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› [Sapphire](#) /

› [Sapphire Pulse AMD Radeon RX 9070 Gaming Graphics Card User Manual](#)

Sapphire 11349-03-20G

Sapphire Pulse AMD Radeon RX 9070 Gaming Graphics Card User Manual

Model: RX 9070 (11349-03-20G)

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of your Sapphire Pulse AMD Radeon RX 9070 Gaming graphics card. Please read this manual thoroughly before installing and using your new graphics card to ensure proper functionality and to maximize its performance and lifespan.



Image 1.1: Front view of the Sapphire Pulse AMD Radeon RX 9070 Gaming graphics card packaging, showcasing the product branding and model.

2. PACKAGE CONTENTS

Verify that all items are present in your package. If any items are missing or damaged, please contact your retailer or Sapphire support.

- Sapphire Pulse AMD Radeon RX 9070 Gaming Graphics Card
- Quick Installation Guide or Documentation



Image 2.1: Rear view of the Sapphire Pulse AMD Radeon RX 9070 Gaming graphics card packaging, displaying key features and specifications.

3. SYSTEM REQUIREMENTS

Before installing the graphics card, ensure your system meets the following minimum requirements:

- **PCI Express-compliant motherboard** with one X16 graphics slot.
- **Minimum 650W Power Supply Unit (PSU)** with appropriate PCIe power connectors (e.g., 8-pin + 6-pin or dual 8-pin, depending on specific model). Refer to your PSU manual for details.
- **Minimum 8GB System Memory (RAM)**; 16GB or more recommended for optimal performance.
- **Operating System**: Windows 10/11 64-bit or Linux 64-bit.
- **Internet connection** for driver installation and updates.

- **Display monitor** with DisplayPort or HDMI input.

4. INSTALLATION

Follow these steps to install your Sapphire Pulse AMD Radeon RX 9070 Gaming graphics card:

1. Prepare Your System:

- Turn off your computer and disconnect the power cable from the wall outlet.
- Open your computer case.
- Ground yourself by touching a metal part of the case to discharge static electricity.

2. Remove Existing Graphics Card (if applicable):

- Disconnect any power cables from the old graphics card.
- Unscrew the retaining screw(s) holding the card to the case.
- Carefully unlatch the PCIe slot retention clip and gently pull the old card straight out of the slot.

3. Install the New Graphics Card:

- Locate an available PCI Express x16 slot on your motherboard.
- Remove the metal bracket cover(s) from the back of your computer case corresponding to the slot.
- Align the graphics card with the PCIe slot and press it firmly until it is fully seated and the retention clip locks into place.
- Secure the graphics card to the case with the retaining screw(s).
- **Important:** This graphics card is substantial in weight. It is highly recommended to use a [GPU support bracket](#) to prevent sag and potential damage to the PCIe slot over time.

4. Connect Power Cables:

- Connect the appropriate PCIe power cables from your power supply to the power connectors on the graphics card. Ensure all connectors are securely attached.

5. Close Case and Connect Peripherals:

- Close your computer case.
- Connect your monitor(s) to the DisplayPort or HDMI outputs on the graphics card.
- Reconnect the power cable to your computer and turn it on.

5. DRIVER INSTALLATION

After physical installation, you need to install the latest drivers for your graphics card:

1. Download Drivers:

- Visit the official AMD website (www.amd.com/en/support) or the Sapphire support page (www.sapphiretech.com/en/support).
- Navigate to the driver download section and select your graphics card model (AMD Radeon RX 9070).
- Download the latest recommended drivers for your operating system.

2. Install Drivers:

- Run the downloaded driver installer.
- Follow the on-screen prompts to complete the installation. It is generally recommended to perform a "Clean Installation" to remove any previous driver remnants.
- Your screen may flicker or go black temporarily during the installation process. This is normal.

3. Restart System:

- Once the installation is complete, restart your computer.
- After restarting, your graphics card should be fully functional.

6. OPERATING THE GRAPHICS CARD

Once installed and drivers are updated, your graphics card will automatically handle graphics processing for your system. You can further optimize its performance and settings using the AMD Radeon Software.

- AMD Radeon Software:** This utility allows you to monitor performance, adjust game settings, manage display configurations (including FreeSync), and update drivers. Access it via the system tray icon or by right-clicking on your desktop.
- Display Connections:** The card supports Dual HDMI and Dual DisplayPort outputs. Connect your monitors to the available ports. For multi-monitor setups, configure display arrangements within Windows Display Settings or AMD Radeon Software.
- Resolution:** The card supports a maximum screen resolution of 7680x4320. Ensure your monitor and cables support the desired resolution and refresh rate.

7. MAINTENANCE

Proper maintenance helps ensure the longevity and optimal performance of your graphics card.

- Dust Removal:** Periodically clean dust from the graphics card heatsink and fans using compressed air. Ensure the computer is powered off and unplugged before cleaning. Hold the fan blades gently to prevent over-spinning during cleaning.
- Airflow:** Ensure your computer case has adequate airflow to prevent overheating. Keep cables tidy and ensure intake and exhaust fans are clear.
- Driver Updates:** Regularly check for and install the latest graphics drivers from AMD or Sapphire to benefit from performance improvements, bug fixes, and new features.

8. TROUBLESHOOTING

If you encounter issues with your graphics card, refer to the following common troubleshooting steps:

- No Display Output:**
 - Ensure the monitor is connected to the graphics card, not the motherboard's integrated graphics port.
 - Verify all power cables are securely connected to the graphics card and power supply.
 - Reseat the graphics card in its PCIe slot.
 - Test with a different display cable or monitor if possible.
- System Instability or Crashes:**
 - Ensure your power supply unit (PSU) meets the minimum wattage requirement.
 - Perform a clean installation of the latest graphics drivers.
 - Monitor GPU temperatures using AMD Radeon Software to check for overheating.
 - Check for BIOS/UEFI updates for your motherboard.
- Poor Performance in Games/Applications:**
 - Ensure the latest graphics drivers are installed.
 - Verify that the game/application is using the dedicated graphics card and not integrated graphics (if applicable).
 - Check in-game settings; reduce resolution or graphics quality if necessary.
 - Monitor GPU utilization and temperatures to identify bottlenecks or thermal throttling.

- **Fan Noise:**

- High fan speeds are normal under heavy load to maintain optimal temperatures.
- If fans are excessively loud at idle, check fan profiles in AMD Radeon Software.
- Ensure no cables or obstructions are interfering with fan rotation.

9. SPECIFICATIONS

Key technical specifications for the Sapphire Pulse AMD Radeon RX 9070 Gaming graphics card:

Feature	Detail
Model Number	11349-03-20G
Graphics Coprocessor	AMD Radeon RX 9070
Video Memory (RAM)	16 GB GDDR6
Memory Speed	950 MHz
Clock Frequency	2520 MHz (as per card description)
Max Screen Resolution	7680x4320
Video Output Interface	Dual DisplayPort, Dual HDMI
Item Dimensions (LxWxH)	11.81 x 11.81 x 0.04 inches
Item Weight	2.99 pounds
Manufacturer	Sapphire

10. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the official Sapphire website or contact their customer support directly.

- **Sapphire Official Website:** www.sapphiretech.com
- **Support Page:** www.sapphiretech.com/en/support
- Keep your proof of purchase for warranty claims.