The 1999 Oldsmobile Aurora Owner's Manual

1-1 Seats and Restraint Systems
This section tells you how to use your seats and safety belts properly. It also explains the "SRS" system.

2-1 Features and Controls
This section explains how to start and operate your vehicle.

3-1 Comfort Controls and Audio Systems
This section tells you how to adjust the ventilation and comfort controls and how to operate your audio system.

4-1 Your Driving and the Road
Here you'll find helpful information and tips about the road and how to drive under different conditions.

5-1 Problems on the Road
This section tells you what to do if you have a problem while driving, such as a flat tire or overheated engine, etc.

6-1 Service and Appearance Care
Here the manual tells you how to keep your vehicle running properly and looking good.

7-1 Maintenance Schedule
This section tells you when to perform vehicle maintenance and what fluids and lubricants to use.

8-1 Customer Assistance Information
This section tells you how to contact Oldsmobile for assistance and how to get service and owner publications. It also gives you information on "Reporting Safety Defects" on page 8-10.

9-1 Index
Here's an alphabetical listing of almost every subject in this manual. You can use it to quickly find something you want to read.

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Please keep this manual in your vehicle, so it will be there if you ever need it when you’re on the road. If you sell the vehicle, please leave this manual in it so the new owner can use it.

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Mississauga, Ontario L5T 1B9

Litho in U.S.A.
Part No. 22600384 A First Edition

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How to Use this Manual

Many people read their owner's manual from beginning to end when they first receive their new vehicle. If you do this, it will help you learn about the features and controls for your vehicle. In this manual, you'll find that pictures and words work together to explain things quickly.

Index

A good place to look for what you need is the Index in back of the manual. It's an alphabetical list of what's in the manual, and the page number where you'll find it.

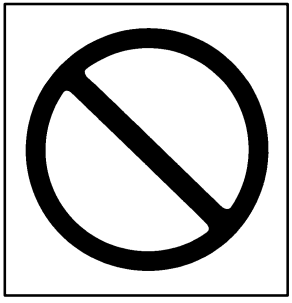
Safety Warnings and Symbols

You will find a number of safety cautions in this book. We use a box and the word CAUTION to tell you about things that could hurt you if you were to ignore the warning.

⚠ CAUTION:

These mean there is something that could hurt you or other people.

In the caution area, we tell you what the hazard is. Then we tell you what to do to help avoid or reduce the hazard. Please read these cautions. If you don't, you or others could be hurt.



You will also find a circle with a slash through it in this book. This safety symbol means "Don't," "Don't do this" or "Don't let this happen."

Vehicle Damage Warnings

Also, in this book you will find these notices:

NOTICE:

These mean there is something that could damage your vehicle.

In the notice area, we tell you about something that can damage your vehicle. Many times, this damage would not be covered by your warranty, and it could be costly. But the notice will tell you what to do to help avoid the damage.

When you read other manuals, you might see CAUTION and NOTICE warnings in different colors or in different words.

You'll also see warning labels on your vehicle. They use the same words, CAUTION or NOTICE.

Vehicle Symbols

These are some of the symbols you may find on your vehicle.

For example, these symbols are used on an original battery:

- CAUTION POSSIBLE INJURY
- PROTECT EYES BY SHIELDING
- CAUSTIC BATTERY ACID COULD CAUSE BURNS
- AVOID SPARKS OR FLAMES
- SPARK OR FLAME COULD EXPLODE BATTERY

These symbols are important for you and your passengers whenever your vehicle is driven:

- DOOR LOCK UNLOCK
- FASTEN SEAT BELTS
- POWER WINDOW
- AIR BAG

These symbols have to do with your lamps:

- MASTER LIGHTING SWITCH
- TURN SIGNALS
- PARKING LAMPS
- HAZARD WARNING FLASHER
- DAYTIME RUNNING LAMPS
- FOG LAMPS

These symbols are on some of your controls:

- WINDSHIELD WIPER
- WINDSHIELD WASHER
- WINDSHIELD DEFROSTER
- REAR WINDOW DEFOGGER
- VENTILATING FAN

These symbols are used on warning and indicator lights:

- ENGINE COOLANT TEMP
- BATTERY CHARGING SYSTEM
- BRAKE
- COOLANT
- ENGINE OIL PRESSURE
- ANTI-LOCK BRAKES

Here are some other symbols you may see:

- FUSE
- LIGHTER
- HORN
- SPEAKER
- FUEL

NOTES

Section 1 Seats and Restraint Systems

Here you'll find information about the seats in your vehicle and how to use your safety belts properly. You can also learn about some things you should *not* do with air bags and safety belts.

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1-7 Safety Belts: They're for Everyone
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1-13 Driver Position
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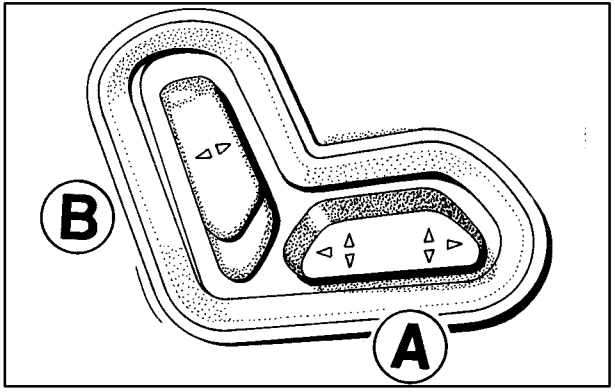
1-52 Replacing Restraint System Parts After a Crash

Seats and Seat Controls

This part tells you about the seats -- how to adjust them, and also about reclining seatbacks and head restraints.

Power Seats



The power seat controls are located on the driver's and passenger's door panels.

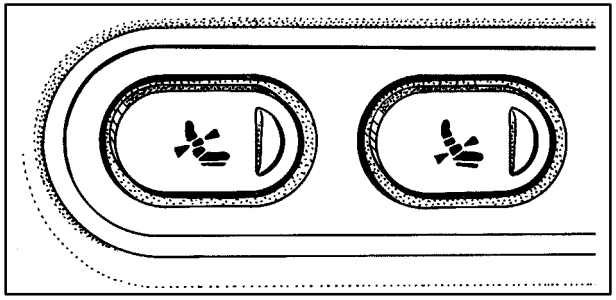
Horizontal Control (A): Raise the front of the seat by raising the forward edge of the button. Lower the front of the seat by lowering the forward edge of the button. Move the seat forward by moving the whole button toward the front of the vehicle.

Raise the rear of the seat by raising the rear edge of the button. Lower the rear of the seat by lowering the rear edge of the button. Move the seat rearward by moving the whole button toward the rear of the vehicle.

Moving the whole button up or down raises or lowers the whole seat.

Vertical Control (B): Move the reclining front seatback rearward by moving the button toward the rear of the vehicle. Move the seatback forward by moving the button toward the front of the vehicle.

Power Lumbar Control

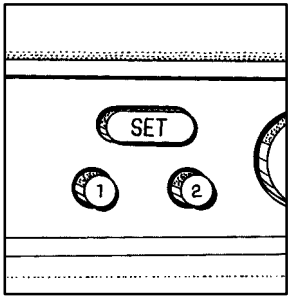


The power lumbar controls are located on the driver's and passenger's door panels.

The rear lumbar control adjusts upper lumbar support, and the front control adjusts lower lumbar support.

Press the front of the switch to increase support. Press the back of the switch to decrease support.

Memory Seat and Mirrors



The memory function controls both the driver's seat cushion and outside mirror positions. It does not store the lumbar or recline positions.

To set your memory seat cushion and mirrors:

1. Position the driver's seat and both outside mirrors where you want them. See "Mirrors" in the Index.
2. Press the SET button. You will hear one beep.
3. Within five seconds, press either the 1 or 2 button. You will hear two beeps.

The seat cushion and mirror positions will be stored for the number pressed. Repeat the procedure to store another position with the other number if desired. To adjust the seat and mirrors to the stored position, press the number corresponding to the position. The memory function will only work with the gearshift in PARK (P).

To stop the automatic movement, move the seat switch in any direction. For easier exiting, press the 1 and 2 buttons at the same time to move the seat completely down and back.

Memory Seat and Mirror Personalization Feature

The transmitters can also be programmed to move the driver's seat and outside mirrors to a set memory position when the transmitter's UNLOCK button is pressed.

To program the system:

1. Adjust the driver's seat to a comfortable position. Adjust both outside mirrors to suit you. See "Mirrors" in the Index.
2. Press the SET button on the driver's door panel. You will hear one beep.
3. Within five seconds, press one of the two memory buttons on the door panel. You will hear two beeps to confirm that the mirror and the seat cushion positions are entered into memory.
4. Press the UNLOCK button on the appropriate transmitter within five seconds. You will hear two beeps.

The second transmitter can be programmed to record a different seat and mirror position by following the same steps.

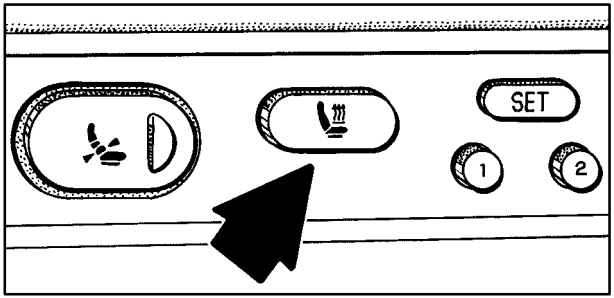
If you prefer to program the transmitter to the exit seat position, which moves the seat completely down and back, follow these steps:

1. Press the SET button on the driver's door panel. You will hear one beep.
2. Press one of the memory buttons on the driver's door panel. You will hear one beep, but the seat will not move at this time.
3. Press the UNLOCK button on the appropriate transmitter within five seconds. You will hear two beeps.

This personalization feature will work only when the vehicle is in PARK (P). A beep will sound inside the vehicle when the UNLOCK button on the transmitter is pressed to move the seat and mirrors.

To turn this feature off, press SET and then UNLOCK within five seconds.

Heated Front Seat (Option)



This feature will quickly heat the lower cushions and lower back of the driver and front passenger seats for added comfort.

Press the button once to turn the heater on high. The HI indicator light below the button will glow. Press it again to turn the heater on low. The LO indicator light below the button will glow. Press it a third time to turn the heater off. The heater will turn off automatically when the ignition is turned to OFF.

Reclining Front Seatbacks

The vertical control described previously in this section reclines the front seatbacks.

But don't have a seatback reclined if your vehicle is moving.

⚠ CAUTION:

Sitting in a reclined position when your vehicle is in motion can be dangerous. Even if you buckle up, your safety belts can't do their job when you're reclined like this.

The shoulder belt can't do its job because it won't be against your body. Instead, it will be in front of you. In a crash you could go into it, receiving neck or other injuries.

The lap belt can't do its job either. In a crash the belt could go up over your abdomen. The belt forces would be there, not at your pelvic bones. This could cause serious internal injuries.

For proper protection when the vehicle is in motion, have the seatback upright. Then sit well back in the seat and wear your safety belt properly.

Head Restraints

Slide the head restraint up or down so that the top of the restraint is closest to the top of your ears. This position reduces the chance of a neck injury in a crash.

The head restraints tilt forward and rearward also.

There are four different positions. Just grasp the top of the restraint and move it forward the way you want it to go until you hear a click. It will then be locked into that position until you need to move it again. Pulling it forward past the last position will allow the headrest to return to its full rear position.

Safety Belts: They're for Everyone

This part of the manual tells you how to use safety belts properly. It also tells you some things you should not do with safety belts.

And it explains the Supplemental Restraint System (SRS), or air bag system.

⚠ CAUTION:

Don't let anyone ride where he or she can't wear a safety belt properly. If you are in a crash and you're not wearing a safety belt, your injuries can be much worse. You can hit things inside the vehicle or be ejected from it. You can be seriously injured or killed. In the same crash, you might not be if you are buckled up. Always fasten your safety belt, and check that your passengers' belts are fastened properly too.

⚠ CAUTION:

It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed. Do not allow people to ride in any area of your vehicle that is not equipped with seats and safety belts. Be sure everyone in your vehicle is in a seat and using a safety belt properly.

Your vehicle has a light that comes on as a reminder to buckle up. (See “Safety Belt Reminder Light” in the Index.)

In most states and Canadian provinces, the law says to wear safety belts. Here’s why: *They work.*

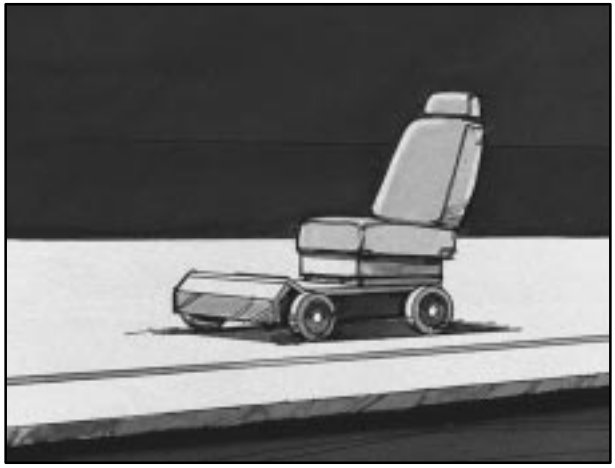
You never know if you’ll be in a crash. If you do have a crash, you don’t know if it will be a bad one.

A few crashes are mild, and some crashes can be so serious that even buckled up a person wouldn’t survive. But most crashes are in between. In many of them, people who buckle up can survive and sometimes walk away. Without belts they could have been badly hurt or killed.

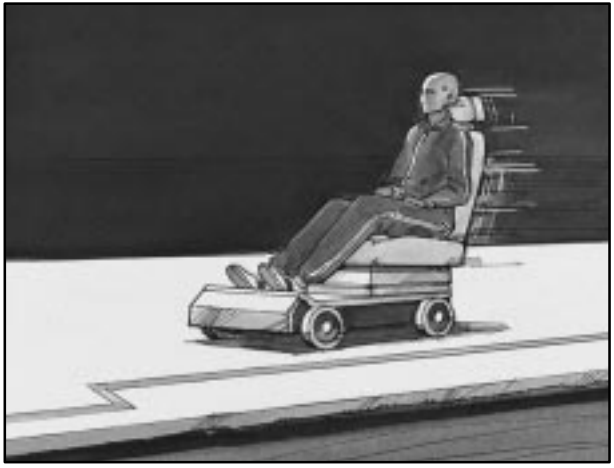
After more than 30 years of safety belts in vehicles, the facts are clear. In most crashes buckling up does matter ... a lot!

Why Safety Belts Work

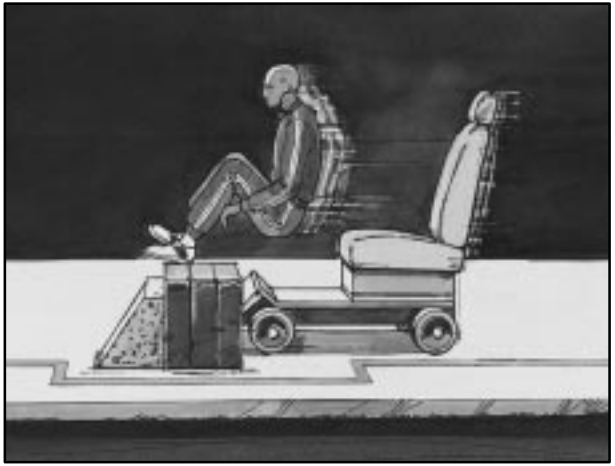
When you ride in or on anything, you go as fast as it goes.



Take the simplest vehicle. Suppose it's just a seat on wheels.



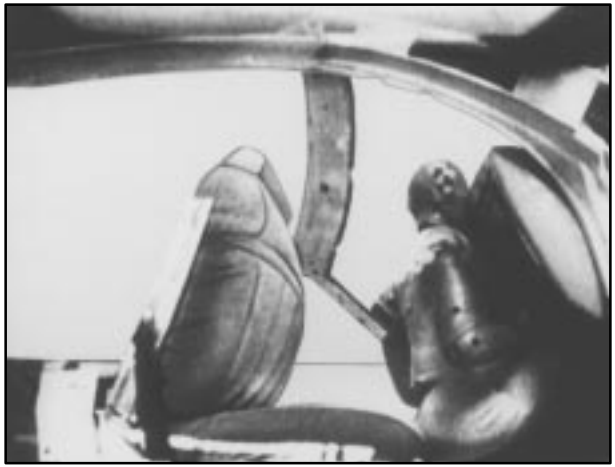
Put someone on it.



Get it up to speed. Then stop the vehicle. The rider doesn't stop.

The person keeps going until stopped by something.

In a real vehicle, it could be the windshield ...



or the instrument panel ...

or the safety belts!

With safety belts, you slow down as the vehicle does. You get more time to stop. You stop over more distance, and your strongest bones take the forces. That's why safety belts make such good sense.

Here Are Questions Many People Ask About Safety Belts -- and the Answers

Q: Won't I be trapped in the vehicle after an accident if I'm wearing a safety belt?

A: You *could* be -- whether you're wearing a safety belt or not. But you can unbuckle a safety belt, even if you're upside down. And your chance of being conscious during and after an accident, so you *can* unbuckle and get out, is *much* greater if you are belted.

Q: If my vehicle has air bags, why should I have to wear safety belts?

A: Air bags are in many vehicles today and will be in most of them in the future. But they are supplemental systems only; so they work *with* safety belts -- not instead of them. Every air bag system ever offered for sale has required the use of safety belts. Even if you're in a vehicle that has air bags, you still have to buckle up to get the most protection. That's true not only in frontal collisions, but especially in side and other collisions.

Q: If I'm a good driver, and I never drive far from home, why should I wear safety belts?

A: You may be an excellent driver, but if you're in an accident -- even one that isn't your fault -- you and your passengers can be hurt. Being a good driver doesn't protect you from things beyond your control, such as bad drivers.

Most accidents occur within 25 miles (40 km) of home. And the greatest number of serious injuries and deaths occur at speeds of less than 40 mph (65 km/h).

Safety belts are for everyone.

How to Wear Safety Belts Properly

Adults

This part is only for people of adult size.

Be aware that there are special things to know about safety belts and children. And there are different rules for smaller children and babies. If a child will be riding in your vehicle, see the part of this manual called “Children.” Follow those rules for everyone’s protection.

First, you’ll want to know which restraint systems your vehicle has.

We’ll start with the driver position.

Driver Position

This part describes the driver’s restraint system.

Lap-Shoulder Belt

The driver has a lap-shoulder belt. The shoulder portion of the belt has an energy management loop. It is designed to open and help protect you in certain crashes. If it opens, you will see a label on the safety belt that says to replace the belt. Be sure to do so. If you don’t, the safety belt won’t work properly and won’t protect you in another crash. For more information on replacing safety belts after a crash, see “Replacing Safety Belts” in the Index.

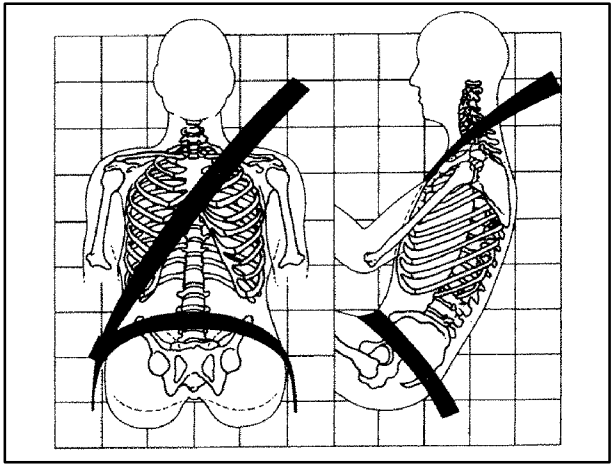
Here’s how to wear the lap-shoulder belt properly.

1. Close and lock the door.
2. Adjust the seat (to see how, see “Seats” in the Index) so you can sit up straight.

3. Pick up the latch plate and pull the belt across you. Don’t let it get twisted.
4. Push the latch plate into the buckle until it clicks.

Pull up on the latch plate to make sure it is secure. If the belt isn't long enough, see "Safety Belt Extender" at the end of this section.

Make sure the release button on the buckle is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.



The lap part of the belt should be worn low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong pelvic bones. And you'd be less likely to slide under the lap belt. If you slid under it, the belt would apply force at your abdomen. This could cause serious or even fatal injuries. The shoulder belt should go over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces.

The safety belt locks if there's a sudden stop or crash.

Shoulder Belt Tightness Adjustment

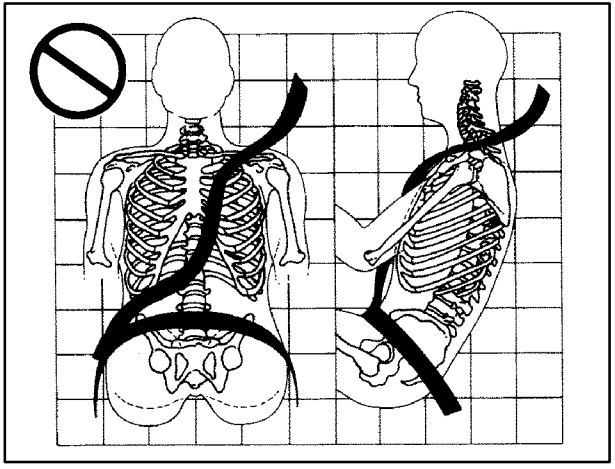
Your car has a shoulder belt tightness adjustment feature. If the shoulder belt seems too tight, adjust it before you begin to drive.

1. Sit well back in the seat.
2. Start pulling the shoulder belt out.

3. Just before it reaches the end, give it a quick pull.
4. Let the belt go back all the way. You should hear a slight clicking sound. If you don't, the adjustment feature won't set, and you'll have to start again.
5. Now you can add a small amount of slack. Lean forward slightly, then sit back. If you've added more than 1 inch (25 mm) of slack, pull the shoulder belt out as you did before and start again.

If you move around in the vehicle enough, or if you pull out the shoulder belt, the belt will become tight again. If this happens, you can reset it.

Q: What's wrong with this?

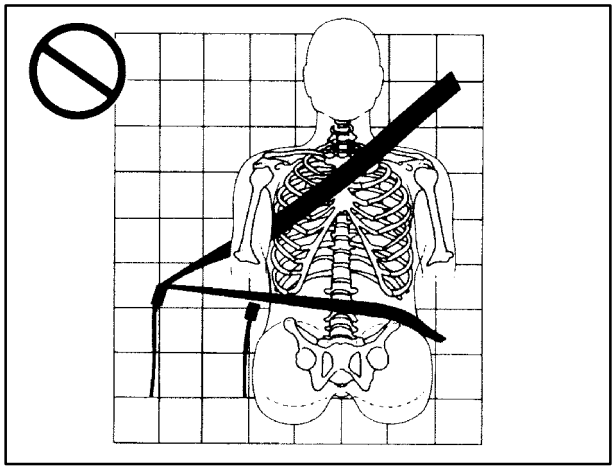


A: The shoulder belt is too loose. It won't give nearly as much protection this way.

⚠ CAUTION:

You can be seriously hurt if your shoulder belt is too loose. In a crash, you would move forward too much, which could increase injury. The shoulder belt should fit against your body. Don't allow more than 1 inch (25 mm) of slack.

Q: What's wrong with this?

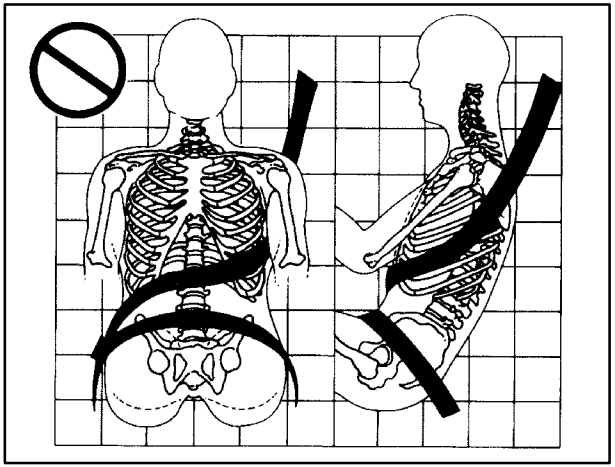


A: The belt is buckled in the wrong place.

⚠ CAUTION:

You can be seriously injured if your belt is buckled in the wrong place like this. In a crash, the belt would go up over your abdomen. The belt forces would be there, not at the pelvic bones. This could cause serious internal injuries. Always buckle your belt into the buckle nearest you.

Q: What's wrong with this?

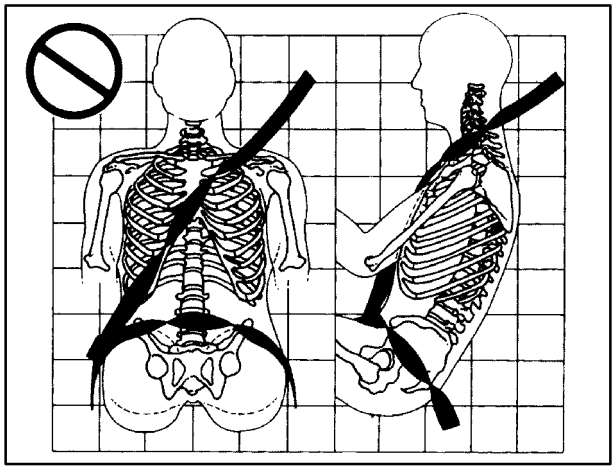


A: The shoulder belt is worn under the arm. It should be worn over the shoulder at all times.

⚠ CAUTION:

You can be seriously injured if you wear the shoulder belt under your arm. In a crash, your body would move too far forward, which would increase the chance of head and neck injury. Also, the belt would apply too much force to the ribs, which aren't as strong as shoulder bones. You could also severely injure internal organs like your liver or spleen.

Q: What's wrong with this?



A: The belt is twisted across the body.

⚠ CAUTION:

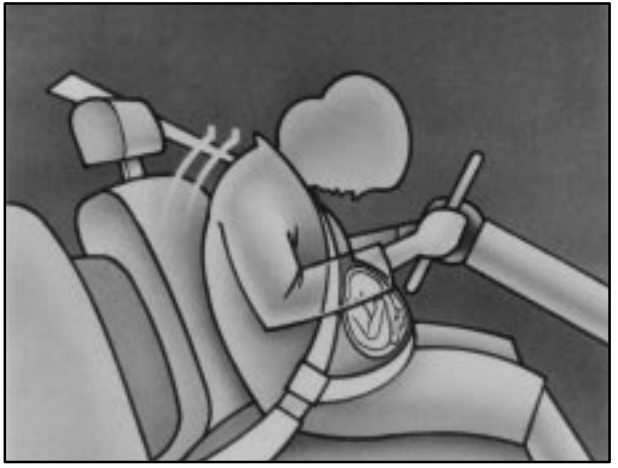
You can be seriously injured by a twisted belt. In a crash, you wouldn't have the full width of the belt to spread impact forces. If a belt is twisted, make it straight so it can work properly, or ask your dealer to fix it.

To unlatch the belt, just push the button on the buckle. The belt should go back out of the way.

Before you close the door, be sure the belt is out of the way. If you slam the door on it, you can damage both the belt and your vehicle.

Safety Belt Use During Pregnancy

Safety belts work for everyone, including pregnant women. Like all occupants, they are more likely to be seriously injured if they don't wear safety belts.



A pregnant woman should wear a lap-shoulder belt, and the lap portion should be worn as low as possible, below the rounding, throughout the pregnancy.

The best way to protect the fetus is to protect the mother. When a safety belt is worn properly, it's more likely that the fetus won't be hurt in a crash. For pregnant women, as for anyone, the key to making safety belts effective is wearing them properly.

Right Front Passenger Position

To learn how to wear the right front passenger's safety belt properly, see "Driver Position" earlier in this section.

The right front passenger's safety belt works the same way as the driver's safety belt -- except for one thing. If you ever pull the lap portion of the belt out all the way, you will engage the child restraint locking feature. If this happens, just let the belt go back all the way and start again.

Supplemental Restraint System (SRS)

This part explains the Supplemental Restraint System (SRS) or air bag system.

Your vehicle has "Next Generation" frontal air bags -- one air bag for the driver and another air bag for the right front passenger.

Next Generation frontal air bags are designed to help reduce the risk of injury from the force of an inflating air bag. But even these air bags must inflate very quickly if they are to do their job and comply with federal regulations.

Here are the most important things to know about the air bag system:

⚠ CAUTION:

You can be severely injured or killed in a crash if you aren't wearing your safety belt -- even if you have air bags. Wearing your safety belt during a crash helps reduce your chance of hitting things inside the vehicle or being ejected from it. Air bags are "supplemental restraints" to the safety belts. All air bags -- even Next Generation air bags -- are designed to work with safety belts, but don't replace them. Air bags are designed to work only in moderate to severe crashes where the front of your vehicle hits something. They aren't designed to inflate at all in rollover, rear, side or low-speed frontal crashes. And, for unrestrained occupants, Next Generation air bags may provide less protection in frontal crashes than more forceful air bags have provided in the past. Everyone in your vehicle should wear a safety belt properly -- whether or not there's an air bag for that person.

⚠ CAUTION:

Air bags inflate with great force, faster than the blink of an eye. If you're too close to an inflating air bag, as you would be if you were leaning forward, it could seriously injure you. This is true even with Next Generation frontal air bags. Safety belts help keep you in position before and during a crash. Always wear your safety belt, even with Next Generation air bags. The driver should sit as far back as possible while still maintaining control of the vehicle.

⚠ CAUTION:

Children who are up against, or very close to, any air bag when it inflates can be seriously injured or killed. This is true even though your vehicle has Next Generation frontal air bags. Air bags plus lap-shoulder belts offer the best protection for adults, but not for young children and infants.

CAUTION: (Continued)

CAUTION: (Continued)

Neither the vehicle's safety belt system nor its air bag system is designed for them. Young children and infants need the protection that a child restraint system can provide. Always secure children properly in your vehicle. To read how, see the part of this manual called "Children" and see the caution labels on the sunvisors and the right front passenger's safety belt.

AIR BAG

There is an air bag readiness light on the instrument panel, which shows AIR BAG.

The system checks the air bag electrical system for malfunctions. The light tells you if there is an electrical problem. See "Air Bag Readiness Light" in the Index for more information.

How the Air Bag System Works

Where are the air bags?

The driver's air bag is in the middle of the steering wheel.

The right front passenger's air bag is in the instrument panel on the passenger's side.

⚠ CAUTION:

If something is between an occupant and an air bag, the bag might not inflate properly or it might force the object into that person. The path of an inflating air bag must be kept clear. Don't put anything between an occupant and an air bag, and don't attach or put anything on the steering wheel hub or on or near any other air bag covering.

When should an air bag inflate?

An air bag is designed to inflate in a moderate to severe frontal or near-frontal crash. The air bag will inflate only if the impact speed is above the system's designed "threshold level." If your vehicle goes straight into a wall that doesn't move or deform, the threshold level is about 8 to 11 mph (13 to 18 km/h). The threshold level can vary, however, with specific vehicle design, so that it can be somewhat above or below this range. If your vehicle strikes something that will move or deform, such as a parked car, the threshold level will be higher. The air bag is not designed to inflate in rollovers, side impacts or rear impacts, because inflation would not help the occupant.

In any particular crash, no one can say whether an air bag should have inflated simply because of the damage to a vehicle or because of what the repair costs were. Inflation is determined by the angle of the impact and how quickly the vehicle slows down in frontal or near-frontal impacts.

What makes an air bag inflate?

In an impact of sufficient severity, the air bag sensing system detects that the vehicle is in a crash. The sensing system triggers a release of gas from the inflator, which inflates the air bag. The inflator, air bag and related hardware are all part of the air bag modules inside the steering wheel and in the instrument panel in front of the right front passenger.

How does an air bag restrain?

In moderate to severe frontal or near-frontal collisions, even belted occupants can contact the steering wheel or the instrument panel. Air bags supplement the protection provided by safety belts. Air bags distribute the force of the impact more evenly over the occupant's upper body, stopping the occupant more gradually. But air bags would not help you in many types of collisions, including rollovers, rear impacts and side impacts, primarily because an occupant's motion is not toward those air bags. Air bags should never be regarded as anything more than a supplement to safety belts, and then only in moderate to severe frontal or near-frontal collisions.

What will you see after an air bag inflates?

After an air bag inflates, it quickly deflates, so quickly that some people may not even realize the air bag inflated. Some components of the air bag module -- the steering wheel hub for the driver's air bag, or the instrument panel for the right front passenger's bag -- will be hot for a short time. The parts of the bag that come into contact with you may be warm, but not too hot to touch. There will be some smoke and dust coming from vents in the deflated air bags. Air bag inflation doesn't prevent the driver from seeing or from being able to steer the vehicle, nor does it stop people from leaving the vehicle.

⚠ CAUTION:

When an air bag inflates, there is dust in the air. This dust could cause breathing problems for people with a history of asthma or other breathing trouble. To avoid this, everyone in the vehicle should get out as soon as it is safe to do so. If you have breathing problems but can't get out of the vehicle after an air bag inflates, then get fresh air by opening a window or door.

In many crashes severe enough to inflate an air bag, windshields are broken by vehicle deformation. Additional windshield breakage may also occur from the right front passenger air bag.

- Air bags are designed to inflate only once. After they inflate, you'll need some new parts for your air bag system. If you don't get them, the air bag system won't be there to help protect you in another crash. A new system will include air bag modules and possibly other parts. The service manual for your vehicle covers the need to replace other parts.
- Your vehicle is equipped with a crash sensing and diagnostic module, which records information about the air bag system. The module records information about the readiness of the system, when the sensors are activated and driver's safety belt usage at deployment.
- Let only qualified technicians work on your air bag system. Improper service can mean that your air bag system won't work properly. See your dealer for service.

NOTICE:

If you damage the covering for the driver's or the right front passenger's air bag, the bag may not work properly. You may have to replace the air bag module in the steering wheel or both the air bag module and the instrument panel for the right front passenger's air bag. Do not open or break the air bag coverings.

If your vehicle ever gets into a lot of water -- such as water up to the carpeting or higher -- or if water enters your vehicle and soaks the carpet, the air bag controller can be soaked and ruined. If this ever happens, and then you start your vehicle, the damage could make the air bags inflate, even if there's no crash. You would have to replace the air bags as well as the sensors and related parts. If your vehicle is ever in a flood, or if it's exposed to water that soaks the carpet, you can avoid needless repair costs by turning off the vehicle immediately and disconnecting the battery cables. Don't let anyone start the vehicle under any circumstances. See your dealer for service.

Servicing Your Air Bag-Equipped Vehicle

Air bags affect how your vehicle should be serviced. There are parts of the air bag system in several places around your vehicle. You don't want the system to inflate while someone is working on your vehicle. Your dealer and the Aurora Service Manual have information about servicing your vehicle and the air bag system. To purchase a service manual, see "Service and Owner Publications" in the Index.

⚠ CAUTION:

For up to 10 minutes after the ignition key is turned off and the battery is disconnected, an air bag can still inflate during improper service. You can be injured if you are close to an air bag when it inflates. Avoid yellow connectors. They are probably part of the air bag system. Be sure to follow proper service procedures, and make sure the person performing work for you is qualified to do so.

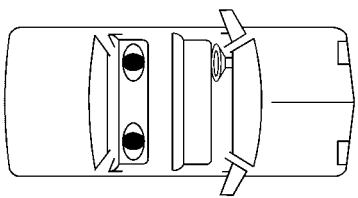
The air bag system does not need regular maintenance.

Rear Seat Passengers

It's very important for rear seat passengers to buckle up! Accident statistics show that unbelted people in the rear seat are hurt more often in crashes than those who are wearing safety belts.

Rear passengers who aren't safety belted can be thrown out of the vehicle in a crash. And they can strike others in the vehicle who are wearing safety belts.

Rear Seat Outside Passenger Positions



Lap-Shoulder Belt

The positions next to the windows have lap-shoulder belts. Here's how to wear one properly.

1. Pick up the latch plate and pull the belt across you. Don't let it get twisted.

   The shoulder belt may lock if you pull the belt across you very quickly. If this happens, let the belt go back slightly to unlock it. Then pull the belt across you more slowly.

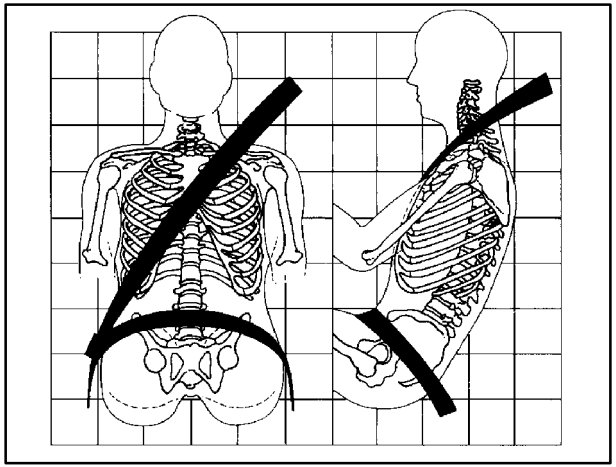
2. Push the latch plate into the buckle until it clicks.

If the belt stops before it reaches the buckle, tilt the latch plate and keep pulling until you can buckle it.

Pull up on the latch plate to make sure it is secure.

If the belt is not long enough, see “Safety Belt Extender” at the end of this section. Make sure the release button on the buckle is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

3. To make the lap part tight, pull down on the buckle end of the belt as you pull up on the shoulder part.



The lap part of the belt should be worn low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong pelvic bones. And you'd be less likely to slide under the lap belt. If you slid under it, the belt would apply force at your abdomen. This could cause serious or even fatal injuries. The shoulder belt should go over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces.

The safety belt locks if there's a sudden stop or a crash, or if you pull the belt very quickly out of the retractor.

⚠ CAUTION:

You can be seriously hurt if your shoulder belt is too loose. In a crash, you would move forward too much, which could increase injury. The shoulder belt should fit against your body.

To unlatch the belt, just push the button on the buckle.

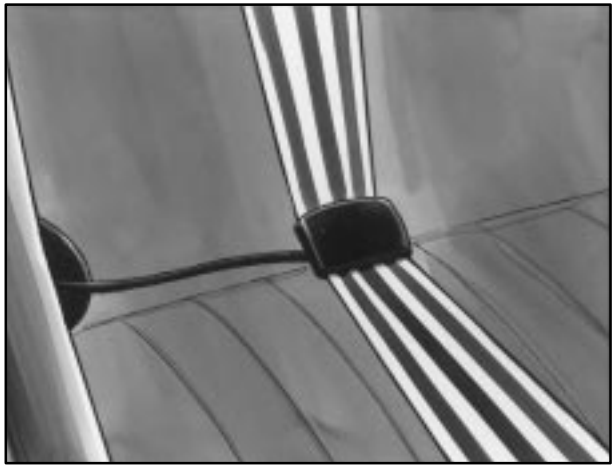
Rear Safety Belt Comfort Guides for Children and Small Adults

Rear shoulder belt comfort guides will provide added safety belt comfort for children who have outgrown child restraints and for small adults. When installed on a shoulder belt, the comfort guide pulls the belt away from the neck and head.

There is one guide for each outside passenger position in the rear seat. To provide added safety belt comfort for children who have outgrown child restraints and for smaller adults, the comfort guides may be installed on the shoulder belts. Here's how to install a comfort guide and use the safety belt:

1. Pull the elastic cord out from between the edge of the seatback and the interior body to remove the guide from its storage clip.

2. Slide the guide under and past the belt. The elastic cord must be under the belt. Then, place the guide over the belt, and insert the two edges of the belt into the slots of the guide.

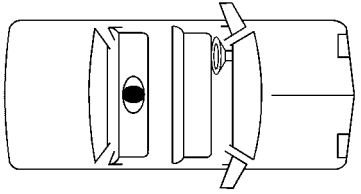


3. Be sure that the belt is not twisted and it lies flat. The elastic cord must be under the belt and the guide on top.

4. Buckle, position and release the safety belt as described in “Rear Seat Outside Passenger Positions” earlier in this section. Make sure that the shoulder belt crosses the shoulder.

To remove and store the comfort guides, squeeze the belt edges together so that you can take them out from the guides. Pull the guide upward to expose its storage clip, and then slide the guide onto the clip. Rotate the guide and clip inward and in between the seatback and the interior body, leaving only the loop of elastic cord exposed.

Center Passenger Position



Lap Belt

When you sit in the center seating position, you have a lap safety belt, which has no retractor. To make the belt longer, tilt the latch plate and pull it along the belt.

To make the belt shorter, pull its free end as shown until the belt is snug.

Buckle, position and release it the same way as the lap part of a lap-shoulder belt. If the belt isn't long enough, see "Safety Belt Extender" at the end of this section.

Make sure the release button on the buckle is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

Children

Everyone in a vehicle needs protection! That includes infants and all children smaller than adult size. Neither the distance traveled nor the age and size of the traveler changes the need, for everyone, to use safety restraints. In fact, the law in every state in the United States and in every Canadian province says children up to some age must be restrained while in a vehicle.

Smaller Children and Babies

⚠ CAUTION:

Children who are up against, or very close to, any air bag when it inflates can be seriously injured or killed. This is true even though your vehicle has Next Generation frontal air bags. Air bags plus lap-shoulder belts offer the best protection for adults, but not for young children and infants. Neither the vehicle's safety belt system nor its air bag system is designed for them. Young children and infants need the protection that a child restraint system can provide. Always secure children properly in your vehicle.

⚠ CAUTION:

Smaller children and babies should always be restrained in a child or infant restraint. The instructions for the restraint will say whether it is the right type and size for your child. A very young child's hip bones are so small that a regular belt might not stay low on the hips, as it should. Instead, the belt will likely be over the child's abdomen. In a crash, the belt would apply force right on the child's abdomen, which could cause serious or fatal injuries. So, be sure that any child small enough for one is always properly restrained in a child or infant restraint.

Infants need complete support, including support for the head and neck. This is necessary because an infant's neck is weak and its head weighs so much compared with the rest of its body. In a frontal crash, an infant in a rear-facing restraint settles into the restraint, so the crash forces can be distributed across the strongest part of the infant's body, the back and shoulders. A baby should be secured in an appropriate infant restraint. This is so important that many hospitals today won't release a newborn infant to its parents unless there is an infant restraint available for the baby's first trip in a motor vehicle.

⚠ CAUTION:

Never hold a baby in your arms while riding in a vehicle. A baby doesn't weigh much -- until a crash. During a crash a baby will become so heavy you can't hold it. For example, in a crash

CAUTION: (Continued)

CAUTION: (Continued)

at only 25 mph (40 km/h), a 12-lb. (5.5 kg) baby will suddenly become a 240-lb. (110 kg) force on your arms. The baby would be almost impossible to hold.

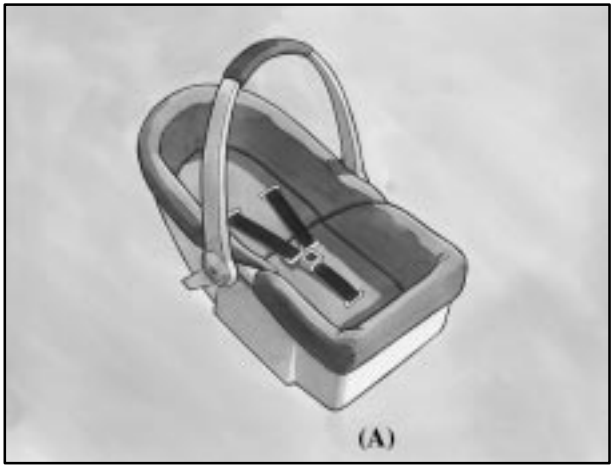
Secure the baby in an infant restraint.

Child Restraints

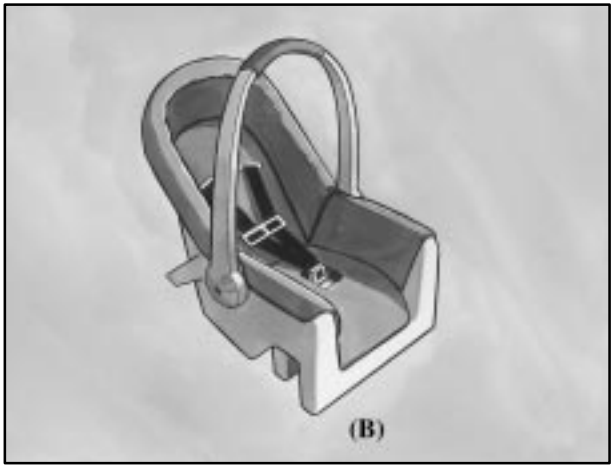
Every time infants and young children ride in vehicles, they should have protection provided by appropriate restraints.

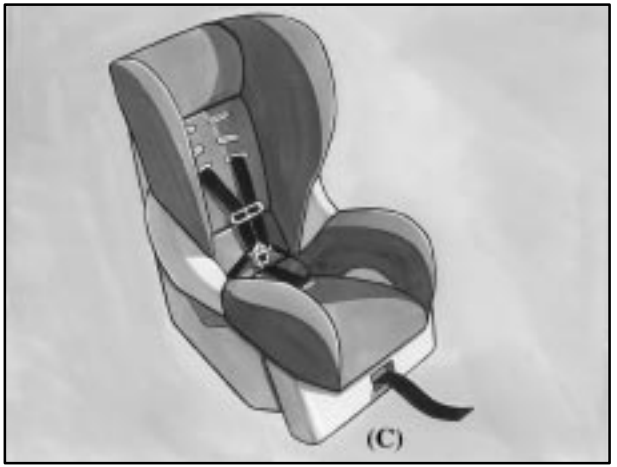
Q: What are the different types of add-on child restraints?

A: Add-on child restraints are available in four basic types. When selecting a child restraint, take into consideration not only the child's weight and size, but also whether or not the restraint will be compatible with the motor vehicle in which it will be used.



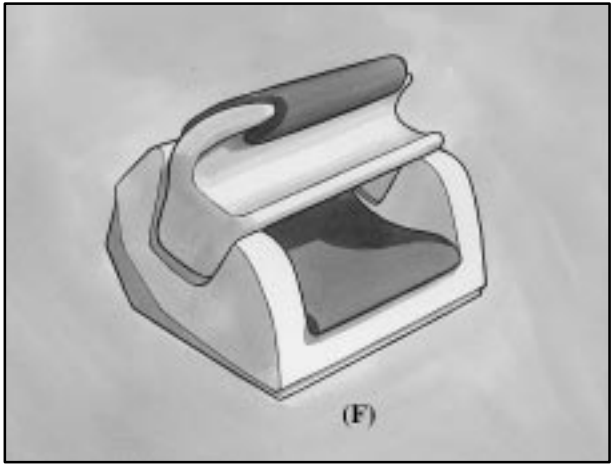
An infant car bed (A) is a special bed made for use in a motor vehicle. It's an infant restraint system designed to restrain or position a child on a continuous flat surface. With an infant car bed, make sure that the infant's head rests toward the center of the vehicle.

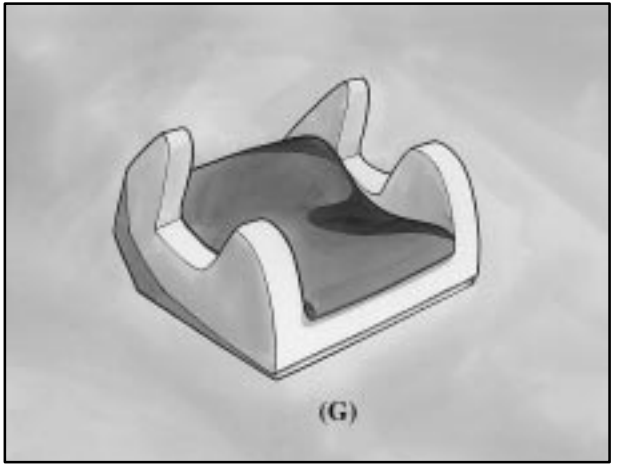




A rear-facing infant restraint (B) positions an infant to face the rear of the vehicle. Rear-facing infant restraints are designed for infants of up to about 20 lbs. (9 kg) and about one year of age. This type of restraint faces the rear so that the infant's head, neck and body can have the support they need in a frontal crash. Some infant seats come in two parts -- the base stays secured in the vehicle and the seat part is removable.

A forward-facing child restraint (C-E) positions a child upright to face forward in the vehicle. These forward-facing restraints are designed to help protect children who are from 20 to 40 lbs. (9 to 18 kg) and about 26 to 40 inches (66 to 102 cm) in height, or up to around four years of age. One type, a convertible restraint, is designed to be used either as a rear-facing infant seat or a forward-facing child seat.





A booster seat (F, G) is designed for children who are about 40 to 60 lbs., or even up to 80 lbs. (18 to 27 kg, or even up to 36 kg), and about four to eight years of age. A booster seat is designed to improve the fit of the vehicle's safety belt system. Booster seats with shields use lap-only belts; however, booster seats without shields use lap-shoulder belts. Booster seats can also help a child to see out the window.

When choosing a child restraint, be sure the child restraint is designed to be used in a vehicle. If it is, it will have a label saying that it meets federal motor vehicle safety standards.

Then follow the instructions for the restraint. You may find these instructions on the restraint itself or in a booklet, or both. These restraints use the belt system in your vehicle, but the child also has to be secured within the restraint to help reduce the chance of personal injury. The instructions that come with the infant or child restraint will show you how to do that. Both the owner's manual and the child restraint instructions are important, so if either one of these is not available, obtain a replacement copy from the manufacturer.

Where to Put the Restraint

Accident statistics show that children are safer if they are restrained in the rear rather than the front seat. We at General Motors therefore recommend that you put your child restraint in the rear seat. *Never* put a rear-facing child restraint in the front passenger seat. Here's why:

⚠ CAUTION:

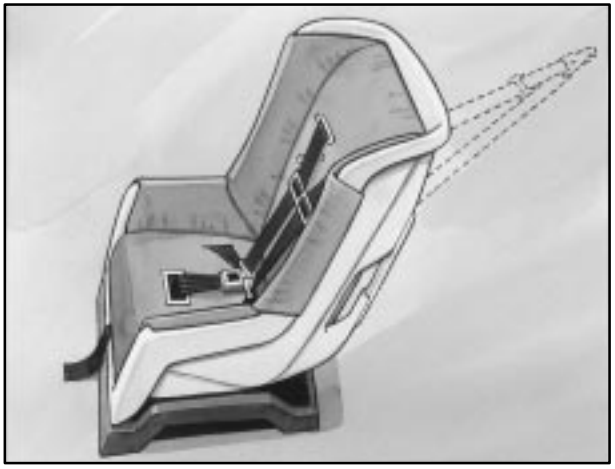
A child in a rear-facing child restraint can be seriously injured or killed if the right front passenger's air bag inflates, even though your vehicle has Next Generation frontal air bags. This is because the back of the rear-facing child restraint would be very close to the inflating air bag. Always secure a rear-facing child restraint in a rear seat.

You may secure a forward-facing child restraint in the right front seat, but before you do, always move the front passenger seat as far back as it will go. It's better to secure the child restraint in a rear seat.

Wherever you install it, be sure to secure the child restraint properly.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in your vehicle -- even when no child is in it.

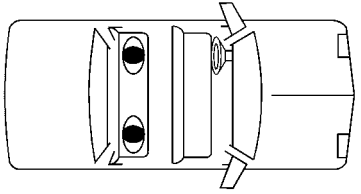
Top Strap



Canadian law requires that forward-facing child restraints have a top strap, and that the strap be anchored.

If your child restraint has a top strap, it should be anchored. If you need to have an anchor installed, your dealer can obtain a kit with anchor hardware and installation instructions specifically designed for this vehicle. The dealer can then install the anchor for you. This work will be done for you free of charge. Or, you may install the anchor yourself using the instructions provided in the kit.

Securing a Child Restraint in a Rear Outside Seat Position



You'll be using the lap-shoulder belt. See the earlier part about the top strap if the child restraint has one. Be sure to follow the instructions that came with the child restraint. Secure the child in the child restraint when and as the instructions say.

1. Put the restraint on the seat.

2. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's safety belt through or around the restraint. The child restraint instructions will show you how.

3. Tilt the latch plate to adjust the belt if needed.

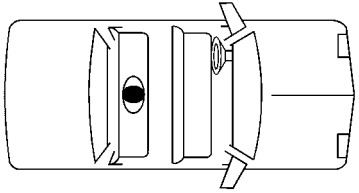
   If the shoulder belt goes in front of the child's face or neck, put it behind the child restraint.

4. Buckle the belt. Make sure the release button is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

5. To tighten the belt, pull up on the shoulder belt while you push down on the child restraint. If you're using a forward-facing child restraint, you may find it helpful to use your knee to push down on the child restraint as you tighten the belt.
6. Push and pull the child restraint in different directions to be sure it is secure.

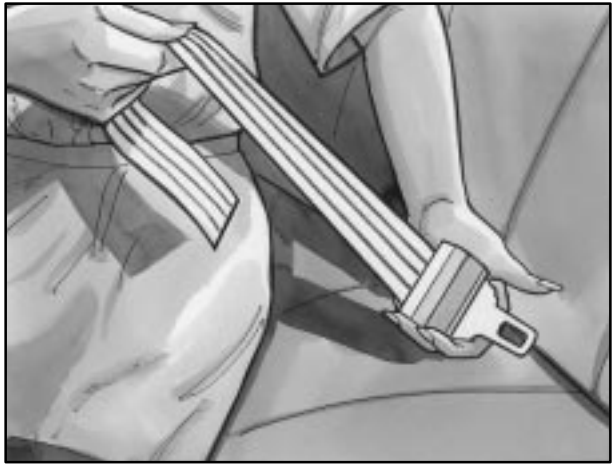
To remove the child restraint, just unbuckle the vehicle's safety belt and let it go back all the way. The safety belt will move freely again and be ready to work for an adult or larger child passenger.

Securing a Child Restraint in the Center Rear Seat Position



You'll be using the lap belt. Be sure to follow the instructions that came with the child restraint. Secure the child in the child restraint when and as the instructions say.

See the earlier part about the top strap if the child restraint has one.

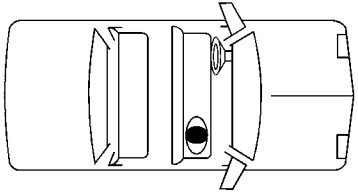


1. Make the belt as long as possible by tilting the latch plate and pulling it along the belt.
2. Put the restraint on the seat.
3. Run the vehicle's safety belt through or around the restraint. The child restraint instructions will show you how.
4. Buckle the belt. Make sure the release button is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.
5. To tighten the belt, pull its free end while you push down on the child restraint. If you're using a forward-facing child restraint, you may find it helpful to use your knee to push down on the child restraint as you tighten the belt.

6. Push and pull the child restraint in different directions to be sure it is secure.

To remove the child restraint, just unbuckle the vehicle's safety belt. It will be ready to work for an adult or larger child passenger.

Securing a Child Restraint in the Right Front Seat Position



Your vehicle has a right front passenger air bag. *Never* put a rear-facing child restraint in this seat. Here's why:

⚠ CAUTION:

A child in a rear-facing child restraint can be seriously injured or killed if the right front passenger's air bag inflates, even though your vehicle has Next Generation frontal air bags. This is because the back of the rear-facing child restraint would be very close to the inflating air bag. Always secure a rear-facing child restraint in the rear seat.

Although a rear seat is a safer place, you can secure a forward-facing child restraint in the right front seat.

You'll be using the lap-shoulder belt. See the earlier part about the top strap if the child restraint has one. Be sure to follow the instructions that came with the child restraint. Secure the child in the child restraint when and as the instructions say.

1. Because your vehicle has a right front passenger air bag, always move the seat as far back as it will go before securing a forward-facing child restraint. (See "Seats" in the Index.)
2. Put the restraint on the seat.

3. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's safety belt through or around the restraint. The child restraint instructions will show you how.

   If the shoulder belt goes in front of the child's face or neck, put it behind the child restraint.

4. Buckle the belt. Make sure the release button is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

5. Pull the rest of the lap belt all the way out of the retractor to set the lock.

6. To tighten the belt, feed the lap belt back into the retractor while you push down on the child restraint. You may find it helpful to use your knee to push down on the child restraint as you tighten the belt.
7. Push and pull the child restraint in different directions to be sure it is secure.

To remove the child restraint, just unbuckle the vehicle's safety belt and let it go back all the way. The safety belt will move freely again and be ready to work for an adult or larger child passenger.

Larger Children

Children who have outgrown child restraints should wear the vehicle's safety belts.

If you have the choice, a child should sit next to a window so the child can wear a lap-shoulder belt and get the additional restraint a shoulder belt can provide.

Accident statistics show that children are safer if they are restrained in the rear seat. But they need to use the safety belts properly.

- Children who aren't buckled up can be thrown out in a crash.
- Children who aren't buckled up can strike other people who are.

⚠ CAUTION:

Never do this.

Here two children are wearing the same belt. The belt can't properly spread the impact forces. In a crash, the two children can be crushed together and seriously injured. A belt must be used by only one person at a time.

Q: **What if a child is wearing a lap-shoulder belt, but the child is so small that the shoulder belt is very close to the child's face or neck?**

A: Move the child toward the center of the vehicle, but be sure that the shoulder belt still is on the child's shoulder, so that in a crash the child's upper body would have the restraint that belts provide. If the child is sitting in a rear seat outside position, see "Rear Safety Belt Comfort Guides" in the Index. If the child is so small that the shoulder belt is still very close to the child's face or neck, you might want to place the child in the center seat position, the one that has only a lap belt.

⚠ CAUTION:

Never do this.

Here a child is sitting in a seat that has a lap-shoulder belt, but the shoulder part is behind the child. If the child wears the belt in this way, in a crash the child might slide under the belt. The belt's force would then be applied right on the child's abdomen. That could cause serious or fatal injuries.

Wherever the child sits, the lap portion of the belt should be worn low and snug on the hips, just touching the child's thighs. This applies belt force to the child's pelvic bones in a crash.

Safety Belt Extender

If the vehicle's safety belt will fasten around you, you should use it.

But if a safety belt isn't long enough to fasten, your dealer will order you an extender. It's free. When you go in to order it, take the heaviest coat you will wear, so the extender will be long enough for you. The extender will be just for you, and just for the seat in your vehicle that you choose. Don't let someone else use it, and use it only for the seat it is made to fit. To wear it, just attach it to the regular safety belt.

Checking Your Restraint Systems

Now and then, make sure the safety belt reminder light and all your belts, buckles, latch plates, retractors and anchorages are working properly. Look for any other loose or damaged safety belt system parts. If you see anything that might keep a safety belt system from doing its job, have it repaired.

Torn or frayed safety belts may not protect you in a crash. They can rip apart under impact forces. If a belt is torn or frayed, get a new one right away.

Also look for any opened or broken air bag covers, and have them repaired or replaced. (The air bag system does not need regular maintenance.)

Replacing Restraint System Parts After a Crash

If you've had a crash, do you need new belts?

After a very minor collision, nothing may be necessary. But if the belts were stretched, as they would be if worn during a more severe crash, then you need new belts.

If you ever see a label on the driver's or the right front passenger's safety belt that says to replace the belt, be sure to do so. Then the new belt will be there to help protect you in a collision. You would see this label on the belt near the latch plate.

If belts are cut or damaged, replace them. Collision damage also may mean you will need to have safety belt or seat parts repaired or replaced. New parts and repairs may be necessary even if the belt wasn't being used at the time of the collision.

If your seat adjuster won't work after a crash, the special part of the safety belt that goes through the seat to the adjuster may need to be replaced.

If an air bag inflates, you'll need to replace air bag system parts. See the part on the air bag system earlier in this section.

Section 2 Features and Controls

Here you can learn about the many standard and optional features on your vehicle, and information on starting, shifting and braking. Also explained are the instrument panel and the warning systems that tell you if everything is working properly -- and what to do if you have a problem.

2-2 Keys
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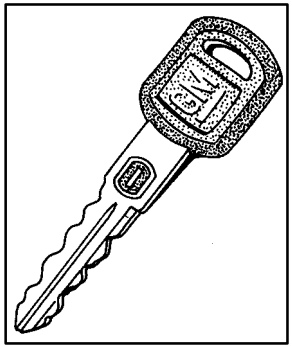
Keys

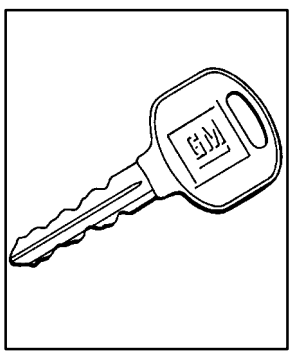
⚠ CAUTION:

Leaving children in a vehicle with the ignition key is dangerous for many reasons. A child or others could be badly injured or even killed.

They could operate power windows or other controls or even make the vehicle move. Don't leave the keys in a vehicle with children.



The ignition key is for the ignition only.



The door key is for the doors and all other locks.

When a new vehicle is delivered, the dealer removes the plugs from the keys and gives them to the first owner. The ignition key has a bar-coded key tag.

Each tag has a code on it that tells your dealer or a qualified locksmith how to make extra keys. Keep the tags in a safe place. If you lose your keys, you'll be able to have new ones made easily using the tags. You can also go to your dealer for the correct key code if you need a new ignition key.

NOTICE:

Your vehicle has a number of features that can help prevent theft. But you can have a lot of trouble getting into your vehicle if you ever lock your keys inside. You may even have to damage your vehicle to get in. So be sure you have extra keys.

Door Locks

⚠ CAUTION:

Unlocked doors can be dangerous.

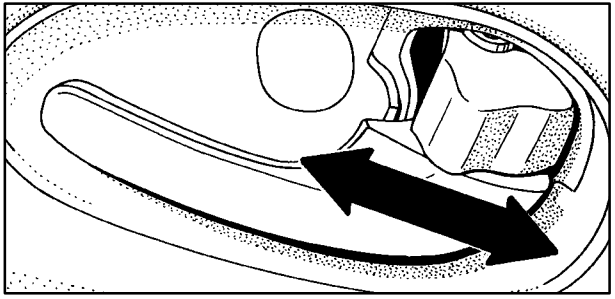
Passengers -- especially children -- can easily open the doors and fall out. When a door is locked, the inside handle won't open it.

Outsiders can easily enter through an unlocked door when you slow down or stop your vehicle.

This may not be so obvious: You increase the chance of being thrown out of the vehicle in a crash if the doors aren't locked. Wear safety belts properly, lock your doors, and you will be far better off whenever you drive your vehicle.

There are several ways to lock and unlock your vehicle.

From the outside, use your door key or remote lock control transmitter.



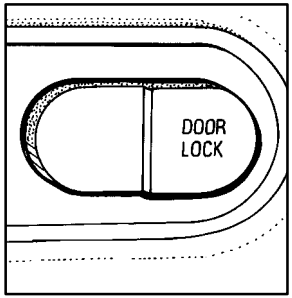
From the inside, to lock the door, rotate the locking lever forward.

To unlock the door, rotate the locking lever rearward. There is a red mark on the switch when the door is unlocked.

Central Door Unlocking System

If the driver's door key is held in the unlock position for more than one second, all doors will unlock.

Power Door Locks



With power door locks, you can lock or unlock all doors of your vehicle from the driver or front passenger door lock switch.

Door Ajar Reminder

If a door is not fully closed when the transaxle is in gear, a chime will sound and the Driver Information Center (DIC) will display one of these messages:

DRIVER DOOR AJAR

PASSENGER DOOR AJAR

LEFT REAR DOOR AJAR

RIGHT REAR DOOR AJAR

Programmable Automatic Door Locks

This is a personalization feature that programs your door locks to automatically lock or unlock.

Close the doors and turn on the ignition. Every time you move the shift lever out of PARK (P), all of the doors will lock. And, every time you stop and move the shift lever into PARK (P), the doors will unlock. If someone needs to get out while you're not in PARK (P), have that person use the manual or power lock. When the door is closed again, it will not lock automatically. Just use the manual or power lock to lock the door again. If you need to lock the doors before shifting out of PARK (P), use the manual or power lock button to lock the doors.

Customizing Your Automatic Door Locks Feature

You can program the automatic door locks feature to change to the following modes:

Mode 0: No automatic door lock or unlock.

Mode 1: All doors automatically lock when shifted out of PARK (P). No automatic door unlock.

Mode 2: All doors automatically lock when shifted out of PARK (P). Only the driver's door automatically unlocks when shifted into PARK (P).

Mode 3: All doors automatically lock when shifted out of PARK (P). All doors automatically unlock when shifted into PARK (P).

Vehicles are delivered programmed in Mode 3.

To change the modes:

1. Close all doors and turn the ignition on. Keep all doors closed throughout this procedure.
2. Press and hold the lock position on the driver's power door lock switch through Step 4.
3. Press the LOCK button on the remote lock control transmitter. The automatic door locks will remain in the current mode.
4. Press the LOCK button on the transmitter again. Each time the transmitter's LOCK button is pressed, the mode will advance by one, going from Mode 3 to Mode 0 to Mode 1, etc.

   NOTE: The door locks will cycle according to the mode entered while customizing memory door locks. (Mode 0 has no feedback.)
5. Release the power door lock switch. The automatic door locks will remain in the most recent mode selected.
6. Turn the ignition to OFF.

Delayed Locking

This personalization feature lets the driver delay the actual locking of the vehicle. When the power door lock switch is pressed with the key removed from the ignition and the driver's door open, a chime will sound three times to signal that the lock delay mode is active. When all doors have been closed, the doors will lock automatically after five seconds. If any door is opened before this, the five-second timer will reset itself once all the doors have been closed again.

Pressing the door lock switch twice within two seconds will override this feature.

Personalization Programming

The delayed locking feature can be turned on or off for each driver's remote lock control transmitter.

To turn the feature on:

1. Press and hold the lock position on the driver's power door lock switch throughout this procedure. All of the doors will lock.
2. Press the UNLOCK button on the transmitter to enter the programming mode. The lock delay is still off and all doors will remain locked.
3. Press the UNLOCK button on the transmitter again. Lock delay is now active and all doors will unlock.
4. Release the power door lock switch.

To turn the feature off, repeat this procedure.

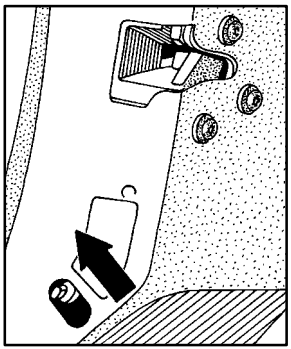
This procedure changes the mode for only the transmitter used to change this setting. The procedure will need to be repeated for the second transmitter.

Rear Door Security Locks

Your vehicle is equipped with rear door security locks that help prevent passengers from opening the rear doors of your vehicle from the inside.

To Use One of These Locks

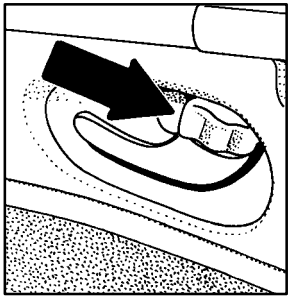
1. Open one of the rear doors.



2. Move the lever on the door all the way up to the ENGAGED position.
3. Close the door.
4. Do the same thing to the other rear door lock.

The rear doors of your vehicle cannot be opened from inside when this feature is in use.

To Open a Rear Door When the Security Lock is On



1. Unlock the door from the inside, or from the outside using the remote lock control or central door unlocking feature.

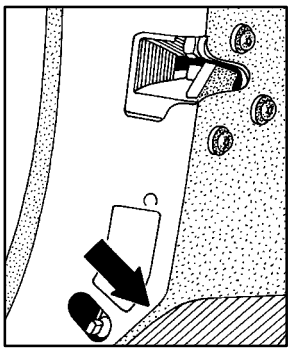
2. Then open the door from the outside using the remote lock control transmitter or central door unlocking feature.

If you don't cancel the security lock feature, adults or older children who ride in the rear won't be able to open the rear door from the inside. You should let adults and older children know how these security locks work, and how to cancel the locks.

To Cancel the Rear Door Lock

1. Unlock the door from the inside or from the outside using the remote lock control transmitter or central door unlocking feature.

2. Open the door from the outside.



3. Move the lever all the way down.

4. Do the same for the other rear door.

The rear door locks will now work normally.

Anti-Lockout Feature

The power door locks will not work if the key is left in the ignition with the driver's door open. You can override this feature by holding the power door lock switch for more than three seconds, unless the engine is running.

Leaving Your Vehicle

If you are leaving the vehicle, open your door and set the locks from the inside, then get out and close the door.

Remote Lock Control

You can lock and unlock your doors or unlock your trunk from about 3 feet (1 m) up to 30 feet (9 m) away using the remote lock control transmitter supplied with your vehicle.

Your remote lock control operates on a radio frequency subject to Federal Communications Commission (FCC) Rules and with Industry Canada.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

Changes or modifications to this system by other than an authorized service facility could void authorization to use this equipment.

This system has a range of about 3 feet (1 m) up to 30 feet (9 m). At times you may notice a decrease in range. This is normal for any remote lock control system. If the transmitter does not work or if you have to stand closer to your vehicle for the transmitter to work, try this:

- Check to determine if battery replacement or resynchronization is necessary. See the instructions that follow.
- Check the distance. You may be too far from your vehicle. You may need to stand closer during rainy or snowy weather.
- Check the location. Other vehicles or objects may be blocking the signal. Take a few steps to the left or right, hold the transmitter higher, and try again.
- If you're still having trouble, see your dealer or a qualified technician for service.

Operation

The driver's door will unlock when UNLOCK is pressed. If UNLOCK is pressed again within five seconds, all doors will unlock. Pressing the UNLOCK button will also illuminate the interior lamps. See "Illuminated Entry" in the Index. All doors will lock when LOCK is pressed.

The trunk will unlock when the trunk button is pressed while the vehicle is in any gear.

Instant Alarm

When the button with the horn symbol on the remote lock control transmitter is pressed, the horn will sound and the headlamps and taillamps will flash for up to one minute. This can be turned off by pressing the instant alarm button again, unlocking the vehicle with a key or by turning the ignition on.

Personalization Features

The following list of features that are available on your vehicle can be programmed to the driver's preference for each transmitter.

- **Memory Door Locks:** This feature programs your door locks to automatically lock or unlock when shifting in and out of PARK (P).
- **Security Feedback:** This feature provides feedback to the driver when the vehicle receives a command from the remote lock control transmitter.
- **Delayed Locking:** This feature lets the driver delay the actual locking of the vehicle. When all doors have been closed, the doors will lock automatically after five seconds.
- **Perimeter Lighting:** When the UNLOCK button on the transmitter is pressed, the headlamps, parking lamps, back-up lamps and cornering lamps will turn on in dark conditions.
- **Memory Seat and Mirrors:** This feature programs your driver's seat and outside mirrors to a set memory position when the UNLOCK button on the transmitter is pressed.

For more detailed information and programming instructions, refer to the Index for each individual feature listed above.

Security Feedback

This personalization feature provides feedback to the driver when the vehicle receives a command from the remote lock control transmitter. The following modes may be selected:

Mode 0: No transmitter response when locking or unlocking the vehicle.

Mode 1: No transmitter response when locking; headlamps, parking lamps, and cornering lamps flash when unlocking the vehicle.

Mode 2: Headlamps, parking lamps, and cornering lamps flash when locking; no response when unlocking the vehicle.

Mode 3: Headlamps, parking lamps, and cornering lamps flash when locking and when unlocking the vehicle.

Mode 4: Headlamps, parking lamps, and cornering lamps flash and horn chirps when locking; no response when unlocking the vehicle.

Mode 5: Headlamps, parking lamps, and cornering lamps flash and horn chirps when locking; exterior lamps flash when unlocking the vehicle.

Vehicles are delivered programmed in Mode 5. To change to another mode:

1. Turn the ignition key to OFF.
2. Press and hold the lock position on the driver's power door lock switch throughout this procedure.
3. Press the trunk button on the transmitter to enter the programming mode. The transmitter will remain in its current mode.
4. Press the trunk button again. Each time the trunk button is pressed, the horn will chirp and the transmitter will advance to the next mode.
5. Release the power door lock switch.

This procedure changes the mode for only the transmitter used to change this setting. The procedure will need to be repeated for the second transmitter.

Matching Transmitter(s) To Your Vehicle

Each remote lock control transmitter is coded to prevent another transmitter from unlocking your vehicle. If a transmitter is lost or stolen, a replacement can be purchased through your dealer. Remember to bring any remaining transmitters with you when you go to your dealer. When the dealer matches the replacement transmitter to your vehicle, any remaining transmitters must also be matched. Once your dealer has coded the new transmitter, the lost transmitter will not unlock your vehicle. Each vehicle can have only four transmitters matched to it.

See your dealer to match transmitters to another vehicle.

Battery Replacement

Under normal use, the battery in your remote lock control transmitter should last about two years.

You can tell the battery is weak if the transmitter won't work at the normal range in any location. If you have to get close to your vehicle before the transmitter works, it's probably time to change the battery.

NOTICE:

When replacing the battery, use care not to touch any of the circuitry. Static from your body transferred to these surfaces may damage the transmitter.

For battery replacement, use a Duracell® battery, type DL-2032, or a similar type.

To replace the battery:

1. Insert a coin into the notch near the key ring. Turn the coin counterclockwise to separate the two halves of the transmitter.
2. Once the transmitter is separated, use a pencil eraser to remove the old battery. Do not use a metal object.
3. Replace the battery as the instructions under the cover indicate.
4. Snap the transmitter back together tightly to be sure no moisture can enter.
5. Test the operation of the transmitter with your vehicle. If the transmitter does not work, resynchronize the transmitter.

Resynchronization

If only the instant alarm button works, the transmitter needs to be resynchronized to the receiver. Do this by pressing and holding both the LOCK and UNLOCK buttons on the transmitter for about eight seconds. You must be within range of the vehicle.

Once the transmitter has been resynchronized, the horn will chirp and the exterior lamps will flash once. The system should now operate properly.

Trunk

⚠ CAUTION:

It can be dangerous to drive with the trunk lid open because carbon monoxide (CO) gas can come into your vehicle. You can't see or smell CO. It can cause unconsciousness and even death.

If you must drive with the trunk lid open or if electrical wiring or other cable connections must pass through the seal between the body and the trunk lid:

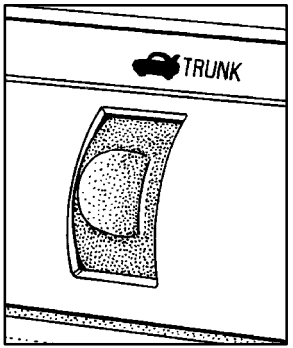
- **Make sure all other windows are shut.**
- **Turn the fan on your heating or cooling system to its highest speed with the setting on any airflow selection except RECIRC. That will force outside air into your vehicle. See "Comfort Controls" in the Index.**
- **If you have air outlets on or under the instrument panel, open them all the way.**

See "Engine Exhaust" in the Index.

Trunk Lock Release

To unlock the trunk from the outside, insert the door key and turn it.

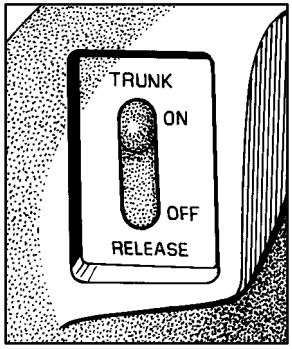
Remote Trunk Release



Press the TRUNK release button located to the right of the steering column to release the trunk lid. The trunk release lockout switch must be ON.

The system also works with the remote lock control. The trunk will unlock when the trunk button is pressed while the vehicle is in any gear.

Remote Trunk Release Lockout



The trunk release lockout switch in the glove box allows you to secure items in the trunk.

Move the trunk release lockout switch to OFF, lock the glove box and take the key with you. Now the trunk release, located to the right of the steering column, will not open the trunk. However, the remote lock control transmitter will still open the trunk.

Trunk Security Override

The remote lock control transmitter will open the trunk even if the remote trunk release lockout switch is OFF.

Theft

Vehicle theft is big business, especially in some cities. Although your vehicle has a number of theft-deterrent features, we know that nothing we put on it can make it impossible to steal. However, there are ways you can help.

Key in the Ignition

If you leave your vehicle with the keys inside, it's an easy target for joy riders or professional thieves -- so don't do it.

With the ignition off and the driver's door open, you'll hear a chime reminding you to remove your key from the ignition and take it with you. Always do this. Your steering wheel will be locked, and so will your ignition and transaxle. And remember to lock the doors.

Parking at Night

Park in a lighted spot, close all windows and lock your vehicle. Remember to keep your valuables out of sight. Put them in a storage area, or take them with you.

Parking Lots

If you park in a lot where someone will be watching your vehicle, it's best to lock it up and take your keys. But what if you have to leave your ignition key?

- If possible, park in a busy, well lit area.
- Put your valuables in a storage area, like your trunk or glove box. Be sure to close and lock the storage area.
- Close all windows.
- Move the trunk release lockout switch to OFF.
- Lock the glove box.
- Lock all the doors except the driver's.
- Then take the door key and remote lock control transmitter with you.

Universal Theft-Deterrent

Your vehicle has a theft-deterrent alarm system. With this system, if your ignition is off, the SECURITY light will flash as you open the door.

This light reminds you to activate the theft-deterrent system. Here's how to do it:

1. Open the door.
2. Lock the door with the power door lock switch or remote lock control system. The SECURITY light should come on and stay on.
3. Close all doors. The SECURITY light should go off after about 30 seconds. The security system is not armed until the SECURITY light is off. If the SECURITY light stays on or flashes when the ignition is turned on, there is a problem with the system and the vehicle should be serviced.

If the SECURITY light comes on for one minute and then shuts off while the ignition is on, the security system has detected a problem. See your dealer for service.

If a door or the trunk is opened without the key or remote lock control transmitter, the alarm will go off. It will also go off if the trunk lock or door locks are damaged. Your vehicle's lamps will flash and the horn will sound for several minutes, then will go off to save battery power.

Remember, the theft-deterrent system won't activate if you lock the doors with a key or manual door lock. It only activates if you use the power door lock switch or remote lock control transmitter. You should also remember that you can start your vehicle with the correct ignition key if the alarm has been set off, but this does not shut off the alarm.

Here's how to avoid setting off the alarm by accident:

- If you don't want to activate the theft-deterrent system, lock the door either using a key, or the manual door lock switch.
- Always unlock a door with a key, or use the remote lock control system. Unlocking a door any other way will set off the alarm.

If you set off the alarm by accident, unlock any door with your key.

You can also turn off the alarm by pressing UNLOCK on the remote lock control transmitter. The alarm won't stop if you try to unlock a door any other way.

Testing the Alarm

The alarm can be tested by following these steps:

1. From inside the vehicle, roll down the driver's window and open the driver's door.
2. Activate the system by locking the doors with the power door lock switch while the door is open, or with the remote lock control transmitter.
3. Get out of the car, close the door and wait for the SECURITY light to go out.
4. Then reach in through the window, unlock the door with the manual door lock and open the door. This should set off the alarm.

If the alarm does not sound when it should, but the vehicle's lamps flash, check to see if the horn works. The horn fuse may be blown. To replace the fuse, see "Fuses and Circuit Breakers" in the Index.

If the alarm does not sound, or the vehicle's lamps do not flash, the vehicle should be serviced by an authorized service center.

PASS-Key® II

Your vehicle is equipped with the PASS-Key II (Personalized Automotive Security System) theft-deterrent system. PASS-Key II is a passive theft-deterrent system. It works when you insert or remove the key from the ignition.

PASS-Key II uses a resistor pellet in the ignition key that matches a decoder in your vehicle.

When the PASS-Key II system senses that someone is using the wrong key, it shuts down the vehicle's starter and fuel systems. For about three minutes, the starter won't work and fuel won't go to the engine. If someone tries to start your vehicle again or uses another key during this time, the vehicle will not start. This discourages someone from randomly trying different keys with different resistor pellets in an attempt to make a match.

The ignition key must be clean and dry before it's inserted in the ignition or the engine may not start. If the engine does not start and the SECURITY light is on or you get the CLEAN KEY...WAIT 3 MINUTES message on the DIC, the key may be dirty or wet. Turn the ignition off.

Clean and dry the key. Wait about three minutes and try again. The SECURITY light may remain on during this time. If the starter still won't work, and the key appears to be clean and dry, wait about three minutes and try another ignition key. At this time, you may also want to check the fuses (see "Fuses and Circuit Breakers" in the Index). If the starter won't work with the other key, your vehicle needs service. If your vehicle does start, the first ignition key may be faulty. See your dealer or a locksmith who can service the PASS-Key II.

If you accidentally use a key that has a damaged or missing resistor pellet, the starter won't work. The SECURITY light will flash and the CLEAN KEY... WAIT 3 MINUTES message will appear. But you don't have to wait three minutes before trying another ignition key.

See your dealer or a locksmith who can service the PASS-Key II to have a new key made.

If you're ever driving and the SECURITY light comes on or PASS-KEY SYSTEM FAULT appears, you will be able to restart your engine if you turn it off. Your PASS-Key II system, however, is not working properly and must be serviced by your dealer. Your vehicle is not protected by the PASS-Key II system.

If you lose or damage a PASS-Key II ignition key, see your dealer or a locksmith who can service PASS-Key II to have a new key made. In an emergency, call the Oldsmobile Roadside Assistance Center at 1-800-442-OLDS (6537). In Canada, call 1-800-268-6800.

New Vehicle "Break-In"

NOTICE:

Your vehicle doesn't need an elaborate "break-in." But it will perform better in the long run if you follow these guidelines:

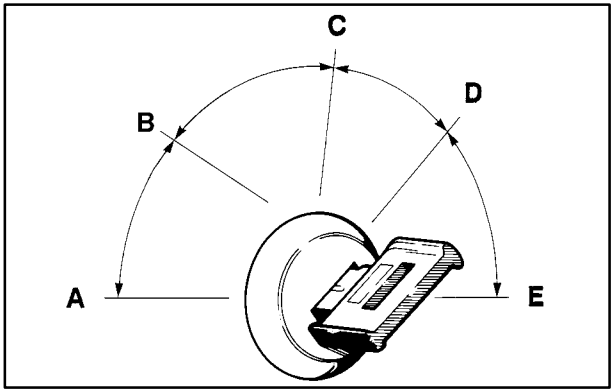
- **Don't drive at any one speed -- fast or slow -- for the first 500 miles (805 km). Don't make full-throttle starts.**
- **Avoid making hard stops for the first 200 miles (322 km) or so. During this time your new brake linings aren't yet broken in. Hard stops with new linings can mean premature wear and earlier replacement. Follow this breaking-in guideline every time you get new brake linings.**
- **Don't tow a trailer during break-in. See "Towing a Trailer" in the Index for more information.**

Ignition Positions

⚠ CAUTION:

Leaving children in a vehicle with the ignition key is dangerous for many reasons. A child or others could be injured or even killed. They could operate power windows or other controls or even make the vehicle move. Don't leave the keys in the vehicle with children.

With the ignition key in the ignition, you can turn the ignition switch to five positions:



ACCESSORY (A): In this position, you can operate your electrical power accessories. Press in the ignition switch as you turn the top of it toward you.

LOCK (B): This is the only position in which you can remove the key. This position locks your ignition, steering wheel and transaxle. It's a theft-deterrent feature.

OFF (C): This position lets you turn off the engine but still turn the steering wheel. It doesn't lock the steering wheel like LOCK and it doesn't send any electrical power to the accessories. Use OFF if you must have your vehicle in motion while the engine is not running.

RUN (D): This is the position the switch returns to after you start your engine and release the switch. This is the position for driving. Even when the engine is not running, you can use RUN to operate your electrical power accessories and to display some instrument panel warning lights.

START (E): This position starts your engine. When the engine starts, release the key. The ignition switch will return to RUN for normal driving.

NOTICE:

If your key seems stuck in LOCK and you can't turn it, be sure you are using the correct key; if so, is it all the way in? If it is, then turn the steering wheel left and right while you turn the key hard. But turn the key only with your hand. Using a tool to force it could break the key or the ignition switch. If none of this works, then your vehicle needs service.

Key Reminder Warning

If you leave your key in the ignition, with the engine off, you will hear a warning chime when you open the driver's door.

Retained Accessory Power

After you turn the ignition off and remove the key, you will still have electrical power to such accessories as the radio, power windows, and sunroof (option) for up to 10 minutes. But if you open a door, power is shut off.

Always leave your key in LOCK. If you leave your key in any other position than LOCK, your battery will discharge prematurely.

Starting Your Engine

Move your shift lever to PARK (P) or NEUTRAL (N). Your engine won't start in any other position -- that's a safety feature. To restart when you're already moving, use NEUTRAL (N) only.

NOTICE:

Don't try to shift to PARK (P) if your vehicle is moving. If you do, you could damage the transaxle. Shift to PARK (P) only when your vehicle is stopped.

Starting Your 4.0L V8 Engine

1. Without pushing the accelerator pedal, turn your ignition key to START. When the engine starts, let go of the key. The idle speed will go down as your engine gets warm.

NOTICE:

Holding your key in START for longer than 15 seconds at a time will cause your battery to be drained much sooner. And the excessive heat can damage your starter motor. Wait about 15 seconds between each try to help avoid draining your battery or damaging your starter.

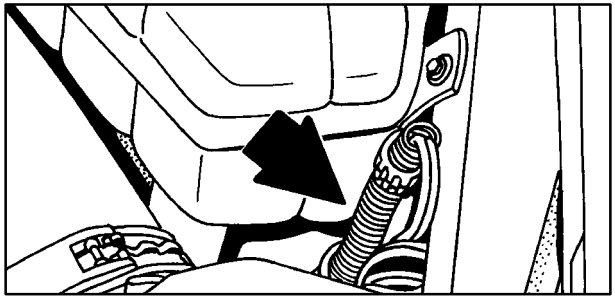
2. If it doesn't start right away, hold your key in START for about three seconds at a time until your engine starts. Wait about 15 seconds between each try to help avoid draining your battery or damaging your starter.
3. If your engine still won't start (or starts but then stops), it could be flooded with too much gasoline. Try pushing your accelerator pedal all the way to the floor and holding it there as you hold the key in START for about three seconds. If the vehicle starts briefly but then stops again, do the same thing.

NOTICE:

Your engine is designed to work with the electronics in your vehicle. If you add electrical parts or accessories, you could change the way the engine operates. Before adding electrical equipment, check with your dealer. If you don't, your engine might not perform properly.

If you ever have to have your vehicle towed, see the part of this manual that tells how to do it without damaging your vehicle. See "Towing Your Vehicle" in the Index.

Engine Coolant Heater (Option)



In very cold weather, 0°F (-18°C) or colder, the engine coolant heater can help. You'll get easier starting and better fuel economy during engine warm-up. Usually, the coolant heater should be plugged in a minimum of four hours prior to starting your vehicle.

To Use the Engine Coolant Heater

1. Turn off the engine.
2. Open the hood and unwrap the electrical cord.
3. Plug it into a normal, grounded 110-volt AC outlet.

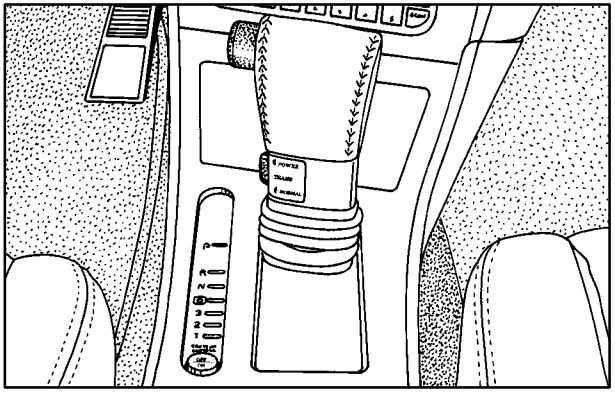
⚠ CAUTION:

Plugging the cord into an ungrounded outlet could cause an electrical shock. Also, the wrong kind of extension cord could overheat and cause a fire. You could be seriously injured. Plug the cord into a properly grounded three-prong 110-volt AC outlet. If the cord won't reach, use a heavy-duty three-prong extension cord rated for at least 15 amps.

4. Before starting the engine, be sure to unplug and store the cord as it was before to keep it away from moving engine parts. If you don't, it could be damaged.

How long should you keep the coolant heater plugged in? The answer depends on the outside temperature, the kind of oil you have, and some other things. Instead of trying to list everything here, we ask that you contact your dealer in the area where you'll be parking your vehicle. The dealer can give you the best advice for that particular area.

Automatic Transaxle Operation



There are several different positions for your shift lever.

PARK (P): This position locks your front wheels. It's the best position to use when you start your engine because your vehicle can't move easily.

⚠ CAUTION:

It is dangerous to get out of your vehicle if the shift lever is not fully in PARK (P) with the parking brake firmly set. Your vehicle can roll.

Don't leave your vehicle when the engine is running unless you have to. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure your vehicle won't move, even when you're on fairly level ground, always set your parking brake and move the shift lever to PARK (P).

See "Shifting Into PARK (P)" in the Index. If you're pulling a trailer, see "Towing a Trailer" in the Index.

Ensure the shift lever is fully in PARK (P) before starting the engine. Your vehicle has a Brake-Transaxle Shift Interlock (BTSI). You have to fully *apply* your regular brakes *before* you can shift from PARK (P) when the ignition key is in RUN.

REVERSE (R): Use this gear to back up.

NOTICE:

Shifting to REVERSE (R) while your vehicle is moving forward could damage your transaxle. Shift to REVERSE (R) only after your vehicle is stopped.

To rock your vehicle back and forth to get out of snow, ice or sand without damaging your transaxle, see “Stuck: In Sand, Mud, Ice or Snow” in the Index.

NEUTRAL (N): In this position, your engine doesn’t connect with the wheels. To restart when you’re already moving, use NEUTRAL (N) only. Also, use NEUTRAL (N) when your vehicle is being towed.

⚠ CAUTION:

Shifting out of PARK (P) or NEUTRAL (N) while your engine is “racing” (running at high speed) is dangerous. Unless your foot is firmly on the brake pedal, your vehicle could move very rapidly. You could lose control and hit people or objects. Don’t shift out of PARK (P) or NEUTRAL (N) while your engine is racing.

NOTICE:

Damage to your transaxle caused by shifting out of PARK (P) or NEUTRAL (N) with the engine racing isn’t covered by your warranty.

AUTOMATIC OVERDRIVE (Ⓓ): This position is for normal driving. If you need more power for passing, and you're:

- Going less than approximately 35 mph (55 km/h), push your accelerator pedal about halfway down.
- Going about 35 mph (55 km/h) or more, push the accelerator all the way down.

You'll shift down to the next gear and have more power.

THIRD (3): This position is also used for normal driving, however, it offers more power and lower fuel economy than AUTOMATIC OVERDRIVE (Ⓓ). Here are some times you might choose THIRD (3) instead of AUTOMATIC OVERDRIVE (Ⓓ):

- when driving on hilly, winding roads,
- when towing a trailer, so there is less shifting between gears, or
- when going down a steep hill.

SECOND (2): This position gives you more power but lower fuel economy than AUTOMATIC OVERDRIVE (Ⓓ) or THIRD (3). You can use SECOND (2) on hills. It can help control your speed as you go down steep mountain roads, but then you would also want to use your brakes off and on.

FIRST (1): This position gives you even more power but lower fuel economy than SECOND (2). You can use it on very steep hills, or in deep snow or mud. If the selector lever is put in FIRST (1), the transaxle won't shift into FIRST (1) until the vehicle is going slowly enough.

NOTICE:

If your front wheels can't rotate, don't try to drive. This might happen if you were stuck in very deep sand or mud or were up against a solid object. You could damage your transaxle.

Also, if you stop when going uphill, don't hold your vehicle there with only the accelerator pedal. This could overheat and damage the transaxle. Use your brakes or shift into PARK (P) to hold your vehicle in position on a hill.

Selectable Shift

This button lets you change from a normal driving mode to a power mode. For general driving conditions, use the normal mode.

Press the button on your shift lever so that it's either in the NORMAL or POWER position. When it's in the NORMAL position, the line on the button will be showing. When in POWER, the line is not showing.

In the NORMAL position, the transaxle shifts at lower engine speeds. For increased performance, you may choose the POWER mode.

Parking Brake

Setting the parking brake: Hold the regular brake pedal down with your right foot. Push down the parking brake pedal with your left foot. If the ignition is on, the parking brake indicator light will come on.

Releasing the parking brake: You will need to use the PUSH TO RELEASE parking brake pedal. Hold the regular brake down and push the parking brake pedal with your left foot. This will release the parking brake pedal. When you lift your left foot, the parking brake pedal will follow it to the released position.

If you try to drive with the parking brake on, the parking brake indicator light stays on. The PARK BRAKE SET message will appear in the Driver Information Center, and a chime will sound until you release the parking brake or recycle the ignition.

NOTICE:

Driving with the parking brake on can cause your rear brakes to overheat. You may have to replace them, and you could also damage other parts of your vehicle.

If you are towing a trailer and are parking on any hill, see "Towing a Trailer" in the Index. That part shows what to do first to keep the trailer from moving.

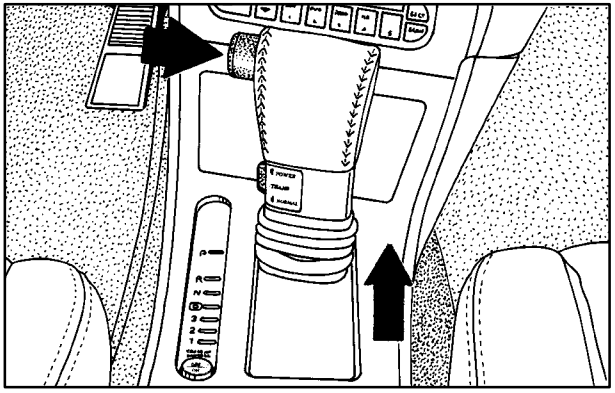
Shifting Into PARK (P)

⚠ CAUTION:

It can be dangerous to get out of your vehicle if the shift lever is not fully in PARK (P) with the parking brake firmly set. Your vehicle can roll. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure your vehicle won't move, even when you're on fairly level ground, use the steps that follow. If you're pulling a trailer, see "Towing a Trailer" in the Index.

1. Hold the brake pedal down with your right foot and set the parking brake by pushing down the parking brake pedal with your left foot.

2. Move the shift lever into PARK (P) as follows:



   - Hold in the button on the lever.
   - Push the lever all the way down toward the front of your vehicle.

3. Turn the ignition key to LOCK.
4. Remove the key and take it with you. If you can leave your vehicle with the ignition key in your hand, your vehicle is in PARK (P).

Leaving Your Vehicle With the Engine Running

⚠ CAUTION:

It can be dangerous to leave your vehicle with the engine running. Your vehicle could move suddenly if the shift lever is not fully in PARK (P) with the parking brake firmly set. And, if you leave the vehicle with the engine running, it could overheat and even catch fire. You or others could be injured. Don't leave your vehicle with the engine running unless you have to.

If you have to leave your vehicle with the engine running, be sure your vehicle is in PARK (P) and your parking brake is firmly set before you leave it. After you've moved the shift lever into PARK (P), hold the regular brake pedal down. Then, see if you can move the shift lever away from PARK (P) without first pushing the button.

If you can, it means the shift lever wasn't fully locked into PARK (P).

Torque Lock

If you are parking on a hill and you don't shift your transaxle into PARK (P) properly, the weight of the vehicle may put too much force on the parking pawl in the transaxle. You may find it difficult to pull the shift lever out of PARK (P). This is called "torque lock." To prevent torque lock, set the parking brake and then shift into PARK (P) properly before you leave the driver's seat. To find out how, see "Shifting Into PARK (P)" in the Index.

When you are ready to drive, move the shift lever out of PARK (P) *before* you release the parking brake.

If torque lock does occur, you may need to have another vehicle push yours a little uphill to take some of the pressure from the parking pawl in the transaxle, so you can pull the shift lever out of PARK (P).

Shifting Out of PARK (P)

⚠ CAUTION:

Before shifting out of PARK (P) you must fully apply your regular brakes. Your vehicle can roll. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. If you're pulling a trailer, see "Towing a Trailer" in the Index.

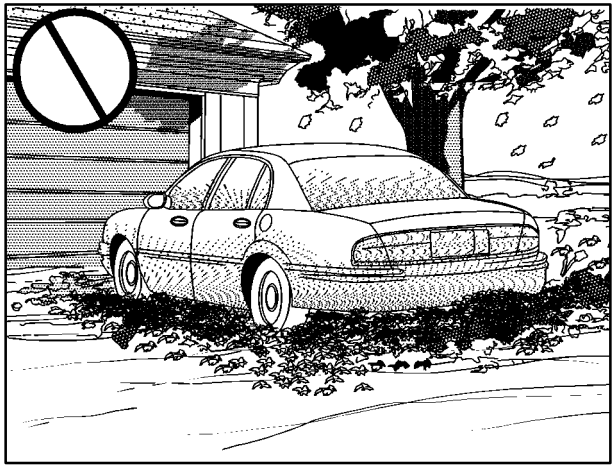
Your vehicle has a Brake-Transaxle Shift Interlock (BTSI). You have to fully *apply* your regular brake *before* you can shift from PARK (P) when the ignition is in RUN. See "Shifting the Automatic Transaxle" in the Index.

If you cannot shift out of PARK (P), ease pressure on the shift lever -- push the shift lever all the way into PARK (P) as you maintain brake application. Then move the shift lever into the gear you wish. Press the shift lever button before moving the shift lever.

If you ever hold the brake pedal down but still can't shift out of PARK (P), try this:

1. Turn the key to the OFF ignition position. Open and close the driver's door to turn off the retained accessory power feature.
2. Apply and hold the brake until the end of Step 4.
3. Shift to NEUTRAL (N).
4. Start the vehicle and then shift to the drive gear you want.
5. Take your vehicle to an authorized service center as soon as you can.

Parking Over Things That Burn



⚠ CAUTION:

Things that can burn could touch hot exhaust parts under your vehicle and ignite. Don't park over papers, leaves, dry grass or other things that can burn.

Engine Exhaust

⚠ CAUTION:

Engine exhaust can kill. It contains the gas carbon monoxide (CO), which you can't see or smell. It can cause unconsciousness and death.

You might have exhaust coming in if:

- **Your exhaust system sounds strange or different.**
- **Your vehicle gets rusty underneath.**
- **Your vehicle was damaged in a collision.**
- **Your vehicle was damaged when driving over high points on the road or over road debris.**
- **Repairs weren't done correctly.**
- **Your vehicle or exhaust system had been modified improperly.**

If you ever suspect exhaust is coming into your vehicle:

- **Drive it only with all the windows down to blow out any CO; and**
- **Have your vehicle fixed immediately.**

Running Your Engine While You're Parked

It's better not to park with the engine running. But if you ever have to, here are some things to know.

⚠ CAUTION:

Idling the engine with the climate control system off could allow dangerous exhaust into your vehicle (see the earlier Caution under "Engine Exhaust").

Also, idling in a closed-in place can let deadly carbon monoxide (CO) into your vehicle even if the fan switch is at the highest setting. One place this can happen is a garage. Exhaust -- with CO -- can come in easily. NEVER park in a garage with the engine running.

Another closed-in place can be a blizzard. (See "Blizzard" in the Index.)

⚠ CAUTION:

It can be dangerous to get out of your vehicle if the shift lever is not fully in PARK (P) with the parking brake firmly set. Your vehicle can roll. Don't leave your vehicle when the engine is running unless you have to. If you've left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure your vehicle won't move, even when you're on fairly level ground, always set your parking brake and move the shift lever to PARK (P).

Follow the proper steps to be sure your vehicle won't move. See "Shifting Into PARK (P)" in the Index.

If you are parking on a hill and if you're pulling a trailer, also see "Towing a Trailer" in the Index.

Windows

Power Windows

Switches on the driver's armrest control each of the windows while the ignition is on or retained accessory power is active. In addition, each passenger's door armrest has a switch for its own window.

Express-Down Window

The switch for the driver's window has an express-down feature. Pull the switch toward you, release it and the window will lower automatically. To partially open the window, pull the switch toward you and quickly release it. To stop the window from lowering, pull the switch again, then release.

To raise the window, hold the switch forward.

Window Lock

Press the right side of the WINDOW LOCK switch on the driver's armrest to disable all passenger window switches. The driver's window controls will still be operable. This is a useful feature when you have children as passengers.

Press the left side of the WINDOW LOCK switch to allow passengers to use their window switches again.

Horn

Nearly the entire surface of the center of the steering wheel is an active horn pad. Press anywhere on the steering wheel pad to sound the horn.

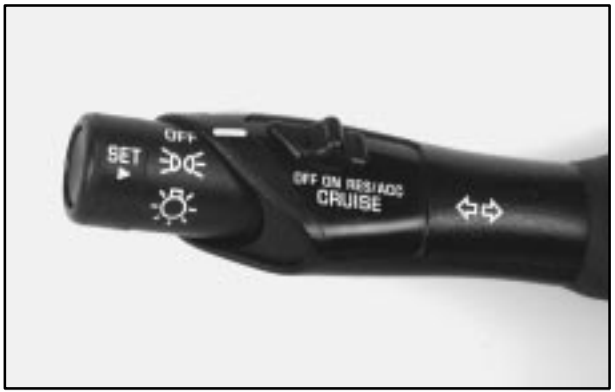
Tilt Wheel

A tilt steering wheel allows you to adjust the steering wheel before you drive.

You can also raise it to the highest level to give your legs more room when you exit and enter the vehicle.

To tilt the wheel, hold the steering wheel and pull the lever toward you. Move the steering wheel to a comfortable level, then release the lever to lock the wheel in place.

Turn Signal/Multifunction Lever



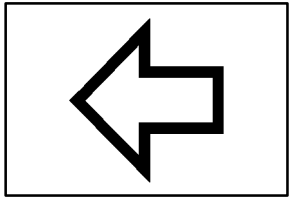
The lever on the left side of the steering column includes your:

- Turn and Lane Change Signals
- Cruise Control
- Headlamp High/Low Beam Changer
- Headlamps
- Parking Lamps
- Flash-To-Pass Feature

Turn and Lane Change Signals

The turn signal has two upward (for right) and two downward (for left) positions. These positions allow you to signal a turn or a lane change.

To signal a turn, move the lever all the way up or down. When the turn is finished, the lever will return automatically.



An arrow on the instrument panel will flash in the direction of the turn or lane change.

To signal a lane change, just raise or lower the lever until the arrow starts to flash. Hold it there until you complete your lane change. The lever will return by itself when you release it.

As you signal a turn or a lane change, if the arrows don't flash but just stay on, a signal bulb may be burned out and other drivers won't see your turn signal.

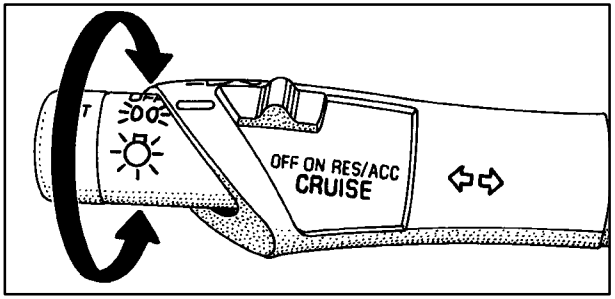
If a bulb is burned out, replace it to help avoid an accident.

If the arrows don't go on at all when you signal a turn, check the fuse (see "Fuses and Circuit Breakers" in the Index) and for burned-out bulbs.

Turn Signal On Chime

If your turn signal is left on for more than 3/4 of a mile (1.2 km), a chime will sound and the DIC will display the TURN SIGNAL ON? reminder message. To turn off the chime, move the turn signal lever to the off position. To turn off the DIC message, press any button on the DIC.

Headlamps



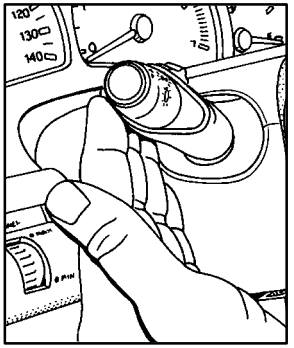
Turn the band to this symbol to turn on:

- Parking Lamps
- Sidemarker Lamps
- Taillamps
- Instrument Panel Lights
- License Plate Lamps

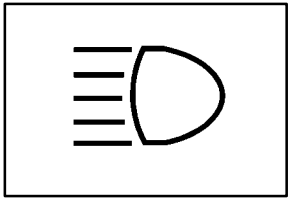
Turn the band to this symbol to turn on the headlamps as well as the other operating lamps.

Turn the band to OFF to turn off the lamps/lights.

Headlamp High/Low Beam Changer



To change the headlamps from low beam to high or high to low, pull the turn signal lever all the way toward you until you hear a click. Then release it.



When the high beams are on, a light on the instrument panel also will be on.

Lamps On Reminder

If the headlamp switch is left on you'll hear a warning chime when you turn the ignition off, remove the key from the ignition and open the driver's door.

Flash-To-Pass

This feature lets you use your high-beam headlamps to signal a driver in front of you that you want to pass. It works even if your headlamps are off.

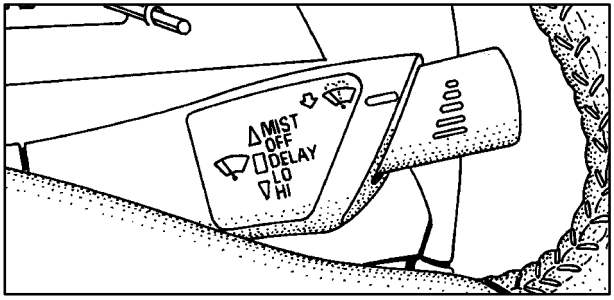
To use it, pull the turn signal lever toward you.

If your headlamps are off, your high-beam headlamps will turn on. They'll stay on as long as you hold the lever there. Release the lever to turn them off.

If your headlamps are on, but on low beam, the system works normally. Just pull the lever until it clicks. Your headlamps will shift to high beam and stay there. To return to low beam, just pull the lever toward you.

If your headlamps are on, and on high beam, your headlamps will switch to low beam. To get back to high beam, pull the lever toward you.

Windshield Wipers



The lever on the right side of your steering column controls your windshield wipers.

For a single wiping cycle, move the lever up to MIST. Hold it there until the wipers start, then let go. The wipers will stop after one cycle. If you want more cycles, hold the lever to MIST longer.

For steady wiping at low speed, push the lever down to the LO position. For high-speed wiping, push the lever down further, to HI. To stop the wipers, move the lever to OFF.

You can set the wiper speed for a long or short delay between wiper cycles. This can be very useful in light rain or snow. Push the lever down to the first detent, DELAY. Turn the band closer to the short lines for fewer wiper passes per minute. As you turn the band toward the long lines, the wiper cycles per minute will increase.

Remember that damaged wiper blades may prevent you from seeing well enough to drive safely. To avoid damage, be sure to clear ice and snow from the wiper blades before using them. If they're frozen to the windshield, carefully loosen or thaw them. If your blades do become damaged, get new blades or blade inserts. See "Windshield Wiper Blade Replacement" in the Index.

Heavy snow or ice can overload your wipers. A circuit breaker will stop them until the motor cools. Clear away snow or ice to prevent an overload.

Windshield Washer

The lever on the right side of your steering column also controls your windshield washer. To spray washer fluid on the windshield, pull the lever toward you. The wipers will clear the window and then either stop or return to your preset speed. For more washer cycles, pull and hold the lever.

⚠ CAUTION:

In freezing weather, don't use your washer until the windshield is warmed. Otherwise the washer fluid can form ice on the windshield, blocking your vision.

If the fluid level in the windshield washer bottle is low, the message LOW WASHER FLUID will appear in the Driver Information Center. See "Windshield Washer Fluid" in the Index.

Cruise Control

With cruise control, you can maintain a speed of about 25 mph (40 km/h) or more without keeping your foot on the accelerator. This is helpful on long trips.

Cruise control does not work at speeds below about 25 mph (40 km/h).

When you apply your brakes, the cruise control shuts off.

⚠ CAUTION:

- **Cruise control can be dangerous where you can't drive safely at a steady speed. So, don't use your cruise control on winding roads or in heavy traffic.**
- **Cruise control can be dangerous on slippery roads. On such roads, fast changes in tire traction can cause needless wheel spinning, and you could lose control. Don't use cruise control on slippery roads.**

If your vehicle is in cruise control when the traction control system begins to limit wheel spin, the cruise control will automatically disengage. (See "Traction Control System" in the Index.) When road conditions allow you to safely use it again, you may turn the cruise control back on.

Setting Cruise Control

⚠ CAUTION:

If you leave your cruise control switch on when you're not using cruise, you might hit a button and go into cruise when you don't want to. You could be startled and even lose control. Keep the cruise control switch off until you want to use it.

1. Move the cruise control switch to ON.
2. Get up to the speed you want.
3. Push in the button at the end of the lever and release it. The CRUISE light on the instrument panel will come on.
4. Take your foot off the accelerator pedal.

Resuming a Set Speed

Setting the cruise control at a desired speed and then applying the brake will end the cruise control function.

Once you're going about 25 mph (40 km/h) or more, you can briefly move the cruise control switch from ON to RES/ACC (Resume/Accelerate) to reset. This returns you to your desired preset speed.

Remember, if you hold the switch at RES/ACC, the vehicle will accelerate until you release the switch or apply the brake. So unless you want to go faster, don't hold the switch at RES/ACC.

Increasing Speed While Using Cruise Control

There are two ways to go to a higher speed.

- Use the accelerator pedal to go to a higher speed. Push the button at the end of the lever, then release the button and the accelerator pedal. You'll now cruise at the higher speed. Or,
- Move the cruise switch from ON to RES/ACC. Hold it there until you reach a desired speed and then release the switch. Or, to increase your speed in very small amounts, move the switch to RES/ACC briefly and then release it. Each time you do this, your vehicle will go about 1 mph (1.6 km/h) faster.

The accelerate feature will only work after you have set the cruise control speed by pushing the SET button.

Reducing Speed While Using Cruise Control

There are two ways to reduce your speed while using cruise control:

- Push in the button at the end of the lever until you reach a desired lower speed then release it.
- To slow down in very small amounts, push the button briefly. Each time you do this, you'll go 1 mph (1.6 km/h) slower.

Passing Another Vehicle While Using Cruise Control

Use the accelerator pedal to increase your speed. When you take your foot off the pedal, your vehicle will slow down to the cruise control speed you set earlier.

Using Cruise Control on Hills

How well your cruise control will work on hills depends upon your speed, load, and the steepness of the hills. When going up steep hills, you may have to step on the accelerator pedal to maintain your speed. When going downhill, you may have to brake or shift to a lower gear to keep your speed down. Of course, applying the brake takes you out of cruise control. Many drivers find this to be too much trouble and don't use cruise control on steep hills.

Ending Cruise Control

There are two ways to turn off the cruise control:

- Step lightly on the brake pedal, *or*
- Move the cruise switch to OFF. The CRUISE light will also go out.

Erasing Speed Memory

When you turn off the cruise control or the ignition, your cruise control set speed memory is erased.

Exterior Lamps

Headlamps

See “Turn Signal/Multifunction Lever” in the Index.

Daytime Running Lamps

Daytime Running Lamps (DRL) can make it easier for others to see the front of your vehicle during the day. DRL can be helpful in many different driving conditions, but they can be especially helpful in the short periods after dawn and before sunset.

A light sensor on top of the instrument panel makes the DRL work, so be sure it isn’t covered.

The DRL system will make your low-beam headlamps come on at reduced brightness in daylight when:

- the ignition is on,
- the headlamp switch is off and
- the transaxle is not in PARK (P).

When DRL are on, only your low-beam headlamps will be on. The parking lamps, taillamps, sidemarker and other lamps won’t be on. Your instrument panel won’t be lit up either.

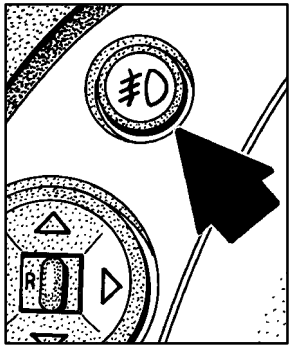
When it’s dark enough outside, your low-beam headlamps will change to full brightness. The other lamps that come on with your headlamps will also come on. When it’s bright enough outside, the regular lamps will go off, and your low-beam headlamps change to the reduced brightness of DRL.

To idle your vehicle with the DRL off, shift the transaxle into PARK (P). The DRL will stay off until you shift out of PARK (P).

To turn off all exterior lighting at night when you are in PARK (P), turn off the headlamps and move the twilight sentinel control, located to the left of the steering column, all the way toward MIN. See “Twilight Sentinel” in the Index.

As with any vehicle, you should turn on the regular headlamp system when you need it.

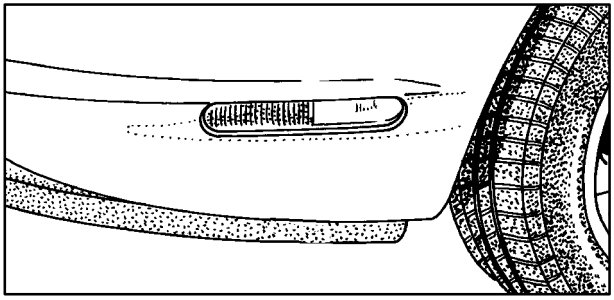
Fog Lamps



To turn on the fog lamps, first turn on the parking lamps or headlamps. Then press the fog lamp switch located on the left side of the instrument panel. A light will glow on the switch when the fog lamps are on. To turn off the fog lamps, press it again.

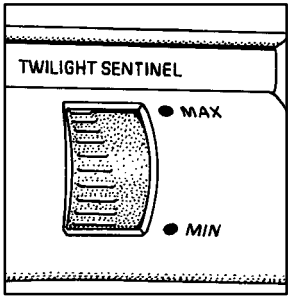
The fog lamps will also turn off when you turn on your high-beam headlamps, but will turn on again when you switch to low beams.

Cornering Lamps



The cornering lamps are designed to come on when you signal a turn. This will provide more light for cornering at night.

Twilight Sentinel®



Twilight sentinel turns the headlamps, taillamps and parking lamps on and off by sensing how dark it is outside.

To operate it, leave the headlamp switch off and move the twilight sentinel control toward MAX. The control is located to the left of the steering column.

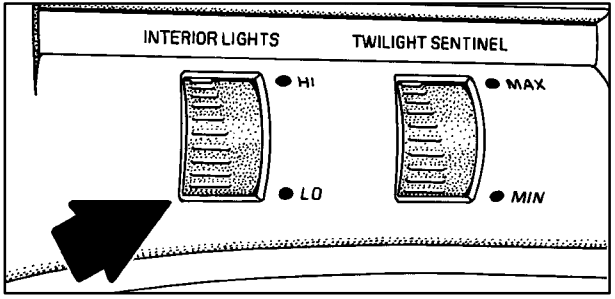
If you move the control all the way to MAX, your lamps will remain on for three minutes after you turn off your engine. If you move the control toward MIN, the lamps will go off quickly when you turn off your engine. You can set this delay time for only a few seconds or up to three minutes.

Light Sensor

Your twilight sentinel and daytime running lamps work with the light sensor on top of the instrument panel. Don't cover it up. If you do it will read "dark" and the headlamps will come on.

Interior Lamps

Instrument Panel Brightness Control



You can brighten or dim your instrument cluster, radio and climate control displays and control lights by rotating the INTERIOR LIGHTS control between LO and HI when your lights are on. Rotate the control all the way to HI and you will turn on the interior courtesy lamps.

Courtesy Lamps

When any door is opened, several lamps go on. They make it easy for you to enter and leave the car. To turn on these lamps, rotate the INTERIOR LIGHTS knob all the way to HI.

Illuminated Entry

Press the UNLOCK button on the remote lock control transmitter and the interior courtesy lamps will come on and stay on for up to one minute. The lamps will turn off immediately by pressing the LOCK button on the remote lock control transmitter, starting the ignition or activating the power door locks.

Delayed Illumination

When you open the door to enter your vehicle, the interior lamps will come on. When you close the door with the ignition off, the interior lamps will stay on for 25 seconds or until the ignition is turned on. Note that locking the doors with the power door lock switch will override the delayed illumination feature and the lights will turn off right away.

Theater Dimming

This feature allows for a three to five-second fade out of the courtesy lamps instead of immediate turn off. They will not fade if the interior lights switch is used.

Exit Lighting

With this feature, the interior lamps will come on for 25 seconds after you remove the key from the ignition. This will give you time to find the door pull handle or lock switches when you exit the vehicle.

Parade Dimming

This feature prohibits the dimming of your instrument displays during daylight while your headlamps are on. This feature operates with the light sensor for the twilight sentinel and is fully automatic. When the light sensor reads darkness outside, you will be able to dim your instrument panel displays once again.

Perimeter Lighting

When the UNLOCK button on the remote lock control transmitter is pressed, the headlamps, parking lamps, back-up lamps and cornering lamps will come on if it is dark enough outside according to the twilight sentinel.

This feature can be programmed on or off for each driver's transmitter.

To turn the feature off:

1. Turn the ignition key to OFF.
2. Press and hold the door lock switch throughout this procedure. All doors will lock.

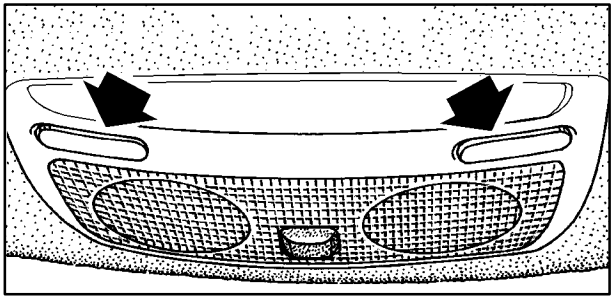
3. Press the instant alarm button on the remote lock control transmitter. Perimeter lighting remains on at this time and the horn will chirp two times.
4. Press the instant alarm button on the remote lock control transmitter again. Perimeter lighting is disabled and the horn will chirp one time.
5. Release the door lock switch. The perimeter lighting option is now off.

To turn the feature on:

1. Turn the ignition key to OFF.
2. Press and hold the door lock switch throughout this procedure. All doors will lock.
3. Press the instant alarm button on the remote lock control transmitter. Perimeter lighting remains off at this time and the horn will chirp one time.
4. Press the instant alarm button on the transmitter again. Perimeter lighting is now enabled and the horn will chirp two times.
5. Release the door lock switch. The perimeter lighting option is now on.

This procedure changes the mode for only the transmitter used to change this setting. The procedure will need to be repeated for the second transmitter.

Front Reading Lamps

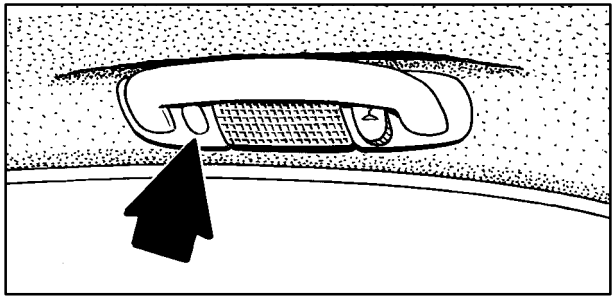


These lamps and the interior courtesy lamps will come on when you open a door. They will turn off when you turn on the ignition. If a door is left open, they will turn off after about 10 minutes.

To turn on the reading lamps when the doors are closed, press the button behind the lamp you want on. Press it again to turn the lamp off.

These lamps work even when the ignition is off. To avoid draining your vehicle's battery, be sure to turn off all front and rear reading lamps when leaving your vehicle.

Rear Reading Lamps



These lamps go on when you open the doors. You can also turn them on by pressing the button to the side of the lamp. Press it again to turn them off.

Trunk Lamp

When you open the trunk to its full open position, a lamp will come on inside the trunk. This lamp will automatically turn off when the trunk is closed.

Inadvertent Load Protection

This feature automatically shuts off the interior lamps if any are left on for more than 10 minutes when the ignition is off or a door is left open. This will keep your battery from running down.

Mirrors

Electrochromic Day/Night Rearview Mirror with Compass

Your vehicle may have an electrochromic inside rearview mirror with a compass.

When set in the MIRROR position, this mirror automatically changes to reduce glare from headlamps behind you. A time delay feature prevents rapid changing from the day to night positions while driving under lights and through traffic.

The mirror also includes an eight-point compass display in the upper right corner of the mirror face. When on, the compass automatically calibrates as the vehicle is driven.

When cleaning the mirror, use a paper towel or similar material dampened with glass cleaner. Do not spray glass cleaner directly on the mirror as that may cause the liquid cleaner to enter the mirror housing. Use a cotton swab and glass cleaner to clean the photocells when necessary.

Mirror Operation

The right side of the button located at the bottom of the mirror turns the electrochromic mirror on and off. To turn on the automatic dimming feature, press MIRROR. To turn off automatic dimming, press MIRROR again. The green indicator light will be illuminated when this feature is active.

Compass Operation

Press the COMPASS button once to turn the compass on or off.

When the ignition and the compass feature are on, the compass will show two character boxes for approximately two seconds. After two seconds, the mirror will display the compass heading.

If, after two seconds, the display does not show a compass heading (“N” for North, for example), there may be a strong magnetic field interfering with the compass. Such interference may be caused by a magnetic antenna mount, magnetic note pad holder or a similar magnetic item.

Compass Calibration

If the letter “C” should ever appear in the compass window, the compass may need calibration.

The mirror can be calibrated in one of two ways:

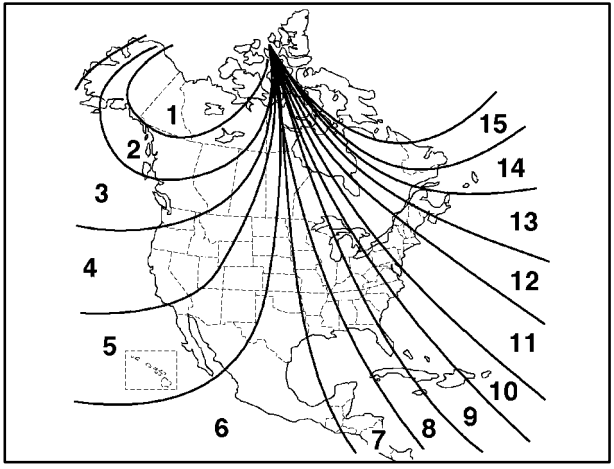
- Drive the vehicle in circles at five mph (8 km/h) or less until the display reads a direction, or
- Drive the vehicle on your everyday routine.

Compass Variance

The mirror is set in zone eight upon leaving the factory. It will be necessary to adjust the compass to compensate for compass variance if you live outside zone eight. Under certain circumstances, as during a long distance cross-country trip, it will be necessary to adjust for compass variance. Compass variance is the difference between earth's magnetic north and true geographic north. If not adjusted to account for compass variance, your compass could give false readings.

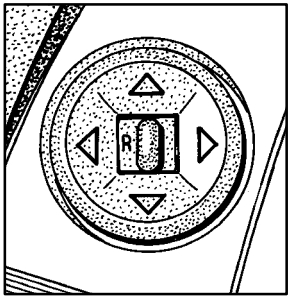
To adjust for compass variance:

1. Press and hold the COMPASS button located at the bottom of the mirror until a zone number appears in the display.
2. Find your current location and variance zone number on the following zone map.



3. Press the COMPASS button on the bottom of the mirror until the new zone number appears in the display. After you stop pressing the button, the compass will need to be calibrated. (This is the automatic calibration mode. Drive in a circle to calibrate the mirror. See "Compass Calibration" explained previously.)

Power Remote Control Mirror



The controls on the far left of the instrument panel control both outside rearview mirrors. Move the center switch to the left (L) to select the driver's side rearview mirror, or to the right (R) to select the passenger's side rearview mirror.

Then press the arrows to adjust each mirror so that you can just see the side of your vehicle when you are sitting in a comfortable driving position.

To lock the controls, leave the selector switch in the middle position.

Your vehicle is equipped with the memory function. The mirror positions, along with the driver's set position, can be stored into memory. See "Memory Seat and Mirrors" in the Index.

Parallel Park Assist Mirror

The passenger's outside rearview mirror also includes a tilt-down feature that operates when the shift lever is in REVERSE (R). This feature assists the driver with improved rear obstacle detection.

Move the power remote control mirror switch to the left (L) or center position to enable this feature. Move the switch to the right (R) to turn this feature off.

Convex Outside Mirror

Your passenger's side mirror is convex. A convex mirror's surface is curved so you can see more from the driver's seat.

⚠ CAUTION:

A convex mirror can make things (like other vehicles) look farther away than they really are. If you cut too sharply into the right lane, you could hit a vehicle on your right. Check your inside mirror or glance over your shoulder before changing lanes.

Heated Outside Rearview Mirror

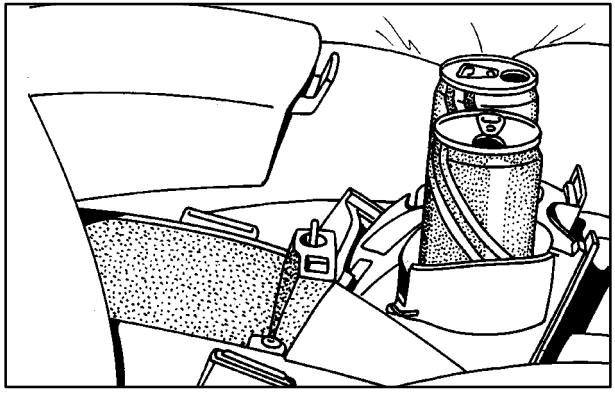
When you operate the rear window defogger, a defogger also warms the heated driver's and passenger's outside rearview mirrors to help clear them of ice and snow. See "Rear Window Defogger" in the Index.

Storage Compartments

Glove Box

Use the door key to lock and unlock the glove box. To open, pull the latch release on the left side of the glove box door.

Front Storage Armrest



The front armrest opens into a storage area. To open it, lift the front edge. Inside you will find storage for cassettes, compact discs and coins.

In front of the storage area is a cupholder. Press and release the cupholder cover to open. Do not try to pull it out. Push the cupholder forward to lock it when in use. Press the cupholder back to its recessed position when not in use.

Rear Storage Armrest

Your vehicle has a rear storage armrest with a pass-through feature.

Pull down the bolster in the back seat to use the armrest and two cupholders. Lift the top of the armrest for storage space.

Pull down the interior door to access the trunk.

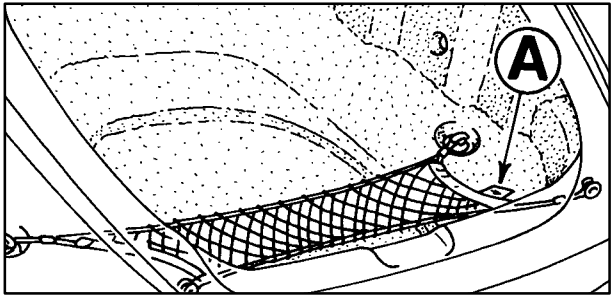
Convenience Net

Your vehicle has a convenience net just inside the back wall of the trunk.

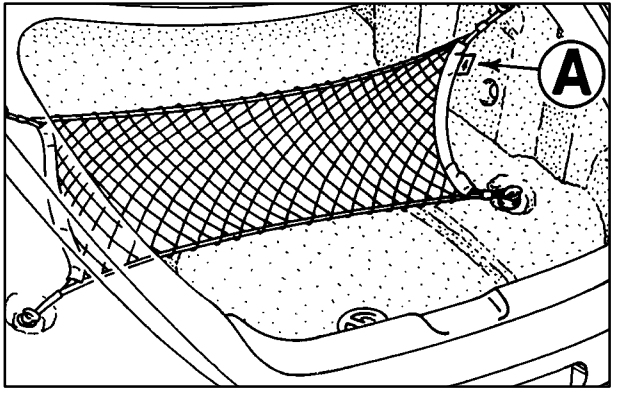
Put small loads, like grocery bags, behind the net. It can help keep them from falling over during sharp turns or quick starts and stops.

The net isn't for larger, heavier loads. Store them in the trunk as far forward as you can. You can unhook the net so that it will lie flat when you're not using it.

Two positions exist for the convenience net, depending on the size of the cargo.



Use this position for small loads.



Use this position for slightly larger loads.

When installing the net in either position, be sure the "up label" (A) is pointing up.

Ashtrays and Cigarette Lighter

Push and release the cover to reveal the front ashtray, lighter and accessory power outlet.

NOTICE:

Don't put papers and other things that burn into your ashtrays. If you do, cigarettes or other smoking materials could set them on fire, causing damage.

To open either rear ashtray, you may press and release the cover.

To clean an ashtray, make sure the cover is open fully, then lift out the ashtray by pulling on the snuffer.

To use a lighter, just push it in all the way and let go. When it's ready, it will pop back by itself.

NOTICE:

Don't hold a cigarette lighter in with your hand while it is heating. If you do, it won't be able to back away from the heating element when it's ready. That can make it overheat, damaging the lighter and the heating element.

Sun Visors

To block out glare, you can swing down the visors. You can also remove them from the center mount and swing them to the side, while the auxiliary visor remains to block glare from the front.

To extend the visor at the sides, pull out the extension.

Illuminated Visor Vanity Mirrors

When you open the cover to the driver or passenger side visor vanity mirror, the lamps will come on. You can adjust the brightness of the lamps with the switch by sliding the lever up or down.

Accessory Power Outlet

The power outlet inside the front ashtray can be used to plug in electrical equipment such as a cellular telephone, CB radio, etc. Follow the proper installation instructions that are included with any electrical equipment you install. The accessory power outlet is off if the ignition is turned off.

NOTICE:

When using the accessory power outlet, the maximum load of any electrical equipment should not exceed 15 amps.

OnStar® System (Option)

Your vehicle may be equipped with the OnStar communications service. The following services are available 24 hours a day from an OnStar representative:

- Roadside Service with Location
- Emergency Services Button
- Remote Door Unlock
- Theft Detection/Notification and Stolen-Vehicle Tracking
- Automatic Notification of Air Bag Deployment
- Concierge/Customer Conveniences/Services

NOTE: Installation of aftermarket equipment is possible, however, the features described above will not be compatible with any portable phone other than the OnStar cellular phone available from your dealer.

For more information about the OnStar System, contact your dealer.

Assist Handles

A folding handle above each rear door and the front passenger's door can be used to help you get in or out of your vehicle.

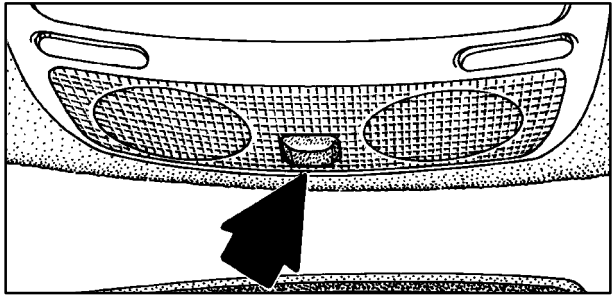
Garment Hook

For your convenience, you will find a two-hanger capacity garment hook above each rear door near the reading lamps.

Garment hooks are not designed to support clothing bars. Use assist handles for this if possible.

Sunroof (Option)

Your express-open sunroof includes a sliding glass panel and a sliding sunshade. The control switch will work only when the ignition is on, or when retained accessory power is active.



To open the sunroof, press the control switch rearward and release it to open the glass panel and sunshade.

If you want to stop the sunroof in a partially open position, press the switch again. To fully open the sunroof, press the switch rearward again. The sunshade can also be opened by hand.

To close the sunroof, press and hold the control switch forward to close the glass panel. The sunshade must be closed manually.

To open the sunroof rear vent, open the sunshade by hand. Press the control switch forward when the sunroof is closed.

To close the sunroof rear vent, press the switch rearward.

Universal Transmitter

This transmitter allows you to consolidate the functions of up to three individual hand-held transmitters. It will operate garage doors and gates, or other devices controlled by radio frequency such as home/office lighting systems.

The transmitter will learn and transmit the frequencies of most current transmitters and is powered by your vehicle's battery and charging system.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Changes and modifications to this system by other than an authorized service facility could void authorization to use this equipment.

Programming the Transmitter

Do not use the Universal Transmitter with any garage door opener that does not have the “stop and reverse” safety feature. This includes any garage door opener model manufactured before April 1, 1982.

Be sure that people and objects are clear of the garage door you are programming.

Your vehicle’s engine should be turned off while programming the transmitter. Follow these steps to program up to three channels:

1. If you have previously programmed a Universal Transmitter channel, proceed to Step 2. Otherwise, hold down the two outside buttons on the Universal Transmitter until the indicator light begins to flash rapidly (after 20 seconds). Then release the buttons. This procedure initializes the memory and erases any previous settings for all three channels.
2. Decide which one of the three channels you want to program. Hold the end of the hand-held transmitter about 2 to 5 inches (5 to 13 cm) away from the surface of the Universal Transmitter so that you can still see the indicator light.
3. Using both hands, press the hand-held transmitter button and the desired button on the Universal Transmitter. Continue to press both buttons through Step 4.
4. Hold down both buttons until you see the indicator light on the Universal Transmitter flash slowly and then rapidly. The rapid flashing indicates that the Universal Transmitter has been programmed. Release both buttons once the indicator light starts to flash rapidly.

If you have trouble programming the Universal Transmitter, make sure that you have followed the directions exactly as described. The Universal Transmitter may not work with older garage door openers that do not meet current Federal Consumer Safety Standards. If you cannot program the transmitter after repeated attempts, refer to “Rolling Code Programming” later in this section or contact the Universal Transmitter manufacturer at 1-800-355-3515.

Be sure to keep the original hand-held transmitter in case you need to erase and reprogram the Universal Transmitter.

Note to Canadian Owners: During programming, the hand-held transmitter may automatically stop transmitting after one or two seconds. In this case, you should press and re-press the button on the hand-held transmitter every two seconds without ever releasing the button on the Universal Transmitter. Release both buttons when the indicator light on the Universal Transmitter begins to flash rapidly.

Operating the Universal Transmitter

Press and release the appropriate button on the Universal Transmitter. The indicator light comes on while the signal is being transmitted.

If the hand-held transmitter appears to program the Universal Transmitter but does not open your garage door, and if the garage door opener was manufactured after 1996, the garage door opener may have a “rolling code” system. A rolling code system changes the code of the garage door opener every time you open or close the garage door.

To determine if you have this system, press the button on the Universal Transmitter that you have programmed already. If the indicator light on the Universal Transmitter flashes rapidly for two seconds and then turns solid, the garage door opener has a rolling code system. In a rolling code system, the garage door motor head unit must be trained to the Universal Transmitter.

“Rolling Code” Programming (If Equipped)

If you have not previously programmed the hand-held transmitter to the Universal Transmitter, see “Programming the Universal Transmitter” listed previously. If you have completed this programming already, you now need to train the garage door opener motor head unit to recognize the Universal Transmitter. Refer to your garage door opener owner’s manual for the proper transmitter training procedure for your garage door opener brand.

1. Find the training button on the garage door opener motor head unit. The exact location and color of the button may vary by garage door opener brand. If you have difficulty finding the training button, refer to your garage door opener owner’s manual.
2. Press the training button on the garage door opener motor head unit.

   Note: Following this step, you have 30 seconds to start Step 3.
3. Return to the Universal Transmitter in your vehicle and firmly press and release the Universal Transmitter button you have already programmed for two to three seconds. Press and release the button again (you may need to do this step up to three times) to make sure that the Universal Transmitter has been trained to the garage door opener motor head unit. Check that the training was successful.

The garage door opener should now recognize the Universal Transmitter. You may either use the Universal Transmitter or the hand-held transmitter to open the garage door.

If after following these instructions, you still have problems training the garage door opener, contact the Universal Transmitter manufacturer at 1-800-355-3515.

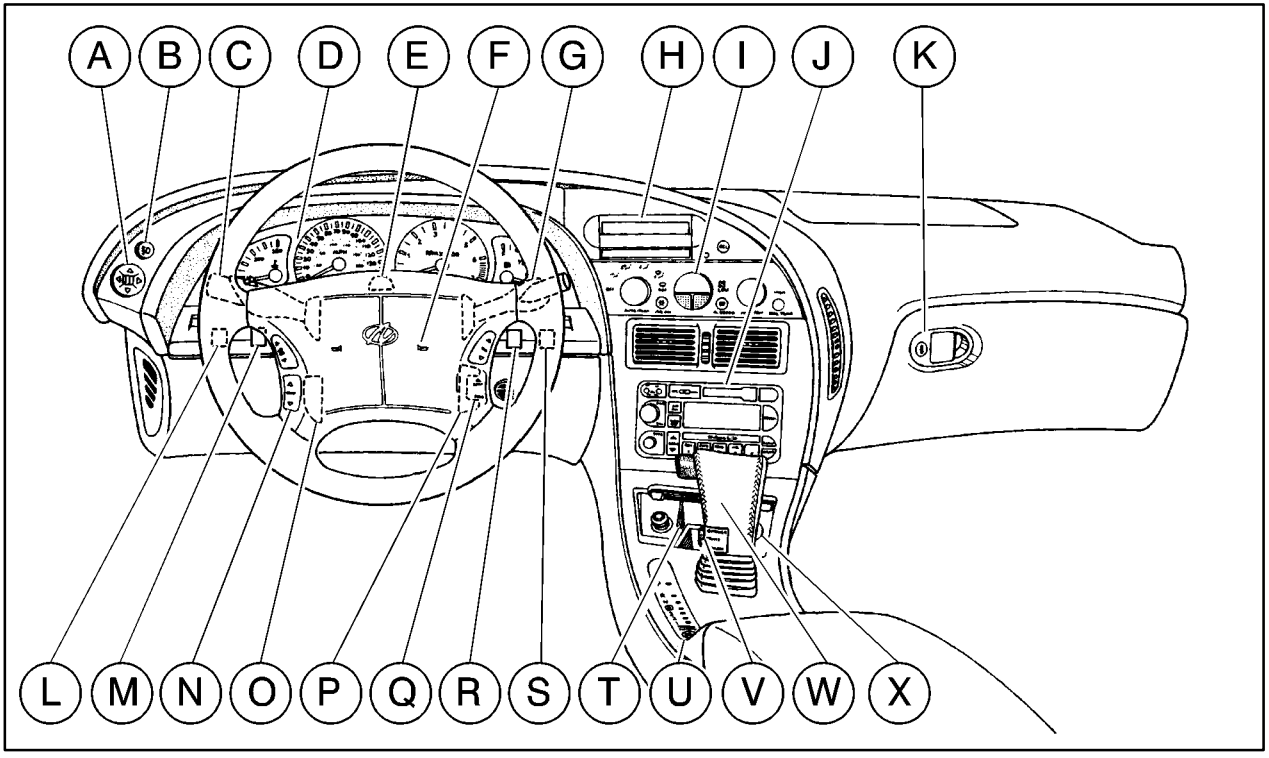
Erasing Channels

To erase all three programmed channels, hold down the two outside buttons until the indicator light begins to flash (after 20 seconds). Release both buttons.

Accessories

Accessories for the Universal Transmitter are available from the manufacturer of the unit. If you would like additional information please call 1-800-355-3515.

The Instrument Panel - Your Information System



The main components of your instrument panel are:

A. Power Mirrors Control Switch

B. Fog Lamp Switch

C. Turn Signal/Multifunction Lever

D. Instrument Cluster/Gages

E. Hazard Warning Flashers Switch

F. Horn

G. Windshield Wiper/Washer Control

H. Driver Information Center

I. Climate Controls

J. Audio System

K. Glove Box (Remote Trunk Release Lockout Switch inside)

L. Instrument Panel Intensity Control/Interior Lamp Control

M. Twilight Sentinel® Control

N. Steering Wheel Touch Controls for Climate Control System

O. Tilt Steering Wheel Lever

P. Ignition Switch

Q. Steering Wheel Touch Controls for Audio System

R. Trunk Release Switch

S. Fuel Door Release Switch

T. Ashtray and Lighter

U. Traction Control Button

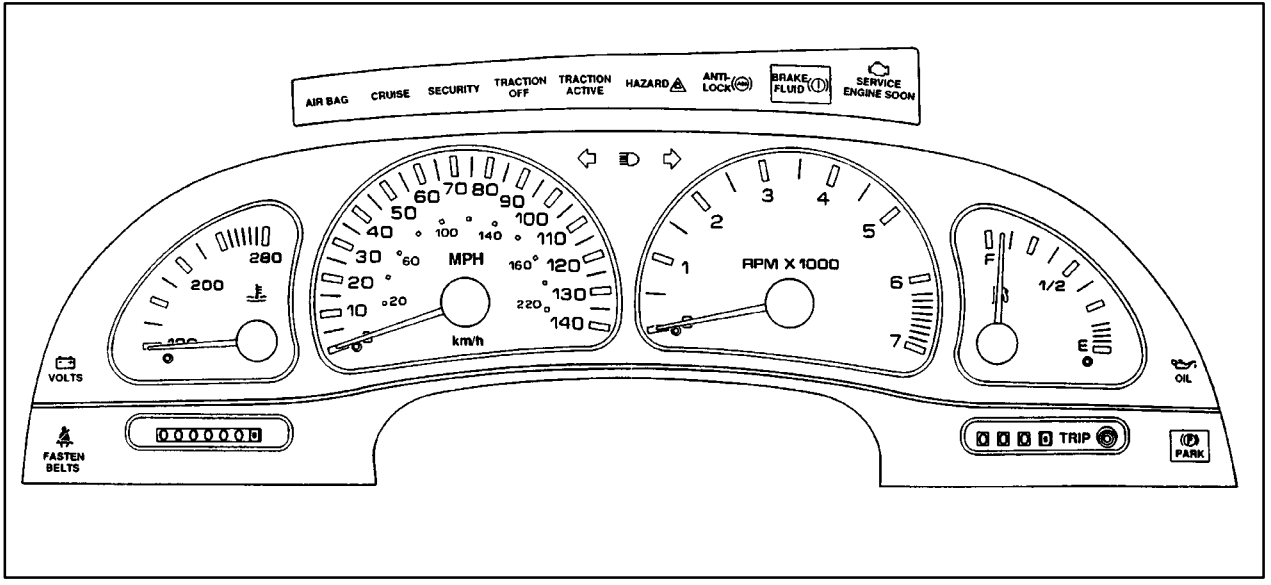
V. Selectable Shift

W. Gearshift Lever

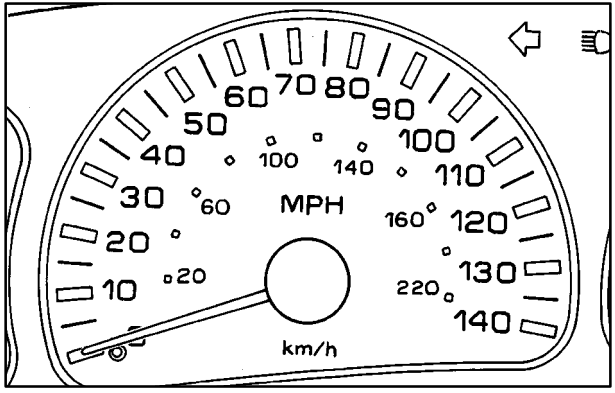
X. Accessory Power Outlet

Instrument Panel Cluster

Your vehicle is equipped with this instrument panel cluster, which includes indicator warning lights and gages that are explained on the following pages. The instrument panel is designed to let you know at a glance how your vehicle is running. You'll know how fast you're going, how much fuel you're using, and many other things you'll need to drive safely and economically.



Speedometer



Your speedometer lets you see your speed in both miles per hour (mph) and kilometers per hour (km/h).

Odometer and Trip Odometer

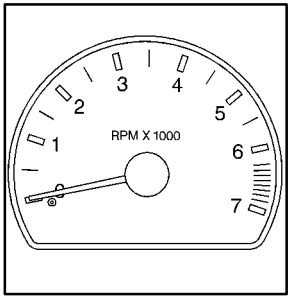
Your odometer shows how far your vehicle has been driven in either miles (used in the United States) or kilometers (used in Canada).

Your trip odometer tells you how far you have driven since you last reset it. Press the TRIP button located next to the trip odometer below the fuel gage.

Your vehicle has a tamper resistant odometer. If you see silver lines between the numbers, you'll know someone has probably tampered with it and the numbers may not be true.

You may wonder what happens if your vehicle needs a new odometer installed. If the new one can be set to the mileage total of the old odometer, then it must be. But if it can't, then it's set at zero and a label must be put on the driver's door to show the old mileage reading when the new odometer was installed.

Tachometer



The tachometer displays the engine speed in revolutions per minute (rpm).

If your engine speed equals or exceeds the safe limit for operation, the message HOT...REDUCE ENGINE RPM is displayed on the information center.

NOTICE:

Do not operate the engine with the tachometer in the red area, or when the message HOT...REDUCE ENGINE RPM is displayed. Engine damage may occur.

Warning Lights, Gages and Indicators

This part describes the warning lights and gages that may be on your vehicle. The pictures will help you locate them.

Warning lights and gages can signal that something is wrong before it becomes serious enough to cause an expensive repair or replacement. Paying attention to your warning lights and gages could also save you or others from injury.

Warning lights come on when there may be or is a problem with one of your vehicle's functions. As you will see in the details on the next few pages, some warning lights come on briefly when you start the engine just to let you know they're working. If you are familiar with this section, you should not be alarmed when this happens.

Gages can indicate when there may be or is a problem with one of your vehicle's functions. Often gages and warning lights work together to let you know when there's a problem with your vehicle.

When one of the warning lights comes on and stays on when you are driving, or when one of the gages shows there may be a problem, check the section that tells you what to do about it. Please follow this manual's advice. Waiting to do repairs can be costly -- and even dangerous. So please get to know your warning lights and gages. They're a big help.

Your vehicle may also have a driver information system that works along with the warning lights and gages. See "Driver Information System" in the Index.

Safety Belt Reminder Light

When the key is turned to RUN or START, a chime will come on for about eight seconds to remind people to fasten their safety belts.

The safety belt light will also come on and stay on for about 70 seconds. If the driver's belt is already buckled, neither the chime nor the light will come on.

Air Bag Readiness Light

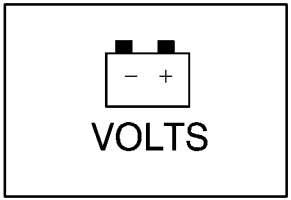
There is an air bag readiness light on the instrument panel, which shows AIR BAG. The system checks the air bag's electrical system for malfunctions. The light tells you if there is an electrical problem. The system check includes the air bag sensors, the air bag modules, the wiring and the crash sensing and diagnostic module. For more information on the air bag system, see "Air Bag" in the Index.

This light will come on when you start your engine, and it will flash for a few seconds. Then the light should go out. This means the system is ready.

If the air bag readiness light stays on after you start the engine or comes on when you are driving, your air bag system may not work properly. Have your vehicle serviced right away.

The air bag readiness light should flash for a few seconds when you turn the ignition key to RUN. If the light doesn't come on then, have it fixed so it will be ready to warn you if there is a problem.

Battery Warning Light



This light will come on briefly when you start the vehicle, as a check to show you it is working, then it should go out.

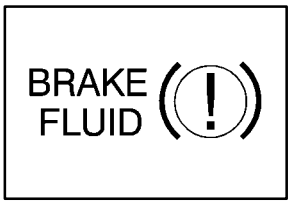
If it stays on, or comes on while you are driving, you may have a problem with the electrical charging system.

A warning chime and the message CHECK CHARGE SYSTEM may also come on. Have it checked right away. Driving while this light is on could drain your battery.

If you must drive a short distance with the light on, be certain to turn off all your accessories, such as the radio and climate control.

Brake System Warning Light

Your vehicle's hydraulic brake system is divided into two parts. If one part isn't working, the other part can still work and stop you. For good braking, though, you need both parts working well.



This light should come on when you turn the ignition key to START.

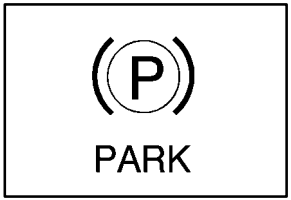
If it doesn't come on then, have it fixed so it will be ready to warn you if there's a problem. If this warning light stays on after you start the engine, there could be a brake problem. Have your brake system inspected right away.

If the light and chime come on while you are driving, pull off the road and stop carefully. You may notice that the pedal is harder to push. Or, the pedal may go closer to the floor. It may take longer to stop. If the light is still on, have the vehicle towed for service. (See “Towing Your Vehicle” in the Index.)

⚠ CAUTION:

Your brake system may not be working properly if the brake warning light is on. Driving with the brake warning light on can lead to an accident. If the light is still on after you’ve pulled off the road and stopped carefully, have the vehicle towed for service.

Parking Brake Indicator Light

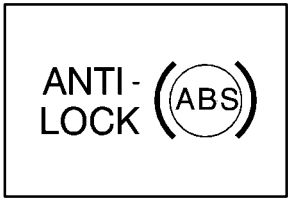


When the ignition is on, this light will come on when you set your parking brake. The light will stay on if your parking brake doesn’t release fully.

If you try to drive off with the parking brake set, a chime will also come on until you release the parking brake.

This light should also come on when you turn the ignition key to START. If it doesn’t come on then, have it fixed so it will be ready to remind you if the parking brake is applied or hasn’t released fully.

Anti-Lock Brake System Warning Light

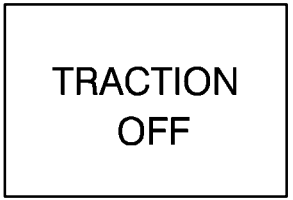


With the anti-lock brake system, the light(s) will come on when you start your engine and may stay on for several seconds. That's normal.

If the light stays on, turn the ignition to OFF. Or, if the light comes on when you're driving, stop as soon as possible and turn the ignition off. Then start the engine again to reset the system. If the light still stays on, or comes on again while you're driving, your vehicle needs service. If the regular brake system warning light isn't on, you still have brakes, but you don't have anti-lock brakes. If the regular brake system warning light is also on, you don't have anti-lock brakes and there's a problem with your regular brakes. See "Brake System Warning Light" earlier in this section.

The anti-lock brake system warning light should come on briefly when you turn the ignition key to RUN. If the light doesn't come on then, have it fixed so it will be ready to warn you if there is a problem.

Traction Control System Warning Light



This warning light should come on briefly as you start the engine.

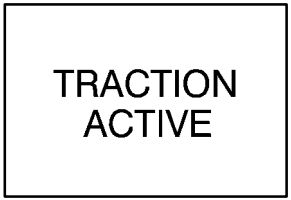
If the warning light doesn't come on then, have it fixed so it will be ready to warn you if there's a problem. If it stays on, or comes on when you're driving, there may be a problem with your traction control system and your vehicle may need service. When this warning light is on, the system will not limit wheel spin. Adjust your driving accordingly.

The traction control system warning light may come on for the following reasons:

- If you turn the system off by pressing the TRACTION CONTROL button located on the center console, the warning light will come on and stay on. To turn the system back on, press the button again. The warning light should go off. (See “Traction Control System” in the Index for more information.)
- If there’s a brake system problem that is specifically related to traction control, the traction control system will turn off and the warning light will come on. If your brakes begin to overheat, the traction control system will turn off and the warning light will come on until your brakes cool down.
- If the traction control system is affected by an engine-related problem, the system will turn off and the warning light will come on.

If the traction control system warning light comes on and stays on for an extended period of time when the system is turned on, your vehicle needs service.

Traction Control System Active Light

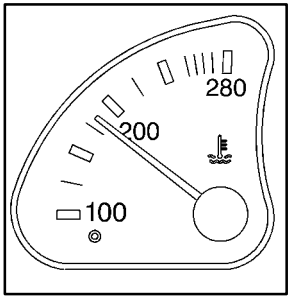


When your traction control system is limiting wheel spin, this light will come on.

Slippery road conditions may exist if the traction control system active light comes on, so adjust your driving accordingly.

The light will stay on for a few seconds after the traction control system stops limiting wheel spin.

Engine Coolant Temperature Gage



This gage shows the engine coolant temperature. If the gage pointer moves into the red warning zone, your engine is hot.

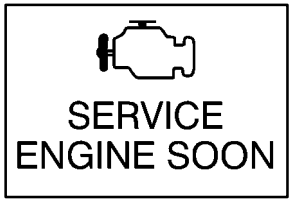
To prevent engine overheating, the air conditioning compressor will turn off automatically, a fast-pulsed chime will sound, and the message ENGINE HOT...A/C OFF will appear in the information center. As the engine cools down, the air conditioning compressor will automatically turn back on.

If the coolant temperature is over 261°F (127°C), the message HOT...STOP ENGINE will appear. It means that your engine coolant has overheated. If you have been operating your vehicle under normal driving conditions, you should pull off the road, stop your vehicle and turn off the engine as soon as possible.

The “Problems on the Road” section in this manual explains what to do. See “Engine Overheating” in the Index.

If your coolant level is low, the message LOW ENGINE COOLANT will appear on the Driver Information Center. Check your coolant level as soon as possible. See “Engine Coolant” in the Index.

Malfunction Indicator Lamp (Service Engine Soon Light)



Your vehicle is equipped with a computer which monitors operation of the fuel, ignition and emission control systems.

This system is called OBD II (On-Board Diagnostics-Second Generation) and is intended to assure that emissions are at acceptable levels for the life of the vehicle, helping to produce a cleaner environment. The SERVICE ENGINE SOON light comes on to indicate that there is a problem and service is required. Malfunctions often will be indicated by the system before any problem is apparent. This may prevent more serious damage to your vehicle. This system is also designed to assist your service technician in correctly diagnosing any malfunction.

NOTICE:

If you keep driving your vehicle with this light on, after a while, your emission controls may not work as well, your fuel economy may not be as good and your engine may not run as smoothly. This could lead to costly repairs that may not be covered by your warranty.

NOTICE:

Modifications made to the engine, transaxle, exhaust or fuel system of your vehicle or the replacement of the original tires with other than those of the same Tire Performance Criteria (TPC) can affect your vehicle's emission controls and may cause the SERVICE ENGINE SOON light to come on. Modifications to these systems could lead to costly repairs not covered by your warranty. This may also result in a failure to pass a required Emission Inspection/Maintenance test.

This light should come on, as a check to show you it is working, when the ignition is on and the engine is not running. If the light doesn't come on, have it repaired. This light will also come on during a malfunction in one of two ways:

- **Light Flashing --** A misfire condition has been detected. A misfire increases vehicle emissions and may damage the emission control system on your vehicle. Dealer or qualified service center diagnosis and service may be required.
- **Light On Steady --** An emission control system malfunction has been detected on your vehicle. Dealer or qualified service center diagnosis and service may be required.

If the Light Is Flashing

The following may prevent more serious damage to your vehicle:

- Reducing vehicle speed.
- Avoiding hard accelerations.
- Avoiding steep uphill grades.
- If you are towing a trailer, reduce the amount of cargo being hauled as soon as it is possible.

If the light stops flashing and remains on steady, see "If the Light Is On Steady" following.

If the light continues to flash, when it is safe to do so, *stop the vehicle*. Find a safe place to park your vehicle. Turn the key off, wait at least 10 seconds and restart the engine. If the light remains on steady, see "If the Light Is On Steady" following. If the light is still flashing, follow the previous steps, and drive the vehicle to your dealer or qualified service center for service.

If the Light Is On Steady

You may be able to correct the emission system malfunction by considering the following:

Did you recently put fuel into your vehicle?

If so, reinstall the fuel cap, making sure to fully install the cap. See "Filling Your Tank" in the Index. The diagnostic system can determine if the fuel cap has been left off or improperly installed. A loose or missing fuel cap will allow fuel to evaporate into the atmosphere. A few driving trips with the cap properly installed should turn the light off.

Did you just drive through a deep puddle of water?

If so, your electrical system may be wet. The condition will usually be corrected when the electrical system dries out. A few driving trips should turn the light off.

Are you low on fuel?

As your engine starts to run out of fuel, your engine may not run as efficiently as designed since small amounts of air are sucked into the fuel line causing a misfire. The system can detect this. Adding fuel should correct this condition. Make sure to install the fuel cap properly. See “Filling Your Tank” in the Index. It will take a few driving trips to turn the light off.

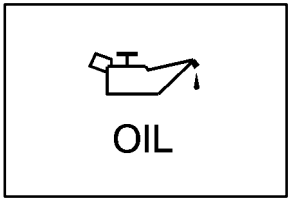
Have you recently changed brands of fuel?

If so, be sure to fuel your vehicle with quality fuel (see “Fuel” in the Index). Poor fuel quality will cause your engine not to run as efficiently as designed. You may notice this as stalling after start-up, stalling when you put the vehicle into gear, misfiring, hesitation on acceleration or stumbling on acceleration. (These conditions may go away once the engine is warmed up.) This will be detected by the system and cause the light to turn on.

If you experience one or more of these conditions, change the fuel brand you use. It will require at least one full tank of the proper fuel to turn the light off.

If none of the above steps have made the light turn off, have your dealer or qualified service center check the vehicle. Your dealer has the proper test equipment and diagnostic tools to fix any mechanical or electrical problems that may have developed.

Oil Pressure Warning Light



If you have a problem with your oil, this light may stay on after you start your engine, or come on when you are driving.

A warning chime and the message LOW OIL PRESSURE may also come on.

These indicate that oil is not going through your engine quickly enough to keep it cool. The engine could be low on oil, or could have some other oil problem. Have it fixed right away.

The oil light could also come on briefly when the ignition is on but the engine is not running. The light will come on as a test to show you it is working, but the light will go out when you turn the ignition to START. If it doesn’t come on with the ignition on, you may have a problem with the fuse or bulb. Have it fixed right away.

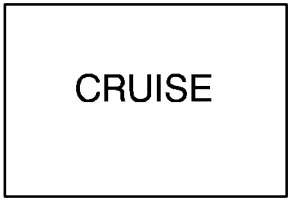
⚠ CAUTION:

Don't keep driving if the oil pressure is low. If you do, your engine can become so hot that it catches fire. You or others could be burned. Check your oil as soon as possible and have your vehicle serviced.

NOTICE:

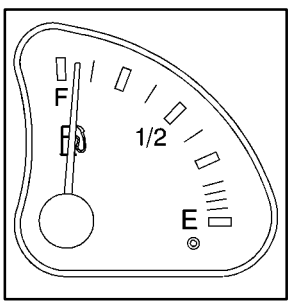
Damage to your engine from neglected oil problems can be costly and is not covered by your warranty.

Cruise Light



The CRUISE light comes on whenever you set your cruise control. See "Cruise Control" in the Index.

Fuel Gage



When the ignition is on, your fuel gage tells you about how much fuel you have left.

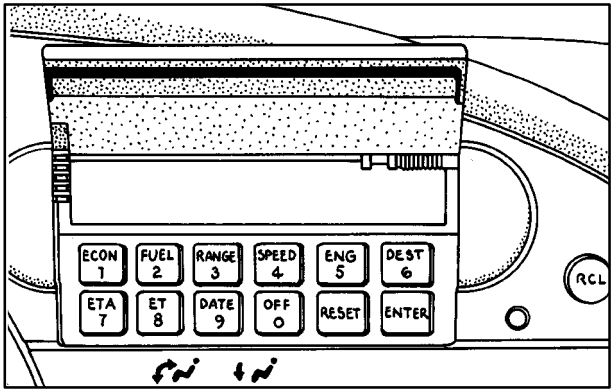
When you have less than 3.0 gallons (11.3 L) of fuel remaining, the message LOW FUEL will be displayed and a chime will sound. You need to get more fuel right away.

Press the FUEL button on the Driver Information Center to turn off the warning.

Here are four things that some owners ask about. None of these show a problem with your fuel gage:

- At the service station, the gas pump shuts off before the gage reads “F” (Full).
- It takes a little more or less fuel to fill up than the gage indicated. For example, the gage may have indicated the tank was half full, but it actually took a little more or less than half the tank’s capacity to fill the tank.
- The gage moves a little when you turn a corner or speed up.
- The tank is not necessarily empty when the pointer is over the “E” (Empty) mark. There is a reserve of about 1.5 gallons (5.6 L) in the tank. You should still get more fuel as soon as possible.

Driver Information Center

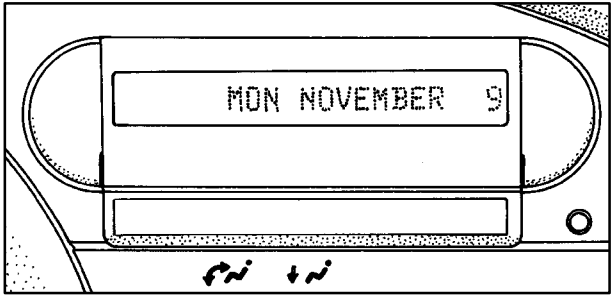


The Driver Information Center (DIC) displays information in either English or metric. When the system is on or off, push the OFF button down for two seconds to change the display between English and metric. This will also change the digital screen for the climate control system between English and metric.

In addition to the functions described in this part, the DIC also displays various warning messages under appropriate conditions.

Turn on the system by pressing any button except RESET, ENTER or OFF. When you turn on the ignition, the DIC will be in the mode last displayed when the engine was turned off. Keep in mind that this also applies to the OFF mode.

To turn off messages on the DIC (except LOW OIL PRESSURE, LOW BRAKE FLUID, PARK BRAKE SET and the hot engine warnings), press any button on the DIC.



You will need to open the cover to access the control buttons. To open the cover, push the button located to the right of the cover.

To close the cover, push it down to its closed position.

Fuel Economy

The ECON button displays average fuel economy and instantaneous fuel economy calculated for your specific driving conditions.

Press ECON to display average fuel economy, such as:

25.2 AVG MI/GAL or 9.3 AVG L/100 KM

Press ECON again to display instantaneous fuel economy, such as:

28 INST MI/GAL or 8.4 INST L/100 KM

Press again to return to average fuel economy.

The average fuel economy is viewed as a long-term approximation of your overall driving conditions.

If you press RESET in this mode while you're driving, the system will begin figuring fuel economy from that point in time.

Fuel

Press FUEL to see how much fuel has been used since you last pressed the RESET button. The display will show a reading such as:

10.4 GALLONS USED or 39.4 LITERS USED

To learn how much fuel will be used from a specific starting point, first press FUEL to display fuel used, then press RESET.

Don’t confuse fuel used with the amount of fuel in your tank.

Fuel Range

RANGE calculates the remaining distance you can drive without refueling. It’s based on fuel economy and the fuel remaining in the tank. The display will show a reading such as:

FUEL RANGE 235 MI or FUEL RANGE 378 KM

If the range is less than 50 miles (80 km), the display will read LOW FUEL RANGE.

The fuel economy data used to determine fuel range is an average of recent driving conditions. As your driving conditions change, this data is gradually updated. Resetting fuel range causes the fuel economy data to be updated immediately. To reset fuel range, press RANGE, then RESET.

Average Speed

The calculation for average speed begins when SPEED is reset. Press SPEED to display the average speed, such as:

AVG SPEED 55 MPH or AVG SPEED 90 KM/H

To reset the average speed, press SPEED and then RESET.

Engine

The ENG button scrolls through the following functions:

- Oil pressure, such as:

  OIL PRESSURE 40 PSI or OIL PRESSURE 276 kPa

- Battery voltage, such as:

  BATTERY 13.8 VOLTS

- Transaxle fluid life, such as:

  TRANS FLUID LIFE 40%

  This is an estimate of the transaxle fluid's remaining useful life. It will show 100% when the system is reset after a transaxle fluid change. It will alert you to change your transaxle fluid on a schedule consistent with your driving conditions.

- Engine oil life, such as:

  OIL LIFE 30%

  This is an estimate of the oil's remaining useful life. It will show 100% when the system is reset after an oil change. It will alert you to change your oil on a schedule consistent with your driving conditions.

When the remaining oil life or transaxle fluid life is low, the system will alert you with a message:

CHANGE OIL SOON or CHANGE TRNS FLUID SOON

When the oil or transaxle fluid life is down to zero, you will receive the message:

CHANGE OIL NOW or CHANGE TRNS FLUID NOW

Always reset the OIL LIFE reminder after an oil change or the TRNS FLUID LIFE reminder after a transaxle fluid change. To reset the TRNS FLUID LIFE:

1. With the ignition on, press the ENG button so the TRNS LIFE percentage is displayed.
2. Press RESET and hold for five seconds. The word RESET will appear, then TRNS FLUID 100%.

To reset the Oil Life Monitor, see "Engine Oil Life Monitor" in the Index. Also, see "Engine Oil, When to Change" in the Index.

Remember, you must reset the OIL LIFE or TRNS FLUID yourself after each oil or transaxle fluid change. It will not reset itself. Also, be careful not to reset the OIL LIFE or TRNS FLUID accidentally at any time other than when the oil or transaxle fluid has just been changed. It can't be reset accurately until the next oil or transaxle fluid change.

The DIC does not replace the need to maintain your vehicle as recommended in the Maintenance Schedule in this manual. Also, the oil change reminder will not detect dusty conditions or engine malfunctions that may affect the oil. If you drive in dusty areas, change your oil after every 3,000 miles (5 000 km) or three months, whichever occurs first, unless the DIC instructs you to do so sooner. Also, the oil change reminder does not measure how much oil you have in your engine. So, be sure to check your oil level often. See "Engine Oil" in the Index.

Check Oil Level Warning

When CHECK OIL LEVEL appears, it indicates that the engine oil level is 1 to 1 1/2 quarts (0.9 L to 1.4 L) low. The message will appear only if the engine is running and it's been at least eight minutes since the engine was last running. If the message appears, check the oil dipstick level. If it reads low, your oil level should be brought up to the proper level (see "Engine Oil" in the Index). After bringing the oil to the proper level, the ignition must be off for eight minutes to allow the majority of oil to drain into the oil pan.

Distance to Destination

This feature acts as a reverse trip odometer by counting backward from an estimated distance which you enter before starting your trip. It also uses that information to determine the estimated time of arrival.

To set, press DEST, then RESET and enter a maximum of four digits for the length of your trip. (Always use whole miles or kilometers.) Then press ENTER. The system will only accept the last four digits you enter as your distance to destination.

The system will display the total distance to destination, such as:

365 MI TO DEST or 587 KM TO DEST

When the system counts down to zero distance remaining, even if you're in another display, a chime will sound and the display will show:

TRIP COMPLETE

The TRIP COMPLETE message will go off when you press any button, or when you turn your ignition to OFF, then on. The display returns to the mode displayed prior to the interruption.

Estimated Time of Arrival (ETA)

ETA is based on the average speed, the date and time of the day, and the estimated distance to your destination.

After you have entered your distance to destination, press ETA to display estimated time of arrival, such as:

ETA TUE 12:56 PM

Press ETA again to display the time to destination. The display will show the current time as the hours and minutes to destination, such as:

12:50 TIME TO DEST

If the time to destination calculation is seven days or greater, the display will read:

TRIP OVER 7 DAYS

When the trip is complete a chime will sound and the display will show:

TRIP COMPLETE

The trip complete message will go off when you press any button, or when you turn your ignition off, then on. The display returns to the mode displayed prior to the interruption.

Date

Press DATE to display the date. To change the date, press DATE then RESET. The following display will appear:

MONTH? XX/DD/YY

MM, DD and YY represent the month, date and year you currently have in your system. Check to make sure your clock is in the correct AM or PM mode.

Notice that each key has a number. Push the key to enter the number. The first XXs will flash until you enter the first digit for the month. You don't need to enter the leading zero if the number is under 10. Press ENTER after you've entered the month. The display will change to:

DAY? MM/XX/YY

Set the day just as you set the month. After the day entry is made, press ENTER and the display will change to:

YEAR? MM/DD/XX

Set the year just as you set the month and day. If a valid date is entered, the display will automatically exit to the date mode and display the day of the week, the month and the date. If an invalid date is entered, the display will return to MONTH? XX/DD/YY and you'll need to repeat the above steps.

After a battery reconnect (loss of power), the display will read CONFIRM TIME AND DATE.

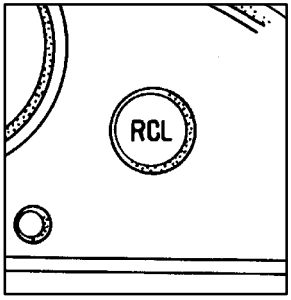
Elapsed Time (ET)

When the ignition is on, the DIC can be used as a stopwatch. The display will show hours and minutes. The elapsed time indicator will record up to 100 hours, then it will reset to zero and continue counting. Press ET, and the display will show the amount of time that has elapsed since the elapsed time indicator was last reset (not including time the ignition is off), such as:

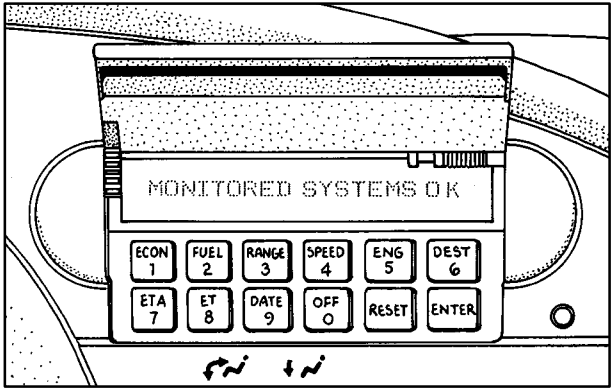
01:08 ELAPSED TIME

To reset elapsed time to zero, press RESET while the elapsed time is displayed.

RECALL



When you press the RCL button, the system scrolls through any currently active warning messages, then returns to the mode the system was in before you pressed RCL.



If no warning messages exist, MONITORED SYSTEMS OK will be displayed.

NOTES

NOTES

Section 3 Comfort Controls and Audio Systems

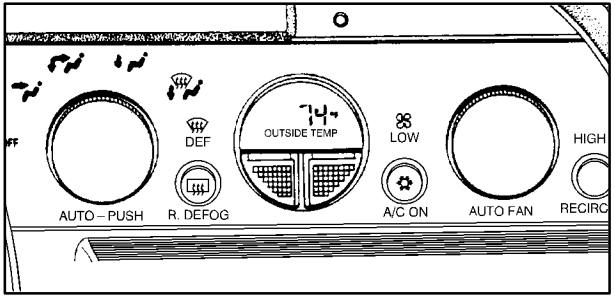
In this section, you'll find out how to operate the comfort control and audio systems offered with your vehicle. Be sure to read about the particular systems supplied with your vehicle.

3-2 Comfort Controls
3-2 Automatic Electronic Climate Control
3-6 Air Conditioning
3-6 Heating
3-7 Defogging and Defrosting
3-7 Rear Window Defogger
3-8 Passenger Temperature Control
3-8 Ventilation System
3-9 Steering Wheel Controls for Climate Control
3-10 Audio Systems
3-10 Setting the Clock
3-10 AM-FM Stereo with Cassette Tape and Compact Disc Player with Automatic Tone Control
3-17 Trunk-Mounted CD Changer (Option)
3-20 Theft-Deterrent Feature
3-22 Audio Steering Wheel Controls
3-23 Understanding Radio Reception
3-23 Tips About Your Audio System
3-24 Care of Your Cassette Tape Player
3-25 Care of Your Compact Discs
3-25 Care of Your Compact Disc Player
3-26 Power Antenna Mast Care

Comfort Controls

This section tells you how to operate your climate control system. Your climate control system uses ozone-friendly R-134a refrigerant.

Automatic Electronic Climate Control



Your vehicle is equipped with a Dual Zone Automatic Electronic Climate Control System. You can use the automatic setting or override the automatic setting by using the manual controls. Your vehicle also has the flow-through ventilation system described later in this section.

If the display ever starts flashing after the automatic electronic climate control system is started, there is a problem with the electronic climate control system and you should see your dealer for service.

AUTO-PUSH Knob

By pressing the AUTO-PUSH knob, you have selected the electronic climate control system to be in the automatic mode. The climate control system will automatically control the air temperature, air distribution and the fan speed based on the temperature inside the vehicle, the outside temperature and the sun load.

- Press the AUTO-PUSH knob. The lights on the AUTO-PUSH and the AUTO FAN knobs will illuminate. Your current comfort setting will be shown in the digital display.
- Set the comfort level you want inside the vehicle by using the colored buttons located below the climate control display.
- Turning the AUTO-PUSH knob selects manual air delivery mode operation of the climate control system.

Temperature Buttons

To adjust the comfort level you want maintained inside the vehicle, use the red and blue buttons located below the digital display. If you want a warmer comfort level, push the red button. If you want a cooler comfort level, push the blue button. Your selected comfort setting will be displayed on the digital screen for five seconds, then the outside temperature will be displayed.

Mode Control

Turn the AUTO-PUSH knob to deliver air through the floor, upper or windshield outlets. The system will stay in the selected mode until the AUTO-PUSH knob is pressed.

AUTO FAN Knob

This knob controls the fan speed in either an automatic mode or a manual mode.

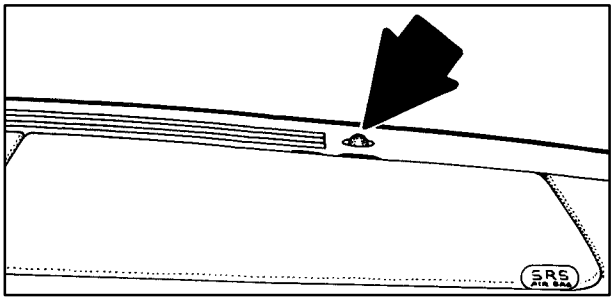
- Pressing the AUTO FAN knob puts the fan control in the automatic mode. The AUTO FAN light will appear below the knob. The fan speed indicators will not be illuminated when the system is in the automatic fan control mode.
- Turning the AUTO FAN knob selects a manual fan speed. Turn this knob clockwise to raise the fan speed. Turn this knob counterclockwise to lower the fan speed. Turning the AUTO FAN knob overrides the automatic fan control mode. The fan speed indicators will be illuminated while in the manual fan control mode.

Automatic Operation

Press the AUTO-PUSH knob when you want the system to automatically adjust the interior temperature to your preference. When the system is set for automatic operation, air will come from the floor, the upper outlets or the windshield outlets depending on the temperature inside the vehicle, the outside temperature and the sun load. Fan speed will vary as the system reaches and maintains the comfort setting you have selected.

To find your comfort setting, start with the system in automatic mode by pressing the AUTO-PUSH knob. Adjust the comfort setting by using the red and blue buttons located below the digital display until you reach a setting of 75°F (24°C) on the display. Give the vehicle about 20 minutes to stabilize and then readjust the comfort setting if necessary. The display will show the comfort setting for five seconds and then it will show the outside temperature.

In cold weather, the system will delay turning on the fan to avoid blowing cold air. The length of the delay depends on the engine coolant temperature and the outside temperature. Turning the AUTO FAN knob will override this delay by turning off the automatic fan mode and changing the fan speed.



Your automatic electronic climate control system has two sun sensors located on the top of the instrument panel that detect direct sunlight. To keep you and your passengers comfortable, the system may supply cooler air to the side toward the sun. Be careful not to put anything over these sun sensors. The automatic electronic climate control system may not operate correctly if these sensors are covered.

To change the automatic electronic climate control display from an English display to a metric display, push the OFF button located in the Driver Information Center (DIC) for two seconds. The display in the DIC will also change from an English to a metric display. To return to an English display, repeat the above procedure.

Manual Operation

You may override the automatic airflow distribution by turning the AUTO-PUSH knob. After you turn this knob, the comfort setting will be displayed for five seconds, then the outside temperature will be displayed. The fan control will remain in the automatic control mode unless you turn the AUTO FAN knob to select a manual fan speed.

UPPER: This setting directs airflow through the upper air outlets located in the instrument panel and door panels.

BI-LEVEL: This setting directs the airflow through both the upper air outlets and the lower floor outlets. There is also a small amount of air directed to the front defroster and the side window defrosters.

HEAT: This setting directs most of the airflow to the lower floor outlets with some airflow directed to the side window defrosters. There is also a small amount of airflow directed to the front defroster.

DEFOG: This setting directs the majority of the airflow to the lower floor outlets and the front defroster. A small amount of airflow is directed to the side window defroster outlets. This mode can be useful to remove the moisture from the inside of the windshield when the outside temperature is cold or the humidity is high.

DEF (Defrost): This setting directs the majority of the airflow to the windshield with some airflow to the side window defrosters and lower floor outlets. To increase the fan speed, turn the AUTO FAN knob clockwise.

RECIRC ON: Press this button to limit the amount of outside air entering your vehicle. This is helpful when you are trying to cool the interior of the vehicle quickly or limit the amount of outside air entering your vehicle for some other reason. The RECIRC ON button and the AUTO-PUSH knob may be selected at the same time. The system will remain in RECIRC ON until the ignition is turned off, then the system will return back to the previously selected mode. RECIRC ON may be selected in all manual airflow modes except front defrost.

Operating the RECIRC ON mode in cold temperatures or under high humidity conditions may cause moisture to form on the inside of the windshield. If this condition occurs, deselect the RECIRC ON button.

A/C ON: Press this button to turn the air conditioning on and off. If the system is operating in the automatic mode, the A/C ON indicator light will automatically illuminate. In the auto mode, the A/C compressor will only operate when the system determines it is needed.

OFF: Turn the AUTO-PUSH knob to OFF. Turning the system off will cause the fan to turn off and the airflow to be directed out the lower floor outlets. The system will still try to keep the interior of the vehicle at the previously chosen comfort setting. The outside temperature will show in the display when the system is set to OFF.

Air Conditioning

The air conditioner cools, dehumidifies and filters the air for the inside of the vehicle.

The air conditioning compressor is enabled in all modes unless the A/C ON button is in the off position (the indicator light will not be illuminated). However, the air conditioning compressor will not operate when the outside temperature is below 42°F (7°C). When the air conditioner is on, you may sometimes notice slight changes in your vehicle's engine speed and power. This is normal, because the system is designed to cycle the compressor on and off to keep the desired cooling and help fuel economy.

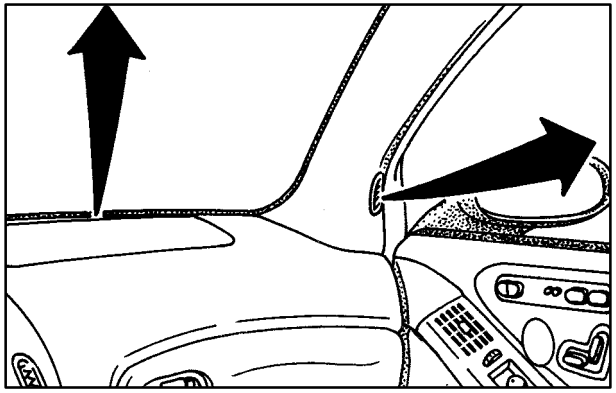
On very hot days, open the windows long enough to let the hot air out. This reduces the time required to cool the interior of the vehicle to a comfortable level. If the system is in the automatic mode (AUTO-PUSH knob indicator light is on), during very hot days the system will automatically go to the RECIRC ON mode and the temperature door will be positioned at the full cold position for maximum cooling. You can choose the extreme comfort setting of 60°F (16°C), but the system will not cool any faster by choosing the extreme comfort setting.

Heating

In cold weather, if the automatic mode is selected (AUTO-PUSH knob indicator light is on), the system will automatically direct the airflow out of the lower floor outlets and the temperature door will be positioned at the full hot position. You can choose the extreme comfort setting of 90°F (32°C), but the system will not warm up any faster by selecting the extreme comfort setting.

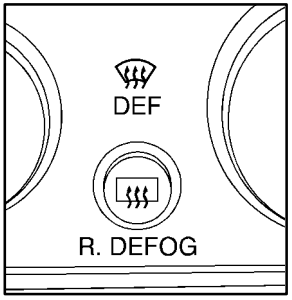
In cold weather, the system will delay turning on the fan to avoid blowing cold air. The length of the delay depends on the engine coolant temperature and the outside temperature. The fan speed will increase as the temperature of the engine coolant increases. Turning the AUTO FAN knob will override this delay by turning off the automatic fan control mode and changing the fan speed.

Defogging and Defrosting



On cool, humid days, use the defog setting to keep the windows clear while also providing heat through the lower outlets. Turn the AUTO-PUSH knob clockwise to DEF to quickly remove fog or ice from the windshield.

Rear Window Defogger



R. DEFOG: Press this button to warm the defogger grid on the rear window. An indicator light below the button will glow while the rear window defogger is operating.

At speeds above 30 mph (48 km/h), the rear defogger will stay on until you press the R. DEFOG button again. At speeds below 30 mph (48 km/h), the rear window defogger will turn off automatically after about 10 minutes of use. If you press it again, the defogger will operate for about five minutes only. You can also turn the defogger off by turning off the ignition.

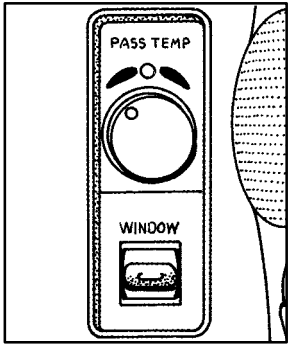
Do not attach a temporary vehicle license across the defogger grid on the rear window.

When you operate the rear window defogger, the outside rearview mirrors are also heated to help remove ice and fog.

NOTICE:

Don't use a razor blade or something else sharp on the inside of the rear window. If you do, you could cut or damage the warming grid, and the repairs wouldn't be covered by your warranty.

Passenger Temperature Control



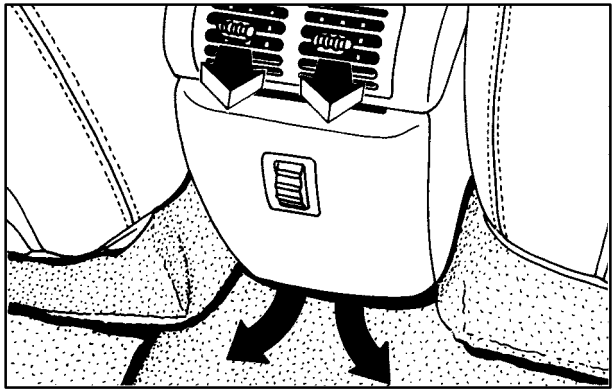
With this feature, the right front seat passenger can control the comfort setting for their own zone. To use this feature, adjust the control on the passenger's side armrest to the desired comfort level.

The passenger's temperature control on the passenger's armrest will illuminate only if the headlamps or parking lamps are on.

Ventilation System

Your vehicle's flow-through ventilation system always allows outside air to flow through your vehicle when it is moving, even when the system is off.

The direction of the air can be controlled by adjusting or closing the outlets in the instrument panel. Turn the control between the front outlets upward to open the outlets and downward to close the outlets. Adjust the direction of airflow from side to side with the controls in each outlet.

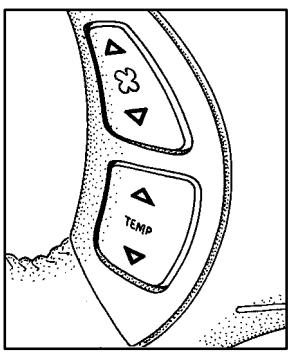


Turn the control between the rear outlets up to direct air through the upper outlets. Turn the control down to direct air through the lower outlets. Adjust the direction of airflow from side to side with the controls in each outlet.

Ventilation Tips

- Keep the hood and front air inlet area between the base of the windshield and the hood free of ice, snow, or any other obstruction (such as leaves). The defroster and heater will work far better, reducing the chance of fogging the inside of your windows if this area is clear.
- Keep the air path under the front seats clear of objects. This helps air to circulate throughout your vehicle.

Steering Wheel Controls for Climate Control



Some heating and cooling controls can be adjusted at the steering wheel. Other touch controls also operate some audio controls. See “Audio Steering Wheel Controls” later in this section.

Press the upper part of the fan symbol button to override the automatic fan control and increase the fan speed. Press the lower part of the fan symbol button to override the automatic fan control and reduce the fan speed.

Press either arrow on the TEMP button once to display your current comfort setting in the digital display. Press the upper part of the TEMP button again to provide a warmer comfort setting or press the lower part of the TEMP button again to provide a cooler comfort setting.

Audio Systems

Your Delco Electronics audio system has been designed to operate easily and give years of listening pleasure. You will get the most enjoyment out of it if you acquaint yourself with it first. Find out what your Delco Electronics system can do and how to operate all its controls, to be sure you're getting the most out of the advanced engineering that went into it.

Setting the Clock

Press and hold HR until the correct hour appears. The letter A or P may appear on the display for AM or PM. Then, press and hold MN until the correct minute appears. The clock may be set with the ignition on or off.

AM-FM Stereo with Cassette Tape and Compact Disc Player with Automatic Tone Control

Standard Radio -- Bose® Not Shown

If your vehicle is equipped with the Bose® AM-FM Stereo with Cassette Tape and Compact Disc Player (not shown), automatic tone control is not available. Your radio will have a MUTE button rather than a TONE button.

Playing the Radio

PWR-VOL: Press this knob to turn the system on and off. To increase volume, turn the knob clockwise. Turn it counterclockwise to decrease volume.

RCL: Press this button briefly to recall the station being played or to display the clock. To change what is normally shown on the display (station or time), press the RCL button until you see the display you want, then hold the RCL button until the display flashes. If you press the button when the ignition is off, the clock will show for a few seconds.

MUTE: Press this button to silence the system. Press it again to turn on the sound. (This button is available on the Bose® radio only.)

Finding a Station

AM-FM: Press this button to switch between AM, FM1 and FM2. The display shows your selection.

TUNE: Press this knob lightly so it extends. Turn it to choose radio stations. Push the knob back into its stored position when you're not using it.

SEEK: Press the up or down arrow to go to the next higher or lower station and stay there. The sound will mute while seeking.

SCAN: Press this button and release it to listen to stations for a few seconds. The radio will go to a station, stop for a few seconds, then go on to the next station. Press the button again to stop scanning. The sound will mute while scanning, and SCAN will appear on the display. If you press SCAN for more than two seconds, the radio will change to P SCAN mode. P SCAN will appear on the display.

PUSHBUTTONS: The five numbered pushbuttons let you return to your favorite stations. You can set up to 15 stations (five AM, five FM1 and five FM2). Just:

1. Turn the radio on.
2. Press AM-FM to select the band.
3. Tune in the desired station.
4. Press TONE to select the equalization that best suits the type of station selected. (This function is not available on the Bose radio.)
5. Press and hold one of the five numbered buttons. The sound will mute. When it returns, release the button. Whenever you press that numbered button, the station you set will return and the tone that you selected will also be automatically selected for that button. (The tone will not automatically return on the Bose radio.)
6. Repeat the steps for each pushbutton.

P SCAN: Press SCAN for more than two seconds, and P SCAN will appear on the display. The radio will go to the first preset station stored on your pushbuttons, stop for a few seconds, then go on to the next preset station. Press SCAN again to stop scanning.

Setting the Tone

BASS: Press this knob lightly so it extends. Turn the knob to increase or decrease bass. When you use this control, the radio's tone setting will switch to manual. (The radio's tone setting will not switch to manual on the Bose radio.)

TREB: Press this knob lightly so it extends. Then pull the knob all the way out. Turn the knob to increase or decrease treble. When you use this control, the radio's tone setting will switch to manual. (The radio's tone setting will not switch to manual on the Bose radio.) If a station is weak or noisy, you may want to decrease the treble.

Push the knob back into its stored position when you're not using it.

TONE: This feature allows you to choose preset bass and treble equalization settings designed for jazz, vocal, pop, rock and classical stations. JAZZ will appear on the display when you first press TONE. Each time you press it, another setting will appear on the display. Press it again after CLASSIC appears and MANUAL will appear. Tone control will return to the BASS and TREB knobs. Also, if you use the BASS and TREB knobs, control will return to them and MANUAL will appear. (This button is not available on the Bose radio.)

Adjusting the Speakers

BAL: Press this knob lightly so it extends. Turn the knob to move the sound to the left or right speakers. The middle position balances the sound between the speakers.

FADE: Press the knob lightly so it extends. Then pull the knob all the way out. Turn it to move the sound to the front or rear speakers. The middle position balances the sound between the speakers.

Push the knob back into its stored position when you're not using it.

Playing a Cassette Tape

Your tape player is built to work best with tapes that are up to 30 to 45 minutes long on each side. Tapes longer than that are so thin they may not work well in this player.

The longer side with the tape visible should face to the right. If the ignition is on, but the radio is off, the tape can be inserted and will begin playing. If you hear nothing but a garbled sound, the tape may not be in squarely. Press EJECT to remove the tape and start over.

While the tape is playing, use the VOL, FADE, BAL, TREB, BASS, TONE, SEEK and SCAN controls just as you do for the radio. (The TONE control is not available on the Bose radio.) Other controls may have different functions when a tape is inserted. The display will show TP with a box around it and an arrow to show which side of the tape is playing.

Your tape bias is set automatically. When a metal or chrome tape is inserted, HI-BIAS appears on the display. If you want to insert a tape when the ignition is off, first press EJECT or RCL.

If E and a number appear on the radio display and the tape won't play because of an error, it could be that:

- **E10:** The tape is tight and the player can't turn the tape hubs. Remove the tape. Hold the tape with the open end down and try to turn the right hub counterclockwise with a pencil. Turn the tape over and repeat. If the hubs do not turn easily, your tape may be damaged and should not be used in the player. Try a new tape to make sure your player is working properly.
- **E11:** The tape is broken. Try a new tape.

If any error occurs repeatedly or if an error can't be corrected, please contact your dealer. If your radio displays an error number, write it down and provide it to your dealer when reporting the problem.

REV (1): Press this button to reverse the tape rapidly. Press it again to return to playing speed. The radio will play the last selected station while the tape reverses. You may select stations during REV operation by using TUNE.

FWD (2): Press this button to advance quickly to another part of the tape. Press the button again to return to playing speed. The radio will play the last selected station while the tape advances. You may select stations during FWD operation by using TUNE.

PROG (3): Press this button to play the other side of the tape.

DD (4): Press this button to reduce background noise. Note that the double-D symbol will appear on the display.

Dolby Noise Reduction is manufactured under a license from Dolby Laboratories Licensing Corporation. Dolby and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

TONE: Press this button to select a tone while playing a cassette. The tone that you set will be activated each time you play a cassette tape. (This button is not available on the Bose radio.)

SEEK: Press the up or down arrow to search for the next or previous selection on the tape. Your tape must have at least three seconds of silence between each selection for SEEK to work.

SCAN: Press this button to listen to each selection for a few seconds. The tape will go to the next selection, stop for a few seconds, then go on to the next selection. Press this button again to stop scanning. The sound will mute while scanning, SCAN will appear on the display and the tape direction arrow will blink while scanning.

AM-FM: Press this button to play the radio when a tape is in the player. The tape will stop but remain in the player.

TAPE-CD: Press this button if you have a disc loaded in the CD player and the radio is playing, to play a compact disc. Press AM-FM to return to the radio when a compact disc is playing. Press TAPE-CD to switch between the tape and compact disc if both are loaded. The inactive tape or CD will remain safely inside the radio for future listening. The display will show TP and CD.

EJECT: Press this button to remove the tape. The radio will play. EJECT may be activated with either the ignition or radio off. Cassettes may be loaded with the radio and ignition off if this button is pressed first.

CLN: If this message appears on the display, the cassette tape player needs to be cleaned. It will still play tapes, but you should clean it as soon as possible to prevent damage to the tapes and player. See “Care of Your Cassette Tape Player” in the Index. After you clean the player, press and hold EJECT for five seconds to reset the CLN indicator. The radio will display --- to show the indicator was reset.

Playing a Compact Disc

With the ignition on, insert a disc partway into the slot, label side up. The player will pull it in and the disc should begin playing. If you want to insert a CD when the ignition is off, first press EJECT or RCL.

The CD player will play either normal-size discs or the smaller 8 cm discs with an adapter.

Note that when the disc is inserted, CD will be displayed. When the disc is playing, a box will appear around CD on the display. If you select a tone setting for your CD, it will be activated each time you play a CD. (The tone setting function is not available on the Bose radio.)

As each new track starts to play, the track number will appear in the display.

If E (error) and a number appear on the radio display and the disc comes out, it could be that:

- **E20:** The road is too rough. The disc should play when the road is smoother.
- **E20:** The disc is dirty, scratched, wet or upside down.
- **E20:** The air is very humid. If so, wait about an hour and try again.

If any error occurs repeatedly or if an error can't be corrected, please contact your dealer. If your radio displays an error number, write it down and provide it to your dealer when reporting the problem.

REV (1): Press and hold this button to quickly reverse within a track. You will hear sound at a reduced volume. The display will show elapsed time.

FWD (2): Press and hold this button to quickly advance within a track. You will hear sound at a reduced volume. The display will show elapsed time.

RDM (5): Press this button to hear the tracks in random, rather than sequential, order. RDM will appear on the display when you press this button.

TONE: Press this button to select a tone while playing a compact disc. The tone that you set will be activated each time you play a compact disc. (This button is not available on the Bose radio.)

SEEK: Press the down arrow to go to the start of the current track if more than eight seconds have played. Press the up arrow to go to the next track. If you hold the button or press it more than once, the player will continue moving rearward or forward through the disc.

SCAN: Press this button to listen to each selection for a few seconds. The disc will go to the next selection, stop for a few seconds, then go on to the next selection. Press this button again to stop scanning. The sound will mute while scanning, SCAN will appear on the display.

RCL: Press this button to see which track is playing. Press it again within five seconds to see how long it has been playing. To change what is normally shown on the display (track or elapsed time), press the button until you see the display you want, then hold the button until the display flashes. While elapsed time is showing, EL TM will appear on the display.

AM-FM: Press this button to play the radio when a disc is in the player.

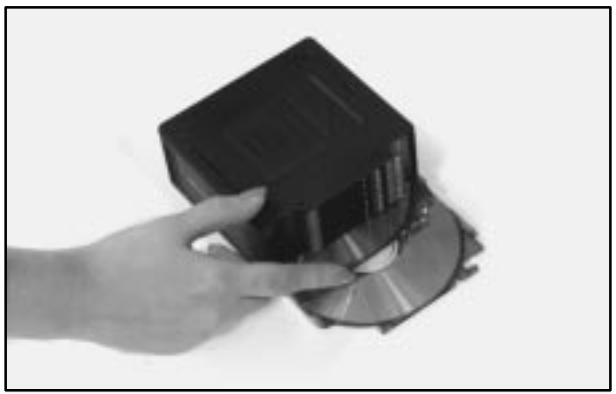
TAPE-CD: Press this button to change to the tape or disc function when the radio is on and either a tape or CD is inserted. Press AM-FM to return to the radio while a CD or tape is playing. The inactive tape or CD will remain safely inside the radio for future listening. If you have the optional CD changer and the CD changer is loaded, the TAPE-CD button will activate the changer and a box will be lighted around CDC in the display.

EJECT: Press this button to remove the compact disc or cassette tape. The icon with the box around it on the display will eject and the radio will play. EJECT may be activated with either the ignition or radio off. Cassettes and compact discs may be loaded with the radio and ignition off if this button is pressed first.

Trunk-Mounted CD Changer (Option)

With the optional compact disc changer, you can play up to 12 discs continuously. Normal size discs may be played using the trays supplied in the magazine.

The small discs (8 cm) can be played only with specially designed trays.



You must first load the magazine with discs before you can play a compact disc. Each of the 12 trays holds one disc. Press the button on the back of the magazine and pull gently on one of the trays. Load the trays from bottom to top, placing a disc on the tray label side down.

If you load a disc label side up, the disc will not play and an error will occur. Gently push the tray back into the magazine slot. Repeat this procedure for loading up to 12 discs in the magazine.

Once you have loaded the discs in the magazine, slide open the door of the compact disc (CD) changer. Push the magazine into the changer in the direction of the arrow marked on top of the magazine.

Close the door by sliding it all the way to the left. If the door is left partially open, the changer will not operate and an error will occur. When the door is closed, the changer will begin checking for discs in the magazine. This will continue for up to two minutes depending on the number of discs loaded.

To eject the magazine from the player, slide the CD changer door all the way open. The magazine will automatically eject. Remember to keep the door closed whenever possible to keep dirt and dust from getting inside the changer.

All of the CD functions are controlled by the radio buttons except for ejecting the magazine. Whenever a CD magazine with discs is loaded in the changer, the compact disc symbol (CDC) will appear on the radio display. If the CD changer is checking the magazine for CDs, the (CDC) symbol will flash on the display until the changer is ready to play. When a CD begins playing, a disc and track number will be displayed. The disc numbers are listed on the front of the magazine.

Compact Disc Errors

If E and a number appear on the display, an error has occurred and the compact disc temporarily cannot play.

The CD changer will send an error message to the receiver to indicate:

- **E34:** CD Changer Door Open
- **E35:** CD Changer Cartridge Empty

If the error occurred while trying to play a CD in the compact disc player or changer, the following conditions may have caused the error:

- The road is too rough. The disc should play when the road is smoother.
- The disc is dirty, scratched, wet or upside down.
- The air is very humid. If so, wait about an hour and try again.
- The CD changer door is open. Completely close the door to restore normal operation.
- An empty magazine is inserted in the CD changer. Try the magazine again with a disc loaded on one of the trays.

If any error occurs repeatedly or if an error cannot be corrected, please contact your dealership. If your radio displays an error number, write it down and provide it to your dealership when reporting the problem.

Playing a Compact Disc

REV (1): Press and hold this button to quickly reverse within a track. As the CD reverses, elapsed time will be displayed to help you find the correct passage.

FWD (2): Press and hold this button to quickly advance within a track. As the CD advances, elapsed time will be displayed to help you find the correct passage.

PROG (3): Press this button to select the next disc in the magazine. Each time you press PROG, the disc number on the radio display will go to that of the next available CD. If a CD cannot be played, its number will be skipped when selecting discs while using the PROG button.

RDM (5): Press this button to enter the random play mode. RDM will appear on the display. While in this mode, the tracks on the discs will be played in random order. If you press PROG or SEEK while in the random mode, discs and tracks will be scanned randomly. Press this button again to turn off the random feature and return to normal operation.

RCL: Press this button to see what track is currently playing. Press RCL again within five seconds to see how long the track has been playing. EL TM will appear on the display when in elapsed time mode. When a new track starts to play, the track number will also appear. Press RCL a third time and the time of day will be displayed.

SEEK: Press the SEEK down arrow while playing a CD to go back to the start of the current track if more than eight seconds have played. If you press it again, the changer will go to previous tracks. Press the SEEK up arrow and it will go to the next higher track on the disc.

SCAN: Press this button and release to listen to each selection for a few seconds. The first few seconds of each selection on the current disc will be played. The sound will mute while scanning and SCAN will appear on the display. Press this button again to stop scanning.

P SCAN: Press and hold the SCAN button for two seconds to hear the first selection of each loaded disc for a few seconds. The sound will mute while scanning and P SCAN will appear on the display. Press SCAN again to stop scanning.

TAPE/CD: Press this button to play a CD if you have a magazine loaded in the changer and the radio is playing. To return to the radio while a CD is playing, press AM-FM. You can also press this button to switch between a cassette tape, CD or the CD changer if all three are loaded.

Theft-Deterrent Feature

THEFTLOCK® is designed to discourage theft of your radio. It works by using a secret code to disable all radio functions whenever battery power is removed.

The THEFTLOCK feature for the radio may be used or ignored. If ignored, the system plays normally and the radio is not protected by the feature. If THEFTLOCK is activated, your radio will not operate if stolen.

When THEFTLOCK is activated, the radio will display LOC to indicate a locked condition anytime battery power is removed. If your battery loses power for any reason, you must unlock the radio with the secret code before it will operate.

Activating the Theft-Deterrent Feature

The instructions which follow explain how to enter your secret code to activate the THEFTLOCK system. It is recommended that you read through all nine steps before starting the procedure.

NOTE: If you allow more than 15 seconds to elapse between any steps, the radio automatically reverts to time and you must start the procedure over at Step 4.

1. Write down any three or four-digit number from 000 to 1999 and keep it in a safe place separate from the vehicle.
2. Turn the ignition to ACCESSORY or RUN.
3. Turn the radio off.
4. Press the 1 and 4 buttons together. Hold them down until --- shows on the display. Next you will use the secret code number which you have written down.
5. Press MN and 000 will appear on the display.
6. Press MN again to make the last two digits agree with your code.
7. Press HR to make the first one or two digits agree with your code.
8. Press AM-FM after you have confirmed that the code matches the secret code you have written down. The display will show REP to let you know that you need to repeat Steps 5 through 7 to confirm your secret code.
9. Press AM-FM and this time the display will show SEC to let you know that your radio is secure.

Unlocking the Theft-Deterrent Feature After a Power Loss

Enter your secret code as follows; pause no more than 15 seconds between steps:

1. Turn the ignition on. LOC will appear on the display.
2. Press MN and 000 will appear on the display.
3. Press MN again to make the last two digits agree with your code.
4. Press HR to make the first one or two digits agree with your code.
5. Press AM-FM after you have confirmed that the code matches the secret code you have written down. The display will show SEC, indicating the radio is now operable and secure.

If you enter the wrong code eight times, INOP will appear on the display. You will have to wait an hour with the ignition on before you can try again. When you try again, you will only have three chances to enter the correct code before INOP appears.

If you lose or forget your code, contact your dealership.

Disabling the Theft-Deterrent Feature

Enter your secret code as follows; pause no more than 15 seconds between steps:

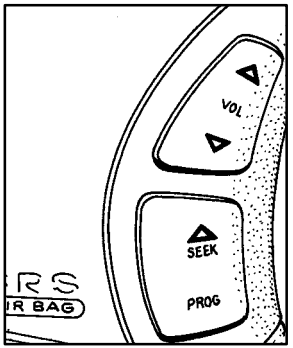
1. Turn the ignition to ACCESSORY or RUN.
2. Turn the radio off.
3. Press the 1 and 4 buttons together. Hold them down until SEC shows on the display.
4. Press MN and 000 will appear on the display.
5. Press MN again to make the last two digits agree with your code.
6. Press HR to make the first one or two digits agree with your code.
7. Press AM-FM after you have confirmed that the code matches the secret code you have written down. The display will show ---, indicating that the radio is no longer secured.

If the code entered is incorrect, SEC will appear on the display. The radio will remain secured until the correct code is entered.

When battery power is removed and later applied to a secured radio, the radio won't turn on and LOC will appear on the display.

To unlock a secured radio, see "Unlocking the Theft-Deterrent Feature After a Power Loss" earlier in this section.

Audio Steering Wheel Controls



With this feature, you can control certain radio functions using the buttons on your steering wheel.

Some steering wheel controls operate climate controls. See "Steering Wheel Controls for Climate Control" earlier in this section.

VOL: Press the up or down arrow to increase or decrease volume.

SEEK: Press this button to tune to the next strong radio station. When playing a cassette tape or compact disc, press SEEK to hear the next selection. There must be at least a three-second gap between selections on a cassette tape.

PROG: Press this button to tune in the next preset radio station. When playing a cassette tape, press PROG to hear the other side of a tape that is playing. When listening to a disc in the CD changer, press PROG to select the next loaded disc.

Understanding Radio Reception

AM

The range for most AM stations is greater than for FM, especially at night. The longer range, however, can cause stations to interfere with each other. AM can pick up noise from things like storms and power lines. Try reducing the treble to reduce this noise if you ever get it.

FM Stereo

FM stereo will give you the best sound, but FM signals will reach only about 10 to 40 miles (16 to 65 km). Tall buildings or hills can interfere with FM signals, causing the sound to come and go.

Tips About Your Audio System

Hearing damage from loud noise is almost undetectable until it is too late. Your hearing can adapt to higher volumes of sound. Sound that seems normal can be loud and harmful to your hearing. Take precautions by adjusting the volume control on your radio to a safe sound level before your hearing adapts to it.

To help avoid hearing loss or damage:

- Adjust the volume control to the lowest setting.
- Increase volume slowly until you hear comfortably and clearly.

NOTICE:

Before you add any sound equipment to your vehicle -- like a tape player, CB radio, mobile telephone or two-way radio -- be sure you can add what you want. If you can, it's very important to do it properly. Added sound equipment may interfere with the operation of your vehicle's engine, Delco Electronics radio or other systems, and even damage them. Your vehicle's systems may interfere with the operation of sound equipment that has been added improperly.

So, before adding sound equipment, check with your dealership and be sure to check Federal rules covering mobile radio and telephone units.

Care of Your Cassette Tape Player

A tape player that is not cleaned regularly can cause reduced sound quality, ruined cassettes or a damaged mechanism. Cassette tapes should be stored in their cases away from contaminants, direct sunlight and extreme heat. If they aren't, they may not operate properly or may cause failure of the tape player.

Your tape player should be cleaned regularly after every 50 hours of use. Your radio may display CLN to indicate that you have used your tape player for 50 hours without resetting the tape clean timer. If this message appears on the display, your cassette tape player needs to be cleaned. It will still play tapes, but you should clean it as soon as possible to prevent damage to your tapes and player. If you notice a reduction in sound quality, try a known good cassette to see if it is the tape or the tape player at fault. If this other cassette has no improvement in sound quality, clean the tape player.

The recommended cleaning method for your cassette tape player is the use of a scrubbing action, non-abrasive cleaning cassette with pads which scrub the tape head as the hubs of the cleaner cassette turn. The recommended cleaning cassette is available through your dealer (GM Part No. 12344789).

When using a scrubbing action, non-abrasive cleaning cassette, it is normal for the cassette to eject because your unit is equipped with a cut tape detection feature and a cleaning cassette may appear as a broken tape. If the cleaning cassette ejects, insert the cassette at least three times to ensure thorough cleaning.

You may also choose a non-scrubbing action, wet-type cleaner which uses a cassette with a fabric belt to clean the tape head. This type of cleaning cassette will not eject on its own. A non-scrubbing action cleaner may not clean as thoroughly as the scrubbing type cleaner. The use of a non-scrubbing action, dry-type cleaning cassette is not recommended.

After you clean the player, press and hold EJECT for five seconds to reset the CLN indicator. The radio will display --- to show the indicator was reset.

Cassettes are subject to wear and the sound quality may degrade over time. Always make sure the cassette tape is in good condition before you have your tape player serviced.

Care of Your Compact Discs

Handle discs carefully. Store them in their original cases or other protective cases and away from direct sunlight and dust. If the surface of a disc is soiled, dampen a clean, soft cloth in a mild, neutral detergent solution and clean it, wiping from the center to the edge.

Be sure never to touch the signal surface when handling discs. Pick up discs by grasping the outer edges or the edge of the hole and the outer edge.

Care of Your Compact Disc Player

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.

Power Antenna Mast Care

Your power antenna will look its best and work well if it's cleaned from time to time. To clean the antenna mast:

1. Turn on the ignition and radio to raise the antenna.
2. Dampen a clean cloth with mineral spirits or equivalent solvent.
3. Wipe the cloth over the mast sections, removing any dirt.
4. Wipe dry with a clean cloth.
5. Make the antenna go up and down by turning the radio or ignition off and on.
6. Repeat if necessary.

NOTICE:

Don't lubricate the power antenna. Lubrication could damage it.

NOTICE:

Before entering an automatic car wash, turn off your radio to make the power antenna go down. This will prevent the mast from possibly getting damaged. If the antenna does not go down when you turn the radio off, it may be damaged or need to be cleaned. In either case, lower the antenna by hand by carefully pressing the antenna down.

If the mast portion of your antenna is damaged, you can easily replace it. See your dealership for a replacement kit and follow the instructions in the kit.

NOTES

NOTES

Section 4 Your Driving and the Road

Here you'll find information about driving on different kinds of roads and in varying weather conditions. We've also included many other useful tips on driving.

4-2 Defensive Driving
4-3 Drunken Driving
4-5 Control of a Vehicle
4-6 Braking
4-10 Steering
4-13 Off-Road Recovery
4-13 Passing
4-14 Loss of Control
4-16 Driving at Night
4-17 Driving in Rain and on Wet Roads
4-20 City Driving
4-21 Freeway Driving
4-22 Before Leaving on a Long Trip
4-23 Highway Hypnosis
4-23 Hill and Mountain Roads
4-25 Winter Driving
4-29 Recreational Vehicle Towing
4-30 Loading Your Vehicle
4-32 Towing a Trailer

Defensive Driving

The best advice anyone can give about driving is: Drive defensively.

Please start with a very important safety device in your vehicle: Buckle up. (See “Safety Belts” in the Index.)

Defensive driving really means “be ready for anything.” On city streets, rural roads or freeways, it means “always expect the unexpected.”

Assume that pedestrians or other drivers are going to be careless and make mistakes. Anticipate what they might do. Be ready for their mistakes.

Rear-end collisions are about the most preventable of accidents. Yet they are common. Allow enough following distance. It’s the best defensive driving maneuver, in both city and rural driving. You never know when the vehicle in front of you is going to brake or turn suddenly.

Defensive driving requires that a driver concentrate on the driving task. Anything that distracts from the driving task -- such as concentrating on a cellular telephone call, reading, or reaching for something on the floor -- makes proper defensive driving more difficult and can even cause a collision, with resulting injury. Ask a passenger to help do things like this, or pull off the road in a safe place to do them yourself. These simple defensive driving techniques could save your life.

Drunken Driving

Death and injury associated with drinking and driving is a national tragedy. It's the number one contributor to the highway death toll, claiming thousands of victims every year.

Alcohol affects four things that anyone needs to drive a vehicle:

- Judgment
- Muscular Coordination
- Vision
- Attentiveness.

Police records show that almost half of all motor vehicle-related deaths involve alcohol. In most cases, these deaths are the result of someone who was drinking and driving. In recent years, over 17,000 annual motor vehicle-related deaths have been associated with the use of alcohol, with more than 300,000 people injured.

Many adults -- by some estimates, nearly half the adult population -- choose never to drink alcohol, so they never drive after drinking. For persons under 21, it's against the law in every U.S. state to drink alcohol. There are good medical, psychological and developmental reasons for these laws.

The obvious way to solve the leading highway safety problem is for people never to drink alcohol and then drive. But what if people do? How much is "too much" if the driver plans to drive? It's a lot less than many might think. Although it depends on each person and situation, here is some general information on the problem.

The Blood Alcohol Concentration (BAC) of someone who is drinking depends upon four things:

- The amount of alcohol consumed
- The drinker's body weight
- The amount of food that is consumed before and during drinking
- The length of time it has taken the drinker to consume the alcohol.

According to the American Medical Association, a 180-lb. (82 kg) person who drinks three 12-ounce (355 ml) bottles of beer in an hour will end up with a BAC of about 0.06 percent. The person would reach the same BAC by drinking three 4-ounce (120 ml) glasses of wine or three mixed drinks if each had 1-1/2 ounces (45 ml) of a liquor like whiskey, gin or vodka.

It's the amount of alcohol that counts. For example, if the same person drank three double martinis (3 ounces or 90 ml of liquor each) within an hour, the person's BAC would be close to 0.12 percent. A person who consumes food just before or during drinking will have a somewhat lower BAC level.

There is a gender difference, too. Women generally have a lower relative percentage of body water than men. Since alcohol is carried in body water, this means that a woman generally will reach a higher BAC level than a man of her same body weight when each has the same number of drinks.

The law in many U.S. states sets the legal limit at a BAC of 0.10 percent. In a growing number of U.S. states, and throughout Canada, the limit is 0.08 percent. In some other countries, it's even lower. The BAC limit for all commercial drivers in the United States is 0.04 percent.

The BAC will be over 0.10 percent after three to six drinks (in one hour). Of course, as we've seen, it depends on how much alcohol is in the drinks, and how quickly the person drinks them.

But the ability to drive is affected well below a BAC of 0.10 percent. Research shows that the driving skills of many people are impaired at a BAC approaching 0.05 percent, and that the effects are worse at night. All drivers are impaired at BAC levels above 0.05 percent. Statistics show that the chance of being in a collision increases sharply for drivers who have a BAC of 0.05 percent or above. A driver with a BAC level of 0.06 percent has doubled his or her chance of having a collision. At a BAC level of 0.10 percent, the chance of this driver having a collision is 12 times greater; at a level of 0.15 percent, the chance is 25 times greater!

The body takes about an hour to rid itself of the alcohol in one drink. No amount of coffee or number of cold showers will speed that up. “I’ll be careful” isn’t the right answer. What if there’s an emergency, a need to take sudden action, as when a child darts into the street? A person with even a moderate BAC might not be able to react quickly enough to avoid the collision.

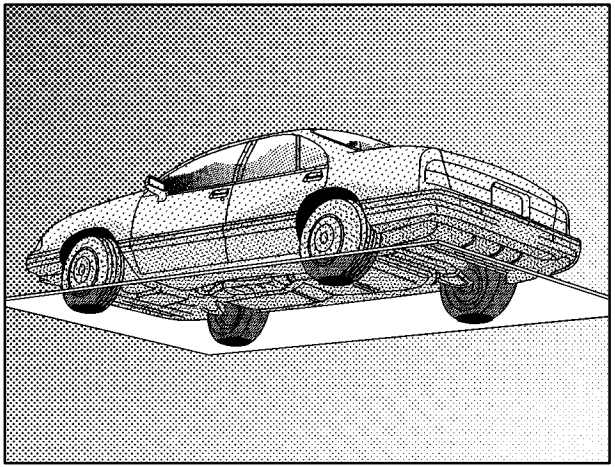
There’s something else about drinking and driving that many people don’t know. Medical research shows that alcohol in a person’s system can make crash injuries worse, especially injuries to the brain, spinal cord or heart. This means that when anyone who has been drinking -- driver or passenger -- is in a crash, that person’s chance of being killed or permanently disabled is higher than if the person had not been drinking.

⚠ CAUTION:

Drinking and then driving is very dangerous. Your reflexes, perceptions, attentiveness and judgment can be affected by even a small amount of alcohol. You can have a serious -- or even fatal -- collision if you drive after drinking. Please don’t drink and drive or ride with a driver who has been drinking. Ride home in a cab; or if you’re with a group, designate a driver who will not drink.

Control of a Vehicle

You have three systems that make your vehicle go where you want it to go. They are the brakes, the steering and the accelerator. All three systems have to do their work at the places where the tires meet the road.



Sometimes, as when you're driving on snow or ice, it's easy to ask more of those control systems than the tires and road can provide. That means you can lose control of your vehicle.

Braking

Braking action involves *perception time* and *reaction time.*

First, you have to decide to push on the brake pedal. That's *perception time.* Then you have to bring up your foot and do it. That's *reaction time.*

Average *reaction time* is about 3/4 of a second. But that's only an average. It might be less with one driver and as long as two or three seconds or more with another. Age, physical condition, alertness, coordination and eyesight all play a part. So do alcohol, drugs and frustration. But even in 3/4 of a second, a vehicle moving at 60 mph (100 km/h) travels 66 feet (20 m). That could be a lot of distance in an emergency, so keeping enough space between your vehicle and others is important.

And, of course, actual stopping distances vary greatly with the surface of the road (whether it's pavement or gravel); the condition of the road (wet, dry, icy); tire tread; the condition of your brakes; the weight of the vehicle and the amount of brake force applied.

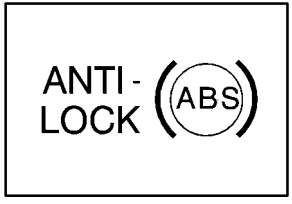
Avoid needless heavy braking. Some people drive in spurts -- heavy acceleration followed by heavy braking -- rather than keeping pace with traffic. This is a mistake. Your brakes may not have time to cool between hard stops. Your brakes will wear out much faster if you do a lot of heavy braking. If you keep pace with the traffic and allow realistic following distances, you will eliminate a lot of unnecessary braking. That means better braking and longer brake life.

If your engine ever stops while you're driving, brake normally but don't pump your brakes. If you do, the pedal may get harder to push down. If your engine stops, you will still have some power brake assist. But you will use it when you brake. Once the power assist is used up, it may take longer to stop and the brake pedal will be harder to push.

Anti-Lock Brakes (ABS)

Your vehicle has anti-lock brakes (ABS). ABS is an advanced electronic braking system that will help prevent a braking skid.

When you start your engine and begin to drive away, your anti-lock brake system will check itself. You may hear a momentary motor or clicking noise while this test is going on, and you may even notice that your brake pedal moves a little. This is normal.



If there's a problem with the anti-lock brake system, this warning light will stay on. See "Anti-Lock Brake System Warning Light" in the Index.

Here's how anti-lock works. Let's say the road is wet. You're driving safely. Suddenly an animal jumps out in front of you.

You slam on the brakes. Here's what happens with ABS.

A computer senses that wheels are slowing down. If one of the wheels is about to stop rolling, the computer will separately work the brakes at each front wheel and at both rear wheels.

The anti-lock system can change the brake pressure faster than any driver could. The computer is programmed to make the most of available tire and road conditions.

You can steer around the obstacle while braking hard.

As you brake, your computer keeps receiving updates on wheel speed and controls braking pressure accordingly.

Remember: Anti-lock doesn't change the time you need to get your foot up to the brake pedal or always decrease stopping distance. If you get too close to the vehicle in front of you, you won't have time to apply your brakes if that vehicle suddenly slows or stops. Always leave enough room up ahead to stop, even though you have anti-lock brakes.

Using Anti-Lock

Don't pump the brakes. Just hold the brake pedal down firmly and let anti-lock work for you. You may hear a motor or clicking noise during a hard stop, but this is normal.

Traction Control System

Your vehicle has a traction control system that limits wheel spin. This is especially useful in slippery road conditions. The system operates only if it senses that one or both of the front wheels are spinning or beginning to lose traction. When this happens, the system works the front brakes and reduces engine power to limit wheel spin.

TRACTION ACTIVE

This light will come on when your traction control system is limiting wheel spin. See “Traction Control System Active Light” in the Index.

You may feel or hear the system working, but this is normal.

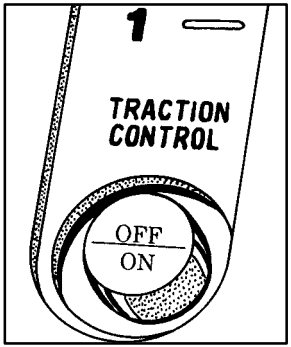
If your vehicle is in cruise control when the traction control system begins to limit wheel spin, the cruise control will automatically disengage. When road conditions allow you to safely use it again, you may reengage the cruise control. (See “Cruise Control” in the Index.)

TRACTION OFF

This light should come on briefly when you start the engine. If it stays on or comes on while you are driving, there’s a problem with your traction control system.

See “Traction Control System Warning Light” in the Index. When this warning light is on, the system will not limit wheel spin. Adjust your driving accordingly.

The traction control system automatically comes on whenever you start your vehicle. To limit wheel spin, especially in slippery road conditions, you should always leave the system on. But you can turn the traction control system off if you ever need to. (You should turn the system off if your vehicle ever gets stuck in sand, mud, ice or snow. See “Rocking Your Vehicle” in the Index.)



To turn the system off, press the TRACTION CONTROL button on the center console.

The traction control system warning light will come on and stay on. If the system is limiting wheel spin when you press the button, the warning light will come on -- but the system won't turn off right away. It will wait until there's no longer a current need to limit wheel spin.

You can turn the system back on at any time by pressing the button again. The traction control system warning light should go off.

Braking in Emergencies

With anti-lock, you can steer and brake at the same time. In many emergencies, steering can help you more than even the very best braking.

Steering

Power Steering

If you lose power steering assist because the engine stops or the system is not functioning, you can steer but it will take much more effort.

Magnasteer®

Your vehicle is equipped with GM Magnasteer, a steering system that continuously adjusts the effort you feel when steering at all vehicle speeds. It provides ease when parking yet a firm, solid feel at highway speeds.

Steering Tips

Driving on Curves

It's important to take curves at a reasonable speed.

A lot of the "driver lost control" accidents mentioned on the news happen on curves. Here's why:

Experienced driver or beginner, each of us is subject to the same laws of physics when driving on curves. The traction of the tires against the road surface makes it possible for the vehicle to change its path when you turn the front wheels. If there's no traction, inertia will keep the vehicle going in the same direction. If you've ever tried to steer a vehicle on wet ice, you'll understand this.

The traction you can get in a curve depends on the condition of your tires and the road surface, the angle at which the curve is banked, and your speed. While you're in a curve, speed is the one factor you can control.

Suppose you're steering through a sharp curve. Then you suddenly accelerate. Both control systems -- steering and acceleration -- have to do their work where the tires meet the road. Adding the sudden acceleration can demand too much of those places. You can lose control. Refer to "Traction Control System" in the Index.

What should you do if this ever happens? Ease up on the accelerator pedal, steer the vehicle the way you want it to go, and slow down.

Speed limit signs near curves warn that you should adjust your speed. Of course, the posted speeds are based on good weather and road conditions. Under less favorable conditions you'll want to go slower.

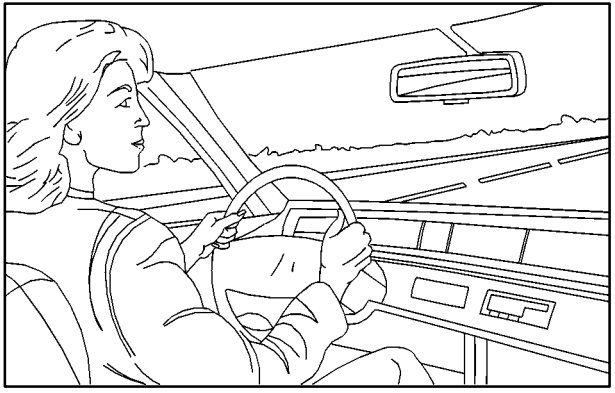
If you need to reduce your speed as you approach a curve, do it before you enter the curve, while your front wheels are straight ahead.

Try to adjust your speed so you can "drive" through the curve. Maintain a reasonable, steady speed. Wait to accelerate until you are out of the curve, and then accelerate gently into the straightaway.

Steering in Emergencies

There are times when steering can be more effective than braking. For example, you come over a hill and find a truck stopped in your lane, or a car suddenly pulls out from nowhere, or a child darts out from between parked cars and stops right in front of you. You can avoid these problems by braking -- if you can stop in time. But sometimes you can't; there isn't room. That's the time for evasive action -- steering around the problem.

Your vehicle can perform very well in emergencies like these. First apply your brakes. (See "Braking in Emergencies" earlier in this section.) It is better to remove as much speed as you can from a possible collision. Then steer around the problem, to the left or right depending on the space available.

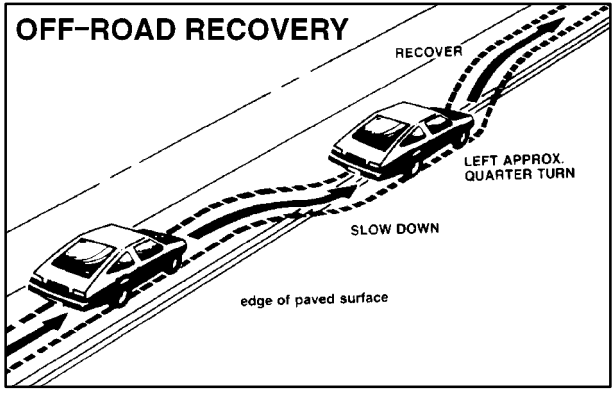


An emergency like this requires close attention and a quick decision. If you are holding the steering wheel at the recommended 9 and 3 o'clock positions, you can turn it a full 180 degrees very quickly without removing either hand. But you have to act fast, steer quickly, and just as quickly straighten the wheel once you have avoided the object.

The fact that such emergency situations are always possible is a good reason to practice defensive driving at all times and wear safety belts properly.

Off-Road Recovery

You may find that your right wheels have dropped off the edge of a road onto the shoulder while you're driving.



If the level of the shoulder is only slightly below the pavement, recovery should be fairly easy. Ease off the accelerator and then, if there is nothing in the way, steer so that your vehicle straddles the edge of the pavement. You can turn the steering wheel up to one-quarter turn until the right front tire contacts the pavement edge. Then turn your steering wheel to go straight down the roadway.

Passing

The driver of a vehicle about to pass another on a two-lane highway waits for just the right moment, accelerates, moves around the vehicle ahead, then goes back into the right lane again. A simple maneuver?

Not necessarily! Passing another vehicle on a two-lane highway is a potentially dangerous move, since the passing vehicle occupies the same lane as oncoming traffic for several seconds. A miscalculation, an error in judgment, or a brief surrender to frustration or anger can suddenly put the passing driver face to face with the worst of all traffic accidents -- the head-on collision.

So here are some tips for passing:

- "Drive ahead." Look down the road, to the sides and to crossroads for situations that might affect your passing patterns. If you have any doubt whatsoever about making a successful pass, wait for a better time.
- Watch for traffic signs, pavement markings and lines. If you can see a sign up ahead that might indicate a turn or an intersection, delay your pass. A broken center line usually indicates it's all right to pass (providing the road ahead is clear). Never cross a solid line on your side of the lane or a double solid line, even if the road seems empty of approaching traffic.

- Do not get too close to the vehicle you want to pass while you're awaiting an opportunity. For one thing, following too closely reduces your area of vision, especially if you're following a larger vehicle. Also, you won't have adequate space if the vehicle ahead suddenly slows or stops. Keep back a reasonable distance.
- When it looks like a chance to pass is coming up, start to accelerate but stay in the right lane and don't get too close. Time your move so you will be increasing speed as the time comes to move into the other lane. If the way is clear to pass, you will have a "running start" that more than makes up for the distance you would lose by dropping back. And if something happens to cause you to cancel your pass, you need only slow down and drop back again and wait for another opportunity.
- If other cars are lined up to pass a slow vehicle, wait your turn. But take care that someone isn't trying to pass you as you pull out to pass the slow vehicle. Remember to glance over your shoulder and check the blind spot.
- Check your mirrors, glance over your shoulder, and start your left lane change signal before moving out of the right lane to pass. When you are far enough ahead of the passed vehicle to see its front in your inside mirror, activate your right lane change signal and move back into the right lane. (Remember that your right outside mirror is convex. The vehicle you just passed may seem to be farther away from you than it really is.)
- Try not to pass more than one vehicle at a time on two-lane roads. Reconsider before passing the next vehicle.
- Don't overtake a slowly moving vehicle too rapidly. Even though the brake lamps are not flashing, it may be slowing down or starting to turn.
- If you're being passed, make it easy for the following driver to get ahead of you. Perhaps you can ease a little to the right.

Loss of Control

Let's review what driving experts say about what happens when the three control systems (brakes, steering and acceleration) don't have enough friction where the tires meet the road to do what the driver has asked.

In any emergency, don't give up. Keep trying to steer and constantly seek an escape route or area of less danger.

Skidding

In a skid, a driver can lose control of the vehicle. Defensive drivers avoid most skids by taking reasonable care suited to existing conditions, and by not “overdriving” those conditions. But skids are always possible.

The three types of skids correspond to your vehicle’s three control systems. In the braking skid, your wheels aren’t rolling. In the steering or cornering skid, too much speed or steering in a curve causes tires to slip and lose cornering force. And in the acceleration skid, too much throttle causes the driving wheels to spin.

A cornering skid is best handled by easing your foot off the accelerator pedal.

Remember: Any traction control system helps avoid only the acceleration skid.

If your traction control system is off, then an acceleration skid is also best handled by easing your foot off the accelerator pedal.

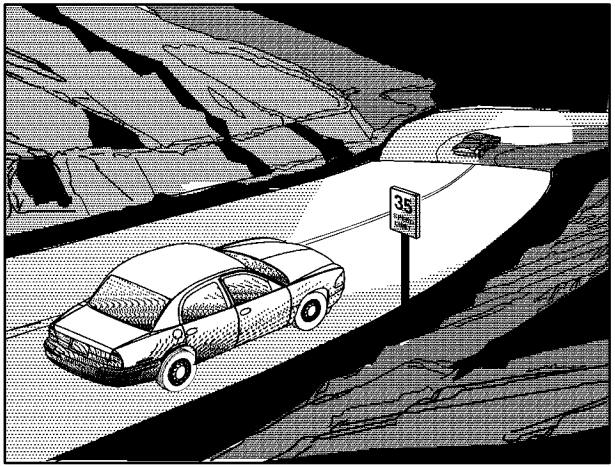
If your vehicle starts to slide, ease your foot off the accelerator pedal and quickly steer the way you want the vehicle to go. If you start steering quickly enough, your vehicle may straighten out. Always be ready for a second skid if it occurs.

Of course, traction is reduced when water, snow, ice, gravel or other material is on the road. For safety, you’ll want to slow down and adjust your driving to these conditions. It is important to slow down on slippery surfaces because stopping distance will be longer and vehicle control more limited.

While driving on a surface with reduced traction, try your best to avoid sudden steering, acceleration or braking (including engine braking by shifting to a lower gear). Any sudden changes could cause the tires to slide. You may not realize the surface is slippery until your vehicle is skidding. Learn to recognize warning clues -- such as enough water, ice or packed snow on the road to make a “mirrored surface” -- and slow down when you have any doubt.

Remember: Any anti-lock brake system (ABS) helps avoid only the braking skid.

Driving at Night



Night driving is more dangerous than day driving. One reason is that some drivers are likely to be impaired -- by alcohol or drugs, with night vision problems, or by fatigue.

Here are some tips on night driving.

- Drive defensively.
- Don't drink and drive.
- Since you can't see as well, you may need to slow down and keep more space between you and other vehicles.
- Slow down, especially on higher speed roads. Your headlamps can light up only so much road ahead.
- In remote areas, watch for animals.
- If you're tired, pull off the road in a safe place and rest.

Night Vision

No one can see as well at night as in the daytime. But as we get older these differences increase. A 50-year-old driver may require at least twice as much light to see the same thing at night as a 20-year-old.

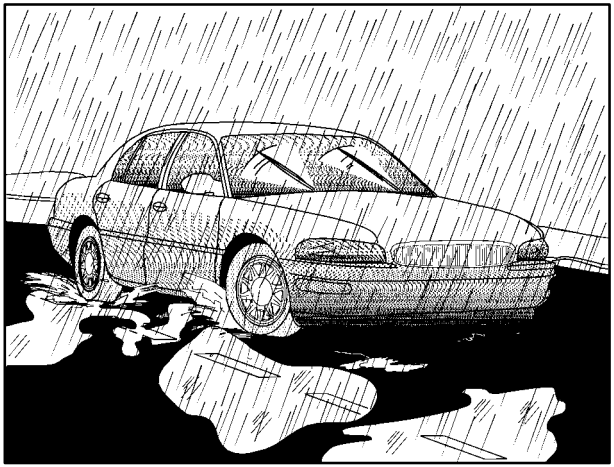
What you do in the daytime can also affect your night vision. For example, if you spend the day in bright sunshine you are wise to wear sunglasses. Your eyes will have less trouble adjusting to night. But if you're driving, don't wear sunglasses at night. They may cut down on glare from headlamps, but they also make a lot of things invisible.

You can be temporarily blinded by approaching headlamps. It can take a second or two, or even several seconds, for your eyes to readjust to the dark. When you are faced with severe glare (as from a driver who doesn't lower the high beams, or a vehicle with misaimed headlamps), slow down a little. Avoid staring directly into the approaching headlamps.

Keep your windshield and all the glass on your vehicle clean -- inside and out. Glare at night is made much worse by dirt on the glass. Even the inside of the glass can build up a film caused by dust. Dirty glass makes lights dazzle and flash more than clean glass would, making the pupils of your eyes contract repeatedly.

Remember that your headlamps light up far less of a roadway when you are in a turn or curve. Keep your eyes moving; that way, it's easier to pick out dimly lighted objects. Just as your headlamps should be checked regularly for proper aim, so should your eyes be examined regularly. Some drivers suffer from night blindness -- the inability to see in dim light -- and aren't even aware of it.

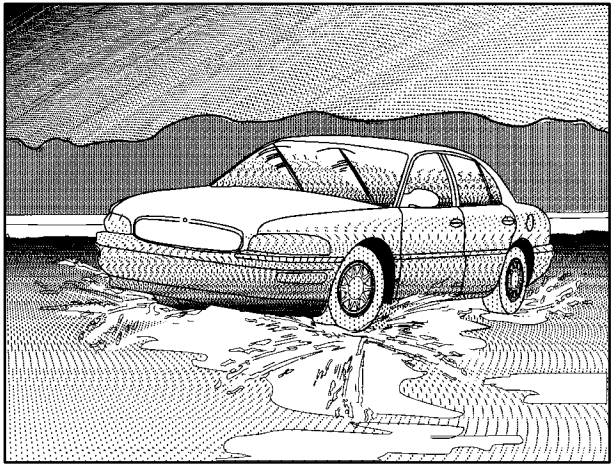
Driving in Rain and on Wet Roads



Rain and wet roads can mean driving trouble. On a wet road, you can't stop, accelerate or turn as well because your tire-to-road traction isn't as good as on dry roads. And, if your tires don't have much tread left, you'll get even less traction. It's always wise to go slower and be cautious if rain starts to fall while you are driving. The surface may get wet suddenly when your reflexes are tuned for driving on dry pavement.

The heavier the rain, the harder it is to see. Even if your windshield wiper blades are in good shape, a heavy rain can make it harder to see road signs and traffic signals, pavement markings, the edge of the road and even people walking.

It's wise to keep your windshield wiping equipment in good shape and keep your windshield washer tank filled with washer fluid. Replace your windshield wiper inserts when they show signs of streaking or missing areas on the windshield, or when strips of rubber start to separate from the inserts.



Driving too fast through large water puddles or even going through some car washes can cause problems, too. The water may affect your brakes. Try to avoid puddles. But if you can't, try to slow down before you hit them.

⚠ CAUTION:

Wet brakes can cause accidents. They won't work as well in a quick stop and may cause pulling to one side. You could lose control of the vehicle.

After driving through a large puddle of water or a car wash, apply your brake pedal lightly until your brakes work normally.

Hydroplaning

Hydroplaning is dangerous. So much water can build up under your tires that they can actually ride on the water. This can happen if the road is wet enough and you're going fast enough. When your vehicle is hydroplaning, it has little or no contact with the road.

Hydroplaning doesn't happen often. But it can if your tires do not have much tread or if the pressure in one or more is low. It can happen if a lot of water is standing on the road. If you can see reflections from trees, telephone poles or other vehicles, and raindrops "dimple" the water's surface, there could be hydroplaning.

Hydroplaning usually happens at higher speeds. There just isn't a hard and fast rule about hydroplaning. The best advice is to slow down when it is raining.

Driving Through Deep Standing Water

NOTICE:

If you drive too quickly through deep puddles or standing water, water can come in through your engine's air intake and badly damage your engine. Never drive through water that is slightly lower than the underbody of your vehicle. If you can't avoid deep puddles or standing water, drive through them very slowly.

Some Other Rainy Weather Tips

- Besides slowing down, allow some extra following distance. And be especially careful when you pass another vehicle. Allow yourself more clear room ahead, and be prepared to have your view restricted by road spray.
- Have good tires with proper tread depth. (See "Tires" in the Index.)

City Driving

One of the biggest problems with city streets is the amount of traffic on them. You'll want to watch out for what the other drivers are doing and pay attention to traffic signals.

Here are ways to increase your safety in city driving:

- Know the best way to get to where you are going. Get a city map and plan your trip into an unknown part of the city just as you would for a cross-country trip.
- Try to use the freeways that rim and crisscross most large cities. You'll save time and energy. (See the next part, "Freeway Driving.")
- Treat a green light as a warning signal. A traffic light is there because the corner is busy enough to need it. When a light turns green, and just before you start to move, check both ways for vehicles that have not cleared the intersection or may be running the red light.

Freeway Driving

Mile for mile, freeways (also called thruways, parkways, expressways, turnpikes or superhighways) are the safest of all roads. But they have their own special rules.

The most important advice on freeway driving is: Keep up with traffic and keep to the right. Drive at the same speed most of the other drivers are driving. Too-fast or too-slow driving breaks a smooth traffic flow. Treat the left lane on a freeway as a passing lane.

At the entrance, there is usually a ramp that leads to the freeway. If you have a clear view of the freeway as you drive along the entrance ramp, you should begin to check traffic. Try to determine where you expect to blend with the flow. Try to merge into the gap at close to the prevailing speed. Switch on your turn signal, check your mirrors and glance over your shoulder as often as necessary. Try to blend smoothly with the traffic flow.

Once you are on the freeway, adjust your speed to the posted limit or to the prevailing rate if it's slower. Stay in the right lane unless you want to pass.

Before changing lanes, check your mirrors. Then use your turn signal.

Just before you leave the lane, glance quickly over your shoulder to make sure there isn't another vehicle in your "blind" spot.

Once you are moving on the freeway, make certain you allow a reasonable following distance. Expect to move slightly slower at night.

When you want to leave the freeway, move to the proper lane well in advance. If you miss your exit, do not, under any circumstances, stop and back up. Drive on to the next exit.

The exit ramp can be curved, sometimes quite sharply.

The exit speed is usually posted.

Reduce your speed according to your speedometer, not to your sense of motion. After driving for any distance at higher speeds, you may tend to think you are going slower than you actually are.

Before Leaving on a Long Trip

Make sure you're ready. Try to be well rested. If you must start when you're not fresh -- such as after a day's work -- don't plan to make too many miles that first part of the journey. Wear comfortable clothing and shoes you can easily drive in.

Is your vehicle ready for a long trip? If you keep it serviced and maintained, it's ready to go. If it needs service, have it done before starting out. Of course, you'll find experienced and able service experts in Oldsmobile dealerships all across North America. They'll be ready and willing to help if you need it.

Here are some things you can check before a trip:

- *Windshield Washer Fluid:* Is the reservoir full? Are all windows clean inside and outside?
- *Wiper Blades:* Are they in good shape?
- *Fuel, Engine Oil, Other Fluids:* Have you checked all levels?
- *Lamps:* Are they all working? Are the lenses clean?
- *Tires:* They are vitally important to a safe, trouble-free trip. Is the tread good enough for long-distance driving? Are the tires all inflated to the recommended pressure?
- *Weather Forecasts:* What's the weather outlook along your route? Should you delay your trip a short time to avoid a major storm system?
- *Maps:* Do you have up-to-date maps?

Highway Hypnosis

Is there actually such a condition as “highway hypnosis”? Or is it just plain falling asleep at the wheel? Call it highway hypnosis, lack of awareness, or whatever.

There is something about an easy stretch of road with the same scenery, along with the hum of the tires on the road, the drone of the engine, and the rush of the wind against the vehicle that can make you sleepy. Don’t let it happen to you! If it does, your vehicle can leave the road in *less than a second*, and you could crash and be injured.

What can you do about highway hypnosis? First, be aware that it can happen.

Then here are some tips:

- Make sure your vehicle is well ventilated, with a comfortably cool interior.
- Keep your eyes moving. Scan the road ahead and to the sides. Check your rearview mirrors and your instruments frequently.
- If you get sleepy, pull off the road into a rest, service or parking area and take a nap, get some exercise, or both. For safety, treat drowsiness on the highway as an emergency.

Hill and Mountain Roads

Driving on steep hills or mountains is different from driving in flat or rolling terrain.

If you drive regularly in steep country, or if you're planning to visit there, here are some tips that can make your trips safer and more enjoyable.

- Keep your vehicle in good shape. Check all fluid levels and also the brakes, tires, cooling system and transaxle. These parts can work hard on mountain roads.
- Know how to go down hills. The most important thing to know is this: let your engine do some of the slowing down. Shift to a lower gear when you go down a steep or long hill.

⚠ CAUTION:

If you don't shift down, your brakes could get so hot that they wouldn't work well. You would then have poor braking or even none going down a hill. You could crash. Shift down to let your engine assist your brakes on a steep downhill slope.

⚠ CAUTION:

Coasting downhill in NEUTRAL (N) or with the ignition off is dangerous. Your brakes will have to do all the work of slowing down. They could get so hot that they wouldn't work well. You would then have poor braking or even none going down a hill. You could crash. Always have your engine running and your vehicle in gear when you go downhill.

- Know how to go uphill. Drive in the highest gear possible.
- In hilly terrain, you may want to switch to the POWER mode for better performance.
- Stay in your own lane when driving on two-lane roads in hills or mountains. Don't swing wide or cut across the center of the road. Drive at speeds that let you stay in your own lane.
- As you go over the top of a hill, be alert. There could be something in your lane, like a stalled car or an accident.

- You may see highway signs on mountains that warn of special problems. Examples are long grades, passing or no-passing zones, a falling rocks area or winding roads. Be alert to these and take appropriate action.

Winter Driving

Here are some tips for winter driving:

- Have your vehicle in good shape for winter.
- You may want to put winter emergency supplies in your trunk.

Include an ice scraper, a small brush or broom, a supply of windshield washer fluid, a rag, some winter outer clothing, a small shovel, a flashlight, a red cloth and a couple of reflective warning triangles. And, if you will be driving under severe conditions, include a small bag of sand, a piece of old carpet or a couple of burlap bags to help provide traction. Be sure you properly secure these items in your vehicle.

Driving on Snow or Ice

Most of the time, those places where your tires meet the road probably have good traction.

However, if there is snow or ice between your tires and the road, you can have a very slippery situation. You'll have a lot less traction or "grip" and will need to be very careful.

What's the worst time for this? "Wet ice." Very cold snow or ice can be slick and hard to drive on. But wet ice can be even more trouble because it may offer the least traction of all. You can get wet ice when it's about freezing (32°F; 0°C) and freezing rain begins to fall. Try to avoid driving on wet ice until salt and sand crews can get there.

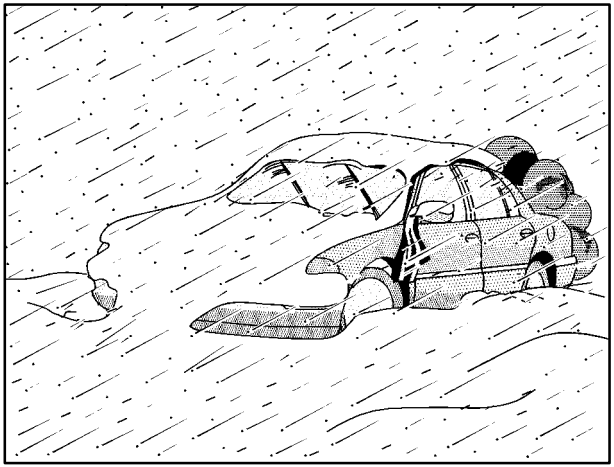
Whatever the condition -- smooth ice, packed, blowing or loose snow -- drive with caution.

Keep your traction control system on. It improves your ability to accelerate when driving on a slippery road. Even though your vehicle has a traction control system, you'll want to slow down and adjust your driving to the road conditions. See "Traction Control System" in the Index.

Your anti-lock brakes improve your vehicle's stability when you make a hard stop on a slippery road. Even though you have the anti-lock braking system, you'll want to begin stopping sooner than you would on dry pavement. See "Anti-Lock" in the Index.

- Allow greater following distance on any slippery road.
- Watch for slippery spots. The road might be fine until you hit a spot that's covered with ice. On an otherwise clear road, ice patches may appear in shaded areas where the sun can't reach: around clumps of trees, behind buildings or under bridges. Sometimes the surface of a curve or an overpass may remain icy when the surrounding roads are clear. If you see a patch of ice ahead of you, brake before you are on it. Try not to brake while you're actually on the ice, and avoid sudden steering maneuvers.

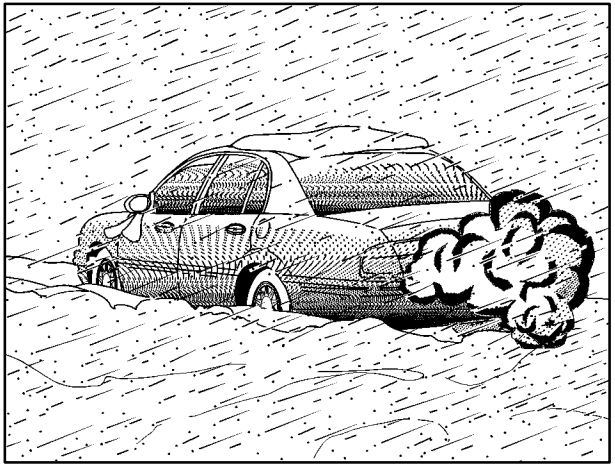
If You're Caught in a Blizzard



If you are stopped by heavy snow, you could be in a serious situation. You should probably stay with your vehicle unless you know for sure that you are near help and you can hike through the snow. Here are some things to do to summon help and keep yourself and your passengers safe:

- Turn on your hazard flashers.

- Tie a red cloth to your vehicle to alert police that you've been stopped by the snow.
- Put on extra clothing or wrap a blanket around you. If you have no blankets or extra clothing, make body insulators from newspapers, burlap bags, rags, floor mats -- anything you can wrap around yourself or tuck under your clothing to keep warm.



You can run the engine to keep warm, but be careful.

⚠ CAUTION:

Snow can trap exhaust gases under your vehicle. This can cause deadly CO (carbon monoxide) gas to get inside. CO could overcome you and kill you. You can't see it or smell it, so you might not know it is in your vehicle. Clear away snow from around the base of your vehicle, especially any that is blocking your exhaust pipe. And check around again from time to time to be sure snow doesn't collect there.

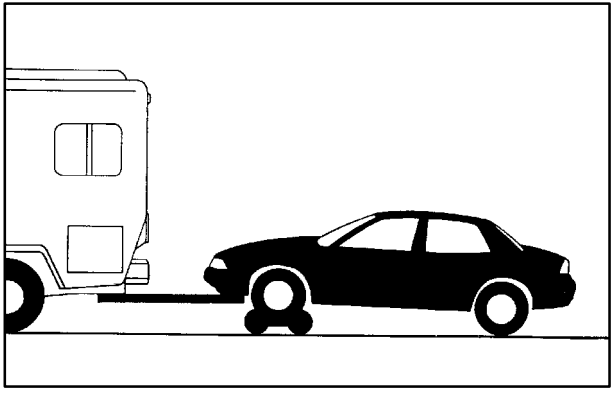
Open a window just a little on the side of the vehicle that's away from the wind. This will help keep CO out.

Run your engine only as long as you must. This saves fuel. When you run the engine, make it go a little faster than just idle. That is, push the accelerator slightly. This uses less fuel for the heat that you get and it keeps the battery charged. You will need a well-charged battery to restart the vehicle, and possibly for signaling later on with your headlamps. Let the heater run for a while.

Then, shut the engine off and close the window almost all the way to preserve the heat. Start the engine again and repeat this only when you feel really uncomfortable from the cold. But do it as little as possible. Preserve the fuel as long as you can. To help keep warm, you can get out of the vehicle and do some fairly vigorous exercises every half hour or so until help comes.

Recreational Vehicle Towing

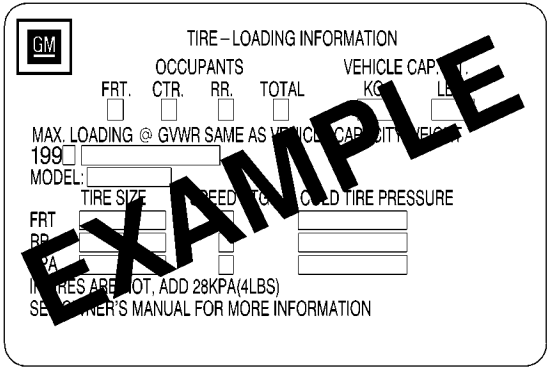
You can tow your vehicle behind another vehicle for use at your destination. Be sure to use the proper towing equipment designed for recreational towing. Follow the instructions for the towing equipment.



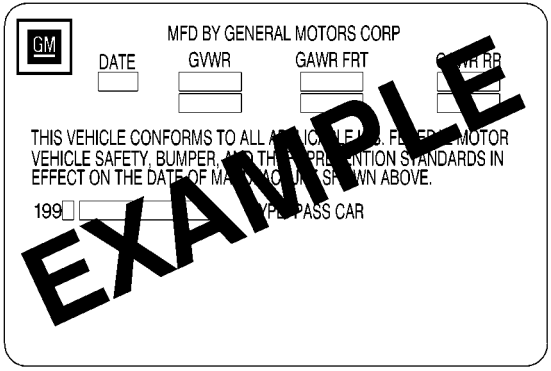
To tow your vehicle, follow these steps:

1. Put the front wheels on a dolly.
2. Put the vehicle in PARK (P).
3. Set the parking brake and then remove the key.
4. Clamp the steering wheel in a straight-ahead position with a clamping device designed for towing.
5. Release the parking brake.

Loading Your Vehicle



Two labels on your vehicle show how much weight it may properly carry. The Tire-Loading Information label, found on the rear edge of the driver's door, tells you the proper size, speed rating and recommended inflation pressure for the tires on your vehicle. It also gives you important information about the number of people that can be in your vehicle and the total weight that you can carry. This weight is called the Vehicle Capacity Weight and includes the weight of all occupants, cargo, and all nonfactory-installed options.



The other label is the Certification label, found on the rear edge of the driver's door. It tells you the gross weight capacity of your vehicle, called the Gross Vehicle Weight Rating (GVWR). The GVWR includes the weight of the vehicle, all occupants, fuel and cargo. Never exceed the GVWR for your vehicle, or the Gross Axle Weight Rating (GAWR) for either the front of rear axle.

And, if you do have a heavy load, you should spread it out. Don't carry more than 176 lbs. (80 kg) in your trunk.

⚠ CAUTION:

Do not load your vehicle any heavier than the GVWR, or either the maximum front or rear GAWR. If you do, parts on your vehicle can break, and it can change the way your vehicle handles. These could cause you to lose control and crash. Also, overloading can shorten the life of your vehicle.

NOTICE:

Your warranty does not cover parts or components that fail because of overloading.

If you put things inside your vehicle -- like suitcases, tools, packages, or anything else -- they will go as fast as the vehicle goes. If you have to stop or turn quickly, or if there is a crash, they'll keep going.

⚠ CAUTION:

Things you put inside your vehicle can strike and injure people in a sudden stop or turn, or in a crash.

- **Put things in the trunk of your vehicle. In a trunk, put them as far forward as you can. Try to spread the weight evenly.**
- **Never stack heavier things, like suitcases, inside the vehicle so that some of them are above the tops of the seats.**
- **Don't leave an unsecured child restraint in your vehicle.**
- **When you carry something inside the vehicle, secure it whenever you can.**

Electronic Level Control

This feature keeps the rear of your vehicle level as the load changes. It is automatic -- you don't need to adjust anything.

Towing a Trailer

⚠ CAUTION:

If you don't use the correct equipment and drive properly, you can lose control when you pull a trailer. For example, if the trailer is too heavy, the brakes may not work well -- or even at all. You and your passengers could be seriously injured. You may also damage your vehicle; the resulting repairs would not be covered by your warranty. Pull a trailer only if you have followed all the steps in this section. Ask your dealer for advice and information about towing a trailer with your vehicle.

Your vehicle can tow a trailer if it is equipped with the proper trailer towing equipment. To identify what the vehicle trailering capacity is for your vehicle, you should read the information in "Weight of the Trailer" that appears later in this section. But trailering is different than just driving your vehicle by itself. Trailering means changes in handling, durability and fuel economy. Successful, safe trailering takes correct equipment, and it has to be used properly.

That's the reason for this part. In it are many time-tested, important trailering tips and safety rules. Many of these are important for your safety and that of your passengers. So please read this section carefully before you pull a trailer.

Load-pulling components such as the engine, transaxle, wheel assemblies and tires are forced to work harder against the drag of the added weight. The engine is required to operate at relatively higher speeds and under greater loads, generating extra heat. What's more, the trailer adds considerably to wind resistance, increasing the pulling requirements.

If You Do Decide To Pull A Trailer

If you do, here are some important points:

- There are many different laws, including speed limit restrictions, having to do with trailering. Make sure your rig will be legal, not only where you live but also where you'll be driving. A good source for this information can be state or provincial police.
- Consider using a sway control. You can ask a hitch dealer about sway controls.

- Don't tow a trailer at all during the first 1,000 miles (1 600 km) your new vehicle is driven. Your engine, axle or other parts could be damaged.
- Then, during the first 500 miles (800 km) that you tow a trailer, don't drive over 50 mph (80 km/h) and don't make starts at full throttle. This helps your engine and other parts of your vehicle wear in at the heavier loads.
- Obey speed limit restrictions when towing a trailer. Don't drive faster than the maximum posted speed for trailers (or no more than 55 mph (90 km/h)) to save wear on your vehicle's parts.

Three important considerations have to do with weight:

- the weight of the trailer,
- the weight of the trailer tongue
- and the total weight on your vehicle's tires.

Weight of the Trailer

How heavy can a trailer safely be?

It should never weigh more than 1000 lbs. (450 kg). But even that can be too heavy.

It depends on how you plan to use your rig. For example, speed, altitude, road grades, outside temperature and how much your vehicle is used to pull a trailer are all important. And, it can also depend on any special equipment that you have on your vehicle.

You can ask your dealer for our trailering information or advice, or you can write us at:

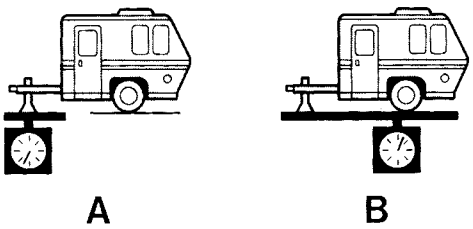
Customer Assistance Representative
Oldsmobile Customer Assistance Network
16 E. Judson Street
P.O. Box 436006
Pontiac, MI 48343–6006

In Canada, write to:

General Motors of Canada Limited
Customer Communication Centre
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

Weight of the Trailer Tongue

The tongue load (A) of any trailer is an important weight to measure because it affects the total or gross weight of your vehicle. The Gross Vehicle Weight (GVW) includes the curb weight of the vehicle, any cargo you may carry in it, and the people who will be riding in the vehicle. And if you tow a trailer, you must add the tongue load to the GVW because your vehicle will be carrying that weight, too. See “Loading Your Vehicle” in the Index for more information about your vehicle’s maximum load capacity.



If you’re using a weight-carrying hitch, the trailer tongue (A) should weigh 10 percent of the total loaded trailer weight (B). If you have a weight-distributing hitch, the trailer tongue (A) should weigh 12 percent of the total loaded trailer weight (B).

After you’ve loaded your trailer, weigh the trailer and then the tongue, separately, to see if the weights are proper. If they aren’t, you may be able to get them right simply by moving some items around in the trailer.

Total Weight on Your Vehicle’s Tires

Be sure your vehicle’s tires are inflated to the upper limit for cold tires. You’ll find these numbers on the Tire-Loading Information label at the rear edge of the driver’s door or see “Loading Your Vehicle” in the Index. Then be sure you don’t go over the GVW limit for your vehicle, including the weight of the trailer tongue.

Hitches

It's important to have the correct hitch equipment. Crosswinds, large trucks going by and rough roads are a few reasons why you'll need the right hitch. Here are some rules to follow:

- The rear bumper on your vehicle is not intended for hitches. Do not attach rental hitches or other bumper-type hitches to it. Use only a frame-mounted hitch that does not attach to the bumper.
- Will you have to make any holes in the body of your vehicle when you install a trailer hitch? If you do, then be sure to seal the holes later when you remove the hitch. If you don't seal them, deadly carbon monoxide (CO) from your exhaust can get into your vehicle (see "Carbon Monoxide" in the Index). Dirt and water can, too.

Safety Chains

You should always attach chains between your vehicle and your trailer. Cross the safety chains under the tongue of the trailer so that the tongue will not drop to the road if it becomes separated from the hitch. Instructions about safety chains may be provided by the hitch manufacturer or by the trailer manufacturer. Follow the manufacturer's recommendation for attaching safety chains and do not attach them to the bumper. Always leave just enough slack so you can turn with your rig. And, never allow safety chains to drag on the ground.

Trailer Brakes

Does your trailer have its own brakes?

Be sure to read and follow the instructions for the trailer brakes so you'll be able to install, adjust and maintain them properly.

Because you have anti-lock brakes, do not try to tap into your vehicle's brake system. If you do, both brake systems won't work well, or at all.

Driving with a Trailer

Towing a trailer requires a certain amount of experience. Before setting out for the open road, you'll want to get to know your rig. Acquaint yourself with the feel of handling and braking with the added weight of the trailer. And always keep in mind that the vehicle you are driving is now a good deal longer and not nearly as responsive as your vehicle is by itself.

Before you start, check the trailer hitch and platform (and attachments), safety chains, electrical connector, lamps, tires and mirror adjustment. If the trailer has electric brakes, start your vehicle and trailer moving and then apply the trailer brake controller by hand to be sure the brakes are working. This lets you check your electrical connection at the same time.

During your trip, check occasionally to be sure that the load is secure, and that the lamps and any trailer brakes are still working.

Following Distance

Stay at least twice as far behind the vehicle ahead as you would when driving your vehicle without a trailer. This can help you avoid situations that require heavy braking and sudden turns.

Passing

You'll need more passing distance up ahead when you're towing a trailer. And, because you're a good deal longer, you'll need to go much farther beyond the passed vehicle before you can return to your lane.

Backing Up

Hold the bottom of the steering wheel with one hand. Then, to move the trailer to the left, just move that hand to the left. To move the trailer to the right, move your hand to the right. Always back up slowly and, if possible, have someone guide you.

Making Turns

NOTICE:

Making very sharp turns while trailering could cause the trailer to come in contact with the vehicle. Your vehicle could be damaged. Avoid making very sharp turns while trailering.

When you're turning with a trailer, make wider turns than normal. Do this so your trailer won't strike soft shoulders, curbs, road signs, trees or other objects. Avoid jerky or sudden maneuvers. Signal well in advance.

Turn Signals When Towing a Trailer

The arrows on your instrument panel will flash whenever you signal a turn or lane change. Properly hooked up, the trailer lamps will also flash, telling other drivers you're about to turn, change lanes or stop.

When towing a trailer, the arrows on your instrument panel will flash for turns even if the bulbs on the trailer are burned out. Thus, you may think drivers behind you are seeing your signal when they are not. It's important to check occasionally to be sure the trailer bulbs are still working.

Your vehicle may have bulb warning messages. When you plug a trailer lighting system into your vehicle's lighting system, its bulb warning messages may not let you know if one of your lamps goes out. So, when you have a trailer lighting system plugged in, be sure to check your vehicle and trailer lamps from time to time to be sure they're all working. Once you disconnect the trailer lamps, the bulb warning messages again can tell you if one of your vehicle lamps is out.

Driving On Grades

Reduce speed and shift to a lower gear *before* you start down a long or steep downgrade. If you don't shift down, you might have to use your brakes so much that they would get hot and no longer work well.

Parking on Hills

⚠ CAUTION:

You really should not park your vehicle, with a trailer attached, on a hill. If something goes wrong, your rig could start to move. People can be injured, and both your vehicle and the trailer can be damaged.

But if you ever have to park your rig on a hill, here's how to do it:

1. Apply your regular brakes, but don't shift into PARK (P) yet.
2. Have someone place chocks under the trailer wheels.
3. When the wheel chocks are in place, release the regular brakes until the chocks absorb the load.
4. Reapply the regular brakes. Then apply your parking brake, and then shift to PARK (P).
5. Release the regular brakes.

When You Are Ready to Leave After Parking on a Hill

1. Apply your regular brakes and hold the pedal down while you:
   - Start your engine;
   - Shift into a gear; and
   - Release the parking brake.
2. Let up on the brake pedal.
3. Drive slowly until the trailer is clear of the chocks.
4. Stop and have someone pick up and store the chocks.

Maintenance When Trailer Towing

Your vehicle will need service more often when you're pulling a trailer. See the Maintenance Schedule for more on this. Things that are especially important in trailer operation are automatic transaxle fluid (don't overfill), engine oil, drive belt, cooling system and brake system. Each of these is covered in this manual, and the Index will help you find them quickly. If you're trailering, it's a good idea to review this information before you start your trip.

Check periodically to see that all hitch nuts and bolts are tight.

Engine Cooling When Trailer Towing

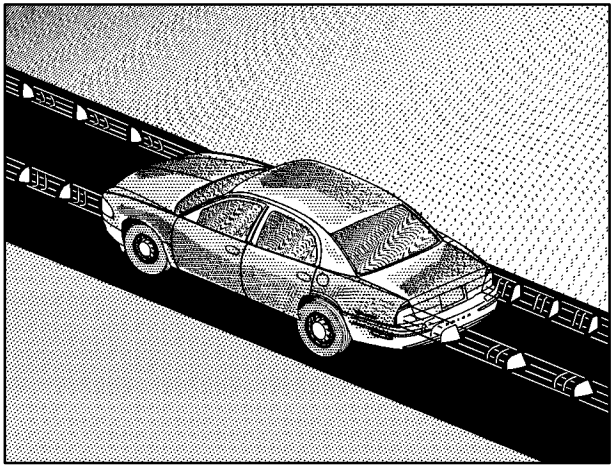
Your cooling system may temporarily overheat during severe operating conditions. See "Engine Overheating" in the Index.

Section 5 Problems on the Road

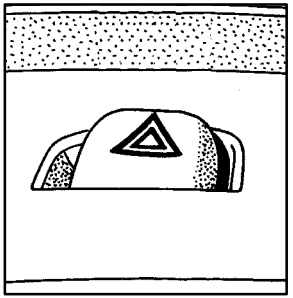
Here you'll find what to do about some problems that can occur on the road.

5-2 Hazard Warning Flashers
5-3 Other Warning Devices
5-3 Jump Starting
5-8 Towing Your Vehicle
5-9 Engine Overheating
5-12 Cooling System
5-18 If a Tire Goes Flat
5-19 Changing a Flat Tire
5-27 Compact Spare Tire
5-29 If You're Stuck In: Sand, Mud, Ice or Snow

Hazard Warning Flashers



Your hazard warning flashers let you warn others. They also let police know you have a problem. Your front and rear turn signal lamps will flash on and off.



Press down on the button located on top of the steering column, then release it to turn on the hazard warning flashers.

The HAZARD light on the instrument panel will also come on.

Your hazard flashers work no matter what position your key is in, and even if the key isn't in.

To turn off the flashers, press the button down again.

When the flashers are on, your turn signals won't work.

Other Warning Devices

If you carry reflective triangles, you can set one up at the side of the road about 300 feet (100 m) behind your vehicle.

Jump Starting

If your battery has run down, you may want to use another vehicle and some jumper cables to start your vehicle. But please use the following steps to do it safely.

⚠ CAUTION:

Batteries can hurt you. They can be dangerous because:

- **They contain acid that can burn you.**
- **They contain gas that can explode or ignite.**
- **They contain enough electricity to burn you.**

If you don't follow these steps exactly, some or all of these things can hurt you.

NOTICE:

Ignoring these steps could result in costly damage to your vehicle that wouldn't be covered by your warranty.

The ACDelco Freedom® battery in your vehicle has a built-in hydrometer. Do not charge, test or jump start the battery if the hydrometer looks clear or light yellow. Replace the battery when there is a clear or light yellow hydrometer and a cranking complaint.

Trying to start your vehicle by pushing or pulling it won't work, and it could damage your vehicle.

1. Check the other vehicle. It must have a 12-volt battery with a negative ground system.

NOTICE:

If the other system isn't a 12-volt system with a negative ground, both vehicles can be damaged.

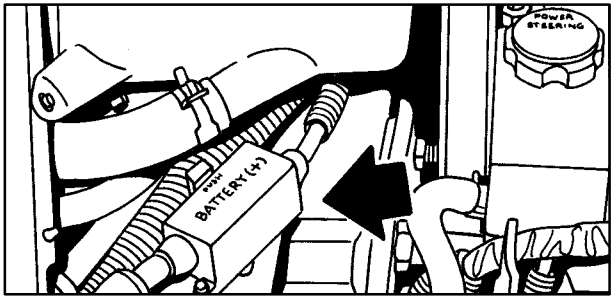
2. Get the vehicles close enough so the jumper cables can reach, but be sure the vehicles aren't touching each other. If they are, it could cause a ground connection you don't want. You wouldn't be able to start your vehicle, and the bad grounding could damage the electrical systems.

   To avoid the possibility of the vehicles rolling, set the parking brake firmly on both vehicles involved in the jump start procedure. Put an automatic transaxle in PARK (P) before setting the parking brake.

3. Turn off the ignition on both vehicles. Unplug unnecessary accessories plugged into the cigarette lighter or accessory power outlet. Turn off all lamps that aren't needed as well as radios. This will avoid sparks and help save both batteries. In addition, it could save your radio.

NOTICE:

If you leave your radio on, it could be badly damaged. The repairs wouldn't be covered by your warranty.



4. Open the hoods and locate the other vehicle's battery and your vehicle's remote positive (+) jump starting terminal in the box on the passenger side of the engine compartment. (Your vehicle's battery isn't under the hood.)

⚠ CAUTION:

An electric fan can start up even when the engine is not running and can injure you. Keep hands, clothing and tools away from any underhood electric fan.

5. Find the positive (+) and negative (-) terminals on each battery or remote terminal. You should always use the remote positive (+) terminal instead of the positive (+) terminal on your battery.

   To open the remote positive (+) terminal box, pull the tab and open the cover.

⚠ CAUTION:

Using a match near a battery can cause battery gas to explode. People have been hurt doing this, and some have been blinded. Use a flashlight if you need more light.

Be sure the battery has enough water. You don't need to add water to the ACDelco Freedom® battery installed in every new GM vehicle. But if a battery has filler caps, be sure the right amount of fluid is there. If it is low, add water to take care of that first. If you don't, explosive gas could be present.

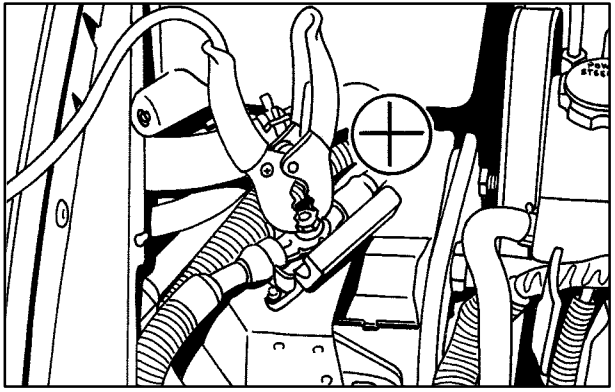
Battery fluid contains acid that can burn you. Don't get it on you. If you accidentally get it in your eyes or on your skin, flush the place with water and get medical help immediately.

6. Check that the jumper cables don't have loose or missing insulation. If they do, you could get a shock. The vehicles could be damaged too.

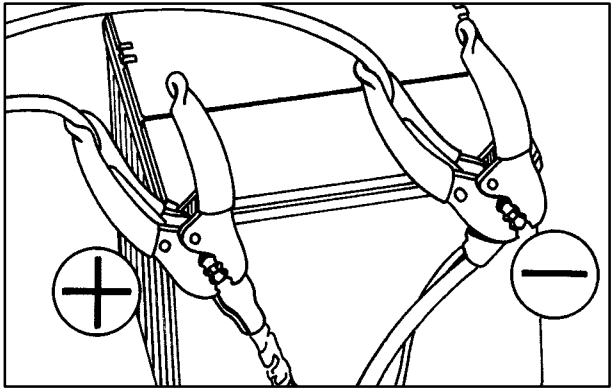
   Before you connect the cables, here are some things you should know. Positive (+) will go to positive (+) and negative (-) will go to a metal engine part. Don't connect positive (+) to negative (-) or you'll get a short that would damage the battery and maybe other parts too.

⚠ CAUTION:

Fans or other moving engine parts can injure you badly. Keep your hands away from moving parts once the engine is running.



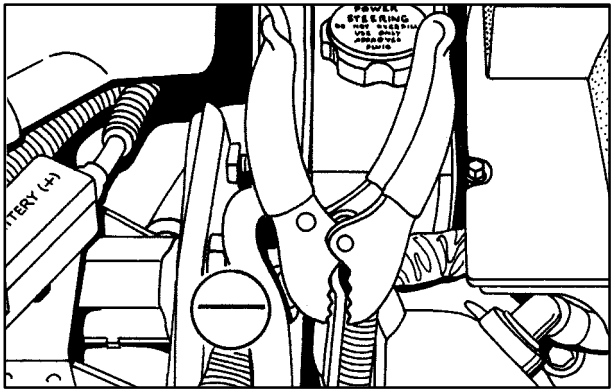
7. Connect the red positive (+) cable to the remote positive (+) terminal of the vehicle with the dead battery.



8. Don’t let the other end touch metal. Connect it to the positive (+) terminal of the good battery. Use a remote positive (+) terminal if the vehicle has one.

9. Now connect the black negative (-) cable to the good battery's negative (-) terminal.

Don't let the other end touch anything until the next step. The other end of the negative (-) cable *doesn't* go to the dead battery. It goes to a heavy unpainted metal part on the engine of the vehicle with the dead battery.

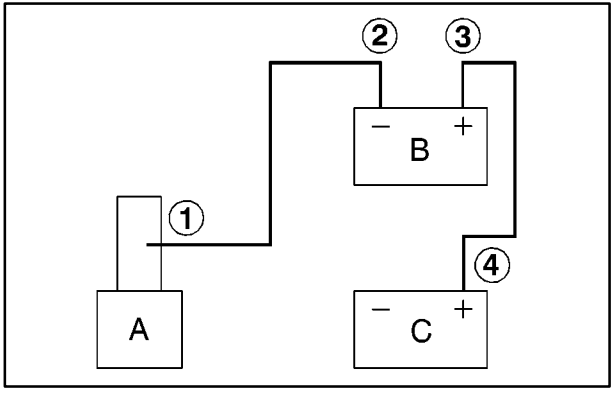


10. Attach the cable at least 18 inches (45 cm) away from the dead battery, but not near engine parts that move. The electrical connection is just as good there, but the chance of sparks getting back to the battery is much less.

11. Now start the vehicle with the good battery and run the engine for a while.

12. Try to start the vehicle with the dead battery. If it won't start after a few tries, it probably needs service.

13. Remove the cables in reverse order to prevent electrical shorting. Take care that they don't touch each other or any other metal.



A. Heavy Metal Engine Part

B. Good Battery

C. Dead Battery

Towing Your Vehicle

⚠ CAUTION:

To help avoid serious personal injury to you or others:

- **Never let passengers ride in a vehicle that is being towed.**
- **Never tow faster than safe or posted speeds.**
- **Never tow with damaged parts not fully secured.**
- **Never get under your vehicle after it has been lifted by the tow truck.**
- **Always secure the vehicle on each side with separate safety chains when towing it.**
- **Use only the correct hooks.**

NOTICE:

Use the proper towing equipment to avoid damage to the bumper, fascia or fog lamp areas of the vehicle.

With current trends in automotive styles and design, it is essential that the correct towing equipment is used to tow a vehicle. Your vehicle can be towed with wheel-lift or car-carrier equipment.

Consult your dealer or a professional towing service if you need to have your vehicle towed. See “Roadside Assistance” in the Index.

Engine Overheating

You will find a coolant temperature gage on your vehicle’s instrument panel. Your driver information center will also display messages about engine overheating. See “Engine Coolant Temperature Gage” in the Index.

Overheated Engine Protection Operating Mode

Should an overheated engine condition exist and the message HOT STOP ENGINE is displayed, an overheat protection mode which alternates firing groups of cylinders helps prevent engine damage. In this mode, you will notice a loss in power and engine performance. This operating mode allows your vehicle to be driven to a safe place in an emergency; you may drive up to 50 miles (80 km). Towing a trailer in the overheat protection mode should be avoided.

NOTICE:

After driving in the overheated engine protection operating mode, to avoid engine damage, allow the engine to cool before attempting any repair. The engine oil will be severely degraded. Repair the cause of coolant loss, change the oil and reset the oil life indicator. See “Engine Oil” in the Index.

If Steam Is Coming From Your Engine

⚠ CAUTION:

Steam from an overheated engine can burn you badly, even if you just open the hood. Stay away from the engine if you see or hear steam coming from it. Just turn it off and get everyone away from the vehicle until it cools down. Wait until there is no sign of steam or coolant before you open the hood.

If you keep driving when your engine is overheated, the liquids in it can catch fire. You or others could be badly burned. Stop your engine if it overheats, and get out of the vehicle until the engine is cool.

NOTICE:

If your engine catches fire because you keep driving with no coolant, your vehicle can be badly damaged. The costly repairs would not be covered by your warranty. See "Overheated Engine Protection Operating Mode" in the Index.

If No Steam Is Coming From Your Engine

If you get an engine overheat warning but see or hear no steam, the problem may not be too serious. Sometimes the engine can get a little too hot when you:

- Climb a long hill on a hot day.
- Stop after high-speed driving.
- Idle for long periods in traffic.
- Tow a trailer.

If you get the overheat warning with no sign of steam, try this for a minute or so:

1. If your air conditioner is on, turn it off.
2. Turn on your heater to full hot at the highest fan speed and open the window as necessary.
3. If you're in a traffic jam, shift to NEUTRAL (N); otherwise, shift to the highest gear while driving -- AUTOMATIC OVERDRIVE (Ⓓ) or THIRD (3).

If you no longer have the overheat warning, you can drive. Just to be safe, drive slower for about 10 minutes. If the warning doesn't come back on, you can drive normally.

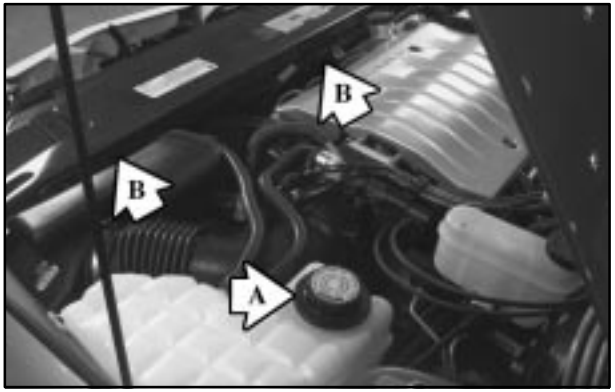
If the warning continues, pull over, stop, and park your vehicle right away.

If there's still no sign of steam, idle the engine for three minutes while you're parked. If you still have the warning, *turn off the engine and get everyone out of the vehicle* until it cools down. Also, see "Overheated Engine Protection Operating Mode" listed previously in this section.

You may decide not to lift the hood but to get service help right away.

Cooling System

When you decide it's safe to lift the hood, here's what you'll see:



A. Coolant Surge Tank with Pressure Cap

B. Two Electric Engine Cooling Fans

⚠ CAUTION:

An electric engine cooling fan under the hood can start up even when the engine is not running and can injure you. Keep hands, clothing and tools away from any underhood electric fan.

If the coolant inside the coolant surge tank is boiling, don't do anything else until it cools down.

A low coolant level should be indicated by a CHECK COOLANT LEVEL message on the Driver Information Center. If it is, you may have a leak in the radiator hoses, heater hoses, radiator, water pump or somewhere else in the cooling system.

⚠ CAUTION:

Heater and radiator hoses, and other engine parts, can be very hot. Don't touch them. If you do, you can be burned.

Don't run the engine if there is a leak. If you run the engine, it could lose all coolant. That could cause an engine fire, and you could be burned. Get any leak fixed before you drive the vehicle.

NOTICE:

Engine damage from running your engine without coolant isn't covered by your warranty. See "Overheated Engine Protection Operating Mode" in the Index.

NOTICE:

When adding coolant, it is important that you use only DEX-COOL® (silicate-free) coolant.

If coolant other than DEX-COOL is added to the system, premature engine, heater core or radiator corrosion may result. In addition, the engine coolant will require change sooner -- at 30,000 miles (50 000 km) or 24 months, whichever occurs first. Damage caused by the use of coolant other than DEX-COOL® is not covered by your new vehicle warranty.

If there seems to be no leak, with the engine on, check to see if the electric engine cooling fans are running. If the engine is overheating, both fans should be running. If they aren't, your vehicle needs service.

How to Add Coolant to the Coolant Surge Tank

If you haven't found a problem yet, but the coolant level isn't at FULL COLD, add a 50/50 mixture of *clean, drinkable water* and DEX-COOL® coolant at the coolant surge tank, but be sure the cooling system, including the coolant surge tank pressure cap, is cool before you do it. (See "Engine Coolant" in the Index for more information.)

⚠ CAUTION:

Steam and scalding liquids from a hot cooling system can blow out and burn you badly. They are under pressure, and if you turn the coolant surge tank pressure cap -- even a little -- they can come out at high speed. Never turn the cap when the cooling system, including the coolant surge tank pressure cap, is hot. Wait for the cooling system and coolant surge tank pressure cap to cool if you ever have to turn the pressure cap.

⚠ CAUTION:

Adding only plain water to your cooling system can be dangerous. Plain water, or some other liquid like alcohol, can boil before the proper coolant mixture will. Your vehicle's coolant warning system is set for the proper coolant mixture. With plain water or the wrong mixture, your engine could get too hot but you wouldn't get the overheat warning. Your engine could catch fire and you or others could be burned. Use a 50/50 mixture of clean, drinkable water and DEX-COOL® coolant.

NOTICE:

In cold weather, water can freeze and crack the engine, radiator, heater core and other parts. So use the recommended coolant.

⚠ CAUTION:

You can be burned if you spill coolant on hot engine parts. Coolant contains ethylene glycol and it will burn if the engine parts are hot enough. Don't spill coolant on a hot engine.

1. You can remove the coolant surge tank pressure cap when the cooling system, including the coolant surge tank pressure cap and upper radiator hose, is no longer hot. Turn the pressure cap slowly counterclockwise (left) about one-quarter turn and then stop.

   If you hear a hiss, wait for that to stop. A hiss means there is still some pressure left.

2. Then keep turning the pressure cap slowly, and remove it.

3. Then fill the coolant surge tank with the proper mixture, to FULL COLD.

4. With the coolant surge tank pressure cap off, start the engine and let it run until you can feel the upper radiator hose getting hot. Watch out for the engine cooling fans.

   By this time, the coolant level inside the coolant surge tank may be lower. If the level is lower, add more of the proper mixture to the coolant surge tank until the level reaches FULL COLD.

5. Then replace the pressure cap. Be sure the pressure cap is hand-tight.

If a Tire Goes Flat

It's unusual for a tire to "blow out" while you're driving, especially if you maintain your tires properly. If air goes out of a tire, it's much more likely to leak out slowly. But if you should ever have a "blowout," here are a few tips about what to expect and what to do:

If a front tire fails, the flat tire will create a drag that pulls the vehicle toward that side. Take your foot off the accelerator pedal and grip the steering wheel firmly. Steer to maintain lane position, and then gently brake to a stop well out of the traffic lane.

A rear blowout, particularly on a curve, acts much like a skid and may require the same correction you'd use in a skid. In any rear blowout, remove your foot from the accelerator pedal. Get the vehicle under control by steering the way you want the vehicle to go. It may be very bumpy and noisy, but you can still steer. Gently brake to a stop -- well off the road if possible.

If a tire goes flat, the next part shows how to use your jacking equipment to change a flat tire safely.

Changing a Flat Tire

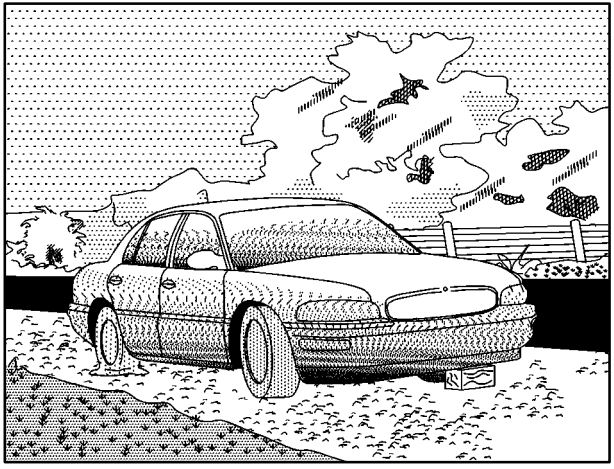
If a tire goes flat, avoid further tire and wheel damage by driving slowly to a level place. Turn on your hazard warning flashers.

⚠ CAUTION:

Changing a tire can cause an injury. The vehicle can slip off the jack and roll over you or other people. You and they could be badly injured. Find a level place to change your tire. To help prevent the vehicle from moving:

1. **Set the parking brake firmly.**
2. **Put the shift lever in PARK (P).**
3. **Turn off the engine.**

To be even more certain the vehicle won't move, you can put blocks at the front and rear of the tire farthest away from the one being changed. That would be the tire on the other side of the vehicle, at the opposite end.



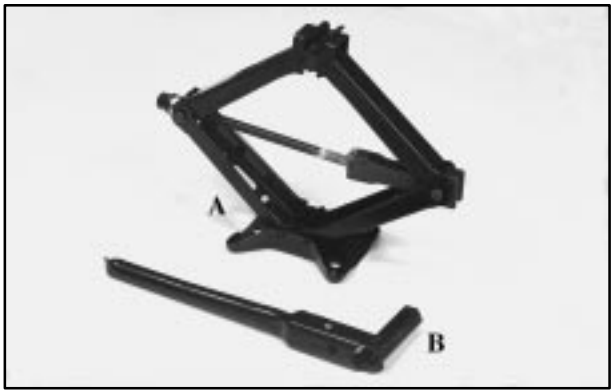
The following steps will tell you how to use the jack and change a tire.

Removing the Spare Tire and Tools

The equipment you'll need is in the trunk.

Instructions for changing your tires are on the inside of the tire cover. You can rest the cover near you for easy reference while you change the tire.

1. Lift the tire cover to gain access to the spare tire and jacking equipment.
2. Remove the wheel wrench and jack from the jack container.
3. Remove the spare tire from the trunk.



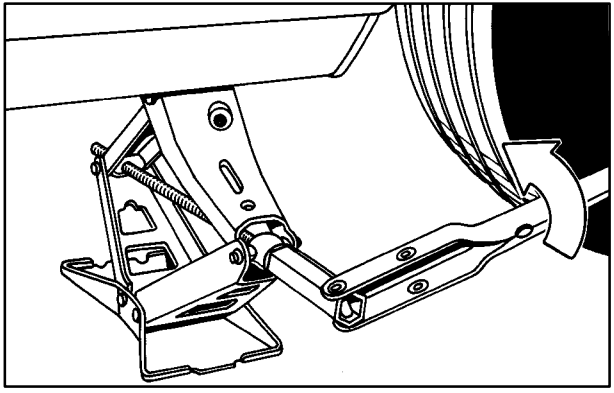
The tools you'll be using include the jack (A) and the wheel wrench (B).

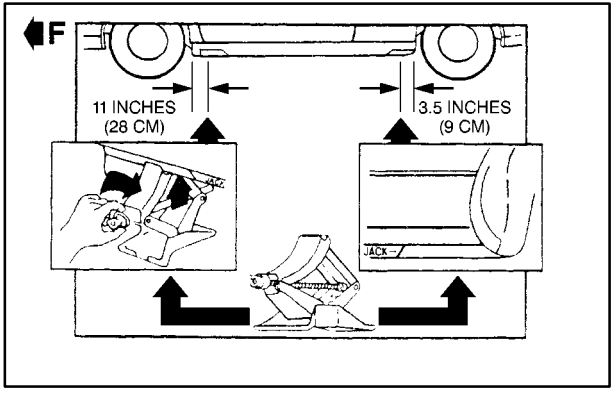
Removing the Wheel Cover

Insert the hooked end of the wheel wrench in one of the two small notches in the center cover and pry the cover off. Do not drop the cover or lay it face down, as it could be scratched or damaged.

Removing the Flat Tire and Installing the Spare Tire

1. Position the wheel wrench securely over the wheel nuts to loosen, but don’t remove them.
2. Attach the wheel wrench to the bolt on the end of the jack to create a jack handle.





3. Turn the wheel wrench counterclockwise by hand to lower the jack head until it fits under the vehicle.

4. Near each wheel well is a notch in the frame to position the jack head. You'll find the word JACK and an arrow stamped into the plastic near each notch. Position the jack under the vehicle and raise the jack head until it fits firmly against the sheet metal next to the word JACK. Do not raise the vehicle yet. Put the compact spare near you.

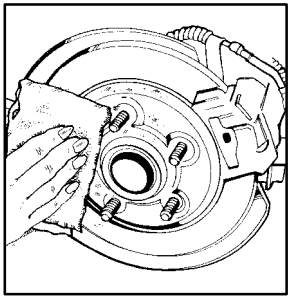
⚠ CAUTION:

Getting under a vehicle when it is jacked up is dangerous. If the vehicle slips off the jack, you could be badly injured or killed. Never get under a vehicle when it is supported only by a jack.

⚠ CAUTION:

Raising your vehicle with the jack improperly positioned can damage the vehicle and even make the vehicle fall. To help avoid personal injury and vehicle damage, be sure to fit the jack lift head into the proper location before raising the vehicle.

5. Raise the vehicle by turning the wheel wrench clockwise on the jack. Raise the vehicle far enough off the ground so there's enough room for the spare tire to fit.
6. Remove all the wheel nuts and take off the flat tire.



7. Remove any rust or dirt from the wheel bolts, mounting surfaces and spare wheel.

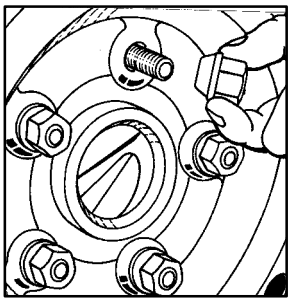
⚠ CAUTION:

Rust or dirt on the wheel, or on the parts to which it is fastened, can make the wheel nuts become loose after a time. The wheel could come off and cause an accident. When you change a wheel, remove any rust or dirt from the places where the wheel attaches to the vehicle. In an emergency, you can use a cloth or a paper towel to do this; but be sure to use a scraper or wire brush later, if you need to, to get all the rust or dirt off.

⚠ CAUTION:

Never use oil or grease on studs or nuts. If you do, the nuts might come loose. Your wheel could fall off, causing a serious accident.

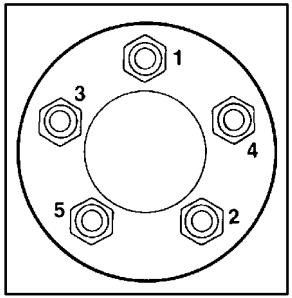
8. Place the spare tire on the wheel-mounting surface.



9. Replace the wheel nuts with the rounded end of the nuts toward the wheel. Tighten each nut by hand until the wheel is held against the hub.

If a nut cannot be tightened by hand, use the wheel wrench, and see your dealer right away.

10. Lower the vehicle by turning the wheel wrench counterclockwise on the jack. Lower the jack completely.



11. Using the wheel wrench, tighten the wheel nuts firmly in a crisscross sequence as shown.

⚠ CAUTION:

Incorrect wheel nuts or improperly tightened wheel nuts can cause the wheel to become loose and even come off. This could lead to an accident. Be sure to use the correct wheel nuts. If you have to replace them, be sure to get new GM original equipment wheel nuts.

Stop somewhere as soon as you can and have the nuts tightened with a torque wrench to 100 lb-ft (140 N·m).

NOTICE:

Improperly tightened wheel nuts can lead to brake pulsation and rotor damage. To avoid expensive brake repairs, evenly tighten the wheel nuts in the proper sequence and to the proper torque specification.

12. When the flat tire has been repaired or replaced, install the wheel cover. Be sure to position the alignment pin on the cover with the notch in the wheel. Apply pressure around the edge of the cap to snap it in place. Do not use a hammer or mallet to install the cover.

    Store the wheel cover in the trunk until you have replaced the compact spare tire with a regular tire.

NOTICE:

Wheel covers won't fit on your compact spare. If you try to put a wheel cover on your compact spare, you could damage the cover or the spare.

Storing the Flat Tire and Tools

⚠ CAUTION:

Storing a jack, a tire or other equipment in the passenger compartment of the vehicle could cause injury. In a sudden stop or collision, loose equipment could strike someone. Store all these in the proper place.

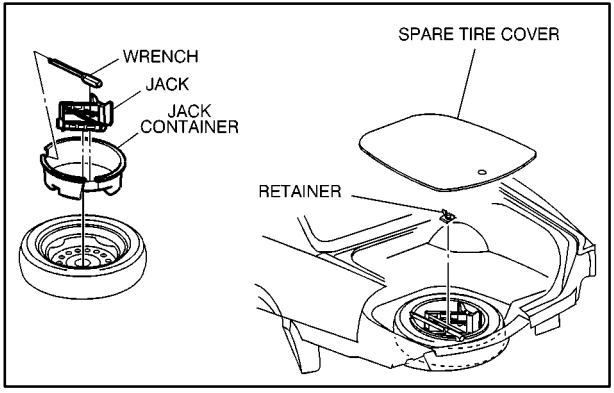
Store the flat tire as far forward in the trunk as possible. Store the jack and wheel wrench in their compartment in the trunk. For storage, the jack must be raised until the screw end is flush with the edge of the jack.

Storing the Spare Tire and Tools

⚠ CAUTION:

Storing a jack, a tire or other equipment in the passenger compartment of the vehicle could cause injury. In a sudden stop or collision, loose equipment could strike someone. Store all these in the proper place.

The compact spare tire is for temporary use only. Replace the compact spare tire with a full-size tire as soon as you can. See “Compact Spare Tire” later in this section. See the storage instructions label to replace your compact spare into your trunk properly.



Compact Spare Tire

Although the compact spare tire was fully inflated when your vehicle was new, it can lose air after a time. Check the inflation pressure regularly. It should be 60 psi (420 kPa).

After installing the compact spare on your vehicle, you should stop as soon as possible and make sure your spare tire is correctly inflated. The compact spare is made to perform well at speeds up to 65 mph (105 km/h) for distances up to 3,000 miles (5 000 km), so you can finish your trip and have your full-size tire repaired or replaced where you want. Of course, it's best to replace your spare with a full-size tire as soon as you can. Your spare will last longer and be in good shape in case you need it again.

NOTICE:

When the compact spare is installed, don't take your vehicle through an automatic car wash with guide rails. The compact spare can get caught on the rails. That can damage the tire and wheel, and maybe other parts of your vehicle.

Don't use your compact spare on other vehicles.

And don't mix your compact spare tire or wheel with other wheels or tires. They won't fit. Keep your spare tire and its wheel together.

NOTICE:

Tire chains won't fit your compact spare. Using them can damage your vehicle and can damage the chains too. Don't use tire chains on your compact spare.

If You're Stuck: In Sand, Mud, Ice or Snow

In order to free your vehicle when it is stuck, you will need to spin the wheels, but you don't want to spin your wheels too fast. The method known as "rocking" can help you get out when you're stuck, but you must use caution.

⚠ CAUTION:

If you let your tires spin at high speed, they can explode, and you or others could be injured. And, the transaxle or other parts of the vehicle can overheat. That could cause an engine compartment fire or other damage. When you're stuck, spin the wheels as little as possible. Don't spin the wheels above 35 mph (55 km/h) as shown on the speedometer.

NOTICE:

Spinning your wheels can destroy parts of your vehicle as well as the tires. If you spin the wheels too fast while shifting your transaxle back and forth, you can destroy your transaxle.

For information about using tire chains on your vehicle, see "Tire Chains" in the Index.

Rocking Your Vehicle To Get It Out

First, turn your steering wheel left and right. That will clear the area around your front wheels. You should turn your traction control system off. (See "Traction Control System" in the Index.) Then shift back and forth between REVERSE (R) and a forward gear, spinning the wheels as little as possible. Release the accelerator pedal while you shift, and press lightly on the accelerator pedal when the transaxle is in gear. By slowly spinning your wheels in the forward and reverse directions, you will cause a rocking motion that may free your vehicle. If that doesn't get you out after a few tries, you may need to be towed out. If you do need to be towed out, see "Towing Your Vehicle" in the Index.

NOTES

Section 6 Service and Appearance Care

Here you will find information about the care of your vehicle. This section begins with service and fuel information, and then it shows how to check important fluid and lubricant levels. There is also technical information about your vehicle, and a part devoted to its appearance care.

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6-3 Fuel
6-8 Filling a Portable Fuel Container
6-8 Checking Things Under the Hood
6-11 Engine Oil
6-15 Engine Air Cleaner/Filter
6-18 Automatic Transaxle Fluid
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6-33 Bulb Replacement
6-43 Tires
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Service

Your dealer knows your vehicle best and wants you to be happy with it. We hope you'll go to your dealer for all your service needs. You'll get genuine GM parts and GM-trained and supported service people.

We hope you'll want to keep your GM vehicle all GM. Genuine GM parts have one of these marks:

ACDelco®

Genuine GM® Parts

GM® Goodwrench

Doing Your Own Service Work

If you want to do some of your own service work, you'll want to use the proper service manual. It tells you much more about how to service your vehicle than this manual can. To order the proper service manual, see "Service and Owner Publications" in the Index.

Your vehicle has an air bag system. Before attempting to do your own service work, see "Servicing Your Air Bag-Equipped Vehicle" in the Index.

You should keep a record with all parts receipts and list the mileage and the date of any service work you perform. See "Maintenance Record" in the Index.

⚠ CAUTION:

You can be injured and your vehicle could be damaged if you try to do service work on a vehicle without knowing enough about it.

- **Be sure you have sufficient knowledge, experience, the proper replacement parts and tools before you attempt any vehicle maintenance task.**
- **Be sure to use the proper nuts, bolts and other fasteners. "English" and "metric" fasteners can be easily confused. If you use the wrong fasteners, parts can later break or fall off. You could be hurt.**

Adding Equipment to the Outside of Your Vehicle

Things you might add to the outside of your vehicle can affect the airflow around it. This may cause wind noise and affect windshield washer performance. Check with your dealer before adding equipment to the outside of your vehicle.

Fuel

Use premium unleaded gasoline rated at 91 octane or higher for best performance. You may use middle grade or regular unleaded gasolines, but your vehicle may not accelerate as well.

It is recommended that the gasoline meet specifications which have been developed by the American Automobile Manufacturers Association (AAMA) and endorsed by the Canadian Motor Vehicle Manufacturers Association for better vehicle performance and engine protection. Gasolines meeting the AAMA specification could provide improved driveability and emission control system performance compared to other gasolines. For more information, write to: American Automobile Manufacturer's Association, 7430 Second Ave, Suite 300, Detroit MI 48202.

Be sure the posted octane for premium is at least 91 (at least 89 for middle grade and 87 for regular). If the octane is less than 87, you may get a heavy knocking noise when you drive. If it's bad enough, it can damage your engine.

If you're using fuel rated at the recommended octane or higher and you hear heavy knocking, your engine needs service. But don't worry if you hear a little pinging noise when you're accelerating or driving up a hill. That's normal, and you don't have to buy a higher octane fuel to get rid of pinging. It's the heavy, constant knock that means you have a problem.

If your vehicle is certified to meet California Emission Standards (indicated on the underhood emission control label), it is designed to operate on fuels that meet California specifications. If such fuels are not available in states adopting California emissions standards, your vehicle will operate satisfactorily on fuels meeting federal specifications, but emission control system performance may be affected. The malfunction indicator lamp on your instrument panel may turn on and/or your vehicle may fail a smog-check test. (See "Malfunction Indicator Lamp" in the Index.) If this occurs, return to your authorized Oldsmobile dealer for diagnosis to determine the cause of failure. In the event it is determined that the cause of the condition is the type of fuels used, repairs may not be covered by your warranty.

Some gasolines that are not reformulated for low emissions may contain an octane-enhancing additive called methylcyclopentadienyl manganese tricarbonyl (MMT); ask your service station operator whether or not the fuel contains MMT. General Motors does not recommend the use of such gasolines. If fuels containing MMT are used, spark plug life may be reduced and your emission control system performance may be affected. The malfunction indicator lamp on your instrument panel may turn on. If this occurs, return to your authorized Oldsmobile dealer for service.

To provide cleaner air, all gasolines in the United States are now required to contain additives that will help prevent deposits from forming in your engine and fuel system, allowing your emission control system to function properly. Therefore, you should not have to add anything to the fuel. In addition, gasolines containing oxygenates, such as ethers and ethanol, and reformulated gasolines may be available in your area to contribute to clean air. General Motors recommends that you use these gasolines, particularly if they comply with the specifications described earlier.

NOTICE:

Your vehicle was not designed for fuel that contains methanol. Don't use it. It can corrode metal parts in your fuel system and also damage plastic and rubber parts. That damage wouldn't be covered under your warranty.

Fuels in Foreign Countries

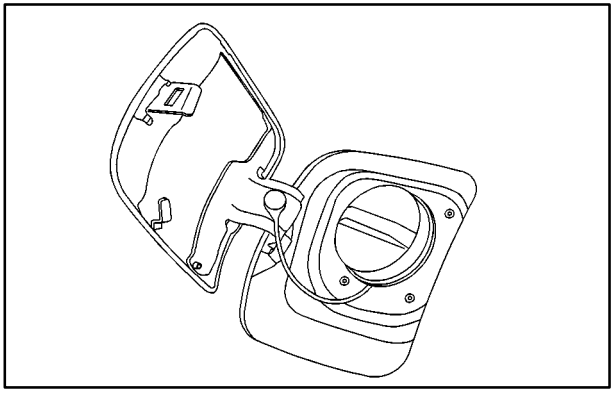
If you plan on driving in another country outside the United States or Canada, the proper fuel may be hard to find. Never use leaded gasoline or any other fuel not recommended in the previous text on fuel. Costly repairs caused by use of improper fuel wouldn't be covered by your warranty.

To check on fuel availability, ask an auto club, or contact a major oil company that does business in the country where you'll be driving.

You can also write us at the following address for advice. Just tell us where you're going and give your Vehicle Identification Number (VIN).

General Motors Overseas Distribution Corporation
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

Filling Your Tank

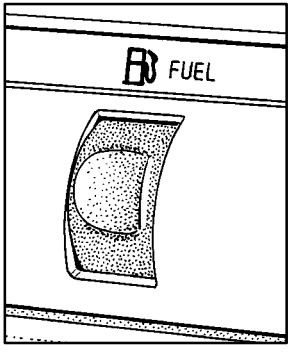


The cap is behind a hinged door on the left side of your vehicle.

⚠ CAUTION:

Gasoline vapor is highly flammable. It burns violently, and that can cause very bad injuries. Don't smoke if you're near gasoline or refueling your vehicle. Keep sparks, flames and smoking materials away from gasoline.

The remote fuel door release can help keep your fuel tank from being siphoned. Always be sure the fuel door is closed and latched after refueling.

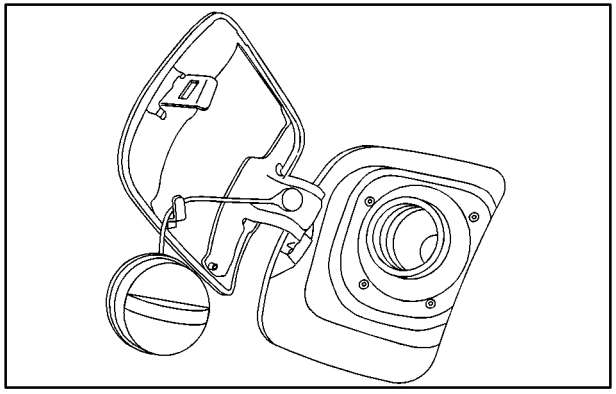


To open the fuel door (on the driver's side of the vehicle), press the button next to the trunk release button, to the right of the steering column. The ignition does not need to be on. The remote fuel door release will work in all transaxle positions.

The fuel door can be opened manually in case of an electrical power failure. To do so, first open the trunk. The release mechanism is on the driver's side of the vehicle, at the top of the trunk compartment. Pull the tab toward you to release the fuel door.

NOTICE:

Prying on a locked fuel filler door could damage it. Use the remote fuel door manual release located in the trunk.



While refueling, hang the tethered cap from the hook on the fuel door.

To remove the cap, turn it slowly to the left (counterclockwise). The cap has a spring in it; if you let go of the cap too soon, it will spring back to the right.

⚠ CAUTION:

If you get gasoline on yourself and then something ignites it, you could be badly burned. Gasoline can spray out on you if you open the fuel filler cap too quickly. This spray can happen if your tank is nearly full, and is more likely in hot weather. Open the fuel filler cap slowly and wait for any "hiss" noise to stop. Then unscrew the cap all the way.

Be careful not to spill gasoline. Clean gasoline from painted surfaces as soon as possible. See "Cleaning the Outside of Your Vehicle" in the Index.

When you put the cap back on, turn it to the right (clockwise) until you hear a clicking sound. Make sure you fully install the cap. The diagnostic system can determine if the fuel cap has been left off or improperly installed. This would allow fuel to evaporate into the atmosphere. See "Malfunction Indicator Lamp" in the Index.

NOTICE:

If you need a new cap, be sure to get the right type. Your dealer can get one for you. If you get the wrong type, it may not fit properly. This may cause your malfunction indicator lamp to light and your fuel tank and emissions system may be damaged. See "Malfunction Indicator Lamp" in the Index.

Filling a Portable Fuel Container

⚠ CAUTION:

Never fill a portable fuel container while it is in your vehicle. Static electricity discharge from the container can ignite the gasoline vapor. You can be badly burned and your vehicle damaged if this occurs. To help avoid injury to you and others:

- **Dispense gasoline only into approved containers.**

CAUTION: (Continued)

CAUTION: (Continued)

- **Do not fill a container while it is inside a vehicle, in a vehicle's trunk, pickup bed or on any surface other than the ground.**
- **Bring the fill nozzle in contact with the inside of the fill opening before operating the nozzle. Contact should be maintained until the filling is complete.**
- **Don't smoke while pumping gasoline.**

Checking Things Under the Hood

⚠ CAUTION:

An electric fan under the hood can start up and injure you even when the engine is not running. Keep hands, clothing and tools away from any underhood electric fan.

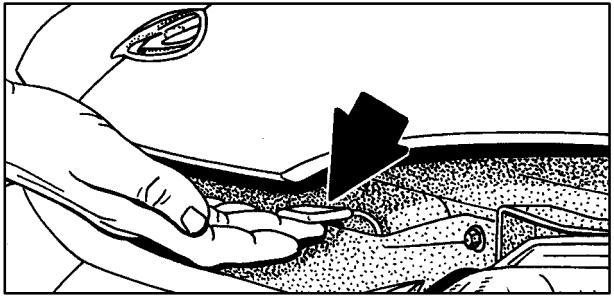
⚠ CAUTION:

Things that burn can get on hot engine parts and start a fire. These include liquids like gasoline, oil, coolant, brake fluid, windshield washer and other fluids, and plastic or rubber. You or others could be burned. Be careful not to drop or spill things that will burn onto a hot engine.

The following sections tell you how to check fluids, lubricants and important parts underhood.

Hood Release

To open the hood, first pull the hood release handle inside the vehicle, located to the left of the steering wheel under the instrument panel.



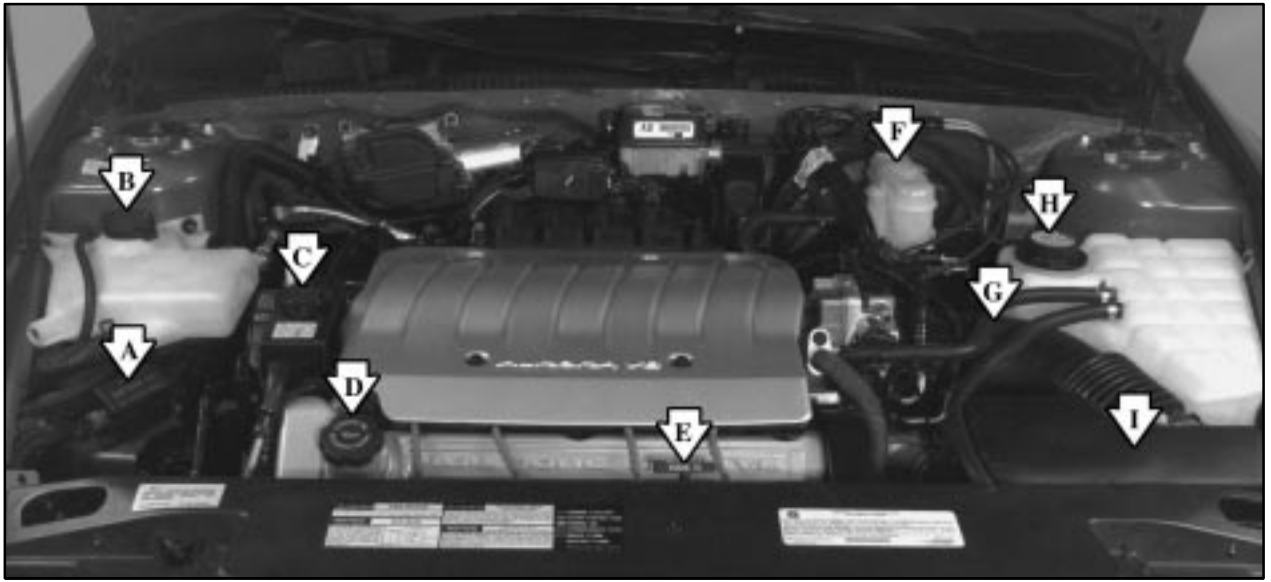
Then go to the front of the vehicle and pull up on the underhood release.

Lift the hood.

Before closing the hood, be sure all the filler caps are on properly. Then pull the hood down and close it firmly.

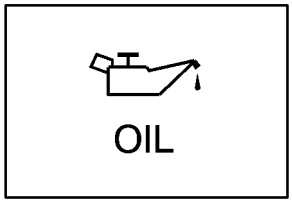
4.0L V8 Engine

When you open the hood, you'll see:



A. Remote Positive (+) Battery Terminal
B. Windshield Washer Fluid Reservoir
C. Power Steering Fluid Reservoir
D. Engine Oil Fill Cap
E. Engine Oil Dipstick
F. Brake Fluid Reservoir
G. Automatic Transaxle Fluid Dipstick (behind the air cleaner)
H. Engine Coolant Surge Tank
I. Engine Air Cleaner/Filter

Engine Oil



If the CHECK OIL LEVEL message or the oil warning light on the instrument panel comes on, it means you need to check your engine oil level right away.

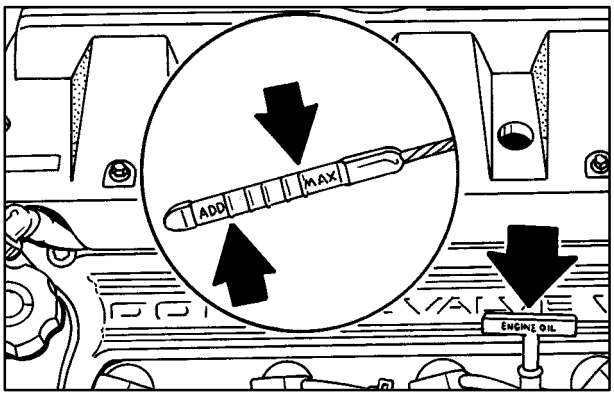
For more information, see “Check Oil Level Message” or “Oil Pressure Warning Light” in the Index. You should check your engine oil level regularly; this is an added reminder.

It’s a good idea to check your engine oil every time you get fuel. In order to get an accurate reading, the oil must be warm and the vehicle must be on level ground.

Turn off the engine and give the oil several minutes to drain back into the oil pan. If you don’t, the oil dipstick might not show the actual level.

Checking Engine Oil

Pull out the dipstick and clean it with a paper towel or cloth, then push it back in all the way. Remove it again, keeping the tip down, and check the level.



When to Add Engine Oil

If the oil is at or below the ADD line, then you’ll need to add at least one quart of oil. But you must use the right kind. This part explains what kind of oil to use. For crankcase capacity, see “Capacities and Specifications” in the Index.

NOTICE:

Don't add too much oil. If your engine has so much oil that the oil level gets above the upper mark that shows the proper operating range, your engine could be damaged.

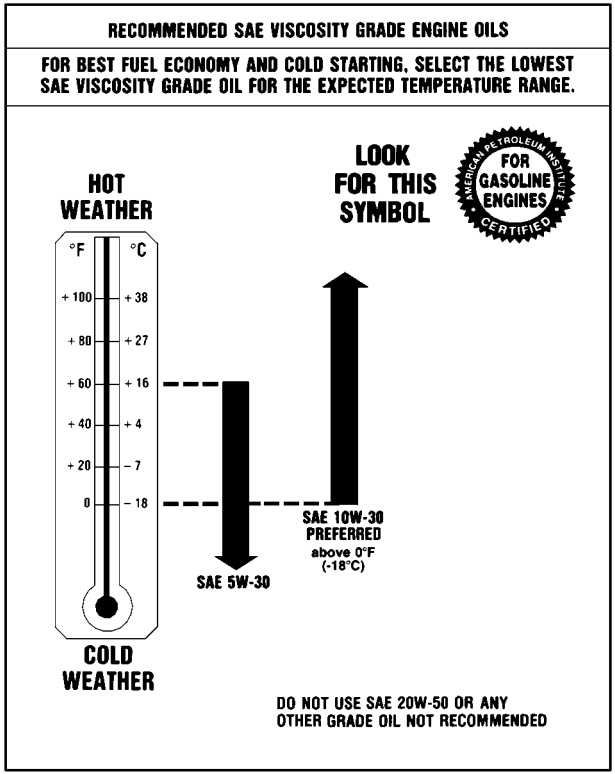
Be sure to fill it enough to put the level somewhere in the proper operating range. Push the dipstick all the way back in when you're through.

What Kind of Engine Oil to Use

Oils recommended for your vehicle can be identified by looking for the "Starburst" symbol. This symbol indicates that the oil has been certified by the American Petroleum Institute (API). Do not use any oil which does not carry this Starburst symbol.

If you change your own oil, be sure you use oil that has the Starburst symbol on the front of the oil container. If you have your oil changed for you, be sure the oil put into your engine is American Petroleum Institute certified for gasoline engines.

You should also use the proper viscosity oil for your vehicle, as shown in the following chart:



As shown in the chart, SAE 10W-30 is best for your vehicle. However, you can use SAE 5W-30 if it's going to be colder than 60°F (16°C) before your next oil change. When it's very cold, you should use SAE 5W-30. These numbers on an oil container show its viscosity, or thickness. Do not use other viscosity oils, such as SAE 20W-50.

NOTICE:

Use only engine oil with the American Petroleum Institute Certified For Gasoline Engines "Starburst" symbol. Failure to use the recommended oil can result in engine damage not covered by your warranty.

GM Goodwrench® oil meets all the requirements for your vehicle.

If you are in an area where the temperature falls below -20°F (-29°C), consider using either an SAE 5W-30 synthetic oil or an SAE 0W-30 oil. Both will provide easier cold starting and better protection for your engine at extremely low temperatures.

Engine Oil Additives

Don't add anything to your oil. Your dealer is ready to advise if you think something should be added.

When to Change Engine Oil

Your vehicle has a computer that lets you know when to change your engine oil. This is not based on mileage, but on engine revolutions and engine operating temperature. When the computer has calculated that the oil needs changing, the Oil Life Indicator will indicate that a change is necessary. The mileage between oil changes will vary depending on how you drive your vehicle -- usually between 3,000 miles (5 000 km) and 7,500 miles (12 500 km) since your last oil change. Under severe conditions, the indicator may come on before 3,000 miles (5 000 km). Never drive your vehicle more than 7,500 miles (12 500 km) or 12 months (whichever occurs first) without an oil change.

The system won't detect dust in the oil. So, if you drive in a dusty area, be sure to change your oil every 3,000 miles (5 000 km) or sooner. Remember to reset the Oil Life Indicator whenever the oil is changed.

How to Reset the Oil Life Indicator

Always reset the engine Oil Life Indicator to 100 percent after every oil change. It will not reset itself. To reset the OIL LIFE reminder, do the following:

1. With the ignition on, press the ENG button so the OIL LIFE percentage is displayed.
2. Press RESET and hold for five seconds. The word RESET will appear, then OIL LIFE 100% will be displayed.

What to Do with Used Oil

Did you know that used engine oil contains certain elements that may be unhealthy for your skin and could even cause cancer? Don't let used oil stay on your skin for very long. Clean your skin and nails with soap and water, or a good hand cleaner. Wash or properly throw away clothing or rags containing used engine oil. (See the manufacturer's warnings about the use and disposal of oil products.)

Used oil can be a real threat to the environment. If you change your own oil, be sure to drain all free-flowing oil from the filter before disposal. Don't ever dispose of oil by putting it in the trash, pouring it on the ground, into sewers, or into streams or bodies of water. Instead, recycle it by taking it to a place that collects used oil. If you have a problem properly disposing of your used oil, ask your dealer, a service station or a local recycling center for help.

Engine Air Cleaner/Filter

The air cleaner and filter are on the driver's side of the engine compartment.

To check or replace the air filter:

1. Remove the radiator hose from the resonator channel.

2. Release the tension of the wing screw clamp on the air intake hose where it attaches to the air cleaner cover near the top of the engine. Just turn the wing screw counterclockwise, then detach the hose from the air cleaner cover.
3. To remove the air cleaner cover, push the hose and resonator assembly rearward and up, and hold them out of the way.

4. There's a temperature sensor on the corner of the air cleaner cover. Release the sensor's electrical connector retainer, and pull up.

5. Unsnap the two clamps by pushing down on the top of the air cleaner cover and pushing in on the clamps toward the center of the cover. Then remove the cover.

6. Remove the air filter.
7. Install the new air filter and reverse all of the steps to reinstall the cover, electrical wires, hose and clamp. Be sure the tabs of the air cleaner cover fit into the slots of the air cleaner housing. Then make sure both clamps are fully engaged.

Refer to the Maintenance Schedule to determine when to replace the air filter.

See “Scheduled Maintenance Services” in the Index.

⚠ CAUTION:

Operating the engine with the air cleaner/filter off can cause you or others to be burned. The air cleaner not only cleans the air, it stops flame if the engine backfires. If it isn’t there, and the engine backfires, you could be burned. Don’t drive with it off, and be careful working on the engine with the air cleaner/filter off.

NOTICE:

If the air cleaner/filter is off, a backfire can cause a damaging engine fire. And, dirt can easily get into your engine, which will damage it. Always have the air cleaner/filter in place when you’re driving.

Automatic Transaxle Fluid

When to Check and Change

A good time to check your automatic transaxle fluid level is when the engine oil is changed.

Change both the fluid and filter every 50,000 miles (83 000 km) if the vehicle is mainly driven under one or more of these conditions:

- In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
- In hilly or mountainous terrain.
- When doing frequent trailer towing.
- Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter at 100,000 miles (166 000 km).

See “Scheduled Maintenance Services” in the Index.

How to Check

Because this operation can be a little difficult, you may choose to have this done at the dealership service department.

If you do it yourself, be sure to follow all the instructions here, or you could get a false reading on the dipstick.

NOTICE:

Too much or too little fluid can damage your transaxle. Too much can mean that some of the fluid could come out and fall on hot engine parts or exhaust system parts, starting a fire. Be sure to get an accurate reading if you check your transaxle fluid.

Wait at least 30 minutes before checking the transaxle fluid level if you have been driving:

- When outside temperatures are above 90°F (32°C).
- At high speed for quite a while.
- In heavy traffic -- especially in hot weather.
- While pulling a trailer.

To get the right reading, the fluid should be at normal operating temperature, which is 180°F to 200°F (82°C to 93°C).

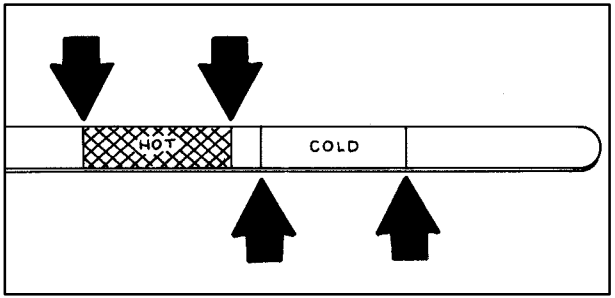
Get the vehicle warmed up by driving about 15 miles (24 km) when outside temperatures are above 50°F (10°C). If it's colder than 50°F (10°C), you may have to drive longer.

Checking the Fluid Level

- Park your vehicle on a level place. Keep the engine running.
- With the parking brake applied, place the shift lever in PARK (P).
- With your foot on the brake pedal, move the shift lever through each gear range, pausing for about three seconds in each range. Then, position the shift lever in PARK (P).
- Let the engine run at idle for three to five minutes.

Then, without shutting off the engine, follow these steps:

1. Pull out the dipstick and wipe it with a clean rag or paper towel.
2. Push it back in all the way, wait three seconds and then pull it back out again.



3. Check both sides of the dipstick, and read the lower level. The fluid level must be in the cross-hatched area.
4. If the fluid level is in the acceptable range, push the dipstick back in all the way.

How to Add Fluid

Refer to the Maintenance Schedule to determine what kind of transaxle fluid to use. See “Recommended Fluids and Lubricants” in the Index.

If the fluid level is low, add only enough of the proper fluid to bring the level into the cross-hatched area on the dipstick.

1. Pull out the dipstick.
2. Using a long-neck funnel, add enough fluid at the dipstick hole to bring it to the proper level.

   It doesn’t take much fluid, generally less than one pint (0.5 L). *Don’t overfill.*

NOTICE:

We recommend you use only fluid labeled DEXRON®-III, because fluid with that label is made especially for your automatic transaxle. Damage caused by fluid other than DEXRON®-III is not covered by your new vehicle warranty.

3. After adding fluid, recheck the fluid level as described under “How to Check.”
4. When the correct fluid level is obtained, push the dipstick back in all the way.

Thermostat

Engine coolant temperature is controlled by a thermostat in the engine coolant system. The thermostat stops the flow of coolant through the radiator until the coolant reaches a preset temperature.

When you replace your thermostat, a GM thermostat is recommended.

Engine Coolant

The cooling system in your vehicle is filled with DEX-COOL® engine coolant. This coolant is designed to remain in your vehicle for 5 years or 150,000 miles (240 000 km), whichever occurs first, if you add only DEX-COOL® extended life coolant.

The following explains your cooling system and how to add coolant when it is low. If you have a problem with engine overheating, see “Engine Overheating” in the Index.

A 50/50 mixture of clean, drinkable water and DEX-COOL® coolant will:

- Give freezing protection down to -34°F (-37°C).
- Give boiling protection up to 265°F (129°C).
- Protect against rust and corrosion.
- Help keep the proper engine temperature.
- Let the warning lights and gages work as they should.

NOTICE:

When adding coolant, it is important that you use only DEX-COOL® (silicate-free) coolant.

If coolant other than DEX-COOL is added to the system, premature engine, heater core or radiator corrosion may result. In addition, the engine coolant will require change sooner -- at 30,000 miles (50 000 km) or 24 months, whichever occurs first. Damage caused by the use of coolant other than DEX-COOL® is not covered by your new vehicle warranty.

What to Use

Use a mixture of one-half *clean, drinkable water* and one-half DEX-COOL® coolant which won't damage aluminum parts. If you use this coolant mixture, you don't need to add anything else.

⚠ CAUTION:

Adding only plain water to your cooling system can be dangerous. Plain water, or some other liquid like alcohol, can boil before the proper coolant mixture will. Your vehicle's coolant warning system is set for the proper coolant mixture. With plain water or the wrong mixture, your engine could get too hot but you wouldn't get the overheat warning. Your engine could catch fire and you or others could be burned. Use a 50/50 mixture of clean, drinkable water and DEX-COOL® coolant.

NOTICE:

If you use an improper coolant mixture, your engine could overheat and be badly damaged. The repair cost wouldn't be covered by your warranty. Too much water in the mixture can freeze and crack the engine, radiator, heater core and other parts.

If you have to add coolant more than four times a year, have your dealer check your cooling system.

NOTICE:

If you use the proper coolant, you don't have to add extra inhibitors or additives which claim to improve the system. These can be harmful.

Checking Coolant

The engine coolant surge tank is located on the driver's side of the engine compartment.

⚠ CAUTION:

Turning the surge tank pressure cap when the engine and radiator are hot can allow steam and scalding liquids to blow out and burn you badly. Never turn the surge tank pressure cap -- even a little -- when the engine and radiator are hot.

The vehicle must be on a level surface. When your engine is cold, the coolant level should be at the FULL COLD mark or a little higher.

If the message LOW ENGINE COOLANT is displayed on your Driver Information Center, it means you're low on engine coolant.

Adding Coolant

If you need more coolant, add the proper DEX-COOL® coolant mixture *at the surge tank*, but only when the engine is cool.

⚠ CAUTION:

You can be burned if you spill coolant on hot engine parts. Coolant contains ethylene glycol, and it will burn if the engine parts are hot enough. Don't spill coolant on a hot engine.

When replacing the pressure cap, make sure it is hand-tight.

Power Steering Fluid

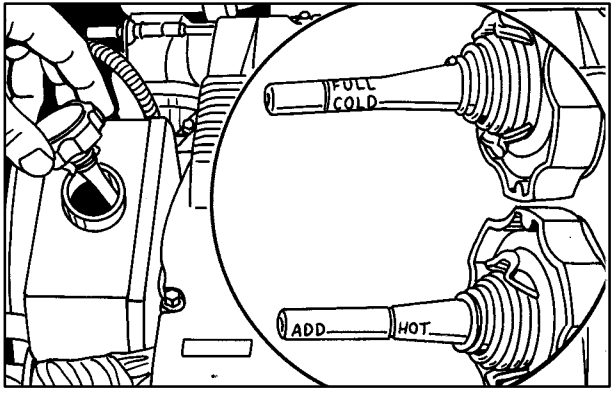
When to Check Power Steering Fluid

It is not necessary to regularly check power steering fluid unless you suspect there is a leak in the system or you hear an unusual noise. A fluid loss in this system could indicate a problem. Have the system inspected and repaired.

How to Check Power Steering Fluid

When the engine compartment is cool, wipe the cap and the top of the reservoir clean, then unscrew the cap and wipe the dipstick with a clean rag. Replace the cap and completely tighten it. Then remove the cap again and look at the fluid level on the dipstick.

The level should be at the FULL COLD mark. If necessary, add only enough fluid to bring the level up to the mark.



What to Use

To determine what kind of fluid to use, see “Recommended Fluids and Lubricants” in the Index. Always use the proper fluid. Failure to use the proper fluid can cause leaks and damage hoses and seals.

Windshield Washer Fluid

What to Use

When you need windshield washer fluid, be sure to read the manufacturer’s instructions before use. If you will be operating your vehicle in an area where the temperature may fall below freezing, use a fluid that has sufficient protection against freezing.

Adding Washer Fluid

There are two windshield washer fluid tanks. The upper tank (shown above) will empty first. When the lower tank contains 0.5 quarts (0.5 liters) or less, the message LOW WASHER FLUID will be displayed on the Driver Information Center.

Open the cap labeled WASHER FLUID ONLY. Add washer fluid until the tank is full.

NOTICE:

- **When using concentrated washer fluid, follow the manufacturer's instructions for adding water.**
- **Don't mix water with ready-to-use washer fluid. Water can cause the solution to freeze and damage your washer fluid tank and other parts of the washer system. Also, water doesn't clean as well as washer fluid.**
- **Fill your washer fluid tank only three-quarters full when it's very cold. This allows for expansion if freezing occurs, which could damage the tank if it is completely full.**
- **Don't use engine coolant (antifreeze) in your windshield washer. It can damage your washer system and paint.**

Brakes

Brake Fluid

Your brake master cylinder reservoir is on the driver's side of the engine compartment. It is filled with DOT-3 brake fluid.

There are only two reasons why the brake fluid level in the reservoir might go down. The first is that the brake fluid goes down to an acceptable level during normal brake lining wear. When new linings are put in, the fluid level goes back up. The other reason is that fluid is leaking out of the brake system. If it is, you should have your brake system fixed, since a leak means that sooner or later your brakes won't work well, or won't work at all.

So, it isn't a good idea to "top off" your brake fluid. Adding brake fluid won't correct a leak. If you add fluid when your linings are worn, then you'll have too much fluid when you get new brake linings. You should add (or remove) brake fluid, as necessary, only when work is done on the brake hydraulic system.

⚠ CAUTION:

If you have too much brake fluid, it can spill on the engine. The fluid will burn if the engine is hot enough. You or others could be burned, and your vehicle could be damaged. Add brake fluid only when work is done on the brake hydraulic system.

When your brake fluid falls to a low level, your brake warning light will come on. A chime will sound if you try to drive with this warning light on. See "Brake System Warning Light" in the Index.

What to Add

When you do need brake fluid, use only DOT-3 brake fluid. Use new brake fluid from a sealed container only. Refer to “Recommended Fluids and Lubricants” in the Maintenance Schedule.

Always clean the brake fluid reservoir cap and the area around the cap before removing it. This will help keep dirt from entering the reservoir.

⚠ CAUTION:

With the wrong kind of fluid in your brake system, your brakes may not work well, or they may not even work at all. This could cause a crash. Always use the proper brake fluid.

NOTICE:

- **Using the wrong fluid can badly damage brake system parts. For example, just a few drops of mineral-based oil, such as engine oil, in your brake system can damage brake system parts so badly that they’ll have to be replaced. Don’t let someone put in the wrong kind of fluid.**
- **If you spill brake fluid on your vehicle’s painted surfaces, the paint finish can be damaged. Be careful not to spill brake fluid on your vehicle. If you do, wash it off immediately. See “Appearance Care” in the Index.**

Brake Wear

Your vehicle has four-wheel disc brakes.

Disc brake pads have built-in wear indicators that make a high-pitched warning sound when the brake pads are worn and new pads are needed. The sound may come and go or be heard all the time your vehicle is moving (except when you are pushing on the brake pedal firmly).

⚠ CAUTION:

The brake wear warning sound means that soon your brakes won't work well. That could lead to an accident. When you hear the brake wear warning sound, have your vehicle serviced.

NOTICE:

Continuing to drive with worn-out brake pads could result in costly brake repair.

Some driving conditions or climates may cause a brake squeal when the brakes are first applied or lightly applied. This does not mean something is wrong with your brakes.

Properly torqued wheel nuts are necessary to help prevent brake pulsation. When tires are rotated, inspect brake pads for wear and evenly torque wheel nuts in the proper sequence to GM specifications.

Brake linings should always be replaced as complete axle sets.

See "Brake System Inspection" in Section 7 of this manual under Part C "Periodic Maintenance Inspections."

Brake Pedal Travel

See your dealer if the brake pedal does not return to normal height, or if there is a rapid increase in pedal travel. This could be a sign of brake trouble.

Brake Adjustment

Every time you apply the brakes, with or without the vehicle moving, your brakes adjust for wear.

Replacing Brake System Parts

The braking system on a vehicle is complex. Its many parts have to be of top quality and work well together if the vehicle is to have really good braking. Your vehicle was designed and tested with top-quality GM brake parts. When you replace parts of your braking system -- for example, when your brake linings wear down and you have to have new ones put in -- be sure you get new approved GM replacement parts. If you don't, your brakes may no longer work properly. For example, if someone puts in brake linings that are wrong for your vehicle, the balance between your front and rear brakes can change -- for the worse. The braking performance you've come to expect can change in many other ways if someone puts in the wrong replacement brake parts.

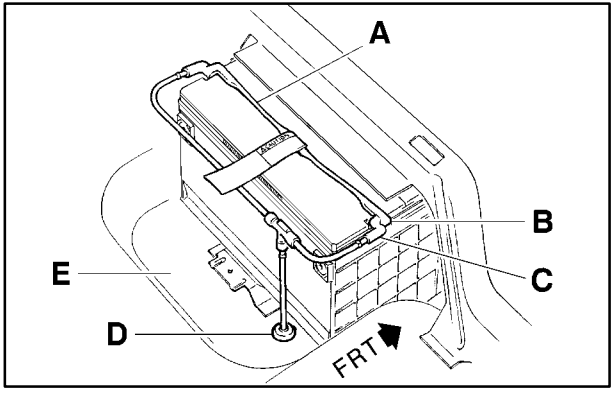
Battery

Your new vehicle comes with an ACDelco Freedom® battery. When it's time for a new battery, we recommend an ACDelco Freedom battery. Get one that has the replacement number shown on the original battery's label.

The battery is located under the rear seat cushion. To access the battery, see "Removing the Rear Seat Cushion" in the Index. You don't need to access the battery to jump start your vehicle. See "Jump Starting" in the Index.

⚠ CAUTION:

A battery that isn't properly vented can let sulfuric acid fumes into the area under the rear seat cushion. These fumes can damage your rear seat safety belt systems. You may not be able to see this damage, and the safety belts might not provide the protection needed in a crash. If a replacement battery is ever needed, it must be vented in the same manner as the original battery. Always make sure that the vent hose is properly reattached before reinstalling the seat cushion.



To be sure the vent hose (A) is properly attached, the vent hose connectors (B) must be securely reattached to the vent outlets (C) on each side of the battery, and the vent assembly grommet (D) must be secured to the floor pan (E).

Vehicle Storage

If you're not going to drive your vehicle for 25 days or more, remove the black, negative (-) cable from the battery. This will help keep your battery from running down.

⚠ CAUTION:

Batteries have acid that can burn you and gas that can explode. You can be badly hurt if you aren't careful. See "Jump Starting" in the Index for tips on working around a battery without getting hurt.

Contact your dealer to learn how to prepare your vehicle for longer storage periods.

Also, for your audio system, see "Theft-Deterrent Feature" in the Index.

Bulb Replacement

This section describes bulb changing procedures for some of your interior and exterior lamps. For any bulb changing procedure not listed in this section, contact your service department.

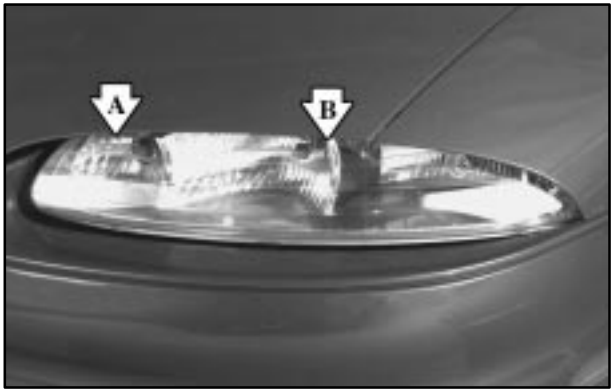
For the type of bulb to use, see “Replacement Bulbs” in the Index.

Halogen Bulbs

⚠ CAUTION:

Halogen bulbs have pressurized gas inside and can burst if you drop or scratch the bulb. You or others could be injured. Be sure to read and follow the instructions on the bulb package.

Headlamps



A. Front Turn Signal
B. Headlamps

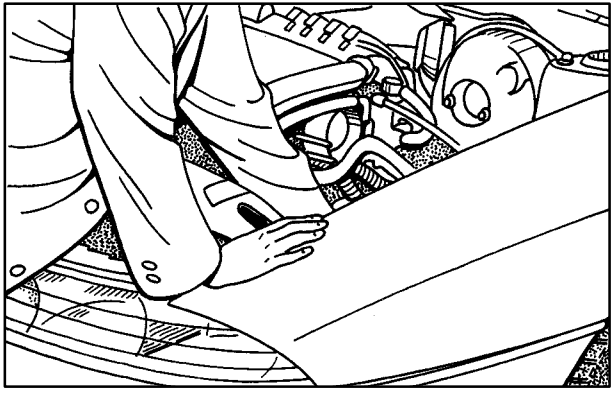
The entire front headlamp assembly must be removed to replace the front turn signal (A) and low-beam and high-beam headlamp (B) bulbs. You may find it easier to remove the air cleaner assembly when replacing bulbs on the driver’s side.

If more hand clearance is required, remove the air cleaner assembly as instructed in Steps 1 through 3 earlier in this section.

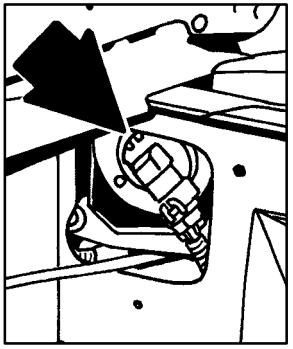
Low-Beam Headlamp Bulbs

If you need to replace a low-beam headlamp bulb, do the following:

1. Remove the two bolts and pull out the headlamp assembly for more hand clearance.



2. Twist the bulb assembly one-sixth of a turn counterclockwise and pull out the bulb assembly.



3. Unclip the bulb assembly from the wiring harness and replace the bulb.

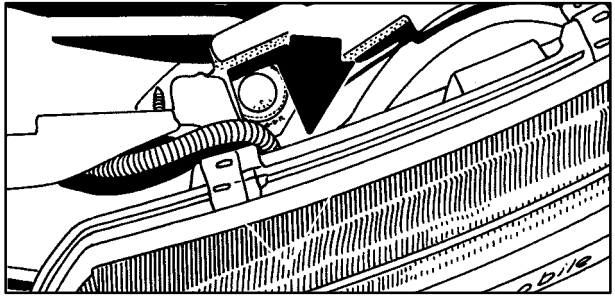
4. Reverse Steps 1 through 4 to replace the bulb assembly, headlamp housing, air cleaner cover and tube.

5. Replace the headlamp assembly by aligning the pin and tightening the two bolts to secure it.

High-Beam Headlamp Bulbs

If you need to replace a high-beam headlamp bulb, do the following:

1. Remove the headlamp assembly if you need more hand clearance.
2. Pull up on the wiring harness. This unlocks the bulb.



3. Now you can reach in behind the lamp housing and pull out the bulb.
4. To replace the bulb, angle the new bulb into the empty socket.
5. Push the base of the bulb down to lock it into place.
6. If you removed the headlamp assembly, reassemble it by aligning the pin and tightening the two bolts to secure it.

Headlamp Aiming

Your vehicle has a headlamp system equipped with horizontal and vertical aim indicators. The aim has been pre-set at the factory and should need no further adjustment. This is true even though your vertical and horizontal aim indicators may not fall exactly on the “0” (zero) marks on their scales.

If your vehicle is damaged in an accident, the headlamp aim may be affected. Aim adjustment may be necessary if it is difficult to see lane markers (for horizontal aim), or if oncoming drivers flash their high beams at you (for vertical aim). If you believe your headlamps need to be re-aimed, we recommend that you take it to your dealer for service; however, it is possible for you to re-aim your headlamps as described in the following procedure.

NOTICE:

To make sure your headlamps are aimed properly, read all the instructions before beginning. Failure to follow these instructions could cause damage to headlamp parts.

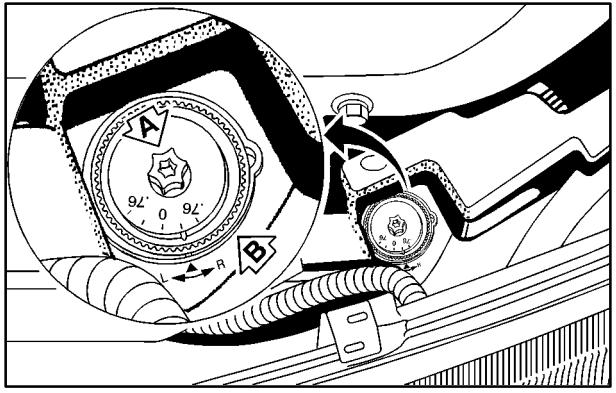
The vehicle should be properly prepared as follows:

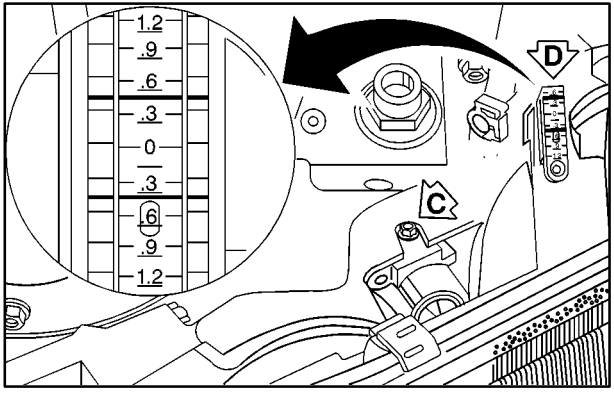
- The vehicle must have all four tires on a perfectly level surface.
- If necessary, pads may be used on an uneven surface.
- The vehicle should not have any snow, ice or mud attached to it.
- The vehicle should be fully assembled and all other work stopped while headlamp aiming is being done.
- There should not be any cargo or loading of the vehicle, except it should have a full tank of fuel and one person or 160 lbs. (75 kg) on the driver's seat.
- Close all doors.
- Tires should be properly inflated.
- Rock the vehicle to stabilize the suspension.

The headlamp aiming devices are under the hood near the headlamps.

Start with the horizontal aim. The adjustment screws can be turned with an E8 Torx® socket or T15 Torx screwdriver.

Once the horizontal aim is adjusted, then adjust the vertical aim.





1. Turn the horizontal aiming screw (A) until the indicator (B) is lined up with zero.

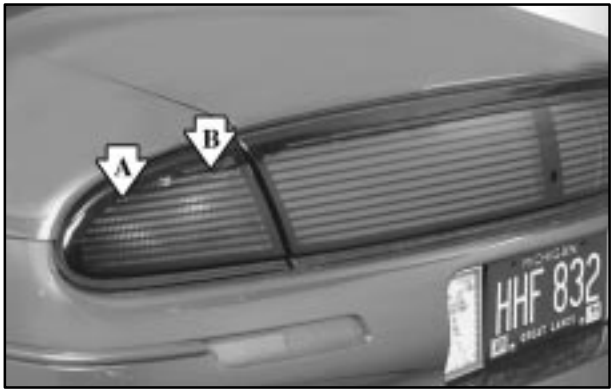
2. Turn the vertical aiming screw (C) until the level bubble (D) is lined up with zero.

Front Turn Signal

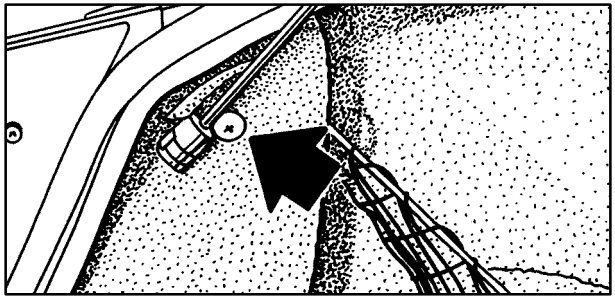
The front turn signal bulb is on the inboard edge of the headlamp assembly. To replace a bulb, do the following:

1. Remove the headlamp assembly if you need more hand clearance.
2. Reach in and press the locking tab while twisting the bulb assembly one-quarter of a turn counterclockwise.
3. Replace the bulb and reverse Step 2 to reassemble.
4. If you removed the headlamp assembly, reassemble it by aligning the pin and tightening the two bolts to secure it.

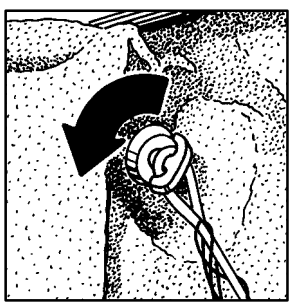
Taillamps



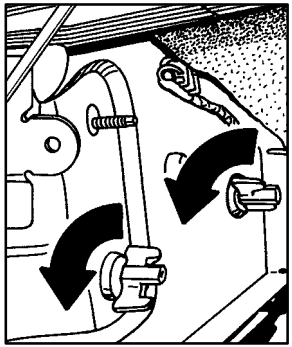
A. Rear Turn Signal
B. Taillamps



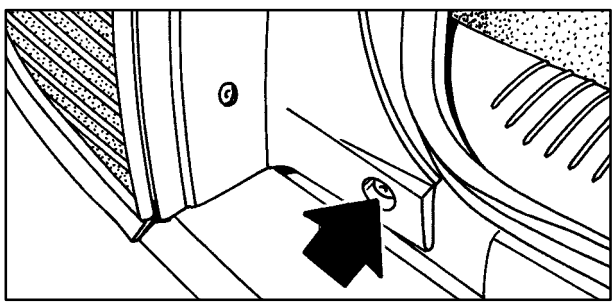
1. In the trunk, remove the convenience net from the hooks. Next remove the plastic screws holding the carpeting in place and pull back the carpeting.



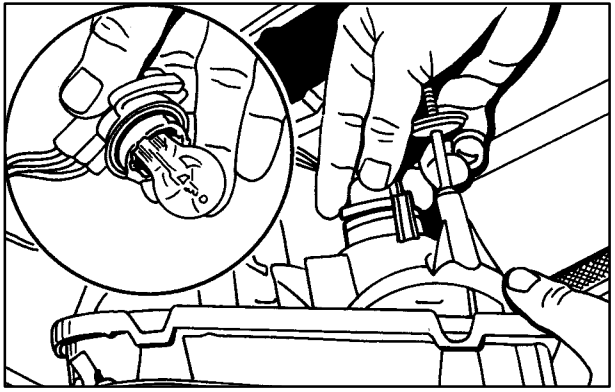
2. Unscrew the convenience net attachment nut. Open the trim panel door.



3. Remove the two wing nuts now exposed.



4. Remove the taillamp filler screw located to the side of the taillamp filler panel.



5. Pull out the taillamp assembly to reach the bulb and pull it out. To replace, push the bulb back in.
6. Reverse Steps 1 through 5 to replace the taillamp filler, wing nuts and carpeting.

Rear Turn Signal

The rear turn signal bulb is located on the outboard edge of the taillamp assembly. Follow the taillamp procedure for replacing a turn signal bulb.

Back-Up Lamps

To replace a back-up lamp, do the following:

1. Remove the license plate to expose the bulb cover.

2. Use a 10 mm socket to remove the four bolts. There are two bolts on each side of the cover.

3. Pry off the cover and pull down to access the bulbs.
4. Press the locking tab of the bulb assembly.

5. Twist the socket one-quarter of a turn counterclockwise and pull to remove.
6. Replace the bulb and reverse Steps 1 through 4 to replace the assembly and tighten the bolts.

Interior Lamps

Front and Rear Reading Lamps

To change the bulbs in the front and rear reading lamps, do the following:

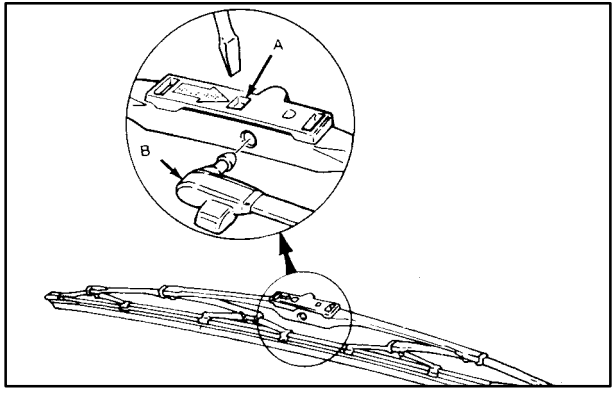
1. Carefully insert a flat head screwdriver in the slot between the lens cover and molding.
2. Gently pry the lens cover away to expose the reading lamp bulb. The lens cover should pop off.
3. Remove the bulb from its assembly and install a new bulb.
4. Snap the lens cover back in place.

Windshield Wiper Blade Replacement

Windshield wiper blades should be inspected at least twice a year for wear or cracking. See “Wiper Blade Check” in Section 7 of this manual under Part B “Owner Checks and Services” for more information.

Replacement blades come in different types and are removed in different ways. Here’s how to remove the type with a release hole:

1. Pull the windshield wiper arm away from the windshield.



2. Insert a small screwdriver into the hole (A) and pull the blade assembly off the wiper arm (B).
3. Push the new wiper blade securely on the wiper arm.

For the proper windshield wiper blade replacement length and type, see “Normal Maintenance Replacement Parts” in the Index.

Tires

Your new vehicle comes with high-quality tires made by a leading tire manufacturer. If you ever have questions about your tire warranty and where to obtain service, see your Oldsmobile Warranty booklet for details.

⚠ CAUTION:

Poorly maintained and improperly used tires are dangerous.

- **Overloading your tires can cause overheating as a result of too much friction. You could have an air-out and a serious accident. See “Loading Your Vehicle” in the Index.**

CAUTION: (Continued)

CAUTION: (Continued)

- **Underinflated tires pose the same danger as overloaded tires. The resulting accident could cause serious injury. Check all tires frequently to maintain the recommended pressure. Tire pressure should be checked when your tires are cold.**
- **Overinflated tires are more likely to be cut, punctured or broken by a sudden impact -- such as when you hit a pothole. Keep tires at the recommended pressure.**
- **Worn, old tires can cause accidents. If your tread is badly worn, or if your tires have been damaged, replace them.**

Inflation -- Tire Pressure

The Tire-Loading Information label, which is on the rear edge of the driver's door, shows the correct inflation pressures for your tires when they're cold. "Cold" means your vehicle has been sitting for at least three hours or driven no more than 1 mile (1.6 km).

NOTICE:

Don't let anyone tell you that underinflation or overinflation is all right. It's not. If your tires don't have enough air (underinflation), you can get the following:

- **Too much flexing**
- **Too much heat**
- **Tire overloading**
- **Bad wear**
- **Bad handling**
- **Bad fuel economy.**

If your tires have too much air (overinflation), you can get the following:

- **Unusual wear**
- **Bad handling**
- **Rough ride**
- **Needless damage from road hazards.**

When to Check

Check your tires once a month or more.

Don't forget your compact spare tire. It should be at 60 psi (420 kPa).

How to Check

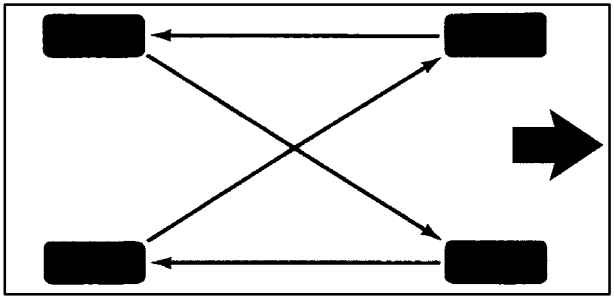
Use a good quality pocket-type gage to check tire pressure. You can't tell if your tires are properly inflated simply by looking at them. Radial tires may look properly inflated even when they're underinflated.

Be sure to put the valve caps back on the valve stems. They help prevent leaks by keeping out dirt and moisture.

Tire Inspection and Rotation

Tires should be rotated every 6,000 to 8,000 miles (10 000 to 13 000 km). Any time you notice unusual wear, rotate your tires as soon as possible and check wheel alignment. Also check for damaged tires or wheels. See "When It's Time for New Tires" and "Wheel Replacement" later in this section for more information.

The purpose of regular rotation is to achieve more uniform wear for all tires on the vehicle. The first rotation is the most important. See "Scheduled Maintenance Services" in the Index for scheduled rotation intervals.



When rotating your tires, always use the correct rotation pattern shown here.

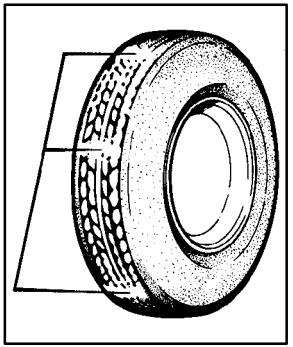
Don't include the compact spare tire in your tire rotation.

After the tires have been rotated, adjust the front and rear inflation pressures as shown on the Tire-Loading Information label. Make certain that all wheel nuts are properly tightened. See "Wheel Nut Torque" in the Index.

⚠ CAUTION:

Rust or dirt on a wheel, or on the parts to which it is fastened, can make wheel nuts become loose after a time. The wheel could come off and cause an accident. When you change a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, you can use a cloth or a paper towel to do this; but be sure to use a scraper or wire brush later, if you need to, to get all the rust or dirt off. (See "Changing a Flat Tire" in the Index.)

When It's Time for New Tires



One way to tell when it's time for new tires is to check the treadwear indicators, which will appear when your tires have only 1/16 inch (1.6 mm) or less of tread remaining.

You need a new tire if any of the following statements are true:

- You can see the indicators at three or more places around the tire.
- You can see cord or fabric showing through the tire's rubber.
- The tread or sidewall is cracked, cut or snagged deep enough to show cord or fabric.
- The tire has a bump, bulge or split.
- The tire has a puncture, cut or other damage that can't be repaired well because of the size or location of the damage.

Buying New Tires

To find out what kind and size of tires you need, look at the Tire-Loading Information label.

The tires installed on your vehicle when it was new had a Tire Performance Criteria Specification (TPC Spec) number on each tire's sidewall. When you get new tires, get ones with that same TPC Spec number. That way your vehicle will continue to have tires that are designed to give proper endurance, handling, speed rating, traction, ride and other things during normal service on your vehicle. If your tires have an all-season tread design, the TPC number will be followed by an "MS" (for mud and snow).

If you ever replace your tires with those not having a TPC Spec number, make sure they are the same size, load range, speed rating and construction type (bias, bias-belted or radial) as your original tires.

⚠ CAUTION:

Mixing tires could cause you to lose control while driving. If you mix tires of different sizes or types (radial and bias-belted tires), the vehicle may not handle properly, and you could have a crash. Using tires of different sizes may also cause damage to your vehicle. Be sure to use the same size and type tires on all wheels.

It's all right to drive with your compact spare, though. It was developed for use on your vehicle.

⚠ CAUTION:

If you use bias-ply tires on your vehicle, the wheel rim flanges could develop cracks after many miles of driving. A tire and/or wheel could fail suddenly, causing a crash. Use only radial-ply tires with the wheels on your vehicle.

Uniform Tire Quality Grading

The following information relates to the system developed by the United States National Highway Traffic Safety Administration, which grades tires by treadwear, traction and temperature performance. (This applies only to vehicles sold in the United States.) The grades are molded on the sidewalls of most passenger car tires. The Uniform Tire Quality Grading system does not apply to deep tread, winter-type snow tires, space-saver or temporary use spare tires, tires with nominal rim diameters of 10 to 12 inches (25 to 30 cm), or to some limited-production tires.

While the tires available on General Motors passenger cars and light trucks may vary with respect to these grades, they must also conform to Federal safety requirements and additional General Motors Tire Performance Criteria (TPC) standards.

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and a half (1 1/2) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

Traction -- AA, A, B, C

The traction grades, from highest to lowest, are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance. Warning: The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

Temperature -- A, B, C

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure.

The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

Warning: The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

Wheel Alignment and Tire Balance

The wheels on your vehicle were aligned and balanced carefully at the factory to give you the longest tire life and best overall performance.

Scheduled wheel alignment and wheel balancing are not needed. However, if you notice unusual tire wear or your vehicle pulling one way or the other, the alignment may need to be reset. If you notice your vehicle vibrating when driving on a smooth road, your wheels may need to be rebalanced.

Wheel Replacement

Replace any wheel that is bent, cracked, or badly rusted or corroded. If wheel nuts keep coming loose, the wheel, wheel bolts and wheel nuts should be replaced. If the wheel leaks air, replace it (except some aluminum wheels, which can sometimes be repaired). See your dealer if any of these conditions exist.

Your dealer will know the kind of wheel you need.

Each new wheel should have the same load-carrying capacity, diameter, width, offset and be mounted the same way as the one it replaces.

If you need to replace any of your wheels, wheel bolts or wheel nuts, replace them only with new GM original equipment parts. This way, you will be sure to have the right wheel, wheel bolts and wheel nuts for your vehicle.

⚠ CAUTION:

Using the wrong replacement wheels, wheel bolts or wheel nuts on your vehicle can be dangerous. It could affect the braking and handling of your vehicle, make your tires lose air and make you lose control. You could have a collision in which you or others could be injured. Always use the correct wheel, wheel bolts and wheel nuts for replacement.

NOTICE:

The wrong wheel can also cause problems with bearing life, brake cooling, speedometer or odometer calibration, headlamp aim, bumper height, vehicle ground clearance and tire or tire chain clearance to the body and chassis.

See “Changing a Flat Tire” in the Index for more information.

Used Replacement Wheels

⚠ CAUTION:

Putting a used wheel on your vehicle is dangerous. You can’t know how it’s been used or how far it’s been driven. It could fail suddenly and cause an accident. If you have to replace a wheel, use a new GM original equipment wheel.

Tire Chains

NOTICE:

Use tire chains only where legal and only when you must. Use only SAE Class “S” type chains that are the proper size for your tires. Install them on the front tires and tighten them as tightly as possible with the ends securely fastened. Drive slowly and follow the chain manufacturer’s instructions. If you can hear the chains contacting your vehicle, stop and retighten them. If the contact continues, slow down until it stops. Driving too fast or spinning the wheels with chains on will damage your vehicle.

Appearance Care

Remember, cleaning products can be hazardous. Some are toxic. Others can burst into flame if you strike a match or get them on a hot part of the vehicle. Some are dangerous if you breathe their fumes in a closed space. When you use anything from a container to clean your vehicle, be sure to follow the manufacturer's warnings and instructions. And always open your doors or windows when you're cleaning the inside.

Never use these to clean your vehicle:

- Gasoline
- Benzene
- Naphtha
- Carbon Tetrachloride
- Acetone
- Paint Thinner
- Turpentine
- Lacquer Thinner
- Nail Polish Remover

They can all be hazardous -- some more than others -- and they can all damage your vehicle, too.

Don't use any of these unless this manual says you can. In many uses, these will damage your vehicle:

- Alcohol
- Laundry Soap
- Bleach
- Reducing Agents

Cleaning the Inside of Your Vehicle

Use a vacuum cleaner often to get rid of dust and loose dirt. Wipe vinyl, leather, plastic and painted surfaces with a clean, damp cloth.

Cleaning of Fabric/Carpet

Your dealer has two cleaners, Multi-Purpose Interior Cleaner and Capture Non-Solvent Dry Spot and Soil Remover for cleaning fabric and carpet. They will clean normal spots and stains very well. You can get GM-approved cleaning products from your dealer. (See "Appearance Care and Materials" in the Index.)

Here are some cleaning tips:

- Always read the instructions on the cleaner label.
- Clean up stains as soon as you can -- before they set.
- Carefully scrape off any excess stain.

- Use a clean cloth or sponge, and change to a clean area often. A soft brush may be used if stains are stubborn.
- If a ring forms on fabric after spot cleaning, clean the entire area immediately or it will set.

Using Multi-Purpose Interior Cleaner on Fabric

1. Vacuum and brush the area to remove any loose dirt.
2. Always clean a whole trim panel or section. Mask surrounding trim along stitch or welt lines.
3. Mix powdered cleaner following the directions on the container label to form thick suds.
4. Use suds only and apply with a clean sponge. Don't saturate the material and don't rub it roughly.
5. As soon as you've cleaned the section, use a sponge to remove the suds.
6. Wipe cleaned area with a clean, damp towel or cloth.
7. Wipe with a clean cloth and let dry.

Special Fabric Cleaning Problems

Stains caused by such things as catsup, coffee (black), egg, fruit, fruit juice, milk, soft drinks, vomit, urine and blood can be removed as follows:

1. Carefully scrape off excess stain, then sponge the soiled area with cool water.
2. If a stain remains, follow the multi-purpose interior cleaner instructions described earlier.
3. If an odor lingers after cleaning vomit or urine, treat the area with a water/baking soda solution: 1 teaspoon (5 ml) of baking soda to 1 cup (250 ml) of lukewarm water.
4. Let dry.

Stains caused by candy, ice cream, mayonnaise, chili sauce and unknown stains can be removed as follows:

1. Carefully scrape off excess stain.
2. First, clean with cool water and allow to dry completely.
3. If a stain remains, follow instructions for Multi-Purpose Interior Cleaner.

Cleaning Vinyl

Use warm water and a clean cloth.

- Rub with a clean, damp cloth to remove dirt. You may have to do it more than once.
- Things like tar, asphalt and shoe polish will stain if you don't get them off quickly. Use a clean cloth and a vinyl/leather cleaner. See your dealer for this product.

Cleaning Leather

Use a soft cloth with lukewarm water and a mild soap or saddle soap and wipe dry with a soft cloth. Then, let the leather dry naturally. Do not use heat to dry.

- For stubborn stains, use a leather cleaner. See your dealer for this product.
- *Never* use oils, varnishes, solvent-based or abrasive cleaners, furniture polish or shoe polish on leather.
- Soiled or stained leather should be cleaned immediately. If dirt is allowed to work into the finish, it can harm the leather.

Cleaning the Top of the Instrument Panel

Use only mild soap and water to clean the top surfaces of the instrument panel. Sprays containing silicones or waxes may cause annoying reflections in the windshield and even make it difficult to see through the windshield under certain conditions.

Cleaning Interior Plastic Components

Use only a mild soap and water solution on a soft cloth or sponge. Commercial cleaners may affect the surface finish.

Cleaning Wood Panels

Use a clean cloth moistened in warm, soapy water (use mild dish washing soap). Dry the wood immediately with a clean cloth.

Care of Safety Belts

Keep belts clean and dry.

⚠ CAUTION:

Do not bleach or dye safety belts. If you do, it may severely weaken them. In a crash, they might not be able to provide adequate protection. Clean safety belts only with mild soap and lukewarm water.

Cleaning Glass Surfaces

Glass should be cleaned often. GM Glass Cleaner or a liquid household glass cleaner will remove normal tobacco smoke and dust films on interior glass. (See “Appearance Care and Materials” in the Index.)

Don’t use abrasive cleaners on glass, because they may cause scratches. Avoid placing decals on the inside rear window, since they may have to be scraped off later. If abrasive cleaners are used on the inside of the rear window, an electric defogger element may be damaged. Any temporary license should not be attached across the defogger grid.

Cleaning the Outside of the Windshield and Wiper Blades

If the windshield is not clear after using the windshield washer, or if the wiper blade chatters when running, wax, sap or other material may be on the blade or windshield.

Clean the outside of the windshield with GM Windshield Cleaner, Bon Ami® Powder (non-scratching glass cleaning powder), GM Part No. 1050011. The windshield is clean if beads do not form when you rinse it with water.

Grime from the windshield will stick to the wiper blades and affect their performance. Clean the blade by wiping vigorously with a cloth soaked in full-strength windshield washer solvent. Then rinse the blade with water.

Check the wiper blades and clean them as necessary; replace blades that look worn.

Weatherstrips

Silicone grease on weatherstrips will make them last longer, seal better, and not stick or squeak. Apply silicone grease with a clean cloth at least every six months. During very cold, damp weather more frequent application may be required. (See “Recommended Fluids and Lubricants” in the Index.)

Cleaning the Outside of Your Vehicle

The paint finish on your vehicle provides beauty, depth of color, gloss retention and durability.

Washing Your Vehicle

The best way to preserve your vehicle's finish is to keep it clean by washing it often with lukewarm or cold water.

Don't wash your vehicle in the direct rays of the sun. Use a car washing soap. Don't use strong soaps or chemical detergents. Be sure to rinse the vehicle well, removing all soap residue completely. You can get GM-approved cleaning products from your dealer. (See "Appearance Care and Materials" in the Index.) Don't use cleaning agents that are petroleum based, or that contain acid or abrasives. All cleaning agents should be flushed promptly and not allowed to dry on the surface, or they could stain. Dry the finish with a soft, clean chamois or an all-cotton towel to avoid surface scratches and water spotting.

High pressure car washes may cause water to enter your vehicle.

Cleaning Exterior Lamps/Lenses

Use lukewarm or cold water, a soft cloth and a car washing soap to clean exterior lamps and lenses. Follow instructions under "Washing Your Vehicle."

Finish Care

Occasional waxing or mild polishing of your vehicle by hand may be necessary to remove residue from the paint finish. You can get GM-approved cleaning products from your dealer. (See "Appearance Care and Materials" in the Index.)

Your vehicle has a "basecoat/clearcoat" paint finish. The clearcoat gives more depth and gloss to the colored basecoat. Always use waxes and polishes that are non-abrasive and made for a basecoat/clearcoat paint finish.

NOTICE:

Machine compounding or aggressive polishing on a basecoat/clearcoat paint finish may dull the finish or leave swirl marks.

Foreign materials such as calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys, etc., can damage your vehicle's finish if they remain on painted surfaces. Wash the vehicle as soon as possible. If necessary, use non-abrasive cleaners that are marked safe for painted surfaces to remove foreign matter.

Exterior painted surfaces are subject to aging, weather and chemical fallout that can take their toll over a period of years. You can help to keep the paint finish looking new by keeping your vehicle garaged or covered whenever possible.

Cleaning Aluminum or Chrome-Plated Wheels

Keep your wheels clean using a soft clean cloth with mild soap and water. Rinse with clean water. After rinsing thoroughly, dry with a soft clean towel. A wax may then be applied.

The surface of these wheels is similar to the painted surface of your vehicle. Don't use strong soaps, chemicals, abrasive polishes, abrasive cleaners, cleaners with acid or abrasive cleaning brushes on them because you could damage the surface. Do not use chrome polish on any wheels other than chrome-plated wheels.

Use chrome polish only on chrome-plated wheels, but avoid any painted surface of the wheel, and buff off immediately after application.

Don't take your vehicle through an automatic car wash that has silicon carbide tire cleaning brushes. These brushes can also damage the surface of these wheels.

Cleaning Tires

To clean your tires, use a stiff brush with a tire cleaner.

NOTICE:

When applying a tire dressing always take care to wipe off any overspray or splash from all painted surfaces on the body or wheels of the vehicle. Petroleum-based products may damage the paint finish and tires.

Sheet Metal Damage

If your vehicle is damaged and requires sheet metal repair or replacement, make sure the body repair shop applies anti-corrosion material to the parts repaired or replaced to restore corrosion protection.

Finish Damage

Any stone chips, fractures or deep scratches in the finish should be repaired right away. Bare metal will corrode quickly and may develop into a major repair expense.

Minor chips and scratches can be repaired with touch-up materials available from your dealer or other service outlets. Larger areas of finish damage can be corrected in your dealer's body and paint shop.

Underbody Maintenance

Chemicals used for ice and snow removal and dust control can collect on the underbody. If these are not removed, accelerated corrosion (rust) can occur on the underbody parts such as fuel lines, frame, floor pan and exhaust system even though they have corrosion protection.

At least every spring, flush these materials from the underbody with plain water. Clean any areas where mud and other debris can collect. Dirt packed in closed areas of the frame should be loosened before being flushed. Your dealer or an underbody car washing system can do this for you.

Chemical Paint Spotting

Some weather and atmospheric conditions can create a chemical fallout. Airborne pollutants can fall upon and attack painted surfaces on your vehicle. This damage can take two forms: blotchy, ringlet-shaped discolorations, and small irregular dark spots etched into the paint surface.

Although no defect in the paint job causes this, Oldsmobile will repair, at no charge to the owner, the surfaces of new vehicles damaged by this fallout condition within 12 months or 12,000 miles (20 000 km) of purchase, whichever occurs first.

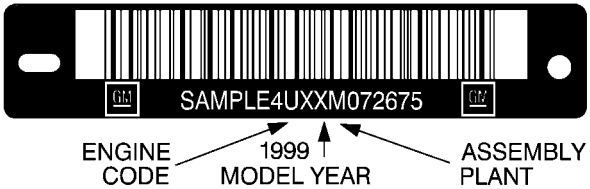
GM Vehicle Care/Appearance Materials

PART NUMBER	SIZE	DESCRIPTION	USAGE
994954	23 in. x 25 in.	Polishing Cloth – Wax Treated	Exterior polishing cloth
1050172	16 oz. (0.473 L)	Tar and Road Oil Remover	Removes tar, road oil and asphalt
1050173	16 oz. (0.473 L)	Chrome Cleaner and Polish	Use on chrome, stainless steel, nickel, copper and brass
1050174	16 oz. (0.473 L)	White Sidewall Tire Cleaner	Removes soil and black marks from whitewalls
1050214	32 oz. (0.946 L)	Vinyl Cleaner	Cleans vinyl tops, upholstery and convertible tops
1050427	23 oz. (0.680 L)	Glass Cleaner	Removes dirt, grime, smoke and fingerprints
1052918**	8 oz. (0.237 L)	Armor All™ Protectant	Protects leather, wood, acrylics, Plexiglas™, plastic, rubber and vinyl
1052925	16 oz. (0.473 L)	Multi-Purpose Interior Cleaner	Cleans carpets, seats, interior trim, door panels and floor mats
1052929	16 oz. (0.473 L)	Wheel Cleaner	Spray on and rinse with water
1052930	8 oz. (0.237 L)	Capture Dry Spot Remover	Attracts, absorbs and removes soils on fabric
12345721	2.5 sq. ft.	Synthetic Chamois	Shines vehicle without scratching
12345725	12 oz. (0.354 L)	Silicone Tire Shine	Spray on tire shine
12377964*	16 oz. (0.473 L)	Finish Enhancer	Removes dust, fingerprints and surface contaminants
12377966*	16 oz. (0.473 L)	Cleaner Wax	Removes light scratches and oxidation and protects finish
12377984*	16 oz. (0.473 L)	Surface Cleaner	Removes contaminants, blemishes and swirl marks

See your General Motors Parts Department for these products.
See “Recommended Fluids and Lubricants” in the Index.

* For exterior use only.
** Not recommended for use on instrument panels.

Vehicle Identification Number (VIN)



This is the legal identifier for your vehicle. It appears on a plate in the front corner of the instrument panel, on the driver's side. You can see it if you look through the windshield from outside your vehicle. The VIN also appears on the Vehicle Certification and Service Parts labels and the certificates of title and registration.

Engine Identification

The 8th character in your VIN is the engine code. This code will help you identify your engine, specifications and replacement parts.

Service Parts Identification Label

You'll find this label on the underside of the spare tire cover. It's very helpful if you ever need to order parts. On this label is:

- your VIN,
- the model designation,
- paint information and
- a list of all production options and special equipment.

Be sure that this label is not removed from the vehicle.

Electrical System

Add-On Electrical Equipment

NOTICE:

Don't add anything electrical to your vehicle unless you check with your dealer first. Some electrical equipment can damage your vehicle and the damage wouldn't be covered by your warranty. Some add-on electrical equipment can keep other components from working as they should.

Your vehicle has an air bag system. Before attempting to add anything electrical to your vehicle, see "Servicing Your Air Bag-Equipped Vehicle" in the Index.

Headlamp Wiring

The headlamp wiring is protected by a circuit breaker in the wiring harness. An electrical overload will cause the lamps to go on and off, or in some cases to remain off. If this happens, have your headlamp system checked right away.

Windshield Wiper Fuses

The windshield wiper motor is protected by an internal circuit breaker and a fuse in the fuse panel on the other side of the instrument panel. If the motor overheats due to heavy snow, etc., the wiper will stop until the motor cools. If the overload is caused by some electrical problem, have it fixed.

Power Windows and Other Power Options

Circuit breakers in the fuse panel protect the power windows and other power accessories. When the current load is too heavy, the circuit breaker opens and closes, protecting the circuit until the problem is fixed.

Maxifuse®/Relay Center

It's easy to check the fuses in this underhood relay center. There are two locking arms on either side of the base of the cover. Reach down and unsnap each one by pulling the cover toward you, then pushing it away while pulling up. Remove the cover. The inside of the cover has a chart that explains the features and controls governed by each fuse and relay.

Fuses and Circuit Breakers

The wiring circuits in your vehicle are protected from short circuits by a combination of fuses and circuit breakers. This greatly reduces the chance of damage caused by electrical problems.

Look at the silver-colored band inside the fuse. If the band is broken or melted, replace the fuse. Be sure you replace a bad fuse with a new one of the correct amp rating.

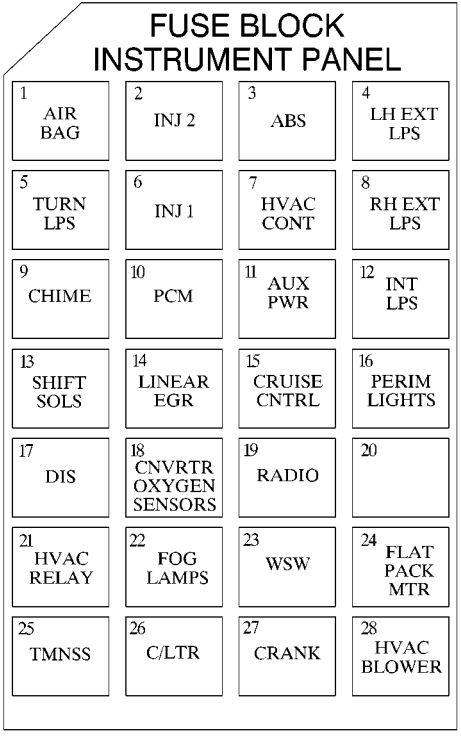
Two spare fuses are located below the fuse puller. You'll also find spare fuses in the slots labeled "Spare" in the following charts.

There are three main fuse panels: the instrument panel fuse block and two (driver's side and passenger's side) rear compartment fuse blocks.

Instrument Panel Fuse Block

This fuse block is located on the left side of the instrument panel. To open it, push the latch to the left, then pull, and the door will open.

You'll find a fuse puller clipped to the inside of the cover. Place the wide end of the fuse puller over the plastic end of the fuse. Squeeze the ends over the fuse and pull it out. To close the fuse door, press the door closed and it will latch.



Fuse	Usage
1	Supplemental Inflatable Restraint (Air Bag)
2	Injectors
3	Anti-Lock Brake System
4	Left Exterior Lamps
5	Turn Signal Lamps
6	Injectors
7	Climate Controls
8	Right Exterior Lamps
9	Chime (Ignition 1), Memory Set
10	Powertrain Control Module, VATS PASS-Key®II
11	Auxiliary Power
12	Interior Lamps
13	Shift Solenoids
14	Linear EGR

Fuse	Usage
15	Cruise Control
16	Perimeter Lights
17	Driver Information Center
18	Converter Oxygen Sensors
19	Radio
20	Open
21	Climate Control Relay
22	Fog Lamps
23	Windshield Wipers
24	Flat Pack Motor
25	TMNSS
26	Cigarette Lighter
27	Crank, Air Bag Module
28	Climate Control Blower

Removing the Rear Seat Cushion

To access the battery and rear compartment fuse panels, the rear seat cushion must be removed. This procedure is somewhat difficult. You may wish to have your dealer do this for you.

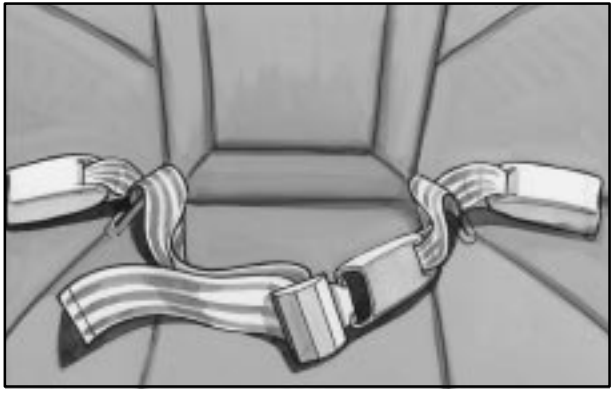
NOTICE:

The battery and main fuse boxes are located under the rear seat cushion. The battery's ground terminal and some relay wires are exposed. To help avoid damage to the battery and wires, be careful when removing or reinstalling the seat cushion. Do not remove covers from covered parts. Do not store anything under the seat, as objects could touch exposed wires and cause a short.

To Remove the Rear Seat Cushion

1. Pull up on the front of the cushion to release the front hooks.
2. Pull the cushion up and out toward the front of the vehicle.

To Reinstall the Rear Seat Cushion

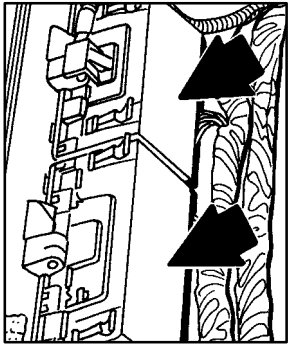


⚠ CAUTION:

A safety belt that isn't properly routed through the seat cushion or is twisted won't provide the protection needed in a crash. If the safety belt hasn't been routed through the seat cushion at all, it won't be there to work for the next passenger. The person sitting in that position could be badly injured. After reinstalling the seat cushion, always check to be sure that the safety belts are properly routed and are not twisted.

1. Buckle the center passenger position safety belt, and then route the safety belts through the proper slots in the seat cushion. Don't let the safety belt get twisted.
2. Slide the rear of the cushion up and under the seatback so the rear locating guides hook into the wire loops on the back frame.
3. With the seat cushion lowered, push rearward and then press down on the seat cushion until the spring locks on both ends engage.
4. Check to make sure the safety belts are properly routed and that no portion of any safety belt is trapped under the seat. Also make sure the seat cushion is secured.

Rear Compartment Fuse Blocks

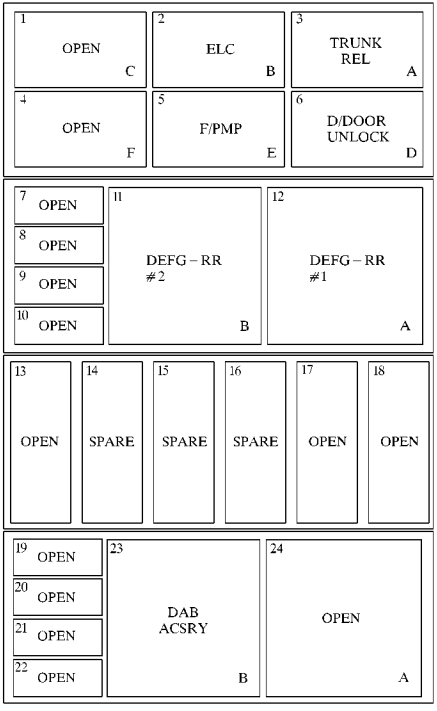


Once the seat is removed, you'll find two fuse panels on the driver's side of the battery. Each is protected by a plastic box with four tabs. Pull up on all four tabs at the same time to loosen them and pull off the box.

Of these two panels, the cover on the passenger's side fuse panel has an extra plastic cap attachment. You'll need to slide this out of the grooves which hold it there before removing the rest of the box.

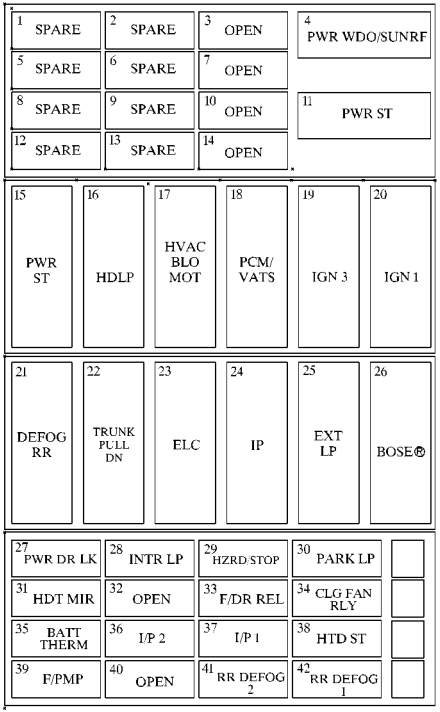
To replace the covers, line the four tabs up and simply snap them back into place. The extra plastic cap attachment slides back into place.

REAR COMPARTMENT
DRIVER SIDE FUSE BLOCK



Fuse	Usage
1	Open
2	Electronic Level Control Relay
3	Trunk Release Relay
4	Open
5	Fuel Pump Relay
6	Driver Door Unlock Relay
7-10	Open
11	Rear Defogger Relay (Upper Zone)
12	Rear Defogger Relay (Lower Zone)
13	Open
14	Spare
15	Spare
16	Spare
17-22	Open
23	Direct Accessory Power -- Accessory Relay
24	Open

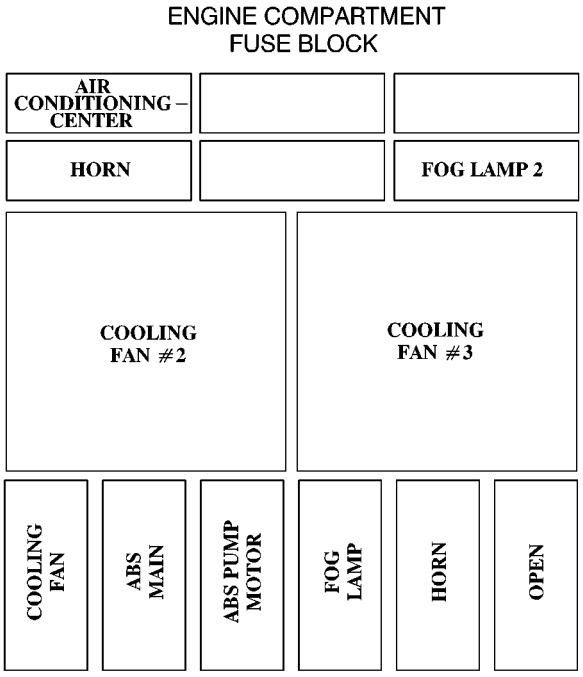
REAR COMPARTMENT
PASSENGER SIDE FUSE BLOCK



Fuse	Usage
1, 2	Spare
3	Open
4	Breaker -- Power Window, Sunroof
5, 6	Spare
7	Open
8, 9	Spare
10	Open
11	Breaker -- Power Seat
12, 13	Spare
14	Open
15	Power Seat
16	Breaker -- Headlamps
17	HVAC Blower Motor
18	Powertrain Control Module, PASS-Key® II
19	Ignition 3
20	Ignition 1

Fuse	Usage
21	Rear Defogger
22	Trunk Pull Down
23	Electronic Level Control
24	Instrument Panel
25	Exterior Lamps
26	Bose® Stereo (Option)
27	Power Door Locks
28	Interior Lamps
29	Hazard Lamps, Stoplamps
30	Parking Lamps
31	Heated Outside Mirror
32	Open
33	Fuel Door Release
34	Cooling Fan Relay
35	Battery Thermistor
36	Instrument Panel -- Power Antenna, Remote CD Changer, Radio Chassis
37	Instrument Panel -- Remote Accessory Power Module, Oil Level Indicator, ALDL
38	Heated Seats
39	Fuel Pump
40	Open
41	Rear Defog 2
42	Rear Defog 1

Engine Compartment Fuse Block



Fuse	Usage
1	Air Conditioning Center
2	Open
3	Open
4	Horn
5	Open
6	Fog Lamp 2
7	Cooling Fan #2
8	Cooling Fan #3
9	Cooling Fan
10	ABS Main
11	ABS Pump Motor
12	Fog Lamp
13	Horn
14	Open

Replacement Bulbs

EXTERIOR LAMPS	BULB
Front	
Front Turn Signal Lamps	3157NA
Halogen Headlamps	
Low Beam	9006
High Beam	9005
Rear	
Back-Up Lamps	3155
Stop/Taillamps	3057
Rear Turn Signal Lamps	3057
INTERIOR LAMPS	**BULB**
Overhead	
Rail Courtesy/Reading Lamps	168

For service information on other bulbs, contact your dealer's service department.

Capacities and Specifications

The following approximate capacities are given in English and metric conversions. Please refer to "Recommended Fluids and Lubricants" in the Index for more information.

Engine Code (L47) 4.0L V-8

Automatic Transaxle (Overdrive)

When draining or replacing torque converter, more fluid may be needed.

Pan Removal, Drain Plug and Replacement . . . . . 11.0 quarts (10.4 L)

After Complete Overhaul . . . . . 12.6 quarts (12.0 L)

When performing either transaxle procedure, check fluid level when done. More fluid may be needed.

Cooling System . . . . . 13.0 quarts (12.3 L)

Engine Crankcase . . . . . 7.0 quarts (6.6 L)

When changing filter, up to 0.5 quart (0.5 L) more oil may be needed.

Fuel Tank . . . . . 18.5 gallons (70.0 L)

Windshield Washer Fluid Tanks . . . . . 3.8 quarts (3.6 L)

Power Steering
Pump Only . . . . . 1.0 pint (0.5 L)
Complete System . . . . . 1.5 pints (0.7 L)
Tire Pressures . . . . . See Tire-Loading Information label on the rear edge of the driver's door.
Wheel Nut Torque . . . . . 100 lb-ft (140 N·m)
Refrigerant (R-134a), Air Conditioning . . . . See refrigerant charge label under the hood.

NOTE: All capacities are approximate. When adding, be sure to fill to the appropriate level as recommended in this manual.

Engine Specifications

VIN Engine Code C
Type V8
Displacement . . . . . 4 L
Horsepower 250
Compression Ratio 10.3:1
Firing Order 1-2-7-3-4-5-6-8
Thermostat Temperature Specification . . . . . 180°F (82°C)

Air Conditioning Refrigerants

Not all air conditioning refrigerants are the same. If the air conditioning system in your vehicle needs refrigerant, be sure the proper refrigerant is used. If you're not sure, ask your dealer.

Normal Maintenance Replacement Parts

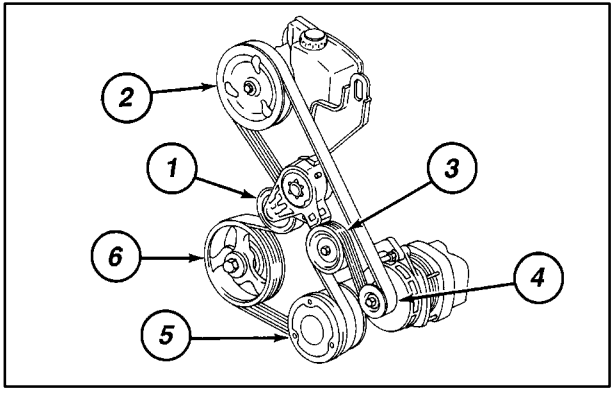
Air Cleaner Element . . . . . AC Type A-1096C
Engine Oil Filter . . . . . AC Type PF-58
Fuel Filter . . . . . AC Type GF-627
Spark Plugs . . . . . AC Type 41-929
Gap: 0.050 inch (1.52 mm)
Windshield Wiper Blades
Type . . . . . 6.32 Pin
Length . . . . . 22.0 inches (56.0 cm)

Vehicle Dimensions

Length	205.4 inches (522.0 cm)
Width	74.4 inches (189.0 cm)
Height	55.4 inches (141.0 cm)
Wheelbase	113.8 inches (289.1 cm)
Front Tread	62.5 inches (159.0 cm)
Rear Tread	62.5 inches (159.0 cm)

Engine Accessory Belt Routing

The 4.0 L V8 engine uses an engine accessory belt. This diagram shows the features connected by the belt routing. See “Maintenance Schedule” in the Index for when to check the belt.



1. Tensioner Arm Pulley
2. Power Steering Pump Pulley
3. Idler Pulley
4. Alternator Pulley
5. Air Conditioner Compressor Pulley
6. Harmonic Balancer

Section 7 Maintenance Schedule

This section covers the maintenance required for your vehicle. Your vehicle needs these services to retain its safety, dependability and emission control performance.

7-2 Introduction
7-3 How This Section is Organized
7-4 Part A: Scheduled Maintenance Services
7-5 Scheduled Maintenance
7-14 Part B: Owner Checks and Services
7-18 Part C: Periodic Maintenance Inspections
7-20 Part D: Recommended Fluids and Lubricants
7-22 Part E: Maintenance Record

IMPORTANT:
KEEP ENGINE OIL AT THE PROPER LEVEL AND CHANGE AS RECOMMENDED

GM Protection Plan

Have you purchased the GM Protection Plan? The Plan supplements your new vehicle warranties. See your Warranty and Owner Assistance booklet, or your dealer for details.

Introduction

Your Vehicle and the Environment

Proper vehicle maintenance not only helps to keep your vehicle in good working condition, but also helps the environment. All recommended maintenance procedures are important. Improper vehicle maintenance can even affect the quality of the air we breathe. Improper fluid levels or the wrong tire inflation can increase the level of emissions from your vehicle. To help protect our environment, and to keep your vehicle in good condition, please maintain your vehicle properly.

How This Section is Organized

This maintenance schedule is divided into five parts:

“Part A: Scheduled Maintenance Services” shows what to have done and how often. Some of these services can be complex, so unless you are technically qualified and have the necessary equipment, you should let your dealer’s service department or another qualified service center do these jobs.

⚠ CAUTION:

Performing maintenance work on a vehicle can be dangerous. In trying to do some jobs, you can be seriously injured. Do your own maintenance work only if you have the required know-how and the proper tools and equipment for the job. If you have any doubt, have a qualified technician do the work.

If you are skilled enough to do some work on your vehicle, you will probably want to get the service information. See “Service and Owner Publications” in the Index.

“Part B: Owner Checks and Services” tells you what should be checked and when. It also explains what you can easily do to help keep your vehicle in good condition.

“Part C: Periodic Maintenance Inspections” explains important inspections that your dealer’s service department or another qualified service center should perform.

“Part D: Recommended Fluids and Lubricants” lists some recommended products to help keep your vehicle properly maintained. These products, or their equivalents, should be used whether you do the work yourself or have it done.

“Part E: Maintenance Record” provides a place for you to record the maintenance performed on your vehicle. Whenever any maintenance is performed, be sure to write it down in this part. This will help you determine when your next maintenance should be done. In addition, it is a good idea to keep your maintenance receipts. They may be needed to qualify your vehicle for warranty repairs.

Part A: Scheduled Maintenance Services

Using Your Maintenance Schedule

We at General Motors want to help you keep your vehicle in good working condition. But we don't know exactly how you'll drive it. You may drive very short distances only a few times a week. Or you may drive long distances all the time in very hot, dusty weather. You may use your vehicle in making deliveries. Or you may drive it to work, to do errands or in many other ways.

Because of all the different ways people use their vehicles, maintenance needs vary. You may need more frequent checks and replacements. So please read the following and note how you drive. If you have any questions on how to keep your vehicle in good condition, see your dealer.

This part tells you the maintenance services you should have done and when you should schedule them. If you go to your dealer for your service needs, you'll know that GM-trained and supported service people will perform the work using genuine GM parts.

The proper fluids and lubricants to use are listed in Part D. Make sure whoever services your vehicle uses these. All parts should be replaced and all necessary repairs done before you or anyone else drives the vehicle.

This schedule is for vehicles that:

- carry passengers and cargo within recommended limits. You will find these limits on your vehicle's Tire-Loading Information label. See "Loading Your Vehicle" in the Index.
- are driven on reasonable road surfaces within legal driving limits.
- use the recommended fuel. See "Fuel" in the Index.

Scheduled Maintenance

The services shown in this schedule up to 100,000 miles (166 000 km) should be performed after 100,000 miles (166 000 km) at the same intervals. The services shown at 150,000 miles (240 000 km) should be performed at the same interval after 150,000 miles (240 000 km).

See “Owner Checks and Services” and “Periodic Maintenance Inspections” following.

Footnotes

† The U.S. Environmental Protection Agency or the California Air Resources Board has determined that the failure to perform this maintenance item will not nullify the emission warranty or limit recall liability prior to the completion of the vehicle’s useful life. We, however, urge that all recommended maintenance services be performed at the indicated intervals and the maintenance be recorded.

Lubricate the suspension and steering linkage, transaxle shift linkage, parking brake cable guides and underbody contact points and linkage.

* Your vehicle has an Engine Oil Life Monitor. This monitor will show you when to change the engine oil and filter -- usually between 3,000 miles (5 000 km) and 7,500 miles (12 500 km) since your last oil change. Under severe conditions, the indicator may come on before 3,000 miles (5 000 km). Never drive your vehicle more than 7,500 miles (12 500 km) or 12 months without an oil and filter change.

The system won’t detect dust in the oil. So if you drive in a dusty area, be sure to change your oil and filter every 3,000 miles (5 000 km) or sooner if the CHANGE OIL SOON message appears. Remember to reset the Oil Life Monitor whenever the oil is changed. For more information, see “Engine Oil Life Monitor” in the Index.

+ A good time to check your brakes is during tire rotation. See “Brake System Inspection” under “Periodic Maintenance Inspections” in Part C of this schedule.

Scheduled Maintenance

7,500 Miles (12 500 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)
- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

15,000 Miles (25 000 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)
- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

22,500 Miles (37 500 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)

Scheduled Maintenance

- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

30,000 Miles (50 000 km)

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)
- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Inspect throttle body bore and valve plates for deposits, open the throttle valve and inspect all surfaces. Clean as required.
  An Emission Control Service. (See footnote†.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)
- ☐ Replace air cleaner filter.
  An Emission Control Service.
- ☐ Inspect fuel tank, cap and lines for damage or leaks. Inspect fuel cap gasket for any damage. Replace parts as needed.
  An Emission Control Service. (See footnote†.)

DATE	
ACTUAL MILEAGE	SERVICED BY:

Scheduled Maintenance

37,500 Miles (62 500 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)
- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

45,000 Miles (75 000 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)
- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

50,000 Miles (83 000 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Change automatic transaxle fluid and bottom screens if the vehicle is mainly driven under one or more of these conditions:
  - In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.

Scheduled Maintenance

– In hilly or mountainous terrain.
– When doing frequent trailer towing.
– Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter at 100,000 miles (166 000 km).

52,500 Miles (87 500 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
An Emission Control Service. (See footnote *.)

☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)

☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

60,000 Miles (100 000 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
An Emission Control Service. (See footnote *.)

☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)

(Continued)

Scheduled Maintenance

60,000 Miles (100 000 km) (Continued)

- ☐ Inspect throttle body bore and valve plates for deposits, open the throttle valve and inspect all surfaces. Clean as required.
  An Emission Control Service. (See footnote†.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)
- ☐ Inspect engine accessory drive belt.
  An Emission Control Service.
- ☐ Replace air cleaner filter.
  An Emission Control Service.
- ☐ Inspect fuel tank, cap and lines for damage or leaks. Inspect fuel cap gasket for any damage. Replace parts as needed.
  An Emission Control Service. (See footnote†.)

67,500 Miles (112 500 km)

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)
- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

DATE	
ACTUAL MILEAGE	SERVICED BY:

Scheduled Maintenance

75,000 Miles (125 000 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)
- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

82,500 Miles (137 500 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)
- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

90,000 Miles (150 000 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)

(Continued)

Scheduled Maintenance

90,000 Miles (150 000 km) (Continued)

- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Inspect throttle body bore and valve plates for deposits, open the throttle valve and inspect all surfaces. Clean as required.
  An Emission Control Service. (See footnote†.)
- ☐ Replace air cleaner filter.
  An Emission Control Service.
- ☐ Inspect fuel tank, cap and lines for damage or leaks. Inspect fuel cap gasket for any damage. Replace parts as needed.
  An Emission Control Service. (See footnote†.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

97,500 Miles (162 500 km)

- ☐ Check Oil Life Monitor. If engine oil and filter are changed, reset monitor. See “Engine Oil” in the Index.
  An Emission Control Service. (See footnote *.)
- ☐ Lubricate chassis components (or at each engine oil and filter change). (See footnote #.)
- ☐ Rotate tires. See “Tire Inspection and Rotation” in the Index for proper rotation pattern and additional information. (See footnote +.)

DATE	
ACTUAL MILEAGE	SERVICED BY:

Scheduled Maintenance

100,000 Miles (166 000 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Inspect spark plug wires.
  An Emission Control Service.
- ☐ Replace spark plugs.
  An Emission Control Service.
- ☐ Change automatic transaxle fluid and bottom screens if the vehicle is mainly driven under one or more of these conditions:
  - In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - In hilly or mountainous terrain.
  - When doing frequent trailer towing.
  - Uses such as found in taxi, police or delivery service.
- ☐ If you haven't used your vehicle under severe service conditions listed previously and, therefore, haven't changed your automatic transaxle fluid, change both the fluid and filter.

150,000 Miles (240 000 km)

DATE	
ACTUAL MILEAGE	SERVICED BY:

- ☐ Drain, flush and refill cooling system (or every 60 months since last service, whichever occurs first). See "Engine Coolant" in the Index for what to use. Inspect hoses. Clean radiator, condenser, pressure cap and neck. Pressure test the cooling system and pressure cap.
  An Emission Control Service.

Part B: Owner Checks and Services

Listed in this part are owner checks and services which should be performed at the intervals specified to help ensure the safety, dependability and emission control performance of your vehicle.

Be sure any necessary repairs are completed at once. Whenever any fluids or lubricants are added to your vehicle, make sure they are the proper ones, as shown in Part D.

At Each Fuel Fill

It is important for you or a service station attendant to perform these underhood checks at each fuel fill.

Engine Oil Level Check

Check the engine oil level and add the proper oil if necessary. See “Engine Oil” in the Index for further details.

Engine Coolant Level Check

Check the engine coolant level and add DEX-COOL® coolant mixture if necessary. See “Engine Coolant” in the Index for further details.

Windshield Washer Fluid Level Check

Check the windshield washer fluid level in the windshield washer tank and add the proper fluid if necessary. See “Windshield Washer Fluid” in the Index for further details.

At Least Once a Month

Tire Inflation Check

Make sure tires are inflated to the correct pressures. See “Tires” in the Index for further details.

Cassette Deck Service

Clean cassette deck. Cleaning should be done every 50 hours of tape play. See “Audio Systems” in the Index for further details.

Power Antenna Service

Clean power antenna mast. See “Audio Systems” in the Index for further details.

At Least Twice a Year

Restraint System Check

Make sure the safety belt reminder light and all your belts, buckles, latch plates, retractors and anchorages are working properly. Look for any other loose or damaged safety belt system parts. If you see anything that might keep a safety belt system from doing its job, have it repaired. Have any torn or frayed safety belts replaced.

Also look for any opened or broken air bag coverings, and have them repaired or replaced. (The air bag system does not need regular maintenance.)

Wiper Blade Check

Inspect wiper blades for wear or cracking. Replace blade inserts that appear worn or damaged or that streak or miss areas of the windshield. Also see “Wiper Blades, Cleaning” in the Index.

Weatherstrip Lubrication

Silicone grease on weatherstrips will make them last longer, seal better, and not stick or squeak. Apply silicone grease with a clean cloth. During very cold, damp weather more frequent application may be required. (See “Recommended Fluids and Lubricants” in the Index.)

Automatic Transaxle Check

Check the transaxle fluid level; add if needed. See “Automatic Transaxle Fluid” in the Index. A fluid loss may indicate a problem. Check the system and repair if needed.

At Least Once a Year

Key Lock Cylinders Service

Lubricate the key lock cylinders with the lubricant specified in Part D.

Body Lubrication Service

Lubricate all body door hinges. Also lubricate all hinges and latches, including those for the hood, rear compartment, glove box door, console door and any folding seat hardware. Part D tells you what to use. More frequent lubrication may be required when exposed to a corrosive environment.

Starter Switch Check

⚠ CAUTION:

When you are doing this check, the vehicle could move suddenly. If it does, you or others could be injured. Follow the steps below.

1. Before you start, be sure you have enough room around the vehicle.
2. Firmly apply both the parking brake (see “Parking Brake” in the Index if necessary) and the regular brake.

   NOTE: Do not use the accelerator pedal, and be ready to turn off the engine immediately if it starts.
3. Try to start the engine in each gear. The starter should work only in PARK (P) or NEUTRAL (N). If the starter works in any other position, your vehicle needs service.

Brake-Transaxle Shift Interlock (BTSI) Check

⚠ CAUTION:

When you are doing this check, the vehicle could move suddenly. If it does, you or others could be injured. Follow the steps below.

1. Before you start, be sure you have enough room around the vehicle. It should be parked on a level surface.
2. Firmly apply the parking brake (see “Parking Brake” in the Index if necessary).

   NOTE: Be ready to apply the regular brake immediately if the vehicle begins to move.
3. With the engine off, turn the key to the RUN position, but don’t start the engine. Without applying the regular brake, try to move the shift lever out of PARK (P) with normal effort. If the shift lever moves out of PARK (P), your vehicle’s BTSI needs service.

Ignition Transaxle Lock Check

While parked, and with the parking brake set, try to turn the ignition key to LOCK in each shift lever position.

- The key should turn to LOCK only when the shift lever is in PARK (P).
- The key should come out only in LOCK.

Parking Brake and Automatic Transaxle PARK (P) Mechanism Check

⚠ CAUTION:

When you are doing this check, your vehicle could begin to move. You or others could be injured and property could be damaged. Make sure there is room in front of your vehicle in case it begins to roll. Be ready to apply the regular brake at once should the vehicle begin to move.

Park on a fairly steep hill, with the vehicle facing downhill. Keeping your foot on the regular brake, set the parking brake.

- To check the parking brake's holding ability: With the engine running and transaxle in NEUTRAL (N), slowly remove foot pressure from the regular brake pedal. Do this until the vehicle is held by the parking brake only.
- To check the PARK (P) mechanism's holding ability: With the engine running, shift to PARK (P). Then release all brakes.

Underbody Flushing Service

At least every spring, use plain water to flush any corrosive materials from the underbody. Take care to clean thoroughly any areas where mud and other debris can collect.

Part C: Periodic Maintenance Inspections

Listed in this part are inspections and services which should be performed at least twice a year (for instance, each spring and fall). *You should let your dealer's service department or other qualified service center do these jobs. Make sure any necessary repairs are completed at once.*

Proper procedures to perform these services may be found in a service manual. See "Service and Owner Publications" in the Index.

Steering, Suspension and Front Drive Axle Boot and Seal Inspection

Inspect the front and rear suspension and steering system for damaged, loose or missing parts, signs of wear or lack of lubrication. Inspect the power steering lines and hoses for proper hook-up, binding, leaks, cracks, chafing, etc. Clean and then inspect the drive axle boot seals for damage, tears or leakage. Replace seals if necessary.

Exhaust System Inspection

Inspect the complete exhaust system. Inspect the body near the exhaust system. Look for broken, damaged, missing or out-of-position parts as well as open seams, holes, loose connections or other conditions which could cause a heat build-up in the floor pan or could let exhaust fumes into the vehicle. See "Engine Exhaust" in the Index.

Engine Cooling System Inspection

Inspect the hoses and have them replaced if they are cracked, swollen or deteriorated. Inspect all pipes, fittings and clamps; replace as needed. Clean the outside of the radiator and air conditioning condenser. To help ensure proper operation, a pressure test of the cooling system and pressure cap is recommended at least once a year.

Throttle System Inspection

Inspect the throttle system for interference or binding, and for damaged or missing parts. Replace parts as needed. Replace any components that have high effort or excessive wear. Do not lubricate accelerator and cruise control cables.

Brake System Inspection

Inspect the complete system. Inspect brake lines and hoses for proper hook-up, binding, leaks, cracks, chafing, etc. Inspect disc brake pads for wear and rotors for surface condition. Inspect other brake parts, including calipers, parking brake, etc. You may need to have your brakes inspected more often if your driving habits or conditions result in frequent braking.

Part D: Recommended Fluids and Lubricants

NOTE: Fluids and lubricants identified below by name, part number or specification may be obtained from your dealer.

USAGE	FLUID/LUBRICANT
Engine Oil	Engine Oil with the American Petroleum Institute Certified For Gasoline Engines “Starburst” symbol of the proper viscosity. To determine the preferred viscosity for your vehicle’s engine, see “Engine Oil” in the Index.
Engine Coolant	50/50 mixture of clean, drinkable water and use only GM Goodwrench® DEX-COOL® or Havoline® DEX-COOL® Coolant. See “Engine Coolant” in the Index.
Hydraulic Brake System	Delco Supreme 11® Brake Fluid (GM Part No. 12377967 or equivalent DOT-3 Brake Fluid).

USAGE	FLUID/LUBRICANT
Windshield Washer Solvent	GM Optikleen® Washer Solvent (GM Part No. 1051515) or equivalent.
Parking Brake Cable Guides	Chassis Lubricant (GM Part No. 12377985 or equivalent) or lubricant meeting requirements of NLGI # 2, Category LB or GC-LB.
Power Steering System	GM Power Steering Fluid (GM Part No. 1052884 - 1 pint, 1050017 - 1 quart, or equivalent).
Automatic Transaxle	DEXRON®-III Automatic Transmission Fluid.
Key Lock Cylinders	Multi-Purpose Lubricant, Superlube® (GM Part No. 12346241 or equivalent).
Floor Shift Linkage	Lubriplate® Lubricant Aerosol (GM Part No. 12346293 or equivalent) or lubricant meeting requirements of NLGI # 2 Category LB or GC-LB.

USAGE	FLUID/LUBRICANT
Chassis Lubrication	Chassis Lubricant (GM Part No. 12377985 or equivalent) or lubricant meeting requirements of NLGI # 2, Category LB or GC-LB.
Hood Latch Assembly, Secondary Latch, Pivots, Spring Anchor and Release Pawl	Lubriplate® Lubricant Aerosol (GM Part No. 12346293 or equivalent) or lubricant meeting requirements of NLGI # 2, Category LB or GC-LB.

USAGE	FLUID/LUBRICANT
Hood and Door Hinges, Fuel Door Hinge, Glove Box Door, Console Door Hinge, Rear Compartment Lid Hinges	Multi-Purpose Lubricant, Superlube® (GM Part No. 12346241 or equivalent).
Weatherstrip Conditioning	Dielectric Silicone Grease (GM Part No. 12345579 or equivalent).

Part E: Maintenance Record

After the scheduled services are performed, record the date, odometer reading and who performed the service in the boxes provided after the maintenance interval. Any additional information from “Owner Checks and Services” or “Periodic Maintenance” can be added on the following record pages. Also, you should retain all maintenance receipts. Your owner information portfolio is a convenient place to store them.

Maintenance Record

DATE	ODOMETER READING	SERVICED BY	MAINTENANCE PERFORMED

Maintenance Record

DATE	ODOMETER READING	SERVICED BY	MAINTENANCE PERFORMED

Maintenance Record

DATE	ODOMETER READING	SERVICED BY	MAINTENANCE PERFORMED

Section 8 Customer Assistance Information

Here you will find out how to contact Oldsmobile if you need assistance. This section also tells you how to obtain service publications and how to report any safety defects.

8-2 Customer Satisfaction Procedure
8-4 Customer Assistance for Text Telephone (TTY) Users
8-4 Customer Assistance Offices
8-5 GM Mobility Program for Persons with Disabilities
8-6 Oldsmobile Roadside Assistance Program Features and Benefits
8-7 Canadian Roadside Assistance
8-7 Courtesy Transportation
8-9 Warranty Information
8-10 Reporting Safety Defects to the United States Government
8-10 Reporting Safety Defects to the Canadian Government
8-11 Reporting Safety Defects to General Motors
8-11 Ordering Service and Owner Publications in Canada

Customer Satisfaction Procedure

Your satisfaction and goodwill are important to your dealer and to Oldsmobile. Normally, any concerns with the sales transaction or the operation of your vehicle will be resolved by your dealer's sales or service departments. Sometimes, however, despite the best intentions of all concerned, misunderstandings can occur. If your concern has not been resolved to your satisfaction, the following steps should be taken:

STEP ONE -- Discuss your concern with a member of dealership management. Normally, concerns can be quickly resolved at that level. If the matter has already been reviewed with the sales, service or parts manager, contact the owner of the dealership or the general manager.

STEP TWO -- If after contacting a member of dealership management, it appears your concern cannot be resolved by the dealership without further help, contact the Oldsmobile Customer Assistance Network by calling 1-800-442-6537. In Canada, contact GM of Canada Customer Communication Centre in Oshawa by calling 1-800-263-3777 (English) or 1-800-263-7854 (French).

We encourage you to call the toll-free number in order to give your inquiry prompt attention. Please have the following information available to give the Customer Assistance Representative:

- Vehicle Identification Number (This is available from the vehicle registration or title, or the plate at the top left of the instrument panel and visible through the windshield.)
- Dealership name and location
- Vehicle delivery date and present mileage

When contacting Oldsmobile, please remember that your concern will likely be resolved at a dealer's facility. That is why we suggest you follow Step One first if you have a concern.

STEP THREE -- Both General Motors and your dealer are committed to making sure you are completely satisfied with your new vehicle. However, if you continue to remain unsatisfied after following the procedure outlined in Steps One and Two, you must file with the GM/BBB Auto Line Program to enforce any additional rights you may have. Canadian owners refer to your Warranty and Owner Assistance Information booklet for information on the Canadian Motor Vehicle Arbitration Plan (CAMVAP).

The BBB Auto Line Program is an out of court program administered by the Council of Better Business Bureaus to settle automotive disputes regarding vehicle repairs or the interpretation of the New Vehicle Limited Warranty. Although you are required to resort to this informal dispute resolution program prior to filing any court action, use of the program is free of charge and your case will generally be heard within 40 days. If you do not agree with the decision given in your case, you may reject it and proceed with any other venue for relief available to you.

You may contact the BBB using the toll-free telephone number or write them at the following address:

BBB Auto Line
Council of Better Business Bureaus, Inc.
4200 Wilson Boulevard
Suite 800
Arlington, VA 22203-1804

Telephone: 1-800-955-5100

This program is available in all 50 states and the District of Columbia. Eligibility is limited by vehicle age, mileage and other factors. General Motors reserves the right to change eligibility limitations and/or discontinue its participation in this program.

Customer Assistance for Text Telephone (TTY) Users

To assist customers who are deaf, hard of hearing, or speech-impaired and who use Text Telephones (TTYs), Oldsmobile has TTY equipment available at its Customer Assistance Network. Any TTY user can communicate with Oldsmobile by dialing: 1-800-833-OLDS. (TTY users in Canada can dial 1-800-263-3830.)

Customer Assistance Offices

Oldsmobile encourages customers to call the toll-free number for assistance. If a U.S. customer wishes to write to Oldsmobile, the letter should be addressed to Oldsmobile's Customer Assistance Network.

United States

Customer Assistance Representative
Oldsmobile Customer Assistance Network
16 E. Judson Street
P.O. Box 436006
Pontiac, MI 48343-6006

1-800-442-6537
1-800-833-6537 (For Text Telephone devices (TTYs))
Roadside Assistance: 1-800-442-OLDS

Canada

General Motors of Canada Limited
Customer Communication Centre, 163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

1-800-263-3777 (English)
1-800-263-7854 (French)
1-800-263-3830 (For Text Telephone devices (TTYs))
Roadside Assistance: 1-800-268-6800

All Overseas Locations

GMODC - Customer Communication Centre
169-007
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

Telephone: 905-644-4112
Fax: 905-644-4866

Caribbean Numbers

1-800-496-9992 (English) Puerto Rico
1-800-496-9993 (Spanish) Puerto Rico
1-800-751-4135 (English) Dominican Republic
1-800-751-4136 (Spanish) Dominican Republic
1-800-496-9994 U.S. Virgin Islands
1-800-389-0009 Bahamas
1-800-534-0122 Bermuda, Barbados, Antigua & B.V.I.

If toll-free service is not available in the Caribbean, call Puerto Rico 1-787-763-1315.

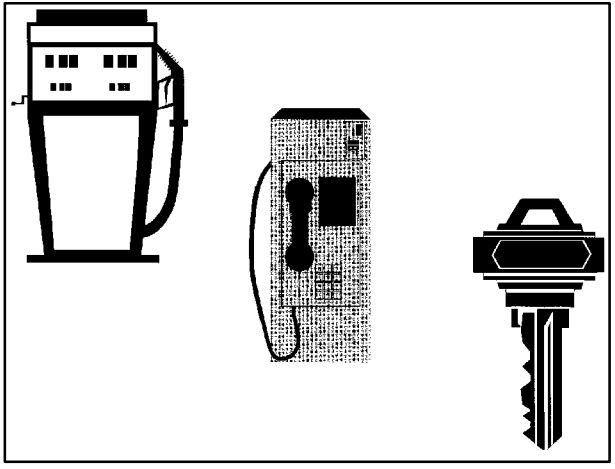
GM Mobility Program for Persons with Disabilities

This program, available to qualified applicants, can reimburse you up to $1,000 toward aftermarket driver or passenger adaptive equipment you may require for your vehicle (hand controls, wheelchair/scooter lifts, etc.).

This program can also provide you with free resource information, such as area driver assessment centers and mobility equipment installers. The program is available for a limited period of time from the date of vehicle purchase/lease. See your dealer for more details or call the GM Mobility Assistance Center at 1-800-323-9935. Text Telephone (TTY) users, call 1-800-833-9935.

GM of Canada also has a Mobility Program. Call 1-800-GM-DRIVE (463-7483) for details. TTY users call 1-800-263-3830. When calling from the United States, please dial 1-905-644-3063.

Oldsmobile Roadside Assistance Program Features and Benefits



Security While You Travel

1-800-442-OLDS (6537)

As the proud owner of a new Oldsmobile vehicle, you are automatically enrolled in the Oldsmobile Roadside Assistance program. This value-added service is intended to provide you with peace of mind as you drive in the city or travel the open road.

Oldsmobile's Roadside Assistance toll-free number is staffed by courteous and capable Roadside Assistance Representatives who are available 24 hours a day, 365 days a year.

We will provide the following services during the Bumper to Bumper warranty period, at no expense to you:

- Fuel delivery
- Lock-out service (identification required)
- Tow to the nearest dealership for warranty service or in the event of a vehicle-disabling accident
- Flat tire change
- Jump starts
- Minor repairs to disabled vehicles
- Assistance when vehicle is mired in sand, mud or snow
- Trip routing
- Trip interruption expense benefits
- Dealership locator service
- Courtesy Transportation - See Courtesy Transportation section for details

Oldsmobile Roadside Assistance specifically excludes coverage for mounting, dismounting or changing of snow tires, chains or other traction devices.

In some cases, where service is impractical, the driver may be authorized to obtain other service for which reimbursement is provided.

In many instances, mechanical failures are covered under Oldsmobile's comprehensive warranty. However, when other services are utilized, our Roadside Assistance Representatives will explain any payment obligations you might incur.

For prompt and efficient assistance when calling, please provide the following to the Roadside Assistance Representative:

- Location of vehicle
- Telephone number of your location
- Vehicle model, year and color
- Mileage of vehicle
- Vehicle Identification Number (VIN)
- Vehicle license plate number

Oldsmobile reserves the right to limit services or reimbursement to an owner or driver when, in Oldsmobile's judgement, the claims become excessive in frequency or type of occurrence.

While we hope you never have the occasion to use our service, it is added security while traveling for you and your family. Remember, we're only a phone call away. Oldsmobile Roadside Assistance -- 1-800-442-OLDS (6537).

Canadian Roadside Assistance

Vehicles purchased in Canada have an extensive roadside assistance program accessible from anywhere in Canada or the United States. Please refer to the separate brochure provided by the dealer or call 1-800-268-6800 for emergency services.

Courtesy Transportation

Oldsmobile has always exemplified quality and value in its offering of motor vehicles. To enhance your ownership experience, we and our participating dealerships are proud to offer Courtesy Transportation, a customer support program for new vehicles.

The Courtesy Transportation program is offered to retail purchase/lease customers in conjunction with the Bumper to Bumper coverage provided by the New Vehicle Limited Warranty. Several transportation options are available when warranty repairs are required. This will reduce your inconvenience during warranty repairs.

Plan Ahead When Possible

When your vehicle requires warranty service, you should contact your dealer and request an appointment. By scheduling a service appointment and advising your service consultant of your transportation needs, your dealer can help minimize your inconvenience. If it is determined that your vehicle cannot be scheduled into the service department immediately and is still operative, you are encouraged to drive the vehicle until scheduling can be accomplished.

If the dealer requests that you simply drop the vehicle off for service, you are urged to do so as early in the work day as possible to allow for same day repair.

Transportation Options

Warranty service can generally be completed while you wait. However, if you are unable to wait Oldsmobile helps minimize your inconvenience by providing several transportation options. Depending on the circumstances, your dealer can offer you one of the following:

Shuttle Service

Participating dealerships can provide you with shuttle service to get you to your destination with minimal interruption of your daily schedule. This includes a one way shuttle ride to a destination up to 10 miles from the dealership.

Public Transportation or Fuel Reimbursement

If your vehicle requires overnight warranty repairs, reimbursement up to $30 per day (five days maximum) may be available for the use of public transportation such as taxi or bus. In addition, should you arrange transportation through a friend or relative, reimbursement for reasonable fuel expenses up to $10 per day (five day maximum) may be available. Claim amounts should reflect actual costs and be supported by original receipts.

Courtesy Rental Vehicle

When your vehicle is unavailable due to overnight warranty repairs, your dealer may arrange to provide you with a courtesy rental vehicle or reimburse you for a rental vehicle you obtained, at actual cost, up to a maximum of $30.00 per day supported by receipts. This requires that you sign and complete a rental agreement and meet state, local and rental vehicle provider requirements. Requirements vary and may include minimum age requirements, insurance coverage, credit card, etc. You are responsible for fuel usage charges and may also be responsible for taxes, levies, usage fees, excessive mileage or rental usage beyond the completion of the repair.

Generally it is not possible to provide a like-vehicle as a courtesy rental.

Additional Program Information

Courtesy Transportation is available during the Bumper-to-Bumper warranty coverage period, but it *is not* part of the New Vehicle Limited Warranty. A separate booklet entitled “Warranty and Owner Assistance Information” furnished with each new vehicle provides detailed warranty coverage information.

Courtesy Transportation is available only at participating dealerships and all program options, such as shuttle service, may not be available at every dealer. Please contact your dealer for specific information about availability. All Courtesy Transportation arrangements will be administered by appropriate dealer personnel.

Canadian Vehicles: For warranty repairs during the Complete Vehicle Coverage period of the General Motors of Canada New Vehicle Limited Warranty, alternative transportation may be available under the Courtesy Transportation Program. Please consult your dealer for details.

General Motors reserves the right to unilaterally modify, change or discontinue Courtesy Transportation at any time and to resolve all questions of claim eligibility pursuant to the terms and conditions described herein at its sole discretion.

General Motors and participating dealerships reserve the right to deny a rental vehicle to anyone not possessing a valid motor vehicle operators license in their name, anyone who is under the influence of alcohol or drugs, or anyone whose mental or physical abilities are impaired so as to be unable to operate a motor vehicle safely.

Warranty Information

Your vehicle comes with a separate warranty booklet that contains detailed warranty information.

REPORTING SAFETY DEFECTS TO THE UNITED STATES GOVERNMENT

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA), in addition to notifying General Motors.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer or General Motors.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in the Washington, D.C. area) or write to:

NHTSA, U.S. Department of Transportation
Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from the hotline.

REPORTING SAFETY DEFECTS TO THE CANADIAN GOVERNMENT

If you live in Canada, and you believe that your vehicle has a safety defect, you should immediately notify Transport Canada, in addition to notifying General Motors of Canada Limited. You may write to:

Transport Canada
330 Sparks Street
Tower C
Ottawa, Ontario K1A 0N5

REPORTING SAFETY DEFECTS TO GENERAL MOTORS

In addition to notifying NHTSA (or Transport Canada) in a situation like this, we certainly hope you'll notify us. Please call us at 1-800-442-6537, or write:

Oldsmobile Customer Assistance Network
16 E. Judson Street
P.O. Box 436006
Pontiac, MI 48343-6006

In Canada, please call us at 1-800-263-3777 (English) or 1-800-263-7854 (French). Or, write:

General Motors of Canada Limited
Customer Communication Centre, 163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

Ordering Service and Owner Publications in Canada

Service manuals, owner's manuals and other service literature are available for purchase for all current and past model General Motors vehicles.

The toll-free telephone number for ordering information in Canada is 1-800-668-5539.

1999 OLDSMOBILE SERVICE PUBLICATIONS ORDERING INFORMATION

The following publications covering the operation and servicing of your vehicle can be purchased by filling out the Service Publication Order Form in this book and mailing it in with your check, money order, or credit card information to Helm, Incorporated (address below.)

CURRENT PUBLICATIONS FOR 1999 OLDSMOBILE

SERVICE MANUALS

Service Manuals have the diagnosis and repair information on engines, transmission, axle, suspension, brakes, electrical, steering, body, etc.
RETAIL SELL PRICE: $90.00

TRANSMISSION, TRANSAXLE, TRANSFER CASE UNIT REPAIR MANUAL

This manual provides information on unit repair service procedures, adjustments and specifications for the 1999 GM transmissions, transaxles and transfer cases.
RETAIL SELL PRICE: $50.00

SERVICE BULLETINS

Service Bulletins give technical service information needed to knowledgeably service General Motors cars and trucks. Each bulletin contains instructions to assist in the diagnosis and service of your vehicle.

OWNER'S INFORMATION

Owner publications are written directly for Owners and intended to provide basic operational information about the vehicle. The owner's manual will include the Maintenance Schedule for all models.

In-Portfolio: Includes a Portfolio, Owner's Manual and Warranty Booklet.
RETAIL SELL PRICE: $15.00

Without Portfolio: Owner's Manual only.
RETAIL SELL PRICE: $10.00

CURRENT & PAST MODEL ORDER FORMS

Service Publications are available for current and past model GM vehicles. To request an order form, please specify year and model name of the vehicle.

PLEASE COMPLETE THE ORDER FORM SHOWN ON THE FOLLOWING PAGE AND MAIL TO:

Helm, Incorporated • P.O. Box 07130 • Detroit, MI 48207

OR ORDER TOLL FREE: 1-800-551-4123

Monday-Friday 8:00 AM – 6:00 PM Eastern Time

For Credit Card Orders Only (VISA–MasterCard–Discover)

ORDER TOLL FREE
(NOTE: For Credit Card Holders Only)
1-800-551-4123
(Monday-Friday 8:00 AM – 6:00 PM EST)
FAX Orders Only 1-313-865-5927

Orders will be mailed within 10 days of receipt. Please allow adequate time for postal service. If further information is needed, write to the address shown below or call 1-800-551-4123. Material cannot be returned for credit without packing slip with return information within 30 days of delivery. On returns, a re-stocking fee may be applied against the original order.

1999 GM

PUBLICATION FORM NUMBER	ITEM DESCRIPTION	VEHICLE MODEL NAME	VEHICLE MODEL YEAR	QTY.	PRICE EACH*	TOTAL PRICE
	Service Manual		1999		$90.00	
	Car & Light Truck Transmission Unit Repair		1999		$50.00	
	Owner's Manual In Portfolio		1999		$15.00	
	Owner's Manual Without Portfolio		1999		$10.00	

SHIP TO

NOTE: Dealers and Companies please provide dealer or company name, and also the name of the person to whose attention the shipment should be sent.
Mail completed order form to:
HELM, INCORPORATED • P.O. Box 07130 • Detroit, MI 48207
For purchases outside U.S.A. please write to the above address for quotation.

(CUSTOMER'S NAME) **(ATTENTION)**

(STREET ADDRESS—NO P.O. BOX NUMBERS)

(CITY) **(STATE)** **(ZIP CODE)**

DAYTIME TELEPHONE NO. ( ) _____
AREA CODE

PAYMENT

☐ **Check or Money Order payable to Helm, Inc. (USA funds only — *do not send cash.*)**
☐ MasterCard
☐ VISA
☐ Discover

Account Number: ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Expiration Date mo/yr: ☐☐ ☐☐

Check here if your billing address is different from your shipping address shown. ☐

CUSTOMER SIGNATURE

TOTAL MATERIAL	
Michigan Purchasers add 6% sales tax	
U.S. Order Processing	**$5.00**
Canadian Postage (See Note Below)	
GRAND TOTAL	

GM-OLD-ORD99

*(Prices are subject to change without notice and without incurring obligation. Allow ample time for delivery.)

Note to Canadian Customers: All listed prices are quoted in U.S. funds. Canadian residents are to make checks payable in U.S. funds. To cover Canadian postage, add $11.50 plus the U.S. order processing.

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