# SUPERMICRO® SuperServer 5019P-M/MR Quick Reference Guide

## Front View & Interface

HDD 0 | HDD 1 | HDD 2 | HDD 3

① ② ③ ④ ⑤ ⑥ ⑦
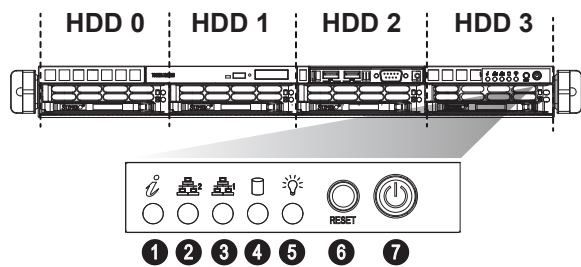
| No. | Description |
|-----|-------------|
| 1 | Information LED |
| 2 | NIC2 LED |
| 3 | NIC1 LED |
| 4 | HDD LED |
| 5 | Power LED |
| 6 | Reset Button |
| 7 | Power Button |

## Rear View

**5019P-M**

⑦ ⑥ ⑤ ④ ③ ② ①
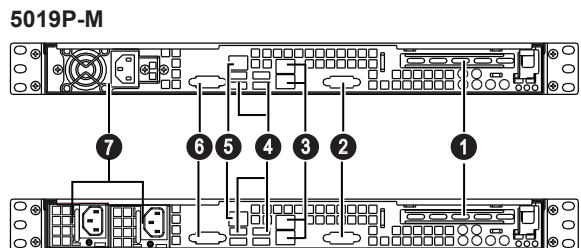
**5019P-MR**

| No. | Description |
|-----|-------------|
| 1 | PCI-E Expansion Slot (w/riser card) |
| 2 | VGA Port |
| 3 | RJ45 GbE LAN1 / LAN2 Port |
| 4 | 2x USB2.0 and 2x USB3.0 Ports |
| 5 | Dedicated LAN for IPMI |
| 6 | Serial Port |
| 7 | Power Supply Module |

## Board Layout

JTPM1 LAN1/2
FAN6 USB6/7 (3.0) IPMI_LAN
VGA USB0/1
UID LED1 JUIDB1 COM1
COM2
SLOT6 JIPMB1
SRW4 JNVI2C1 JSTBY1
SLOT7 JRK1
SLOT4 JPI2C1
SRW3 FAN5
JWD1 J18
JPG1 BT1
JBT1 JPH1
JMD1 JF1
JD1
JPME1 DIMMA1
DIMMB1
USB2/3 DIMMC1
JSD1 JPV1
USB4/5
S-SATA1 LEDPWR
I-SATA0~3
I-SATA4~7 DIMMF1
DIMME1
USB10 (3.0) DIMMD1
S-SGPIO1 JPW1
FANB
S-SATA2 FANA JSD2 FAN3 FAN2 FAN1
S-SATA3 FAN4
JL1 I-SATA0
JPME2 USB8/9 (3.0)
JPUSB1

## Jumpers and Connectors

| Jumper | Description | Default Setting |
|--------|-------------|-----------------|
| JBT1 | CMOS Cear | Open (Normal) |
| JPG1 | VGA Enable/Disable | Pins 1-2 (Enabled) |
| JPME1 | ME Recovery | Pins 1-2 (Normal) |
| JPME2 | Manufacturing Mode | Pins 1-2 (Normal) |
| JPUSB1 | Power Source Select For USB Port 0/1/6/7 | Pins 1-2 (Standby) |
| JWD1 | Watch Dog Timer | Pins 1-2 (Reset) |

| LED | Description | Status |
|-----|-------------|--------|
| BMC_HB_LED1 | BMC Heartbeat LED | Blinking Green: Device Working |
| LEDPWR | Onboard Power LED | Green Solid On: Power On |
| UID_LED1 | UID LED | Solid Blue: Unit Identified |

| Connector | Description |
|-----------|-------------|
| BT1 | Onboard Battery |
| COM1, COM2 | COM Port, COM Header |
| FAN1~FAN6, FANA/FANB | CPU/System Fan Headers |

## Jumpers and Connectors

| Connector | Description |
|-----------|-------------|
| IPMI_LAN | Dedicated IPMI LAN Port |
| I-SATA0~7, S-SATA0~3 | Intel PCH SATA 3.0 Ports (with RAID 0, 1, 5, 10) |
| J18 | External RTC Battery Header |
| JD1 | 4-pin Speaker Header |
| JF1 | Front Control Panel Header |
| JIPMB1 | 4-pin BMC External I²C Header (for an IPMI Card) |
| JL1 | Chassis Intrusion Header |
| JMD1 | M.2 PCI-E 3.0 x4 Slot (Supports M-Key 2280 and 2242) |
| JNVI²C1 | NVMe I²C Header |
| JPH1 | 4-pin 12V Power Connector for GPU Card (Requires an extra 12V power at up to 75W) |
| JPI²C1 | Power System Management Bus (SMB) I²C Header |
| JPV1 | 8-pin 12V CPU Power Connector |
| JPW1 | 24-pin ATX Power Connector |
| JRK1 | Intel RAID Key Header |
| JSD1, JSD2 | SATA DOM Power Connectors |
| JSTBY1 | Standby Power Header |
| JTPM1 | Trusted Platform Module/Port 80 Connector |
| JUIDB1 | Unit Identifier (UID) Switch |
| LAN1, LAN2 | 1G BASE-T Ports |
| SLOT4 | CPU PCI-E 3.0 x16 Slot |
| SLOT6 | CPU PCI-E 3.0 x16 Slot |
| SLOT7 | CPU PCI-E 3.0 x8 Slot |
| SRW3, SRW4 | M.2 Mounting Holes |
| S-SGPIO1 | Serial Link General Purpose I/O Header |
| USB0/1 | Back Panel Universal Serial Bus (USB) 2.0 Ports |
| USB2/3, USB4/5 | Front Accessible USB 2.0 Headers |
| USB6/7 | Back Panel USB 3.0 Ports |
| USB8/9 | Front Accessible USB 3.0 Header |
| USB10 | USB 3.0 Type-A Header |
| VGA | VGA Port |

## Memory

Notches

Press Both Notches Straight Down into the Memory Slot
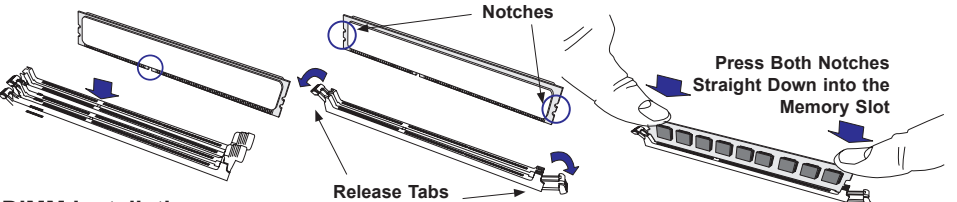
Release Tabs

### DIMM Installation

1. Insert the desired number of DIMMs into the memory slots, in the order of DIMMA1, DIMMD1, DIMMB1, DIMME1, DIMMC1, DIMMF1. For best performance, please use the memory modules of the same type and speed.
2. Push the release tabs outwards on both ends of the DIMM slot to unlock it.
3. Align the key of the DIMM module with the receptive point on the memory slot.
4. Align the notches on both ends of the module against the receptive points on the ends of the slot.
5. Press the notches on both ends of the module straight down into the slot until the module snaps into place.
6. Press the release tabs to the lock positions to secure the DIMM module into the slot.

## CPU Installation

Supports 1st and 2nd Generation Intel® Xeon® Scalable Processors 82xx/81xx/62xx/61xx/52xx/51xx/42xx/ 41xx/32xx/31xx with a thermal design power (TDP) of up to 165W and 28 cores

Note: The X11SPM-F motherboard does not support FPGA or Fabric processors.
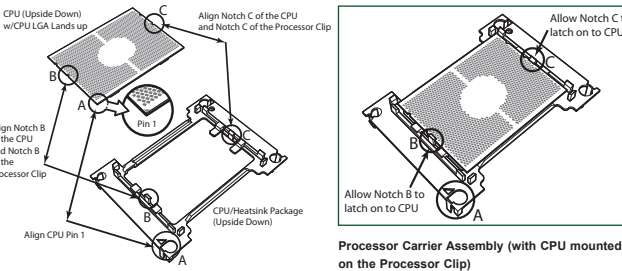
**Attaching the Non-F Model Processor Carrier Assembly to the Heatsink to Form the Processor Heatsink Module (PHM)**
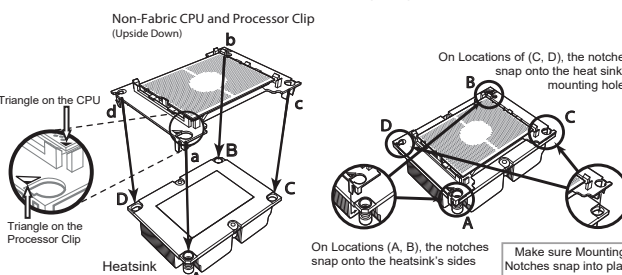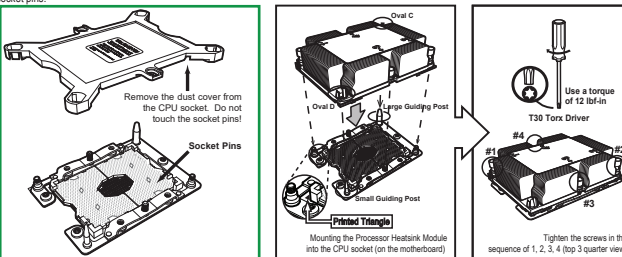
**Removing the Dust Cover from the CPU Socket Before Installing the Processor Heatsink Module (PHM)**
Remove the dust cover from the CPU socket.
Note: Touching the socket pins may cause damage and could ultimately result in CPU malfunction. Please avoid touching the socket pins.
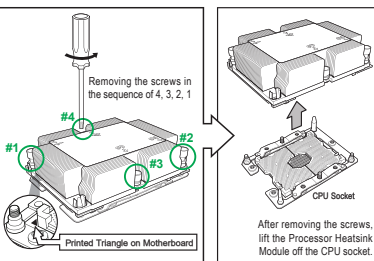
**Installing the Processor Heatsink Module (PHM)**
Note: Do not use excessive force when tightening the screws to avoid damaging the LGA lands and the processor.

**Removing the Processor Heatsink Module (PHM) from the Motherboard**
Expose the socket and socket pins as shown in the illustration on the right. Remember to snap the dust cover back in at the end.
Note: Touching the socket pins may cause damage and could ultimately result in CPU malfunction. Please avoid touching the socket pins.

## SATA Drive Installation

### Mounting a Drive in a Drive Carrier
1. Install a new drive into the carrier with the printed circuit baord side facing down so that the mounting holes align with those in the carrier.
2. Secure the drive to the carrier with six screws, as shown.

### Installing/Removing SATA Drives
1. To remove a carrier, push the release button located beside the drive LEDs.
2. Swing the colored handle fully and use it to pull the unit straight out.

## Beep Code

### Hard Drive Carrier LED Indicators

| LED | State/Condition | Indication |
|-----|-----------------|------------|
| Green | Blinking | Drive activity |
| Red | Blinking | Drive rebuilding |
| Red | Solid on | Drive failure |

### BIOS Beep (POST) Codes

| Beep Code | Error Message | Description |
|-----------|---------------|-------------|
| 1 beep | Refresh | Circuits have been reset. (Ready to power up) |
| 5 short beeps + 1 long beep | Memory error | No memory detected in the system |
| 5 long beeps + 1 short beep | Display memory read/write error | Video adapter missing or with faulty memory |
| 1 long, continuous beep | System OH | System Overheat |

## 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

⚠ **WARNING:**
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