

Keithley Instruments  
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## Declassification and Security Instructions

### Introduction

If you have data security concerns, this document tells you how to clear or sanitize the Model 3760, 3761, 3762, and 3765 memory devices. It also explains how to declassify an instrument that is not functioning.

The procedures in this document are written to meet the requirements specified in:

- NISPOM, DoD 5220.22-M, chapter 8
- ISFO Process Manual for Certification and Accreditation of Classified Systems under NISPOM

### Contact information

If you have any questions after you review the information in this documentation, please contact your local Keithley Instruments office, sales partner, or distributor, or call Keithley Instruments corporate headquarters (toll-free inside the U.S. and Canada only) at 1-800-935-5595, or from outside the U.S. at +1-440-248-0400. For worldwide contact numbers, visit the [Keithley Instruments website](http://www.tektronix.com/keithley) (<http://www.tektronix.com/keithley>).

### Products

This document contains procedures for the following Keithley Instruments models:

- 3760 10-channel High Current Multiplexer Card
- 3761 10-channel Low Current Multiplexer Card
- 3762 10-channel High Voltage Multiplexer Card
- 3765 Hall Effect Card

### Terminology

The following terms may be used in this document:

- **Clear:** Removes data on media or in memory before reusing it in a secured area. Clears all reusable memory to deny access to previously unsecured information.
- **Demo setups:** Demonstration modules that come loaded on the instrument; you cannot modify them.
- **Direct method of modification:** You can modify data directly.
- **Erase:** Equivalent to clear (see above).
- **Indirect method of modification:** The instrument system resources modify the data; you cannot modify it.
- **Instrument declassification:** Procedures that must be completed before an instrument can be removed from a secure environment. Declassification procedures include memory sanitization and memory removal.
- **Media storage and data export device:** Devices that can be used to store or export data from the instrument, such as a USB port.
- **Nonvolatile memory:** Data is retained when the instrument power is turned off.
- **Protected user data area:** Contains data that is protected by a password.



- **Remove:** Clears instrument data by physically removing the memory device from the instrument.
- **Sanitize:** Eradicates instrument data from media and memory so it cannot be recovered by other means or technology. This is typically used when the device will be moved (temporarily or permanently) from a secured area to a non-secured area.
- **Scrub:** Directly retrieve and clear the contents of the memory device.
- **User accessible:** You can directly retrieve the contents of the memory device.
- **User data:** Measurement data that represents signals that you connect to the instrument.
- **User-modifiable:** You can write to the memory device during normal instrument operation using the front-panel interface or remote control.
- **User settings:** Instrument settings that you can change.
- **Volatile memory:** Temporary memory; data is lost when the instrument is turned off.

## Description of memory

All Model 3760, 3761, 3762, and 3765 instruments share common volatile and nonvolatile memory components. These instructions will work for all instruments listed in the [Products](#) section above.

All Model 3760, 3761, 3762, and 3765 instruments contain the following volatile and nonvolatile memory:

**FPGA (U2):** Volatile memory of instrument logic

**Flash Memory (U8):** Nonvolatile memory of instrument logic

**FRAM (U7):** Nonvolatile memory of relay cycle counts and card data (e.g. serial number, model number)

## Memory devices

The following tables list the volatile and nonvolatile memory devices in the standard instrument and listed options.

### Volatile memory devices

The following table lists Model 3760, 3761, 3762, and 3765 volatile memory devices and relevant memory-related information.

Type and minimum size	Function	User modifiable	Data input method	Location	To clear	To sanitize
FPGA	Programmable logic	No	Firmware upgrade process	U2	Turn instrument power off	Turn instrument power off

### Nonvolatile memory devices

The following table lists Model 3760, 3761, 3762, and 3765 nonvolatile memory devices and relevant memory-related information. If the table indicates that a device can be cleared by the user, see the detailed instructions in [Clearing Data](#).

Type and minimum size	Function	User modifiable	Data input method	Location	To clear	To sanitize
FLASH embedded memory, 8 MB	Contains FPGA logic	No	Firmware upgrade process	U8	Requires XILINX DLC9LP programmer to J2	Remove chip
F-RAM embedded memory, 64 KB	Contains card data and relay cycle counts	Yes	Card automatically tracks relay cycles	U7	Remove chip	Remove chip

## Clearing data

The Xilinx Platform Cable USB (Model DLC9LP or equivalent) can be used to clear data in U8 via JTAG connection to J2. There is no mechanism to clear data in U7. The chip must be physically removed.

## Sanitizing instrument data

The only way to sanitize data from Model 3760, 3761, 3762, and 3765 cards is to physically remove the nonvolatile chips listed in the tables above.

### To sanitize a nonfunctional instrument

The only way to sanitize data from Model 3760, 3761, 3762, and 3765 cards is to physically remove the nonvolatile chips listed in the tables above.