# About Apple Service Diagnostics 3S138

Apple Service Diagnostics (ASD) is distributed to Apple Service Providers. The Apple Service Diagnostics application is designed to run both EFI and Mac OS X tests from an external USB hard drive. Apple Service Diagnostics (EFI) runs low-level tests of the hardware directly and does not require Mac OS X, while Apple Service Diagnostics (OS) uses Mac OS X to run tests.

Installing Apple Service Diagnostics on a USB hard drive
Please refer to the document "Installing ASD on a USB hard drive" included with this release.

Note: ASD is tested with a custom Mac OS that is supplied in the image. As a test requirement the OS is set up as a root user. DO NOT copy ASD to another OS or some tests will fail. Also running ASD on another OS removes some of the Finder menu items and sets preferences specifically for ASD requirements. It will damage your OS so use the one provided.

Booting and using the Apple Service Diagnostics application
Before using Apple Service Diagnostics, disconnect any Ethernet network, USB, and audio cables.

With the USB hard drive containing ASD OS 3S138 and ASD EFI 3S138 plugged into a USB port, restart the computer and hold down the option key as the computer boots up into the Boot Picker. To run ASD (EFI) select the "ASD EFI 3S138" drive icon and press return or select it with a mouse click. To run ASD (OS) select the "ASD OS 3S138" drive icon and press return or select it with a mouse click. ASD (EFI) will load in 20-30 seconds; ASD (OS) will load in 1-2 minutes. After running ASD (OS) or ASD (EFI), press the Shut Down button to shut down the computer. Removed the USB drive.

Changes to ASD 3S138

EFI user interface has been changed to better match the OS user interface. Those changes are listed in ASD User Guide.
Added support for new Macintosh releases listed below.

ASD 3S138 supports the following machines

MacBook (13-inch, Mid 2010)
MacBook Pro (13-inch, Mid 2010)
MacBook Pro (17-inch, Mid 2010)
MacBook Pro (15-inch, Mid 2010)
MacBook (13-inch, Late 2009)
iMac (21.5-inch, Late 2009)
iMac (27-inch, Quad Core, Late 2009)
Mac mini (Late 2009)

## Recommendations and Test Information

In ASD (EFI), the Hard Drive full scan test may take an hour or more to complete.
In ASD (OS), the Apple Simple Memory Test may take 20 to 60 minutes to complete depending on the amount of RAM installed.
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If you suspect your computer has a hardware problem, the information provided by Apple Service Diagnostics can help identify the problem. If Apple Service Diagnostics detects a problem, an error will be displayed. Please make a note of the error before proceeding further. If no hardware failure is detected, the problem may be software related.

Apple Service Diagnostics is one of several tools and procedures you can use when your Macintosh is having trouble. Here are some steps you can follow to help resolve problems. Please back up your data before performing any of these steps.

1. Turn the computer off and on.
You can often eliminate problems by selecting the "Shut Down" option from the Apple () menu to fully shut down the CPU, then restart your system.

2. Check cables, peripherals, and user controls.
Shut down your computer. Then disconnect and reconnect all cables. Disconnect all peripherals (such as printers, scanners, cameras and external mass storage devices) to see if they are causing conflicts with your system. Adjust user controls on your monitors and other peripherals to see if this helps.

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