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Manual Scope

This manual is intended for use by experienced technicians familiar with similar types of communication equipment. It contains all service information required for the equipment and is current as of the publication data.

Product Safety and RF Exposure for Portable Two-Way Radios Compliance with RF Energy Exposure Standards

NOTICE: This radio is intended for use in occupational/controlled applications where users have been made aware of the potential for exposure and can exercise control over their exposure. This radio device is **NOT** authorized for general population, consumer or similar use.

BEFORE USING THIS RADIO, READ THE TRAINING MATERIAL BELOW WHICH CONTAINS IMPORTANT OPERATING INSTRUCTIONS FOR SAFE USAGE AND RF ENERGY AWARENESS AND CONTROL INFORMATION FOR COMPLIANCE WITH RF ENERGY EXPOSURE LIMITS IN APPLICABLE NATIONAL AND INTERNATIONAL STANDARDS.

Federal Communication Commission (FCC) Regulations

The FCC has established limits for safe exposure to radio frequency (RF) emissions from portable two-way radios. The FCC requires manufacturers to demonstrate compliance with RF exposure limits before portable two-way radios can be marketed in the U.S. When two-way radios are approved for occupational/controlled environment exposure limits, the FCC requires users to be fully aware of, and exercise control over, their exposure. Awareness and control of RF exposure can be accomplished by the use of labels, or by education and training through appropriate means, such as information and instructions in user manuals or safety booklets. Your Advanced Wireless two-way radio has an RF exposure information label in the battery compartment. The training material below includes useful information about RF exposure and helpful instructions on how to control your RF exposure.

Your Advanced Wireless two-way radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to RF electromagnetic energy. In terms of measuring RF energy for compliance with FCC exposure guidelines, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.

Compliance and Control Guidelines and Operating Instructions for Portable Two-Way Radios

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits, always adhere to the following procedures:

- * Transmit no more than 50% of the time. To transmit (talk), push the Push-To-Talk (PTT) button. To receive calls, release the PTT button. Transmitting 50% of the time or less is important since the radio generates measurable RF energy exposure only when transmitting (in terms of measuring standards compliance).

- * Hold the radio in a vertical position in front of the face with the microphone positioned at least one inch (2.5 cm) away from the lips. Keeping the radio at the proper distance is important since RF exposure decreases with increasing distance from the antenna.

- * For body-worn operation, always use the radio with the AWC Belt-Clip Part No.: 420855203393. AWC-approved accessories, antennas, and device combinations have been tested and comply with the occupational/controlled environment RF exposure limits. The use of non-AWC approved accessories may result in exposure levels that exceed the RF exposure limits for the occupational/controlled environment.

- * If you are not using a body-worn accessory and are not using the radio held in front of the face, ensure the radio is kept a minimum of 0.7 cm from the body when transmitting.

Keeping the radio at a proper distance is important since RF exposure decreases with increasing distance from the antenna.

FCC license Information

Your Advanced Wireless Communications radio operates on communications frequencies which are subject to FCC (Federal Communications Commission) Rules & Regulations. FCC Rules require that all operators using Private Land Mobile radio frequencies obtain a radio license before operating their equipment. Application for license must be made on FCC form 601, and schedules D, E, and G.

FAX: Forms can be obtained by fax from the FCC Fax-On-Demand system. Call 1-202-418-0177 from your fax machine and request document number 000600 for the form, schedules, and instructions.

MAIL: Forms can be ordered by telephone, and will be sent to you by first class mail. Call the FCC Forms Hotline at 1-800-418-FORM (1-800-418-3676).

INTERNET: Form 601 and instructions can be downloaded from the FCC Forms website at: <http://www.fcc.gov/Forms/Form601/601.html>

Before filling out your Form 601 application Technical Data section, you must decide which frequency (or frequencies) you will operate on. Refer to the frequency chart on page 26.

Questions? Call the FCC for license application questions at 1-888-CALL-FCC (1-888-225-5322).

If you have any questions, call Advanced Wireless Communications:
1-800-475-5852

Notices to The User

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.

One or more of the following statements may be applicable:

FCC WARNING

This equipment generates or uses radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

INFORMATION TO THE DIGITAL DEVICE USER REQUIRED BY THE FCC

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 generate 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 the 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 to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer for technical assistance.

SAFETY INFORMATION:

Your wireless portable two-way radio has been designed using a low power transmitter. When the **PTT** switch is pressed, the radio generates radio frequency (RF) electromagnetic energy (EME). This radio is designed to comply with the FCC Report and Order FCC 96-326 (August, 1996).

User Safety Information

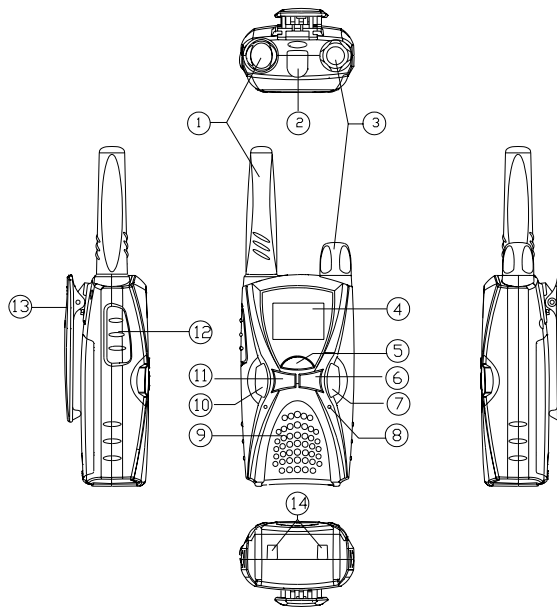
The following precautions are recommended for personnel safety:


- DO NOT transmit until all RF connectors are verified secure and any open connectors are properly terminated.
- SHUT OFF and do not operate this equipment near electrical blasting caps or in an explosive atmosphere.
- When in vehicles with an airbag, do not place a portable radio in the area over an airbag or in the airbag deployment area.
- Do not expose the radio to direct sunlight for a long time nor place it close to a heating source.
- Do not use any portable radio with a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn may result.
- This equipment should be serviced by a qualified technician only.

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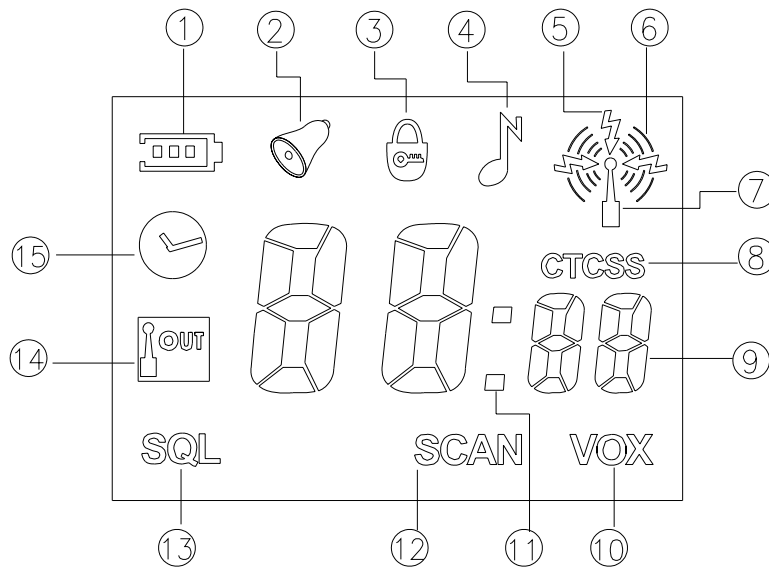
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Brief Introduction



1. Antenna
2. Speaker/Mic Jack
3. Power/Volume Knob
Rotate the Power/Volume Knob clockwise until a “click” is heard to turn the radio on, fully counter clockwise to turn the radio off. When the radio is on, turn the knob to adjust volume.
4. LCD Display
Indicate operation status of the radio. (Refer to “LCD Display” for details)
5. MENU key
Used to enter the menus.
6. “-” key
Used to select the channel downwards or change menu settings.
7. MON key
Press MON key to monitor the selected channel for activity.
8. MIC
9. Speaker
10. “”key (CALL key)
If Call feature is enabled, briefly press (less than one second) the CALL key to transmit a call signal or save the current setting and go to standby mode; Press and hold the CALL key in standby mode to switch between keypad lock and unlock.
11. “+” key
Used to select the channel upwards or change menu settings.
12. PTT button
Press and hold PTT, radio operates in transmit mode. Release PTT, radio returns to receive mode. In channel setting mode, press PTT key to go back to “select desired channel” menu.
13. Belt Clip
Used to clip radio on your belt.
14. Charging Connectors
Connect the charging connectors with that on the charger to begin charging.

LCD Display



1. Battery Meter, used to indicate the battery power;
2. Appears when setting the Alarm or the Alarm is on; Flashes when the Alarm rings;
3. Appears when keypad lock is on;
4. Appears when setting the call tone;
5. Appears when receiving signals from the selected channel;
6. Appears when transmitting;
7. Appears when transmitting/receiving is enabled;
8. Indicate that the number on the LCD displays CTCSS and channel number. The number under it indicates current CTCSS;
9. Two large "8" and two small "8" displays the current channel number, CTCSS, frequency, time or the status of current setting;
10. Appears when setting VOX or VOX feature is on;
11. Appears between hour and minute when LCD displays time;
12. Appears when scanning channel or current channel is scan-item in "select desired channel" menu;
13. Appears when setting squelch level;
14. Communication Range Alarm, flashes when your companion are out of range; appears when setting communication range alarm or communication range alarm is on;
15. Appears when setting the clock.

Assembly and Disassembly for Repair

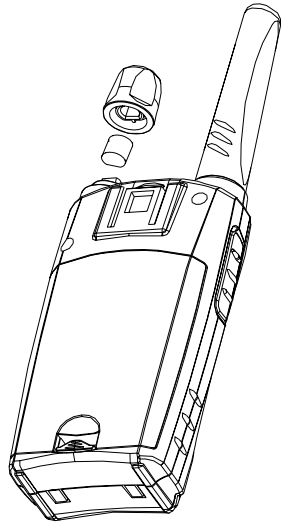


Fig. 1

Remove the power knob. See figure 1.

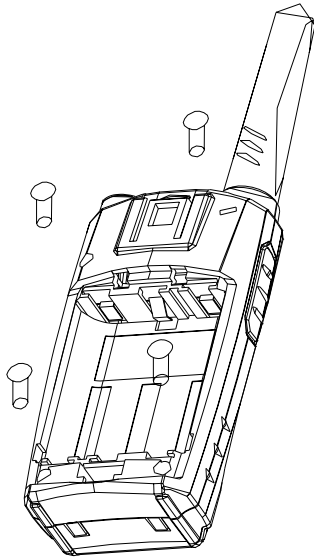


Fig. 2

Remove the four screws on the chassis. See figure 2.

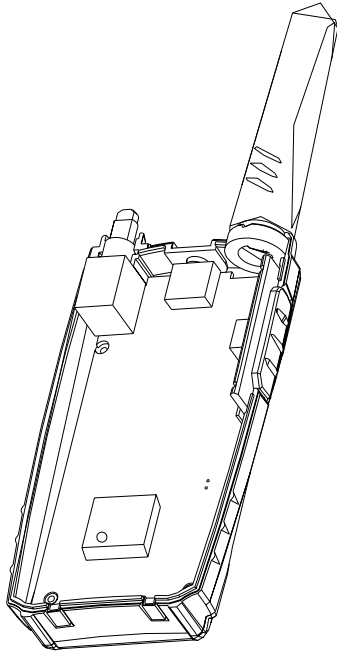


Fig. 3

The disassembled unit is shown as figure 3.

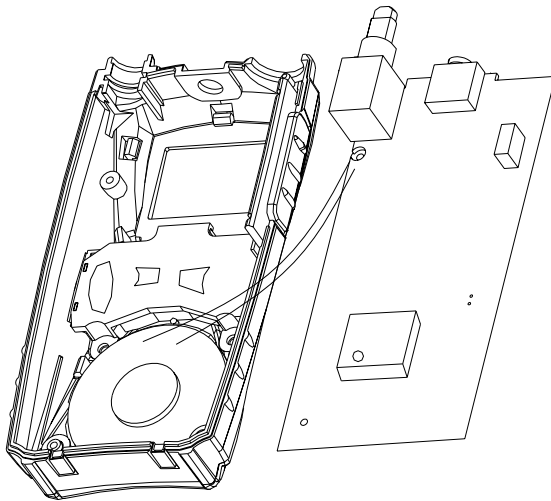
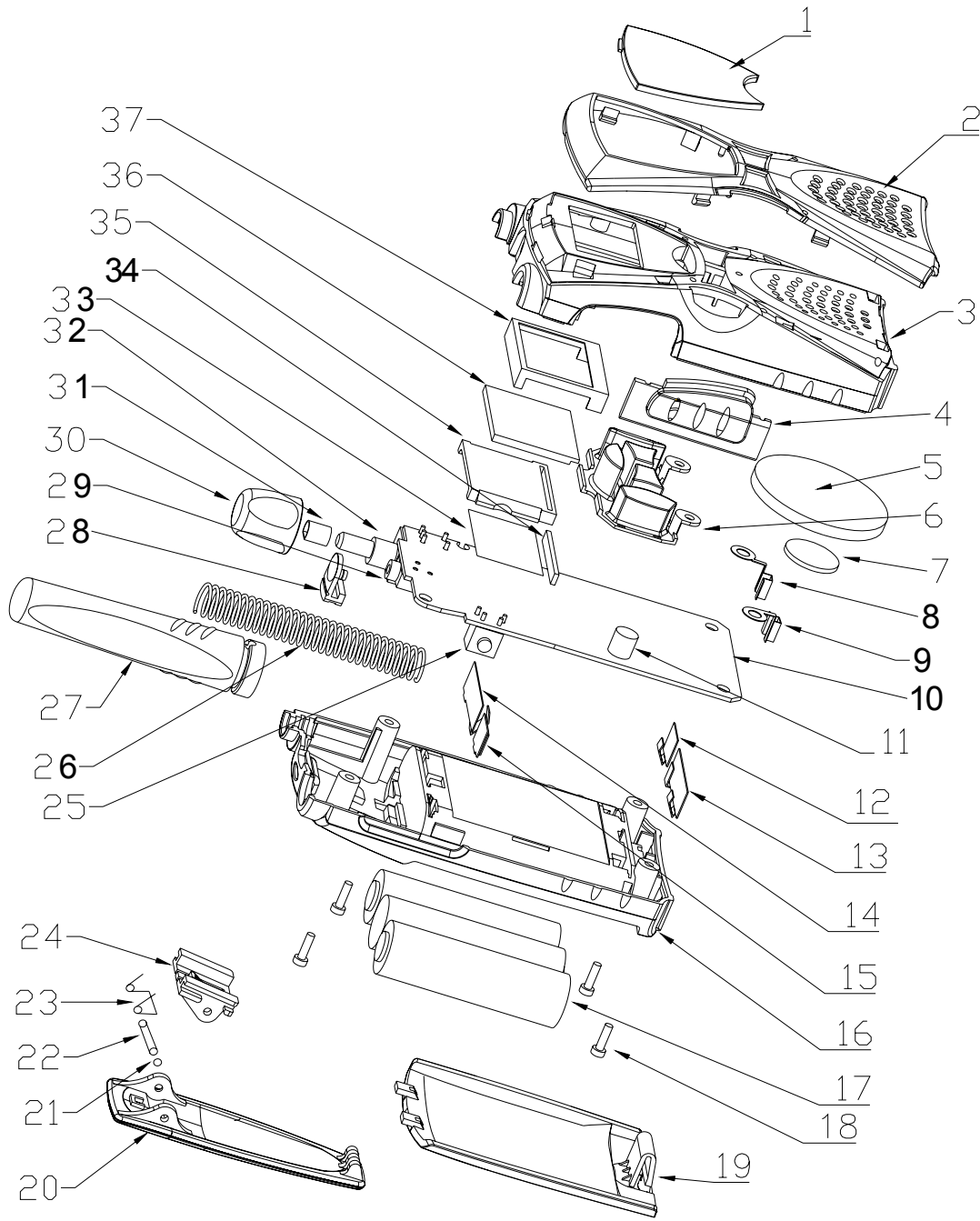


Fig. 4

Take out the antenna spring, antenna cover and PCB. See figure 4.

Exploded View



Packing

