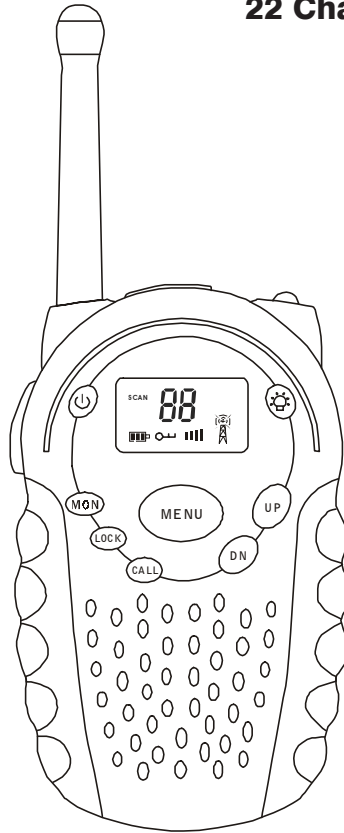


OPERATIONS MANUAL

FRS22SPR

22 Channel 2-Way Radios



Owners Manual
and Instructions



FCC Warnings

ADJUSTMENT: REPLACEMENT or substitution of transistors, regular diodes or other parts of a unique nature, with parts other than those recommended by Columbia, may cause a violation of the technical regulations of part 95 of the FCC Rules, or violation of Type Acceptance requirements of Part 2 of the Rules.

NOTE: 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 a residential installation. This equipment generates, uses and can radiate 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 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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following condition: this device must accept any interference received, including interference that may cause undesired operation.

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Introduction

Included In Your Package

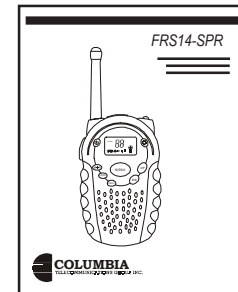
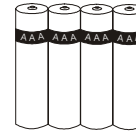
When you unpack your FRS/GMRS Radio, you should find the following items enclosed in the package:

- 22-channel FRS/GMRS unit-2PCS
- Belt-Clip (attached)-2PCS
- 1.5V AAA size battery-8PCS
- This manual

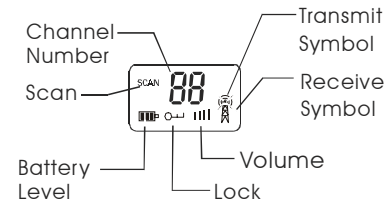
Please check for these items carefully. If any items are missing, call Columbia Telecommunications Customer support at 1-800-889-7434 between 9am and 5pm EST (Eastern Standard Time).

Controls and Displays

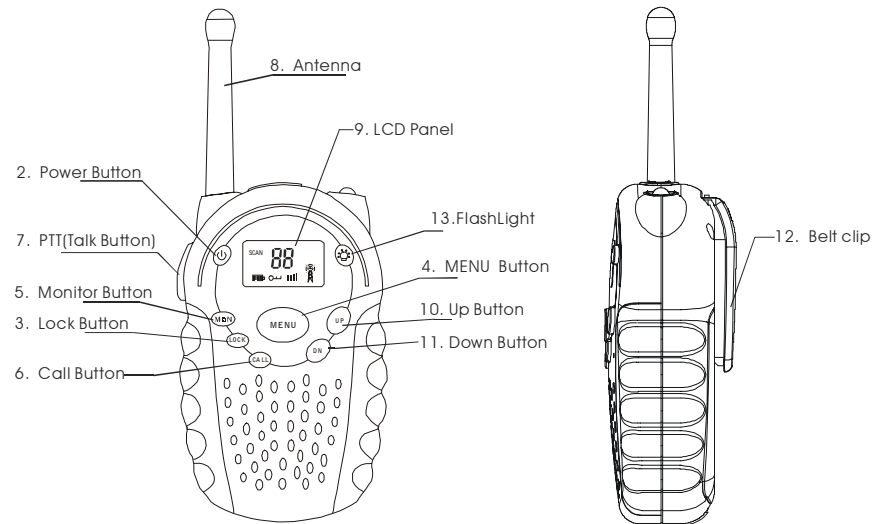
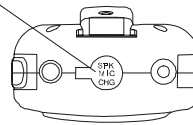
1. Speaker/Mic/Charge jack
2. Power Button
3. Lock Button
4. Menu Button
5. Monitor Button
6. Call Button
7. PTT(Talk Button)
8. Antenna
9. LCD Panel
10. Up Button (Change Channel and Volume)
11. Down Button (Change Channel and Volume)
12. Belt clip
13. Flashlight



Component Guide



1. Speaker/Mic/charge jack



Setting Up Your FRS/GMRS Radio

Battery Installation

To use the radio, you must install 4 AAA size batteries.

Caution: incorrect positioning of the batteries can damage both the batteries and the unit.

To install the batteries:

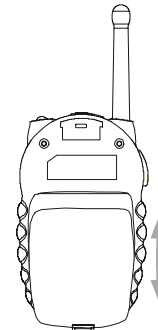
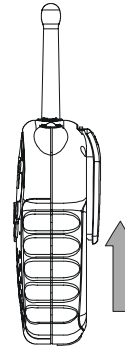
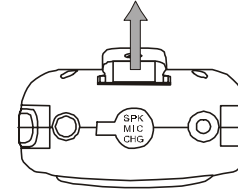
- Remove the belt clip by pulling the tab on the top of the belt clip back, and sliding it up and off of the unit.
- Pull the battery door lock tab down to release the battery cover.
- Insert four AAA batteries. Position the batteries according to the polarity markings on the plastic.
- Replace the battery cover. Snap the lock tab and belt clip back into place.

connecting the adaptor

Lift the rubber flap on the top of the unit to expose the jack.

To use the unit with an AC/DC Adaptor rechargeable batteries insert the round connector (OD 2.5mm) of the 7.5V DC/100mA AC/DC adaptor* into the SPK/MIC/CHG jack on top of the unit.

Note The unit should be turned OFF in order to charge the batteries properly. If the unit is turned ON and placed for charging the charge current is too low for the battery to charge up as the unit is



Setting Up Your FRS/GMRS Radio

still using power. There is no charge indicator during charging at OFF mode. It takes approximately 7 to 10 hours to fully charge the batteries if they are at their lowest level.

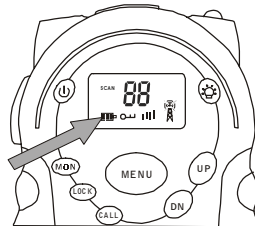


WARNING

DO NOT CHARGE THIS UNIT USING AN AC/DC ADAPTOR* WITH REGULAR AAA ALKALINE BATTERIES INSTALLED. USE ONLY THE AC/DC ADAPTOR WITH AAA RECHARGEABLE BATTERIES

- Do not mix old and new batteries.
- Do not mix alkaline, standard (carbon-zinc), or rechargeable batteries.

* The AC/DC adaptor and rechargeable batteries are sold separately.



Battery Meter

The battery meter is located in the bottom left corner of the LCD display panel on the unit. It looks like a battery with vertical bar inside. As the power is used up, the bar will disappear.

Low Battery Indicator

When the batteries need to be changed, the battery vertical bar inside will disappear. To ensure uninterrupted communication, replace the batteries



Setting Up Your FRS/GMRS Radio

as soon as possible.

Note:

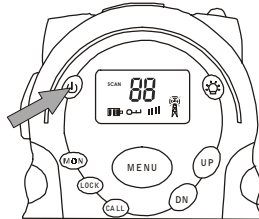
Always use alkaline batteries for replacements. If you store your radio for long periods of time, always remove the batteries. Batteries may corrode and leak when left unused over long periods of time, and permanently damage your radio.

DO NOT PUT BATTERIES INTO FIRE OR EXPOSE TO HIGH HEAT. THEY MAY EXPLODE.

Operation

Turning On This Device

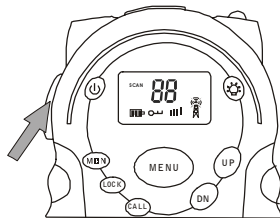
Push & hold the Power button for **at least 2 seconds** to turn the FRS/GMRS radio ON or OFF. The unit will beep, the LCD panel will display information about your radio, and the panel will be illuminated by a green light for several seconds.



Communication with FRS/GMRS Radio

You can communicate two ways with your new FRS/GMRS radio. There are 22 channels available to you. You can either talk directly to others and hear their response, or you can call or page them with an audible tone.

The FRS/GMRS radios can only communicate when either the TALK button (for speech), or the CALL button (for paging) is pressed. The unit can only receive when both buttons are fully released.

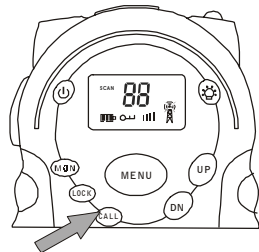


Receiving Communications

When your FRS/GMRS unit is turned on and is not being used to transmit voice communication or pages, it is always in the listening mode.

You cannot receive any transmissions when the **TALK** or **CALL** buttons are pressed, even if you aren't saying anything. Pressing these buttons automatically overrides and turns off the receive mode.

When you are using the unit in conversation, you



Operation

must release the **TALK** and/or **CALL** buttons to hear the responses of the other people. Failure to do so will keep your unit in transmission mode, preventing you from hearing other units.

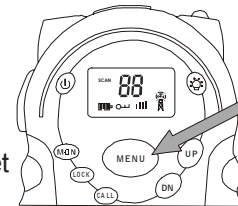
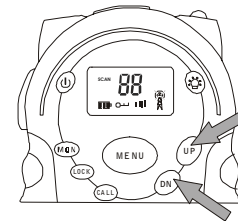
Respond Prompt Tone

When the person talking to you from another radio finishes speaking and releases his **TALK** button, you will hear a tone from your unit. This means that the other radio is now in receive mode, and you can begin your transmission.

Adjusting the Speaker Volume

The Up and Dn(DOWN) Buttons control the volume, change channels, codes and program the FRS.

- Press the UP button to increase volume.
- Press the DN button to decrease volume.
- The LCD displays the volume level by the number of bars on the screen.



Channel selection

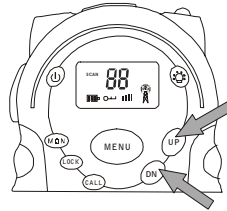
Your FRS/GMRS operates on one of fourteen preset channels. You can only talk to other radios that are set to the same channel as your unit. The chart on page 17 gives the frequencies on which your radio operates.

To change the channel:

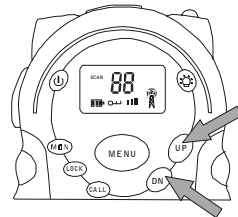
- Press the **MENU** (Channel Set) button. The large 2-digit channel number on the display panel will begin to flash.



Operation



- While the number is flashing, press the up or down arrow buttons until you reach the desired channel.
- Press the **MENU** (Channel Set) button again to set the channel.



If you do not press **MENU** the second time, The unit will automatically return to normal operation in ten seconds.

Frequencies

Other FRS radio models may have only 2 channels. If you want to communicate with these units, you must set the channels as follows:

22-ch radios	Frequency	2-ch radios
Chan 8	467.5625 MHz	Chan 1
Chan 12	467.6625 MHz	Chan 2

To speak to Another Radio

- Turn the volume up to an audible level.
- Press and hold the **TALK** button on the left side of the unit. The signal transmitting waves on the LCD display will appear.
- While pressing on the talk button, speak into the microphone with your mouth 2 to 3 inches from the unit.
- When you finish speaking, release the **TALK** button immediately to hear the response.

Range

Operation

Your FRS/GMRS unit has a range of up to 2 miles. This range can be decreased by certain atmospheric and environmental conditions at the time of your conversation.

Some conditions that affect range are:

- Buildings
- Dense trees or foliage
- Hilly or mountainous terrain

The best range will be in flat, open terrain, without obstructions. Using the MON (monitor) button to override the automatic squelch will help extend the range to the maximum limits.

Your range is also dependent on the battery condition of the radio, the type of terrain where you are located, and the strength of the signal from the transmitting radio.

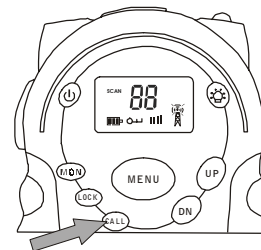
Calling (Paging) Another Radio

To send a page, or CALL

- Make sure both units are on.
- Turn the volume up to an audible level.
- Press and release the **Call** button on the front of your radio.

The other unit will make a 2 second call (page) tone. They can then respond to your call by either:

- Pressing the **TALK** button and speaking into the radio.
- Pressing the **Call** button, which activates a 2 second call (page) tone on your radio.



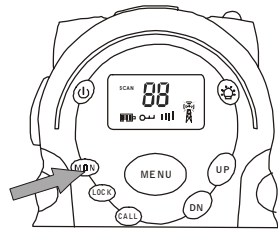
Special Features

Automatic Squelch

Your FRS/GMRS is equipped with automatic squelch circuitry, which filters out weak transmissions and unwanted noise. These signals may be picked up as background static, and are usually caused by terrain conditions, or if you have reached the limit of your range.

Monitor

This feature turns off the Automatic Squelch feature, either momentarily or continuously. This allows your unit to receive all signals to its maximum range, but it may pick up static signals as well. You can set the speaker volume by the noise of the static.



Momentary monitor feature activation:

- Press the **MON** button for up to 4 seconds. The monitor signals on the LCD display will appear.
- Release the button to restore the automatic squelch

Continuous monitor feature activation:

- Press the **MON** button for more than 5 seconds until you hear a “beep” sound and release it. The monitor signals on the LCD display will appear.
- To restore automatic squelch, press and release the **MON** button again.

NOTE: You cannot transmit when the

Special Features

MONITOR feature is activated.

Channel Lock

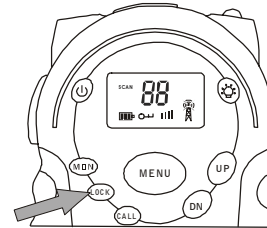
This feature locks the channel adjustment buttons on the front to the unit so that the channel cannot be changed accidentally.

To Lock the channel:

- Press the **Lock** button for 5 seconds until you hear a “beep” sound. The lock symbol - shaped like a key - will appear on the LCD display.

To Unlock the channel:

- Press the **Lock** button for 5 seconds until you hear a “beep” sound again. The lock symbol in the LCD display will disappear.

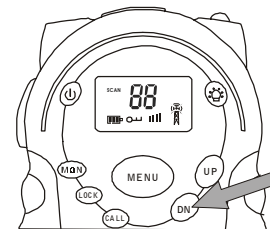
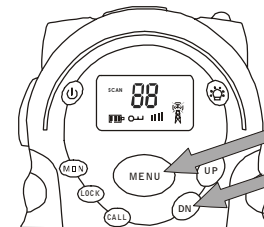


Channel Scan

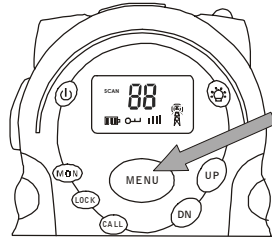
Your radio can scan across its 22 channels for any activity. This allows you find other radios without having to change channels.

To scan:

- Press and hold the **MENU** button and the **DN** button at the same time for 2 seconds.
- The channel display will change as it scans through the channels.
- When a signal is detected, the unit will pause and listen for 4 seconds.
- Press the **TALK** button to stop the scan and communicate, or the **DN** button to continue.
- To stop the scanning operation, press the **MENU** button again.



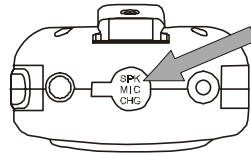
Special Features



Automatic Battery Save

Your FRS/GMRS unit has special circuitry designed to extend the life of your battery. When the radio is not used for 4 seconds, it will switch itself into a low power mode.

Battery Save does not affect the radio's ability to receive transmissions. When a signal is detected, it automatically returns to full power.



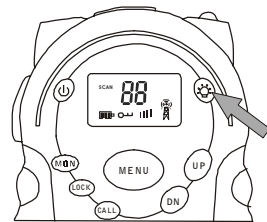
External Mic/Spk/Chg Jacks

Your FRS/GMRS radio can be used with an optional external microphone and speaker*, usually sold together in a ear bud/mic combination. The jacks are located under the protective rubber cover on the top of the unit.

To attach external speaker/microphone headsets or ear bud/mic*.

- Lift the rubber flap on the top of the unit to expose the jack.
- Insert the appropriate plug into the correct jack.

*The external microphone and speaker ear bud mic are sold separately.



Built-in flashlight

As an added feature, your FRS/GMRS has a built-in flashlight that can be used in sending light signals or for your lighting needs.



Customer Support

Customer Support

Thank you for purchasing the Columbia FRS/GMRS 2-way Radio. This is a high-quality communications device that can give you many years of reliable service. Please read these instructions carefully.

Should you encounter any problems with the product or not understand its many features, please refer to this owner's manual. If after referring to the manual, you still need help, call Customer Service at 1-800-889-7434 between 9am and 5pm EST (Eastern Standard Time).

Service

For your own protection, retain your original sales receipt indicating the date and place where you purchased this product. We will not be able to service your FRS unit without a copy of this receipt.

Also, as previously suggested, retain all packing materials. In case you should need to ship your unit for servicing, this product is covered by a ONE YEAR LIMITED WARRANTY.

Channel Frequencies and Code Charts

FRS/GMRS Channel Frequencies

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	462.5625	12	467.6625
2	462.5875	13	467.6875
3	462.6125	14	467.7125
4	462.6375	15	462.5500
5	462.6625	16	462.5750
6	462.6875	17	462.6000
7	462.7125	18	462.6250
8	467.5625	19	462.6500
9	467.5875	20	462.6750
10	467.6125	21	462.7000
11	467.6375	22	462.7250

How to Obtain a GMRS License?

You must obtain an FCC license (or be an immediate family member of someone who is already licensed) before you may transmit with a GMRS radio.

To apply for a GMRS license, you must complete and return a Form 605 to the FCC. You can obtain a copy of the FCC Form 605 and its instructions by calling: 1-800-Call-FCC. You can also obtain a copy from the FCC's Web Site: www.fcc.gov/formpage.html. You can also apply for a GMRS license directly on the Web. Applicants must also submit an FCC Form 159 (Remittance Advice). It is available from the same sources mentioned above.

As of September 2000, the cost of obtaining an FCC license in the GMRS is \$ 85. This includes a \$50 application fee, and a usage fee of \$35 (\$7 per year for the five-year license). This \$85 fee total must be submitted along with the application.



FCC Warning Statement

To maintain compliance with the FCC's RF exposure guidelines hold the transmitter and ANTENNA at least 1 inch (2.5cm) from your face and speak in a normal voice, with the ANTENNA pointed up and away from the face. If you wear the handset on your body while using the headset accessory, use only the supplied belt clip for this product and when transmitting, take it out of the belt to ensure that the ANTENNA is at least 1 inch (2.5cm)

Use the only supplied ANTENNA. Unauthorized ANTENNAS, modifications, or attachments could damage the transmitter and may violate FCC regulations.

Please use the shipping address below for the authorized Warranty Service center:

COLUMBIA TELECOMMUNICATIONS INC.
174 Milbar Blvd.
Farmingdale, NY 11735





