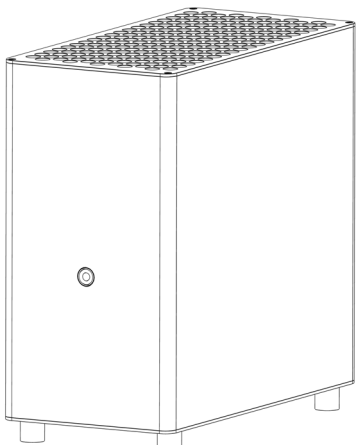
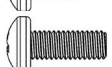
WINTER ONE



v1.2 User Guide

Table of Contents

Fasteners

Count	Thread	Length [mm]	Type	Image
2	-	2	Spacer	
13	M3x0.5	5	CSK	
3	M3x0.5	8	CSK	
8	M3x0.5	12	CSK	
6	M3x0.5	5	PAN	
2	M3x0.5	8	PAN	

Drive Cage				
Count	Thread	Length [mm]	Type	Image
20	M3x0.5	4	PAN	

Pump Bracket				
Count	Thread	Length [mm]	Type	Image
2	M3x0.5	8	PAN	

Required Tools

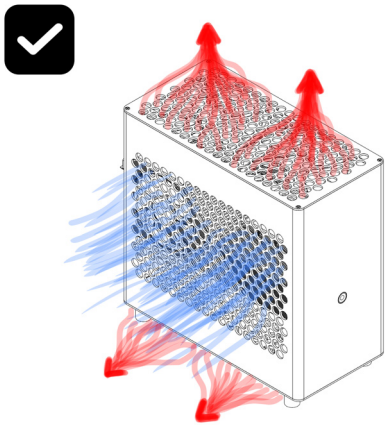
Philips No. 1

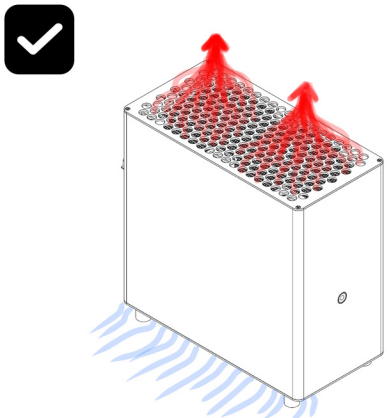
Cable Lengths

Cable	Destination	Length [mm]
24 Pin ATX	Motherboard	120
8 Pin EPS	Motherboard	290
8 Pin PCIE -> GPU	Graphics Card	200
6 Pin Power	Pump Bracket	140
6 Pin -> Pump Bracket	Drive Cage	120
PCIE Riser (Double Reverse)	Motherboard / GPU	175
C13 to C14 Connector	Power Supply	300

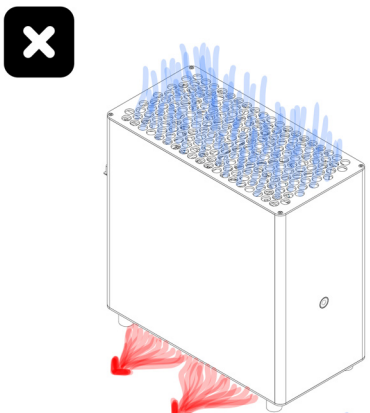
Airflow & Cooling Guide

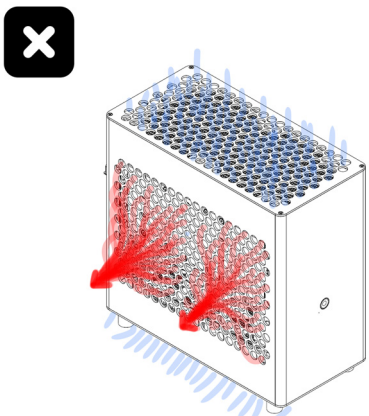
Recommended airflow configurations for Winter One

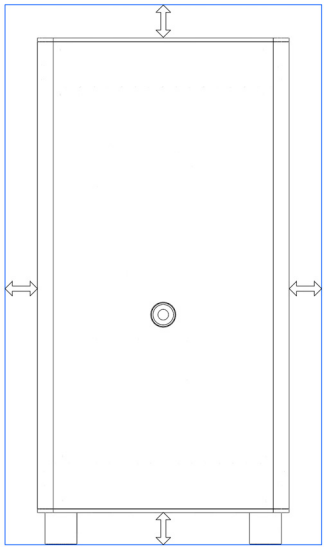




Not recommended airflow configurations for Winter One



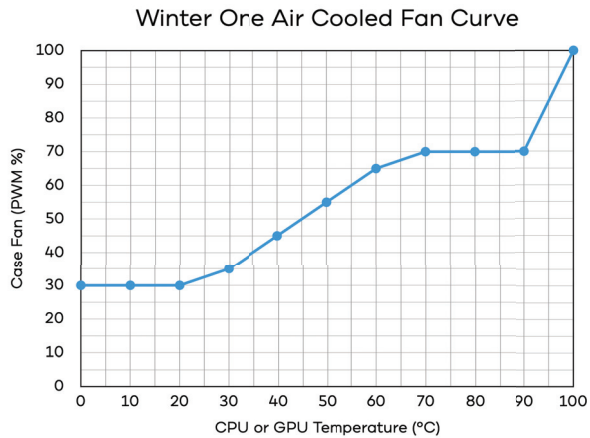




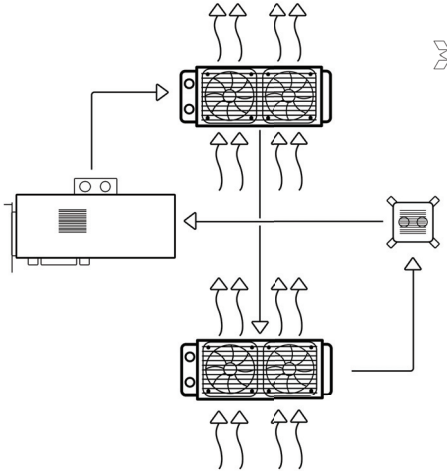
For adequate ventilation and optimal thermal performance, leave a *minimum* of 2 cm on all sides of Winter One.

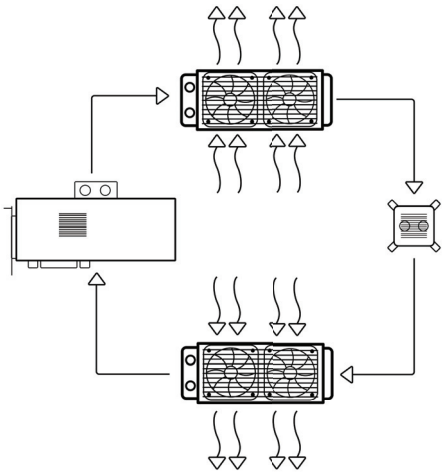
A good general fan curve for air cooling Winter One (balanced noise and cooling).

For liquid cooling, set fans to maintain a coolant temperature between 35-45 °C and set a constant pump speed.



If your case airflow is bottom → top, plan your loop as shown on the right, so coolant flows through the radiators from top → bottom. Having the air and water flowing in opposite directions maximizes ΔT at every point in the loop.

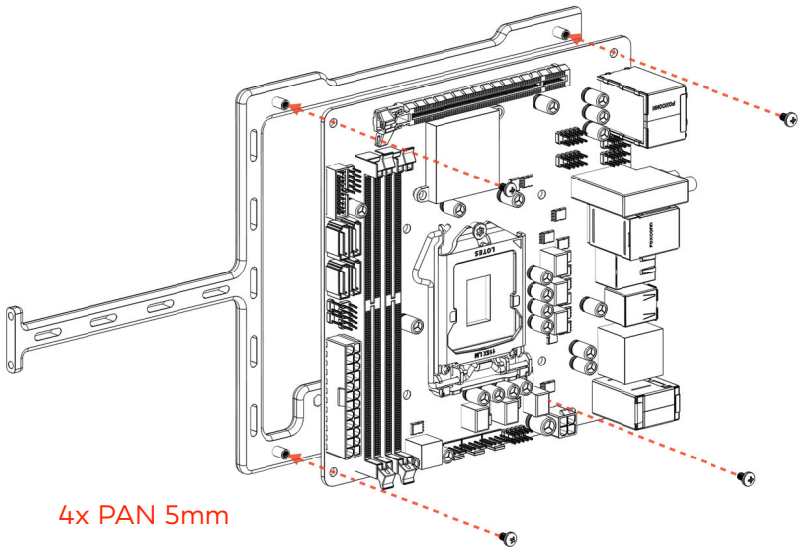




If your case is set up for all-exhaust flow, plan your loop as shown on the left. The CPU and GPU should both receive cool water from a radiator in the loop. This will make an extra 1-2 °C difference in cooling—especially at lower pump speeds—when each radiator has an independent supply of ambient air.

Air Cooling Build Instructions

1



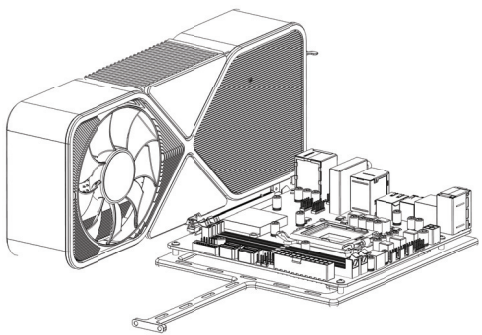
4x PAN 5mm

2

!

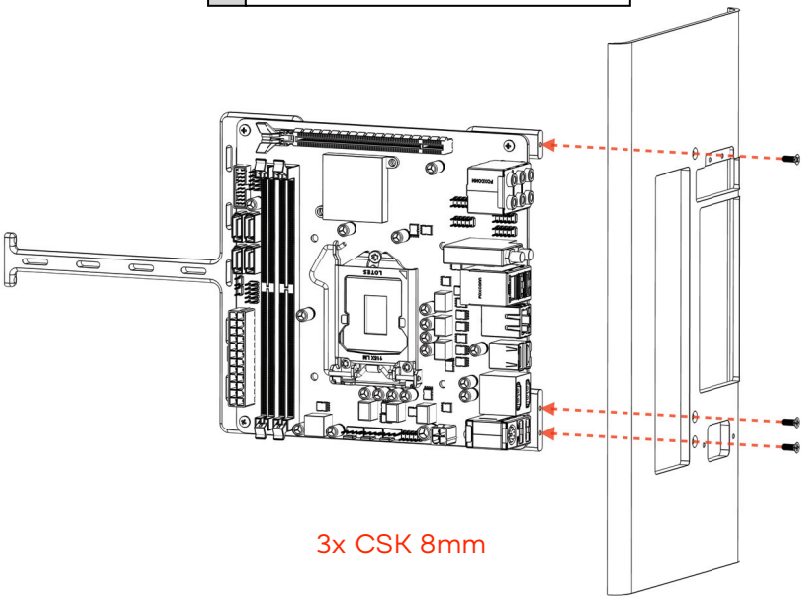
WARNING: DO NOT SKIP

If motherboard and GPU use PCIE 4.0, connect GPU directly to motherboard. Connect parts to power supply, boot up, and switch motherboard BIOS to 3.0 before proceeding.



3

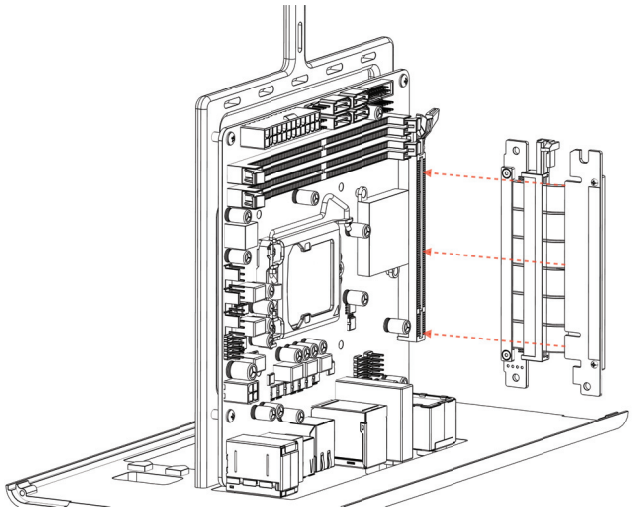
You can leave cables from the previous step plugged into the motherboard.



3x CSK 8mm

4

Attach the CPU cooler and motherboard parts before connecting the riser cable.



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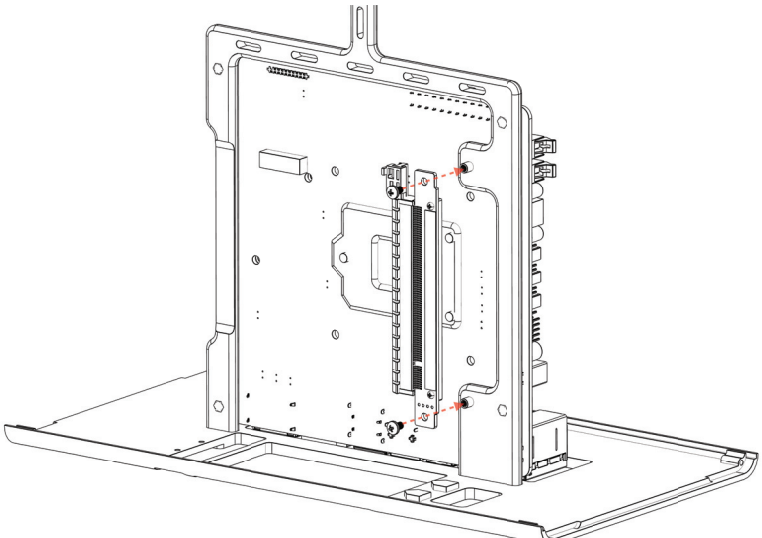
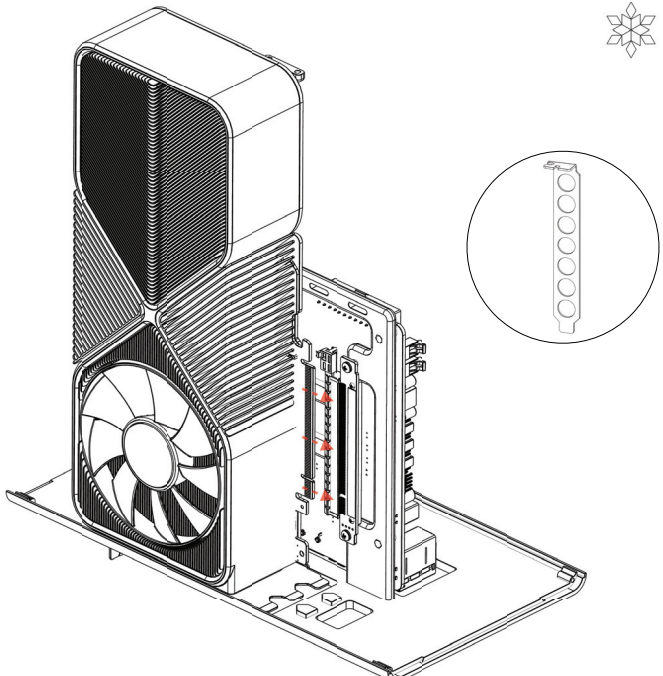


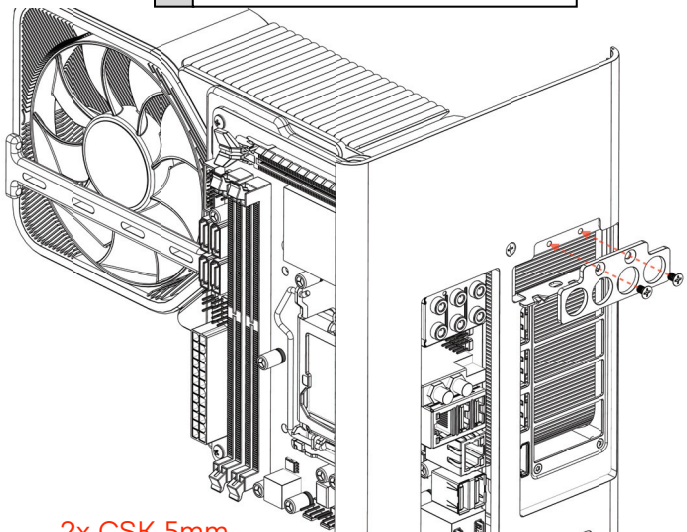
2x PAN 5mm

6



7

Once the bracket is secured, plug in the GPU power cable.



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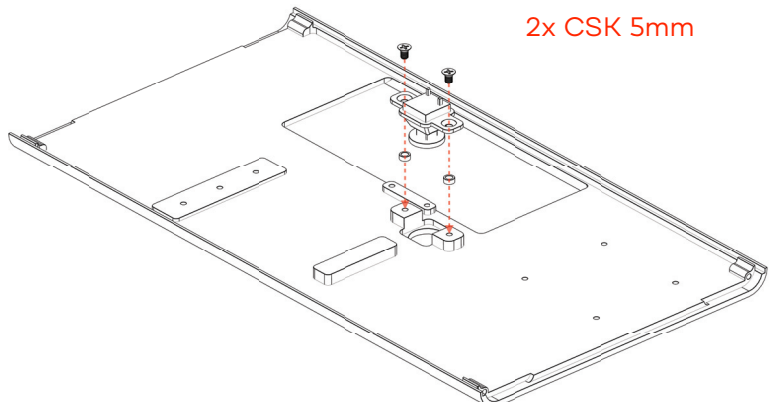

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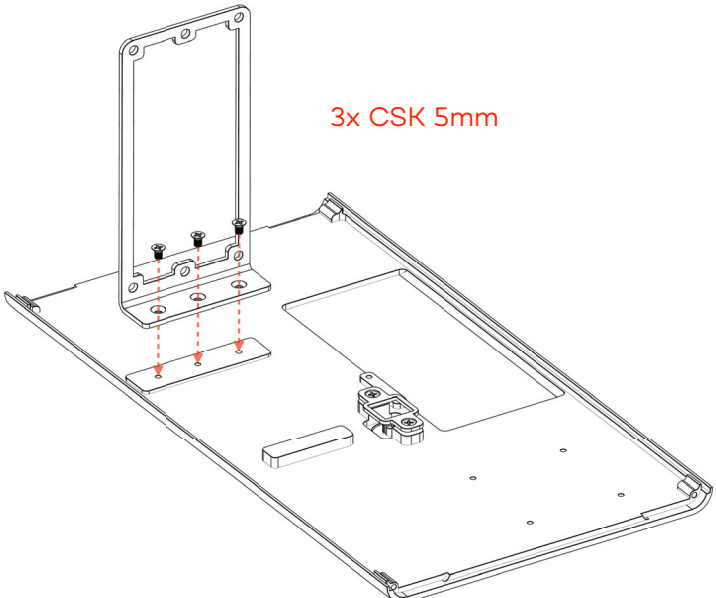
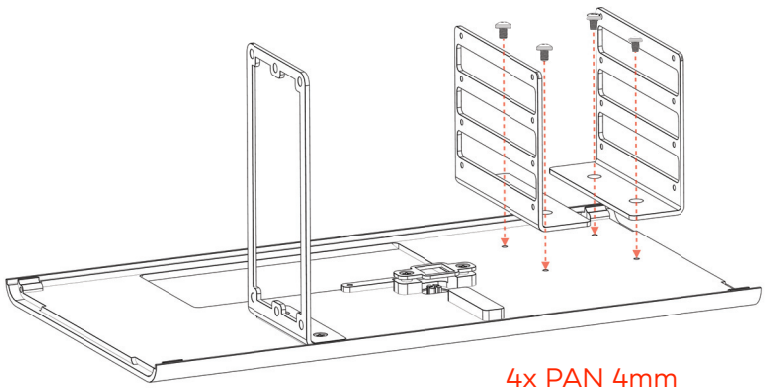


10

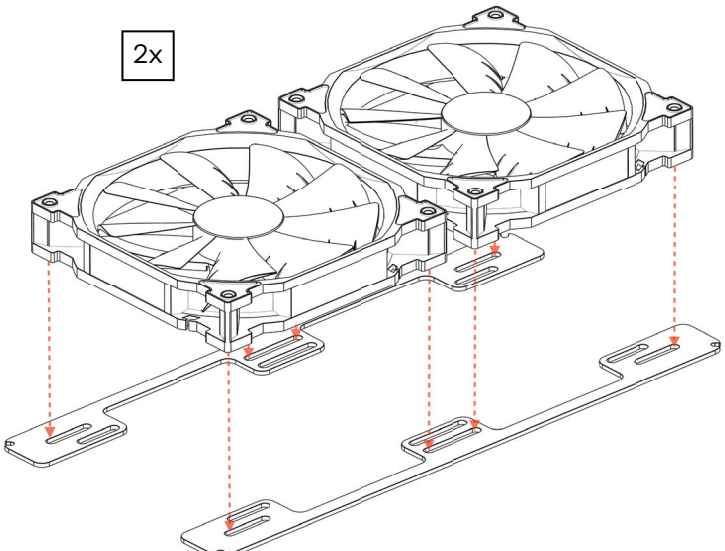
Attach up to four 2.5-inch drives using PAN 4mm screws.



11

Drive cage users will only be able to fit 3 fans.

2x



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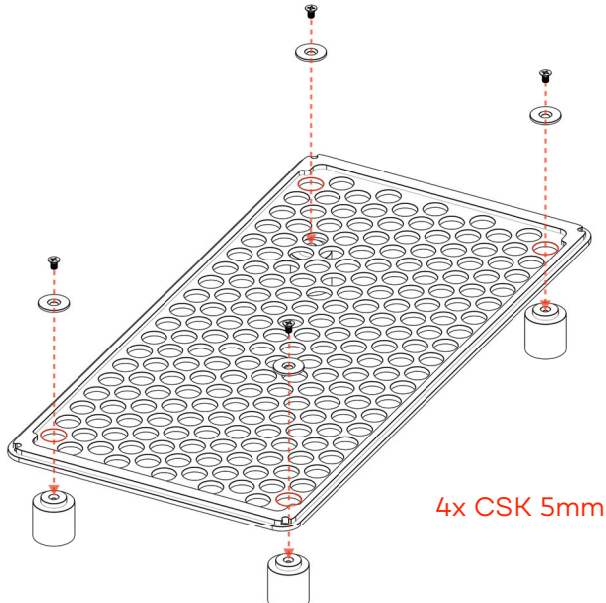

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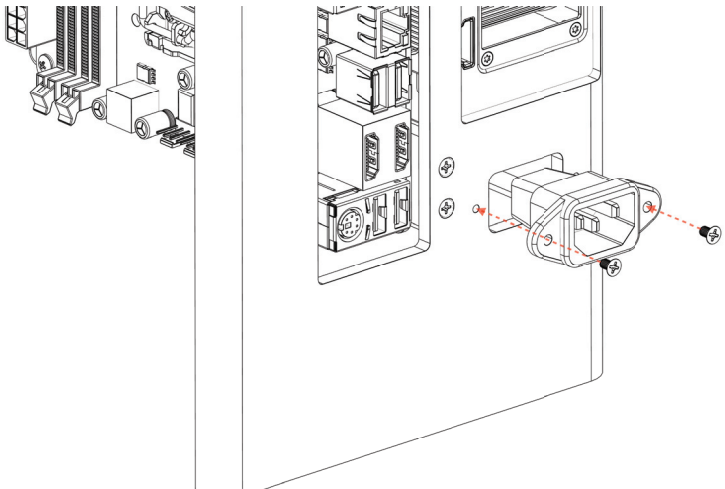
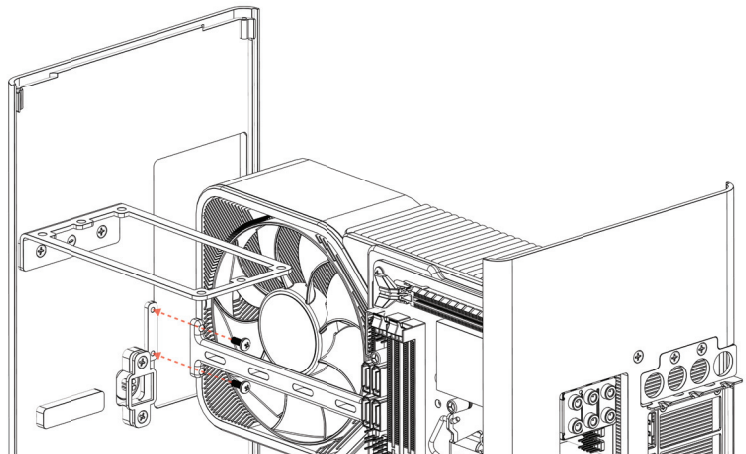


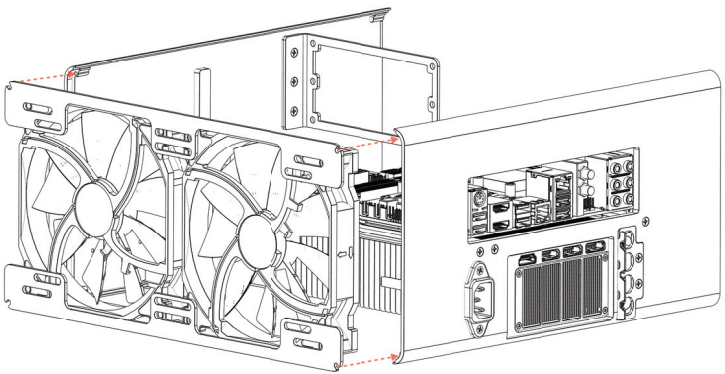
2x CSK 5mm

14



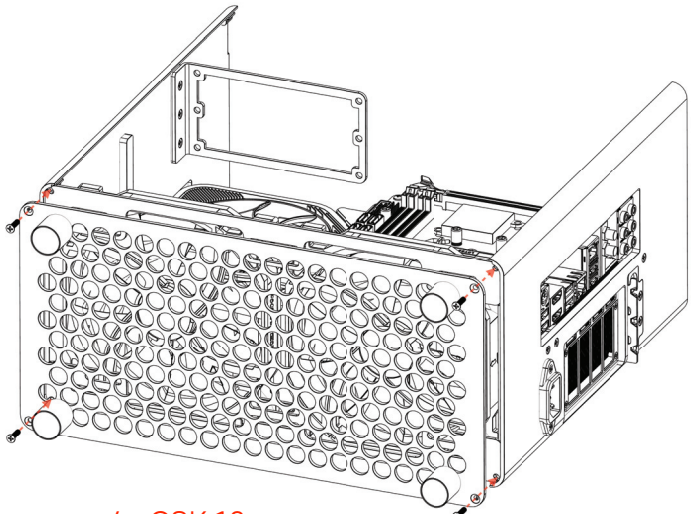
2x PAN 8mm

15



16

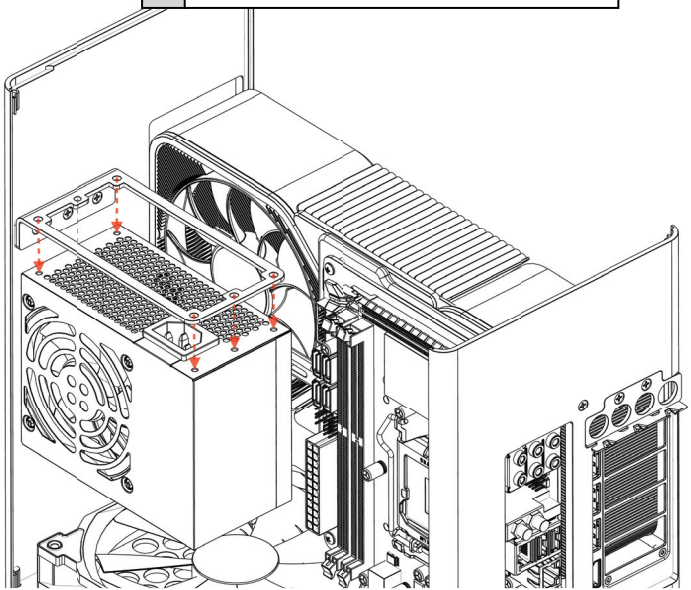
Tighten the screws in an “X” pattern.



4x CSK 12mm

17

Route and secure cables before mounting the power supply. The PSU fan should face outwards for perforated panels, and inwards for solid panels.



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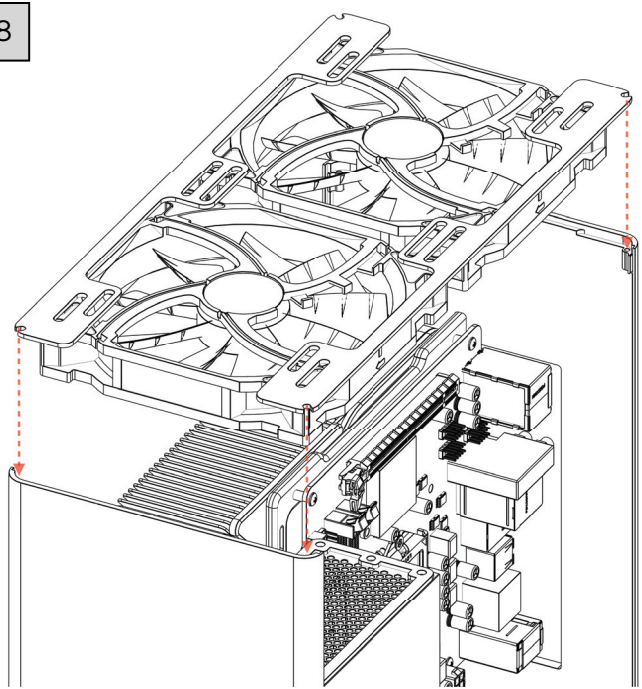

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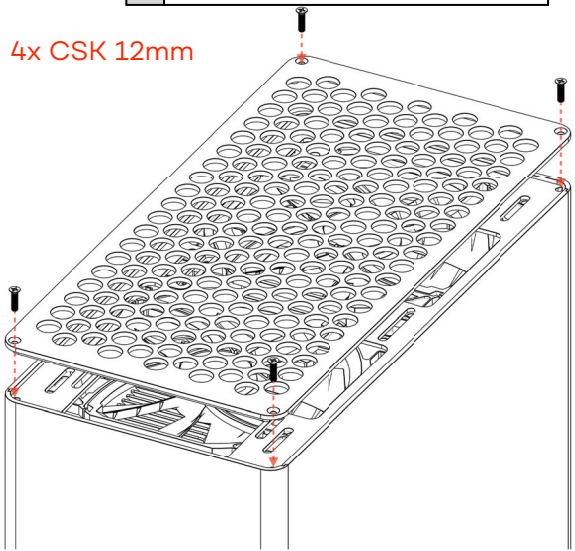
20

Tighten the screws in an “X” pattern.

4x CSK 12mm



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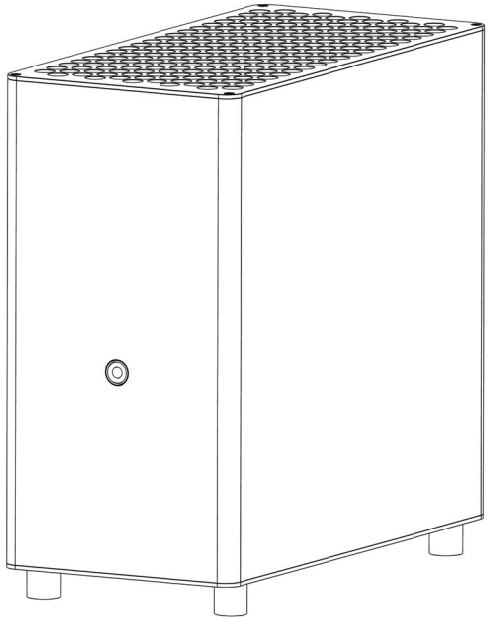

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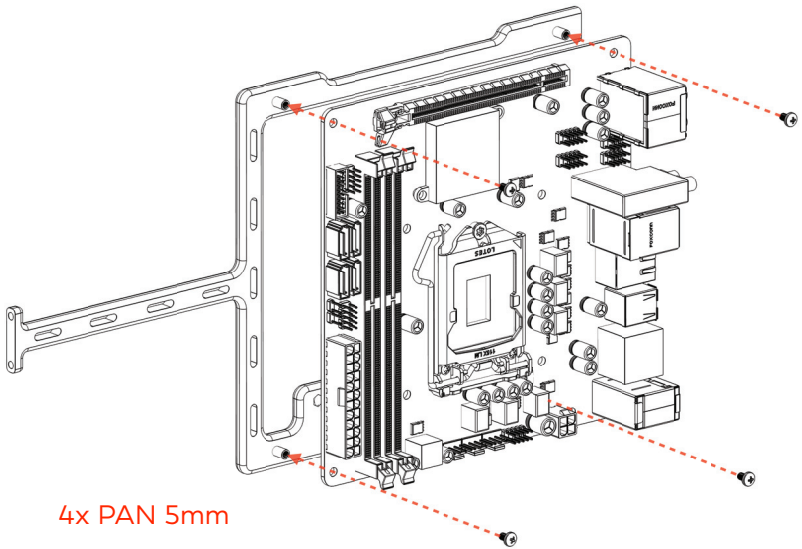
*subject to our approval

Water Cooling Build Instructions

1



4x PAN 5mm

2

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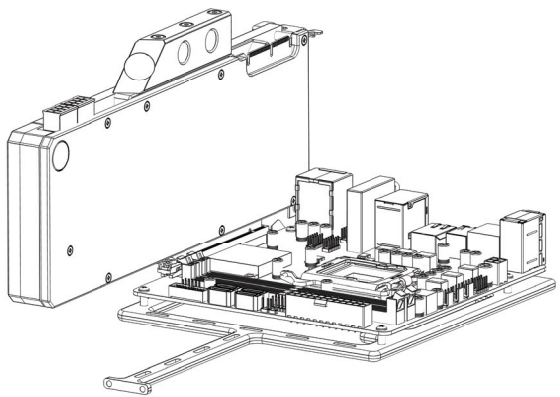

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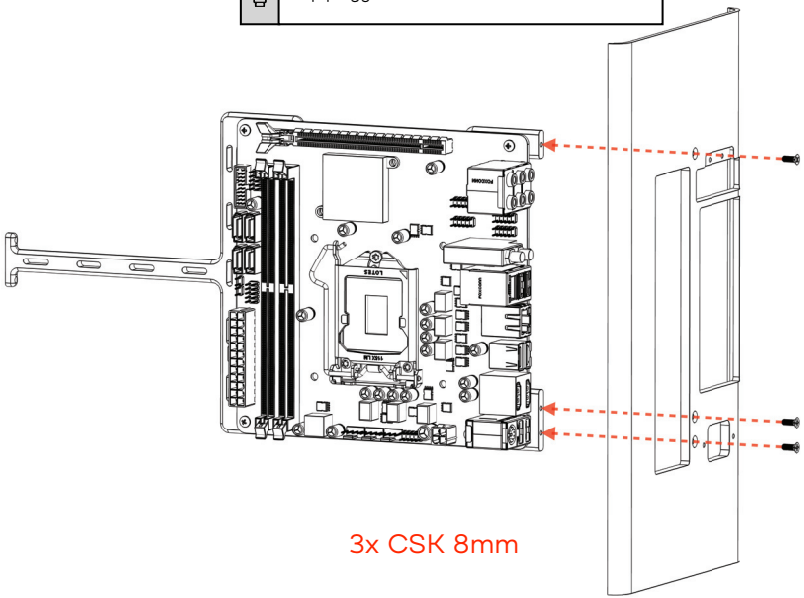
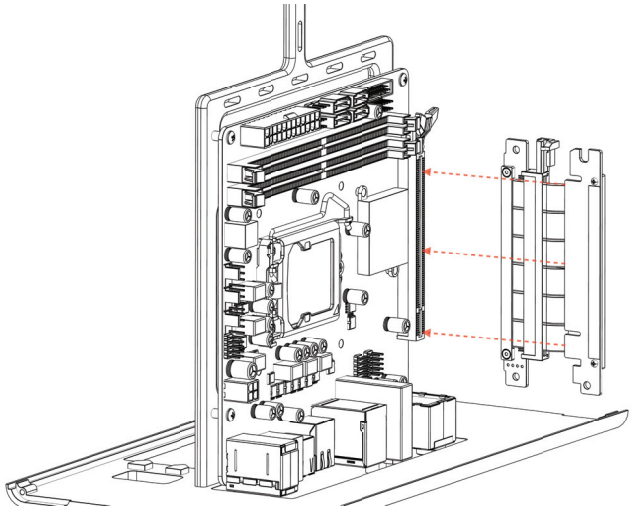
You can leave the cables from the previous step plugged into the motherboard.



3x CSK 8mm

4



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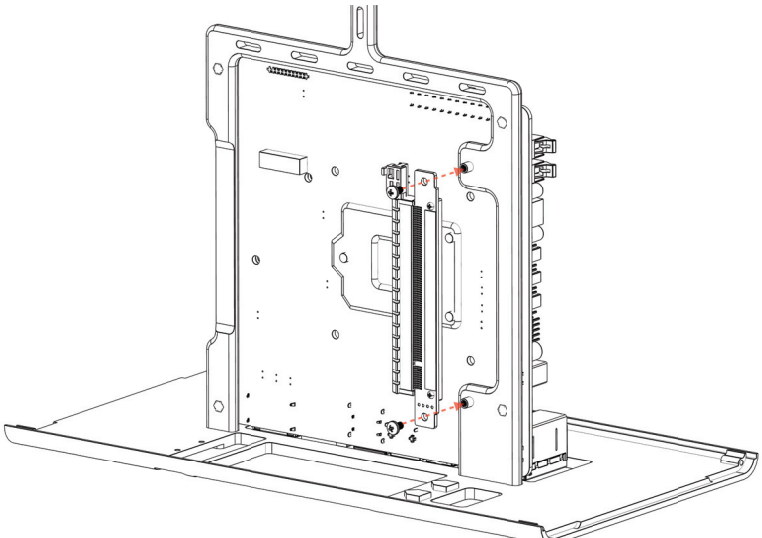
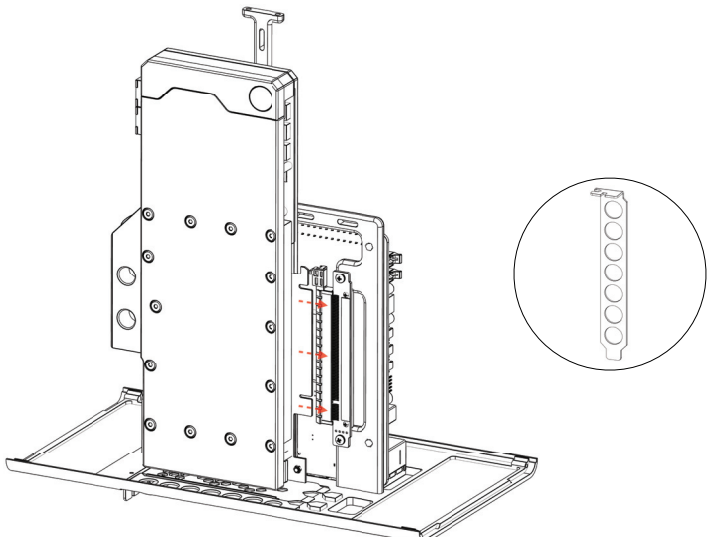


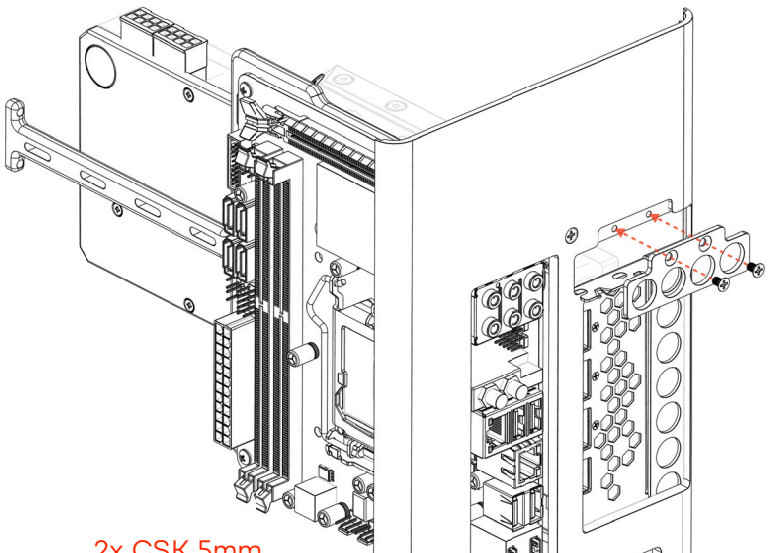
2x PAN 5mm

6



7

Once the bracket is secured, plug in the GPU power cable.



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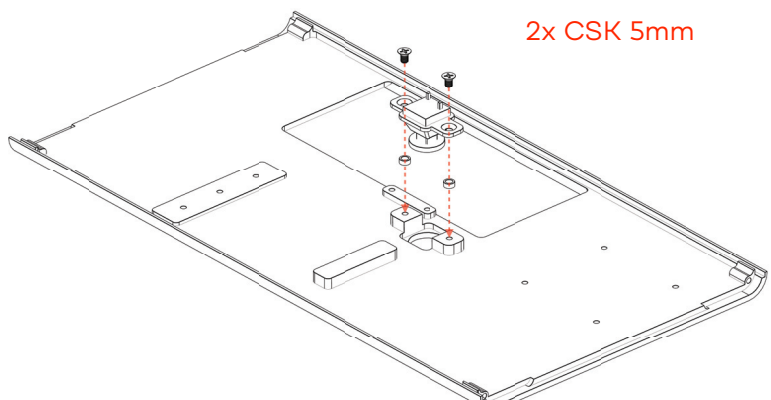

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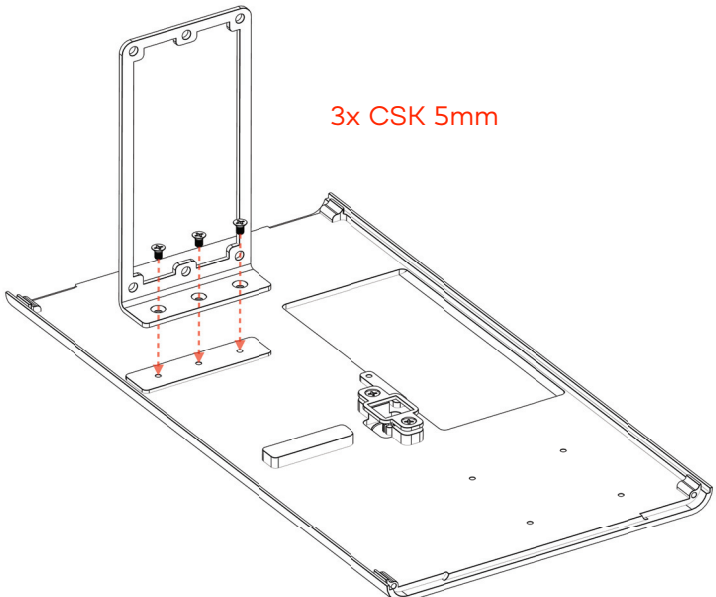

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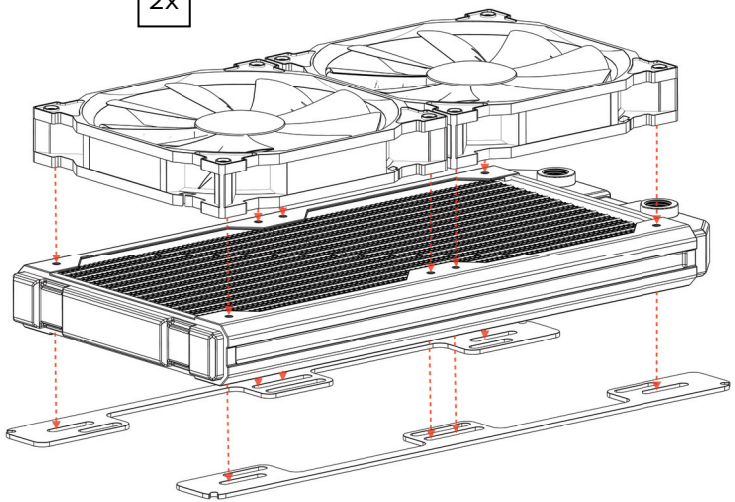
2x



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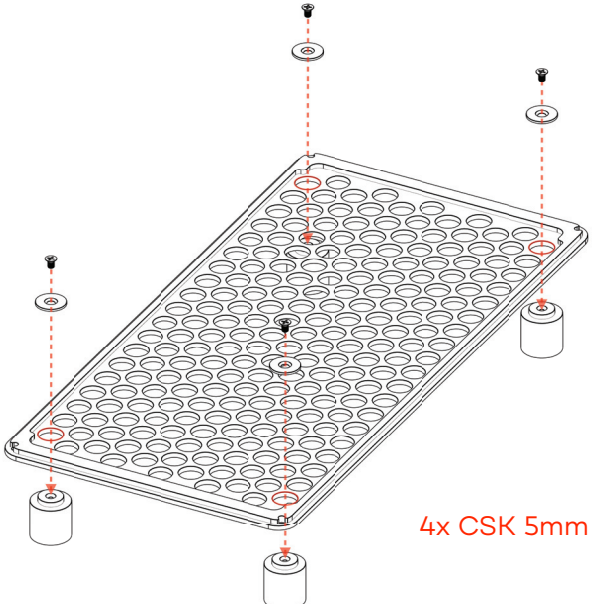

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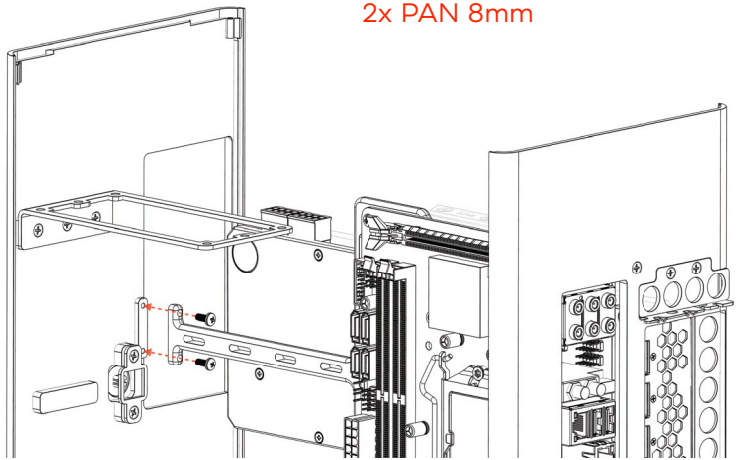

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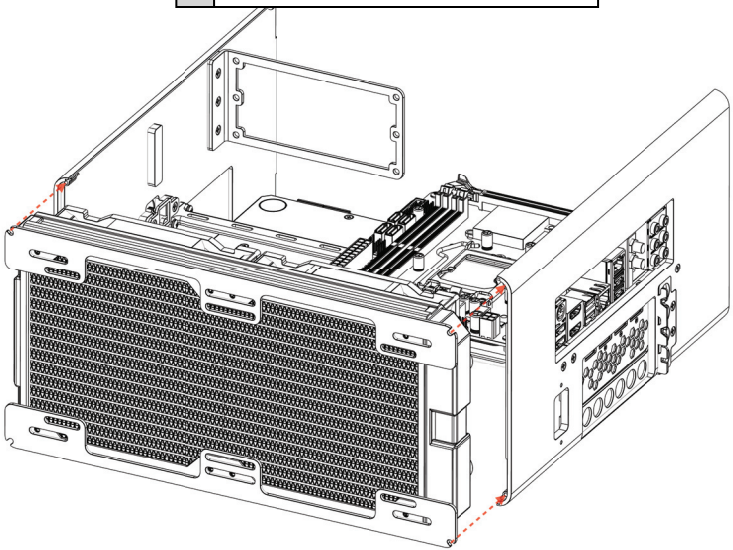
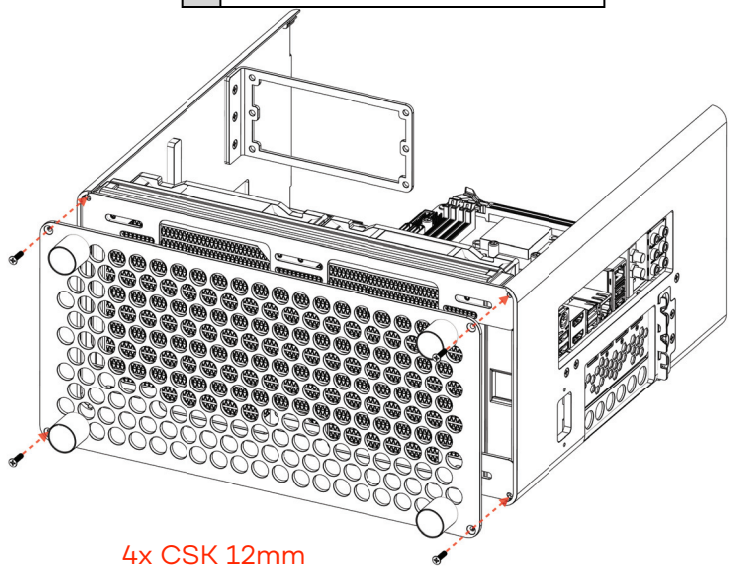


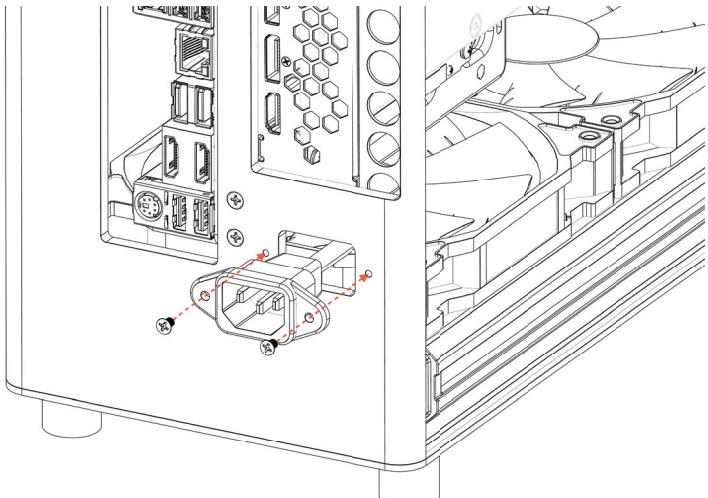
14

Tighten the screws in an “X” pattern.



4x CSK 12mm

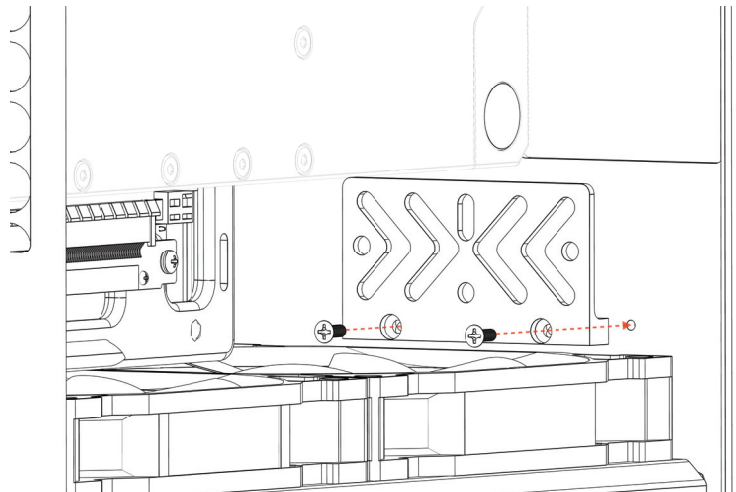
15



2x CSK 5mm

16

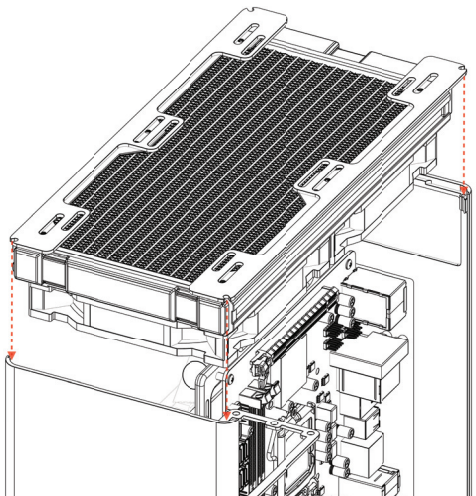
The pump bracket can be mounted in 8+ ways. You may need to attach the pump before mounting the bracket to the case.



2x CSK 8mm

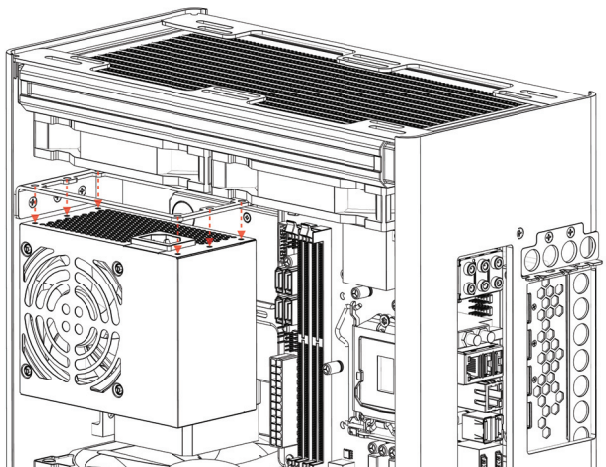
17

Route tubing/cables before mounting PSU. Fill loop with external PSU. Attach top panel for radiator stability when removing bubbles.



18

The PSU fan should face outwards for perforated panels, and inwards for solid panels.



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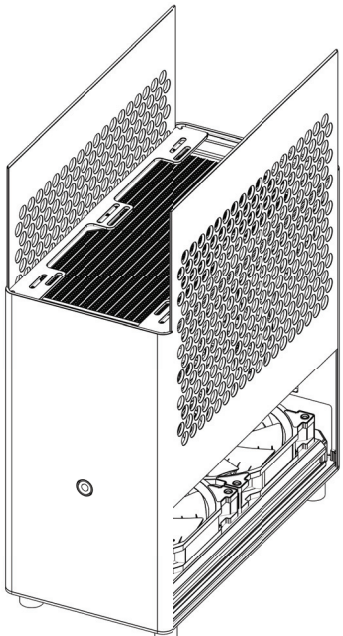
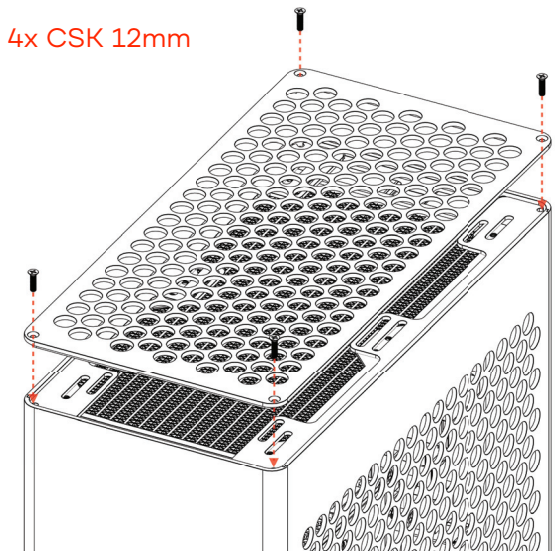


20

Tighten the screws in an “X” pattern.



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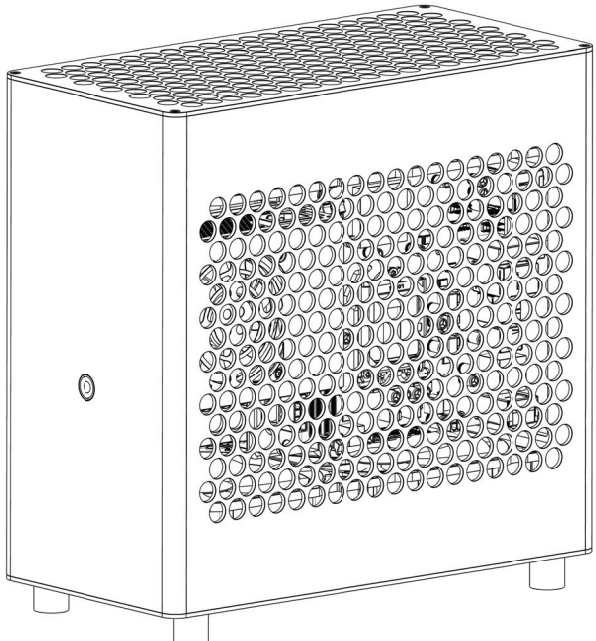

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*subject to our approval

Warranty

Winter Design products should last a decade when treated with care. Winter One is covered with a 10-year limited warranty from the date of shipping. We automatically register you for the warranty at the time of purchase. Need help? Visit http://www.winterdesign.co/support.

Covered
- Manufacturing defects
- Shipping damage
- Missing parts
- Incorrect parts

Not Covered
- Normal wear
- General abuse
- Product misuse
- Damage to non-case parts
- Damage from modifications
- Scratches

Disclaimers

Winter One's large holes facilitate excellent cooling but may be a hazard for children or pets. If this is a concern, please use solid panels, and keep the system out of reach of pets and children.

Winter Design will not be responsible or liable for any harm that comes from irresponsible use of its products.

Winter Design will not be responsible or liable for damages caused to your computer components from overclocking or liquid cooling. Both have inherent risks, and the user agrees to take the necessary precautions.

Winter Design products are designed in the United States and manufactured globally. Manufacturing partners and locations can change as we manage our supply chain.