

# Wireless Audio Receiver

## CAVE

- Please be sure to read the "USER MANUAL" before using and then use accurately.
- The information contained in this USER MANUAL is subject to change without prior notice in order to improve the performance of the product.



### ◆ What is Cave Audio Receiver?

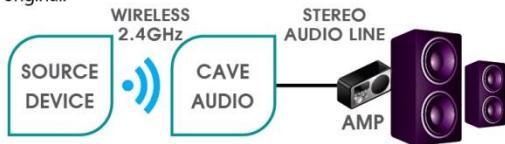
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It is a product that allows you to listen to the music of smart devices in the best sound quality through a home audio and vehicle without wireless functions.



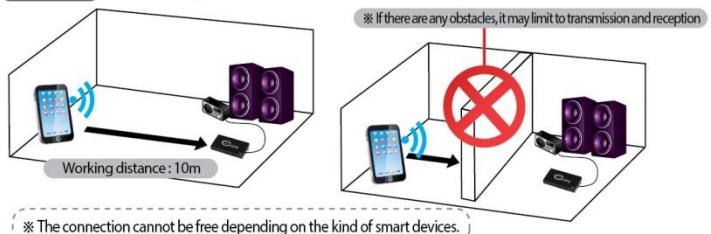
Through the simple connecting process, you can easily make wireless connections to smart devices and through an audio output device that supports AUX (external input) jack and external connection, you can be playing or streaming music stored on the smart device, and with apt-X codec application, you can minimize the loss of sound and enjoy the sound closer to the original.



### ◆ Product Features

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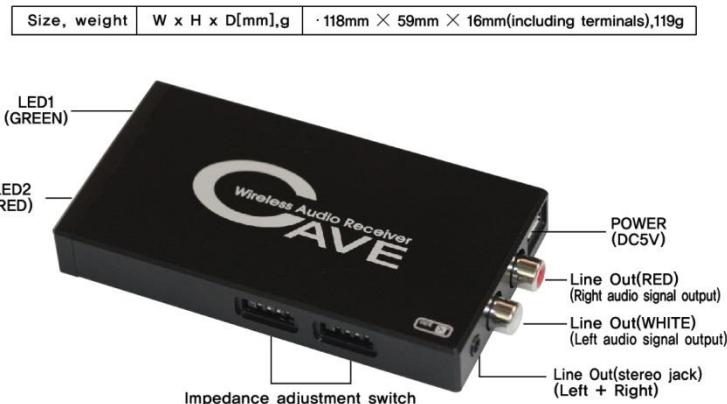
- apt-x** Supports the apt-x codec to provide superior sound with no loss of sound
- ACTIVE connection** More easily connectable than conventional products. Quick access seamlessly without delay
- IMPEDANCE Setting** Best sound setting available depending on the specifications of the connected equipment
- Design** Metal Type of clean and sleek design



- ◆ Service Environment** -Temperature: -10 °C to 60 °C - Relative Humidity: 55 to 95% (up to 100%).

### ◆ Product Structure

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### ! Safety Precautions

- Listening with earphones for extended periods of time can cause serious damage to hearing.**
  - Volume of the unit is fixed to the maximum size and is configured to be adjusted on the input device.
  - Be sure to check the volume position of the input device before using.
- Please refrain from the use in case of thunder or lightning.**
  - There is a risk of fire or electric shock caused by lightning.
- Do not use the earphones when driving (bicycles, motorcycles, cars, etc.) or walking.**
  - May be a cause of an accident and may be illegal depending on a country and an area.
- Use only accessories and components specified by the seller or manufacturer.**
  - In case of non-specified accessories and components, there is a risk of injury, overheating, fire and so on.
  - For an injury or accident caused by damage and malfunction of the product due to any changes or modifications by users, the seller or the manufacturer cannot take responsibility.
- Since this unit is an electronic device to which power is supplied, do not handle with wet hands when handling.**
  - This may result in a serious injury due to electric shock when handling with wet hands.
- USB power must be for DC5V.**
  - A power supply must be genuine and otherwise, it may cause severe noise.
- Since this unit should transmit the audio signal wirelessly, it causes interference with the reception to be the impediment to normal transmission.**
  - Please refer to this manual and use where there is no obstruction between the product and transmission equipment.
- Be sure to select the switch located (see product structure) on the side of the unit prior to use and apply the power.**
  - If you operate the switch during using, a large noise (pop noise) is generated and may damage the hearing when using the earphone, and if connected to the audio device, it may cause problems with the audio unit and speaker system.

If strange smells or noises are generated during use of the product, stop use and contact your dealer immediately.

### ◆ Product Configuration

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- Pictures and illustrations in this manual are intended to help users better understand, so may differ from the actual product, and are subject to change without notice.

- Other items than basic components are optional.

- Please keep pins out of the reach of children because there is a risk that they may be swallowed.

### ◆ Product Specifications

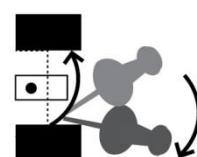
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Classified	Specifications	Q'ty	Detailed Information
Model name			· AWCA-NA
Size, Weight	W x H x D [mm], g		· 118mm×59mm×16mm(including terminals), 119g
Wireless communications	Bluetooth		· ISM 2.4GHz · Communication Distance : 10M(CLASS II) · Supported Codec : APT-X, SBC (If APT-X unsupported device is connected, it automatically changes to SBC way)
LED	RED LED	1	· Bluetooth connection - Stand-by for connection : blinking at 1 second interval - Connected : lit up
	GREEN LED	1	· Bluetooth data communication status - Stand-by to receive data : Lights OFF - Received data : Lights Light ON
POWER	Micro USB 5P	1	· Input Power : DC 5V
Audio Output	Stereo Jack	1	· Standard 3.5 pin stereo
	Standard RCA Jack	2	· Left audio signal output (WHITE) · Right audio signal output (RED)
Switch	Piano DIP Type	2	· Left output impedance settings · Right output Impedance settings

### ◆ How to set the output impedance adjustment switch

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OUTPUT LOAD IMPEDANCE ( $R_L$ )	Impedance adjustment switch	LOWEST FREQUENCY ( $f_c$ )	Remarks
1 $16\Omega \sim 32\Omega$		14.09Hz	If $32\Omega$
2 $100\Omega \sim 10K\Omega$		14.47Hz	If $1K\Omega$
3 $100K\Omega \sim$		1.59Hz	If $100K\Omega$



If the switch ON, OFF,  
If you manipulate using the lever principle,  
it can be manipulated more easily.



## ◆ How to set impedance adjustment switch

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If you do not know the input impedance of the connected device, first turn all the switches on the device to the OFF state and then try to listen. If there are lots of treble and lack of bass, turn switch 1 only ON and then listen again.

But if it is the same though, increase to #2, #3 and #4 switches in the same way.

★ You should adjust the impedance value of the equipment connected and can hear the best sound quality.★

If the sounds stuffy or too much bass,

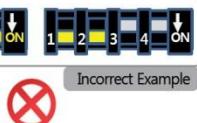
> Since the number of switches in combination (the number of the ON position) is too large, it is recommended to lower the number of combinations.

If there are lots of treble and lack of bass,

> Since the number of switches in combination (the number of the ON position) is too small, it is recommended to increase the number of combinations.

The switches on the side are composed of two groups from #1 to #4.

The switches are divided into left and right channels, and the two groups must be adjusted in the same location. If you adjusted each other differently, the volume and quality of both the left and right can be printed differently.



## ◆ How to set impedance adjustment switch

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As seen in page 7, the larger the sum of the combined switches, the lower the impedance.

Example) Switch sum calculation



Can be used to connect devices same with 16Ω, 32Ω



Can be used to connect devices such as home audio with more than 10KΩ

Low impedance devices such as earphones (16Ω ~ 32Ω) = (#1, 2, 3, 4 to be all On) or (#3 and 4 to be On) High input impedance such as home audio (higher than 10KΩ) = (All OFF, or only 1 time On) to be in place. It is possible to use only one of switch no. 1, 2, 3 and 4 at the ON location or use all on the ON location at the same time, but switches can vary depending on the sound devices, so please select the most harmonious case.

The value as illustrated above, is not an absolute value. It may differ depending on the device you wish to connect, please use it after adjusting while listening.

⚠ Do not operate the switch while wearing headphones or being on a connected device.

- A low noise (POP noise) may be caused to damage the hearing or may cause a problem with the connected device and speaker system.

⚠ This unit is output at the same time in parallel at a 3.5mm stereo jack and a standard RCA Jack, but if you connect all devices to the two outputs, it can be problematic on quality and performance.

- If possible, choose one of the two outputs, and use it after connecting the sound device.

You can expect a good characteristic to match the input impedance of the device that is connected to Cave Audio Receiver (output impedance).

## ◆ How to operate

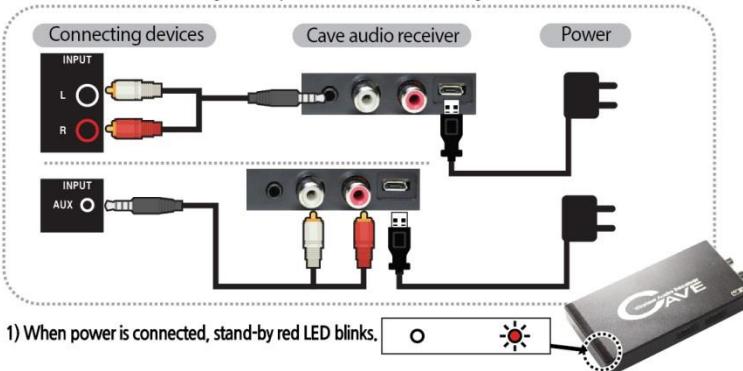
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### 1. Adjust the switch, depending on the type of connected devices.

(See how to set the impedance)

### 2. Get connected to the connecting devices.

> Get connected according to the input terminal of the connecting devices.



1) When power is connected, stand-by red LED blinks.

## ◆ How to operate

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### 3. Wireless (Bluetooth) settings by smartphones



#### 1) Connect the CAVE AUDIO RECEIVER.



① Enter your preferences.

② When you turn on the Bluetooth, the equipment that can recognize appears.

## ◆ How to operate

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③ Select CAVE-AUDIO.



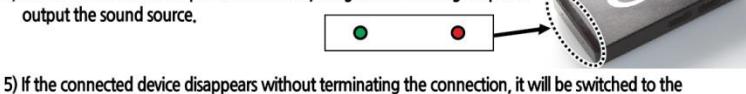
④ CAVE-AUDIO will be connected.

2) When the connection is completed, the red LED will light up.



3) When you play a variety of playable app including Music, Video Playback, You tube, etc, a sound source will be output.

4) When CAVE AUDIO outputs audio sound, the green LED will light up and output the sound source.



5) If the connected device disappears without terminating the connection, it will be switched to the standby mode. At this time, the standby red LED will blink.



## ◆ Troubleshooting

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#### Q1. Measures in case of a wireless connection failure

- In case of abnormal termination of a wireless connection, the connection information of the unit may be an error.
- Preferences -> Remove a registered device in the Bluetooth On
- If you search and choose CAVE-AUDIO, it can be reconnected.



Please see the wireless setting method in page and connect it again.

#### Q2. Measures in case of no sound

- Make sure that the power is supplied correctly.
- Check the cable connection to the device is correctly connected.
- Make sure that wireless is connected to Bluetooth.
- Make sure that the volume of the connected device is turned off.

! This product requires aging time due to the nature of a device

## ◆ Product Warranty

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About the Product - Based on the consumer compensation regulations, a warranty for the product will be provided, as shown below.

Product name	Purchase date	Where to purchase	Serial No.	Sale price
Model name				

Warranty period :  
1 (one) year from date of purchase

Consumer damage types	Compensation details
failures and defects in performance, functions that occurs naturally during normal use within retention period of the parts	Within the warranty period After the warranty period Product replacement or refund of the purchase price
If the product is in need of major repairs within 10 days after purchased	Product replacement
If critical parts are in need of repairs within 1 month after purchased	Refund of the purchase price
If the replaced product is in need of major repairs within a month after replaced	Refund of the purchase price
When replacement of parts is possible	Free repair Paid repair
If defects in the product are caused	Product replacement or refund of purchase price
After repairing, the same defects of a product are generated 4th times	Refund 10% plus depreciation amounts
Failures of the various parts are repaired, but a failure is regenerated (5th times)	Refund: Refund the purchase price (receipts to be submitted)
When repair is not possible	Please contact us for maintenance and repair at following phone number.
If repair is not possible due to unavailability of repair parts	If you send us brief information about a fault condition in case of a failure, it will be more convenient.
If a repair person lost the product for repair requested by the Consumer	Product replacement
Damage caused during transportation and installation process when purchasing products	—

Customer center :

The following failures will be treated at cost.  

- \* Failure due to user negligence
- \* Connection to the power supply other than rated power
- \* Failure due to user negligence
- \* Deliberate disassembly and repair by the user
- \* Breakdown by natural disasters (fire, flood, earthquake, lightning, etc.)
- \* When supplies are replaced

\* Refunds: Refund the purchase price (receipts to be submitted)

Please contact us for maintenance and repair at following phone number.  
If you send us brief information about a fault condition in case of a failure, it will be more convenient.

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## FCC Information to User

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 of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## Caution

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**FCC Compliance Information :** This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

## Wireless Audio Receiver

<http://blog.naver.com/caveaudio>



Made in Korea