

# OUTSIDE VEHICLE

## GENERAL MAINTENANCE

Check the parts of the vehicle described below on a daily basis. Performing maintenance checks on the vehicle is the owner's responsibility. The owner may take the vehicle to a service center but it is recommended that the owner perform the checks.

In most cases, special tools are not required.

The procedures for general maintenance are as follows.

### 1. GENERAL NOTES

- Maintenance requirements vary depending on the country.
- Check the maintenance schedule in the owner's manual supplement.
- Following the maintenance schedule is mandatory.
- Determine the appropriate time to service the vehicle using either miles driven or time (months) elapsed, whichever reaches the specification first.
- Failing to check each vehicle part could lead to poor engine performance and increase exhaust emissions.

### 2. TIRES

- (a) Check the tire pressure with a gauge. Make adjustments if necessary.
- (b) Check the surfaces of tires for cuts, damage or excessive wear.

### 3. WHEEL NUTS

- (a) Check for nuts that are loose or missing. Tighten them if necessary.

### 4. TIRE ROTATION

Check the maintenance schedule in the owner's manual supplement.

### 5. WINDSHIELD WIPER BLADES

- (a) Check the blades for wear or cracks when they are unable to wipe the windshield clean. Replace them if necessary.

### 6. FLUID LEAKS

- (a) Check under the vehicle for leaking fuel, oil, water and other fluids.

#### **NOTICE:**

**If you smell gasoline fumes or notice any leaks, locate the cause and repair it.**

### 7. DOORS AND ENGINE HOOD

- (a) Check that all of the doors operate smoothly, and that all the latches lock securely.
- (b) When the primary latch is released, check that the engine hood secondary latch prevents the hood from opening.

# INSIDE VEHICLE

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Check the parts of the vehicle described below on a daily basis. Performing maintenance checks on the vehicle is the owner's responsibility. The owner may take the vehicle to a service center but it is recommended that the owner perform the checks.

In most cases, special tools are not required.

The procedures for general maintenance are as follows.

### 1. GENERAL NOTES

- Maintenance requirements vary depending on the country.
- Check the maintenance schedule in the owner's manual supplement.
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- Maintain similar intervals between periodic maintenance unless noted.
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### 2. LIGHTS

- (a) Check that the headlights, stop lights, taillights, turn signal lights, and other lights illuminate or blink. Also, check that they have enough brightness.

### 3. WARNING LIGHTS AND BUZZERS

- (a) Check that all the warning lights and buzzers are working.

### 4. HORNS

- (a) Check that the horn is working.

### 5. WINDSHIELD GLASS

- (a) Check for scratches, pits or abrasions.

### 6. WINDSHIELD WIPER AND WASHER

- (a) Check that the washers are aimed properly. Also, check that the washer fluid hits the center of the operating range of each wiper on the windshield.
- (b) Check that the wipers streak or not. Replace the wiper if necessary.

### 7. WINDSHIELD DEFROSTER

- (a) When the heater or air conditioner is on the defroster setting, check that air comes out of the defroster outlet.

### 8. REAR VIEW MIRROR

- (a) Check that the rear view mirror is securely mounted.

### 9. SUN VISORS

- (a) Check that the sun visors move freely and are securely mounted.

**10. STEERING WHEEL**

- (a) Check that the steering wheel has the proper free play. Also check for steering difficulty, unusual noises (See page [SR-1](#)).

**11. SEATS**

- (a) Check that the seat adjusters, seatback recliner and other front seat controls operate smoothly.
- (b) Check that all the latches lock securely in all positions.
- (c) Check that the locks hold securely in all positions.
- (d) Check that the headrests move up and down smoothly and that the locks hold securely in all latched positions.
- (e) When the rear seatbacks are folded down, check that the latches lock securely.

**12. SEAT BELTS**

- (a) Check that the seat belt system such as the buckles, retractors and anchors operate properly and smoothly.
- (b) Check that the belt webbing is not cut, frayed, worn or damaged.

**13. ACCELERATOR PEDAL**

- (a) Check that the pedal operates smoothly. In other words, check that the pedal does not have uneven pedal resistance or become stuck in certain positions.

**14. CLUTCH PEDAL**

- (a) Check that the pedal operates smoothly.
- (b) Check if the pedal has the proper free play (See page [CL-5](#)).

**15. BRAKE PEDAL**

- (a) Check that the pedal has the proper reserve distance and free play (See page [BR-19](#)).
- (b) Start the engine and check the brake booster function.

**16. BRAKES**

- (a) In a safe place, check that the vehicle remains straight when applying the brakes.

**17. PARKING BRAKE**

- (a) Check that the pedal or lever has the proper range of motion (See page [PB-1](#)).
- (b) On a low incline, check that the parking brake alone can stabilize the vehicle.

**18. AUTOMATIC TRANSAXLE "PARK" MECHANISM**

- (a) Check the lock release button of the shift lever for proper and smooth operation.
- (b) When the shift lever is in the P position and all brakes are released on a low incline, check that the vehicle is stable.

# UNDER HOOD

## GENERAL MAINTENANCE

### 1. GENERAL NOTES

- Maintenance requirements vary depending on the country.
- Check the maintenance schedule in the owner's manual supplement.
- Following the maintenance schedule is mandatory.
- Determine the appropriate time to service the vehicle using either miles driven or time elapsed, whichever reaches the specification first.
- Maintain similar intervals between periodic maintenance unless noted.
- Failing to check each vehicle part could lead to poor engine performance and increase exhaust emissions.

### 2. WINDSHIELD WASHER FLUID

- (a) Check that there is sufficient fluid in the tank.

### 3. ENGINE COOLANT LEVEL

- (a) Check that the coolant level is between the "FULL" and "LOW" lines on the see-through reservoir.

### 4. RADIATOR AND HOSES

- (a) Check that the front of the radiator is clean and free of leaves, dirt and bugs.
- (b) Check the hoses for cracks, kinks, rotting or loose connections.

### 5. BATTERY ELECTROLYTE LEVEL

- (a) Check that the electrolyte level of all the battery cells is between the upper and lower lines on the case.  
HINT:  
If the electrolyte level is difficult to see, lightly shake the vehicle.

### 6. BRAKE FLUID LEVEL

- (a) Check that the brake fluid levels are near the upper level line on the see-through reservoirs.

### 7. ENGINE DRIVE BELT

- (a) Check the drive belt for fraying, cracks, wear or oiliness.

### 8. POWER STEERING FLUID LEVEL

- (a) Check the fluid level in the fluid reservoir.  
HINT:  
If the fluid is hot, check that the fluid level is within the HOT range on the fluid reservoir. If the fluid is cold, check that the fluid level is within the COLD range.

### 9. ENGINE OIL LEVEL

- (a) Check that the level of engine oil is between "F" and "L" on the dipstick with the engine turned off.

10. **AUTOMATIC TRANSAXLE FLUID LEVEL (for U250E)**  
(See page [AX-123](#))
11. **MANUAL TRANSAXLE OIL LEVEL**  
(See page [MX-2](#))
12. **EXHAUST SYSTEM**
  - (a) Check for unusual exhaust sounds or abnormal exhaust fumes. Locate the cause and repair it.

# ENGINE

## GENERAL MAINTENANCE

### HINT:

Inspect these items on a cooled down engine.

#### 1. INSPECT DRIVE BELT

Type	See procedures
2AZ-FE	See page <a href="#">EM-6</a>
2GR-FE	See page <a href="#">EM-6</a>

#### 2. REPLACE ENGINE OIL AND OIL FILTER

Type	See procedures
2AZ-FE	See page <a href="#">LU-1</a>
2GR-FE	See page <a href="#">LU-1</a>

#### 3. REPLACE ENGINE COOLANT

Type	See procedures
2AZ-FE	See page <a href="#">CO-5</a>
2GR-FE	See page <a href="#">CO-5</a>

#### 4. INSPECT EXHAUST PIPES AND MOUNTINGS

- (a) Visually check the pipes, hangers and connections for severe corrosion, leaks or damage.

#### 5. INSPECT SPARK PLUGS

Type	See procedures
2AZ-FE	See page <a href="#">IG-5</a>
2GR-FE	See page <a href="#">IG-5</a>

#### 6. INSPECT BATTERY

Type	See procedures
2AZ-FE	See page <a href="#">CH-4</a>
2GR-FE	See page <a href="#">CH-4</a>

#### 7. INSPECT AIR CLEANER FILTER

- (a) Remove the air filter.
- (b) Visually check that the air filter is not excessively damaged or oily. If necessary, replace the air filter.
- (c) Reinstall the air filter.

#### 8. REPLACE AIR CLEANER FILTER

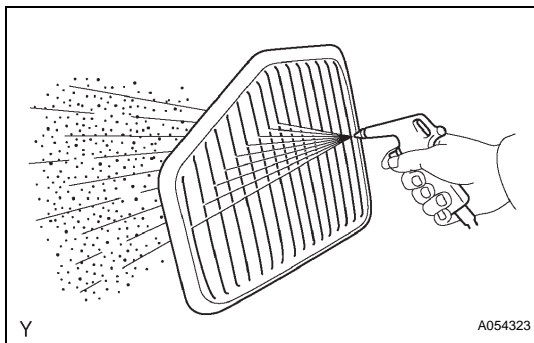
- (a) Replace the air filter with a new one.

#### 9. INSPECT FUEL TANK CAP GASKET

Type	See procedures
2AZ-FE	See page <a href="#">EC-5</a>
2GR-FE	See page <a href="#">EC-5</a>

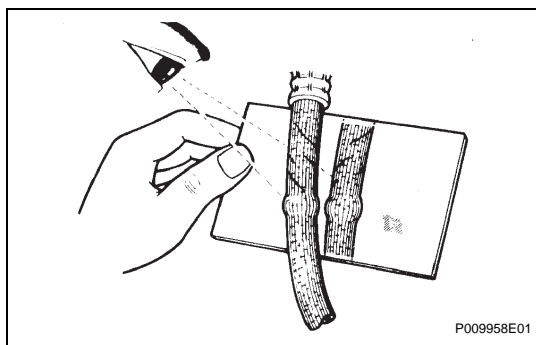
#### 10. INSPECT FUEL LINES AND CONNECTIONS AND FUEL TANK VAPOR VENT SYSTEM HOSES AND FUEL TANK BANDS

- (a) Visually check the fuel lines for cracks, leakage, loose connections, deformation or tank band looseness.



**11. INSPECT CHARCOAL CANISTER**

Type	See procedures
2AZ-FE	See page <a href="#">EC-9</a>
2GR-FE	See page <a href="#">EC-9</a>



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## BRAKE

### GENERAL MAINTENANCE

#### 1. INSPECT BRAKE LINE PIPES AND HOSES

##### HINT:

Work in a well-lighted area. Turn the front wheels fully to the right or left before beginning the inspection.

- (a) Using a mirror, check the entire circumference and length of the brake lines and hoses for:
  - Damage
  - Wear
  - Deformation
  - Cracks
  - Corrosion
  - Leaks
  - Bends
  - Twists
- (b) Check all the clamps for tightness and the connections for leakage.
- (c) Check that the hoses and lines are not near sharp edges, moving parts or the exhaust system.
- (d) Check that the lines are installed properly and pass through the center of the grommets.

#### 2. INSPECT BRAKE PEDAL

(See page [BR-19](#))

#### 3. INSPECT PARKING BRAKE

(See page [PB-1](#))

#### 4. INSPECT BRAKE LININGS

- (a) Check the brake linings. Also check the brake linings of parking brake.

#### 5. INSPECT FRONT BRAKE

- (a) Check the front brake pads and discs (See page [BR-50](#)).

#### 6. INSPECT REAR BRAKE

- (a) Check the rear brake pads, discs linings and drums (See page [BR-62](#)).

#### 7. INSPECT OR CHANGE BRAKE FLUID

(See page [BR-6](#))

##### Fluid:

**SAE J1703 or FMVSS No. 116 DOT3**



# CHASSIS

## GENERAL MAINTENANCE

### 1. INSPECT STEERING LINKAGE & GEAR HOUSING

- (a) Check the steering wheel free play (See page [SR-1](#)).
- (b) Check the steering linkage for looseness or damage.
  - (1) Check that the tie rod ends do not have excessive play.
  - (2) Check that the dust seals and boots are not damaged.
  - (3) Check that the boot clamps are not loose.
  - (4) Check that the steering gear housing is not damaged.
  - (5) Check that the connector are properly connected to the steering gear housing.

### 2. INSPECT BALL JOINT AND DUST COVER

- (a) Inspect the ball joints for excessive looseness.
  - (1) Jack up the front of the vehicle and place wooden blocks with a height of 180 to 200 mm (7.09 to 7.87 in.) under the front tires.
  - (2) Lower the vehicle until the front coil spring has about half its ordinary load. Place stands under the vehicle for safety.
  - (3) Check that the front wheels are pointing straight ahead. Use wheel chocks on all 4 wheels.
  - (4) Using a lever, pry up the end of the lower arm. Check the amount of play.
 

**Maximum ball joint vertical play:  
0 mm (0 in.)**

 If there is any play, replace the ball joint.
- (b) Check the dust cover for damage.

### 3. INSPECT DRIVE SHAFT BOOTS

- (a) Check the drive shaft boots for loose clamps, grease leakage, kinks or damage.

### 4. CHECK AUTOMATIC TRANSAXLE FLUID

- (a) Visually check the transaxle for fluid leakage. If oil is leaking, find the cause and repair it.

### 5. CHECK MANUAL TRANSAXLE OIL (FLUID)

- (a) Visually check the transmission for oil (fluid) leakage. If oil is leaking, find the cause and repair it.

### 6. INSPECT FRONT AND REAR SUSPENSION

Type	See procedures
Front Suspension	See page <a href="#">SP-4</a>
Rear Suspension	See page <a href="#">SP-13</a>

# BODY

## GENERAL MAINTENANCE

### 1. TIGHTEN BOLTS AND NUTS ON CHASSIS AND BODY

- (a) Where necessary, tighten all the parts of the chassis.
  - Front axle and suspension
  - Drive train
  - Rear axle and suspension
  - Brake system
  - Engine mounting, etc.
- (b) Where necessary, tighten all the parts of the body.
  - Seat belt system
  - Seat
  - Doors and hood
  - Body mountings
  - Fuel tank
  - Exhaust pipe system, etc.

### 2. REPLACE AIR CONDITIONING FILTER

- (a) Remove the glove compartment assembly.
- (b) Remove the filter case from the filter outlet.
- (c) Remove the filter from the filter case.
- (d) Replace the filter with a new one.
- (e) Installation is in the reverse order.

### 3. ROAD TEST

- (a) Check the engine and chassis for abnormal noises.
- (b) Check that the vehicle does not wander or pull to one side.
- (c) Check that the brakes work properly and do not drag.
- (d) Do setting of the parking brake shoes.

### 4. BODY INSPECTION

- (a) Check the body exterior for dents, scratches and rust.
- (b) Check the underbody for rust and damage. If necessary, replace or repair.

### 5. FINAL INSPECTION

- (a) Check the operation of the body parts.
  - (1) Hood
    - Auxiliary catch operates properly.
    - Hood locks securely when closed.
  - (2) Front and rear doors
    - Door locks operate properly.
    - Doors close properly.
  - (3) Back door
    - Door lock operates properly.
  - (4) Seats
    - Seat adjusts easily and locks securely in any position.
    - Front seatback locks securely in any position.

- Folding-down rear seatbacks lock securely.
- (5) Be sure to deliver a clean car. Especially check:
- Steering wheel
  - Shift lever knob
  - All switch knobs
  - Door handles
  - Seats