

# OWNER'S MANUAL



## FRS RADIOS



## INTRODUCTION

Congratulations! You've just bought the sexiest 2-way radios on the planet. Of course, we may be biased. But consider this: they're seductively simple to use and super easy to carry in your hand, on your arm, or on your hip. Take them on a hike through the mountains or even down to the local shopping mall. Anywhere you want to stay in touch. They're smart, fun, and practical. Over and out.

## FCC INFORMATION

**Caution:** Do not open your radio to make any internal adjustments. Your radio is set up to transmit a regulated signal on one of 14 assigned frequencies. It is against the law to alter or adjust the settings inside the radio. Adjustments to your radio can only be made by a qualified technician using the proper test equipment.

**To be safe and sure:**

- Never open your radio's case.
- Never change or replace anything in your radio except the batteries.

Your radio might cause interference with TV or radio even if it is being operated properly. To determine whether your radio is causing the interference, turn it off. If the interference goes away, your radio is the cause. You can try to eliminate the interference by moving your radio away from the receiver.

If you cannot eliminate the interference, the FCC requires that you stop using the radio.

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.

## INDUSTRY CANADA NOTICE

Industry Canada does not require you to have a license to operate your FRS radio in Canada. Use of this FRS radio in other countries may or may not be allowed. Check with local authorities before transmitting outside of Canada.

This device complies with RSS-210. 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 this device.

## SAFETY INFORMATION

Your wireless hand-held portable transceiver contains a low power transmitter. When the Push-to-Talk button is pushed, it will send out radio frequency (RF) signals. The device is authorized to operate at a duty factor not to exceed 50%. In August 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for hand-held wireless devices.

**CAUTION:**

To maintain compliance with the FCC's RF exposure guidelines, you should hold the transmitter and antenna at least 2 inch (5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away from the face. If you wear the radio on your body while using the headset accessory, only the supplied belt clip for this product can be used. When transmitting, make sure the antenna is at least 1 inch (2.5 centimeters) from your body.

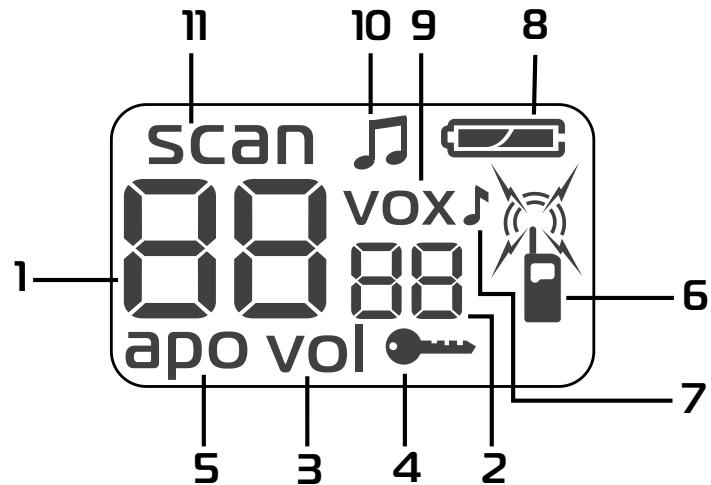
Only the supplied antenna can be used, any unauthorized antennas, modifications, or attachments could damage the transmitter and may violate FCC regulations.

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### LCD DISPLAY SYMBOLS

Your radio comes with a multifunction backlit display. By pressing any button except the **call** and **talk** button, the backlight will illuminate for 10 seconds.



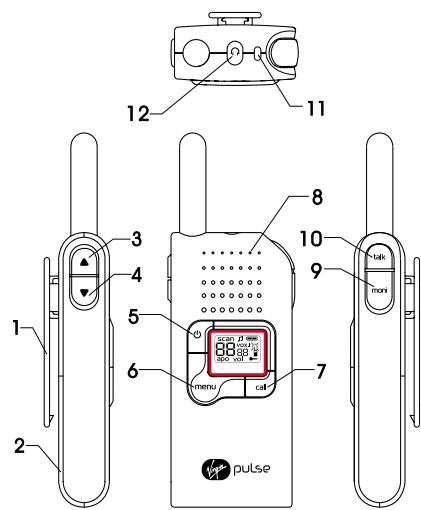
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Number	Symbol	Explanation
1.		Shows the selected channel number
2.		Shows the selected CTCSS code number
3.	 <b>vol</b>	Displays when the volume of radio is being adjusted higher or lower
4.		Displays when the Key Lock is activated
5.	 <b>apo</b>	Indicates the Automatic Power Off mode is activated
6.		Displays when your radio is transmitting or the CALL function is set.
		Displays when your radio is receiving a signal
7.		Indicates that the Roger Beep mode is activated
8.		Indicates current battery level. The symbol flashes when battery is low.
9.	 <b>VOX</b>	Displays when the Voice Detection mode is activated
10.		Displays when the Key Tone function is activated
11.	 <b>scan</b>	Indicates when the Scan mode is activated

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## KEY FEATURES



### 1. HipClip

With the belt clip, you can carry your radio very conveniently wherever you go. Just push the HipClip into the snap slot on the back of the unit. (See Fig. 1). To remove, pull up the snap tab and pull out the HipClip. (See Fig. 2)

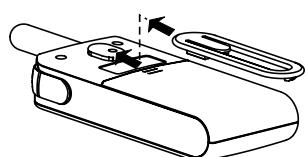


Fig. 1

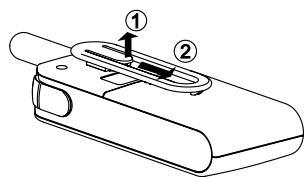


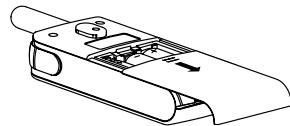
Fig. 2

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## 2. Battery Compartment

Your radio uses three (3) AAA Alkaline batteries for power. To open the battery cover, push in and slide out as shown.



## 3. ▲ Button

The UP button is used to adjust volume and settings up one level.

## 4. ▼ Button

The DOWN button is used to adjust volume and settings down one level.

## 5. Power On/Off Button

Press and hold the **Power On/Off** button for two seconds to turn the radio on and off.

## 6. Menu Button

a) Press **Menu** to enter the menu functions mode.

b) Press and hold **Menu** button when turning on the radio to reset the radio to factory default setting.

## 7. Call Button

You can send a ringer sound to all radios tuned to the same channel and code as your radio. To send a call, press the **call** button.

## 8. Speaker/Microphone

Transmit and receive voice.

## 9. Monitor Button

To monitor everything happening on a channel, including weak transmission, hold down the **moni** button. Release the **moni** button to turn the auto-squelch on. Auto-Squelch function means you will not hear anything on a channel unless someone is transmitting nearby on the same channel.

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#### 10. Talk Button

To talk, press and hold down the **talk** button, and speak into the Speaker/Microphone to transmit.

#### 11. Transmit LED

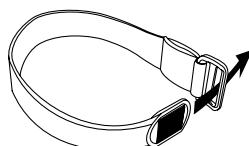
When you transmit, the transmit LED will illuminate.

#### 12. External Microphone/Speaker Jack

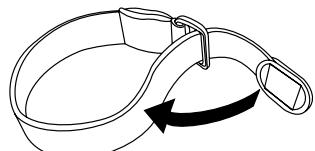
Connect the supplied earbud in this jack.

#### 13. Adjustable Arm Band

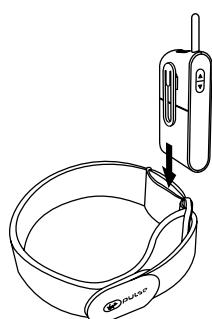
1. Thread the strap through fastener as indicated by the arrow in the figure.



2. Adjust the length of strap to fit, then fasten the end of the strap.



3. Slide the HipClip of the radio into the clip holder on the strap.



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## BASIC FUNCTIONS

### Operating the Radio

1. To start using your radio, insert three (3) AAA alkaline batteries or Ni-MH rechargeable batteries into the battery compartment. Note the battery orientation as indicated in the battery compartment.
2. Press and hold the **Power On/Off** button to turn on the radio. Adjust the volume to a desired level.
3. Select a channel and CTCSS code.
4. Press and hold down the **talk** button and speak into the radio to transmit. The  icon will then appear. When you have finished your transmission, release the **talk** button.
5. The radio will automatically play received transmissions if the **talk** button is not held.

**NOTE: You can only communicate with another radio that is using the same channel and the same CTCSS code as your radio.**

CTCSS stands for Continuous Tone Coded Squelch System, which enables you to use sub-channels within each channel.

### Using Key Lock

You can lock the buttons to avoid accidental operation of the device. Press and hold the **power** and **menu** buttons at the same time to enable or disable the Key Lock. Only the **talk**, **call**, and **moni** buttons can be used when Key Lock is activated.

### Auto-Squelch Function

Your radio has an Auto-Squelch function, which means you will not hear anything on a channel unless someone is transmitting nearby on the same channel. You can turn off the Auto-Squelch to hear weaker, distant transmissions by pressing and holding the **moni** button.

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## MENU OPTIONS

To access the Menu Options, press the **menu** button. The radio will then toggle between the following configurable settings sequentially.

Symbol	Setting	Description
88	Channel	Selects a channel for transmission
88	CTCSS	Selects a CTCSS code for the current channel
VOX	VOX	Enable/disable voice-activated transmission
♪	Roger Beep	Enable/disable beep heard after the finish of a received transmission
♪	Key Tone	Enable/disable beep when a key on the transceiver is pressed
apo	Automatic Power-Off	Enable/disable automatic shut-off after device is idle for 2 hours

NOTE: When you have finished configuring the current setting, press **menu** again to confirm and move to the next setting. To confirm the changes but exit the Menu Options, press the **talk** button.

## Selecting a Channel

You can select between 14 channels to communicate with others. To communicate, the transmitter and the receiver must be on the same channel.

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#### CHANNEL FREQUENCIES

Frequency: MHz

01-462.5625	02-462.5875	03-462.6125	04-462.6375
05-462.6625	06-462.6875	07-462.7125	08-467.5625
09-467.5875	10-467.6125	11-467.6375	12-467.6625
13-467.6875	14-467.7125		

#### Scanning

When you are selecting a channel, you can also activate the channel scan function by pressing and holding **▲** or **▼**. "SCAN" will show on the display. If a valid signal is present, the radio will pause on the current active channel. Press any button to set this as your channel. The scan mode will then search for the next active channel if no button is pressed after 5 seconds. During scan, press the **talk**, **moni** or **call** button to stop the scan mode and exit the menu. Or, press the **menu** button to stop scanning and go to the next setting.

#### Selecting a CTCSS code

CTCSS codes let you talk and listen to other radios set to the same channel and CTCSS code. This is like having a sub-channel within a channel, giving you greater communication flexibility. There are 38 CTCSS codes to choose from.

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#### CTCSS PRIVACY CODES

Frequency: Hz

01: 67.0	02: 71.9	03: 74.4	04: 77.0
05: 79.7	06: 82.5	07: 85.4	08: 88.5
09: 91.5	10: 94.8	11: 97.4	12: 100.0
13: 103.5	14: 107.2	15: 110.9	16: 114.8
17: 118.8	18: 123.0	19: 127.3	20: 131.8
21: 136.5	22: 141.3	23: 146.2	24: 151.4
25: 156.7	26: 162.2	27: 167.9	28: 173.8
29: 179.9	30: 186.2	31: 192.8	32: 203.5
33: 210.7	34: 218.1	35: 225.7	36: 233.6
37: 241.8	38: 250.3		

#### Scanning the CTCSS

You can also activate the CTCSS scan function by pressing and holding **▲** or **▼**. “SCAN” will be shown on the display. If a valid signal is present, the radio will pause on the current active CTCSS channel. Otherwise, the scan mode will then immediately search for the next CTCSS channel if no button is pressed after 5 seconds. During scan, pressing **talk**, **moni** or **call** button will stop the scan mode and exit the menu. Or, pressing **menu** button will stop scanning and go the next setting.

#### Setting VOX

This setting automatically detects and transmits your voice through the selected channel, without needing to push and hold the **talk** button. Select three levels of VOX by pressing **▲** or **▼** key. The **VOX** icon is displayed when this function is enabled.

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LCD Symbol	Description
0	VOX disabled
1	Low sensitivity – only audibly loud voices are transmitted (useful for noisy environment)
2	Normal sensitivity – ideal setting for voice-activated transmission
3	High sensitivity – all detected sounds (including noise) are transmitted

You can use the VOX function with either the radio's speaker/microphone or with the supplied earbud. To enable the VOX function for the integral speaker/microphone press the menu button until "VOX" flashes on the display then use the **▲** or **▼** buttons to select the appropriate VOX level. To disable the VOX function, set the VOX level to "0".

To use the VOX function with supplied earbud follow these steps:

- 1) Set the VOX function to "0" (off)
- 2) Turn the radio off
- 3) Plug the earbud into the radio
- 4) Turn on the radio

The radio will now have VOX enabled (at level "2") for hands-free communication with the earbud. Please note that you have to manually set the VOX function to "0" (off) when removing the earbud to disable the VOX function.

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### Roger Beep Mode

If the Roger Beep mode is enabled, the receiving party will hear a beep tone when you finish transmitting a message. This avoids situations where messages are interrupted because the other party is not aware that the transmission is not finished. Press **▲** or **▼** to activate or deactivate the Roger Beep function. Icon '♪' will be shown if activated.

### Key Tone

The Key Tone function, if enabled, causes the unit to beep whenever a button is pressed. Press **▲** or **▼** key to activate or deactivate Key Tone function. Icon '♪' will be shown if activated.

### APO (Automatic Power Off) Function

This function enables your transceiver to automatically shut itself off if left idle for 2 hours. Press **▲** or **▼** key to activate or deactivate the APO function. Icon 'apo' will show if activated.



## TECHNICAL SPECIFICATIONS

RX Frequency	<b>462.5625-467.7125 MHz</b>
Channels	<b>14</b>
Modulation type	<b>FM</b>
Antenna impedance	<b>50 Ohm</b>
Microphone	<b>condenser type</b>
Power supply	<b>3 x AAA Alkaline</b>
Sensitivity at 12dB Sinad	<b>0.5µV</b>
Adjacent Channel Rejection	<b>45dB</b>
Audio Squelch	<b>Auto</b>
Audio output power	<b>100mW @ 8 Ohm</b>
Audio Distortion	<b>7%</b>
RF Output Power	<b>270 mW ERP @4.5VDC</b>
Harmonic Emissions	<b>more than 46dB</b>
Dimensions (HWD)	<b>102×46×21mm</b>
Weight (without batteries)	<b>70g</b>
Range	<b>up to 2.5 miles</b>
Battery Life	<b>up to 16 hours</b> (90% standby, 5% talk, 5% Rx)

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**Virgin Item#VP-14**

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Customer Care **1.877.4VPULSE** or [www.virginpulse.com](http://www.virginpulse.com) Form: VP-14 IB-00500 Rev. 5/25/03

