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ARLBA Gigabyte Aorus 15G

ARLBA CPU+GPU Cooling Fan Replacement Manual

For Gigabyte Aorus 15G/15P and Aero 15/17 Series Laptops

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your new ARLBA CPU+GPU cooling fan replacement. Proper installation and care are essential for optimal performance and longevity of your laptop's cooling system. Please read all instructions carefully before proceeding.

2. PRODUCT OVERVIEW

2.1 Package Contents

- 1 x CPU Cooling Fan
- 1 x GPU Cooling Fan
- 1 x Thermal Grease (syringe)
- 1 x Spatula (for thermal grease application)



Image 2.1: Contents of the ARLBA cooling fan replacement package, including two fans, thermal paste, and a spatula.

3. COMPATIBILITY

This cooling fan set is designed for specific Gigabyte laptop models. Please verify your laptop's model number and the original fan's part number and thickness before installation to ensure compatibility.

3.1 Compatible Laptop Models

- Gigabyte Aorus 15G, 15P, RX7P, RX7G (2021 models)
- Gigabyte Aorus 17G XB, XC, XD
- GIGABYTE AERO 15 OLED XB, XD, RP75SA
- Gigabyte Aero 17 XA, HDR, XB, WA Series

3.2 Compatible Part Numbers (P/N)

- FNGS DFSC22D05883Q (Thickness: 9.9mm)
- FNGT DFSCM22716392Q (Thickness: 9.9mm)

3.3 Important Compatibility Notes

- **Not compatible with:** AERO 15 OLED SA, 17 HDR XA, RP75XA, RP77XA Series.
- **Not compatible with P/N:** FPNP DFSC12E064867, FPNQ DFSCM227163927 (These typically have a thickness of 7.5mm).
- Ensure the thickness of your original fan matches the 9.9mm thickness of this replacement fan.

Laptop CPU + GPU Cooling Fan Set for Gigabyte Aorus 15G 15P RX7P RX7G 2021 17G XB XC XD



Compatible Model:

for Gigabyte Aorus 15G 15P RX7P
RX7G 2021 17G XB XC XD Series

for GIGABYTE AERO 15 OLED
XB XD RP75SA Series

for Gigabyte Aero 17 XA
HDR XB WA Series

Compatible Part Number :

DFSCM22716392Q FNGT

DFSCK22D05883Q FNGS

Image 3.1: Visual guide to compatible laptop models and part numbers for the cooling fan set.

4. SPECIFICATIONS

Feature	Specification
Product Dimensions (each fan)	Approx. 4.1 inches (length) x 3.7 inches (width) x 0.39 inches (thickness)
Power Connector Type	4-Pin, 4-Wire
Voltage	DC 12 Volts
Current	1 Ampere
Wattage	12 Watts
Cooling Method	Air
Material	Metal
Maximum Rotational Speed	2000 RPM
Noise Level	45 Decibels

Product Size



Image 4.1: Detailed dimensions of the cooling fans and included accessories.



Image 4.2: Illustration of the 4-wire, 4-pin connector and electrical specifications.

5. INSTALLATION GUIDE (SETUP)

Replacing laptop cooling fans requires careful handling of internal components. If you are not comfortable performing this procedure, it is recommended to seek professional assistance.

5.1 Before You Begin

- **Safety First:** Always disconnect the laptop from its power source and remove the battery before opening the chassis.
- **Tools:** You will need a small Phillips head screwdriver and potentially a plastic pry tool for opening the laptop case.
- **Reference:** Consult your laptop's official service manual or online disassembly guides for specific instructions on opening your model.
- **Static Discharge:** Take precautions against electrostatic discharge (ESD) by using an anti-static wrist strap or by regularly touching a grounded metal object.

5.2 Installation Steps

1. **Power Off and Disconnect:** Shut down your laptop completely, unplug the AC adapter, and remove the battery (if removable).
2. **Open Laptop Chassis:** Carefully remove the screws securing the bottom panel of your laptop. Use a plastic pry tool to gently separate the panel from the chassis.
3. **Locate and Disconnect Old Fans:** Identify the CPU and GPU cooling fans. Carefully disconnect their power cables from the motherboard.
4. **Remove Old Fans:** Unscrew the mounting screws holding the old fans in place. Gently lift and remove the old fans. Note the orientation for the new fan installation.
5. **Clean Thermal Module:** Use a lint-free cloth and isopropyl alcohol to carefully clean any old thermal paste from the CPU and GPU dies and the heatsink contact areas. Ensure surfaces are clean and dry.
6. **Apply New Thermal Paste:** Apply a small, pea-sized amount of the provided thermal grease to the center of the CPU and GPU dies. Use the spatula to spread it evenly into a thin layer, or allow the heatsink pressure to spread it upon installation.
7. **Install New Fans:** Position the new ARLBA cooling fans into their respective locations. Ensure they align correctly with the screw holes and heatsink.
8. **Secure Fans:** Gently screw the new fans into place. Do not overtighten the screws.
9. **Connect Fan Cables:** Carefully connect the 4-pin fan cables to their corresponding headers on the motherboard. Ensure the connectors are fully seated.
10. **Reassemble Laptop:** Replace the bottom panel of your laptop, ensuring all clips and screws are properly secured.
11. **Power On and Test:** Reinsert the battery (if removed) and connect the AC adapter. Power on your laptop and monitor fan operation and temperatures.

Product Detail



Image 5.1: Detailed view of the cooling fan, showing its design and connection points.

6. OPERATION

6.1 Fan Function

The ARLBA CPU+GPU cooling fans are designed to dissipate heat generated by your laptop's central processing unit (CPU) and graphics processing unit (GPU). They draw cooler air into the laptop and expel hot air, maintaining optimal operating temperatures and preventing thermal throttling, which can lead to performance degradation.

6.2 Power Connection

The fans utilize a standard 4-wire, 4-pin connector, operating at DC 12 Volts and drawing 1 Ampere of current. This connection allows the laptop's system to control fan speed based on temperature readings, ensuring efficient cooling.

Laptop CPU + GPU Cooling Fan for Gigabyte Aorus 15G 15P RX7P RX7G 2021 17G XB XC XD

High Quality Cooling Fan ,Lower Power Consumption



Image 6.1: Visual representation of the cooling fans in operation, emphasizing airflow and key features.

7. MAINTENANCE

Regular maintenance helps prolong the life of your cooling fans and ensures efficient heat dissipation.

7.1 Cleaning

- **Dust Removal:** Periodically (e.g., every 6-12 months, depending on usage environment), open your laptop and gently clean dust from the fan blades and heatsink fins using compressed air or a soft brush. Hold the fan blades stationary while using compressed air to prevent over-spinning and potential damage.
- **Ventilation:** Ensure the laptop's intake and exhaust vents are clear of obstructions.

7.2 Thermal Paste Reapplication

Thermal paste can degrade over time, reducing its effectiveness. Consider reapplying thermal paste every 1-2 years, or if you notice consistently higher operating temperatures despite clean fans.

8. TROUBLESHOOTING

If you encounter issues after installing the new cooling fans, refer to the following common problems and solutions.

8.1 Common Issues and Solutions

- **Fan Not Spinning:**

- Ensure the fan cable is securely connected to the motherboard header.
- Verify that the fan is correctly seated and not obstructed by other components.
- Check BIOS/UEFI settings for fan control options (if applicable).
- **Laptop Overheating / Poor Cooling:**
 - Confirm that thermal paste was applied correctly and evenly to the CPU and GPU.
 - Ensure the heatsink is making proper contact with the CPU and GPU.
 - Verify that the fans are spinning and that airflow is unobstructed.
- **Excessive Fan Noise (Whining/Whistling):**
 - Check for any loose wires or debris that might be hitting the fan blades.
 - Ensure the fan is securely mounted and not vibrating against the chassis.
 - While these fans are designed for quiet operation, some noise may be present under heavy load.
- **Physical Fit Issues (e.g., laptop case not closing):**
 - Double-check the fan thickness against your original fan. This replacement is 9.9mm thick. If your original was 7.5mm, this fan will not fit correctly.
 - Ensure all mounting tabs and screw holes align perfectly. Do not force components into place.
 - Verify that the heatsink assembly is seated correctly and not elevated by the fan housing.

9. WARRANTY AND SUPPORT

9.1 Warranty Information

This ARLBA CPU+GPU Cooling Fan Replacement comes with a **12-month worry-free warranty** from the date of purchase. This warranty covers manufacturing defects and ensures the product is free from material and workmanship flaws under normal use.

9.2 Customer Support

For any pre-sales or after-sales questions, technical assistance, or warranty claims, please contact ARLBA customer support through the platform where you purchased the product. Our team is dedicated to providing satisfactory solutions and assistance.