

# **SV540**

Vertical Mini-ITX PC Case - Build Guide V2.0



## **SCREWS**

The SV540 comes with a total of 5 different screws. For the purposes of this guide we will assign a unique color to each of screw to signifying their locations throughout this guide.



**GREEN M3 x 6mm PAN HEAD**Securing PCIe Cards



PINK M3 x 8mm FLAT HEAD Power Cord



RED M3 x 5mm FLAT HEAD
Power Cord Mount Bracket
SSDs / SSD brackets

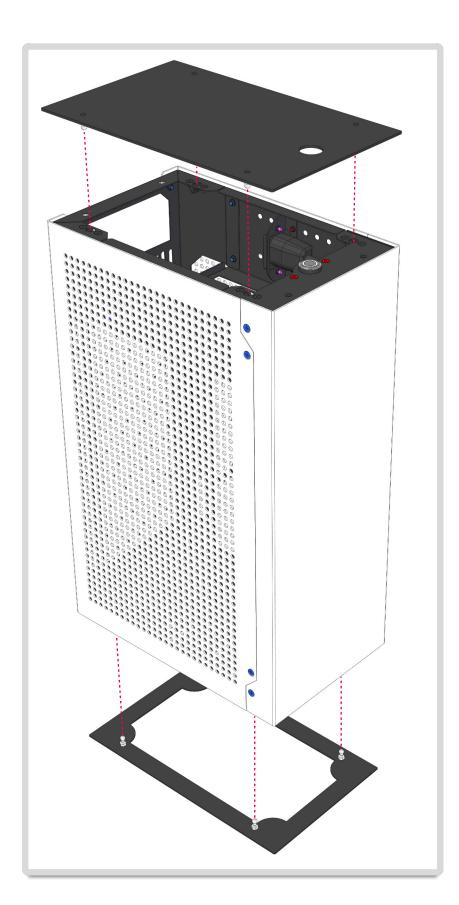


VIOLET 6-32 x 1/4" HEX HEAD
Motherboard
Power Supplies
Radiators



BLUE 6-32 x 1/4" FLAT HEAD Side Panels Case Frame Assembly 3.5" Hard Drives Base Plate (Optional)

## **TOOL-LESS END CAPS**



The SV540s top and bottom covers feature tool-less removal via ball-stud mounting points.

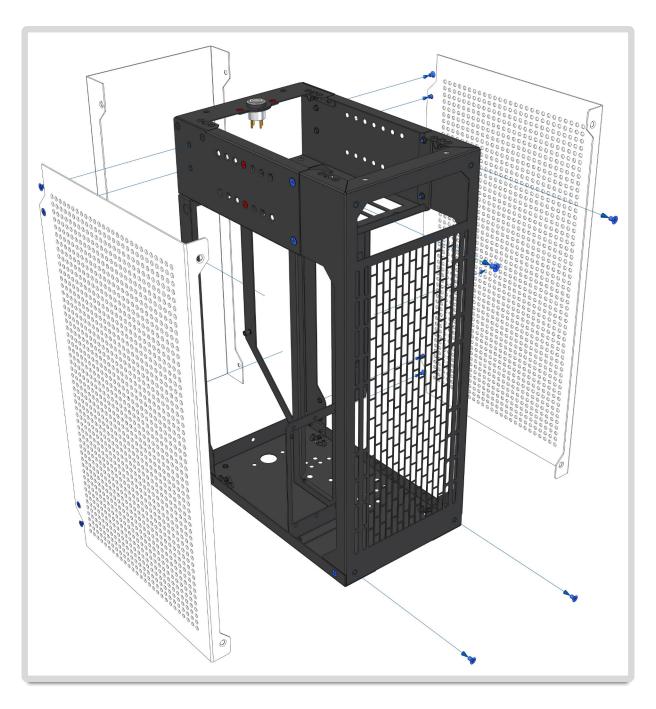
This feature allows for convenient access to your motherboard and PCIe card IO ports regardless of case orientation.

The top and bottom panels can also be reversed onto either end of the case, allowing the "cable cubby" side to face up or down.

**Note**: these panel may be very tight on the first few times on/off!

## PANEL REMOVAL

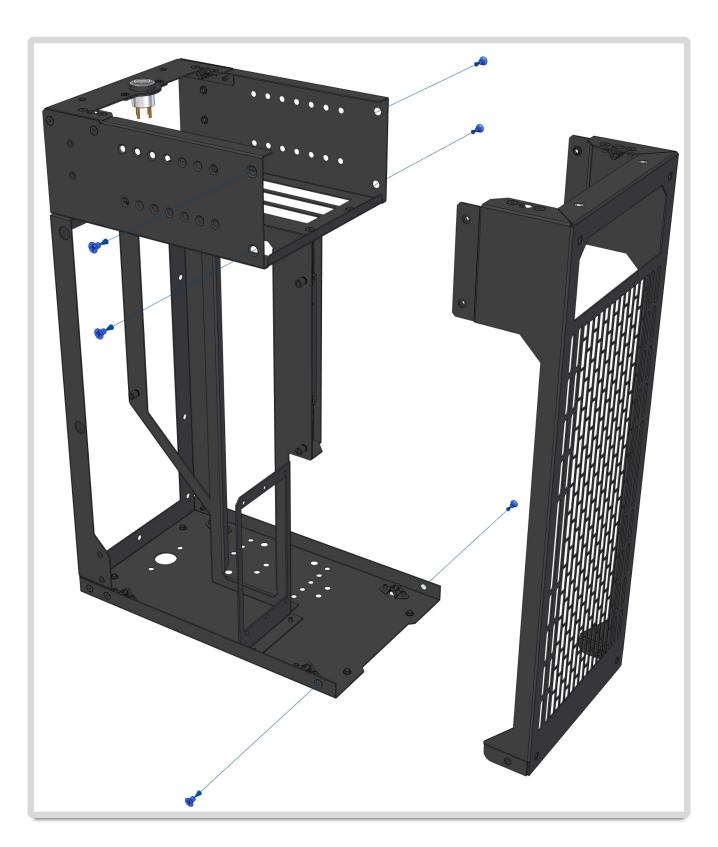
The front panel is the only panel that **will** stay in place without the screws. The easiest method to remove the front is to first remove the side panels, and then push against front panel from inside the case. All panels attach with  $12x 6-32 \times 1/4$ " FLAT HEAD



**Note**: The front panels may scratch the case frame! Please handle all panels carefully.

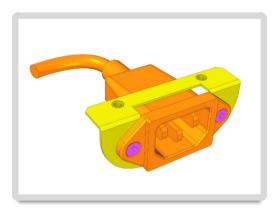
## **CASE FRAME**

The rear radiator mount bracket of the SV540 frame is held on by **6x 6-32 X 1/4" FLAT HEAD** screws; two on each side of the cable cubby, and one on each side at the opposite end of the case.

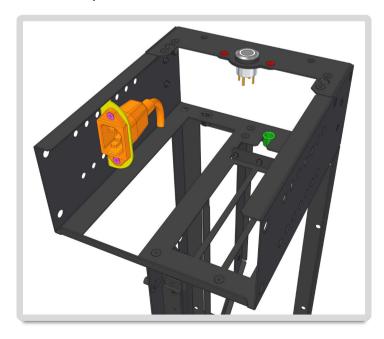


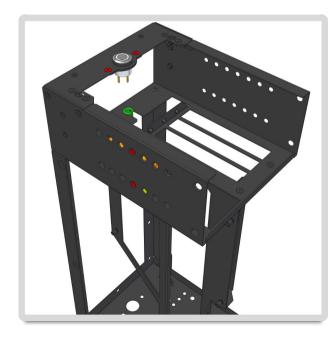
## **POWER CORD**

The SV540 includes an internal power cord extension, protective grommet, and mount bracket for routing the power supply inlet into the "cable cubby" of the case frame. Clip the **Cable Grommet** onto the power cord before you install it into the case, then run the cord through the cutout located above the PCle card tab cutout, and finally slide the grommet into position as shown below.



The power cord extension is then installed into the mount bracket with  $2x M3 \times 8mm$  FLAT HEAD screws. Once the power cord has the bracket attached and power cable is routed through the grommet. It may be attached to the case frame via  $2x M3 \times 5mm$  FLAT HEAD screws at any of the viable mount locations. The bracket can be positioned to where it least obstructs the motherboard or GPU ports. Make sure to point the open end of the inlet towards the rear of the case!





## **POWER BUTTON**

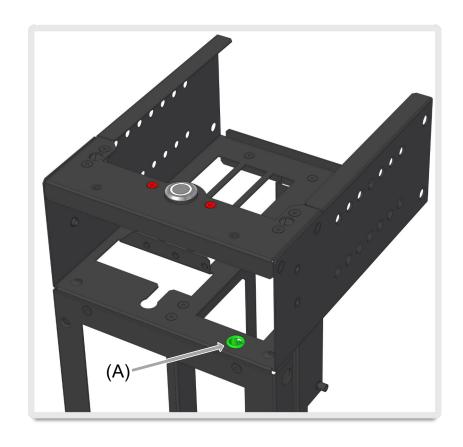


SV540 has the ability to mount the power button to either end of the case frame.

The power button is attached to a small bracket which can be relocated to either mounting position.

This bracket is secured to either end of the case with 2x M3 x 5mm FLAT HEAD screws.

When the power button is mounted on the "cable cubby" end of the case frame, you will need to pass the button cable & connectors through the hole and grommet located next to the motherboard IO Shield cutout (A).



### **MOTHERBOARD**



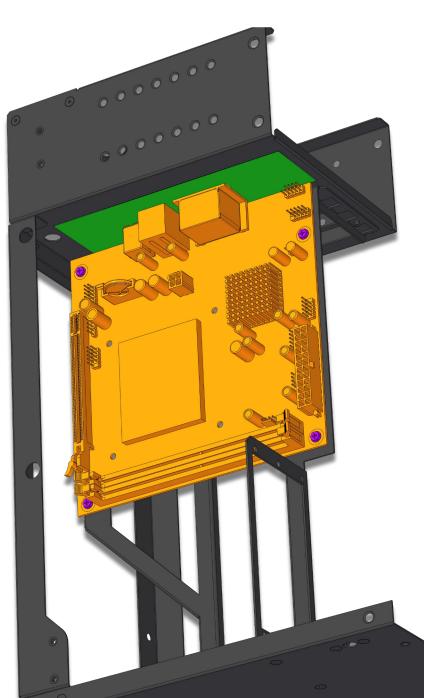
Some CPU coolers may require a back plate installed before installing the motherboard into the case.

It is advised to also check that any M.2 mounts on the back of the motherboard have drives installed before mounting the motherboard.

Once the **IO shield** and power cord with grommet are properly installed, the motherboard can now be mounted using **4x 6-32 x 1/4**" **HEX HEAD** screws.

A Phillips #2 screw driver with a minimum 3" shaft length is recommended for installing these screws. Both of the screws on the PCle slot side of the motherboard have pass-through holes in the case frame to allow the screw driver and screw to pass through and be screwed in straight.

Additional installation instructions for your CPU, CPU cooler, RAM, etc. are covered by your motherboard or coolers respective user manual.

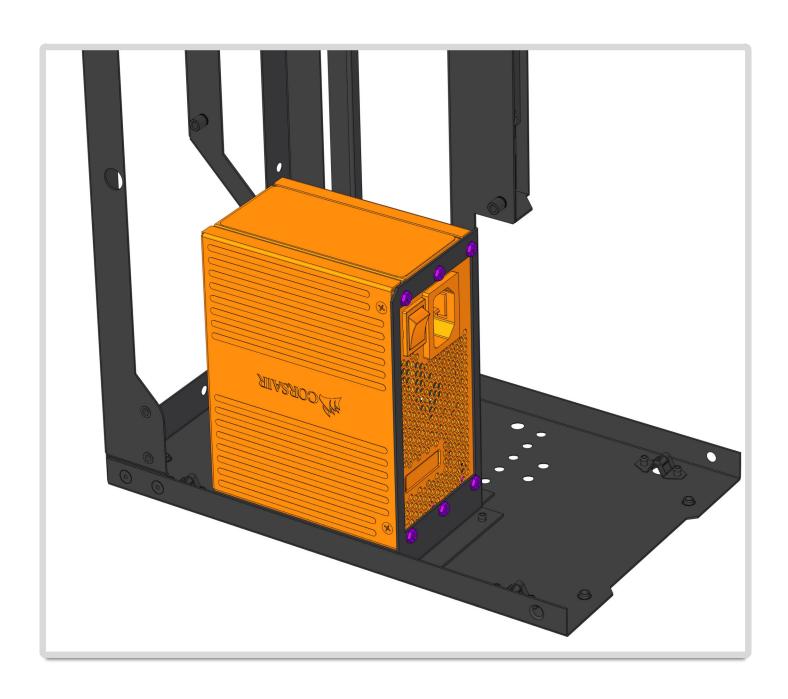


## **POWER SUPPLY**

**NOTE:** The fan on the power supply is recommended to be positioned with the fan side pointed towards the center spine of the case. This orientation will result in better overall system temperatures and lower noise.

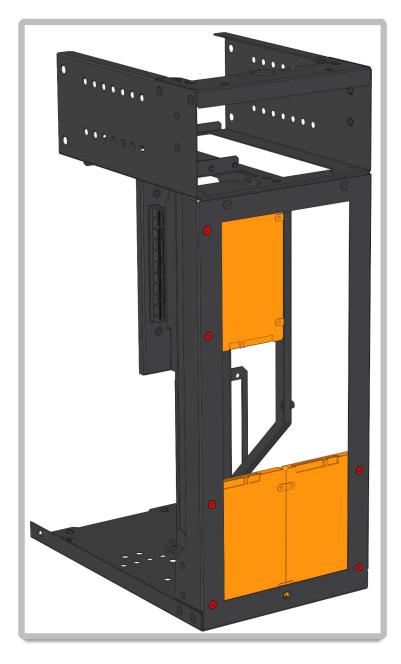
Once positioned, the SFX PSU can be attached to the PSU Mounting Bracket with up to 6x of the included  $6-32 \times 1/4$ " HEX HEAD screws.

Note: that not all SFX Power Supplies have all 6x screw holes as shown.



## SSDs and HDDs

Our SV540 has multiple 3.5" HDD and 2.5" SSD mounting locations. Shown below are various HDD and SSD configurations.



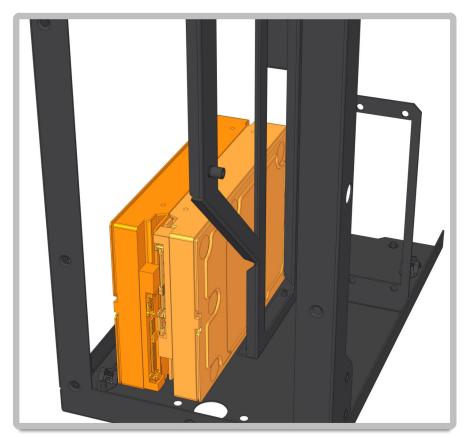




**2.5" SSD** should be mounted with **2x M3 x 5mm FLAT HEAD** screws for each SSD.

## SSDs and HDDs Cont.

3.5" HDD should be mounted with up to 3x 6-32 X 1/4" FLAT HEAD screws.





#### CABLE MANAGEMENT

Once the motherboard and power supply are mounted, it is recommended to do some cable management before installation of any radiators or PCIe cards.

Note: the CPU and cooler mount back plate / standoffs are installed.



The power switch/LED is routed and plugged into the motherboard.

The power cord is mounted at top (two screws in counter sinks) and properly passed through the grommet, and routed to the inlet on the power supply.

(Also be sure to check that your PSU switch is set to on!)

Motherboard power cables are plugged in, and GPU power cables are loosely positioned.

Power cables are loosely managed and zip tied.

The PCIe riser is plugged into the PCIe slot on the motherboard.

## **GPU MOUNTING**



The process of installing the GPU is same it would be on a standard PC case, just on a PCle riser. Slide the card into position, push down into the slot, and then secure the PCle card bracket with the M3 PAN HEAD screws.

If your GPU only has a 2-slot wide PCle bracket the SV540 **includes** a single color matched **Slot Cover**.

We recommend installing the GPU after installing the radiator as the case will be more rigid.

Additionally, this method allows access to the fan screws for ease of installing fan guards, reversing fan airflow, etc.



### **280mm AIO**

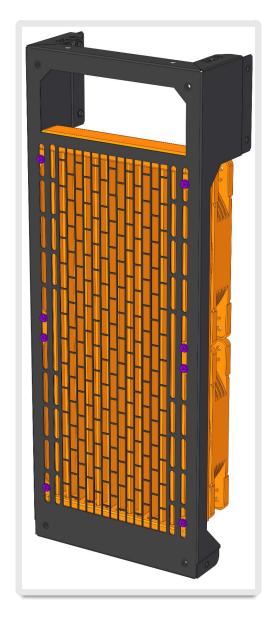
#### ALL FANS MUST BE SET TO EXHAUST OUT THE REAR OF THE CASE

If installed as intake you will cause your power supply and GPU to run at higher temperatures.

If the 280mm radiator hoses are mounted at the top, you will not be able to screw the case closed as the hoses will collide with the motherboard and/or PCle riser bracket.

Conversely, if the AIO is mounted as shown with hoses at the bottom of the case, the hoses will **NOT** have interference issues due to free space around the power supply and below the GPU/PCle cards. If your AIOs do not include mounting screws please use the  $6-32 \times 1/4$ " HEX HEAD screws provided with the case.





### **CASE REASSEMBLY**

To attach the AlO/radiator, the back panel must be reinstalled from disassembly on page 5 in this guide. The rear radiator mount bracket to the SV540 frame is held on by  $6x 6-32 \times 1/4$ " FLAT HEAD screws



With the radiator/AIO in position your case should look like the example to the right, minus your GPU and any 2.5" SSD / 3.5" HDDs.

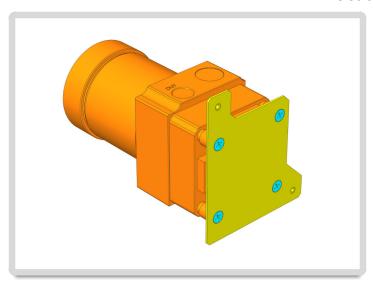
We recommend plugging in your fan headers / fan splitters before screwing the rear radiator bracket back onto the case frame. It is also recommended to try various positions of the CPU AIO pump block to best fit the hoses as lengths can vary.

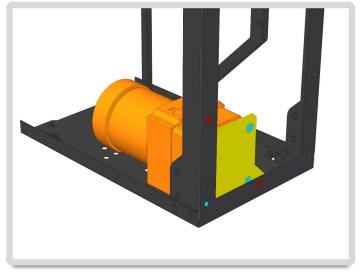


## **DDC PUMP RESERVOIR**

SV540 has two DDC Pump / Reservoir mounting locations as shown below

#### **Location 1**





Location 1: The DDC Pump attaches to DDC Pump Bracket with

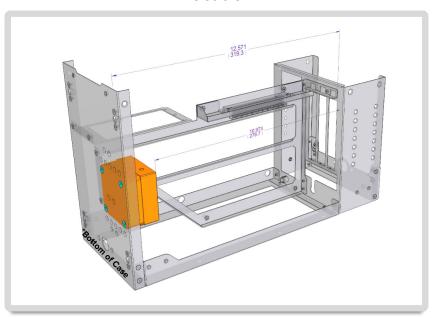
4x M4 x 5mm FLAT HEAD screws.

Then it attaches to the chassis with

2x M3 x 5mm FLAT HEAD screws.

NOTE: This mounting location blocks most HDD and SSD mounts

#### Location 2



**Location 2:** DDC Pump attached to the chassis seen above. A reservoir can not be mounted with this configuration\*