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> LG 27GX790A-B 27-inch Ultragear OLED Gaming Monitor QHD 1440p 480Hz, 0.03ms, DisplayPort 2.1, True Black 400, NVIDIA G-Sync, AMD FreeSync Premium Pro, HDMI, USB, Tilt/Height/Swivel/Pivot Stand, Black 27" black User Manual

LG 27GX790A-B.AUS

LG 27GX790A-B Ultragear OLED Gaming Monitor User Manual

Model: 27GX790A-B.AUS | Brand: LG

1. INTRODUCTION

Experience astounding speed with up to a blistering 480Hz refresh rate and 0.03ms response time on a 27" QHD OLED monitor. Dive into immaculate OLED visuals with up to 98.5% of DCI-P3 color coverage and a 1,500,000:1 contrast ratio for stunning blacks and vibrant colors. With next gen connectivity via DisplayPort 2.1, enjoy ultra-fast data transfer supporting higher resolutions at fast refresh rates with razor-sharp visuals and zero lag. Adaptive sync technologies FreeSync Premium Pro and NVIDIA G-SYNC compatibility ensure tear-free, stutter-free performance, whether you're on PC or next-gen consoles. Plus, the UltraGear's 2-year OLED limited warranty and OLED Care features give you peace of mind, keeping your UltraGear monitor in top shape. Designed and built for gamers, the monitor's virtually bezel-less screen brings you into the action while the RGB backlighting creates the mood for the centerpiece of your ultimate battlestation.

2. WHAT'S IN THE BOX

Verify that all components are present before proceeding with setup.

- Monitor
- Power Cord
- Display Port Cable (ver 2.1)
- HDMI Cable (ver 2.1)
- USB A to B Cable



Figure 2.1: Contents of the LG UltraGear OLED Monitor packaging.

3. SETUP GUIDE

Follow these steps to assemble and connect your LG UltraGear OLED Gaming Monitor.

3.1 Assembling the Stand

1. Carefully remove the monitor and stand components from the packaging. Place the display panel face down on a soft, clean surface to prevent scratches.
2. Attach the stand body to the monitor's rear panel. Ensure it clicks securely into place.
3. Connect the stand base to the stand body. Tighten the screw at the bottom of the base to secure the assembly.



Figure 3.1: Assembled LG Ultragear OLED Gaming Monitor.

Your browser does not support the video tag.

Video 3.1: LG 27GX790-B OLED UltraGear Monitor Unboxing and Setup. This video demonstrates the unboxing process and how to assemble the monitor stand.

3.2 Connecting Cables

Refer to the diagram below for port locations.

LG UltraGear™ OLED

27GX790A



Dimensions (Inches W x H x D)

23.8 x 22.8 x 9.8 (with stand up)

23.8 x 18.5 x 9.8 (with stand down)

What's in the box

- Monitor
- Monitor Base
- Power Cord
- DisplayPort 2.1 Cable
- HDMI Cable
- USB A to B Cable

Figure 3.2: Rear Input Ports.

- **Power Connection:** Connect the power cord to the monitor and then to a wall outlet.
- **Video Input:**
 - For optimal performance, connect your PC using the provided **DisplayPort 2.1 cable** to the DisplayPort input on the monitor.
 - Alternatively, use an **HDMI 2.1 cable** to connect to either HDMI 1 or HDMI 2 ports for PC or console connections.
- **USB Connectivity:** Connect the **USB A to B cable** from your PC to the USB Upstream port on the monitor to enable the monitor's USB 3.0 downstream ports for peripherals.
- **Audio Output:** Connect headphones or external speakers to the 3.5mm headphone jack for audio output.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

Locate the joystick button on the bottom center of the monitor. Press the joystick once to power on the monitor. Press and

hold the joystick for a few seconds to power off.

4.2 Navigating the On-Screen Display (OSD) Menu

The joystick button also serves as the OSD navigation control:

- **Press:** Access the main OSD menu.
- **Move Up/Down:** Navigate through menu options.
- **Move Left/Right:** Adjust settings or move between sub-menus.

4.3 Key Features and Settings

Your LG UltraGear OLED monitor offers advanced features for an optimized gaming experience:

- **Refresh Rate (480Hz) & Response Time (0.03ms GtG):** This monitor delivers an ultra-fast 480Hz refresh rate and a 0.03ms Gray-to-Gray (GtG) response time for incredibly smooth and responsive gameplay. Ensure your graphics card and system can support these high refresh rates for the best experience.



The advertisement features a central image of a racing car on a track, viewed through a monitor. The text 'LG UltraGear™ OLED' is at the top, followed by 'Unbeatable OLED Gaming Speed' and '480Hz/0.03ms'. A large '480Hz' is overlaid on the car, and a '0.03ms GtG' logo is in the bottom right of the monitor. A disclaimer at the bottom reads: 'Requires Graphics Card That Supports DisplayPort 2.1 To Achieve Up To 480Hz Refresh Rate Support. Actual Refresh Rates May Vary Depending On Computer Graphics Specifications And Configurations.'

Figure 4.1: High Refresh Rate and Response Time.

- **OLED Picture Quality:** Enjoy stunning visuals with deep blacks, vibrant colors, and high contrast thanks to OLED

technology. The monitor supports up to 98.5% DCI-P3 color coverage and DisplayHDR True Black 400.



The advertisement features a dark background with vibrant, colorful light trails in shades of blue, purple, and red. In the center, a motorcycle rider in a futuristic, metallic suit is shown in motion. To the right, a large, stylized 'DP 2.1' logo is displayed, with a DisplayPort 2.1 cable plugged into it. The text 'LG UltraGear™ OLED' is at the top, followed by 'Future-Ready Connectivity' and 'DisplayPort 2.1'. At the bottom, a small disclaimer reads: 'Requires Graphics Card That Supports DisplayPort 2.1 To Achieve Up To 480Hz Refresh Rate Support. Actual Refresh Rates May Vary Depending On Computer Graphics Specifications And Configurations.'

Figure 4.2: Stunning OLED Picture.

- **Adaptive Sync (FreeSync Premium Pro & G-SYNC Compatible):** This technology synchronizes the monitor's refresh rate with your GPU's frame rate to eliminate screen tearing and stuttering. Enable this feature in both monitor OSD and graphics card control panel.

LG UltraGear™ OLED

UltraGear's Brightest OLED

MLA+ With Up To 1300 Nits Brightness



Figure 4.3: Seamless Frame Sync.

- **Adjustable Stand & RGB Backlighting:** The ergonomic stand allows for height, tilt, swivel, and pivot adjustments for optimal viewing comfort. The integrated RGB hexagonal backlighting can be customized to enhance your gaming setup.



Figure 4.4: Adjustable Stand.

- **Gaming Features:**
 - **Dynamic Action Sync:** Reduces input lag for real-time response.
 - **Black Stabilizer:** Brightens dark scenes to reveal hidden enemies.
 - **FPS Counter:** Displays your real-time frame rate.
 - **Crosshair:** Enhances aiming precision.
- **DTS HP:X & 4-Pole Jack:** Experience immersive 3D audio with DTS Headphone:X. The 4-pole headphone jack supports both stereo audio and microphone input for clear communication.

5. MAINTENANCE

Proper care ensures the longevity and optimal performance of your monitor.

- **Cleaning the Screen:** Gently wipe the screen with a soft, lint-free cloth. For stubborn marks, slightly dampen the cloth with water or a specialized screen cleaner. Avoid harsh chemicals or abrasive materials.
- **Cleaning the Casing:** Use a soft, dry cloth to clean the monitor's casing.

- **OLED Care Features:** Your monitor includes built-in OLED Care tools, such as pixel cleaning, to maintain display quality and prevent image retention. Refer to the OSD menu for these settings.
- **Ventilation:** Ensure adequate airflow around the monitor by keeping vents clear of obstructions.

6. TROUBLESHOOTING

If you encounter issues, try these solutions before contacting support.

Problem	Possible Cause	Solution
No Power	Power cable not connected; Power outlet issue.	Ensure power cable is securely connected to monitor and outlet. Test outlet with another device.
No Signal / Black Screen	Incorrect input source selected; Video cable loose or faulty; PC/console not outputting signal.	Check video cable connections. Select correct input source via OSD menu. Restart PC/console.
Screen Tearing / Stuttering	Adaptive Sync (FreeSync/G-SYNC) not enabled or incompatible.	Ensure Adaptive Sync is enabled in both monitor OSD and graphics card control panel. Update graphics drivers.
Image Retention / Burn-in	Static images displayed for extended periods.	Utilize OLED Care features (pixel cleaning, screen shift). Avoid displaying static images for very long durations. Use screen savers.
Joystick Unresponsive	Temporary software glitch.	Unplug the monitor's power cable, wait 30 seconds, then plug it back in.
No Audio Output	Incorrect audio output selected; Cable issue; Volume too low.	Check audio cable connection. Ensure monitor is selected as audio output device on PC/console. Adjust volume.

7. SPECIFICATIONS

Detailed technical specifications for the LG 27GX790A-B Ultragear OLED Gaming Monitor.

Feature	Detail
Brand	LG
Model Number	27GX790A-B.AUS
Screen Size	26.5 Inches
Screen Resolution	2560x1440 (QHD Wide 1440p)
Max Refresh Rate	480Hz
Response Time	0.03ms (GtG)
Panel Type	OLED
Contrast Ratio	1,500,000:1
Color Gamut	Up to 98.5% DCI-P3

Feature	Detail
HDR Support	DisplayHDR True Black 400
Adaptive Sync	AMD FreeSync Premium Pro, NVIDIA G-SYNC Compatible
Connectivity	2x HDMI 2.1, 1x DisplayPort 2.1, 1x USB Upstream, 3x USB Downstream, 1x Headphone Jack
Dimensions (with stand)	9.8 x 23.8 x 22.8 inches (LxWxH)
Item Weight	20.5 pounds
Color	Black

8. WARRANTY AND SUPPORT

Your LG Ultragear OLED monitor comes with a **2-year limited warranty** that covers key components, including the OLED panel. For detailed warranty information, please refer to the documentation included with your product or visit the official LG support website.

For technical assistance, troubleshooting beyond this manual, or to inquire about service, please contact LG Customer Support. You can find contact information on the LG website or in your product's warranty card.

Online Resources:

- [Visit the LG Store on Amazon](#)
- [DTS Patents Information](#)