MOTOROLA

User Manual
Manuel de l'Utilisateur
Manual del Usuario
Manual do Usuário

TALKABOUT

TWO-WAY RADIO
RADIO BIDIRECTIONNELLE
RADIO DE DOS VÍAS
RÁDIO DE COMUNIÇÃO PESSOAL

FR50/FR60

Table Of Contents

Your New Radio

Motorola FR50 and FR60 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.

Note:
For FR60 to fully communicate with FR50, its channel code must be set to "0".

Power/Volume Knob

LED Indicator Light

PTT (Push-To-Talk) Button

Call (call) Button

Monitor (mon) Button

Battery Cover Latch
(radio back)

Interference
Eliminator
Code*

Scroll
Buttons

Accessory
Jack

Menu (menu)
Button**

Microphone

TALKABOUT

fr60

MOTOROLA

call

mon

menu

mic

14 38
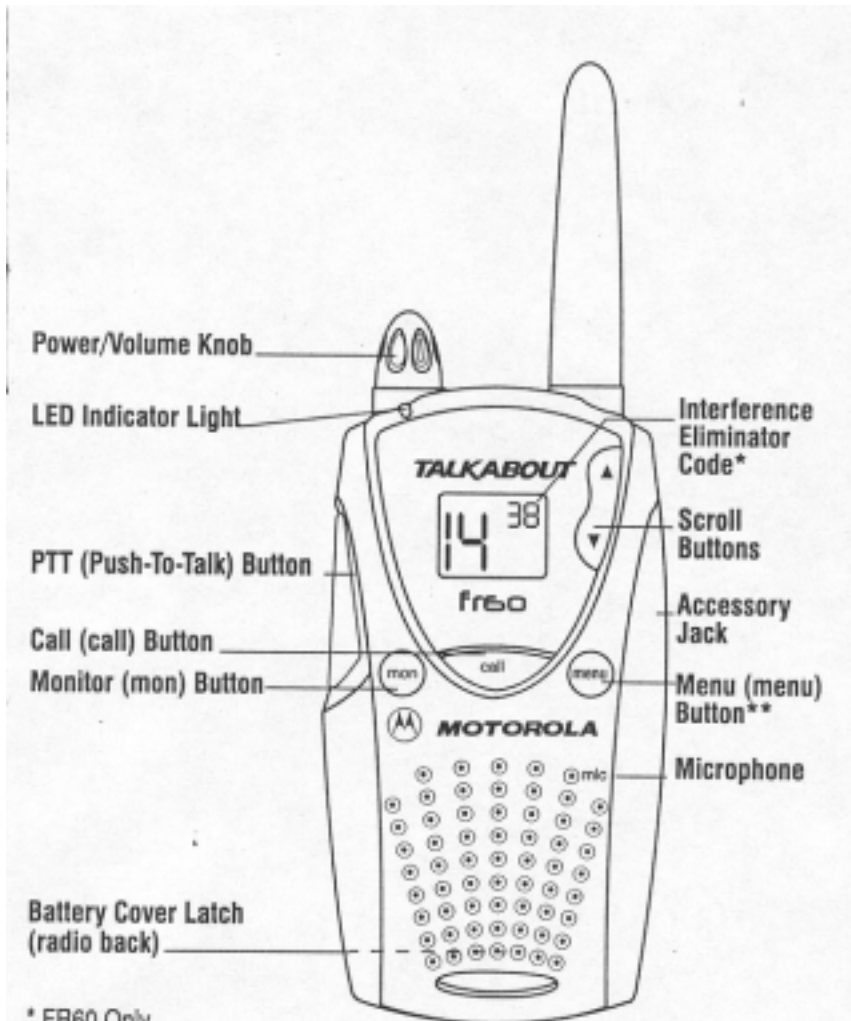
* FR60 Only
**Channel (chan) Button on FR50

FR60 Figure 1

Batteries

FR50 and FR60 radios operate with 3 AA alkaline batteries providing approximately 24 hours of use. That is almost 3 hours of talk and over 21 hours of standby time.

Note: The FR50 and FR60 can be used with rechargeable AA NiCad batteries, but battery life will be reduced.

To Install:
1. With back of radio facing you, flip Battery Cover Latch down to release. Lift cover off. Fig. 2
2. Insert 3 AA batteries. Fig. 3
3. Replace battery cover. Reposition Battery Cover Latch and snap into place.

Figure 2

Low Battery Alert:
When batteries are low, radio will chirp 1 to 2 seconds after turning power on, after release of **Push-To-Talk** button, and every 10 minutes. LED Indicator Light will also flash once per second. Replace 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.
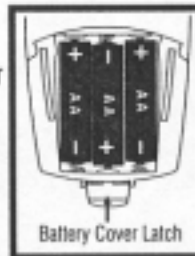

Battery Cover Latch

Figure 3

Belt Clip

Motorola FR50 and FR60 radios come with a belt clip.

To Attach:
1. Align belt clip with grooves in the radio back.
2. Gently push up until it clicks into place. Fig. 4

To Remove:
1. Pull release tab towards belt clip to release catch.
2. Push belt clip down and off the radio back.

Figure 4

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To Communicate

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

Motorola FR50 radios have 14 channels. To communicate with others, all radios in your group must be set to the same channel. Other FRS radios, such as the FR60, may have Interference Eliminator Codes, which must be turned off or set to zero for proper communication with FR50 radios.

Turn The Radio On:
1. Rotate **Power/Volume** knob clockwise until you hear a click. Radio will beep and LED Indicator Light will flash to confirm. The display will show current channel.
2. To turn radio off, Rotate **Power/Volume** knob counter clockwise until you hear a click and display disappears.

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

Adjust The Volume:
Rotate **Power/Volume** knob while holding down the **mon** button until you reach a comfortable listening level. Rotate knob clockwise to increase and counter clockwise to decrease volume.

Time-out Timer:
The Time-out Timer feature helps extend battery life by preventing accidental transmission. The radio will emit a continuous warning tone after the **Push-To-Talk** button is pressed for 60 continuous seconds and will stop transmitting.

Radio Etiquette:
Your radio has 14 channels shared on a "take turns" basis. This means other groups may be talking on the channels. For uninterrupted communications, do not talk over someone who is already using the channel – your message may not be completely heard. Try changing the channel (channel and code for FR60) to avoid channel congestion.

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

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Set The Channel:
1. With FR50 radio on, press **chan** button. Figure 5.
2. With FR60 radio on, press **menu** button. Figure 6.
   Current channel will begin to flash.
3. Use **scroll** buttons to change channel while flashing.
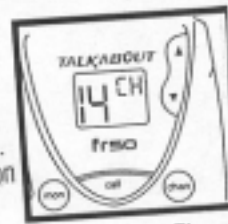4. Press **chan** (**menu** for FR60) or **Push-To-Talk** button
   to set new channel.

Figure

Set The Code: (FR60 only)
1. With radio on, press **menu** button twice (If already in
   channel change mode, pressing **menu** button once
   more will bring you to code change mode). Current
   code will begin to flash.
2. Use **scroll** buttons to change code while flashing.
3. Press **menu** or **Push-To-Talk** button to set new code.

Figure

Note: Radio automatically saves channel
(and code for FR60) after 5 seconds.

Sending Messages:
1. To maximize clarity, hold radio 2 to 3 inches from mouth.
2. Press **Push-To-Talk** button and speak into microphone. LED Indicator Light
   glows continuously when transmitting.
3. To receive messages, release **Push-To-Talk** button.

Talk Range
Motorola FR50 and FR60 radios have been designed to maximize performance
and improve transmission range in the field. It is recommended that you do n
use the radios closer than 5 feet apart because of heavy interference.

Optimal Range

Maximum talk range in
flat, open areas, is 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.

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Call Tone:

The Call Tone alerts all receivers that you intend to transmit. Press **call** button and users on your channel will hear your Call Tone. FR50 has 1 Call Tone. FR60 has 5 Call Tones.

Set The Call Tone (FR60 only)

1. With the radio on, press **menu** button three times (if already in code change mode, pressing **menu** button once more will bring you to Call Tone change mode). Current Call Tone will begin to flash. Fig. 7.
2. Use **scroll** buttons to change Call Tone while flashing.
3. Press **menu** or **Push-To-Talk** button to set new Call Tone.

Figure 7

To Use Audio Accessories:

1. Make sure radio is off.
2. Open accessory jack cover and plug accessory connector into jack.
3. Turn radio on and lower volume before placing accessory on head or in ear.
4. Press **mon** button while rotating **Volume** knob to adjust volume to a comfortable listening level.
5. To transmit, press **Push-To-Talk** on radio or accessory and speak into accessory microphone.
6. To receive, release **Push-To-Talk.**

Care of Your Radio

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

If 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 battery compartment overnight or until completely dry. Do not use radio until completely dry.

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:

- Federal Communications Commission (FCC) Report and Order FCC 96-326 (August, 1996)
- Industry Canada (IC) Radio Standards Specifications (RSS-102)
- 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 (0 Hz to 10 kHz)
    - Env. 50166-2 1995E - Human Exposure to Electromagnetic Fields High Frequency (10 kHz to 300 GHz)
    - 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 two-way portable radio, hold radio in a vertical position with its microphone 2-3 inches (5.0 to 7.5 cm) away from your mouth. Keep antenna at least 1 inch (2.5 cm) from head and body when transmitting.
- If you wear a portable radio on your body, ensure that the antenna is at least one inch (2.5 cm) 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.
- Turn your radio OFF in any facilities where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy.
- Turn your radio off when on board aircraft when instructed to do so. Any use of the radio must be in accordance with airline regulations or crew instructions.

⚠ CAUTION

Damaged Antennas

Do not use the radio with 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 or 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. These radios are not Instrinsically Safe. Please contact customer service in your country. See troubleshooting panel.

Batteries

Do not replace or charge 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 fuelling 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.

Troubleshooting

Problem	Solution
No Power	Reposition or replace batteries.
Erratic Display	Reposition or replace batteries.
Message Not Transmitted	Make sure the **Push-To-Talk** button is completely pressed as you transmit. Reposition or replace batteries.
Message Not Received	Confirm radios have the same Channel settings and/or the Interference Eliminator Code is inactive (non FR50 radios). Make sure **Push-To-Talk** is not inadvertently being pressed. Reposition or replace batteries. Obstructions, operating indoors or in vehicles may interfere with communication. Change your location. Check to make sure volume is turned up.
Hearing Other Conversation or Noise on a Channel	Shared Channel may be in use, try changing channels. Radios with Interference Eliminator Codes (like FR60), must have codes off or set to zero to communicate with FR50 radios.
Limited Talk Range	Steel/concrete structures, heavy foliage and use in buildings and in vehicles will decrease range, check for clear line of sight to improve transmission. Wearing radio close to body such as in a pocket or on a belt will decrease range, change location of radio.
Heavy Static or Interference	Radios too close. Radios must be at least 5 feet apart, increase your distance. Radios too far apart. Obstacles interfere with transmission. Talk range is up to 2 miles in clear, unobstructed conditions. Shared Channel may be in use, try another.

Motorola Product Services

If the radio still doesn't work properly, contact your place of purchase or call Motorola Product Services.

1-800-353-2729 USA   1-800-461-4575 Canada

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 USA   1-800-461-4575 Canada

FCC/IC LICENSE NOT REQUIRED

FCC/IC Information: Changes or modifications not expressly approved by Motorola may void the user's authority granted by the FCC/IC to operate this radio and should not be made. To comply with FCC/IC 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/IC equipment authorization for this radio could violate FCC/IC rules.

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Patent Notice

This product is covered by one or more of the following United States Patents:

5896277	5864752	5742484	D399821	D389158
5894592	5789098	5861850	D383745	D389139
5894292	5699006	D408396	D387758	D412501
5893027	5734975	D395882	D389827	

Accessories

There are many accessories (sold separately) available for FR50 and FR60 radios. Whether it's a Belt/Bike 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 USA   **1-800-461-4575 Canada**

Description	FR50 Specs	FR60 Specs
Channels	14	14
Codes	0	38
Operating Frequency	UHF-462.550 to 467.725 MHz	UHF-462.550 to 467.725 MHz
Talk Range	Up to 2 Miles	Up to 2 Miles
Power Source	3 AA Alkaline Batteries	3 AA Alkaline Batteries
Battery Life (talk time)	24 Hours (5/5/90 duty cycle)	24 Hours (5/5/90 duty cycle)

Compander Feature: FR50 and FR60 radios have a built-in voice compander that enhances the audio quality, creating crystal clear communications.

Channel Frequency Chart

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

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