RETEKESS

User's Manual

2.4GHz Long Range HDCD Digital Wireless Audio Transmitter

Packing list

- 1. Wireless Transmitter×1
- 3. 3.5mm Audio Cable×1
- 5. Charging Cable ×1
- 7. Antenna ×1
- 2. Power Adapter×1
- 4. 3.5mm Convert RCA Audio Cable×1
- 6. 6.5mm(male) to 3.5mm(female) adapter ×1
- 8. User's Manual×1

Introduction

TA001 developed by Eshow Electronic Commerce Co. Ltd, is a Hi-Fi digital wireless audio transceiver with excellent resistance against various RF interferences. The work range is much long, up to 200 meters/ 650 feet in open air, the transmitter and receiver will be connected faster and more stable, no delay.

It is characterized by a lot advantages, such as highly integrated and small size, high quality sound (with HDCD sound effect, highest sampling ratio in the field), strong anti-interference ability (Its input voltage as broad as 3.6v to 6v and audio frequency output as high as 50mw), and its input interface is compatible with microphones and stereo frequency.

System Installation

- Connect your music player device(Such as speaker, amplifier or headphone) with the receiver from the 3.5mm audio output.
- 2. Powered on the Receiver with our power adapter.
- 3. Slide the power switch on the back of the receiver to the ON position.
- Slide the Music/Mic switch on the back of the receiver to the MUSIC position for stereo audio input, or slide the switch to Mic position for voice input.
- 5. Connect your audio source with the transmitter
- 6. Powered on the transmitter with our power adapter
- 7. Slide the power switch on the back of the transmitter to the ON position.
- 8. Slide the Music/Mic switch on the back of the receiver to the MUSIC position for stereo audio input, or slide the switch to Mic position for voice input.
- 9. The transmitter and the receiver will complete pairing automatically, then, you can enjoy your wireless HDCD music.

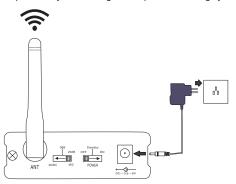
Input Selection

The 3.5mm audio jack on the front of the transmitter can accept stereo audio input or a Mono voice input. The Music/Mic switch ont the back it used to selecthe type of your audio source being used.

Music: Use this position if you are using a stereo audio input.

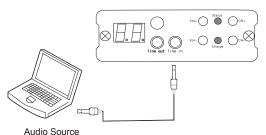
0dB: Use this position if you are using a normal microphone.

20dB: Use this position if you are using a microphone with a highly sensitive pickup.



Transmitter Rear Panel

Transmitter Front Panel



Restoring Factory Default Settings:

If you want to set the transmitter and/or receiver back to the condition it was in when they don't work smoothly by wrong operating, simply press and hold the CH+ button for about 20 seconds until the status LED begins to flash. Power the device off and wait about 30 seconds, then power it on again and it will be restored back to the default settings.

Safety Precautions and Procedures

- DO NOT place transmitter or receiver around direct sunlight or any heat source such as electric/gas stove or heaters of any kind.
 Do not place near an open flame.
- DO NOT place anything on top of the receiver or transmitter.
 Allow the unit to sit in an "open air" environment with plenty of room around it.
 Unit can overheat when not in an "open air" environment.
- DO NOT take apart the transmitter or receiver for any reason.
 THIS WILL VOID THE WARRANTY and could cause electric shock injury.
 There are no user replaceable parts inside the unit.
 Units can only be repaired/replaced by the manufacturer.
- DO NOT spill liquid on the unit. Store in a safe dry place free from moisture.
 NOT FOLLOWING SAFETY PROCEEDURES VOIDS ALL WARRANTIES!

Declaration

- 1. Intellectual property right statement: The hardware and software of the product is protected by copyright law and the international convention. Without any written authorization of our company, any copy of the product and of the specifications, parts or all, will bear the corresponding legal responsibility. The brochures are copyright based on our company. Without the consent of our company, a part or all of the manual should not be released.
- The manual is only for reference and the ultimate practical features are depending on the products which ordered and received by users.

FAQ

- Question: How to Pair the receiver with the transmitter?
 Answer: No need additional operation. Just follow our installing instruction. The receiver will pair the transmitter automatically.
- 2. Question: How to change the channel?
- Answer: You just need change the channel of transmitter. The receiver will automatically change the channel to match that of its paired transmitter.
- 3. Question: Why there are mutual interferences between our products and WIFI? Answer: Our system uses the 2.4GHz carrier to transmit the audio information from the transmitter to the receiver. Because the frequency of WIFI is also 2.4GHz, there is the potential possibility of interference between our system and WIFI.
- 4. Question: How to avoid and reduce interference between our products and WIFI?

Answer: As the product has 10 channels, if you want to avoid interference between our products and WIFI, we recommend changing the channel to 0 or 1.

Main Technical Index

| No | Description | Transmitter |
|----|-------------------------------------|---|
| 1 | Work Voltage | 3.6- 6V DC |
| 2 | Work Current | Max 120mA |
| 3 | Operation Temperature | - 15 - 65℃ |
| 4 | RF IC Frequency | 2400 - 2483.5 MHz |
| 5 | MODULATION | GFSK |
| 6 | Data Rate | 2M bps |
| 7 | Channel Space | 4MHz |
| 8 | Frequency Stability | ± 156KHz |
| 9 | Practical Module Frequency Range | 2400 - 2483.5 MHz |
| 10 | Module Channel Space | 4MHz |
| 11 | RF Range | |
| 12 | TX Power | 0 - 20dBm |
| 13 | RX Sensitivity | |
| 14 | Input Level | Max 1.0Vrms |
| 15 | Input Impedance | 10k Ohm |
| 16 | Input interface | Selection of inputs of microphones and stereo frequency |
| 17 | Stereo Output Level 1 | |
| 18 | Stereo Output Level 2 | |
| 19 | Output Impedance | |
| 20 | Gain ration of output and input | 1:1 |
| 21 | Frequency Response | 20 - 20000Hz (±1dB) |
| 22 | Latency | < 0.5 ms |
| 23 | Sampling Ratio | 64K@16bit*2 |
| 24 | S/N Ratio | 95dB |
| 25 | THD | 0.3 % @ 1kHz |
| 26 | Dynamic Range | 90dB |
| 27 | Channel Separation | 85dB |

EU Importer:

Importer:Germany Retevis Technology GmbH Address:Uetzenacker 29,38176 wendeburg

RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE



Before using this radio, read this guide which contains important operating instructions for safe usage and RF energy awareness and control for compliance with applicable standards and regulations.

This radio uses electromagnetic energy in the radio frequency (RF) spectrum to provide communications between two or more users over a distance. RF energy, which when used improperly, can cause biological damage.

All Retekess radios are designed, manufactured, and tested to ensure they meet government-established RF exposure levels. In addition, manufacturers also recommend specific operating instructions to users of the radios. These instructions are important because they inform users about RF energy exposure and provide simple procedures on how to control it.

Please refer to the following websites for more information on what RF energy exposure is and how to control your exposure to assure compliance with established RF exposure limits: http://www.who.int/en/

Local Government Regulations

When radios are used as a consequence of employment, the Local Government Regulations requires users to be fully aware of and able to control their exposure to meet occupational requirements. Exposure awareness can be facilitated by the use of a product label directing users to specific user awareness information. Your Retekess radio has a RF Exposure Product Label. Also, your Retekess user manual, or separate safety booklet includes information and operating instructions required to control your RF exposure and to satisfy compliance requirements.

Radio License (if appropriate)

Governments keep the radios in classification, business radios operate on radio frequencies that are regulated by the local radio management departments (FCC, ISED, OFCOM, ANFR, BFTK, Bundesnetzagentur...). To transmit on these frequencies, you are required to have a license issued by them. The detailed classification and the use of your radios, please contact the local government radio management departments.

Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

Unauthorized modification and adjustment

Changes or modifications not expressly approved by the party responsible for compliance may void the user's authority granted by the local government radio management departments to operate this radio and should not be made. To comply with the corresponding requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs in the private land mobile and fixed services as certified by an organization representative of the user of those services. Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the local government radio management departments equipment authorization for this radio could violate the rules.

FCC Requirements:

- 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.
- 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:

- 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.

CE Requirements:

- (Simple EU declaration of conformity) Henan Eshow Electronic Commerce Co., Ltd declares that the radio equipment type is in compliance with the essential requirements and other relevant provisions of RED Directive 2014/53/EU and the ROHS Directive 2011/65/EU and the WEEE Directive 2012/19/EU; the full text of the EU declaration of conformity is available at the following internet address: www.retekess.com.
- Disposal

The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that in the European Union, all electrical and electronic products, batteries, and accumulators (rechargeable batteries) must be taken to designated collection locations at the end of their working life.

Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws in your area.

IC Requirements:

Licence-exempt radio apparatus

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS

- (s). Operation is subject to the following two conditions:
- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage;
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RF Exposure Information

- DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio, and the antenna gain shall not exceed the specified gain by the manufacturer declared.
- DO NOT transmit for more than 50% of total radio use time, more than 50% of the time can cause RF exposure compliance requirements to be exceeded.
- During transmissions, your radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so.
- The device complies with RF specifications when the device used at 5mm from your body. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided.
- DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

Avoid Choking Hazard



Small Parts. Not for children under 3 years.

Protect your hearing:



- Use the lowest volume necessary to do your job.
- Turn up the volume only if you are in noisy surroundings.
- Turn down the volume before adding headset or earpiece.
- Limit the amount of time you use headsets or earpieces at high volume.
- When using the radio without a headset or earpiece, do not place the radio's speaker directly against your ear.

 Use careful with the earphone maybe possible excessive sound pressure from earphones and headphones can cause hearing loss.

Note: Exposure to loud noises from any source for extended periods of time may temporarily or permanently affect your hearing. The louder the radio's volume, the less time is required before your hearing could be affected. Hearing damage from loud noise is sometimes undetectable at first and can have a cumulative effect.

Avoid Burns



Antennas

Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with the skin when the radio is in use, a minor burn can result.

Batteries (If appropriate)

- When the conductive material such as jewelry, keys or chains touch exposed terminals of the batteries, may complete an electrical circuit (short circuit the battery) and become hot to cause bodily injury such as burns. Exercise care in handling any battery, particularly when placing it inside a pocket, purse or other container with metal objects Long transmission
- When the transceiver is used for long transmissions, the radiator and chassis will become hot.

Safety Operation



Forbid

- Do not use charger outdoors or in moist environments, use only in dry locations/conditions.
- Do not disassemble the charger, that may result in risk of electrical shock or fire.
- Do not operate the charger if it has been broken or damaged in any way.
- Do not place a portable radio in the area over an air bag or in the air bag deployment area. The radio may be propelled with great force and cause serious injury to occupants of the vehicle when the air bag inflates.

To reduce risk

- Pull by the plug rather than the cord when disconnecting the charger.
- Unplug the charger from the AC outlet before attempting any maintenance or cleaning.
- Contact Retekess for assistance regarding repairs and service.
- The adapter shall be installed near the equipment and shall be easily accessible
- Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- Adapter shall be installed near the equipment and shall be easily accessible.
- The plug considered as disconnect device of adapter.
- The operating temperature of the EUT can't exceed the specified range.

Approved Accessories



- This radio meets the RF exposure guidelines when used with the Retekess accessories supplied or designated for the product. Use of other accessories may not ensure compliance with the RF exposure guidelines and may violate regulations.
- For a list of Retekess-approved accessories for your radio model, visit the following website: http://www.Retekess.com

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