4-3. Do-it-yourself maintenance Do-it-yourself service precautions

If you perform maintenance yourself, be sure to follow the correct procedures as given in these sections.

Items		Parts and tools
Battery condition	(→P. 321)	 Warm water Baking soda Grease Conventional wrench (for terminal clamp bolts)
Brake fluid level	(→P. 318)	 FMVSS No.116 DOT 3 or SAE J1703 brake fluid Rag or paper towel Funnel (used only for adding brake fluid)
Engine coolant level	(→P. 317)	 "Toyota Super Long Life Coolant" or similar high quality ethylene glycol based non-silicate, non- amine, non-nitrite and non-borate coolant with long-life hybrid organic acid technology. For the U.S.A.: "Toyota Super Long Life Coolant" is pre-mixed with 50% coolant and 50% deionized water. For Canada: "Toyota Super Long Life Coolant" is pre-mixed with 55% coolant and 45% deionized water. Funnel (used only for adding engine coolant)
Engine oil level	(→P. 312)	 "Toyota Genuine Motor Oil" or equivalent Rag or paper towel, funnel (used only for adding oil)

Maintenance and care

Items		Parts and tools
Fuses	(→P. 347)	 Fuse with same amperage rating as original
Radiator and condenser $(\rightarrow P. 318)$		_
Tire inflation pressure (\rightarrow P. 335)		Tire pressure gaugeCompressed air source
Washer fluid	(→P. 324)	 Water washer fluid containing antifreeze (for winter use) Funnel

The engine compartment contains many mechanisms and fluids that may move suddenly, become hot, or become electrically energized. To avoid death or serious injury observe the following precautions.

n When working on the engine compartment

- 1 Keep hands, clothing, and tools away from the moving fan and engine drive belt.
- 1 Be careful not to touch the engine, radiator, exhaust manifold, etc. right after driving as they may be hot. Oil and other fluids may also be hot.
- 1 Do not leave anything that may burn easily, such as paper or rags, in the engine compartment.
- 1 Do not smoke, cause sparks or expose an open flame to fuel or the battery. Fuel and battery fumes are flammable.
- 1 Be extremely cautious when working on the battery. It contains poisonous and corrosive sulfuric acid.
- 1 Take care because brake fluid can harm your hands or eyes and damage painted surfaces.

If fluid gets on your hands or in your eyes, flush the affected area with clean water immediately.

If you still experience discomfort, see a doctor.

n When working near the electric cooling fans or radiator grille

Vehicles with smart key system: Be sure the "ENGINE START STOP" switch is OFF. With the "ENGINE START STOP" switch in IGNITION ON mode, the electric cooling fans may automatically start to run if the air conditioning is on and/or the coolant temperature is high. (\rightarrow P. 318)

Vehicles without smart key system: Be sure the engine switch is OFF. With the engine switch in the "ON" position, the electric cooling fans may automatically start to run if the air conditioning is on and/or the coolant temperature is high. (\rightarrow P. 318)

n Safety glasses

Wear safety glasses to prevent flying or falling material, fluid spray, etc. from getting in the eyes.

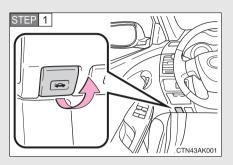
4

n If you remove the air cleaner

Driving with the air cleaner removed may cause excessive engine wear due to dirt in the air. Also, a backfire could cause a fire in the engine compartment.

Release the lock from the inside of the vehicle to open the hood.

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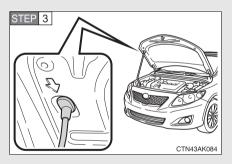


STEP 2

Pull the hood release lever.

The hood will pop up slightly.

Lift the auxiliary catch lever and lift the hood.



Hold the hood open by inserting the supporting rod into the slot.

n Pre-driving check

Check that the hood is fully closed and locked.

If the hood is not locked properly, it may open while the vehicle is in motion and cause an accident, which may result in death or serious injury.

n After installing the support rod into the slot

Make sure the rod supports the hood securely from falling down on to your head or body.

NOTICE

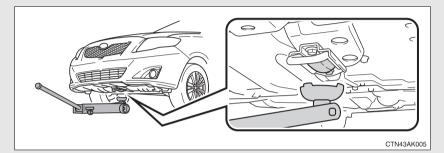
n When closing the hood

Be sure to return the support rod to its clip before closing the hood. Closing the hood with the support rod up could cause the hood to bend.

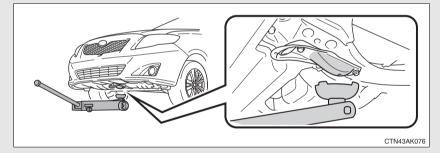
4-3. Do-it-yourself maintenance Positioning a floor jack

When raising your vehicle with a floor jack, position the jack correctly. Improper placement may damage your vehicle or cause injury.

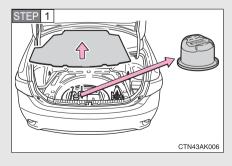
- n Front
- ▶ 1.8 L 4-cylinder (2ZR-FE) engine



2.4 L 4-cylinder (2AZ-FE) engine

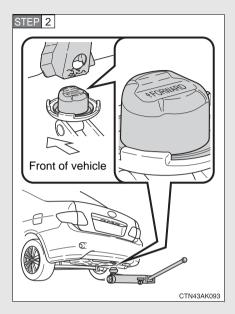


n Rear

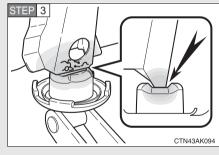


Take out the jack attachment.

4



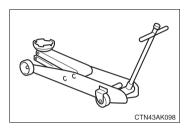
Set the jack attachment on the floor jack with the "FOR-WARD" facing towards the front of the vehicle, and place the jack.



Before raising the vehicle, make sure that the floor jack is positioned so that the jack point fits securely inside the groove on the jack attachment.

n When raising your vehicle

Make sure to observe the following to reduce the possibility of death or serious injury.



- 1 Lift up the vehicle using a floor jack such as the one shown in the illustration.
- 1 Do not use the jack that was supplied with your vehicle.
- 1 Do not put any part of your body or get underneath the vehicle supported only by the floor jack.

Always use automotive jack stands on a solid, level surface.

- 1 Do not start the engine while the vehicle is supported by the floor jack.
- 1 Stop the vehicle on level firm ground, firmly set the parking brake and put the shift lever in P (automatic transmission) or R (manual transmission).



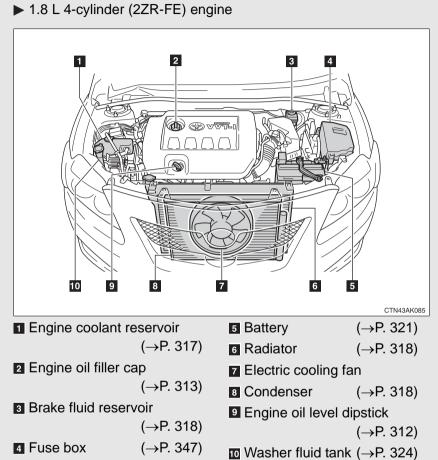
1 Make sure to set the jack attachment properly at the jack point.

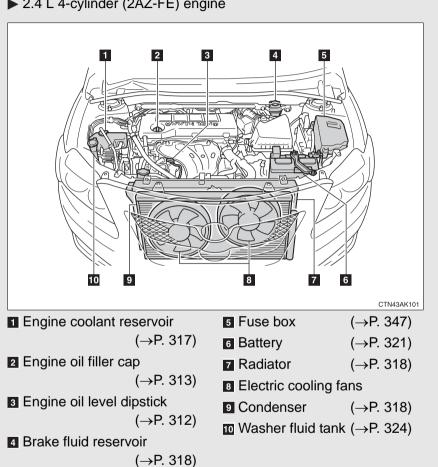
Raising the vehicle with an improperly positioned floor jack will damage the vehicle and may cause the vehicle to fall off the floor jack.

- 1 Do not raise the vehicle while someone is in the vehicle.
- 1 When raising the vehicle, do not place any objects on top of or underneath the floor jack other than the jack attachment.

4

4-3. Do-it-yourself maintenance Engine compartment



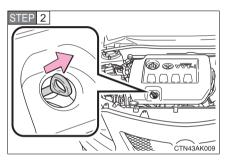


Engine oil

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

n Checking the engine oil

STEP 1 Park the vehicle on level ground. After turning off the engine, wait a few minutes for the oil to drain back into the bottom of the engine.

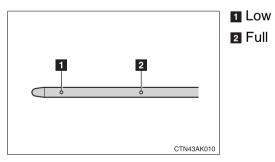


Hold a rag under the end and pull the dipstick out.

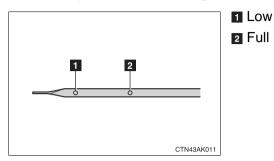
STEP 3 Wipe the dipstick clean.

STEP 4 Reinsert the dipstick fully.

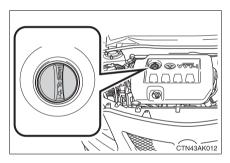
- STEP 5 Holding a rag under the end, pull the dipstick out and check the oil level.
- STEP 6 Wipe the dipstick and reinsert it fully.
- ▶ 1.8 L 4-cylinder (2ZR-FE) engine



► 2.4 L 4-cylinder (2AZ-FE) engine



n Adding engine oil



If the oil level is below or near the low level mark, add engine oil of the same type as already in the engine.

Make sure to check the oil type and prepare the items needed before adding oil.

Oil grade	ILSAC multigrade engine oil	
Items	Clean funnel	

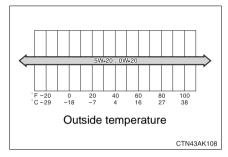
STEP 1 Remove the oil filler cap.

STEP 2 Add engine oil slowly, checking the dipstick.

STEP 3 Install the filler cap, turning it clockwise.

The approximate quantity of oil needed to raise the level between low and full on the dipstick is indicated as follows:

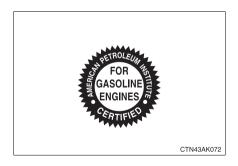
- ▶ 1.8 L 4-cylinder (2ZR-FE) engine
- 1.6 qt. (1.5 L, 1.3 lmp. qt.)
- 2.4 L 4-cylinder (2AZ-FE) engine
- 1.1 qt. (1.0 L, 0.9 lmp. qt.)
- n Recommended viscosity



SAE 5W-20 or 0W-20 engine oil may be used. However, SAE 0W-20 is the best choice for good fuel economy and good starting in cold weather.

n How to read oil container labels

Some oil containers are labeled with ILSAC certification marks that help you to select the proper oil.



$\ensuremath{\mathrm{n}}$ Engine oil consumption

- 1 The amount of engine oil consumed depends on the oil viscosity, the quality of the oil and the way the vehicle is driven.
- 1 More oil is consumed under driving conditions such as high speeds and frequent acceleration and deceleration.
- 1 A new engine consumes more oil.
- 1 When judging the amount of oil consumption, keep in mind that the oil may have become diluted, making it difficult to judge the true level accurately.
- 1 Oil consumption: Max. 1.1 qt./600 miles, 0.9 lmp.qt./600 miles (1.0 L per 1000 km)
- 1 If you consume more than 1.1 qt. (1.0 L, 0.9 Imp.qt.) every 600 miles (1000 km), contact your Toyota dealer.

n After changing the engine oil (U.S.A. only)

The engine oil maintenance data should be reset. Perform the following procedures:

- 1. Turn the "ENGINE START STOP" switch or engine switch OFF with the trip meter A reading shown.
- 2. While pressing the trip meter reset button (→P. 138), turn the "ENGINE START STOP" switch or engine switch ON.
- 3. Continue to press and hold the button until the trip meter displays 000000.

n Used engine oil

- 1 Used engine oil contains potentially harmful contaminants which may cause skin disorders such as inflammation or skin cancer, so care should be taken to avoid prolonged and repeated contact. To remove used engine oil from your skin, wash thoroughly with soap and water.
- 1 Dispose of used oil and filters only in a safe and acceptable manner. Do not dispose of used oil and filters in household trash, in sewers or onto the ground. Call your Toyota dealer, service station or auto parts store for information concerning recycling or disposal.
- 1 Do not leave used engine oil within the reach of children.

NOTICE

n To prevent serious engine damage

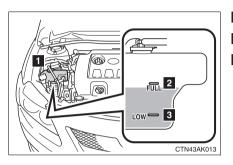
Check the oil level on a regular basis.

n When replacing the engine oil

- 1 Be careful not to spill engine oil on the vehicle components.
- 1 Avoid overfilling, as the engine could be damaged.
- 1 Check the oil level on the dipstick every time you refill the vehicle.
- 1 Be sure the engine oil filler cap is properly tightened.

Engine coolant

The coolant level is satisfactory if it is between the "FULL" and "LOW" lines on the reservoir when the engine is cold.



Reservoir cap

2 "FULL"

3 "LOW"

If the level is on or below the "LOW" line, add coolant up to the "FULL" line. (\rightarrow P. 411)

${\rm n}\,$ If the coolant level drops within a short time after replenishing

Visually check the radiator, hoses, coolant reservoir cap, radiator cap, drain cock and water pump.

If you cannot find a leak, have your Toyota dealer test the cap and check for leaks in the cooling system.

n Coolant selection

Only use "Toyota Super Long Life Coolant" or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology.

- U.S.A.: "Toyota Super Long Life Coolant" is a mixture of 50% coolant and 50% deionized water. (Enabled: -31°F [-35°C])
- Canada: "Toyota Super Long Life Coolant" is a mixture of 55% coolant and 45% deionized water. (Enabled: -44°F [-42°C])

For more details about engine coolant, contact your Toyota dealer.

n When the engine is hot

Do not remove the coolant reservoir cap.

The cooling system may be under pressure and may spray hot coolant if the cap is removed, causing burns or other injuries.

NOTICE

n When adding engine coolant

Coolant is neither plain water nor straight antifreeze. The correct mixture of water and antifreeze must be used to provide proper lubrication, corrosion protection and cooling. Be sure to read the antifreeze or coolant label.

n If you spill coolant

Be sure to wash it off with water to prevent damage to parts or paint.

Radiator and condenser

Check the radiator and condenser and remove any foreign objects. If any of the above parts are extremely dirty or you are not sure of their condition, have your vehicle checked by your Toyota dealer.

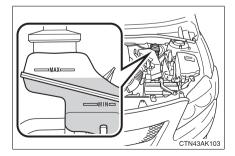
CAUTION

n When the engine is hot

Do not touch the radiator or condenser, as they may be hot and may cause burns.

Brake fluid

n Checking fluid level

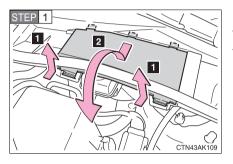


The brake fluid level should be between the "MAX" and "MIN" lines on the tank.

n Adding fluid

Make sure to check the fluid type and prepare the necessary items.

Fluid type	FMVSS No.116 DOT 3 or SAE J1703 brake fluid
Items	Clean funnel



Disconnect the claws to remove the service cover as shown in the illustration.

Remove the reservoir cap.

STEP 3 Add brake fluid slowly while checking the fluid level.

CTN43AK110

n Brake fluid can absorb moisture from the air

Excess moisture in the fluid can cause a dangerous loss of braking efficiency. Use only newly opened brake fluid.

n When filling the reservoir

Take care because brake fluid can harm your hands or eyes and damage painted surfaces.

If fluid gets in your eyes, flush your eyes with clean water immediately.

If you still experience discomfort, see a doctor.

n If the fluid level is low or high

It is normal for the brake fluid level to go down slightly as the brake pads wear or when the fluid level in the accumulator is high.

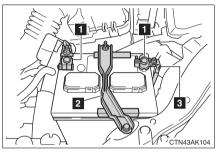
If the reservoir needs frequent refilling, it may indicate a serious problem.

Battery

Check the battery as follows.

n Battery exterior

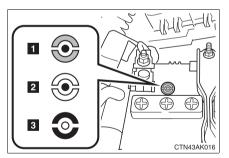
Make sure that the battery terminals are not corroded and that there are no loose connections, cracks, or loose clamps.



- 1 Terminals
- 2 Hold-down clamp
- 3 Ground cable

Checking battery fluid Check the battery condition using the indicator color.

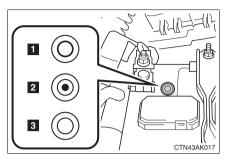
► Type A



- 1 Blue: Good condition
- White: Charging is necessary. Have the vehicle inspected by your Toyota dealer.
- Red: Not working properly. Have the vehicle checked by your Toyota dealer.

4

Type B



- 1 Green: Good condition
- Dark: Charging is necessary. Have the vehicle inspected by your Toyota dealer.
- Clear or light yellow: Not working properly. Have the vehicle checked by your Toyota dealer.

n Before recharging

When recharging, the battery produces hydrogen gas which is flammable and explosive. Therefore, before recharging:

- 1 If recharging with the battery installed on the vehicle, be sure to disconnect the ground cable.
- 1 Make sure the power switch on the charger is off when connecting and disconnecting the charger cables to the battery.

${ m n}$ After recharging the battery (vehicles with smart key system)

The engine may not start. Follow the procedure below to initialize the system.

- STEP 1 Shift the shift lever to P.
- STEP 2 Open and close any of the doors.
- STEP 3 Restart the engine.

n Chemicals in the battery

A battery contains poisonous and corrosive sulfuric acid and may produce hydrogen gas which is flammable and explosive. To reduce the risk of death or serious injury, take the following precautions while working on or near the battery:

- 1 Do not cause sparks by touching the battery terminals with tools.
- 1 Do not smoke or light a match near the battery.
- 1 Avoid contact with eyes, skin and clothes.
- 1 Never inhale or swallow electrolyte.
- 1 Wear protective safety glasses when working near the battery.
- 1 Keep children away from the battery.

n Where to safely charge the battery

Always charge the battery in an open area. Do not charge the battery in a garage or closed room where there is not sufficient ventilation.

n How to recharge the battery

Only perform a slow charge (5 A or less). The battery may explode if charged at a quicker rate.

n Emergency measures regarding electrolyte

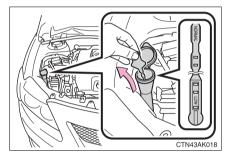
- 1 If electrolyte gets in your eyes
 - Flush your eyes with clean water for at least 15 minutes and get immediate medical attention. If possible, continue to apply water with a sponge or cloth while traveling to the nearest medical facility.
- If electrolyte gets on your skin Wash the affected area thoroughly. If you feel pain or burning, get medical attention immediately.
- If electrolyte gets on your clothes
 It can soak through clothing on to your skin. Immediately take off the clothing and follow the procedure above if necessary.
- 1 If you accidentally swallow electrolyte Drink a large quantity of water or milk. Follow with milk of magnesia, beaten raw egg or vegetable oil. Get emergency medical attention immediately.

n When recharging the battery

Never recharge the battery while the engine is running. Also, be sure all accessories are turned off.

Washer fluid

► For vehicles sold in U.S.A.



Check the washer fluid level on the level gauge. If the washer fluid level is at "LOW", add washer fluid.

► For vehicles sold in Canada

If any washer does not work or the low windshield washer fluid warning light comes on, the washer tank may be empty. Add washer fluid.

CAUTION

n When refilling the washer fluid

Do not refill the washer fluid when the engine is hot or running, as the washer fluid contains alcohol and may catch fire if spilled on the engine etc.

NOTICE

n Do not use any fluid other than washer fluid

Do not use soapy water or engine antifreeze instead of washer fluid. Doing so may cause streaking on the vehicle's painted surfaces.

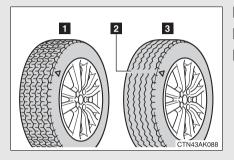
n Diluting washer fluid

Dilute washer fluid with water as necessary. Refer to the freezing temperatures listed on the washer fluid tank.

4-3. Do-it-yourself maintenance **Tires**

Replace or rotate tires in accordance with maintenance schedules and treadwear.

n Checking tires



- New tread
- 2 Treadwear indicator
- 3 Worn tread

The location of treadwear indicators is shown by the "TWI" or " \triangle " marks, etc., molded on the sidewall of each tire.

Check spare tire condition and inflation pressure if not rotated.

Front CTN43AK073

Rotate the tires in the order shown.

To equalize tire wear and extend tire life, Toyota recommends that tire rotation is carried out at the same interval as tire inspection.

${\rm n}~$ The tire pressure warning system (if equipped)

Your Toyota is equipped with a tire pressure warning system that uses tire pressure warning valves and transmitters to detect low tire inflation pressure before serious problems arise. (\rightarrow P. 379)

The compact spare tire is not equipped with the tire pressure warning valve and transmitters.

n Tire rotation

Installing tire pressure warning valves and transmitters

When replacing tires or wheels, tire pressure warning valves and transmitters must also be installed.

When new tire pressure warning valves and transmitters are installed, new tire pressure warning valve and transmitter ID codes must be registered in the tire pressure warning computer and the tire pressure warning system must be initialized. Have tire pressure warning valve and transmitter ID codes registered by your Toyota dealer. (\rightarrow P. 328)

Initializing the tire pressure warning system

The tire pressure warning system must be initialized when changing the tire size.

When the tire pressure warning system is initialized, the current tire inflation pressure is set as the pressure benchmark.

$\ensuremath{\mathrm{n}}$ How to initialize the tire pressure warning system

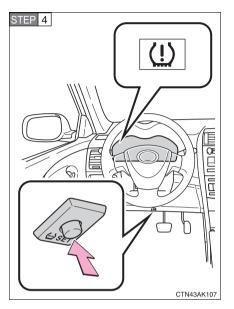
STEP 1 Park the vehicle in a safe place and turn the "ENGINE START STOP" switch or the engine switch OFF.

While the vehicle is moving, initialization is not performed.

STEP 2 Adjust the tire inflation pressure to the specified cold tire inflation pressure level. (\rightarrow P. 425)

Make sure to adjust the tire pressure to the specified cold tire inflation pressure level. The tire pressure warning system will operate based on this pressure level.

Turn the "ENGINE START STOP" switch to IGNITION ON mode (vehicles with smart key system) or the engine switch to the "ON" position (vehicles without smart key system).



Press and hold the tire pressure warning reset switch until the tire pressure warning light blinks slowly 3 times.

STEP 5 Vehicles with smart key system: Wait for a few minutes with the IGNITION ON mode, and then turn the "ENGINE START STOP" switch OFF.

Vehicles without smart key system: Wait for a few minutes with the engine switch in the "ON" position, and then turn the engine switch to the "LOCK" position.

Registering ID codes

The tire pressure warning valve and transmitter is equipped with a unique ID code. When replacing a tire pressure warning valve and transmitter, it is necessary to register the ID code of tire pressure warning valve and transmitter. Have the ID code registered by your Toyota dealer.

${\rm n}\,$ When to replace your vehicle's tires

Tires should be replaced if:

- 1 You have tire damage such as cuts, splits, cracks deep enough to expose the fabric, or bulges indicating internal damage
- 1 A tire goes flat repeatedly or cannot be properly repaired due to the size or location of a cut or other damage

If you are not sure, consult with your Toyota dealer.

n Replacing tires and wheels

If the ID code of the tire pressure warning valve and transmitter is not registered, the tire pressure warning system will not work properly. After driving for about 20 minutes, the tire pressure warning light comes on after blinking for 1 minute to indicate a system malfunction.

n Tire life

Any tire over 6 years old must be checked by a qualified technician even if they have seldom or never been used or damage is not obvious.

${ m n}\,$ If the tread wears down below 0.16 in. (4 mm) on snow tires

The effectiveness of snow tires is lost.

n Maximum load of tire

Check that the maximum load of the replaced tire is greater than 1/2 of the Gross Axle Weight Ratings (GAWR) of either the front axle or the rear axle, whichever is greater.

For the maximum load of the tire, see the load limit at maximum cold tire inflation pressure mentioned on the sidewall of the tire, and for the Gross Axle Weight Ratings (GAWR), see the Certification Label. (\rightarrow P. 335, 431).

n Low profile tires (vehicles with 17-inch tires)

Generally, low profile tires will wear more rapidly and tire grip performance will be reduced on snowy and/or icy roads when compared to standard tires. Be sure to use snow tires or tire chains on snowy and/or icy roads and drive carefully at a speed appropriate for road and weather conditions.

n Tire types

1 Summer tires

Summer tires are high-speed performance tires best suited to highway driving under dry conditions. Since summer tires do not have the same traction performance as snow tires, summer tires are inadequate for driving on snow-covered or icy roads. For driving on snow-covered roads or icy roads, the use of snow tires is recommended. When installing snow tires, be sure to replace all four tires.

2 All season tires

All season tires are designed to provide better traction in snow and to be adequate for driving in most winter conditions, as well as for use year round. All season tires, however, do not have adequate traction performance compared with snow tires in heavy or loose snow. Also, all season tires fall short in acceleration and handling performance compared with summer tires in highway driving.

3 Snow tires

For driving on snow-covered roads or icy roads, we recommend using snow tires. If you need snow tires, select tires of the same size, construction and load capacity as the originally installed tires. Since your vehicle has radial tires as original equipment, make sure your snow tires also have radial construction. Do not install studded tires without first checking local regulations for possible restrictions. Snow tires should be installed on all wheels. (\rightarrow P. 166)

${\rm n}\,$ Initializing the tire pressure warning system

Initialize the tires with the tire inflation pressure adjusted to the specified level.

${\rm n}\,$ If you push the tire pressure warning reset switch accidentally

If initialization is performed, adjust the tire inflation pressure to the specified level and initialize the tire pressure warning system again.

n When the initialization of the tire pressure warning system has failed

Initialization can be completed in a few minutes. However, in the following cases, the settings have not been recorded and the system will not operate properly. If repeated attempts to record tire inflation pressure settings are unsuccessful, have the vehicle inspected by your Toyota dealer.

- 1 When operating the tire pressure warning reset switch, the tire pressure warning light does not flash 3 times.
- 1 After carrying out the initialization procedure, the tire pressure warning light blinks for 1 minute then stays on after driving for about 20 minutes.

n Routine tire inflation pressure checks

The tire pressure warning system does not replace routine tire inflation pressure checks. Make sure to check tire inflation pressure as part of your routine of daily vehicle checks.

n Tire pressure warning system certification

► For vehicles sold in the U.S.A.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTICE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1 Reorient or relocate the receiving antenna.
- 1 Increase the separation between the equipment and receiver.
- 1 Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 1 Consult the dealer or an experienced radio/TV technician for help.

FCC WARNING:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

▶ For vehicles sold in Canada

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

n When inspecting or replacing tires

Observe the following precautions to prevent accidents. Failure to do so may cause damage to parts of the drive train, as well as dangerous handling characteristics, which may lead to fatal or injury accidents.

- 1 Do not mix tires of different makes, models, tread patterns or treadwear.
- 1 Do not use tire sizes other than those recommended by Toyota.
- 1 Do not mix radial, bias-belted, or bias-ply tires.
- 1 Do not mix summer, all season and winter tires.

n When initializing the tire pressure warning system

Do not push the tire pressure warning reset switch without first adjusting the tire inflation pressure to the specified level. Otherwise, the tire pressure warning light may not come on even if the tire inflation pressure is low, or it may come on when the tire inflation pressure is actually normal.

Repairing or replacing tires, wheels and tire pressure warning valves and transmitters

When removing or fitting the wheels, tires or the tire pressure warning valves and transmitters, contact your Toyota dealer as the tire pressure warning valves and transmitters may be damaged if not handled correctly.

 ${\rm n}\,$ To avoid damaging the tire pressure warning values and transmitters

Do not use liquid sealants on flat tires.

n Driving on rough roads

Take particular care when driving on roads with loose surfaces or potholes.

These conditions may cause losses in tire air pressure, reducing the cushioning ability of the tires. In addition, driving on rough roads may cause damage to the tires themselves, as well as the vehicle's wheels and body.

n Low profile tires and wheels

Wheels with profile tires like 17-inch tires may cause greater damage than usual to the tire wheel when receiving impact from the road surface. Therefore pay attention to the following:

- Be sure to use proper tire inflation pressure. If tires are under-inflated, they may be damaged more severely.
- Avoid pot holes, uneven pavement, curbs and other road hazards. Failure to do so can lead to severe tire and wheel damage.

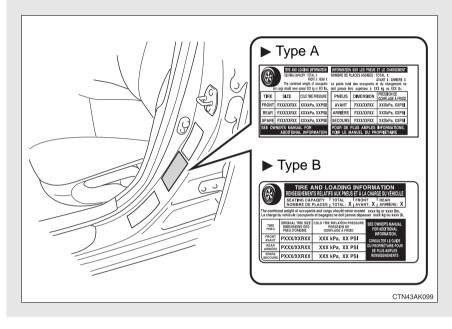
n If tire inflation pressures become low while driving

Do not continue driving, or your tires and/or wheels may be ruined.

4-3. Do-it-yourself maintenance Tire inflation pressure

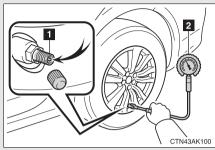
n Tire inflation pressure

The recommended cold tire inflation pressure and tire size is displayed on the tire and loading information label. (\rightarrow P. 425)



4

n Inspection and adjustment procedure



- Tire valve
- 2 Tire pressure gauge

STEP 1 Remove the tire valve cap.

- STEP 2 Press the tip of the tire pressure gauge onto the tire valve.
- STEP 3 Read the pressure using the graduations of the gauge.
- STEP 4 If the tire inflation pressure is not at the recommended level adjust the pressure.

If you add too much air, press the center of the valve to lower.

- STEP 5 After completing the tire inflation pressure measurement and adjustment, apply soapy water to the valve and check for leakage.
- STEP 6 Reinstall the tire valve cap.

n Tire inflation pressure check interval

You should check tire inflation pressure every two weeks, or at least once a month.

Do not forget to check the spare.

n Effects of incorrect tire inflation pressure

Driving with incorrect tire inflation pressure may result in the following:

- 1 Reduced fuel efficiency
- 1 Reduced driving comfort and tire life
- 1 Reduced safety
- 1 Damage to the drive train

If a tire needs frequent refilling, have it checked by your Toyota dealer.

n Instructions for checking tire inflation pressure

When checking tire inflation pressure, observe the following:

- Check 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, you will get an accurate cold tire inflation pressure reading.
- Always use a tire pressure gauge. The appearance of the tire can be misleading. In addition, tire inflation pressures that are even just a few pounds off can degrade ride and handling.
- 1 Do not bleed or reduce tire inflation pressure after driving. It is normal for the tire inflation pressure to be higher after driving.
- Never exceed the vehicle capacity weight.
 Passengers and luggage weight should be placed so that the vehicle is balanced.

n Proper inflation is critical to save tire performance

Keep your tires properly inflated. Otherwise, the following conditions may occur and result in an accident causing death or serious injury.

- Excessive wear
- 1 Uneven wear
- 1 Poor handling
- 1 Possibility of blowouts resulting from overheated tires
- 1 Poor sealing of the tire bead
- 1 Wheel deformation and/or tire separation
- 1 A greater possibility of tire damage from road hazards

NOTICE

n When inspecting and adjusting tire inflation pressure

Be sure to reinstall the tire valve caps.

Without the valve caps, dirt or moisture could get into the valve and cause air leakage, which could result in an accident. If the caps have been lost, replace them as soon as possible.

4-3. Do-it-yourself maintenance Wheels

If a wheel is bent, cracked or heavily corroded, it should be replaced.

Otherwise, the tire may separate from the wheel or cause loss of handling control.

n Wheel selection

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

Replacement wheels are available at your Toyota dealer.

Toyota does not recommend using:

- 1 Wheels of different sizes or types
- 1 Used wheels
- 1 Bent wheels that have been straightened

n Aluminum wheel precautions

- 1 Use only Toyota wheel nuts and wrenches designed for use with your aluminum wheels.
- 1 When rotating, repairing or changing your tires, check that the wheel nuts are still tight after driving 1000 miles (1600 km).
- 1 Be careful not to damage the aluminum wheels when using tire chains.
- 1 Use only Toyota genuine balance weights or equivalent and use a plastic or rubber hammer when balancing your wheels.

n When replacing wheels

The wheels of your Toyota, except for the compact spare tire, are equipped with tire pressure warning valves and transmitters that allow the tire pressure warning system to provide advanced warning in the event of a loss in tire inflation pressure. Whenever wheels are replaced, the tire pressure warning valves and transmitters must be installed. (\rightarrow P. 327)

CAUTION

n When replacing wheels

- 1 Do not use wheels that are a different size from those recommended in the Owner's Manual, as this may result in loss of handling control.
- Never use an inner tube in a leaking wheel which is designed for a tubeless tire. Doing so may result in an accident, causing death or serious injury.

n Replacing tire pressure warning valves and transmitters

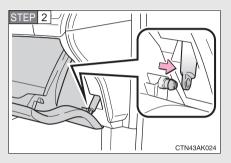
- Because tire repair or replacement may affect the tire pressure warning valves and transmitters, make sure to have tires serviced by your Toyota dealer or other qualified service shop. In addition, make sure to purchase your tire pressure warning valves and transmitters at your Toyota dealer.
- Ensure that only genuine Toyota wheels are used on your vehicle. Tire pressure warning valves and transmitters may not work properly with non-genuine wheels.

The air conditioning filter must be changed regularly to maintain air conditioning efficiency.

n Removal method

STEP 1 Vehicles with smart key system: Turn the "ENGINE START STOP" switch OFF.

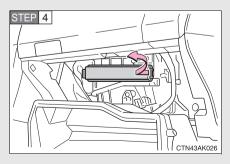
Vehicles without smart key system: Turn the engine switch OFF.



Open the glove box. Slide off the damper.

STEP 3

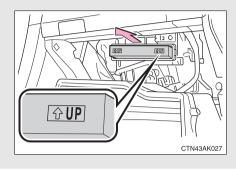
Push in each side of the glove box to disconnect the claws.



Remove the filter cover.

Maintenance and care

n Replacement method



Remove the air conditioning filter and replace it with a new one.

The " \uparrow UP" marks shown on the filter should be pointing up.

n Checking interval

Inspect and replace the air conditioning filter according to the maintenance schedule. In dusty areas or areas with heavy traffic flow, early replacement may be required. (For scheduled maintenance information, please refer to the "Scheduled Maintenance Guide" or "Owner's Manual Supplement".)

n If air flow from the vents decreases dramatically

The filter may be clogged. Check the filter and replace if necessary.

NOTICE

n When using the air conditioning system

Make sure that a filter is always installed.

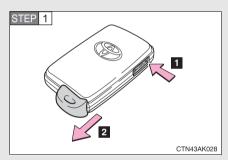
Using the air conditioning system without a filter may cause damage to the system.

Replace the battery with a new one if it is discharged.

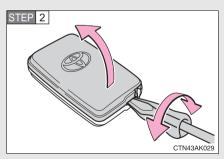
n You will need the following items:

- 1 Flathead screwdriver (To prevent damage to the key, cover the tip of the screwdriver with a rag.)
- 1 Small Phillips-head screwdriver
- Lithium battery Vehicles with smart key system: CR1632 Vehicles without smart key system: CR2025 (Type A) CR2016 (Type B)

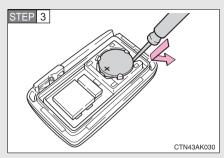
n Replacing the battery (vehicles with smart key system)



Take out the mechanical key.



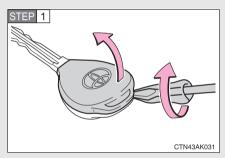
Remove the cover.



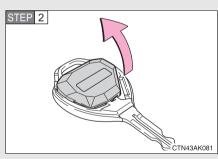
Remove the depleted battery.

Insert a new battery with the "+" terminal facing up.

n Replacing the battery (vehicles without smart key system)

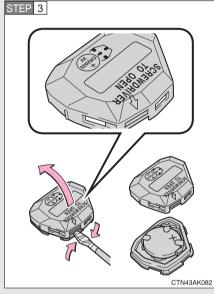


Remove the cover.



Remove the module.

► Type A

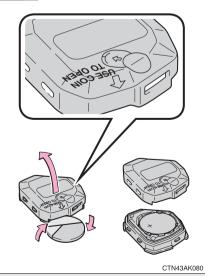


Open the case cover using a flathead screwdriver protected with tape etc. and remove the depleted battery.

Insert a new battery (CR2025) with the "+" terminal facing up.

► Type B

STEP 3



Open the case cover using a coin protected with tape etc. and remove the depleted battery.

Insert a new battery (CR2016) with the "+" terminal facing up.

n If the key battery is discharged

The following symptoms may occur.

- 1 The smart key system and wireless remote control will not function properly.
- 1 The operational range is reduced.

n Use the following types of lithium battery

Vehicles with smart key system: CR1632 Vehicles without smart key system: CR2025 (Type A), CR2016 (Type B)

- 1 Batteries can be purchased at your Toyota dealer, jewelers, or camera stores.
- 1 Replace only with the same or equivalent type recommended by your Toyota dealer.
- 1 Dispose of used batteries according to the local laws.

CAUTION

n Removed battery and other parts

Keep away from children.

These parts are small and if swallowed by a child they can cause choking.

NOTICE

n For normal operation after replacing the battery

Observe the following precautions to prevent accidents.

- Always work with dry hands.
 Moisture may cause the battery to rust.
- 1 Do not touch or move any other components inside the remote control.
- 1 Do not bend either of the battery terminals.

4-3. Do-it-yourself maintenance Checking and replacing fuses

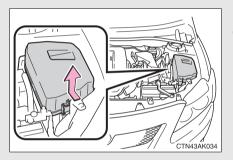
If any of the electrical components do not operate, a fuse may have blown. If this happens, check and replace the fuses as necessary.

STEP 1 Vehicles with smart key system: Turn the "ENGINE START STOP" switch OFF.

Vehicles without smart key system: Turn the engine switch OFF.

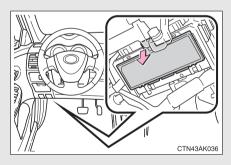
STEP 2 Open the fuse box cover.

► Engine compartment



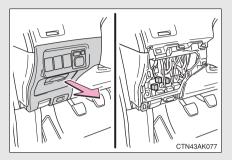
Push the tab in and lift the lid off.

► Under the driver's side instrument panel



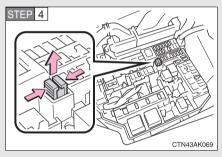
Remove the lid.

Driver's side instrument panel



Remove the instrument panel.

STEP 3 After a system failure, see "Fuse layout and amperage ratings" (→P. 351) for details about which fuse to check.



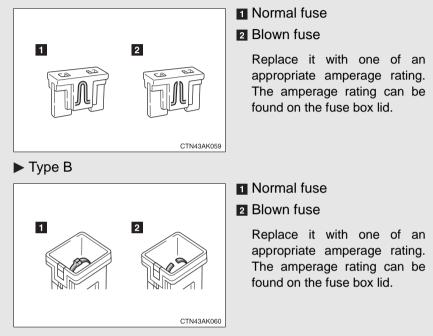
Take out the pullout tool.

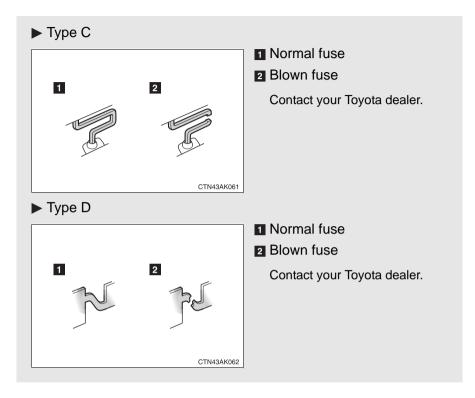
Only type A fuse can be removed using the pullout tool.

STEP 5 For type A and B fuses: Remove the fuse.

STEP 6 Check if the fuse has blown.

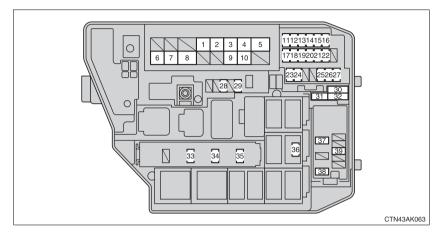
► Type A





Fuse layout and amperage ratings

n Engine compartment



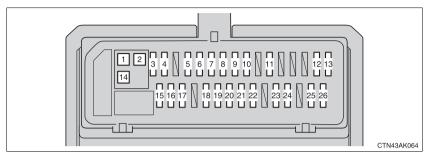
	Fuse	Ampere	Circuit
1	CDS FAN	30 A	Electric cooling fan(s)
2	RDI FAN	40 A	Electric cooling fan(s)
3	ABS NO. 3	30 A	Anti-lock brake system, vehicle sta- bility control system
4	ABS NO. 1	50 A	Anti-lock brake system, vehicle sta- bility control system
5	HTR	50 A	Air conditioning system
6	ALT	120 A	Charging system, RDI FAN, CDS FAN, ABS NO. 1, ABS NO. 3, HTR, HTR SUB NO. 1, HTR SUB NO. 3, ACC, CIG, METER, IGN, ECU-IG NO. 2, HTR-IG, WIPER, WASHER, ECU-IG NO. 1, AM1, DOOR, STOP, FR DOOR, POWER, RR DOOR, RL DOOR, OBD, ACC-B, FR FOG, DEF, MIR HTR, TAIL, PANEL
7	EPS	60 A	Electric power steering

Fuse Ampere		Ampere	Circuit
8	GLOW *	80 A	No circuit
9	P/I	50 A	EFI MAIN, HORN, IG2
10	H-LP MAIN	50 A	H-LP LH LO, H-LP RH LO, H-LP LH HI, H-LP RH HI
11	EFI NO. 2	10 A	Emission control system
12	EFI NO. 1	10 A	Multiport fuel injection system/ sequential multiport fuel injection system
13	H-LP RH HI	10 A	Right-hand headlight (high beam)
14	H-LP LH HI	10 A	Left-hand headlight (high beam)
15	H-LP RH LO	10 A	Right-hand headlight (low beam)
16	H-LP LH LO	10 A	Left-hand headlight (low beam)
17	ETCS	10 A	Electronic throttle control system
18	TURN-HAZ	10 A	Turn signal lights, emergency flashers
19	ALT-S	7.5 A	Charging system
20	AM2 NO. 2	7.5 A	Multiport fuel injection system/ sequential multiport fuel injection system, starting system
21	AM2	30 A	Starting system
22	STRG LOCK	20 A	Steering lock system
23	IG2 NO.2	7.5 A	Starting system
24	ECU-B2	10 A	Air conditioning system
25	ECU-B	10 A	Main body ECU, gauge and meters
26	RAD NO. 1	15 A	Audio system
27	DOME	10 A	Trunk light, smart key system
28	AMP*	30 A	Audio system

Fuse		Ampere	Circuit
29	MAYDAY*	10 A	No circuit
30	SPARE	10 A	Spare fuse
31	SPARE	30 A	Spare fuse
32	SPARE	20 A	Spare fuse
33	EFI MAIN	20 A	Multiport fuel injection system/ sequential multiport fuel injection system, EFI NO. 1, EFI NO. 2
34	HORN	10 A	Horn
35	IG2	15 A	Multiport fuel injection system/ sequential multiport fuel injection system, starting system, IGN, METER
36	ST*	7.5 A	No circuit
37	HTR SUB NO. 1	30 A	PTC heater
38	HTR SUB NO. 3	30 A	PTC heater
39	PWR OUTLET/ INVERTER or PWR OUTLET	15 A	Power outlet

*: If equipped

n Under the driver's side instrument panel



Fuse		Ampere	Circuit
1	DEF	40 A	Rear window defogger, MIR HTR
2	PWR SEAT	30 A	Power seat
3	TAIL	10 A	Parking lights, tail lights, license plate lights, front side marker lights, multiport fuel injection system/ sequential multiport fuel injection system, instrument cluster lights
4	PANEL	7.5 A	Switch illumination
5	FR DOOR	20 A	Power windows, moon roof
6	RL DOOR	20 A	Power windows
7	RR DOOR	20 A	Power windows
8	SUNROOF	20 A	Moon roof
9	CIG	15 A	Cigarette lighter
10	ACC	7.5 A	Outside rear view mirrors, audio system, main body ECU
11	MIR HTR	10 A	Outside rear view mirror defogger
12	IGN	7.5 A	Steering lock system, SRS airbag system, multiport fuel injection sys- tem/sequential multiport fuel injec- tion system, front passenger occupant classification system
13	METER	7.5 A	Gauge and meters

Fuse Ampere		Ampere	Circuit
14	POWER	30 A	Power windows
15	SEAT HTR	15 A	Seat heater
16	HTR-IG	10 A	Air conditioning system
17	WIPER	25 A	Windshield wipers
18	WASHER	15 A	Windshield washer
19	ECU-IG NO. 1	10 A	Automatic transmission, main body ECU, electric power steering, elec- tric cooling fan(s), shift lock control system, anti-lock brake system, audio system, tire pressure warn- ing system, vehicle stability control system, cruise control system
20	ECU-IG NO. 2	10 A	Back-up lights, charging system, rear window defogger, air condi- tioning system, multiport fuel injec- tion system/sequential multiport fuel injection system, moon roof
21	OBD	7.5 A	On-board diagnosis system
22	STOP	10 A	Stop lights, high mounted stop- light, anti-lock brake system, main body ECU, multiport fuel injection system/sequential multiport fuel injection system, shift lock control system, vehicle stability control system
23	DOOR	25 A	Power door lock system
24	ACC-B	25 A	CIG, ACC
25	FR FOG	15 A	Front fog lights
26	AM1	7.5 A	Starting system, ACC, CIG

n After a fuse is replaced

- If the lights do not turn on even after the fuse has been replaced, a bulb may need replacing. (→P. 357)
- 1 If the replaced fuse blows again, have the vehicle inspected by your Toyota dealer.

n If there is an overload in the circuits

The fuses are designed to blow before the entire wiring harness is damaged.

CAUTION

n To prevent system breakdowns and vehicle fire

Observe the following precautions. Failing to do so may cause damage, and possibly a fire or injury.

- 1 Never use a fuse of a higher amperage rating than indicated, or use any other object in place of a fuse.
- Always use a genuine Toyota fuse or equivalent.
 Never replace a fuse with a wire, even as a temporary fix.
 This can cause extensive damage or even fire.
- 1 Do not modify the fuse or the fuse box.

NOTICE

n Before replacing fuses

Have the cause of electrical overload determined and repaired by your Toyota dealer, as soon as possible.

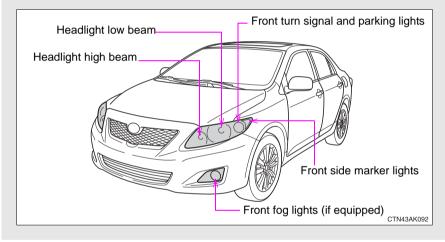
You may replace the following bulbs yourself. The difficulty level of replacement varies depending on the bulb. If necessary bulb replacement seems difficult to perform, contact your Toyota dealer.

For more information about replacing other light bulbs, contact your Toyota dealer.

n Prepare a replacement light bulb.

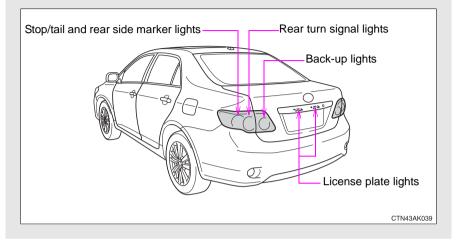
Check the wattage of the light bulb being replaced. (\rightarrow P. 427)

n Front bulb locations



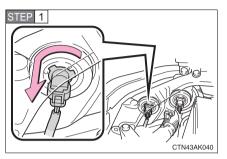
4

n Rear bulb locations



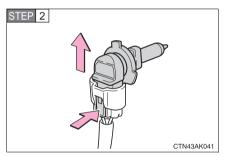
Replacing light bulbs

n Headlight low beams

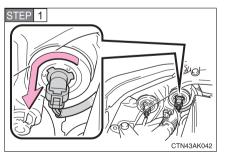


Turn the bulb base counterclockwise.

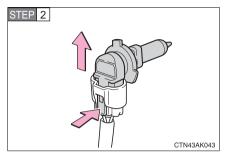
Unplug the bulb while depressing the lock release.



n Headlight high beams

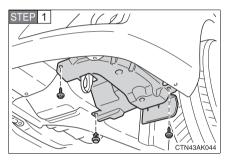


Turn the bulb base counterclockwise.

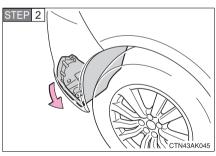


Unplug the bulb while depressing the lock release.

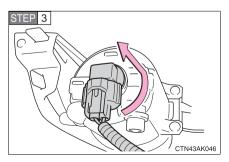
n Front fog lights (if equipped)



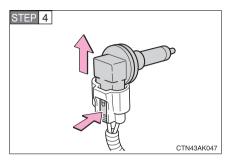
Remove the fender liner bolts and clip.



Partly remove the fender liner.



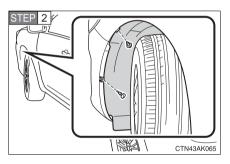
Turn the bulb base counterclockwise.



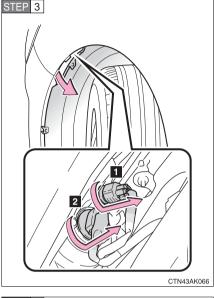
Unplug the bulb while depressing the lock release.

n Front turn signal/parking lights and front side marker lights

STEP 1 Turn the steering wheel away from the side being worked on. This will move the tire to provide more room.



Remove the fender liner clips.

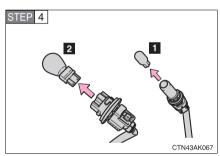


Partly remove the fender liner and turn the bulb base counterclockwise.

- Front side marker light
- Front turn signal/parking light

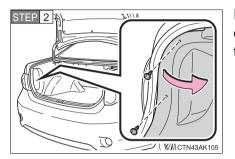
Remove the light bulb.

- 1 Front side marker light
- Front turn signal/parking light



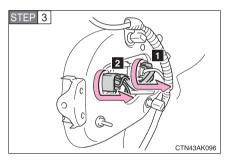
n Stop/tail and rear side marker lights, and rear turn signal lights

STEP 1 Open the trunk lid.



Remove the luggage trim cover clips. Partly remove the luggage trim cover.

Type A



STEP 4

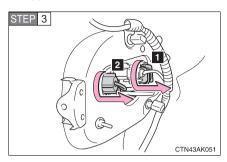
Turn the bulb base counterclockwise.

- Stop/tail and rear side marker light
- 2 Rear turn signal light

Remove the light bulb.

- Stop/tail and rear side marker light
- 2 Rear turn signal light

Type B



STEP 4

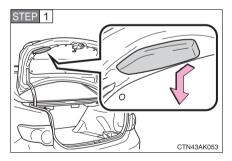
Turn the bulb base counterclockwise.

- 1 Stop/tail and rear side marker light
- 2 Rear turn signal light

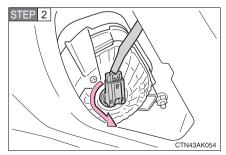
Remove the light bulb.

- Stop/tail and rear side marker light
- 2 Rear turn signal light

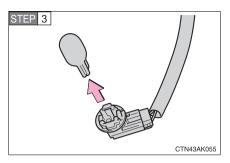
n Back-up light



Open the trunk lid and remove the cover.

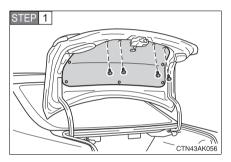


Turn the bulb base counterclockwise.

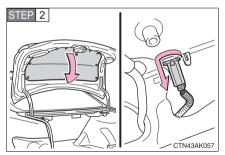


Remove the light bulb.

n License plate lights



Open the trunk lid and remove the trunk panel cover clips.



Partly remove the trunk panel cover and turn the bulb base counterclockwise.

STEP 3

Remove the light bulb.

n LED high mounted stoplight

The high mounted stoplight consists of a number of LEDs. If any of the LEDs burn out, take your vehicle to your Toyota dealer to have the light replaced.

n Condensation build-up on the inside of the lens

Contact your Toyota dealer for more information in the following situations. Temporary condensation build-up on the inside of the headlight lens does not indicate a malfunction.

- 1 Large drops of water have built up on the inside of the lens.
- 1 Water has built up inside the headlight.

CAUTION

n Replacing light bulbs

- 1 Turn off the headlights. Do not attempt to replace the bulb immediately after turning off the headlights.
 - The bulbs become very hot and may cause burns.
- Do not touch the glass portion of the light bulb with bare hands. Hold the bulb by the plastic or metal portion.
 If the bulb is scratched or dropped it may blow out or crack.

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1 Fully install light bulbs and any parts used to secure them. Failing to do so may result in heat damage, fire, or water entering the headlight unit. This may damage the headlights or cause condensation to build up on the lens.

n To prevent damage or fire

Make sure bulbs are fully seated and locked.