

iWear® AV920 User's Guide

Read the enclosed Safety Instructions before using eyewear!

Welcome to the world of big screen viewing! Your Vuzix™ iWear® AV920 Video Eyewear delivers extraordinary high quality 2D and 3D images in your own personal, portable movie theater!

Package Contents:



ⓧ User's Guide booklet not shown

1. USB & Charger Cable
2. iPod Cable*
3. Tether Strap
4. Carry Case / Lens Cleaner

5. Video Eyewear Viewer
6. Battery Box
7. Composite Audio/Video Cable

* Model of iPod Cable may vary by region and current iPod models and availability.

Important Safety Instructions

Follow these safety instructions when using or handling your VUZIX Video Eyewear to reduce the risk of fire, electric shock, and injury to persons and property.

1. READ ALL OF THE INSTRUCTIONS AND SAFETY INFORMATION PROVIDED BEFORE USING THIS PRODUCT.

2. Use the product only for its intended use, as described in this manual.

3. Close supervision is needed when this product is by or near children.

4. Children under the age of seven (7) are still learning to focus and track with their eyes. Their vision is still immature. For these reasons, THIS PRODUCT SHOULD NOT BE USED BY CHILDREN UNDER THE AGE OF SEVEN (7).

5. A very small portion of the population may experience epileptic seizures when viewing certain kinds of flashing lights or patterns that are commonly present in our daily environment. These persons may also experience seizures while watching some kinds of television pictures or playing certain video games on regular monitors, including the use of a display system such as this. These effects can be increased due to the large size of the video screens in this device. As a result consult a physician if you have any epileptic condition before using this device or if you experience any of the following symptoms while using this device: altered vision, muscle twitching, other involuntary movements, loss of awareness of your surroundings, mental confusion, and/or convulsions.

6. Immersive video, whether viewed on a regular TV, a movie theater screen or a VUZIX video display, can potentially have adverse effects on the user including motion sickness, perceptual after effects and disorientation, and decreased postural stability and eye strain. Take frequent breaks to lessen the potential of these effects, as is commonly suggested for other items, such as keyboards and computer monitors, that you may tend to fixate or concentrate on. If your eyes show signs of fatigue or dryness or if any of the above symptoms is noted, immediately discontinue use of this device and do not resume using it for at least 30 minutes after the symptoms have fully subsided.

7. Permanent or temporary hearing loss or impairment can result from excessive volume levels emitted from the headphones. Always adjust the volume to a safe level BEFORE wearing the product or headphones.

8. Always be aware of the world around you. This product will immerse you in realistic sights and sounds, possibly causing you to forget about the real world around you and the threats to your well being and the well being of others. DO NOT use this product near stairs, balconies, or other things that can be tripped over, run into, knocked down or fallen over. This product should only be used while you are seated and never while using sharp or potentially dangerous objects, operating any form of mechanical device, driving motor vehicles, or performing any act that normally requires you to see what you are doing.

9. This product may be tethered to a power outlet and cables may extend between components. Be careful that these cords do not tangle around you or pose a potential threat to the safety of others.

10. Do not disassemble this product. If service work is required, contact VUZIX using the Support contact information shown in this manual.

11. Do not pull or yank on the cable, kink any of the cables or tie them in sharp or tight knots. Do not hang the product or allow it to be suspended by any of its cables. To disconnect cables, pull on the cable connector. Cables damaged by such actions are not covered by the product's limited warranty.

12. Do not drop, strike, or cause any portion of the product to be struck or shaken aggressively. Such actions may damage the product and void your warranty.

13. Save these instructions.

Immediately unplug the product from external power sources if:

- The power adaptor, power cord or USB cord is damaged or frayed.
- Liquid has been sprayed, splashed or poured on the product.
- Any component of the product has been dropped or damaged.
- The product exhibits any distinct change in performance.

Battery Safety Instructions

- Batteries contain toxic materials. Do not burn, disassemble, mutilate, or puncture the batteries.
- Do not dispose of batteries in a fire.
- Dispose of batteries in a method that is consistent with your local laws and regulations.

Vuzix Hardware Product Limited Warranty

Vuzix warrants that your Vuzix hardware product shall be free from defects in material and workmanship for the length of time specified in the Warranty Period (one year), beginning from the date of purchase. If your Vuzix hardware product is used for commercial purposes (including rental or lease) the Warranty Period shall be reduced to only ninety (90) days from date of purchase. Except where prohibited by applicable law, this warranty is nontransferable and is limited to the original purchaser and does not apply to anyone else, including anyone to whom You later make any transfer or sale. This warranty gives you specific legal rights, and you may also have other rights that vary under local laws, some of which are not affected by the warranties in this Limited Warranty.

This Limited Warranty does not cover, and no warranty of any kind is provided with respect to any subjective or aesthetic aspects of the hardware product. Vuzix does not warrant that the operation of the product will be uninterrupted or error-free. The limited warranty stated above is the only warranty made to You and is provided in lieu of all other express or implied warranties and conditions (except for any non-disclaimable implied warranties that exist), including any created by any other documentation or packaging. No information or suggestions (oral or in a record) given by Vuzix, its agents, affiliates, dealers or suppliers or its or their employees or agents, shall create a warranty or condition or expand the scope of this Limited Warranty.

Any software distributed with the hardware product by Vuzix with or without the Vuzix brand name is not covered under this Limited Warranty. Refer to the licensing agreement accompanying the software (viewable upon its installation), for details of your rights with respect to its use.

Remedies

Vuzix's entire liability and Your exclusive remedy for any breach of warranty shall be, at Vuzix's option, (1) to repair or replace all or part of the hardware, 2) exchange the hardware with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product, or (3) to refund the price paid by You less reasonable depreciation based on your actual use, provided that the hardware is returned to the point of purchase or such other place as Vuzix may direct with a copy of the sales receipt or dated itemized receipt. Except where prohibited by applicable law, all shipping and handling costs associated with transport (including packaging) for warranty service shall be at Your expense. Vuzix may, at its option, use new or refurbished or used parts in good working condition to repair or replace any hardware product. Any replacement hardware product will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer or for any additional period of time that may be applicable in Your jurisdiction. This warranty does not cover problems or damage resulting from (1) Acts of God, power surge, misuse, abuse, negligence, accident, wear and tear, mishandling, misapplication, or other causes unrelated to defects in the hardware device (2) any unauthorized repair, modification, tampering or disassembly; (3) improper operation or maintenance, usage not in accordance with product instructions or connection to improper voltage supply; or (3) use of consumables, such as replacement

batteries, not supplied by Vuzix except where such restriction is prohibited by applicable law.

How to Obtain Technical Support

Technical support is defined as assistance with questions on issues about the Vuzix hardware product. Technical support for hardware and its software is available for the first ninety (90) days from date of product purchase. Your dated sales or delivery receipt, showing the date of purchase or lease of the product, is Your proof of the purchase or lease date. You may be required to provide proof of purchase or lease as a condition of receiving software technical support. The addresses and technical service contact information for Vuzix can be found in the documentation accompanying your product and on the web at our global site: www.vuzix.com.

How to Obtain Warranty Support

Vuzix is the warrantor under this Limited Warranty. Before submitting a warranty claim, we recommend You visit the support section at www.Vuzix.com for technical assistance. Warranty claims cannot be processed through the point of purchase and any other product related questions should be addressed directly to Vuzix. The addresses and customer service contact information for Vuzix can be found in the documentation accompanying Your product and on the web at our global site at www.vuzix.com, which will also identify any Vuzix subsidiary or branch serving Your country and its local address. You may also write to: Vuzix Sales Support, 75 Town Centre Drive, Rochester, NY 14623, USA.

Limitation of Liability

VUZIX SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, REVENUE OR DATA (WHETHER DIRECT OR INDIRECT) OR COMMERCIAL LOSS FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON YOUR PRODUCT EVEN IF VUZIX HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some jurisdictions do not allow the exclusion or limitation of special, indirect, incidental or consequential damages, so the above limitation or exclusion may not apply to You, but the remainder of this Limited Warranty shall remain in full force and effect.

Duration of Implied Warranties

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS HARDWARE PRODUCT IS LIMITED IN DURATION TO THE LIMITED WARRANTY PERIOD STATE ABOVE FOR YOUR PRODUCT. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to You. Please note that in the European Union, any warranty period less than two years shall be increased to two years except in the case of use for commercial purposes.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) Increase the separation between the equipment and receiver or 2) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Using Your Video Eyewear

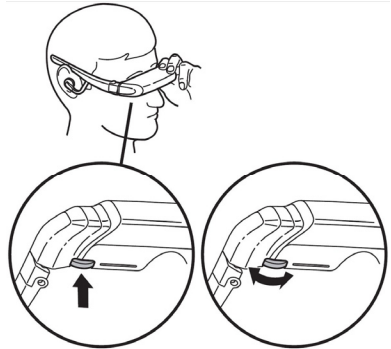
Before using your video eyewear for the first time, remove the clear peel-back lens protection film from the inside surface of the viewer lens and charge the battery (see *Charging*).

The iWear AV920 video eyewear can be connected to any 2D or 3D video device with compatible connectors. The AV920 will sense if the video signal is PAL or NTSC and automatically adjust.

Multi-function Control Wheel/Button

A multi-function Control Wheel is located under the right-front corner of the video eyewear display unit.

Rotating the multi-function wheel enables the selection of menu options and adjusts settings. When pressed, it functions as a dual action button. A quick press and release selects menu options while a press and hold (3 or more seconds) provides a second level of button commands.



Power On/Off: Press and release to turn on the eyewear. Press and hold for 3 or more seconds to turn off the eyewear. It will also turn off automatically if no video signal is available for several minutes.

Adjust Volume: Rotate to turn speaker volume up or down. *Available only when the OSD is not displayed.*

Access OSD: Press and release to access and dismiss the OSD (on screen display) menu.

OSD Menu: Rotate to change menu selection. Press and release to select an OSD menu item.

On Screen Display Menu (OSD)

When you press and hold the Control Wheel for more than 3 seconds, the following menu commands will appear horizontally across the lower section of your iWear display. These commands will allow you to adjust the display settings of your video eyewear.



Adjust display brightness



Adjust display contrast



Select display mode



Adjust display backlight brightness



Reset display settings to factory defaults



Exit OSD

Display Modes

Your video eyewear is capable of displaying stereoscopic 3D images in two ways. If the video content is enabled with iWear 3D control information, it will automatically be displayed in the proper 3D mode. If your 3D content does not contain iWear 3D control information, use the OSD controls to select the correct display mode.

Select & Adjust Display Mode:

Access the OSD by pressing and holding down the Control Wheel for more than 3 seconds. With the OSD visible, rotate the Control Wheel to select the Display Mode options icon.



With the Display Mode command selected, rotate the Control Wheel to select one of the display modes. Press and release the Control Wheel to make your selection.



2D display mode



L/R display mode

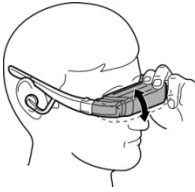


R/L display mode

Use the 2D display mode for all monoscopic (2D) video content.

There is no standard for videos using L/R or R/L mode for 3D video. The easiest method of determining which is used for any given video is too simply to try one and if the 3D quality is not as expected, switch to the other.

AccuTilt® Viewer Adjustment



AccuTilt viewer adjustment is a Vuzix technology that allows you to adjust the angle of the display housing 15 degrees to ensure optimum alignment.

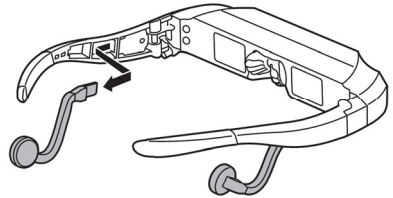
Grasp the iWear viewer's front display on both either side and tilt it up or down to aligned the displays.

Speaker Adjustment & Removal

Your video eyewear's stereo speakers are both adjustable for fit or removed should you wish to use an alternate speaker system.

Unlike ear buds that fit into your ears, these speakers are designed to sit outside of your ears for longer listening comfort. Flex the speaker stem to bend it to a comfortable position.

To remove the speakers, grasp a speaker stem firmly by its base, near the temple, and pull straight back. Reverse the process to re-insert the speakers.

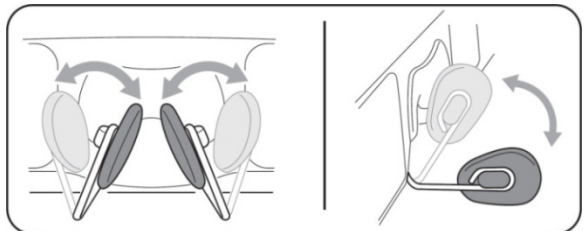


The video eyewear has a single input mini-jack for line level stereo audio and video, marked as "AV" on the battery case. A second mini-jack is also provided on the battery box (headphone icon) for connecting external head phones.

Nose Bridge Adjust

Your video eyewear is equipped with an adjustable nose bridge that offers hours of comfort and provides an extensive range of adjustment. Prescription eyeglass wearers can adjust their nose bridge to wear their video eyewear over and in front of their glasses.

To adjust the nose bridge, grasp a nose bridge pad between your thumb and forefinger and bend the arm to an appropriate position. Repeat with the other

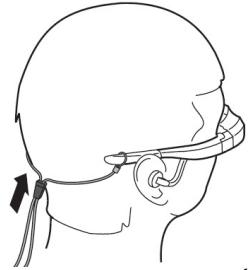


nose pad and then make minor adjustments until a comfortable position has been achieved.

The nose bridge is designed to be adjusted to your personal needs – not to be readjusted repeatedly for multiple users. Sharp angles and excessive bending can result in metal fatigue and premature failure of the nose bridge stems.

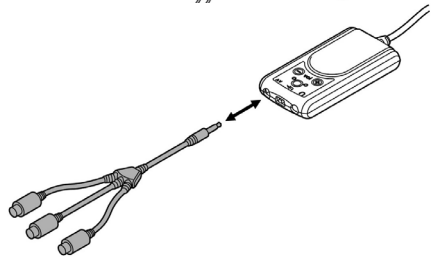
Tether Strap

A tether strap is provided to assist in securing your eyewear when being over eyeglasses or when resting your head on a pillow or other object that might cause the eyewear to shift positions.



Connecting To A Video Source

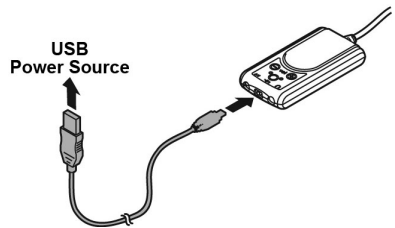
The cable used to connect your eyewear to a video source will depend upon the source device's available connections. The accompanying illustration shows a composite audio/video cable connecting to the AV port on the battery box – the same port used for all video cable connections.



If none of the provided cables are compatible with your video device, check the [Vuzix website \(www.vuzix.com\)](http://www.vuzix.com) for optional cables. An optional S-Video cable is available for use with many laptops as well as a broad assortment of cables for other devices..

Charging

Your video eyewear comes with a USB cable for charging your batteries. This cable can be connected to a variety of USB power sources including a desktop or laptop computer, a USB port such as those provided on many aircraft or to a plug-in A/C or D/C power adaptor, such as those used with many mobile phones.



Optional power adaptors are available through the [Vuzix website \(www.vuzix.com\)](http://www.vuzix.com).

Cleaning

Use a soft dry cloth to clean your iWear AV920 video eyewear enclosure and its optics. The cloth carry pouch that came with your eyewear is good for this. Do not use liquid or spray-on cleaners.

Updating

Your video eyewear is field upgradable to ensure that you have the best experience possible. To upgrade your iWear AV920 firmware or to download updated software, please visit www.vuzix.com/support.

Troubleshooting

The video eyewear will not turn on.

- Press the Control Wheel on the right side, below the display.
- Charge the battery.

The product turns off immediately after I turn it on.

- Charge the battery.
When the battery charge is extremely low, allow it to charge for several minutes before turning the product on.

There is no audio in one or more speakers.

- Ensure all connections are fully plugged in.
- Try to unplug the speakers and plug them back into the viewer's temples.

The normal (2D) video is not very clear.

- Make sure your video eyewear is not in 3D mode.

I'm viewing 3D content but it is fuzzy and not in 3D.

- Set the View Mode to L/R display and if that does not work, set it to R/L display made.

Contacting VUZIX

In the United States or Canada, refer to the [Vuzix website \(www.vuzix.com\)](http://www.vuzix.com) or call (800) 436-7838, 9 AM to 6 PM EST weekdays, excluding holidays.

Be sure to have the following information available before you call:

- Serial number, model name, and model number
- Operating system and version of operating system, when associated with a computer
- Applicable error messages
- Third-party hardware or software installed
- Add-on options if applicable
- Detailed questions you need answers to

Waste Electrical & Electronic Equipment (WEEE)

1. The equipment that you bought has required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.
2. In order to avoid the dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems. Those systems will reuse or recycle most of the materials of your end life equipment in a sound way.
3. The crossed-out wheeled bin symbol invites you to use those systems.
4. If you need more information on the collection, reuse and recycling systems, please contact your local or regional waste administration.
5. You can also contact us for more information on the environmental performances of our products.

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Designed by Vuzix in New York.

Made in USA.