

Cat. No. 21-1863

14 Channel Personal FRS 2-Way Radio with LCD display

OWNER'S MANUAL – Please read before using this equipment

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 (such as Cat. No. 940-1601) to the radio (neither supplied, available at your local RadioShack store).

Your radio's display has a backlight that turns on for about 15 seconds when you press any keys except **PTT** and **CALL**. To turn on the backlight without changing the radio's setting, press **MON**.

Your radio's other features include:

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

**Channel Scan** –To search for unused channel.

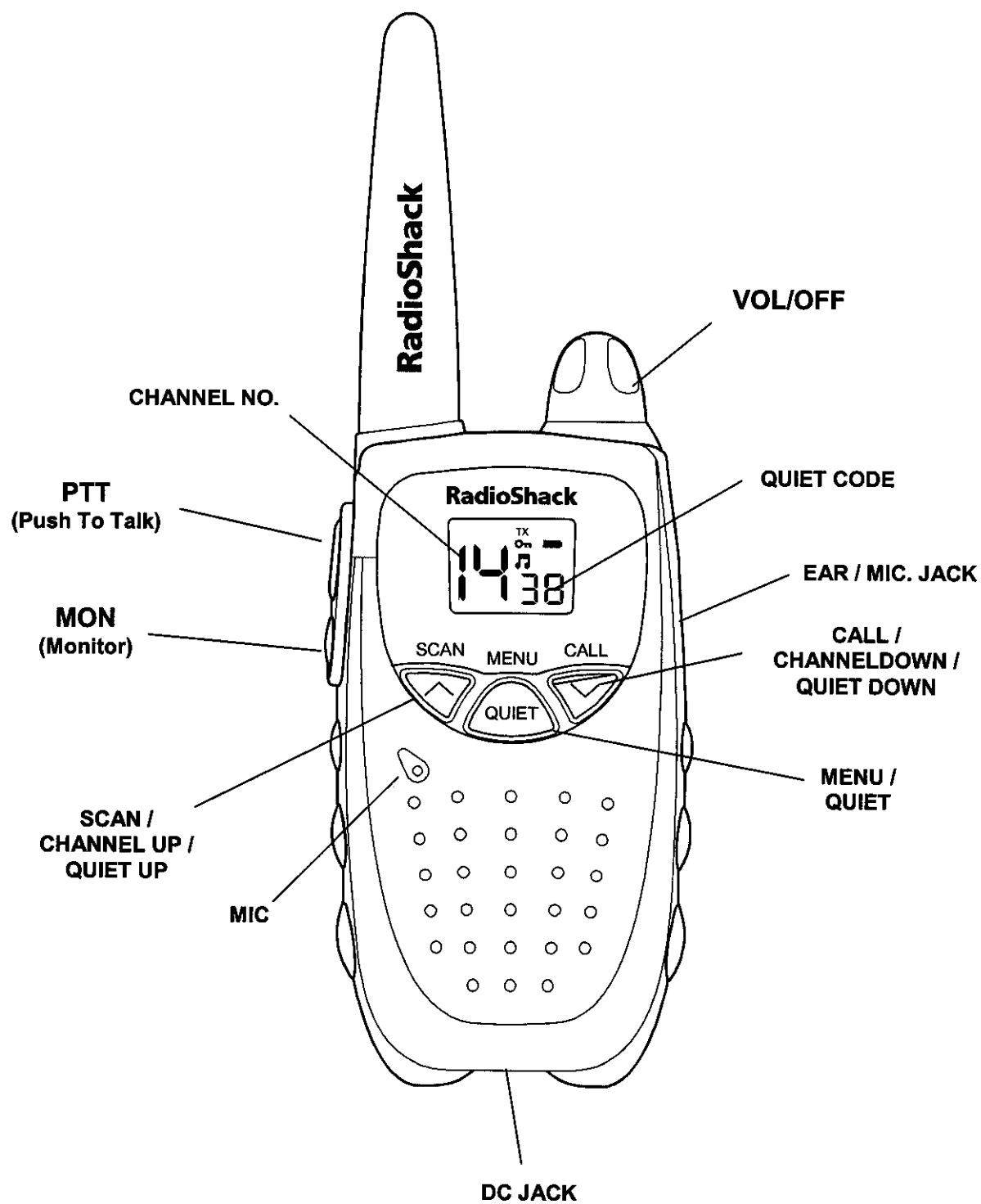
**38 Quiet Code** – eliminates interference from other radios that are not tuned to the same channel and quiet code as your radio.

**Courtesy Tone** – at the end of conversation, it generates for end of message acknowledgement. You can enable / disable it through menu operation. With tone enable, **C-TONE** will be on in the LCD.

**Key Beep** – short beep generation for key pressed acknowledgement. You can enable / disable it through menu operation.

**Lock** – all Keys Lock except **PTT**, **CALL** and **MON**

**A Quick Look at Your 2-Way Radio**



## INSTALLING BATTERIES

Your radio requires 4 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:

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

1. To turn off the radio, rotate **VOL/OFF** counterclockwise until it clicks.
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 4 AAA batteries according to the polarity symbols (+ and -) marked inside.
5. Replace the cover and then rotate **VOL/OFF** clockwise until it clicks to turn on the radio.
6. The battery icon's segments (  ) display to show how much power remain. When all segments flash, replace alkaline batteries or recharge Ni-Cd or Ni-Md 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.

If you use rechargeable Ni-Cd or Ni-MH batteries, you can recharge them in the radio using an optional AC OR DC adapter (both available at your local RadioShack store).

The radio's DC 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, 800mA DC adapter (such as DC adapter - Cat. No. 273-1667 at home or Lighter Socket / Universal DC Adapter - Cat. No. 273-1801 at vehicle) and a size F Adaptaplug™ connector (such as Cat. No. 273-1709) (neither supplied). Both adapters and Adaptaplug are available at your local RadioShack store.

### Cautions:

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 jack. Using an adapter that does not meet these specifications could damage the radio or the adapter.

O 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.

Follow these steps to connect an adapter to the radio.

1. Rotate **VOL/OFF** fully counterclockwise to turn off the radio, then slide off the battery compartment cover.
2. Set **CHARGE ON/OFF** to **ON**.
3. Attach the Adaptaplug to the adapter so **TIP** reads positive (+).
4. Connect the adapter's barrel plug to the radio's DC jack and plug its other end 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 jack.

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

## OPERATION

1. Rotate **VOL/OFF** to turn the radio on and off and adjust the volume. When the radio is on, Battery Level indicator displays.
2. Hold down **CALL** to send a page to other FRS radios set to the same channel. **TX** appears and the call tone sounds. After you hold down **CALL** for about 6 seconds, the tone stops.
3. Hold down **PTT** (Push-To-Talk) and speak into the microphone to transmit. **TX** appears. When you finish your transmission, release **PTT**.

Note: If you hold down **PTT** for about 2 minutes, the radio will automatically stop transmitting to save power.

4. Hold down **MON** (Monitor) to hear everything on a channel, even weak transmissions. Release **MON** to turn auto-squelch back on.

## Selecting Channel

To manually select a channel, press **^/SCAN** or **V/CALL**. The selected channel number appears.

To scan through the channels, press **^/SCAN** for 2 seconds, the radio automatically scans through the channels and stops on an active channel momentarily. While scanning, the scanning Channels will be presented on the display. Press **PTT** to stop scanning.

**Note:** The radio continues to scan through channels if you do not press any buttons.

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

### Selecting Quiet Code

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 quiet code flashes.
2. Repeatedly press **▲/SCAN** or **▼/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 quiet code feature, press **QUIET/MENU** once. Quiet Code numbers disappear when quiet code feature is off.

### Scanning Quiet Code

It checks for the availability of Quiet Code at the end of Channel Scan automatically.

1. When quiet codes are searched, Channel Number and Quiet Code will be displayed.
2. When Quiet Codes are found, Quiet Code Icon disappears and quiet feature will be disabled automatically.

### 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** and **QUIET/MENU**. Hold down **MON** and then press **PTT** to lock or unlock the keys.



Appears when the keys are locked.

## Using Courtesy Tone

Hold down **QUIET/MENU** until **C-TONE** flashes. With Courtesy Tone on, **On** displays. **OFF** displays for Courtesy Tone off indication. Further press **▲/SCAN** or **▼/CALL** to enable or disable. Press **PTT** to store the setting or it will store the display setting after 30 seconds. 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 Key Beep

You can set the radio so it sounds a tone when you press any key except **PTT** or **CALL**. To turn the key beep on, hold down **QUIET/MENU** for 2 seconds to enter menu mode. Further press **QUIET/MENU** until (tone icon) flashes. With key beep on, **On** displays. **OFF** for key beep off indication. Press **PTT** to store the setting or it will store the display setting after 30 seconds.

## Using the Belt Clip

Insert the swivel 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 belt clip and pull out the clip.

## 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 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.



### **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:**

O To maintain compliance with the FCC's RF exposure guidelines, hold the transmitter and antenna at least 2 inches (5.0 cm) from your face and speak in a normal voice, with the antenna pointed up and away from your face. If you wear the headset 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.

O 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.