IMPORTANT SERVICE INFORMATION
Read this manual before attempting to setup or use this instrument. It contains important information regarding safe installation and use. Keep this manual for future reference. Also save the carton, packing and proof of purchase to simplify and accelerate any needed action. If you need assistance or service, call (800) 888-8990 between 8:00 a.m. and 4:30 p.m. Pacific Standard Time, Monday through Friday.

⚠ **THIS SYMBOL IS INTENDED TO ALERT THE USER OF THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE OWNER'S MANUAL.**

99251

CARTON CONTENTS

❑   Two-Way Radio (Pair)
❑   User-Replaceable Belt Clip *
❑   User's Manual

* - Attached to the unit at the time of packaging.

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requirements involving the use of this device. 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 uses and can generate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that the 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 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 to an outlet on a circuit different from that to which the receiver is connected.
• Consult the manufacturer for technical assistance.

FCC INFORMATION: 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. Privacy of communications may not be ensured when using this equipment.

FCC WARNING: This equipment generates or uses radio frequency energy. Changes or modifications not expressly approved in writing may cause harmful interference and void the user's authority to operate this equipment.

Warning: Adjustment to this unit or replacement of any transmitter component (crystal, semiconductor, etc.) to this unit that could result in a violation of the rules.

SAFETY INFORMATION

Your wireless hand-held portable transceiver contains a low power transmitter. When the Push to Talk (PTT) button is pressed it sends out radio frequency (RF) signals. The device is authorized to operate at a duty factor not to exceed 50%. On August 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for hand-held wireless devices.

CAUTION: To maintain compliance with the FCC's RF exposure guidelines hold the transmitter and antenna at least 2 inches (5 centimeters) from your face and speak in a normal voice. With the antenna pointed up and away from the face. If you wear the FRS on your body while using the headset accessory, use only the supplied belt clip for this product. When transmitting take it off the belt to ensure that the antenna is at least 2 inch (5 centimeters) from your body.

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

GMRS LICENSING INFORMATION

Before any station transmits on any channel authorized in the GMRS from any point within or over the territorial limits of any area where radio services are regulated by the FCC, the responsible party must obtain a license for a GMRS system. An individual 18 years of age or older, who is not a representative of a foreign government, is eligible to apply for a GMRS system license.

Application for a GMRS system license is make on FCC form 605 and you can obtain a copy from the FCC's website:

http://www.fccgov/Formpage.html

or by calling the FCC's Form Distribution Center 1-800-418-FORM(3676), or from the fax-on-demand by dialing (202)418-0177.

There is a filing fee. For information on fees, see the FCC's Website:

http://wireless.fcc.gov/csinfo/feeinfo.html.

FRS PRODUCT DESCRIPTION

The Family Radio Service (FRS) is the newest generation in personal two-way communication. FRS radios operate in a license-free radio band (no FCC license is needed for FRS operation), on any of the 22 license-free channels.

The 99251 is a lightweight, compact two-way radio that can be used with family or friends at parks, shopping malls, sporting events, concerts, or any indoor or outdoor activity!

The 99251 are compatible with other two-way radios using the FRS frequency band (operating in the frequency range from 462.5625 MHz to 467.7125 MHz).

The 99251 is a 22-channel UHF two-way radio with 38 sub-codes, featuring a multi-functional LCD display (which indicates the current channel and various radio status icons). Other features also include electronic volume control and battery save circuitry.
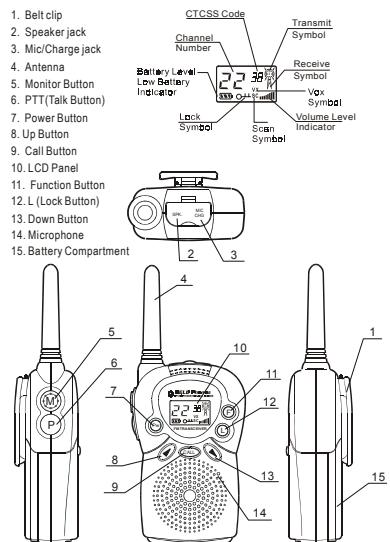
Please read this user's manual thoroughly to get the most out of your FRS two-way radio.

NOTE: The maximum transmission range will vary depending on terrain and environment. Range will be greater in open fields, while the range is shorter within / around buildings or large structures.

99251 CONTROLS DIAGRAM

1. Belt clip
2. Speaker jack
3. Mic/Charge jack
4. Antenna
5. Monitor Button
6. PTT(Talk Button)
7. Power Button
8. Up Button
9. Call Button
10. LCD Panel
11. Function Button
12. L (Lock Button)
13. Down Button
14. Microphone
15. Battery Compartment

CTCSS Code
Channel Number
Transmit Symbol
Receive Symbol
Battery Level Low Battery Indicator
Vox Symbol
Lock Symbol
Scan Symbol
Volume Level Indicator

*NOTE: Optional external mic / external headset sold separately.

DESCRIPTION

F (FUNCTION) Button – Allows you to change channels and sub-codes.

Antenna - This is a fixed antenna.

CALL Button – Sends a tone to other radios that are tuned in on the same channel.

Battery Compartment - Houses four "AAA" alkaline type batteries (not included).

Belt Clip - For your convenience, a belt clip is included to secure the radio to a belt or any other convenient location.

LCD (Liquid Crystal Display) Display - A multi-functional display, which shows channel, code and other radio status/icons.

M (MONITOR) Button – Permits the radio to monitor weak signals and illuminates the LCD display to show your current status.

MIC/CHG and SPK jacks – These jacks are used for optional accessories (*not included)*.

PTT (Push To Talk) Button - Used for making a call.

▲ and ▼ Buttons – These buttons control the volume, change channels, codes and program the FRS.

POWER Button - Push and hold this button, to turn the 99251 radio on or off.

BACK LIGHT – Used to illuminates LCD screen.

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L (LOCK) Button - Press and hold to Lock the buttons.

INSTALLATION

Battery Installation
NOTE: Prior to removing the battery cover, remove the belt clip (see section *"Removing The Belt Clip"*).
1.   Press and pull down battery cover.
2.   Install four "AAA" type batteries (not included), following the polarities marked in the battery compartment.
3.   Reinstall the battery cover.
NOTES:

● When the FRS is not being used it has a built-in power saver for maximum battery life.

● Remove the batteries if the unit will not be used for a long period of time.

Battery charging
To charge the unit using "AAA" Ni-MH rechargeable batteries, insert the round connector of the AC/DC adaptor into the CHG/MIC jack on top side of the unit.
 WARNING
DO NOT CHARGE THIS UNIT USING AN AC/DC ADAPTOR WITH REGULAR "AAA" ALKALINE BATTERIES INSTALLED.
ONLY USE THE AC/DC ADAPTOR WITH "AAA" Ni-MH RECHARGEABLE BATTERIES.
  ● **Do not mix old and new batteries.**
  ● **Do not mix alkaline, standard (carbon-zinc), or rechargeable batteries.**
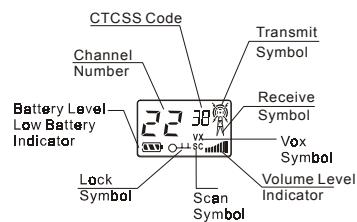
Installing the Belt Clip
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1. Slide the belt clip into place into the belt clip slot.
2. Ensure you hear a click, to indicate that it is securely in place.

Removing the Belt Clip
1. Pull the tab on top of the clip back.
2. While pulling the belt clip tab, push up on the belt clip to remove it from the unit.

LCD DISPLAY

OPERATION

Turning the Unit ON
Press and hold the POWER button. The 99251 radio will emit a short tone and the channel number will displayed on the LCD display.

Turning the Unit OFF
Press and hold the POWER button for at least two seconds. The 99251 radio will emit a tone and the LCD display will go blank.

Adjusting the Speaker Volume
- Press the ▲ button to increase the volume.
- Press the ▼ button to decrease the volume.

Receiving a Call
When your FRS unit is turned on and is not being used to transmit voice communication or pages, the unit is continuously set in receiving mode. When you receive a call on the current channel you are using, the LCD display will show the receive icon.

Transmitting a Call
1. Press and hold the PTT button to transmit. The transmit icon will show in LCD display.
2. While holding the PTT button, speak in a normal voice about 2 to 3 inches away from the microphone.
3. Release holding the PTT button when you have finished transmitting.

NOTE: In order to have two-way communication, all parties must be transmitting on the same channel and same sub-code. Refer to the "Selecting Channels" and "Selecting the CTCSS Sub-Code" sections for more information.

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Selecting Channels

The 99251 radio has 22 available channels.
To change channels:

1. Press F(function) button once. The channel number on the display will begin to flash.
2. While the channel number is flashing,
   Press the ▲ button to a higher channel.
   Press the ▼ button to a lower channel.
3. Press the F (function) button to confirm the desired channel.

NOTE: Refer to the "FRS Channel Table" section of this manual for detailed frequency listings.

Selecting the CTCSS Sub-code

The 99161 radio has 38 available CTCSS Sub-codes. Please set a CTCSS Code in addition to a channel if you do not want to be bothered by other parties.
To change the CTCSS Code:

1. Press the F button twice. The CTCSS sub-code on the display panel will begin to flash.
2. While the CTCSS number is flashing,
   Press the ▲ button to increase the code.
   Press the ▼ button for a lower Code.
3. Press the F (function) button or PTT button to confirm your channel and CTCSS code selection and return to normal mode.

NOTE: Refer to the "FRS Channel Table" and "CTCSS Code" section of this manual for detailed frequency listings.

Monitor

You can use the MONITOR feature to activate and listen in for weak signals on the current channel.

- Press the M (monitor) button for normal monitoring.
- Press and hold the M (monitor) button for at least two seconds for continuous monitoring.

- To deactivate the monitoring feature press the M (monitor) button.

Battery Level / Low Battery Indication

- The LCD display displays the battery power level according to the number of squares inside the battery symbol.
    - When the battery level is low, the battery icon will empty to indicate that the batteries need to be changed.

Calling (paging) another radio

To send a page.

- Make sure both units are on.
- Press and release the CALL button on the front of the radio.

Channel Lock

This feature locks the channel adjustment buttons on the front of the unit so that the channel cannot be changed accidentally.

To lock the channel:

- Press the lock button for 3 seconds. The Lock symbol – shaped like a key- will appear on the LCD display.

To unlock the channel:

- Press the Lock button for 3 seconds. The lock symbol in the LCD display will disappear.

Channel Scan

Your radio can scan across it's 22 channel for any activity. This allows you find other radios without having to change channels.

To scan:

- Press the F button and ▲ button at the same time.
- The channel display will change as it scan through the channels.
- When a signal is detected, the unit will pause and listen for 4 seconds.
- Press the TALK button to stop the scan and communicate, or the ▲ button to continue.
- To stop the scanning operation, press the F button again.

VOX selection

The 99251 radio is capable of voice activated transmission (VOX). In vox mode, the radio will transmit a signal only when it is activated by your voice or other sound around you. VOX operation is not recommended if you plan to use your radio in a noisy or windy environment. Once you select the vox function, you can transmit without press the PTT button.

- Press the F button three times until the vox function mode icon display on the LCD. VOX OF icon will be displayed.
- Press ▲ button once to select the VOX on. VOX on icon will be displayed.
- Press ▲ /▼ button to select the vox sensitivity.
- Press ▼ button to cancel vox. VOX OF icon will be displayed.

- To confirm your selection, press the F button.

Note: To select the higher VOX sensitivity, choose higher value.

External Microphone/ Speaker Jacks

Your FRS radio can be used with an optional external microphone and speaker, usually sold together in a ear bud/ mic combination. The jacks are located under the protective rubber cover on the top of the unit.

To attach external speaker/ microphone headsets or ear bud/mic,

- Lift the rubber flap on the top of the unit to expose the jacks.
- Insert the appropriate plugs into the correct jacks.
- Note that the sizes of the jacks and plugs are different for speaker and microphone.

SPECIFICATIONS

CHANNELS AVAILABLE:	22 Channels (see Channel Table)
OUTPUT POWER (TX)	F R S / G M R S (0 . 1 9 0 W)
BATTERY LIFE	2 0 H o u r s (t y p i c a l)

FRS CHANNEL TABLE

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CHN #	FREQ (MHz)	PWR (W)	CHN #	FREQ (MHz)	PWR (W)
1	462.5625	0.190	12	467.6625	0.190
2	462.5875	0.190	13	467.6875	0.190
3	462.6125	0.190	14	467.7125	0.190
4	462.6375	0.190	15	462.5750	0.190
5	462.6625	0.190	16	462.6250	0.190
6	462.6875	0.190	17	462.6750	0.190
7	462.7125	0.190	18	462.5500	0.190
8	467.5625	0.190	19	462.6000	0.190
9	467.5875	0.190	20	462.6500	0.190
10	467.6125	0.190	21	462.7000	0.190
11	467.6375	0.190	22	462.7250	0.190

NOTE: Channels 1 to 14 are shared with the FRS radio channels. 15 through 22 are exclusively for GMRS radios. The maximum transmission range will vary depending on terrain and environment.

CTCSS Code-Continuous Tone Coded Squelch system

Code	Frequency(Hz)	Code	Frequency(Hz)
1	67.0	20	131.8
2	71.9	21	136.5
3	74.4	22	141.3
4	77.0	23	146.2
5	79.7	24	151.4
6	82.5	25	156.7
7	85.4	26	182.2
8	88.5	27	167.9
9	91.5	28	173.8
10	94.8	29	179.9
11	97.4	30	186.2
12	100.0	31	192.8
13	103.5	32	203.5
14	107.2	33	210.7
15	110.9	34	218.1
16	114.8	35	225.7
17	118.8	36	233.6
18	123.0	37	241.8
19	127.3	38	250.3

TROUBLESHOOTING

SYMPTOM	SOLUTION
Does not turn on.	• Check batteries. Ensure that the batteries are installed properly. • The batteries may be weak. Replace old batteries with four new "AAA" Alkaline batteries.
Reception is weak.	• Press the ▲ button to increase volume. • The receiving signal may be weak and out of range. If this happens, press the M (monitor) button.
Cannot change channels.	• To change channels, press the F(function) button and the channel number flashes on the LCD display. Then, press the ▲ / ▼ buttons to select the channel.
Range is limited	• Batteries may be weak. Replace with new batteries if the battery level indicator is low. • The maximum range will vary depending on terrain and environment. Open fields provide the maximum range, while buildings and other structures may limit the range significantly.
Sound distortion problems	• If you are transmitting, speak in a normal tone of voice, 2 to 3 inches away from the microphone. • If you are receiving, lower the volume control to a comfortable level.

BELL® Phones
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