1997 OWNER'S MANUAL

CATERA

The 1997 Cadillac Catera 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 air bag system.

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

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 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 Catera running properly and looking good.

7-1 Customer Assistance Information
This section tells you how to contact Cadillac for assistance and how to get service and owner publications. It also gives you information on "Reporting Safety Defects" on page 7-12.

8-1 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.

GENERAL MOTORS, GM and the GM Emblem, CADILLAC and the CADILLAC Emblem are registered trademarks of General Motors Corporation.

This manual includes the latest information at the time it was printed. We reserve the right to make changes in the product after that time without further notice. For vehicles first sold in Canada, substitute the name "General Motors of Canada Limited" for Cadillac Motor Car Division whenever it appears in this manual.

Please keep this manual in your Catera, 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.

We support voluntary technician certification.

WE SUPPORT VOLUNTARY TECHNICIAN CERTIFICATION THROUGH

National Institute for AUTOMOTIVE SERVICE EXCELLENCE

For Canadian Owners Who Prefer a French Language Manual:

Aux propriétaires canadiens: Vous pouvez vous procurer un exemplaire de ce guide en français chez votre concessionaire ou au:

DGN Marketing Services Ltd.
1500 Bonhill Rd.
Mississauga, Ontario L5T 1C7

Litho in U.S.A.
Part No. 25665479 A Second Edition

©Copyright General Motors Corporation 1996
All Rights Reserved

1 9 9 7 P R E M I E R E E D I T I O N

Congratulations.

Cadillac has been designing and building luxury cars for 95 years.

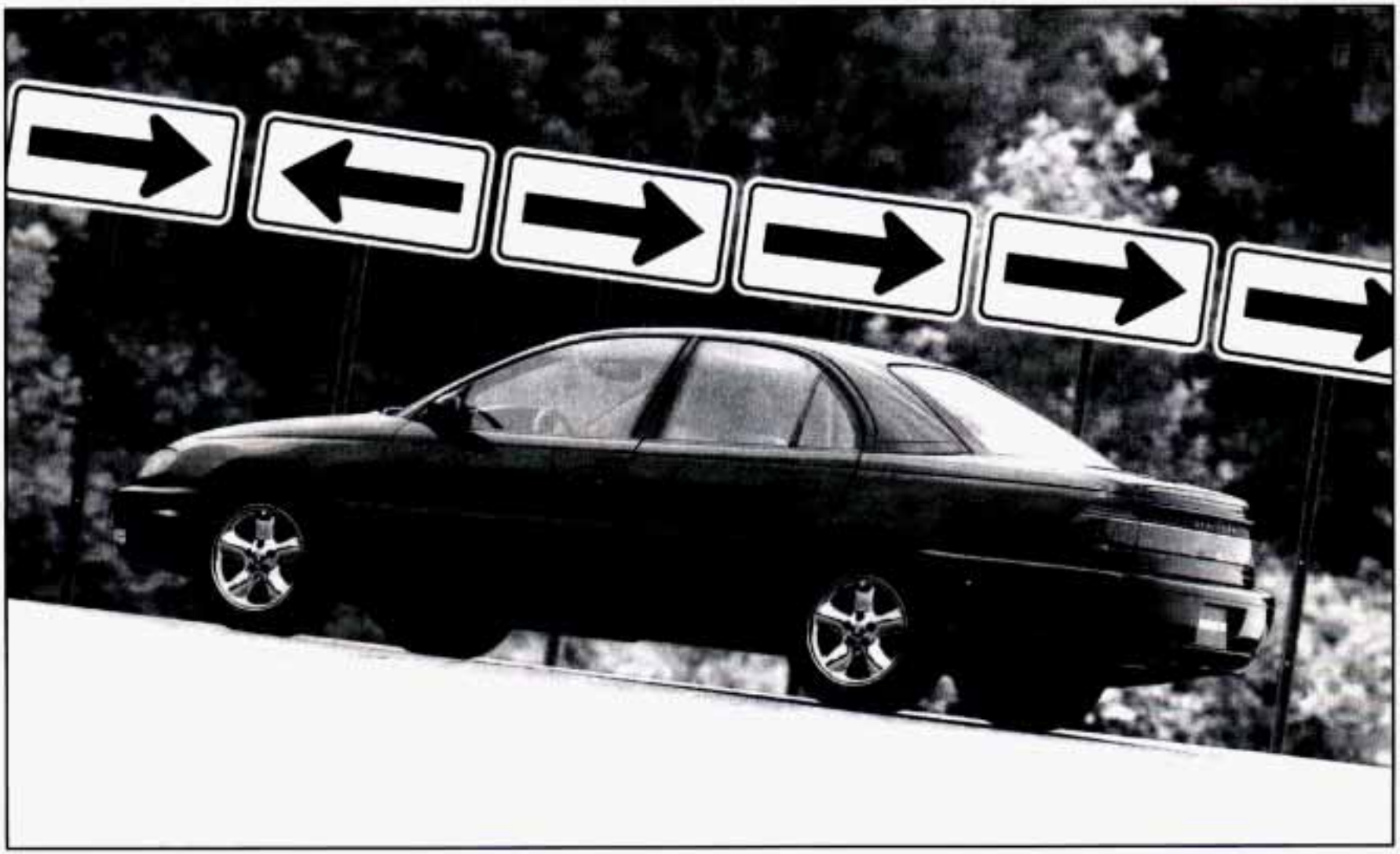
With the Catera, you have selected the first Cadillac ever to be engineered and manufactured in Germany.

It is a unique expression of Cadillac luxury with a sensibility to European ride and handling. With proper care, your Catera will deliver mile after mile of exciting, performance oriented luxury driving.

Drive safely and enjoy.

Luxury truly can be fun.

CATERA



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

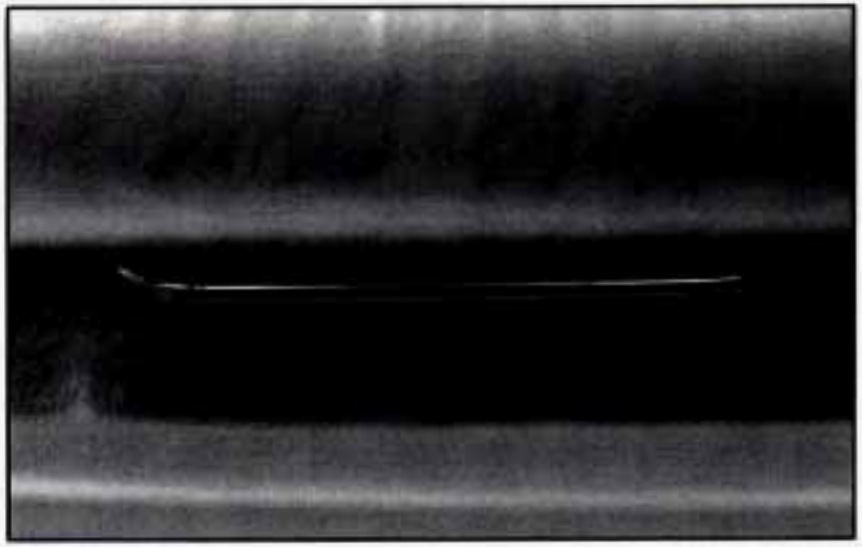
Here you'll find information about the seats in your Catera and how to use your safety belts properly. You can also learn about some things you should *not* do with air bags and safety belts.

1-2 Seats and Seat Controls
1-11 Safety Belts: They're for Everyone
1-16 Here Are Questions Many People Ask About Safety Belts -- and the Answers
1-16 How to Wear Safety Belts Properly
1-17 Driver Position
1-24 Safety Belt Use During Pregnancy
1-25 Right Front Passenger Position
1-25 Air Bag Systems
1-32 Rear Seat Passengers
1-35 Center Passenger Position
1-37 Children
1-39 Child Restraints
1-47 Larger Children
1-50 Safety Belt Extender
1-50 Checking Your Restraint Systems
1-51 Replacing Restraint System Parts After a Crash

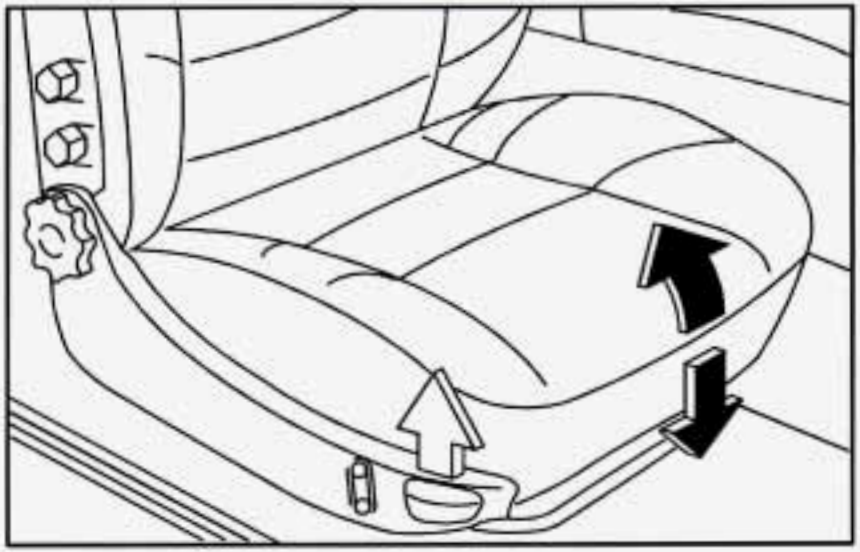
Seats and Seat Controls

This section tells you about the seats -- how to adjust them, and also about reclining front seatbacks, lumbar adjustments, heated seats and head restraints.

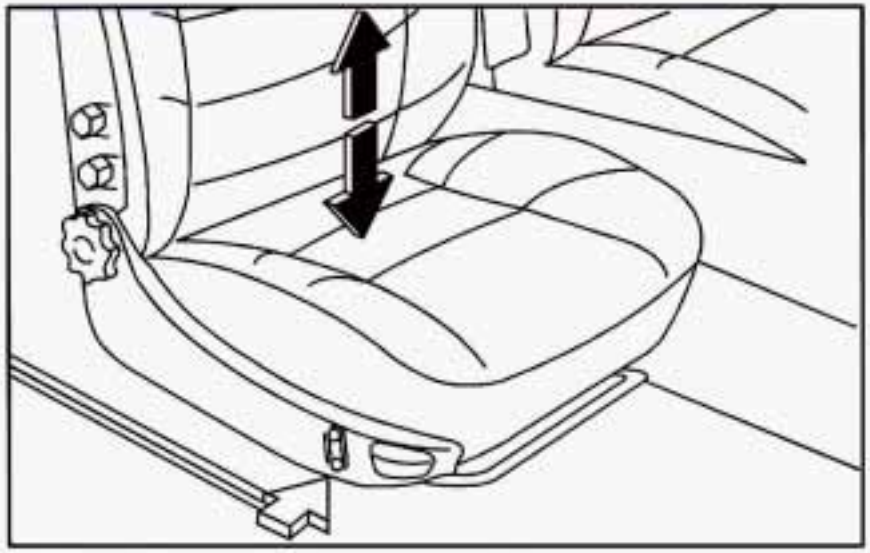
Manual Front Passenger's Seat



This feature is available on the passenger's seat only. Lift the bar under the front passenger's seat to unlock it. Slide the seat to where you want it and release the bar. Try to move the seat with your body to be sure the seat is locked into place.



Lift the lever to tilt the front portion of the seat cushion up or down. Release the lever to lock the seat into place.



To raise the seat cushion up or down, press one of the rocker switch buttons located on the outboard side of the passenger's seat. The top button raises the seat cushion and the bottom button lowers the seat cushion.

Manual Lumbar Support

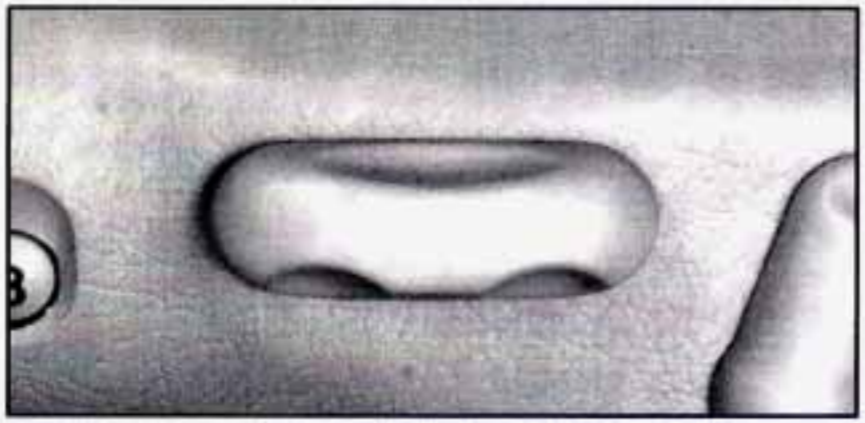
The lumbar controls are located on the outboard side of each front seat. They provide additional support to your lower back and work independently of other seat controls.

Use manual or power seat controls first to get the proper seating position. Then proceed with the lumbar adjustment.

The upper and lower seatback can be adjusted using the two small hand-wheel controls. The top hand-wheel control adjusts the upper seatback and the bottom control adjusts the lower seatback. Turn the controls forward to increase support and rearward to decrease support.

Keep in mind that as your seating position changes, as it may during long trips, so should the position of the lumbar support. Adjust the seat as needed.

Power Seats

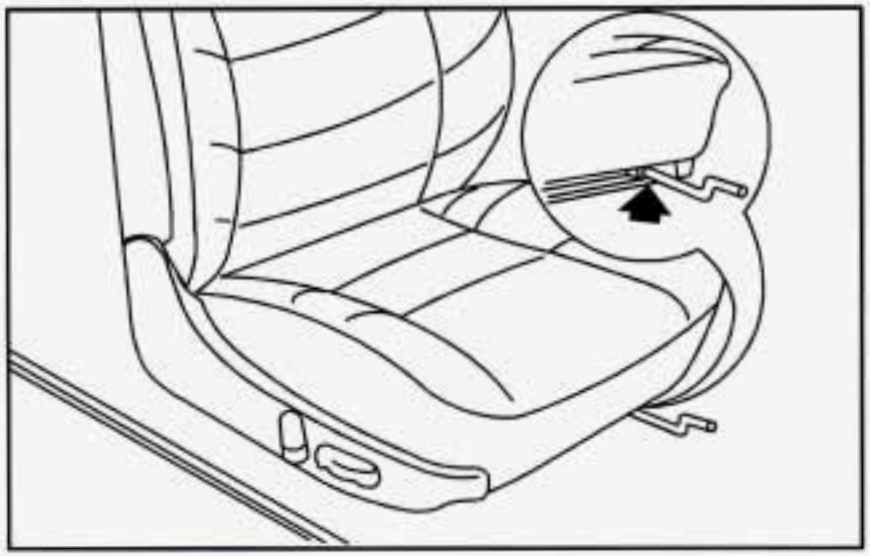


This feature is available on all driver's seats and is optional on passenger's seats with leather interiors only.

The power seat controls are located on the outboard side of the front seat cushions.

- Lift up or push down on the front of the control to adjust the front portion of the cushion up or down.
- Move the rear of the control up or down to adjust the rear portion of the cushion.
- To adjust the seat height, lift up or push down on the center of the control.
- To move the seat forward or rearward, slide the control in the desired direction.

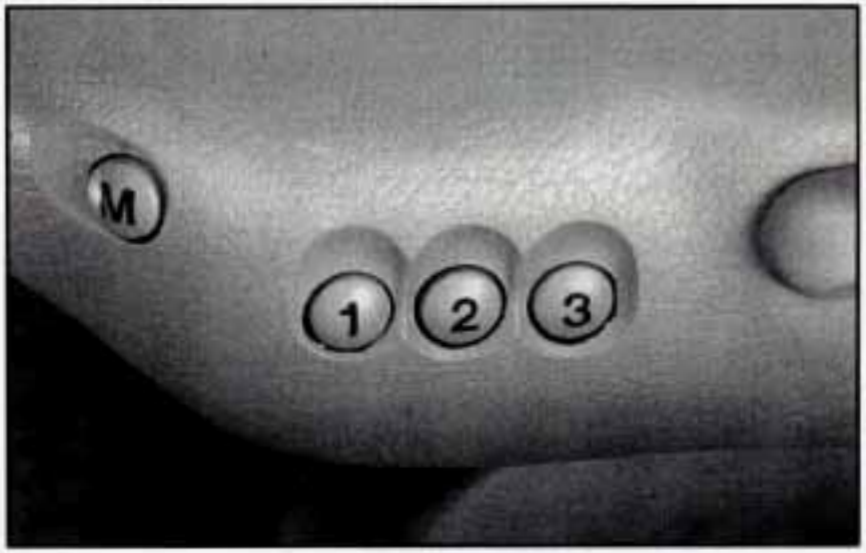
Note that if you try to adjust the driver's seat and it doesn't move, try opening the driver's door. This will re-activate power to the driver's seat. (Power to the driver's seat "times out" after 30 seconds. Power to the passenger's seat is always present.)



If a failure in the power supply system occurs, the power seats can be manually adjusted by inserting the crank handle into the slot located below the seat cushion (as shown in the above illustration). Turn the crank handle clockwise until you've reached your desired seating position (note that manually moving the seat requires turning the crank handle many times).

The crank handle is provided in the tool kit located in the trunk (with the jack).

Memory Seat and Mirrors (Option)



Adjust the driver's seat to a comfortable position. Also adjust the interior and exterior mirrors. Press memory button "M" and memory button "1" at the same time.

These buttons are located on the outboard side of the driver's seat. Seat and mirror positions may be programmed for two additional drivers by repeating the above steps and pressing memory button "2" or "3" instead of memory button 1.

If your vehicle is in PARK (P), you can recall mirror and seating positions by pressing and holding one of the three memory buttons. This will adjust the seat and mirrors to where you have previously programmed them. Seat and mirror movement is immediately stopped if the memory button is released or if a seat or mirror control is moved.

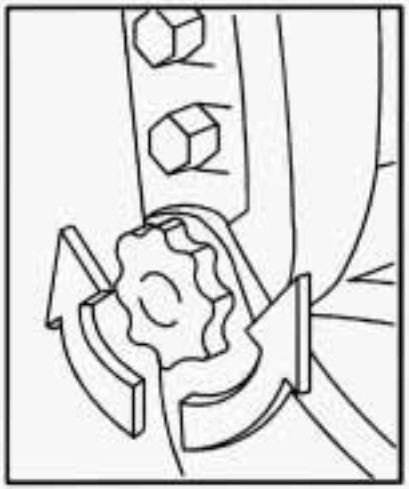
Note that the exterior mirrors will only adjust when the ignition is turned on.

Heated Front Seat (Option)

The controls are located next to the radio on the center console. Press this button to turn on the heating element in the seat. The seatback and cushion are warmed until they approximate body temperature.

A telltale light in the button reminds you that the heating system is in use. The heated seats can only be used when the ignition is turned on.

Reclining Front Seatbacks



This feature is found on the passenger's seat only. The manual recliner control is located on the outboard side of the passenger's seat below the lumbar controls. See "Manual Lumbar Support" earlier in this section.

To move the seatback forward, turn the hand-wheel control forward. Note that this seatback folds forward all the way down, if needed, to provide extra storage.

Turn the control rearward to recline the seatback.

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.

Power Recliner

This feature is available on all driver's seats and is optional on passenger's seats with leather interiors only.

These controls are located on the outboard side of each front seat. Press the control forward or rearward to adjust the seatback.

Head Restraints

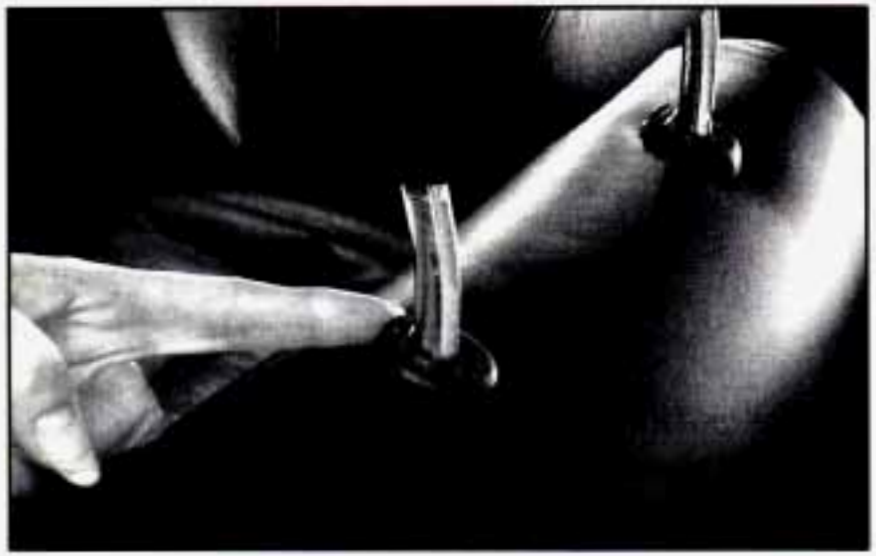
Slide the head restraint up or down so that the top of the restraint is closest to the top of your ears. This position reduces the chance of a neck injury in a crash.

The head restraints tilt forward and rearward also.

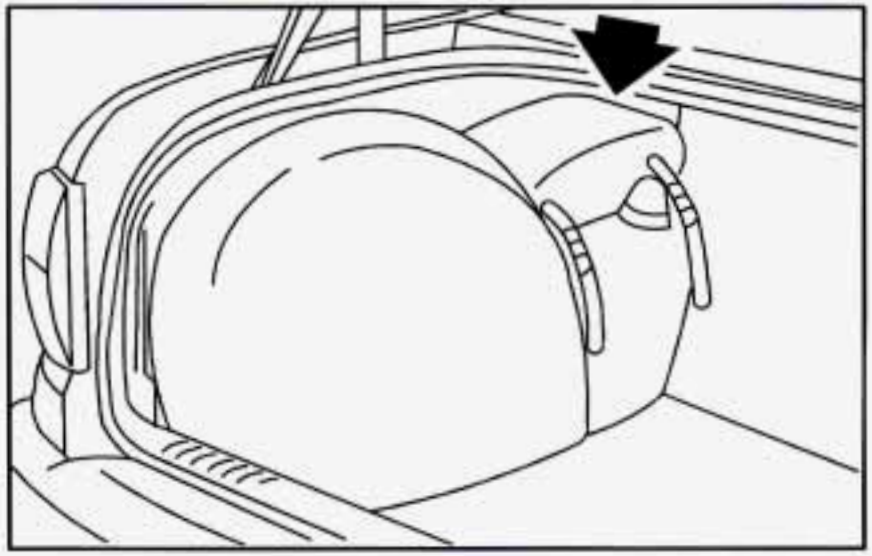
Removable Head Restraints

⚠ CAUTION:

If a head restraint is not installed on the seatback or stored in the vehicle properly, it could be thrown about the vehicle in a crash or sudden maneuver. People in the vehicle could be injured. Remove the head restraints only when you need to fold the seat, and be sure that the head restraints are stored securely in the trunk. When the seat is returned to the passenger position, be sure the head restraints are installed properly.



For more cargo space or to fold down the front passenger's seat, you may need to remove the head restraints. Press both release buttons at the top of the seatback and slide the head restraint out of the height adjust tubes.



The head restraint should be stored securely on the driver's side of the trunk as shown.

Replace the head restraint when you have finished carrying cargo or when the passenger's seat is returned to its normal upright position.

Rear Seats

Folding the Rear Seat

With the rear folding seatbacks, you can carry long cargo by folding down part or all of the rear seat. To unlock the rear seatback, press the pushbutton at the top of the seat and fold the seatback forward.

To return the seat to the passenger position, lift up on the seatback and push it rearward until it latches.

After returning the seat to the passenger position, pull forward on the seatback to make sure it is locked into place. Also, return the safety belts to their original positions, so they will be available for rear seat passengers to use.

The panel behind the rear seat armrest also folds. Turn the knob counterclockwise and pull the panel forward to gain access to the trunk.

Heated Rear Seat (Option)

The heated rear seat controls are located at the rear of the center console under the air outlets. Press the button once to turn on the heating elements and press the button again to turn the system off.

A telltale light in the button indicates the system is in use. The heated seats can only be used when the ignition is turned on. The heating elements shut off automatically when the ignition is turned off.

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 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 Catera 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.*

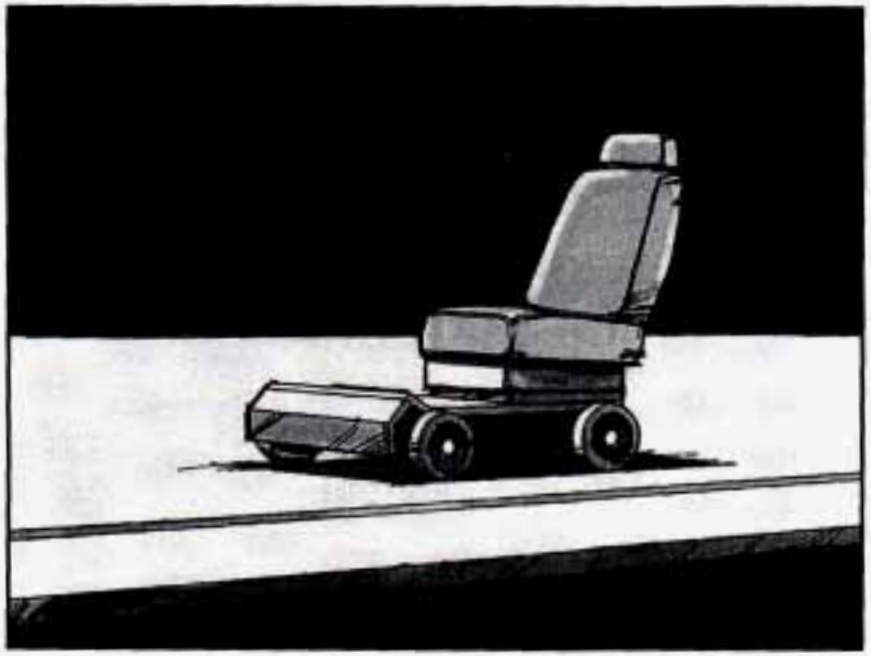
You never know if you'll be in a crash. If you do have a crash, you don't know if it will be a bad one.

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.

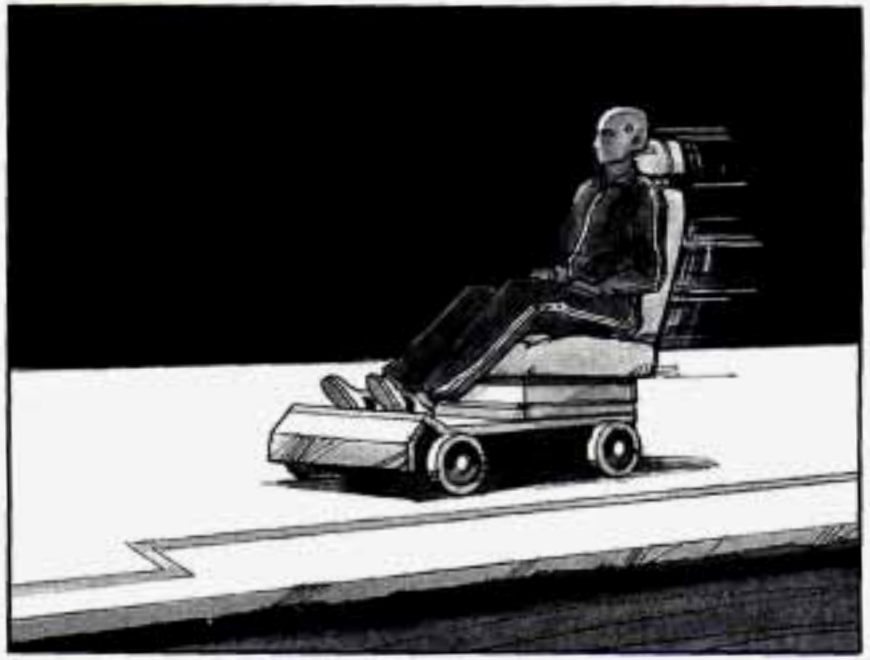
After more than 25 years of safety belts in vehicles, the facts are clear. In most crashes buckling up does matter ... a lot!

Why Safety Belts Work

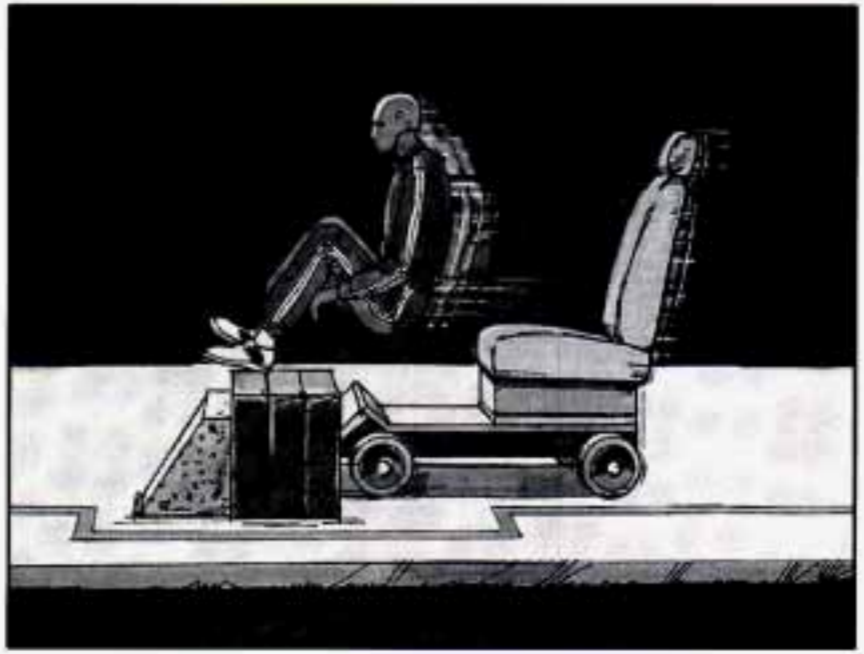
When you ride in or on anything, you go as fast as it goes.



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



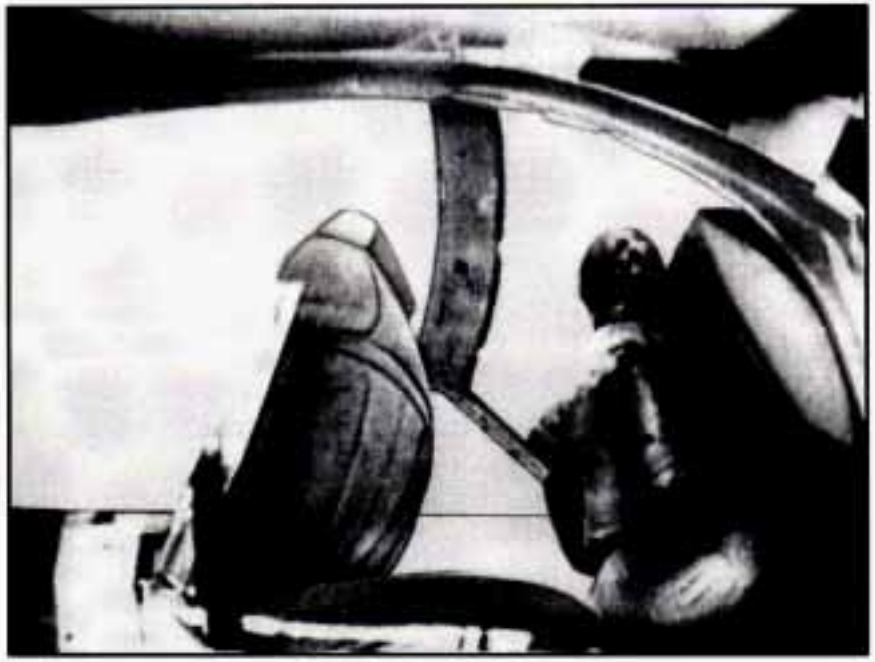
Put someone on it.



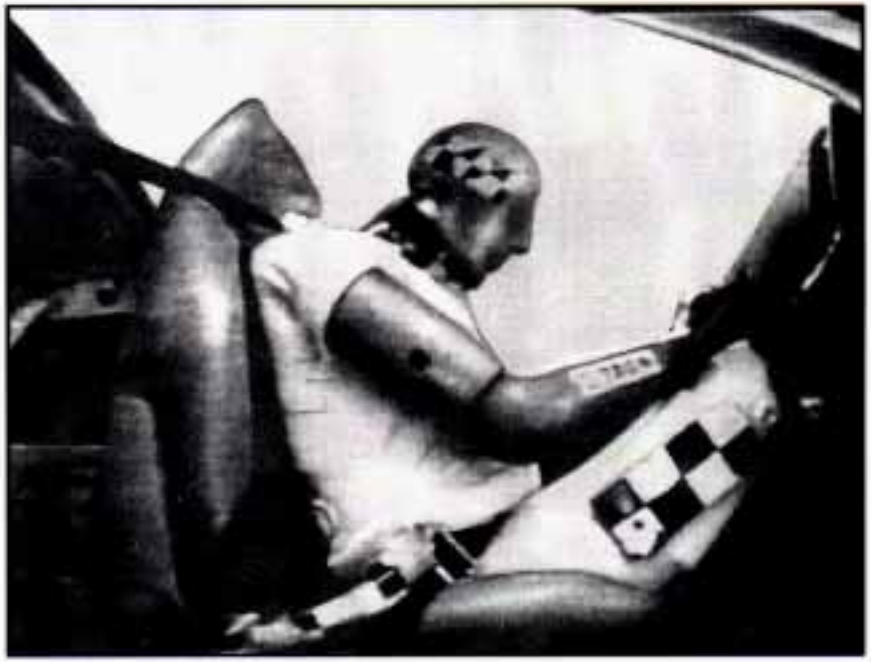
Get it up to speed. Then stop the vehicle. The rider doesn't stop.

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 Catera, 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. Here's how to wear it 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.

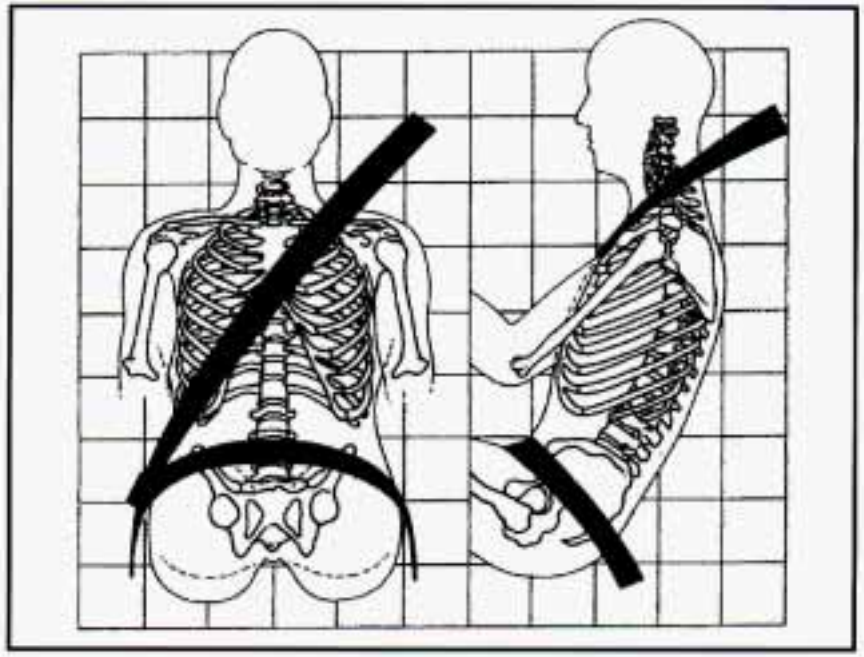
3. Pick up the latch plate and pull the belt across you. Don't let it get twisted.

   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.

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.



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

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, or if you pull the belt very quickly out of the retractor.

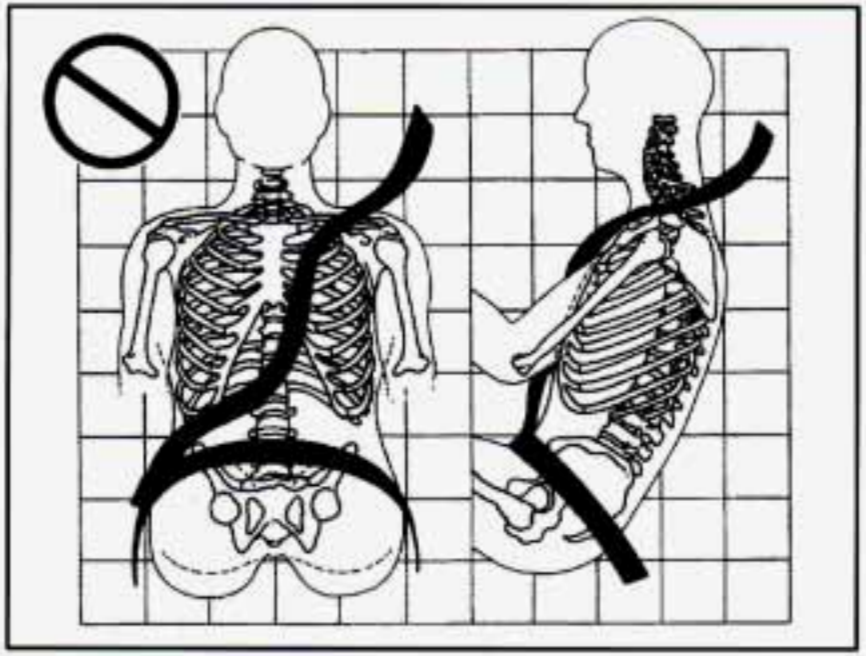
Shoulder Belt Height Adjuster

Before you begin to drive, move the shoulder belt adjuster to the height that is right for you.

To move it down, grasp the sides, push in and move the height adjuster to the desired position. You can move the adjuster up just by pushing up on the bottom of the height adjuster. After you move the adjuster to where you want it, try to move it down without pushing in to make sure it has locked into position.

Adjust the height so that the shoulder portion of the belt is centered on your shoulder. The belt should be away from your face and neck, but not falling off your shoulder.

Q: **What's wrong with this?**

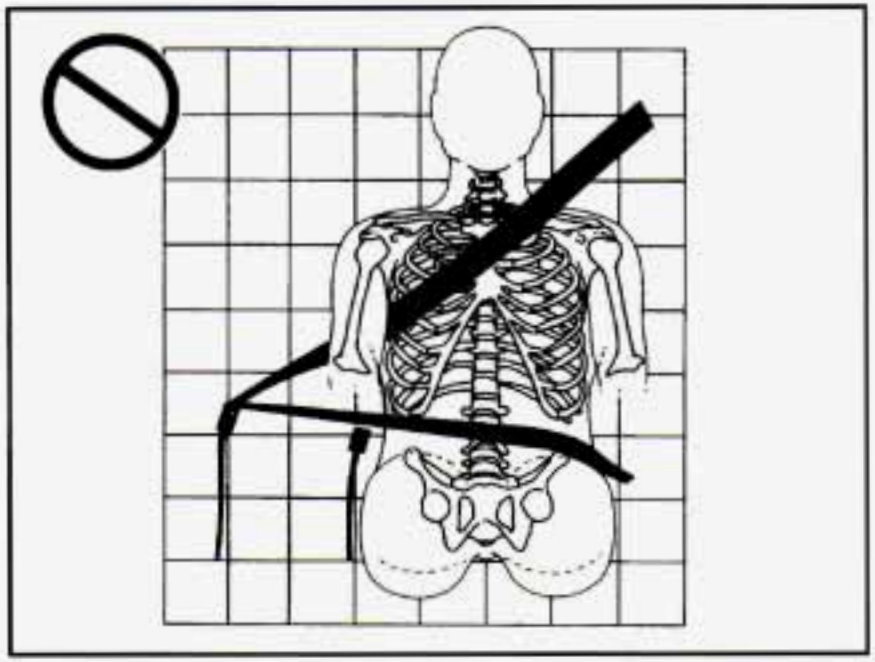


A: The shoulder belt is too loose. It won't give nearly as much protection this way.

⚠ 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.

Q: **What's wrong with this?**

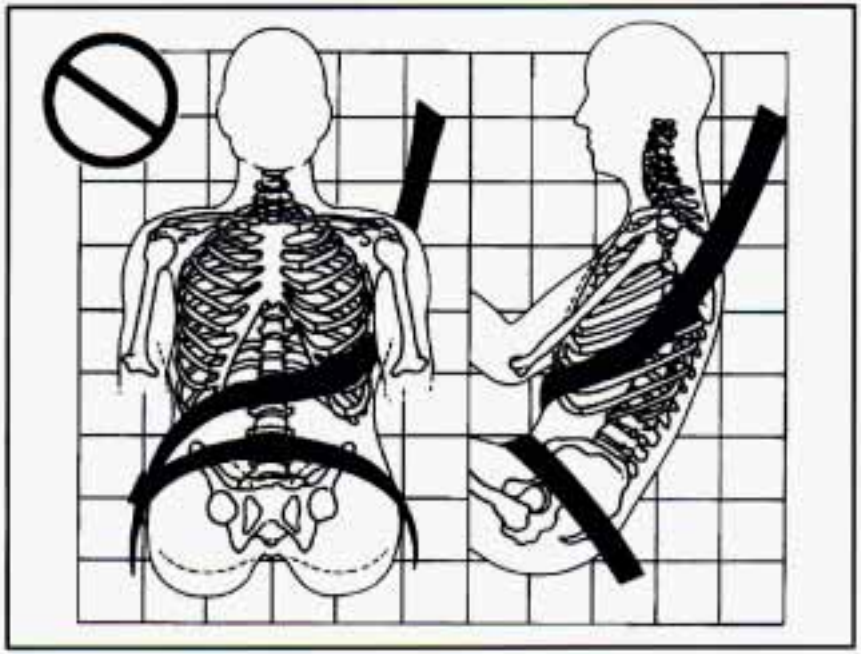


A: The belt is buckled in the wrong place.

⚠ 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?**

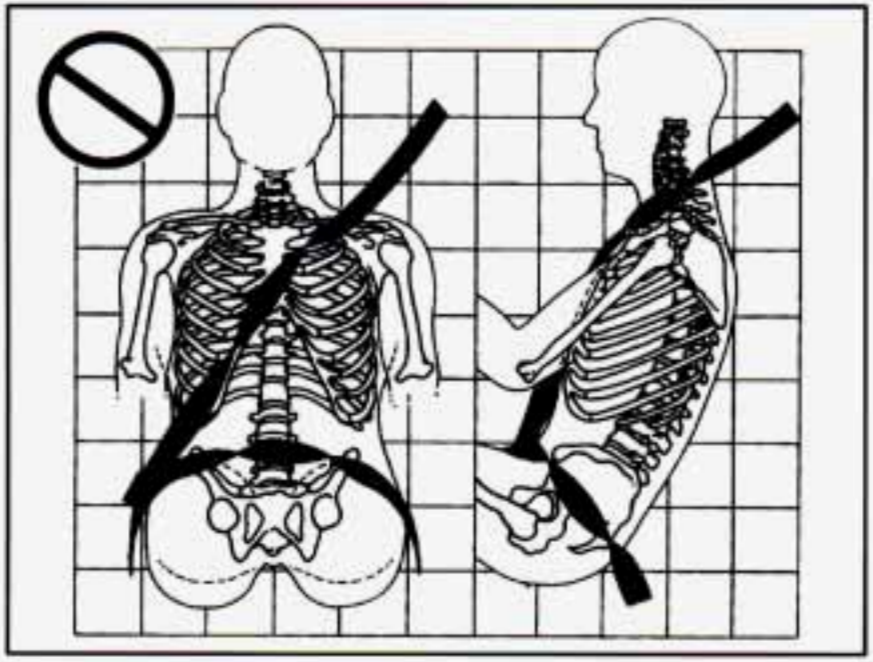


A: The shoulder belt is worn under the arm. It should be worn over the shoulder at all times.

⚠ 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

The right front passenger's safety belt works the same way as the driver's safety belt. See "Driver Position," earlier in this section.

When the shoulder belt is pulled out all the way, it will lock. If it does, let it go back all the way and start again.

Air Bag Systems

This part explains the frontal and side impact air bag systems.

Your Catera has air bags -- a frontal air bag for the driver and another frontal air bag for the right front passenger. Your vehicle may also have side impact air bags -- a side impact air bag for the driver and another side impact air bag for the right front passenger.

If your vehicle has side impact air bags, it will say AIR BAG on the air bag covering on the side of the driver's and right front passenger's seatback closest to the door.

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

⚠ CAUTION:

You can be severely injured or killed in a crash if you aren't wearing your safety belt -- even if you have an air bag. 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 are designed to work with safety belts but don't replace them.

CAUTION: (Continued)

CAUTION: (Continued)

Frontal air bags for the driver and right front passenger 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. The side impact air bags for the driver and right front passenger are designed to inflate only in moderate to severe crashes where something hits the side of your vehicle. They aren't designed to inflate in frontal, in rollover or in rear crashes. Everyone in your vehicle should wear a safety belt properly -- whether or not there's an air bag for that person.

⚠ CAUTION:

Both frontal and side impact air bags inflate with great force, faster than the blink of an eye. If you're too close to an inflating air bag, it could seriously injure you. Safety belts help keep you in position for air bag inflation before and during a crash. Always wear your safety belt, even with air bags. The driver should sit as far back as possible while still maintaining control of the vehicle. Front occupants should not lean on or sleep against the door.

⚠ CAUTION:

An inflating air bag can seriously injure small children. Always secure children properly in your vehicle. To read how, see the part of this manual called "Children" and the caution label on the right front passenger's safety belt.

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

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 Systems Work

Where are the air bags?

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

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

The driver's side impact air bag is in the side of the driver's seatback closest to the door.

The right front passenger's side impact air bag is in the side of the passenger's seatback closest to the door.

⚠ 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 and don't let seat covers block the inflation path of a side impact air bag.

When should an air bag inflate?

The driver's and right front passenger's frontal air bags are designed to inflate in moderate to severe frontal or near-frontal crashes. The frontal air bags are designed to 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 9 to 15 mph (14 to 24 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 driver's and right front passenger's frontal air bags are not designed to inflate in rollovers, side impacts, or rear impacts, because inflation would not help the occupant.

The driver's and right front passenger's side impact air bags are designed to inflate in moderate to severe side crashes involving a front door. A side impact air bag will inflate if the crash severity is above the system's designed "threshold level." The threshold level can vary with specific vehicle design. Side impact air bags are not designed to inflate in frontal or near-frontal impacts, rollovers or rear impacts, because inflation would not help the occupant. A side impact air bag will only deploy on the side of the vehicle that is struck.

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 and near-frontal impacts. For side impact air bags, inflation is determined by the location of the impact and how quickly the side of the vehicle deforms.

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. For both frontal and side impact air bags, 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, instrument panel and the side of the front seatbacks closest to the door.

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. In moderate to severe side collisions, even belted occupants can contact the inside of the vehicle. The air bag supplements 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 the frontal 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 the air bag. Side impact air bags would not help you in many types of collisions, including frontal or near frontal collisions, rollovers, and rear 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 for the driver's and right front passenger's frontal air bags, and only in moderate to severe side collisions for the driver's and right front passenger's side impact air bags.

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, the instrument panel for the right front passenger's bag, the side of the seatback closest to the door for the driver and right front passenger's side impact air bags -- 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 the vents in the deflated air bags. Air bag inflation doesn't prevent the driver from seeing or 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 a 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 an air bag inflates, 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 frontal 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 systems. Improper service can mean that an 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, or the air bag covering on the driver's and right front passenger's seatback, the bag may not work properly. You may have to replace the air bag module in the steering wheel, both the air bag module and the instrument panel for the right front passenger's air bag, or both the air bag module and seatback for the driver's and right front passenger's side impact air bag. Do not open or break the air bag coverings.

Servicing Your Air Bag-Equipped Cadillac

Air bags affect how your Catera should be serviced. There are parts of the air bag systems in several places around your vehicle. Your Catera dealer and the Catera Service Manual have information about servicing your vehicle and the air bag systems. To purchase a service manual, see "Service and Owner Publications" in the Index.

⚠ CAUTION:

For up to 10 seconds 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 wires wrapped with yellow felt, wires wrapped with yellow tape or yellow connectors. They are probably part of the air bag systems. Be sure to follow proper service procedures, and make sure the person performing work for you is qualified to do so.

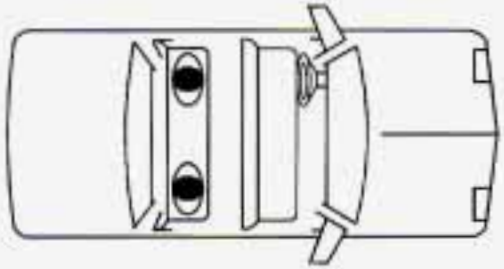
The air bag systems do not need regular maintenance.

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.

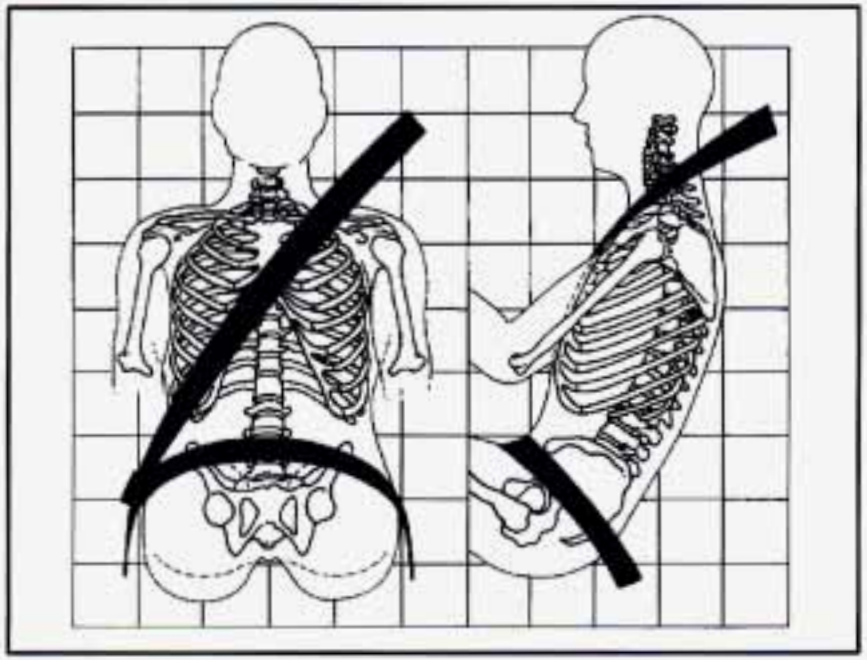
   The shoulder belt may lock if you pull the belt across you very quickly. If this happens, let the belt go back slightly to unlock it. Then pull the belt across you more slowly.

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

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

When the shoulder belt is pulled out all the way, it will lock. If it does, let it go back all the way and start again. 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.

Each position next to the windows has a shoulder belt height adjuster. Move the shoulder belt adjuster to the height that is right for you.

Press the release button and move the height adjuster to the desired position. After you move the adjuster to where you want it, try to move it down without pressing the release button to make sure it has locked into position.

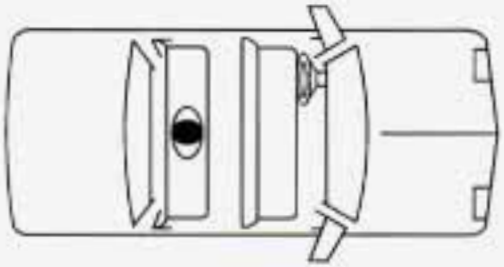
Adjust the height so that the shoulder portion of the belt is centered on your shoulder. The belt should be away from your face and neck, but not falling off your shoulder.

⚠ 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.

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. 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:

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.

⚠ 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

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.

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:

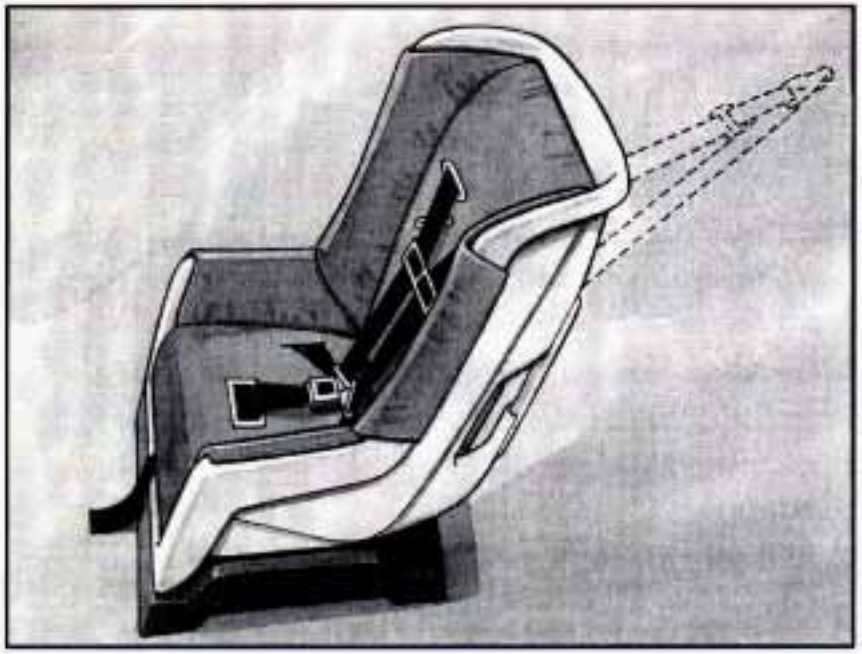
A child in a rear-facing child restraint can be seriously injured if the right front passenger's air bag inflates. This is because the back of a rear-facing child restraint would be very close to the inflating air bag. Always secure a rear-facing child restraint in the rear seat.

You may, however, secure a forward-facing child restraint in the right front seat. Before you secure a forward-facing child restraint, always move the front passenger seat as far back as it will go. Or, secure the child restraint in the 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

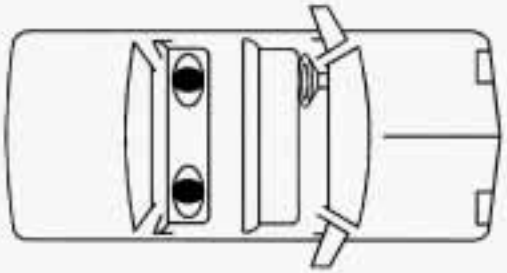


If your child restraint has a top strap, it should be anchored. If you need to have an anchor installed, you can ask your Catera dealer to put it in for you. If you want to install an anchor yourself, your dealer can tell you how to do it.

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

If your child restraint has a top strap, 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. In Canada, this work will be done for you free of charge. Or, you may install the anchor yourself using the instructions provided in the kit.

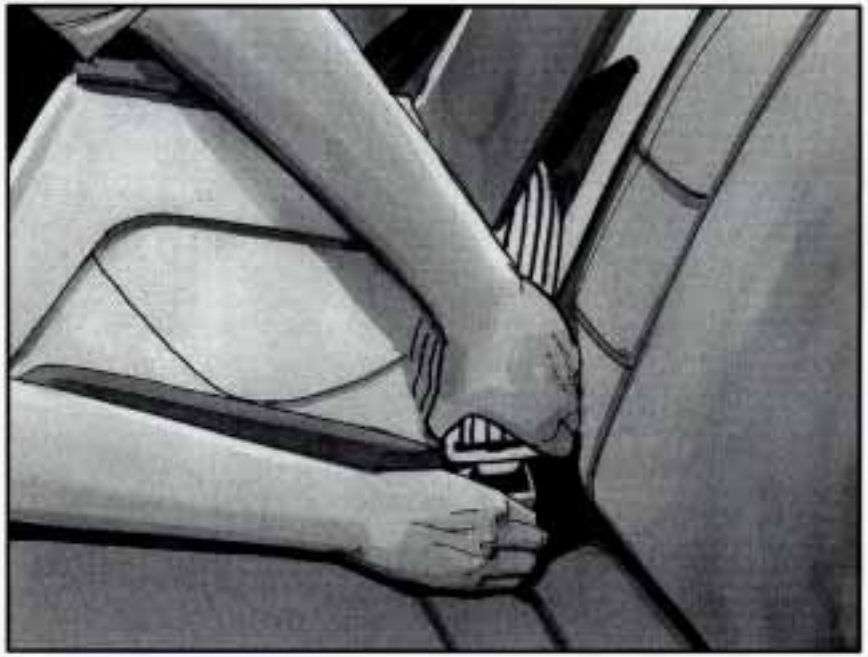
Securing a Child Restraint in a Rear Outside Seat Position



You'll be using the lap-shoulder belt. See the earlier part about the top strap if the child restraint has one.

1. Put the restraint on the seat. Follow the instructions for the child restraint.
2. Secure the child in the child restraint as the instructions say.
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.

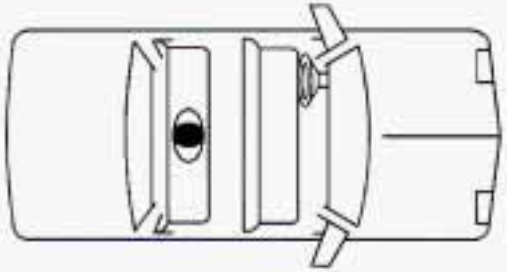
5. Pull the rest of the shoulder belt all the way out of the retractor to set the lock.

6. To tighten the belt, feed the shoulder belt back into the retractor while you push down on the child restraint.

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.

Securing a Child Restraint in the Center Rear Seat Position



You'll be using the lap belt.

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. Follow the instructions for the child restraint.
3. Secure the child in the child restraint as the instructions say.
4. Run the vehicle's safety belt through or around the restraint. The child restraint instructions will show you how.

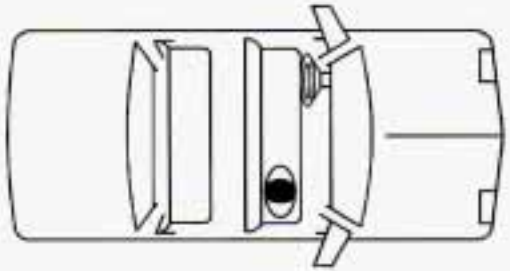
5. Buckle the belt. Make sure the release button is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

6. To tighten the belt, pull its free end while you push down on the child restraint.

7. Push and pull the child restraint in different directions to be sure it is secure. If it isn't, secure the restraint in a different place in the vehicle and contact the child restraint maker for their advice about how to attach the child restraint properly.

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 if the right front passenger's air bag inflates. This is because the back of a rear-facing child restraint would be very close to the inflating air bag. Always secure a rear-facing child restraint in the rear seat.

You'll be using the lap-shoulder belt. See the earlier part about the top strap if the child restraint has one.

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. Follow the instructions for the child restraint.
3. Secure the child in the child restraint as the instructions say.
4. 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.

5. 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.

6. Pull the rest of the shoulder belt all the way out of the retractor to set the lock.

7. To tighten the belt, feed the shoulder belt back into the retractor while you push down on the child restraint.
8. 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 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.

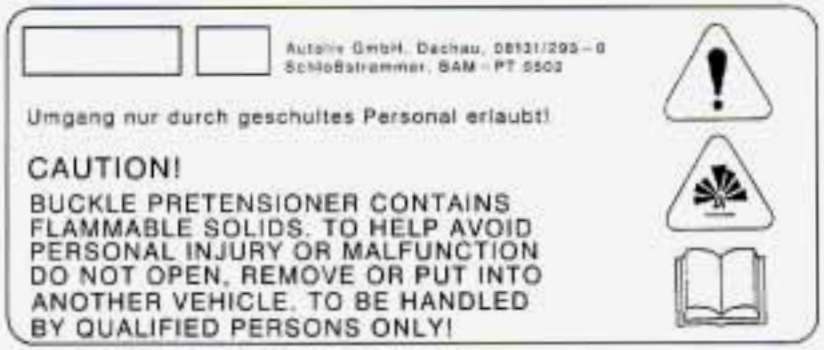
Torn or frayed safety belts may not protect you in a crash. They can rip apart under impact forces. If a belt is torn or frayed, get a new one right away.

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 yellow label on the driver's or the right front passenger's safety belt buckle, that means to replace the buckle assembly. Be sure to do so. Then the new buckle assembly will be there to help protect you in a collision.

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 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.

NOTES

Section 2 Features and Controls

Here you can learn about the many standard and optional features on your Catera, 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
2-3 Door Locks
2-6 Remote Keyless Entry System (RKE)
2-10 Trunk
2-11 Theft
2-12 Theft–Deterrent (System)
2-13 Immobilizer
2-14 New Vehicle "Break-In"
2-15 Ignition Positions
2-16 Starting Your Engine
2-17 Engine Coolant Heater
2-19 Automatic Transmission Operation
2-24 Parking Brake
2-25 Shifting Into PARK (P)
2-27 Shifting Out of PARK (P)
2-28 Parking Over Things That Burn
2-29 Engine Exhaust
2-29 Running Your Engine While You're Parked
2-30 Windows
2-32 Tilt Wheel
2-32 Turn Signal/Multifunction Lever
2-39 Lamps
2-46 Mirrors
2-48 Storage Compartments
2-50 Ashtrays and Cigarette Lighter
2-51 Cellular Telephone
2-52 Sunroof
2-55 Universal Transmitter
2-58 Instrument Panel
2-61 Warning Lights, Gages and Indicators

⚠ CAUTION:

Leaving young 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 young children.

One key is used for the ignition, the doors and all other locks. (Note that there is no lock cylinder for the trunk or the passenger's door.)

If you've lost your key or need to have a new one made, you will have to contact your Catera dealer for the correct key code.

NOTICE:

Your Catera has a number of new features that can help prevent theft. You can have a lot of trouble getting into your vehicle if you ever lock your keys inside and you may have to damage your vehicle to get in. 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.

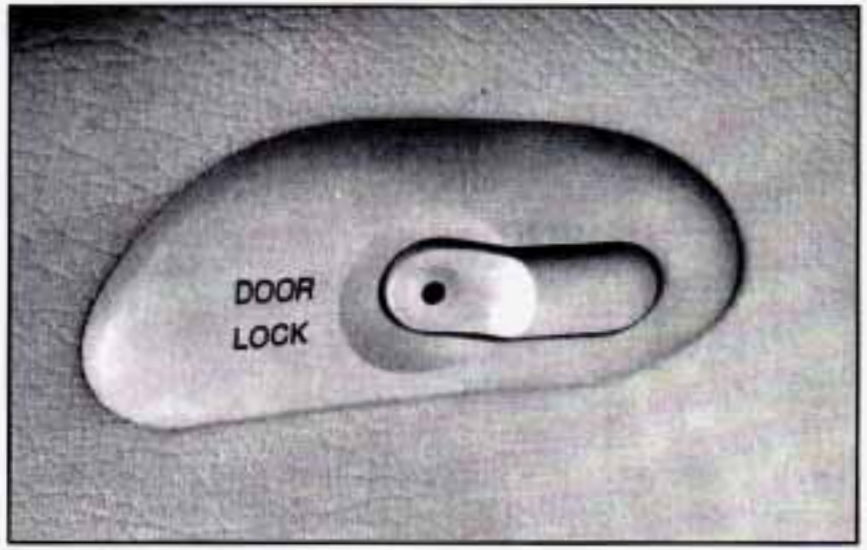
There are several ways to lock and unlock your vehicle. From the outside, use your key or the Remote Keyless Entry (RKE) transmitter. This will avoid setting off the optional theft deterrent alarm.

Slide the lock lever down to lock the door from the inside. To unlock the door, slide the lock lever up.

Central Door Unlocking System

When unlocking the driver's door, you can also unlock the other doors, including the fuel door, by holding the key in a turned position for several seconds (turn the key counterclockwise). Pressing the unlock button on the RKE transmitter twice in a row will also open the other doors.

Power Door Locks



Press the power door lock switch to lock or unlock all of the doors at once.

Automatic Door Locks

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. The doors will unlock every time you stop the vehicle and move the shift lever into PARK (P). If someone needs to get out while your vehicle is not in PARK (P), have that person use the manual or power lock. When the door is closed again, it will not lock automatically. Use the manual or power lock to lock the door again.

Programmable Automatic Door Locks

Each RKE transmitter supplied with your vehicle can be programmed to suit each driver's door lock preference. The two RKE transmitters are identified on the back with either a "1" or a "2", which allows either driver to program their own door locks.

With RKE, the automatic door locks can be programmed to lock when the shift lever is moved out of PARK (P) and unlock when the shift lever is moved back into PARK (P). The door locks can also be programmed to remain locked whether or not the shift lever is returned to the PARK (P) position.

With the ignition on, the transmission in PARK (P) and the brake pedal pressed in, you are now ready to begin programming.

To enable the doors to lock when shifting out of PARK (P) and to unlock when shifting back into PARK (P), press the lock button on the RKE transmitter four times within five seconds.

To disable the door unlock feature when shifting back into PARK (P), press the unlock button on the RKE transmitter four times within five seconds. The doors will lock when the shift lever is moved out of PARK (P) and will remain locked when the shift lever is moved back into PARK (P).

Keep in mind that pressing the lock or unlock buttons on the RKE transmitter several times in a row (about 12 times) may cause the vehicle's system to lock you out. If this happens, wait about 30 seconds before trying to enter your vehicle again.

Rear Door Security Lock

Your Catera is equipped with rear door security locks that help prevent passengers from opening the rear door of your vehicle from the inside. To use this lock:

1. Move the lever on the door all the way down into the ENGAGED position.
2. Close the door.

3. Do the same thing to the other rear door lock.

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

When you want to open a rear door when the security lock is on:

1. Unlock the door from the inside.
2. Then open the door from the outside.

To cancel the rear door lock:

1. Unlock the door from the inside and open the door from the outside.
2. Move the lever all the way up.
3. Do the same for the other rear door.

The rear door locks will now work normally.

Anti-Lockout Feature

Leaving your key in any ignition position with any door open will disable the use of the power door lock switches. If you close the door, you can lock it using the RKE system. It is always recommended that you remove the ignition key when locking your vehicle.

Note that the anti-lockout feature can be overridden by holding the power door lock switch for three seconds or longer.

Leaving Your Vehicle

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

Remote Keyless Entry System (RKE)

With this feature, you can lock and unlock the doors, open the trunk, unlock the fuel door and turn on your vehicle's interior lamps using the remote keyless entry transmitter supplied with your vehicle.

Your remote keyless entry system 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.

The range of this system is about 10 feet (3 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 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 Catera dealer or a qualified technician for service.

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

Operation

When you press this symbol to unlock the driver's door, the parking lamps on your vehicle will blink twice. Pressing it again within five seconds will unlock the other doors. Pressing this button will also disarm the optional theft-deterrent system and turn on the interior lamps (for approximately 20 seconds).

When you press this symbol to lock the doors (including the fuel door), the parking lamps will blink once. This also arms the optional theft-deterrent system.

Press this symbol to open the trunk.

Press this button to unlock the fuel door.

Note that pressing the transmitter buttons numerous times (approximately 500 times) out of the vehicle's operating range may cause the transmitter not to work. Replacing the battery and pressing the transmitter buttons 10 or more times out of range will also cause the transmitter not to work. To reset the transmitter, you must be within the vehicle's operating range. Press and hold the trunk button and, within one second, press the lock button. Continue to hold both buttons for approximately three seconds. See your Catera dealer for service if your transmitter still doesn't work properly.

Matching Transmitter(s) To Your Vehicle

Each remote keyless entry 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. Once your dealer has coded the new transmitter, the lost transmitter will not unlock your vehicle. Each vehicle can have only two transmitters matched to it.

Battery Replacement

Under normal use, the battery in your remote keyless entry transmitter should last about four 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.

1. Use a coin to pry open the transmitter.

2. Remove the battery and replace it with a CR2032 battery. Using the wrong size battery can damage the transmitter. Make sure the battery is positioned with the "plus" (+) facing down.
3. Align the internal pieces of the transmitter, including the cover. Snap together to reinstall.

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 windows are shut.**
- **Turn the fan on your heating or cooling system to its highest speed with the setting on AUTO and the temperature between 65°F (18°C) and 85°F (29°C). 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 Release

To use this feature, your vehicle must be in PARK (P). Press the trunk release button located on the center console next to the radio to open the trunk.

You can also press the trunk button on the RKE transmitter to access the trunk compartment. Your Catera doesn't have a trunk key lock cylinder.

If your Catera loses power temporarily, you can manually open the trunk using the trunk release handle. The handle is located on the underside of the trunk lid on the driver's side.

To access, fold down the driver's side rear seat and reach through to the trunk compartment to find the release handle. For more information on how to fold the rear seats, see "Folding the Rear Seat" in the Index. Pulling the handle opens the trunk.

Theft

Vehicle theft is big business, especially in some cities. Although your Catera 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.

When you park your Catera and open the driver's door, 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 transmission. 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 key? What if you have to leave something valuable in your vehicle?

- Put your valuables in a storage area, like your trunk or glove box.
- Lock the glove box.

Theft-Deterrent System (Option)

SECURITY

If the ignition is off and any door is open, the SECURITY light will flash reminding you to activate the system.

1. Open the door.
2. Lock the door using the power door lock or the RKE transmitter. The SECURITY light should come on and stay on.
3. Close all the doors. The SECURITY light should go off within approximately 30 seconds.

The horn will sound and the lamps will flash for several minutes when the door or trunk is opened without the key or RKE transmitter. The horn also sounds if the locks are damaged.

Remember, the theft-deterrent system won't activate if you lock the doors with a key or use the manual door lock. It activates only if you use a power door lock switch or the RKE transmitter.

To avoid activating the alarm by accident:

- The vehicle should be locked with the key *after* the doors are closed if you don't want to activate the theft-deterrent system.
- Always unlock a door with a key or use the RKE transmitter. (Pressing the unlock button on the RKE transmitter disables the theft-deterrent system.) Unlocking a door any other way will activate the alarm. Cycling the ignition without disarming the theft-deterrent system will also activate the alarm.

If you activate the alarm by accident, unlock the driver's door with your key. You can also turn off the alarm by using the RKE transmitter. The alarm won't stop if you try to unlock a door in any other way.

Testing the Alarm

1. From inside the vehicle, roll down the window, then get out of the vehicle, keeping the door open.
2. From outside the vehicle, with the door open, lock the vehicle using the power door lock or the RKE transmitter and close the door. Wait 30 seconds.
3. Reach in and unlock the door using the manual lock and open the door. The horn will sound and the headlamps will flash.

If the alarm does not sound when it should, 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 fuse does not need to be replaced, you may need to have your Catera serviced.

To reduce the possibility of theft, always activate the optional theft-deterrent system when leaving your vehicle.

Immobilizer

Your vehicle is equipped with a passive theft-deterrent 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 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.

The system works when you turn the key to the RUN (II) position. The key uses a transponder that matches an immobilizer control unit in your vehicle. The correct key will start the vehicle.

When the system senses that someone is using the wrong key, it may start but it will not continue to run. If someone tries to start your vehicle again or uses another key during this time, the shutdown will start over again. This discourages someone from randomly trying different keys with different transponders in an attempt to make a match.

If the engine cannot be started, turn the key in the ignition to the RUN (II) position. Wait approximately two seconds; then start your vehicle again.

If the engine still won't start, try another key. You may also want to check the fuses (see "Fuses and Circuit Breakers" in the Index). If the engine doesn't start with the other key, your vehicle needs service. If your vehicle does start, the first key may be faulty. See your Catera dealer.

If you lose or damage a key or you cannot start the engine, see your Catera dealer. If a key is lost, bring all remaining keys to your dealer for re-programming. In an emergency, call the Cadillac Roadside Service Program at 1-800-882-1112.

New Vehicle "Break-In"

NOTICE:

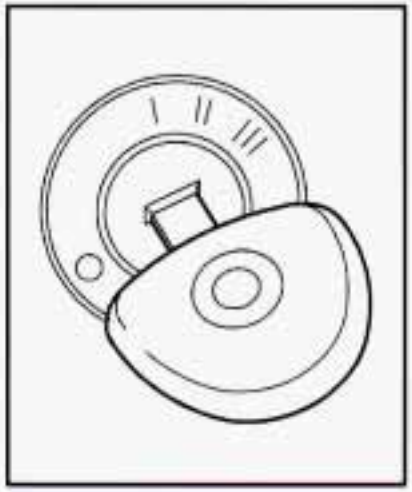
Your modern Catera doesn't need an elaborate "break-in." But it will perform better in the long run if you follow these guidelines:

- **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

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.



With the key in the ignition switch, you can turn the switch to four different positions.

LOCK (•): Before you put the key in, the ignition will be in the LOCK position. This is the only position in which you can remove the key. This position locks the ignition, steering wheel and transmission. It's a theft-deterrent feature.

Keep in mind that you may have to turn the steering wheel a little in order for the key to be removed or turned freely from the LOCK position -- this is normal.

OFF (I): This position lets you turn off the engine but still turn the steering wheel. It doesn't lock the steering wheel like LOCK. Use OFF if you must have your vehicle in motion while the engine is off (for example, if your vehicle is being pushed).

RUN (II): The ignition is on in this position. RUN is used for driving your vehicle.

START (III): This position starts the engine.

To lock the steering column, remove the key while in LOCK. Rotate the steering wheel until you hear a click.

Retained Accessory Power

The radio is the only accessory on your Catera that may be used for up to 10 minutes after the ignition is turned to OFF.

Power to the fuel door, trunk release and door locks is available at all times. The power window controls and the sunroof controls are active until a door is opened -- there is no time limit as long as the doors remain closed.

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 Catera is moving. If you do, you could damage the transmission. Shift to PARK (P) only when your vehicle is stopped.

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.

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.

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 Catera starts briefly but then stops again, do the same thing.

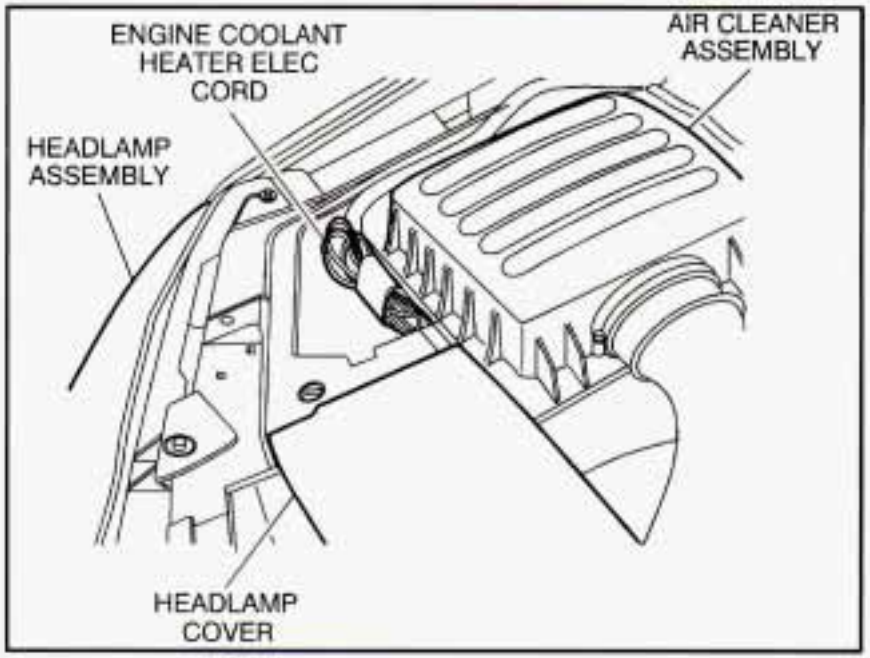
NOTICE:

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 Catera" in the Index.

Engine Coolant Heater (Option)

The electrical cord for the engine coolant heater is in front of the air cleaner filter and under the headlamp cover, on the passenger's side of the engine.



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 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 Catera dealer in the area where you'll be parking your vehicle. The dealer can give you the best advice for that particular area.

Automatic Transmission Operation

There are several different positions for the shift lever.

PARK (P): This locks the transmission drive shaft. It's the best position to use when you start the 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) range before starting the engine. Your Catera has a Brake-Transmission Shift Interlock (BTSI).

You have to fully apply the regular brakes *before* you can shift from PARK (P) when the ignition key is in RUN. 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. See "Shifting Out of PARK (P)" in this section.

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

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

NEUTRAL (N): The engine doesn't connect with the wheels when driving in NEUTRAL (N). Use NEUTRAL (N) to restart your vehicle when you're already moving or 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 the transmission caused by shifting out of PARK (P) or NEUTRAL (N) with the engine racing isn't covered by your warranty.

DRIVE (D): Use this for normal driving. If you need more power for passing, and you're:

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

The transmission will shift down to the next gear.

THIRD (3): Driving in THIRD (3) is not used for normal driving. It offers more power and lower fuel economy than DRIVE (D).

Here are some times you might choose THIRD (3) instead of DRIVE (D):

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

SECOND (2): Driving in SECOND (2) gives you more power. Use it on hills. It can help control your speed as you go down steep mountain roads, but then you would also want to use the brakes off and on.

FIRST (1): This 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 shift lever is put in FIRST (1), the transmission won't shift into first gear until the vehicle is going slowly enough.

NOTICE:

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

Also, if you stop when going uphill, don't hold your vehicle there with only the accelerator pedal. This could overheat and damage the transmission. Use the brakes to hold your vehicle in position on a hill.

Sport Mode Button

For a firmer shift and increased performance, you may choose the sport mode. This button lets you change from a normal driving mode to a sport driving mode. It is located on the shift lever handle.

Press the "S" button once to select the sport feature. Press it again to return to the normal driving mode.

When you start the engine, your vehicle will be in normal mode. For general driving conditions, use the normal mode. It will remain in normal unless you select the sport feature.

A telltale light on the instrument panel will come on when the sport mode is selected.

Third-Gear Start

Press this button to provide more traction when you are starting on ice or other slippery surfaces. It only operates when the shift lever is in DRIVE (D). The button is located next to the shift lever on the console.

The transmission will be in THIRD (3) when the vehicle begins to move. After starting in THIRD (3), the vehicle will upshift normally.

This feature is for improved traction only when the road surface is slippery and is not intended for continuous use or when the vehicle is stuck in sand, mud, ice, snow or gravel. Drive as usual for normal road conditions.

This feature automatically turns off when any of the following conditions occur:

- When the ignition is turned off.
- If the shift lever is placed in PARK (P), THIRD (3), SECOND (2) or FIRST (1).
- If you press and hold the accelerator pedal past its resistance point for more than two seconds.
- When speed falls below 25 mph (40 km/h).
- Once the vehicle reaches 67 mph (108 km/h).

To turn this feature off, press the button again. Whenever you start your vehicle, the transmission is in the normal mode.

Parking Brake

To set the parking brake, hold the regular brake pedal down with your foot and pull up on the parking brake lever. If the ignition is on, the brake system warning light will come on.

If you start to drive away with the parking brake set, the BRAKE warning light stays on. See "Brake System Warning Light" in the Index for more information.

To release the parking brake, hold the brake pedal down with your foot and pull the parking brake lever up until you can press the end release button. Hold the release button in as you move the brake lever all the way down.

NOTICE:

Driving with the parking brake on can cause the 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 a hill, see "Towing a Trailer" in the Index. This section 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.

Console Shift Lever

1. Hold the brake pedal down with your right foot.
2. Move the shift lever into PARK (P) like this:

3. Pull the button on the shift lever handle up and then push the shift lever all the way toward the front of your vehicle into PARK (P). Release the button.
4. With your right foot still holding the brake pedal down, set the parking brake.
5. Move the ignition key to LOCK.
6. Remove the ignition key and take it with you. If you can leave your vehicle with the 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 the 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 pulling it toward you. If you can, it means that 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 transmission into PARK (P) properly, the weight of the vehicle may put too much force on the parking pawl in the transmission. 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.

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 transmission, so you can pull the shift lever out of PARK (P).

Shifting Out of PARK (P)

Your Catera has a Brake-Transmission Shift Interlock (BTSI). You have to fully apply the regular brakes before you can shift from PARK (P) when the ignition is in RUN. See "Automatic Transmission" 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 want. If you ever hold the brake pedal down but still can't shift out of PARK (P), try this:

1. Turn the key to OFF. Open and close the driver's door to turn off the Retained Accessory Power (RAP) feature.
2. Apply and hold the brake until the end of Step 8.

3. With both hands, squeeze the base of the console shift lever together (as shown).
4. Pull the upper part of the base out first and then slide out the lower part of the base.
5. Lift the shift lever cover up to get it out of your way.

6. At the bottom of the shift lever, you will see a yellow tab. With one hand, push the tab to unlock the shift lever.
7. Shift to NEUTRAL (N) with the other hand.
8. Start the engine (if you can) and then shift to the drive gear you want.
9. Have the vehicle fixed 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 after you 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

The controls are located next to the console shift lever. Tap the controls forward or rearward to raise or lower the windows in increments. To express-open the window, press the control rearward for about one second and then release. If you want to stop the window as it is lowering, tap the control. Pressing the control forward for about one second and then releasing it will express-close the window.

When you stop your vehicle and turn the ignition key to LOCK, you can still use the power windows. The electrical power to operate the windows will not shut off until a door is opened -- there is no time limit to this feature. As soon as a door is opened, power window movement will stop immediately.

Programming the Power Windows

If the battery on your vehicle has been disconnected or is not working, you will need to reprogram each power window in order for the express-open and close features to work.

To program each window, press and hold the power window control until the window has fully opened. Continue holding the control down for approximately five more seconds after the window is completely down. The window is now programmed. Repeat this process for each window.

Anti-Pinch Feature

If a hand, a head or another object is in the way of the power window express-closing, the window will immediately stop at the obstruction and express-open to a preset factory position.

Note that pressing and holding the power window control button will override the anti-pinch feature.

Rear Window Lockout

Pressing this button rearward will disable the rear passenger window controls. This is a useful feature if you have children as passengers. Press the button forward to allow your passengers to reuse their window controls.

Horn

The horn can be sounded by pressing either horn symbol on the steering wheel. The symbols are located at about the 9 and 3 o'clock positions.

Tilt Wheel

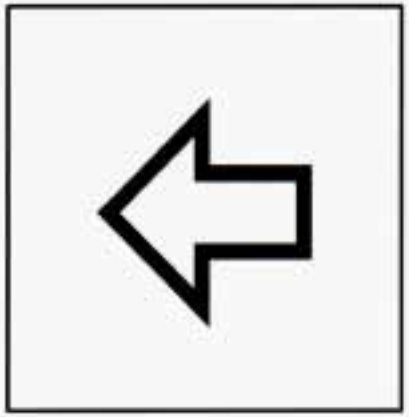
Tilt steering allows you to adjust the steering wheel before you drive. Raising the steering wheel to the highest level gives your legs more room when you enter and exit your vehicle.

Hold the steering wheel and pull the lever toward you to tilt the wheel. Adjust the steering wheel to a comfortable position and then release the lever to lock the wheel in place.

Turn Signal/Multifunction Lever

Turn and Lane Change Signals

To signal a turn, move the lever all the way up or down. The lever returns automatically when the turn is complete.



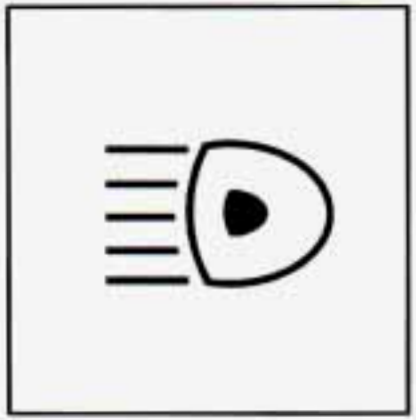
This arrow on the instrument panel will flash in the direction of the turn or lane change.

Raise or lower the lever until the arrow starts to flash to signal a lane change. Hold it there until the lane change is complete. The lever returns when it's released.

Arrows that flash rapidly when signaling for a turn or lane change may be caused by a front burned-out signal bulb (this does not occur with a rear burned-out bulb). Other drivers won't see the turn signal. Replace burned-out bulbs to help avoid possible accidents. Check the fuse (see "Fuses and Circuit Breakers" in the Index) and for burned-out bulbs if the arrow fails to work when signaling a turn.

Headlamp High/Low Changer

With the twilight sentinel on or with the lamp control dial turned to the headlamp position, push the turn signal lever on the driver's side of the steering wheel away from you to turn on the high-beam headlamps.



This light on on the instrument panel will be on, indicating high-beam usage.

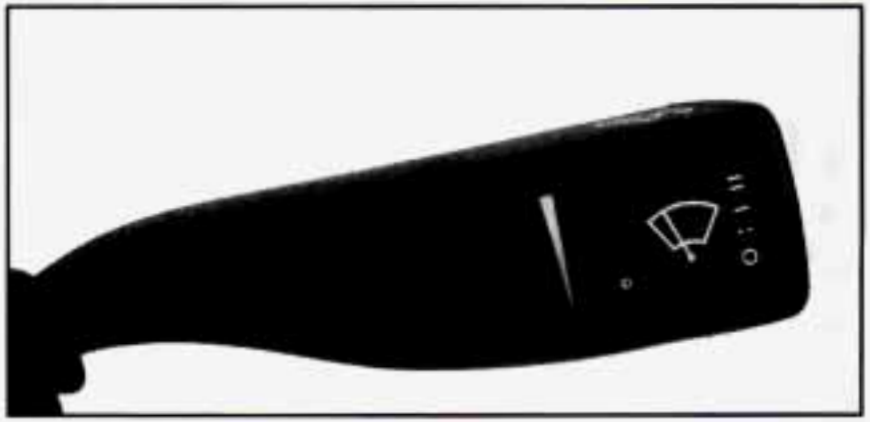
Pull the lever back to the original position to return to low-beam headlamps. For more information, see "Headlamps" later in this section.

Flash-To-Pass

This lets you use the high-beam headlamps to signal the driver in front of you that you want to pass.

Pull the turn signal lever toward you and release. The high-beam headlamps will briefly turn on and then off.

Windshield Wipers



WIPER: Move the lever on the passenger's side of the steering wheel up and down to control the wipers.

MIST: Tap the lever up and then release it for a single wipe cycle. For more cycles, pull and hold the lever.

= (HIGH): Move the lever all the way up for a fast wiper speed.

- (LOW): The third position up controls the low wiper speed.

-- (DELAY): This is for a controlled delay setting. Rotate the control dial on the lever to increase or decrease the delay between wipe cycles.

o (OFF): This position turns off the wipers.

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 the blades do become damaged, replace them with new blades.

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

Windshield Washer

⚠ CAUTION:

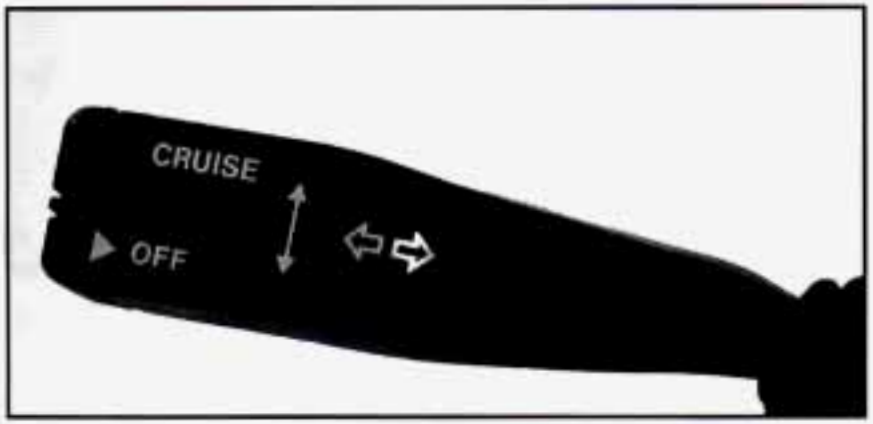
In freezing weather, don't use your washer until the windshield is warmed. Otherwise the washer fluid can form ice on the windshield, blocking your vision.

Pull and hold the washer lever to wash the windshield. Release the lever when you have enough fluid. The wipers will clear the windshield and either stop or return to your preset speed.

A telltale light on the instrument panel will be displayed when the washer fluid reaches a low level. See "Low Washer Fluid Warning Light" in the Index for more information.

Driving without washer fluid can be dangerous. A bad mud splash can block your vision and you could hit another vehicle or go off the road. Check the washer fluid level often.

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 can help on long trips. Cruise control does not work at speeds below about 25 mph (40 km/h).

Cruise control shuts off when you apply the brakes or when the OFF button at the end of the cruise lever is pressed.

⚠ 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

1. Accelerate to the speed you want.

2. Press the SET/ACCEL button at the end of the lever and release it.
3. Remove your foot from the accelerator pedal.

Resuming a Set Speed

Setting the cruise control at a desired speed and then applying the brake or pressing the OFF button at the end of the cruise lever will end the cruise function. Once you're going about 25 mph (40 km/h) or more, you can press the RESUME/DECEL button for about half a second to reset. This returns you to your desired preset speed.

Remember, if you hold the SET/ACCEL button in longer than half a second, the vehicle will accelerate until you release the button or apply the brake. You could be startled and even lose control. So unless you want to go faster, don't hold the button in.

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 SET/ACCEL button at the end of the lever and then release the button and the accelerator pedal. You'll now cruise at a higher speed.
- Press the SET/ACCEL button until the desired speed is reached. The new speed is maintained when the button is released. (To increase your speed in very small amounts, tap the SET/ACCEL button repeatedly. 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/ACCEL button.

Reducing Speed While Using Cruise Control

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

- Press the RESUME/DECEL button at the end of the lever until you reach a desired lower speed, then release it.
- To slow down in very small amounts, tap the RESUME/DECEL button repeatedly. 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 the 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 Controls

There are two ways to end cruise control:

- Step lightly on the brake pedal.
- Press the OFF button at the end of the cruise lever.

Erasing Speed Memory

The cruise control set speed memory is erased only when you turn off the ignition. (Keep in mind that the set speed memory is not erased when you press the OFF button at the end of the cruise lever.)

Exterior Lamps

These controls on the left side of the instrument panel operate the following lamp systems:

☼ Lamp control dial (operates all lamps except twilight sentinel, fog lamps and brightness control). Pull this dial toward you to turn on the interior lamps and push the dial back in to turn the lamps off.

Parking lamps, front and rear sidemarker lamps, taillamps, license plate lamps, ashtray lamps, backlighting to the radio controls and instrument panel lights.

Headlamps.

Fog lamps.

TWILIGHT Twilight sentinel.

OFF Turns the twilight sentinel system off.

Instrument panel brightness control.

Turn the lamp control dial clockwise to the first position to turn on the parking lamps, front and rear sidemarker lamps, taillamps, license plate lamps, ashtray lamps, instrument panel lights and backlighting to the center console controls.

Rotate the lamp control dial counterclockwise to turn the lamps off.

Headlamps

Rotate the lamp control dial clockwise to turn on the low-beam headlamps.

To turn on the high-beam headlamps, the low-beam headlamps must already be on. Push the turn signal lever on the left side of the steering wheel away from you to engage the high-beam headlamps. Pull the lever toward you to return to the low-beam headlamps. For more information, see "Headlamp High/Low Changer" earlier in this section.

Rotate the lamp control dial counterclockwise to turn the headlamps off.

Note that if the headlamps are activated while driving and then you turn your vehicle's ignition off while the lamp dial is still turned on, the headlamps will turn off. Turn the lamp control dial counterclockwise to turn the headlamps off and to stop the reminder chime from sounding. (If you want the headlamps to remain on, you must manually turn the lamp control dial off and then back on to the headlamp position. The headlamps will stay on until manually turned off again.)

Wiper Activated Headlamps

This feature activates the low-beam headlamps, parking lamps, sidemarker lamps and taillamps after the windshield wipers have been in use for about 20 seconds.

The wiper activated headlamps light the way in poor weather and also make your vehicle more visible to other drivers. If the wipers are on and the ignition switch is turned off, the headlamps will immediately turn off. The headlamps will also deactivate if the windshield wipers have been turned off for about 20 seconds.

Lamps On Reminder

You will hear a warning buzzer if you open the door while leaving the lamps on, if the manual headlamp control is activated. An exception to this is when you're using the twilight sentinel.

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.

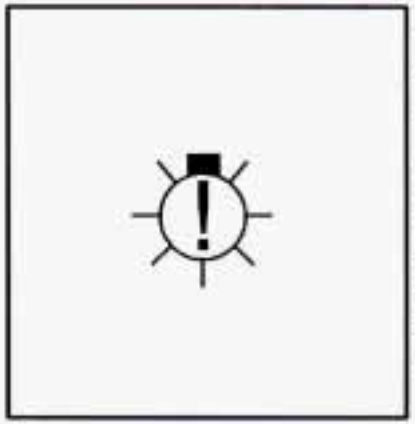
The DRL system will make the high-beam headlamps come on at reduced brightness when:

- your vehicle's ignition is in RUN or START,
- the low-beam headlamps are off (the manual lamp switch is in the off or park lamp position) and
- your vehicle's transmission is shifted out of PARK (P).

When DRL are on, only the high-beam headlamps (at reduced brightness) will be on. No other exterior lamps such as the parking lamps, taillamps, etc. will be on when the DRL are being used. The instrument panel won't be lit up either.

When the twilight sentinel is on and it's dark enough outside, the high-beam headlamps (at reduced intensity) will change to low-beam headlamps. When it's bright enough outside, the regular lamps will go off, and the high-beam headlamps change to the reduced brightness of DRL.

To idle your vehicle with the headlamps off, turn off the twilight sentinel switch and shift the transmission into PARK (P). Placing your vehicle in PARK (P) disables the DRL. The DRL will stay off until you shift out of PARK (P).



If you're not in PARK (P) and the twilight sentinel system is turned off (and it's dark enough outside), the DRL will remain active and this light on the instrument panel will appear as a reminder that headlamps are required.

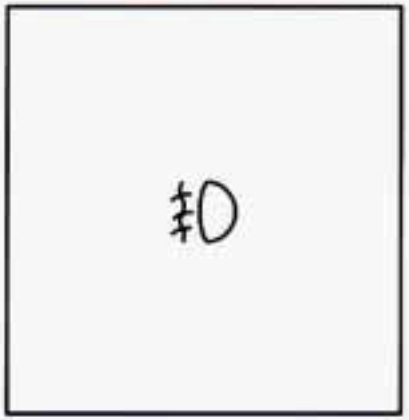
The following conditions will override the DRL:

- your vehicle's transmission is shifted back into PARK (P) with the ignition in RUN or START,
- the low-beam headlamps are turned on (using the manual lamp control dial),
- the wiper activated headlamps are in use (DRL will come back on 20 seconds after wipers have turned off),
- using the flash-to pass feature and
- turning on twilight sentinel.

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

Fog Lamps

Use the fog lamps for better vision in foggy or misty conditions. Press this button to turn the fog lamps on and press the button again to turn the lamps off. (The fog lamps only work when the parking lamps or the low-beam headlamps are on.)



This light on the instrument panel will come on when the fog lamp button is pressed.

If you switch on the high-beam headlamps, the fog lamps will turn off. They'll turn back on again when you switch to low-beam headlamps.

Cornering Lamps

The cornering lamps come on when the headlamps or parking lamps are on and you signal a turn. They provide more light for cornering.

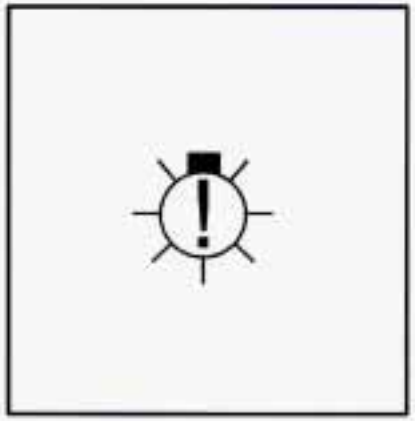
Twilight Sentinel

This feature is below the lamp control dial on the left side of the instrument panel. It automatically switches the parking lamps and low-beam headlamps on and off by sensing how dark it is outside.

To operate the twilight sentinel, the ignition must be in the RUN or START position and the twilight sentinel must be turned on by pressing the OFF button (an indicator light in the button will be off when the twilight sentinel is activated). If the system senses it is dark outside, the lamps will turn on. The lamps turn off when the system detects that it is bright outside.

If you rotate the control dial all the way up, the lamps will remain on for about three minutes after the ignition has been turned to the OFF or LOCK position. If you rotate the control dial all the way down, the lamps will go off quickly. You can adjust the delay time from a few seconds up to three minutes.

To turn twilight sentinel off, press the OFF button again. The indicator light in the button will be on. This lets the driver know that the system has been turned off. Twilight sentinel also turns off if the ignition is turned to OFF or to LOCK.



This light in the instrument panel will come on if the ignition is on and:

- the headlamps have not been manually turned on,
- the twilight sentinel senses it is dark outside,
- the twilight sentinel is off and
- the transmission is not in PARK (P).

Light Sensor

The light sensor for the twilight sentinel is located in the center of the front defogger grille. If you cover the sensor, it will read "dark" and the parking lamps and low-beam headlamps will come on.

Interior Lamps

Instrument Panel Brightness Control

This control dial is located to the right of the fog lamp button. As you rotate the control dial up, the instrument panel lights will brighten.

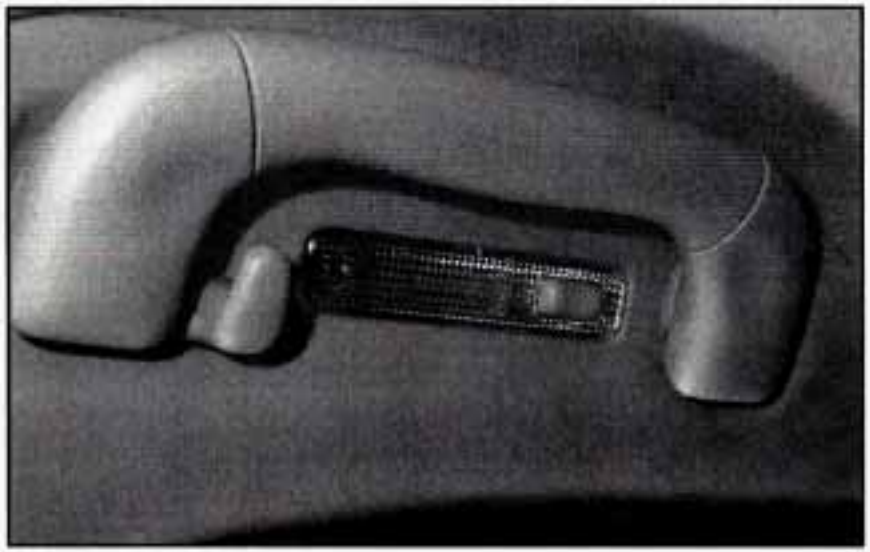
Illuminated Entry

This system turns on the courtesy lamps (dome lamps and door entry lamps) for about 20 seconds when any of the following occur:

- if you manually unlock your vehicle with the key,
- if any door is opened or closed or
- if you press the unlock button on the RKE transmitter.

Illuminated entry immediately ends when your vehicle's ignition is turned to the RUN or START position.

Reading Lamps

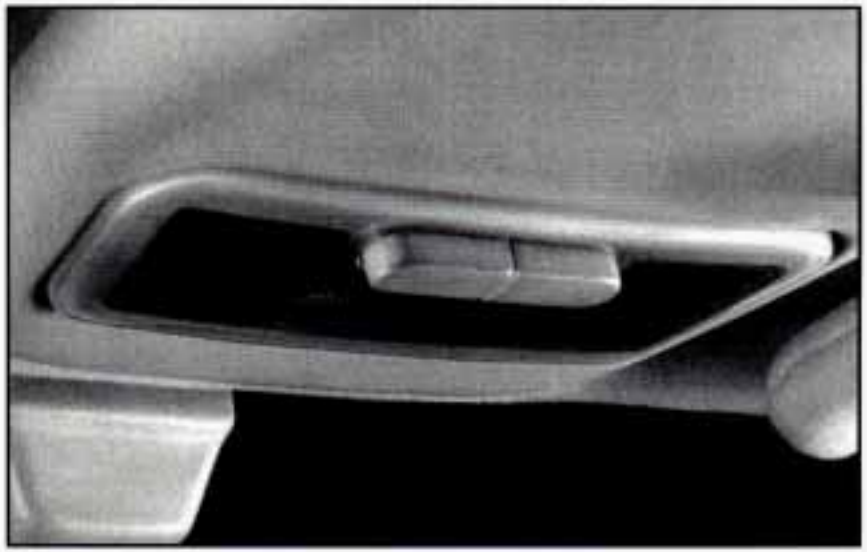


The reading lamps are located in the roof. These lamps and the interior courtesy lamps come on when any door is opened and it is dark outside.

Placing the button in the center position enables the lamps to come on when any door is opened. Pressing the button toward the rear of your vehicle disables the lamps when any door is opened. With the button set toward the front of the vehicle, the lamps will always be on.

If the reading lamps are left on, they automatically shut off 10 minutes after the ignition has been turned off.

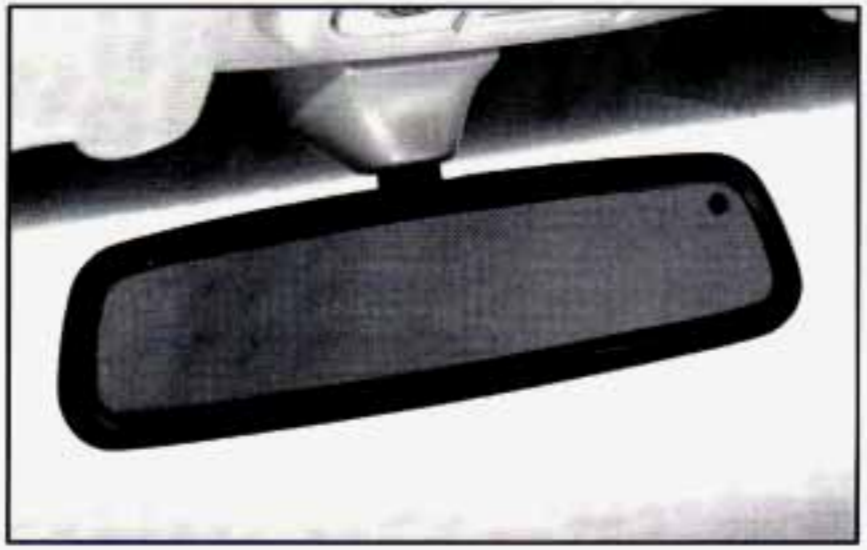
Map Lamps



This lamp assembly is located in the overhead console near the optional sunroof control. Press either button to turn the driver's or passenger's side lamp on and press the button again to turn the lamp off.

Mirrors

Electrochromic Day/Night Rearview Mirror



This mirror automatically changes to reduce glare from headlamps behind you. A photocell on the back of the mirror senses when it is becoming dark outside. Another photocell built into the mirror surface senses when headlamps are behind you.

At night, when the glare is too high, the mirror will gradually darken to reduce glare (this change may take a few seconds). The mirror will return to its clear daytime state when the glare is reduced.

Time Delay

This feature prevents rapid changing of the mirror from the night mode to the day mode as you drive under lights and through traffic.

Cleaning Photocells

Use a cotton swab and glass cleaner to clean the front and rear photocells that make the auto-dimming feature work.

Power Remote Control Mirror

Your Catera has an electric heated mirror control located on the driver's door armrest. The heat is activated when the rear window defogger is turned on. A small indicator light near the mirror control pad turns on when the mirror is being heated.

Move the rocker switch to the left to choose the driver's side mirror or move the switch to the right to select the passenger's side mirror. To adjust the mirror, push the control pad in the direction you want the mirror to go. Adjust each mirror so you can see the side of your vehicle and the area behind your vehicle.

Manual Folding Outside Rearview Mirrors

The driver's and passenger's outside mirrors move forward and rearward ("break-away") to help prevent injury and/or damage to your vehicle.

Also note that the small symbol appearing on each mirror lets you know that the mirrors are heated mirrors. If this symbol does not appear on the mirror, you do not have the heated mirror feature. To heat the mirrors, press the rear window defogger button.

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.

Storage Compartments

Glove Box

The glove box is located in front of the passenger's seat. To lock the glove box door, insert the key into the lock cylinder and turn it clockwise. Turn the key counterclockwise to unlock the door.

Note that the glove box is air conditioned. This helps to keep snack items cool while traveling. Use the slide control inside of the glove box to turn the air conditioning on and off. Moving the slide control over the small hole turns the air conditioning off and moving the control away from the hole turns the air conditioning on.

Map Pockets

The map/storage pockets are located on each front door as well as on the passenger's and driver's front seatbacks. Also located on the driver's door map pocket is a coin holder.

Center Console Storage Area

The front storage area comes with a small storage bin and a dual cupholder that unfolds for use.

Convenience Net

The convenience net is on the floor of the trunk. Put small loads, like grocery bags, under the net. It can help keep them from moving around during sharp turns or quick starts and stops.

The net is not for larger, heavier loads. Store them in the trunk as far forward as you can. When not using the net, hook it to the metal loops, securing it to the floor.

Ashtrays and Cigarette Lighter

The front ashtray is located below the radio. Press on the cover to access it. To clean the ashtray, press the black tab to the right of the tray to release it. Now pull up on the tray to remove and clean it.

To replace the ashtray, hold the black flap (cover) down and slide the ashtray toward the front of the vehicle. Using both hands, press the ashtray down to snap it into place.

To use the rear ashtray, lift the lid.

NOTICE:

Don't put papers or other flammable items into the ashtrays. Hot cigarettes or other smoking materials could ignite them, causing a damaging fire.

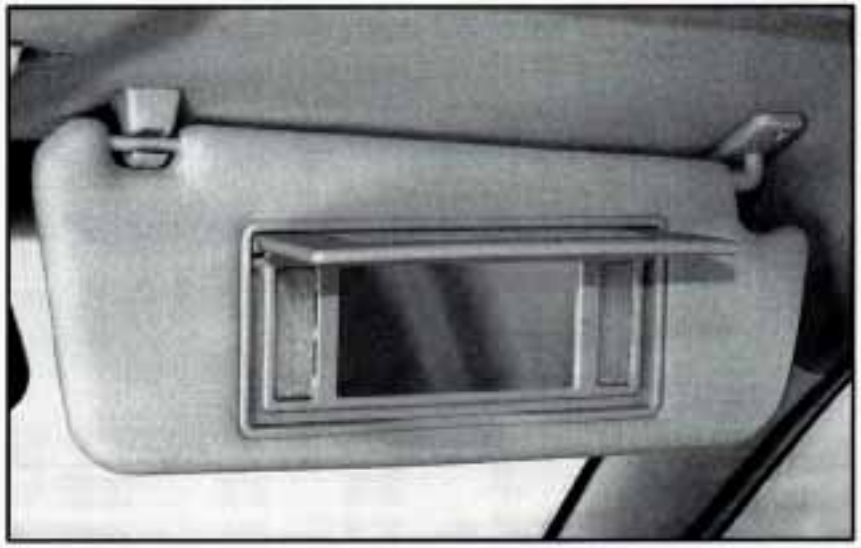
The cigarette lighter is located next to the ashtray. Press it all the way in and release. It will pop back by itself when it's ready to light. You also have a lighter on the back of the center console near the rear seat air outlet.

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

Illuminated Visor Vanity Mirror



Turn the sunshade down and lift the cover to see the mirror. Lighting is automatic.

Cellular Telephone (Option)

Your vehicle has been prewired for dealer installation of a Catera dual-mode (analog/digital) cellular portable telephone. Voice activation and hands-free operation are standard features. For more information, contact your Catera dealer. A user's guide is provided with the telephone.

Assist Handles

A handle above each door can be used when getting out of your vehicle.

Garment Hooks

For convenience, you will find garment hooks attached to each assist handle.

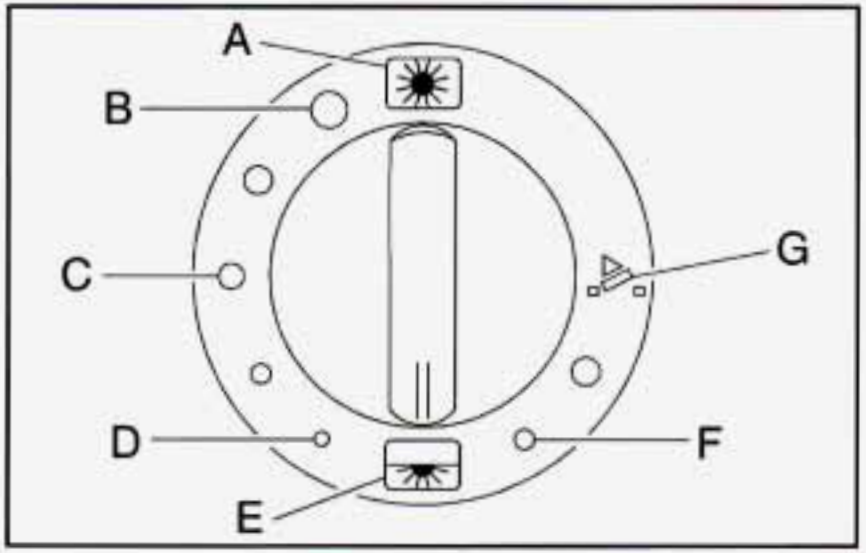
Floor Mats

Your Catera is equipped with rubber-backed front and rear floor mats. Keep them clean by vacuuming and using a spot cleaner, if necessary. Do not machine wash.

Sunroof (Option)

The express-open sunroof provides an airy, spacious feel to your vehicle's interior and can also increase ventilation. It includes a sliding glass panel and a sliding sunshade. Power is supplied to the sunroof when the ignition key is turned to the RUN position.

When you stop your vehicle and turn the ignition key to LOCK, you can still use the sunroof. The electrical power to operate the sunroof will not shut off until a door is opened -- there is no time limit to this feature. As soon as a door is opened, sunroof movement will stop immediately.



A. Fully Open

B. About 80% Open

C. About 50% Open

D. About 25% Open

E. Fully Closed

F. About 40% Tilted

G. Fully Tilted

Rotating the control dial to position A fully opens the glass panel and sunshade. The sunshade can also be opened by hand. If you want to stop the roof in a partially opened position, rotate the control dial to any position between A and E. The positions range from about 25% open to approximately 80% open. Rotate the dial to position E to fully close the glass panel. To close the sunshade, pull it forward.

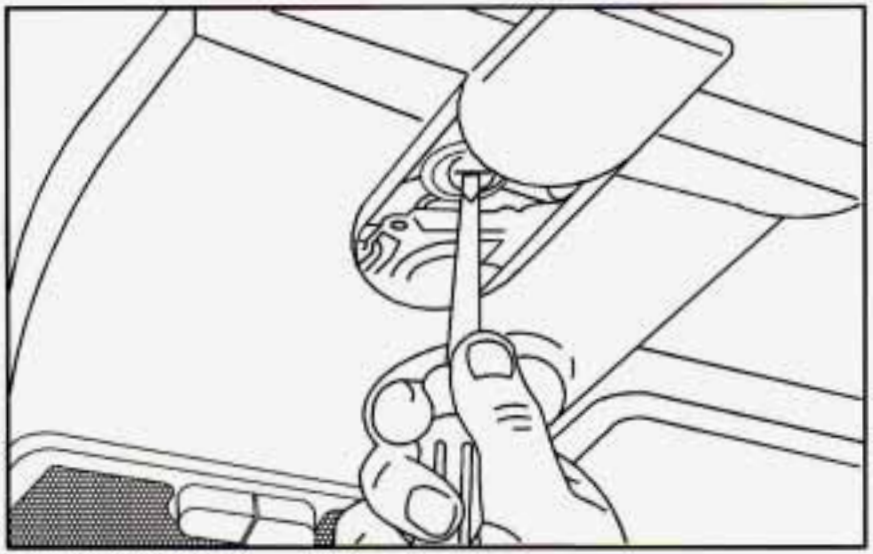
To raise the glass panel, rotate the control dial counterclockwise to one of the three tilt positions. The positions range from about 40% tilted (F) to fully tilted (G). To close the vent, rotate the dial clockwise to position E.

Anti-Pinch Feature

If a hand, a head or another object is in the way of the power sunroof closing, the glass panel will immediately stop at the obstruction and open to a preset factory position.

Note that pressing and holding the power sunroof control dial up will override the anti-pinch feature.

Manual Operation



If a failure in the power supply system occurs, the sunroof can be manually closed by inserting a screw driver into the slot as shown. Turning the screwdriver counterclockwise will close the sunroof.

The screwdriver is provided in the tool kit in the trunk (with the jack).

Programming the Sunroof

If the battery on your vehicle has been disconnected or is not working, you will need to reprogram the sunroof following these steps.

With your vehicle's ignition on:

1. If the sunroof is closed, rotate the control dial to position E. Press the dial for about five seconds.

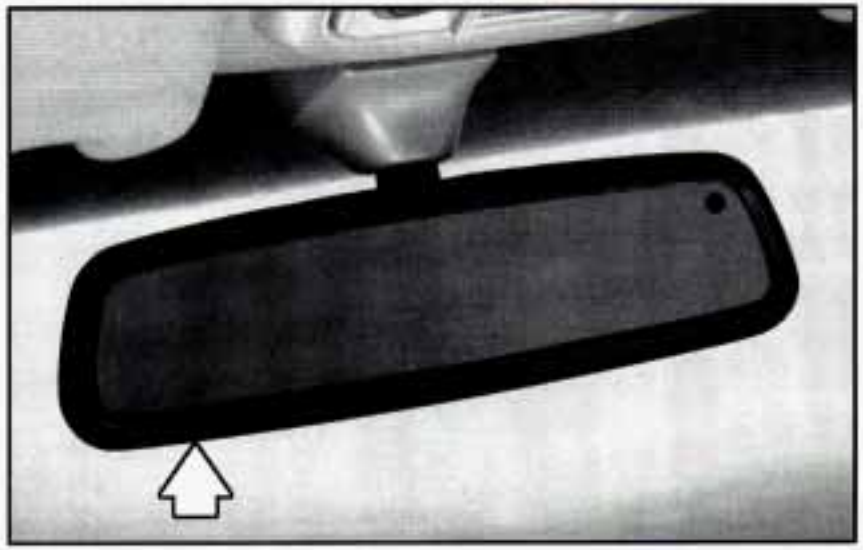
   If the sunroof is open, rotate the control dial to E and press until the glass panel has closed. Now continue pressing the dial for approximately five more seconds.
2. Rotate the control dial to position G and press until the sunroof is fully tilted.
3. Now rotate the control dial to position E and keep pressing until the sunroof is fully closed.

4. Rotate the dial to position A and press until the sunroof is fully open.
5. Return to position E and keep pressing the control dial until the sunroof has fully closed.

Note that after programming, if the sunroof keeps opening after you attempt to close it, you will need to repeat Steps 2 through 5 (up to three times if needed). If you are still having problems, consult your Catera dealer for service.

Also keep in mind that if something is in the way of the sunroof closing during programming and you continue to program the sunroof, the sunroof will only open or close to the spot where the obstruction occurred. You will need to reprogram the sunroof again, making sure that the object has been removed.

Universal Transmitter (Option)



The three Universal Transmitter buttons are located under the inside rearview mirror.

This transmitter allows you to consolidate the functions of up to three individual hand-held transmitters. It will operate garage doors and gates, or with the accessory package, 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.

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 not previously programmed a transmitter channel, proceed to Step 2. Otherwise, hold down the two outside buttons on the universal transmitter until the red light begins to flash rapidly (approximately 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.

3. Hold the end of the hand-held transmitter against the front surface of the universal transmitter so that you can still see the red light.
4. Using both hands, press the hand-held transmitter button and the desired button on the universal transmitter. Continue to hold both buttons through Step 5.
5. Hold down both buttons until you see the red light on the universal transmitter flash slowly and then rapidly. The rapid flashing, which could take up to 90 seconds, indicates that the universal transmitter has been programmed. Release both buttons once the light starts to flash rapidly.

If you have trouble programming the universal transmitter, make sure that you have followed the directions exactly as described and that the battery in the hand-held transmitter is not dead. If you still cannot program it, rotate the hand-held transmitter end over end and try again. 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, consult your Catera dealer.

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 stop transmitting after one or two seconds. If you are programming from one of these transmitters, 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 red light on the universal transmitter begins to flash rapidly.

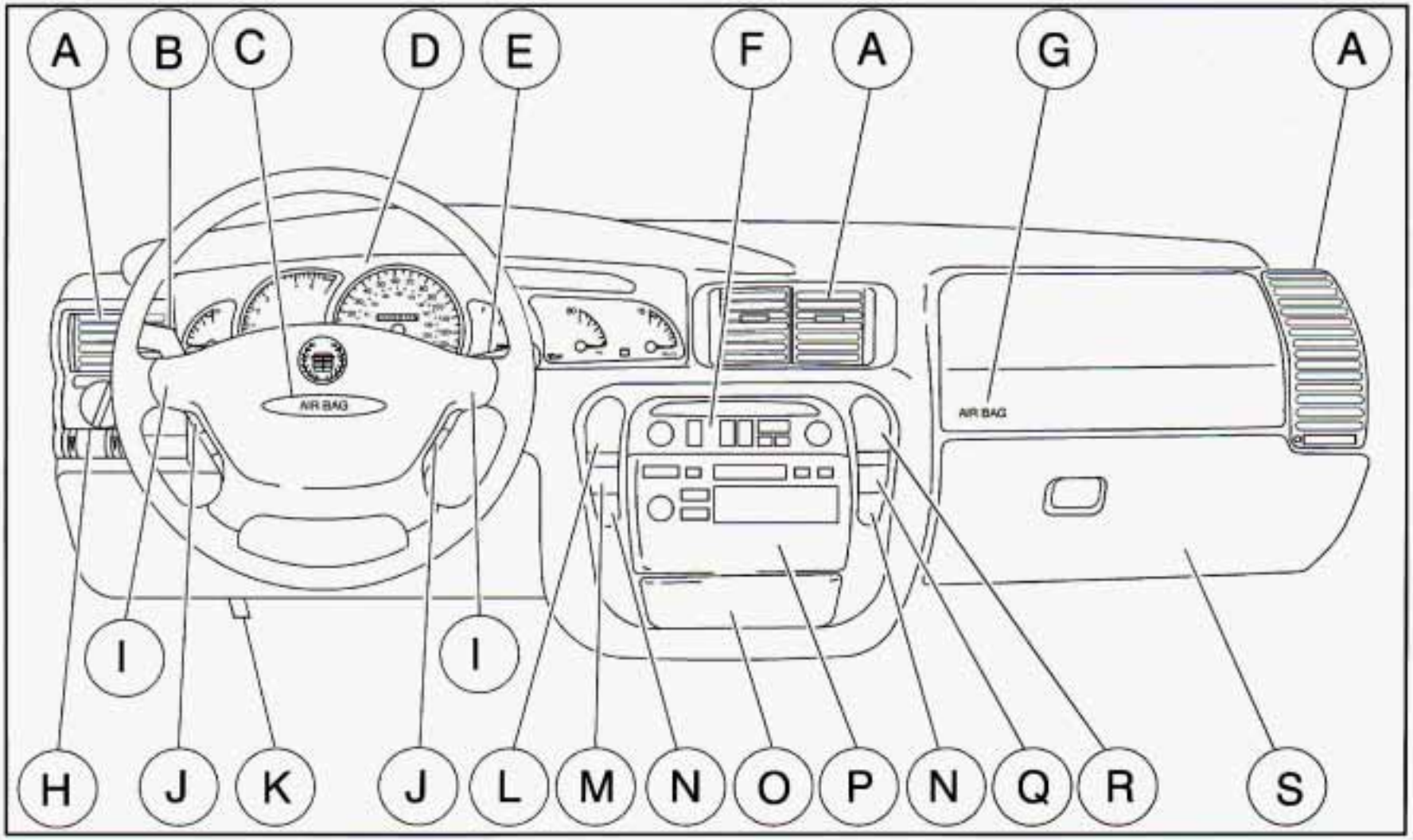
Operating the Transmitter

Press and hold the appropriate button on the universal transmitter. The red light comes on while the signal is being transmitted.

Note that the effective transmission range of the universal transmitter may differ from your hand-held transmitter and from one channel to another.

Erasing Channels

To erase all three programmed channels, hold down the two outside buttons until the red light begins to flash. Individual channels cannot be erased, but can be reprogrammed using the procedure for programming the transmitter explained earlier.


A
B
C
D
E
F
A
G
A
AIR BAG
AIR BAG
I
I
H
J
K
J
L
M
N
O
P
N
Q
R
S

The instrument panel is designed to let you know at a glance how your Catera is running. You'll know how fast you're going, how much fuel you're using and many of the other things you'll need to know to drive safely and economically. The main components of the instrument panel are:

A. Air Outlets

B. Turn Signal/Multifunction Lever

C. Driver's Side Air Bag

D. Instrument Cluster

E. Windshield Washer Lever

F. Comfort Controls

G. Passenger's Side Air Bag

H. Lamp Controls

I. Horn

J. Audio Steering Wheel Controls

K. Hood Release

L. Hazard Warning Flasher Button

M. Fuel Door Release Button

N. Heated Front Seat On/Off Button

O. Ashtray

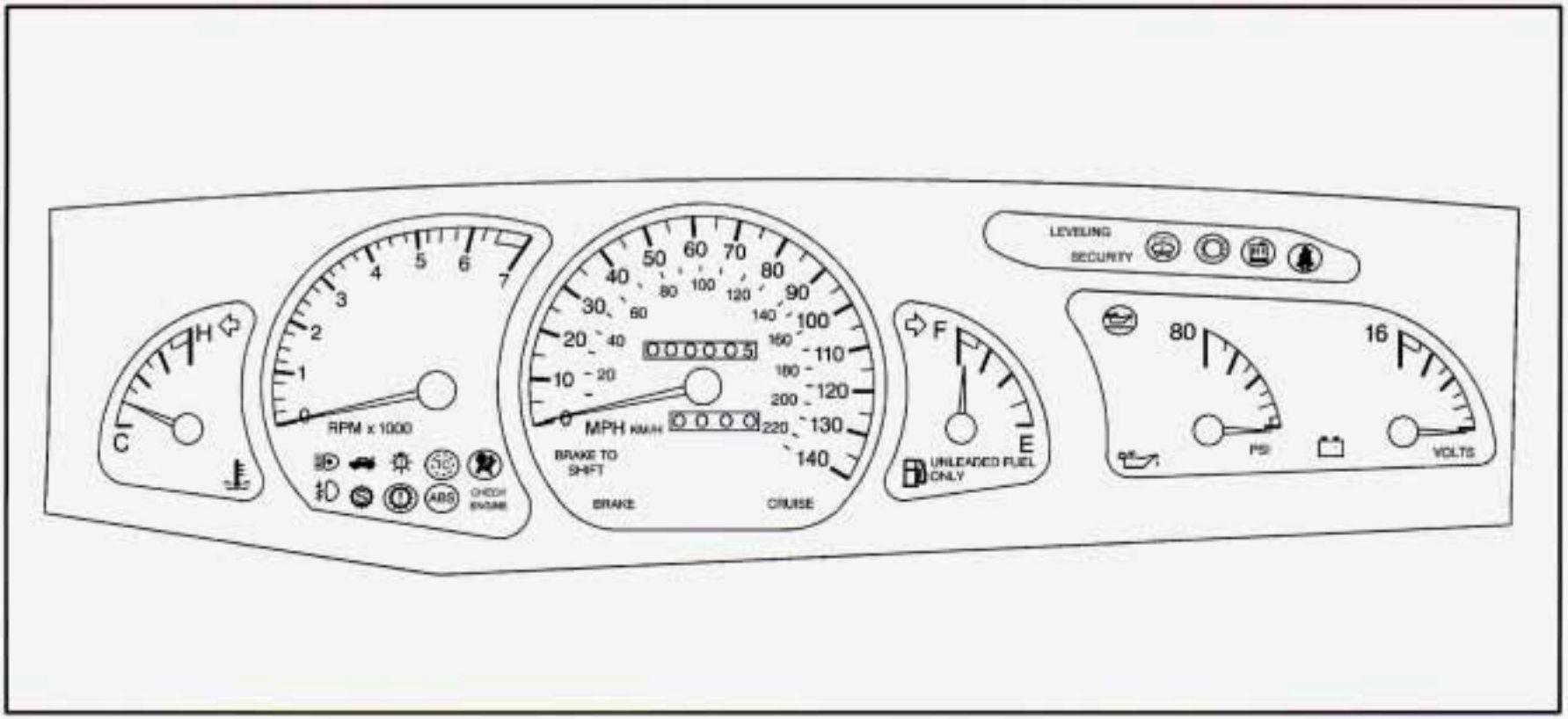
P. Radio

Q. Trunk Release Button

R. Traction Control On/Off Button

S. Glove Box

Instrument Panel Cluster



United States version shown, Canadian similar

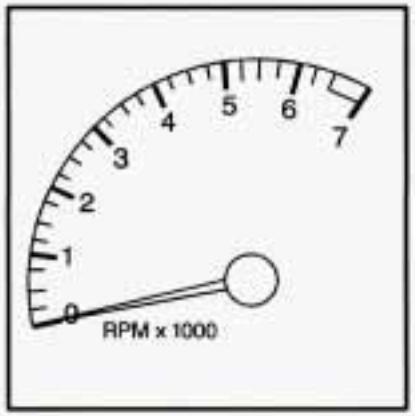
Speedometer and Odometer

The speedometer lets you see your speed in both miles per hour (mph) and kilometers per hour (km/h). The odometer shows how far your vehicle has been driven, in either miles (used in the United States) or kilometers (used in Canada).

Trip Odometer

The trip odometer tells how far you have driven since you last reset it. To set it to zero, press the knob located below the speedometer on the instrument cluster.

Tachometer



This gage indicates the engine speed in revolutions per minute (rpm).

NOTICE:

Do not operate the engine with the tachometer in the red area or engine damage may occur.

Engine Speed Limiter

This feature prevents the engine from operating at too many revolutions per minute (rpm). When the engine's rpms are critically high, the fuel supply to the engine is shut off. When the engine speed slows, the fuel supply will come on again. This helps prevent damage to the engine.

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.

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, unless the driver's safety belt is already buckled.

The safety belt light will also come on and stay on for about four seconds, then it will flash for about 60 seconds. If the driver's belt is already buckled, neither the chime nor the light will come on.

Air Bag Readiness Light

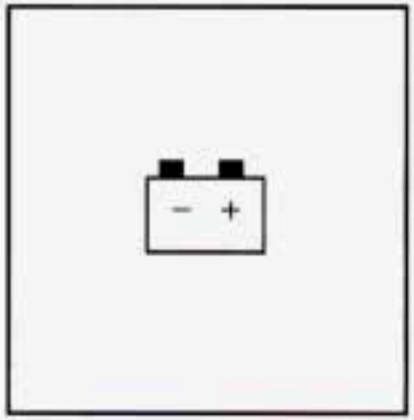
There is an air bag readiness light on the instrument panel, which shows the air bag symbol. The system checks the air bag's electrical system for malfunctions. The light tells you if there is an electrical problem. The system check includes the air bag sensors, the air bag modules, the wiring and the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

This light will come on for a few seconds when you start your engine. 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 come on 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.

Charging System Indicator Light



When you turn the key to START, this light will come on briefly to show that the generator and battery charging systems are working.

If this light stays on, you need service and you should take your Catera to the dealer at once. To save the battery until you get there, turn off all accessories.

Brake System Warning Light

Your Catera'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.

If the warning light comes on, there could be a brake problem. Have your brake system inspected right away.

United States

Canada

This light should come on briefly when you turn the ignition key to RUN. If it doesn't come on then, have it fixed so it will be ready to warn you if there's a problem.

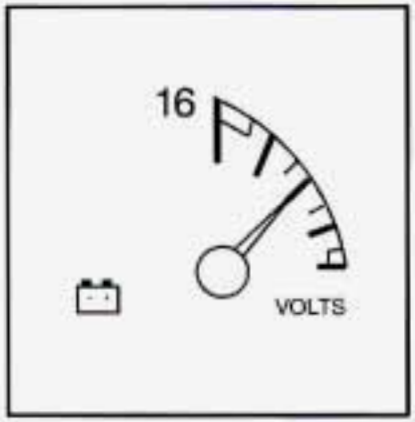
If the light comes on while you are driving, pull off the road and stop carefully. You may notice that the pedal is harder to push. Or, the pedal may go closer to the floor. It may take longer to stop. If the light is still on, have the vehicle towed for service. (See "Towing Your Catera" in the Index.)

⚠ CAUTION:

Your brake system may not be working properly if the brake system warning light is on. Driving with the brake system 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.

When the ignition is on, the brake system warning light will also come on when you set your parking brake. The light will stay on if your parking brake doesn't release fully. If it stays on after your parking brake is fully released, it means you have a brake problem.

Voltmeter



You can read battery voltage on the voltmeter. If it reads less than 12 volts or more than 16 volts while the engine is running, and it stays there, you may have a problem with the electrical charging system.

Have it checked right away. Driving with the voltmeter reading in the lower warning zone could drain or damage the battery. Driving with the voltmeter reading in the upper warning zone could cause bulbs to burn out (especially headlamp bulbs), various vehicle modules to shut down (due to overload protection) and the possibility of a battery acid leak.

If you idle the engine for a while, the voltmeter reading might move into the red zone. If the reading stays in the red zone while you are driving, you may have a problem with the electrical charging system. Have it checked. While the voltmeter reads in the red zone, the battery may not be able to power certain electrical accessories, like ABS. (If this happens, the ABS light will come on. See "Anti-Lock Brake System Warning Light" in this section.)

If you must drive a short distance with the voltmeter reading in a warning zone, turn off all the accessories, including the comfort controls and the audio system.

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 Catera needs service. If the regular brake system warning light isn't on, you still have brakes, but you don't have anti-lock brakes.

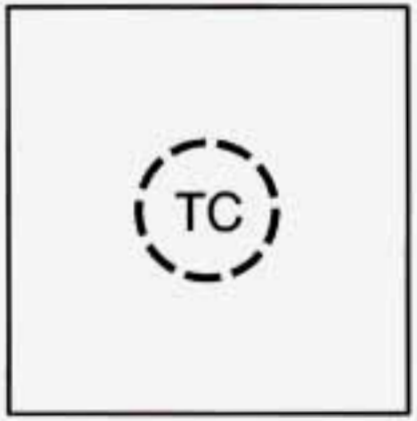
If the regular brake system warning light is also on, you don't have anti-lock brakes and there's a problem with your regular brakes. See "Brake System Warning Light" earlier in this section.

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 Engaged

When your traction control system is limiting wheel spin, the traction control system warning light will flash. Slippery road conditions may exist if this warning light is flashing, so adjust your driving accordingly.

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. The warning light will flash when the system senses a traction change.

If it stays on, or comes on and stays on steady 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 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 the traction control system is affected by an engine-related problem, the system will turn off and the warning light will come on.

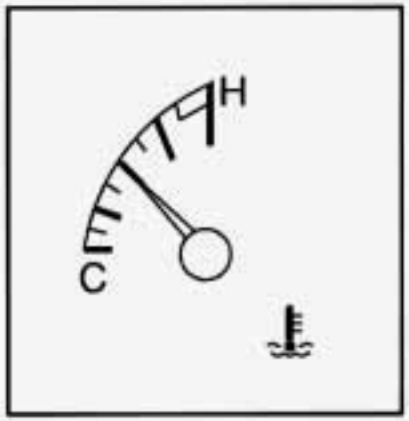
If the traction control system warning light comes on and stays on for an extended period of time when the system is turned on, your vehicle needs service.

Engine Coolant Temperature Warning Light

This light tells you that the engine has overheated. You should stop the car and turn the engine off as soon as possible. A warning chime should also sound if this light comes on.

As a check, the light should come on for a few seconds when you start the engine. In the section "Problems on the Road," this manual explains what to do. See "Engine Overheating" in the Index.

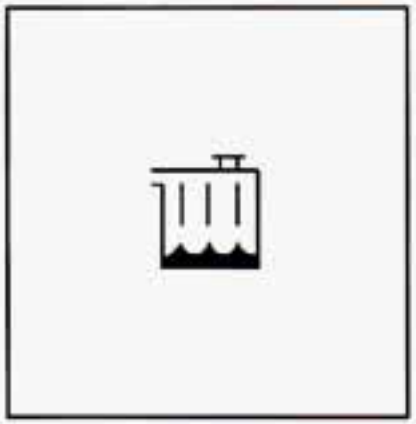
Engine Coolant Temperature Gage



This gage shows the engine coolant temperature. If the gage pointer moves into the red area, the engine is too hot!

This reading means the same thing as the warning light -- the engine coolant has overheated. You should stop the car and turn the engine off as soon as possible. The section "Problems on the Road" in this manual explains what to do. See "Engine Overheating" in the Index.

Low Coolant Warning Light



This warning light should come on while you are starting the engine. If the light doesn't come on, have it repaired.

Your Catera is equipped with a low coolant level sensor (switch and float) that is designed to detect when your vehicle's coolant level drops below the set limit. If the low coolant level sensor (under the coolant surge tank) detects that the level drops while the engine is running, the low coolant indicator will light and remain lit until the ignition switch is turned off. Check the coolant level and add coolant as needed. The light should turn off as soon as the coolant level is at its proper operating range.

Malfunction Indicator Lamp (Check Engine Light)

Your Catera 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. (In Canada, OBD II is replaced by Enhanced Diagnostics.) The CHECK ENGINE 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.

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 is 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 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. It will take a few driving trips to turn the light off.

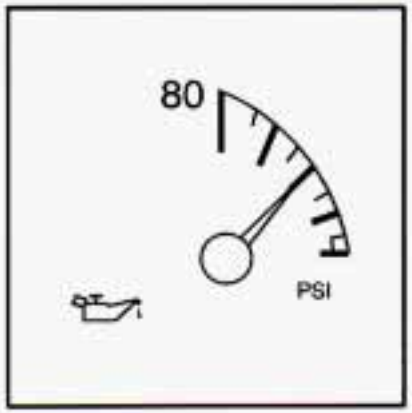
Have you recently changed brands of fuel?

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 Light/Gage



This light and gage tell you if there could be a problem with the engine oil pressure.

The gage shows the engine oil pressure in pounds per square inch (psi). Canadian vehicles show pressure in kilopascals (kPa).

The oil light goes on when you turn the key to RUN or START. It goes off once you start the engine. That's a check to be sure the light works. If it doesn't come on, be sure to have it fixed so it will be there to warn you if something goes wrong.

When the light *comes* on and *stays* on, it means that oil isn't flowing through the engine properly. You could be low on oil and you might have some other system problem.

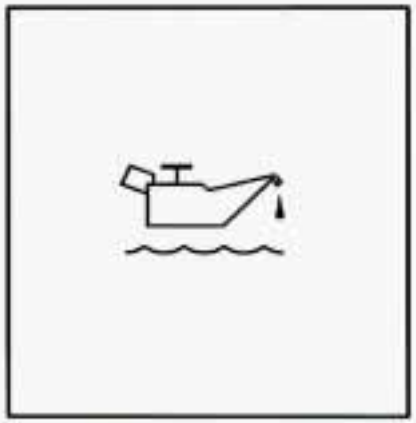
⚠ CAUTION:

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.

Check Oil Light



This light should come on briefly while you are starting the engine. If the light doesn't come on, have it repaired. If the light comes on while starting and stays on, the engine oil level should be checked.

Prior to checking the oil level, be sure your vehicle has been shut off for several minutes and is on a level surface. Check the oil level and bring it to the proper level. See "Engine Oil" in the Index.

Note: A false check oil light may be generated when parking on steep grades.

The oil level monitoring system only checks the oil during the brief period between turning the key on and engine start. It does not monitor the engine oil level while the engine is running. Additionally, an oil level check is only performed if the engine has been turned off for a considerable amount of time allowing the oil normally in circulation to drain back into the oil pan.

Brake To Shift Light

This light will come on to remind you that you must press the brake pedal to shift out of PARK (P).

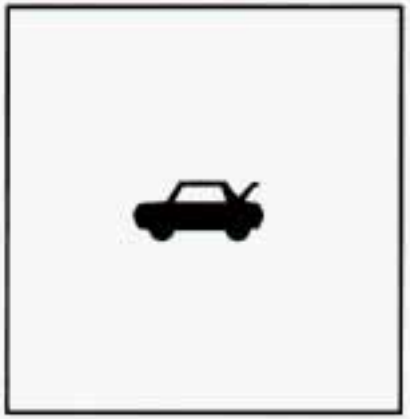
Cruise Control Light

This light comes on whenever you set your vehicle's cruise control.

Low Washer Fluid Warning Light

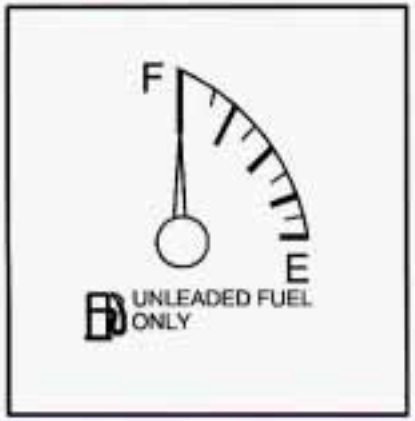
This light will come on when you turn on the ignition and the windshield washer fluid container is less than one-third full.

Trunk Ajar Light



This light will come on if your vehicle's trunk is not completely closed.

Fuel Gage



The fuel gage shows approximately how much fuel is in the tank. It works only when the ignition is in the RUN position.

Here are a few concerns some owners have had about the fuel gage. All of these situations are normal and do not indicate that anything is wrong with the fuel gage.

- At the gas station the gas pump shuts off before the gage reads F.
- The gage may change when you turn, stop or speed up.

Low Fuel Light

If the fuel level is low (approximately two gallons of fuel remain in the fuel tank), a light will come on and stay on until you add fuel. It will also come on for a few seconds when you first turn on the ignition as a check to show it's working. If it doesn't come on then, have it fixed.

Automatic Transmission Warning Light

This light comes on briefly when the ignition is turned on. If the light remains on or lights up while driving, there may be a fault in the automatic transmission. Have your vehicle serviced.

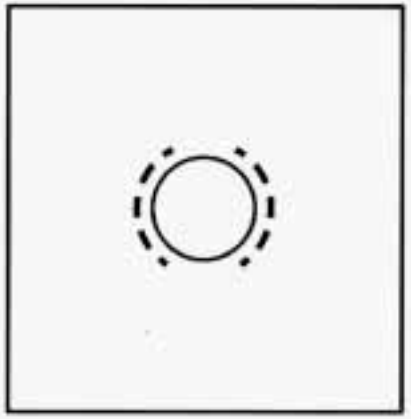
Leveling Indicator Light

This light comes on steady when the rear load level in your vehicle changes.

Do not drive your vehicle when this light is on. The rear of your vehicle is too low and part of the body or the rear axle may be damaged when driving over bumpy roads. When the light goes out, leveling is complete. This procedure is automatic -- you don't have to do anything.

If the light comes on flashing, there may be a problem with the leveling system. You should reduce your vehicle speed and have your vehicle serviced soon.

Brake Pad Wear Indicator Light



This light comes on when the brake pads on your vehicle have significantly worn. The pads will have to be replaced, so have your vehicle serviced soon.

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 Catera. Be sure to read about the particular systems supplied with your vehicle.

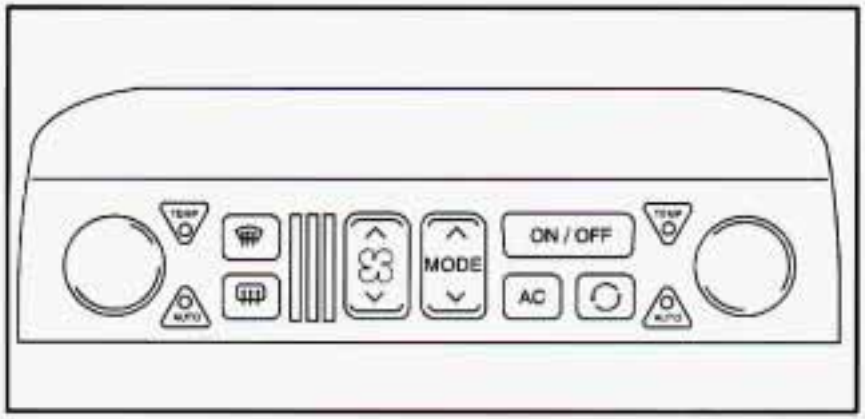
3-2 Comfort Controls
3-6 Air Conditioning
3-6 Heating
3-7 Ventilation System
3-8 Defrosting
3-9 Rear Window Defogger
3-9 Setting the Clock
3-10 AM-FM Stereo with Cassette Tape Player and Optional Compact Disc Player
3-13 Bose™ AM-FM Stereo with Cassette Tape and Compact Disc Player
3-17 Trunk Mounted CD Changer
3-20 Theft-Deterrent Feature
3-20 Audio Steering Wheel Controls
3-21 Understanding Radio Reception
3-21 Tips About Your Audio System
3-22 Care of Your Cassette Tape Player
3-23 Care of Your Compact Discs
3-24 Heated Backlite Antenna

Comfort Controls

This section tells you how to make your air system work for you. Your comfort control system uses ozone-friendly R-134a refrigerant.

You can control the heating, cooling and ventilation in your Catera. Guidelines for using these systems are found later in this section.

Electronic Climate Control (ECC)



Fan Button

The button with the fan symbol adjusts the fan speed. Press the up arrow to increase fan speed and the down arrow to decrease fan speed.

Driver's Side Temperature Knob

The driver's side TEMP/AUTO knob adjusts the air temperature coming through the system. Turn the TEMP/AUTO knob clockwise to increase the temperature and counterclockwise to decrease the temperature. Pressing this knob puts the climate control system in an automatic mode. For more information, see "Automatic Operation" later in this section.

Passenger's Side Temperature Knob

The right front passenger can control the temperature of heated air for his/her own zone, independent from the driver's temperature setting. The passenger's temperature can be set anywhere between 60°F (16°C) and 90°F (32°C).

To turn the system on, press the passenger's side TEMP/AUTO knob. Rotate the knob clockwise to increase temperature and counterclockwise to decrease. Pressing the knob again turns off the dual-zone function and returns the system to the one-zone function, where the driver controls the climate.

Outside Temperature Display

The outside temperature is always displayed when your vehicle's ignition is on. If the outside temperature display begins to flash, this means that icy road conditions are possible. Adjust your driving if needed. The display will flash for about 30 seconds and then remain on steady.

Mode Button

Press this button to deliver air through the floor, middle, side or windshield outlets. The climate control system will stay in the selected ECC mode until the MODE button is pressed again or until the TEMP/AUTO knob is pressed. Press the up or down arrow to see the available modes.

English/Metric Display

You can change the temperature display from English (degrees Fahrenheit) to metric (degrees Celsius) by pressing and holding the driver's side TEMP/AUTO knob for approximately three seconds. Repeat the process to change back to English from metric.

Automatic Operation

Pressing the driver's side TEMP/AUTO knob sets the system for automatic operation. Once the system is set, sensors will control the air delivery mode. Air will come from the floor, middle, side or windshield outlets. The fan speed will vary as the system maintains the selected temperature setting. (All previous manually set mode settings will change back to a fully automatic mode when the climate control system is turned on this way.)

Be careful not to put anything over the solar sensor located in the middle of the instrument panel near the windshield. This sensor is used by the automatic system to regulate temperature.

To find your comfort zone, start with the 75°F (24°C) setting and allow about 20 minutes for the system to regulate. Adjust the temperature if necessary. If you choose 60°F (16°C), the system will remain at that maximum cooling setting and will not regulate fan speed. If you choose the temperature of 90°F (32°C), the system will remain at that maximum heating setting and will not regulate fan speed. Choosing either maximum setting will not cause the system to heat or cool any faster.

In cold weather, when the system senses the need for heat, airflow will be directed out of the floor outlets. As the interior temperature approaches a desired setting, the blower speed will decrease. To maintain interior comfort, the airflow may move to the instrument panel air outlets and floor outlets (bi-level mode). On bright sunny days in cold weather, the airflow may come out of the air conditioning outlets (AC mode) to maintain comfort and prevent stuffiness.

If your vehicle is sitting out on a hot day and you have it set for automatic operation, the air will first flow out of the floor air outlets during cool down. That is normal. This is to expel hot air from the air outlets. As the air is cooled, the airflow will move through the air conditioning outlets.

To avoid blowing cold air in cold weather, the system will delay turning on the fan until warm air is available. The length of delay depends on the outside air temperature, engine coolant temperature or the time since the engine was last started. As the coolant warms up, the blower fan speed will gradually increase and air will flow from the heater outlets, with some airflow to the windshield to prevent fogging under most normal conditions.

If you leave your vehicle, the system will remember the control setting the next time you start your engine, except for recirculation and defrost. Each ignition cycle cancels recirculation.

Manual Operation

You may manually adjust the air delivery mode or fan speed.

HEATER/DEFROST: This setting directs air to the floor outlets and toward the windshield.

AC: This setting directs airflow through the middle instrument panel outlets.

BI-LEVEL: This setting directs air into your vehicle in two ways. Cool air is directed to the upper portion of your body through the middle instrument panel outlets while warmed air is directed to the floor.

HEATER: This setting directs warmed air through the floor outlets. Some warm air is diverted to the windshield to minimize fogging.

DEFROST: Press this button to quickly remove fog or frost from the windshield. This setting sends most of the airflow to the windshield with only a small amount to the floor outlets.

FAN SPEEDS: Press the driver's side TEMP/AUTO knob to set the fan speed for automatic operation. At this setting, the fan speed is automatically controlled. If it is cold outside, the blower may not run in the maximum high fan speed right away. The system checks the temperature of the engine coolant to assure it is warm enough to provide heat. When the engine coolant is warm, the controller allows the fan to gradually increase to a higher speed. This prevents cold air from blowing into the passenger compartment. If you want the blower fan at a high speed, press the up arrow button until you reach the highest position of the display. If you want the blower fan at a low speed, press the down arrow button until the lowest position is displayed.

ON/OFF: Press this button to turn the system off. Press this button again to turn the system back on. Turning the climate control system on in this way will recall all previous manually set mode settings. If the system is turned on by pushing the driver's TEMP/AUTO knob for automatic operation, all of the previous manually set mode settings will be changed back to the fully automatic mode.

AC: Press this button to turn the air conditioning on and off. The system will cool and dehumidify the air inside the vehicle. In the automatic operation mode, the display will show AC OFF when the air conditioning has been turned off.

RECIRCULATION: Press this button to limit the amount of fresh air entering your vehicle. This is helpful when you are trying to cool the air quickly or limit odors entering your vehicle. In the automatic operation mode, the system will use recirculation as necessary to cool the air. Pressing the recirculation button will change the operation to a manual mode and the air will recirculate non-stop. Press this button again to turn off the recirculation feature.

If you notice the windows fogging, press the recirculation button to exit the recirculation mode.

Air Conditioning

On hot days, open the windows long enough to let hot inside air escape. This reduces the time it takes for your vehicle to cool down. Then keep your windows closed for the air conditioner to work its best.

The climate control system will cool and dehumidify the air inside the vehicle. While in the automatic operation mode, the system will use recirculation as necessary to cool the air. You may also need to adjust the interior temperature. Turn either TEMP/AUTO knob clockwise to increase the temperature and counterclockwise to decrease temperature. Adjust the fan speed as needed.

In order to obtain the maximum cool setting, both the driver's and passenger's TEMP/AUTO knobs must be turned to 60°F (16°C).

Heating

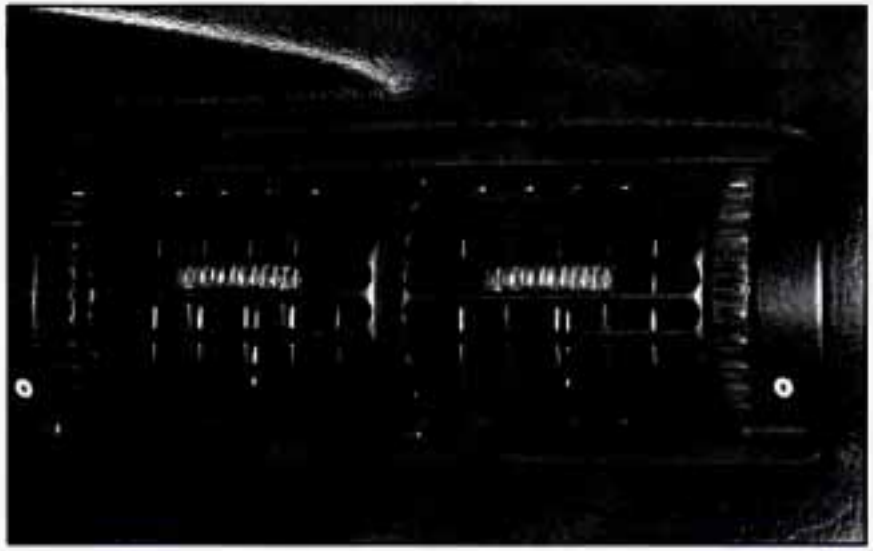
Adjust the interior temperature to your comfort level by turning either TEMP/AUTO knob clockwise to increase temperature and counterclockwise to decrease temperature. If the fan speed needs adjusting, press the up or down arrow.

Outside air will be brought in and sent through the floor outlets. The heater works best if you keep the windows closed while using it.

In order to obtain the maximum heat setting, both the driver's and passenger's TEMP/AUTO knobs must be turned to 90°F (32°C).

Ventilation System

The Catera's ventilation system supplies outside air into the vehicle when it is moving. Outside air will also enter the vehicle when the heater or the air conditioning fan is running.



The front outlets are located in the center and at each side of the instrument panel. You can adjust the direction of airflow by moving the center control levers or you can stop the airflow by moving the dial located on each side of the outlets to the "O" position.

The direction of airflow for the rear seats can also be adjusted. Move the center control dial between each vent up or down to adjust the airflow from low to high. Rotate the dial to the "O" position to stop airflow. Move the lever in the center of each vent to direct airflow toward the upper or floor outlets.

The airflow temperature from the rear outlets is the same as the driver's temperature setting.

Ventilation Tips

- Keep the hood and front air inlet free of ice, snow or any other obstruction (such as leaves). The heater and defroster will work far better, reducing the chance of fogging the inside of the windows.
- When you enter a vehicle in cold weather, adjust the fan to the highest speed for a few moments before driving off. This helps clear the intake outlets of snow and moisture, and reduces the chance of fogging the inside of the windows.
- Keep the air path under the front seats clear of objects. This helps circulate air throughout your vehicle.

Passenger Compartment Air Filter

This ventilation system includes an air filter that helps to remove dust, pollen, etc. from the air flowing into your vehicle. A restriction in the airflow coming into the passenger compartment could be the result of dirt in the filter. For information about changing the filter, see "Passenger Compartment Air Filter Replacement" in the Index. See the Maintenance Schedule booklet for when to change the filter.

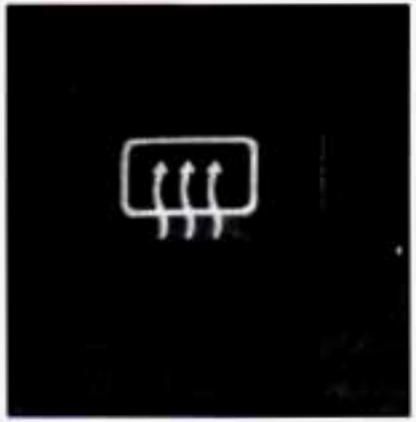
Defrosting

Use defrost to remove fog or ice from the windshield quickly in extremely humid or cold conditions.

Press the defrost button on the control panel and adjust the fan speed to the highest position. Make sure that the side air vents are opened. Rotate both TEMP/AUTO knobs clockwise as needed to adjust the temperature. To warm the foot area while in defrost, press the MODE button until the heater/defrost symbol appears (see "Manual Operation" earlier in this section).

Note that recirculation is not available in the defrost mode.

Rear Window Defogger



The lines you see on the rear window warm the glass. With your vehicle's engine running, press this button to turn on the rear defogger.

With it, the rear window and both outside rearview mirrors are heated. The system will automatically shut off after about 15 minutes. If further defogging is desired, press the button again.

Do not attach a temporary vehicle license, tape or decals across the defogger grid on the rear window.

NOTICE:

Scraping the inside of your rear window could cut and damage the heating grids. Your warranty would not cover this damage. And don't put decals there; you might have to scrape them off.

Audio Systems

Your Catera 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 Catera 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 or MN until the time display begins to change. Release the button as you get close to the correct time. The time may be set anytime the clock is displayed. There is a two-second delay before the clock goes into time-set mode.

AM-FM Stereo with Cassette Tape Player and Optional Compact Disc Player

For information on the compact disc player, see "Trunk Mounted CD Changer" later in this section.

Playing the Radio

PWR/VOL: Press this knob lightly to release it from its stored position. The system will turn on. Press the knob again to turn the system off. To increase volume, turn the knob clockwise. Turn it counterclockwise to decrease volume. The volume level will appear on the display.

DSPL: Press this button to display the station being played.

Finding a Station

BAND: Press this button to select AM, FM1 or FM2 and preset stations.

SEEK-TUNE: Press and release this button to seek to the next higher or lower radio station. Pressing and holding this button until a chime sounds puts the radio in a tune mode. In this mode, higher or lower radio stations are advanced to in small increments until the SEEK-TUNE button is released. Tuning stops when you release this button. If you press and hold the SEEK-TUNE button again within five seconds of being in the tune mode, tuning will continue. Waiting longer than five seconds places the radio back in the seek mode.

SCAN: Press this button and SCAN will appear on the display. Use SCAN 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 this button again to stop scanning.

PUSHBUTTONS: The six numbered pushbuttons let you return to your favorite stations. You can set up to 18 stations (six AM, six FM1 and six FM2). Just:

1. Turn the radio on.
2. Press BAND to select AM, FM1 or FM2.
3. Tune in the desired station.
4. Press and hold one of the six numbered buttons until you hear a chime. The sound will mute. When it returns, release the button. Whenever you press that numbered button, the station you set will return.
5. Repeat the steps for each pushbutton.

PRESET SCAN: Press and hold SCAN for two to three seconds until PRESET SCAN appears on the display to listen to each of your preset stations for a few seconds (factory presets which have not been reprogrammed with your stations will be ignored). 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. If a preset station has weak reception, the radio will not stop at the preset station.

Setting the Tone

BASS: Press this knob lightly so it extends. Turn the knob clockwise to increase and counterclockwise to decrease bass.

TREB: Press this knob lightly so it extends. Turn the knob clockwise to increase and counterclockwise to decrease treble. If a station is weak or noisy, you may want to decrease the treble.

Push these knobs back into their stored positions when you're not using them.

Adjusting the Speakers

BAL: Press this knob lightly so it extends. Turn the knob clockwise to adjust sound to the right speakers and counterclockwise for the left speakers. The middle position balances the sound between the speakers.

FADE: Press this knob lightly so it extends. Turn the knob clockwise to adjust the sound to the front speakers and counterclockwise for the rear speakers. The middle position balances the sound between the speakers.

Push these knobs back into their stored positions when you're not using them.

Playing a Cassette Tape

With the radio on, insert a cassette tape. The tape will begin playing as soon as it is inserted.

While the tape is playing, use the VOL, FADE, BAL, BASS and TREB controls just as you do for the radio. Other controls may have different functions when a tape is inserted. The display will show TAPE with an arrow to indicate which side of the tape is playing. PLAY will appear on the display temporarily when a tape is playing. The display will then revert back to showing the time.

If an error occurs while trying to play a cassette tape, it could be that:

- The cassette tape is tight and the cassette player cannot turn the hubs of the tape. Hold the cassette tape with the open end down and try turning the right hub counterclockwise with a pencil. Flip the tape over and repeat. If the hubs do not turn easily, your cassette tape may be damaged and should not be used in the player. Try a new tape to be sure your player is working properly.
- The cassette tape is broken. (Check to see if your tape is broken. Try a new tape.)

REV: Press the left arrow to reverse the tape rapidly. Press it again to return to playing speed. The radio will play while the tape reverses and REV will appear on the display. You may use your station pushbuttons to tune to another radio station while in REV mode.

FF: Press the right arrow to fast forward to another part of the tape. Press it again to return to playing speed. The radio will play while the tape advances and FF will appear on the display. You may use your station pushbuttons to tune to another radio station while in FF mode.

SEEK-TUNE: Press the right arrow to seek to the next selection on the tape. Press the left arrow to search for the previous selection on the tape (REP will appear on the display). Your tape must have at least three seconds of silence between each selection for SEEK-TUNE to work. The sound will mute while seeking.

SCAN: Press this button. SCAN FF will appear on the display until the next selection is found and then SCAN PLAY will appear on the display. Use SCAN to listen to selections for a few seconds. The tape will go to a selection, stop for a few seconds, then go on to the next selection. Press this button again to stop scanning.

SIDE: Press this button to change the side of the tape that is playing. (PLAY shows on the display.)

SOURCE: Press this button to switch from radio to cassette tape play. If no cassette tape is in the tape player, CASS appears on the display and then the radio station appears briefly. The display then reverts back to showing the time of day. Press this button again or BAND to switch back to the radio.

⏏ **EJECT:** Press the upward triangle button to remove a tape. The radio will play. Eject may be activated with the radio off. Cassette tapes may be loaded with the radio off but they will not start playing until the PWR button is pressed. Press PWR or turn the ignition key off to stop the cassette tape player. The tape will stay in the player and resume play at the point where it stopped. If you leave a cassette tape in the player while listening to the radio, it may become warm.

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.

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.

Bose™ AM-FM Stereo with Cassette Tape and Compact Disc Player (If Equipped)

For information on the compact disc player, see "Trunk Mounted CD Changer" later in this section.

Playing the Radio

PWR/VOL: Press this knob lightly to release it from its stored position. The system will turn on. Press the knob again to turn the system off. To increase volume, turn the knob clockwise. Turn it counterclockwise to decrease volume. The volume level will appear on the display.

Finding a Station

BAND: Press this button to select AM, FM1 or FM2 and preset stations.

SEEK-TUNE: Press and release this button to seek to the next higher or lower radio station. Pressing and holding this button until a chime sounds puts the radio in a tune mode. In this mode, higher or lower radio stations are advanced to in small increments until the SEEK-TUNE button is released. Tuning stops when you release this button. If you press and hold the SEEK-TUNE button again within five seconds of being in the tune mode, tuning will continue. Waiting longer than five seconds places the radio back in the seek mode.

SCAN: Press this button and SCAN will appear on the display. Use SCAN 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 this button again to stop scanning.

PUSHBUTTONS: The six numbered pushbuttons let you return to your favorite stations. You can set up to 18 stations (six AM, six FM1 and six FM2). Just:

1. Turn the radio on.
2. Press BAND to select AM, FM1 or FM2.
3. Tune in the desired station.
4. Press and hold one of the six numbered buttons until you hear a chime. A preset number will appear on the display. The sound will mute. When it returns, release the button. Whenever you press that numbered button, the station you set will return.
5. Repeat the steps for each pushbutton.

PRESET SCAN: Press and hold SCAN for two to three seconds until PRESET SCAN appears on the display to listen to each of your preset stations for a few seconds (factory presets which have not been reprogrammed with your stations will be ignored). 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. If a preset station has weak reception, the radio will not stop at the preset station.

Setting the Tone

BASS: Press this knob lightly so it extends. Turn the knob clockwise to increase and counterclockwise to decrease bass.

TREB: Press this knob lightly so it extends. Turn the knob clockwise to increase and counterclockwise to decrease treble. If a station is weak or noisy, you may want to decrease the treble.

Push these knobs back into their stored positions when you're not using them.

Adjusting the Speakers

BAL: Press this knob lightly so it extends. Turn the knob clockwise to adjust sound to the right speakers and counterclockwise for the left speakers. The middle position balances the sound between the speakers.

FADE: Press this knob lightly so it extends. Turn the knob clockwise to adjust the sound to the front speakers and counterclockwise for the rear speakers. The middle position balances the sound between the speakers.

Push these knobs back into their stored positions when you're not using them.

Playing a Cassette Tape

With the radio on, insert a cassette tape. The tape will begin playing as soon as it is inserted.

While the tape is playing, use the VOL, FADE, BAL, BASS and TREB controls just as you do for the radio. Other controls may have different functions when a tape is inserted. The display will show TAPE with an arrow to indicate which side of the tape is playing. PLAY will appear on the display temporarily when a tape is playing. The display will then revert back to showing the time.

If an error occurs while trying to play a cassette tape, it could be that:

- The cassette tape is tight and the cassette player cannot turn the hubs of the tape. Hold the cassette tape with the open end down and try turning the right hub counterclockwise with a pencil. Flip the tape over and repeat. If the hubs do not turn easily, your cassette tape may be damaged and should not be used in the player. Try a new tape to be sure your player is working properly.
- The cassette tape is broken. (Check to see if your tape is broken. Try a new tape.)

REV: Press the left arrow to reverse the tape rapidly. Press it again to return to playing speed. The radio will play while the tape reverses and REV will appear on the display. You may use your station pushbuttons to tune to another radio station while in REV mode.

FF: Press the right arrow to fast forward to another part of the tape. Press it again to return to playing speed. The radio will play while the tape advances and FWD will appear on the display. You may use your station pushbuttons to tune to another radio station while in FF mode.

SEEK-TUNE: Press the right arrow to seek to the next selection on the tape. Press the left arrow to search for the previous selection on the tape (REP will appear on the display). Your tape must have at least three seconds of silence between each selection for SEEK-TUNE to work. The sound will mute while seeking.

SCAN: Press this button. SCAN will appear on the display until the next selection is found and then PLAY will appear on the display. Use SCAN to listen to selections for a few seconds. The tape will go to a selection, stop for a few seconds, then go on to the next station. Press this button again to stop scanning.

SIDE: Press this button to change the side of the tape that is playing. (PLAY shows on the display.)

SOURCE: Press this button to switch from radio to cassette tape play. If no cassette tape is in the tape player, CASS appears on the display and then the radio station appears briefly. The display then reverts back to showing the time of day. Press this button again or BAND to switch back to the radio.

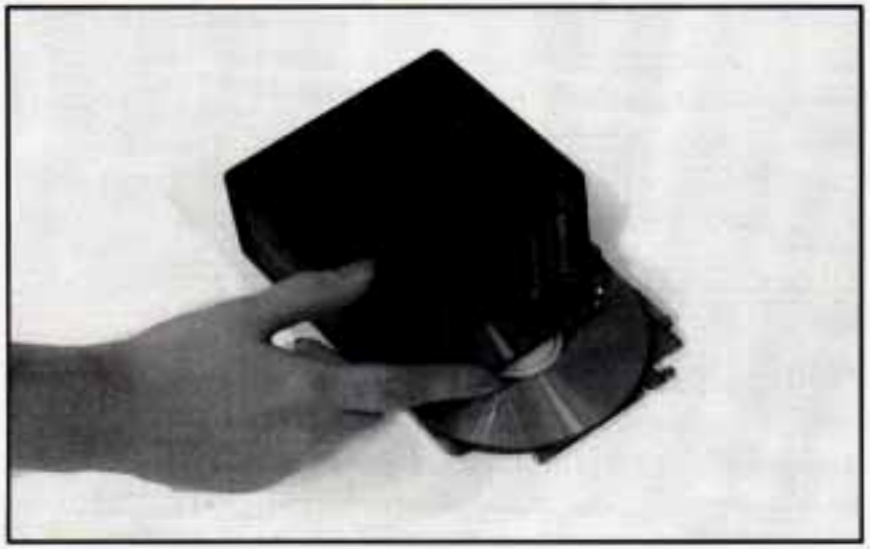
⏏ **EJECT:** Press the upward triangle button to remove a tape. The radio will play. Eject may be activated with the radio off. Cassette tapes may be loaded with the radio off but they will not start playing until the PWR button is pressed. Press PWR or turn the ignition key off to stop the cassette tape player. The tape will stay in the player and resume play at the point where it stopped. If you leave a cassette tape in the player while listening to the radio, it may become warm.

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.

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.

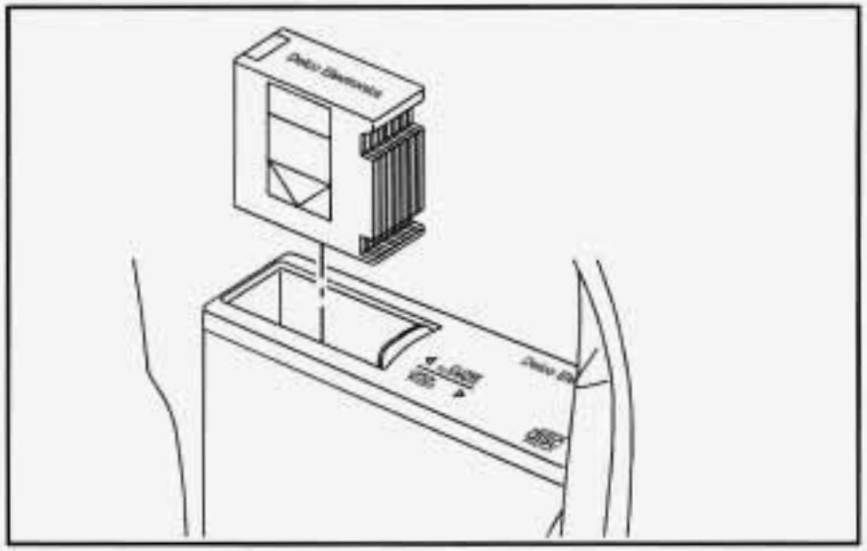
Trunk Mounted CD Changer (Option)

With the 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.

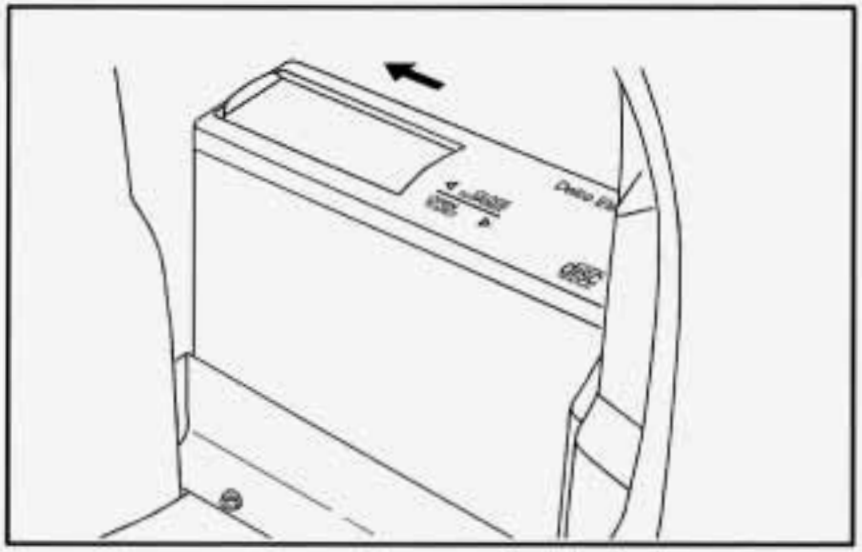


You must first load the magazine with discs before you can play a compact disc. Each of the 12 trays holds one disc. Press the button on the back of the magazine and pull gently on one of the trays. Load the trays from bottom to top, placing a disc on the tray label side down.

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 one and a half 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.

Whenever a CD magazine with discs is loaded in the changer, the CD symbol will appear on the radio display. If the CD changer is checking the magazine for CDs, the CD 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.

All of the CD functions are controlled by the radio buttons, except for ejecting the CD magazine.

PUSHBUTTONS: Press buttons one through six to go from one compact disc to another that is loaded in the changer. Press and hold one of the six pushbuttons until a beep sounds to use pushbuttons 7 through 12. These pushbuttons represent the order of the discs loaded in the changer.

DSPL: Press and hold this button to see the track elapsed time (available on all radios). Press DSPL again within five seconds to see how many compact discs are loaded in the changer and where they are loaded (not available on the standard AM-FM Stereo radio).

REV: Press and hold this button to reverse quickly through a track selection.

FF: Press and hold this button to advance quickly through a track selection.

SEEK-TUNE: Press the right arrow to seek to the next selection. Press the left arrow to search for the previous track selection. The sound will mute while seeking.

SCAN: When you press SCAN while playing a CD, you will hear the first few seconds of each track on a disc. Press SCAN again to stop on a CD. The CD will mute while scanning and SCAN will appear on the display.

RDM: Press this button to hear the tracks in random, rather than sequential, order. RDM will appear on the display. Press SEEK-TUNE while RDM is on the display to randomly seek through discs and tracks. Press RDM again to turn off random play. (This button is not available on the standard AM-FM Stereo radio.)

SIDE: Press this button to select the next disc in the changer. Each time you press this button, DISC LOADING will appear on the display (does not appear on the standard AM-FM Stereo radio) and the disc number on the radio display will move to the next available CD.

SOURCE: Press this button if you have a disc loaded in the changer and the radio is on, to play a compact disc. To return to playing the radio, press BAND. Pressing SOURCE also switches between a tape or compact disc if both are loaded.

EJECT: Slide the CD changer door all the way open and the disc holder will automatically eject.

Compact Disc Changer Errors

If ERR or ERROR appears on the display, an error has occurred and the compact disc temporarily cannot play.

CD CHANGER ERROR could be displayed for the following:

- The road is too rough. The disc should play when the road is smoother.
- The disc is dirty, scratched, wet or loaded label side up.
- The air is very humid. If so, wait about an hour and try again.

CHEK DOOR or CD CHANGER DOOR OPEN is displayed when the CD changer door is left open. Completely close the changer door to restore normal operation.

CD CHANGER NO DISCS is displayed when an empty magazine is inserted in the CD changer. Try the magazine again with a disc loaded on one of the trays. (This message does not appear in the display on the standard AM-FM Stereo radios.)

If any error occurs repeatedly or if an error cannot 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.

Theft-Deterrent Feature

Your Catera has a "built-in" theft-deterrent feature on each radio that is automatic -- there is no programming required. The radio in your Catera cannot be used in any other vehicle besides another Catera if it were to be removed.

Audio Steering Wheel Controls

Some audio controls can be adjusted at the steering wheel. They include the following:

+: Pressing this button increases volume.

-: Pressing this button decreases volume.

o (SOURCE): To change to a tape or CD, press this button.

▶ : Press this button to move forward through preset radio stations or to the next selection on a tape or CD.

◀ : Press this button to move rearward through preset radio stations or to the previous selection on a tape or CD.

↑ **(BAND):** Press this button to change between AM, FM1 or FM2 for the radio. This button also changes a tape to the other side, restarts a CD if playing a single CD or goes to the next available CD loaded in the trunk mounted CD changer.

Understanding Radio Reception

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.

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.

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, Catera 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 dealer 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 or CLEAN TAPE to indicate that you have used your tape player for 50 hours without resetting the tape clean timer. Each time the cassette is cleaned, the 50 hour cassette timer should be reset. This is done by holding down the eject button for three seconds until the TAPE CLEAN message is displayed. 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.

Cleaning may be done with a scrubbing action, non-abrasive cleaning cassette with pads which scrub the tape head as the hubs of the cleaner cassette turn. It is normal for the cassette to eject while cleaning. Insert the cassette at least six times to ensure thorough cleaning.

Some cleaning cassettes or CD adapter kits may appear as a broken tape. If the cleaning cassette is ejected immediately from the tape player, follow these steps for the TAPE CLEAN OVERRIDE feature:

1. Turn the ignition to RUN.
2. Turn the radio off.
3. Press and hold the SOURCE button for three seconds. After three seconds, the tape icon will flash indicating the cut tape feature is now turned off.
4. Turn the radio on and insert the cleaning cassette (or the CD adapter kit).
5. Eject the tape after the tape player has been cleaned.

When the cleaning cassette has been ejected, the broken tape detection feature is active again.

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 and, it may not clean as thoroughly as the scrubbing type cleaner.

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.

Heated Backlite Antenna

Your AM-FM antenna is integrated with your rear window defogger, into your rear window. Be sure that the inside surface of the rear window is not scratched and that the lines on the glass are not damaged. If the inside surface is damaged, it could interfere with radio reception.

Do not try to clear frost or other material from the inside of the rear window with an ice scraper, credit card or other hard object. This may damage the rear defogger grid and affect your radio's ability to pick up stations clearly.

If, when you turn on your rear window defogger, you hear static on your radio station, it means a defogger grid line has been damaged and must be repaired. (Your radio is not at fault.)

If you choose to add a cellular telephone to your Catera, and the antenna needs to be attached to the glass, be sure that you do not damage the grid lines for the AM-FM antenna.

NOTES

NOTES

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
4-6 Control of a Vehicle
4-6 Braking
4-10 Steering
4-12 Off-Road Recovery
4-13 Passing
4-14 Loss of Control
4-15 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
4-24 Hill and Mountain Roads
4-25 Winter Driving
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 Catera: 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.

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, some 17,000 annual motor vehicle-related deaths have been associated with the use of alcohol, with more than 300,000 people injured.

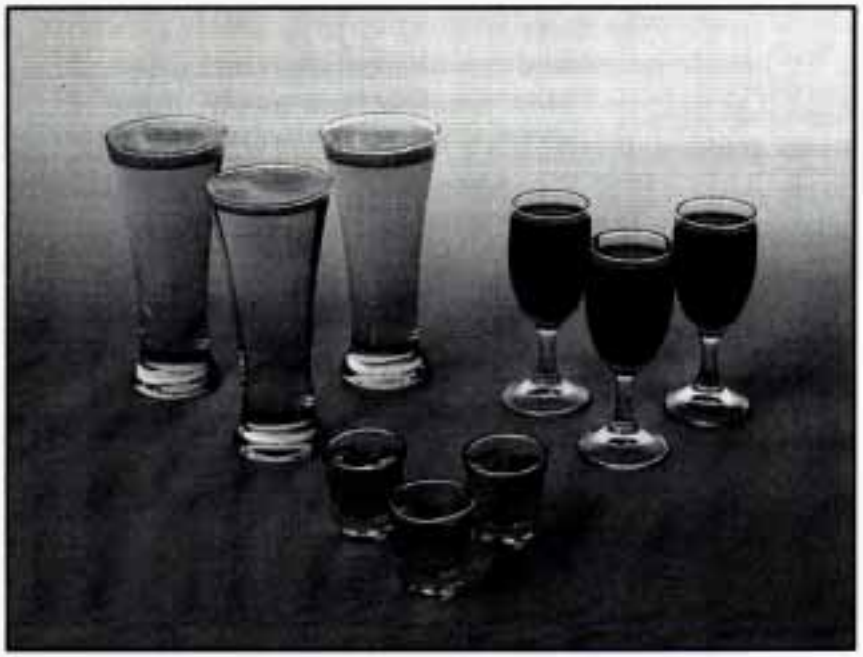
Many adults -- by some estimates, nearly half the adult population -- choose never to drink alcohol, so they never drive after drinking. For persons under 21, it's against the law in every U.S. state to drink alcohol. There are good medical, psychological and developmental reasons for these laws.

The obvious way to solve this 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.

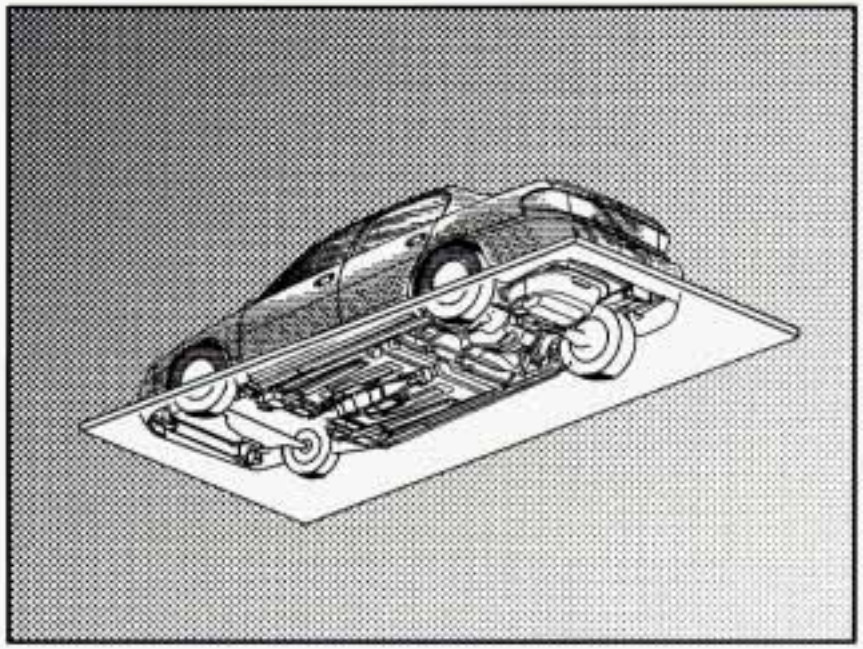
There's something else about drinking and driving that many people don't know. Medical research shows that alcohol in a person's system can make crash injuries worse, especially injuries to the brain, spinal cord or heart. This means that when anyone who has been drinking -- driver or passenger -- is 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.

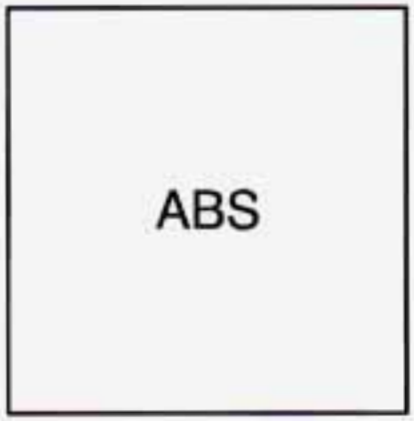
Avoid needless heavy braking. Some people drive in spurts -- heavy acceleration followed by heavy braking -- rather than keeping pace with traffic. This is a mistake. Your brakes may not have time to cool between hard stops. Your brakes will wear out much faster if you do a lot of heavy braking. If you 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 the 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.

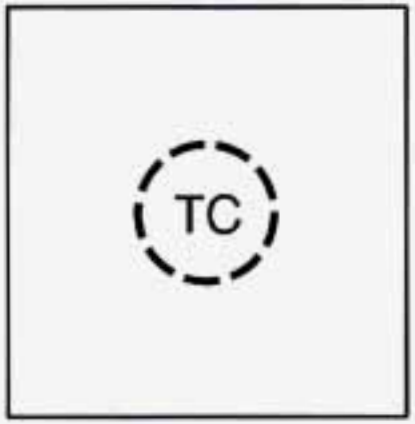
Using Anti-Lock

Don't pump the brakes. Just hold the brake pedal down and let anti-lock work for you. You may hear the anti-lock pump or motor operate, and feel the brake pedal pulsate, 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 rear wheels are spinning or beginning to lose traction. When this happens, the system reduces engine power to limit wheel spin.

You may feel or hear the system working, but this is normal.



This warning light will come on to let you know if 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 TCS OFF button located next to the radio on the center console.

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.

Speed Sensitive Steering (SSS)

This system varies the amount of steering effort proportionate to your vehicle speed. Steering is easier at a lower speed for maneuvering and parking ease. As your vehicle speed increases, the steering effort also increases. At highway speeds, the amount of steering effort is increased to provide manual-like steering for maximum control and stability. If your Catera seems harder to steer than normal when parking or driving slow, something may be wrong with the speed sensitive steering system. You will still have power steering, however, steering will be stiffer than normal at low 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.

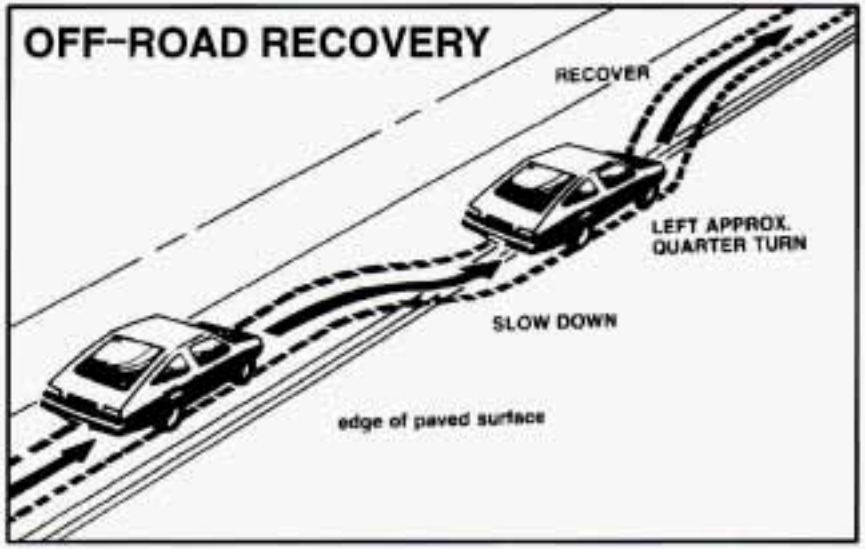
Your Catera can perform very well in emergencies like these. First apply your brakes. (See "Braking in Emergencies" earlier in this section.) It is better to remove as much speed as you can from a possible collision. Then steer around the problem, to the left or right depending on the space available.

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 sometime 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 Catera'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.

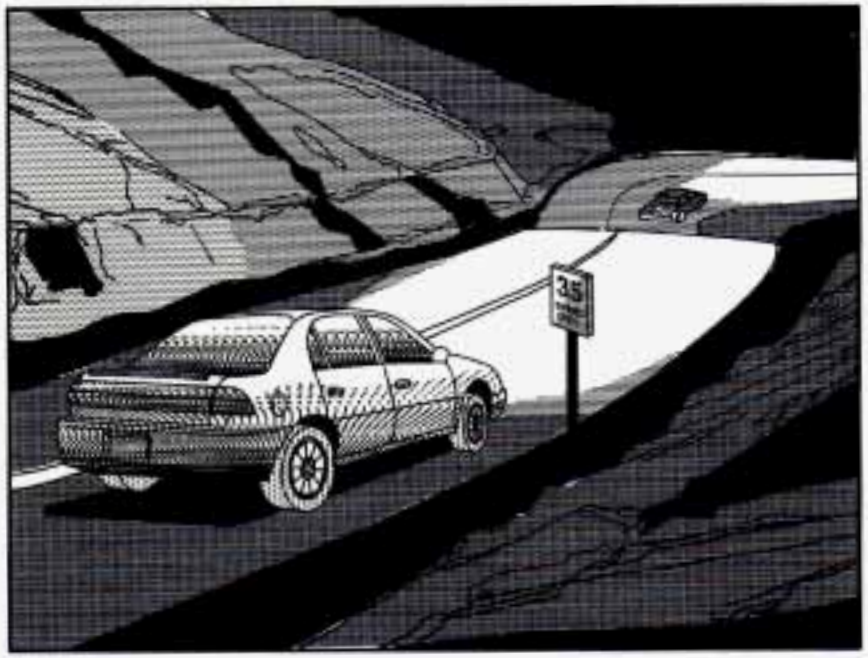
If your vehicle starts to slide, ease your foot off the accelerator pedal and quickly steer the way you want the vehicle to go. If you start steering quickly enough, your vehicle may straighten out. Always be ready for a second skid if it occurs.

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.

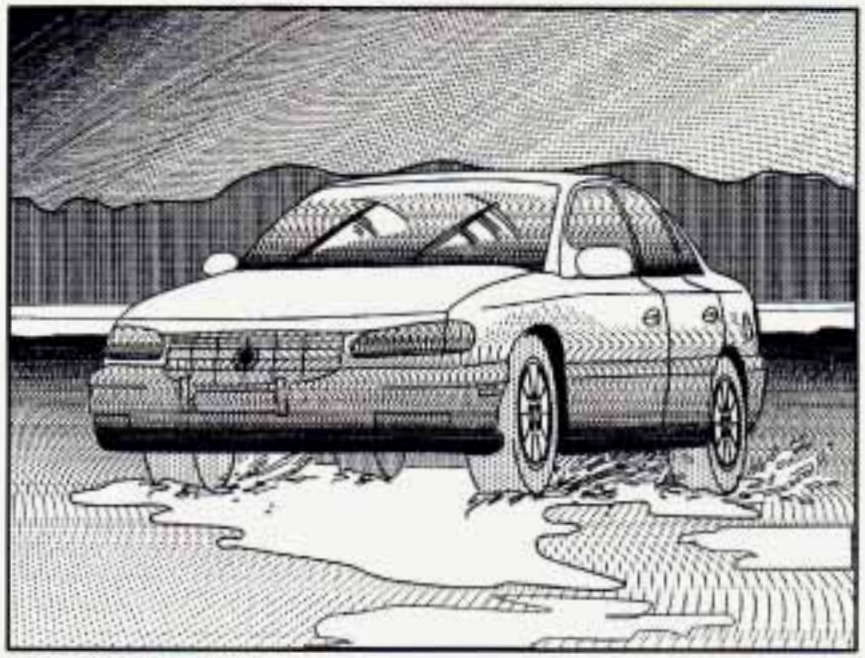
Driving in Rain and on Wet Roads

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.)

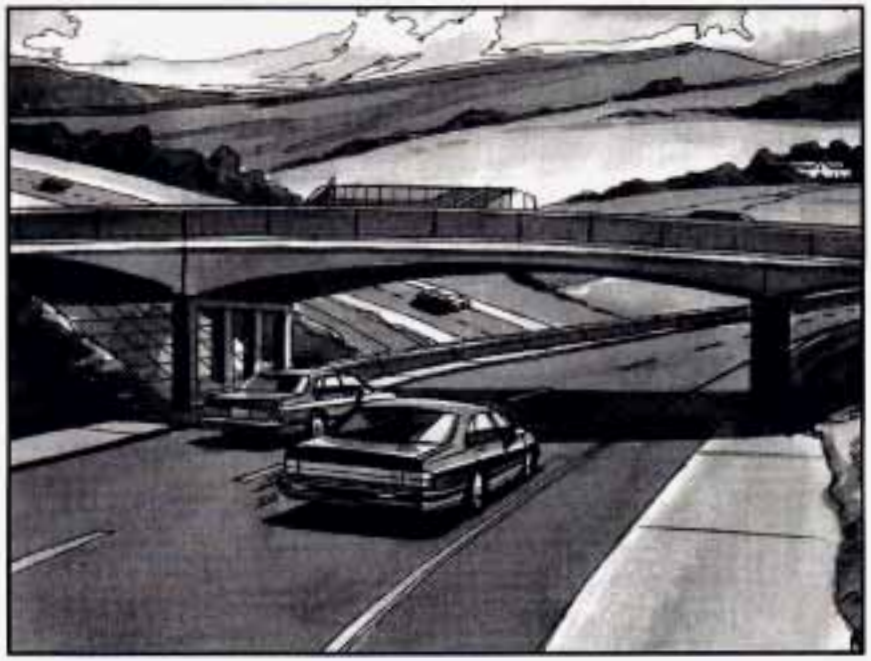
City Driving

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 Catera 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.

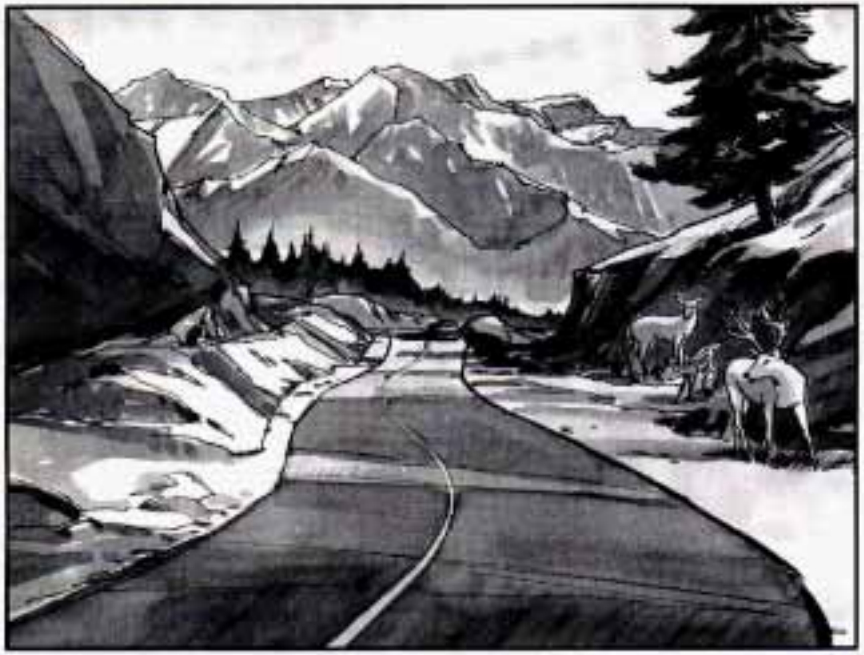
There is something about an easy stretch of road with the same scenery, along with the hum of the tires on the road, the drone of the engine, and the rush of the wind against the vehicle that can make you sleepy. Don't let it happen to you! If it does, your vehicle can leave the road in *less than a 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 transmission. 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:

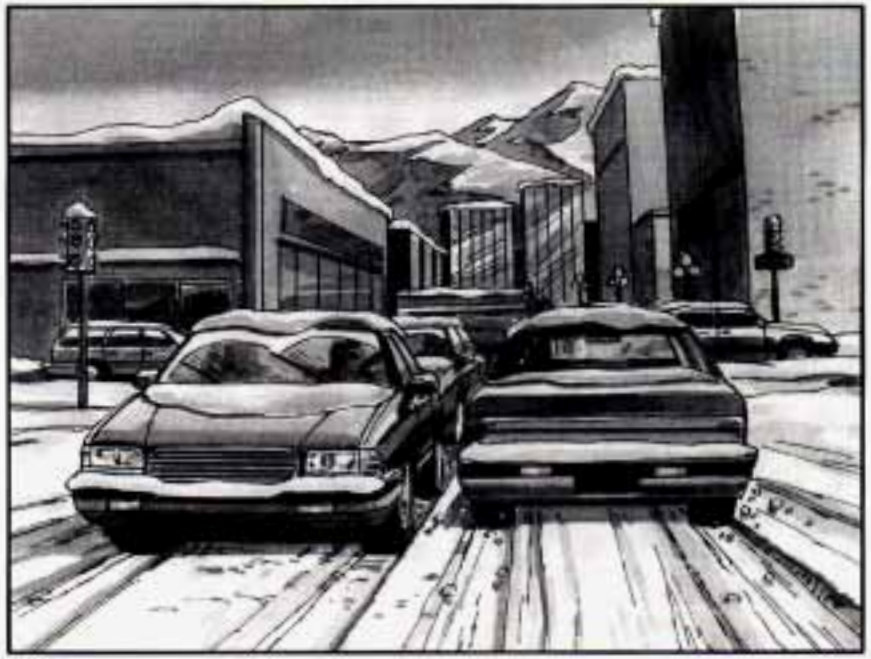
If you don't shift down, your brakes could get so hot that they wouldn't work well. You would then have poor braking or even none going down a hill. You could crash. Shift down to let your engine assist your brakes on a steep downhill slope.

⚠ 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. You may want to shift down to a lower gear. The lower gears help cool your engine and transmission, and you can climb the hill better.
- 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:

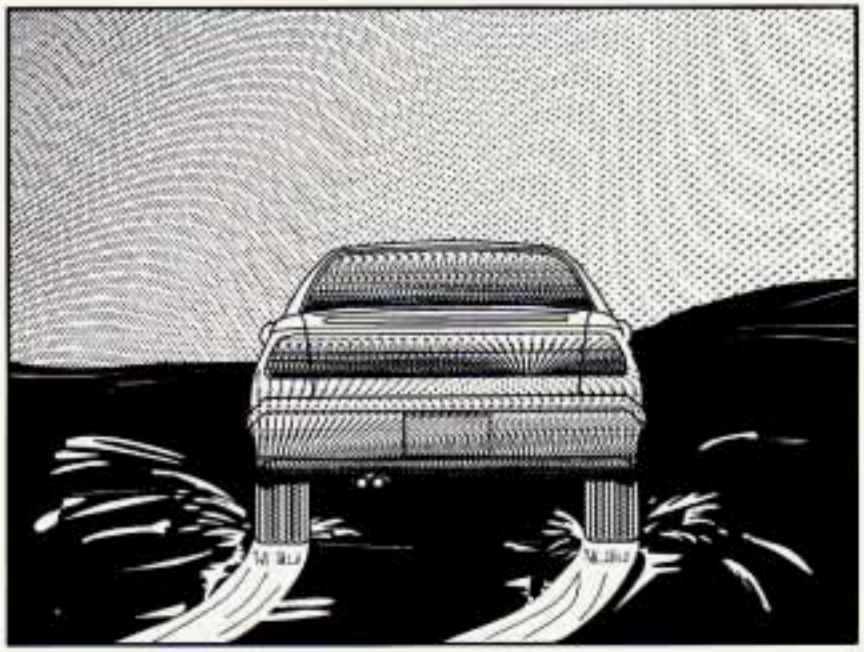
- Have your Catera in good shape for winter.
- You may want to put winter emergency supplies in your trunk.

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.

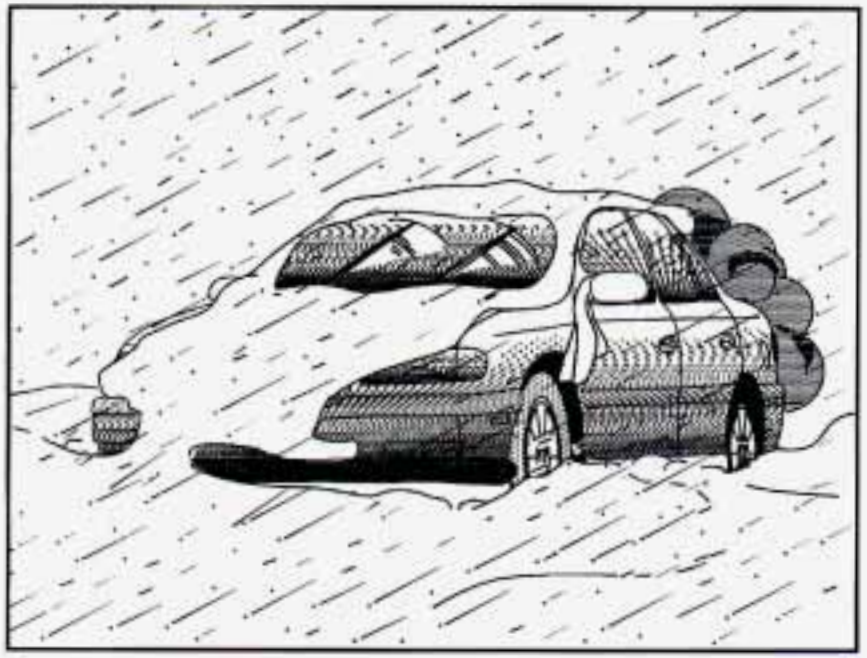
Whatever the condition -- smooth ice, packed, blowing or loose snow -- drive with caution.

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. Also, see "Third Gear Start" 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 awhile.

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.

TIRE-LOADING INFORMATION
OCCUPANTS VEHICLE CAP. WT.
FRT. CTR. RR. TOTAL LBS. KG

MAX. LOADING & GVWR SAME AS VEHICLE
CAPACITY WEIGHT XXX COLD TIRE
TIRE SIZE SPEED RTG PRESSURE PSI/KPa
FRT.
RR.
SPA.
IF TIRES ARE HOT, ADD 4PSI/28KPa
SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION

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 pressures 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 options not installed at the factory.

MFD BY GENERAL MOTORS CORP
DATE GVWR GAWR FRT GAWR RR

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

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 GVWR (Gross Vehicle Weight Rating). 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 or rear axle.

If you do have a heavy load, you should spread it out. Don't carry more than 176 lbs. (80 kg) in the 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, or it can change the way your vehicle handles. These could cause you to lose control. 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.**
- **Don't leave a seat folded down unless you need to.**

Electronic Level Control

This feature keeps the rear of your vehicle level as the load changes. It's 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. Pull a trailer only if you have followed all the steps in this section. Ask your Catera dealer for advice and information about towing a trailer with your vehicle.

NOTICE:

Pulling a trailer improperly can damage your vehicle and result in costly repairs not covered by your warranty. To pull a trailer correctly, follow the advice in this part, and see your Catera dealer for important information about towing a trailer with your vehicle.

Your Catera 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, transmission, 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 1,000 lbs. (454 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:

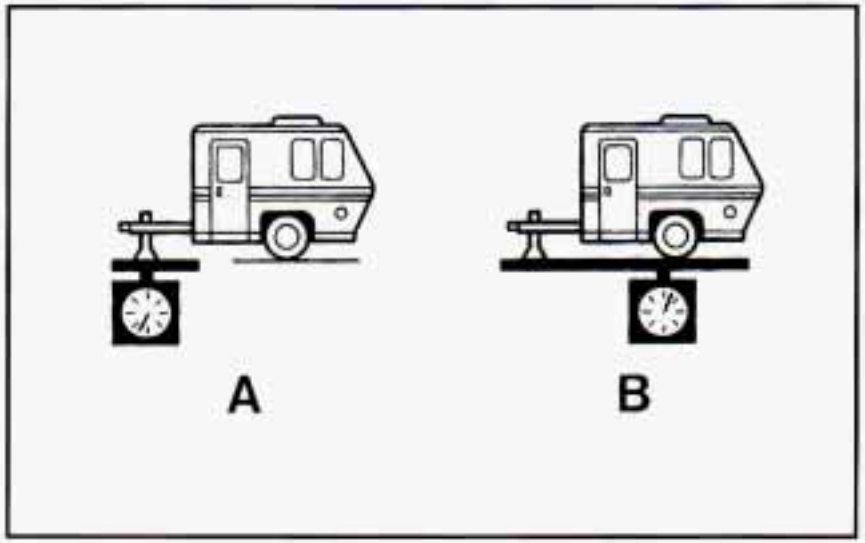
Cadillac Customer Assistance Center
Cadillac Motor Car Division
30009 Van Dyke
P.O. Box 9025
Warren, MI 48090-9025

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 capacity weight of your vehicle. The capacity weight 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 will tow a trailer, you must subtract the tongue load from your vehicle's capacity weight 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 bumpers on your vehicle are not intended for hitches. Do not attach rental hitches or other bumper-type hitches to them. 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

Because your vehicle has anti-lock brakes, don't try to tap into the hydraulic brake system. If you do, both brake systems won't work well, or at all.

Be sure to read and follow the instructions for the trailer brakes so you'll be able to install, adjust and maintain them properly.

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

When you tow a trailer, your vehicle may need a different turn signal flasher and/or extra wiring. Check with your Catera dealer. The green 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 green 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.

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.

On a long uphill grade, shift down and reduce your speed to around 45 mph (70 km/h) or less to reduce the possibility of engine and transmission overheating.

Parking on Hills

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 the regular brakes, but do not shift into PARK (P).
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 shift into PARK (P) firmly and apply the parking brake.
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
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 transmission fluid (don't overfill), engine oil, axle lubricant, belt, cooling system and brake adjustment. 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 these sections before you start your trip.

Check periodically to see that all hitch nuts and bolts are tight.

NOTES

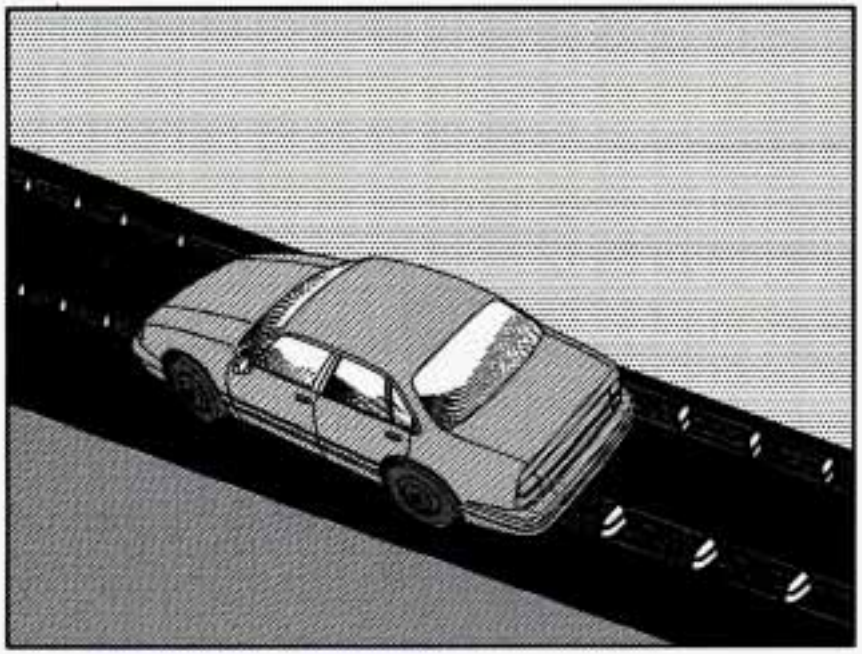
NOTES

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 Catera
5-14 Engine Overheating
5-22 If a Tire Goes Flat
5-23 Changing a Flat Tire
5-33 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.

Pressing this button on the center console makes the front and rear turn signal lamps flash on and off. The indicator light on the button also flashes. Pressing the button again turns the flashers off. The flashers work regardless of the key position.

When the hazard warning flashers are on, the turn signals won't work since they are already flashing.

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 the battery has run down, you may want to use another vehicle and some jumper cables to start your Catera. Please follow the steps below to do it safely.

NOTICE:

Ignoring these steps could result in costly damage to your vehicle that wouldn't be covered by your warranty.

Trying to start your Catera by pushing or pulling it won't work and it could damage your vehicle.

⚠ 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.

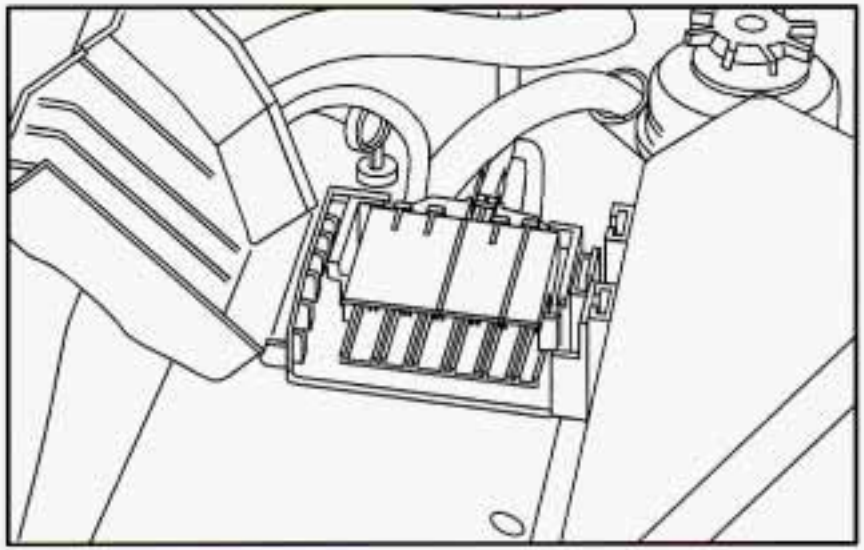
1. Check the other vehicle. It must have a 12-volt battery with a negative ground system.

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 Catera and the bad grounding could damage the electrical systems.

3. Turn off the ignition on both vehicles. Unplug unnecessary accessories plugged into the cigarette lighter. Turn off all lamps that aren't needed as well as the radios. This will avoid sparks and help save both batteries. In addition, it could save the radio!



4. Open the hoods and locate the batteries. On the Catera, you'll also need to open the MaxiFuse box cover to access the positive (+) terminal on the battery.

⚠ 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.

⚠ 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 Delco 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.

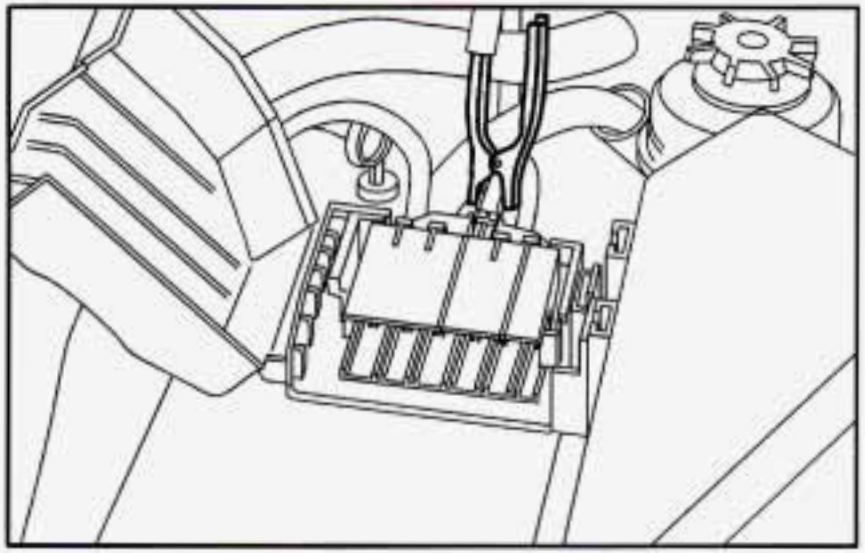
Battery fluid contains acid that can burn you. Don't get it on you. If you accidentally get it in your eyes or on your skin, flush the place with water and get medical help immediately.

5. Check that the jumper cables don't have loose or missing insulation. If they do, you could get a shock. The vehicles could also be damaged.

   Before you connect the cables, here are some basic things you should know. Positive (+) will go to positive and negative (-) will go to an unpainted metal engine part or a body metal surface. Don't connect positive (+) to negative (-) or you will get a short that would damage the battery and maybe other parts, too. Also, don't connect negative (-) to negative (-).

⚠ CAUTION:

Fans or other moving engine parts can injure you badly. Keep your hands away from moving parts once the engines are running.



6. Connect the red positive (+) cable to the positive (+) terminal of the vehicle with the dead battery.

7. Don't let the other end of the positive cable touch metal. Connect it to the positive (+) terminal of the good battery.

8. Now connect the black negative (-) cable to the good battery's negative (-) terminal.

Don't let the other end of the negative (-) cable 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.

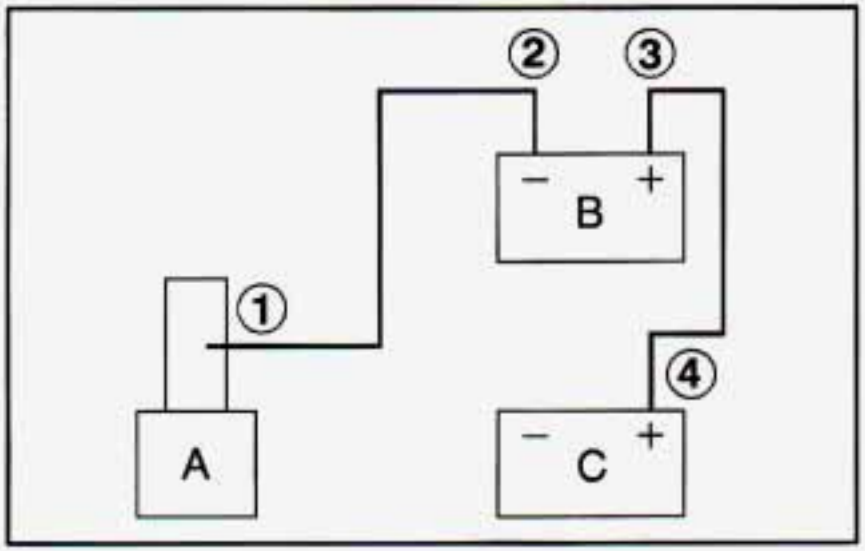
9. Attach the cable at least 18 inches (45 cm) away from the dead battery, but not near engine parts that move.

A good spot to attach the negative (-) cable is on the bracket between the air cleaner and the engine block.

10. Now start the vehicle with the good battery and run the engine for awhile.

11. Try to start the vehicle with the dead battery. If it won't start after a few tries, it probably needs service.

12. 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 Catera

Try to have a Catera dealer or a professional towing service tow your Catera. See "Roadside Service" in the Index.

If your vehicle has been changed or modified since it was factory-new by adding aftermarket items like fog lamps, aero skirting or special tires and wheels, these instructions may not be correct.

Before you do anything, turn on the hazard warning flashers.

When you call, tell the towing service:

- That your vehicle has rear-wheel drive.
- The make, model and year of your vehicle.
- Whether you can still move the shift lever.
- If there was an accident, what was damaged.

When the towing service arrives, let the tow operator know that this manual contains towing instructions and illustrations. The operator may want to see them.

Front and Rear Towing

⚠ CAUTION:

To help avoid 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.**

CAUTION: (Continued)

CAUTION: (Continued)

- **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 R-hooks.**

⚠ CAUTION:

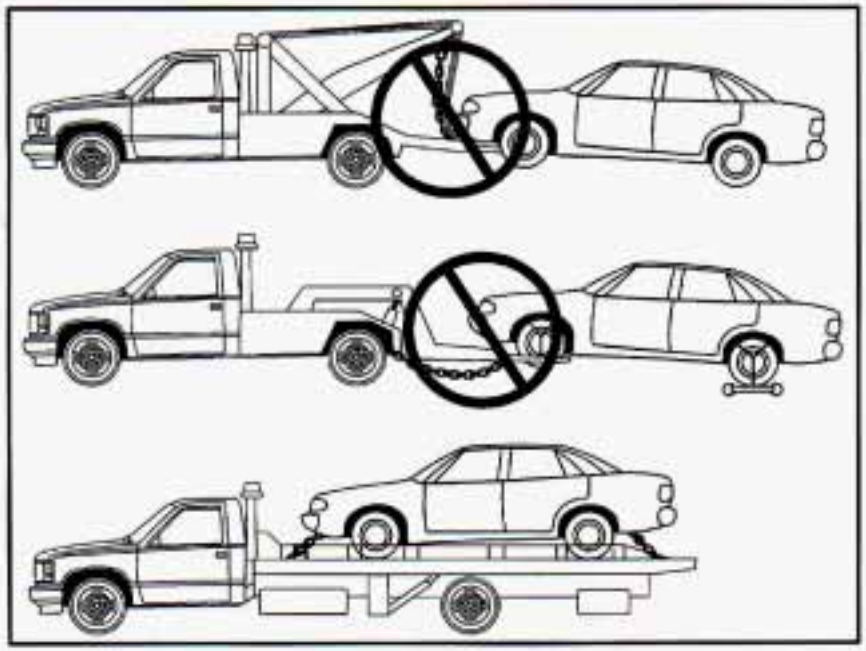
A vehicle can fall from a car-carrier if it isn't adequately secured. This can cause a collision, serious personal injury and vehicle damage. The vehicle should be tightly secured with chains or steel cables before it is transported.

Don't use substitutes (ropes, leather straps, canvas webbing, etc.) that can be cut by sharp edges underneath the towed vehicle. Always use R-hooks inserted in the front and rear R-hook slots. Never use J-hooks. They will damage drivetrain and suspension components.

When your vehicle is being towed, have the ignition key turned to the OFF position. The steering wheel should be clamped in a straight-ahead position, with a clamping device designed for towing service. Do not use the vehicle's steering column lock for this. The transmission should be in NEUTRAL (N) and the parking brake released.

Don't have your vehicle towed on the drive wheels.

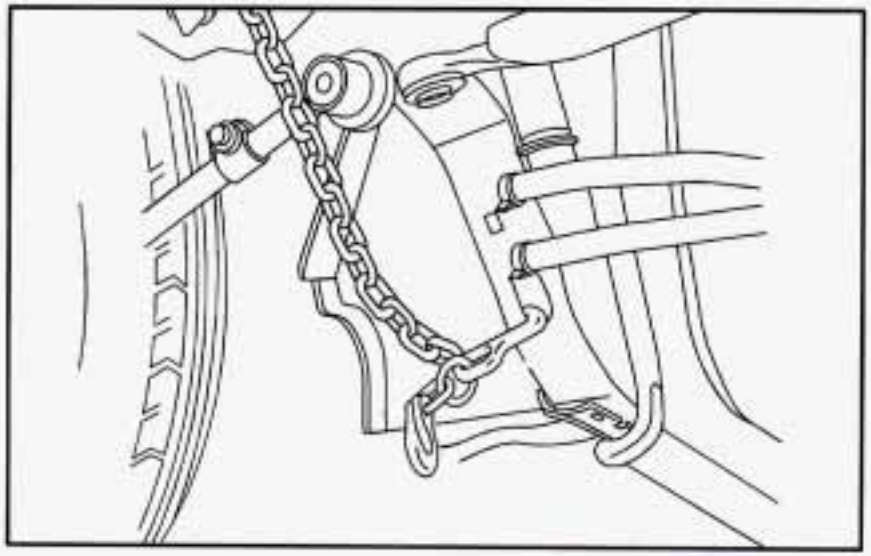
Front Towing



NOTICE:

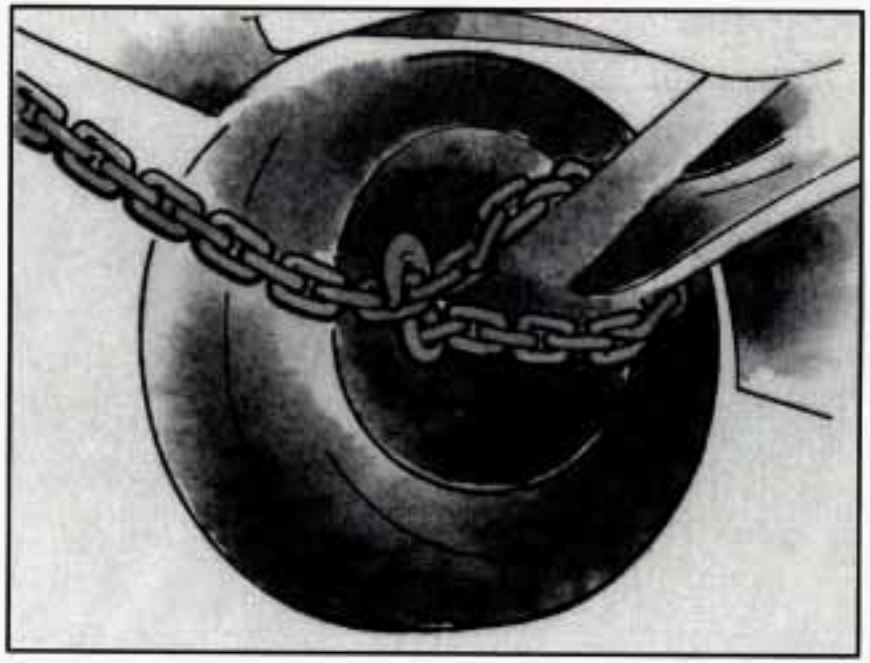
Do not tow with sling type or wheel-lift equipment or fascia/fog lamp damage may occur. Use car-carrier equipment only. Additional ramping may be required for car-carrier equipment. Use safety chains and wheel straps.

Do not attach winch cables, T-hooks or J-hooks to suspension components when using car-carrier equipment. Always use R-hooks inserted into the R-hook slots.



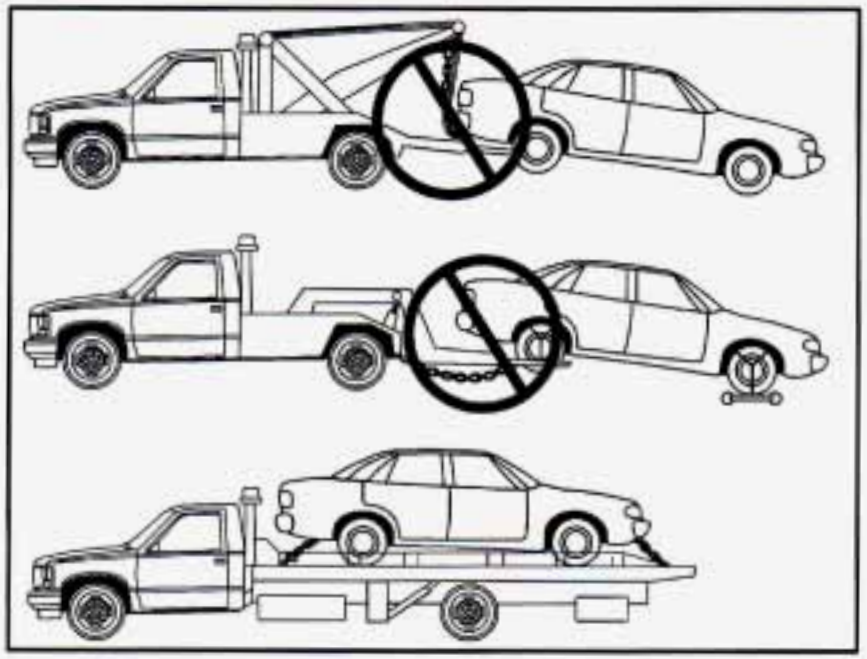
Attach R-hook chains on both sides, in the slotted holes in the bottom of the frame rails, behind the front wheels.

These slots are to be used when loading and securing to car-carrier equipment.



Attach a separate safety chain around the outboard end of each lower control arm.

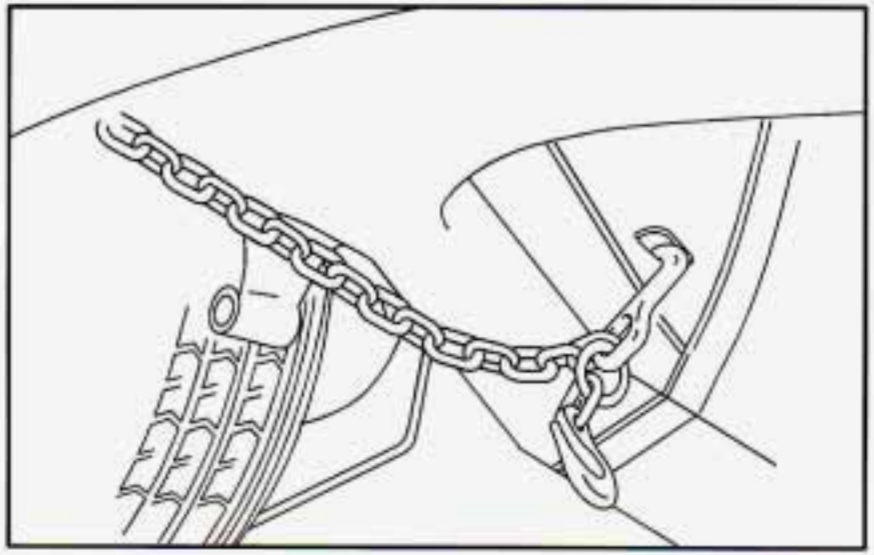
Rear Towing



NOTICE:

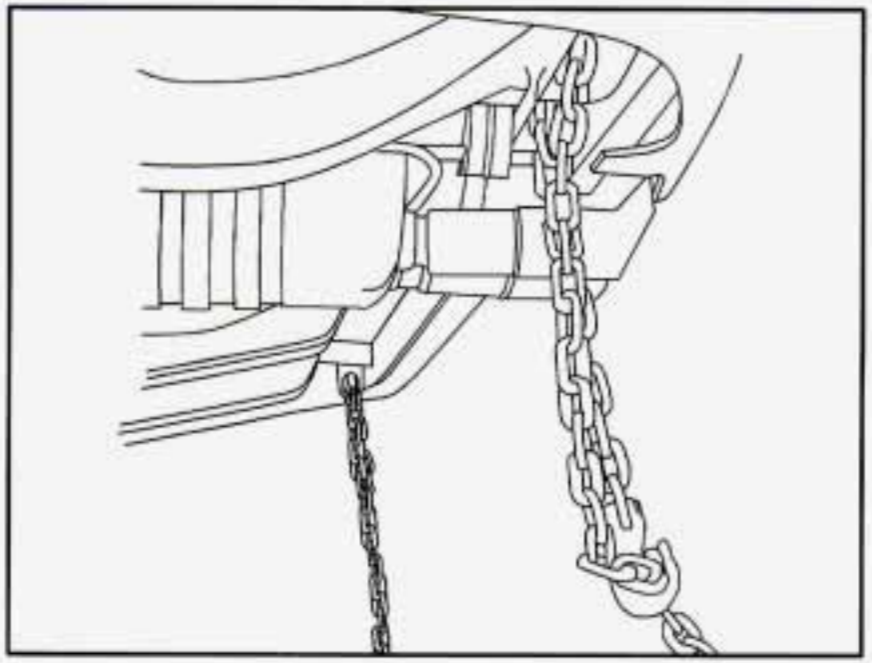
Do not tow with sling type or wheel-lift equipment or rear bumper valance damage may occur. Use car-carrier equipment only. Additional ramping may be required for car-carrier equipment. Use safety chains and wheel straps.

Do not attach winch cables, T-hooks or J-hooks to suspension components when using car-carrier equipment. Always use R-hooks inserted in the R-hook slots.



Attach R-hook chains to the R-hook slots in the frame rails just ahead of the rear wheels on both sides.

These slots are to be used when loading and securing to car-carrier equipment.



Attach a separate safety chain around the bumper energy absorbing shock/unit on the left side of the vehicle and another safety chain on the right side tow hook.

Engine Overheating

You will find the warning light about a hot engine on the instrument panel.

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.

If No Steam Is Coming From Your Engine

If you get the 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. Turn off your air conditioner.
2. Dial temperature control to the highest heat setting 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 -- DRIVE (D) or THIRD (3).

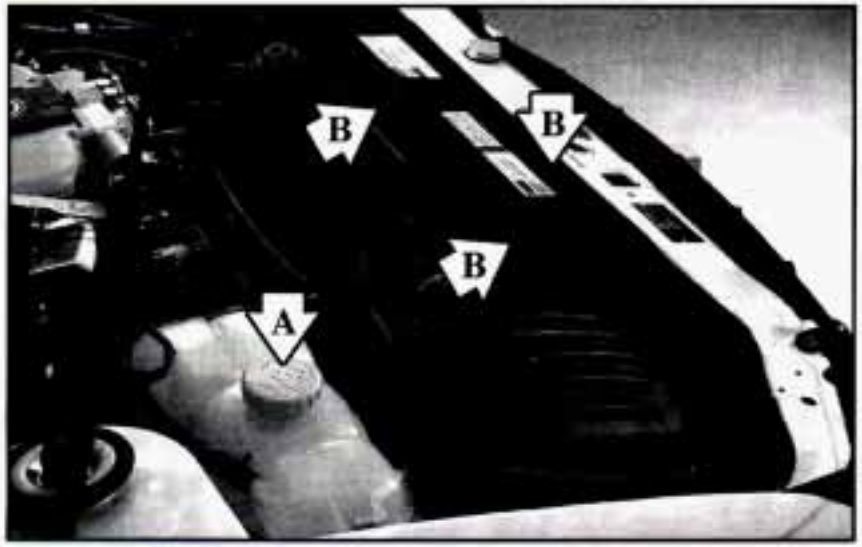
If you no longer have the overheat warning, you can drive. Just to be safe, drive slower for about 10 minutes. If the warning doesn't come back on, you can drive normally.

If the warning continues, pull over, stop and park your vehicle right away.

If there's still no sign of steam, you can idle the engine for two or three minutes while you're parked, to see if the warning stops. But then, if you still have the warning, *turn off the engine and get everyone out of the vehicle* until it cools down.

You may decide not to lift the hood but to get service help right away.

When you decide it's safe to lift the hood, here's what you'll see:



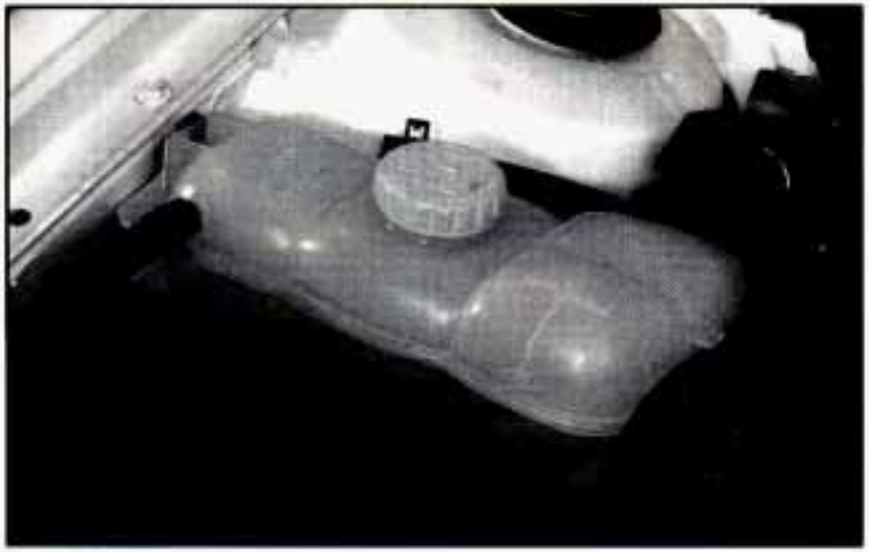
A. Coolant Surge Tank with Pressure Cap

B. Electric Engine Fans

⚠ CAUTION:

An electric 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.



The coolant level should be at or slightly above the KALT/COLD line (seam).

If it isn't, 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.

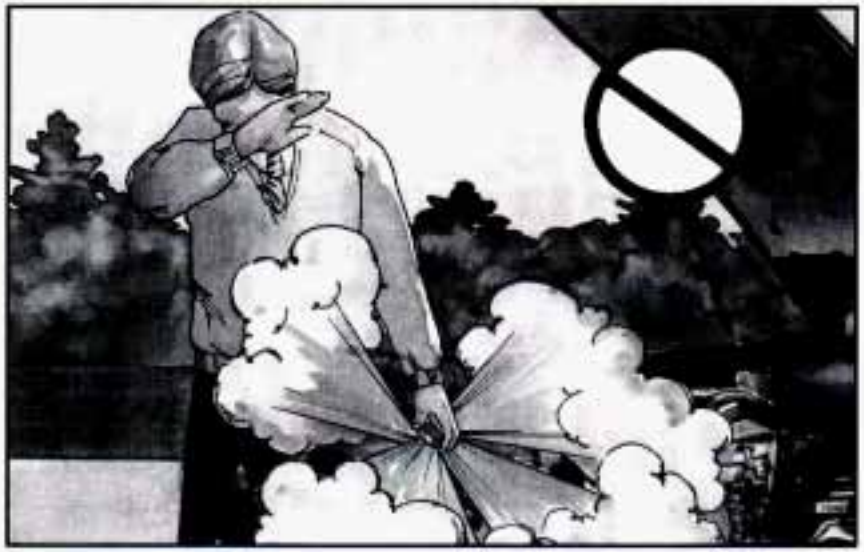
NOTICE:

Engine damage from running your engine without coolant isn't covered by your warranty.

If there seems to be no leak, with the engine on, check to see if the electric engine 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 the KALT/COLD line (seam), add a 50/50 mixture of *clean water* (preferably distilled) 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 mix will. Your vehicle's coolant warning system is set for the proper coolant mix. With plain water or the wrong mix, 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 mix of clean 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 until it first stops. (Don't press down while turning the pressure cap.)

   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 mix, up to the KALT/COLD line (seam).

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 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 mix to the coolant surge tank until the level reaches the KALT/COLD line (seam).

5. Then replace the pressure cap. Be sure the pressure cap is 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

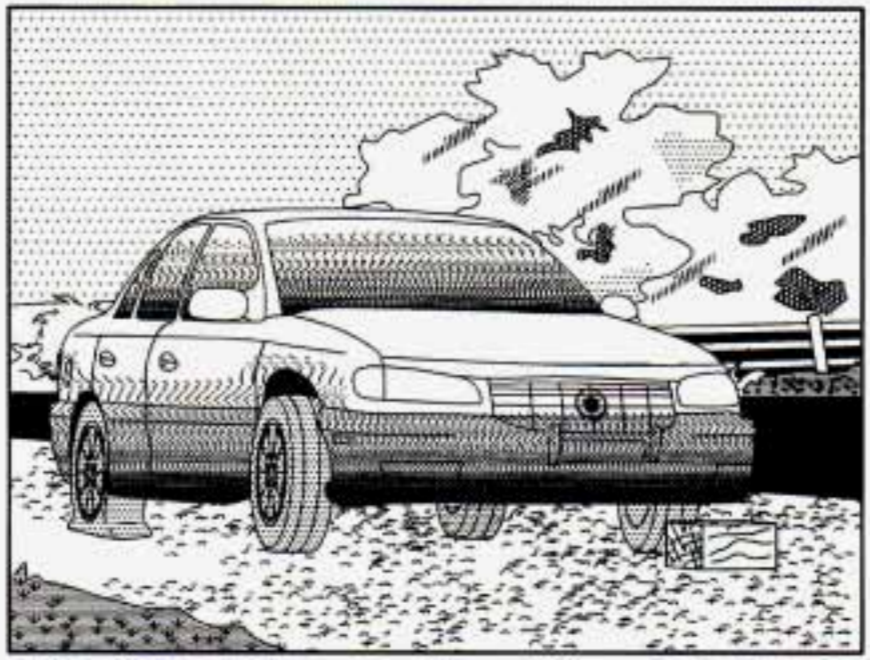
If a tire goes flat, avoid further tire and wheel damage by driving slowly to a level place. Turn on your hazard warning flashers.

⚠ 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. **Put the shift lever in PARK (P).**
2. **Set the parking brake firmly.**
3. **Turn off the engine.**

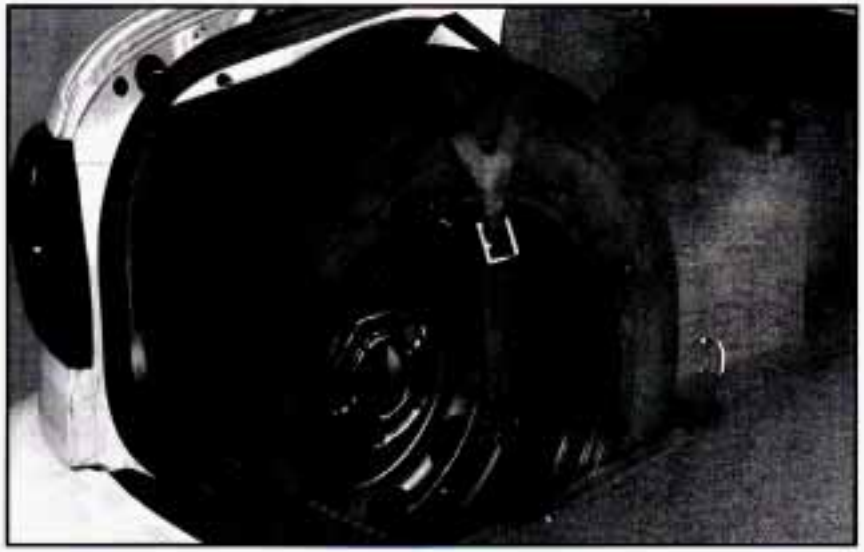
To be even more certain the vehicle won't move, you can put blocks at the front and rear of the tire farthest away from the one being changed. That would be the tire on the other side of the vehicle, at the opposite end.



The following steps will tell you how to use the jack and change a tire.

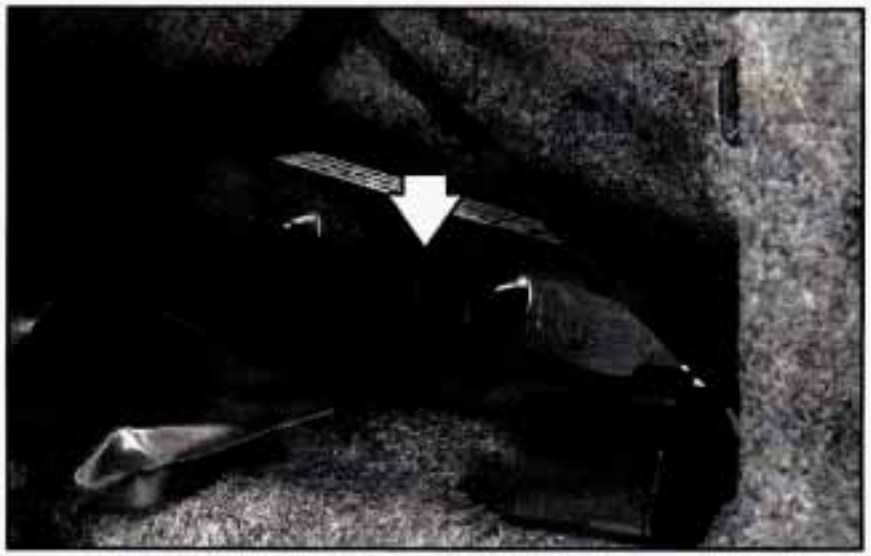
Removing the Spare Tire and Tools

The equipment you'll need is in the trunk. On the driver's side of the trunk is the spare tire. Pull the fasteners on the spare tire cover to access the tire.

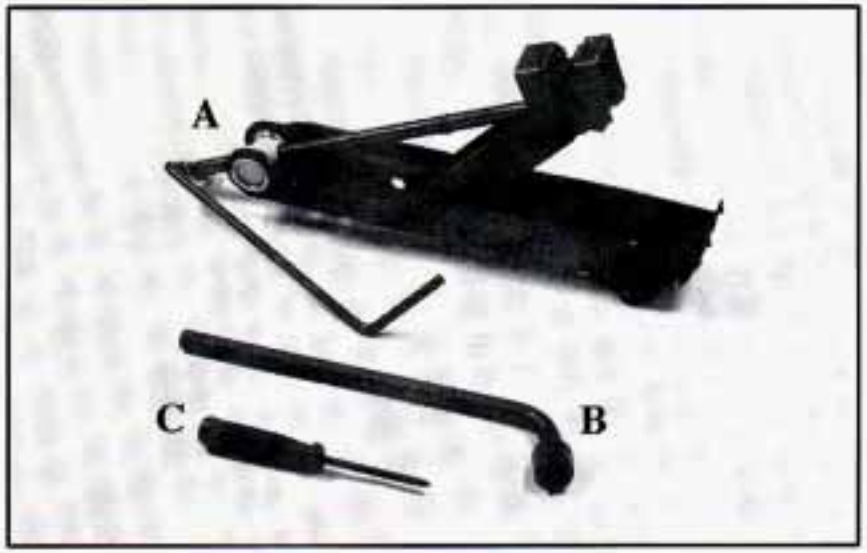


Unbuckle the tire and lift it up to remove it from the trunk.

The jack and tool kit are located on the passenger's side of the trunk. Pull the red handle to remove the cover and access the equipment.



Turn the nut holding the jack counterclockwise and remove it.



The tools you'll be using include the jack (A), the wheel wrench (B) and the screwdriver (C).

Removing the Wheel Cover

Seven-Spoke Wheel

There is a center wheel cover on all of the available wheels (five-spoke wheel not shown). Using the flat end of the screwdriver, gently pry the wheel cover off. Be careful not to scratch the wheel edge and don't try to remove it with your hands.

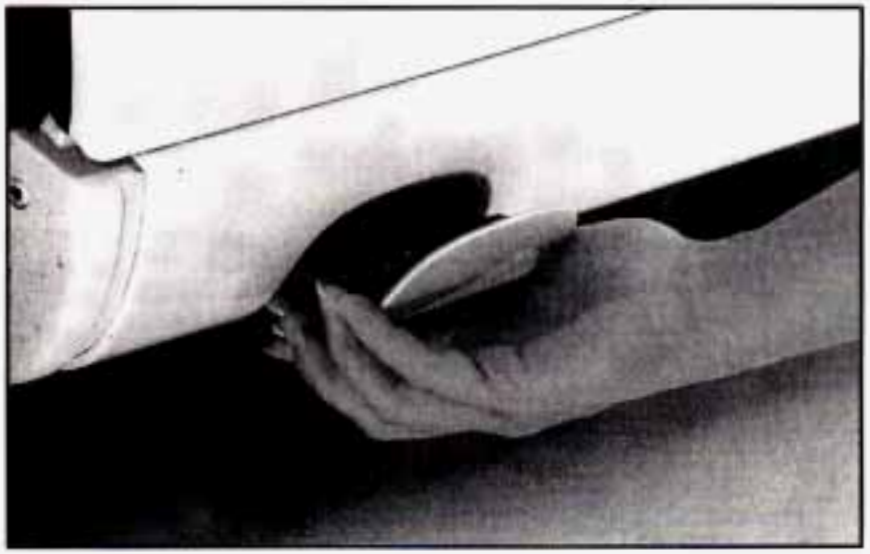
Removing the Flat Tire and Installing the Spare Tire

Seven-Spoke Wheel

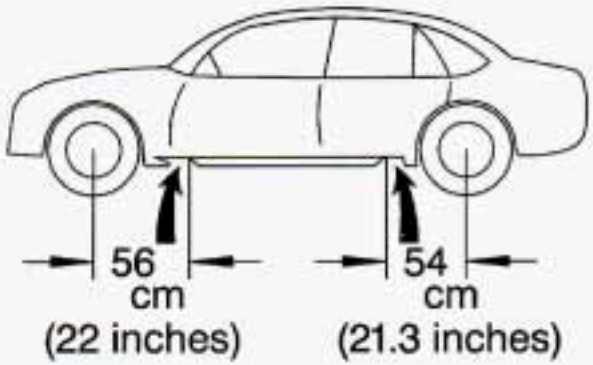
1. If you have the seven-spoke wheel, using the wheel wrench, loosen all of the wheel bolts. Don't remove them yet.

   If you have the five-spoke wheel (not shown), use the flat end of the screwdriver to pry off the five black plastic wheel bolt caps. Then, using the wheel wrench, loosen all of the wheel bolts. Don't remove them yet.

2. Turn the jack handle clockwise to raise the jack lift head a few inches.



3. To access the jack hoisting notches, slide the cover out (located either in front of or behind the tire you are changing).



Position the jack under the vehicle (as shown in step 4) and raise the jack lift head until it's firmly set into the hoisting notch on the vehicle's frame, nearest the flat tire.

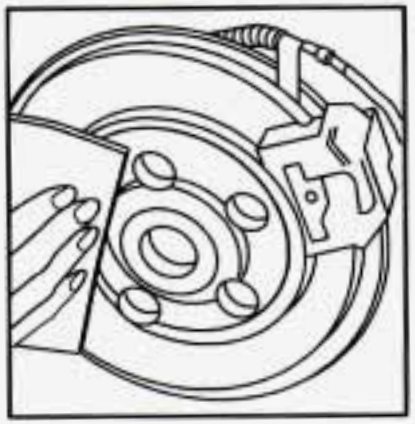
⚠ CAUTION:

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.

NOTICE:

Raising your vehicle with the jack improperly positioned can damage the vehicle and even make the vehicle fall. To help avoid a personal injury and vehicle damage, be sure to fit the jack lift head into the proper location before raising the vehicle.

4. Raise the vehicle by turning the jack handle clockwise. Raise the vehicle far enough off the ground for the spare tire to fit under the vehicle.
5. Remove all wheel bolts and take off the flat tire.



6. Remove any rust or dirt from the wheel bolts, mounting surfaces and spare wheel.

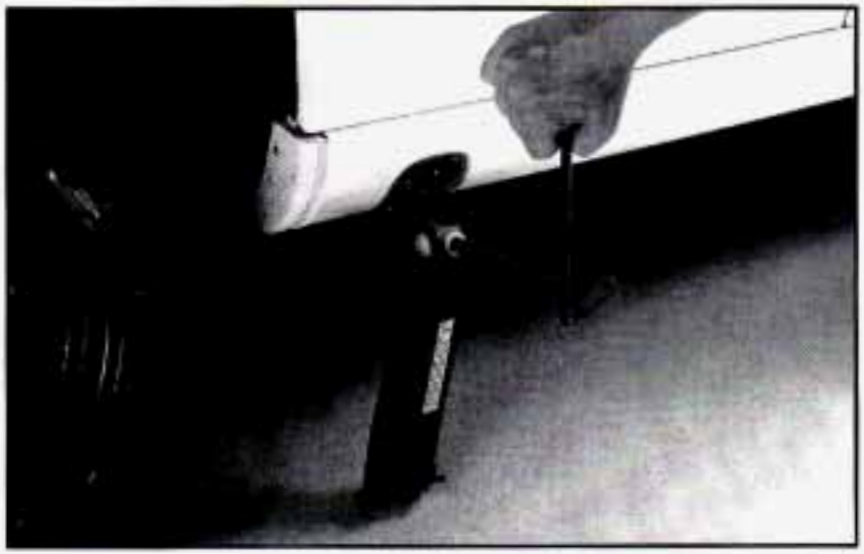
⚠ CAUTION:

Rust or dirt on the wheel, or on the parts to which it is fastened, can make the wheel bolts 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.

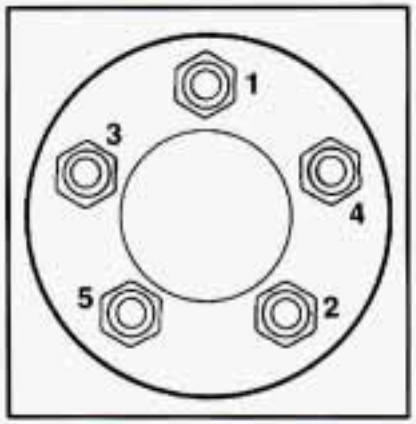
⚠ CAUTION:

Never use oil or grease on wheel bolts. If you do, the bolts might come loose. Your wheel could fall off, causing a serious accident.

7. Replace the wheel bolts. Tighten each bolt by hand until the wheel is held against the hub.



8. Lower the vehicle by turning the jack handle counterclockwise. Lower the jack completely.



9. Tighten the wheel bolts firmly in a criss-cross sequence as shown.

NOTICE:

Improperly tightened wheel bolts can lead to brake pulsation and rotor damage. To avoid expensive brake repairs, evenly tighten the wheel bolts in the proper sequence and to the proper torque specification.

⚠ CAUTION:

Incorrect wheel bolts or improperly tightened wheel bolts can cause the wheel to become loose and even come off. This could lead to an accident. Be sure to use the correct wheel bolts. If you have to replace them, be sure to get new GM original equipment wheel bolts.

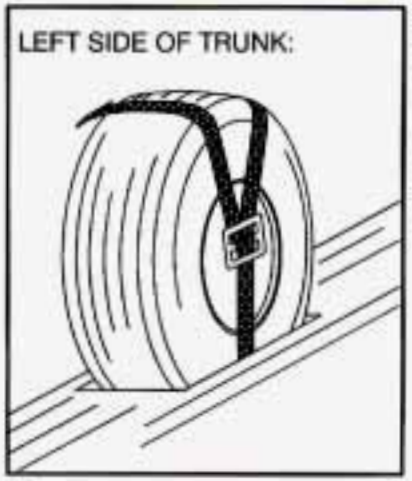
Stop somewhere as soon as you can and have the bolts tightened with a torque wrench to 80 lb-ft (110 N·m).

Storing a Flat or Spare Tire and Tools

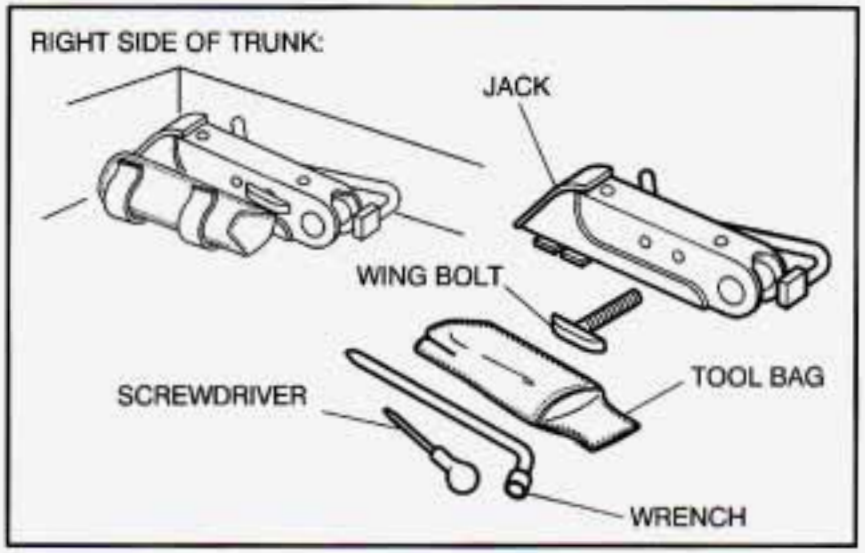
⚠ CAUTION:

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.

After you've put the spare tire on your vehicle, you'll need to store the flat tire in the trunk. Use the following procedure to secure the flat tire in the trunk.



Put the flat tire in the trunk where the spare is stored (driver's side wheel well). Secure the flat tire with the straps that are used to hold the spare in place.



The jacking tools are stored on the passenger's side of the trunk behind the panel with the red pull handle. Make sure these tools are properly secured when not in use.

If You're Stuck: In Sand, Mud, Ice or Snow

What you don't want to do when your vehicle is stuck is 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 transmission 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 transmission back and forth, you can destroy your transmission.

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 transmission is in gear. 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 Catera" in the Index.

NOTES

NOTES

NOTES

Section 6 Service and Appearance Care

Here you will find information about the care of your Catera. 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.

6-2 Service
6-3 Fuel
6-5 Fuels in Foreign Countries
6-5 Filling Your Tank
6-7 Checking Things Under the Hood
6-10 Engine Oil
6-15 Air Cleaner
6-18 Automatic Transmission Fluid
6-19 Engine Coolant
6-24 Windshield Washer Fluid
6-25 Brakes
6-29 Battery
6-29 Bulb Replacement
6-37 Wiper Blade Replacement
6-38 Tires
6-46 Cleaning the Inside of Your Catera
6-49 Care of Safety Belts
6-50 Cleaning the Outside of Your Catera
6-51 Cleaning Aluminum or Chrome Wheels
6-53 Underbody Maintenance
6-54 Appearance Care Materials Chart
6-55 Vehicle Identification Number (VIN)
6-55 Electrical System
6-62 Replacement Bulbs
6-62 Capacities and Specifications
6-63 Air Conditioning Refrigerants
6-63 Normal Maintenance Replacement Parts

Service

Your Catera 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:

Doing Your Own Service Work

If you want to do some of your own service work, you'll want to get the proper Catera Service Manual. It tells you much more about how to service your Catera 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 Catera" 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 Maintenance Schedule booklet.

⚠ 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 Catera 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.

At a minimum, the gasoline you use should meet specifications ASTM D4814 in the United States and CGSB 3.5-M93 in Canada. Improved gasoline specifications have been developed by the American Automobile Manufacturers Association (AAMA) for better vehicle performance and engine protection. Gasolines meeting the AAMA specification could provide improved driveability and emission control system protection compared to other gasolines.

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 still 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 tune-up 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. If this occurs, return to your authorized Catera 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 contain an octane-enhancing additive called methylcyclopentadlenyl manganese tricarbonyl (MMT); ask your service station operator whether or not this 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 Catera 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 help clean the air. General Motors recommends that you use these gasolines 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

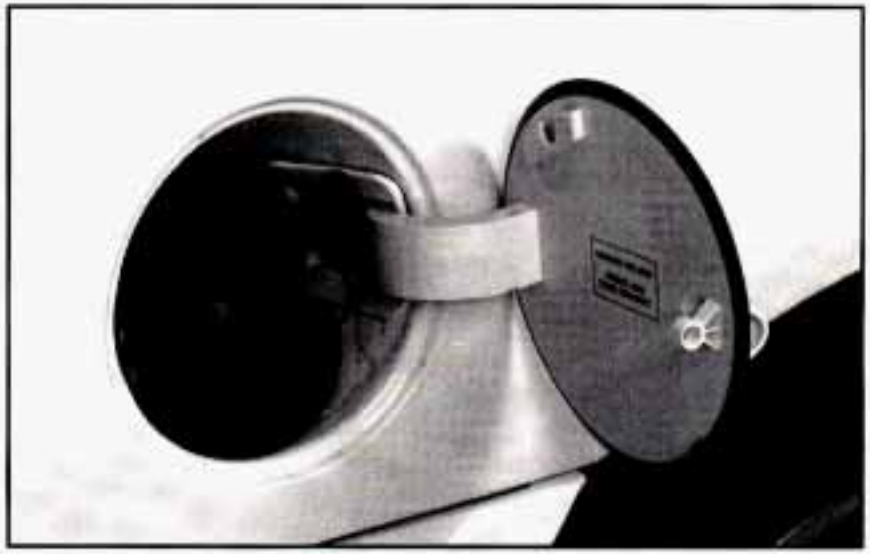
If you plan on driving in another country outside the United States or Canada, the proper fuel may be hard to find. Never use leaded gasoline or any other fuel not recommended in the previous text on fuel. Costly repairs caused by use of improper fuel wouldn't be covered by your warranty.

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 International Product Center
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

Filling Your Tank

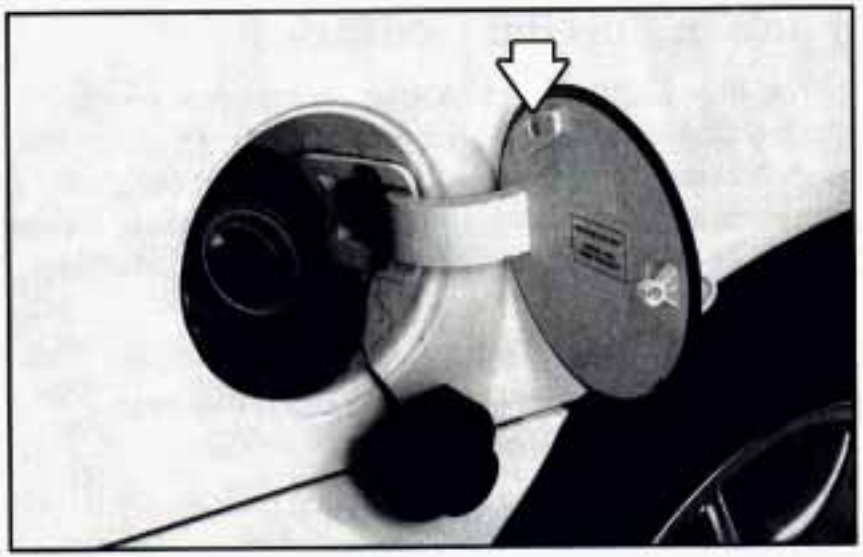


The cap is behind a hinged door on the passenger's side of your vehicle.

⚠ 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.

To use this feature, your vehicle must be in PARK (P). Press the fuel door unlock button located on the instrument panel center console to unlock and open the fuel door. You can also press the fuel button on the RKE transmitter to access the fuel cap.



While refueling, hang the tethered fuel cap inside the fuel door as shown by the arrow.

To take off the cap, turn it slowly to the left (counterclockwise).

⚠ 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 Catera" 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.

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:

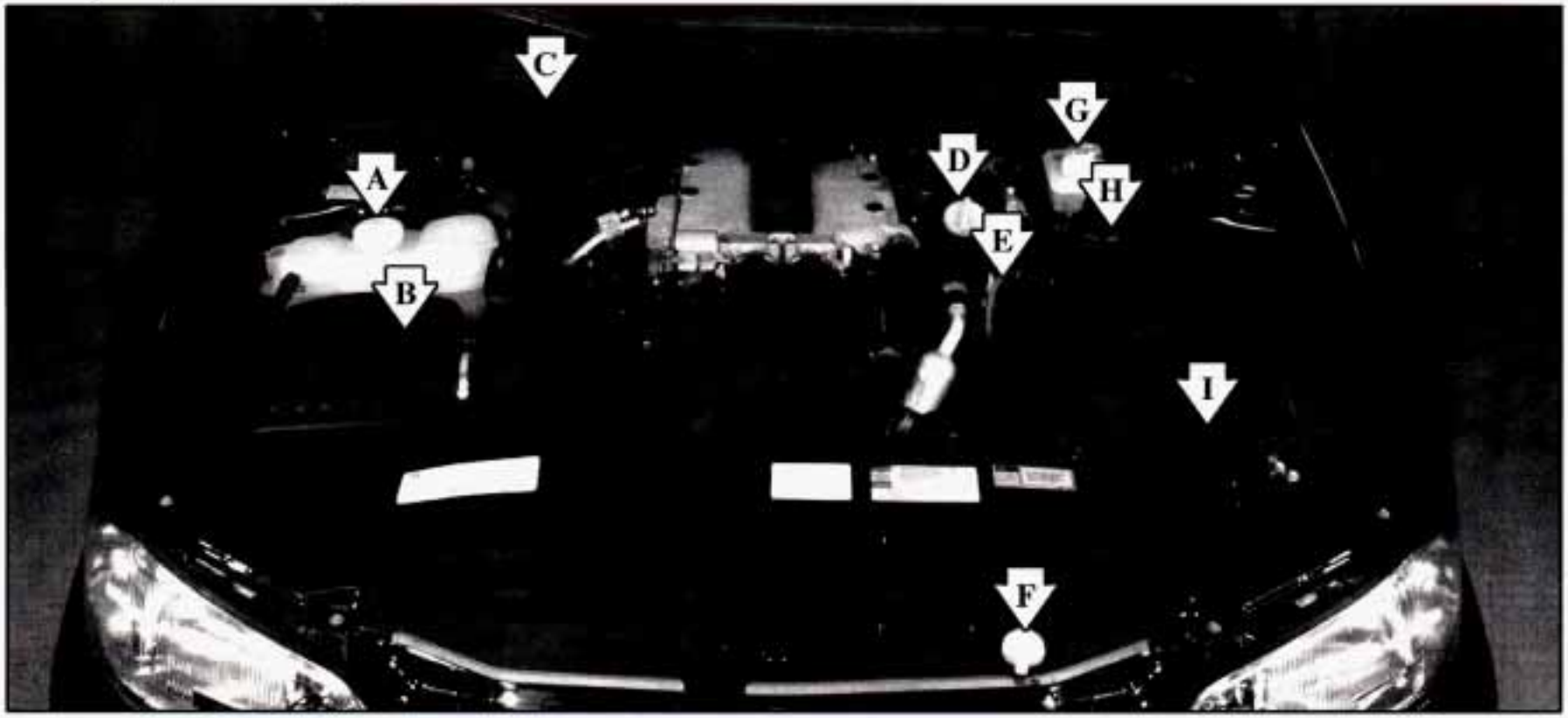
Things that burn can get on hot engine parts and start a fire. These include liquids like gasoline, oil, coolant, brake fluid, windshield washer and other fluids, and plastic or rubber. You or others could be burned. Be careful not to drop or spill things that will burn onto a hot engine.

Hood Release

Pull the lever inside the vehicle to open the hood. It is located on the lower left side of the instrument panel.

Then go to the front of the vehicle and find the secondary hood release which is located above the front grille. Lift up on the release lever as you raise the hood.

When you open the hood, you'll see:



A. Coolant Fill Location
B. Air Cleaner
C. Passenger's Compartment Air Filter
D. Engine Oil Fill Location
E. Engine Oil Dipstick Location
F. Windshield Washer Fluid
G. Brake Master Cylinder
H. Power Steering Fluid
I. Battery

Before closing the hood, be sure all filler caps are on properly. Then pull the hood down and close it firmly.

Engine Oil

If the low oil level light on the instrument panel comes on, it means you need to check your engine oil level right away. For more information, see "Low Oil Level Light" in the Index. You should check your engine oil level regularly; this is an added reminder.

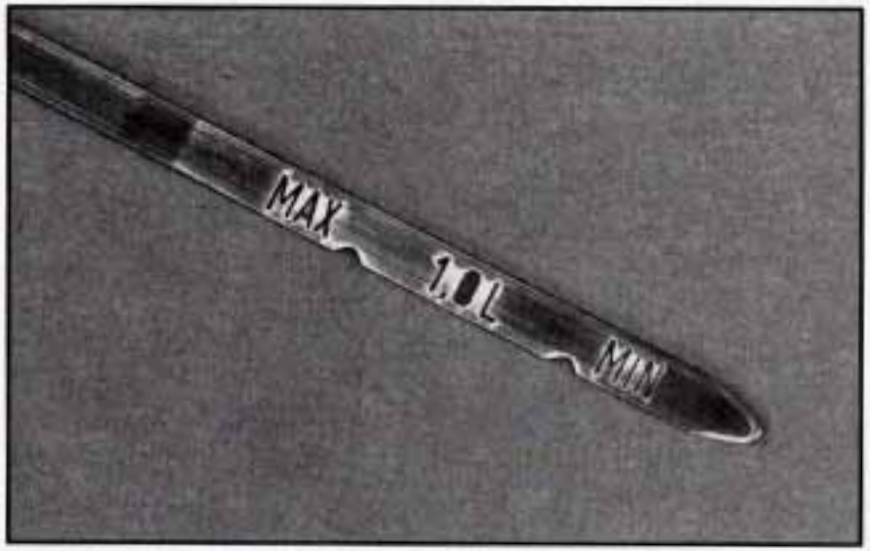
It's a good idea to check your engine oil every time you get fuel. In order to get an accurate reading, the oil must be warm and the vehicle must be on level ground.

The engine oil dipstick is located behind the radiator hose on the driver's side of the engine. The yellow looped handle helps to identify it.

Turn off the engine and give the oil a few 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 Oil

If the oil is at or below the MIN mark, 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.

The oil fill cap is located behind the engine oil dipstick and next to the engine block on the driver's side of the engine. Turn the cap counterclockwise to remove it.

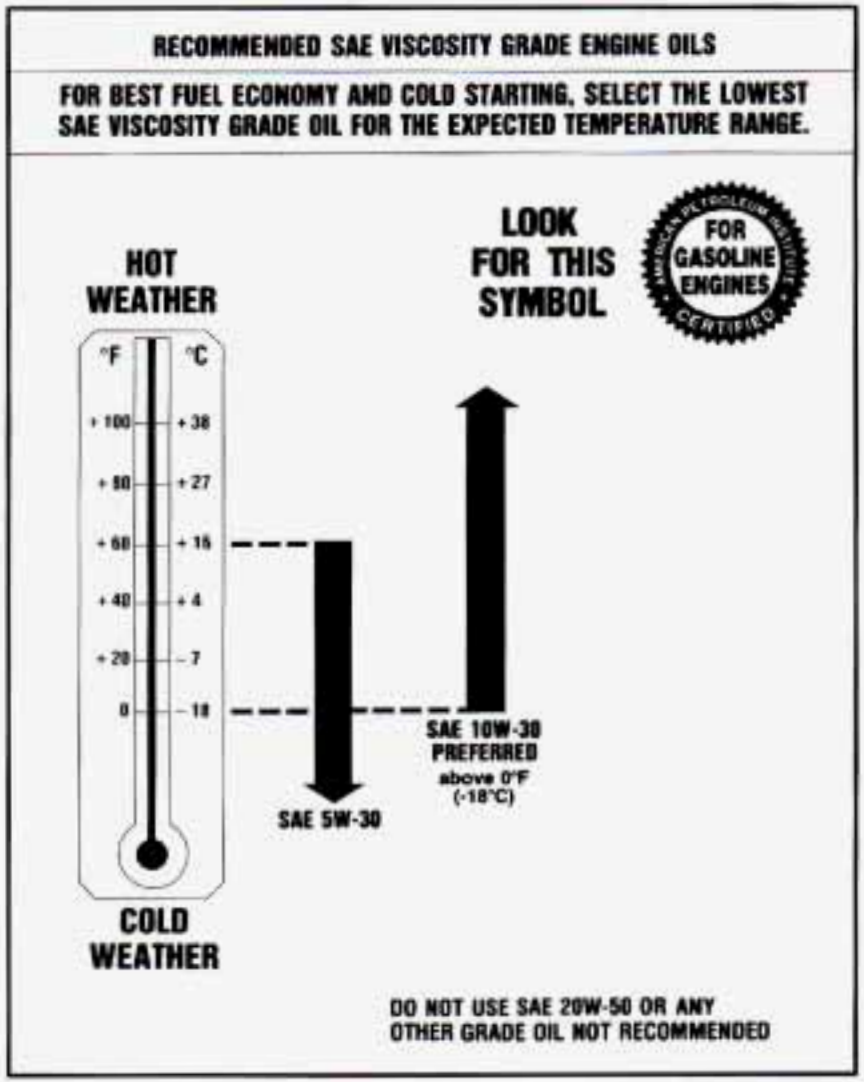
Be sure to fill it enough to put the level somewhere in the proper operating range. Push the dipstick all the way back in when you're through.

What Kind of 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 Catera dealer is ready to advise if you think something should be added.

When to Change Engine Oil

If any one of these is true for you, use the short trip/city maintenance schedule:

- Most trips are less than 5 to 10 miles (8 to 16 km). This is particularly important when outside temperatures are below freezing.
- Most trips include extensive idling (such as frequent driving in stop-and-go traffic).
- Most trips are through dusty areas.
- You frequently tow a trailer or use a carrier on top of your Catera.
- The vehicle is used for delivery service, police, taxi or other commercial application.

Driving under these conditions causes engine oil to break down sooner. If any one of these is true for your vehicle, then you need to change your oil and filter every 5,000 miles (8 000 km) or 3 months -- whichever occurs first. (See "Check Oil Light" in the Index.)

If none of them is true, use the long trip/highway maintenance schedule. Change the oil and filter at the first 5,000 miles (8 000 km) or 3 months -- whichever occurs first. Then, change the oil and filter every 10,000 miles (16 000 km) or 12 months -- whichever occurs first. Driving a vehicle with a fully warmed engine under highway conditions causes engine oil to break down slower. (See "Check Oil Light" in the Index.)

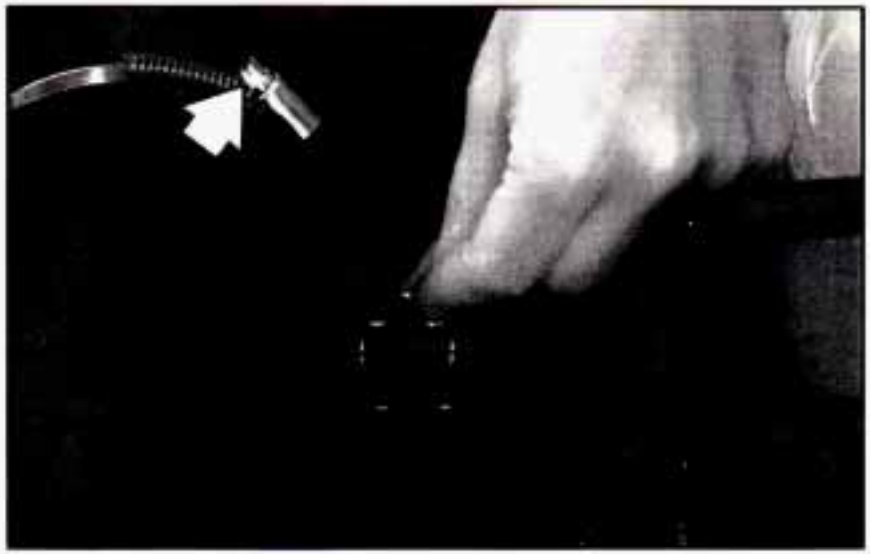
What to Do with Used Oil

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.

Air Cleaner

The air cleaner is located behind the headlamps on the passenger's side of the engine. Be sure the engine has cooled before following these steps to replace the air filter.



1. Unhook the five clips that attach the air cleaner lid to the housing.
2. Loosen the retaining clamp on the air intake tube and then disconnect the tube (as shown by the arrow above).
3. Move the hose going to the coolant surge tank out of the way so the air cleaner lid can be lifted.

4. Lift the lid, take out the air filter and remove any loose debris that may be found laying in the air cleaner base.
5. Install a new air filter element. See "Normal Maintenance Replacement Parts" in the Index.

To reinstall the air cleaner assembly, replace the air cleaner lid, reattach the five clips, replace the air intake tube and tighten the clamp. Return the coolant surge tank hose to its proper position.

Refer to the Maintenance Schedule to determine when to replace the air filter.

See "Scheduled Maintenance Services" in the Maintenance Schedule booklet.

⚠ CAUTION:

Operating the engine with the air cleaner off can cause you or others to be burned. The air cleaner not only cleans the air, it stops flames 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 off.

NOTICE:

If the air cleaner 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 in place when you're driving.

Passenger Compartment Air Filter Replacement

The passenger compartment air filter traps most of the pollen from the air entering your vehicle and air circulated inside the vehicle. Like your vehicle's air cleaner filter, it may need to be changed periodically. For how often to change the passenger compartment air filter, see your Maintenance Schedule booklet.

The access panel for the passenger compartment air filter is on the grille, at the base of the windshield, on the passenger's side.

1. Open the hood of your vehicle.
2. Lift the engine compartment rear seal (see the arrow in the illustration) and pull it back far enough to be able to lift open the grille flap.
3. Unhook both retaining clips that secure the filter in place.
4. Slide the filter toward the front of the car and then pull the filter straight out.

5. Replace the filter by sliding it back in, reattaching both retainer clips and closing the grille flap.
6. Replace the engine compartment rear seal.
7. Close the engine hood.

For the type of filter to use, see "Normal Maintenance Replacement Parts" in the Index.

Automatic Transmission Fluid

It is not necessary to check the transmission fluid level. A transmission fluid leak is the only reason for fluid loss. If a leak occurs, take your Catera to a Catera dealership service department and have it repaired as soon as possible. You may also have your fluid level checked by your dealer or service center when you have your oil 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, the fluid and filter do not require changing.

NOTICE:

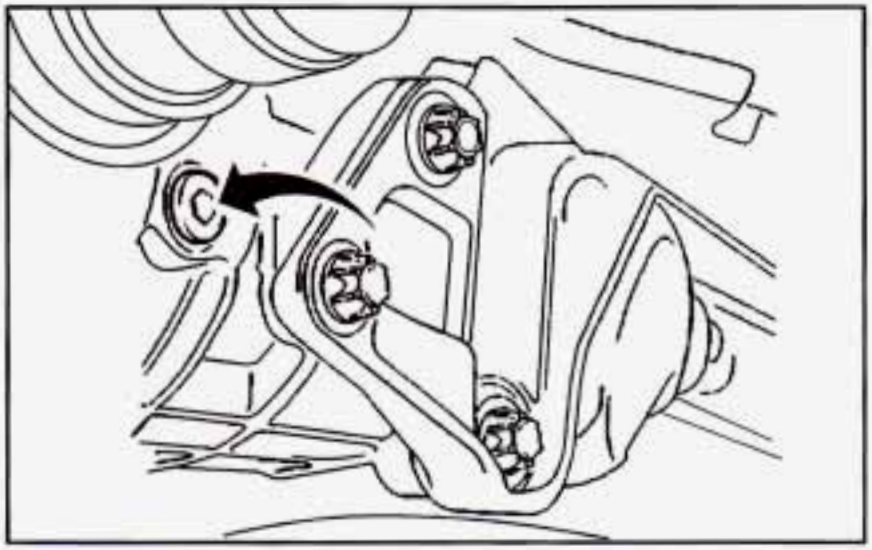
We recommend you use only fluid labeled DEXRON®-III, because fluid with that label is made especially for your automatic transmission. Damage caused by fluid other than DEXRON-III is not covered by your new vehicle warranty.

Rear Axle

When to Check Lubricant

Refer to the Maintenance Schedule to determine how often to check the lubricant. See "Periodic Maintenance Inspections" and "Scheduled Maintenance Services" in the Maintenance Schedule booklet.

How to Check Lubricant



If the level is below the bottom of the filler plug hole, you'll need to add some lubricant. Add enough lubricant to raise the level to the bottom of the filler plug hole.

What to Use

Refer to the Maintenance Schedule to determine what kind of lubricant to use. See "Recommended Fluids and Lubricants" in the Maintenance Schedule booklet.

Engine Coolant

The cooling system in your vehicle is filled with new 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 water and the proper coolant for your Catera 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 water* (preferably distilled) and one-half DEX-COOL® coolant which won't damage aluminum parts. If you use this 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 mix will. Your vehicle's coolant warning system is set for the proper coolant mix. With plain water or the wrong mix, 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 mix of clean water and DEX-COOL® coolant.

NOTICE:

If you use an improper coolant mix, your engine could overheat and be badly damaged. The repair cost wouldn't be covered by your warranty. Too much water in the mix 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 surge tank is located behind the air cleaner on the passenger's side of the engine.

The cooling system when hot is under a lot of pressure. If the low coolant warning light on the instrument panel appears, you will need to add coolant.

⚠ 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.

When your engine is cold, the coolant level should be at the KALT/COLD line (seam).

If this light comes on, it means you're low on engine coolant.

For more information, see "Low Coolant Light" in the Index.

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 surge tank pressure cap, make sure it is tight.

Surge Tank Pressure Cap

NOTICE:

The surge tank cap is a 15 psi (105 kPa) pressure-type cap and must be tightly installed to prevent coolant loss and possible engine damage from overheating.

If the surge tank pressure cap needs to be replaced, a GM cap is recommended.

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.

If the thermostat needs to be replaced, a GM thermostat is recommended.

Power Steering Fluid

The power steering fluid reservoir is located between the battery and the brake master cylinder on the driver's side of the engine.

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 mark. There are two lines on the dipstick. The top line is the "full" mark and the bottom line is the "add" line (which means that fluid should be added). If necessary, add only enough fluid to bring the level up to the full mark.

What to Use

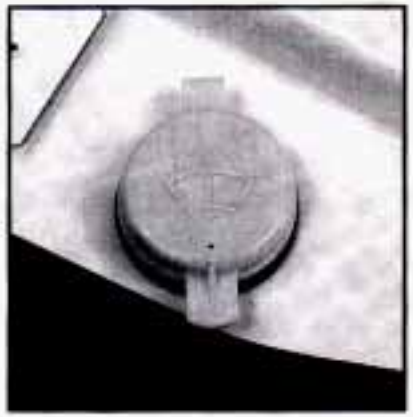
To determine what kind of fluid to use, see "Recommended Fluids and Lubricants" in the Maintenance Schedule booklet. Always use the proper fluid. Failure to use the proper fluid can cause leaks and damage hoses and seals.

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



The windshield washer fluid reservoir is located behind the front grille on the driver's side of the engine.

Open the cap with the washer symbol on it. 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 radiator antifreeze in your windshield washer. It can damage your washer system and paint.

Brakes

Brake Fluid

Your brake master cylinder reservoir is here. 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. See "Brake System Warning Light" in the Index.

What to Add

When you do need brake fluid, use only DOT-3 brake fluid -- such as Delco Supreme 11® (GM Part No. 12377967). Use new brake fluid from a sealed container only.

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 Catera has four-wheel disc brakes.

Your Catera has electronic wear sensors that let you know when the front brake pads are significantly worn and new pads are needed. The brake pad wear indicator light will come on and stay on when the brake pads are worn and need to be replaced. (See "Brake Pad Wear Indicator Light" in the Index.)

⚠ CAUTION:

The brake pad wear indicator light means that soon your brakes won't work well. That could lead to an accident. When the brake pad wear indicator light comes on and stays on, 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 bolts are necessary to help prevent brake pulsation. When tires are rotated, inspect brake pads for wear and evenly torque wheel bolts 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 the Maintenance Schedule booklet 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 modern 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

Every new Catera has a Delco Freedom® battery. You never have to add water to one of these. When it's time for a new battery, we recommend a Delco Freedom® battery. Get one that has the replacement number shown on the original battery's label.

⚠ 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.

Also, for your audio system, see "Theft-Deterrent Feature" in the Index.

Bulb Replacement

For bulb types, see "Replacement Bulbs" in the Index.

Halogen Bulbs

⚠ CAUTION:

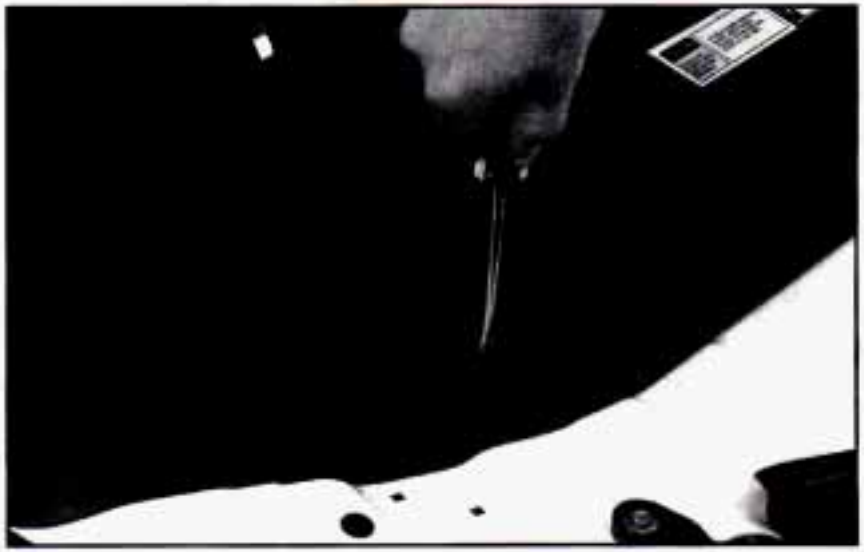
Halogen bulbs have pressurized gas inside and can burst if you drop or scratch the bulb. You or others could be injured. Be sure to read and follow the instructions on the bulb package.

Exterior Front Bulbs

A. Turn Signal Lamp

B. Headlamp

Front Turn Signal Lamp



1. With a screwdriver, unscrew the fastener on the headlamp cover and then remove it to access the turn signal lamps.

2. On the outboard side of each low-beam headlamp, you will find the turn signal bulbs. Turn the lamp assembly clockwise to remove.

3. Twist the bulb out to replace and then reassemble.

Headlamp

1. With a screwdriver, unscrew the fastener on the headlamp cover and then remove the cover to gain access (see Step 1 under "Front Turn Signal Lamp"). Note that the inner bulb is for the low-beam headlamp and the outer bulb is for the high-beam headlamp.

2. Remove the black rubber cap that protects the bulb area.

3. Remove the plug connector from the bulb.

4. Squeeze the retaining clip together and then pull down and away from the bulb assembly.

5. Swivel the bulb out and then replace.

Exterior Rear Bulbs

A. Center High-Mounted Stoplamp (CHMSL)

B. Taillamp

C. Rear Turn Signal Lamp

Center High-Mounted Stoplamp (CHMSL)

The CHMSL is equipped with a high durability illumination. If a bulb problem does occur, see your Catera dealer for assistance.

Taillamp and Rear Turn Signal Lamp

1. Open the trunk to access the lamp housing.
2. Depending on which outer bulb needs replacing, open either the spare tire cover on the driver's side or the storage compartment on the passenger's side to access the bulbs.
3. Press the tab on the lamp housing up and then pull the bulb assembly straight out.
4. Twist the bulb out and then replace it.

Note that the taillamp assembly running across the rear deck lid is equipped with a high durability illumination. If a bulb problem does occur, see your Catera dealer for assistance.

Headlamp Aiming

Your vehicle has the 55 x 135 mini-quad headlamp system. These headlamps have horizontal and vertical aim indicators. The aim has been pre-set at the factory and should need no further adjustment.

If your vehicle is damaged in an accident and the headlamp aim seems to be affected, see your Catera dealer. Headlamps on damaged vehicles may require recalibration of the horizontal aim by your Catera dealer.

To check the aim, the vehicle should be properly prepared as follows:

- The vehicle must have all four tires on a perfectly level surface.
- The vehicle should not have any snow, ice or mud attached to it.
- There should not be any cargo or loading of the vehicle, except it should have a full tank of gas and one person or 160 lbs. (75 kg) on the driver's seat.
- Tires should be properly inflated.
- The horizontal indicator should read "0."

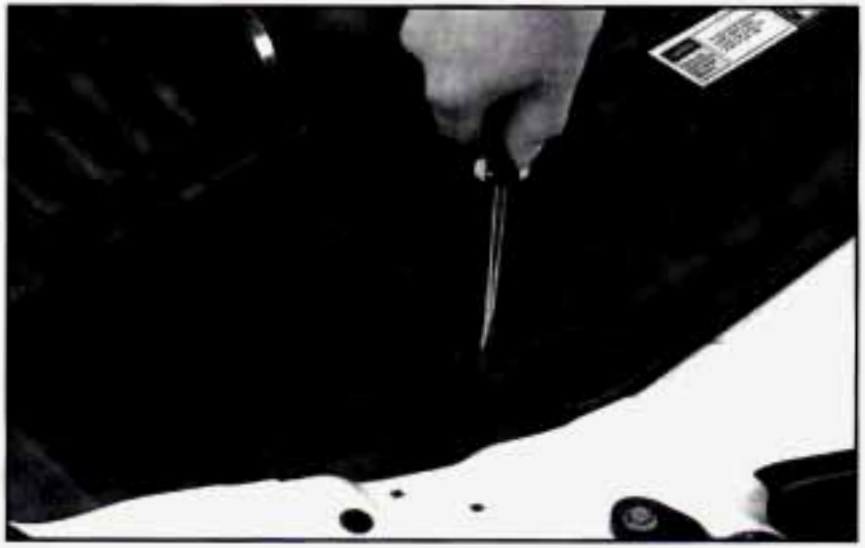
NOTICE:

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.

State inspection stations will allow a vertical reading of plus 0.76 degrees or minus 0.76 degrees from the center of the bubble.

It is recommended that the upper limit not exceed plus 0.4 degrees from the center of the bubble. Other drivers may flash their high beams at you if your adjustment is much above plus 0.4 degrees.

If you find that the headlamp aiming needs adjustment, follow these steps:



1. With a screwdriver, unscrew the fastener on the headlamp cover and then remove the cover to be able to see the back of the headlamp assembly.

Adjustment screws can be turned with an E8 Torx® socket or a T15 Torx screwdriver.

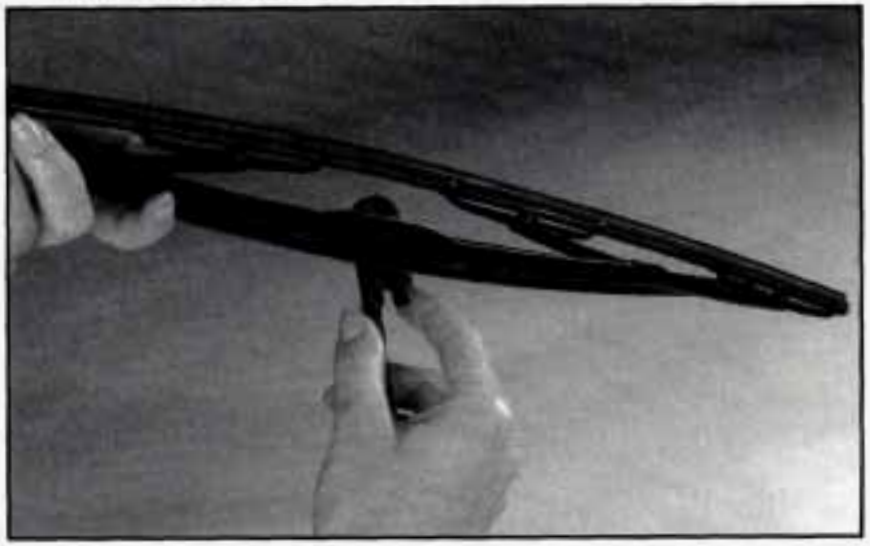
2. Check the vertical aim for each headlamp and adjust it as necessary. You can see the level through the headlamp assembly. Turn the vertical aiming screw, on the outboard side of the headlamp assembly, until the bubble in the level is centered at 0 (zero).
3. If the horizontal aim needs adjusting, see your Catera dealer.

Wiper Blade Replacement

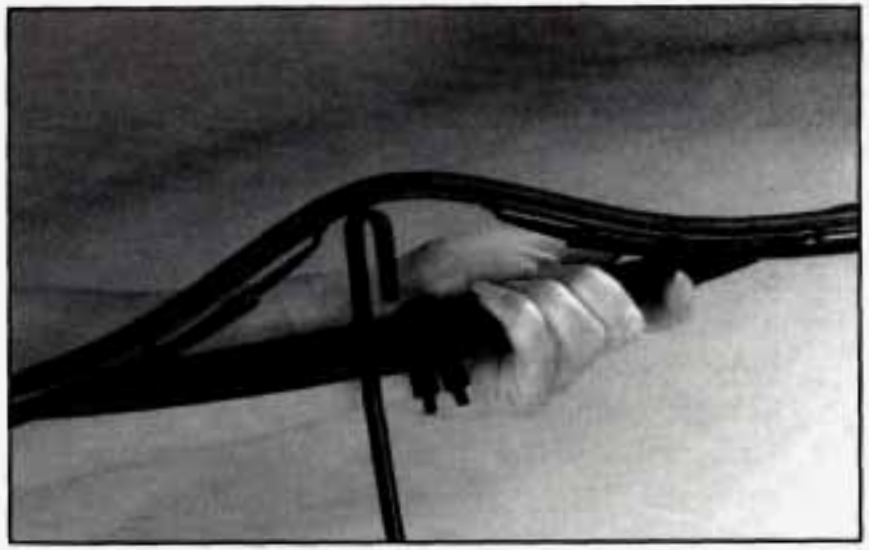
It's a good idea to clean or replace the wiper blade assembly on a regular basis or when worn. For proper windshield wiper blade length and type see "Normal Maintenance Replacement Parts" later in this section.

To replace the wiper blade assembly:

1. Position the wipers on the windshield in the "mid" wipe position.
2. Press the tabs together and pull the wiper blade assembly down enough to release it from the "J" hooked end of the wiper arm. Slide the assembly away from the arm.



3. Replace the blade.
4. To reinstall the wiper blade assembly, slide it over the wiper arm to engage the "J" hooked end on the wiper blade assembly. Pull up on the assembly to lock it into place.



Tires

Your new Catera 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 Catera 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.**
- **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.**

CAUTION: (Continued)

CAUTION: (Continued)

- **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.**

See "Inflation -- Tire Pressure" in this section for inflation pressure adjustment for higher speed driving.

Inflation -- Tire Pressure

The Tire-Loading Information label, which is located 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).

If you'll be driving at speeds higher than 100 mph (160 km/h) where it is legal, raise the cold inflation pressure of each tire to 37 psi (250 kPa). When you end this very high-speed driving, reduce the cold inflation pressures to those listed on the Tire-Loading Information label.

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.**

NOTICE: (Continued)

NOTICE: (Continued)

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.

How to Check

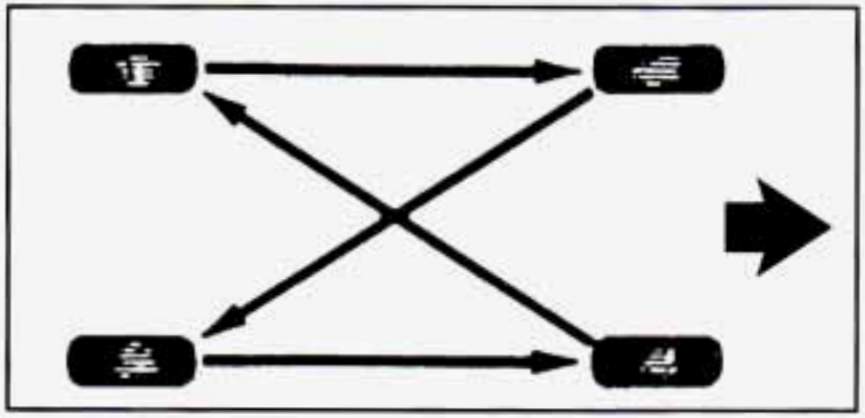
Use a good quality pocket-type gage to check tire pressure. You can't tell if your tires are properly inflated simply by looking at them. Radial tires may look properly inflated even when they're underinflated.

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 at 5,000 miles (8 000 km) and then every 10,000 miles (16 000 km) thereafter. 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 Maintenance Schedule booklet for scheduled rotation intervals.



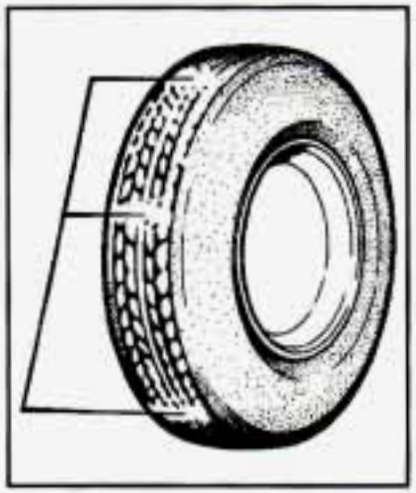
When rotating your tires, always use the correct rotation pattern shown here.

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 bolts are properly tightened. See "Wheel Bolt Torque" in the Index.

⚠ CAUTION:

Rust or dirt on a wheel, or on the parts to which it is fastened, can make wheel studs 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.

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 -- A, B, C

The traction grades, from highest to lowest, are A, B and C, and they 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 braking (straightahead) traction tests and does not include cornering (turning) traction.

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 A and B 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 bolts keep coming loose, the wheel and wheel bolts should be replaced. If the wheel leaks air, replace it (except some aluminum wheels, which can sometimes be repaired). See your Catera 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 or wheel bolts, replace them only with new GM original equipment parts. This way, you will be sure to have the right wheel and wheel bolts for your Catera model.

⚠ CAUTION:

Using the wrong replacement wheels and wheel bolts 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 and wheel bolts 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 rear 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 flames 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 Catera, 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 Catera

Use a vacuum cleaner often to get rid of dust and loose dirt. Wipe vinyl or leather with a clean, damp cloth.

Your Catera dealer has two cleaners, a solvent-type spot lifter and a foam-type powdered cleaner. They will clean normal spots and stains very well. Do not use them on vinyl or leather.

Here are some cleaning tips:

1. Always read the instructions on the cleaner label.
2. Clean up stains as soon as you can -- before they set.
3. Use a clean cloth or sponge, and change to a clean area often. A soft brush may be used if stains are stubborn.
4. Use solvent-type cleaners in a well-ventilated area only. If you use them, don't saturate the stained area.
5. If a ring forms after spot cleaning, clean the entire area immediately or it will set.

Using Foam-Type 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 Multi-Purpose Powdered Cleaner following the directions on the container label.
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. Rinse the section with a clean, wet sponge.
7. Wipe off what's left with a slightly damp paper towel or cloth.
8. Dry it immediately with a blow dryer.
9. Wipe with a clean cloth.

Using Solvent-Type Cleaner on Fabric

First, see if you have to use solvent-type cleaner at all. Some spots and stains will clean off better with just water and mild soap.

If you need to use a solvent:

1. Gently scrape excess soil from the trim material with a clean, dull knife or scraper.
2. Use very little cleaner, light pressure and clean cloths (preferably cheesecloth). Cleaning should start at the outside of the stain, "feathering" toward the center.
3. Keep changing to a clean section of the cloth.
4. When you clean a stain from fabric, immediately dry the area with a blow dryer to help prevent a cleaning ring.

Special Cleaning Problems

Greasy or Oily Stains

Stains caused by grease, oil, butter, margarine, shoe polish, coffee with cream, chewing gum, cosmetic creams, vegetable oils, wax crayon, tar and asphalt can be removed as follows:

1. Carefully scrape off excess stain.
2. Follow the solvent-type instructions described earlier.

Shoe polish, wax crayon, tar and asphalt will stain if left on a vehicle's seat fabric. They should be removed as soon as possible. Be careful, because the cleaner will dissolve them and may cause them to spread.

Non-Greasy Stains

Stains caused by catsup, coffee (black), egg, fruit, fruit juice, milk, soft drinks, wine, 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 foam-type 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. If needed, clean lightly with solvent-type cleaner.

Combination Stains

Stains caused by candy, ice cream, mayonnaise, chili sauce and unknown stains can be removed as follows:

1. Carefully scrape off excess stain.
2. Clean with cool water and allow to dry.
3. If a stain remains, clean it with solvent-type 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 Speaker Covers

Vacuum around a speaker cover gently, so that the speaker won't be damaged. Some spots and stains will clean off better with just water and mild soap. If something gets on one of them and you need to use a solvent, follow these steps:

1. Gently scrape excess soil from the trim material with a clean, dull knife or scraper.
2. Use very little cleaner, light pressure and clean cloths (preferably cheesecloth). Cleaning should start at the outside of the stain, "feathering" toward the center.
3. Keep changing to a clean section of the cloth.
4. When you clean a stain from fabric, immediately dry the area with a blow dryer to help prevent a cleaning ring.

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 (GM Part No. 1050427) or a liquid household glass cleaner will remove normal tobacco smoke and dust films on interior glass.

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 Maintenance Schedule booklet.)

Cleaning the Outside of Your Catera

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. Don't use strong soaps or chemical detergents. Use liquid hand, dish or car washing (mild detergent) soaps. 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 liquid hand, dish or car washing (mild detergent) soap to clean exterior lamps and lenses. Follow instructions under "Washing Your Vehicle."

Finish Care

Occasional waxing or mild polishing of your Catera 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 Catera 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 Catera garaged or covered whenever possible.

Cleaning Aluminum or Chrome Wheels (If Equipped)

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 Catera. Don't use strong soaps, chemicals, abrasive polishes, abrasive cleaners or abrasive cleaning brushes on them because you could damage the surface. You may use chrome polish on chrome 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.

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.

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.

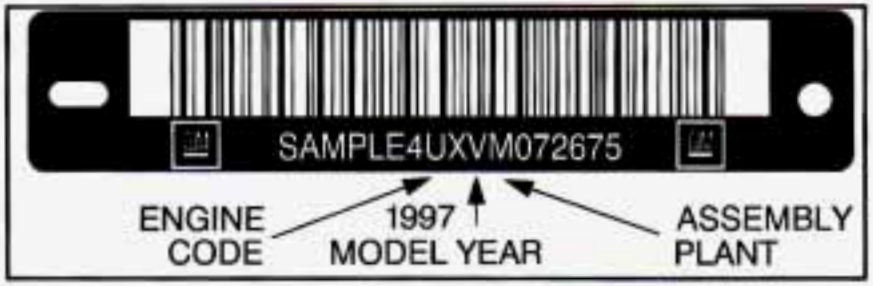
Although no defect in the paint job causes this, Cadillac will repair, at no charge to the owner, the surfaces of new vehicles damaged by this fallout condition within 12 months or 12,000 miles (20 000 km) of purchase, whichever occurs first.

Appearance Care Materials Chart

PART NUMBER	SIZE	DESCRIPTION	USAGE
994954	23 in. x 25 in.	Polishing Cloth – Wax Treated	Exterior Polish
1050004	2.75 sq. ft.	Chamois	Shines vehicle without scratching
1050172	16 oz. (0.473 L)	Tar and Road Oil Remover	Also removes old waxes and polishes
1050173	16 oz. (0.473 L)	Chrome Cleaner and Polish	Removes rust and corrosion
1050174	16 oz. (0.473 L)	White Sidewall Tire Cleaner	Removes soil and black marks
1050200	1 gal. (3.785 L)	Magic Mirror Cleaner Polish	Exterior cleaner and polish
1050214	32 oz. (0.946 L)	Vinyl Cleaner	Spot and stain removal
1050427	23 oz. (0.680 L)	Glass Cleaner	Cleans grease, grime and smoke film
1052870	16 oz. (0.473 L)	Wash and Wax Concentrate	Exterior wash
1052918**	8 oz. (0.237 L)	Armor All™ Protector	Protects vinyl, leather and rubber
1052925	16 oz. (0.473 L)	Multi-Purpose Powdered Cleaner	Cleans vinyl, cloth, tires and mats
1052929	16 oz. (0.473 L)	Wheel Cleaner	Spray on wheel cleaner
1052930	8 oz. (0.237 L)	Capture Dry Spot Remover	Attracts and absorbs soils
12345002**	16 oz. (0.473 L)	Armor All™ Cleaner	Cleans vinyl, leather and rubber
12345725	12 oz. (0.354 L)	Silicone Tire Shine	Shines tires
12377964	16 oz. (0.473 L)	Cleaning Wax	Protects finish and removes fine scratches
12377966	16 oz. (0.473 L)	Finish Enhancer	Spot cleans paint and gives high luster

See your General Motors Parts Department for these products. **Not recommended for use on instrument panel vinyl.
See "Fluids and Lubricants" in the Index.

Vehicle Identification Number (VIN)



This is the legal identifier for your Catera. 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 behind the passenger's side access panel in the trunk (panel that covers the trunk mounted CD changer). 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 Catera 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 Catera, see "Servicing Your Air Bag-Equipped Catera" in the Index.

Headlamp Wiring

The headlamp wiring has an individual fuse which is powered by a MaxiFuse®. An electrical overload will cause the lamps to go on and off, or in some cases to remain off. If this happens, have the headlamp wiring checked right away.

MaxiFuse is a registered trademark of Little Fuse Incorporated.

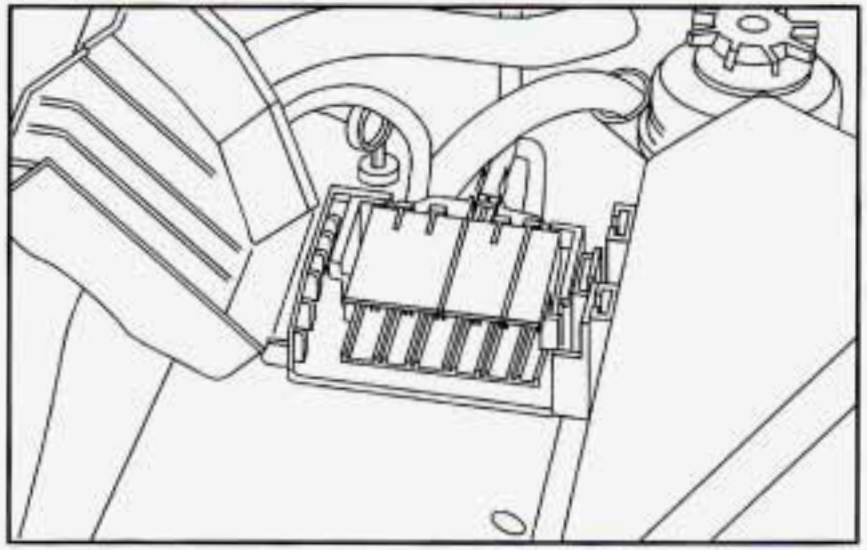
Windshield Wiper Fuses

The windshield wiper motor is powered by a MaxiFuse. If the motor overheats due to heavy snow, etc., the wipers will stop until the motor cools. If the overload is caused by some electrical problem, be sure to have it fixed.

Power Windows and Other Power Options

Circuit breakers 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 or goes away.

MaxiFuse/Relay Center



The MaxiFuse/Relay center is attached to the engine compartment fuse block on top of the battery. Simply lift the lid to open. If you have any questions about the MaxiFuse/Relay Center, consult your Catera dealer.

Fuses and Circuit Breakers

The wiring circuits in your vehicle are protected from the short circuits by a combination of fuses and circuit breakers. This greatly reduces the chance of fires 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 identical size and rating.

If you ever have a problem on the road and don't have a spare fuse, you can "borrow" one that has the same amperage. Pick some feature of your vehicle that you can get along without -- like the radio or cigarette lighter -- and use its fuse, if it is the correct amperage. Replace it as soon as you can.

There are two fuse blocks in your vehicle: the instrument panel fuse blocks and the engine compartment relay center.

Instrument Panel Fuse Block (Driver's Side)

The fuse block is located below the steering wheel on the driver's side. Using a screwdriver, loosen the two trim fasteners under the trim panel and pull the trim panel away from the instrument panel to access.

Fuse	Usage
1	RH and LH Front Side Door Window Regulator Motor, LH Front Side Door Window Switch
2	Stoplamp Switch
3	Automatic Transmission Switch and Control Indicator, Power Steering Control Module, Hazard Warning Switch
4	RH and LH Rear Seat Cushion Heater Relay
5	Transmission Control Module
6	Sound Processor Amplifier

Fuse	Usage
7	RH and LH Rear Side Door Window Regulator Motor
8	Headlamp Switch, Turn Signal Switch, Horn Relay, CD Changer, Multifunction Relay Module
9	Windshield Wiper Motor and Relay, Windshield Wiper and Windshield Washer Switch
10	Body Control Module (BCM), Auxiliary Water Pump, Heater and A/C Control, Fan Control Relays
11	Heater and A/C Control, RH and LH Outside Rearview Mirrors, Outside Remote Control Rearview Mirror Switch
12	Hazard Warning Switch, Instrument Cluster, Data Link Connector (DLC), Stoplamp Switch, Gage Cluster, Heater and A/C Control
13	Remote Control Outside Rearview Mirror Switch, A/C Compressor Relay, Test Connector, A/C Control Switch
14	Cellular Telephone, Cigarette Lighter, RH and LH Windshield Washer Nozzle, Driver and Passenger Heated Seat Switch, Heater and A/C Control, Heated Outside Rearview Mirror and Rear Window Defogger Relay

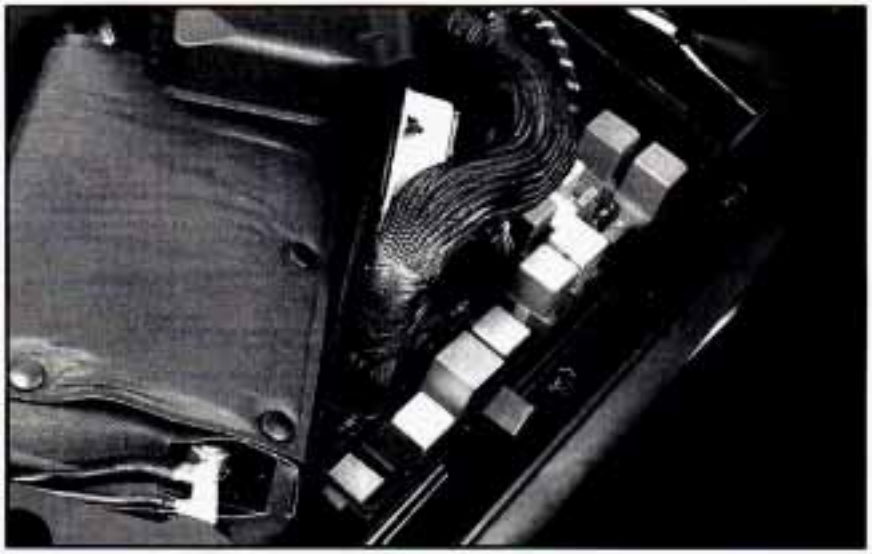
Fuse	Usage
15	Rear Suspension Leveling Air Compressor Relay, Instrument Cluster, Gage Cluster, Cruise Control Switch and Module, Headlamp Switch, Multifunction Relay Module, Passenger and Driver Heated Seat Relay, BCM, Sunroof Actuator, Automatic Level Control Sensor, RH and LH Heated Rear Seat Switch and Cushion Relay, Driver Seat Adjuster Memory Module, LH Front Side Door Window Switch, Inside Rearview Mirror
16	Transmission Control Module
17	Horn #1 and #2
18	Fuel Pump
19	Electronic Brake/Traction Control Module
20	Passenger and Driver Heated Seat Relay
21	Daytime Running Lamp (DRL) Relay, LH High-Beam Headlamp Relay
22	Headlamp Switch and LH Low-Beam Headlamp
23	Multifunction Relay Module, LH Park/Turn Signal Lamp, LH Stop/Taillamp, LH Rear Side Marker Lamp

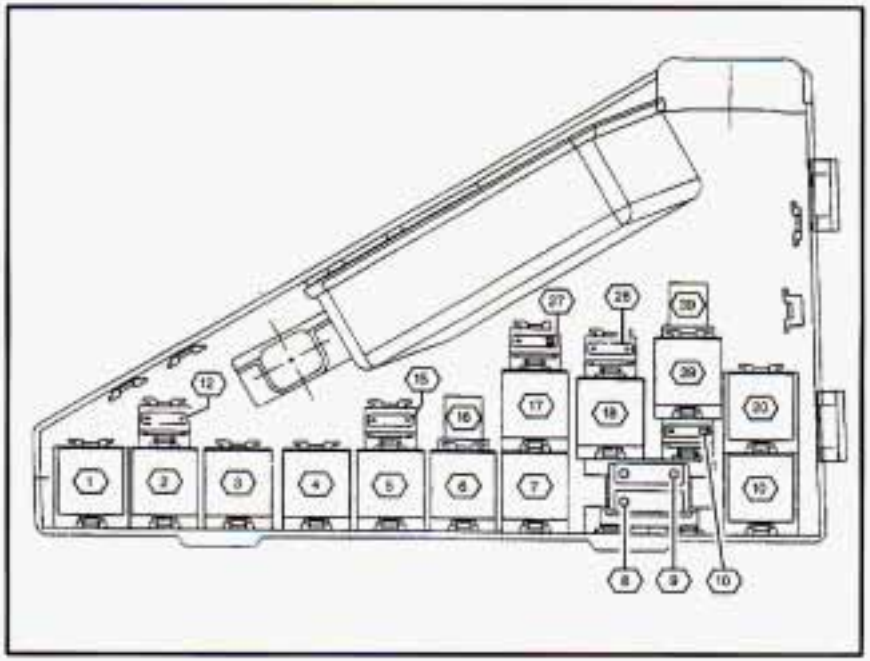
Fuse	Usage
24	Lifting Magnet, BCM, Gage Cluster
25	Sunroof Actuator
26	Headlamp Switch, RH and LH Front Side Marker Lamp, Middle Taillamp, RH and LH Rear License Plate Lamp, Radio, Automatic Transmission Control Indicator, Heater and A/C Control
27	Automatic Level Control Sensor, Rear Suspension Leveling Air Compressor and Relay
28	Remote Control Door Lock Receiver, Door Lock Relay, Rear Compartment Lid Release Connector (Not Used)
29	Multifunction Relay Module
30	RH Park/Turn Signal Lamp and RH Stop/Taillamp, RH Rear Side Marker Lamp
31	Turn Signal Switch and RH Low-Beam Headlamp
32	RH High-Beam Headlamp Relay
33	Blower, A/C Compressor Relay
34	Heated Outside Rearview Mirror and Rear Window Defogger Relay
35	Passenger and Driver Seat Adjuster Switches, Driver Seat Adjuster Memory Module

Instrument Panel Fuse Block (Passenger's Side)

Fuse/Relay	Usage
I	High-Beam Headlamp – LH
II	Automatic Level Control
III	Heated Rear Window, Heated Power Mirrors
IV	Hazard Warning Flashers
V	High-Beam Headlamp – RH
VI	Horn
VII	Parking Lamps
VIII	Low-Beam Headlamps
IX	
X	
XI	Daytime Running Lamps

Engine Compartment Relay Center





The relay center is located next to the battery on the driver's side of the engine. Lift the cover to access.

Fuse	Usage
1	Secondary Air Induct
2	A/C Blower-Radiator
3	Coolant Pump Follow-Up
4	Interval Windshield Washer and Wiper

Fuse	Usage
5	A/C Compressor
6	A/C Blower-Radiator
7	A/C Blower-Radiator
8	A/C Blower-Radiator
9	Secondary Air Induct
10	Injection Valves
12	Blower-Radiator
15	A/C Blower-Radiator
16	Plug Connection
17	A/C Blower-Radiator
18	A/C Blower-Radiator
19	Relay
20	Fuel Pump
27	Oxygen Exhaust Sensor
28	Control Unit
29	Blower Box
39	Diagnostic Plug Connection

Replacement Bulbs

Application	Bulb Number
Front Turn Signal Lamp	90487485
Headlamps Composite	
Inner High Beam	90512338
Outer Low Beam	90512338
Rear Turn Signal Lamp and Taillamp	90002521

Capacities and Specifications

Engine Specifications

Displacement	181 cubic inches (2 962 cc)
Type	3.0 L DOHC V6
VIN Engine Code	R
Horsepower	200 (bhp) @ 6000 rpm 149 (kW) @ 6000 rpm
Torque	192 (lb-ft) @ 3600 rpm 260 (N·m) @ 3600 rpm
Firing Order	1-2-3-4-5-6
Thermostat Starts To Open	198°F (92°C)

Capacities

Transmission	7.0 quarts (6.6 L)
Engine Crankcase	
Oil Change With Filter*	6.1 quarts (5.75 L)
Oil Change Without Filter*	5.8 quarts (5.5 L)
Engine Cooling System	10.6 quarts (10 L)
Fuel Tank	18 gallons (68.1 L)
R-134a Refrigerant	2.9 lbs. (0.95 kg)

Vehicle Dimensions

Wheel Base	107.4 inches (272.8 cm)
Length	194 inches (492.8 cm)
Height	56.3 inches (143.1 cm)
Width	70.3 inches (178.6 cm)
Front Tread	59.3 inches (150.6 cm)
Rear Tread	59.8 inches (152 cm)
Wheel Bolt Torque	80 lb-ft (110 N·m)

* Recheck the oil level after filling. See "Engine Oil" in the Index.

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 Catera dealer.

Normal Maintenance Replacement Parts

Air Filter Element	90509318
Fuel Filter Element	90437575
Engine Oil Filter	93156300
Passenger's Compartment Air Filter	90510338
Spark Plugs	90541059 (Bosch Plug = FLR9LTE)
Thermostat	90502201
Windshield Wiper Blade	90512807 (RH) 90512808 (LH)

NOTES

NOTES

NOTES

Section 7 Customer Assistance Information

Here you will find out how to contact Cadillac if you need assistance. This section also tells you how to obtain service publications and how to report any safety defects.

7-2 Customer Satisfaction Procedure
7-4 Customer Assistance for Text Telephone (TTY) Users
7-5 Roadside Service
7-11 GM Participation in an Alternative Dispute Resolution Program
7-12 Warranty Information
7-12 Reporting Safety Defects to the United States Government
7-13 Reporting Safety Defects to the Canadian Government
7-13 Reporting Safety Defects to General Motors
7-13 Ordering Service and Owner Publications in Canada
7-14 1997 Cadillac Service Publications Ordering Information

Customer Satisfaction Procedure

Catera dealers have the facilities, trained technicians and up-to-date information to promptly address any concerns you may have. However, if a concern has not been resolved to your complete satisfaction, take the following steps:

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 Cadillac Customer Assistance Center, 24 hours a day, by calling 1-800-458-8006. In Canada, contact GM of Canada Customer Communication Centre in Oshawa by calling 1-800-263-3777 (English) or 1-800-263-7854 (French).

For help outside of the United States and Canada, call the following numbers as appropriate:

- In Mexico: (525) 625-3256
- In Puerto Rico: 1-800-496-9992 (English) or 1-800-496-9993 (Spanish)
- In the U.S. Virgin Islands: 1-800-496-9994
- In the Dominican Republic: 1-800-751-4135 (English) or 1-800-751-4136 (Spanish)
- In the Bahamas: 1-800-389-0009
- In Bermuda, Barbados, Antigua and the British Virgin Islands: 1-800-534-0122
- In all other Caribbean countries: (809) 763-1315
- In other overseas locations, call GM International Product Center in Canada at (905) 644-4112.

For prompt assistance, please have the following information available to give the Customer Assistance Representative:

- Your name, address, home and business telephone numbers
- 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
- Nature of concern

We encourage you to call us so we can give your inquiry prompt attention. However, if you wish to write Cadillac, address your inquiry to:

Cadillac Customer Assistance Center
Cadillac Motor Car Division
30009 Van Dyke
P.O. Box 9025
Warren, MI 48090-9025

In Canada, write to:

General Motors of Canada Limited
Customer Communication Centre, 163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

Refer to your Warranty and Owner Assistance Information booklet for addresses of GM Overseas offices.

When contacting Cadillac, please remember that your concern will likely be resolved in the dealership, using the dealer's facilities, equipment and personnel. That is why we suggest you follow Step One first if you have a concern.

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), Cadillac has TTY equipment available at its Customer Assistance Center. Any TTY user can communicate with Cadillac by dialing: 1-800-833-CMCC. (TTY users in Canada can dial 1-800-263-3830.)

Roadside Service

Cadillac's exceptional Roadside Service is more than an auto club or towing service. It provides every Catera owner with the advantage of contacting a Cadillac advisor and, when appropriate, a Catera trained dealer technician who can provide on-site service.

Each technician travels with a specially equipped service vehicle complete with the necessary Catera parts and tools required to handle most roadside repairs.

Cadillac Roadside Service can be reached by dialing 1-800-882-1112, 24 hours a day, 365 days a year. This service is provided at no charge for any warranty-covered situation and for a nominal charge if the Catera is no longer under warranty. Roadside Service is available only in the United States and Canada.

Cadillac Owner Privileges™

Roadside Service provides several Cadillac Owner Privileges™ at "no charge," throughout your *1997 Cadillac Warranty Period -- 48 Months/50,000 miles (80 000 km).*

Emergency Road Service is performed on site for the following situations:

- Towing Service
- Battery Jump Starting
- Lock Out Assistance
- Fuel Delivery
- Flat Tire Change (Covers change only)
- Trip Interruption -- If your trip is interrupted due to a warranty failure, incidental expenses may be reimbursed during the 48 months/50,000 miles (80 000 km) warranty period. Items covered are hotel, meals and rental car.

Roadside Service Availability

Wherever you drive in the United States or Canada, an advisor is available to assist you over the phone. A dealer technician, if available, can travel to your location within a 30 mile (50 km) radius, of a participating Catera dealership. If beyond this radius, we will arrange to have your car towed to the nearest Catera dealership.

Reaching Roadside Service

Dial the toll-free Roadside Service number: 1-800-882-1112. An experienced Roadside Service Advisor will assist you and request the following information:

- A description of the problem
- Name, home address, home telephone number
- Location of your Catera and number you are calling from
- The model year, Vehicle Identification Number (VIN), mileage and date of delivery

Roadside Service for the Hearing or Speech Impaired

Roadside Service is prepared to assist owners who have hearing difficulties or are speech impaired. Cadillac has installed special telecommunication devices called Text Telephone (TTY) in the Roadside Service Center.

Any customer who has access to a (TTY) or a conventional teletypewriter can communicate with Cadillac by dialing from the United States or Canada 1-800-833-CMCC -- daily, 24 hours.

Our Cadillac Dealer Technician network is ready and able to assist Catera customers at roadside.

Gold Key Courtesy Transportation

One of your Cadillac Owner Privileges is Gold Key Courtesy Transportation. It is just one more example of Cadillac's commitment to provide the services you expect and deserve as a Catera owner.

Gold Key Courtesy Transportation helps you get where you need to be when your Catera is in the dealership for warranty service.*

In Canada, please consult your GM dealer for information on Courtesy Transportation.

Transportation Options*

Warranty work can frequently be handled in one day, but there is often no reason for you to wait at the dealership. Cadillac helps minimize inconvenience to you by providing several transportation options. Depending on the circumstances, your dealership can offer you one of the following options:

Shuttle Service*

Your dealership can provide you with shuttle service to get you to your destination with minimal interruption of your daily schedule when your Catera is unavailable due to a warranty repair.

Courtesy Vehicle*

For repairs that require your vehicle to be unavailable to you for an extended period of time, your dealer may arrange to provide you with a courtesy vehicle from the dealership, or one obtained from a local rental agency.

Miscellaneous Service*

Should the situation necessitate making your own arrangements, Gold Key Courtesy Transportation provides for reimbursement of personally arranged transportation such as cab fare, reasonable fuel expenses for a ride provided by another individual or a rental vehicle obtained from an independent source.

**Some restrictions may apply. Please consult your Catera dealer concerning specific Gold Key Courtesy Transportation benefits offered by the dealership.*

Plan Ahead When Possible

Whenever possible, scheduling an appointment for your vehicle's warranty service and advising your service consultant that you wish to take advantage of Gold Key Courtesy Transportation can help minimize your inconvenience by allowing your dealer to prepare arrangements to fulfill your transportation needs in advance of your visit.

Owner Responsibilities

You are responsible for primary insurance coverage of the vehicle provided. In many cases, your own auto insurance policy may provide this coverage under provisions for rental car agreements. Please consult your insurance carrier to be certain of what's covered.

While your dealership will cover the rental expense of a vehicle provided under the provisions of Gold Key Courtesy Transportation, you are responsible for charges incurred for such items as fuel used, additional insurance coverage and any taxes or fees levied by state or local governmental agencies.

It is important that your vehicle be picked up from the dealership promptly following the completion of your repairs. If your vehicle is not picked up from the dealership within a reasonable amount of time following notification from the dealer, you may be responsible for any additional rental charges incurred as a result of this delay.

For Canadian Vehicles

In Canada, for warranty repairs during the Complete Vehicle Coverage period in the New Vehicle Limited Warranty, interim transportation may be available under the Courtesy Transportation Program. Please consult your dealer for details.

GM Participation in an Alternative Dispute Resolution Program

This program is available in all 50 states and the District of Columbia. Canadian owners refer to your Warranty and Owner Assistance Information booklet for information on the Canadian Motor Vehicle Arbitration Plan (CAMVAP). General Motors reserves the right to change eligibility limitations and/or to discontinue its participation in this program.

Both Cadillac and your Catera dealer are committed to making sure you are completely satisfied with your new vehicle. Our experience has shown that, if a situation arises where you feel your concern has not been adequately addressed, the Customer Satisfaction Procedure described earlier in this section is very successful.

There may be instances where an impartial third party can assist in arriving at a solution to a disagreement regarding vehicle repairs or interpretation of the New Vehicle Limited Warranty. To assist in resolving these disagreements, Cadillac voluntarily participates in BBB AUTO LINE.

BBB AUTO LINE is an out-of-court program administered by the Better Business Bureau system to settle automotive disputes. This program is available free of charge to customers who currently own or lease a GM vehicle.

If you are not satisfied after following the Customer Satisfaction Procedure, 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

To file a claim, you will be asked to provide your name and address, your Vehicle Identification Number (VIN) and a statement of the nature of your complaint. Eligibility is limited by vehicle age and mileage, and other factors.

We prefer you utilize the Customer Satisfaction Procedure before you resort to AUTO LINE, but you may contact the BBB at any time. The BBB will attempt to resolve the complaint serving as an intermediary. If this mediation is unsuccessful, an informal hearing will be scheduled where eligible customers may present their case to an impartial third-party arbitrator.

The arbitrator will make a decision which you may accept or reject. If you accept the decision, GM will be bound by that decision. The entire dispute resolution procedure should ordinarily take about 40 days from the time you file a claim until a decision is made.

Some state laws may require you to use this program before filing a claim with a state-run arbitration program or in the courts. For further information, contact the BBB at 1-800-955-5100 or the Cadillac Customer Assistance Center at 1-800-458-8006.

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
Box 8880
Ottawa, Ontario K1G 3J2

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 1-800-458-8006 or write:

Cadillac Customer Assistance Center
Cadillac Motor Car Division
30009 Van Dyke
P.O. Box 9025
Warren, MI 48090-9025

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, service bulletins, 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.

1997 CADILLAC 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 1997 CADILLAC

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 1997 GM transmissions, transaxles and transfer cases.
RETAIL SELL PRICE: $40.00

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: 1-800-782-4356

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)
1-800-782-4356
(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 1-800-782-4356. 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.

1997 GM

PUBLICATION FORM NUMBER	ITEM DESCRIPTION	VEHICLE MODEL NAME	VEHICLE MODEL YEAR	QTY.	PRICE EACH*	TOTAL PRICE
	Service Manual		1997		$90.00	
	Car & Light Truck Transmission Unit Repair		1997		$40.00	
	Owner's Manual In Portfolio		1997		$15.00	
	Owner's Manual Without Portfolio		1997		$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-CAD-ORD97

*(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.

NOTES

Section 8 Index

ABS 4-7
Adding Equipment to the Outside of Your Vehicle 6-3
Air Bag 1-25
  How Does it Restrain 1-30
  How it Works 1-27
  Location 1-27
  Readiness Light 1-27, 2-63
  Servicing 1-32
  What Makes it Inflate 1-30
  What Will You See After it Inflates 1-30
  When Should it Inflate 1-9
Air Cleaner 6-15
Air Conditioning 3-6
Air Conditioning Refrigerants 6-63
Alarm, Theft-Deterrent 2-12
Alignment and Balance, Tire 6-43
Aluminum Wheels, Cleaning 6-51
Antenna, Heated Backlite 3-24
Antifreeze 6-19
Anti-Lock
  Brake System Warning Light 2-66, 4-7
  Brakes 4-7
Anti-Lockout Feature 2-6
Appearance Care 6-45
Appearance Care Materials Chart 6-54
Arbitration Program 7-11
Ashtrays 2-49
Assist Handles 2-51
Audio Equipment, Adding 3-22
Audio Steering Wheel Controls 3-20
Audio Systems 3-9
Automatic Door Locks 2-4
Automatic Operation 3-3
Automatic Transmission
  Operation 2-19
  Shifting 2-19
  Fluid 6-18
  Warning Light 2-75
  Starting Your Engine 2-16
Axle, Rear 6-19

Battery 6-29
  Jump Starting 5-3
  Replacement, Remote Keyless Entry 2-8
  Warnings 5-3, 5-5
BBB Auto Line 7-11
Better Business Bureau Mediation 7-11

Brake
Adjustment 6-28
Fluid 6-25
Master Cylinder 6-25
Parking 2-24
Pedal Travel 6-28
Replacing System Parts 6-28
System Warning Light 2-64
To Shift Light 2-73
Transmission Shift Interlock 2-27
Wear 6-27
Brake Pad Wear Indicator Light 2-76
Brakes, Anti-Lock 4-7
Braking 4-6
Braking in Emergencies 4-10
Break-In, New Vehicle 2-14
Brightness Control 2-44
BTSI 2-27
Bulb Replacement 6-29

Capacities and Specifications 6-62
Carbon Monoxide 4-29, 4-35
Cassette Tape Player 3-12, 3-15
Cassette Tape Player Care 3-22
Cassette Tape Player Errors 3-12, 3-15
Cellular Telephone 2-51
Center Console Storage Area 2-48
Center High-Mounted Stoplamp, Bulb Replacement . . . 6-34
Center Passenger Position 1-35
Central Door Unlocking System 2-4
Certification Label 4-30
Chains, Safety 4-36
Chains, Tire 6-45
Changing a Flat Tire 5-23
Charging System Indicator Light 2-63
Check Engine Light 2-69
Check Oil Light 2-73
Checking Your Restraint Systems 1-50
Chemical Paint Spotting 6-53
Child Restraints 1-39
Securing in a Rear Outside Seat Position 1-41
Securing in the Center Rear Seat Position 1-43
Securing in the Right Front Seat Position 1-45
Top Strap 1-40
Where to Put 1-39
CHMSL 6-34
Chrome Wheels, Cleaning 6-51
Cigarette Lighter 2-50
Cleaner, Air 6-15
Cleaning
Aluminum or Chrome Wheels 6-51
Exterior Lamps/Lenses 6-51
Fabric 6-46, 6-47
Glass Surfaces 6-49
Inside of Your Catera 6-46
Instrument Panel 6-48
Leather 6-48
Outside of Your Catera 6-50
Speaker Covers 6-49
Special Problems 6-47
Stains 6-47, 6-48
Tires 6-52
Vinyl 6-48
Wheels 6-51
Windshield and Wiper Blades 6-50

Climate Control System 3-2
Clock, Setting the 3-9
Comfort Controls 3-2
Compact Disc Care 3-23
Compact Disc Changer Errors 3-19
Console Shift Lever 2-25
Console Storage 2-48
Control of a Vehicle 4-6
Convenience Net 2-49
Convex Outside Mirror 2-47
Coolant 6-19
  Heater, Engine 2-17
  Surge Tank 5-18
Cooling System 5-16
Cornering Lamps 2-42
Cruise Control 2-35
Cruise Control Light 2-73
Customer Assistance for Text Telephone Users 7-4
Customer Assistance Information 7-1
Customer Satisfaction Procedure 7-2

Damage, Finish 6-52
Damage, Sheet Metal 6-52
Daytime Running Lamps 2-40
Dead Battery 5-3
Defects, Reporting Safety 7-12, 7-13
Defensive Driving 4-2
Defogger, Rear Window 3-9
Defrosting 3-8
Dimensions, Vehicle 6-63
Dolby® B Noise Reduction 3-13, 3-16
Door
  Central Unlocking System 2-4
  Locks 2-3
Drive Position, Automatic Transmission 2-21
Driver Position 1-17
Driver's Side Instrument Panel Fuse Block 6-57
Driver's Side Temperature Knob 3-2
Driving
  City 4-20
  Defensive 4-2
  Drunken 4-3
  Freeway 4-21
  In a Blizzard 4-28
  In Foreign Countries 6-5
  In the Rain and on Wet Roads 4-17
  Night 4-15
  On Curves 4-10
  On Grades While Towing a Trailer 4-37
  On Hill and Mountain Roads 4-24
  On Snow and Ice 4-26
  Through Water 4-20
  Winter 4-25
  With a Trailer 4-36
DRL 2-40
Drunken Driving 4-3

ECC 3-2
Electrical Equipment, Adding 2-17
Electrical System 6-55
Electrochromic Day/Night Rearview Mirror 2-46
Electronic Climate Control 3-2

Electronic Level Control 4-32
Emergency Trunk Release 2-10
Engine 6-9
Compartment Relay Center 6-61
Coolant 6-19
Coolant Heater 2-17
Coolant Temperature Gage 2-68
Coolant Temperature Warning Light 2-68
Exhaust 2-29
Identification 6-55
Overheating 5-14
Running While Parked 2-29
Specifications 6-62
Starting Your 2-16
Engine Oil 6-10
Adding 6-11
Additives 6-13
Checking 6-11
Used 6-14
When to Change 6-13
Engine Speed Limiter 2-61
English/Metric Display 3-3
Ethanol 6-4
Exhaust, Engine 2-29
Exterior Front Bulbs 6-30
Exterior Lamps 2-38
Exterior Rear Bulbs 6-34

Fabric Cleaning 6-46, 6-47
Fan Button, Climate Control System 3-2
Filling Your Tank 6-5
Filter, Air 6-15
Filter Replacement, Passenger Compartment Air 6-17
Finish Care 6-51
Finish Damage 6-52
First Gear, Automatic Transmission 2-21
Flashers, Hazard Warning 5-2
Flash-To-Pass Feature 2-33
Flat Tire, Changing 5-23
Floor Mats 2-51
Fog Lamps 2-42
Folding the Rear Seat 1-10
Foreign Countries, Fuel 6-5
French Language Manual ii
Front Turn Signal Lamp, Bulb Replacement 6-30
Fuel 6-3
Door Lock 6-6
Filling Your Tank 6-5
Gage 2-75
In Foreign Countries 6-5
Fuses and Circuit Breakers 6-57

Gages
Engine Coolant Temperature 2-68
Fuel 2-75
Oil Pressure 2-72
Garment Hooks 2-51
GAWR 4-30
Gear Positions, Automatic Transmission 2-19
Glove Box 2-48
Gold Key Courtesy Transportation 7-8
Gross Axle Weight Rating 4-30
Gross Vehicle Weight Rating 4-30

Guide en Français ii
GVWR 4-30

Halogen Bulbs 6-29
Handles, Assist 2-51
Hazard Warning Flashers 5-2
Head Restraints 1-8
Head Restraints, Removable 1-8
Headlamps 2-39
  Aiming 6-35
  Bulb Replacement 6-32
  High/Low Beam Changer 2-33
  On Reminder 2-40
  Wiper Activated 2-40
  Wiring 6-56
Hearing Impaired, Customer Assistance 7-4
Heated Backlite Antenna 3-24
Heated Seats 1-6, 1-11
Heating 3-6
High-Beam Headlamps 2-33
Highway Hypnosis 4-23
Hill and Mountain Roads 4-24
Hitches, Trailer 4-35
Hood
  Checking Things Under 6-7
  Release 6-8
Horn 2-31
Hydraulic Brake Warning Lights 2-64
Hydroplaning 4-19

Ignition Positions 2-15
Illuminated Entry 2-44
Illuminated Visor Vanity Mirror 2-50
Immobilizer 2-13
Inflation, Tire 6-38
Instrument Panel 2-58
  Brightness Control 2-44
  Cleaning 6-48
  Cluster 2-60
  Fuse Block 6-57, 6-60
Interior Lamps 2-44

Jack, Tire 5-25, 5-26
Jump Starting 5-3

Keyless Entry, Remote 2-6
Keys 2-2

Labels
  Certification 4-30
  Service Parts Identification 6-55
  Tire-Loading Information 4-30
  Vehicle Identification Number 6-55
Lamps
  Exterior 2-38
  Interior 2-44
  Panel 2-44
Lamps On Reminder 2-40
Leaving Your Vehicle 2-6
Leaving Your Vehicle with the Engine Running 2-26
Leveling Indicator Light 2-76
Light Sensor, Twilight Sentinel 2-44

Lighter 2-50
Lights
Air Bag Readiness 1-27, 2-63
Anti-Lock Brake System Warning 2-66, 4-7
Automatic Transmission Warning 2-75
Brake Pad Wear Indicator 2-76
Brake System Warning 2-64
Brake To Shift 2-73
Charging System Indicator 2-63
Check Engine 2-69
Check Oil 2-73
Cruise Control 2-73
Engine Coolant Temperature Warning 2-68
Leveling Indicator 2-76
Low Coolant Warning 2-69
Low Fuel 2-75
Low Washer Fluid Warning 2-74
Oil Pressure 2-72
Safety Belt Reminder 1-12, 2-62
Traction Control System Warning 2-67, 4-9
Trunk Ajar 2-74
Loading Your Vehicle 4-30
Locks
Anti-Lockout Feature 2-6
Automatic Door 2-4
Door 2-3
Fuel Door 6-6
Power Door 2-4
Programmable Automatic Door 2-5
Rear Door Security 2-5
Loss of Control 4-14
Low Coolant Warning Light 2-69
Low Fuel Light 2-75
Low Washer Fluid Warning Light 2-74
Lumbar Controls 1-3

Maintenance, Normal Replacement Parts 6-63
Maintenance, Underbody 6-53
Maintenance When Trailer Towing 4-38
Malfunction Indicator Lamp 2-69
Manual Folding Outside Rearview Mirror 2-47
Manual Front Passenger's Seat 1-2
Manual Lumbar Support 1-3
Manual Operation 3-4
Map Lamps 2-45
Map Pockets 2-48
MaxiFuse/Relay Center 6-56
Memory Seat and Mirrors 1-5
Methanol 6-4
Mirrors 2-46
Convex Outside 2-47
Electrochromic Day/Night Rearview 2-46
Illuminated Visor Vanity 2-50
Power Remote Control 2-47
MMT 6-4
Mode Button 3-3
Model Reference ii
Mountain Roads 4-24
Multifunction Lever 2-32

Net, Convenience 2-49
Neutral, Automatic Transmission 2-20
New Vehicle "Break-In" 2-14

Night Vision 4-16

Odometer 2-61
Odometer, Trip 2-61
Off-Road Recovery 4-12
Oil, Engine 6-10
Oil Pressure Light/Gage 2-72
Outside Rearview Mirror, Manual Folding 2-47
Outside Temperature Display 3-3
Overheating Engine 5-14
Owner Publications, Ordering 7-13, 7-14

Paint Spotting, Chemical 6-53
Park
  Automatic Transmission 2-19
  Shifting Into 2-25
  Shifting Out of 2-27
Parking
  At Night 2-11
  Brake 2-24
  Lots 2-11
  Over Things That Burn 2-28
  With a Trailer 4-38
Passenger Compartment Air Filter 3-8
Passenger Compartment Air Filter Replacement 6-17
Passenger's Side Instrument Panel Fuse Block 6-60
Passenger's Side Temperature Knob 3-2
Passing 4-13
Power
  Door Locks 2-4
  Option Fuses 6-56
  Recliner 1-8
  Remote Control Mirror 2-47
  Retained Accessory 2-16
  Seats 1-4
  Steering 4-10
  Steering Fluid 6-23
  Windows 2-30
Pregnancy, Use of Safety Belts 1-24
Problems on the Road 5-1
Programmable Automatic Door Locks 2-5
Publications, Service and Owner 7-13, 7-14

Radio Reception 3-21
Radios 3-10, 3-13
Rain, Driving In 4-17
RAP 2-16
Reading Lamps 2-45
Rear
  Axle 6-19
  Door Security Lock 2-5
  Outside Seat Position 1-32
  Seat Passengers 1-32
  Window Defogger 3-9
Rear Seats 1-10
Rear Turn Signal Lamp, Bulb Replacement 6-34
Rear Window Lockout 2-31
Rearview Mirror, Electrochromic Day/Night 2-46
Recirculation 3-5
Reclining Front Seatbacks 1-6
Refrigerants, Air Conditioning 6-63

Remote
Fuel Door Release 6-6
Keyless Entry System 2-6
Removable Head Restraints 1-8
Replacement
Bulbs 6-62
Parts 6-63
Wheel 6-43
Replacing Safety Belts 1-51
Reporting Safety Defects 7-12, 7-13
Restraints
Checking 1-50
Child 1-39
Head 1-8
Replacing Parts After a Crash 1-51
Retained Accessory Power 2-16
Reverse, Automatic Transmission 2-20
Right Front Passenger Position 1-25
RKE 2-6
Roadside Service 7-5
Rocking Your Vehicle 5-33
Rotation, Tires 6-40

Safety Belts 1-11
Adults 1-16
Care 6-49
Center Passenger Position 1-35
Children 1-37
Driver Position 1-17
Extender 1-50
How to Wear Properly 1-16
Incorrect Usage 1-20, 1-48, 1-49
Lap Belt 1-36
Lap-Shoulder 1-17, 1-32
Larger Children 1-47
Questions and Answers 1-16
Rear Seat Outside Passenger Positions 1-32
Rear Seat Passengers 1-32
Reminder Light 1-12, 2-62
Replacing After a Crash 1-51
Right Front Passenger Position 1-25
Shoulder Belt Height Adjuster 1-19
Smaller Children and Babies 1-37
Use During Pregnancy 1-24
Why They Work 1-13
Safety Chains 4-36
Safety Defects, Reporting 7-12, 7-13
Safety Warnings and Symbols v
Seatback
Power Recliner 1-8
Reclining Front 1-6
Seats
Heated 1-6, 1-11
Manual Front Passenger's 1-2
Manual Lumbar Support 1-3
Memory Seat and Mirrors 1-5
Power 1-4
Rear 1-10
Restraint Systems 1-1
Seat Controls 1-2
Securing a Child Restraint 1-41, 1-31, 1-45
Second Gear, Automatic Transmission 2-21

Service 6-2
Bulletins, Ordering 7-13, 7-14
Manuals, Ordering 7-13, 7-14
Parts Identification Label 6-55
Publications, Ordering 7-13, 7-14
Work, Doing Your Own 6-2
Service and Appearance Care 6-1
Service and Owner Publications 7-13, 7-14
Service Publications 7-13, 7-14
Servicing Your Air Bag-Equipped Catera 1-32
Sheet Metal Damage 6-52
Shift Lever 2-25
Shifting
Automatic Transmission 2-19
Into PARK (P) 2-25
Out of PARK (P) 2-27
Shoulder Belt Height Adjuster 1-19
Signaling Turns 2-32
Skidding 4-14
Sound Equipment, Adding 3-22
Speaker Covers, Cleaning 6-49
Specifications and Capacities 6-62
Specifications, Engine 6-62
Speech Impaired, Customer Assistance 7-4
Speedometer 2-61
Sport Mode Button 2-22
SSS 4-10
Stains, Cleaning 6-47, 6-48
Starting Your Engine 2-16
Steam 5-14
Steering 4-10
In Emergencies 4-11
Power 4-10
Speed Sensitive 4-10
Tips 4-10
Wheel, Tilt 2-32
Steering Wheel Controls for Audio System 3-20
Storage Area, Center Console 2-48
Storage Compartments 2-48
Stuck: In Sand, Mud, Ice or Snow 5-33
Sun Visors 2-50
Sunroof 2-51
Surge Tank, Coolant 5-18
Surge Tank Pressure Cap 6-23
Symbols, Vehicle vii

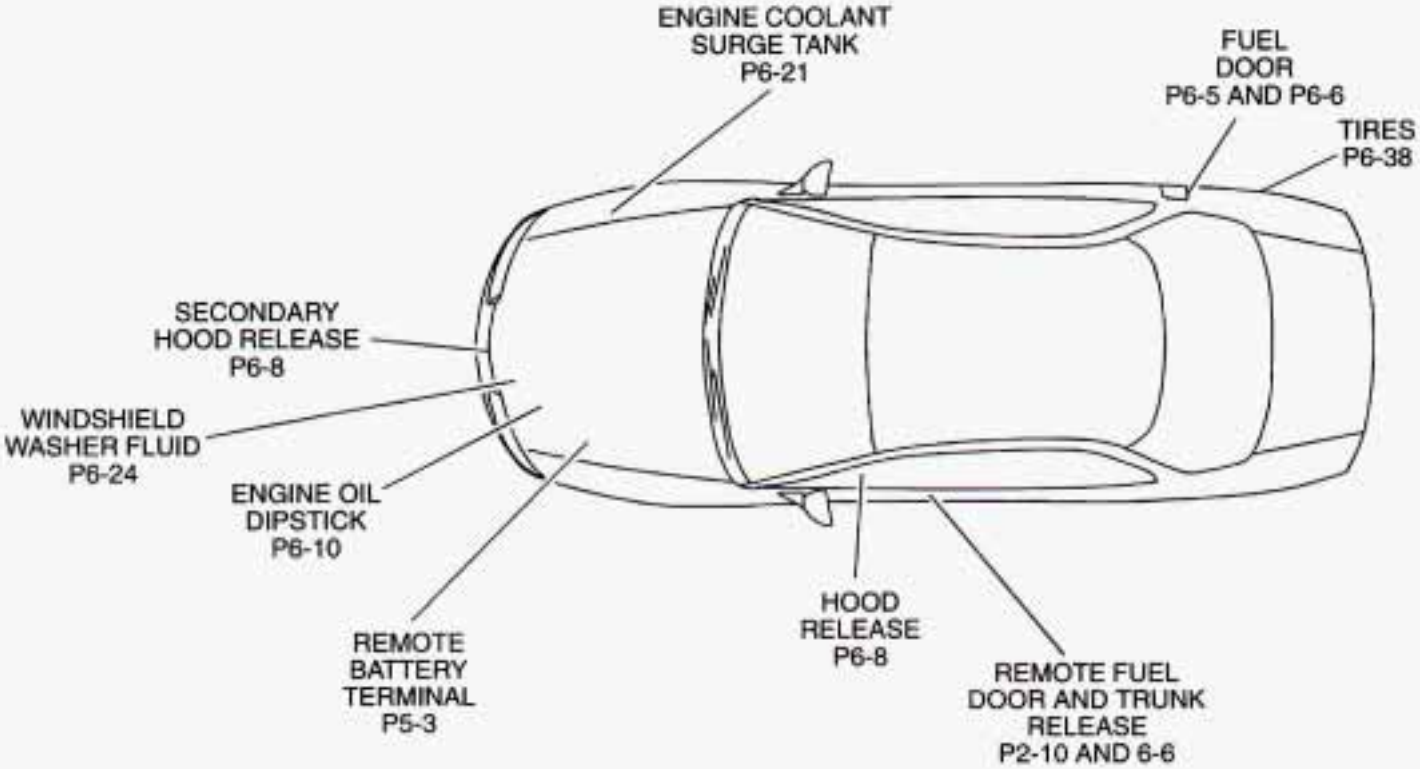
Tachometer 2-61
Taillamp, Bulb Replacement 6-34
Tape Player Care 3-22
Telephone, Cellular 2-51
Temperature Knobs, Climate Control System 3-2
Theft 2-11
Theft-Deterrent Alarm System 2-12
Theft-Deterrent Feature, Radio 3-20
Thermostat 6-23
Third Gear, Automatic Transmission 2-21
Third-Gear Start 2-23
Tilt Steering Wheel 2-32
Time, Setting the 3-9
Tire Chains 6-45

Tires 6-38
Alignment and Balance 6-43
Buying New 6-41
Chains 6-45
Changing a Flat 5-23
Cleaning 6-52
Inflation 6-38
Inspection and Rotation 6-40
Loading Information Label 4-30
Pressure 6-38
Temperature 6-43
Traction 6-42
Treadwear 6-42
Uniform Quality Grading 6-42
Wear Indicators 6-41
Wheel Replacement 6-43
When It's Time for New 6-41
Top Strap 1-38
Torque Lock 2-26
Torque, Wheel Bolt 5-31, 6-63
Towing a Trailer 4-32
Towing Your Catera 5-8
Traction
Control System 4-9
Control System Warning Light 2-67, 4-9
Traction Engaged 2-67
Trailer
Brakes 4-36
Driving on Grades 4-37
Driving with 4-36
Hitches 4-35
Maintenance When Towing 4-38
Parking on Hills 4-38
Safety Chains 4-36
Tongue Weight 4-34
Total Weight on Tires 4-35
Towing 4-32
Turn Signals 4-37
Weight 4-34
Transmission Fluid, Automatic 6-18
Transmitter, Universal 2-54
Transmitters, Remote Keyless Entry System 2-6
Transportation, Gold Key Courtesy 7-8
Trip Odometer 2-61
Trunk
Ajar Light 2-74
Mounted CD Changer 3-17
Release 2-10
TTY Users 7-4
Turn and Lane Change Signals 2-32
Turn Signal/Multifunction Lever 2-32
Turn Signals When Towing a Trailer 4-37
Twilight Sentinel 2-43

Underbody Maintenance 6-53
Understanding Radio Reception 3-21
Universal Transmitter 2-54

Vehicle
Control 4-6
Damage Warnings vi
Dimensions 6-63
Identification Number 6-55
Ventilation System 3-7
Visor Vanity Mirror, Illuminated 2-50
Visors, Sun 2-50
Voltmeter 2-65

Warning Devices 5-3
Warning Lights, Gages and Indicators 2-61
Warranty Information 7-12
Washer Fluid, Windshield 6-24
Washing Your Vehicle 6-50
Weatherstrips 6-50
Wheel
Alignment 6-43
Bolt Torque 5-31, 6-63
Replacement 6-43
Wrench 5-26
Windows 2-30
Power 2-30
Rear Lockout 2-31
Windshield Washer 2-34
Fluid 2-34, 6-24
Windshield Wipers 2-33
Blade Replacement 6-37
Fuses 6-56
Winter Driving 4-25
Wiper Activated Headlamps 2-40
Wiring, Headlamp 6-56
Wrench, Wheel 5-26



For detailed information, refer to the page number listed, or see the Index in the back of the owner's manual.