

USER GUIDE

R-6 GLASSES



ODG 

Welcome

Welcome, and thank you for purchasing the world's first fully integrated, 3D, see-through, augmented reality eye wear.

Osterhout Design Group reserves all rights to the product and grants no other licenses, rights, or data of any kind. ODG prohibits the reverse engineering or deconstruction of the item for any purpose.



Customer Support

For questions, additional information not contained within this guide, or to open a support ticket visit our Support site:

 support.osterhoutgroup.com



Developer Support






SDK documentation, API guides, user forums, and software downloads can be accessed through the ReticleOS Developer Center:

 developer.osterhoutgroup.com

To request a Developer account, please send an email to developer@osterhoutgroup.com.

Safety & Care

Your ODG R-6 device has been designed and manufactured to stringent quality and safety standards. You should, however, be aware of the following important precautions for the safe use of the glasses and accessories.

-  Read and heed all of these instructions and warnings carefully.
-  Keep these instructions for future reference.
-  Clean only with dry microfiber cloth, supplied.
-  Only use attachments/accessories specified by ODG.
-  Do not store glasses near any heat sources such as radiators, registers, stoves, vehicle interiors, amplifiers or other items that produce heat.



This device contains lithium ion batteries, which can explode or cause burns if disassembled or exposed to fire or high heat. Batteries must be disposed and recycled safely and properly. If battery swelling or deformation occurs immediately stop using the device.



Warning: This device contains magnets and should be kept at a distance from persons with any metallic, electronic, or magnetic device implants in the body.

This is a Class B product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

The design and manufacture of ODG R-6 Glasses is in accordance with the requirements set out in Article 4 of RoHS2 Directive 2011/65/EU.



FCC ID: 2ADCMODGR-6
Assembled in USA



RoHS
Compliant



Table of Contents

Welcome.....	3
Safety & Care	4
Table of Contents.....	5
Included in the Kit	6
Unpacking the Glasses	7
Storing the Glasses.....	7
Main Features	8
Adjusting Nose Bridge Height	9
Controls	10
Track Pad	11
Status Bar	12
Application Launcher	12
Control Panel	13
Settings	13
Wireless Finger Controller	14
Earbuds	15
Head Strap	15
Charging.....	16
Cleaning	17
Corrective Lenses	17
Wireless Keyboard.....	18
Technical Specifications	19
Replacement Parts	20

Included in the Kit

R-6 GLASSES



MAGNETIC USB
DATA & POWER CABLE



STORAGE CASE



USER GUIDE



(2) EAR BUDS



WIRELESS FINGER
CONTROLLER KIT



CONTROLLER



BATTERY



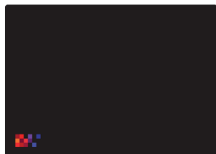
CHARGER

USB POWER
SUPPLY



(GLASSES & WFC)

LENS CLEANING CLOTH



HEAD STRAP



Unpacking the Glasses

- !** When removing the glasses from the storage case, the left ear horn must be rotated into position before wearing.

Unfold both temples. Holding the left temple, pull slightly on the ear horn to release it (1), then carefully rotate until it locks into position (2).



Storing the Glasses

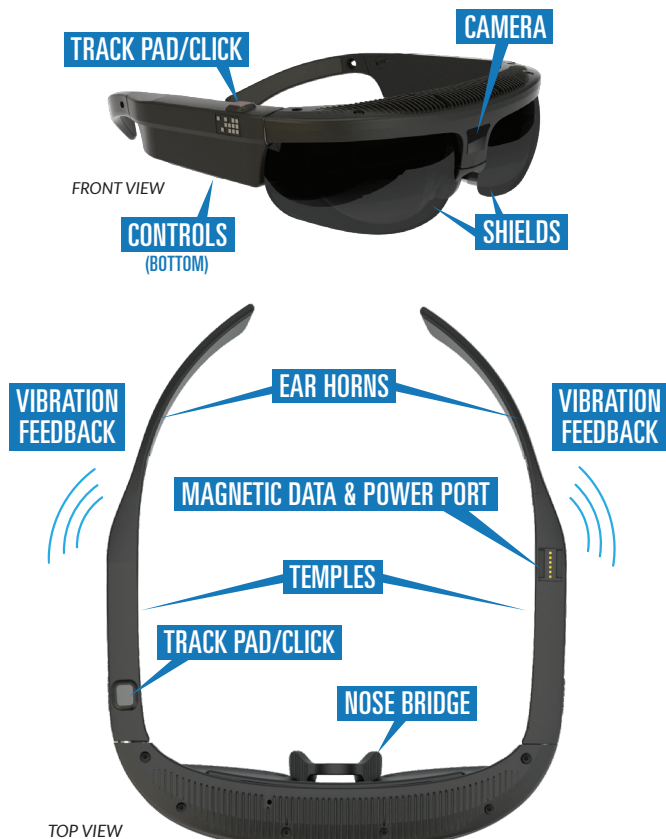
- !** When returning the glasses to the storage case, the left ear horn must be rotated and folded in first.

Holding the left temple, pull slightly on the ear horn to release it, then carefully rotate until it clicks into the folded position. Fold this ear horn down first, then fold down the right ear horn before returning the glasses to the storage case.

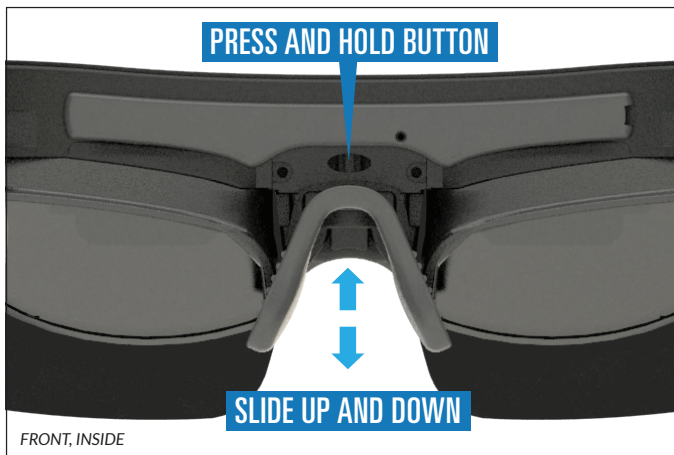


STORAGE CASE

Main Features



Adjusting Nose Bridge Height



To provide comfort for the wearer as well as to adjust the glasses fit for optimum viewing of the displays, the nose bridge may be adjusted up and down to three positions.












To adjust the height of the nose bridge, press and hold the button above and slide the nose bridge up or down.

Three sizes of nose pads are included to provide optimum fit. The pads simply snap into and out of place.

After any adjustment gently wipe the camera off with the supplied Microfiber Cleaning Cloth.

Controls



 POWER	 MENU	 BACK
 Power On (When device is off)	 Control Panel	 Previous Screen
 Displays Off (When device is on)	 Switch/Select Open Applications (When in Launcher)	 Go to Launcher
 Shutdown Menu		
 Force Shutdown		

Track Pad



The track pads located on top of the right temple of the glasses as well as the Wireless Finger Controller are input devices that allow the user to control the software interface by swiping with a fingertip. They function equally with gloveless and gloved fingers. Pressing down on a track pad represents a click or selects an item.

Input Modes

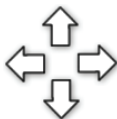
There are two modes of Track Pad input to allow optimum control per application. To switch modes, press the Menu button once to display the Control Panel, then select Input Mode.

See Control Panel, Page 13.



CURSOR MODE

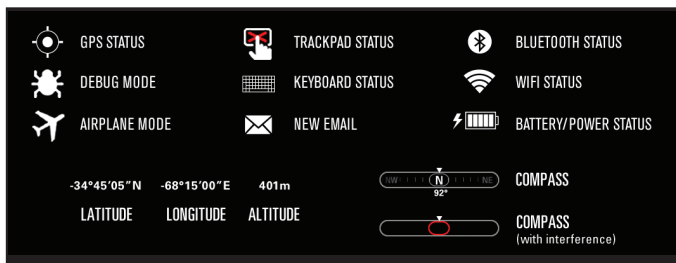
Swiping the Track Pad allows free movement of the cursor in any direction in the same manner as a computer mouse.



SELECTOR MODE

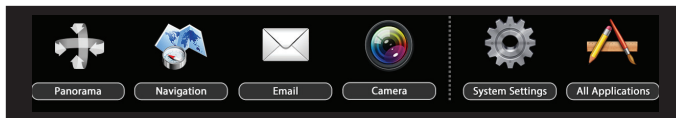
Swiping the Track Pad up, down, left, or right selects the next button, item, or element in the same manner as 4-way arrow keys.

Status Bar



At the top of the screen the Status Bar indicates the status of a variety of elements such as battery strength, connectivity, and notifications.

Application Launcher

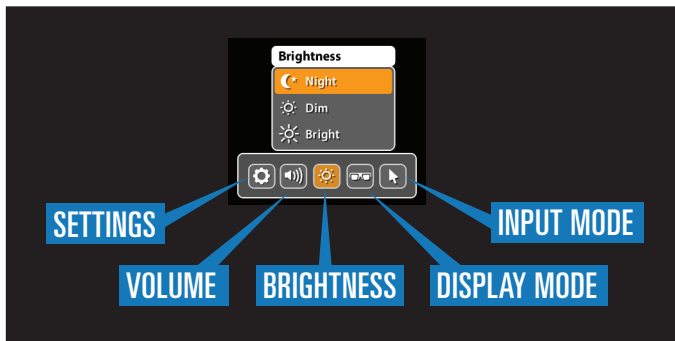


When the system powers on, the Home Screen will appear with a row of icons mid-screen. Pressing and holding the Back button for 2 seconds at any time will navigate the user to the Home Screen.

Swiping a finger left or right across the track pad will select an application. Pressing the Track Pad launches the selection. To view all available applications on the system, select the “All Applications” icon. While viewing all applications, an indicator shows which icons are on the Home Screen. Select “Back to Home Screen” to switch back to the Home Screen.

To manage the icons, press and hold the Track Pad to display a menu of options such as Add or Remove from Home . Press and release the Back button to exit this menu.

Control Panel



The Control Panel provides quick access to frequently used controls including Settings, Volume, Brightness, Display Mode, and Input Mode.

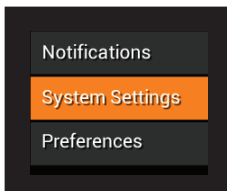
To access the Control Panel, press and release the Menu button. Swipe left or right to highlight a setting, then press and release the Track Pad to display a popup menu of options. Swipe up and down to select the desired setting. Press and release the Back button to exit the Control Panel.

Settings Menu

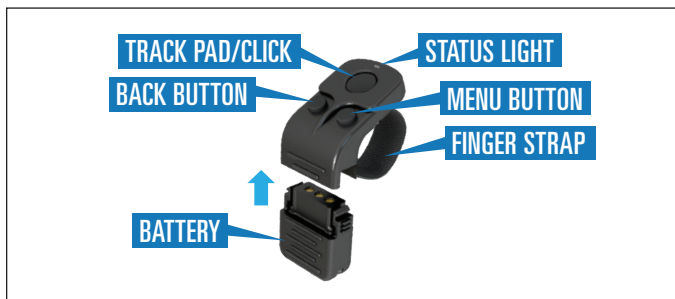
The System Menu provides access to System Settings as well as any available settings for the current application.

To access, press and release the Menu button to display the Control Panel then select the Settings icon.

Press and release the Back button to exit the System Menu.



Wireless Finger Controller



The Wireless Finger Controller is an input device for the system that is worn on the user's index finger and controlled with their thumb. The Track Pad, Menu and Back buttons function in the same manner as the buttons on the glasses. (See *Main Features, Page 8*)

To power up the controller, insert the battery. The status light will flash green to indicate the device is powered up. If the light does not flash the battery needs to be charged. (See *below*).

If the controller powers up but does not connect to the glasses the Bluetooth pairing may need to be re-established. (See *below*)

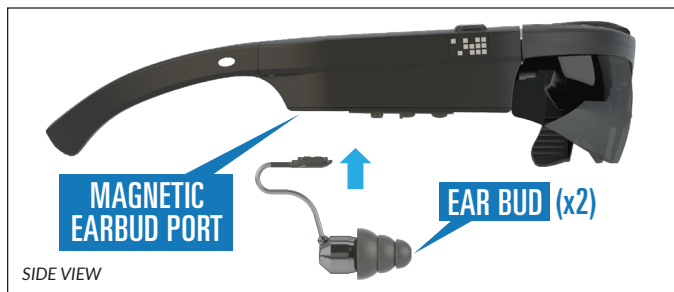
Bluetooth Pairing

To enter pairing mode on the controller, press the Back and Menu buttons simultaneously until the status light blinks blue. On the glasses, press and hold the Menu button to display the System Menu (See *Page 13*) and select Settings. Under the Bluetooth settings, select the controller from the list of available devices.

Charging

Included in the kit is a charger for the Wireless Finger Controller battery. Disconnect the battery from the controller and insert the battery into the charger. The battery should be fully charged in 3 hours. The Status Light will turn green when fully charged.

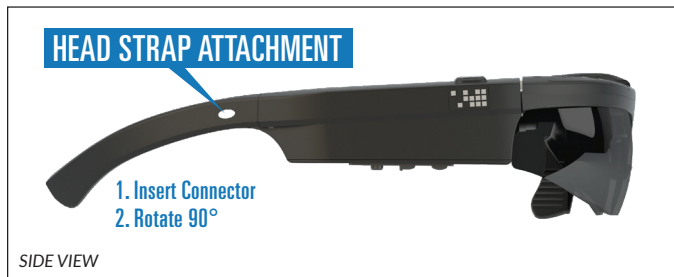
Earbuds



To listen to audio, attach each of the supplied earbuds into the magnetic earbud ports located on the bottom of each temple.

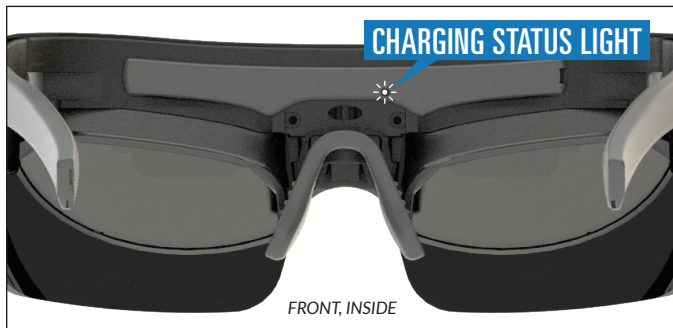
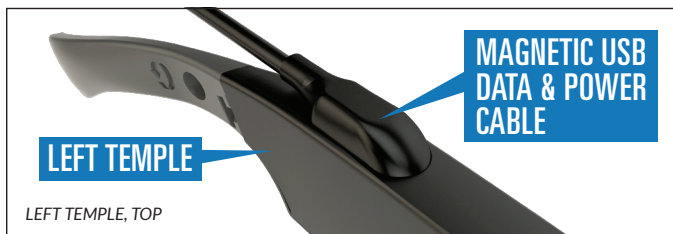
To adjust the volume, press and release the Menu button to display the Volume settings in the Control Panel.

Head Strap



The included Head Strap may be attached to secure the glasses to the wearer's head. To attach the strap, press the strap connectors into the oval hole in the Ear Horns, then rotate them 90°.

Charging



To charge the glasses, attach the Magnetic USB Data & Power Cable to the charging port on top of the left temple and plug the cable into the supplied power supply. A charging status light located on the inside front of the glasses illuminates when the charging cable is plugged in:

- **CHARGING**
SOLID WHITE
- **CHARGED**
SOLID GREEN
- ⦿ **BATTERY ERROR**
BLINKING PINK

! If an error is indicated, contact ODG immediately for servicing.
Do not attempt to access the batteries or disassemble the device.

Cleaning

Over time and with normal use the Front Shields and privacy shields may become soiled with fingerprints, facial oils, and dust. To clean these surfaces gently wipe them with the supplied Microfiber Cleaning Cloth.



Use ONLY the supplied microfiber cloth to clean optical surfaces. Other materials can scratch surfaces and degrade optical quality.

Corrective Lenses (Optional)



Corrective Lenses are available to correct vision of users who the user wear prescription glasses. The lenses easily snap into place without the use of tools.

To install, insert the two tabs at the center of the lenses into the rectangular holes above the nose piece. To remove, slip a fingernail between the center plastic piece and the frame of the glasses and pull down.

Wireless Keyboard (Optional)



To operate the keyboard, switch the keyboard power button on. If the keyboard is not already paired with the glasses, follow the Bluetooth Pairing instructions below.

The Back and Menu keys operate the same as the buttons on the device. The brightness and volume buttons adjust the Control Panel settings.

Bluetooth Pairing

To enter pairing mode, press the Bluetooth button on the keyboard until the status light blinks blue. In Settings, under Bluetooth, select the keyboard from the list of available devices.

Charging

To charge the keyboard, connect the included MiniUSB-to-USB cable between the keyboard and the USB power supply. The battery should be fully charged in 3 hours.

Technical Specifications

Operating System

Android 4.2 (Jelly Bean)

Processor

TI OMAP 4470

Field of View

30 Degrees

Transmissivity

16 to 6% (clear to darkened state)

Shields

ANSI Z87.1

Convergence

8 feet

Display Resolution

1280 x 720

Display Frame Rate

30 Hz

WiFi

802.11 (B,G,N)

Location

GPS

Bluetooth

2.0+ EDR

Batteries

650mAh (2)

Camera (Still)

5MP, Digital, Auto-Focus, Color

Camera (Video)

720p at 60fps

Camera (Focus)

Auto-Focus, 3" to Infinity

Integrated Measuring Unit

3-Axis Gyro, 3-Axis Accelerometer,
3-Axis Compass

Sensors

Altimeter, Ambient Light Sensor

Connections

USB 2.0 OTG (Magnetic)

Microphone

(2) Digital Microphones

Memory

1 GB SDRAM,
16 GB eMMC NAND Flash

Storage Temperature

-30° to 71°C

Operational Temperature

-20° to 55° C

Max Operating Altitude

15,000 ft (4,500 m)

Max Transport Altitude

40,000 ft (12,000 m)

Supported 3D

Side-by-side Format

Supported Audio Formats

WAV, MP3, AAC

Supported Still Image Formats

JPEG, PNG, BMP, GIF

Supported Movie Formats

MP4, MPEG2

Power Voltage (Charging)

5 VDC

OSTERHOUT DESIGN GROUP

153 Townsend Street, Suite 570

San Francisco, CA 94107

Tel: (415) 644-4000

COMPANY:

www.osterhoutgroup.com

SUPPORT:

support.osterhoutgroup.com

DEVELOPERS:

developer.osterhoutgroup.com

REPLACEMENT PARTS

Replacement parts and accessories are available for purchase through our online store at **shop.osterhoutgroup.com**.