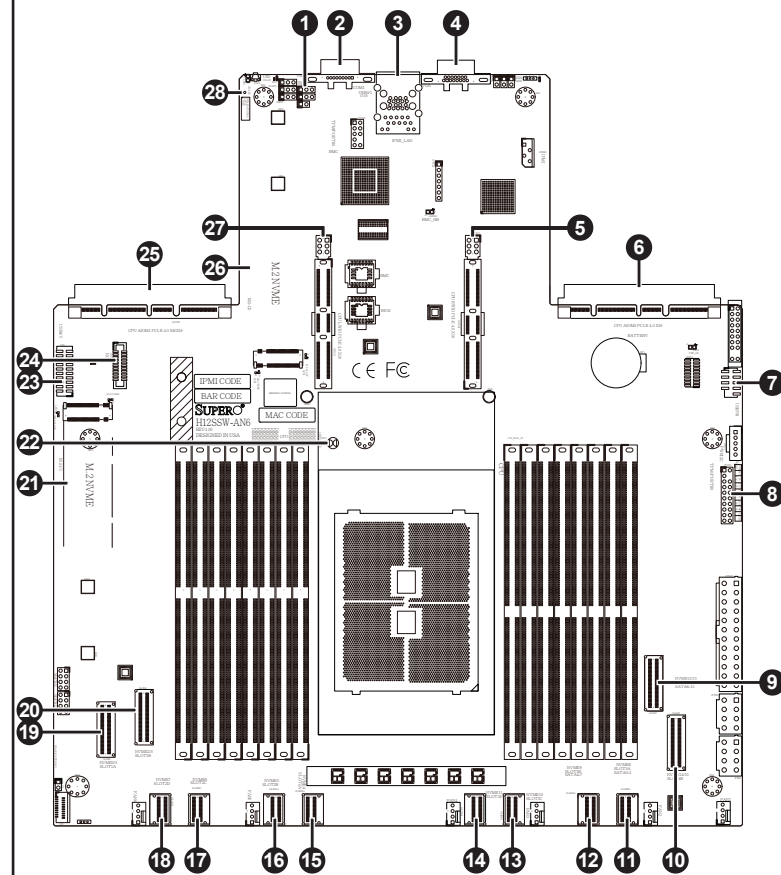


## Board Layout

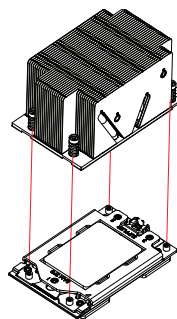


| Item | Description              |
|------|--------------------------|
| 1    | JWD1 (Watch Dog Control) |
| 2    | COM Port 1               |
| 3    | IPMI LAN                 |
| 4    | Back Panel VGA Port      |
| 5    | Right WIO Riser Slot     |
| 6    | AIOM 2                   |
| 7    | Internal USB 3.0 7-8     |
| 8    | TPM/Port 80              |
| 9    | NVMe 12-13, SATA 8-15    |
| 10   | NVMe 14-15               |
| 11   | NVMe 8, SATA 0-3         |
| 12   | NVMe 9, SATA 4-7         |
| 13   | NVMe 10                  |
| 14   | NVMe 11                  |

| Item | Description         |
|------|---------------------|
| 15   | NVMe 4              |
| 16   | NVMe 5              |
| 17   | NVMe 6              |
| 18   | NVMe 7              |
| 19   | NVMe 0-1            |
| 20   | NVMe 2-3            |
| 21   | M.2 Slot C1         |
| 22   | JBT1 (Clear CMOS)   |
| 23   | USB 4-5             |
| 24   | NCSI                |
| 25   | AIOM 1              |
| 26   | M.2 Slot C2         |
| 27   | Left WIO Riser Slot |
| 28   | UID LED             |

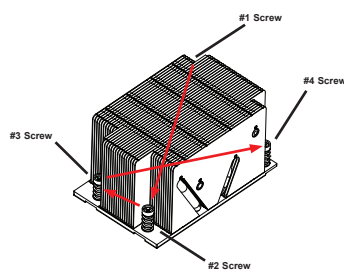
## Heatsink Installation

### 1. Mounting the Heatsink

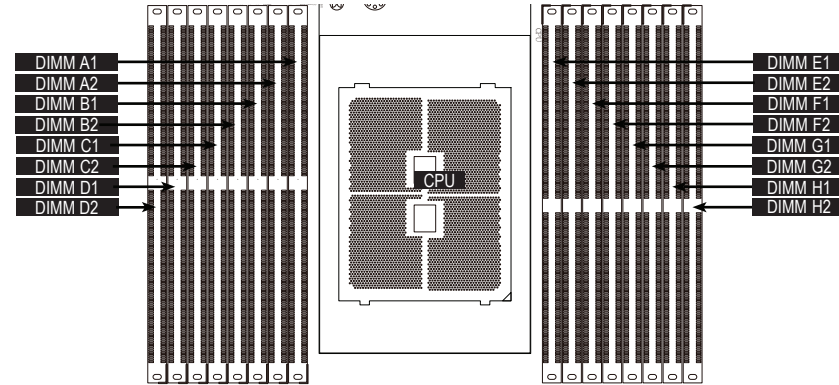


### 2. Securing the Heatsink

Using a diagonal pattern and a Torx T20 driver, tighten the four heatsink screws evenly to 16.1 kgf-cm (14.0 lbf-in) torque.



## Memory



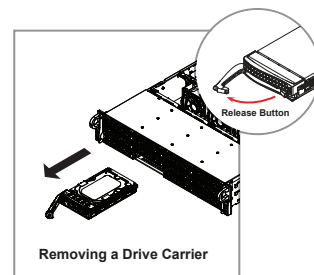
### DIMM Module Population Sequence

When installing memory modules, the DIMM slots should be populated in the following order: DIMMA2, DIMMB2, DIMMC2, DIMMD2, DIMME2, DIMMF2, DIMMG2, DIMMH2, then DIMMA1, DIMMB1, DIMMC1, DIMMD1, DIMME1, DIMMF1, DIMMG1, DIMMH1.

- The blue slots must be populated first.
- Always use DDR4 DIMM modules of the same type, size and speed.
- Mixed DIMM speeds can be installed. However, all DIMMs will run at the speed of the slowest DIMM.
- The motherboard will support odd-numbered modules (1 or 3 modules installed). However, to achieve the best memory performance, fully populate the motherboard with validated memory modules.

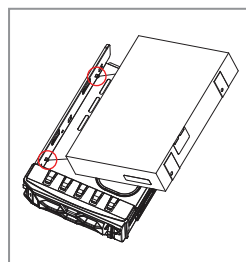
| DIMM Population Guide (with 7002/7003 Processor) |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Channel  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| DIMM D2  | DIMM D1 | DIMM C2 | DIMM C1 | DIMM B2 | DIMM B1 | DIMM A2 | DIMM A1 | DIMM E2 | DIMM E1 | DIMM F2 | DIMM F1 | DIMM G2 | DIMM G1 | DIMM H2 | DIMM H1 |
| 1 DIMM (not recommended)                         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 2 DIMMs (not recommended)                        |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 4 DIMMs (not recommended)                        |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 6 DIMMs (for 7003 only)                          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8 DIMMs  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 12 DIMMs (for 7003 only)                         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 16 DIMMs   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |

## Hard Drive Installation



### Removing a Hot-Swap Drive Carrier from the Chassis

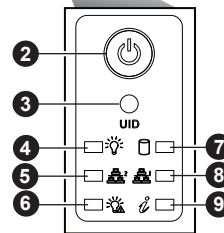
1. Press the release button on the drive carrier, which will extend the drive carrier handle.
2. Use the drive carrier handle to pull the drive out of the chassis.



### Installing a 3.5" Drive

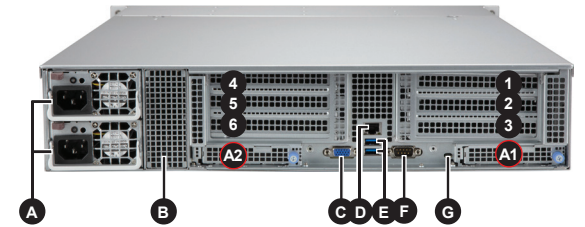
1. Position the drive above the carrier with the PCB side facing down and the connector end toward the rear of the carrier.
2. Tilt the drive to insert it onto the two posts on the left inside of the carrier.
3. Push the right side of the drive fully into the carrier and allow the two springlocking clasps to secure the drive.
4. Insert the drive carrier into its bay, keeping the release button on the right. When the carrier reaches the rear of the bay, the release handle will retract.
5. Push the handle in until it clicks into its locked position.

## Front View & Interface



| Item | Description                         |
|------|-------------------------------------|
| 1    | Service/Asset Tag with BMC Password |
| 2    | Power Button                        |
| 3    | UID Button                          |
| 4    | Power LED                           |
| 5    | NIC2 LED                            |
| 6    | Power Fail LED                      |
| 7    | HDD LED                             |
| 8    | NIC1 LED                            |
| 9    | Information LED                     |

## Rear View



| Item | Description                                       |
|------|---|
| A    | Redundant Power Supply Modules*                   |
| B    | Rear drive kit for two 2.5" drive bays (optional) |
| C    | VGA Port  |
| D    | IPMI LAN Port                                     |
| E    | Two USB 3.0 Ports                                 |
| F    | COM Port  |
| G    | UID LED   |

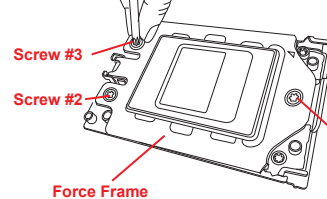
| Expansion Slots |                                |
|-----------------|--------------------------------|
| Item            | Description                    |
| 1               | PCIe 5.0 x16 (FHFL)            |
| 2               | PCIe 5.0 x8 (FHFL, optional**) |
| 3               | PCIe 5.0 x16 (FHHL)            |
| 4               | PCIe 4.0 x8 (FHFL, optional**) |
| 5               | PCIe 5.0 x16 (FHFL)            |
| 6               | PCIe 5.0 x16 (FHHL)            |
| A1              | PCIe 5.0 x16 AIOM slot (NCSI)  |
| A2              | PCIe 5.0 x16 AIOM slot         |

\* Full redundancy is based on the configuration and application load.  
\*\* Contact support for configurations that require optional PCIe slots to be enabled.

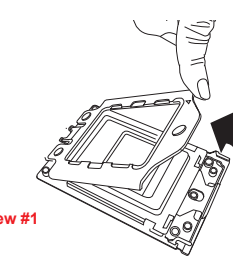
## CPU Installation

### Processor Installation

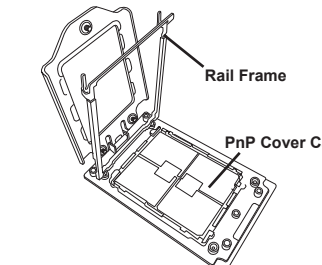
1. Removing the Processor Force Frame  
Use a Torx T20 driver to loosen the screws holding down Force Frame in the sequence of 3-2-1. The screws are numbered on the Force Frame next to each screw hole.



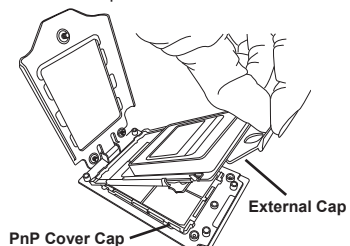
### 2. Raising the Force Frame



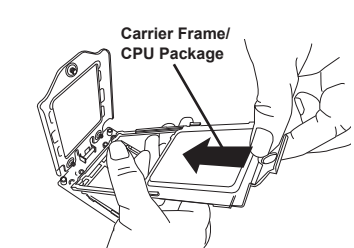
### 3. Lifting the Rail Frame



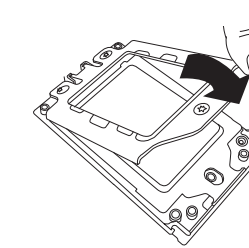
### 4. Removing the External Cap and PnP Cover Cap



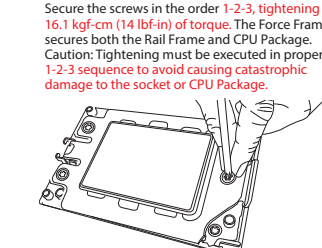
### 5. Inserting the Carrier Frame/CPU Package



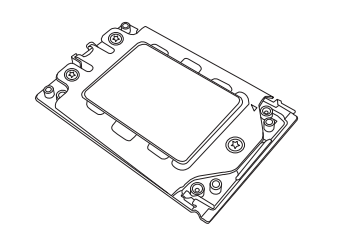
### 6. Lowering the Force Frame



### 7. Securing the Force Frame



### 8. The Force Frame Secured



## Default Cable Routing

| MB/AOC Connector     | BP/Riser                     | Drive Qty/PCIe | MC Cable P/N        |
|----------------------|------------------------------|----------------|---------------------|
| PCIe1A (NVME0/1)     | CN3 (RSC-D2-666G4)           | PCIe x16       | CBL-SAST-1297LP-85  |
| PCIe1B (NVME2/3)     | CN4 (RSC-D2-666G4)           |                | CBL-SAST-1297LP-85  |
| PCIe2A/2B (NVME4/5)  | CN3 (RSC-D2R-666G4)          | PCIe x16       | CBL-SAST-1296LP-85  |
| PCIe2C/2D (NVME 6/7) | CN4 (RSC-D2R-666G4)          |                | CBL-SAST-1296LP-85  |
| SATA4-7 (NVME9)      | CN1 (BPN-SAS3-LA26A-N12)     | 4 SATA Drives  | CBL-SAST-1285LP-100 |
| SATA8-15 (NVME12/13) | CN2/CN3 (BPN-SAS3-LA26A-N12) | 8 SATA Drives  | CBL-SAST-1236-100   |

## 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.
- 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>

