

The Notes On Dynamic Radar Cruise Control System (Vehicle-To-Vehicle Distance Control Mode) Handling

- Use this system on highways or other roads used exclusively by automobiles, where it is easy to maintain the proper vehicle-to-vehicle distance between your vehicle and the vehicle ahead.
- Do not put too much trust in the vehicle-to-vehicle control mode of the Dynamic radar cruise control system because the performance of this system is limited.
- While driving, always pay attention to the vehicle-to-vehicle distance between your vehicle and the vehicle ahead, as well as the conditions of your surroundings. Ensure safe driving by pressing on the brake pedal to decelerate or pressing the accelerator pedal to accelerate, thus maintaining the proper vehicle-to-vehicle distance between your vehicle and the vehicle ahead or behind, as the situation may require.
- This system does not automatically apply the brakes until the vehicle comes to a stop.
- Although this system applies the brakes automatically, its deceleration control is limited. If the vehicle ahead of you decelerates suddenly or if a vehicle cuts in front of you, you might not be able to decelerate sufficiently, and you will get very close to the vehicle ahead. In this case, the system issues a warning through an indication on the multi-information display and the sounding of the buzzer.
- This system is not intended to help you if you take your eyes off the road or you are driving carelessly without paying attention to the road ahead of you.
- Do not operate the Dynamic radar cruise control system under the conditions given below. Failure to observe this precaution could lead to an unforeseen accident. In addition, the Dynamic radar cruise control system may cancel itself automatically if the system has detected foul weather.
- Foul weather conditions: rain, fog, snow, or sandstorm

• In these conditions, the system might not be able to correctly measure the vehicle-to-vehicle distance between your vehicle and the vehicle ahead. If you operate the wipers at the HI speed, the Dynamic radar cruise control system will cancel automatically and assume the set standby state. (It will not cancel if the wipers are operated at the intermittent or LO speed.)

- Roads with heavy traffic or sharp curves

• These conditions prevent the vehicle from operating at speeds that suit the road conditions, and could lead to an unforeseen accident.

- Slippery road surfaces that are frozen or covered with snow

• The wheels can spin causing you to lose control of the vehicle.

- Steep downhill

• If there are no vehicles ahead, your vehicle will exceed the set speed because it cannot apply the engine brake adequately, which could lead to an unforeseen accident. (In this case, the system will not effect brake control.) Even if there is a vehicle ahead, and the system is applying follow control, a timing lag in deceleration could lead to an unforeseen accident.

- Stop-and-go traffic

• These conditions prevent the vehicle from operating at speeds that suit the traffic conditions, and could lead to an unforeseen accident.

- Entering an interchange, parking area, or service area from a highway (away from the main traffic lane)

• If your vehicle is traveling on the main traffic lane and is following a vehicle that is slower than the vehicle speed that is set by the Dynamic radar cruise control system, there will be no vehicle ahead if you exit the main traffic lane. Then, your vehicle will accelerate to the set vehicle speed, which could lead to an unforeseen accident.

- Roads with frequent sharp uphill and downhill

• These conditions prevent the system from detecting the vehicles ahead, or approach them too closely, and lead to an unforeseen accident.

- This system effects control primarily by detecting the radiowaves that are reflected by the rear end of a vehicle. For this reason, it is unable to maintain the proper vehicle-to-vehicle distance because it is incapable of correctly detecting the vehicle ahead in the situations listed below.

- The vehicle ahead is traveling in your lane or another lane while swirling up water or snow on the road.
- The vehicle ahead is an unladen trailer, which has an extremely small area at its rear end.
- Your vehicle is tilting significantly due to an extremely heavy load in the luggage compartment or rear seats.

- The millimeter wave radar sensor is equipped with an automatic function to determine whether its front surface is dirty and inform the driver. However, this function is not omnipotent. In some conditions, it might not be able to detect that the sensor is dirty. Also, it might not be able to detect if a cookie bag containing aluminum foil, ice, icicle, or snow gets stuck on the sensor.

• Always pay attention to the area ahead of you because the system will be unable to maintain the proper vehicle-to-vehicle distance under these conditions. If the system has detected that the sensor is dirty, it will automatically cancel the Dynamic radar cruise control system. Always keep the front surface of the sensor and the grille cover for the millimeter wave radar sensor clean.

- Depending on the shape of the road (corners, roads with continuous right and left corners, entrances and exits to corners, a road with narrow lanes due to road work or lane restriction) or the condition of your vehicle (unstable driving conditions due to steering maneuvers, position of the vehicle in the lane, accident, or breakdown), the system may momentarily detect the vehicles in the adjacent lanes or peripheral objects. In these conditions, the system may activate the control or approach warning, may momentarily fail to detect the vehicle ahead, and approach the vehicle ahead.
- The Dynamic radar cruise control system will not effect control or issue an approach warning on stopped vehicles or vehicles that are extremely slower than your vehicle. Therefore pay particular attention to a vehicle that is stopped at a toll booth, at the tail end of congested traffic, or is extremely slow.
- In the near distance, the detection area of the radar sensor is narrow. Therefore, the system might be slow to detect a vehicle ahead that cuts in front of you at the last minute, or unable to detect a motorcycle that is traveling along the edge of your lane, and is thus unable to maintain the proper vehicle-to-vehicle distance.
- Keep the main switch OFF if you are not using the Dynamic radar cruise control system. Failure to observe this precaution could cause the Dynamic radar cruise control system to operate improperly, which could lead to an unforeseen accident.
- When your vehicle is operating in the follow control mode, the system controls the vehicle speed to match the vehicle ahead. Therefore, it will not accelerate even if you attempt to increase the set vehicle speed by operating the RESUME/+ switch. However, because the set vehicle speed is relatively high at this time, your vehicle could continue accelerating once the vehicle ahead is gone. Therefore, check the set vehicle speed indicated on the multi-information display.

- Select the vehicle-to-vehicle distance that matches the traffic conditions.

• As a rule of thumb, the following controlled vehicle-to-vehicle distances apply when your vehicle follows a vehicle ahead at a speed of approx. 50 mph(80 km/h): approx. 50 meters(175 foot) for "long", approx. 40 meters(132 foot) for "medium", and "approx. 30 meters(100 foot) for "short". The slower the vehicle speed, the shorter the vehicle-to-vehicle distance will be than the foregoing.

- When you are driving on a long downhill slope, the controlled vehicle-to-vehicle distance might become shorter than the set vehicle-to-vehicle distance.
- Do not operate the Dynamic radar cruise control system in a situation in which the approach warning buzzer sounds frequently.
- Under the conditions indicated below, the approach warning buzzer might not sound even if the vehicle-to-vehicle distance becomes short.

• The relative speed between your vehicle and the vehicle ahead is low (traveling at almost the same speed).
• The vehicle ahead is traveling faster than your vehicle (the vehicle-to-vehicle distance is increasing gradually).
• Immediately after performing a set operation.
• While you are pressing the accelerator pedal or immediately after you have released the accelerator pedal.

- Ordinarily, when your vehicle is operating in the follow control mode, the radar Dynamic cruise control system (vehicle-to-vehicle control mode) automatically accelerates and decelerates your vehicle to match the speed of the vehicle ahead. If you need to accelerate to change lanes, press the accelerator pedal to accelerate the vehicle. If the vehicle ahead decelerates suddenly, or another vehicle cuts in front of you, causing you to approach the vehicle ahead, press the brake pedal to decelerate or press the accelerator pedal to accelerate.
- While you are operating your vehicle with the Dynamic radar cruise control system, and the cruise operation/warning indicator light in the combination meter blinks, the master warning indicator light illuminates, and the multi-information display indicates a warning item together with a "bong" sound, turn the main switch OFF once. Then, set it again.

• If you are unable to set a vehicle speed by performing the foregoing operations, or if it gets canceled immediately after you have set it, the Dynamic radar cruise control system may be malfunctioning. This will not affect your ordinary driving, but you should take it to a dealer to have it inspected.

- To operate the Dynamic radar cruise control system correctly, observe the following precautions.

• Always keep the front surface of the millimeter wave radar sensor and the front and back surfaces of the grille cover clean.
• Use a soft cloth to clean the window without scratching it.

- Do not apply strong shocks to the millimeter wave radar sensor and its surrounding area. Do not disassemble the sensor because it could lead to a malfunction or improper operation.
- Do not affix stickers or attach accessories in the periphery of the grille cover of the vehicle equipped with a millimeter wave radar sensor. Do not modify or paint the grille cover, or replace it with a non-genuine part. Failure to observe these precautions can lead to the improper operation of the radar.
- Do not apply strong water pressure to the front surface of the sensor, such as through the use of a high-pressure car wash.

• This will cause moisture to enter the sensor, which will cause the sensor to malfunction.

- Different control methods are used for the vehicle-to-vehicle control mode and the constant-speed control mode. Make sure to check which mode is selected before operating the Dynamic radar cruise control system.