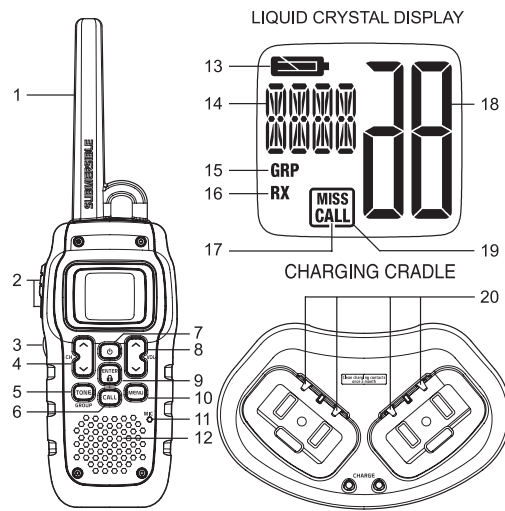


PMR446SWPF-2CK

- 8 PMR Channels
- 121 Privacy Codes (CTCSS Tone and DCS Code)
- Up to 10 km Range*
- Submersible design
- Direct Call
- 122 Group Codes
- Silent Mode
- 10 Selectable Call/Ring Tone Alerts
- Backlit LCD Display
- Roger Beep
- Vibrate Reminder
- All Call
- Auto Channel Change Call
- Battery Charger
- Battery Level Meter
- Channel Monitor
- Channel Scan
- Group Scan
- Keypad Lock

*Range may vary depending on environmental and/or topographical conditions.

PMR446SWPF-2CK RADIO



- | | |
|-----------------------------|----------------------------|
| 1 Antenna | 11 Microphone |
| 2 PTT (Push-To-Talk) Button | 12 Speaker |
| 3 Monitor Button | 13 Battery Level Indicator |
| 4 Channel Up/Down Key | 14 Sub Code Indicator |
| 5 Tone/Group Key | 15 Group Indicator |
| 6 Call Key | 16 Receive Indicator |
| 7 Power key | 17 Call Indicator |
| 8 Volume Up/Down key | 18 Channel Indicator |
| 9 Enter/Lock Key | 19 Missed Call Indicator |
| 10 Menu Key | 20 Charging Contacts |

Congratulations on your purchase of the PMR (Private Mobile Radio) waterproof radio. This lightweight, palm-sized, radio is a state-of-the-art device, equipped with many valuable features. Use it at sporting events, to stay in contact with family and friends, hiking, skiing, outdoors, or in a neighborhood watch for vital communication - even outside by the pool!

Your radio complies with JIS7 water-resistant standards, which means the radio can be submerged in 1.0 meters of water for 30 minutes without damage.

After your radio is submerged in water, you might notice that the sound is distorted. This is because there is still water remaining in and around the speaker and microphone. Just shake the radio to clear excess water, and the sound should return to normal. **Note: If your radio is exposed to salt water, clean your radio thoroughly with fresh water, and dry it before turning it on.**

PACKAGE CONTENTS

Your package contains:

- Two radios
- Two rechargeable NiMH battery packs
- One AC adapter EU/UK
- One dual charging cradle
- Two carabiners
- Two belt clips
- This reference guide

INSTALL THE BATTERY

Your radio uses a supplied NiMH battery pack.

To install the NiMH battery pack:

- 1) Make sure the radio is off.
- 2) Turn the screw holding the battery compartment counterclockwise with a screwdriver, and hold up the battery cover.
- 3) Put the NiMH battery pack in the battery compartment applying the battery contacts to the lower charge contacts. Be sure to follow the instructions written on the battery pack's label. Installing the battery pack incorrectly will prevent the unit from operating.
- 4) Before placing the battery cover back on the radio, check the rubber seal around the battery compartment and the ribbon of the battery pack: make sure that the seal is in good condition and that there is no foreign matter under the seal.
- 5) Replace the battery compartment door. Tighten the screws securely.

USING THE RADIO BATTERY LEVEL AND LOW BATTERY ALERT

This radio has a battery level meter that indicates the status of the batteries. When the battery level is low, the battery level meter icon flashes and then **BATT** appears after 30 seconds. Recharge the NiMH battery pack immediately.

Warning! To avoid the risk of personal injury or property damage from fire or electrical shock, only use the accessories specifically designated for this product.

CHARGING THE RADIO

Your radio includes charging cradle and rechargeable battery packs. Follow these instructions to recharge the radios in a charging cradle.

Make sure to turn the radio OFF before placing the radio in the charging cradle.

Using the Charging Cradle

- 1) Connect the adapter's plug to DC IN 9V jack of the charging cradle and plug the other end into an AC outlet.
- 2) Set the charging cradle on the desk or tabletop, and place the radio in the charging cradle with the keypad facing forward.
- 3) Make sure that the LED illuminates. Charge the battery pack for 16 hours and remove the radio from the charging cradle after charging.

Note:

- Charge time may vary depending on the battery life remaining.
- For fastest charging, turn off the radio before charging.

Warning!:

- The charging cradle is not waterproof. If the charging cradle falls into water, unplug it before attempting to remove it from the water. Allow the cradle to dry completely before reconnecting the power.
- Wipe off dirt or shake water from your radio before placing in the charging cradle if your radio is soiled or wet.

USING THE RADIO

In order to get the most out of your new radio, read this reference guide completely before attempting to operate the unit.

Turning the Radio On and Adjusting the Volume

- 1) Press and hold the to turn the radio ON.
- 2) To change the volume level, press the **VOL** or to increase or decrease the volume level then press **ENTER/** .

- 3) Press and hold the to turn the radio OFF.

Choosing a Channel

Your radio has 8 channels and 121 Privacy codes you can use to talk to others. In order to speak to someone, both your radios must be set to the same channel and Privacy code.

To choose a channel:

Press **CH** or to go to channel mode. To select the desired channel, press **CH** or . And then press **ENTER/** to confirm.

- To change the channel continuously, press **CH** or , then repeatedly press and hold **CH** or for more than 1 second.

SETTING UP GROUP MODE

In order to use Group Mode you need to initialize a couple of settings in your radio:

- Set the radio to Group Mode
- Set a Group Code
- Set a Unit Number
- Set a "Nickname"

Setting the Radio to Group Mode

To set the radio to Group Mode, which enables Direct Call, Auto Channel Change and All Call, press and hold **TONE/GROUP** for 2 seconds. The radio displays **GRP** and group code.

Note: In group mode, you cannot receive transmissions from other radios unless they are also set to the same channel and group code.

Setting the Group Code

Set the group code for your radio group from 0-121. Everyone in your group must select the same group code in order to communicate with each other.

- 1) Tap **TONE/GROUP** in group mode. Press **CH** or to select the group number.
- 2) Press **ENTER/** or **TONE/GROUP** to return to normal operation.

Setting the Unit Number

Each radio in your group needs to be set to a unique unit number, from 1-16.

- 1) Press **MENU** Advance through the menu until **UNIT** appears, and then press **ENTER/** . The current unit number flashes.
- 2) Press **CH** or to select the desired unit number.
- 3) Press **ENTER/** to continue to the next section.

Setting Your Nickname

Your nickname appears on other units' displays when you make a All Call or direct call. This is also

the name that appears on other radio displays when someone wants to make a direct call to you. When no nickname is set, the unit number appears.

- 1) Press **MENU**. Advance through the menu until **UNIT** appears, and then press **ENTER/** . The current unit number flashes, then tap **ENTER/** . The radio displays **n** (or your current nickname) with the first place in the nickname flashing.
- 2) Press **CH** or to select the letter, then **ENTER/** to advance to the next letter until you have entered your nickname.
- 3) Press **MENU** to confirm the setting and exit the menu.

Using Group Mode

Group mode lets you make direct calls to other people in your group without alerting the entire group and also lets you quickly change everyone in your group to another channel from a single radio. Before using group mode, follow the instructions in "Setting Up Group Mode" on every radio in your group. Then, to record the unit ID and everyone's nickname in every radio, send a call to "All" from each radio one time (see "Sending a Direct Call").

Sending a Direct Call

Direct Call lets you call everyone in your group at once, or call a single person in your group without anyone else in the group knowing. It is like a "speed dial" directly to the person(s) you want to talk to.

To call everyone in your group, press **CALL** in group mode. The radio flashes **ALL**. Then, press **CALL** or **ENTER/** . Everyone in your group receives a call "chirp" for about 3 seconds. When the chirp ends, begin your conversation.

Note: When you make a direct call to "all," your radio also sends out your nickname or ID so that it will show up in the call list for everyone in your group.

To call one person in your group, without having other people know, press **CALL** in group mode. Then, use **CH** or to select the person you want to call and press **CALL** or **ENTER/** . Your radio sounds tones for 3 seconds as it sends the call. When the selected person answers, you can begin your conversation. You can silence the call tones at any time by pressing **PTT**.

Your conversation remains private between you and the person you called until 15 seconds after your last conversation. Then, your radio automatically exits private mode.

Automatically Changing Channels

Auto Channel Change lets you easily coordinate a channel change for everyone in your group. You might want to do this when you find you are getting a lot of interference on your current channel.

To start an auto channel change, on any radio in the group tap **MENU**. Advance through the menu until **CHCX** appears, then press **ENTER/** . The current channel flashes. Use **CH ^** or **CH v** to select the target channel. You can check whether the selected channel is clear. Then press **CALL or ENTER/** .

Your radio chirps for about 10 seconds while it sends out the channel change signal. As each radio receives the channel change signal, it chirps once, then changes to the new channel.

To ensure all radios make it to the new channel, we recommend you:

- Make sure you are in an open environment, where the radio will get the best range.
- Optimize range during the channel change signal by raising the radio over your head to give the best possible height.
- Do a "roll call" on the new channel after the move to be sure no one was left behind. If you missed someone, return to the previous channel and issue the signal again.

USING THE RADIO IN STANDARD MODE

Use the radio in standard (not group) mode when you need to be able to communicate with radios that do not have the group feature.

Choosing a Privacy Code

You can select a Privacy Code from 1-121 for each channel. **oFF** (OFF) indicates no Privacy code selected and your radio can receive a signal regardless of the code settings of the transmitting radio.

- 1) Press **TONE/GROUP**. The Privacy code indicator flashes.
- 2) Press **CH ^** or **CH v** to increase or decrease the code. You can also select **oFF**.
- 3) Press **ENTER/** or **TONE/GROUP** to return to normal operation.

Note: Only tones 1-38 are standard across radio brands. Other settings might differ from brand to brand. See the specifications for the specific tones used for each setting.

Channel Scan Feature

Your radio has a channel scan feature that lets you easily scan all 8 channels. When an active channel is detected, the radio pauses on that channel until the channel is clear. Then after a 2-second delay,

the radio resumes scanning. Pressing **PTT** while the scan is paused on a channel lets you transmit on that channel.

To turn on channel scan:

Press **MENU**. The radio displays **SCAN**, and then press **ENTER/** . The channel number changes as the radio rapidly cycles through the channels.

To turn off channel scan:

Press **MENU, PTT** or **CALL**.

Talking on Your Radio

To talk to others using the radio:

- 1) Press and hold **PTT** and speak in a clear, normal voice about 2-3 inches away from the microphone. While you transmit, **TX** appears on the display according to the type of channel. To avoid cutting off the first part of your transmission, pause slightly after pressing **PTT** before you start talking.
- 2) When you finish speaking, release **PTT**. You can now receive incoming calls. While receiving, **RX** appears on the display.

Note: When you press **PTT**, **TX** appear on the display. If **PTT** is continuously pressed, 1 minute after you start pressing **PTT** the transmission stops and you hear a timeout error tone.

Monitor Mode Feature

Your radio lets you listen for weak signals on the current channel at the press of a key.

To turn on the Monitor Mode:

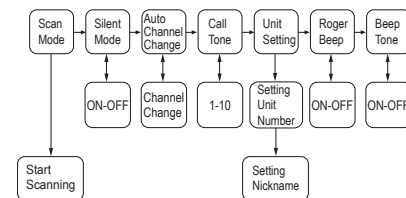
- For brief listening, press **MON**. **MON** appears and **RX** flashes.
- Press and hold **MON** for 2 seconds until two beeps sound for continuous listening. The receiver circuit stays open, so you hear both the noise and weak signals.

To turn off Monitor Mode:

Press **MON** to return to the previous mode. **MON** and **RX** disappear.

Navigating through the Normal Menu

To access the advanced features of your radio has a Menu function. In order to use Auto Channel Change, you need to set your radio to Group Mode.



- 1) To enter the menu, press **MENU**.
- 2) Additional presses of **MENU** advances you through the menu. After the last menu item, the radio exits to the previous mode.
- 3) Other ways to exit the Menu function are:
 - a. Press **PTT, MON, CALL** or **TONE/GROUP**.
 - b. Wait 10 seconds until the radio automatically returns to the previous mode.

Setting Silent Mode

When you turn on the silent mode, all incoming calls are muted: the radio flashes the display backlight, the channel indicator, **SLNT** and **CALL** to alert you to an incoming call. If you do not respond to the call within 15 seconds, the backlight turns off. The radio will also vibrate to remind you that you missed a call. Silent mode is disabled for 15 seconds when you transmit, receive, or press any other button.

To set the silent mode:

- 1) Enter the menu. Advance through the menu until the **SLNT** appears, then press **ENTER/** . The current setting flashes.
- 2) Press **CH ^** to display **on**, then press **ENTER/** .

Note: To prevent unwanted silent alerts, be sure to use a Privacy code or group code whenever you use the Silent mode feature. You can hear the received voice when you turn on channel scan and an active channel is detected even during silent mode.

Missed Call Alerts

If you receive an incoming call while silent mode is on and do not respond, the radio will turn on the Missed Call icon. If you are using the Group Mode, the radio will also indicate the person who made the call.

The radio will additionally remind you of a missed call by vibrating every minute after the call for 3 minutes.

Transmitting a Call Tone

Your radio is equipped with 10 selectable call tones that are transmitted when you press **CALL** in standard mode. The selected tone will be also heard when someone places a direct call to you.

To select a call tone:

- 1) Enter the menu. Advance through the menu until **CALL** appears, then press **ENTER/** . The current call tone number (1-10) flashes.
- 2) Press **CH ^** or **CH v** to increase or decrease the number to the desired call tone. Each tone will be heard through the speaker.

To transmit the selected call tone, press **CALL**. The selected tone is transmitted for a fixed length of time. Call Tone is cancelled if you press **PTT**.

Roger Beep

Roger beep is a beep that is sent to notify the end of transmission. You can hear the roger beep can be heard through the speaker when both roger beep and Beep Tone are on. When roger beep is on and Beep Tone is off, you do not hear the roger beep, but it is transmitted to your party.

To adjusting the roger beep, enter **MENU**. Advance through the menu until **RGR** appears, then press **ENTER/** . The current setting flashes.

To turn OFF roger beep:

Press **CH v** to display **oF**, then press **ENTER/** .

To turn ON roger beep:

Press **CH ^** to display **on**, then press **ENTER/** .

Adjusting the Sound (Beep Tone)

Your radio sounds a beep each time you press a key (except for **PTT**).

To adjusting the sound, enter **MENU**. Advance through the menu until **TONE** appears, then press **ENTER/** . The current setting flashes.

To turn OFF this beep:

Press **CH v** to display **oF**, then press **ENTER/** .

To turn ON this beep:

Press **CH ^** to display **on**, then press **ENTER/** .

Key Lock

Press and hold the **ENTER/** until the **LOCK** appears.

To exit Keylock on mode, press and hold **ENTER/** again.

Note:

- While in keylock on mode, you can still use the radio to receive transmissions, use **CALL** in Standard mode, **VOL ^** or **v**, **PTT, MON** and to turn on or off the radio.
- The radio retains the keylock status even when you cycle power.

Automatic Power Save Feature

Your radio has a unique circuit designed to dramatically extend the life of the batteries. If there is no transmission nor an incoming call within 3 seconds, your radio switches to the Power Save mode. The radio is still able to receive transmissions in this mode.

LCD Backlight

The LCD Backlight automatically turns on when any key (except for **PTT**) is pressed. The LCD remains lit for 10 seconds before turning off.

SPECIFICATIONS

Channels	8 channels
Sub Codes	38 Sub-Audible Tones 83 DCS Codes
Operating Frequency	446.00625 - 446.09375 MHz
Power Source	NiMH Battery Pack
Range	Up to 10 km
Battery Life	16 Hours typ. - NiMH Battery Pack (5/5/90 duty cycle)

Frequency Chart

Ch.	Freq. [MHz]	Ch.	Freq. [MHz]
1	446.00625	5	446.05625
2	446.01875	6	446.06875
3	446.03125	7	446.08125
4	446.04375	8	446.09375

CTCSS Chart (Hz)

Code	Freq.	Code	Freq.
oFF	oFF	20	131.8
1	67.0	21	136.5
2	71.9	22	141.3
3	74.4	23	146.2
4	77.0	24	151.4
5	79.7	25	156.7
6	82.5	26	162.2
7	85.4	27	167.9
8	88.5	28	173.8
9	91.5	29	179.9
10	94.8	30	186.2
11	97.4	31	192.8
12	100.0	32	203.5
13	103.5	33	210.7
14	107.2	34	218.1
15	110.9	35	225.7
16	114.8	36	233.6
17	118.8	37	241.8
18	123.0	38	250.3
19	127.3		

DCS Code List

Code No.	Octal Code	Code No.	Octal Code	Code No.	Octal Code
39	023	67	174	95	445
40	025	68	205	96	464
41	026	69	223	97	465
42	031	70	226	98	466
43	032	71	243	99	503
44	043	72	244	100	506
45	047	73	245	101	516
46	051	74	251	102	532
47	054	75	261	103	546
48	065	76	263	104	565
49	071	77	265	105	606
50	072	78	271	106	612
51	073	79	306	107	624
52	074	80	311	108	627
53	114	81	315	109	631
54	115	82	331	110	632
55	116	83	343	111	654
56	125	84	346	112	662
57	131	85	351	113	664
58	132	86	364	114	703
59	134	87	365	115	712
60	143	88	371	116	723
61	152	89	411	117	731
62	155	90	412	118	732
63	156	91	413	119	734
64	162	92	423	120	743
65	165	93	431	121	754
66	172	94	432		

DECLARATION OF CONFORMITY

This equipment complies with the European R&TTE directive. To view the complete Declaration of Conformity, please refer to the free download available at our web site: www.avera.eu.

For sales and service please contact info@avera.eu

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