AWR Advantage & AWR Advantage Plus

User manual

Advanced Wireless
Communications

500358

THANK YOU!

Thank you for your purchase of Advanced Wireless Communications' AWR Advantage/AWR Advantage Plus 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 Advantage (AWR-4000)
AWR Advantage Plus (AWR-4002)

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 using 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

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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:

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*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 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

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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 head-sets, 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 main form 601, and schedules D, and H.

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.

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 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

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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.

◊ Only qualified technicians are allowed to maintain this product.

◊ 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.

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# GETTING ACQUAINTED

PRODUCT INSPECTION

Thank you for your purchase of Advanced Wireless Communications AWR Advantage (4000) / AWR Advantage Plus (4002) 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.

COMMON PACKAGE ITEMS (CONTENTS MAY VARY):

	Part Number	Item	Qty.
1	106070 (kit)	Radio (AWR-4000)	1
OR	106094 (kit)	Radio (AWR-4002)	1
2	221051	Battery	1
3	221052	Single Charger (with adapter)	1
4	221116	Charger Power Adapter	1
5	221115	Swivel Belt Holster	1
6	221129	User Manual	1

ADVANTAGE RADIO VIEW

1. **Charger Terminal**

2. **Speaker**

3. **Microphone**

4. **▼, Channel Down Key** -
   (Select item key in Local
   setting Mode)

5. **F , Programmable function
   key** - (Default: Key Lock
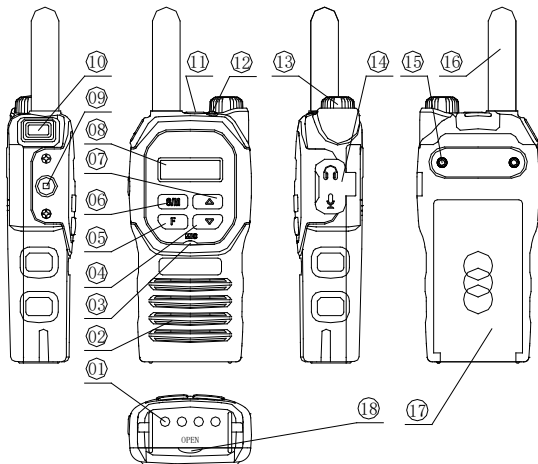
@long press, Flashlight @short press, Exit current status key in local setting mode)

6. **S/M, Programmable function key -** (Default: Menu @long press, Scan @short press)

7. **▲, Channel Up Key -** (Select item key in Local programming Mode)

8. **LCD display -** refer to the below symbols list.

9. **SF2 , Programmable function key** - (Default: Channel view @short press, Monitor @long press)

10. **SF1, Programmable function key -** (default: PTT)

11. **LED Flashlight**

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12. **LED Indicator (Tx & Busy)**

13. **Power switch/ Volume Knob**

14. **Head set Jack /Programming Cable Jack**

15. **Belt clip screw hole**

16. **Antenna**

17. **Battery cover**

18. **Open slot for battery cover**

LCD DISPLAY SYMBOLS
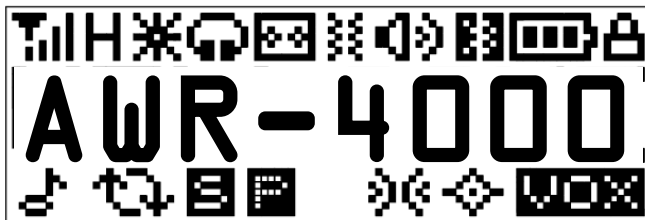
SYMBOL	FUNCTION
AWR-4000	Power on text, it can be Channel number/Channel alias/Channel frequency

T₁l	RSSI
H	High Power：the current channel is high power (H/M/L)
✳	LED flashlight function enable
🎧	Headset connected
✖	Headset function disable
▣	Recorder function enable/ Flashing when no space (AWR ADVANTAGE PLUS)
⁝	Vibration function enable (AWR ADVANTAGE PLUS)
◀	Monitor indicator
◀»	Speaker opened
◀	Speaker function disable

✳	Bluetooth function enable (AWR ADVANTAGE PLUS)
🅱	Bluetooth earpiece connected (AWR ADVANTAGE PLUS)
🔋	Battery indicator
🔒	Keypad lock
♪	DTMF signalling enable (AWR ADVANTAGE PLUS)
↻	Scan
🅂	The current channel is in scan list
🅿	The current channel is prior channel
⟩⟨	Compander enable
◈	Scrambler enable
VOX	VOX enable

Programmable Auxiliary Functions

The **SF1, SF2, S/M, and F** keys can be programmed for a variety of functions. See "Local Programming Mode" menu list later in this manual. Please contact your dealer for further details on these functions.

SAFETY AND CARE INSTRUCTION

SAFETY PRECAUTIONS

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

·LCD panel - The LCD panel is made of glass, and may break if the unit is dropped or impacted.

·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 or outdoors when rain is present.

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 (800) 475-5852.

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

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 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.

GETTING STARTED
INSTALLING THE SWIVEL BELT HOLSTER
(OPTIONAL ACCESSORY)

1. Slide the bottom of the radio into the holster until it snaps into place.
2. To remove, push the tab on the holster and pull the radio away from the holster.
Note: If there is a need to replace the holster, contact your account manager or call (800) 475-5852 to order a replacement (part number 221115).
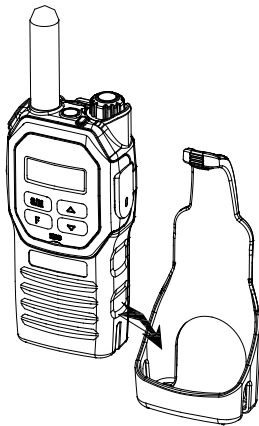
Figure 1

INSTALLING THE BELT CLIP

1.   Align the two screw holes on the metal bracket of the belt clip with holes on the back side of the radio. Then secure the belt clip on the back side of the radio, as shown in Figure 2, and then secure the screws.

2.   To remove, loosen the screw to remove the belt clip.
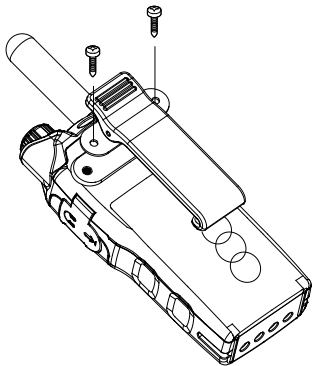
Figure 2

INSTALLING THE BATTERY

Your radio uses a rechargeable Lithium Ion (Li Ion) battery

1. If the battery cover is already in place, use the fingers to press down the three circle position and in the meantime use the thumb to pull up in the direction of arrow from the bottom side OPEN slot. Then lift the rear cover and remove it from the radio's body, as shown in Figure 3.
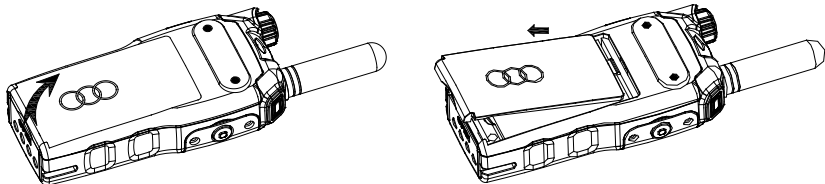
Figure 3

2. Insert the battery, printed arrows first, into the battery compartment and press down to secure firmly in place.
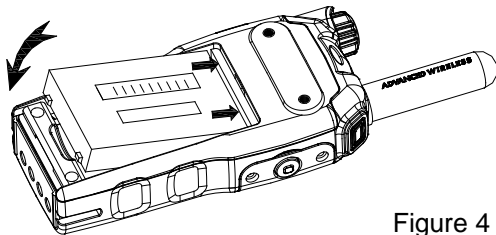
Figure 4

3. Fit the one extension at the top of the battery cover into the slot at the top of the radio's body, press the bottom of the battery cover towards the radio until a click is heard, and then the battery cover is securely attached to the radio, as shown in Figure 5.
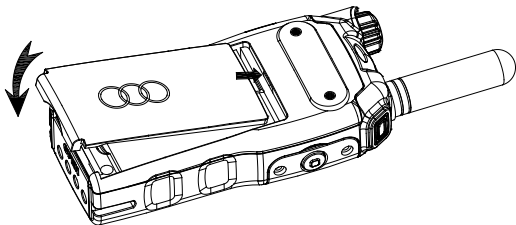
Figure 5

Charging the Battery

When the Battery Icon displays 0 bars, 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.

Using the Drop-in Charger

1. Place the charger on a flat surface.
2. Insert the plug of the power cord into the jack on the charger.

3. Plug the cord into an AC outlet.

4. Turn the radio off. If the radio is on while charging, it will not fully charge.

5. Insert the radio (with battery installed) into the front charging pocket.

Note: The radio will fit in the charger with the holster or belt clip on.

The drop-in charger will also charge a spare AWB-4000 Li Ion battery. Both batteries will charge in approximately 3–6 hours.
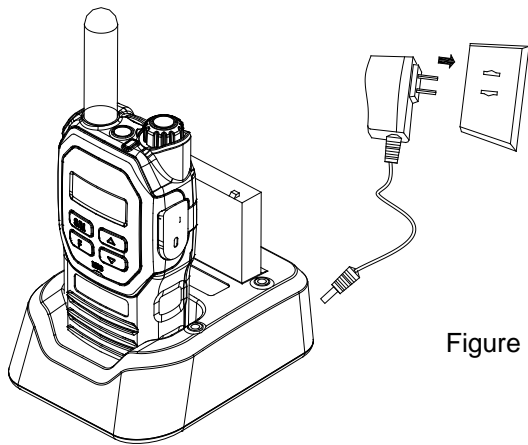
Figure 6

Using the AWR Advantage (AWR-4000) / AWR Advantage Plus (AWR-4002) Multi-Unit Charger

The Multi-Unit Charger (MUC) allows drop-in charging of up to 6 radios or batteries.

Batteries can be charged inside the radios or removed and placed in the MUC Separately. Each of the 6 charging pockets can hold a radio or battery, but not both.

1. Place the charger on a flat surface.
2. Insert the power cord plug into the jack on the MUC.
3. Plug the cord into an AC outlet.
4. Turn the radio off.
5. Insert the radio or battery into the charging pocket.

Radio charging pocket

Battery charging pocket
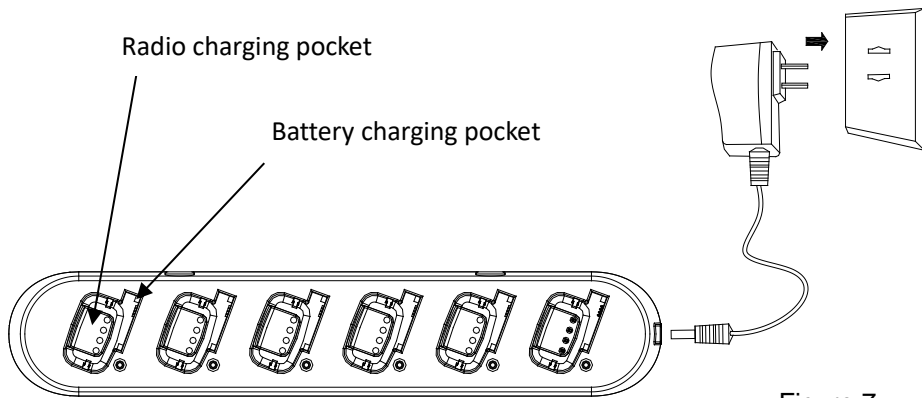
Figure 7

Charging Status LEDs

On the drop-in charger, the radio and battery charging pockets have their own LEDs.

On the MUC, each of the 6 charging pockets has an LED. The LED is solid red when the battery is charging and solid green when charging is complete. See label at the bottom of the charger for other LED conditions.

Battery Meter

The battery meter in the upper right corner of the display (see page 41) indicates how much battery power is remaining.

3 Bars	2 Bars	1 Bar	0 Bar
			Voice charging prompt
100%-85%	85%-25%	25%-10%	Final 10%

TURN THE UNIT ON/OFF

Turn ⦿ clockwise to turn the radio on, and counterclockwise to turn the radio off.

When you turn the radio on, the radio will chirp and if enabled, speak the

channel number. The display briefly shows all features and display segments.

ADJUSTING THE VOLUME

Turn 〇 clockwise to increase the volume, and counterclockwise to decrease the volume.

Note: Do not hold the radio too close to your ear when adjusting the volume.

SELECT A CHANNEL

The transmitting and receiving radios must be on the same channel using the same CTCSS code or DCS code in order for you to communicate with another party.

To select between channels (maximum 16):

1. Press ▲ to increase channel number.

2. Press ▼ to decrease channel number.

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TRANSMITTING AND RECEIVING

For best transmission, speak about 1.5" away from the radio and leave a short pause before speaking once you have pressed the PTT button.

To talk to another radio:

1. Press and hold "SF2" (this button is set to the Monitor function) to check for channel activity. Do not transmit if someone is speaking on the channel.

2. Press and hold PTT button (SF1) and speak into the microphone to transmit.

3. Release the PTT button once you have finished speaking to allow other

radios to respond. The radio will automatically hear received transmissions.

The transmit LED on the top of the radio is red when transmitting and is green when receiving.

Signal Strength and Channel Busy Indicators
When there is activity on a frequency, the radio LCD displays 📶 and the green LED lights steady.
When there is activity on the same frequency and code as your radio (your radio is receiving), the radio displays 📶 and a signal strength from 1 (weakest) to 4 (strongest). This can help determine when a radio is moving out

of range.

Note: Obstacles that block the signal path may affect the strength of the incoming signal.

KEYPAD LOCK

To avoid accidentally changing the channel and the unit's preferred settings, you can lock the keypad.
To lock or unlock the keypad: Press and hold the **F** button for 2.0 seconds.

🔒 appears on the LCD when the keypad is locked.

NOTE: 1. The **F** button Long Press is programmed for keylock (default).

2. While key lock is "on" you can still use the PTT button.

VOX OPERATION

The Voice Activated Transmission (VOX) function allows your voice to activate
transmission automatically when the transceiver is used with an optional hands-

free microphone / headset. If the unit is set to VOX level 1, 2, ...6, it will automatically detect and transmit your voice through to the selected channel. **Note:** The VOX level and transmission delay time should be set according to your voice loudness and personal preference.

To set up a VOX headset:

1. Turn the radio off.
2. Open the accessory cover
3. Plug the headset into the accessory jack.
4. Turn the radio back on again. The radio displays **VOX**.

5. Lower the radio volume BEFORE placing the headset in or near your ear.
6. To transmit, speak into the accessory microphone. To receive, stop talking.

NOTE: This product is compatible with Motorola headsets, please ask your local Account Manager for further information. Pressing the PTT button disables VOX.
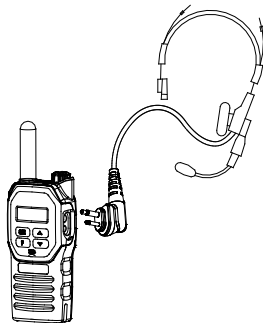
Monitoring a Channel

Monitoring allows you to check for activity on a channel. The AWR Advantage / AWR Advantage Plus has three monitor modes. You can choose a mode according to your preference.

● **Squelch Off (Default)**:   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 (Default SF2)** 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 channel frequency is not the same, the receiving party will not 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. If programmed for talkback, you can talk and listen to the person transmitting without changing channels.

Note: The ▤ icon will appear on the display when the current channel is added to the scan list. The ▤ icon will appear on the display when the current channel is a priority channel.

1. To start scanning, press the key programmed as "Scan" (S/M default). The scan icon 🔁 displays and the radio begins to scan the channels. When the

radio detects activity, it stops on that channel and displays $\Tini$ and the channel number.

2. To talk to the person transmitting without switching channels, press the PTT button before scan resumes. If no transmission occurs, scanning resumes.

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

3. To stop scanning, press the "Scan" Key. If you press **PTT** while the radio is scanning, the radio transmits on the channel you were on before you activated scan.

Skipping and Removing Channels While Scanning

Scan has two temporary features to make it easier to use.

• Scan advance

If the radio stops scanning on a channel you do not want to listen to, press ⬆

to resume scanning for the next active channel.

• Nuisance delete

Press and hold ⬇ to temporarily remove a channel from the scan list. The

channel returns to the scan list when the radio is turned off & then on again.

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.
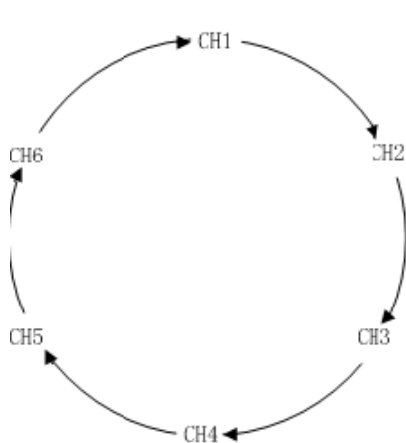
Figure 1 Normal Scan Sequence
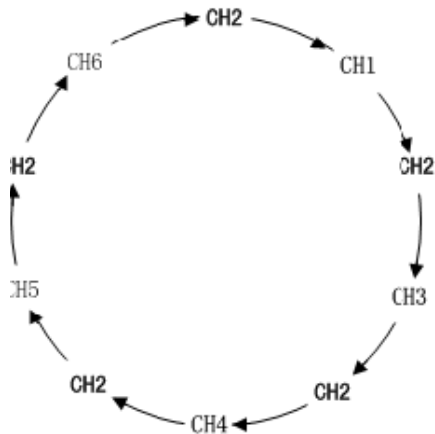
Figure 2 Priority Scan Sequence

With Priority Channel

If you prioritize Channel 2 as Priority, 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 or by the radio's keypad if full radio programming is activated.

Note: If the radios receiving on a non-priority channel, the priority channel is still scanned. 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 is turned on.

The radio is always in scan mode. Scan cannot be turned off.

WIRELESS CLONING

The AWR-4000 is capable of Wireless Cloning.

NOTE: It is VERY important to know the Source radio. If a Target radio's PTT is pressed, it will overwrite the intended Source unit.

1. When cloning a radio(s), they should be in the same area as the Source radio (radio containing the desired configuration).
2. To put the AWR Advantage / AWR Advantage Plus in clone mode, press and hold the S/M key and PTT key while turning the radio on. "CLONE" will be displayed on the LCD.
3. To start the cloning process, press the PTT button of the Source radio.
4. The Source radio LED will light steady red. The Target radio will toggle from red to green. There can be any number of Target radios.
5. When complete, the Source radio will display "Clone", the Target radio will Display "OK". If "ERROR" is displayed on the Target radio, perform the clone process again.

6. When finished, turn the Source radio and all Target radios off, then on to use.

Local Programming Mode

Local programming mode allows you to configure your radio by manual operation.

Note: Local programming mode can be disabled by the programming software. Local programming mode menu is as below.

Local Programming Mode

RADIO SETTING

CH mode: CH. NO./Alias/Frequency
Mic Sens: 1/2/3/4/5
VOX: On/Off (default off)
VOX Sense: 1/2/3/4/5/6
VOX delay: 0.5/1/1.5/2/2.5/3/3.5
TOT: Off/30s ~ 300s (default 120)
Speaker: On/Off (default on)
Earpiece: On/Off (default on)
Priority Scan: On/Off (default off)
Vibration: On/Off (4002) (default off)
BAT saver: On/Off (default on)
Key tone: On/Off (default on)
Roger Tone: On/Off (default off)
PTT tone: On/Off (default off)
Backlight: On/Off (default on)
Voice: Off/English/Chinese

CH. SETTING

CH. NO.: CH-01, CH-02, ~ CH-16
CH. FREQ: 01, 02 ~ 64
Code: Off, 001, 693, 002, 003 ~ 204
TX PWR: H/M/L (default Hi)
BCL: On/Off (default off)
Call tone: Off (0), 1, 2 ~ 9 (default 0)
Scan List: On/Off (default on)
PTT ID: On/Off (4002) (default off)
Compander: On/Off (default on)
Scrambler: On/Off (default off)

KEY SETTING

	Default
SF1 Short	PTT
SF1 Long	N/A
SF2 Short	Channel View
SF2 Long	SQ off
S/M Short	Scan
S/M Long	Menu
F Short	Flashlight
F Long	Keylock

KEY SETTING

SF1, SF2 Short

None
Monitor toggle
Scan
Key lock
Call tone
CH. view
Flash light
Call 1 (4002)
Call 2 (4002)
Menu
PTT

SF1, SF2 Long

None
Monitor momentary
Squelch off
Monitor toggle
Scan
Key lock
Call tone
CH. view
Flash light
Call 1 (4002)
Call 2 (4002)
Menu
PTT

S/M, F Short

None
Monitor toggle
Scan
Key lock
Call tone
CH. view
Flash light
Call 1 (4002)
Call 2 (4002)
Menu

S/M, F Long

None
Monitor momentary
Squlch off
Monitor toggle
Scan
Key lock
Call tone
CH. view
Flash light
Call 1 (4002)
Call 2 (4002)
Menu

Entering Programming Mode

Press and hold **PTT** and **F** key while turning the radio on. The radio beeps and displays **RADIO SETTING**. The radio enters Radio setting programming mode.
Note: If you press and hold the **PTT** button for 3 seconds when the radio is in local programming mode, you will exit from the Programming Mode.

Key operation definition

When you enter the local programming mode, the key function is as below:

- ▲ Select the main menu/function.
- ▼ Select the main menu/function.
- S/M Enter sub-menu or confirm the selected value/function.

$\boxed{\text{F}}$ Exit the sub-menu status and return to front of the menu.

Selecting Radio setting, CH. setting, Key setting Main Menu

1. When the radio is in the 'radio setting'
   programming mode, the "RADIO SETTING" will
   appear on the bottom of the screen.

RADIO SETTING

2. Press ▲ or ▼ to select the main menu that you want to program.

RADIO SETTING		CH. SETTING	or	KEY SETTING

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3. Press S/M to enter the main menu setting status.

Programming channel display mode (CH. Mode)

    1. When the radio is in RADIO setting status, press ▲ or ▼ until "CH MODE" displays on the bottom of the screen. In the meantime the current display mode will appear in the middle of the screen.

```
CH  NO
CH  MODE
```

    2. Press S/M and the current display mode will flash.

```
-CH NO-
CH MODE
```

3. Press ▲ or ▼ to select the channel display mode you want to set.

```
-ALIAS-
CH MODE
```

NOTE: there are three modes that can be selected: Channel number (CH NO), Alias, Frequency.

4. Press S/M to confirm your selection.

```
┌─────────────────┐
│ ⌜CH⌝ ⌜NO⌝        │
│ CH MODE         │
└─────────────────┘
```

5. Press ▲ or ▼ to set another function, or Press F to exit CH MODE status, or Press and hold PTT to exit Local programming mode.

NOTE: To set MIC Sensitivity, VOX parameter, TOT, Speaker, Headset , Priority Scan , Vibration, Battery saver, Key tone, PTT tone, Backlight, Channel Voice, the process is similar with channel display mode.

Selecting a channel

1. When the radio is in CHANNEL setting status, Press ▲ or ▼ until the "CH. NO" appears in the bottom of the screen. (This is the first setting item after you enter channel programming mode).

CH-01
CH. NO

2. Press S/M and the "CH-01" will flash.

CH-01
CH. NO
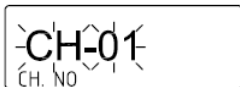
3. Press ▲ or ▼ to select a channel number.

$$\boxed{\text{CH-02}}$$
CH. NO
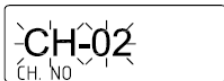
Note: there are 16 channels that can be selected.

4. Press S/M to confirm the selecting channel.

$$\boxed{\text{CH-02}}$$
CH. NO
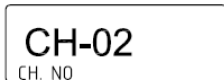
5. Press ▲ or ▼ to set another function, or Press F to exit channel setting menu, or Press and hold PTT to exit Local programming mode.

Programming the Frequency

1. When the radio is in channel setting status, press ▲ or ▼ until the "CH. FREQ" appears on the bottom of the screen.

```
┌─────────────────────┐
│           08        │
│ CH. FREQ            │
└─────────────────────┘
```

2. Press S/M and the "08" will flash.

```
┌─────────────────────┐
│          -08-       │
│ CH. FREQ            │
└─────────────────────┘
```

3. Press ▲ or ▼ to select a channel.

70

```
 -01-
CH. FREQ
```
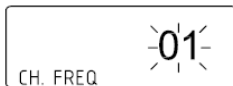
Note: See page 76-79 for information on frequencies for communicating with other business radios. There are 64 available frequencies.

4. Press S/M to confirm the selecting frequency number.

```
  01
CH. FREQ
```

5. Press ▲ or ▼ to set another function, or Press F to exit channel setting

status, or Press and hold PTT to exit Local programming mode.

Note: For Code, TX PWR (transmit power), BCL, Call Tone, Scan List, Priority scan, Compander, Scrambler setting, the process is similar with programming frequency.

Programming SF1 key short press function

1. When the radio is in key setting programming status, press ▲ or ▼ until the SF1 short appears on the bottom of the screen.

```
NONE
SF1 SHORT
```

NOTE: when SF1 function is set to none, "NONE" will appear on the screen.

2. Press S/M to set SF1 key short press function. The "NONE" flashes.

```
NONE
SF1 SHORT
```

3. Press ▲ or ▼ to select the key function.

```
PTT
SF1 SHORT
```

Note: When you set SF1 short press as a PTT function, then SF1 long press will not be set to another function.

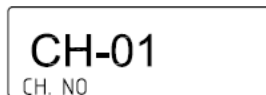4. Press ▲ or ▼ to confirm the key function.

```
PTT
SF1 SHORT
```

5. Press ▲ or ▼ to set another function, or Press F to exit 'KEY SETTING' status, or Press and hold PTT to exit Local programming mode.
   NOTE: For SF1 long, SF2 short, SF2 long, S/M short, S/M long, F short and F long key setting, the process is similar with SF1 short.

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 by fellow radio users. Press the PTT on a channel that is already in use by fellow radio users, the radio will sound an 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 radio has no activity on the channel and no operation performed for 10-12 seconds. This will extend battery life.

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 charge" voice prompt 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 enabled, transmit audio will not be heard clearly unless the receiving radio also has scramble enabled.

Compander

Companding is a feature that allows improved voice quality in weak 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.

Limited Menu Feature (Default S/M Long Press)

The AWR Advantage / AWR Advantage Plus has a limited menu feature. If enabled, this feature allows the user to access commonly altered settings. These settings include:

Battery Save   on/off
PTT Tone   on/off
TX Power   H/M/L
Scan List   on/off

Power On Scan Channel Selection (if enabled by programming software).

Note: Scan List on/off determines if the selected channel will be part of the scan list.

Bluetooth (AWR Advantage Plus – Only)

The "Bluetooth" feature is enabled or disabled via programming software 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 LCD will display "Link ---".   Release the side key and the LED will flash blue.   Follow the pairing instructions for the Bluetooth headset being used. The 'Pairing' process will take approximately 35 seconds.   The headset will speak "device is connected" when the radio and headset are Paired.

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'.   With the radio powered on, access the short menu by long pressing the 'Menu' function key.   When the short menu is accessed, using the up/down arrows, select "Bluetooth".   Press the S/M key to access the Bluetooth menu.   Use the up/down arrow to select "LINK" then press the S/M key.   "LINK …" will be displayed on the LCD and the radio LED will flash blue while 'Connecting'.   The headset will speak "device is connected" when the radio and headset are Paired.   This process typically takes less than 10 seconds to link the radio and headset.

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Recorder (AWR Advantage Plus – Only)

The "Recorder" feature is enabled or disabled via programming software only.

- o If enabled, the AWR ADVANTAGE PLUS will record the audio of all received radio receptions. The limitation for this feature is 128 total messages or approximately 10 minutes of recording time.

- o Available Recorder options are:
    - Off – Recorder is disabled.
    - Normal – Will record all received messages.
    - Signaling – Not used at this time.

- When enabled, the Recorder menu is accessed via the AWR ADVANTAGE PLUS short menu. From the short menu, the user can play previously recorded messages, delete the last received message one by one, or delete all recorded messages. Use the up/down arrow keys to navigate the short menu options. Use the S/M key as an enter key and the F key as the escape key.

- If full, the AWR ADVANTAGE PLUS will provide a warning tone every 15 seconds indicating that the recording capacity is full. No new radio receptions will be recorded.

Note: recording capacity can reach a 'Full' status in two ways, 128 total messages or approximately 10 minutes of recorded time.

Vibration Alert (AWR Advantage Plus – Only)

The "Vibration" feature is enabled or disabled via programming software only.

If enabled the radio will vibrate upon receiving a transmission under the following conditions:

- o Hold timer [S] – determines the duration of a vibration.

    Available duration selections are from 1 to 10 seconds.

o Dropout Delay Timer [S] – After an idle period, the radio will vibrate when a transmission is received.   After that vibration, the 'Dropout Delay Timer' must expire before another vibration will take place (no received messages for the selected time period).

Available Dropout Delay Timer selections are 10 to 200 seconds in 10 second increments.

Note: Default is disabled.

DTMF Encoding (AWR Advantage Plus – Only)

The "DTMF Encoding" feature is enabled or disabled via programming software only.

- DTMF Autodial (AWR-4002 Only) – Function key will allow access to the pre-programmed Autodial List. Use the up/down arrow to select the desired Autodial list name. Press the PTT button to initiate the DTMF string transmission.

- DTMF Store and Send – Function key will allow the selection of individual DTMF digits to create a DTMF string.   Pressing the PTT button will initiate the DTMF string transmission.

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Frequencies list

Display Number	Frequency (MHz)	Display Number	Frequency (MHz)
1	464.5000	10	461.0625
2	464.5500	11	461.0875
3	467.7625	12	461.1125
4	467.8125	13	461.1375
5	467.8500	14	461.1625
6	467.8750	15	461.1875
7	467.9000	16	461.2125
8	467.9250	17	461.2375
9	461.0375	18	461.2625

Display Number	Frequency (MHz)	Display Number	Frequency (MHz)
19	461.2875	29	462.9125
20	461.3125	30	464.4875
21	461.3375	31	464.5125
22	461.3625	32	464.5375
23	462.7625	33	464.5625
24	462.7875	34	466.0375
25	462.8125	35	466.0625
26	462.8375	36	466.0875
27	462.8625	37	466.1125
28	462.8875	38	466.1375

Display Number	Frequency (MHz)	Display Number	Frequency (MHz)
39	466.1625	49	467.8375
40	466.1875	50	467.8625
41	466.2125	51	467.8875
42	466.2375	52	467.9125
43	466.2625	53	469.4875
44	466.2875	54	469.5125
45	466.3125	55	469.5375
46	466.3375	56	469.5625
47	466.3625	57	462.1875
48	467.7875	58	462.4625

Display Number	Frequency (MHz)
59	462.4875
60	462.5125
61	467.1875

Display Number	Frequency (MHz)
62	467.4625
63	467.4875
64	467.5125

CTCSS / DCS Code List

Display Number	Code (Hz)
OFF	OFF
001	67.0
693	69.3
002	71.9

Display Number	Code (Hz)
003	74.4
004	77.0
005	79.7
006	82.5

Display Number	Code (Hz)
007	85.4
008	88.5
009	91.5
010	94.8
011	97.4
012	100.0
013	103.5
014	107.2
015	110.9
016	114.8

Display Number	Code (Hz)
017	118.8
018	123.0
019	127.3
020	131.8
021	136.5
022	141.3
023	146.2
024	151.4
025	156.7
026	162.2

Display Number	Code (Hz)
027	167.9
028	173.8
029	179.9
030	186.2
031	192.8
032	203.5
033	210.7
034	218.1
035	225.7
036	233.6

Display Number	Code (Hz)
037	241.8
038	250.3
Display Number	Digital Code
039	023N
040	025N
041	026N
042	031N
043	032N
044	043N
045	047N

Display Number	Digital Code	Display Number	Digital Code
046	051N	056	125N
047	054N	057	131N
048	065N	058	132N
049	071N	059	134N
050	072N	060	143N
051	073N	061	152N
052	074N	062	155N
053	114N	063	156N
054	115N	064	162N
055	116N	065	165N

Display Number	Digital Code		Display Number	Digital Code
066	172N		076	263N
067	174N		077	265N
068	205N		078	271N
069	223N		079	306N
070	226N		080	311N
071	243N		081	315N
072	244N		082	331N
073	245N		083	343N
074	251N		084	346N
075	261N		085	351N

Display Number	Digital Code	Display Number	Digital Code
086	364N	096	464N
087	365N	097	465N
088	371N	098	466N
089	411N	099	503N
090	412N	100	506N
091	413N	101	516N
092	423N	102	532N
093	431N	103	546N
094	432N	104	565N
095	445N	105	606N

Display Number	Digital Code
106	612N
107	624N
108	627N
109	631N
110	632N
111	654N
112	662N
113	664N
114	703N
115	712N

Display Number	Digital Code
116	723N
117	731N
118	732N
119	734N
120	743N
121	754N
122	023I
123	025I
124	026I
125	031I

Display Number	Digital Code	Display Number	Digital Code
126	032I	136	114I
127	043I	137	115I
128	047I	138	116I
129	051I	139	125I
130	054I	140	131I
131	065I	141	132I
132	071I	142	134I
133	072I	143	143I
134	073I	144	152I
135	074I	145	155I

Display Number	Digital Code
146	156I
147	162I
148	165I
149	172I
150	174I
151	205I
152	223I
153	226I
154	243I
155	244I

Display Number	Digital Code
156	245I
157	251I
158	261I
159	263I
160	265I
161	271I
162	306I
163	311I
164	315I
165	331I

Display Number	Digital Code
166	343I
167	346I
168	351I
169	364I
170	365I
171	371I
172	411I
173	412I
174	413I
175	423I

Display Number	Digital Code
176	431I
177	432I
178	445I
179	464I
180	465I
181	466I
182	503I
183	506I
184	516I
185	532I

Display Number	Digital Code	Display Number	Digital Code
186	546I	196	664I
187	565I	197	703I
188	606I	198	712I
189	612I	199	723I
190	624I	200	731I
191	627I	201	732I
192	631I	202	734I
193	632I	203	743I
194	654I	204	754I
195	662I		

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.

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