MARINE VHF/FM
HAND-HELD
TRANSCEIVER

Owner's
Manual

TABLE OF CONTENTS

1. SPECIFICATIONS

I. 1. GENERAL

Channels: Transmit: 54 (55 for U.K. and Aust. type)
Receive: 55 (56 for U.K. and Aust. type)

Channel Spacing: 25 KHz

Frequency Stability: 0.0005%

Temperature Range: −20°C to +50°C (−4°F to +122°F)

Power Supply Requirement: 13.2VDC ± 10%
(Negative Ground Acceptable)

Antenna Impedance: 50 OHMS Unbalanced

Dimensions: $7^7/_8''$(H) × $2^5/_8''$(D)

Weight: 1 lb. 4 oz.

Battery Pack: 450 mAH

I. 2. TRANSMITTER

Frequency Range: 156.050 to 157.425 MHz
(157.850 MHz for U.K. type.)

Output Power: Hi = 5 watts; Low = 1 watt

Spurious and Harmonic Emissions: 2.5uW

Modulation: 16F3: ± 5KHZ for 100% at 1 KHZ

FM Hum and Noise: − 40 dB

Audio Distortion: 10% at ± 3KHZ Deviation

Current Drain: 1.2 Amp at 5 watts; 0.70 Amp at 1 watt

I. 3. RECEIVER

Frequency Range: 156.050 to 162.025 MHz

Adjacent Channel Rejection: 65 dB, ±25KHz

Spurious and Image Rejection: 60 dB

Intermodulation: 60 dB

FM Hum & Noise: −40 dB

Audio Output Power: 300 mW ±10% Distortion

Current Drain: 300 mA at Full Audio Output
60mA at Stand By (Squelched)

DESIGN AND SPECIFICATIONS SUBJECT TO CHANGE
WITHOUT NOTICE

II.1. INTRODUCTION

Your new transceiver is truly a state-of-the-art solid state, microprocessor controlled, synthesized Marine VHF/FM Hand-Held Transceiver.
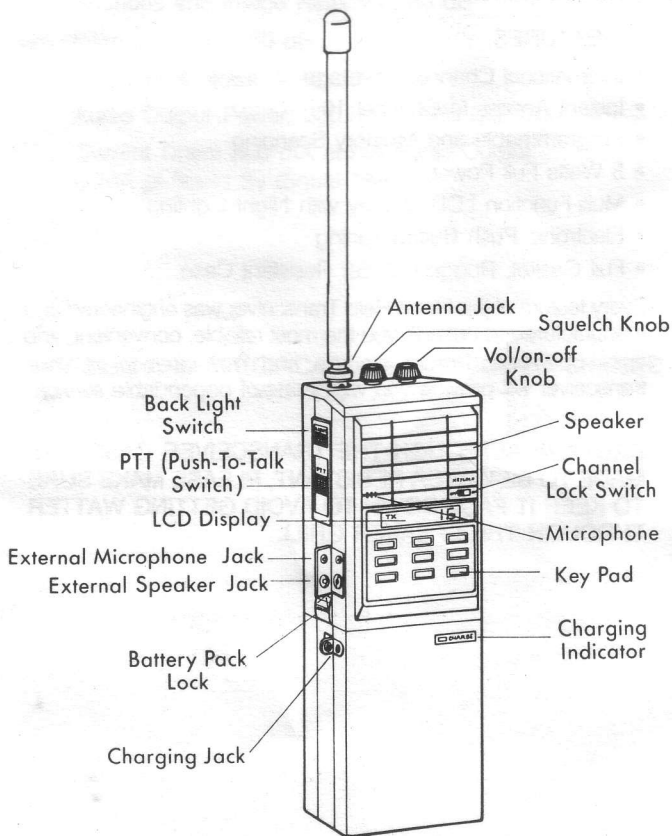
IT FEATURES:

- International Channel Coverage
- Instant Access to Channel 16
- Programmable and Memory ·Scanning
- 5 Watts Full Power
- Multi-Function LCD Display with Night Lighting
- Electronic Push Button Tuning
- Full Gasket, Rugged, Water Resistant Case

Every feature of this Hand-Held Transceiver was engineered and manufactured to provide you the most reliable, convenient, and easy operation. Proper storage and maintenance of your transceiver will provide you with years of dependable service.
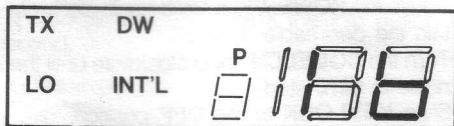
CAUTION: ALTHOUGH THE TRANSCEIVER CASE WAS MADE TO BE WATER RESISTANT, PLEASE MAKE SURE TO KEEP IT FACE DOWN TO AVOID GETTING WATTER THROUGH THE SPEAKER GRILL

II.2. GENERAL INFORMATION

Antenna Jack
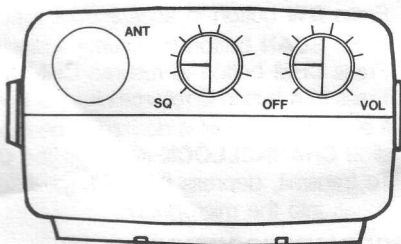
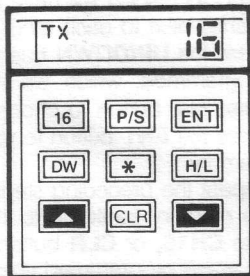Squelch Knob

Vol/on-off Knob

Back Light Switch

Speaker

PTT (Push-To-Talk Switch)

Channel Lock Switch

LCD Display

Microphone

External Microphone Jack

External Speaker Jack

Key Pad

Battery Pack Lock

Charging Indicator

Charging Jack

III. CONTROLS/FUNCTIONS

III. 1. LCD DISPLAY:

```
TX    DW
                P
LO    INT'L    _| | 88
```

III. 2. TOP PANEL:


```
        ANT
SQ      OFF      VOL
```

III. 3. FRONT PANEL:


```
TX              | 5

16    P/S    ENT
DW    *      H/L
▲     CLR    ▼
```

IV. OPERATION

IV. 1. GENERAL

A. Rotate the **SQUELCH** knob counterclockwise fully.

B. Rotate the **POWER/VOLUME** knob clockwise until you obtain the desireable volume.

C. Turn the **SQUELCH** knob clockwise until the background noise is eliminated.

D. Slide **KEYLOCK** to the **OFF** position.

E. Use **H/L** button to choose your transmitting power (H = Hi 5 watt; L = Low 1 watt)

F. Press **UP/DOWN** buttons to choose the desired channels.

G. Press the **CH.16** buttons to access distress channel 16 instantly (press **CLR** button to cancel).

H. Press **DW** button to access dual watch.

I. Press **SCAN** button to resume scanning
Press **CHM** button to resume CHM (U.K. Type Only)
Press **87A** button to resume channel 87A (Aust. Type Only)

J. If only one channel is desired to be monitored and used, slide **CHANNELLOCK** switch to the **ON** position.

K. To transmit, depress the **PTT** (push-to-talk) switch, and speak into the microphone.

IV. 2. PROGRAMMING/MEMORY SCAN

A. Turn on the transceiver.

B. Press the **P/S** button (programmable/scan). You will notice the LCD display will have a "P" above a "O", and two dashes next to each other displayed.

C. Press the **UP/DOWN** button to select the channel to be programmed, which will replace the two dashes. And press H/L button to choose your transmitting power.

D. Press the **ENT** button to store the selected channel into memory.

E. Repeat the preceding steps to store more channels into the memory bank, up to 10 channels.

F. Use **CH16,** or **CLR** buttons to get out of P/S mode.

G. To erase programmed channels; call up the channel by

pressing the P/S button until the channels appear in the LCD display. Then press the **DW** button. The channel numbers will be replaced by two dashes again. Repeat steps A-E to store new channels into memory.

H. To resume scanning, press the P/S button for one full second.

Channel	Ship Transmit	Ship Receive	Mode S/D	Only Intl	Only Com	USCG	Ship-Ship	Ship-Shore	Type of Operation
1	156.050	160.650	D	yes			yes	yes	Public Correspondence, Port Operation
2	156.100	160.700	D	yes			yes	yes	Public Correspondence, Port Operation
3	156.150	160.750	D	yes			yes	yes	Public Correspondence, Port Operation
4	156.200	160.800	D	yes			yes	yes	Public Correspondence, Port Operation
5	156.250	160.850	D	yes			yes	yes	Public Correspondence, Port Operation
6	156.300	156.300	S		yes		yes	no	Safety
7	156.350	160.950	D		yes		yes	yes	Port Operation
8	156.400	156.400	S		yes		yes	no	Intership
9	156.450	156.450	S				yes	yes	Port Operation
10	156.500	156.500	S		yes		yes	yes	Port Operation
11	156.550	156.550	S		yes		yes	yes	Port Operation
12	156.600	156.600	S				yes	yes	Port Operation
13	156.650	156.650	S				yes	yes	Bridge to Bridge, (1W) Navigational
14	156.700	156.700	S				yes	yes	Port Operation
15	156.750	156.750	S				yes	yes	Environmental
16	156.800	156.800	S				yes	yes	Calling & Safety
17	156.850	156.850	S				yes	yes	Calling & Safety (1W)
18	156.900	161.500	D		yes		yes	yes	Port Operation
19	156.950	161.550	D		yes		yes	yes	Port Operation
20	157.000	161.600	D		yes		yes	yes	Port Operation
21	157.050	161.650	D			yes	yes	yes	Port Operation (USCG)
22	157.100	161.700	D			yes	yes	yes	Port Operation (USCG)
23	157.150	161.750	D			yes	yes	yes	Port Operation (USCG)
24	157.200	161.800	D				no	yes	Public Correspondence
25	157.250	161.850	D				no	yes	Public Correspondence
26	157.300	161.900	D				no	yes	Public Correspondence
27	157.350	161.950	D				no	yes	Public Correspondence
28	157.400	162.000	D				no	yes	Public Correspondence

Channel	Ship Transmit	Ship Receive	Mode S/D	Only Intl	Only Com	USCG	Ship-Ship	Ship-Shore	Type of Operation
60	156.025	160.625	D	yes			Rcv	Rcv	Public Correspondence, Port Operation
61	156.075	160.675	D	yes			Rcv	Rcv	Public Correspondence, Port Operation
62	156.125	160.725	D	yes			Rcv	Rcv	Public Correspondence, Port Operation
63	156.175	160.775	D	yes			Rcv	Rcv	Public Correspondence, Port Operation
64	156.225	160.825	D	yes			Rcv	Rcv	Public Correspondence, Port Operation
65	156.275	160.875	D				yes	yes	Port Operation
66	156.325	160.925	D				yes	yes	Port Operation
67	156.375	156.375	S		yes		yes	no	Port Operation (1W)
68	156.425	156.425	S				yes	yes	Port Operation
69	156.475	156.475	S				yes	yes	Port Operation
70	—	156.525	—				—	—	Recv Only
71	156.575	156.575	S				yes	no	Intership, Port Operation
72	156.625	156.625	S				yes	no	Intership
73	156.675	156.675	S				yes	yes	Port Operation
74	156.725	156.725	S				yes	yes	Port Operation
75		156.775	—				—	—	Recv Only
76	—	156.825	—				—	—	Recv Only
77	156.875	156.875	S		yes		yes	no	Intership
78	156.925	161.525	D				yes	yes	Port Operation
79	156.975	161.575	D	yes			yes	yes	Port Operation
80	157.025	161.625	D		yes		yes	yes	Port Operation
81	157.075	161.675	D			yes	yes	yes	Port Operation (USCG)
82	157.125	161.725	D			yes	yes	yes	Port Operation (USCG)
83	157.175	161.775	D			yes	yes	yes	Intership, Port Operation (USCG)
84	157.225	161.825	D				no	yes	Port Operation, Public Correspondence
85	157.275	161.875	D				no	yes	Public Correspondence
86	157.325	161.925	D				no	yes	Public Correspondence
87	157.375	161.975	D				no	yes	Public Correspondence
88	157.425	162.025	D		yes		yes	no	Intership
CHM	157.850	157.850	S				yes	yes	Marina Only
87A	157.375	157.375	S				yes	no	Non Commercial

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