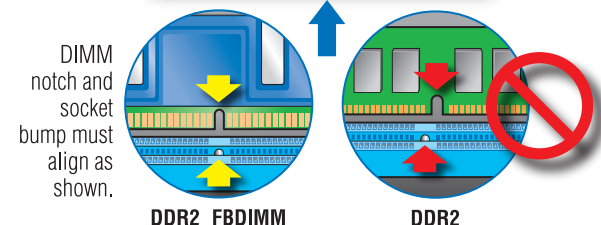
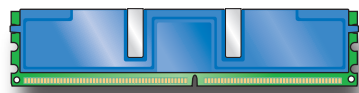


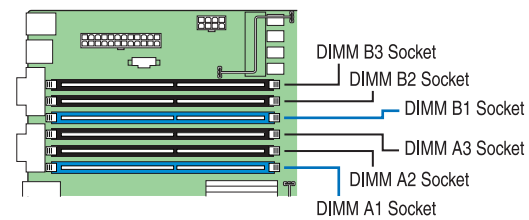
## 8 Install DIMM Memory Modules

### DDR2 FBDIMM Memory Identification:

**CAUTION:** This server board supports up to six DDR2-667 Fully Buffered DIMMs (FBD memory). DDR2 DIMMs that are not FBD memory are not supported on this server board.



### Memory Configurations and Population Order:



Memory Type: Minimum of one 512MB, 667 MHz compliant 240-pin gold DDR2 FBDIMM.

Populate DDR2 FBDIMMs in the order of A1, B1; A2, B2 and A3, B3. Populate A1 and B1 first.

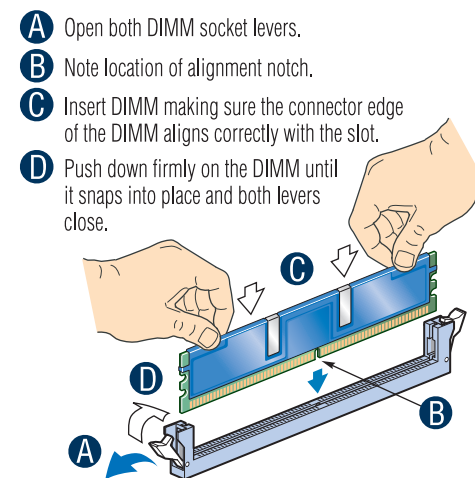
DIMM pairs must be identical with respect to size, speed, and organization.

Note: For additional memory configurations, see the User Guide on the Intel® Server Deployment Toolkit 2.0 CD that accompanied your Intel® Server Board S5000VCL, or go to: <http://support.intel.com/support/motherboards/server/s5000vcl>

Memory sizing and configuration is guaranteed only for qualified DIMMs approved by Intel®.

### To Install DIMMs:

**CAUTION:** Avoid touching contacts when handling or installing DIMMs.

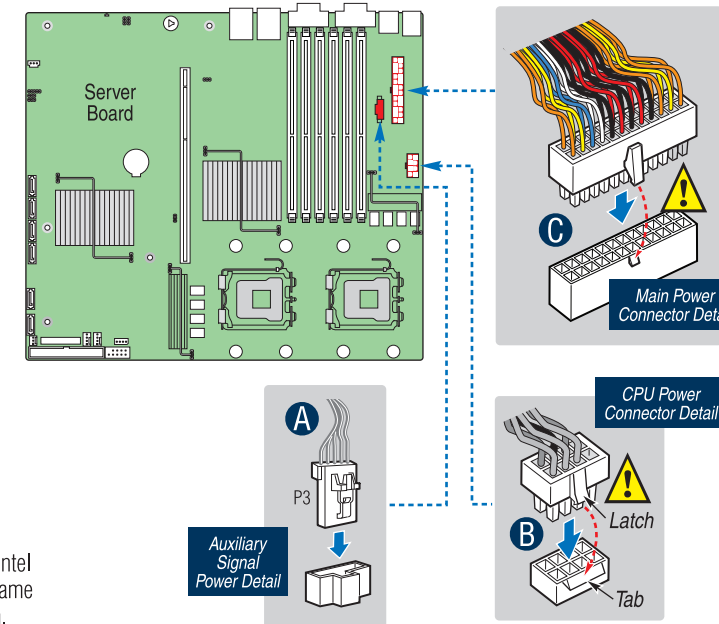


## 9 Make Server Board Power Connections

- Attach the auxiliary signal power connector as shown (optional).
- Attach the CPU power connector.
- Attach the main power connector.

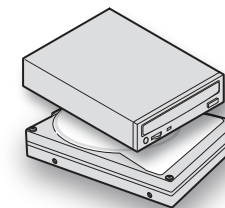
**CAUTION:** Note the location of the latch on each power cable connector and align it with the matching tab on each server board socket.

**IMPORTANT NOTE:** If you are using a non-Intel server chassis, see the documentation that came with your chassis for installation information.



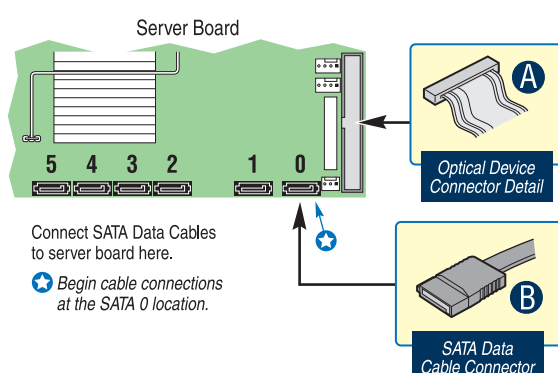
## 10 Install Optical Drive and Hard Drive(s)

See the documentation that came with your server chassis for drive installation.

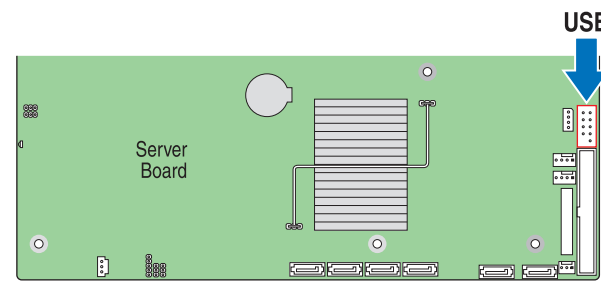


## 11 Connect Hard Drives/ CD-ROM to Server Board

- Attach optical device ribbon cable here.
- Attach hard drive cables here, beginning with SATA 0.

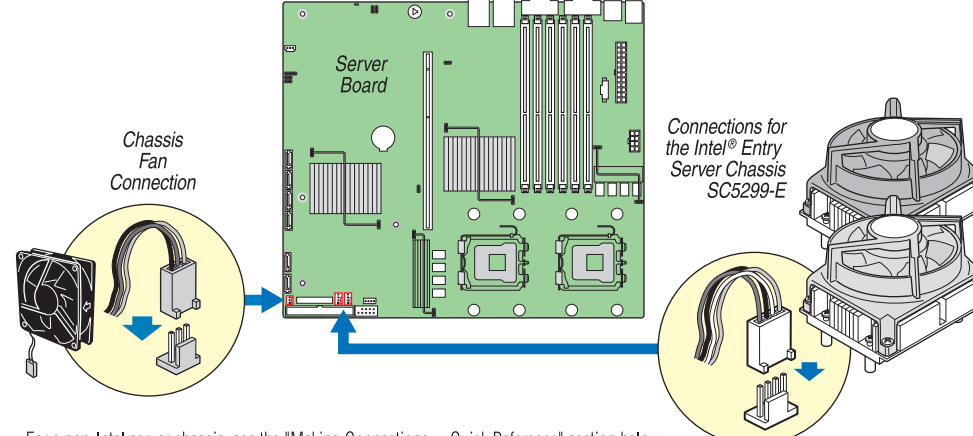


## 12 Front Panel USB Connection



Note: For a non-Intel chassis, see your chassis documentation for front panel features and server board connection requirements.

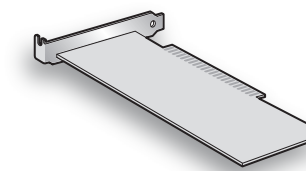
## 13 Chassis/Processor Fan Connections



For a non-Intel server chassis, see the "Making Connections ... Quick Reference" section below, and the documentation accompanying your chassis for specific chassis fan connection requirements.

## 14 Install Add-in Cards

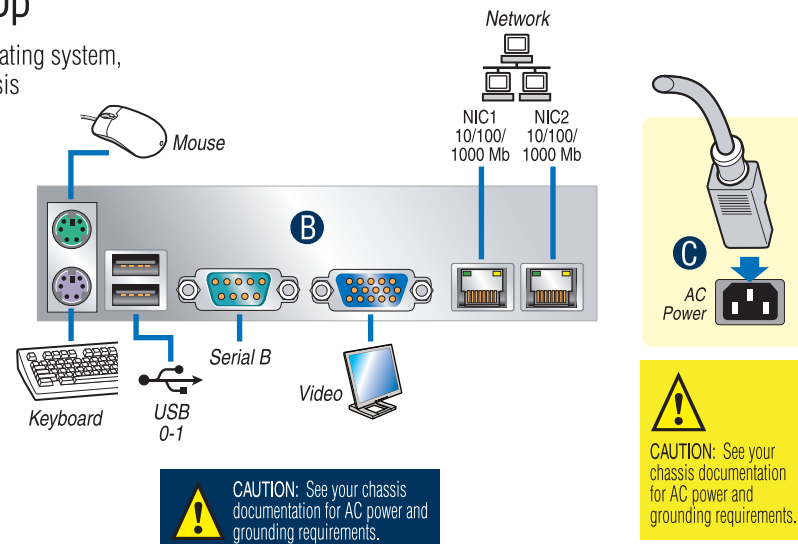
See the documentation that came with your server chassis for add-in card installation.



## 15 Finishing Up

Before installing your operating system, you must finish your chassis installation, make I/O connections and plug in AC power.

- See your chassis documentation to complete rack or pedestal installation.
- Connect your keyboard, mouse, video, and other I/O cables as shown.
- Connect the AC power cable last.



**CAUTION:** See your chassis documentation for AC power and grounding requirements.

## 16 Software • BIOS, Drivers, and Operating System Installation

- Confirm BIOS Version:** Look on the Server/System Management screen in the BIOS Setup Utility to determine the installed BIOS version. Compare this to the versions at: <http://support.intel.com/support/motherboards/server/s5000vcl>. If new versions are available, update the BIOS on your server. See the User Guide on the Intel® Server Deployment Toolkit 2.0 CD for update instructions.
- Configure your RAID Controller:** Use the instructions provided with the RAID controller.
- Software RAID:** For software RAID support, see the software RAID Guide on the Intel® Server Deployment Toolkit 2.0 CD.
- Install your Operating System:** Use the instructions provided with the RAID controller and with the operating system.
- Install Operating System Drivers:** With the operating system running, insert the Intel® Server Deployment Toolkit 2.0 CD. If using a Microsoft® Windows® operating system, the Express Installer will autoun and allow you to select the appropriate drivers to install. On other operating systems, browse the CD folders to locate and install the driver files.
- Install Intel® SMarT Tool (optional):** With the operating system running, insert the Intel® Server Deployment Toolkit 2.0 CD. The Express Installer will autoun. Click Intel® SMarT Tool at the left side of the screen. Follow the on-screen instructions. For information about Intel® SMarT Tool, see <http://developer.intel.com/design/servers/smarttool/index.htm>.

## Reference

| Accessories and Order Codes                  |               |
|--|---------------|
| 400 Watt Power Supply                        | FHJ400WPSHJDP |
| Chassis Blower and Fan Kit                   | FHJBLLOWERFAN |
| Fixed Chassis Product Maintenance Kit        | FHJFIXPMKIT   |
| PCI-X*(ML/LP)/PCIe*(SL/LP) Riser Card        | AHJPCIRISER1U |
| Stimline CD-ROM Drive                        | AXXVCDROM     |
| Tool-less Rail Kit                           | AXXHERAIL     |
| Cable Management Arm                         | AXXRACKARM    |
| I/O Shield, 50-pack, for third party chassis | ACLIO         |

A complete list of accessories and spares can be found at: [www.intel.com/go/serverbuilder](http://www.intel.com/go/serverbuilder)

### Common Problems and Solutions

For a list of hardware components that have been tested with this system, see: <http://support.intel.com/support/motherboards/server/s5000vcl/>

- The system does not boot or show video at power-on.
- Check that +12V CPU power connector is plugged in. Without this cable the processor will not have any power.
  - Beep code 4-3-2-1 in a system using a Dual-Core Intel® Xeon® processor 5100 series means you have unrecognized or bad memory.
  - Remove and replace DIMMs one bank at a time to isolate which one is causing problems.
  - Remember, all DIMMs must be:
    - FBDIMM 667 MHz compliant 240-pin DIMMs.
    - The same speed.
    - From the same manufacturer.
    - Installed beginning with DIMM A1.
  - Your power supply must provide a minimum of 400W with 2A standby current, which complies with the SSI EPS 12V specification.

The system sometimes works, but is exhibiting erratic behavior.

- This is typically the result of using an under-rated power supply. Make sure you are using at least a 400W power supply.

### Making Connections to the Server Board ... Quick Reference

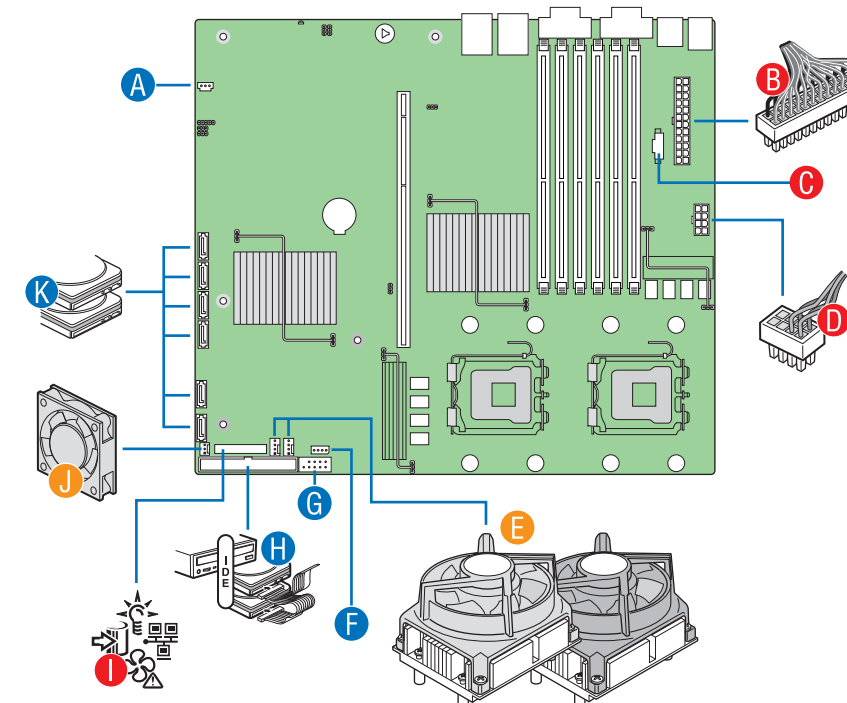
| Required Connections for Selected Chassis | Third Party Chassis |
|---|---------------------|
| B. Main Power Connector                   | ■                   |
| C. Auxiliary Power Connector              | ■                   |
| D. +12V CPU Power Connector               | ■                   |
| I. Front Panel Connector                  | ■                   |

| CPU/System Fan Connections for Selected Chassis | Third Party Chassis |
|---|---------------------|
| E. CPU1/CPU2 Fan Headers                        | ■                   |
| J. System Fan                                   | ■                   |

| Optional Connections for Selected Chassis | Third Party Chassis |
|---|---------------------|
| A. SATA SGPIO Connector                   | ■                   |
| F. SAS SGPIO Connector                    | ■                   |
| G. Front Panel USB Connector              | ■                   |
| H. Optical Device/IDE Connector           | ■                   |
| K. SATA HDD Connectors                    | ■                   |

Notes: Not all optional connections are shown in this diagram. Refer to the Reference section of this Quick Start User's Guide, your Intel® Server Board S5000VCL User's Guide, and your server chassis documentation for additional connection information. For a non-Intel Chassis, see your chassis documentation for server board connection information.

**IMPORTANT Note:** Cables should be tied for better airflow. Use cable-ties as necessary.



### Intel® Server Board S5000VCL Component Layout

