4U60L Series

User Manual

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

CALIFORNIA, USA ONLY

The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.
"Perchlorate Material-special handling may apply, see www.dtsc.ca.gov/hazardouswaste/perchlorate"

Important Safety Instructions

Pay close attention to the following safety instructions before performing any of the operation. Basic safety precautions should be followed to protect yourself from harm and the product from damage:

- Operation of the product should be carried out by suitably trained, qualified, and certified personnel only to avoid risk of injury from electrical shock or energy hazard.
- Disconnect the power cord from the wall outlet when installing or removing main system components, such as the motherboard and power supply unit.
- Place the system on a stable and flat surface.
- Use extreme caution when working with high-voltage components.
- When handling parts, use a grounded wrist strap designed to prevent static discharge.
- Keep the area around the system clean and clutter-free.
- Keep all components and printed circuit boards (PCBs) in their antistatic bags when not in use.
- Handle a board by its edges only; do not touch its components, peripheral chips, memory modules or contacts.

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Chapter 1 Introduction

Thank you for purchasing ASRock Rack 4U60L Series, a reliable barebone system produced under ASRockRack's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRockRack's commitment to quality and endurance.

Because the hardware specifications might be updated, the content of this documentation will be subject to change without notice. In case any modifications of this documentation occur, the updated version will be available on ASRockRack's website without further notice. If you require technical support related to this product, please visit our website for specific information about the model you are using.
ASRockRack's Website: www.ASRockRack.com

The illustrations shown in this manual are examples only, the actual system may differ slightly .

1.1 System Package Contents

The system can be configured to operate in three different modes: HA (High Availability), Zoning, and Single Node (JBOD).* Please refer to the table below for the required components for each mode.

Item	Quantity for Different Mode		
	HA	Zoning	Single Node
4U60L Series Barebone (4U form factor)	1	1	1
Motherboards (MB)**	2	2	1
Expander Board (EXPB)	2	1	1
Expander Board (EXPBZ)	0	1	0
HA Daughter Board (DBH)***	1	0	0
Zoning Daughter Board (DBZ)***	0	1	0
Single Node Daughter Board (DBJ)***	0	0	1
Right Power Distribution Board (RPDB)	1	1	0
Left Power Distribution Board (LPDB)	1	1	1
Middle Plane Board (MPB)	1	1	1
3.5"/2.5" HDD Back Plane Board (BPB)	5	5	5
2.5" HDD Back Plane Board (BPB)	2	2	1
Front Panel Board (FPB)	2	2	1
Power Supply Units	4	4	4
System Fans	9	9	9
Accessory Box	1	1	1
Support CD	1	1	1

* *For more details about motherboard configurations, please refer to the section entitled "3.6 Motherboard".*

** *The system supports E3C224D4HM-8R motherboard. Please go the official website for the latest supported list and information.*

*** *Only one of the daughter boards is pre-installed. You can find the other two in the accessory box.*

If any items are missing or appear damaged, contact your authorized dealer.

English

1.2 Specifications

4U60L Series	
System Physical Status	
Form Factor	4U Rackmount
Dimension (D x W x H)	35.4"* x 16.9" x 6.94" (900* x 430 x 176.5 mm) **Chassis ears excluded*
Support MB Size	Half Width, 13" x 5.96" (330 x 151 mm)
Front Panel *(1 for each motherboard)*	
Buttons	• 2 x Power On/Off buttons • 2 x ID buttons • 2 x System reset buttons • 2 x NMI buttons
LEDs	• 2 x Power LEDs • 2 x ID LEDs • 2 x HDD activity LEDs • 8 x LAN activity LEDs • 2 x System Event LEDs* **System Event LED is not supported for E3C224D4HM-8R motherboard.*
I/O Ports	4 x USB 2.0 ports
Drive Bay	
External	• 60 x 3.5" Bay HDD • 4 x 2.5" Bay HDD *(2 for each motherboard)*
System Cooling	
Fan (Front)	5 x 80*38 mm system fans
Fan (Middle)	4 x 92*38 mm system fans
Power Supply	
Capacity	4 (3+1) Redundant
Output Watts	750W
Efficiency	Platinum

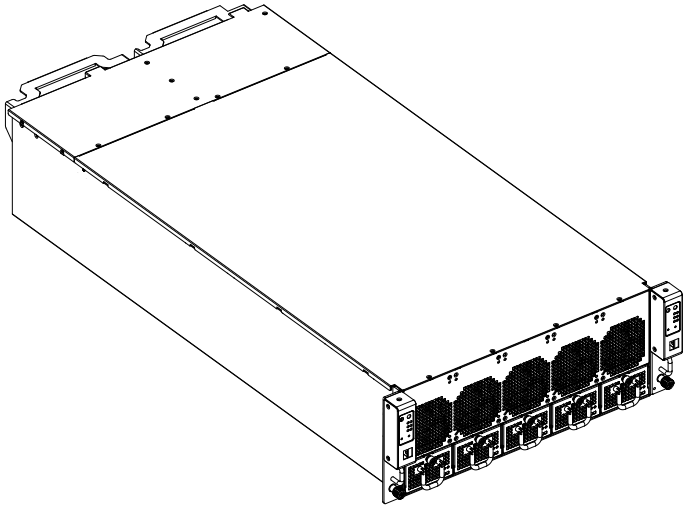
Please refer to the user manual of the motherboard you use for detailed information about motherboard components and features.

English

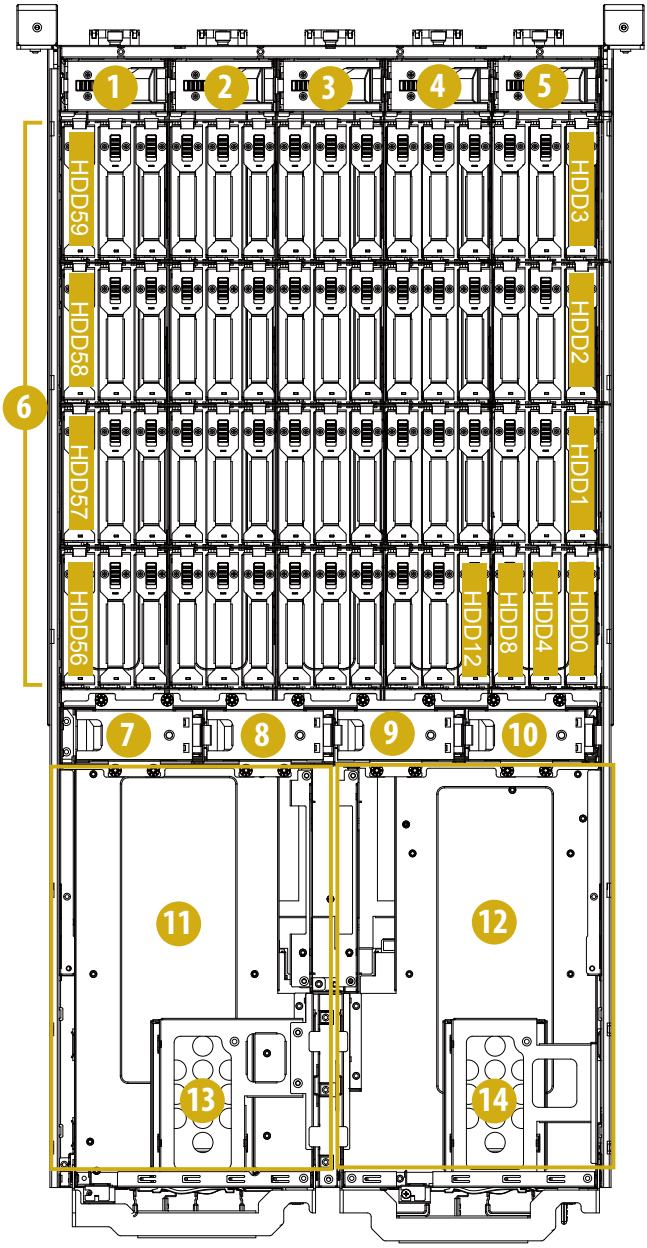
Chapter 2 Server System Overview

This chapter provides diagrams showing the location of important components of the server system.

4U60L Series:

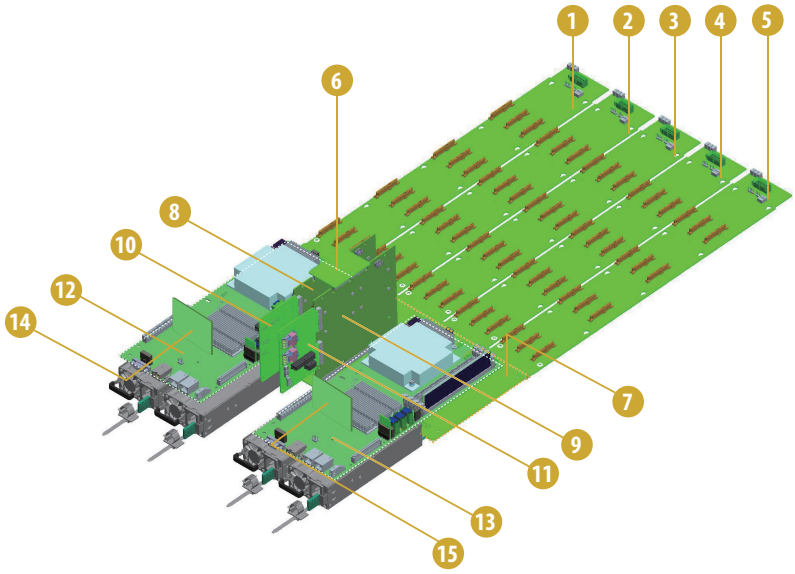


2.1 System Components



No.	Item
1	Front System Fan (Fan5)
2	Front System Fan (Fan4)
3	Front System Fan (Fan3)
4	Front System Fan (Fan2)
5	Front System Fan (Fan1)
6	60 x 3.5'' or 2.5" HDD Bays (HDD0~HDD59)
7	Middle System Fan (Fan9)
8	Middle System Fan (Fan8)
9	Middle System Fan (Fan7)
10	Middle System Fan (Fan6)
11	Node2
12	Node1
13	2 x 2.5” Hot-Swap HDD Trays (for Node 2)
14	2 x 2.5” Hot-Swap HDD Trays (for Node 1)

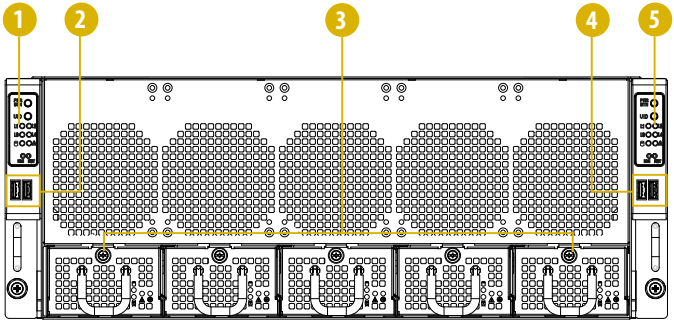
2.2 Board Arrangement



No.	Item
1	3.5"/2.5" HDD Backplane Board 5 (BPB5)
2	3.5"/2.5" HDD Backplane Board 4 (BPB4)
3	3.5"/2.5" HDD Backplane Board 3 (BPB3)
4	3.5"/2.5" HDD Backplane Board 2 (BPB2)
5	3.5"/2.5" HDD Backplane Board 1 (BPB1)
6	Daughter Board (DB)*
7	Middle Plane Board (MPB)
8	Expander Board 2 (EXPB2) **Not required for the Single Node Mode* ***Use the EXPBZ Expander Board instead for the Zoning Mode*
9	Expander Board 1 (EXPB1)
10	Left Power Distribution Board (LPDB)
11	Right Power Distribution Board (RPDB)
12	Motherboard 2 (MB2) **Not required for Single Node Mode*
13	Motherboard 1 (MB1)
14	2.5" HDD Backplane Board for Node 2 (BPB7)
15	2.5" HDD Backplane Board for Node 1 (BPB6)

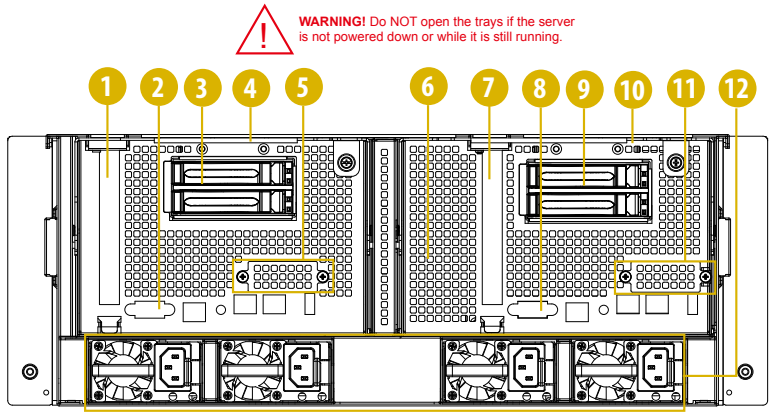
**You can change the Daughter Board (DBH/DBZ/DBJ) to support different modes and toggle among HA, Zoning or Single Node. Node 2 doesn't support Single Node function. For more information, please refer to 3.6 Motherboard Configurations.*

2.3 System Front Panel



No.	Item
1	Control Panel Buttons and LEDs (Left) (for Node 1)
2	2 x USB 2.0 Ports (Left) (for Node 1)
3	5 x HDD Backplane Trays
4	2 x USB 2.0 Ports (Right) (for Node 2)
5	Control Panel Buttons and LEDs (Right) (for Node 2)

2.4 System Rear Panel

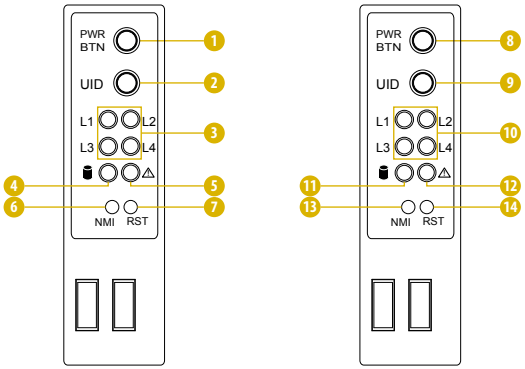


No.	Item
1	Add-on Card Slot (MB2) **Supports Low profile and FHHL (Full High Half Length) add-on cards* ***When the PCIE1 slot on the E3C224D4HM-8R motherboard is populated, the LSI SAS connectors will be disabled.*
2	I/O Shield (depends on the specification of the motherboard) (MB2)
3	2.5" HDD trays (MB2)*
4	Motherboard Node Tray Handle (Node2)| **WARNING! Please do NOT open the tray if the server is not powered down or while it is still running.*
5	Mezzanine Card Support for 1GbE x 2, 10GbE x2 or SFP+ (Fiber) x2 (MB2)
6	Rear Vent
7	Add-on Card Slot (MB1) **Supports Low profile and FHHL (Full High Half Length) add-on cards* ***When the PCIE1 slot on the E3C224D4HM-8R motherboard is populated, the LSI SAS connectors will be disabled.*
8	I/O Shield (depends on the specification of the motherboard) (MB1)
9	2.5" HDD trays (MB1)*
10	Motherboard Node Tray Handle (Node1) **WARNING! Please do NOT open the tray if the server is not powered down or while it is still running.*
11	Mezzanine Card Support for 1GbE x 2, 10GbE x2 or SFP+ (Fiber) x2 (MB1)
12	4 x Power Supply Units

**To configure an appliance for High Availability (HA) mode , the 2.5" HDD trays are dedicated for OS installation per node.*

2.5 Front Control Panel Buttons and LEDs

Front Control Panel Boards



Left
(for Node1)

Right
(for Node2)

No.	Item
1	MB1 Power Button and LED
2	MB1 ID Button and LED*
3	MB1 LAN1, LAN2, LAN3, LAN4 Activity LEDs*
4	MB1 HDD Activity LED
5	MB1 System Event LED* *(Not supported for E3C224D4HM-8R motherboard)*
6	MB1 NMI (Nonmaskable Interrupt) Button*
7	MB1 System Reset Button
8	MB2 Power Button and LED
9	MB2 ID Button and LED*
10	MB2 LAN1, LAN2, LAN3, LAN4 Activity LEDs*
11	MB2 HDD Activity LED
12	MB2 System Event LED* *(Not supported for E3C224D4HM-8R motherboard)*
13	MB2 NMI (Nonmaskable Interrupt) Button*
14	MB2 System Reset Button

**Please be noted that the functions are supported depending on the type of the motherboard.*

Power Button

Press the power switch button to toggle the system power on and off.

To remove all power from the system completely, disconnect the power cord from the server.

ID Button

Press the ID button to toggle the front panel ID LED and the baseboard ID LED on and off. You are able to locate the server you're working on from behind a rack of servers.

NMI (Nonmaskable Interrupt) Button

Press the NMI button with a paper clip or pin to generate a nonmaskable interrupt and to put the server in a halt state for examination.

System Reset Button

When the system is completely unresponsive, press the system reset button to reboot the server without shutting it off and initialize the system.

Status LED Definitions

Power LED	
Status	**Description**
Green	Power on
Off	Power off

ID LED	
Status	**Description**
Blue	System identification is active.
Off	System identification is disabled.

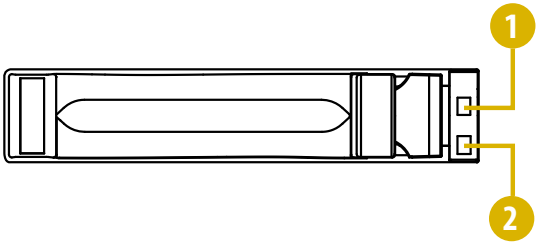
LAN1, LAN2, LAN3, LAN4 LEDs	
Status	**Description**
Green	Link between system and network or no access
Blinking Green	Network access

HDD Activity LED	
Status	**Description**
Blinking Green	HDD access
Off	HDD idle

System Event LED*	
Status	**Description**
Off	Running or normal operation
Red	At least one sensor has critical alert

**System Event LED is not supported for E3C224D4HM-8R motherboard.*

2.6 Drive Tray LEDs



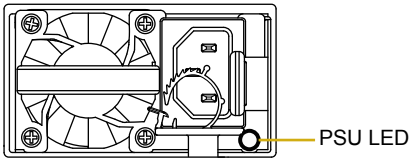
No.	Description
1	HDD Power LED
2	HDD Activity LED

Status LED Definitions

HDD Power LED	
Status	**Description**
Blue	HDD powered-on
Off	No power to HDD

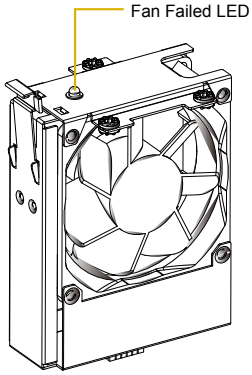
HDD Activity LED	
Status	**Description**
Solid Green	HDD active
Blinking Green	HDD accessing or reading
Red	HDD failed
Off	HDD powered-off

2.7 PSU LED



PSU Status LED	
Status	**Description**
Green blinking at 1Hz	Standby/Cold redundant state or PDB fault/protection
Green	Normal work
Amber continuously	Module fault/protection in operating mode
Amber blinking at 1Hz	Warning
Green blinking at 0.5Hz	Power cord unplugged/AC loss

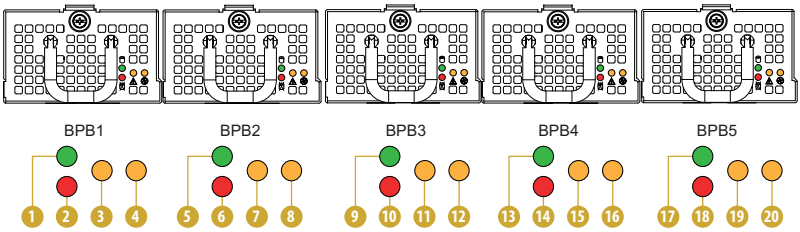
2.8 Fan Failed LED (Middle System Fan)



Fan LED	
Status	**Description**
Solid Amber	Fan failed
Off	Normal

** To know the status of the front system fans, please check the Fan LED indicators on the corresponding backplane boards.*

2.9 Backplane LEDs



No.	LED	Status	Description
1	BPB1 HDD Activity	Blinking Green	HDD0~HDD11 active and accessing*
2	BPB1 HDD Error	Solid Red	BPB1 HDD error
3	BPB1 PWR Error	Solid Amber	BPB1 power error
4	BPB1 FAN Error	Solid Amber	BPB1 Fan1 error
5	BPB2 HDD Activity	Blinking Green	HDD12~HDD23 active and accessing*
6	BPB2 HDD Error	Solid Red	BPB2 HDD error
7	BPB2 PWR Error	Solid Amber	BPB2 power error
8	BPB2 FAN Error	Solid Amber	BPB2 Fan2 error
9	BPB3 HDD Link	Blinking Green	HDD24~HDD35 active and accessing*
10	BPB3 HDD Error	Solid Red	BPB3 HDD error
11	BPB3 PWR Error	Solid Amber	BPB3 power error
12	BPB3 FAN Error	Solid Amber	BPB3 Fan3 error
13	BPB4 HDD Link	Blinking Green	HDD36~HDD47 active and accessing*
14	BPB4 HDD Error	Solid Red	BPB4 HDD error
15	BPB4 PWR Error	Solid Amber	BPB4 power error
16	BPB4 FAN Error	Solid Amber	BPB4 Fan4 error
17	BPB5 HDD Link	Blinking Green	HDD48~HDD59 active and accessing*
18	BPB5 HDD Error	Solid Red	BPB5 HDD error
19	BPB5 PWR Error	Solid Amber	BPB5 power error
20	BPB5 FAN Error	Solid Amber	BPB5 Fan5 error

**Please refer to the 2.1 System Components (p.5) for the locations and numbering of the hard drives.*

Chapter 3 Hardware Installation and Maintenance

This chapter helps you assemble the chassis and install components.

Before You Begin

Before you work with the server, pay close attention to the "Important Safety Instructions" at the beginning of this manual.

1. Make sure the server is powered off.
   Power down the server if it is still running.
   (1) Press the Power button to power off the server from full-power mode to power-off mode. The Power LED at the front turns from solid green to off.
   (2) Disconnect the power cord first from the AC outlet and then from the server. The power LED turns off.

> ⚠ *The server is not completely powered down when you press the Power button on the front panel. Some internal circuitry remain active in the Power-off mode. To remove all power from the system completely, be sure to disconnect the power cord from the server.*

2. Ensure you have a clean and stable working environment. Avoid dust and dirt because contaminants may cause malfunctions.
3. Ground yourself properly before touching any system component. A discharge of static electricity may damage components. Wear a grounded wrist strap if available.

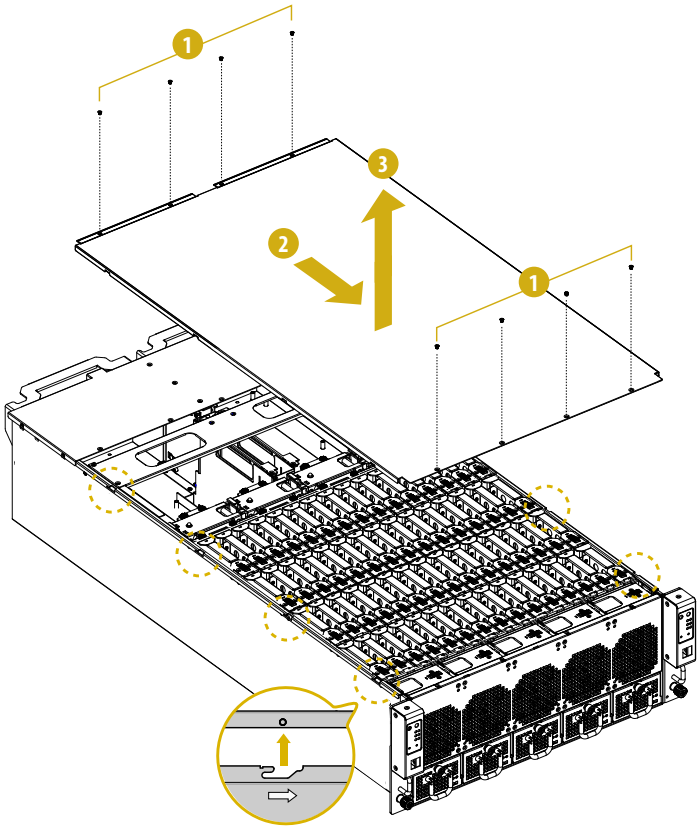
> ⚠ *After all components are well installed, then you can connect the power cord to the AC outlet and then press the Power button to power on the server.*

3.1 Server Top Cover

Removing the Server Top Cover

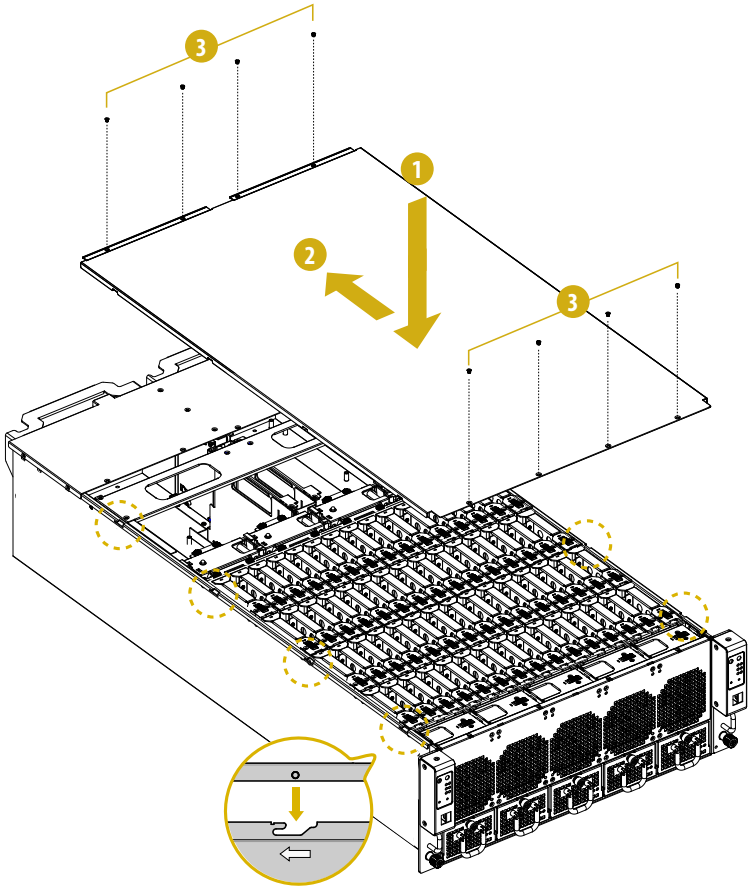
1. Before removing the top covers, power off the server and unplug the power cord.
2. The system must be operated with all the chassis top covers installed to ensure proper cooling.

1. Remove the eight screws that secure the top cover to the chassis.
2. Push the top cover toward the FRONT of the chassis to remove the cover from the locked position.
3. Lift up and remove the top cover.



Installing the Server Top Cover

1. Lower the top cover on the chassis, making sure the side latches align with the cutouts.
2. Slide the top front cover toward the REAR of the chassis.
3. Secure the top cover with the eight screws.



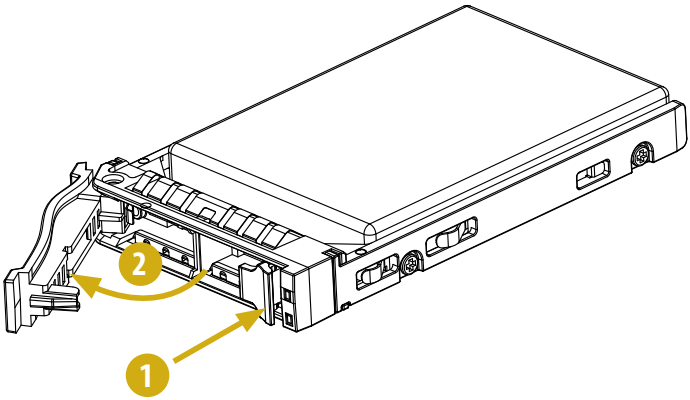
3.2 Hard Drive

3.2.1 Installing a Hard Disk Drive into 2.5" Hard Drive Tray

The 4U60L series chassis supports hot-swappable 2.5" hard drives. Four 2.5" hard drive trays are located on the rear of the chassis.

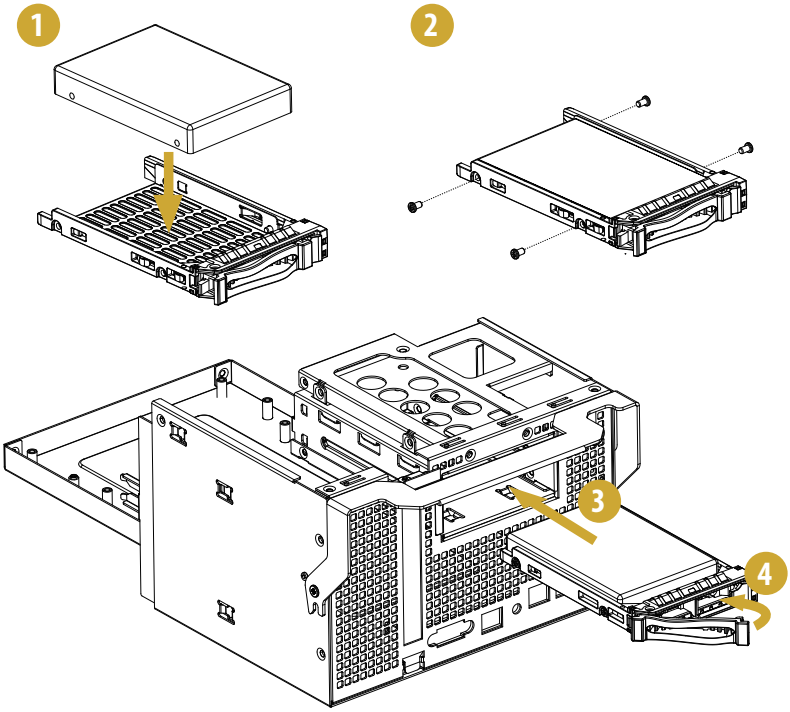
Removing 2.5” Hard Drive Trays from the Chassis

1. Press the locking lever latch on the drive tray to unlock the retention lever.
2. Rotate the lever out and away from the module bay and pull the hard drive out of the HDD tray.



Installing a 2.5” Hard Drive to the Hard Drive Tray

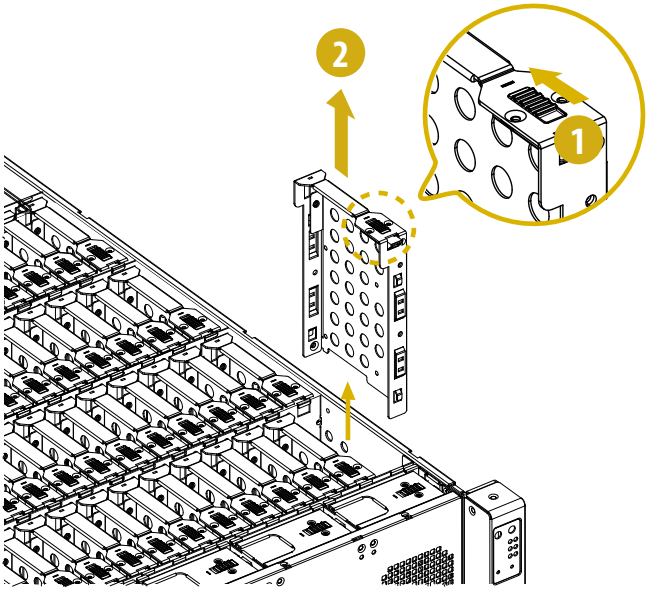
1. Place a 2.5" HDD into the tray with the printed circuit board side facing down. Carefully align the mounting holes in the hard drive and the tray.
2. Secure the hard drive using the two screws.
3. Slide the drive tray into the HDD bay until the drive is fully seated.
4. Push in the locking lever to lock the HDD tray into place.



3.2.2 Installing a 3.5" or 2.5" Hard Disk Drive into the Hard Drive Carrier

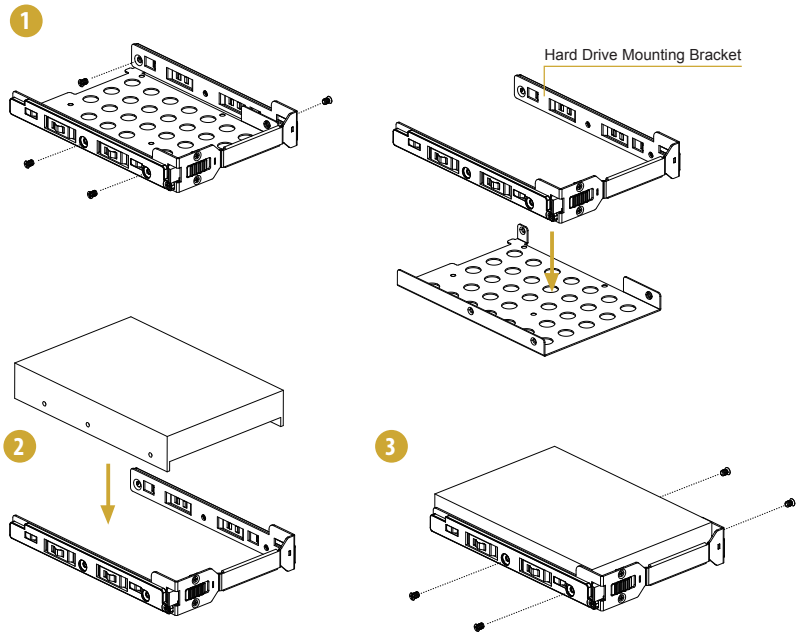
Removing a Hard Drive Carrier from the Chassis

1. Push back the black release latch.
2. While holding the latch back in the unlocked position, pull the hard drive carrier up and out towards you. Release the latch after the carrier has been removed.



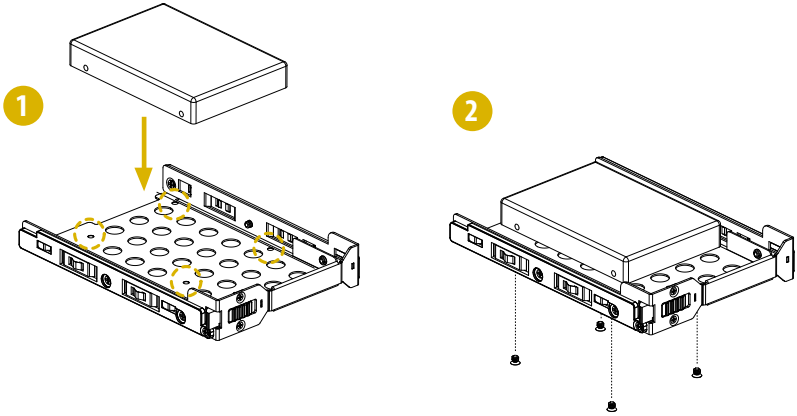
Installing a 3.5” Hard Drive to the Hard Drive Carrier

1. Remove the screws to disengage the hard drive mounting bracket from the carrier.
2. Place the 3.5" HDD into the bracket with the label facing up and the connector end toward the opening of the bracket.
   Carefully align the mounting holes in the hard drive and the carrier.
3. Use the four screws to secure the hard drive into the bracket.



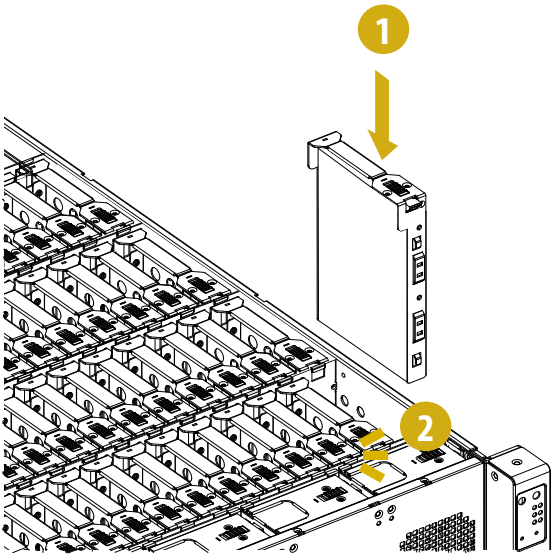
Installing a 2.5” Hard Drive to the Hard Drive Carrier

1. Place the 2.5" HDD into the carrier with the label facing up and the connector end toward the rear of the carrier.
   Carefully align the mounting holes in the hard drive and the carrier.
2. Secure the hard drive using the four screws.
3. Place the hard drive carrier back to into the chassis.



Installing a Hard Drive Carrier into the Chassis

1. Gently slide the HDD carrier into the chassis evenly.
2. Push the carrier downwards until it is firmly seated and locks into place.



3.3 Power Supply

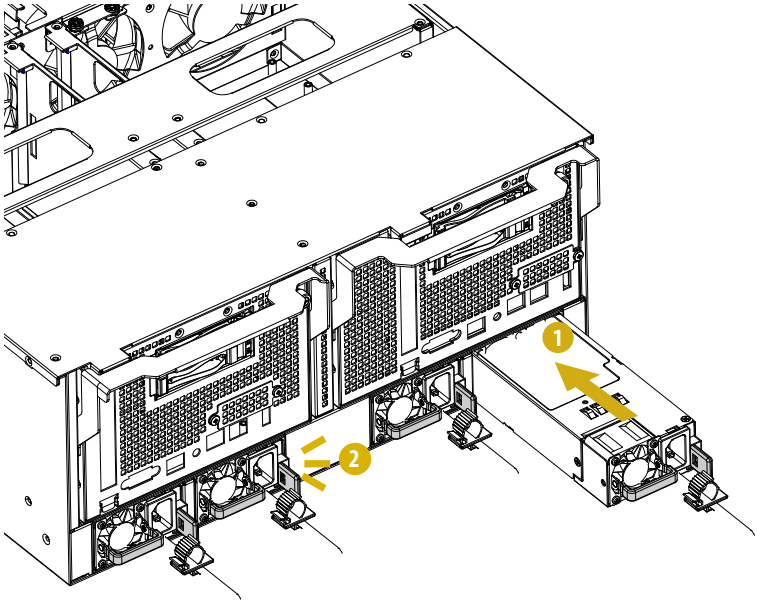
The 4U60L Series can accommodate four CRPS (Common Redundant Power Supplies) power supplies in the bay at the rear of the chassis. Each unit provides up to 750 Watts of power. Three power supplies are required for operation, with the other power supply purely as a redundant, load-sharing backup. It can be removed without affecting system operation.

> ⚠ *Before replacing the power supply, power off the server, unplug the power cord, and disconnect all wiring from the power supply.*

Installing and Removing the Power Supply

Installing the Power Supply Unit

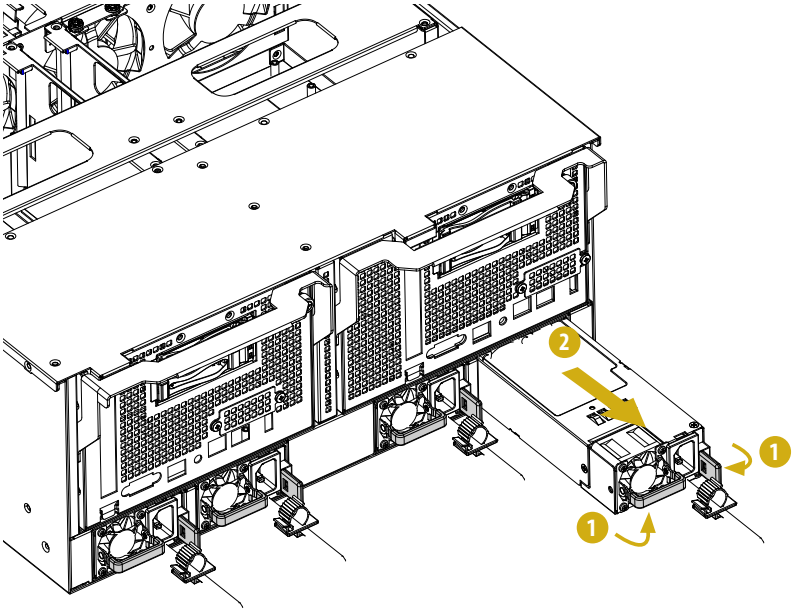
1. Align the power supply unit with the power supply slot. Ensure that the LED appears on the lower right when you are installing the power supply unit.
2. Carefully slide the PSU all the way into the power supply bay until it clicks into place.



Removing the Power Supply Unit

To remove a failed power supply, identify the failed power supply by checking the power supply LEDs on the PSU.

1. Hold onto the power supply handle while pressing the locking lever towards the power supply handle.
2. Pull to remove the power supply from the chassis.



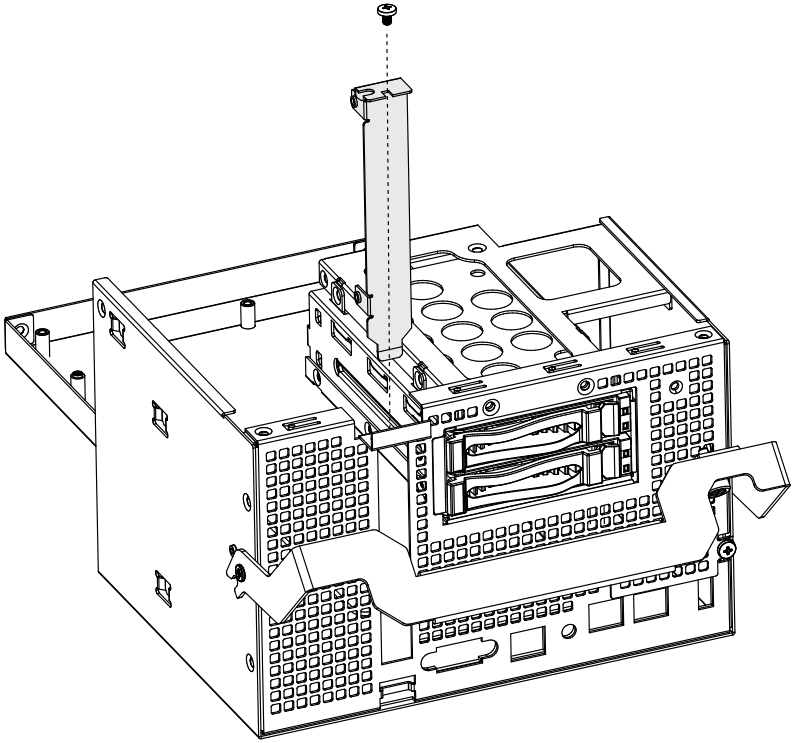
1. Before replacing the power supply, power off the server, unplug the power cord, and disconnect all wiring from the power supply.
2. In a redundant system, you do not need to power down the server.

3.4 Add-on Card

Before installing the add-on card, power off the server and unplug the power cord.

Installing the Add-on Card in the Chassis

1. Remove the screw securing the cover in place for each low profile add-on slot you want to use. Keep this screw for later use.



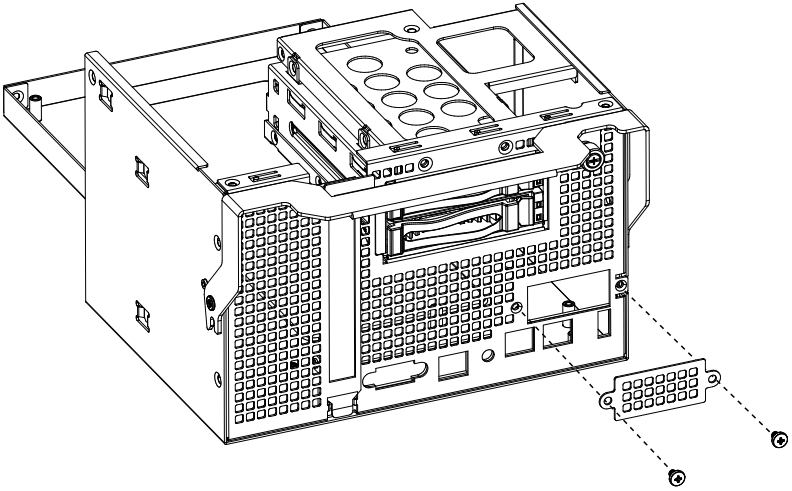
2. Align the add-on card and insert into place.
3. Secure each card to the chassis using the screw previously removed.

1. *You can install an add-on card to the chassis only when you have a riser card installed on the motherboard.*
2. *Before installing the add-on card, power off the server and unplug the power cord.*

Removing the Blanking Plate for a LAN Mezzanine Card

You can use an optional Ethernet mezzanine card for additional LAN ports. Please be aware that the mezzanine card must be used in conjunction with a matching I/O module.\

Remove the two screws that secure the blanking plate on the chassis. Keep this screw for later use.



3.5 System Fan

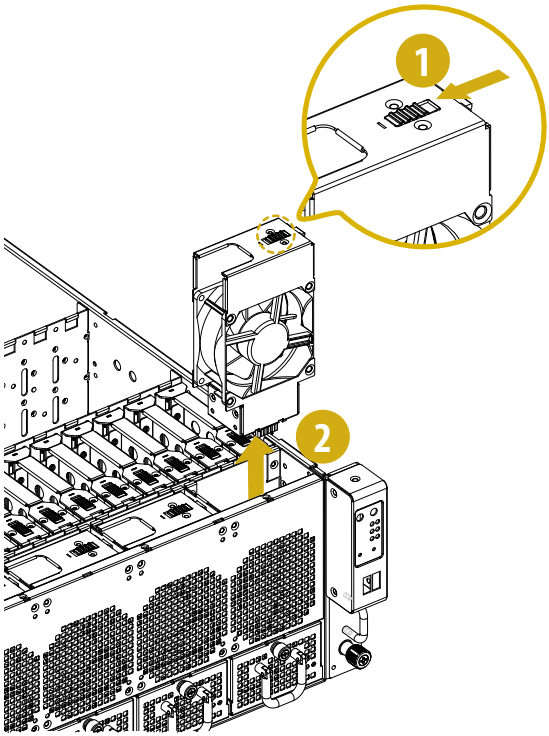
The 4U60L series chassis supports hot-swappable system fans.

Replacing the System Fan

Before replaceing the system fan, remove the top cover from the chassis. (See p. 16 for more details.)

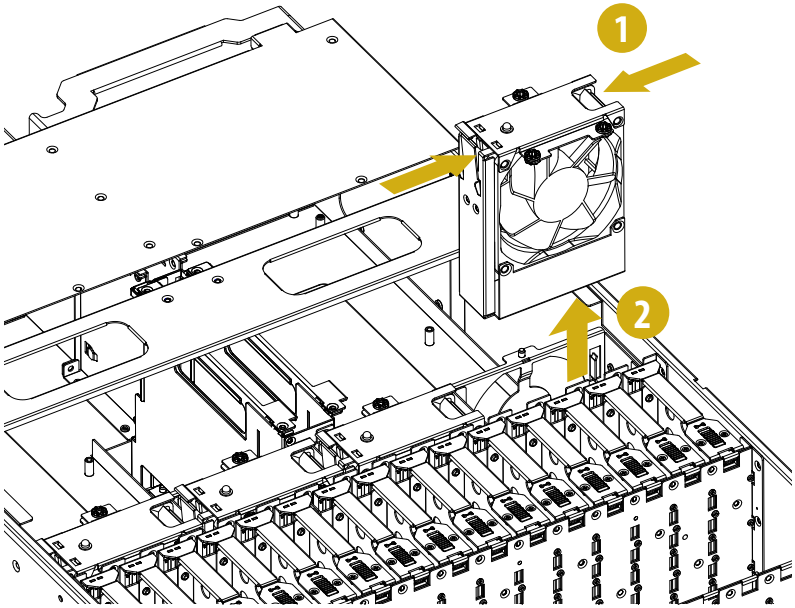
Front Fan Module

1. Push back the release latch at the top of the front fan.
2. While holding the latch back in the unlocked position, pull the fan up and out towards you. Release the latch after the fan has been removed.



Middle Fan Module

1. Press and hold the clip on the middle fan
2. Lift the system fan away from the chassis.



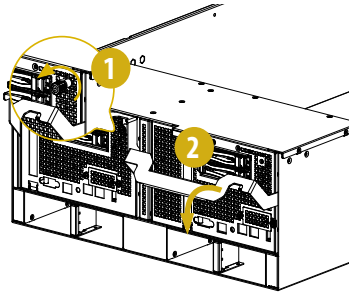
3.6 Motherboard

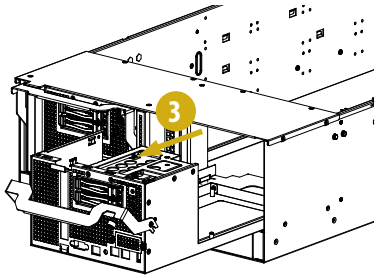
Attention! DO NOT open the motherboard tray if the server is not powered down or while it is still running.

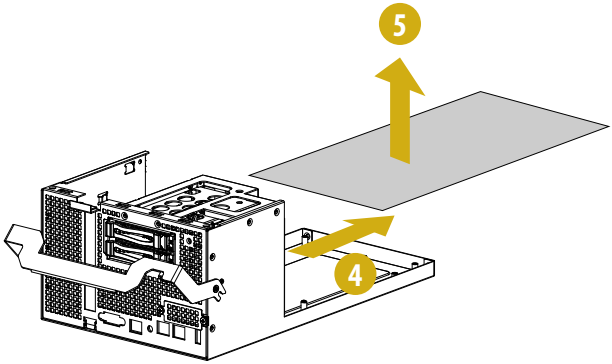
Replacing the Motherboard

You must remove all connected cables from the motherboard to avoid damaging the motherboard and its components when you remove it later.

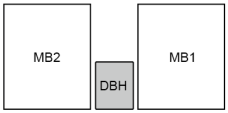
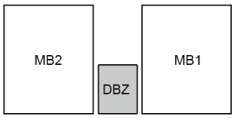
1. Release the thumb screw on the tray if it is tightened.
2. Pull the motherboard node tray handle downward.
3. Slide back the motherboard node tray.
4. Carefully slide the tray completely out of the chassis.
5. Remove the screws that secure the motherboard to the node tray. Lift to remove the motherboard.
6. Reverse the procedure to install a motherboard.







Motherboard Configurations

Board	HA Mode		Zoning Mode		Single Node Mode	
						
DB	DBH		DBZ		DBJ	
EXPB1	EXPB		EXPB		EXPB	
EXPB2	EXPB		EXPB**Z**		N/A	
MB	MB1	MB2	MB1	MB2	MB1	MB2
	V	V	V	V	V	N/A
HDD	60	idle	30	30	60	N/A
	idle	60				

HA(High Availability) Mode:

Node1 and Node2 support 60 SAS HDDs. When one of the nodes operates normally, the other node idles. If an unexpected error, crash or shutdown occurs on the operating node, the idle node then takes over the job.

To support HA, you need to install both motherboard 1 in Node1 and motherboard 2 in Node 2 and change your daughter board to DBH.

Zoning Mode:

Each node runs the job individaully. Each node supports 30 SAS or SATA HDDs.

To support Zoning, you need to install both motherboard 1 in Node1 and motherboard 2 in Node 2 and change your daughter board to DBZ.

Single Node Mode:

Only Node1 supports 60 SAS or SATA HDDs. Node2 is not functioning.

To support Single Node, you only need to install motherboard 1 in Node1 and change your daughter board to DBJ.

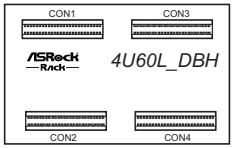
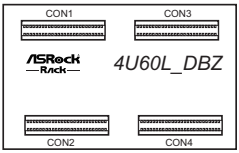
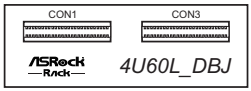
To know more about how to change a daughter board, refer to the section entitled "3.7 Daughter Board".

Refer to the user manual of the motherboard you use for instructions on how to install motherboard components.

3.7 Daughter Board

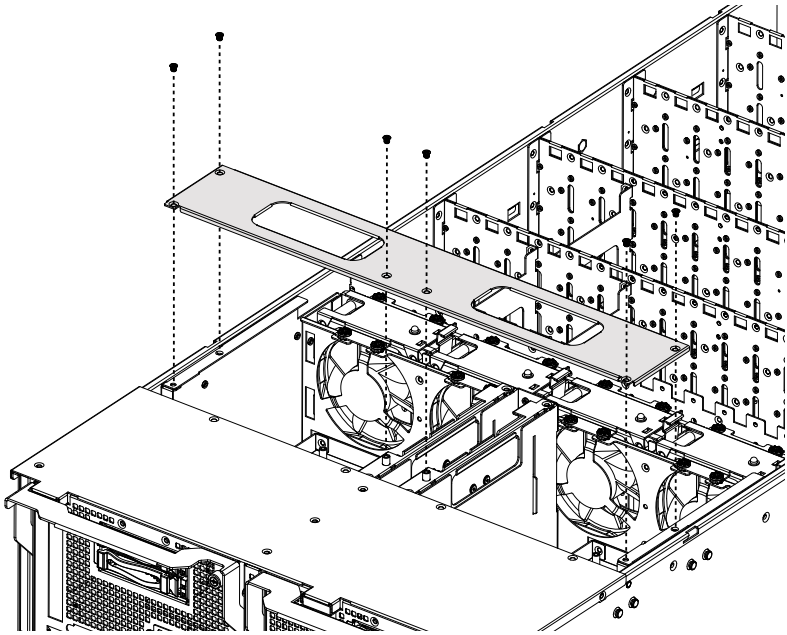
Replacing the Daughter Board

Depending on the HA mode, Zoning mode or Single Node mode you require for your system, install the compatible daughter board for proper functionality.

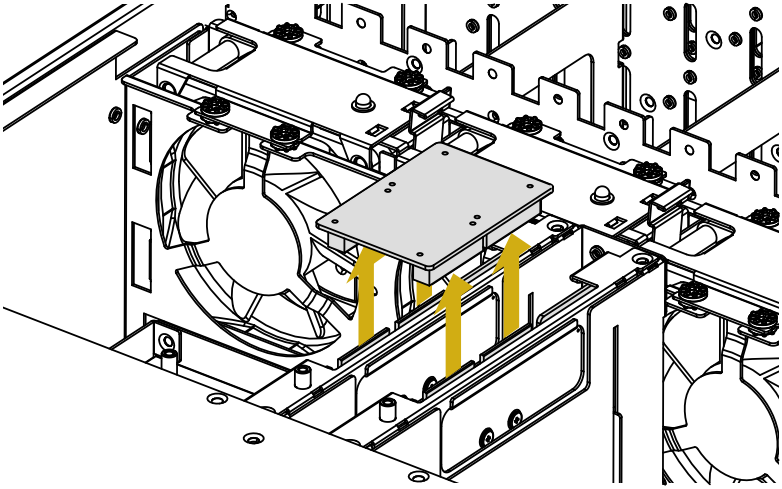
HA Mode	Zoning Mode	Single Node Mode
DBH	DBZ	DBJ
		

Before replacing a daughter board, you must power down the system completely.

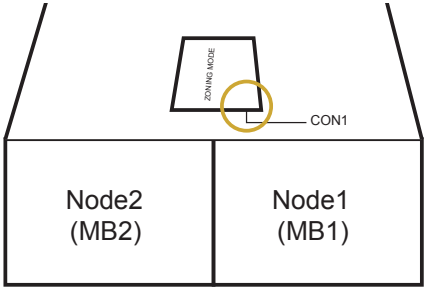
1. Remove the top cover. For more details, please refer to the section entitled "3.1 Server Top Cover".
2. Remove the screws that secure the daughter board bracket to the chassis. Remove the daughter board bracket and set it aside for re-assembly.



3. Gently and vertically lift up and remove the daughter board from the Expander Board (EXPB).

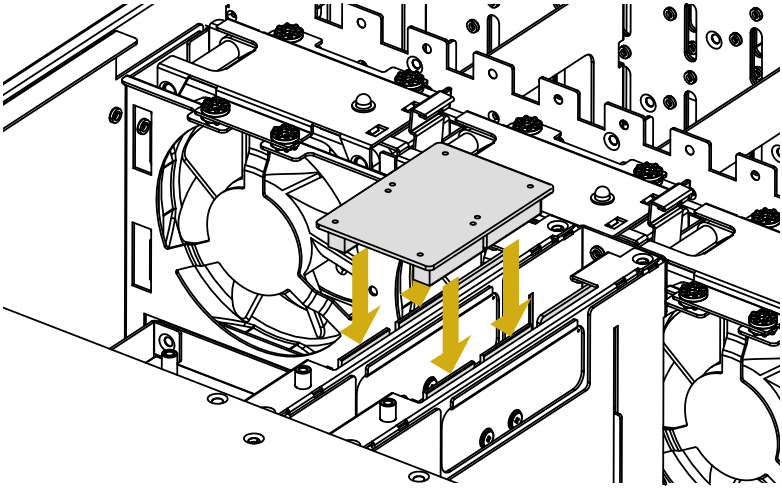


4. Correctly orientate the daughter board you need. When facing the rear of the chassis, the CON1 on the daughter board you are about to install should be at the right-bottom corner.

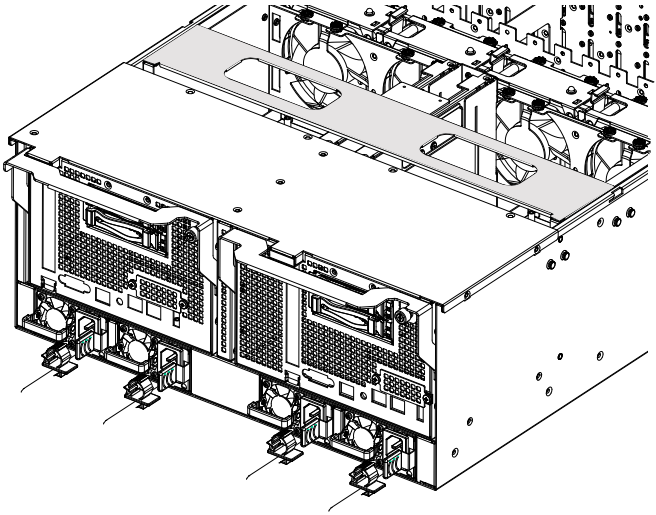


1. *The daughter board must be lift up or installed vertically. Installing the daughter board incorrrectly may cuase irreparable damage to the connector pins.*
2. *When you change the daughter board to switch among different system modes, do not forget to change the relavant cable connections as you need.*

5. Align the connectors on the daughter board with the Expander Board card connectors. Vertically install the daughter board to the the Expander Board card with a little pressure.



6. Then install the daughter board bracket back to the chassis with screws.

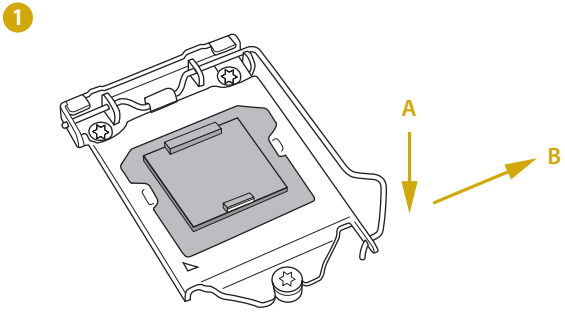


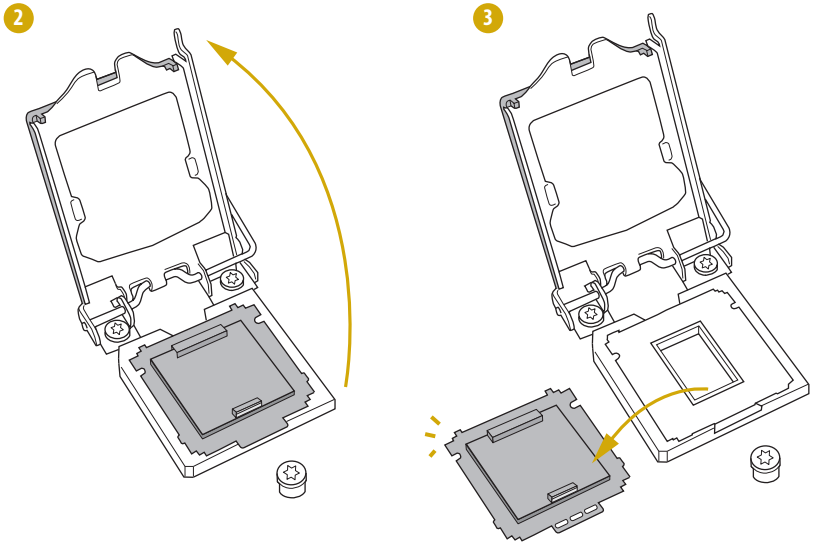
7. Replace the top cover.

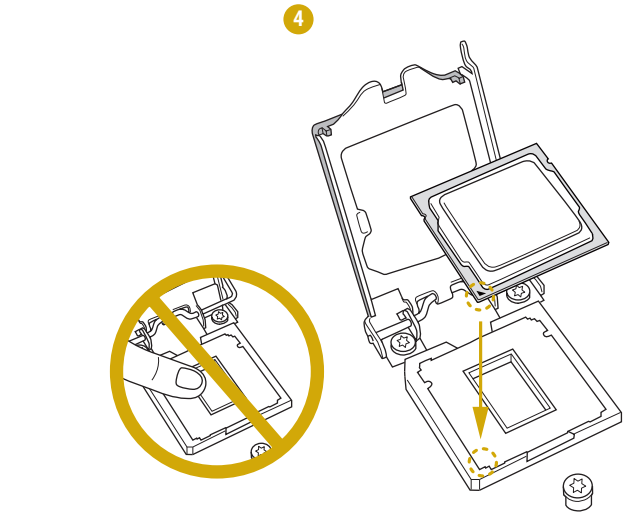
Appendix A

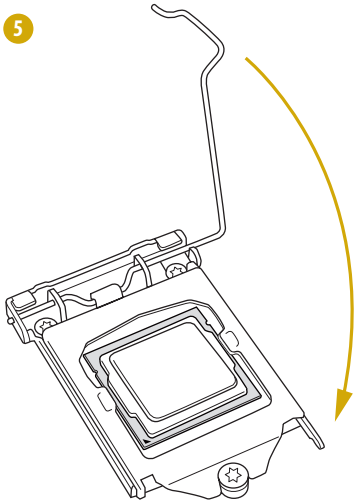
Installing the CPU

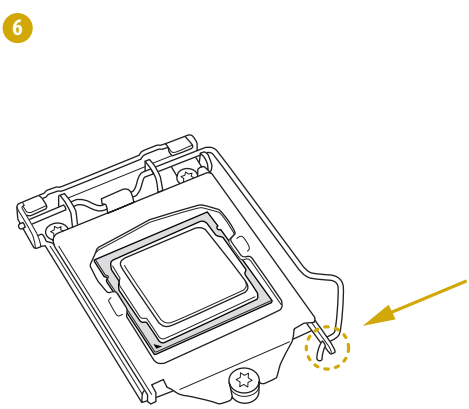
1. *Before you insert the 1150-Pin CPU into the socket, please check if the PnP cap is on the socket, if the CPU surface is unclean, or if there are any bent pins in the socket. Do not force to insert the CPU into the socket if above situation is found. Otherwise, the CPU will be seriously damaged.*
2. *Unplug all power cables before installing the CPU.*









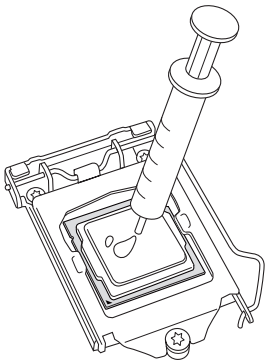


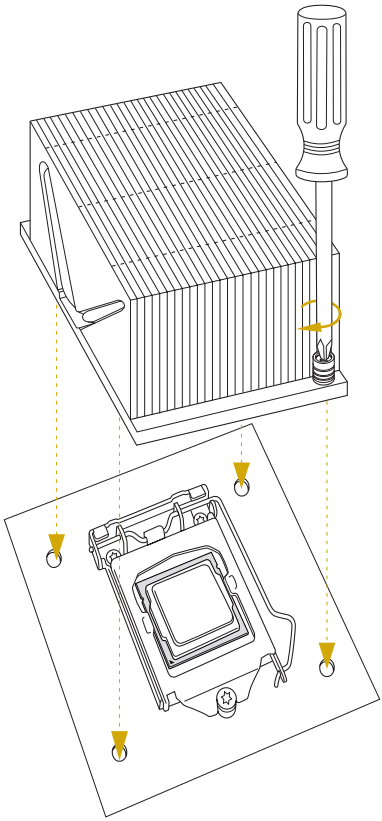
Please save and replace the cover if the processor is removed. The cover must be placed if you wish to return the motherboard for after service.

English

Installing the CPU Fan and Heatsink

Before you installed the heatsink, you need to spray thermal interface material between the CPU and the heatsink to improve heat dissipation.

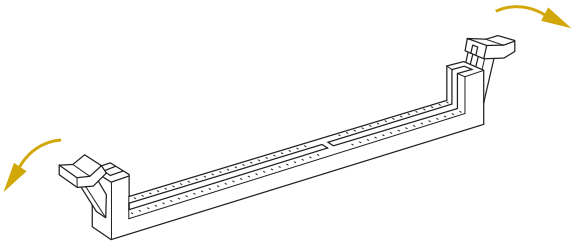




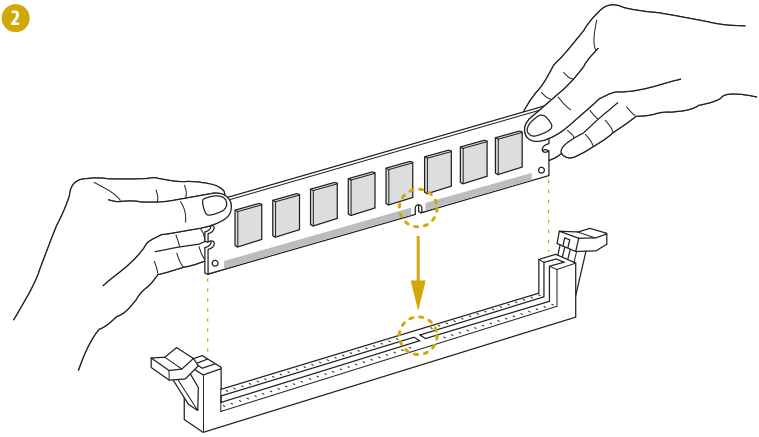
Installation of Memory Modules (DIMM)

The DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the DIMM if you force the DIMM into the slot at incorrect orientation. For more information about DIMM installation, please refer to the User Manual that comes with the serverboard you use.

1



2



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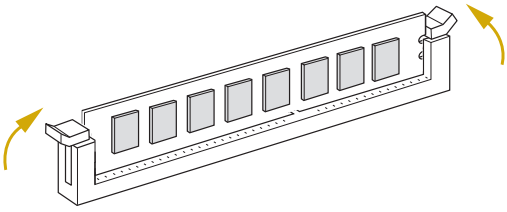


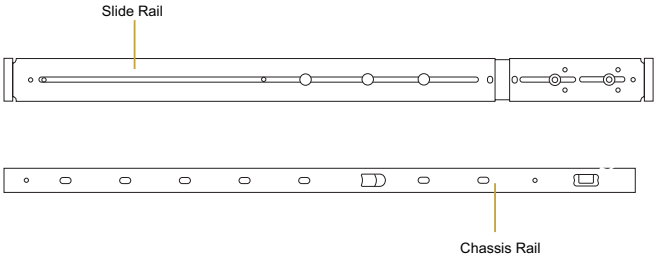
Appendix B

Installing the Server in a Rack

This section describes how to rackmount the server with slide rail assemblies.

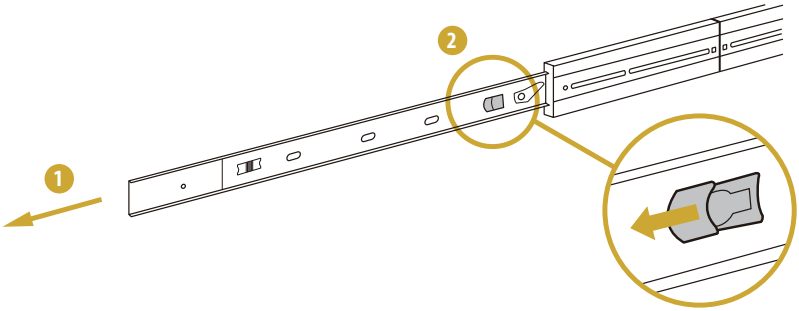
1. *The rails installation instructions in this manual are example only, your actual rail assembly procedure may differ slightly .*
2. *Please purchase the rail assembly seperately if needed.*

The slide rail assembly consists of a chassis rail and a slide rail.
You need to attach the chassis rails to the server and attach the slide rail assemblies to the rack.



Removing the Chassis Rail from the Slide Rail Assembly

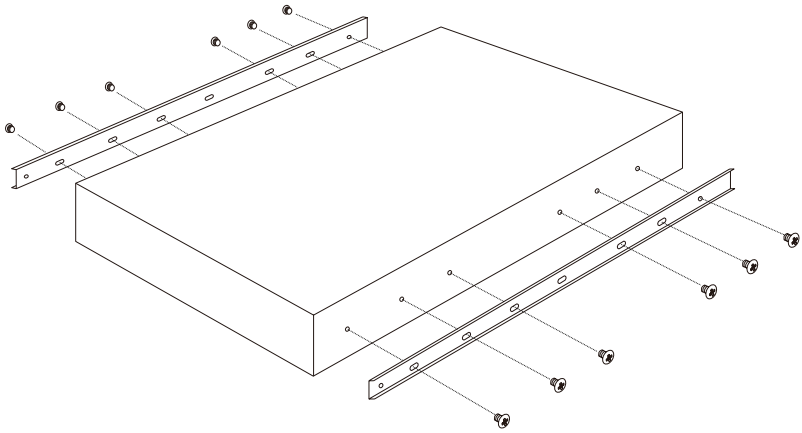
1. Pull out the inner chassis rail from the rail assembly.
2. Push the white chassis rail release button toward the front, and simultaneously withdraw the chassis rail from the slide rail assembly.
3. Repeat for the remaining rail assembly.



To slide a chassis rail back into the slide rail assembly, slide the blue release tab toward the rear, and simultaneously slide the chassis rail into the slide rail assembly until it is locked and cannot be pushed further.

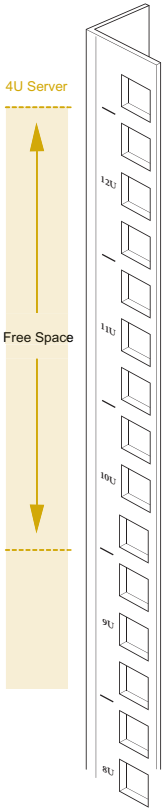
Attaching the Chassis Rails to the Server

1. Position a chassis rail along one side of the chassis, and align the keyhole openings on the chassis rail with the keyhole openings on the side of the chassis.
2. Secure the chassis rail to the server chassis with screws.
3. Repeat for the remaining chassis rail.

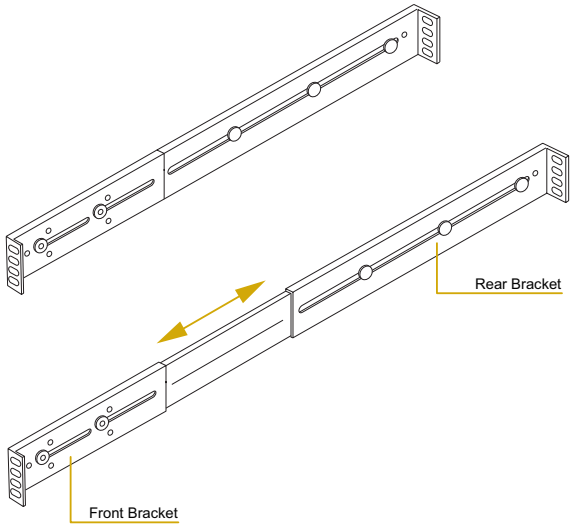


Attaching the Slide Rail Assemblies to the Rack

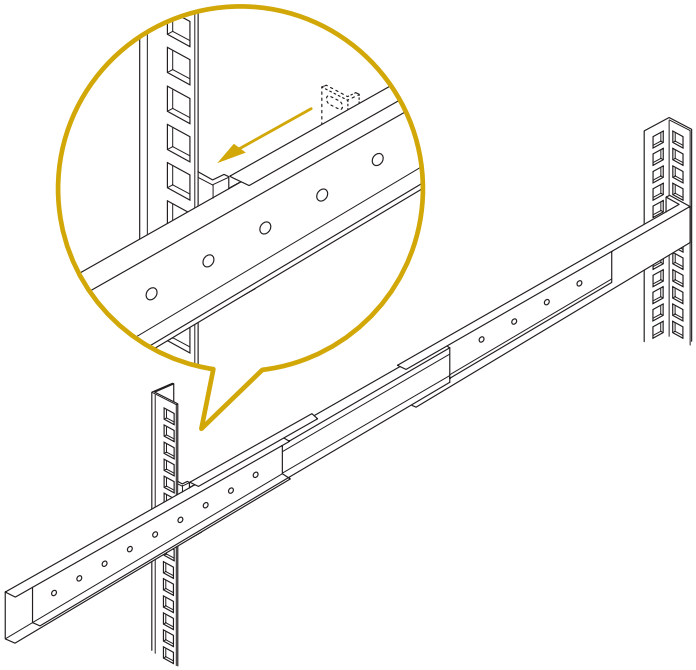
1. Determine where to attach the slide rails. Make sure you have enough free space above the slide rail bracket for the chassis.



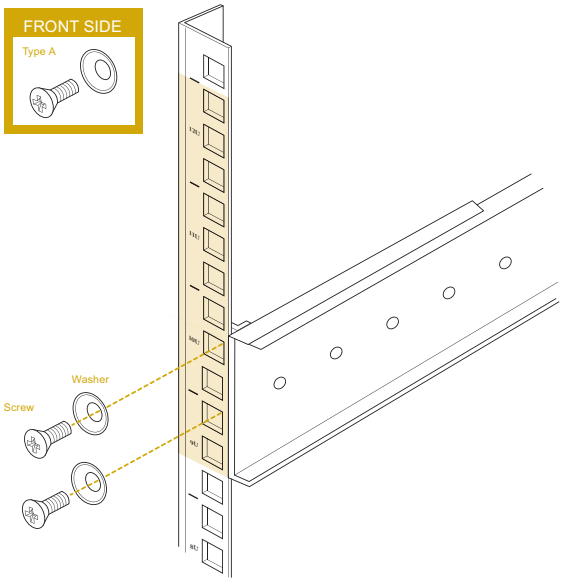
2. Extend the pre-attached front and rear adjustable brackets on the slide.

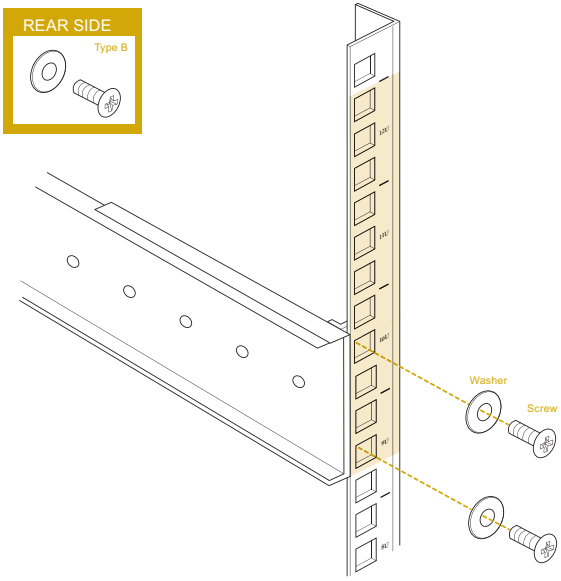


3. Adjust the brackets to accommodate the depth of the rack.



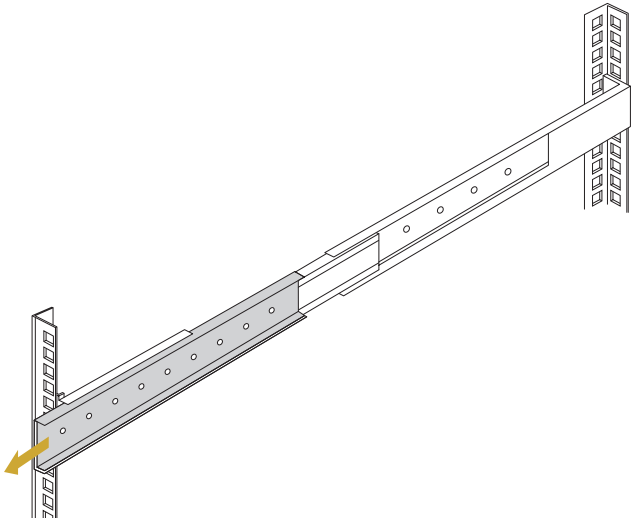
4. Align the holes on the brackets with the mounting holes you selected on the rack.
5. Add a washer between the screw and the cabinet rail. Tighten the screw to secure the slide rails to the rack.





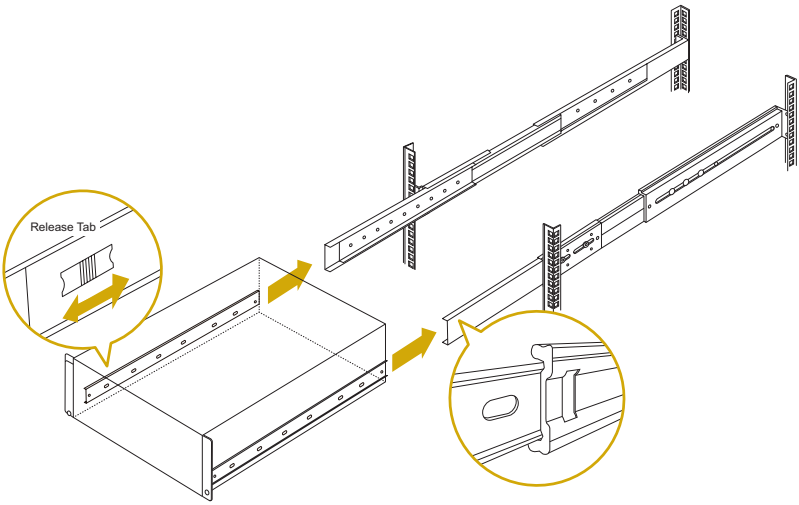
Sliding the Server into the Rack

1. Ensure that the slide rails are properly and securely attached to the rack.
2. Fully extend the slide rails from the rack by pulling the inner rails out until they are locked and cannot be pulled out further.

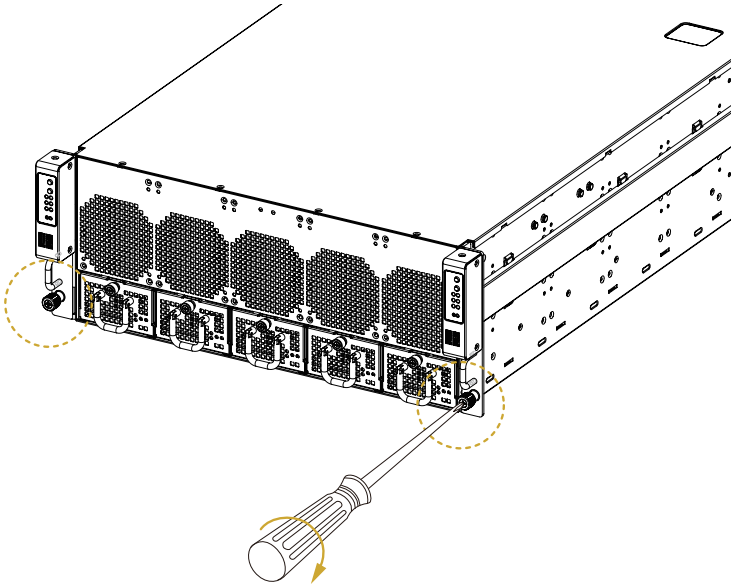


3. Slide the release tabs on both sides and slide the server slowly and evenly all the way into the cabinet to ensure that the slide assemblies are working correctly.

The server is heavy. For safe lifting, two or more persons are required to install the server into the rack.



4. Tighten the two thumb screws on the front of the server to secure the server to the rack.
5. To remove the server from the rack, reverse these instructions.



When connecting cables to the server, make sure there is enough cable slack so you can slide the server in and out of the rack without accidentally unplugging a cable.

Optional Accessory

Please purchase the following optional accessory seperately if needed.

Rail Assembly Kit	
Vendor	**Model Name**
KINGSLIDE	AR60-940