Instructions

Tektronix

**Memory Erasure and
Nonvolatile Memory Parts List
TDS3000 & TDS3000B Series
Digital Phosphor Oscilloscopes**

071-1722-00

Memory Erasure and Nonvolatile Memory Parts List

The standard TDS3000 and TDS3000B Series instruments contain a proprietary architecture based on a PowerPC and the VxWorks operating system. Instrument code and calibration settings reside in FLASH memory.

Instrument setups and reference waveforms can be stored internally in FLASH or on the internal floppy disk drive.

Instrument code can be updated by the user from floppy disks. The latest firmware is available on www.tektronix.com. Loading firmware does not overwrite instrument calibration settings. Loading new firmware does not guarantee overwriting the instrument setups and reference waveforms. To guarantee FLASH memory erasure, use the Tek Secure function.

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

Memory Erasure

Floppy disk drives are standard on TDS3000 and TDS3000B models. Removed floppy disks can be stored or destroyed.

To erase FLASH memory confidential data on your oscilloscopes, use the Tek Secure function. The Tek Secure function does the following:

- Replaces all waveforms in all reference memories with null sample values

- Replaces the current front-panel setup and all stored setups with the default factory setup values

- Calculates the checksums of all reference waveform memory and setup memory locations to verify successful completion of waveform and setup erasure

- Displays a dialog indicating whether the secure erase was successful or unsuccessful

NOTE. Tek Secure does not erase or change factory calibration constants or Ethernet settings.

To use the Tek Secure function to erase FLASH memory:

1. Push the front-panel **UTILITY** button.

2. Push the **System** bottom bezel button until **Config** is selected.

3. Push the **Tek Secure Erase Memory** bottom bezel button.

4. Push the **OK Erase Setup & Ref Memory** side bezel button.

5. Power off the oscilloscope; then power on the oscilloscope to complete the process.

Disable LAN Ethernet Connectivity
(TDS3000 Series with TDS3EM Module, and All TDS3000B Models)

To disable LAN Ethernet connectivity:

1. Push the front-panel **UTILITY** button.

2. Push the **System** bottom bezel button until **I/O** is selected.

3. Push the **Ethernet Network Settings** bottom bezel button.

4. Push the **Change Instrument Settings** side bezel button.

5. Clear all settings. If you need to restore network connectivity at a later date, make sure to write down all setting values before clearing them.

6. Push the **OK Accept** side bezel button.

The LAN system is disabled and no longer allows data traffic in or out.

Nonvolatile Memory Parts Lists

The nonvolatile memory parts used in the TDS3000 and TDS3000B series oscilloscopes are shown in the following tables.

Table 1: TDS3000 Series memory parts (board number 679-4077-XX)

Part number	Reference designator	Description	Use
156-7633-XX	U540	IC, MEMORY; CMOS, SRAM;128K X 18, SYNCHRONOUS, 10NS	SYNCHRONOUS SRAM: holds the display image.
156-7633-XX	U550	IC, MEMORY; CMOS, SRAM;128K X 18, SYNCHRONOUS, 10NS	SYNCHRONOUS SRAM: holds the live acquisition waveforms.
156-7633-XX	U560	IC, MEMORY; CMOS, SRAM;128K X 18, SYNCHRONOUS, 10NS	SYNCHRONOUS SRAM: holds the live acquisition waveforms.
156-7951-00	U610	IC, Memory: CMOS, Flash; 2M X 8 /1M X 16, 3.0 ONLY, Bottom Sectored	FLASH: stores the instrument code, calibration constants, reference waveforms, and instrument setups.
156-7951-XX	U620	IC, Memory: CMOS, Flash; 2M X 8 /1M X 16, 3.0 ONLY, Bottom Sectored	FLASH: stores the instrument code, calibration constants, reference waveforms, and instrument setups.
156-4751-XX	U640	IC, MEMORY; CMOS, NVRAM;2K X 8, 150NS, INTERNAL BATTERY, W/CLOCK, Y2K, 3.3V	NVRAM: stores date format, RS-232 settings, and language choice.
156-7137-XX	U650	IC, MEMORY; CMOS;SDRAM;2MEG X 8, SYNC DRAM, 3.3V, 100MHZ	Synchronous DRAM: holds the instrument code and data during operation.
156-7137-XX	U660	IC, MEMORY; CMOS;SDRAM;2MEG X 8, SYNC DRAM, 3.3V, 100MHZ	Synchronous DRAM: holds the instrument code and data during operation.
156-7137-XX	U670	IC, MEMORY; CMOS;SDRAM;2MEG X 8, SYNC DRAM, 3.3V, 100MHZ	Synchronous DRAM: holds the instrument code and data during operation.
156-7137-XX	U680	IC, MEMORY; CMOS;SDRAM;2MEG X 8, SYNC DRAM, 3.3V, 100MHZ	Synchronous DRAM: holds the instrument code and data during operation.

Table 2: TDS3000B Series memory parts (board number 679-4077-XX)

Part number	Circuit board	Reference designator	Description	Use
156–7633–XX		U540	IC, MEMORY; CMOS, SRAM;128K X 18, SYNCHRONOUS, 10NS	SYNCHRONOUS SRAM: holds the display image.
156–7633–XX		U550	IC, MEMORY; CMOS, SRAM;128K X 18, SYNCHRONOUS, 10NS	SYNCHRONOUS SRAM: holds the live acquisition waveforms.
156–7633–XX		U560	IC, MEMORY; CMOS, SRAM;128K X 18, SYNCHRONOUS, 10NS	SYNCHRONOUS SRAM: holds the live acquisition waveforms.
156–7951–00		U610	IC, Memory: CMOS, Flash; 2M X 8 /1M X 16, 3.0 ONLY, Bottom Sectored	FLASH: stores the instrument code, calibration constants, reference waveforms, and instrument setups.
156–7951–XX		U620	IC, Memory: CMOS, Flash; 2M X 8 /1M X 16, 3.0 ONLY, Bottom Sectored	FLASH: stores the instrument code, calibration constants, reference waveforms, and instrument setups.
156–4751–XX		U640	IC, MEMORY; CMOS, NVRAM;2K X 8, 150NS, INTERNAL BATTERY, W/ CLOCK, Y2K, 3.3V	NVRAM: stores date format, RS-232 settings, and language choice.
156–8158–XX		U670	IC, MEMORY; CMOS, SDRAM;512K X 32 X 4 BANKS, 64M, SYNCHRONOUS, 3.3V, 125 MHZ	Synchronous DRAM: holds the instrument code and data during operation.