Two Way Radio

RT22

USER'S MANUAL

- 15 channel
- Super receive
- Strong anti-interference
- The cable copy
- signal prompt
- Scanning
- Sound
- Dustproof

◇◇ Warnings(US)

▲
Warning
- CHOKING HAZARD – Small Parts. Not for children under 3 years.

▲
Achtung
- ERSTICKUNGSGEFAHR – Kleinteile. Nicht für Kinder unter 3 Jahren geeignet.

▲
Waarschuwing
- VERSTIKKINGSGEVAAR – Bevat kleine onderdelen. Niet geschikt voor kinderen jonger dan 3 jaar.

▲
Aviso
- RISCO DE ASFIXIA – Peças pequenas. Produto não recomendado para crianças com menos de 3 anos.

MORE OPTIONAL ACCESSORIES

Acoustic tube headset

Throat mic

◇◇ Technical Parameters (US)

CH. NO	CH. Freq.	BW	FT/DTS/DCS
1	462.5625	12K	114.8
2	462.5875	12K	114.8/DCS06
3	462.6625	12K	114.8
4	462.6875	12K	114.8
5	462.7125	12K	114.8
6	462.5125	12K	114.8
7	462.6625	12K	114.8
8	462.6875	12K	114.8
9	462.7125	12K	DCS06
10	462.5500	12K	DCS06
11	462.5750	12K	DCS06
12	462.6000	12K	DCS06
13	462.6250	12K	DCS06
14	462.6750	12K	DCS06
15	462.7000	12K	DCS06

Note: Above channels are FRS license free channels

◇◇ Warnings

the phantom, Body SAR was performed with the belt clip on the device 0 mm from the phantom.

▲
WARNING
Antenna:
- The antenna in the packing is unique, please do not optional change.
- 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.

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◇◇ Warnning (CAN)

- Cet appareil est conforme aux limites d'exposition DAS contrôlées pour de la norme CNR-102 d'Industrie Canada et a été testée en conformité avecles méthodes de mesure et procédures spécifiées dans IEEE 1528 et IEC 62209.
- Cet appareil doit être installé et utilisé et utilisé avec une distance minimale de 1 cm entre l'émetteur et votre corps. Cet appareil et sa ou ses antennes ne doivent pas être co-localisés ou fonctionner en conjonction avec tout autre antenne ou transmetteur

▲
CAUTION
- Please refer to the following websites and Guidance documents for more information on what RF energy exposure is and how to control your exposure to assure compliance with established RF exposure limits: RSS-102, Safety Code 6 and www.who.int/en/.

◇◇ Get Acquainted

- 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.

◇◇ Warnings(US)

- 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.

▲
Advertencia
- PELIGRO DE ASFIXIA – Contiene piezas pequeñas.
No conveniente para niños menores de 3 años.

▲
Attention
- RISQUE D ETOUFFEMENT – Contient de petits éléments. Ne convient pas aux enfants de moins de 3 ans.

▲
Attenzione
- RISCHIO DI SOFFOCAMENTO – Contiene pezzi di piccole dimensioni. Non adatto a bambini di età inferiore a 3 anni.

◇◇ Warnings

▲
WARNING
Batteries:
- All batteries can cause property damage and/or 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 other 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.

◇◇ Technical Parameters (US)

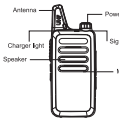
General	
Operating Frequency	462.5500~462.7250MHz
10 Output Power	1.2W
Channels	15
Modulation Type	FM/F3E
Antenna	Integrated Antenna
Antenna Gain	1.8dB
Bandwidth	12.5KHz
Power Source	DC3.7V
Dimension	54*90*22mm
transmit	
The maximum deviation	≤±2.5KHz
Residual radiation	<50dB
Current	≤1500mA
Receiver	
Sensitivity	≤-121dBm(12dB SINAD)
Squelch Sensitivity	≤-121dBm
Intermodulation	55dB
Audio Power	≥300mW
Current	≤200mA
Standby current	30mA

◇◇ Warnings(CAN)

- International Commission on Non-Ionizing Radiation Protection (ICNIRP).e.
- International Electrotechnical Commission IEC62209-2:2010

▲
CAUTION
SAR Radiation Exposure Statement
- This EUT is 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.

◇◇ Function Operations



◇◇ Warnings(US)

- Component (crystal, semiconductor, etc) not authorized by the FCC equipment authorization for this radio could violate FCC rules.
Note: Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

▲
WARNING
Body Worn Operation
- 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.

◇◇ Optional Functions

- **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 Warning**
When the voltage fall down to lowest level, the tone of "Please Charge" will sound, required to replace battery or recharge the battery.

◇◇ Warnings

Note:
- The areas with potentially explosive atmosphere referred to include those include fuelling 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.

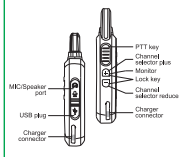
Blasting Caps and Areas
- To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a blasting area, or in areas posted "Turn off two-way radios". Obey all signs and instructions.

◇◇ Warnings

- 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
Battery Charger Safety Instructions:
- 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.

◇◇ Function Operations



◇◇ Warnings(CAN)

▲
CAUTION
Compliance with RF Exposure Standards

Your radio is designed to comply with the following national and international standards and guidelines regarding exposure of human beings to radio frequency electromagnetic energy:
- American National Standards Institute (ANSI)/Institute of Electrical & Electronic Engineers (IEEE) C95. 1.
- IEEE Std. 1528:2013 and KDB447498, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- Ministry of Health (Canada) Safety Code 6 & Industry Canada RSS-102.

◇◇ Optional Functions

- **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 imitative calling in certain channel. With this function, users can receive calling in corresponding channels only with the same QT/DQT.

◇◇ Warnings(US)

- 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 transmitting.

▲
WARNING
- 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

◇◇ Warnings

- 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 ontripped over or subjected to damage or stress.

◇◇ Warnings

For Vehicle with Air Bags
- Refer to the vehicle manufacturer's manual prior to installation of electronic equipment to avoid interference with air bag wiringDo 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.

Potentially Explosive Atmosphere
- 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.

◇◇ Warnings(CAN)

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WARNING
This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:
- This device may not cause interference, and
- 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. Exploitation est autorisée aux deux conditions suivantes:
- l'appareil ne doit pas produire de brouillage, et
- l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre lefonctionnement.

◇◇ Standard Accessories

Radio body Charger

Belt clip Battery

◇◇ Warnings(US)

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CAUTION
- This product is compliance to FCC RF Exposure requirements and refers to FCC website https://apps.fcc.gov/oet/ea/reports/Generic/Search.cfm search for FCC ID :2AARBRETEVISRT22 to gain further information include SAR Values.

▲
WARNING
SAFETY INFORMATION
- 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 Commissions (FCC) adopted RF exposure guidelines with safety levels for hand-held wireless devices.

◇◇ Attaching & Removing

◇◇ Warnings

Hearing Aids
- 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.

Other Medical Devices
- 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.

Use of Communication Devices While Driving
- 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.

◇◇ Warnings

- 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
- This information listed below provides the user with the information needed to make him or her aware of RF exposure, and what to do to as-sure that this radio operates with the FCC RF exposure limits of this radio.

◇◇ Optional Accessories

Charger

◇◇ Warnings

WARNINGS

Product safety and RF Exposure for two way radio:

▲	Before using this two way radio, please readthe 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.

SAR Test method description
- 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

◇◇ Warnings(US)

▲
WARNING
Your radio is designed to comply with the following national and international standards and guidelines regarding exposure of human beings to radio frequency electromagnetic energy:
- 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

◇◇ Warnings

Electromagnetic Interference/Compatibility Note:
- 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.

Facilities
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.

Aircraft
- 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.

◇◇ Warnings

Medical Devices
- Pacemakers, Defibrillators or other Implanted Medical Devices

Persons with pacemakers, implantable cardioverter defibrillators (ICD's) or other active implantable medical devices (AIMD) should:
- 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.