**PACKAGE CONTENTS** (For Single-Pack Only)
- One (1) Supermicro Motherboard
- Four (4) SATA Cables
- One (1) I/O Shield

## Motherboard Layout and Features



Super● X9DRD-iF
Rev. 1.10

→ = mounting hole

**Note:** Item numbers are listed in counterclockwise order.
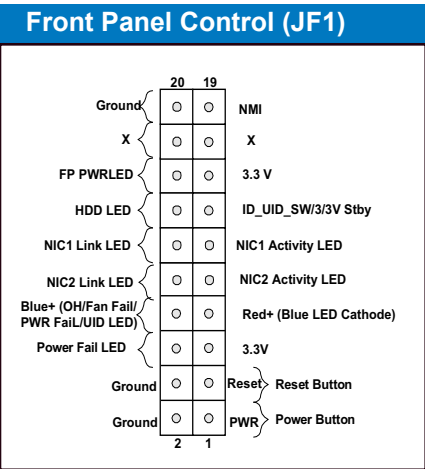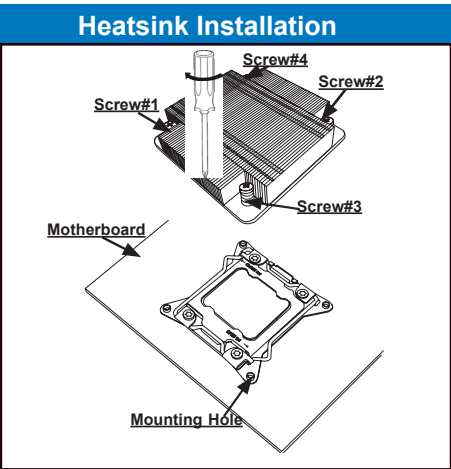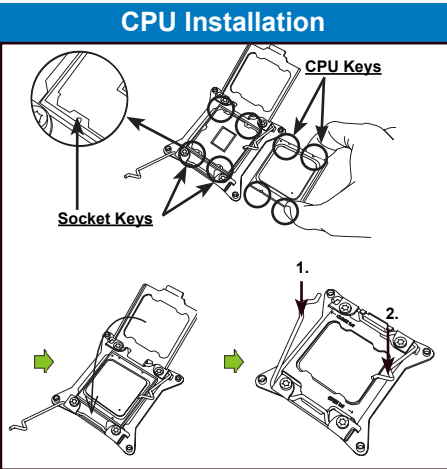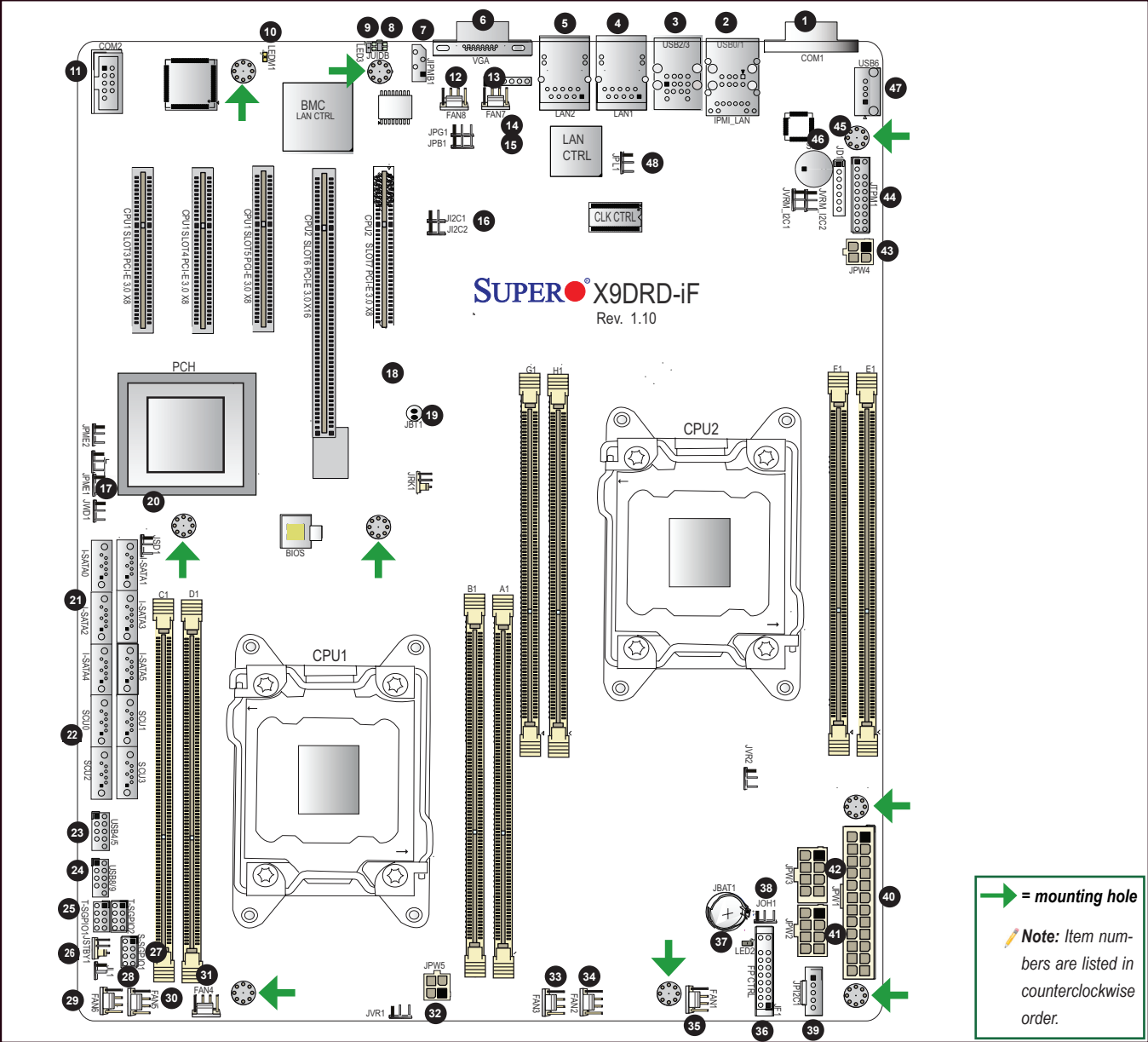
## Jumpers/Connectors/LED Indicators

### Jumpers

| Jumper | Item# | Description | Default Setting |
|---|---|---|---|
| JBT1 | 19 | Clear CMOS | See Chpt. 2 in User Manual |
| JI²C1/JI²C2 | 16 | SMB to PCI-E Slots | Off (Disabled) |
| JPB1 | 15 | BMC Enabled | Pins 1-2 (Enabled) |
| JPG1 | 14 | VGA Enabled | Pins 1-2 (Enabled) |
| JPL1 | 48 | GLAN1/GLAN2 Enable | Pins 1-2 (Enabled) |
| JWD1 | 17 | Watch Dog Timer Enable | Pins 1-2 (Reset) |

### Connectors

| Connectors | Item# | Description |
|---|---|---|
| COM1/COM2 | 1, 11 | Backplane COM Port1/Front Accessible COM2 Header |
| FAN1~8 | 35, 34, 33, 31, 30, 29, 13, 12 | CPU/System Fan Headers |
| JBAT1 | 18 | Onboard Battery (See Chpt. 3 for Used Battery Disposal) |
| JD1 | 45 | Speaker/Power LED Indicator |
| JF1 | 36 | Front Panel Control Header |
| JIPMB1 | 7 | 4-pin External BMC I²C Header (for an IPMI Card) |
| JL1 | 28 | Chassis Intrusion |
| JOH1 | 38 | Overheat LED Indicator |
| JPI²C1 | 39 | Power Supply SMBbus I²C Header |
| JPW1 | 40 | 24-Pin ATX Main Power Connector |
| JPW2/3 | 41, 42 | 12V 8-Pin Power Connectors |
| JPW4/5 | 43, 32 | 12V 4-Pin Power Connectors |
| JSD1 | 20 | SATA DOM (Device on Module) Power Connector |
| JSTBY1 | 26 | +5V Standby Power Header |
| JTPM1 | 44 | TPM (Trusted Platform Module)/Port 80 |
| LAN1/LAN2 | 4, 5 | Gigabit Ethernet Ports 1/2 |
| (IPMI) LAN | 2 | IPMI_Dedicated LAN |
| (I)SATA0~5, SCU0~3 | 21, 22 | Intel Serial_Link Connections (AHCI-SATA Connections 0~5, PCH-SATA Connections 0~3) |
| SP1 | 46 | Onboard Buzzer (Internal Speaker) |
| (S)SGPIO 1 | 27 | Serial_Link General Purpose I/O Header for SCU Connections |
| (T)SGPIO 1/2 | 25 | Serial_Link General Purpose I/O Headers for PCH-SATA |
| UID | 8 | UID (Unit Identification) Switch |
| USB 0/1, 2/3 | 2, 3 | Back Panel USB 0/1, 2/3 |
| USB 4/5, 8/9 | 23, 24 | Front Panel Accessible USB Connections (4/5, 8/9) |
| USB 6 | 47 | Type A USB Embedded Drive Connector |
| VGA | 6 | Backpanel VGA Port |

### LED Indicators

| LED | Item | Description | State | Status |
|---|---|---|---|---|
| LED2 | 37 | Standby PWR LED | Green: On | Standby PWR On |
| LED3 | 9 | Rear UID LED | Blue: On | Unit Identified |
| LEDM1 | 10 | BMC Heartbeat LED | Green: Blinking | BMC Normal |

## Memory Support

This motherboard supports up to 256 GB of 240-pin Registered (RDIMM)/ Load Reduced (LRDIMM) ECC or up to 64 GB of Unbuffered (UDIMM) ECC/ Non-ECC DDR3 800/1066/1333/1600 MHz 4-channel (per CPU) memory in 8 DIMM slots.

**Note:** For memory optimization, use only DIMM modules that have been validated by Supermicro. For the latest memory updates, please refer to our website at http://www.supermicro.com/products/motherboard.

### DIMM Installation

Insert the desired number of DIMMs into the memory slots, starting with P1-DIMMA1. For memory to work properly, follow the tables below for memory population order. Refer to the motherboard layout (at left) for the location of the DIMM slots.
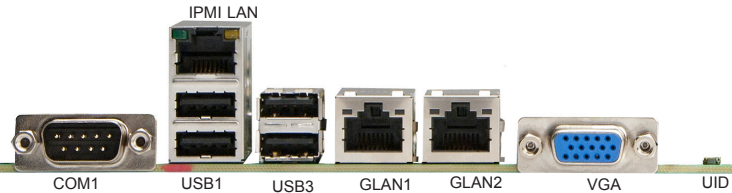
#### Processors and their Corresponding Memory Modules

| CPU# | Corresponding DIMM Modules | | | |
|---|---|---|---|---|
| CPU1 | P1-DIMMA1 | P1-DIMMB1 | P1-DIMMC1 | P1-DIMMD1 |
| CPU2 | P2-DIMME1 | P2-DIMMF1 | P2-DIMMG1 | P2-DIMMH1 |

#### Processor and Memory Module Population

| Number of CPUs+DIMMs | CPU and Memory Population Configuration Table (*For memory to work proper, please install DIMMs in pairs) |
|---|---|
| 1 CPU & 2 DIMMs | CPU1 P1-DIMMA1/P1-DIMMB1 |
| 1 CPU & 4 DIMMs | CPU1 P1-DIMMA1/P1-DIMMB1, P1-DIMMC1/P1-DIMMD1 |
| 2 CPUs & 2 DIMMs | CPU1 + CPU2 P1-DIMMA1, P2-DIMME1 |
| 2 CPUs & 4 DIMMs | CPU1 + CPU2 P1-DIMMA1/P1-DIMMB1, P2-DIMME1/P2-DIMMF1 |
| 2 CPUs & 6 DIMMs | CPU1 + CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1, P2-DIMME1/P2-DIMMF1/P2-DIMMG1 |
| 2 CPUs & 8 DIMMs | CPU1 + CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1 |

## CPU Installation



CPU Keys
Socket Keys

1.
2.

## Heatsink Installation



Screw#4
Screw#2
Screw#1
Screw#3
Motherboard
Mounting Hole

## Front Panel Control (JF1)



| 20 | | 19 |
|---|---|---|
| Ground | | NMI |
| X | | X |
| FP PWRLED | | 3.3 V |
| HDD LED | | ID_UID_SW/3/3V Stby |
| NIC1 Link LED | | NIC1 Activity LED |
| NIC2 Link LED | | NIC2 Activity LED |
| Blue+ (OH/Fan Fail/ PWR Fail/UID LED) | | Red+ (Blue LED Cathode) |
| Power Fail LED | | 3.3V |
| Ground | Reset | Reset Button |
| Ground | PWR | Power Button |
| 2 | | 1 |

## Back Panel IO Connectors



IPMI LAN
COM1
USB1 USB0
USB3 USB2
GLAN1
GLAN2
VGA
UID

**Note:** Graphics shown in this quick guide are for illustration only. Your components may or may not look exactly the same as drawings shown in this guide.

**Note:** Refer to Chapter 2 of the User Manual for detailed information on jumpers, connectors, and LED indicators.

**Note:** Refer to Chapter 2 of the User Manual for detailed information on memory support and CPU/motherboard installation instructions.