



MIDLAND®



1001LWX | CB Radio with Weather Scan Technology

Owner's Manual

www.midlandradio.com



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The Citizens Band Radio Service is under the jurisdiction of the Federal Communications Commission (FCC). Any adjustments or alterations which would alter the performance of the transceiver's original FCC certification, or which would change the frequency determining method, are strictly prohibited. Replacement or substitution of crystal, transistors, ICs, regulator diodes, or any other part of a unique nature, with parts other than those recommend by Midland, may cause violations of the technical regulations in Part 95 of the FCC Rules or in violation of certification requirements in Part 2 of the rules.

Welcome to the World of Midland Electronics

Congratulations on your purchase of the Midland 1001LWX CB radio. In the years ahead, you can expect to find time and again why Midland holds the front running position among CB users. You will also find that American Original is not just a slogan, but the heading of a long list of hearable, seeable benefits. As your Midland CB experience unfolds and grows we hope you will remember that CB radios are only one kind of electronic excellence available under the Midland name.

The 40 channel 1001LWX CB radio represents the state of the art in high tech engineering. The first in the industry with Weather Scan technology, it is able to receive up to the minute National Weather broadcasts any where you go- keeping you up to date on severe weather events. The 1001LWX also includes all the important CB features- RF Gain, Automatic Noise Limiter and a Large Backlit LCD for easy night time viewing. Skillfully constructed with the finest components, this radio is designed for reliable and trouble-free performance for years to come. Enjoy!

Major 1001LWX Features

- 40 CB Channels
- 4 Watt Output Power
- Large, Backlit LCD
- Exclusive Weather Scan Technology
- 4- Pin Front Panel Mic Connector
- Squelch
- PA Function
- Automatic Noise Limiter (ANL)
- RF Gain
- Push to talk ergonomically designed microphone
- Includes mounting bracket/hardware and fused DC power cord

How to Install your Midland Mobile CB:

This transceiver may be installed in any 12-volt negative ground-system car or truck. Most current U.S. and foreign vehicles use a negative system, but some older models and some newer large trucks may have a positive ground. Check the requirements for your vehicle before you begin installation. Generally, you have a negative-ground system if the minus (-) battery terminal is connected to the motor block. Contact your dealer in the event you are unable to determine your vehicle's polarity system.

What's in the Box:

1. Easy removal mounting bracket system.
2. Microphone bracket system.
3. All main-unit and microphone mounting hardware needed for normal installation.
4. Plug-in microphone with coil cord.
5. FCC part 95, Subpart D.
6. Owner's Manual.

Where to Locate your CB Transceiver:

Your new Midland CB is designed to be installed under the dash or vertically on a console of your vehicle. Safety and convenience are the primary considerations in deciding exactly where to locate your radio.

Caution: Be sure that the unit is located so that it does not interfere with the driver, supplemental restraint systems (air bags) or impair access to any controls. Connecting cables must be routed and secured in such a manner as not to interfere with the operation of the brake, accelerator or other controls. Interference from either the unit or connecting cables may contribute to the loss of control of the vehicle.

Mechanical Mounting:

Step 1: Heeding the caution, use the mounting bracket as a template for marking the location of screw holes under the dash. Use an awl, nail or other sharp pointed object to mark the hole locations.

Step 2: Drill a 1/8" hole for each screw hole in the mounting bracket. Attach the bracket to the dash with the Phillips head sheet metal screws provided.

Extreme care should be exercised when drilling into the dash to avoid damage to under-dash electronic ignition, cruise control, instrument and / or accessory wiring.

Step 3: Position the main unit between the bracket arms in line with the retention knobs. Set the angle for optimum operating comfort and accessibility.

Step 4: Tighten the retention knobs.

Power Wiring (negative ground only):

Step 1: If you have not determined whether your vehicle has a negative or positive ground, do so now. Then disconnect the negative lead from the battery to prevent short circuits that can occur during wiring. Do not connect this transceiver to positive ground electrical systems.

Step 2: With negative ground

- A. Connect the positive (RED WIRE) the one with in-line fuse holder to either the (a) fuse block, (b) cigarette lighter, or (c) directly to the positive post on your battery. Usually, the fuse block is the most convenient connecting point. It is also possible to connect to the Accessory terminal on the fuse block or ignition switch, so that your CB automatically goes off when the ignition goes off.
- B. Tightly connect the ground (BLACK WIRE) directly to the vehicle's metal frame. A good direct metal-to-metal ground is essential for optimum performance. Installations using the cigarette lighter socket for power require an extra ground wire from the radio chassis to the vehicle if the radio is not fastened to a grounded part of the vehicle.

Installation of Microphone Hanger:

Mounting holes are provided on the microphone hanger bracket. The bracket can be attached to the vehicle dash, the holes provided on the left side of the radio, or other convenient location.

Antenna:

How to select, position, install and tune the right antenna for you:

You can choose from two types of mobile CB antennas: full-length whip and loaded whip - and a variety of mounts (depending on where you locate your antenna). The dealer who sold you your Midland CB can advise which type is best for you.

Where you locate your antenna does make a difference.

Some general rules for antenna location that can aid CB performance:

1. Put your mount as high on the vehicle as possible.
The higher the proportion of antenna length that is above the roof, the better.
2. If possible, mount the antenna in the center of whatever surface you choose.
3. Keep antenna cables away from noise sources, such as the ignition system, gauges, etc.
4. Make sure you have a solid metal-to-metal ground.
5. Exercise care to prevent cable damage.

Essentially, you have five location choices: the roof, gutter, rear deck, front cowl or rear bumper. Where you decide to locate your antenna will determine the type of antenna you install. Consult your Midland CB dealer for advice and guidance, and measure your needs against the attributes of the various Midland antenna models they carry.

Antenna Installation:

Follow the manufacturer's installation instructions carefully.

Warning: Never operate your CB radio without attaching an antenna or with a broken antenna cable. This will result in damage to transmitter circuitry.

Safety notice: The antenna used for this radio must be installed to provide a separation distance of at least 8 in. (20cm) from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Tuning your Antenna:

Some antennas are factory tuned. However, performance can usually be improved by slightly lengthening or shortening the antenna using a Standing Wave Ratio (SWR) meter. For the exact procedures to be used, refer to the antenna manufacturer's installation manual.

You can buy an SWR meter separately or have your antenna checked by your Midland CB Dealer's service department.

Factors affecting CB and Weather Scan Range:

Essentially, they are the same influences that optimize or limit AM and FM broadcast signals as well as the weather reception range.

Terrain: Hills, valleys and buildings naturally interrupt and shorten CB signals. In short, anything that is between you and the person you want to talk to can shorten your CB range. You can expect to maintain maximum transmitting/receiving performance in flat, open country.

Weather: You can expect that CB range will be reduced – perhaps drastically – in times of atmospheric disturbance, such as in a thunderstorm or heavy snow. Sunspots too are known to adversely affect CB performance.

Noise:

A common source of excessive noise is the ignition system. In many vehicles today the electric fuel pump is another possible source of noise. If you suspect this is true, turn off the ignition. With the CB in receive mode if the noise is no longer present then this is the source of the noise. In some cases the noise can be reduced or eliminated by making sure the CB radio chassis is grounded. This is in addition to the power cord. In extreme cases, additional grounding of components may be necessary.

1001LWX Front Panel Features and Operation



ON/OFF Volume Knob: In the off position your transceiver power is off. Turn this control clockwise to switch on the unit and adjust the volume.

Microphone Connector: Plug in the supplied microphone to this connector. Received signals will not be heard without the microphone.

CB/PA Button: When in PA mode, it causes your voice to operate the optional external PA speaker. In CB mode, the microphone operates the transmitter.

ANL ON/OFF Button: Press this button once to activate the automatic noise limiter. When in ANL mode, ignition noise will be reduced. Press the button again to deactivate ANL.

Weather Scan/CB Button: Press this button once to activate the weather scan. The radio will begin scanning the weather channels starting at 1-7. It will stop on the first signal it comes to and broadcast the National Weather Service broadcast. To exit weather scan mode, press the WX/CB button again.

Note: *If the radio is locked on a weather channel and the signal falls below required level, the radio will automatically rescan and lock on the next available channel. If no channels are available, the radio will continuously scan until the weather scan is deactivated. Any time you want to initiate a rescan manually, press the WX/CB button twice and it will rescan.*

Squelch Control: This control is used to cut off or eliminate receiver background noise in the absence of an incoming signal. For maximum receiver sensitivity it is desired that the control be adjusted only to the point where the receiver background noise or background noise is eliminated. Adjust until the receiver noise disappears. This will require the incoming signal to be slightly stronger than the average receiver noise. Further clockwise rotation will increase the threshold level which a signal must overcome in order to be heard. Only strong signals will be heard at a maximum clockwise setting.

RF Gain: Adjust as required to optimize signal. This control is used primarily to optimize reception in strong signal areas. Gain is reduced by counter clockwise rotation of the control.

Channel Knob: This knob selects any one of the 40 Citizen Band channels. The selected channel is indicated by the LED readout, directly above the Channel Knob.

Back Panel Features and Operation



Antenna Connector: Connect a standard 50-ohm CB antenna to this connector.

External Speaker Jack: When a speaker is connected to this jack, the internal speaker is by-passed. All received signals will be heard through the external speaker. The speaker connected to the "EXT" jack should be rated at 8 ohms and 5 watts.

PA Jack: An optional PA speaker may be attached to your transceiver through the PA output jack on the back panel. This allows you to communicate with pedestrians or other vehicles through your CB microphone. The speaker connected to the "PA" jack should be rated at 8 ohms and 5 watts.

DC 13.8V POWER Cord: Connects to power cord with in line 2 Amp fuse.

How to Operate your Transceiver:

You should become familiar with the controls and complete the preceding installation instructions before attempting to operate your CB.

1. Rotate the on/off volume control clockwise to turn the unit on.
2. Adjust the squelch control fully counter-clockwise so noise is heard.
3. Adjust the volume for a normal listening level.
4. Rotate the squelch control until the noise just disappears.
5. Select the desired channel by rotating the channel selector.
6. To transmit, press the PTT bar on the side of the microphone. Hold the microphone 2 to 3 inches from your lips and speak in a normal voice.
7. To receive, simply release the PTT bar.

Warning: Do not attempt to make any internal adjustments. Internal adjustments and/or modifications can lead to illegal operation as defined by the FCC rules and regulations, Part 95. They must be made only by qualified technical personnel. Illegal operation can lead to serious consequences.



Technical Specifications

General

Frequency range26.965-27.405 MHz
 Channels40
 Modulation typeAM
 Antenna impedance50 Ohm
 Loudspeaker8 Ohm
 Microphone1000 ohm..Electret
 Power Supply13.8 VDC negative ground
 Size4-7/8"(W) x 6-1/2"(D) x 1-1/2"(H)
 Unit Weight.....1 lb. 10 oz.

CB Receiver (26.965-27.405 MHz-)

Sensitivity at 10dB S/N.....0.8 uV
 Selectivity45 dB + 10 kHz
 Squelch range0.8 uV-1000 uV
 Audio output power3.0 W @ 8 Ohm (10% distortion)
 Distortion at 1000 mV3%
 Audio frequency response400-2400 Hz
 Intermediate frequencyI ° 10.7 MHz II ° 455 kHz
 Spurious responsemore than 45 dB

Transmitter

RF Output Power4.0 W
 Frequency Tolerance0.005%
 Harmonic SuppressionMore than 60 dB
 ModulationAM 90% (± 5%)

Weather Receiver (162.400-162.550 MHz)

Channel	Frequency
Channel 1	162. 400
Channel 2	162. 425
Channel 3	162. 450
Channel 4	162.475
Channel 5	162. 500
Channel 6	162. 525
Channel 7	162.550

Sensitivity at 12dB S/N.....0.4 uV
 Spurious responsemore than 45 dB

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. Be sure to remove the microphone from the radio before packing.

Include a full description of any problems. Include a daytime telephone number in the event we need more information.

You do not need to return accessory items (brackets, screws, power cord, antenna, etc.) unless they may be directly related to the problem.

Include a photocopy of the bill of sale or other proof of purchase showing the date of sale. (credit card statements are not acceptable) This information must be included before warranty service can be considered.

A flat rate charge of \$45 will apply to radios not covered by the Warranty. Master Card, Visa, Cashier's Check or Money Order will be accepted for payment only. Personal checks will not be accepted and will delay the repair of your radio until we receive payment by approved methods.

Midland Radio Corporation
Hereby certifies that this unit has
been designed, manufactured,
FCC type accepted and certified
in accordance with part 95 and
Part 15, Subpart C of the current
FCC rules and regulations as of
the date of manufacture.



Limited Warranty

Midland Radio Corporation will repair or replace, at its option without charge this model 1001LWX Citizens Band transceiver that fails due to a defect in material or workmanship within **Three** years following the initial consumer purchase.

This warranty does not include any accessories, 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 Radio Corporation, Warranty Service Department, 5900 Parretta Drive, Kansas City, Missouri 64120, or to any "Midland Authorized Warranty Service Station," or to the place of purchase (if a participating dealer). 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. For warranty coverage on merchandise purchased elsewhere, consult the supplemental warranty information included with this product or ask your dealer.

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