




# RETEKESS RT22 15 Channel Two-Way Radio User Manual

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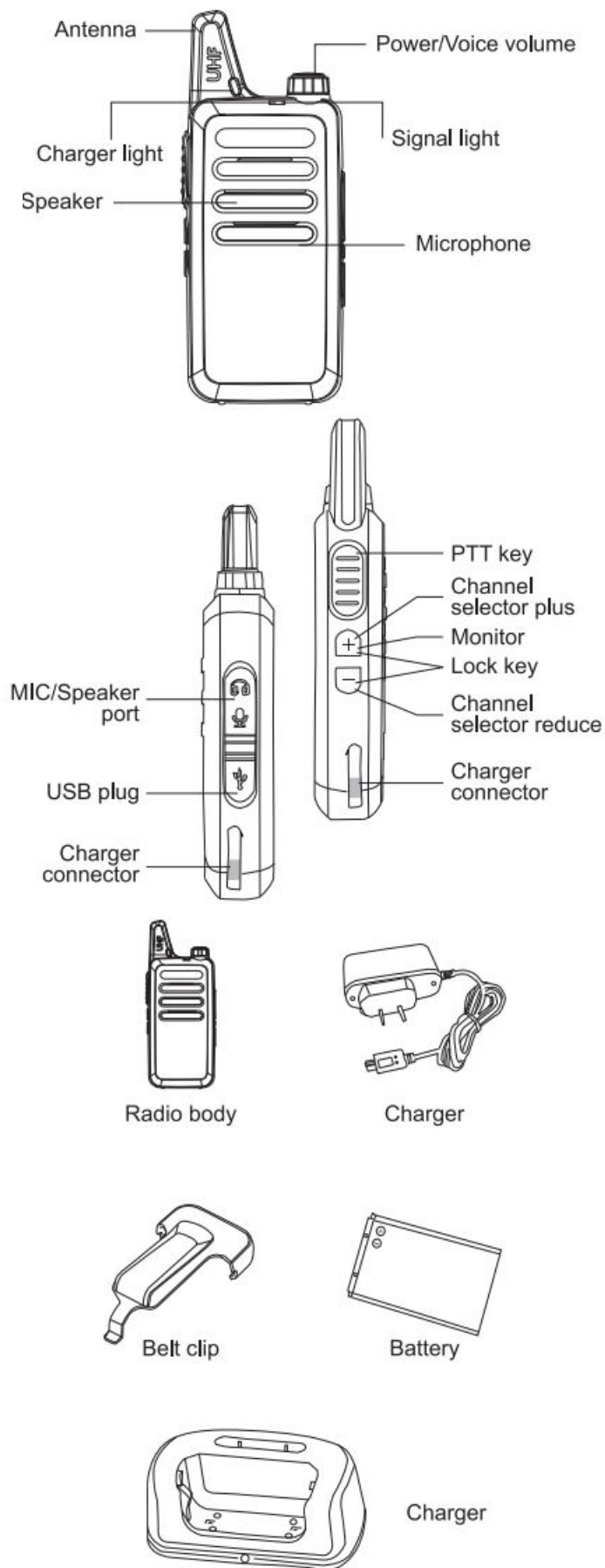


RETEKESS

**RETEKESS RT22 15 Channel Two-Way Radio**



## FUNCTIONS OPERATION



## MORE OPTIONAL ACCESSORIES



Acoustic tube headset



Throat mic

## GET ACQUANTED

### Monitor

This function can be realized by the long press of the default key. Press the monitor key, the Signal Indicate will change to Green.

### QT and DQT

This function mainly uses to avoid irrelative calling in certain channel. With this function, users can receive calling in corresponding channels only with the same QT/DQT.

- The battery is not charged in a factory. Please charge the battery before initial use or after long time storage.
- Repeat charging and discharging the battery 2 or 3 times and the battery would reach its maximum capacity, please replace or charge the battery when it is in low power.
- The quick consume of the power after normal charge shows exhaustion of the battery. Please contact your dealer and buy new approved battery.

### Time-out-timer

The purpose of the Time-out-timer is to prevent any signal person from using a channel for an extended period of time. If the transmission continues beyond 60 seconds, the transceiver will stop transmission and give out alarms. To stop the alarms, please release the PTT switch and the transceiver will resume the state of standby.

### Battery Saving

The radio would reduce its power consumption. If there is no signal or operation over 10 seconds, the battery saving function would be on automatically. When signal is received or with operation, the radio would switch to normal mode.

### Low Battery Waming

When the voltage fall down to lowest level, the tone of “Please Charge” will sound, required to replace battery or recharge the battery.

## ATTACHING AND REMOVING



### **WARNING**

Before using this two way radio, please read the manual which contains important operating instructions for safe usage, RF Energy Awareness, control information and operational instructions for compliance with RF Energy Exposure limits in applicable national and international standards, and also read the operational instructions for safe use.

- Test position and configuration Head SAR was performed with the device configured in the positions according to IEEE1528, and face up SAR was performed with the device 25mm from the phantom, Body SAR was performed with the belt clip on the device 0 mm from the phantom.
- The antenna in the packing is unique, please do not optionally change it.
- For safe operation, the antenna for the product shall be least 25mm away from your face, when speaking.
- Switching to other antennas is prohibited and will affect the radio performance.
- DO NOT use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.
- All batteries can cause property damage and/or a bodily injury such as burns if a conductive material touches exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become hot.
- Exercise care when removing NiMH or AA batteries. Do not use sharp or conductive tools to remove these batteries.
- Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse or another container with metal objects.
- Do not discard your battery in a fire.
- Do not replace the battery in any area labeled "Hazardous Atmosphere". Any sparks created in a potentially explosive atmosphere can cause explosion or fire.
- Do not disassemble, crush, puncture, shred or otherwise attempt to change the form of your battery.
- Do not dry a wet battery or damp battery with an appliance or heat source, such as a hair dryer or microwave oven.
- If the radio battery contact area has been submerged in water, dry and clean the battery contacts before attaching the battery to the radio.

## CAUTION

- Turn the radio off when charging the battery.
- Do not expose the charger to outside environment. Chargers should only be used indoors.
- Do not operate or disassemble the charger. Do not use a charger that has been dropped or damaged in any way.
- Never alter the AC cord or plug provided with the unit. If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician. An improper condition can result in a risk of electric shock.
- To reduce the risk of damage to the cord or plug, pull the plug rather than the cord when disconnecting the charger from the AC receptacle.
- To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
- Use of an attachment not recommended or sold by Eshow Solutions may result in a risk of fire, electric shock or personal injury.
- Make sure the cord is located so it will not be stepped tripped over or subjected to damage or stress.
- An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of a fire and/or electric shock. If an extension cord must be used, make sure that:
  - The pins on the plug of the extension cord are the same number, size and shape as those on the plug of the charger.
  - The extension cord is properly wired and in good condition.
- The supply cord of the AC adaptor cannot be replaced. If the cord is damaged, call customer service.

## WARNING

- The information listed below provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates with the FCC RF exposure limits of this radio.
- Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed or otherwise configured for electromagnetic compatibility.
- During transmissions, ] radio generates RF energy that can possibly cause interference with other devices or systems.
- To avoid electromagnetic interference and/or compatibility conflicts, turn off your radio in any facility where posted notices instruct you to do
  - so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy.
- When instructed to do so, turn off your radio when onboard an aircraft. Any use of a radio must be in accordance with applicable regulations per airline crew instructions.
- Pacemakers, Defibrillators or other Implanted Medical Devices
  - Consult with their physicians regarding the potential risk of interference from radio frequency transmitters, such as portable radios (poorly shielded medical devices may be more susceptible to interference).
- Turn the radio OFF immediately if there is any reason to suspect that interference is taking place.
- Do not carry the radio in a chest pocket or near the implantation site and carry or use the radio on the opposite side of their body from the implantable device to minimize the potential for interference.
- Some digital wireless radios may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.
- If you use any other personal medical device, consult the manufacturer of your device to determine if it is

adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

- Always check the laws and regulations on the use of radios in the areas where you drive.
  - Give full attention to driving and to the road.
  - Use hands-free operation, if available.
  - Pull off the road and park before making or answering a call, if driving conditions or regulations so require.
- Refer to the vehicle manufacturer's manual prior to installation of electronic equipment to avoid interference with airbag wiring not place a portable radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a portable radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to occupants of the vehicle.
- Turn off your radio prior to entering any area with a potentially explosive atmosphere. Only radio types that are especially qualified should be used in such areas as "Intrinsically Safe" Do not remove, install or charge batteries in such areas. Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death.

## **NOTE**

- The areas with potentially explosive atmosphere referred to above include fueling areas such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles (such as grain, dust or metal powders) and any other area where you would normally be advised to turn off your vehicle engine. Areas with potentially explosive atmospheres are often – but not always posted.

### **Blasting caps and areas**

- To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a blasting area, or in areas posted "Turn off two-way radios". Obey all signs and instructions.

## **TECHNICAL PARAMETERS**

<b>General</b>	
Operating Frequency	462.5500-462.7250MHz
<input checked="" type="checkbox"/> Output Power	1.2W
Channels	15
Modulation Type	FM(F3E)
Antenna	Integrated Antenna
Antenna Gain	1.8dB
Bandwidth	12.5KHz
Power Source	DC3.7V
Dimension	96*55*22mm
<b>transmit</b>	
<b>The maximum deviation</b>	<b><math>\leq \pm 2.5</math> KHz</b>
<b>Residual radiation</b>	<b>&lt;60dB</b>
<b>Current</b>	<b><math>\leq 1000</math>mA</b>
<b>Receiver</b>	
<b>Sensitivity</b>	<b>&lt;0.16<math>\mu</math>V(12dB SINAD)</b>
<b>Squelch Sensitivity</b>	<b>&lt;0.2<math>\mu</math>V</b>
<b>Intermodulation</b>	<b>50dB</b>
<b>Audio Power</b>	<b><math>\geq 300</math>mW</b>
<b>current</b>	<b><math>\leq 100</math>mA</b>
<b>Squelch current</b>	<b>20mA</b>

CH. NO	CH. Freq.	ERP	CTCSS/DCS
1	462.6250	1.2W	114.8
2	462.7250	1.2W	114.8/D026N
3	462.5625	1.2W	114.8
4	462.5875	1.2W	114.8
5	462.6125	1.2W	114.8
6	462.6375	1.2W	114.8
7	462.6625	1.2W	114.8
8	462.6875	1.2W	114.8
9	462.7125	1.2W	D026N
10	462.5500	1.2W	D026N
11	462.5750	1.2W	D026N
12	462.6000	1.2W	D026N
13	462.6500	1.2W	D026N
14	462.6750	1.2W	D026N
15	462.7000	1.2W	D026N

**NOTE**  
Above

channels are FRS license free channels



## **WARNING**

- United States Federal Communications Commission, Code of Federal Regulations: 47 CFR part 2.1093
- IEEE Std. 1528:2013 and KDB447498, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- American National Standards Institute (ANSI)/ Institute of Electrical & Electronic Engineers (IEEE) C95. 1-2005
- Institute of Electrical and Electronic Engineers (IEEE) C95.3-2002
- International Electrotechnical Commission IEC62209-2:2010

## **CAUTION**

- This product is in compliance to FCC RF Exposure requirements and refers to FCC website <https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm> search for FCC ID: 2AAR8RETEVISRT22 to gain further information include SAR Values.
- Your wireless hand-held portable transceiver contains a low-power transmitter. This product sends out radio frequency (RF) signals when the Push-to-Talk (PTT) button is pressed. The device is authorized to operate at a duty factor not to exceed 50%. In August 1996, the Federal Communications Commission (FCC) adopted RF exposure guidelines with safety levels for hand-held wireless devices.
- To control your exposure and ensure compliance with the general population or uncontrolled environment exposure limits, transmit no more than 50% of the time. The radio generates measurable RF energy exposure only when
- Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment and should not be made. To comply with FCC 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 transmitting.

## **FCC rules.**


Component (crystal, semiconductor, etc) not authorized by the FCC equipment authorization for this radio could violate FCC rules. Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited. To maintain compliance with FCC's RF exposure guidelines for body-worn operation, this radio has been tested and meets the FCC RF exposure guidelines when used with Eshow Radio Corp. accessories supplied or designated for this product. Use of other accessories may not ensure compliance with FCC RF exposure guidelines

- If you wear the radio on your body when transmitting always use Retevis supplied or approved belt clip, holster, case, or body harness for this product.
- If you do not use any accessories supplied or approved by Retevis, ensure the radio and its antenna are at least 1 inch (2.5cm) from your body when transmitting.
  1. If you do not use any accessories supplied or approved by Retevis, ensure the radio and its antenna are at least 1 inch (2.5cm) from your body when transmitting.
  2. This device must accept any interference, including interference that may cause undesired operation of the device.



### CAUTION

This EUT is in compliance with SAR for controlled exposure limits in IC RSS-102 and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528 and IEC 62209, this equipment should be installed and operated with minimum distance 1 cm between the radiator and your body. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

### Documents / Resources

	<p><a href="#">RETEKESS RT22 15 Channel Two-Way Radio</a> [pdf] User Manual RT22, 2AAR8RT22, RT22 15 Channel Two-Way Radio, 15 Channel Two-Way Radio</p>
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### References

-  [World Health Organization \(WHO\)](#)
-  [System Maintenance | Federal Communications Commission](#)