

**TDS6000C, TDS6000B, TDS7000B, CSA7000B,  
TDS6000, TDS7000, CSA7000  
Declassification and Security**

**Instructions**



077-0524-00

**Tektronix**



**TDS6000C, TDS6000B, TDS7000B, CSA7000B,  
TDS6000, TDS7000, CSA7000  
Declassification and Security  
Instructions**

Revision A

[www.tektronix.com](http://www.tektronix.com)

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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.tek.com](http://www.tek.com) to find contacts in your area.

# TDS6000, TDS6000B, TDS7000, TDS7000B, CSA7000, and CSA7000B Technical Report

Date: May 6, 2004

Amended: September 17, 2010 Added TDS6000C

Subject: Memory Erasure on TDS6000, TDS6000B, TDS6000C, TDS7000, TDS7000B, CSA7000 and CSA7000B oscilloscopes

These products contain an open architecture PC with REMOVABLE hard drive. All user storable data is stored on the removable hard drive. Setups are stored in NV RAM.

Located in the Utilities menu, Tek Secure™ capability is available for TDS6000, TDS6000B, TDS6000C, CSA7000, CSA7000B, TDS7000, and TDS7000B oscilloscopes. Tek Secure erases and overwrites all the waveform and setup memories. The waveform memories, stored on the hard drive, are overwritten with an “empty,” all zeros pattern. The setup memories, stored in NV RAM, are overwritten with the factory default front panel setup. The current front panel setup is also overwritten with the default factory setup.

The hard drive is removable on all TDS6000, TDS6000B, TDS6000C, CSA7000, CSA7000B, TDS7000, and TDS7000B models. It is located on the rear panel, standard, or on the front panel as an option. Remove the hard drive to be stored or destroyed. Additional hard drives can be purchased from Tektronix.

Floppy disk drives are standard on most TDS6000, TDS6000B, CSA7000, CSA7000B, TDS7000, and TDS7000B models. Remove all floppy disks. These can be stored or destroyed.

Most TDS6000, TDS6000B, TDS6000C, CSA7000, CSA7000B, TDS7000, and TDS7000B models include read/write capable CD ROM drives. Remove all CDs. These can be stored or destroyed.

Using Tek Secure will not affect calibration of the instrument because the calibration constants are stored on the acquisition board completely separate from any acquisition data. This allows complete erasure/removal of any secure data without affecting scope calibration. It also allows the oscilloscope to be calibrated in a non-secure site then used in a secure area without need for recalibration. Following removal or exchange of the hard drive, it will be necessary to run the SPC procedure in the Utilities menu after a 20-minute warm-up period.

The following instructions give a method to disable the built-in USB and CD-RW capability of these scopes. Using the BIOS disables the devices for DOS programs, while the Windows Device Manager disables the devices for Windows programs. These procedures assume the intent is to disable both USB and CD-RW to stop any attempt to use them.

To disable USB and CD-RW for DOS via the BIOS:

1. Press F2 during instrument Boot Up to go to the BIOS configuration menu.
2. Go to Advanced->USB Configuration, set High-Speed USB and Legacy USB Support to Disabled.
3. Go to Advanced->IDE Configuration, set IDE Controller to Primary. CD-RW is in the secondary IDE bus, thus, disabled.
4. Go to Security-> Set Supervisor Password, press return to set a Supervisor password, then go to User Access Level and set it to No Access.
5. Exit Saving Changes.

To disable USB and CD-RW for Windows via the Windows Device Manager:

1. Plug in a PS2 mouse and a PS2 keyboard because USB will be disabled.
2. In Windows Control Panel, click System, click Hardware tab, click Device Manager... button and launch the Device Manager window.
3. Expand Universal Serial Bus Controller; identify the three USB Root Hub listings (TDS6000C has four USB Root Hub listings). Right click the first listing and the third & fourth listing and select Disable. **Do not disable the second USB Root Hub because the Touch screen and USB floppy disk use it.**
4. Expand DVD/CD-ROM drives in the Device Manager window, identify TEAC CD-RW224EA, right click it and select Disable.
5. Reboot the scope to make the changes effective.

If you have any questions, contact the Tektronix Technical Support Center at 1-800-833-9200\*4.

**NV RAM setup memory used in TDS6000, TDS6000B, CSA7000, CSA7000B, TDS7000, and TDS700B oscilloscopes**

Oscilloscope type	Ref. number	Qty	P/N	Used for
TDS7000B, TDS6000B, CSA7000B	U520	1	156-4369-00	Storing setups
TDS6000, TDS7000, CSA7000	U662 or U660 or U661	1	156-4369-00 or 156-7954-00	Storing setups

## Appendix A. TDS6000C Memory Device Listing.

### TDS6154C DIGITAL STORAGE OSCILLOSCOPE (Modified Jan 2016)

Item	Description	Memory size	Comments
TDS6154C BASE	TDS6154C;XX ITEM		
	<b>Misc Parts</b>		
39015400	COMPUTER BOARD; PENTIUM 4/CELERON BOARD, UATX, ASHLAND 2.1 MOTHER BOARD ASSY, W/O PROCESSOR, D845GVAD2L, SAFETY CONTROLLED		Had one of these 3 motherboards
39015900	COMPUTER BOARD; PENTIUM 4/CELERON BOARD, UATX, LA CROSSE MOTHER BOARD ASSY, W/O PROCESSOR, BLKD865GLCLK INTEL P/N, SAFETY CONTROLLED		
39015901	COMPUTER BOARD; PENTIUM 4/CELERON BOARD, UATX, LA CROSSE MOTHER BOARD ASSY, W/O PROCESSOR, BLKD865GLCLK INTEL P/N, SAFETY CONTROLLED		
119391000	DISKETTE, FLOPPY; MAGNETIC MEDIA;3.5 INCH DOUBLE SIDED, BLANK, 1.44MB, PREF		Had one of these 2 floppy drives
119683300	DISK DRIVE; USB FLOPPY, 3.5 INCH;1.44MB, 0.5 INCH, TWO SIDED, DOUBLE DENSITY, SAFETY CONTROLLED		
119683200	HARD DISK DRIVE; 40 GB, 2.5 IN, IDE/ATAPI-6, 4200 RPM, 9.5MM, SINGLE PLATTER;IC25N040ATMR04-0, 08K0633, SAFETY CONTROLLED		Had one of these 2 hard disk drives
119733400	HARD DISK DRIVE; 40 GB, 2.5 IN, IDE/ATAPI-6, 5400 RPM, 9.5MM, SINGLE PLATTER, PATA;SURUGA, SAFETY CONTROLLED		
119683900	DISK DRIVE; OPTICAL, CD-RW, 5.25 SLIM, IDE, 24X, 24X, 10X, 650/700MB, 110MS;CD-W224E-A93, SAFETY CONTROLLED, DUPLICATE OF 119719600		Had one of these optical disk drives
119719600	DISK DRIVE; OPTICAL, 644MB, CD-RW/DVD ROM, COMBO, 16.7 MB/SEC, IDE/ATAPI;DW-224E-C93, SAFETY CONTROLLED		
119689000	PROCESSOR; PENTIUM 4, 2.0 GHZ INTERNAL CLOCK;2A;, 0.13 MICRON, 512K L2 CACHE, 40 0MHZ BUS, SOCKET 478 COMPATIBLE, BOXED W/FAN H EATSINK, 54 MAX WATTS, BX80532PC2000D, SAFETY CONTROLLED		Had one of these 2 processors
119703500	PROCESSOR; PENTIUM 4, 2.8 GHZ INTERNAL CLOCK;2A;, 0.13 MICRON, 512KB L2 CACHE, 40 0MHZ BUS, SOCKET 478 COMPATIBLE, BOXED W/FAN H EATSINK, 54 MAX WATTS;BX80532PE2800DSL6QB, FCBGA 478, SAFETY CONTROLLED		
156948400	IC, MEMORY;CMOS, SDRAM;64MEG X 64, 512MEG, SYNC, UNBUFFERED, 3.3V;MT16LSDT6464AG-10E, DIMM168	512 Meg	

	<b>Display Adapter 679-5497-xx</b>		
156436900	IC, MEMORY; CMOS, NVRAM;128K X 8, W/BATTERY;DS1245Y, DIP32, SAFETY CONTROLLED	1 Meg	
156751900	IC, PROCESSOR; CMOS, PERIPHERAL;FAST ETHERNET NETWORKING LAN CONTROLLER;82559, BGA196, DS4		
156789000	IC, PROCESSOR; CMOS, PERIPHERAL;GPIB TALKER/LISTENER;TNT4882-AQ, QFP100, DS4		
156834300	IC; CMOS, PERIPHERAL;DUAL ASYNCHRONOUS RECEIVER/TRANSMITTER, DUART, W/FIFO;16552D, PLCC44, TUBE		
156876700	IC, PROCESSOR; CMOS, CONTROLLER;PCI-BRIDGE/MEMORY CONTROLLER, MPC107, BGA503, DS4		
156924800	IC, PROCESSOR; CMOS, PERIPHERAL;PCI TO HIGH SPEED ISA BRIDGE INTERFACE FOR 156-7890-00;PCI-MITE-1, 176PQFP, DS3		
156935701	IC, PROCESSOR; CMOS, CONTROLLER;NON-TRANSPARENT PCI-TO-PCI BRIDGE CHIP, 3.3V VCC;21555AB, PBGA304, DS4		
156940900	IC, PROCESSOR; GENERAL, 32-BIT POWER-PC, 600MHZ;IBM750CXE, PBGA256, DS4		
156957200	IC, PROCESSOR; CMOS, PERIPHERAL, TOUCH SCREEN CONTROLLER, 4-5-8 WIRE TOUCH SCREEN, USB INTERFACE, 5V;UR7HCTS2-USB, SSOP36.331		679-5497-00/01 Only
167056700	IC, PROCESSOR; CMOS, TOUCH SCREEN CONTROLLER, 4-5 WIRE, USB INTERFACE, 5V;COACH3, LQFP64		679-5497-02 Only
156968800	IC, MEMORY; CMOS, SRAM;256K X 36, 9MEG, FLOW THROUGH, NBT SYNC;GS881Z36AD-150, 165FBGA	9 Meg	
163156300	IC, MEMORY; PRGM 156-9183-00, CMOS, PROM;1M, XC1800 SERIES;XC18V01, S020, PAI 4.51	1 Meg	
156918300	IC, MEMORY; CMOS, PROM;1M, XC1800 SERIES;XC18V01, S020	1 Meg	
163156500	IC, MEMORY; PRGM 156-8999-00, CMOS, SPROM, FPGA SERIAL CONFIG, 17S20XL, VOIC8	178,144 bits	Same Part - One is programmed part number
156899900	IC, MEMORY; CMOS, SPROM, FPGA SERIAL CONFIG;17S20XL, VOIC8	178,144 bits	
163156600	IC, MEMORY; PRGM 156-8302-00, V1.0, CMOS, FLASH, 512K X 8, 3.0V, 90NS, UNIFORM SECTOR, AM29LV040B-90JC, PLCC32	4 Meg	Same Part - One is programmed part number
156830200	IC, MEMORY; CMOS, FLASH;512K X 8, 3.0V, 90NS, BOTTOM SECTOR;AM29LV040B-90JC, PLCC32	4 Meg	
	<b>Processor Bd 679-5572-xx</b>		
156436900	IC, MEMORY; CMOS, NVRAM;128K X 8, W/BATTERY;DS1245Y, DIP32, SAFETY CONTROLLED	1 Meg	
156751900	IC, PROCESSOR; CMOS, PERIPHERAL;FAST ETHERNET NETWORKING LAN CONTROLLER;82559, BGA196, DS4		
156789000	IC, PROCESSOR; CMOS, PERIPHERAL;GPIB TALKER/LISTENER;TNT4882-AQ, QFP100, DS4		
156834300	IC, MEMORY; CMOS, PERIPHERAL;DUAL ASYNCHRONOUS RECEIVER/TRANSMITTER, DUART, W/FIFO;16552D, PLCC44, TUBE		

156876700	IC, PROCESSOR; CMOS, CONTROLLER;PCI-BRIDGE/MEMORY CONTROLLER, MPC107, BGA503, DS4		
156924800	IC, PROCESSOR; CMOS, PERIPHERAL;PCI TO HIGH SPEED ISA BRIDGE INTERFACE FOR 156-7890-00;PCI-MITE-1, 176PQFP, DS3		
156935701	IC, PROCESSOR; CMOS, CONTROLLER;NON-TRANSPARENT PCI-TO-PCI BRIDGE CHIP, 3.3V VCC;21555AB, PBGA304, DS4		
156940900	IC, PROCESSOR; GENERAL, 32-BIT POWER-PC, 600MHZ;IBM750CXE, PBGA256, DS4		
156968800	IC, MEMORY; CMOS, SRAM;256K X 36, 9MEG, FLOW THROUGH, NBT SYNC;GS881Z36AD-150, 165FBGA	9 Meg	
163156300	IC, MEMORY; PRGM 156-9183-00, CMOS, PROM;1M, XC1800 SERIES;XC18V01, S020, PAI 4.51	1 Meg	Same Part - One is programmed part number
156918300	IC, MEMORY; CMOS, PROM;1M, XC1800 SERIES;XC18V01, S020	1 Meg	
163156500	IC, MEMORY; PRGM 156-8999-00, CMOS, SPROM, FPGA SERIAL CONFIG, 17S20XL, VOIC8	178,144 bits	Same Part - One is programmed part number
156899900	IC, MEMORY; CMOS, SPROM, FPGA SERIAL CONFIG;17S20XL, VOIC8	178,144 bits	
163156600	IC, MEMORY; PRGM 156-8302-00, V1.0, CMOS, FLASH, 512K X 8, 3.0V, 90NS, UNIFORM SECTOR, AM29LV040B-90JC, PLCC32	4 Meg	Same Part - One is programmed part number
156830200	IC, MEMORY; CMOS, FLASH;512K X 8, 3.0V, 90NS, BOTTOM SECTOR;AM29LV040B-90JC, PLCC32	4 Meg	
	<b>XGA Bridge 679-5632-xx or 679-5970-01</b>		
156496200	IC, PROCESSOR; CMOS, PERIPHERAL;VIDEO ACCELERATOR, EXTERNAL SDRAM, XGA, 3.3V, CP5202, BGA280		
156498800	IC, PROCESSOR; CMOS, PERIPHERAL;PCI-TO-PCI BRIDGE, 33MHZ, 32 BIT INTERFACE;21152, PQFP160, TRAY		
156815800	IC, MEMORY; CMOS, SDRAM; 2MX32 BANKS, 64M, SYNCHRONOUS, 3.3V, 125 MH;MT48LC2M32, TSOP86	64 Meg	
163156400	IC, MEMORY; CMOS, FLASH;128K X 8-BIT, 3.3 VOLT;AT29LV256-15JC, PLCC-32, TVIA VIDEO BIOS, VERSION 1.0, PRGM 156-4956-00	1 Meg	Same Part - One is programmed part number
156495600	IC, MEMORY; CMOS, FLASH;128K X 8-BIT, 3.3 VOLT;AT29LV256-15JC, PLCC-32	1 Meg	
	<b>FP with Encoders 679-5795-00</b>		
163132101	IC, PROCESSOR; CMOS, CONTROLLER;12MBPS USB PERIPHERAL CONTROLLER WITH HUB, EPROM 8KB, PRGM 156-8445-00;CY7C66013-PVC, SSOP48, V2	8 KB	Same Part - One is programmed part number
156844500	IC, PROCESSOR; CMOS, CONTROLLER;12MBPS USB PERIPHERAL CONTROLLER WITH HUB, EPROM 8KB;CY7C66013-PVC, SSOP48	8 KB	
	<b>ACQ Bd 679-5823-xx</b>		
156879300	IC, ASIC; CMOS, STD CELL ARRAYS;ADG359, 1.26 GHZ DEMUX W/32 MEGS E-DRAM;T3Y26XB, SBGA, DS4	32 Meg	
156887800	IC, PROCESSOR; CMOS, PERIPHERAL;8-BIT I/O EXPANDER FOR I2C BUS;PCF8574, SSOP20, DS1		

156887800	IC, PROCESSOR; CMOS, PERIPHERAL;8-BIT I/O EXPANDER FOR I2C BUS;PCF8574, SSOP20, DS1		
156947200	IC, MICROCONTROLLER; 8-BIT, AVR RISC, 16 MHZ, 8K FLASH, 512 BYTE EEPROM, ATMEGA8, TQFP32	8 K	
156954000	IC, MEMORY; CMOS, FLASH;2M (512 X 4), PAGE, D, 25MHZ, SERIAL, SPI, LOW VOLTAGE;M25P20, SO8.150	2 Meg	
156964500	IC, PROCESSOR; CMOS, MICROPROCESSOR, 8-BIT, 8K FLASH, 512BYTES EEPROM, 8-CHANNEL DAC;ATMEGA8535L-8AC, TQFP44	8 K	
156974500	IC, PROCESSOR; CMOS, MICROCONTROLLER;8-BIT, 1536 BYTES ON-CHIP FLASH, 16-BIT INDEX REGISTER;MC68HC908QT1CW, SOIC8	1536 bytes	