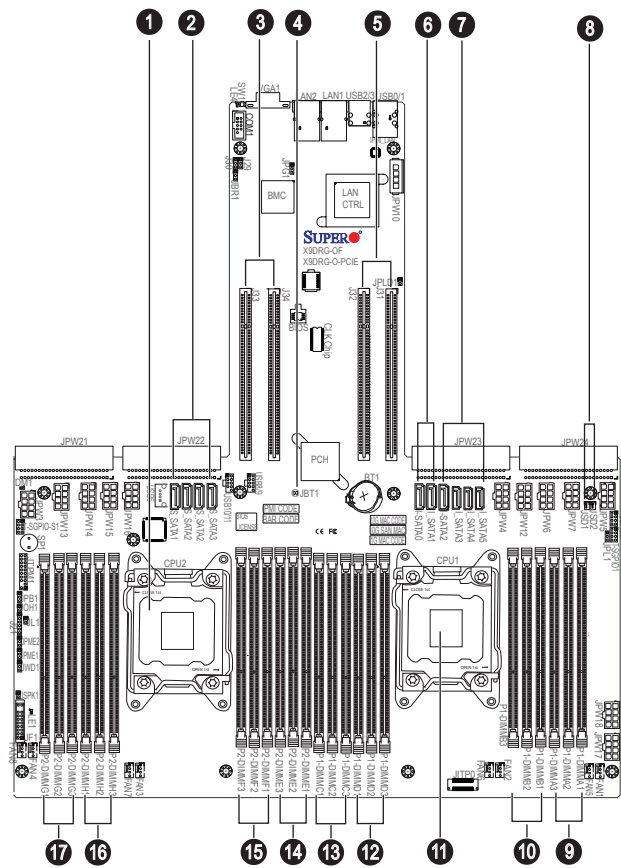


## Board Layout



No.	Description
1	CPU2
2	S-SATA1~4: Intel SATA 2.0 Connectors 0~3 (from Intel SCU)
3	J33/J34 : Slots for Riser Cards (RSC-X9DRG-O) slot
4	JBT1= CMOS Clear
5	J32/J31 : Slots for Riser Cards (RSC-X9DRG-O) slot
6	I-SATA0~1: Intel SATA 3.0 Connectors 0/1 (from Intel AHCI)
7	I-SATA2~5: Intel SATA 2.0 Connectors 2/3/4/5 (from Intel AHCI)
8	JSD1/JSD2 = SATA DOM Power
9	P1-DIMMA1(Blue)/P1-DIMMA2/P1-DIMMA3 slot
10	P1-DIMMB1(Blue)/P1-DIMMB2/P1-DIMMB3 slot
11	CPU1 (Install CPU1 first)
12	P1-DIMMD1(Blue)/P1-DIMMD2/P1-DIMMD3 slot
13	P1-DIMMC1(Blue)/P1-DIMMC2/P1-DIMMC3 slot
14	P1-DIMME1(Blue)/P1-DIMME2/P1-DIMME3 slot
15	P1-DIMMF1(Blue)/P1-DIMMF2/P1-DIMMF3 slot
16	P1-DIMMH1(Blue)/P1-DIMMH2/P1-DIMMH3 slot
17	P1-DIMMG1(Blue)/P1-DIMMG2/P1-DIMMG3 slot

## MEMORY

Processors and their Corresponding Memory Modules												
CPU#	Corresponding DIMM Modules											
CPU 1 P1-DIMM	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3
CPU 2 P2-DIMM	E1	E2	E3	F1	F2	F3	G1	G2	G3	H1	H2	H3

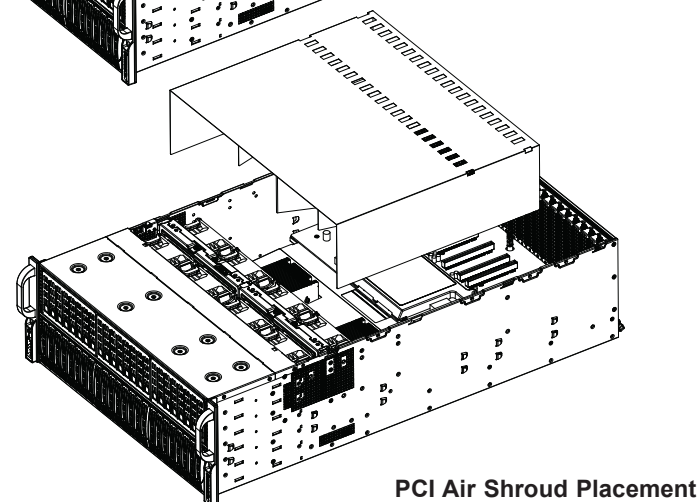
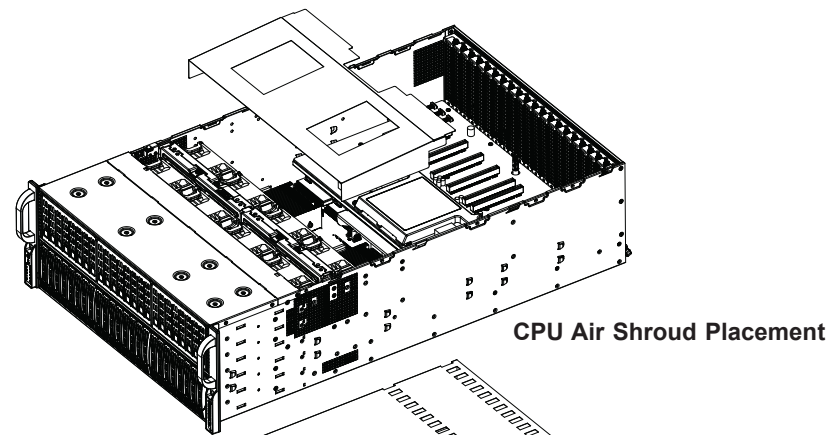
Processors and Memory Module Population for Optimal Performance	
Number of CPUs + DIMMs	CPU and Memory Population Configuration Table (For memory to work properly, follow the instructions below)
1 CPU & 2 DIMMs	CPU1 & P1-DIMMA1/P1-DIMMB1
1 CPU & 4 DIMMs	CPU1 & P1-DIMMA1/P1-DIMMB1, P1-DIMMC1/P1-DIMMD1
1 CPU & 5-8 DIMMs	CPU1 & P1-DIMMA1/P1-DIMMB1, P1-DIMMC1/P1-DIMMD1, P1-DIMMA2/P1-DIMMB2, P1-DIMMC2/P1-DIMMD2
1 CPU & 9-12 DIMMs	CPU1/CPU2 P1-DIMMA1/P1-DIMMB1, P1-DIMMC1/P1-DIMMD1, P1-DIMMA2/P1-DIMMB2, P1-DIMMC2/P1-DIMMD2 P1-DIMMA3/P1-DIMMB3, P1-DIMMC3/P1-DIMMD3
2 CPUs & 4 DIMMs	CPU1 + CPU2 & P1-DIMMA1/P1-DIMMB1, P2-DIMME1/P2-DIMMF1
2 CPUs & 6 DIMMs	CPU1 + CPU2 & P1-DIMMA1/P1-DIMMB1, P2-DIMME1/P2-DIMMF1, P1-DIMMC1/P1-DIMMD1
2 CPUs & 8 DIMMs	CPU1 + CPU2 & P1-DIMMA1/P1-DIMMB1, P2-DIMME1/P2-DIMMF1, P1-DIMMC1/P1-DIMMD1, P2-DIMMG1/P2-DIMMH1
2 CPUs & 9-12 DIMMs	CPU1/CPU2 & P1-DIMMA1/P1-DIMMB1, P2-DIMME1/P2-DIMMF1, P1-DIMMC1/P1-DIMMD1, P2-DIMMG1/P2-DIMMH1 P1-DIMMA2/P1-DIMMB2, P2-DIMME2/P2-DIMMF2
2 CPUs & 13-24 DIMMs	CPU1/CPU2 & P1-DIMMA1/P1-DIMMB1, P2-DIMME1/P2-DIMMF1, P1-DIMMC1/P1-DIMMD1, P2-DIMMG1/P2-DIMMH1, P1-DIMMA2/P1-DIMMB2, P2-DIMME2/P2-DIMMF2, P1-DIMMC2/P1-DIMMD2, P2-DIMMG2/P2-DIMMH2, P1-DIMMA3/P1-DIMMB3, P2-DIMME3/P2-DIMMF3, P1-DIMMC3/P1-DIMMD3, P2-DIMMG3/P2-DIMMH3

## Air Shroud

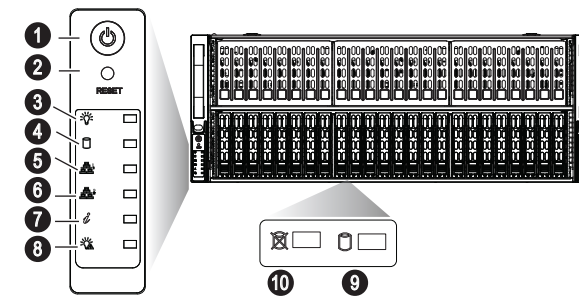
Air shrouds concentrate airflow to maximize fan efficiency. Two air shrouds are included in the system: one for the CPU and another for the PCI slots. These air shrouds do not require screws to set up.

Installing the Air Shroud

1. Confirm that all fans are in place and working properly.
2. Place the CPU air shroud into the chassis first. The air shroud sits behind the system fans.

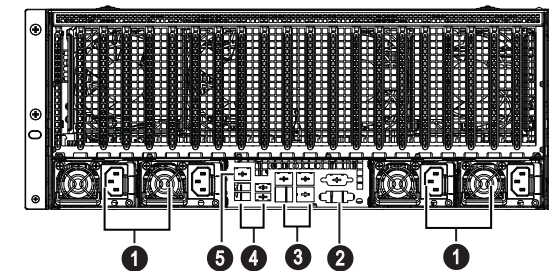


## Front view & Interface



No.	Description
1	Power Button
2	Reset Button
3	Power LED
4	Device Activity LED
5	LAN1 LED
6	LAN2 LED
7	Information LED
8	Power Failure Button
9	Hard Drive Signal
10	Hard Drive Fail

## Rear View

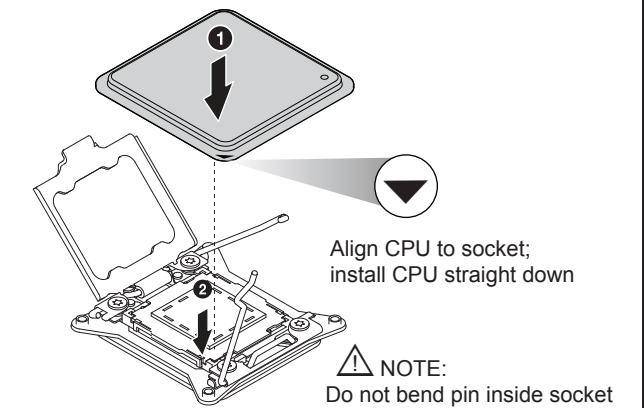


No.	Description
1	Power Supplies
2	VGA Port
3	LAN1 & LAN2 (10GbE SFP+ Port/1G Port) (X9DRG-OTG/OF)
4	USB 0/1, 2/3 Ports
5	Dedicated LAN for IPMI

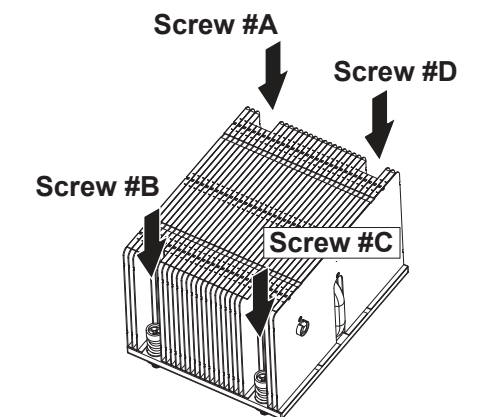
## Beep Codes

BIOS Beep Codes		
Beep Code/LED	Message	Description
1 beep	Refresh	Ready to boot
5 short beeps + 1 long beep	Memory	No memory detected in the system
5 long beeps	No Con-In or No Con-Out devices	Con-In: USB or PS/2 keyboard, PCI or Serial Console Redirection, IPMI KVM or SOL Con-Out: Video Controller, PCI or Serial Console Redirection, IPMI SOL

## CPU Installation



## 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/ft of torque; otherwise, hand-tighten each screw, to avoid damaging the system

## 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](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>

