

ASRock RX7900XTX PG 24GO

ASRock AMD Radeon RX 7900 XTX Phantom Gaming Graphics Card User Manual

Model: RX7900XTX PG 24GO

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1. INTRODUCTION

The ASRock AMD Radeon RX 7900 XTX Phantom Gaming graphics card is engineered for high-performance computing and gaming. Featuring the AMD Radeon RX 7900 XTX GPU with 24GB GDDR6 memory on a 384-bit bus, it utilizes 96 AMD RDNA™ 3 Compute Units, including Rt+Ai Accelerators, and 96MB AMD Infinity Cache™ Technology. Designed for PCI® Express 4.0, it includes 3 x 8-pin power connectors and offers versatile display outputs with 3 x DisplayPort™ 2.1 and 1 x HDMI™ 2.1 ports.

Key Features:

- **Polychrome SYNC:** Customizable RGB lighting for aesthetic integration with your system.
- **Phantom Gaming 3X Cooling System:** Advanced thermal design with three fans for efficient heat dissipation.
- **Striped Ring Fan:** Optimized fan blade design for enhanced airflow and static pressure.
- **Reinforced Metal Frame:** Provides structural rigidity and prevents PCB bending.
- **Stylish Metal Backplate:** Enhances durability and contributes to effective cooling.
- **0dB Silent Cooling:** Fans stop spinning during light workloads for silent operation.



Figure 1: Overview of the ASRock Phantom Gaming Graphics Card, highlighting its design and cooling features.

2. WHAT'S IN THE BOX

Upon unboxing your ASRock AMD Radeon RX 7900 XTX Phantom Gaming graphics card, please ensure all components are present:

- ASRock AMD Radeon RX 7900 XTX Phantom Gaming Graphics Card
- Quick Installation Guide



Figure 2: The ASRock RX 7900 XTX Phantom Gaming graphics card as it appears in its packaging.

3. SETUP

3.1. System Requirements

- PCI Express-compliant motherboard with one x16 graphics slot.
- Minimum 750W power supply with three available 8-pin PCIe power connectors.
- Minimum 16GB system memory (32GB recommended).
- Compatible operating system (Windows 10/11 64-bit recommended).
- Sufficient space within your PC case for the card dimensions (12.99 x 5.51 x 0.1 inches).

3.2. Installation Steps

1. **Prepare Your System:** Power off your computer and unplug all cables. Open your PC case.
2. **Remove Old Graphics Card (if applicable):** Unscrew any retaining screws, unclip the PCIe retention clip, and carefully remove the old graphics card.
3. **Install New Graphics Card:** Align the ASRock RX 7900 XTX with the PCIe x16 slot on your motherboard. Press down firmly until it clicks into place. Secure the card with retaining screws.
4. **Connect Power Cables:** Connect three 8-pin PCIe power cables from your power supply to the corresponding ports on the graphics card. Ensure a secure connection. The card features LED indicators next to the power connectors.

that will light up if cables are plugged in incorrectly.

5. **Close Case and Connect Displays:** Close your PC case. Connect your display(s) to the graphics card using DisplayPort 2.1 or HDMI 2.1 cables.

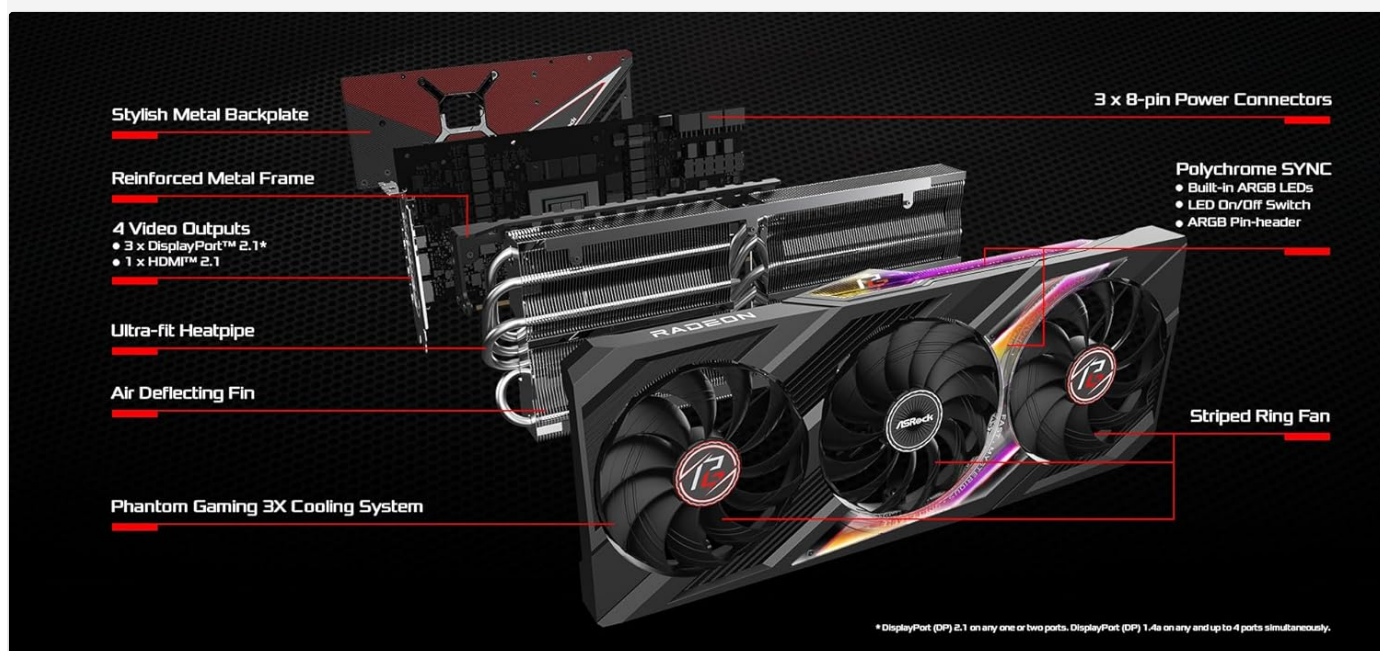


Figure 3: Exploded view illustrating the internal structure, cooling system, and the location of the 3x 8-pin power connectors on the ASRock RX 7900 XTX graphics card.



Figure 4: Rear view of the graphics card, detailing the three DisplayPort 2.1 and one HDMI 2.1 output ports for display connectivity.

4. OPERATING

4.1. Driver Installation

After physical installation, power on your computer. Windows should detect the new hardware. Download and install the latest AMD Radeon drivers from the official ASRock or AMD website. Follow the on-screen instructions for a complete installation. It is recommended to perform a clean installation of drivers, especially if upgrading from a different GPU brand.

4.2. Performance and Silent Modes

The ASRock RX 7900 XTX features a dual BIOS switch, allowing you to select between "Performance" and "Silent" modes. This switch is located on the side of the card, near the power connectors. The "Performance" mode prioritizes

maximum clock speeds and cooling, potentially resulting in higher fan noise. The "Silent" mode optimizes for quieter operation by reducing fan speeds and slightly adjusting clock profiles, with minimal impact on overall performance.

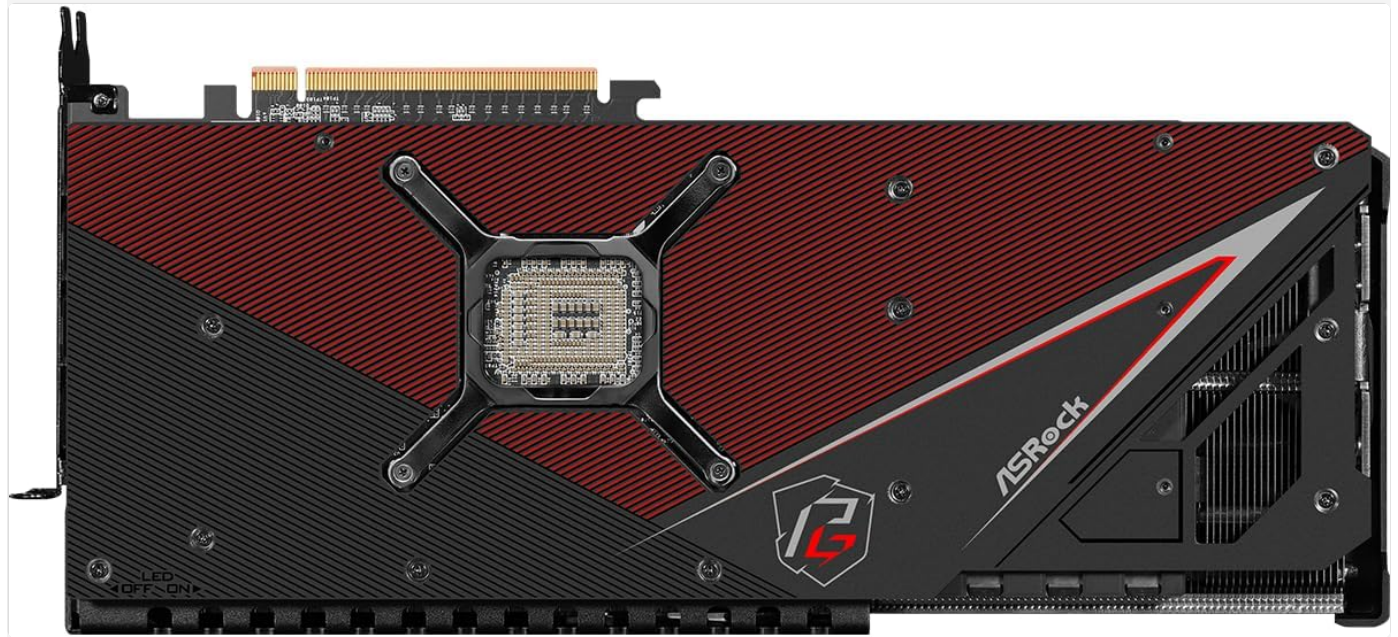


Figure 5: The metal backplate of the graphics card, indicating the location of the dual BIOS switch for selecting between Performance and Silent modes.

4.3. Polychrome SYNC RGB Lighting

The graphics card supports Polychrome SYNC for customizable RGB lighting. Use the ASRock Polychrome SYNC software or compatible third-party RGB control software (e.g., Razer Chroma) to personalize the lighting effects and synchronize them with other compatible components in your system.

5. MAINTENANCE

- **Regular Cleaning:** Periodically clean dust from the fans and heatsink using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Driver Updates:** Keep your graphics drivers updated to ensure optimal performance and compatibility with the latest games and applications. Check the ASRock or AMD website regularly for new driver releases.
- **System Airflow:** Ensure your PC case has adequate airflow to prevent overheating. Proper cable management and fan placement are crucial for maintaining low temperatures.

6. TROUBLESHOOTING

6.1. No Display Output

- Ensure all power cables (three 8-pin PCIe) are securely connected to the graphics card and power supply. Check the LED indicators on the card.
- Verify that your display cable is correctly connected to both the graphics card and the monitor.
- Confirm that your monitor is set to the correct input source.
- Try a different display cable or port on the graphics card.

6.2. Driver Issues (e.g., Code 43)

- Completely uninstall existing graphics drivers using a utility like Display Driver Uninstaller (DDU) in Windows Safe

Mode.

- Reboot your system and install the latest drivers downloaded directly from the ASRock or AMD website.
- Ensure your motherboard BIOS is updated to the latest version.

6.3. Overheating or Excessive Fan Noise

- Check your PC case's airflow. Ensure intake and exhaust fans are properly configured and not obstructed.
- Clean any dust accumulation on the graphics card's heatsink and fans.
- Consider switching to "Silent" mode using the dual BIOS switch if fan noise is a concern during lighter workloads.
- Monitor GPU temperatures using software like AMD Radeon Software. If temperatures consistently exceed safe limits (e.g., GPU Hot Spot above 100°C), ensure proper installation and cooling.

7. SPECIFICATIONS

Feature	Detail
Brand	ASRock
Model Number	RX7900XTX PG 24GO
Graphics Coprocessor	AMD Radeon RX 7900 XTX
Chipset Brand	AMD
Graphics Card RAM Size	24 GB GDDR6
Memory Speed	20000 MHz
Boost Clock	Up to 2615MHz
Game Clock	2455MHz
Memory Bus	384-Bit
Compute Units	96 AMD RDNA™ 3 (with Rt+Ai Accelerators)
Infinity Cache	96MB
Video Output Interface	3 x DisplayPort 2.1, 1 x HDMI 2.1
Max Screen Resolution	7680x4320 Pixels
Power Connectors	3 x 8-pin
Product Dimensions (LxWxH)	12.99 x 5.51 x 0.1 inches
Item Weight	3.42 pounds
Color	Black

8. WARRANTY & SUPPORT

For detailed warranty information and technical support, please refer to the official ASRock website or contact ASRock customer service. Keep your purchase receipt as proof of purchase for warranty claims.
Visit the ASRock Store: [ASRock America Store](#)

