



5-Watt 80 Channel  
Hand-Held  
CB 2-Way Radio  
Model 8040

(1) USE 12 NICKEL CADMIUM RECHARGEABLE BATTERIES (1.25 VOLTS EACH)

OR

(2) USE 10 HEAVY DUTY ALKALINE BATTERIES (1.5 VOLTS EACH) PLUS SHORTING STUB

CAUTION: Do not leave batteries in the transceiver when unit is not being used for long periods of time. Chemical action of weak or exhausted batteries may cause a leak and result in possible damage to battery holder contacts on compartment.

### **Battery Recharging**

Nickel cadmium rechargeable batteries, although higher in initial cost than other types, should be considered an investment and in the long run are definitely less costly since they can be recharged hundreds of times. They are hermetically sealed in steel cases and never require the addition of water or electrolyte. The voltage of each cell when fully charged is 1.25 volts; discharged 1.05 volts. Since 12 batteries are connected in series, the voltage across the terminals of the plastic battery holder will be 15 volts fully charged and 12.6 volts discharged. To obtain longest life from these batteries, always recharge them before voltage drops to 12.6 volts.

The section titled "S-METER/RF POWER/BATTERY CONDITION INDICATOR" on a succeeding page provides the information necessary for determining when the batteries require recharging. However, recharging whenever the walkie-talkie is not in actual use will not harm the batteries and will



also ensure that they are at full charge at all times.

To charge the batteries, use a regulated DC power supply especially designed for this purpose. Plug the charger into the "CHG" socket in the walkie-talkie and insert the power plug into any convenient AC outlet. Leave on charge for at least 15 hours, if possible.

It is good idea to recharge nickel cadmium batteries for a few hours when first installing them in the walkie-talkie as they may have lost some of their charge during shipment from the factory.

Never expose the batteries to excessive heat. Avoid leaving the walkie-talkie in the sun, glove compartment of a car, or other place where excessive heat may develop.

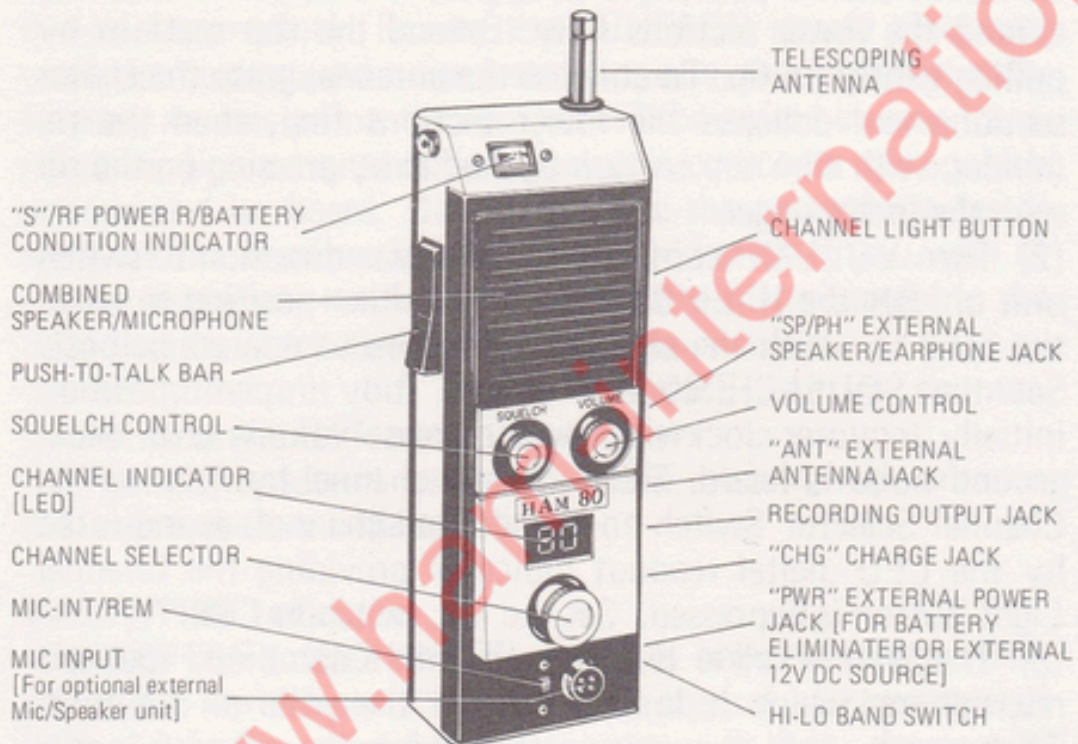
## Channel Frequencies

Your transceiver is capable of operation on all frequencies listed below:

HI-LO Band Switch Position			
LO		HI	
Channel	Frequency	Channel	Frequency
1	26.965 MHz	41	27.415 MHz
2	26.975 MHz	42	27.425 MHz
3	26.985 MHz	43	27.435 MHz
4	27.005 MHz	44	27.455 MHz
5	27.015 MHz	45	27.465 MHz
6	27.025 MHz	46	27.475 MHz
7	27.035 MHz	47	27.485 MHz
8	27.055 MHz	48	27.505 MHz
9	27.065 MHz	49	27.515 MHz
10	27.075 MHz	50	27.525 MHz
11	27.085 MHz	51	27.535 MHz
12	27.105 MHz	52	27.555 MHz
13	27.115 MHz	53	27.565 MHz
14	27.125 MHz	54	27.575 MHz
15	27.135 MHz	55	27.585 MHz
16	27.155 MHz	56	27.605 MHz
17	27.165 MHz	57	27.615 MHz
18	27.175 MHz	58	27.625 MHz
19	27.185 MHz	59	27.635 MHz
20	27.205 MHz	60	27.655 MHz
21	27.215 MHz	61	27.665 MHz
22	27.225 MHz	62	27.675 MHz
23	27.255 MHz	63	27.705 MHz
24	27.235 MHz	64	27.685 MHz
25	27.245 MHz	65	27.695 MHz
26	27.265 MHz	66	27.715 MHz
27	27.275 MHz	67	27.725 MHz
28	27.285 MHz	68	27.735 MHz
29	27.295 MHz	69	27.745 MHz
30	27.305 MHz	70	27.755 MHz
31	27.315 MHz	71	27.765 MHz
32	27.325 MHz	72	27.775 MHz
33	27.335 MHz	73	27.785 MHz
34	27.345 MHz	74	27.795 MHz
35	27.355 MHz	75	27.805 MHz
36	27.365 MHz	76	27.815 MHz
37	27.375 MHz	77	27.825 MHz
38	27.385 MHz	78	27.835 MHz
39	27.395 MHz	79	27.845 MHz
40	27.405 MHz	80	27.855 MHz



## Operation



**WARNING:** Do not attempt to transmit until you have fully extended the built-in antenna, or have attached the optional miniature flexible rubber whip antenna.

### General Operation

(1) Extend the telescoping whip antenna to its full length. Avoid bending the slim, top section of the antenna when extending or collapsing it.

To extend the antenna, grasp the button-shaped tip and extend the antenna partially. Next, grasp the centersections and extend the lower sections fully. Extend the top sections by pulling gently on tip. To collapse the antenna, grasp the center sections and collapse the lower sections first, then the remainder, with slim top section pushed in by pressing on the tip with the index finger.

(2) Turn VOLUME control in a clockwise direction to switch unit on. Set the **Hi-Lo Band** switch to either position to select the band to which the channel you desire to operate belongs. Set the SQUELCH control to the fully "open" position initially (counter-clockwise), and increase volume until background noise is heard. Select desired channel by rotating the Channel Selector Switch to the desired channel, as indicated by the LED digital readout indicator providing the Channel Light Button is depressed. Set the Mic switch to "INT".

(3) The Walkie-Talkie is equipped with a combined speaker/microphone which is located behind the grille on the unit. To transmit, hold the unit so that the grille is 3 to 5 inches away from your lips and fully depress the push-to-talk bar. Speak clearly and at a normal level. When you have completed your message, release the bar.

NOTE: If you are using the optional external microphone/speaker unit, see "External Mic Jack" for operating informa-



tion.

(4) The squelch circuit in the receiver section of the transceiver is used to eliminate annoying background noise when no signals are present.

To adjust the SQUELCH control properly during reception, turn up VOLUME until background noise is heard [no signals should be present]. Rotate the SQUELCH slowly clockwise until the background noise just disappears, then rotate slightly further. At this point, the receiver will be quiet between transmissions, but a transmitted signal will overcome the squelch actions and be heard. Do not advance the control too far or some of the weaker signals will not be heard. If you wish to receive extremely weak signals, simply turn the control to the fully counter-clockwise position [min squelch].

(5) To turn unit off, rotate VOLUME control counter-clockwise to the OFF position.

NOTE: If Transceiver has been used in the rain, wipe antenna thoroughly before collapsing it.

#### **Battery/P-RF Indicator**

The BATTERY INDICATOR indicates battery voltage when the unit is turned on (the SQUELCH control must be rotated fully clockwise and telescoping antenna is fully depressed). When indicator is in blue area, battery voltage is normal.

Black indicates voltage is on the border line and if rechargeable batteries are used, they should be recharged.

Red indicates battery voltage is low and batteries should be replaced or recharged.

### **S-Meter**

Incoming signals will cause the pointer to deflect toward "S" on the left side of the meter. The stronger the signal, the farther to the left the pointer will move, giving an indication of relative strength of the received signal.

### **RF Power Output Indicator**

When the push-to-talk bar is depressed, the meter will show whether RF power is being radiated from the antenna during transmission. Generally, the meter pointer will swing into the blue portion of the scale [P-RF] when the push-to-talk bar is depressed. For a number of reasons, however, the pointer may not always go to the extreme right of the scale. This does not necessarily indicate that less RF output is being radiated. When doubtful, simply check the battery condition. When no RF output is indicated by the meter pointer during transmit [and battery condition is good], trouble in the transmitter should be suspected.

### **Squelch Control**

This control is used to eliminate any annoying background noise when no signals are present.

### **Volume Control**

This control varies the sound output from the speaker. Also incorporates an "ON-OFF" power switch at the extreme counterclockwise position.



### **Channel Selector**

The CHANNEL selector switch enables you to select one of 40 channels for transmit and receive operation. The selected channel will be digitally displayed on the LED Channel Indicator as long as the Channel Light Button is depressed.

### **External MIC Jack**

The MIC jack on the walkie-talkie will permit the use of an external microphone/speaker. Simply plug the external mic/speaker into this jack and set the MIC switch to "REM".

To operate with the external mic/speaker unit, simply depress the push-to-talk bar on the mic/speaker to transmit, and speak into it in the normal manner. When the bar is released, the walkie talkie will return to the receiving mode and the receiver output will be reproduced through the mic/speaker unit.

### **External Speaker/Earphone [SP/PH] Jack**

The matching plug for the SP jack is a subminiature phone plug. The impedance of speakers connected to this jack should be 6–16 ohms. Accessory earphones for this jack are available nationwide.

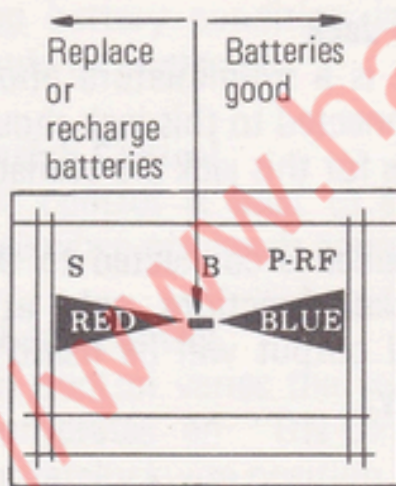
When an earphone or external speaker is connected to this jack, the built-in microphone/speaker functions only as a microphone. On receive, the sound output will be heard in the earphone or external speaker only.

### External Antenna ["ANT"] Jack

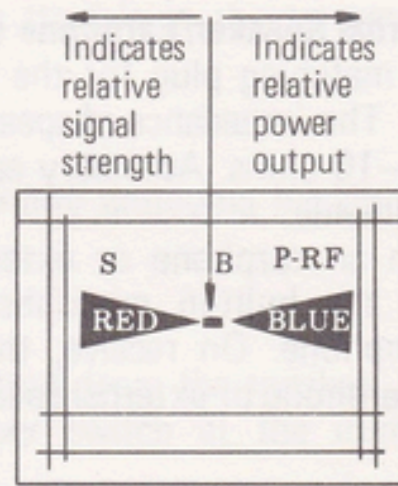
The Walkie-Talkie is equipped with an "ANT" jack for the connection of an external antenna, either one presently installed on a car, boat, etc., or a fixed station types. Such an arrangement will usually increase the operating range considerably. This jack offers an impedance of 50 ohms. A sub-miniature phone plug will fit this jack and can be used with RG-58/U coaxial cable. An adapter cable is also available which permits a PL-259 plug to be connected to the external antenna jack on the transceiver without any rewiring.

### Recording Output Jack

Use RCA-type pin plug to connect the input of your tape recorder when you desire to record transmissions.



Battery Condition Indicator



S Meter or RF Power Output Indicator



## Technical Specifications

### TRANSMITTER

PLL Controlled, amplitude collector modulated.

#### POWER INPUT

5 Watt

#### MODULATION

High level push-pull modulator with RANGE BOOST.

### RECEIVER

Dual Conversion Superheterodyne with RF Stage and 455 kHz Ceramic Filter.

#### SENSITIVITY

1  $\mu$ V for 10 dB  $\frac{S+N}{N}$  or better.

#### SELECTIVITY (Adjacent-Channel)

$\pm 10$  kHz, more than  $-50$  dB

#### SQUELCH RANGE

1  $\mu$ V to 1000  $\mu$ V  $\pm 6$  dB

#### AGC FIGURE OF MERIT

70 dB

#### AUDIO OUTPUT

2 Watt

### GENERAL

#### CIRCUITRY

Digital Phase Lock Loop Synthesizer.

#### CHANNELS

80 channels in the 27 MHz CB Band.

#### MODE OF OPERATION

AM

#### POWER SUPPLY

12.6–15 volts DC (10–1.5V "AA" alkaline batteries, or 12–1.25V "AA" nickel cadmium batteries).

#### ANTENNA

Total Height, 60 inches Telescoping whip; Height extension from top of chassis 50 inches telescoping whip.

#### BATTERY DRAIN

Transmit: unmodulated 700 mA.

Transmit: 100% modulated 1100 mA.

Receive: Squelch on, 200 mA.

Receive: Maximum Volume 500 mA.

#### SEMI-CONDUCTORS

19 Transistors, 3 IC's, 14 Diodes.

#### Dimensions (overall)

Height 11", Width 3-3/4", Depth 3".

H-279 mm, W-95 mm, D-76 mm.

#### NET WEIGHT

2 lbs. 16 oz./1.3 kg.

#### ACCESSORIES

1 Shoulder Strap

1 Instruction Manual







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