OWNER'S MANUAL

19-1208

INTRODUCTION

Your Radio Shack 19-1208 Business band transceiver is a portable, easy-to-use, two-way radio that you can carry almost anywhere. It is approved with commercial-grade standards to give you clear, reliable communication. This transceiver consists of 8 Business channels.

Your 19-1208 provides for personal communications with family members or other licenses. You can use the 19-1208 for recreational communications while you hike, ski, or fish. You can even use the 19-1208 to coordinates your personal or business activities with other family members. When you get a license to operate the radio, you can let other members of your family living in the same household operate the radio.

Your transceiver has the following features:

PLL-Controlled Circuitry ---- provides accurate and stable channel selection.

Adjustable Squelch ---- helps eliminate noise between transmissions.

38 CTCSS (Continuous Tone Control Squelch System) ---- helps reduce interference from other systems in the area operating on the same frequency.

Built-in Modulation Limiter Circuit ---- automatically adjusts for a wide variety of voice levels to ensure an understandable transmission.

High/Low Power ---- lets you save power by selecting a suitable transmitting power for long or short distances.

Battery Low and Transmit Indicator ---- shows the battery pack's condition and lights when you transmit or receive.

Removable and Rechargeable Battery Pack ---- lets you use one battery pack while you charge another (additional packs available).

Supplied Battery Charger ---- conveniently recharges your transceiver's battery pack.

Flexible Antenna with BNC Connector ---- provides excellent reception. The BNC connector is designed so you can easily attach and remove the supplied antenna or an optional one.

Earphone Jack and External Microphone Jack ---- let you use an earphone or external microphone to help ensure understandable communications in noisy areas.

Belt Clip ---- lets you attach the transceiver to your belt or waistband.

JIS level 4 ---- provides excellent waterproof capability.

We recommend you record your transceiver's serial number here. This number is on the transceiver's back panel.

Serial Number_____

FCC Information

FCC License required

This Transceiver is intended for use in the operation of commercial activities, in educational, philanthropic, or ecclesiastical institutions, and hospitals, clinics, or medical associations.

The Federal Communications commission (FCC)requires you to be licensed before you operate this transceiver. Unless you are already licensed to operate on one of the preset frequencies, you must apply for a frequency through the PCIA (Personal Communication Industry Association), a non-profit organization that assigns frequencies nationwide to help prevent conflicts between different businesses using transceivers in the same area. For more information about getting a license, contact the PCIA at 800-759-0300, extension 3068 (in Virginia 703-739-0300, extension 3068)

For other questions concerning the license application, contact the FCC at 717-337-1212, or wirte:

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FCC
P.O.Box 1040
Gettysburg, PA 17325

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For the latest FCC application form and instructions, call the FCC's fax-on-demand service at 1-202-418-0177 from a fax machine and request one or more of the following documents:

All forms and instructions …………………….000600
Form 600 instructions only……………………006001
Main Form 600 only……………………………006002
Form 600 schedules only………………………006003

If you do not have a fax machine, you can call the Government Forms Distribution Center at 1-800-418-FORM and request that the form and instructions be mailed to you.

FCC Part 90 Rules

You must be familiar with Part 90 of FCC Rules before you operate your transceiver. The

operation instructions in this manual conform to Part 90, but do not cover all items in Part 90.

Overall, Part 90 states that:

- You must have a valid license before you use the transceiver.
- As licensee, you are responsible for proper operation of all transceivers operating under your license's authority.
- You can let unlicensed persons operate transmitter, as long as you take precautions to prevent unauthorized transmissions.
- You must use this transceiver only for commercial use of your business, and only when other commercial channels (such as the telephone) are either not available or not practical.
- You must always yield the operating frequency to communications that involve the safety of life or property.
- You must take reasonable precautions to prevent harmful interference to other services operating on the same frequency.
- You must not transmit program material of any kind used in connection with commercial broadcasting.
- You must not provide a service that is normally handles by telephone or telegraph unless such broadcasts involve the safety of life and property or in emergencies such as an earthquake, hurricane, flood or a similar disaster where normal communications channels are disrupted.
- During each transmissions or exchange of transmissions, you must identify your station with the call sign issued to you by the FCC, or once each 15 minutes during periods of continuous operation.
- You must keep a written record of any maintenance or modifications made to the transceiver, and you must make this record available for inspection upon demand by the FCC.

Violating any of the provisions of Part 90 can result in fines and/or confiscation of equipment.

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

- Moving your transceiver away from the receiver
- Contacting your local RadioShack store for help

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

ADDITIONAL FCC REGULATIONS

The Business Radio Service is under the jurisdiction of the FCC. Any adjustments or alterations that would alter the performance of the transceiver so it no longer meets the original FCC type acceptance or would change the frequency-determining method are strictly prohibited.

Replacement or substitution of crystals, transistors, ICS, regulator diodes, or any other component that is of a unique nature with components other than those recommended can violate the technical regulations of the FCC rules or violate type acceptance requirement of the rules.

Before you operate the transceiver, you must obtain your license. It is illegal to transmit without the appropriate license, which you can get by submitting a completed FCC Form 600 to the FCC (or through the PCIA). Furthermore, your are required to understand Part 90 of the FCC Rules and Regulations prior to operating your transceiver. It is the user's responsibility to see that this unit is operating at all times in accordance with the FCC Rules and Regulations.

USING THE RADIO

A. DISPLAY

Your radio comes with a multifunctional backlight display. By pressing any button except the PTT, the backlight will illuminate for 5 seconds. The liquid crystal display has been enlarged to show all of the operating modes.
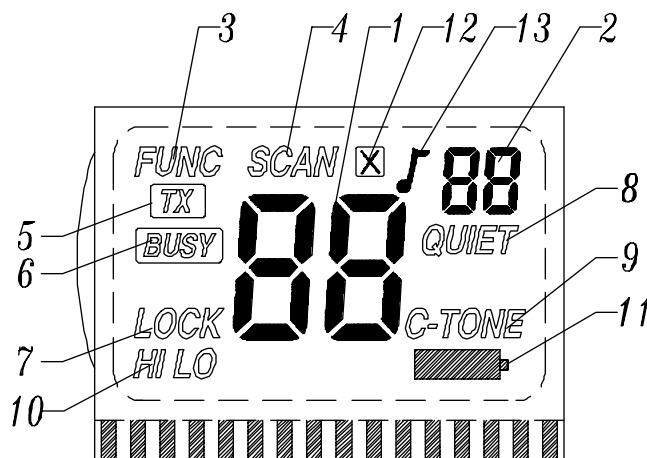
1. Shows the selected channel number.

2. Shows the selected privacy code number.

3. **"FUNC"**: Displays when the secondary function is enabled.

4. **"SCAN"**: Displays when the scan mode is activated.

5. **"TX"**: Displays when your radio is transmitting.

6. **"BUSY"**: Displays when a call is being received.

7. **"LOCK"**: Displays when the keypad lock is activated.

8. "**QUIET**": Displays when the QUIET mode is enabled.

9. "**C-TONE**": Displays when the Roger Beep function is activated.

10. **"HI LO"**: Displays when the Hi/Lo transmit power is toggled.

11. "▭ "**:** Indicates the batteries are low. Replace the batteries when it appears

12. "⊠"**:** Displays when the working channel is set to be skipped.

13. " ♪": Displays when the key tone function is activated.

B. FUNCTION AND LOCATION OF THE CONTROLS
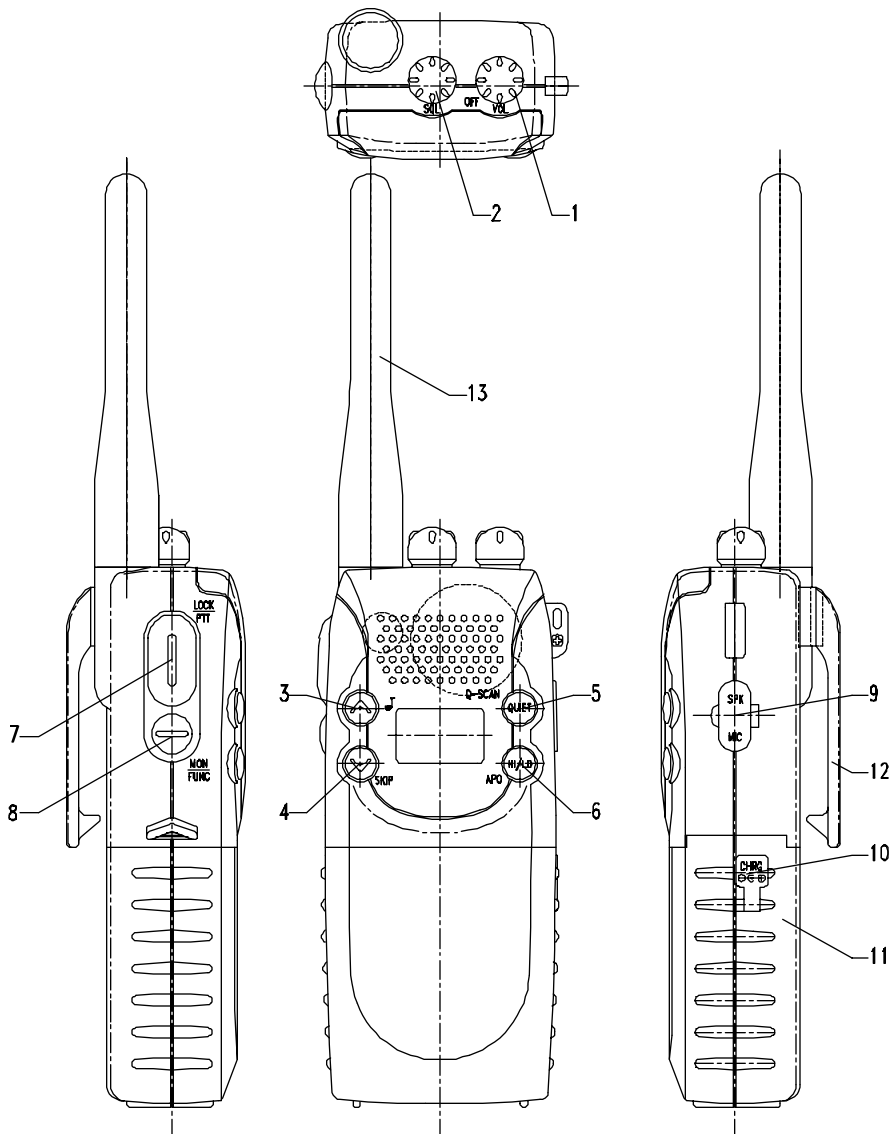
1. "ON/OFF" Volume Control.

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

2. SQL Knob

You can turn **VOL/SW Knob** to obtain the squelch sensitivity at threshold.

3. CH▲ /Key Tone Button

Press **CH** ▲ to move one channel higher. Press and hold **CH** ▲ for more than 1.5sec to enter into the scan upwardly mode. Press **CH▼** will change the scanning direction downwardly. During the scanning, press any key will exit the scanning mode.

Key Tone

Press and hold **FUNC** key, then press **CH** ▲ key to activate or deactivate the Key Tone

function. Icon " " will be shown if activated.

4. **CH ▼/ Skip**

Press **CH ▼**to move one channel down. Press and hold **CH▼** for more than 1.5sec to enter into the scan downwardly mode. Press **CH ▲** will change the scanning direction upwardly. During the scanning, press any key will exit the scanning mode.

Skip

User can choose a desired channel from being scanned. Press **CH ▲** or **▼**to go to the desired channel. Press and hold **FUNC** key for, then press **CH ▼** key to skip this channel from scanning. Icon " ☒ on to indicate this working channel is set to be skipped. Repeat the above steps will cancel the skip function of the channel.

Automatic Power Off Button

Press and hold **FUNC/MON** button, then press **HI/LO** button to enable or disable the auto power off function. The display will show "**AP $_{ON}$**" or "**AP $_{OF}$**" for one second, when the timer is activated/deactivated. The timer automatically turns off the unit when it is idle for 2 hours.

5. QUIET /QUIET Scan Button/Reset

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

a) Hold down **QUIET** button for 1.5 seconds until **QUIET** is displayed and the quiet code flashes.
b) Repeatedly press (or hold down) **CH▲** or **CH▼** until you see the code number you want to use.
c) Press **QUIET** button to store the code.

6. Hi/Lo / Automatic Power Off Button

   Press this button to toggle the high or low RF power.

Automatic Power Off Button

Press and hold FUNC/MON button, then press HI/LO button to enable or disable the auto power off function. The display will show "**AP** ON" or "**AP** OF" for one second, when the timer is activated/deactivated. The timer automatically turns off the unit when it is idle for 2 hours.

To turn on the quiet feature, press **QUIET, QUIET** icon appears. To turn off the feature, press **QUIET** until **QUIET** disappears.

Note: We recommend that you select a quiet code from the range 7-30. If you select a code below or above that range, you must wait 1 to 2 seconds after holding down **PUSH-TO-TALK** before you start talking.

QUIET Scanning (Only available under QUIET mode)

Press and hold FUNC key, and follow by QUIET key to enter into the QUIET Scan mode, and icons of "SCAN" and "QUIET" will be lightened on LCD. When received the same QUIET code, the scanning stops and will keep scanning after the signal disappears. Press

any key will exit and return to the normal working channel.

Reset

To reset the unit, press and hold the QUIET key and turn on the unit. Reset operation will clean all the set channels and restore the current channel to CH2 with QUIET off. Power is toggled to low mode, key tone and C-tone function are activated.

6. Push-To-Talk button / Keylock /C-Tone

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

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

Press and hold the **Push-To-Talk** while turning on the radio will enable or disable the courtesy tone (C-Tone) function.

7. MON/FUNC Button

To hear everything happening on a channel, including weak transmission, hold down **MON/FUNC** button for more than 1.5 sec. Re lease the **MON/FUNC** button to turn the auto-squelch back on.

8. External Mic/Spk Jack

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

9. Charger Jack

You can recharge battery pack using the supplied battery charger. Plug the charger's barrel plug into the CHRG jack on the side of the unit, then connect the charger to a standard AC outlet.

10. Rechargeable Battery Pack

You can recharge the battery pack using supplied the battery charger.

11. Belt Clip

To attach the belt clip, place it over the locking pin and align the screw hole. Tighten the screw.

12. Antenna

Provides excellent reception.

C. Major Channel Set Up

The user can set up total of 8 channel (Refer to UHF Business Band Frequency Table)

1. If the unit is on, turn the unit off. Press **Hi/Lo** and **QUIET** key together and hold while turn on the unit, the channel number then will flash. The radio enters channel setup mode. The icon ON or OFF on the top right corner indicates the channel is selected or not.

2. Use △ or ▽ key to select a channel.
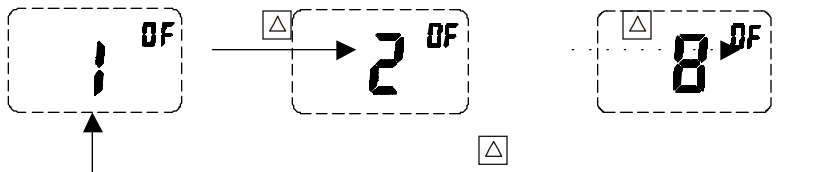
3. When a channel is selected, press **PTT** key to confirm the selected channel. Channel number stop flashing and at the display the top right icon is changed from OF to ON.
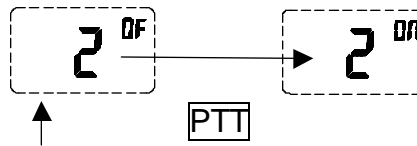
4. Press and hold the **QUIET** key for 1.5sec to enter CTCSS channel setting-up mode. The working QUIET channel number is flashing.

5. Use △ or ▽ key to select the desired QUIET channel.

6. When the QUIET channel is selected, press QUIET key to confirm and exit the QUIET setting mode.

7. Repeat step 1 to 6 to set up other channel, total of 8 channels can be set up.

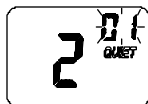8. When all channels are selected, press FUNC key or no key entry for 5 seconds to confirm and exit the channel set-up mode.

Note:
1. When setting the channels, the user may omit the steps of 4-6, and the channels are set without QUIET codes.
2. When total 8 channels are already set up, user should OF one channel before setting another channel. Otherwise, press PTT to select the desired channel will not succeed and a beep sound will be heard.

To reset the unit, press and hold the QUIET key and turn on the unit. Reset operation will clean all the set channels and restore the current channel to CH2 without QUIET code.

C. OPERATION

1. Please charge the battery pack with the supplied charger.
   Ni-Cd batteries must be charged for a minimum of 10 hours before initial use.

2. Turn VOL control knob to the unit "on". Turn the SQL knob counterclockwise to the end, and adjust the volume to a normal listening level.

3. Turn **SQL** knob clockwise until background noise is just quieted.

4. Select the desired channel and/or **QUIET** privacy code.

5. Press **Push-To-Talk** button to transmit.

6. 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 Business…………..…...............….……….. 464.5000~467.9250 MHz

Power supply................................ ……...….8.4V

Sensitivity at 12dB Sinad...….……….........0.5μV

Adjacent Channel Rejection...….……...........................45dB

Audio Distortion 7%

RF Output Power...…... 1W/5W @ 8.4VDC

Harmonic Emissions... 55dB Hi, 48dB Lo

Dimensions (HWD)..….....…...…135*54*33 mm

Weight (without batteries)..…..…….…...…….… approx. 150g

SAFETY INFORMATION

Your wireless hand-held portable transceiver contains a low power transmitter. When the Push-to-Talk button is pushed it sends our 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, attachments could damage the transmitter and may violate FCC regulations.

Attachment

UHF Business Band Frequency Table

Frequency Number	Frequency MHz	Frequency Color	TX Power Hi/Lo
1	464.5000	Brown	5W/1W
2	464.5500	Yellow	
3	467.7625	J	2W/1W
4	467.8125	K	
5	467.8500	Silver star	
6	467.8750	Gold star	
7	467.9000	Red star	
8	467.9250	Blue star	

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	

Expanded Business Band Frequency Table

LCD Display Channel	Frequency MHz	Power Hi/Lo	LCD Display Channel	Frequency MHz	Power Hi/Lo	LCD Display Channel	Frequency MHz	Power Hi/Lo
9	461.0375	2W/1W	26	462.8375	2W/1W	43	466.2625	2W/1W
10	461.0625	2W/1W	27	462.8625	2W/1W	44	466.2875	2W/1W
11	461.0875	2W/1W	28	462.8875	2W/1W	45	466.3125	2W/1W
12	461.1125	2W/1W	29	462.9125	2W/1W	46	466.3375	2W/1W
13	461.1375	2W/1W	30	464.4875	2W/1W	47	466.3625	2W/1W
14	461.1625	2W/1W	31	464.5125	2W/1W	48	467.7625	2W/1W
15	461.1875	2W/1W	32	464.5375	2W/1W	49	467.7875	2W/1W
16	461.2125	2W/1W	33	464.5625	2W/1W	50	467.8125	2W/1W
17	461.2375	2W/1W	34	466.0375	2W/1W	51	467.8375	2W/1W
18	461.2625	2W/1W	35	466.0625	2W/1W	52	467.8625	2W/1W
19	461.2875	2W/1W	36	466.0875	2W/1W	53	467.8875	2W/1W
20	461.3125	2W/1W	37	466.1125	2W/1W	54	467.9125	2W/1W
21	461.3375	2W/1W	38	466.1375	2W/1W	55	469.4875	2W/1W
22	461.3625	2W/1W	39	466.1625	2W/1W	56	469.5125	2W/1W
23	462.7625	2W/1W	40	466.1875	2W/1W	57	469.5375	2W/1W
24	462.7875	2W/1W	41	466.2125	2W/1W	58	469.5625	2W/1W
25	462.8125	2W/1W	42	466.2375	2W/1W			