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Special

REPORT

**Test Results for Hardware Write Block Device: MyKey NoWrite
(Firmware Version 1.05)**

National Institute of Justice Website

**U.S. Department of Justice
Office of Justice Programs**

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NCJ 212958



Glenn R. Schmitt
Acting Director

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National Institute of Standards and Technology
Technology Administration, U.S. Department of Commerce

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Introduction

The Computer Forensics Tool Testing (CFTT) program is a joint project of the National Institute of Justice (NIJ), the research and development organization of the U.S. Department of Justice, and the National Institute of Standards and Technology's (NIST's) Office of Law Enforcement Standards (OLES) and Information Technology Laboratory (ITL). CFTT is supported by other organizations, including the Federal Bureau of Investigation, the U.S. Department of Defense Cyber Crime Center, Internal Revenue Service Criminal Investigation's Electronic Crimes Program, and the U.S. Department of Homeland Security's Bureau of Immigration and Customs Enforcement and U.S. Secret Service. The objective of the CFTT program is to provide measurable assurance to practitioners, researchers, and other applicable users that the tools used in computer forensics investigations provide accurate results. Accomplishing this requires the development of specifications and test methods for computer forensics tools and subsequent testing of specific tools against those specifications.

Test results provide the information necessary for developers to improve tools, users to make informed choices, and the legal community and others to understand the tools' capabilities. This approach to testing computer forensics tools is based on well-recognized methodologies for conformance and quality testing. The specifications and test methods are posted on the [CFTT Web site](#) for review and comment by the computer forensics community.

This document reports the results from testing the MyKey NoWrite write blocker against [Hardware Write Blocker \(HWB\) Assertions and Test Plan Version 1.0](#), which is available on the CFTT Web site. This specification identifies the following top-level tool requirements:

- A hardware write block (HWB) device shall not transmit a command to a protected storage device that modifies the data on the storage device.
- An HWB device shall return the data requested by a read operation.
- An HWB device shall return without modification any access-significant information requested from the drive.
- Any error condition reported by the storage device to the HWB device shall be reported to the host.

Test results from other software packages and the CFTT test methodology can be found on [NIJ's computer forensics tool testing Web page](#).

Test Results for Hardware Write Block Devices

Device Tested: MyKey NoWrite
Serial No: 1062
Firmware: 1.05

Host to Blocker Interface: IDE (ATA)
Blocker to Drive Interface: IDE (ATA)

Supplier: MyKey Technology, Inc.

Address: 7851-C Beechcraft Ave.
Gaithersburg, MD 20879
888-892-9081

1 Results Summary by Requirements

An HWB device shall not transmit a command to a protected storage device that modifies the data on the storage device.

For all test cases run, the HWB device always blocked any commands that would have changed user or operating system data stored on a protected drive.

An HWB device shall return the data requested by a read operation.

For all test cases run, the HWB device always allowed commands to read the protected drive.

An HWB device shall return without modification any access-significant information requested from the drive.

For all test cases run, the HWB device always returned access-significant information from the protected drive without modification.

Any error condition reported by the storage device to the HWB device shall be reported to the host.

For all test cases run, the HWB device always returned error codes from the protected drive without modification.

2 Observations

- Specific commands allowed are identified in test cases 01-h, 01-m, 01-r, 01-w, and 01-x.
- For the commands that manipulate the Host Protected Area (HPA) of a drive, 0xF9 and 0x37, the volatile variant of the commands is allowed, but the nonvolatile variant is blocked.
- The tool transformed the **read multiple** and **read multiple ext** commands into **read DMA** and **read DMA ext**, respectively.

The tested device allowed the following commands only:

```
20=READ W/ RETRY
24=READ SECTOR EXT
25=READ DMA EXT
27=RD MAX ADR EXT
37=SET MAX ADR EXT (volatile)
70=SEEK
91=INIT DRV PARAMS
B1=Device Config
C8=Read DMA
F8=RD NATV MAX ADD
F9=SET MAX ADDRESS (volatile)
```

When the device is turned on it issues the following commands to the protected drive:

```
EC=IDENTIFY DRIVE
EF=SET FEATURES
C6=SET MULTPLE
EF=SET FEATURES
C6=SET MULTPLE MOD
```

Note that the **identify device** command is blocked if issued by the host, but the device returns the values obtained at power on even if the number of user-accessible sectors is changed by a **set max address [ext]** command.

3 Test Case Selection

Since a protocol analyzer was available, the following test cases are appropriate: HWB-01, HWB-03, HWB-06, HWB-08, and HWB-09.

For test case HWB-01, the command set was divided into five sets of commands: 01-r (read), 01-w (write), 01-x (potential to damage a drive), 01-h (host protected area), and 01-m (everything else).

For test case HWB-03, two variations were selected: boot (attempt to boot from a protected drive) and image (use an imaging tool to attempt to write to a protected drive).

For test case HWB-06, two variations were selected: en (use a DOS-based imaging tool (EnCase) to read from a protected drive) and ix (use a stand-alone imaging tool (IXimager) to read from a protected drive).

4 Testing Environment

The tests were run in the NIST CFTT lab. This section describes the hardware (test computers and hard drives) available for testing. Not all components were used in testing; for example, the ZIP drive on Beta-5 was not used.

4.1 Test Computers

The test computer for all test cases, except 03-boot, was **Freddy**:

Intel Desktop Motherboard D865GB/D865PERC (with ATA-6 IDE on board controller)

BIOS Version BF86510A.86A.0053.P13

Adaptec SCSI BIOS V3.10.0

Intel Pentium® 4 CPU

SONY DVD RW DRU-530A, ATAPI CD/DVD-ROM drive

1.44MB floppy drive

Two slots for removable IDE hard disk drives

Two slots for removable SATA hard disk drives

Two slots for removable SCSI hard disk drive

Beta-5 was used for only one test case, 03-boot. Beta-5 is a Dell Computer Corporation system with 256MB RAM, one hard disk drive bay, one installed 15.37GB hard disk, a CD-ROM drive, a 1.44MB floppy drive, and a 250MB ZIP drive. The BIOS is PhoenixBios 4.0 Release 6.0.

4.2 Protocol Analyzer

A Data Transit bus protocol analyzer (Bus Doctor Rx) was used to monitor and record commands sent from the host to the write blocker and from the write blocker to the protected hard drive. Two identical protocol analyzers were available for monitoring commands.

One of two Dell laptop computers (either Chip or Dale) was connected to each protocol analyzer to record commands observed by the protocol analyzer.

4.3 Hard Disk Drives

The hard disk drives that were used were selected from the drives listed below. These hard drives were mounted in removable storage modules. The drives are set up in a variety of ways with the common partition types (FAT and NTFS) represented. The setup of each drive is documented below.

```
Drive label: 7c
Partition table Drive /dev/hdc
04865/254/63 (max cyl/hd values)
04866/255/63 (number of cyl/hd)
78177792 total number of sectors
IDE disk: Model (MAXTOR 6L040J2) serial # (662201137769)
 N   Start LBA Length      Start C/H/S End C/H/S   boot Partition type
 1 P 000000063 078156162 0000/001/01 1023/254/63 Boot 07 NTFS
 2 P 000000000 000000000 0000/000/00 0000/000/00    00 empty entry
 3 P 000000000 000000000 0000/000/00 0000/000/00    00 empty entry
 4 P 000000000 000000000 0000/000/00 0000/000/00    00 empty entry
```

```
Drive label: 74
Partition table Drive /dev/hdc
05004/254/63 (max cyl/hd values)
05005/255/63 (number of cyl/hd)
80418240 total number of sectors
IDE disk: Model (IC35L040AVER07-0) serial # (SXPTXHQ6113)
```

N	Start	LBA	Length	Start	C/H/S	End	C/H/S	boot	Partition	type
1	P	000000063	080405262	0000/001/01	1023/254/63			0C	Fat32X	
2	P	000000000	000000000	0000/000/00	0000/000/00			00	empty	entry
3	P	000000000	000000000	0000/000/00	0000/000/00			00	empty	entry
4	P	000000000	000000000	0000/000/00	0000/000/00			00	empty	entry
Drive label: a8										
Partition table Drive /dev/hdc										
02433/254/63 (max cyl/hd values)										
02434/255/63 (number of cyl/hd)										
39102336 total number of sectors										
IDE disk: Model (WDC WD200BB-00AUA1) serial # (WD-WMA6Y3401179)										
N	Start	LBA	Length	Start	C/H/S	End	C/H/S	boot	Partition	type
1	P	000000063	000016002	0000/001/01	0000/254/63			01	Fat12	
2	X	000016065	039086145	0001/000/01	1023/254/63			0F	extended	
3	S	000000063	039086082	0001/001/01	1023/254/63			0B	Fat32	
4	S	000000000	000000000	0000/000/00	0000/000/00			00	empty	entry
5	P	000000000	000000000	0000/000/00	0000/000/00			00	empty	entry
6	P	000000000	000000000	0000/000/00	0000/000/00			00	empty	entry
Drive label: bf										
Partition table Drive /dev/hdc										
30400/254/63 (max cyl/hd values)										
30401/255/63 (number of cyl/hd)										
488397168 total number of sectors										
IDE disk: Model (WDC WD2500JB-00GVA0) serial # (WD-WCAL73854148)										
N	Start	LBA	Length	Start	C/H/S	End	C/H/S	boot	Partition	type
1	P	000000063	409609242	0000/001/01	1023/254/63			0C	Fat32X	
2	X	409609305	000016065	1023/000/01	1023/254/63			0F	extended	
3	S	000000063	000016002	1023/001/01	1023/254/63			01	Fat12	
4	S	000000000	000000000	0000/000/00	0000/000/00			00	empty	entry
5	P	000000000	000000000	0000/000/00	0000/000/00			00	empty	entry
6	P	000000000	000000000	0000/000/00	0000/000/00			00	empty	entry
Drive xx is used as it is and is not set up. This drive is used to test commands that do low level changes to the drive.										

- P primary partition (1-4)
- S secondary (sub) partition
- X primary extended partition (1-4)
- x secondary extended partition

4.4 Support Software

The software in the following table was used to send commands to the protected drive. Two widely used imaging tools, EnCase and IXimager, were used to generate disk activity (reads and writes) consistent with a realistic scenario of an accidental modification of an unprotected hard drive during a forensic examination. This does not imply an endorsement of the imaging tools.

Program	Description
ATASEND	A tool to send ATA commands to a drive.
FS-TST	Software from the FS-TST tools was used to generate errors from the hard drive by trying to read beyond the end of the drive. The FS-TST software was also used to set up the hard drives and print partition tables and drive size.
EnCase	An imaging tool (EnCase 3.22g, DOS) for test case 03-img.
IXimager	An imaging tool (ILook IXimager Version 1.0, August 25, 2004) for test case 03-img.

5 Test Results

The main item of interest for interpreting the test results is determining the device's conformance with the test assertions. This section lists each test assertion and identifies the information in the log files relevant to conformance to that assertion. Conformance to each assertion tested by a given test case is evaluated by examining the Blocker Input and Blocker Output boxes of the test report summary.

5.1 Test Results Report Key

A summary of the actual test results is presented in this report. The following table presents a description of each section of the test report summary.

Heading	Description
First Line	Test case ID, name and version of software tested.
Case Summary	Test case summary from <i>Hardware Write Blocker (HWB) Assertions and Test Plan Version 1.0</i> .
Assertions Tested	Test assertions tested by the test case from <i>Hardware Write Blocker (HWB) Assertions and Test Plan Version 1.0</i> .
Tester Name	Name or initials of person executing test procedure.
Test Date	Time and date that test was started.
Test Configuration	Identification of the following: <ol style="list-style-type: none"> 1. Label of the protected hard drive. 2. Interface between host and blocker. 3. Interface between blocker and protected drive. 4. Protocol analyzers monitoring each interface. 5. Laptop attached to each protocol analyzer. 6. Execution environment for tool sending commands from the host.
Hard Drives Used	Description of the protected hard drive.
Blocker Input	A list of commands sent from the host to the blocker. For test case HWB-01, a list of the command codes sent is provided, followed by a count of the commands sent. For test cases HWB-03 and HWB-06, a list of the commands sent and the number of times each command was sent.
Blocker Output	A list of commands observed by the protocol analyzer on the bus from the blocker to the protected drive. For test case HWB-01, a list of the command codes observed on the bus between the blocker and the protected drive is provided, followed by a count of the commands sent (from the Blocker Input box) and a count of the number of commands observed on the bus between the blocker and the protected drive. For test cases HWB-03 and HWB-06, a list of the commands sent and the number of times each command was sent.

Heading	Description
Results	Expected and actual results for each assertion tested.
Analysis	Whether or not the expected results were achieved.

5.2 Test Details

Test Case HWB-01 Variation HWB-01-H MyKey NoWrite Version 1.05																			
Case Summary:	HWB-01 Identify commands blocked by the HWB.																		
Assertions Tested:	HWB-AM-01 The HWB shall not transmit any modifying category operation to the protected storage device. HWB-AM-05 The action that an HWB device takes for any commands not assigned to the modifying, read, or information categories is defined by the vendor.																		
Tester Name:	JRL																		
Test Date:	run start Wed Sep 7 10:27:32 2005 run finish Wed Sep 7 10:32:15 2005																		
Test Configuration:	HOST: Freddy HostToBlocker Monitor: Dale HostToBlocker PA: AA00111 HostToBlocker Interface: IDE BlockerToDrive Monitor: Chip BlockerToDrive PA: AA00155 BlockerToDrive Interface: IDE Run Environment: DOS																		
Drives:	Protected drive: 92 92 is a WDC WD300BB-00CAA0 serial # WD-WMA8H2140350 with 58633344 sectors																		
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Results:	Assertion & Expected Result AM-01 Modifying commands blocked AM-05 HWB behavior recorded	Actual Result Modifying commands blocked HWB behavior recorded
Analysis:	Expected results achieved	

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15=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
16=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
17=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
18=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
19=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
1A=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
1B=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
1C=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
1D=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
1E=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
1F=RECALIBRATE	Cyl: 0000, Head: 0, Sec: 00
28=Reserved	Cyl: 0000, Head: 0, Sec: 00
2C=Reserved	Cyl: 0000, Head: 0, Sec: 00
2D=Reserved	Cyl: 0000, Head: 0, Sec: 00
2E=Reserved	Cyl: 0000, Head: 0, Sec: 00
3C=WRITE VERIFY	Cyl: 0000, Head: 0, Sec: 00
43=Reserved	Cyl: 0000, Head: 0, Sec: 00
44=Reserved	Cyl: 0000, Head: 0, Sec: 00
45=Reserved	Cyl: 0000, Head: 0, Sec: 00
46=Reserved	Cyl: 0000, Head: 0, Sec: 00
47=Reserved	Cyl: 0000, Head: 0, Sec: 00
48=Reserved	Cyl: 0000, Head: 0, Sec: 00
49=Reserved	Cyl: 0000, Head: 0, Sec: 00
4A=Reserved	Cyl: 0000, Head: 0, Sec: 00
4B=Reserved	Cyl: 0000, Head: 0, Sec: 00
4C=Reserved	Cyl: 0000, Head: 0, Sec: 00
4D=Reserved	Cyl: 0000, Head: 0, Sec: 00
4E=Reserved	Cyl: 0000, Head: 0, Sec: 00
4F=Reserved	Cyl: 0000, Head: 0, Sec: 00
51=CONFIG STREAM	LBA=00000000000000
52=Reserved	Cyl: 0000, Head: 0, Sec: 00
53=Reserved	Cyl: 0000, Head: 0, Sec: 00
54=Reserved	Cyl: 0000, Head: 0, Sec: 00
55=Reserved	Cyl: 0000, Head: 0, Sec: 00
56=Reserved	Cyl: 0000, Head: 0, Sec: 00
57=Reserved	Cyl: 0000, Head: 0, Sec: 00
58=Reserved	Cyl: 0000, Head: 0, Sec: 00
59=Reserved	Cyl: 0000, Head: 0, Sec: 00
5A=Reserved	Cyl: 0000, Head: 0, Sec: 00
5B=Reserved	Cyl: 0000, Head: 0, Sec: 00
5C=Reserved	Cyl: 0000, Head: 0, Sec: 00
5D=Reserved	Cyl: 0000, Head: 0, Sec: 00
5E=Reserved	Cyl: 0000, Head: 0, Sec: 00
5F=Reserved	Cyl: 0000, Head: 0, Sec: 00
60=Read FPDMA Queued	Cyl: 0000, Head: 0, Sec: 00
61=Write FPDMA Queued	Cyl: 0000, Head: 0, Sec: 00
62=Reserved	Cyl: 0000, Head: 0, Sec: 00
63=Reserved	Cyl: 0000, Head: 0, Sec: 00
64=Reserved	Cyl: 0000, Head: 0, Sec: 00
65=Reserved	Cyl: 0000, Head: 0, Sec: 00
66=Reserved	Cyl: 0000, Head: 0, Sec: 00
67=SEP_ATTN	Cyl: 0000, Head: 0, Sec: 00
68=Reserved	Cyl: 0000, Head: 0, Sec: 00
69=Reserved	Cyl: 0000, Head: 0, Sec: 00
6A=Reserved	Cyl: 0000, Head: 0, Sec: 00
6B=Reserved	Cyl: 0000, Head: 0, Sec: 00

Command	LBA/CHS
6C=Reserved	Cyl: 0000, Head: 0, Sec: 00
6D=Reserved	Cyl: 0000, Head: 0, Sec: 00
6E=Reserved	Cyl: 0000, Head: 0, Sec: 00
6F=Reserved	Cyl: 0000, Head: 0, Sec: 00
70=SEEK	Cyl: 0000, Head: 0, Sec: 00
71=SEEK	Cyl: 0000, Head: 0, Sec: 00
72=SEEK	Cyl: 0000, Head: 0, Sec: 00
73=SEEK	Cyl: 0000, Head: 0, Sec: 00
74=SEEK	Cyl: 0000, Head: 0, Sec: 00
75=SEEK	Cyl: 0000, Head: 0, Sec: 00
76=SEEK	Cyl: 0000, Head: 0, Sec: 00
77=SEEK	Cyl: 0000, Head: 0, Sec: 00
78=SEEK	Cyl: 0000, Head: 0, Sec: 00
79=SEEK	Cyl: 0000, Head: 0, Sec: 00
7A=SEEK	Cyl: 0000, Head: 0, Sec: 00
7B=SEEK	Cyl: 0000, Head: 0, Sec: 00
7C=SEEK	Cyl: 0000, Head: 0, Sec: 00
7D=SEEK	Cyl: 0000, Head: 0, Sec: 00
7E=SEEK	Cyl: 0000, Head: 0, Sec: 00
7F=SEEK	Cyl: 0000, Head: 0, Sec: 00
80=Reserved	Cyl: 0000, Head: 0, Sec: 00
81=Reserved	Cyl: 0000, Head: 0, Sec: 00
82=Reserved	Cyl: 0000, Head: 0, Sec: 00
83=Reserved	Cyl: 0000, Head: 0, Sec: 00
84=Reserved	Cyl: 0000, Head: 0, Sec: 00
85=Reserved	Cyl: 0000, Head: 0, Sec: 00
86=Reserved	Cyl: 0000, Head: 0, Sec: 00
87=CFA TRNSLT	LBA=00000000
SCTR	
88=Reserved	Cyl: 0000, Head: 0, Sec: 00
89=Reserved	Cyl: 0000, Head: 0, Sec: 00
8A=Reserved	Cyl: 0000, Head: 0, Sec: 00
8B=Reserved	Cyl: 0000, Head: 0, Sec: 00
8C=Reserved	Cyl: 0000, Head: 0, Sec: 00
8D=Reserved	Cyl: 0000, Head: 0, Sec: 00
8E=Reserved	Cyl: 0000, Head: 0, Sec: 00
8F=Reserved	Cyl: 0000, Head: 0, Sec: 00
90=EXEC DRIVE	Cyl: 0000, Head: 0, Sec: 00
DIAG	
93=Reserved	Cyl: 0000, Head: 0, Sec: 00
94=STANDBY	Cyl: 0000, Head: 0, Sec: 00
IMMEDIA	
95=IDLE IMMEDIATE	Cyl: 0000, Head: 0, Sec: 00
96=STANDBY	Cyl: 0000, Head: 0, Sec: 00
97=IDLE	Cyl: 0000, Head: 0, Sec: 00
98=CHECK POWER	Cyl: 0000, Head: 0, Sec: 00
MOD	
99=SLEEP	Cyl: 0000, Head: 0, Sec: 00
9A=Reserved	Cyl: 0000, Head: 0, Sec: 00
9B=Reserved	Cyl: 0000, Head: 0, Sec: 00
9C=Reserved	Cyl: 0000, Head: 0, Sec: 00
9D=Reserved	Cyl: 0000, Head: 0, Sec: 00
9E=Reserved	Cyl: 0000, Head: 0, Sec: 00
9F=Reserved	Cyl: 0000, Head: 0, Sec: 00
A1=ATAPI ID DRIVE	Cyl: 0000, Head: 0, Sec: 00
A2=ATAPI SERVICE	Cyl: 0000, Head: 0, Sec: 00
A3=Reserved	Cyl: 0000, Head: 0, Sec: 00
A4=Reserved	Cyl: 0000, Head: 0, Sec: 00

Command	LBA/CHS
A5=Reserved	Cyl: 0000, Head: 0, Sec: 00
A6=Reserved	Cyl: 0000, Head: 0, Sec: 00
A7=Reserved	Cyl: 0000, Head: 0, Sec: 00
A8=Reserved	Cyl: 0000, Head: 0, Sec: 00
A9=Reserved	Cyl: 0000, Head: 0, Sec: 00
AA=Reserved	Cyl: 0000, Head: 0, Sec: 00
AB=Reserved	Cyl: 0000, Head: 0, Sec: 00
AC=Reserved	Cyl: 0000, Head: 0, Sec: 00
AD=Reserved	Cyl: 0000, Head: 0, Sec: 00
AE=Reserved	Cyl: 0000, Head: 0, Sec: 00
AF=Reserved	Cyl: 0000, Head: 0, Sec: 00
B0=SMART	Cyl: 0000, Head: 0, Sec: 00
D9=Smart Disable Operation	
B0=SMART	Cyl: 0000, Head: 0, Sec: 00
DA=Smart Return Stats	
B0=SMART	Cyl: 0000, Head: 0, Sec: 00
D2=Smart Enable/Disable AT	
B0=SMART	Cyl: 0000, Head: 0, Sec: 00
D8=Smart Enable Operation	
B0=SMART	Cyl: 0000, Head: 0, Sec: 00
D4=Smart Execute Offline	
B1=Device Config	Cyl: 0000, Head: 0, Sec: 00
B1=Device Config	Cyl: 0000, Head: 0, Sec: 00
B1=Device Config	Cyl: 0000, Head: 0, Sec: 00
B1=Device Config	Cyl: 0000, Head: 0, Sec: 00
B2=Reserved	Cyl: 0000, Head: 0, Sec: 00
B3=Reserved	Cyl: 0000, Head: 0, Sec: 00
B4=Reserved	Cyl: 0000, Head: 0, Sec: 00
B5=Reserved	Cyl: 0000, Head: 0, Sec: 00
B6=Reserved	Cyl: 0000, Head: 0, Sec: 00
B7=Reserved	Cyl: 0000, Head: 0, Sec: 00
B8=Reserved	Cyl: 0000, Head: 0, Sec: 00
B9=Reserved	Cyl: 0000, Head: 0, Sec: 00
BA=Reserved	Cyl: 0000, Head: 0, Sec: 00
BB=Reserved	Cyl: 0000, Head: 0, Sec: 00
BC=Reserved	Cyl: 0000, Head: 0, Sec: 00
BD=Reserved	Cyl: 0000, Head: 0, Sec: 00
BE=Reserved	Cyl: 0000, Head: 0, Sec: 00
BF=Reserved	Cyl: 0000, Head: 0, Sec: 00
C1=Reserved	Cyl: 0000, Head: 0, Sec: 00
C2=Reserved	Cyl: 0000, Head: 0, Sec: 00
C3=Reserved	Cyl: 0000, Head: 0, Sec: 00
C6=SET MULTIPLE MOD	Cyl: 0000, Head: 0, Sec: 00
CF=Reserved	Cyl: 0000, Head: 0, Sec: 00
D0=Reserved	Cyl: 0000, Head: 0, Sec: 00
D1=CHK MD Card Type	Cyl: 0000, Head: 0, Sec: 00
D2=Reserved	Cyl: 0000, Head: 0, Sec: 00
D3=Reserved	Cyl: 0000, Head: 0, Sec: 00
D4=Reserved	Cyl: 0000, Head: 0, Sec: 00
D5=Reserved	Cyl: 0000, Head: 0, Sec: 00
D6=Reserved	Cyl: 0000, Head: 0, Sec: 00

	<pre> Command LBA/CHS D7=Reserved Cyl: 0000, Head: 0, Sec: 00 D8=Reserved Cyl: 0000, Head: 0, Sec: 00 D9=Reserved Cyl: 0000, Head: 0, Sec: 00 DA=Get Media Sts Cyl: 0000, Head: 0, Sec: 00 DB=ACK MEDIA CHG Cyl: 0000, Head: 0, Sec: 00 DC=BOOT POST-BOOT Cyl: 0000, Head: 0, Sec: 00 DD=BOOT PRE-BOOT Cyl: 0000, Head: 0, Sec: 00 DE=MEDIA LOCK Cyl: 0000, Head: 0, Sec: 00 DF=MEDIA UNLOCK Cyl: 0000, Head: 0, Sec: 00 E0=STANDBY Cyl: 0000, Head: 0, Sec: 00 IMMEDIA E1=IDLE IMMEDIATE Cyl: 0000, Head: 0, Sec: 00 E2=STANDBY Cyl: 0000, Head: 0, Sec: 00 E3=IDLE Cyl: 0000, Head: 0, Sec: 00 E5=CHECK POWER Cyl: 0000, Head: 0, Sec: 00 MOD E6=SLEEP Cyl: 0000, Head: 0, Sec: 00 EB=Reserved Cyl: 0000, Head: 0, Sec: 00 EC=IDENTIFY DRIVE Cyl: 0000, Head: 0, Sec: 00 ED=MEDIA EJECT Cyl: 0000, Head: 0, Sec: 00 EE=IDENT DEVICE Cyl: 0000, Head: 0, Sec: 00 DM EF=SET FEATURES Cyl: 0000, Head: 0, Sec: 00 00=Unknown F0=Reserved Cyl: 0000, Head: 0, Sec: 00 F2=SECURITY Cyl: 0000, Head: 0, Sec: 00 UNLOCK F5=SECURITY Cyl: 0000, Head: 0, Sec: 00 FREEZE F6=SECUR DSABL Cyl: 0000, Head: 0, Sec: 00 PAS F7=Reserved Cyl: 0000, Head: 0, Sec: 00 FA=Reserved Cyl: 0000, Head: 0, Sec: 00 FB=Reserved Cyl: 0000, Head: 0, Sec: 00 FC=Reserved Cyl: 0000, Head: 0, Sec: 00 FD=Reserved Cyl: 0000, Head: 0, Sec: 00 FE=Reserved Cyl: 0000, Head: 0, Sec: 00 FF=Reserved Cyl: 0000, Head: 0, Sec: 00 208 commands sent </pre>
Blocker Output:	<pre> Commands Allowed by Blocker Command LBA/CHS 70=SEEK Cyl: 0000, Head: 0, Sec: 00 B1=Device Config LBA=00000000 208 commands sent, 2 commands allowed </pre>
Results:	<pre> Assertion & Expected Actual Result Result AM-01 Modifying Modifying commands commands blocked blocked AM-05 HWB behavior HWB behavior recorded recorded </pre>
Analysis:	Expected results achieved

Test Case HWB-01 Variation HWB-01-R MyKey NoWrite Version 1.05	
Case Summary:	HWB-01 Identify commands blocked by the HWB.
Assertions Tested:	HWB-AM-01 The HWB shall not transmit any modifying category operation to the protected storage device. HWB-AM-05 The action that an HWB device takes for any commands not assigned to the modifying, read, or information categories is defined by the vendor.
Tester Name:	JRL
Test Date:	run start Wed Sep 7 09:27:42 2005 run finish Wed Sep 7 09:43:15 2005
Test Configuration:	HOST: Freddy HostToBlocker Monitor: Dale HostToBlocker PA: AA00111 HostToBlocker Interface: IDE BlockerToDrive Monitor: Chip BlockerToDrive PA: AA00155 BlockerToDrive Interface: IDE Run Environment: DOS
Drives:	Protected drive: 92 92 is a WDC WD300BB-00CAA0 serial# WD-WMA8H2140350 with 58633344 sectors
Blocker Input:	<pre> Commands Sent to Blocker Command LBA/CHS 20=READ W/ RETRY LBA=0002000 21=READ W/O RETRY LBA=0002100 22=READ/L W/ RETRY LBA=0002200 23=READ/L W/O RETR LBA=0002300 24=READ SECTOR EXT LBA=000000002400 25=READ DMA EXT LBA=000000002500 26=RD DMA QUE EXT LBA=000000002600 27=RD MAX ADR EXT LBA=000000002700 29=READ MULTI EXT LBA=0002900 2A=READ STREAM DMA LBA=000000002A00 2B=READ STREAM PIO LBA=000000002B00 2F=READ LOG EXT LBA=000000002F00 40=READ/V W/ RETRY LBA=0004000 41=READ/V W/O RETR LBA=0004100 42=READ/V W/ EXT LBA=000000004200 B0=SMART D0=SMART Cyl: 0000, Head: 0, READ DATA Sec: 00 B0=SMART D5=Smart Cyl: 0000, Head: 0, Read Log Sec: 00 C4=READ MULTIPLE LBA=000C400 C7=READ DMA QUEUED LBA=000C700 C8=Read DMA LBA=000C800 C9=RD DMA W/O RETR LBA=000C900 E4=READ BUFFER Cyl: 00E4, Head: 0, Sec: 00 F8=RD NATV MAX ADD LBA=000F800 23 commands sent </pre>

Blocker Output:	<p>Commands Allowed by Blocker</p> <pre> Command LBA/CHS 20=READ W/ RETRY LBA=0002000 24=READ SECTOR EXT LBA=000000002400 25=READ DMA EXT LBA=000000002500 27=RD MAX ADR EXT LBA=000000002700 25=READ DMA EXT LBA=000000002900 C8=Read DMA LBA=000C400 C8=Read DMA LBA=000C800 F8=RD NATV MAX ADD LBA=000F800 </pre> <p>23 commands sent, 8 commands allowed</p>						
Results:	<table border="1"> <thead> <tr> <th>Assertion & Expected Result</th> <th>Actual Result</th> </tr> </thead> <tbody> <tr> <td>AM-01 Modifying commands blocked</td> <td>Modifying commands blocked</td> </tr> <tr> <td>AM-05 HWB behavior recorded</td> <td>HWB behavior recorded</td> </tr> </tbody> </table>	Assertion & Expected Result	Actual Result	AM-01 Modifying commands blocked	Modifying commands blocked	AM-05 HWB behavior recorded	HWB behavior recorded
Assertion & Expected Result	Actual Result						
AM-01 Modifying commands blocked	Modifying commands blocked						
AM-05 HWB behavior recorded	HWB behavior recorded						
Analysis:	Expected results achieved						

Test Case HWB-01 Variation HWB-01-W MyKey NoWrite Version 1.05	
Case Summary:	HWB-01 Identify commands blocked by the HWB.
Assertions Tested:	<p>HWB-AM-01 The HWB shall not transmit any modifying category operation to the protected storage device.</p> <p>HWB-AM-05 The action that a HWB device takes for any commands not assigned to the modifying, read, or information categories is defined by the vendor.</p>
Tester Name:	JRL
Test Date:	<p>run start Wed Sep 7 09:44:07 2005</p> <p>run finish Wed Sep 7 09:58:20 2005</p>
Test Configuration:	<p>HOST: Freddy</p> <p>HostToBlocker Monitor: Dale</p> <p>HostToBlocker PA: AA00111</p> <p>HostToBlocker Interface: IDE</p> <p>BlockerToDrive Monitor: Chip</p> <p>BlockerToDrive PA: AA00155</p> <p>BlockerToDrive Interface: IDE</p> <p>Run Environment: DOS</p>
Drives:	<p>Protected drive: 92</p> <p>92 is a WDC WD300BB-00CAA0 serial # WD-WMA8H2140350 with 58633344 sectors</p>
Blocker Input:	<p>Commands Sent to Blocker</p> <pre> Command LBA/CHS 30=WRITE W/ RETRY LBA=0000000 31=WRITE W/O RETRY LBA=0000000 32=WRITE/L W/ RETR LBA=0000000 33=WRITE/L W/O RTR LBA=0000000 34=WRITE SECTOR EXT LBA=000000000000 35=WRITE DMA EXT LBA=000000000000 36=WR DMA QUE EXT LBA=000000000000 38=CFA WRT SEC W/O LBA=0000000 39=WRITE MULTI EXT LBA=000000000000 </pre>

	<pre> Command LBA/CHS 3A=WRITE STREAM DMA LBA=000000000000 3B=WRITE STREAM PIO LBA=000000000000 3D=Reserved LBA=00000000 3E=Reserved LBA=00000000 3F=WRITE LOG EXT LBA=000000000000 Pkt= B0=SMART D6=Smart Cyl: 0000, Head: 0, Write Log Sec: 00 C0=CFA ERASE SECTR LBA=00000000 C5=WRITE MULTIPLE LBA=00000000 CA=Write DMA LBA=00000000 CB=WRT DMA W/O RTR LBA=00000000 CC=WRITE DMA QUEUE LBA=00000000 CD=CFA WRT MULT W/ LBA=00000000 CE=Reserved LBA=00000000 E7=FLUSH CACHE Cyl: 0000, Head: 0, Sec: 00 E8=WRITE BUFFER Cyl: 0000, Head: 0, Sec: 00 E9=WRITE SAME Cyl: 0000, Head: 0, Sec: 00 EA=FLUSH CACHE EXT LBA=000000000000 F3=SECUR ERASE PRE Cyl: 0000, Head: 0, Sec: 00 F4=SECUR ERASE UNI Cyl: 0000, Head: 0, Sec: 00 29 commands sent </pre>						
Blocker Output:	<pre> Commands Allowed by Blocker Command LBA/CHS (none) 29 commands sent, 0 commands allowed </pre>						
Results:	<table border="1"> <thead> <tr> <th>Assertion & Expected Result</th> <th>Actual Result</th> </tr> </thead> <tbody> <tr> <td>AM-01 Modifying commands blocked</td> <td>Modifying commands blocked</td> </tr> <tr> <td>AM-05 HWB behavior recorded</td> <td>HWB behavior recorded</td> </tr> </tbody> </table>	Assertion & Expected Result	Actual Result	AM-01 Modifying commands blocked	Modifying commands blocked	AM-05 HWB behavior recorded	HWB behavior recorded
Assertion & Expected Result	Actual Result						
AM-01 Modifying commands blocked	Modifying commands blocked						
AM-05 HWB behavior recorded	HWB behavior recorded						
Analysis:	Expected results achieved						

Test Case HWB-01 Variation HWB-01-X MyKey NoWrite Version 1.05	
Case Summary:	HWB-01 Identify commands blocked by the HWB.
Assertions Tested:	<p>HWB-AM-01 The HWB shall not transmit any modifying category operation to the protected storage device.</p> <p>HWB-AM-05 The action that an HWB device takes for any commands not assigned to the modifying, read, or information categories is defined by the vendor.</p>
Tester Name:	JRL
Test Date:	<p>run start Wed Sep 7 10:21:44 2005</p> <p>run finish Wed Sep 7 10:26:02 2005</p>

Test Configuration:	HOST: Freddy HostToBlocker Monitor: Dale HostToBlocker PA: AA00111 HostToBlocker Interface: IDE BlockerToDrive Monitor: Chip BlockerToDrive PA: AA00155 BlockerToDrive Interface: IDE Run Environment: DOS										
Drives:	Protected drive: 92 92 is a WDC WD300BB-00CAA0 serial # WD-WMA8H2140350 with 58633344 sectors										
Blocker Input:	Commands Sent to Blocker <table border="0"> <tr> <td>Command</td> <td>LBA/CHS</td> </tr> <tr> <td>50=FORMAT TRACK</td> <td>Cyl: 0000, Head: 0, Sec: 00</td> </tr> <tr> <td>91=INIT DRV PARAMS</td> <td>Cyl: 0000, Head: 0, Sec: 00</td> </tr> <tr> <td>92=DOWNLD MICROCOD</td> <td>Cyl: 0000, Head: 0, Sec: 00</td> </tr> <tr> <td>F1=SECUR SET PASSW</td> <td>Cyl: 0000, Head: 0, Sec: 00</td> </tr> </table> 4 commands sent	Command	LBA/CHS	50=FORMAT TRACK	Cyl: 0000, Head: 0, Sec: 00	91=INIT DRV PARAMS	Cyl: 0000, Head: 0, Sec: 00	92=DOWNLD MICROCOD	Cyl: 0000, Head: 0, Sec: 00	F1=SECUR SET PASSW	Cyl: 0000, Head: 0, Sec: 00
Command	LBA/CHS										
50=FORMAT TRACK	Cyl: 0000, Head: 0, Sec: 00										
91=INIT DRV PARAMS	Cyl: 0000, Head: 0, Sec: 00										
92=DOWNLD MICROCOD	Cyl: 0000, Head: 0, Sec: 00										
F1=SECUR SET PASSW	Cyl: 0000, Head: 0, Sec: 00										
Blocker Output:	Commands Allowed by Blocker <table border="0"> <tr> <td>Command</td> <td>LBA/CHS</td> </tr> <tr> <td>91=INIT DRV PARAMS</td> <td>Cyl: 0000, Head: 0, Sec: 00</td> </tr> </table> 4 commands sent, 1 commands allowed	Command	LBA/CHS	91=INIT DRV PARAMS	Cyl: 0000, Head: 0, Sec: 00						
Command	LBA/CHS										
91=INIT DRV PARAMS	Cyl: 0000, Head: 0, Sec: 00										
Results:	<table border="0"> <tr> <td>Assertion & Expected Result</td> <td>Actual Result</td> </tr> <tr> <td>AM-01 Modifying commands blocked</td> <td>Modifying commands blocked</td> </tr> <tr> <td>AM-05 HWB behavior recorded</td> <td>HWB behavior recorded</td> </tr> </table>	Assertion & Expected Result	Actual Result	AM-01 Modifying commands blocked	Modifying commands blocked	AM-05 HWB behavior recorded	HWB behavior recorded				
Assertion & Expected Result	Actual Result										
AM-01 Modifying commands blocked	Modifying commands blocked										
AM-05 HWB behavior recorded	HWB behavior recorded										
Analysis:	Expected results achieved										

Test Case HWB-03 Variation HWB-03-boot MyKey NoWrite Version 1.05	
Case Summary:	HWB-03 Identify commands blocked by the HWB while attempting to modify a protected drive with forensic tools.
Assertions Tested:	HWB-AM-01 The HWB shall not transmit any modifying category operation to the protected storage device. HWB-AM-05 The action that an HWB device takes for any commands not assigned to the modifying, read, or information categories is defined by the vendor.
Tester Name:	kbr
Test Date:	run start Thu Sep 1 11:23:28 2005 run finish Thu Sep 1 11:26:11 2005

Test Configuration:	HOST: beta5 HostToBlocker Monitor: dale HostToBlocker PA: aa00155 HostToBlocker Interface: IDE BlockerToDrive Monitor: chip BlockerToDrive PA: aa00111 BlockerToDrive Interface: IDE Run Environment: W2k																		
Drives:	Protected drive: 7c 7c is a MAXTOR 6L040J2 serial # 662201137769 with 78177792 sectors																		
Blocker Input:	Commands Sent to Blocker <table border="0"> <tr> <td>Count</td> <td>Commands</td> </tr> <tr> <td>1</td> <td>90=EXEC DRIVE DIAG</td> </tr> <tr> <td>1</td> <td>C6=SET MULTIPLE MOD</td> </tr> <tr> <td>2603</td> <td>C8=Read DMA</td> </tr> <tr> <td>1</td> <td>E3=IDLE</td> </tr> <tr> <td>1</td> <td>EC=IDENTIFY DRIVE</td> </tr> <tr> <td>2</td> <td>EF=SET FEATURES</td> </tr> <tr> <td></td> <td>03=Set Transfer Mode</td> </tr> <tr> <td></td> <td>(Use Sec Cnt)</td> </tr> </table>	Count	Commands	1	90=EXEC DRIVE DIAG	1	C6=SET MULTIPLE MOD	2603	C8=Read DMA	1	E3=IDLE	1	EC=IDENTIFY DRIVE	2	EF=SET FEATURES		03=Set Transfer Mode		(Use Sec Cnt)
Count	Commands																		
1	90=EXEC DRIVE DIAG																		
1	C6=SET MULTIPLE MOD																		
2603	C8=Read DMA																		
1	E3=IDLE																		
1	EC=IDENTIFY DRIVE																		
2	EF=SET FEATURES																		
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	(Use Sec Cnt)																		
Blocker Output:	Commands Allowed by Blocker <table border="0"> <tr> <td>Count</td> <td>Commands</td> </tr> <tr> <td>2</td> <td>C6=SET MULTIPLE MOD</td> </tr> <tr> <td>2603</td> <td>C8=Read DMA</td> </tr> <tr> <td>1</td> <td>EC=IDENTIFY DRIVE</td> </tr> <tr> <td>4</td> <td>EF=SET FEATURES</td> </tr> <tr> <td></td> <td>03=Set Transfer Mode</td> </tr> <tr> <td></td> <td>(Use Sec Cnt)</td> </tr> </table>	Count	Commands	2	C6=SET MULTIPLE MOD	2603	C8=Read DMA	1	EC=IDENTIFY DRIVE	4	EF=SET FEATURES		03=Set Transfer Mode		(Use Sec Cnt)				
Count	Commands																		
2	C6=SET MULTIPLE MOD																		
2603	C8=Read DMA																		
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Results:	<table border="0"> <tr> <td>Assertion & Expected Result</td> <td>Actual Result</td> </tr> <tr> <td>AM-01 Modifying commands blocked</td> <td>Modifying commands blocked</td> </tr> <tr> <td>AM-05 HWB behavior recorded</td> <td>HWB behavior recorded</td> </tr> </table>	Assertion & Expected Result	Actual Result	AM-01 Modifying commands blocked	Modifying commands blocked	AM-05 HWB behavior recorded	HWB behavior recorded												
Assertion & Expected Result	Actual Result																		
AM-01 Modifying commands blocked	Modifying commands blocked																		
AM-05 HWB behavior recorded	HWB behavior recorded																		
Analysis:	Expected results achieved																		

Test Case HWB-03 Variation HWB-03-img MyKey NoWrite Version 1.05	
Case Summary:	HWB-03 Identify commands blocked by the HWB while attempting to modify a protected drive with forensic tools.
Assertions Tested:	HWB-AM-01 The HWB shall not transmit any modifying category operation to the protected storage device. HWB-AM-05 The action that an HWB device takes for any commands not assigned to the modifying, read, or information categories is defined by the vendor.
Tester Name:	JRL
Test Date:	run start Wed Sep 7 13:35:39 2005

Test Configuration:	HOST: Freddy HostToBlocker Monitor: Dale HostToBlocker PA: AA00111 HostToBlocker Interface: IDE BlockerToDrive Monitor: Chip BlockerToDrive PA: AA00155 BlockerToDrive Interface: IDE Run Environment: IXimager	
Drives:	Protected drive: 92 92 is a WDC WD300BB-00CAA0 serial # WD-WMA8H2140350 with 58633344 sectors	
Blocker Input:	Commands Sent to Blocker	
	Count	Commands
	42	C8=Read DMA
	20	CA=Write DMA
Blocker Output:	Commands Allowed by Blocker	
	Count	Commands
	42	C8=Read DMA
Results:	Assertion & Expected Result	Actual Result
	AM-01 Modifying commands blocked	Modifying commands blocked
	AM-05 HWB behavior recorded	HWB behavior recorded
Analysis:	Expected results achieved	

Test Case HWB-06 Variation HWB-06-en MyKey NoWrite Version 1.05	
Case Summary:	HWB-06 Identify read and information commands used by forensic tools and allowed by the HWB.
Assertions Tested:	HWB-AM-02 If the host sends a read category operation to the HWB and no error is returned from the protected storage device to the HWB, then the data addressed by the original read operation is returned to the host. HWB-AM-03 If the host sends an information category operation to the HWB and if there is no error on the protected storage device, then any returned access-significant information is returned to the host without modification. HWB-AM-05 The action that an HWB device takes for any commands not assigned to the modifying, read, or information categories is defined by the vendor.
Tester Name:	JRL
Test Date:	run start Wed Sep 7 15:00:53 2005 run finish Wed Sep 7 15:05:08 2005
Test Configuration:	HOST: Freddy HostToBlocker Monitor: Dale HostToBlocker PA: AA00111 HostToBlocker Interface: IDE BlockerToDrive Monitor: Chip BlockerToDrive PA: AA00155 BlockerToDrive Interface: IDE Run Environment: DOS

Drives:	Protected drive: 92 92 is a WDC WD300BB-00CAA0 serial # WD-WMA8H2140350 with 58633344 sectors								
Blocker Input:	Commands Sent to Blocker <table> <tr> <td>Count</td> <td>256</td> <td>Commands</td> <td>C8=Read DMA</td> </tr> </table>	Count	256	Commands	C8=Read DMA				
Count	256	Commands	C8=Read DMA						
Blocker Output:	Commands Allowed by Blocker <table> <tr> <td>Count</td> <td>256</td> <td>Commands</td> <td>C8=Read DMA</td> </tr> </table>	Count	256	Commands	C8=Read DMA				
Count	256	Commands	C8=Read DMA						
Results:	<table> <thead> <tr> <th>Assertion & Expected Result</th> <th>Actual Result</th> </tr> </thead> <tbody> <tr> <td>AM-02 Read commands allowed</td> <td>Read commands allowed</td> </tr> <tr> <td>AM-03 Access Significant Information unaltered</td> <td>Access Significant Information unaltered</td> </tr> <tr> <td>AM-05 HWB behavior recorded</td> <td>HWB behavior recorded</td> </tr> </tbody> </table>	Assertion & Expected Result	Actual Result	AM-02 Read commands allowed	Read commands allowed	AM-03 Access Significant Information unaltered	Access Significant Information unaltered	AM-05 HWB behavior recorded	HWB behavior recorded
Assertion & Expected Result	Actual Result								
AM-02 Read commands allowed	Read commands allowed								
AM-03 Access Significant Information unaltered	Access Significant Information unaltered								
AM-05 HWB behavior recorded	HWB behavior recorded								
Analysis:	Expected results achieved								

Test Case HWB-06 Variation HWB-06-ix MyKey NoWrite Version 1.05	
Case Summary:	HWB-06 Identify read and information commands used by forensic tools and allowed by the HWB.
Assertions Tested:	<p>HWB-AM-02 If the host sends a read category operation to the HWB and no error is returned from the protected storage device to the HWB, then the data addressed by the original read operation is returned to the host.</p> <p>HWB-AM-03 If the host sends an information category operation to the HWB and if there is no error on the protected storage device, then any returned access-significant information is returned to the host without modification.</p> <p>HWB-AM-05 The action that an HWB device takes for any commands not assigned to the modifying, read, or information categories is defined by the vendor.</p>
Tester Name:	JRL
Test Date:	run start Wed Sep 7 14:03:48 2005 run finish Wed Sep 7 14:48:09 2005
Test Configuration:	HOST: Freddy HostToBlocker Monitor: Dale HostToBlocker PA: AA0011 HostToBlocker Interface: IDE BlockerToDrive Monitor: Chip BlockerToDrive PA: AA00155 BlockerToDrive Interface: IDE Run Environment: IXimager
Drives:	Protected drive: 92 92 is a WDC WD300BB-00CAA0 serial # WD-WMA8H2140350 with 58633344 sectors

Blocker Input:	Commands Sent to Blocker Count 136	Commands C8=Read DMA
Blocker Output:	Commands Allowed by Blocker Count 136	Commands C8=Read DMA
Results:	Assertion & Expected Result AM-02 Read commands allowed AM-03 Access Significant Information unaltered AM-05 HWB behavior recorded	Actual Result Read commands allowed Access Significant Information unaltered HWB behavior recorded
Analysis:	Expected results achieved	

Test Case HWB-08 Variation HWB-08 MyKey NoWrite Version 1.05		
Case Summary:	HWB-08 Identify access significant information unmodified by the HWB.	
Assertions Tested:	HWB-AM-03 If the host sends an information category operation to the HWB and if there is no error on the protected storage device, then any returned access-significant information is returned to the host without modification.	
Tester Name:	JRL	
Test Date:	run start Wed Sep 7 15:23:49 2005 run finish Thu Sep 8 15:30:03 2005	
Test Configuration:	HOST: Freddy HostToBlocker Monitor: none HostToBlocker PA: none HostToBlocker Interface: IDE BlockerToDrive Monitor: none BlockerToDrive PA: none BlockerToDrive Interface: IDE Run Environment: Helix	
Drives:	Protected drive: 92 92 is a WDC WD300BB-00CAA0 serial # WD-WMA8H2140350 with 58633344 sectors	
Blocker Output:	cmd: partab HWB-08 Freddy JRL /dev/hdc 92 -all 58633344 total number of sectors	
Results:	Assertion & Expected Result AM-03 Access Significant Information unaltered	Actual Result Access Significant Information unaltered
Analysis:	Expected results achieved	

Test Case HWB-09 Variation HWB-09 MyKey NoWrite Version 1.05					
Case Summary:	HWB-09 Determine if an error on the protected drive is returned to the host.				
Assertions Tested:	HWB-AM-04 If the host sends an operation to the HWB and if the operation results in an unresolved error on the protected storage device, then the HWB shall return an error status code to the host.				
Tester Name:	JRL				
Test Date:	run start Thu Sep 8 15:30:59 2005 run finish Thu Sep 8 15:33:10 2005				
Test Configuration:	HOST: Freddy HostToBlocker Monitor: none HostToBlocker PA: none HostToBlocker Interface: IDE BlockerToDrive Monitor: none BlockerToDrive PA: none BlockerToDrive Interface: IDE Run Environment: Helix				
Drives:	Protected drive: 92 92 is a WDC WD300BB-00CAA0 serial # WD-WMA8H2140350 with 58633344 sectors				
Blocker Output:	03648/254/63 (max cyl/hd values) 03649/255/63 (number of cyl/hd) 58633344 total number of sectors cmd: diskchg HWB-09 Freddy JRL /dev/hdc -read 68633344 0 16 Disk addr lba 68633344 C/H/S 4272/58/11 offset 0 Disk read error 0xFFFFFFFF at sector 4272/58/11				
Results:	<table border="0"> <tr> <td>Assertion & Expected Result</td> <td>Actual Result</td> </tr> <tr> <td>AM-04 Error code returned</td> <td>Error code returned</td> </tr> </table>	Assertion & Expected Result	Actual Result	AM-04 Error code returned	Error code returned
Assertion & Expected Result	Actual Result				
AM-04 Error code returned	Error code returned				
Analysis:	Expected results achieved				

About the National Institute of Justice

NIJ is the research, development, and evaluation agency of the U.S. Department of Justice. NIJ's mission is to advance scientific research, development, and evaluation to enhance the administration of justice and public safety. NIJ's principal authorities are derived from the Omnibus Crime Control and Safe Streets Act of 1968, as amended (see 42 U.S.C. §§ 3721–3723).

The NIJ Director is appointed by the President and confirmed by the Senate. The Director establishes the Institute's objectives, guided by the priorities of the Office of Justice Programs, the U.S. Department of Justice, and the needs of the field. The Institute actively solicits the views of criminal justice and other professionals and researchers to inform its search for the knowledge and tools to guide policy and practice.

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NIJ has seven strategic goals grouped into three categories:

Creating relevant knowledge and tools

1. Partner with State and local practitioners and policymakers to identify social science research and technology needs.
2. Create scientific, relevant, and reliable knowledge—with a particular emphasis on terrorism, violent crime, drugs and crime, cost-effectiveness, and community-based efforts—to enhance the administration of justice and public safety.
3. Develop affordable and effective tools and technologies to enhance the administration of justice and public safety.

Dissemination

4. Disseminate relevant knowledge and information to practitioners and policymakers in an understandable, timely, and concise manner.
5. Act as an honest broker to identify the information, tools, and technologies that respond to the needs of stakeholders.

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6. Practice fairness and openness in the research and development process.
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