Gigabyte AERO 15-X8 Thermal Paste Replacement

If you find yourself in the possession of a...

Written By: Jack Freeman

INTRODUCTION

If you find yourself in the possession of a Gigabyte AERO 15-X8 laptop for a prolonged amount of time, you might want to replace the thermal paste and pads that lose their efficiency with time.

Thermal paste serves as a heat transfer medium that draws heat produced by the processor and graphics card away, so they can maintain their operating frequency and not throttle due to high temperature. You can usually diagnose if excessive heat is a problem by starting a resource-heavy task in conjunction with a temperature display, looking for a drop in performance once the temperature reaches the high 80`s Celsius. Replacing the thermal paste might help in reducing the maximum temperature as well as prolonging the amount of time the laptop can efficiently operate under a heavy load.

The replacement will likely improve the user experience, increase the performance, and prolong the service life of your laptop. It is generally recommended to replace the thermal paste on your laptop once a year for optimal performance and longevity.

Before starting on this guide, make sure to turn off and disconnect the laptop from the power source. Also, if you do not have experience in computer maintenance, familiarize yourself with **How to Apply Thermal Paste** guide.

TOOLS:

Coffee Filters or a lint-free cloth (1)
Isopropyl Alcohol (1)
Phillips #2 Screwdriver (1)
T6 Torx Screwdriver (1)
Credit Card / Plastic (1)
Spudger (1)
Arctic Silver Thermal Paste (1)
Thermal Pads (assorted sizes: .5,mm 1.0mm & 1.5mm) (1)

PARTS:

Thermal Paste (1)

Step 1 — Thermal Paste



- Using a T6 Torx screwdriver, remove the thirteen 10mm T6 Torx backplate screws.

ⓘ Apply gentle pressure when removing the screws to preserve the condition of screw heads for future repairs or servicing.

Step 2



- After the screws are removed, carefully insert a plastic spudger in the space between the backplate and the rim of the laptop.

- Apply moderate pressure upwards to disconnect the clips that hold the backplate in place.

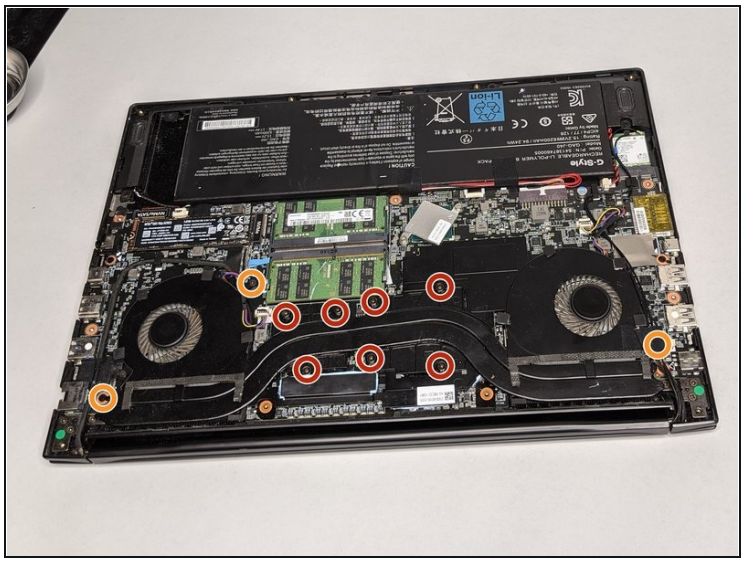
  ⓘ The sharp popping sound that the latches on the inside will produce is normal and does not signify anything being broken.

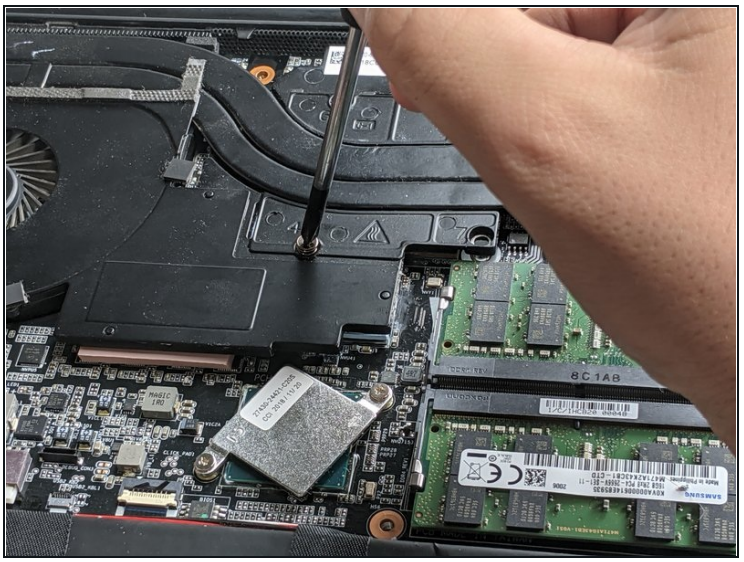
  ⚠ While some force will be required in this step, make sure not to over-apply pressure since extra force might break the metal latches.

- Lift the backplate away from the laptop.

- Remove the thermal pad that covers the SSD.

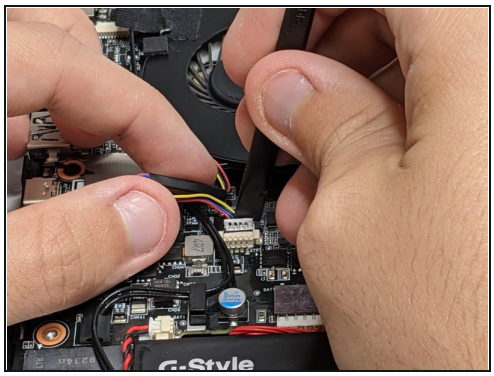
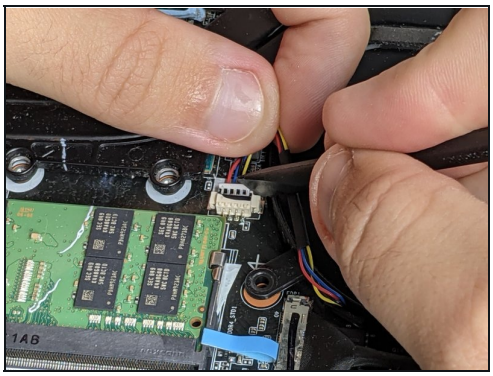
Step 3





- Using a Phillips #2 screwdriver, remove the screws that hold the fan assembly in place.
  - Seven 5.5mm Phillips #2 screws securing the center area are spring-loaded and require moderate pressure on the screwdriver to initiate the removal.
  - Three 7.5mm Phillips #2 screws.

Step 4

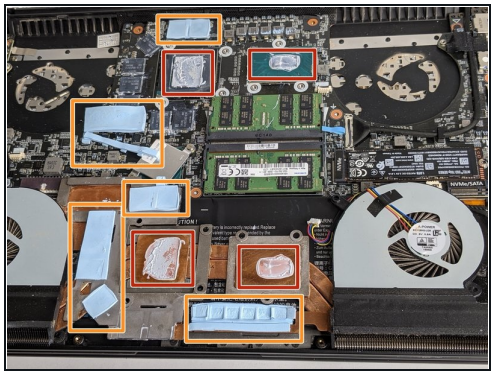
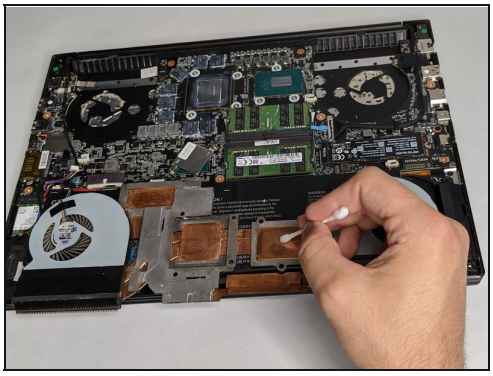
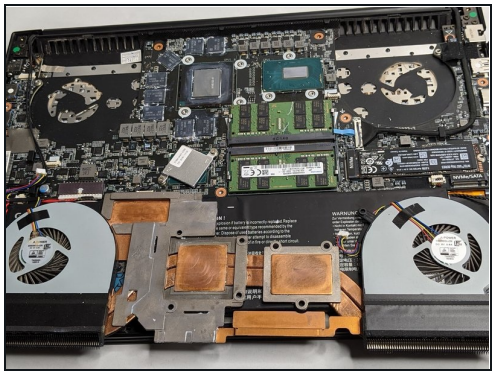

- Disconnect the fan wires by pulling on the connector while pushing on its sides with the spudger.

  ⚠ These connectors are extremely fragile. Make sure to not use any metal tools during this and the following steps.

  ⓘ You can leave the wires plugged in since their length allows the removal of the fan assembly while connected. This step just makes the process of further steps more manageable.

- Lift the fan assembly and place it on the battery, bottom-up.

Step 5

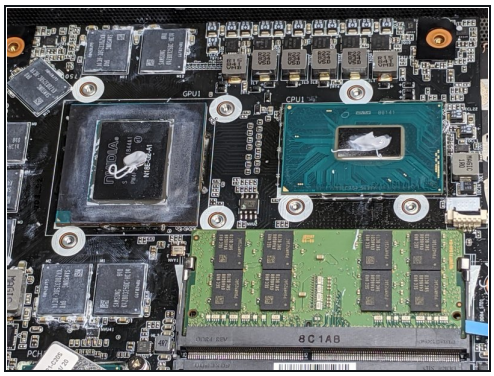
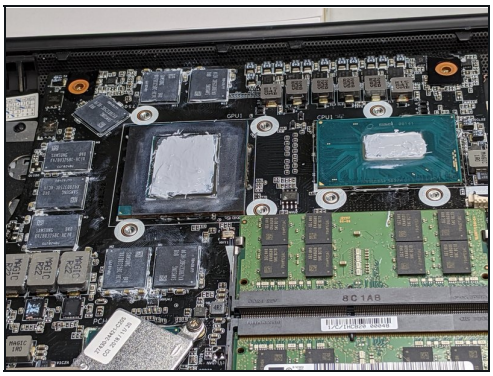




- Use a lint-free cloth to remove the thermal paste from both the CPU and GPU chips.

  ⓘ Use of a Q-tip soaked in isopropyl alcohol can assist in removing the paste from hard to reach spaces.

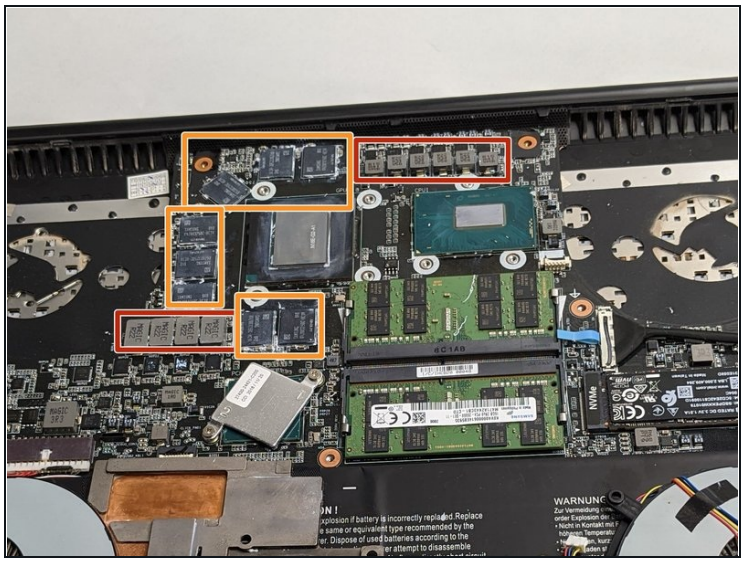
- Remove the old thermal pads from the power supply chips.

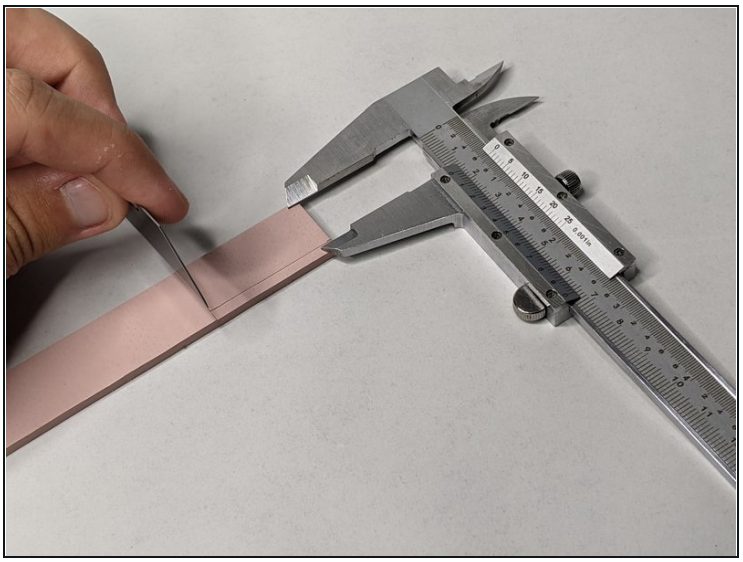
Step 6


- Degrease the surface of CPU and GPU chips using the isopropyl alcohol and Q tips.
- Place a small amount of thermal paste on both CPU and GPU chips.
- Use a spreader to thinly spread the paste on the entire area of each chip.
- Consult the How to Apply Thermal Paste guide for additional instructions if necessary.

Step 7





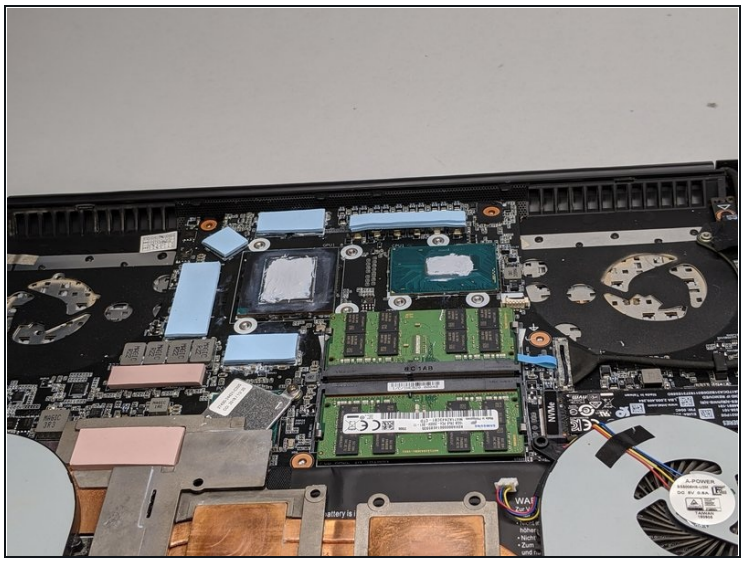
- Using calipers or a precision ruler, measure the dimensions of all the power supply chips.

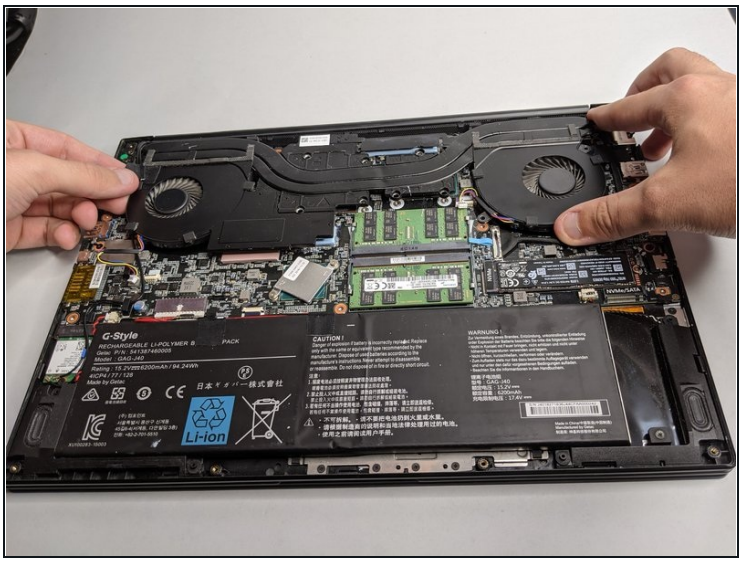
- Cut the thermal pad sheet according to the measurements and place the pieces on top of the chips.
  - Use 1-1.5 mm thermal pad thickness on grey chips.

  - Use 2-2,5 mm thermal pad thickness on the 8 flat chips.

    ⓘ Try to check the thickness of the original pads. If 2-2,5 mm thermal pads are too thick, you may need to use thinner pads.

Step 8

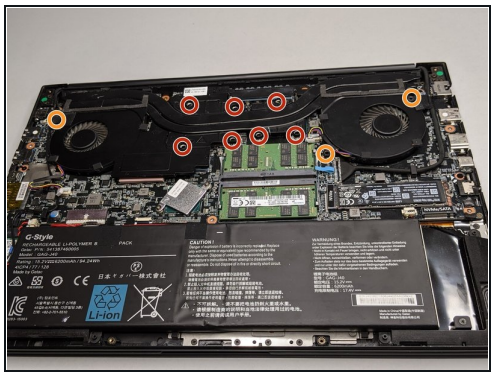
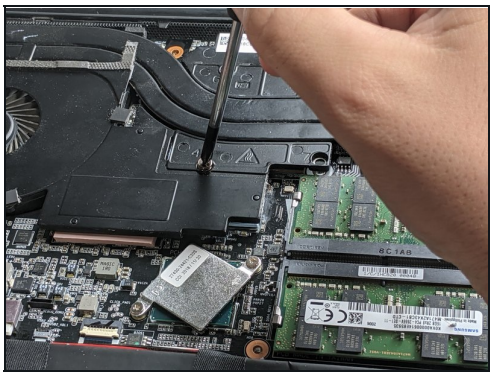
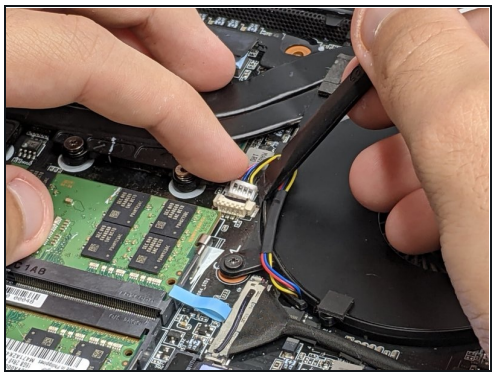




- After the paste and pads have been applied, make sure that every chip is covered in accordance with the illustration.

- Carefully pick up the fan assembly and place it back, aligning the position with screw holes.

Step 9

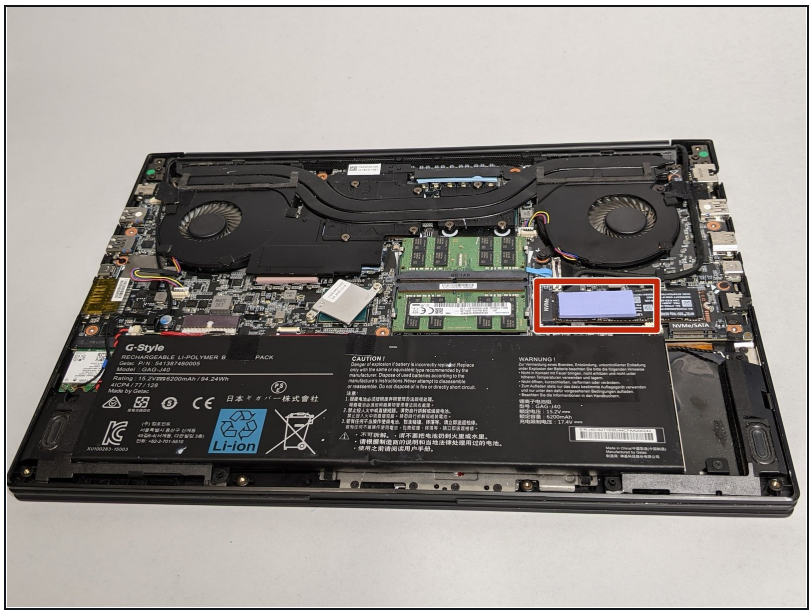




- Using a Phillips #2 screwdriver, secure the fan assembly in place.
  - The seven 5.5mm Phillips #2 screws are spring-loaded and require moderate pressure to screw in.
  - Three 7.5mm Phillips #2 screws.

ⓘ Make sure to alternate between sides while securing the fan assembly. Securing all screws in one area before going to the opposite one may lead to an uneven pressure during assembly that may displace the thermal paste.

- Reconnect the fan wires by clicking them into the receptors.

Step 10



- Place the SSD thermal pad back.

ⓘ Unlike the pads on the power supply chips, this pad does not experience much heat and does not need to be replaced as often.

Follow steps 2 and 1 in reverse order to finish the reassembly process.