

<- Back

Forward ->

Document ID# 1283625
2005 Chevrolet Blazer - 4WD

Print

Radio/Audio System Description and Operation

Table 1: [Radio Features](#)

Table 2: [Cassette Features](#)

Table 3: [Compact Disc Features](#)

The Entertainment System on this vehicle is configured with a radio, antenna, and speakers.

The following list shows the radios available for this vehicle:

- Radio (UM7) - AM/FM
- Radio (UN0) - AM/FM with CD
- Radio (UP0) - AM/FM, Cassette and CD
- Radio (UC6) - AM/FM, Integral Multi Disc CD Changer

Radio Features

Controls	UM7	UN0/UP0	UC6
Power	Push PWR/VOL knob to turn the radio on.		
Volume	The volume is adjusted by rotating the PWR/VOL knob.		
Automatic Volume Control	N/A	Press the AUTOVOL Button	
Tune	Turn the TUNE/RCL knob	Turn the TUNE/DISP knob	Turn the TUNE/RCL knob
Seek	Momentarily press the left or right SEEK button		
Scan	Press and hold the left or right SEEK button for 2 seconds	N/A	Press and hold the left or right SEEK/SCAN button for 2 seconds
Preset Scan	Press and hold the left or right SEEK button for more than 4 seconds	Press and hold the left or right SEEK button for more than 2 seconds	Press and hold the left or right SEEK/SCAN button for more than 4 seconds
Presets	Six AM, Six FM1 and Six FM2		
Preset Saving	Press and hold desired button until an audible beep is heard		
Set Clock	Press and hold the HR or MN button until an audible beep indicates the time set mode has been entered. Once the beep is heard, the time can be set by tapping each button to incrementally adjust the time. Holding down each button will rapidly change the time.		
Recall	Push the TUNE/RCL knob	Push the TUNE/DISP knob	Push the TUNE/RCL knob
	Press and release the		

Fade or Balance	AUDIO button to select and adjust with the arrow buttons	Press and release the AUDIO knob to select and turn to adjust	
Bass, Treble or Midrange	Press and release the AUDIO button to select and adjust with the arrow buttons	Press and release the AUDIO knob to select and turn to adjust	
Automatic Tone	N/A	Press AUTO TONE Button	Press AUTO EQ Button

Cassette Features

Controls	UP0 Radio
Eject	Eject button
Fast Forward	Preset button 4
Reverse	Preset button 3
Side	Preset button 5
Previous	Preset button 1
Next	Preset button 2

Compact Disc Features

Controls	UN0/UP0	UC6
Eject	Eject button	
Fast Forward	Preset button 4	Press the FWD button
Reverse	Preset button 3	Press the REV button
Previous	Preset button 1	Press the left SEEK/SCAN button
Next	Preset button 2	Press the right SEEK/SCAN button
Random	Preset button 6	Press the RDM button

Each item in the list below represents topics covered in detail below.

- AM/FM Reception
- Theft Deterrent
- Integral Multi Disc CD Changer (IMDX)
- Radio Data System (RDS)

AM/FM Reception

Radio Signal

The radio signal is sent from a broadcast station and is then received by an antenna. The strength of the signal received depends on the following:

- The power output (wattage) of the broadcasting station
- The location of the vehicle (or receiver) relative to the broadcast tower.
- Obstacles between the tower and the receiver
- Atmospheric conditions
- What band (AM or FM) the station is broadcasting
- Type of antenna and the ground plane

AM Reception

The AM band has a lower frequency range than the FM band. These longer wavelengths:

- Bend around Obstacles
- Follow the curvature of the earth
- May reflect off the ionosphere (skip)

The AM frequencies have longer range due to the ground wave. The ground wave follows the curvature of the earth and is effected by its conductivity. Greater conductivity equates to less signal loss thus transmission over water is better than over land. The AM band has a range of 80-320 km (50-200 miles).

FM Reception

The shorter wavelengths of the higher frequency FM band:

- Reflect off obstacles
- Are absorbed by the ground
- Penetrate the ionosphere

Broadcasts in the FM band are limited to "line of sight" reception which is typically 40 km (25 miles). Even when out of a direct line of sight, the signal may be reflected into areas that would be in a "shadow" otherwise. Factors which affect the line of sight include:

- Height of the broadcast antenna
- Height of the receiving antenna
- Terrain and buildings in the broadcast path

Theft Deterrent

The theft deterrent system is a feature on all base and uplevel radios. There is no need to program a security code into the radio as in past model years. The theft deterrent system now utilizes class 2 serial data to determine if the radio is in the appropriate vehicle. Each time the radio receives the "run" power mode message, it compares the VIN information it has stored to the VIN information received from a module on the class 2 serial data circuit responsible for transmitting that information. If a mis-match occurs, the radio display will indicate to the user the radio is locked. Once this takes place the radio will not respond to any button presses and become inoperative. The two scenarios able to cause this condition are:

1. A radio is installed from another vehicle
2. A module which communicates on the class 2 serial data circuit which supplies VIN information to the radio is replaced and not properly setup with the correct VIN information for that vehicle

The only way to unlock the radio is by using a scan tool. Always refer to the diagnostic table in this section for further information.

Integral Multi Disc CD Changer (IMDX)

The integral multi disc CD changer has the capability of storing and playing up to six (6) compact discs. The integral multi disc CD changer has a shock-absorbing system. Only under extreme operating

temperatures or severe shock or vibration should the compact disc player skip or mute. If the customer travels an abnormally rough road, a skip condition may be normal. Test drive the vehicle on a normal road with a known good CD. If the condition is still present, replace the radio.

The use of CD lens cleaner discs is not advised, due to the risk of contaminating the lens of the CD optics with lubricants internal to the CD mechanism.

Single Disc Loading

To operate the integral multi disc CD changer in the single play mode, press the "LOAD" button for less than two seconds. The LED to the right of the disc door will turn green to indicate the CD can be loaded. Insert the disc into the slot, label side up. The player will pull the disc in.

Multi Disc Loading

To operate the changer in the multi disc mode, press the "LOAD" button for more than two seconds and the LED to the right of the disc door will flash. Once the light stops flashing and turns green you can load a disc. Insert the disc into the slot, label side up. The player will pull the disc in. Once the disc is loaded, the light will begin flashing again. Once the light stops flashing and turns green you can load another disc.

Removing CDs

Use the eject button to remove a disc or discs. Perform the following to eject:

- To remove a single disc, press and release the eject button. The message "REMOVE CD" is displayed.
- To remove multiple discs, press and hold the eject button for two seconds. An audible beep is heard and the LED to the right of the disc door begins to flash indicating a disc is being ejected. The message "REMOVE CD" is displayed.

Radio Data System (RDS)

All uplevel audio systems are equipped with technology known as the Radio Data System (RDS). RDS is a system that sends data along with the audio of the FM station you are currently tuned to. RDS is a standard that defines how a FM broadcast station may send digital data along with the audio program. Think of it as a one way wireless modem, allowing the broadcaster to send information about his program to your receiver.

RDS data is carried in what is known as a "sub-carrier". A sub-carrier is a frequency that the FM broadcaster is authorized to use to send data or other audio programs that are not audible in the main audio program. RDS information can be used to display program information and to control the radio.

To receive the RDS signal, all that is needed is an FM receiver with a RDS circuit. A special integrated circuit capable of dealing with the RDS signal is in the RDS circuit and passes it along to the receiver's microprocessor where it is decoded and acted upon.

RDS Basic Information

RDS basic information:

- RDS functions are provided in the FM broadcast band only.
- RDS functions will only work with FM broadcast stations that are broadcasting RDS data.
- Not all FM Broadcast stations broadcast RDS data or offer all of the RDS services.
- RDS functions may not work properly when reception is weak, reception is of poor quality, or RDS is not implemented properly by the FM Broadcaster.

In some cases, a radio station broadcasting incorrect information may cause the RDS features of the radio to appear to work improperly.

Broadcast RDS information can be used in a variety of ways by the receiver and listener, but basically falls into two categories: Display and Control.

Displaying Program Information

RDS displays textual information such as:

- The name of the station.
- The type of program.
- General information such as artist and song title, call in phone numbers, etc.

RDS is always on. When tuned to a non-RDS station, your radio will display frequency information as you would normally expect. When tuned to a RDS station, your radio will change from displaying the frequency of the FM station to displaying the call letters of the station or display the nickname of the station. This feature is known as the Program Service Name.

Controlling the Radio

RDS can control the radio when data the receiver can use responds to timely information performing the following:

- Interrupt the playback of your cassette or CD for traffic or emergency bulletins.
- Search for stations by type of program.
- Automatically follow networked programming from transmitter to transmitter as you travel from one listening area to another.
- Set your clock to the time that the RDS Broadcast station broadcasts.

Viewing and Selecting RDS Information for Display

Press the "TUNE RCL" knob once for less than 2 seconds when the radio displays the program service name and the frequency of the station will be displayed. Press the knob again, and the program type (PTY) will be displayed. Pressed again, and the program name will be displayed (if the broadcaster is broadcasting one). The program name is an eight-character name that the broadcaster may use to further identify the type of programming currently being broadcast.

Using the RDS Traffic Feature

Some RDS broadcasters may carry traffic information programming to inform you of current traffic conditions in your listening area and is indicated by the icon in the radio display. RDS enables the broadcaster to get this information to you even when you are listening to a tape or compact disc. This feature can be enabled or disabled by the listener. Press the "TRAF" button to find a station that claims

to carry traffic information. You may do this even when playing a cassette tape or compact disc. This action will operate in the background without interrupting the current playback. If the radio is not currently tuned to an RDS traffic station, the radio will immediately SEEK an RDS traffic station. If the radio finds an RDS traffic station, the " TRAF" icon will appear in the radio display as will brackets around the (TRAF) icon. If the radio cannot find an RDS traffic station after searching through the entire FM band, the radio will display "NO TRAFFIC".

Alternate Frequency (AF) Switching

RDS permits broadcaster's to send information to the radio that allows the radio to automatically switch frequency to the best quality station in that broadcaster's network.

Since the radio is displaying the broadcaster call letters or nickname, the listener will not see the frequency during an AF switch unless you have changed the default display to be frequency instead of Program Service name.

To enable or disable AF switching perform the following:

- Press and hold the AM/FM button for two seconds or more.
- The radio will display AF ON or AF OFF depending on the current condition of AF and a confirmation beep will be heard.

When AF is enabled and you recall a RDS station stored on preset, the radio determines if the station stored is of acceptable quality. If not, the radio checks all available AF's for your station. If the radio fails to locate your program, AF SEARCH will be displayed as the radio scans across the band looking for your program or an affiliated network. If the radio cannot find the original station or an acceptable alternate frequency NOT FOUND will be displayed and the radio returns to the original frequency for the preset.

RDS Clock Time

Broadcasters can choose to send clock time information in the RDS data. This information can be used to update the clock time on the radio. RDS clock time is broadcasted once a minute. To set the clock using RDS clock data perform the following:

- Press and hold the HR and MIN buttons together for two or more seconds to update the time.
- The display will show UPDATED after receiving the broadcasted time data.
- If the broadcaster is not broadcasting the time data, the radio will display NO UPDATE and the time remains unchanged.

<- Back

Forward ->

Document ID# 1283625
2005 Chevrolet Blazer - 4WD

Print