

# XREAL One Pro User Manual

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## 1. Welcome to XREAL One Pro

Thank you for choosing the XREAL One Pro — a premium lightweight AR glasses powered by the custom X1 spatial computing chip and innovative X Prism optical engine. Engineered for immersive spatial viewing, seamless cross-device compatibility, and ultra-low latency, this device transforms your visual experience into a portable, expansive virtual canvas. This manual provides step-by-step guidance to set up, operate, and maintain your XREAL One Pro safely and efficiently. Please read all instructions thoroughly before use to unlock the full potential of your AR glasses.

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## 2. Box Contents & Hardware Overview

### 2.1 What's Included

- 1 x XREAL One Pro AR Glasses
- 1 x Multi-Function USB-C Cable (data & power)
- 1 x Protective Hard Case
- 1 x Cleaning Cloth

- Interchangeable Nose Pads (S/M/L sizes)
- 1 x Quick Start Guide

## 2.2 Physical Features

- **Frame & Weight:** Ultra-lightweight ergonomic frame (approx. 91g), adjustable temple arms, interchangeable nose pads for personalized fit
- **Controls:** Side function button (power/pairing/ mode switch), volume adjustment rocker, status LED indicator
- **Connectivity Port:** USB-C port (data transmission, power input, device connection)
- **Audio:** Built-in open-ear speakers, hidden microphone
- **Optical Module:** X Prism optical engine, dual Micro OLED displays

## 2.3 Key Specifications

- **Display:** Dual 0.55-inch Micro OLED, Full HD 1080p resolution per eye, 57° ultra-wide FoV (Field of View)
- **Visual Experience:** 68–556 inch virtual screen size, 2–10m adjustable viewing distance
- **Chip & Latency:** Custom X1 spatial computing chip, 3ms ultra-low end-to-end latency
- **Tracking Modes:** 3DoF (3 Degrees of Freedom) & 6DoF (6 Degrees of Freedom) spatial anchoring
- **Connectivity:** USB-C wired connection (compatible with DisplayPort Alt Mode)
- **Battery:** Built-in rechargeable battery (powered via connected device or external power bank)
- **Compatibility:** Windows, macOS, Android, iOS, Steam Deck, gaming consoles (with compatible adapter)

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## 3. Unboxing & Physical Setup

1. **Fit Adjustment:** Select the most comfortable nose pad size (S/M/L) and attach to the frame. Adjust temple arms to fit your head shape securely without excessive pressure.
2. **Glasses Compatibility:** The ergonomic frame accommodates most prescription glasses. For optimal comfort, use lightweight prescription lenses if needed.
3. **Protective Storage:** Always place the glasses in the included hard case when

not in use to prevent scratches, impacts, and dust buildup.

**Tip:** Ensure the glasses sit evenly on your nose and ears for stable, distortion-free viewing.

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## 4. Device Connection & App Setup

### 4.1 Wired Connection

1. Connect one end of the included USB-C cable to the USB-C port on XREAL One Pro.
2. Connect the other end to your compatible device (smartphone, laptop, tablet, or gaming device).
3. The status LED will light up white to confirm successful connection; the AR display will activate automatically.
4. For devices without a full-function USB-C port, use a certified DisplayPort Alt Mode adapter.

### 4.2 XREAL App Setup

1. Download and install the **XREAL App** from the App Store (iOS) or Google Play (Android).
2. Open the app and create/log into your XREAL account.
3. Follow in-app prompts to pair your XREAL One Pro (ensure Bluetooth is enabled on your mobile device).
4. Complete firmware updates if prompted to access latest features and performance improvements.
5. Calibrate the display and spatial tracking for personalized viewing accuracy.

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## 5. Core Usage & Spatial Display Controls

### 5.1 Basic Operation

- **Power On/Off:** Press and hold the side function button for 3 seconds to power on; repeat to power off.
- **Mode Switch:** Short press the side button to toggle between display modes (virtual screen, spatial canvas, cinema mode).

- **Volume Control:** Use the side rocker to adjust built-in speaker volume up or down.
- **Screen Adjustment:** Use the XREAL App to resize virtual screen, adjust viewing distance, and switch aspect ratios.

## 5.2 Spatial Canvas Usage

The 57° ultra-wide FoV transforms your environment into a flexible spatial display. Open multiple windows simultaneously, drag and arrange content, and anchor virtual screens to physical locations for a multi-tasking workspace.

- Pinch-to-zoom (via connected device) to resize virtual content
  - Double-tap the side button to quickly re-center the display
  - Use app gestures to lock/unlock screen position in physical space
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## 6. 3DoF/6DoF Interaction Modes

### 6.1 3DoF Mode

Default mode for stable virtual screen viewing. The display follows head movement smoothly, ideal for movies, gaming, and desktop work.

### 6.2 6DoF Mode (Spatial Anchoring)

Advanced mode that locks virtual content to fixed physical locations (walls, tables, desks). Virtual screens stay in place as you move around the room, perfect for spatial computing and immersive productivity.

- Enable 6DoF via the XREAL App settings menu
  - Calibrate spatial tracking in a well-lit environment for optimal accuracy
  - Avoid rapid head movements to maintain tracking stability
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## 7. Display & Audio Customization

### 7.1 Display Tuning

- Adjust brightness, contrast, and color temperature via the XREAL App
- Toggle blue-light filter for reduced eye strain during extended use
- Calibrate IPD (Interpupillary Distance) for sharp, clear dual-display alignment

- Select refresh rate and screen resolution based on connected device capabilities

## 7.2 Audio Settings

- Adjust open-ear speaker volume and balance
  - Enable/disable built-in microphone for voice calls and voice commands
  - Switch audio output between built-in speakers and connected Bluetooth headphones
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## 8. Device Compatibility

- **Smartphones:** Android devices with USB-C 3.1+ (DisplayPort Alt Mode), iPhones (with certified Lightning/USB-C adapter)
  - **Computers:** Windows laptops/desktops, macOS devices (MacBook, iMac) with USB-C video output
  - **Gaming Devices:** Steam Deck, Nintendo Switch (with dock/adapter), PlayStation, Xbox (with compatible adapter)
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## 9. Care, Safety & Usage Guidelines

- **Cleaning:** Wipe the optical lenses and frame with the included lint-free cleaning cloth. Do not use water, alcohol, or harsh chemicals. Avoid touching the Micro OLED displays with fingers.
  - **Usage Safety:** Use in safe, open environments; avoid operating machinery, driving, or walking in hazardous areas while wearing. Take 10–15 minute breaks every hour to reduce eye fatigue.
  - **Storage & Handling:** Keep away from extreme temperatures, direct sunlight, moisture, and dust. Do not bend, drop, or apply excessive pressure to the frame or optical modules.
  - **Power Safety:** Use only certified USB-C cables and power sources. Do not charge the device in humid or flammable environments.
  - **Eye Health:** Discontinue use immediately if you experience dizziness, nausea, or eye strain. Not recommended for children under 13 years old without adult supervision.
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## 10. Troubleshooting Common Issues

## 10.1 No Display/Connection Failure

- Reconnect the USB-C cable and ensure a secure connection
- Verify the connected device supports DisplayPort Alt Mode
- Restart both the XREAL One Pro and connected device
- Update device firmware via the XREAL App

## 10.2 Blurry/Unstable Display

- Clean the optical lenses with the provided cloth
- Recalibrate IPD and spatial tracking in the XREAL App
- Adjust glasses fit for stable positioning on the face
- Ensure 6DoF tracking is calibrated in a well-lit area

## 10.3 Low Volume/Audio Failure

- Adjust volume via the side rocker and connected device
- Check audio output settings in the XREAL App
- Reconnect the device or restart the glasses

## 10.4 Tracking Inaccuracy

- Switch to a well-lit environment with distinct visual markers
- Recalibrate 3DoF/6DoF tracking in the app
- Avoid reflective surfaces or uniform, featureless backgrounds

## 10.5 Factory Reset (Last Resort)

1. Power off the glasses and disconnect all cables
2. Press and hold the side function button for 10 seconds
3. Release the button when the LED flashes orange
4. Reconnect and re-pair with the XREAL App to reconfigure settings