VELKA 7

Rev 2.0-2.1

USER MANUAL

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SPECIFICATION

Dimensions (L x W x H)	177 x 111 x 303 mm
Weight	2.1 kg
Volume (liters)	5.9 L external, 5.6 L internal
Materials and finish	5 mm anodized and sandblasted aluminum front panel 1.2 mm powder-coated galvanized steel and stainless steel body 1.0 mm powder-coated galvanized steel side panels
I/O	Front: N/A Top: N/A Rear: Motherboard, graphics Discrete graphics: uses internal extensions. 2x DisplayPort 1.2, 1x HDMI 2.0. DVI is not supported.
Security	Kensington Lock Slot
PCIe riser	PCIe 3.0 x16 / PCIe 4.0 x16

HARDWARE COMPATIBILITY

Motherboard	Mini ITX 170 x 170 mm
Power supply	SFX (not compatible with SFX-L)
CPU cooler	47 mm
Graphics card (L x W x H)	Maximum clearance, including cables. Cables require 16 mm if not recessed into the board. 289 x 43 x 140* mm *If card is 263 mm in length or under, max card height is 140 mm and max card + cable height is 145 mm
Memory	52 mm
Storage	1x 2.5” HDD or SSD (9.5 mm thick) If graphics card length is below 212 mm: 3x extra 2.5” drives (2x up to 12.5 mm thick, 1x up to 7.0 mm thick)
Case fans	N/A

OUT-OF-CASE BUILD

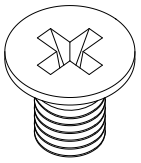
It is strongly recommended to test all of your components outside of the case first. This may help save time by preventing back-tracking later in the assembly process.

1. Assemble the computer with the graphics card plugged directly into the motherboard, test for functionality
2. If using the PCIe gen 3 riser, set PCIe x16 link speed to gen 3 in BIOS, test for functionality
3. Repeat step (1) with the PCIe riser, DisplayPort and HDMI extensions. Be gentle with these cables as they are not designed for external use.

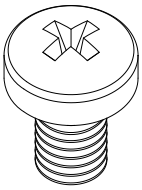
SUMMARY OF ASSEMBLY STEPS

1. Install your CPU, CPU cooler, memory, and M.2 drive onto the motherboard
2. a) If using the flat PCIe gen 3 cable, install motherboard onto tray, plug male cable end into the motherboard PCIe slot, flip over the tray, bend the cable to line up with standoffs
   b) If using the individually stranded PCIe gen 4 cable, install cable female end, bend the other end around the back of the tray, flip over tray and install motheboard, plug male cable end into motherboard PCIe slot
3. Plug graphics card into the PCIe cable. Plug display cable extensions into graphics card
4. Install PSU into case
5. Install IO shield and install that subassembly back into the main body of the case
6. Install 2.5” drives, complete frame with the 2.5” mount by the PSU, attach all cables
7. Install front struts, install power button into the front panel and plug it in without installing the front panel, install side panels, then the front panel

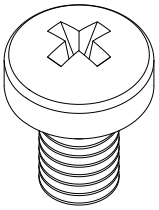
This manual will provide assembly instructions only for the most complex configuration involving a short graphics card and 3 extra 2.5” drives.



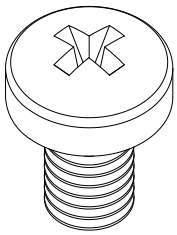
6x Countersunk 5 mm M3 screws



16x Round head 4 mm M3 screws



3x Round head 6 mm 6-32 screws

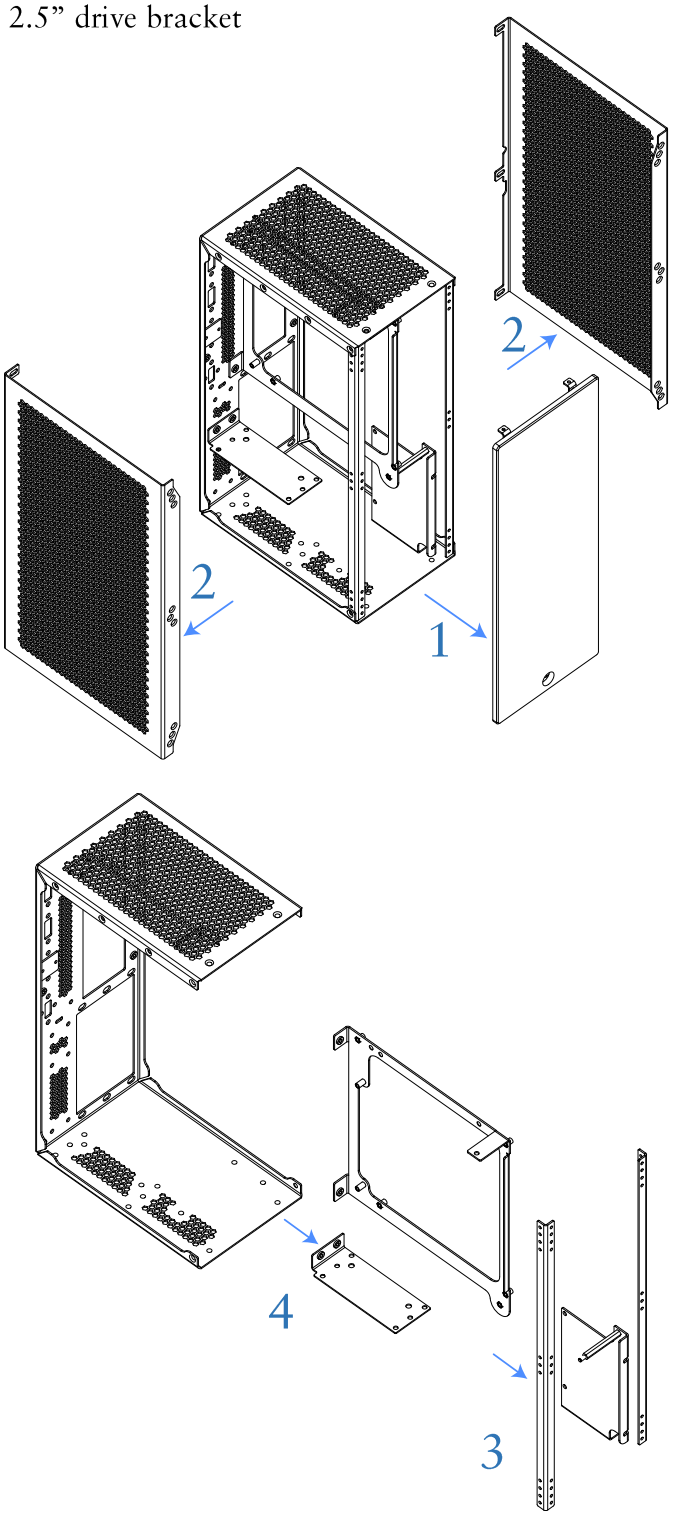


6x Round head 6 mm M4 screws

DISASSEMBLY

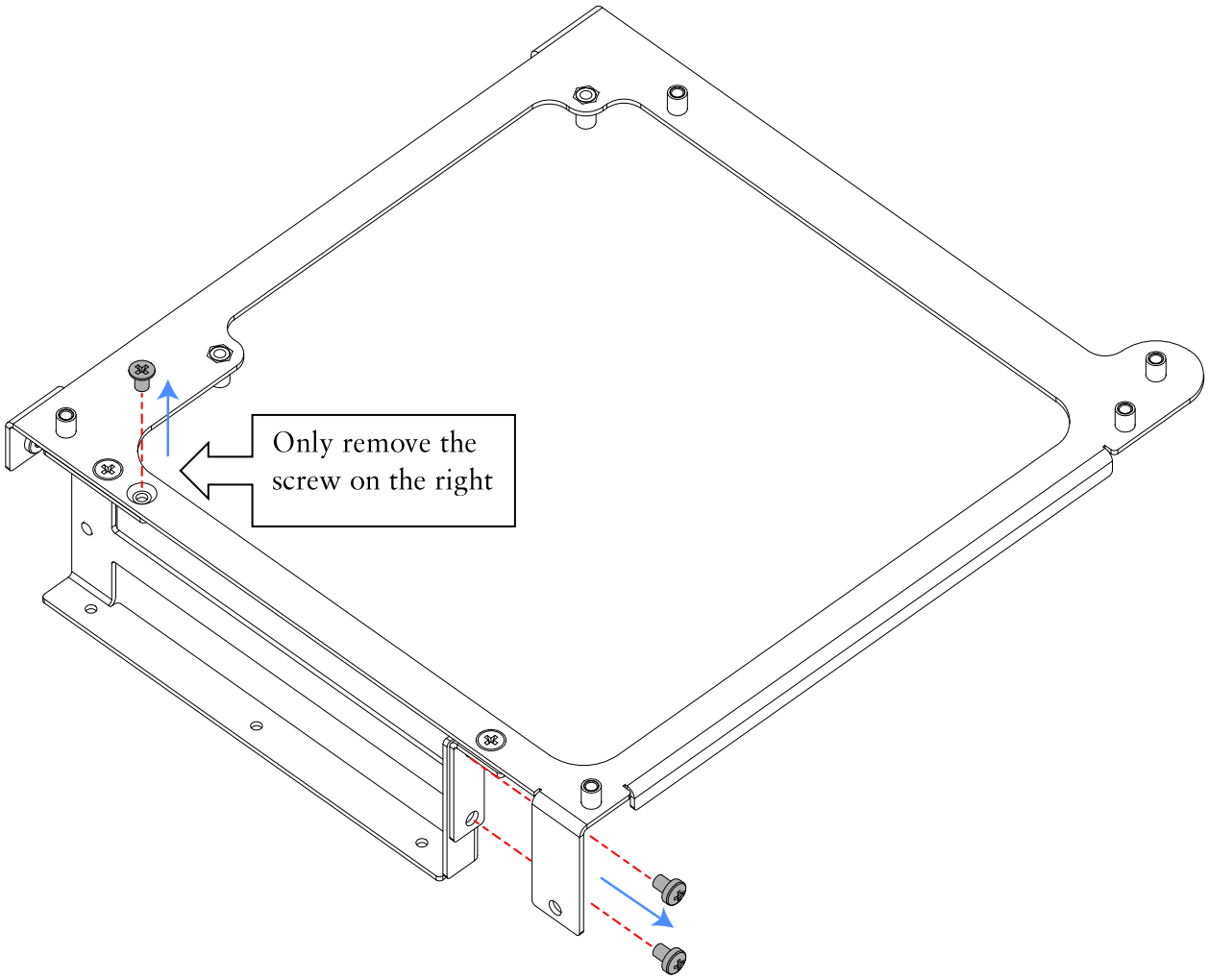
It is recommended to work with the case on a soft, clean surface.

1. 2 screws on top-front and 2 screws on bottom-front to remove front panel
2. 6 screws in the front and 5 screws in the back to remove side panels
3. 2 screws on the left and 2 screws on the right to remove struts
4. 2 screws in the rear and 2 screws on bottom to remove motherboard tray, 2 screws in the rear to remove 2.5” drive bracket



CPU, MEMORY, M.2 DRIVE, MOTHERBOARD, PCIE GEN 4 CABLE INSTALLATION

Remove the screws shown to allow the graphics card bracket to rotate.

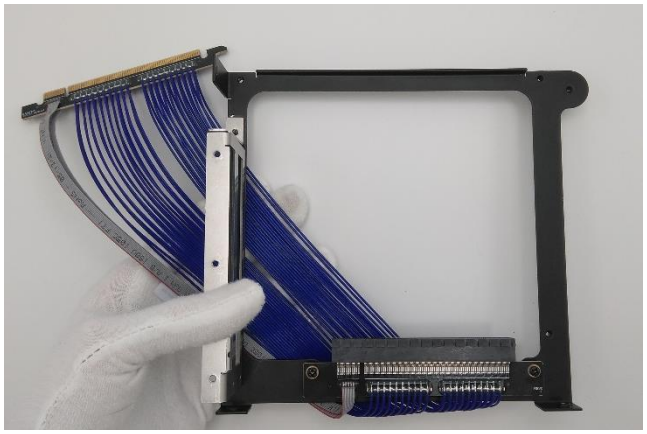


Install the CPU, cooler, memory, and M.2 drive onto the motherboard.

If using gen 3 PCIe cable: Attach the motherboard to the tray with 4x round head 4 mm M3 screws and plug in the PCIe cable.

If using gen 4 PCIe cable: screw down the female end of the cable onto the tray, bend cable to the side, then attach the motherboard to the tray with 4x round head 4 mm M3 screws and plug in the PCIe cable. The cable will end up between the motherboard and the tray. Any wires protruding past the edges of the tray will need to be flattened later.

PCIe gen 4 cable routing



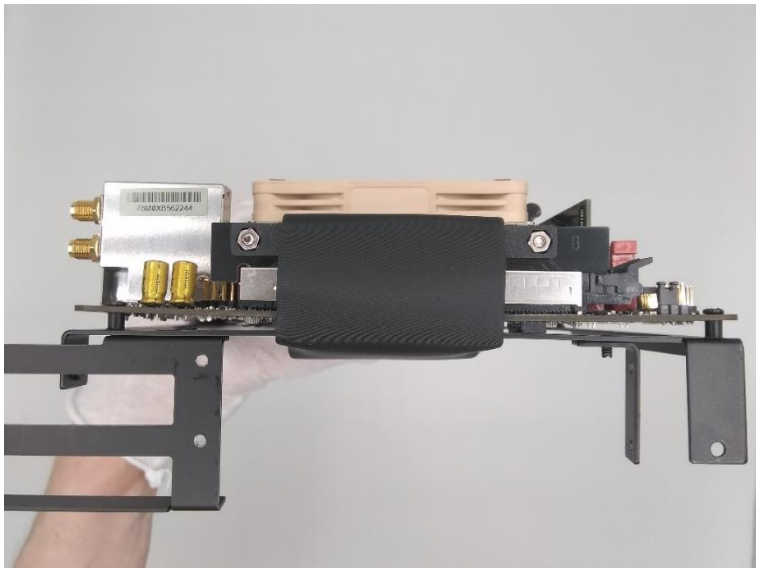
RISER BEND (FLAT PCIE GEN 3 CABLE)

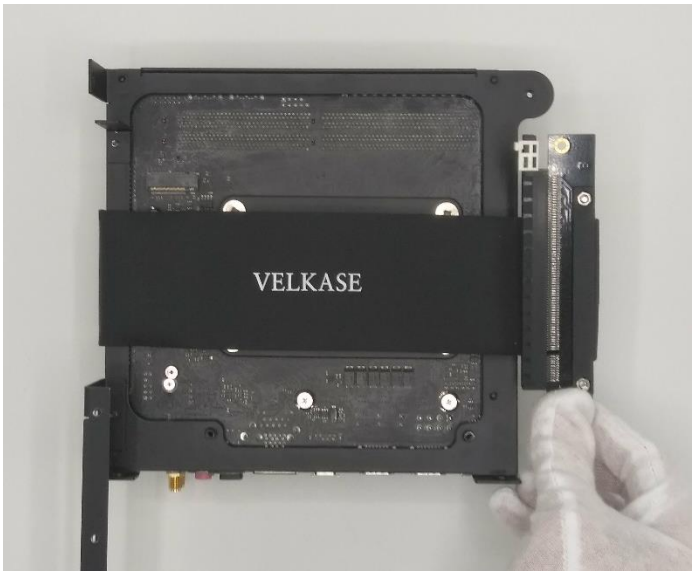
The following steps apply to the included flat gen 3 PCIe cable. Skip to next section on page 13: “Graphics card” if using the gen 4 PCIe cable with individual wires.

The included cable is 300 mm long end-to-end. Cables of a different length will need to be bent at different angles.

Avoid making repeat bends as this will stress the wires in the PCIe riser.

Bend the female end of the riser to form a 180 degree turn. The riser should be long enough to line up with the edge of the motherboard as shown.

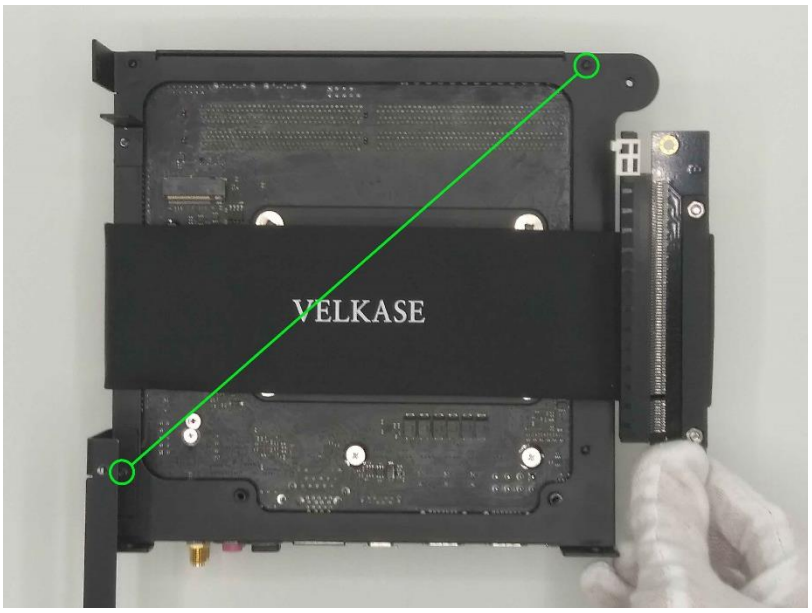


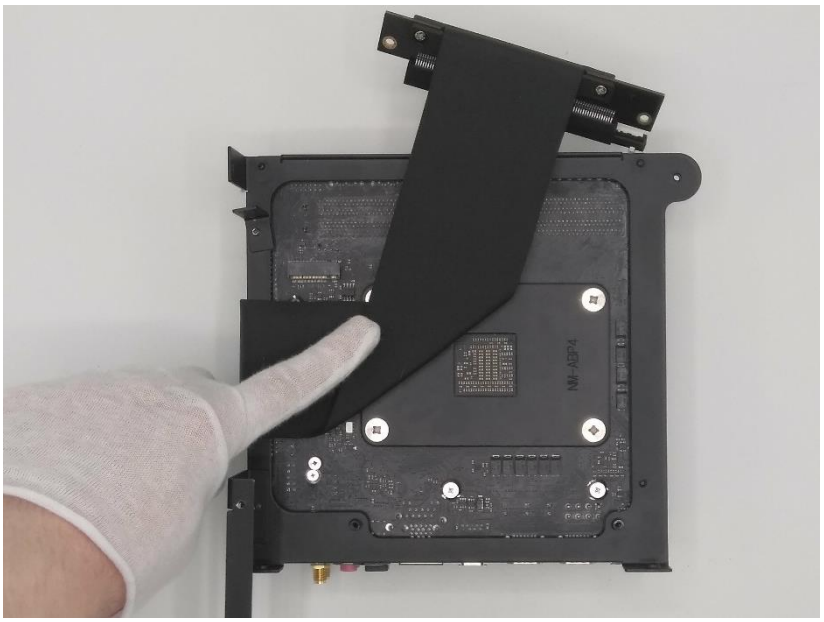


The next bend will be along a line between the the pivot point of the graphics card bracket (make sure that you removed the correct screw on page 7) and the top-right motherboard standoff.

Make sure that your riser's position relative to the motherboard tray is the same as shown, then draw a line on the riser. Bend up along this line.

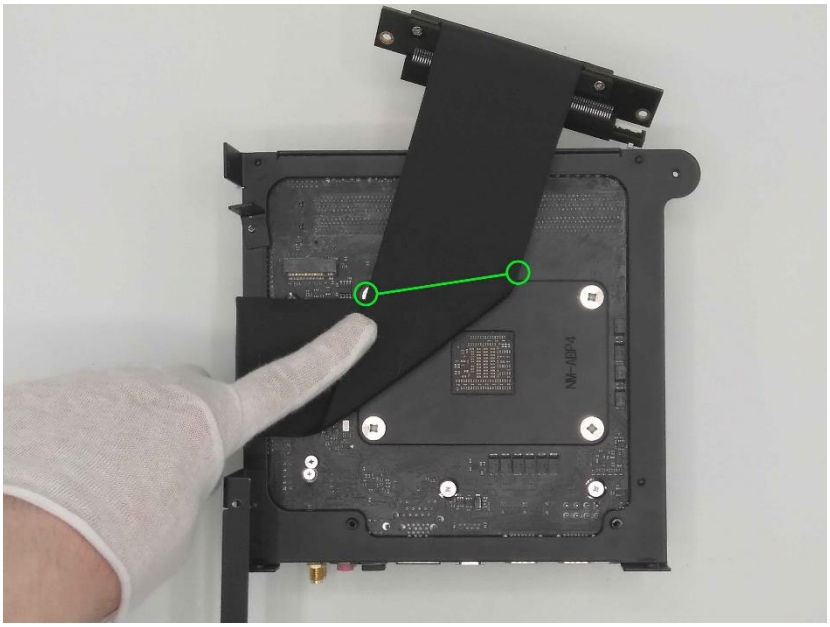
Optional: to mark the bend line, you may use a pencil and a straight edge such as a ruler or this case's strut.

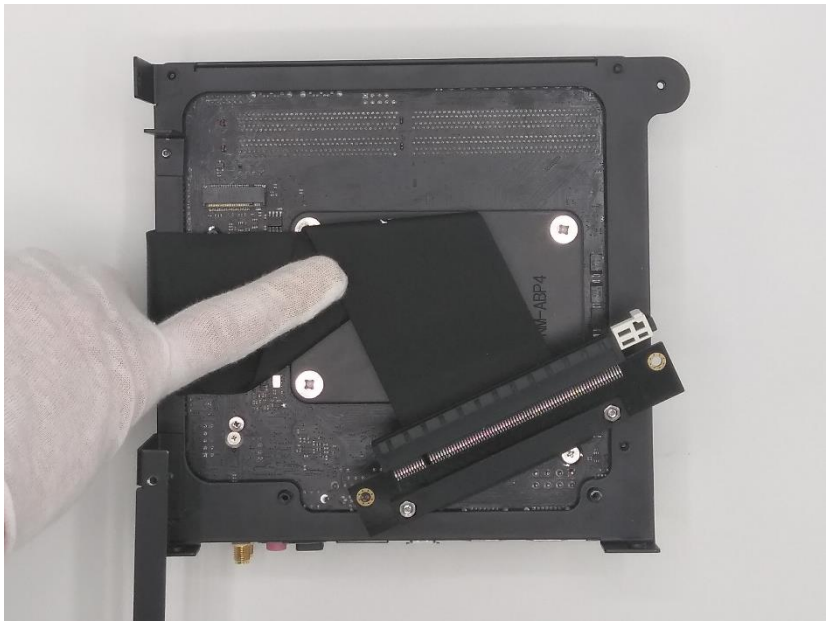




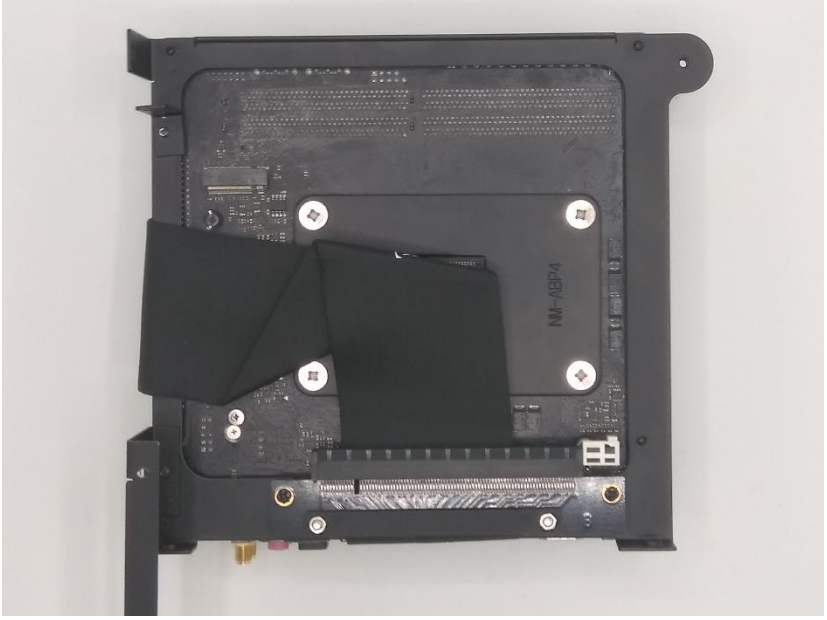
The final bend will be along a line between a point about 2 mm above where the riser cable edge crosses over itself and a point about 5 mm above the previous bend's edge.

These offsets help prevent the two bends from "stacking". Bend down along this line.



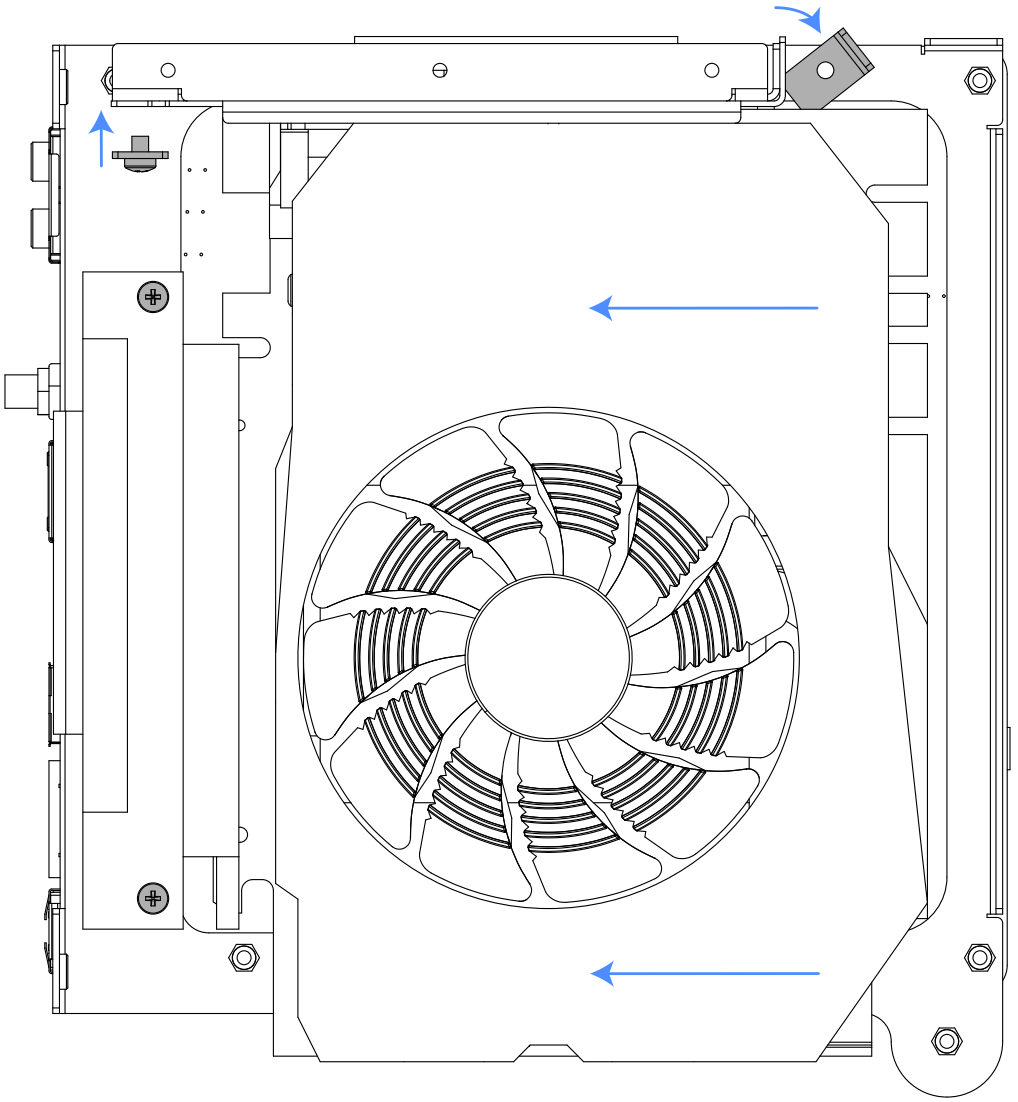


Rotate it into place and secure it with 2x round head 5 mm M3 screws.
Some of the excess cable will end up on the male end and can be flattened.



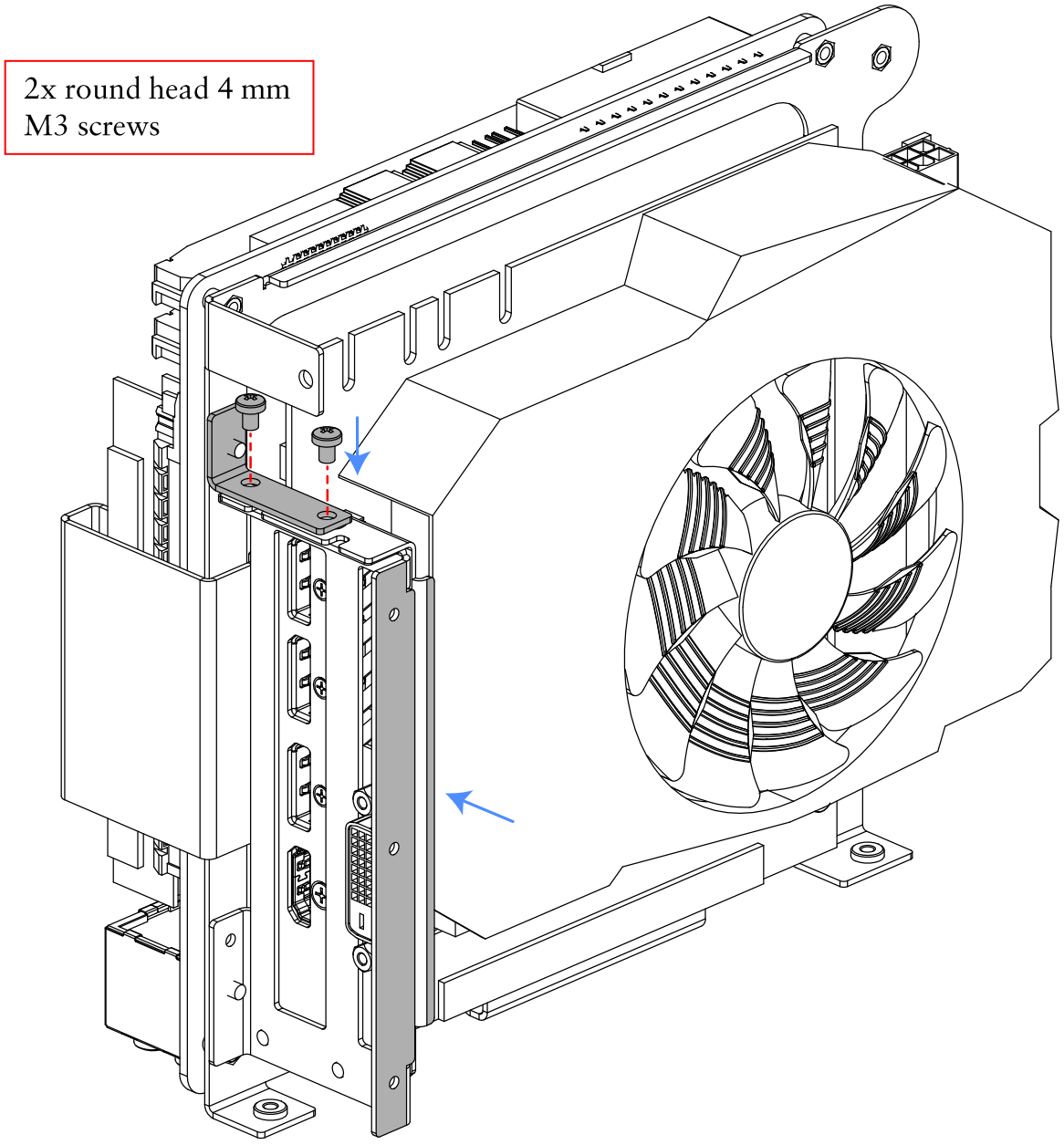
GRAPHICS CARD

Rotate the clip on the right, remove the bracket on the left, plug in the graphics card and reinstall the bracket on the left to keep the card in place.



Ensure that the edge of the graphics card's IO shield is flush with or below the edge of the bracket it is attached to. The graphics card should not have any protrusions past this edge.

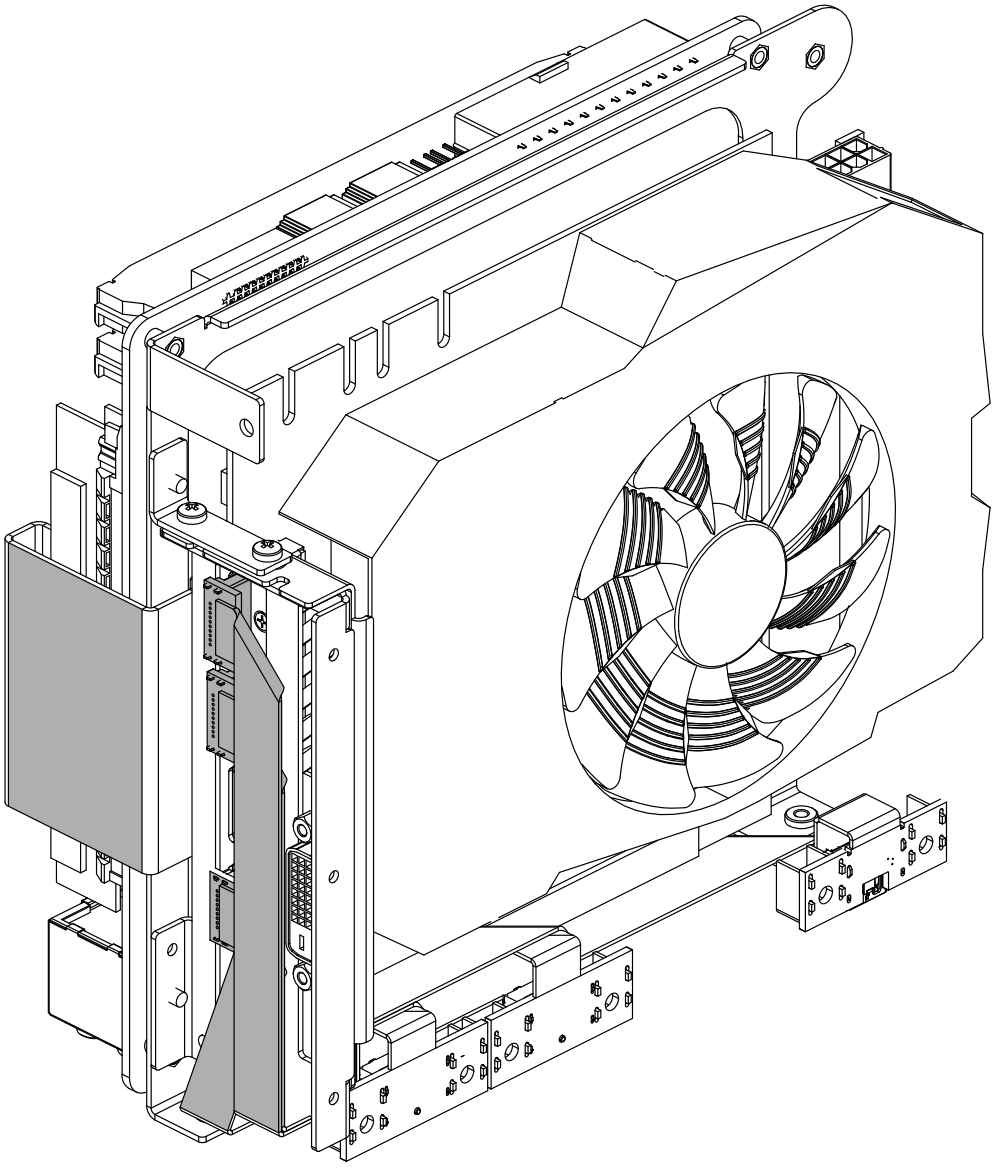
Rotate the clip back around and secure the card with two screws.

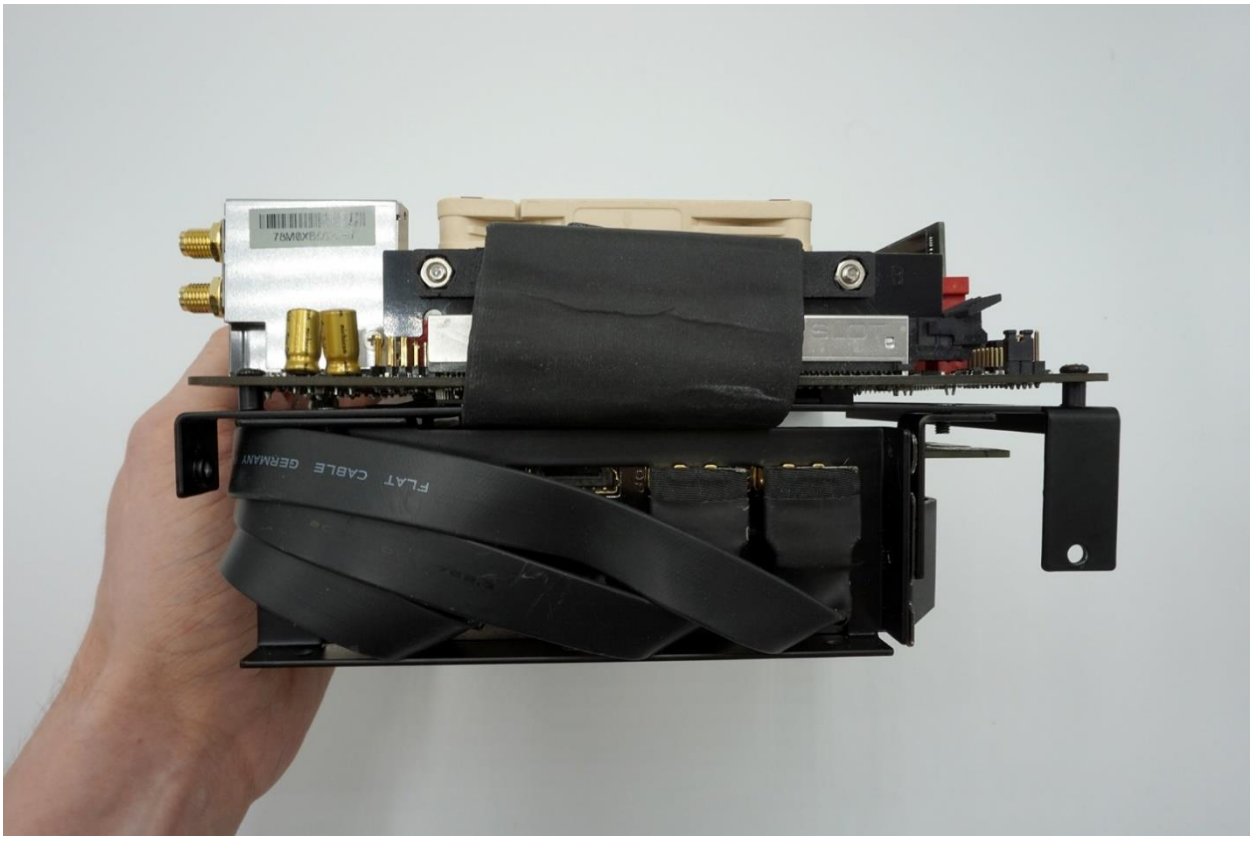


DISPLAY CABLE EXTENSIONS

Plug the cables into the graphics card and gently fold them in such a way that they do not protrude past the riser.

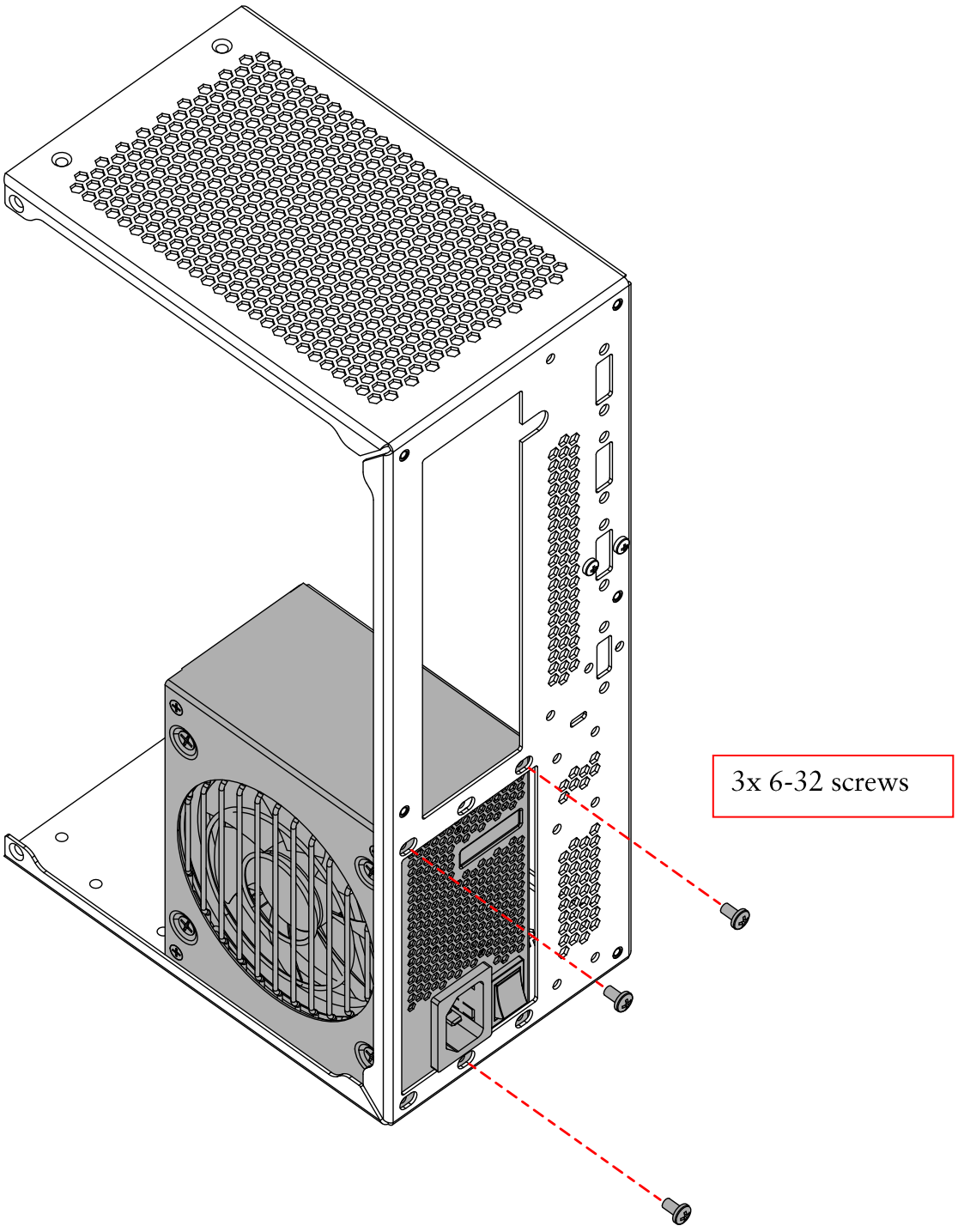
The cables must take up as little space as possible in order to slide easily into the frame later, but avoid making creases near the connector.




FLAT CABLE GERMANY

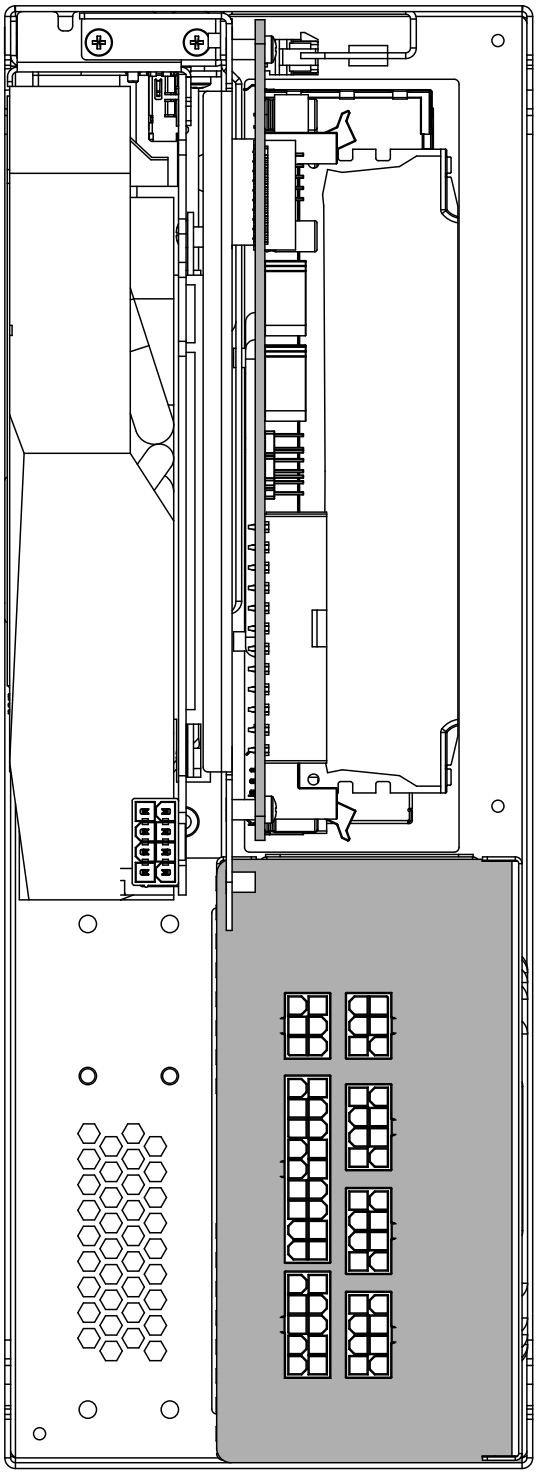
POWER SUPPLY

Orient the power supply such that its vents face outwards and secure it to the rear panel. For easier motherboard tray installation in the next step, the power supply may be pushed slightly to the right on the slots (looking from the rear).



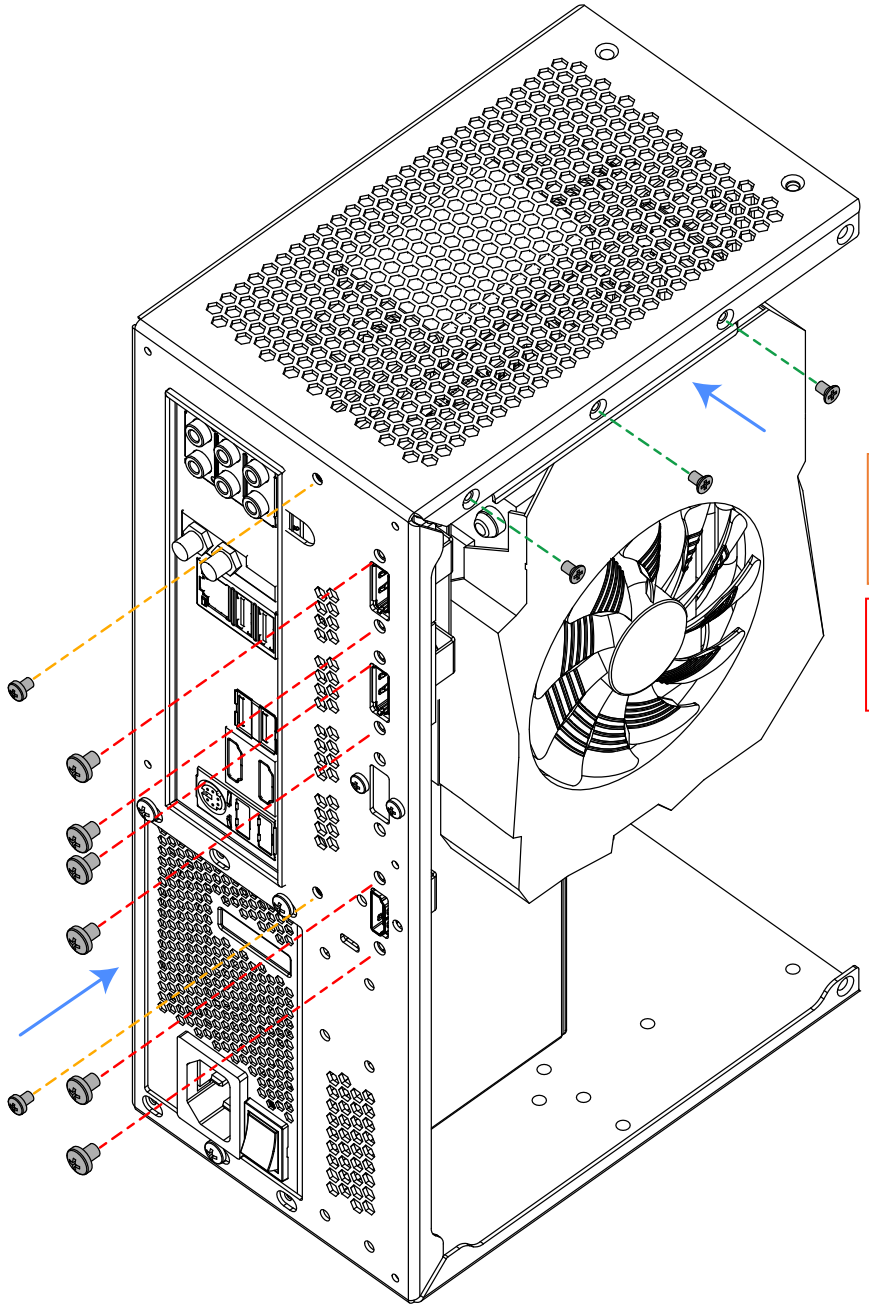
INSTALLATION INTO THE MAIN BODY

Insert the motherboard tray subassembly back into the main body of the case. If using the gen 4 PCIe cable, ensure that the wires do not cross over each other and protrude.



Some space must be left between the motherboard edge and power supply. The metal tray that the motherboard is mounted to, not the motherboard itself, should be resting on the power supply.

Connect the motherboard tray subassembly and display cable panel mounts.

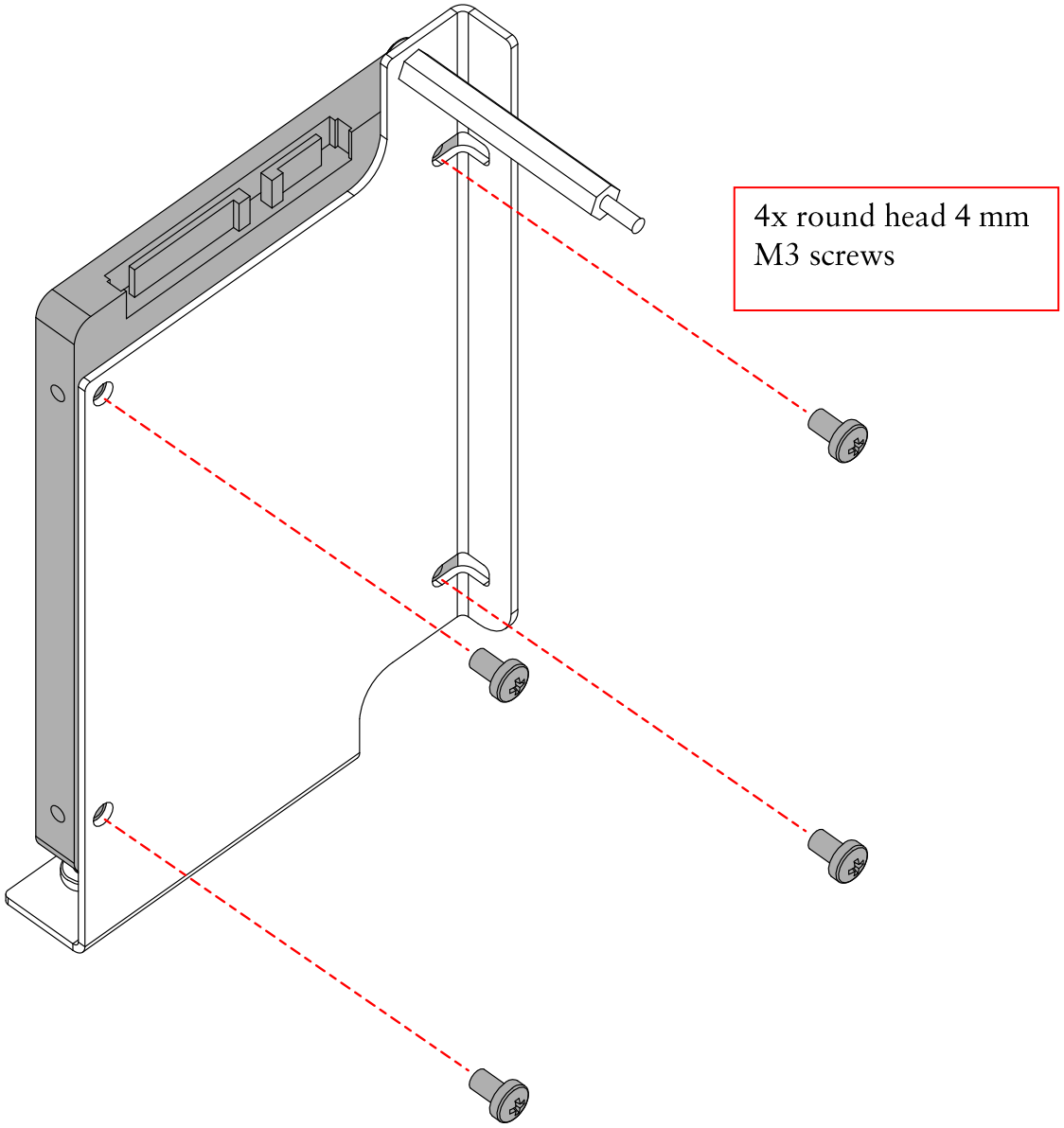


3x countersunk 5 mm M3 screws

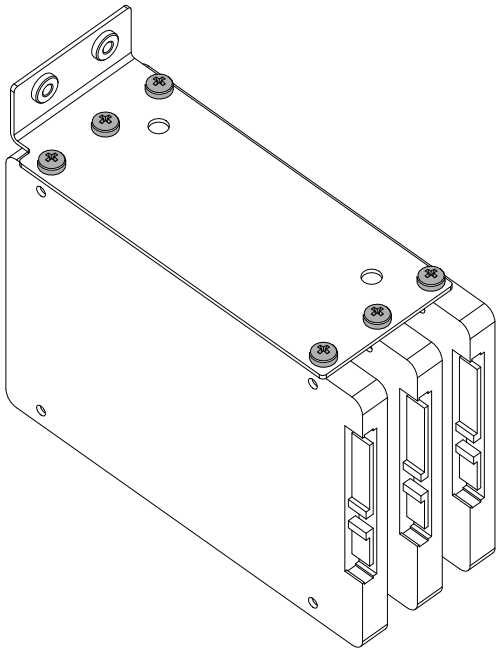
2x round head 4 mm M3 screws

6x round head 6 mm M4 screws

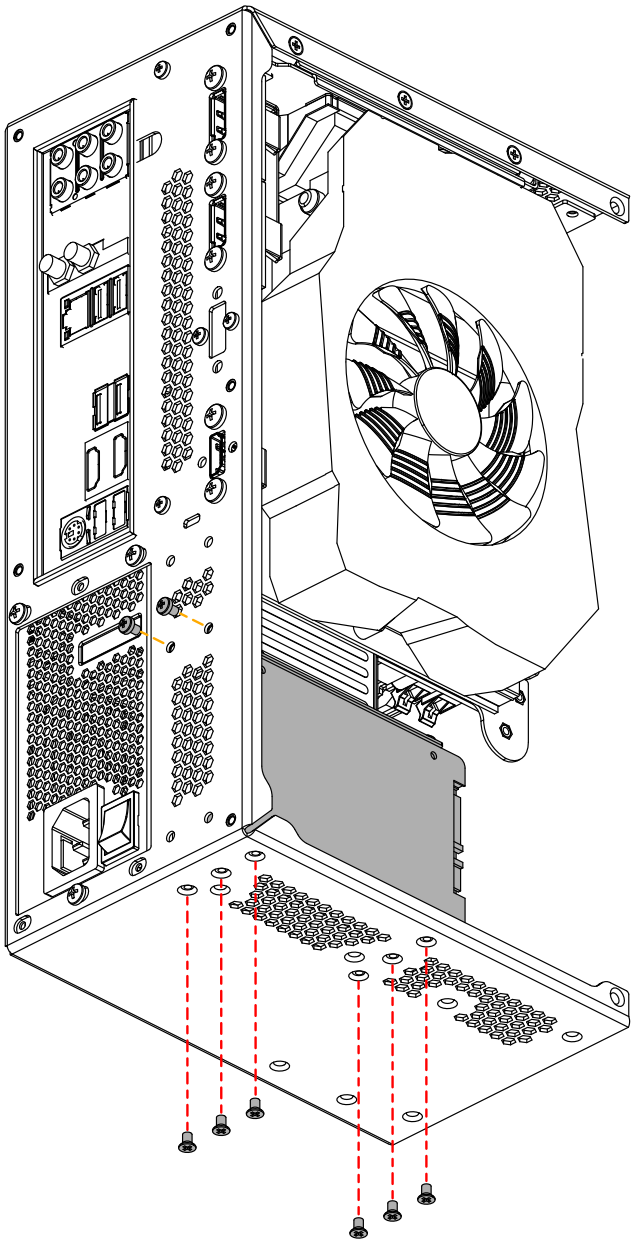
2.5” DRIVE INSTALLATION (DEDICATED MOUNT)



ADDITIONAL 2.5” DRIVES

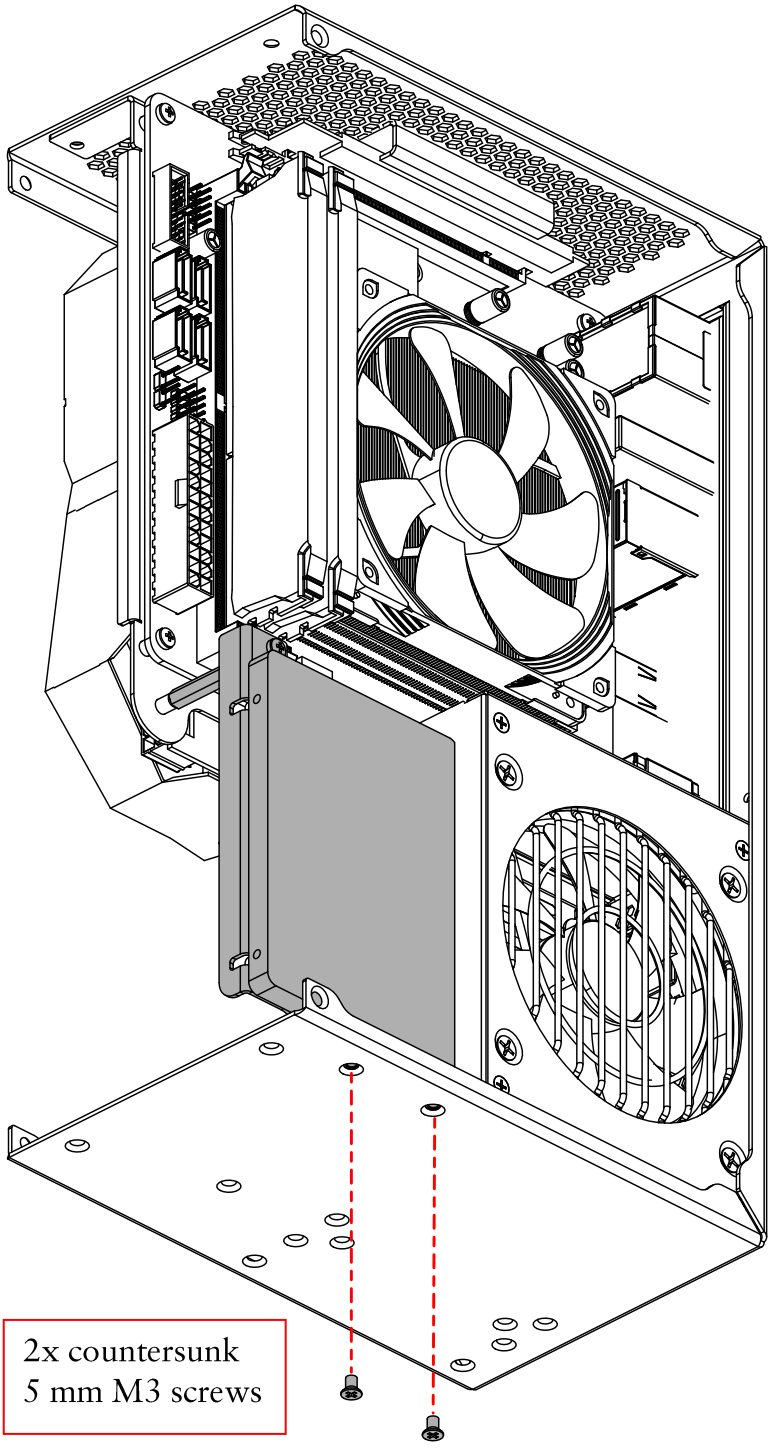


2x round head 4 mm
M3 screws



2x countersunk 5 mm
M3 screws per drive

Complete the frame by installing the 2.5” drive holder



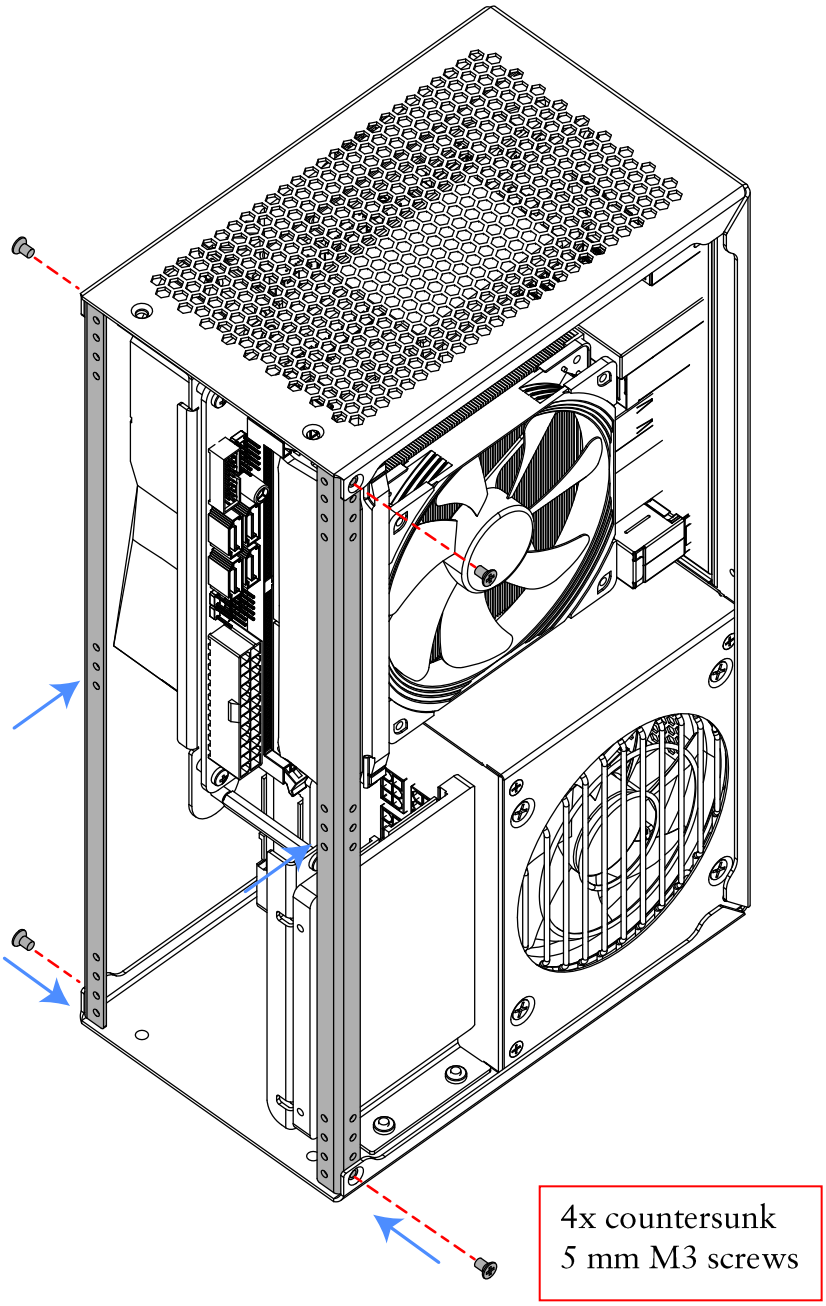
EVGA
650

GIGABYTE

GIGABYTE
CORSAIR

FRONT STRUTS

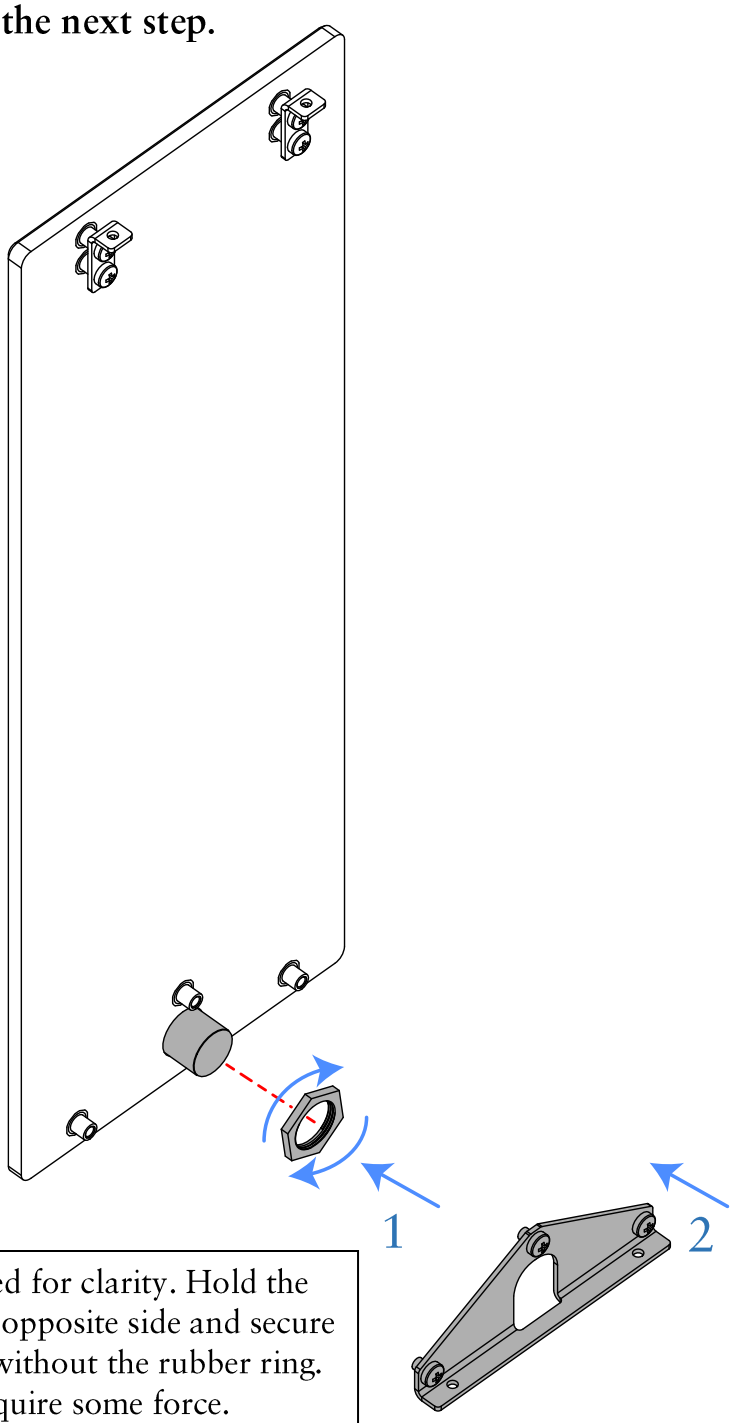
All cables must be plugged in before this step. Complete the frame by installing the two struts in the front.



POWER BUTTON

Remove the bottom bracket temporarily to install the power button. Use the hex nut to fix the button in place, then reinstall the bottom bracket.

Consult your motherboard manual for the front panel header pin layout and **plug the power button wires into the corresponding motherboard pins before proceeding to the next step.**

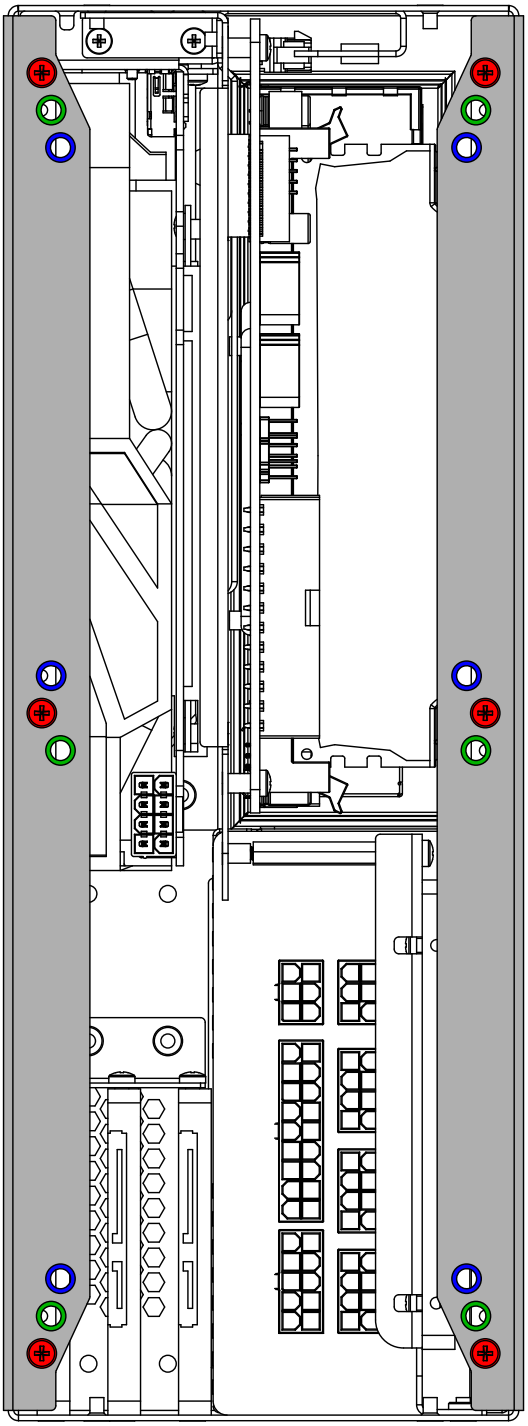


Button is enlarged for clarity. Hold the button from the opposite side and secure it using the nut without the rubber ring. This step will require some force.

SIDE PANELS

The power button must be plugged into the motherboard before installing the side panels.

The side panels have three positions. Spacing them farther away from the body of the case will result in quieter operation.



0 mm spacing

2 mm spacing (experimental)

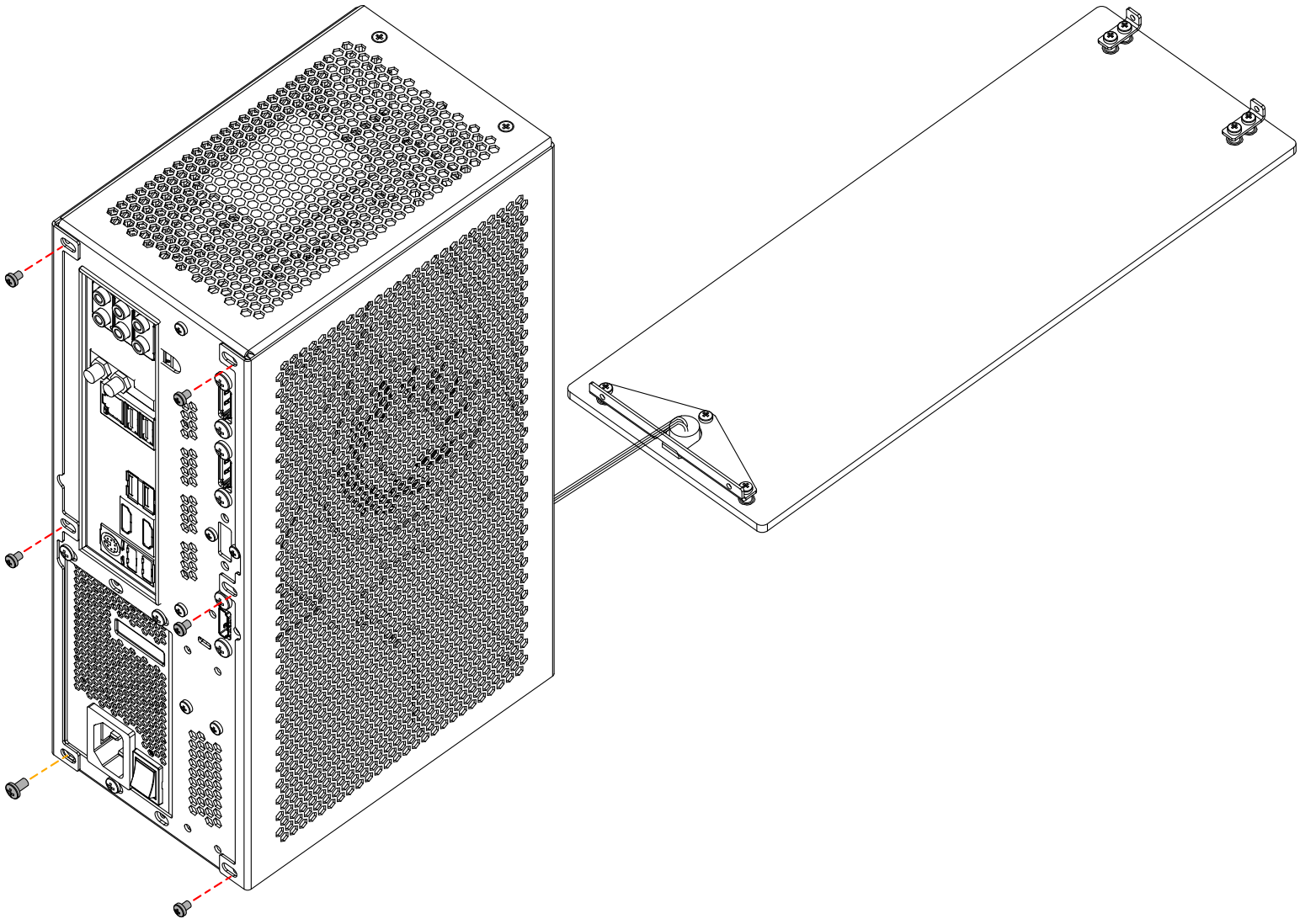
4 mm spacing (experimental)

If using the experimental 2 or 4 mm spacing, adhesive rubber feet may be inserted between the side panel and main body to help keep the side panels straight.

6x countersunk
5 mm M3 screws

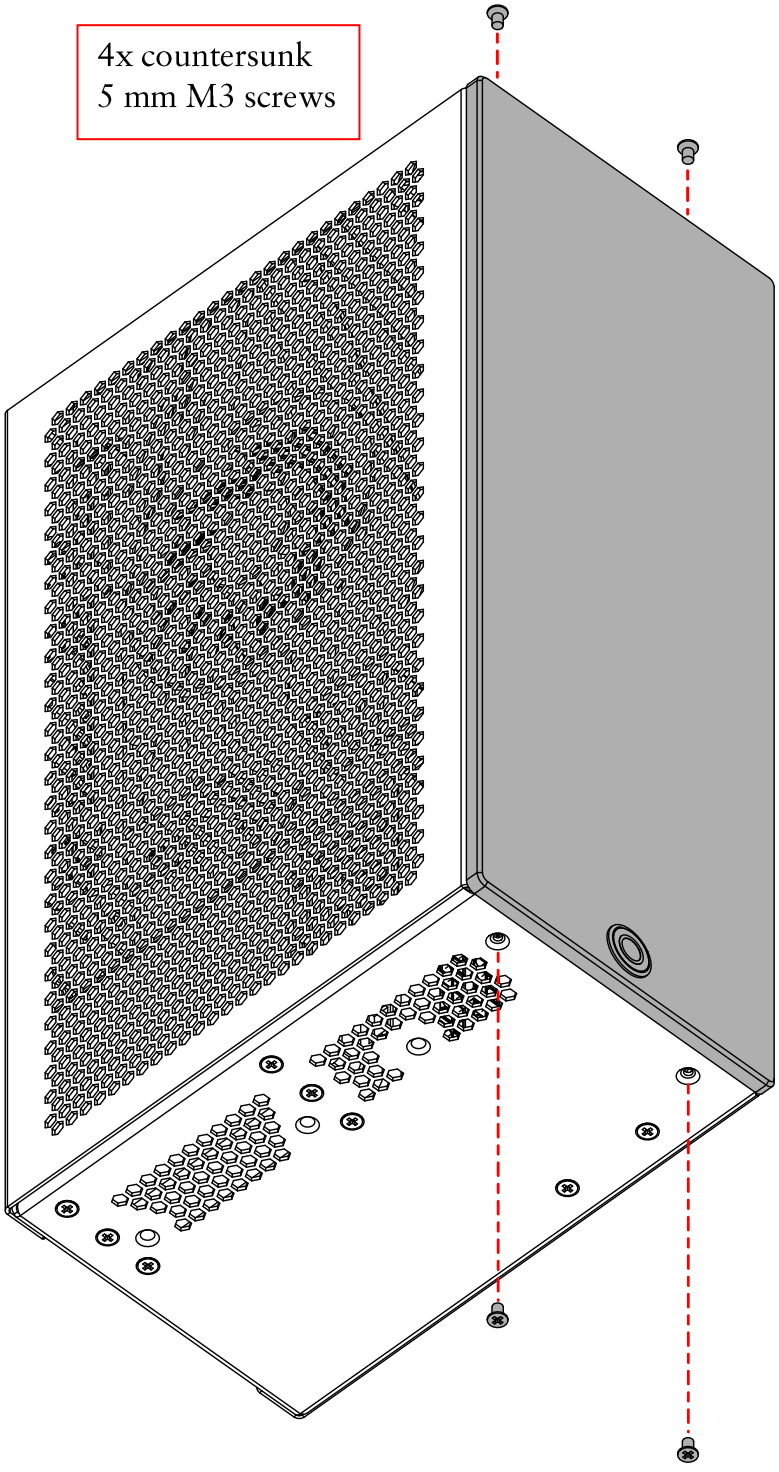
1x 6-32 screw

5x round head or countersunk M3 screws



FRONT PANEL

Slide in the front panel while carefully inserting the power button's cable into the case. Secure the front panel to the frame at the bottom and the top.

For an easier fit, re-position the brackets on the inside of the front panel away from the edges.

Stick on the included adhesive rubber feet.