

AVALON (QRG_U)

This quick reference guide provides you with information on Dynamic Laser Cruise Control Vehicle-to-Vehicle Distance Control Mode. Prior to use of this system, you should be thoroughly familiar with this system, referring to “Dynamic Laser Cruise Control” in Section 1-7, Owner’s Manual in conjunction with this quick reference guide.

■ Dynamic Laser Cruise Control Operation

The laser radar sensor in this system primarily detects the reflectors of the vehicle ahead of you to determine the presence of the vehicle and the vehicle-to-vehicle distance. The detection range of the sensor is about 120 m (400 ft.) ahead.

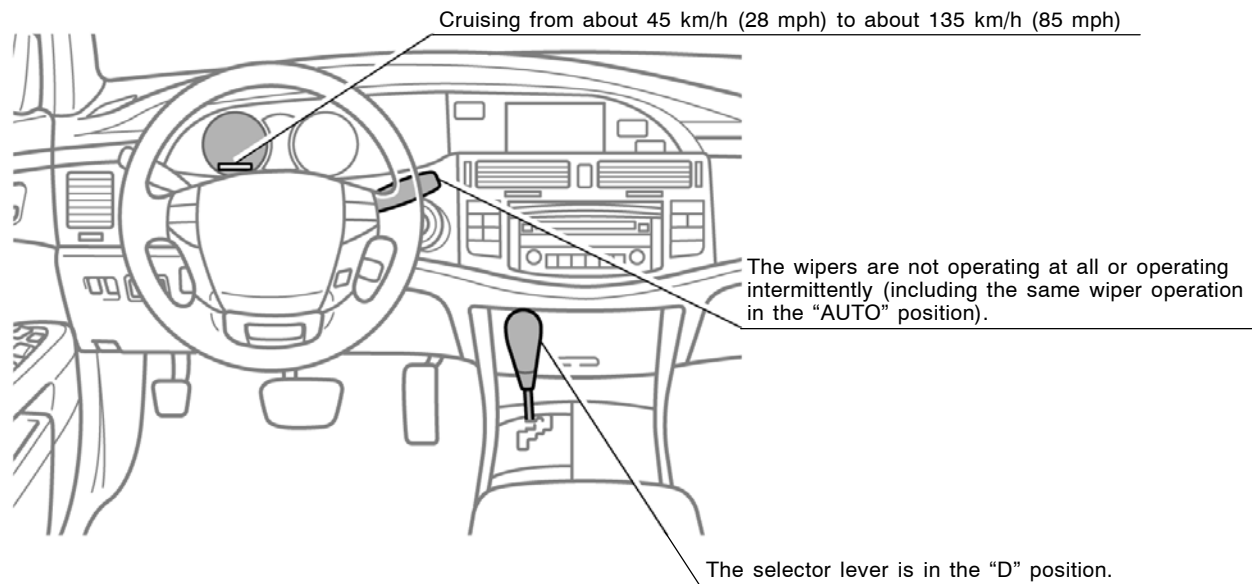
- If no vehicle is detected ahead of you:
 - Your cruising speed is maintained at the preset speed from about 45 km/h (28 mph) to about 135 km/h (85 mph).
- If a vehicle is detected ahead of you:
 - Your cruising speed changes in proportion to the speed of the vehicle ahead to maintain an appropriate distance from your vehicle to the vehicle ahead.
 - If the vehicle ahead is out of the detection range, your cruising speed will be gradually increased up to the preset speed, and your vehicle resumes fixed-speed cruising.
 - If the vehicle ahead decelerates abruptly or other vehicles cut in ahead of you, your vehicle may be too close to the vehicle ahead of you. If this occurs, the display flashes and beeps. (Approach warning)



The dynamic laser cruise control should be used on roads in which sufficient vehicle-to-vehicle distance will be ensured (such as on freeways).

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■ Operation Requirements



Even if these requirements are met, the system may not operate properly under certain conditions such as bad weather. See "Owner's Manual" for details.

See Owner's Manual for Complete Information.

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■ Cautions

- **Do not rely too much on dynamic laser cruise control. Vehicle-to-vehicle distance control has its limitations.**

Always remain aware of the distance from the vehicle ahead and other vehicles. If necessary, depress the brake pedal to ensure sufficient distance.

- **Dynamic laser cruise control is not a collision-avoidance system.**

If necessary, depress the brake pedal to ensure sufficient distance.

- **Dynamic laser cruise control should not be used in the following conditions:**

- In bad weather (such as rain, fog, snow, sandstorms)
- In direct sunlight from the front
- Raindrops or snowflakes get in the laser radar sensor glass
- On the roads in heavy traffic or at sharp bends
- On slippery road surfaces (icy or snow-covered road surfaces)
- On steep downhill slopes
- Continual acceleration or deceleration (such as on busy traffic)
- On roads with steep and short inclines and declines

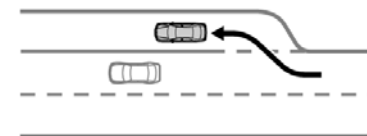
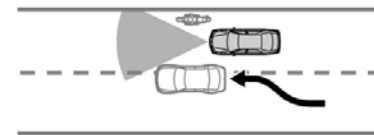
In any conditions of the above, an appropriate vehicle-to-vehicle distance control may not be attained.

- **This system is not provided to justify careless driving.**

Always remain aware of the distance from the vehicle ahead and other vehicles.

- **The dynamic laser cruise control should not be used when exiting from, or when entering or merging onto a freeway.**

When you are following a slower moving vehicle and exiting, the sensor does not detect the vehicle and will accelerate to preset speed.



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■ Cautions

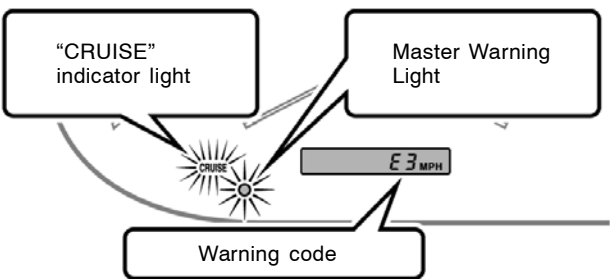
- If other vehicles are driving outside of the laser radar detection range, a delay in the detection of the vehicle cutting in at short range or detection failure of the motorcycle running on the side of the same lane will occur. In this case, the dynamic laser cruise control system will not function properly.
- The distance between your vehicle and the vehicle ahead cannot be accurately detected in the following cases:
 - The vehicle ahead has higher ground clearance, which means that the placement of the reflectors is in a higher position.
 - The rear section of the vehicle ahead is extremely dirty.
 - The vehicle ahead or other vehicles around you are flinging up water or snow.
 - Excessive exhaust gas (black smoke) is coming from the vehicle ahead or other vehicles around you, obscuring your front view.
 - Protective film is attached to the reflectors on the vehicle ahead, or reflectors are not installed on the vehicle ahead or are damaged.
 - Heavy luggage is loaded on top of your rear seats.
- The laser radar sensor automatically detects dirt if dirt is sticking to the sensor glass of your vehicle.

However, in some cases dirt may not be detected. At this time warning display does not operate and an appropriate vehicle-to-vehicle distance cannot be maintained. Continue driving with due care to the vehicle ahead.
- Dynamic laser cruise control does not operate when the vehicle is at a stop or is driving very slowly.
 - Pay special attention to the very slow vehicle at the end of the line in heavy traffic or at the toll gate.
- Turn off the main switch when dynamic laser cruise control is not in use.
- The approach warning may not turn on even if the vehicle drives closer to the vehicle ahead in the following conditions:
 - Your vehicle and the vehicle ahead are cruising at almost the same speed.
 - The vehicle ahead is cruising at a faster speed than yours. (The distance between the vehicles will become longer.)
 - The accelerator pedal is depressed, immediately after the release of the accelerator pedal or immediately after the speed setting.
- Depending on the road configuration (curved roads) or your vehicle condition (steering wheel maneuvering, position in the lane), vehicles in other lanes or surrounding objects will be detected.

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Warning Display

If dynamic laser cruise control detects bad weather or malfunction of the system, the master warning light comes on and the alarm sounds, and one of the warning codes “C1”, “C2” or “E3” will appear on the display.



Warning code	Conditions
C1	Laser radar sensor glass is dirty
C2	• Wipers are operating at high or low speeds • Direct sunlight from front • It is difficult to make a measurement because of bad weather
E3*	System malfunction has been detected

*: “CRUISE” indicator light also flashes.

If a warning message appears on the display, take the appropriate measure referring to Section 1-7, “Owner’s Manual”.

Approach Warning

Dynamic laser cruise control and approach warning do not operate when the vehicle ahead is at a stop or is driving much slower than your vehicle. Use caution for the vehicle at the end of the line in heavy traffic or at the tollgate, the vehicle at a stop and the very slow vehicle.

If your vehicle approaches the vehicle ahead because of insufficient braking when the vehicle ahead decelerates abruptly or when another vehicle cuts in ahead of you, the display flashes and beeps. Depress the brake pedal to slow down, ensuring sufficient vehicle-to-vehicle distance.



■ Operation Procedure

The operation procedure is shown as follows. For the detailed information, see Section 1-7 in the "Owner's Manual".

● Setting

- 1 Push the main switch ("ON-OFF" button) to turn on the system. The "CRUISE" and "READY" indicator lights in the instrument cluster come on.



- 2 Bring your vehicle to the desired speed.

- 3 Press the control lever downward in the "- SET" direction and release it. This sets the vehicle at that speed.

If a vehicle is detected ahead of you: Your cruising speed changes in proportion to the speed of the vehicle ahead to maintain an appropriate distance from your vehicle to the vehicle ahead.

If there was no vehicle ahead, your cruising speed will be gradually increased up to the preset speed.

If no vehicle is detected ahead of you: Your cruising speed is maintained at the preset speed.

● Cancelling

To stop the operation: Push the main switch to turn off.

To stop the operation temporarily:

Pull the control lever in the "CANCEL" direction.

To resume follow-up cruising or cruising at fixed speed, press the control lever upward and release it.



See Owner's Manual for Complete Information.

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■ Operation Procedure

● Acceleration/Deceleration

To accelerate: Depress the accelerator pedal. (When you release the accelerator pedal, follow-up cruising or fixed speed cruising resumes.) If there was no vehicle ahead, the vehicle will accelerate gradually to the preset speed. At this time, depressing the accelerator pedal or pressing the control lever upward and releasing it will accelerate quickly.

To decelerate: Depress the brake pedal. (Even when you release the brake pedal, dynamic laser cruise control does not return to follow-up cruising or fixed speed cruising. Press the control lever upward to resume follow-up-cruising or fixed speed cruising.)

● Changing the preset speed

Using the control lever:

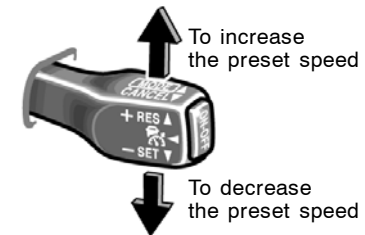
- 1 Press the control lever upward or downward.
 - Press the control lever upward in the “+ RES” direction to increase the preset speed.
 - Press the control lever downward in the “- SET” direction to decrease the preset speed.

The displayed speed will increase or decrease every 5 mph.

- 2 Release the control lever when the display shows the desired preset speed.

Using the accelerator and brake pedals:

- 1 Depress the accelerator or brake pedal to attain the desired speed.
- 2 Press the control lever downward in the “- SET” direction and release the lever.



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■ Operation Procedure

● To restore the previous control

If the preset speed has been cancelled, when you press the lever upward in the “+ RES” direction while “READY” shows up on the instrument cluster and at a vehicle speed of about more than 40 km/h (25 mph), the speed set prior to cancellation will be restored.

READY

● Changing vehicle-to-vehicle distance setting

You can select one of the following vehicle-to-vehicle distances: LONG, MIDDLE or SHORT. Each time you push the distance switch briefly, the setting changes from LONG to MIDDLE to SHORT and then back to LONG. You can confirm the setting on the display.



LONG



MIDDLE



SHORT



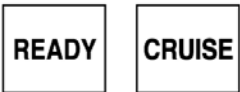
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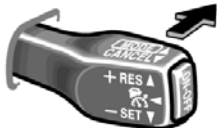
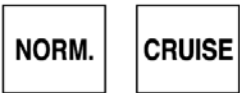
In addition to the vehicle-to-vehicle distance control mode described in this quick reference guide, dynamic laser cruise control has conventional (fixed speed) cruise control mode for cruising at fixed speeds. For the conventional (fixed speed) cruise control mode, see Section 1-7 in the “Owner’s Manual”.

● Changing to the conventional (fixed speed) control mode

- 1 Push the main switch (“ON-OFF” button) to turn on the system. The “CRUISE” and “READY” indicator lights in the instrument cluster come on.



- 2 Push the control lever in the “MODE” direction for longer than 1 second to change to conventional cruise control mode. The “NORM.” indicator light in the instrument cluster comes on.



● Each mode display

The control system in the vehicle-to-vehicle distance control mode differs from the one in the conventional (fixed speed) cruise control mode.
When using dynamic laser cruise control, make sure which mode is selected.

Displays in the instrument cluster:

	Vehicle-to-Vehicle Distance Control Mode	Fixed Speed Control Mode
In Ready State	READY	READY NORM.
In Control	 65 MPH	65 MPH