

# OWNER'S MANUAL

## FRS RADIO

21-1850

### INTRODUCTION

Your Radio Shack remote control FRS Radio is a mobile type radio. Magnet –mounted antenna RF base can be mounted on the top of the car. It provides the best antenna efficiency than any hand-held type FRS transceiver. The remote control unit is linked with a cable and provides an easy to use in a comfortable environment.

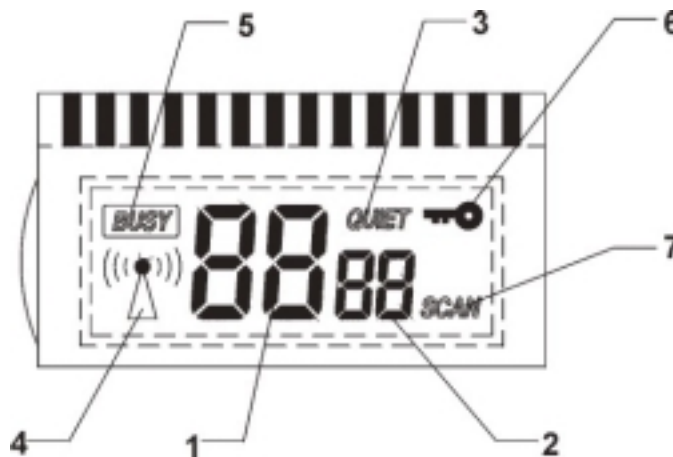
You can start using your FRS radio immediately without any license required! Your radio comes with 14 FRS channels and you can talk with another person who has a FRS radio and is on the same channel and privacy code that you are using.

Your remote unit offers a multifunctional liquid crystal display with backlight, auto-squelch which eliminates noise between transmission, built-in modulation limiter circuit which automatically adjust the radio for a wide variety of voice levels to ensure a clear transmission, memory retention and keypad lock.

### USING THE RADIO

#### A. DISPLAY

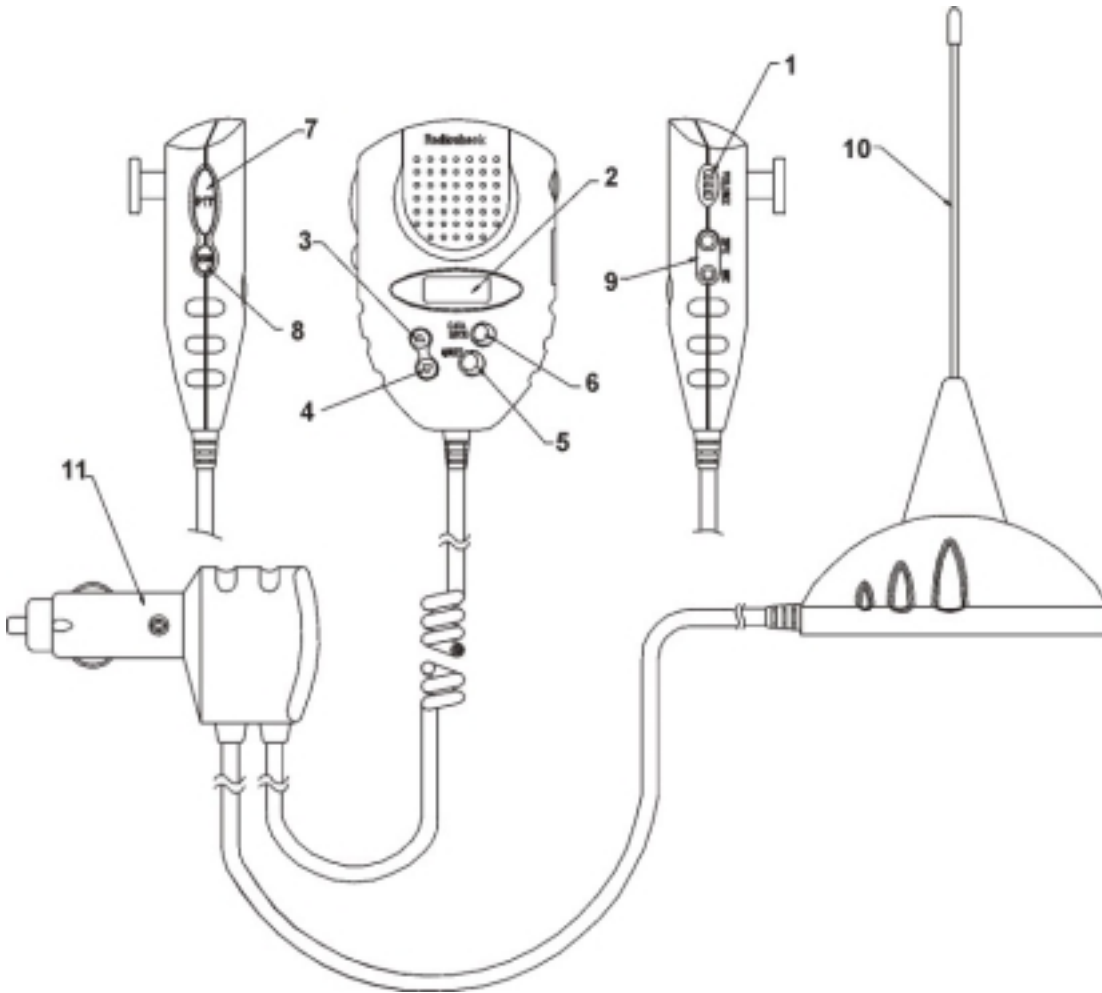
The remote unit comes with a multifunctional backlight display. By pressing any button except the CALL and PTT, the backlight will illuminate for 7 seconds. The liquid crystal display has been enlarged to show all of the operating modes.



1. Shows the selected channel number.
2. Shows the selected quiet code number.
3. **"QUIET"**: Displayed when the QUIET privacy mode is enabled.
4. **"((( )))"**: Displays when your radio is transmitting or the CALL button is pressed.
5. **"BUSY"**: Displays when a call is being received.
6. **"🔑"**: Displays when the keypad lock has been activated.

7. **“SCAN”**: Displays when the transceiver scans through all the channels.

## B. FUNCTION AND LOCATION OF THE CONTROLS



### 1. **“ON/OFF” Volume Control**

In “OFF” position, your transceiver is off. Rotate this control clockwise to turn on your radio and adjust the volume, until you get a comfortable listening level.

### 2. **LCD Display**

Your transceiver has a multifunctional liquid crystal display with backlight ( see “A” for detail).

### 3. **CH Δ Button**

Press **CH Δ** to move one channel up. Release when you reach the desired channel.

### **To Operate the Scan**

Press and hold **CH Δ** or **CH ∇** for two seconds allows the unit to begin scanning up or down through the channels. If a valid signal is present, the radio will stop on the active channel and remain stopped for 4 seconds. If no button is pressed, the scan mode will then immediately resume for the next channel after the signal disappears within 4 seconds or after 4 seconds have elapsed.

If no signal is found on a channel, the unit will immediately continue to scan when no button is pressed.

During scan, if **CH Δ** or **CH ∇** is pressed, the unit will exit scan mode and stop at the current displayed channel.

In both cases, pressing **PTT**, **CALL**, and **MON** buttons will cause the scan to turn off and stop at the current displayed channel. Press **QUIET** button during scan to stop scan and return to the

original channel.

#### 4. CH ▾ Button

Press **CH ▾** to move one channel down. Release when you reach the desired channel.

#### 5. QUIET Button

Press **QUIET** button to enable or disable the **QUIET** privacy mode operation.

To determine **QUIET** privacy code setting, press and hold **QUIET** button for 2 seconds until **QUIET** icon is displayed and the quiet code indicator flashes. Press **CH ▲** or **CH ▾** to select the desired code between 01 and 38. Press **QUIET** button once to confirm and exit the setting mode and your radio is now in the privacy mode operation.

**Note:** It is recommended to select the middle range of the **QUIET** privacy codes. If you have selected the front and end QUIET privacy codes, please wait 1 to 2 seconds to initiate QUIET, i.e. Press and hold Push-To-Talk button to transmit, wait 1 to 2 seconds, and then speak in a normal voice.

#### 6. CALL Button

You can cause a ringer sound on all radios tuned to the same FRS channel and/or the privacy code as your radio. To send a page, press and hold down the **CALL** button. At this time, the speaker rings a bell, and the  transmit icon is displayed and the outer (( )) icon flashes.

You can also lock your radio setting to avoid accidental pressing of keys by activating the keypad lock. Press and hold **MON** button, then press **CALL** button to activate or deactivate the keypad lock.

#### To Operate Lock Operation

Press and hold **MON** Button and press the **CALL** button to activate the key lock. The lock icon is displayed.

#### 7. Push-To-Talk Button

To talk, hold down **Push-To-Talk**. Speak into the microphone in a normal tone of voice when the  transmit icon is displayed. When you finish speaking, release **Push-To-Talk** button.

#### 8. MON Button

Press this button to open the automatic squelch and allow background noise to be heard. Release **MON** button to turn the auto-squelch back on.

#### 9. External Microphone/Speaker Jack

Connect an optional speaker/microphone or earphone in this jack.

#### 10. Antenna

Provides excellent reception.

#### 11. Power Supply

Plug the cigarette lighter adapter into the car cigarette lighter jack.

### C. OPERATION

1. To set the privacy code, check the function instructions.
2. Rotate the **ON/OFF** volume control clockwise to turn the unit on. Press the **"MON"** button and adjust the volume for a normal listening level.

3. Select the desired channel and/or **QUIET** privacy code.
4. Press **Push-To-Talk** button to transmit or **CALL** button to cause a page.
5. To receive, simply release **Push-To-Talk** button.

**Note:** You can only communicate with another radio that is using the same channel and/or the same **QUIET** privacy code as your radio.

## TECHNICAL SPECIFICATIONS

|                                 |                |
|---------------------------------|----------------|
| Frequency Range.....            | 462-467 MHz    |
| Channels.....                   | 14             |
| Power supply.....               | 12-13.8V       |
| Sensitivity at 12dB Sinad.....  | 0.5μV          |
| Adjacent Channel Rejection..... | more than 45dB |
| Harmonic Emissions.....         | Less than 48dB |
| Dimensions                      |                |
| Hand Mic (HWD).....             | 60×95×32 (mm)  |
| Base Unit.....                  | φ95×h45 (mm)   |

## CHANNEL FREQUENCIES

**Frequency: MHz**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| 01=462.5625 | 05=462.6625 | 09=467.5875 | 13=467.6875 |
| 02=462.5875 | 06=462.6875 | 10=467.6125 | 14=467.7125 |
| 03=462.6125 | 07=462.7125 | 11=467.6375 |             |
| 04=462.6375 | 08=467.5625 | 12=467.6625 |             |

## QUIET PRIVACY CODES

**Frequency: Hz**

|         |          |          |          |
|---------|----------|----------|----------|
| 01=67.0 | 11=97.4  | 21=136.5 | 31=192.8 |
| 02=71.9 | 12=100.0 | 22=141.3 | 32=203.5 |
| 03=74.4 | 13=103.5 | 23=146.2 | 33=210.7 |
| 04=77.0 | 14=107.2 | 24=151.4 | 34=218.1 |
| 05=79.7 | 15=110.9 | 25=156.7 | 35=225.7 |
| 06=82.5 | 16=114.8 | 26=162.2 | 36=233.6 |
| 07=85.4 | 17=118.8 | 27=167.9 | 37=241.8 |
| 08=88.5 | 18=123.0 | 28=173.8 | 38=250.3 |
| 09=91.5 | 19=127.3 | 29=179.9 |          |
| 10=94.8 | 20=131.8 | 30=186.2 |          |