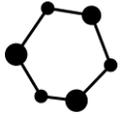


# Ora GQ™ Headphones

Product Manual (Sample)  
ORA GQ-608





Welcome,

Congratulations on receiving an early product sample of the new Ora GQ™ Headphones. You are one of the first to experience real Graphene Audio. We appreciate your support and we look forward to your feedback on the sound and on your user experience. A lot of research and development has gone into Ora's GrapheneQ™ membrane. With this product, Ora hopes to showcase the potential of this radically new technology. Great care was taken to create a headphone that could properly convey the sonic benefits of GrapheneQ™. Prepare yourself for a listening experience unlike anything you have heard before. The depth and detail of the highs combined with a powerful low end and an impressively wide sound stage is unlike any other headphone. Ora has combined this exciting new level of fidelity with a comfortable headset and an intuitive, modern user interface. A lot of work and a lot of love have gone into bringing you these headphones. We are excited to share them with you.

Enjoy!

The Ora Team



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## Features

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- 🔊 40mm Ora GrapheneQ™ drivers
- 🔊 BT 5 wireless connectivity
- 🔊 aptx HD and AAC for hi-fi wireless playback (up to 16bit/48kHz)
- 🔊 Intuitive user interface: single button + touchpad
- 🔊 Passive (no battery required) wired connectivity available
- 🔊 Microphone for phone + chat (wireless)
- 🔊 Unparalleled sonic clarity
- 🔊 Extended bandwidth for crisp highs and deep, impactful lows
- 🔊 Ultra-low distortion provides fatigue-free listening
- 🔊 Ergonomic "ear-shaped" design
- 🔊 Fully over-ear pads for extreme comfort
- 🔊 Open, natural playback
- 🔊 Wide stereo imaging never before possible in closed headphone designs
- 🔊 Excellent isolation without ANC

## User Interface

### Fitting the Headphones:

Ensure proper fitting of your Ora Headphones. Left / Right indications are located inside the ear pads. Adjust the headband to the appropriate length before placing them on the head. The GQ™ headphones are designed to customize to your head. The headphones should sit high and tight with the band barely touching the top of the head. The ear cups should fully surround the ear. Most of the force should be on the ear pads, not on the headband. Adjust the angle of the ear cups using the sliders to ensure the pressure is evenly distributed around the ear pad. To test the fit, rotate the cups back a bit and make sure the rear of the ear pad is sealed against the head, behind the ear.

The GQ™ headphones use a flexible spring steel band to provide the user's desired "clamping force". The spring steel can be flexed to provide the desired tension. If the headphones are too tight, flex the band out a bit. If they are too loose, twist the headphones in for a snug fit. The spring steel band will flex and flatten for wider heads, this keeps the force perpendicular to the head regardless of head size. The curved metal sliders should be extended to produce a comfortable angle of the ear cups to the head for your individual head size.

### Button (Left Ear Cup):

- Hold 5 seconds to turn on
- Hold 10 seconds at start-up for forced pairing mode
- Press once to pause playback
- Press once to restart playback
- Press once to answer call
- Press once to hang-up call
- Hold 5 seconds to turn off

### Track Pad (Right Ear Cup):

- Swipe Forward for skip-track
- Swipe Backward for back-track
- Swipe Up for volume increase
- Swipe Down for volume decrease

### LED (Right Ear Cup):

- Blue: Power On
- Blink Blue-Green: Pairing Mode
- Blink Blue: Connected
- Red: Shutting Down
- Blink Red: Battery Low
- With USB-C (Red): Charging
- With USB-C (Green): Fully Charged

### Audio Jack (Right Ear Cup):

- 1/8" (3.5mm) TRS connector
- (Microphone is digital – no analog mic connection)

### USB-C Connector (Left ear Cup):

- USB-C for charging only

### Microphone (Right Ear Cup):



Digital microphone for calls and chats

**L/R Indication:**

Silk-screen Inside Ear Cups

**Head Band Adjust:**

Continuous slider

Adjust to ideal size and maintain setting

**Swivel Range:**

90° rotation for storage and to sit flat around the neck.

Pivot angle limited to ensure proper seal with thick memory foam ear-pads

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## Product Specifications

**Headphone**

Product Type: Circum-aural closed-back headphone

THD: < .01% (Linear average 20Hz-20kHz)

Sensitivity: 106dB SPL (C-Weighting) @ 1mW

Frequency Response: \* See graph

Maximum Listening Level: 100dB SPL

**Connections**

Wireless: BT5 with aptXHD and AAC

Wired Operation: Passive

Charging: USB-C

Cables Provided: USB-A to USB-C, ¼" (3.5mm) TRS

**Driver**

Driver Type: 2x 40mm GrapheneQ™ Moving Coil Dynamic Drivers

Driver Impedance: 32Ω per driver

Driver Frequency Response: 3Hz-63kHz

**Battery**

Power Source: 3.7V 510 mAh LiPo battery (Charge via USB-C)

Charge Time: < 2 Hours typical

Average Music Play Time: 22 Hours

**Microphone**

Microphone Sensitivity: -56dB (0dB = 1V/Pa)

Microphone Frequency Response: 90Hz – 8kHz

Microphone SNR: 55 dB (A-Weighted)

**Controls**

Physical Button: Left Ear Cup

Capacitive Touch Sensor: Right Ear Cup

**Dimensions**

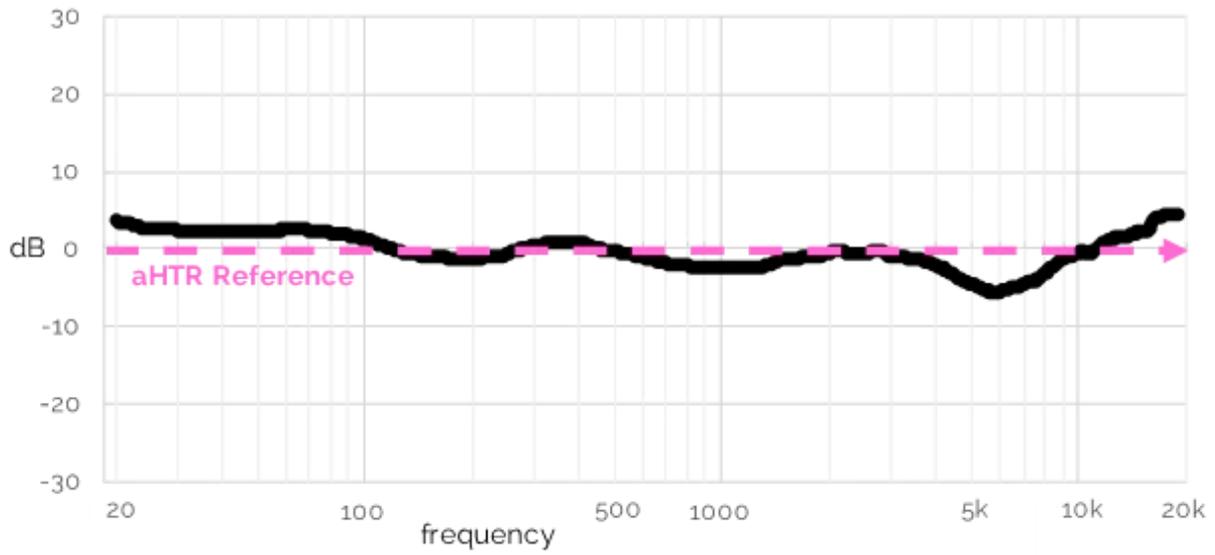
Headphone Dimensions: 176.6mm x 202.9mm

Weight: 360g

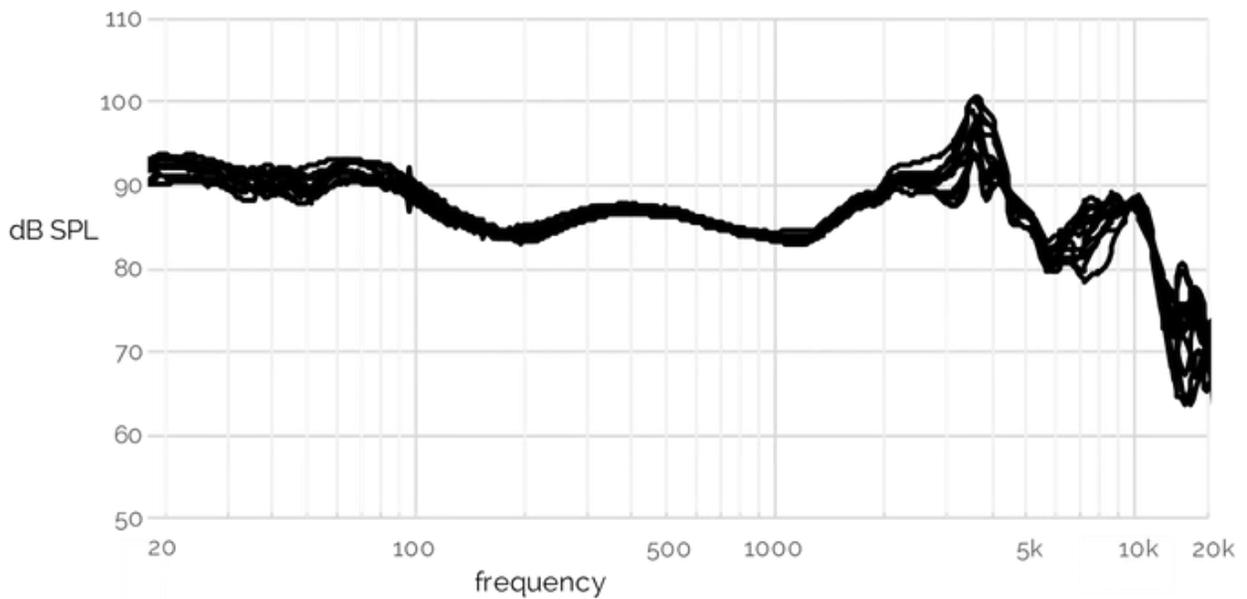
Shipping Dimensions: 252mm x 305mm x 80mm

Shipping Weight: 1016.8g

### Ora GQ™ Headphones: Compensated Frequency Response



### Ora GQ™ Headphones: 15 Overlaid Ear Simulator Measurements



## Product Maintenance

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There are no user serviceable parts inside the headphones. DO NOT attempt to remove the grille from GrapheneQ™ driver or to remove driver from its baffle. Any repairs should be performed by a qualified repair professional.

### Cleaning

To ensure the longevity of your product, keep the Ora Headphones free from dust and oil. Perform occasional cleaning. Use a microfiber cloth to clean the ear cup, yoke, and top of head band. Use an alcohol swab to clean the ear pads and inside of the headband. Remove ear pads before cleaning. DO NOT get moisture on the GrapheneQ™ driver membrane.

### Battery Replacement

The battery can be replaced by a qualified electronics professional. The battery is located in the Left ear cup. The headphones use a standard 3.7V, 510 mAh LiPo battery with a socket terminal.

### Ear Pads

The ear pads can easily be removed for cleaning, repair, or replacement. The headphones have been designed to also accept any 110mm x 90mm OEM pads. Please note that replacing the ear pads with OEM products will change the sound of the headphones and they will no longer to be considered within manufacturer's specifications. Ora is not responsible for issues that arise from the use of OEM products.

To remove the ear pads, hold the headphones with the ear pads facing up. Turn the Left ear pad ~10° clockwise. Turn the Right ear pad ~10° counter-clockwise. To replace, push the pad flush against the ear baffle and turn in the opposite direction.

### Terms and Conditions

Your Ora GQ™ Headphones should arrive free of defects related to manufacturing, parts, materials, and workmanship under normal and accepted use. If your Ora GQ™ headphones are damaged and non-functioning, contact Ora within 30 calendar days of the receipt of your headphones with a description of the problem.

This does not cover defects resulting from improper or unreasonable use or maintenance; cosmetic damage, including but not limited to scratches, dents and broken parts; failure to follow operating instructions; accident; excess moisture; excess temperature; power surges; connections to improper voltage supply; unauthorized alteration or modification of original condition; damage caused by use with non-Ora products; products purchased from unauthorized dealers; or defects incurred during transportation for which claims must be presented to the carrier.

Due to the unique materials used in Ora's product, variations in grain and colour are natural characteristics. These variations are normal and are considered acceptable by Ora. Additionally, as parts age, the finished colour may change. Variations or changes in colour and finish are not grounds for return/replacement of the product. The premium materials used in the Ora headphones will break-in over time including the headband, ear pads, swivel and slider.

### How to Contact Ora Graphene Audio Inc.

For information related to your Ora headphones please contact Ora at [support@ora-sound.com](mailto:support@ora-sound.com)

## Important Information

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Beware of over-driving the Ora headphones when using an external amplifier. The GrapheneQ™ drivers are precision devices and produce higher-than typical excursion. The headphones have been optimized for playback levels between 85 and 100 dB SPL. For accurate reproduction, Ora recommends paying attention to the headphone volume especially when using the wired connection.



### **Listening at high volume for long periods of time may damage your hearing.**

Monitor your playback levels. Reduce the volume of the audio device before putting on your headphones. Gradually increase the volume until the desired level is reached. Enjoy your headphones at safe listening levels.

Keep the headphones, accessories and packaging out of reach of children. This product is not intended for children under the age of 13 years old.



### **Lithium Polymer Battery**

The Ora GQ™ Headphones contain a Lithium Polymer Battery. Follow airline regulations when traveling with your Ora headphones.

### **Battery Warning**

Lithium batteries are commonly used in consumer products such as laptops, cellphones, cameras, headphones, etc. Ora's battery implementation has been fully tested and uses robust protection circuitry. Still, there is an inherent risk with the use of any and all rechargeable batteries in any circumstance. Use special caution when working with Li-ion (Lithium-ion), LiPo (Lithium-ion Polymer) and any rechargeable cells, as they are very sensitive to charging characteristics and may explode or burn if mishandled. Always charge in/on a fire-proof surface. Never leave charging batteries unattended. ALWAYS use chargers SPECIFICALLY DESIGNED to charge lithium batteries. Do not use any rechargeable battery as well as any battery charger if any visible damage is present, as well as if the cell or charger has been stressed through mishandling, accidental or otherwise, even if damage may not be visible. Always store and transport rechargeable cells in a safe, non-conductive container in a controlled environment. Follow all rules and regulations when flying, traveling, or shipping the headphones. Dispose of all battery cells and chargers in accordance to local laws and mandates. We are not responsible for damage of any modification to the batteries in form or shape. We are not responsible for any damage caused by misuse or mishandling of Li-ion (Lithium-ion), LiPo (Lithium-ion Polymer) and any rechargeable cells. In order to prolong the operation of your Ora GQ™ Headphones, please do not place or store in excessively hot or cold environments. If the device becomes excessively hot, discontinue use immediately and contact Ora Graphene Audio Inc. If the device will not power off, discontinue use and contact Ora Graphene Audio Inc. The Ora GQ™ Headphones are not waterproof. Keep it dry at all times. Do not submerge this device or expose it to moisture. Recharge battery when battery low indication comes on (Blink Red). Do not leave the battery depleted for long periods of time between recharging or the battery capacity may be decreased. Do not attempt to repair the unit by yourself as damage or personal injury may occur. Learn more about proper storage and care for rechargeable batteries here: <http://batteryuniversity.com/>

## Manufacturer's Declarations

**Product Manual:** [www.ora-sound.com/GQ608](http://www.ora-sound.com/GQ608)

Contains technology related to:  
**US Patents #** 7914844, 8709213, & 10390126

**ORA GQ™** Wireless Headphones  
**Model No.** GQ608-HP

Designed in Montreal, Canada  
Made in China

780 Ave. Brewster. Montréal H4C 2K1, Canada  
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**Product Manual:** [www.ora-sound.com/GQ608](http://www.ora-sound.com/GQ608)

**ORA GQ** Wireless Headphones [www.ora-sound.com](http://www.ora-sound.com)  
**Model No.** GQ608-HP

**Ora Graphene Audio Inc.**

*780 Ave. Brewster, Montreal, QC, H4C 2K1, Canada*

Designed in Montréal, Canada



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**US Patents #** 7914844, 8709213, 10390162

