

Synergy Micro Certificate of Volatility

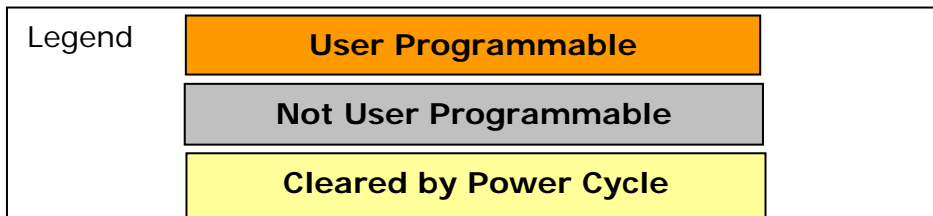
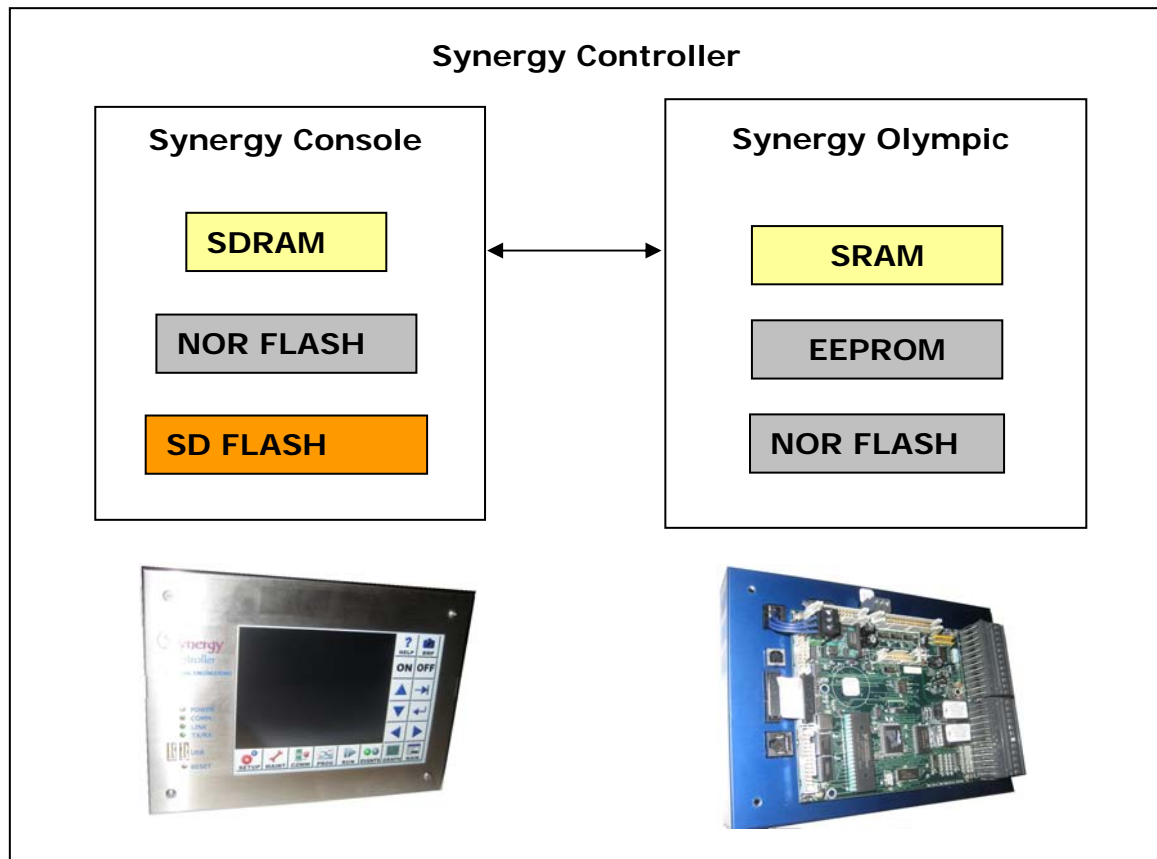
Overview

This is a statement regarding the volatility of customer data stored in various memory devices that are part of the Synergy Controller line of environmental Test Chamber Controllers from Tidal Engineering Corporation. In addition the use of the Synergy Controller's removal SD Card feature available on special models is described.

The Synergy Controller uses two types of memory devices to store data: volatile (SDRAM and SRAM) and non-volatile; EEPROM, NOR and NAND Flash memory devices.

Power cycling the system erases SDRAM and SRAM memory devices during the power up self test. Flash and EEPROM devices aren't erased when power is cycled. The detailed function of these different memory components are described in the diagram below and the Certificate of Volatility (COV) that follows.

The Synergy Controller Model TE1704-6 provides front panel access to the SD Flash memory card so the SD Flash memory card can be removed and destroyed to sanitize the unit.



Synergy Console

Memory	Usage	COV implication
64MB SDRAM	Program Data Memory	Erased when power cycled
32 NAND FLASH	Operating System	Not customer Accessible
2MB NOR FLASH	Boot Loader	Not customer Accessible
256MB SD Flash	Synergy Application and Application Data	Removable in TE1704-6 models

Olympic Board, Input/Output Controller

Memory	Usage	COV implication
128KB SRAM	Program Data Memory	Erased when power cycled
128KB FLASH	Program Memory	Not customer Accessible
512B EEPROM	Calibration Data, S/N	Not customer Accessible



TE1704-6 Synergy Controller with Removable Flash

Certificate of Volatility				
Model: Synergy Micro		Part Number: TE1704-6		
Volatile Memory				
Does the item contain volatile memory (i.e., memory whose contents are lost when power is removed)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
If the answer is 'Yes', please provide the following information for each type (use additional sheets if required):				
Type (SRAM, DRAM, etc.): SDRAM	Size: 64MB	User Modifiable: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Function: Program Memory	Process to Sanitize: Cycle AC Power
Type (SRAM, DRAM, etc.): Olympic SRAM	Size: 128KB	User Modifiable: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Function: Program Memory	Process to Sanitize: Cycle AC Power
Non-Volatile Memory				
Does the item contain non-volatile memory (i.e., memory whose contents are retained when power is removed)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
If the answer is 'Yes', please provide the following information for each type (use additional sheets if required):				
Type (BBRAM, Flash, EEPROM, etc.): Olympic EEPROM	Size: 512B	User Modifiable: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Function: Calibration	Process to Sanitize: N/A
Type (BBRAM, Flash, EEPROM, etc.): Olympic FLASH	Size: 128KB	User Modifiable: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Function: Program storage	Process to Sanitize: N/A
Type (BBRAM, Flash, EEPROM, etc.): NOR FLASH	Size: 2MB	User Modifiable: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Function: Bootloader	Process to Sanitize: N/A
Type (BBRAM, Flash, EEPROM, etc.): NAND FLASH	Size: 32MB	User Modifiable: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Function: Operating System	Process to Sanitize: N/A
Type (BBRAM, Flash, EEPROM, etc.): SD FLASH	Size: 256M	User Modifiable: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Function: Application and Data	Process to Sanitize: REMOVE AND DESTROY
Media				
Does the item contain media storage capability (i.e., removable or non-removable disk drives, tape drives, memory cards, etc.)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
If the answer is 'Yes', please provide the following information for each type (use additional sheets if required):				
Type (Disk, Tape, etc.): SD Flash (Secure Digital Removable): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Size: 256KB	User Modifiable: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Function: Application and Data Storage	Process to Sanitize: Remove and Destroy
Additional Information:				
Vendor Representative Information				
Name: Craig Borax	Title: President	Office Phone: 973-328-1173	Fax/Email: craig.borax@tidaleng.com	

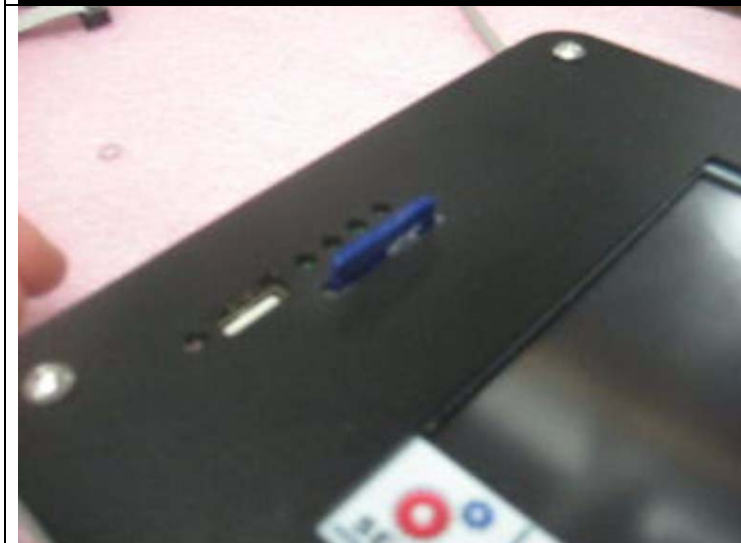
Installing and removing the SD Card on Model TE1704-6

The Synergy Controller SD Card slot incorporates a push in/push-out mechanism. To remove the SD card, press on the card to set it to the "Out Position". To install the card, push it in to set it to in the "In Position".

Installing the card



Installing the card
Hold the SD card on the straight end with the notch on the bottom as shown at left and insert it into the SD card slot on the front of the controller.



The SD card will stick out slightly as shown at left.



Push the card in to seat it.

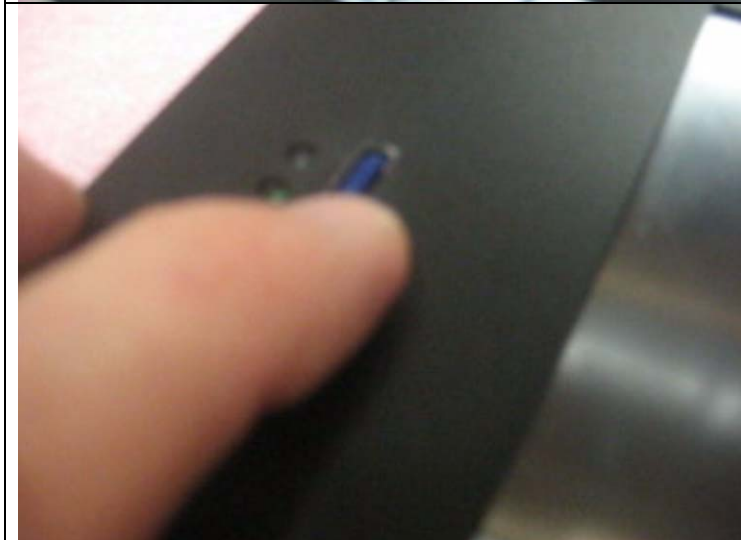


The final position of the SD card is flush or below the surface of the bezel.

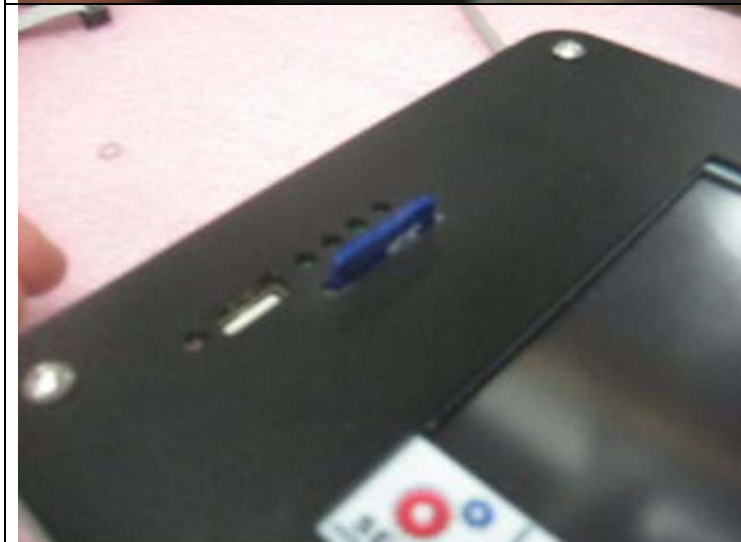
Removing the SD card



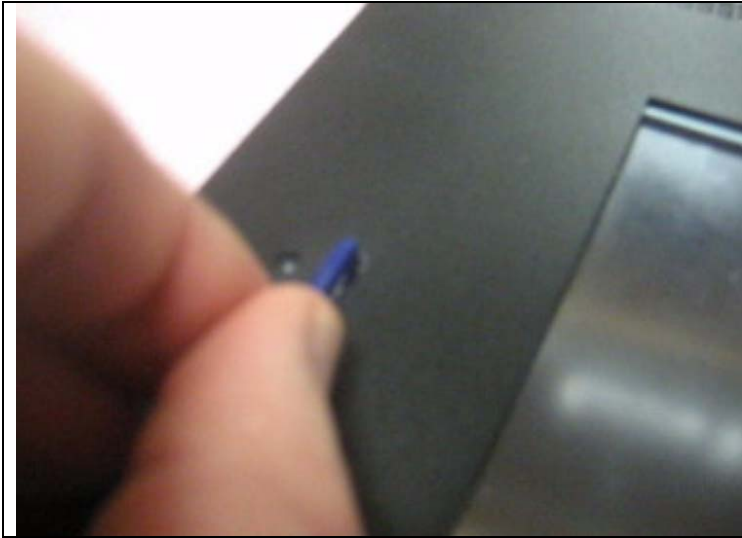
Removing the SD Card
The installed position of the SD card is flush or below the surface of the bezel.



Push the card in slightly to set it in the "Out Position".



The SD card will stick out slightly as shown at left.



Grasp the edge of the card with the thumb and forefinger and pull the card out of the slot.

SD Flash Card Reader

The Synergy Controller's SD Flash is formatted for use (read and write) with Microsoft Windows 2000 and XP based PC's that are equipped with an SD Card Flash reader.

Two suitable SD Card Flash readers for PC USB applications are as follows.

 A silver, rectangular SanDisk ImageMate 5-In-1 Reader/Writer with a black USB cable attached to the top. The SanDisk logo is visible on the front face.	<p>Mfg: SanDisk ImageMate® 5-In-1 Reader/Writer P/N: SDDR-99-A15</p>
 A black, rectangular SanDisk Extreme 2.0 USB Reader with a silver front panel. The SanDisk logo is visible on the top surface. It has a slot for SD cards on the front.	<p>Mfg: SanDisk SanDisk Extreme® 2.0 USB Reader P/N: SDDR3-3in1-901</p>

Copying the Synergy Controllers SD Flash card contents to your PC

Insert the SD Flash Card in the card reader and browse to the removable drive using "My Computer". Copy the entire contents of the drive to a new folder on the PC.

Copying the Synergy Controller's files from the PC to a blank SD Flash card

Insert the blank SD Flash Card in the card reader and browse to the removable drive using "My Computer". Copy the entire contents of the folder on the PC to the Removable drive.

Destroying the Synergy Controller's SD Flash card

The SD Flash drive can be removed and destroyed with a cutting tool to sanitize it.

About Tidal Engineering

Headquartered in Randolph, NJ, Tidal Engineering Corporation has been designing and building award-winning embedded hardware and software for test and measurement and data acquisition applications since 1992. The company is recognized for technical expertise in such areas as Embedded IEEE 488, and turnkey SCADA (Supervisory Control and Data Acquisition) systems. Tidal's products are available exclusively through ADI American Distributors Inc., an ISO-9002 certified distributor of electronic and electromechanical components and assemblies.

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