

INSTRUCTION MANUAL

 X Preliminary Manual attached.

 Complete Manual attached.

Let's Talk About Your New Radio

Motorola FR50 radios operate on Family Radio Service (FRS) designated frequencies. This license-free, short range, two-way radio service was established specifically for family and group recreational use. You can use your radios anywhere within the United States and other areas listed by the FCC. Contact the FCC for more information.

Batteries

FR50 radios operate with 3 AA alkaline batteries providing approximately 30 hours of use. That's about 3 hours of talk and 27 hours of standby time.

To Install:

1. **With the back of the radio facing you, flip the battery door clip down to release door.**
2. **Lift door off.**
3. **Insert 3 AA batteries making sure the plus signs are aligned on batteries and in the battery chamber.**
4. **Replace the battery cover.**
5. **Reposition the battery door clip and snap into place.**

Low Battery Alert:

When batteries are low, the radio will chirp 1 to 2 seconds after turning power on, every 10 minutes, and after release of the Push-To-Talk button. Replace the batteries immediately to avoid interrupted use.

Note: Remove batteries before storing your radio for extended periods. Batteries corrode over time and may cause permanent damage to your radio.

Belt Clip

Motorola FR50 radios come standard with a belt clip.

To Attach:

1. **Locate the belt clip attachment opening on the radio's back.**
2. **Align the belt clip with the grooves in the radio back.**
3. **Gently push up until it clicks into place.**

To Remove:

1. **Grasp radio firmly.**
1. **Pull belt clip up and off the radio back.**

Before You Can Talk

Read this manual carefully, make sure you know how to properly operate the radio before use.

Motorola FR50 radios have 14 channels. To talk to others, all radios in your group must be set to the same channel (see charts in "Appendix A").

Turn the Radio On:

1. **Rotate Power/Volume knob until you hear a click. The radio will beep to confirm. The display will show the current channel.**
2. **To turn radio off, Rotate Power/Volume knob until you hear a click and display disappears.**

Set the Channel

1. **Turn the radio on.**
1. **Press Menu button. Current channel will begin to flash.**

1. Use scroll buttons to set a new channel. The new channel will flash.
1. Press Menu button to set new channel.

To Communicate

Monitor Button:

The Monitor button is used to check activity on current channel before transmitting. It also lets you hear the radio's volume level when you're not receiving so you can adjust the volume.

Radio Etiquette:

Your radio's 14 channels are shared on a "take turns" basis. This means other groups may be talking on the channels. For uninterrupted communications, follow the steps below:

1. Use the Monitor button to check activity on the channel before talking.
2. Don't talk over someone who is already using the channel – your message may not be completely heard. Try changing the Channel to avoid channel congestion.

Note: Since the channels are shared, your conversations will not be private and you may hear others talking.

Adjust the Volume:

Rotate Volume knob until you reach a comfortable listening level. Rotate knob clockwise to increase and counter clockwise to decrease volume.

Sending Messages:

1. Check channel activity by pressing Monitor button, you'll hear static if the channel is clear to use. Don't transmit if someone's talking on the channel.
 2. To maximize clarity, hold radio 2 to 5 inches from mouth. Press Push-To-Talk button and speak into radio. The LED Indicator Light glows continuously when transmitting.
- To receive messages, release the Push-To-Talk button.

Time-out Timer:

The Time-out Timer feature helps extend battery life. The radio will emit a continuous warning tone if the Push-To-Talk button is pressed for 60 continuous seconds and will stop transmitting.

Call Tone

Call Tones identify sender and alert receiver. Press the Call button and users on your channel will be alerted with your Call Tone.

To Use Call Tone:

1. Turn radio on.
1. Press Call button.

Compannder Feature: FR50 radios have a built-in voice compander that enhances the audio quality, creating crystal clear communications.

Talk Range

Motorola FR50 radios have been designed to maximize performance and improve transmission range in the field. It is recommended that you do not use the radios closer than 5 feet apart because of heavy interference.

Optimal Range: Maximum talk range in flat, open areas, for up to 2 (two) miles.

Medium Range: Range is decreased when buildings and trees are in the way.

Minimal Range: Dense foliage and mountains can limit range.

Care of Your Radio

To clean the radio, wipe with a soft cloth dampened with water. Don't use cleaners or solvents on the radio, they can harm the body and leak inside, causing permanent damage. Battery contacts may be wiped with a dry, lint-free cloth.

If the radio gets wet, turn it off and remove batteries immediately. Dry battery compartment with a soft cloth to minimize potential water damage. Leave cover off the battery compartment overnight or until completely dry. Do not use the radio until completely dry.

Frequently Asked Questions

Will FR50 radios work with other two-way radios?

Radios operating on the same frequency can communicate with each other. Radios with Interference Eliminator codes must have the codes off to talk to FR50 radios.

Why are there so many channels?

The more channels, the less channel congestion. If people use the radios in congested areas, i.e. malls, zoos, ski areas, the choice of more channels reduces interrupted communications. If you hear other conversations, simply change your channel to find a less busy channel to talk on.

How many radios can communicate in the same group?

As many as you want, as long as the radios are set to the same channel and code (or codes are inactive) and they are within range of each other.

How far do the radios talk?

FR50 radios are "line of sight" meaning if the user can see their talk partner, the radios can talk up to 2 miles. Heavy foliage and cement structures will adversely affect range. If skiers are on opposite sides of a mountain, chances are they will not be able to communicate. If they are on the same side of the mountain, however, the communications should be clear.

How durable are FR50 radios?

All Motorola radios are subjected to and must pass the Motorola Accelerated Life Test. This test simulates 5 years of field stress including 4foot drops on to concrete floors. Motorola backs this quality with a limited 1year warranty to ensure customer satisfaction.

Safety Information

Exposure to Radio Frequency Energy

The design of your Motorola two-way radio, which generates radio frequency (RF) electromagnetic energy (EME), complies with the following national and international standards and guidelines.

The Relevant Guidelines and Standards Are:

- FCC Report and Order FCC 96-326 (August, 1996)
- American National Standards Institute (C95-1 - 1992)
- National Council on Radiation Protection and Measurements (NCRP - 1986)
- International Commission on Non-Ionizing Radiation Protection (ICNRP - 1986)
- European Committee for Electrotechnical Standardization (CENELEC)
- Env. 50166-1 1995E - Human Exposure to Electromagnetic Fields Low Frequency (0Hz to 10kHz)
- Env. 50166-2 1995E - Human Exposure to Electromagnetic Fields High Frequency (10kHz to 300GHz)
- Proceedings of SC 211/8 1996 - Safety Considerations for Human Exposure to E.M.F.'s from Mobile Telecommunications Equipment (M.T.E.) in the Frequency Range 30 MHz - 6 GHz (E.M.F. - Electromagnetic Fields)

To assure optimal radio performance and to ensure that exposure to RF energy is within the guidelines in the above standards, the following operating procedures should be observed:

FOR PORTABLE TWO-WAY RADIOS

When transmitting with a portable radio, hold the radio in a vertical position with its microphone one to two inches (2.5cm to 5.0cm) away from your mouth. Keep antenna at least one inch (2.5cm) from your head and body when transmitting. If you wear a portable radio on your body, ensure that the antenna is at least one inch (2.5cm) from your body when transmitting.

ELECTROMAGNETIC INTERFERENCE/COMPATIBILITY

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed or otherwise configured for electromagnetic compatibility.

To avoid electromagnetic interference and/or compatibility conflicts, turn off your radio in any facility 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 instructed to do so, turn your radio off when on board aircraft. Any use of a radio must be in accordance with airline regulations or crew instructions.

Cautions and Warnings

Damaged Antennas

Do not use any radio that has a damaged antenna. If a damaged antenna comes in contact with the skin, a minor burn may result.

Batteries

All batteries can cause property damage and/or bodily injury such as burns if a conductive material such as jewelry, keys or beaded chains touches exposed terminals. The material may complete an electrical circuit (short circuit) and become quite hot. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse or other container with metal objects.

WARNING

For Vehicles With an Air Bag

Do not place a portable radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a portable radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to occupants of vehicle.

Potentially Explosive Atmospheres

Turn your radio OFF when in any area with a potentially explosive atmosphere, unless it is a type especially qualified for such use (for example, Factory Mutual Approved). Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Batteries

Do not replace or change batteries in a potentially explosive atmosphere. Contact sparking may occur while installing or removing batteries and cause an explosion.

Blasting Caps and Areas

To avoid possible interference with blasting operations, turn your radio OFF near electrical blasting caps or in a "blasting area" or in areas posted: "Turn off two-way radio". Obey all signs and instructions.

Note: Areas with potentially explosive atmospheres are often, but not always, clearly marked. They include fueling areas such as below deck on boats, fuel or chemical transfer or storage facilities; areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

1 YEAR LIMITED WARRANTY

Motorola, Inc. warrants the enclosed product against defects in material and workmanship under normal use and service for one (1) year provided it is returned in accordance with this warranty. If defective, the product will be repaired or replaced at Motorola's option, at no charge, with dated proof of purchase. This warranty does not cover defects or damage resulting from: misuse, improper operation, unauthorized modification, liquid, batteries, or normal wear and tear.

MOTOROLA IS NOT LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. HOWEVER, SOME STATES DO NOT ALLOW LIMITATIONS ON INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

For warranty information and service call: 1-800-353-2729.

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FCC LICENSE NOT REQUIRED

FCC Information: Changes or modifications not expressly approved by Motorola may void the user's authority granted by the FCC to operate this radio and should not be made. To comply with FCC requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs in the private land mobile and fixed services as certified by an organization representative of the users of those services. Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

Accessories

There are many carrying accessories (sold separately) available for FR50 radios. Whether it's a Belt Case or one of several audio accessories, Motorola has a great accessory for you! For information contact place of purchase or call Motorola at: 1-800-353-2729

Channel	MHz
1.....	462.5625
2.....	462.5875
3.....	462.6125
4.....	462.6375
5.....	462.6625
6.....	462.6875
7.....	462.7125
Channel	MHz
8.....	467.5625
9.....	467.5875
10.....	467.6125
11.....	467.6375
12.....	467.6625
13.....	467.6875
14.....	467.7125

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