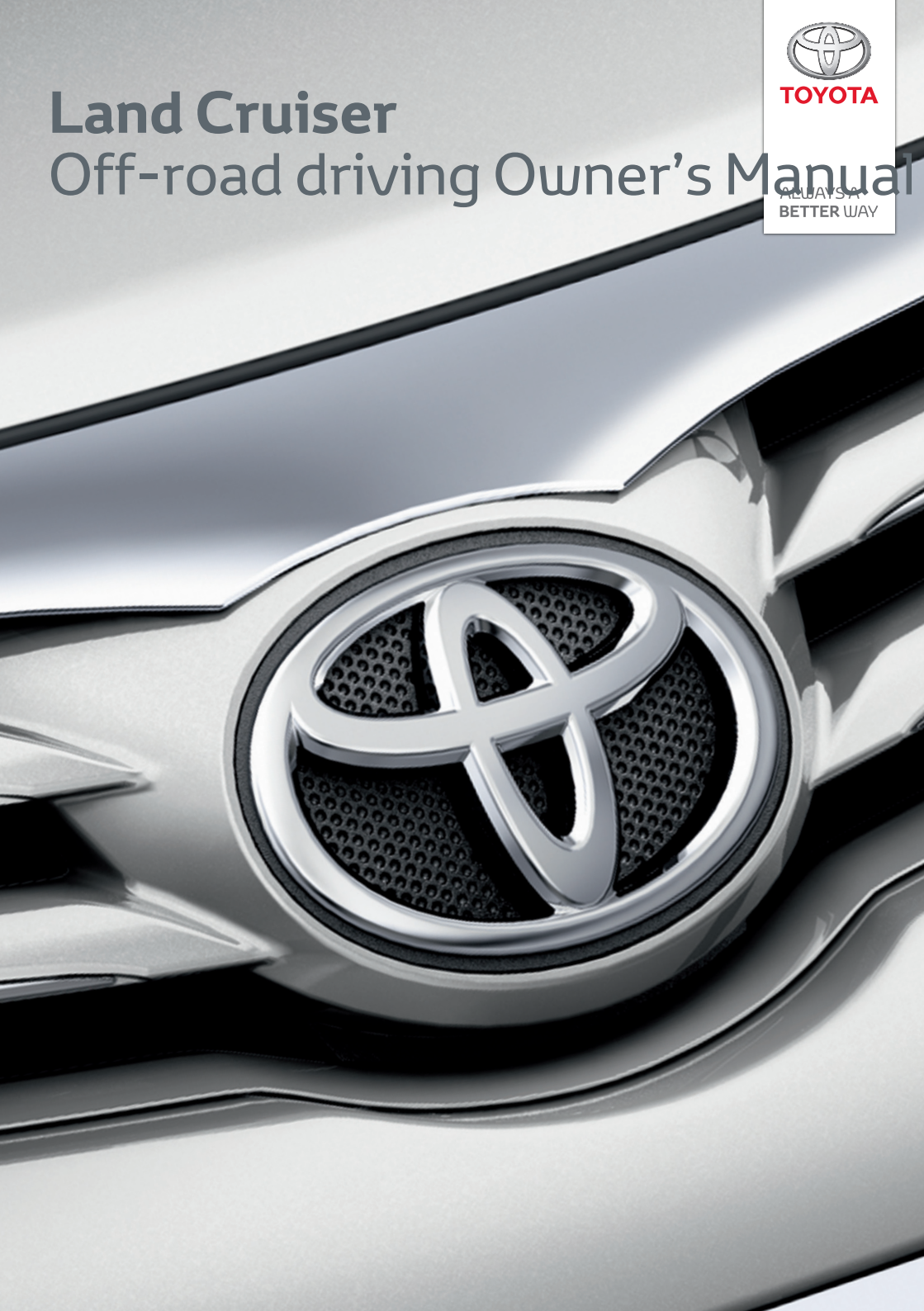
Land Cruiser

Off-road driving Owner's Manual

TOYOTA

ALWAYS A BETTER WAY



Toyota Motor Europe NV/SA Address: Avenue du bourget 60 -1140 Brussels, Belgium

	Pictorial index	Search by illustration
1	**Off-road driving guide**	Precautions and notices that you must read before driving off-road.
2	**Off-road driving techniques**	Techniques necessary for off-road driving.
3	**Off-road driving assistance functions**	Functions that can assist with off-road driving.
	Index	Alphabetical listing of information contained in this manual.

This manual only contains information about off-road driving techniques and off-road assistance functions. Refer to the “Owner’s manual” for other information regarding your vehicle.

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For your information

Main Off-road Driving Owner's Manual

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.

All specifications provided in this manual are current at the time of printing. However, because of the Toyota policy of continual product improvement, we reserve the right to make changes at any time without notice.

Depending on specifications, the vehicle shown in the illustrations may differ from your vehicle in terms of equipment.

For Eurasian Economic Union: The information on the procedure for the safe use of the vehicle and its systems, presented on the manufacturer's labels on the body in English, is intended only for service workers.

Accessories, spare parts and modification of your Toyota

Both genuine Toyota and a wide variety of other spare parts and accessories for Toyota vehicles are currently available on the market. Should it be determined that any of the genuine Toyota parts or accessories supplied with the vehicle need to be replaced, Toyota recommends that genuine Toyota parts or accessories, be used to replace them. Other parts or accessories of matching quality can also be used. Toyota cannot accept any liability or guarantee spare parts and accessories which are not genuine Toyota products, nor for replacement or installation involving such parts. In addition, damage or performance problems resulting from the use of non-genuine Toyota spare parts or accessories may not be covered under warranty.

Also, remodeling like this will have an effect on advanced safety equipment such as Toyota Safety Sense and there is a danger that it will not work properly or the danger that it may work in situations where it should not be working.

Installation of an RF-transmitter system

The installation of an RF-transmitter system in your vehicle could affect electronic systems such as:

- Multiport fuel injection system/sequential multiport fuel injection system
- Toyota Safety Sense
- Cruise control system
- Anti-lock brake system
- SRS airbag system
- Seat belt pretensioner system

Be sure to check with any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer for precautionary measures or special instructions regarding installation of an RF-transmitter system.

Further information regarding frequency bands, power levels, antenna positions and installation provisions for the installation of RF-transmitters, is available on request at any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

Vehicle data recording

The vehicle is equipped with sophisticated computers that will record certain data, such as:

- Engine speed / Electric motor speed (traction motor speed)
- Accelerator status
- Brake status
- Vehicle speed
- Operation status of the driving assist systems
- Images from the cameras
  Your vehicle is equipped with cameras. Contact any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer for the location of recording cameras.

The recorded data varies according to the vehicle grade level, options and destinations with which it is equipped.

These computers do not record conversations or sounds, and only record images outside of the vehicle in certain situations.

● Data usage

Toyota may use the data recorded in this computer to diagnose malfunctions, conduct research and development, and improve quality.

Toyota will not disclose the recorded data to a third party except:

- With the consent of the vehicle owner or with the consent of the lessee if the vehicle is leased
- In response to an official request by the police, a court of law or a government agency
- For use by Toyota in a lawsuit
- For research purposes where the data is not tied to a specific vehicle or vehicle owner

● Recorded image information can be erased by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

The image recording function can be disabled. However, if the function is disabled, data from when the system operates will not be available.

Scrapping of your Toyota

The SRS airbag and seat belt pretensioner devices in your Toyota contain explosive chemicals. If the vehicle is scrapped with the airbags and seat belt pretensioners left as they are, this may cause an accident such as fire. Be sure to have the systems of the SRS airbag and seat belt pretensioner removed and disposed of by a qualified service shop or by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer before you scrap your vehicle.

⚠ WARNING

■ General precautions while driving

Driving under the influence: Never drive your vehicle when under the influence of alcohol or drugs that have impaired your ability to operate your vehicle. Alcohol and certain drugs delay reaction time, impair judgment and reduce coordination, which could lead to an accident that could result in death or serious injury.

Defensive driving: Always drive defensively. Anticipate mistakes that other drivers or pedestrians might make and be ready to avoid accidents.

Driver distraction: Always give your full attention to driving. Anything that distracts the driver, such as adjusting controls, talking on a cellular phone or reading can result in a collision with resulting death or serious injury to you, your occupants or others.

■ General precaution regarding children's safety

Never leave children unattended in the vehicle, and never allow children to have or use the key.

Children may be able to start the vehicle or shift the vehicle into neutral. There is also a danger that children may injure themselves by playing with the windows, the moon roof, or other features of the vehicle. In addition, heat build-up or extremely cold temperatures inside the vehicle can be fatal to children.

Reading this manual

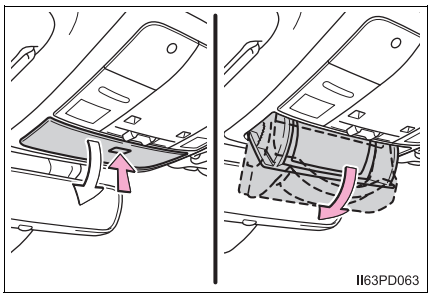
WARNING:
Explains something that, if not obeyed, could cause death or serious injury to people.

NOTICE:
Explains something that, if not obeyed, could cause damage to or a malfunction in the vehicle or its equipment.

1 2 3 ··· Indicates operating or working procedures. Follow the steps in numerical order.

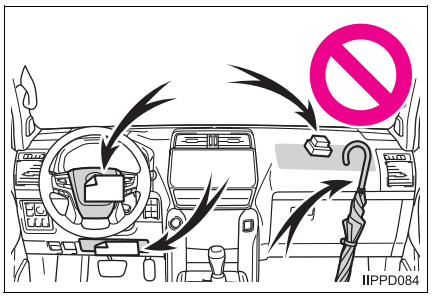
Indicates the action (pushing, turning, etc.) used to operate switches and other devices.

Indicates the outcome of an operation (e.g. a lid opens).



Indicates the component or position being explained.

Means “Do not”, “Do not do this”, or “Do not let this happen”.



How to search

■ **Searching by name**

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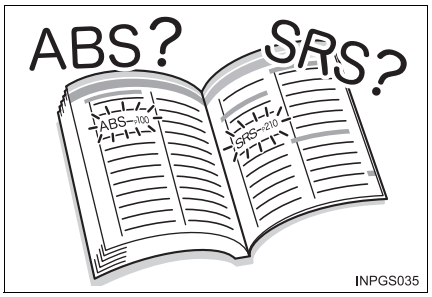

■ **Searching by installation position**

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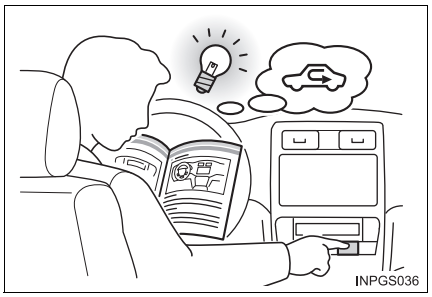

■ **Searching by title**

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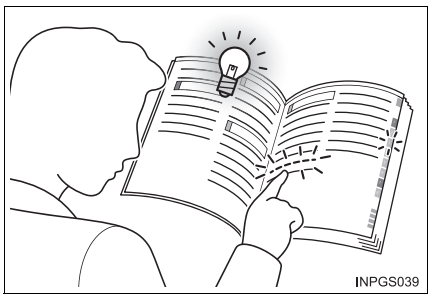
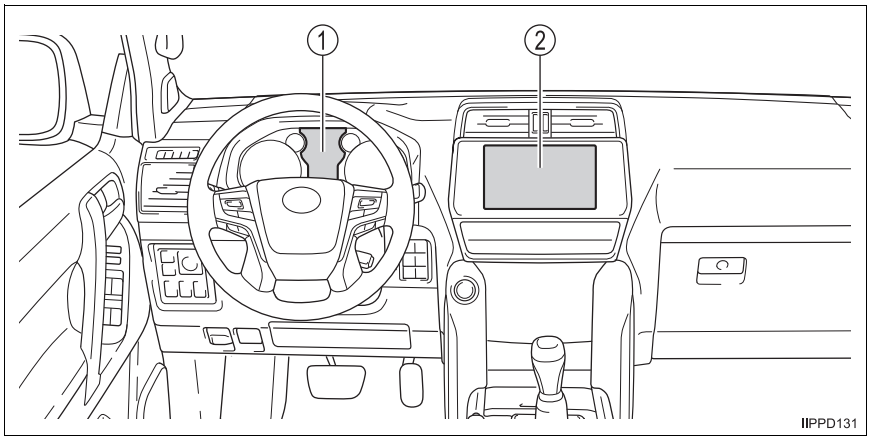


Pictorial index

Instrument panel

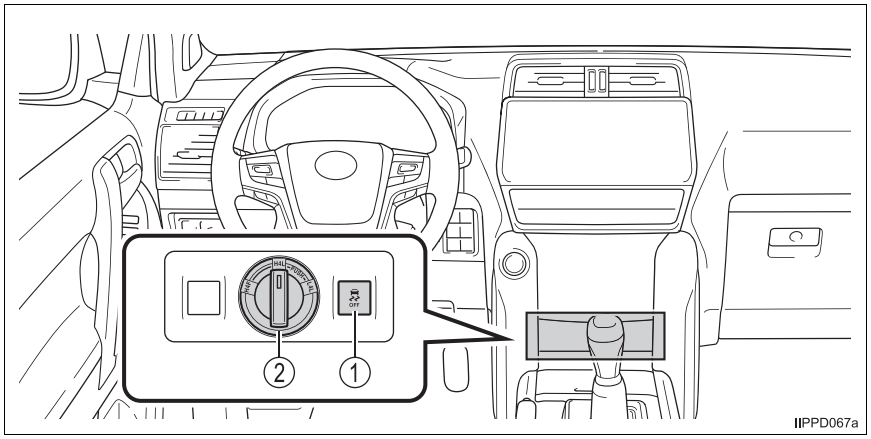


① **Multi-information display* . . . . . P. 78, 136, 154, 168**

② **Multimedia system screen* or navigation system screen* . . . . . P. 82**

Switches

▶ 2TR-FE engine



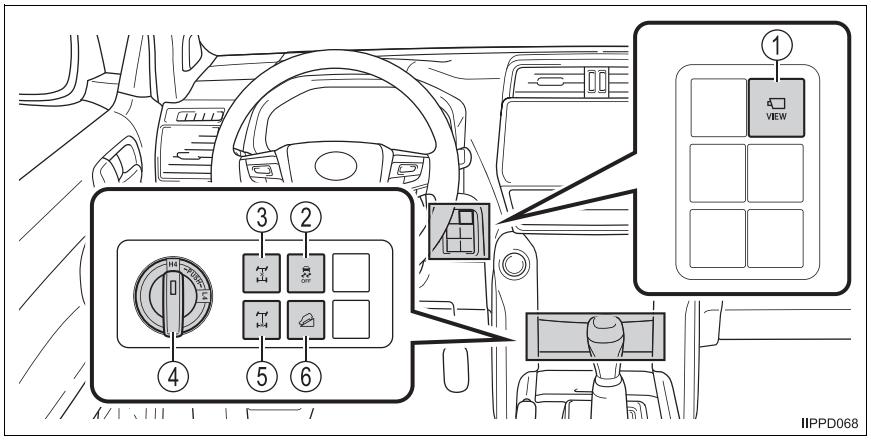
① **VSC OFF switch . . . . . P. 163**
② **Four-wheel drive control switch . . . . . P. 141**

*: If equipped

The illustrations above are for left-hand drive vehicles.
The button positions and shapes may differ slightly for right-hand drive vehicles.

▶ 1GR-FE and 1GD-FTV engines

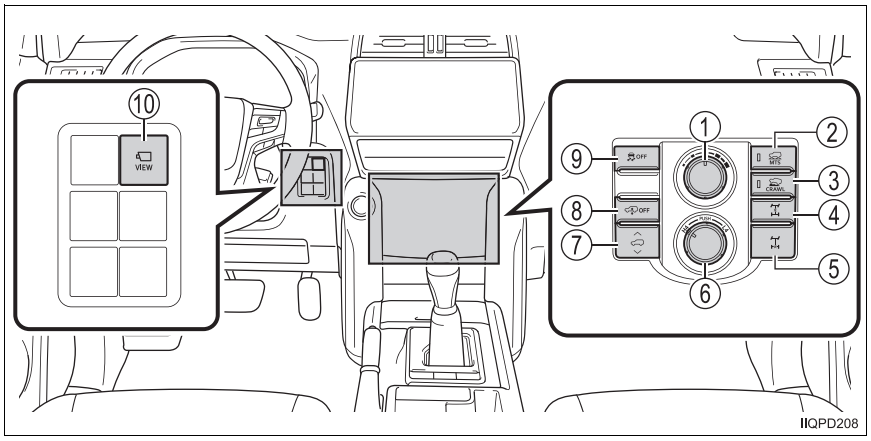
Vehicles without Multi-terrain Select



① **VIEW switch*** . . . . . **P. 82**
② **VSC OFF switch** . . . . . **P. 163**
③ **Center differential lock/unlock switch** . . . . . **P. 143**
④ **Four-wheel drive control switch** . . . . . **P. 142**
⑤ **Rear differential lock/unlock switch*** . . . . . **P. 152**
⑥ **“DAC” switch*** . . . . . **P. 158**

▶ 1GR-FE and 1GD-FTV engines

Vehicles with Multi-terrain Select



① **Multi-terrain Select mode selector dial*** . . . . . **P. 78**
Crawl Control speed selector dial* . . . . . **P. 154**

② **Multi-terrain Select ON/OFF switch*** . . . . . **P. 78**

③ **Crawl Control ON/OFF switch*** . . . . . **P. 154**

④ **Center differential lock/unlock switch** . . . . . **P. 143**

⑤ **Rear differential lock/unlock switch*** . . . . . **P. 152**

⑥ **Four-wheel drive control switch** . . . . . **P. 142**

⑦ **Height control button*** . . . . . **P. 136**

⑧ **Height control OFF button*** . . . . . **P. 137**

⑨ **VSC OFF switch** . . . . . **P. 163**

⑩ **VIEW switch*** . . . . . **P. 82**

*: If equipped

The illustrations above are for left-hand drive vehicles.

The button positions and shapes may differ slightly for right-hand drive vehicles.

Off-road driving guide 1

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Points to note before driving off-road

Read the following before driving off-road.

WARNING

■ **Before driving off-road**

When driving off-road, you do so at your own risk.
Be sure to read each part of this manual, and to pay close attention to safety while driving.

■ **Advice for off-road driving**

Off-road driving is inherently dangerous.
In some cases, the vehicle may be seriously damaged, and the driver and occupants could be killed or seriously injured.

NOTICE

■ **About off-road driving**

Observe the following precautions when driving off-road.

- Drive your vehicle only in areas where off-road vehicles are permitted to travel.
- Respect private property. Get owner's permission before entering private property.
- Do not enter areas that are closed. Honor gates, barriers and signs that restrict travel.
- Stay on established roads. When conditions are wet, driving techniques should be changed or travel delayed to prevent damage to roads.
- When driving off-road, such as driving through water, disable the Stop & Start system (if equipped). Failure to do so may cause the engine to be unable to restart.

Off-road driving techniques

2

2-1. Off-road driving techniques

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Things to do before setting off

This section gives details of preparations that should be undertaken and things to know before setting off on an off-road course.

Understand the physical dimensions of your vehicle

When driving off-road, certain types of terrain and objects may be unpassable depending on the driving line you take.
Before driving off-road, understand the dimensions of your vehicle and the positions of the tires so that you can take the driving line you want. Doing so will allow for a smoother drive.

About tires

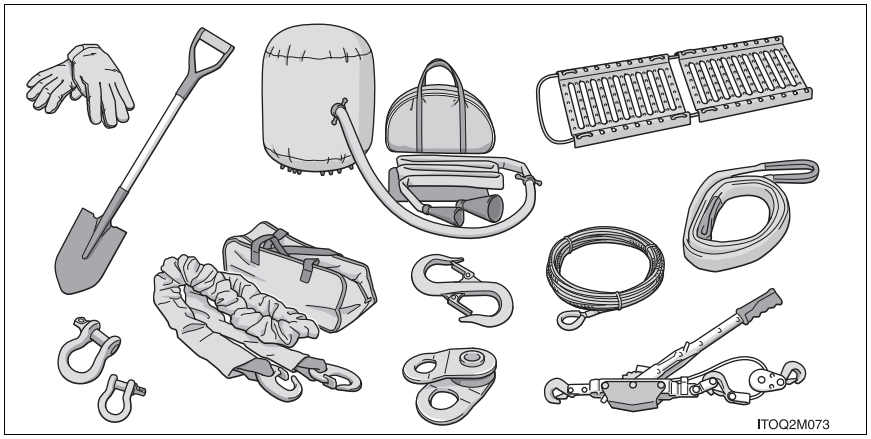
Check and prepare the following.

■ Wheel and tire check

Inspect the conditions of the wheels and tires before driving off-road. At the same time, check that the tire inflation pressure is within the recommended level. Refer to the “Owner’s manual” for inspection instructions and tire inflation pressure specifications.

About Luggage

- Remove any unnecessary items from the interior pockets or the luggage compartment. Firmly secure any needed items to prevent them from moving around during driving.
- Following your driving plan, prepare all necessary rescue tools (such as a shovel, ropes for freeing the vehicle when stuck, maps, flashlights, etc.) and load them into the vehicle. Refer to P. 70 or to specialized handbooks for information regarding which rescue tools are convenient for off-road driving.



About Fuel

Check that there is an appropriate amount of fuel remaining for your driving plan. Add fuel beforehand if you think that refueling will be difficult at your driving location.

Vehicle inspection

Conduct regular checks as you would for everyday driving, and check that all lights and indicators are working and that the brakes are effective. If you discover an abnormality, have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer as soon as possible.

For scheduled maintenance information, refer to the “Toyota Service Booklet” or “Toyota Warranty Booklet”.

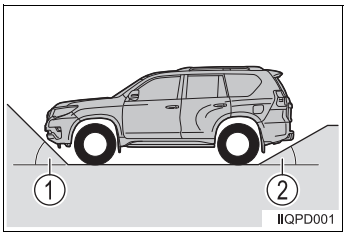
When driving in severe conditions

If regularly driving in severe off-road conditions such as crossing rivers, driving in mud or sand, etc., conduct the checks on the following page without fail. (→P. 74)

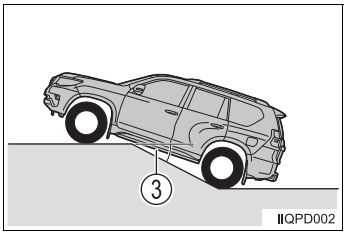
Clearance dimensions and incline angles

① Approach angle
Gives a rough indication of whether or not the front bumper will contact the ground when crossing obstructions or an incline.

② Departure angle
Gives a rough indication of whether or not the rear bumper will contact the ground when crossing obstructions or an incline.

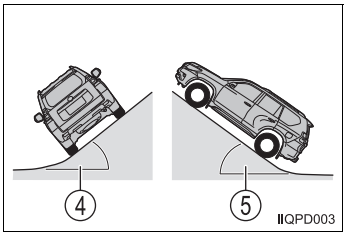


③ Ramp breakover angle
Gives a rough indication of whether or not the bottom of the vehicle will contact the ground when crossing obstructions or the peak of an incline.



④ Maximum side tilt angle

⑤ Maximum climbing angle



WARNING

■ Physical dimensions of the vehicle

Understand the dimensions of your vehicle before driving off-road. If you drive off-road without doing so, you may not be able to follow your intended driving line, and cause the vehicle to become stuck or could result in death or serious injury.

■ Objects inside the vehicle

- Firmly secure all items. If not firmly secured, items may move or be propelled while driving and could cause an accident, possibly resulting in death or serious injury.
- Drive cautiously when carrying luggage on the roof.
  Driving with luggage on the roof will raise the vehicle's center of gravity, which could cause the vehicle to lose balance and roll over, resulting in damage to the vehicle, or in death or serious injury.

NOTICE

■ If the remaining fuel level is low

Avoid off-road driving. Driving on undulating or severely sloping roads may cause problems with the fuel supply, and the fuel system may be damaged.

Basic off-road driving techniques

This section outlines information you should know when driving off-road.

Refer to the “Owner’s manual” for information on basic vehicle operations such as starting the engine, operating the shift lever, etc.

Things to check before driving off-road

Check the following points before driving off-road:

■ Avoid traveling alone

It is a good idea to travel with at least one other vehicle, so that emergency situations, such as the vehicle becoming stuck, can be dealt with easily. Also, carrying rescue equipment in the vehicle is recommended. (→P. 70)

■ Confirm the minimum ground clearance

Confirm that the suspension components and the front and rear bumpers do not make contact with the ground while driving. Before driving, plan a route that will not cause the lower parts of the vehicle to make contact with the road surface and, whenever possible, avoid any obstacles that look as though they may make contact.

■ Correct posture for off-road driving

→Refer to the “Owner’s manual”

Points to note while driving off-road

When driving off-road, observe the following points and conduct shift changes and deceleration appropriately.

■ Selecting a shift position

- Different shift positions are appropriate for different road surface conditions.
  Refer to the “Driving styles in various conditions”. (→P. 29)
  For shift position selection procedure, refer to the “Owner’s manual”.
- Avoid shift changes when driving on sand or other yielding surfaces.
  Loss of speed by changing shift position on such high-resistance surfaces may cause the vehicle to become stuck.

■ When accelerating

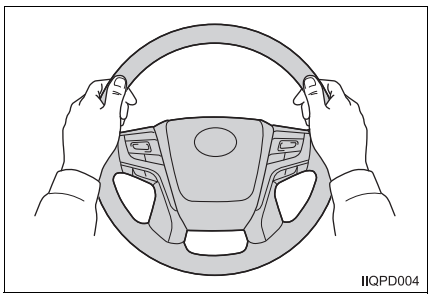
Operate the accelerator pedal cautiously and with discretion. Rapid acceleration could cause you to lose control of the vehicle.

■ When decelerating

Operate the brake pedal cautiously while using the engine brake. In the event that strong engine braking is necessary, you can shift to the slower shift position.

■ Steering wheel operation

Do not grip the steering wheel spokes when driving off-road. A bad bump could jerk the wheel and injure your hands. Keep both hands and especially your thumbs on the outside of the rim.



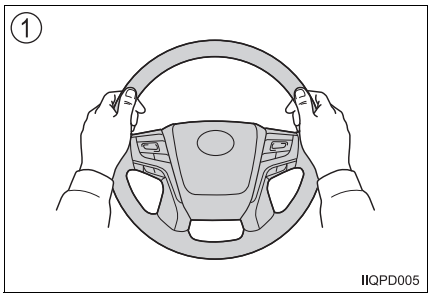
■ Turning the steering wheel

Push-pull steering is often used when driving off-road.

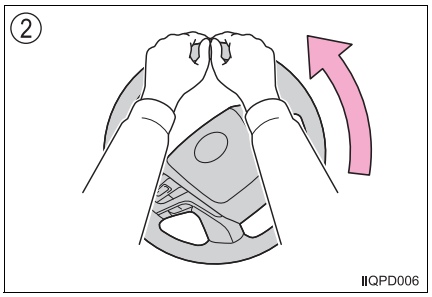
This method assists with proper steering wheel operation because the steering wheel is held for long periods of time, and is also suitable when driving at medium to low speeds.

When turning the steering wheel to the left.

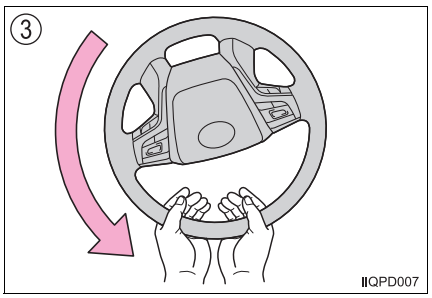
① Turn the steering wheel using your right hand.



② Slide your left hand on the steering wheel until your hands touch on the upper part of the steering wheel.



③ Turn the steering wheel with your left hand, sliding your right hand on the steering wheel. Then, return to the position shown in ①.



Using the off-road functions

Utilize the following off-road functions to help enhance safety while driving off-road and to improve drivability in each road condition.

■ **Multi-terrain Select (if equipped) (→P. 78)**

Select different modes suited to various types of terrain when driving off-road.

■ **Multi-terrain Monitor (if equipped) (→P. 82)**

Use to observe road conditions and obstacles around the vehicle when driving off-road.

■ **Four-wheel drive control switch (→P. 141)**

Switch the transfer position with this switch in accordance with road conditions.

■ **Center differential lock (→P. 141)**

Use when the vehicle is stuck or when traction is otherwise necessary.

- On vehicles with the 2TR-FE engine, the center differential lock can be used when the four-wheel drive control switch is in H4L or L4L.
- On vehicles with the 1GR-FE/1GD-FTV engine, the center differential lock can be used by pressing the center differential lock/unlock switch regardless of the transfer position.

Make sure that the center differential is unlocked when not needed.

■ **Rear differential lock (if equipped) (→P. 152)**

Use when a large amount of traction is needed, such as when the vehicle is stuck and cannot be freed even by using the center differential lock.

The rear differential lock can be operated only when the four-wheel drive control switch is in L4 and the center differential is locked.

Make sure that the rear differential is unlocked when not needed.

■ **Crawl Control (if equipped) (→P. 154)**

Crawl Control may assist with driving comfort when switched ON in the following situations.

- When the road is extremely bumpy
- When driving uphill or downhill
- When crossing rivers
- When driving in deep snow
- When freeing the vehicle from a stuck position

■ **Rear height control air suspension (if equipped) (→P. 135)**

Switch to match the road surface conditions or driving conditions.

■ **Downhill assist control system (if equipped) (→P. 158)**

Use on severely downward sloping roads.

■ **Hill-start assist control (→P. 161)**

This function gives assistance when starting off on a hill.
It will operate automatically when needed.

■ **KDSS (Kinetic Dynamic Suspension System) (if equipped) (→P. 162)**

This function helps keep contact between the tires and the road surface by controlling the suspension stabilizers.
It will operate automatically when needed.

■ **Using the audio system**

Avoid playing a CD while driving on rugged or precipitous courses. Vibrations and shocks may cause the CD to skip.

WARNING

■ **Precautions when driving off-road**

Always observe the following precautions to minimize the risk of death, serious injury or damage to your vehicle:

- Make sure that all occupants are sitting in the correct posture and are wearing their seatbelts.
  See P. 22 for the correct driving posture. For seatbelt use, refer to the "Owner's manual".
- Avoid sudden acceleration, braking or turning of the steering wheel.
  You may lose control of the vehicle and cause the vehicle to roll over.
- Do not jump the vehicle.
  Doing so may damage the underside of the vehicle or cause the vehicle to roll over.
- Do not intentionally drive into objects.
- Reduce speed in strong crosswinds.
  Crosswinds may cause the vehicle to roll over due to the vehicle's high center of gravity.
- Make sure that all windows, the glass hatch* and the moon roof* are closed.

■ **When exiting the vehicle while stopped sideways on an incline**

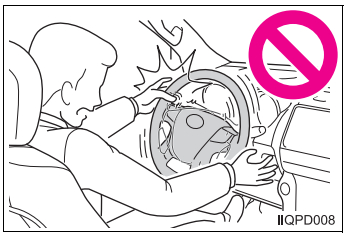
Avoid exiting the vehicle while stopped on an incline. If you need to exit, use the uphill-facing door. If you try to exit using the downhill-facing door, the chances of the vehicle rolling over will increase. As a result, the vehicle may roll onto you and could result in death or serious injury.

*: If equipped

NOTICE

When driving off-road

Take care not to put your thumbs on the inside of the steering wheel. Driving in ruts or over rocky terrain may cause the steering wheel to move, and may injure your thumbs. Be especially careful on severely undulating roads.



Precautions before driving off-road

Drive after making sure that the underside of the vehicle will not make contact with the road surface. Whenever possible, avoid areas that will cause contact.
Failure to do so may cause the vehicle to become immovable, or the underside of the vehicle may be damaged causing the vehicle to become unable to be driven.

If ground effects parts are equipped

The minimum ground clearance will be lower than on standard vehicles, and the ground effects parts may be damaged by off-road driving.
Check the ground clearance before driving off-road.

Driving styles in various conditions

This section outlines the points of concern, driving styles and precautions corresponding to each type of typical off-road driving condition.
Make sure to read each description carefully before driving, and observe the precautions.

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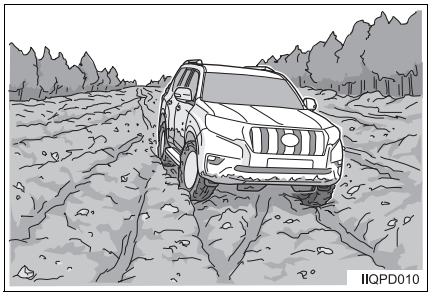
Driving on roads with ruts	P. 62

Driving on muddy roads

■ Driving style



- To prevent the tires from spinning, depress the accelerator pedal as lightly as possible when starting off.
- Drive at a low speed and avoid use of the foot brake as much as possible.
- Find a steering position which allows the vehicle to move straight.
  The vehicle may not always move in the direction in which the steering wheel is turned. Driving with the steering wheel turned may cause increased driving resistance and may also increase the possibility of the vehicle becoming stuck.
- If the vehicle does not move in the direction in which the steering wheel is turned, avoid unreasonable steering and handle the steering wheel after the tires grip the ground.
- If the tires begin to spin, move the steering left and right or apply varying amounts of force to the accelerator pedal to find the point where the tires grip the ground.

■ When stopping the vehicle

- Stop on as flat a surface as possible with shallow mud.
- When stopping on an incline, point the front of the vehicle downhill to reduce the risk of rolling over.

■ When driving uphill or downhill

→P. 57, 60

■ **Selecting shift position and other settings**

When driving on muddy roads, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 2 or 3 range of S mode)
	Manual transmission	2 or 3
Four-wheel drive control switch		Select H4F or H4L/H4 if the mud is less than 20 cm (7.9 in.) deep, otherwise select L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock When the vehicle is stuck, select lock
Rear differential lock*		In most situations, select unlock If unable to free the vehicle even when the center differential is locked, select lock
Multi-terrain Select*		Mud & Sand
Crawl Control*		Not ordinarily used When the vehicle is stuck, switching ON may make freeing the vehicle easier

■ **When the vehicle is stuck**

→P. 69

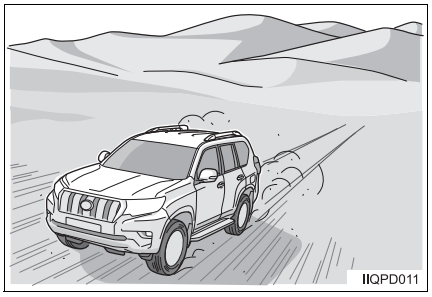
■ **If the treads are muddy**

Tire grip will worsen. In this event, it is possible to spin the tires intentionally to expel the mud that is collected in the treads, and then drive while maintaining tire grip.

*: If equipped

Driving on sand

■ Driving style



- Depress the accelerator pedal as lightly as possible.
- Select a shift position appropriate to the traction, and operate the accelerator pedal in a way that allows you to maintain a constant speed.
- On vehicles with a manual transmission, conduct shift changes quickly and select a gear that will allow you to maintain a constant speed.

■ When stopping the vehicle

- Stop on as flat a surface as possible.
- When stopping on an incline, point the front of the vehicle downhill to reduce the risk of rolling over.
- Stop slowly while being careful not to form a wall of sand around the front and rear of the tires.

■ When driving uphill or downhill

→P. 57, 60

■ **Selecting shift position and other settings**

When driving on sand, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 2, 3 or 4 range of S mode)
	Manual transmission	2, 3 or 4
Four-wheel drive control switch		In most situations, select H4F or H4L/H4 and try to maintain a constant speed while driving Select L4L/L4 if unable to maintain a constant speed
Center differential lock/unlock switch*		In most situations, select unlock When traction is required, such as when driving uphill, select lock
Rear differential lock*		Unlock
Multi-terrain Select*		Mud & Sand
Crawl Control*		Not ordinarily used When the vehicle is stuck, switching ON may make freeing the vehicle easier

■ **When the vehicle is stuck**

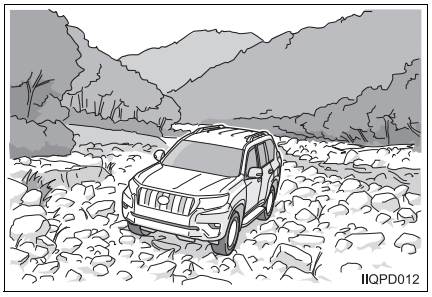
→P. 69

*: If equipped

Driving on rubble

■ Driving style

To prevent the tires from spinning, depress the accelerator pedal as lightly as possible when starting off.



■ When stopping the vehicle

- Stop on as flat a surface as possible.
- When stopping on an incline, point the front of the vehicle downhill to reduce the risk of rolling over.

■ When driving uphill or downhill

- The tires can easily become buried when driving uphill. Select a high shift position and ascend without stopping and while maintaining a slightly high speed.
- On vehicles with a manual transmission, conduct shift changes quickly. Once the vehicle reaches enough speed to climb, remain in a constant gear, and climb the hill without stopping.
- Also see P. 57, 60.

■ **Selecting shift position and other settings**

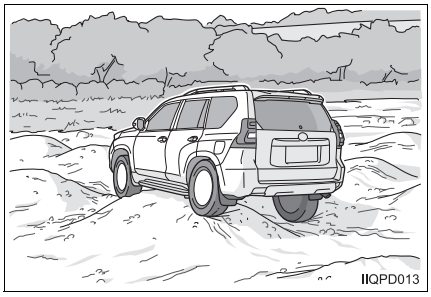
When driving on rubble, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 2, 3 or 4 range of S mode)
	Manual transmission	2, 3 or 4
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock When traction is required, such as when driving uphill, select lock
Rear differential lock*		In most situations, select unlock When traction is required, such as when driving uphill, select lock (the center differential must be locked)
Multi-terrain Select*		Loose Rock
Crawl Control*		Not ordinarily used When switched ON, may make downhill driving more comfortable

*: If equipped

Driving on moguls

■ Driving style



- To prevent the tires from spinning, depress the accelerator pedal as lightly as possible when starting off.
- Drive slowly and carefully, ensuring that the underside of the vehicle does not make contact with the road surface.
- Take care not to drive over the top of a hump.
- Find a driving line that will allow you to keep at least 3 wheels (or 4 wheels) in contact with the ground as much as possible.
  Drive along an estimated line that allows the inner rear wheel to trace around the depressions of the moguls.

■ When stopping the vehicle

- Stop on as flat a surface as possible.
- When stopping on an incline, point the front of the vehicle downhill to reduce the risk of rolling over.

■ When driving uphill or downhill

- When driving uphill or downhill also, find a driving line that will allow you to keep at least 3 wheels (or 4 wheels) in contact with the ground, and drive carefully.
- Also see P. 57, 60.

■ **Selecting shift position and other settings**

When driving on moguls, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 1 or 2 range of S mode)
	Manual transmission	1 or 2
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Mogul
Crawl Control*		Not ordinarily used When switched ON, may make uphill or downhill driving more comfortable

■ **When the vehicle is stuck**

→P. 69

■ **If traction is lost when the tires of opposing corners do not make contact with the ground**

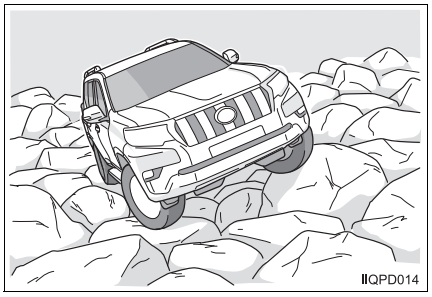
Change your driving line, move the steering wheel left and right to find the point where the tires grip the ground.

*: If equipped

Driving on rocky terrain

■ Before driving

As driving on rocky terrain can be very difficult, it is strongly recommended that you travel with at least one other vehicle.
Also, follow the lead of someone with experience driving over such terrain.



■ Driving style

- Choose a driving line with the tires on the rocks so that the underside of the vehicle does not make contact with the ground.
- Use the brake and accelerator pedals to drive at a slow and careful speed.

■ When driving uphill or downhill

- When driving uphill, set the four-wheel drive control switch to L4L/L4, shift the shift lever to 1 or 2 range of S mode (automatic transmission) or 1 or 2 (manual transmission) and use the brake and accelerator pedals to drive at a slow and careful speed.
  The Crawl Control* may also assist with driving.
- When driving downhill, set the four-wheel drive control switch to L4L/L4, shift the shift lever to 1 or 2 range of S mode (automatic transmission) or 1 or 2 (manual transmission), use the foot brake and drive slowly and carefully taking care not to allow the wheels to lock.
  The downhill assist control* or Crawl Control* may also assist with driving.
- Choose a driving line where the tires are on the rocks and that travels straight up or down inclines.
- Also see P. 57, 60.

*: If equipped

■ **Selecting shift position and other settings**

When driving on rocky terrain, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 1 or 2 range of S mode)
	Manual transmission	1 or 2
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Rock
Crawl Control*		Not ordinarily used When switched ON, may make driving on terrain where the underside of the vehicle is likely to make contact with the ground, and uphill or downhill driving more comfortable

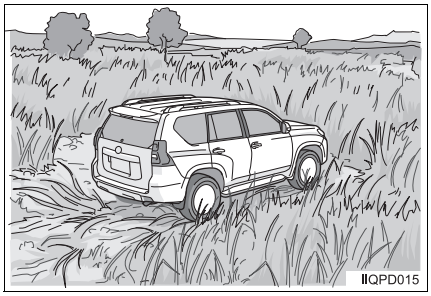
■ **When the vehicle is stuck**

→P. 69

*: If equipped

Driving through undergrowth

■ Driving style



- Choose a driving area which is relatively clear of undergrowth.
  If unavoidable, drive slowly as you use your tires to flatten the undergrowth.
- If the bumpiness of the road surface cannot be determined due to its covering of undergrowth, drive slowly and carefully while paying attention to the inclination of the vehicle.
- If you need to back up after the undergrowth has been flattened, drive while steering to avoid becoming entangled in undergrowth.

■ When driving uphill or downhill

→P. 57, 60

■ **Selecting shift position and other settings**

When driving through undergrowth, apply settings as shown in the following table.

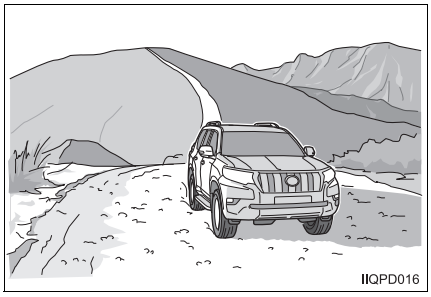
Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 1 or 2 range of S mode)
	Manual transmission	1 or 2
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Loose Rock
Crawl Control*		Not ordinarily used

*: If equipped

Driving on dirt roads

■ Driving style

Since dirt road surfaces can be slippery, avoid sudden acceleration, braking or turning of the steering wheel, and drive cautiously.



■ When driving uphill or downhill

→P. 57, 60

■ Selecting shift position and other settings

When driving on dirt roads, apply settings as shown in the following table.

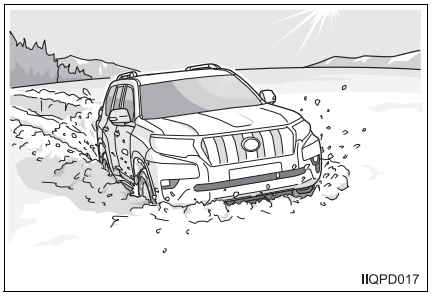
Item		Selection suitable for road type
Shift position	Automatic transmission	D
	Manual transmission	Select a gear that is suitable for the vehicle speed
Four-wheel drive control switch		H4F or H4
Center differential lock/unlock switch*		Unlock
Rear differential lock*		Unlock
Multi-terrain Select*		Not used
Crawl Control*		Not used

*: If equipped

Driving in deep snow

■ Driving style

Shift the shift lever to D or R (automatic transmission) or 2, 3 or R (manual transmission), and repeatedly alternate between driving forward and reversing to tread down the snow.



Bring the vehicle to a complete stop before shifting between forward and reverse gears.

■ When driving uphill or downhill

→P. 57, 60

■ **Selecting shift position and other settings**

When driving in deep snow, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	D or R
	Manual transmission	2, 3 or R
Four-wheel drive control switch		In most situations, select H4F or H4L/H4 If the snow is making progress difficult, select L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock When traction is required, select lock
Rear differential lock*		In most situations, select unlock When traction is required, select lock (the center differential must be locked)
Multi-terrain Select*		Mud & Sand
Crawl Control*		Not ordinarily used When switched ON, may assist when alternating between forward and reverse

■ **When the vehicle is stuck**

→P. 69

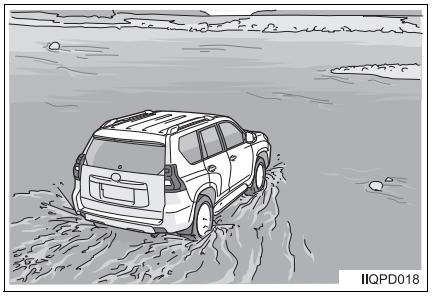
■ **Drivable snow depth**

Snow with a depth of 60 cm (23.6 in.) or less can be driven through.

*: If equipped

Crossing rivers

■ Before crossing a river



- Check the water depth and river bed conditions beforehand.
- Make sure that all doors, windows, the glass hatch* and the moon roof* are closed.
- Drive with another vehicle.

■ Driving style

- Enter the river at walking speed and drive while maintaining this speed.
- Cross perpendicular to the river or downstream.
- Avoid changing speed while crossing and cross without stopping.
- Do not cross rivers with powerful currents.

■ Things to check after crossing a river

→P. 75

*: If equipped

■ **Selecting shift position and other settings**

When crossing a river, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 1 or 2 range of S mode)
	Manual transmission	1 or 2
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Loose Rock
Crawl Control*		Not ordinarily used When switched ON, may make driving more comfortable when a constant speed cannot be maintained

■ **Drivable water depth**

Water with a depth of 70 cm (27.6 in.) or less can be driven through.
However, be aware that the drivable depth may differ in accordance with factors such as the bumpiness of the river bed, vibrations and shocks that will affect the vehicle and waves on the surface of the water.

■ **Driving speed**

Keep the vehicle speed at walking speed or below.

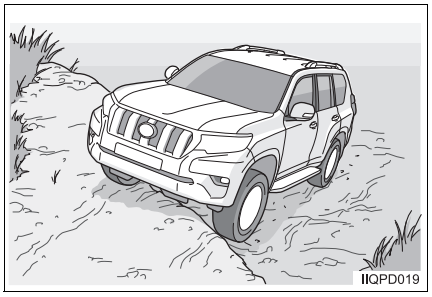
■ **If many river crossings are likely**

It may become necessary to check items that are not ordinarily checked. Consult any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

*: If equipped

Driving on uneven surfaces

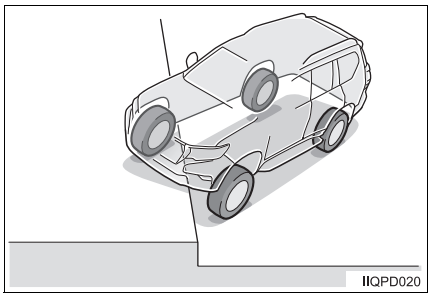
■ Driving style



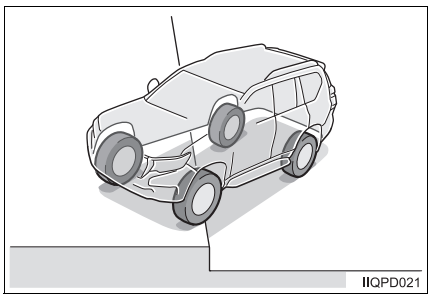
- Find a driving line that will allow you to keep at least 3 wheels (or 4 wheels) in contact with the ground at all times.
- Approach the step diagonally, allowing the wheels to mount the step one at a time.
- Drive slowly and carefully, making sure that the underside of the vehicle does not make contact with the ground.

■ Overcoming steps

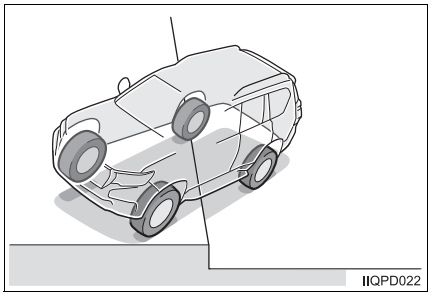
1 Approach the steps diagonally, allowing one of the front wheels to mount the step.



2 Before one of the rear wheels loses contact with the ground, depress the accelerator, transferring the load onto the remaining front wheel and allowing it to mount the step.



3 Drive straight forward without turning the steering wheel until the remaining rear wheel has been brought up onto the step.



■ **Selecting shift position and other settings**

When driving on uneven surfaces, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 1 or 2 range of S mode)
	Manual transmission	1 or 2
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Select a mode in accordance with the terrain If there are no suitable modes, select Mogul
Crawl Control*		Not ordinarily used When switched ON, may make driving more comfortable

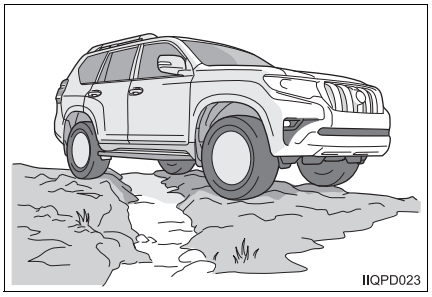
■ **When the vehicle is stuck**

→P. 69

*: If equipped

Crossing grooved areas

■ Driving style

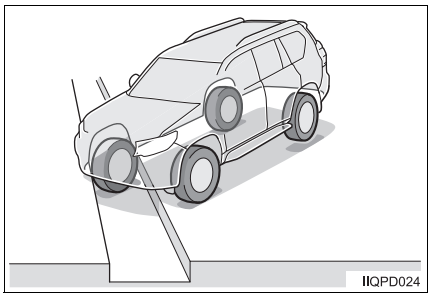


- Find a driving line that will allow you to keep at least 3 wheels (or 4 wheels) in contact with the ground at all times.
- Approach the groove diagonally, allowing the wheels to mount the step one at a time.
- Drive slowly and carefully, making sure that the underside of the vehicle does not make contact with the ground.

■ When crossing a groove

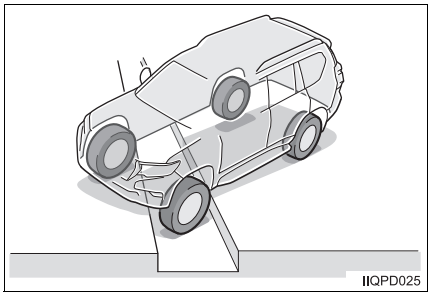
1 Approach the groove diagonally, and allow one of the front wheels to drop in.

Time your acceleration so that the inertia of the vehicle will be able to carry the tire over the groove.



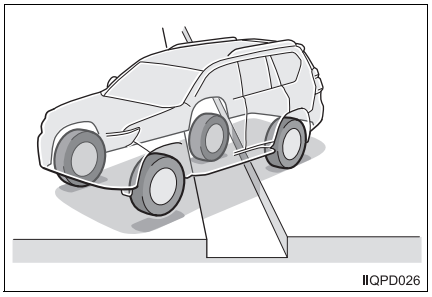
2 Once the first wheel has cleared the groove, allow the other front wheel to drop in.

Time your acceleration so that the inertia of the vehicle will be able to carry the tire over the groove.
Also, take care not to allow both the tire which is dropped into the groove and the tire at the opposing corner to fall into the groove at the same time.



3 Bring the rear wheels over the groove in the same way as the front wheels.

Time your acceleration so that the inertia of the vehicle will be able to carry the tire over the ditch.



■ **Selecting shift position and other settings**

When crossing grooved areas, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 1 or 2 range of S mode)
	Manual transmission	1 or 2
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Select a mode in accordance with the terrain If there are no suitable modes, select Mogul
Crawl Control*		Not ordinarily used When switched ON, may make driving more comfortable

■ **When the vehicle is stuck**

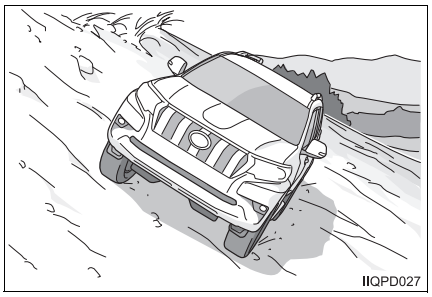
→P. 69

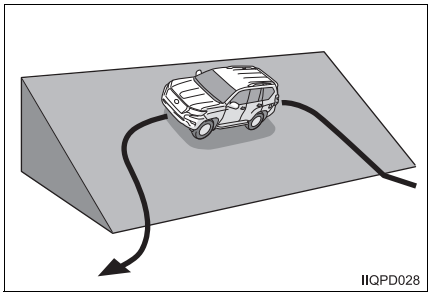
*: If equipped

Driving across inclines

■ Driving style

- When driving across an incline, drive parallel to the surface of the incline and at a slow, constant speed.
- If the vehicle starts to slip, turn the steering wheel towards the base of the slope and either keep driving parallel to the incline or slide down the slope.





■ **Selecting shift position and other settings**

When driving across an incline, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 1 or 2 range of S mode)
	Manual transmission	1 or 2
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Select a mode in accordance with the terrain If there are no suitable modes, select Mogul
Crawl Control*		Not ordinarily used When switched ON, may make driving more comfortable

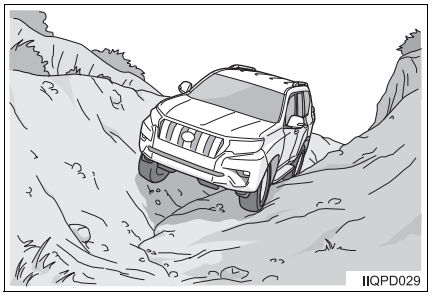
■ **When the vehicle is stuck**

→P. 69

*: If equipped

Driving through V-shaped ditch

■ Driving style



- Straddle both sides of the ditch while keeping the vehicle level, and drive in as low a shift position as possible.
- If you are unable to straddle the ditch, drive across the incline of one side. (→P. 53)
- If you encounter a curve in the ditch, drive across the incline of the outer side of the ditch.
- When crossing from slope to slope, tires of diagonally opposite corners may leave the ground and the vehicle may become stuck. Therefore, drive while steering gently and try to time acceleration appropriately.
- If the vehicle begins to slide, turn the steering wheel towards the base of the slope.

■ **Selecting shift position and other settings**

When driving through a V-shaped ditch, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 1 or 2 range of S mode)
	Manual transmission	1 or 2
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Select a mode in accordance with the terrain If there are no suitable modes, select Mogul
Crawl Control*		Not ordinarily used When switched ON, may make driving more comfortable

■ **When the vehicle is stuck**

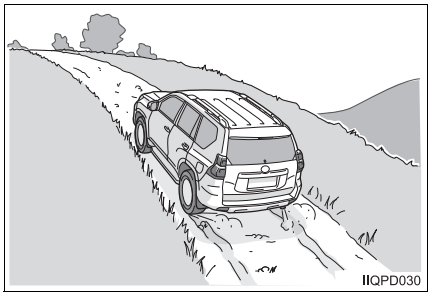
→P. 69

*: If equipped

Driving uphill

■ Before driving

- Check the condition of the path and decide on a driving line beforehand.
- Also check the condition of the summit.



■ Driving style

- Make sure that you drive directly up the incline in order to prevent lateral sliding and rolling over.
- Accelerate sufficiently beforehand, and drive forcefully up the hill without stopping.
- Avoid changing the shift position while driving uphill.
- If climbing a very steep incline, select a gear that will not cause the vehicle to stall.
- If the vehicle starts to slide, try to keep it aligned straight with the incline by turning the steering wheel slowly and carefully.
- If the wheels start to spin, momentarily release the accelerator pedal to allow traction to return, and continue driving.

  If the vehicle does stop moving forward, slide down the incline as described on P. 59.
- Use hill-start assist control if equipped. (→P. 161)
- On vehicles with a manual transmission, do not use half engagement frequently.
- On vehicles with a manual transmission, do not stop the vehicle while using half engagement.

■ **Selecting shift position and other settings**

When driving uphill, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (In most situations, 1 or 2 range of S mode. Select 3 or 4 in accordance with road condition.)
	Manual transmission	1 or 2 Select 3 or 4 in accordance with road condition
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Select a mode in accordance with the terrain If there are no suitable modes, select Mogul
Crawl Control*		Not ordinarily used When switched ON, may make driving more comfortable

*: If equipped

■ **When driving uphill through moguls**

- Find a driving line that will allow you to keep at least 3 wheels (or 4 wheels) in contact with the ground.
- Crawl Control* may help make driving more comfortable.

■ **When driving uphill over rubble**

As it is easy for the tires to become embedded, choose a higher gear and a slightly faster speed than usual, and drive up the incline without stopping while maintaining a constant speed.

■ **When driving uphill over rocky terrain**

Set the four-wheel drive control switch to L4L/L4, shift the shift lever to 1 or 2 range of S mode (automatic transmission) or 1 or 2 (manual transmission) and use the brake and accelerator pedals to proceed slowly and carefully (Crawl Control* can carry out these operations automatically, thus it may enhance driving comfort).

■ **If an incline cannot be climbed completely**

▶ On vehicles with downhill assist control

1 Stop the vehicle using the foot brake.

2 Shift the shift lever to R.

3 Allow downhill assist control to operate (→P. 158).

4 Reverse at a slow speed.
Use downhill assist control to control the vehicle speed. Keep the vehicle straight and descend the incline while making sure to avoid wheel lock.

5 When flat ground is reached, cancel downhill assist control.

▶ On vehicles with Crawl Control

1 Stop the vehicle using the foot brake.

2 Shift the shift lever to R.

3 Allow Crawl Control (low mode) to operate (→P. 154).

4 Reverse at a slow speed.
If the wheels lock while Crawl Control is in low mode, select a slightly higher mode.

5 When flat ground is reached, cancel Crawl Control.

▶ On vehicles without downhill assist control and Crawl Control

1 Stop the vehicle using the foot brake.

2 Shift the shift lever to R.

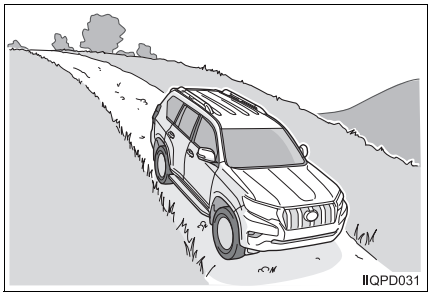
3 Proceed backward at a slow speed.
Use the engine brake and brake pedal to control the vehicle speed. Keep the vehicle straight and descend the incline while making sure to avoid wheel lock.

*: If equipped

Driving downhill

■ Before driving

Check the condition of the path and decide on a driving line beforehand.



■ Driving style

- Make sure that you drive directly down the incline in order to prevent lateral sliding and rolling over.
- Using both the engine brake and brake pedal, descend while trying to avoid wheel lock.

  If it appears that the wheels will lock while the shift position is set to 1 range of S mode (automatic transmission) or 1 (manual transmission) and the engine brake is applied, depress the accelerator pedal slightly and avoid allowing the wheels to lock.
- On vehicles with a manual transmission, do not operate the clutch while driving downhill.
- If the vehicle slides, turn the wheel towards the base of the incline.
- Use downhill assist control if equipped. (→P. 158)

■ When descending an incline

1. Stop the vehicle before the incline.

   Allow for an area that is at least as long as the overall length of the vehicle.
2. Depending on the angle of the incline, shift the shift lever to 1 or 2 range of S mode (automatic transmission) or 1 or 2 (manual transmission).
3. Allow downhill assist control* or Crawl Control* to operate.
4. Proceed forward at a slow speed.

   Use downhill assist control or Crawl Control to control the vehicle speed.
5. When flat ground is reached, cancel downhill assist control or Crawl Control.

*: If equipped

■ **Selecting shift position and other settings**

When driving downhill, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (In most situations, 1 or 2 range of S mode. Select 3 or 4 in accordance with road condition.)
	Manual transmission	1 or 2 Select 3 or 4 in accordance with road condition
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Select a mode in accordance with the terrain If there are no suitable modes, select Mogul
Crawl Control*		Not ordinarily used When switched ON, may make driving more comfortable

■ **When driving downhill through rocky terrain**

- Set the four-wheel drive control switch to L4L/L4, shift the shift lever to 1 range of S mode (automatic transmission) or 1 (manual transmission), and use the brake pedal to drive slowly and carefully (Crawl Control* can carry out these operations automatically, thus it may enhance driving comfort).
- Choose a driving line where the tires are on the rocks and that travels straight down the incline.

■ **If it appears that the wheels will lock**

Depress the accelerator pedal slightly and drive while ensuring that the wheels do not lock.

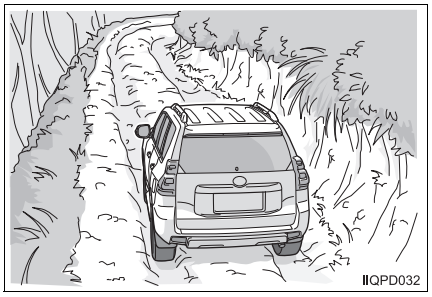
*: If equipped

Driving on roads with ruts

■ Driving style

- Drive along the ruts.
- Grip the steering wheel softly while not allowing the road to take control of the steering wheel.

  Take particular care if the road is wet.



■ Selecting shift position and other settings

When driving on roads with ruts, apply settings as shown in the following table.

Item		Selection suitable for road type
Shift position	Automatic transmission	Driving in D is possible, but select a gear that allows a constant speed to be maintained (in most situations, 1 or 2 range of S mode)
	Manual transmission	1 or 2
Four-wheel drive control switch		L4L/L4
Center differential lock/unlock switch*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck
Rear differential lock*		In most situations, select unlock Select lock in situations where it is easy for the vehicle to become stuck (the center differential must be locked)
Multi-terrain Select*		Select a mode in accordance with the terrain If there are no suitable modes, select Mogul
Crawl Control*		Not ordinarily used When switched ON, may make driving more comfortable

■ When the vehicle is stuck

→P. 69

*: If equipped

WARNING

■ Assessing conditions accurately

When driving off-road, it is necessary to operate the accelerator pedal, brake pedal and steering wheel in response to the type and conditions of the terrain. The driver should assess conditions precisely and drive cautiously in response to each type of condition encountered.

Losing control can be dangerous especially in off-road conditions, where it could cause the vehicle to roll over, resulting in death or serious injury.

■ If the vehicle slides when driving on an incline

Do not turn the steering wheel suddenly. Also, if the vehicle appears to be going into a lateral slide, turn the steering wheel towards the base of the incline.

Losing control can be dangerous especially in off-road conditions where it could cause the vehicle to roll over, resulting in death or serious injury.

■ When driving on an incline

- Do not drive continually on inclines with a forward or backward tilt that is greater than 35°, or a side to side tilt that is greater than 25°. The vehicle could roll over, resulting in death or serious injury.
  However, inclines with a forward or backward tilt of 42° can be driven on momentarily.
- When descending an incline, select an appropriate shift position. If an incline is descended without an appropriate amount of traction, you may lose control of the vehicle, which could cause the vehicle to roll over, resulting in death or serious injury.

■ When climbing an incline

Drive directly up the incline. If the incline is approached diagonally, the vehicle is likely to slide laterally, and you may lose control of the vehicle. This could cause the vehicle to roll over, resulting in death or serious injury.

WARNING

■ **If an incline cannot be climbed completely**

If you change direction while climbing an incline, the vehicle may roll over, resulting in death or serious injury. Following the steps outlined on P. 59, reverse directly down the incline until reaching flat ground.

■ **When descending an incline**

Observe the following precautions.
Failure to do so may cause the vehicle to roll over, resulting in death or serious injury.

- Drive directly down the incline.
- Make sure to avoid extremely slippery areas where you cannot stop the vehicle.

■ **When driving across an incline**

- Check the following points before driving.
  Failure to do so may cause the vehicle to roll over, resulting in death or serious injury.
  - The driving path is stable and not slippery.
  - The total weight of the passengers is distributed equally throughout the vehicle.
  - Any passengers in the rear seats are seated on the uphill side of the vehicle.
  - There is no luggage on the roof luggage carrier.
  - Any luggage is stored at a low level and is firmly secured.

WARNING

■ When driving across an incline

● Observe the following precautions while driving.
Failure to do so may cause the vehicle to roll over, resulting in death or serious injury.

- If it looks as though the vehicle will slide laterally, turn the steering wheel towards the base of the incline.
- Make sure that the wheels on the downhill side of the vehicle do not fall into any depressions.
- Make sure that the wheels on the uphill side of the vehicle do not ride over any rocks or tree roots.
  It is dangerous if the tilt of the vehicle changes suddenly.
- If the incline is extreme or the terrain conditions are very unforgiving, let any passengers out from the vehicle until safe ground has been reached.

■ When driving on roads with ruts

If the road is wet, drive particularly carefully and make sure that the control of the steering wheel is not taken from you. Leaving the ruts suddenly may cause the vehicle to spin, resulting in damage to the vehicle, or in death or serious injury.

■ When crossing a ridge

If a ridge is approached diagonally, the first front wheel to cross the ridge line and the rear wheel that is diagonally opposite to it may lose contact with the ground, or the vehicle may slide. This may cause the vehicle to roll over, resulting in damage to the vehicle, or in death or serious injury.

WARNING

■ **When driving rocky terrain**

- As driving on rocky terrain can be very difficult, it is strongly recommended that you travel with at least one other vehicle. Also, follow the lead of someone with experience driving over such terrain.
- If a mistake is made while driving through rocky terrain, a component on the underside of the vehicle could be struck, possibly rendering the vehicle unable to be driven. Also, the vehicle could lose balance and roll over, resulting in damage to the vehicle, or in death or serious injury.

■ **When driving through V-shaped ditch**

When encountering a downward incline in the ditch, pay close attention to brake pedal operation. If the tires lose grip, the vehicle may slide and lose balance. This could cause the vehicle to roll over, resulting in damage to the vehicle, or in death or serious injury.

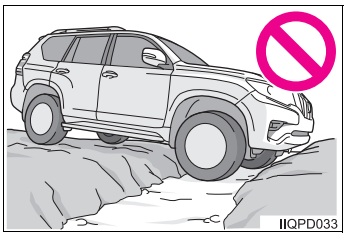
■ **When driving through undergrowth**

If the bumpiness of the road surface cannot be determined due to its covering of undergrowth, drive slowly and carefully while paying attention to the inclination of the vehicle.
Failure to do so may cause the vehicle to lose balance without you noticing, which could cause the vehicle to roll over, resulting in damage to the vehicle, or in death or serious injury.

NOTICE

When driving across a groove

If a groove is approached head on, both front wheels could fall into the groove at the same time, possibly damaging the vehicle and rendering it immovable.



Drivable snow depth

Snow with a depth of around 60 cm (23.6 in.) or less can be driven through.

When crossing a river

Observe the following precautions.
Failure to do so may cause water to enter the engine or the vehicle and cause malfunctions.

- Check the water depth and river bed conditions beforehand.
- Enter the river at walking speed.
- Cross perpendicular to the river or downstream.
- Avoid changing speed while crossing and cross without stopping.
- If the engine stalls during a crossing a river, have the vehicle towed out of the water by a rescue vehicle and have the vehicle checked by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer as soon as possible.
- Even for only a short time, do not stop the vehicle where the water level is over the door opening.

NOTICE

When driving through V-shaped ditch

Exercise caution when straddling both sides of the ditch, as the sides of the vehicle could strike the walls of the ditch, possibly rendering the vehicle immovable. Drive particularly cautiously in these situations, or take an alternative route if possible.

When driving through undergrowth

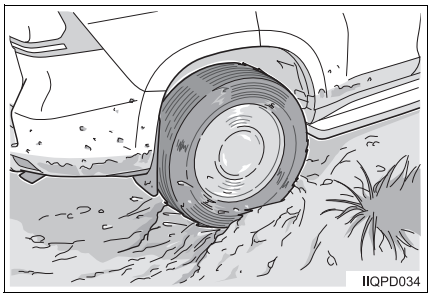
- Choose a driving area which is relatively clear of undergrowth.
  Undergrowth may become entangled in the underside components of the vehicle when driving through areas of heavy undergrowth for long periods of time, possibly rendering it immovable.
- If you need to back up after the undergrowth has been flattened, drive while steering to avoid becoming entangled in undergrowth. Undergrowth may become entangled in the underside components of the vehicle when the undergrowth is not avoided, possibly rendering it immovable.

If your vehicle becomes stuck while driving off-road

This section explains ways of coping when the wheels have no grip, the tires become stuck, or the vehicle becomes otherwise unable to move while driving off-road.

When the vehicle is stuck

There are numerous ways of freeing the vehicle when stuck, which vary in accordance with the situation.
Sometimes it will be possible to free the vehicle under your own power, whereas other times it may be necessary to use a rescue tool.



■ Freeing the vehicle under your own power

Functions and basic techniques for freeing the vehicle are described below. Use as necessary and in accordance with the situation.

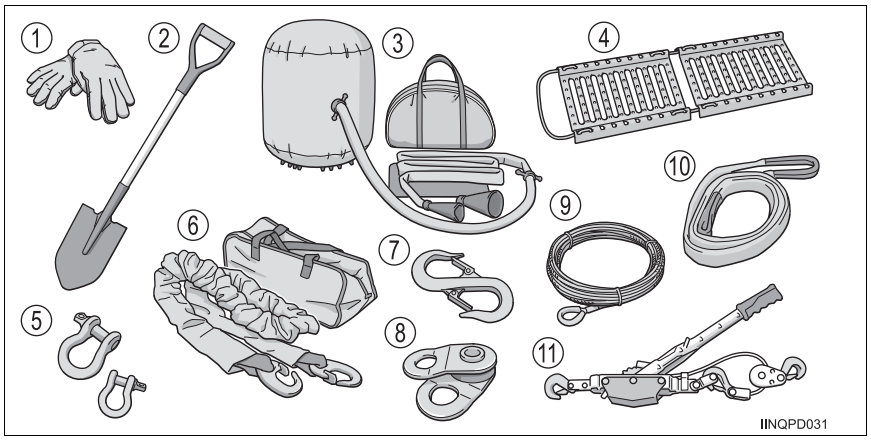
- Repeatedly moving the vehicle forwards and backwards.
- Clearing away any obstacles, if possible.
- Removing rocks, etc. from the treads.
- Using the center differential lock. (→P. 141)
- Using the rear differential lock*. (→P. 152)
- Switching the four-wheel drive control switch. (→P. 141)
- Using Crawl Control*. (→P. 154)
- Using Multi-terrain Select*. (→P. 78)
- Canceling VSC and TRC/Active TRC may make freeing the vehicle easier. (→P. 161, refer to the “Owner’s manual”)

If you are unable to free the vehicle under your own power, have the vehicle freed by a rescue vehicle.

*: If equipped

■ **Freeing the vehicle using a rescue tool**

- If you are unable to free the vehicle by yourself, it may be possible to free the vehicle using a rescue tool.
- Examples of rescue tools are listed below. Use as necessary and in accordance with the situation. For a detailed explanation, refer to the tool's accompanying manual.



① Gloves

Useful for various tasks outside the vehicle.

② Shovel

Can be used to remove earth, sand, etc. from around the tire.

③ Air jack

Uses exhaust gas to raise the vehicle.

④ Sand ladder

Use by placing underneath a wheel with no grip.

⑤ U-shaped shackle

Used to attach straps, etc. when passed through the towing hook.

⑥ Elastic towing rope

Used when the vehicle needs to be towed by another vehicle.

⑦ S-shaped hook

Used to connect the wire or the strap.

⑧ Pulley

Used to change the direction from which the vehicle is being towed.

⑨ Wire

Used when winching.

⑩ Strap

Useful when used in place of the wire.

⑪ Hand winch

Used when freeing the vehicle.

■ **To restore tire grip**

Placing a tree branch, a sack or something similar underneath the tire may help to restore grip.

■ **When stuck in mud and unable to move**

- Shift the shift lever to D or R (automatic transmission) or 2, 3 or R (manual transmission), and free the vehicle by rocking it back and forth. (You may be able to free the vehicle by first monitoring the vehicle's progression while using the accelerator pedal as little as possible, and then increasing acceleration gradually.)
- Freeing the vehicle may become easier if Crawl Control* is switched ON.

■ **When stuck in sand and unable to move**

- You may be able to free the vehicle by using the accelerator pedal as little as possible at first and then maintaining acceleration when the vehicle begins to move forward.
  If you are still unable to free the vehicle, remove the sand from around the tires, check that the body of the vehicle is not in contact with the ground, and attempt to free the vehicle once again.
- Freeing the vehicle may become easier if Crawl Control* is switched ON.
- If you have an air jack, use it to raise the vehicle, then place sand under the tire and return the vehicle to the height of the ground level. If you are still unable to free the vehicle, place a sandbag or sand ladder underneath the tire and attempt to free it again.

■ **When unable to move while driving uphill on rubble**

- Shift the shift lever to R, and operate the steering wheel, engine brake and brake pedal to reverse directly down the incline while making sure that the tires do not lock.
- Crawl Control* may assist driving comfort on extreme inclines.

■ **When unable to move while driving through moguls**

Shift the shift lever to D or R (automatic transmission) or 2, 3 or R (manual transmission), and try to free the vehicle by rocking it back and forth while moving the steering wheel left and right.

■ **When unable to move while driving through rocky terrain**

Shift the shift lever to D or R (automatic transmission) or 2, 3 or R (manual transmission), and try to free the vehicle either by rocking it back and forth or by moving the steering wheel left and right to search for grip.
When possible, reverse over your driving line. If you become stuck even when doing so, use the center and rear differential locks*.

■ **When being towed**

→Refer to the "Owner's manual"

■ **When stuck**

→Also refer to the "Owner's manual"

*: If equipped

WARNING

When exiting the vehicle while stopped sideways on an incline

Avoid exiting the vehicle while stopped on an incline. If you need to exit, use the uphill-facing door. If you try to exit using the downhill-facing door, the chances of the vehicle rolling over will increase. As a result, the vehicle may roll onto you and could result in death or serious injury.

After using the rear differential lock*

The rear differential lock is for use in freeing the vehicle in emergency situations. After freeing the vehicle, make sure that you unlock the rear differential.

NOTICE

Precaution when freeing the vehicle

- If the steering wheel is overused or if the wheels are allowed to spin more than necessary when freeing the vehicle, the tires could become further embedded and the situation could worsen.
- If you are unable to free the vehicle under your own power, have the vehicle freed by a rescue vehicle.

To prevent damage to the clutch*

On vehicles with a manual transmission, do not use half engagement frequently.

*: If equipped

After driving off-road

After driving off-road, confirm the points explained in this section and conduct any necessary checks.

Points to confirm after driving off-road

Check the following points before returning to regular roads after driving off-road.

- Remove any mud adhering to the tires, and check that the tires are not damaged.
- Confirm that there are no strange noises or vibrations while driving.
- Check the brake discs and calipers when having driven on sandy roads, muddy roads, through deep snow, when crossing rivers, etc.
- Check that the suspension, drive shaft boots and components on the underside of the vehicle are not damaged or leaking oil.
- Check that both the center and the rear differentials are unlocked.
- Check that the four-wheel drive control switch is in H4F/H4.
- After driving on muddy roads in poor condition, remove any foreign objects or substances such as leaves of mud from the cooling fins of the urea injector.
  Consult any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer if necessary.

After crossing a river

- Drive a little and check that the brakes are operating properly.
- After driving through muddy water, remove any foreign objects or substances such as leaves or mud from the radiator.
- Check that no water has mixed with the oil in the engine, transmission, transfer, differential, etc.
  If water has mixed with the oil, the oil will be cloudy. In this event, change the oil. Consult any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer if necessary.
- Check for changes in the amount and quality of the oil in the engine, transmission, transfer, differential, etc. and conduct maintenance.
- Replace the grease on the propeller shaft within 24 hours after driving.
- Check that no water has entered the air filter. Replace the air filter if it is wet.
  Consult any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.
- Wash the exterior and underside of the vehicle with fresh water after driving through seawater.

After driving in seawater

Wash the vehicle as soon as possible to prevent damage to the vehicle exterior, the underside components and the parking brake.
Refer to the “Owner’s manual”.

WARNING

■ **If you discover an abnormality**

Without driving any further, contact any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer. Driving with the abnormality could cause an unexpected accident and could result in death or serious injury. Also, if you feel that there is something wrong with the vehicle while driving, immediately stop in a safe place and inspect the vehicle.

■ **After driving off-road**

Remove any foreign objects or substances such as grass, undergrowth, paper, rubble, rocks, sand, etc. after driving through undergrowth, mud, rocks, rubble, sand, water, etc. If you drive without removing them, the vehicle may break down or catch fire and could result in death or serious injury.

■ **To prevent damage to the center differential**

For normal driving on dry roads and highways, unlock the center differential.

Off-road driving assistance functions

3

3-1. Using off-road driving systems

Multi-terrain Select 78

Multi-terrain Monitor 82

Rear height control air suspension 135

Four-wheel drive system 141

Rear differential lock system 152

Crawl Control 154

Downhill assist control system 158

Off-road driving assist systems 161

Off-road driving information display 168

3-2. Off-road driving information

Off-road precautions 171

Multi-terrain Select*

Multi-terrain Select is a system that improves drivability in off-road situations.

▶ When the Crawl Control is turned off

Select a mode that most closely matches the type of terrain on which you are driving from among 5 modes.

Brake control can be optimized in accordance with the selected mode.

▶ When the Crawl Control is turned on

A mode which matches the Crawl Control speed is automatically selected by depressing the accelerator pedal (AUTO mode).

Multi-terrain Select switch/indicators

① Multi-terrain Select ON/OFF switch

The indicator light on the switch comes on when operating.

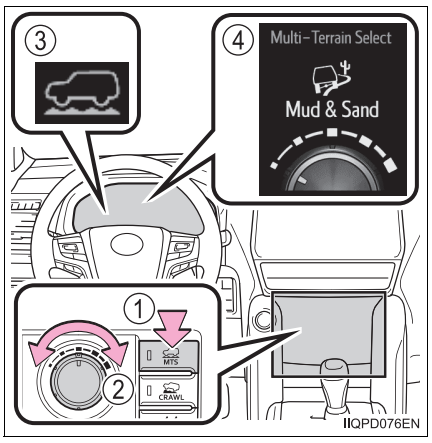
② Multi-terrain Select mode selector dial

③ Multi-terrain Select indicator

Multi-terrain Select indicator comes on when operating.

④ Multi-information display

Displays status information including operating status and road type selection.

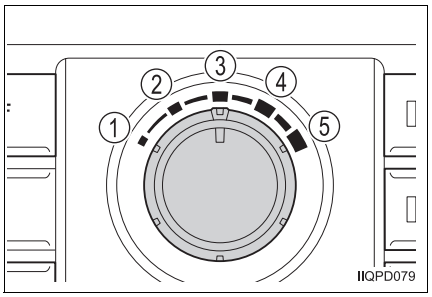


*: If equipped

Selectable modes

When the Crawl Control is turned off, a mode which matches the road conditions can be selected from among the following 5 modes.

① Mud & Sand
② Loose Rock
③ Mogul
④ Rock & Dirt
⑤ Rock



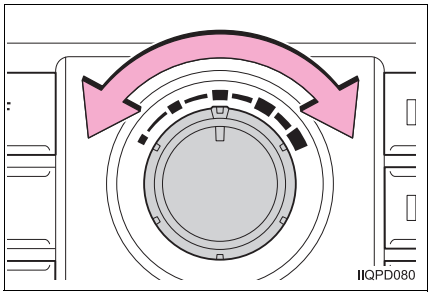
Mode		Road Conditions
①	Mud & Sand	Suitable for muddy roads, sandy roads, snow-covered roads, dirt trails and other slippery or dirty conditions
②	Loose Rock	Suitable for slippery conditions consisting of mixtures of earth and loose rock
③	Mogul	Suitable for very bumpy road conditions, such as mogul roads
④	Rock & Dirt	Suitable for very bumpy road conditions, such as mogul or rocky roads
⑤	Rock	Suitable for rocky terrain

When the Crawl Control is turned on, the most suitable mode is automatically selected according to the Crawl Control mode selected.

Switching modes

Operate the Multi-terrain Select mode selector dial during Multi-terrain Select control to select a mode.

Once the mode is confirmed, the mode name will be displayed and the control will switch.



■ **The Multi-terrain Select can be operated when**

- The four-wheel drive control switch is in L4 position.
- When Active TRC and VSC are off.

■ **When using Multi-terrain Select**

The following functions cannot be switched on or off.

- VSC
- Active TRC

A message will be shown on the multi-information display stating that these functions cannot be switched.

■ **When it is difficult to generate traction**

Mud & Sand mode provides the largest amount of tire slippage, followed by Loose Rock, Mogul, Rock & Dirt and Rock mode.
Drivability can be improved by selecting a mode which provides a smaller amount of tire slippage than the current mode when the amount of tire slippage is large, or conversely selecting a mode which provides a larger amount of tire slippage than the current mode when the amount of tire slippage is small.

■ **When the vehicle is stuck**

- Use the center differential lock
  If unable to free the vehicle even when using the center differential lock, use the rear differential lock*.

The rear differential cannot be locked if the center differential is not locked with the four-wheel drive control switch in L4.

- Switching the transfer and differentials
  For the operation of the following functions, refer to the following pages.
  - Four-wheel drive system (→P. 141)
  - Center differential lock (→P. 141)
  - Rear differential lock* (→P. 152)

■ **When the Active TRC (Traction Control) operates continuously**

→P. 165

■ **When the four-wheel drive control switch is in L4 position**

If the Multi-terrain Select system is not operating and the four-wheel drive control switch is in L4, the “TRC OFF” and “VSC OFF” indicator will come on.

■ **When there is a malfunction in the system**

The slip indicator light will come on. Have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer immediately.

*: If equipped

WARNING

When using the Multi-terrain Select

Observe the following precautions to avoid an accident that could result in death or serious injuries:

- There is a chance that the selected mode may not be the most appropriate in terms of road conditions such as pitch, slipperiness, undulation, etc. (→P. 79)
- Multi-terrain Select is not intended to expand the limits of the vehicle. Check the road conditions thoroughly beforehand, and drive safely and carefully.

NOTICE

Precaution for use

The Multi-terrain Select is intended for use during off-road driving. Do not use the system at any other time.

Multi-terrain Monitor*

The Multi-terrain Monitor helps the driver to check the vehicle surroundings. It assists in determining the conditions around the driver in a variety of situations, such as when judging conditions during off-road driving or checking for obstacles when parking.

⚠ WARNING

■ When using the Multi-terrain Monitor system

Observe the following precautions to avoid an accident that could result in death or serious injuries.

- Never rely solely on the Multi-terrain Monitor. As with unequipped vehicles, drive carefully while directly confirming the safety of your surroundings and the area to the rear of the vehicle. Take particular care to avoid parked cars and other obstacles.
- Due to the characteristics of the camera lens, the actual position and distance of people and other obstacles will differ from those shown on the Multi-terrain Monitor screen. Directly confirm the safety of your surroundings before driving.
- Do not drive while only looking at the screen. When driving, make sure to directly confirm the safety of your surroundings, such as by visually checking the area and using the vehicle's mirrors.
- In low temperatures, the screen may darken or the images may become faint.
  Images of moving objects in particular may distort or disappear from the screen. Therefore, make sure to drive carefully while directly visually confirming the safety of your surroundings.

Multi-terrain Monitor screens

The following screens can be selected according to driving conditions.

- Screens that can be selected vary depending on conditions such as shift position and vehicle speed. (→P. 90)
- Depending on the displayed screen, the display can be switched from normal to wide view display.

*: If equipped

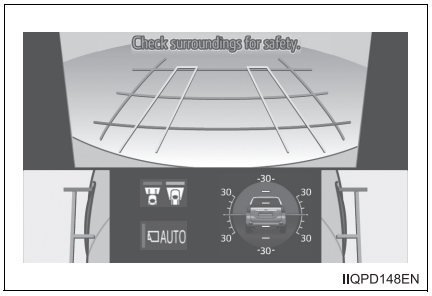
■ **Screens when the four-wheel drive control switch is in L4L/L4**

● When checking the area to the front and sides of the vehicle

▶ Front view & dual side view

→P. 93

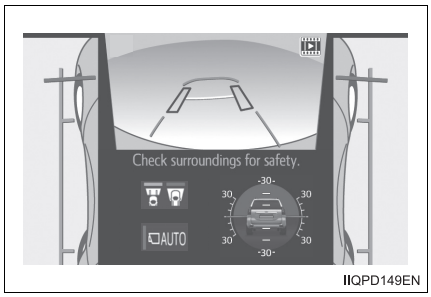
▶ Front view & dual side view (front magnified)



→P. 93

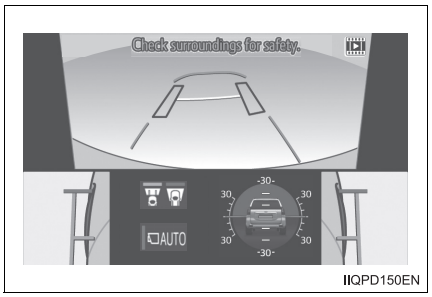
● When checking the condition of the road surface under the vehicle

▶ Under vehicle terrain view & dual side view



→P. 97

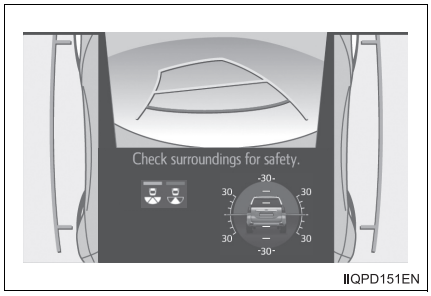
▶ Under vehicle terrain view & dual side view (front magnified)



→P. 97

● When checking the area to the rear of the vehicle

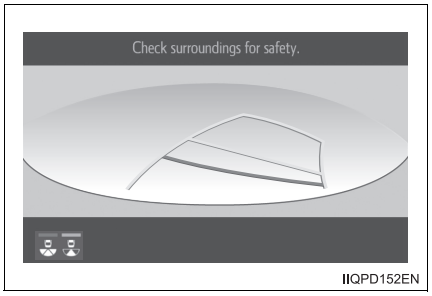
▶ Rear view & dual side view



IIQPD151EN

→P. 99

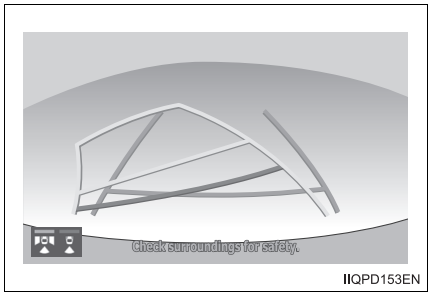
▶ Wide rear view*1



IIQPD152EN

→P. 99

▶ Rear view*2



IIQPD153EN

→P. 99

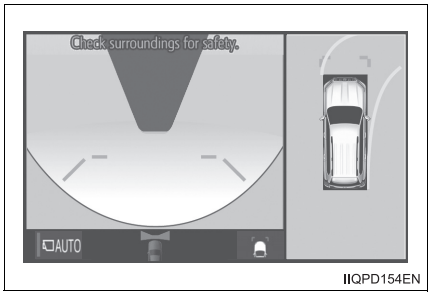
*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

■ **Screens when the four-wheel drive control switch is in H4**

● When checking the area to the front of the vehicle (panoramic view & wide front view)

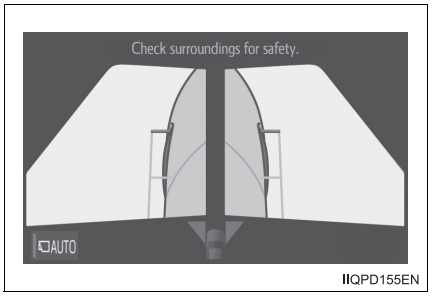
→P. 102



IIQPD154EN

● When checking the area to the sides of the vehicle (side views)

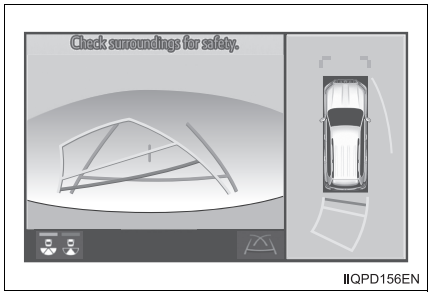
→P. 104



IIQPD155EN

● When checking the area to the rear of the vehicle

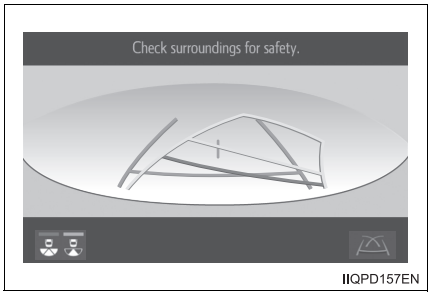
▶ Panoramic view & rear view



IIQPD156EN

→P. 107

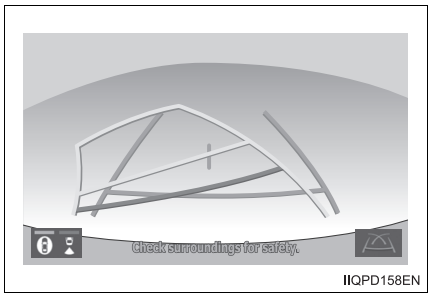
▶ Wide rear view*1



IIQPD157EN

→P. 107

▶ Rear view*2



IIQPD158EN

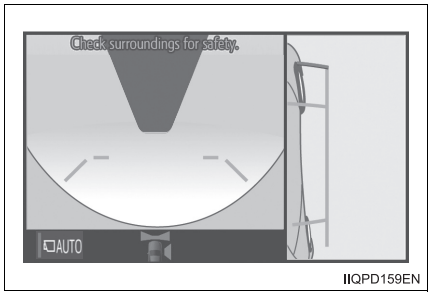
→P. 107

*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

● When checking the area to the sides, front and rear of the vehicle (with outside rear view mirrors retracted)

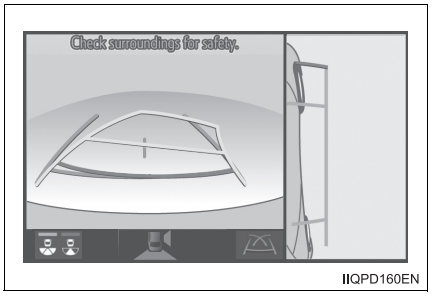
▶ Wide front view & side view



IIQPD159EN

→P. 113

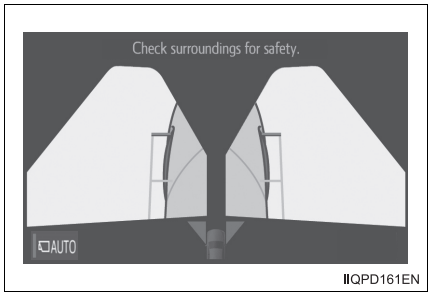
▶ Rear view & side view



IIQPD160EN

→P. 113

▶ Side views



IIQPD161EN

→P. 113

Using the Multi-terrain Monitor screen

■ Displaying the Multi-terrain Monitor screen

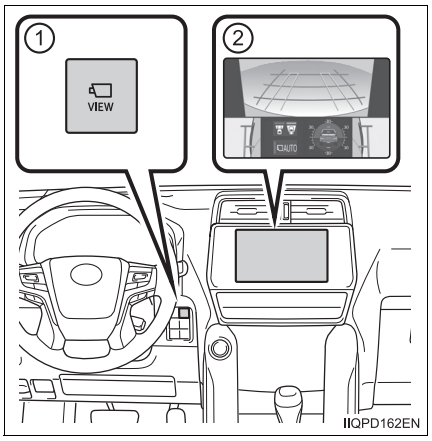
The Multi-terrain Monitor screen will be displayed when the VIEW switch is pressed while the engine switch is turned to the “ON” position (vehicles without smart entry & start system) or IGNITION ON mode (vehicles with smart entry & start system).

When the vehicle speed exceeds a certain value for a specific amount of time, the display returns to the navigation screen* or audio control screen, etc.

The amount of time that the Multi-terrain Monitor is displayed differs depending on conditions such as the vehicle speed. (→P. 93)

① VIEW switch

② Multimedia system screen or navigation system screen*



*: Vehicles with navigation system

■ Switch operations

On some screens, the display mode or display settings can be changed using the switches.

● Automatic display mode switch

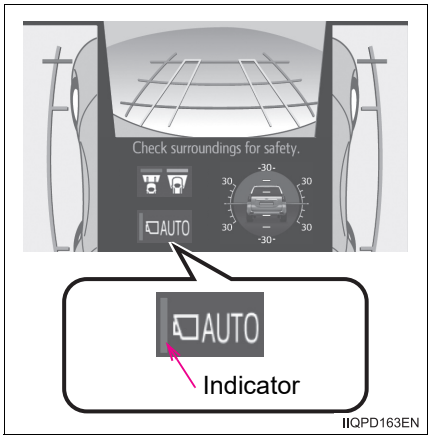
When automatic display mode is turned on, the Multi-terrain Monitor screen is displayed in the following conditions, even if the VIEW switch has not been operated.

- The shift lever is shifted to D, S or N
- While driving, the vehicle speed drops to approximately 10 km/h (6 mph) or less (except when the shift lever is in R)

The automatic display mode switches between on and off each time AUTO is selected.

When automatic display mode is on, an indicator illuminates on the icon.

Even when automatic display mode is on, the display can still be switched by pressing the VIEW switch.



● Display selection switches

The following switches can be pressed or selected to switch the Multi-terrain Monitor display screen and to switch from normal to wide view display.

Switch		Switch Function
VIEW switch		Changing a display (→P. 90)
Display mode selection switch	 *1	Switches between the rear view display and wide rear view display (→P. 99, 107)
	 *2	Switches between the dual side view display and rear view display (→P. 99)
	 *2	Switches between the panoramic view & rear view display and rear view display (→P. 107)
Under vehicle terrain view selection switch		Switches between the front view and under vehicle terrain view (→P. 93, 97)

*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

Changing the Multi-terrain Monitor screen

The screen display can be switched by operating the switches as follows while the Multi-terrain Monitor screen is displayed. (Screens that can be displayed will vary depending on the positions of the shift lever and four-wheel drive control switch)

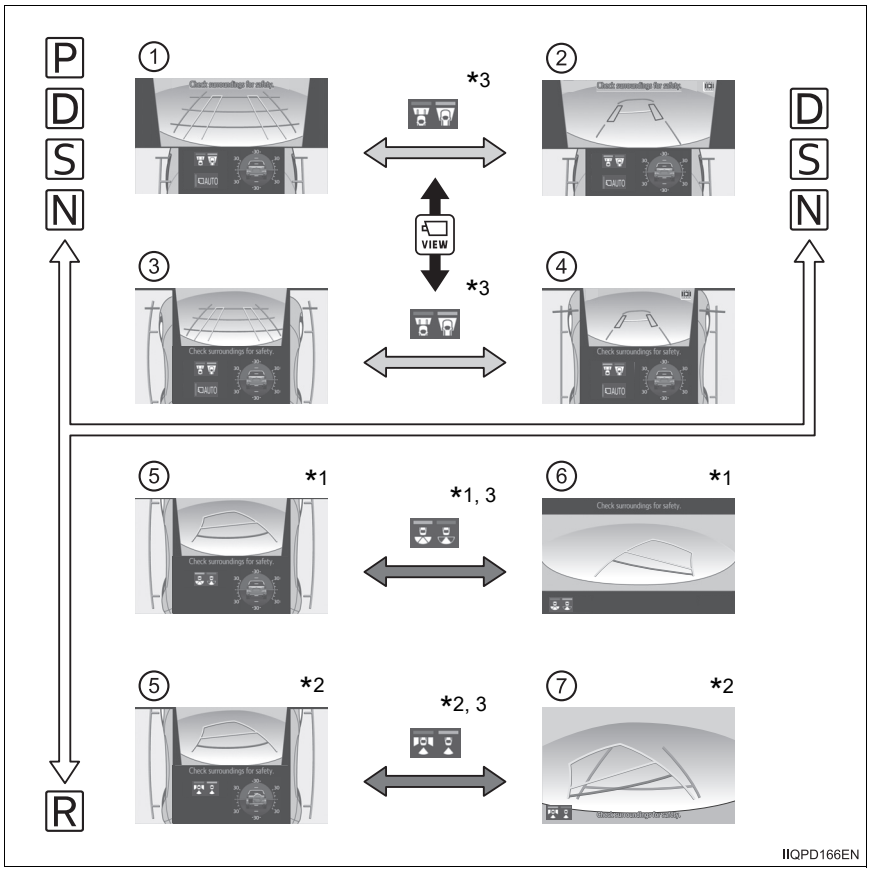
■ **Screens when the four-wheel drive control switch is in L4L/L4**

: Press 

: Select  *1,  *2

: Select 

: Operate the shift lever



① Front view & dual side view (front magnified): →P. 93

② Under vehicle terrain view & dual side view (front magnified): →P. 97

③ Front view & dual side view: →P. 93

④ Under vehicle terrain view & dual side view: →P. 97

⑤ Rear view & dual side view: →P. 99

⑥ Wide rear view*1: →P. 99

⑦ Rear view*2: →P. 99

*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

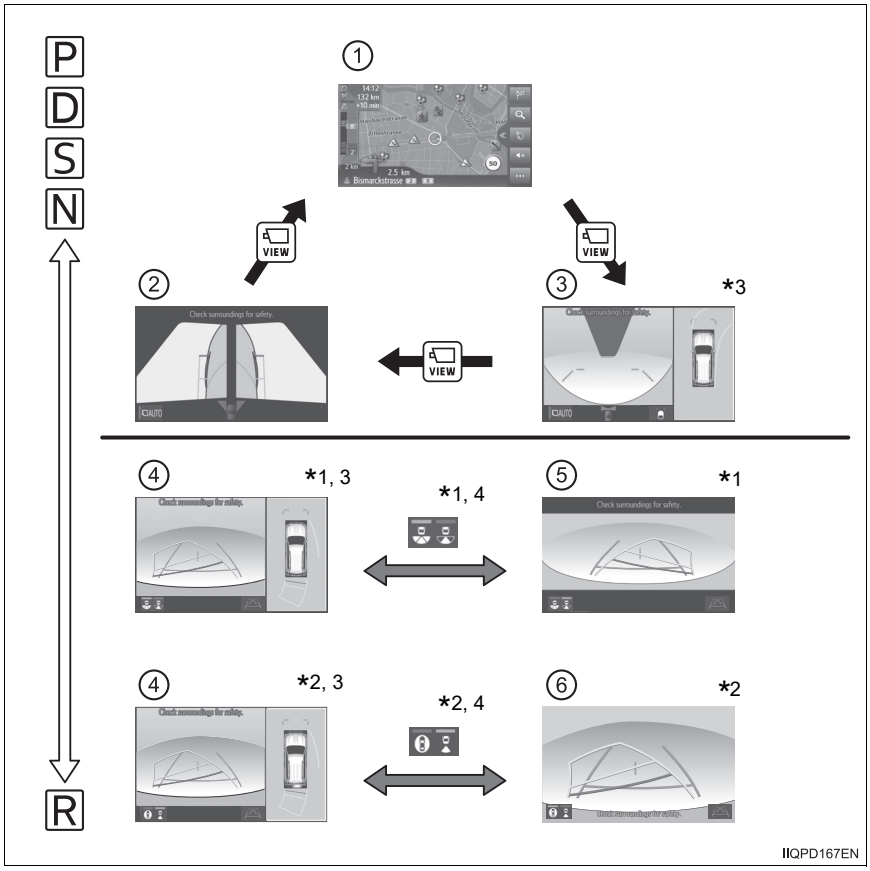
*3: The screen display can be switched by touching the image from the camera on the screen.

■ **Screens when the four-wheel drive control switch is in H4**

: Press VIEW

: Select *1, *2

: Operate the shift lever



① Off

② Side views: →P. 104

③ Panoramic view & wide front view: →P. 102

④ Panoramic view & rear view: →P. 107

⑤ Wide rear view*1: →P. 107

⑥ Rear view*2: →P. 107

*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

*3: The displayed screen differs when the outside rear view mirrors are retracted.

*4: The screen display can be switched by touching the image from the camera on the screen.

■ **Multi-terrain Monitor screen display**

The amount of time that the Multi-terrain Monitor screen is displayed changes as follows according to the vehicle speed at the time the VIEW switch was pressed.

The Multi-terrain Monitor screen is displayed if the vehicle speed is approximately 20 km/h (12 mph) or less when the VIEW switch is pressed.

If the vehicle speed exceeds approximately 20 km/h (12 mph), the Multi-terrain Monitor display is canceled.

Screen display and functions

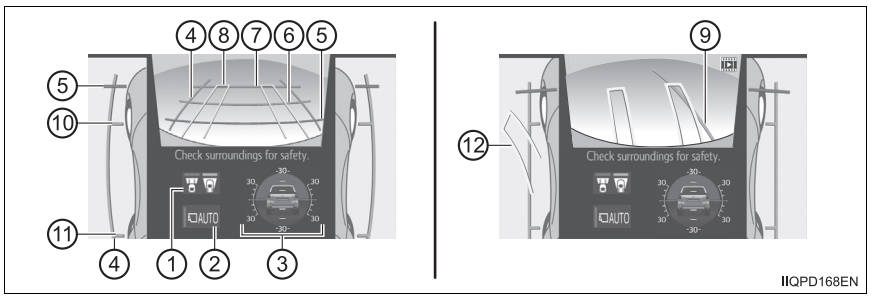
The various screens of the Multi-terrain Monitor display information to support several different driving situations, such as when checking for obstacles when moving forward or in reverse, or when judging road surface conditions during off-road driving.

■ Front view & dual side view

Front view & dual side view can be used to check the area around the front of the vehicle.

- In addition to an image of the front of the vehicle, guide lines are displayed in a composite view to provide reference for when deciding a direction to move forward in.
- If the VIEW switch is pressed while the screen is displayed, the screen switches from normal to magnified display. (Pressing the switch again returns the screen to the normal display)
- If the steering wheel is turned 270° or more, guide lines and other features to support turning are automatically displayed.

● Screen description



① Under vehicle terrain view selection switch

Switches between front view and under vehicle terrain view display each time the switch is selected.

② Automatic display mode switch

→P. 89

③ Clinometer/slip display

Displays the vehicle's estimated degree of incline or indicates a tire slippage. (→P. 95)

④ Vehicle width lines (blue)

Indicate the width of the vehicle including the outside rear view mirror.

⑤ 0.5 m (1.5 ft.) distance guide line (red)

⑥ 1 m (3 ft.) distance guide line (blue)

⑦ 2 m (6 ft.) distance guide line (blue)

Items ⑤ to ⑦ indicate the estimated distance from the front end of the vehicle.

⑧ Front tire course line (yellow)

Indicates the estimated course of the front tires according to steering wheel position.

⑨ Forward movement guide line (blue)

Indicates the estimated tire course of the tightest possible turn.

⑩ Front tire contact line (blue)

⑪ Rear tire contact line (blue)

Items ⑩ and ⑪ indicate estimated tire positions on the image.

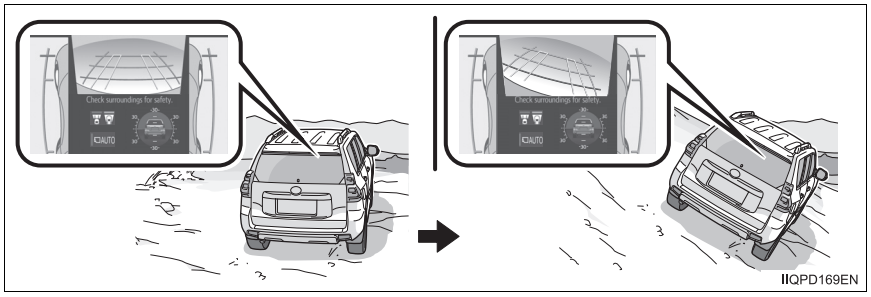
⑫ Rear tire course line (yellow)

Indicates the estimated course of the rear tires.

● Front view rotating display function

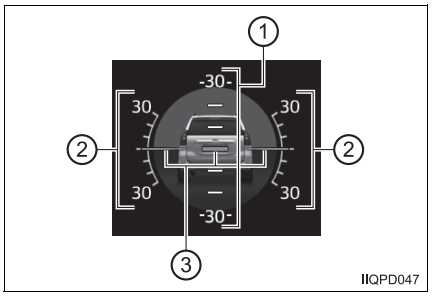
This function operates when the four-wheel drive control switch is in L4L/L4.

The front view image is automatically adjusted to be parallel and assist the driver to check road surface conditions regardless of the vehicle inclination.



● Clinometer

Clinometer displays the vehicle inclination to the front, rear, left and right within a range of 0° to approximately 30°.



① Degree markers of incline to the front and rear

Indicates the vehicle inclination in degrees in the front and rear directions.

② Degree markers of incline to the left and right

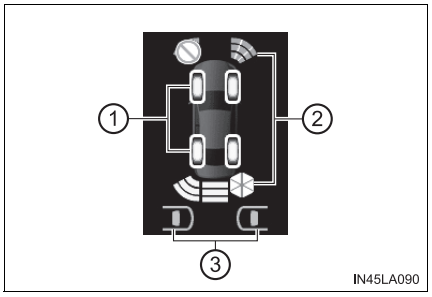
Indicates the vehicle inclination in degrees in the left and right directions.

③ Pointer

Indicates the degree of the vehicle inclination in comparison to a parallel line.

● Slip display

When tire slippage is detected, the clinometer display area is automatically switched to the slip display.



① Tire display

Indicates the position of freely spinning tires in yellow if the tire spins. (During Crawl Control is operating, all of the tires are indicated in yellow.)

② Pop-up display of the Toyota parking assist-sensor

Displayed if an obstacle is detected while the Toyota parking assist-sensor is turned on.

③ Pop-up display of the RCTA

Displayed if a vehicle approaching from right or left rear of the vehicle is detected while the RCTA is turned on.

■ **Front view & dual side view display**

The screen can be displayed when the shift lever is in P, D, S or N.

■ **Front view rotating display function**

- The vehicle inclination displayed on the screen may differ from the actual state.
- When the rotated screen is displayed, the corners of the front bumper may not be seen on the screen.

■ **Clinometer display**

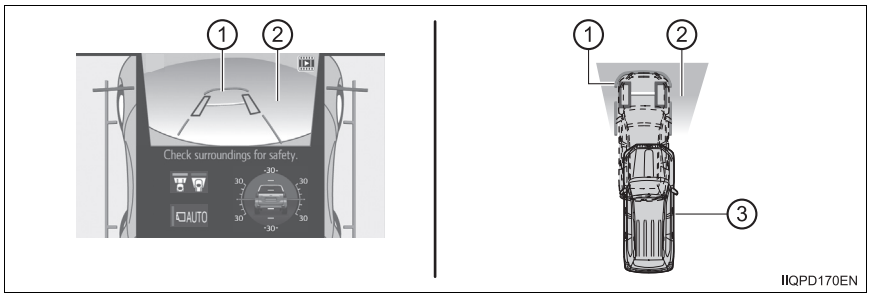
- The display indicates the incline of the vehicle in degrees shown by the movement of the pointer and the rotation of the vehicle image.
- The color of the degree markers of incline to the front, rear, left and right changes according to the current incline of the vehicle.
- After the engine switch is turned to IGNITION ON mode, the degree of incline is not displayed until such information is determined.
- The degree of incline showed on the clinometer is only an approximate indication, and may differ from the degree of incline measured using other equipment.

■ **Clinometer/slip display**

When the Toyota parking assist-sensor or RCTA detects an obstacle or another vehicle, a warning message pops up in the clinometer/slip display area.

■ **Under vehicle terrain view & dual side view**

Lines indicating current vehicle and tire position are displayed in a composite view on an image taken approximately 3 m (10 ft.) behind the current vehicle position and assists the driver to check conditions underneath the vehicle or determine the position of the front tires.



① Current vehicle position

② Image displayed in the under vehicle terrain view (image taken approximately 3 m (10 ft.) behind the current vehicle position)

③ Vehicle position at the time the image was taken (approximately 3 m (10 ft.) behind the current vehicle position)

● Displaying the under vehicle terrain view

While the front view is displayed, stop the vehicle completely, and then press  .

Pressing  again returns the screen to the front view display.

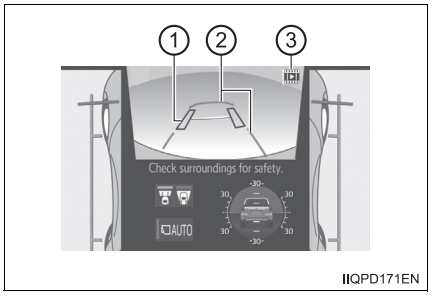
● Screen description

① Tire position indicator lines (black)

Indicates the estimated position of the front tires.

② Vehicle position indicator lines (blue)

Indicates the estimated position of the vehicle.



③ Icon (flashing)

Indicates that the under vehicle terrain view display is of an image taken in the past.

■ **Under vehicle terrain view & dual side view**

- The screen can be displayed when the shift lever is in D, S or N.
- While the under vehicle terrain view is displayed, if the vehicle speed reaches or exceeds approximately 5 km/h (3 mph), the screen automatically returns to the front view display.
- In the following situations, the under vehicle terrain view selection switch cannot be operated.
  - The vehicle is not completely stopped
  - After the engine starts, a fixed distance or more has not been driven
  - After the four-wheel drive control switch is shifted to L4L/L4, a fixed distance or more has not been driven
- In the following situations, the system may not operate normally, or it may not be possible to switch to the under vehicle terrain view.
  - The road is covered with snow
  - It is nighttime and the road has no illumination
  - Dirt or foreign matter is adhering to the camera lens
  - There is water in front of the vehicle (a river, puddle, sea water, etc.)

WARNING

■ **Guide lines**

The tire position indicator lines and vehicle position indicator lines may differ from actual vehicle positions depending on the number of passengers, cargo weight, road grade, road surface conditions, brightness of the surrounding environment, etc. Always drive the vehicle while confirming the safety of your surroundings.

■ **Under vehicle terrain view display**

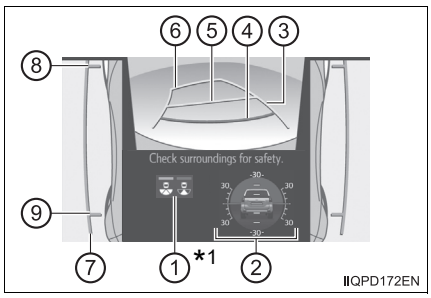
The image displayed is one that was previously taken at a point approximately 3 m (10 ft.) behind the current vehicle position. In cases such as when objects move after the image is taken, the image displayed on the screen may differ from the actual state.

■ **Rear view & dual side view/wide rear view*1/rear view*2**

Guide lines are displayed in a composite view on an image of the area to the rear of the vehicle to use as a reference when deciding a course of movement and assist the driver to check the safety of the area to the rear of the vehicle or to park the vehicle.

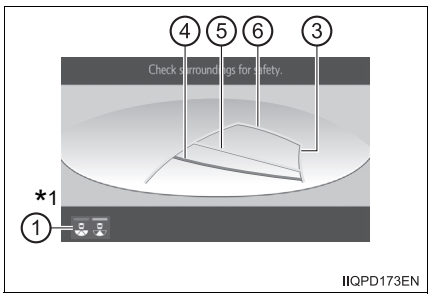
● Screen description

▶ Rear view & dual side view display



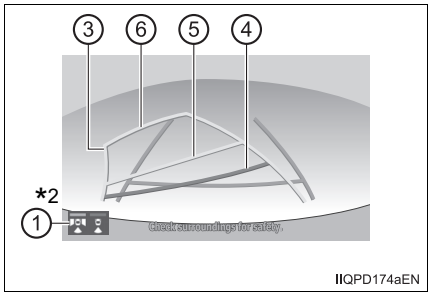
IIQPD172EN

▶ Wide rear view display*1



IIQPD173EN

▶ Rear view display*2



IIQPD174aEN

① Display mode selection switch

- Switches between rear view & dual side view display and wide rear view display each time the switch is selected.*1
- Switches between rear view & dual side view display and rear view display each time the switch is selected.*2

② Clinometer/slip display

→P. 95

③ Projected course lines (yellow)

Indicate the estimated course of the vehicle according to steering operations.

④ 0.5 m (1.5 ft.) distance guide line (red)

⑤ 1 m (3 ft.) distance guide line (yellow)

⑥ 2.5 m (8 ft.) distance guide line (yellow)

④, ⑤ and ⑥ indicate the estimated distance from the rear end of the vehicle.

⑦ Vehicle width extension guide line (blue)

Indicates the estimated vehicle width including the outside rear view mirrors.

⑧ Front tire contact line (blue)

⑨ Rear tire contact line (blue)

Items ⑧ and ⑨ indicate estimated tire positions on the image.

*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

■ **Rear view & dual side view/wide rear view*1/rear view*2**

The screen can be displayed when the shift lever is in R.

*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

■ **Guide lines**

If the back door is not closed, guide lines will not be displayed. If the guide lines do not display even when the back door is closed, have the vehicle inspected at any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

■ **Toyota parking assist-sensor or RCTA pop-up display**

→Refer to the “Owner’s Manual”

⚠ WARNING

■ **Guide lines**

The tire position indicator lines and vehicle position indicator lines may differ from actual vehicle positions depending on the number of passengers, cargo weight, road grade, road surface conditions, brightness of the surrounding environment, etc. Always drive the vehicle while confirming the safety of your surroundings.

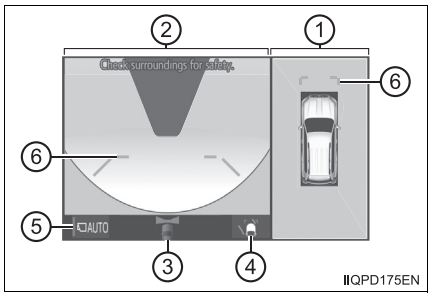
■ **Panoramic view & wide front view**

The image looking down at the vehicle from above and the image from the front camera are displayed simultaneously and assist the driver to check conditions in front, and to the right and left, of the vehicle at intersections or T-junctions with poor visibility.

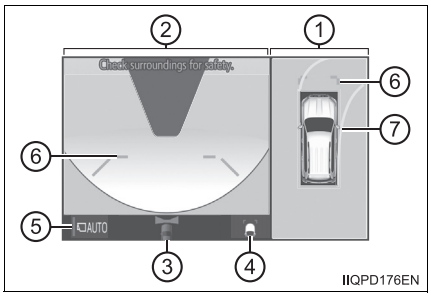
● Screen description

The following 2 types of display mode can be selected according to conditions.

▶ Distance guide line display mode



▶ Projected course line display mode



① Panoramic view

Displays an image looking down at the vehicle from above.

② Wide front view

Displays an image of the area to the front of the vehicle.

③ Display area

④ Guide line display selection switch

→P. 103

⑤ Automatic display mode switch

→P. 89

⑥ Front distance guide line (blue)

Indicates a distance approximately 1 m (3 ft.) from the front end of the vehicle.

⑦ Forward projected course lines

Automatically displayed when the steering wheel is turned 90° or more from the center position.

Indicates the estimated course of the vehicle according to steering wheel operations.

● Switching to automatic display mode

→P. 89

● Switching guide line display modes

The mode switches and the switch display changes each time the guide line display selection switch is selected.

Selected mode	Distance guide line display mode	Projected course line display mode
Switch display		

■ **Panoramic view & wide front view**

The screen can be displayed when the shift lever is in P, D, S or N.

■ **Toyota parking assist-sensor pop-up display**

→Refer to the “Owner’s Manual”

WARNING

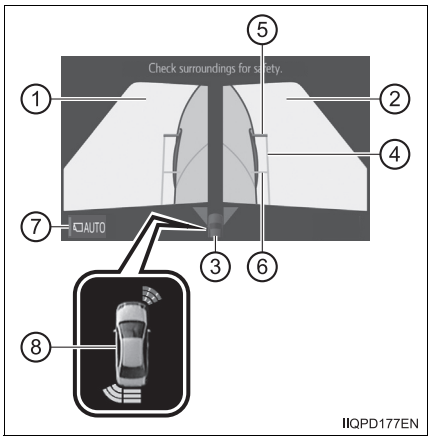
■ **Guide lines**

The tire position indicator lines and vehicle position indicator lines may differ from actual vehicle positions depending on the number of passengers, cargo weight, road grade, road surface conditions, brightness of the surrounding environment, etc. Always drive the vehicle while confirming the safety of your surroundings.

■ **Side views**

The image from the both side cameras is displayed and assists the driver to check conditions on the sides of the vehicle or to confirm the safety of narrow roads.

● Screen description



① Side view (left front side)

② Side view (right front side)

③ Display area

④ Vehicle width lines (blue)

Indicate the estimated vehicle width including the outside rear view mirrors.

⑤ Front distance guide line (red)

Indicates a distance approximately 0.5 m (1.6 ft.) from the front end of the vehicle.

⑥ Front tire contact line (blue)

Indicates the estimated front tire position on the image.

⑦ Automatic display mode switch

→P. 89

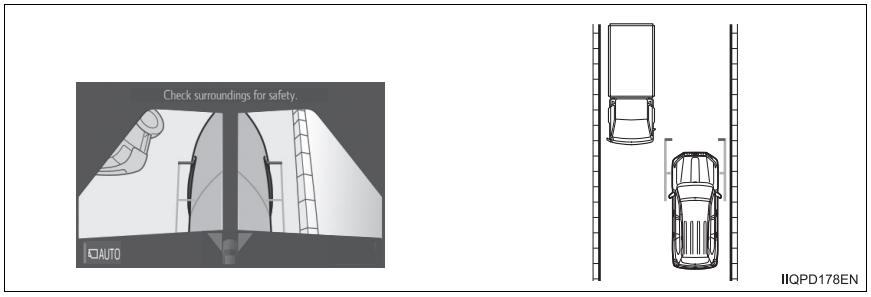
⑧ Toyota parking assist-sensor

When the Toyota parking assist-sensor is on, an icon will pop up when an obstacle is detected. (Refer to the “Owner’s Manual” for information about the Toyota parking assist-sensor.)

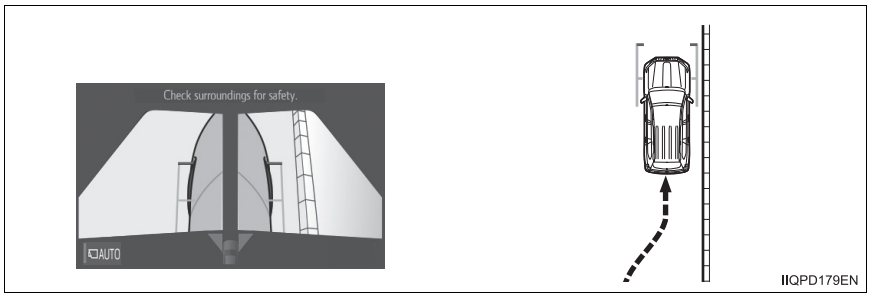
● Using the vehicle width lines

The relative distance of obstacles from the vehicle width lines can be confirmed.

Example 1: When there is an obstacle in front of the vehicle
Operate the steering wheel so that the vehicle width line and the obstacle do not overlap.



Example 2: When parking on the shoulder
Approach the shoulder, but do not allow the vehicle width line to overlap the curb or other obstacles.
After confirming the distance to the shoulder of the road, maneuvering the vehicle so that the vehicle width line and the curb or other obstacle are parallel allows the vehicle to be parked evenly.



■ **Side views**

- The screen can be displayed when the shift lever is in P, D, S or N.
- When the outside rear view mirrors are retracted, the displayed area changes (the area on the screen that is not masked in black). (→P. 113)

■ **Toyota parking assist-sensor pop-up display**

→Refer to the “Owner’s Manual”

⚠ WARNING

■ **Guide lines**

The tire position indicator lines and vehicle position indicator lines may differ from actual vehicle positions depending on the number of passengers, cargo weight, road grade, road surface conditions, brightness of the surrounding environment, etc. Always drive the vehicle while confirming the safety of your surroundings.

■ **Panoramic view & rear view/wide rear view*1/rear view*2**

- Panoramic view & rear view:

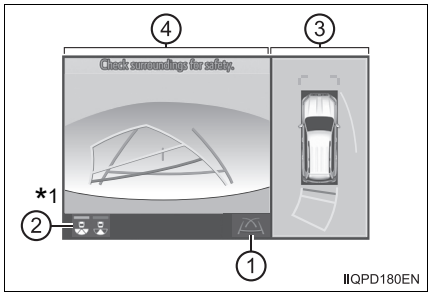
  The image looking down at the vehicle from above and the image from the rear camera are displayed simultaneously and assist the driver to check the safety of the area when parking.
- Wide rear view*1:

  The image from the rear camera is displayed in a range of approximately 180° and assists the driver to check the safety of the area when backing up.
- Rear view*2

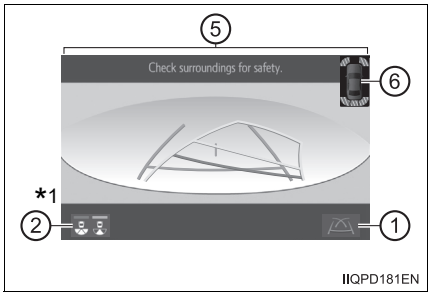
  The image from the rear camera is displayed and assists the driver to check the safety of the area when backing up.

● Screen description

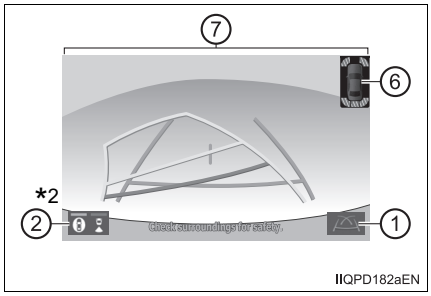
▶ Panoramic view & rear view display



▶ Wide rear view display*1



▶ Rear view display*2



① Guide line selection switch

→P. 103

② Display mode selection switch

- Switches between the panoramic view & rear view display and wide rear view display each time the switch is selected.*1
- Switches between the panoramic view & rear view display and rear view display each time the switch is selected.*2

③ Panoramic view & rear view

④ Rear view

Switches the screen to wide rear view display*1 or rear view display*2 when you touch the display.

⑤ Wide rear view*2

Switches the screen to the panoramic & rear view display when you touch the display.

⑥ Toyota parking assist-sensor

When the Toyota parking assist-sensor is turned on, an icon will pop up when an obstacle is detected. (Refer to the “Owner’s Manual” for information about the Toyota parking assist-sensor.)

⑦ Rear view*2

Switches the screen to the panoramic & rear view display when you touch the display.

*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

● Switching modes

The display mode switches and the icon display changes each time the guide line display selection switch is selected.

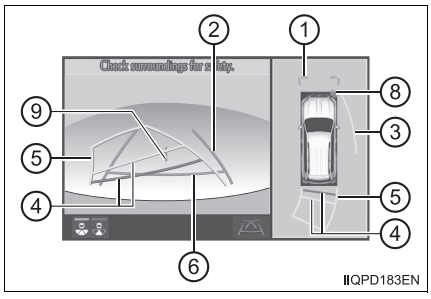
Selected mode	Projected course line display mode	Parking assist guide line display mode	Distance guide line display mode
Icon display			

- Projected course line display mode:
  Projected course lines that change according to steering wheel operations are displayed.
- Parking assist guide line display mode:
  Inverted steering wheel operations (parking assist guide line) are displayed. Use this mode if you are used to how the vehicle handles (if you can park without needing the course line display).
- Distance guide line display mode:
  Only distance guide lines are displayed. Use this mode when guide lines are not needed.

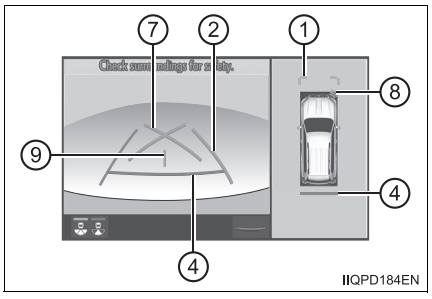
● Guide lines

The panoramic view & rear view screen is explained here as an example.

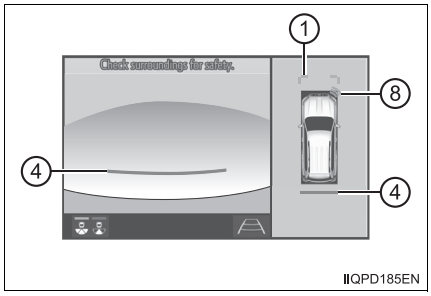
▶ Projected course line display mode



▶ Parking assist guide line display mode



▶ Distance guide line display mode



① Front distance guide line (blue)

Indicates a distance approximately 1 m (3 ft.) from the front end of the vehicle.

② Rear vehicle width extension guide lines

Indicate the estimated course of the vehicle when backing up straight.

- The displayed width is wider than the actual vehicle width.
- In projected course line display mode, this item overlaps the projected course lines when going straight.

③ Side projected course line (yellow)

Indicates the projected reverse course calculated by the angle of the steering wheel.

The projected reverse course line on the outside of the turn is displayed according to the direction of the steering wheel.

④ Rear distance guide line

Indicates the estimated distance from the end of the rear bumper (at the center). (Red line: approximately 0.5 m [1.5 ft.] away. Yellow line: approximately 1 m [3 ft.] away.)

In projected course line display mode, the rear distance guide line changes according to steering wheel operations.

⑤ Projected reverse course line (yellow)

Changes according to steering wheel operations and indicates the estimated course of the vehicle.

⑥ Rear distance guide line (blue)

Indicates a distance approximately 0.5 m (1.5 ft.) from the end of the rear bumper (at the center).

⑦ Parking assist guide line (blue)

Indicates the estimated tire course of the tightest possible turn in reverse.

ⓐ Toyota parking assist-sensor

When the Toyota parking assist-sensor is on, an icon will be displayed when an obstacle is detected. (Refer to the “Owner’s Manual” for information about the Toyota parking assist-sensor.)

ⓑ Vehicle center line (blue)

Indicates the estimated vehicle center on the ground.

● Parking operation

→Refer to the “Owner’s Manual”

■ Panoramic view & rear view/wide rear view*1/rear view*2

● The screen can be displayed when the shift lever is in R.

*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

■ Guide lines

If the back door is not closed, guide lines will not be displayed. If the guide lines do not display even when the back door is closed, have the vehicle inspected at any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

■ Toyota parking assist-sensor pop-up display

→Refer to the “Owner’s Manual”

⚠ WARNING

■ Guide lines

The tire position indicator lines and vehicle position indicator lines may differ from actual vehicle positions depending on the number of passengers, cargo weight, road grade, road surface conditions, brightness of the surrounding environment, etc. Always drive the vehicle while confirming the safety of your surroundings.

WARNING

■ **When using panoramic view & rear view or wide rear view*1 or rear view*2**

- If the vehicle width extension guide lines and projected course lines are not aligned with the steering wheel in the center position, drive straight on a road without as little traffic and as few bends or curves as possible for approximately 5 minutes or more. If the symptom is not resolved, have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.
- Rear vehicle width extension guide lines are displayed wider than the actual vehicle width. When backing up, always confirm the safety of your surroundings and the area to the rear of the vehicle.

*1: Vehicles with under floor mounted spare tire

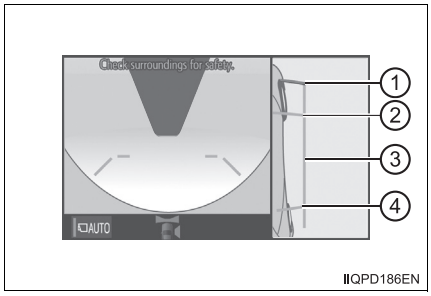
*2: Vehicles with back door mounted spare tire

■ **Display when the outside rear view mirrors are retracted (side view and side views)**

When the outside rear view mirrors are retracted, one of the following screens is displayed and assists the driver to confirm the safety of the area around the vehicle, or park alongside and close to another object.

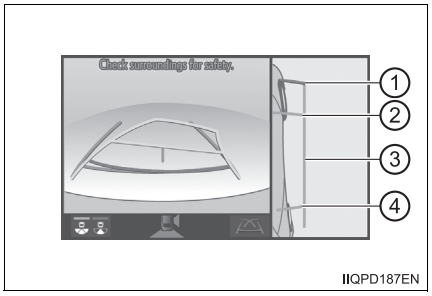
● Screen description

▶ When the wide front view is displayed



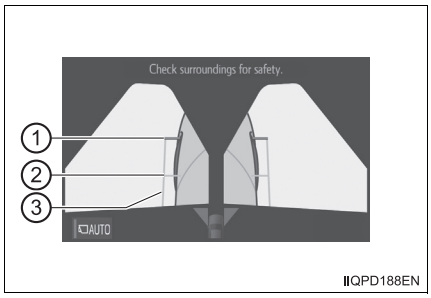
IIQPD186EN

▶ When the rear view is displayed



IIQPD187EN

▶ When the side views is displayed



IIQPD188EN

For information about other than the side view and side views display area, refer to the page for the respective screen.

① Front distance guide line (red)

Indicates a distance approximately 0.5 m (1.5 ft.) from the front end of the vehicle.

② Front tire contact line (blue)

Indicates the estimated front tire position on the image.

③ Vehicle width lines (blue)

Indicate the estimated vehicle width including the outside rear view mirrors.

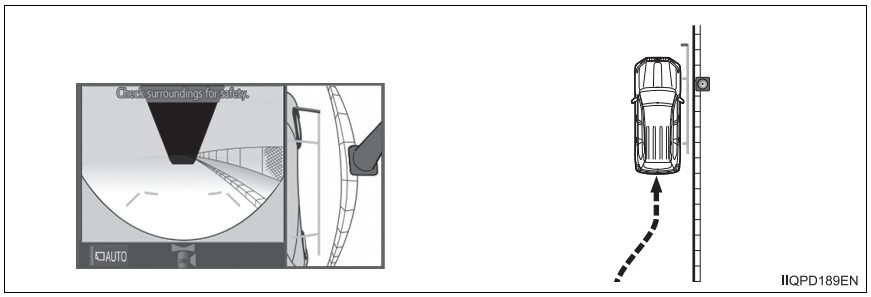
④ Rear tire contact line (blue)

Indicates the estimated rear tire position on the image.

● Using the vehicle width lines

The relative distance of obstacles from the vehicle width lines can be confirmed.

- Approach the shoulder, but do not allow the vehicle width line to overlap the curb or other obstacles.
- After confirming the distance to the shoulder, maneuvering the vehicle so that the vehicle width line and the curb or other obstacle are parallel allows the vehicle to be parked evenly.



■ **Toyota parking assist-sensor pop-up display**

→Refer to the “Owner’s Manual”

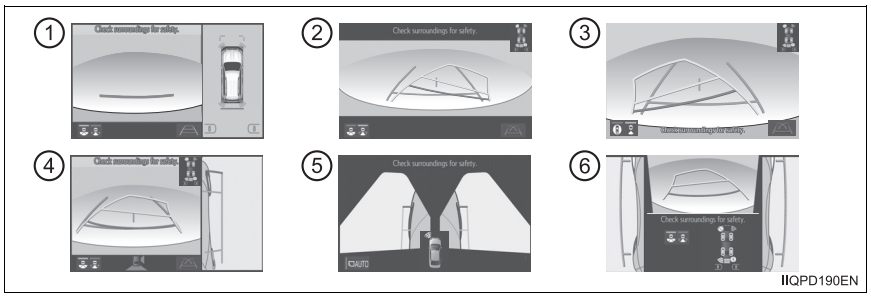
WARNING

■ **Guide lines**

The tire position indicator lines and vehicle position indicator lines may differ from actual vehicle positions depending on the number of passengers, cargo weight, road grade, road surface conditions, brightness of the surrounding environment, etc. Always drive the vehicle while confirming the safety of your surroundings.

■ **Toyota parking assist-sensor and RCTA cooperative display**

When either the Toyota parking assist-sensor (→Refer to the "Owner's Manual") or Blind Spot Monitor (→Refer to the "Owner's Manual") is turned on, a popup icon warns the driver when an obstacle is detected.



① Example of pop-up display in the panoramic view

② Example of pop-up display in the wide rear view*1

③ Example of pop-up display in the rear view*2

④ Example of pop-up display in the side view (with mirrors retracted)

⑤ Example of pop-up display in the side views

⑥ Example of pop-up display in the front view & dual side view, under vehicle terrain view & dual side view or rear view & dual side view

*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

■ **Toyota parking assist-sensor pop-up display**

While the Toyota parking assist-sensor is in use, a pop-up is displayed when an obstacle is detected (→Refer to the "Owner's Manual").
However, this function only informs the driver that an obstacle is close to the vehicle and the detected obstacle is not displayed on the screen. Be sure to visually confirm the safety of your surroundings.

When using the Multi-terrain Monitor

Observe the following precautions. Failure to do so may result in an unexpected accident. Also, when driving, make sure to directly confirm the safety of your surroundings and the area to the rear of the vehicle.

WARNING

■ Conditions under which the Multi-terrain Monitor should not be used

Do not use the Multi-terrain Monitor in the following situations. The system may not operate properly, resulting in an unexpected accident.

- When driving on an icy, snow-covered or otherwise slippery road surface
- When using tire chains or a spare tire
- When either front door or the back door is not completely closed
- When driving on an uneven road, such as a hill
- When tires or suspension parts other than those specified are equipped
  When the tires are replaced, the position indicated by the guide lines displayed on the screen may differ.

■ Guide lines

The tire position indicator lines and vehicle position indicator lines may differ from actual vehicle positions depending on the number of passengers, cargo weight, road grade, road surface conditions, brightness of the surrounding environment, etc. Always drive the vehicle while confirming the safety of your surroundings.

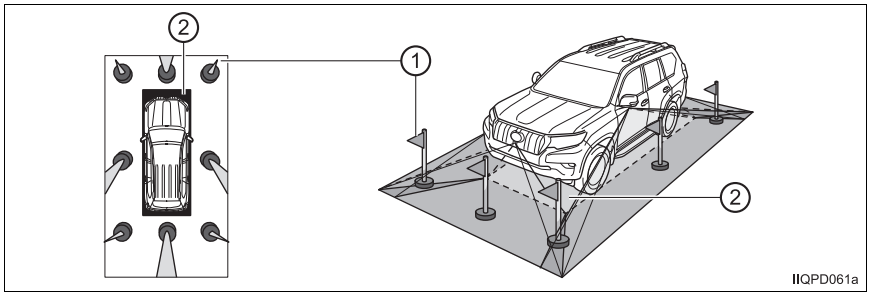
NOTICE

Panoramic view

- In the panoramic view, the system combines images taken from the front, back, left and right side cameras into a single image. There are limits to the range and content that can be displayed. Understand the characteristics of this system before using.
- Image clarity may decline at the four corners of the panoramic view. However, this is not a malfunction, as these are the regions along the border of each camera image where the images are combined.
- Depending on lighting conditions near each of the cameras, bright and dark patches may appear on the panoramic view.
- The panoramic view display does not extend higher than the installation position and image capture range of each camera.
- There are blind spots around the vehicle and there are regions that are not displayed in the panoramic view.
- Three-dimensional objects displayed in wide front view or rear view may not be displayed in the panoramic view.
- People and other three-dimensional obstacles may appear differently when displayed in the panoramic view. (These differences include, among others, cases in which displayed objects appear to have fallen over, disappear near image processing areas, appear from image processing areas, or when the actual distance to an object differs from the displayed position.)
- The panoramic view will not be properly displayed when either front door or the back door is open.
- The vehicle icon displayed in the panoramic view is a computer generated image, and properties such as the color, shape and size will differ from the actual vehicle. Therefore, nearby three-dimensional objects may appear to be touching the vehicle, and actual distances to three-dimensional objects may differ from those displayed.

■ **Display range**

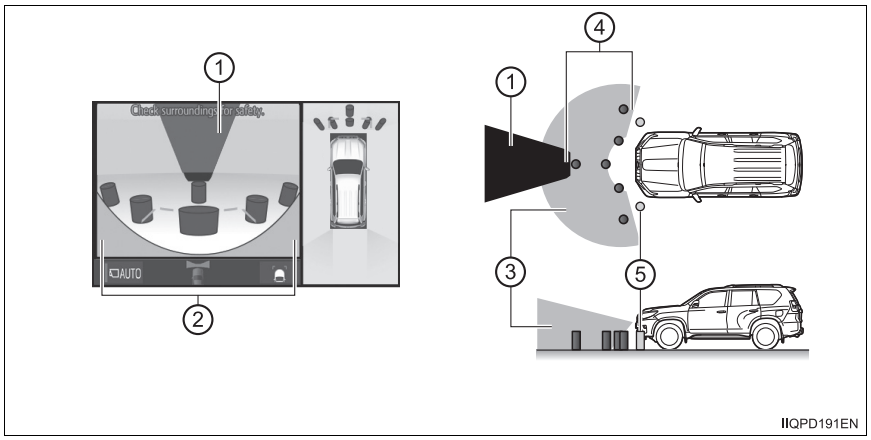
● Panoramic view



① Not displayed.

② Not displayed. (Displayed in black around the vehicle icon.)

● Wide front view



① Masking

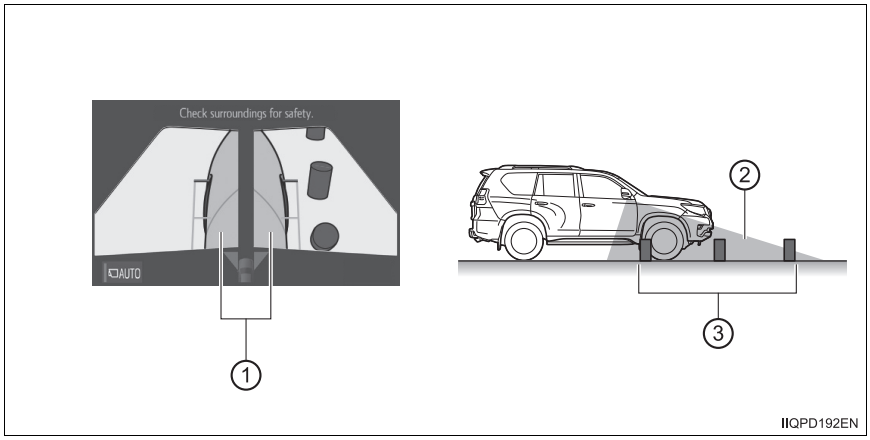
② Parts of the vehicle (such as the bumper or grille) are displayed on the screen.

③ Camera visibility range

④ Object detectable by camera

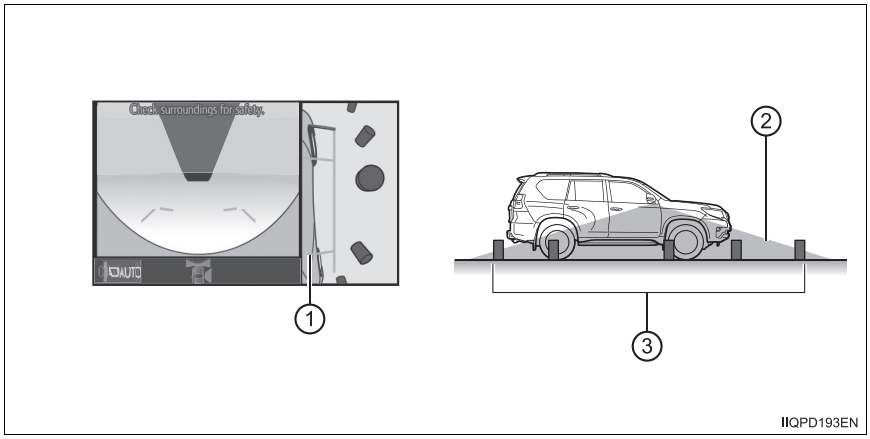
⑤ Object not detectable by camera

● Side views



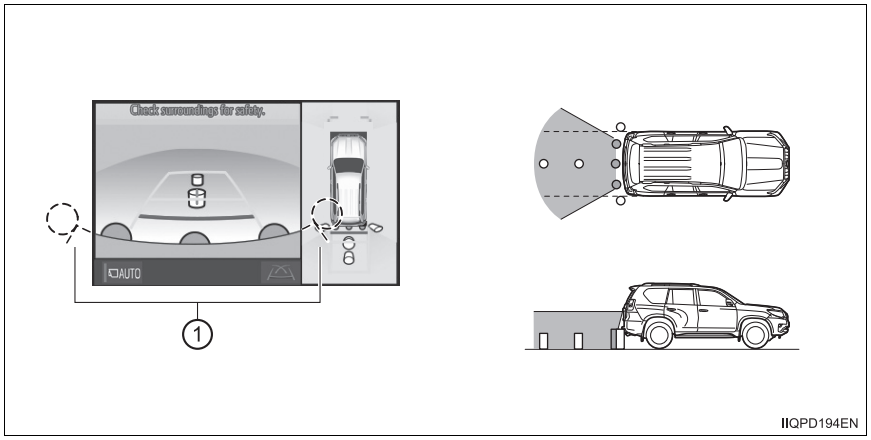
① The side of the vehicle is displayed on the screen.
② Camera visibility range
③ Object detectable by camera

● Side view



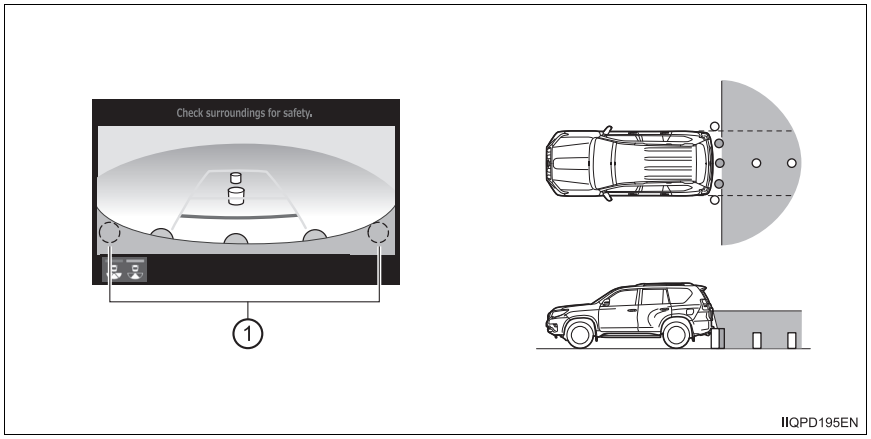
① The side of the vehicle is displayed on the screen.
② Camera visibility range
③ Object detectable by camera

● Rear view



① The corners of the bumper are not seen on the screen.

● Wide rear view*

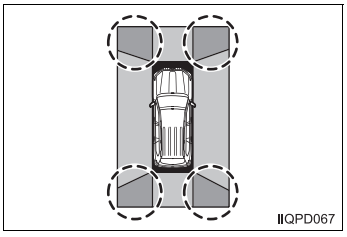


① The corners of the bumper are not seen on the screen.

*: Vehicles with under floor mounted spare tire

■ **Panoramic view display range**

- In the panoramic view, the system processes and displays images acquired form the 4 cameras under the assumption that the vehicle is on a flat road surface. Therefore, the display may appear as follows.
  - Three-dimensional objects may appear to have fallen over, and be long and thin or bigger than they actually are
  - Three-dimensional objects at a point higher than the surface of the road may appear further away than they actually are, or may not appear
  - Tall objects may appear to emerge from the image processing seams
- Inconsistencies in the brightness of images from each camera may occur depending on lighting conditions.
- The displayed image may not be aligned when the tilt or height of the vehicle changed due to the number of passengers, cargo weight or fuel remaining.
- Images and guide lines may not be properly displayed when the doors are not completely closed.
- The displayed image may not be aligned when the vehicle is in other than “N” (normal) height mode (vehicles with rear height control air suspension). (→P. 135)
- The relative distances between the vehicle icon and road surface or an obstacle displayed in the panoramic view may differ from the actual state.
- If an illuminated license plate is used, it may appear on the screen.
- The black area around the vehicle icon is an area that is not appear in the camera. Check these areas directly.
- The circled areas shown in the illustration may be difficult to see, as these are points where images are combined.



■ **Wide front view display range**

- Certain areas at the front of the vehicle have a different sense of distance, and are masked in black so that they do not appear on the screen.
- There are limits to the range displayed on the screen. Objects at either corner of the bumper or directly below the bumper are not displayed.
- The perceived distance in images displayed on the screen differs from the actual distance.

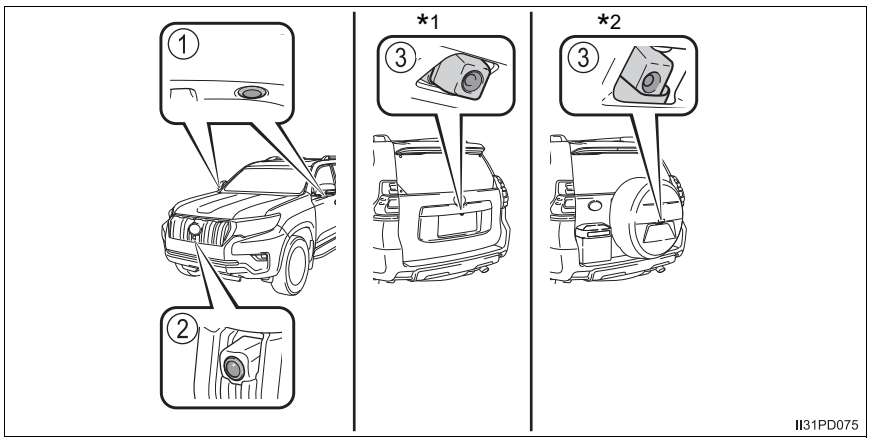
■ **Images displayed on the screen**

Cameras of the Multi-terrain Monitor system use special lenses. The distance of the image that appears on the screen differs from the actual distance.

■ **Multi-terrain Monitor cameras**

● Camera positions

The cameras of the Multi-terrain Monitor system are installed as follows.



① Side camera (left and right sides)

② Front camera

③ Rear camera

*1: Vehicles with under floor mounted spare tire

*2: Vehicles with back door mounted spare tire

● Using the cameras

If dirt or foreign matter (such as water droplets, snow, mud, etc.) is adhering to the camera, it cannot transmit a clear image. In this case, flush it with a large quantity of water and wipe the camera lens with a soft and wet cloth.

■ **Display settings**

Refer to the “Navigation and multimedia system Owner’s manual”.

NOTICE

■ **How to use the cameras**

● Observe the following precautions. Failure to do so may prevent the Multi-terrain Monitor from operating properly.

- Do not strike the camera area, or allow any objects to bump into it
  If the camera or surrounding area has received a strong impact, the camera position, installation angle, etc., may deviate. If the camera is accidentally subjected to an impact, have the vehicle inspected at any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.
- Do not remove, disassemble or modify the camera or surrounding parts
  Doing so may result in the camera malfunctioning. This also may result in a loss of waterproof performance.
- If the camera lens is dirty, follow the above procedures to clean it
  If the camera lens is damaged it cannot transmit a clear image.
  Do not allow organic solvent, car wax, oil film remover, glass coating, etc. to contact the camera cover
  Doing so will negatively affect the camera cover (resin). If this happens, wipe it off immediately.
- When the outside temperature is cold, do not cause any sudden changes in temperature, such as by applying hot water

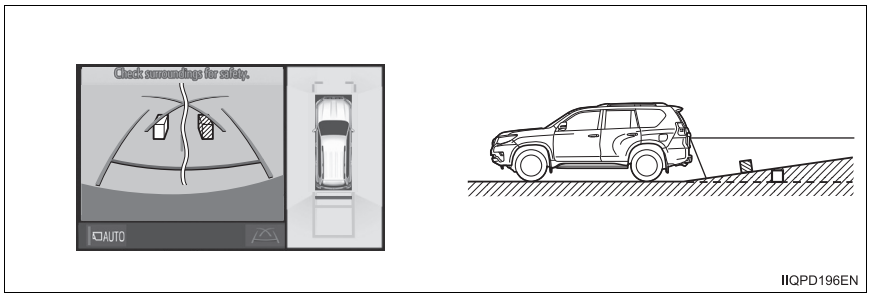
● When washing the vehicle, do not apply water with a high-pressure washer to the camera or surrounding area. Doing so may cause the camera to receive a strong impact, and the camera may not operate properly

■ **Differences between the panoramic view screen and the actual road**

The distance guide lines, the combined panoramic view image, guide lines, etc., indicate estimated distances on a flat road surface. In the following situations, actual distances and vehicle course will differ from the guide lines on the screen.

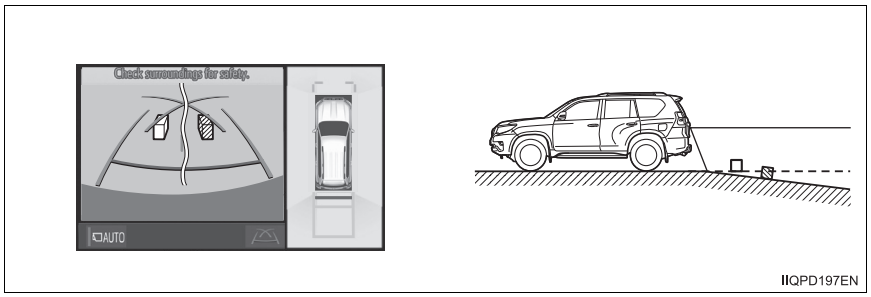
● When the ground behind the vehicle slopes up sharply

The distance guide lines will appear to be closer to the vehicle than the actual distance. Therefore, obstacles on an upward slope appear further away than they actually are. In the same way, the actual course of the vehicle will differ from the course indicated by the guide lines.



● When the ground behind the vehicle slopes down sharply

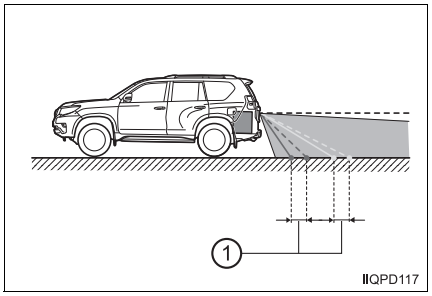
The distance guide lines are displayed further away than the actual distance. Therefore, obstacles on a downward slope appear closer than the actually are. In the same way, the actual course of the vehicle will differ from the course indicated by the guide lines.



● When the vehicle is tilted

When the vehicle is tilted due to the number of passengers or weight of the load, actual distances and vehicle course will differ.

① Margin of error

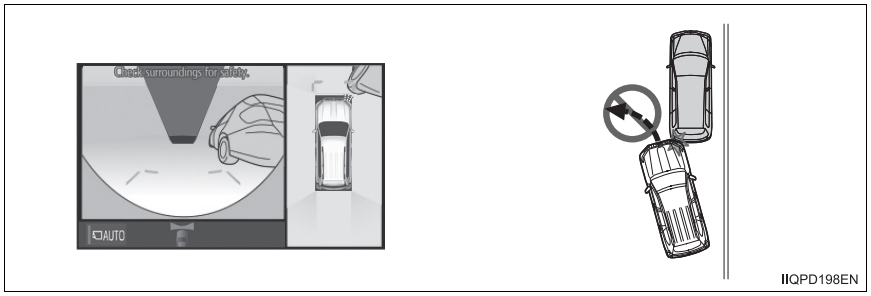


■ **Differences between the panoramic view display and actual three-dimensional objects**

Be aware of the following points when three-dimensional objects higher than the surface of the road (such as a vehicle bumper) are nearby.

● Panoramic view display

In the panoramic view, the system processes and displays images under the assumption that the vehicle is on a flat road surface. Therefore, the position of three-dimensional objects higher than the road surface (such as a vehicle bumper) cannot be determined. Even if it seems that a collision will not occur according to the screen, there may not actually be any extra space between the vehicle and an obstacle higher than the road surface, resulting in a collision. In these cases, confirm the safety of your surroundings directly.



WARNING

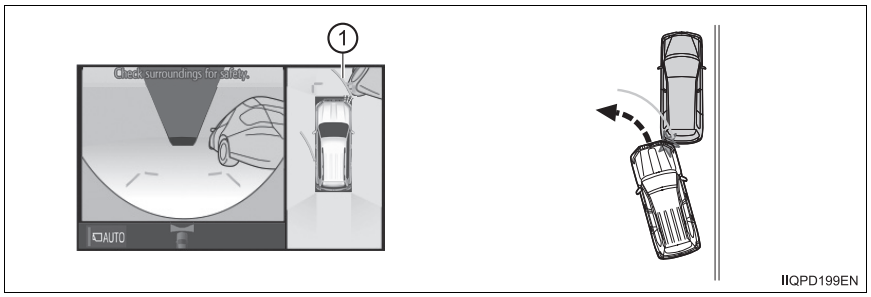
■ **Toyota parking assist-sensor pop-up display**

When the Toyota parking assist-sensor pop-up display is red, park the vehicle and make sure to confirm the safety of your surroundings.

Failure to do so may lead to an unexpected accident.

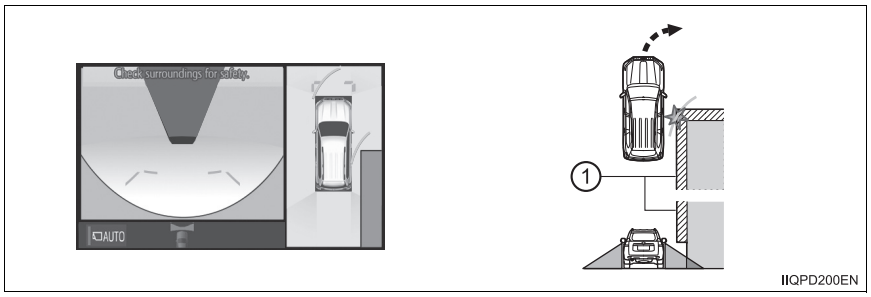
● Projected course lines

Projected course lines are displayed under the assumption that the vehicle is on a flat road surface. Therefore, the position of three-dimensional objects higher than the road surface (such as a vehicle bumper) cannot be determined. Even if it seems that an obstacle is outside of the projected course lines and a collision will not occur according to the screen, an obstacle may actually be in the vehicle course, resulting in a collision.



① Projected course lines

Three-dimensional objects in high positions (such as walls with protrusions or the loading areas of trucks) may not be displayed on the screen. Confirm the safety of your surroundings directly.



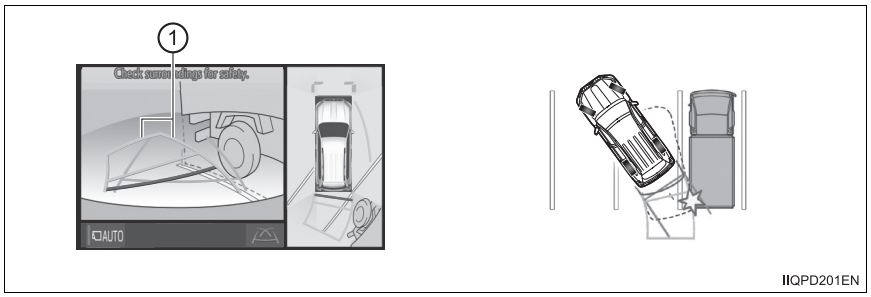
① Protrusion of a wall

■ **Differences between the rear view or wide rear view and actual roads**

The guide lines on the screen are intended for flat surfaces (such as the road). Be aware of the following points when three-dimensional objects with protrusions (obstacles such as the cargo bed of a truck) are nearby.

● Projected course lines

Guide lines are displayed in reference to a level road surface and cannot be used to determine the location of three-dimensional objects. Confirm the safety of your surroundings directly. Even if it seems that the cargo bed of a truck is outside the projected course lines and a collision will not occur according to the screen, it may actually be in the vehicle course, resulting in a collision.

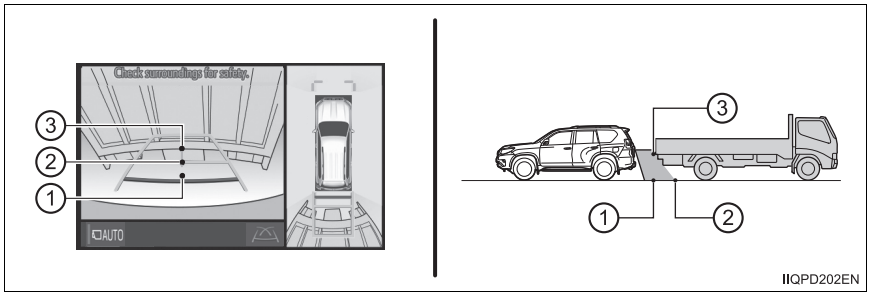


① Projected course lines

■ **Differences between the panoramic view, rear view and wide rear view and actual roads**

● Distance guide lines

Guide lines are displayed in reference to the road surface and cannot be used to determine the distance of three-dimensional objects from the vehicle. Confirm the safety of your surroundings directly. On the screen, it appears that a truck is parking at point ② according to the distance guide lines. However, in reality if you back up to point ①, you will hit the truck. On the screen, it appears that ① is closest and ③ is farthest away. However, in reality, the distance to ① and ③ is same, and ② is farther than ① and ③.



● Under vehicle terrain view

The tire position indicator lines and vehicle position indicator lines may differ from actual vehicle positions depending on the number of passengers, weight of the load, road grade, road surface conditions, brightness of the surrounding environment, etc. Always drive the vehicle while directly confirming the safety of your surroundings.

■ **Using under vehicle terrain view**

- The images displayed were previously taken approximately 3 m (10 ft.) behind the current vehicle position.
  Therefore, actual conditions may differ from those shown on the screen in the following situations.
  - An obstacle has appeared after the image was taken
  - Loose material like sand or snow has crumbled or shifted
  - An obstacle has moved
  - There is a puddle, tract of mud, etc., within the display range
  - The vehicle slips
- In the following situations, actual tire positions and vehicle position may differ from those indicated by the tire position indicator lines and vehicle position indicator lines.
  - Tires have been replaced
  - Optional equipment has been installed

WARNING

■ **Guide lines**

The displayed guide lines are composed with the image that was previously taken and may differ from the actual state. Always drive the vehicle while confirming the safety of your surroundings.

■ **If you notice any symptoms**

If you notice any of the following symptoms, refer to the likely cause and the solution, and re-check.

If the symptom is not resolved by the solution, have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

Likely cause	Solution
❑ The image is difficult to see	
• The vehicle is in a dark area • The temperature around the lens is either high or low • The outside temperature is low • There are water droplets on the camera • It is raining or humid • Foreign matter (mud etc.) is adhering to the camera • Sunlight or headlights are shining directly into the camera • The vehicle is under fluorescent lights, sodium lights, mercury lights, etc.	Drive while visually checking the vehicle's surroundings. (Use the Multi-terrain Monitor again once conditions have been improved.) The image on the rear view monitor system screen can be adjusted, refer to the "Navigation and multimedia system Owner's manual".
❑ The image is blurry	
Dirt or foreign matter (such as water droplets, snow, mud, etc.) is adhering to the camera	Flush the camera with a large quantity of water and wipe the camera lens with a soft and wet cloth.
❑ The image is out of alignment	
The camera or surrounding area has received a strong impact	Have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

Likely cause	Solution
❑ The guide lines are very far out of alignment	
The camera position is out of alignment	Have the vehicle inspected at any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.
• The vehicle is tilted (there is a heavy load on the vehicle, tire pressure is low due to a tire puncture, etc.) • The vehicle is used on an incline	If this happens due to these causes, it does not indicate a malfunction. Drive while visually checking the vehicle's surroundings.
❑ The projected course lines move even though the steering wheel is straight (vehicle width extension guide lines and projected course lines are not aligned)	
There is a malfunction in the signals being output by the steering sensor	Have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.
❑ Guide lines are not displayed	
The back door is open	Close the back door. If this does not resolve the symptom, have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

Likely cause	Solution
❑ “!” is displayed	
There is a malfunction in the Multi-terrain Monitor	Have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.
The battery is disconnected and reconnected	Turn the steering wheel fully to right and left. If this does not resolve the symptom, have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

NOTICE

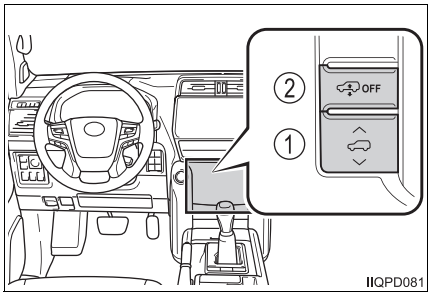
■ How to use the camera

- The Multi-terrain Monitor system may not operate properly in the following cases.
  - If the front or the rear of the vehicle or the outside rear view mirror has been hit, the camera’s position and mounting angle may have changed.
  - As the camera has a water proof construction, do not detach, disassemble or modify it. This may cause incorrect operation.
  - When cleaning the camera lens, flush the camera with a large quantity of water and wipe it with a soft and wet cloth. Strongly rubbing the camera lens may cause the camera lens to be scratched and unable to transmit a clear image.
  - Do not allow organic solvent, car wax, window cleaner or glass coat to adhere to the camera. If this happens, wipe it off as soon as possible.
  - If the temperature changes rapidly, such as when hot water is poured on the vehicle in cold weather, the system may not operate normally.
  - When washing the vehicle, do not apply intensive bursts of water to the camera or camera area. Doing so may result in the camera malfunctioning.
  - When the camera is used under fluorescent lights, sodium light or mercury light etc., the lights and the illuminated areas may appear to flicker.
  - The camera can be damaged by flying rocks and other debris.
- Do not expose the camera to strong impact as this could cause a malfunction. If this happens, have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer. as soon as possible.

Rear height control air suspension*

The rear height control air suspension allows the driver to control vehicle rear height in order to adjust driving conditions. Select the desired height with the height control button.

① Height control button
② Height control OFF button



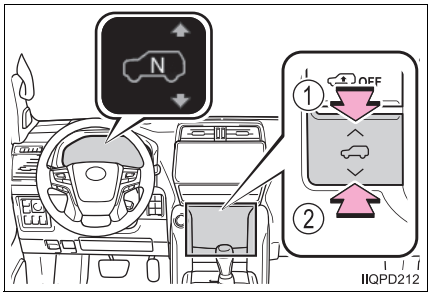
*: If equipped

Selecting vehicle height

Operating the button changes vehicle rear height as follows:

① Higher

② Lower



Vehicle height can be adjusted only when the engine is running.

The vehicle height can also be adjusted when the engine is stopped by the Stop & Start system (if equipped), in this case, the engine will be restarted automatically.

The selected height mode will be shown on the multi-information display.

The selected mode will flash while the height mode is being changed.

Height modes

- N mode (normal mode): For ordinary driving

  Normal height

- HI mode (high mode): For driving on bumpy roads

  40 mm (1.6 in.) higher than the normal rear height

  HI mode cannot be selected when vehicle speed exceeds 50 km/h (31 mph).

- LO mode (low mode): For the ease of egress/ingress and loading luggage

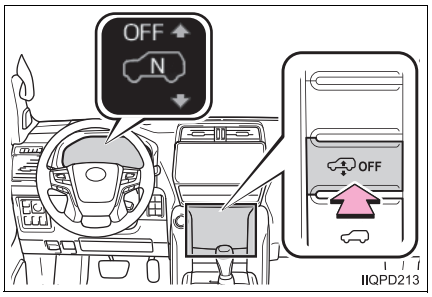
  20 mm (0.8 in.) lower than the normal rear height

  LO mode cannot be selected when vehicle speed exceeds 12 km/h (7 mph).

Disabling the height control

When the height control OFF button is pressed with the vehicle stopped, the vehicle height is fixed at the current height.

This status is memorized in the system even after the engine is stopped.



The height can be adjusted by pressing the height control OFF button again.

When vehicle speed exceeds 30 km/h (18 mph), the rear height control air suspension turns on automatically.

When HI mode is selected

The vehicle height will change to N mode when driving at the speeds of 50 km/h (31 mph).
Even if vehicle speed is then reduced to under 50 km/h (31 mph), height will not return to HI mode.

When LO mode is selected

The vehicle height will change to N mode when vehicle speed exceeds 12 km/h (7 mph).
Even if vehicle speed is then reduced to under 12 km/h (7 mph), height will not return to LO mode.

Automatic leveling function

Regardless of the number of occupants and the luggage load, vehicle height in any mode is always adjusted to a fixed height by the automatic leveling function.

■ **The rear height control air suspension will not operate in the following cases:**

- The underbody of the vehicle is touching the surface of the road.
- The area around the suspension is covered with ice.

■ **Even if you hear an operating noise**

This does not indicate a problem in the rear height control air suspension.

■ **Parking and stopping tips**

- If you immediately stop the engine after off-road driving, or park the vehicle for a long time, the vehicle height may gradually lower. When parking, make sure there is nothing under the vehicle that may come in contact with the underbody. The vehicle will return to the set height when the engine is started.
- The vehicle height may change as the temperature changes when the engine is stopped. The vehicle will return to the set height when the engine is started.

■ **When lowering the vehicle**

In order to prevent the vehicle height from rising as occupants leave the vehicle, lowering control will occur for a short while after the engine has been stopped.

■ **The rear height control air suspension failure warning**

- If a malfunction occurs in the rear height control air suspension, N mode is automatically selected. However, the system may not switch to N mode depending on the location of the malfunction.
- “CHECK AIR SUSPENSION SYSTEM” is displayed on the multi-information display, and the rear height control air suspension cannot be activated until the malfunction is corrected.
  Stop the engine and start it again. If the warning message turns off, the system is operating correctly. If the warning message continues to be displayed, have your vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer as soon as possible.

WARNING

■ **The rear height control air suspension must be turned off**

Be sure to observe the following precautions. Otherwise, the automatic leveling function may cause vehicle height to change, and you may catch part of your body in the vehicle, resulting in an accident:

- When jacking up the vehicle, installing tire chains or tying the vehicle with chains/wires for transportation via flat bed truck, turn off the rear height control air suspension and stop the engine.
- When the vehicle must be towed, put the vehicle height in N mode and turn off the rear height control air suspension.
- When the vehicle is stuck, turn off the rear height control air suspension.
- When disconnecting a trailer, put the vehicle height in LO mode and turn off the rear height control air suspension.

■ **Selecting the correct height mode**

- HI mode should only be used when driving on rough roads, for example when driving off-road.
  Because the vehicle's center of gravity will become higher when in the mode, the vehicle may become unstable when turning abruptly, resulting in an accident.
- Do not select HI mode when loading cargo on the roof luggage carrier.
  Because the vehicle's center of gravity will become higher when in the mode, the vehicle may become unstable when turning abruptly, resulting in an accident.
- Before lowering vehicle height, check that there is no one under the vehicle.

NOTICE

Be careful in any place where overhead space is limited

The vehicle height will rise when a higher mode is selected or cargo is unloaded. This may cause damage to the vehicle.

Do not select LO mode when driving on bumpy roads

If the underbody of the vehicle touches a rugged road surface, the vehicle may be damaged.

Changing vehicle height

Do not change vehicle height frequently.
The compressor may overheat and stop operation.

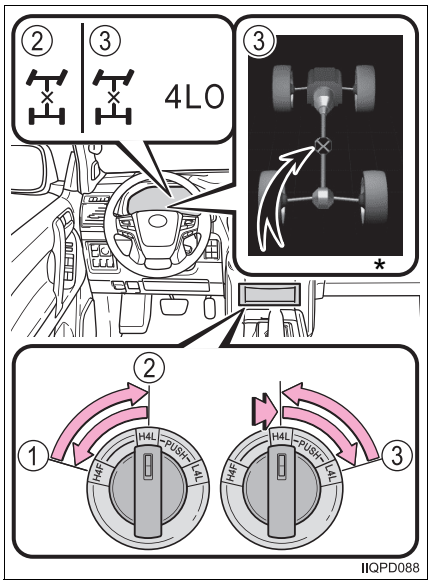
When on the extremely uneven roads with rocks

Sometimes the vehicle height is not adjusted because it is judged as uneven road driving.

Four-wheel drive system

Use the four-wheel drive control switch and center differential lock/unlock switch (if equipped) to select the following transfer and center differential modes.

Four-wheel drive control switch (2TR-FE engines)



① H4F (high speed position, center differential unlocked)

Normal driving on all types of roads.

② H4L (high speed position, center differential locked)

Driving only on track that permit the tires slide, like off-road, icy or snow covered roads.

The center differential lock indicator will come on.

③ L4L (low speed position, center differential locked)

Driving requiring maximum power and traction such as hard pulling in situations the vehicle cannot negotiate. Also, using this mode when driving down steep off-road inclines will help contribute to increased vehicle stability.

The low speed four-wheel drive, center differential lock indicators and indicator in the differential lock/unlock display will come on.

Switch the four-wheel drive control switch to H4F after the wheels have been freed, or after moving to a flat, non-slippery surface.

*: Vehicles with multi-information display type B only

Four-wheel drive control switch (1GR-FE and 1GD-FTV engines)

① H4 (high speed position)

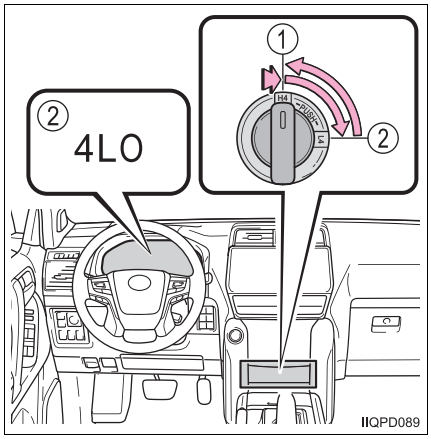
Normal driving on all types of roads.

② L4 (low speed position)

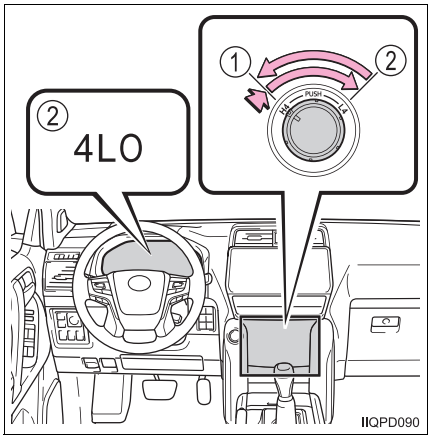
Driving requiring maximum power and traction such as climbing or descending steep hills, off-road driving, and hard pulling in sand or mud, etc.

The low speed four-wheel drive indicator will come on.

▶ Vehicles without rear height control air suspension



▶ Vehicles with rear height control air suspension



Center differential lock/unlock switch (1GR-FE and 1GD-FTV engines)

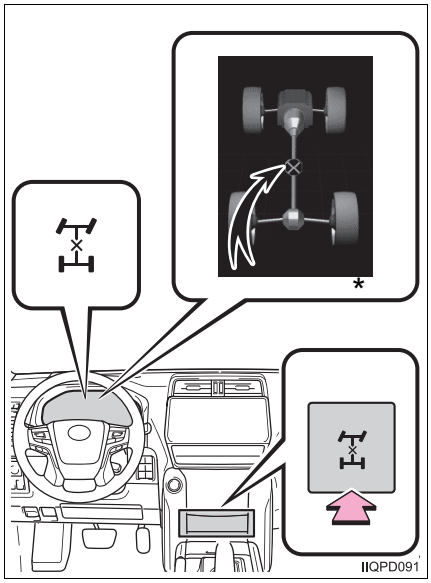
Lock the center differential when your vehicle's wheels get stuck in a ditch or when driving on a slippery or bumpy surface.

The center differential lock indicator and indicator in the differential lock/unlock display will come on.

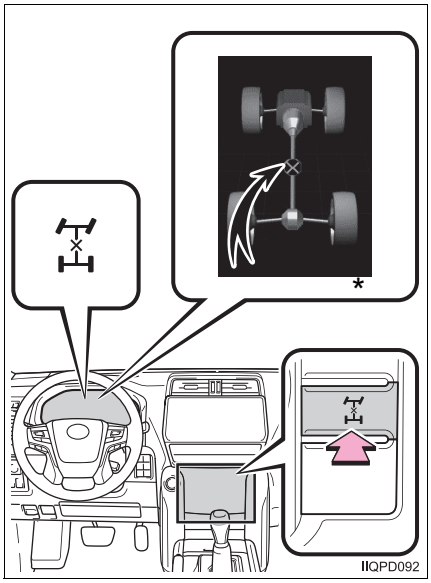
To unlock the center differential, push the switch again.

Unlock the center differential after the wheels have been freed, or after moving to a flat, non-slippery surface.

▶ Vehicles without rear height control air suspension



▶ Vehicles with rear height control air suspension



*: When in L4 position on vehicles with multi-information display type B

Shifting between H4F and H4L

■ Shifting from H4F to H4L

Turn the four-wheel drive control switch clockwise.

Maintain this condition until the center differential lock indicator turns on.

■ Shifting from H4L to H4F

Turn the four-wheel drive control switch counterclockwise.

Maintain this condition until the center differential lock indicator turns off.

Shifting between H4L/H4 and L4L/L4 (automatic transmission)

■ Shifting from H4L/H4 to L4L/L4

1 Stop the vehicle.

The transfer mode cannot be switched if the vehicle is moving.

2 Shift the shift lever to N.

Keep the shift lever in N until switching the transfer mode is completed (indicator on).

The transfer mode cannot be switched if the shift lever is in other than N.

3 Push and turn the four-wheel drive control switch to L4L/L4.

The low speed four-wheel drive indicator light flashes while switching.

If turning the four-wheel drive control switch without following steps 1 and 2, the low speed four-wheel drive indicator light flashes and a buzzer sounds. Return the four-wheel drive control switch to H4L/H4 and try steps 1 and 2 again.

If the shift lever is shifted to other than N while the low speed four-wheel drive indicator light is flashing, gear noise may be caused. Immediately shift the shift lever to N and wait until switching the transfer mode is completed.

4 Check that the low speed four-wheel drive indicator light comes on.

The low speed four-wheel drive indicator light comes on when switching the transfer mode is completed.
Shift the shift lever from N to D or R to drive the vehicle.

■ Shifting from L4L/L4 to H4L/H4

1 Stop the vehicle.

The transfer mode cannot be switched if the vehicle is moving.

2 Shift the shift lever to N.

Keep the shift lever in N until switching the transfer mode is completed (indicator off).

The transfer mode cannot be switched if the shift lever is in other than N.

3 Turn the four-wheel drive control switch to H4L/H4.

The low speed four-wheel drive indicator light flashes while switching.

If turning the four-wheel drive control switch without following steps 1 and 2, the low speed four-wheel drive indicator light flashes and a buzzer sounds. Return the four-wheel drive control switch to L4L/L4 and try steps 1 and 2 again.

If the shift lever is shifted to other than N while the low speed four-wheel drive indicator light is flashing, gear noise may be caused. Immediately shift the shift lever to N and wait until switching the transfer mode is completed.

4 Check that the low speed four-wheel drive indicator light goes off.

The low speed four-wheel drive indicator light goes off when switching the transfer mode is completed.
Shift the shift lever from N to D or R to drive the vehicle.

⚠ NOTICE

■ Shifting between H4L/H4 and L4L/L4

Do not shift the shift lever to other than N or depress the accelerator pedal while the low speed four-wheel drive indicator light is flashing. Failure to do so may cause gear noise and result in a malfunction.

Shifting between H4L/H4 and L4L/L4 (manual transmission)

■ Shifting from H4L/H4 to L4L/L4

1 Stop the vehicle.

The transfer mode cannot be switched if the vehicle is moving.

2 Firmly depress the clutch pedal.

Keep depressing the clutch pedal until switching the transfer mode is completed (indicator on).

The transfer mode cannot be switched if the clutch pedal is not fully depressed.

3 Push and turn the four-wheel drive control switch to L4L/L4.

The low speed four-wheel drive indicator light flashes while switching.

If turning the four-wheel drive control switch without following steps 1 and 2, the low speed four-wheel drive indicator light flashes and a buzzer sounds. Return the four-wheel drive control switch to H4L/H4 and try steps 1 and 2 again.

If the clutch pedal is released while the low speed four-wheel drive indicator light is flashing, gear noise may be caused. Immediately depress the clutch pedal firmly and wait until switching the transfer mode is completed.

4 Check that the low speed four-wheel drive indicator light comes on.

The low speed four-wheel drive indicator light comes on when switching the transfer mode is completed.
Release the clutch pedal to drive the vehicle.

■ Shifting from L4L/L4 to H4L/H4

1 Stop the vehicle.

The transfer mode cannot be switched if the vehicle is moving.

2 Firmly depress the clutch pedal.

Keep depressing the clutch pedal until switching the transfer mode is completed (indicator off).

The transfer mode cannot be switched if the clutch pedal is not fully depressed.

3 Turn the four-wheel drive control switch to H4L/H4.

The low speed four-wheel drive indicator light flashes while switching.

If turning the four-wheel drive control switch without following steps 1 and 2, the low speed four-wheel drive indicator light flashes and a buzzer sounds. Return the four-wheel drive control switch to L4L/L4 and try steps 1 and 2 again.

If the clutch pedal is released while the low speed four-wheel drive indicator light is flashing, gear noise may be caused. Immediately depress the clutch pedal firmly and wait until switching the transfer mode is completed.

4 Check that the low speed four-wheel drive indicator light goes off.

The low speed four-wheel drive indicator light goes off when switching the transfer mode is completed.
Release the clutch pedal to drive the vehicle.

⚠ NOTICE

■ Shifting between H4L/H4 and L4L/L4

Do not release the clutch pedal or depress the accelerator pedal while the low speed four-wheel drive indicator light is flashing. Failure to do so may cause gear noise and result in a malfunction.

■ **When the H4L/H4 position and L4L/L4 position can be switched with the four-wheel drive control switch**

- The engine switch is turned to the “ON” position (vehicles without smart entry & start system) or IGNITION ON mode (vehicles with smart entry & start system).
- The shift lever is in the N position (automatic transmission).
- The clutch pedal is depressed (manual transmission).
- The vehicle is stopped completely.

■ **The low speed four-wheel drive indicator**

- The indicator blinks while switching between H4L/H4 and L4L/L4.
- If the low speed four-wheel drive indicator continues to blink when you operate the four-wheel drive control switch to the H4L/H4 or L4L/L4 position, stop the vehicle completely, shift the shift lever securely into N (automatic transmission) or depress and hold the clutch pedal (manual transmission) and then operate the switch again.
- If the shift lever is moved before the low speed four-wheel drive indicator turns on/off, the transfer mode may not be shifted completely. The transfer mode disengages both the front and rear driveshafts from the powertrain and allows the vehicle to move regardless of the shift position. (At this time, the indicator blinks and the buzzer sounds.)
  Therefore, the vehicle is free to roll even if the shift lever is in P (vehicles with automatic transmission). You or someone else could be seriously injured. You must complete the shifting of the transfer mode and confirm that the indicator has turned off (H4L/H4) or turned on (L4L/L4).
- If the engine coolant temperature is too low, the four-wheel drive control system may not be able to shift. When the engine is warmer operate the switch again.

If the indicator continues to blink even if doing so, have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer as soon as possible. There may be a trouble in the four-wheel drive system.

■ **When the transfer mode is switched to L4L/L4**

Vehicles without Multi-terrain Select:
VSC is automatically turned off. (The VSC OFF indicator will come on.)

Vehicles with Multi-terrain Select:
VSC and TRC/Active TRC are automatically turned off. (The VSC OFF and “TRC OFF” indicators will come on.)

■ **When the H4F position and H4L position can be switched with the four-wheel drive control switch (2TR-FE engines), or the center differential lock/unlock switch can be operated (1GR-FE and 1GD-FTV engines)**

The engine switch is turned to the “ON” position (vehicles without smart entry & start system) or IGNITION ON mode (vehicles with smart entry & start system).

■ **The center differential lock indicator and indicator in the differential lock/unlock display**

- The indicators blink while locking/unlocking the center differential.
- If the indicators blink and the buzzer sounds when the center differential is locked, stop the vehicle completely and confirm that the center differential lock indicator has turned off (H4F) or on (H4L) (2TR-FE engines) or operate the switch again (1GR-FE and 1GD-FTV engines).

If the indicators continue to blink even if doing so, have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer as soon as possible. There may be a trouble in the four-wheel drive system.

■ **Locking/unlocking the center differential**

- If the operation is not completed, the center differential lock indicator and indicator in the differential lock/unlock display blink. If the indicators do not turn off when unlocking the center differential, drive straight ahead while accelerating or decelerating, or drive in reverse.
- Avoid turning suddenly while the center differential is locked. If you do turn suddenly, the difference in turning speeds between the front and rear wheels may have a similar effect to braking, thus making driving difficult.

WARNING

■ **While driving**

Observe the following precautions. Failure to do so may cause an accident resulting in death or serious injury.

- Never move the four-wheel drive control switch if the wheels have lost traction.
- Do not operate the center differential lock/unlock when the vehicle is turning or when its wheels are spinning freely off the ground.

NOTICE

■ **To prevent damage to the center differential**

- For normal driving on dry and hard surface roads, unlock the center differential.
- Unlock the center differential after the wheels are out of the ditch or off the slippery or bumpy surface.

Rear differential lock system*

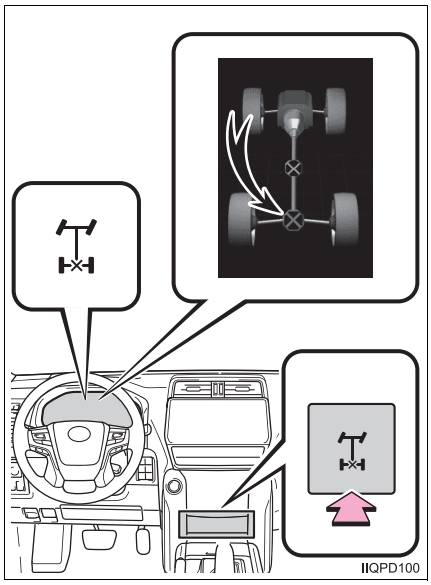
Use the rear differential lock system only when wheel spinning occurs in a ditch or on a slippery or ragged surface. This system is effective in case one of the rear wheels is spinning.

Press the rear differential lock/unlock switch to lock the rear differential.

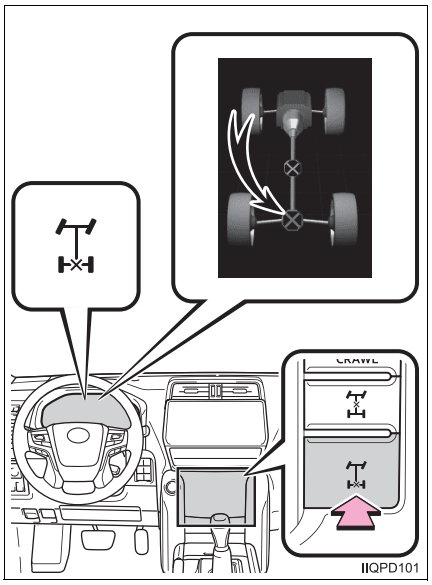
At this time, the rear differential lock indicator and indicator in the differential lock/unlock display will blink. Wait a few seconds for the system to complete operation. After the rear differential is locked, the indicators will stop blinking and remain on.

To unlock the rear differential, push the switch again.

▶ Vehicles without Multi-terrain Select



▶ Vehicles with Multi-terrain Select



*: If equipped

■ **Operating tips**

First turn the four-wheel drive control switch to L4 with the center differential locked to see if you can move forward. If this does not work, use the rear differential lock system also.

Be sure to stop the wheels before locking the differential.

Unlock the differential as soon as the vehicle moves out.

■ **Unlocking the rear differential**

If the rear differential lock indicator still flashes even after unlocking the rear differential, check the safety of the surrounding area and slightly turn the steering wheel in either direction while the vehicle is in motion.

■ **Automatic unlocking feature**

The rear differential will also unlock if you turn the four-wheel drive control switch to H4 or unlock the center differential. Never forget to turn off the switch after using this feature.

■ **After unlocking the rear differential**

Check that the indicators go off.

■ **The rear differential lock indicator and indicator in the differential lock/unlock display**

- The indicators blink while locking/unlocking the rear differential.
- If the indicators continue to blink when you operate the rear differential lock/unlock switch, stop the vehicle completely and operate the switch again.

If the indicators continue to blink even if doing so, have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer as soon as possible. There may be a trouble in the four-wheel drive system.

■ **When the rear differential is locked**

- The ABS/Multi Terrain ABS/brake assist do not operate. It is normal operation for the ABS warning light to be on at this time.
- VSC and TRC/Active TRC are automatically turned off. (The VSC OFF and “TRC OFF” indicators will come on.)

⚠ WARNING

■ **When using the rear differential lock system**

Failure to observe the following precautions may result in an accident.

- Do not lock the rear differential in the conditions other than above.
- Do not lock the rear differential until the wheels have stopped spinning.
- Do not drive over 8 km/h (5 mph) when the differential is locked.
- Do not keep driving with the differential lock switch on.

Crawl Control*

Allows travel on extremely rough off-road surfaces at a fixed low speed without pressing the accelerator or brake pedal. Minimizes loss of traction or vehicle slip when driving on slippery road surfaces, allowing for stable driving.

Crawl Control switch/indicators

① Crawl Control ON/OFF switch

The indicator light on the switch comes on when operating.

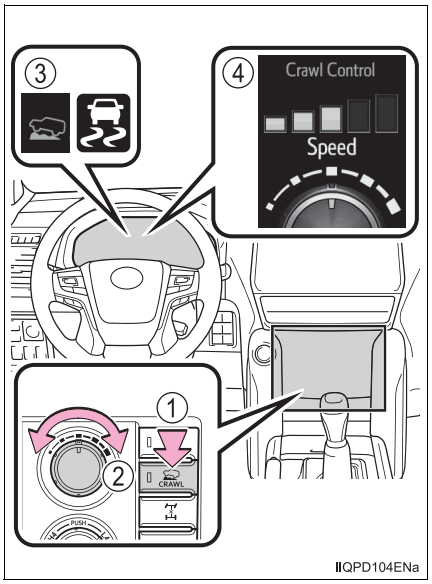
② Crawl Control speed selector dial

③ Crawl Control indicators

The Crawl Control indicator is lit and the slip indicator flashes when operating.

④ Multi-information display

The operating status and speed select status of the Crawl Control are shown on the multi-information display.

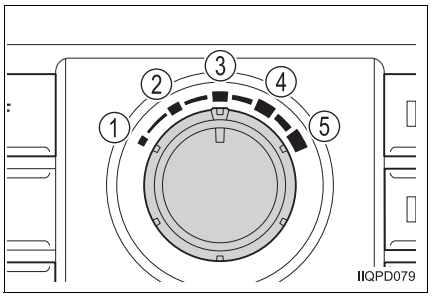


*: If equipped

Speed modes

The following table shows some typical terrains and the recommended speed modes.

① Lo
② Lo-Med
③ Med
④ Med-Hi
⑤ Hi

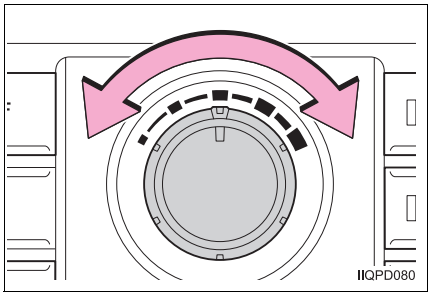


Mode		Road condition
①	Lo	Rock, mogul (downhill) and gravel (downhill)*
②	Lo-Med	Mogul (uphill)*
③	Med	
④	Med-Hi	Snow, mud, gravel (uphill), sand, dirt, mogul (uphill) and grass*
⑤	Hi	

*: Depending on the road surface, may not be the most effective.

Switching modes

Operate the Crawl Control speed selector dial during Crawl Control to select a mode.



When Crawl Control is canceled

If Crawl Control is canceled, the slip indicator turns off and the Crawl Control indicator blinks until the system stops completely. If Crawl Control is canceled during driving, stop the vehicle until the Crawl Control indicator turns off or drive carefully.

The Crawl Control can be operated when

- The shift lever is in any gear other than P or N.
- The four-wheel drive control switch is in L4.
- The driver's door is closed.

Automatic system cancelation

In the following situations, the system is canceled automatically:
At that time, the buzzer will sound, the slip indicator turns off, and the Crawl Control indicator flashes.
A notification will be displayed on the multi-information display for several seconds. (→Refer to the "Owner's manual")

- When the shift lever is moved to P or N.
- When the four-wheel drive control switch is in H4.
- When the driver's door is opened.

When turning off Crawl Control while traveling, stop the vehicle before the Crawl Control indicator turns off, or drive extremely carefully.

Function limit

- In the following situations, you will be able to use brake control to drive downhill at a fixed low speed, but you will be unable to use engine control to drive uphill at a fixed low speed.
  - When the driving mode is set to second start mode.
  - When the vehicle speed is greater than 10 km/h (6 mph).
- When the vehicle speed is higher than 25 km/h (15 mph), engine control and brake control will stop temporarily. At that time, the Crawl Control indicator flashes.

■ **When the Crawl Control system is operated continuously**

This may cause the brake actuator to overheat. In this case, the Crawl Control system will stop operating, a buzzer will sound, the Crawl Control indicator will turn off after flashing and the “TRC OFF” indicator will come on. In this case, quickly stop the vehicle in a safe place and give the actuator adequate time to cool off. Refrain from using the system until the “TRC OFF” indicator turns off. (The vehicle can be driven normally during this time.)

■ **When depressing the accelerator pedal while the Crawl Control is operating**

Multi-terrain Select operates in AUTO mode. (→P. 78)

■ **If the automatic transmission system overheats**

The system will cease operation, a buzzer will sound and a warning message will be displayed to alert the driver. Stop the vehicle in a safe place until the warning message turns off. (→Refer to the “Owner’s manual”)

■ **Sounds and vibrations caused by the Crawl Control system**

- A sound may be heard from the engine compartment when the engine is started or just after the vehicle begins to move. This sound does not indicate that a malfunction has occurred in Crawl Control system.
- Either of the following conditions may occur when the Crawl Control system is operating. None of these are indicators that a malfunction has occurred.
  - Vibrations may be felt through the vehicle body and steering.
  - A motor sound may be heard after the vehicle comes to a stop.

■ **If the slip indicator comes on...**

It may indicate a malfunction in the system. Consult any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

⚠ WARNING

■ **When using Crawl Control**

Do not rely solely on the Crawl Control. This function does not extend the vehicle’s performance limitations. Always thoroughly check the road conditions, and drive safely.

■ **These conditions may cause the system not to operate properly**

When driving on the following surfaces, the system may not be able to maintain a fixed low speed, which may result in an accident:

- Extremely steep inclines.
- Extremely uneven surfaces.
- Snow-covered roads, or other slippery surfaces.

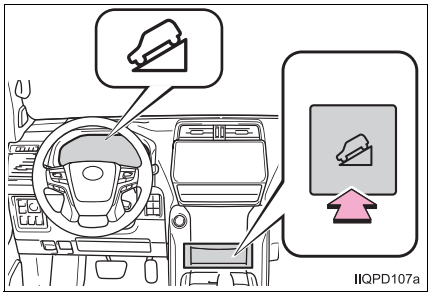
Downhill assist control system*

The downhill assist control system helps to prevent excessive speed on steep downhill slopes.
The system will operate when the vehicle is traveling under 25 km/h (15 mph) with the accelerator and brake pedals released and the transfer mode is in L4.

System operation

Press the “DAC” switch. The downhill assist control system indicator will comes on and the system will operate.

When the system is in operation, the slip indicator will flash, and the stop lights/high mounted stop lights will be lit. A sound may also occur during the operation. This does not indicated a malfunction.



Turning off the system

Press the “DAC” switch while the system is in operation. The downhill assist control system indicator will flash as the system gradually ceases operation, and will turn off when the system is fully off.
Press the “DAC” switch while the downhill assist control system indicator is flashing to start the system again.

*: If equipped

■ **Operating tips (vehicles with automatic transmission)**

The system will operate when the shift lever is in a position other than P, however to make effective use of the system it is recommended to select a lower shift range.

■ **The system will not operate when**

- The transfer mode is in H2 or H4.
- The rear differential is locked.

■ **If the downhill assist control system indicator flashes**

- In the following situations, the indicator flashes and the system will not operate:
  - The transfer mode is not in L4.
  - The rear differential is locked.
  - The shift lever is in P.
  - The accelerator or brake pedal is depressed.
  - The vehicle speed exceeds approximately 25 km/h (15 mph).
  - The brake system overheats.
- In the following situations, the indicator flashes to alert the driver, but the system will operate:
  - The shift lever is in N.
  - The “DAC” switch is turned off while the system is operating.
    The system will gradually ceases operation. The indicator will flash during operation, and then go off when the system is fully off.

■ **When the downhill assist control system is operated continuously**

This may cause the brake actuator to overheat. In this case, the downhill assist control system will stop operating, a buzzer will sound and the downhill assist control system indicator will start flashing, and the “TRC OFF” indicator light will come on.

Refrain from using the system until the downhill assist control system indicator stays on and “TRC OFF” indicator light turns off. (The vehicle can be driven normally during this time.)

■ **Sounds and vibrations caused by the downhill assist control system**

- A sound may be heard from the engine compartment when the engine is started or just after the vehicle begins to move. This sound does not indicate that a malfunction has occurred in downhill assist control system.
- Either of the following conditions may occur when the downhill assist control system is operating. None of these are indicators that a malfunction has occurred.
  - Vibrations may be felt through the vehicle body and steering.
  - A motor sound may be heard after the vehicle comes to a stop.

■ **System malfunction**

- The downhill assist control system indicator does not come on when the engine switch is turned to the “ON” position (vehicles without smart entry & start system) or the engine switch is turned to IGNITION ON mode (vehicles with smart entry & start system).
- The downhill assist control system indicator does not come on when the “DAC” switch is pressed.
- The slip indicator comes on.

In the above cases, have your vehicle checked by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

⚠ WARNING

■ **When using downhill assist control system**

Do not rely overmuch on the downhill assist control system. This function does not extend the vehicle’s performance limitations. Always thoroughly check the road conditions, and drive safely.

■ **The system may not operate on the following surfaces, which may lead to an accident causing death or serious injury**

- Slippery surfaces such as wet or muddy roads
- Icy surface
- Unpaved roads

Off-road driving assist systems

To help enhance off-road driving safety and performance, the following systems operate automatically in response to various driving situations. Be aware, however, that these systems are supplementary and should not be relied upon too heavily when operating the vehicle.

◆ ABS (Anti-lock Brake System)

→Refer to the “Owner’s manual”

◆ Multi Terrain ABS (Anti-lock Brake System) (if equipped)

Helps to prevent wheel lock when the brakes are applied suddenly, or if the brakes are applied while driving on a slippery road surface, or in off-road conditions (such as rough roads, sand and mud)

◆ VSC (Vehicle Stability Control)

→Refer to the “Owner’s manual”

◆ TRC (Traction Control) for 2TR-FE engines and H4 position on 1GR-FE and 1GD-FTV engines

→Refer to the “Owner’s manual”

◆ Active TRC (Traction Control) for L4 position on 1GR-FE and 1GD-FTV engines*

Helps to maintain drive power and prevent the 4 wheels from spinning when starting the vehicle or accelerating on slippery roads

◆ Hill-start assist control

Helps to prevent the vehicle from rolling backward when starting on an incline or slippery slope

◆ AVS (Adaptive Variable Suspension System) (if equipped)

→Refer to the “Owner’s manual”

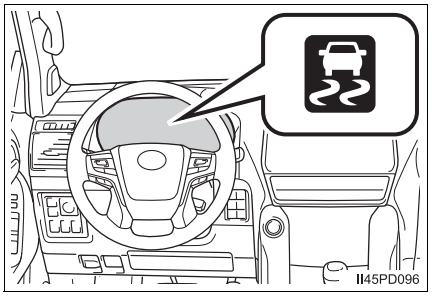
◆ KDSS (Kinetic Dynamic Suspension System) (if equipped)

KDSS enhances ride comfort and handling response by using a hydraulic control system to control the suspension stabilizer bars in response to road surface and driving conditions during cornering or off-road driving

*: The function only works in vehicles with Multi-terrain Select when Multi terrain Select is switched on

When the Active TRC/VSC/hill-start assist control systems are operating

The slip indicator light will flash while the Active TRC/VSC/hill-start assist control systems are operating.



The stop lights and high mounted stoplight turn on when the hill-start assist control system is operating.

The operating status of Active TRC will be shown on the multi-information display. (→P. 170)

Disabling the Active TRC system (if equipped)

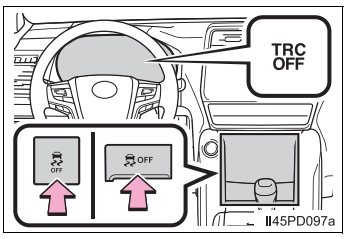
If the vehicle gets stuck in mud, dirt or snow, the Active TRC system may reduce power from the engine to the wheels. Pressing  or  to turn the system off may make it easier for you to rock the vehicle in order to free it.

■ **Turning off Active TRC system (if equipped) only**

To turn the Active TRC system off, quickly press and release or .

The “TRC OFF” indicator light will come on.

Press or again to turn the system back on.



■ **Turning off Active TRC (if equipped) and VSC systems**

To turn the Active TRC and VSC systems off, press and hold or for more than 3 seconds while the vehicle is stopped.

The “TRC OFF” indicator light and the VSC OFF indicator light will come on.

Press or again to turn the system back on.

■ **Operating conditions of hill-start assist control**

▶ 2TR-FE engine

When the following four conditions are met, the hill-start assist control will operate:

- Vehicles with automatic transmission: The shift lever is in a position other than P or N (when starting off forward/backward on an upward incline)
- Vehicles with manual transmission: The shift lever is in a position other than R when starting off forward on an upward incline, or the shift lever is in R when starting off backward on an upward incline.
- The vehicle is stopped
- The accelerator pedal is not depressed
- The parking brake is not engaged

▶ Except for 2TR-FE engine

- The shift lever is in D or S.
- The brake pedal is not depressed.
- The rear differential is not locked.

■ **Automatic system cancelation of hill-start assist control (2TR-FE engine)**

The hill-start assist control will turn off in any of the following situations:

- Vehicles with automatic transmission: The shift lever is shifted to P or N
- Vehicles with manual transmission: The shift lever is shifted to R when starting off forward on an upward incline, or the shift lever is shifted to other than R when starting off backward on an upward incline.
- The accelerator pedal is depressed
- The parking brake is engaged
- 2 seconds at maximum elapsed after the brake pedal is released

■ **Sounds and vibrations caused by the Multi Terrain ABS (if equipped), brake assist, Active TRC (if equipped), VSC and hill-start assist control systems**

- A sound may be heard from the engine compartment when the brake pedal is depressed repeatedly, when the engine is started or just after the vehicle begins to move. This sound does not indicate that a malfunction has occurred in any of these systems.
- Any of the following conditions may occur when the above systems are operating. None of these indicates that a malfunction has occurred.
  - Vibrations may be felt through the vehicle body and steering.
  - A motor sound may be heard also after the vehicle comes to a stop.
  - The brake pedal may pulsate slightly after the Multi Terrain ABS is activated.
  - The brake pedal may move down slightly after the Multi Terrain ABS is activated.

■ **Automatic reactivation of Active TRC (if equipped), Trailer Sway Control and VSC systems**

After turning the Active TRC, Trailer Sway Control and VSC systems off, the systems will be automatically re-enabled in the following situations:

- When the engine switch is turned to the “LOCK” position (without a smart entry & start system) or the engine switch is turned to OFF (with a smart entry & start system)
- If only the Active TRC system is turned off, the Active TRC will turn on when vehicle speed increases.
  If both the Active TRC and VSC systems are turned off, automatic re-enabling will not occur when vehicle speed increases.

■ **Reactivation of the Active TRC system (if equipped) linked to vehicle speed**

When both Active TRC and VSC systems are turned off, the systems will not turn on even when vehicle speed increases.

■ **When the brake system operates continuously**

The brake actuator may overheat. In this case, the Active TRC and hill-start assist control systems will stop operating, a buzzer will sound and the “TRC OFF” indicator will come on. Refrain from using the system until the “TRC OFF” indicator turns off. (There is no problem with continuing normal driving.)

■ **If the slip indicator comes on...**

It may indicate a malfunction in the Active TRC, VSC or hill-start assist control system. Consult any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

WARNING

■ **The Multi Terrain ABS does not operate effectively when**

- The limits of tire gripping performance have been exceeded (such as excessively worn tires on a snow covered road).
- The vehicle hydroplanes while driving at high speed on the wet or slick road.

■ **Stopping distance when the Multi Terrain ABS is operating may exceed that of normal conditions**

The Multi Terrain ABS is not designed to shorten the vehicle's stopping distance. Always maintain a safe distance from the vehicle in front of you, especially in the following situations:

- When driving on dirt, gravel or snow-covered roads
- When driving with tire chains
- When driving over bumps in the road
- When driving over roads with potholes or roads with uneven surfaces

■ **Active TRC/VSC may not operate effectively when**

Directional control and power may not be achievable while driving on slippery road surfaces, even if the Active TRC/VSC system is operating.
Drive the vehicle carefully in conditions where stability and power may be lost.

■ **When the Active TRC/VSC/Trailer Sway Control is activated**

The slip indicator light flashes. Always drive carefully. Reckless driving may cause an accident. Exercise particular care when the indicator light flashes.

■ **Hill-start assist control does not operate effectively when**

Do not overly rely on the hill-start assist control. The hill-start assist control may not operate effectively on steep inclines and roads covered with ice.

WARNING

■ **When the Active TRC/VSC/Trailer Sway Control systems are turned off**

Be especially careful and drive at a speed appropriate to the road conditions. As these are the systems to help ensure vehicle stability and driving force, do not turn the Active TRC/VSC/Trailer Sway Control systems off unless necessary.

■ **Replacing tires**

Make sure that all tires are of the specified size, brand, tread pattern and total load capacity. In addition, make sure that the tires are inflated to the recommended tire inflation pressure level.

The Multi Terrain ABS, Active TRC, Trailer Sway Control and VSC systems will not function correctly if different tires are installed on the vehicle.
Contact any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer for further information when replacing tires or wheels.

■ **Handling of tires and the suspension**

Using tires with any kind of problem or modifying the suspension will affect the driving assist systems, and may cause the system to malfunction.

■ **Trailer Sway Control precaution**

The Trailer Sway Control system is not able to reduce trailer sway in all situations. Depending on many factors such as the conditions of the vehicle, trailer, road surface, and driving environment, the Trailer Sway Control system may not be effective. Refer to your trailer owner's manual for information on how to tow your trailer properly.

■ **If trailer sway occurs**

Observe the following precautions.
Failing to do so may cause death or serious injury.

- Firmly grip the steering wheel. Steer straight ahead.
  Do not try to control trailer swaying by turning the steering wheel.
- Begin releasing the accelerator pedal immediately but very gradually to reduce speed.
  Do not increase speed. Do not apply vehicle brakes.

If you make no extreme correction with the steering or brakes, your vehicle and trailer should stabilize. (→Refer to the "Owner's Manual")

Off-road driving information display

Information related to off-road driving is shown on the multi-information display. (vehicles with multi-information display type B)

Displaying the off-road driving information

① Change the display by using the meter control switches.

→Refer to the “Owner’s manual”

② Use the transfer switch to switch to L4L/L4

→P. 141

The L4 operation indicator light turns on when L4L/L4 is operating. Do not perform any other operations until the indicator light turns on.

■ Display conditions

- Engine switch is turned to IGNITION ON mode
- Transfer switch is at L4L/L4

The clinometer does not display when a warning message is shown.

Clinometer

The vertical and horizontal tilt angles of the vehicle can be displayed from 0 to proximately 30 degrees through the vehicle display and angle graduations.

① Vertical tilt angle graduations

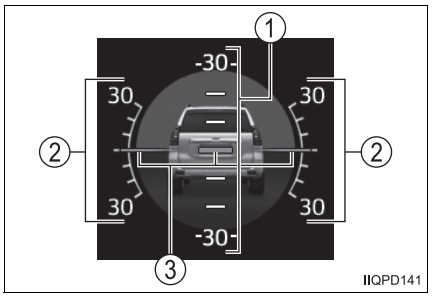
Displays the vertical tilt angle.

② Horizontal tilt angle graduations

Displays the horizontal tilt angle

③ Pointer (green)

Displays the current tilt angle.



■ About the clinometer display

- The tilt angle is shown by the movement of the pointer and the tilt of the vehicle display.
- The color of the angle graduations changes depending on the current tilt angle.
- After the engine switch is turned to IGNITION ON, the clinometer is not displayed until the tilt angle information is determined.
- The displayed angle may differ from that calculated by other measuring devices.

■ Display of precautions for use

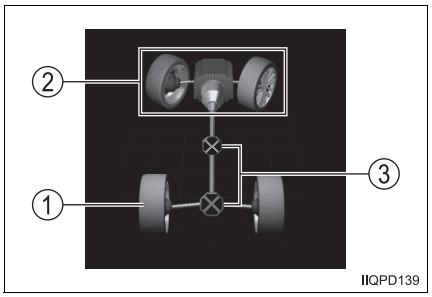
When the vehicle is first switched to L4L/L4 after the engine switch is turned to IGNITION ON, the following precaution is displayed: “INDICATES APPROX. ANGLES. PLEASE ENSURE THAT YOU OPERATE THE VEHICLE SAFELY.”

■ When a system malfunction occurs

The pointer and vehicle do not display. Have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

Traction monitor

Displays the active TRC operation state, the front tire direction (angle) and the differential lock operation state.



① Active TRC display

The operating tires blink in orange. (→P. 161)

② Front tire direction display

Displays the estimated direction for the front tires.

Depending on the tire angle, the tire direction display switches between 3 levels for the left and right tires.

③ Differential lock display (→P. 141, 152)

Displays the current operation state of the differential lock.

The light blinks when switching the differential lock and turns on when the differential lock is engaged.

When tires are not displayed

The system may be malfunctioning. Have the vehicle inspected by any authorized Toyota retailer or Toyota authorized repairer, or any reliable repairer.

Off-road precautions

This vehicle belongs to the utility vehicle class, which has higher ground clearance and narrower tread in relation to the height of its center of gravity to make it capable of performing in a wide variety of off-road applications.

Off-road vehicle features

- Specific design characteristics give it a higher center of gravity than ordinary passenger cars. This vehicle design feature causes this type of vehicle to be more likely to rollover. And, utility vehicles have a significantly higher rollover rate than other types of vehicles.
- An advantage of the higher ground clearance is a better view of the road allowing you to anticipate problems.
- It is not designed for cornering at the same speeds as ordinary passenger cars any more than low-slung sports cars are designed to perform satisfactorily under off-road conditions. Therefore, sharp turns at excessive speeds may cause the vehicle to rollover.

WARNING

■ **Off-road vehicle precautions**

Always observe the following precautions to minimize the risk of death, serious injury or damage to your vehicle:

- In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Therefore, the driver and all passengers should always fasten their seat belts.
- Avoid sharp turns or abrupt maneuvers, if at all possible.
  Failure to operate this vehicle correctly may result in loss of control or vehicle rollover causing death or serious injury.
- Loading cargo on the roof luggage carrier will make the center of the vehicle gravity higher. Avoid high speeds, sudden starts, sharp turns, sudden braking or abrupt maneuvers, otherwise it may result in loss of control or vehicle rollover due to failure to operate this vehicle correctly.
- Always slow down in gusty crosswinds. Because of its profile and higher center of gravity, your vehicle is more sensitive to side winds than an ordinary passenger car. Slowing down will allow you to have better control.
- Do not drive horizontally across steep slopes. Driving straight up or straight down is preferred. Your vehicle (or any similar off-road vehicle) can tip over sideways much more easily than forward or backward.

Off-road driving

When driving your vehicle off-road, please observe the following precautions to ensure your driving enjoyment and to help prevent the closure of areas to off-road vehicles:

- Drive your vehicle only in areas where off-road vehicles are permitted to travel.
- Respect private property. Get owner's permission before entering private property.
- Do not enter areas that are closed. Honor gates, barriers and signs that restrict travel.
- Stay on established roads. When conditions are wet, driving techniques should be changed or travel delayed to prevent damage to roads.

WARNING

■ Off-road driving precautions

Always observe the following precautions to minimize the risk of death, serious injury or damage to your vehicle:

- Drive carefully when off the road. Do not take unnecessary risks by driving in dangerous places.
- Do not grip the steering wheel spokes when driving off-road. A bad bump could jerk the wheel and injure your hands. Keep both hands and especially your thumbs on the outside of the rim.
- Always check your brakes for effectiveness immediately after driving in sand, mud, water or snow.
- After driving through tall grass, mud, rock, sand, rivers, etc., check that there is no grass, bush, paper, rags, stone, sand, etc. adhering or trapped on the underbody. Clear off any such matter from the underbody. If the vehicle is used with these materials trapped or adhering to the underbody, a breakdown or fire could occur.
- When driving off-road or in rugged terrain, do not drive at excessive speeds, jump, make sharp turns, strike objects, etc. This may cause loss of control or vehicle rollover causing death or serious injury. You are also risking expensive damage to your vehicle's suspension and chassis.

NOTICE

To prevent the water damage

Take all necessary safety measures to ensure that water damage to the engine or other components does not occur.

- Water entering the engine air intake will cause severe engine damage.
- Water entering the automatic transmission will cause deterioration in shift quality, locking up of your transmission accompanied by vibration, and ultimately damage.
- Water can wash the grease from wheel bearings, causing rusting and premature failure, and may also enter the differentials, transmission and transfer case, reducing the gear oil's lubricating qualities.

When you drive through water

If driving through water, such as when crossing shallow streams, first check the depth of the water and the bottom of the riverbed for firmness. Drive slowly and avoid deep water.

Inspection after off-road driving

- Sand and mud that has accumulated in brake drums and around brake discs may affect braking efficiency and may damage brake system components.
- Always perform a maintenance inspection after each day of off-road driving that has taken you through rough terrain, sand, mud, or water.
  For scheduled maintenance information, refer to the "Toyota Service Booklet" or "Toyota Warranty Booklet".

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