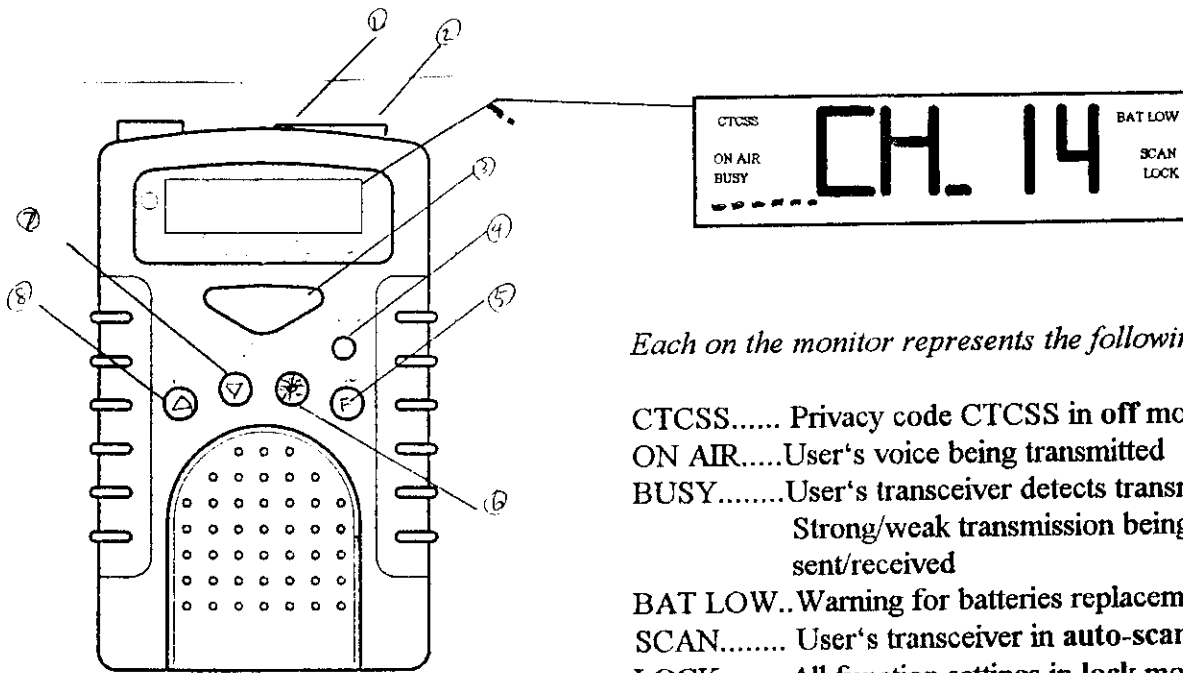


EXHIBIT C

User Manual

SPORT MODEL-110

SPORT MODEL-110



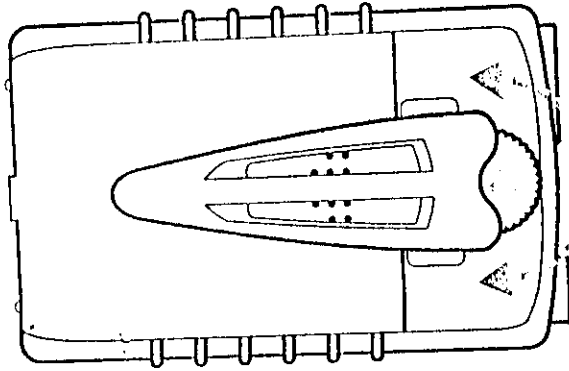
Each on the monitor represents the followings:-

CTCSS..... Privacy code CTCSS in off mode
 ON AIR.....User's voice being transmitted
 BUSY.....User's transceiver detects transmission,
 Strong/weak transmission being
 sent/received
 BAT LOW..Warning for batteries replacement
 SCAN..... User's transceiver in auto-scan mode
 LOCK..... All function settings in lock mode
 CH_ Current channel no.

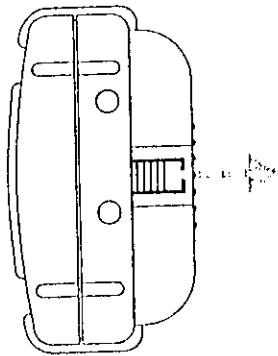
- ① SPEAKER JACK
- ② EARPHONE JACK
- ③ PTT (Press To Talk) BUTTON
- ④ POWER BUTTON
- ⑤ FUNCTION/LOCK BUTTON
- ⑥ MONI BUTTON/DISPLAY BACKLIGHT
/SOUND-LEVEL-CHECK BUTTON
- ⑦ DOWN BUTTON
- ⑧ UP BUTTON

ANTI-CLOCKWISE

CLOCKWISE

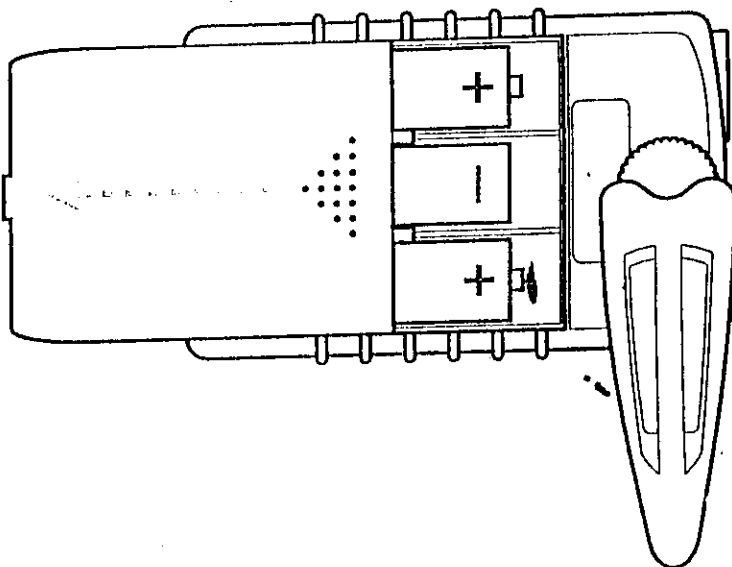


- * WIND CLOCKWISE TO TIGHTEN THE CLIP.
- * WIND ANTI-CLOCKWISE TO LOOSEN IT.



- * CLAW UPWARDS WITH FINGER NAIL TO UNLATCH IT.
- * CLAW DOWNWARD WITH FINGER NAIL TO LATCH THE COVER.

SWING THE CLIP TO 90° WHEN IT LOOSENS



- * SLIGHTLY PRESS AND PULL BACK TO REMOVE THE COVER.
- * TO FIX BACK, PUSH THIS FORWARD SLIGHTLY PRESSED.

NO.	CONTENTS	PAGE NO.
1.	Power button.....	01
2.	Up & Down button /Sound level setting.....	01
3.	Sound Level Checking.....	01
4.	Display backlight button.....	01
5.	Function/Function changing mode.....	01
6.	Channel setting.....	01
7.	Auto Scanning.....	02
8.	Privacy code (CTCSS) setting.....	02
9.	Privacy code On/Off setting.....	02
10.	Squelch setting.....	02
11.	Beeper On/Off setting.....	02
12.	PTT button/ How to communicate.....	03
13.	Battery Low Warning.....	03
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HOW TO USE BUTTONS AND KEY

POWER ON/OFF BUTTON (small color button):

Press and hold the small red button for about 2 seconds to switch the transceiver ON. To turn OFF, press and hold for about another 2 seconds.

UP & DOWN BUTTON/ Sound Level setting ;

Under the power ON condition before pressing the function button, one press of any such buttons makes the monitor show the sound level status. Press up (▲) or down (▼) buttons to readjust the sound level up/ downwards as required. Sound level ranges 1~15.

Sound level checking ; To check the sound level of your previous sound setting, press (F) button for a few seconds while the power is on.

While user feels his transceiver receives a weak transmission (i.e. his partner's voice becomes barely audible during communication), pressing the display light button for a few seconds enables him to hear the weak message more loudly.

DISPLAY LIGHT BUTTON (⊙) ;

While the power is on before the function button is pressed, giving a short press to this button lightens the display backlight to enable monitor checking in a dark environment. The display light will automatically shut off after 20 seconds to save power. To turn this off immediately, just press the same button one more time.

FUNCTION BUTTON (F) /

Function changing mode



While in ON mode, user can hop among 5 function modes every time this button is pressed. Initial press will start from channel no. [CH:] / CTCSS privacy codes no. [CT:] / privacy code on-off [CT ON] / squelch no. [59L] / beeper on-off [BP ON] in the last and restart in same cyclic order. Guide of each optional setting of such functions is as below.





(Locking can be activated by pressing the button for about 2 seconds to prevent escape of all confirmed settings. "Lock" mode will show in the monitor. In lock mode, user cannot alter to a new setting from previous functions settings without unlocking it.





To unlock or release the lock mode for a new adjustment of functions, press button (F) for about 2 seconds. ("Lock" mode will disappear from the monitor)

Channel setting: While the power is ON, search for the channel setting mode [CH:] by pressing the **Function Button** (F) one or more times or as is needed (normally once). While the digital figure [CH:] is blinking, press up (▲) or down (▼) button shortly



to select desired channel 1~ 14.





Auto Scanning :In the above process, a longer press on up  or down  button will start the auto-scanning. The "SCAN" word will show on the monitor.




Auto-scanning will stop at the channel when any transmission on this channel is detected. The detected channel is fixed for a few seconds before the transceiver will keep on continuous scanning . To bypass it, press the function or PTT button  first , then press  up or down  button to locate a new higher/lower channel. To completely deactivate the auto-scanning or to decide to choose the current channel being found , press the function or PTT button  again. The "SCAN" letter will disappear on the monitor.

Privacy codes CTCSS setting: Follow the same procedure as in the function change mode, press the function button till the privacy code mode  is seen by pressing the function button twice normally (or more times as needed) Substitute the blinking digital figure  by pressing up  or down  button to the desired privacy code 1~38. CTCSS codes ensures higher communication quality without interferences but cannot guarantee total privacy.

Note: CTCSS code setting is useless unless it is set to ON mode . Refer the next process to set CTCSS code on/off setting.

Privacy code on/off setting: Follow procedures as in the function changing mode, press function button till  can be seen. Normally 3 times press can attain this function (or more times needed). Using up or down  button to switch to/from the code on/off condition. A small "ctcss" letter will be shown on the upper left corner of the monitor if the code-on setting is chosen.

Squelch setting: Follow the same procedure as in the function changing mode, press function till the squelch setting mode  shows by pressing 4 times normally (or more times as is needed). Substitute the blinking digital figure  by pressing up  or down  button to the best condition. High squelch value is good to reduce voice interferences when receiving your partner's talk. However, it can affect the effective communication range. Excessive squelch value is not necessarily desirable. Setting at 3 is recommended.

Beeper on/off setting: Follow the same procedure as in the function changing mode, press the function button till the beeper on/off mode  is seen by pressing 5 times normally or more times as is required. Press up  or down  button to set this on / off mode . While beeper is ON mode, any press of button is followed by a tone.

PTT(Press To Talk) BUTTON *How to communicate :*

Press and hold this button each time you talk to your partner with another transceiver set at the same channel and privacy codes as yours for proper communication. Keep your mouth at 8~12 cm from the transceiver when talking to ensure better voice quality.

If all partners do not use CTCSS , it is still possible to communicate on the same channel but there are higher chances of being interfered. But if one of the them set with the same channel uses the CTCSS while others without using , only he is unable to receive any message from others. However, in this case he, like all others , is able to transmit his message to others.

(Release PTT quickly after you finish talking to allow your partner to reply .Your partner's voice is blocked when the PTT button is being pressed.(i.e.transmitted message cannot be received with the same transceiver simultaneously transmitting a message.)

Battery Low Warning;

Monitor will show "BAT LOW" as a warning for replacement of batteries. The small word " ON AIR " will show up each time you press this button to ensure that your voice is being transmitted. When the batteries become weak only the small word " ON " shows up while you press the PTT.

The 1~6 dotted lines (-----) on the monitor tells you how weak/strong your voice is being transmitted while the PTT button is pressed .(This phenomenon can be used as a reference for your batteries condition .) When the PTT is not pressed, the dotted lines will show up when the transceiver detects any trace of transmission on the same channel with/without same CTCSS codes. (The stronger the transmission it detects , the more dots appear on the monitor.)

TROUBLE SHOOTING:

- a) If you are unable to transmit even pressing the PTT ; 1) check if the batteries are weak .2) Check if the batteries are in correct polarity.
- b) If you are unable to receive your partner's call; 1) check if your channel and CTCSS code setting are of the same with those of your partner and be sure CTCSS is set ON mode. 2) Check if your volume level is too low. 3)Check if the PTT button is still being pressed. 4) Check if the batteries are in good condition. 5) Check if there is a serious interference. Transmitting / receiving to/from a car or heavily enclosed surroundings can affect effective communication range.
- c) If the transceiver makes a lot of noises ; 1) Check if the squelch setting is too low. Set it to at least 2. Squelch setting at zero is the same condition as the speaker volume being maximized and thus makes loud noises. 2) Check if the CTCSS privacy code is off. (Transceiver

accepts any of uncoded transmission.) Switch the CTCSS privacy code to ON mode to sift off other unwanted transmissions. 3) Try to stay away from electronic devices like computers to avoid interferences.

WARNINGS:

- 1) Take out the batteries from the battery compartment if the transceiver is not to be in service for a long period to avoid erosion of internal parts by chemical from leakage.
- 2) Only rechargeable batteries can be used with standard charging device (not included). Normal batteries are not to be used with the charging device.
- 3) Any transceiver must not be used in any work place where radio-control mining is used. Immature or accidental detonation may occur.
- 4) Even though this is legalized low-power radiocommunication device, any changes or replacement of inner parts may result in higher output power and/or frequency range and thus breach legal regulations and become unlawful.

TECHNICAL SPECIFICATIONS

GENERAL

Frequency range..... 462-467 Mhz
 Channels..... 1~ 14
 Privacy Codes CTCSS..... 1 ~ 38
 Modulation type..... FM
 Antenna impedance..... 50 Ohm
 Sound Level..... 1 ~15
 Loud speaker..... 8 Ohm 0.3W
 Microphone..... condenser type
 Power supply..... 3 Ni-cads or Alkalines(3v-4.5 VDC)

RECEIVER

Sensitivity at 12dB Sinad..... 0.25 μ V
 Selectivity..... 45dB
 Squelch range..... 0~6
 Audio output power..... 0.3W@8Ohm(10% distortion)
 Distortion at 775mV Audio power..... 3%
 Audio frequency response..... 400 ~ 3000 Hz

TRANSMITTER

RF Output Power..... nominal 500 mW@4.5VDC
 Frequency Tolerance..... .0.00025%
 Harmonic Suppression.more than 50 dB
 ModulationFM +/- 2.5 KHz

CHANNEL NUMBERS VS FREQUENCIES

Channel No.	Frenq MHz	Channel No.	Frenq 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 PRIVACY CODES VS FREQUENCIES Hz

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