Energy Saving Control Panels: Description & Compatibility 10/96

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TOPIC --

What is the difference between all the different energy-saving control panels,
and how do I know when to use them?

DISCUSSION ---

Energy Related Control Panels Overview
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There are four different energy-related control panels in System 7.5.

• Auto Power On/Off: Turns the computer ON and OFF at specified times.

• CPU Energy Saver: Turns the computer OFF at specified times, but not ON.

• Energy Saver 1.0: Puts an external monitor into energy-saving mode.

• Screen: Puts an internal monitor into energy-saving mode.

• Energy Saver 2.0: Combines functionality of CPU Energy Saver, Energy Saver
1.0, and Auto Power On/Off. Energy Saver 2.0 is compatible only on PCI-based
Power Macintosh computers, which includes the Power Macintosh 5400, 6400, 7200,
7500, 7600, 8500, and 9500 series computers.

These control panels only work on certain Macintosh computers. In addition, the
Energy Saver 1.0 control panel requires an Energy Star-compliant monitor as well
as a Macintosh computer compatible with this software. See the chart at the end
of this article for a list of compatible systems.

Although many Energy Saver control panels are compatible with many Macintosh
Performa computers, not all Energy Saver control panels are bundled with
Macintosh Performa computers. Many Macintosh Performa computers include modems
and MegaPhone software, which allow you to use your computer as an answering
machine. If you have installed Auto Power On/Off, it is possible for your
computer to be inadvertently shut down while your computer is set to answer
phone messages. To avoid this, Macintosh Performa computers do not ship with the
Auto Power On/Off control panel.

None of the energy-related control panels mentioned here are supported on PowerBook or PowerBook Duo products.

Auto Power On/Off

This feature lets you set your Macintosh computer to power ON and OFF at a pre-determined time, on a daily basis, or for one particular day. It also has a check box labelled "Automatically restart after power failure". If you check this box and the power goes off, the computer automatically restarts. You can use the Auto Power On/Off feature in conjunction with other System 7.5 features. For example, you could set your system to power on at night and run an AppleScript that re-indexes all of your database files or backs up your hard drive.

This control panel can only be used on computers that can be turned off by using the Shut Down command (soft power off) and that have the "Cuda" ADB controller chip or a version of the Motorola 68HC05 microcontroller chip. The chart at the end of this article lists the Macintosh models this control panel is compatible with.

NOTE: Not included with all system software prior to System 7.5

CPU Energy Saver

This feature lets you set your Macintosh to turn OFF at a specified time. However, you cannot set your system to turn ON with this feature. It can only be used on computers that can be turned off by using the Shut Down command (soft power off), such as the Quadra 700. This feature is only installed by System 7.5 if Auto Power On/Off is NOT compatible with the Macintosh and CPU Energy Saver IS compatible with the Macintosh.

NOTE: This control panel did not ship with system software older than System 7.5, although it was released separately before System 7.5.

Energy Saver 1.0

This feature lets you set your Macintosh to put external monitors into sleep mode. It was originally designed to work with the built-in video of Macintosh LC III, Quadra 610-950, Power Macintosh, and Performa 450-467, 63x, 611x.

This feature requires an Energy Star-compliant monitor. Compliant models include:

• Apple Color Plus 14-in. Display
• Macintosh Color Display (newer M1198LL/B version)
• Apple AudioVision 14 Display
• Apple Multiple Scan 14, 15, 17, and 20 Displays

NOTE:
Not included with system software prior to System 7.5, although it was made available separately.

This feature did not come preinstalled on some Performa 630- and 6110-series systems and was not included on the backup CDs that shipped with these systems. Customers who want the Energy Saver software can copy it from the disk that comes with the Multiple Scan 15 Display. (Be sure not to copy the Display Enabler extension, since the Performa 630- and 6110-series systems have the Display Enabler's functionality built into the hardware.)

If Energy Saver is installed on a computer that has an incompatible monitor, the monitor goes black after the specified inactivity period has passed, but the incompatible monitor is NOT in low power mode, and therefore is NOT saving energy. Monitors that do not support this Energy Saver function, or monitors that use video cards, are not harmed by the installation of this control panel, but they do not save energy with Energy Saver installed.

The Energy Saver control panel has a slider bar to adjust the monitor inactivity period, from 15 to 60 minutes. Energy Saver can be turned on by clicking the check box nearest the slider bar. The settings take effect immediately; you do not need to restart the computer.

When the Apple Energy Star-compliant monitor has been inactive (that is, you have not used the mouse or keyboard) for the time specified in the Energy Saver control panel, the screen of the monitor goes black. This indicates that the monitor is in low-power mode, and is saving energy. The computer is still functioning.

The monitor returns to a fully active state approximately 20 seconds after you use the keyboard or mouse. You hear a number of beeps while the screen is updated to reflect its current state. (The beep volume cannot be adjusted; it is independent of all system sound controls.)

Screen

This control panel lets you set your Macintosh computer to put internal monitors into sleep mode.

The Screen control panel can only be used on certain "all-in-one" Macintosh systems, such as the LC/Performa 500-series.

This feature shipped with some Performa 630-series systems and appears to work, but does not really save energy. The Screen control panel should be removed from these systems. Use the Energy Saver control panel in its place.

Energy Saver 2.0

This control panel combines functionality of CPU Energy Saver, Energy Saver 1.0, and Auto Power On/Off. Energy Saver 2.0 is compatible only on PCI-based Power Macintosh computers, which includes the Power Macintosh 5400, 7200, 7500, 7600, 8500, and 9500 series computers.

NOTE: Energy Saver 2.0 is available only in System 7.5.2 or later when used on a PCI-based Power Macintosh computer.

Begin_Table

WHEN TO USE WHICH ENERGY-SAVING CONTROL PANELS

	< FOR MONITORS>		< FOR COMPUTER>	
YES = preferred				
OK = compatible, but not preferred			Auto	CPU
NO = incompatible	Energy		Power	Energy
	Saver	Screen	On/Off	Saver
COMPACT MACINTOSH SYSTEMS				
Macintosh 128K, 512K, 512Ke, XL	NO	NO	NO	NO
Macintosh Plus, SE, SE/30	NO	NO	NO	NO
Classic, Classic II, Performa 200	NO	NO	NO	NO
Color Classic, Color Classic II	NO	YES	YES	OK
MACINTOSH II SYSTEMS				
Macintosh II, IIx, IIfx	YES	NO	NO	YES
Macintosh IIcx, IIci	YES	NO	NO	YES
Macintosh IIsi, IIvi, IIvx	YES	NO	YES	OK
MACINTOSH LC SYSTEMS				
Macintosh LC, LC II	NO	NO	NO	NO
Macintosh LC III, LC 475	YES	NO	NO	NO
Macintosh LC 520, 550, 575, 580	NO	YES	YES	OK
Macintosh LC 630	YES	NO	YES	OK
MACINTOSH CENTRIS & QUADRA SYSTEMS				
Macintosh Quadra 605	NO	NO	NO	NO
Macintosh Centris/Quadra 610	YES	NO	NO	NO
Macintosh Quadra 630	YES	NO	YES	OK
Macintosh Centris/Quadra 650	YES	NO	NO	YES
Macintosh Centris/Quadra 660AV	YES	NO	NO	NO
Macintosh Quadra 700	NO	NO	NO	YES
Macintosh Quadra 800	YES	NO	NO	YES
Macintosh Quadra 840AV, 950	YES	NO	YES	OK
Macintosh Quadra 900	NO	NO	YES	OK
MACINTOSH PERFORMA SYSTEMS				
Performa 200	NO	NO	NO	NO
Performa 250, 275	NO	YES	YES	OK
Performa 400, 405, 410, 430	NO	NO	NO	NO
Performa 450, 460, 466, 467	YES	NO	NO	NO
Performa 475, 476	YES	NO	NO	NO
Performa 520, 550, 560	NO	YES	YES	OK
Performa 570-, 580-series	NO	YES	YES	OK
Performa 600	YES	NO	YES	OK
Performa 630-, 640-series	YES	NO	YES	OK

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Performa 5200-series                       |   NO     YES  |   YES     OK
Performa 6100-series                       |   YES    NO   |   NO      NO
Performa 6200-series                       |   YES    NO   |   OK*     NO
Performa 6300-series                       |   YES    NO   |   OK      YES
Performa 6400 series                       |   YES•   NO   |   NO•     NO
-------------------------------------+-----------------+------------------
POWER MACINTOSH SYSTEMS                     |              |
                                           |              |
Power Macintosh 5200/75 LC                 |   NO     YES  |   YES     OK
Power Macintosh 5260                       |   NO     YES  |   YES     OK
Power Macintosh 5400                       |   YES•   NO   |   NO•     NO
Power Macintosh 6100/60, 6100/66           |   YES    NO   |   NO      NO
Power Macintosh 6200/75                    |   YES    NO   |   YES     NO
Power Macintosh 7100/66                     |   YES    NO   |   YES     OK
Power Macintosh 7100/80                     |   YES    NO   |   YES     NO*
Power Macintosh 7200 Series                |   YES•   NO   |   NO•     NO
Power Macintosh 7500 Series                |   YES•   NO   |   NO•     NO
Power Macintosh 7600 Series                |   YES•   NO   |   NO•     NO
Power Macintosh 8100/80                     |   YES    NO   |   YES     OK
Power Macintosh 8100/100, 8100/110         |   YES    NO   |   YES     NO*
Power Macintosh 8500 Series                |   YES•   NO   |   NO•     NO
Power Macintosh 9500 Series                |   YES•   NO   |   NO•     NO
-------------------------------------+-----------------+------------------
MACINTOSH WORKGROUP SYSTEMS                 |              |
                                           |              |
Workgroup Server 95                        |   YES    NO   |   YES     NO
Workgroup Server 8150                       |   YES    NO   |   YES     NO
Workgroup Server 9150                       |   YES•   NO   |   NO•     NO
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End_Table

* These Power Macintosh computers included the Connectix Desktop Utility (CDU) software. The Connectix Desktop Utility makes these units Energy Star compliant.

• Use Energy Saver 2.0.x included with System 7.5.2 for this function.

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