



RMC-2E

Rackmount Chassis User's Manual

Table of Contents

Preface	i
Safety Instructions	ii
About This Manual	iv
Chapter 1. Product Features	1
1.1 Components	1
1.2 Specifications	2
1.3 Feature	2
Chapter 2. Hardware Setup	6
2.1 Top Cover	6
2.2 Power Supply Unit Module.....	7
2.3 Fan Module	8
2.4 Hard Disk Drive	9
2.5 Riser Card.....	10
2.6 Chassis Ear Mount	11
2.7 Power Supply Unit and Disk Drive Cage	12
2.8 Slide Rail	14
Chapter 3. Hardware Specification	17
3.1 Drive Backplane	17
Chapter 4. Technical Support	18

Document Release History

Release Date	Version	Update Content
March, 2021	1	User's Manual release to public.



Copyright© 2021 AIC®, Inc. All Rights Reserved.

This document contains proprietary information about AIC® products and is not to be disclosed or used except in accordance with applicable agreements.

Preface

Copyright

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photo-static, recording or otherwise, without the prior written consent of the manufacturer.

Trademarks

All products and trade names used in this document are trademarks or registered trademarks of their respective holders.

Changes

The material in this document is for information purposes only and is subject to change without notice.

Warning

1. A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.
2. Use only shielded cables to connect I/O devices to this equipment.
3. You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Disclaimer

AIC shall not be liable for technical or editorial errors or omissions contained herein. The information provided is provided "as is" without warranty of any kind. To the extent permitted by law, neither AIC or its affiliates, subcontractors or suppliers will be liable for incidental, special or consequential damages including downtime cost; lost profits; damages relating to the procurement of substitute products or services; or damages for loss of data, or software restoration. The information in this document is subject to change without notice.

Instruction Symbols

Special attention should be given to the instruction symbols below.



NOTE

This symbol indicates that there is an explanatory or supplementary instruction.



CAUTION

This symbol denotes possible hardware impairment. Upmost precaution must be taken to prevent serious hardware damage.



WARNING

This symbol serves as a warning alert for potential body injury. The user may suffer possible injury from disregard or lack of attention.

Safety Instructions

Before you commence, please attentively read the following important discretions below. All cautions and warnings on the equipment or in the manuals should be circumspactly noted and reviewed.

Always ground yourself to prevent static electricity.

請全程接地，以防止靜電。

请全程接地，以防止静电。

Всегда заземляйте себя, чтобы избежать статического электричества.

Aard jezelf altijd om statische elektriciteit te voorkomen.

- Firmly ground yourself at all times when installing or assembling the internal components of the server. Most of electronic components in the server are highly sensitive to electrical static discharge.
- Use a solid grounding wrist strap and distintively place all electronic components in static-shielded devices to prevent static. Grounding wrist straps can be purchased in any electronic supply store.
- Confirm that the power source is turned off and then disconnect the power cords from your system before performing any type of installation or manual servicing. A sudden surge of power could serverly damage the sensitive electronic components.
- Do not precipitously open the system's top cover. If you must open the cover for maintenance purposes, only a trained technician should be allowed to proceed this action. Integrated circuits on computer boards are highly sensitive to static electricity. Before operating a board or integrated circuit, touch an unpainted portion of the system unit chassis for a couple of seconds to discharge any static electricity on your body.

Place the server in a stable environment.

請將伺服器放置在穩定的環境中。

请将伺服器放置在穩定的環境中。

Поместите сервер в стабильную среду.

Plaats de server in een stabiele omgeving.

- Place this equipment on a stable surface when installing. A small mild drop or fall could cause fatal injury to both the equipment and the person handling the equipment.
- Please keep this equipment away from humidity to prevent vast rust and disintergration.
- Carefully and accurately mount the equipment into the rack. Uneven mechanical loading may lead to hazadous consequences.
- This equipment is to be installed for operation in an environment with maximum ambient temperature below 35°C.
- Review the environment before performing any installation or servicing. Keep the equipment away from hazardous and uneven grounds.
- This server must be installed only in Restricted Acss Locations.

Handle equipment with care.

請謹慎操作設備。

请谨慎操作设备。

Обращайтесь с оборудованием осторожно.

Behandel de apparatuur voorzichtig.

- Do not cover the openings of the system. The openings on the system are for air convection, which intentionally protect the equipment from overheating.
- Never pour any liquid into ventilation openings of the system. This could cause catastrophic fire or electrical shock.

- Ensure that the voltage of the power source is within the specification on the label when connecting the equipment to the power outlet. The current load and output power of loads must be within the specification.
- This equipment must be firmly connected to reliable grounding before usage. Pay special attention to power supplied other than direct connections, e.g. using of power strips.
- Place the power cord out of the way of foot traffic. Do not place anything over the power cord. The power cord must be rated for the product, voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product.

Pay attention to hardware maintenance.

注意硬體維護。

注意硬体维护。

Обратите внимание на обслуживание оборудования.

Besteed aandacht aan hardware-onderhoud.

- If the equipment is not used for a long time, disconnect the equipment from mains to avoid being damaged by transient over-voltage.
- Module and drive bays must not be empty. They must have a dummy cover.
- Never open the equipment without professional assistance. For safety reasons, only qualified service personnel should open the equipment.
- If one of the following situations arise, the equipment should be checked and tested by service personnel:
 1. The power cord or plug is damaged.
 2. Liquid has penetrated the equipment.
 3. The equipment has been exposed to moisture.
 4. The equipment does not work well or will not work according to its user manual.
 5. The equipment has been dropped and/or damaged.
 6. The equipment has obvious signs of breakage.
 7. Please disconnect this equipment from the AC outlet before cleaning. Do not use liquid or detergent for cleaning. The use of a moisture sheet or cloth is recommended for cleaning.



CAUTION

The equipment intended for installation should be placed in Restricted Access Location.



CAUTION

There will be a risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions. After performing any installation or servicing, make sure the enclosure is correct in position before turning on the power.



CAUTION

This unit may have more than one power supply. Disconnect all power sources before maintenance to avoid electric shock.



About This Manual

Thank you for selecting and purchasing RMC-2E.

This user's manual is provided for professional technicians to perform easy hardware setup, basic system configurations and quick software startup. This document pellucidly presents a brief overview of the product design, device installation and firmware settings for 2E Rackmount Chassis. For the latest version of this user's manual, please refer to the AIC® website. RMC-2E is a flexible rackmount storage chassis with tool-less design. This product supports hot swappable HDDs and easy swap fans.

Chapter 1 Product Features

This chapter delivers the overall layout of the product, including the fundamental components of the rackmount chassis, design specifications and noteworthy features.

Chapter 2 Hardware Setup

This chapter displays an easy installation guide for assembling the chassis. Utmost caution for proceeding to set up the hardware is highly advised.

Chapter 3 Hardware Specifications

This chapter elaborates the overall layout of the hardware design, including multifarious connectors, jumpers and LED descriptions.

Chapter 4 Technical Support

For more information or suggestion, please contact the nearest AIC® corporation representative in your district or visit the AIC® website: <http://www.aicipc.com/en/index>. It is our greatest honor to provide the best service for our customers.

Chapter 1. Product Features

RMC-2E is a space saving rackmount management chassis with tool-less design. This product supports hot swappable HDDs and easy swap fans. For more information about our product, please visit our website at <http://www.aicpc.com/en/index>.

Before removing the subsystem from the shipping carton, visually inspect the physical condition of the shipping carton. Exterior damage to the shipping carton may indicate that the contents of the carton are damaged. If any damage is found, do not remove the components; contact the dealer where the subsystem was purchased for further instructions. Before continuing, first unpack the subsystem and verify that the number of components in the shipping carton is accurate and in good condition.

1.1 Components

This product contains the components listed below. Please confirm the number and the condition of the components before installation.

- Chassis (includes power supply, fan & hard disk drive cage)
- Power cord (vary per region)
- Slide rail x 1 set (optional)

Pre-installed into the system		Number
✓	800W redundant PSU 80+ Platinum	1+1
✓	2.5-inch external hot swap	4
✓	60x38mm easy swap fans	4
Accessory Item		Number
✓	EPE foam for top: 555*525*47H	1
✓	EPE foam for bottom: 555*525*87H	1
✓	PE bag: 56(O/W)*70CM,T=0.1MM	1
✓	Power cord	vary per region
BTO	18-inch tool-less slide rail assembly	1
	550W redundant PSU 80+ Platinum	1+1
	Low profile slot	7
	Support motherboard with PCIE 4.0 x8 and x16 slot	1

Product specifications and features are subject to change without prior notice.

1.2 Specifications








Dimensions (W x D x H)	mm : 438 x 450 x 88	
	inches : 17.2 x 17.7 x 3.5	
Industry Standard	EIA-RS310D	
Material	Heavy-duty preplated SPGC cold-rolled steel	
Color	Front Panel : Silver	
Cooling	Standard	4 x 60x38mm easy swap fans
	Option	4 x 60x38mm easy swap fans
Power Supply	Standard	800W 1+1 redundant PSU 80+ Platinum
	Option	550W 1+1 redundant PSU 80+ Platinum
Expansion Slot	Standard	2 PCIe x16 Gen4 dual slot + 1 PCIe x8 Gen4 single slot
	Option	7 low profile slot
Front Panel	System power on/off, system reset and 2 x USB ports	
LED Indicators	Power status, LAN activity and Drive activity	
System Board	Up to 12"(W) x 13"(D) EATX compliant MB	

Drive Bays	External	2.5" hot swap	4
Backplanes	· 2 x 2-port SATA backplane to support 4 SATA connectors · 2 x 2-port NVMe SSD backplane with 4 SFF-8639 connectors support and Oculink to host connection (optional)		
Storage Temperature	0°C(32°F) ~ 50°C(122°F)		
Humidity	5%~95% non-condensing		
Gross Weight	(w/ PSU; w/o Rail)	kgs : 13	
		lbs : 28.5	
Packaging Dimensions	(W x D x H)	mm : 655 x 580 x 244	
		inches : 25.8 x 22.8 x 9.6	
Cubic Feet	3.2		
Container Load Quantity	20'	295	
	40'	625	
	40' H	720	
Mounting	Standard	18" slide rail	

1.3 Feature

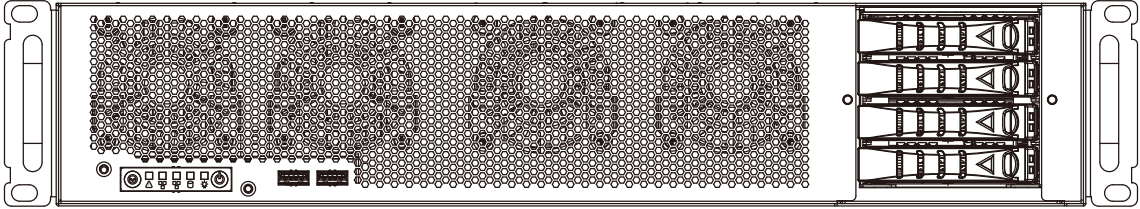
RMC-2E is a miniature 2U 4 bay rackmount chassis with adjustable front and rear panels that provide adjustability, compatibility and accessibility for your system.

- Flexible front I/O and rear I/O application options
- 4 x easy swap fans for superior cooling
- Supports GPU card with 2U riser card
- Support up to 4 x 2.5" external hot swap drive bays
- Includes a redundant PSU 80+ Platinum
- Two front access USB 3.0 ports
- Short-depth design for space critical applications
- Chassis design support motherboard with PCIe Gen4 card x8 and x16 (optional)

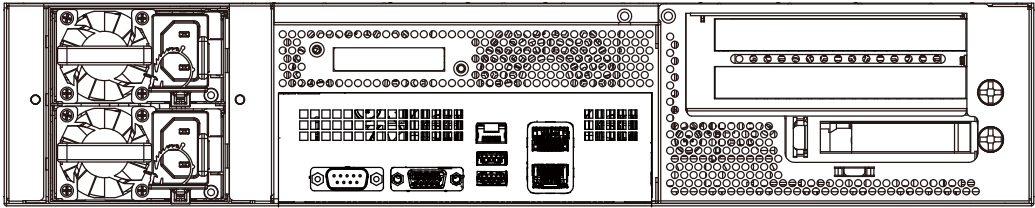
Item	Description	Item	Description
	System Power		LAN 1 & 2 LED
	Power Status LED		System Alert LED
	Drive Activity LED		System Reset
	USB 3.0 Type A port		

Config 1:
Motherboard I/O at rear

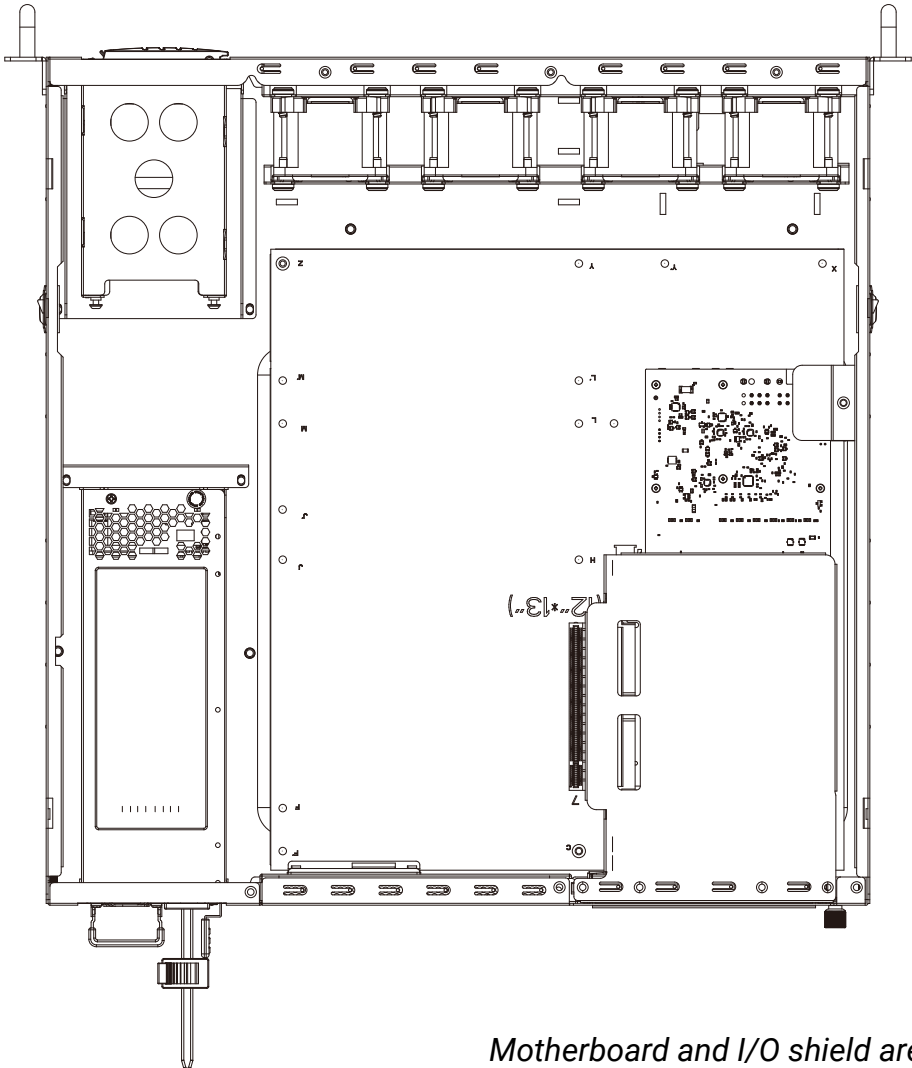
Front Panel



Rear Panel



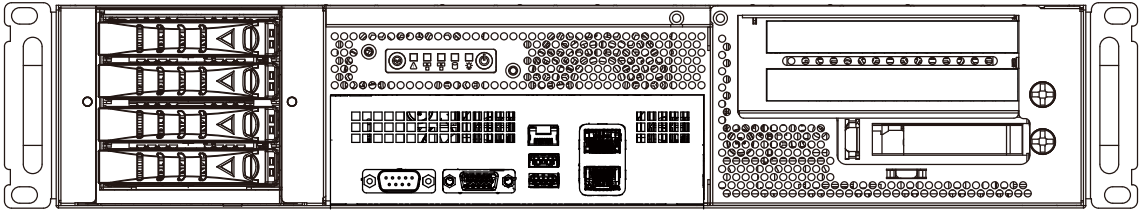
Top View



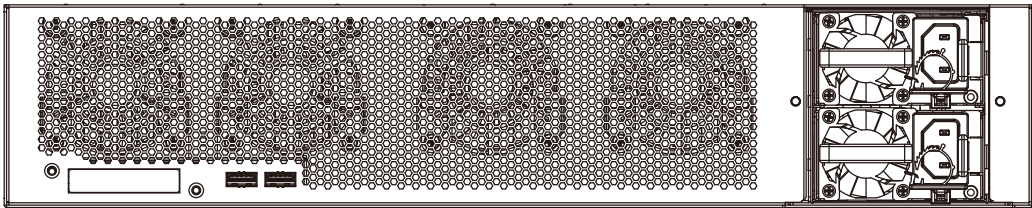
Motherboard and I/O shield are not included.

Config 2:
Motherboard I/O at front

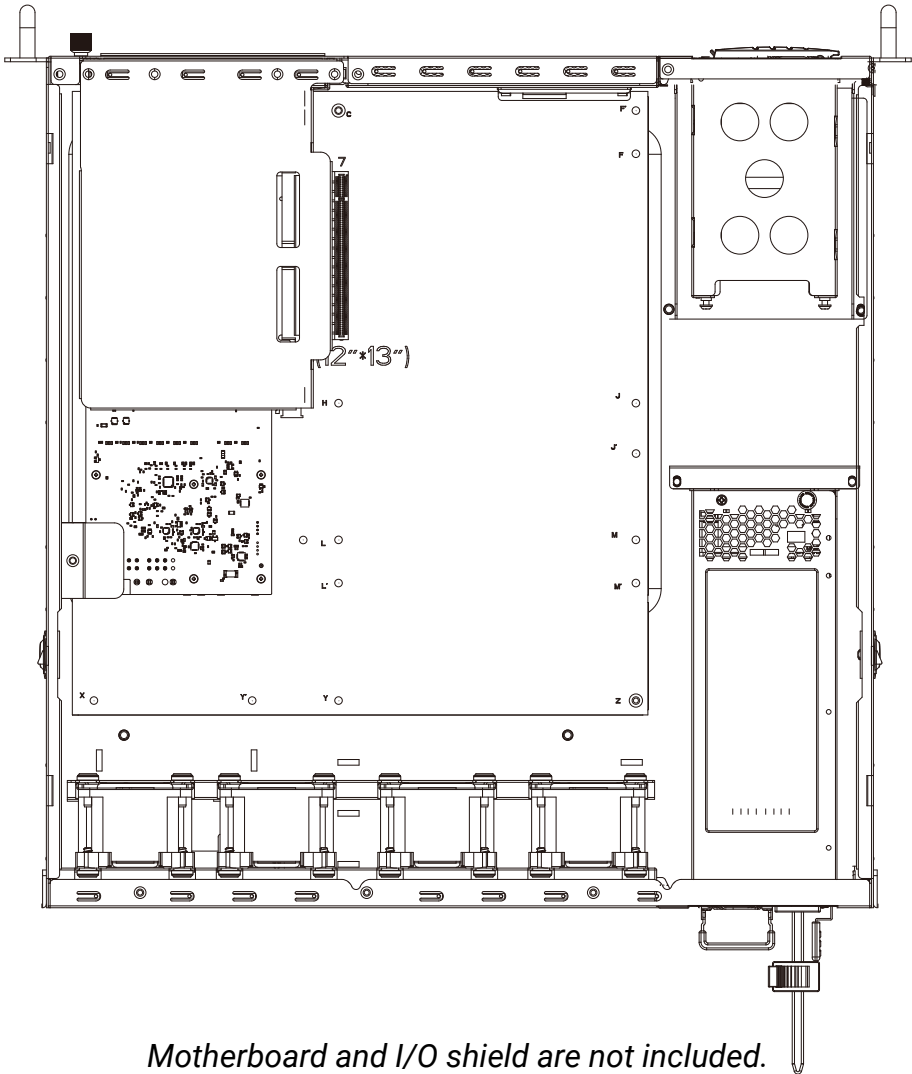
Front Panel



Rear Panel



Top View

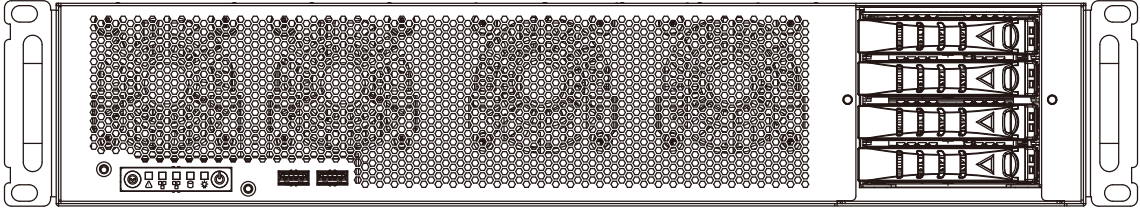


Motherboard and I/O shield are not included.

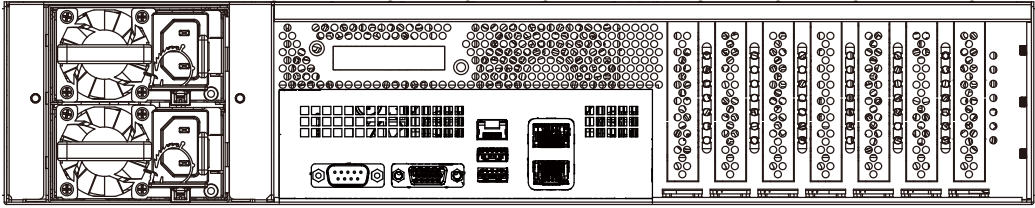
Optional:

Low-profile card at rear

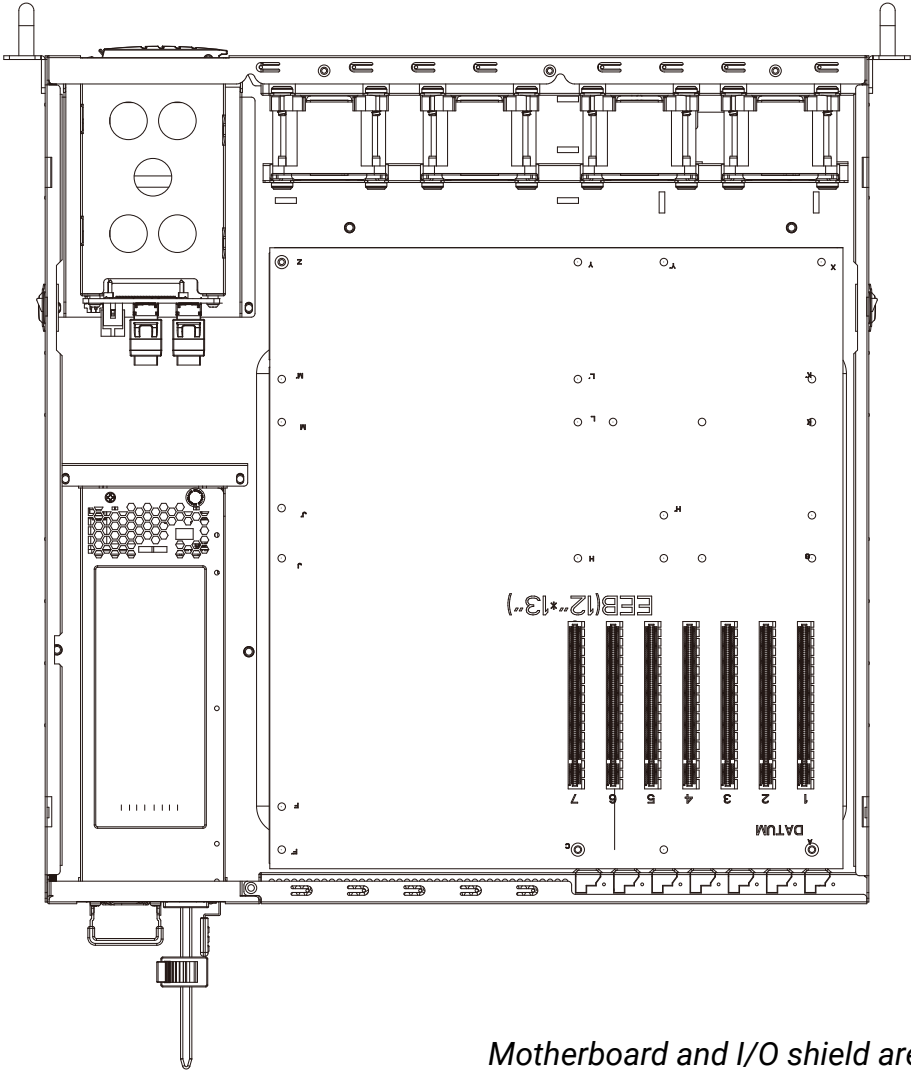
Front Panel



Rear Panel



Top View

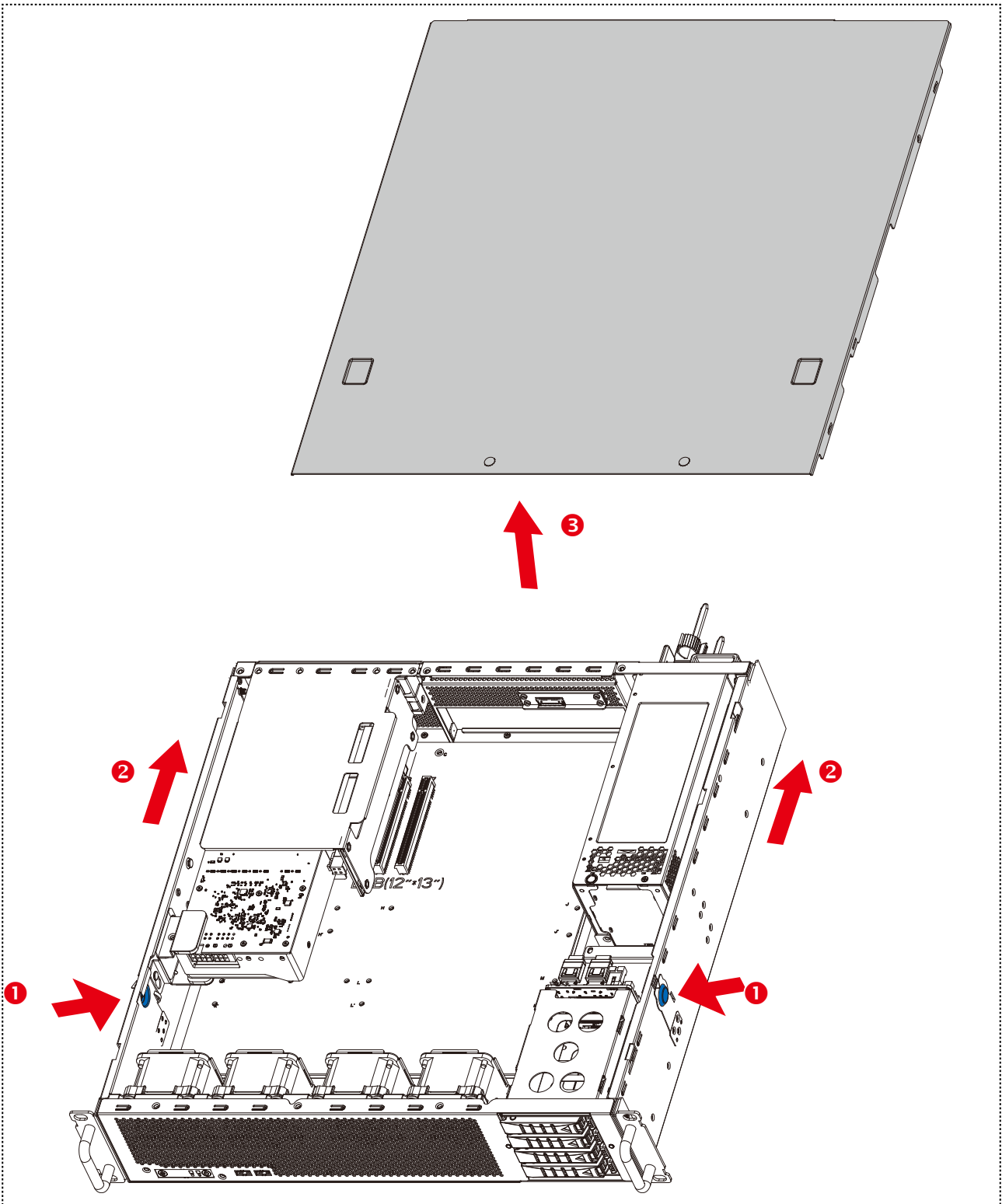


Motherboard and I/O shield are not included.

Chapter 2. Hardware Setup

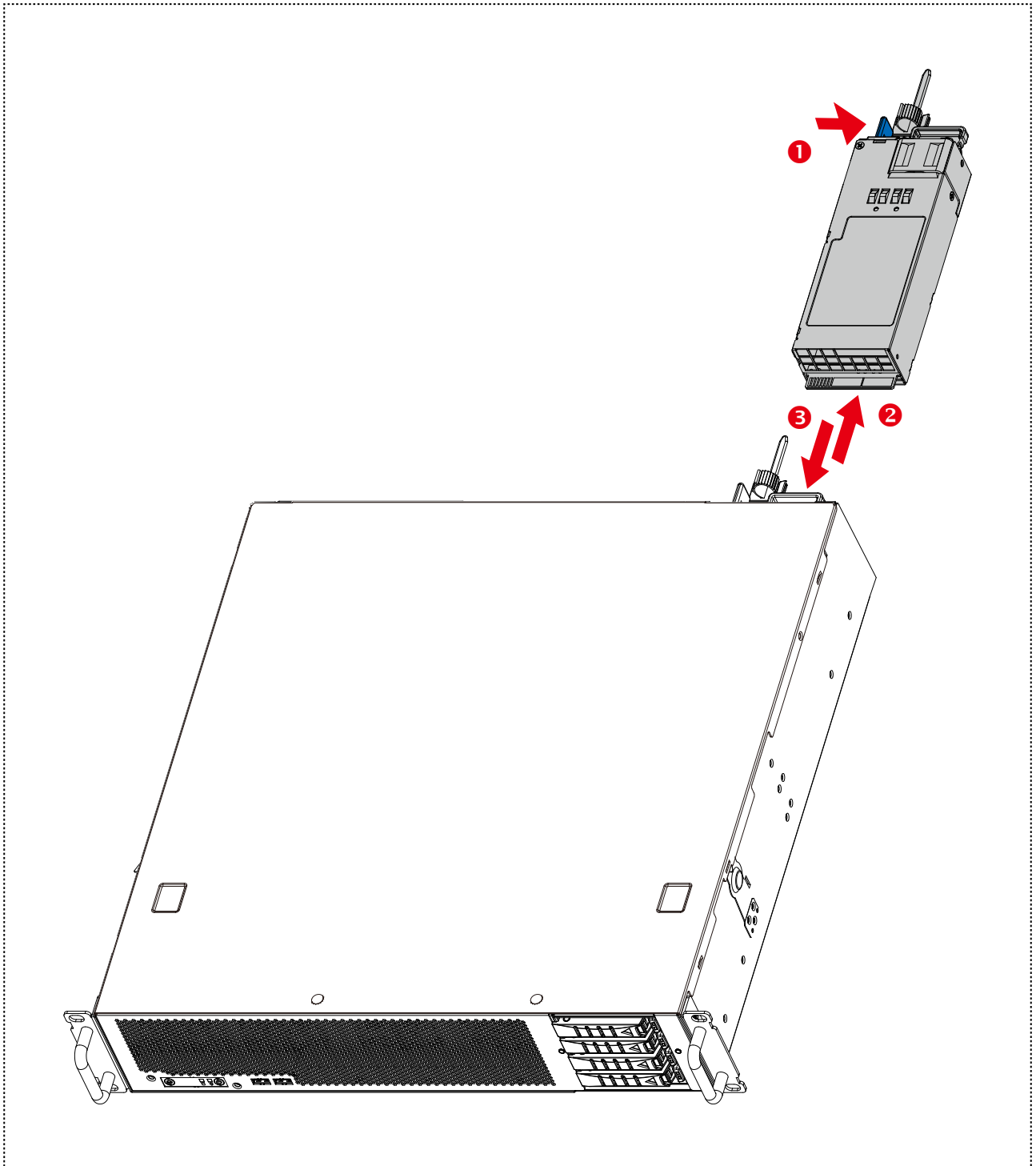
2.1 Top Cover

- ① Press the eject button on both sides of the chassis simultaneously to release the cover from the chassis.
- ② Push the cover towards the front panel.
- ③ Lift upward to remove the cover.



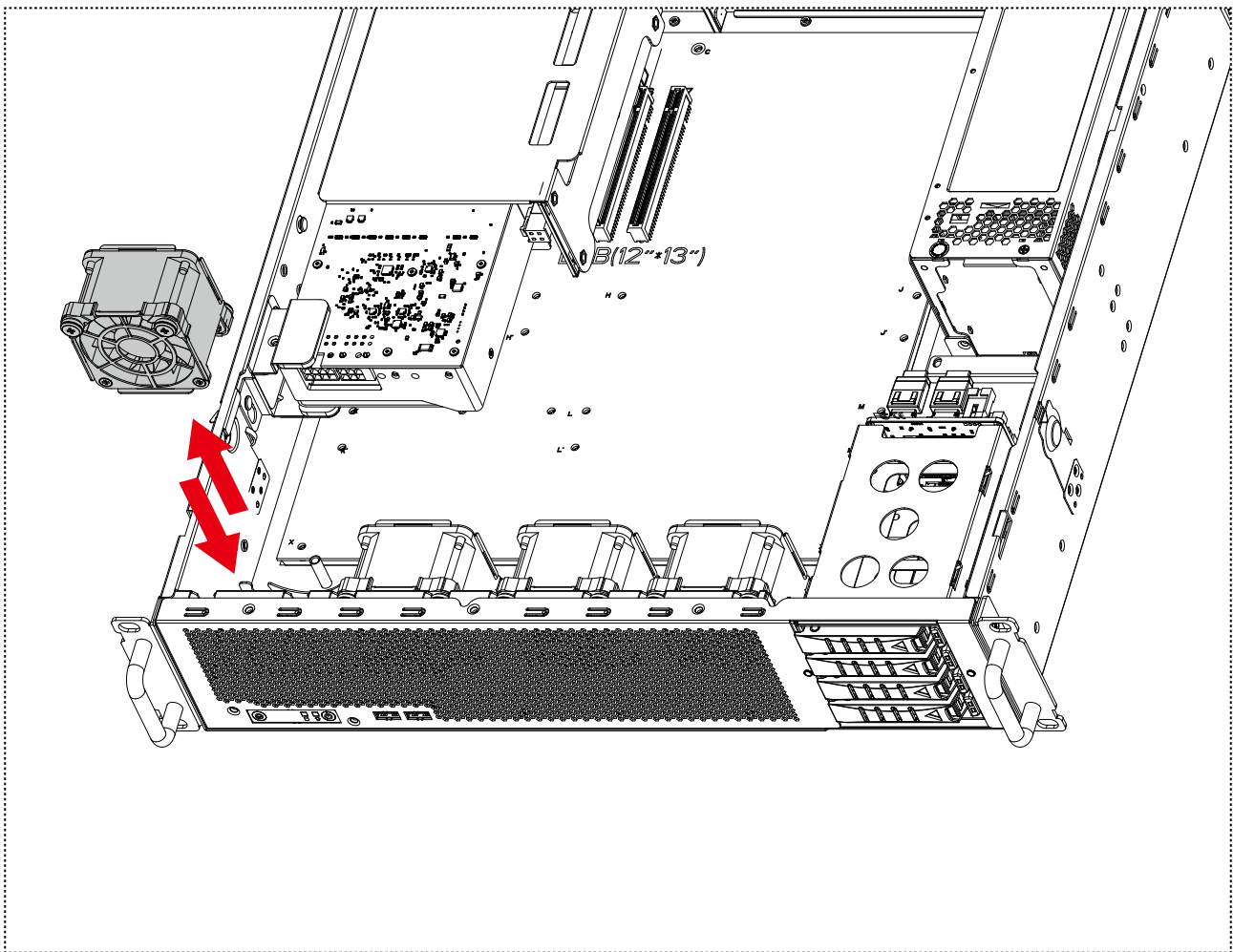
2.2 Power Supply Unit Module

- ① Press the ejector to release the module.
- ② Pull the handle to remove the module out of the chassis.
- ③ Push the replaced power supply unit into the chassis. Ensure that the module is hooked into the cage.

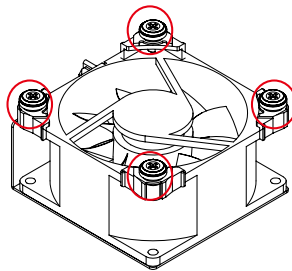


2.3 Fan Module

- ① Remove the top cover of the chassis. Please refer to [Section 2.1](#).
- ② Unplug the cables and connectors.
- ③ Remove the fan module by dislodging the screw on the fan bracket.
- ④ Lift the fan module upward. Check to carefully dislodge the rubber connectors from the attached bracket.
- ⑤ Insert the replaced fan into the chassis. Verify to align the rubber connectors with the appropriate slot in the bracket.



Rubber connector

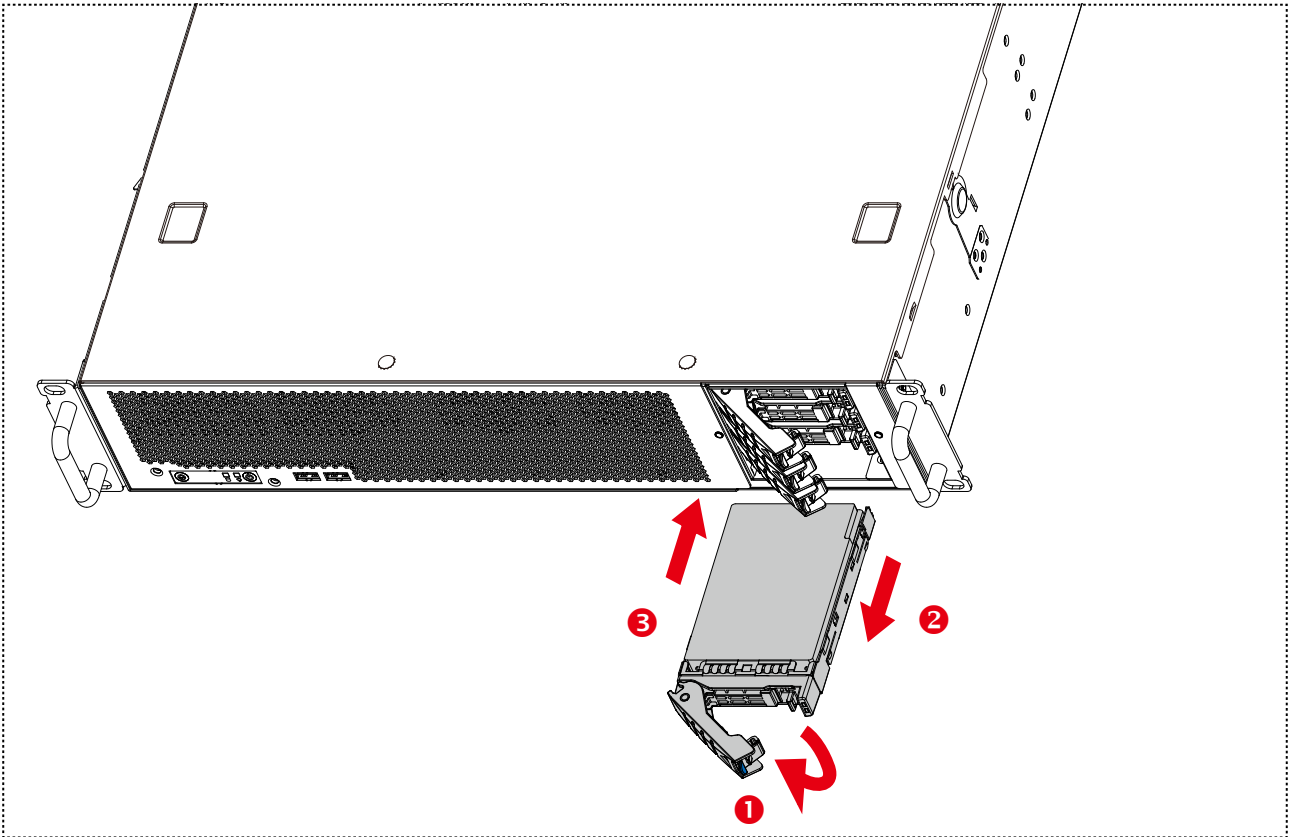


NOTE

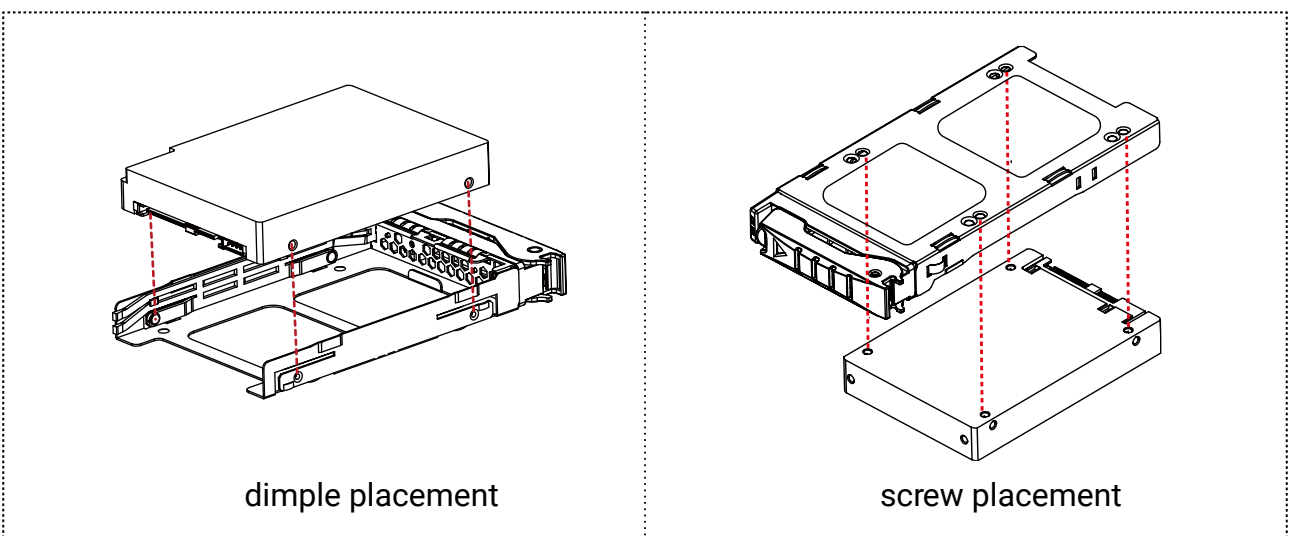
The fan module must be installed with the fan blowing in the direction of the motherboard. Please verify and install the direction and placement of the fan when swapping the positions of front and rear panel.

2.4 Hard Disk Drive

- ① Press the ejector on the tray to release the handle.
- ② Pull the tray handle completely outward.
- ③ Pull the drive tray out of the chassis.



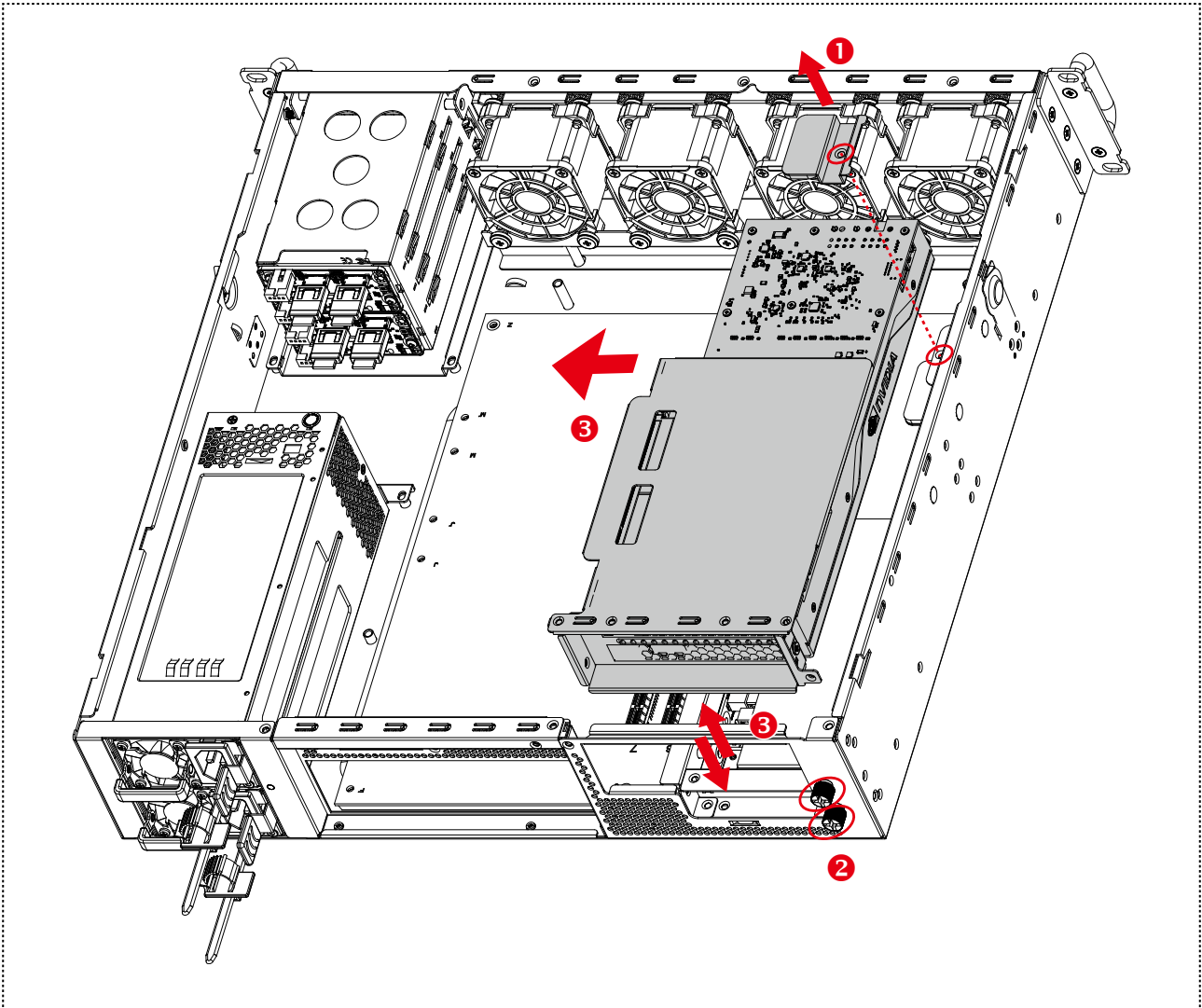
- ④ Insert the disk drive into the tray. Ensure that the dimples on the tray match the disk drive. For additional assurance, fasten the screws * 4 on the tray to secure the disk drive.



- ⑤ Push the tray with the installed disk drive into the end of the drive slot in the chassis.
- ⑥ Close the tray handle.

2.5 Riser Card

- ① Dislodge the screw on the metal support retaining the riser card.
- ② Loosen the captive screw.
- ③ Replace the riser card. Pull the riser card bracket outward and upward to remove.
- ④ Replace the riser card.



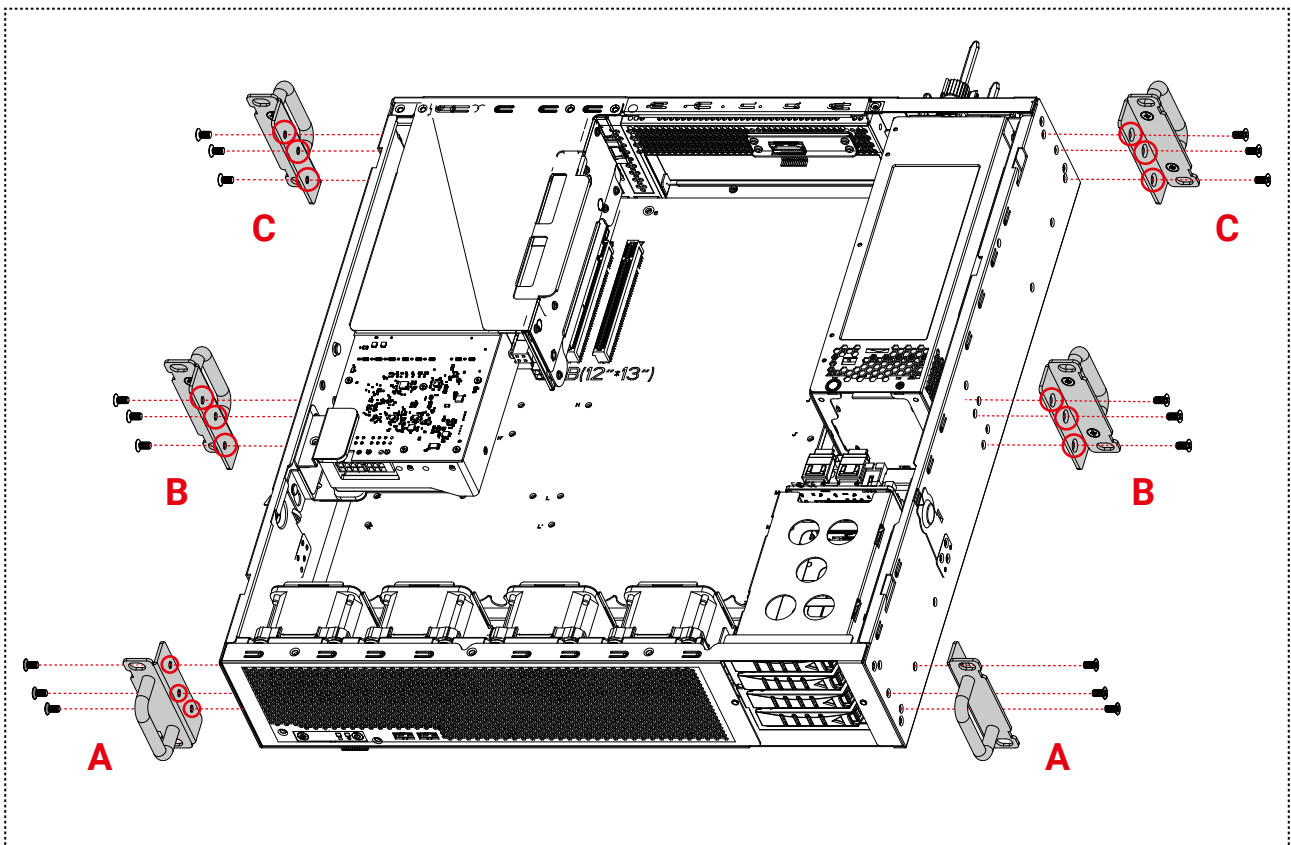
2.6 Chassis Ear Mount

- ① Verify the position of your rack frame with the corresponding placement of your chassis ear.
- ② Mount and screw the chassis ear onto the chassis.

NOTE

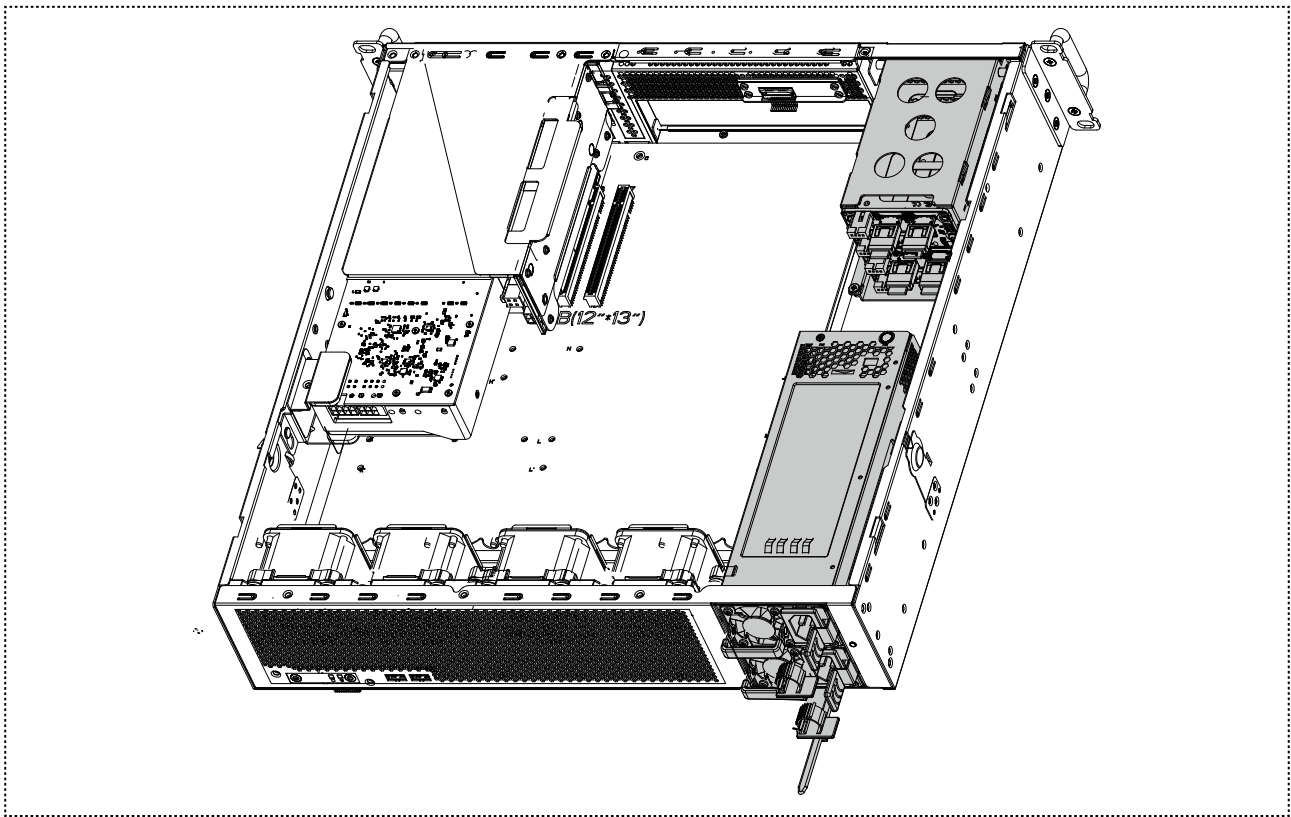


Each chassis is pre-installed with one pair of chassis ear near both sides side of front panel. The chassis ear can be installed in position A, B and C as demonstrated in the image below.

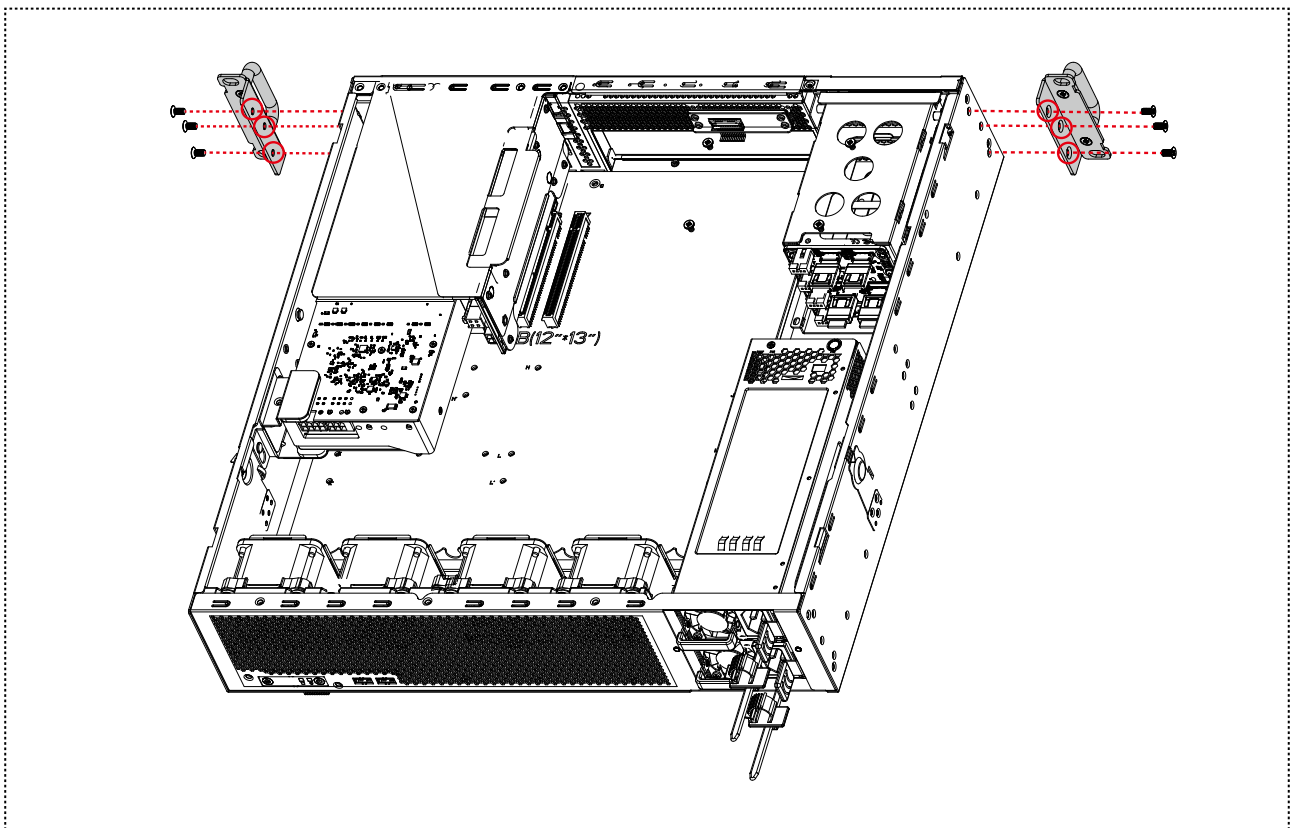


2.7 Power Supply Unit and Disk Drive Cage

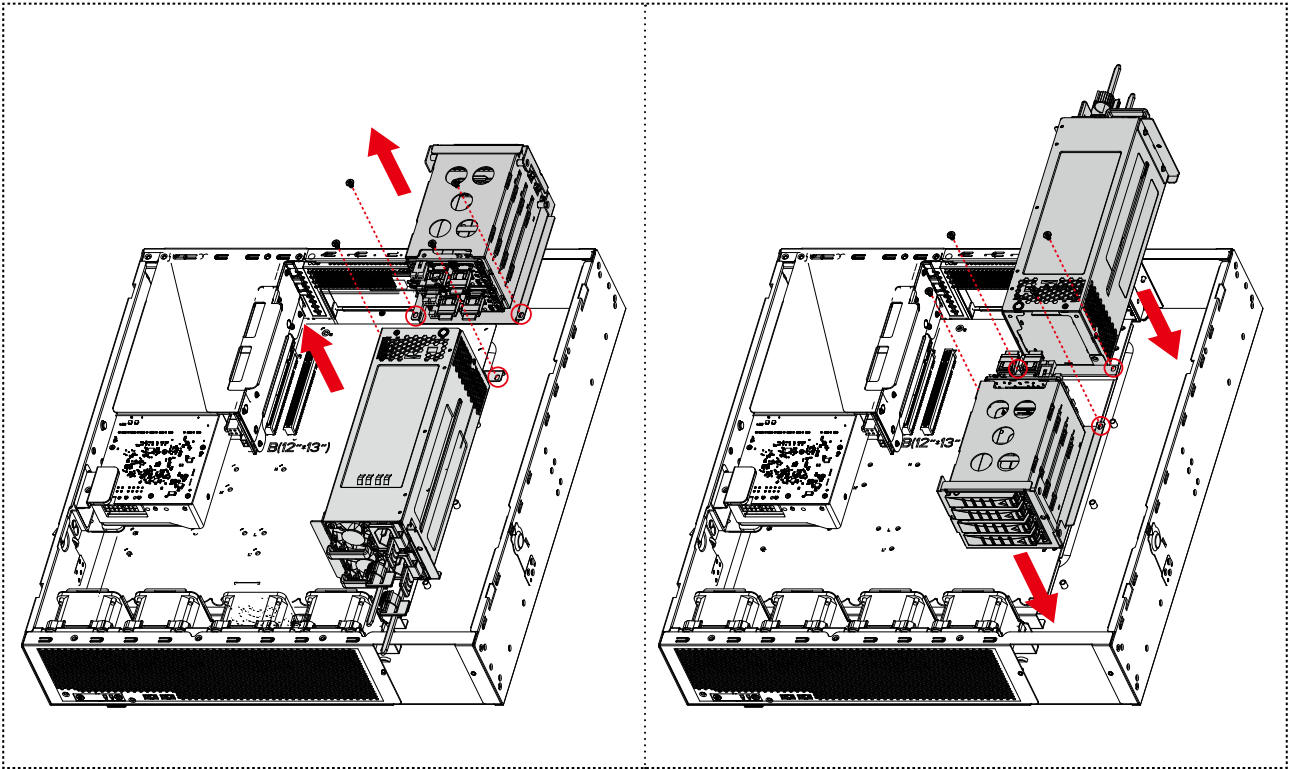
- ① Verify the placement of power supply unit and disk drive cage in your chassis.



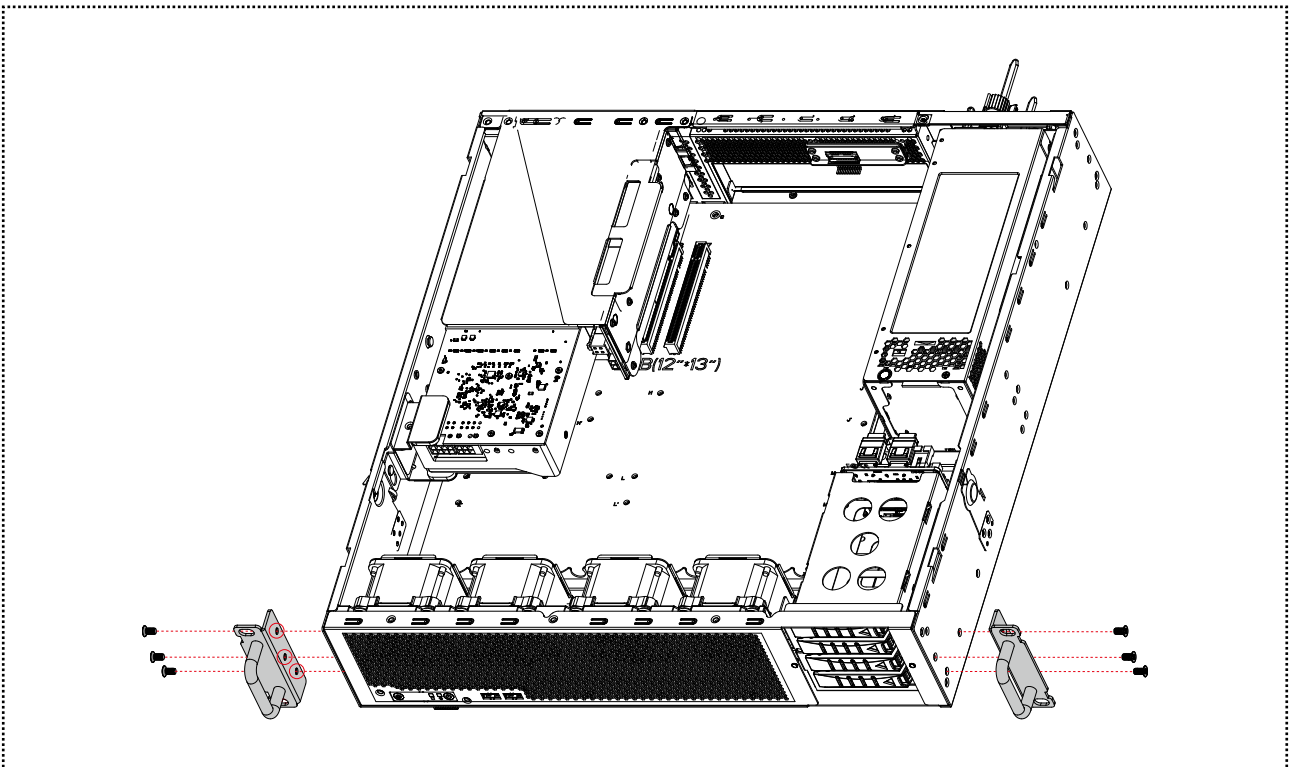
- ② Dislodge the chassis ear from both sides of the chassis.



- ③ Dislodge the screws on the HDD and PSU cage and lift the modules upward.
- ④ Replace the PSU cage with HDD cage and secure the screws.
- ⑤ Replace the HDD cage with the PSU and secure the screws.



- ⑥ Attach and secure the ear bracket on both sides of the chassis to complete installation.



2.8 Slide Rail

NOTE



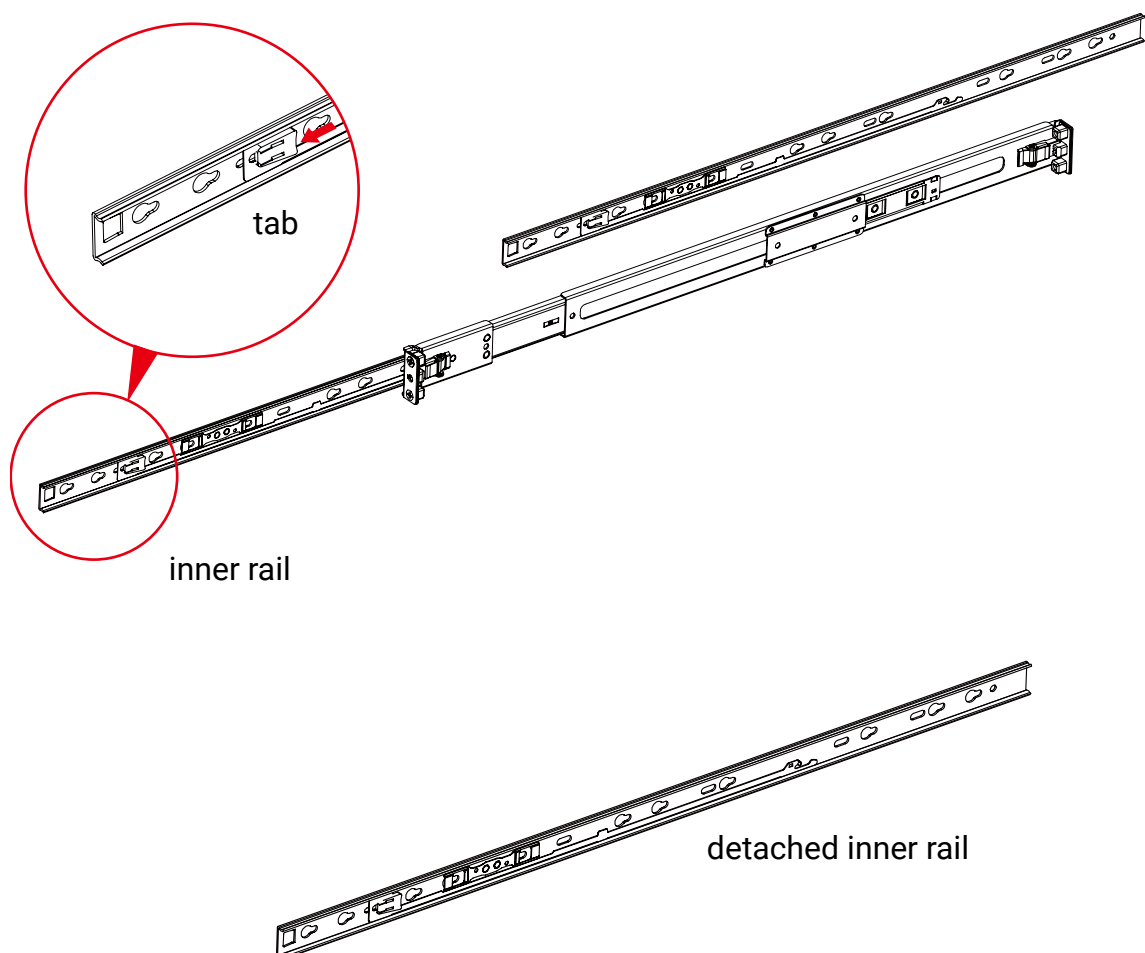
This sections provides a basic instruction for mounting the slide rail onto the system. Tool-less rails vary per order. The rail in this manual may not exactly match the rail for your system. Please refer to the specifications or quick installation guide that came with your purchased product.

CAUTION

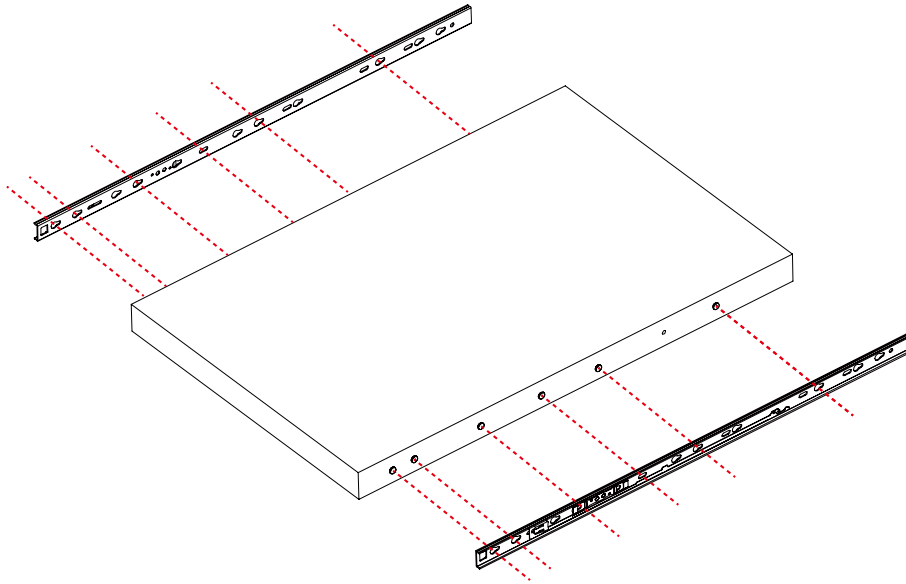


The rack may tilt and fall due to incorrect installation or placed on uneven grounds. The rack must be placed in a flat surface before you begin to slide the system barebone in for servicing.

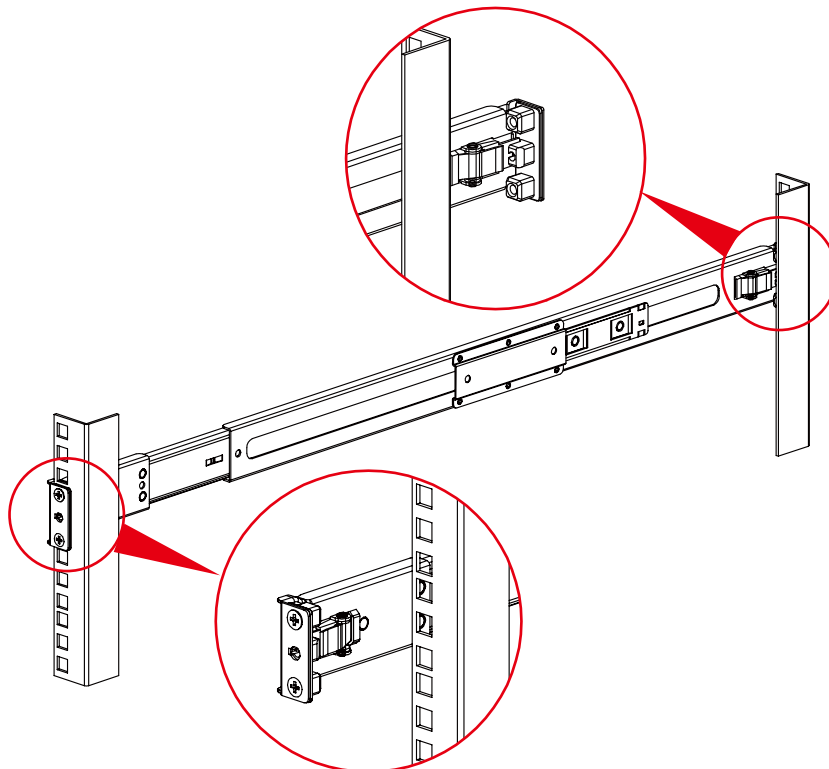
- ① Pull the inner rail out of the slide rail.
- ② Detach the inner rail completely from the slide rail by pulling the white tab forward.



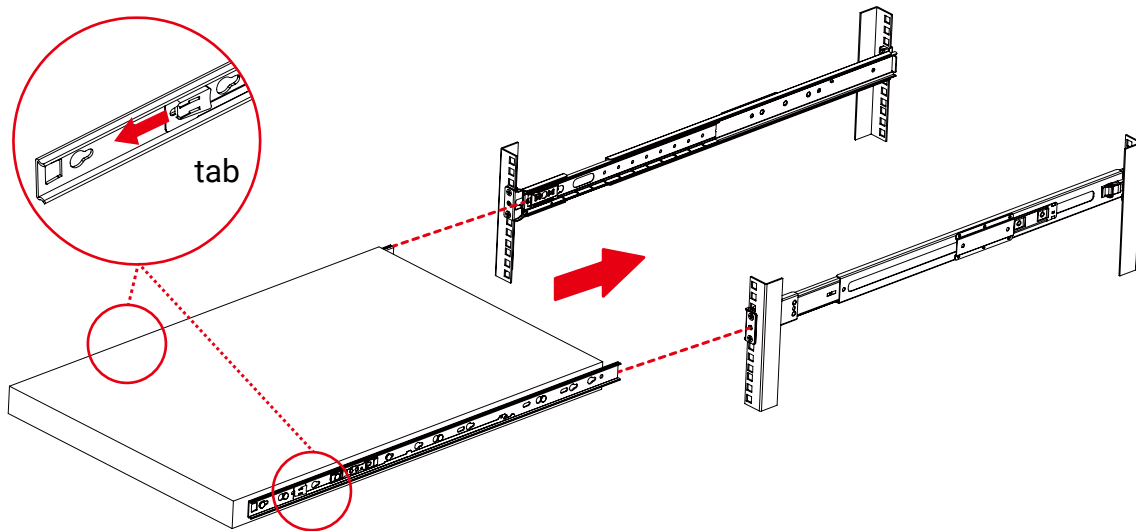
- ④ Install the inner rail onto the system barebone. Lock the keyholes.



- ⑤ Continue installing the outer rail bracket to the mounting frame. Attach the outer rail assembling to the frame and press the bracket to fix the rail onto the frame. Repeat to fully mount the bracket assembly.



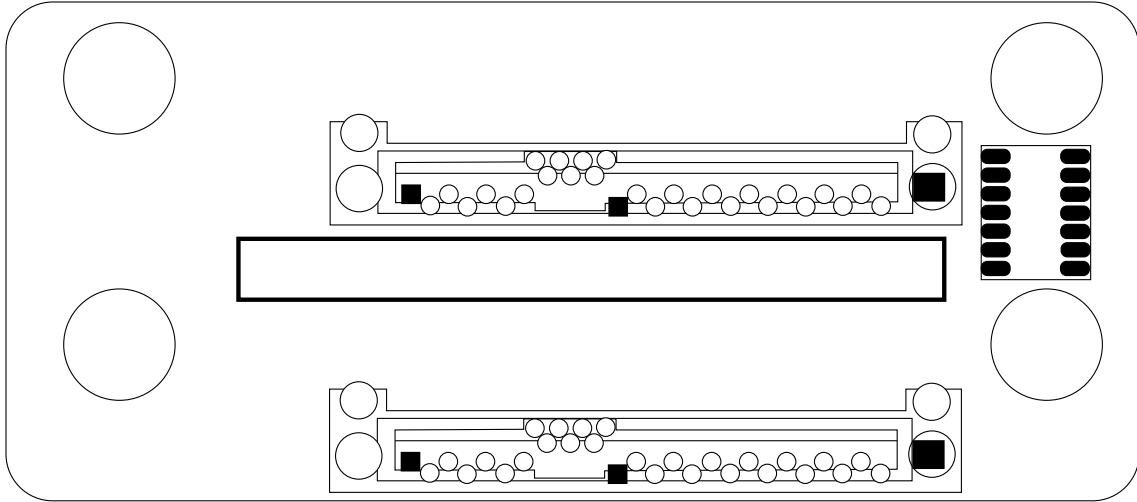
- ⑥ Slide the release tab and push barebone into rack. Make sure the barebone is completely installed onto the rack.



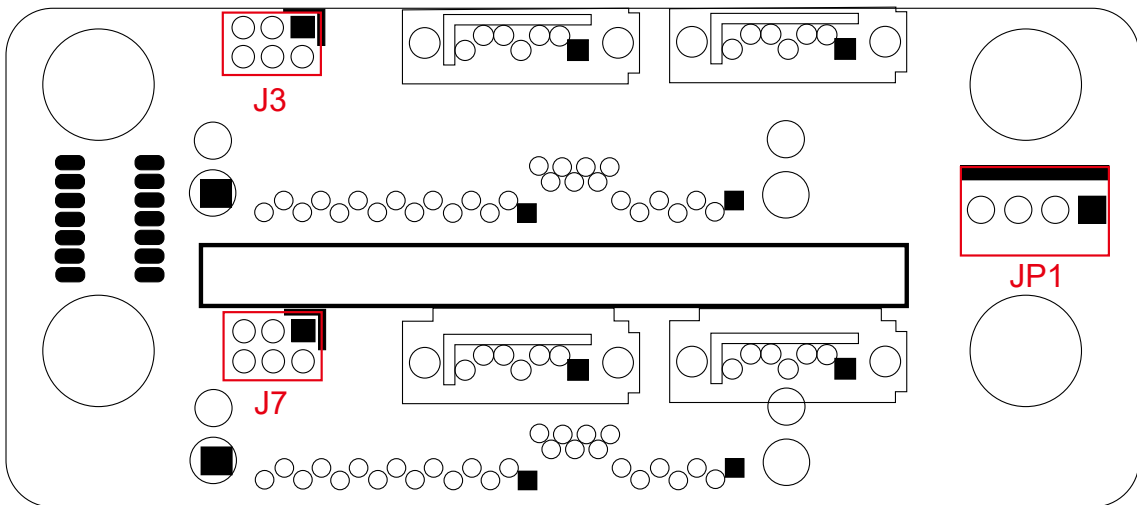
Chapter 3. Hardware Specification

3.1 Drive Backplane

Top View



Bottom View

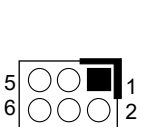


Power Connector (JP1)



1	+12V
2	GND
3	GND
4	+5V

LED I/O (J3 & J7)



	Pin	Description		Pin	Description
LED Signal Output	1	Fail LED-	From External Input Control	2	Fail LED0-
	3	4V3		4	GND
	5	ACC LED0-		6	ACC LED0-

Chapter 4. Technical Support



www.aicipc.com

Taiwan, Global Headquarters

Address: No. 152, Section 4,
Linghang N. Rd, Dayuan District,
Taoyuan City 337, Taiwan
Tel: +886-3-433-9188
Fax: +886-3-287-1818
Sales Email: sales@aicipc.com.tw
Support Email: support@aicipc.com

Shanghai, China

Address: Room 215, Building 4, No.471
Guiping Road, Xuhui District, Shanghai City,
200233 China
Tel: +86-21-54961421
Sales Email: sales@aicipc.com.cn
Support Email: support@aicipc.com

Moscow, Russia

Address: Khoroshevskoye Shosse, 32A,
Office 403 (2nd Entrance, 4th Floor),
Moscow 123007, Russia
Tel: +7-4997019998
Sales Email: support-ru@aicipc.com.tw
Support Email: rma.russia@aicipc.com.tw

North California, United States

Address: 48531 Warm Springs
Boulevard Suite 404 Fremont, CA
94539, United States
Tel: +1-510-573-6730
Sales Email: sales@aicipc.com
Support Email: support@aicipc.com

South California, United States

Address: 21808 Garcia Lane
City of Industry, CA 91789,
United States
Toll free: + 1-866-800-0056
Tel: +1-909-895-8989
Fax: +1-909-895-8999
Sales Email: sales@aicipc.com
Support Email: support@aicipc.com

New Jersey, United States

Address: 322 Route 46 West Suite 100
Parsippany, NJ 07054 United States
Tel: +1-973-884-8886
Fax: +1-973-884-4794
Sales Email: sales@aicipc.com
Support Email: support@aicipc.com

Houten, The Netherlands

Address: Peppelkade 58, 3992AK, Houten,
The Netherlands
Tel: +31-30-6386789
Fax: +31-30-6360638
Sales Email: sales@aicipc.nl
Support Email: support@aicipc.com