User manual

AWR-8000 / AWR-8001

Advanced Wireless Communications

THANK YOU!
Thank you for your purchase of Advanced Wireless
Communications AWR-8000 / AWR-8001 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:
AWR-8000 / AWR-8001

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 FOLLOWING TRAINING MATERIAL 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. For 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).

* For body-worn operation, always place the radio in an AWC approved belt-clip or similar accessory that contains no metallic components and provides a minimum separation distance of 1.3 cm between the back of the radio and the user's body. AWC approved

accessories, antennas, and device combinations comply with the occupational/controlled environment RF exposure limits. Using non-AWC approved accessories may result in exposure levels which exceed the FCC's occupational/controlled environment RF exposure limits. AWC-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 1.0 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.

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 (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 (800) 418-FORM (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 (888) CALL-FCC (225-5322).
If you have any questions, call Advanced Wireless Communications at (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.

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 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.

9

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 THE FOLLOWING 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 1-800-475-5852.

·Do not scratch hard objects against the LCD display as this may cause damage.
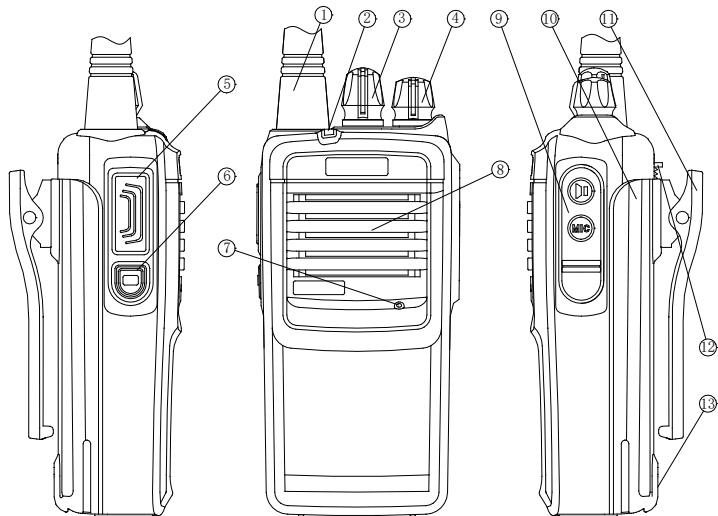
CONTENTS

GETTING ACQUAINTED

PRODUCT INSPECTION

Thank you for your purchase of Advanced Wireless Communications AWR-8000 / AWR-8001 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	106202	AWR-8000 Radio	1
OR	106201	AWR-8001 Radio (with Bluetooth)	1
2	221223	Battery	1
3	221224	Single Charger (with adapter)	1
4	221254	Antenna (6 inch)	1
5	221251	Belt Clip	1
Please Note: This user manual is available in electronic format at www.advancedwireless.com			

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. **Belt Clip**
12. **Battery Latch**
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.
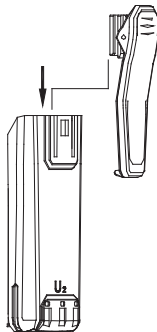
- *None*
- *Squelch Off*
- *Monitor Toggle*
- *Monitor Momentary*
- *Scan*
- *Call Tone*
- *PTT*

GETTING STARTED

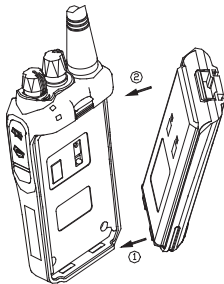**Installing the Belt Clip**

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

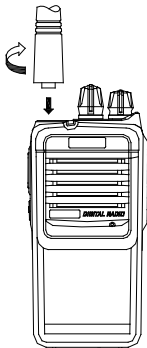Note: attach the belt clip before installing the battery.

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.
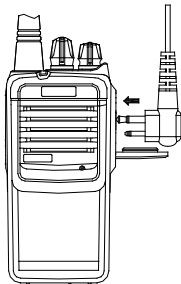
Installing the Antenna

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 External 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 water resistent performance of
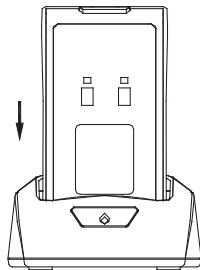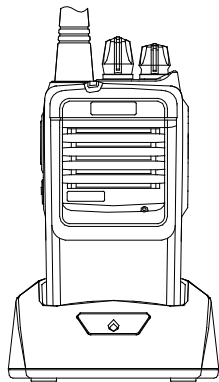
the radio.

Charging the Battery

When you hear a voice prompt "please charge", 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.
- Only replace batteries with the same or equivalent type recommended by Advanced Wireless Communications.
- 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 flashes 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 not be programmed and, therefore, not used. Please contact your dealer for more details.

Rotate the "Channel Selector" knob to select the desired channel.

Transmit

1. Turn on the radio.
2. Rotate the "Channel Selector" knob to select the desired 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 desired 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- *AWR-8001 Only*

- To 'Pair' or Link the radio to a Bluetooth headset for the first time, press and hold the SF2 button on the side of the radio while turning the unit on. The radio LED will flash orange. Release the side key, the LED will flash green. Press the PTT key to initiate 'Pairing' mode. The radio LED will flash blue while 'Pairing'. Follow pairing instructions for the Bluetooth headset being used. The 'Pairing' process will take approximately 35 seconds.

- Once a Bluetooth headset has been 'Paired' to a radio, the 'Connect' mode can be used for subsequent 'linking' of the radio and headset. This is typically a much faster process then 'Pairing'. Press and hold the SF2 button, on the side of the radio, while turning the unit on. The radio LED will flash orange. Release the SF2 key then short press the SF2 key. The LED will flash blue while 'Connecting'.

Make a Call

Press the Radio PTT button to transmit. Follow Bluetooth headset instructions for proper microphone use.

To Disable Bluetooth Headset Connection

Turn off your Bluetooth headset or turn off your radio.

Monitoring a Channel

Monitoring allows you to check for activity on a channel. The AWR-8000 / AWR-8001 has three monitor modes:

- **Monitor Toggle** – Function Key will toggle between monitor mode and tone/code protected mode.

- **Monitor Momentary** – Function Key will monitor the channel for the duration of the button press. If no signal is present, the speaker will be muted.

- **Squelch Off** – Function Key will monitor the channel for the duration of the button press. If no signal is present, squelch noise will be heard on the speaker for the duration of the button press.

   Note: The AWC default is Squelch off.

Scanning

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

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 stop scanning, briefly press "Scan" Key.

   Note: There are several scanning options. Check with your dealer for details.

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.
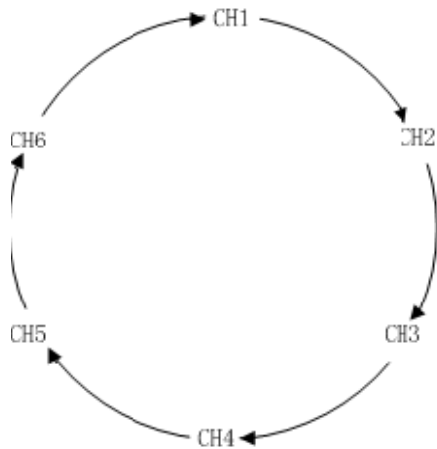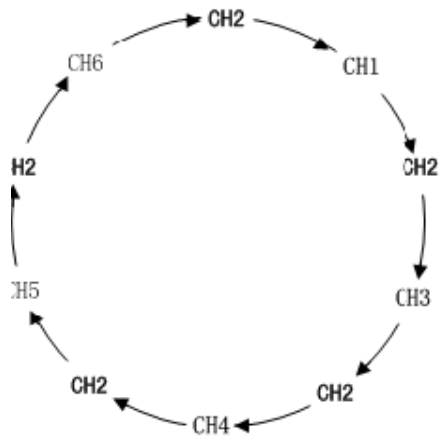
Figure 1 Normal Scan Sequence   Figure 2 Priority Scan Sequence

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 may receive a non-priority channel, activities on the priority channel are still monitored. The radio will switch to the priority channel once activity is detected.

Power-on Scan

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

Wireless Cloning

To initiate wireless clone mode, turn the radio to channel 16 then hold the SF1 and SF2 keys while powering the radio on.   The LED will turn orange.   Release the SF keys and the LED will blink green.   To initiate wireless clone, press the PTT button of the Master radio.   The LED will turn red on the Master radio.   The LED will toggle between green/red/orange on the target radio during the clone process.

If successful, the target radio LED will light steady orange.   If an error occurred, the target radio LED will blink orange.   If this occurs, re-clone the target radio.

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 an alert tone and return 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. This will extend operation time.

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

Low Battery Alert

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

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

Scrambler

If this feature is enabled, transmit audio will not be heard clearly unless the receiving radio also has scramble enabled.

Compander

Companding is a feature that allows for improved voice quality in poor signal areas. It compresses your voice at transmission, and expands it when receiving while simultaneously reducing static 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. The headset must be VOX compatible.

ADVANCED
WIRELESS
COMMUNICATIONS

20809 Kensington Blvd, Lakeville, MN 55044

(800) 475-5852

www.advancedwireless.com