SUGER



CX3151a

15" DEEP 3U CHASSIS
RISER GPU

ENGLISH

In this guide

This guide covers chassis access, component installation, and reassembly.

Choose your cooling configuration and check component clearances before starting assembly. Supported components may compete for the same space.

Before installation: Follow the installation instructions supplied with your motherboard, power supply, graphics card, and cooler.

Maintenance: Before opening a chassis that already has components installed, switch the system off and unplug it.

Fasteners: Tighten chassis fasteners by hand. Do not force a screw that does not thread correctly.

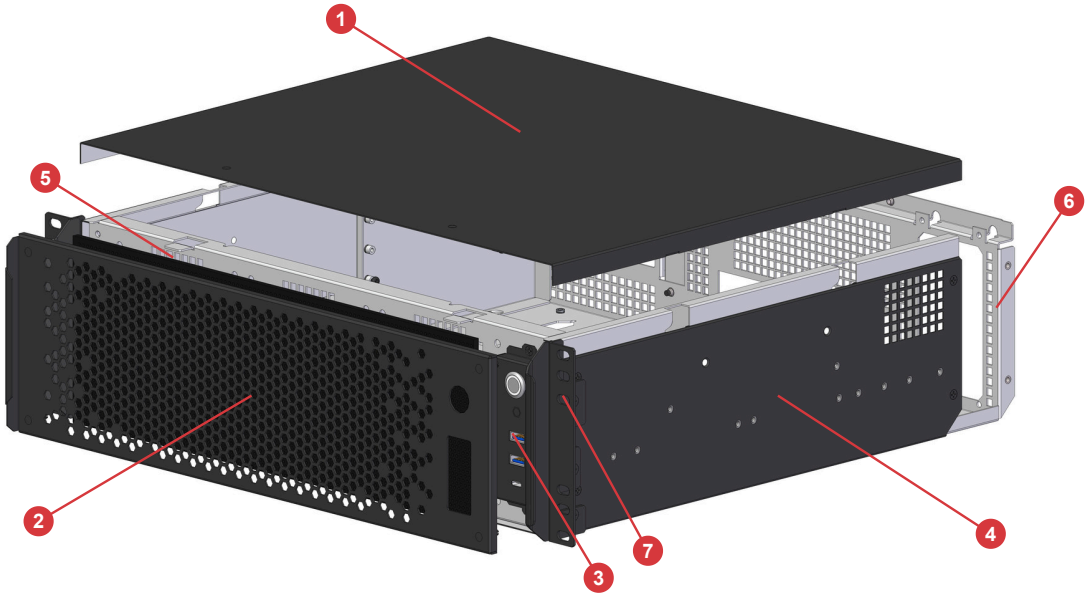
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Exploded assembly & part key

Assembly part key

No.	Part	Related procedure
1	Lid	Remove the lid (page 9)
2	Faceplate	Remove the faceplate & filter (page 10)
3	Front I/O assembly	Front ports & connections (page 8)
4	Chassis wrap	Main chassis body
5	Filter foam	Remove the faceplate & filter (page 10)
6	Motherboard tray	Remove the motherboard tray (page 11)
7	Rack ear & pull handle	Install rack ears & handles (page 12)

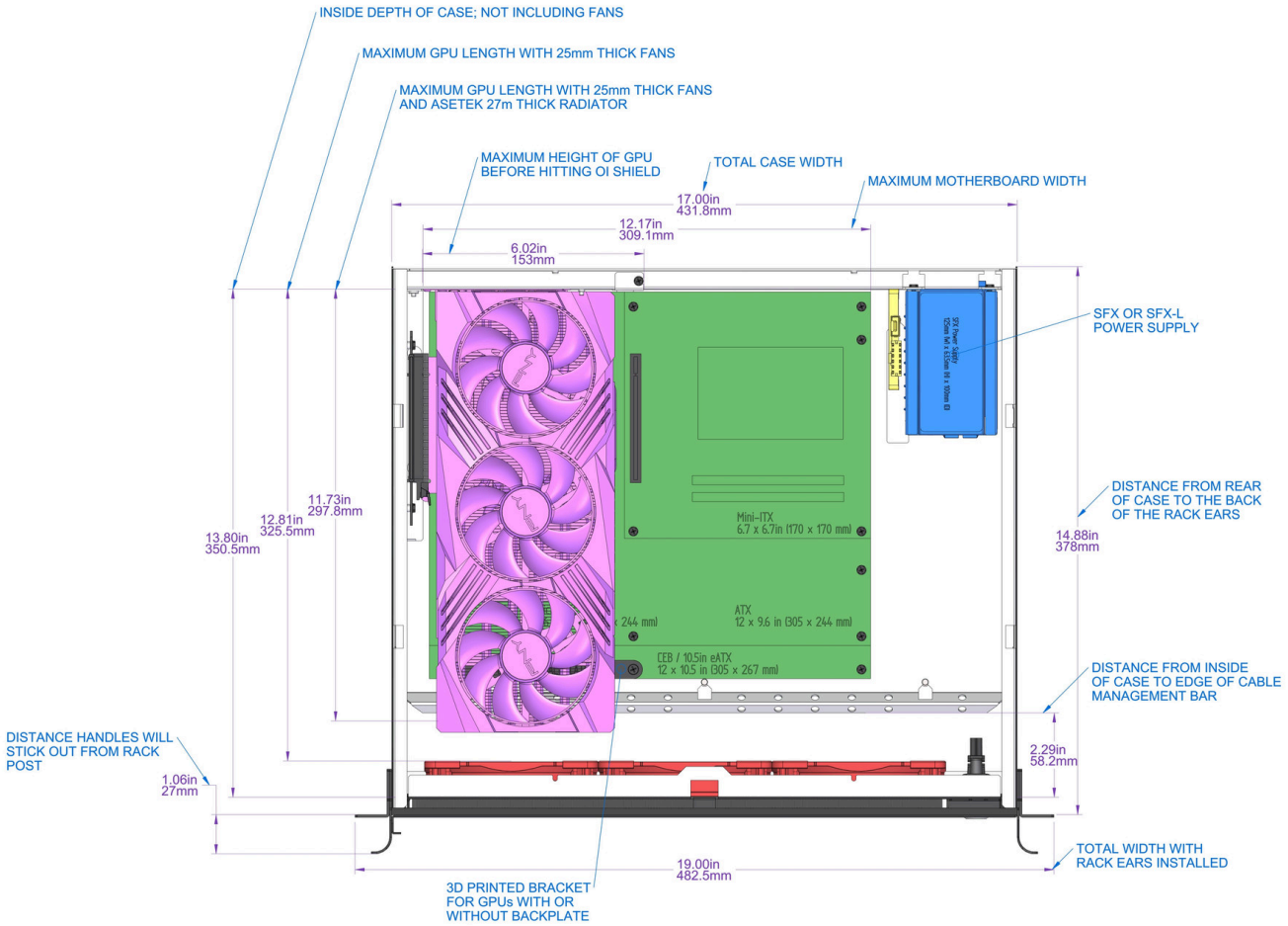
See the hardware-kit and GPU-support-kit pages for the supplied fasteners and GPU support hardware.



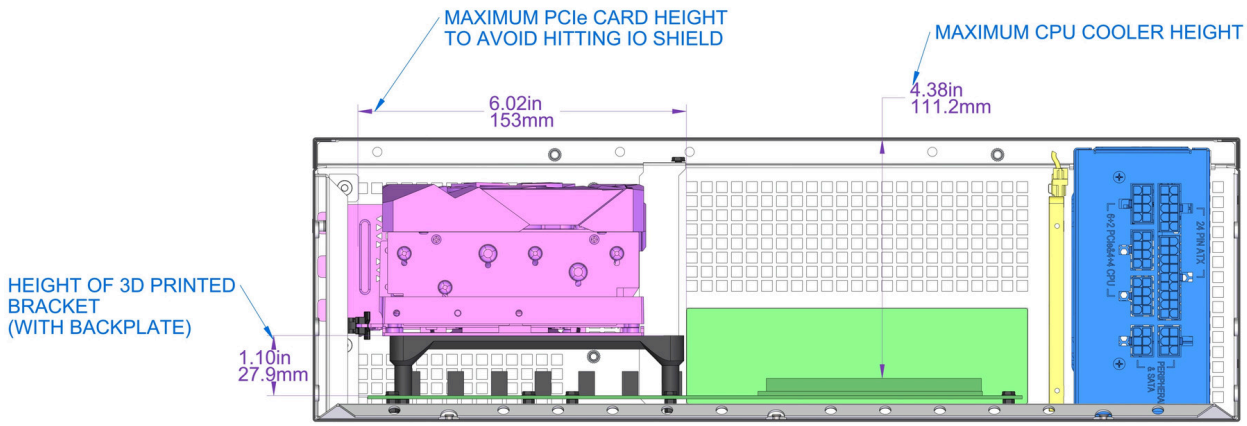
Clearance drawing — top view

The top-view drawing shows the motherboard, PSU, front cooling layout and the riser GPU on its support brace, the cable-management bar, and the GPU length available with each front cooling arrangement.

ⓘ Drawing dimensions are nominal. For compatibility, use the limits on the compatibility page.



Front-view component clearances



The front-view drawing illustrates GPU height above the support brace, CPU-cooler height, and the power supply position. The tall brace (for GPUs without a backplate) is 31.8 mm high and the short brace (for GPUs with a backplate) 27.9 mm.

ⓘ Drawing dimensions are nominal. For compatibility, use the limits on the compatibility page.

Dimensions & compatibility

Component	Specification
Outer dimensions, D × W × H	381 × 431.8 × 132.59 mm
Rack size	3U · 19-inch rack
Power supply	SFX or SFX-L
Motherboard	Mini-ITX, MicroATX, ATX; SSI-CEB and EATX up to 12 × 10.5 inches
CPU air cooler	Up to 110 mm tall
Front cooling	Three 120 mm fans; up to 38 mm thick
Liquid cooling	One 360 mm, one 240 mm, or two 120 mm radiators
Rear cooling	Optional PCIe fan adapters
Front bays	None
Front I/O	Two USB 3.0 Type-A; one USB 3.2 Type-C 10 Gbps; 16 mm power switch with status light
Expansion	Three full-height horizontal PCIe slots with a PCIe 5.0 x16 riser; GPU up to 150 mm tall including power connectors and 72 mm (3.5 slots) wide, on a support brace
Storage	2 × 2.5-inch mounting locations on the motherboard tray: two SSDs up to 7 mm thick, or one up to 15 mm

GPU length by cooling configuration

Configuration	Maximum length
No front fans or radiator	349 mm
Three 25 mm front fans	324 mm
Asetek 360 mm AIO with three 25 mm front fans	296 mm

ⓘ Radiator thickness, fan thickness and GPU length together must be less than 349 mm. Six-fan push-pull is not officially supported; other radiator and fan combinations require a clearance check. Not every mounting location can be used at the same time.

Hardware kit

Match the **letter and color** here to the references beside the installation illustrations and in each procedure. All rackmount chassis use screwbag **SBAG-HWKIT** (items A–F).

A 6-32 × 0.25-inch hex screws — 45 ×

Yellow-marked · Motherboard, PSU, HDDs, and PCIe accessories.



B M3 × 0.5 screws, 5 mm long — 10 ×

Red-marked · 2.5-inch SSDs and some 3.5-inch accessories.



C 6-32 hex standoffs — 20 ×

Teal in drawings; black, unpatched hardware · 0.125-inch and 0.25-inch lengths. Install in the motherboard tray.



D M3 screws (5 mm thread) — 16 ×

Blue-marked · 2.5-inch SSDs and some 3.5-inch accessories.



E 6-32 × 0.25-inch flat-head screws — 10 ×

Green-marked · Motherboard tray, subfront, internal brackets, and front I/O bracket.



F M4 × 7 mm screws — 7 ×

Pink-marked · Rack ears and pull handles.



G Slot covers — 8 ×

Cover unused PCIe slots.



H Rack ears — 1 pair

Secure the chassis to the rack.



I Pull handles — 1 pair

Optional handles make pulling the chassis from the rack easier.



ⓘ Items G–I are separate chassis/accessory items. Illustrations are not to scale. Fan and radiator fasteners are supplied with the cooling components.

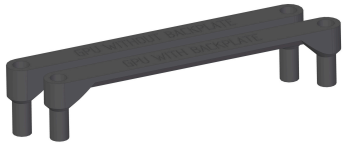
GPU support kit

The GPU support hardware is supplied in a separate kit, **CX3151-GPUKIT** (items J–K), in addition to the chassis hardware kit (items A–I).

J GPU support braces

2 ×

3D printed. Short brace for GPUs with a backplate, tall brace for GPUs without one.



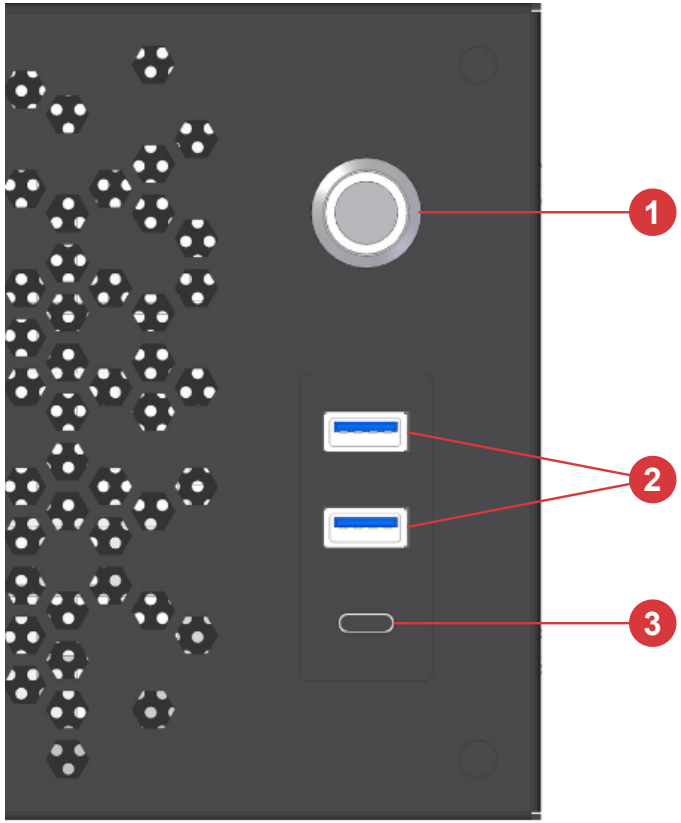
K 6-32 × 1-inch screws (217-349)

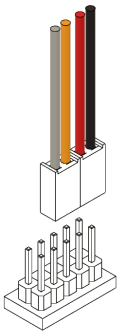
2 ×

Secure the GPU support brace to the motherboard tray.

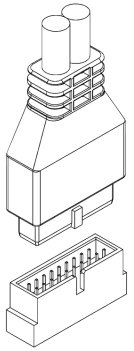


Front ports & connections

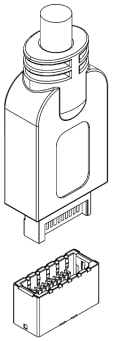




Power switch & status light



USB Type-A ports



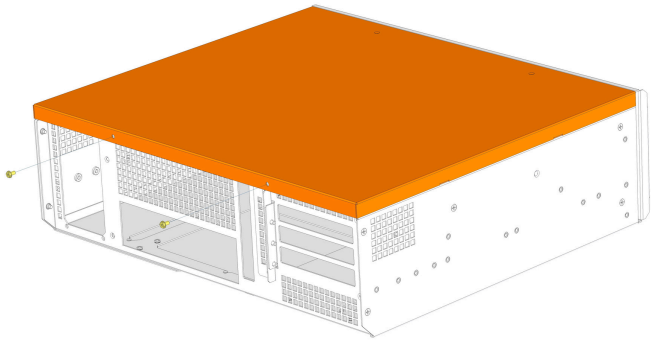
USB Type-C port

No.	Port / connection
1	**Power switch & status light** 16 mm momentary switch with status light. Connect switch and LED leads to the front-panel header; observe the motherboard's LED polarity markings.
2	**USB Type-A ports** Two USB 3.0 Type-A ports, connected through the keyed internal USB cable shown.
3	**USB Type-C port** One USB 3.2 Type-C 10 Gbps port, connected through the internal Type-E cable shown. Requires a matching motherboard header.

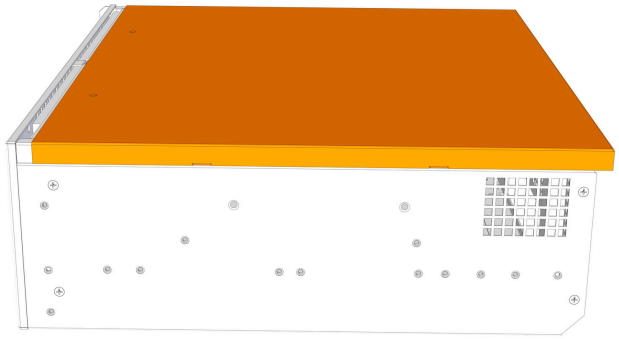
ⓘ Use your motherboard manual to identify matching headers and pin assignments. The numbered front-panel locations correspond to the connector drawings and legend.

Remove the lid

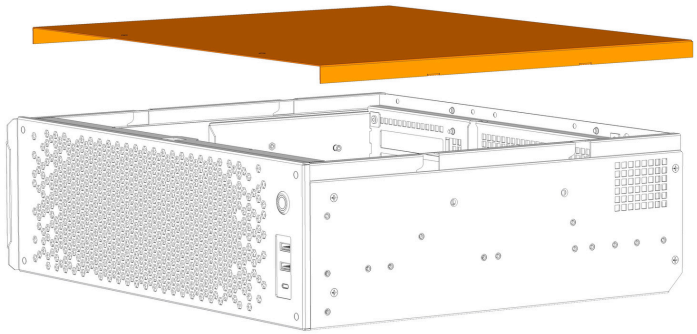
1



2



3



A Yellow

1. Remove the screws

Remove the two yellow-patched 6-32 screws **(A)** along the upper rear edge that secure the lid to the motherboard tray.

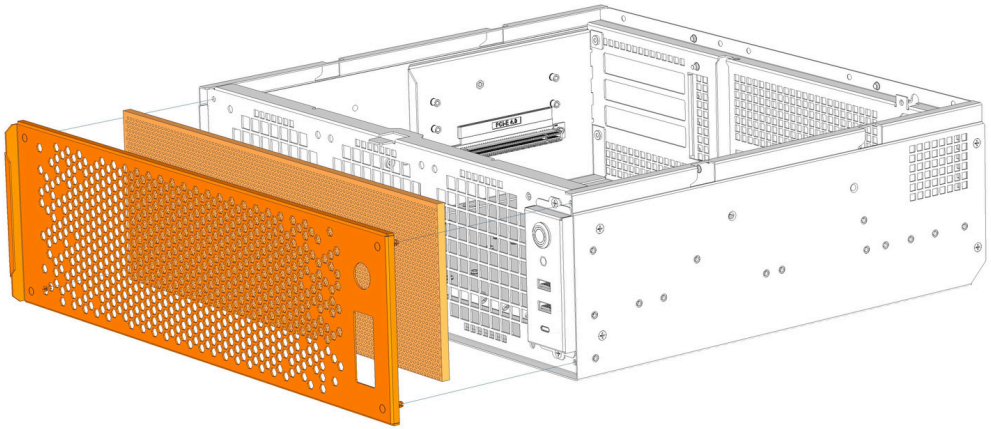
2. Slide the lid back

Push the lid toward the rear of the chassis.

3. Lift the lid away

Check that the lid flanges have cleared the chassis slots. Lift the lid up and away.

Remove the faceplate & filter



1. Release the left side

Pull on the left-side handle of the faceplate until its locating pins disengage, approximately ½ inch.

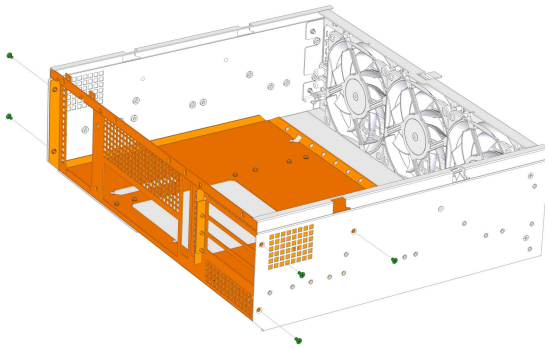
2. Release the right side

Gently pull the right side outward to remove the faceplate and dust filter.

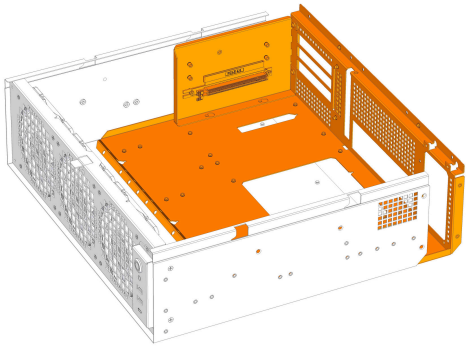
Keep the faceplate and filter aside while installing front fans or a radiator.

Remove the motherboard tray

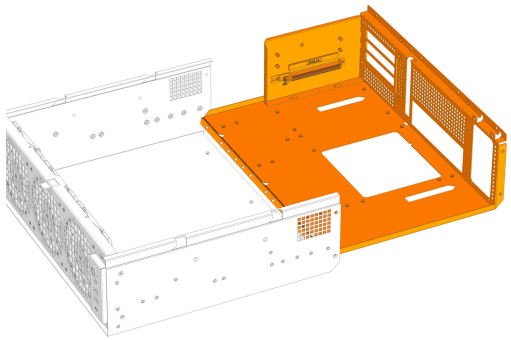
1



2



3



E Green

ⓘ Removing the tray is optional, but can make component installation easier.

1. Remove the tray screws

Remove the four green-patched 6-32 screws (E) securing the tray's rear panel to the chassis, two on each side.

2. Slide the tray back

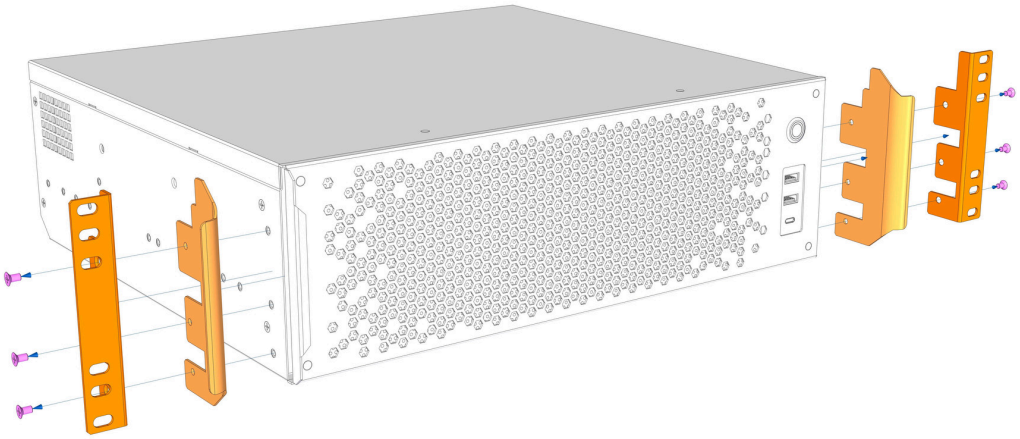
Move the tray toward the rear until all six round metal tabs disengage from the tray.

3. Lift the tray out

Lift only after the tray has cleared the tabs. Do not force it upward while it remains engaged.

Install rack ears & handles

F Pink | H | I



1. Align the hardware

If using pull handles, stack the rack ears (H) over the pull handles (I) with the handle facing away from the faceplate.

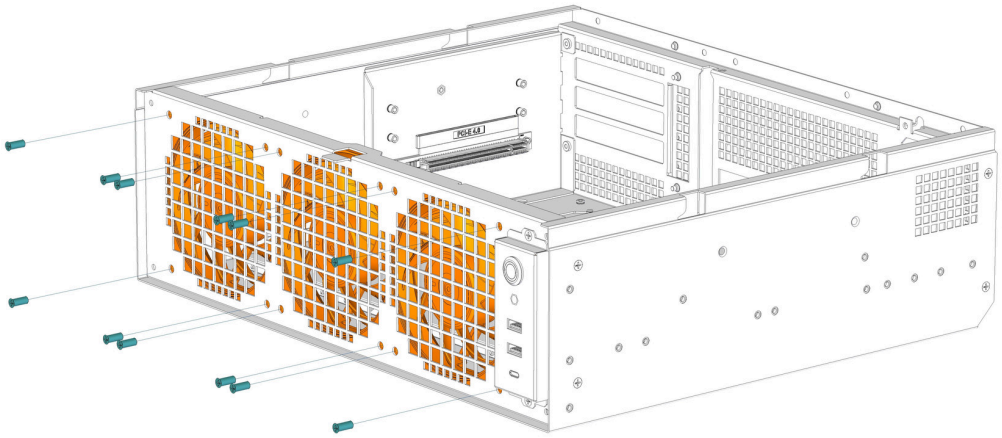
Rack ears can also be installed without handles.

2. Secure both sides

Install 6 pink-marked M4 × 7 mm screws (F) in total, 3 on each side, through the rack ears and handles into the chassis. Tighten by hand.

ⓘ Rack-slide installation depends on the rail kit. Follow the instructions supplied with the selected kit.

Install front fans



1. Align the fans

Align three 120 mm fans with the front mounting panel. Each fan uses four mounting points, twelve in total.

2. Secure the fans

Use the self-tapping fan screws supplied with your fans. Pass them through the mounting panel and into the fan frames.

Tighten sufficiently to prevent movement and vibration.

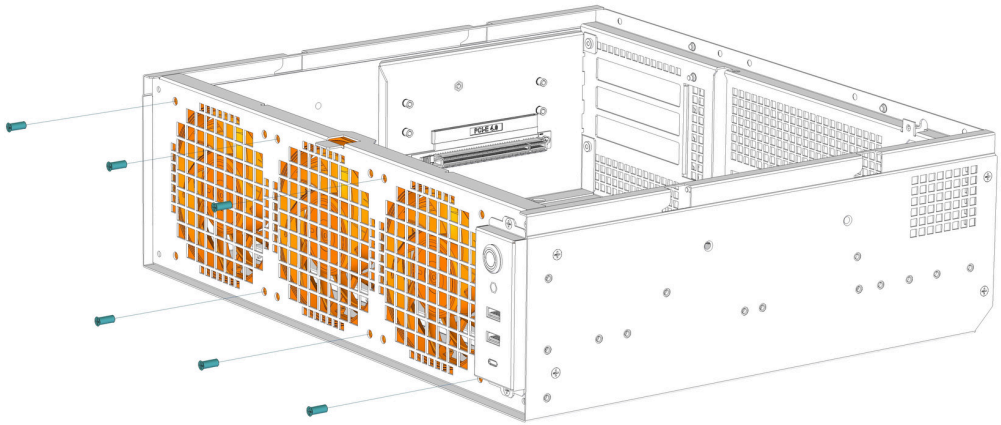
Check GPU clearance

With three 25 mm front fans, maximum GPU length is **324 mm**. Thicker fans reduce available space.

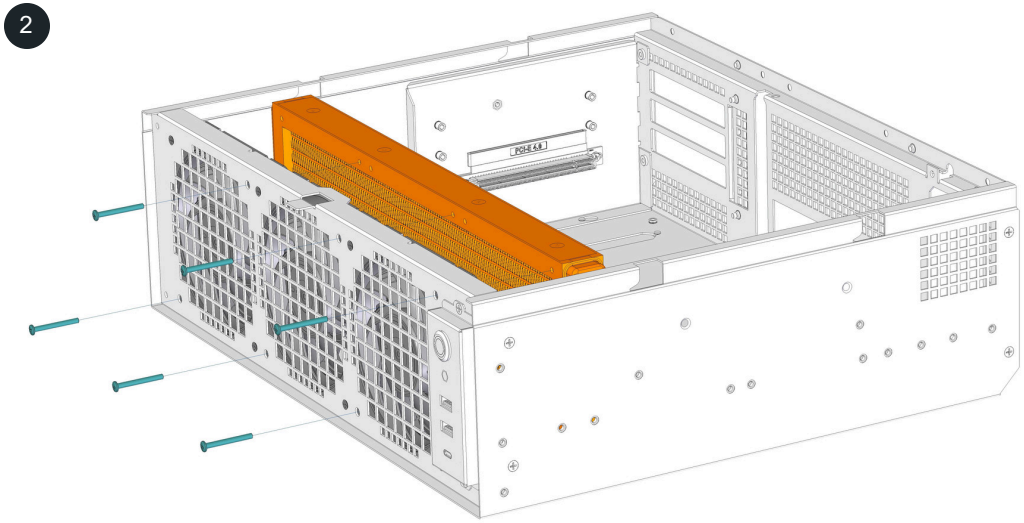
For an AIO configuration, continue to the next section before selecting mounting screws.

Install a front AIO radiator

1



2



1. Position the fans

Place the three 120 mm fans between the front mounting panel and the 360 mm radiator. Remove any fan screws occupying the radiator mounting positions.

2. Align the radiator

Align all twelve mounting points in the panel, fans, and radiator before fastening.

3. Install radiator screws

Use screws specified by the cooler manufacturer. Pass them through the panel and fans into the radiator. Incorrect screw length can damage the radiator.

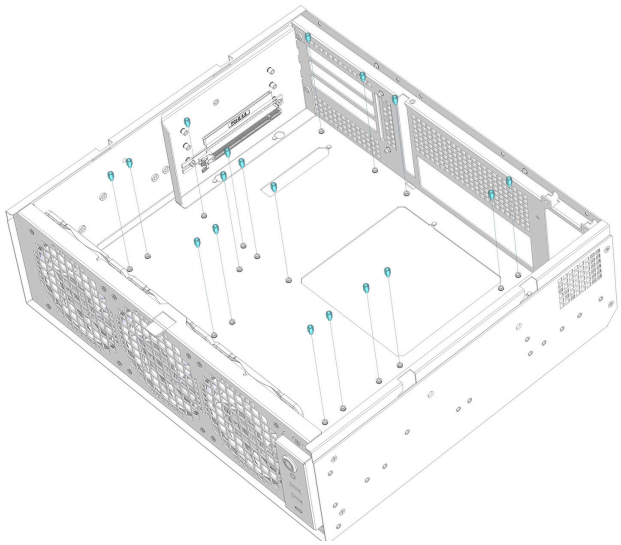
Check GPU clearance

An Asetek 360 mm AIO with three 25 mm front fans permits a GPU up to **296 mm** long.

ⓘ Six-fan push-pull is not officially supported.

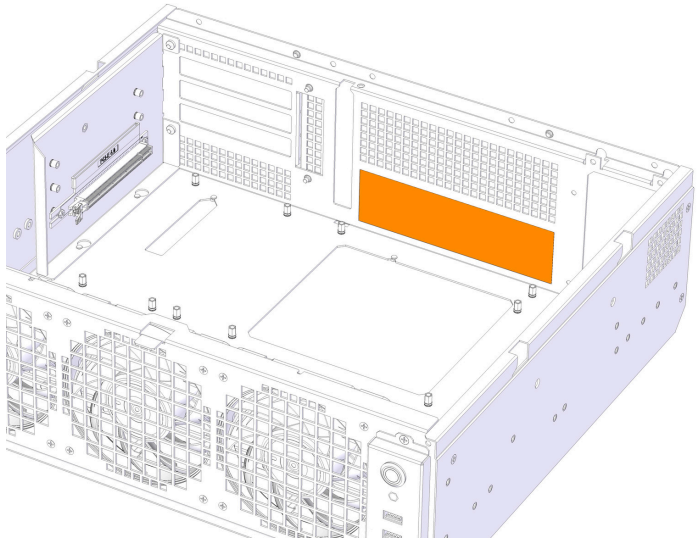
Prepare the motherboard tray

1



C Teal

2



1. Install the standoffs

Match standoff positions to the mounting holes on your motherboard. Install the black hex standoffs **(C)** into the corresponding threaded locations on the tray.

Do not leave an extra standoff beneath a part of the board without a mounting hole.

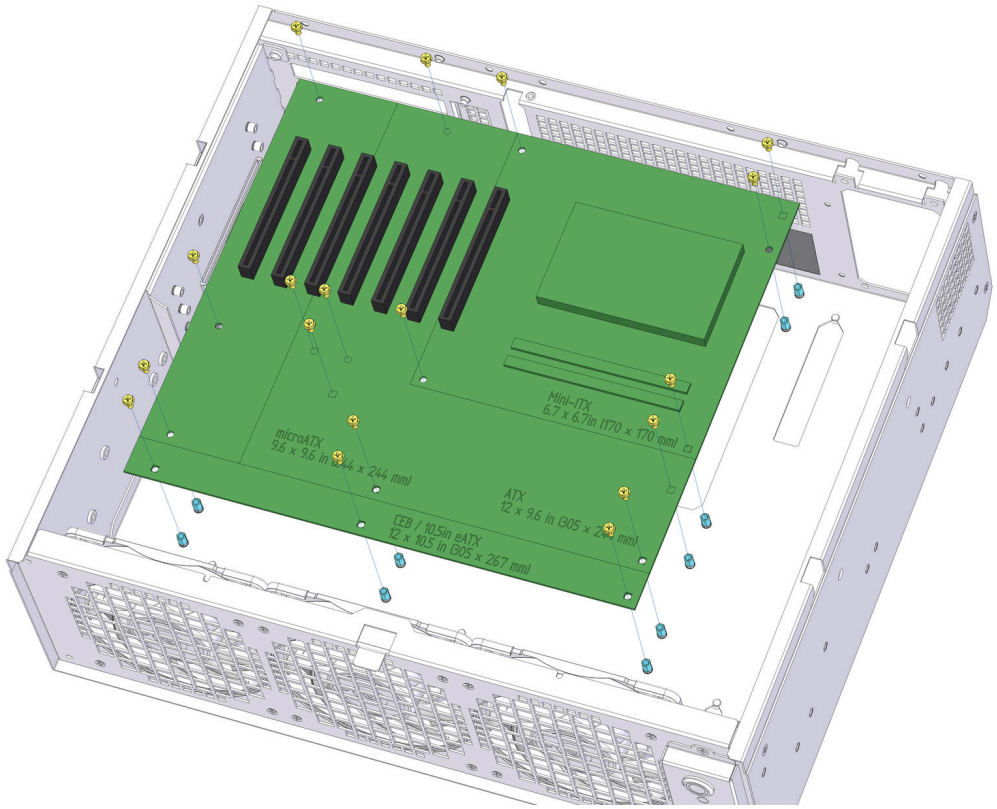
2. Install the I/O shield

If your motherboard has a separate I/O shield, orient it to match the motherboard ports and press it into the rectangular opening in the tray's rear panel.

ⓘ Skip this step if the I/O shield is integrated into the motherboard.

Install the motherboard

A Yellow C Teal



1. Lower the motherboard

Place the motherboard onto the black hex standoffs **(C)**. Align its rear ports with the I/O opening and its mounting holes with the standoffs.

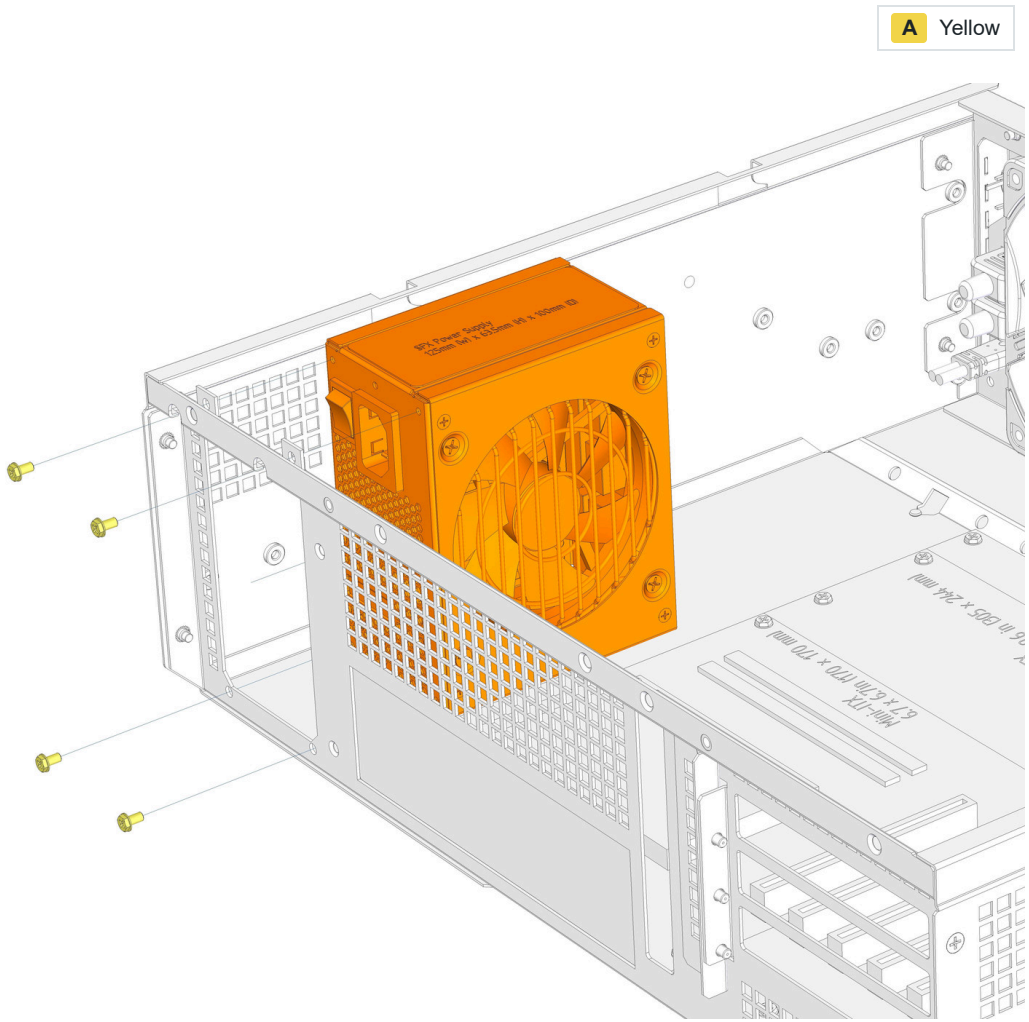
2. Secure the board

Install yellow-patched 6-32 screws **(A)** through the board and into the standoffs.

Tighten by hand to avoid damaging the board or loosening the standoffs during future removal.

Follow your motherboard's instructions for CPU, memory, M.2 drives, and cable connections.

Install the power supply



1. Position the PSU

Place your SFX or SFX-L power supply into its mounting location on the tray.

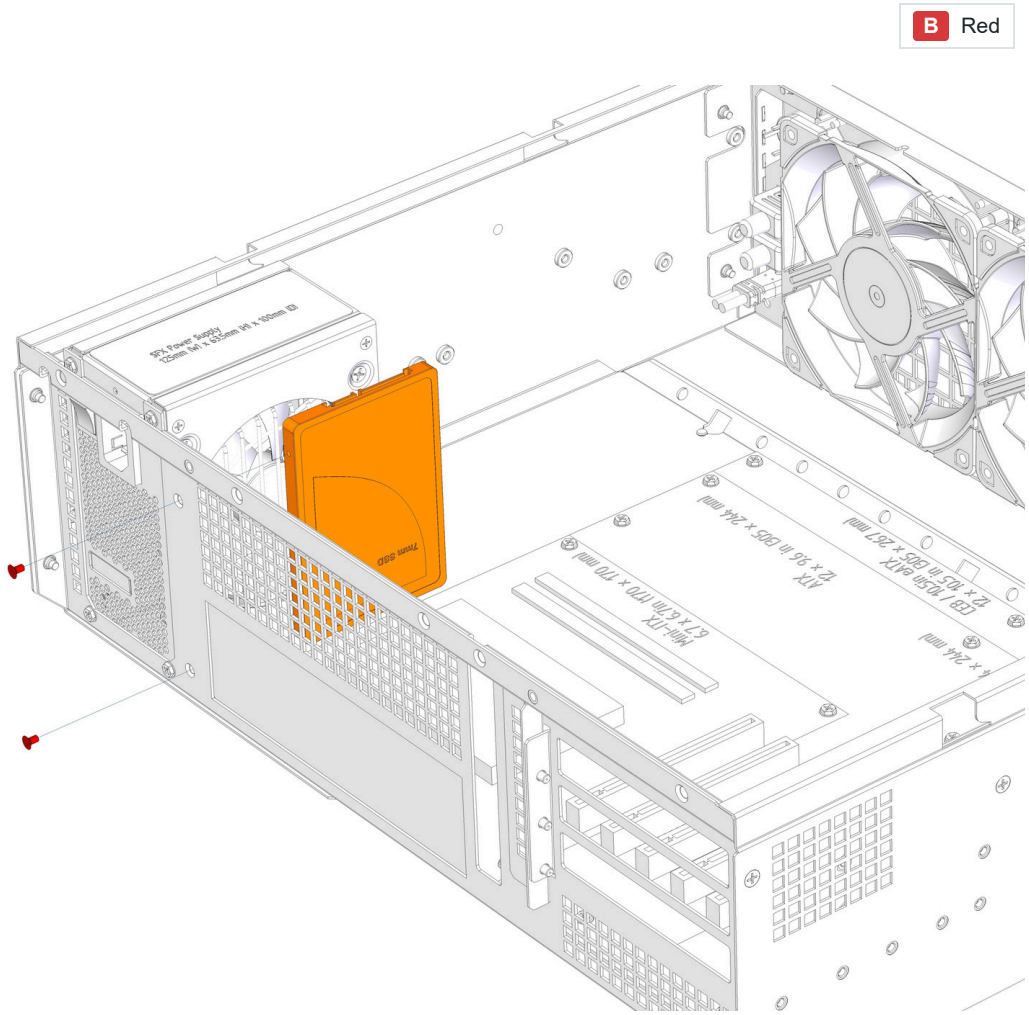
Most PSUs mount with the fan toward the chassis wall. The fan may instead face the motherboard depending on the PSU model. Check the PSU manufacturer's instructions and the available intake clearance.

2. Secure the PSU

Install yellow-patched 6-32 screws **(A)** through the tray's rear panel into the power supply. Tighten by hand.

Route the PSU cables so they do not obstruct the tray's engagement points.

Install 2.5-inch SSDs



1. Position the SSD

The motherboard tray has two pairs of 2.5-inch mounting holes between the power supply and the motherboard I/O shield. Install either two SSDs up to 7 mm thick, or one SSD up to 15 mm thick.

Position each drive with its connectors facing upward and its underside facing the power supply.

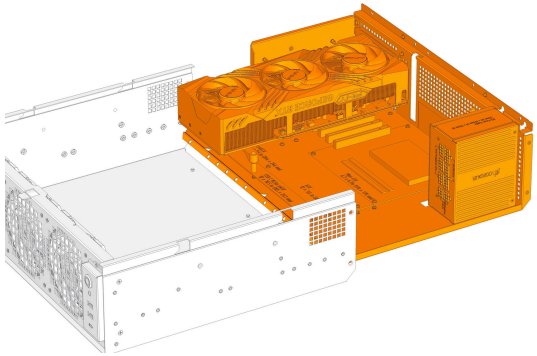
2. Secure the drives

Secure each drive with two red-patched M3 × 0.5 screws, 5 mm long (B) through the tray. Two 7 mm drives use four screws in total. Tighten by hand without forcing the threads.

ⓘ For M.2 storage, follow the motherboard's installation instructions.

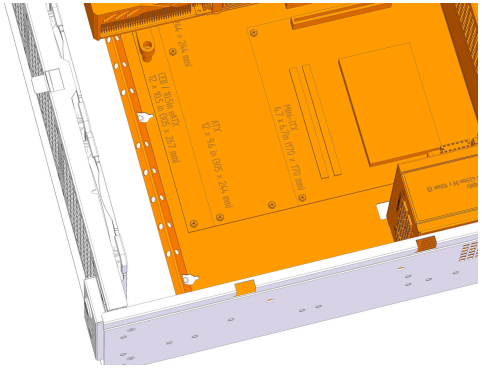
Reinstall the motherboard tray

1

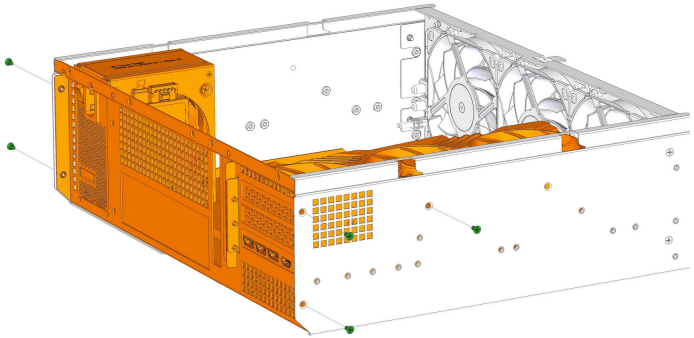


E Green

2



3



E Green

1. Place and slide the tray

Lower the assembled tray into the chassis and slide it forward. Lift gently as needed to prevent its front edge catching on the chassis tabs.

2. Engage all six tabs

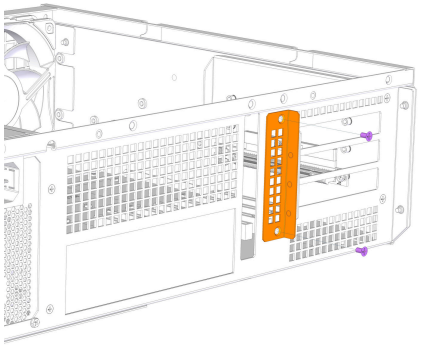
Continue forward until all six tabs are seated in the tray and its rear panel sits flush against the chassis rear.

3. Secure the tray

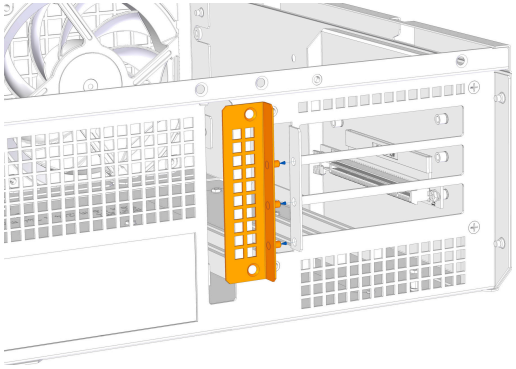
Install four green-patched 6-32 screws **(E)**, two on each side, through the chassis into the tray. Tighten by hand.

Remove the rear slot cover

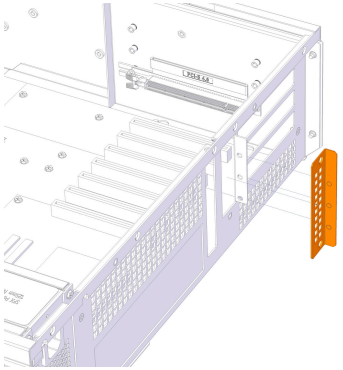
1



2



3



A Yellow

The rear cover closes the three horizontal PCIe slots above the riser. Remove it before installing the GPU.

1. Remove the cover screws

Remove the two yellow-patched 6-32 screws **(A)** securing the rear cover to the chassis.

2. Release the cover

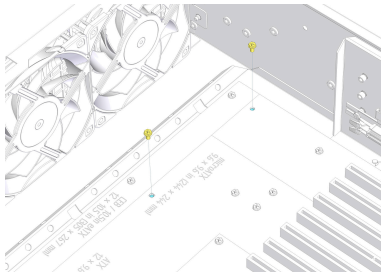
Pull the cover away from the rear panel.

3. Lift the cover out

Lift the cover clear of the slot openings and set it aside with its screws for reassembly.

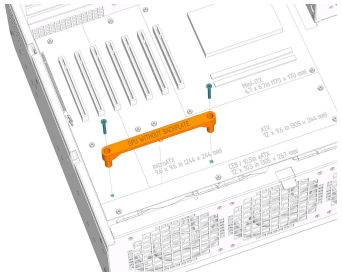
Fit the GPU support brace

1



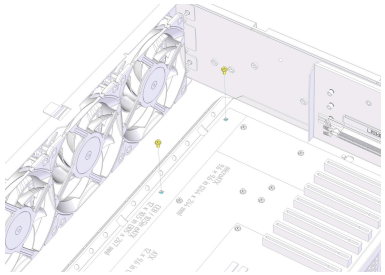
A Yellow

2



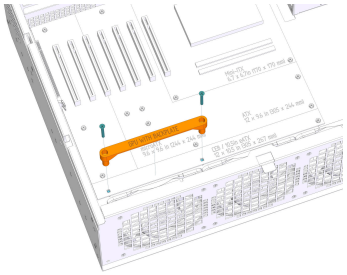
J K

3



A Yellow

4



J K

A GPU support brace (J) supports the GPU from the motherboard tray, preventing sag and shipping damage. Use the **tall brace** for a GPU without a backplate, or the **short brace** for a GPU with a backplate. Fit only one.

1. GPU without a backplate: free the mounting holes

Remove the two yellow-patched 6-32 screws (A) from the tray at the tall brace's position.

2. Fit the tall brace

Place the tall brace over the holes and secure it with the two brace screws (K).

3. GPU with a backplate: free the mounting holes

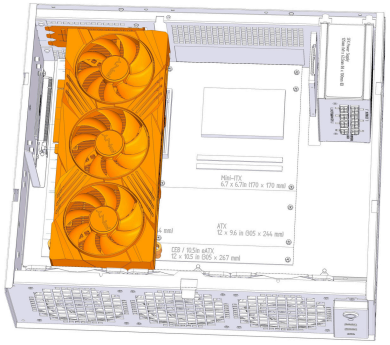
Remove the two yellow-patched 6-32 screws (A) from the tray at the short brace's position instead.

4. Fit the short brace

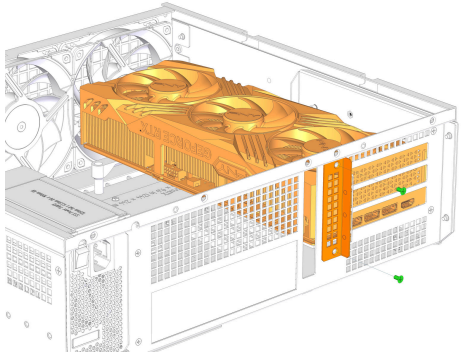
Place the short brace over the holes and secure it with the two brace screws (K).

Install the riser GPU

1

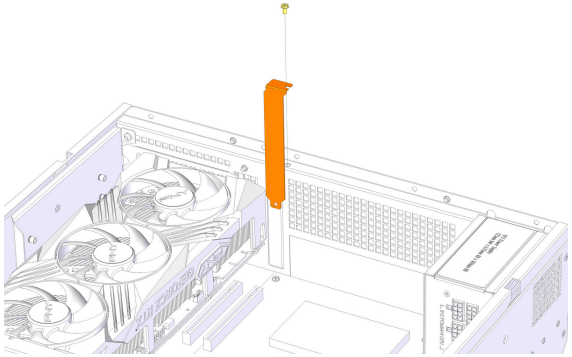


2



A Yellow

3



A Yellow G

1. Seat the GPU in the riser

Lower the GPU onto the support brace and into the riser's PCIe 5.0 x16 slot, aligning its bracket with the horizontal slot openings. Press evenly until fully seated, then connect its power cables.

2. Refit the rear cover

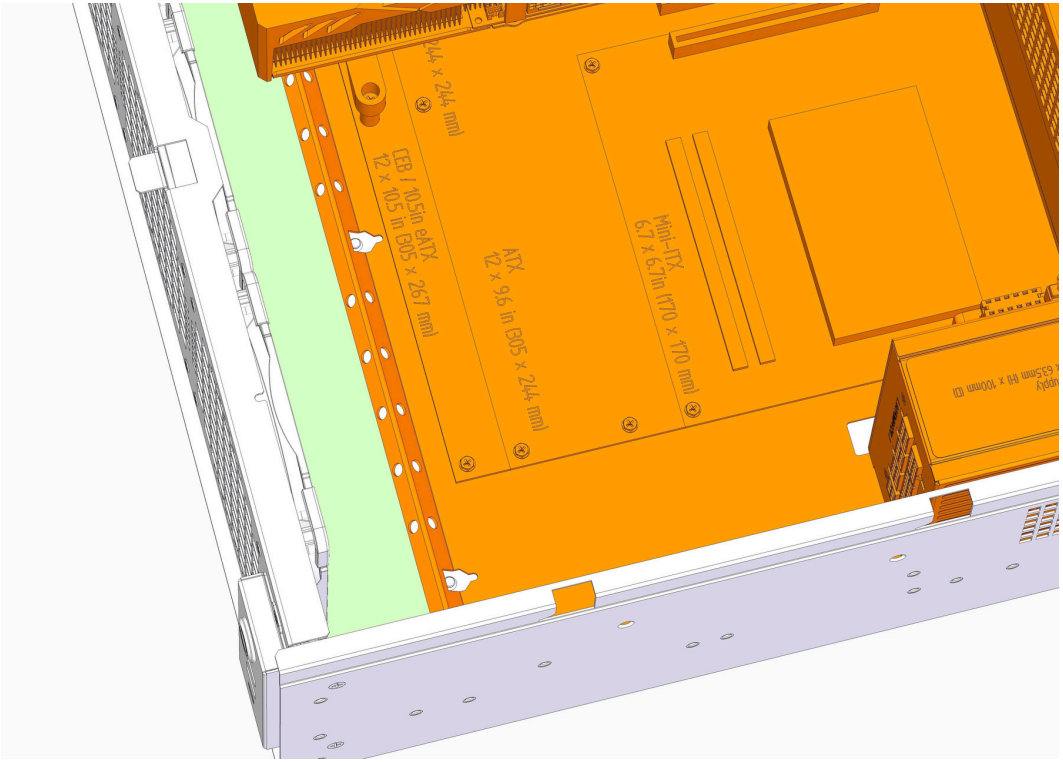
Refit the rear cover over the GPU bracket and secure it with its two yellow-patched 6-32 screws **(A)**.

3. Cover unused openings

Fit slot covers **(G)** over any unused slot openings and secure them with yellow-patched 6-32 screws **(A)**.

ⓘ Cards up to **150 mm** tall including power connectors and 72 mm (3.5 slots) wide fit. Check the cooling-dependent length limits before installation.

Route cables & close the chassis



1. Route and secure cables

Route front-panel, PCIe, power, and fan cables along the front edge of the motherboard tray's cable-management bar, highlighted in green. Bundle excess slack behind the PSU and secure it with ties.

Keep all cables clear of fan blades, drives, and the tray's engagement points. Release ties that anchor cables to the fixed chassis before removing the tray.

2. Close the chassis

Refit the filter and faceplate, aligning their locating pins. Align the lid flanges with the chassis slots, lower the lid, and slide it forward. Secure the lid with its two yellow-patched 6-32 screws **(A)**.

Warranty & support

WARRANTY POLICY

Sliger Designs LLC ("Sliger") warrants its Products, if properly used and installed, against defects in material and workmanship for the period stated on the product specifications. Under normal use and service, every hardware portion of the products will be free from physical defects in material and workmanship during the warranty period (excludes normal wear and tear), or the product will be repaired or replaced as determined solely by Sliger.

For full warranty and RMA policy visit :
https://www.sliger.com/support/warranty_and_rma/

SUPPORT AND SERVICE

If you have any questions or problems with the Sliger product you purchased, please don't hesitate to contact us via email or phone. Please include a detailed explanation of your problem and your order number.

For comments and suggestions, you can e-mail our design team, orders@sliger.com.

Lastly we would like to thank you for your support by purchasing this product.

For more information about Sliger Designs, please visit us online.

Website: sliger.com
Support Email: orders@sliger.com
Phone Number: 1 775 356 5595
Hours of Operation: 8a - 4:30p MST

Regulations

To the best of our knowledge, all computer chassis manufactured by Sliger Designs, LLC adhere to ROHS, REACH, and Conflict Minerals regulations. All Sliger products are produced in the United States of America and primarily utilize materials sourced domestically.

ROHS STATEMENT

This product is compliant to implemented RoHS (Restriction of Hazardous Substances) type regulations worldwide, including but not limited to China, India, Japan, Korea and European Union.

REACH STATEMENT

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals, EC 1907/2006) is the European Union's (EU) chemical substances regulatory framework. REACH requires Sliger Designs, LLC to provide customers with sufficient information on Substances of Very High Concern (SVHC) contained in products in concentration above 0.1% weight by weight (w/w) to allow safe use of the product.

Certificates of Compliance are available upon request.

Manual revision history

Version	Date	Changes
v1.0	2026-11-10	Initial release
v1.1	2026-11-11	Exploded assembly: new render with the rack ear and pull handle, and a rack ear & pull handle callout.