

# Service Center 9 Test List

## Windows Diagnostics

### Storage

- **Blu-Ray Drive**
  - Funnel Seek
  - Linear Read Compare
  - Linear Seek
  - Random Seek
  - Read Performance
- **BD-R Drive**
  - Read/Write
- **BD-RE Drive**
  - Read/Write
- **Removable Storage**
  - Pattern
  - Linear Read
- **CD-ROM Drive**
  - CD Audio
  - Funnel Seek
  - Linear Read Compare
  - Linear Seek
  - Random Seek
  - Read Performance
- **CD-R Drive**
  - Read/Write
- **CD-RW Drive**
  - Read/Write
- **DVD Drive**
  - Funnel Seek
  - Linear Read Compare
  - Linear Seek
  - Random Seek
  - Read Performance
- **DVD+R DL Drive**
  - Read/Write
- **DVD-R DL Drive**
  - Read/Write
- **DVD+R Drive**
  - Read/Write
- **DVD-R Drive**
  - Read/Write
- **DVD-RAM Drive**
  - Funnel Seek
  - Linear Seek
  - Pattern
  - Random Seek
  - Linear Read Compare
  - Read Performance
- **DVD+RW Drive**
  - Read/Write
- **DVD-RW Drive**
  - Read/Write
- **OBIST Drive**
  - DRAM
  - Flash ROM
  - Main IC
  - Opu
  - Spindle
  - Tray In
  - Tray Out
- **Floppy Drive**
  - Funnel Seek
  - Linear Seek
  - Pattern
  - Random Seek
  - Surface Scan
- **Hard Drive**
  - Linear Seek
  - Random Seek
  - Funnel Seek
  - Surface Scan
  - Pattern
  - Cache
  - Targeted Read
- **SCSI Command Set**

## PC-Doctor Service Center 9 Test List

- Self-Test
- Background Short Self-Test
- Background Extended Self-Test
- **Solid State Drive**
  - Linear Read
  - Pattern
  - Random Seek
  - Wear Level
  - Intel Wear Level
  - Targeted Read
- **HD DVD Drive**
  - Funnel Seek
  - Linear Read Compare
  - Linear Seek
  - Random Seek
  - Read Performance
- **LS Drive**
  - Funnel Seek
  - Linear Seek
  - Pattern
  - Random Seek
  - Surface Scan
- **SMART**
  - Conveyance Self-Test
  - Extended Self-Test
  - Short Self-Test
  - Status
  - Thresholds
- **Tape Drive**
  - Backup
  - Linear Seek
- **Zip Drive**
  - Funnel Seek
  - Linear Seek
  - Pattern
  - Random Seek
  - Surface Scan

## System

- **PCMCIA Bridge**
  - Status
- **CardBus Bridge**

- Status
- **IEEE 1394**
  - Bus Reset
  - Config ROM
- **Battery**
  - Life
  - Status
- **CMOS**
  - Checksum
  - Pattern
- **CPU**
  - Level 2 Cache
  - Math Register
  - MMX
  - Register
  - SSE
  - SSE2
  - SSE3
  - SSSE3
  - SSE4A
  - SSE4.1
  - SSE4.2
  - Stress
  - Floating Point Unit
  - Prime Number Generation
- **Memory**
  - Address
  - Advanced Pattern
  - Auxiliary Pattern
  - Bit High
  - Bit Low
  - Checkerboard
  - Modulo20
  - Moving Inversion
  - Nibble Move
  - Walking One Left
  - Walking One Right
  - Windows Memory
- **Parallel Port**
  - External Read and Write
  - Internal Read and Write
- **PCI Express**

## PC-Doctor Service Center 9 Test List

- Status
- **PCI**
  - Configuration
- **ReadyBoost**
  - ReadyBoost Test
- **Serial Port**
  - External Loopback
  - External Register
  - Internal Control Signals
  - Internal Register
  - Internal Send and Receive
- **System Board**
  - RTC Accuracy
- **USB**
  - Status
- **USB Ports**
  - Status
- **Standby/Hibernate**
  - Standby Test
  - Hibernate Test

## Audio

- **Microphone**
  - Microphone Interactive Test
- **Sound Card**
  - Rough Audio
  - Playback Mixer State
  - Sound Interactive Test

## Video

- **Video Card**
  - Multiple Rendering DX9
  - Shader Rendering DX10
  - Shader Rendering DX11
  - Wireframe Shader Rendering
  - Shader Rendering
  - Stereo 3D Rendering
  - GPU Pipeline Data
  - Transformation and Lighting Stress
  - Wireframe Stress
  - Fixed Transformation and Lighting

- Wireframe Line
- Primary Surface
- Thermal Cycle
- Video Memory
- Address Fault
- Standard Mathematical Operations
- Block Move
- Memory Fault
- Modulo X
- Moving Inversion
- Own Address
- Pattern
- Random Number Sequence
- Advanced Mathematical Operations
- **Video Capture**
  - TV Signal
  - Capture To Screen
  - Capture To File
  - FM Radio
  - Digital TV Signal
  - Clear QAM Digital Tuner Signal
- **WebCam**
  - Capture To Screen
  - Capture To File
  - RGB Pixel
  - RGB Line Driver
  - RGB Channel
  - RGB Line Amplifier
  - RGB Color Depth
  - Luminance
  - Edge Detection
- **Video Ports**
  - Video Ports Interactive
- **AVI**
  - AVI Interactive
- **Monitor**
  - Monitor Interactive
- **Touch Screen**
  - Calibration
  - Coverage
  - Multi-Touch

## Communications

- **Modem**
  - Dial Tone
  - Fax Command
  - Last Call
  - Modem Loopback
  - Modem Self-Testing Loopback
- **Network Card**
  - Network Cable
  - Network External Loopback
  - Network Link
  - TCP/IP Internal Loopback
  - Local Network Communication
  - Wireless Connectivity
  - Wireless Signal Strength
  - Internet Communication
  - Signal Strength
  - Data Transfer Verification
- **Bluetooth Port**
  - Bluetooth Interactive Test
- **Mobile Broadband**
  - Connectivity
  - Signal Strength

## Sensor Devices

- **GPS**
  - Communication
  - Lock
- **Fingerprint Reader**
  - Swipe
- **Ambient Light Sensor**
- **Accelerometer**
- **Magnetometer**
- **Gyrometer**

## Other Devices

- **Joystick**
  - Joystick Interactive
- **Keyboard**
  - Keyboard Interactive

- **Mouse**
  - Mouse Interactive
  - Touchpad
  - TrackPoint
- **Printer**
  - Printer Interactive
- **Digitizer Stylus**
  - Digitizer Stylus Interactive
- **AlienFX LED Verification**
  - AlienFX LED Verification Interactive
- **Lid Closure**
  - Lid Closure Interactive

## DOS Diagnostics

### Storage

- **Diskette Drive**

- Hi-Low Seek
- Funnel Seek
- Track to Track Seek
- Random Seek
- Linear Verify
- Random Verify
- Linear Write/Read
- Linear Write/Random Read
- Random Write

- **Fixed Disk**

- Controller
- Funnel Seek
- Random Seek
- Linear Verify
- Random Verify
- SMART Status Check
- SMART Self-Test Short
- SMART Self-Test Long
- SMART Conveyance
- SMART Attribute Check
- Inner/Outer Surface Read
- Read Surface Scan
- Write Surface Scan
- Drive Cache
- Spin Down/Spin Up

- **Optical Drive Scan**

- Insert Media
- Linear Seek
- Random Seek
- Funnel Seek
- Remove Media

- **Optical Drive Write**

- CD-RW Drive
- DVD-RW Drive
- DVD+RW Drive
- DVD-RAM Drive

- HD DVD-RAM Drive
- BD-RE Drive

- **SCSI Fixed Disk**

- Controller
- Funnel Seek
- Track To Track Seek
- Random Seek
- Linear Verify
- Random Verify
- Read Surface Scan
- Write Surface Scan
- Short Self-Test
- Extended Self-Test
- Inner/Outer Read Surface Scan
- Spin Down/Spin Up Test

### System

- **CPU/CoProcessor**

- CPU Registers
- CPU Arithmetics
- CPU Logical Operations
- CPU String Operations
- CPU Misc Operations
- CPU Interrupts/Exceptions
- CPU Buffers/Cache
- CoProc Registers
- CoProc Commands
- CoProc Arithmetics
- CoProc Transcendental
- CoProc Exceptions
- MMX Test
- SSE
- SSE2
- SSE3
- SSSE3
- SSE4A
- SSE4.1
- SSE4.2

- **System Memory**

## PC-Doctor Service Center 9 Test List

- Memory Fault
- Address Fault
- Random Pattern
- Short Advanced Pattern
- Extended Advanced Pattern
- **Parallel Port**
  - Command and Data Port
  - External Loopback and IRQ
- **Serial Port**
  - Registers and Interrupts
  - Internal Loopback
  - External Loopback
  - FIFO Buffers (16550A)
- **System Board**
  - System Timer
  - BIOS Timer
  - IRQ Controller
  - DMA Channels
  - RAM Refresh
  - RTC Clock
  - CMOS RAM
  - Keyboard
  - PCI
  - PCMCIA
  - PCMCIA Detection
  - USB Port
  - USB Port External Loop
  - IEEE1394 Controller
  - SMBus

- **Keyboard**
- **Video**
- **Internal Speaker**
- **Mouse**
- **Diskette**
- **LCD Panel**
- **System Load**

## Utility

- **Edit CMOS RAM**
- **Benchmark System**
- **Memory Debugger**
- **Battery Rundown**
- **Erase Drive Contents**
- **View SMART Logs**
- **View PCDR Host Logs**

## Video

- **Video Adapter**
  - Video Memory
  - Video Pages
  - VGA Controller Registers
  - VGA Color-DAC Registers
  - VESA Full Video Memory
  - AGP
  - PCI Express

## Interactive

## Bootable Diagnostics – All New!

### Storage

- **Blu-Ray Drive**
  - Funnel Seek
  - Linear Read Compare
  - Linear Seek
  - Random Seek
  - Read Performance
- **CD-ROM Drive**
  - CD Audio Digital Extraction
  - Funnel Seek
  - Linear Read Compare
  - Linear Seek
  - Random Seek
  - Read Performance
- **DVD Drive**
  - Funnel Seek
  - Linear Read Compare
  - Linear Seek
  - Random Seek
  - Read Performance
- **DVD-RAM Drive**
  - Funnel Seek
  - Linear Read Compare
  - Linear Seek
  - Random Seek
  - Read Performance
- **Floppy Drive**
  - Funnel Seek
  - Linear Seek
  - Pattern
  - Random Seek
- **Hard Drive**
  - Cache
  - Funnel Seek
  - Linear Read
  - Linear Seek
  - Pattern
  - Random Seek
  - Targeted Read
- **SMART**
  - Conveyance Self-Test
  - Extended Self-Test
  - Short Self-Test
  - Status
  - Thresholds
  - Selective Self Test
- **SCSI Command Set**
  - Self-Test
  - Background Short Self-Test
  - Background Extended Self-Test
- **Solid State Drive**
  - Linear Read
  - Pattern
  - Random Seek
  - Wear Level
  - Intel Wear Level
  - Targeted Read
- **DVD Drive**
  - Funnel Seek
  - Linear Read Compare
  - Linear Seek
  - Random Seek
  - Read Performance
- **Tape Drive**
  - Backup
  - Linear Seek
- **Removable Storage**
  - Pattern
  - Linear Read
  - Random Read

### System

- **IEEE 1394**
  - Bus Reset
  - Config ROM
- **Battery**
  - AC

## PC-Doctor Service Center 9 Test List

- **CMOS**
    - Checksum
    - Pattern
  - **CPU**
    - Cache
    - MMX
    - Math Register
    - Register
    - SSE2
    - SSE3
    - SSE
    - Stress
  - **Memory**
    - Address
    - Advanced Pattern
    - Auxiliary Pattern
    - Bit High
    - Bit Low
    - Checkerboard
    - Modulo20
    - Moving Inversion
    - Nibble Move
    - Walking One Left
    - Walking One Right
    - Pattern
  - **Parallel Port**
    - Loopback
    - Register
  - **PCI**
    - Configuration
  - **PC Card**
    - CIS Validation
  - **Serial Port**
    - External Loopback
    - External Register
    - Internal Control Signals
    - Internal Register
    - Internal Send and Receive
  - **System Board**
    - RTC IRQ Accuracy
  - **USB**
    - USB Descriptors
    - USB Standard Device Requests
    - USB Device Enumeration
    - USB Port Detection
- ### Audio
- **Microphone**
    - Microphone Recording
  - **Sound Card**
    - Midi
    - Surround Sound
    - Wave Test Both
    - Wave Test Left
    - Wave Test Right
- ### Video
- **Video Card**
    - Video Data
    - Video Memory
    - Video Text
    - AGP Configuration
  - **Monitor**
    - Monitor Interactive
- ### Communications
- **Modem**
    - Dial Tone
    - Fax Command
    - Modem Loopback
    - Modem Specific
  - **Network Card**
    - ICMP Network Communications
    - Network Connectivity
    - Network External Loopback
    - Network Offline Self Test
    - Network Online Self Test
    - Wireless Connection
    - Wireless Scan
  - **Intel Network Card**
    - Intel NIC AMT Test
    - Intel NIC EEPROM
    - Intel NIC FIFO



## PC-Doctor Service Center 9 Test List

- Intel NIC IP Security
- Intel NIC Interrupt
- Intel NIC Link
- Intel NIC Loopback
- Intel NIC Register
- Virtual LAN
- **Bluetooth Port**
  - Bluetooth Communication
  - Bluetooth Detection

## Other Devices

- **Keyboard**
  - Key Test
- **Mouse**
  - Mouse Test

## Other Utilities

- **Drive Wipe**

## PC-Doctor, Inc.

10345 Professional Circle

Reno, NV 89521

775-336-4000

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

[sales@pc-doctor.com](mailto:sales@pc-doctor.com)