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## PowerColor RX9070 16G-A

# PowerColor Reaper AMD Radeon RX 9070 16GB GDDR6 Graphics Card User Manual

Model: RX9070 16G-A | Brand: PowerColor

## INTRODUCTION

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This manual provides essential information for the installation, operation, and maintenance of your PowerColor Reaper AMD Radeon RX 9070 16GB GDDR6 graphics card. Please read this manual thoroughly before proceeding with installation to ensure proper functionality and safety.



Figure 1: PowerColor Reaper AMD Radeon RX 9070 16GB GDDR6 graphics card and its retail packaging.

## SAFETY INFORMATION

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- Always disconnect power from your computer before installing or removing any components.
- Handle the graphics card by its edges to avoid touching sensitive components.
- Ensure proper grounding to prevent electrostatic discharge (ESD) damage.
- Do not expose the graphics card to moisture or extreme temperatures.
- Keep out of reach of children.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

## PACKAGE CONTENTS

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Verify that all items are present in your package:

- PowerColor Reaper AMD Radeon RX 9070 16GB GDDR6 Graphics Card
- Quick Installation Guide (may vary by region)

## SYSTEM REQUIREMENTS

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- PCI Express compatible motherboard with one x16 PCIe slot.
- Minimum 650W or greater power supply.
- Two 8-pin PCI Express Power Connectors.

- Minimum 8GB of system memory; *recommended 16GB*.
- Installation software requires a keyboard, a mouse, and a display.
- A display with HDMI or DisplayPort is required.
- Supported operating systems include Linux, Windows 7/10/11 (64-bit operating system required).
- DirectX 12 and Vulkan support.

## SETUP

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### 1. Physical Installation

1. Turn off your computer and disconnect the power cord.
2. Open your computer case.
3. Locate an available PCI Express x16 slot on your motherboard.
4. Remove any expansion slot covers that obstruct the installation.
5. Carefully align the graphics card with the PCIe x16 slot and press down firmly until it is securely seated.
6. Secure the graphics card to the case with the appropriate screws.
7. Connect the two 8-pin PCI Express power connectors from your power supply to the corresponding ports on the graphics card.
8. Close your computer case and reconnect the power cord.



Figure 2: Front view of the PowerColor Reaper graphics card, showcasing its triple-fan cooling system.



Figure 3: Side view of the graphics card, highlighting the display output ports (HDMI and DisplayPort).

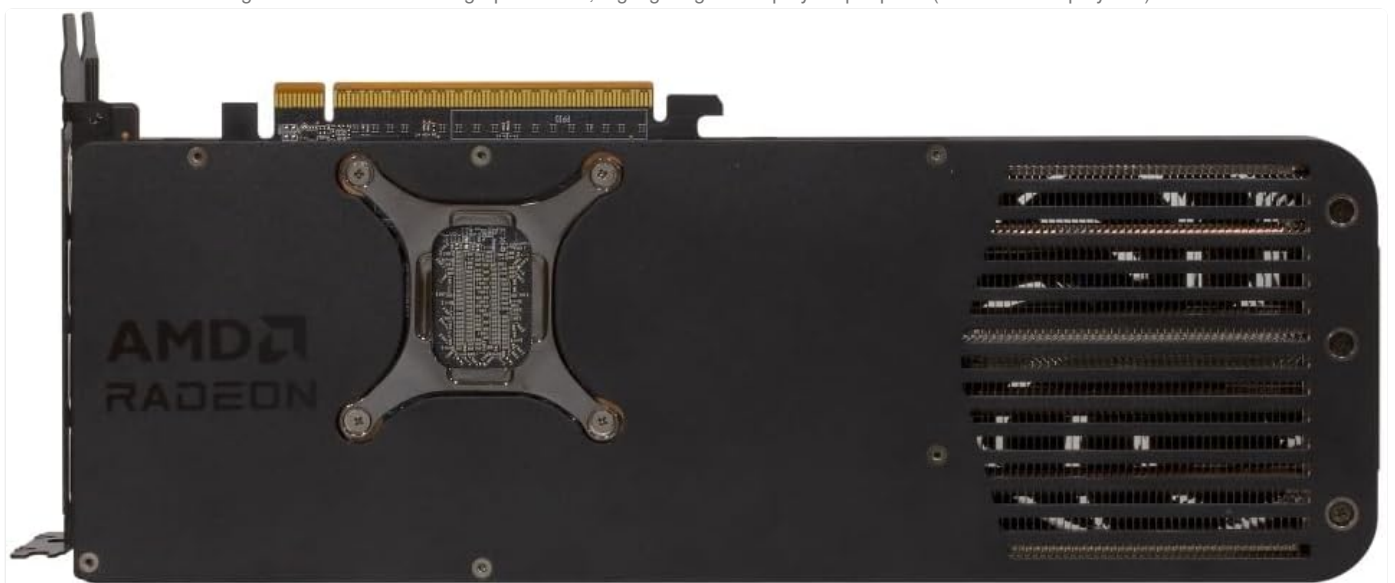


Figure 4: Rear view of the graphics card, showing the backplate and heatsink fins.

## 2. Driver Installation

After physical installation, power on your computer. The operating system may automatically detect the new hardware. For optimal performance, it is highly recommended to install the latest drivers from the official AMD website or PowerColor support page.

- Visit the official AMD website ([www.amd.com/en/support](http://www.amd.com/en/support)) or PowerColor support page.
- Navigate to the driver download section for Radeon RX 9070 series graphics cards.
- Download the appropriate driver package for your operating system (Windows 10/11 64-bit recommended).
- Run the downloaded installer and follow the on-screen instructions.
- Restart your computer after the installation is complete.

## OPERATING YOUR GRAPHICS CARD

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### Display Connections

The PowerColor Reaper RX 9070 offers multiple display outputs for versatile connectivity:

- 1 x HDMI 2.1 port
- 3 x DisplayPort 2.1 ports

Connect your monitor(s) to the desired ports. For multi-monitor setups, ensure your operating system display settings are configured correctly.

### Software and Features

Your graphics card supports various AMD technologies to enhance your gaming and computing experience:

- **AMD RDNA 2 Architecture:** Provides high performance and power efficiency.
- **AMD FidelityFX Super Resolution (FSR):** Upscales lower resolution images to higher resolutions for improved performance.
- **Hardware Raytracing:** Enables realistic lighting, shadows, and reflections in supported games.
- **AMD FreeSync Technology:** Synchronizes the refresh rate of your display with your graphics card for tear-free gaming.
- **Video Streaming up to 8K:** Supports high-resolution video output.
- **Radeon Anti-Lag:** Reduces input lag for faster response times.

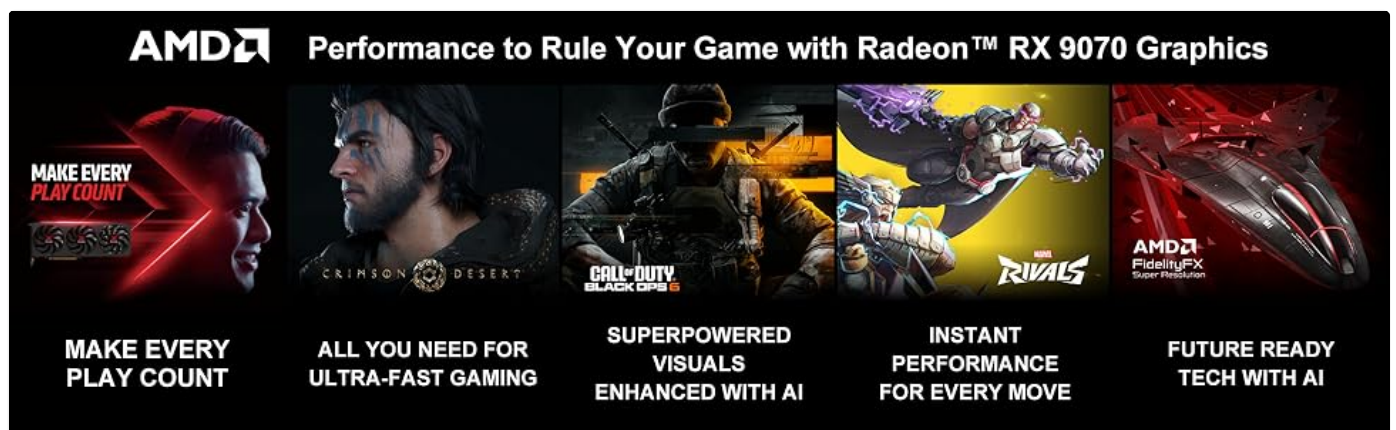


Figure 5: Overview of key AMD Radeon RX 9070 graphics features for enhanced performance and visuals.

## MAINTENANCE

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### Cleaning

Regular cleaning helps maintain optimal performance and extends the lifespan of your graphics card.

- Ensure the computer is powered off and unplugged before cleaning.
- Use compressed air to gently remove dust from the fans and heatsink fins. Hold the fans in place to prevent over-spinning.
- Wipe the exterior of the card with a soft, dry, anti-static cloth.
- Avoid using liquid cleaners or abrasive materials.

## Thermal Management

The PowerColor Reaper features advanced cooling technologies to keep temperatures in check:

- **Honeywell PTM7950 Thermal Pad:** Utilizes a high-performance thermal pad for efficient heat transfer from the GPU.
- **Optimized Fan Design:** Features a triple-fan setup with optimized airflow for effective heat dissipation.
- **Mute Fan Technology:** Fans stop spinning when the GPU temperature is below 60°C, providing silent operation during light loads.
- **Efficient Heatpipe Layout:** Designed to maximize heat transfer from the GPU to the heatsink fins.

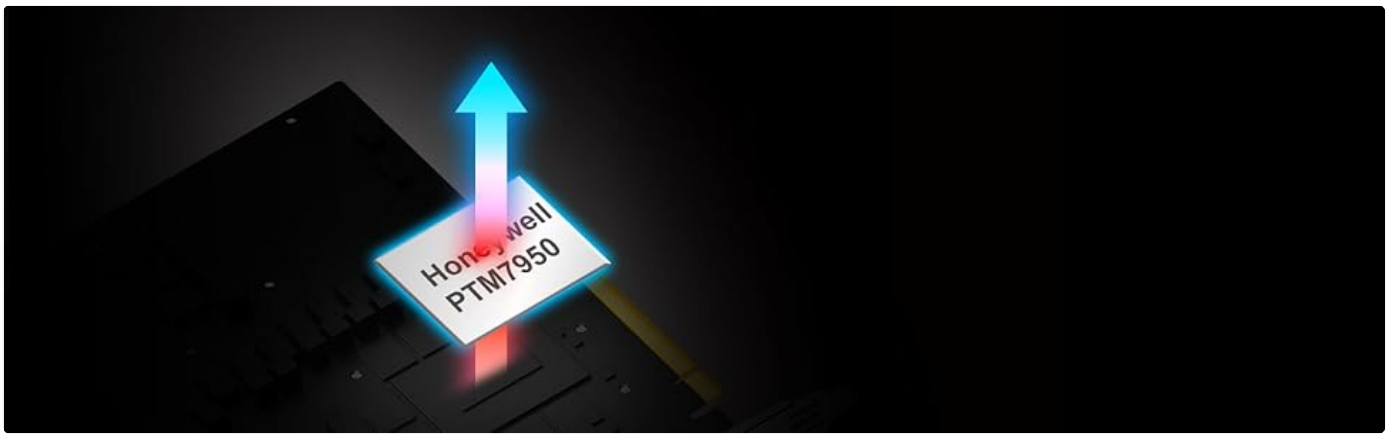


Figure 6: Illustration of the Honeywell PTM7950 thermal pad for superior heat transfer.



Figure 7: Diagram illustrating the Mute Fan Technology, where fans cease operation below 60°C.

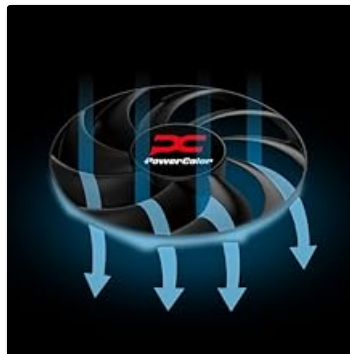


Figure 8: Visual representation of the optimized fan blade design for enhanced airflow.

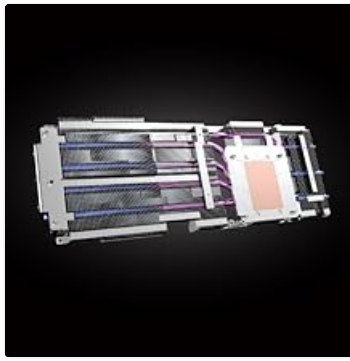


Figure 9: Internal view showing the heatpipe structure designed for efficient thermal transfer.

## TROUBLESHOOTING

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### No Display Output

- Ensure the graphics card is fully seated in the PCIe slot.
- Verify that both 8-pin power connectors are securely attached to the graphics card.
- Check that the display cable (HDMI or DisplayPort) is firmly connected to both the graphics card and the monitor.
- Confirm your monitor is set to the correct input source.
- Try connecting to a different display output port on the graphics card.
- If possible, test the graphics card in another compatible system or test with a different monitor/cable.

### Performance Issues or Crashes

- Ensure you have the latest graphics drivers installed from AMD's official website.
- Check your system's power supply wattage to ensure it meets the minimum 650W requirement. Insufficient power can lead to instability.
- Monitor GPU temperatures using a reliable utility. Overheating can cause performance throttling or crashes. Ensure adequate case airflow.
- Verify that your system memory (RAM) meets the recommended 16GB for optimal performance.
- If overclocking, revert to default settings to rule out instability caused by excessive clock speeds or voltages.

## SPECIFICATIONS

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Feature	Detail
Brand	PowerColor
Model Number	RX9070 16G-A
Graphics Coprocessor	AMD Radeon RX 9070
Graphics Card Ram Size	16 GB GDDR6
Memory Speed	20 GHz
GPU Clock Speed	2070 MHz
Video Output Interface	1 x HDMI 2.1, 3 x DisplayPort 2.1
Power Connector	Two 8-pin PCI Express Power Connector
Minimum System Power	650W
Card Dimensions (LxWxH)	289 x 111 x 41 mm (approx. 11.38 x 4.37 x 1.61 inches)
Item Weight	2.68 pounds

## WARRANTY AND SUPPORT

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For warranty information and technical support, please refer to the documentation included with your product or visit the official PowerColor website. You can also visit the PowerColor Store on Amazon for additional resources and product information.

