

Model 75-509

Owner's Guide

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OPTIONAL ACCESSORIES FOR YOUR RADIO

Accessory Name	Model Number
Standard Ni-Cad Charger	18-396
Ni-Cad batteries	(Three Required)....18-Batt
Desk Charger stand.....	18-383
Dual Desk Charger stand.....	18-385
Lapel Microphone with Earbud Speaker.....	22-405*
Speaker/Microphone.....	22-411*
Stealth Type Noise Canceling Throat Mic with Earbud.....	22-430*
Boom Microphone Headset	22-540*
Call 1 816 241 8500 ext. 200 to order accessories	

THIS RADIO COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE CONDITION THAT THIS DEVICE DOES NOT CAUSE HARMFUL INTERFERENCE.

Your Midland model 75-509 brings the new FRS (Family Radio Service) to your fingertips. The Family Radio Service is provided for by the FCC and is totally license free. For the first time business and the general public can use the quiet UHF FM band for personal communications at no charge. The 75-509 uses maximum allowable power for range up to 2 miles. Use for fishing, hunting, picnics, biking, business, or any other activity where communications are needed for convenience or safety. The model 75-509 operates on 14 channels to provide the best in quiet and private communication. Also this radio offers power save, and auto-squelch.

TIPS FOR GETTING THE MOST FROM YOUR 75-509

Due to the band of operation (462/467 MHz) the 75-509 provides communications that are virtually free of atmospheric interference (skip) that is common on lower frequency bands. Along with this and an antenna system that is very efficient as compared to other unlicensed radio bands, communications range is surprisingly good. Many times the limits to maximum possible range are environmental factors such as blockage caused by trees, buildings, hills, or other obstructions. If you find communication is not possible, many times this can be overcome by moving only a few feet to a new location. Range may be reduced while operating in a vehicle or from inside to outside a metal building. Battery condition also affects range. The 75-509 operates best on alkaline batteries. While this unit has been designed with gaskets for water resistance and ruggedness it is a precision piece of electronic equipment that should not be exposed to water or handled carelessly. Normal care should result in years of trouble free operation. Do not leave batteries installed over a long period of time as leakage may occur that can destroy the radio. Always save your receipt, as it is required for warranty consideration.

PREPARATION

BATTERIES

75-509 radios operate with 3 AA Alkaline, Ni-Cad (nickel cadmium) or Ni-MH (nickel metal hydride) batteries (optional). Ni-Cad batteries provide about 15 hours of use. Alkaline batteries will provide about 45 hours of use and Ni-MH batteries will provide about 24 hours of use. If the 75-509 is supplied with Ni-Cad batteries and a wall charger. Ni-Cad batteries must be charged prior to use. Charge at least 10 hours with the standard charger. If you are using Ni-MH batteries charge at least 16 hours.

DO NOT attempt to charge any type of Alkaline batteries in this radio.

To Install Batteries:


Hold the radio face down. Press the latch so it swings away from the cover.

1. Lift the battery cover slightly. Gently slide the cover off the unit.
2. Insert 3 AA batteries observing the proper polarity.
3. Replace the battery cover over the batteries and fasten with the latch.

Low Battery Indicator:

The battery icon in the lower left of the display will flash when the batteries are in need of charging.

Instructions for optional charger

Install NI-Cad (nickel cadmium) batteries observing their polarity. Plug the 18-396 charger into any 110/115 V wall socket.  Plug the cord into the jack on the *bottom* of the radio under the rubber plug marked "CHG". Charge the batteries for at least 10 hours.

DO NOT attempt to charge any type of Alkaline batteries in this radio.

BELT CLIP

The 75-509 comes standard with a belt clip. Attach it to the radio back by sliding the top of the clip up over the two rectangular bosses on the back of the radio until it snaps into place. To detach the belt clip, press the lever inside the top of the clip away from the radio body and slide the clip toward the bottom of the radio.

QUICK USE INSTRUCTIONS:

1. Install fresh alkaline or fully charged Ni-Cad or Ni-MH batteries.
2. Turn the unit on by turning the volume control clockwise.
3. Choose PTT or VOX transmit control with the button on the front of the radio.
4. To talk press the PTT (push to talk) button on the left side of the radio and talk in a normal voice into the front of the radio about three inches away from your mouth.
5. To use "VOX" press and hold the "VOX" button for 1 second and talk into the front of the radio or the headset microphone. (head set is recommended)
6. To listen release the PTT button. If in VOX stop talking.
7. Volume and other functions may be adjusted as described later

TO OPERATE THE HANDS FREE VOX (VOICE OPERATED TRANSMIT)

To get the most use from the "VOX" feature you must first determine what sensitivity level is needed to activate the "VOX" control. Sensitivity is how loud you have to talk to activate the "VOX" circuit. The "VOX" has three levels of sensitivity that can be adjusted. The 1 option you can talk in a normal voice with no background noise to activate the "VOX" circuit. The option 2 will require more voice level to activate the "VOX" circuit. This is useful in slightly noisier areas that might activate the "VOX" without talking. The option 3 will require the most voice level to activate the "VOX" circuit. This will be useful in very noisy areas. The next adjustment is the *delay*. This is a function of the "VOX" that keeps the radio in transmit mode after you stop talking. A delay that is set to short will cause the "VOX" circuit to stop between some words. The delay is adjustable to three levels. Level 1 will give about one second of delay, level three will give you about three seconds of delay. By activating the "VOX" you only have to talk into the front of the radio or use a headset to make the radio transmit. The PTT (push to talk) button is not functional in "VOX" mode. It is recommended to use a headset when using the "VOX" feature.

NOTE: It is recommended to disable the Roger Beep when VOX is in use. See page 5 for instructions.

POWER SAVE CIRCUIT

This part of the operation of the radio is completely automatic and not adjustable. When the radio has not transmitted or received a signal for about 8 seconds it will begin to cycle from a sleep mode to fully on. This occurs several times a second. If a signal is received or you cause the unit to transmit the radio will become fully awake. This cycling from sleep to fully on increases the standby battery life more than 50%.

FEATURES AND LOCATION OF CONTROLS

TO TURN THE RADIO ON OR OFF

The ON/OFF/VOLUME control at the top of the radio controls power and volume. A series of tones will be heard confirming that radio is working.

TO CHANGE THE CHANNEL IN USE

Press and release the channel button \wedge or \vee to select the desired channel. To change channel rapidly, press and hold the channel button \wedge or \vee until the desired channel appears on the display.

TO SCAN THE CHANNELS

Press the F button. The radio will scan to the next busy channel. Scanning will stop for about 5 seconds then will continue to the next busy channel. Note: The display will not shut off in scan mode. To stop scanning, press SCAN again or press PTT or a channel button.

TO SET UP DUAL WATCH

Select a channel with the channel button \wedge or \vee as channel A. Press the DW (dual watch) button. The display will begin to flash. Within 5 seconds, select a second channel as channel B and again press the DW button. (After 5 seconds the radio will beep three times and revert to normal operation) The radio will switch alternately between channels A and B. Pressing PTT, DW, \wedge or \vee cancels dual watch.

TO USE CALL BUTTON

Press and release the CALL button. A call signal will be sent for about 2 seconds. The signal will also be heard in the speaker. Both radios must be on the same channel and turned on.

TO ENABLE/DISABLE “ROGER-BEEP”

The radio transmits a rapid tone sequence when the PTT button is released if this feature is active. The default condition is for the “roger beep” to be off.

TO ADJUST THE VOLUME

Use the ON/OFF/VOLUME control to adjust the volume. To test the volume setting, press and hold the “MON” button so static noise can be heard. The noise can be used as a reference level for volume setting.

TO ENABLE / DISABLE KEY BOARD LOCK.

To enable the KEY BOARD LOCK press and hold the “ENTER” button for 2 seconds. The display will contain a key symbol. PTT, MON, CALL and VOX (if enabled) will still be active. When radio is in lock mode and any other keys are pressed a tone will be heard. To disable the KEY BOARD LOCK, press and hold the “ENTER” button for 2 seconds.

TO ENABLE VOX MODE

Press and hold the “VOX” button on the front of the radio. Follow the setup instructions as described earlier.

TROUBLESHOOTING

PROBLEM	SOLUTION
No Power	1. Check battery installation and/or replace batteries
Cannot Receive Messages	1. Make sure the volume is set high enough. 2. Change your location, you may be out of range. 3. Install batteries properly or replace.
Range is Short	1. Operating the radio in a vehicle or metal building will decrease the range. If possible operate outside of vehicles or buildings. 2. Carrying the radio so that the antenna is very near the body will decrease the range. Hold the radio in the open for the best range. 3. Battery condition can affect range. Replace or recharge batteries.
Interference/Static	1. Change your location. The interference may be caused by nearby electronic or electrical equipment.

CARE OF RECHARGEABLE NI-CAD AND NI-MH BATTERIES

ALWAYS DISPOSE OF BATTERIES PROPERLY

Always follow the battery manufacturers recommendations for charging and disposing of Ni-Cad and Ni-MH batteries.

The following is meant as general information regarding Ni-Cad/Ni-MH batteries.

1. Occasionally allow the batteries to fully discharge before recharging. Full discharge will be indicated by the low battery indicator coming on during receive operation.
2. Always allow the battery to fully charge before using. This requires 10 hours with the approved charger. (Ni-MH batteries require 16 hours for full charge.)
3. The above will prevent the batteries from developing “memory” which effectively reduces their capacity.
4. It is better to store Ni-Cad batteries that are discharged rather than charged. Ni-MH batteries are best stored charged.

SERVICE:

If you have a problem which you believe requires service, please call first and speak with a service technician. Many problems can be remedied over the phone without returning the unit for service.

If it ever becomes necessary to return your unit for service:

- ◆ Pack the unit in its original box and packing. Improper packing may result in damage during shipment.
- ◆ Include a full description of any problems. Include a daytime telephone number.
- ◆ Include a money order for \$7.50 to cover shipping and handling (this may not be required in some states).
 - ☐ You do not need to return accessory items (charger, batteries, wrist strap, owners guide) unless they maybe directly related to the problem.
- ◆ Include a photocopy of the bill of sale or other proof of purchase showing the date of sale. This information must be included before warranty service can be considered.
- ◆ A flat rate of \$45.00 will apply to repairs not covered by warranty. Send only cashiers check, money order or Master Card or Visa card number.

TECHNICAL SPECIFICATIONS*

GENERAL

Frequency range.....462/467 MHz
Channels.....14
Modulation type..... FM
Antenna impedance50 Ohm
Loudspeaker.....8 Ohm 0.5W
Microphone.....electret type
Power supply.....3 AA Ni-cads or Alkaline (3.6/4.5VDC)

RECEIVER

Sensitivity at 12dB Sinad.....0.25 μ V
Selectivity.....50 dB
Squelch range.....automatic
Audio output power.....0.25W @ 8 Ohm (10% distortion)
Distortion at 1000 mV.....7%
Audio frequency response.....400-2400 Hz

TRANSMITTER

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

*Specifications are nominal and subject to change

CHANNEL FREQUENCIES

01=462.5625	05=462.6625	09=467.5875	13=467.6875
02=462.5875	06=462.6875	10=467.6125	14=467.7125
03=462.6125	07=462.7125	11=467.6375	
04=462.6375	08=467.5625	12=467.6625	

LIMITED WARRANTY

Midland Consumer Radio Inc. will repair or replace, at its option without charge, any Midland FRS transceiver which fails due to a defect in material or workmanship within one year following the initial consumer purchase. This warranty does not apply to water damage, battery leak damage or abuse.

This warranty does not include any carrying cases, earphones, or antennas which may be a part of or included with the warranted product, or the cost of labor for removal or re-installation of the product in a vehicle or other mounting.

Performance of any obligation under this warranty may be obtained by returning the warranted product, freight prepaid, along with proof of purchase date, to Midland Consumer Radio Inc., Warranty Service Department, 1670 North Topping Avenue, Kansas City, Missouri 64120.

This warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state.

Note: The above warranty applies only to merchandise purchased in the United States of America or any of the territories or possessions thereof, or from a U.S. Military exchange.

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