

AWR Advantage

User manual

AWR8000

Advanced wireless Communication

THANK YOU!

Thank you for your purchase of Advanced Wireless Communications' AWR8000 two-way radio. This portable two-way radio is a business grade device. Treat it with care, and you will enjoy years of reliable operation.

The manual is applicable to the following model:

AWR8000

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 Communications' 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 Communications 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 PushTo-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).

- * For body-worn operation, always place the radio in an AWR approved belt-clip or similar accessory that contains no metallic components.

AWR approved accessories, antennas, and device combinations comply with the occupational/controlled environment RF exposure limits. Using non-AWR approved accessories may result in exposure levels which exceed the FCC's occupational/controlled environment RF exposure limits. AWR-approved accessories

have been tested and comply with FCC RF exposure requirements.

*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 at a minimum of 2.5 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.

*Use only FCC-approved, supplied or replacement headsets, batteries, and accessories intended for use with this radio. Use of non-FCC approved headsets, batteries and accessories may exceed FCC RF exposure guidelines.

Hold the radio in a vertical position in front of face with the microphone (and the other parts of the radio, including the antenna) at least one inch (2.5 cm) away from the nose. Keeping the radio at the proper distance is important because RF exposures decrease with distance from the antenna. Antenna should be kept away from eyes.

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.

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 at 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.

IC RSS 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.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by

Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that, the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This radio transmitter (identify the device by certification number, or model number if Category II) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for

each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (identifier le dispositif par son numéro de certification ou son numéro de modèle s'il fait partie du matériel de catégorie I) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

IC Radiation Exposure Statement:

This equipment complies with IC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

IC exposition aux radiations:

Cet équipement est conforme avec IC les limites d'exposition aux rayonnements définies pour un contrôlé environnement.

Cet émetteur ne doit pas être co-localisés ou fonctionner en conjonction avec une autre antenne ou émetteur.

Hold the radio in a vertical position in front of face with the microphone (and the other parts of the radio, including the antenna) at least one inch (2.5 cm) away from the nose. Keeping the radio at the proper distance is important because RF exposures decrease with distance from the antenna. Antenna should be kept away from eyes.

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 residential installations. 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:

- 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 with 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

**PLEASE READ THIS IMPORTANT INFORMATION BEFORE USING YOUR
ADVANCED WIRELESS COMMUNICATIONS PORTABLE TWO-WAY RADIO.**

◇ To avoid electromagnetic interference, turn off your radio in places 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 traveling on aircraft, turn off your radio when the airline crew instructs you to do so.

◇ When in vehicles equipped with an air bag, do not place a portable radio in the airbag deployment area.

◇ Turn off your radio prior to entering any area with a potentially explosive atmosphere. Do not remove, install, or charge batteries in such areas.

◇ To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps.

◇ Do not expose the radio to direct sunlight for long periods of time. Do not place the radio in direct contact with any heating source.

◇ Please observe the following safety precautions when setting up and using this product.

- Heat sources - Keep the product away from heat sources such as radiators, stoves,

heaters, and other heat-generating products.

- Water and moisture - Do not use the product in or near water or in high moisture areas such as a bathroom.

CARING FOR THIS PRODUCT

To ensure you receive the maximum benefit from using this product, please observe the following guidelines.

- Cleaning - Use a damp cloth. Do not use liquid cleaning agents, benzene, thinner, or aerosols.
- Repair - Do not attempt to repair the product or modify the circuitry by yourself. Only replacement parts that are recommended by Advanced Wireless Communications (AWC) should be used. You can contact AWC at 1-800-4755852.
- Do not scratch hard objects against the LCD display as this may cause damage.

GETTING ACQUAINTED

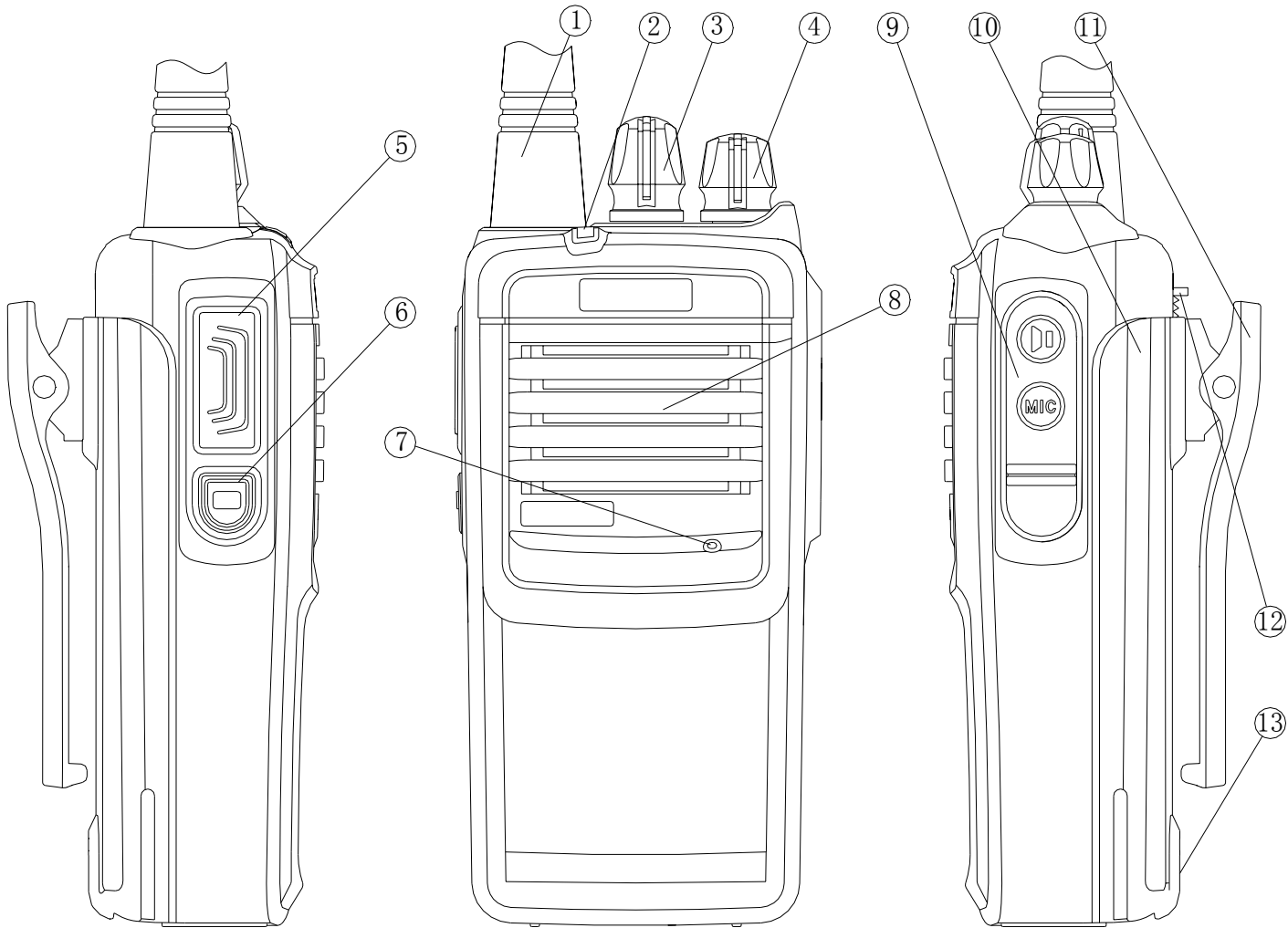
PRODUCT INSPECTION

Thank you for your purchase of Advanced Wireless Communications AWR4000 Portable Two-way Radio. Before use, please inspect the product as follows. First check the shipping carton for any signs of damage. If any damage has occurred, please contact your dealer or Advanced Wireless Communications immediately. Confirm the supplied product against the packing slip to assure accuracy.

PACKAGING CONTENTS:

	Part Number	Item	Qty.
1		Radio	1
2		Battery	1
3		Single Charger	1
4		Charger adapter	1
5		User Manual	1

RADIO VIEW



- 1. Antenna**
- 2. LED Indicator**
- 3. Channel Knob**
- 4. Power switch/ Volume Knob**
- 5. SF 1, Programmable function 1 key (default: PTT)**
- 6. SF 2, Programmable function key,(Default: Monitor @long press, Scan @short press)**
- 7. Microphone**
- 8. Speaker**
- 9. Head set Jack /Programming Cable Jack**

10. Battery

11. Battery Latch

12. Belt Clip

13. Charger Terminal

Programmable Auxiliary Functions

The **SF** keys can be programmed with the functions below, Please contact your dealer for further details on these functions.

- *None*
- *Squelch Off*
- *Monitor*
- *Monitor Momentary*
- *Scan*

- *Call Tone*
- *DTMF Call1*
- *DTMF Call2*

GETTING STARTED

INSTALLING THE BELT CLIP

1. Align the grooves of the belt clip those of the battery.
2. Press the belt clip downwards until the belt clip tab locks.

Note: attach the belt clip before installing the battery.

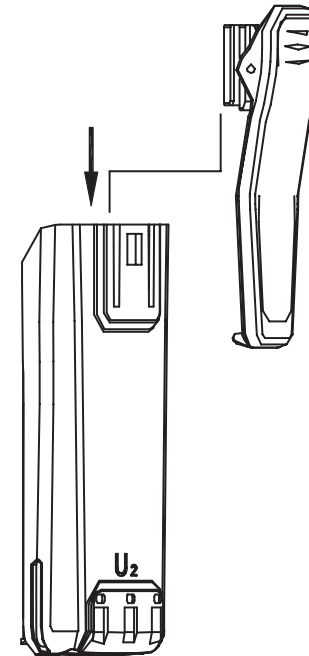


Figure 2

INSTALLING THE BATTERY

1. Turn off the radio.
2. Insert the tabs at the bottom of the battery into the slots at the bottom of the radio chassis.
3. Press the top of the battery towards the radio until a click is heard.(See Figure 1)

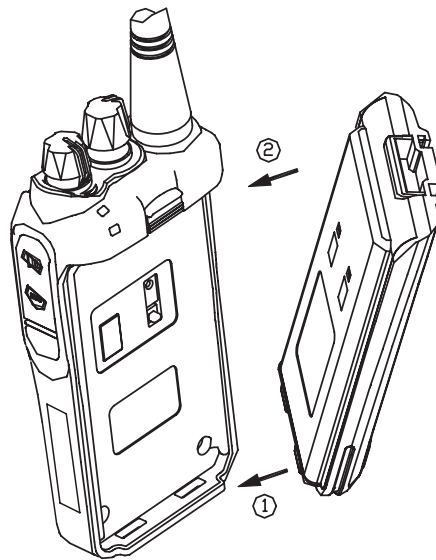
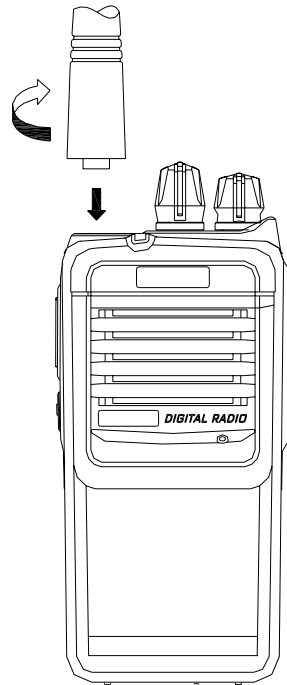


Figure 3

INSTALLING THE ANTENNA

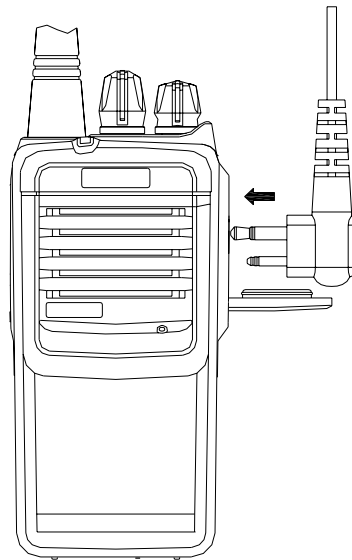
1. Insert the threaded end of the antenna into the connector on top of the radio.
2. Turn the antenna clockwise to tighten.



INSTALLING THE EXTERANL EARPIECE/MICROPHONE

1. Open (not remove) the accessory cover.
2. Plug the audio accessory firmly into the accessory jack.

Note: Using the radio with audio accessory may affect the waterproof performance of the radio.



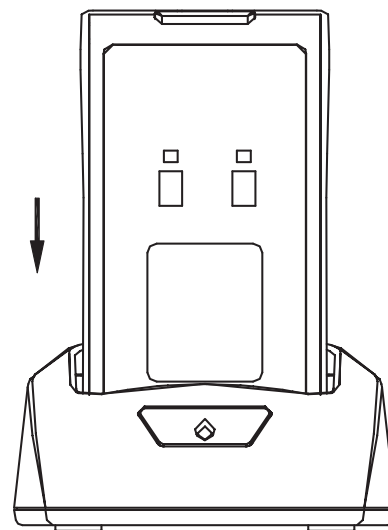
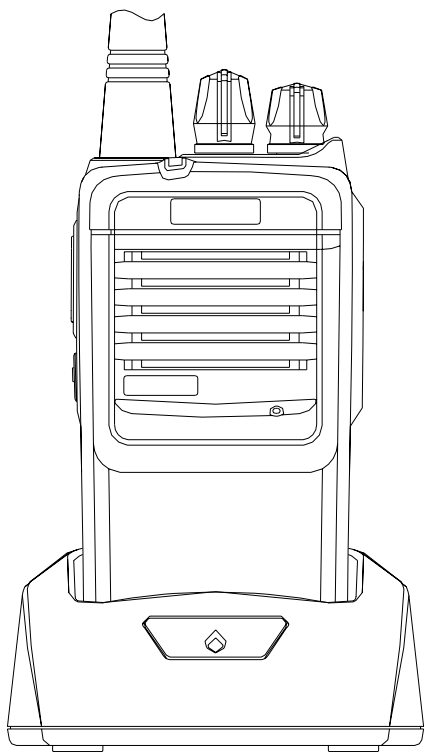
CHARGING THE BATTERY

When you will hear a voice prompt “please charge”, then you need to recharge the battery.

For optimum battery life, do not charge the battery for prolonged periods after it is fully charged.

Charger LED will indicate the charging status.

Charger LED	Status
Flashing Red	Error
Steady Red	Battery is charging
Steady Green	Battery is fully charged



CAUTION

- To avoid risk of fire or injury, do not attempt to charge non-rechargeable batteries.

Please turn off the unit while charging.

- Replace only batteries with the same or equivalent type recommended by the manufacturer.
- Please dispose of old, defective batteries in an environmentally friendly manner in accordance with the relevant laws and regulations.
- Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
- Do not expose equipment and accessories to open flames, such as lighted candles, etc.
- To reduce the risk of electric shock, do not expose equipment to rain or moisture.

Basic Operations

Turn On/Off the Radio

To turn the radio on, rotate the “Power/Volume” knob clockwise. An alert tone indicates that the self-test of the radio completed successfully. The LED glows green during power-up.

To turn the radio off, rotate the “Power/Volume” knob counterclockwise until a click is heard.

Adjust the Volume

Rotate the “Power/Volume” knob to adjust the volume.

Select Channel

The radio provides 16 conventional channels. Some of the channels may be not programmed and, therefore, not used. Please contact your dealer for more details.

Rotate the “Channel Selector” knob to select the wanted channel.

Transmit

1. Turn on the radio.
2. Rotate the “Channel Selector” knob to select the wanted channel.
3. Make sure there is no activity on the channel.
4. Press the PTT button and speak into the microphone with your mouth 1- 2 inches away from the radio. The LED glows red during transmission.

5. Release the PTT button to finish transmission.

Receive

1. Turn on the radio.
2. Rotate the “Channel Selector” knob to select the wanted channel.
3. Adjust the volume.
4. When CTCSS/CDCSS or squelch tail elimination feature is set by your dealer:
 - No squelch tail will be heard at the end of a received transmission when the courtesy tone is disabled.
 - A beep tone sounds at the end of a received transmission when the courtesy tone is enabled.
 - Please contact your dealer for more details.

VOX Operation

When hands-free operation is desired, your radio can be activated by voice alone using the VOX feature when you speak through an accessory that is connected to your radio.

- **Connecting a VOX Headset**

1. Turn off your radio.
2. connect the VOX accessory to your radio and turn the radio on.

Note: Pressing the PTT button disables VOX.

BLUETOOTH HEADSET OPERATION

For using the Bluetooth function, you must make your radio to pair your headset firstly.

Pairing

Your headset enter the pairing state

Note: See your headset operation manual for detail

Press and hold "Side Key" to switch on the radio, After hearing channel voice and "di di di" tone , release the "Side Key", Press PTT key, then the blue LED indicator will quickly flash, the radio enter the pairing state.

When the pairing is success, the radio will sound a prompt tone, and the blue LED will end the quickly flash and keep flashing every 3 seconds.

Connecting

Once your radio had paired your blue headset, you do not need to pair again when you want to use the bluetooth operation next time. But you still need to

connect your bluetooth headset with your radio.

Press and hold "Side Key" to switch on the radio, after hearing channel voice and "di di di" tone, release the "Side Key". Then press side key again, the blue LED indicator will flash once every 6 seconds. the radio enter the connecting state.

Turn on your bluetooth headset, the headset enter standby and connecting state.

When the connecting is success, the radio will sound a prompt tone, and the blue LED will flash once every 3 seconds.

Make a call

Double-click the bluetooth headset Answer Key twice, the radio will enter transmit state, you can talk to the headset to make a call,

Also, you can press the radio PTT, speak to headset and make a call.

Disenable the Bluetooth headset connecting

Switch off your bluetooth headset and disconnect the bluetooth connecting.
Or Switch off your radio to disable the bluetooth connecting.

Monitoring a Channel

Monitoring allows you to check for activity on a channel. AWR Advantage have three monitor mode. You can choose a mode according to your usage habit or scene.

- **Squelch Off**

In this mode, the speaker is unmuted in any condition so as to receive any sound on the current channel. When audio signal is received on the channel, audio will be heard. Otherwise, background noise will be heard.

Operation: Press and hold the **Monitor** key to enter this mode, and release the key to exit.

- **Monitor toggle**

In this mode, the receiving party can receive incoming calls from the transmitting party regardless of CTCSS/CDCSS condition. If the carrier condition is not satisfied, the receiving party will fail to receive any incoming calls.

Operation: Press the **Monitor** key to enter this mode, and press it again to exit.

- **Monitor Momentary**

Refer to **Monitor toggle**.

Operation: Hold down the programmed monitor key continuously to enter this mode, and release the key to exit.

Scanning

You can scan up to 16 channels and frequencies. When the radio detects activity, it stops scanning and locks in on the active channel. This allows you

to talk and listen to the person transmitting without changing channels.

1. To start scanning, briefly press the key programmed as “Scan”. the radio begins to scan the channels.

When the radio detects activity, it stops on that channel.

2. To talk to the person transmitting without switching channels, press PTT within 5 seconds. If no transmission occurs within 5 seconds, scanning resumes.

Note: these timers can be changed by the programming software.

3. To stop scanning, briefly press “Scan” Key.

If you press **PTT** while the radio is scanning, the radio transmits on the channel you were on before you started scanning.

Without Priority Channel

Providing that there is a scan list with 6 channels and all channels are non-prioritized, the normal scan operation would proceed in the

following sequence, as shown in Figure 1.

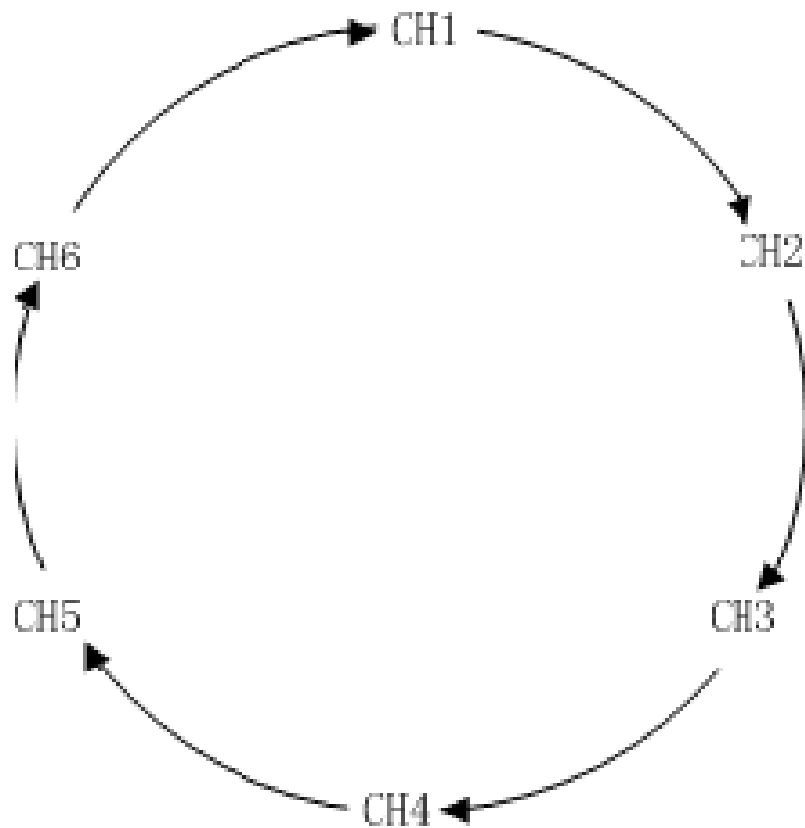


Figure 1 Normal Scan Sequence

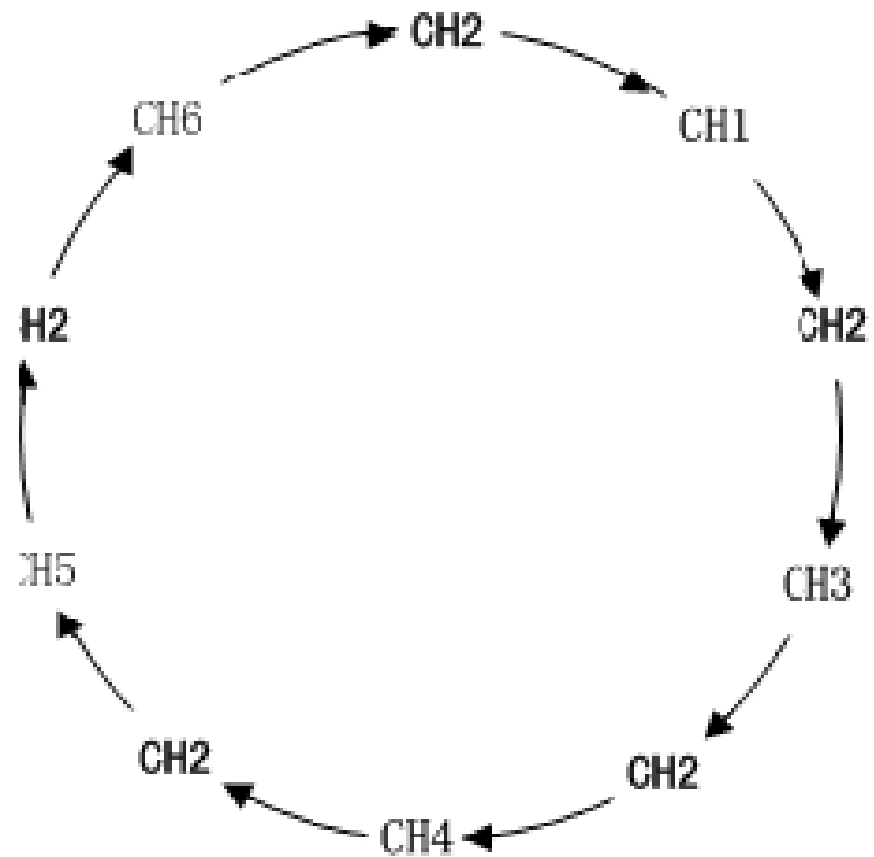


Figure 2 Priority Scan Sequence

With Priority Channel

If you prioritize Channel 2 as Priority 1, the scan operation would proceed in the following sequence, as shown in Figure 2.

This function enables users to scan the most frequently used channel so that messages will not be missed. The priority channel is programmed by the dealer via programming software. Contact your dealer for details.

Note: Even though the radio remains on a non-priority channel, activities on the priority channel are still under monitoring. The radio will switch to the priority channel once any activity is detected.

Power-on Scan

If Power-on Scan is enabled by your dealer, the radio will automatically enter scan mode when it switch on.

The radio is always in scan mode until you switch off the radio.

WIRELESS CLONING

The AWR8000 is capable of Wireless Cloning. For details on this function, contact Advanced Wireless Communications at 800-475-5852.

Advanced features

Busy Channel Lockout (BCL)

When the BCL feature is enabled, you are prevented from transmitting on a channel that is already in use. Press the PTT on a channel that is already in use, the radio will sound alert tone and turn back to the receive mode.

Time-Out-Timer (TOT)

The Time-Out-Timer(TOT) is used to prevent someone from using the same channel for a long time and to prevent the radio from damage due to continuous transmission.

If the transmission exceeds the preset time, transmission will be inhibited and a beep tone will sound. To stop the beep tone, release the [PTT] key .Press the [PTT] key again to resume transmitting.

Battery Save

When enabled, the Battery Save feature is automatically activated once the situation that no activity on the channel and no operation performed, lasts for 10-12 seconds. This will extend operation time.

Pressing any key or receiving a signal will restore the radio to normal operation and exit from Battery Save.

Low battery Alert

When the battery voltage goes below a preset value, a “please charging” voice will sound and then the radio stops transmitting.

This feature is designed to automatically remind you of recharging or replace the battery.

Scrambler

This feature means that your conversation is secrecy.

If Scrambler is set on the current channel, only the radio set Scrambler active can receive you, the radio not set only get a noise voice.

Compander

Companding is a feature that allows further improvement of voice quality. It compresses your voice at transmission, and expands it when receiving while simultaneously reducing extraneous noise. However, to enjoy this benefit, all transmitting and receiving radios must have this feature activated.

TROUBLESHOOTING

See below for some common problems and their remedies. DO NOT attempt any repairs yourself. This will invalidate your warranty.

PROBLEM	POSSIBLE CAUSES / REMEDIES
Can't turn the radio on	• Check that the battery is correctly installed and has been fully charged.
Can't communicate with other radios	• For this and all other issues contact Advanced Wireless Communications at 1-800-475-5852 or visit www.advancedwireless.com for more information.
VOX function is not working	• Check the headset is correctly plugged in and is compatible with the radio



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