21-1864

14 Channel Personal FRS 2-Way Radio with 38 Quiet Code, Vibrate, Splash Proof and VOX

Family Radio Service (FRS) is a license-free, two-way, short-range voice radio service that lets families and groups keep in touch with each other on specific reserved channels.

Your RadioShack 14 Channel Personal FRS 2-Way Radio is a lightweight, palm-sized radio you can use to talk with another person who has a FRS radio set to the same frequency as your radio.

Your radio has auto-squelch, so you will not hear anything on a channel unless someone is transmitting nearby on the same channel. You can use MON (monitor) key to temporarily turn off auto-squelch to hear weaker, distant transmissions.

You can connect an optional speaker/microphone and earphone to the radio (neither supplied, available at your local RadioShack store).

Your radio's display has a backlight that turns on for about 10 seconds when you press any key except PTT.

Your radio's other features include:

14 Channels – provide clear communications for up to two miles.

Channel Scan – use to find other FRS users.

38 Quiet Code – eliminates interference from other radios that are not tuned to the same channel and quiet code as your radio.

Courtesy Tone – at the end of conversation, it generates for end of message acknowledgement.

Key Beep – short beep generation for key pressed acknowledgement (except PTT and MON).

Lock – locks ^/SCAN, v/CALL and QUIET/MENU.

Vibration Alert – vibrates for 2 seconds when receiving signal if the radio is idle for more than 30 seconds.

Splash Proof (JIS level 4) – provide excellent waterproof and capability.

Voice Operated Transmission (VOX) – enables standalone usage and works with handsfree accessory.

INSTALLING BATTERIES

Your radio requires four AAA alkaline or rechargeable nickel-cadmium (Ni-Cd) / nickel-metal hydride (Ni-MH) batteries (not supplied) for power. For the best performance and longest life, we recommend RadioShack batteries.

Cautions:
0 Use only fresh batteries of the required size and recommended type.
0 Do not mix old and new batteries, different types of batteries (alkaline or rechargeable), or rechargeable batteries of different capacities.

1.   Rotate VOL/OFF counterclockwise until it clicks to turn off the radio.

2.   Pull down the latch on the battery compartment cover, then remove the cover.

3. Slide CHARGE ON/OFF inside the battery compartment to OFF (for alkaline batteries) or ON (for Ni-Cd or Ni-MH rechargeable batteries).

Warning: Never install non-rechargeable batteries when CHARGE ON/OFF is set to ON. Non-rechargeable batteries can get hot or explode if you try to recharge them.

4. Install four AAA batteries according to the polarity symbols (+ and -) marked inside.

5. Replace the cover and push the latch up until it clicks, then rotate VOL/OFF clockwise until it clicks to turn on the radio.

> The battery icon's segments ( ) display to show how much power remain. When the last segment flashes, replace alkaline batteries or recharge Ni-Cd or Ni-MH batteries.

Warning: Dispose of old batteries promptly and properly. Do not burn or bury them.

Caution: If you do not plan to use the radio for a month or longer, remove the batteries. Batteries can leak chemicals that can destroy electronic parts.

Recharging Ni-Cd or Ni-MH Batteries

Warning: Do not attempt to charge alkaline batteries. Non-rechargeable batteries can get hot or explode if you try to recharge them.

The radio's DC 6V jack is for charging Ni-Cd or Ni-MH batteries and powering the radio.

You can recharge Ni-Cd or Ni-MH batteries inside the radio at home or vehicle, using a 6V, 600mA AC or DC adapter and a size F Adaptaplug™ connector (neither supplied, both available at your local RadioShack store).

Cautions:
0 You must use a Class 2 power source that supplies regulated 6V DC (Not more than 6V) and delivers at least 600mA. Its center tip must be set to positive and its plug must fit the radio's DC 6V jack. Using an adapter that does not meet these specifications could damage the radio or the adapter.

0 Always connect the adapter to the radio before you connect it to an external power source (such as an AC outlet or a vehicle cigarette-lighter socket). When you finish, disconnect the adapter from the power source before you disconnect it from the radio.

1. Rotate VOL/OFF fully counterclockwise to turn off the radio.

2. Pull down the latch on the battery compartment cover and remove the cover.

3. Set CHARGE ON/OFF to ON.

4. Place four Ni-Cd or Ni-MH batteries in the compartment according to the polarity symbols (+ and -) marked inside. Then replace the cover and push the latch up until it clicks.

5. Attach the Adaptaplug to the adapter so TIP reads positive (+).

6. Connect the Adaptaplug's other end to the radio's DC 6V jack and plug the adapter into a standard AC outlet or vehicle's power source.

Complete charging takes about 10 hours. When charging is complete, unplug the AC or DC adapter from the power source, then disconnect it from the radio's DC 6V jack.

Note: Ni-MH batteries take longer to charge than Ni-Cd batteries.

Important: The EPA certified RBRC® Battery Recycling Seal on the nickel-cadmium (Ni-Cd) battery indicates RadioShack is voluntarily participating in an industry program to collect and recycle these batteries at the end of their useful life, when taken out of service in the United States or Canada. The RBRC program provides a convenient alternative to placing used Ni0Cd batteries into the trash or the municipal waste stream, which may be illegal in your area. Please call 1-800-THE-SHACK (1-800-843-7422) for information on Ni-Cd battery recycling and disposal bans/restrictions in your area. RadioShack's involvement in this program is part of the company's commitment to preserving our environment and conserving our natural resources.

OPERATION

A QUICK LOOK AT YOUR RADIO

(21-1864_FrontView.eps & 21-1864_SideView.eps)

Callouts:
PTT – Hold down and speak into the microphone to transmit. TX appears. Release to stop transmission.
Note: If you hold down PTT for about 2 minutes, the radio automatically stops transmission to save power.

MON – Hold down to hear everything on a channel, even weak transmissions. Release to turn auto-squelch back on.

VOL/OFF – Rotate to turn the radio on and off and adjust the volume.

^/SCAN – Press to manually select a channel. The selected channel number appears. Hold down for about 2 seconds to scan through the channels. The radio automatically scans through the channels and pauses on each active channel. Press PTT to stop scanning.

Note: The radio automatically scans through quiet codes while scanning through the channels. The quiet code feature automatically turns on when signal is detected on a channel and quiet code, and turns off after the signal disappears.

v/CALL – Press to manually select a channel. The selected channel number appears. Hold down to send a page to other FRS radios set to the same channel. TX appears and the call tone sounds. After you hold down v/CALL for about 6 seconds, the tone stops.

Combined Earbud/Mic jack – lets you connect an external earbud/mic with a 3/32" (2.5mm) jack (not supplied).

FRS Frequencies

Channel No.	Frequency (MHz)	Channel No.	Frequency (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

QUIET CODES

Quiet Codes lets you talk and listen to other radios set to the same channel and quiet code. This is like having a sub-channel within a channel, giving you greater communication flexibility. When you set a quiet code (there are 38 codes

to choose from) and turn on this feature, you can communicate with anyone who has a radio set to the same channel and code.

1. Press QUIET/MENU until the quiet code number flashes.

2. Repeatedly press ^/SCAN or v/CALL until you see the code number you want to use. (See the "Quiet Code Chart" for complete list of quiet codes).

3. Press PTT to store the code.

4. To turn off the quiet code feature, press QUIET/MENU once. The quiet code number disappears.

Quiet Code Chart

Code	Frequency (Hz)	Code	Frequency (Hz)	Code	Frequency (Hz)
1	67.0	14	107.2	27	167.9
2	71.9	15	110.9	28	173.8
3	74.4	16	114.8	29	179.9
4	77.0	17	118.8	30	186.2
5	79.7	18	123.0	31	192.8
6	82.5	19	127.3	32	203.5
7	85.4	20	131.8	33	210.7
8	88.5	21	136.5	34	218.1
9	91.5	22	141.3	35	225.7
10	94.8	23	146.2	36	233.6
11	97.4	24	151.4	37	241.8
12	100.0	25	156.7	38	250.3
13	103.5	26	162.2		

USING KEY LOCK

You can lock ^/SCAN, v/CALL and QUIET/MENU. Hold down MON and follow with PTT to lock or unlock the keys.
🔒 appears when the keys are locked.

Note: When the keys are locked, you can still send a page to other FRS radios set to the same channel by holding down v/CALL, but you cannot select a channel by pressing v/CALL.

USING COURTESY TONE

Hold down QUIET/MENU until C-TONE flashes. With courtesy tone on, On appears. OFF appears for courtesy tone off indication. Repeatedly press ^/SCAN or v/CALL to turn the courtesy tone on or off. Press PTT to store the setting. Or the radio will store the displayed setting after 15 seconds of no activity. If the courtesy tone is on, C-TONE appears and the person you are communicating with hears the courtesy tone when you finish transmission.

SETTING THE KEY TONE

    You can set the radio so it sounds a tone when you press any key except PTT or MON. Hold down QUIET/MENU until C-TONE flashes. Further press QUIET/MENU until flashes. With the key tone on, On appears. OFF appears when the key tone is off. Press ^/SCAN or v/CALL to turn the key tone on or off. Press PTT to store the setting or it will store the displayed setting after 15 seconds of no activity.

SETTING THE VIBRATION ALERT

You can set the radio to vibrate for 2 seconds when signal is received from the other parties after the radio is idle for 30 seconds.

Hold down QUIET/MENU until C-TONE flashes. Further press QUIET/MENU until 🔲 flashes. With the vibration alert on, On appears. OFF appears when the vibration alert is off. Repeatedly press ^/SCAN or v/CALL to turn the vibration alert on or off. Press PTT to store the setting or it will store the displayed setting after 15 seconds of no activity.

USING VOICE OPERATED TRANSMISSION (VOX)

Your radio has built-in Voice Operated Transmission (VOX), which allows you to transmit without holding down PTT, just by talking through the microphone or using VOX accessories (available at your local RadioShack store).

1. Hold down QUIET/MENU until C-TONE flashes.

2. Further press QUIET/MENU until VOX flashes.

3. Repeatedly press ^/SCAN or v/CALL to set VOX to HI for high sensitivity, or Lo for low sensitivity, or OFF to turn off VOX.

4. Press PTT or QUIET/MENU to store the setting or it will store the displayed setting after 15 seconds of no activity. When VOX is activated, VOX flashes periodically.

5. Simply speak into the microphone to transmit. TX appears.

6. Press PTT once to turn off VOX, VOX stops flashing. Press PTT again to turn on VOX, VOX flashes.

Note: The VOX sensitivity levels (Hi or Lo) allow you to compensate for background noise. This minimizes the chance of unintended sounds making a transmission.

When you use a VOX accessory, turn off the radio first. Insert the VOX headset into the radio's combined earbud/mic jack and turn on the radio. VOX function automatically turns on and VOX flashes. Follow the above steps to set the sensitivity level and turn VOX on or off.

USING THE BELT CLIP

Insert the belt clip into the socket at the back of the radio until it clicks. To remove the clip, press the button at the top of the radio and pull out the belt clip.

USING AN OPTIONAL WRIST STRAP

You can attach an optional wrist strap (not supplied) to the radio. Slide the wrist strap's small loop under the bar on the back of the radio. You might need to use a small screwdriver or a straightened paper clip to do this. Then pull the strap's large loop through the small loop.

CARE

Keep the radio dry; if it gets wet, wipe it dry immediately. Use and store the radio only in normal temperature environments. Handle the radio carefully; do not drop it. Keep the radio away from dust and dirt, and wipe it with a damp cloth occasionally to keep it looking new.

Modifying or tampering with the radio's internal components can cause a malfunction and might invalidate its warranty and void your FCC authorization to operate it. If your radio is not performing as it should, take it to your local RadioShack store for assistance.

FCC Information

Important: 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 illegal to alter or adjust the settings inside the radio to exceed those limitations. Any adjustments to your radio must be made by a qualified technician using the proper test equipment.

To be safe:

Never open your radio's case.

Never change or replace anything in your radio except the batteries.

Your radio might cause TV or radio interference even when it is operating properly. To determine whether your radio is causing the interference, turn it off. If the interference goes away, your radio is causing it. Try to eliminate the interference by:

Moving your radio away from the receiver.

Calling your local RadioShack store for help.

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

This device complies with Part15 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.

Safety Information

Your wireless handheld portable transceiver contains a low power transmitter. When the Push-To-Talk (PTT) button is pressed, it sends out radio frequency signals. The device is authorized to operate at a duty factor not to exceed fifty percent. In August 1996, the Federal Communications Commission adopted RF exposure guidelines with safety levels for handheld wireless devices.

Cautions:

0 To maintain compliance with the FCC's RF exposure guidelines, hold the transmitter and antenna at least 2 inches (5.0cm) from your face and speak in a normal voice, with the antenna pointed up and away from your 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 the antenna is at least 1 inch (2.5cm) from your body.

0 Use only the supplied antenna. Unauthorized antennas, modifications, or attachments could damage the transmitter and may violate FCC regulations.

> 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 on a circuit different from that to which the receiver is needed.
☐ Consult the dealer or an experienced radio/TV technician for help.