

THS3000 Series Oscilloscopes Declassification and Security Instructions

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Contacting Tektronix

Tektronix, Inc.
14150 SW Karl Braun Drive
P.O. Box 500
Beaverton, OR 97077
USA

For product information, sales, service, and technical support:

- In North America, call 1-800-833-9200.
- Worldwide, visit www.tektronix.com to find contacts in your area.

Clear and Sanitize Procedures

If you have data security concerns, this document helps you to sanitize memory devices in the THS3000 Series Oscilloscopes.

If you have any questions, contact the Tektronix Technical Support Center at <http://www.tektronix.com/support>.

Products

The following Tektronix products are covered by this document:

- THS3014
- THS3024

Terms

The following terms may be used in this document:

- **Clear.** This eradicates data on media/memory before reusing it in a secured area. All reusable memory is cleared to deny access to previously stored information by standard means of access.
- **Erase.** This is equivalent to clear.
- **Media.** Storage/data export device. A device that is used to store or export data from the instrument, such as a USB port/USB flash drive.
- **Sanitize.** This removes the data from media/memory so that the data cannot be recovered using any known technology. This is typically used when the device will be moved (temporarily or permanently) from a secured area to a nonsecured area.
- **Scrub.** This is equivalent to sanitize.
- **Remove.** This is a physical means to clear the data by removing the memory device from the instrument. Instructions are available in the product service manual.
- **User Accessible.** User is able to directly retrieve the memory device contents.
- **User-Modifiable.** The memory device can be written to by the user during normal instrument operation, using the instrument user interface or remote control.
- **Volatile memory.** Data is lost when the instrument is powered off.
- **Nonvolatile memory.** Data is retained when the instrument is powered off.
- **Power off.** Some instruments have a “Standby” mode, in which power is still supplied to the instrument. For the purpose of clearing data, putting the

instrument in Standby mode does not qualify as powering off. For these products, you must either press a rear-panel OFF switch or remove the power source from the instrument.

- **Instrument Declassification.** A term that refers to procedures that must be undertaken before an instrument can be removed from a secure environment. Declassification procedures include memory sanitization and memory removal, and sometimes both.

Memory Devices

The following table lists the volatile and nonvolatile memory devices in the oscilloscopes.

Table 1: Memory Devices

Reference designator	Description	Use
D4000	Controller “Spider”	Contains a mask ROM 4k x 32 with a initial program with the operating code for the oscilloscope and a RAM 1k x 32 to temporarily store stack values for computing actions.
D4001	1 x 4 Mb SRAM. SRAM memory	Used to store the actual screen and oscilloscope setup, and saved screens and oscilloscope setups.
D5000, D5002	2 x 32 Mb Flash EEPROM	Non-volatile memory used to store operating code (oscilloscope firmware) for the product, and to store calibration constants.
D5001, D5003	2 x 8 Mb SRAM	SRAM memory used to store the actual screen and oscilloscope setup, and saved screens and oscilloscope setups.

Memory Erasure

The operating code (instrument firmware) stored in D5000 and D5002 can be read and loaded using dedicated remote interface commands only available for internal use by Tektronix.

Calibration constants stored in D5000 and D5002 can be read using special remote interface commands only available for internal use by Tektronix. The calibration constants are generated when the oscilloscope is sent through its calibration process and are fundamental to the oscilloscope operation.

The saved screens and oscilloscope setups can be cleared from the oscilloscope by using the following procedure:

1. Press the **Save** button.
2. Press **F4 – FILE OPTIONS**.
3. Select **DELETE** with the up/down arrow keys.
4. Press the **Enter** button.

5. Press **F2** – **SELECT ALL**.
6. Press the **Enter** button.
7. Press **F4** – **YES** to confirm the Clear action.

To clear all data stored in SRAM, disconnect the oscilloscope from all voltage sources, open the battery door at the rear panel, and lift the battery out of the instrument. Replace the battery after 10 minutes.