TO : L13   2125 8506
Attn : Ms Carman Chu

Kitty So
Q991398 (14 channel FRS)

FRS 14-Channel User Manual V1.2

(SCAN & LOCK keys added)

OPERATION BUTTONS :
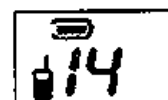- POWER
- PTT
- UP
- DOWN
- MENU
- MONITOR
- SCAN
- LOCK

ETL SEMKO ⑤			
Incoming Date:	2.2.00		
			Action By
			Carman

Features and Operating Procedures

Turn the Radio ON/OFF
1. Press and release [POWER]. The display will appear (*all segments will turn on for 1 second*) and the LED indicator light will flash every 2 seconds to indicate that the radio is on. *This is the normal operating mode.* (For every 2 seconds, the LED flash for 100ms)
2. To turn the radio off, press and hold [POWER] for 1 second until the display clears.
3. The LCD display will show the current channel number.

Adjust the Volume
1. In normal operating mode, press the UP or DOWN buttons to raise or lower the radio's volume.
2. The VOL indicator will appear and the display will show the current level (from 1 to 16). The radio will beep to indicate the volume level is changed.
3. The radio will return to normal operating mode after 2 seconds (*i.e. LCD shows channel number, and VOL indicator will disappear*)
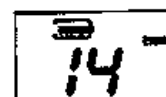
Alert Tones
1. The Alert tones (key press tones, except the [PTT] button, [UP]. [DOWN] buttons) on the radio are at fixed level and are not affected by changing the radio's volume (key tone must be set to volume level 8).
2. At normal operation mode, the alert tone level of the volume changing buttons [UP] and [DOWN] will use the radio's current volume setting.
3. The [PTT] button do not have alert tone.
4. If speaker is enabled, there will be no key tone for [UP] and [DOWN] keys.

However, the Alert tones can be disabled by turning on the radio while holding down the [MONITOR] button. The radio will receive signals at the volume setting selected, but all button presses on the radio will be muted.

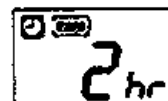To re-activate the Alert tones, turn the radio off then on again while holding the [MONITOR] button.

Change the Channel
1. From the normal operating mode, press [MENU] button once to enter the channel selection menu. The CHAN indicator will appear and the radio's current Channel (large number) will begin to flash.
2. Use the [UP, DOWN] buttons to select a new channel while the number is flashing.
3. The radio will return to the normal operating mode after 10 seconds or when you press the [PTT] button or press [MENU] several times back to normal operation mode.

Auto Power Off

Your radio can be programmed to turn itself off after a certain period of inactivity. This feature
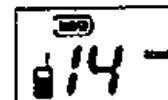is used to prevent unwanted battery usage.

To enable the Auto Power Off feature:
1.   From the normal operating mode, press [MENU] 4 times to enter the Auto Power Off Setting menu.
2.   Use the [UP] or [DOWN] buttons to change the power off time setting (from 0 to 3 hours, 0 means no
      auto-power off).
3.   The radio will return to the normal operating mode after 10 seconds or when you press the [PTT] button.

If no buttons are pressed during the selected time interval, the radio will sound a unique tone one minute prior to
turning itself off.

SCAN

Scan allows you to monitor channels of other transmitting radios. When the radio detects
channel activity, it stops scanning and locks in on the active channel. It allows you to listen and
talk back to the person(s) transmitting without having to switch channels.

● To activate SCAN function, press [SCAN] button at normal operating mode. The SCAN indicator will flash.

If SCAN feature is activated, the SCAN Indicator will flash in the normal operating mode indicating scanning in
progress.

When the radio detects channel activity, the radio will stay at the active channel. The SCAN indicator will glow
continuously and the LCD display will indicate the active channel number. You can press [PTT] button to talk to
scanned speaker at the active channel.

If channel activity ceases, the radio will begin to scan again after 5 seconds and the LCD will return to the
previously selected channel.

You can also press [MONITOR] to stop the scanning temporarily. Both the CHAN and SCAN
indicators will glow continuously and the radio will stay at the displayed channel. Pressing
[MONITOR] again will resume scanning (CHAN indicator will disappear, SCAN indicator will
flash).

● To de-activate SCAN function:
    Pressing the [SCAN] button will de-activate the SCAN function and return normal operating mode with the
    radio at the previously selected channel.

BUSY indicator (RSSI indicator)

At normal operating mode, the BUSY indicator will appear when the radio detects incoming
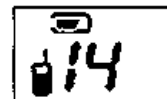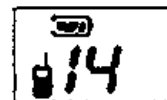signals.

BATTERY METER indicator
The radio can detect the battery in 3 levels:
If battery voltage > 4.2V, "Battery Full" indicator appears.
If battery voltage is between 3.7V and 4.2V, "Battery Half" indicator appears.
If battery voltage is between 3.4V and 3.7V, "Battery Low" indicator appears.
If battery voltage < 3.4V, "Battery Low" indicator will flash (it means battery is almost exhausted)

When the battery is nearly exhausted (< 3.4V), the BATTERY METER indicator will blink at a interval of 0.5 second.   The warning beep will emit :
* for 3 seconds after turning power on
* every 5 minutes in standby mode
* after release the PTT button

LCD Back Light
Whenever a button is pressed (except PTT button), the LCD back light will illuminate for 5 seconds.
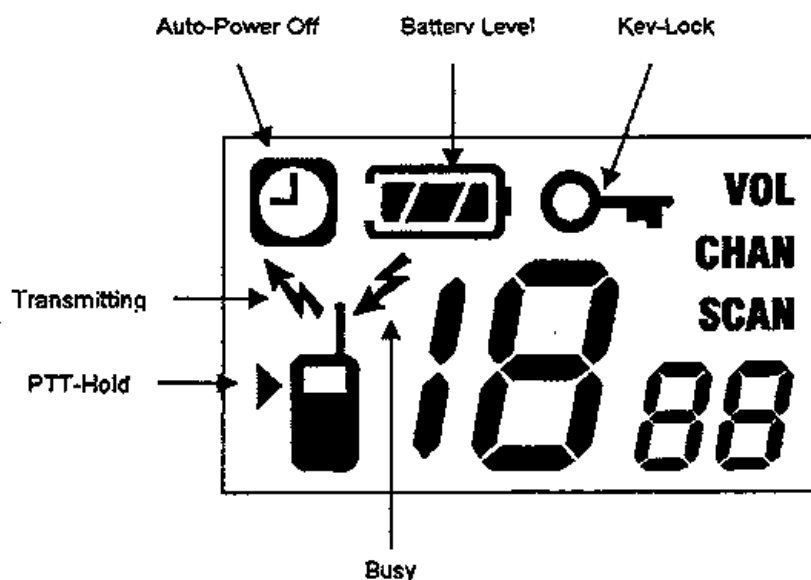
Power Saving Feature
At normal operating mode (standby to receive), the Power Saving feature will put the radio's RF section in a ON/OFF duty cycle to save battery power.   ON/OFF duration is about 300ms ON and 300ms OFF.

If SCAN function is activated, the RF receive section will not have power saving and continue to scan for channel activity.
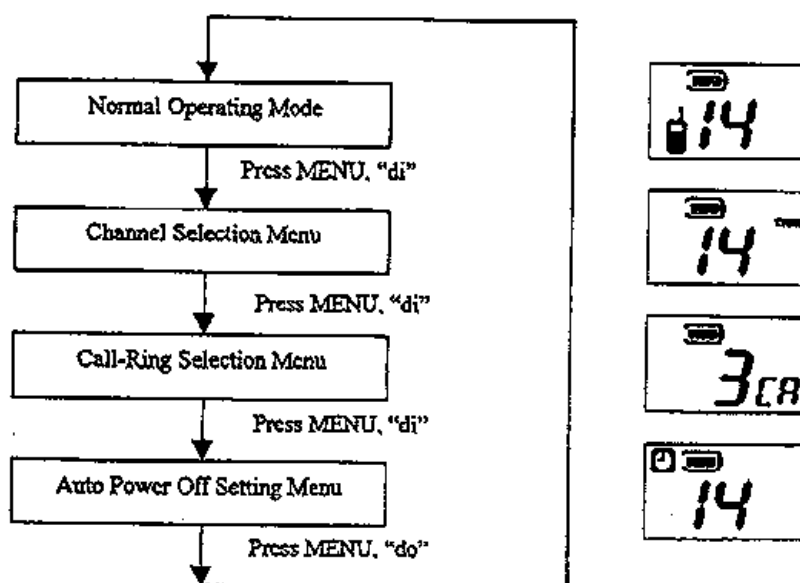
Types of Tones

Type	Usuage
Di	Normal key tone for button pressed (except [PTT] button which have no key tone);
	Signal tone when power on the radio;
	Signal tone when power off the radio;
Do	Special key tone for:
	● Lowest volume reached;
	● Highest volume reached;
	● Menu scroll back to Normal Operating Mode;
	● Warning tone for 60 seconds Time-Out transmission
Ring_1	Call-Ring tone type 1
Ring_2	Call-Ring tone type 2
Ring_3	Call-Ring tone type 3
Ring_4	Call-Ring tone type 4
Ring_5	Call-Ring tone type 5
Batt_Low	Warning tone for battery nears exhaustion (Voltage < 3.2V)
Auto_Off	Warning tone for Auto Power Off one minute prior to turning the radio off

Auto-Power Off   Battery Level   Key-Lock

Transmitting

PTT-Hold

VOL
CHAN
SCAN

Busy

Channel Frequency Chart			
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

MENU Scrolling Sequence

At each Menu location, you can press [MENU] to scroll up the menu until the Normal Operating Mode. If you don't press any key, the radio will time out to Normal Operating Mode after 10 seconds. Or you can press the [PTT] button to jump to Normal Operating Mode (Transmit) directly.

———   END OF DOCUMENT   ———

Receive Monitor
At normal operating mode, press [MONITOR] for 1 second to turn off the auto-squelch to hear signals on the current channel.   Press [MONITOR] again for 1 second to turn on the auto-squelch function.
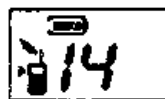
Sending messages (TALK)
1.   Press the [PTT] button and speak into the radio microphone.   The LED indicator and the TRANSMIT indicator glow continuously when transmitting.
2.   To receive messages, release the [PTT] button.
3.   If the PTT-HOLD feature is enabled, press and release the [PTT] button once will put the radio in transmit mode as if you are holding the [PTT] button.   Press and release the [PTT] again to resume the radio to normal receive mode.
4.   If [UP] button is pressed while transmitting, the radio will send out the selected   Call-Ring tone with the microphone muted.   The Call-Ring tone can be heard at the radio's speaker at the current volume level. .

PTT-HOLD feature
To activate PTT-HOLD feature:
1.   Press and hold [PTT] button while turning on the radio.   The PTT-HOLD indicator appears.
2.   Press and release [PTT] once will hold the radio in transmitting mode.   While transmitting, the PTT-HOLD indicator will flash, the TRANSMIT indicator and the LED indicator will glow continuously.
3.   Press and release [PTT] again will resume the radio to receive mode.   The PTT-HOLD indicator will glow continuously.

To de-activate PTT-HOLD feature:
1.   Turn off the radio.
2.   Press and hold [PTT] button while turning on the radio.   The PTT-HOLD indicator will disappear.
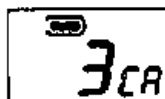
Time-Out Timer:
The Time-Out Timer feature prevents accidental transmission.   The radio will emit a warning tone if the [PTT] button is pressed for 60 continuous seconds and will stop transmission.

Remark : If PTT-HOLD feature is activated, the Timer-Out Timer feature will be disabled.

To change and hear a Call-Ring tone:
1.   From the normal operating mode, press [MENU] 2 times to enter the Call-Ring selection menu.   The CALL indicator will appear and the large numeric display will show the current Call-Ring number (1 to 5).
2.   Use the [UP] or [DOWN] buttons to change the Call-Ring tone.   You can hear the Call-Ring tone as you change your selection.   There are totally 5 types of Call-Ring tones.
4.   The radio will return to the normal operating mode after 10 seconds or when you press the [PTT] button or press [MENU] several times back to normal operation mode.

Key Lock
Lock allows you to disable the [UP], [DOWN], [SCAN] and [MENU] buttons so that the radio settings cannot be changed accidentally.   [PTT], [MONITOR], [LOCK] and [POWER] remain functional.

If [PTT] is pressed to transmit, the [UP] button will be temporarily enabled for you to activate the Call-Ring.

To activate the Lock feature:
●   Press and hold [LOCK] for 1 second, the LOCK indicator will appear.

To disable the Lock feature:
●   Press and hold [LOCK] again for 1 second, the LOCK indicator will disappear.

NOTICES TO THE USER

The radios operate on Family Radio Service (FRS) designated frequencies. FCC has established the license free, short range two way radio service for family and individual recreational use - anywhere in the United States & other areas listed by the FCC.

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.

FCC WARNING

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

INFORMATION TO THE DIGITAL DEVICE USER REQUIRED BY THE FCC

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 generate 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 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 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 the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer for technical assistance.

⚠ WARNING

For Vehicles with an Air Bag

Do not place a portable radio in the area over an air bag or in the air bag deployment area. Air bag inflates with great force. If the portable radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to occupants of vehicle.

Batteries

Do not replace or change batteries in a potentially explosive atmosphere. Contact sparking may occur while installing or removing batteries and cause an explosion.

Blasting Caps and Areas

To avoid possible interference with blasting operations, turn your radio OFF near electrical blasting caps or in a "blasting area" or in area posted "Turn off two-way radio". Obey all signs and instructions.

Potentially Explosive Atmospheres

Turn your radio OFF when in any area with a potentially explosive atmosphere, unless it is a type especially qualified for such use (for e.g., Factory Mutual Approved). Sparks in such areas could cause explosion or fire resulting in bodily injury or even death.

Note : Areas with potentially explosive atmospheres are often, but not always, clearly marked.

To: LTS.

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Cathy Sjo