SEA 222 OPERATORS MANUAL

Featuring a unique "softouch" keypad, the SEA 222 is as easy to operate as a microwave oven. Just follow the directions in this booklet.

The "brain" of the SEA 222 is divided into two parts:
1. 290 factory programmed frequency pairs selectable by channel number from EPROM memory.
2. 100 channels of "scratch pad" memory for front panel programming and recall (Note: 10 of these channels are "EMERGENCY" channels).

When operating your SEA 222 please note:
1. Any two-digit key stroke followed by "enter" will recall user-programmed channels 10-99;
2. Any 3 and 4-digit key stroke followed by "enter" recalls factory programmed channels.

FRONT PANEL CONTROLS:

DISPLAY:	The eight-digit alphanumeric display provides the operator with frequency and channel data.
4 X 4 KEYPAD	16 keys allow the operator to communicate with the computer which controls radio functions. For simple operation, an "operator friendly" software package is used in conjunction with the display. All of the keys are listed below.
(Arrows)	These keypads permit receiver tuning up or down in 100 Hz steps.
CH/FR	Allows the operator to display either channel number or the frequency of operation. Example: pressing this key when the display reads "CHAN 801" causes the display to indicate the receiver operating frequency assigned to channel number 801.
SQL	Activates or deactivates the voice operated squelch system. When the squelch is activated, the most significant digit in the display will contain the letter "Q".
EMER	Allows operator instant recall of programmed emergency channels.

TO PUT YOUR SEA 222 IN THE *OPERATING* MODE:
Turn the volume ON/OFF knob on. The display will read "SEA 222", then "2182.0" After three minutes the radio is ready to operate on 2182.0 khz (to comply with FCC Standards).

TO DIM THE DISPLAY:
Press: any single digit followed by "ENT" ("0" being off and "9" being bright).
Example: "9", "ENT" (brightest display)
    "0", "ENT" (extinguishes display)
Restore display to maximum brilliance by touching any keypad when display is extinguished.

TO TURN THE AUDIO FEEDBACK OFF/ON:

To turn off the beep, enter any even digit and the "ENT" keypad.
Example: Press "6", "ENT".
To turn the beep back on, enter any odd digit and the "ENT" keypad.
Example: Press "7", "ENT". Note: this modification only affects SEA 222's with serial number higher than X2724.

TO SELECT CHANNELS OR FREQUENCIES STORED IN THE FACTORY PROGRAMMED MEMORY OF THE SEA222, FOLLOW THESE STEPS:

The factory programmed frequencies are listed on page 7 of this booklet. Access to these frequencies is explained on pages 3, 4, and 5.
To select a channel by number: Press the desired three or four digit channel number, then "ENT".
Example: Press "403", then press"ENT". Display will read "CHAN 403". The SEA 222 is ready to operate on channel 403.

TO DISPLAY THE FREQUENCY ASSIGNED TO A CHANNEL NUMBER:

Press: "CH/FR" keypad while your desired channel number is displayed.
Example: Press "CH/FR" keypad when the display reads "CHAN 403". Display will indicate the receiver frequency 4363.6MHz. Press "CH/FR" keypad again, display will revert back to "CHAN 403".

TO PROGRAM THE SEA 222 "SCRATCH PAD" MEMORY

Press: 8888888 (seven 8's).
Display will read: "PROGRAM", then "BIN #?".
The SEA 222 is now in Program mode.
Press: Desired two digit bin number, then "ENT".
Example: Press "10", "ENT". Display will read "TX FREQ".
Press desired transmitter frequency.
Example: Press 124292, "ENT".
Display will read "A3A?".
Press: "1", then "ENT" for channels requiring -16db carrier insertion (A3A is seldom required) or "ENT" for normal A3J (no carrier operation).
Display will read "RX FREQ".
Press "ENT" for simplex frequency, or your desired receiver frequency for DUPLEX channel.
Example: For DUPLEX channel press: 123456 "ENT". This will enter the frequency 12,345.6KHz in the receiver frequency memory.
Display will read: "STORED". The frequency is stored in BIN 10. The radio is now ready to program the next location. Display will flash "BIN#?".
Note: To program emergency channels, follow the previous steps, using a single digit number (0-9) instead of a two digit number, followed by "ENT".

TO REPROGRAM A CHANNEL:

To overwrite already programmed information:
Re-enter Program Mode (Press "8888888").
Press desired two digit BIN #, then "ENT".
Example: "10", "ENT". Display will read "BIN FULL".
Press any one digit keypad.
Example: Press "1". Display will read "TX FREQ?".
Continue programming as explained in the section *TO PROGRAM THE SEA 222 "SCRATCH PAD" MEMORY*.

TO RECALL A FREQUENCY OR CHANNEL FROM SCRATCH PAD MEMORY:

Press desired two digit BIN #, "ENT".
Example: Press "10", "ENT" Display will read: the receive frequency stored in that bin, or "empty". Then press "CH/FR" keypad. Display will read "CHAN 10".
(Note: Scratch pad memory must be programmed in the field.)

TO ADJUST THE SQUELCH THRESHOLD:

Put the SEA 222 into PROGRAM mode (see previous section *TO PROGRAM THE SEA 222 "SCRATCH PAD" MEMORY)*. Display will read "PROGRAM", then "BIN#?".
Press "SQL" button. Display will read "SQ 0-9?" (4 is the factory set threshold).
Press desired single digit between 0-9 and "ENT". (0 is off and 9 is maximum.)

TO EXIT THE PROGRAM MODE:

Press "EMER" or if no entry is made for 10 seconds after program entry, the system will automatically exit the program mode. Display will read the last frequency programmed or "2182.0" if no frequency was previously programmed.

TO ENTER A RECEIVE ONLY FREQUENCY:

Exit the program mode.
Press desired five or six digit frequency between 2000.0 and 24000.0, then "ENT".
Example: Press "100000" then "ENT". The operating system will interpret this as a receive frequency of 10,000.0kHz. The transmitter is inhibited in this mode.

TO SELECT AN EMERGENCY CHANNEL:

Press any single digit, then "EMER".
Example: Press "0", "EMER". Display will read 2182.0
(Note: Up to 10 emergency frequencies (0-9) may be stored in scratch pad memory.)
As already noted, channel 0 is loaded with 2182.0kHz.