
Pontiac
Owners Manual
Fiero

1987 PONTIAC FIERO OWNER'S MANUAL

THIS MANUAL SHOULD BE CONSIDERED A PERMANENT PART OF THIS CAR. IT SHOULD STAY WITH THE CAR WHEN SOLD, TO PROVIDE THE NEXT OWNER WITH IMPORTANT OPERATING, SAFETY, AND MAINTENANCE INFORMATION.

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All information, illustrations and specifications in this manual are based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice.

For cars sold in Canada, substitute the name "General Motors of Canada Limited" wherever the name "Pontiac Division" appears in this manual.

INTRODUCTION

This manual has been prepared to acquaint you with the operation and maintenance of your 1987 Pontiac, and to provide important safety information. It is supplemented by a Maintenance Schedule booklet and a Warranty and Owner Assistance Information booklet. We urge you to read all three publications carefully. Following the recommendations will help assure the most enjoyable, safe and troublefree operation of your car.

When it comes to service, keep in mind that your Pontiac dealer knows your vehicle best and is interested in your complete satisfaction. Your dealer invites you to return for all of your service needs both during and after the warranty period.

Remember, if you have a concern that has not been handled to your satisfaction, follow the steps in the separate "Warranty and Owner Assistance Information" booklet.

We thank you for choosing a Pontiac product, and want to assure you of our continuing interest in your motoring pleasure and satisfaction.

FRENCH OWNER'S MANUAL

If preferred, a French Owner's Manual can be obtained either from your dealer or by writing to Dyment Limited, 36 Overlea Boulevard, Toronto, Ontario M4H 1B7.

Aux proprietaires canadiens:

Vous pouvez vous procurer un exemplaire de ce guide en francais chez votre concessionnaire ou au Dyment Limitee, 36 Overlea Boulevard, Toronto, Ontario M4H 1B7.

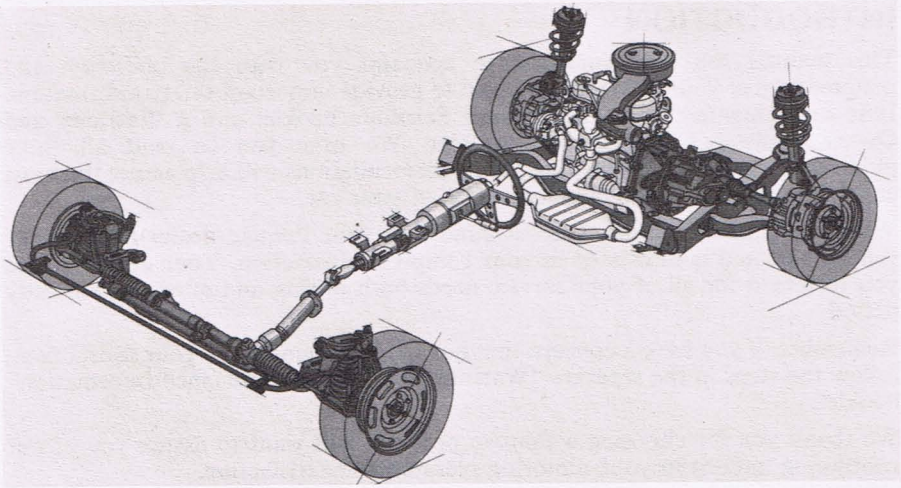
FOR CONTINUING SATISFACTION, KEEP YOUR GM CAR ALL GM. GENERAL MOTORS PARTS ARE IDENTIFIED BY ONE OF THESE TRADEMARKS:

FIERO

"Fiero." It means "Very Proud." This description applies, not only to your new Pontiac, but to individuals like yourself who have recognized an outstanding value in personal transportation.

Mid-Engine Design - Weight Where It Works

Fiero is a true mid-engined vehicle. Its engine is transversely mounted behind the passenger compartment, above and slightly ahead of the rear wheels.



This design provides a substantial measure of tractional competence, by putting the engine's weight over the drive wheels. It also allows for distinctive styling, as the front end need not be shaped to accommodate the engine.

Fully Independent Suspension Means Road Compliance

While nearly all rear-wheel drive cars have *front* wheels that are suspended independently of each other, very few have an independent *rear* suspension. Fiero's engine is coupled to a transaxle which drives the rear wheels through two half-shafts. This allows the rear wheels to be independently suspended by means of McPherson struts and control arms. The result is a ride which, although responsive, is pleasantly supple over rough roads.

The Science of Economy

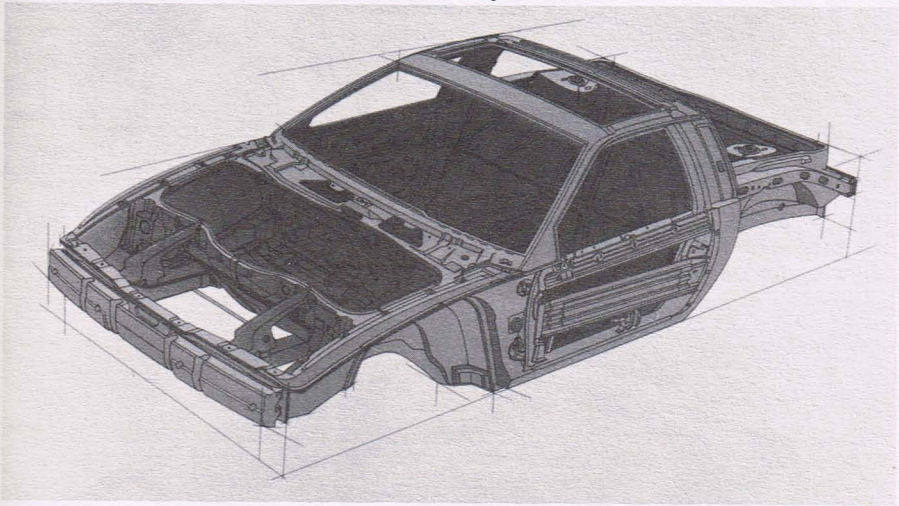
Fiero is a result of innovative technology. This is expressed, not just in terms of performance, but in terms of economy as well. You will find that, for all the exhilaration and sheer driving pleasure your new Pontiac offers, it is still a relatively inexpensive car to own and operate.

Retractable headlights and an extremely low hood profile - an advantage afforded by mid-engine technology - help produce an aerodynamic drag coefficient of about .377.

While the drag coefficient's importance is not to be minimized, it is a car's aerodynamic *efficiency* that is the real measure of its wind-cheating ability. This number takes into account coefficient of drag *and* frontal area. Fiero has an aerodynamic efficiency of about .65, a very favorable rating.

Another measure of a car's ultimate economy is its durability. In addition to being built to Pontiac's standards of mechanical excellence, Fiero boasts a revolutionary concept in cosmetic durability with its use of ENDURAFLEX ® body panels. The front fascia and side body panels are flexible RIM (reaction injection molded) urethane reinforced with glass flakes. This is a material similar to that used to manufacture the front and rear bumper fascias of many Pontiacs in recent years. As owners of these cars have found, this material is impervious to rust - a feature which will be appreciated year after year.

Fiero's Beauty - More than Skin Deep

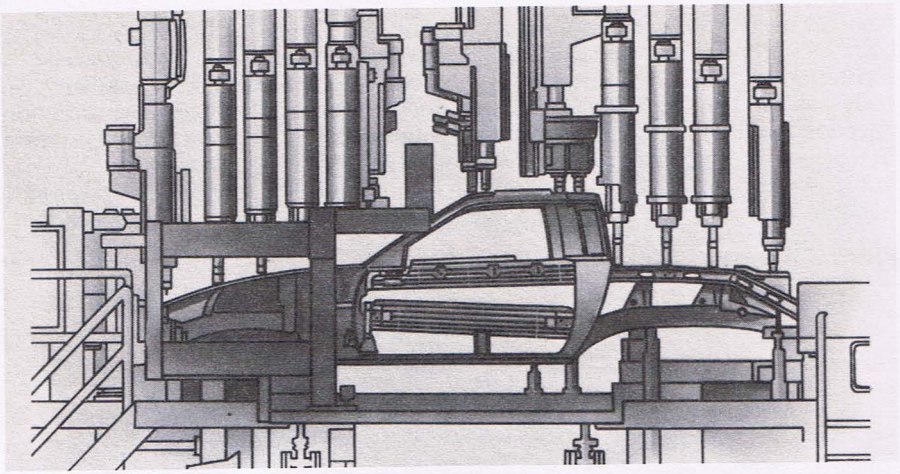


Fiero is constructed like no vehicle that has come before. It is, quite simply, a state-of-the-art achievement in structure and aesthetics. Beneath its resilient body panels is a steel "space frame" which supports the powertrain and suspension components, and lends outstanding structural integrity to Fiero's slippery shape.

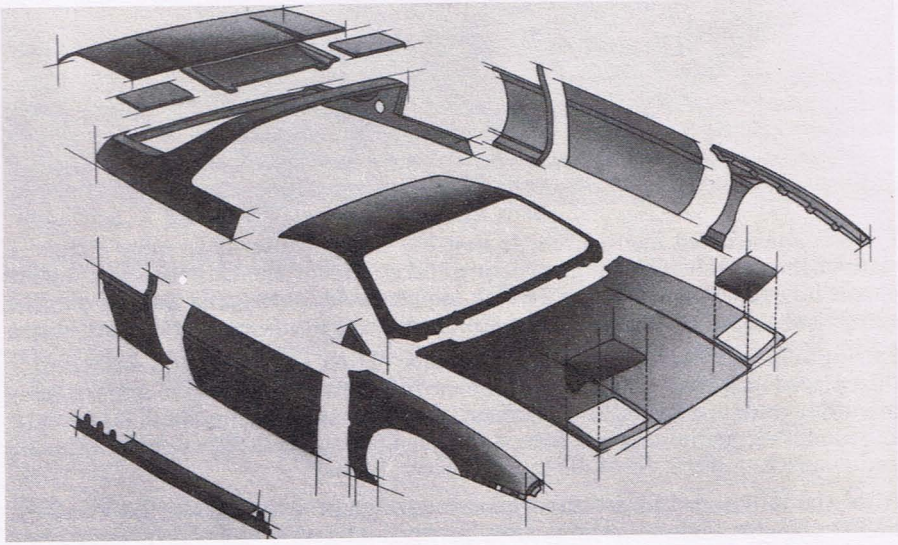
During vehicle construction, the space frame is first assembled and welded. It is then placed on a "mill and drill" machine where 39 separate, non-corroding, body mounting pads are drilled and machined from a master gage point. This process, an automobile manufacturing first, is designed to maximize dimensional accuracy and assure a uniform fit of all exterior body "skins."

After the mill and drill process, the space frame proceeds to the CATHODIC ELPO (Electro-Deposition) dip area, where the latest GM Uniprime corrosion protection is applied.

The primed space frame is then mated with the powertrain components, to become what Pontiac engineers refer to as a "driveable chassis" - a mechanically complete "sub-car," so to speak. Since the driveable chassis lacks body panels and



trim, engineers continue to have ready access to mechanical systems until late in the production cycle. This means that the car can be conveniently inspected, allowing for outstanding quality control.



Meanwhile, the body skins, which will be attached to the driveable chassis, are fabricated from two space-age materials. The fenders, front fascia, doors and lower quarter panels are high-grade, glass flake reinforced RIM urethane, while the front and rear compartment lids, roof panels and upper quarter panels are

rigid SMC (sheet molded compound). These non-corroding materials afford excellent dimensional control, while yielding a substantial weight saving over steel panels.

Before final assembly, the panels are painted, utilizing one of the most advanced paint-application systems in the world. In this process, a high-solid base coat and clear enamel gloss-coats are electrostatically applied, for a finish of striking beauty.

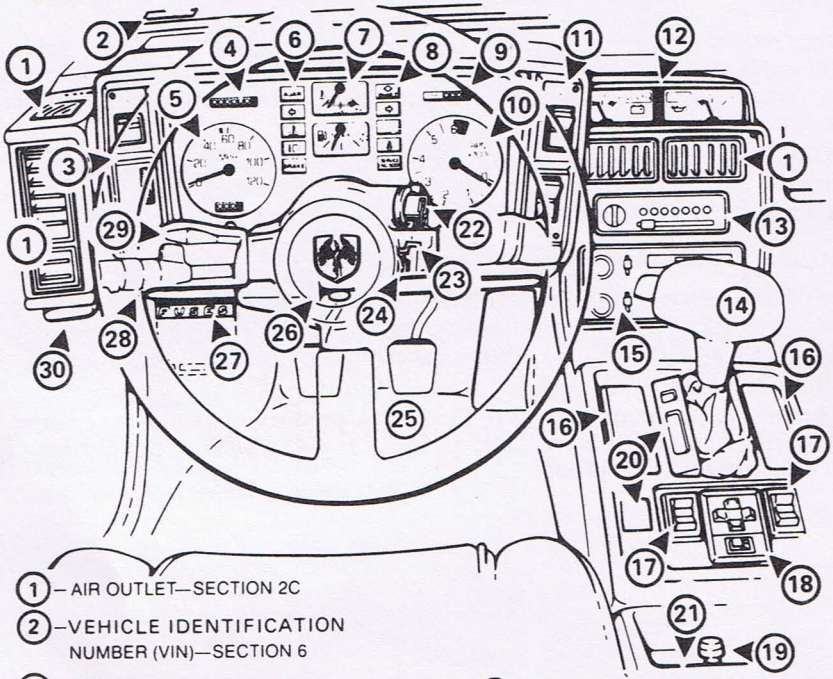
Finally, the body skins are *bolted* (for ease of removal and replacement) to the driveable chassis. Fiero is now complete - a visually pleasing package which, thanks to its unique construction, is as roadworthy as it is attractive.

You and Fiero - A Command Performance

Fiero's fuel-injected power gives a feeling of competence underfoot - competence which is well matched by its braking performance, thanks to power-assisted discs at all four wheels. In all, the driving experience is reassuring, while providing a high level of enjoyment.

In summary, one could say that Fiero is a product of performance-oriented engineering and skilled workmanship. But it is also a state of mind. Enjoy it -- you have a right to be proud.

INSTRUMENT PANEL CONTROLS



(1) – AIR OUTLET—SECTION 2C

(2) – VEHICLE IDENTIFICATION NUMBER (VIN)—SECTION 6

(3) – HEADLIGHT SWITCH—SECTION 2C
PARKING LIGHTS SWITCH
INSTRUMENT PANEL LIGHTS SWITCH

(4) – ODOMETER—SECTION 2C

(5) – SPEEDOMETER—SECTION 2C
*TRIP ODOMETER
*TRIP ODOMETER RE-SET SWITCH

(6) – DECK/DOOR AJAR INDICATOR LIGHT
LEFT TURN INDICATOR LIGHT
COOLANT TEMP. LIGHT
HEADLIGHT HI-BEAM INDICATOR LIGHT

(6) – BRAKE SYSTEM WARNING LIGHT SECTION 2C

(7) – COOLANT TEMPERATURE GAGE SECTION 2C
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(8) – SHIFT INDICATOR LIGHT SECTION 2
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(9) – NO USAGE

(10) – *TACHOMETER SECTION 2C
*OIL PRESSURE GAGE

(11) – *ELECTRIC TRUNK RELEASE SWITCH– SECTION 2C

(12) – *OIL PRESSURE GAGE *VOLTMETER– SEC. 2C

(13) – HEATER CONTROL *A/C CONTROL– SEC. 2C

(14) – SHIFT LEVER– SEC. 2

(15) – RADIO—SEC. 2C

(16) – ASHTRAY

(17) – *POWER WINDOW SWITCHES—SEC. 1, 2D

(18) – *POWER SPORT MIRROR CONTROL—SEC. 1, 2D

(19) – CIGAR LIGHTER– SEC. 2D

(20) – SHIFT INDICATOR– SEC. 2, 2D

(21) – GLOVE BOX

(22) – STEERING COLUMN LOCK—SEC. 2A

(23) – KEY RELEASE LEVER—SEC. 2A

(24) – HAZARD WARNING FLASHER SWITCH—SEC. 3

(25) – FLOOR CONTROLS– SECTION 2B

(26) – HORN BUTTON

(27) – FUSE BLOCK– SEC. 5, 6

(28) – TURN SIGNAL AND MULTI FUNCTION LEVER SEC. 2A

(29) – *TILT STEERING LEVER—SEC. 2A

(30) – INSIDE FRONT COMPARTMENT LID (HOOD) RELEASE —SEC. 7

*NOTES OPTIONAL EQUIPMENT

SOME OF THE FOLLOWING SYMBOLS ARE USED TO IDENTIFY CONTROLS AND DISPLAYS ON YOUR CAR.

CHOKE

SPEAKER

VENT

MANUAL TRANS SHIFT INDICATOR SHIFT

VENTILATING FAN

ENGINE OIL PRESSURE

CAUTION POSSIBLE INJURY

CAUSTIC BATTERY ACID COULD CAUSE BURNS

HOOD RELEASE

SPARK OR FLAME COULD EXPLODE BATTERY

FUSE

REAR WINDOW WIPER & WASHER

FOG LAMP

PARKING LIGHTS

DOOR AJAR

HAZARD WARNING FLASHER

REAR WINDOW DEFOGGER

ENGINE COOLANT TEMPERATURE

DOOR LOCK/ UNLOCK

HORN

WINDSHIELD DEFROSTER

WINDSHIELD WIPER

REAR WINDOW WIPER

AIR CONDITIONING

ILLUMINATION CONTROL

BATTERY CHARGING SYSTEM

RADIO SELECTOR

LIGHTER

LIGHTS OR HIGH BEAM

WINDSHIELD WASHER

TURN SIGNALS

WINDSHIELD WIPER & WASHER

FASTEN SEAT BELTS

REAR WINDOW WASHER

MASTER LIGHTING SWITCH

SEATBACK WINGS IN/OUT

PROTECT EYES BY SHIELDING

HEATER

AVOID SPARKS OR FLAMES

FUEL

TRUNK/ HATCHBACK RELEASE

RADIO VOLUME

POWER WINDOW

ENGINE OIL TEMPERATURE

HEADLIGHT LOWER BEAM

TRANSAXLE

While reading this manual, you will note many references to the "transaxle." The transaxle is a transmission and differential (axle) combined in a single unit. To avoid confusion, the word "transaxle" will be used throughout this manual to refer to both the transmission and differential functions.

DRIVER DAILY CHECKLIST

Be sure you know how to use your car and its equipment before operating it.

Before Entering the Car

1. See that windows, mirrors, lights and reflectors are undamaged, clean and unobstructed.
2. If any tire does not look normal, check it with a pressure gage.
3. Look for fluid leaks.
4. Be sure everything is properly stowed.
5. Check the area behind the car if you are about to back up.

Before Driving Off

1. Lock all doors.
2. Adjust the seat.
3. Adjust inside and outside mirrors.
4. Always properly fasten your seat belt. Check that seat belts for all other occupants are fastened properly. Never let anyone ride any place in or on this vehicle where there is no seat belt.
5. Check that all the warning lights work as the key is turned to "Run" or "Start."
6. Check all gages (including the fuel gage).
7. Release the parking brake (and make sure the "BRAKE" light turns off).

See related topics in this manual or the Maintenance Schedule booklet, especially if problems are found.

STOWING THINGS IN (OR ON) THE CAR

CAUTION: To help avoid personal injury during a collision or sudden maneuver, always take extra care when stowing things. Put luggage or cargo in the rear, or front storage compartment if possible. Cargo weight inside the car should be distributed as evenly as possible. Locate cargo on the optional deck lid luggage carrier against the rear rail. Secure all items inside the passenger compartment in place to help keep them from being thrown

(Continued)

CAUTION: (Continued)

about. Do not pile luggage or cargo inside the vehicle higher than the seatback. Also see "Vehicle Loading" under "Tires" in Section 5.

KEYS

Two different keys are provided for the locks on your car. The key code is stamped on the "knock-out" plug in each key head.

- **Key with square head** – for the ignition lock only.
- **Key with oval head** – for all other locks.

For car security:

- Record the key code numbers, then knock the plugs out of the keys.
- Keep the key codes in a safe place (such as your wallet), not in the car.

If the original keys are lost, duplicates can be made using the key codes. Stamped on the key is a letter indicating the proper key blank needed if duplicates are required. Contact any GM dealer or a locksmith.

If you park in an attended lot, leave only your square-head ignition key. Take the oval-head key with you. This will help prevent illegal entry into your car or any locked compartment.

It's a good idea to carry an extra key to the door in your wallet or purse, should you accidentally lock your regular keys in the vehicle. To help protect your car and its contents against theft, General Motors has provided anti-theft features which would also make it inconvenient and possibly expensive to enter the vehicle if you are locked out.

DOOR LOCKS

- Lock doors from inside by sliding the door lock lever located near the door latch handle on each door panel.
- Lock doors from outside by first sliding the lock lever then closing the door.
- Doors can also be locked from outside by using the oval head key.

All models have a standard safety feature overriding door locks. When the doors are locked, both the inside and outside door latch mechanisms are inoperative, thus preventing inadvertent opening of the door by movement of the inside

handle.

Always Lock The Doors

CAUTION: To help reduce the risk of personal injury in an accident, always lock the doors when driving. Along with using the seat belts properly, locking the doors helps prevent people from being thrown from the vehicle. It also helps prevent unintended opening of the doors and helps keep out intruders.

Power Door Locks (Optional)

All doors may be locked or unlocked by operating the switch marked "LOCK," located on each door trim pad on cars equipped with power door locks. The electric locking mechanism does not at any time interfere with manual operation of any door lock lever. The doors will not unlock or open with the inside door handle when the power door lock switch has been actuated, but can be unlocked individually by sliding the lock lever.

WINDOWS

Manual Window Control

Door windows can be raised or lowered by rotating the hand crank located in the door panel.

Power Windows

Optional power windows will operate only when the ignition is in "RUN." A switch for each door window is provided on the console. (See "Console Controls" in Section 2D.)

MIRRORS

Inside Rearview Mirror

The mirror can be adjusted up, down or sideways to obtain the best view. Move the mirror lever to the night position to reduce glare from the headlights of vehicles behind you.

Outside Rearview Mirror(s)

Adjust the outside mirror(s) so you can just see the side of your vehicle. This helps you determine the location of objects seen in the mirror.

The remote control lever for the left-hand outside rearview mirror is located on the forward section of the driver's interior door trim panel. Simply move the lever in the desired direction to adjust the position of the mirror.

The control switch for optional Power Remote Mirrors is located on the console (see "Console Controls" in Section 2D). To adjust the mirror, slide the lower portion of the switch to select which mirror you wish to adjust, either LEFT or RIGHT. Then, press the switch pad which corresponds to the direction you would like the mirror to move. Hold the switch pad down until the mirror has moved to the desired position.

Convex Rearview Mirror

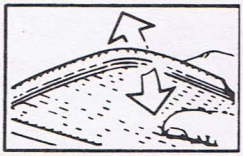
Your car may have an optional convex outside right-hand mirror. (A convex mirror has a curved surface.)

- Use care when judging the size or distance of a vehicle or other object seen in this convex mirror – such objects will look smaller and appear farther away than when seen in a flat mirror.
- Use your inside mirror (or glance rearward) to determine the size and distance of objects seen in the convex mirror.
- Adjust the mirror so you can just see the side of your vehicle.

Visor Vanity Mirror

The optional visor vanity mirror is located on the upper surface of the right–hand sun visor. Swing the sun visor down for access to the mirror.

SUN VISOR ADJUSTMENT



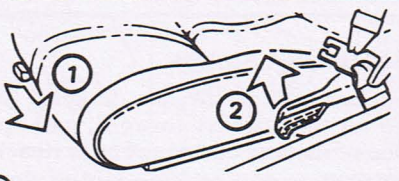
- Grasp the visor by the rear edge and pull downward to position the visor in the upper portion of the windshield.
- Remove the visor from its retainer (if equipped), pull the bottom edge down, and swing the visor to one side to position at the side window.

- Adjustment of the screw at the pivot point will loosen or tighten the visor on its shaft.

SEATS

Adjustment

The seats may be adjusted forward or rearward by moving the control lever located under the front of the seat. Move the lever toward the left side of the car to release the locking mechanism; then exert slight body pressure to move the seat to the desired position. Release the control lever to lock the seat in the desired position.



1–SEAT FORWARD/REARWARD ADJUSTMENT RELEASE LEVER

2–SEAT BACK RECLINE/SEAT BACK LATCH RELEASE LEVER

Adjust Driver's Seat While Parked

CAUTION: Do not adjust the driver's seat while the car is moving. The seat could move suddenly and cause the driver to lose control of the vehicle.

After adjusting the seat, push it back and forth to be sure it will not move. Take the car to your dealer for service if your seat does not lock.

The multi-position reclining seats can be tilted forward or rearward of the normal position by exerting rearward pressure on the seatback and lifting the control lever at the outboard side of the seat cushion. Release the control lever to lock the seatback in place.

To return the seatback to the upright position, release pressure on the seatback and lift the control lever. The seatback will then move forward.

SEATBACK POSITION WHEN MOVING

CAUTION: To reduce the risk of sliding under the lap belt during a collision, an occupied reclining seat should not be reclined any more than needed for comfort. The seatback and seat belts provide best restraint only when the rider is sitting well back and straight up in the seat. (The lap belt is designed to spread the force of a collision over the hip-bone. If you are reclined, the lap belt may slide past your hips and apply restraint forces directly to the abdomen. Therefore, in the event of a frontal collision, the risk of personal injury may increase with increasing recline of the seatback.)

(Continued)

CAUTION: (Continued)

Do not adjust the reclining seatback on the driver's seat while the car is moving. The seatback could move suddenly and cause the driver to lose control of the vehicle.

Seatback Latches

The seatback latches are designed to limit forward movement of the seatbacks. To tilt the seatback forward, pull up on the latch release lever on the outboard side of the seat cushion. The seatback should latch when returned to the upright position.

SEAT BELT SYSTEMS

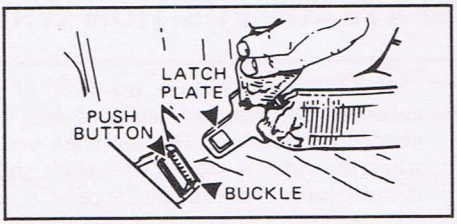
CAUTION: To help reduce the risk of personal injury in collisions or sudden maneuvers, use the seat belts following these instructions on their proper use, maintenance, and application with child restraint systems. This includes pregnant women; the lap portion should continue to be worn low and snug throughout the pregnancy.

NEVER:

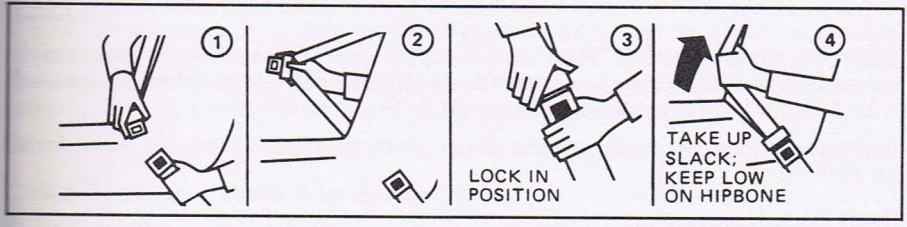
- Wear a shoulder belt under your arm nearest the door.
- Use a belt for more than one person at a time.
- Wear the belts twisted or with a buckle release button facing downward or inward.
- Let the belt system become damaged by a door or seat.
- Put anything into the opening where the seat belt passes through the trim panel. (This may jam the retractor or damage the belt.)

Lap-Shoulder Belt

1. Adjust the seat as needed and sit well back and straight up. Then pull the belt across your lap and push the latch plate into the buckle until it clicks. If the belt is not long enough to permit this, see "Seat Belt Extender" following.



2. To reduce the risk of sliding under the belt during a collision, position the belt across your lap as low on your hips as possible and pull it toward the door to a snug fit so the retractor can take up slack.



The lap–shoulder belt is designed to lock only during a sudden stop or impact. At other times it should move freely.

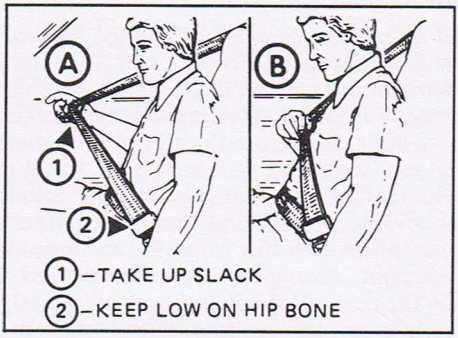
3. If the shoulder belt is too snug:

   A. Pull the shoulder belt out at least 130 millimeters (five inches) so that when you let go, it returns to your chest.

   B. Then pull down on the shoulder belt the least amount needed to ease pressure but no more than 25 mm (one inch) and let go.

4. To get rid of the slack in the belt, pull the belt out as you did in Step 3. A above.

Keep any shoulder belt slack to a minimum -- no more than 25 mm (one inch). Belt slack beyond the specified amount could significantly reduce the amount of protection in an accident because the belt is too loose to restrain you as intended.



5. To unfasten the belt, push the button on the buckle. The retractors should rewind the belt when the buckle is unlatched. To help prevent damage to the seat belt and interior trim, before closing the door be sure the belt is fully retracted and the latch plate is out of the way.

Seat Belt Reminder

When the key is turned to "Run" or "Start," a light will come on for four to eight seconds to remind people to fasten their seat belts. Unless the driver's seat belt is buckled, a buzzer or chime will sound at the same time.

If the seat belt or reminder system does not work as described, see your dealer for service.

Seat Belt Inspection

Now and then check that belts, buckles, latch plates, retractors, anchorages, and reminder systems work properly; look for loose parts or damage (without disassembly) that could keep the restraint system from doing its job. Have a belt assembly replaced if the webbing has been cut or otherwise damaged. Replace belts, retractors, and hardware in use during all but a minor collision. Also, restraint systems should be replaced and anchorages properly repaired if they were in areas damaged by a collision, whether the belt was in use or not. If there is any question, replace the belt system. Damage, whether visible or not, could result in serious personal injury in the event of an accident.

Seat Belt Extender

If a seat belt cannot be fastened because it is not long enough, General Motors will be pleased to furnish a seat belt extender without charge. Contact your dealer; remember to bring the heaviest coat expected to be worn to obtain the proper length extender. Be prepared to choose a front or rear seat position where the extender will be used -- an extender measured for a front seat may not be safe in a rear seat, and one measured for the rear may not be safe in a front seat. Remember also that the extender intended for this car may not be safe for use in another vehicle and that the extender from another vehicle may not be safe for use in this car. For example, an improper extender might come apart during an accident causing the user to be injured. The seat belt extender is to be used only by the person for whom it was measured; use by others or in another vehicle could reduce seat belt restraint effectiveness in an accident and result in personal injury. Do not use the extender whenever the seat belt can be fastened without it.

To use the extender, sit in the seat measured for the extender (as indicated on the extender's label), push the car's seat belt latch plate into the extender's buckle, and the extender's latch plate into the seat belt buckle. To unfasten the belt, push in the button in the center of the extender buckle so that it remains attached on the inboard side. This helps avoid damaging the extender or interior trim. Keep the extender in the vehicle for which it was intended.

CHILD RESTRAINT

All vehicle occupants and especially children should be restrained whenever riding in cars. Holding a child in your arms is not a substitute for a child restraint system. In an accident, a child held in a person's arms can be struck or crushed by any unrestrained rider. An unrestrained child could also be injured by striking the interior, or by being ejected from the vehicle during a sudden maneuver or impact. A child restraint system can help protect a child in a car.

Be sure to follow all installation and use instructions that come with the system.

Child Restraint With Top Strap

Should you choose to use a top-strap-equipped child restraint in this vehicle, you may either want to have your Pontiac dealer install the top strap anchor bracket, or learn from the dealer where to attach it. (The anchor bracket is supplied by the company that makes the child restraint system.)

Riding Without A Child Restraint Where Permitted By Law

Note that some form of child restraint is now mandatory in all fifty states (most provinces in Canada). For the best protection in an accident or sudden manuever, children small enough for child restraint systems should be restrained that way if at all possible to do so correctly. However, the following may provide some degree of protection for such children if a child restraint is not available.

- Infants who cannot sit up should be placed in a padded baby carrier. Put it crossways on the car seat and securely restrain it with the car's lap belts.
- A child who can sit up by itself should wear both lap and shoulder belt. If the shoulder belt irritates the neck or face move the child closer to the center of the car.

  Never let a child stand or kneel on the seat.

ENGINE EXHAUST GAS CAUTION (CARBON MONOXIDE)

CAUTION: Do not breathe exhaust gas because it contains carbon monoxide, which by itself has no color or odor. Carbon monoxide is a dangerous gas. It can cause unconsciousness and can be lethal.

If at any time you think exhaust fumes are entering the car, have the cause determined and corrected as soon as possible. If you must drive under these conditions, drive only with ALL windows fully OPEN.

Protect against carbon monoxide entry into the car body. The best way is to keep the engine exhaust system, car and body ventilation system properly maintained. We recommend that the exhaust system and body be inspected by a competent technician:

- **each time the car is raised for an oil change;**
- **whenever a change is noticed in the sound of the exhaust system;**
- **whenever the exhaust system, underbody or rear of the car is damaged or becomes corroded.**

See your Maintenance Schedule booklet for parts requiring inspection.

To allow proper operation of your car's ventilation system, keep the air inlet grille in front of the windshield clear of snow, leaves or other obstructions at all times.

Do not park with the engine running or idle this car for more than 10 minutes with the ventilation system control switch in the "OFF" position. Even with the ventilation system on, running the engine while parked or stopped for longer periods of time is not recommended. Entry of carbon monoxide into the car body is possible with a poorly repaired, damaged, or corroded exhaust system or car body.

Do not run the engine in confined areas (such as garages or next to a building) any more than needed to move the car. When the car has to be stopped in an unconfined area with the engine running for any more than a few minutes, take the following steps:

A. Adjust the heating or cooling system to force outside air into the car as follows:

1. **On cars not equipped with air conditioning, set the fan to medium or high speed.**
2. **On cars equipped with air conditioning, set the fan to an intermediate or high speed and press one of the upper buttons not marked "OFF" or "MAX."**

(Continued)

CAUTION: (Continued)

B. Keep the exhaust tailpipe area clear of snow and other material to help reduce the buildup of exhaust gases under the vehicle. This is particularly important when parked in blizzard conditions.

Driving with the rear compartment lid open is not recommended. Under some conditions, exhaust gases may be drawn into the car. If the rear compartment lid must remain open for some reason while moving, or if electrical wiring or other cable connections to a trailer must pass through the seal between the rear compartment lid and the body, follow these precautions:

- **Close all windows.**
- **Adjust the heating or cooling system to force outside air into the car as described above, but set the fan to high speed.**

NEW CAR "BREAK-IN" PERIOD

You can drive your new car from its very first mile/kilometer without following a formal "break-in" schedule. However, there are things you can do during the first few hundred miles/kilometers of driving that will add to the future performance and economy of your car.

We recommend you limit your speed during the first 500 miles (800 kilometers) to a maximum of 55 mph (90 km/h); but do not drive for long periods at any one constant speed, either fast or slow. During this time, avoid full throttle starts and, if possible, avoid hard stops especially during the first 200 miles (320 kilometers) of driving.

Always drive at moderate speed until the engine has completely warmed up.

If you plan to use your new car for trailer towing, see the following.

TRAILER TOWING

This car is designed and intended to be used mainly to carry people. Towing a trailer will affect handling, durability and economy. Your safety and satisfaction depend upon proper use of correct equipment. Also, you should avoid overloads and other abusive use.

The maximum loaded trailer weight you can pull with your car is 450 kilograms (1000 pounds). The maximum static tongue weight should not exceed 45 kilograms (100 pounds).

Information on trailer towing ability, special equipment required, and optional equipment available should be obtained from your dealer. Or, write: Pontiac Customer Services Department, One Pontiac Plaza, Pontiac, Michigan 48053 (In Canada, write to General Motors of Canada Limited, Customer Services Department, Oshawa, Ontario L1J 5Z6.)

Tires

When towing trailers, be sure your tires are properly inflated to the inflation pressure shown on the Tire Placard on the driver's door.

The allowable passenger and cargo load for this car, also shown on the Tire Placard, is reduced by the trailer tongue weight whenever the trailer is attached to the car. See Section 5 for more tire information.

Maintenance

More frequent service is required when using your car to pull a trailer. See the Maintenance Schedule booklet for Automatic Transmission Fluid and Engine Oil change requirements for trailering.

Now and then, check that all trailer hitch bolts and nuts are tight. Also see the Maintenance Schedule folder, and the Index in this manual, for important facts on belts, cooling system care and brake adjustment.

Break-In Schedule

See the new car break-in information in this manual. Also, we recommend you drive your new car for 500 miles (800 kilometers) before trailer towing. At the end of this 500 mile (800 kilometer) break-in period, avoid speeds over 50 mph (80 km/h) and full throttle starts during the first 500 miles (800 kilometers) of trailer towing.

CAUTION:

HITCHES –

To help avoid personal injury due to sway caused by such things as crosswinds, large trucks passing or road roughness, or due to a separation of the trailer:

- **Keep the trailer tongue load at 10 percent of the loaded trailer weight. Tongue loads can be adjusted by proper distribution of the load in the trailer. This can be checked by weighing separately the loaded trailer and then the tongue.**
- **Do not attach any hitch to the bumper bar on this vehicle. A hitch attachment may be made through the bumper mounting attachments but only if an additional attachment is also made.**
- **Do not use any type of weight transfer hitches on your car.**
- **Do not mount hitch to the sub-frame as this may result in damage to the car.**

(Continued)

CAUTION: (Continued)

- **Do not allow steel hitch parts to be in direct contact with aluminum bumper parts, if so equipped. When steel and aluminum are in contact, a galvanic reaction (a form of corrosion) can occur which will progressively lessen the strength of the contacting metals to the point of failure. An organic compound or paint should be used as a barrier on the contacting surfaces and on the attaching fasteners.**
- **When you remove a trailer hitch, be sure to seal any mounting holes in the body. This will help prevent entry of exhaust fumes, dirt or water. (See "Engine Exhaust Gas Caution (Carbon Monoxide)" at the beginning of Section 2.**

TRAILER TOWING TIPS

Getting Started

Before entering traffic with a trailer that has electric brakes, start the car and trailer moving and apply the trailer brakes by hand to be sure the trailer brakes are working and the trailer electrical system is connected.

Engine Cooling

If your engine overheats, follow the steps under "Engine Cooling System Overheating" in Section 3.

Down Steep or Long Grades

Before going down a steep or long grade, reduce speed and shift the transaxle into a lower gear to help control your car's speed. Try not to hold the brake pedal down too long or too often. This could cause the brakes to overheat and reduce brake effectiveness.

Transaxle

See the method for checking the transaxle fluid level in Section 5.

FUEL REQUIREMENTS

Your gasoline (spark ignition) engine is designed to use regular grade unleaded fuel that meets ASTM specifications. Unleaded fuel must be used for the emission control systems to operate properly. Use of fuels not meeting ASTM specifications could cause poor performance and increase emissions. The use of good quality fuels containing proper detergent additives is advised for good performance and emission control.

Damage caused by the use of leaded or other improper fuel is not covered by the New Vehicle and Emission Control Systems Warranties. The effectiveness of the catalytic converter decreases after use of as little as one tank of leaded fuel. Also, your car may have the Computer Command Control System, which includes an oxygen sensor. Leaded fuel will damage the sensor, and deteriorate emission control. (For more information, see "Computer Command Control System" in Section 5 of this manual.)

Federal regulations require that pumps delivering unleaded fuel be labeled with the word UNLEADED. Only these pumps have nozzles that fit the filler neck of your car fuel tank.

In the United States, Federal law also requires that fuel octane ratings be posted on the pumps. The octane rating shown is an average of the Research (R) octane and Motor (M) octane numbers. You should use unleaded fuel with an octane rating of at least 87.

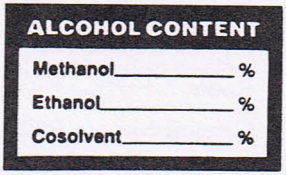
Using unleaded fuel with an octane rating lower than stated above can cause persistent, heavy "spark knock;" ("Spark knock" is a metallic rapping noise.) If severe, this can lead to engine damage. If you detect heavy spark knock even when using fuel of the recommended octane rating, or if you hear steady spark knock while holding a steady speed on level roads, have your Pontiac dealer correct the problem. Failure to take steps to stop such knocking is misuse of the vehicle, and damage due to misuse is not covered under the New Vehicle and Emission Control Systems Warranties.

However, now and then you may notice light spark knock for a short time while accelerating or driving up hills. This is no cause for concern because you get the greatest fuel economy benefit from the fuel's octane rating when there is occasional light spark knock. Using fuel with a higher octane rating than that which allows occasional spark knock is an unnecessary expense.

Fuels Containing Alcohols

Unleaded fuels composed of blends of gasoline and alcohol (ethanol, methanol, cosolvents) are available. Some fuel suppliers voluntarily use labels of the type shown below to inform consumers that their gasoline contains alcohol. Also, some states require the use of such labels. If you are not sure whether there is alcohol in the fuel you buy, ask the service station operator.

You may use properly blended fuels containing 10 percent or less ethanol (ethyl or grain alcohol) and still be covered by the New Vehicle and Emission Control Systems Warranties.



Do not use fuels containing more than 5 percent methanol under any circumstances. Fuel system damage or car performance problems resulting from the use of such fuels are not the responsibility of Pontiac and are not covered under the New Vehicle and Emission Control Systems Warranties.

Fuels containing 5 percent or less methanol (methyl or wood alcohol) may be suitable for use in your car if they also contain sufficient quantities of appropriate cosolvents to prevent phase separation (according to proposed ASTM specifications) and ingredients to protect your car's fuel system against corrosion of metals and damage to plastics and rubbers caused by methanol. However, the suitability of these fuels is not fully known at this time. Check with the service station operator if you have any questions regarding whether the fuel contains appropriate cosolvents and corrosion inhibitors.

If you are not satisfied with the vehicle driveability and fuel economy provided by fuels containing alcohols, you may prefer to use unleaded gasoline that does not contain alcohol.

NOTICE: Take care not to spill fuel during refueling. Fuels containing alcohol can cause paint damage, which is not covered under the New Vehicle Limited Warranty.

OPERATION IN FOREIGN COUNTRIES

Your car requires unleaded fuel which may not be available in other countries.

Before taking your car to a foreign country, check to see if the proper fuel is available. Most major oil companies or domestic auto clubs should have this information. Foreign offices of major oil companies or auto clubs may also be of help. Be aware that use of leaded fuel or use of fuel that has a lower octane rating than is required by your car will cause the emission control system to lose its effectiveness and can cause engine knock or serious engine damage. Neither GM International Export Sales nor Pontiac will be responsible for damage to your car as a result of using the improper fuel.

If you intend to take your car outside the U.S. or Canada, contact the GM International Export Sales, Service Department at the following address, to find out what you must do in order to operate your car in other countries, or for additional information and a copy of the applicable maintenance schedule.

General Motors

International Export Sales

Service Department

Room 3-132

General Motors Building

Detroit, Michigan 48202

(313) 556-4862

When writing, please include:

- Vehicle Model and Year
- the Vehicle Identification Number and
- the countries in which you plan to travel.

IMPORTANT FACTS YOU SHOULD KNOW ABOUT FUEL ECONOMY AND HOW TO IMPROVE IT

How you drive, where you drive, and when you drive all affect how many miles/kilometers you can get from a gallon/liter of fuel. You can save fuel if you avoid "Jackrabbit" starts, maintain as constant a throttle position as traffic conditions allow once you have reached cruising speed, and avoid sudden stops which waste energy in the form of heat generated in braking. Frequent short trips, excessive idling and use of the air conditioner in cool weather (when "Vent" would provide adequate comfort), all can contribute to decreased fuel economy.

The careful attention you give your car as far as maintenance and repairs are concerned will also help fuel economy. Proper engine and air cleaner maintenance, lubrication intervals, wheel alignment and tire inflation pressures, when closely adhered to, will pay dividends in improved fuel economy as well as longer vehicle life.

Fuel Selection

Use only unleaded fuel meeting the octane ratings given under "Fuel Requirements" in this section of the manual. Unleaded fuel must be used for the emission control system to operate properly. Leaded fuel will damage the Computer Command Control system oxygen sensor, and reduce the effectiveness of the catalyst and affect emission control. Using leaded fuel can also damage other parts of the emission control system and could result in loss of emission warranty coverage.

STARTING THE ENGINE

Starting The L4 Engine

1. Apply the parking brake.
2. Automatic Transaxle - Shift the transaxle to Park or Neutral (Park preferred). A starter safety device is designed to keep the starter from operating if the shift lever is in any drive position. (If you need to re-start the engine while the car is moving, shift the transaxle to Neutral.)

   Manual Transaxle - Push the clutch pedal to the floor and shift the transaxle to Neutral. Hold the clutch pedal to the floor while you are starting the engine. A starter safety device is designed to keep the starter from operating if the clutch pedal is not pushed down all the way.
3. Start the engine as outlined below for different conditions.

NOTICE: Do not crank the engine for more than about 15 seconds at a time. Wait 10 to 15 seconds before trying again. This will help prevent damage to the starter.

- **COLD OR WARM ENGINE -** With your foot off the accelerator pedal, crank the engine by turning the ignition key to "Start." Release the key when the engine starts. It is not necessary to push down the accelerator pedal.

  If the engine does not start, or starts but fails to run, repeat this procedure.

4. Apply the regular brakes and shift into the proper gear. Release the parking brake and drive off.

If L4 Engine Fails to Start After Normal Starting Procedure

1. If you tried the Cold or Warm Engine starting procedure and the engine still does not start, push the accelerator pedal down to the floor and hold it there while cranking the engine. This should clear the engine if it is flooded.

2. If the engine has been flooded with too much fuel, it may start to run but not have enough power to keep running. In that case, continue cranking with the accelerator pedal all the way to the floor until the engine clears itself of excess gasoline and runs smoothly.

NOTICE: Do not crank more than 15 seconds at a time or you could damage the starter.

After starting, the idle speed will automatically be reduced as the engine warms up.

Starting The V6 Engine

1. Apply the parking brake.

2. Automatic Transaxle - Shift the transaxle to Park or Neutral (Park preferred). A starter safety device is designed to keep the starter from operating if the shift lever is in any drive position. (If you need to re-start the engine while the car is moving, shift the transaxle to Neutral.)

   Manual Transaxle - Push the clutch pedal to the floor and shift the transaxle to Neutral. Hold the clutch pedal to the floor while you are starting the engine. A starter safety device is designed to keep the starter from operating if the clutch pedal is not pushed down all the way.

3. Start the engine as outlined below for different conditions.

NOTICE: Do not crank the engine for more than about 15 seconds at a time. Wait 10 to 15 seconds before trying again. This will help prevent damage to the starter.

- **COLD OR WARM ENGINE -** Do not push down the accelerator pedal. With your foot off the pedal, crank the engine by turning the ignition key to "Start." Release the key when engine starts.

  If the engine does not start after 3 seconds of cranking, push down the accelerator pedal to 1/3 of its travel while cranking. Release the key (and accelerator pedal) when the engine starts.

4. Apply the regular brakes and shift into the proper gear. Release the parking brake and drive off.

If V6 Engine Fails To Start After Normal Starting Procedure

1. If you tried the Cold or Warm Engine starting procedure and the engine still does not start, push the accelerator pedal down to the floor and hold it there while cranking the engine. This should clear the engine if it is flooded.
2. If the engine has been flooded with too much fuel, it may start to run but not have enough power to keep running. In that case, continue cranking with the accelerator pedal all the way to the floor until the engine clears itself of excess gasoline and runs smoothly.

NOTICE: Do not crank more than 15 seconds at a time or you could damage the starter.

After starting, the idle speed will automatically be reduced as the engine warms up.

GUARD AGAINST THEFT

Your new Fiero has many features to help prevent theft of the car, its equipment, and contents. But these anti-theft features depend upon you to work.

The time to be most on guard is when leaving the car:

1. Park in a lighted spot when you can, and fully close all windows and any roof panels.
   - Be sure to turn your steering wheel sharply to one side to help prevent towing of this vehicle from the rear.
2. Lock the steering column and take the key:
   - Turn the key to "Lock" while depressing the key release lever (if so equipped) and remove the key. This locks the ignition and both steering and shift controls, unless your manual transaxle car has a key release

lever. In that case, the shift control is not locked. The key can be removed only when the ignition is locked.

- If you must leave a key with the car, leave the square-head key only. Take the oval-head key with you. This will help prevent unwanted entry into your car or any locked compartment.

3. Keep items that may appear to be of value out of sight and locked up when possible.
4. Lock the doors.

PARKING

CAUTION: Before the driver leaves this vehicle, to reduce the risk of personal injury as a result of vehicle movement:

1. **Firmly apply the parking brake.**
2. **Shift the automatic transaxle to Park or the manual transaxle to Reverse.**
3. **Turn the key to "Lock." On cars with manual transaxles, depress the key release lever and turn the key to "Lock."**
4. **Remove the key (the buzzer or chime is designed to remind you).**
5. **Be sure the car is not moving before you leave the driver's seat.**

To reduce the chance of personal injury and vehicle damage due to engine overheating, never leave the engine idling without an alert driver present. If the engine should overheat, as indicated by the Engine Coolant Temperature gage, immediate action is required to correct the condition. Continued operation of the engine even for a short time may result in a fire.

NOTICE: Do not park, idle, or operate your car over combustible materials, such as grass or leaves. They could touch the hot exhaust system and start a fire.

TRANSAXLE

Descending a Grade

CAUTION: To reduce the risk of personal injury, before going down a steep or long grade reduce speed and shift the automatic transaxle to low or manual transaxle to next lower gear. Do not hold the brake pedal down too long or too often while going downhill. This could cause the brakes to get hot and not work as well. As a result, the car will not slow down at the usual rate. Failure to take these steps could result in loss of vehicle control.

Automatic Transaxle

Your automatic transaxle has a clutch-type torque converter. The clutch is designed to engage when the car reaches a steady speed of 25 mph (40 km/h) or higher depending on the particular model. When engaged, the clutch provides a direct connection between the engine and the drive wheels. This direct connection allows for more efficient operation of the transaxle and thereby helps contribute to improved fuel economy.

With the clutch-type converter, you may notice some operational differences compared to non-clutch type torque converter equipped cars. When the clutch engages, for example, you may notice what feels like an extra transaxle shift. Also, on occasion, you may feel certain incidental engine pulsations in the 25 to 50 mph (40 to 80 km/h) range. This feel is similar to that sometimes experienced in a manual transaxle equipped car. In addition, when the accelerator pedal is released abruptly, you may feel a slight impulse before the clutch disengages.

These conditions are normal. They have no adverse effect on your car and do not indicate the need for repairs.

Automatic transaxle shift indicators are arranged with "P" (Park) at one end, followed in sequence by "R" (Reverse), "N" (Neutral), and the forward driving ranges. Push in the shift lever button when shifting into or out of Park and Reverse. (See "Console Controls" in Section 2D.)

P (Park) - For starting the engine and/or holding the car in locked position.

R (Reverse) - For backing the car.

N (Neutral) - An alternate position for starting engine.

D (Drive) - For all normal forward driving.

2 - For engine braking when descending moderate grades.

1 - For engine braking when descending steep grades when road signs require use of "low (First) gear." Do not exceed 40 mph (60 km/h) in low (First) gear.

NOTICE: The following practices could result in automatic transaxle failure:

- **Shifting between forward and reverse driving range while operating the engine at high speed or heavy throttle, such as when the driving wheels are on snow or ice – commonly called "rocking." (See the correct method for "rocking" a car under "Freeing Car from Sand, Mud, Snow or Ice" in Section 3.)**
- **Shifting to "R" (Reverse) or any forward range while operating the engine at high speed in "N" (Neutral) or "P" (Park).**
- **Shifting to "P" (Park) while the car wheels are still turning.**
- **Operating the transaxle at or near "stall condition" for more than 10 seconds at a time. ("Stall condition" is when the engine is running at high speed while the transaxle is in a driving range and the drive wheels aren't moving, such as when stuck in deep sand or when the car is against a fixed barrier.)**
- **Holding car on an upgrade with the accelerator pedal. (Use the regular brakes to hold car on an uphill grade.)**

Manual Transaxle

The console-shift manual transaxle shift pattern is illustrated on the console adjacent to the shift lever (see "Console Controls" in Section 2D of this manual). Operation of the transaxle is as follows:

First Gear (1) - Press down the clutch pedal, shift into First gear, and smoothly release the clutch pedal while pressing on the accelerator pedal. This car has a fully synchronized First gear and may be shifted into First gear with the car in motion below 20 mph (30 km/h). If the car is completely stopped and it is difficult to shift into First gear, release the clutch momentarily with the shift lever in Neutral, and then shift into First gear.

Second Gear (2) - Press down the clutch pedal while releasing the accelerator pedal; then, move the shift lever into Second gear. Release the clutch pedal and press down the accelerator pedal as above.

Third Gear (3) - Shift into Third gear as described for Second gear. Slowly release the clutch pedal and press down the accelerator pedal.

Fourth Gear (4) - Shift into Fourth gear as described for Second and Third gears. Slowly release the clutch pedal and press down the accelerator pedal.

Fifth Gear (5) - Shift into Fifth gear as described for Fourth gear. Slowly release the clutch pedal and press down the accelerator pedal.

To Stop - Release the accelerator pedal and press down the brake pedal. Just before the car stops, press down the clutch pedal along with the brake pedal and move the gear shift lever to Neutral.

Neutral (N) - For use when starting or idling the car.

Reverse (R) - The car must be brought to a complete stop before shifting into Reverse. Press down the clutch pedal and shift into Reverse.

- Press down the clutch pedal.
- Shift into Reverse. (When shifting from 5th gear to Reverse on L4 engine models, you must first move the shift lever to the neutral "3-4" position, then to Reverse.)
- Release the clutch pedal slowly while pressing down the accelerator pedal.

Shift Speeds - L4 Engine

If your car has an L4 engine, there is a "SHIFT" light on the instrument panel. This light will show you when to upshift for best fuel economy at any acceleration.

When this light is on, shift your transaxle to the next higher gear if weather, road and traffic conditions permit. For maximum fuel economy, accelerate slowly and shift when the light goes on. When more performance is needed, accelerate as desired and shift when the light goes on.

Downshifting one or more gears may be required to keep the engine running smoothly or to maintain satisfactory performance. When downshifting to a lower gear, the light may come on for a moment if the accelerator pedal is not released completely. Disregard this light during a downshift.

The onboard computer makes the "SHIFT" light work. This computer knows how fast the engine is going and how hard it is working, how fast the car is going, and how far the accelerator is pressed down. It uses this information 10 times every second to decide if you could get better fuel economy by shifting to the next higher gear.

When the accelerator is released, it is normal for the light to be off.

While accelerating, it is normal for the light to go on, off, and on again if you quickly change the position of the accelerator. In essence, if you change your mind, it will too and it will respond very quickly.

Shift Speeds – V6 Engine

For the best compromise between car performance and fuel economy, upshift the transmission as recommended in the following chart.

Acceleration Shift Speeds

1st to 2nd	17 mph (27 km/h)
2nd to 3rd	30 mph (48 km/h)
3rd to 4th	40 mph (64 km/h)
4th to 5th	45 mph (72 km/h)

Cruise Shift Speeds

1st to 2nd	10-17 mph (16-27 km/h)
2nd to 3rd	24-30 mph (39-48 km/h)
3rd to 4th	36-40 mph (58-64 km/h)
4th to 5th	45-50 mph (72-80 km/h)

Shift at the highest car speed listed unless you have reached cruising speed. (Cruising speed is a relatively steady speed which includes slight variations in speed to allow for road and traffic conditions.) For cruise, use the highest gear for that speed.

If car speed drops below 20 mph (30 km/h), or if the engine is not running smoothly, you should downshift to the next lowest gear. You may need to downshift two or more gears to keep the engine running smoothly or for satisfactory performance.

NOTICE: The following operating precautions should be observed:

- **Do not "speed shift"; allow time between shifts for the transaxle synchronizers to coordinate.**
- **Use only First gear to accelerate from a stop.**
- **Always place the shift lever in Neutral when starting the engine.**
- **Never leave the car unattended with the engine running.**
- **Always set the parking brake firmly before leaving the car.**
- **Do not coast in Neutral (illegal in many states).**
- **Never "ride" the clutch pedal; this will cause excessive slippage with resultant wear on the clutch parts.**
- **When stopped on an upgrade, do not hold vehicle with engine. Use the brake pedal.**

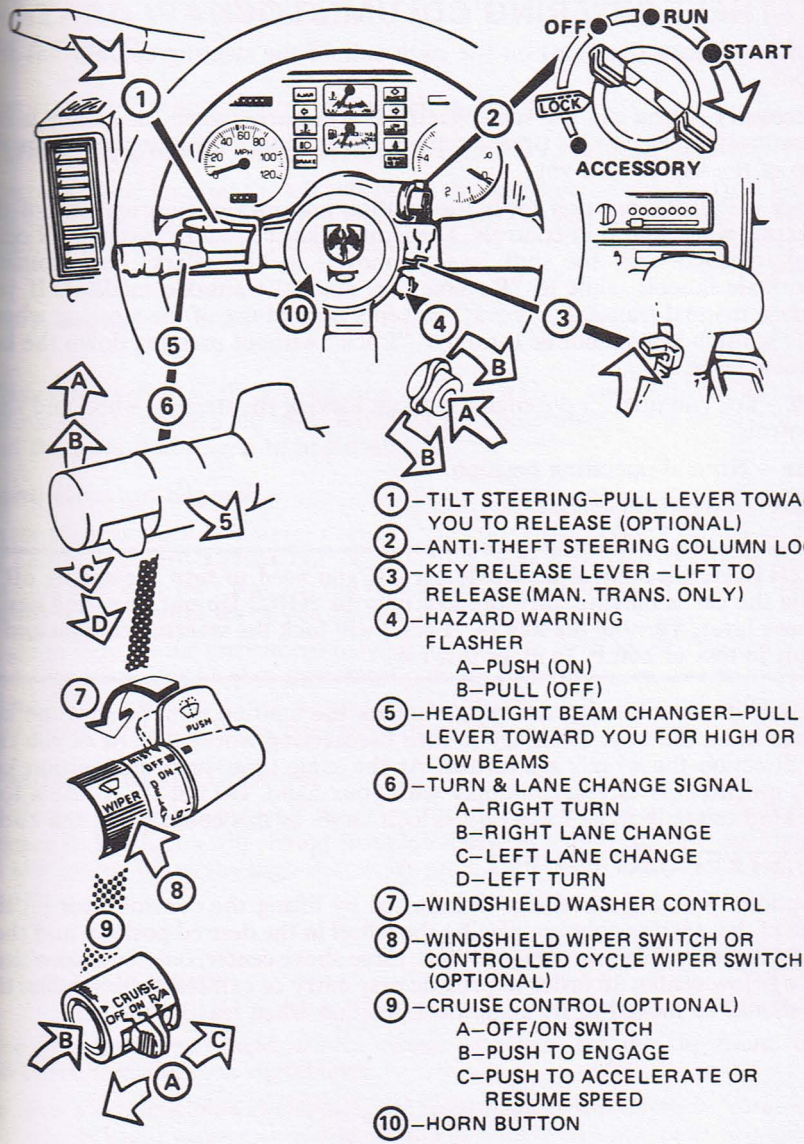
BRAKING AND STEERING TECHNIQUE

To get maximum braking while maintaining vehicle control, use a "squeeze" braking technique. Do this by pushing on the brake pedal with steadily increasing pressure. If possible, steer around obstacles when there is not enough room to

stop. If the vehicle doesn't respond to steering or changes direction when you are not steering, ease up on the brake pedal. If the front wheels are not rolling to some extent, you cannot control the direction of the vehicle by turning the steering wheel. To correct for a skid, ease off the gas pedal or the brake and steer to keep the vehicle pointing where you want it to go. Don't touch the brake.

Driving On Slippery Surfaces

Drive, steering, and braking traction are reduced when water, snow, ice, gravel, or other material is on the road. Slow down and adjust your driving to such conditions. It is important to slow down when it is slippery because stopping distances will be longer and vehicle control more limited. While driving on a surface with reduced traction, avoid maneuvers involving sudden steering, acceleration, or braking (including engine braking due to shifting to a lower gear), which could cause the tires to skid. You may not realize the surface is slippery until the vehicle is skidding. Learn to recognize warning clues – such as enough water or ice on the road to make a "mirrored surface" – and slow down when there is any doubt. Also see "Traction" under Tires in Section 5.



(1)–TILT STEERING–PULL LEVER TOWARD YOU TO RELEASE (OPTIONAL)

(2)–ANTI-THEFT STEERING COLUMN LOCK

(3)–KEY RELEASE LEVER –LIFT TO RELEASE (MAN. TRANS. ONLY)

(4)–HAZARD WARNING FLASHER
- A–PUSH (ON)
- B–PULL (OFF)

(5)–HEADLIGHT BEAM CHANGER–PULL LEVER TOWARD YOU FOR HIGH OR LOW BEAMS

(6)–TURN & LANE CHANGE SIGNAL
- A–RIGHT TURN
- B–RIGHT LANE CHANGE
- C–LEFT LANE CHANGE
- D–LEFT TURN

(7)–WINDSHIELD WASHER CONTROL

(8)–WINDSHIELD WIPER SWITCH OR CONTROLLED CYCLE WIPER SWITCH (OPTIONAL)

(9)–CRUISE CONTROL (OPTIONAL)
- A–OFF/ON SWITCH
- B–PUSH TO ENGAGE
- C–PUSH TO ACCELERATE OR RESUME SPEED

(10)–HORN BUTTON

ANTI-THEFT STEERING COLUMN LOCK

The anti-theft lock (ignition) on the right side of the steering column has five positions:

- **Accessory** – You can use some electrical accessories when the engine is not running. To engage this position, push in the square-head key and turn the top of the key toward you.
- **Lock** – Parking position locks the ignition and prevents normal use of the steering wheel and shift controls. The ignition key cannot be turned to"Lock" and removed until the shift lever is moved to "P" (Park) on automatic transaxle models (shift to "Reverse" on manual transaxle models). If you have a manual transaxle, "Lock" prevents normal use of the steering wheel. The ignition key cannot be turned to "Lock" without pressing down the key release lever.
- **Off** – You can turn off the engine without locking the steering wheel and shift controls.
- **Run** – Normal operating position.
- **Start** – Cranks the engine.

CAUTION: On manual transaxle cars, if you need to turn the engine off while the car is moving, turn the key only to "Off." Do not press the key release lever. Turning the key to "Lock" will lock the steering column and result in loss of ability to steer this car.

If you have trouble turning the key to unlock the ignition, first be sure the key is pushed in all the way. Then, try to turn the steering wheel as hard as you can in the direction the wheels are turned. At the same time, turn the ignition key with as much effort as you can apply with your hand. Do not try to use a tool of any kind to apply more force on the lock knob, as this could break the knob.

TILT STEERING WHEEL

This optional steering wheel can be adjusted by lifting the control lever on the left side of the steering column, placing the wheel in the desired position and then releasing the lever. There are six positions: three above center, one center position, and two below center. In order to provide easy entry or exit from the vehicle, the wheel should be moved to its uppermost position when leaving the car.

HAZARD WARNING FLASHER

The Hazard Warning Flasher is covered in Section 3.

TURN SIGNAL AND MULTI-FUNCTION LEVER

The turn signal lever on the left side of the steering column also controls headlight low-beam and high-beam, the windshield wiper/washer, and the optional Cruise Control. (For Cruise Control operation, see "Cruise Control" in this section.)

Turn Signal

Move the lever up to the second stop to signal a right turn. Move it down to the second stop to signal a left turn. When the turn is completed, the signal will cancel and the lever will return to horizontal.

Lane Change Signal

In some turns, such as changing lanes, the steering wheel is not turned far enough to cancel the turn signal. For convenience, you can flash the turn signal by moving the lever part way (to the first stop) and holding it there. The lever will return to horizontal when you release it.

A green light on the instrument panel is designed to flash to tell you that the front and rear turn signal lights are working. If the light stays on, but does not flash, check for a burned-out turn signal bulb. If the green light does not come on when you move the lever, check the fuse and indicator bulb.

Headlight Beam Changer

With the headlights on, pull the lever toward you until you hear a click, then release it. The lights will change from low-beam to high-beam or from high-beam to low-beam. When the high-beams are on, a light will appear on the instrument panel.

Standard Windshield Wiper

The standard windshield wiper system controls are on the band marked "WIPER" on the turn signal lever.

- For a single wiping cycle, turn the band toward you. Hold it there until the wipers begin wiping; then release it. The wipers will stop after one cycle. For several cycles, hold the band in place as long as needed.

- For steady wiping at low speed, turn the band away from you to the first stop. For high-speed wiping, turn the band to the next stop. Turn the band back to "OFF" to turn off the wipers.

Controlled Cycle Windshield Wiper

The optional Controlled Cycle windshield wiper system lets you vary the wiper speed from a 16-second delay between sweeps up to the normal low and high speeds of the standard wiper.

- The Controlled Cycle wipers work the same as the standard wipers, except for the delay feature. To use the wipers with a delay between sweeps, turn the band on the turn signal lever to "ON."
- Turn the "Wipe Delay" band away from you to control the amount of delay. The wipers will move more often the closer the band is to "LO." Turn it fully to the first stop for steady wiping at low speed.

Windshield Washer

To spray washer fluid on the windshield, push the "paddle" on top of the turn signal lever. (This will also turn on the low-speed wipers.) The spray will continue as long as you hold in the paddle.

After using the windshield washer on the standard wiper system, turn the band back to "OFF" to turn off the wipers.

With the Controlled Cycle wiper system, the wipers will stop (or return to the action for which they were set) after completing the wash cycle.

Operating Tips

- Clear ice or packed snow from the wiper blades before using the wipers. Carefully loosen or thaw wipers that are frozen to the windshield or lower molding.
- Check the washer fluid level regularly. Do it often when the weather is bad.
- Use a fluid such as GM Optikleen to help prevent freezing damage, and for better cleaning. Be sure to put the fluid in the proper reservoir.
- Fill the washer fluid reservoir only 3/4 full during the winter to allow for expansion if the temperature should fall low enough to freeze the solution.
- Do not use radiator antifreeze in the windshield washer; it could cause paint damage.

- In cold weather, warm the windshield with the defroster before using the washer, to help prevent icing that may block the driver's vision.

CRUISE CONTROL

Cruise Control is an optional speed control system. It lets you keep a constant forward speed during most normal driving without keeping your foot on the accelerator pedal, thus increasing your comfort on long drives. Within the limits of your engine, you can hold a speed of about 30 mph (48 km/h) or higher.

You can also resume a pre-set cruising speed after braking, without using the accelerator pedal or you can accelerate from a preset speed.

The controls are part of the turn signal lever. The "Cruise" switch on the bottom edge of the turn signal lever must be moved to "On" before the system will work. The "SET" button is in the end of the turn signal lever. There is no Cruise Control engagement below 25 mph (40 km/h).

To Engage at Cruising Speed

Accelerate to the desired speed, move the slide lever to the "ON" position, push in the "SET" button all the way and release it slowly. Take your foot off the accelerator pedal and the set speed will be maintained up or down hill. The Cruise Control is designed to disengage when you apply the brakes. (To disengage the system without coming to a complete stop, push the brake pedal lightly; use just enough force to disengage the system, without stopping the car.)

To Change Cruising Speed

To reset the Cruise Control to a faster speed, move the slide lever to the "R/A" (Resume/Accelerate) position and hold. Vehicle speed will increase at a slow controlled rate. Release the slide lever when the desired higher speed is reached.

To reset to a slower speed, push in the "SET" button all the way and hold it there. Wait until the car slows to the desired speed, then release the button slowly.

Tap-Up/Tap-Down

The Tap-Up/Tap-Down feature allows you to adjust the cruising speed in 1 mph (1.6 km/h) increments with the touch of a finger. To increase the speed, move the slide lever to the "R/A" (Resume/Accelerate) position and quickly release the slide lever. To decrease speed, push in and quickly release the "SET" button.

To "Resume" a Pre-Set Speed

After braking or stopping the car, you can "resume" your last set cruising speed by accelerating to 25 mph (40 km/h) or more and sliding the cruise switch lever to "R/A" (Resume/Accelerate) and hold in for about one second; when you release the "R/A" (Resume/Accelerate) switch, your car will accelerate to the cruising speed set before braking or stopping.

To Disengage

Disengage the Cruise Control by pushing the brake or clutch pedal. Though not usually necessary, you can also turn off the system by moving the "Cruise" switch to "Off." Holding in the engagement button until car speed falls below 25 mph (40 km/h), will also disengage the system.

To Pass A Vehicle

Use the accelerator pedal for more speed when passing. When you take your foot off the pedal, the car will slow down to the speed set before passing.

NOTICE: To help keep the car under control, do not use the Cruise Control and particularly its RESUME-Accel. feature under the following conditions:

- **When the previously set speed is faster than the existing traffic flow.**
- **When it is not possible to keep the car at a set speed.**
- **On slippery roads, such as those covered with snow and ice.**
- **On winding roads, in heavy or varying traffic volume, or in traffic that varies in speed.**

After accelerating to the desired speed and engaging the Cruise Control, the car will hold a set speed and will not slow down when you take your foot off the accelerator pedal. To slow the car, follow the instructions under "To Disengage."

When going up or down hills, it is possible for the car to lose or to gain speed (particularly when towing a trailer), even though the Cruise Control is engaged. If this happens while going uphill, merely depress the accelerator pedal to maintain the speed desired. If going down a hill steep enough to cause the car to gain speed, depress the brake pedal – which will both disengage the Cruise Control and help slow the car. In addition, when going down a steep or long grade, the transaxle should be shifted into a lower gear to help control vehicle speed – see "Descending A Grade" in Section 2.

BRAKE WARNING LIGHT

The brake system warning light is covered in the "Instrument Panel" section.

RIDING THE BRAKE

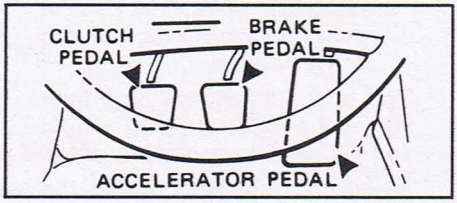
NOTICE: "Riding the brake" by resting your foot on the pedal when you do not intend to brake can overheat the brakes and wear out the brake pads faster. This may also damage the brakes and will waste fuel.

WET BRAKES

CAUTION: After driving through water deep enough to wet brake components or having the car washed, the brakes may require higher pedal effort. As a result, the car will not slow down at the usual rate, and it may pull to the right or left. After checking to the rear for other vehicles, apply the brakes lightly to check whether this has happened. To dry them quickly, lightly apply the brakes. At the same time, keep a safe forward speed with plenty of clear space ahead, to the rear, and to the sides. Do this until the brakes return to normal. Always do this after driving through water or washing the car, to help reduce the risk of personal injury.

VACUUM POWER BRAKES

If the engine stops, do not pump the brakes. The system is designed to stop the car with reserve power assist if the brake pedal is held down. This reserve is greatly reduced each time you apply and release the brakes. If, when you turn the steering wheel during braking, the car does not turn, don't push as hard on the brake pedal.



Without power assist the vehicle can still be stopped by pushing much harder on the brake pedal, however, the stopping distance may be longer.

BRAKES (EXCEPT PARKING BRAKE)

See your dealer if pedal height is not normal or there is a rapid increase in pedal travel. This could be a sign of brake trouble.

DISC BRAKE WEAR INDICATORS

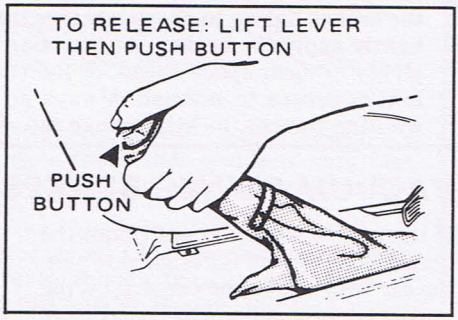
The disc brake pads have built-in wear indicators which should make a high-pitched squealing or cricket-like warning sound when the brake pads are worn to where new pads are needed. The sound will come and go, or be heard all the time when the car is moving, but will stop when the brake pedal is pushed down firmly. Expensive rotor damage can result if pads are not replaced when needed.

See also the brake checks listed in the Maintenance Schedule booklet.

PARKING BRAKE

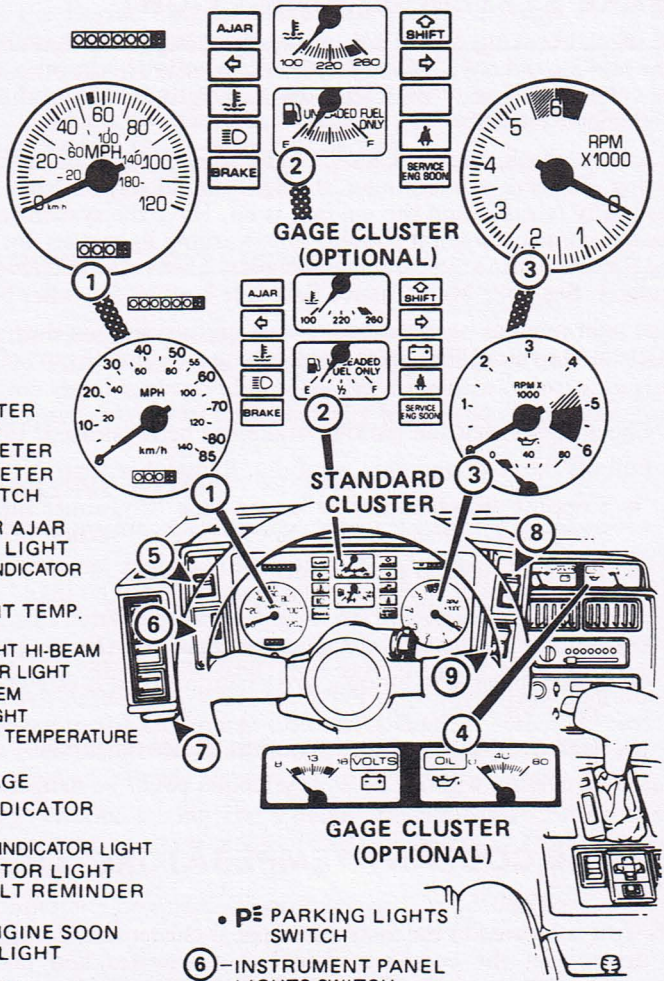
The parking brake lever is located between the driver's seat and door.

- To set the parking brake, hold the brake pedal down while pulling the parking brake lever all the way up. The lever should return to the down position after you let go. Before you leave the driver's seat, follow the steps under "Parking" in section 2.
- To release the parking brake:
  - Hold the brake pedal down.
  - Pull the parking brake lever up until resistance is felt and the release button can be fully depressed.
  - Hold the release button in until the brake lever is in the down position.



The brake system warning light and chime are designed to remind you if the parking brake control is not fully released and the ignition is on.

Never drive the vehicle with the parking brake set as this will reduce rear brake effectiveness due to overheating, shorten brake life, and may cause permanent damage. If the parking brake does not hold the vehicle securely, or does not fully release, see your dealer.



(1) – SPEEDOMETER
- ODOMETER
- TRIP ODOMETER
- TRIP ODOMETER RE-SET SWITCH

(2) – DECK/DOOR AJAR INDICATOR LIGHT
LEFT TURN INDICATOR LIGHT
- COOLANT TEMP. LIGHT
- HEADLIGHT HI-BEAM INDICATOR LIGHT
- BRAKE SYSTEM WARNING LIGHT
- COOLANT TEMPERATURE GAGE
- FUEL GAGE
- SHIFT INDICATOR LIGHT
- RIGHT TURN INDICATOR LIGHT
- GENERATOR LIGHT
- SEAT BELT REMINDER LIGHT
- SERVICE ENGINE SOON REMINDER LIGHT

(3) – TACHOMETER
- OIL PRESSURE GAGE

(4) – OIL PRESSURE GAGE
- VOLTMETER

(5) – HEADLIGHT SWITCH
- PARKING LIGHTS SWITCH

(6) – INSTRUMENT PANEL LIGHTS SWITCH

(7) – INSIDE FRONT COMPARTMENT LID (HOOD) RELEASE

(8) – ELECTRIC TRUNK RELEASE SWITCH

(9) – REAR WINDOW DEFOGGER

BRAKE SYSTEM WARNING LIGHT

The regular braking system is a split system designed so that one part will provide some braking if there is a loss of hydraulic pressure in the other part of the system. The system has a red "BRAKE" warning light located in the instrument panel speedometer cluster.

As a bulb check, the "BRAKE" light should come on briefly during engine starting. To serve as a reminder, the light should stay on when the parking brake is not fully released and the ignition is on. Have the system repaired if the light does not come on when it should. This warning light does not do away with the need for brake inspection and maintenance. The brake fluid level must be checked regularly. See your Maintenance Schedule booklet for other brake checks.

If the light remains on after engine start up or comes on during operation of the vehicle, it may mean that there is something wrong with part of the brake system.

What to do:

1. Check to see that the parking brake has been released. If it has been:
2. Pull off the road and stop carefully. Remember that:
   - Stopping distances may be longer. (See "Consumer Information, Vehicle Stopping Distance" in the "Specifications" section of this manual.)
   - You may have to push harder on the pedal.
   - The pedal may go down farther than normal.
3. Try out the brakes by starting and stopping on the road shoulder – then:
   - If you judge it to be safe, drive cautiously at a safe speed to the nearest dealer for repair. Or,
   - Have the car towed to the nearest dealer for repair.

Continued driving without necessary repairs could be dangerous.

"ENGINE COOLANT TEMPERATURE" LIGHT

This light is located in the instrument panel cluster and should come on to warn the driver that the engine coolant has overheated and immediate action is required to correct the condition. If the light comes on at any time, see "Engine Cooling System Overheating" in Section 3.

CAUTION: If the Engine Coolant Temperature Light or Gage shows an overheat condition or you have other reason to suspect the engine may be overheating, continued operation of the engine (other than as explained in Section 3) even for a short time may result in a fire and the risk of personal injury and severe vehicle damage. Take immediate action as outlined under "Engine Cooling System Overheating" in Section 3.

GENERATOR ("VOLTS") LIGHT

The light will go on when the ignition key is in the "Run" position, but before the engine is started. After the engine starts, the light should go out and remain out when the engine speed is above idle. If the light remains on when engine is running above idle speed, have your Pontiac dealer locate and correct the trouble as soon as possible.

"SERVICE ENGINE SOON" LIGHT

All Fiero's have the Computer Command Control system.

Cars with the Computer Command Control system include a "SERVICE ENGINE SOON" light on the instrument panel designed to indicate the need for system service. It will come on during engine starting to let you know the bulb is working. (The light will stay on a short time after the engine starts.) Have the system repaired if the "SERVICE ENGINE SOON" light does not come on during engine starting. If the light comes on, either intermittently or continuously while driving, service to the Computer Command Control system is required. Although in most cases the car is drivable, and does not require towing, see your Pontiac dealer as soon as possible for service.

Continued driving without having the Computer Command Control system serviced could cause damage to the emission control system. It could also affect fuel economy and drivability.

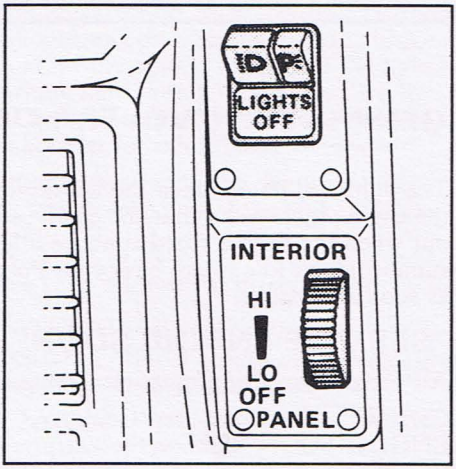
See also "The Computer Command Control System" in Section 5.

AJAR LIGHT

The "AJAR" light is designed to come on any time the front compartment lid, the rear compartment lid, or either door is not fully closed. The "AJAR" light is located in the instrument cluster to the left of the engine temperature gage.

HEADLIGHT SWITCH

The headlight switch controls the headlights, parking and sidemarker lights, taillights, interior lights, and the instrument panel lights.



Press in the upper left portion of the switch to open the headlight assemblies and turn the headlights on. Press in the upper right portion of the switch to light the parking lights. (The parking lights come on automatically when the headlights are turned on.)

With either the headlights or the parking lights on, illumination of instrument panel controls, gages, speedometer cluster, etc. is provided. The dial (thumbwheel), located below the headlight switch, controls the brightness of the instrument panel illumination. Rotating the dial downward will dim the I.P. lights, rotating the dial upward will brighten them, and rotating the dial to the full "up" position will turn on the dome and courtesy lights.

The headlight assemblies are designed to open when the headlights are on and close when the headlights are turned off. The headlight assemblies can be opened without turning on the headlights by turning on the parking lights and lightly pressing in the headlight switch.

The headlight doors should be open when driving in ice or snow, and when washing the car. (Before entering an automatic car wash, make sure open headlights will not be damaged by the equipment.)

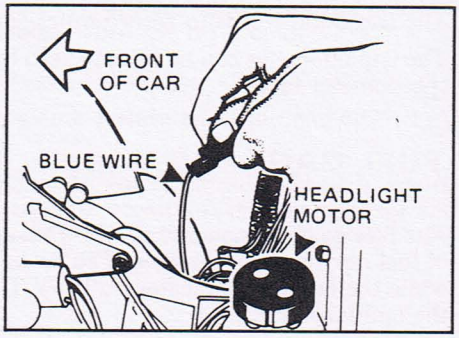
Emergency Manual Headlight Operation

In emergencies, each headlight may be opened manually; do not force the doors or use other methods.

CAUTION: To help prevent personal injury and vehicle damage, follow these steps:

1. Turn off the headlights.

2. Open the hood.
3. Disconnect the single blue wire at the black plastic in-line connector located on the inboard lower side of each inoperative headlight.
4. For each inoperative headlight, rotate the door motor's manual control knob in the direction of the arrow on top of the knob--toward "Open." Continue turning the knob until an increase in effort is felt (a "click" may be heard).



5. Close the hood and turn on the lights to make sure both headlights come on, and the doors are all the way up.
6. Leave the inoperative door(s) open and do not reconnect the blue wire until repair is made.

SPEEDOMETER

The speedometer hand indicates car speed in miles per hour and kilometers per hour.

ODOMETER

The odometer is above the speedometer face. Total accumulated mileage is given in miles (kilometers on Canadian cars).

TAMPER-RESISTANT ODOMETER

Federal law prohibits tampering with car odometers to alter accumulated mileage. For your protection the odometer of this car is designed with tamper-resistant features to indicate tampering. If silver lines appear vertically between odometer numerals, it is likely that the odometer has been turned back or reversed. The mileage shown may not be actual.

Whenever a new odometer is installed and cannot be set to the same mileage registered on the prior odometer, the law requires the owner to install a label on the driver's door frame to show the previous odometer reading and the date of replacement. The replacement odometer must then be set to zero. To determine the actual car mileage, add the mileage shown on the label to the current odometer reading. If the replacement odometer can be set to the same mileage as the prior odometer, no door frame label is needed.

TRIP ODOMETER

The trip odometer is to record mileage on trips or during extended driving.

The trip odometer can be reset to zero by pushing in the knob, located below the speedometer face.

FUEL GAGE

The fuel gage, in operation only when the ignition is on, indicates the quantity of fuel remaining in the tank. The far left mark on the gage indicates Empty (E), while the far right indicates Full (F). The needle does not return to empty with the ignition OFF.

Some normal variations in reading will occur, as noted below -

- Needle does not move from Full (F) until substantial distance has been driven.
- Needle moves when braking, accelerating, or making turns. This is caused by fuel movement in the fuel tank.
- Needle occasionally indicates less than Full (F) after fuel tank is filled. This will occur if the car is not level when filled, or if the automatic pump nozzle shuts off too soon.

ENGINE COOLANT TEMPERATURE GAGE

This gage is located on the instrument panel. If the gage shows that an overheat condition exists – as indicated by the gage pointer approaching the 250° mark – immediate action by the driver is required. If an overheat condition is shown, see "Engine Cooling System Overheating" in Section 3. The coolant temperature indication will vary with air temperature and operating conditions. The ignition must be on for accurate readings. Prolonged driving or idling in very hot weather may cause the pointer to move beyond the center of the gage. Make a practice of scanning this and other gages while driving, especially in hot weather and/or when the vehicle is under load. See Caution under "Engine Coolant Temperature Light."

OIL PRESSURE GAGE (OPTIONAL)

Under normal engine operating conditions, the oil pressure should be 20 to 60 psi. Should the pressure fall below this range (other than at idle) immediately turn

the engine off and investigate the cause. Slight fluctuations in oil pressure gage readings may occur; this is normal. Engine oil pressure should not fall below 4 psi, even at idle. Pressures are always higher when the oil is cold.

VOLTMETER (V6 ENGINE)

The voltmeter has the advantage of providing a warning of impending battery problems.

If the meter reads below 11 volts or above 16 volts continuously, it indicates charging system problems requiring immediate attention. It is normal for the meter to read between 11 and 13 volts during periods of extended idle or just after starting.

TACHOMETER

The engine tachometer indicates engine speed in revolutions per minute (RPM). The engine should not be operated in the red area of the tachometer. The tachometer may not return to zero when the ignition is turned off.

ELECTRIC REAR COMPARTMENT LID RELEASE (OPTIONAL)

An electric rear compartment lid release switch is provided which permits opening the rear compartment lid from inside the car by pushing the release button located on the instrument panel. The release button is operational whenever the car battery is connected, and the ignition is on.

ELECTRIC REAR WINDOW DEFOGGER (OPTIONAL)

The electric rear window defogger consists of a heating element bonded to the inside surface of the rear glass. The unit is operated by a switch on the instrument panel and functions only in the ON position. A small light in the control switch illuminates whenever the heated rear window is operating. The heated rear window will not feel warm to the touch.

After the defogger has operated for 5 to 10 minutes, the system will automatically shut off. If further defrosting is desired, simply turn the switch on again.

VENTILATION SYSTEM

Your Fiero has a flow through ventilation system that provides a supply of outside "ram" air into the car when it is moving. When the car is not in motion you can get a steady flow of outside air into the car with the heater or air conditioning blower running.

With the side windows closed, the flow through ventilation system provides outside air flow into the front air inlet grilles, through the car and out the rear air exhaust valves. (See illustration.)

Operating Tips

- Clear snow and ice from the hood and air inlet in front of the windshield. This helps the heater and defroster work better and reduces the chance of fogging the inside of the windshield.
- Run the blower on "HI" for a few moments before driving off. This helps clear the intake ducts of snow and moisture and reduces the chance of fogging the inside of the windows.
- Always keep the front inlet grilles clear of obstructions (leaves, ice, snow, etc.).

The following pages of this manual provide more operating tips for getting maximum heating and cooling comfort. Also see "Engine Exhaust Gas Caution (Carbon Monoxide)" at the beginning of "Starting and Operating," Section 2 of this manual.

HEATER OPERATION

(Models Without Air Conditioning)

Air Control Lever

The air control (upper) lever regulates the air flow from the heater and defroster outlets as well as the upper vents in the instrument panel.

- VENT -- Air flow from the upper vents in the center and each side of the instrument panel.
- HEATER -- Maximum air flow to the heater outlet and side window defoggers with a slight amount to the windshield.
- DEFROST -- Maximum air flow to the windshield and side window defoggers with some air flow from the heater outlet.

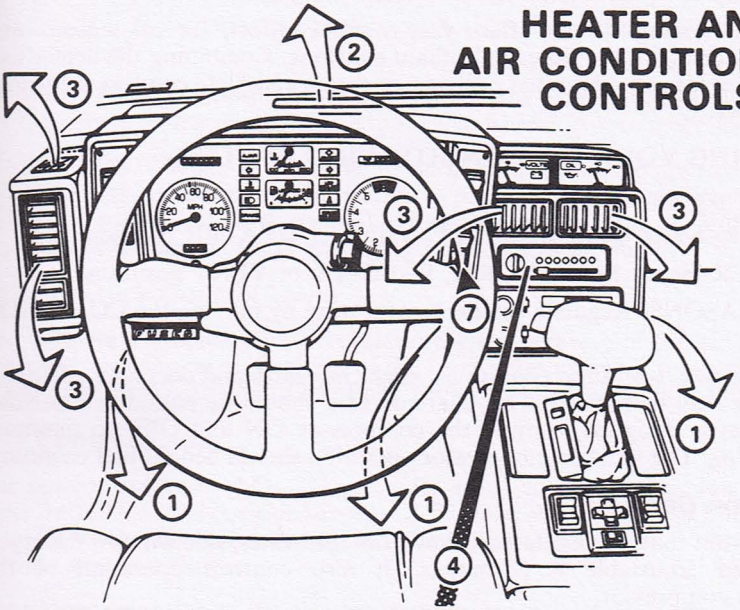
Temperature Control Lever

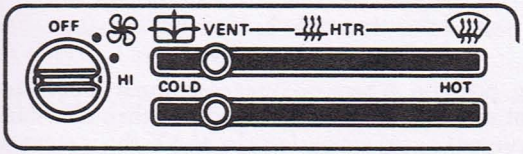
The temperature control lever (COLD - HOT) regulates the temperature of the air discharged from the upper vent, heater, side window defoggers and defroster outlets.

Fan Control Knob

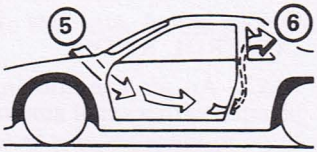
The fan control knob (OFF - HI) provides speed control of the fan. The fan will operate any time the ignition is turned to RUN, unless the fan switch is placed in the OFF position.

HEATER AND AIR CONDITIONING CONTROLS

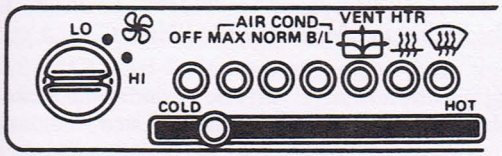




HEATER CONTROL



VENTILATION AIR FLOW



AIR CONDITIONING (OPTIONAL)

1. HEATER OUTLET
2. DEFROSTER OUTLET
3. AIR OUTLET
4. HEATER OR A/C CONTROL
5. FRONT INLET GRILLE
6. BODY LOCK PILLAR EXHAUST VALVE
7. ELECTRIC REAR WINDOW DEFOGGER

CUSTOM AIR CONDITIONING

The air conditioning system offers year-round comfort, for all seasons and climates, day or night, in rain or in brilliant sunshine. Combining the heater and air conditioner into an integrated package gives you complete comfort regardless of the weather.

REGULATING YOUR AIR CONDITIONING SYSTEM

For normal, average conditions:

- WINTER--Select either BI-LEVEL, VENT or HEATER positions.
- SUMMER--Select MAX, NORM, BI-LEVEL or VENT positions.
- ALL SEASONS--Regulate the car temperature by moving the COLD-HOT lever.

During some A/C operation conditions, slight increases and decreases of engine speed/power may be noticed. This characteristic should be considered normal, as the system is designed to cycle the compressor ON and OFF to maintain desired cooling. The reduced compressor operation should benefit fuel economy.

Push Button Controls

The push button controls regulate air flow from the heater, side window defogger, defroster and adjustable A/C outlets. It also controls operation of the refrigeration compressor.

- OFF--Limited air flow from defroster and heater outlets (see FAN CONTROL KNOB).
- MAX--An air conditioning position where passenger compartment air is blended with a small amount of outside air, conditioned and then distributed through the adjustable instrument panel air outlets. In MAX the system will provide maximum cooling and variable fan speed. Useful in conditions of very high temperature and humidity.

  Provides a slight gain in fuel economy compared to "Norm" position. The blower motor noise level will be higher in "Max" than in "Norm" for a given fan speed.
- NORM--An air conditioning position where outside, conditioned air is directed through the adjustable instrument panel air outlets. Used in most air conditioning situations.
- BI LEVEL--An air conditioning position where outside, conditioned air is directed through the heater and adjustable instrument panel air outlets, with some air flow through the defroster and side window outlets to the windshield and side windows. This position gives cool upper level air and warm heater air when the temperature lever control is in the middle 40 percent of the temperature control range. (Useful in cool weather and bright sun conditions.)

- VENT--Outside air is directed through the adjustable instrument panel air outlets. Used in cool-to-moderate weather where refrigeration is not required. This is a fuel economy position, with the refrigeration system compressor turned off.
- HEATER--Outside air is directed through the heater outlet and side window defoggers, with a small amount to the windshield. Another economy position.
- DEFROST--When the outside air temperature is above approximately 4° C (40° F), the compressor will operate to provide outside, conditioned (dry) air to the windshield, with a small amount from the heater air outlet and side window defoggers. Used in fogging and icing situations.

Temperature Control Lever

The temperature control lever regulates the temperature of the air entering the passenger compartment. Position of the lever determines air temperature in any of the operating positions of the Push Button Controls (including OFF).

Fan Control Knob

The fan control knob (LO - HI) provides speed control of the blower fan in all Push Button Control positions except OFF. Note: When the Push Button Control is in OFF, the fan will not operate; the movement of the car, however, may provide some air flow.

For proper operation of the air conditioning system, car windows should always be closed except for the first two or three minutes to remove hot air if the car has been closed. This provides a fast cool-down.

DELCO SOUND SYSTEMS

Your car may have one of several optional Delco GM Sound Systems. (To listen to any system, the ignition must be in "Run" or "Accessory.")

Speakers

NOTICE: All Delco sound systems have ungrounded speakers. Installing add-on tape players, CBs or other units which use the car speakers may damage your Delco sound system. Please consult your dealer in advance if you are considering additions.

FM and FM Stereo

FM broadcasts are "line of sight" from station antenna to receiving antenna. The range is often limited to 25 miles (40 km) or less for steady reception. Tall buildings or hills may cause flutter or noise which is not the fault of the radio; select a stronger station for clear sound.

AM Stereo

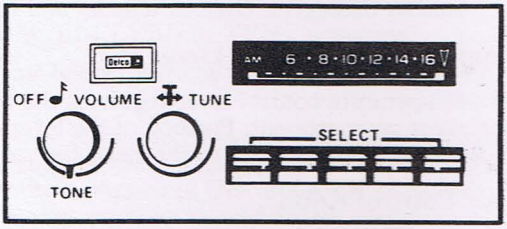
AM stations broadcasting C-QUAM®* stereo may be received in stereo if the receiver has this feature. Switching to stereo improves fidelity, but may increase noise on weaker stations. Switching stereo "off" may improve the reception in this case.

* C-QUAM® is a registered trademark of Motorola, Inc.

Stereo Indicator

An indicator lights whenever a stereo broadcast is being received.

AM Monaural Radio



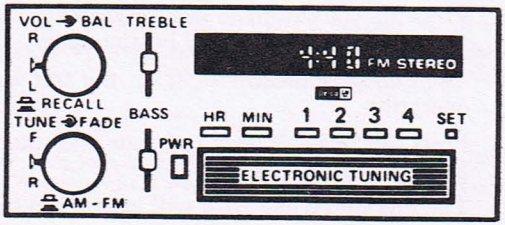
The following controls are on AM monaural sound systems:

- **Left Knob** – This knob turns the radio on or off, and controls the volume. Behind the volume knob is a tone control. When turned to the right, it increases treble and voice clarity; when turned to the left, it increases bass.
- **Right Knob** – This knob is a manual tuning control for choosing radio stations. For radios with rear speakers, a fader control is behind it. This control adjusts the sound between the front and rear speakers.
- **Push Buttons** – Each radio has five push buttons you can use to select your favorite stations easily. After using a push button, you may have to "fine–tune" the radio by hand for the best reception.

  To "Set Up" the Push Buttons:

  1. Use the tuning knob to tune in the desired station.
  2. Choose the button you wish to use and pull it straight out.
  3. Push in the button until it stops. The radio is designed to tune to the selected station whenever you push the button.

ETR AM-FM Stereo Radio



To Operate the ETR AM-FM Stereo Radio:

- **Power Button** ("PWR") – press to turn radio on. Press again to turn radio off.
- **Upper Knob** – rotate knob to control volume. Press knob to recall station frequency when listening to the radio with the ignition on, or to display time-of-day with ignition off.
- **Balance Control** (located behind upper knob) – turn to adjust left/right speaker balance.
- **Lower Knob** – rotate knob to tune radio stations manually. Frequency will be displayed during tuning. Press knob to select AM or FM band alternately.
- **Front/Rear Speaker Control** (located behind lower knob) – rotate control to adjust the sound between the front and rear speakers.
- **Bass and Treble Controls** – slide treble control up to increase treble, or down to decrease treble. Slide bass control up to increase bass, or down to decrease bass.
- **Pushbuttons**

  The radio has four pushbuttons you can use to select your favorite stations easily. You may select four AM and four FM stations for a total of eight selections.

  To Set Pushbuttons:

  1. Make sure the bandswitch is on the band you want. Then, tune in the desired station.
  2. Press SET button. The SET indicator light on the dial will light up. Then press one of the four station pushbuttons. The SET indicator light will go out.

     The radio will then tune to the selected station whenever you press the station button.

- **Seek and Scan**

  Use the SEEK and SCAN buttons for automatic station tuning.

Press SCAN button to sample each station being received automatically. To stop SCAN, press SCAN button again.

The SCAN indicator light on the frequency dial will be lit during SCAN operation.

Press the SEEK button to locate and retain the next listenable station on the band automatically.

The FM stereo indicator will light when tuned to an FM station broadcasting in stereo. Stereo (dual channel) sound is more realistic.

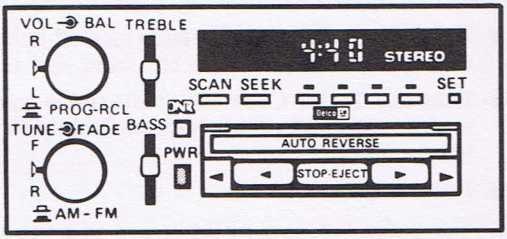
- **Time Set:**

To set hour, press SET button. The SET indicator light on the dial will then light up and the radio frequency will be displayed. Then press SCAN button, holding SCAN button in until correct hour appears.

To set minutes, press SET button. The SET indicator light will then light up and the radio frequency will be displayed. Then press SEEK button, holding SEEK button in until correct minute appears.

NOTE: After you press the SET button, the radio frequency will be displayed. The time-of-day will be displayed when you press the SCAN or SEEK button.

ETR AM-FM Stereo (Seek/Scan) with Clock and Cassette



To Operate the ETR AM-FM Stereo Radio:

- **Power Button** ("PWR") – press to turn radio on. Press again to turn radio off.
- **Upper Knob** – rotate knob to control volume. Press knob to recall station frequency when listening to the radio with the ignition on, or to display time-of-day with ignition off. Press knob to select the other side of the tape when the cassette is playing.
- **Balance Control** (located behind upper knob) – turn to adjust left/right speaker balance.
- **Lower Knob** – rotate knob to tune radio stations manually. Frequency will be displayed during tuning. Press knob to select AM or FM band alternately.
- **Front/Rear Speaker Control** (located behind lower knob) – rotate control to adjust the sound between the front and rear speakers.

- **Bass and Treble Controls** – slide treble control up to increase treble, or down to decrease treble. Slide bass control up to increase bass, or down to decrease bass.

- **Pushbuttons**

  The radio has four pushbuttons you can use to select your favorite stations easily. You may select four AM and four FM stations for a total of eight selections.

  To Set Pushbuttons:

  1. Make sure the bandswitch is on the band you want. Then, tune in the desired station.
  2. Press SET button. The SET indicator light on the dial will light up. Then press one of the four station pushbuttons. The SET indicator light will go out.

     The radio will then tune to the selected station whenever you push the station button.

- **Seek and Scan**

  Use the SEEK and SCAN buttons for automatic station tuning.

  Press SCAN button to sample each station being received automatically. To stop SCAN, press SCAN button again.

  The SCAN indicator light on the frequency dial will be lit during SCAN operation.

  Press the SEEK button to locate and retain the next listenable station on the band automatically.

  The FM stereo indicator will light when tuned to an FM station broadcasting in stereo. Stereo (dual channel) sound is more realistic.

- **Time Set:**

  To set hour, press SET button. The SET indicator light on the dial will then light up and the radio frequency will be displayed. Then press SCAN button, holding SCAN button in until the correct hour appears.

  To set minutes, press SET button. The SET indicator light will then light up and the radio frequency will be displayed. Then press SEEK button, holding SEEK button in until correct minute appears.

  NOTE: After you press the SET button, the radio frequency will be displayed. The time-of-day will be displayed when you press the SCAN or SEEK button.

To Operate Tape Player:

Insert cassette into tape door, with exposed edge entering first. Tape will snap into position when fully inserted. This automatically switches from radio to tape operation.

After the cassette has snapped into position, adjust the volume and fader controls to your preference.

To advance tape rapidly, press the button next to the lighted arrow (arrow on button points in same direction as lighted arrow). To reverse the tape and locate an earlier selection, press the button which has an arrow pointing in opposite direction. To stop fast motion and return to playing speed, press STOP-EJECT lightly; press again, but more firmly to eject tape.

Reversing Sides – Press the upper left knob (volume knob) to play the other side of tape. When end of tape is reached, it automatically reverses direction and plays other side.

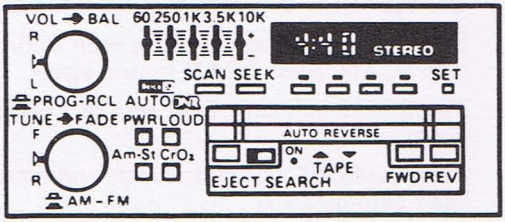
Tape Indicator Lights – When lighted arrow located below tape door points "left," the top side of tape is being played; when arrow points "right," bottom side is being played.

To remove the tape or listen to the radio, push the STOP-EJECT button.

Press the Dynamic Noise Reduction (DNR ®) button to remove high frequency background hiss on AM, FM, FM stereo, and tape.

For best results, 120 minute tapes are not recommended.

ETR AM Stereo-FM Stereo (Seek/Scan) with Auto-Reverse with Music Search Cassette 5-Band Equalizer and Clock



To Operate the ETR AM Stereo-FM Stereo Radio:

- **Power Button** ("PWR") – press to turn radio on. Press again to turn radio off.
- **Upper Knob** – rotate knob to control volume. Press knob to recall station frequency when listening to the radio with the ignition on, or to display time-of-day with ignition off. Press knob to select the other side of the tape when the cassette is playing.
- **Loudness Button** ("LOUD") – Press to boost bass frequencies when the radio is playing at low volume.
- **Balance Control** (located behind upper knob) – turn to adjust left/right speaker balance.
- **Lower Knob** – rotate knob to tune radio stations manually. Frequency will be displayed during tuning. Press knob to alternately select AM or FM band.
- **Front/Rear Speaker Control** (located behind lower knob) – rotate control to

adjust the sound between the front and rear speakers.

- **AM Stereo** ("AM-ST") – press to receive AM stereo. " Stereo" indicator light will be displayed when tuned to a station broadcasting *C-QUAM® AM stereo, provided it is being received with adequate signal strength in your locality. When the button is "out," all AM stations will be received in mono.

  *C-QUAM® is a registered trademark of Motorola, Inc.

- **FM Stereo** – The stereo indicator will light when tuned to an FM station broadcasting in stereo. Stereo (dual channel) sound is more realistic.

  "Stereo" operation means the radio is separating a stereo broadcast back into the original two channels, called "left" and "right." Stereo sound is noticeably realistic to the ear.

- **5-Band Graphic Equalizer** – allows you to adjust bass, midrange, and treble to suit personal taste. Move control up to increase frequency range, or down to decrease frequency range.

  NOTE: 60 and 250 denote bass; 1K denotes midrange; 3.5K and 10K denote treble.

  Generally, the 1k control is placed in the center (detent) position, while the bass and treble controls are adjusted upward to varying degrees.

  Since the 10K control has the most influence on treble, it may produce high frequency hiss when fully up. If this occurs, move it down until the hiss disappears.

  This radio has automatic Dynamic Noise Reduction ("DNR") to "reduce" high frequency background hiss on AM, FM, AM Stereo, FM Stereo, and tape.

- **Pushbuttons**

  The radio has four pushbuttons you can use to easily select your favorite stations. You may select four AM and four FM stations for a total of eight selections.

  To Set Pushbuttons:

  1. Make sure the bandswitch is on the band you want. Then, tune in the desired station.
  2. Press SET button. The SET indicator light on the dial will light up. Then press one of the four station pushbuttons. The SET indicator light will go out.

     The radio will then tune to the selected station whenever you press the station button.

- **Seek and Scan**

  Use the SEEK and SCAN buttons for automatic station tuning.

Press SCAN button to sample each station being received automatically. To stop SCAN, press SCAN button again.

The SCAN indicator light on the frequency dial will be lit during SCAN operation.

Press the SEEK button to locate and retain the next listenable station on the band automatically.

- **Time Set:** To set hour, press SET button. The SET indicator light on the dial will then light up. Then press SCAN button, holding SCAN button in until correct hour appears.

  To set minutes, press SET button. The SET indicator light will then light up. Then press SEEK button, holding SEEK button in until correct minute appears.

  NOTE: After you press the SET button, the radio frequency will be displayed. The time-of-day will be displayed when you press the SCAN or SEEK button.

To Operate Tape Player:

Insert the cassette squarely through the door. This automatically switches the unit from radio to tape operation. If the sound is garbled (or there is no sound), eject the tape and reinsert it squarely.

After the cassette has snapped into position, adjust the volume and fader controls to your preference.

To advance the tape, press the forward ("FWD") button. To listen to the earlier portion of the tape, press the reverse ("REV") button. To stop forward or reverse movement, press the opposite button lightly.

To listen to the next selection, slide the "SEARCH" button to the right and press the forward ("FWD") button. The radio will seek the next selection.

To listen to the previous selection again, slide the "SEARCH" button to the right and press the reverse ("REV") button. The radio will repeat the previous selection.

The "On" light, to the right of the search switch, will be on while the search function is engaged.

When the left triangle indicator light is lit, the top side of the tape is playing. When the right triangle indicator light is lit, the bottom side of the tape is playing.

To play the other side of the tape before the present side has ended, press the upper left knob. This will automatically play the opposite side of the tape.

NOTE: When end-of-tape is reached, the unit will automatically play the other side of the tape. To remove the tape or listen to the radio, push the EJECT button.

When the ignition is turned off, the tape is automatically ejected.

Select the setting for proper tape equalization (CrO_2) as follows:

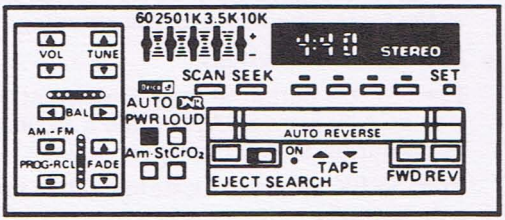
1. Select 70 usec (push button in).
2. Select 120 usec (button is out).

The equalization setting which is desired will vary according to the type of tape being used. Chrome and metal tapes usually have 70 usec equalization, while standard (iron) tapes have 120 usec equalization.

The tape bias is often indicated on the cassette label or case.

For best results, 120 minute tapes are not recommended.

ETR (Touch Control) AM Stereo-FM Stereo (Seek/ Scan) and Auto-Reverse Cassette with 5-Band Equalizer and Clock



To Operate the Radio:

- **Power Button** ("PWR") – Press to turn radio on. Press again to turn radio off.
- **Program Recall Button** ("PRG-RCL") – Press to recall station frequency when listening to the radio with the ignition on, or to display the time-of-day with ignition off. When the cassette is playing, press to play other side of tape.
- **AM-FM Band Switch Button** ("AM-FM") – Press button to alternately select AM or FM band.
- **Volume Buttons** ("VOL") – Press and hold button having arrow pointing up to increase volume.

  Press and hold button having arrow pointing down to decrease volume.

  Press and hold both buttons at the same time to return to the preset volume level.

  Note: If radio is playing at high volume and the radio or the ignition is turned off, the radio will return to the preset volume level.
- **AM Stereo Button** ("AM-ST") – Press to receive AM stereo. Stereo indicator light on the dial will be displayed when tuned to a station broadcasting *C-QUAM® AM stereo, provided it is being received with adequate signal strength in your locality. When the button is "out," all AM stations will be received in mono.

  *C-QUAM® is a registered trademark of Motorola, Inc.

- **FM Stereo** – The stereo indicator will light when tuned to an FM station broadcasting in stereo. Stereo (dual channel) sound is more realistic.
- **Loudness Button** ("LOUD") – Press to boost bass frequencies when the radio is playing at low volume.
- **Tune Buttons** ("TUNE")

  Press and hold button having arrow pointing up to tune up the frequency band manually.

  Press and hold button having arrow pointing down to tune down the frequency band manually.

  When tuning either up or down the frequency band, pressing the other button at the same time increases the scanning rate.
- **Seek and Scan Buttons**

  Press SCAN button to sample each station being received automatically. To stop SCAN, press SCAN button a second time. The SCAN indicator will be lit up during SCAN operation.

  Press SEEK button to locate and retain the next listenable station on the band automatically.
- **Time Set:**

  To set hour, press SET button. The SET indicator on the dial will light. Then press SCAN button and hold until correct hour appears.

  To set minutes, press SET button. The SET indicator on the dial will light. Then press SEEK button and hold until correct minutes appear.
- **Balance Buttons** ("BAL") – Press and hold BAL button with arrow pointing to the left to adjust sound to the left. Press and hold button with arrow pointing to the right to adjust sound to the right.

  Hold both BAL buttons at the same time to return balance control to its center position.

  NOTE: Above the balance buttons is a light indicating the balance level.
- **Fade Buttons** ("FADE") – Press and hold button with arrow pointing up to fade sound to the front of the car. Press and hold button with arrow pointing down to fade sound to the rear of the car.

  Hold both fader buttons at the same time to return fader to its preset center position.

  NOTE: To the left of the fade buttons is a light indicating the fade level.
- **Pushbuttons**

  The radio has four pushbuttons you can use to select your favorite stations easily. You can select four AM and four FM stations for a total of eight selections.

To set pushbuttons:

1. Make sure the band switch is on the band you want. Then, tune in the desired station.
2. Press SET button. The SET indicator light on the dial will be displayed. Then press one of the four station pushbuttons. The SET indicator light will go out.

The radio will then tune to the selected station whenever you push that station button.

5-Band Graphic Equalizer – allows you to adjust bass, midrange and treble to suit personal taste. Move control up to increase frequency range, or down to decrease frequency range.

NOTE: 60 and 250 denote bass; 1K denotes midrange; 3.5K and 10K denote treble.

Generally, the 1K control is placed in the center (detent) position, while the bass and treble controls are adjusted upward to varying degrees.

Since the 10K control has the most influence on treble, it may produce high frequency hiss when fully up. If this occurs, move it down until the hiss disappears.

This radio has automatic Dynamic Noise Reduction (DNR®) to "reduce" high frequency background hiss on AM, FM, AM Stereo, FM Stereo, and tape.

To Operate Tape Player:

Insert the cassette squarely through the door. This automatically switches the unit from radio to tape operation. If the sound is garbled (or there is no sound), eject the tape and reinsert it squarely.

After the cassette has snapped into position, adjust the volume and fader controls to your preference.

To advance the tape, press the forward ("FWD") button. To listen to the earlier portion of the tape, press the reverse ("REV") button. To stop forward or reverse movement, press the opposite button lightly.

To listen to the next selection, slide the "SEARCH" button to the right and press the forward ("FWD") button. The radio will seek the next selection.

To listen to the previous selection again, slide the "SEARCH" button to the right and press the reverse ("REV") button. The radio will repeat the previous selection.

The "On" light, to the right of the search switch, will be lit while the search function is engaged.

When the left triangle indicator light is lit, the top side of the tape is playing. When the right triangle indicator light is lit, the bottom side of the tape is playing.

To play the other side of the tape before the present side has ended, press the "PRG-RCL" button. This will automatically play the opposite side of the tape.

NOTE: When end-of-tape is reached in one direction, the unit will automatically play the other side of the tape. To remove the tape or listen to the radio, push the EJECT button.

When the ignition is turned off, the tape is automatically ejected.

Select the setting for proper tape equalization (CrO_2) as follows:

1. Select 70 usec (push button in).
2. Select 120 usec (button is out).

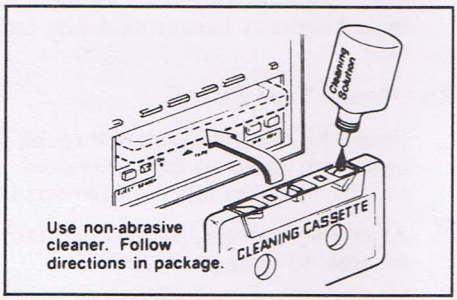
The equalization setting which is desired will vary according to the type of tape being used. Chrome and metal tapes usually have 70 usec equalization, while standard (iron) tapes have 120 usec equalization.

The tape bias is often indicated on the cassette label or case.

For best results, 120 minute tapes are not recommended.

TAPE AND TAPE PLAYER CARE

Optimum performance can be maintained by cleaning the internal tape head, capstan, and pinch roller periodically (approximately each 100 hours of operation). This can be done by inserting a nonabrasive cleaning cassette in place of the music tape.



Store cassettes away from extreme heat or direct sunlight. Protect the open ends from dirt or damage; store them in their original cases or other protective cases.

For best results, 120 minute tapes are not recommended.

When leaving the car, cassettes may be left in the tape player if the deck is the "auto reverse" type (tapes are either automatically ejected or internally protected). In other models, tapes should be removed to prevent possible damage to the tape or tape player.

MOBILE RADIO SYSTEMS

Mobile two-way radio units and mobile telephone equipment are subject to federal rules and must be installed by trained personnel. Certain such equipment or the manner of its installation may possibly adversely affect car operation. Expenses incurred to protect the car's systems from interaction with added mobile communication systems are not the responsibility of Pontiac.

Citizen Band (CB) radios, garage door openers, and GM OEM cellular phones normally will not affect car operation.

ANTENNA

Fixed Mast Antenna

The fixed mast antenna is designed to withstand most car washes without damage. It cannot be adjusted up or down. If the mast becomes slightly bent, you can straighten it by hand. The mast antenna can be replaced if severely bent (by vandalism, etc.). Mast antennas must be kept clean for good performance.

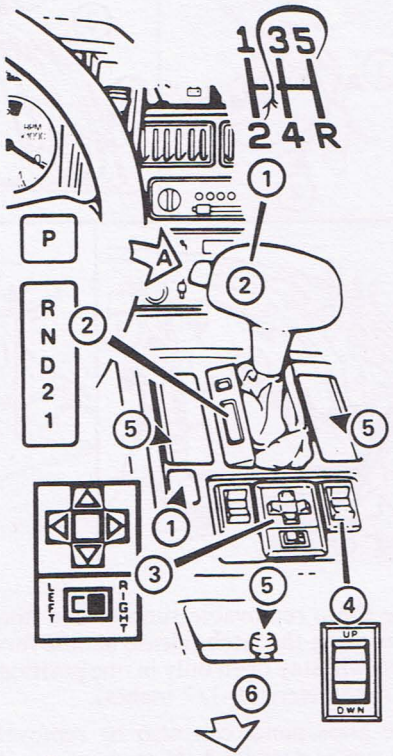
The console assembly, between the front seats, attaches to the instrument panel and provides easy access by the driver to many controls:

- Ashtray and Cigar Lighter - To operate the cigar lighter, depress the lighter and it will automatically heat and snap out, ready to use. Avoid holding the lighter in by hand while it is heating as damage to the heating element may result.

  The ashtray may be simply pulled out for cleaning:

  - Open either access door on the console.
  - Remove either ashtray for cleaning by lifting the ashtray straight up.
  - Slide the ashtray back into the bracket after cleaning.
- Automatic Transaxle Shift Lever - See Section 2.
- Manual Transaxle Shifter and Shift Pattern - See Section 2.
- Power Window Switches - See Section 1.
- Power Sport Mirror Control - See Section 1.
- Console Compartment Storage Box (Glove Box).

CONSOLE CONTROLS



(1)–MANUAL TRANSAXLE

(2)–AUTOMATIC TRANSAXLE
A–PRESS BUTTON TO SHIFT TO REVERSE OR PARK

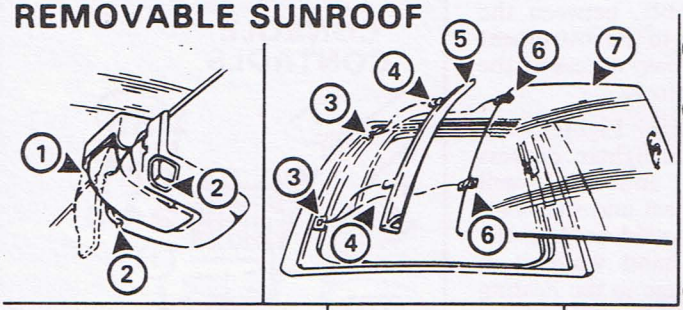
(3)–POWER SPORT MIRROR CONTROL

(4)–POWER WINDOW SWITCHES

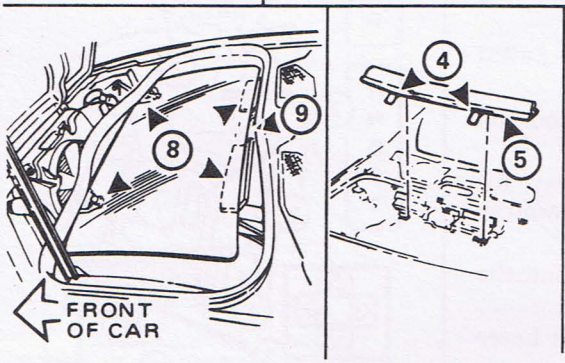
(5)–ASH TRAY/LIGHTER

(6)–GLOVE BOX

REMOVABLE SUNROOF



1–RELEASE HANDLE
2–RELEASE TABS (PUSH IN TO RELEASE HANDLE TO REMOVE SUNROOF)
3–ROOF SLOT



4–DEFLECTOR RETAINING TABS
5–DEFLECTOR (STORED IN FRONT COMPARTMENT)
6–SUNROOF HINGES
7–SUNROOF
8–SUNROOF SUPPORT PADS
9–SUNROOF RELEASE HANDLE FITS IN SLOT

The Fiero removable sunroof is a hinged glass panel. The panel can be opened by moving the latch release handle forward and up to lock the glass in place. The glass will stay open only in one position – when the rear of the glass is raised about 40 millimeters (1–1/2 inches).

The glass panel can also be removed completely. First, open the removable sunroof as described. Then, press the glass release tabs on either side of the release handle and lift the panel up and out to disengage the front hinges. The air deflector, which is stored in the front compartment, may then be put in place by sliding the deflector tabs into the roof slots and pushing downward to secure in place. Store the glass panel in the front compartment area with the front hinges secured under the forward support pads. The deflector is stored beneath the glass panel with the leading edge of the deflector down and deflector retainer tabs outboard of the slots in the support.

To install the glass panel, hold it at a 60 degree angle as shown, position far corner of glass onto weatherstrip and lower glass about halfway down until glass panel hinge on far side begins to engage roof slot.

NOTICE: Be sure hinge is in rearmost roof slot. Incorrect installation can result in damage to roof opening.

While simultaneously pushing forward on center, rearward edge of glass, and downward on front surface of glass over remaining hinge, lower glass until second hinge begins to engage slot. When both hinges are engaged, gently rock glass downward while continuing to push forward on center, rearward edge of glass. Front edge of glass should slide forward on weatherstrip permitting glass to be fully lowered.

NOTICE: Do not force glass downward. If binding is encountered, push downward on front surface of glass over hinge closest to you, while also pushing forward on rear, center of glass. Light silicone grease lubrication of weatherstrip along front edge of glass will help glass to slide forward.

CAUTION: To help avoid personal injury and property damage:

- **Do not try to remove the roof panel while the car is moving. Otherwise, the panel may become a hazard by falling into or flying off the car. Also, never ride with the roof panel in any open position other than the one described.**
- **After removing the roof panel, place it top side up with the latch toward the rear of the car, in the front storage compartment – on the padded supports, as shown. This will help keep the panel from being thrown about and injuring people during a collision or sudden maneuver, and will help protect the panel.**
- **After putting the roof panel back in place always check that it is firmly latched by pushing up on the underside of the panel.**

DECK LID CARRIER

The optional deck lid luggage carrier is designed to allow loading of items onto the deck lid of your car. The carrier does not increase the total load-carrying capacity of the car, shown opposite "Max Load" on the Tire Placard on the driver's door. Be sure the total weight of the cargo on the deck lid, plus the weight of the cargo and passengers inside the car, plus the tongue load of any trailer you are towing, does not exceed this "Max Load" vehicle capacity weight. See "Tires" in Section 5 for more information on Vehicle Loading. If needed, see "Trailer Towing" in Section 2.

NOTICE: To help avoid damage to the car, do not exceed 23 kilograms (50 pounds) cargo weight on the deck lid. Position the cargo on the luggage carrier against the rear rail. If carrying large items, never exceed the car width or overhang the rear bumper. Attach all loads securely to the luggage carrier. For items that may contact the painted deck, place something under it that will rest on the slats.

The carrier consists of slats bolted to the deck lid of the car, a crossrail and tie-downs.

While under way, check now and then to make sure the luggage carrier and cargo remain securely fastened, to help prevent damage or loss.

ENGINE BLOCK HEATER

The optional engine block heater is designed to warm the block area for improved cold weather starting. It can also help reduce fuel consumption when a cold engine is warming up.

To use the block heater:

1. Open the rear compartment lid.
2. Unwrap the electrical cord from the brace in the engine area. (After using the block heater, be sure to restow the cord properly to help keep it away from moving engine parts.)
3. Plug the cord into any three-prong, 110-volt outlet (normal household current).

NOTICE: If the cord is too short, use a heavy-duty, three-prong extension cord. Do not use an extension cord such as you would use for a lamp because the cord may overheat.

Outside temperature, oil viscosity, etc., will affect how long the block heater should remain plugged in. Contact your Pontiac dealer for advice for the conditions in your area.

DOME AND READING LIGHTS

The dome and reading lights are located on the roof in one module. The dome lights are the two inboard lights and are turned on by opening the car doors, rotating the dial below the headlamp switch to the full up position, or by pushing the buttons behind each light.

The reading lights are the two outboard lights on the module. They are turned on by pushing the buttons behind each light.

FRONT AND REAR COMPARTMENT LIGHTS

The optional front compartment light is designed to come on when the front compartment is open and the parking light switch is depressed.

The optional rear compartment light is designed to come on any time the rear compartment is open.

HAZARD WARNING FLASHER

Use the hazard warning flasher to warn other drivers any time your car becomes a traffic hazard, day or night. Avoid stopping on the roadway if possible. To turn it on, push the button (inside the collar) beneath the steering wheel on the right side of the steering column. The flasher should work with the ignition either off or on. The turn signals do not work when the hazard flasher is on. On some cars, if the brake pedal is pushed down, the lights will not flash until the brake is released. To turn off the flasher, pull the button collar out.

EMERGENCY STARTING YOUR VEHICLE DUE TO A DISCHARGED BATTERY

If your car will not start due to a discharged battery, it can often be started by using energy from another battery - a procedure called "jump starting."

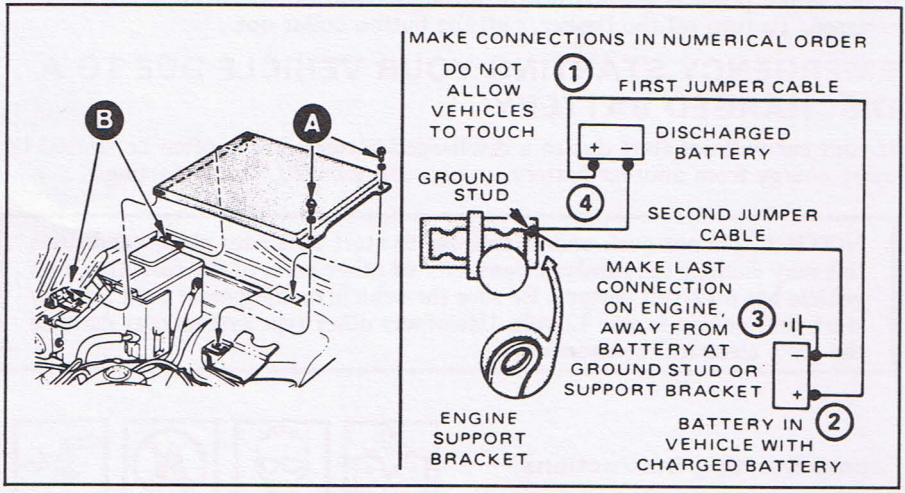
NOTICE: Do not push or tow this car to start it. Under some conditions this may damage the catalytic converter or other parts of the car. Also, this vehicle has a 12-volt battery. Be sure the vehicle or equipment used to jump start your engine is also 12-volt. Use of any other type system may damage the car's electrical components.

Jump Starting Instructions

CAUTION: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- **Always shield your eyes. Avoid leaning over the battery whenever possible.**
- **Do not expose the battery to open flames or sparks.**
- **Be sure any batteries that have filler caps are properly filled with fluid.**
- **Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately and thoroughly. Get medical help.**
- **Follow each step in the jump starting instructions.**

1. Position the vehicle with the good (charged) battery so that the booster (jumper) cables will reach. But never let the vehicles touch. Also, be sure the booster cables do not have loose or missing insulation.
2. In both vehicles:
   - Turn off the ignition and all lights and accessories except the hazard flasher or any lights needed for the work area.
   - Apply the parking brake firmly. Shift the automatic transaxle to Park (or manual transaxle to neutral).



3. Remove the right side engine compartment cover, located directly over the battery. Turn the two thumb screws (A) counterclockwise until they come out. Grasp the cover at the front and rear and while raising the rear of the cover about 25 millimeters (one inch), pull back on the cover to disengage it from the locating pins (B).
4. Make sure the cable clamps do not touch any other metal parts. Clamp one end of the first booster cable to the positive (+) terminal on one battery, and the other end to the positive terminal on the other battery. Never connect (+) to (-).
5. Clamp one end of the second cable to the negative (–) terminal of the good (charged) battery. Make the final connection to the stud located on the cylinder head where the negative battery cable is secured, or the large round engine support bracket located beside this stud.
6. Start the engine of the vehicle with the good (charged) battery. Run the engine at a moderate speed for several minutes. Then, start the engine of the vehicle that has the discharged battery.

7. Remove the booster cables by reversing the above installation sequence exactly. While removing each clamp, take care it does not touch any other metal while the other end remains attached.

8. Reinstall the engine compartment cover. Place the slots on each side of the cover onto the locating pins (B). Push the cover forward and down until the screw holes at the rear of the cover line up with the screw holes in the body. Reinstall the thumb screws and hand tighten.

ENGINE COOLING SYSTEM OVERHEATING

CAUTION: If the Engine Coolant Temperature Light or Gage shows an overheat condition or you have other reason to suspect the engine may be overheating, continued operation of the engine (other than as spelled out here) even for a short time may result in a fire and the risk of personal injury and severe vehicle damage. Take immediate action as outlined under following.

If you see or hear escaping steam or have other reason to suspect a serious overheat condition, stop and park the car as soon as it is safe to do so and turn off the engine immediately, then get out of the car.

The cooling system may overheat if the coolant level is too low, if there is a sudden loss of coolant (such as a worn hose splitting), or if other problems occur. It may also temporarily overheat during severe operating conditions such as:

- climbing a long hill on a hot day
- stopping after high-speed driving
- idling for long periods in traffic
- or towing a trailer

If the Engine Coolant Temperature gage shows an overheat condition, or you have any reason to suspect the engine may be overheating, take the following steps:

- If your air conditioner is on, turn it off. And turn on the heater.
- If you are stopped in traffic, shift the transaxle to Neutral.

If the gage pointer does not start to drop within a minute or two:

- Pull over, stop and park the car as soon as it is safe to do so.
- Let the engine run at normal idle speed for two or three minutes.

If the gage pointer does not start to drop, turn off the engine and get out of the car, then proceed as follows:

Every vehicle has a radiator cap and a thermostat housing cap (see illustration in Section 5.)

CAUTION: To help avoid being burned:

- **Do not open the front or rear compartment lids if you see or hear steam or coolant escaping from these areas. Wait until no steam or coolant can be seen or heard before opening either of the compartment lids.**
- **Do not remove the radiator cap, thermostat housing cap, or coolant recovery tank cap if coolant in the recovery tank is boiling. Also do not remove the radiator cap, or the thermostat housing cap, while the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure if any cap is taken off too soon.**

If no steam or coolant can be seen or heard, raise the front compartment lid. If the coolant is boiling, wait until it stops before proceeding. Look at the coolant level in the see-through recovery tank. The coolant level should be at or above the "FULL HOT" mark on the recovery tank.

CAUTION: To help prevent personal injury, keep hands, tools and clothing away from the engine cooling fan. This electric fan can come on whether or not the engine is running. The fan can start automatically in response to a heat sensor when the ignition is in "Run."

When there is an indication of an overheat condition and the engine is running, make sure the one-piece belt or water pump belts are not broken, or off the pulleys.

If the coolant level in the recovery tank is low, look for leaks at the radiator hoses and connections, heater hoses and connections, radiator, and water pump. If you find major leaks, or spot other problems that may have caused the engine to overheat, do not run the engine until these problems have been corrected. If you do not find a leak or other problem, carefully add coolant to the recovery tank. (Coolant is a mixture of ethylene glycol antifreeze and water; see "Engine Cooling System" in Section 5 for the proper antifreeze and mixture.)

CAUTION: To help avoid being burned, do not spill antifreeze or coolant on the exhaust system or hot engine parts. Under some conditions, the ethylene glycol in engine coolant is combustible.

If the coolant level in the recovery tank is at the correct level but there is still an indication on the instrument panel of an overheat condition:

- Allow engine to cool.

- Add coolant through the thermostat housing following steps 1 through 4 in the "Coolant Replacement" procedure found in Section 5.

Once the Engine Coolant Temperature gage no longer signals an overheat condition, you can resume driving at a reduced speed. Return to normal driving after about ten minutes if the gage pointer does not again show an overheat condition.

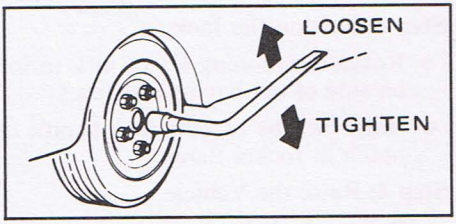
If no cause for the overheat condition was found, see a qualified service technician.

JACKING AND TIRE CHANGING

CAUTION: To help avoid personal injury:

- **Follow all jacking and storage instructions.**
- **Use jack only for lifting this vehicle during wheel change.**
- **Never get beneath the vehicle, start or run engine while vehicle is supported by jack.**
- **Always securely store spare or flat tire and all jacking equipment.**

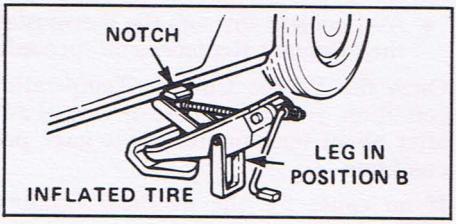
Jacking Instructions



Step 1: Before Changing Wheel

- Park on a level surface, set parking brake and turn on hazard warning flasher.
- Shift automatic transaxle to "P" (Park) or manual transaxle to "Reverse."
- Block front and rear of front tire on opposite side of car from wheel to be removed. (Use rocks, blocks, etc.)
- Remove spare tire and jacking tools from vehicle. (See storage instructions which follow.)
- Pry standard wheel trim cover loose with flat end of wheel wrench.
- For aluminum wheels -- see instructions in this section.

- Loosen but do not remove wheel nuts by turning wrench counter-clockwise. (If equipped with chrome capped wheel nuts, nuts may be damaged if wheel wrench is not fully seated on nut.)

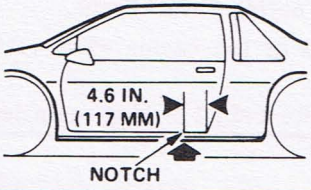


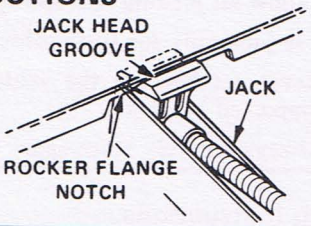
Step 2: Set up Jack

- Set up jack as shown in illustration.

Note: Jack is designed to lift both front and rear wheels of side of car being jacked; set up will always be the same.

JACKING INSTRUCTIONS





Step 3 Position the Jack

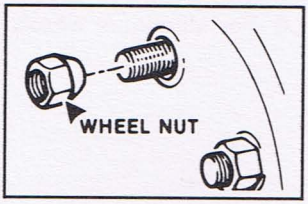
- Rotate positioning leg of jack to location B in notch forward of rear wheel on side of car having flat tire.
- Raise jack by turning jack handle clockwise until jack head groove engages notch in rocker flange.

Step 4: Raise the Vehicle

- Raise vehicle by operating jack with slow, smooth clockwise motion of jack handle.
- Raise vehicle so inflated spare tire will clear surface when installed.
- Remove wheel nuts and flat tire.
- Remove any corrosion on wheel mounting surface before wheel replacement.

Step 5: Replace Wheel

- Install compact spare tire with wheel nuts -- (cone shaped end toward wheel).
- Slightly tighten each nut. (Wheel must be seated.)

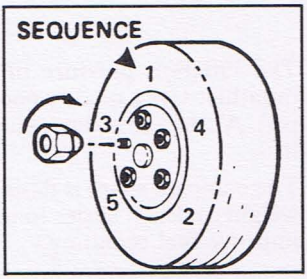


Step 6: Lower Vehicle

- Lower vehicle by turning jack handle in slow, smooth counter-clockwise motion.
- Lower jack completely. (Jack screw mechanism should be oiled after each use.)

Step 7: After Changing Wheel

- Tighten wheel nuts in crisscross sequence by turning wrench clockwise.
- As soon as possible, tighten wheel nuts with a torque wrench to specified torque -- (see Section 6 of this Owner's Manual).



CAUTION: Never use oil or grease on studs or nuts. Snug all wheel nuts and then tighten to the specified torque in the numerical sequence shown. Improperly tightened wheel nuts could eventually allow the wheel to come off while the car is moving, possibly causing loss of control, and/orpersonal injury or damage. As soon as possible after installing any wheel, have a technician tighten wheel nuts with a torque wrench to the torque shown in "Specifications," Section 6.

(See the "Replacement Fasteners" Caution in Section 5 regarding the danger of mixing metric and customary fasteners. Also see the "Inspection and Rotation" Caution under "Tires" in the same section regarding the importance of obtaining good metal-to-metal contact.)

- Check tire inflation pressure as soon as practical after installing the spare tire. (See Section 5.)
- Secure all jacking equipment and flat or spare tire. (See storage instructions which follow.)
- When driving the vehicle with the compact spare installed, stow any wheel trim cover in the compact spare tire well.

COMPACT SPARE

The inflation pressure of the compact spare tire should be checked at least monthly. Use a quality pocket-type inflation pressure gage and set at 415 kPa (60 psi). At the same time, check that the tire is stowed securely. If it is not, tighten it.

The compact spare is designed to save space in your stowage area, and its lighter weight makes it easier to install if a flat tire occurs. The lighter weight also helps improve fuel economy.

If you have a flat tire, follow the jacking instructions in this manual, while keeping these points in mind:

- Check the tire inflation pressure as soon as practical after installing the spare.

NOTICE: Because this tire is smaller than the standard tire, vehicle ground clearance is reduced. Do not take your car through an automatic car wash while the spare is installed; the car may catch on the equipment, possibly resulting in property damage.

- You can expect a tread life up to 3,000 miles (4 800 kilometers), depending on road conditions and your driving habits. The tire was designed to let you finish an extended trip (up to 3,000 miles (4 800 kilometers) and buy a replacement tire, if needed, at a store of your choice. However, to conserve tire tread life, return the spare to the stowage area as soon as it is convenient to have your standard tire repaired or replaced.
- Because the compact spare was specifically designed for your car, it should not be used on any other vehicle.
- The compact spare tire and wheel are designed for use with each other. The compact spare tire should not be mounted on any other type of wheel, and the compact spare wheel should not have any other type of tire mounted on it. Also, do not try to use wheel covers or trim rings on the compact spare wheel since they will not fit. If such use is attempted, damage to these items or other car components may occur.
- Do not use tire chains with your compact spare tire. Because of the smaller tire size, a tire chain will not fit properly. This could cause damage to the car and result in loss of the chain.

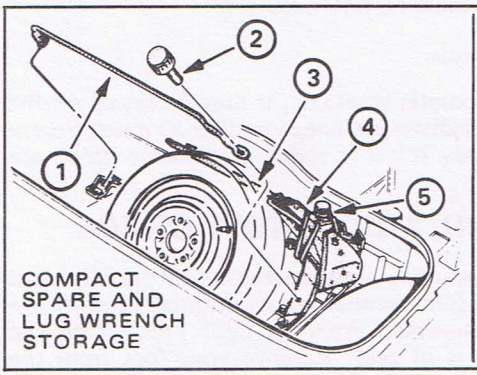
CAST ALUMINUM WHEELS

If your car is equipped with cast aluminum wheels, the wheel nuts will have threaded black caps which must be removed to access the wheel nuts. To remove the caps, install the wheel nut wrench and turn counterclockwise. After removal and replacement of the cast aluminum wheel reinstall the wheel nuts and tighten per the "Jacking Instructions" in this section. Reinstall the black caps and tighten to the torque specification listed in Section 6 of this manual.

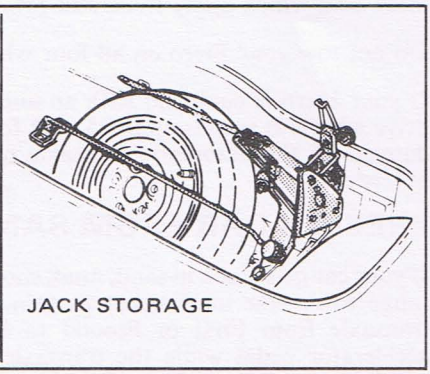
The small center cap can be removed (with the wheel and tire assembly removed from the car) by pushing the cap from the rear and removing it from the front of the wheel. It is preferred that a blunt tool be used on the backside of the hub cap. However, the lug wrench may be used if no other tool is available but care must be exercised to avoid hub cap damage.

Install wheel and tire assembly and install hub cap by pushing or hitting into place (the wheel can be mounted with hub cap in place).

STOWAGE OF TIRE AND JACK

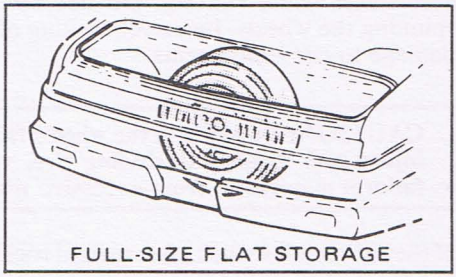


COMPACT SPARE AND LUG WRENCH STORAGE



JACK STORAGE

- Remove compact spare securing hand screw (2) and retaining rod (1). Spare tire can now be removed.
- Wheel nut wrench (3) is behind compact spare and located with a clip underneath the jack.
- The jack (4) is removed by turning the hand screw (5) counter-clockwise to loosen the jack securing bracket.



FULL-SIZE FLAT STORAGE

CAUTION: Always securely restow the spare tire assembly (or flat tire) and all jacking equipment using the means provided. When driving the car with the Compact Spare installed, stow the wheel cover in the spare tire well of the front storage compartment. This will help keep such things from being thrown about and injuring people during a collision or sudden maneuver. (Stow a full-size tire in the rear storage compartment.)

EMERGENCY (WRECKER) TOWING

CAUTION: To help avoid personal injury or property damage during any towing of your Fiero, proper equipment and towing methods must be used. During towing the steering must be unlocked, the transaxle in neutral, and the parking brake released.

If towing is necessary, contact any GM dealer or a professional tow truck service. Any GM dealer has detailed towing instructions. State (provincial in Canada) and local laws which apply to cars in tow must be followed.

Do not tow your Fiero on all four wheels.

If your Fiero is equipped with an automatic transaxle, it may be towed on the drive wheels at speeds up to 35 mph for distances not exceeding 50 miles. Severe damage to the automatic transaxle may result if speed or distance limits are exceeded.

FREEING CAR FROM SAND, MUD, SNOW OR ICE

If your car gets stuck in sand, mud, snow or ice, shift the transaxle from a forward range to reverse in a repeat pattern. (On manual transaxle models, shift the transaxle from First or Second to Reverse.) Apply a light pressure to the accelerator pedal while the transaxle is in gear. Remove your foot from the accelerator while shifting. Do not race the engine. For best traction, avoid spinning the wheels. Incorrect rocking of your car while it is stuck may result in damage to car components.

CAUTION: Do not spin the wheels faster than 35 mph (55 km/h). Personal injury and damage (including tire, vehicle body parts, and/or transaxle failure) may result from excessive wheel spinning.

If the car remains stuck after several rocking attempts, seek other assistance. Also see the Notice under "Automatic Transaxle" in Section 2.

CLEANING AGENTS

CAUTION: Follow the manufacturer's advice whenever cleaning agents or other chemicals are used, inside or outside the vehicle. Some cleaners may be poisonous or flammable, and improper use may cause personal injury or damage. When cleaning the inside or outside of the vehicle, do not use volatile cleaning solvents such as: acetone, lacquer thinners, enamel reducers, nail polish removers; or such cleaning materials as laundry soaps, bleaches or reducing agents, except as noted in the fabric cleaning advice on stain removal which follows. Never use carbon tetrachloride, gasoline, benzene, or naphtha for any cleaning purpose.

Open all car doors for ventilation when any cleaning agents or other chemicals are used in the interior. Overexposure to some vapors may result in a health problem which is more likely to occur in small, unventilated spaces.

NOTICE: To avoid possible permanent discoloration of light colored seats, do not let materials with non-fast colors come in contact with seat trim materials until these materials are totally dry. This includes certain types of casual clothing, such as colored denims, corduroys, leathers and suedes; also decorative paper, etc.

CARE AND CLEANING OF THE INTERIOR

With the use of modern trim materials, it is very important that you use proper cleaning techniques and cleaners. Failing to do this on the first cleaning may result in water spots, spot rings, or setting of stains or soilage– all of which are more difficult to remove in a second cleaning.

Dust and loose dirt that collect on interior fabrics should be removed often with a vacuum cleaner or soft bristle brush. Wipe vinyl or leather trim regularly with a clean damp cloth. Normal trim soilage, spots, or stains can be cleaned with these GM cleaners:

DESCRIPTION	PART NO.
GM Spot Lifter 8 oz. (0.237 L) Solvent Type	1051398
GM Multi-Purpose Powdered Cleaner 6 lb. (2.72 kg) Foam Type	1050429

The above products are excellent cleaners when used properly. They are available through your Pontiac dealer.

Remember these basic steps before cleaning:

1. Remove stains as quickly as possible before they become "set."
2. Use a clean cloth or sponge, and change to a clean area often. A soft brush may be used if stains persist.
3. Use solvent-type cleaners only in a well ventilated area; also, do not saturate the stained area.
4. If a ring forms after spot cleaning, clean the entire area immediately.
5. Follow specific instructions on cleaner labels.

Cleaning General Soilage or Water Spots from Fabric/mSH Type Trim (Including Suede Leather) With Foam Type Cleaner

GM Multi-Purpose Powdered Cleaner is excellent for this type of cleaning and for cleaning panel sections where small cleaning rings may be left from spot cleaning.

- Vacuum and brush the area to remove any loose dirt.
- Always clean a whole trim panel or section. Mask surrounding trim along stitch or welt lines.
- Mix Multi-Purpose Powdered Cleaner following the directions on the container label. Mix in proportion for smaller quantities.
- Use suds only on a clean sponge. Do not brush wet suede. Do not saturate the material or rub it harshly. Immediately after cleaning, remove suds with a sponge and rinse with a clean wet sponge. Wipe off remaining residue with a slightly damp absorbent towel or cloth.
- Immediately after wiping, force-dry the material with an air hose. A heat dryer or heat lamp may be used. Use care with a heat dryer or lamp to help prevent damage.
- When trim materials with a sheen or luster finish are dry, wipe the fabric lightly with a soft, dry, clean cloth to restore its sheen or luster. For suede, raise nap with a dry scrub brush and vacuum to remove any final traces of residue.

Spot Cleaning Fabric Type Trim (Except From Suede Leather) With Solvent Type Cleaner

Before trying to remove a spot or stain from fabric, try to find out the type and age of the spot or stain. Some spots or stains can be removed with water or a mild soap solution (see "Removal of Specific Stains"). Spots or stains should always be removed as soon as possible.

Some types of stains or soilage, such as lipstick, inks and grease, are very difficult (sometimes impossible) to completely remove. When cleaning this type of stain or soilage, be sure not to enlarge the soiled area.

GM Fabric Cleaner (Solvent Type) is excellent for spot cleaning grease, oil, or fat stains.

NOTICE: Solvent type cleaners must not be used on pigskin suede leather. Damage to the material may result from such use.

- Gently scrape excess stain from the trim material with a clean, dull knife or scraper. Use very little cleaner, light pressure and clean cloths (preferably cheesecloth). Cleaning should start at the outside of the stain, "feathering" toward the center. Keep changing to a clean section of the cloth.
- When you clean a stain from fabric, immediately dry the area with an air hose, heat dryer, or heat lamp to help prevent a cleaning ring. (Use caution with a heat dryer or lamp to help prevent fabric damage.)
- If a ring forms, immediately repeat the cleaning operation over a slightly larger area with emphasis on "feathering" towards its center. If a ring remains, mask off surrounding trim sections and clean the entire soiled area with GM Multi-Purpose Powdered Cleaner (as described under "Cleaning General Soilage or Water Spots from Fabric Type Trim with Foam Type Cleaner").

Removal of Specific Stains (Except From Suede Leather)

Greasy or Oily Stains – Includes grease, oil, butter, margarine, shoe polish, coffee with cream, chewing gum, cosmetic creams, vegetable oils, wax crayon, tar and asphalts.

- Carefully scrape off excess stain, then use GM Fabric Cleaner (Solvent Type) as previously described.
- Shoe polish, wax crayons, tar and asphalts will stain if left on trim; they should be removed as soon as possible. Use care as the cleaner will dissolve them and may cause them to "bleed."

Non-Greasy Stains – Includes catsup, coffee (black), egg, fruit, fruit juice, milk, soft drinks, wine, vomit and blood.

- Carefully scrape off excess stain, then sponge the stain with cool water.
- If a stain remains, use Multi-Purpose Powdered Cleaner (Foam Type) as previously described.
- If an odor lingers after cleaning vomit or urine, treat the area with a water/baking soda solution: 5 milliliters (1 teaspoon) of baking soda to 250 milliliters (1 cup) of lukewarm water.
- Finally, if needed, clean lightly with Fabric Cleaner (Solvent Type).

Combination Stains – Includes candy, ice cream, mayonnaise, chili sauce and unknown stains.

- Carefully scrape off excess stain; then clean with cool water and allow to dry.
- If a stain remains, clean it with Fabric Cleaner (Solvent Type).

Removal of Specific Stains from Pigskin Suede Leather

For the removal of all grease or oil based stains, as well as all general stains on pigskin suede leather, GM recommends the use of a qualified professional cleaner who has been trained to care for suede leather.

Cleaning Vinyl or Leather (Except Suede Leather) Trim

Ordinary soilage can be removed from vinyl or leather with warm water and a mild soap or oil soap, or an equivalent.

- Apply a small amount of soap solution and let it soak for a few minutes to loosen dirt; then rub briskly with a clean, damp cloth to remove dirt and traces of soap. This may be repeated several times, if needed.
- Soilage such as tars, asphalts, shoe polish, etc. will stain if left on trim. They should be wiped off as quickly as possible and the area cleaned with a clean cloth dampened with GM Vinyl/Leather Cleaner (Solvent Type).

Seat Belt Care

- Keep belts clean and dry.
- Clean seat belts only with mild soap and lukewarm water.
- Do not bleach or dye belts since this may severely weaken them.

GLASS SURFACES

Glass surfaces should be cleaned on a regular basis. Use of GM Glass Cleaner or a liquid household glass cleaner will remove normal tobacco smoke and dust films sometimes caused by ingredients used in vinyls and interior plastics.

Never use abrasive cleaners on any car glass, as they may cause scratches. If abrasive cleaners are used on the inside of the rear window, any electric defogger element may be damaged. Avoid placing decals on the inside rear window, since they may have to be scraped off later. Any temporary license, etc. should not be attached across the defogger grid.

Cleaning the Outside of Windshield

If your windshield is not clear after using the windshield washer, or if the wiper blade chatters when running, wax or other material may be on the blade or windshield.

Clean the outside of the windshield with Bon-Ami, a non abrasive cleaner. Your windshield is clean if beads do not form when rinsing with water.

Clean the blade by wiping with a cloth soaked in a solution of one-half water and one-half GM Optikleen. A solution of one-half water and one-half methanol alcohol may also be used. Then rinse the blade with water.

Cleaning Glass Roof Panels

Never use abrasive cleaners on any glass roof panels, such as Removable Sunroof, as such cleaners may cause scratches. Also, if you use such cleaners on the inside surface, the tinted coating may be damaged. Avoid placing decals on the inside surface, since they may later have to be scraped off.

CARE AND CLEANING OF THE EXTERIOR

Exterior Finish

The paint finish on your car provides beauty, depth of color, gloss retention and durability.

Washing Your Car

The best way to preserve your car's finish is to keep it clean by frequent washings. Wash the car in lukewarm or cold water.

Do not use hot water or wash your car in the direct rays of the sun. Do not use strong soap or chemical detergents. All cleaning agents should be flushed promptly from the surface and not allowed to dry on the finish.

GM car are designed to operate under normal environmental conditions to withstand the natural elements. However, unusual conditions, such as high pressure car washes, may cause water to enter inside the car.

Polishing and Waxing

Periodic polishing and waxing is recommended to remove surface residue from your paint finish. GM approved products are supplied through your authorized Pontiac dealer.

Protecting Exterior Bright Metal Parts

Bright metal parts should be cleaned regularly to keep their luster. Washing with water is all that is usually needed. However, you may use GM Chrome Polish on chrome or stainless steel trim, if necessary.

Use special care with aluminum trim. To avoid damaging protective trim, never use auto or chrome polish, steam, or caustic soap to clean aluminum. A coating of wax, rubbed to a high polish, is recommended for all bright metal parts.

Cleaning Aluminum Wheels, Rally Wheels, And Wheel Covers

Preserve the original appearance of wheels or wheel covers by keeping them clean and free from build-up of road dirt and/or road salt. Regular cleaning is recommended. Do not use abrasive cleaners or cleaning brushes, as they could damage the finish.

NOTICE: The Protective coating or paint on your wheels or wheel trim is similar to the painted surfaces of your vehicle.

Hard silicon carbide rotating brushes are being used at some car washes. These brushes, used to clean whitewalls, may remove the protective coating from aluminum wheels, scratch painted surfaces on rally wheels, or scratch wheel covers. Tracks used to guide the vehicle through some car washes may also cause damage to your wheels or wheel trim.

Before entering a car wash, check with the manager to see that adequate care has been taken to protect your wheels.

Cleaning White Sidewall Tires

Use GM White Sidewall Tire Cleaner or a tire cleaner which will not harm aluminum wheel trim. A stiff brush may be used with the cleaner.

Weatherstrip Lubrication

Silicone grease application will lengthen weatherstrip life, help sealing and assist in eliminating squeaks. At least every six months, all weatherstrips should be lubricated with a silicone-grease lubricant Part No. 1052863, or equivalent. A thin film of silicone grease lubricant should be applied using a clean cloth.

CORROSION PROTECTION

Your car has been designed and built to resist corrosion. Special materials and protective finishes were used on most parts of your car when it was built to help maintain good looks, strength and reliable operation. However, some parts which normally are not visible (such as certain parts under the car and under the hood) are such that surface rust will not affect their reliability. In these cases, corrosion protection is not needed or used.

Underbody Damage

If your car underbody is damaged and requires metal repair or replacement, make sure the body repair shop applies anti-corrosion material to the parts repaired or replaced so that corrosion protection is restored. (Also see "Finish Damage" which follows.)

Foreign Material Deposits

Calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys, and other foreign matter may damage car finishes if left on painted surfaces.

Prompt washing may not completely remove all of these deposits. Other cleaners may be needed. When using chemical cleaners, be sure they are safe for use on painted surfaces.

Finish Damage

Minor chips and scratches can be repaired with touch-up materials available from your Pontiac dealer or other service outlets. Larger areas of finish damage can be corrected in your dealer's body and paint shop.

Underbody Maintenance

Corrosive materials used for ice and snow removal and dust control can collect on the underbody. If these materials are not removed, accelerated corrosion (rust) can occur on underbody parts such as fuel lines, frame, floor pan, and exhaust system even though they have been provided with corrosion protection.

At least every spring, flush these materials from the underbody with plain water. Take care to clean any areas where mud and other debris can collect. Sediment packed in closed areas of the frame should be loosened before being flushed. If desired, your Pontiac dealer can do this service for you.

NOTICE TO NEW PONTIAC OWNERS REGARDING CHEMICAL PAINT SPOTTING

Pontiac believes that certain weather and atmospheric conditions may create a chemical fallout whereby certain airborne pollutants fall upon and attack vehicle paints. Occurrences have taken place primarily in the northeastern seaboard area. The paint damage takes two forms: blotchy, ringlet-shaped discolorations, and small irregular dark spots etched into the paint surface.

Paint spotting as a result of the fallout is not related to a defect in paint materials or workmanship. For this reason, claims arising from this condition are not considered to be warranty related. Nevertheless, because Pontiac shares the pride which our owners take in preserving and maintaining the appearance of their vehicles, Pontiac has authorized its dealers to 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 kilometers) of purchase, whichever comes first.

APPEARANCE CARE AND MAINTENANCE MATERIALS

See Your Pontiac Dealer For These Products.

Washer Solvent and Gas Line De-Icer
GM Part No. 1051516
Size ..... 0.946 L (32 oz.)
Usage ..... Windshield Washing system & gas line

Spray-A-Squeak
GM Part No. 1052277
Size ..... 0.354 L (12 oz.)
Usage ... Weatherstrips - stops squeaks on metal-to-metal and metal-to-rubber contact

Tar and Road Oil Remover
GM Part No. 1050172
Size ..... 0.473 L (16 oz.)
Usage ..... Removes old waxes, polishes, tar, and road oil

Chrome Cleaner and Polish
GM Part No. 1050173
Size ..... 0.473 L (16 oz.)
Usage ..... Removes rust and corrosion on chrome and stainless steel

White Sidewall Tire Cleaner
GM Part No. 1050174
Size ..... 0.473 L (16 oz.)
Usage ..... Cleans white and black tires

Vinyl/Leather Cleaner
GM Part No. ..... 1050214 *
Size ..... 0.946 L (32 oz.)
Usage ..... Spot and stain removal on leather or vinyl

Fabric Cleaner
GM Part No. ..... 1050244 *
Size ..... 0.473 L (16 oz.)
Usage .... Spot and stain removal on cloth and fabric

Heat Valve Lubricant
GM Part No. 1052627
Size ..... 0.354 L (12 oz.)
Usage ..... Free up sticky heat risers - general purpose penetrant

Glass Cleaner
GM Part No. 1050427
Size ..... 0.680 L (23 oz.)
Usage ... Glass cleaning and spot cleaning on vinyls

Multi-Purpose Powdered Cleaner
GM Part No. 1050429
Size ..... 2.72 kg (6 lb.)
Usage ..... Cleans vinyl and cloth on door trim, seats, and carpet - also, tires and mats

Lubriplate (White Grease)
GM Part No. 1052349
Size ..... 0.340 kg (12 oz.)
Usage ... Grease for hood, trunk and door hinges and latches

Wash - Wax (conc.)
GM Part No. 1052870
Size ..... 0.473 L (16 oz.)
Usage ..... Exterior wash

Silicone Grease
GM Part No. 1052863
Size ..... 0.028 kg (1 oz.)
Usage ..... Weather stripping

Spot Lifter
GM Part No. ..... 1051398 *
Size ..... 0.237 L (8 oz.)
Usage .... Spot and stain removal on cloth and fabric

GM Optikleen
GM Part No. 1051515
Size ..... 0.946 L (32 oz.)
Usage ..... Windshield washer solvent and anti-freeze

Magic Mirror Cleaner-Polish
GM Part No. 1050201
Size ..... 0.473 L (16 oz.)
Usage ..... Exterior cleaner and polish

Dexron ® II
GM Part No. 1051855
Size ..... 0.946 L (32 oz.)
Usage ..... Automatic transaxle

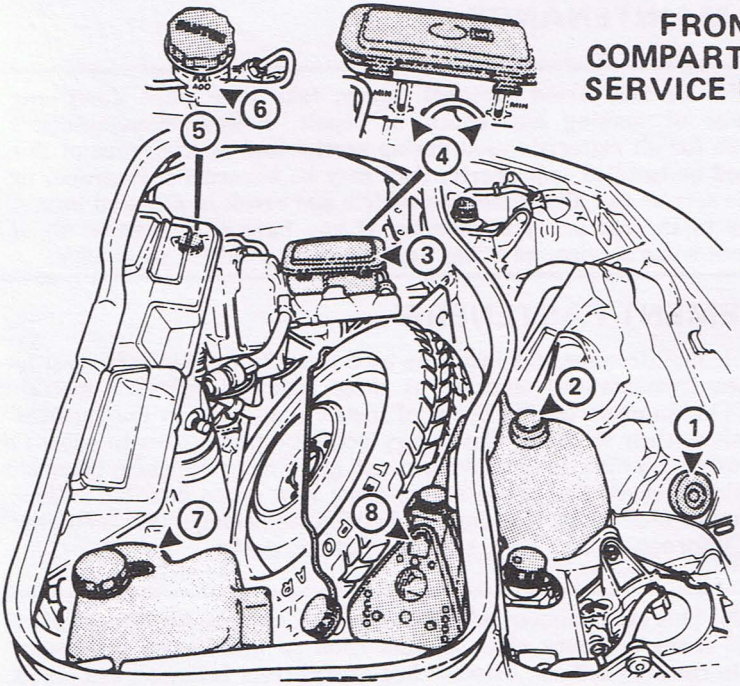
GM Engine Oil Supplement (E.O.S.)
GM Part No. 1052367
Size ..... 0.473 L (16 oz.)
Usage ..... See your Dealer for specific usage

Permanent Type Anti-Freeze Coolant (Ethylene Glycol Base)
GM Part No. 1052753
Size ..... 3.785 L (1 gal.)
Usage ..... Year round coolant and antifreeze

Manual Transaxle Fluid
GM Part No. 1052931
Size ..... 0.946 L (32 oz.)
Usage ..... Manual transaxles

Delco-Supreme 11 Brake Fluid
GM Part No. 1052535
Size ..... 0.473 L (16 oz.)
Usage ..... Brake Fluid

* Not Recommended For Pigskin Suede Leather.



1–RADIATOR CAP
NOTE: DO NOT ADD COOLANT AT THIS LOCATION.

2–ENGINE COOLANT RECOVERY TANK

3–BRAKE FLUID FILL CAP

4–BRAKE FLUID LEVEL CHECK

5–HYDRAULIC CLUTCH FLUID RESERVOIR (MANUAL TRANSAXLE CARS ONLY)

6–HYDRAULIC CLUTCH FLUID CHECK

7–WINDSHIELD WASHER BOTTLE

8–VEHICLE JACK

Your authorized Pontiac dealer has factory trained technicians and Genuine GM Parts to service your Fiero properly. For expert advice and quality service, see your Pontiac dealer.

OWNER MAINTENANCE

CAUTION: To help avoid personal injury, take care when doing any maintenance or making any check or repair. Follow manufacturer's instructions for all materials used during service and maintenance of this car. If used or handled improperly, they may be hazardous. Improper or incomplete service can also affect the vehicle and result in personal injury, or damage to the car or its equipment. If you have any question about carrying out some service, have the work done by a skilled technician.

REPLACEMENT FASTENERS

During vehicle maintenance, any fasteners used to replace older ones must have the same measurements and strength as those removed, whether metric or customary. (The numbers on the heads of metric bolts and on the surfaces of metric nuts show their strength. Customary bolts use radial lines to show this, while most customary nuts do not have strength markings.) Fasteners taken from the car should be saved for re-use in the same spot when possible. Where a fastener cannot be used again, take care to choose a replacement that matches the old one. For information and help, see your Pontiac dealer.

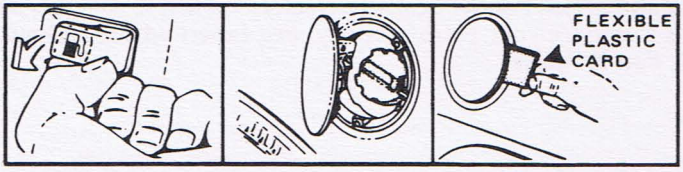
CAUTION: This car is dimensioned in the metric system. All fasteners are metric and many are very close in dimension to well-known customary fasteners in the inch system. Mismatched or incorrect fasteners can result in damage to the car or possibly personal injury.

MAINTENANCE SCHEDULE

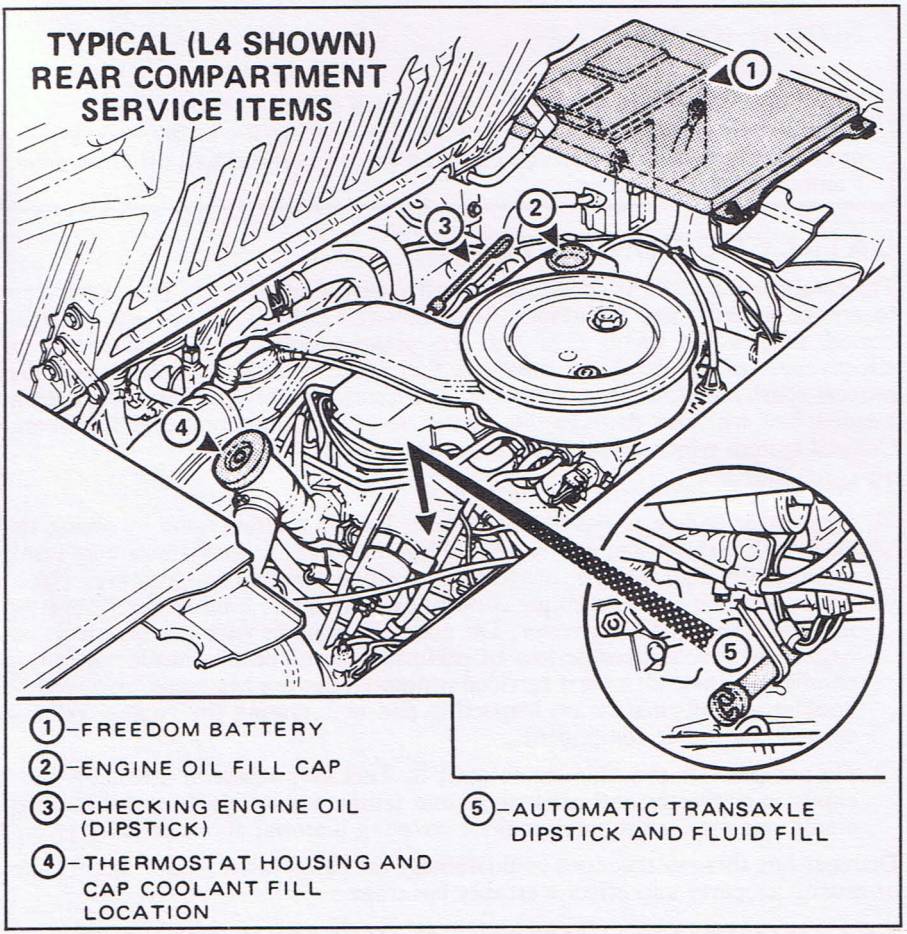
For owner convenience, a separate booklet has been provided with your car which outlines the maintenance your car requires. The Maintenance Schedule booklet is supplemented by this section of the Owner's Manual.

Read this schedule for a full understanding of your car's maintenance needs. To obtain a replacement Maintenance Schedule booklet, see the order form in the back of this manual.

FUEL CAP



The fuel cap is behind a hinged door on the left rear fender. The door is opened by a remote release handle located inside the car on the left rear roof pillar. Pull the handle to release the lock.



Should the remote fuel door handle fail to operate, the fuel fill door can be opened using a small rectangular piece of flexible plastic (like a credit card). Carefully insert the card between the fuel fill door and body at the rear center of the door until the fuel fill door opens. Moving the card up and down while pushing it in will assist you in this operation.

NOTICE: ***Prying*** **on the fuel fill door to open it will damage the door.**

(Continued)

NOTICE: (Continued)

If you need to replace the fuel cap, use only a cap specified for your model. An incorrect fuel cap can result in a serious malfunction of the fuel system or emission control system. You can get a correct replacement cap from your Pontiac dealer.

CATALYTIC CONVERTER

The catalytic converter is an emission control device added to the exhaust system to reduce exhaust gas pollutants. The converter contains a ceramic material coated with noble metal catalysts. To prevent contamination and loss of effectiveness of the catalysts, unleaded fuel must be used. Unleaded fuel also reduces spark plug fouling, exhaust system corrosion and engine oil deterioration. Leaded fuel will also damage the oxygen sensor in the Computer Command Control system which could affect emission control.

To help prevent damage:

1. Keep your engine properly maintained. Engine malfunctions involving the electrical, carburetion, electronic fuel injection or ignition systems may result in unusually high catalytic converter and exhaust system temperatures which, under extreme malfunctioning conditions, may ignite interior floor-covering materials above the converter. Do not keep driving your car if you detect engine misfire, noticeable loss of performance, or other unusual operating conditions. Instead, have it serviced promptly. See the Maintenance Schedule booklet for information on inspecting and maintaining the engine, exhaust system, and other components.
2. Do not push or tow this car to start it. This may result in unusually high catalytic converter and exhaust system temperatures which under extreme conditions may ignite interior floor-covering material above the converter.

Disregarding these instructions could damage the catalytic converter, the vehicle, or nearby property and affect warranty coverage.

THE COMPUTER COMMAND CONTROL SYSTEM

All Fiero's sold in the United States and Canada have the Computer Command Control system.

The Computer Command Control system monitors the exhaust stream with an oxygen sensor. Based on sensor signals, the electronic control module adjusts the air-fuel ratio as needed. It is very important to use only unleaded fuel in cars equipped with the Computer Command Control system. Leaded fuel will damage the oxygen sensor, and may affect emission control.

"SERVICE ENGINE SOON" LIGHT

All Fiero's sold in the United States and Canada have the Computer Command Control system.

Cars with the Computer Command Control system include a "SERVICE ENGINE SOON" light on the instrument panel designed to indicate the need for system service. It will come on during engine starting to let you know the bulb is working. (The light will stay on a short time after the engine starts.) Have the system repaired if the "SERVICE ENGINE SOON" light does not come on during engine starting. If the light comes on, either intermittently or continuously while driving, service to the Computer Command Control system is required. Although in most cases the car is drivable, and does not require towing, see your Pontiac dealer as soon as possible for service.

Continued driving without having the Computer Command Control system serviced could cause damage to the emission control system. It could also affect fuel economy and drivability.

See also "The Computer Command Control System" in this section.

AIR CLEANER – FLAME ARRESTOR

CAUTION: The air cleaner also functions as a flame arrestor in the event of engine backfire. The air cleaner should be installed at all times unless its removal is necessary for repair or maintenance. To help reduce the risk of personal injury and property damage, be sure that no one is near the engine compartment before starting the engine with the air cleaner removed. If engine backfire occurs with the air cleaner removed, there could be a burst of flame and possibly other fire in the engine compartment.

ENGINE OIL AND FILTER RECOMMENDATIONS

The following engine oil recommendations are based upon the operation of your engine with the fuels recommended under "Fuel Requirements" in Section 2 of this manual.

Checking Oil Level

The engine oil must be kept at the right level to help assure proper lubrication of your car's engine. It is normal for an engine to use some oil, and some engines may use more oil when they are new. It is the owner's responsibility to check the oil level at regular intervals (such as every fuel stop), according to the following instructions:

- The best time to check the engine oil level is when the oil is warm, such as during a fuel stop. After stopping the engine, wait a few minutes for the oil to drain back to the oil pan. Then pull out the dipstick located on the right

front of the engine. Wipe it clean, and push the dipstick back down all the way. Now, pull out the dipstick and look at the oil level on it.

Add oil, if needed, to keep the oil level above the "ADD" line. Avoid overfilling the engine since this may cause engine damage. Push the dipstick back down all the way after taking the reading.

- If you check the oil level when the oil is cold, do not run the engine first. The cold oil will not drain back to the pan fast enough to give a true oil level.

Choosing the Right Quality Oil

Engine oils are labeled on the containers with various API (American Petroleum Institute) designations of quality. General Motors recommends that you use GM Goodwrench Motor Oil (in Canada, GM Engine Oil) or an equivalent product identified with the correct API quality service designations. The recommended oil quality for your vehicle is as follows:

API Service Designations of Quality

USE ONLY

SF/CC

SF/CD

Additional designations of quality may also be present, BUT both SF and CC, or both SF and CD must be included. These designations may be shown alone, such as "SF", "CC" or "CD", or combinations separated by commas, slashes, or dashes, such as "SF/CC", "SF-CC, CD", or "SE,SF,CC". Use of oils without the recommended designations may cause engine damage which is not covered by the new vehicle warranty.

Choosing Oil Viscosity

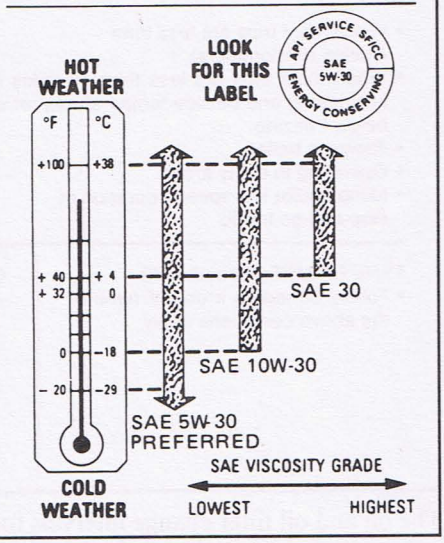
Engine oil viscosity (thickness) has an effect on fuel economy and cold-weather operation (starting and oil flow). Lower viscosity engine oils can provide better fuel economy and cold-weather performance; however, higher temperature weather conditions require higher viscosity engine oils for satisfactory lubrication. Using oils of any viscosity other than those viscosities recommended could result in engine damage.

When choosing an oil, consider the range of temperature your car will be operated in before the next oil change. Then, select the recommended oil viscosity from the following chart.

An SF/CC quality, SAE 5W-30, Energy-Conserving oil is the preferred engine oil for your vehicle.

RECOMMENDED SAE VISCOSITY GRADE ENGINE OILS

FOR BEST FUEL ECONOMY AND COLD STARTING, SELECT THE LOWEST SAE VISCOSITY GRADE OIL FOR THE EXPECTED TEMPERATURE RANGE.

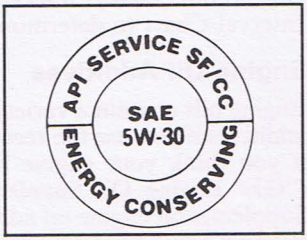


Energy-Conserving Oils

It is recommended that you select an oil not only of the proper quality and viscosity, but also a fuel-saving product. These oils can be found in service stations and other retail stores. They are identified by words such as: "Energy-Conserving," "Energy Saving," "Conserves Gasoline," "Gas Saving," "Gasoline Saving," "Friction Reducing," "Improved Gasoline Mileage," "Improved Fuel Economy," "Saves Fuel" or "Fuel Saving."

Oil Identification Logo

Starting in 1983, a logo (symbol) was added to some oil containers to help you select the oil you should use. The top portion of the logo shows the oil quality by API designations such as SF/CC, SF/CD or others. The center portion of the logo will probably show the SAE viscosity grade, such as SAE 5W-30. "Energy-Conserving," shown in the lower portion, indicates that the oil has fuel-saving capabilities.



Change Intervals

RECOMMENDED OIL CHANGE INTERVALS

TYPE OF USE	CHANGE INTERVAL
TYPE OF USE: (Schedule I) Follow Scheduel I if your vehicle is mainly operated under one or more of the following conditions: • When most trips are less than 4 miles (6 kilometers) • When most trips are less than 10 miles (16 kilometers) and outside temperatures remain below freezing. • Towing a trailer • Operating in dusty areas. • Idling and/or low-speed operation in stop-and-go traffic.	CHANGE INTERVAL: Change engine oil and filter every 3,000 miles (5 000 kilometers) or 3 months, whichever comes first. (Schedule I should also be followed if the car is used for delivery service, police, taxi or other commercial applications.)
TYPE OF USE: (Schedule II) • Follow Schedule II only if none of the above conditions apply.	CHANGE INTERVAL: Change engine oil every 7,500 miles (12 500 kilometers) or 12 months, whichever comes first. Change engine oil filter at first oil change, then every other oil change if mileage determines when you change oil. If time determines change intervals, change the filter with each oil change.

The oil and oil filter change intervals for your engine are based on the use of the recommended oil quality and viscosity, as well as high-quality filters such as AC oil filters. Using oil other than recommended, or oil and filter change intervals longer than recommended could reduce engine life. Damage to engines due to improper maintenance or use of incorrect oil quality and/or viscosity is not covered by the Pontiac new car warranties.

Your engine was filled with a high-quality engine oil when it was built. You do not have to change this oil before the first recommended change interval.

Oil and filter change intervals depend upon how you use your car. See Oil Change Interval Chart to determine the proper oil and filter change intervals.

Engine Oil Additives

Engine oils contain a variety of additives. Your engine should not need any extra additives if you use the recommended oil quality and change intervals. However, if you think your engine has an oil-related problem, a supplemental additive ("GM Engine Oil Supplement") is available that may solve your problem. Supplemental engine oil additives should be used only for remedial purposes and not on a regular basis. Consult your Pontiac dealer who can provide you with this

tested and approved additive.

Used Oil Disposal

Do not dispose of used engine oil (or any other oil) in a careless manner such as pouring it on the ground, into sewers, or into streams or bodies of water. Instead, recycle it by taking it to a used oil collection facility which may be found in your area. If you have a problem disposing of your used oil, it is suggested that you contact your dealer or a service station.

BRAKE MAINTENANCE

GM replacement brake lining material is recommended for this vehicle to maintain the balance between front and rear brake performance. GM replacement brake parts have been carefully selected to provide the proper brake balance for purposes of both stopping distance and controllability over the full range of operating conditions. Installation of front or rear brake lining material with performance different from that of the GM replacement parts recommended for this vehicle can change the intended brake balance of this vehicle.

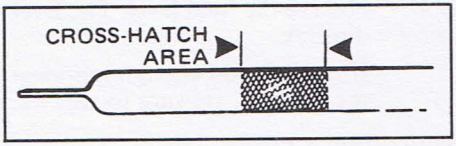
AUTOMATIC TRANSAXLE FLUID RECOMMENDATIONS

Use the Proper Fluid

Use only automatic transmission fluid labeled DEXRON ® II. You can buy this fluid from your Pontiac dealer or other service outlets.

DEXRON ® II is a trademark of General Motors.

Check the Fluid Level with Care



Check the automatic transaxle fluid level at each engine oil change. Driving with too much or too little fluid can damage the transaxle.

To check the fluid level, first set the parking brake, then start the engine in "P" (Park), and let idle for two minutes. You must check the fluid level with the engine running at slow idle, the car level and the fluid at least at room temperature.

You cannot read the correct fluid level if you have just driven the car for a long time at high speed, in city traffic in hot weather, or if the car has been pulling a trailer. Wait until the fluid has cooled down (about 30 minutes).

Remove the dipstick located at the left rear of the engine compartment. Carefully touch the wet end of the dipstick to find out if the fluid is at least room temperature. If it feels cold, replace the dipstick and drive the car for at least five miles before checking again. If the fluid is at room temperature or hotter, clean

the dipstick and push it back in until the cap seats. Pull out the dipstick and read the fluid level. The level should be in the cross-hatched area on the dipstick.

Add just enough DEXRON ® II fluid to fill the transaxle. It takes only 0.5 liter (one pint) to raise the level from "ADD" to "FULL" with a hot transaxle.

Automatic Transaxle Drain Intervals

Change the transaxle fluid and change the filter as outlined in the Maintenance Schedule booklet.

MANUAL TRANSAXLE

See the Maintenance Schedule booklet to find out how often the lubricant level should be checked and what type of lubricant should be used.

Check the fluid level only when the engine is off, the vehicle is level and the transaxle is cool enough to let you rest your fingers on the transaxle case. To check the fluid level --

L4 Engine:

Remove the speedometer fitting on the driver's side of the case above the axle shaft.

Be sure the fluid level is between the "L" and "H" marks on this fitting.

If needed, add enough fluid to bring the level up to the "L" mark. Be sure to seat the speedometer fitting fully when reinstalling.

V6 Engine:

Remove the dipstick in the transaxle. After wiping the dipstick, fully reseat the dipstick on the transaxle case. Then remove dipstick and observe the fluid level. The level should be between the two marks on the dipstick.

If needed, add enough lubricant to bring the level to the upper mark on the dipstick. Be sure to seat the dipstick fully when reinstalling.

Hydraulic Clutch

The clutch linkage in your car is self adjusting.

Check the fluid level in the clutch master cylinder reservoir as recommended in your Maintenance Schedule booklet. GM Brake Fluid, Part Number GM 1052535, should be added if the fluid level is below the "Step" mark on the reservoir. See instructions on the reservoir cap.

ENGINE COOLING FAN

CAUTION: To help prevent personal injury, keep hands, tools, and clothing away from the engine cooling fan. This electric fan can come on whether or not the engine is running. The fan can start automatically in response to a heat sensor when the ignition key is in the "Run" position.

ENGINE COOLING SYSTEM

CAUTION: If your cooling system overheats, see "Engine Cooling System Overheating" in Section 3. Continued operation of the engine even for a short time may result in a fire and the possibility of personal injury and/or severe vehicle damage.

Your car has a coolant recovery system. Coolant in the system expands with heat and overflows into the recovery tank on the right front inner fender under the hood. When the system cools, coolant is drawn back into the radiator.

The cooling system was filled at the factory with a quality coolant that meets GM Specifications. It is important to use proper coolant to prevent damage to cooling system components. Coolants meeting GM Specification 1825-M or those specially formulated for aluminum component protection should be used. The cooling system is designed to use coolant (a mixture of ethylene glycol, corrosion inhibitors and water) rather than plain water alone. The coolant solution must be used year round to provide:

- freezing protection down to -37°C (-34°F).
- boiling protection up to 128°C (262°F),
- protection against rust and corrosion in the cooling system,
- the proper engine temperature for efficient operation and emission control, and
- proper operation of the coolant temperature gage.

See the Maintenance Schedule booklet to find out when the coolant must be replaced. Note that changing the coolant is needed to replenish the rust and corrosion inhibitors to make certain that all parts of the cooling system work well.

Cooling System Care

Check the cooling system at regular intervals, such as during fuel stops. You usually do not need to remove the radiator cap to check the coolant level. Lift the engine hood and look at the coolant level in the "see-through" coolant recovery tank. When the engine is cold, the coolant level should be at or slightly above the "COLD" mark on the recovery tank. When the engine has fully

warmed up, the level should be at or slightly above the "FULL HOT" mark on the recovery tank.

If the coolant level is low, remove the cap on the coolant recovery tank. Add to the recovery tank enough of a 50/50 mixture of water and a good quality ethylene glycol antifreeze (meeting GM Specification 1825-M) to bring the level up to the proper mark. Put the cap back on the recovery tank.

CAUTION: Under some conditions the ethylene glycol in engine coolant is combustible. To help avoid being burned when adding coolant, do not spill it on the exhaust system or engine parts that may be hot. If there is any question, have this service performed by a qualified technician.

Certain conditions, such as air trapped in the system, may affect the coolant level in the radiator. You should check the coolant level in the radiator at the time you change the engine oil and when the engine is cold. Follow the steps under "Adding Coolant" for the correct way to remove the radiator cap and add coolant.

Vehicles equipped with low coolant warning system, refer to service manual or contact your Pontiac dealer for coolant fill procedure. Improper fill procedure may cause low coolant warning indication.

If you have to add coolant more than four times a year (either to the recovery tank or to the radiator), or if coolant is dirty or discolored, see your dealer for a cooling system check.

NOTICE: If you use the proper quality antifreeze, there is no need to add extra inhibitors or additives which claim to improve the system. They may be harmful to the proper operation of the system.

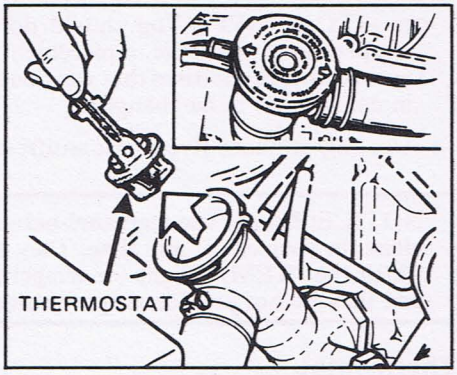
Adding Coolant

If it becomes necessary to add coolant to the cooling system beyond topping off the coolant reservoir, the following procedure must be used.

Every vehicle has a radiator cap, and a thermostat housing cap. Note that the thermostat, as well as the cap, must be removed to add coolant.

CAUTION: To help avoid being burned, do not remove the radiator cap or thermostat housing cap while the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure if the cap is taken off too soon.

1. When the engine is cool, remove the thermostat housing cap and the thermostat (the thermostat is removed by pulling it up).
   - Turn the cap slowly to the left until it reaches a "stop." Do not press down while turning the cap.
   - Wait until any remaining pressure (indicated by a hissing sound) is relieved, then press down on the cap and continue turning it to the left.



2. With the engine off,
   - Remove the radiator cap.
   - Add coolant through thermostat housing until the coolant reaches the spill point of the radiator neck. Add enough water and ethylene glycol antifreeze (meeting GM Specification 1825-M) to provide the required cooling, freezing and corrosion protection. Use a solution that is at least 50 percent antifreeze, but no more than 70 percent antifreeze.
   - Install the radiator cap and tighten. Install thermostat housing cap (do not install the thermostat at this time). Tighten the thermostat housing cap to the first notch (you will hear a click and you will not be able to turn the cap counter-clockwise without pushing it down).
   - Add coolant to the coolant reservoir until it reaches the "full" line.
3. Run engine for 3 minutes. Accelerate engine to a fast idle for 15-20 seconds. Turn the engine off.
   - Remove the thermostat housing fill cap. Follow the same procedure as you did in Step 1.
   - Add coolant to the thermostat housing until it reaches the housing cap seat; install the thermostat and cap making sure that the arrows on the cap line up with the water inlet hose on the thermostat housing.
4. When the engine has cycled through a complete warm-up and cool down, the coolant in the reservoir should be adjusted to a level between the add and full lines.

It Is The Owner's Responsibility To:

- Maintain cooling system freeze protection at -37°C (-34°F) to ensure protection against corrosion and loss of coolant from boiling. (A 50/50 mixture of water and ethylene glycol antifreeze will provide freeze protection

to -37°C or -34°F.) You should do this even if you don't expect freezing temperatures. Periodic replacement of coolant is needed to replace the anti-corrosion additives that wear out with use. Coolant that has become dark in color needs to be changed.

- Use only ethylene glycol base antifreeze that meets GM Specification 1825-M.

NOTICE: Do not use methanol-base antifreeze, or alcohol, or plain water alone, in your car at any time. They will boil at a lower point than that at which the "TEMP" light (or temperature gage) will warn of overheating, and they do not provide proper protection against corrosion.

Thermostat

The engine coolant temperature is controlled by a thermostat. It stops coolant flow through the radiator until a preset temperature is reached. This thermostat is installed in the engine coolant outlet on the engine block. The same thermostat is used in both winter and summer. When a replacement is needed, GM AC-Delco parts are recommended.

Radiator Pressure Cap

The radiator cap, a 105 kPa (15 psi) pressure type, must be installed tightly, otherwise coolant may be lost and damage to the engine may result from from overheating. Radiator pressure cap should be checked periodically for proper operation. If a replacement is reuqired, an A/C Cap is recommended.

BUMPER SYSTEM

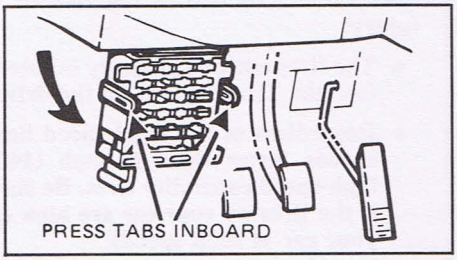
The front and rear bumpers have a rubber-like plastic cover over an energy-absorbing impact bar. In an impact, the cover may return to its original shape without showing that it was struck. If the impact was great enough, the energy-absorbing devices and impact bar may have been damaged. To be sure the bumper is in a state of full readiness, it should be checked by your Pontiac dealer. The check should be made if you can see that the bumper is out of position. It should also be checked if the car has been in a serious collision in which the bumper was struck, even when no damage to the bumper system can be seen.

CIRCUIT BREAKERS

The headlight wiring is protected by a circuit breaker in the light switch. An electrical overload will cause the lights to go on and off, or in some cases to remain off. If this happens, have your headlight wiring checked right away.

The windshield wiper motor is protected by a circuit breaker in addition to a fuse. If the motor overheats, due to overloading caused by heavy snow, etc., the wiper will remain stopped until the motor cools. Be sure to have the cause of the overloading corrected.

FUSE ACCESS



Access to fuses, will require opening the access door under the left side of the instrument panel. For identification of fuse block components, see "Specifications" in Section 6 of this manual.

Unlatch the fuse block from the instrument panel by pushing in on the two release tabs located at the center and swing it toward the seat.

The hazard flasher and horn relay are located under the right side of the instrument panel in a convenience center.

The turn signal flasher is located on the left side of the steering column under the instrument panel.

FREEDOM BATTERY

Your new car has a Delco FREEDOM battery. It needs no periodic maintenance. Its top is permanently sealed (except for two small vent holes) and has no filler caps. You will never have to add water.

The hydrometer (test indicator) in the top of the battery provides information for testing purposes only.

If the vehicle is not going to be driven for 30 days or longer, disconnect the cable from the "-" (black) negative terminal of the battery to prevent discharge.

For full power needs at replacement time, a Delco battery with the same catalog number as shown on the original battery's label is recommended.

Working Near Battery

CAUTION: Follow the precautions listed in the "Jump Starting" Caution (see "Emergency Starting Your Vehicle Due to a Discharged Battery" in Section 3) when working on or near the battery. Personal injury (particularly to eyes) or property damage may result from battery explosion, battery acid, or electrical (short circuit) burns.

TIRES

CAUTION: To reduce the risk of loss of vehicle control and personal injury:

- **The tires must be properly inflated, and your car must not be overloaded (see the Tire Placard on the driver's door or door lock pillar).**
- **Regardless of the legal speed limit, your car must not be operated at speeds faster than 85 mph (140 km/h) unless it has the required high-speed capability tires. Be sure to consult a tire dealer to determine if the tires on your car are high speed capability tires before operating your car at such speeds.**

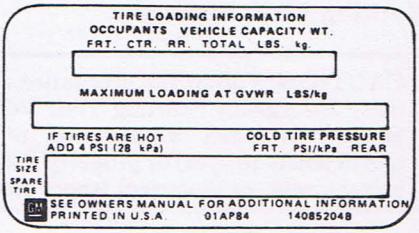
For more safety information, see the rest of this "Tires" section.

The tires installed on your car are engineered to provide a proper balance of these performance characteristics under normal driving conditions:

- Endurance
- Handling
- Noise
- Ride
- Road Hazard Resistance
- Rolling Resistance
- Traction
- Tread Mileage

This section has some tips on how you can get the most benefit from these tires.

Vehicle Loading



The tires on your car will perform well at all normal loads when inflated as recommended on the Tire Placard which is located on the driver's door or door lock pillar. Do not load your car beyond the weight shown under the heading "Vehicle Capacity Wt." on the Tire Placard. This vehicle capacity weight is the combined weight of the occupants, and all cargo including luggage compartment load. This weight would also include luggage rack load, trailer tongue load, and all non-factory installed options. The vehicle capacity weight tells you the design limits of the car, not just of the tires.

Also see "Stowing Things In (or On) The Car" in Section 1 for additional information.

MODEL	MAXIMUM LUGGAGE/CARGO COMPARTMENT LOAD
All	45.4 kg (100.0 lbs.)

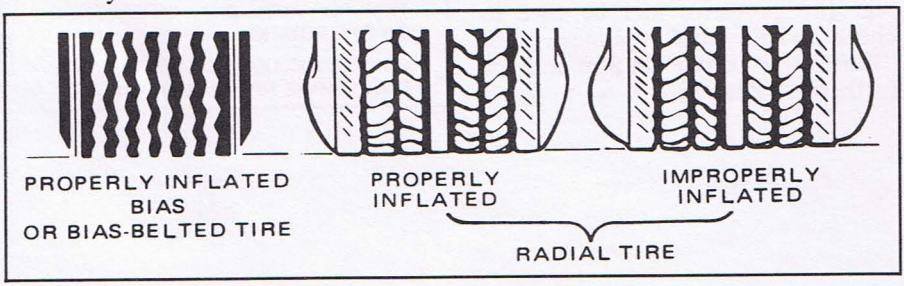
Inflation Pressure

The cold inflation pressures listed on the Tire Placard provide the best balance of fuel economy, tire life, riding comfort, and handling under normal driving conditions. These pressures should be used for all driving conditions.

Incorrect tire inflation pressures can have adverse effects on tire life and car performance. Air pressure that's too low causes increased tire flexing and heat buildup. This weakens the tire and increases the chance of damage or failure. It can result in tire overloading, abnormal tire wear, adverse vehicle handling, and reduced fuel economy. Air pressure that's too high can result in abnormal wear and harsh ride, and can increase the chance of damage from road hazards.

Check tire inflation pressures at least monthly (this includes the spare tire) and whenever your car is serviced. When possible, check tire inflation pressures when the tires are "cold."

1. The "cold" tire inflation pressure is the tire pressure when a car has not been driven more than one mile (1.6 kilometers) after sitting for three hours or more. This is the most accurate pressure reading.
2. It is normal for tire pressures to increase 30 to 60 kilopascals (4 to 8 pounds per square inch) or more when the tires become hot from driving. If you must set inflation pressures when the tires are not "cold," set them 28 kilopascals (4 pounds per square inch) more than the cold pressures recommended on the Tire Placard.
3. We suggest you use a quality pocket-type tire pressure gage to check inflation pressure. Simply looking at the tires to check inflation pressures is not enough, especially with radial tires. Underinflated radial tires may look like correctly inflated radial tires. If the inflation pressure on a tire is often low, have your dealer correct the cause.



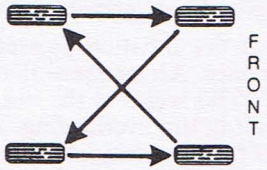
4. Be sure to put the tire inflation valve caps or extensions back on, if so equipped. This will help keep dirt and moisture from getting into the valve core which could cause a leak.
5. If an air loss occurs while driving, do not drive on the flat tire more than is needed to stop safely. Driving even a short distance on a flat tire can damage a tire and wheel beyond repair.

Inspection and Rotation

Front and rear tires perform different jobs and can wear differently depending on the types of roads driven, your driving habits, etc.

For longer tire life, you should inspect and rotate (except with different size front and rear tires - see below) your tires at the mileage intervals shown in the Maintenance Schedule. Many car and tire dealers will perform a free tire inspection to look for uneven or abnormal tire wear (usually caused by wrong inflation pressures, lack of regular rotation, improper wheel alignment, out-of-balance tires, or poor driving habits).

RECOMMENDED ROTATION PATTERN*



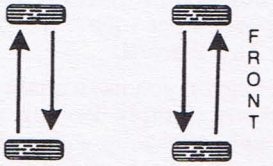
*READ "INSPECTION AND ROTATION" TEXT FOR ADDITIONAL INFORMATION BEFORE ROTATING. SOME TIRE SIZES REQUIRE FURTHER STEPS.

DO NOT INCLUDE "TEMPORARY USE ONLY" SPARE TIRE IN ROTATION.

If you have P205/60R15 size tires on the front, and P215/60R15 size tires on the rear, normal tire rotation is not permitted. Your tires should be rotated only when irregular wear is seen and the tires must be rotated from side to side while remaining on the same axle.

After rotation, adjust the front and rear tire pressures and be sure to check wheel nut tightness. See "Wheel Nut Torque" in Section 3 for further information.

RECOMMENDED ROTATION PATTERN*



*READ "INSPECTION AND ROTATION" TEXT FOR ADDITIONAL INFORMATION ON TIRE ROTATION.

DO NOT INCLUDE "TEMPORARY USE ONLY" SPARE TIRE IN ROTATION.

CAUTION: Whenever a wheel is changed, always remove any corrosion that may be present on inside of wheel and wheel mounting surface on vehicle. Installing wheels without good metal-to-metal contact at the mounting surfaces can cause wheel nuts to loosen, which can later allow a wheel to come off while the car is moving, possibly causing loss of control.

Alignment and Balance

Proper wheel alignment improves tire tread life. Your car's suspension parts should be inspected often and aligned when needed. (See the Maintenance Schedule booklet for more information.)

Improper alignment will not cause the car to vibrate. However, improper alignment can cause:

- the tires to roll at an angle, which will result in faster tire wear;
- your tires to wear unevenly;
- your car to "pull" to the left or right.

Proper tire balancing provides the best riding comfort and helps reduce tire tread wear. Out-of-balance tires can cause annoying vibration and uneven tire wear such as cupping and flat spots.

Traction

Driving, cornering, and braking traction are reduced when water, snow, ice, gravel, or other material is on the road. Adjust driving practices and vehicle speed to road conditions.

When driving on wet or slushy roads, a wedge of water can build up between the tire and road. This is known as hydroplaning, and may cause partial or complete loss of traction, vehicle control, and stopping ability.

To reduce the chance of traction loss, follow these tips:

- Slow down during rainstorms or when roads are slushy.
- Slow down if the road has standing water or puddles.
- Replace the tires when the tread wear indicators are showing.
- Keep the tires properly inflated.

If your Fiero has TPC all-season radial tires (see "Tire Replacement" in this section), your tires are designed to provide better snow traction. In fact, these tires should be adequate for driving in most winter conditions. However, if you buy conventional snow tires, be sure they are the same size, load range, and construction type (bias, bias-belted, or radial) as your other tires.

Tire Chains or Similar Traction Devices

If your car has P195/70R14 or P215/60R15 size tires, tire chains should not be used because they may cause damage to your car. If your Fiero has P185/75R13 size tires and you buy tire chains, make sure they are designated as SAE Class "S" type chains. Use of other types of chains may cause damage to your car.

Use of chains may adversely affect your car's handling. When using chains: (1) adjust speed to road conditions, (2) avoid sharp turns, and (3) when possible, avoid locked-wheel braking.

In addition, to help prevent chain damage to your car:

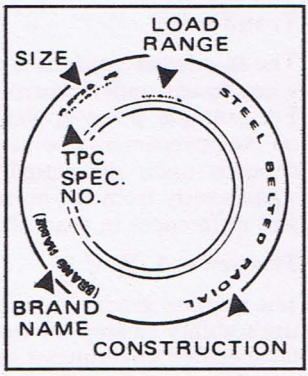
- Install the chains on the rear tires as tightly as possible and tighten them again after driving 1/4 to 1/2 mile (0.4 to 0.8 kilometer). However, if the chains can be heard contacting the car, retighten immediately. If this is not done, damage to the vehicle may result. The use of chains on the front tires is not recommended; the chains may contact and damage the car. If you intend to use chains on the front tires, be sure there is enough clearance.
- Do not exceed 45 mph (70 km/h), or the chain manufacturer's speed limitation, if lower.
- Drive in a restrained manner and avoid large bumps, potholes, severe turns and other maneuvers which could cause the tires to bounce up and down.
- Follow any additional instructions of the chain manufacturer.

Spare Tire

For the use and installation of your spare tire see Section 3.

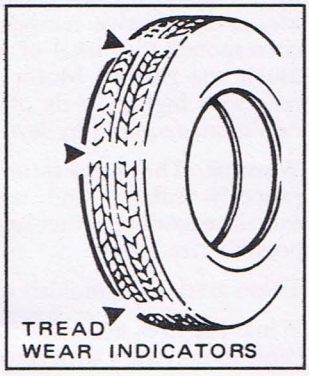
Tire Replacement

CAUTION: Do not mix different tire construction types (such as radial, bias, and bias-belted) on your car except in emergencies, because your car's handling could be affected and may result in loss of control. This caution does not apply to a compact spare tire furnished with your car.



On most vehicles originally equipped with radial tires, you will find a TPC Spec. No. (Tire Performance Criteria Specification Number) molded into the tire sidewall near the tire size marking. This shows that the tire meets rigid size and performance standards which were developed for your Fiero. The TPC Spec. No. assures a proper blend of endurance, handling, load capacity, ride and traction on wet, dry, or snow-covered surfaces. When you replace your tires with tires having the same TPC Spec. No., your new tires will be compatible with your Fiero. If you intend to replace your tires with an all-season tread design, make sure your TPC Spec. No. has a MS (mud and snow) following the number.

When replacing tires with those not having a TPC Spec. No., you should use the same size, load range, speed rating and construction type (bias, bias-belted, or radial) as the original tires on your car. A different size or type of tire may affect such things as ride, handling, maximum speed capability, speedometer/odometer calibration, vehicle ground clearance, and tire or tire chain clearance to the body or chassis. If replacing only a single tire, the new tire should be used on the same axle with the least worn tire.



You should replace your tires when:

- They are worn to a point where 1.6 millimeters (2/32 inch) or less tread remains, or the cord or fabric is showing. To help you detect this, your tires have built-in tread wear indicators that appear between the tread grooves when the tread is 1.6 millimeters (2/32 inch) or less. When the indicators appear in two or more adjacent grooves at three spots around the tire, the tire should be replaced.
- The tread or sidewall is cracked, cut or snagged deep enough to expose the cord or fabric.
- The tire has a bump, bulge or split.
- The tire has a puncture, cut, or other damage that can't be correctly repaired because of the size or location of the damage.

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 cars sold in the United States.)

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. 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 (straight-ahead) 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 B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

Warning: The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

These grades are molded on the sidewalls of passenger car tires.

While the tires available as standard or optional equipment on General Motors vehicles may vary with respect to these grades, all such tires meet General Motors performance standards and have been approved for use on General Motors vehicles. All passenger car tires must conform to Federal safety requirements in addition to these grades.

Wheel Replacement

Damaged wheels must be replaced. For example, replace wheels if they are bent, cracked, or heavily rusted, or if wheel nuts often become loose. Also replace wheels which leak air (except some aluminum wheels which can be repaired - see

your Pontiac dealer). See the Caution under "Inspection and Rotation" in this section regarding the importance of obtaining good metal-to-metal contact when replacing or changing wheels.

Do not use bent wheels which have been straightened, and do not use inner tubes in leaking wheels designed for tubeless tires. Such wheels may have structural damage and could fail without warning. When replacing wheels for any reason, the new wheels should be equal in load limit, diameter, width, offset, and mounting configurations to those originally installed on your car.

A wheel of the wrong size or type may adversely affect such things as wheel and bearing life, brake cooling, speedometer/odometer calibration, stopping ability, headlight aim, bumper height, vehicle ground clearance, and tire or tire chain clearance to the body and chassis. Replacement with used wheels is not advised; they may have been treated harshly or have very high mileage, and they could fail without warning.

You can get wheels from your Pontiac dealer.

Warranty

Tires are warranted by the tire manufacturers. Warranty information is included in the manufacturer's warranty folder furnished with your car.

INTRODUCTION

You have demonstrated your appreciation for styling and durability in your purchase of this vehicle. Another attribute of the Fiero, which you may not be aware of, is its ease of serviceability. In fact, a number of basic services can be performed by the owner who takes pride in working on his or her own vehicle.

When you turn to a service procedure, you will see a small symbol, consisting of one, two, or three wrenches, next to the title. This symbol represents the degree of difficulty of that procedure.

Easy: Generally no tools required; easy access.

More difficult: Common hand tools required; access may be more difficult, but it is generally not necessary to remove non-related components.

Most difficult: Common hand tools required; access difficult – it may be necessary to remove non-related components.

CAUTION: To help avoid personal injury, take care when making any check, doing any maintenance, or making any repair. Before beginning any procedure, make sure the parking brake has been firmly applied, and the transaxle has been shifted to Park (automatic) or Neutral (manual). Always wear safety glasses when working on your car.

Never get beneath the car when it is supported only by a jack. The jack provided with your car is designed for use only when changing wheels. Always use safety stands to support the car if it is necessary to get underneath.

Do not breathe exhaust gas because it contains carbon monoxide which by itself has no color or odor. Carbon monoxide is a dangerous gas. It can cause unconsciousness and can be lethal. Do not run engine in an enclosed area.

Some of the materials in the car may be hazardous if used, serviced, or handled improperly. Always observe recommended torque values when reassembling components. Improper or incomplete service could lead to the vehicle not working properly, which may result in personal injury or damage to the car or its equipment. If you have any questions about carrying out some service, have the service done by a qualified technician.

Section 5 of this manual, "Service and Maintenance," contains additional information on caring for your Fiero. It covers such topics as tire pressure, maintenance, and a selection of proper lubricants and fluids for your engine, transaxle, brakes, etc. We recommend that you review this section. The

information provided, in combination with the "Do It Yourself" procedures, will help make caring for your Fiero a pleasant and rewarding experience.

The 1987 Fiero Maintenance Schedule Booklet informs you of required maintenance intervals in time and miles. The required services are more comprehensive than the "Do It Yourself" procedures found in this manual. Therefore, we recomend that you follow the maintenance schedule to keep your Fiero in top operating condition.

Section 6, "Specifications," in this manual includes a list of service replacement parts which can be used when performing the procedures in this manual. Additionally, a list of capacities has been provided for your reference.

CHECKING/ADDING ENGINE OIL

General Information

The engine oil must be kept at the right level to help ensure proper lubrication of your car's engine. It is the owner's responsibility to check the oil level at regular intervals (such as every fuel stop), according to the following instructions. (It is normal for an engine to use some oil, and engines may use more oil when they are new.)

To determine correct oil quality, viscosity, and change intervals, see "Service and Maintenance," Section 5.

Checking/Adding Oil

Tool Required: Oil spout.

1. The best time to check the engine oil level is when the oil is warm, such as during a fuel stop. Make sure the vehicle is parked on level ground. After stopping the engine, wait a few minutes for the oil to drain back to the oil pan. Then, pull out the dipstick on the front of the engine. See Figure 1 or 2.

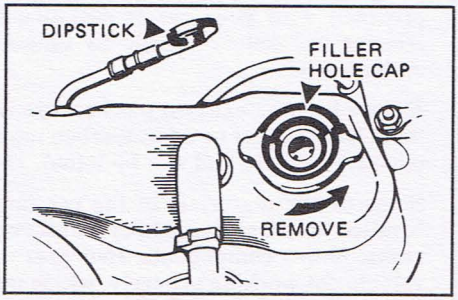


Figure 1 - Top of engine, 4-cylinder

Wipe it clean, and push the dipstick back down all the way. (The dipstick has a special seal at the top. Make sure it is fully seated when checking the oil level to assure accurate readings.) Now, pull out the dipstick and look at the oil level on it.

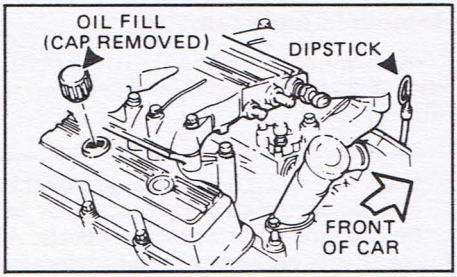


Figure 2 - Top of engine, 6-cylinder

2. Add oil if needed, to keep the oil level above the "ADD" line. See Figure 3. Avoid overfilling the engine since this may cause engine damage. Push the dipstick back down all the way after taking the reading.

3. If you check the oil level when the oil is cold, do not run the engine first. The cold oil will not drain back to the pan fast enough to give a true oil level.

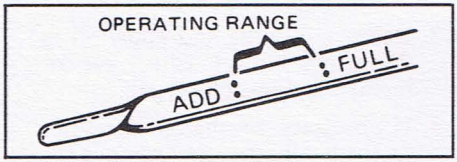


Figure 3 - Oil dipstick

REPLACING ENGINE OIL/OIL FILTER

General Information

The oil should be changed when the engine is warm. When the engine is completely cool, allow the engine to run 5 minutes before changing oil. This will allow the oil to warm up so it will flow out more easily. Be sure to check drained oil for any pieces of metal. Any metal could indicate engine problems.

The oil filter on the 4-cylinder is located on the front lower right side of the engine when you are standing behind the car. The oil filter on the 6-cylinder is on the back lower right side of the engine. It is necessary to remove the heat shield to reach the oil filter on the 6-cylinder. The oil pan, on either engine, is located on the underside of the car just behind the rear wheels. It is a black metal dish.

See the Maintenance Schedule for the proper intervals for changing oil and oil filter.

Removal/Replacement

Tools Required: 15mm nut driver, 7mm nut driver (6-cylinder), oil filter wrench. When replacing oil filter on 6-cylinder, it is recommended that you use a cup type filter wrench.

CAUTION: To help avoid personal injury, never get beneath the car when it is supported only by a jack. The jack provided with your car is designed for use only when changing wheels. Always use safety stands to support the car if it is necessary to get underneath.

1. Locate oil plug on oil pan and position a bucket, or pan, beneath it. See Figure 1.
2. Remove oil plug and allow oil to drain into bucket. Check oil for metal shavings, chips, etc.
3. If necessary to change the filter on the 6-cylinder, first remove the heat shield by removing the 2 bolts.
4. Place a bucket beneath the oil filter and remove the oil filter by unscrewing it. Make sure the filter gasket is also removed. See Figures 2 or 3.
5. Allow any more oil to drain from engine for at least 5 minutes.
6. With a clean shop towel, wipe the recess and sealing face of filter bracket.
7. Coat the sealing gasket of the new filter with oil.
8. Screw on the filter, by hand, until snug.

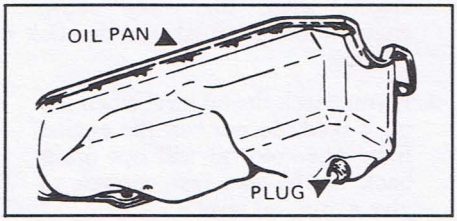


Figure 1 - Oil Pan Plug

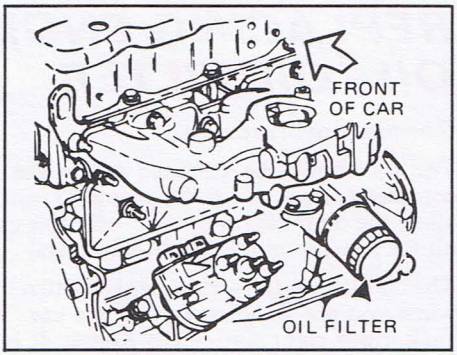


Figure 2 - Oil Filter, 4-Cylinder

9. Hand-tighten the filter another 1/2 turn (or whatever filter manufacturer recommends).
10. On the 6-cylinder, reinstall the heat shield.
11. Clean oil plug and oil plug hole with clean shop towel.
12. Reinstall oil plug and tighten snugly.
13. Add quantity of oil specified in Section 6.
14. Run engine for 5 minutes, check oil level and adjust if necessary. Check for oil leaks around oil plug and oil filter.

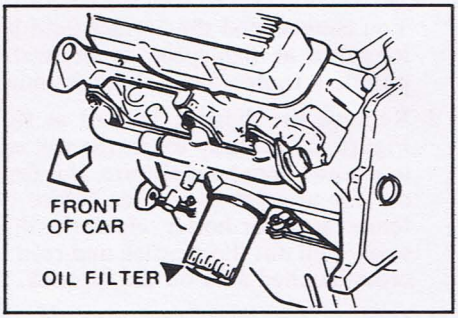


Figure 3 - Oil Filter, 6-Cylinder

CHECKING/ADDING FLUID AUTOMATIC TRANSAXLE

General Information

The automatic transaxle fluid level should be checked at each engine oil change. A low fluid level can cause slipping or loss of drive. Overfilling can cause foaming and loss of fluid. In either case, transaxle damage can result. Use only automatic transmission fluid labeled DEXRON ® II. You can buy this fluid from your Pontiac dealer or other service outlets. Use of other fluids may adversely affect the operation or service life of the transaxle.

Checking/Adding Fluid

Tools Required: Funnel and can opener or oil spout.

1. To check the fluid level, first set the parking brake. Then, with the transaxle in Park, start the engine. With the regular brakes applied, move the shift lever through all the gear ranges, ending in Park. You must check the fluid level with the engine running at slow idle, the car level, and the fluid at least at room temperature.

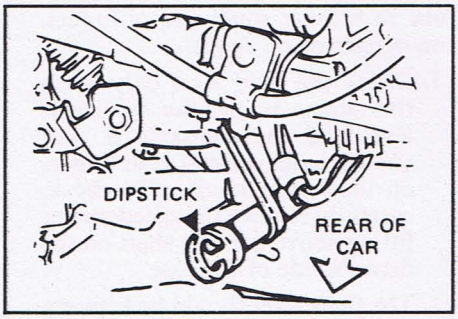


Figure 1 - Rear of engine (top view)

You cannot read the correct fluid level if you have just driven the car for a long time at high speed, in city traffic in hot weather, or if the car has been pulling a trailer. Wait about 30 minutes until the fluid has cooled down.

2. Remove the dipstick located at the rear of the engine compartment. See Figure 1. Carefully touch the wet end of the dipstick to find out if the fluid is at least room temperature. If it feels cold, replace the dipstick and drive the car for at least five miles before checking again. If the fluid is at room temperature or hotter, clean the dipstick and push it back in until the cap seats. Pull out the dipstick and read the fluid level. The level should be in the cross-hatched area on the dipstick.

3. Using a long plastic funnel, add just enough DEXRON ® II fluid (at the dipstick tube) to fill the transaxle to the proper level. It takes only 0.5 liter (one pint) to raise the level from "ADD" to "FULL" with a hot transaxle.

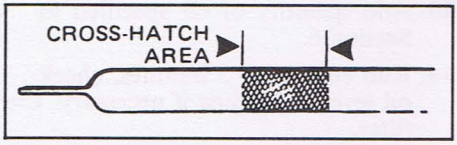


Figure 2 - Automatic transaxle dipstick

CHECKING/ADDING MANUAL TRANSAXLE FLUID

General Information

The manual transaxle fluid level seldom needs to be checked. Consult your Maintenance Schedule for proper intervals. Use only SAE 5W-30 SF, SF/CC or SF/CD engine oil. Use of other fluids may adversely affect the operation or service life of the transaxle.

Checking/Adding Fluid (L4 Engine)

Tools Required: Funnel, 12" rubber tube to fit over small end of funnel, can opener or oil spout.

1. Check the fluid level only when the engine is off, the vehicle is level and the transaxle is cool enough to let you rest your fingers on the transaxle case. To check, carefully remove the speedometer fitting above the axle shaft on the driver's side of the case.

2. The fluid level should be between the "L" and "H" marks on this fitting. If needed, add enough

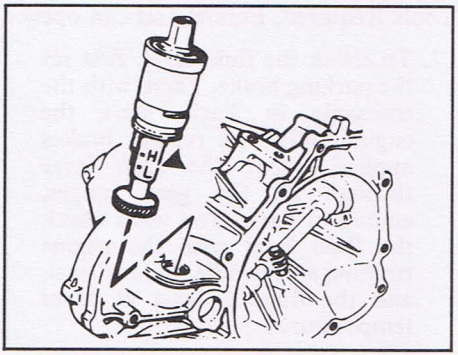


Figure 1 - Checking fluid (L4)

SAE 5W-30 SF, SF/CC or SF/CD engine oil to bring the fluid level up to the "L" mark on the fitting . This can be done by inserting the end of a funnel into one end of a rubber tube and inserting the other end of the rubber tube into the speedometer fitting hole.

3. After checking and/or filling, reinstall the fitting making sure it is fully seated.

Checking/Adding Fluid (V6 Engine)

Tools Required: Can opener or oil spout.

1. Check the fluid level only when the engine is off, the vehicle is level and the transaxle is cool enough to let you rest your fingers on the transaxle case. To check, carefully remove the dipstick in the transaxle.
2. After wiping the dipstick, fully reseat the dipstick on the transaxle case. Then remove the dipstick and observe the fluid level. The level should be between the two marks on the dipstick.

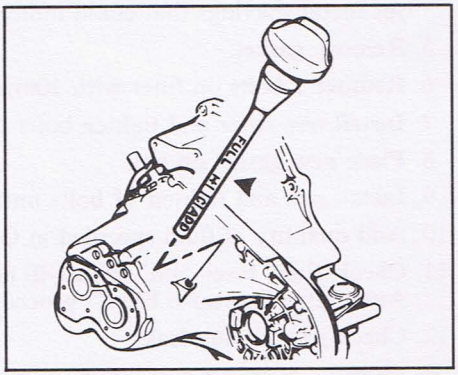


Figure 2 - Checking fluid (V6)

3. If needed, add enough lubricant to bring the level to the upper mark on the dipstick. Seat the dipstick fully when reinstalling.

REPLACING AUTOMATIC TRANSAXLE FLUID/FILTER

General Information

The transaxle fluid pan is located under the car by the rear tire on the driver's side. The automatic transaxle fluid and filter should be replaced at the same time. The gasket between the pan and transaxle must also be replaced. See the Maintenance Schedule for the proper change interval.

Removal/Replacement

Tools Required: 13mm nut driver, 10mm nut driver

CAUTION: To help avoid personal injury, never get beneath the car when it is supported only by a jack. The jack provided with your car is designed for use only when changing wheels. Always use safety stands to support the car if it is necessary to get underneath.

1. Locate transaxle fluid pan.
2. Position bucket, or pan, beneath transaxle pan.
3. Remove 11 bolts with 13mm nut driver while holding up the pan.
4. Carefully tip the pan so the fluid runs into the bucket. Check fluid and pan for metal shavings that could indicate transmission damage.
5. Remove gasket.
6. Remove 2 bolts on filter with 10mm nut driver.
7. Install new filter and tighten bolts snugly.
8. Place new gasket on pan.
9. Install pan and tighten 11 bolts until snug.
10. Add quantity of fluid specified in Owner's Manual.
11. Check fluid level and adjust, if necessary, following "Checking/Adding Automatic Transaxle Fluid" procedure in this section.
12. Check pan for any leaks.

REPLACING MANUAL TRANSAXLE FLUID

General Information

The manual transaxle fluid should be changed when the engine is warm. When the engine is completely cool, allow the engine to run 5 minutes before replacing fluid. The plug to the manual transaxle fluid reservoir is located under the car near the rear tire on the driver's side. The plug is a bolt with a tapered edge around the base.

See the Maintenance Schedule booklet for the proper change interval.

Removal/Replacement

Tools Required: 13mm nut driver, 15mm nut driver, 15mm wrench, funnel and 12″ rubber tube to fit over small end of funnel, or oil spout.

CAUTION: Never get beneath the car when it is supported only by a jack. The jack provided with your car is designed for use only when changing wheels. Always use safety stands to support the car if necessary to get underneath.

1. Locate drain plug at bottom of transaxle.
2. Position a bucket or pan beneath plug.
3. Remove drain plug with nut driver.
4. Allow fluid to drain out.
5. Replace plug and tighten until it fits snugly.
6. Locate plug to manual transaxle reservoir. (See Figure 1.)
7. Remove filler plug with nut driver.
8. Add quantity of fluid specified in Section 6 at filler plug hole.

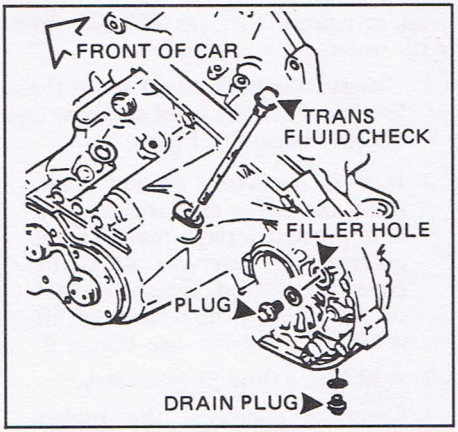


Figure 1 - Manual transaxle

9. Replace plug and tighten until it fits snugly.
10. Check fluid level and adjust, if necessary, following the procedure under "Checking/Adding Manual Transaxle Fluid" in this section.
11. Check plugs for any leaks.

CHECKING/ADDING BRAKE FLUID

General Information

The brake fluid reservoir is part of the brake master cylinder, located under the front compartment lid on the driver's side of the vehicle. See Figure 1. The fluid in the reservoir should be checked each time your engine oil is changed.

Checking/Adding Fluid

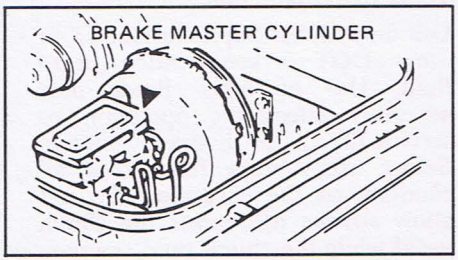


Figure 1 - Brake master cylinder

Tools Required: None.

Use only Delco Supreme No. 11 or other DOT 3 specification brake fluid. Use of other fluids may adversely affect the operation or service life of the brake system. Before using brake fluid, read all cautions on the container. Do not allow anyone to depress the brake pedal while the brake fluid reservoir cover is not in place. Do not allow brake fluid to come into contact with eyes,

skin, or painted surfaces. If brake fluid is spilled, flush area of spill immediately with water.

1. Observe the brake fluid levels through the plastic wall of the reservoir. The levels in both the front and rear chambers of the reservoir must be above the "MIN" lines. See Figure 2.
2. If it is necessary to add fluid, clean the cover and area around it to prevent foreign matter from entering the reservoir when the cover is removed. Grasp the tabs on the sides of the cover and lift it off the reservoir. See Figure 2.
3. Add brake fluid as necessary.
4. Carefully compress the rubber diaphragm on the inside of the reservoir cover.
5. Snap the cover back into place.

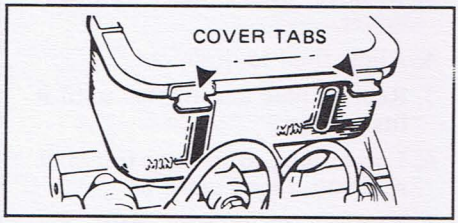


Figure 2 - Brake fluid reservoir

CHECKING/ADDING CLUTCH FLUID

General Information

The hydraulic clutch takes the place of clutch cables and linkage in controlling the engagement of the clutch.

The clutch fluid reservoir is part of the clutch master cylinder, located under the front compartment lid on the driver's side. See Figure 1.

Checking/Adding Fluid

Tools Required: None

Use only Delco Supreme No. 11 or other DOT 3 specification brake fluid. Use of other fluids may adversely affect the operation or service life of the hydraulic clutch. Before using brake fluid, read all cautions on the container. Do not allow anyone to depress the clutch pedal while the clutch fluid reservoir cover is not in place. Do not allow brake fluid to come into contact with eyes, skin, or painted surfaces. If brake fluid is spilled, flush area of spill immediately with water.

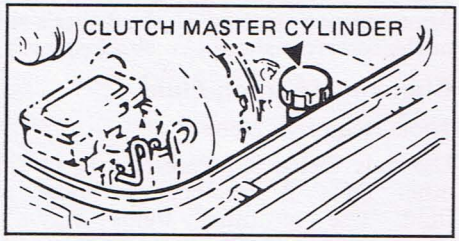


Figure 1 - Clutch master cylinder

1. Observe fluid level through the plastic wall of the clutch fluid reservoir. The level must be between the "ADD" and "FULL" lines.
2. If it is necessary to add fluid, clean the cover and area around it to prevent foreign matter from entering the reservoir when the cover is removed. Unscrew and remove the reservoir cover. See Figure 2.
3. Add brake fluid as necessary.
4. Screw the cover back into place.

Figure 2 - Clutch fluid reservoir

AIR FILTER/CRANKCASE SEPARATOR REPLACEMENT

General Information

Your car's air filter traps small, airborne particles which would otherwise enter the engine. These particles, consisting of dust, grease, etc., build up on the filter inside the air cleaner. This build-up can eventually make it difficult for your engine to "breathe." It is therefore important that the filter be clean and unobstructed.

The crankcase separator (L4 only) serves as the air intake for the positive crankcase ventilation (PCV) system. The separator must remain unrestricted for this system to operate properly.

The air filter and crankcase separator should be periodically replaced together. See your Maintenance Schedule for replacement intervals. See Section 6 of this manual for replacement part numbers.

Removal/Replacement

Tool Required: 10mm nut driver.

CAUTION: The air cleaner also functions as a flame arrestor in the event of engine backfire. The air cleaner should be installed at all times unless its removal is necessary for repair or maintenance. To help reduce the risk of personal injury and property damage, be sure that no one is near the engine compartment before starting the engine with the air cleaner removed. If engine backfire occurs with the air cleaner removed, there could be a burst of flame and possibly other fire in the engine compartment.

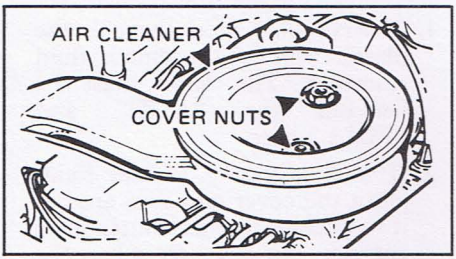


Figure 1 - Air cleaner (L4)

1. Remove the two nuts on top of the air cleaner. See Figure 1 or 2.
2. Remove the air cleaner cover.
3. Remove the air filter from the air cleaner.
4. The crankcase separator (L4 only) is located between the air cleaner and valve cover. See Figure 3. With both hands, pull air cleaner up and away from the fuel injector unit and the separator. Do not disconnect any rubber tubing. Move the air cleaner off to the side.

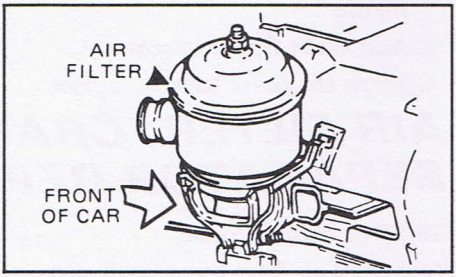


Figure 2 - Air cleaner (V6)

5. Remove the separator from the valve cover by pulling straight up.
6. Install a new separator, making sure it is properly seated between the valve cover and air cleaner.
7. Remove any foreign material from inside the air cleaner. Do not allow any foreign material to enter the throttle body.
8. Install a new air filter with either side up.
9. Install the air cleaner cover. Tighten the cover nuts to 6 N·m (4 ft. lbs.).

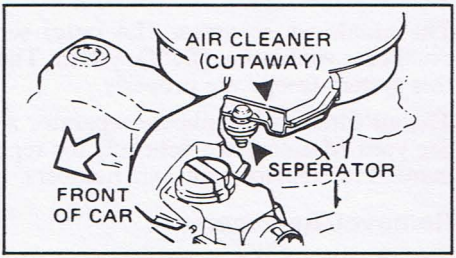


Figure 3 - Separator (L4)

PCV VALVE SERVICE

General Information

Your car's engine is equipped with a closed positive crankcase ventilation (PCV) system. In a closed PCV system, fresh air is drawn through the crankcase separator under the air cleaner, into the engine crankcase. The air mixes with crankcase vapors. This mixture is then drawn through the PCV valve, into the intake manifold, and into the cylinders where it is burned. The PCV valve regulates the flow of this mixture and must be unobstructed for proper operation. Therefore, periodic replacement is necessary. Consult your Maintenance Schedule for replacement intervals.

The PCV valve is located inside the crankcase ventilation grommet on the valve cover, next to the oil filler cap. See Figure 1.

Inspection/Diagnosis

1. Shift the automatic transaxle to Park or manual transaxle to Neutral. Firmly apply the parking brake. Start the engine and let it idle.
2. Remove the PCV valve from the crankcase ventilation grommet in the valve cover. (See "Removal/Replacement.") Leave the PCV valve hose attached to the PCV valve. See Figure 2.
3. Check for vacuum by placing your thumb over the exposed end of the PCV valve. If no vacuum is felt, check for blockage in the PCV hose, or in the PCV valve itself. A plugged valve or hose must be replaced.
4. Shut off the engine. Check the PCV hose and grommet for cracking. A cracked hose or grommet must be replaced.

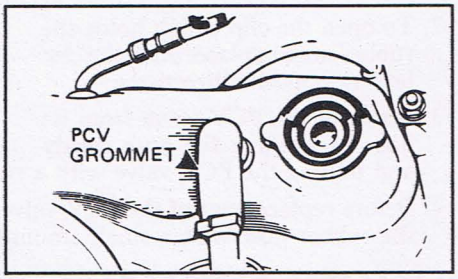


Figure 1 - PCV valve grommet (L4)

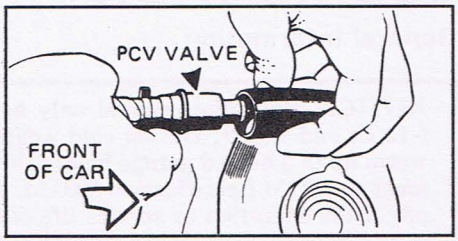


Figure 2 - Removing PCV valve

CAUTION: Diagnosis of the PCV System requires the engine to be running. To help prevent personal injury, keep hands, tools and clothing away from the engine belts and pulleys.

5. Remove the PCV valve from its hose. (See "Removal/Replacement.") Shake the valve and listen for a rattle. If the valve does not rattle, it must be replaced.

Removal/Replacement

Tools Required: Screwdriver.

See Section 6 of this manual for PCV valve replacement part number.

1. Firmly grasp the PCV valve (with hose attached) as close to the grommet as possible. Pull the valve out of the grommet with a twisting motion. See Figure 2. It may be necessary to roll the end of the grommet back in order to remove the PCV valve.
2. To open the clip which holds the rubber hose in place, push the clip tabs in opposite directions.
3. Separate the PCV valve from its hose by holding the hose steady and pulling the PCV valve with a twisting motion. See Figure 3.
4. Before replacement of the PCV valve, coat the end that is to be inserted into the rubber hose with a small amount of oil.

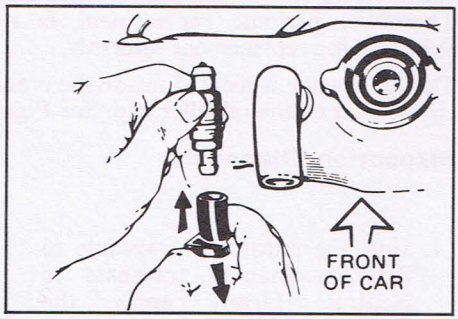


Figure 3 - PCV valve removed

SUSPENSION LUBRICATION

General Information

NOTICE: Ball joints should only be lubricated at temperatures of 10°F (-12°C) and higher. During cold weather, the vehicle should be allowed to warm up in a heated garage before the ball joints are lubricated. Lubricant must meet GM Specification 6031M. Use of other lubricants may adversely affect the operation or service life of the ball joints.

Regular lubrication of suspension and steering pivot points is recommended for maximum performance and long wear. Consult your Maintenance Schedule for service intervals.

Lubrication

Tools Required: Shop cloth, grease gun and flexible hose for grease gun.

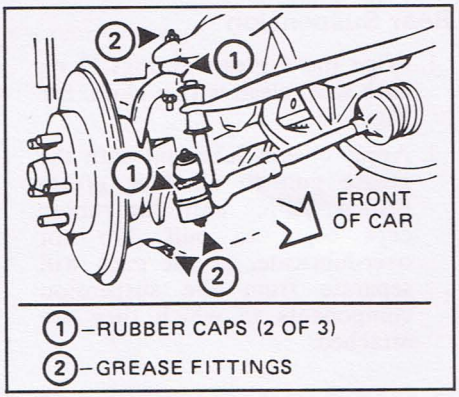


Figure 1 - Front suspension

CAUTION: To help avoid personal injury, never get beneath the car when it is supported only by a jack. The jack provided with your car is designed for use only when changing wheels. Always use safety stands to support the car if it is necessary to get underneath.

Front Suspension

1. Wipe the 6 grease fittings (3 on each side) clean with a cloth. See Figure 1.
2. Apply chassis lubricant with the grease gun to all six grease fittings. Apply until the rubber caps begin to puff. Do not over-lubricate, as the caps will separate from the suspension components to which they are attached.
3. Apply a small quantity of lubricant to the metal steering stops. See Figure 2.

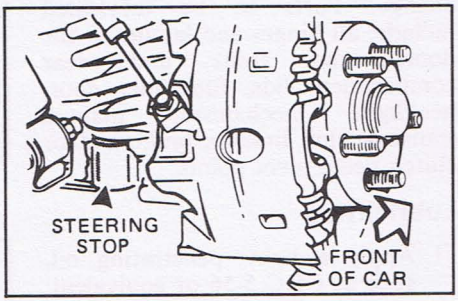


Figure 2 - Front suspension

Rear Suspension

1. Wipe the 4 grease fittings (2 on each side) clean with a cloth. See Figure 3.
2. Apply chassis lubricant with the grease gun to all four grease fittings. Apply until the rubber caps begin to puff. Do not over-lubricate, as the caps will separate from the suspension components to which they are attached.

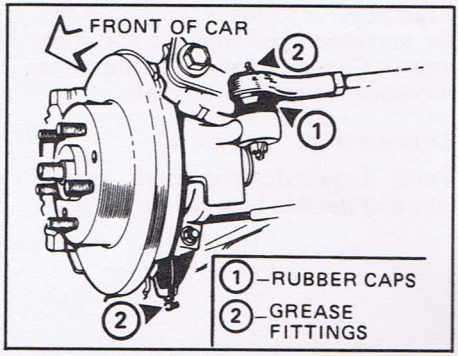


Figure 3 - Rear suspension

BODY PART LUBRICATION

General Information

The mechanical parts of the body with contacting surfaces should be lubricated at least every other oil change. Parts to be lubricated include: all hinges and latches at the doors and front and rear compartment lids; fuel filler door; headlight mechanism; manual transaxle shift linkage; brake and/or clutch pedal pivot points.

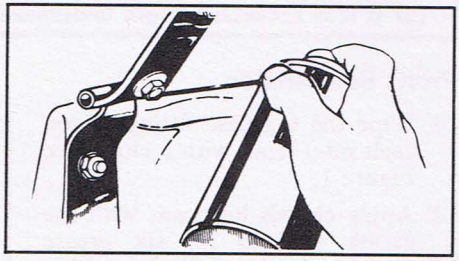


Figure 1 - Front compartment lid hinge

Lubrication

1. Apply a light, penetrating oil, such as CRC 5-56 or equivalent, to hinge pins and other hard-to-reach areas. See Figure 1.
2. Apply a grease-type lubricant, such as Lubriplate or equivalent, to latches, strikers and other easily accessible surfaces. See Figure 2.

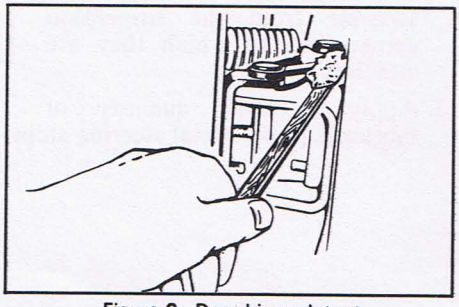


Figure 2 - Door hinge detent

SPARK PLUG SERVICE

Diagnosis

Worn-out spark plugs may cause one or more of the following symptoms:

- Poor mileage
- Poor performance
- Stalling
- Hard starting
- Missing

If any of these symptoms are present, worn-out spark plugs could be the cause. In addition, spark plug replacement is recommended as part of regular emission control maintenance. See your Maintenance Schedule for replacement intervals.

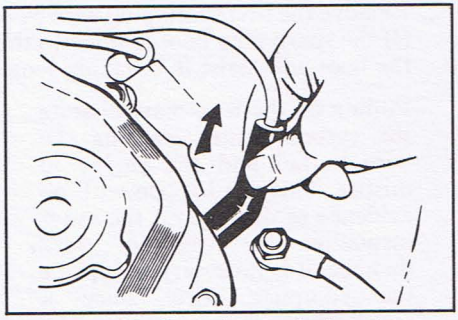


Figure 1 - Removing spark plug wire

Removal/Replacement

Tools Required: 5/8″ deep socket, universal joint socket extension, ratchet, 8″ ratchet extension, spark plug gapping tool, 10mm nut driver, 3″ socket extension (6-cylinder engine) and flex socket (6-cylinder engine).

See Section 6 of this manual for replacement spark plug number.

Spark plug removal should be attempted only after engine has sufficiently cooled. It is advisable to remove and replace only one spark plug at a time. This will help prevent installing the spark plug wires in the wrong order.

NOTICE: If spark plug wires are installed in the wrong order, engine damage can result.

1. On the 4-cylinder, the spark plugs are located on the front of the engine, just below the valve cover. Remove the air cleaner and set it off to the side, without disconnecting any tubing or wiring. On 6-cylinder, remove the air induction hose and set aside. See Figure 2.

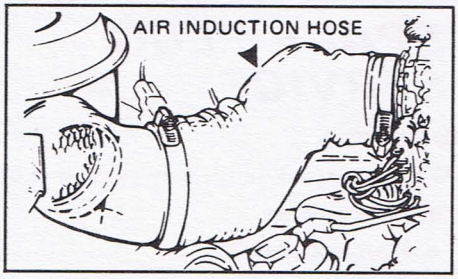


Figure 2 - Air induction hose (V6)

On the 6-cylinder, the spark plugs are located on both sides of the engine. Attach flex socket to the 5/8" deep socket for easier access to the spark plug.

2. Remove the first spark plug wire by pulling on the boot, not on the wire itself. (If the spark plug boot is stuck to the spark plug, a slight twisting motion on the boot will assist in breaking loose the boot.) See Figure 1.

Pulling on the wire may separate the carbon center, causing the wire to fail and the engine to misfire. This can happen with no evidence of damage on the outer insulation. In case of wire damage, it is necessary to replace the complete wire, since a satisfactory repair cannot be made. Also, pull the boot by hand or with a special spark plug boot tool only — never use pliers.

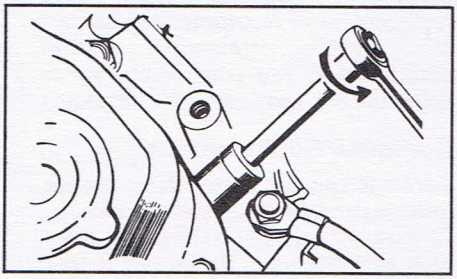


Figure 3 - Removing spark plug (L4)

3. Wipe the spark plug wire with a cloth. Carefully bend the wire to check for brittle or cracked insulation. A wire with defective insulation should be replaced.

4. If the wire is in good condition, check the terminals. Clean the terminals if they are dirty. Replace the wire if the terminals are broken or distorted. Check the distributor nipple and spark plug boot. Replace if broken or deteriorated.

5. Remove the first spark plug using a 5/8" deep socket. (Turn counter-clockwise.) See Figure 3 (4 cyl.) or Figure 4 (6 cyl.).
6. For the 4-cylinder, gap the new plug to 1.5mm (.060 in.). See Figure 5. For the 6-cylinder, gap the new plug to 1.1mm (.045 in.). See Section 6 of this manual for correct replacement spark plug.
7. Install the spark plug, screwing it in by hand until it seats correctly. This will help prevent cross-threading the spark plug and cylinder head. Using a 5/8" deep socket, tighten the spark plug to 15 N·m (11 ft. lbs.).
8. Reinstall the spark plug wire.
9. Repeat these steps for the remaining spark plugs.
10. Reinstall the air cleaner assembly on the 4-cylinder and tighten the cover nuts to 6 N·m (4 ft. lbs.).

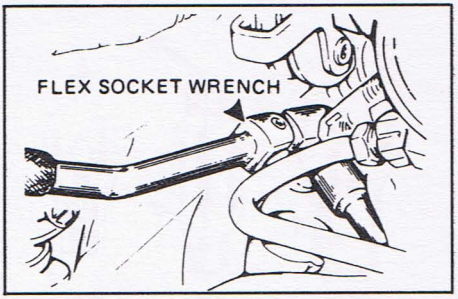


Figure 4 - Removing spark plug (V6)

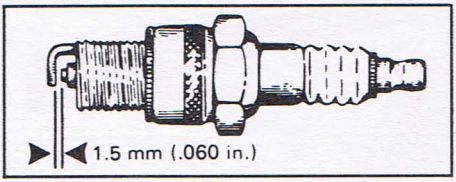


Figure 5 - Correct gap (L4)

BULB/LENS REPLACEMENT

Most of the bulbs on the vehicle are one of three types. (See Figure 1.)

To replace a bulb, remove the lens and proceed as follows:

Type 1 -- Push bulb in and turn counter-clockwise to remove (clockwise to install).

Type 2 -- Pull the bulb away from its retaining clips.

Type 3 -- Pull the bulb straight out from its socket.

See Section 6 of this manual for bulb numbers.

Figures 2 through 6 illustrate how to access and remove specific bulbs.

NOTE: If necessary, the entire dome/map light assembly may be removed by removing the 4 retaining screws. The rear retaining screws are located under the 2 outboard lenses.

Tool Required: Phillips screwdriver.

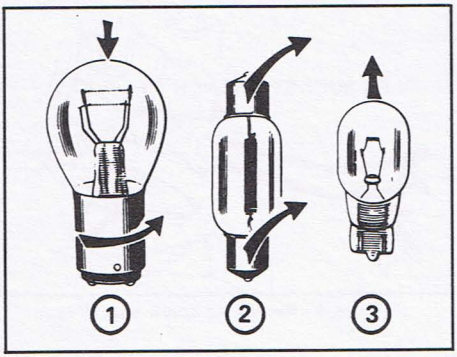


Figure 1 - Bulb types

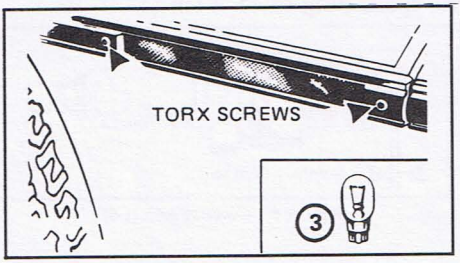


Figure 2 - Side marker

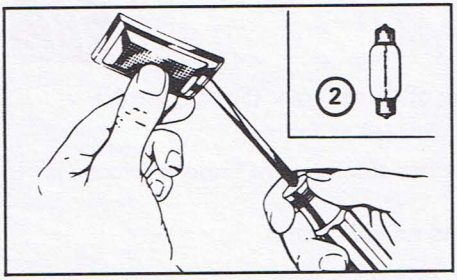


Figure 3 - Rear compartment (optional)

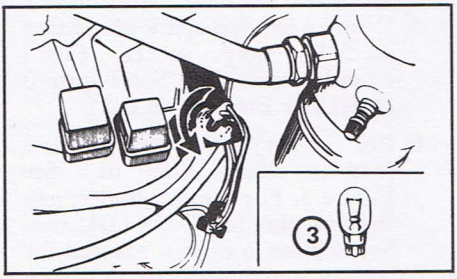


Figure 4 - Front compartment (optional)

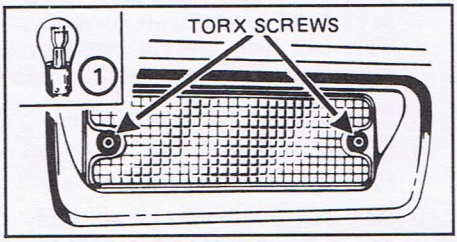


Figure 5 - Front turn light

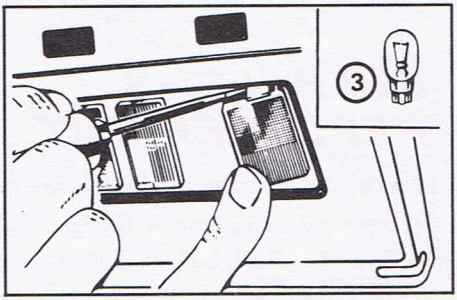


Figure 6 - Dome/map light(s)

TAIL LIGHT BULB/LENS REPLACEMENT

See "Replacement Parts" in Section 6 of this manual for replacement bulb number.

1. Open the rear compartment lid.

2. Remove the black caps from the body panel above the lens fixture with a suitable flat tool. See Figure 1.
3. Remove all three screws.
4. Protect the rear bumper with a shop towel, and gently pull the entire fixture out.
5. To remove the bulb socket from the fixture, push the locking tab on the bulb socket and turn the socket counter-clockwise. See Figure 2.

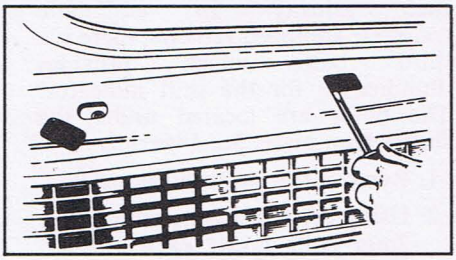


Figure 1 - Removing screw caps

6. Remove the bulb by pushing it in slightly and turning counter-clockwise about one quarter turn. Do not wipe away the corrosion-protective grease in the bulb sockets.
7. After replacing the bulb(s), insert the bulb socket into the lens fixture and turn the fixture clockwise.
8. Reinstall the lens fixture into the body, taking care not to pinch any wires between the fixture and the body. Reinstall the three screws. Snap the black plastic caps back into place.

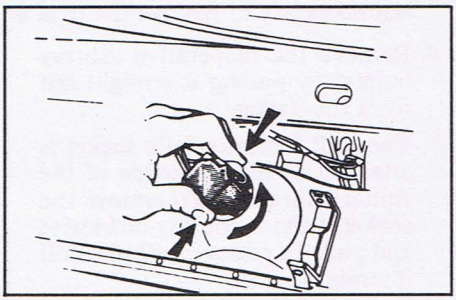


Figure 2 - Removing bulb socket

CONSOLE/ASHTRAY BULB REPLACEMENT

Tool Required: 7mm nut driver.

There are two light bulbs in the standard console assembly, one for each ashtray. In automatic transaxle-equipped vehicles, there is a third bulb which provides illumination for the shift indicator. The bulbs are located under the shifter trim plate. See Figure 2.

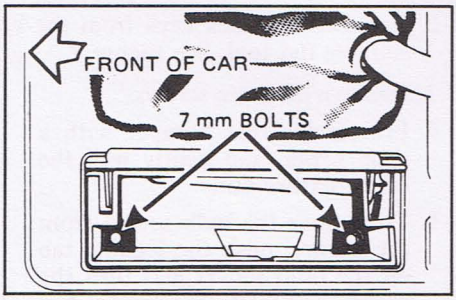


Figure 1 - Underneath ashtray

1. Remove the two ashtrays.
2. Using the nut driver, remove the 7mm bolts under **each** ashtray. See Figure 1.
3. Carefully lift the shifter trim plate just high enough to access the bulbs. It is not necessary to remove the trim or shifter assembly. See Figure 2.
4. Remove the inoperative ashtray bulb(s) by pulling it straight out from the socket.
5. The shift indicator bulb socket is attached to the underside of the shifter trim plate. To remove the socket, twist it counter-clockwise and pull. To remove the bulb, pull it straight out.
6. After replacing the bulb(s), reinstall the bolts under the ashtrays and torque to 1.5 N·m (1 ft. lb.).
7. Reinstall the ashtrays.

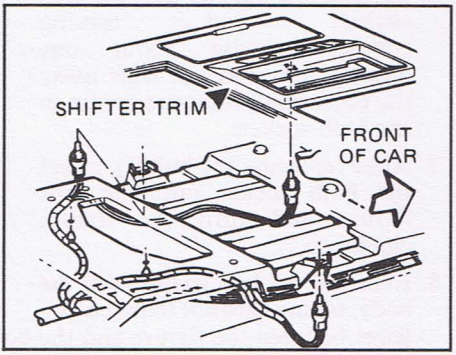


Figure 2 - Center console

INSTRUMENT CLUSTER BULB REPLACEMENT

Tool Required: T-15 Torx driver.

The instrument cluster bulbs are located under the instrument cluster cover.

1. Remove the Torx screws from the instrument cluster cover. See Figure 1. Remove the cover.
2. Remove the socket which holds the bulb to be replaced. Twist the socket counter-clockwise, then pull it out. See Figure 2.
3. To remove the bulb from the socket, pull it straight out.
4. After replacing the bulb(s), reinstall the instrument cluster cover. Torque the bolts to 1.5 N·m (1 ft. lb.).

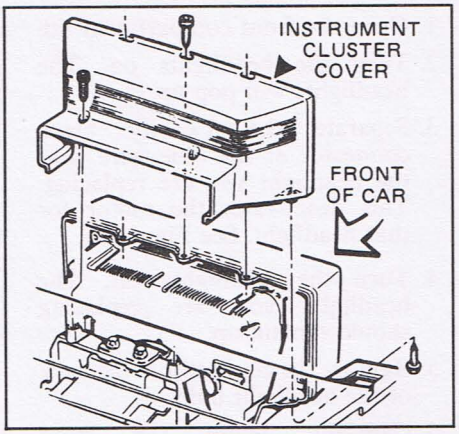


Figure 1 - Instrument cluster cover

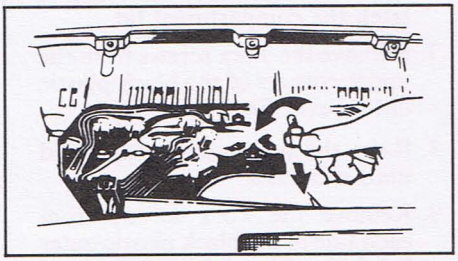


Figure 2 - Removing bulb socket

HEADLIGHT REPLACEMENT

Tools Required: T-15 Torx driver, pliers, Phillips screwdriver and 10″ stiff wire with a hook on the end (a stiff wire coat hanger will work).

CAUTION: To help prevent personal, injury keep hands, clothes, etc. away from headlight motors and mechanism while they are being operated. Headlight motors operate electrically whenever the headlights are turned on or off. These motors are very powerful.

1. Open the front compartment lid.
2. Turn the headlights on. The headlights will pop up.
3. Separate the 1-cavity black connector at the blue wire near the headlight you are replacing. This deactivates the motor for that headlight. See Figure 1.
4. Turn the headlights off. The headlight you are replacing should remain up.
5. Remove the connector at the back of the headlight bulb.
6. Carefully lower the front compartment lid until it is all the way down. It is not necessary to latch the compartment lid.
7. Remove the Torx screws from the upper corners of the black plastic outer bezel. See Figure 2.
8. Raise the front compartment lid until it latches.
9. Remove the Torx screws from each side of the black plastic outer bezel. See Figure 3.
10. Hold the spring-loaded headlight door open with one hand and remove the black plastic outer bezel by moving it up and then back over the headlight assembly (toward the passenger compartment). See Figure 4.

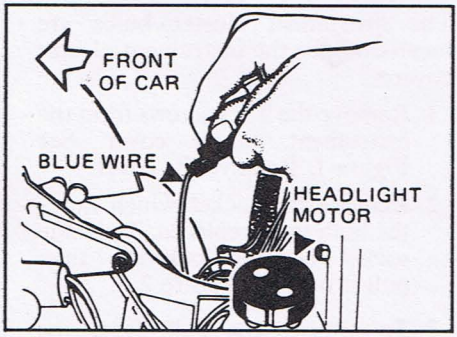


Figure 1 - Deactivating headlight mechanism

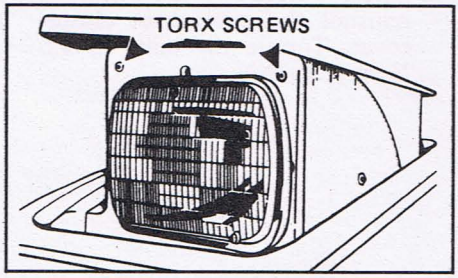


Figure 2 - Front of headlight

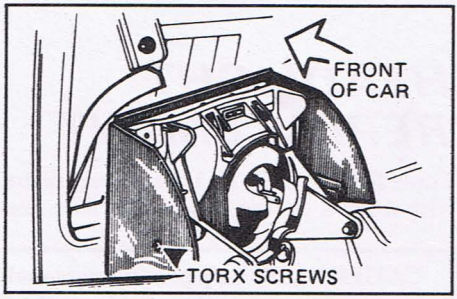


Figure 3 - Side of headlight

11. Carefully lower the front compartment lid. With the wire hook, pull the retaining spring away from the bottom corner of the headlight assembly. Use a shop towel to protect the finish in front of the headlight door. See Figure 5.
12. Rotate the headlight assembly slightly counter-clockwise until the retainer tabs are clear of the aiming screws. DO NOT remove or adjust these screws. See Figure 6.
13. Remove the 4 Phillips screws from the 2-piece retainer which surrounds the headlight. See Figure 6. Separate the 2-piece retainer and remove the headlight.
14. Install new headlight into the 2-piece retainer. Install the retainer/headlight assembly, making sure the retainer tabs are properly located in the aiming screw slots. See Figure 7.

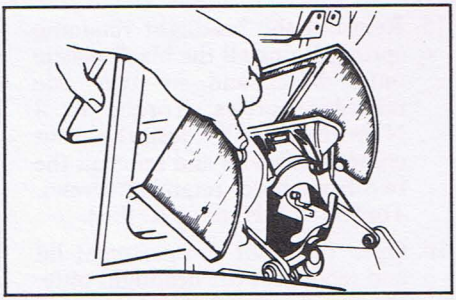


Figure 4 - Removing bezel

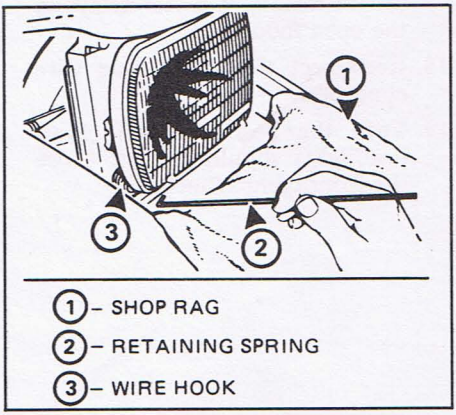


Figure 5 - Removing retaining spring

15. Reinstall the headlight retaining spring. Reinstall the black plastic outer bezel and its two side retaining screws. Torque to 8 N·m (6 ft. lbs.). Close the front compartment lid and reinstall the two front bezel retaining screws. Torque to 8 N·m (6 ft. lbs.).
16. Open the front compartment lid and reconnect the headlight bulb. **Do not reconnect the single blue wire connector.**
17. Turn the headlights on. This will set the headlight motor relays in the open mode.
18. Reconnect the single blue wire connector.
19. Turn the headlights off. Both headlights should retract. Close the front compartment lid.

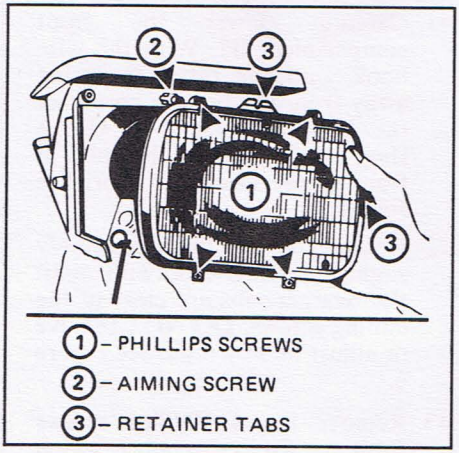


Figure 6 - Removing headlight

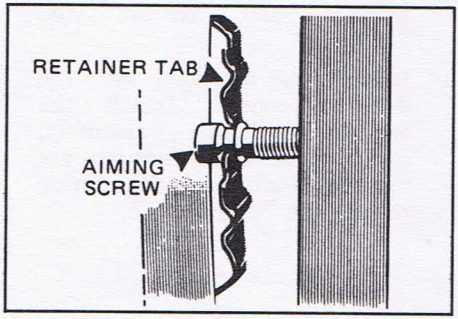


Figure 7 - Installing headlight

BATTERY REPLACEMENT

General Information

Your car is originally equipped with a long-life, maintenance-free Delco *FREEDOM* battery. It is located in the rear compartment, on the passenger's side of the vehicle. The battery should be replaced only if you are sure it will no longer hold a charge. Make sure the charging system is operating properly before faulting the battery.

For full power needs at replacement time, a Delco battery with the same catalog number as shown on the original battery's label is recommended.

Removal/Replacement

Tools Required: 7mm nut driver, 8mm wrench and 13mm wrench.

CAUTION: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- **Always shield your eyes, and avoid leaning over the battery whenever possible.**
- **Do not expose the battery to open flames or sparks.**
- **Be sure any replacement battery that has filler caps is properly filled with water.**
- **Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately and thoroughly, and get medical help.**
- **Do not allow any metal object to come into contact with both battery terminals at once.**
- **Do not deviate from the following replacement procedure.**

1. Open the rear compartment lid.
2. Remove the two thumb screws holding the battery cover panel to the body and lift the panel out. See Figure 1.
3. Remove the negative cable from the battery (this is the black cable leading to the side of the battery marked "–").
4. Remove the positive cable from the battery (this is the cable leading to the side of the battery marked "+").
5. Remove the battery retainer by unscrewing the retainer bolt. See Figure 2.

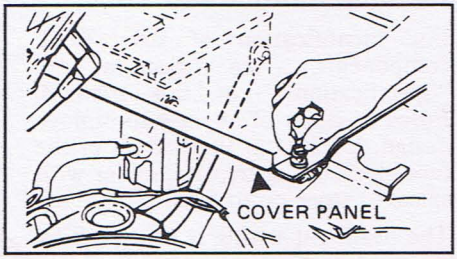


Figure 1 - RH side of rear compartment

6. Loosen the bolts which retain the heat shield and push the shield out of the way.
7. Carefully remove the battery without tipping it.
8. Before installing the new battery, make sure the cables and terminals are in good condition and free from corrosion.
9. Install the battery retainer and retainer bolt. Torque the retainer bolt to 18 N·m (14 ft. lbs.).
10. Install the heat shield and heat shield bolts.

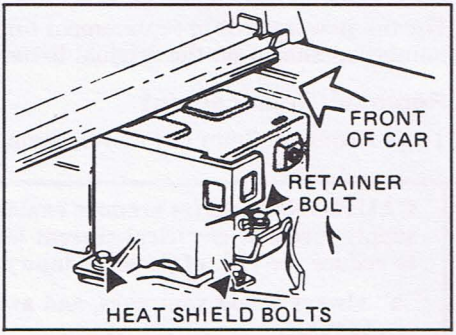


Figure 2 - Battery compartment

11. Reconnect the battery cables. Make the "+" connection first. Torque the battery cable bolts to 12 N·m (9 ft. lbs.).
12. Reinstall the battery cover panel and the two thumb screws.

FUSE, FLASHER, OR RELAY REPLACEMENT

General Information

For identification of fuse block components, see Section 6, "Specifications," in this manual. Fuses used are of an easy-to-remove design. Located at the bottom of the fuse block is a spare fuse holder with space to store up to 5 fuses.

The headlight wiring is protected by a circuit breaker in the light switch. An electrical overload will cause the lights to flash on and off. If this happens, have your headlight wiring checked right away.

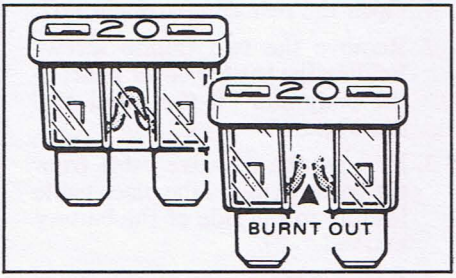


Figure 1 - Fuses

A burned fuse will cause some part of your car to stop functioning. You can tell if a fuse is burned by looking at the fuse to see if the thin wire inside the fuse is broken. See Figure 1.

Tools Required: None.

1. Locate the fuses by opening the access door under the left side of the instrument panel.
2. Unlatch the fuseblock from the instrument panel by pushing in on the two release tabs located at the center of the door. See Figure 2.
3. Swing block toward seat.
4. The hazard flashers and horn relay are located under the right side of the instrument panel in a convenience center. They can be removed by pulling the flasher or relay straight out.
5. The turn signal flasher is located near the left side of the steering column under the instrument panel. It is replaced by removing flasher from clip, then disconnecting flasher from wire harness.

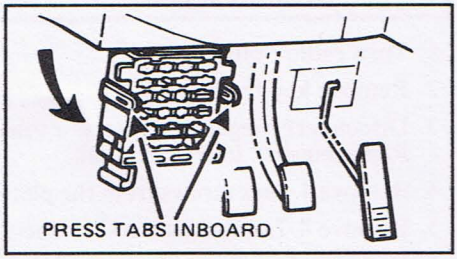


Figure 2 - Releasing fuseblock

RADIO REPLACEMENT

General Information

When replacing the radio, make sure the radio is "off," the key is out of the ignition, and the negative (–) battery cable is disconnected. These precautions will ensure that the electricity in the car is off.

Tools Required: T-15 Torx driver, 8mm wrench and 7mm nut driver.

CAUTION: Batteries produce explosive gases containing corrosive acid, and supply levels of electric current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- **Always shield your eyes and avoid leaning over the battery whenever possible.**
- **Do not expose the battery to open flames or sparks.**
- **Be sure any replacement battery that has filler caps is properly filled with water.**
- **Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately and thoroughly, and get medical help.**

(Continued)

CAUTION: (Continued)

- **Do not allow any metal object to come in contact with both battery terminals at once.**

1. Turn radio "off."
2. Remove key from ignition.
3. Disconnect negative battery cable as shown in steps 1-3 of "Battery Replacement" in this manual.
4. Remove 4 Torx screws from the plate assembly and lift off the plate assembly.
5. Remove 4 7mm screws and washers holding radio in.
6. Gently pull radio out just enough to disconnect antenna lead and connector on right side of radio.
7. Disconnect blue, white and black connectors on left side of radio.
8. Pull radio the rest of the way out.
9. Install radio by connecting, from top to bottom, blue, white and black connectors. Then attach antenna lead and connector on right side of radio.
10. Place radio back in carrier assembly. Replace 4 screws and washer and torque to 1.5 N·m (1 ft. lb.).
11. Place plate on pad assembly by properly inserting the alignment pegs.
12. Replace 4 Torx screws and torque to 1.5 N·m (1 ft. lb.).
13. Reconnect negative battery cable.

INSTRUMENT PANEL SPEAKER REPLACEMENT

General Information

When replacing speakers, make sure the radio is "off", the key is out of the ignition, and the negative battery cable is disconnected. These precautions will ensure that the electricity in the car is off.

Be sure to use care when removing the speaker cover. The instrument panel is made of a soft material that can be easily damaged. A piece of sturdy, thin plywood should be used on top of the panel to support the screw driver. The wood should lend enough support so the panel will not be indented by the screw driver.

Speakers may be replaced with Delco-GM speakers, part number 16019282, or equivalent.

Tools Required: Flat screwdriver, 8mm wrench, 7mm socket and ratchet.

CAUTION: Batteries produce explosive gases, contain corrosive acid, and supply levels of electric current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- **Always shield your eyes and avoid leaning over the battery whenever possible.**
- **Do not expose the battery to open flames or sparks.**
- **Be sure any replacement battery that has filler caps is properly filled with water.**
- **Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately and thoroughly, and get medical help.**
- **Do not allow any metal object to come in contact with both battery terminals at once.**

1. Turn radio "off."
2. Remove key from ignition.
3. Disconnect negative battery cable as shown in steps 1-3 of "Battery Replacement" in this section.
4. Place screw driver in the gap between the speaker and the instrument panel near one of the corners. See Figure 1.
5. Place plywood on the panel so that when you pry the speaker cover off, the screw driver will rest on the wood and not on the panel.
6. Gently pry one of the corners out.
7. Repeat procedure for the other three corners.
8. Lift the cover out.
9. Remove the four screws connecting the speaker to the instrument panel.
10. Gently lift the speaker out, just far enough to unhook the connector. Lift the speaker the rest of the way out.

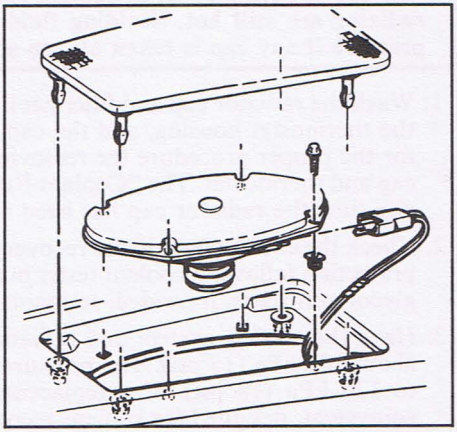


Figure 1 - Instrument panel speaker

11. Connect the replacement speaker and place it in the panel.

12. Reinstall the four screws and torque to 1.4 N·m (1 ft. lb.).
13. Reinstall cover.
14. Reconnect negative battery cable.

COOLING SYSTEM SERVICE

General Information

The cooling system should be serviced at the intervals specified in the Maintenance Schedule.

CAUTION: To help prevent personal injury, keep hands, tools and clothing away from the engine cooling fan. This electric fan can come on whether or not the engine is running. The fan can start automatically in response to a heat sensor when the ignition key is in the "Run" position.

Maintenance

Tools Required: Radiator coolant tester.

CAUTION: To help avoid being burned, do not remove the radiator cap, thermostat housing cap, or coolant recovery tank cap while the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure if any cap is taken off too soon.

1. Wash the radiator cap and filler neck with clean water. Wash the thermostat, the thermostat housing, and the cap. See Step 1 of "Coolant Replacement" for the proper procedure for removing the radiator cap, thermostat housing cap and thermostat. The "Coolant Replacement" procedure must be followed any time the radiator cap has been removed.
2. Check the coolant level in the recovery tank and test coolant for level of freeze protection following coolant tester manufacturer's instructions. Add ethylene glycol antifreeze, if needed, to maintain freeze protection to -37°C (-34°F).
3. Have the cooling system and radiator cap tested for a pressure capacity of about 105 kPa (15 psi). The pressure can be anywhere from 95 kPa (14 psi) to 120 kPa (18 psi). If a replacement cap is needed, use an AC cap or equivalent, designed for coolant recovery systems and specified for your car. See Section 6 of this manual for part numbers.
4. Tighten all radiator hose clamps and heater hose clamps and inspect all hoses. Replace the hoses if they are swollen, "checked," or otherwise worn.

NOTICE: Take care when tightening the hose clamps at the radiator. Overtightening could bend or collapse the radiator fittings.

5. Clean the front of the radiator core and air conditioning condenser to remove dirt and other foreign material.

CHECK/ADD COOLANT

General Information

Your car has a coolant recovery system. Coolant in the system expands with heat and overflows into the recovery tank located behind the radiator, under the front compartment lid. When the system cools down, coolant is drawn back into the radiator.

The cooling system was filled at the factory with a quality coolant that meets GM specifications. It is important to use proper coolant to prevent damage to cooling system components. Coolants meeting GM Specification 1825-M or those specially formulated for aluminum component protection should be used. The cooling system is designed to use coolant (a mixture of ethylene glycol, corrosion inhibitors and water) rather than plain water. The coolant solution must be used year round to provide:

- freezing protection down to -37°C (-34°F),
- boiling protection up to 128°C (262°F),
- protection against rust and corrosion in the cooling system,
- the proper engine temperature for efficient operation and emission control, and
- proper operation of the coolant temperature gage.

CAUTION: To help prevent personal injury, keep hands, tools and clothing away from the engine cooling fan. This electric fan can come on whether or not the engine is running. The fan can start automatically in response to a heat sensor when the ignition key is in the "Run" position.

To help avoid being burned, do not remove the radiator cap, thermostat housing cap, or coolant recovery tank cap while the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure if any cap is taken off too soon.

Under some conditions the ethylene glycol in engine coolant is combustible. To help avoid being burned when adding coolant, DO NOT spill it on the exhaust system or engine parts that may be hot. If there is any question, have this service performed by a qualified technician.

Tools Required: None.

1. Lift front compartment lid.
2. Look at the "see-through" coolant recovery tank. When the engine is cold, the coolant level should be at, or slightly above, the "COLD" mark on the recovery tank. When the engine has fully warmed up, the level should be at or above the "FULL HOT" mark on the recovery tank.
3. If the coolant level is low, remove the cap on the coolant recovery tank. Follow all cautions.
4. Add to the recovery tank enough of a 50/50 mixture of water and good quality ethylene glycol antifreeze (meeting GM Specification 1825-M) to bring the level up to the proper mark.
5. Put the cap back on the recovery tank.

COOLANT REPLACEMENT

Tools Required: Ratchet, ratchet extension, 15mm socket and 3/16" Allen wrench.

CAUTION: To help avoid being burned, do not remove the radiator cap, thermostat housing cap, or coolant recovery tank cap while the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure if any cap is taken off too soon.

Do not deviate from the following coolant fill/replacement procedure.

1. When the engine is cool, open the rear compartment lid for access to the thermostat housing cap and the thermostat. The thermostat housing is located at the upper left hand portion of the 4-cylinder engine (upper right hand portion of the 6-cylinder engine). See Figure 1.

2. Turn the thermostat housing cap slowly counter-clockwise until it reaches a "stop." Do not press down while turning the cap.
3. Wait until any remaining pressure (indicated by a hissing sound) is relieved, then press down on the cap and continue turning it counter-clockwise. Remove the cap.
4. Pull the thermostat straight out. See Figure 2.
5. Install the thermostat housing cap and run the engine one minute (enough to circulate the coolant).
6. Stop the engine. Open the radiator drain valve to drain the coolant. See Figure 3. Drainage may be speeded by removing the drain plugs in the engine block and in the left and right coolant pipes. The coolant pipes run underneath the car. The coolant pipe plugs are located at the rear of each pipe just ahead of the rear tires. See Figure 4. The engine block drain plugs are located near the base of the block, just above the oil pan.
7. Run water through the thermostat opening until the drained liquid is nearly colorless.
8. Install the block drain plug and coolant pipe plugs, if removed, and close the radiator drain valve.
9. Remove the radiator cap and add water through the thermostat housing until the water reaches the level of the radiator neck.
10. Install the radiator and thermostat housing caps. (Do not install the thermostat at this

Figure 1 - Top of engine, typical

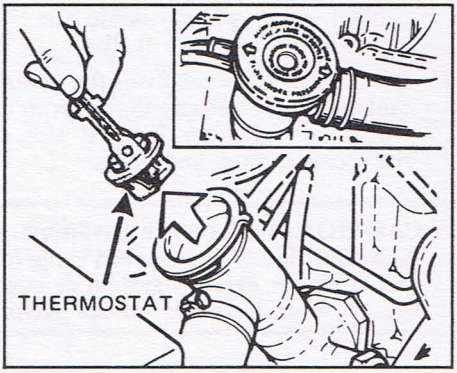


Figure 2 - Removing thermostat

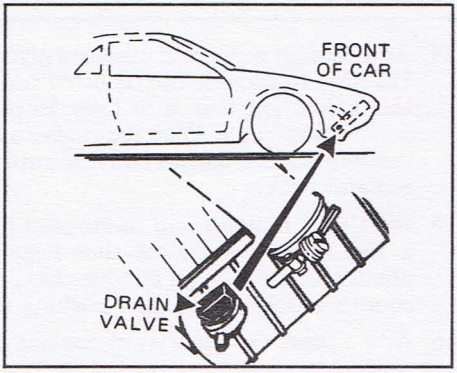


Figure 3 - Radiator drain valve

time.) Tighten the thermostat housing cap to the first notch. At this point, there will be an audible click, and you will not be able to turn the cap counter-clockwise without pushing it down.

11. Run the engine until the hose connected to the thermostat housing becomes hot. Drain the system again as you did in Step 6.
12. Close the radiator drain valve tightly. Install the block drain plug and coolant pipe plugs, if removed. The block drain plug should be fully seated. The coolant pipe plugs should be torqued to 12 N·m (8 ft. lbs.).

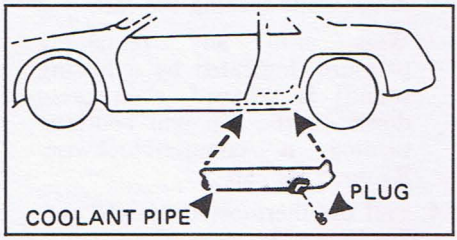


Figure 4 - Coolant pipe drain plug

13. Disconnect all hoses from the coolant recovery tank. Remove the recovery tank and pour out any fluid. Scrub and clean the inside of the recovery tank with soap and water. Flush it well with clean water, then drain it. Reinstall the recovery tank and hoses.

CAUTION: Under some conditions the ethylene glycol in engine coolant is combustible. To help avoid being burned when adding coolant, DO NOT spill it on the exhaust system or engine parts that may be hot. If there is any question, have this service performed by a qualified technician.

NOTICE: Do not use methanol-base antifreeze, or alcohol, or plain water alone, in your car at any time. These will boil at a lower point than that at which the temperature gage will warn of overheating. Also, they do not provide proper protection against corrosion.

14. Add enough water and ethylene glycol antifreeze (meeting GM Specification 1825-M) to provide the required cooling, freezing and corrosion protection. Use a solution that is at least 50 percent antifreeze, but no more than 70 percent antifreeze. **With the engine off**, remove the radiator cap. Add coolant through the **thermostat housing** until the coolant reaches the spill point of the radiator neck.
15. Install the radiator and thermostat housing caps. (Do not install thermostat at this time.) Tighten the thermostat housing cap to the first notch. At this point, there will be an audible click, and you will not be able to turn the cap counter-clockwise without pushing it down.
16. Add 3 liters (3.2 quarts) of coolant to the coolant reservoir.

NOTICE: When running the engine, particularly after replacing coolant, check the coolant temperature gage periodically to make sure the engine is not overheating.

17. Run the engine at normal idle for 3 minutes, then at a fast idle for an additional 15-20 seconds. Turn the engine off.
18. Remove the thermostat housing cap. (See Step 1 of this procedure.) Add coolant to the thermostat housing until it reaches the housing cap seat.
19. Install the thermostat and cap, making sure that the thermostat is fully seated and the arrows on the cap line up with the coolant hose at the thermostat housing.
20. When the engine has gone through a complete warm-up and cool cycle, the coolant in the reservoir should be adjusted to a level between the "Add" and "Full" lines.

THERMOSTAT CHECK

General Information

The thermostat housing is located at the upper left hand portion of the 4-cylinder engine; on the 6-cylinder engine, it is located on the upper right hand (passenger's side) portion of the engine.

Tools Required: None.

CAUTION: To help avoid being burned, do not remove the radiator cap, thermostat housing cap, or coolant recovery tank cap while the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure if any cap is taken off too soon.

To help prevent personal injury, keep hands, tools and clothing away from the engine cooling fan. This electric fan can come on whether or not the engine is running. The fan can start automatically in response to a heat sensor when the ignition key is in the "Run" position.

1. When the engine is cool, open the rear compartment lid for access to the thermostat housing cap and thermostat. See Figure 1.

2. Turn the thermostat housing cap slowly counter-clockwise until it reaches a "stop". Do not press down while turning the cap.
3. Wait until any remaining pressure (indicated by a hissing sound) is relieved, the press down on the cap and continue turning counter-clockwise. Remove the cap.
4. Pull the thermostat straight out. See Figure 2.
5. Visually inspect thermostat for corrosion and proper sealing of valve and seat.
6. If the thermostat appears damaged or non-functioning, it should be replaced.
7. Install the thermostat and cap, making sure the thermostat is fully seated and the arrows on the cap line up with the coolant hose at the thermostat housing.

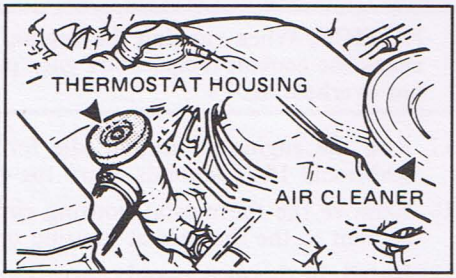


Figure 1 - Top of engine, typical

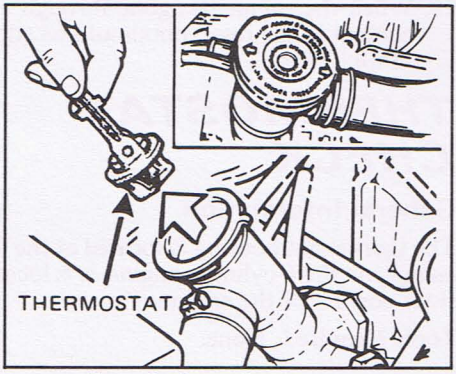


Figure 2 - Removing thermostat

REARVIEW MIRROR SUPPORT REPLACEMENT

General Information

When replacing the rearview mirror support you should use Loctite Inside Mirror Adhesive Kit (GM part number 1052369), or equivalent. If a new rearview mirror support is needed, use part number 983106 or equivalent. To ensure maximum adhesion, make sure the windshield and the support (mounting bracket) are completely clean.

CAUTION: To help prevent personal injury, the following precautions, as well as those on the adhesive kit package, should be taken:

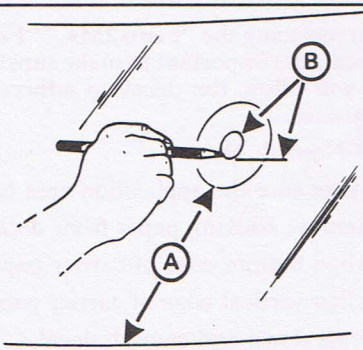
(Continued)

CAUTION: (Continued)

- **Avoid eye and skin contact. Contains acrylic acid and methylacrylic ester. In case of eye contact, flush with water for 15 minutes; get medical attention. Since it may irritate sensitive skin, wash skin after contact.**
- **Accelerator contains trichloroethyene. Use with adequate ventilation. Avoid breathing its harmful vapor. Do not heat or store at temperatures above 120°F (40°C).**
- **Keep both adhesive and accelerator out of the reach of children.**

Tools Needed: Fine grit (number 320 or 360) emery cloth or sandpaper and a flat screwdriver.

1. Locate support position at center of glass 623mm (24 9/16 inches) from base of glass to base of support. See Figure 1.
2. Circle location on outside of glass with a wax pencil or crayon.
3. Draw a larger circle, approximately 3 inches in diameter, on the outside of the glass with a wax pencil, around the support location.
4. On the inside of the glass, clean the area with household cleaner and dry.
5. Clean the same area again with alcohol and dry.
6. Sand bonding surface of the support. If the original support is being used, all traces of the previous adhesive must be removed.
7. Clean support with alcohol and allow it to air dry.
8. In order to remove the previous adhesive, it may be necessary to clean the windshield and support with a single-edge razor blade or equivalent.
9. Crush Accelerator vial and apply Accelerator to windshield, where the support will be located, and the bonding surface of the support. Allow to dry 3 minutes or until visibly dry.



A. BASE OF GLASS TO BASE OF SUPPORT
B. LOCATING CIRCLE AND BASE OF SUPPORT LINE

Figure 1 - Locating mirror support

10. Apply a small amount of adhesive to the bonding surface of the support. Spread film over the entire surface.
11. Position support to location with the round end up.
12. Press support against the windshield and apply firm pressure for one minute.
13. Allow 5 minutes for adhesive to set.
14. Excess adhesive can be removed after 5 minutes with alcohol.
15. Mount rearview mirror to support.

TRUNK DECAL REPLACEMENT

General Information

When replacing the "Fiero 2M4," "Fiero 2M6" or "Fiero GT" rear compartment lid decal, it is important to make sure that the application surface is entirely clean. This will allow the decal to adhere completely and ensure the best possible appearance.

Tools Needed: None.

1. Make sure the application area is entirely clean.
2. Remove backing paper from decal.
3. Align bottom edge of carrier paper with rear compartment lid edge.
4. Align vertical edge of carrier paper to rear compartment lid edge.
5. Press down and smooth decal.

WINDSHIELD WIPER BLADE REPLACEMENT

General Information

When replacing your Fiero's windshield wiper blades it is important to replace them with high quality blades of the same length and general shape. Replacement blades can be found at most auto parts stores.

The easiest way to replace windshield wiper blades is to have your wipers in the "up" position. This can be accomplished by turning your wipers "on" when the key is "off." Next, turn the key "on", then turn it "off" when the wipers are up. Take the key out of the ignition to ensure that the wipers will not move while you are working on them. Damage to the windshield and windshield wiper system could occur if this precaution is not taken.

Removal/Replacement

Tools Required: None.

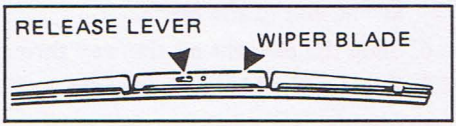


Figure 1 - Wiper blade release lever

1. Put the windshield wipers in the "up" position.
2. Lift the windshield wiper blade with your hand.
3. Locate the release lever, which is located approximately in the middle of the blade. See Figure 1.

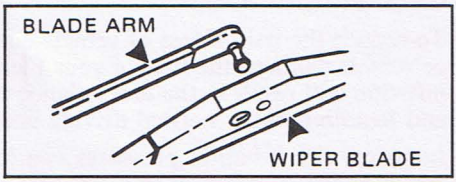


Figure 2 - Removing wiper blade

4. While pressing down on the release lever, support the arm and gently, but firmly, pull the blade straight off. See Figure 2.
5. If it is necessary to set the arm down, gently place it on the windshield. Protect the windshield with a soft cloth.
6. To put on the new blade, set the blade on the arm by positioning the pin in the hole on the blade.
7. Press down on the blade so the pin is engaged with the blade.

WINDSHIELD WIPER BLADE ELEMENT REPLACEMENT

General Information

When replacing the windshield wiper blade element, you should remove the windshield wiper blade. To remove the blade, see "Replacing Windshield Wiper Blade" in this manual.

Replace your element with an element of equal length. Windshield wiper blade elements can be found at most auto parts stores.

Removal/Replacement

Tools Required: Flat screwdriver.

1. Remove the wiper blade.
2. Insert screw driver between the rubber element and plastic housing.
3. Rotate the screw driver and pull on the element, so the element pops out.
4. Pull out the element.

5. To replace the element, slide the new element through the housing, starting at one end of the blade.
6. Slide the element all the way through so it is fully seated.
7. Replace the blade on the arm.

TIRE INFLATION CHECK

General Information

To reduce the risk of loss of vehicle control, which could cause personal injury or vehicle damage, the tires of your Fiero must be kept properly inflated. Proper inflation will result in the best balance of fuel economy, tire life, riding comfort, and handling under normal driving conditions.

Incorrect tire inflation pressures can have adverse effects on tire life and car performance. Too low air pressure causes increased tire flexing and heat build up. This weakens the tire and increases the chance of damage or failure. It can also result in tire overloading, abnormal tire wear, adverse vehicle handling, and reduced fuel economy. Too high air pressure can result in abnormal wear and harsh ride, and can increase the chance of damage from road hazards.

When adding air to your tires, press the compressor down as long as necessary to inflate the tire to approximately the right air pressure. Do not try to add the air all at once. It is better to add air a few times, rather than harm the tire by severely over inflating.

Correct inflation pressures can be found on the Tire Placard. The placard is located on the driver's door of your car. Do not load your car beyond the load limits (total kilograms or pounds) shown on the Tire Placard.

Tools Required: Tire gage, air compressor.

1. The "cold" tire inflation pressure is the tire pressure when a car has not been driven more than 1 mile (1.6 kilometer) after sitting for 3 hours or more. This is the most accurate pressure reading.
2. Remove valve cap with fingers.
3. Place gage over valve and, in one quick motion, press the gage all the way down, so it seals with the valve, and pull back up.
4. Read the inflation pressure on gage.
5. If the pressure of the tire is below the recommended value, add air with the air compressor. Seal the air compressor down on the valve and hold it down until approximately the right amount of air is added.
6. If the air pressure exceeds the recommended value, remove air by depressing the valve core with the small stick on the opposite side of the pressure gage. You can tell that air is being removed by a hissing sound.

7. While removing or adding air, check the tire frequently for the desired air pressure.
8. Check the air pressure and properly inflate all of the tires including the spare. Notice that the spare is a compact spare, and requires 60 psi.
9. Replace all valve caps.

ROTATING TIRES

General Information

Front and rear tires perform different jobs and can wear differently, depending on the types of roads driven, your driving habits, etc. For longer tire life, you should rotate your tires at the intervals recommended in the Maintenance Schedule.

Tools Required: Jack, spare tire, lug wrench. (These tools are all from your car.)

CAUTION: In order to reduce the possibility of personal injury:

- **Follow all jacking and stowage instructions.**
- **Use the jack only for lifting the vehicle during wheel changing.**
- **Never get beneath the car while it is supported only by a jack.**

1. Raise car with jack and remove tire as shown in Section 3, "In Case of Emergency," in this manual. Be sure to follow all cautions.
2. Replace removed tire with your spare tire.
3. There are three patterns you can use to rotate your tires. See Figure 1.
4. Remove the next tire in the rotation order and replace it with the previously removed tire.
5. Repeat this procedure until all of the wheels have been rotated.
6. Replace the spare tire with the final tire. Do not leave the spare tire on the car.
7. Stow your jack and spare tire following all stowage instructions.

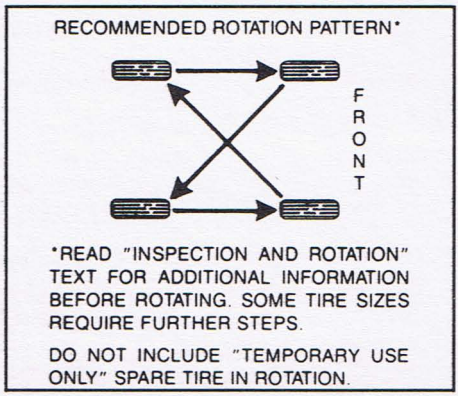


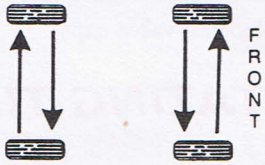
Figure 1 - Tire rotation

8. Adjust the front and rear tire pressures and be sure to check wheel nut tightness.

If you have P205/60R15 size tires on the front, and P215/60R15 size tires on the rear, normal tire rotation is not permitted. Your tires should be rotated only when irregular wear is seen and the tires must be rotated from side to side while remaining on the same axle.

After rotation, adjust the front and rear tire pressures and be sure to check wheel nut tightness. See "Wheel Nut Torque" in Section 3 for further information.

RECOMMENDED ROTATION PATTERN*



*READ "INSPECTION AND ROTATION" TEXT FOR ADDITIONAL INFORMATION ON TIRE ROTATION.

DO NOT INCLUDE "TEMPORARY USE ONLY" SPARE TIRE IN ROTATION.

CAUTION: Whenever a wheel is changed, always remove any corrosion that may be present on inside of wheel and wheel mounting surface on vehicle. Installing wheels without good metal-to-metal contact at the mounting surfaces can cause wheel nuts to loosen, which can later allow a wheel to come off while the car is moving, possibly causing loss of control.

These specifications are given here for information only. Before using them, see the Cautions and other instructions throughout this manual – the index may help you locate such items. For more information, see the service manual covering the chassis or body part in question. Your Pontiac dealer may also be able to help.

SERVICE PARTS IDENTIFICATION LABEL

The Service Parts Identification Label is provided on all car models. It is located on the left front inner fender in the front storage compartment. The Label lists the V.I.N. (vehicle identification number), wheelbase, paint information and all production options or special equipment on the car when it was shipped from the factory. Always refer to this information when ordering parts.

REPLACEMENT PARTS

Replacement part numbers listed in this section are based on the latest information available at the time of printing, and are subject to change. If a part listed in this manual is not the same as the part used in your car when it was built, or if you have any questions, please contact your Pontiac dealer or parts supplier. Use a part that is equivalent to the one being replaced.

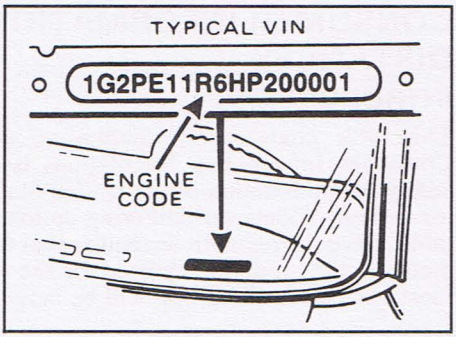
IDENTIFICATION NUMBERS

Vehicle Identification Number (VIN)

This is the legal identifier for your vehicle. It appears on a plate attached to the left top of the instrument panel. This plate can be seen easily through the windshield from outside your car (see illustration). The VIN also appears on the certificates of Title and Registration.

Engine Identification

You can identify your 1987 GM engine from the Vehicle Identification Number. The eighth character of the VIN is the Engine Code. See the Engine Code Identification chart below. Some information in this manual may refer to the Engine Code. For example, a 2.5 Liter L4 engine may be referred to as a 2.5 Liter (Engine Code R) L4 engine.



VIN Engine Code R:

Displacement	2.5 Liter
Type	L4
Fuel Delivery	Fuel Injection
Produced in	U.S.A.

VIN Engine Code 9:

Displacement	2.8 Liter
Type	V6
Fuel Delivery	Fuel Injection
Produced in	U.S.A.

"ADD ON" ELECTRICAL EQUIPMENT

The electrical system in your car is designed to perform under expected operating conditions without interference between components. Before any additional electrical equipment is installed after you purchase your car, please consult your dealer. Certain electrical equipment or the way in which it is installed may adversely affect the operation of your car, including such components as the engine, or the operation of certain systems, including the driver information, entertainment and electrical charging systems. Pontiac assumes no responsibility for any expense which you may incur or for any adverse effect upon your vehicle or any of its components or systems which may result from the installation of additional electrical equipment which is not supplied or recommended for installation by Pontiac.

CONSUMER INFORMATION – VEHICLE STOPPING DISTANCES

INTRODUCTION

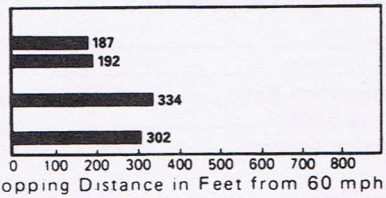
This table contains information on stopping distances as required by the Consumer Information Regulations issued by the National Highway Traffic Safety Administration of the United States Department of Transportation. Data for various models with differing options and accessories are grouped in a single table. Since the regulations require that the least favorable figures for any specific model in the group be reported for the entire group, the actual performance for most vehicles in the group will be better than the figures reported.

STOPPING DISTANCE DATA

This table indicates braking performance that can be met or exceeded by the vehicles to which it applies under different conditions of loading and with partial failures of the braking system. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

DESCRIPTION OF VEHICLES TO WHICH THIS TABLE APPLIES:
ALL MODELS

A. FULLY OPERATIONAL SERVICE BRAKE
Light Load
Maximum Load
B. EMERGENCY SERVICE BRAKE
(with Partial Service Brake System Failure)
C. BRAKE POWER UNIT FAILURE
Maximum Load



GENERAL SPECIFICATIONS

Wheelbase	2373 mm (93.4 in.)
Track	
Front	1468 mm (57.8 in.)
Rear	1492 mm (58.7 in.)
Length	
Except GT	4132 mm (162.7 in.)
GT	4193 mm (165.1 in.)
Width	1751 mm (68.9 in.)
Height	1192 mm (46.9 in.)
Wheel Nut Torque	140 Newton Meters (100 Foot Pounds)
Aluminum Wheel Nut Caps	2 Newton Meters (15 Inch Pounds)

(Refer to Sections 3 and 5 in this manual for complete wheel changing and tire information.)

Weight Distribution (F/R%)	44/56
Suspension	
Front	Independent s/a w/coil springs, 23mm stabilizer bar
Rear	Independent struts
Steering	Rack & Pinion
Turns lock-to-lock	3.00
Brakes	
Front	9.72″ x .43″
Rear	9.72″ x .50″
Power Assist	Vacuum
Calipers	semi-metalic

Battery - L4	75A-72
Battery - V6	
Standard	70-60S
Heavy-Duty	75A-72

ENGINE SPECIFICATIONS

VIN Engine Code R

Type	L4
Fuel Delivery	Electronic Fuel Injection
Compression Ratio	9.0:1
Bore & Stroke	4.00″ x 3.00″
Emission Controls	3-way catalytic converter, computer controlled fuel/air ratio, exhaust gas recirculation
Valve Train	Overhead valves, pushrods, hydraulic lifters
Head Design	Cast iron with swirl-port combustion chamber
Power (SAE NET)	92 hp @ 4400 RPM
Torque (SAE NET)	134 ft. lbs. @ 2800 RPM
Drive Train	
5-Speed Manual Transaxle	
Final Drive Ratio	3.35
First Gear Ratio	3.73
Second Gear Ratio	2.04
Third Gear Ratio	1.45
Fourth Gear Ratio	1.03
Fifth Gear Ratio	0.74
Reverse Gear Ratio	3.50
Automatic Transaxle	
Final Drive Ratio	3.18
First Gear Ratio	2.84
Second Gear Ratio	1.60
Third Gear Ratio	1.00
Reverse Gear Ratio	2.07
Firing Order	1-3-4-2
PCV Valve	AC Type CV895C
Air Cleaner Filter	AC Type A913C
Fuel Filter	AC Type GF481
Engine Oil Filter	AC Type PF40
Spark Plug	AC Type R43CTS6
Gap	1.5 mm (0.060″)
Thermostat Temp. Spec.	91°C (195°F)
Thermostat Housing Cap	AC Type RC40
Radiator Cap	AC Type RC40

VIN Engine Code 9

Type	V6
Fuel Delivery	Multi-Port Fuel Injection
Compression Ratio	8.9:1
Bore & Stroke	3.50″ x 2.99″
Emission Controls	3-way catalytic converter, computer controlled fuel/air ratio, exhaust gas recirculation
Valve Train	Overhead valves, pushrods, hydraulic lifters
Head Design	Cast iron
Power (SAE NET)	140 hp @ 5200 RPM
Torque (SAE NET)	170 ft. lbs. @ 3600 RPM
Drive Train	
5-Speed Manual Transaxle	
Final Drive Ratio	3.61
First Gear Ratio	3.50
Second Gear Ratio	2.05
Third Gear Ratio	1.38
Fourth Gear Ratio	.94
Fifth Gear Ratio	0.72
Reverse Gear Ratio	3.41
Automatic Transaxle	
Final Drive Ratio	3.18
First Gear Ratio	2.84
Second Gear Ratio	1.60
Third Gear Ratio	1.00
Reverse Gear Ratio	2.07
Firing Order	1-2-3-4-5-6
PCV Valve	AC Type CV892C
Air Cleaner Filter	AC Type A925C
Fuel Filter	AC Type GF481
Engine Oil Filter	AC Type PF47
Spark Plug	AC Type R42CTS
Gap	1.1 mm (0.045″)
Thermostat Temp. Spec.	91°C (195°F)
Thermostat Housing Cap	AC Type RC40
Radiator Cap	AC Type RC40

CAPACITIES (APPROXIMATE)

Fuel Tank ..... 45.0 Liters (11.9 gal.)
Cooling System
VIN Engine Code R
Without Air Cond. ..... 13.0 L (13.8 qt.)
Air Cond./Auto. Trans. ..... 13.1 L (13.8 qt.)
Air Cond./Man. Trans. ..... 13.3 L (14.1 qt.)
H.D. Cooling ..... 13.0 L (13.8 qt.)
VIN Engine Code 9 ..... 13.0 L (13.8 qt.)
Crankcase
VIN Engine Code R ..... 2.8 L (3.0 qt.) *
VIN Engine Code 9 ..... 3.8 L (4.0 qt.) *

* Approximate capacity with or without oil filter change. Recheck oil level after refill.

5-Speed Manual Transaxle
L4 Engine ..... 2.5 L (5.3 pt.)
V6 Engine ..... 1.9 L (4.0 pt.)
Automatic Transaxle
Refill After Draining ..... 3.8 L (8.0 pt.) ●
Refill After Disassembly ..... 4.7 L (10.0 pt.) ●

● After adding fluid, check for correct fluid level using the dipstick. All fluid level checks must be made with the car on a level surface, the engine running and the transaxle in Park or Neutral.

Brake System ..... Fill at master cylinder to 1/4 inch from top using fluid meeting SAE 1703A (DOT 3) Specifications.

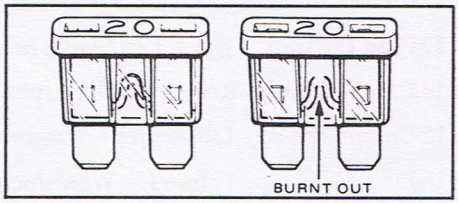
LIGHT BULBS

Replace With GM Guide Lamps

LOCATION	NUMBER
EXTERIOR	
Back-Up	1156
Headlight	H6054

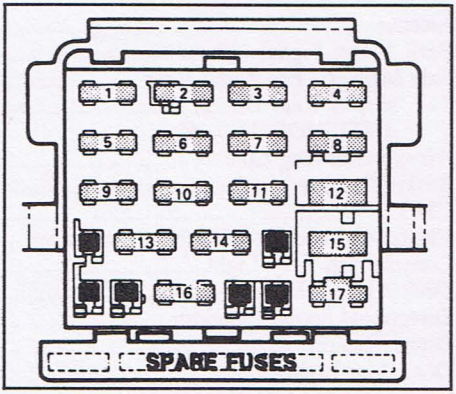
License	194
Park & Dir. Signal - Front	2057
Side Marker - Front and Rear	194
Tail, Stop & Rear Dir.	2057
INTERIOR	
Air Conditioning Control	37
Brake Warning	194
Clock	(Part of Radio Display)
Cluster (Speedometer/Tach.) Illumination	194
Console Ash Tray Light	70
Deck Ajar Light	194
Directional Signal Indicator	194
Dome/Reading Light	906
Door Ajar Light	194
Gear Selector Indicator	194
Headlight Hi-Beam Indicator	194
Heater Control	37
Instrument Panel Courtesy	168
Luggage Compartment - Front	168
Luggage Compartment - Rear	561
Oil Pressure Telltale	194
Seat Belt Warning Indicator	194
SERVICE ENGINE SOON	194

CIRCUIT BREAKERS AND FUSES



The headlight wiring is protected by a circuit breaker in the light switch. An electrical overload will cause the lights to go on and off, or in some cases to remain off. If this happens, have your headlight wiring checked right away.

Fuses used are of an easy-to-remove design (See illustration). Located at the bottom of the fuseblock, there is a spare fuse holder with space to store up to five fuses.



1- Fuse (10 Amp. Red) -- Computer Command Control E.C.M., L4 Electronic Fuel Injection

2- Fuse (10 Amp. Red) -- Fuel pump relay, oil pressure switch feed

3- Fuse (20 Amp. Yellow) -- Tail lights, parking and side marker lights, license plate illumination

4- Fuse (20 Amp. Yellow) -- Coolant fan relay coil

5- Fuse (20 Amp. Yellow) -- Turn Signal flasher, back-up lights

6- Fuse (5 Amp. Tan) -- V6 Fuel Injection

7- Fuse (20 Amp. Yellow) -- Stop light switch, hazard flasher, warning chime

8- Fuse (25 Amp. White) -- Heater, air conditioner

9- Fuse (10 Amp. Red) -- Rear defogger switch & relay, warning chime, generator light, V.S.S., T.C.C. brake switch, I.P. cluster

10-Fuse (5 Amp. Tan) -- V6 Fuel Injection

11-Fuse (20 Amp. Yellow) -- Horn relay, dome lights, clock, cigar lighter

12-Circuit Breaker (30 Amp.) -- Power windows

13-Fuse (5 Amp. Tan) -- I.P. lights, headlight warning

14-Fuse (10 Amp. Red) -- Radio, cruise control

15-Circuit Breaker (30 Amp.) -- Power door locks, rear defogger

16-Fuse (20 Amp. Yellow) -- Windshield wiper motor

17-Fuse (20 Amp. Yellow) -- Rear compartment lid release, rear compartment light, power door lock relay, power sport mirrors control

AVAILABILITY OF PONTIAC SERVICE MANUALS

Service manuals are available from your Pontiac dealer or by completing the Pontiac Service Literature order form at the end of this section and mailing it to the address shown on the form.

Prices apply to owners in the United States only. Canadian residents should obtain a Canadian Service Manual Order Form from any GM dealership.

NOTICE: These service manuals are intended for use by experienced service technicians and, therefore, do not include service procedures considered to be common shop practices such as changing oil, lubricating the chassis, draining and adding coolant, relining brakes, etc.

UPDATED SERVICE INFORMATION YOU CAN OBTAIN*

* *Information on how to obtain Product Service Publications, Subscriptions, Indexes and Summaries as described below is applicable only in the fifty states (and the District of Columbia) and only for cars and light trucks with GVWR less than 10,000 pounds.*

In Canada, information pertaining to Product Service Bulletins and Indexes can be obtained by writing to: General Motors of Canada, Limited, Service Publications Department, Oshawa, Ontario L1J 5Z6.

Pontiac regularly sends its dealers useful service bulletins about Pontiac products. Pontiac monitors product performance in the field. We then prepare bulletins for servicing our products better. Now, you can get these bulletins, too.

Bulletins cover various subjects. Some pertain to the proper use and care of your car. Some describe costly repairs. Others describe inexpensive repairs which, if done timely, with the latest parts, may avoid future costly repairs. Some bulletins tell a mechanic how to repair a new or unexpected condition. Others describe a quicker way to fix your car. They can help a mechanic service your car better.

Most bulletins apply to conditions affecting a small number of cars. Your Pontiac dealer or a qualified mechanic may have to determine if a specific bulletin applies to your car.

You can subscribe to all Pontiac bulletins. This way you'll get them as they come out. You can wait a while and get an index to the bulletins. The index summarizes some of the more important bulletins. You can also get individual bulletins. However, you'll need the index to identify them.

Subscriptions

You can subscribe to all Pontiac Product Service Publications (PSP's). This will include bulletins for all of the cars sold by Pontiac and will not be limited to the PSP's applicable to any particular model. When you buy a subscription, you will receive the PSP's in periodic mailings, shortly after they come out. A subscription $60.00 and entitles you to all the PSP's published by Pontiac during the model year. You can purchase a subscription by sending a check or money order to Helm, Inc., along with the order form located at the back of this section. You may get additional subscription ordering forms by calling the toll-free number listed below, or you can find them at participating dealerships.

Individual PSP's

If you don't want to buy all the PSP's issued by Pontiac for all car models in the model year, you can buy individual PSP's, such as those which may pertain to a particular model. To do this, you will first need to see our index of PSP's. It provides a variety of information. Here's what you'll find in the index and how you can get one:

What you'll find in the index:

- A list of all PSP's published by Pontiac in a model year (1984 or later). PSP's covering all models of Pontiac cars are listed in the same index.
- Ordering information so you can buy the specific PSP's you may want.
- Price information for the PSP's you may want to buy.
- Easy-to-understand summaries of some of the more important PSP's. These summaries highlight some of the PSP's which describe costly repairs or which are designed to prevent costly repairs, or which contain owner use and care information.

How you can get an index:

Indexes are published quarterly each model year, and each quarterly issue is updated cumulatively for that model year. Most of the PSP's which could potentially apply to the most recent Pontiac models will be listed in the last quarterly publication for that model year. This means you may want to wait until the end of the model year before ordering an index, if you are interested in buying PSP's pertaining to a current model year car.

Some PSP's pertaining to a particular model year car may be published in later years, and these would be listed in the later year's index. When you order an index for a model year that is not over yet, we'll send you the most recently published quarterly issue. You can specify an index for an earlier model year, but not before 1984.

Cut out the ordering form, fill it out, and mail it in. We will then see to it that an index is mailed to you. There is no charge for indexes for the 1984-1987 model years.

Toll-Free Telephone Number

If you want an additional ordering form for an index or a subscription, just call toll-free and we'll be happy to send you one. Automated recording equipment will take your name and mailing address. The number to call is 1-800-551-4123.

Copies at Participating Dealers

Copies of Indexes and individual PSP's are at your participating Pontiac dealer. You can ask to see them.

A VERY IMPORTANT REMINDER: These PSP's are meant for mechanics. They are not meant for the "do-it-yourselfer." Mechanics have the equipment, tools, safety instructions, and know-how to do a job quickly and safely.

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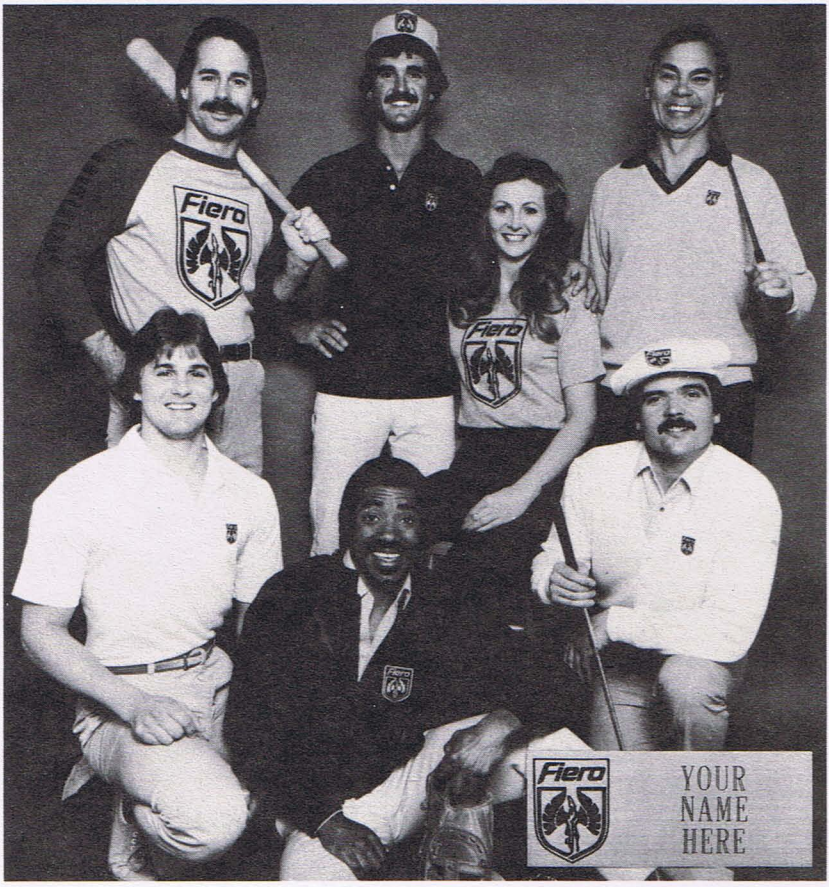

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The following publications covering the operation and servicing of your Pontiac can be purchased by checking the box below, filling out the reverse side of this order form, and mailing it with your check or money order to Helm, Incorporated.

WHAT'S A PRODUCT SERVICE PUBLICATION?

Product Service Publications (PSPs), are bulletins, letters and articles published for trained dealer service personnel. They describe or recommend diagnostic, maintenance, or repair procedures, parts recommendations or use and care information. The indexes list all PSP's published by Pontiac in each model year.

Pontiac bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer." They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your Pontiac dealer for information on whether your vehicle may benefit from the information.

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INDEX 1

NOTES

NOTES

Refer to "Service and Maintenance," Section 5, for Further Details.

Fuel Cap

The fuel cap is behind a hinged door on the left rear fender. The fuel door opens with a remote release handle located inside the car on the left rear roof pillar. To remove the fuel cap, see removal procedure in Section 5.

Fuel Requirements

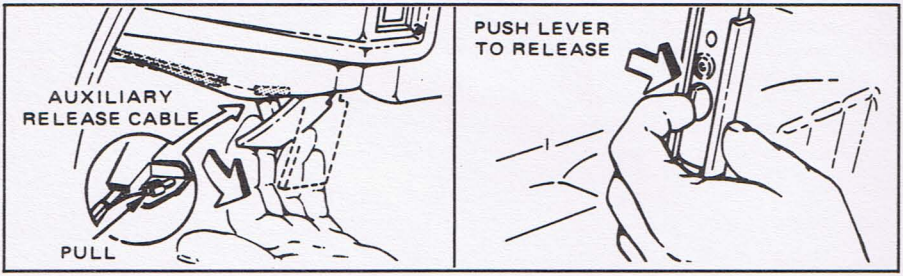
Use unleaded fuel only. See "Fuel Requirements" in Section 2.

Steps In Refueling

CAUTION: Before pulling up to a fuel pump, be sure that all occupants in your vehicle stop smoking and extinguish any smoking materials. Do not permit spark or flames in the presence of gasoline fuel or fumes, to help avoid personal injury or property damage due to fire. Gasoline will ignite and burn rapidly if fuel is free to vaporize in the 'right' proportions at a source of ignition; these proportions usually occur a short distance from liquid fuel such as at a filler pipe outlet.

1. Follow all the steps under "Parking" in Section 2.
2. Select the correct fuel as referenced above. Follow any posted safety rules. Stand to the side, never above or opposite the filler opening.
3. Check that the fuel cap is tight, and see to it that engine oil, coolant in the reservoir, and washer fluid, etc. are at proper levels. Then do the Driver Daily Checklist in Section 1.

Front Compartment Lid (Hood) Release Location



To open the front compartment lid, pull the front compartment lid release handle. The front compartment lid release handle is located left of the steering column beneath the instrument panel air vent. Grasp the lid at the rear and raise it until it locks into position.

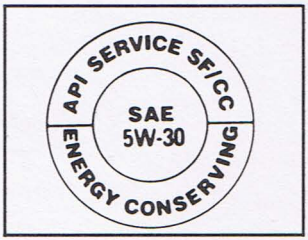
To close the lid, lift the front compartment lid panel slightly upward and push the lever on the front compartment lid support mechanism rearward. Then lower the lid down to within 10 inches of the latch. Release the lid at this point and allow it to close. The front compartment lid release handle has an auxiliary release cable. This cable has a round cylinder on the end and is secured in a clip behind the front compartment lid release handle.

Rear Compartment Lid (Engine Compartment) Release Location

The rear compartment lid is opened by inserting the oval head key into the rear compartment lid lock and turning the key 90° in a clockwise direction. Then raise the lid to the upright position.

To close, lower the rear compartment lid until it contacts the latch. Then press down on the lid until it locks. It is not necessary to slam the lid.

Engine Oil



Use an SF/CC-quality, SAE 5W-30, Energy-Conserving oil. It is the preferred engine oil for your vehicle. For additional important information on engine oil see "Engine Oil and Filter Recommendations" in Section 5. Add oil as needed to maintain the proper level within the operating range shown on the dipstick.

Tire Inflation Pressures

Check tire inflation pressures at least monthly (including the spare). Keep them inflated to the pressures shown on the Tire Placard on the driver's door. (Keep compact spare tires inflated to 415 kilopascals or 60 pounds per square inch.)

Engine Cooling System

Check the fluid level in the "see-through" coolant tank at regular intervals, such as during a fuel stop. The coolant recovery tank is located in the front compartment behind the radiator. (See "Engine Cooling System" in Section 5.)

Windshield Washer

Check the windshield washer reservoir fluid level regularly. The washer reservoir is located in the front compartment on the right front inner fender. Use a high quality premixed solvent available at most dealers or service stations, or GM Optilkeen. Avoid hard water when mixing Optikleen or other windshield washer solvents. Hard water

contaminants may plug orifices in the washer system and reduce performance.

Battery

Your new car has a Delco FREEDOM battery. You will never have to add water. The hydrometer (test indicator) in the cover provides information for testing purposes only. The battery is located under a special cover in the right front of the engine compartment. See the illustration in Section 5.

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Keep with car at all times. Contains important operating, safety and maintenance instructions