



Southwestern Bell
Freedom Phone®

Model FS2000

UHF FM TRANSCEIVER (Family Radio Service)

STOP...DON'T TAKE ME BACK TO THE STORE.
LOOK...FOR THE TOLL-FREE "HELP" TELEPHONE
NUMBER.
LISTEN...AS THE EXPERTS TALK YOU THROUGH THE
PROBLEM.

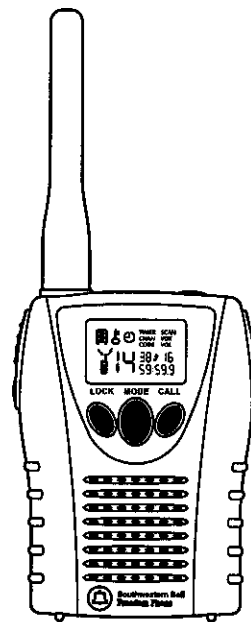
For immediate answers to your questions regarding
operation,
missing parts or installation, call the

SOUTHWESTERN BELL FREEDOM PHONE®
RETAIL SALES HELP LINE AT:
1-800-366-0937

Monday - Friday 8:30a.m. - 9:00p.m. EST
Saturday 8:30a.m. - 12:30p.m. EST
<http://www.swbfreedomphone.com>

SOUTHWESTERN BELL FREEDOM PHONE®
7475 N. Glen Harbor Blvd., Glendale, AZ 85307

FS2000 IB- 3921 Printed in China



FS2000 Owner's Manual
Toll Free Helpline 1-800-366-0937
<http://www.swbfreedomphone.com>

IMPORTANT SERVICE INFORMATION

Read this manual before attempting to set up 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.

FRS PRODUCT DESCRIPTION

Family Radio Service (FRS) is the newest generation in personal two-way communications. FRS radios operate in a license-free radio band (no FCC license is needed for FRS operation), on any of the 14 license-free channels.

The FS2000 is compatible with other two-way radios using the FRS frequency band (operating in the frequency range from 462.5625MHz to 462.7125MHz and from 467.5625MHz to 467.7125MHz).

Please read this user's manual thoroughly to get the most out of your FS2000 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 and around buildings or large structures.

SAVE THESE INSTRUCTIONS

SAFETY INFORMATION

Your wireless hand-held portable transceiver contains a low power transmitter. When the Push-to-Talk (PTT) button is pushed it sends out radio frequency (RF) signals. The device is authorized to operate at a duty factor not to exceed 50%. In 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 inch (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 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 that the antenna is at least 1 inch (2.5 centimeters) from your body.

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

SAFETY INSTRUCTIONS FOR BATTERIES

CAUTION: To reduce the risk of fire or personal injury, read and follow these instructions:



**CONTAINS NICKEL-CADMIUM BATTERY.
BATTERY MUST BE RECYCLED OR
DISPOSED OF PROPERLY.**

1. Use only a Southwestern Bell Freedom Phone® approved battery pack in FS2000.
 - a. GP35AAAK4BX 4.8V 350mAh GPI International Ltd. or
 - b. JB35AAANC4BC 4.8V 350mAh JB Energy (HK) Ltd.
2. Do not dispose of the battery in a fire, as it may explode. Check with local codes for possible special disposal instructions.
3. Do not open or mutilate the battery. Released electrolyte is corrosive and may cause damage to the eyes and skin. It may be toxic if swallowed.
4. Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets and keys. The battery or conduction material may overheat and cause burns.
5. Charge the battery (ies) provided with or identified for use with this product only in accordance with the instructions and limitations specified in this manual.
6. Observe proper polarity orientation between the Battery Pack and battery charger.



The EPA certified RBRC®* Battery Recycling Seal on the nickel-cadmium (Ni-Cd) battery indicates that Southwestern Bell Freedom Phone® Retail Sales 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 Ni-Cd batteries into the trash or the municipal waste stream, which may be illegal in your areas. Please call 1-800-8-BATTERY for information on Ni-Cd battery recycling and disposal bans / restrictions in your area. Southwestern Bell Freedom Phone® Retail Sales involvement in this program is part of our commitment to preserving our environment and conserving our natural resources.

*RBRC® is a registered trademark of the Rechargeable Battery Recycling Corporation.

FCC NOTICE

The FCC requires that you to be advised of certain 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 dealer or an experienced radio/TV technician for help.

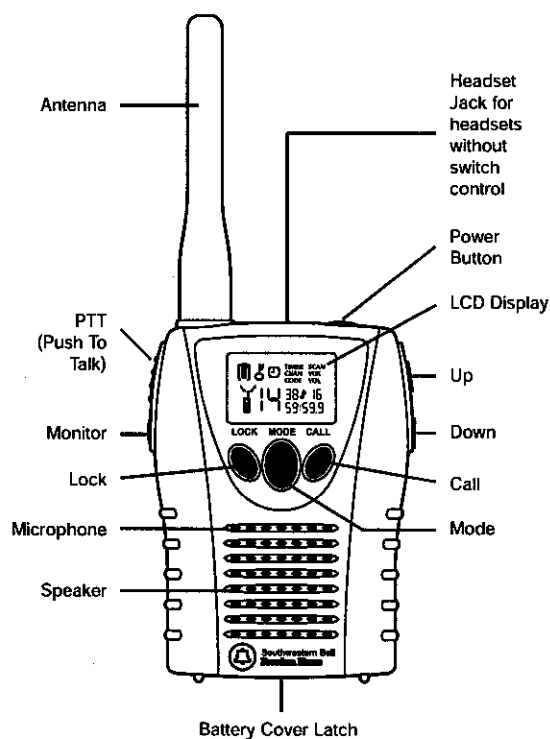
FCC INFORMATION:

This device complies with FCC 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

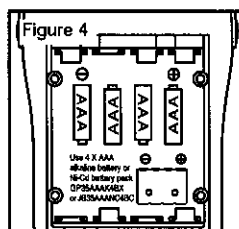
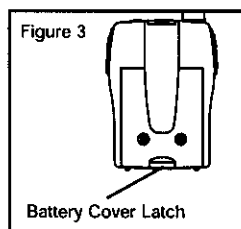
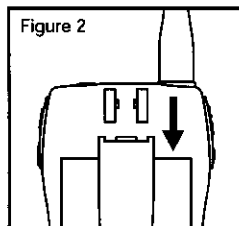
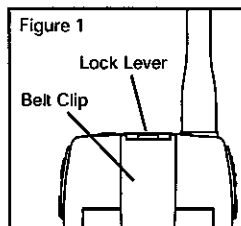
FS2000 CONTROLS DIAGRAM



INSTALLATION

Battery Installation

1. Remove the belt clip by pulling the belt clip lock lever and pushing down on the belt clip, as shown in Figure 1 and 2.
2. Release the battery cover latch located on the rear side of the unit and remove the battery cover (Figure 3).
3. Install the rechargeable battery pack included in the package, follow the polarity as shown on Figure 4.
4. Reinstall the battery cover and lock the battery cover latch into position.
5. Reinstall the belt clip.
6. Place the FS2000 in the charging base and charge for 10-14 hours before use.



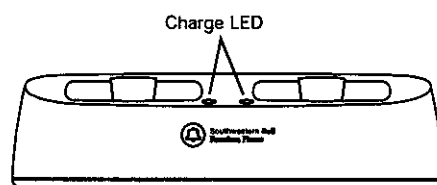
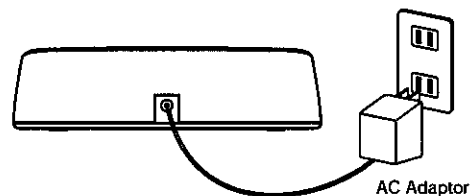
NOTE: You may install four (4) AAA alkaline batteries (not included) following the polarities as shown in Figure 4 when the rechargeable battery pack is out of power.

INSTALLATION

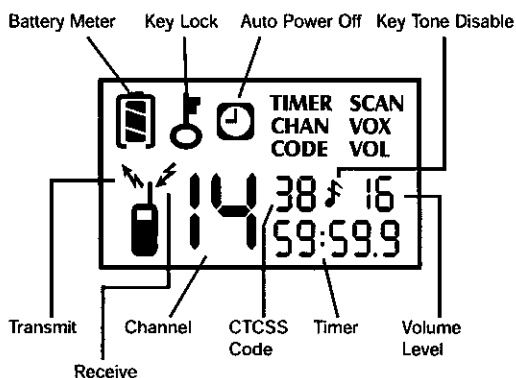
Battery Charging

The battery pack in the unit must be fully charged for 10-14 hours before use.

1. Connect the AC adaptor into back of the charging base and plug directly into standard 120 volt outlet.
2. Place the unit in charging base upright and facing outward. The CHARGE LED on the charging base will light. If charger LED's are not lit, check position of FRS unit to insure charging contacts on unit are lined up with charging contacts in base.
3. The charge LED's will remain lit while units are in the charger. Units will take approximately 10-14 hours to fully charge before use.
4. **NOTE:** If units are not placed in charger correctly, the LED will not light and the units will not charge.
5. **NOTE:** Use only the Southwestern Bell Freedom Phone® AC adaptor and rechargeable battery packs supplied with this product.



LCD Display



OPERATION

Turn on the Radio

To turn on your FS2000, press and hold the POWER button until the LCD display is on and you hear a tone.

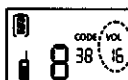
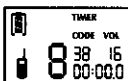
In the NORMAL operating mode, the LCD display will show the current channel number, CTCSS code and volume level.

Turn off the Radio

To turn off your FS2000, press and hold the POWER button until the display is off and you hear a tone.

Adjust the speaker volume

Press the UP and DOWN buttons to adjust the speaker volume level from 1 to 16.



OPERATION (CONT.)

Key Tones

You may disable the key tone by pressing and holding the MONITOR button while turn on the radio. A key tone disabled icon will be displayed on the LCD to indicate the key tone has been disabled.

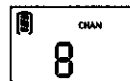
To enable the key tone, turn off the radio, and repeat the same procedure to disable the key tone.



Set Channel Number

Press the MODE button once, the CHAN icon will flash. Press the UP or DOWN button to change to other channels.

NOTE: The radio will return to NORMAL mode if no button is pressed in 10 seconds or if the PTT button is pressed. The radio will go into CTCSS CODE SELECTION if the mode button is pressed again within 10 seconds.



Set CTCSS Code

Press the MODE button twice, the CODE icon will flash. Press the UP or DOWN button to change the code. There are 38 CTCSS codes available.

NOTE: To communicate with other FRS radios with CTCSS code feature, your must have the same CTCSS code as well as the channel number.

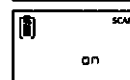
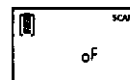
If you want to communicate with other FRS radios without CTCSS code feature, simply set the CTCSS code to "--".



Set Scan Feature

Press the MODE button 3 times, the SCAN icon will be displayed. Every time you enter this mode, the default setting is disable "oF". Press the UP button to enable the Scan feature to "on" (press DOWN button to reset to disable "oF").

The radio will start channel scanning when it returns to NORMAL mode.



OPERATION (CONT.)

NOTE: The VOX feature and the MONITOR button will be disabled during channel scanning.

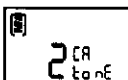
Scan feature allows user to monitor channels of other transmitting radios. When the FS2000 detects channel activity, it stops scanning and stays at the active channel for 2 seconds. If the CTCSS code is a match, you can listen to the transmission of other radios. Otherwise only the RECEIVE icon will be displayed to indicate the channel is in use. If you want to stay at this channel, press and release the PTT button within 2 seconds to stop channel scanning. You may need to change the CTCSS code to communicate.

If there is no action within 2 seconds, the FS2000 will continue to scan the next active channel.

You may terminate the channel scanning by pressing the MODE button and return to the original channel.

Set Call-Ring Tone

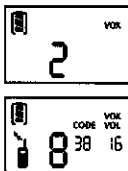
Press the MODE button 4 times, the display will show "CA tonE" with the current Call-Ring tone number. Press the UP or DOWN button to change to another Call-Ring Tone. There are a total of 10 Call-Ring Tones available.



Set VOX sensitivity

Press the MODE button 5 times, the VOX icon will flash and the current sensitivity level will be displayed. Press the UP or DOWN button to change the sensitivity level. Level 1 is the most sensitive and 0 is to disable VOX.

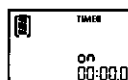
NOTE: The VOX feature will be temporarily disabled during setting, receiving, scanning, monitoring and using PTT button to transmit.



OPERATION (CONT.)

Set Stop-Watch

Press the MODE button 6 times, the TIMER icon will flash. Enable the TIMER by pressing the UP button and disable it by pressing the DOWN button.

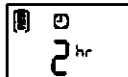


- Press the CALL button to start the stop-watch.
- Press the CALL button again to freeze the watch display but continue running background timer. The TIMER icon will flash.
- Press the CALL button again to continue running the foreground watch.
- Press the LOCK button to stop the watch (foreground and background) and display the total elapse time.
- Press the LOCK button again to reset the stop-watch to zero.



Set Auto-Power-Off (APO)

Press the MODE button 7 times, the APO icon will flash and the current period of APO will be displayed.



You can change the period of APO by pressing the UP or DOWN button (from 1 to 3 hours, 0 means disable). If no button is pressed during the period of APO set, the FS2000 will beep for 1 minute and then turn itself off. Any button being pressed will reset the counting of the APO timer.

Monitor

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

Press and Hold the Monitor button to turn on the Monitor.

Release the Monitor button to turn off the monitor.

Sending Call Tones

You can use Call Tones to alert the other user or to identify yourself by pressing the CALL button.

NOTE: The CALL button will act as START when the Timer is enabled. Press the PTT button and the Up button at the same time to send the Call Tone for temporary use.

OPERATION (CONT.)

Transmitting a Call

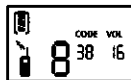
1. Press and Hold the PTT button to transmit. The TRANSMIT icon will be displayed.

2. While holding the PTT button, speak in a normal voice about 2 to 3 inches away from the microphone.

3. Release the PTT button when you have finished transmitting.

NOTE: In order to communicate with other radios, they must be on the same channel and CTCSS code you are currently using.

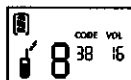
NOTE: There is a timeout feature to prevent accidentally continuous transmission. If the PTT button is pressed for 60 seconds continuously, you will hear a beep tone and the transmission will be stopped.



Receiving a Call

The unit is continuously in RECEIVE mode when the unit is ON. When you receive a call on the current channel, the RECEIVE icon will be displayed.

NOTE: Although the RECEIVE icon is displayed on the LCD panel, the speaker will not be ON unless the CTCSS code is a match to your FS2000.



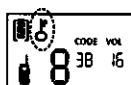
Key Lock

Press and Hold the LOCK button to enable the key lock. The KEY LOCK icon will be displayed. The UP, DOWN, CALL and MODE buttons are locked.

Press and Hold the LOCK button again to release the Key Lock.

NOTE: When the Key Lock is enabled, press the PTT button and the Up button at the same time to send the Call Tone for temporary use.

NOTE: The LOCK button will act as STOP when the Timer is enabled.

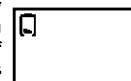
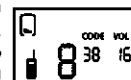


OPERATION (CONT.)

Battery Level/ Low Battery Indication

There is a Battery Meter indicator in the LCD display panel. When the battery power is low, the battery icon will flash and a warning beep will sound every 3 minutes or when you press the PTT button to indicate the battery needs to be recharged. If there is no action for a period of time, the FS2000 will turn off the LCD display and disable all buttons except the POWER button.

Place the FS2000 in the charging base and charge for 10-14 hours.



FRS Channel Table

Channel	Frequency(MHz)	Channel	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

CTCSS Code Frequency

No.	Freq.(Hz)	No.	Freq.(Hz)	No.	Freq.(Hz)	No.	Freq.(Hz)
1	67.0	11	97.4	21	136.5	31	192.8
2	71.9	12	100.0	22	141.3	32	203.5
3	74.4	13	103.5	23	146.2	33	210.7
4	77.0	14	107.2	24	151.4	34	218.1
5	79.7	15	110.9	25	156.7	35	225.7
6	82.5	16	114.8	26	162.2	36	233.6
7	85.4	17	118.8	27	167.9	37	241.8
8	88.5	18	123.0	28	173.8	38	250.3
9	91.5	19	127.3	29	179.9		
10	94.8	20	131.8	30	186.2		

TROUBLESHOOTING

SYMPTOM	SOLUTION
Does not turn on.	- Check battery. Ensure that the battery is installed properly. - The battery may be weak. Recharge the battery by placing the FS2000 in the charging base for 10-14 hours.
Reception is weak.	- Press the UP button to increase volume. - The receiving signal may be weak and out of range. If this happens, press the MONITOR button.
Cannot change channels.	To change channels, press the MODE button, then press UP or DOWN button to change channels.
Range is limited.	- The battery may be weak. Recharge the battery by placing the FS2000 in the charging base for 10-14 hours. - 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 voice level, 2 to 3 inches away from the microphone. - If you are receiving, lower the volume control to a comfortable level.
The unit transmits automatically when the headset is connected.	Use a headset without switch control.

SERVICE

According to FCC regulations, this equipment, which has been certified and registered by the FCC, may only be repaired by authorized persons. If repairs or adjustments are made by an unauthorized person, the FCC certification may be voided. Should you encounter any problems, please call the Southwestern Bell Freedom Phone® Retail Sales toll-free Customer Help Line for assistance.

FOR IN-WARRANTY SERVICE

Package your units (including all accessories) and ship the units postage prepaid* and insured (for your protection) to:

SOUTHWESTERN BELL FREEDOM PHONE®

DEPT.: Warranty Repair

7475 N. Glen Harbor Blvd., Glendale, AZ 85307

Be sure to include your return address, proof of purchase, a daytime phone number, \$5.00 for postage and handling*, and a brief explanation of your difficulties.

***NOTE:** California residents need only provide proof of purchase and should call 1-800-366-0937 for shipping instructions.

FOR OUT-OF-WARRANTY SERVICE

You may call the Customer Service Help Line for the price of a replacement before returning your unit. Please follow all instructions for In-Warranty service (above) to return your unit, and mark the package:

DEPT.: Out-of-Warranty

If you have called and know the cost of your replacement, please include this information with your return for prompt service.

LIMITED ONE YEAR WARRANTY

Southwestern Bell Freedom Phone® Retail Sales, at our option, will replace or exchange (for a model of equal value) your FRS unit for one year from the date of purchase if the unit is defective in workmanship or materials. To obtain service under this warranty, return the defective product to the service center together with your sales slip and \$5.00* for postage and handling. *California residents need only provide proof of purchase and should call 1-800-366-0937 for shipping instructions.

ALL APPLICABLE IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE GIVEN TO YOU BY LAW ARE HEREBY LIMITED IN DURATION OF THIS WARRANTY. UNDER NO CIRCUMSTANCES WILL SOUTHWESTERN BELL FREEDOM PHONE® BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SOUTHWESTERN BELL FREEDOM PHONE®

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