MOTORHOME
Class A Chassis

Your satisfaction is our #1 goal. If you have questions or concerns with your vehicle, we suggest you follow these steps:

1. Contact your Sales Representative or Service Advisor at your selling/servicing dealership.
2. If the inquiry or concern remains unresolved, contact the Sales Manager or Service Manager at the dealership.
3. If the inquiry or concern cannot be resolved at the dealership level, please contact the Ford Customer Assistance Center.

In the United States:

Ford Motor Company
Customer Assistance Center
300 Renaissance Center
P.O. Box 43360
Detroit, MI 48243
1-800-392-3673 (FORD)
TDD for the hearing impaired: 1-800-232-5952

In Canada:

Customer Assistance Centre
Ford Motor Company of Canada, Limited
P.O. Box 2000
Oakville, Ontario L6J 5E4
1-800-565-3673 (FORD)

Outside the U.S. or Canada:

FORD MOTOR COMPANY
EXPORT OPERATIONS
1555 Fairlane Drive
Fairlane Business Park #3
Allen Park, Michigan 48101
Telephone: (313) 317-4282
Fax: (313) 390-0804

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Introductory Information

Ford's Commitment to You

At Ford Motor Company, excellence is the continuous commitment to achieve the best result possible. It is dedication to learning what you want, determination to develop the right concept, and execution of that concept with care, precision, and attention to detail. In short, excellence means being the standard by which others are judged.

Our Guiding Principles

- **Quality comes first.** For your satisfaction, the quality of our products and services must be our number one priority.
- **You are the focus of everything we do.** Our work must be done with you in mind, providing better products and services than our competition.
- **Continuous improvement is essential to our success.** We must strive for excellence in everything we do: in our products — in their safety and value — and in our services, our human relations, our competitiveness, and our profitability.
- **Employee involvement is our way of life**. We are a team. We must treat one another with trust and respect.
- **Dealers and suppliers are our partners.** We must maintain mutually beneficial relationships with dealers, suppliers, and our other business associates.

- **Integrity is never compromised.** Our conduct worldwide must be pursued in a manner that is socially responsible and commands respect for its integrity and for its positive contributions to society.

Things to Know About Using This Guide

This guide will familiarize you with operational, maintenance and safety information about your new vehicle. It is supplemented by a Warranty Information Booklet. We urge you to read these publications carefully and follow the recommendations to help assure enjoyable and safe operation of your new vehicle.

This chassis is designed to fulfill an infinite variety of personal and business transportation needs. Of necessity, a vehicle capable of such a multitude of functions is much more than a passenger vehicle and will therefore look, feel, drive and function somewhat differently from a passenger vehicle. These characteristics will also, in part, be a result of the equipment you have chosen for your particular vehicle application(s). Therefore, it is very important that you read and thoroughly familiarize yourself and others operating your vehicle with this guide.

NOTES and WARNINGS

NOTES give you additional information about the subject matter you are referencing.

WARNINGS remind you to be especially careful in those areas where carelessness can cause damage to your vehicle or personal injury to yourself, your passengers or other people. Please read all **WARNINGS** carefully.

⚠WARNING

Finding Information in This Guide

After you have read this guide once, you will probably return to it when you have a specific question or need additional information. To help you find specific information quickly, you can use the table of contents or the index.

This guide has a **table of contents** at the beginning of the book to show chapter titles.

To use the **Index**, turn to the back of the book and search in the alphabetical listing for the word that best describes the information you need. If the word you chose is not listed, think of other related words and look them up. We have designed the Index so that you can find information under a technical term.

Canadian Owners — French Version

French Owner Guides can be obtained from your dealer or by writing to Ford Motor Company of Canada, Limited, Service Publications, P.O. Box 1580, Station B, Mississauga, Ontario L4Y 4G3.

Your Maintenance Schedule and Record Booklet

The *Maintenance Schedule and Record* booklet lists the services that are most important for keeping your vehicle in good condition. A record log is also provided to help you keep track of all services performed.

About the Warranties

Your vehicle is covered by four types of warranties:

- ❑ Basic Vehicle Warranty
- ❑ Extended Warranties on certain parts
- ❑ Emissions Warranties
- ❑ Noise Emissions Warranty Coverage; applicable only on vehicles over 10,000 GVW — Gross Vehicle Weight — in pounds.

Read your *Warranty Information Booklet* carefully to find out about your vehicle's warranties and your basic rights and responsibilities.

If you lose your *Warranty Information Booklet*, you can get a new one free of charge. Contact any Ford or Lincoln-Mercury dealer, or refer to the addresses and phone numbers on the first page of this owner guide.

Buying a Ford Extended Service Plan

If you bought your vehicle in the U.S., you can buy a Ford Extended Service Plan for your vehicle. This optional contract provides service protection for a longer period of time than the basic warranty that comes with your vehicle.

You do not have to buy this option when you buy your vehicle. However, your option to purchase the Ford Extended Service Plan runs out after 18 months or 18,000 miles. See your dealer for more details about the Ford Extended Service Plan.

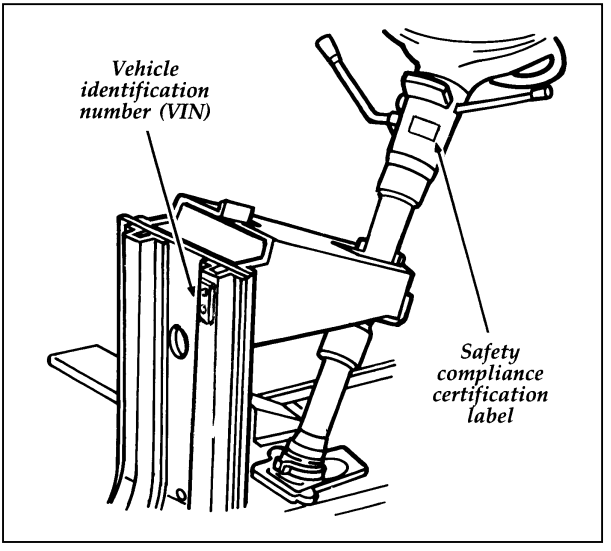
If you purchased a Canadian vehicle and did not take advantage of the Ford Extended Service Plan at the time of purchase, you may still be eligible. See your dealer for the details.

Special Notice

The Ford F-Super Duty Motorhome Chassis is not suitable for producing ambulances or school buses. In addition, Ford urges manufacturers to follow the recommendations of the **Ford Incomplete Vehicle Manual** and the **Ford Truck Body Builder's Layout Book** (and other pertinent supplements).

Your Vehicle Identification Number (VIN)

Your Vehicle Identification Number (VIN) is the same as the warranty number that appears on your owner card. You should include this number any time you write to Ford Motor Company about your vehicle.



The Vehicle Identification **(VIN)** is stamped on a metal tag attached to the chassis front end structure. It is visible from outside the vehicle under the hood.

Safety Compliance Certification Label

You'll also find the **VIN** and other important information on the Safety Compliance Certification Label. It is required by the National Highway Traffic Safety Administration and is made of special material. If someone tampers with it, it will be destroyed and/or a destruction pattern will appear.

The label contains the name of the manufacturer, the month and year of manufacture, the certification statement and the Vehicle Identification Number. The label also contains Gross Vehicle Weight Rating and Gross Axle Weight Ratings, wheel and tire data and information codes for additional vehicle data. For further information about the Safety Compliance Certification Label and the information contained on it, refer to the Index.

Incomplete Vehicles

On completed derivations of incomplete vehicles, the Safety Compliance Certification Label is affixed at a location determined by a subsequent stage manufacturer of the completed vehicle. In these cases the completed vehicle is manufactured in two (or more) stages by two (or more) separate manufacturers, with the manufacture of the completed vehicle occurring at a later date than the manufacture of the incomplete vehicle. Consequently, the model year of the completed vehicle may be later than the model year of its chassis.

Federal Highway Administration Regulation

Regulations such as those issued by the Federal Highway Administration or issued pursuant to the Occupational Safety and Health Act (OSHA), and/or state and local laws and regulations may require additional equipment for the way you intend to use the vehicle. It is the responsibility of the registered owner to determine the applicability of such laws and regulations to your intended use for the vehicle, and to arrange for the installation of required equipment. Your Ford dealer has information about the availability of many items of equipment which may be ordered for your vehicle.

Breaking Your Vehicle In

Your new vehicle goes through an adjustment or break-in period during the first 1,000 miles (1,600 km) that you drive it. During the break-in period, you need to pay careful attention to how you drive your vehicle.

- **Avoid sudden stops.** Because your vehicle has new brake linings, you should take these steps:

  — Watch traffic carefully so that you can anticipate when to stop.

  — Begin braking well in advance.

  — Apply the brakes gradually.

  The break-in period for new brake linings lasts for 100 miles (160 km) of city driving or 1,000 miles (1,600 km) of highway driving.

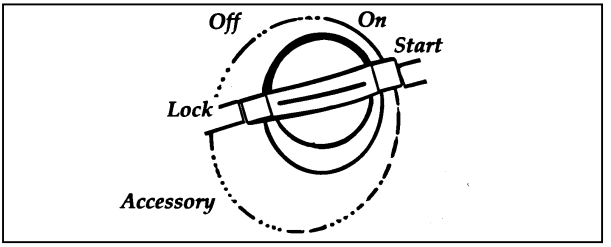
- ❑ Wheel lug nuts must be retightened to proper torque specifications at 500 miles/800 km of new vehicle operation. Proper torque specifications are provided in this guide. Also retighten to proper torque specification at 500 miles/800 km after any wheel change or any other time the wheel lug nuts have been loosened.

- ❑ **Use only the type of engine oil that Ford recommends**. Don't add anti-friction compounds or special break-in oils during the first few thousand miles of operation. These additives may prevent piston ring seating.

Starting Your Motorhome

Ignition

Understanding the Positions of the Ignition



The positions of the key in the ignition lock cylinder.

ON allows you to test your vehicle's warning lights (except the brake system warning light) to make sure they work before you start the engine. The key returns to the ON position once the engine is started and remains in this position while the engine runs.

START cranks the engine. Release the key once the engine starts so that you do not damage the starter. The key should return to ON when you release it. The START position also allows you to test the brake warning light.

OFF allows you to shut off the engine and all accessories without locking the steering wheel or the automatic transmission gearshift lever.

LOCK locks the steering wheel. It also locks the gearshift.

⚠WARNING
Always set the parking brake fully and make sure that the gearshift is securely latched in P (Park).

LOCK is the only position that allows you to remove the key. The LOCK feature helps to protect your vehicle from theft.

If the key is stuck in the LOCK position, move the steering wheel left or right until the key turns freely.

ACCESSORY allows some of your vehicle's electrical accessories such as the radio and the windshield wipers to operate while the engine is not running.

Removing the Key From the Ignition

Procedures for removing your key from the ignition are as follows:

Your vehicle's gearshift lever is mounted on the column:

1. Put the gearshift in P (Park).
2. Set the parking brake fully before removing your foot from the service brake. (This will avoid "binding" or "loading" the park gear if you park on a grade.)
3. Turn the ignition key to LOCK.
4. Remove the key.

⚠WARNING
Always set the parking brake fully and make sure that the gearshift is securely latched in P (Park).

⚠WARNING
Do not leave children, unreliable adults, or pets alone in your vehicle. They could accidentally injure themselves or others through inadvertent operation of the vehicle. Further, on hot, sunny days, temperatures in a closed vehicle could quickly become high enough to cause severe and possibly fatal injuries to people as well as animals.

Fuel-Injected Engines

Climate conditions and other factors play a large part in deciding how you should go about starting your vehicle. Read all the starting instructions carefully, so you'll be aware of these factors when you start your vehicle.

When starting a fuel-injected engine, **the most important thing to remember is to avoid pressing down on the accelerator before or during starting.** See *Starting Your Engine* in this chapter for details about when to use the accelerator while you start your vehicle.

Starting your vehicle

Preparing to Start Your Vehicle

⚠WARNING
Do not start your vehicle in a closed garage or other enclosed area. Never sit in a stopped vehicle for more than a short period of time with the engine running. Exhaust fumes are toxic. See *Guarding Against Exhaust Fumes* in this chapter for more instructions.

Before you start your vehicle, do the following:

1. Make sure you and all your passengers buckle your safety belts.
2. Make sure the headlamps and other accessories are turned off when starting.
3. Make sure that the gearshift is in P (Park) and the parking brake is set before you turn the key.

Starting Your Engine

To start your engine:

1. Follow the steps under *Preparing to Start Your Vehicle* at the beginning of this section.
2. Turn the ignition key to the ON position.
3. DO NOT depress the accelerator pedal when starting your engine. DO NOT use the accelerator while the vehicle is parked.
4. Turn the key to the START position (cranking) until the engine starts. Allow the key to return to the ON position after the engine has started.

   If you have difficulty in turning the key, rotate the steering wheel slightly because it may be binding.

For a cold engine:

- ❑ At temperatures **10˚F (-12˚C) and below:** If the engine does not start in **fifteen (15) seconds** on the first try, turn the key to OFF, wait approximately ten (10) seconds so you do not flood the engine, then try again.
- ❑ At temperatures **above 10˚F (-12˚C):** If the engine does not start in **five (5) seconds** on the first try, turn the key to OFF, wait approximately ten (10) seconds so you do not flood the engine, then try again.
- ❑ Do not hold the key in the START position for more than **fifteen (15) seconds** at a time.

For a warm engine:

- ❑ Do not hold the key in the START position for more than **five (5) seconds** at a time. If the engine does not start within five (5) seconds on the first try, turn the key to the OFF position. Wait a few seconds after the starter stops, then try again.

Whenever you start your vehicle, release the key as soon as the engine starts. Excessive cranking could damage the starter or flood the engine.

After you start the engine, let it idle for a few seconds. Keep your foot on the brake pedal and put the gearshift lever in gear. Release the parking brake. Slowly release the brake pedal and drive away in the normal manner.

NOTE: Your vehicle is equipped with a brake-shift interlock feature. This feature prevents you from shifting from P (Park) unless you have the brake pedal depressed. (The ignition must be in the ON position.) If you cannot shift from P (Park) with the brake pedal depressed:

1. Apply the parking brake.
2. Remove the key.
3. Insert the key and rotate one position clockwise (ignition in the OFF position).
4. Apply the brake pedal and shift to N (Neutral). (If the vehicle is shifted to P (Park), you must repeat the previous steps.)
5. Start the vehicle.

If you need to shift out of P (Park) by using the alternate procedure described above, it is possible that a fuse has blown and that your brakelamps may also not be functional. Please refer to the chapter titled *Servicing Your Motorhome* in this Owner Guide for instructions on checking and replacing fuses.

⚠**WARNING**
DO NOT DRIVE YOUR VEHICLE UNTIL YOU VERIFY THAT THE BRAKELAMPS ARE WORKING.

For cold or warm engines:

If the engine still does not start after two attempts:

1. Turn the ignition key to the OFF position.
2. Press the accelerator all the way to the floor and hold it.

3. Turn the ignition key to the START position.

4. Release the ignition key when the engine starts.

5. Release the accelerator gradually as the engine speeds up. Then drive away in the normal manner.

If the engine still does not start, the fuel pump shut-off switch may have been triggered. For directions on how to reset the switch see *Fuel Pump Shut-Off Switch* later in this chapter.

NOTE: When turning the ignition key from the "OFF" to the "RUN" position, a subtle humming may be heard for up to three seconds. This is the normal sound of an electronically controlled fuel pump, and indicates the operation or pre-pressurizing the EFI system for starting.

If the engine idle speed does not slow down automatically, do not allow your vehicle to idle for more than 10 minutes. Have the vehicle checked.

⚠WARNING
Extended idling at high engine speeds can produce very high temperatures in the engine and exhaust system, creating the risk of fire or other damage.

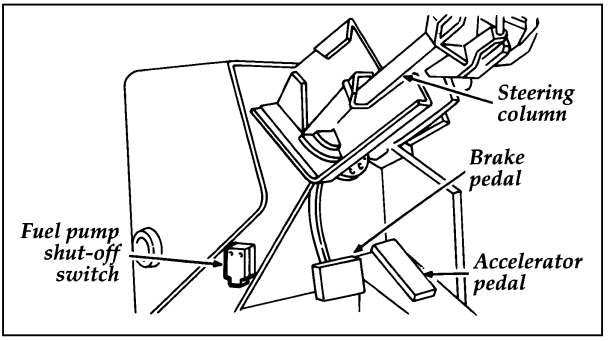
⚠WARNING
Do not park, idle, or drive your vehicle in dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, which can start a fire.

If the Engine Cranks but Does Not Start or Does Not Start After a Collision

Fuel Pump Shut-off Switch

If the engine cranks but does not start or does not start after a collision, the fuel pump shut-off switch may have been triggered. The shut-off switch is a device intended to stop the fuel pump when your vehicle has been involved in a substantial jolt.

Once the shut-off switch is triggered, you must reset the switch by hand before you can start your vehicle.

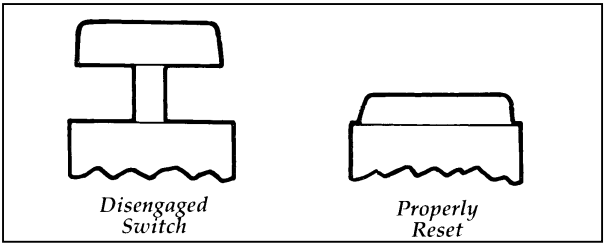


Fuel pump shut-off switch location

⚠WARNING
If you see or smell fuel, do not reset the switch or try to start your vehicle. Have all the passengers get out of the vehicle and call the local fire department or a towing service.

If your engine cranks but does not start after a collision or substantial jolt:

1. Turn the ignition key to the OFF position.
2. Check under the vehicle for leaking fuel.
3. If you do not see or smell fuel, push the red reset button down. If the button is already set, you may have a different mechanical problem.
4. Turn the ignition key to RUN for a few seconds, then turn it OFF. (Do not start the engine.)
5. Check under the vehicle again for leaking fuel. **If you see or smell fuel, do not start your vehicle again.** If you do not see or smell fuel, you can try to start your vehicle again.
6. Check all vehicle warning lights before driving your vehicle.



Reset button for fuel pump shut-off switch

Guarding Against Exhaust Fumes

Carbon monoxide, although colorless and odorless, is present in exhaust fumes. Take precautions to avoid its dangerous effects.

⚠WARNING

Do not start your vehicle in a closed garage or other enclosed area. Never sit in a stopped vehicle for more than a short period of time with the engine running. Exhaust fumes are toxic. See *Guarding Against Exhaust Fumes* in this chapter for more instructions.

⚠WARNING

If you smell exhaust fumes inside your vehicle, have your dealer inspect your vehicle immediately. Do not drive if you smell exhaust fumes.

Have the exhaust and body ventilation systems checked whenever:

- ❑ your vehicle is raised for service
- ❑ the sound of the exhaust system changes
- ❑ your vehicle has been damaged in a collision

Improve your ventilation by keeping all air inlet vents clear of snow, leaves, and other debris.

If the engine is idling while you are stopped in an open area for long periods of time, open the windows at least one inch (2.5 cm). Also, adjust the heating or air conditioning to bring in outside air.

- ❑ HEATING — Set fan speed at MEDIUM or HIGH, the function selector knob on VENT, FLOOR, FLR DEF or DEFROST symbol and the temperature control knob on any desired position.
- ❑ AIR CONDITIONING — Set the fan speed at MEDIUM or HIGH, the function selector lever on NORM or VENT and the temperature control knob on any desired position.

TAPPET NOISE

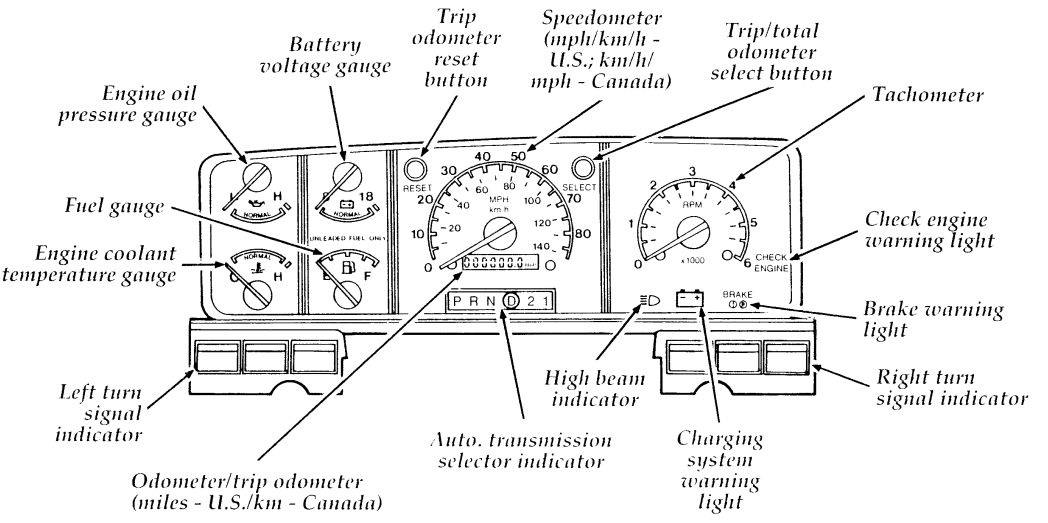
It is normal for the oil to drain down from the hydraulic tappets in your engine during extended shutdown periods (overnight). As a result, these tappets may clatter for a few seconds after the engine starts until oil pressure builds up. This momentary start-up noise is normal and is not harmful to engine operation.

Notes

Warning Lights and Gauges

The instrument panel (dashboard) on your vehicle is divided into several different sections. The illustrations on the following pages show the major parts of the instrument panel that are described in this chapter. Some items shown may not be on all vehicles.

In your vehicle, the warning lights and gauges are grouped together on the instrument panel. We call this grouping a cluster. Your vehicle has a mechanical cluster.


Engine oil pressure gauge
Battery voltage gauge
Trip odometer reset button
Speedometer (mph/km/h - U.S.; km/h/ mph - Canada)
Trip/total odometer select button
Tachometer
Fuel gauge
Engine coolant temperature gauge
Check engine warning light
Brake warning light
Right turn signal indicator
Left turn signal indicator
High beam indicator
Auto. transmission selector indicator
Charging system warning light
Odometer/trip odometer (miles - U.S./km - Canada)
RESET
SELECT
MPH
km/h
RPM
x1000
CHECK ENGINE
BRAKE
P R N D 2 1
NORMAL
UNLEADED FUEL ONLY

The Mechanical Cluster

The following warning lights and gauges are on the mechanical cluster. All of the warning lights and gauges alert you to possible problems with your vehicle. Some of the lights listed are optional. The following sections detail what each of these indicators means.

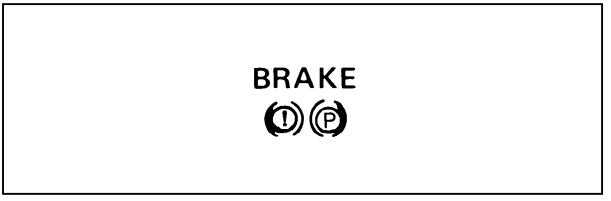
Brake System Warning Light

The warning light for the brakes can show two things — that the parking brake is not fully released, or that the brake fluid level is low in the master cylinder reservoir. If the fluid level is low, the brake system should be checked by your dealer or a qualified service technician.

This light comes on when you turn the ignition key to START to verify that the indicator bulb is working. If the light stays on or comes on after you have released the parking brake fully, have the hydraulic brake system serviced.

⚠WARNING

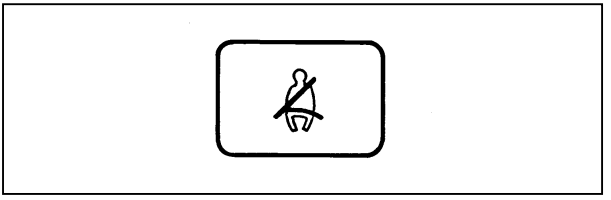
The BRAKE light indicates that the brakes may not be working properly. Have the brakes checked immediately.



Brake warning light symbols

Safety Belt Warning Light

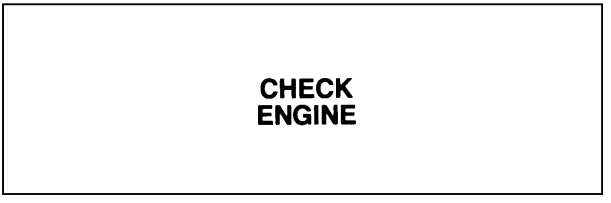
The warning light reminds you to fasten your safety belt. Each time the ignition is turned to ON, the warning light comes on for four to eight seconds to remind you to fasten your safety belt.



Safety belt warning light symbol

Check Engine Warning Light

The Powertrain On-Board Diagnostic II (OBD II) system consists of the hardware and software necessary to monitor the operation of the powertrain. The OBD II system is designed to check the function of the vehicle's powertrain control system during normal operation. If an emission problem is detected, the Check Engine Warning Light (in the cluster) is turned on.



Check engine warning light symbol

Modification or additions to the vehicle may cause incorrect operation of the OBD II system. Additions such as burglar alarms, cellular phones, and CB radios must be carefully installed. Do not install these devices by tapping into or running wires close to powertrain control system wires or components.

The light comes on briefly when you turn the ignition key to **ON**, but it should turn off when the engine starts. If the light does not come on when you turn the ignition to **ON** or if it comes on and stays on when you are driving, have your vehicle serviced as soon as possible. This indicates a possible problem with one of the vehicle's emission control systems. You do not need to have your vehicle towed in.

If the light turns on and off at one (1) second intervals while you are driving the vehicle, it means that the engine is misfiring. If this condition persists, damage could occur to the engine or catalytic convertor. Have your vehicle serviced at the first opportunity. You do not need to have your vehicle towed in.

If the light turns on and off on rare occasions while you are driving, it means that a malfunction occurred and the condition corrected itself.

An example of a condition which corrects itself occurs when an engine running out of fuel begins to misfire. In this case, the Check Engine Warning Light may turn on and will then set a Diagnostic Trouble Code indicating that the engine was misfiring while the last of the fuel was being consumed. After refueling, the Check Engine Warning Light will turn off after the vehicle has completed three consecutive warm up cycles without a misfire condition occurring. A warm up cycle consists of engine start from a

cold condition (engine at ambient temperature) and running until the engine reaches normal operating temperature.

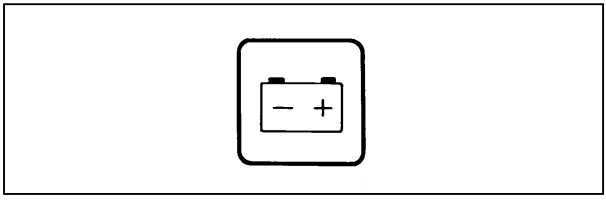
On the fourth engine start up, the Check Engine Warning Light will turn off as soon as the engine begins to crank. It is not necessary to have the engine serviced.

Under certain conditions, the Check Engine Warning Light may come on if the fuel cap is not properly installed. If the Check Engine Warning Light comes on and you suspect that the fuel cap is not properly installed, pull off the road as soon as it is safely possible and turn off the engine. Remove and replace the fuel cap, making sure it is properly seated.

After completing the three consecutive warm up cycles and on the fourth engine start up, the Check Engine Warning Light should turn off. If the light does not go off after the fourth engine restart, have your vehicle serviced by your dealer or a qualified technician.

Charging System Light

This light, shown as a battery symbol on your cluster, indicates that your battery is not being charged and that you need to have the electrical system checked.



Charging system light

This light comes on every time you turn the ignition to the ON or START position (engine off). The light should go off when the engine starts and the alternator begins to charge.

If the light stays on or comes on when the engine is running, have the electrical system checked as soon as possible.

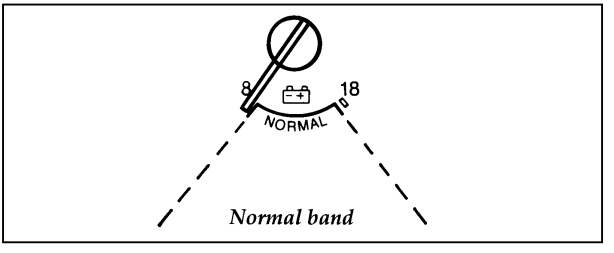
Battery Voltage Gauge (Voltmeter)

This gauge shows you the battery voltage when the ignition key is in the ON position.

If you are running electrical accessories (when the engine is off, or idling at a low speed), the pointer may move toward the lower end of the normal band. If it stays outside the normal band area, have your vehicle's electrical system checked as soon as it is safely possible.

If the battery is operating under cold weather conditions, the pointer may indicate in the upper range of the NORMAL band while the battery is charging. If you are running electrical accessories with the engine off or idling at a low speed, or the battery is not fully charged, the pointer may move toward the lower end of the NORMAL band.

If it stays outside the NORMAL band, have your vehicle's electrical system checked as soon as it is safely possible.



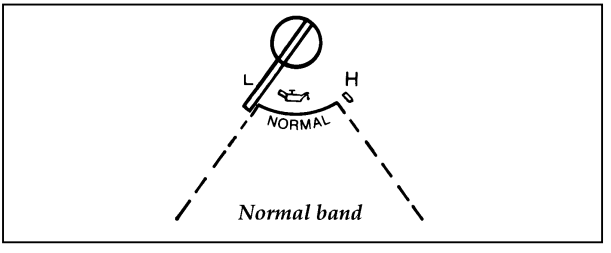
Battery voltage gauge

Engine Oil Pressure Gauge

This gauge indicates the engine's oil pressure, not the oil level. However, if your engine's oil level is low, it could affect the oil pressure. With the engine running, the pointer should move into the NORMAL band. If the pointer drops below the NORMAL band while the engine is running, you have lost oil pressure and continued operation will cause severe engine damage.

If you lose engine oil pressure:

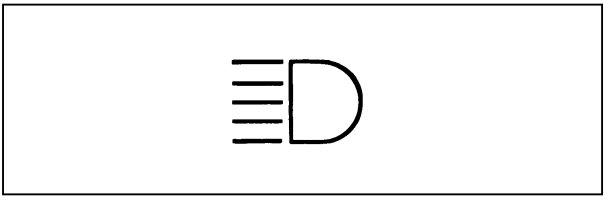
1. Pull off the road as soon as safely possible.
2. Shut off the engine immediately or severe engine damage could result.
3. Check the engine's oil level, following the instructions on checking and adding engine oil. Refer to *Engine oil* in the Index. If you do not follow these instructions, you or others could be injured. To assure an accurate reading, your vehicle should be on level ground.
4. If the level is low, add only as much oil as necessary before you start the engine again. Do not overfill. Do not operate the engine if the pointer is below the NORMAL band, regardless of the oil level. Contact your nearest dealer for further service actions.



Engine oil pressure gauge

High Beam Light

This light comes on when the headlamps are turned on high beam or when you flash the lights.



High beam indicator light

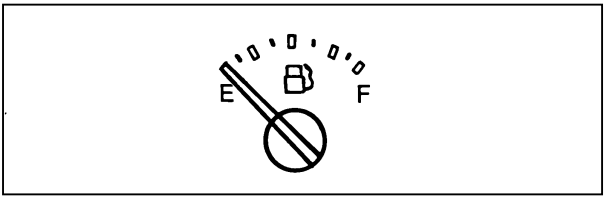
Fuel Gauge

The fuel gauge displays approximately how much fuel is in the fuel tank only when the ignition switch is ON.

For a proper fuel gauge indication after adding fuel, the ignition switch should be in the OFF position while the vehicle is being refueled.

The fuel gauge indicator may vary slightly when the vehicle is in motion.

With ignition switch OFF, the fuel gauge indicator may drift from the ignition switch ON position.



Fuel gauge

Engine Coolant Temperature Gauge

This gauge tells you the temperature of the engine coolant, not the coolant level. If the coolant is not at its proper level or mixture, the gauge indicator will not be accurate.

The pointer moves from the C (cold) mark into the Normal band as the engine coolant warms up. It is acceptable for the pointer to fluctuate within the Normal band under normal driving conditions. Under certain driving conditions, such as heavy stop and go traffic or driving up hills in hot weather, the pointer may indicate at the top of the Normal band.

If, under any circumstances, the pointer moves above the NORMAL band, the engine coolant is overheating and continued operation may cause engine damage.

If your engine coolant overheats:

1. Pull off the road as soon as it is safely possible.
2. Turn off the engine. If you do not stop the engine as soon as safely possible, severe engine damage could result.
3. Let the engine cool. **DO NOT REMOVE COOLANT SYSTEM FILL CAP UNTIL THE ENGINE IS COOL.**
4. Check the coolant level following the instructions on checking and adding coolant to your engine, see *Engine Coolant* in the Index. If you do not follow these instructions, you or others could be injured.

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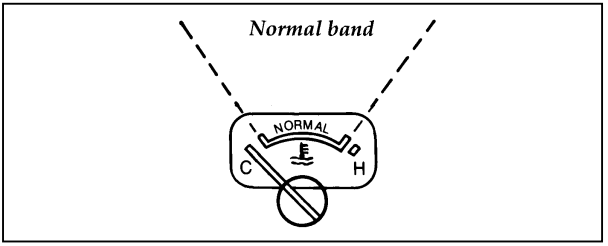
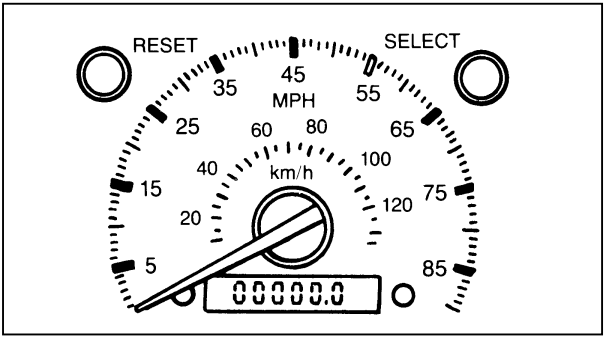


Engine coolant temperature gauge

Speedometer

The speedometer tells you how many miles (kilometers) per hour your vehicle is moving.

Your vehicle contains a speedometer which receives its input from a speed sensor. The speedometer is also used to provide a speed signal for correct operation of the vehicle's Electronic Engine Control (EEC) module, electronic transmission, and speed control (if so equipped).



Speedometer

Odometer/Trip Odometer

The Liquid Crystal Display (LCD) odometer is a combination trip odometer and total odometer. The total odometer is normally displayed. To see the trip odometer, press and release the SELECT BUTTON on the upper right side of the speedometer. To zero out the trip odometer, press and release the RESET button on the upper left side of the speedometer while the trip odometer is displayed. If the trip odometer is displayed, press and release the “Select” button to return the display to the total odometer value.

Instrument Panel Controls

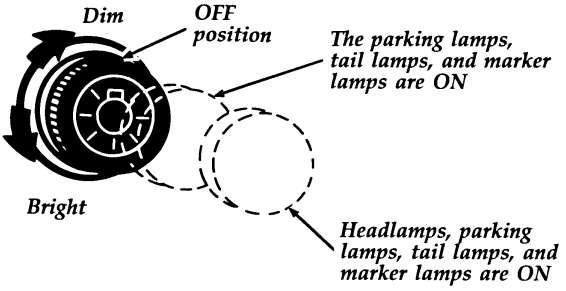
NOTE: The following section does not apply to Stripped Chassis vehicles. See your Body Builder's instructions for location and operation of controls for climate control systems, lamps and radio.

Turning On the Exterior Lights

To turn on your headlamps, parking lamps, marker lamps, and tail lamps, use the headlamp switch to the left of the steering column.

1. Pull the headlamp control knob toward you to the first position. Parking lamps, tail lamps and marker lamps are now on.

2. Pull the headlamp control knob toward you to the outer position. Headlamps are now on in addition to the above.



Rotate the knob when the headlamps are in one of the two "ON" positions for dimming or brightening the instrument panel lamps. Rotate fully counterclockwise to operate courtesy and cargo lamps.

Headlamp switch

Daytime Running Light System

(Canadian vehicles only)

The Daytime Running Light (DRL) system turns the high beam headlamps on, with a reduced light output, when:

- ❑ The headlamp system is in the OFF position, and
- ❑ The vehicle is running, and
- ❑ The vehicle has a fully released parking brake.

NOTE: You may notice that the lights flicker when the vehicle is turned on or off. This is a normal condition.

Steering Column Controls

The controls on the steering column and wheel are designed to give you easy access to the controls while you are driving.

The Turn Signal Lever

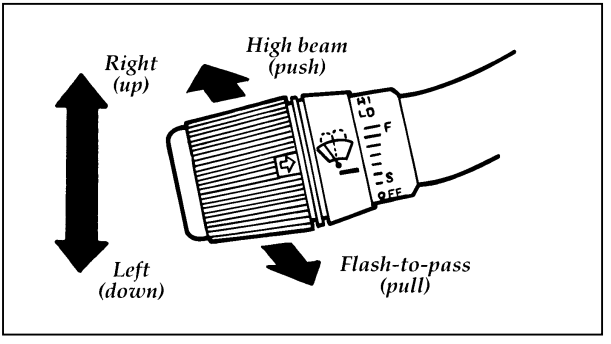
You can use the turn signal lever on the left side of the steering column to:

❑ operate the turn signals and cornering lamps

Turn Signals

Move the lever up to signal a right turn. Move it down to signal a left turn. The corresponding indicator light in the instrument cluster will flash.

If the turn signal stays on after you turn, move the lever back to the center (off) position.



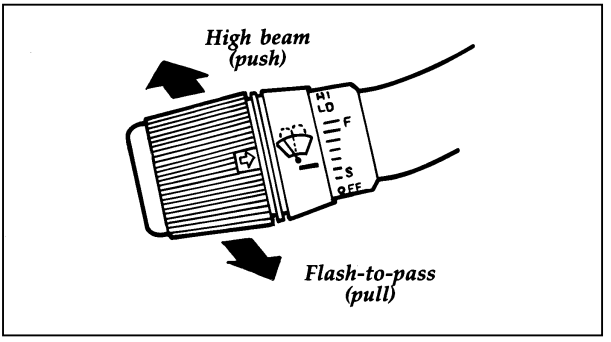
Turn signal lever and functions

If the turn indicator light in the instrument panel does not illuminate or remains on (doesn't flash) when you signal a turn, the turn signaling system is malfunctioning. Have this condition corrected as soon as possible, but make sure that you use the accepted hand signals in the meantime.

High Beams

To turn on the high beams, turn the headlamp control knob to the headlamp ON position and push the turn signal lever away from you until it latches. When the high beams are ON, the high beam indicator light on the instrument panel comes on.

To turn off the high beams, pull the lever toward you until it latches. The high beam indicator light turns off.



Headlamp high beam switch and turn signal lever

Flashing the Lights

To flash the headlamps, pull the lever toward you for a moment and then release it. The headlamps will flash whether the headlamp knob is in the on or off position.

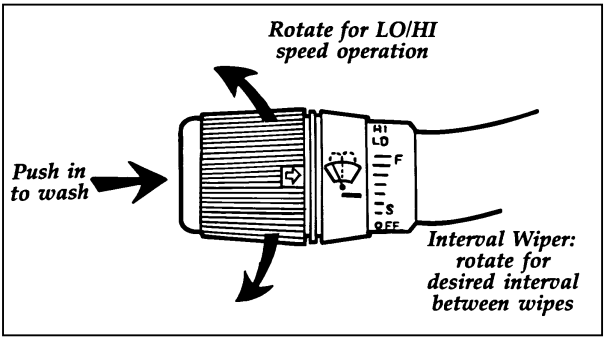
Windshield Wipers and Washer

To turn on the windshield wipers, the ignition key must be turned to the ON or ACC position.

Turn the knob on the end of the turn signal lever toward the front of the vehicle. You can turn it to either the LO or HI speed position.

Variable Interval Wipers

In addition to two speed wipers, your vehicle is equipped with wipers that you can set to operate at varying intervals. For example, you can set the interval so they wipe less often when it drizzles or more often in heavier rain.



Interval wiper on turn signal lever

To set the interval wipers, rotate the knob at the end of the turn signal lever toward or away from the instrument panel to the interval operation you desire.

Windshield Washer

To clean the windshield, push in the end of the wiper knob. For a constant spray, keep the knob pushed in. After you release the knob, the wipers operate for two to three cycles before turning off (if wipers were off) or returning to the interval selected.

Do not try to clean the windshield when the washer fluid container is empty or activate the washers at any time for more than 15 seconds continuously. This could damage the washer pump system.

⚠WARNING
In freezing weather, the washer solution may freeze on the windshield and obscure your vision. Always warm up the windshield with the defroster before you use the washer fluid. If you cannot see through the windshield clearly, it can increase the risk of being involved in a collision.

Hazard Flasher

The hazard flasher is used to alert other drivers to hazardous situations.

The flashers will continue to flash with the brake pedal depressed.

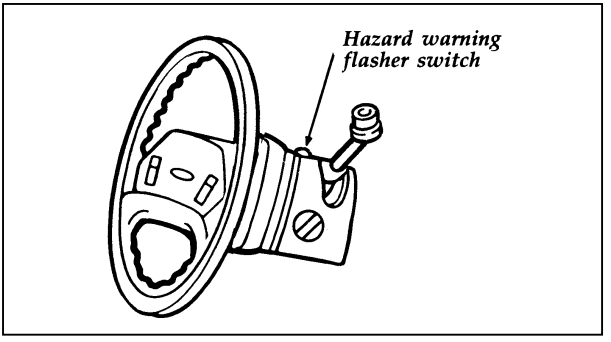
The flashers work whether your vehicle is running or not. The flashers work for up to two hours when the battery is fully charged and in good condition without draining the battery excessively. If the flashers run for longer than two hours or if the battery is not fully charged, the battery can be drained.

To use the hazard flasher:

1. Push in the flasher button; it will pop out and the lamps will begin to flash.

2. To stop the flashers, push in the flasher button again.

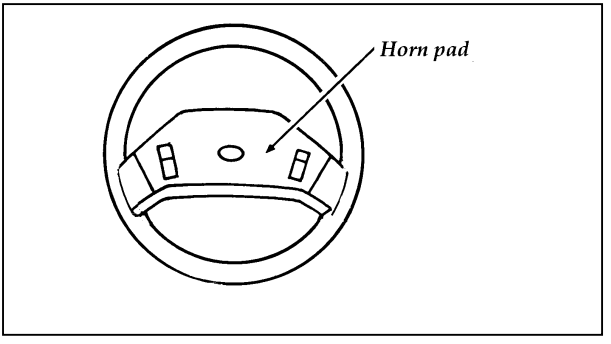
NOTE: The flasher button will be sticking up slightly higher when ON than when OFF.



Hazard flasher

Horn

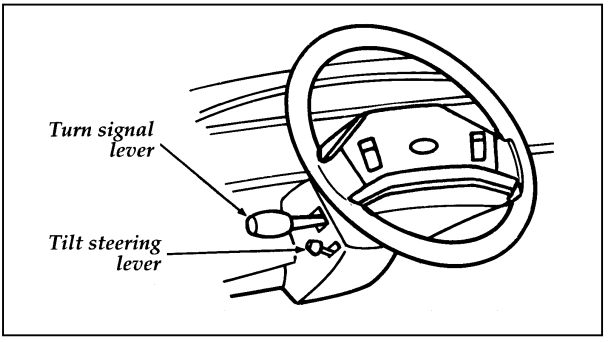
To sound the horn, push the center pad area of the steering wheel.



Horn location

Tilt Steering

⚠WARNING
Never adjust the steering wheel when the vehicle is moving.



Turn signal and tilt release wheel lever

To change the position of the steering column/wheel, pull the release lever on the column toward you. Tip the steering wheel to the desired position. Release the lever to lock the steering wheel in place.

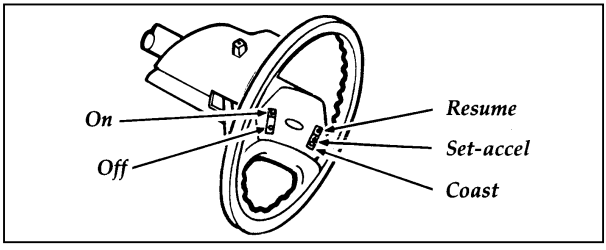
Be sure the steering wheel locks in a notch. It is not infinitely adjustable. Do not adjust the steering wheel while the vehicle is in motion.

Speed Control

Your vehicle has speed control, so you can automatically maintain a constant speed above 30 mph (50 km/h). The switches to operate the speed control are on the steering wheel.

Use of radio transmitting equipment that is not Federal Communications Commission (FCC) or in Canada the Canadian Radio and Telecommunications Commission (CRTC)

approved may cause the speed control to malfunction. Therefore, use only properly installed FCC (CRTC in Canada) approved radio transmitting equipment in your vehicle.



The speed control switches

To set the speed control:

1. Press and release the ON switch.
2. Accelerate to the desired speed above 30 mph (50 km/h) using the accelerator pedal.
3. Press the SET–ACCEL switch and release it immediately to set your speed. If you keep this switch pressed, your speed will continue to increase.
4. Take your foot off the accelerator pedal. Your vehicle will maintain the speed you set.

If you drive up or down a steep hill, your vehicle may momentarily slow down or speed up, even though the speed control is on. This is normal.

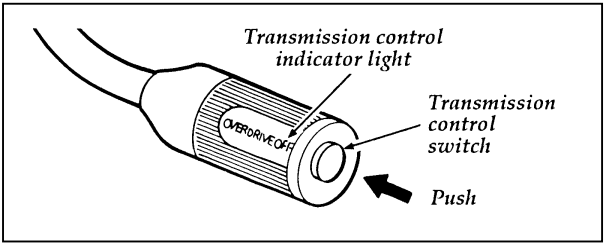
NOTE: If your speed increases above your set speed while driving in D (Overdrive) on a downhill grade, you may want to depress the transmission control switch located on the shift lever to turn off overdrive to reduce vehicle speed. Speed control cannot reduce the vehicle speed if it goes above your set speed on a downhill grade. For the best fuel economy during normal driving conditions, leave the shift select in D (Overdrive), or resume as soon as practical.

⚠WARNING
Do not use the speed control in heavy traffic or on roads that are winding, slippery, or unpaved.

In mountainous areas, at higher elevations, or when pulling a trailer, the speed control may not be able to maintain the preset speed with the transmission in D (Overdrive).

⚠WARNING
Do not shift the transmission into N (Neutral) with the speed control on.

To maintain a preset speed under the above conditions, with electronically controlled transmissions — press the Transmission Control Switch. The indicator light will turn on and illuminate the word “OFF.” This will cancel “Overdrive”. You can press the Transmission Control Switch on or off at any speed. For the best fuel economy during normal driving conditions, press the Transmission Control Switch to turn off the light. This allows overdrive operation.



Transmission control switch and Indicator light

Accelerating With the Speed Control Operating

You can use the accelerator pedal to speed up momentarily. When you take your foot off the accelerator, the vehicle will return to the set speed.

Resetting the Speed Control

To reset the speed control to a **lower speed**, press and hold the COAST switch. Let your vehicle slow down to the desired speed and release the COAST switch.

Your vehicle has a "tap-down" feature that allows you to decrease your current speed in increments of 1 mph (1.6 km/h) by a momentary tap of the COAST switch. Multiple taps of the COAST switch will decrease your vehicle speed 1 mph (1.6 km/h) for each tap. For example, if you are currently set at 65 mph (104 km/h) and tap the COAST switch 5 times your vehicle speed will decrease and set at 60 mph (96 km/h).

To reset the speed control to a **higher speed**, you can follow any of these procedures:

- ❑ Accelerate to the desired speed using the accelerator pedal, then press the SET–ACCEL switch and release it immediately.
- ❑ Press and hold the SET–ACCEL switch until the vehicle accelerates to the desired speed, then release the switch.

Turning the Speed Control Off

You can cancel the speed control while you are driving.

- ❑ Press the OFF switch. The speed control is off. If you want to resume speed control, press the ON switch and reset the speed control by pressing the SET ACCEL button.
- ❑ Press the brake pedal slightly. The speed control is suspended, but you can reset it by pressing SET ACCEL or return to the previous set speed with the RESUME switch.

In addition, the speed control is turned off each time you turn the vehicle off.

Driving uphill or on a steep grade

When the speed control is on, your vehicle may significantly drop speed when driving uphill, especially with a heavy load. If the speed drops more than 8 to 14 mph (15 - 25 km/h) the automatic speed control will, by design, be canceled. You may have to temporarily resume manual speed control while driving up a steep grade in order to maintain the speed you desire.

Frequent shifting of an automatic transmission or speed loss during speed control operation can be eliminated by shifting out of overdrive into drive (or by pressing the Transmission Control Switch, if equipped). These conditions could occur in hilly terrain or at higher elevations.

If the speed control “dropped out” after your climb is completed, the speed of your vehicle can be reset with the SET ACCEL switch, or returned to the previous set speed with the RESUME switch, as long as you are driving over 30 mph (50 km/h).

Cancelling and Resuming a Set Speed

If you press the brake pedal, the speed control is cancelled. You can return to the speed you set by using the RSM switch, as long as you did not press the OFF switch.

To resume the speed you had before, you must be driving at least 30 mph (50 km/h).

Press and release the RESUME switch. Your vehicle gradually returns to the previously set speed and then maintains it.

⚠**WARNING**
If your vehicle has speed control, do not use it on slippery roads. You could lose control of your vehicle and could injure someone.

Notes

Driving Your Motorhome

Automatic Transmission Operation (E4OD)

The E4OD transmission is an electronically controlled four speed automatic transmission with overdrive. Transmission operation is controlled by the Powertrain Control Module (PCM).

The PCM will automatically adjust transmission operation to make up for varying conditions. Several sensors located on the engine and transmission such as Throttle Position, Engine Speed, Vehicle Speed and Transmission Temperature are used by the PCM to shift the transmission into a higher or lower gear when required for the best performance and fuel economy. For example, you may notice that the transmission will upshift to a higher gear more quickly when the vehicle is first driven and has not reached normal operating temperature.

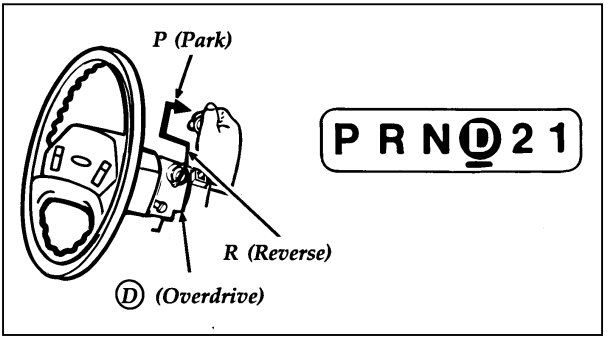
The PCM also controls the transmission's Torque Converter Clutch to further raise vehicle performance and fuel economy. The Torque Converter Clutch will engage when the transmission operating temperature and other conditions determined by the PCM have been met. Engagement of the clutch may be noted as a decrease in engine speed after an upshift has completed or when the driver has depressed the throttle while driving at a steady road speed.

To help in troubleshooting, the PCM continually performs self-tests on the electronic control system and if any faults are detected, will store them in memory. The Transmission Control Indicator Light (TCIL), which is located on the gearshift lever, may flash steadily if a malfunction has been detected. If the TCIL is flashing, contact your Ford dealer as soon as possible. If this condition persists, damage to the transmission could occur.

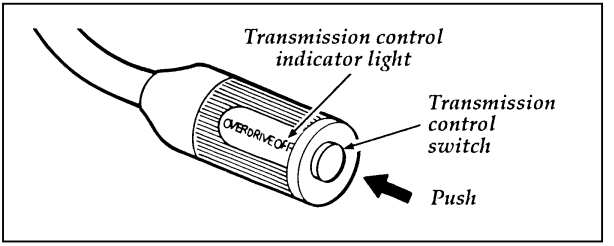
NOTE: The word "OFF" located on the end of the gearshift lever is the transmission control indicator light (TCIL).

Putting Your Vehicle in Gear

Your vehicle's gearshift is on the steering column. The Transmission Control Switch and indicator light are located on the end of the gearshift lever. You can put the gearshift in any of the several positions.



The positions of the column-mounted gearshift



Transmission Control Switch and indicator light (located on the gearshift lever)

⚠WARNING

Hold the brake pedal down while you move the gearshift lever from position to position. If you do not hold the brake pedal down, your vehicle may move unexpectedly and injure someone.

Once you place the gearshift securely into position, gradually release the brake pedal and use the accelerator as necessary.

NOTE: Your vehicle is equipped with a brake-shift interlock feature. This feature prevents you from shifting from P (Park) unless you have the brake pedal depressed. (The ignition must be in the ON position.) If you cannot shift from P (Park) with the brake pedal depressed:

1. Apply the parking brake.
2. Remove the key.
3. Insert the key and rotate one position clockwise (ignition in the OFF position).
4. Apply the brake pedal and shift to N (Neutral). (If the vehicle is shifted to P (Park), you must repeat the previous steps.)
5. Start the vehicle.

If you need to shift out of P (Park) by using the alternate procedure described above, it is possible that a fuse has blown and that your brakelamps may also not be functional. Please refer to the chapter titled *Servicing Your Motorhome* in this Owner Guide for instructions on checking and replacing fuses.

⚠**WARNING**
DO NOT DRIVE YOUR VEHICLE UNTIL YOU VERIFY THAT THE BRAKELAMPS ARE WORKING.

R (Reverse)

With the gearshift in the R (Reverse) position, the vehicle will move backward. You should always come to a complete stop before shifting into or out of R (Reverse).

Driving

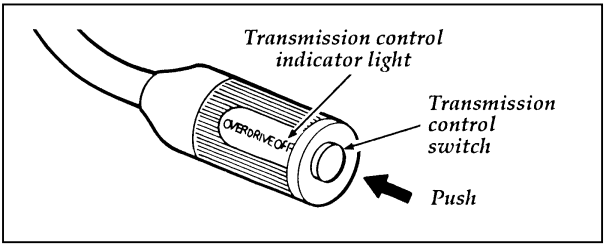
When to use Ⓓ (Overdrive)

This is the normal driving position. As the vehicle picks up speed, automatic upshifts to second, third and fourth gears will occur when Ⓓ Overdrive is chosen on the selector and the transmission control switch has not been pressed. The transmission will shift into the correct gear when the right speed is achieved, for the accelerator pedal position you have chosen.

When to use Drive

You will note that there isn't a drive position on your gearshift indicator. However, you will find a Transmission Control Switch and an indicator light labeled "Overdrive" located on the end of the gearshift lever. Press this switch and the word "OFF" will illuminate on the shift lever knob. With the word "OFF" illuminated, the

transmission will operate in gears one through three. Operating in the Overdrive "OFF" mode gives more engine braking than Overdrive and is useful for descending hills or when towing.



Transmission Control Switch and indicator light (located on the gearshift lever)

To return the transmission to the normal Ⓓ Overdrive operation, press the transmission control switch again. The Transmission Control Indicator Light will not be illuminated when Overdrive operation resumes. This switch may be used to select O/D ON or O/D OFF any time the vehicle is being driven.

When starting your vehicle, the overdrive system will automatically be in the normal overdrive mode.

If the Transmission Control Indicator Light is flashing on and off steadily, a transmission system malfunction was detected. The transmission will operate in a failure management mode and may have harsh engagements, firm shift feel, or abnormal shift schedule. If this condition persists, damage to the transmission could occur. Contact your dealer as soon as possible.

When to use 2 (Second)

Use 2 (Second) to start-up on slippery roads or to provide additional engine braking on downgrades. This position provides 2 (Second) gear operation only.

When to use 1 (Low)

Use 1 (Low) to provide maximum engine braking on steep downgrades. Upshifts from 1 (Low) can be made by manually shifting to 2 (Second) or D (Overdrive). Selection of 1 (Low) gear provides only low gear operation from start-up. Selection of 1 (Low) while at higher speeds provides a shift to second gear, and a shift to first gear will occur after the vehicle decelerates to the proper speed.

P (Park)

Always come to a complete stop before you shift into P (Park). This position locks the transmission and prevents the rear wheels from turning. To securely latch the gearshift in the P (Park) position, pull it toward you, push it completely counterclockwise against the stop, and then push it toward the instrument panel.

The gearshift is securely latched in P (Park) if you cannot rotate it in a clockwise direction without lifting it toward you.

⚠**WARNING**
Always set the parking brake fully and make sure that the gearshift is securely latched in P (Park).

⚠**WARNING**
Never leave your vehicle unattended while it is running.

Forced Downshifts

To gain extra acceleration in D Overdrive or Drive (O/D OFF), push the accelerator to the floor. The transmission will automatically downshift to the appropriate gear: third, second or first.

Power Braking

Increasing the engine speed above idle without vehicle movement (such as holding the brake) in a forward or reverse gear causes transmission stall.

NOTE: Continued operation in the stall condition can result in transmission overheat, malfunction or fluid expulsion.

Steering Your Vehicle

Your vehicle comes with power steering. Power steering uses energy from the engine to help steer your vehicle.

If the amount of effort needed to steer your vehicle changes at a constant vehicle speed, have the power steering system checked. If the power steering system breaks down (or if the engine is turned off), you can steer the vehicle manually but it takes more effort.

Never hold the steering wheel to the extreme right or left for more than five seconds if the engine is running. This can damage the power steering pump.

NOTE: After any severe impact such as striking large potholes, sliding into curbs on icy roads, or a collision involving the front end, observe the steering wheel alignment. If the spokes of the steering wheel seem to be in a different position while going straight down the road, have the front suspension and steering checked for possible damage.

Brakes

Your vehicle is equipped with the following features:

- ❑ Front self-adjusting disc brakes.
- ❑ Rear self-adjusting disc brakes.
- ❑ Independent front and rear hydraulic brake circuits with a common fluid reservoir and fluid level sensor in the master cylinder.
- ❑ Hydro boost.
- ❑ Parking brake.

Front Disc Brakes

The front disc brakes are self-adjusting. They do not require service other than periodic lubrication of caliper slide rails and inspection for pad wear.

Rear Disc Brakes

The rear disc brakes are self-adjusting. They do not require service other than periodic lubrication of the caliper slide rails and inspection for pad wear.

Hydraulic Power Brakes

The hydraulic brake system is made up of two independent hydraulic circuits. One hydraulic circuit supplies fluid to the front disc brakes and the other hydraulic circuit supplies fluid to the rear disc brakes. These two circuits are supplied by a common hydraulic brake fluid reservoir, with a fluid level sensor.

The brake light in the instrument cluster will light for low brake fluid in the common brake fluid reservoir.

⚠WARNING
An increase in pedal travel will result in reduced braking capability. The brake system should be checked immediately.

Hydraulic Brake Booster System (Hydro Boost)

The Hydro Boost system receives its source of power from the power steering system pump.

If Brakes Do Not Grip Well or Pedal is "Low"

If during normal operation the brake pedal seems "low", it may indicate the need for a brake system inspection and/or service. You should have your brakes checked as soon as possible.

Occasional brake squeal during light to moderate stops does not affect the function of the brake system and is normal. However, if the squeal becomes annoyingly loud or increases significantly in frequency of occurrence, return the vehicle to your dealer for inspection.

Stopping Distances

Stopping distances vary with different loads and driving conditions. Use caution when encountering new conditions and acquaint yourself with vehicle performance. Take full advantage of engine braking power when slowing down.

Applying the Brakes

Apply the brake pedal gradually. Use the "squeeze" technique — push on the brake pedal with a steadily increasing force. This allows the wheels to continue to roll while you are slowing down, which lets you steer properly.

⚠WARNING

Do not drive with your foot resting on the brake pedal. This will increase your vehicle's stopping distance and may also cause brake damage.

⚠WARNING

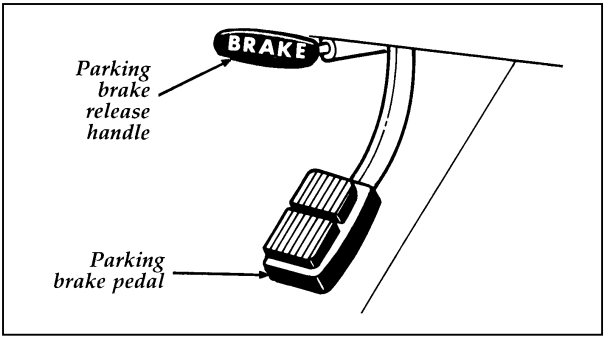
If you are driving down a long or steep hill, shift to a lower gear. Do not apply your brakes continuously, as they may overheat and become less effective.

When front or rear brake linings are replaced, it is essential that authorized Ford service replacement or equivalent linings be installed. This will assure that the vehicle stopping distances are not adversely affected and will maintain the proper balance between front and rear wheel braking.

Using the Parking Brake

The parking brake pedal is suspended just below the bottom of the instrument panel to the left of the service brake. To set the parking brake while parking your vehicle, press the brake pedal with your right foot and hold it while you push the parking brake pedal down firmly with your left foot.

The BRAKE warning light will go on as soon as you start to move the parking brake pedal. The brake will not prevent the vehicle from moving unless you push it down firmly and fully. Remove your foot from the service brake pedal and make sure there is no vehicle movement.



Parking Brake

⚠WARNING

Always set the parking brake fully and make sure the gearshift is latched in P (Park). Turn off the ignition whenever you leave your vehicle.

To release the parking brake, press the service brake pedal with your right foot and pull the parking brake release lever.

⚠WARNING

If the parking brake is fully released, but the Brake System light remains on, have the brakes checked immediately. They may not be working properly.

The parking brake is not designed to stop a moving vehicle, but you can use the parking brake to stop your vehicle in an emergency if the normal brakes fail. However, since the parking brake applies only the transmission mounted parking brake assembly, the stopping distance will increase greatly and the handling of your vehicle will be adversely affected.

Checking Parking Brake and Transmission Park Mechanism

Periodically check the holding ability of the parking brake by stopping on a steep hill and restraining the vehicle by using only the parking brake with the transmission in N (Neutral). Check the holding ability of the P (Park) mechanism (automatic transmissions) by releasing all brakes after moving the transmission selector lever to the P (Park) position.

Driving Under Special Conditions

Tips for Safe Driving

As with any new vehicle, yours may drive and handle differently from your previous vehicle. Use care until you become accustomed to its various features and driving characteristics.

Operate your vehicle within reasonable limits. Sudden acceleration, deceleration, turning, or combinations of these maneuvers can cause a vehicle to behave differently than anticipated.

Wheel Spin

- Extreme acceleration can cause the rear wheels to spin, perhaps resulting in reduced steering control.

If the wheels spin during vehicle start-up, shift to a different gear:

- Electronic 4-Speed Automatic Transmission E4OD: use 2 (Second)

Move forward slowly and evenly. If this does not work, try rocking the vehicle.

High Speed Driving

Ford Motor Company recommends obeying posted speed limits.

⚠WARNING

Driving too fast for conditions creates the possibility of loss of vehicle control. Driving at very high speeds for extended periods of time may result in damage to vehicle components.

Driving in Bad Weather

Slippery roads

Drive cautiously on wet or snowy roads:

- ❑ Do not quickly move the steering wheel unless necessary.
- ❑ Drive slower than you normally would.
- ❑ Give your vehicle more distance to stop.
- ❑ Pump the brake pedal steadily and evenly to avoid locking your front wheels
- ❑ To stop on ice, shift to N (Neutral) below 10 mph (16 km/h) and gently pump brakes.
- ❑ Consider using one of the lower gears.

⚠WARNING
To avoid skidding and losing control on slippery roads, do not downshift into First (1) when you are moving faster than 20 mph (32 km/h).

High water

Never attempt to cross water that is fast flowing or of unknown depth.

Do not drive through flooded areas unless you are sure that the water is below the bottom of the wheel hubs.

If you must drive through high water, drive slowly. You may have limited traction or wet brakes, so allow extra stopping distance because your vehicle will not stop as quickly as usual.

After you drive through the standing water, apply your brakes gently several times as your vehicle moves slowly. This helps to dry the brakes.

NOTE: If the transmission is submerged in water, the fluid should be checked and changed, if necessary.

NOTE: All rear axle lube quantities must be replaced every 100,000 miles (160,000 km) or if the axle has been submerged in water. Otherwise, the lube should not be checked or changed unless a leak is suspected or repair required.

Rocking the vehicle

If your vehicle gets stuck (for example, in mud or snow), you may rock it out of the spot. Shift in a steady rhythm between forward and reverse gears. Allow the transmission to fully engage, then press lightly on the accelerator. Do not rock the vehicle for more than a few minutes. This may overheat the engine and transmission, causing damage to both. In addition, other vehicle systems and components may also be damaged.

⚠**WARNING**
Do not spin the wheels at over 35 mph (55 km/h). The tires may fail and injure a passenger or bystander.

Vehicle/Trailer Loads

All vehicles may tow a Class I trailer provided the Gross Combined Weight (GCW) is less than or equal to the GVWR shown on the Safety Compliance Certification Label. For heavier trailer applications, refer to the towing information found later in this chapter.

Trailer Towing

Towing a trailer puts additional loads on your vehicle's engine, transmission, axle, brakes, tires and suspension. For your safety and for the good of your vehicle, use the right equipment for the type of trailer you tow.

Your trailer towing capability will vary based on the standard and optional equipment on your vehicle. Refer to the following *Vehicle Loading/Towing Information* and the Trailer Towing Tables to determine the specific towing capability of your vehicle.

- ❑ Stay within the load limits when you tow.
- ❑ Carefully and thoroughly prepare your vehicle for towing, making sure to use the right equipment and to attach it properly. (See *Preparing to Tow* in this chapter.)
- ❑ Use extra caution when driving your vehicle while you tow. (See *Driving while you tow* in this chapter.)
- ❑ Service your vehicle more frequently if you tow a trailer. (See *Servicing your vehicle if you tow* in this chapter.)

Do not tow a trailer until your vehicle has been driven at least 500 miles (800 km).

Vehicle Loading/Towing Information

Your vehicle's load capacity is designed by weight, not volume, so you cannot necessarily use all available space with large or heavy loads. Maximum safe vehicle weights as well as tire, rim sizes and inflation pressures are specified for your vehicle on the Safety Compliance Certification Label. A Safety Compliance Certification Label was supplied by Ford Motor Company to the Motorhome Manufacturer. The manufacturer uses this information and supplies a Compliance Certification Label which is located inside the vehicle to the left of the driver.

Trucks, unlike passenger cars, are basically custom vehicles designed to carry a load. Most owners start with a base vehicle and add production and dealer installed and/or aftermarket components to suit their tastes and purposes. Even trucks that are purchased for personal transportation only are likely to have considerable optional equipment, such as step bumpers and light bars, for example.

⚠WARNING

Passengers should not be allowed to ride in the cargo area. Persons not riding in a seat with a fastened seat belt are much more likely to suffer serious injury in a collision. Cargo should always be secured to prevent it from shifting and causing damage to the vehicle or harm to passengers.

Each additional item of equipment affects how much cargo a vehicle can carry. If a vehicle is overloaded, performance will suffer and service concerns may arise.

Understanding Loading/Towing Information

The following terms are used to describe the ability to carry or tow a load:

- ❑ Base Curb Weight
- ❑ Payload
- ❑ GVW (Gross Vehicle Weight)
- ❑ GVWR (Gross Vehicle Weight Rating)
- ❑ GAWR (Gross Axle Weight Rating)
- ❑ GCWR (Gross Combined Weight Rating)
- ❑ Maximum Trailer Weight Rating
- ❑ Maximum Trailer Weight
- ❑ Trailer Weight Range

Base Curb Weight

The Base Curb Weight is the weight of the vehicle including fuel, coolants, lubricants, emergency tools, spare wheel and tire. It also includes any equipment that is *standard* on that model. It does not include passengers, cargo or optional equipment installed by factory, dealer, aftermarket supplier or customer.

Payload

Payload is the combined, maximum allowable weight of cargo, occupants and optional equipment that the truck is designed to carry. It is Gross Vehicle Weight Rating minus the base curb weight.

Gross Vehicle Weight (GVW)

If you add base curb weight and the weight of a load (including passengers, cargo and optional equipment) being carried at a particular time, you get the Gross Vehicle Weight (GVW).

It is important to remember that GVW *is not a limit or a specification.* If an owner loads up a vehicle and weighs it, that's the GVW at that moment. If the owner piles on more of a load and weighs it again, that becomes the GVW until such time as the vehicle is unloaded.

Gross Vehicle Weight Rating (GVWR)

To avoid overloading a vehicle, the owner should observe the manufacturer's specified Gross Vehicle Weight Rating. The GVWR is the maximum total weight of base vehicle, passengers, optional components and cargo that a particular vehicle was designed to carry.

Gross Axle Weight Rating (GAWR)

We have all seen a car or a truck that is loaded down in the rear and riding high in the front. This is a dangerous condition that usually means that the rear suspension components are under severe strain and that vehicle handling is impaired. There is more to carrying a load than just payload or GVWR.

Your Safety Compliance Certification Label not only gives the GVWR, it also gives the Gross Axle Weight Rating (GAWR) which is the carrying capacity for each axle system. For trucks, the rear axle will be designed to carry more weight than the front.

The rating is based on the carrying capacity of the *lowest rated* axle and suspension component as well as other factors. This is why it's so important to observe vehicle loading ratings. Overloading a vehicle punishes components and can lead to shortened service life or outright failure.

The capacity of the tires is included as part of the axle and suspension system, which is to be considered when determining the lowest rated component. Tires are rated to carry a specific maximum load at a specific maximum tire pressure.

Passenger car type tires when installed on light trucks and multipurpose passenger vehicles are rated at 10% lower load carrying capacity due to the differences in vehicle usages.

With the tires inflated to the specified pressure the total weight of your vehicle must not exceed the GVWR and GAWR specified on the Safety Compliance Certification Label. This includes full fuel tank(s), vehicle equipment, and occupants as well as the cargo load.

GCWR (Gross Combined Weight Rating)

GCWR is the maximum combined weight of the towing vehicle (including passengers and cargo) and the loaded trailer. The GCWR is specified by the manufacturer to indicate the combined maximum loaded weight that the vehicle is designed to tow.

Maximum Trailer Weight Rating

The maximum trailer weight rating is the maximum weight of a trailer the vehicle is permitted to tow. It is specified by the manufacturer and is determined by subtracting the vehicle curb weight for each engine/transmission combination, any required option weight for trailer towing and the weight of the driver from the GCWR for the towing vehicle.

Maximum Trailer Weight

The maximum trailer weight is the maximum weight of a trailer the loaded vehicle is permitted to tow. It is determined by subtracting the weight of the loaded towing vehicle (including passengers and cargo) from the GCWR for the towing vehicle.

Trailer Weight Range

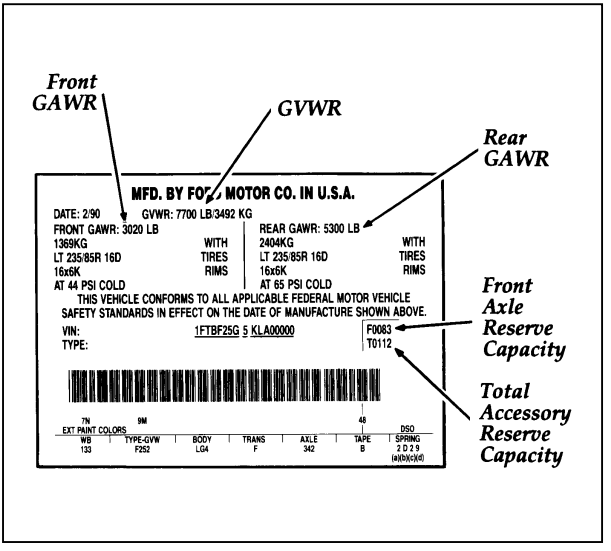
The trailer weight range is a specified range by weight, which the trailer must fall within, ranging from zero to the maximum trailer weight rating.

Calculating The Load

To know how much weight your vehicle can carry:

- ❑ Obtain ratings from your Safety Compliance Certification Label, and the Trailer towing specifications in the owner guide (refer to the Index)
  - — Refer to the following sample illustration to locate the various ratings on your Safety Compliance Certification Label.
  - — If you do not plan on pulling a trailer, do not include these ratings into your calculations.

- ❑ Weigh your vehicle as you customarily operate the vehicle without cargo.
- ❑ Subtract the total weight of passengers, driver and optional equipment added by the factory, dealer or aftermarket supplier to determine how much cargo weight you can carry.

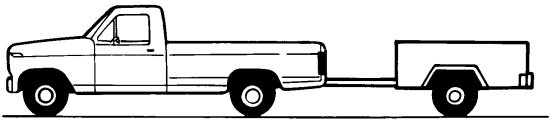


Sample label

If you suspect that your payload is excessive, have your vehicle weighed at a highway weigh station or appropriate commercial facility. Weigh the total vehicle and trailer (if applicable), then separately weigh the vehicle at the front and rear wheels. And finally, weigh the trailer separately if applicable.

Use this chart to perform your calculations.

Actual Weights



GAW Front _____

GAW Rear _____

GAW Trailer _____

GVW (GAW Front & Rear) _____

GCW (Gross Combined Weight)
(GAW Front & Rear & Trailer) _____

Refer to your owner manual charts to find the maximum GCWR for your type of engine and rear axle ratio.

Ratings	Actual	Load Capacity Available
GAWR F _____	_____	_____
R _____	_____	_____
GVWR _____	_____	_____
GCWR _____	_____	_____

Subtract the actual weights from the ratings to determine the available cargo load capacity.

NOTE: The Truck Safety Compliance Certification Label has two weight related entries that sometimes cause confusion.

Front Axle Reserve Capacity in Pounds (kgs): On the sample label, this value is given as 83 pounds (38 kgs). Does this mean that you are limited to adding only 83 pounds (38 kgs) of accessories to the front end capacity? Not exactly. This says that you can load 83 pounds (38 kgs) of options on the front axle, add 150 pound (68 kgs) passengers to all seating positions, and add evenly distributed cargo in the box without exceeding the GAWR F.

It is possible to hang heavier equipment on the front as long as the vehicle owner/operator compensates. This can be accomplished, if necessary, by carrying fewer passengers, less cargo or positioning cargo more toward the rear, which has the effect of reducing the load on the front. Keep in mind that the GAWR F, GAWR R, nor the GVWR should ever be exceeded.

Total Accessory Reserve Capacity in Pounds (kgs): On the sample label this value is given as 112 pounds (51 kgs). This is a number that is related to government crash test standards, and only indirectly reflects on the amount of accessory weight that can be carried.

In the case of both these numbers (83 and 112 pounds) (38 and 51 kgs), the important thing to remember is that for safe operation, an owner/operator should calculate the amount and the distribution of all weights (passengers, accessory equipment and cargo). These combined weights should fall below the vehicle's GVWR and GAWR.

Trailers

Towing a trailer safely means having the proper weight on the tongue (usually 10% of the trailer weight). Load-equalizing hitches on large rigs may transfer weight to each of the vehicle's axles. This weight must be included in capacity calculations when determining if the vehicle is loaded within safe limits.

If your vehicle exceeds the GVWR, remove cargo from your vehicle accordingly. If your vehicle exceeds the GAWR for either axle, shift the load or remove cargo accordingly.

⚠WARNING

If the GVWR or the GAWR specified on the Safety Compliance Certification Label is exceeded, your vehicle may be damaged or you may lose control and injure someone.

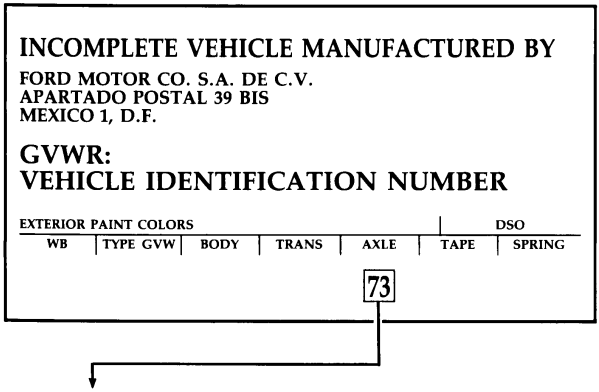
⚠WARNING

Towing trailers beyond the maximum recommended gross trailer weight could result in engine damage, transmission/axle damage, structural damage, loss of control, and personal injury.

Use the Safety Compliance Certification Label to find the axle code number and the engine type for your vehicle.

Use the appropriate Maximum Gross Combined Weight Rating (GCWR) chart to find the Maximum GCWR for your type engine and rear axle ratio.

Subtract your Loaded Vehicle Weight from the Maximum GCWR found in the chart. This is the maximum trailer weight your vehicle can tow and must fall below the maximum shown under Trailer Weight on the chart.



Rear Axle Codes

Code	Description	Capacity		Ratio
		Lbs.	Kgs	
F-Super Duty Motorhome Stripped Chassis				
72	Dana	11,000	4,989	4.63
73	Dana	11,000	4,989	5.13

ENGINE TYPE, DISPLACEMENT, CYLINDERS, FUEL TYPE, AND MANUFACTURER (VIN POSITION 8)

1 F T D F 2 5 **G** 5 G L A 0 0 0 0 1

VIN Code	Displacement		Cylinders	Fuel	Manufacturer
	Liter	CID			
G	7.5 EFI	460	V-8	Gasoline	Ford

Automatic Transmissions

TRAILER TOWING TABLE AUTOMATIC TRANSMISSION				
GCWR (Gross Combined Weight Rating)/Trailer Weights				
Engine (EFI)	**Rear Axle Ratio**	**Maximum GCWR Lb (Kg)**	**Trailer Weight Range Lb (Kg) (0-Maximum)**	**Maximum Frontal Area of Trailer Ft^2**
7.5L	5.13	25,000 (11,340)	0-8,000 (3,629)	60

NOTES:
- For high altitude operation, reduce GCW by 2% per 1,000 ft. (300 meters) elevation.
- For definition of terms used in this table see *'UNDERSTANDING LOADING/TOWING INFORMATION'* earlier in this section.
- To determine the maximum trailer weight designed for your particular vehicle as equipped, follow the section called *'CALCULATING THE LOAD'* earlier in this section.
- Maximum trailer weights shown. The combined weight of the completed towing vehicle (including hitch, passengers and cargo) and the loaded trailer must not exceed the Gross Combined Weight Rating (GCWR).

Preparing to Tow

For your safety and for the good of your vehicle, use the right equipment for the type of trailer you tow. Also, make sure that all towing equipment is properly attached to your vehicle. If you are not certain that you are using the right equipment in the proper manner, see your Ford or Lincoln-Mercury dealer.

Hitches

For towing trailers up to 2,000 lb (907 kg), use a weight carrying hitch and ball which uniformly distributes the trailer tongue loads through the underbody structure. Use a frame-mounted weight distributing hitch for trailers over 2,000 lb (907 kg).

Do not use single clamp bumper hitches or hitches which attach to the axle. Provisions for multi-clamp type temporary bumper hitch have been provided (Class I, max. loading), if installed properly. Follow towing instructions of a reputable rental agency.

Whenever a trailer hitch and hardware are removed, make sure all mounting holes in the underbody are properly sealed to prevent noxious gases or water from entering.

Safety Chains

Always use safety chains between your vehicle and trailer. Cross chains under the trailer tongue and allow slack for turning corners. Connect safety chains to the vehicle frame or hook retainers. Never attach chains to the bumper.

Trailer Brakes

Separate trailer brakes are required on most towed vehicles weighing over 1,500 lb (680 kg).

⚠WARNING

Do not connect a trailer's hydraulic brake system directly to your vehicle's brake system. Your vehicle may not have enough braking power and your chances of having a collision greatly increase.

Trailer lamps

Make sure your trailer lamps conform to Federal and local regulations.

NOTE: Do not connect a trailer lighting system directly to the lighting system of the vehicle. See your local recreational vehicle dealer or rental trailer agency for correct type of wiring and relays for your trailer and heavy-duty flashers. Incorrect installation may result in either a false warning or no warning in the lamp outage warning system.

⚠WARNING
Always replace a fuse with one that has the specified amperage rating. Using a fuse with a higher amperage rating can cause severe wire damage and could start a fire.

Driving While You Tow

Be especially careful when driving while you tow a trailer. Never drive faster than 45 mph (70 km/h) when you tow in hilly country on hot days. Also, anticipate stops so that you can brake gradually.

If you use the speed control while you are towing on very long, steep grades, the speed control may shut off.

If your vehicle is equipped with an Electronic 4-Speed Automatic (E4OD) transmission, operate in Overdrive. Refer to the automatic transmission operation earlier in this chapter.

For normal driving conditions, operate in Overdrive. Refer to the E4OD transmission operation earlier in this chapter.

When descending a steep grade with a trailer, operate in Drive rather than Overdrive. If additional braking is needed, shift the automatic transmission gearshift into 2 (Second) gear or 1 (Low).

Servicing Your Vehicle If You Tow

If you tow a trailer for a long distance, your vehicle will need to be serviced more frequently than usual. Refer to the *Maintenance Schedule and Record* booklet for additional information.

Trailer Towing Tips

Before starting on a trip, practice turning, stopping and backing in an area away from heavy traffic. Get to know the "feel" of the vehicle/trailer combination.

Practice backing up. Back up very slowly, with someone outside at the rear of your trailer to guide you. Place your hand at the bottom of the steering wheel and move it in the direction you want the rear of the trailer to swing. Slight movement of the steering wheel results in a much larger movement of the rear of the trailer.

Allow more room for stopping with a trailer attached. Trailer brakes should be applied first, whether manually or automatically controlled, when approaching a stop.

For a good handling truck-trailer combination, the trailer tongue load should be approximately 10-15% of the loaded trailer weight.

Make a thorough check of your equipment before starting out on the road. After you have traveled about 50 miles (80 km) stop in a protected area and double-check your hitch and electrical connections. Also check trailer wheel lug nuts for tightness.

When turning, drive slightly beyond the normal turning point so the trailer wheels will clear curbs or other obstructions.

When stopped in traffic for long periods of time in hot weather, place the gearshift selector lever in P (Park) to increase the engine idle speed. This aids in engine cooling and air conditioner efficiency. If the engine overheats, move the Function Selector Lever to VENT to stop the compressor and increase the engine speed for a short time.

Vehicles with trailers should not be parked on a grade. However, if you must park on a grade, place wheel chocks under the trailer's wheels as follows:

- ❑ Apply the brake pedal and hold.
- ❑ Have another person place the wheel chocks under the trailer wheels.
- ❑ With the chocks in place, release the foot service brakes, making sure the chocks are holding.
- ❑ Apply the parking brake by pressing the service brake pedal down firmly with your right foot while applying the parking brake pedal with your left foot.
- ❑ Shift the gearshift lever into P (Park).

To start, after being parked on a grade:

- ❑ Apply the foot service brakes and hold
- ❑ Start the engine
- ❑ Shift transmission into gear and release the parking brake
- ❑ Release the foot service brakes and move the vehicle uphill to free the wheel chocks
- ❑ Apply the brake pedal and hold while another person retrieves the chocks.

Roadside Emergencies

Jump-Starting Your Vehicle

Your vehicle's battery may die if you leave the lights on or any electrical equipment on after you turn the engine off. If this happens, you may be able to jump-start from a booster battery to start your vehicle.

⚠WARNING
The gases around the battery can explode if exposed to flames, sparks, or lit cigarettes. An explosion could result in injury or vehicle damage.

⚠WARNING
To protect yourself when charging a battery, always shield your face and eyes. Make sure that you can breathe fresh air.

⚠WARNING
Applying too much pressure on the ends when lifting a battery could cause acid to spill. Lift the battery with a carrier or with your hands on the opposite corners.

⚠WARNING
Batteries contain sulfuric acid which burns skin, eyes, and clothing.

If the acid touches someone's skin, eyes, or clothing, immediately flush the area with water for at least 15 minutes. If someone swallows the acid, have him or her drink lots of milk or water first, then Milk of Magnesia, a beaten egg, or vegetable oil. Call a doctor immediately.

To avoid damaging your vehicle or your battery, and to avoid injury to yourself, follow these directions for preparing your vehicle to jump-start and connecting the jumper cables in the order they are given. If in doubt, call for road service.

Preparing Your Vehicle

1. Your vehicle has a 12-volt starting system, so you need to use a 12-volt jumper system. You will damage your starting motor, ignition system, and other electrical parts if you connect them to a 24-volt power supply (either two 12-volt batteries in series or a 24-volt generator set).

2. Do not disconnect the battery of the disabled vehicle. You could damage the vehicle's electrical system.

3. Park the booster vehicle close to the hood of the disabled vehicle. **Make sure the vehicles do not touch each other.** Set the parking brake on both vehicles and stay clear of the engine cooling fan and other moving parts.

4. Check all battery terminals and remove any excessive corrosion before you attach the jumper cables.

5. Turn on the heater fan in both vehicles. Turning on the fan helps protect the electrical system from voltage surges. Turn off all other switches and lights in both vehicles to prevent possible damage to either vehicle's electrical systems.

Connecting the jumper cables

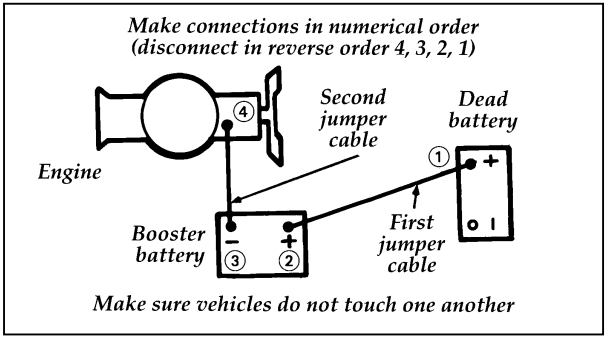
1. Connect one end of the first jumper cable to the positive (+) terminal of the discharged battery. (You can connect either jumper cable to the positive (+) terminal, as long as you use the same cable for both positive terminals.) Most jumper cables have a red cable and a black cable. The red cable is generally used for the positive terminals and the black for the negative ones.

2. Connect the other end of the first cable to the positive (+) terminal of the booster battery.

3. Connect one end of the second cable to the negative (-) terminal of the booster battery — NOT to the discharged battery.

4. Connect the other end of the second cable to a good metallic surface on the engine or frame of the disabled vehicle.

⚠**WARNING**
Do not connect the end of the second cable to the negative (-) terminal of the battery to be jumped. A spark may cause an explosion of the gases that surround the battery.



Attaching jumper cables

Jump-Starting

1. Make sure that the jumper cables are not in the way of moving engine parts, then start the booster vehicle. Run the engine at a moderate speed.

2. Let the discharged battery charge for a few minutes and then start the disabled vehicle. It may take a couple of tries before the vehicle starts. If the vehicle does not start after several attempts, there may be a different problem.

3. When both vehicles are running, let them idle for a few minutes to charge the discharged battery.

Removing jumper cables

1. **Always remove the jumper cables in the reverse order.** Remove the negative (–) end of the jumper cable from the metallic surface on the engine or frame of the disabled vehicle.

2. Remove the negative (–) cable from the booster battery.

3. Remove the positive (+) cable from the booster battery.

4. Remove the other end of the positive (+) cable from the discharged battery.

After the vehicle is started, let it idle for a while to let the engine "relearn" its idle conditions. Drive it around for a while with all electrical accessories turned off to let the battery recharge. **You may need to use a battery charger to fully recharge the battery.**

If you need to replace your battery, see *Battery* in the *Servicing Your Vehicle* chapter.

Changing a Tire

If you get a flat tire while you are driving, do not apply the brake heavily. Instead, gradually decrease the speed. Hold the steering wheel firmly and slowly move to a safe place on the side of the road. Park on a level spot, turn off the ignition, set the parking brake, and turn on the hazard flashers.

The Conventional Spare Tire

With the conventional spare tire, you can use it as a spare or as a regular tire. This spare tire is identical to the other tires that come with your vehicle.

Preparing to Change the Tire

NOTE: To lift your vehicle by other than the front or rear jacking points, be sure to use only hoist adapters with a wide contact surface.

1. Make sure that your vehicle will not move or roll. Put the gearshift in P (Park). Set the parking brake and block the wheel that is diagonally opposite the tire that you are changing.

On F-Super Duty vehicles, the parking brake is on the transmission. Therefore, the vehicle will not be prevented from moving when a rear wheel is lifted, even if the vehicle is in Park and the parking brake is applied. Be sure to block both directions of the wheel that is diagonally opposite to the wheel that is being lifted.

⚠WARNING
If the vehicle slips off the jack, you or someone else could be seriously injured.

⚠WARNING
Do not put any part of your body under the vehicle. Do not start the engine when your vehicle is on the jack. Never raise your vehicle by using a bumper jack.

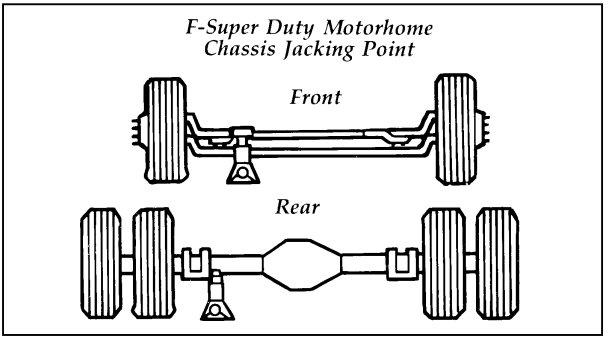
The jack is only for changing the tire in emergencies. The Ford F-Super Duty Jack is recommended. Use safety stands if you want to service the vehicle.

If an alternative jack is used, it must have a curved surface swivel head compatible with the stripped chassis jacking surfaces and must have a minimum load rating of 4 tons. Do not use a button head type jack.

⚠WARNING
Use of an improper jack could result in personal injury if jack slippage occurs.

2. To raise front wheels, position jack under bracket in front of axle, as shown.

3. To raise rear wheels, position jack under axle, against edge of spring bracket.



Positioning the jack

NOTE: Remove wheelcover/hubcaps from wheels as necessary to access the lug nuts.

❑ Use a jack to raise the vehicle slightly. Loosen the wheel lug nuts, but do not remove them until the tire is raised off the ground.

❑ Raise the vehicle until the wheel is clear of the ground. Finish removing the wheel lug nuts and wheel.

F-Super Duty Motorhome Chassis uses two-element swiveling lug nuts (and wheels designed to accommodate such lug nuts).

⚠WARNING

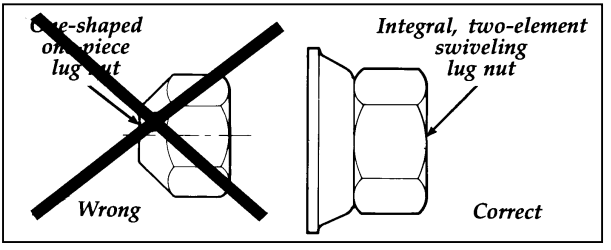
Use only the type of wheels and lug nuts furnished with your vehicle. Use of wheels or lug nuts other than original equipment could cause damage to the wheel or mounting system and allow the wheels to come off while the vehicle is in motion.

⚠WARNING

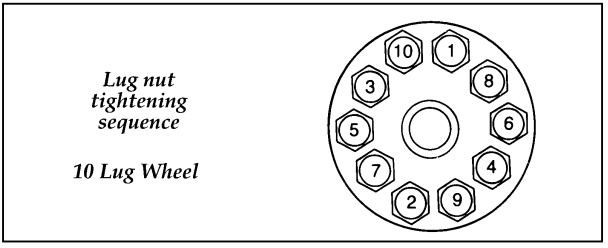
Do not use any type of wheel cover that is installed between the lug nuts and the wheel. Use of this type of wheel cover can cause the wheel lug nuts to loosen and could allow the wheel to come off while the vehicle is in motion.

There are locating pins on the hubs and wheels with corresponding holes. When you put the wheel back on, make sure the pins are lined up with the proper holes.

The wheels are attached to the hubs with integral two-element swiveling lug nuts.



Dual rear wheel nut



Lug nut tightening sequence

❑ Lower the vehicle until the tire touches the ground, and tighten lug nuts in the same sequence to the specifications shown in the chart below.

❑ Finish lowering the vehicle and replace any wheel covers, ornaments, or hub caps that your vehicle has. Make sure that they are snapped into place.

❑ Put the tire, jack, and wrench away. (Make sure jack is securely fastened so it doesn't rattle when you drive.)

⚠WARNING

Make sure spare tires and jacking equipment are stowed and secured in the proper storage location.

❑ Unblock the wheels.

Retighten the wheel lug nuts to the specified torque at 100 miles (160 km), and again at 500 miles (800 km) of new vehicle operation and at the intervals specified in the *Maintenance Schedule and Record* booklet.

Also retighten to the specified torque at 500 miles (800 km) of operation after any wheel change or any time the lug nuts are loosened.

⚠WARNING

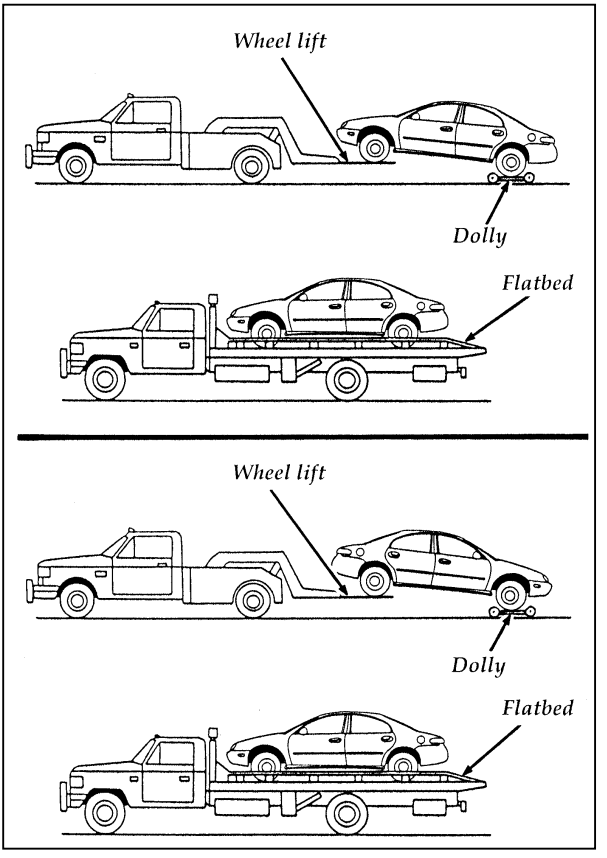
Failure to retighten wheel lug nuts at mileages specified could allow wheels to come off while the vehicle is in motion.

Bolt Size	Wheel Lug Nut Torque*	
	Ft-Lb	N•m
9/16-18	140	190

*Torque specifications are for nut and bolt threads free of dirt and rust. Do not use oil or grease on threads.
Use only Ford recommended replacement fasteners.

Towing Your Vehicle

If you need to have your vehicle towed, contact a professional towing service or, if you are a member, your roadside assistance center. Recommended towing options include wheel lift towing or flat bed towing.



When calling for a tow truck, tell the operator what kind of vehicle you have. A towing manual is available from Ford Motor Company for all authorized tow truck operators. Have your tow truck driver refer to this manual for the proper hook-up and towing procedures for your vehicle.

Customer Assistance

Motorhome Assistance

If you have a service concern, please follow the directions below. If you require roadside assistance (flat tire, jump start, fuel, locked out), please refer to *Roadside Assistance* in this section.

Call our Motorhome Customer Assistance Center (1-800-444-3311) which is available 24 hrs/day.

If inspections or repairs are required let the assistance center make an appointment for you at the most appropriate repair location in your area.

Please have the following information ready before you call:

- ❑ Vehicle Identification Number
- ❑ Current Mileage
- ❑ A Summary of Your Concern

When you arrive at the repair location explain your concern fully to the service writer. If your problem is resolved please contact (1-800-444-3311) and advise them accordingly.

If your service problem is not resolved, ask to see the Service Manager and review your concern with him.

If you are still not satisfied, contact (1-800-444-3311) and our Motorhome Customer Assistance Center will assist you and/or the repair location as needed.

Roadside Assistance

Ford Motor Company has set up a 24-hour, seven-day-a-week hotline with trained operators that put you in touch with the help you need if you experience a problem with your vehicle. This complimentary service is provided to you throughout your warranty period of 3 years or 36,000 miles (3 years or 60,000 km), whichever comes first. To purchase Roadside Assistance coverages beyond this period, through Ford Auto Club, contact your Ford or Lincoln-Mercury dealer (not available in Canada).

Roadside Assistance will cover the following:

- ❑ Mount your spare if you have a flat tire.
- ❑ Jump-start your battery if it is dead.
- ❑ Unlock your vehicle if you are locked out.
- ❑ Bring you fuel if you run out.
- ❑ Tow your vehicle if you are stranded. Even non-warranty related tows, like accidents or getting stuck in mud or snow, are covered (some exclusions apply, such as impound towing and repossession).

How to use Roadside Assistance

Your Roadside Assistance identification card can be found in the Owner Guide portfolio in your glove compartment. Complete the card and place it in your wallet for quick reference.

To receive roadside assistance in the United States call 1-800-241-FORD (in Canada call 1-800-665-2006).

Should you need to arrange for roadside assistance yourself, Ford Motor Company will reimburse the reasonable cost. To obtain information about reimbursement call 1-800-241-FORD (in Canada call 1-800-665-2006).

If You Have a Service Problem

Ford Motor Company has authorized Ford and Lincoln-Mercury dealerships that can service your vehicle for you. This chapter tells you how to get service or maintenance for your vehicle.

Service/Maintenance Concerns (U.S. or Canada)

Ford recommends that you take your vehicle to one of the dealers recommended by our Motorhome Customer Assistance center. The toll-free number for the Motorhome Customer Assistance center is 1-800-444-3311.

If you are not satisfied with the service you received from your dealership's service department, talk to the service manager at the dealership. If you still are not satisfied, talk to the owner or general manager of the dealership. In most cases, you will have your concern resolved at this level.

If you are away from home when your vehicle needs to be serviced, or if you need more help than the dealer gave you, contact the Ford Customer Assistance Center to find an authorized dealership that may be able to help.

In the U.S., contact:

Ford Motor Company
Customer Assistance Center
300 Renaissance Center
P.O. Box 43360
Detroit, Michigan 48243
1-800-392-3673 (FORD)
TDD for the hearing impaired: 1-800-232-5952

If you live in Canada and have any questions or concerns that the dealership cannot answer, contact the Customer Assistance Centre.

Customer Assistance Centre
Ford Motor Company of Canada, Limited
P.O. Box 2000
Oakville, Ontario L6J 5E4
1-800-565-3673 (FORD)

Please have the following information available when contacting Ford Customer Assistance:

- ❑ your telephone number (both business and home)
- ❑ the name of the dealer and the city where the dealership is located
- ❑ the year and make of your vehicle
- ❑ the date purchased
- ❑ the current mileage on your vehicle
- ❑ your Vehicle Identification Number (VIN) (listed on your owner card)

If you still have a service or product complaint, you may wish to contact the Dispute Settlement Board (U.S. only) or the Canadian Motor Vehicle Arbitration Plan (CAMVAP) in Canada.

The Dispute Settlement Board (U.S. Only)

The Dispute Settlement Board is a voluntary, independent dispute-settlement program available free to owners or lessees of qualifying Ford Motor Company vehicles.

The Dispute Settlement Board may not be available in all states. Ford Motor Company reserves the right to change eligibility limitations, modify procedures and/or to discontinue this process at any time without notice and without incurring obligations.

What Kind of Cases Does the Board Review?

The Board reviews all product performance and service complaints on Ford, Mercury and Lincoln Cars and Ford and Mercury Light Trucks under warranty that have not been resolved by a dealer or Ford Motor Company.

The Board does not review issues involving:

- ❑ A non-Ford product
- ❑ A non-Ford dealership
- ❑ A vehicle sales transaction
- ❑ A request for reimbursement of consequential expenses unless incidental to a service or product complaint being reviewed
- ❑ Items not covered by your warranty
- ❑ Alleged liability claims

- ❑ Property damage where such damage is significant when compared to the economic loss alleged under the warranty dispute
- ❑ Cases currently in litigation
- ❑ Vehicles not used primarily for personal, family, or household purposes

NOTE: Complaints involving vehicles on which applicable express written new vehicle warranties have expired at receipt of your application are not eligible. Eligibility may differ according to state law. For example, see the unique brochure for California purchasers/lessees.

How Does the Board Work?

The Board has four members:

- ❑ three consumer representatives
- ❑ a Ford or Lincoln-Mercury dealer

Consumer candidates for Board membership are recruited and trained by an independent consulting firm. Dealers are chosen because of their business leadership qualities.

If the involved vehicle is within 36 months and 36,000 miles of the date of delivery (warranty start date), you have a right to make an oral presentation before the Board by indicating your choice on the application. Also, oral presentations may be requested by the Board. A decision is made by the Board by simple majority vote.

Board members review all the materials related to each complaint and, based on the available information, arrive at a fair and impartial decision. Decisions are based on the written statements and any oral presentations made by each of the involved parties.

Because the Board usually meets only once a month, some cases will take longer than 30 days to be reviewed. The Board will make every effort to resolve each case within 40 days after it receives the customer application form.

After your case has been reviewed, the Board will mail you its decision in writing. It will also provide you with a form to indicate your acceptance or rejection of an award decision. The decisions of the Board are binding on the dealer and Ford, but customers may have other options available to them under state or federal law.

The decisions of the Board, however, may be introduced into evidence by any party in subsequent legal proceedings that may be initiated.

How Do You Contact the Board?

Write to the Board at the following address to request a brochure/application. You will be sent a brochure and a one-page customer application form. The form should be completed and mailed to the same address.

Dispute Settlement Board
P.O. Box 5120
Southfield, MI 48086-5120

What is the Review Process?

Your application will be reviewed and if it is determined to be eligible, you will receive an acknowledgment indicating the file number assigned to your application and the local Board address. At the same time, your dealer and Ford Motor Company representative are asked to submit statements.

To review your case properly, the Board needs the following information:

- ❑ legible copies of all documents and maintenance or repair orders that relate to the case
- ❑ the year, make, model, and vehicle identification number
- ❑ the date you bought your vehicle
- ❑ the date of repair and the mileage at the time of repair
- ❑ the current mileage
- ❑ the name of the dealer who sold you the vehicle or who serviced your vehicle
- ❑ a brief description of your unresolved complaint
- ❑ a brief summary of actions that were taken with the dealer and Ford Motor Company
- ❑ the names (if known) of all people you contacted at the dealership
- ❑ a description of the action you want done to resolve your concern.

Should your application NOT qualify for review, an explanation will be mailed to you.

Ford of Canada does not have a Dispute Settlement Board. If you have a problem that cannot be resolved by an agreement among you, Ford of Canada, and the Ford dealer, contact the Canadian Motor Vehicle Arbitration Plan (CAMVAP). In many areas of Canada, CAMVAP will help resolve the problem and, if necessary, will arrange for the matter to be arbitrated.

Reporting Safety Defects (U.S. Only)

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Ford Motor Company.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Ford Motor Company.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in the Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, 400 Seventh Street, Washington D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

Getting Help Outside the U.S. and Canada

Before you export your vehicle to a foreign country, contact the appropriate foreign embassy or consulate to make sure local regulations do not prevent you from registering your vehicle. Officials at the embassy can also help you decide whether you should import your vehicle to that country.

Officials at the embassy or consulate can tell you where to get unleaded fuel. If you cannot get unleaded fuel or can get only fuel with an anti-knock index that is lower than your vehicle needs, contact a district or owner relations office before you leave the U.S. or Canada.

Use of leaded fuel in your vehicle without a proper conversion may damage the effectiveness of your emissions control system and may cause engine knocking or serious engine damage. Ford Motor Company is not responsible for any damage that is caused by use of improper fuel.

You may also have difficulty importing your vehicle back into the U.S. if you use leaded fuel.

If your vehicle must be serviced while you are traveling or living in Central or South America, the Caribbean, or the Middle East, contact the nearest Ford dealership. If the dealership cannot help you, write to:

FORD MOTOR COMPANY
WORLDWIDE EXPORT OPERATIONS
1555 Fairlane Drive
Fairlane Business Park #3
Allen Park, Michigan 48101 U.S.A.
Telephone: (313) 594-4857
Fax: (313) 390-0804

If you are in other foreign countries, contact the nearest Ford dealership. If the dealership cannot help you, they can direct you to the appropriate Ford affiliate office.

If you buy your vehicle in North America and then relocate outside of the U.S. or Canada, register your Vehicle Identification Number and new address with Ford Motor Company Export Operations.

Ford of Canada Customer Assistance

Ford Motor Company of Canada, Limited

If you live in Canada and have any questions or concerns that the dealership cannot answer, contact the Customer Assistance Centre.

Customer Assistance Centre
Ford Motor Company of Canada, Limited
P.O. Box 2000
Oakville, Ontario L6J 5E4
1-800-565-3673 (FORD)

Canadian Motor Vehicle Arbitration Plan (CAMVAP)

If a specific item of concern arises, where a solution cannot be reached between a vehicle owner, Ford of Canada, and/or one of its dealers (that all parties can agree upon), the owner may wish to use the services offered by the Canadian Motor Vehicle Arbitration Plan (CAMVAP).

CAMVAP uses the services of Provincial Administrators to assist consumers in scheduling and preparing for their arbitration hearings. However, before you can proceed with CAMVAP you must follow your manufacturer's dispute resolution process as outlined under "Service/Maintenance Concerns (U.S. or Canada)" earlier in this chapter.

Consumers wishing to obtain further information about the program can obtain an information booklet from your dealer or contact the Provincial Administrator, Canadian Motor Vehicle Arbitration Plan, at the address or telephone number shown below.

O & P Services
595 Bay Street — Suite 300
Toronto, Ontario
M5G 2C2
Telephone 1 (800) 207-0685

Accessories

Ford Accessories for Your Vehicle

A wide selection of accessories is available through your local authorized dealer. These fine accessories have been engineered specifically to fulfill your automotive needs. They are custom designed to complement the style and aerodynamic appearance of your Ford-built vehicle. In addition, each accessory is made from high quality materials and meets or exceeds Ford's rigid engineering and safety specifications. That is why Ford brand accessories are warranted for up to 3 years or 36,000 miles (60,000 km), whichever comes first. See your dealer for complete warranty information and accessory availability.

NOTE: When adding accessories, equipment, passengers, and luggage to your vehicle, do not exceed the total weight capacity of the vehicle or of the front or rear axle (GVWR, GAWR as shown on the Safety Compliance Certification Label). Consult your dealer for specific weight information.

NOTE: The Federal Communications Commission (FCC) or the Canadian Radio Telecommunications Commission (CRTC) regulates the use of mobile communications systems — such as two-way radios, telephones, and theft alarms — that are equipped with radio transmitters. Any such equipment installed in your vehicle should comply with FCC or CRTC regulations and should be installed only by a qualified technician.

NOTE: Mobile communications systems may harm the operation of your vehicle, particularly if they are not properly designed for automotive use or are not properly installed. For example, when operated, such systems may cause the engine to stumble or stall. In addition, such systems may themselves be damaged or their operation affected by operating your vehicle. (Citizens band [CB] transceivers, garage door openers, and other transmitters whose power output is 5 watts or less will not ordinarily affect your vehicle's operation.)

NOTE: Because we have no control over the installation, design, or manufacture of such systems, Ford cannot assume responsibility for any adverse effects or damage that may result if you use this equipment.

FLEET OWNERS SERVICE TECHNICIANS:

To purchase available technical Service Information, Component Service Manuals, Video Tape Training and Text Training Manuals, request Service Training Materials Catalog 0000-006SPD from:

FORD SERVICE PUBLICATIONS
POST OFFICE BOX 07150
DETROIT, MICH 48207

or call: 313/865-5000 Extension: 264

1996 F-150 – 350 Super Duty Owner Manual Order Form

PUBLICATION FORM NO.	DESCRIPTION
FCS-12107-96	1996 F-150 – 350 Service Manual
FCS-12106-96	1996 Powertrain Control/ Emission Diagnosis
FCS-12137-96	1996 Light Truck Service Spec.
FCS-12129-96	1996 F-150 – 350 Electrical & Vacuum Troubleshooting Manual
93-VID-OM	Ford and the American Dream (50) Minutes of Historic/Nostalgic Videotape

- **NOTE:** For publications prior to year shown above, write for availability to the address shown below.
- Please allow ample time for postal service delivery.

U.S. RESIDENTS

Make checks payable to: HELM, INCORPORATED

MAIL ORDER TO:

HELM, INCORPORATED
P.O. Box 07150
Detroit, Michigan 48207

OR ORDER TOLL FREE:

1-800-782-4356

Monday - Friday 8:00 A.M. - 6:00 P.M. EST
For Credit Card Holder Orders Only

CANADIAN RESIDENTS

Make cheques payable to: Ford Motor Company of Canada, Ltd.

MAIL ORDER TO:

Ford Motor Company of Canada, Ltd.
Service Publications
P.O. Box 1580, Station B
Mississauga, Ontario, Canada L4Y 4G3

OR ORDER TOLL FREE:

1-800-387-4966

Monday - Friday 8:30 A.M. - 6:00 P.M. EST
For Credit Card Holder Orders Only

U.S. RESIDENTS USE THIS PAGE

ORDER TOLL FREE
1-800-782-4356

NOTE: For Credit Card Holder Orders Only
Monday-Friday
8:00 A.M.-6:00 P.M. EST

If further information is needed, write to the address shown below or call 1-800-782-4356. Material cannot be returned for credit without receiving advance authorization within 14 days of delivery. On returns, a re-stocking fee may be applied against the original order.

1996

PUBLICATION FORM NUMBER	1996 F-150 – 350 PUBLICATION	QTY.	PRICE EACH	TOTAL PRICE
FCS-12107-96	F-150 – 350 SM		$ 90.00	
FCS-12106-96	Powertrain Control/ED		160.00	
FCS-12137-96	Light Truck Service Spec.		32.00	
FCS-12129-96	F-150 – 350 EVTM		30.00	
93-VID-OM	Videotape		19.95	

TOTAL MATERIAL	
Michigan Purchasers add 6% sales tax	
Handling Charge	$4.00
GRAND TOTAL	

PAYMENT

☐ Check or Money Order payable to Helm, Inc. (USA funds only – do not send cash.)

☐ MasterCard

☐ VISA ☐ Discover

Account Number

Expiration Date mo/yr:

☐ Check here if billing address is different from shipping address shown.

(CUSTOMER SIGNATURE) (DATE)

SHIP TO

NOTE: Dealers and Companies please provide dealer or company name, along with the name of the person to whom the shipment should be sent. For purchases outside U.S.A. and Canada, please write to the following address for quotation. Mail completed order form to: HELM, INC • P.O. Box 07150 • Detroit, MI 48207. Please allow 6-8 weeks for delivery. Prices are subject to change without notice and without incurring obligation.

(CUSTOMER NAME) (ATTENTION)

(STREET ADDRESS - NO P.O. BOX NUMBERS) (APT.NO.)

(CITY) (STATE) (ZIP CODE)

DAYTIME TELEPHONE AREA CODE ( )

CANADIAN RESIDENTS USE THIS PAGE

ORDER TOLL FREE
1-800-387-4966

NOTE: For Credit Card Holder Orders Only
Monday-Friday
8:30 A.M.-6:00 P.M. EST

If further information is needed, write to the address shown below or call 1-800-387-4966. Material cannot be returned for credit without receiving advance authorization within 14 days of delivery. On returns, a re-stocking fee may be applied against the original order.

1996

PUBLICATION FORM NUMBER	1996 F-150 – 350 PUBLICATION	QTY.	PRICE EACH	TOTAL PRICE
FCS-12107-96	Service Manual		$ 92.00	
FCS-12106-96	Powertrain Control/ED		160.00	
FCS-12137-96	Light Truck Service Spec.		39.00	
FCS-12129-96	Electrical & Vacuum T.M.		40.00	

TOTAL MATERIAL	
G.S.T. (7%)	
Handling/Shipping Charge Individual Item Order Except Service Manuals $5.00 OR Service Manuals and Multiple Item Orders $10.00 (French Owner Guide: No Charge)	
GRAND TOTAL	

PAYMENT

☐ Cheques or Money Order payable to Ford Motor Company of Canada, Ltd. (Do not send cash.)

☐ VISA Only

Account Number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Expiration Date mo/yr: ☐☐ ☐☐

☐ Check here if billing address is different from shipping address shown.

(CUSTOMER SIGNATURE) (DATE)

SHIP TO

NOTE: Dealers and Companies please provide dealer or company name, along with the name of the person to whom the shipment should be sent. Mail completed order form to: Ford Motor Company of Canada, Ltd. • Service Publications • P.O. Box 1580, Station B Mississauga, Ontario, Canada L4Y 4G3. Please allow 6-8 weeks for delivery. Prices are subject to change without notice and without incurring obligation.

(CUSTOMER NAME) (ATTENTION)

(STREET ADDRESS - NO P.O. BOX NUMBERS) (APT.NO.)

(CITY) (PROVINCE) (POSTAL CODE)

DAYTIME TELEPHONE AREA CODE ( ) _____

Servicing Your Motorhome

Service Made Easy

This chapter tells you about the basic parts that you need to check and service regularly.

If your vehicle needs professional servicing, your dealership can provide the parts and service required. Check your *Warranty Information Booklet* to find out which parts and services are covered. Also see the *Customer Assistance* chapter of this Owner Guide.

Ford Motor Company recommends that the Owner Maintenance Checks listed in the *Maintenance Schedule and Record* booklet be performed for the proper operation of your vehicle. In addition to the conditions listed in the *Owner Maintenance Checklist*, be alert for any unusual noise, vibration, or other indication that your vehicle may need service. If you do notice something unusual, see that your vehicle is serviced promptly.

Precautions When Servicing Your Vehicle

Be especially careful when inspecting or servicing your vehicle. Here are some general precautions for your safety:

- ❑ If you must work with the engine running, avoid wearing loose clothing or jewelry that could get caught in moving parts. Take appropriate precautions with long hair.
- ❑ Do not work on a vehicle in an enclosed space with the engine running, unless you are sure you have enough ventilation.

- ❑ Never get under a vehicle while it is supported by a jack only. If you must work under a vehicle, use safety stands.
- ❑ Keep all lit cigarettes and other smoking materials away from the battery and all fuel-related parts.

If you disconnect the battery, the engine must "relearn" its idle conditions before your vehicle will drive properly. To find out how the engine does this, see *Battery* in this chapter.

Working with the engine off:

1. Set the parking brake fully and make sure that the gearshift is securely latched in P (Park).
2. Remove the key from the ignition after you turn the engine off.
3. Block the wheels. This will prevent your vehicle from moving unexpectedly.

Working with the engine on:

1. Set the parking brake fully and make sure that the gearshift is securely latched in P (Park).
2. Block the wheels. This will prevent your vehicle from moving unexpectedly.

⚠**WARNING**
Do not start your engine with the air cleaner removed and do not remove it while the engine is running.

Filling the Fuel Tank

Removing the fuel cap

The proper instructions for removing the fuel cap are as follows:

- ❑ Unscrew the fuel cap by exerting pressure on the plastic lock bar and rotating the fuel cap counterclockwise.
- ❑ Turn the fuel cap 1/2 to 3/4 of a turn until a hissing sound is heard. Wait until the hissing sound stops and then continue rotating counterclockwise to remove the fuel cap.
- ❑ Make sure that you follow the above fuel cap removal instructions and use caution. Such caution will minimize the possibility of fuel spraying during removal of the fuel cap.

To replace and secure the fuel cap; place it in position and rotate it clockwise until it clicks (ratchets). Doing so will not damage or break the fuel cap. The ratcheting mechanism allows the fuel cap to be sealed without overtightening.

If you lose the fuel cap, replace it with an authorized Motorcraft or equivalent part.

⚠**WARNING**
If you do not use the proper fuel cap, the pressure in the fuel tank can damage the fuel system or cause it to work improperly in a collision.

NOTE: If you replace your fuel cap with an aftermarket fuel filler cap, the customer warranty may be void for any damage to the fuel tank and/or fuel system.

⚠WARNING
If the fuel cap is venting vapor or if you hear a hissing sound, wait until it stops before completely removing the cap.

You can prevent excessive condensation in the fuel tank by keeping it over half full.

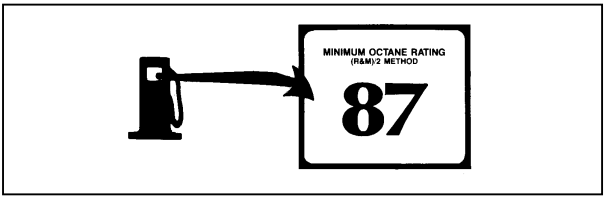
Choosing the Right Fuel

Use only UNLEADED FUEL in your vehicle. Using leaded fuel is prohibited by federal law. Your warranty may not apply if your vehicle is damaged because you used the wrong fuel.

Vehicle inspection programs may detect misfueling. Under these circumstances, you may be required by law to make costly repairs at your own expense.

Octane recommendations

Your vehicle is designed to use regular unleaded fuel with an octane rating of 87. In most cases, it is not necessary to use a fuel with an octane rating higher than 87. At service stations, the octane rating is displayed on a label on the pumps.



Typical octane rating label

In some parts of the country, “regular” grade fuels are sold with octane ratings of 86 or even less, especially in high altitude areas. We recommend that you do not use these fuels. Always use a fuel with an octane rating of 87, even if it is sold as a “midgrade” or “premium.”

Do not be concerned if your vehicle sometimes knocks lightly when you drive up a hill or when you accelerate. However, if a fuel with the recommended octane rating knocks heavily under all driving conditions or knocks lightly driving at cruising speed on level roads, see your dealer or a qualified service technician. Persistent, heavy knocking can damage the engine.

Fuel quality

If you are experiencing starting, rough idle or hesitation problems when the engine is cold, it may be caused by fuel with low volatility. Try a different brand of fuel. If the condition persists, see your dealer or a qualified service technician.

Using a high-quality fuel makes your vehicle more responsive and maintains its good fuel economy and emissions by:

- ❑ protecting your fuel system from rusting.
- ❑ preventing the fuel lines from freezing.
- ❑ improving vehicle starting and warm-up.
- ❑ protecting the fuel system from vapor lock in very hot weather, which causes the engine to hesitate or stall and makes restarts difficult.
- ❑ minimizing deposits in fuel injectors, combustion chambers, and on intake valves.

- ❑ preventing your fuel system from “gumming up” when your vehicle is not used for long periods of time.
- ❑ preventing your engine from knocking and pinging.

It should not be necessary to add any aftermarket products to your fuel tank if you continue to use a high-quality fuel.

Gasolines for clean air

Fuels in certain areas of the country are required to contain oxygenates to improve air quality. Common oxygenates are ethanol or grain alcohol (blended at no more than 10%), methanol or wood alcohol (blended at no more than 5% with cosolvents and additives), and MTBE or methyl tertiary butyl ether (blended at no more than 15%).

Reformulated gasoline is also required in certain areas of the U.S. These fuels are designed to further reduce the emissions from your vehicle.

Generally, you should not experience difficulties operating your vehicle on reformulated gasoline or on fuels containing oxygenates. We encourage you to use these fuels.

Safety Information Relating to Automotive Fuels

⚠WARNING
Automotive fuels can cause serious injury or death if misused or mishandled.

Gasoline and other automotive fuels are extremely flammable. Turn your vehicle off and do not smoke while refueling your vehicle. Keep sparks and other sources of ignition away from fuels.

Automotive fuels can be harmful or fatal if swallowed. Further, gasoline may be blended with methanol. Even small amounts of methanol can cause blindness and possibly death when swallowed. Therefore, never attempt to siphon any fuel by mouth.

If any fuel is swallowed, call a physician or poison control center immediately. **Do not delay calling a physician merely because no adverse effects are noticed at first; the toxic effects of a gasoline-methanol blend, including blindness, may not become apparent for many hours**. If gasoline is swallowed, do not induce vomiting. If a gasoline-methanol blend is swallowed, induce vomiting under the direction of a physician or poison control center.

Gasoline and gasoline-methanol blends may contain small amounts of carcinogens, such as benzene. Long-term exposure to unleaded gasoline vapors has caused cancer in laboratory animals. Further, excessive inhalation of fuel vapors can cause headache, dizziness, nausea, loss of coordination, and other symptoms which could interfere with your ability to safely

operate your vehicle. To the extent possible, avoid breathing vapors while refueling. If fuel vapors are inhaled in excessive quantities, move the victim to fresh air and seek medical attention.

Fuels can also be harmful if absorbed through the skin. When refueling, be careful not to splash fuel on yourself or your clothing. If fuel is splashed on the skin, promptly remove contaminated clothing and wash the skin thoroughly with soap and water.

Fuels can cause severe eye irritation and possibly eye damage. If fuel is splashed in the eyes, remove contact lenses (if worn), flush with large amounts of water for 15 minutes, and seek medical attention.

You should be particularly careful if you are taking the medication "Antabuse" or other forms of disulfiram for the treatment of alcoholism. There is a possibility that breathing the vapors of a gasoline-methanol blend, or skin contact with such a blend, may cause the same kind of adverse reaction as drinking an alcoholic beverage. In sensitive individuals, serious personal injury or sickness could result. Consult a physician promptly if you experience an adverse reaction.

Filling the fuel tank

⚠**WARNING**
Do not overfill the fuel tank. The pressure in an overfilled tank may cause leakage and lead to fuel spray and fire.

To fill the fuel tank properly:

NOTE: Extinguish all lit cigarettes, other smoking materials, and any open flames before fueling your vehicle.

1. Remove the fuel cap by following the instructions above under *Removing the Fuel Cap* in this chapter. Proceed to add fuel to the tank only if your vehicle is on level ground.
2. Make sure that you pump unleaded fuel and put the nozzle all the way inside the fuel filler pipe.
3. If you spill any fuel on the body of your vehicle, clean it off immediately. The fuel may dull or soften the paint if you do not wash it off.
4. Replace the fuel cap completely when you are finished. Turn it clockwise 1/4 turn until it is tight. It will click when it is fully tightened.

Running Out of Fuel

If your vehicle runs out of fuel, try to stop on level ground away from traffic. Add at least two gallons (8 liters) of fuel to start your vehicle again. If your vehicle is not on level ground, you may need as much as five gallons (20 liters) of fuel to start it.

You may need to crank the engine several times before the fuel system starts to pump fuel from the tank to the engine.

Fuel Economy

Fuel economy is an estimate of the efficiency of your vehicle and can be calculated as Miles Per Gallon (MPG) or Liters Per 100 Kilometers (L/100K).

Do not calculate fuel economy during your vehicle's break-in period. This would not be an accurate estimate of how much fuel your vehicle will normally use.

To calculate fuel economy:

1. Fill the tank completely and record the inital odometer reading.
2. Every time you buy fuel record the amount (in gallons or liters) purchased.
3. After at least three to five tankfuls, fill the fuel tank and record the final odometer reading.
4. Use these equations to calculate your fuel economy.

❑ English: MPG = (total miles)/(gallons used).

❑ Metric: L/100K = (liters used) x 100/(total kilometers)

Improving Fuel Economy

Fuel economy is affected by a number of variables which can reduce efficiency. You can improve fuel economy by understanding these variables and minimizing their effect.

The following decrease fuel economy:

❑ Lack of regular, scheduled maintenance

❑ Driving with your foot on the brake

❑ Sudden stops

❑ Excessive speed

❑ Extended engine idling

❑ Heavy loads

❑ Underinflated tires

❑ Use your air conditioning system wisely.

Engine Oil Recommendations

We recommend using Motorcraft oil or an equivalent oil meeting Ford Specification ESE-M2C153-E and displaying the American Petroleum Institute CERTIFICATION MARK on the front of the container.

The API Certification Mark

Never use:

- ❑ "Non-Detergent" oils
- ❑ Oils labeled API SA, SB, SC, SD, SE, SF or SG
- ❑ Additional engine oil additives, oil treatments or engine treatments

Engine oils with an **SAE 10W-30** viscosity are **PREFERRED** for your vehicle which provide the best engine protection for all climates down to -5˚F (-20˚C). SAE 5W-30 engine oils may also be used down to -15˚F (-25˚C).

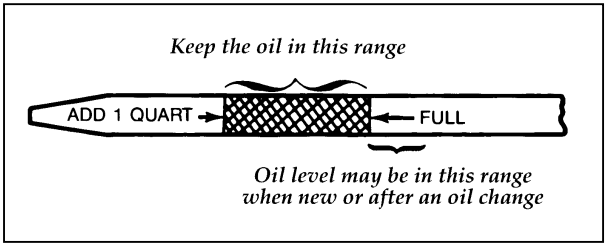
Synthetic engine oils which are CERTIFIED and of the preferred viscosity may be used in your engine. The engine oil and oil filter must still be changed according to the maintenance schedule.

Checking and Adding Engine Oil

Since the proper amount of engine oil is important for safe engine operation, check the oil using the dipstick each time you put fuel in your vehicle. Remember the engine must be off, the oil must be warm and the vehicle must be parked on level ground.

Checking the engine oil level:

1. Turn the engine off after it has warmed up and allow a few minutes for the engine oil to drain back into the oil pan.
2. Set the parking brake, making sure the gearshift is securely latched in P (Park).
3. Open the hood. Protect yourself from engine heat.
4. Locate the engine oil dipstick (highlighted in yellow) and carefully pull it out of the engine.
5. Wipe the dipstick clean and put it back into position, making sure it is fully seated.



Engine oil dipstick

6. Carefully, pull the dipstick out again. If the oil level is below the “ADD 1 QT.” line, add engine oil as necessary. If the oil level is beyond the letter “F” in FULL, engine damage or high oil consumption may occur and some oil must be removed from the engine.

7. Put the dipstick back in and make sure it is fully seated.

It may be necessary to add some oil between oil changes. Make sure you use a CERTIFIED engine oil of the preferred viscosity. Your vehicle’s warranty coverage may not apply if engine damage is caused by the use of improper engine oil.

Add engine oil through the oil filler cap highlighted in yellow. To add oil, remove the filler cap and use a funnel to pour oil into the opening. Be careful not to overfill the engine. Recheck the oil level after you finish adding oil.

Changing the Engine Oil and the Oil Filter

Change the engine oil and oil filter per the following, whichever occurs first.

3,000 MILES (5,000 KM) OR 3 MONTHS
SPECIAL CONDITIONS
SEVERE DUTY SCHEDULE
EXTENSIVE IDLING
TRAILER TOWING
DRIVING IN SEVERE DUST

Oil change intervals

NOTE: Idling the engine for extended periods will accumulate more hours of use on your vehicles than is actually indicated by the mileage odometer. Consequently, the odometer reading can be often misleading when determining the right time to change your engine oil and filter.

Refer to the *Maintenance Schedule and Record* booklet for additional information.

NOTE: Always dispose of used automotive fluids in a responsible manner. Follow your community's standards for disposing of these types of fluids. Call your local recycling center to find out about recycling automotive fluids.

⚠**WARNING**
Continuous contact with USED motor oil has caused cancer in laboratory mice.

Protect your skin by washing with soap and water.

Engine Coolant

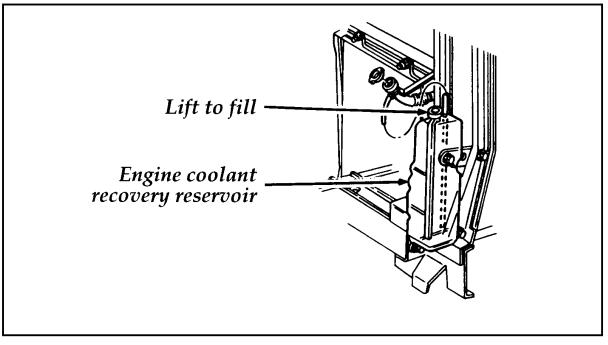
Checking the engine coolant

Your vehicle's engine coolant protects the engine from overheating in the summer and from freezing in the winter. Check the level of the engine coolant at least once a month, but preferably each time you stop for fuel. Simply look at the engine coolant recovery reservoir located in the engine compartment. To locate this reservoir, see the diagram of your vehicle's engine under *Engine types* in this chapter.

If the engine coolant has not been checked for a long period of time the engine coolant reservoir may eventually empty. If the engine coolant reservoir empties, check the engine coolant level in the radiator. Read the following warnings before removing the radiator cap. If it is necessary to fill the radiator, refer to the *Engine Coolant Refill Procedure* in this chapter for instructions.

Your cooling system is of the coolant recovery type. The engine coolant recovery reservoir is a one-piece molded unit. Engine coolant in the system expands with heat and overflows into the engine coolant recovery reservoir. When the system cools down, coolant is drawn back into the radiator.

Adding engine coolant



Adding engine coolant

⚠**WARNING**
Do not put engine coolant in the container for the windshield washer fluid.

If sprayed to clean the glass, engine coolant or antifreeze could make it difficult to see through the windshield.

⚠WARNING
Never remove the coolant recovery cap while the engine is running or hot.

⚠WARNING
Follow these steps to minimize risk of personal injury.

1. Before you remove the cap, turn the engine off and let it cool. Even when the engine is cool, be careful when you remove the radiator cap.
2. When the engine is cool, wrap a thick cloth around the cap and turn it slowly counterclockwise to the first stop.
3. Step back while the pressure releases.
4. When you are sure that all the pressure has been released, use the cloth to press, turn, and remove cap.
5. Stand away from the radiator opening. Hot steam may blow out or hot engine coolant may even splash out.

Freezing Protection

The factory-installed solution of Ford Premium Cooling System Fluid and water will protect your vehicle to −35˚F (−37˚C). Check the freeze protection rating of the engine coolant at least once a year, just before winter.

Add engine coolant only to the recovery reservoir. **If the coolant level is low, add to the reservoir a 50/50 mixture of water and the type of engine coolant that Ford specifies. You may add water by itself only in an emergency, but you should replace it with a 50/50 mixture as soon as possible.**

Ford Premium Cooling System Fluid is an optimized formula that will protect all metals and rubber elastomers used in Ford engines for four years or 50,000 miles (80,000 km). It is not necessary and not recommended to use supplemental coolant additives in your gasoline powered vehicle. These additives may harm your engine cooling system. Follow the recommended service interval for changing your engine coolant.

NOTE: When you change or add engine coolant, it is important to maintain your engine coolant concentration between 40% (-11˚F [-24˚C]) and 60% (-62˚F [-52˚C]), depending on your local climate conditions. Below 40% you will lose freeze protection and above 60% your engine may overheat on a warm day.

NOTE: Do not use an engine coolant that does not meet all 14 requirements of Ford Specification ESE-M97B44-A. The use of an improper coolant may void your warranty for the engine cooling system. Use only a premium nationally recognized brand name engine coolant.

Ford Motor Company expressly authorizes the Ford Rotunda engine coolant recycling process and chemicals. Use only Ford Rotunda recycled engine coolant or an equivalent recycled engine coolant that is certified by the supplier to meet Ford specification ESE-M97B44-A.

NOTE: Always dispose of used automotive fluids in a responsible manner. Follow your community's standards for disposing of these types of fluids. Call your local recycling center to find out about recycling automotive fluids.

Use Ford Premium Cooling System Fluid or an equivalent engine coolant that meets Ford Specification ESE-M97B44-A. Do not use alcohol or methanol antifreeze and do not use engine coolant mixed with alcohol or methanol antifreeze. If you do not use the proper coolant, the aluminum radiator on your vehicle will corrode.

Leave the engine coolant in all year. Make sure that the coolant will not freeze at the temperature level in which you drive during winter months. Keep a mixture of engine coolant in your engine that has a protection rating of at least -34˚F (-37˚C), or whatever protection rating is appropriate for the climate in which you live.

To find out how much engine coolant mixture your vehicle's coolant system can hold, see *Refill capacities for fluids* in the Index.

You may add water by itself only in an emergency, but you should replace it with a 50/50 or appropriate mixture as soon as possible.

Have your dealer check the engine cooling system for leaks if you have to add a quart (liter) of engine coolant more than once a month.

Checking hoses

Inspect all engine and heater system hoses for deterioration, leaks and loose clamps before adding or replacing engine coolant. Make whatever repairs or replacements that are necessary using Motorcraft parts or their equivalents.

Engine coolant drain and flush

To drain your vehicle's engine coolant:

1. Turn off the engine and let it cool. Fully depressurize the engine cooling system by covering the radiator cap with a thick cloth and turning it slowly counterclockwise to the first stop. Step back while the pressure releases.
2. Remove the cap.
3. Attach a small hose to the drain tube at the bottom of the radiator.
4. Let the engine coolant drain into a suitable container. Disconnect the lower radiator hose at the radiator connector and drain any remaining engine coolant into a container.
5. Reconnect the lower radiator hose and close the radiator drain cock.

Proper procedures for flushing the cooling system can be found in the *Truck Service Manual.*

Engine coolant refill procedure

After you have drained the engine cooling system:

1. Fill the radiator with a 50/50 mixture of the specified engine coolant concentrate and water. Allow several minutes for trapped air to escape (bubble out) and for engine coolant to flow through the radiator.

2. Replace the radiator cap to its fully installed position, then back off to the first stop. This will prevent high pressure from building up in the cooling system during this part of the fill procedure.

3. Start and idle the engine until the thermostat opens and the radiator upper hose becomes warm.

4. Shut off the engine and allow the engine to cool. Cover the radiator cap with a thick cloth and cautiously remove it. Step back while the pressure releases.

5. Finally, check the radiator and add more engine coolant if needed, following the procedures noted above. Reinstall the radiator cap securely, when finished.

6. If more engine coolant is necessary, fill the overflow reservoir to the appropriate level marked on the bottle.

Tires

Look at your tires each time you fill your fuel tank. If one tire looks lower than the others, check the pressure in all of them. Always follow these precautions:

- ❑ Keep your tires inflated to the pressures that are recommended. **(See** *Checking the pressure of the tires* later in this chapter.)
- ❑ Stay within the load limits that are recommended.
- ❑ Make sure the weight of your load is evenly distributed.
- ❑ Drive at safe speeds.

If you do not take these precautions, your tires may fail or go flat.

Ford Motor Company recommends obeying posted speed limits.

⚠**WARNING**
Driving too fast for conditions creates the possibility of loss of vehicle control. Driving at very high speeds for extended periods of time may result in damage to vehicle components.

Checking the Pressure of the Tires

At least once a month, check the pressure in all your vehicle's tires, including the spare. Use an accurate tire pressure gauge. Check the tire pressure when tires are cold, that is, after the vehicle has been parked for at least one hour or has been driven less than 3 miles (5 km). You can find the proper cold pressure on the Safety Compliance Certification Label.

⚠WARNING
Improperly inflated tires can affect vehicle handling and can fail suddenly, possibly resulting in loss of vehicle control.

Tire Inspection and Maintenance

Inspect the tire treads, and remove stones, nails, glass or other objects that may be wedged in the tread grooves. Check for holes or cuts that may permit air to leak from the tire, and make the necessary repairs.

Inspect the tire side walls for cuts, bruises and other damage. If you suspect internal damage to the tire, have it demounted and checked. You may need to repair or replace it.

Wheel Inspection and Maintenance

Check for damage that would affect the runout of the wheels. Wobble or shimmy will eventually damage the wheel bearings.

Front wheel bearings require periodic repacking and adjustment as specified in the *Maintenance Schedule and Record* booklet. Loose or worn front wheel bearings tend to let the vehicle wander or shimmy, and can eventually cause excessive tire wear.

Whenever a wheel is removed and then re-installed, always remove any corrosion that may be present on the mounting surface of the wheel and/or the surface of the hub, drum or rotor that contacts the wheel.

⚠WARNING

Installing wheels without good metal-to-metal contact at the wheel mounting surface can cause the wheel lug nuts to loosen and could allow the wheel to come off while the vehicle is in motion.

⚠WARNING

Also retighten at 500 miles (800 km) after any wheel change or any time the lug nuts are loosened.

Tire Rotation

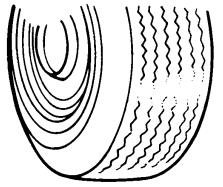
Because your vehicle's front and rear tires perform different jobs, they often wear differently. To make sure your tires wear evenly and last longer, rotate them at the mileage shown in the *Maintenance Schedule and Record* booklet which came with your vehicle.

Your front tires should be rotated from side to side. If the spare tire is used in the rotation, the pattern should be: left front to right front; right front to the spare and the spare to left front.

NOTE: Do not rotate the dual rear tires.

Replacing the Tires

Replace any tires that show wear bands. When your tire shows a wear band, it has only 1/16 inch (2 mm) of tread left.



Wear band

Because your vehicle's tires may wear unevenly, you may need to replace them before a wear band appears across the entire tread. Some spots wear more heavily than others.

Your wheels and tires are match-mounted for improved ride. Before you begin to repair a tire, mark the wheel and tire so that they are properly aligned when remounted. This will ensure that the tires will continue to give you the same ride level.

⚠WARNING

When replacing full size tires, never mix radial, bias-belted, or bias-type tires. Use only the tire sizes that are listed on the tire pressure decal. Make sure that all tires are the same size, speed rating, and load-carrying capacity. Use only the tire combinations recommended on the decal. If you do not follow these precautions, your vehicle may not drive properly and safely.

⚠WARNING

Make sure that all replacement tires are of the same size, type, load-carrying capacity, and tread design (e.g. "All Terrain", etc.), as originally offered by Ford.

⚠WARNING

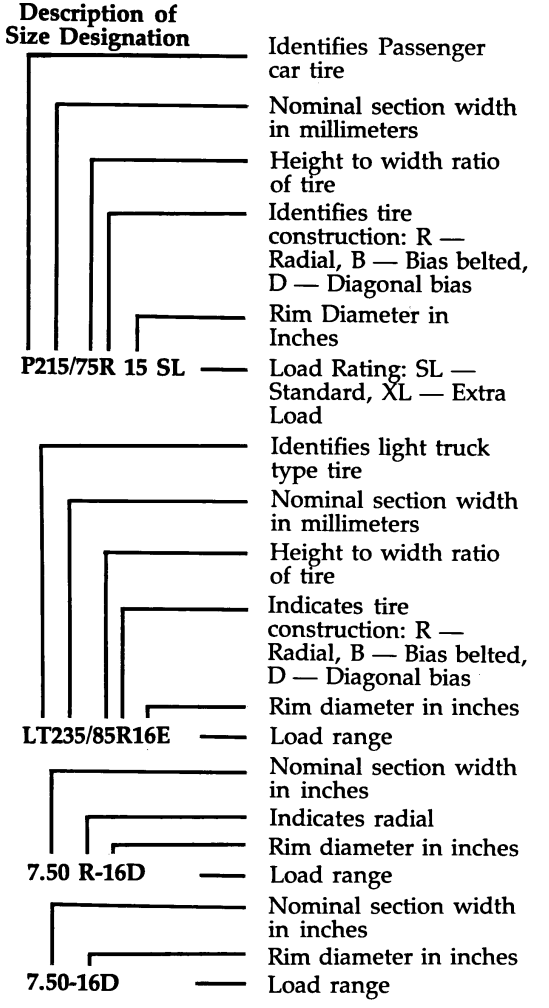
Do not replace your tires with "high performance" tires or larger size tires.

⚠WARNING

Failure to follow these precautions may adversely affect the handling of the vehicle and make it easier to lose control and roll over.

Tires that are larger or smaller than your vehicle's original tires may also affect the accuracy of your speedometer.

Please note that the sizes in the following chart are typical for the type of tire. To determine what specific size tires and rims are recommended by Ford for use on your vehicle, refer to the Safety Compliance Certification Label on your vehicle.



Tire identification chart

⚠WARNING

Aftermarket wheel assemblies may not be compatible with your vehicle and should not be used. Use of incompatible wheel assemblies may result in equipment failure and possible injury.

A wheel or tire of the wrong size or type may adversely affect such things as load carrying capacity, 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 high mileage, and they could fail without warning.

The use of wheels with load carrying limits higher than the limits of the wheels originally installed on your vehicle does not in itself increase the GAWR or GVWR of the vehicle.

⚠WARNING

Only wheel assemblies approved and released by Ford Motor Company for your vehicle model should be used.

⚠WARNING

Alterations to the vehicle suspension or steering by raising the chassis (i.e., use of aftermarket "lift kits") may adversely affect vehicle handling and braking performance.

Wheel and Tire Matching

See an authorized tire dealer for proper servicing procedures. Wheels and tires must be properly removed, matched and remounted to maintain the best possible ride.

Battery

Your vehicle may have a Motorcraft maintenance-free battery. When the original equipment battery is replaced under warranty, it may be replaced by a Motorcraft Low-Maintenance Battery.

The Low-Maintenance Battery has removable vent caps for checking the electrolyte level and for adding water, if necessary. The electrolyte level should be checked at least every 24 months or 24,000 miles (40,000 km) in temperatures up to 90˚F (32˚C) and more often in temperatures above 90˚F (32˚C). Keep the electrolyte level in each cell up to the level indicator. Do not overfill.

If the level gets low, you can add tap water to the battery, provided the water isn't hard or doesn't have a high mineral or alkali content. However, if possible you should refill the battery with distilled water. If the battery needs water quite often, have the charging system checked for a possible malfunction.

Help Us Protect Our Environment

Ford Motor Company strongly recommends that used lead-acid batteries be returned to an authorized recycling facility for disposal.

Battery recycling symbol

⚠WARNING

Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

⚠WARNING

Batteries contain sulfuric acid which burns skin, eyes, and clothing.

If the acid touches someone's skin, eyes, or clothing, immediately flush the area with water for at least 15 minutes. If someone swallows the acid, have him or her drink lots of milk or water first, then Milk of Magnesia, a beaten egg, or vegetable oil. Call a doctor immediately.

⚠WARNING
Applying too much pressure on the ends when lifting a battery could cause acid to spill. Lift the battery with a carrier or with your hands on the opposite corners.

Automatic Transmission Fluid

Under normal driving conditions automatic transmission fluid should be changed every 21,000 miles (34,000 km) under severe duty conditions. However, if the transmission is not working properly, for instance, the transmission may slip or shift slowly, or you may notice some sign of fluid leakage, the fluid level should be checked.

Transmission fluid, filter and seal assembly should be changed every 21,000 miles (34,000 km) only under any of the following conditions.

- ❑ Extended periods of high speed driving during hot weather at/or above +90˚F (+30˚C).
- ❑ Towing a trailer for distances over 1,000 miles (1,600 km) per trip.
- ❑ Accumulating 5,000 miles (8,000 km) or more per month.
- ❑ Continuous operation and/or extensive idling (a delivery service as an example).
- ❑ Operating in severe dust conditions.

NOTE: Use of a transmission fluid other than specified could result in transmission malfunction and/or failure. Refer to "Adding automatic transmission fluid", "Refill capacities" and "lubricant specifications" for further information.

Checking the Automatic Transmission Fluid

It is preferable to check the transmission fluid level at normal operating temperature 150˚F-170˚F (66˚C-77˚C), after approximately 20 miles (30 km) of driving. However, if necessary, you can check the fluid level without having to drive 20 miles (30 km) to obtain a normal operating temperature if outside temperatures are above 50˚F (10˚C).

NOTE: If the vehicle has been operated for an extended period at high speeds or in city traffic during hot weather, or pulling a trailer, the vehicle should be turned off for about 30 minutes to allow the fluid to cool before checking.

With the vehicle on a level surface, start the engine and move the transmission shift selector through all of the gear ranges allowing sufficient time for each position to engage. Securely latch the transmission shift selector in the P (Park) position, fully set the parking brake and leave the engine running.

⚠WARNING
Your vehicle should not be driven if the fluid level is below the bottom hole on the dipstick and outside temperatures are above 50˚F (10˚C).

Wipe off the dipstick cap, pull the dipstick out and wipe the indicator end clean. Put the dipstick back into the filler tube and make sure it is fully seated. Pull the dipstick out and read the fluid level.

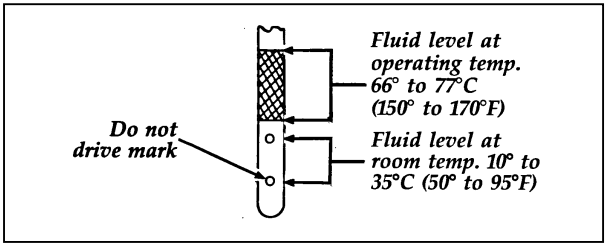
When checking fluid at normal operating temperature, the fluid level should be within the crosshatched area on the dipstick. When the vehicle has not been driven, and outside temperature is above 50˚F (10˚C), the fluid level should be between the holes on the dipstick.

Adding Automatic Transmission Fluid

The fluid type is stamped on the dipstick. Before adding any fluid, be sure that the correct type will be used.

Add fluid in 1/2 pint (.25L) increments through the filler tube to bring the level to the correct area on the dipstick. If an overfill occurs, excess fluid should be removed by a qualified technician.

NOTE: Always dispose of used automotive fluids in a responsible manner. Follow your community's standards for disposing of these types of fluids. Call your local recycling center to find out about recycling automotive fluids.



Automatic transmission dipstick

Driveline Universal Joint and Slip Yoke

The universal joints that come standard with your vehicle do require lubrication. Lubrication will be necessary at the intervals shown in the *Maintenance Schedule and Record* booklet.

Brake Fluid

Your vehicle is equipped with a brake fluid level indicator in the master cylinder which lights the BRAKE warning light on the instrument panel when the brake fluid level is low.

Under normal circumstances, your vehicle should not use up brake fluid rapidly. However, expect the level of the brake fluid to slowly fall as you put more mileage on your vehicle and the brake lining wears.

Check the brake fluid at least once a year. You can do this by looking at the fluid level in the plastic reservoir on the master cylinder. The fluid level should be at or near the MAX mark.

⚠WARNING
Brake fluid is toxic.

If brake fluid contacts eyes, flush eyes with running water for 15 minutes. Get medical attention if irritation persists. If taken internally, drink water and induce vomiting. Get medical attention immediately.

If the fluid is low, carefully clean and remove the filler cap from the reservoir. Fill the reservoir to the MAX line with Ford High Performance DOT 3 Brake Fluid C6AZ-19542-AA or DOT 3 equivalent fluid meeting Ford specification ESA-M6C25-A.

NOTE: If brake fluid is spilled on painted surfaces, it must be flushed and wiped away immediately. Brake fluid may dissolve the paint finish on your vehicle.

⚠WARNING

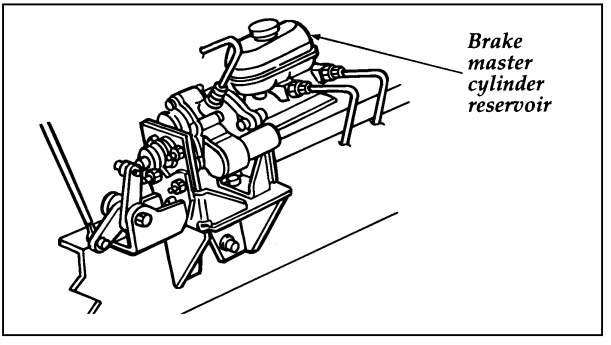
If you use a brake fluid that is not DOT 3, you will cause permanent damage to your brakes.

Do not fill the reservoir above the MAX line.

If you find that the fluid level is excessively low — below the seam or ridge on the outside of the plastic reservoir — have the brake system inspected.

⚠WARNING

Do not let the reservoir for the master cylinder run dry. This may cause the brakes to fail.



Brake master cylinder

Parking Brake Reservoir

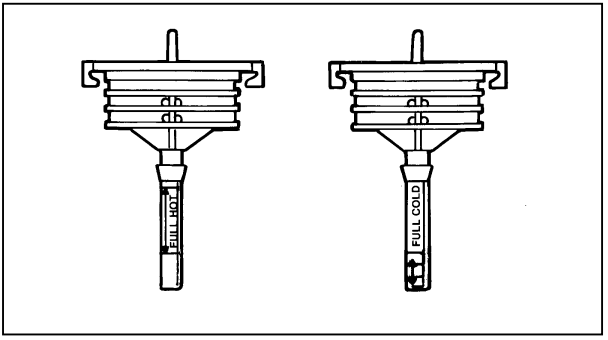
To inspect the parking brake fluid, refer to the *1996 Ford Service Manual* or a qualified service technician.

Power Steering Fluid

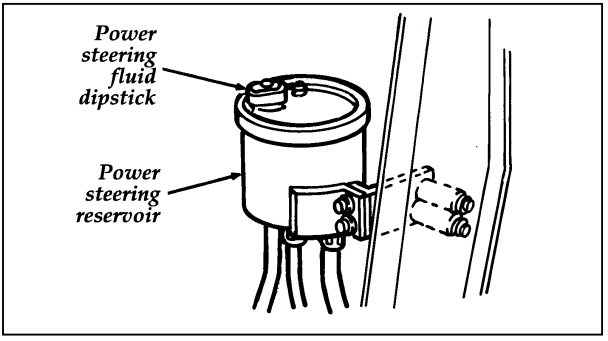
Check the level of the power steering fluid at least twice a year (i.e., every Spring and Fall).

To check the level of your power steering fluid:

1. Start the engine and let it run until the power steering fluid reaches normal operating temperature. The power steering fluid will be at the right temperature when the engine coolant temperature gauge in the instrument cluster is near the center of the NORMAL operating temperature range.
2. While the engine idles, turn the steering wheel back and forth several times. Make sure that the cap assembly is installed at this time.
3. Then turn the engine off and do not press the brake pedal.
4. Check the fluid level on the dipstick (which is highlighted in yellow in your vehicle). The fluid level should be between the arrows in the FULL HOT range, which is marked on the side of the dipstick, opposite the side marked FULL COLD. Do not add fluid if the level is within the FULL HOT range.



Power steering dipstick



Power steering reservoir

5. If the power steering fluid is low, add fluid in small amounts, continuously checking the level, until you reach the FULL HOT range. Do not overfill.

❑ Use only Motorcraft MERCON® Automatic Transmission Fluid or an equivalent MERCON® approved fluid.

If the power steering fluid is low, do not drive your vehicle for a long period of time before adding fluid. This can damage the power steering pump.

6. When you are finished, put the dipstick back in and make sure that it fits snugly.

If you check the power steering fluid when it is cold, make sure that the fluid reaches the FULL COLD range on the dipstick. The reading will only be accurate if the fluid temperature is approximately 50 to 85˚F (10 to 30˚C).

NOTE: Do not turn the steering wheel of your vehicle with the engine off. It could force power steering fluid out from the reservoir cap or in extreme cases, it could unseat the cap.

Suspension and Steering

Modifications

The suspension and steering systems on your vehicle have been designed and tested to provide both safe, predictable performance whether loaded or empty as well as durable load carrying capability. Any modifications to the suspension or steering systems can reduce your vehicle's performance capability and adversely affect driver and passenger safety. Ford recommends that you do not make modifications such as adding or removing parts (like lift kits or stabilizer bars) or by using replacement parts not equivalent to the original factory equipment.

⚠WARNING
The low pressure gas shock absorbers are charged with nitrogen gas to 90 psi (620 kPa). Do not attempt to heat, puncture or open.

Inspecting for Road Damage

The suspension and steering linkage in your vehicle should be inspected periodically for abnormal looseness and damaged seals. Also be alert for changes in steering action. Hard steering, excessive free play or unusual sounds when turning or parking indicate a need for inspection or servicing.

NOTE: After any severe impact such as striking large potholes, inadvertent sliding into curbs on icy roads, or a collision involving the front end, observe the steering wheel alignment. If the steering wheel spokes seem to be in a different position while going down the road, have the front suspension and steering checked for possible damage.

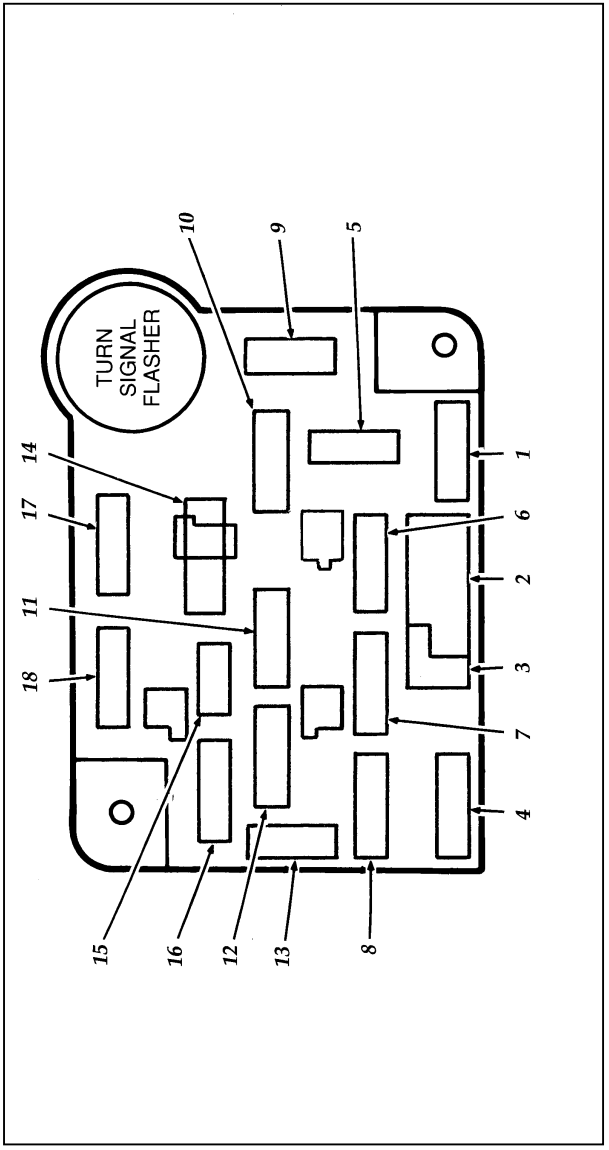
Fuses, Fuse Links and Circuit Breakers

Fuses, circuit breakers and fuse links protect your vehicle's electrical system from overloading. If electrical parts in your vehicle are not working, the system may have been overloaded and blown a fuse or tripped a circuit breaker. Before you replace or repair any electrical parts, check the appropriate fuses or circuit breakers.

The following charts tell you which fuses or circuit breakers protect each electrical part of your vehicle. If a fuse blows or a circuit breaker opens a circuit, all the parts of your vehicle that use that circuit will not work.

Selected circuits, such as headlamps and windshield wipers, are protected with circuit breakers. A circuit breaker is designed to stop current flow in case of a short-circuit or overload. It will automatically restore current flow after a few seconds, but will again interrupt current if the overload or short-circuit continues. This on-off cycle will continue as long as the overload or short-circuit exists.

Once you have determined which fuses or circuit breakers to check, follow the procedures under *Checking and replacing fuses* or *Checking and replacing circuit breakers* later in this chapter.



Fuses/circuit breakers and their locations

Fuse/ CB/Loc.	Fuse Amp. Rating	Description
1	–	Not used
2	8.25 C.B.	• Interval wiper/washer
3	–	Not used
4	15 Amp	• Warning chime, instrument cluster
5	20 Amp	• PSOM; marker lamps • Instrument panel lights • Mainlight switch
6	10 Amp	• Body builder accessory feed (accessory and run)
7	15 Amp	• Daytime running lamps • Turn/signal lamp • Transmission control switch • Brake shift interlock
8	15 Amp	• Body builder accessory feed (run only)
9	15 Amp	• Hazard lamps • Stop lamps • Speed Control • Brake pressure switch
10	–	Not used
11	–	Not used
12	–	Not used
13	5 Amp	• Instrument panel lamp • Instrument cluster
14	5 Amp	• Radio feed
15	–	Not used
16	–	Not used
17	–	Not used
18	–	Not used

Circuit Protected	Size	Location
Headlamps & High Beam Indicator	22 Amp Circ. Brkr.	Integral with Headlamp Switch
Windshield Wiper and Washer Pump	8.25 Amp Circ. Brkr.	Fuse Panel
Alternator – 130 Amp	12 Ga. Fuse Link	At Starting Motor Relay (Gasoline Engine)
Powertrain Control Module	30 Amp Maxi Fuse	Power Distribution Box
Fuel Pump	20 Amp Maxi Fuse	Power Distribution Box
Headlamp Switch and Fuse Panel Feed	60 Amp	Power Distribution Box
Cigarette Lighter	15 Amp	Power Distribution Box

Power Distribution Box

The high current fuses contained in the Power Distribution Box protect your vehicle's main electrical systems from overloads; these fuses provide the connection between the battery and your vehicle's electrical systems.

The high current fuses are coded as follows: 30 amp -light green, 40 amp - orange, 50 amp - red, 60 amp -blue.

⚠WARNING
Always disconnect the battery before servicing high current fuses.

Ford recommends that high current fuses be replaced by a qualified technician.

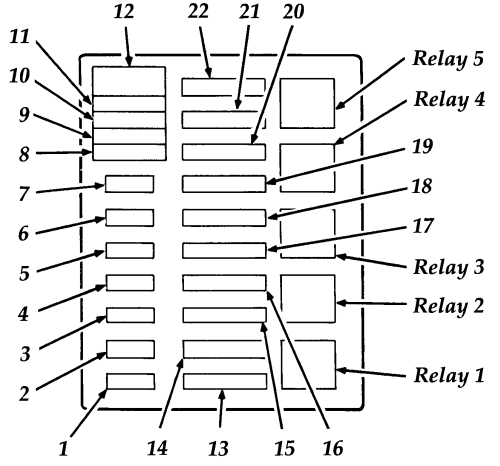
⚠WARNING

Always replace the cover to the Power Distribution Box before reconnecting the battery or refilling fluid reservoirs.

A blown high current fuse may be replaced but will continue to blow until the cause of the overload condition is corrected.

⚠WARNING

Always replace a fuse with one that has the specified amperage rating. Using a fuse with a higher amperage rating can cause severe wire damage and could start a fire.



Power Distribution Box

Fuse/CB/ Relay Loc.	Fuse Amp. Rating	Description
1	15 Amp	• Cigarette lighter
2	20 Amp	• Daytime running lamps (Canadian vehicles only) • Flash-to-pass
3	20 Amp	• Horn
4	20 Amp	• Body builder battery (+ 12V) feed
5	15 Amp	• Back-up lamps • Blower relay coil • Heated exhaust gas oxygen sensor (HEGO)
6	10 Amp	• Speed control
7	–	Not used
8	–	Not used
9	–	Not used
10	–	Not used
11	30 Amp maxi	• Starter relay coil
12	Diode	• Powertrain control module
13	20 Amp maxi	• Electronic engine control system • Fuel pump relay coil
14	60 Amp maxi	• Ignition switch feed
15	–	Not used
16	50 Amp	•Blower motor
17	60 Amp maxi	• Headlamps • Marker lamps • Programmable speedometer/ odometer module (PSOM)
18	20 Amp maxi	• Fuel pump feed

Fuse/CB/ Relay Loc.	Fuse Amp. Rating	Description
19	–	Not used
20	–	Not used
21	–	Not used
22	20 Amp maxi	• Distributor pickup • Powertrain control module • Ignition coil • Thick film integrated ignition system (TFI)
Relay #1		• Powertrain control module
Relay #2		• Fuel pump relay
Relay #3		• Horn relay
Relay #4		• Blower motor relay

Checking and Replacing Fuses

If you need to check a fuse, follow these steps:

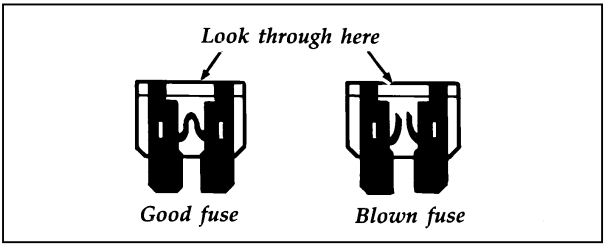
1. Remove the fuse panel cover by squeezing together the cover release tabs as you apply a slight pulling motion at the same time. The underside of the cover contains five spare fuses and a fuse pulling tool in case you need to replace a blown fuse.

   The spare fuses for your vehicle are color coded as follows: 10 amp — red, 15 amp — light blue, 20 amp — natural, 30 amp — light green.

2. On the fuse panel cover, find the number of the fuse you want to check. The diagram on the cover tells you where to locate the fuse on the panel.

   The underside of the cover also contains a fuse pulling tool in case you need to replace a blown fuse.

3. Check the fuse to see if it is blown. Look through the clear side of the fuse to see if the metal wire inside is separated. If it is, the fuse is blown and should be replaced.



The side view of a fuse

4. Replace the fuse with one that has the right amperage rating (see previous chart).

⚠WARNING

Always replace a fuse with one that has the specified amperage rating. Using a fuse with a higher amperage rating can cause severe wire damage and could start a fire.

5. Put the fuse panel cover back on.

Even after you replace a fuse, it will continue to blow if you do not find what caused the overload. If the fuse continues to blow, have your electrical system checked.

Circuit Breakers

If you need to check a circuit breaker that is on the fuse panel, locate the circuit breaker according to the instructions on the charts given earlier in this chapter.

Since you need diagnostic equipment to check whether a circuit breaker works and such equipment comes with instructions, we do not discuss how to check circuit breakers.

However, you should know that the circuit breakers will reset themselves and allow the electrical parts to work again once the overload on the circuit is removed. If the circuit breakers continue to cut off electricity, have your vehicle's electrical system checked.

If you replace a circuit breaker, use one with the same amperage rating. To remove a circuit breaker mounted in the fuse panel, grip it with your finger and thumb and pull it straight out of its socket.

Using the Right Bulbs

Lamp Description	No. of Bulbs Req'd	Trade Number
Brake Warning Light/RABS	2	194
Headlamp Switch Illumination	1	161
Hi-Beam Indicator	1	194
Instrument Panel Gauge Illumination	5	194
Cluster Warning Lamps	3	194
Gauge Illumination	4	194
Check Engine	1	194
Turn Signal Indicator Light	2	194
Headlamp Bulbs	2	9007
Combination Rear Lamp (tail, brake, turn signal) Bulbs	4	1157
Back-up Lamps	4	1156
Combination Front Parking, Turn Signal Bulbs	2	3157K
Front Park	2	916
Side Marker — Front	2	916NA
Side Marker Bulbs — Rear	2	194
License Plate Illumination Bulbs	2	194
Interior Dome Bulb	2	561
Bulbs for Instrument Cluster Illumination, and Oil Pressure, High Beam, and Turn Signal Indication	16	T194
Radio Dial Bulb	1	1893
Wash/Wipe Jewel Bulb	1	1893
Battery Charge Indication	1	OS194

NA – Natural amber K – Krypton filled bulb

Authorized Dealer Maintenance

Your authorized Ford Recreational Vehicle dealer specializes in knowing all about Ford Motor Company vehicles rather than knowing a little about all makes.

There are over 1,900 Ford or Ford of Canada Recreational Vehicle service shops ready to serve you wherever you drive in the U.S. or Canada. They stock Ford and Motorcraft parts, and Ford chemicals and lubricants. You can be confident that these meet the same exacting design and quality standards as those used to build the vehicle originally. Dealer Service Technicians are constantly trained in the latest product developments and service techniques.

Original equipment exhaust system components are equipped with heat and grass shielding, which protects the vehicle and occupants from exhaust system heat.

⚠WARNING

Replacement of exhaust system components with other than authorized Ford parts may result in vehicle damage and/or personal injury due to inadequate heat protection.

Emission Control System

⚠WARNING

Exhaust leaks may result in the entry of harmful and potentially lethal fumes into the passenger compartment. Under extreme conditions excessive exhaust temperatures could damage the fuel system, the interior floor covering, or other vehicle components, possibly causing a fire.

To make sure that the emissions control parts continue to work properly:

- ❑ Use only unleaded fuel.
- ❑ Avoid running out of fuel.
- ❑ Do not turn off the ignition while your vehicle is moving, especially at high speeds.
- ❑ Have the services listed in the *Maintenance Schedule and Record* booklet performed according to the specified schedule. The scheduled maintenance services are required because they are considered essential to the life and performance of your vehicle and to its emissions system.

In general, maintenance, replacement, or service of the emissions control devices or systems in your new Ford Motor Company vehicle or engine may be performed at your expense by any automotive repair establishment or individual using automotive parts equivalent to those which your vehicle or engine was originally equipped.

⚠WARNING

Do not park, idle, or drive your vehicle in dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, which can start a fire.

If other than Ford or Motorcraft or Ford authorized remanufactured parts are used for maintenance, replacement, or for the service of components affecting emissions control, the owner should be assured that such parts are warranted by their manufacturer to be equivalent to genuine Ford Motor Company parts in performance and durability. Please consult your warranty information booklet for complete warranty information.

Do not make any unauthorized changes to your vehicle or engine. Changes that cause more unburned fuel to reach the exhaust system can increase the temperature of the engine or exhaust system.

By law, anyone who manufactures, repairs, services, sells, leases, trades vehicles, or supervises a fleet of vehicles is not permitted to intentionally remove an emission control device or prevent it from working. In some of the United States and in Canada, vehicle owners may be liable if their emission control device is removed or is prevented from working.

Do not drive your vehicle if it does not operate properly. See your dealer if the engine runs on for more than five seconds after you shut it off or if it misfires, surges, stalls, or backfires.

Information about your vehicle's emission control system is on the Vehicle Emission Control Information decal located on or near the engine. This decal identifies engine displacement and gives some tune-up specifications.

Noise emissions warranty, prohibited tampering acts

On January 1, 1978, Federal regulations became effective governing the noise emissions on trucks with a GVWR of over 10,000 lbs (4,536 kgs). The following statements concerning prohibited tampering acts and the noise warranty are found in the *Warranty Information Booklet*, and are applicable to completed F-Series chassis cabs whose GVWR is over 10,000 lbs (4,536 kgs).

Do not tamper with the noise control system

Federal law prohibits the following acts:

1. The removal or dismantlement, (by any person unless for maintenance, repair or replacement purposes) of any device or design element incorporated into any new vehicle to control noise output, prior to its sale or delivery to the consumer, or while it is being used, or
2. Using your light truck after a device or design element has been removed or dismantled, by any person.

The following are some of the acts that are considered tampering:

- ❑ Removing the hood blanket, fender apron absorbers, fender apron barriers, underbody noise shields or material constructed to absorb noise output.
- ❑ Removing or dismantling the engine speed governor, so that the engine's speed exceeds the manufacturer's specifications.

- ❑ Removing the air duct, air intake choke or silencer, air cleaner and/or air cleaner element.
- ❑ Removing or dismantling any of the exhaust system components including the catalyst inlet pipe, muffler, outlet pipe, resonator or diffuser.
- ❑ Removing the fan shroud. Removing or dismantling the fan clutch so that it no longer functions properly.

Maintenance

Instructions for maintenance and service of the noise control system have been included in the *Maintenance Schedule and Record* booklet and in the "General Maintenance Checklist." To aid the noise control system throughout the life of the vehicle, Ford Motor Company recommends that this vehicle should be operated according to the Owner's Guide. When installing replacement parts, use caution not to violate the tampering act as described above. Use the Maintenance Record Log to list any inspections and services performed on the vehicle.

Readiness for Inspection/Maintenance Testing

In some localities it may become a legal requirement to pass an Inspection/Maintenance (I/M) test of the On-Board Diagnostic (OBD) II system. If the vehicle's powertrain system or its battery has just been serviced, the OBD II system is reset to a "not ready for I/M testing" condition. To prepare for I/M testing, the law specifies a "need for additional mixed city and highway driving to complete the check" of the OBD II system. As soon as all of the OBD II system checks are successfully completed, the OBD II system is set to the ready condition. The amount of driving required to reach the ready condition varies with individual driving patterns. To complete this requirement in the minimum amount of time, refer to the OBD II Drive Cycle defined below. If the vehicle owner cannot or does not want to do the additional driving required by law, a service center can perform this drive cycle as it would any other type of repair work.

OBD II Drive Cycle

The engine must be warmed up and at operating temperature before proceeding with the drive modes of the following OBD II Drive Cycle.

1. Start the engine. Drive or idle (in neutral) the vehicle for 4 minutes.
2. Idle the vehicle in drive (neutral for manual transmission) for 40 seconds.
3. Accelerate the vehicle to 45 mph (70 km/h) at 1/4 to 1/2 throttle for 10 seconds.
4. Drive the vehicle with a steady throttle at 45 mph (70 km/h) for 30 seconds.

5. Idle the vehicle in Drive (Neutral for manual transmissions) for 40 seconds.

6. Continue to drive the vehicle in city traffic at speeds between 25 and 40 mph (40-60 km/h) for 15 minutes. During the 15 minute drive cycle the following modes must be achieved:

   a. at least 5 stop and idle modes at 10 seconds each

   b. acceleration from idles at 1/4 to 1/2 throttle position, and

   c. choose 3 different speeds to do 1.5 minute steady state throttle drives.

7. Accelerate the vehicle up to between 45 and 60 mph (70-100 km/h). This should take approximately 5 minutes.

8. Drive vehicle and hold the throttle steady at the selected speed between 45 and 60 mph (70-100 km/h) for approximately 5 minutes.

9. Drive the vehicle for 5 minutes at varying speeds between 45 and 60 mph (70-100 km/h).

10. Bring the vehicle back to idle. Idle in Drive for 40 seconds.

11. OBD II drive cycle has been completed. Vehicle can be turned off when convenient.

Refill Capacities, Motorcraft Parts, and Lubricant Specifications

Refill Capacities

Item	U.S.	Metric
Fuel Tank	75 gal.	284L
Engine Crankcase ②	5.0 qt.	4.7L
Transmission (E4OD) ①	16.4 qt.	15.5L
Rear Axle (Dana 80)	4.1 qt.	3.8L
Cooling System	18 qt.	17L
Parking Brake Assembly	3.8 oz.	112ML

① Always use automatic transmission fluid dipstick to determine exact fluid requirements.
② Add 1 quart (or equivalent in liters) for filter replacement.

Motorcraft Parts

Engine	7.5 EFI
Battery – Standard Optional	BXT-65-650 BXT-65-850
Spark Plug①	ASF-42P
Air Filter	FA-1046
Fuel Filter	FG-872
Oil Filter②	FL-1HP
Crankcase Emission Filter	FA-1603

① Refer to Vehicle Emission Control Information Decal for spark plug and gap specifications.
② Must meet Ford Specification ES-E1ZE-6714-AA.

Item	Ford Part Name	Ford Part Number	Ford Specification
Steering Column U-Joints, Parking Brake Linkage Pivots and Clevises	Premium Long Life Grease	XG-1-C	ESA-M1C75-B
Brake Master Cylinder	High Performance DOT 3 Brake Fluid	C6AZ-19542-AA	ESA-M6C25-A
Engine Oil – Gasoline Engines	Motorcraft Motor Oil 5W30 and 10W30 Super Premium	X0-5W30-QSP X0-10W30-QSP	ESE-M2C153-E with API Certification Mark
	20W40 Premium	X0-20W40-QP	
	SAE-30 and 15W40 Super Duty	X0-30-QSD X0-15W40-QSD	
Automatic Transmission Shift Linkage	Premium Long Life Grease	XG-1-C	ESA-M1C75-B

Item	Ford Part Name	Ford Part Number	Ford Specification
Disc Brake Caliper Rails	Disc Brake Caliper Slide Grease	D7AZ-19590-A	ESA-M1C172-A
Driveshaft Universal Joints and Slip Yoke	High Temperature Grease — NLGI No. 2		ESL-M1C173-A
Front Wheel Bearings and Brake Pedal Shaft	Premium Long Life Grease	XG-1-C	ESA-M1C75-B
E4OD — Electronic 4-Speed Automatic Transmission	Motorcraft MERCON® Automatic Transmission Fluid	XT-2-QDX	MERCON®
Power Steering Reservoir (Motorhome Only)	Motorcraft MERCON® Automatic Transmission Fluid	XT-2-QDX	MERCON®
Parking Brake Cable	Speedometer Cable Lubricant	E6TZ-19581-A	ESF-M1C160-A
Engine Oil Filter	Motorcraft Long Life Oil Filter	(FL-1A) D9AZ-6731-A	ES-E1ZE-6714-AA
Power Steering Reservoir (F-Super Duty Only)	Motorcraft Automatic Transmission Fluid Type F	XT-1-QF	ESW-M2C33-F

Item	Ford Part Name	Ford Part Number	Ford Specification
Accelerator Throttle Lever Ball Stud	Premium Long Life Grease	XG-1-C	ESA-M1C75-B
Steering Linkage, Spindle Pins – Lubricate only where Equipped with Grease Fittings	Premium Long Life Grease	XG-1-C	ESA-M1C75-B
F Super Duty Rear Axle, Dana 80	Motorcraft High Performance Rear Axle Lube (Synthetic) (75W140)	F1TZ-19580-B	WSL-M2C192-A
F Super Duty Parking Brake Assy.	Motorcraft MERCON® Automatic Transmission Fluid	XT-2-QDX	MERCON®
Engine Coolant	Premium Cooling System Fluid	E2FZ-19549-AA	ESE-M97B44-A

Vehicle Storage

Maintenance Tips

If you plan on storing your vehicle for an extended period of time (60 days or more), refer to the following maintenance recommendations to ensure your vehicle stays in good operating condition.

General

- ❑ Store all vehicles in a dry, ventilated place.
- ❑ Protect from sunlight, if possible.
- ❑ If vehicles are stored outside, they require regular maintenance to protect against rust and damage.

Body

- ❑ Wash vehicle thoroughly to remove dirt, grease, oil, tar or mud from exterior surfaces, rear wheel housing and underside of front fenders.
- ❑ Periodically wash vehicles stored in exposed locations.
- ❑ Touch-up raw or primed metal to prevent rust.
- ❑ Cover chrome and stainless steel parts with a thick coat of auto wax to prevent discoloration. Re-wax as necessary when the vehicle is washed.
- ❑ Lubricate all hood, door and trunk lid hinges and latches with a light grade oil.
- ❑ Cover interior soft trim to prevent fading.
- ❑ Keep all rubber parts free from oil and solvents.

Engine

❑ Start engine every 15 days. Run at fast idle until it reaches normal operating temperature.

❑ With your foot on the brake, shift through all the gears while the engine is running.

Fuel system

❑ Fill fuel tank with high-quality unleaded fuel until the first automatic shutoff of the fuel pump nozzle.

NOTE: During extended periods of vehicle storage (60 days or more), fuel may deteriorate due to oxidation. This can damage rubber and other polymers in the fuel system and may also clog small orifices.

Ford Gas Stabilizer should be added whenever actual or expected storage periods exceed 60 days. Follow the instructions on the label. The vehicle should then be operated at idle speed to circulate the additive throughout the fuel system.

A volatile corrosion inhibitor added to the fuel system will protect the fuel system's inner surfaces from corrosion. Follow the instructions packaged with the product.

Cooling system

❑ Protect against freezing temperatures.

Battery

❑ Check and recharge as necessary.

❑ Keep connections clean and covered with a light coat of grease.

Brakes

❑ Make sure brakes and parking brake are fully released.

Tires

❑ Maintain recommended air pressures.

Miscellaneous

❑ Make sure all linkages, cables, levers and clevis pins under vehicle are covered with grease to prevent rust.

❑ Move vehicles at least 25 feet (10 m) every 15 days to lubricate working parts to prevent corrosion.

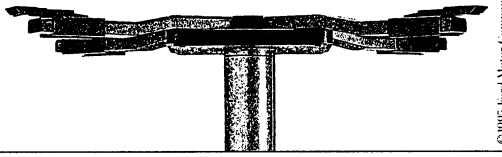
YOU FOUND
THE RIGHT PLACE.

Quality Care is more
than automotive service.

It's our goal to make you so
happy with your vehicle
and our service, you'll want
to come back. For service.
And your next vehicle.

Quality Care.
It's at your dealer.

Ford FORD
QUALITY CARE



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Notes

General Information

Vehicle Identification Number (VIN):

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Owner Name: _____

Address: _____

_____

Phone: _____

Selling Dealer Name: _____

Address: _____

_____

Phone: _____

If you live in the U.S. and have questions or concerns that the dealership cannot answer, contact:

Ford Motor Company
Customer Assistance Center
300 Renaissance Center
P.O. Box 43360
Detroit, MI 48243
1-800-392-3673 (FORD)
TDD for the hearing impaired: 1-800-232-5952

If you live in Canada, contact:

Customer Assistance Centre
Ford Motor Company of Canada, Limited
P.O. Box 2000
Oakville, Ontario L6J 5E4
1-800-565-3673 (FORD)

If you live outside the U.S. or Canada, contact:

FORD MOTOR COMPANY
WORLDWIDE EXPORT OPERATIONS
1555 Fairlane Drive
Fairlane Business Park #3
Allen Park, Michigan 48101 U.S.A.
Telephone: (313) 317-4282
Fax: (313) 390-0804

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Maintenance Schedule and Record

Maximum Oil Change Interval . . .
Over 8500# (3500 kg) GVWR:
3 months or 3,000 miles (5,000 km)
whichever occurs first.

General Maintenance Information

The required Scheduled Maintenance Services listed in this booklet are considered essential to the proper operation, safety and performance of your Ford Motor Company vehicle. We recommend that you also perform the Owner Maintenance Checks listed. These services are matters of day-to-day care that are also important to the proper operation of your vehicle. The recommended lubricants, fluids and service parts conforming to Ford Specifications are available from your dealer.

This booklet gives you a place to record the services that are performed on your vehicle so that you can keep a record of when parts should be checked or replaced. Give your *Maintenance Schedule and Record* booklet to the dealer service manager.

Maintenance: An investment

An investment which will pay dividends in the form of improved reliability, durability, and resale value.

To assure the durability of your vehicle and its emission control systems, it is necessary that scheduled maintenance be performed at the designated intervals.

Ford strongly recommends the use of genuine Ford replacement parts. If other than Ford or Motorcraft parts or Ford authorized remanufactured parts are used for maintenance replacements or for the service of components affecting emission control, such non-Ford parts should be equivalent to genuine Ford Motor Company parts in performance and durability. It is the owner's responsibility to determine the equivalency of such parts. Please consult your warranty booklet for complete warranty information.

No Cost PCV Valve Replacement

THE PCV VALVE ON LIGHT TRUCKS IS A CRITICAL EMISSION COMPONENT. YOUR DEALER WILL REPLACE THE VALVE AT NO COST AT 60,000 MILES/96,000 KILOMETERS (EXCEPT CANADA VEHICLES).

Wheel Lug Nuts

Wheel lug nuts must be retightened to proper torque specifications at 500 miles/800 km of new vehicle operation (100 miles/160 km for vehicles equipped for snowplowing). Proper torque specifications are provided in your Owner Guide. Also retighten to proper torque specification at 500 miles/800 km after (1) any wheel change or (2) any other time the wheel lug nuts have been loosened.

PRE-DELIVERY CHECK

❑ Pre-Delivery Service Inspection Completed

DEALER AUTHORIZATION

Date: _____

Mileage: _____

Severe Duty Schedule

NOTE: Items for Emission Control Service are shown in this type and style.

For items marked with a number in parentheses such as (1), see footnote at the end of this section.

NOTE: The Severe Duty Schedule provides maintenance intervals for replacing your air cleaner filter if you drive in severe dust conditions. However, the conditions you drive in may require even more frequent air cleaner replacement intervals than those shown. Check with your dealer.

Maintenance Intervals for Severe Duty Schedule

3,000 MILES (5,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

DEALER AUTHORIZATION

Date: _____

Mileage: _____

6,000 MILES (10,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

9,000 MILES (15,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

DEALER AUTHORIZATION

Date: _____

Mileage: _____

12,000 MILES (20,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

15,000 MILES (25,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Inspect engine cooling system, hoses, and clamps; and check coolant strength every 15,000 miles (25,000 km) or 12 months.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

❑ Inspect disc brake system and lubricate caliper slide rails. (2)

❑ Inspect drum brake systems, hoses and lines.

❑ Change fuel filter (Recommended but not required for California Certified Vehicles).

❑ Check spring U-bolt torque (F-Super Duty).

❑ Inspect parking brake fluid (F-Super Duty).

DEALER AUTHORIZATION

Date: _____

Mileage: _____

18,000 MILES (30,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

21,000 MILES (35,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Change automatic transmission fluid.

DEALER AUTHORIZATION

Date: _____

Mileage: _____

24,000 MILES (40,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

❑ Lubricate throttle kickdown or TV lever ball studs.

DEALER AUTHORIZATION

Date: _____

Mileage: _____

27,000 MILES (45,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

DEALER AUTHORIZATION

Date: _____

Mileage: _____

30,000 MILES (50,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Replace air cleaner filter every 30,000 miles (50,000 km) or 30 months. If operating in dusty conditions consult your dealer and/or follow severe duty maintenance schedule. (1)*

❑ *Inspect engine cooling system, hoses, and clamps; and check coolant strength every 15,000 miles (25,000 km) or 12 months.*

❑ *Replace crankcase emission air filter. If operating in dusty conditions consult your dealer and/or follow severe duty maintenance schedule. (4.9L, 5.0L man. trans., and 7.5L only.) (1)*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

❑ Inspect disc brake system and lubricate caliper slide rails. (2)

❑ Inspect drum brake systems, hoses and lines.

❑ Change fuel filter (Recommended but not required for California Certified Vehicles).

❑ Inspect and lubricate front wheel bearings. (2)

❑ Inspect parking brake system for damage and operation.

❑ Inspect parking brake fluid (F-Super Duty only).

❑ Change rear axle lube (F-Super Duty only). (4)

❑ Check spring U-bolt torque (F-Super Duty).

DEALER AUTHORIZATION

Date: _____

Mileage: _____

33,000 MILES (55,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

36,000 MILES (60,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

39,000 MILES (65,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

DEALER AUTHORIZATION

Date: _____

Mileage: _____

42,000 MILES (70,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Change automatic transmission fluid.

❑ Rotate tires and adjust air pressure. (3)(5)(6)

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

45,000 MILES (75,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Inspect engine cooling system, hoses, and clamps; and check coolant strength every 15,000 miles (25,000 km) or 12 months.*

❑ Inspect disc brake system and lubricate caliper slide rails. (2)

❑ Inspect drum brake systems, hoses and lines.

❑ Change fuel filter (Recommended but not required for California Certified Vehicles).

❑ Inspect parking brake fluid (F-Super Duty).

❑ Check spring U-bolt torque (F-Super Duty).

DEALER AUTHORIZATION

Date: _____

Mileage: _____

48,000 MILES (80,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Change engine coolant initially at 48,000 miles (80,000 km) or 48 months. Thereafter, change engine coolant every 30,000 miles (50,000 km) or 36 months.*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

❑ Lubricate throttle kickdown or TV lever ball studs.

DEALER AUTHORIZATION

Date: _____

Mileage: _____

51,000 MILES (85,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

54,000 MILES (90,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

57,000 MILES (95,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

DEALER AUTHORIZATION

Date: _____

Mileage: _____

60,000 MILES (100,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Inspect engine cooling system, hoses, and clamps; and check coolant strength every 15,000 miles (25,000 km) or 12 months.*

❑ *Replace air cleaner filter every 30,000 miles (50,000 km) or 30 months. If operating in dusty conditions consult your dealer and/or follow severe duty maintenance schedule. (1)*

❑ *Replace crankcase emission air filter. If operating in dusty conditions consult your dealer and/or follow severe duty maintenance schedule.* (1)

❑ *Replace PCV valve. (7)*

❑ *Check thermactor hoses and clamps. (Recommended, not required.)*

❑ *Inspect accessory drive belt(s).*

❑ *Replace spark plugs (Gasoline engines only).*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

❑ Inspect disc brake system and lubricate caliper slide rails. (2)

❑ Inspect drum brake systems, hoses and lines.

❑ Change fuel filter (Recommended but not required for California Certified Vehicles).

❑ Inspect and lubricate front wheel bearings. (2)

❑ Inspect parking brake system for damage and operation.

❑ Change rear axle lube (F-Super Duty only). (4)

❑ Inspect parking brake fluid (F-Super Duty).

❑ Check spring U-bolt torque (F-Super Duty).

DEALER AUTHORIZATION

Date: _____

Mileage: _____

63,000 MILES (105,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Change automatic transmission fluid.

DEALER AUTHORIZATION

Date: _____

Mileage: _____

66,000 MILES (110,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

69,000 MILES (115,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

72,000 MILES (120,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

❑ Lubricate throttle kickdown or TV lever ball studs.

DEALER AUTHORIZATION

Date: _____

Mileage: _____

75,000 MILES (125,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Inspect engine cooling system, hoses, and clamps; and check coolant strength every 15,000 miles (25,000 km) or 12 months.*

❑ Inspect disc brake system and lubricate caliper slide rails. (2)

❑ Inspect drum brake systems, hoses and lines.

❑ Change fuel filter (Recommended but not required for California Certified Vehicles).

❑ Inspect parking brake fluid (F-Super Duty).

❑ Check spring U-bolt torque (F-Super Duty).

DEALER AUTHORIZATION

Date: _____

Mileage: _____

78,000 MILES (130,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Change engine coolant every 30,000 miles (50,000 km) or 36 months.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

81,000 MILES (135,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

DEALER AUTHORIZATION

Date: _____

Mileage: _____

84,000 MILES (140,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Change automatic transmission fluid.

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

87,000 MILES (145,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

90,000 MILES (150,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Replace air cleaner filter every 30,000 miles (50,000 km) or 30 months. If operating in dusty conditions consult your dealer and/or follow severe duty maintenance schedule. (1)*

❑ *Inspect engine cooling system, hoses, and clamps; and check coolant strength every 15,000 miles (25,000 km) or 12 months.*

❑ *Inspect accessory drive belt(s).*

❑ *Replace crankcase emission air filter. If operating in dusty conditions consult your dealer and/or follow severe duty maintenance schedule. (4.9L, 5.0L man. trans., and 7.5L only.) (1)*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

❑ Inspect disc brake system and lubricate caliper slide rails. (2)

❑ Inspect drum brake systems, hoses and lines.

❑ Change fuel filter (Recommended but not required for California Certified Vehicles).

❑ Inspect and lubricate front wheel bearings. (2)

❑ Inspect parking brake system for damage and operation.

❑ Change rear axle lube (F-Super Duty only). (4)

❑ Inspect parking brake fluid (F-Super Duty).

❑ Check spring U-bolt torque (F-Super Duty).

DEALER AUTHORIZATION

Date: _____

Mileage: _____

93,000 MILES (155,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

DEALER AUTHORIZATION

Date: _____

Mileage: _____

96,000 MILES (160,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

❑ Lubricate throttle kickdown or TV lever ball studs.

DEALER AUTHORIZATION

Date: _____

Mileage: _____

99,000 MILES (165,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Replace rear axle lube.

DEALER AUTHORIZATION

Date: _____

Mileage: _____

102,000 MILES (170,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

105,000 MILES (175,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Inspect engine cooling system, hoses, and clamps; and check coolant strength every 15,000 miles (25,000 km) or 12 months.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

❑ Change automatic transmission fluid.

❑ Inspect disc brake system and lubricate caliper slide rails. (2)

❑ Inspect drum brake systems, hoses and lines.

❑ Change fuel filter (Recommended but not required for California Certified Vehicles).

❑ Inspect parking brake fluid (F-Super Duty).

❑ Check spring U-bolt torque (F-Super Duty).

DEALER AUTHORIZATION

Date: _____

Mileage: _____

108,000 MILES (180,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Change engine coolant every 30,000 miles (50,000 km) or 36 months.*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

111,000 MILES (185,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

DEALER AUTHORIZATION

Date: _____

Mileage: _____

114,000 MILES (190,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ Rotate tires and adjust air pressure. (3)(5)(6)

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)

DEALER AUTHORIZATION

Date: _____

Mileage: _____

117,000 MILES (195,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

DEALER AUTHORIZATION

Date: _____

Mileage: _____

120,000 MILES (200,000 Kilometers)

❑ *Change engine oil and replace oil filter.*

❑ *Inspect engine cooling system, hoses, and clamps; and check coolant strength every 15,000 miles (25,000 km) or 12 months.*

❑ *Replace air cleaner filter every 30,000 miles (50,000 km) or 30 months. If operating in dusty conditions consult your dealer and/or follow severe duty maintenance schedule. (1)*

❑ *Replace spark plugs (Gasoline engines only).*

❑ *Replace crankcase emission air filter. If operating in dusty conditions consult your dealer and/or follow severe duty maintenance schedule. (4.9L, 5.0L man. trans., and 7.5L only.) (1)*

❑ *Replace PCV valve.*

❑ *Check thermactor hoses and clamps. (Recommended, not required.)*

❑ *Inspect accessory drive belt(s).*

❑ Inspect and lubricate automatic transmission shift linkage.

❑ Inspect exhaust system for leaks, damage or loose parts. Remove any foreign material trapped by exhaust system shielding.

NOTE: It is normal for a certain amount of moisture and staining to be present around the muffler seams. The presence of soot, light surface rust or moisture does not indicate a faulty muffler.

- ❑ Lubricate steering linkage suspension, driveshaft U-joint if equipped with grease fittings and lubricate slip yoke (if equipped). (2)
- ❑ Lubricate throttle kickdown or TV lever ball studs.
- ❑ Inspect disc brake system and lubricate caliper slide rails. (2)
- ❑ Inspect drum brake systems, hoses and lines.
- ❑ Change fuel filter (Recommended but not required for California Certified Vehicles).
- ❑ Inspect and lubricate front wheel bearings. (2)
- ❑ Inspect parking brake system for damage and operation.
- ❑ Change rear axle lube (F-Super Duty only). (4)
- ❑ Inspect parking brake fluid (F-Super Duty).
- ❑ Check spring U-bolt torque (F-Super Duty).

DEALER AUTHORIZATION

Date: _____

Mileage: _____

(1) Extremely dusty conditions will require more frequent replacement of your air filter. check your air filter at 3,000 miles. If it is dirty replace it and then keep replacing it at the same interval (every 3,000 miles). If it's not dirty, check it again at 6,000 miles and again at 9,000 miles until you determine your unique maintenance interval. Do not go beyond 30,000 miles as described in the chart. If in doubt, see your dealer.

(2) If you operate your vehicle "off road" in water that is deeper than the hubs (1/2 wheel height) then these items must be serviced daily.

(3) City delivery vehicles and other unique applications that require constant turning may need more frequent tire rotation. You may need to develop your own tire rotation interval based on your own observations of tire wear. If in doubt, see your dealer.

(4) F-SUPER DUTY APPLICATIONS must change axle lube every 30,000 miles unless synthetic oil is used. Super Duty vehicles are NOT equipped with synthetic oil from the factory. Synthetic oil MUST BE changed at 100K intervals.

(5) Wheel lug nuts must be retightened to proper torque specifications at 500 miles/800 km of new vehicle operation (100 miles/160 km and 500 miles/800 km for vehicles equipped with dual rear wheels or equipped for snowplowing). Proper torque specifications are provided in your Owner Guide. Also retighten to proper torque specification at 500 miles/800 km after (1) any wheel change or (2) any other time the wheel lug nuts have been loosened.

(6) On dual rear wheel light trucks, rotate the front tires side-to-side without disturbing the rear tires.

(7) At 60,000 miles (96,000 km) your dealer will replace the PCV valve at no cost except on Canada and California vehicles.

Owner Maintenance Checks

The following lists are vehicle checks and inspections that should be performed by the owner or qualified service technician at the frequencies indicated to help ensure safe, dependable operation of your vehicle.

Any adverse conditions should be brought to the attention of your dealer or qualified service technician for service advice as soon as possible.

These Owner Maintenance Checks are generally not covered by warranties and you may be charged for labor, parts and lubricants used.

When You Stop for Fuel:

- ❑ Check the engine oil level.
- ❑ Check the windshield washer fluid level.
- ❑ Look for low or under-inflated tires.

While Operating Your Vehicle:

- ❑ Note any changes in the sound of the exhaust or any smell of exhaust fumes in the vehicle.
- ❑ Check for vibrations in the steering wheel. Notice any increased steering effort or looseness in the steering wheel, or change in its straight ahead position.
- ❑ Notice if your vehicle **constantly turns slightly** or "pulls" to one side when traveling on smooth, level road.

- ❑ When stopping, listen and check for strange sounds, **pulling to one side**, increased brake pedal travel or "hard to push" brake pedal.
- ❑ If any slipping or changes in the operation of your transmission occur, check the transmission fluid level.
- ❑ Check automatic transmission P (Park) function.
- ❑ Check parking brake.
- ❑ Verify proper "Brake" bulb check response when starting vehicle.

At least monthly:

- ❑ Check coolant level in the coolant recovery reservoir.
- ❑ Check the operation of all exterior lamps, including the brakelamps, turn signals and hazard warning flashers.
- ❑ Check for fluid leaks by inspecting the surface beneath your vehicle for oil, coolant, or other fluid drips. Clean water from the air conditioning system is normal.

At least twice a year:
(i.e., every Spring and Fall)

- ❑ Check power steering fluid level.
- ❑ Check windshield washer spray and wiper operation. Clean wiper blades with clean cloth dampended with washer fluid.
- ❑ Check radiator, heater and air-conditioning hoses for leaks or damage.
- ❑ Check for worn tires and loose wheel lugnuts.
- ❑ Clean body and door drain holes.

- ❑ Flush complete underside of vehicle.
- ❑ Inspect underbody components for damage.
- ❑ Check parking brake system.
- ❑ Check headlamp alignment.
- ❑ Inspect seatback latches for proper operation.
- ❑ Check air pressure in spare tire.

At least once a year:

- ❑ Lubricate door hinges and checks, and hood hinges.
- ❑ Lubricate door and hood locks and latches.
- ❑ Lubricate door rubber weatherstrips.
- ❑ Clean battery and terminals, check electrolyte level on low maintenance (auxiliary and replacement) batteries.

If any of these conditions are noted, bring them to the attention of your dealer or qualified service technician as soon as possible.

Notes

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