

Revision History

Revision	Revision History	Date
-001	First release of the Intel® Desktop Board D925XHY Product Guide.	January 2006

If an FCC declaration of conformity marking is present on the board, the following statement applies:

FCC Declaration of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For questions related to the EMC performance of this product, contact:

Intel Corporation
5200 N.E. Elam Young Parkway
Hillsboro, OR 97124
1-800-628-8686

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit other than the one to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications to the equipment not expressly approved by Intel Corporation could void the user's authority to operate the equipment.

Canadian Department of Communications Compliance Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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Desktop Board D925XHY may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order.

Copies of documents which have an ordering number and are referenced in this document, or other Intel literature, may be obtained from Intel Corporation by going to the World Wide Web site at: <http://www.intel.com/> or by calling 1-800-548-4725.

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Preface

This Product Guide gives information about board layout, component installation, BIOS updates, and regulatory requirements for Intel® Desktop Board D925XHY.

Intended Audience

The Product Guide is intended for technically qualified personnel. It is not intended for general audiences.

Information Layout

The chapters in this Product Guide are arranged as follows:

- 1 Desktop Board Features: a summary of product features.
- 2 Installing and Replacing Desktop Board Components: instructions on how to install the desktop board and other hardware components.
- 3 BIOS: information about entering BIOS Setup and how to update the BIOS.
- 4 Desktop Board Resources: information about connectors and desktop board resources.
- A Error Messages and Indicators: information about BIOS error messages and beep codes.
- B Regulatory Compliance: safety and EMC regulations, product certification.

Conventions

The following conventions are used in this manual:



WARNING

Warnings indicate conditions that, if not observed, can cause personal injury.



CAUTION

Cautions warn the user about how to prevent damage to hardware or loss of data.



NOTE

Notes call attention to important information.

Terminology

The table below gives descriptions to some common terms used in the product guide.

Term	Description
GB	Gigabyte (1,073,741,824 bytes)
GHz	Gigahertz (one billion hertz)
KB	Kilobyte (1024 bytes)
MB	Megabyte (1,048,576 bytes)
Mbit	Megabit (1,048,576 bits)
MHz	Megahertz (one million hertz)

Box Contents

- Intel® Desktop Board
- NVIDIA* GeForce* 6200 LE Graphics Card
- I/O shield
- One ATA-66/100 cable
- Four Serial ATA cables
- Two Serial ATA power cables
- One diskette drive cable
- Intel® Express Installer CD-ROM
- Floppy disk with RAID driver
- Back panel audio covers
- Quick Reference Guide
- Configuration and battery caution statement label

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1 Desktop Board Features

This chapter briefly describes the main features of Intel® Desktop Board D925XHY.

Table 1 summarizes the major features of the desktop board.

Table 1. Feature Summary

Form Factor	ATX (11.8875" x 9.60") Intel Desktop Board D925XHY
Processor	Support for an Intel® Pentium® 4 processor in the LGA775 package with 800 MHz or 533 MHz front side bus
Main Memory	<ul style="list-style-type: none">• Four 240-pin, 1.8 V SDRAM Dual Inline Memory Module (DIMM) sockets• 533/400 MHz single or dual channel DDR2 SDRAM interface• Designed to support up to 4 GB of system memory <p>NOTE: System resources (such as PCI and PCI Express*) require physical memory address locations that reduce available memory addresses above 3 GB. This may result in less than 4 GB of memory being available to the operating system and applications. For the latest list of tested memory, refer to the Intel World Wide Web site at: http://support.intel.com/support/motherboards/desktop/</p>
Chipset	Intel® 925X Express Chipset consisting of: <ul style="list-style-type: none">• Intel® 82925X Memory Controller Hub (MCH) with Direct Media Interface• Intel® 82801FR I/O Controller Hub (ICH6-R) supporting Intel® Matrix Storage Technology
Audio	<ul style="list-style-type: none">• Intel 925X Express Chipset• Intel® High Definition Audio codec
Expansion Capabilities	<ul style="list-style-type: none">• Four PCI bus add-in card connectors• One PCI Express x16 connector• Two PCI Express x1 connectors• Four Serial ATA (SATA) connectors• Two front panel USB 2.0 headers• One front panel audio header• Two IEEE 1394 headers
LAN Subsystem	10/100 Mbit/sec Ethernet Controller with RJ-45 connector
BIOS	<ul style="list-style-type: none">• Intel® BIOS• 8 Mbit symmetrical flash memory• Support for SMBIOS• Intel® Rapid BIOS Boot• Intel® Express BIOS Update
RAID	Intel® Matrix Storage Technology for Serial ATA

continued

Table 1. Feature Summary (continued)

Peripheral Interfaces	<ul style="list-style-type: none"> • Up to eight USB 2.0 ports <ul style="list-style-type: none"> — Four ports routed to the back panel — Four ports routed to two USB headers • Four Serial ATA channels, via the ICH6-R, one device per channel • Up to three IEEE 1394 ports <ul style="list-style-type: none"> — One port routed to the back panel — Two ports routed to two IEEE 1394 headers • One IDE interface with ATA-66/100 support • One diskette drive interface • One parallel port • One serial port • PS/2* keyboard and mouse ports
Power Management	<ul style="list-style-type: none"> • Support for Advanced Configuration and Power Interface (ACPI) • Suspend to RAM (STR) • Wake on USB, PCI, PCI Express, PS/2, LAN, and front panel
Hardware Management	<p>Hardware monitor with:</p> <ul style="list-style-type: none"> • Four fan sensing inputs used to monitor fan activity • Remote diode temperature sensing • Intel® Precision Cooling Technology fan speed control that automatically adjusts processor fan speeds based on processor temperature and chassis fan speeds based on system temperature • Voltage sensing to detect out of range values

Related Links

For more information about Intel Desktop Board D925XHY, including the Technical Product Specification (TPS), BIOS updates, and device drivers, go to:

<http://support.intel.com/support/motherboards/desktop/>

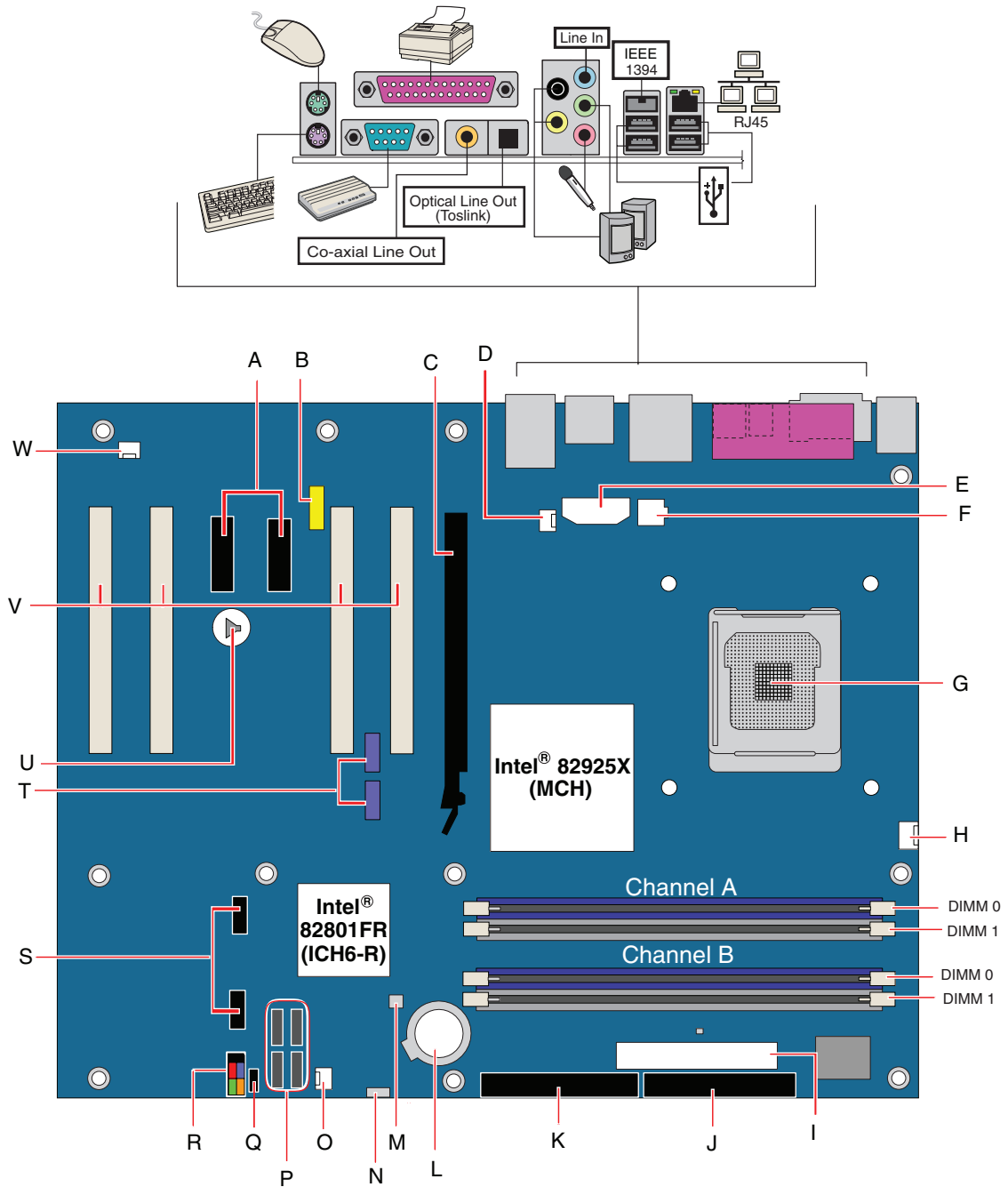
Supported Operating Systems

The desktop board supports the following operating systems:

- Microsoft Windows* XP Media Center Edition 2005
- Microsoft Windows XP Professional
- Microsoft Windows XP Professional x64 Edition
- Microsoft Windows XP Home
- Microsoft Windows 2000

Desktop Board Components

Figure 1 shows the approximate location of the major components on Desktop Board D925XHY.



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Figure 1. Desktop Board D925XHY Components

Table 2. Desktop Board D925XHY Components

Label	Description
A	PCI Express x1 connectors
B	Front panel audio header (yellow)
C	PCI Express x16 connector
D	Rear chassis fan header (fan speed control)
E	Alternate power connector (1x4)
F	12 V power connector (2x2)
G	Processor socket (LGA775)
H	Processor fan header (4-pin, fan speed control)
I	Main power connector (2x12)
J	Diskette drive connector
K	IDE connector
L	Battery
M	Chassis intrusion header
N	BIOS configuration jumper
O	Front chassis fan header (fan speed control)
P	Serial ATA connectors (four)
Q	Alternate power LED header
R	Front panel header
S	USB 2.0 headers
T	IEEE 1394 headers (blue)
U	Speaker
V	PCI bus add-in card connectors
W	Auxiliary rear fan header (4-pin, fan speed control)

Related Links

Go to the following links for more information about:

- Intel Desktop Board D925XHY <http://www.intel.com/design/motherbd>
<http://support.intel.com/support/motherboards/desktop>
- Supported processors <http://support.intel.com/support/motherboards/desktop>
- Audio software and utilities <http://www.intel.com/design/motherbd>
- LAN software and drivers <http://www.intel.com/design/motherbd>

Processor



NOTE

Failure to use an ATX12V power supply or not connecting the 12 V (2x2) power connector to Desktop Board D925XHY may result in the computer not booting.

Desktop Board D925XHY supports a single Intel Pentium 4 processor in the LGA775 package. Processors are not included with the desktop board and must be purchased separately.

The processor connects to the Intel desktop board through the LGA775 socket.

The supported processors list for Desktop Board D925XHY is located on the web at:

<http://support.intel.com/support/motherboards/desktop/>

Related Links

Go to the following links or pages for more information about:

- Instructions on installing or upgrading the processor, page 28 in Chapter 2
- The location of the two power connectors, page 45 in Chapter 2

Main Memory



NOTE

To be fully compliant with all applicable Intel® SDRAM memory specifications, the desktop board should be populated with DIMMs that support the Serial Presence Detect (SPD) data structure. If your memory modules do not support SPD, you will see a notification to this effect on the screen at power up. The BIOS will attempt to configure the memory controller for normal operation.

The desktop board supports dual or single channel memory configurations defined in Table 3.

Table 3. Memory Configurations

Memory Speed	Processor	FSB frequency (MHz)	Memory Speed Outcome (MHz)
DDR2 533	Pentium 4 processor	800	533
		533	533
DDR2 400	Pentium 4 processor	800	400
		533	333

- Four 240-pin Double Data Rate 2 (DDR2) SDRAM Dual Inline Memory Module (DIMMs) connectors with gold-plated contacts.
- Support for:
 - Unbuffered, non-registered single or double-sided DIMMs
 - Serial Presence Detect (SPD) memory only
 - 1.8 V memory
 - Memory configuration listed below:
 - Up to 2.0 GB utilizing 256 Mb technology
 - Up to 4.0 GB utilizing 512 Mb or 1 Gb technology



NOTE

System resources (such as PCI and PCI Express) require physical memory address locations that reduce available memory addresses above 3 GB. This may result in less than 4 GB of memory being available to the operating system and applications.

Related Links

Go to the following links or pages for more information about:

- The latest list of tested memory, <http://support.intel.com/support/motherboards/desktop/>
- SDRAM specifications, <http://www.intel.com/technology/memory/pcsdram/spec/>
- Installing memory, page 32 in Chapter 2

Intel® 925X Express Chipset

The Intel 925X Express Chipset consists of the following devices:

- Intel 82925X Memory Controller Hub (MCH) with Direct Media Interface
- Intel 82801FR I/O Controller Hub (ICH6-R)

Related Link

Go to the following link for more information about the Intel 925X Express Chipset:

<http://developer.intel.com/design/nav/pcserver.htm>

Audio Subsystem

Desktop Board D925XHY includes a flexible 7.1-channel audio subsystem based on an Intel High Definition Audio codec:

The audio subsystem features:

- Impedance sensing capability for jack re-tasking
- S/N (signal-to-noise) ratio: > 90 dB
- Power management support for ACPI 2.0 (driver dependent)
- Intel 82801FR I/O Controller Hub (ICH6-R)
- Realtek Semiconductor Corporation audio codec
- Microphone input that supports:
 - Microphone array
 - Acoustic Echo (AEC)
 - Beam Forming (BF)
 - Noise Suppression (NX) technology

The subsystem includes the following connectors:

- Front panel audio connector, including pins for:
 - Line out
 - Mic
- Back panel audio connectors that are configurable through the drivers of the audio devices:
 - Line in
 - Three Line out
 - Mic in or Center LFE out
 - Two digital line out:
 - One coaxial line out
 - One optical (Toslink) line out

Related Links

Go to the following link or pages for more information about:

- Audio drivers and utilities <http://support.intel.com/support/motherboards/desktop/>
- The location of back panel audio connectors, page 51 in Chapter 2

Input/Output (I/O) Controller

The super I/O controller features the following:

- Low pin count (LPC) interface
- One serial port
- One parallel port with Extended Capabilities Port (ECP) and Enhanced Parallel Port (EPP) support
- Serial IRQ interface compatible with serialized IRQ support for PCI systems
- PS/2-style mouse and keyboard interfaces
- Interface for one 1.2 MB, 1.44 MB, or 2.88 MB diskette drive
- Intelligent power management, including a programmable wake up event interface
- PCI power management support

LAN Subsystem

The LAN, with the Intel 82801FR, provides a Fast PCI LAN subsystem. The LAN subsystem provides the following functions:

- Marvell 10/100 Ethernet LAN
- Support for RJ-45 connector with status indicator LEDs
- Programmable transit threshold
- Configurable EEPROM that contains the MAC address

LAN Subsystem Software

For LAN software and drivers, refer to the D925XHY link on Intel's World Wide Web site at:

<http://support.intel.com/support/motherboards/desktop>

RJ-45 LAN Connector LEDs

Table 4 describes the LED states when the board is powered up and the 10/100 Ethernet LAN subsystem is operating.

Table 4. RJ-45 10/100 Ethernet LAN Connector LEDs

LED	LED State	Indicates
Green	Off	LAN link is not established
	On	LAN link is established
	Blinking	LAN activity is occurring
Yellow	Off	10 Mbits/sec data rate is selected
	On (steady state)	100 Mbits/sec data rate is selected

Hi-Speed USB 2.0 Support



NOTE

Computer systems that have an unshielded cable attached to a USB port might not meet FCC Class B requirements, even if no device or a low-speed USB device is attached to the cable. Use a shielded cable that meets the requirements for a full-speed USB device.

The desktop board supports up to eight USB 2.0 ports via ICH6-R; four ports routed to the back panel and four routed to two internal USB 2.0 headers. USB 2.0 ports are backward compatible with USB 1.1 devices. USB 1.1 devices will function normally at USB 1.1 speeds.

USB 2.0 support requires both an operating system and drivers that fully support USB 2.0 transfer rates. Disabling Hi-Speed USB in BIOS reverts all USB 2.0 ports to USB 1.1 operation. This may be required to accommodate operating systems that do not support USB 2.0.

Enhanced IDE Interface

The ICH6-R's IDE interface handles the exchange of information between the processor and peripheral devices like hard disks, CD-ROM drives, and Iomega Zip* drives inside the computer. The interface supports:

- Up to two IDE devices (such as hard drives)
- ATAPI-style devices (such as CD-ROM drives)
- Older PIO Mode devices
- Ultra DMA-33 and ATA-66/100 protocols

Serial ATA

The desktop board supports four Serial ATA channels via the ICH6-R, connecting one device per channel in either a RAID or non-RAID configuration.

Expandability

The desktop board supports the following:

- One PCI Express x16 add-in card
- Two PCI Express x1 add-in cards
- Four PCI bus add-in cards

Related Links

For information about installing the PCI Express x16 card, see page 36 in Chapter 2.

BIOS

The BIOS provides the Power-On Self-Test (POST), the BIOS Setup program, the PCI and IDE auto-configuration utilities, and the video BIOS.

See Chapter 3 on page 57 for more information about the BIOS.

Serial ATA and IDE Auto Configuration

If you install a Serial ATA or IDE device (such as a hard drive) in your desktop board, the auto-configuration utility in the BIOS automatically detects and configures the device for your computer. You do not need to run the BIOS Setup program after installing a Serial ATA or IDE device. You can override the auto-configuration options by specifying manual configuration in the BIOS Setup program.

When booting from a Serial ATA device, Serial ATA connector 0 is the first boot device and Serial ATA connector 3 is the last boot device.

PCI and PCI Express Auto Configuration

If you install a PCI/PCI Express add-in card in your desktop board, the PCI/PCI Express auto-configuration utility in the BIOS automatically detects and configures the resources (IRQs, DMA channels, and I/O space) for that add-in card. You do not need to run the BIOS Setup program after you install a PCI/PCI Express add-in card.

Security Passwords

The BIOS includes security features that restrict whether the BIOS Setup program can be accessed and who can boot the computer. A supervisor password and a user password can be set for the BIOS Setup and for booting the computer, with the following restrictions:

- The supervisor password gives unrestricted access to view and change all Setup options. If only the supervisor password is set, pressing <Enter> at the password prompt of Setup gives the user restricted access to Setup.
- If both the supervisor and user passwords are set, you must enter either the supervisor password or the user password to access Setup. Setup options are then available for viewing and changing depending on whether the supervisor or user password was entered.
- Setting a user password restricts who can boot the computer. The password prompt is displayed before the computer is booted. If only the supervisor password is set, the computer boots without asking for a password. If both passwords are set, you can enter either password to boot the computer.

Chassis Intrusion

The desktop board supports a chassis security feature that detects if the chassis cover has been removed. The security feature uses a mechanical switch on the chassis that can be connected to the chassis intrusion header on the desktop board. See Figure 20 on page 41 for the location of the chassis intrusion header.

Power Management Features

Power management is implemented at several levels, including:

- Advanced Configuration and Power Interface (ACPI)
- Hardware support:
 - Fan connectors
 - Suspend to RAM (Instantly Available PC technology)
 - Resume on Ring
 - Wake from USB
 - Wake from PS/2 keyboard/mouse
 - PME# wakeup support

ACPI

ACPI gives the operating system direct control over the power management and Plug and Play functions of a computer. The use of ACPI with the desktop board requires an operating system that provides full ACPI support.

Fan Connectors

Desktop Board D925XHY has three chassis fan headers (two 3-pin and one 4-pin) and one processor fan header (4-pin).

See Figure 21 on page 44 for the location of the fan headers.

Fan Speed Control (Intel® Precision Cooling Technology)

Intel Precision Cooling Technology automatically adjusts the processor fan speed based on the processor temperature and adjusts the chassis fan speeds depending on the system temperature. System fan noise may be reduced by operating controlled chassis and processor fans at the minimum necessary speeds.

The processor and chassis fan speed control features can be disabled independently through the desktop board BIOS. Disabling the processor fan speed control will result in the fan operating at full speed if it is not a self controlled fan. It is recommended that processor fan speed control remain enabled (default BIOS setting) when using the processor fan heat-sink included with Intel boxed processors. Disabling the chassis fan speed control results in chassis fans always operating at full speed. The chassis fan speed control feature should be disabled if a self-controlled chassis fan is attached to any controlled chassis fan header.

The overall system noise reduction will vary based on system configuration and environment.

Suspend to RAM (Instantly Available PC Technology)



CAUTION

For Instantly Available PC technology, the 5 V standby line for the power supply must be capable of delivering adequate +5 V standby current. Failure to provide adequate standby current when using this feature can damage the power supply and/or effect ACPI S3 sleep state functionality.



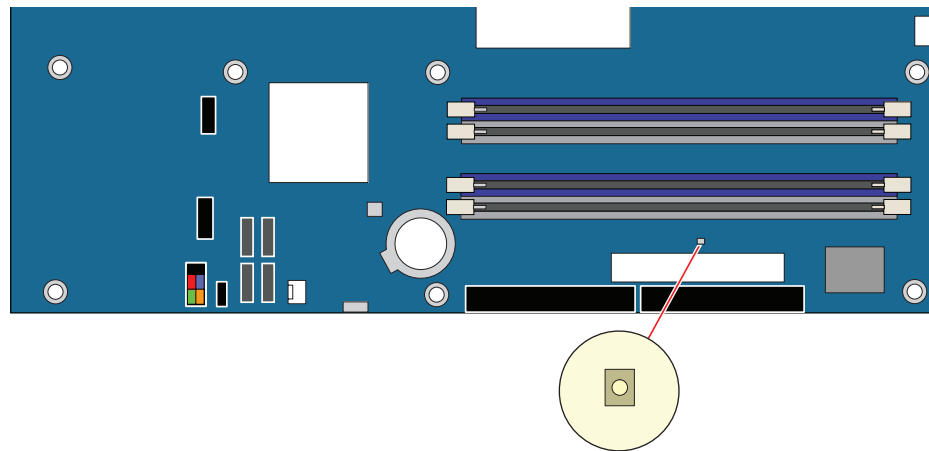
CAUTION

Power supplies used with this desktop board must be able to provide enough standby current to support the standard Instantly Available (ACPI S3 sleep state) configuration. If the standby current necessary to support multiple wake events from the PCI and/or USB buses exceeds power supply capacity, the desktop board may lose register settings stored in memory.

Instantly Available PC technology enables the board to enter the ACPI S3 (Suspend-to-RAM) sleep state. While in the S3 sleep state, the computer will appear to be off. When signaled by a wake-up device or event, the system quickly returns to its last known awake state.

The desktop board's standby power indicator, shown in Figure 2, is lit when there is standby power to the system. This includes the memory modules and PCI bus connectors, even when the computer appears to be off.

If the system has a dual-colored power LED on the front panel, the sleep state is indicated by the LED turning amber.



OM19121

Figure 2. Location of Standby Power Indicator

Related Links

For more information on standby current requirements for the desktop board, go to the link below, select the desktop board name, and then select Technical Documentation:

<http://developer.intel.com/design/motherbd/>

Resume on Ring

The operation of Resume on Ring can be summarized as follows:

- Resumes operation from either ACPI S1 or ACPI S3 state
- Requires only one call to access the computer
- Detects incoming call similarly for external and internal modems
- Requires modem interrupt be unmasked for correct operation

Wake from USB



NOTE

Wake from USB requires the use of a USB peripheral that supports Wake from USB.

USB bus activity wakes the computer from an ACPI S1 or S3 state.

Wake from PS/2 Keyboard/Mouse

PS/2 keyboard/mouse activity wakes the computer from an ACPI S1 or S3 state.

PME# Wakeup Support

When the PME# signal on the PCI bus is asserted, the computer wakes from an ACPI S1, S3, or S5 state.

Speaker

A speaker is mounted on the desktop board. The speaker provides audible error code (beep code) information during the Power-On Self-Test (POST).

Battery

A battery on the desktop board keeps the values in CMOS RAM and the clock current when the computer is turned off. See Chapter 2 starting on page 23 for instructions on how to replace the battery.

Real-Time Clock

The desktop board has a time-of-day clock and 100-year calendar. The battery on the desktop board keeps the clock current when the computer is turned off.

2 Installing and Replacing Desktop Board Components

This chapter tells you how to:

- Install the I/O shield
- Install and remove the desktop board
- Install and remove a processor and memory
- Install and remove a PCI Express x16 card
- Connect the IDE and Serial ATA cables
- Configure your system for Intel Matrix Storage Technology for Serial ATA
- Connect internal headers
- Connect fans and power cables
- Identify PCI bus add-in card and other connectors
- Set the BIOS configuration jumper
- Clear passwords
- Identify back panel connectors
- Set up multi-channel audio
- Replace the battery

Before You Begin



WARNING

The procedures in this chapter assume familiarity with the general terminology associated with personal computers and with the safety practices and regulatory compliance required for using and modifying electronic equipment.

Disconnect the computer from its power source and from any telecommunications links, networks, or modems before performing any of the procedures described in this chapter. Failure to disconnect power, telecommunications links, networks, or modems before you open the computer or perform any procedures can result in personal injury or equipment damage. Some circuitry on the board can continue to operate even though the front panel power button is off.

Follow these guidelines before you begin:

- Always follow the steps in each procedure in the correct order.
- Set up a log to record information about your computer, such as model, serial numbers, installed options, and configuration information.
- Electrostatic discharge (ESD) can damage components. Perform the procedures described in this chapter only at an ESD workstation using an antistatic wrist strap and a conductive foam pad. If such a station is not available, you can provide some ESD protection by wearing an antistatic wrist strap and attaching it to a metal part of the computer chassis.

Installation Precautions

When you install and test the Intel desktop board, observe all warnings and cautions in the installation instructions.

To avoid injury, be careful of:

- Sharp pins on connectors
- Sharp pins on printed circuit assemblies
- Rough edges and sharp corners on the chassis
- Hot components (like processors, voltage regulators, and heat sinks)
- Damage to wires that could cause a short circuit

Observe all warnings and cautions that instruct you to refer computer servicing to qualified technical personnel.

Installation Instructions



CAUTION

Follow these guidelines to meet safety and regulatory requirements when installing this board.

Read and adhere to all of these instructions and the instructions supplied with the chassis and associated modules. If the instructions for the chassis are inconsistent with these instructions or the instructions for associated modules, contact the supplier's technical support to find out how you can ensure that your computer meets safety and regulatory requirements. If you do not follow these instructions and the instructions provided by chassis and module suppliers, you increase safety risk and the possibility of noncompliance with regional laws and regulations.

Ensure Electromagnetic Compatibility (EMC) Compliance

Before computer integration, make sure that the power supply and other modules or peripherals, as applicable, have passed Class B EMC testing and are marked accordingly.

Pay close attention to the following when reading the installation instructions for the host chassis, power supply, and other modules:

- Product certifications or lack of certifications
- External I/O cable shielding and filtering
- Mounting, grounding, and bonding requirements
- Keying connectors when mating the wrong connectors could be hazardous

If the power supply and other modules or peripherals, as applicable, are not Class B EMC compliant before integration, then EMC testing is required on a representative sample of the newly completed computer.

Chassis and Component Certifications

Ensure that the chassis and certain components; such as the power supply, peripheral drives, wiring, and cables; are components certified for the country or market where used. Agency certification marks on the product are proof of certification. Typical product certifications include:

- **In Europe**

The CE marking signifies compliance with all applicable European requirements. If the chassis and other components are not properly CE marked, a supplier's Declaration of Conformity statement to the European EMC directive and Low Voltage directive (as applicable), should be obtained. Additionally, other directives, such as the Radio and Telecommunications Terminal Equipment (R&TTE) directive may also apply depending on product features.

- **In the United States**

A certification mark by a Nationally Recognized Testing Laboratory (NRTL) such as UL, CSA, or ETL signifies compliance with safety requirements. Wiring and cables must also be UL listed or recognized and suitable for the intended use. The FCC Class B logo for home or office use signifies compliance with electromagnetic interference (EMI) requirements.

- **In Canada**

A nationally recognized certification mark such as CSA or cUL signifies compliance with safety requirements. The Industry Canada statement at the front of this product guide demonstrates compliance with Canadian EMC regulations. Industry Canada recognizes and accepts FCC certification as denoting compliance with national electromagnetic interference (emissions) requirements.

Prevent Power Supply Overload

Do not overload the power supply output. To avoid overloading the power supply, make sure that the calculated total current loads of all the modules within the computer is less than the output current rating of each of the power supplies output circuits.

Place Battery Marking

There is insufficient space on this Desktop Board to provide instructions for replacing and disposing of the Lithium ion coin cell battery. For system safety certification, the following statement or equivalent statement is required to be permanently and legibly marked on the chassis near the battery.



CAUTION

Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used batteries must be in accordance with local environmental regulations.

Related Links

For information about replacing the battery, go to page 52 in Chapter 2.

Use Only for Intended Applications

All Intel desktop boards are evaluated as Information Technology Equipment (I.T.E.) for use in personal computers for installation in homes, offices, schools, computer rooms, and similar locations. The suitability of this product for other applications or environments, such as medical, industrial, alarm systems, test equipment, etc. may require further evaluation.

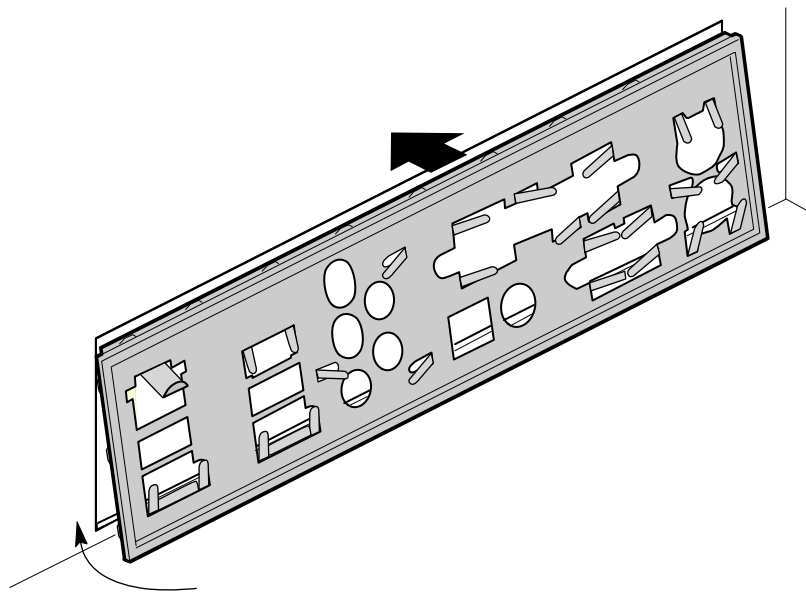
Related Links

For information about regulatory compliance, go to Appendix B on page 65.

Installing the I/O Shield

The desktop board comes with an I/O shield. When installed in the chassis, the shield blocks radio frequency transmissions, protects internal components from dust and foreign objects, and promotes correct airflow within the chassis.

Install the I/O shield before installing the desktop board in the chassis. Place the shield inside the chassis as shown in Figure 3. Press the shield into place so that it fits tightly and securely. If the shield doesn't fit, obtain a properly-sized shield from the chassis supplier.



OM16922

Figure 3. Installing the I/O Shield

Installing and Removing the Desktop Board



WARNING

Only qualified technical personnel should do this procedure. Disconnect the computer from its power source before performing the procedures described here. Failure to disconnect the power before you open the computer can result in personal injury or equipment damage.

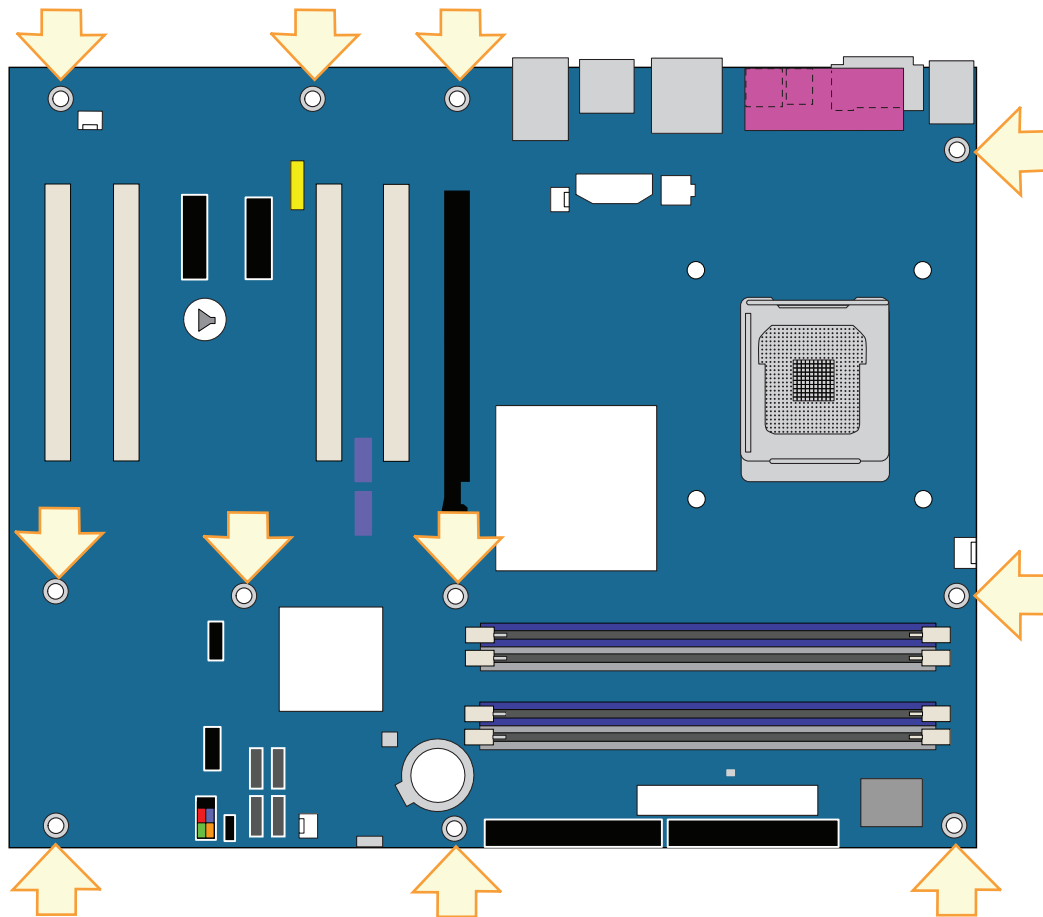


NOTE

Refer to Appendix B for regulatory requirements.

Refer to your chassis manual for instructions on installing and removing the desktop board.

Figure 4 shows the location of the 11 mounting holes for Desktop Board D925XHY.



OM19122

Figure 4. Location of Desktop Board Mounting Holes

Installing and Removing a Processor

Instructions on how to install the processor to the desktop board are given below.

Installing a Processor



CAUTION

Before installing or removing the processor, make sure that AC power has been removed by unplugging the power cord from the computer; the standby power LED should not be lit (see Figure 2 on page 20). Failure to do so could damage the processor and the board.

To install a processor, follow these instructions:

1. Observe the precautions in "Before You Begin" on page 23.
2. Open the socket lever by pushing the lever down and away from the socket (see Figure 5, A and B).

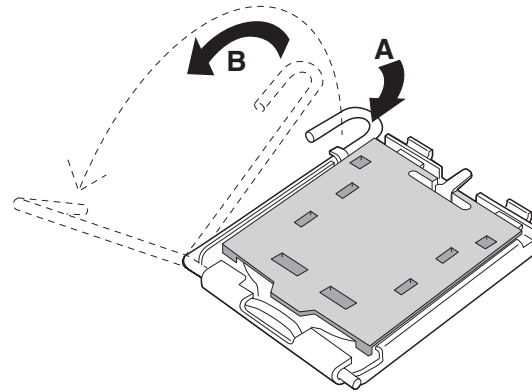


Figure 5. Lift Socket Lever

3. Lift the load plate. Do not touch the socket contacts (see Figure 6, C and D).

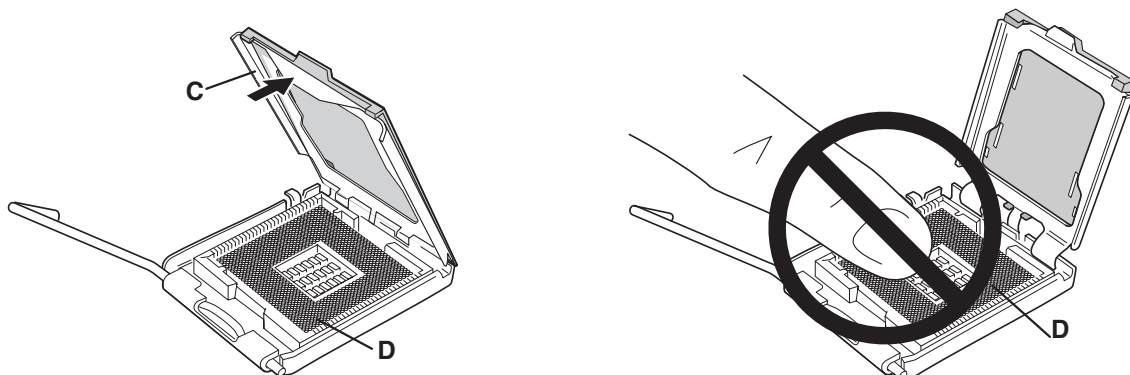


Figure 6. Lift the Load Plate and Don't Touch the Socket Contacts

