I'm not a robot

Are you tired of straining to hear your favorite music or podcasts through your JLab headphones? Do you find yourself constantly adjusting the volume, only to still struggle to make out the words or melodies? Youre not alone. Many JLab headphone users have reported issues with low volume, but the good news is that there are several solutions you can try to increase the volume and enhance your listening experience. Understanding the Basics of JLab HeadphonesBefore we dive into the solutions, its essential to understand how JLab headphones work. JLab headphones are known for their high-quality sound and sleek designs, but like any electronic device, they can be prone to technical issues. The volume on JLab headphones is typically controlled by a combination of hardware and software components, including the headphones themselves, the audio source, and the operating system.Hardware ComponentsThe hardware components of JLab headphones include the drivers, amplifier, and volume control buttons. The drivers are responsible for converting electrical signals into sound waves, while the amplifier boosts the signal to increase the volume. The volume control buttons, usually located on the headphones or the audio cable, allow you to adjust the volume manually.Software ComponentsThe software components of JLab headphones include the operating system, audio drivers, and equalizer settings. The operating system, such as Windows or macOS, controls the audio output and volume levels. The audio drivers, which are usually provided by the manufacturer, optimize the sound quality and volume. The equalizer settings, which can be adjusted through the operating system or a third-party app, allow you to customize the sound frequencies and boost the volume.Troubleshooting Low Volume IssuesIf youre experiencing low volume issues with your JLab headphones, there are several troubleshooting steps you can try before seeking further assistance.Check the Volume SettingsThe first step is to check the volume settings on your device. Ensure that the volume is turned up and not muted. You can also try adjusting the volume levels through the operating system or a third-party app.Check the Audio SourceThe next step is to check the audio source. Ensure that the audio source is set to the correct output device (e.g., headphones) and that the volume is turned up. You can also try switching to a different audio source or output device to see if the issue persists.Update the Audio DriversOutdated audio drivers can cause low volume issues. You can try updating the audio drivers through the manufacturers website or the operating system.Reset the HeadphonesIf the issue persists, you can try resetting the headphones. This will vary depending on the model, but usually involves pressing and holding the volume control buttons for a few seconds.Increasing the Volume on JLab HeadphonesIf youve tried the troubleshooting steps and still experience low volume issues, there are several solutions you can try to increase the volume on your JLab headphones.Use a Volume Booster AppThere are several volume booster apps available that can increase the volume on your JLab headphones. These apps work by amplifying the audio signal and boosting the volume. Some popular volume booster apps include Volume Booster, Sound Booster, and Equalizer.Use an External AmplifierIf youre using a low-power audio source, such as a smartphone or tablet, you can try using an external amplifier to boost the volume. This can be a dedicated amplifier or a portable amplifier that connects to your device.Adjust the Equalizer SettingsYou can also try adjusting the equalizer settings to boost the volume. This can be done through the operating system or a third-party app. By adjusting the frequency settings, you can boost the volume and enhance the sound quality.Use a Different Audio CableIf youre using a low-quality audio cable, you can try switching to a different cable to see if the issue persists. A high-quality audio cable can improve the sound quality and increase the volume.ConclusionIncreasing the volume on your JLab headphones can be a challenge, but there are several solutions you can try. By understanding the basics of JLab headphones, troubleshooting low volume issues, and using volume booster apps, external amplifiers, and equalizer settings, you can enhance your listening experience and enjoy your favorite music and podcasts at a higher volume. Remember to always check the volume settings, audio source, and audio drivers before seeking further assistance.How do I increase the volume on my JLab headphones?To increase the volume on your JLab headphones, start by checking the volume settings on your device. Make sure that the volume is turned up and not muted. You can usually find the volume controls on the side or top of your device, depending on the type of device you are using. If you are using a phone or tablet, you can also adjust the volume from within the music or video app you are using.If the volume on your device is already turned up, try adjusting the volume settings on your JLab headphones. Some JLab headphones have a volume control button on the earcup or on the cord. Check your headphones to see if this is the case. If you are still having trouble getting the volume to turn up, try restarting your device or resetting your headphones.Why is the volume on my JLab headphones so low?There could be several reasons why the volume on your JLab headphones is low. One common reason is that the volume settings on your device are turned down or muted. Another reason could be that the headphones are not properly connected to your device. Make sure that the headphones are securely plugged into the device and that the connection is not loose.Another possible reason for low volume is that the headphones are not calibrated correctly. Some JLab headphones have a calibration process that needs to be completed before they can be used. Check your user manual to see if this is the case. Additionally, if you are using a device with a low volume output, it may not be able to produce enough sound to drive your headphones to a high volume.Can I increase the volume on my JLab headphones beyond the maximum setting?Unfortunately, it is not recommended to try to increase the volume on your JLab headphones beyond the maximum setting. Doing so can cause damage to the headphones or your hearing. The maximum volume setting is in place to protect your hearing and to prevent damage to the headphones.If you are finding that the maximum volume setting is not loud enough, you may want to consider using a different device or a device with a higher volume output. Alternatively, you can try using a headphone amplifier to boost the volume of your headphones. However, be careful not to turn the volume up too high, as this can still cause damage to your hearing.How do I reset my JLab headphones to their default volume settings?To reset your JLab headphones to their default volume settings, you will need to refer to your user manual. The process for resetting the headphones will vary depending on the model of your headphones. Some headphones may have a reset button that you can press to restore the default settings, while others may require you to hold down a combination of buttons.Once you have reset your headphones, the volume settings should return to their default levels. If you are still having trouble with the volume, try restarting your device or checking the volume settings on your device to make sure they are turned up.Can I use a volume booster app to increase the volume on my JLab headphones?Yes, there are several volume booster apps available that can help increase the volume on your JLab headphones. These apps work by amplifying the audio signal from your device, allowing you to turn up the volume beyond the maximum setting.However, be careful when using volume booster apps, as they can cause distortion or damage to your headphones. Additionally, some apps may not be compatible with your device or headphones, so be sure to read reviews and check the compatibility before downloading an app.Why do my JLab headphones have a volume limit?JLab headphones have a volume limit to protect your hearing and to prevent damage to the headphones. Listening to music at high volumes can cause permanent damage to your hearing, so the volume limit is in place to prevent this from happening.Additionally, the volume limit helps to prevent damage to the headphones themselves. If the volume is turned up too high, it can cause the drivers in the headphones to become damaged, leading to a decrease in sound quality or even complete failure of the headphones.Can I increase the volume on my JLab headphones if I am using them with a computer?Yes, if you are using your JLab headphones with a computer, you can increase the volume by adjusting the volume settings on your computer. You can usually find the volume controls in the system settings or in the audio preferences.Additionally, you can also adjust the volume settings within the music or video player you are using. Some computers also have a volume booster feature that can be enabled to increase the volume beyond the maximum setting. However, be careful not to turn the volume up too high, as this can still cause damage to your hearing. Personal tech designed for you, that fits your life, looks cool, and offers surprisingly awesome value. We imagine the products and features you actually want, and we make sure the entire experience of owning them is a great one. TURN ON / OFF: Press & hold 5+ seconds. VOLUME UP: 1 click. ANSWER: 1 click. Why are my JLab go earbuds so quiet?Easily the most common reason that JLab earbuds are too quiet is that the device you are listening on has incorrect device settings. Many people do not realize that your device can control and put limits or barriers on the sound quality or level of your earbuds. How can I make my earbuds louder?If you have an android, go to settings, select the sound part. You will see the different sound settings. Click the media setting and adjust it to what you are comfortable with. You can do so when listening to a song as that guides you to the perfect settings. Why are my earbuds so quiet?Due to some phones operating systems, you may find your volume is too low. For Android devices, this is most commonly resolved by disabling Bluetooth Absolute Volume, within your phones settings. For some devices, this may be found in the Developer Options for your phone.How do you adjust JLab earbuds?Out of the box your product will be set on JLab Signature, but you can adjust the earbuds sound setting by pressing the up arrow and down arrow at the same time. Theyll stay on whichever sound you choose to settle on. How do you fix low volume in earbuds?Battery level can also have an effect on the volume of your wireless earbuds. To conserve energy when the battery is low, the earbuds will automatically reduce the volume. Luckily, the fix to this is also very easy. Charge your earbuds, and the volume should return to normal!Sep 25, 2019. How do I adjust the volume on my wireless earbuds?The majority of wireless earbuds do feature volume control. This is typically done with a smart touch feature which allows you to tap either side of the earbuds to increase or lower the volume.What do you do when one earbud is louder than the other?Steps to fix headphones with one earbud louder than the other Clean the earbuds. Adjust the sound balance setting. Check the wires for any damage. Clean the headphone jack slot. Check the mesh for any blockages. Test your phone/device with another pair of headphones. Swap the sides. Restart your device. How do I change EQ settings on JLab JBuds Air executive?TURN ON / OFF: Press & hold 5+ sec. EQ CHANGE: Triple tap. (JBuds Air Exec will cycle 3 EQ settings) VOLUME UP: Single tap. ANSWER: Single tap.How do I fix my JLab earbuds?Your Jlab earbuds need to be manually reset On your devices Bluetooth settings, select to forget the Jbuds Air earbuds listing. Place your earbuds in the charging case, leaving the case open. Beginning with one of your earbuds first, you should tap the button 4 times. Repeat this for your other earbud. How do I adjust the volume on my t12 earbuds?Operate as follows. Increase volume: Press the multi-function button 2 times consecutively, holding the button down at the second push ( ). Decrease volume: Press the multi-function button 3 times consecutively, holding the button down at the third push ( ).Does JBL earbuds have volume control?When you listening music or doing a phone call with JBL Free X earbuds: You can volume up / down by swipe your phone screen in music player menu. You may also want to read: Does the HUAWEI FreeBuds 3 Work Well With iPhone?Dec 13, 2019.Why is my left ear louder than my right ear?The right ear responds more to speech and logic while the left ear is more tuned in to music, emotion and intuition. Scientists believe its because speech is processed primarily in the left hemisphere of the brain, while music (and other creative functions) are processed in the right hemisphere.Why do earbuds lose sound in one ear?There can be many reasons that a pair of headphones only play audio out of one ear. The most common reason for sound to only come out of one side is the wires near the audio jack have gotten bent back and forth so many times that it has caused a short in the wiring.Why is my right raycon quiet?One of the most common reasons for quiet Raycon earbuds is that the sound on your audio device isnt turned all the way up. In other cases, it could be down to a battery that needs charging. It is exceedingly rare that it is down to broken headphones. This way, you can get your Raycon earbuds fixed nice and quickly.How do you make your Bluetooth louder?A more advanced method of increasing the volume of your Android device involves adjusting the equalizer settings. Open the Settings app on your Android device. Tap on Sounds and vibration. Tap on Advanced sound settings. Tap on Sound quality and effects..How do I reset JLab executive earbuds?Reset Instructions: reconnecting Keep earbuds in charging case and forget JLab GO Air from bluetooth device settings. Quick tap one earbud in the charging case 7x. Quick tap the other earbud in the charging case 7x. Take the earbuds out of the case. Now you are ready to connect to your Bluetooth device. How do I reset JLab executives?Take the earbuds out of the case. Wait for Left to turn solid white and Right blinking blue/white. Select JLab JBuds Air Executive in device settings to reconnect. Take both earbuds out of the charging case and keep them within 2 inches from each other.Is JLab a good brand?Jlab Audio is a good brand for headphones and ear buds. They are colorful, and pretty affordable when you consider the quality of their products. They also have some of the best customer service in the industry which is an absolute must when purchasing headphones.How do you use JLab headphones?Android. Go to Settings and turn on Bluetooth. In Bluetooth click Pair new device. When you see your JLab headphones or headset come up in the list, tap it and it should be paired with your phone.How do I increase the bass on my JBL earbuds?Tap on Settings, then go to Sound Settings [Settings > Sound & Notification]. Tap on Audio Effects. Adjust your bass low-frequency settings to boost the bass on your headphones [As detailed in Hack 6 above regarding low frequencies adjustment].Can you adjust bass on JBL earbuds?You can do so in the JBL Headphones app. Here, you adjust the sound via an equalizer.Which ear is best for answering phone calls?A message from the Medicover medical team says that we should always use our left ear for calls because using the right ear can directly affect the brain.Are the two ears connected?The middle ear is a small air-filled compartment which sits in the skull between the eardrum and the inner ear. Inside it are the three smallest bones in the body, called malleus, incus and stapes. These bones are connected to each other. The last in the group, stapes, also makes contact with the inner ear.Can you hear without ears?Yes, but with more difficulty. The outer part of your ear, known as the pinna, funnels sound into your ear canal, like a megaphone in reverse. If someone cut it off, everything would sound quieter. JLab is an audio company that was founded in 2005. Since that time, they have helped many to enjoy sound in various ways. If your JLab earbuds are not loud enough, there are ways to make adjustments. One way to adjust the volume of JLab earbuds is through the JLab Audio App. The app allows you to turn the volume up and down, and also has an attached equalizer and options available for sound output. If adjusting the volume directly doesnt work, try adjusting the equalizer to optimize the sound and increase the volume. Here are some other troubleshooting tips to try when your JLab earbuds volume is too low: 1. JLab Audio App: Although there may be differences from one type of Jlab earbud to another, many of them are run by the audio app. This is especially true of the JBudsAir model. The app allows you to enjoy a more immersive experience when using the earbuds. Not only does it allow you to turn the volume up and down, but there is also an attached equalizer and options available for sound output. When looking for a way to adjust the app, first try adjusting the volume directly. The volume may also be connected to the rocker arm on the side of your mobile device. If you arent able to get enough volume out of the earbuds by using the volume setting, you may need to try the equalizer. Adjusting the various components of the equalizer to a higher setting can optimize the sound and increase the volume. It would be nice if there was a single method for adjusting the volume using the audio app. Sometimes, you just need to go into the settings and make changes until you get the volume you desire. 2. Noise Control: One of the issues that many people using earbuds face is background noise and how your environment can impact the volume. You may be getting the same volume out of the earbuds but noise in the background can make it seem as if they are not pumping out the volume as much. One obvious way to overcome this issue is to move to an area where there is less ambient noise. You may notice that the earbuds sound louder as soon as you move to quieter surroundings, but it is actually just your perception of the sound. On the other hand, some models, such as the JLab Epic Air Sport earbuds may have settings that adjust the volume according to any outside noise and your surroundings. This is sometimes referred to as noise canceling and ambient sound and there may be various modes associated with it on the app. Look at the app for any settings that may be associated with ambient sound. These may not be able to control the external noise but they can make a difference in the sound that is being produced by the earbuds. One benefit of changing the ambient sound mode or turning it off is that it allows you options for adjusting the volume directly. Regardless of the surrounding noise or conditions, you can turn the volume up and it will stay up. 3. Ear Tips: JLab earbuds are known for providing a number of different ear tip sizes when you first get the earbuds. They come packaged and most people will simply choose one that looks right and throw the rest away. Its a good idea to try all of the different ear tip sizes and sometimes, you may even need to change them after you have been using one particular size for a while. The ear tips make the fit snug and that makes a difference on a number of levels. First of all, when you choose a tip that fits your ear canal properly, it can improve the way the bass sounds. Improving the bass can also make it seem as if you are increasing the volume. Having a better fit with your ear canal can also make a difference in the volume directly. Why Your JLab Earbuds Volume Is Low Although there are many different reasons why the volume in your earbuds may be too low, there are some that may occur, regardless of the make or model. One of the common reasons for low volume in earbuds is due to the device being blocked by earwax, dirt, or even insects. This problem can be fixed by gently cleaning the inside of the earbud opening with a toothpick or another device, but caution is needed to avoid puncturing anything. In some cases, taking apart the earbuds may be necessary to clean them completely, but this could void the warranty if they are new. 1. Blocked Buds: One of the more common reasons why you may have low volume in your earbuds is due to the device being blocked. Some common reasons why this occurs is due to earwax, dirt, or even insects. The way to fix this problem is relatively straightforward, but you still need to be cautious when doing so. You can use a toothpick or another device to gently clean the inside of the earbud opening, but you need to be cautious that you dont puncture anything as a result. In some cases, you may have to take apart the earbuds to get them cleaned completely. If you do so, you could be voiding the warranty if they are new. 2. Ear Canal: Each of us is unique and this also means that we have a unique shape to our ear canal. Although earbuds are made to provide us with sound, it does not always do it in the same way for each person.Copyright protected content owner: ReadyToDIY.com and was initially posted on October 31, 2023. Some people have small ear canals and other people have large ear canals. They may also be shallow or deep. In any case, there are times when it may be necessary to adjust the earbuds according to our ear canal. Typically, earbuds come with various fittings that are interchangeable. These can go a long way in helping you to hear the sound better and even to have a better fit. 3. Earbud Mods: When you buy earbuds, they become a part of your style. Some people may buy aftermarket modifications in order to make them more stylish or unique. These mods can change the way earbuds look but they also can change the way they work. In some cases, the mods may not be conducive to giving you the best experience with sound. Its important to express your individuality but if it is interfering with your ability to hear the sound from your earbuds, you may want to find another way to do so.Copyright article owner is ReadyToDiy.com for this article. This post was first published on October 31, 2023. 4. Distortion: There may be times when you are not perceiving the sound as well as you could because of audio distortion. This can be a difficult problem, but it is also fixable. Try looking at any app that comes with the earbuds or is being used for a way to adjust the frequencies. Sometimes, it is subsonic frequencies that cause the sound to be audible but may affect the way you hear it. It may also be possible to remove some distortion by changing the way you wear your earbuds. Some minor adjustments to how they enter the ear canal can make a big difference. General Fix For JLab Earbuds Volume That is Too Low We live in a world that is built on technology. We use it with our mobile devices, including our smartphones, iPods, and other audio devices. When you have a problem with those audio devices and the volume isnt as high as it should be, there are things you can do to make the adjustment. A potential cause of low volume in earbuds could be the presence of earwax or other debris in the speaker of the earbud. A solution to this issue is to gently clean the earbuds using a dry cotton swab or a brush with soft bristles, ensuring not to damage the speaker in the process. You can also try increasing the earbud volume when it is too low by making adjustments in the associated app. Adjusting the volume directly can make the difference you desire. You can also adjust the equalizer or any preset options to get more volume out of the same earbuds. When technology doesnt work to our advantage, it can be frustrating but there are always options to make a difference. Even an old set of earbuds can give adequate volume output when everything is set properly. Conclusion We all want to get the most out of our listing experience when using earbuds. They allow us to immerse ourselves in the sound, regardless of whether we are listening to music, a podcast, or any other audio. Low volume on earbuds is directly connected to a problem with the associated app. This could be an app made directly by the earbud manufacturer, or it could be a secondary app used for playing music or podcasts. If you arent able to adjust the volume to a higher level using the app, try using the rocker switch on the side of the mobile device or turning up the volume directly. Any integrated controls used with the earbuds should also be scrutinized carefully. Problems with the internal components are few and far between but they can occur with earbuds at times. This could include having the earpiece blocked by earwax or even if the earbud is not fitting properly in your ear canal. Little adjustments in the earbuds or the associated technology can make big differences in the volume. As you are making adjustments, always be careful that you do so gradually so as to save your hearing in case it turns up quickly. The responsible use of earbuds is something that we are reminded of frequently. This includes the volume level, but when you need the volume level higher, make some adjustments and get back to your listening enjoyment. Related Articles JLab Earbuds Have No Sound (How to Fix)ReadyToDIY is the owner of this article. This post was published on October 31, 2023. JLab Earbuds Wont Connect To iPhone (How to Fix) Are you looking to crank up the volume on your JLab earbuds? Whether youre trying to drown out background noise or just want to enjoy your music at a higher volume, there are a few simple steps you can take to make your earbuds louder.One option is to adjust the volume directly on your device. If youre using Bluetooth earbuds, you can adjust the volume through your phone or other connected device. However, if youve already maxed out the volume on your device and still want more, there are other tricks you can try to boost the volume on your JLab earbuds.Understanding the Basics of Earbud VolumeWhen it comes to earbuds, volume is an important factor in determining the quality of your listening experience. Whether youre listening to music, taking a call, or watching a video, having the right volume level can make all the difference.Here are a few things to keep in mind when it comes to earbud volume:Decibels (dB) matter: Decibels are a measure of sound intensity. The higher the decibel level, the louder the sound. Its important to be aware of the decibel level when using earbuds, as listening to sounds above 85 dB for extended periods of time can lead to hearing damage.Earbud fit affects volume: The fit of your earbuds can impact the volume you hear. If your earbuds dont fit properly, you may not be getting the full sound experience. Make sure to try out different earbud tips to find the ones that fit your ears best.Device volume vs. earbud volume: Its important to understand the difference between the volume on your device and the volume on your earbuds. While turning up the volume on your device may make the sound louder, it can also lead to distortion. Instead, try adjusting the volume on your earbuds for a clearer, more balanced sound.By keeping these factors in mind, you can ensure that youre getting the most out of your earbuds and enjoying your favorite audio content at the right volume level.READ:How to Check Powerbeats Pro Battery: Quick and Easy StepsChecking Your Devices Volume SettingsBefore trying to make your JLab earbuds louder, its important to first check your devices volume settings. Sometimes, the volume may be turned down low or muted, which can make it seem like the earbuds arent loud enough.To check your devices volume settings, follow these steps:Open your devices settings menu.Look for the Sound or Volume option.Adjust the volume slider to increase the volume.Play some audio to test the volume.If the volume is still not loud enough, try adjusting the volume on your earbuds themselves. Most JLab earbuds have touch controls that allow you to adjust the volume up or down by tapping on the earbuds.If youre still having trouble getting the volume you want, try adjusting the equalizer settings in the JLab Sound app. This app allows you to customize the sound profile of your earbuds to your liking, which can help make them louder and clearer.Remember, its important to listen to your music at a safe volume to avoid damaging your hearing. If you find that you need to turn up the volume to uncomfortable levels to hear your music, it may be time to invest in a more powerful pair of earbuds or headphones.Adjusting the Volume on Jlab EarbudsJlab earbuds are known for their great sound quality and noise-cancellation features. However, sometimes you may want to increase the volume to get the most out of your music or podcasts. Here are two ways to adjust the volume on Jlab earbuds.Using Built-in ControlsJlab earbuds come with built-in controls that allow you to adjust the volume without having to use your phone or any other device. Heres how to do it:Locate the volume buttons on your earbuds. They are usually located on the side or top of the earbuds.Press the + button to increase the volume and the - button to decrease the volume.Keep pressing the + button until you reach the desired volume level.Using the Jlab AppThe Jlab Sound app is a great way to customize your Jlab earbuds and get the most out of them. Heres how to adjust the volume using the app:Download and install the Jlab Sound app from the App Store or Google Play Store.Open the app and connect your Jlab earbuds to your phone.Navigate to the Settings section of the app.Use the volume slider to adjust the volume to your desired level.READ:Why Are My Beats Only Playing in One Ear? Quick Fixes to TryNote that the Jlab Sound app also allows you to customize other settings such as noise control, touch controls, and sound presets. Experiment with these settings to find the perfect sound for your earbuds.adjusting the volume on Jlab earbuds is a simple process that can be done using the built-in controls or the Jlab Sound app. With these tips, you can get the most out of your Jlab earbuds and enjoy your music or podcasts at the perfect volume.Cleaning Your EarbudsKeeping your JLab earbuds clean is important not only for hygiene reasons but also for sound quality. If you notice that the sound is getting lower, it could be due to earwax build-up or dirt on the mesh grills. Here are some easy steps to clean your earbuds and improve the sound quality.Removing EarwaxEarwax build-up is a common problem when it comes to earbuds. If you notice that the sound is getting lower, it could be due to earwax build-up. Here are some steps to remove earwax from your JLab earbuds:Remove the ear tips from your earbuds.Use a soft-bristled brush or a toothpick to gently remove any visible earwax from the ear tips.If the earwax is stubborn, you can use a small amount of rubbing alcohol on a cotton swab to clean the ear tips. Be sure to let the ear tips dry completely before reattaching them to the earbuds.Cleaning the Mesh GrillsThe mesh grills on your JLab earbuds can become clogged with dirt and debris over time, which can affect the sound quality. Here are some steps to clean the mesh grills:Remove the ear tips from your earbuds.Use a soft-bristled brush or a toothpick to gently remove any visible dirt or debris from the mesh grills.If the dirt or debris is stubborn, you can use a small amount of rubbing alcohol on a cotton swab to clean the mesh grills. Be sure to let the earbuds dry completely before reattaching the ear tips.READ:What Are the Newest Samsung Earbuds? Check Out the Latest Models!By following these simple steps, you can keep your JLab earbuds clean and improve the sound quality. Remember to clean your earbuds regularly to ensure that they continue to function properly.Troubleshooting Low Volume IssuesIf youre experiencing low volume issues with your JLab earbuds, there are a few things you can try to fix the problem. Here are some troubleshooting steps you can take:Checking for Software UpdatesFirst, make sure your earbuds are up to date with the latest software updates. To do this, follow these steps:Open the JLab app on your phone.Click on the Settings option.Click on Earbuds and then select your earbuds.If there is an update available, click on Update to download and install it.Resetting Your EarbudsIf updating the software doesnt work, try resetting your earbuds. Heres how:Place your earbuds in the charging case.Press and hold the button on the back of the case for 20 seconds.Release the button and take the earbuds out of the case.Try connecting them to your device again.If these troubleshooting steps dont work, you may need to contact JLab support for further assistance.Seeking Professional HelpIf you have tried all the troubleshooting steps and still cant get your JLab earbuds to be louder, it may be time to seek professional help. Here are some options:Contact JLab SupportJLab has a support team that can help you with any issues you are having with your earbuds. You can contact them via email, phone, or live chat on their website. Make sure to have your earbuds model number and serial number ready when you contact them.Visit a JLab Authorized Service CenterJLab has authorized service centers throughout the United States. You can find the nearest one on their website. If you live outside the US, you can contact JLab support for assistance.Check with Your Local Electronics Repair ShopIf there are no JLab authorized service centers near you, you can check with your local electronics repair shop. They may be able to diagnose and fix the issue with your earbuds. However, make sure they have experience with JLab earbuds before entrusting them with your device.Remember to always follow the manufacturers instructions and safety guidelines when seeking professional help. True wireless earbuds are becoming more and more popular, and because of that, more and more are being released on the market. Among so many are theJlab Jbuds Air, an eye-catching release made by the popular brandJlab. Today we are going to talk about them, as well as how to use them in this newJlab Jbuds Air Manual! Step 1: Take both earbuds out of the charging case. Step 2: Press and hold the touch sensors on both earbuds for 3 seconds to turn them on. After that, the LED lights on the left earbud will turn solid white, and the LED light on the right earbud will blink blue and white, indicating ready to pair to your device. Step 3: Turn on the Bluetooth in the device you want to connect them. Step 4: Refresh the Bluetooth page and select Jlab Jbuds Air ANC in your devices Bluetooth settings to connect. The voice prompt Bluetooth connected will sound followed by solid white lights, which will indicate they are connected. The Jlab Jbuds Air has a battery life of about 6 hours. Step 1: Match the corresponding L and R letters on the charging case for proper charging. They will automatically start charging and the case LED lights will show that the earbuds are charging. Step 2: When a blue LED light turns on; the earbuds will begin the charging process. When the blue LED lights turn off, the earbuds will be fully charged. Step 3: After that, the earbuds will automatically power on and connect to the device when removed. To charge the charging case, all you have to do is to connect the case to a computer or USB 5V 1A (or less) output device. The LED lights on it will blink white when charging, and turn solid white when fully charged. Manually power on the earbuds: Press and hold the touch sensor on any of the earbuds for 3 seconds.Turn the volume up: Single tap the touch sensor on the right earbud.Turn the volume down: Single tap the touch sensor on the left earbud.Play of pause music: Double tap the touch sensor on the right earbud.Play next song: Press and hold the touch sensor on the right earbud for 1 second.Play previous song: Press and hold the touch sensor on the left earbud for 1 second.Answer an incoming call: Single tap the touch sensor on the right earbud.Hang-up a phone call: Double tap the touch sensor on the right earbud.Reject an incoming call: Press and hold the touch sensor on the right earbud for 1 second.Custom EQ modes: Triple tap the touch sensor on any of the earbuds.Activate Siri (iOS) or Ok Google (Android): Double tap the touch sensor on the left earbud.Music / movie mode: Press and hold the touch sensors on both earbuds for 3 seconds. LED lights blinking blue and white: Earbuds ready to connect.LED lights solid white: Connection successful. LED lights blue: Earbuds charging.LED lights blinking white: Case charging.LED lights solid white: Fully charged. Step 1: Enter your Bluetooth device settings and forget the Jlab Jbuds Air device, and turn off Bluetooth. Step 2: Open the charging case lid and leave both earbuds inside. Step 3: Starting with ONE earbud, quickly press the multifunction button 7 times. A light will blink blue three times to then turn off. Keep the earbuds in the charging case. Step 4: Repeat with the other earbud. Quickly press the button 4 times. A light will blink blue three times to then turn off. Step 5: Close the charging case. Step 6: Wait 10 seconds and open the charging case. Wait for the LEF light on both earbuds to blink blue and white. Step 7: You are now ready to pair to your Bluetooth device. Using the charging case: Take the earbuds out of the charging case.Using the earbuds themselves: Press and hold the touch sensors on both earbuds for 3seconds. Using the charging case: Place the earbuds into the charging case.Without the charging case: Enter your Bluetooth device settings and disconnect the Jlab Jbuds Air. After that, the earbuds will power off automatically after 3 minutes. If that happens, then try using an ear tip with a better fitting for your ear. Foam ear tips can be a perfect fit and prevent the Jlab Jbuds Air from falling out of ears. The Jlab Jbuds Air can be disconnected due to certain factors, such as: Use them outside the valid range (around 10 meters).The Bluetooth module in the device that the earbuds are connected to is very old.In case of being connected to a computer, there is a problem in the connection settings in the version of Windows used.In case of being connected to a smartphone, there is a problem in the connection configuration in the OS version used. In case in the Jlab Jbuds Air the sound keeps cutting, it can happen due to certain factors, such as: Pairing problems between the earbuds or connection problems between the earbuds and the device.The audio file is not supported or cannot be played in sound.The Bluetooth module in the device that the earbuds are connected to is very old. If this happens, it is highly recommended to reset the earbuds. If you realize that one of the earbuds is not working, you should make sure of the following: Make sure the earbuds are not in Mono Mode, because when this is on, only one of the earbuds will work.The non-working earbud may not have charged due to problems with the charging case, or it was misplaced in the charging case.Pairing problems between the earbuds or connection problems between the earbuds and the device. The Jlab Go Air is IPX4 certified, so while they cannot be submerged underwater, they can be used in the rain or when exercising. The Jlab Jbuds Air is a pair of earbuds that are compatible with many products, including Android phones and iPhones. Yes, the Jlab Jbuds Air supports the Active Noice Cancelling feature. The price of the Jlab Jbuds Air is around $50. Yes, the Jlab Jbuds Air has a built-in microphone. Never dismantle or refit the product to avoid malfunction or fire hazards.Keep away from corrosive liquids to avoid damages to the product.Keep away from extreme ambient temperatures below -10C or above 60C.Keep away from children and pets.Never touch the earbuds with sharp objects, otherwise, it will easily cause scratches.Dont use the product in thunderstorm weather to avoid malfunction or electric shock.If it has not been used for more than a month, please charge and maintain it in time to ensure that it is safe. We hope you now know how to operate the earphone from the above Jlab Jbuds Air Manual. Want to know anything about the earphones? Do not hesitate to ask in the comments section. Device put on or in the ears that plays soundFor other uses, see Headphones (disambiguation).This article needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.Find sources:"Headphones"news newspapers books scholar JSTOR (April 2017) (Learn how and when to remove this message)Headphones on a standHeadphones are a pair of small loudspeaker drivers worn on or around the head over a user's ears. They are electroacoustic transducers, which convert an electrical signal to a corresponding sound. Headphones let a single user listen to an audio source privately, in contrast to a loudspeaker, which emits sound into the open air for anyone nearby to hear. Headphones are also known as earphones[1] or, colloquially, cans.[2] Circumaural (around the ear) and supra-aural (over the ear) headphones use a band over the top of the head to hold the drivers in place. Another type, known as earbuds or earpieces,[1] consists of individual units that plug into the user's ear canal; within that category have been developed cordless air buds using wireless technology. A third type are bone conduction headphones, which typically wrap around the back of the head and rest in front of the ear canal, leaving the ear canal open. In the context of telecommunication, a headset is a combination of a headphone and microphone.Headphones connect to a signal source such as an audio amplifier, radio, CD player, portable media player, mobile phone, video game console, or electronic musical instrument, either directly using a cord, or using wireless technology such as Bluetooth, DECT or FM radio. The first headphones were developed in the late 19th century for use by switchboard operators, to keep their hands free. Initially, the audio quality was mediocre and a step forward was the invention of high fidelity headphones.[3][4]Headphones exhibit a range of different audio reproduction quality capabilities. Headsets designed for telephone use typically cannot reproduce sound with the high fidelity of expensive units designed for music listening by audiophiles. Headphones that use cables typically have either a 14 inch (6.4mm) or 18 inch (3.2mm) phone jack for plugging the headphones into the audio source. Some headphones are wireless, using Bluetooth connectivity to receive the audio signal by radio waves from source devices like cellphones and digital players.[5] As a result of the Walkman effect, beginning in the 1980s, headphones started to be used in public places such as sidewalks, grocery stores, and public transit.[6] Headphones are also used by people in various professional contexts, such as audio engineers mixing sound for live concerts or sound recordings and disc jockeys (DJs), who use headphones to cue up the next song without the audience hearing, aircraft pilots and call center employees. The latter two types of employees use headphones with an integrated microphone.Telephone operator with a single head-mounted telephone-receiver (headphone), 1898Headphones grew out of the need to free up a person's hands when operating a telephone.[7] By the 1880s, soon after the invention of the telephone, telephone switchboard operators began to use head apparatuses to mount the telephone receiver.[8] The receiver was mounted on the head by a clamp which held it next to the ear.[9] The head mount freed the switchboard operator's hands, so that they could easily connect the wires of the telephone callers and receivers.[10] The head-mounted telephone receiver in the singular form was called a headphone.[11][12] These head-mounted phone receivers, unlike modern headphones, only had one earpiece.[13]By the 1890s a listening device with two earpieces was developed by the British company Electrophone. The device created a listening system through the phone lines that allowed the customer to connect into live feeds of performances at theaters and opera houses across London. Subscribers to the service could listen to the performance through a pair of massive earphones that connected below the chin and were held by a long rod.[14]French engineer Ernest Mercadier in 1891 patented a set of in-ear headphones.[15][14] The German company Siemens Brothers at this time was also selling headpieces for telephone operators which had two earpieces, although placed outside the ear. The Siemens Brothers headpieces looked similar to modern headphones. The majority of headgear used by telephone operators continued to have only one earpiece.[16]Wireless telegrapher Reginald Fessenden with two head-mounted telephone-receivers (headphones), 1906Headphones appeared in the emerging field of wireless telegraphy, which was the beginning stage of radio broadcasting. Some early wireless telegraph developers chose to use the telephone receiver's speaker as the detector for the electrical signal of the wireless receiving circuit.[17] By 1902 wireless telegraph innovators, such as Lee de Forest, were using two jointly head-mounted telephone receivers to hear the signal of the receiving circuit.[18] The two head-mounted telephone receivers were called in the singular form head telephones.[17] By 1908 the headpiece began to be written simply as head phones,[19] and a year later the compound word headphones began to be used.[20]Holtzer-Cabot telephone operator head receiver, wireless operator receiver, and telephone receiver, 1909One of the earliest companies to make headphones for wireless operators was the Holtzer-Cabot Company in 1909.[21] They were also makers of head receivers for telephone operators and normal telephone receivers for the home.[21] Another early manufacturer of headphones was Nathaniel Baldwin.[22] He was the first major supplier of headsets to the U.S. Navy.[23] In 1910, motivated by his inability to hear sermons during Sunday service, he invented a prototype telephone headset.[24] He offered it for testing to the navy, which promptly ordered 100 of them. Wireless Specialty Apparatus Co., in partnership with Baldwin Radio Company, set up a manufacturing facility in Utah to fulfill orders.[25] These early headphones used moving iron drivers,[26] with either single-ended or balanced armatures. The common single-ended type used voice coils wound around the poles of a permanent magnet, which were positioned close to a flexible steel diaphragm. The audio current through the coils varied the magnetic field of the magnet, exerting a varying force on the diaphragm, causing it to vibrate, creating sound waves. The requirement for high sensitivity meant that no damping was used, so the frequency response of the diaphragm had large peaks due to resonance, resulting in poor sound quality. These early models lacked padding, and were often uncomfortable to wear for long periods. Their impedance varied; headphones used in telegraph and telephone work had an impedance of 75ohms. Those used with early wireless radio had more turns of finer wire to increase sensitivity. Impedances of 1,000 to 2,000 ohms was common, which suited both crystal sets and triode receivers. Some very sensitive headphones, such as those manufactured by Brandes around 1919, were commonly used for early radio work.In 1958, John C. Koss, an audiophile and jazz musician from Milwaukee, produced the first stereo headphones.[27][26]Smaller earbud-type earpieces, which plugged into the user's ear canal, were first developed for hearing aids. They became widely used with transistor radios, which commercially appeared in 1954 with the introduction of the Regency TR-1. The most popular audio device in history, the transistor radio changed listening habits, allowing people to listen to the radio anywhere. The earbud uses either a moving iron driver or a piezoelectric crystal to produce sound. The 3.5mm radio and phone connector, which is the most commonly used in portable applications today, has been used at least since the Sony EFM-117J transistor radio, which was released in 1964.[28][29] Its popularity was reinforced by its use on the Walkman portable tape player in 1979.Sennheiser HD 555 headphones, used in audio production environments (2007)This adaptor allowed an airline passenger to plug a standard 3.5mm stereo headphone into the twin mono jacks then common on airliners, avoiding the need to pay for a set of headphones from the airlineWired headphones may be used with stationary CD and DVD players, home theater, personal computers, or portable devices (e.g., digital audio player/MP3 player, mobile phone), as long as these devices are equipped with a headphone jack. Cordless headphones are not connected to their source by a cable. Instead, they receive a radio or infrared signal encoded using a radio or infrared transmission link, such as FM, Bluetooth or Wi-Fi. These are battery-powered receiver systems, of which the headphone is only a component. Cordless headphones are used with events such as a silent disco.In the professional audio sector, headphones are used in live situations by disc jockeys (DJs) with a DJ mixer and by sound engineers for monitoring signal sources. In radio studios, DJs use a pair of headphones when talking to the microphone with speakers turned off to avoid acoustic feedback while monitoring their own voice. In studio recordings, musicians and singers use headphones to play or sing along to a backing track or band. In military applications, audio signals of many varieties are monitored using headphones.Wired headphones are attached to an audio source by a cable. The most common connectors are 6.35mm (14 inch) and 3.5mm (18 inch) phone connectors. The larger 6.35mm connector is more common on fixed location home or professional equipment. The 3.5mm connector remains the most widely used connector for portable applications. Adapters are available for converting between 6.35mm and 3.5mm connectors.As an active component, wireless headphones tend to be costlier due to the necessity for internal hardware such as a battery, a charging controller, an audio amplifier, and a wireless transceiver, whereas wired headphones are a passive component, with the transducers driven by the audio source it is wired to.Headphone cord with integrated potentiometer for volume controlWired headphones may be equipped with a non-detachable cable with a plug at the end or a socket on the headphones and a detachable male-to-male cable. An external audio splitter can be used to allow connecting another wired headphone in a parallel circuit, which splits the audio signal to share with another participant.[30] Some headphone cords are equipped with a potentiometer for volume control.Various types of specially designed headphones or earphones are used in the field of audiology for establishing hearing thresholds, medically diagnosing hearing loss, identifying other hearing related disease, and monitoring hearing status in occupational hearing conservation programs.[31] Specific models of headphones have been adopted as the standard due to the ease of calibration and ability to compare results between testing facilities.[32]Supra-aural style headphones are historically the most commonly used in audiology as they are the easiest to calibrate and were considered the standard for many years. Commonly used models are the Telephonics Dynamic Headphone (TDH) 39, TDH-49, and TDH-50. In-the-ear or insert style earphones are used more commonly today as they provide higher levels of interaural attenuation, introduce less variability when testing 6,000 and 8,000Hz, and avoid testing issues resulting from collapsed ear canals. A commonly used model of insert earphone is the Etymotic Research ER-3A. Circum-aural earphones are also used to establish hearing thresholds in the extended high frequency range (8,000Hz to 20,000kHz). Along with Etymotic Research ER-2A insert earphones, the Sennheiser HDA300 and Koss HV/1A circum-aural earphones are the only models that have reference equivalent threshold sound pressure level values for the extended high frequency range as described by ANSI standards.[33][32][34]Audiometers and headphones must be calibrated together. During the calibration process, the output signal from the audiometer to the headphones is measured with a sound level meter to ensure that the signal is accurate to the reading on the audiometer for sound pressure level and frequency. Calibration is done with the earphones in an acoustic coupler that is intended to mimic the transfer function of the outer ear. Because specific headphones are used in the initial audiometer calibration process, they cannot be replaced with any other set of headphones, even from the same make and model.[32]Electrical characteristics of dynamic loudspeakers may be readily applied to headphones, because most headphones are small dynamic loudspeakers.Headphones are available with high or low impedance (typically measured at 1kHz). Low-impedance headphones are in the range 16 to 32ohms and high-impedance headphones are about 100600ohms. As the impedance of a pair of headphones increases, more voltage (at a given current) is required to drive it, and the loudness of the headphones for a given voltage decreases. In recent years, impedance of newer headphones has generally decreased to accommodate lower voltages available on battery powered CMOS-based portable electronics. This has resulted in headphones that can be more efficiently driven by battery-powered electronics. Consequently, newer amplifiers are based on designs with relatively low output impedance.The impedance of headphones is of concern because of the output limitations of amplifiers. A modern pair of headphones is driven by an amplifier, with lower impedance headphones presenting a larger load. Amplifiers are not ideal; they also have some output impedance that limits the amount of power they can provide. To ensure an even frequency response, adequate damping factor, and undistorted sound, an amplifier should have an output impedance less than 1/8 that of the headphones it is driving (and ideally, as low as possible). If output impedance is large compared to the impedance of the headphones, significantly higher distortion is present.[35] Therefore, lower impedance headphones tend to be louder and more efficient, but also demand a more capable amplifier. Higher impedance headphones are more tolerant of amplifier limitations, but produce less volume for a given output level.Historically, many headphones had relatively high impedance, often over 500ohms so they could operate well with high-impedance tube amplifiers. In contrast, modern transistor amplifiers can have very low output impedance, enabling lower-impedance headphones. This means that older audio amplifiers or stereos often produce poor-quality output on some modern, low-impedance headphones. In this case, an external headphone amplifier may be beneficial.Sensitivity is a measure of how effectively an earpiece converts an incoming electrical signal into an audible sound. It thus indicates how loud the headphones are for a given electrical drive level. It can be measured in decibels of sound pressure level per milliwatt (dB (SPL)/mW) or decibels of sound pressure level per volt (dB (SPL) / V).[36] Both definitions are widely used, often interchangeably. As the output voltage (but not power) of a headphone amplifier is essentially constant for most common headphones, dB/mW is often more useful if converted into dB/V using Ohm's law: d B (S P L) / V = d B (S P L) / m W 10 log 10 I m p e d a n c e 1000 {\displaystyle \mathrm {dB(SPL)} /\mathrm {V} =\mathrm {dB(SPL)} /\mathrm {mW} -10\cdot \log _{10}{\frac {\mathrm {Impedance} }{1000}}} Once the sensitivity per volt is known, the maximum volume for a pair of headphones can be easily calculated from the maximum amplifier output voltage. For example, for a headphone with a sensitivity of 100dB (SPL)/V, an amplifier with an output of 1 root mean square (RMS) voltage produces a maximum volume of 100dB.Pairing high-sensitivity headphones with power amplifiers can produce dangerously high volumes and damage headphones. The maximum sound pressure level is a matter of preference, with some sources recommending no higher than 110 to 120dB. In contrast, the American Occupational Safety and Health Administration recommends an average SPL of no more than 85dB(A) to avoid long-term hearing loss, while the European Union standard EN 50332-1:2013 recommends that volumes above 85dB(A) include a warning, with an absolute maximum volume (defined using 404,000Hz noise) of no more than 100dB to avoid accidental hearing damage.[37] Using this standard, headphones with sensitivities of 90, 100 and 110dB (SPL)/V should be driven by an amplifier capable of no more than 3.162, 1.0 and 0.3162 RMS volts at maximum volume setting, respectively to reduce the risk of hearing damage.The sensitivity of headphones is usually between about 80 and 125dB/mW and usually measured at 1kHz.[38]Headphone size can affect the balance between fidelity and portability. Generally, headphone form factors can be divided into four separate categories: circumaural (over-ear), supra-aural (on-ear), earbud and in-ear.Wired headphones make a direct electrical connection to the source device using a cable, typically connected with a headphone jack.Modern wireless or cordless earphones have no cord connecting the two earphones to the source device or to each other; they receive audio by means of a wireless technology such as Bluetooth. In historical usage, 'wireless' referred to a connection to a radio receiver, which was known as a wireless.On some models both audio streams are transmitted to one earphone which forwards one stream to the other earphone. On other models each earphone receives its audio stream directly from the source device. The former arrangement has the advantage of being compatible with legacy systems while the latter arrangement has the advantage of causing less power drain in the earphone that has to forward one audio stream. Connection between the two earphones also being wireless may be referred to as true wireless stereo (TWS), offering longer battery life and complete transmission on left and right channels, avoiding possible source signal omission if only one is worn. [39]Circumaural headphones have large pads that surround the outer ear.Circumaural headphones (sometimes called full size headphones or over-ear headphones) have circular or ellipsoid earpads that encompass the ears. Because these headphones completely surround the ear, circumaural headphones can be designed to fully seal against the head to attenuate external noise. Because of their size, circumaural headphones can be heavy and there are some sets that weigh over 500 grams (1lb). Ergonomic headband and earpad design is required to reduce discomfort resulting from weight. These are commonly used by drummers in recording.A pair of supra-aural (on-ear) headphonesSupra-aural headphones or on-ear headphones have pads that press against the ears, rather than around them. They were commonly bundled with personal stereos during the 1980s. This type of headphone generally tends to be smaller and lighter than circumaural headphones, resulting in less attenuation of outside noise. Supra-aural headphones can also lead to discomfort due to the pressure on the ear as compared to circumaural headphones that sit around the ear. Comfort may vary due to the earcup material."Earphone" redirects here. For other uses, see Earphone (disambiguation).Earphones sit in the outer ear.Earphones are very small headphones that are fitted directly in the outer ear, facing but not inserted in the ear canal. Earphones are portable and convenient, but many people consider them uncomfortable.[40][failed verification] They provide hardly any acoustic isolation and leave room for ambient noise to seep in; users may turn up the volume dangerously high to compensate, at the risk of causing hearing loss.[40][41] On the other hand, they let the user be better aware of their surroundings. Since the early days of the transistor radio, earphones have commonly been bundled with personal music devices. They are sold at times with foam or rubber pads for comfort. (The use of the term earbuds, which has been around since at least 1984, did not hit its peak until after 2001, with the success of Apple's MP3 player.[42])Main article: In-ear monitorIn-ear monitors extend into the ear canal, providing isolation from outside noise.In-ear headphones, also known as in-ear monitors (IEMs) or canalphones, are small headphones with similar portability to earbuds that are inserted in the ear canal itself. IEMs are higher-quality in-ear headphones and are used by audio engineers and musicians as well as audiophiles.The outer shells of in-ear headphones are made up of a variety of materials, such as plastic, aluminum, ceramic and other metal alloys. Because in-ear headphones engage the ear canal, they can be prone to sliding out, and they block out much environmental noise. Lack of sound from the environment can be a problem when sound is a necessary cue for safety or other reasons, as when walking, driving, or riding near or in vehicular traffic.[43] Some in-ear headphones utilize built-in microphones to allow some outside sound to be heard when desired.[44][45]Generic or custom-fitting ear canal plugs are made from silicone rubber, elastomer, or foam. Such plugs in lower-end devices may be interchangeable, which increases the risk of them falling off and getting lodged in the ear canal. Custom in-ear headphones use castings of the ear canal to create custom-molded plugs that provide added comfort and noise isolation.[40]Some wireless earphones include a charging case.Both circumaural and supra-aural headphones can be further differentiated by the type of earcups:Open-backHeadphones having the back of the earcups open. This leaks more sound out of the headphone and also lets more ambient sounds into the headphone, but gives a more natural or speaker-like sound, due to including sounds from the environment.Semi-openThey have a design that can be considered as a compromise between open-back headphones and closed-back headphones. Some[who?] believe the term "semi-

open" is purely there for marketing purposes. There is no exact definition for the term semi-open headphone. Where the open-back approach has hardly any measure to block sound at the outer side of the diaphragm and the closed-back approach really has a closed chamber at the outer side of the diaphragm, a semi-open headphone can have a chamber to partially block sound while letting some sound through via openings or vents.Closed-backClosed-back (or sealed) styles have the back of the earcups closed. They usually block some of the ambient noise. Closed-back headphones usually can produce stronger low frequencies than open-back headphones.Main article: Headset (audio)A typical example of a headset used for voice chatsA headset is a headphone combined with a microphone. Headsets provide the equivalent functionality of a telephone handset with hands-free operation. Among applications for headsets, besides telephone use, are aviation, theatre or television studio intercom systems, and console or PC gaming. Headsets are made with either a single-earpiece (mono) or a double-earpiece (mono to both ears or stereo). The microphone arm of headsets is either an external microphone type where the microphone is held in front of the user's mouth, or a voicetube type where the microphone is housed in the earpiece and speech reaches it by means of a hollow tube.Sony Ericsson Cordless bluetooth headsetTelephone headsets connect to a fixed-line telephone system. A telephone headset functions by replacing the handset of a telephone. Headsets for standard corded telephones are fitted with a standard 4P4C commonly called an RJ-9 connector. Headsets are also available with 2.5mm jack sockets for many DECT phones and other applications. Cordless bluetooth headsets are available, and often used with mobile telephones. Headsets are widely used for telephone-intensive jobs, in particular by call centre workers. They are also used by anyone wishing to hold telephone conversations with both hands free.For older models of telephones, the headset microphone impedance is different from that of the original handset, requiring a telephone amplifier for the telephone headset. A telephone amplifier provides basic pin-alignment similar to a telephone headset adaptor, but it also offers sound amplification for the microphone as well as the loudspeakers. Most models of telephone amplifiers offer volume control for loudspeaker as well as microphone, mute function and switching between headset and handset. Telephone amplifiers are powered by batteries or AC adaptors.Aviation headset[46]Communication headsets are used for two-way communication and typically consist of a headphone and attached microphone. Such headsets are used in a variety of professions as aviation, military, sports, music, and many service-oriented sectors. They come in all shapes and sizes, depending on use, required noise attenuation, and fidelity of communication needed.Unwanted sound from the environment can be reduced by excluding sound from the ear by passive noise isolation, or, often in conjunction with isolation, by active noise cancellation.In-ears are among those good for noise isolation.Passive noise isolation is essentially using the body of the earphone, either over or in the ear, as a passive earplug that simply blocks out sound. The headphone types that provide most attenuation are in-ear canal headphones and closed-back headphones, both circumaural and supra aural. Open-back and earbud headphones provide some passive noise isolation, but much less than the others. Typical closed-back headphones block 8 to 12dB, and in-ears anywhere from 10 to 15dB. Some models have been specifically designed for drummers to facilitate the drummer monitoring the recorded sound while reducing sound directly from the drums as much as possible. Such headphones claim to reduce ambient noise by around 25dB.Active noise-cancelling headphones use a microphone, amplifier, and speaker to pick up, amplify, and play ambient noise in phase-reversed form; this to some extent cancels out unwanted noise from the environment without affecting the desired sound source, which is not picked up and reversed by the microphone. They require a power source, usually a battery, to drive their circuitry. Active noise cancelling headphones can attenuate ambient noise by 20dB or more, but the active circuitry is mainly effective on constant sounds and at lower frequencies, rather than sharp sounds and voices. Some noise cancelling headphones are designed mainly to reduce low-frequency engine and travel noise in aircraft, trains, and automobiles, and are less effective in environments with other types of noise.Headphones use various types of transducer to convert electrical signals to sound.A typical moving-coil headphone transducerThe moving coil driver, more commonly referred to as a "dynamic" driver is the most common type used in headphones. It consists of a stationary magnet element affixed to the frame of the headphone, which sets up a static magnetic field. The magnet in headphones is typically composed of ferrite or neodymium. A voice coil, a light coil of wire, is suspended in the magnetic field of the magnet, attached to a diaphragm, typically fabricated from lightweight, high-stiffness-to-mass-ratio cellulose, polymer, carbon material, paper or the like. When the varying current of an audio signal is passed through the coil, it creates a varying magnetic field that reacts against the static magnetic field, exerting a varying force on the coil causing it and the attached diaphragm to vibrate. The vibrating diaphragm pushes on the air to produce sound waves.This section contains promotional content. Please help improve it by removing promotional language and inappropriate external links, and by adding encyclopedic text written from a neutral point of view. (March 2025) (Learn how and when to remove this message)MEMS speakersMEMS (Micro-Electro-Mechanical Systems) speaker technology represents a transformative advancement in the field of portable audio devices.[47] These speakers are fabricated using semiconductor manufacturing techniques, integrating piezoelectric actuators on silicon substrates to create ultra-thin, lightweight, and power-efficient audio transducers. Compared to traditional voice coil or balanced armature speakers, MEMS speakers are significantly smaller, easier to integrate into compact designs, and exhibit superior scalability for modern consumer electronics.[48] The key innovation behind MEMS speakers lies in the use of piezoelectric materials, such as PZT (lead zirconate titanate), which allow precise out-of-plane movements to generate sound. These materials enable actuators to produce high-force, large-displacement vibrations, resulting in deep bass and crisp treble, all from a single, compact transducer. MEMS speakers also consume less power and can be soldered using surface-mount technology (SMT), simplifying integration into advanced devices.Applications of MEMS speaker technology span a variety of sectors.[49] In consumer electronics, MEMS speakers are a natural fit for True Wireless Stereo (TWS) earphones, wearables, and smart glasses, delivering high-resolution audio, transparency features, and ultrasound functionalities. They are also pivotal in hearing aids, especially for models designed for mild hearing loss. In healthcare, MEMS speakers enable MRI-compatible headphones, while in industrial applications, they are utilized in testing high-performance MEMS microphones. As demand for compact, efficient audio solutions grows, MEMS speakers are poised to redefine portable audio standards, providing a scalable and versatile alternative to traditional technologies.[50]Electrostatic loudspeaker diagramElectrostatic drivers consist of a thin, electrically charged diaphragm, typically a coated PET film membrane, suspended between two perforated metal plates (electrodes). The electrical sound signal is applied to the electrodes creating an electrical field; depending on the polarity of this field, the diaphragm is drawn towards one of the plates. Air is forced through the perforations; combined with a continuously changing electrical signal driving the membrane, a sound wave is generated. Electrostatic headphones are usually more expensive than moving-coil ones, and are comparatively uncommon. In addition, a special amplifier is required to amplify the signal to deflect the membrane, which often requires electrical potentials in the range of 100 to 1,000volts.Due to the extremely thin and light diaphragm membrane, often only a few micrometers thick, and the complete absence of moving metalwork, the frequency response of electrostatic headphones usually extends well above the audible limit of approximately 20kHz. The high-frequency response means that the low-midband distortion level is maintained to the top of the audible frequency band, which is generally not the case with moving coil drivers. Also, the frequency response peakiness regularly seen in the high-frequency region with moving coil drivers is absent. Well-designed electrostatic headphones can produce significantly better sound quality than other types.[citation needed]Electrostatic headphones require a voltage source generating 100V to over 1kV, and are on the user's head. Since the invention of insulators, there is no actual danger. They do not need to deliver significant electric current, which further limits the electrical hazard to the wearer in case of fault.An electret driver functions along the same electromechanical means as an electrostatic driver. However, the electret driver has a permanent charge built into it, whereas electrostatics have the charge applied to the driver by an external generator. Electret and electrostatic headphones are relatively uncommon. Original electrets were also typically cheaper and lower in technical capability and fidelity than electrostatics. Patent applications from 2009 to 2013 have been approved that show by using different materials, i.e. a "Fluorinated cyclic olefin electret film", Frequency response chart readings can reach 50kHz at 100 db. When these new improved electrets are combined with a traditional dome headphone driver, headphones can be produced that are recognised by the Japan Audio Society as worthy of joining the Hi Res Audio program. US patents 8,559,660 B2. 7,732,547 B2.7,879,446 B2.7,498,699 B2.Planar magnetic (also known as orthodynamic) headphones use similar technology to electrostatic headphones, with some fundamental differences. They operate similarly to planar magnetic loudspeakers.A planar magnetic driver consists of a relatively large membrane that contains an embedded wire pattern. This membrane is suspended between two sets of permanent, oppositely aligned, magnets. A current passed through the wires embedded in the membrane produces a magnetic field that reacts with the field of the permanent magnets to induce movement in the membrane, which produces sound.Balanced armature transducerArmature balanced and exerting no force on diaphragmArmature torqued and exerting a force on diaphragmA balanced armature is a sound transducer design primarily intended to increase the electrical efficiency of the element by eliminating the stress on the diaphragm characteristic of many other magnetic transducer systems. As shown schematically in the left diagram, it consists of a moving magnetic armature that is pivoted so it can move in the field of the permanent magnet. When precisely centered in the magnetic field there is no net force on the armature, hence the term 'balanced'. As illustrated in the right diagram, when there is electric current through the coil, it magnetizes the armature one way or the other, causing it to rotate slightly one way or the other about the pivot thus moving the diaphragm to make sound.A custom in-ear monitor which uses 8 balanced armatures in a triple crossover configuration (4 low/2 mid/2 high). Headphone designs often use multiple balanced armatures to provide a higher fidelity sound.The design is not mechanically stable; a slight imbalance makes the armature stick to one pole of the magnet. A fairly stiff restoring force is required to hold the armature in the 'balance' position. Although this reduces its efficiency, this design can still produce more sound from less power than any other.[clarification needed] Popularized in the 1920s as Baldwin Mica Diaphragm radio headphones, balanced armature transducers were refined during World War II for use in military sound powered telephones. Some of these achieved astonishing electro-acoustic conversion efficiencies, in the range of 20% to 40%, for narrow bandwidth voice signals.Today they are typically used only in in-ear headphones and hearing aids, where their high efficiency and diminutive size is a major advantage.[51] They generally are limited at the extremes of the hearing spectrum (e.g. below 20Hz and above 16kHz) and require a better seal than other types of drivers to deliver their full potential. Higher-end models may employ multiple armature drivers, dividing the frequency ranges between them using a passive crossover network. A few combine an armature driver with a small moving-coil driver for increased bass output.The earliest loudspeakers for radio receivers used balanced armature drivers for their cones.[52]The thermoacoustic effect generates sound from the audio frequency Joule heating of the conductor, an effect that is not magnetic and does not vibrate the speaker.In 2013 a carbon nanotube thin-yarn earphone based on the thermoacoustic mechanism was demonstrated by a research group in Tsinghua University.[53] The as-produced CNT thin yarn earphone has a working element called CNT thin yarn thermoacoustic chip. Such a chip is composed of a layer of CNT thin yarn array supported by the silicon wafer, and periodic grooves with certain depth are made on the wafer by micro-fabrication methods to suppress the heat leakage from the CNT yarn to the substrate.[citation needed]Transducer technologies employed much less commonly for headphones include the Heil Air Motion Transformer (AMT); Piezoelectric film; Ribbon planar magnetic; Magnetostriction and Plasma or Ionic. The first Heil AMT headphone was marketed by ESS Laboratories and was essentially an ESS AMT tweeter from one of the company's speakers being driven at full range. Since the turn of the century, only Precide of Switzerland have manufactured an AMT headphone. Piezoelectric film headphones were first developed by Pioneer, their two models used a flat sheet of film that limited the maximum volume of air movement. Currently, TakeT produces a piezoelectric film headphone shaped similarly to an AMT transducer but, which like the Precide driver, has a variation in the size of transducer folds over the diaphragm. It additionally incorporates a two way design by its inclusion of a dedicated tweeter/supertweeter panel. The folded shape of a diaphragm allows a transducer with a larger surface area to fit within smaller space constraints. This increases the total volume of air that can be moved on each excursion of the transducer given that radiating area.Magnetostriction headphones, sometimes sold under the label Bonephones, work by vibrating against the side of head, transmitting sound via bone conduction. This is particularly helpful in situations where the ears must be unobstructed, or for people who are deaf for reasons that do not affect the nervous apparatus of hearing. Magnetostriction headphones though, are limited in their fidelity compared to conventional headphones that rely on the normal workings of the ear. Additionally, in the mid-1980s, a French company called Audio Reference tried to market the Plasmasonic plasma headphone invented by Henri Bondar.[54][55] There are no known functioning examples left. Due to the small volume of air in a headphone, the plasma or ionic transducer can become a full range driver although the high temperatures and voltages needed makes them very rare.Sony MDR-7506 headphones in stowed configurationA micro audio amplifier for boosting the output power of smartphones etc. to headphones. Used for example to compensate a built-in volume limit in smartphones, the higher volume levels could, however, lead to ear damage.Headphones can prevent other people from hearing the sound, either for privacy or to prevent disturbing others, as in listening in a public library. They can also provide a level of sound fidelity greater than loudspeakers of similar cost. Part of their ability to do so comes from the lack of any need to perform room correction treatments with headphones. High-quality headphones can have an extremely flat low-frequency response down to 20Hz within 3dB. While a loudspeaker must use a relatively large (often 15" or 18") speaker driver to reproduce low frequencies, headphones can accurately reproduce bass and sub-bass frequencies with speaker drivers only 40-50 millimeters wide (or much smaller, as is the case with in-ear monitor headphones). Headphones' impressive low-frequency performance is possible because they are so much closer to the ear that they only need to move relatively small volumes of air.Marketed claims such as 'frequency response 4Hz to 20kHz' are usually overstatements; the product's response at frequencies lower than 20Hz is typically very small.[56]Headphones are also useful for video games that use 3D positional audio processing algorithms, as they allow players to better judge the position of an off-screen sound source (such as the footsteps of an opponent or their gunfire).Although modern headphones have been particularly widely sold and used for listening to stereo recordings since the release of the Walkman, there is subjective debate regarding the nature of their reproduction of stereo sound. Stereo recordings represent the position of horizontal depth cues (stereo separation) via volume and phase differences of the sound in question between the two channels. When the sounds from two speakers mix, they create the phase difference the brain uses to locate direction. Through most headphones, because the right and left channels do not combine in this manner, the illusion of the phantom center can be perceived as lost. Hard panned sounds are also heard only in one ear rather than from one side.Binaural recordings use a different microphone technique to encode direction directly as phase, with very little amplitude difference below 2kHz, often using a dummy head. They can produce a surprisingly lifelike spatial impression through headphones. Commercial recordings almost always use stereo recording, rather than binaural, because loudspeaker listening is more common than headphone listening.It is possible to change the spatial effects of stereo sound on headphones, to better approximate the presentation of speaker reproduction, by using frequency-dependent cross-feed between the channels.Headsets can have ergonomic benefits over traditional telephone handsets. They allow call center agents to maintain better posture without needing to hand-hold a handset or tilt their head sideways to cradle it.[57]See also: Automatic volume limiterProduct testing - headphones in an anechoic chamberUsing headphones at a sufficiently high volume level may cause temporary or permanent hearing impairment or deafness. The headphone volume often has to compete with the background noise, especially in loud places such as subway stations, aircraft, and large crowds. Extended periods of exposure to high sound pressure levels created by headphones at high volume settings may be damaging to hearing;[58][59] Nearly 50% of teenagers and young adults (12 to 35 years old) in middle and high income countries listen to unsafe levels of sound on their personal audio devices and smartphones.[60] However, one hearing expert found in 2012 (before the worldwide adoption of smartphones as the main personal listening devices) that "fewer than 5% of users select volume levels and listen frequently enough to risk hearing loss."[61] The International Telecommunication Union recently published "Guidelines for safe listening devices/systems" recommended that sound exposure not exceed 80 decibels, A-weighted dB(A) for a maximum of 40 hours per week.[62] The European Union have also set a similar limit for users of personal listening devices (80dB(A) for no more than 40 hours per week) and for each additional increase of 3-dB in sound exposure, the duration should be cut in half (83dB(A) for no more than 20 hours, 86dB(A) for 10 hours per week, 89dB(A) for 5 hours per week and so on. Most major manufactures of smartphones now include some safety or volume limiting features and warning messaging in their devices.[63][64] though such practices have received mixed response from some segments of the buying who favor the personal choice of setting their own volume levels.The usual way of limiting sound volume on devices driving headphones is by limiting output power. This has the additional undesirable effect of being dependent of the efficiency of the headphones; a device producing the maximum allowed power may not produce adequate volume when paired with low-efficiency, high-impedance equipment, while the same amount of power can reach dangerous levels with very efficient earphones.Some studies have found that people are more likely to raise volumes to unsafe levels while performing strenuous exercise.[65] A Finnish study[66] recommended that exercisers should set their headphone volumes to half of their normal loudness and only use them for half an hour.Other than hearing risk, there is a general danger that listening to loud music in headphones can distract the listener and lead to injury and accidents.[67][68] Noise-cancelling headphones add extra risk. Several countries and states have made it illegal to wear headphones while driving or cycling.[43]There have also been numerous reports of contact dermatitis due to exposure to in-ear headphones such as Apple AirPods.[69][70] The contact dermatitis would be caused by in-ear headphones that contain gold, rubber, dyes, acrylates, or methacrylates.[69] However, there have been no studies done to prove that exposure to in-ear headphones will cause contact dermatitis, rather that there is a correlation between in-ear headphone use and contact dermatitis cases.[69]Hearing risk from headphones' use also applies to workers who must wear electronic or communication headsets as part of their daily job (i.e., pilots, call center and dispatch operators, sound engineers , firefighters, etc.) and hearing damage depends on the exposure time. The National Institute for Occupational Safety and Health (NIOSH) recommends sound exposure not exceed 85dB(A) over 8 hour work day as a time-weighted average.[71] NIOSH uses the 3-dB exchange rate often referred to as "time-intensity tradeoff" which means if sound exposure level is increased by 3 decibels, the duration of exposure should be cut in half. NIOSH published several documents targeted at protecting the hearing of workers who must wear communication headsets such as call center operators,[72] firefighters,[73] and musicians and sound engineers.[74][75]Bone conductionDigital audio playerEarmuffsHeadphone amplifierIn-ear monitorLoudspeakerNoise-cancelling headphones^ a b "earphone". Archived from the original on 19 January 2014. Retrieved 4 January 2014.^ Stanley R. Alten Audio Basics Cengage 2011 ISBN0-495-91356-1 page63^ "Headphones: The Ultimate buying guide - Hi-fidelity headphones". StereoCompare. Archived from the original on 2016-03-07. Retrieved 2016-03-03.^ "The Ultimate Headphones Buying Guide - Audio Inspects". 2022-06-20. Retrieved 2022-07-15.^ Sullivan, Mark (7 January 2016). "It's True: Apple Will Drop Headphone Jack To Make The iPhone 7 Slimmer, Says Source". Fast Company. Archived from the original on 2016-08-29.^ "Rewind: How the Walkman changed the world..." independent. 15 July 2009.^ Prescott, George Bartlett (1884). Bell's Electric Speaking Telephone: Its Invention, Construction, Application, Modification, and History. D. Appleton. p.137. The transmitter is placed on an upright rod at his right and the receiver is held constantly at his ear by means of a steel band passed over the head which band serves also as the magnet of the telephone He is therefore always in readiness to receive an order without the necessity of a preliminary call or signal and both his hands are left free to fill the orders. [Also see Figure 180]^ "The Telephone Problem in the World's Largest Metropolitan Area: A Summary of Past and Present". Bell Telephone Magazine. XIII. Prelinger Library. American Telephone and Telegraph Company: 248. October 1934. Upper right image: A New York City central office in the '80s, showing "beehive" as well as early desk type switchboards, and both young women and boy operators [Note image of telephone operator's with head-mounted telephone receivers]{{cite journal}}: CS1 maint: others (link)^ Herbert, Thomas Ernest (1898). The Telephone System of the British Post Office: A Practical Handbook. Page & Pratt. p.85. Figure 73^ "Some new Bell type switchboard accessories". Electrical Engineering and Telephone Magazine. Vol.XII. November 1898. p.194. Figure 1^ "Polk's Busy Test For Telephone Switchboards". Illustrated Electrical Review: A Journal of Scientific and Electrical Progress. 25. Electrical Review Publishing Company: 251, 254. November 21, 1894. Referring to the illustrations on page 251, A is the switchboard, B is the inclined shelf usually employed in upright switchboards and C is the headphone.^ "Behind the scenes at "Central"". The Book Lover's Magazine. Vol.II. Library Publishing Company. October 1903. pp.390401. For the first week she does nothing but attach her headphone to an experienced operator's position and listen. [pp. 401]^ "Head Clamp Receiver (c.1883)". Collection of historical scientific instruments -- Harvard University. Retrieved 2023-05-06.^ a b "A Partial History of Headphones". Smithsonian Magazine. Retrieved 2020-12-27.^ U.S. Patent No. 454,138 for "improvements in telephone-receivers...which shall be light enough to be carried while in use on the head of the operator."^ Preece, Sir William Henry; Stubbs, Arthur James (1893). A Manual of Telephony. Whittaker and Company. pp.5558.^ a b Collins, Archie Frederick (December 1902). "Review of wireless telegraph engineering practice". Telephony. Vol.4. Telephone Publishing Corporation. pp.279288.^ "The De Forest Wireless Telegraph Station at Coney Island". Electrical Age. Vol.29. Electrical Age Publishing Company. July 1902. p.181.^ Bullard, William Hannum Grubb (1908). Naval Electricians' Text Book. United States Naval Institute. p.927. Listening in --. Keep the head phones on the head and at end of every sentence throw up listening key with fingers or thumb of right hand to assure yourself that the other party hears you clearly and answers you^ McCaskey, E. L. (May 22, 1909). "Correspondence". Modern Electrics. Vol.II. Modern electrics publication. p.102. My headphones are of the single pole type wound to the resistance of 3,000 ohms.^ a b Electrical Construction and Maintenance. McGraw-Hill Publishing Company. April 1909. p.10.^ Singer, Merril (1979). "Nathaniel Baldwin, Utah inventor and patron of the fundamentalist movement". Utah Historical Quarterly. 47 (1): 4253. doi:10.2307/45060660. JSTOR45060660. S2CID254434880.^ Howeth, Linwood S. (1963). History of Communications Electronics in the United States Navy. U.S. Government Printing Office. pp.148149.^ "Great Falls Tribune 03 Jan 1930, page 7". Newspapers.com. Retrieved 2023-04-30.^ Heffernan, Virginia (2011-01-07). "Against Headphones". The New York Times. ISSN0362-4331. Retrieved 2023-05-06.^ a b Smith, Caspar (30 October 2011). "Now hear this: the history of headphones". The Guardian. Archived from the original on 13 September 2017. Retrieved 13 September 2017.^ "Founded 1958 - World's First SP/3 Stereophone". koss.com. Archived from the original on 13 September 2017. Retrieved 13 September 2017.^ "Sony history 1960s". Sony official website. Archived from the original on 2016-02-05.^ Description of 3.5mm earphone jack in described model: "Vintage Sony 1960'S EFM-117J Radio". Retrieved 2016-01-25.^ Arce, Nicole (2020-07-22). "How To Use Two Or More Headphones On PC or Mac (Wired/Bluetooth) - Headphonesty". Retrieved 29 May 2021.^ Hearing conservation manual. Hutchison, Thomas L., Schulz, Theresa Y., Council for Accreditation in Occupational Hearing Conservation. (Fifthed.). Milwaukee, WI. 2014. ISBN978-0-9863038-0-7. OCLC940449158.{{cite book}}: CS1 maint: location missing publisher (link) CS1 maint: others (link)^ a b c Handbook of clinical audiology. Katz, Jack, Chasin, Marshall, English, Kristina M., 1951-, Hood, Linda J., Tillery, Kim L. (Seventhed.). Philadelphia. 2015. ISBN978-1-4511-9163-9. OCLC877024342.{{cite book}}: CS1 maint: location missing publisher (link) CS1 maint: others (link)^ "ANSI/ASA S3.6-2018 - Specification for Audiometers". webstore.ansi.org. Retrieved 2020-11-13.^ "ISO 389-2:1994". ISO. Retrieved 2020-11-13.^ Siau, John. "The "0-Ohm" Headphone Amplifier" (PDF). Archived (PDF) from the original on 10 February 2013. Retrieved 26 June 2012.^ Bohn, Dennis. "Understanding Headphone Power Requirements". HeadWize. Northwestern University. Archived from the original on 2011-06-08.^ "BS EN 50332 tests for headphones and earphones with portable music players". ISVR Consulting. 2 August 2018. Archived from the original on 2018-08-21.^ "Understanding Earphone/Headphone Specifications". Shure Customer Help. Shure. Archived from the original on 2016-06-18.^ Telink Staff (19 Aug 2020). "An Introduction to True Wireless Stereo (TWS) Technology". Telink Semiconductor (Press release). Archived from the original on 2024-01-18.^ a b c Ha, Peter (26 April 2010). "Custom-Made Headphones: Listen Up Before It's Too Late". Time. Archived from the original on 17 August 2013. Retrieved 21 July 2015.^ Fligor, Brian J.; Cox, L. Clarke (December 2004). "Output Levels of Commercially Available Portable Compact Disc Players and the Potential Risk to Hearing". Ear and Hearing. 25 (6): 51327. doi:10.1097/00003446-200412000-00001. PMID15604913. S2CID11043107. Retrieved 21 July 2015.^ Engber, Daniel (16 May 2014). "Who Made That Earbud?". The New York Times Magazine. Archived from the original on 2017-02-02.^ a b "Headphones as a Driving Distraction" (PDF). The Royal Society for the Prevention of Accidents. Archived (PDF) from the original on 15 September 2017. Retrieved 14 September 2017.^ "Use Ambient sound on your Samsung earbuds". Samsung Electronics America. Retrieved 2021-08-13.^ "WF-1000XM3 | Help Guide | Listening to ambient sound during music playback (Ambient Sound Mode)". helpguide.sony.net. Retrieved 2021-08-13.^ "Lightspeed Aviation 30 3G Discontinued Aviation Headset". lightspeedaviation.com. Retrieved 26 Dec 2020.^ "Introduction to MEMS Speakers: A whitepaper that provides an overview of MEMS speaker technology, its advantages, and applications in consumer electronics".^ "A Piezoelectric MEMS Loud Speaker Based on Ceramic PZT: This research paper presents a ceramic PZT-based piezoelectric MEMS speaker capable of generating high sound pressure levels with low driving voltage". doi:10.1109/TRANSDUCERS.2019.8808528.^ "The Impact of MEMS Speakers in Audio: This article discusses the potential of MEMS speakers in various audio applications, including in-canal hearing aids and implantable hearing devices".^ "What Are the Advantages of MEMS Loudspeakers: An article that explores the benefits of MEMS loudspeakers, including their thin form factor and suitability for applications like automotive sound systems".^ Hertsens, Tyll (2014-12-15). "How Balanced Armature Receivers/Drivers Work". InnerFidelity. Archived from the original on 2015-09-14.^ Joel, Amos E. (1975). A History of Engineering and Science in the Bell System: The early years (1875-1925). The Laboratories. ISBN9780608080666.^ Yang Wei; Xiaoyang Lin; Kaili Jiang; Peng Liu; Qunqing Li; Shoushan Fan (2013). "Thermoacoustic Chips with Carbon Nanotube Thin Yarn Arrays". Nano Letters. 13 (10): 4795801. Bibcode:2013NanoL..13.4795W. doi:10.1021/nl402408j. PMID24041369.^ "Plasmasonic". La Nouvelle Revue Du Son. FR. March 1984. p.100.^ US 4460809A, Henri Bondar, "Process and device for converting a periodic LF electric voltage into sound waves"^ "How to buy headphones". CNET. Archived from the original on 2011-08-20. Even the flimsiest, cheap headphones routinely boast extremely low bass-response performance15 or 20Hzbut almost always sound lightweight and bright.^ United States Department of Labor. Occupational Safety & Health Administration. Computer Workstation. Checklist. Archived 2009-02-02 at the Wayback Machine Accessed February 2, 2009.^ "Causes of Hearing Loss in Adults". asha.org. Archived from the original on 13 December 2010. Retrieved 21 July 2015.^ "Noise-Induced Hearing Loss". nih.gov. Archived from the original on 9 May 2016. Retrieved 21 July 2015.^ World Health Organization (15 Mar 2018). "1.1 billion people at risk of hearing loss". Archived from the original on February 27, 2015. Retrieved 2 Feb 2019.^ William W. Clark. "Five Myths in Assessing the Effects of Noise on Hearing". AudiologyOnline. Archived from the original on 24 September 2012. Retrieved 21 July 2015.^ "H.870: Guidelines for safe listening devices/systems". www.itu.int. Retrieved 2019-02-28.^ "Sound and Hearing". Apple. Retrieved 2019-02-28.^ "Limit Media Volume". Samsung Electronics America. Retrieved 2019-02-28.^ "Can Loud Noise during Exercise Damage my Hearing?". Healthy Hearing. Item 4. Archived from the original on 9 November 2014. Retrieved 8 November 2014.{{cite web}}: CS1 maint: location (link)^ Airo, Erkko; J. Pekkarinen; P. Olkinuora. "Listening to music with earphones: an assessment of noise exposure," AcusticaActa Acustica, pp.82, 885894. (1996)^ Greenfield, Paige (25 June 2011). "Deaf to Danger: The Perils of Earbuds". ABC News. Archived from the original on 14 December 2013. Retrieved 20 June 2013.^ Lichenstein, R; Smith, DC; Ambrose, JL; Moody, LA (October 2012). "Headphone use and pedestrian injury and death in the United States: 2004-2011". Injury Prevention. 18 (5): 28790. doi:10.1136/injuryprev-2011-040161. PMID22248915. S2CID25177965.^ a b c Hayakawa, Michitaro; Suzuki, Chihiro; Zhu, Yingyao; Anzai, Hidemi (April 2022). "Allergic contact dermatitis to gold in the parts of in-ear headphones". Contact Dermatitis. 86 (4): 328330. doi:10.1111/cod.14036. ISSN0105-1873. PMID34978717. S2CID245651803.^ Chan, Justin; Rabi, Sina; Adler, Brandon L. (November 2021). "Allergic Contact Dermatitis to (Meth)Acrylates in Apple AirPods Headphones". Dermatitis. 32 (6): e111 e112. doi:10.1097/DER.0000000000000735. ISSN2162-5220. PMID34807535. S2CID233923350.^ "Occupational noise exposure; criteria for a recommended standard". CDC. National Institute for Occupational Safety and Health. June 1998. doi:10.26616/NIOSHPUB98126.^ "Reducing Noise Hazards for Call & Dispatch Center Operators". CDC. National Institute for Occupational Safety and Health. September 2011. doi:10.26616/NIOSHPUB2011210.^ "Promoting Hearing Health among Firefighters". CDC. National Institute for Occupational Safety and Health. May 2013. doi:10.26616/NIOSHPUB2013142.^ "Reducing the risk of hearing disorders among musicians". CDC. National Institute for Occupational Safety and Health. June 2015. doi:10.26616/NIOSHPUB2015184.^ McGinnity, Siobhan; Beach, Elizabeth Francis; Cowan, Robert S. C.; Mulder, Johannes (2020-10-22). "The hearing health of live-music sound engineers". Archives of Environmental & Occupational Health. 76 (6): 301312. Bibcode:2021ArEOH..76..301M. doi:10.1080/19338244.2020.1828241. ISSN2154-4700. PMID33089760. S2CID224821849. Media related to Headphones at Wikimedia Commons The dictionary definition of earphone at WiktionaryEarpadRetrieved from " to turn up volume on jlab jbuds air. How to turn up volume on jlab go air earbuds. How to turn up volume on jlab go air sport earbuds. How to turn up volume on jlab sport earbuds. How to increase volume on jlab earbuds. How to turn up volume jlab go air. How to turn up volume on jlab wireless earbuds. Jlab volume control. How do you turn up the volume on jlab earbuds.