Leading-in and Writing the contacts from the address list

1. Open programming software
2. Leading-in contacts file (format: *.CVS).
3. Writing contacts

Reading and Leading-out the contacts from the address list

1. Open programming software
2. Reading contacts
3. Leading-out contacts

Troubleshooting

Symptom	Try This
No power	● Battery power may have run out, please update battery or recharge it. ● Battery may not be properly installed, please take it off and re–install.
Battery lasts a short time after charge	● The battery life is over, please replace new battery.
Can not talk to other members of your group.	● Verify transmitting is within effective operating range. ● Verify channel, frequency and code settings are correct.
Hearing other conversation on a channel (not group members*)	● Please change code settings, including all two way radio settings of your group.
Radio keep beeping	● Radio channel is empty. Please turn to other channels or programming channel first.

CTCSS/DCS

CTCSS Standard Frequency Table

1 - 62.5	14 - 100.0	27 - 156.7	40-196.6
2 - 67.0	15 - 103.5	28 - 159.8	41-199.5
3 - 69.3	16 - 107.2	29 - 162.2	42-203.5
4 - 71.9	17 - 110.9	30 - 165.5	43-206.5
5 - 74.4	18 - 114.8	31 - 167.9	44-210.7
6 - 77.0	19 - 118.8	32 - 171.3	45-218.1
7 - 79.7	20 - 123.0	33 - 173.8	46-225.7
8 - 82.5	21 - 127.3	34 - 177.3	47-229.1
9 - 85.4	22 - 131.8	35 - 179.9	48-233.6
10 - 88.5	23 - 136.5	36 - 183.5	49-241.8
11 - 91.5	24 - 141.3	37 - 186.2	50-250.3
12 - 94.8	25 - 146.2	38 - 189.9	51-254.1
13 - 97.4	26 - 151.4	39 - 192.8	

CTCSS Standard Frequency Table

023	072	152	244	343	432	606	723
025	073	155	245	346	445	612	731
026	074	156	251	351	464	624	732
031	114	162	261	364	465	627	734
032	115	165	263	365	466	631	743
043	116	172	265	371	503	632	754
047	125	174	271	411	506	654	
051	131	205	306	412	516	662	
054	132	223	311	413	532	664	
065	134	226	315	423	546	703	
071	143	243	331	431	565	712	

Safety Warning

WARNING

This device 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

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. Body SAR was also performed with the headset attached and without.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(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 auxappareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre lefonctionnement.

CAUTION

Compliance with RF Exposure Standards

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

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. Body SAR was also performed with the headset attached and without.

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/.

CAUTION

This product is compliance to FCC RF Exposure requirements and refers to FCC website https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm search for FCC ID: 2AAR8AILUNCEHD1 to gain further information include SAR Values.

IC 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.

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 procé dures spécifiéés dans IEEE 1528 et IEC 62209.

Cet appareil doit étre 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 étre co-localisés ou fonctionner en conjonction avec tout autre antenne ou transmetteur

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.

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 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 Ailunce 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 Ailunce supplied or approved belt clip, holster, case, or body harness for this product.
If you do not use any accessories supplied or approved by Ailunce, ensure the radio and its antenna are at least 1 inch (2.5cm) from your body when transmitting.
Use the Analog Transceiver in the environment with the temperature between -10℃ and 40℃, otherwise, it may damage your Analog Transceiver. It can be operating under 2000m.

WARNING

Antennas

1) The antenna in the packing is unique, please do not optional change.
2) For safe operation, the antenna for the product shall be least 25mm away from your face, when speaking.

1) 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.

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 the rechargeable 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.
- 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:

This document contains important safety and operating instructions. Read these instructions carefully and save them for future reference.
Before suing the battery charger, read all the instructions and cautionary markings on

- The charger
- The battery, and
- The radio using the battery

To reduce risk of injury, charge only the rechargeable Ailunce-authorized batteries. Other batteries may explode, causing personal injury and damage.

Use of accessories not recommended by Ailunce may result in risk of fire, electric shock, or injury.

To reduce risk of damage to the electric plug and cord, pull by the plug rather than the cord when disconnecting the charger.

An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in risk of fire and electric shock, If an extension cord must be used, make sure that the cord size is 18AWG for lengths up to 6.5 feet(2.0m), and 16AWG for lengths up to 9.8 feet(3.0m).

To reduce risk of fire, electric shock, or injury, do not operate the charger if it has been broken or damaged in any way.

Take it to a qualified Ailunce service representative.

Do not disassemble the charger: it is not repairable and replacement parts are not available. Disassembly of the charger may result in risk of electrical shock or fire.
To reduce risk of electric shock, unplug the charger from the AC outlet before attempting any maintenance or cleaning.

Operational safety guidelines

1. Turn the radio off when charging the battery.
2. Do not expose the charger to outside environment. Chargers should only be used indoors.
3. Do not operate or disassemble the charger. Do not use a charger that has been dropped or damaged in any way.
4. 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.
5. 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.
6. To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
7. Use of an attachment not recommended or sold by Ailunce Solutions may result in a risk of fire, electric shock or personal injury.
8. Make sure the cord is located so it will not be stepped on, tripped over or subjected to damage or stress.
9. 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.

10. The supply cord of the AC adaptor cannot be replaced. If the cord is damaged, call customer service.
11. Maximum ambient temperature around the power supply equipment must not exceed 40°C (104°F).

DANGER

12. When the conductive metals such as jewellery, key or decorative chains touch the battery terminals, all the batteries are likely to cause damage to the items or personal injury. These conductive metals may form a short circuit and generates much heat. Do deal with any battery carefully, especially when put it into pocket, wallet or other metallic containers.

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 as-sure that this radio operates with the FCC RF exposure limits of this radio.

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, Ailunce, INC. 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.

Medical Devices – Pacemakers, Defibrillators or other Implanted Medical Devices

Persons with pacemakers, Implantable cardioverter defibrillators (ICDs) 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.

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.

For Vehicle with Air Bags

Refer to the vehicle manufacturer's manual prior to installation of electronic equipment to avoid interference with air bag wiring. Do 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.

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.

WARNING

Use only Ailunce’s approved supplied or replacement belt clip, batteries, charger, antennas and accessories. Use of non-manufacturer-name approved batteries, and accessories may exceed the RF exposure guidelines.

WARNING

Please read the following brief instructions, non-compliance with these rules may cause danger or violate the law.

Obey the local government regulation before using this radio, improper use may violate the law and the punished.
Do not charge the transceiver and battery pack when they are wet.
Ensure that there are no metallic items located between the transceiver and the battery pack.
Don not use the options not specified by Ailunce
If the die-cast chassis or other transceiver part is damaged, do not touch the damaged parts.
If the headset or headphone is connected to the transceiver, reduce the transceiver volume. Pay attention to the volume level when turning the squelch off.
Do not place the microphone cable around your neck while near machinery that may catch the cable.
Do not please the transceiver on unstable surfaces.
Ensure that the end of the antenna does not touch your eyes.
When the transceiver is used for long transmissions, the radiator and chassis will become hot.
Don not touch these locations when replacing the battery pack.
Do not immerse the transceiver in water.
Always switch the transceiver power off before installing optional accessories.

The charger is the Device that disconnects the units from the AC mains line, the AC plug should be readily accessible.
Do not transmit too long, for the radio may heat and hurt the user

WARNING

TURN THE TRANSCEIVER POWER OFF IN THE FOLLOWING LOCATIONS:

In explosive atmospheres (inflammable gas, dust particles, metallic powders, grain powders, etc.)
While taking on fuel or while parked at gasoline service stations.
Near explosives or blasting sites.
In aircraft. (Any use of the transceiver must follow the instructions and regulations provided by the airline crew.)
Where restrictions or warnings are posted regarding the use of the radio devices, including but not limited to medical facilities.
Near persons using pacemakers.

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

GUARANTEE CARD

Model Number: _____

Serial Number: _____

Purchasing Date: _____

Dealer: _____ Telephone: _____

User's Name: _____ Telephone: _____

Address: _____ Post Code: _____

REMARKS:

1. This guarantee card to be kept by the user,no replenishment if lost.
2. This guarantee card to be filled & chopped by the dealer,or it is invalid.
3. Don't alter the guarantee card,please confirm the serial number on the guarantee card is same as that on the machine.
4. Two–year guarantee,charger,battery,earphone,antenna are not under guarantee.
5. The user can get repairing service from the following ways:
   a. Go to the shop where you buy the machine
   b. Our local repairing agent

Shenzhen Retevis Technology Co., Ltd

Please cut along with this line

FCC Warning:

RF EXPOSURE INFORMATION

– This radio is designed for and classified as "Occupational/Controlled Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards; NOT intended for use in an General population/uncontrolled environment.
– 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 3.5dBi 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 operation, the separation distance between user and the antenna shall be at least 48cm, this separation distance will ensure that there is sufficient distance from a properly installed externally-mounted antenna to satisfy the RF exposure requirements.
– 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. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

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.

– For a Class B digital device or peripheral, the instructions furnished to the user shall include the following or similar statement, placed in a prominent location in the text of the manual:
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:
—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

IC Warning:

This device complies with Industry Canada licence‑exempt RSS standard(s): Operation is subject to the following two conditions:
(1) This device may not cause interference, and
(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, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Push-to-Talk and body-worn configurations. The device complies with RF specifications when the device used at 25 mm from your front face and 0 mm from your body. All qualified end-users of this device must have the knowledge to control their exposure conditions and/or duration to comply with occupational/controlled Exposure limit and requirements. A label, as described in this filing, must be displayed on the device to direct users to specific training information for meeting occupational exposure requirements. The highest reported SAR values for Front-of-face: XXXW/Kg , body-worn: XXXW/Kg.

Warning! : This portable radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as “Occupational Use Only,” meaning it must be used only during the course of employment by individuals aware of the hazards and the ways to minimize such hazards. This radio is NOT intended for use by the “General Population” in an uncontrolled environment.

CE Warning:

Caution

1) Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
2) Adapter shall be installed near the equipment and shall be easily accessible.
3) The device operating temperature range is -20~40°.
4) The plug considered as disconnect device of adapter.
5) The device complies with RF specifications when the device used at 25mm from your front face and 0mm from your body to antenna.
6) Declaration of Conformity
Hereby, Shenzhen Retevis Technology Co., Ltd. declares that this DMR Two Way Radio product is in compliance with essential requirements and other relevant provisions of Directive 2014/53/EU.

Technical Specification

General Specification

Frequency Range	VHF : 136-174MHz, UHF : 400-480MHz
Modulation Type	Analog: FM Digital: 4FSK
Channel Separation	Analog: 12.5kHz, 20kHz, 25kHz
Digital: 12.5kHz	
Rated Output Power	High: 4W Low: 1W

GPS
Modulation: BPSK
Operation frequency: 1575.42MHz

Engineering personnel setting up those frequency ranges whit Customer Programming Software(CSP), the mechanism implemented in the product to avoid the end user to managing changes in the definition of operating frequency ranges in order to avoid usage of un-allowed frequency ranges.

Frequency allocation

Country	Frequency Range(MHz)	Max.transmit power (W)
Germany(DE)	146 MHz - 146.36 MHz,146.92 MHz - 148.4 MHz, 149.14 MHz - 149.88 MHz,150.05 MHz - 151.06 MHz, 151.1 MHz - 153 MHz,153.74 MHz - 155.58 MHz, 155.76 MHz -156MHz,158.34 MHz - 160.22 MHz, 160.24 MHz - 160.28 MHz,160.32 MHz - 160.48 MHz, 160.56 MHz - 160.6 MHz,161.02 MHz - 161.04 MHz, 161.1 MHz - 161.12 MHz,161.16 MHz - 161.2 MHz, 162.94 MHz -164.82 MHz,164.84 MHz - 164.88 MHz, 164.9 MHz - 165.18 MHz,165.7 MHz - 166.44 MHz, 166.84 MHz - 166.86 MHz,166.9 MHz - 166.92 MHz, 166.94 MHz - 166.96 MHz,166.98 MHz - 167.1 MHz, 167.18 MHz - 167.54 MHz,170.3 MHz - 170.54MHz, 170.56 MHz - 170.58 MHz,170.66 MHz - 170.72 MHz, 170.8 MHz - 170.84 MHz,171.44 MHz - 171.46 MHz, 171.5 MHz - 171.52 MHz,171.54 MHz - 171.56 MHz, 171.58 MHz - 171.7 MHz,171.78 MHz - 172.15 MHz,	5
France (FR)	151 MHz - 174 MHz	5
United Kingdom (UK)	137.975 MHz - 138.2 MHz,139.51875 MHz - 140.98125MHz, 143 MHz - 144 MHz,148.01875 MHz - 148.98125 MHz, 153.025 MHz - 153.475 MHz,154 MHz - 155 MHz, 157.205 MHz - 165.0375 MHz,165.05 MHz - 173.09375 MHz	5

Country	Frequency Range(MHz)	Max.transmit power (W)
Greece(EL)	138 MHz - 143.6 MHz,146 MHz - 147.6 MHz, 147.9 MHz -148.2 MHz,150.05 MHz - 151.6 MHz, 154.5 MHz - 156.7625 MHz,156.8375 MHz -161.9625 MHz, 162.0375 MHz - 174 MHz	5
Spain(ES)	146 MHz - 149.9 MHz,150.05 MHz -156.4875 MHz, 156.5625 MHz - 156.7625 MHz,156.8375 MHz - 174 MHz	5
Ireland (IE)	154 MHz - 156.7625 MHz	5
Belgium(BE)	146 MHz - 156 MHz,157.45 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz,162.05 MHz - 169.4 MHz, 169.825 MHz - 174 MHz	5
Croatia (HR)	138 MHz - 144 MHz,146 MHz-156 MHz, 157.45 MHz - 160.6 MHz,160.975 MHz - 161.475 MHz, 162.0375 MHz - 174 MHz	5
Cyprus (CY)	146 MHz -156 MHz,157.45 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz,162.05 MHz - 174 MHz	5
Portugal (PT)	148 MHz - 149.9 MHz,150.05 MHz - 156.4875 MHz 156.8375 MHz - 174 MHz	5
Malta(MT)	146 MHz - 156 MHz,157.45 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz,162.0375 MHz - 174 MHz	5
Luxembourg (LU)	146 MHz - 174 MHz	5
Bulgaria(BG)	146 MHz -161.9625 MHz,161.9875 MHz-174 MHz	5
Latvia (LV)	146 MHz - 148 MHz,148.8 MHz - 149.9 MHz, 150.05 MHz - 156.4875 MHz,156.5625 MHz - 156.7625 MHz, 156.8375 MHz - 174 MHz	5
Slovenia(SI)	146 MHz -156.4875 MHz,156.9375 MHz - 161.9625 MHz, 162.0375 MHz - 174 MHz	5
Czech Republic (CZ)	148.2 MHz - 149.05 MHz,150.05 MHz - 150.975 MHz, 152.8 MHz - 153.65 MHz,157.45 MHz - 158.375 MHz	5

Country	Frequency Range(MHz)	Max.transmit power (W)
Denmark(DK)	146 MHz - 149.9 MHz,150.05 MHz - 153 MHz, 154 MHz - 156.4875 MHz,156.8375 MHz -174 MHz	5
Estonia(EE)	150.05 MHz - 156 MHz,157.45 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz,162.05 MHz - 169.4 MHz, 169.825 MHz - 174 MHz	5
Lithuania(LT)	146 MHz - 156 MHz,157.45 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz,162.05 MHz - 174 MHz	5
Hungary(HU)	148 MHz - 149.9 MHz,156 MHz - 156.7625 MHz, 156.8375 MHz - 167.3 MHz,169.6375 MHz - 169.7125 MHz, 169.7625 MHz - 169.7875 MHz,169.8125 MHz - 174 MHz	5
Austria(AT)	156.4875 MHz - 156.5125 MHz, 160.3 MHz - 160.300001 MHz, 169.4 MHz - 169.8125 MHz	5
Poland(PL)	147.8 MHz - 147.975 MHz, 150.05 MHz - 151.625 MHz, 151.775 MHz - 156 MHz, 157.425 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz, 162.05 MHz - 164.475 MHz, 167.5 MHz - 168.5 MHz, 169.825 MHz - 170.85 MHz, 171.15 MHz -174 MHz	5
Romania (RO)	146 MHz - 149 MHz, 149.55 MHz - 149.8 MHz, 150.05 MHz - 156 MHz, 159.175 MHz - 159.5 MHz, 160 MHz - 160.6 MHz, 160.975 MHz - 161.125 MHz, 161.275 MHz - 161.475 MHz, 164.05 MHz - 164.3 MHz, 165.2 MHz -169.4 MHz, 169.6125 MHz -174 MHz	5
Slovakia(SK)	146 MHz - 149.9 MHz, 150.05 MHz - 153.5625 MHz, 155.5125 MHz - 156 MHz, 156.8375 MHz - 161.9375 MHz, 162.5 MHz - 164.4875 MHz, 165.5125 MHz - 170.4875MHz, 172.5125 MHz - 174 MHz	5
Finland(FI)	146.30625 MHz - 146.79375 MHz, 146.80625 MHz - 146.89375 MHz, 146.90625 MHz - 148.26875 MHz, 148.28125 MHz - 149.39375 MHz, 149.40625 MHz - 149.89375 MHz, 150.05 MHz - 151 MHz, 151.00625 MHz - 151.39375 MHz, 151.40625 MHz - 151.49375 MHz, 151.50625 MHz - 152.86875 MHz, 152.88125 MHz - 153.99375 MHz,	5

Country	Frequency Range(MHz)	Max.transmit power (W)
Finland(FI)	154.00625 MHz - 154.49375 MHz, 154.50625 MHz - 154.64375 MHz, 154.65625 MHz - 154.89375 MHz, 157.45 MHz - 158.8 MHz, 161.175 MHz - 161.375 MHz, 162.05 MHz - 163.4 MHz, 165.3 MHz - 165.75 MHz, 165.775 MHz - 165.975 MHz, 166 MHz - 167.675 MHz, 167.7 MHz - 168.55 MHz, 168.575 MHz - 169.4 MHz, 169.61875 MHz -169.80625MHz, 169.825 MHz - 169.875 MHz, 169.9 MHz - 170.35 MHz, 170.375 MHz - 170.575 MHz, 170.6 MHz - 172.275 MHz, 172.3 MHz - 173.15 MHz, 173.175 MHz - 174 MHz,	5

Restrictions are valid for the European country

Restrictions are valid for the following countries:
Germany(DE),France (FR),United Kingdom (UK), Greece(EL),Spain(ES),Ireland (IE),Belgium(BE), Croatia (HR),Cyprus (CY),Portugal (PT), Malta(MT),Luxembourg (LU),Bulgaria(BG),Latvia (LV),Slovenia(SI),CzechRepublic(CZ), Denmark(DK),Estonia(EE),Lithuania(LT),Hungary(HU),Austria(AT), Poland(PL),Romania (RO),Slovakia(SK), Finland(FI), Sweden(SE), Italy(IT), Netherlands(NL).

Country	Frequency Range(MHz)	Max.transmit power (W)
Germany(DE)	406.1-430 ,440-470	4
France (FR)	406.1-430,444.5-447, 451.5-460, 461.5-470	4
United Kingdom (UK)	410-430 ,440-470	4
Italy(IT)	440-443,445-470	4
Greece(EL)	406.1-430 ,440-470	4
Spain(ES)	406.1-430 ,440-470	4
Ireland (IE)	410 - 430,440 - 455, 456 - 459,460 - 470	4
Belgium(BE)	406.1-430 ,440-470	4
Croatia (HR)	406.1-430 ,440-470	4
Cyprus (CY)	406.1-430 ,440-470	4
Portugal (PT)	440-470	4
Malta(MT)	406.1-430 ,440-470	4
Luxembourg (LU)	410-430,440- 470	4
Bulgaria(BG)	410 -430,440-470	4
Latvia (LV)	406.1-430,440-450,456 -470	4
Slovenia(SI)	406.1-430 ,440-470	4
Czech Republic (CZ)	448 - 451.3 ,457.38 - 461.3 ,467.38 - 470	4
Denmark(DK)	406.1-430 , 450 - 470	4
Estonia(EE)	406.1 - 410,412.5 - 420 , 422.5-430 ,440 - 442.5, 443 - 450,446 -446.2,450 -453 ,457.575 - 463,467.575 -470	4
Lithuania(LT)	406.1 - 410 , 413 - 418.6 ,423- 428.6 ,440 - 450 , 450 - 452.9875 ,458.1125 - 462.9875 ,467.4875 - 467.5875	4

Country	Frequency Range(MHz)	Max.transmit power (W)
Hungary(HU)	417 - 420,442 - 445,456 - 460, 461.3 - 470	4
Netherlands(NL)	410 -430,440-470	4
Austria(AT)	444.9 - 444.900001, 450 - 456, 457.33 - 457.330001, 457.45 - 458.3,460 -470	4
Poland(PL)	448 - 449.5,457 - 460,467 - 470	4
Romania (RO)	408 - 410.8,415 - 420.8,425 - 429.8, 440 - 450.55, 457.5 - 458.2, 460 - 460.55,467.5 - 468.2	4
Slovakia(SK)	441.025 - 451.31,455.73 - 461.31,465.73- 470	4
Finland(FI)	407.525 - 408.55,410.0125 - 410.8875,417.525 - 417.9, 419.15 - 419.525,419.55625 - 419.71875,420.0125 - 420.8875, 426.35 - 427.5,427.525 - 427.9, 429.15 - 429.525, 429.55625- 429.71875,440.0125 - 440.5875, 440.60625 - 440.89375,442.775 - 443, 443.025 - 444, 444.025 - 444.525,444.55 - 444.975,445 - 446, 447.00625 - 447.29375,447.30625 - 447.70625, 449.025 - 449.525,449.55 - 449.975, 450.325 - 452.475, 452.525 - 452.975,453.0125 - 453.6625,469.725 - 469.975	4
Sweden(SE)	406.1 -430, 442 - 444,444.5875 - 452.5, 457.5 - 462.5,467.5 - 480	4

Restrictions are valid for the European country

Restrictions are valid for the following countries:
France (FR) , United Kingdom (UK) , Italy(IT) , Ireland (IE) , Portugal (PT) , Luxembourg (LU) , Bulgaria(BG) ,Latvia (LV),Czech Republic (CZ) ,Denmark(DK) ,Estonia(EE) ,Lithuania(LT) , Hungary(HU) , Netherlands(NL) ,Austria(AT) , Poland(PL) ,Romania (RO) ,Slovakia(SK) , Finland(FI) ,Sweden(SE)

FCC Statement

– This radio is designed for and classified as “Occupational/Controlled Use Only”, meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards; NOT intended for use in an General population/ uncontrolled environment.
– 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. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
– Output power listed is rated conducted. This device must be restricted to workrelated operations only in an Occupational/Controlled RF exposure environment and must operate with a duty factor not exceeding 50%. This transmitter may operate with the antenna(s) documented in this filing in Pushto- Talk and body-worn configurations. RF exposure compliance is limited to the specific belt-clip and accessory configurations as documented in this filing and the separation distance between user and the device or its antenna shall be at least 2.5 cm. All qualified end-users of this device must have the knowledge to control their exposure conditions and/or duration to comply with occupational/controlled Exposure limit and requirements. The highest reported SAR values for Face-held, body-worn are 1.885W/Kg, 3.806 W/Kg.

(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.
– For a Class B digital device or peripheral, the instructions furnished to the user shall include the following or similar statement, placed in a prominent location in the text of the manual:
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:
—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

RF Specification			
Support Frequency Range:	136-174MHz, 400-480MHz		
Permitted frequency range: *1	136-174MHz, 400-406MHz, 406.1-480MHz		
Rated Output Power:	☒ High Power: 4W	☒ Low Power: 1W	
Modulation Type:	Analog:	FM	
	Digital :	4FSK	
Supported Digital Protocol: *2	DMR		
Channel Separation:	Analog:	☒ 12.5kHz	
	Digital :	☐ 6.25kHz	☒ 12.5kHz
Emission Designator: *3	Analog:	11K0F3E	
	Digital:	7K60FXW, 7K60FXD	
Support data rate:	9.6kbps		
Antenna Type:	External		