
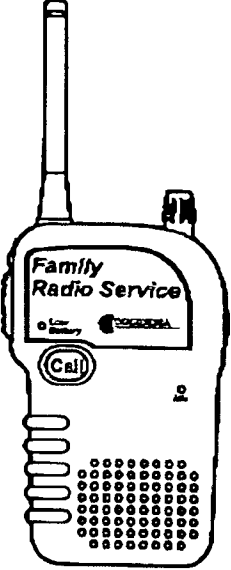



OPERATIONS MANUAL



COLUMBIA
TELECOMMUNICATIONS & GROUP INC.



FRS-2

Dual Band 2-Way Radios
Family Radio Service Frequencies

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.
- Connect the equipment into an outlet circuit different from that to which the receiver is connected.
- 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 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.

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26/3/99
Billy

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+ 852 2191 7788
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TOTAL P.01

1 2 3 4 5 6 7
TO: JIS
From: In-Tech
Attn: Billy
Stewart

Introduction

Included Your Package

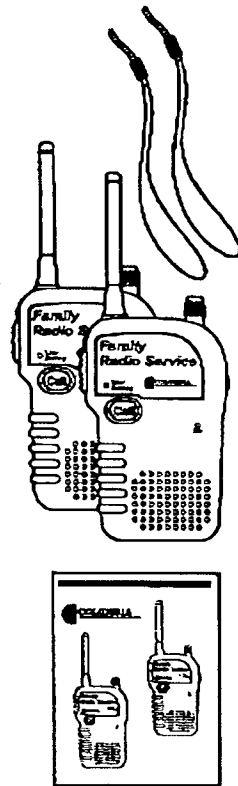
When you unpack your FRS radios, you should find the following items enclosed in the package:

- Two 2-channel FRS units.
- Two Belt-Clips (attached)
- Two wrist straps
- This manual

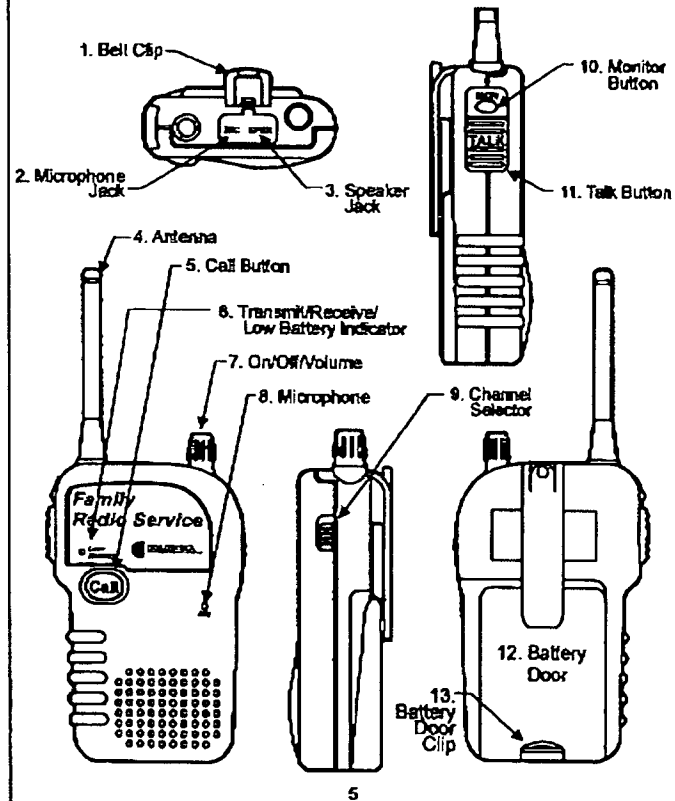
Please check for these items carefully. If any items are missing, call Columbia Telecommunications Customer support at 1-800-889-7434 between 9am and 5pm EST (Eastern Standard Time).

Controls and displays

1. Belt Clip
2. Microphone Jack
3. Speaker jack
4. Antenna
5. Call Button
6. Transmit/Receive/Low Battery Indicator
7. On/Off/Volume Knob
8. Microphone
9. Channel Selector
10. Monitor Button
11. Talk Button
12. Battery Door
13. Battery Door Clip



Component Guide



Setting Up Your FRS Radio

Battery Installation

Batteries are not included with your FRS 2-way radio. To use the radio, you must install 4 AAA size alkaline batteries. Always use high quality batteries in the unit, to prevent damage from leaking or corrosion.

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

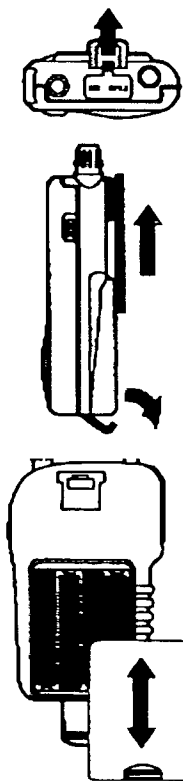
To install the batteries:

- Remove the belt clip by pulling the tab on the top of the clip back, and sliding belt clip up and off 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.

Note:

When the batteries are low or need charging, the BATT LOW indicator in the lens will blink red. Always use alkaline batteries for replacements.

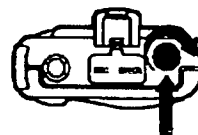
DO NOT PUT BATTERIES INTO FIRE OR EXPOSE TO HIGH HEAT. THEY MAY EXPLODE.



Operation

Turning On Your FRS

Turn the ON/OFF/Volume knob on the top of the unit clockwise. An audible tone will tell you that the unit is on and the TX/RX indicator on the front of the unit will glow green.



As the knob is turned, the volume will increase or decrease, based on the direction it is turned. Whenever the unit is on you can receive communications.

Communication

You can communicate two ways with your new FRS radio. You can either talk directly to the other party and hear their response, or you can call or page them with an audible tone.

In all cases, both units must be set to the same channel, or they will not communicate.

Note: The FRS radios can only communicate when either the TALK button (for conversation) or the CALL button (for paging only) is pressed. The unit can only receive when both buttons are fully released.

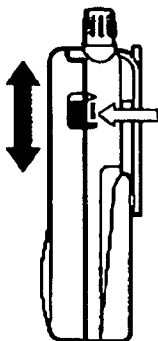
Operation

Channel selection

Your FRS operates on one of two preset channels. You can only talk to other radios that are set to the same channel as your unit is set to, so everyone who will be communicating must agree which channel will be used on that occasion.

To set the channel,

- Slide the switch on the right side of the unit up or down.
- The up position is channel A.
- The down position is channel B.



Depending on local conditions and radio traffic, one channel may be clearer than the other. For best results, check both channels before use.

Frequencies

Other FRS radio models may have 14 channels. If you want to communicate with these units, you must set the channels as follows:

Your radio	14-ch radios	Frequency
Chan A	Chan 8	467.5625 Mhz
Chan B	Chan 12	487.6625 Mhz

Operation

Receiving communications

When your FRS 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 transmit mode.

When you are using the unit in conversation, you **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 the other radio is now in receive mode and you can begin your transmission.

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Operation

To speak directly to another radio

- Make sure both units are on.
- Turn the volume up to an audible level.
- Set both units to the same channel.
- Press and hold the TALK button on the left side of the unit.
- Speak into the microphone with your mouth 2 to 4 inches from the unit.
- When you finish speaking, release the TALK button immediately, to hear the response.

The TX/RX indicator will glow red whenever you are transmitting.

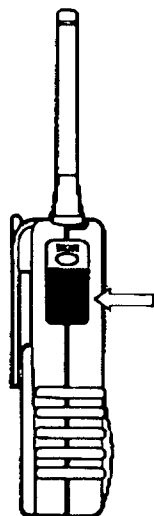
Range

Your FRS 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.



Operation

Calling (paging) the other radio

Note: The volume of the incoming ALL (Page) tone is set by the volume button on the top receiving unit.

To send a page, or ALL

- Make sure both units are on.
- Turn the volume up to an audible level.
- Set both units to the same channel.
- Press and release the ALL 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, or
- Pressing the call button, which activates a 2 second call (page) tone on your radio.



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Special Features

Automatic Squelch

Your FRS is equipped with automatic squelching circuitry, which will automatically filter 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 button

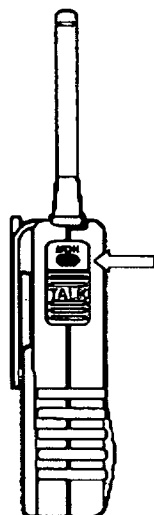
When the radio is receiving transmissions, this button temporarily turns off the Automatic Squelch feature, for as long as you hold it down. This allows your unit to receive all signals to its maximum range, but it may pick up static signals as well.

To activate the full range Monitor feature:

- Press and hold the MON button
- Release the button to restore the automatic squelch

NOTE: The MON button can be used only when receiving. You cannot transmit when the MON button is pressed.

Your range is 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.



Special Features

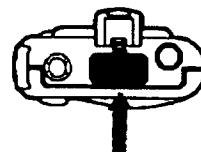
Automatic Battery Save

Your FRS unit has special circuitry designed to extend the life of your battery. When the radio is not used for 10 seconds, it will automatically switch itself into a low power mode.

The Battery Save does not affect the radio's ability to receive transmissions. When the unit has any activity, it automatically returns to full power.

External Microphone/Speaker Jacks

Your FRS radio can be used with an optional external microphone and speaker, usually sold together in a headset combination. The jacks on the top of the unit, under the protective rubber cover, are used for this purpose.



To attach external speaker/microphone headsets:

- Lift the rubber flap on the top of the unit to expose the jacks.
- Insert the appropriate plugs into the correct jacks.
- Note that the sizes of the jacks and plugs are different for speakers and microphones.

Customer Support

Customer Support

Thank you for purchasing the Columbia FRS 2-way Radio. This is a high-quality communications device that can give you many years of reliable service. Please read these instructions carefully, and refer to the care instructions at the back of the manual.

Should you encounter any problems with the product or not understand its many features, please refer to this owner 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

Important suggestion: 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.

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

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COLUMBIA TELECOMMUNICATIONS Limited Warranty

COLUMBIA TELECOMMUNICATIONS warrants this unit to be free from defects in material and/or workmanship for a 1-year period beginning with the date of purchase. This warranty does not cover second-hand ownership or products that are purchased for sale or lease to another. This warranty does not cover damage resulting from acts of God, lightning accident, misuse, improper installation or operation, or unauthorized repair or alteration.

If this unit should become defective within the first 30 days from purchase, return it to the retailer where obtained (with all of the original packing materials and parts) for an over-the-counter exchange. If this unit becomes defective after the first 30 days but within one year of purchase, we will replace it with a new or reconditioned one of the same or similar style. The replacement unit will be warranted for a period of 90 days or the remainder of the original one year period, whichever is longer.

To obtain warranty service on your COLUMBIA TELECOMMUNICATIONS equipment, you must provide proof of date of purchase. We strongly recommend that you keep your sales receipt and all of the packing materials in order to take advantage of your products limited warranty. Include all accessories and owners manual when returning to authorized service center (listed below.) Do not forget to include your name and return address (print please), a brief description of the defect, \$10.00 check (for shipping and handling) and a copy of your sales receipt.

There are no express warranties except as listed above. COLUMBIA TELECOMMUNICATIONS will not be liable for incidental or consequential damages resulting from the use of this product, or resulting from misuse contrary to this warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you. This warranty gives you specific and legal rights and you may also have other rights which vary from state to state.

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

COLUMBIA TELECOMMUNICATIONS INC.
174 Main Bar Blvd.
Farmingdale, NY 11735

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