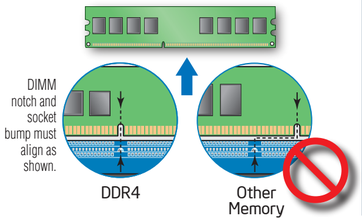
Side 2

7 Install DIMM Memory Modules

DDR4L DIMM Memory Identification:

CAUTION: Observe normal ESD (ElectroStatic Discharge) procedures to avoid possible damage to system components.

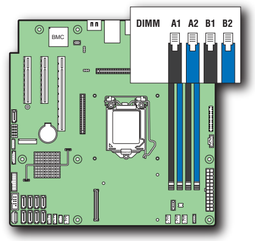
This server board supports up to 4 DDR4 2133 ECC UDIMM.



Memory Configurations and Population Order:

Memory Type: Minimum of one DDR4 ECC UDIMM.

Note: For additional memory configurations, see the *Technical Product Specification* on: http://www.intel.com/p/en_US/support/server.

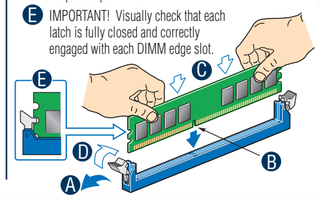


Memory sizes and configurations are supported only for DIMMs tested by Intel®. For a list of supported memory, see the tested memory list at http://serverconfigurator.intel.com/sct_app.aspx.

To Install DIMMs:

CAUTION: Avoid touching contacts when handling or installing DIMMs.

A. Open both DIMM socket levers.
B. Note location of alignment notch.
C. Insert DIMM making sure the connector edge of the DIMM aligns correctly with the slot.
D. Push down firmly on the DIMM until it snaps into place and both levers close.
E. IMPORTANT! Visually check that each latch is fully closed and correctly engaged with each DIMM edge slot.

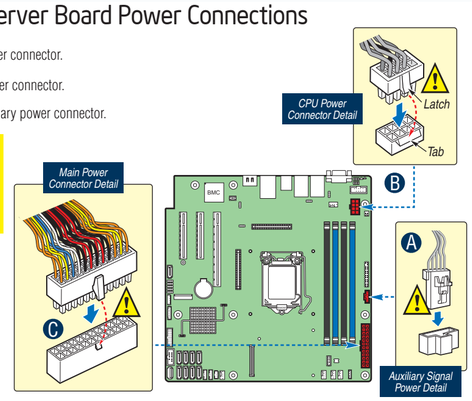


8 Make Server Board Power Connections

A. Attach the CPU power connector.
B. Attach the main power connector.
C. Attach the P/S Auxiliary power connector.

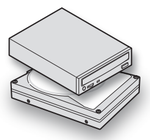
CAUTION: Note the location of the latch on each power cable connector and align it with the matching tab on each server board socket.

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



9 Install Optical Drive and Hard Drive(s)

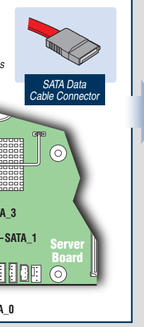
See the documentation that came with your server chassis for drive installation.



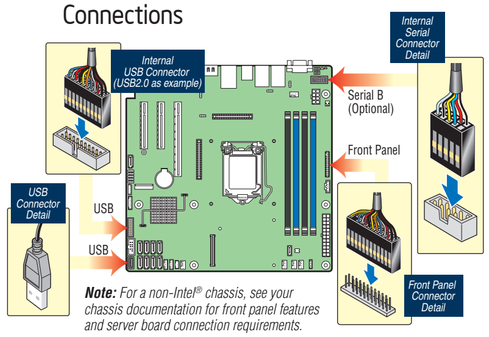
10 Connect Hard Drives/Optical Drive to Server Board

Connect SATA Data Cables to server board here.

Begin cable connections at the SATA 0 location.



11 Attach Front Panel, Serial, and USB Connections

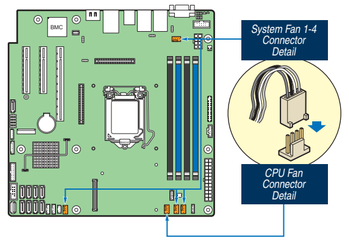


Note: *For a non-Intel® chassis, see your chassis documentation for front panel features and server board connection requirements.*

IMPORTANT NOTE: Return to your *Intel® Server Chassis Quick Start User's Guide*, or your non-Intel® chassis documentation to finish installation and configuration of your Intel® Server Board S1200SP series.

Return to this document to finish up, including software, BIOS, drivers, and operating system installation.

12 Chassis Fan Connections

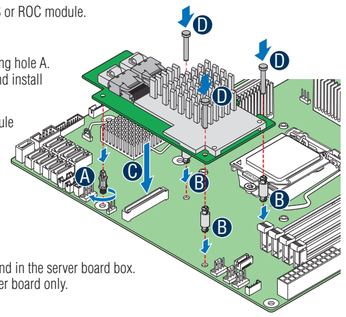


For a non-Intel® server chassis, see the "Making Connections...Quick Reference" section below, and the documentation accompanying your chassis for specific chassis fan connection requirements.

13 Install the Intel® Integrated RAID Module

See the documentation that came with your SAS or ROC module.

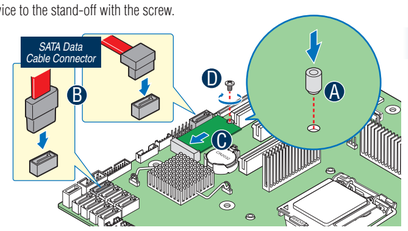
A. Uninstall the existing screw from mounting hole A. Find the standoff in the board package and install to mounting hole A.
B. Find the three standoffs in the RAID module package and install to mounting holes B.
C. Install the RAID module to connector C.
D. Push the rivet into the standoffs and secure the RAID module.



Note: The standoff at the position A can be found in the server board box. This standoff is designed for the S1200SP server board only.

14 Install M.2 Device (Optional)

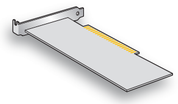
A. Install the stand-off to the board if necessary.
B. Make the SATA cable connection between connectors labeled as "SATA_M2" and "SATA_7".
C. Insert the M.2 device into the connector.
D. Secure the M.2 device to the stand-off with the screw.



15 Install Add-in Card(s)

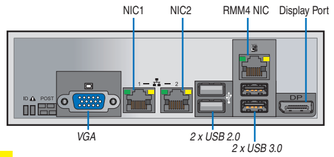
See the documentation that came with your server chassis for add-in card installation.

For the Intel® Server Chassis P4000S series, see the *Quick Start User's Guide* accompanying the chassis.



16 Finishing Up

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



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

17 Software ▪ BIOS, Drivers, and Operating System Installation

A. Confirm BIOS Version: Look at the Server/System Management screen in the BIOS Setup Utility to determine the installed BIOS version. Compare this to the versions at: http://www.intel.com/p/en_US/support/server.
If new versions are available, update the BIOS on your server. See the *Technical Product Specification* for update instructions.

B. Configure your RAID Controller: Use the instructions provided with the RAID controller.

C. Install your Operating System: Use the instructions provided with the RAID controller and with the operating system.

D. Install Operating System Drivers: Check the latest Operating System drivers on http://www.intel.com/p/en_US/support/server.

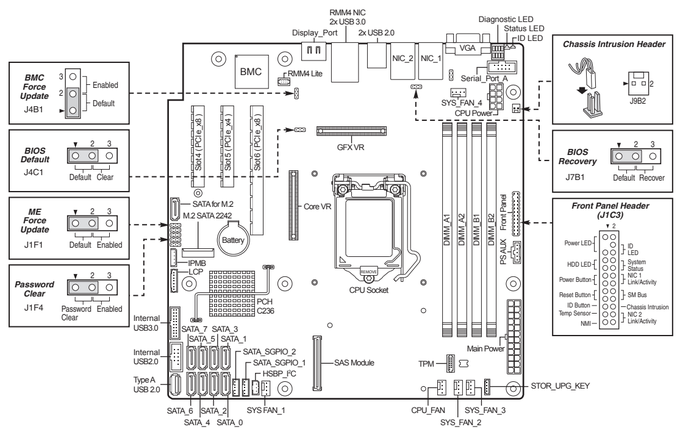
Intel® Server Board S1200SP Family Feature Comparison

	S1200SPL	S1200SPS	S1200SPO
Chipset	C236	C232	C236
Slot/Module Configurations	1 PCIe G3 x8 w/ x16 conn	1 PCIe G3 x8 w/ x16 conn	1 PCIe G3 x8 w/ x16 conn
	1 PCIe G3 x4 w/ x8 conn	1 PCIe G3 x4 w/ x8 conn	1 PCIe G3 x8 I/O module
	1 PCIe G3 x8 w/ x8 conn	1 PCIe G3 x8 w/ x8 conn	1 PCIe G3 x4 SAS module
	1 PCIe G3 x4 SAS module		
Storage	8 SATA G3 Ports M.2 SATA SSD(22x42mm)	6 SATA G3 Ports	8 SATA G3 Ports M.2 SATA SSD(22x42mm)
Video	VGA, Display Port	VGA	VGA
Management	BMC & IPMI 2.0 Dedicate NIC on-Board	BMC & IPMI 2.0	BMC & IPMI 2.0 Dedicate NIC on-Board
	RMM4-Lite upgrade option	N/A	RMM4-Lite upgrade option
TPM	TPM1.2	N/A	TPM1.2
Front Panel USB	USB 3.0/2.0	USB 2.0	USB 3.0/2.0

Reference

Intel® Server Board S1200SP Family Products

Note: Not all components, jumpers, and connectors are described in this diagram. Refer to your *Server Board Technical Product Specification* for additional information.



Making Connections to the Server Board (S1200SPL as example)

Required Connections	Intel® Server Chassis P4000S series
A. +12V CPU Power Connector	■
B. Main Power Connector	■
C. Front Panel Header	■

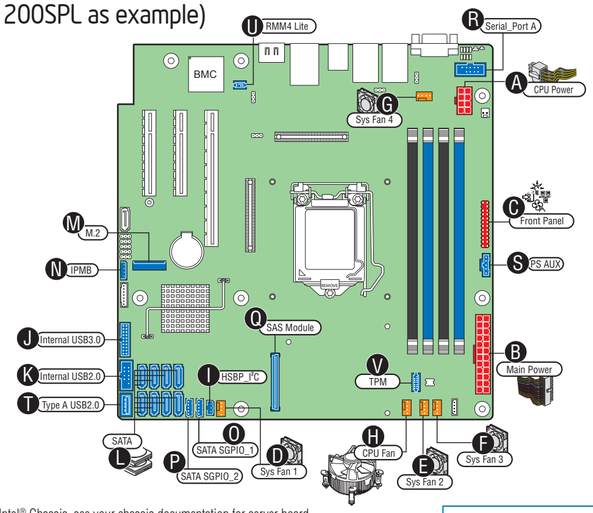
■ = Make this connection

CPU/System Fan Connections	Intel® Server Chassis P4000S series
D. System Fan 1 Header	
E. System Fan 2 Header	
F. System Fan 3 Header	
G. System Fan 4 Header	■
H. CPU Fan Header	■

■ = Make this connection

Optional Connections	Intel® Server Chassis P4000S series
I. HSBP	■
J. Internal USB3.0	■
K. Internal USB2.0	■
L. SATA Connectors	■
M. M.2	■
N. IPMB	■
O. SATA SGPIO_1	■
P. SATA SGPIO_2	■
Q. SAS Module Header	■
R. Serial_Port A	■
S. PS AUX	■
T. Type A USB2.0	■
U. RMM4 Lite	■
V. TPM	■

■ = Make this connection



Note: For a non-Intel® Chassis, see your chassis documentation for server board connection information.

Note: Not all optional connections are shown in this diagram. Refer to your *Server Board Service Guide*, and your server chassis documentation for additional connection information.

IMPORTANT NOTE: Cables should be tied for better airflow. *Use cable-ties compulsarily.*

Common Problems and Solutions

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

The system does not boot or show video at power-on.

- Check that the +12V CPU power connector is plugged in. Without this cable, the processors will not have any power.
- Only Intel® Xeon® Processor E3-1200 V5 series with 80W and less Thermal Design Power (TDP) are supported on this server board. Previous generation Intel® Xeon® processors are not supported.
- Beep code 1-5-2-1 in a system means you do not have Intel® Xeon® Processor E3-1200 V5 series installed.
- The system generates the memory error beep code and POST diagnostic LED message (0XE0-0XEF) that indicates memory errors in early POST .
- Remember, all DIMMs must be:
  - DDR4 up to 2133 MHz ECC UDIMM.
  - From the same manufacturer.
  - Installed beginning with DIMM A2 (blue slot) .