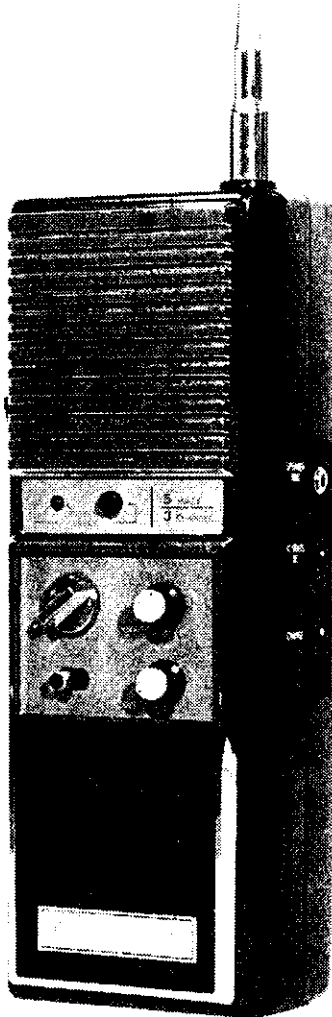


### 5 WATT- 3 CHANNEL TRANSCEIVER

MANUAL NO. **75-764001**

DATE: 10 - 29 - 80



### Specifications:

Semiconductor Complements	14 Transistors, 6 Diodes, 2 Zener, 1 Varistor, 1 LED and 1 transistor used in squelch circuit
Transmit and Receive Frequency	3 Channel available, Channel 27.085 MHz plug-in crystals factory installed in number F1 position
Receiving System	Superheterodyne
Intermediate Frequency	455 KHZ
Transmitter	3 channel, crystal controlled system
Modulation System	AM maintained between 90 & 100%
RF Input Power	5 Watts
Frequency Tolerance	$\pm 0.005\%$
Receiver Sensitivity	1 $\mu$ V at 10 dB (S + N)/N
Antenna	Telescopic 13 section, 60 $\frac{3}{4}$ " extended
Power Source	12-Volts DC (8 penlight batteries self-contained or external 12 Volt DC source)
Speaker/Microphone	Extra sensitive 2 $\frac{1}{4}$ " dynamic 16 Ohm
Controls & Switches	3-channel selector switch, ON-OFF volume controls, full variable squelch control, Hi-Lo Power Output switch, Push-To-Talk switch, Battery Check.
Accessory Jacks	External SPKR/MIC, AC Adaptor Battery Charger
Dimensions	8-7/8"(H) x 3-1/4"(W) x 2-3/16"(D)

# Operating controls, connectors: Their functions and uses.



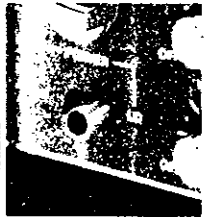
**Channel Selector.** Controls both transmitter and receiver frequencies simultaneously. This transceiver is capable of 3 channel operation. One set of Channel 11 crystals are installed in the "F1" position. Additional crystals may be installed (see crystal installation) in the open channels. To operate, turn the switch to the desired channel.



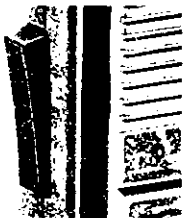
**Volume-On/Off.** Turns the set on and controls the sound output from the speaker when receiving. The volume control does not affect transmitting output. To turn the unit on and increase volume, rotate this control clockwise.



**Squelch.** Quiets the receiver when signals are not being received. It functions only in the receive position and does not affect the receiver volume when signals are being received. To adjust: When no signals are present, rotate the squelch control clockwise until the receiver is quieted. Incoming signals will automatically release the squelch, enabling you to receive normally. Careful adjustment is necessary as settings too far to the right will not allow weaker signals to release the squelch.



**Power Output Switch.** To extend battery life, use the unit with the "Power" switch to "Lo" position for short range communications. For long range use, place the switch in the "Hi" position.



**Push-To-Talk Bar; Speaker/Microphone.** This controls both transmitter and receiver. To transmit, press and hold the bar, to receive, release it.

**Battery Check.** Your new Model 75-764B uses an L.E.D. (Light Emitting Diode) to monitor battery condition. To check battery condition press the battery check button. A bright L.E.D. indicates high battery current. A dim or unlit L.E.D. indicates batteries should be replaced, or recharged if nickel cadmium batteries are being used.

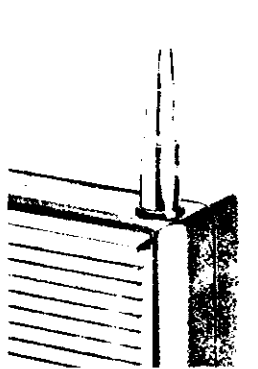
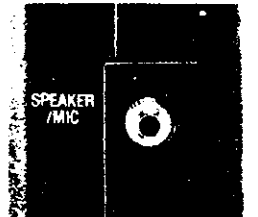
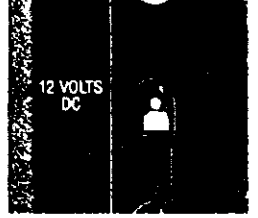
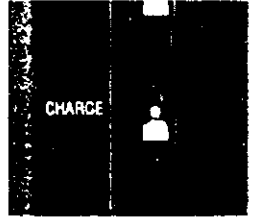
**Charge (Battery Charger Jack) (Coaxial).** This jack allows charging of rechargeable batteries without removing the batteries from the unit.

**CAUTION:** Do not try to charge the conventional non-rechargeable batteries. Use only nickel-cadmium batteries for recharging. Carbon-zinc, mercury, and alkaline batteries may be used to operate the transceiver, but **do not attempt** to recharge these types because leakage or battery damage may occur. A regulated battery charger and not an AC power supply should be used for recharging purposes.

**12 Volts DC Jack (Coaxial).** This jack allows the use of an external 12 volt DC power source such as a 12 V DC adaptor or your car battery.

**External Speaker/Microphone Jack.** This will be used for connection of an optional Speaker/Microphone, which allows you to transmit without holding and moving the transceiver to your mouth at every transmission. Connecting the external Speaker/Microphone will automatically cut off the built-in speaker/microphone.

**Telescopic Antenna.** The telescopic antenna must be fully extended. Simply pull it out to its maximum length.



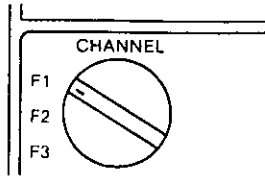
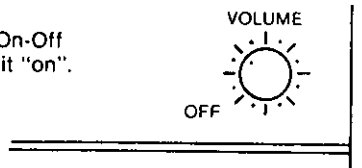
# Midland 75-764B Operating Instructions.

**Step 1:** Extend the antenna to its full length.

**NOTE:** Transmitting without extending antenna may cause damage to the output transistors and void your warranty.

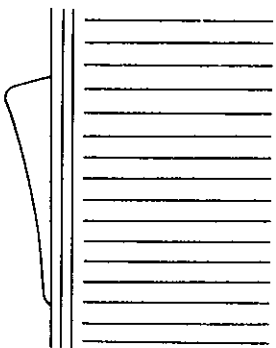
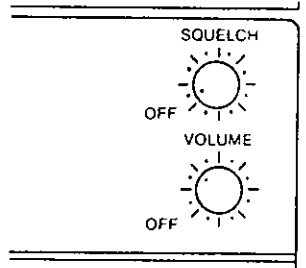


**Step 2:** Rotate the Volume/On-Off control clockwise to turn unit "on".



**Step 3:** Set the channel selector to the desired channel (F1 position if you have not installed other crystals).

**Step 4:** Adjust the volume and squelch controls.



**Step 5:** To transmit, press and hold the push-to-talk bar and talk into the microphone. Use a normal tone of voice and hold the unit about 2 to 3 inches from your mouth. To receive, release the push-to-talk bar.

For best transmission and reception, model 75-764B should be held in a vertical position and the telescoping antenna must be fully extended.

**NOTE:** This unit is designed to operate properly with any standard 12V DC system. Voltages other than 12V may cause damage to the unit or result in poor operation.

## Operating Range.

The operating range will vary from 1/2 to several miles depending upon terrain, obstacles, climatic conditions and the other transceiver used.

Battery condition also affects range and fresh batteries will provide far better range than weak ones.

When the 75-764B is used with a base or mobile unit the range will generally be increased.

## Battery Installation.

This unit operates on 8 "AA" size 1.5 volt batteries or 10 "AA" 1.2 volt rechargeable nicad batteries. Standard types may be used, but alkaline or rechargeable batteries are desirable.

**NOTE:** Only nickel-cadmium batteries can be used for recharging purposes. Nickel-Cadmium Batteries with 500mA capacity are recommended.

**To install:** Remove the rear of the case and carefully remove the battery holder. It is not necessary to remove the wire connected to the battery holder and care should be taken not to break it. Insert the batteries observing the polarities marked on the holder. Make sure the batteries are properly seated and replace the holder and rear cover plate. Two dummy batteries are included. These should be removed when using rechargeable nickel-cadmium batteries.

## Crystal Installation.

In order to insure proper operation, only crystals designed for this unit should be used. Crystal specifications are included on page 10 in this manual for your convenience.

This unit has been adjusted for maximum performance in the middle of the citizens band channels and will operate properly across the entire band without further adjustment. If you desire, this unit may be readjusted for maximum performance at either the high or low end of the band. This will, however, result in reduced performance at the opposite end. All adjustments of this type **MUST** be made by a qualified and **LICENSED** technician. Refer to Crystal Specifications, page 10.

**NOTE:** FCC regulations specify transmitter crystals must be installed by or under the supervision of a person holding a first or second class radio-telephone license.

## Crystal Specifications.

### Receiver

Holder .....	HC-25
Resonance .....	Parallel
Oscillation .....	3rd Overtone
Load Capacitance .....	20pf
Drive Level .....	1mW
Equivalent Resistance .....	32 ohms (Series)
Frequency Tolerance .....	± 20 ppm
Temperature Range .....	- 10° C to + 60° C
Frequency Calculation .....	Channel Frequency minus 455 KHZ = Crystal Frequency

### Transmitter

Holder .....	HC-25
Resonance .....	Parallel
Oscillation .....	3rd Overtone
Load Capacitance .....	5pf
Drive Level .....	1mW
Equivalent Resistance .....	32 ohms (Series)
Frequency Tolerance .....	± 20 ppm
Temperature Range .....	- 10° C to + 60° C
Frequency Calculation .....	Channel Frequency = Crystal Frequency