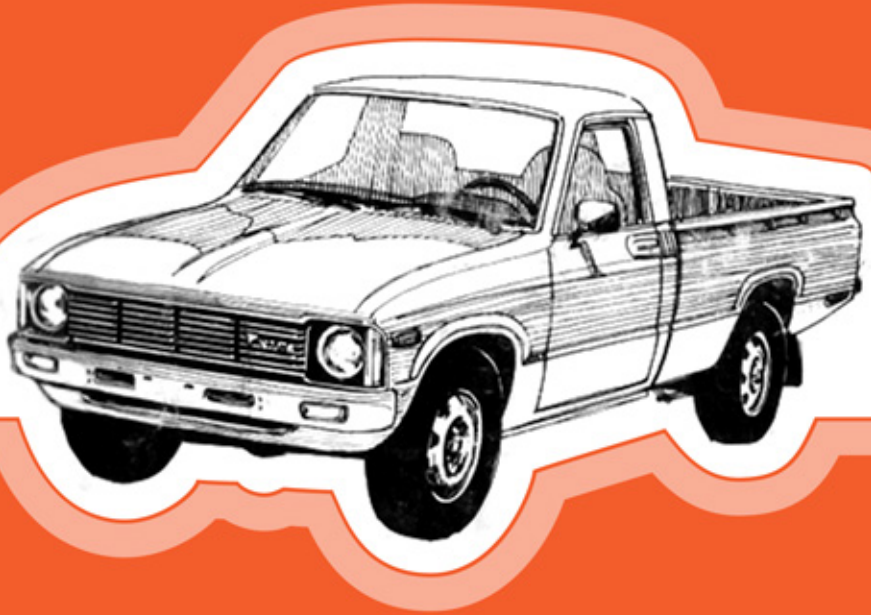
TOYOTA



Pickup

1981
Owner's
Manual

New Vehicle Warranty

Your new vehicle is covered by the following Toyota limited warranties

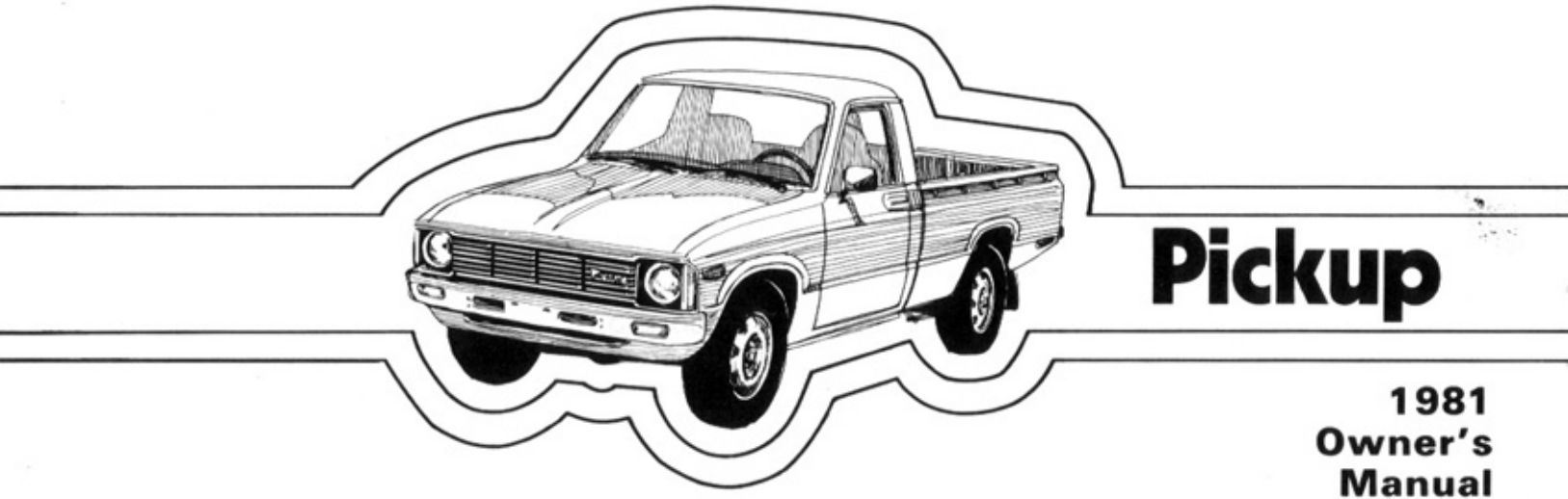
- New vehicle warranty
- Emission control systems warranty
- Others

For further information, please refer to the separate "Owner's Guide" or "Warranty Booklet".

Your responsibility for maintenance

Your vehicle's first scheduled maintenance (except "Engine oil and oil filter") is at 15000 miles (24000 km) or 12 months, whichever comes first. Your next maintenance is each 15000 miles (24000 km) or 12 months thereafter. Section 5 gives details of the maintenance requirements.

TOYOTA



Pickup

1981 Owner's Manual

Maintenance
Operation

All information and specifications in this manual are current at the time of printing. However, because of Toyota's policy of continual product improvement, we reserve the right to make changes at any time without notice. Please note that this manual applies to all models and explains all equipment, including options. Therefore, you may find some explanations for equipment not installed on your vehicle.

foreword

Welcome to the growing group of value-conscious people who drive Toyotas. We are proud of the advanced engineering and quality construction of each vehicle we build.

We invite you to read through this Owner's Manual. It is designed to acquaint you with the features of your new Toyota and to help you enjoy many miles/kilometers of motoring pleasure.

When it comes to service, remember that your Toyota dealer knows your vehicle best and is interested in your complete satisfaction. He will provide quality maintenance and any other assistance you may require.

TOYOTA MOTOR SALES CO.,LTD.

Please leave this Owner's Manual in this vehicle at the time of resale. The next owner will need this information also.

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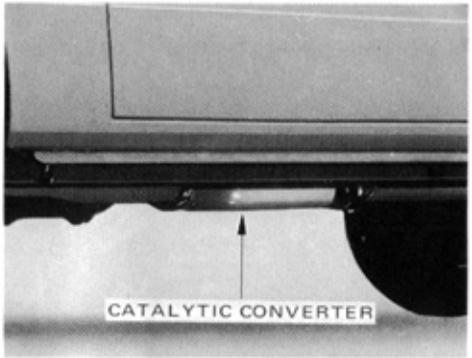
Modification of your Toyota

Please be aware that any modification of your Toyota could affect its performance, safety, durability or warranty, and may even violate governmental regulations.

Catalytic converter



The catalytic converter is an emission control device installed in the exhaust system.

It looks somewhat like mufflers, but its purpose is to reduce pollutants in the exhaust gas.

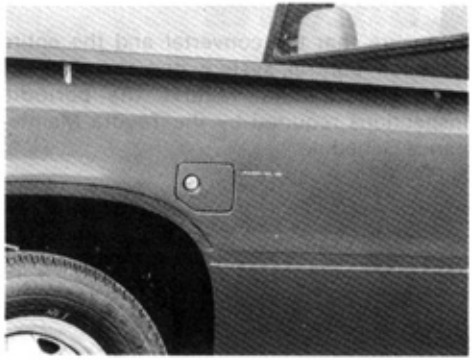
WARNING:

A large amount of unburned gas flowing into the converter may cause it to overheat and create a fire hazard. To prevent this and other damage, observe the following precautions:

- Do not drive with an extremely low fuel level; running out of gas could cause the engine to misfire, creating an excessive load on the converter.
- Do not allow the engine to run at fast idle speed for more than 10 minutes or at normal idle speed for more than 20 minutes.
- Keep your engine in good running order. Defects in the engine electrical, ignition or carburetion systems could cause an extremely high converter temperature.
- Do not push-start or pull-start your vehicle.
- Do not turn off the ignition while the vehicle is moving.
- Do not stop or park your vehicle over anything that might burn easily such as dried grass, leaves, paper or rags.
- Keep people and combustionable materials away from the exhaust pipe while the engine is running. The exhaust gas is very hot.
- Avoid racing the engine.
- Use only unleaded gasoline.
- If the engine becomes difficult to start, stalls frequently or pings or knocks during acceleration, take your vehicle in for a check-up as soon as poissible. Remember, your Toyota dealer knows your vehicle and its catalytic converter system best.

To insure that the converter and the entire emission control system operate properly, your vehicle must receive the periodic inspections required by the Toyota Maintenance Schedule.

Fuel recommendation



Your new vehicle must use only UNLEADED fuel: Research Octane No. 91 (Anti-knock index 87) or higher.

Use of leaded gasoline will cause the catalytic converter to lose its effectiveness and the emission control system to function improperly. Also, this can increase maintenance costs.

To help prevent gas station mixups, all Toyota Pickups have a new smaller fuel tank opening. The special nozzle on pumps with unleaded fuel will fit it, but the larger standard nozzle on pumps with leaded gas will not.

Fuel tank capacity:

	gal	Imp. gal	liters
Short-bed model	**13.5**	**11.2**	**51.0**
Long-bed model	**16.0**	**13.3**	**60.5**

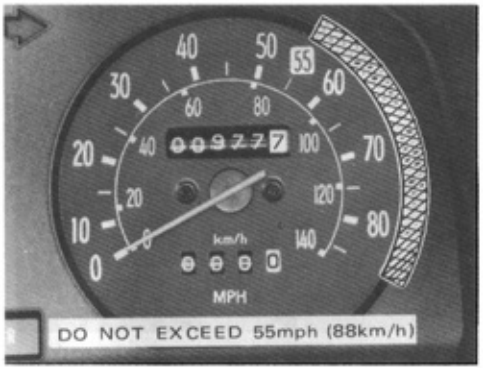
Operation in foreign countries

If you plan to drive your Toyota in another country ...

First, comply with the vehicle registration laws.

Second, confirm the availability of the correct fuel (unleaded and minimum octane rating).

Tips for driving the first 1000 miles (1600 km)



Drive gently and avoid high speeds.

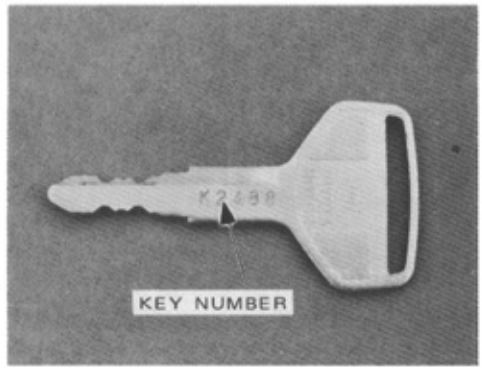
You need not follow a "break-in" schedule with your new Toyota. But following a few simple tips for the first 1000 miles (1600 km) can add to the future economy and long life of your vehicle:

- Do not drive over 55 mph (88 km/h).
- Maintain engine speed between 2000 and 4000 rpm.
- Avoid full-throttle starts.
- Try to avoid hard stops during the first 200 miles (300 km).
- Do not drive slowly with the transmission in a high gear.
- Do not drive for a long time at any single speed, either fast or slow.
- Do not tow a trailer during the first 500 miles (800 km).

Key for your vehicle

The key works in every lock.

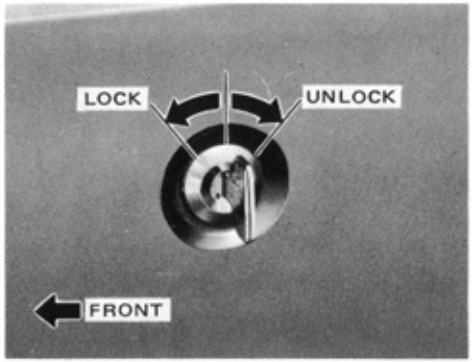
Since the doors can be locked without a key, you should always carry a spare key in case you accidentally lock your keys inside the vehicle.



Copy down the key number and keep it in a safe place.

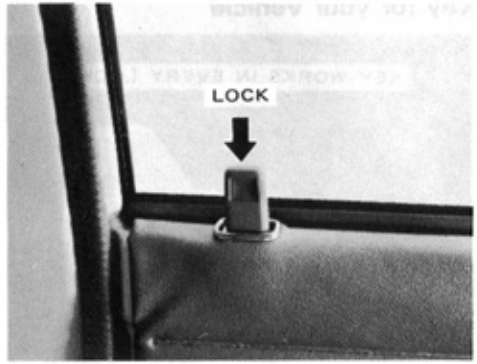
If you should lose your keys or if you need additional keys, duplicates should be made by a Toyota dealer using the key number. It is a good idea to write the number on a card you keep in your wallet, such as your driver's license. You should also put a copy of the key number with your important papers.

Door locks—
Locking and unlocking with key



Turn the key towards the front of the vehicle to lock and towards the back to unlock.

Locking from the inside



After closing the door, push in the lock button.

The door then cannot be opened with either the outside or inside door handle.

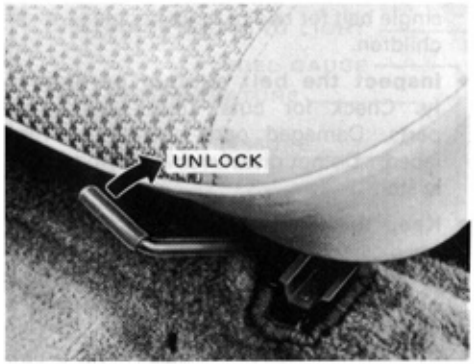
Before driving, be sure that the doors are closed and locked, especially when small children are in the vehicle. Along with the proper use of seat belts, locking the doors helps prevent the driver and passengers from being thrown out from the vehicle during an accident. It also helps prevent the doors from being opened unintentionally.

Locking from the outside with no key

Push in the lock button. Then hold up the handle as you close the door.

Be careful not to lock your keys in the vehicle.

Adjusting seat position



Pull the lock release lever up. Then slide the seat to the desired position with slight body pressure and release the lever.

After adjusting the seat, try sliding it forward and backward to make sure it is locked in position.

This adjustment should not be made while the vehicle is moving.

Do not place anything under the seats. It might interfere with the seat-lock mechanism.

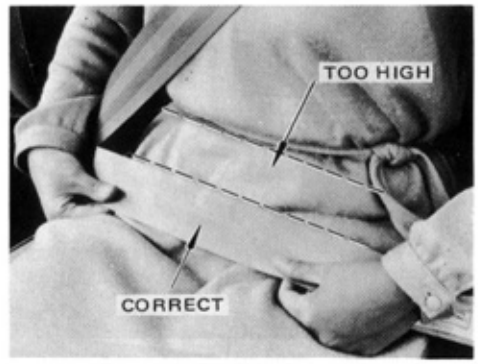
Seat belts

To fasten your belt, pull it out of the retractor and insert the tab into the buckle.

You will hear a "click" when the tab locks into the buckle. Make sure that the connection is secure and the belt is not twisted.

The seat belt length automatically adjusts to your size and the seat positon.

The retractor will lock the belt during a sudden stop or on impact. At other times you can move around freely.

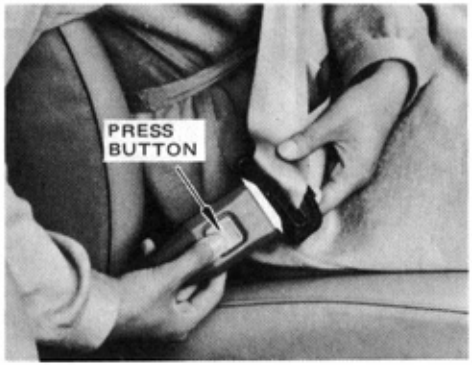


Adjust the position of the lap and shoulder belts.

To reduce the risk of sliding under the belt during an accident, ***the lap belt should be as low as possible on your hips*** — not on your waist.

For your safety, do not place the shoulder belt under your arm.

Seat belts (cont.)



To release the belt, press the buckle-release button and allow the belt to retract.

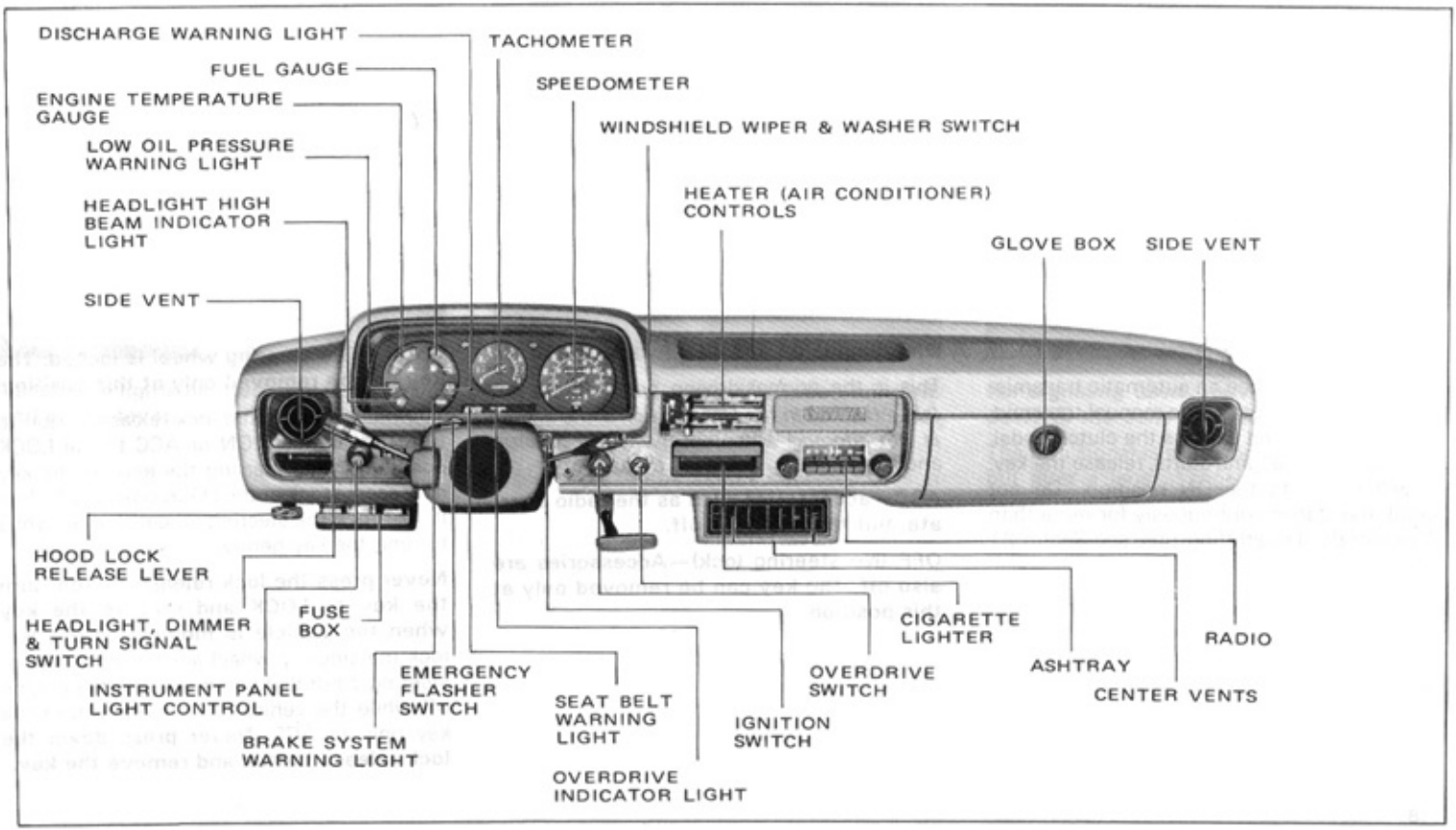
If the belt does not fully retract, pull it out and check for kinks or twists. Then make sure that it remains untwisted as it retracts.

Seat belt tips

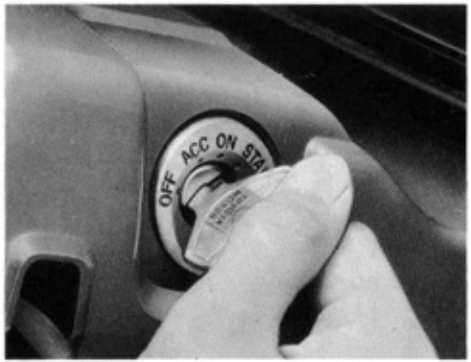
To help decrease the chance of injury and /or the severity of injury in accidents or sudden stops, Toyota recommends that the driver and passengers in the vehicle be properly restrained at all times, using the seat belts provided.

- **Small-framed person or youth.** On models with a bench seat, have a small-framed person or youth sit slightly closer to the center of the vehicle (so the shoulder belt does not cross over the neck). On models with separate seats, move the seat fully backward.
- **Baby or small child.** Child safety seating systems are available. We recommend the use of a type which fits your vehicle. Before installation, always read the manufacturer's instructions.
- **Pregnant woman.** Toyota recommends the use of a seat belt. Ask your doctor for specific recommendations. The lap belt should be worn securely and as low as possible over the hips and not on the waist.
- **Injured person.** Toyota recommends the use of a seat belt. Depending on the injury, however, first check with your doctor.
- **Only one person per belt.** Do not use a single belt for two or more people — even children.
- **Inspect the belt system periodically.** Check for cuts, frays, and loose parts. Damaged parts should be replaced. Do not disassemble or modify the system.
- **Keep the belts clean and dry.** If they need cleaning, use a mild soap solution or carpet shampoo. Never use bleach, dye, or abrasive cleaners—they may severely weaken the belts.
- **Replace the belt assembly if it has been used in a severe impact.** The entire assembly should be replaced even if damage is not obvious.
- **The driver and all passengers should fasten their seat belts whenever the vehicle is moving.**

Overview of the instruments and controls



Ignition switch



START—Starter motor on.

Before starting, place an automatic transmission in Park or Neutral, or a manual transmission in Neutral and depress the clutch pedal. As soon as the engine starts, release the key. It will return to the ON position. Do not crank the starter continuously for more than 15 seconds. (For starting tips, see Sectin 2.)

ON—Engine on and all accessories on.

This is the normal driving position. *Do not leave the key in the ON position if the engine is not running.* The battery will discharge and the ignition could be damaged.

ACC—accessories such as the radio operate, but the engine is off.

OFF (No steering lock)—Accessories are also off. The key can be removed only at this position.

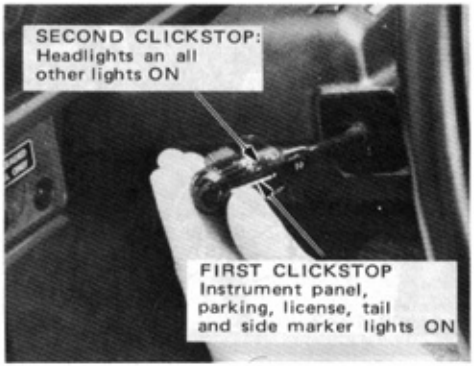
Steering lock

LOCK—The steering wheel is locked. The key can be removed only at this position.

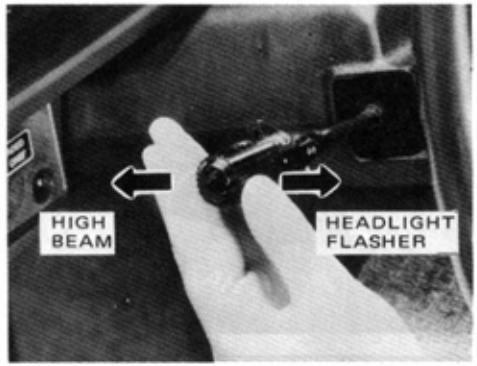
You must press in the lock release button to turn the key from ON or ACC to the LOCK position. When starting the engine, the key may seem stuck at the LOCK position. To free it, just rock the steering wheel slightly while turning the key gently.

Never press the lock release button, turn the key to LOCK and remove the key when the vehicle is moving, as this will lock the steering wheel and result in loss of steering control. If you must turn the engine off while the vehicle is in motion, turn the key only to ACC. **Never press down the lock release button and remove the key.**

Combination headlight, dimmer and turn signal switch



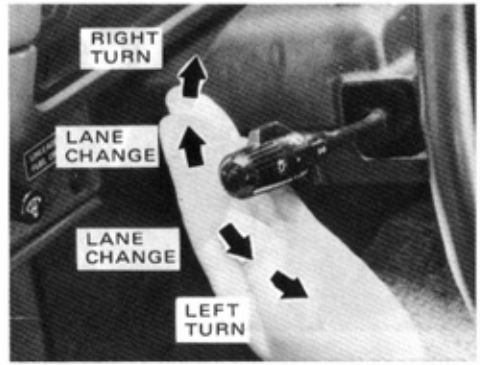
To turn the lights on, twist the knob on the end of the lever.



For high beam, push the lever forward. Pull it back for low beam. For the headlight flasher, pull it further back.

A blue light on the dashboard indicates high beam.

The headlight flasher works even when the headight switch is off.



For signaling turns, move the lever up or down in the conventional manner.

The turn signal is self-cancelling after a turn, but after a lane change, you may have to cancel it by hand. You can also signal a lane change by moving the turn signal lever partway and holding it there. If the green dashboard light flashes faster than normal, it indicates that the front or rear turn signal bulb has burned out. If the dashboard light does not come on, the fuse or the indicator light itself has probably failed. You may change headlight beams even while the turn signal lights are flashing.

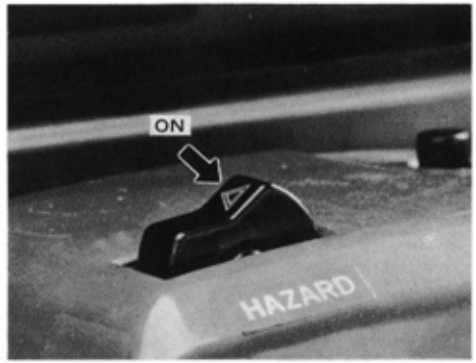
Tilt steering wheel

To change the steering wheel height, push up the lock release lever, tilt the steering wheel to the desired height and release the lever.

After adjusting the steering wheel, try moving it up and down to make sure it is locked in position.

Never make this adjustment while the vehicle is moving.

Emergency flasher switch



To turn on the emergency warning lights, push the switch down.

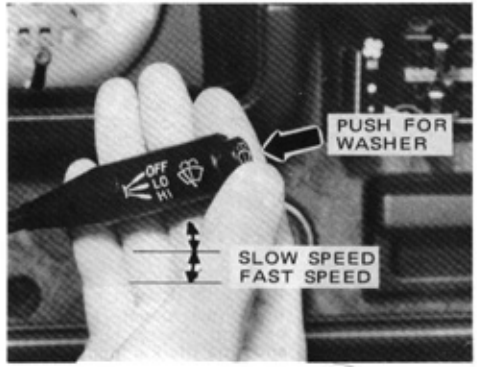
All the turn signal lights will flash. The emergency warning lights will work with the engine running or off without the ignition key.

Turn on the emergency flashers to warn other drivers if your vehicle must be stopped where it might be a traffic hazard.

Always pull as far off the road as possible.

The turn signal lights will not work when the emergency flashers are operating.

Windshield wiper and washer switch—Conventional type



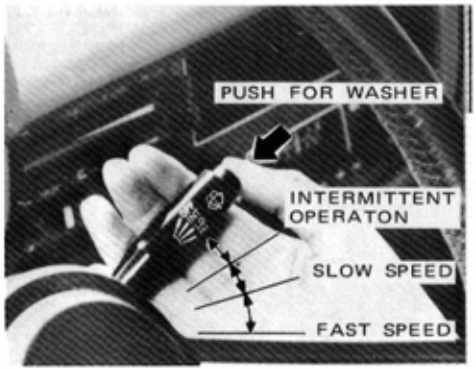
To turn the wipers on, pull the lever down. To make the washer squirt, push the button on the end of the lever.

Do not run the wipers if the windshield is dry. It may scratch the glass.

If the washer does not work, check to see whether the washer tank is empty. For information on adding washer fluid, see "Adding washer fluid" in Section 6.

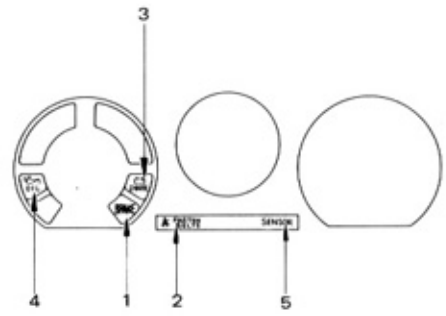
In cold weather, warm the windshield with the defroster before using the washer. This will help prevent icing, which could block your vision.

Intermittent type



To operate the wipers at intervals, place the lever in the "INT" position.

Warning lights and buzzer— What to do if one comes on while driving



1.	Brake system warning	If the parking brake is off, stop and check.
2.	Seat belt reminder	Fasten seat belts.
3.	Discharge warning	Stop and check.
4.	Low oil pressure warning	Stop and check.
5.	Oxygen sensor warning	Inspect oxygen sensor.

1. Brake System Warning Light

This light has two separate functions:

Parking brake reminder. If this light is on, make sure the parking brake is fully released. The light should go off.

Low brake fluid level warning. If this light remains on even when you fully release the parking brake or if it comes on when you depress the brake pedal two or three times in succession:

- *Slow down and pull off the road.* Then stop the vehicle carefully. And remember that stopping distance and pedal effort may be increased. There is a problem somewhere in the brake system. Check the fluid level of the see-through reservoir. If the level is low, have the vehicle towed in for repairs. (For towing information, see "If your vehicle needs to be towed" in Section 3.)
- If the level is O.K., *test your brakes by starting and stopping.* If you judge that the brakes work adequately, drive cautiously to your nearest dealer or shop for repairs.

Continued normal driving is dangerous. Get the brakes repaired immediately.

2. Seat Belt Reminder Light and Buzzer

As a reminder to you and your passengers, this light will come on for about five seconds each time you start the vehicle. The buzzer will operate only if the driver's seat belt is not fastened when starting.

Warning lights and buzzer— What to do if one comes on while driving (cont.)

3. Discharge Warning Light

This light indicates that the battery is being discharged. If it comes on while you are driving, ***stop the vehicle, turn off the engine,*** and check for the cause. Look first at the engine drive belt (alternator belt). If it is loose or broken, the alternator will not charge the battery properly. If the belt is OK, there is a problem somewhere in the charging system. The engine ignition will continue to operate, however, until the battery is discharged. Turn off the air conditioner, blower, radio, etc., and drive directly to the nearest Toyota dealer or repair shop.

Do not continue driving if the engine drive belt (alternator belt) is broken or loose. The engine will overheat.

4. Low Oil Pressure Warning Light

This light indicates that the oil pressure is low. If it flickers or stays on while driving, ***pull off the road immediately and stop the engine.*** First check the oil level; it may be low. (Instructions for how to check and add oil are in Section 6.) If the level was low but adding oil does not cause the light to go out when the engine is restarted, turn it off immediately and call a Toyota dealer or qualified repair shop for assistance.

Do not drive the vehicle—even for one block—until the cause is fixed. It may ruin the engine.

The light may occasionally flicker when the engine is ***idling*** or it may come on briefly after a hard stop. There is no cause for concern if it then goes out when the engine is accelerated slightly. However, you should check the oil level at your next opportunity because it may be low.

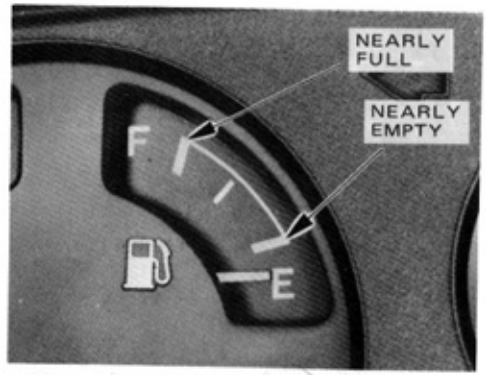
5. Oxygen Sensor Warning Light

This light comes on at 30000 miles (48000 km). If it comes on, have your Toyota dealer inspect the oxygen sensor and reset the warning light for the next 30000 miles (48000 km). ***Continued driving have an adverse effect on the catalytic converter.***

How to check all the warning lights:

Apply the parking brake.
Turn the key ON, but do not start the engine. All the warning lights on the dashboad should come ON. If one does not, the bulb is burned out or the circuit needs fixing. Have it checked as soon as possible.

Fuel gauge



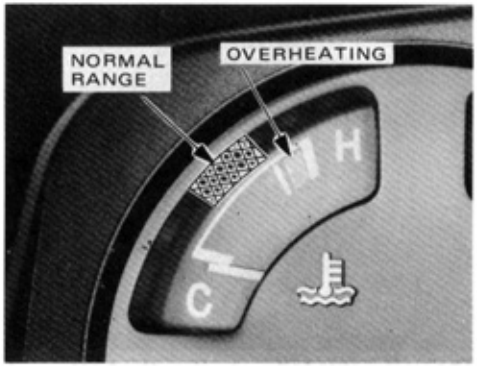
The gauge works when the ignition switch is ON and indicates APPROXIMATE quantity of fuel remaining in the tank.

It is a good idea to keep the tank over 1/4 full.

The needle moves when braking, accelerating or making turns. This is caused by the movement of the fuel in the tank.

Do not drive with the fuel level below the "E". It may cause engine misfire, and damage to the catalytic converter.

Engine temperature gauge



If the needle points to the red zone or higher, stop your vehicle and allow the engine to cool.

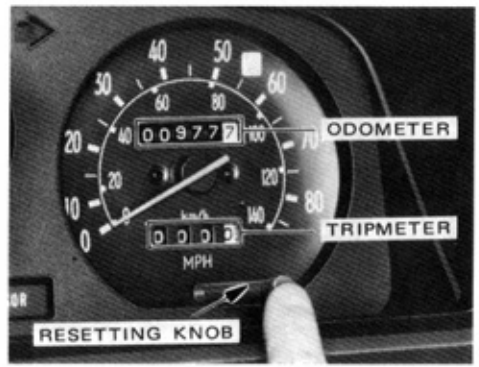
The gauge indicates the engine coolant temperature when the ignition switch is ON. The engine operating temperature will vary with changes in weather and engine load.

Your vehicle may overheat during severe operating conditions, such as:

1. Driving up a long hill on a hot day.
2. Reducing speed or stopping after high speed driving.
3. Idling for a long period with the air conditioner on in stop-and-go traffic.
4. Towing a trailer.
5. "Lugging" the engine by driving slowly in a high gear.

Do not continue driving with an overheated engine. See "If your vehicle overheats" in Section 3.

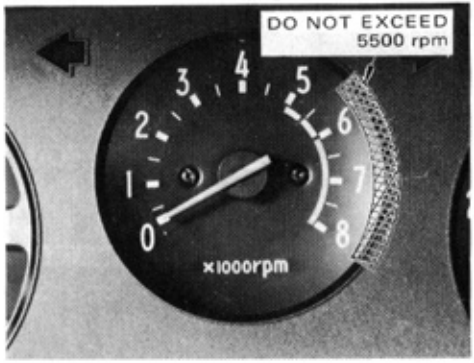
Odometer and trip meter



The odometer records the total distance the vehicle has been driven. The trip meter may be set to 000.0 to record the distance on each trip. To set the trip meter, press the knob in and release it.

The last digit of the odometer and trip meter indicates tenths of a kilometer or mile.

Tachometer

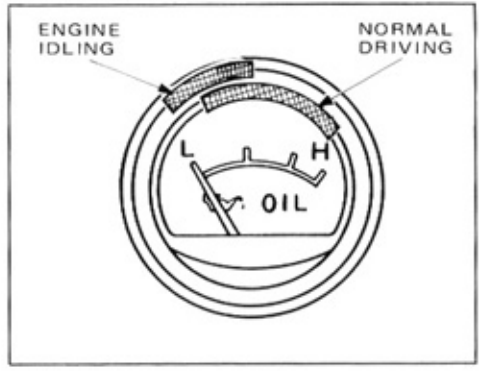


The tachometer indicates engine speed in thousands of rpm (revolutions per minute). Use it while driving to select correct shift points and to prevent engine lugging and overrevving.

Driving with the engine running too fast causes excessive engine wear and poor fuel economy. Remember, in most cases the slower the engine speed, the greater the fuel economy.

Do not run the needle into the red zone. This may cause severe engine damage.

Oil pressure gauge

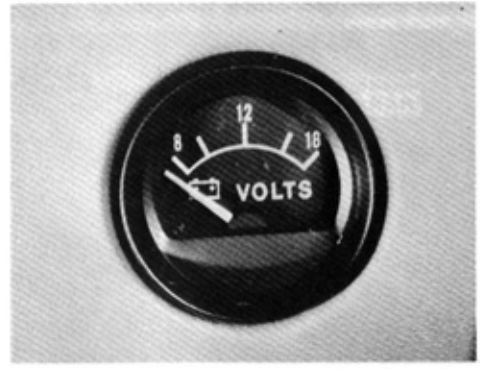


Check the oil pressure gauge to make sure the engine is receiving proper lubrication.

If the oil pressure should stay below the normal range, *pull off the road immediately and stop the engine.* The oil level is probably low. If adding oil does not restore normal oil pressure, turn the engine off and call a Toyota dealer or repair shop for assistance.

Do not drive the vehicle until the cause is fixed—it may ruin the engine.

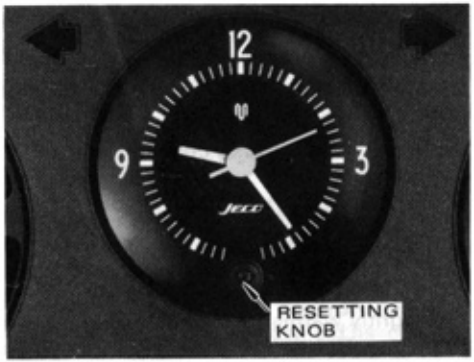
Voltmeter



The voltmeter tells whether the battery is charged or discharged. Check it while engine running—the needle should always indicate between 11 and 16 volts.

If the needle reads below 11 volts or above 16 volts while engine running, it indicates the charging system needs immediate repair. However, it is normal even if the needle drops below 11 volts during engine starting.

Clock



To set the clock hands, pull the knob and turn it clockwise to advance and counterclockwise to retard.

Instrument panel light control

To dim the instrument panel lights, turn the knob clockwise.

Cigarette lighter and ashtray

To operate the cigarette lighter, press it in. When it becomes heated, it automatically pops out ready for use.

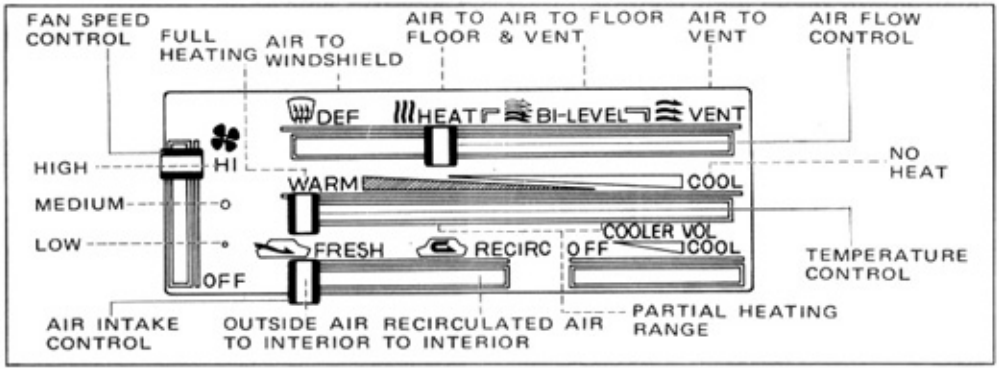
If the engine is not running, the key must be in the ACC position.

Do not hold the cigarette lighter pressed in.

After using the ashtray, push it back in completely. If not, the flame of a cigarette may cause other cigarette butts to burn, resulting in a fire.

Use a Toyota genuine cigarette lighter or equivalent for replacement.

How the heater controls work



Operation of the four controls is simple:

- **The air intake control** is used to select either fresh air from outside or recirculated air.
- **The air flow control** is used to select the air flow outlet (to the floor, to the center vent, or to the windshield).
- **The temperature control** is used to turn the heater on and off and to select the amount of heating desired.
- **The fan speed control** is used to turn the fan on and off and to selct one of the three fan speeds.

HEATING

- Move the **air intake control** to the FRESH position for *normal* heating or to the RECIRC position for *faster* heating. Remember the windows fog up easier when the air intake control is in the RECIRC position.
- Move the **air flow control** to the HEAT position. This directs most of the air to the floor outlets.
- Adjust the **temperature control** for the most comfortable setting. The WARM position gives maximum heating.
- Turn on the **fan speed control**. Higher speeds will warm up the vehicle faster.

BI-LEVEL HEATING

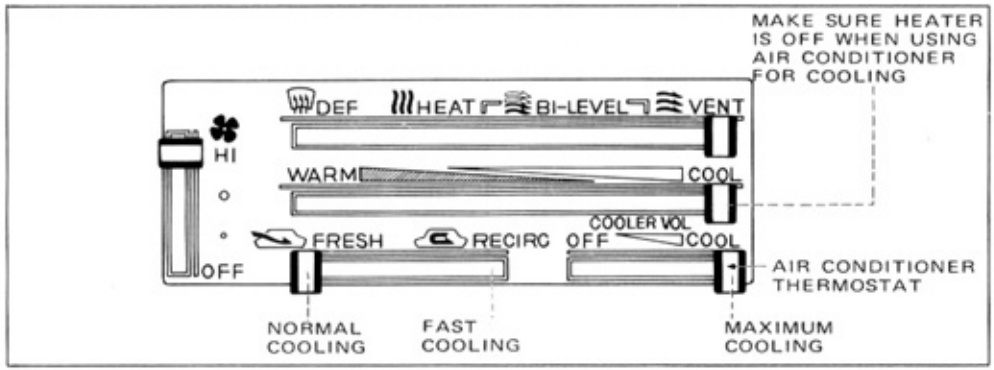
This is a heater setting in which there is a temperature difference between the air from the dash outlets and the air from the floor outlets.

- Move the **air intake control** to the FRESH position.
- Move the **air flow control** to the BI-LEVEL position. This divides the air flow between the center vent and the floor outlets with the air from the floor outlets slightly warmer than that from the center vent. The temperature difference varies from one temperature setting to another.
- Move the **temperature control** to within the range marked in the illustration.
- If desired, turn on the **fan speed control.**

VENTILATION (NO HEAT)

- Move the **air intake control** to the FRESH position.
- Move the **air flow control** to the VENT position. This directs all the air to the center vent.
- Move the **temperature control** to the COOL position. This turns off the heater.
- Turn on the **fan speed control**.

How the air conditioner controls work



DEFROSTING OR DEFOGGING

- Move the **air intake control** to the FRESH position.
- Move the **air flow control** to the DEF position. This directs most of the air to the windshield.
- Move the **temperature control** to the middle or the WARM position. The WARM setting will give the fastest results.
- Set the **fan speed control** on high speed. Once the windshield is cleared, the fan speed and heater temperature may be reduced.

OPERATING TIPS

- Be sure the air inlet grilles in front of the windshield are not blocked by leaves, snow, ice, etc.
- When driving on dusty roads, keep the air intake control at the RECIRC position to prevent outside air from entering.

Air Conditioner Thermostat Control

This is the only visible control added to the heater when your vehicle is equipped with air conditioning. The thermostat control is used to turn the system on and off and to control the temperature of the cooled air.

COOLING

- Make sure the heater is off. The heater temperature control should be in the COOL position.
- Move the **air intake control** to the FRESH position for normal cooling or to the RECIRC position for faster cooling.
- Move the **air flow control** to the VENT position.
- Turn on the **fan speed control**. Medium or high speed works best.
- Turn the **air conditioner thermostat** on and select the desired amount of cooling.

DEHUMIDIFIED HEATING

- Turn the **air conditioner thermostat** on.
- Move the **air intake control** to the FRESH position.
- Move the **air flow control** to the HEAT position.
- Turn on the **fan speed control**. Medium or high speed works best.

How the air conditioner controls work (cont.)

- Adjust the **heater temperature control** for the most comfortable setting.

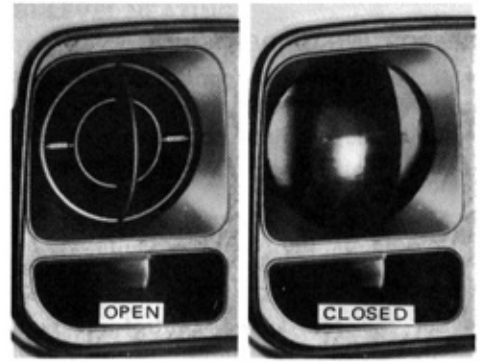
VENTILATION (NO COOLING), HEATING, DEFROSTING OR DEFOGGING

- Turn the **air conditioner thermostat** off.
- Use all the controls in the same way as described in "How the heater controls work".

AIR CONDITIONING TIPS

- After parking in the hot sun, drive for the first few minutes with the windows open. After the excess heat has blown away, roll up the windows to keep out hot air.
- For best cooling efficiency keep the windows closed.
- Move the air intake control to the FRESH position for normal air conditioning. For maximum cooling, place the control in the RECIRC position. However, since this does not allow fresh air to enter the vehicle, move the control to the FRESH position from time to time to change the air in the vehicle.
- When not in regular use, turn the air conditioner on for a few minutes once a week. This will keep the compressor and seals lubricated.

Side vents

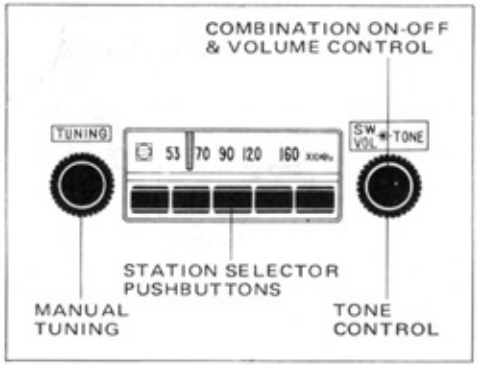


The side vents may be opened or closed as shown.

They allow fresh outside air to flow directly into the vehicle. The amount of air entering the vehicle through these vents depends on vehicle speed.

However, if your vehicle is equipped with an air conditioner, outside air does not enter directly through these vents. Instead, it is directed through the air conditoner unit first. Thus, you can have heated or cooled air through these side vents.

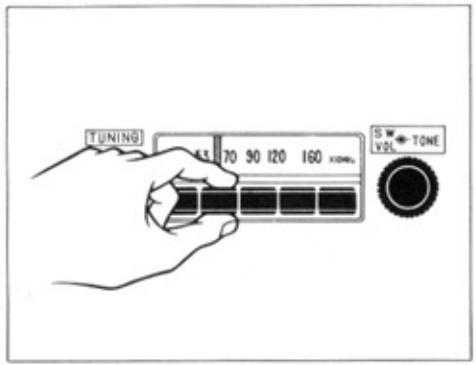
How the radio works — AM radio



Push the ON-OFF switch to turn the radio on. Another push will turn it off.

If the engine is not running, the key must be in the ACC position.

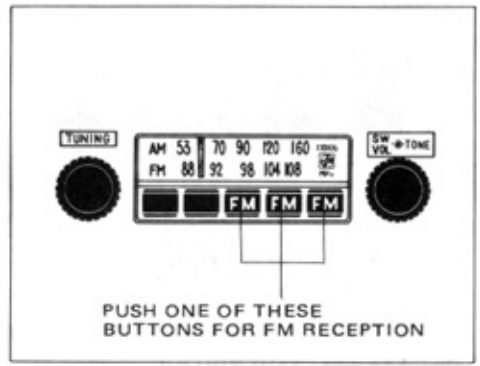
Adjust the length of your antenna for best reception. Usually a short length is best in large cities and a fully extended antenna is best for distant reception.



To set the station pushbuttons:

1. Pull a pushbutton out as far as it will go.
2. Tune in the desired station.
3. Push the button in as far as it will go.
4. Repeat this operation for the other pushbuttons.

AM-FM radio

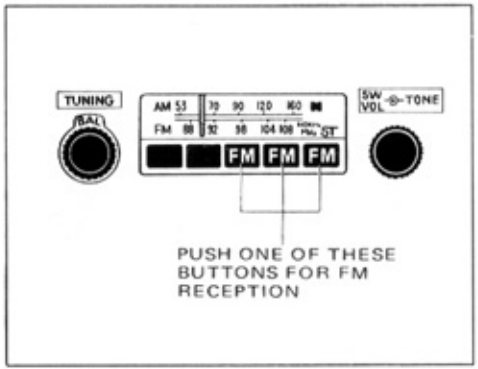


On AM-FM radios, you switch to FM reception by pressing in one of the three FM pushbuttons.

You should, of course, set these buttons to FM stations. To switch back to AM reception, press one of the two unmarked pushbuttons.

FM broadcasts have a range of about 25 miles(40km). Whendriving away from a station you may have to fine-tune your radio and turn up the volume as the station gets weaker. Because FM uses a "line-of-sight" signal, tall buildings, or hills may sometimes block reception. These are all normal characteristics of FM reception and do not indicate any problem with the radio itself.

AM-FM multiplex radio



On AM-FM MULTIPLEX radios, you switch to FM reception by pressing in one of the FM pushbuttons. It will receive stereo broadcasts automatically during FM reception.

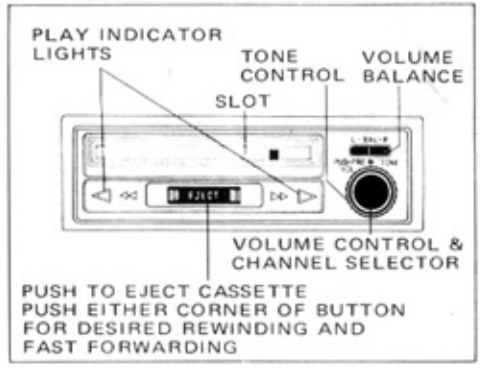
The "ST" light will come on when a stereo broadcast is received.

You should, of course, set the "FM" station selector pushbuttons to FM stations. To switch back to AM reception, press one of the unmarked pushbuttons.

FM broadcasts have a range of about 25 miles (40 km). When driving away from a station you may have to fine-tune your radio and turn up the volume as the station gets weaker. Because FM uses a "line-of-sight" signal, tall buildings, or hills may sometimes block reception. These are all normal characteristics of FM reception and do not indicate any problem with the radio itself.

To balance the sound between the right and left speakers, turn the balance control.

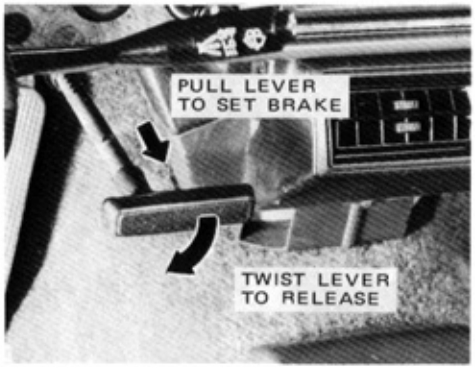
Stereo cassette player



To play, simply insert the cassette into the slot as far as it will go.

This will automatically turn on the tape player and turn off the radio. The player will automatically change directions at the end of a tape to play the other channel. You can advance or rewind the tape or change channels with the controls on the player.

Parking brake



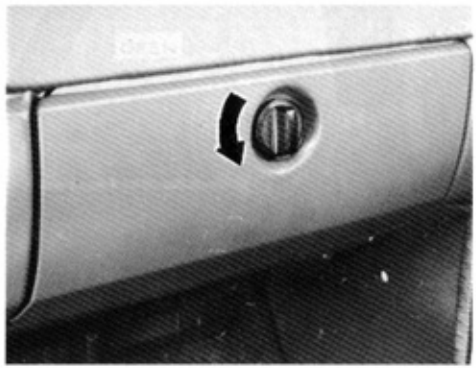
To set: Pull out on the lever.
To release: Pull out slightly, twist the handle, and push in the lever.

Before leaving your vehicle, *firmly apply the parking brake.* For better holding power, first depress the brake pedal and hold it while setting the parking brake.

As a reminder, the parking brake reminder light will come on if the parking brake is not fully released when the ignition is ON.

Before driving, be sure that the parking brake is fully released and the parking brake reminder light is off.

Glovebox



To open the glovebox door, turn the knob counterclockwise.

To reduce the chance of injury in case of an accident or a sudden stop, always keep the glovebox door closed while driving.

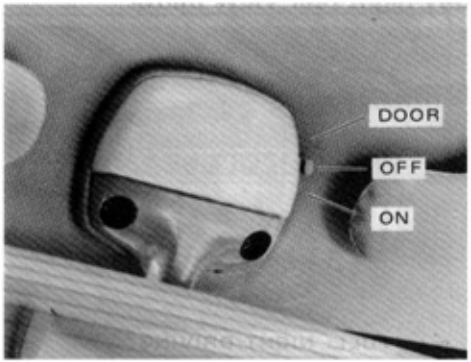
Day-night rear view mirror

Pull the lever backward to reduce glare from the rear vehicle headlights during night driving.

Before adjusting the mirror to the position with most clarity, push the day-night change lever forward (daylight driving position).

Remember that by reducing glare you also lose some rear view clarity.

Interior light



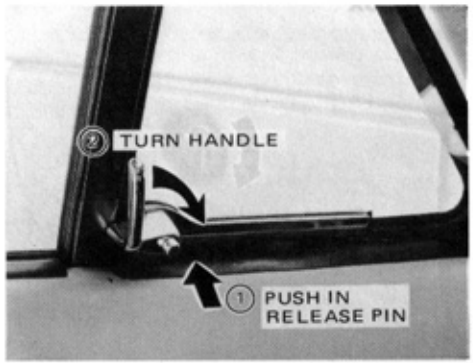
The interior light has three positions for your convenience.

ON: The light stays on with the door opened or closed regardless of any other switches.

DOOR: The light comes on while the driver's door is opened.

OFF: The light remains off even with a door opened.

Door vent windows

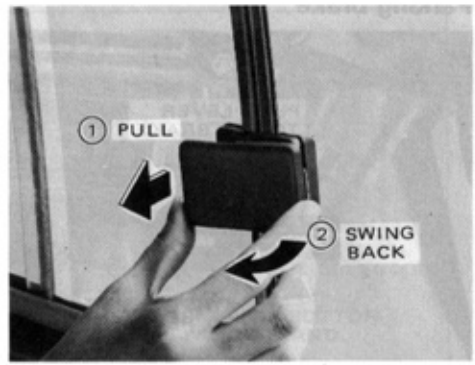


To open: Push in the release pin, turn the handle forward and push the window outward.

To close: Pull the window inward and turn the handle until it locks against the window frame.

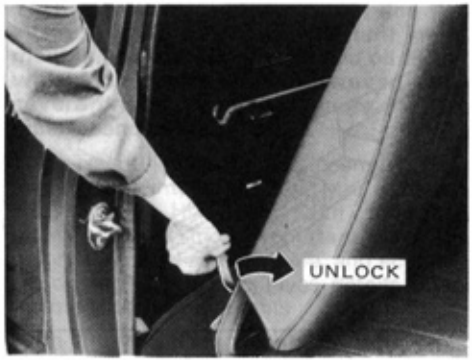
To protect things in the vehicle when you leave the vehicle unattended, be sure to lock the vent windows as well as the doors.

Back window



To unlock the back window, pull the left end of the latch handle toward you and disengage the right end from the catch.

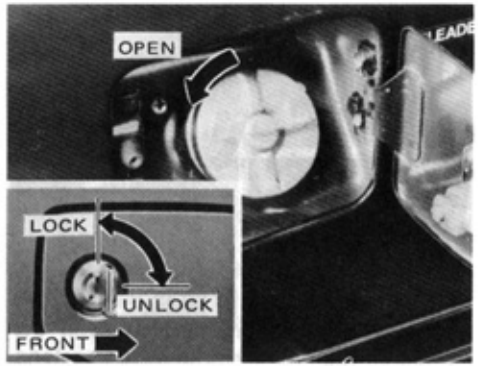
Folding seatback (bench seat)



Pull the seatback lock release lever forward—the seatback will lean forward.

Simply return the seatback to the upright position. It will lock into place. Make sure the seat belt buckles are on the seat cushion and pulled out completely to remove any slack.

Fuel tank cap



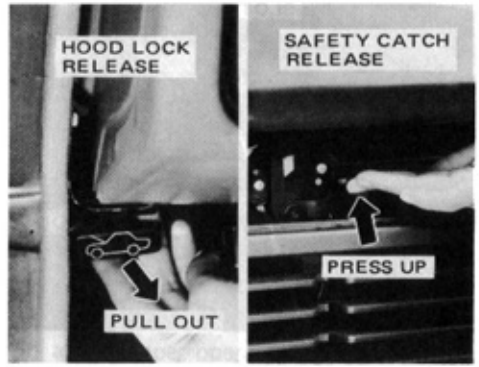
To remove the cap, unlock the fuel filler door with your key, turn the cap counterclockwise, and lift it off.

It is not unusual to hear a slight "swoosh" when the cap is opened. When installing, make sure the tabs in the cap are properly aligned with the cutouts in the tank opening.

Make sure that the cap is tightened securely to prevent fuel spillage in case of an accident.

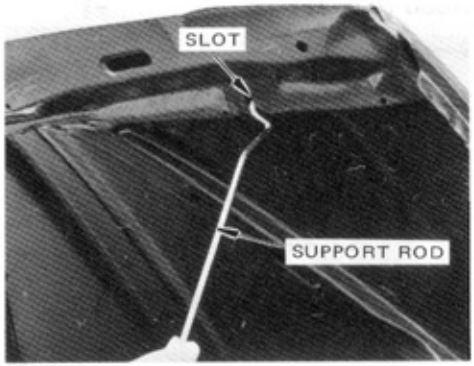
Use only a genuine Toyota fuel tank cap for replacement. It has a built-in *safety valve* to prevent fuel tank damage.

Hood release



Pull the hood lock release lever under the dash and the hood will spring up slightly. In front of the vehicle, press up on the safety catch lever and lift the hood.

Hood release (cont.)



After lifting the hood up, hold it open by inserting the support rod into the slot.

The end of the rod should be inserted into the slot in the front edge of the hood.

Make sure the rod supports the hood securely.

Before closing the hood, check to see that you have not forgotten any tools, rags, etc. and return the support rod to its clip—this prevents rattles. Then lower the hood and make sure it locks into place. If necessary, press down gently on the front edge to lock it.

Tailgate

To unlock the tailgate, pull both levers on the gate out toward you.

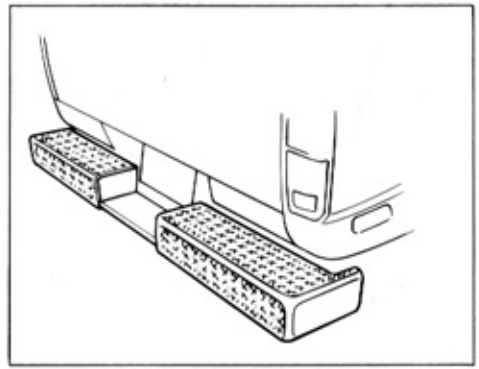
The chains will hold the gate in a straight open position as shown.

When closing the gate, make sure that it is securely latched.

Never allow anyone to ride in the rear deck. It is not designed for passengers. They could be injured in sudden braking.

Avoid driving with the tailgate open.

Rear step bumper



The rear step bumper is for rear end protection and easier step-up loading.

Do not allow more than one person to get on the bumper at a time. It is designed for only one person.

Never drive the vehicle with anyone on the step bumper.

Your responsibility for maintenance

Your vehicle's maintenance service is at every 15000 miles (24000 km) or 12 months (except "Engine oil and oil filter") whichever comes first. However, under severe driving conditions, more frequent maintenance is required.

Your Toyota has been engineered for this long service interval to save you both time and money. However, each scheduled maintenance is more important than ever before to ensure smooth, safe, and economical driving. Section 5 gives details of the maintenance requirements.

Both the vehicle warranty and the emission control system warranty specify that scheduled maintenance must be performed.

It is the owner's responsibility to make sure that the specified maintenance is performed. Your Toyota dealer's service department is trained and equipped to provide you with quality service.

An important warning about the engine exhaust

Avoid inhaling the engine exhaust. It contains carbon monoxide, which is a colorless and odorless gas. It can cause unconsciousness or even death.

Make sure the exhaust system has no holes or loose connections. The system should be checked each time the oil is changed or the vehicle is raised. If you hit something, or notice a change in the sound of the exhaust, have the system checked immediately.

Do not run the engine in a garage or enclosed area except for the time needed to drive the vehicle in or out. The exhaust gases cannot escape, making this a particularly dangerous situation.

Do not remain for a long time in a parked vehicle with the engine running. If it is unavoidable, however, do so only in an unconfined area and adjust the heating or cooling system to force outside air into the vehicle.

Toyota does not recommend occupying the rear cargo area when it is fitted with a slide-in camper, camper shell or other type cover while the engine is running. This caution applies to both driving and stopped or parked situations with the engine running. Particular care should be taken to prevent exhaust gases from entering camper bodies, trailers or other enclosures on or around your vehicle. If exhaust fumes are detected, open all windows and thoroughly ventilate the area.

To allow proper operation of your vehicle's ventilation system, keep the inlet grilles in front of the windshield clear of snow, leaves, or other obstructions.

If you smell exhaust fumes in the vehicle, drive with the windows down. Have the cause immediately located and corrected.

Before starting the engine

1. Apply the parking brake.
2. Adjust seat position and steering wheel height.
3. Adjust inside and outside rear view mirrors.
4. Lock all doors.
5. Fasten seat belts.
6. Turn off unnecessary lights and accessories.

Remember to check that the warning lights function when turning the key to ON, and check the fuel gauge to see that you have sufficient fuel.

How to start the engine

Normal starting procedure (engine cold)

1. **Manual transmission:** Shift into neutral and hold down the clutch pedal until the engine is started.

   Automatic transmission: Put the gear selector in P or N. (P preferred.)

2. Press the accelerator pedal *twice* to the floor and release it. This engages the automatic choke and fast idle.

3. *With your foot off the accelerator pedal,* crank the engine by turning the key to START. Release it when the engine starts. Do not crank for more than 15 seconds at a time if the engine does not start immediately.

4. After allowing the engine to warm up for about 10 seconds, you are ready to drive. *Do not "race" a cold engine.*

If the weather is below freezing or if the vehicle has not been driven for several days...

- Before cranking the engine, fully depress and release the accelerator pedal *three or four times.* This gives a richer mixture for cold starting.
- Crank the engine *with your foot off the accelerator pedal.*
- After the engine runs for about 30 seconds, tap the accelerator pedal once to reduce the idle speed (rpm), and let it warm up for a few minutes before driving. Do not leave the vehicle while the engine is warming up.

If the engine is warm...

- Hold the accelerator pedal about halfway down while cranking the engine. *Do not pump the pedal.*
- If the engine is hot, press the accelerator pedal fully to the floor while cranking.

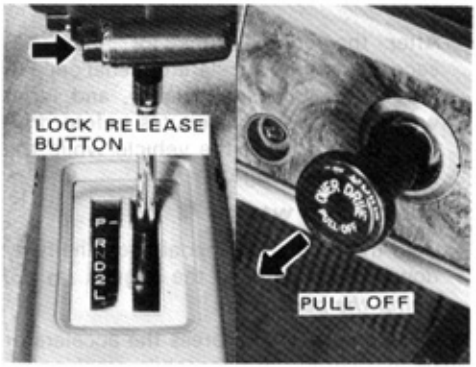
If the engine is warm or hot and will not start, it may be flooded...

- Depress the accelerator pedal and hold it to the floor for 15 or 20 seconds.
- *While holding the accelerator pedal to the floor,* crank the engine. It may take 20 or 30 seconds of continuous cranking to clear the excess fuel and start the engine. If the engine does not start, wait a few minutes and try again. Do not pump the accelerator pedal—just keep it held to the floor.

If the engine stalls...

- Simply restart it, using the correct procedure given above, depending on whether the engine is cold or warm.

Driving with an automatic transmission



PARK Use to hold vehicle in place after parking brake is set. The engine can be started in P. Never select P with the vehicle moving.

REVERSE Use for backing up vehicle. Select R after the vehicle has stopped completely.

NEUTRAL No gears are engaged. The engine can be started in N—or restarted while moving.

DRIVE This is the position for normal driving.

SECOND Use for driving in heavy traffic or on mountain roads. Maximum speed: 65 mph (105 km/h)

LOW Use for hard pulling throguh sand, mud, or snow for driving up and down steep hills and for engine braking. Maximum speed: 40 mph (65 km/h)

The transmission uses a conventional sequence of selector positions.

The function of each of the selector positions is described in the illustration above. The lock release on the selector lever must be depressed to select the Reverse, Park, Second or Low range.

For normal driving with a 3-speed transmission, put the selector in the D range. For normal driving with a 4-speed transmission, put the selector in the D range and push the overdrive switch in to the ON position.

For best fuel economy, accelerate the vehicle from a stop by gradually increasing pressure on the pedal. The transmission will automatically shift to the second, third and overdrive gears (4-speed only). On the 4-speed transmission, however, if engine coolant is below 122°F (50°C), it will not shift into the overdrive gear even with the switch in the ON position.

If you need to accelerate rapidly, push the accelerator pedal all the way to the floor. The transmision will automatically downshift to the third (4-speed only), second or first gear, depending on your speed.

Overdrive switch (4-speed transmission)

When the overdrive switch is in the OFF position, the transmission will automatically upshift from the first to third gear but will not upshift to the overdrive gear at all. An orange light in the instrument panel will indicate that it is in the OFF position.

Using the 2 and L ranges.

With the selector in 2, the vehicle will start in the first gear and shift to the second gear, but will not shift to the third gear. With the selector in L, the transmission will not upshift at all. This gives you positive control over engine speed similar to that which you would have in a vehicle with a manual transmision. The usual reason for selecting a lower range is to obtain engine braking when driving in the mountains or heavy traffic.

Be careful not to exceed the following speeds when accelerating:

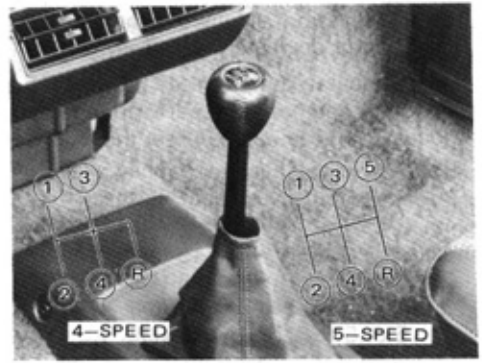
Low ..... 40 mph (65 km/h)
Second ..... 65 mph (105 km/h)

Do not select the Second range or push the accelerator pedal all the way to the floor if you are going faster than 65 mph (105 km/h). The transmission is not designed to withstand harmful engine overrevving when downshifting to the second gear.

Good driving practice.

- Make sure the vehicle comes to a complete stop before selecting or moving out of Reverse.
- Never put the selector into Park until the vehicle is fully stopped. And always use the parking brake. Do not count on the transmission to hold the vehicle.
- When driving down a long hill, reduce your speed and select to a lower range. The engine will provide a braking effect. Remember, if you ride the brakes, they may overheat and not work properly.
- Be careful when accelerating, selecting a lower range or braking on slippery road surfaces. The abrupt change in engine speed could cause the rear wheels to slip.
- Always slow down in gusty crosswinds. This will allow you much better control.
- Do not shift from P or N to R or D with the accelerator pedal depressed.
- Always push the overdrive switch in to improve fuel economy and quiet drive. However, if engine braking is needed when going downhill in the Drive range or if the transmission is repeatedly upshifted and downshifted between the third and overdrive gears when climbing a gentle slope, it is suggested to have the overdrive switch in the OFF position. Be sure to push the switch back to the ON position immediately afterward.

Driving with a manual transmission



The shift pattern is conventional as shown above.

Use the clutch correctly.

Press the pedal down fully while shifting, and then release it slowly. Do not rest your foot on the clutch while driving, because it will cause needless wear. And do not slightly release the clutch to hold the vehicle when stopped on an uphill grade—use the parking brake.

Driving with a manual transmission (cont.)

Recommended shifting speeds.

The transmission is fully synchronized and upshifting or downshifting is easy.

For the best compromise between fuel economy and vehicle performance, you should ***upshift or downshift*** at the following speeds:

gear	all models mph (km/h)
1 to 2 or 2 to 1	15 (24)
2 to 3 or 3 to 2	25 (40)
3 to 4 or 4 to 3	40 (64)
4 to 5 or 5 to 4*	45 (72)

*: 5-speed transmission only

Downshift to the appropriate gear if acceleration is needed when you are cruising below the above downshifting speeds.

Upshifting too soon or downshifting too late will cause lugging and, possibly, pinging. Regularly revving the engine to maximum speed in each gear will cause excessive engine wear and high fuel consumption.

Maximum allowable speeds.

To get on a highway or to pass slower traffic, maximum acceleration may be necessary. Make sure you observe the following maximum allowable speeds in each gear:

gear	all models mph (km/h)
1	31 (50)
2	50 (80)
3	75 (120)

Do not downshift if you are going faster than the maximum allowable speed for the next lower gear.

gear	mph	all models km/h
1	32	50
2	50	80
3	75	120

Good driving practice.

- When driving down a long hill, reduce your speed and downshift to a lower gear. The engine will provide a braking effect. Remember, if you ride the brakes, they may overheat and not work properly.
- Avoid overreving the engine by slowing down before downshifting—especially on wet, icy, or snow covered roads because it could cause a loss of traction.
- Always slow down in gusty crosswinds. Slowing down will allow you much better control.
- Make sure the vehicle is completely stopped before shifting into reverse. If it is difficult to shift into reverse, put the transmission in neutral, release the clutch pedal momentarily, and then try again.
- Be careful when accelerating, upshifting, downshifting or braking on slippery road surfaces. The abrupt change in engine speed could cause the rear wheels to slip.

Braking tips

Driving with the Toyota tandem master cylinder brake system. The Toyota tandem master cylinder brake system is a hydraulic system with two separate sub-systems. If either sub-system should fail, the other will still work. However, the pedal will be harder to press, and your stopping distance will be longer. Also, the brake system warning light may come on. *Do not rely on a single brake system. Have your brakes fixed immediately.*

Driving with the brake booster. The brake booster uses engine vacuum to power-assist the brakes. If the engine should quit while you are driving, you can bring the vehicle to a stop with normal pedal pressure. There is enough reserve vacuum for one or two stops—but no more!

Do not "pump" the brake pedal if the engine stalls. Each push on the pedal uses up your vacuum reserve.

Even if the power assist is completely lost, the brakes will still work. But you will have to push the pedal hard—much harder than normal. And your braking distance will be longer.

Good braking practice

- Washing your vehicle or driving through deep water may get the brakes wet. If they are wet, your vehicle will require a longer stopping distance, and it may pull to one side when the brakes are applied. To see whether they are wet, check for no traffic near you, and then press the pedal lightly. If you do not feel a normal braking force, the brakes are probably wet. To dry them, drive the vehicle cautiously while lightly pressing the brake pedal. If they still do not work safely, pull to the side of the road.
- To drive down a long or steep hill, reduce your speed and downshift. Remember, if you ride the brakes excessively they may overheat and not work properly.
- Do not rest your foot on the brake pedal while driving. It can cause dangerous overheating, needless wear, and poor fuel economy.
- If you have a flat tire while driving, do not brake suddenly. Keep a straight line while reducing speed. Then slowly move completely off the road to a safe place.
- When stopping with the air conditioner on, the engine speed will automatically be higher than normal. If your vehicle has an automatic transmission, you must keep your foot on the brake pedal to hold the vehicle in place.
- When parking on a hill, turn the front wheels until they touch the curb so that the vehicle will not roll. Apply the parking brake, and place the transmission in P (automatic) or in First or Reverse (manual). If necessary, block the wheels.
- Before driving off, make sure that the parking brake is fully released and the parking brake reminder light is off.

How to save fuel and make your vehicle last longer, too

Getting more mileage/kilometers from a gallon/liter of fuel is easy—just take it easy. It will help make your vehicle last longer, too. Here are some specific tips on how to save money on both fuel and repairs:

- **Keep your tires inflated at the correct pressure.** Check the pressure at least once a month. Under-inflation causes tire wear and wastes fuel.
- **Do not carry unneeded weight in your vehicle.** Excess weight puts a heavier load on the engine, causing greater fuel consumption.
- **Avoid lengthy warm-up idling.** Once the engine is running smoothly, begin driving—but gently. Remember, however, that in cold winter days this may take a little longer.
- **Accelerate slowly and smoothly.** Avoid "jackrabbit" starts. Get into high gear as quickly as possible.
- **Avoid long engine idling.** If you have a long wait and you are not in traffic, it is better to turn off the engine and start again later.
- **Avoid engine lug or overrevving.** Use a gear range suitable for the road you are travelling on.
- **Use your air conditioner only when absolutely necessary.** The air conditioner puts an extra load on the engine.
- **Avoid continuous speeding up and slowing down.** Stop-and-go driving wastes fuel.
- **Avoid unnecessary stopping and braking.** Maintain a steady pace. Try to time the traffic signals so you only need to stop as little as possible or take advantage of through streets to avoid traffic lights. Keep a proper distance from other vehicles to avoid sudden braking. This will also reduce wear on your brakes.
- **Avoid heavy traffic or traffic jams whenever possible.**
- **Do not rest your foot on the clutch or brake pedal.** This causes needless wear, overheating and poor fuel economy.
- **Maintain a moderate speed on highways.** The faster you drive, the greater the fuel consumption. By reducing your speed, you will cut down on fuel consumption.
- **Keep the front wheels in proper alignment.** Avoid hitting the curb and slow down on rough roads. Improper alignment not only causes faster tire wear but also puts an extra load on the engine, which, in turn, wastes fuel.
- **Keep the bottom of your vehicle free from mud, etc.** This not only lessens weight but also helps prevent corrosion.
- **Keep your vehicle tuned-up and in top shape.** A dirty air cleaner, carburetor out of adjustment, improper valve clearance, dirty plugs, dirty oil and grease, brakes not adjusted, etc. all lower engine performance and contribute to poor fuel economy. For longer life of all parts and lower operating costs, keep all maintenance work on schedule, and if you often drive under severe conditions, see that your vehicle receives more frequent maintenance (See Section 5).

NOTE: Never turn off the engine to coast down hills. Your power steering and brake booster will not function without the engine running. Instead, downshift to an appropriate gear to utilize engine braking effect.

Pretrip safety check

It is a good idea to review the safety check before starting out on a trip. A few minutes of checking can help ensure safe and pleasant driving. Just a basic familiarity with your vehicle is required and a careful eye! Or, if you would like, your Toyota dealer will be pleased to make this check for you at a nominal cost.

If you make this check in an enclosed garage, make sure there is adequate ventilation. **Engine exhaust is poisonous.** (See carbon monoxide warning in Section 1.)

BEFORE STARTING THE ENGINE

Outside the vehicle

Tires (spare included). Check the pressure with a gauge and look carefuly for cuts, damage, or excessive wear.

Wheel nuts. Make sure no nuts are missing or loose.

Fluid leaks. After the vehicle has been parked for a while, check underneath for leaking fuel, oil, water, or fluid. (Water dripping from the air conditioner after use is normal.)

Windshield wiper blades. Look for wear or cracks.

Lights. Make sure that the headlights, stop lights, tail lights, turn signals and other lights are all working. Check the headlight aim.

Inside the vehicle

Jack and wheel nut wrench. Make sure you have your jack and wheel nut wrench.

Seat belts. Check that the buckles lock securely. Make sure that the belts are not worn or frayed.

Horn. Does it work?

Instruments and controls. Especially make sure that the warning lights, instrument lights, and defroster are working.

Wipers and washer. Make sure that they both work and that the wipers do not streak.

Brakes. Make sure that the pedal has enough clearance. (See Section 6 for instructions.)

Spare fuses. Make sure you have spare fuses. They should cover all the amperage ratings designated on the fuse box lid.

Under the hood

Coolant level. It should be near the upper mark on the see-through reservoir tank. (See Section 6 for instructions.)

Radiator and hoses. Make sure the front of the radiator is clean—not blocked with leaves, dirt, or bugs. Check the hoses for cracks, kinks, rot, and loose connections.

Battery and cables. All the battery cells should be filled to the proper level with distilled water. Look for corroded or loose terminals and a cracked case. Check the cables for good condition and connections.

Wiring. Look for damaged, loose, or disconnected wires.

Brake and clutch fluid level. It should be near the upper mark on the see-through reservoir.

Engine drive belts. They should not be frayed or oily.

Fuel lines. Check the lines for leaks or loose connections.

AFTER STARTING THE ENGINE

Exhaust system. Look for cracks, holes and loose supports. Listen for any leakage. Have any leaks fixed immediately. (See carbon monoxide warning in Section 1.)

Automatic transmission fluid. Check the dipstick with the engine idling and the gear selector in Park. (See Section 6 for instructions.)

Pretrip safety check (cont.)

Power steering fluid. With the engine idling, give the steering wheel several end-to-end turns and check the dipstick. (See Section 6 for instructions.)

Engine oil level. Stop the engine and check the dipstick with the vehicle parked on a level spot. (See Section 6 for instructions.)

WHILE DRIVING

Instruments. Make sure that the speedometer and gauges are working.

Brakes. At a safe place make sure the brakes do not pull.

Anything unusual? Look for loose parts and leaks. Listen for abnormal noises.

If everything looks O.K., set your mind at ease and enjoy your trip!

Does your vehicle need repairing?

Be on the alert for changes in performance, sounds, and visual tip-offs that indicate service is needed. Some important clues are as follows:

- Engine missing, stumbling, or pinging
- Appreciable loss of power
- Strange engine noises
- A leak under the vehicle (however, water dripping from the air conditioner after use is normal).
- Change in exhaust sound (This may indicate a dangerous carbon monoxide leak. Drive with the windows down and have the exhaust system checked immediately.)
- "Flat"-looking tire; excessive tire squeal when cornering; uneven tire wear
- Vehicle pulls to one side when driving straight on a level road
- Strange noises related to suspension movement
- Loss of brake effectiveness; "spongy" feeling brake or clutch pedal; pedal almost touches floor; vehicles pull to one side when braking
- Engine temperature continually higher than normal
- Engine continually runs hot; oil pressure gauge stays low

If you notice any of these clues, take your vehicle to your Toyota dealer as soon as possible. It probably needs adjustment or repair.

Winter driving tips

Make sure you have ethylene-glycol coolant in the radiator.

This is the type of coolant your new Toyota is delivered with and the type your dealer will always use. In addition to preventing corrosion and lubricating the water pump, this coolant will prevent freezing and subsequent damage to the engine block.

Check the condition of the battery and cables.

Cold temperatures reduce the capacity of any battery, so it must be in top shape to provide enough power for winter starting. Section 6 tells you how to visually inspect the battery. Your Toyota dealer and most service stations will be pleased to check the level of charge.

Make sure the engine oil viscosity is suitable for the cold weather.

See Section 6 for recommended viscosity. Leaving a heavy summer oil in your vehicle during winter months may cause harder starting. If you are not sure about which oil to use, call your Toyota dealer—he will be pleased to help.

Check the spark plugs and ignition system.

Make sure the plugs are not worn, fouled, or incorrectly gapped. (Section 6 has instructions for inspecting.) Visually check the rest of the system for loose connections or obvious damage.

Keep the door locks from freezing.

Squirt lock de-icer or glycerine into the locks to keep them from freezing. To open a frozen lock, try heating the key before inserting it.

Use a windshield washer fluid containing an antifreeze solution.

This product is available at your Toyota dealer and most auto parts stores. Follow the manufacturer's directions for how much to mix with water. Do not use engine antifreeze or any other substitute because it may damage your vehicle's paint.

Do not use your parking brake when there is a possibility it could freeze.

Put the transmission into P (automatic) or into First or Reverse (manual) when parking and do not use the parking brake.

Keep ice and snow from accumulating under the fenders.

Ice and snow built up under your fenders can make steering difficult. During bad winter driving, stop and check under the fenders occasionally.

Depending on where you are driving, we recommend you carry some emergency equipment.

Some of the things you might put in the vehicle are tire chains, window scraper, bag of sand or salt, flares, small shovel, jumper cables, etc.

Trailer towing

You may tow a light trailer with your Toyota, but you should observe the following limitations:

- **Use only a weight-carrying hitch**. It must be designed for your vehicle, conform to the gross trailer weight requirement, and be bolted to the frame of your vehicle. Do not use a bumper hitch or axle-mounted hitch. Toyota does not manufacture or endorse any trailer hitches.
- **Trailer weight, plus the cargo you put in the trailer, must not exceed 2000 pounds (900 kg).** *Pulling a trailer that exceeds this weight is dangerous.*
- **When towing a trailer, the Gross Combination Weight Rating** (sum of the vehicle weight and the trailer weight, each fully loaded) **5000 lb (2267 kg) must not be exceeded.** In addition, never exceed the *Gross Axle Weight Rating* (GAWR) listed on the Certification Regulation Plate on the lock pillar by the left door.
- **Trailer tongue load must not exceed 200 lb. (90 kg), with the trailer fully loaded.** Also, your vehicle-trailer combination will generally handle better if the tongue load is about 10 % of the total trailer weight. Tongue load will change according to the distribution of the load in the trailer. So weigh the loaded trailer and then the tongue. Distribute the weight in the trailer so the tongue load is about 10 % of the loaded trailer weight. Remember, *never load a trailer with more weight in the back than in the front.*
- **Toyota recommends trailers with surge type brakes.** Do not tap into your Toyota's hydraulic brake system. Trailer brakes of adequate size are required on trailers over 1000 pounds (450 kg) loaded weight.
- **Trailer lights must comply with federal, state and local regulations.** Check the lights each time you connect a trailer. Do not connect the trailer lighting system directly to the vehicle lighting system. Check with the trailer rental agency or recreational vehicle dealer for proper wiring and relays.
- **Toyota recommends removing the trailer hitch whenever you are not towing a trailer.** This eliminates the possibility of damage caused by the hitch if your vehicle is struck from behind. After removing the hitch, seal any mounting holes in the body to prevent the entry of pollutants, dirt, water, etc.

Pre-towing tips...

- Lubricate the hitch ball with a light coat of grease.
- Make sure the towing vehicle tire pressure is as listed below, and be sure the trailer tire pressure meets the manufacturer's recommendations for trailer loaded weights.

	Front	Rear
7.00-14-6PR	24 (1.7)	36 (2.5)
7.50-14-6PR	24 (1.7)	36 (2.5)
E78-14B	20 (1.4)	32 (2.2)
ER78-14B	20 (1.4)	32 (2.2)
185SR 14	20 (1.4)	32 (2.2)
205/70SR14B	20 (1.4)	32 (2.2)

- Be sure the trailer tongue safety chain is connected.
- Check the attitude of the tow vehicle with the loaded trailer hitched. If the vehicle has abnormal nose-up or nose-down attitude, it should not be driven. Check for improper tongue load, overload, weak suspension or other possible causes.

Trailer towing tips...

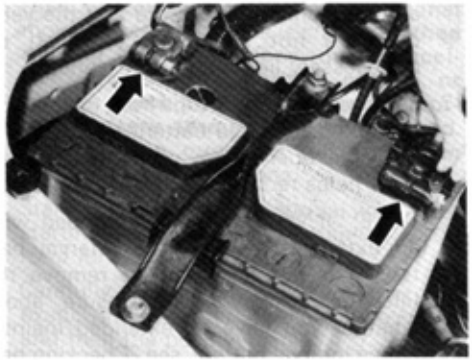
Your vehicle handles differently when towing a trailer because of the additional weight. Safety, durability and economy will all depend on how you carefully load your trailer and operate your vehicle when towing. Observe the following rules when towing:

- Before actually towing a trailer, practice turning, stopping, and backing with a trailer in an area away from traffic until you learn the "feel" of the vehicle-trailer combination.
- Driving with a trailer increases braking distance, so allow sufficient stopping distance between your vehicle and the vehicle ahead of you. Avoid sudden braking.
- Backing with a trailer is difficult and requires practice. When backing with a trailer, the steering procedure is generally opposite to that when backing without one.
- Do not exceed 55 mph (88 km/h) and never exceed the posted towing speed limit.
- Avoid jerky starts or sudden acceleration.
- Before descending a downhill grade, reduce your speed and shift into a lower gear to take advantage of the engine braking effect.
- Crosswinds and rough roads will affect the handling of the vehicle. Be especially careful when overtaking or passing other vehicles.
- Before making a turn, reduce your speed and avoid sudden braking.
- Do not use fifth gear.
- Place the overdrive switch in the OFF position.
- Avoid sharp turns. The trailer could hit your vehicle in a very tight turn.
- Your vehicle may overheat on hot days when going up a long or steep grade with a trailer. If the temperature gauge needle is in the red zone or higher, immediately turn off the air conditioner (if in use), pull off the road to a safe spot, and stop the vehicle. Open the hood and allow the engine to run until the gauge needle returns to the normal position. (If your engine overheats, see "If your vehicle overheats" in Section 3.)
- Always block the wheels on both the vehicle and trailer when parking. Apply the parking brake firmly. Put the transmission in P (automatic) or in First or Reverse (manual). Do not park on a slope with a trailer. If it cannot be avoided, do so only after performing the following:

1. Apply your brakes.
2. Have someone place suitable wheel blocks under both vehicle and trailer wheels.
3. When the wheel blocks are in place, release the brakes slowly until the wheel blocks absorb load.
4. Apply the parking brake.
5. Place the transmission in Park (automatic) or in First or Reverse (manual).

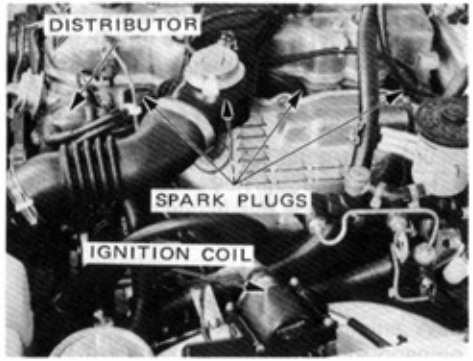
- If you tow a trailer, your Toyota may require more frequent maintenance due to the extra load. See the severe driving condition table in Section 5.
- Do not tow a trailer during the first 500 miles (800 km).

If your vehicle will not start—Simple checks



- **If the engine is not turning over or is turning over too slowly—**

1. If your vehicle has an automatic transmission, make sure it is in Neutral or Park.
2. Check that both battery terminals are tight and clean.
3. Switch on the interior light. If it is out, dim, or gets dim when the starter is cranked, the battery is discharged. Do not pull- or push-start the40ehicle. It may damage the vehicle or cause a collision when the engine starts. Also the catalytic converter may overheat and become a fire hazard.



- **If the engine turns over at its normal speed but will not start—**

1. Check the fuel gauge.
2. Check that all the push-on connectors are tight at the coil, distributor, and spark plugs.
3. If the engine is warm or if you smell raw gasoline, the engine may be flooded—see the starting instructions.
4. If the engine still will not start, it needs adjustment or repair. Call a Toyota dealer or qualified repair shop for assistance.

Jump starting

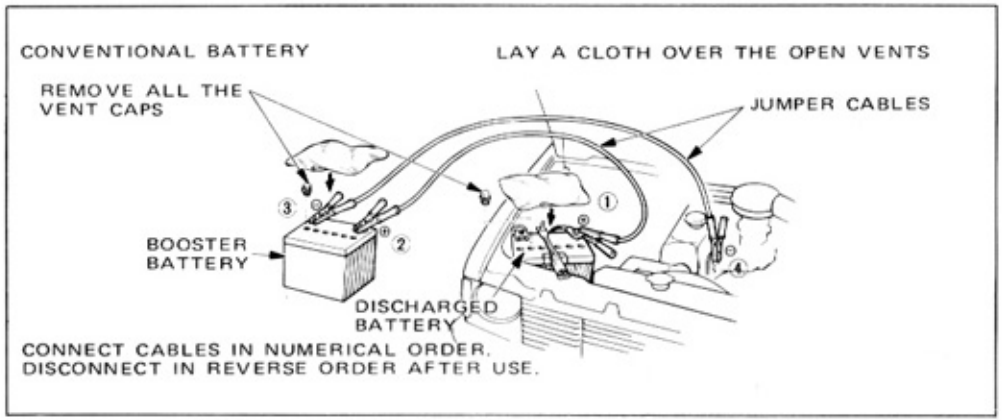
To avoid serious personal injury and damage to your vehicle which might result from battery explosion, acid burns, electrical burns, or damaged electronic components, these instructions must be followed precisely. If you are unsure about how to follow this procedure, we strongly recommend that you seek the help of a competent mechanic or towing service.

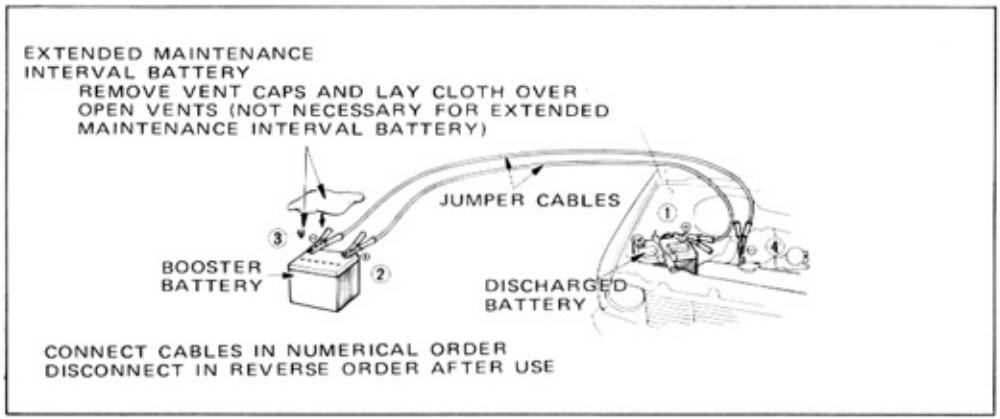
WARNING: Batteries contain sulfuric acid, which is poisonous and corrosive. Wear protective safety glasses when jump starting, and avoid spilling acid on your skin, clothing, or vehicle. If you should accidentally get acid on yourself or in your eyes, *remove any contaminated clothing and flush the affected area with water for at least 15 minutes.* Then get **immediate** medical attention. If possible, continue to apply water with a sponge or cloth while enroute to the medical office.

The gas normally produced by a battery will explode if a flame or spark is brought near. Therefore, do not smoke or light a match while jump starting.

The battery used for boosting must be 12-volt. Do not jump start unless you are sure that the booster battery is correct.

Jump starting (cont.)





1. If the booster battery is installed in another vehicle, make sure that the vehicles are not touching. Turn off all unnecessary lights and accessories.
2. Remove all the vent caps from the booster and the discharged batteries. Lay a cloth over the open vents on both batteries. (This helps reduce the explosion hazard.)

   NOTE: If your Toyota is equipped with an extended maintenance interval battery, it is not necessary to remove the filler caps. (If you are unsure about whether you have an extended maintenance interval battery, see "Checking battery condition and fluid level" in Section 6.)
3. If the engine in the vehicle with the booster battery is not running, start it and let it run for a few minutes. During "jumping" run the engine at about 2000 rpm.
4. Connect the jumper cables in the exact order shown in the illustration: ***positive-to-positive(+), and negative-to-engine*** or ***body ground(-)***. Note that you first connect the positive cable to the discharged battery and then to the booster battery. Next, connect the negative cable to the booster battery and then to a solid, stationary, metallic point (e.g. engine hanging hook) away from the battery.

Do not connect it to or near any part that moves when the engine is cranked. **When making the connections, do not accidentally let the jumper cables or clamps touch anything except the correct battery terminals or the ground. Do not lean over the battery when making the connections.**

5. Start your engine in the normal way. After starting, run it at a fast idle speed (2000 rpm) for several minutes.
6. Carefully disconnect the cables in the exact ***reverse*** order: the negative cable and then the positive cable.
7. Carefully dispose of the battery cover cloths—they may now contain sulfuric acid.
8. Replace all the battery vent caps.

If the cause of your battery discharging is not apparent (for example, lights left on), you should have it checked.

If your vehicle overheats

If your temperature gauge indicates overheating, if you experience a loss of power, or if you hear a loud knocking or pinging noise, the engine has probably overheated. You should follow this procedure...

1. Pull safely off the road, stop the vehicle, put the transmission in Park (automatic) or Neutral (manual) and apply the parking brake. Turn off the air conditioner if it is being used.
2. If coolant or steam is boiling out of the radiator or reservoir, stop the engine. Wait until the steam subsides before opening the hood. If there is no coolant boiling over or steam, leave the engine running.
3. ***Visually*** check to see if the engine drive belt (water pump belt) is broken or loose. Look for obvious coolant leaks from the radiator, hoses, and under the vehicle. However, note that water draining from the air conditioner is normal if it is used. *When the engine is running, keep hands and clothing away from the moving fan and engine drive belts.*
4. If the engine drive belt is broken or the coolant is leaking, stop the engine immediately. Call a Toyota dealer for assistance.
5. If the engine drive belt is O.K. and there are no obvious leaks, you may help the engine cool down more quickly by running it at a fast idle speed (about 1500 rpm) for a few minutes.
6. Check the coolant reservoir. If it is dry, add water to the reservoir while the engine is running. Fill it about half full.

   WARNING: Do not attempt to remove the radiator cap when the engine and radiator are hot. Serious injury could result from scalding hot fluid and steam blown out under pressure.
7. After the engine temperature has cooled to normal, again check the coolant level in the reservoir. If necessary, bring it up to half full again. Serious coolant loss indicates a leak in the system. You should have it checked as soon as possible at your Toyota dealer.

If you have a flat tire—

First, make sure you are completely off the road—well away from the traffic. Avoid stopping on the center divider of a highway. Park on a level spot with firm ground.

Second, stop the engine and turn on your emergency flashers.

Third, firmly set the parking brake and put the transmission in Park (automatic) or Reverse (manual).

Fourth, have everyone get out of the vehicle on the side away from traffic.

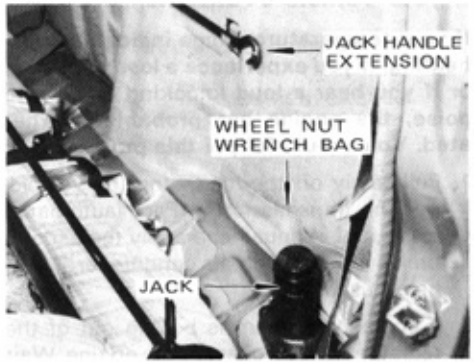
Fifth, read the following instructions thoroughly. They are designed to help a person who has never before changed a tire.

Jacking precautions

To reduce the possibility of personal injury:

- Follow jacking instructions.
- Use a jack only for lifting your vehicle during wheel changing.
- Never get beneath the vehicle when supported by a jack.
- Do not start or run the engine while your vehicle is supported by a jack.

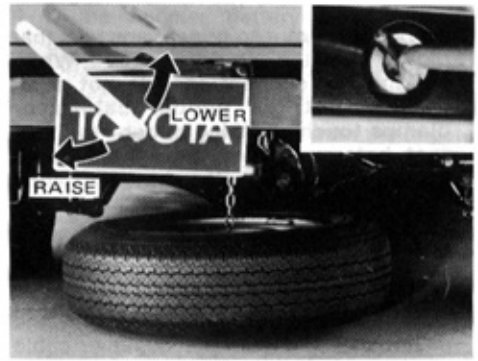
Required tools and spare tire



1. Get the wheel nut wrench bag, jack and jack handle extension from behind the seat.

To get at them, it is necessary to fold the seatback forward (vehicles with bench seat, see Section 1) or move the seat fully forward (vehicles with separate seats).

The jack handle is in the wheel nut wrench bag.



Insert the end of the jack handle extension into the lowering screw, turn it counterclockwise with the handle and lower the tire.

To get the jack handle extension into the lowering screw, fit the end of the jack handle extension into the hole in the license plate bracket and push all the way in until it touches the lowering screw. The jack handle extension will be at a slight angle. Then turn the jack handle extension slightly with the handle to fit it into the slot.

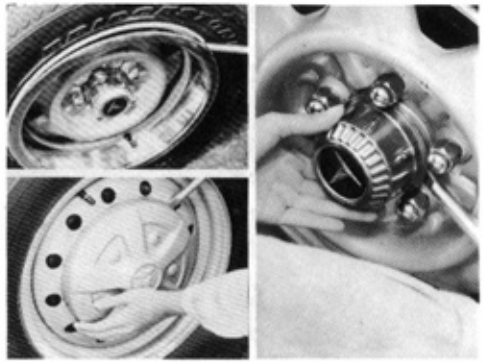
Lower the tire completely to the ground, so that the chain is slack. Reach under and remove the holding bracket. Pull out the tire.

When reinstalling a tire, make sure the valve stem faces *up* to prevent damage.

Blocking the wheel

2. Using a suitable stopper, block the wheel diagonally opposite the flat tire to keep the vehicle from rolling when it is jacked up. This is a good safety precaution.

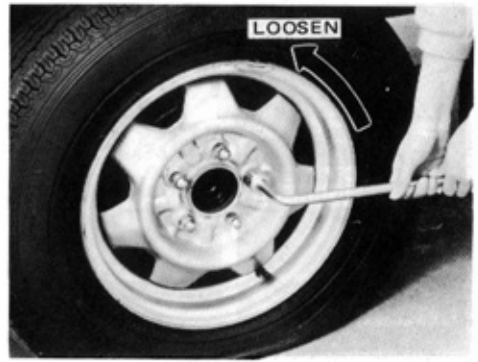
Removing wheel cover, or hub ornament and ring



3. Use the end of the wheel nut wrench to remove the wheel cover, or wheel hub ornament and wheel ring.

Push the beveled end of the wrench under the edge of the wheel cover, wheel hub ornament or wheel ring and twist against the wheel. *Do not attempt to pull off the wheel cover, wheel hub ornament or wheel ring by hand.*

Loosening wheel nuts



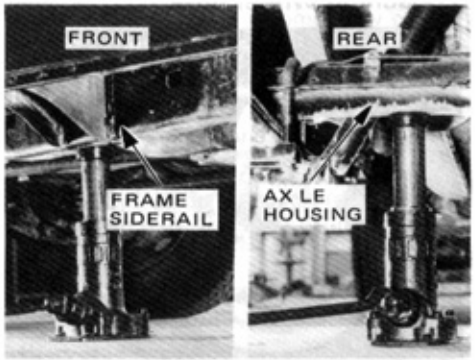
4. Loosen all the wheel nuts.

Always loosen the wheel nuts *before* raising the vehicle.

The nuts turn *counterclockwise* to loosen. To get maximum leverage, fit the wrench to the nut so that the handle is on the right side, as shown above. Grab the wrench near the end of the handle and pull up on the handle. Be careful that the wrench does not slip off the nut.

Do not remove the nuts yet—just unscrew them about one-half turn.

Jack points



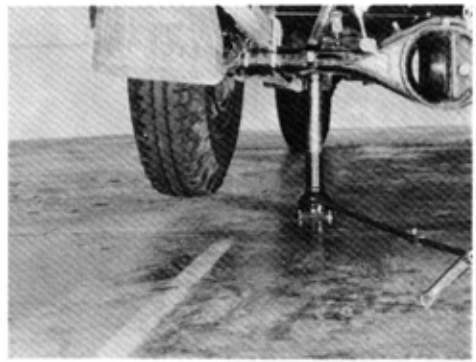
5. Position the jack at the correct jack point as shown.

Make sure that the jack is positioned on a level and solid place.

JACK POINTS:

Front — Under the frame siderail
Rear — Under the rear axle housing near the wheel to be raised

Raising your vehicle



6. Raise the vehicle high enough so that the spare tire can be installed.

Remember that you will need more ground clearance when putting on the spare tire than when removing the flat tire.

To raise the vehicle, insert the jack handle extension into the jack (it is a loose fit) and turn it *clockwise* with the handle. As the jack touches the vehicle and begins to lift, double-check that it is properly positioned. *Never get under the vehicle when it is supported by a jack alone.*

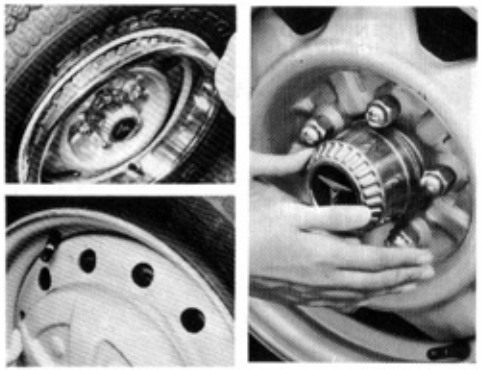
Changing wheels

7. Remove the wheel nuts and change tires.

Lift the flat tire straight off and put it aside.

Roll the spare wheel into position and align the holes in the wheel with the bolts. Then lift up the wheel and get at least the top bolt started through its hole. Wiggle the tire and press it back over the other bolts.

Reinstalling wheel cover, or hub ornament and ring



10. Reinstall the wheel cover, or wheel hub ornament and wheel ring.

Put the wheel cover, wheel hub ornament or wheel ring into position and then tap it firmly with the side or heel of your hand to snap it into place.

Check the air pressure of the replaced tire and adjust to the specified pressure. If the pressure is lower than specified, drive slowly to the nearest service station and fill to the correct pressure.

Do not forget to reinstall the tire inflation valve cap as dirt and moisture could get into the valve core and possible cause air leakage. If the cap is missing, have a new one put on as soon as possible.

After changing wheels

With the valve stem pointing upward, install the spare tire holding bracket to the flat tire. Wind up the chain, being careful that the tire rises straight up without catching on any other part. Make sure that the tire is securely in place.

That is all there is to it! Just make sure you get the jack, wheel nut wrench, wheel block, tire, etc. back into the vehicle.

This is the same procedure for changing or rotating your tires.

If your vehicle needs to be towed—

If towing is necessary, we recommend you have it done by your Toyota dealer or a commercial tow truck service.

Proper equipment will help ensure that your vehicle is not damaged while being towed. Commercial operators are generally aware of the local laws pertaining to towing.

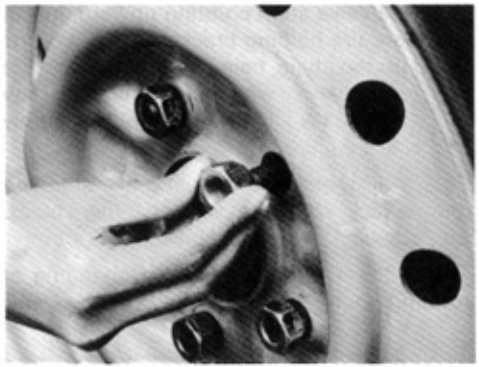
Your vehicle can be damaged if it is towed incorrectly. Although most operators know the correct procedure, it is possible to make a mistake. Rather than risk damage to your vehicle, why don't *you* make sure that the following few precautions are observed. If necessary, show this page to the tow truck driver.

TOWING PRECAUTIONS:

- **General precaution:** The vehicle may be towed from either the front or rear. The wheels and axle on the ground must be in good condition. If they are damaged, use a towing dolly.
- **Manual transmission—towing with rear wheels on ground:** Release the parking brake and put the transmission in Neutral.

NOTE: Before putting on wheels, remove any corrosion on the brake drum or hub and wheel hub surface with a wire brush or such, and then apply an anticorrosion compound over this area. Installation of wheels without good metal-to-metal contact at the mounting surface can cause wheel nuts to loosen, and eventually cause a wheel to come off while driving. Therefore after the first 1000 miles (1600 km), check to see that the wheel nuts are tight.

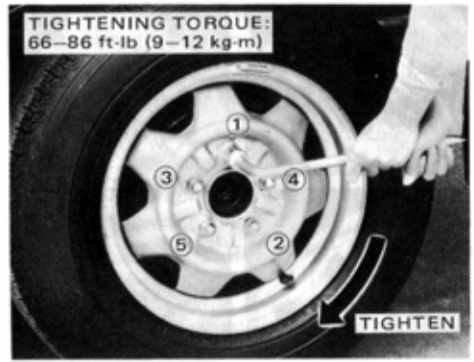
Reinstalling wheel nuts



8. Reinstall all the wheel nuts finger tight.

Reinstall the wheel nuts (tapered end inward) and tighten them as much as you can by hand. Press the tire back and see if you can tighten them more.

Lowering your vehicle



9. Lower the vehicle completely and tighten the wheel nuts.

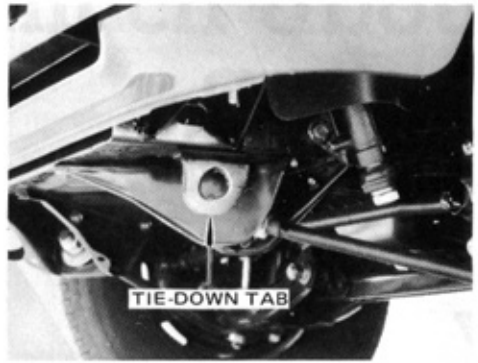
Turn the jack handle *counterclockwise* to lower the vehicle.

Use only the wheel nut wrench to tighten the nuts. Do not use your foot on the wrench or a pipe as an extension to the wrench. Make sure the wrench is securely engaged over the nut. Tighten each nut a little at a time in the order shown. Repeat the process until all the nuts are tight.

As soon as possible after changing wheels, have a technician tighten the wheel nuts to the proper torque with a torque wrench .

- **Automatic transmission—towing with rear wheels on ground:** Release the parking brake and put the transmission in Neutral. *Do not tow faster than 30 mph (45 km/h) or farther than 50 miles (80 km).* If the vehicle must be towed faster or farther, disconnect the driveshaft at the differential to avoid damaging the transmission.
- **Towing with front wheels on ground (either transmission):** If your vehicle has a steering lock, the ignition key must be in the ACC position. The steering lock mechanism is not strong enough to hold the front wheels straight while towing. If necessary, use a dolly. If your vehicle has no steering lock, the ignition key is not necessary.

Emergency towing



For emergency towing, secure a cable or chain to one of the tie-down tabs under the front of the vehicle.

Use it only when your vehicle must be towed on hard-surfaced roads. A driver must be in the vehicle to steer it and operate the brakes. *If the engine is not running, the power assist for the brakes and steering will not work so steering and braking will be much harder than usual.* Towing in this manner must not be done if the wheels, axles, drive train, steering or brakes are damaged.

Before towing, release the parking brake and put the transmission in Neutral. *The key must be in ACC (engine off) or ON (engine running).*

If you lose your keys

Many Toyota dealers can make a new key if you can give them the key number.

See the suggestion given in "Key for your vehicle" in Section 1 for writing down the number on a card in your wallet.

If your keys are locked in the vehicle and you cannot get a duplicate, many Toyota dealers can still open the door for you, using their special tools. If you must break a window to get in, we suggest breaking the smallest side window because it is the least expensive to replace. Be extremely cautious to avoid cuts from the glass.

You should know as much about the repair and maintenance of your new Pickup as the people who built it.

The Toyota authorized 1981 Pickup Repair Manual tells you how to maintain your Pickup, diagnose problems, and perform your own maintenance and repair work.

The best way to keep your new Pickup in top running order is to maintain it properly from the moment you drive it off the showroom floor and to make repairs promptly when problems arise.

The Toyota authorized 1981 Pickup Repair Manual helps you do both. It's packed with literally everything you need to know to perform your own maintenance and repair in virtually every area of your new Pickup.

Maintenance and repair procedures for the engine, chassis, body, electrical system, and more, are clearly explained and illustrated.

Periodic maintenance and tune-up

Periodic maintenance and tune-up helps to prevent small problems from growing into larger ones later on. The repair manual outlines exactly what maintenance is required, provides a schedule for its performance, and clearly explains how to do the work yourself step-by-step.

Areas covered include such things as spark plug replacement, valve clearance adjustment, ignition timing inspection, and engine oil and filter replacement.

Comprehensive troubleshooting section

Comprehensive troubleshooting tables are listed for each area of your new Pickup where problems could arise. These tables will help you diagnose and find the cause of the problem should one occur.

The repair procedures for each problem's probable cause are listed in a remedy column to quickly lead you to the problem's solution.

Special tools and test equipment

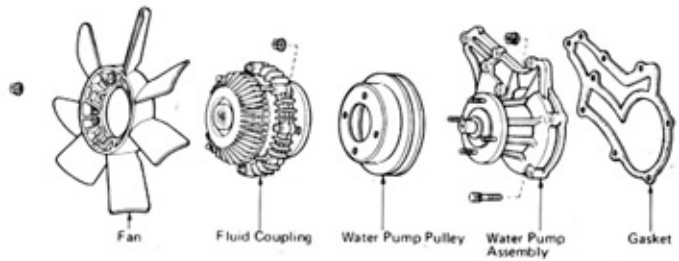
Special tools and test equipment designed for use with the 1981 Pickup's individual components are listed in the front of each section. For example, at the front of the engine section, tools used for engine repairs are listed.

Special service tools (SST) should be used where specified. But, if a SST is not avaialble, the manual lists a commercial tool equivalent that may be used if possible. The tools are also listed at each step in the repair process instructions where their use is required.

Illustrated repair procedures.

In addition to clearly written repair instructions, each repair section is amply illustrated to identify the repair components and show how they fit together.

Here's an example:



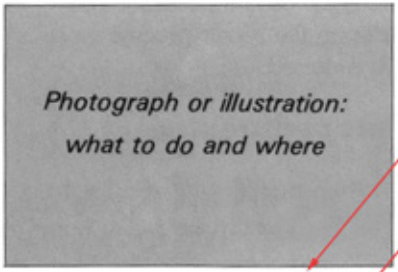
Each repair procedure is presented step-by-step.

The illustration is there to show you what to do and where to do it.

A task heading shows you what it is that you are doing.

And detailed text tells how to perform the repair work as well as giving other information such as specifications and precautionary information.

Here's an example:



Task heading: what to do

Detail text: how to do it

Specification

INSTALL DRIVE SHAFT ON CENTER SUPPORT BEARING FLANGE

(a) Align the marks on the flanges and connect the flanges with four bolts and nuts.

(b) Torque the bolts and nuts.

Torque: 2.0 — 4.0 kg-m (15 — 28 ft-lb)

Precautions

At the beginning of each section precautions are given that pertain to all repair operations listed in the section. These precautions, which should be read before starting repairs, are meant to help you avoid costly errors.

Detailed index

An index is provided on the first page of each section to guide you quickly to the page containing repair information for problem areas.

Where to find the 1981 Pickup Repair Manual

The repair manual, written in English (Pub. No. 36052), may be purchased from any Toyota dealer. On the U.S. mainland and Alaska, the repair manual may be ordered by mail using the order blank located in the 1981 Owner Information Guide.

corrosion prevention and appearance care—section 4

Protecting your Toyota from corrosion

Toyota, through its diligent research, design and utilizing the most advanced technology available, has done its part to help prevent corrosion and has provided you with the finest quality vehicle construction. Now,it is up to you. Proper care of your Toyota can help ensure long-term corrosion prevention.

The most common causes of corrosion to your vehicle are:

- The accumulation of road salt, dirt and moisture in hard-to-reach areas under the vehicle.
- Chipping of paint, or undercoating caused by minor accidents or by stones and gravel.

Care is especially important if you live in a particular area or operate your vehicle under certain environmental conditions:

- *Road salt or dust control chemicals* will accelerate corrosion, as will the presence of salt in the air near the sea-coast or in areas of industrial pollution.
- *High humidity* accelerates corrosion especially when temperatures range just above the freezing point.
- *Wetness or dampness* to certain parts of your vehicle for an extended period of time, may cause corrosion even though other parts of the vehicle may be dry.
- *High temperatures* will cause corrosion to those components of the vehicle which are prevented from quick-drying due to lack of proper ventilation.

The above signifies the necessity to keep your vehicle, particularly the underside, as clean as possible and to repair any damage to paint or protective coatings as soon as possible.

To help prevent corrosion on your Toyota, follow these guidelines:

Wash your vehicle frequently. It is, of course, necessary to keep your vehicle clean by regular washing, but to prevent corrosion, the following points should be observed:

- If you drive on salted roads in the winter or if you live near the ocean, you should hose off the undercarriage at least once a month to minimize corrosion.
- High pressure water or steam is effective for cleaning the vehicle's underside and wheel housings. Pay particular attention to these areas as it is difficult to see all the mud and dirt. It will do more harm than good to simply wet the mud and debris without removing them. The lower edge of doors, rocker panels and frame members have drain holes which should not be allowed to clog with dirt as trapped water in these areas can cause corrosion.
- It is preferable that the underside of the vehicle is washed thoroughly when winter is over.

After washing your vehicle, make sure the brakes are fully dry before driving. (See "Washing and waxing your Toyota" for more tips.)

Check the condition of your vehicle's paint and trim. If you find any chips or scratches in the paint, touch them up immediately to prevent corrosion from starting. If the chips or scratches have gone through the bare metal, have a qualified body shop make the repair.

Check the interior of your vehicle. Water and dirt can accumulate under the floor mats and could cause corrosion. Occasionally check under the mats to make sure the area is dry. Be particularly careful when transporting chemicals, cleansers, fertilizers, salt, etc., and these should be transported in proper containers. If a spill or leak should occur, immediately clean and dry the area.

Protecting your Toyota from corrosion (cont.)

Use mud shields on your wheels. If you drive on salted or gravel roads, mud shields help protect your vehicle. Full-size shields, which come as near to the ground as possible, are the best. We recommend that the fittings and the area where the shields are installed be treated to resist corrosion. Your

Toyota dealer will be happy to assist in supplying and installing the shields if they are recommended for your area.

Do not park your vehicle in a damp, poorly ventilated garage. If you wash your vehicle in the garage, or if you drive it in covered with water or snow, your garage may be so damp it will cause corrosion. Even if your garage is heated, a wet vehicle can corrode in it if the ventilation is poor.

Washing and waxing your Toyota

Wash your vehicle in the shade when the body is not hot to the touch. Use a mild car-wash soap and rinse it well.

Dirt can cause small scratches in the paint and the chemicals in some dirt and air pollutants can cause deterioration of the paint and trim. Therefore, frequent washing is recommended. If you park or drive your Toyota near the ocean or on salted roads, it is especially important to prevent corrosion.

Begin by rinsing all loose dirt off the vehicle with a hose. If the underside has picked up mud or road salt, use a hard, direct stream from a hose to remove it.

Wash with a commercial car-wash product available at your Toyota dealer or auto parts store. Follow the manufacturer's mixing instructions carefully. Do *not* use a strong household soap or detergent. Dip your sponge or cloth into the wash bucket frequently and do not rub too hard-let the soap and water remove the dirt. To clean white sidewall tires, use a stiff brush or a household steel-wool scouring pad.

Rinse the vehicle thoroughly. If any soap dries on the vehicle, it may cause streaking. In hot weather, you may have to rinse each section of the vehicle right after you wash it.

Dry the vehicle with a moist chamois or soft towel. The main purpose of drying is to remove excess water so that the vehicle will air dry without water spots. So do not rub or press hard, which might scratch the paint.

If you detect any stone chips or scratches in the paint, touch them up immediately to protect the bare metal from corrosion.

Polishing and waxing is recommended to maintain the original beauty of your Toyota's finish.

Always wash and dry the vehicle before you begin waxing, even if you are using a combined cleaner and wax. Road tar may be removed with turpentine. Use warm water and car-wash soap for insects and tree sap. Commercial products are also available. ***Do not use gasoline or strong solvents, which may be toxic or cause damage.***

Use a good quality polish and wax. If the finish has become extremely weathered, use a car-cleaning polish, followed by a separate wax. ***Carefully follow the manufacturer's instructions and precautions.*** Be sure to polish and wax the chrome trim as well as the paint.

Wax the vehicle again when water does not bead but remains on the surface in large patches.

Cleaning the interior

The vinyl upholstery may be easily cleaned with a mild soap or detergent and water.

First vacuum over the upholstery to remove loose dirt. Then, using a sponge or soft cloth, apply the soap solution to the vinyl. After allowing it to soak in for a few minutes to loosen the dirt, remove the dirt and wipe off the soap with a clean damp cloth. If all the dirt does not come off, repeat the procedure. Commercial foaming-type vinyl cleaners are also available which work well. Follow the manufacturer's instructions. *Do not use solvent, thinner, gasoline or window cleaner on the interior.*

Use a good foam-type shampoo to clean the carpets.

Begin by vacuuming thoroughly to remove as much dirt as possible. Several types of foam cleaners are available; some are in aerosol cans and others are powders or liquids which you mix with water to produce a foam. To shampoo the carpets, use a sponge or brush to apply the foam. Rub in overlapping circles. Do not apply water-the best results are obtained by keeping the carpet as dry as possible. Read the shampoo instructions and follow them closely.

The seat belts may be cleaned with mild soap and water or with carpet shampoo.

Use a cloth or sponge. As you are cleaning, check the belts for excessive wear, fraying, or cuts. *Do not use dye or bleach on the belts—it may weaken them.*

The windows may be cleaned with any household window cleaner.

If you have any questions about the cleaning of your Toyota, your local Toyota dealer will be pleased to answer them.

Maintenance facts

Regular maintenance is essential

We urge you to protect your new vehicle by having your Toyota serviced according to the maintenance schedule given on the following pages. Regular maintenance will aid:

- Good fuel economy
- Long vehicle life
- Driving enjoyment
- Safety
- Reliability
- Warranty coverage
- Compliance with government regulations

Your Toyota has been designed for economical driving and economical maintenance. Many formerly required maintenance items are no longer required or are not required as often. To make sure that your vehicle runs at peak efficiency, follow the maintenance schedule.

Where to go for service

It makes good sense to take your vehicle to your local Toyota dealer for service.

Toyota technicians are well-trained specialists. Every so often they take time off work to receive training and testing at one of our Toyota training centers. And they are kept up to date with the latest service information through technical bulletins, service tips, and in-dealership training programs. They learn to work on Toyotas ***before*** they work on your vehicle, rather than ***while*** they are working on it. Doesn't that seem like the best way?

Your Toyota dealer has invested thousands of dollars in special Toyota tools and service equipment. It helps do the job better and at less cost. And when a part is needed, he will probably have it on hand.

Your Toyota dealer's service department will perform ***all*** of the scheduled maintenance on your vehicle—reliably and economically. Your copy of the repair order is proof that all required maintenance has been performed for warranty coverage. And if any problems should arise with your vehicle while under warranty, your Toyota dealer will promptly take care of it. Again, be sure to keep a copy of the repair order for ***any*** service performed on your Toyota.

What about do-it-yourself maintenance?

Many of the maintenance items are easy to do yourself if you have a little mechanical ability and a few basic automotive tools. These items are indicated on the maintenance schedule, and simple instructions for how to perform them are presented in Section 6. Doing some of your own vehicle maintenance will save you money.

Note, however, that some maintenance tasks require special tools and skills. These are best performed by qualified technicians. If you plan on doing only the simple maintanance items, your Toyota dealer will be pleased to perform the remaining service tasks.

If you are a skilled do-it-yourself mechanic, the Toyota service manuals are recommended. Please be aware that do-it-yourself maintanance can affect your warranty coverage. See your separate warranty statement for the details.

Can the emission control system be converted?

Toyota Pickups have two different emission control systems in the U.S.A.—Federal and California specifications—in a given model.

Pickups with one specification are not designed to be converted to the other specification.

Toyota maintenance schedule

An odometer reading or time interval determines when service is necessary.

For most people, the odometer reading will indicate when service is needed. If, however, you drive very little, your vehicle should be serviced at least every 12 months (except engine oil and filter), as shown in the schedule. The engine oil and filter should be replaced every 8 months. *Under severe driving conditions,* maintenance is required more frequently than listed in the table.

Each maintenance item is numbered and is described on the pages following the schedule.

If you want to know exactly what a maintenance item consists of, refer to that item number in the task descriptions given in "Explanation of maintenance items".

Maintenance items for which do-it-yourself instructions are given in this manual (Section 6) are indicated by an asterisk (*).

You can use the asterisks to quickly locate those items you may wish to do yourself. Be sure to mark down those items that you have completed. If you are going to have your Toyota dealer complete the scheduled maintenance by doing the more skilled tasks, he will need exact information on what has already been done.

Maintenance operations: A=Check and/or adjust as necessary; I=Inspect and correct or replace as necessary; R=Replace, change or lubricate

SERVICE INTERVAL:		x 1000 miles	15	30	45	60
(Use odometer reading or months, whichever comes first)		x 1000 km	24	48	72	96
		or Months	12	24	36	48
BASIC ENGINE COMPONENTS						
1	Valve clearances		A	A	A	A
2	Drive belts	Calif.	.	A(R*)	.	R
		Others	.	R	.	R
3*	Engine oil and oil filter		Change every 10000 miles (16000 km) or 8 months			
4*	Engine coolant		.	R	.	R
5	Cooling/heater system hoses and connections		.	.	.	I
6	Vacuum fittings, hoses and connections	Calif.	.	.	.	I
		Others	.	I	.	I
7	Exhaust system		I	I	I	I
FUEL SYSTEM						
8	Idle speed and fast idle speed		A*	A*	.	A
9	Choke system		I*	I	.	I
10	Fuel filter		.	.	.	R
11*	Air filter		.	R	.	R
12	Inlet air temperature control valve		.	I*	.	I
13	Throttle positioner system (C & C*1 only)		I*	I*	.	I
14	Fuel lines and connections		.	I	.	I
15	Fuel tank cap		.	I*	.	I
16	Fuel tank cap gasket		.	.	.	R
IGNITION SYSTEM						
17	Ignition timing		.	I*	.	I
18*	Spark plugs	Calif.	.	R	.	R
		Others	R	R	R	R
19	Ignition wiring	Calif.	.	.	.	I
		Others	.	I	.	I
20	Spark control system (Calif. and C & C*1 only)		.	I*	.	I

*1 C & C: Cab & Chassis models (fitted with commercial bodies, large camper unit, etc.)

Maintenance operations: A=Check and/or adjust as necessary; I=Inspect and correct or replace as necessary; R=Replace, change or lubricate

SERVICE INTERVAL: (Use odometer reading or months, whichever comes first)		x 1000 miles x 1000 km or Months	15 24 12	30 48 24	45 72 36	60 96 48
CRANKCASE EMISSION CONTROL SYSTEM						
21. PCV system	Calif.		.	.	.	I
	Others		.	I	.	I
22 PCV valve	Calif.		.	.	.	R
	Others		.	R	.	R
EXHAUST EMISSION CONTROL SYSTEM						
23 Air injection system (Calif. and C & C*1 only)			.	I*	.	I
24 Oxygen sensor (Calif. and C & C*1 only)			.	I	.	I
25 Air suction system (except Calif. and C & C*1)			.	I	.	I
FUEL EVAPORATIVE EMISSION CONTROL SYSTEM						
26 Charcoal canister			.	I*	.	I
27 Fuel evaporative emission control system, hoses and connections			.	I*	.	I
CHASSIS AND BODY						
28* Brake pedal, clutch pedal and parking brake			I	I	I	I
29 Rear brake linings and drums			I	I	I	I
30 Front brake pads and discs			I	I	I	I
31 Brake lines and hoses			I	I	I	I
32* Brake fluid level			I	I	I	I
33 Steering wheel, linkage and gear box oil			I	I	I	I
34* Power steering fluid			I	I	I	I
35 Ball joints and dust covers			I	I	I	I
36* Manual transmission and differential oil			I	I	I	I
37* Automatic transmission fluid			I	I	I	I
38* Wheel bearing and ball joint grease			.	R	.	R
39 Bolts and nuts on chassis and body			I	I	I	I

*1 C & C: Cab & Chassis models (fitted with commercial bodies, large camper unit, etc.)

Continue periodic maintenance beyond 60000 miles (96000 km) by returning to the first column of the maintenance schedule.

For vehicles sold in California, the maintenance operations indicated by *a star (*)* are recommended by Toyota. Other maintenance operations are required by California regulations and condition the emission warranty.

Toyota maintenance schedule (cont.)

Required maintenance under severe driving conditions

If your vehicle is normally used under any of the following severe driving conditions, the maintenence items listed below should be performed according to the following table.

"Severe driving conditions"

A — Pulling a trailer
B — Repeated short trips
C — Driving on rough and/or muddy roads
D — Driving on dusty roads
E — Driving in extremely cold weather and/or on salted roads
F — Repeated short trips in extremely cold weather

"Maintenance operations"

I = Inspect and correct or replace as necessary
R = Replace, change or lubricate

Condition	Item	Maintenance operations	Interval
A . . D . F	Engine oil and oil filter	R	Every 3750 miles (6000 km) or 3 months
A B C . E .	Exhaust system	I	Every 7500 miles (12000 km) or 6 months
. . . D . .	Air filter	I	Every 3750 miles (6000 km) or 3 months
		R	Every 30000 miles (48000 km) or 24 months
. . . . E .	Ignition wiring and distributor cap*	I	Every 12 months
A B C D . .	Brake linings and drums	I	Every 7500 miles (12000 km) or 6 months
A B C D . .	Brake pads and discs	I	Every 7500 miles (12000 km) or 6 months
. . C . . .	Steering wheel, linkage and gear box oil	I	Every 7500 miles (12000 km) or 6 months
. . C D E .	Ball joints and dust covers	I	Every 7500 miles (12000 km) or 6 months
A . C . . .	Manual transmission and differential oil	R	Every 15000 miles (24000 km) or 12 months
A . C . . .	Automatic transmission fluid	R	Every 15000 miles (24000 km) or 12 months
. . C . . .	Bolts and nuts on chassis and body	I	Initial 3750 miles (6000 km) or 3 months Every 7500 miles (12000 km) or 6 months thereafter

*: In areas where road salt is used, the ignition wiring and distributor cap should be inspected and cleaned each year just after the snow season.

Explanation of maintenance items

BASIC ENGINE COMPONENTS

1. Adjust valve clearances. With the engine warm, the valve clearances should be adjusted to factory specifications. This adjustment should be made by a qualified technician.

2. Adjust or replace drive belts. Check the belt tension and adjust if necessary. Replace all drive belts when scheduled. After replacing, adjust the belts to the specified tension.

3. Change engine oil and oil filter. Change the engine oil and oil filter when scheduled. Do-it-yourself instructions are given in Section 6. Use only API grade SE oil of the proper viscosity for your climate. Under the severe driving conditions, changing interval should be shortened.

4. Change engine coolant. Drain and flush the cooling system when scheduled. Refill only with an ethylene-glycol type coolant. Do-it-yourself instructions are given in Section 6.

5. Inspect cooling and heater system hoses and connections. Inspect all hoses and connections for leakage, deterioration, swelling, chafing, or cracks. Replace any damaged parts.

6. Inspect vacuum fittings, hoses and connections. Inspect all vacuum hoses and fittings for leakage, clogging, or damage. Replace any damaged parts. Make sure the hoses are connected as indicated on the underhood diagram.

7. Inspect exhaust system. Visually inspect the exhaust pipes, muffler, and hangers for cracks, deterioration, or damage. Start the engine and listen carefully for any exhaust gas leakage. Tighten connections or replace parts as necessary. Under the severe driving conditions, inspection interval should be shortened.

FUEL SYSTEM

8. Adjust idle speed and fast idle speed. Check the choke valve for fully opened. Then adjust the idle speed and fast idle speed to factory specifications. These checks and adjustments should be done by a qualified technician.

9. Inspect choke system. Clean the choke shaft and linkage by using cleaning solvent.

10. Replace fuel filter. Make sure the replacement filter is installed correctly. This filter cannot be cleaned.

11. Replace air filter. Replace the air filter when scheduled. Do-it-yourself instructions are given in Section 6. Under the severe driving conditions, inspect and clean the element every 3750 miles (6000 km) or 3 months. Visually check the element for dirt or damage. It may be cleaned with compressed air.

12. Inspect inlet air temperature control valve. Check for proper operation of the valve. The cold air inlet should be opened when the engine is warm. Never force the valve. Replace if inoperative.

13. Inspect throttle positioner system. Check for correct operation of the throttle positioner system. Adjust TP speed if necessary. A qualified technician should perform these operations.

14. Inspect fuel lines and connections. Visually inspect the lines and connections for corrosion, damage, cracks, and loose or leaking connections. Tighten connections or replace parts as necessary.

15. Inspect fuel tank cap. Check for correct function of the check valve and for deterioration or damage of the gasket. Replace parts as necessary.

16. Replace fuel tank cap gasket. Make sure the new gasket is correctly installed.

Explanation of maintenance items (cont.)

IGNITION SYSTEM

17. Inspect ignition timing. Set to factory specifications. A qualified technician should make this inspection and adjustment.

18. Replace spark plugs. Make sure to install new plugs of the correct heat range. Do-it-yourself instructions are given in Section 6.

19. Inspect ignition wiring. Clean the ignition wiring and visually inspect for cracks and damage. Under the severe driving conditions, cleaning and inspection interval should be shortened. In areas where road salt is used, clean and inspect each year just after the snow season.

20. Inspect spark control system. Check for correct operation of the spark control system. Replace any damaged parts. A qualified technician must perform this inspection.

CRANKCASE EMISSION CONTROL SYSTEM

21. Inspect PCV system. Visually inspect the hoses, connections, and gaskets for cracks, leakage, clogged hoses, or damage. Clean or replace any damaged parts.

22. Replace PCV valve. When scheduled, replace the valve. Make sure that the new valve is correctly installed.

EXHAUST EMISSION CONTROL SYSTEM

23. Inspect air injection system. Look for cracks, deterioration, or loose connections of the hoses and check the system for proper function. These inspections must be performed by a qualified technician.

24. Inspect oxygen sensor. At every 30000 miles (48000 km), inspect for correct operation of the oxygen sensor. This inspection must be done by a qualified technician.

25. Inspect air suction system. Look for cracks, deterioration, or loose connections of the hoses. Check for correct operation of the system. This inspection must be performed by a qualified technician.

FUEL EVAPORATIVE EMISSION CONTROL SYSTEM

26. Inspect charcoal canister. Inspect for internal damage or clogging. Clean with compressed air or replace if necessary. A qualified technician should perform this inspection.

27. Inspect fuel evaporative emission control system, hoses, and connections. Inspect fuel tank, hoses, and connections for leakage, deformation, cracks, or damage. Replace any damaged parts.

CHASSIS AND BODY

28. Inspect brake pedal, clutch pedal and parking brake. Check the brake pedal to floor clearance, the clutch pedal freeplay, and the parking brake adjustment. Check brake booster operation. Do-it-yourself instructions are given in Section 6.

29. Inspect rear brake linings and drums. Check for scoring, burning, leaking fluid, broken parts, and excessive wear. A qualified technician should make these inspections. Under the severe driving conditions, inspection interval should be shortened.

30. Inspect front brake pads and discs. Check the pads for excessive wear, discs for runout and wear, and leaking fluid. A qualified technician should make these inspections. Under the severe driving conditions, inspection interval should be shortened.

31. Inspect brake lines and hoses. Visually check for proper installation. Check for chafing, cracks, deterioration, and any evidence of leaking. Replace any deteriorated or damaged parts immediately. These inspections should be done by a qualified technician.

32. Inspect brake fluid level. Check the brake and clutch fluid levels. Replenish if necessary. Do-it-yourself instructions are given in Section 6. If the level of the brake reservoir is considerably lower than usual, check the brake pads for excessive wear.

33. Inspect steering wheel, linkage and gear box oil. With the vehicle stopped, check for excessive freeplay in the steering wheel. Check the linkage for bend or damage. Check and, if necessary, replenish the gear box oil. Under the severe driving conditions, inspection interval should be shortened.

34. Inspect power steering fluid. Check the steering gear housing, vane pump, and hose connections for leakage. Check the fluid level on the dipstick. If necessary, replenish. Do-it-yourself instructions for fluid level checking are given in Section 6.

35. Inspect ball joints and dust covers. Check the suspension and steering linkage ball joints for looseness or damage. Check all dust covers for deterioration or damage. A qualified technician should perform any repairs needed. Under the severe driving conditions, inspection interval should be shortened.

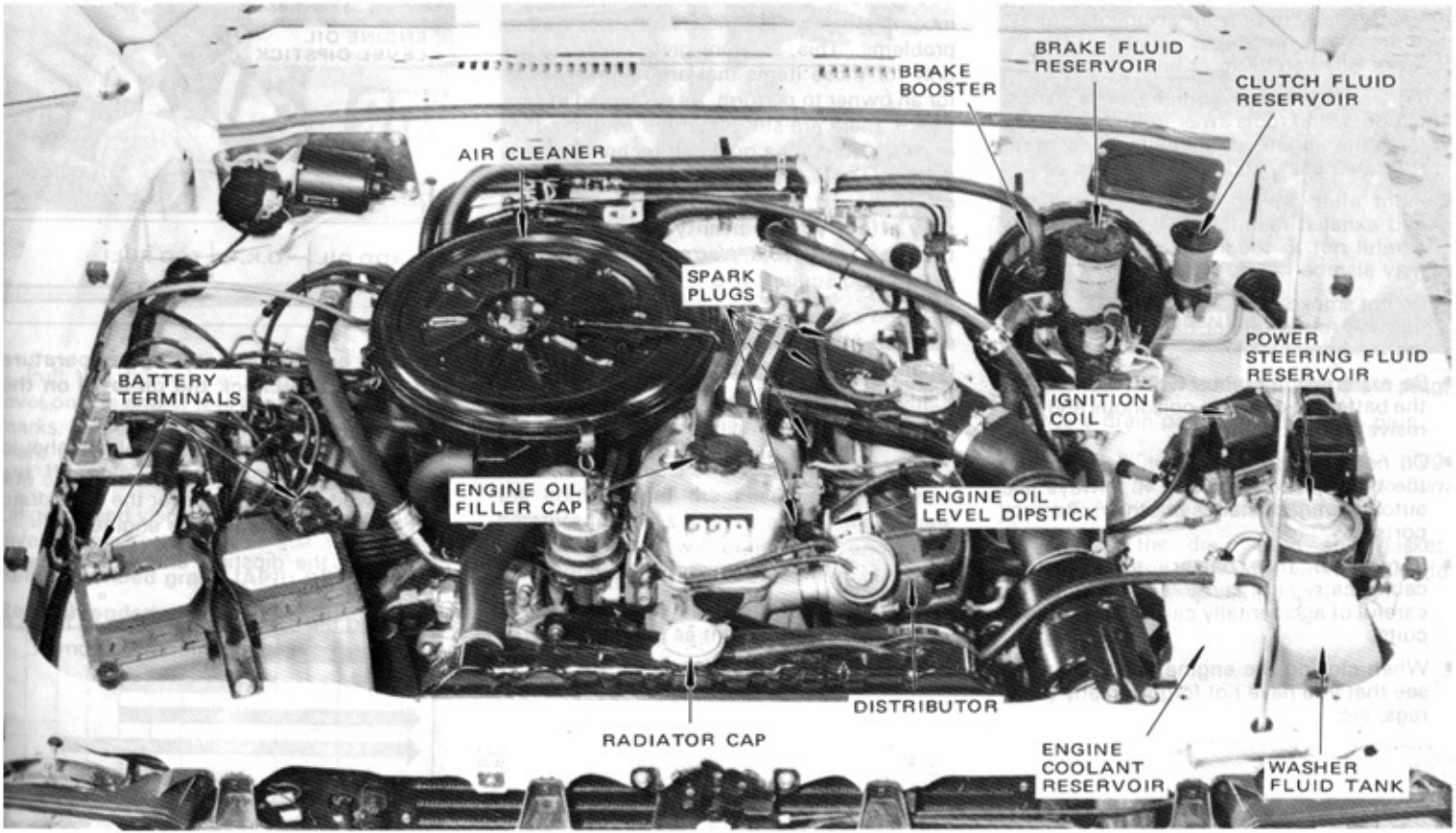
36. Inspect manual transmission and differential oil. Check that the oil level is just below the filler plug. If necessary replenish. Inspect each component for signs of leakage. Do-it-yourself instructions are given in Section 6. Under the severe driving conditions, change the oil every 15000 miles (24000 km) or 12 months.

37. Inspect automatic transmission fluid. With the engine idling, shift through all gears and then into P. Check the fluid level on the dipstick. If necessary replenish. Do-it-yourself instructions are given in Section 6. Under the severe driving conditions, change the fluid every 15000 miles (24000 km) or 12 months.

38. Lubricate wheel bearings and ball joints. Repack the wheel bearings with wheel bearing grease. Lube the ball joints with molybdenum-disulfide lithium base grease using a grease gun. Do-it-yourself instructions for ball joint greasing are given in Section 6.

39. Inspect bolts and nuts on chassis and body. Where necessary, retighten to specified torque. Under the severe driving conditions, inspection interval should be shortened.

Pickup 22R engine



Do-it-yourself service precautions

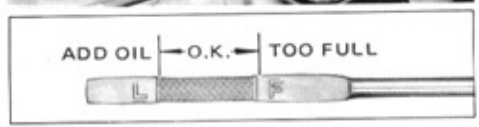
Utmost care should be taken when working on your vehicle to prevent accidental injury. Here are a few precautions that you should be especially careful to observe:

- When the engine is running, keep hands, clothing, and tools away from the moving fan and engine drive belts. (Removing rings, watches, and ties is advisable.)
- Right after driving, the engine, radiator and exhaust manifold will be hot, so be careful not to touch them. Oil and fluid may also be hot.
- Do not smoke, cause sparks or allow open flames around fuel or battery. The fumes are inflammable.
- Be extremely cautious when working on the battery. It contains poisonous and corrosive sulfuric acid.
- Do not get under your vehicle with just the body jack supporting it. Always use automotive jack stands or other solid supports.
- Remember that battery and ignition cables carry high currents or voltages. Be careful of accidentally causing a short circuits.
- When closing the engine hood, check to see that you have not forgotten any tools, rags, etc.

You should be aware that improper or incomplete servicing may result in operating problems. This section gives instructions only for those items that are relatively easy for an owner to perform. As explained in section 5, there are still a number of items that must be done by a qualified technician with special tools. **Performing do-it-yourself maintenance during the warranty period may affect your warranty coverage.** Read the separate Toyota Warranty statement for details and suggestions.

NOTE: For information on tools and parts required for performing do-it-yourself maintenance, see "Required tools and parts" at the end of this section.

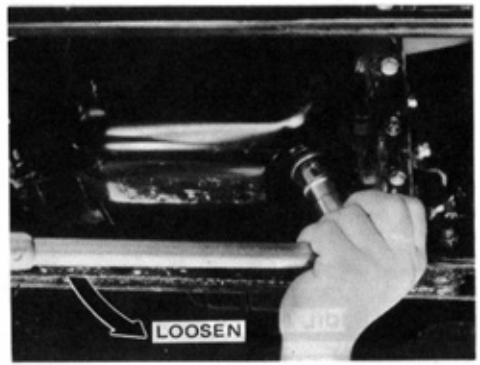
Checking the engine oil level



With the engine at operating temperature and turned off, check the oil level on the dipstick.

1. To get a true reading, the vehicle should be on a level spot. After turning off the engine, wait a few minutes for the oil to drain back into the bottom of the engine.
2. Pull out the dipstick, and wipe it clean with a rag.
3. Reinsert the dipstick—push it in as far as it will go or the reading will not be correct.

Changing the engine oil and filter

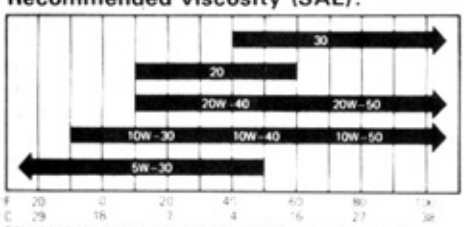


4. Pull the dipstick out and look at the oil level on the end. If it is between the F and L marks, it is O.K. If the oil level is below the L mark (or not even showing on the dipstick), add oil up to the F line immediately.

Oil grade and viscosity recommendations are given below.

Recommended grade (API): SE or better

Recommended viscosity (SAE):



1. Warm up the engine for a few minutes and then turn it off. Remove the oil filler cap.

a. Park the vehicle on a level spot. Warm up the engine until the needle on the temperature gauge is at least above the bottom mark. (Warm oil will drain faster and more thoroughly.) Turn the engine off.

b. Remove the oil filler cap. This allows air to enter the engine as the oil drains.

2. Drain the oil and reinstall the drain plug.

a. Place a drain pan under the drain plug.

b. Using a wrench, remove the drain plug. *The oil may be hot—be careful not to burn yourself.* Allow the oil to drain fully.

c. Reinstall the drain plug and gasket. Tighten the plug with your wrench, but do not force it and strip the threads.

Changing the engine oil and filter (cont.)

3. Remove the old oil filter and install a new one hand-tight.

a. Using an oil filter wrench (any of several common types will work), loosen the oil filter. It turns counterclockwise. Once loose, you may unscrew it the rest of the way by hand. When removing it, hold up the end so that oil does not spill out.

b. With a clean rag, wipe off the mounting surface on the engine so that the new filter will seat well. ***Make sure that the old gasket has not stuck to the mounting surface.*** If it has, remove it before installing the new filter.

c. Smear a little engine oil on the rubber gasket of the new oil filter.

d. Screw the new filter into place. Tighten it as firmly as you can ***by hand.*** Do not use the wrench to tighten it.

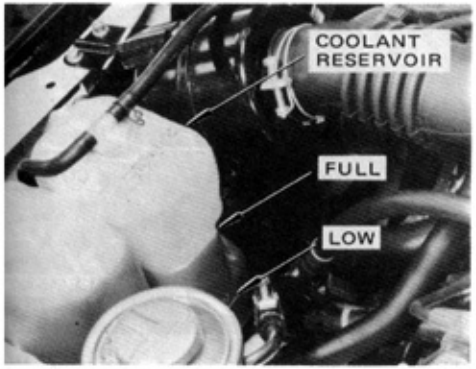
4. Add oil and install the filler cap. Start the engine and check for leaks at the filter or drain plug.

a. After adding the oil, make sure that the filler cap is installed hand-tight. You should double-check the oil level on the dipstick. Engine oil additives are neither needed nor recommended.

b. With the engine running, look carefully for any small leaks from around the oil filter or drain plug. Any leak indicates a faulty installation.

c. Turn the engine off and wait a few minutes. Check the oil level again and add oil if necessary.

Checking the engine coolant level



Look at the see-through coolant reservoir tank. The coolant level is satisfactory if it is between the FULL and LOW lines on the tank.

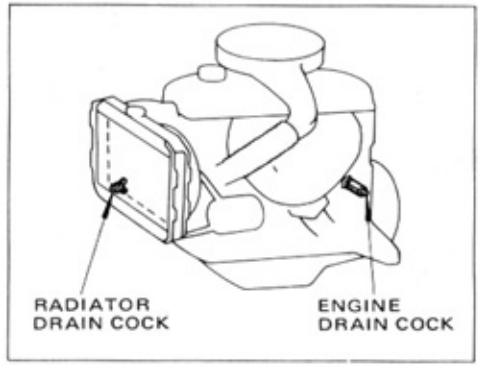
The coolant level in the reservoir tank will vary with engine temperature. However, if the level is on or below the LOW line, add coolant. Bring the level up to the FULL line.

Use only ethylene-glycol type coolant. It will prevent freezing and corrosion. Supplemental inhibitors or additives are neither needed nor recommended.

If the coolant level drops within a short time after replenishing, there may be a leak in the system. Visually check the radiator, hoses, radiator cap and drain cock, and water pump.

If no leak can be found, have the cap pressure tested at your Toyota dealer. **To prevent burning yourself, do not remove the radiator cap when the engine is hot.** See "If your vehicle overheats" in Section 3 for instructions and precautions.

Changing the engine coolant



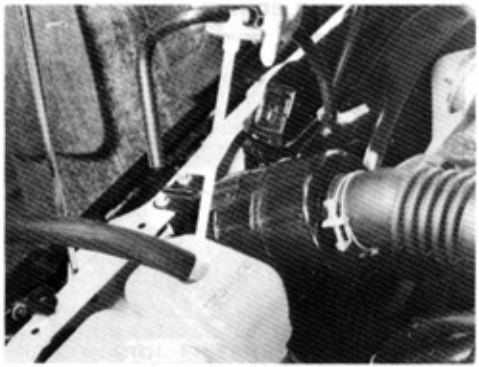
1. Drain the cooling system and flush it out with water.

a. Park the vehicle on a level spot, where the coolant can drain into a suitable disposal container.

b. Remove the radiator cap. **To prevent burning yourself, do not remove the cap if the engine is hot.**

c. Loosen (turn counterclockwise) the plugs in the two drain cocks. **To prevent burning yourself, do not loosen the drain plugs if the engine is hot.**

Changing the engine coolant (cont.)



2. Close the two drain plugs and fill the system with ethylene-glycol coolant and water. Install the radiator cap.

a. Make sure that both drain plugs are securely tightened.

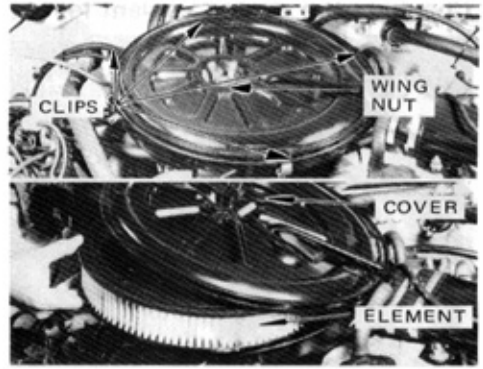
b. Read the ethylene-glycol container for information on freeze protection. Follow the manufacturer's directions for how much to mix with water. The total capacity of the cooling system is given in Section 8. We recommend more than 50 % solution be used for your Toyota. For information on ethylene-glycol coolant, see also "Winter driving tips" in Section 3.

c. Pour the ethylene-glycol coolant into the radiator. Then fill with clean water until the radiator is full.

d. Start the engine, and top off the radiator with water. Fill the reservoir half full.

e. Install the radiator and reservoir caps and double-check that the drain plugs are not leaking.

Checking and replacing the air cleaner element



1. To inspect the element, unscrew the wingnut and release the clips. Then remove the cover and lift out the element.

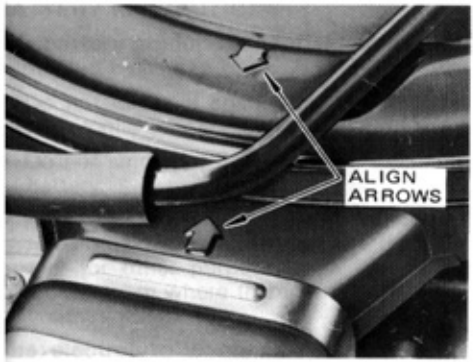
a. The wingnut can be unscrewed by hand.

b. Lift the wire tab to release each clip.

c. Lift off the cover and set it aside.

Lift out the paper element and look at its outer surface. If it is dirty, it should be replaced.

NOTE: If the element is just moderately dusty, it may be cleaned by blowing compressed air from the *inside* outward. Do *not* wash or oil the element. *Do not drive with the air cleaner removed.* Backfiring could cause a fire under the hood.

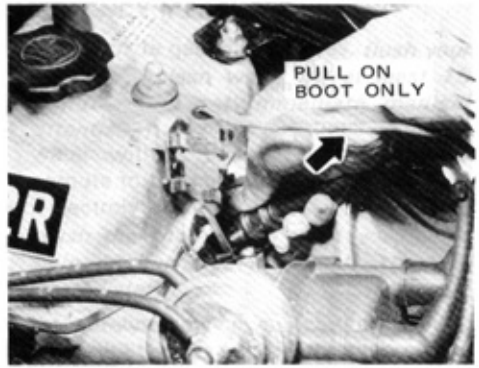


2. After installing an element, make sure the arrows on the cover and case are aligned. Then fasten the clips and screw on the wingnut.

a. When installing an element, make sure it is properly seated in the case.

b. Do not overtighten the wingnut or the carburetor may be damaged.

Replacing spark plugs



1. Unfasten the spark plug cables by pulling on the boot, not on the cable itself.

Recommended spark plugs:

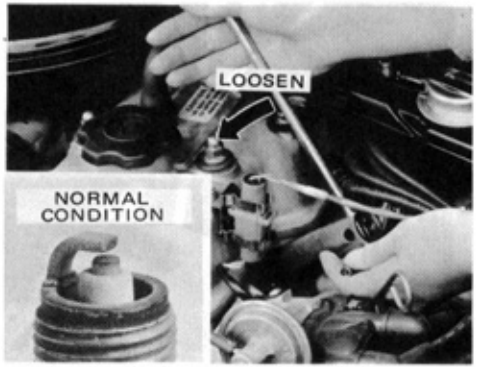
Nippondenso	W14EXR-U
NGK	BPR5EA-L
	BPR5EY

a. Note the order of the spark plug cables. If you are not positive that you can reconnect them correctly, mark each cable with a number on a piece of tape before disconnecting it.

b. Unfasten the connector by pulling straight up. Pulling on the cables may break the carbon conductor inside. *The boots may be hot, so be careful.*

WARNING: In some areas, regulations require resistive spark plugs. They are designed to suppress radio noises.

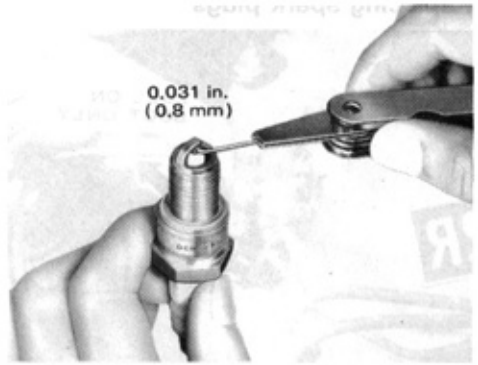
Replacing spark plugs (cont.)



2. Unscrew and remove the old spark plugs with their metal gaskets.

a. Keep the plugs in order as you remove them. *The spark plugs may be hot, so be careful.* If the plug condition is normal, discard the plugs. One clue to judging the plug condition is the deposits. If the plugs have anything other than brown to light tan (or grey) deposits on them, that may indicate the engine needs adjustments or repairs. Save them and show them to your Toyota dealer.

b. Make sure that no metal gaskets were accidentally left in place. A double gasket could cause leakage. *Do not allow dirt or anything else to fall through the spark plug holes.*



3. Set the gap on the new plugs to the correct clearance, and install them. Reconnect the spark plug cables in the correct order.

a. Check the gap by passing the feeler gauge between the electrodes on the spark plug. If the gap is correct, you will feel a slight drag. If necessary, bend the outer electrode to obtain the right clearance.

b. Make sure that each plug has a *new* gasket. Do not reuse old gaskets.

c. Screw in the plugs by hand, being careful not to strip the threads. Tighten them firmly with the spark plug wrench, but do not overtighten.

d. Make sure the cables are installed in the correct order. The connector fastens on by pushing it squarely over the end of the plug.

Checking battery condition and fluid level

BATTERY PRECAUTIONS

The battery produces an inflammable and explosive hydrogen gas.

- Do not cause a spark from the battery with tools.
- Do not smoke or light a match near the battery.
- Always charge the battery in an unconfined area. Do not charge or use the battery for other purposes in a garage or closed room where there is not sufficient ventilation.

The electrolyte contains poisonous and corrosive sulfuric acid.

- Avoid contact with eyes, skin or clothes.
- Never ingest electrolyte.
- Wear protective safety glasses when working near the battery.
- Keep children away from the battery.

EMERGENCY MEASURES

- If electrolyte gets in your eyes, *flush your eyes with clean water for at least 15 minutes and get immediate medical attention.* If possible, continue to apply water with a sponge or cloth while enroute to the medical office.
- If electrolyte gets on your skin, *thoroughly wash the contacted area. If you feel a pain or burn, get medical attention immediately.*
- If electrolyte gets on your clothes, there is a possibility of its soaking through to your skin, so *immediately take off the exposed clothing and follow the procedure above, if necessary.*
- If you happen to swallow electrolyte, *drink a large quantity of water or milk. Follow with milk of magnesia, beaten raw egg or vegetable oil. Then go immediately for emergency help.*

1. Check the battery for corroded or loose connections, cracks, or loose hold-down clamps.

Battery handling safety—

- Before performing maintenance on your battery or recharging it, turn off all accessories, stop the engine and remove the filler/vent caps.

  NOTE: If your Toyota is equipped with an extended maintenance interval battery, it is not necessary to remove the filler caps.

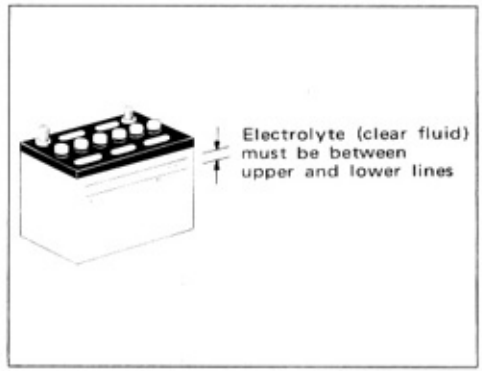
- The ground cable should be removed first and installed last.

Checking battery condition and fluid level (cont.)

a. If the battery is corroded, wash it off with a solution of warm water and baking soda. *Take care that no solution gets into the battery.* Coat the outside of the terminals with grease to prevent further corrosion.

b. If the connections are loose, tighten the clamp bolts—but do not overtighten. *Be careful not to cause a short circuit with tools.*

c. Tighten the hold-down clamp only enough to keep the battery firmly in place. Overtightening may damage the battery case.



2. Check the electrolyte level as shown above. If the level is low, add distilled water.

a. When checking the electrolyte level, look at all six cells, not just one or two.

b. Use only distilled water to replenish the battery. **Do not overfill**—the electrolyte may squirt out of the battery during periods of heavy charging, causing corrosion or damage.

c. After replenishing, be sure to securely retighten the filler/vent caps.

Battery recharging precautions

During recharging, the battery is producing hydrogen gas.

Therefore, before recharging:

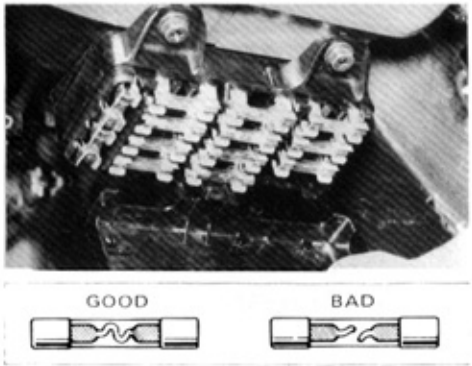
1. Remove the battery from the vehicle and remove the filler/vent caps.

   NOTE: If your vehicle is equipped with an extended maintenance interval battery, remove the filler caps only when performing quick charging (6 amp. or above but max 15 amp.). Removing the filler caps is not necessary when performing slow charging (under 5 amp.)

2. Be sure the power switch on the recharger is OFF when connecting the charger cables to the battery and when disconnecting them.

3. If recharging with the battery installed on the vehicle, be sure to disconnect the ground cable.

Checking and replacing fuses

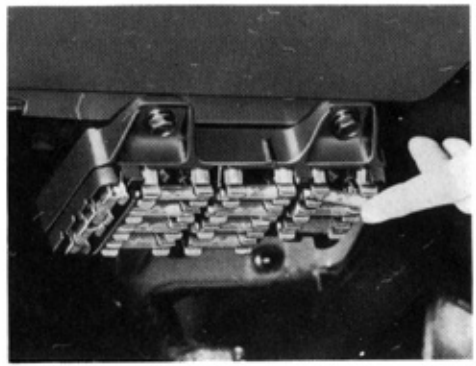


1. Turn the ignition switch OFF, open the fuse box lid and look at the fuses.

If any light or electrical component does not work, your vehicle may have a blown fuse.

a. Determine which fuse may be causing the problem. The lid of the fuse box shows the name of the circuit for each fuse. (If necessary, Section 8 gives the name of the circuit for each fuse.)

b. Look carefully at the fuse. If the thin wire is broken, the fuse has blown. If you are not sure or if it is too dark to see, try replacing the suspected fuse with one you know is good.



2. To install a new fuse, be sure the inoperative component is OFF. Pull the blown fuse straight out. Then push a new fuse into the clips.

a. Your vehicle has two spare fuses (10 A and 15 A) clipped to the inside of the fuse box lid.

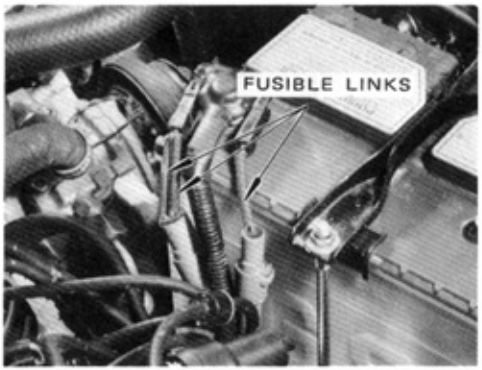
b. Install only a fuse with an amperage rating designated on the fuse box lid. ***Never use a fuse with an amperage rating nor some other object in place of a fuse.***

c. If the new fuse immediately blows out, there is a problem with the electrical system. Have your Toyota dealer correct it as soon as possible.

If you do not have a spare fuse, in an emergency you can pull out the "CIG.L", "HEATER & A/C", "RADIO" or "DOME" fuse, which may be dispensable for normal driving, and use it if its amperage rating is the same. If you cannot use one of the same amperage, use one with a lower than, but as close as possible to, the same rating. If the amperage is lower than that specified, the fuse might blow out again but this does not indicate anything wrong. Be sure to get a correct fuse as soon as possible and return the substitute to its original clips.

NOTE: It is a good idea to purchase a set of spare fuses and keep them in your vehicle for emergencies.

Checking the fusible links

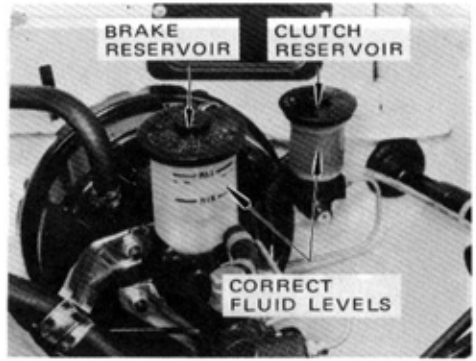


If the headlights or other electrical components do not work and the fuses are O.K., check the fusible links. If any of the links is melted, it must be replaced.

Always use a genuine Toyota fusible link for replacement. Never install a wire—even for a temporary fix. It may cause extensive damage and possibly a fire.

If there is an overload in the circuits from the battery, the fusible links are designed to melt before the entire wiring harness is damaged. *The cause of electrical overload should always be determined before replacing the fusible links.*

Checking brake and clutch fluid



To check the fluid levels, simply look at the see-through reservoirs. The level should be near the correct level, as shown above.

It is a good habit to check these fluid reservoirs every time you check the engine oil level.

It is normal for the brake fluid level to go down slightly as the front brake pads wear. So be sure to keep the reservoirs filled.

If any reservoir needs frequent refilling, it may indicate a serious mechanical problem.

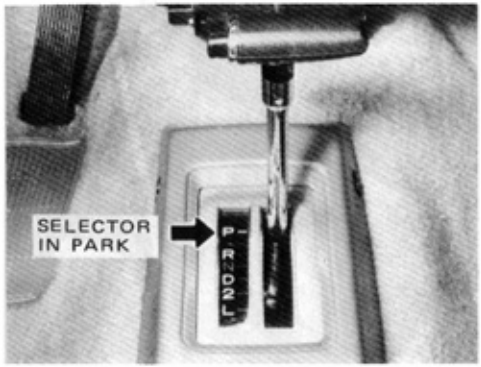
If the level is low, add SAE J1703 or DOT-3 brake fluid to the brake or clutch reservoir.

Fill the brake fluid to the dotted line. This brings the fluid to the correct level when you put the cover back on.

Use caution in filling the reservoirs because brake fluid can harm your eyes and damage painted surfaces.

Do not use brake fluid that has been opened for more than 1 year or that has had the cap left off. Brake fluid absorbs moisture from the air, and excess moisture can cause a dangerous loss of braking. Also, for this reason you should have the brake fluid drained and replaced periodically. Remove and replace the reservoir covers by hand.

Checking automatic transmission fluid



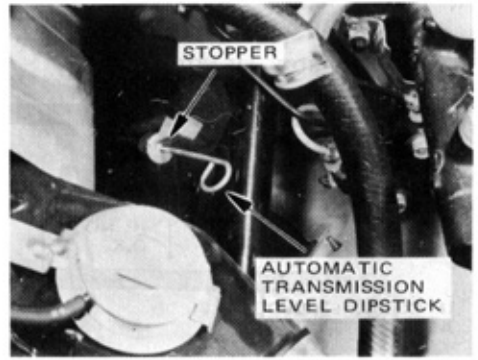
1. Check the fluid level only when the transmission is hot (normal operating temperature). With the vehicle level, first set the parking brake and then start the engine. While the engine is idling, depress the brake pedal and shift into each gear from PARK to LOW and return to PARK.

If the vehicle has been driven over 10 miles or 16 km (15 miles or 24 km in frigid temperatures) and the fluid temperature is 160°F—175°F (70°C—80°C), the transmission is HOT.

You may check the level when the transmission is cold. If the vehicle has not been driven for over five hours and the fluid is about room temperature 70°F—85°F (20°C—30°C), the transmission is COLD.

However, checking a cold transmission is to be used for your reference only and the transmission must be checked again for correct level at normal operating temperature.

NOTE: If the vehicle has just been driven for a long time at high speed or in city traffic in hot weather, or if the vehicle has been pulling a trailer, the accurate fluid level cannot be obtained. Check the level after the fluid has cooled down. (approx. 30 mins.)



2. With the engine still idling, check the fluid level and condition on the dipstick. If necessary, add ATF Type F fluid.

When the engine is running, keep hands and clothing away from the moving fan and engine drive belts.

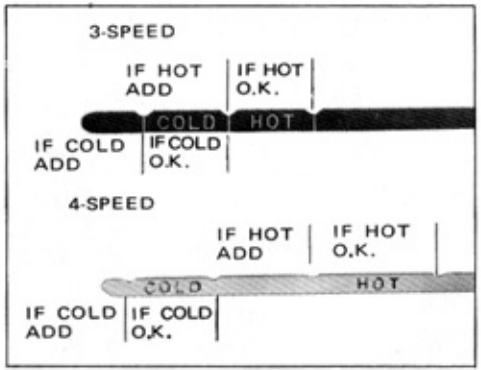
a. Pull out the dipstick and wipe it clean.

If the dipstick tube is equipped with a stopper, be sure to get the stopper off the dipstick when removing or reinstalling it. After reinstalling it, check to see the stopper is working properly.

Be careful not to touch the hot exhaust manifold.

b. Reinsert the dipstick—push it in as far as it will go.

Checking automatic transmission fluid (cont.)

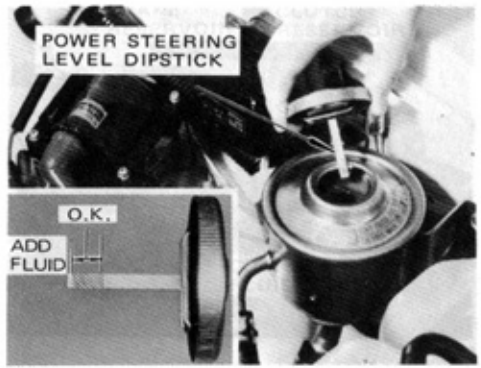


c. Pull the dipstick out and look at the fluid level. If the transmission is cold, the level should be in the cold range on the dipstick. Similarly, if it is hot, the fluid level should be in the hot range. If the level is at the low side of either range, add ATF Type F fluid. (Fluid is added through the dipstick tube, using a funnel.)

Keep the fluid at the proper level. Overfilling may cause transmission damage and low fluid may cause slipping.

d. While checking the fluid level, also check the condition. If the fluid is black or if it smells burnt, have it changed.

Checking power steering fluid



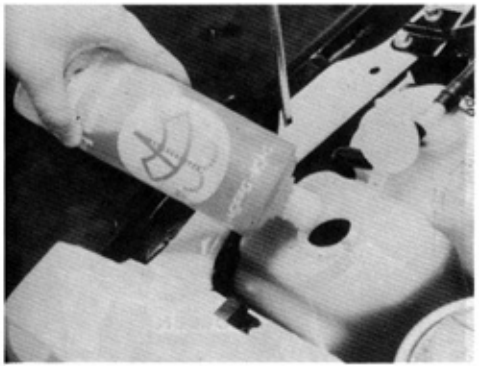
With the engine idling at normal operating temperature, turn the steering wheel from full left to full right and back again several times and then check the fluid level on the dipstick. Add ATF Type Dexron fluid, if the level is below the stripped portion on the dipstick.

a. Remove the filler cap by turning it counterclockwise. *This reservoir tank may be hot so be careful not to burn yourself.*

b. Make sure the fluid level is above the tip of the dipstick.

c. After replacing the cap, visually check the steering box case, vane pump and hose connections for leaks or damage.

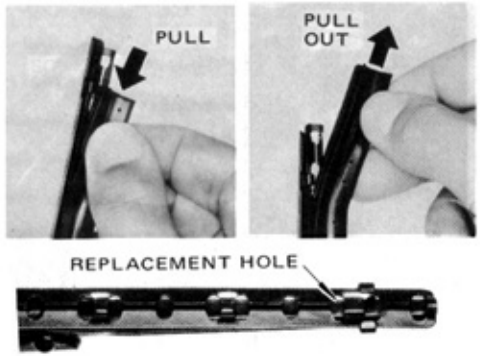
Adding washer fluid



If the windshield washer does not work, the washer tank may be empty. Add washer fluid.

You may use plain water as washer fluid. However, in cold area where temperatures range below the freezing point, use washer fluid containing antifreeze. This product is available at your Toyota dealer and most auto parts stores. Follow the manufacturer's directions for how much to mix with water. Do not use engine antifreeze or any other substitute because it may damage your vehicle's paint.

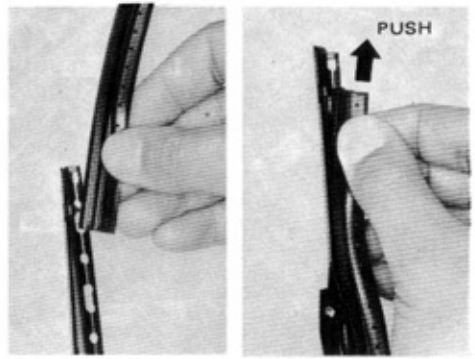
Replacing the wiper blades



When the windshield wipers no longer clean adequately, the wiper blades may be worn or cracked requiring replacement.

a. Pull the end of the rubber inward until the rubber blade is free of the end slot, and you can see the replacement hole.

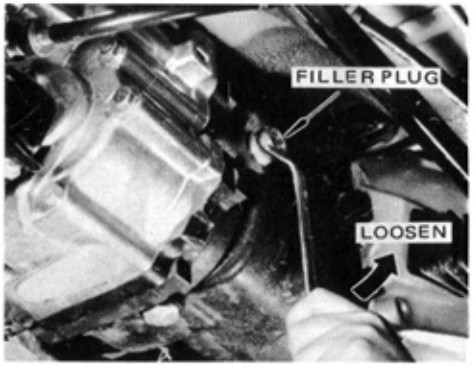
b. Pull the rubber blade out the replacement hole.



c. Insert the end of a new rubber into the hole, and work the rubber along the slot in the blade frame.

d. Once all of the rubber is in the frame slot, allow it to expand and fill in the end.

Checking manual transmission oil

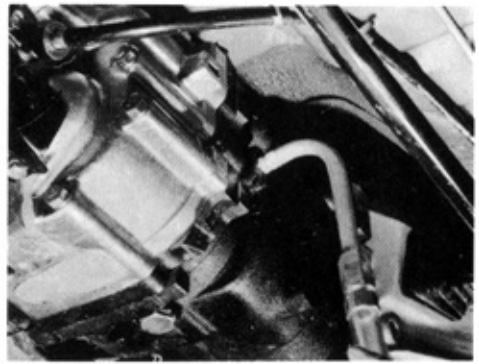


Remove the filler plug and feel inside the hole with your finger. The oil should come to the bottom edge of the hole. If the level is O.K., reinstall the plug and tighten it.

Right after driving the oil may be hot, so be careful.

a. Make sure the vehicle is level while making this check.

b. After installing the plug, visually check the transmission case for leaks or damage.



If the level is low, add multipurpose gear oil (API GL-4 or GL-5) until it begins to run out of the filler hole. Reinstall the plug securely.

Recommended viscosity:

4-speed tran. and C & C* SAE 80W-90
5-speed transmission
SAE 75W-90 or 80W-90

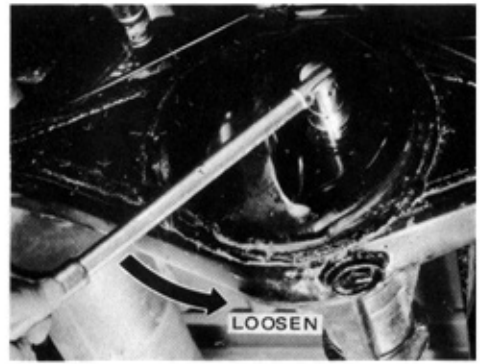
*C & C: Cab and chassis models (fitted with commercial bodies, large camper unit etc.)

a. Fill the lubricant filler with oil.

b. Put the end of the tube into the filler hole and add oil until it begins to run out.

c. Install and retighten the filler plug.

Checking differential oil



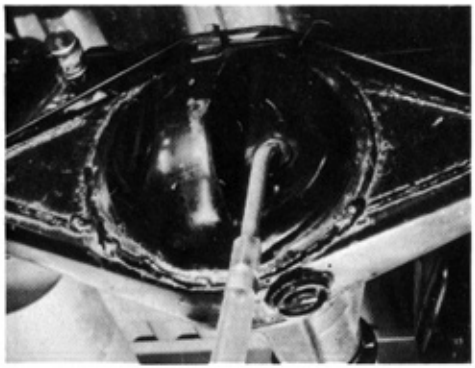
Remove the filler plug and feel inside the hole with your finger. If the oil comes to the bottom edge of the hole, the level is correct. Reinstall the plug.

Right after driving the oil may be hot, so be careful.

a. Make sure the vehicle is parked on a level spot.

b. After installing the plug, visually check the differential and axle for leaks or damage.

Lubricating the ball joints



If the level is low, add hypoid gear oil (API GL-5) until it begins to run out of the filler hole. Reinstall the plug.

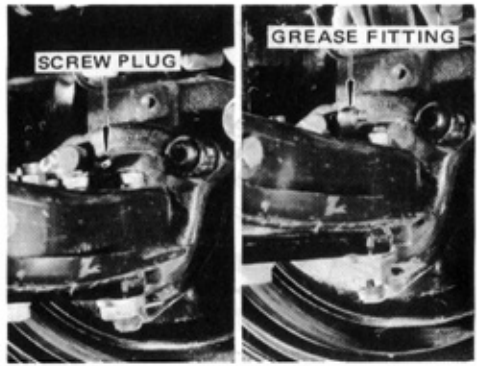
Recommended viscosity:

Above −18°C (0°F) SAE 90
Below −18°C (0°F) SAE 80W or 80W-90

a. Fill the lubricant filler with gear oil.

b. Put the end of the tube into the filler hole and add oil until it begins to run out.

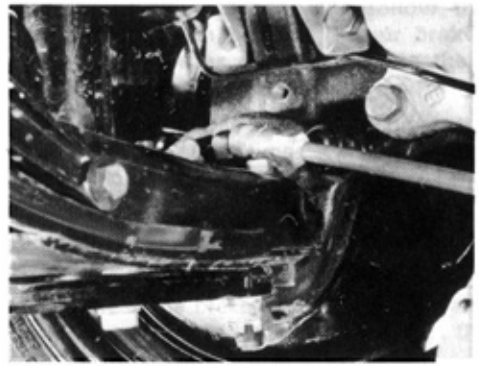
c. Install and retighten the filler plug.



1. Remove the screw plug from the upper and lower ball joints at the right and left side of the front suspension. Temporarily screw on a standard grease fitting.

There are two ball joints near each front wheel.

Be sure to save the four screw plugs for reinstallation.

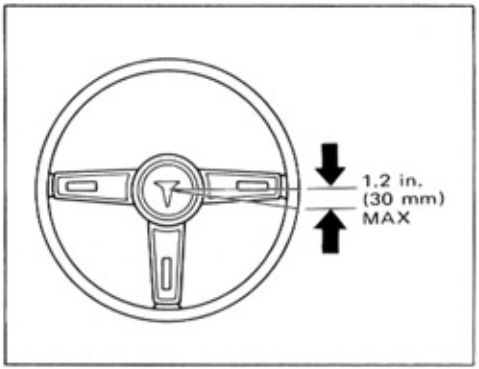


2. With a grease gun, pump molybdenum-disulfide lithium base chassis grease (NLGI No. 1 or 2) into each fitting until it begins to flow from the grease outlet in the rubber dust boot. Remove the grease fitting and reinstall the screw plugs.

Do not use multipurpose grease.

If the dust boots should be broken, have them replaced by your Toyota dealer.

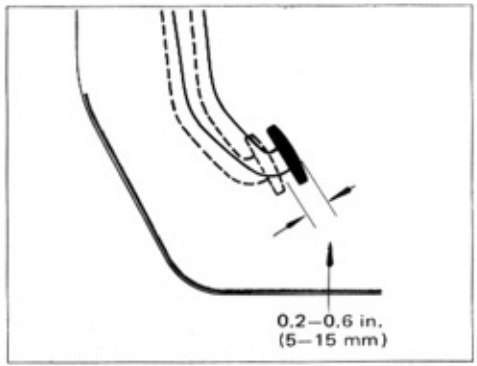
Checking steering wheel freeplay



With the vehicle stopped and the front wheels pointed straight ahead, rock the steering wheel gently back and forth. If the freeplay is more than specified, have it adjusted by your Toyota dealer.

Use only a very light finger pressure to rock the wheel slowly.

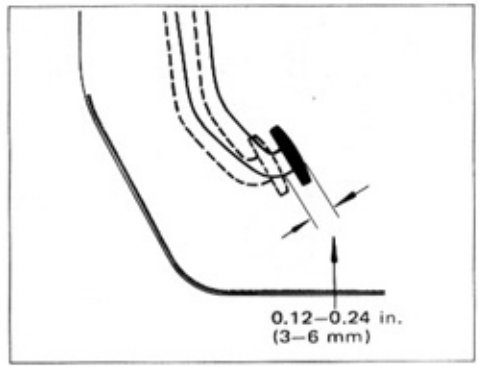
Checking clutch pedal freeplay



Press down lightly on the clutch pedal and measure the distance it moves freely before the clutch resistance is felt. The freeplay should be within the above limits.

If the freeplay is more or less, have your Toyota dealer adjust the clutch.

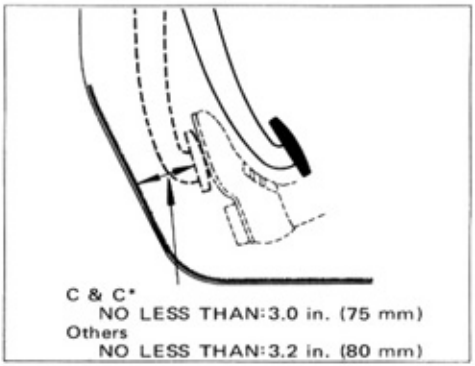
Checking brake pedal freeplay



With the engine stopped, first reduce the vacuum in the booster by depressing the brake pedal several times. Then lightly and slowly press down on the pedal with your fingers and measure the distance it moves before slight resistance is felt.

If the freeplay is more or less than specification, have your Toyota dealer adjust the brakes.

Checking brake pedal clearance

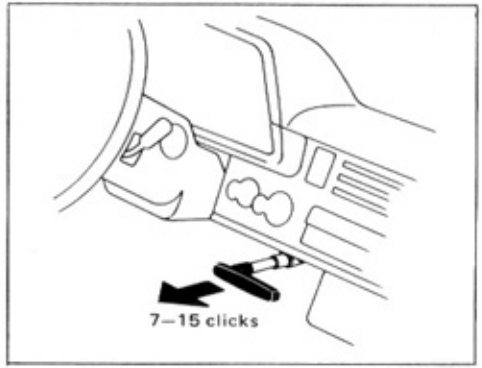


With the engine running, have someone press the brake pedal several times and then press hard (approximately 110 lb. or 50 kg) on it. The distance from the asphalt sheet to the top surface of the pedal should not be less than specified.

If the clearance is less, have your Toyota dealer adjust the brakes.

*C & C: Cab and chassis models (fitted with commercial bodies, large camper unit, etc.)

Checking parking brake adjustment



Count the number of clicks as you slowly pull on the parking brake as far as it will go. The adjustment is correct if you hear the number of clicks specified above.

If you count more or less clicks, have the parking brake adjusted by your Toyota dealer.

Checking the brake booster

Sit in the driver's seat and follow the instruction given below. If your brakes do not operate as described, have them checked at your Toyota dealer.

1. With the engine stopped, depress the brake pedal several times: the travel distance should not change.

2. With the brake fully depressed, start the engine: the pedal should move down a little when the engine starts.

3. Depress the brake, stop the engine, and hold the pedal in for about 30 seconds: the pedal should neither sink nor rise.

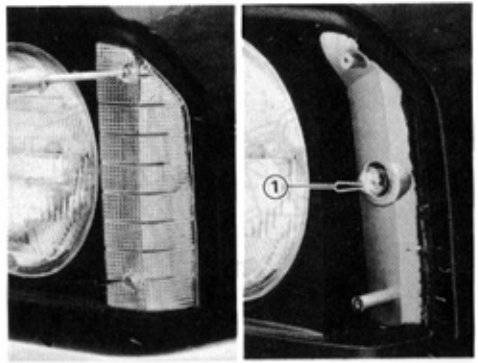
4. Restart the engine, run it for about a minute and turn it off. Then firmly depress the brake several times: the pedal travel should decrease with each application.

Replacing light bulbs

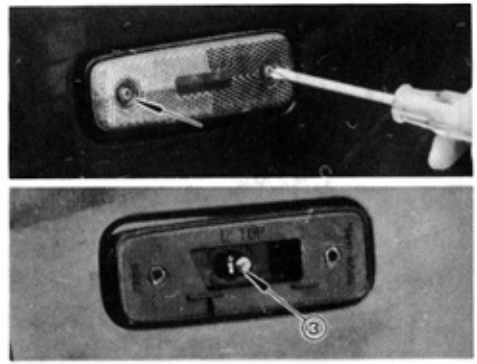
The illustrations show how to gain access to the bulbs. ***When replacing a bulb, make sure the light switch is OFF. Use only a bulb with the same number and wattage rating.***

The satndard bulb numbers and wattage rating are given below. Double-end bulbs (*) or wedge base bulbs (**) pull straight out of the holder clips.

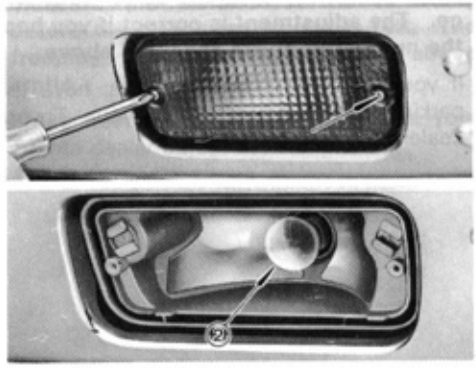
No.	Light Bulbs	Bulg No.	Wattage
1.	Front parking lights	89	7.5
2.	Front turn signal lights	1073	23
3.	Front side marker lights*	194	3.8
4.	Rear side marker lights*	194	3.8
5.	Rear turn signal lights	1073	23
6.	Stop & tail lights	1034	23/8
7.	Back-up lights	1073	23
8.	License plate lights*	194	3.8
9.	Interior light**	(12V,3cp)	5



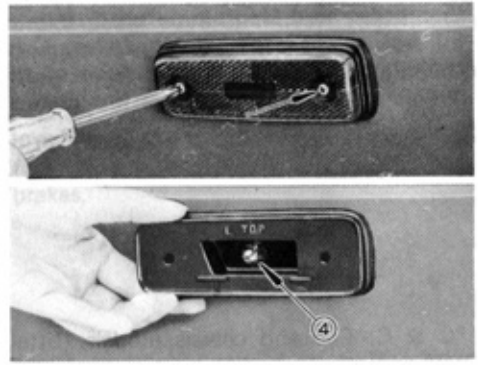
Front parking lights



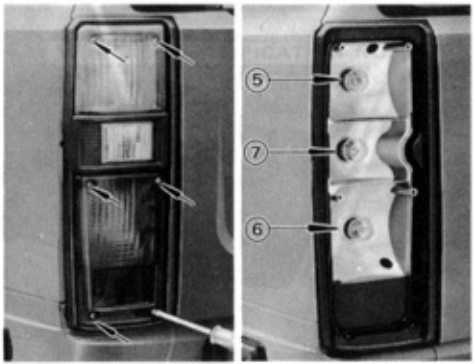
Front side marker lights



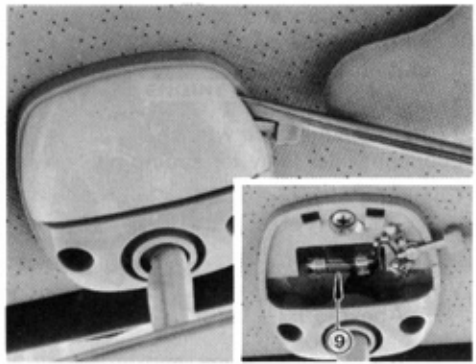
Front turn signal lights



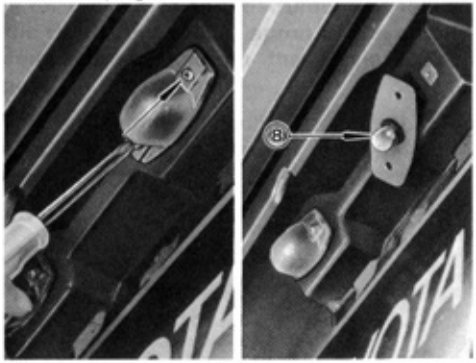
Rear side marker lights



Rear turn signal, stop & tail, and back-up lights



Interior light



License plate lights

Required tools and parts

Checking the engine oil level
Tools: Rag or paper towel

Changing the engine oil and filter
Parts:
1 oil filter, Nippondenso 15601-44011
4.9 quarts oil, Grade SE or better
Tools:
19 mm or adjustable wrench
6 quart or larger drain pan
Oil filter wrench
Oil can spout or funnel and can opener

Changing the engine coolant
Parts:
1 gallon (or more) ethylene-glycol coolant (do not use alcohol type).
Tools:
14 mm or adjustable wrench
Garden hose or funnel and bucket

Checking and replacing the air cleaner element
Parts:
1 Nippondenso air cleaner element, 17801-41090

Replacing spark plugs
Parts:
4 spark plugs

Nippondenso	W16EXR-U
NGK	BPR5EA-L
	BPR5EY

Required tools and parts (cont.)

Tools:
Spark plug wrench
Combination spark plug gauge and gapping tool

Replacing wiper blades
Parts:
Two wiper blades, 85221-22010

Checking brake and clutch fluid
Parts:
DOT-3 or SAE J 1703 brake fluid (if level is low)

Checking power steering fluid
Parts:
ATF type Dexron fluid (if level is low)

Checking automatic transmission fluid
Parts:
ATF type F automatic transmission fluid (if level is low)
Tools:
Rag or paper towel
Funnel (only for adding fluid)

Checking manual transmission oil
Parts:
"Multipurpose" gear oil (API GL-4 or GL-5) (if level is low)
Viscosity:
4-speed trans. and C & C* SAE 80W-90
Others SAE 75W-90 or 80W-90

*C & C: Cab and chassis models (fitted with commercial bodies, large camper unit etc.)

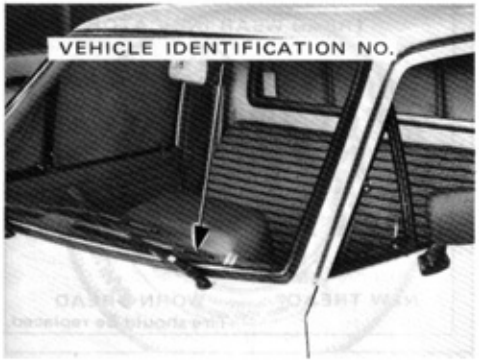
Tools:
17 mm or adjustable wrench
Lubricant filler (only for adding oil)

Checking differential oil

Parts:
Hypoid gear oil (API GL-5) (if level is low)
Viscosity:
Above 0°F (−18°C)
SAE 90
Below 0°F (−18°C)
SAE 80W or SAE 80W-90
Tools:
24 mm or adjustable wrench
Lubricant filler (only for adding oil)

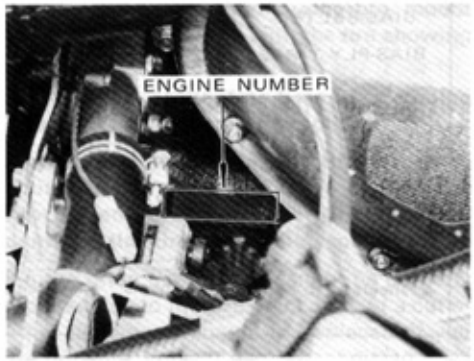
Lubricating the ball joints
Parts:
Molybdenum disulfide lithium base grease (NLGI No.1 or 2)
Tools:
10 mm or adjustable wrench
Standard grease fitting
Grease gun

Your Toyota's Identification



The Vehicle Identification Number (VIN) is on the top of the instrument panel, on the right front fender apron of the engine compartment and on the driver's door post.

This is the primary identification number for your Toyota. It is used in registering the ownership of your vehicle.



The engine number is stamped on the engine block as shown above.

Tire information—

The recommended cold tire pressures are given in Section 8.

You should check the tire pressures at least once a month. And don't forget the spare! The pressure for the spare tire should be 4 psi (0.3 kg/cm^2) above the recommended cold tire pressure. Incorrect tire pressure can reduce tire life and make your vehicle less safe to drive.

Low tire pressure results in excessive wear, poor handling, reduced fuel economy, and the possibility of blowouts from overheated tires. Also, low tire pressure can cause poor sealing of the tire bead. If the tire pressure is excessively low, there is the possibility of wheel deformation and/or tire separation. So keep your tire pressures at the proper level. If a tire frequently needs refilling, have it checked by your Toyota dealer.

High tire pressure produces a harsh ride, handling problems, excessive wear at the center of the tire tread, and a greater possibility of tire damage from road hazards.

The following instructions for checking tire pressure should be observed:

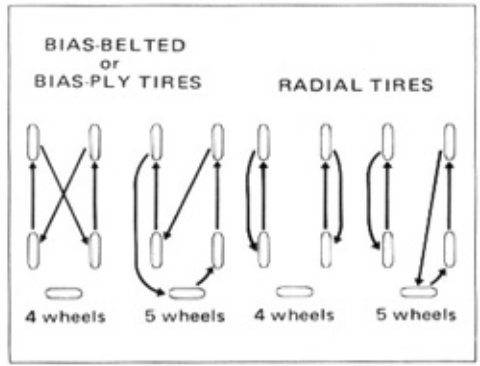
- **The pressure should be checked only when the tires are "cold".** If your vehicle has been parked for at least 3 hours and has not been driven for more than 1 mile or 1.5 km since, you will get an accurate "cold" tire pressure reading.

Tire information— (cont.)

- **For sustained high speeds above 120 km/h (75 mph), in countries where such speeds are permitted by law add 0.3 kg/cm² (4 psi), but never exceed the maximum cold tire pressure molded on the tire sidewall.** Do not drive at sustained high speeds over 120 km/h (75 mph) if the 0.3 kg/cm² (4 psi) adjustment will exceed the maximum cold tire pressure.
- **Always use a tire pressure gauge.** The appearance of tire can be misleading. Besides, tire pressures that are even just a few pounds off can degrade handling and ride.
- **Do not "bleed" or reduce tire pressure after driving.** It is normal for the tire pressure to be higher after driving.
- **Never exceed the cargo weight rating.** The passenger and luggage weight should be distributed evenly.

Be sure to reinstall the tire inflation valve caps. Without the valve caps, dirt or moisture could get into the valve core and cause air leakage. If the caps have been lost, have new ones put on as soon as possible.

Tire rotation



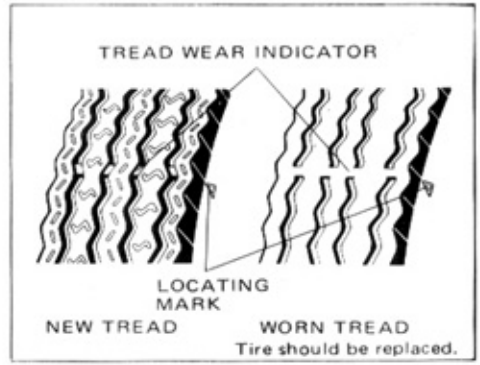
To prolong the life of your tires, we recommend rotating them every 7500 miles (12000 km).

Including the spare tire in your rotation will cause your tires to last longer.

When rotating tires, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tire pressure, improper wheel alignment, out-of-balance wheels, or severe braking.

Before storing radial, snow or studded tire, mark the direction of rotation and be sure to install them in the same direction when replacing. Tires should be stored in a cool dry place.

Changing tires and wheels



Replace the tires when the tread wear indicators show.

The tires on your Toyota have built-in tread wear indicators to help you know when the tires need replacement. The triangle marks on the tire side wall indicate the location of the tread wear indicators. When the tread depth wears to 0.06 in. (1.6 mm) or less, the indicators will appear. If you can see the indicators in two or more adjacent grooves, the tire should be replaced.

The effectiveness of snow and studded tires is lost if the tread wears down below 0.16 in. (4 mm).

When replacing a tire, use only the same size and construction as originally installed and with the same or greater load capacity.

Using any other size or type of tire may seriously affect ride, speedometer, odometer calibration, ground clearance, and clearance between the body and tires.

When replacing a tubeless tire, the air valve should also be replaced with a new one.

Do not mix radial, belted, or conventional tires on your vehicle. It can cause dangerous handling characteristics. If you want to change from conventional tires to radial tires or vice versa, replace them as a set.

If you need to replace only one tire, mount the new tire to the axle with the tire showing the least amount of wear.

Be careful in preventing tires from coming into contact with oil or gasoline.

If you have tire damage such as cuts, splits, cracks deep enough to expose the fabric, and bulges indicating internal damage, the tire should be replaced.

If a tire often goes flat or cannot be properly repaired due to the size or location of a cut or other damage, it should be replaced. If you are not sure, consult with a technician.

If an air loss occurs while driving, do not continue driving with a flat tire. Driving even a short distance can damage a tire beyond repair.

If you have used an aerosol-type sealant for a temporary repair, a permanent vulcanized repair should be made as soon as possible. *Do not drive more than 100 miles (160 km) and over 50 mph (80 km/h) with a temporary repair.*

If you have wheel damage such as bends, cracks or heavy corrosion, the wheel should be replaced.

Replacement with used wheels is not recommended as they may have been subjected to rough treatment or high mileage and could fail without warning. Also, bent wheels which have been straightened may have structural damage and therefore should not be used. Never use an inner tube in a leaking wheel which is designed for a tubeless tire.

If you need snow tires, select the same size, construction and load capacity as the other tires on your Toyota.

Do not install studded tires without first checking local regulations for possible restrictions.

On wet or dry roads, conventional or radial tires provide better traction than snow or studded tires. However, snow tires or chains are recommended when driving on snow or ice to avoid high fuel consumption caused by spinning wheels.

Regulations regarding the use of tire chains vary according to location or type of road, so always check them before installing chains.

To prevent chain damage to your vehicle:

Changing tires and wheels (cont.)

1. The chain band will scratch the wheel covers so remove the covers, if equipped, before putting on the chains.
2. Install the chains as tightly as possible, and retighten them after driving about 1/2 mile (800 m).
3. Do not exceed 30 mph (50 km/h) or the chain manufacturer's recommended speed limit.
4. Drive carefully avoiding bumps, holes, and sharp turns, which may cause the vehicle to bounce.
5. Follow the instructions of the chain manufacturer.

If you need to replace the tires due to wear or damage, the following precautions should be observed when mounting the tire on the wheel.

- Lubricate wheel and tire beads with soapy water or tire mounting lubricant.
- To properly seat the tire on the rim, inflate the tire to a maximum of 50—56 psi (3.5—4.0 kg/cm^2).
- Adjust inflation to the recommended pressure.

When replacing wheels for some reason, care should be taken to ensure that the wheels are equivalent to those removed in load capacity, diameter, rim width, and offset.

Correct replacement wheels are available at your Toyota dealer.

A wheel of a different size or type may adversely affect wheel and bearing life, brake cooling, speedometer/odometer calibration, stopping ability, headlight aim, bumper height, vehicle ground clearance, and tire or snow chain clearance to the body and chassis.

When a tire is replaced, the wheel should always be balanced.

An unbalanced wheel may affect vehicle handling and tire life. Wheels can get out of balance with regular use and should therefore be balanced occasionally.

Cab and chassis models

Some Toyota Pickups are fitted with commercial bodies or large camper units. However, this owner's manual does not include these options. Please refer to the body manufacturer's instruction manual for additional information.

These special body vehicles are equipped with 7.50—14, 6 pry tires, so keep the tires inflated as follows:

Without cargo; psi (kg/cm^2)

front	rear
24 (1.70)	36 (2.55)

With cargo; psi (kg/cm^2)

front	rear
24 (1.70)	36 (2.55)

When towing a trailer *; psi (kg/cm^2)

front	rear
24 (1.70)	36 (2.55)

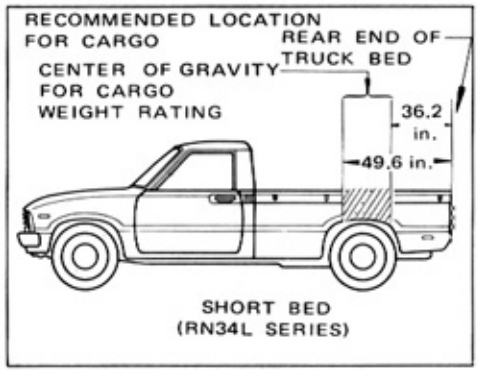
Caution: Never drive a loaded Pickup over 75 mph (120 km/h). Special body vehicles may have different handling, stability and braking characteristics at high speeds.

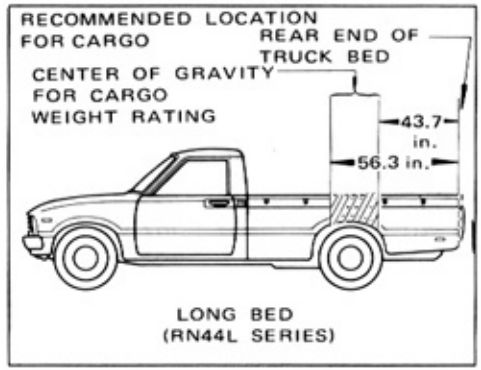
*For trailer towing information, see Section 2.

Camper information—

This camper information has been prepared in accordance with regulation issued by the National Highway Traffic Safety Administration of the U.S. Department of Transportation. It provides the purchasers and/or prospective purchasers of Toyota Pickups with information on truck-camper loading. Your Toyota dealer will help answer any questions you may have as you read this information.

Center of gravity location

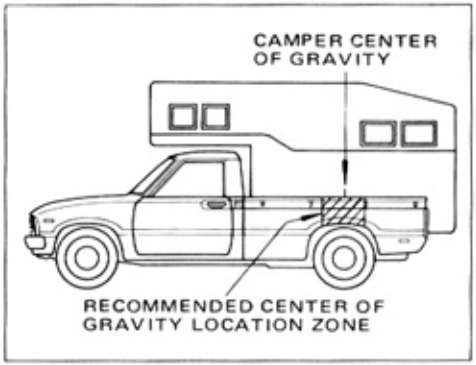




The above figures indicate the recommended center of gravity zone.

If a load is too far back, it can cause dangerous handling. If it is too far forward, the front axle may be overloaded.

Cargo weight rating and proper matching

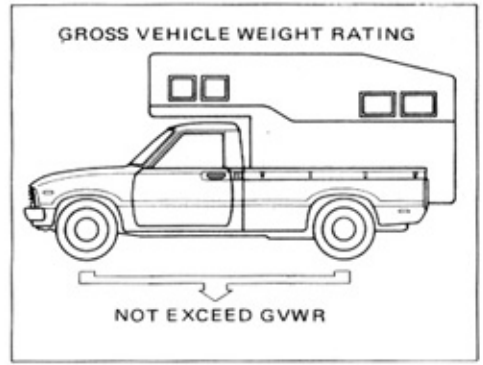


Cargo weight rating
1/2-ton Pickup . . . 1,100 lb
3/4-ton Pickup . . . 1,500 lb

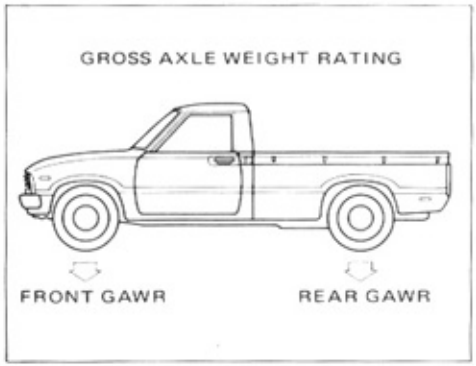
When your Pickup is used to carry a slide-in camper, the total cargo load of the truck consists of the manufacturer's camper weight figure, the weight of installed additional camper equipment not included in the manufacturer's camper weight figure, the weight of camper cargo, and the weight of passengers in the camper. The total cargo load should not exceed your Pickup's cargo weight rating and the camper's center of gravity should fall within your Pickup's recommended center of gravity zone when installed.

Be careful—overloading can cause dangerous braking and handling problems, and can damage your Pickup and its tires.

Gross axle and vehicle weight ratings



Secure loose items to prevent weight shifts that could affect the balance of your Pickup. When the truck camper is loaded, drive to a scale and weight on the front and the rear wheels separately to determine axle loads. Individual axle loads should not exceed either of the Gross Axle Weight Ratings (GAWR). The total of the axle loads should not exceed the Gross Vehicle Weight Rating (GVWR).



GAWR

Front – All models 1850 lb
Rear –
1/2-ton Pickup 2540 lb
3/4-ton Pickup 2905 lb

GVWR

1/2-ton Pickup 4100 lb
3/4-ton Pickup 4650 lb

If weight ratings are exceeded, shift or remove items to bring all weights below the ratings.

GAWR and GVWR are given on the vehicle certification lable that is located on the driver's door post. Be sure to always keep the load within limits.

Dimensions and weights

Models	Short-bed Model		Long-bed Model	
Overall length, in. (mm)	169.5	(4305)	184.6	(4690)
Overall width, in. (mm)	63.4	(1610)	63.4	(1610)
Overall height, in. (mm)	58.9	(1495)	58.9	(1495)
Wheelbase, in. (mm)	101.8	(2585)	110.2	(2800)
Front track, in. (mm)	53.0	(1345)	53.0	(1345)
Rear track, in. (mm)	53.1	(1350)	53.1	(1350)
Turning circle, ft. (m)	37.4	(11.4)	40.0	(12.2)
Cargo weight rating, lb (kg) (occupants + luggage)	1100	(500)	1100	(500)
			1500*	(680)

*: For 3/4-ton Pickup

*C&C: Cab and chassis models (fitted with commercial bodies, large camper unit, etc.)

Engine

Model	22R (Ex. Calif. and C&C*)	22R (For Calif. and C&C*)
Type	4 cylinder in line, 4 cycle	4 cylinder in line, 4 cycle
Valve mechanism	Overhead, crossflow arrangement	Overhead, crossflow arrangement
Bore and stroke, in. (mm)	3.62 x 3.50 (92.0 x 89.0)	3.62 x 3.50 (92.0 x 89.0)
Displacement, cu.in. (cc)	144.4 (2366)	144.4 (2366)
Compression ratio	9.0:1	9.0:1
Maximum horse power SAE net	100 HP @ 4800 rpm	96 HP @ 4800 rpm
Maximum torque SAE net	129 ft-lb @ 2800 rpm (17.8 kg-m @ 2800 rpm)	129 ft-lb @ 2800 rpm (17.8 kg-m @ 2800 rpm)

Fuel

Fuel required	Use only UNLEADED fuel Research Octane No. 91 (Anti-knock index 87) or higher
Fuel tank capacity, gal (Imp. gal, Liters):	
Short-bed Model	13.5 (11.2, 51.0)
Long-bed Model	16.0 (13.3, 60.5)

Service specifications

TUNE-UP

Firing order: 1-3-4-2

Idle speed:
- with automatic trans.
  - 3-speed 750 rpm (trans. in "N")
  - 4-speed (Calif.) 750 rpm
  - 4-speed (Ex. Calif.) 700 rpm
- with manual trans. 700 rpm

Ignition timing:
8° BTDC @ Max. 950 rpm
(with Vacuum Advancer OFF)

ENGINE

Tightening torque, ft-lb (kg-m):
- Head bolts 53–63 (7.2–8.8)
- Intake manifold bolts 13–19 (1.8–2.6)
- Exhaust manifold bolts 29–36 (4.0–5.0)

Valve clearance – engine hot, in. (mm):
- Intake 0.008 (0.20)
- Exhaust 0.012 (0.30)

Compression pressure @ 250 rpm, psi (kg/cm²):
- Normal 156 (11.0)
- Minimum allowable 128 (9.0)
- Maximum difference between cylinders 14 (1.0)

Manifold vacuum at idle, in. Hg (mmHg):
More than 15.75 (400)

Spark plug gap, in. (mm):

Nippondenso	W16EXR-U	0.031 (0.8)
NGK	BPR5EA-L	0.031 (0.8)
	BPR5EY	0.031 (0.8)

Drive belt tension
(with Borroughs drive belt tension gauge No. BT-33-73F), lb(kg)

New belts	125 ± 25 (56 ± 11)
Used belts	80 ± 20 (36 ± 9)

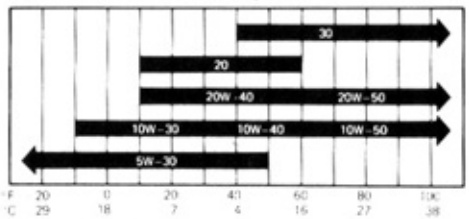
ENGINE LUBRICATION

Engine oil:
SAE 10W-30 or SAE 10W-40
(Normal temperatures are above –10°F or –23°C)

Engine oil grade:
SE or better

Engine oil capacity, qt (Imp. qt, liters):
- Dry fill 5.1 (4.2, 4.8)
- Drain & refill
  - W/filter 4.9 (4.0, 4.6)
  - W/o filter 4.0 (3.3, 3.8)

Recommended viscosity (SAE):



TEMPERATURE RANGE ANTICIPATED BEFORE NEXT OIL CHANGE

COOLING SYSTEM

Total capacity, qt (Imp. qt, liters):
8.9 (7.4, 8.4)

Coolant type: Ethylene-glycol coolant
(Do not use alcohol type)

Radiator cap pressure, psi (kg/cm²):
11–15 (0.75–1.05)

BATTERY

Specific gravity reading at 68°F (20°C):
- 1.260 Fully charged
- 1.160 Half charged
- 1.060 Discharged

Charging rates:

Quick charge	15 amp. max.
Slow charge	6 amp.

ALTERNATOR/REGULATOR

Voltage under load, volts:

Conventional type	13.8–14.8
IC regulator	14.0–14.7

Load current with headlights and all accessories on:
30 + amps at 2000 rpm

CLUTCH

Pedal freeplay, in. (mm): 0.2–0.6 (5–15)

Clutch fluid: DOT 3 or SAE J 1703

MANUAL TRANSMISSION

Oil Capacity, qt (Imp. qt, liters):

4-speed	2.1 (1.8, 2.0)
5-speed	2.7 (2.3, 2.6)

Viscosity:

4-speed	SAE 80W-90
5-speed	SAE 75W-90 or 80W-90

Oil type: Multipurpose gear oil API GL-4 or GL-5

AUTOMATIC TRANSMISSION

Fluid Capacity, qt (Imp. qt, liters):

	Dry fill	Drain & refill
3-speed	6.7 (5.5, 6.3)	2.5 (2.1, 2.4)
4-speed	6.9 (5.7, 6.5)	2.5 (2.1, 2.4)

Fluid type: ATF type F

DIFFERENTIAL

Oil Capacity, qt (Imp. qt, liters):

7.5 in.	1.8 (1.5, 1.7)
8.0 in.	1.9 (1.6, 1.8)

Viscosity:

Above	0°F (−18°C)	SAE 90
Below	0°F (−18°C)	SAE 80W or 80W-90

Type: Hypoid gear oil API GL-5

Tightening torques, ft-lb (kg-m):

Filler plug	27–31 (3.7–4.3)
Drain plug	13–17 (1.8–2.3)

CHASSIS

Ball joint grease:
Molybdenum-disulfide lithium base, NLGI No. 1 or 2 (Do not use multi-purpose or chassis grease)

Wheel bearing grease:
Lithium base multipurpose, NLGI No. 2

BRAKES

Minimum pedal clearance when depressed, in. (mm):

C & C*	3.0(75)
Others	3.1(80)

Brake pedal freeplay, in. (mm): (3–6)
0.12–0.24 (3–6)

Front pad wear limit, in. (mm): 0.04 (1.0)

Rear lining wear limit, in. (mm): 0.04 (1.0)

Parking brake: 7–15 clicks

Brake fluid: DOT-3 or SAE J 1703

STEERING

Wheel freeplay, in. (mm): Less than 1.25
Less than 1.2 (30)

Power steering fluid capacity, qt (Imp. qt, liters): 0.90 (0.74, 0.85)

Power steering fluid type:
ATF type Dexron

FRONT END ALIGNMENT

Toe-in, in. (mm)

Conventional tires	0.20 ± 0.04 (5 ± 4)
Radial tires	0.12 ± 0.04 (2 ± 4)

Camber:	1°05′ ± 45′
Caster:	1° ± 45′
Axis inclination:	7°10′

TIRES AND WHEELS

Tire size:
7.00-14-6PR
E78-14B
ER78-14B
205/70 SR14-B
7.50-14-6PR

Tire pressure, psi (kg/cm²):

All conditions	Front	Rear
7.00-14-6PR	24 (1.7)	36 (2.5)
7.50-14-6PR	24 (1.7)	36 (2.5)
E78-14B	20 (1.4)	32 (2.2)
ER78-14B	20 (1.4)	32 (2.2)
185SR 14	20 (1.4)	32 (2.2)
205/70SR 14B	20 (1.4)	32 (2.2)

C&C† See Section 7.
†: Cab and chassis models (fitted with commercial bodies, large camper unit, etc.)

Caution

1. For sustained high speeds above 75 mph (120 km/h), in countries where such speeds are permitted by law, add 4 psi (0.3 kg/cm^2), but never exceed the maximum cold tire pressure molded on the tire sidewall.
2. When towing a trailer, do not exceed 55 mph (88 km/h) and never exceed the posted towing speed limit.

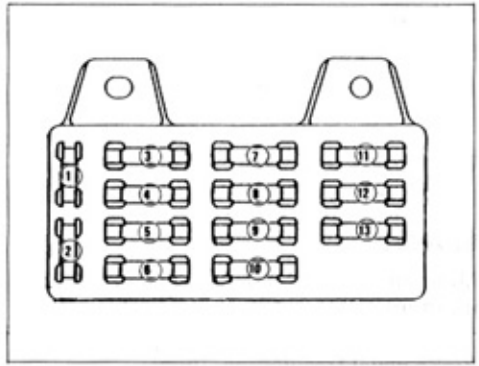
Wheel size:

5.5-JJ x 14
6-JJ x 14
5-J x 14

Wheel nut torque, ft-lb (kg-m):

65–87 (9.0–12.0)

FUSES



1. **HEAD RH (10A):** Headlight RH.
2. **HEAD LH (10A):** Headlight LH.
3. **HORN & HAZARD (15A):** Horn, and emergency flasher.
4. **TURN (10A):** Turn signal lights.
5. **GAUGES (10A):** Low oil pressure warning light, tachometer, discharge warning light, engine temperature gauge, fuel gauge, voltmeter, brake system warning light, oxygen sensor warning light, oil pressure gauge, seat belt warning system, back-up lights and heater relay coil.
6. **ENGINE (15A):** Alternator voltage regulator (IG terminal), emission control system, fuel cut solenoid, fuel pump relay, and outer vent control valve.
7. **WIPER (15A):** Windshield wiper, and washer.
8. **CIG. L (10A):** Cigarette lighter.
9. **STOP (10A):** Stop lights.
10. **TAIL (15A):** Tail lights, front parking lights, side marker lights, license plate lights, automatic transmission shift position indicator light, heater control panel light, instrument panel light control, and instrument panel lights.
11. **HEATER & A/C (15A):** Heater, and air conditioner.
12. **RADIO (5A):** Radio, and stereo cassette player.
13. **DOME (5A):** Interior light, and clock.

A

B

C

D

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F

G

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L

M

N

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P

R

S

Gas station information

Gasoline Use only UNLEADED fuel. Anti-knock index 87 (91 research octane No.) or higher

Fuel tank capacity:

Short-bed Model	13.5 gal (11.2 Imp.gal, 51 Liters)
Long-bed Model	16.0 gal (13.3 Imp.gal, 61 Liters)

Hood release: Pull handle under left side of dash.

Recommended oil: 'API grade "SE"
Use SAE 20–40 or 20–50 weight if normal temperatures are above 10°F (-12°C). For other viscosity recommendations, see pages 63 and 92.

Tire information: See pages 83, 84, 85 and 86.

Tire pressure: See pages 36, 86, 93 and 94.

Automatic transmission fluid: With engine idling, shift through all gears and return to P. Then check level of fluid on dipstick. Use ATF type F fluid.

Quick index

Publication No. 9784A

Printed in Japan 01-8008-00 Ⓑ