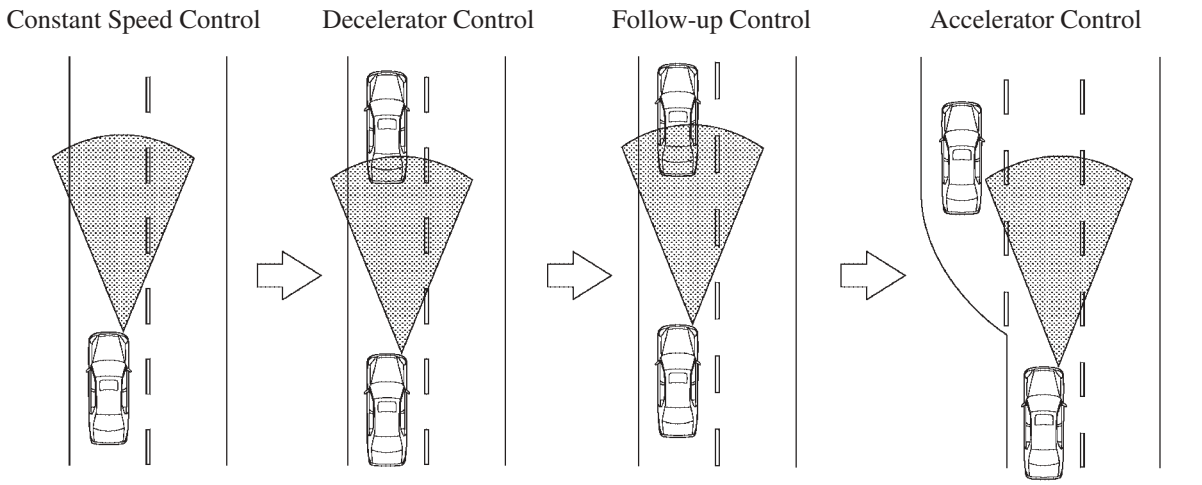
■DYNAMIC LASER CRUISE CONTROL SYSTEM (ONLY FOR AUSTRALIA MODEL)

1. General

Dynamic laser cruise control system has two cruise control modes: Constant Speed Control Mode, Vehicle-to-Vehicle Distance Control Mode.

- The cruise control switch is used for switching between two modes. The mode in which the cruise control system starts is the vehicle-to-vehicle distance control mode.
- The control in the constant speed control mode is the same as in the conventional cruise control system.
- In the vehicle-to-vehicle distance control mode, the system recognizes and determines the lane in which the driver's own vehicle and the vehicle ahead are traveling. Thus, the system is able to maintain the proper vehicle-to-vehicle distance in accordance with the vehicle speed, and allows the vehicle to be driven under follow-up control. This mode consists mainly of four controls: constant speed control, decelerator control, follow-up control, and accelerator control.
- The illustrations below show control examples while the driver's own vehicle is operating at 100 km/h, and the vehicle ahead is operating at 80 km/h.



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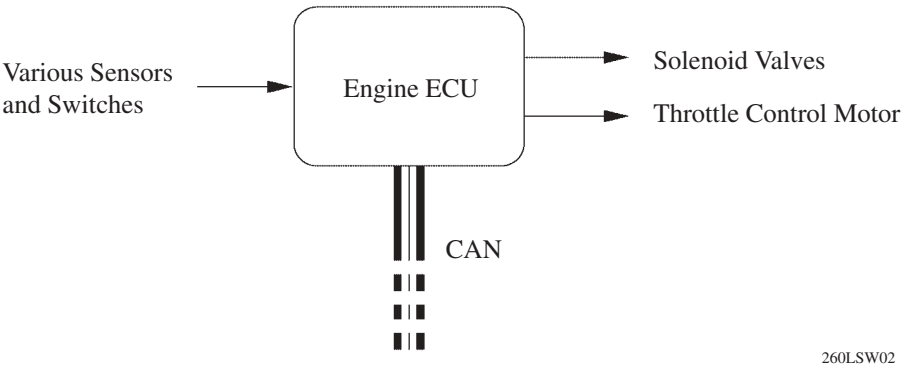
- Distance control ECU, laser sensor, and engine ECU control this system.
- The driver can operate the steering pad switch (DISP2) to select the vehicle-to-vehicle distance in three stages: long, middle, and short.
- The multi-information display informs the driver of the control conditions.

Service Tip

SST (09870-60000) for laser beam axis adjustment has been adopted. For details, see the LEXUS LS430 Repair Manual Supplement (Pub. No. RM1049E).

- As in the conventional cruise control system, the constant speed control mode is controlled by the engine ECU, which outputs signals to the actuators and the ECU.



- The vehicle-to-vehicle distance control mode is controlled by the laser sensor and the distance control ECU. Thus, the signals are output to the actuators and the ECU while exchanging data as indicated below.