

Product Facts

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Silent Drives (ATA/ATAPI 6)

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Product Silent Drives

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Hard disk drive Silent Mode

Following on from thermal management and system monitoring, Fujitsu Siemens Computers is going one step further toward reducing noise at the workplace with the new "Silent Mode" feature. By changing the motion characteristics of the read-write head it is possible to reduce the noise arising during hard disk access to a barely perceptible level. What's more, the resulting drop in performance is minimal.



"Hard disk drive Silent Mode" is supported only in conjunction with hard disks conforming to the ATA/ATAPI 6 standard. The function is implemented in the mainboard BIOS and so no special driver software is required.

Enabling the function produces a change in the operating mode of the servo controller for the read-write head. This causes the head to be placed in motion and decelerated "softer" than previously. The noise typical of hard disks is reduced to a minimum as a result.

Activating "hard disk drive Silent Mode"

"Silent Mode" is activated in the BIOS setup menu for the individual hard disks. In the "Hard disk drive Silent Mode" field, there is a choice between two options:
Disabled: Full hard disk performance with maximum noise generation
Enabled: Lower hard disk performance with minimum noise generation
The mode can be selected separately for each hard disk.

CD Silent Mode – Automatic Acoustic Management

As well as hard disks, optical data drives such as CD-ROM, CD-RW and DVD are also responsible for generating noise in a PC. Since these drives often spin much faster than hard disks, and also rotate at different speeds depending on application, they produce higher levels of noise at certain times. In addition to the increase in noise level, the increased vibrations can lead to problems (e.g. read errors). Depending on how the drive is mounted and the design of the PC housing, these vibrations can generate additional noise.

There are already software tools available for reducing the rotation speed of optical drives, although this requires the tool to be launched each time the system is started up. An alternative option provided in the BIOS setup of Fujitsu Siemens Computers mainboards is to access the "Automatic Acoustic Management" feature provided by optical drives conforming to the extended ATAPI 6 standard.

Activating Automatic Acoustic Management

The Automatic Acoustic Management feature is activated and configured in the BIOS setup menu of the individual drive. The following options are available for selection in the CD Silent Mode field:

- Disabled: The BIOS leaves the settings to the drive itself or to a software tool.
- Maximum: The drive can rotate at maximum speed (maximum noise generation)
- Medium: The drive can rotate at no higher than medium speed (medium noise generation)
- Minimum: The drive can rotate at minimum speed only (minimum noise generation)

Note: The slower the drive rotates, the lower is its performance. Owing to the high read error rate at high read speeds, the relationship cannot be regarded as linear.

Information and downloads

Information:

<http://www.fujitsu-siemens.com/mainboards>

Downloads (manuals, drivers, BIOS):

<http://download.fujitsu-siemens.com>