

DENON[®]

Denon PerL Pro

True Wireless In-Ear Headphones AH-C15PL

Owner's Manual



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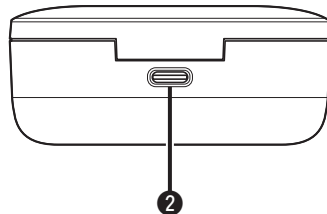
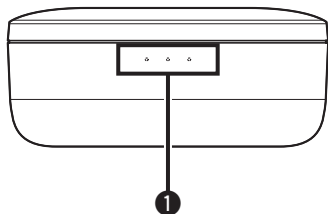
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Part names and functions

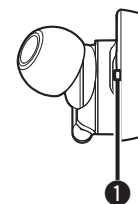
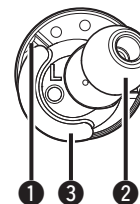
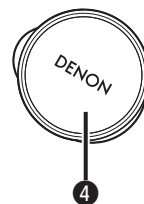
■ Charging case

- ① LED charging light
- ② USB-C charging port



■ Earbuds



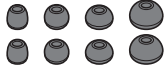



- ① Voice call microphones (x2)
- ② Removable ear tip
- ③ Removable wing attachment
- ④ Touch buttons





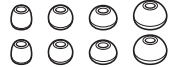




What's in the box

Your Denon PerL Pro will come with:

[Black model]

<p>Earbuds</p> 	<p>Charging case</p> 
<p>Multi-sized silicon ear tips (x4) * One pair is already attached to the earbuds.</p> 	<p>Charging cable (USB-A to USB-C)</p> 
<p>Foam tips (x1)</p> 	
<p>Wing attachments (x2) * One pair is already attached to the earbuds.</p> 	

[White model]

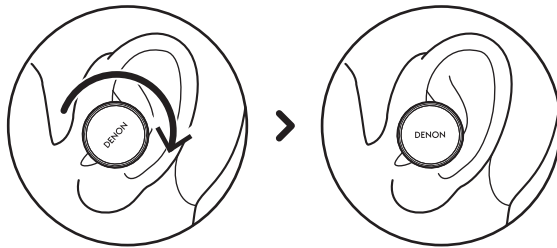
<p>Earbuds</p> 	<p>Charging case</p> 
<p>Multi-sized silicon ear tips (x4) * One pair is already attached to the earbuds.</p> 	<p>Charging cable (USB-C to USB-C)</p> 
<p>Foam tips (x1) * The white model also comes with black tips.</p> 	<p>C-A adapter * This adapter is for use only with the supplied charging cable.</p> 
<p>Wing attachments (x2) * One pair is already attached to the earbuds.</p> 	



Fitting your earbuds

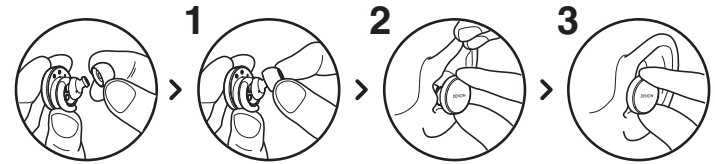
■ Put your earbuds on

- 1** Left and Right - Hold the ear bud marked L in your left hand, and the ear bud marked R in your right hand.
- 2** Adjust the fit - Insert the earbuds into your ears and slightly twist backwards to find the right fit. Your earbuds should feel secure and comfortable.
- 3** To ensure your earbuds fits comfortably, try the different sized ear tips and wing attachments to find what works best for you.



■ If you're using foam tips, you'll need to:

- 1** Compress the foam tip by rolling your fingers.
- 2** Pull your ear back. Insert the entire foam tip into your ear and slightly twist backwards.
- 3** Hold in place for 15-30 seconds for foam to expand and create a seal.



Turning your earbuds on/off

To power on: Remove your earbuds from the charging case.

To power off: Place your earbuds into the charging case.

Auto-pause behavior: By default, your earbuds will pause playback when removed from your ears and resume when placed back on. Your earbuds will automatically power off after 60 seconds if one or both earbuds have been removed from your ears. You can customize the auto-pause behavior within the Denon Headphones app.

Downloading the Denon Headphones app

To set up your earbuds, you will need to personalize it via the Denon Headphones app.

You can download the Denon Headphones app from:

- iOS — the App Store
- Android — Google Play

Denon Headphones app system requirements:

- iOS — iOS 11+ and Bluetooth® 4
- Android — Android 8.0+ and Bluetooth® 4



Bluetooth® operation

■ Connecting your earbuds with Bluetooth

You will need to connect your earbuds to your mobile device via Bluetooth to access the Denon Headphones app and personalize your earbuds.

To connect your earbuds via Bluetooth for the first time:

1 Remove your earbuds from the charging case and place them in your ears to turn them on.

Your earbuds will automatically enter discoverable mode and be pairable if it has not been previously connected to a device.

2 On your mobile device go to “Settings” > “Bluetooth”

3 Select “Denon PerL Pro XXX”.

XXX is the Denon PerL Pro unique pairing number.

■ Swapping between Bluetooth devices

You can pair to your earbuds by entering discoverable mode. Your earbuds will automatically enter discoverable mode and be pairable for 2 minutes when removed from the charging case if it has not been previously connected to a device. Alternatively, you can also enter discoverable mode by tapping and holding the touch buttons on both earbuds simultaneously for 2 seconds, or via “Settings” in the Denon Headphones app.

When your earbuds is in discoverable mode, select “Denon PerL Pro XXX” in the Bluetooth settings of any device you would like to switch to. A voice prompt will announce “Bluetooth device changed.” You have now swapped your connection. Your earbuds will remember up to 8 devices, allowing you to easily switch between them without having to re-enter discoverable mode after initial pairing. Simply select “Denon PerL Pro XXX” in the Bluetooth menu of any previously paired device to reconnect.



Personalizing your earbuds

Before you can start using your earbuds, you will need to create your unique hearing profile. Your earbuds automatically learns how you hear by running a quick hearing test.

■ Before personalizing your earbuds

- 1** Download the Denon Headphones app.
- 2** In the Denon Headphones app, tap “Create an account” and enter your details. If you already have a Denon account, then tap “Log in” instead.
- 3** Select “Denon PerL Pro”.
- 4** Pair your earbuds with your mobile device.

■ Personalizing your earbuds

- 1** In the Denon Headphones app, tap “Begin” to begin personalization.
- 2** Adjust your earbuds by rotating them back and forth until you see two constant ticks on the Denon Headphones app screen. Once you have a good fit, personalization starts and takes about a minute.
- 3** Tap “Personalized” to hear music with your hearing profile applied.
- 4** Use the immersion slider to choose your preferred level of bass.



- 5** Tap the “Transparency” button to hear your surroundings.
- 6** Tap the “Spatial Audio” button to experience an expanded soundscape.
- 7** Customize your earbuds touch buttons. You can also do this later via “Touch controls”.

Your earbuds is now personalized with your unique hearing profile.



Updating your Denon PerL Pro

In order to access the latest features for your Denon PerL Pro make sure you update:

■ Your Denon Headphones app

To update the Denon Headphones app, open the App Store (for iOS devices) or Google Play (for Android devices) to check for available updates.

■ Your Denon PerL Pro

Some improvements may be added to the Denon PerL Pro with a firmware upgrade. These will be either automatically applied to your device or you may need to perform the below.

- 1 Open the Denon Headphones app.**
- 2 A message will appear that an update is available, tap “Update now”, or, tap “Settings” > “Software update” and following the the app prompts.**
- 3 Your upgrade will begin.**



Charging the earbuds and charging case

The earbuds battery provides 8 hours of wireless use, and up to 24 hours of use when using the charging case.

- **To charge your earbuds**

Place them in the charging case and close the lid. Your earbuds shuts down and charges when placed inside the charging case. Your charging case holds multiple full charges for your earbuds so you can charge on the move. To keep your earbuds charged, put them in the charging case when you're not using them. The earbuds take approximately two hours to fully charge via the charging case.

- **To charge your charging case via USB**

Connect the case to the included USB-C charging cable and plug it into a computer or wall adapter. The LED lights will pulse when charging. Once fully charged, the LED lights will turn green. The charging case takes approximately one hour to fully charge via the charging cable.

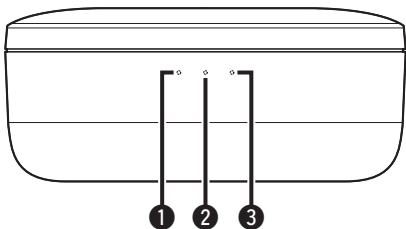
- **To charge your charging case via wireless charging**

Place the charging case on the wireless charging pad with the Denon logo facing upward. When charging, refer to the operating instructions supplied with the wireless charging pad. The charging case takes approximately two hours to fully charge via a compatible wireless charging pad.



Checking the earbuds battery and charging case battery

The charging case has 3 RGB LEDs which turn on for 4 seconds when opening the lid. They indicate the level of charge of:



1 Left earbud

2 Charging case

3 Right earbud

- Red LED = battery below 30%
- Yellow LED = battery between 30% - 70%
- Green LED = battery above 70%

You can check the exact battery level of your earbuds via the Denon Headphones app: while wearing your earbuds, open the Denon Headphones app and check the battery indicators.

A voice prompt will announce “battery low” when your earbuds needs charging.

A voice prompt will announce “battery critical” when your earbuds is about to power off.

Using the earbuds touch buttons

The earbuds has touch buttons on each side that you can tap to perform useful functions.

■ You can customize your touch buttons in the Denon Headphones app

- 1 Open the Denon Headphones app with your earbuds connected via Bluetooth to your device.
- 2 Tap on “Touch controls”.
- 3 Choose the tap controls you wish to adjust.



■ Tap/Double tap/Triple tap/Tap and hold gestures

In the Denon Headphones app, the following functions can be assigned to each Tap/Double tap/Triple tap/Tap and hold operation.

- Enable/disable transparency mode
- Enable/disable transparency mode and pause
- Voice assistant
- Play/pause music
- Play/pause music & answer/hang up calls
- Play/pause music & answer calls
- Next track
- Previous track
- Enable/disable Equalizer
- Increase immersion level
- Decrease immersion level
- Volume up
- Volume down
- Toggle spatial audio

■ Hold

Hold both touch buttons for 2 seconds to enter discoverable mode.

Hold one of the touch buttons for 10 seconds to perform a hard reset on the corresponding earbud. Earbuds reset independently. To reset both sides, hold both touch buttons for 10 seconds, or return them to the charging case.

Hold touch button gestures are not user configurable.



Making and receiving voice calls with your earbuds

The earbuds includes highly sensitive microphones for enhanced voice call quality.

When your earbuds is connected via Bluetooth, you can answer voice calls:

- Directly on your phone;
- Or by using the earbuds touch buttons, if the answer call function has been assigned to a touch button within the Denon Headphones app.



Multipoint - Connecting your earbuds to multiple devices

Your earbuds can be connected to two devices simultaneously. To connect to a second device:

- 1** Enter discoverable mode by tapping and holding both touch buttons, or disconnect from the first device.
- 2** Select “Denon PerL Pro XXX” in the Bluetooth settings of the second device you want to connect to. You will hear “Bluetooth connected”.
- 3** Reconnect to the first device by selecting “Denon PerL Pro XXX” in the Bluetooth settings. You will hear “Multipoint connected”.

■ Computers

Mac

- 1** On your Mac, choose “Apple menu” > “System Preferences”, then click Bluetooth.
- 2** Select “Denon PerL Pro XXX” on the device list.

PC

- 1** Click the Bluetooth icon on your computer’s taskbar.
- 2** From Bluetooth & other devices, click add Bluetooth or other device.

■ TVs

Audio configurations on TVs vary. Check your TV’s connectivity is compatible with Denon PerL Pro connectivity.



Changing ear tips and wings attachments

■ Changing your earbuds ear tips

The Denon PerL Pro comes with five ear tip sizes. Try all the ear tip sizes to find the ones that best fit your ears. You'll know you have a good seal if the sound around you quietsens when you put on your earbuds.

To remove an ear tip gently pull with your fingers at the base of the ear tip, where it is attached to the earbuds.

To attach an ear tip, push the new ear tip all the way down over the opening and onto the earbuds.

■ Changing the earbuds wings attachments

The Denon PerL Pro comes with two wing sizes/types.

Try both wing sizes to find the ones that best fit your ears. The earbuds can also be used without the wings.

To change the earbuds wings:

- 1 Gently pull the wing to remove.**
- 2 Push the new wing onto the earbuds.**
- 3 Check the new wing is pushed on all the way.**
- 4 To check the wings are fitted correctly, the hole on the wing should be aligned with the notch on your earbuds. The earbuds should fit comfortably in your ear and create a seal. You will know you have a good seal if the sound around you quietsens.**



Cleaning the earbuds

Your earbuds need cleaning from time to time.

Please note: Never use alcohol, cleaning solvents, or strong detergents when cleaning the earbuds.

To clean the ear tips:

- 1** Remove the ear tips, and wash them with water and a mild detergent.
- 2** Rinse and dry the ear tips and set aside.
- 3** Reattach the ear tips.
- 4** Wipe the earbuds with a soft, damp cloth.



Denon Headphones app features

With the Denon Headphones app, you can adjust the level of immersion, change or add hearing profiles, check battery status, switch between noise cancellation mode, transparency mode and off, and more.

To set up the earbuds with the Denon Headphones app, remove the earbuds from the charging case and connect them to the Denon Headphones app.



Noise cancellation and Transparency mode

Noise cancellation reduces outside noise so you can focus on your music. Transparency mode passes outside sound into your earbuds so you can hear conversations and your surroundings. Noise cancellation is enabled by default.

You can toggle between Noise cancellation and Transparency mode via the touch buttons or in-app:

■ Touch buttons

You can configure the touch buttons to enable/disable Transparency mode in the Denon Headphones app. This will toggle between Transparency mode and Noise cancellation.

■ In-app

Tap the Noise cancellation or Transparency button on the homepage of the Denon Headphones app. Tap the Off button to disable Noise cancellation and Transparency.

Changing the earbuds voice language

The earbuds voice guides you through personalizing your earbuds, announces the battery level and identifies connected devices. To change the language:

- 1 Open the Denon Headphones app.**
- 2 Tap on the “Settings” tab at the bottom right (⚙️).**
- 3 Tap on “Change voice language”.**
- 4 Choose your preferred language.**
- 5 To confirm the change, tap “Yes”.**

Please note: It takes approximately 10 minutes for the voice language to change.



Enabling EU volume limiter

To change the EU volume limit setting:

- 1** Open the Denon Headphones app with your earbuds connected via Bluetooth to your device.
- 2** Tap on the “Settings” tab at the bottom right (⚙️).
- 3** Tap the “Enable EU volume limiter” toggle button to enable the setting.



Switching and adding hearing profiles

You can store up to three hearing profiles on your earbuds at a time.

■ Switching profiles

- 1** Open the Denon Headphones app.
- 2** Tap profile name on the Denon Headphones app homepage.
- 3** Tap the hearing profile you'd like to switch to.

■ Adding a hearing profile

- 1** Open the Denon Headphones app.
- 2** Tap profile name on the Denon Headphones app homepage.
- 3** Tap on “Create a new profile”.
- 4** If you own the earbuds you are using, select “Owner”. If you are using someone else’s earbuds, select “Another person”.
- 5** Follow the app prompts to add your new hearing profile.



Lossless audio & Audio codecs

Your Denon PerL Pro will automatically use the highest quality audio codec that is supported by the connected device. To experience Lossless Audio over Bluetooth, simply connect your earbuds to a source device that supports Qualcomm aptX Lossless. Please check the manual of your source device for compatibility.

Denon PerL Pro supports the following codecs:

- aptX Lossless (44.1 kHz/16-bit)
- aptX Adaptive (up to 96 kHz/24-bit)
- aptX Classic
- AAC
- SBC

Enabling “Spatial Audio”

Spatial audio allows you to experience an expanded soundscape that includes all the spatial cues of the original stereo content as if it were coming from a pair of high-end studio monitors. Spatial audio does not have any head-tracking capabilities, but it can be used with any stereo Bluetooth source.

You can enable “Spatial Audio” via the touch buttons or in-app:

■ Touch buttons

You can assign “Spatial Audio” to the tap function on either side by customizing the tap functions within the Denon Headphones app.

■ In-app

Tap the spatial audio button on the homepage of the Denon Headphones app.



Enabling “High-gain mode”

High-gain mode allows you to increase the volume output of your earbuds by +6db

Turning “High-gain mode” On/Off:

- 1** Open the Denon Headphones app with your earbuds connected via Bluetooth to your device.
- 2** Tap on the “Settings” tab at the bottom right (⚙️).
- 3** Tap the “High-gain mode” toggle button to enable or disable the setting.

Enabling “Equalizer”

Equalizer allows for manual fine tuning of your hearing profile via the Denon Headphones app, simply press the Equalizer button and adjust the 5 sliders.



Choosing the level of immersion

- 1** Open the Denon Headphones app.
- 2** Tap on “Equalizer”.
- 3** Use the immersion slider to choose your preferred level of bass.

Please note: Always set your immersion to a comfortable, moderate level when using your earbuds for an extended period of time.

Enabling “Multi-point”

In the “Connections” on the homepage of the Denon Headphones app you can find which devices are paired to your earbuds. If you do not want to use “Multi-point” you can turn it off in the Denon Headphones app:

- 1** Tap on “Connections”.
- 2** Tap the “Multi-point” toggle button to enable the setting.



Enabling “Auto Switch”

This function controls the way you transition from “Device 1” to “Device 2” when you are using “Multi-point”.

By default your earbuds is set to “Auto Switch” which allows you to switch from “Device 1” to “Device 2” by pressing play on the “Device 2” and vice versa.

You can turn this setting off in the Denon Headphones app.

When “Auto Switch” is off you will have to pause “Device 1” before being able to play on “Device 2”.

- 1 Tap on “Connections”.**
- 2 Tap the “Auto Switch” toggle button to enable the setting.**

Changing “Mode”

Your Denon PerL Pro has 2 setting preset modes to select from:

- 1. Performance:** “Multi-point” enabled, Noise cancellation/Transparency mode enabled, “Spatial Audio” enabled
- 2. Low Power:** “Multi-point” disabled, Noise cancellation/Transparency mode disabled, “Spatial Audio” disabled

Performance mode is enabled by default.

You can switch to “Low Power” mode in the Denon Headphones app:

- 1 Tap on the “Settings” tab at the bottom right (⚙️) .**
- 2 Tap on “Mode”.**
- 3 Select “Performance” or “Low Power” .**



Troubleshooting

If you're ever having trouble with your Denon PerL Pro, read the following troubleshooting.

Resetting your earbuds

Device reset

1. Hold down the touch buttons on both sides of the earbuds for 10 seconds to reset.

Factory reset

1. Open the Denon Headphones app.
2. Tap on the "Settings" tab (⚙️) > "Perform factory reset"



- This will delete your hearing profiles.

If your Denon PerL Pro won't charge

- Make sure you're charging with the Denon PerL Pro USB-C cable only.
- If you're trying to charge with a computer, then try using a different USB port or a wall charger.
- If you're trying to charge with a wall charger, then try charging with a computer.
- If you're attempting to charge with a USB hub, then make sure it's powered.



If your earbuds won't perform the personalization process

- Check our Fitting your earbuds guide in Basic part to ensure you have the correct fit. (👉 p. 6)
- Make sure your earbuds is sitting securely in your ears, remove any accessories which sit near your ears, and if you have long hair, tie it back.
- Check there are no obstructions blocking the mesh e.g. wax build up, packaging remnants etc. Any blockages will impact the ability of the Denon PerL Pro to detect your hearing.
- Make sure you're in a quiet place, sit still and try not to talk during personalization.
- Check you have a stable internet and Bluetooth connection.
- Check your mobile device and the Denon Headphones app have been updated to the latest version.

Further troubleshooting:

- 'Forget' your Denon PerL Pro from your device's Bluetooth settings, and pair again.
- Reset the device you are trying to connect to.
- Delete and reinstall the Denon Headphones app.
- Reset your earbuds.
- Clean your earbuds.



If your earbuds won't connect to the Denon Headphones app

- Check your mobile device and the Denon Headphones app have been updated to the latest version.
- Close and re-open the Denon Headphones app.
- Check your earbuds is connected to your mobile device with Bluetooth. You need to be connected with Bluetooth to use the Denon Headphones app. Bluetooth will only activate when no cables are connected.
- Check your internet connection is stable.
- Delete the Denon Headphones app, restart your mobile device and then reinstall the Denon Headphones app.
- Reset your earbuds.

If you're having trouble connecting your earbuds via Bluetooth

- Check your earbuds and device are charged.
- Ensure your earbuds and device are within 10 feet (about 3 m) of each other.
- Check you're connecting to Denon PerL Pro XXX, not Denon PerL Pro XXX [LE].
- Denon PerL Pro XXX [LE] is the Denon PerL Pro low-energy mode, which will automatically connect after you've connected to Denon PerL Pro XXX.
- Move away from other Bluetooth devices, microwaves and wireless routers to avoid interference.

Further troubleshooting:

- Re-start your device and try pairing your earbuds with Bluetooth again.
- If you've previously paired your earbuds with Bluetooth, then remove your earbuds from your device's paired device list and try pairing again.
- Reset your earbuds.



Bluetooth cutting in and out?

Bluetooth is designed for short distances, so you might experience some interference from time to time. To minimize Bluetooth interference, try the following:

- Move your paired device closer to the earbuds.
- Move your earbuds and device away from other Bluetooth devices, microwaves and wireless routers.
- Update your earbuds and mobile device to the latest versions.

If you're having trouble making calls with your earbuds

Follow these steps if you're having trouble making and receiving phone calls, or calls via Skype, FaceTime or other calling apps.

- Check your earbuds is connected with Bluetooth.
- Check that nothing is blocking your earbuds microphones.
- The microphones are located on each side of your earbuds.
- Disconnect your earbuds from your device and then reconnect.
- Check your Bluetooth connection.
- Poor call quality can be caused by a poor Bluetooth connection.
- Reset your earbuds.



If you're having trouble with sound quality

To get the highest sound quality from your earbuds:

- Use a lossless file format, such as AIFF, WAV or FLAC.
- Use a lossless streaming service, such as Tidal.
- If you're using Spotify or a similar streaming service, use the high-quality streaming option. Ensure to check the streaming quality options in the platform's settings.
- Check the device is not in Social Mode.
- If you're using MP3 or MP3-like files, use high-bitrate MP3, Ogg or AAC files. Or use minimum 256kbps (and preferably 320kbps) files with modern codecs.
- Personalize your earbuds again.
The earbuds uses sensitive microphones to personalize, so movements, outside noises and heavy breathing can affect your hearing profile.

If the touch buttons aren't working correctly

- Check your earbuds touch buttons have been set-up correctly via the Denon Headphones app.
- Reset your earbuds.



Can't find what you're looking for? Try the following

- Check your earbuds is charged.
- Check your mobile device and the Denon Headphones app have been updated to the latest version.
- Check your Bluetooth is connected.

Further Troubleshooting

- Forget your earbuds from your device's Bluetooth settings, and pair again.
- Reset the device which you are trying to connect to.
- Delete and reinstall the Denon Headphones app.
- Reset your earbuds.
- Clean your earbuds.



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Specifications

Operating temperature:	41 °F - 95 °F (5 °C - 35 °C)
Power supply:	5V dc, 0.8A
Wireless frequency band:	2400-2483.5 MHz
Continuous playback time: *	Approx. 8 hours (Earbuds) (Low Power mode) Approx. 24 hours (with Charging case)
Charging time:	Approx. 2 hours (Earbuds) Approx. 1 hours (Charging case)

NOTE

- The usable time of the headphones differs depending on how you use them.
- “the power delivered by the charger must be between min 4.0 Watts required by the radio equipment, and max 15.0 Watts in order to achieve the maximum charging speed.”



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