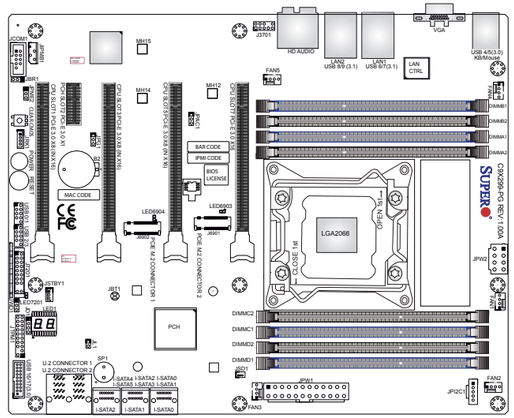
# SUPERMICRO® High Performance Desktop 5039AD-I Quick Reference Guide

## Board Layout

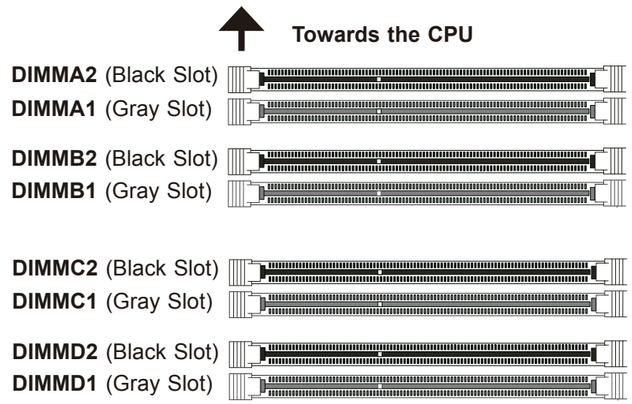


| Jumper | Description | Default Setting |
|---|---|---|
| CLEAR CMOS | CMOS clear switch | Push Button Switch |
| JBT1 | Clear CMOS | Short pads to clear CMOS |
| JPAC1 | Audio enable | Pins 1-2 (Enabled) |
| JPG1 | VGA Enable/Disable | Pins 1-2 (Enabled) |
| JPME2 | Intel manufacturing mode | Pins 1-2 (Normal) |
| JWD1 | Watch dog function enable | Pins 1-2 (RST) |
| POWER BUTTON | Internal power button | Push Button Switch |
| RESET BUTTON | Onboard system reset button | Push Button Switch |

| Connector | Description |
|---|---|
| B2 | Onboard battery |
| FAN1~5 | System/CPU fan headers (FAN1/FAN2: CPU fans) |
| HD AUDIO | High-definition audio ports (back panel) |
| J3701 | Front panel audio header |
| JCOM1 | COM header |
| JD1 | Speaker/buzzer (Pins 1~4: External speaker; Pins 3~4: Buzzer) |
| JF1 | Front control panel header |
| JIPMB1 | 4-pin external I²C Header (for an IPMI card) |
| JL1 | Chassis intrusion header |
| JPI²C1 | Power I²C System Management Bus (SMBus) header |
| JPW1 | 24-pin ATX main power connector (required) |
| JPW2 | +12V 8-pin CPU power connector (required) |
| JPW3 | +12V 4-pin CPU power connector (required) |
| JRK1 | Intel RAID key header |
| JSD1 | SATA DOM (Device-on-Module) power connectors |
| JSTBY1 | Standby power header |
| JTPM1 | Trusted Platform Module (TPM)/Port 80 connector |
| LAN1/LAN2 | LAN1: 5Gb LAN port<br>LAN2: 1Gb LAN port (IPMI LAN) |
| PCI-e M.2 CONNECTOR 1/2* | PCI-e M.2 connectors |
| SP1 | Internal buzzer/speaker |
| U.2 CONNECTOR 1/2* | U.2 connectors for 2.5" SSDs |
| USB0/1, 2/3 | Front access USB 2.0 headers |
| USB4/5 | Back panel USB 3.0 ports |
| USB6/7, 8/9 | Back panel USB 3.1 ports (USB8: Type A; USB9: Type C) |
| USB16/17 | Front access USB 3.0 Headers |
| VGA | Back panel VGA port |

| LED | Description | Status |
|---|---|---|
| LED1 | Status code LED | Digital readout* |
| LED6903 | M.2 connector 2 active LED | Solid Green: M.2 device active |
| LED6904 | M.2 connector 1 active LED | Solid Green: M.2 device active |
| LED7201 | Onboard standby PWR LED | Solid Green: Power On |

## Memory



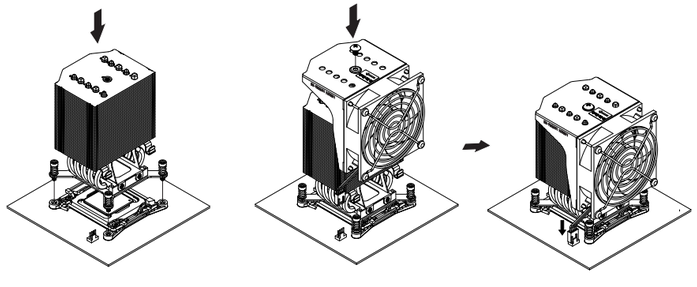

### Memory Population Guidelines

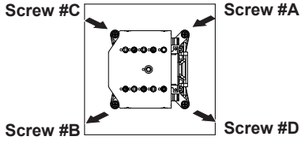
When installing memory modules, the DIMM slots should be populated in the following order: DIMMA1, DIMMB1, DIMMC1, DIMMD1, then DIMMA2, DIMMB2, DIMMC2, DIMMD2.

- Always use DDR4 DIMM modules of the same size, type and speed.
- Mixed DIMM speeds can be installed. However, all DIMMs will run at the speed of the slowest DIMM.

| Recommended Population (Balanced) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DIMMA1 | DIMMB1 | DIMMC1 | DIMMD1 | DIMMA2 | DIMMB2 | DIMMC2 | DIMMD2 | CPU Support/ DIMM Channel | Total System Memory |
| N/A | N/A | 1, 4, 8GB | 1, 4, 8GB | N/A | N/A | N/A | N/A | Core™ i9 7900X/ i7 7800X series, Core™ i7 7700X/ i5 7600X series/ Dual channel | Up to 16GB |
| N/A | N/A | 1, 4, 8GB | 1, 4, 8GB | N/A | N/A | 1, 4, 8GB | 1, 4, 8GB | Core™ i9 7900X/ i7 7800X series, Core™ i7 7700X/ i5 7600X series/ Dual channel | Up to 32GB |
| 1, 4, 8GB | 1, 4, 8GB | 1, 4, 8GB | 1, 4, 8GB | 1, 4, 8GB | 1, 4, 8GB | 1, 4, 8GB | 1, 4, 8GB | Core™ i9 7900X/ i7 7800X series/ Quad channel | Up to 64GB |

## Heatsink Installation

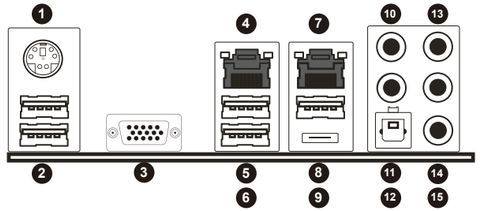





1. Place heatsink on top of installed CPU
2. Line up the four screws to socket
3. Push down heatsink and screw down as shown (cross pattern, in order: A, B, C, D)
4. NOTE: Only use 6-8 lb/f of torque; otherwise, hand-tighten each screw, to avoid damaging the system

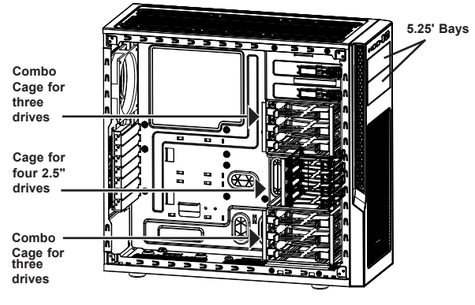
## Rear View

### Rear I/O Ports




| Rear I/O Ports | | | |
|---|---|---|---|
| # | Description | # | Description |
| 1 | PS/2 Keyboard/Mouse | 9 | USB 3.1 Port 9 (Type C) |
| 2 | USB 3.0 Ports 4/5 | 10 | Center/LFE Out |
| 3 | VGA Port | 11 | Surround Out |
| 4 | 5GbE LAN Port 1 | 12 | S/PDIF Out |
| 5 | USB 3.1 Port 6 | 13 | Line In |
| 6 | USB 3.1 Port 7 | 14 | Line Out |
| 7 | GB LAN Port 2 | 15 | Mic In |
| 8 | USB 3.1 Port 8 (Type A) | | |

## Hard Drives Installation



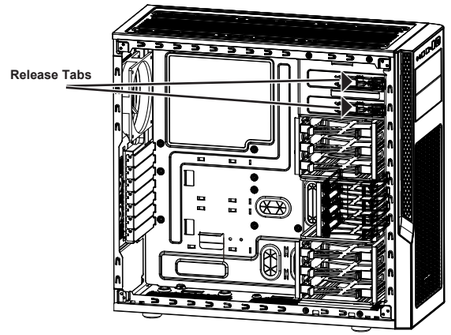

### Removing and Installing 3.5"/2.5" Hard Drives

1. Open the chassis left side cover.
2. Remove the drive mounting bracket from the cage. Pinch the tabs and pull out.
3. Secure the drive into the mounting bracket by flexing the drive bracket and drop the drive in with the connector side facing into the chassis.
4. Slide the assembly into the cage.
5. Connect the storage device cables from the motherboard.

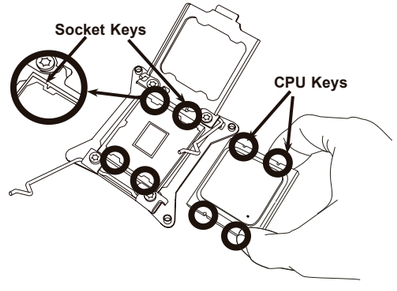
## Installing an Optical Device

### Installing an Optical Device

1. Open the chassis left side cover.
2. Locate and press the release tab for the drive tray where you want to place the DVD drive.
3. Push the drive tray toward the front of the chassis and out.
4. Slide the DVD drive into the chassis until it clicks into place.




## CPU Installation




## Caution

**⚠ SAFETY INFORMATION**
IMPORTANT: See installation instructions and safety warning before connecting system to power supply.
http://www.supermicro.com/about/policies/safety_information.cfm

**⚠ WARNING:**
To reduce risk of electric shock/damage to equipment, disconnect power from server by disconnecting all power cords from electrical outlets.
If any CPU socket empty, install protective plastic CPU cap

**⚠ CAUTION:**
Always be sure all power supplies for this system have the same power output. If mixed power supplies are installed, the system will not operate.

For more information go to http://www.supermicro.com/support