: User TSB code may contain comments as well as TSB commands. Any text or information could potentially be stored in Flash memory.

Procedure for erasing memory content:
1. Open up the 3706A web page.
2. Select TSB Embedded.
3. Login. The default password is "admin".
4. Copy and paste the script below into the TSB Editor (the pane above the Console). Note: The script lines with double dashes are comments, which will be recognized and accepted by the TSP processor.
5. Enter a name for the script into the filed labeled "TSP Script:".
6. Click the Save Script button to save the script. Its name will appear in the list of User Scripts to the left of the editor.
7. Select the script in the User Scripts list and click the Run button. When the script is finished executing, a TSP> prompt will appear in the Instrument Output pane.
8. Select the script in the User Scripts list and click the Delete button to erase the script from nonvolatile memory. Repeat for any other scripts remaining in the User Scripts list.
9. Re-flash the operating system from a known safe copy.
10. Turn power off for one (1) minute to erase any information form volatile memory.

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Erasing Script:

```
-- Erase channel patterns from nonvolatile memory
for name in channel.pattern.catalog() do
channel.pattern.delete(name)
end

-- Erase DMM configurations from nonvolatile memory
for name in dmm.configure.catalog() do
dmm.configure.delete(name)
end

-- Erase userstrings from nonvolatile memory
for name in userstring.catalog() do
userstring.delete(name)
end

-- Reset instrument to factory defaults and then save as the user setup
reset()
setup.save()
```

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

Regards,

William Pelster
Principal Engineer