■ FUNCTION

The cruise control system has the following functions:

Function	Outline	
Constant Speed Control	Gasoline Engine	The ECM compares the actual vehicle speed with the set speed and if the vehicle speed is higher than the set speed, it activates the throttle control motor in the throttle closing direction. If the vehicle speed is lower than the set speed, it activates the throttle motor in the throttle opening direction.
	Diesel Engine	The ECM compares the actual vehicle speed with the set speed. If the vehicle speed is higher than the set speed, the ECM decreases the injection volume by regulating the injector driver. If the vehicle speed is lower than the set speed, the ECM increases the injection volume by regulating the injector driver.
Set Control	When the ON-OFF button is turned on and the cruise control main switch is pushed to the SET/– direction and released, the ECM stores the vehicle speed in the memory and continues to control the vehicle at that speed. The set speed is between approx. 40 km/h (25 mph) and approx. 200 km/h (125 mph).	
Low Speed Limit Control	The low speed limit is the lowest speed that the cruise control system can be set to and is set at approx. 40 km/h (25 mph). The cruise control system cannot be set below that speed. If the vehicle speed drops below that speed while the cruise control system is running, the cruise control system is canceled automatically. However the set speed is kept in memory.	
Accelerator Control	Gasoline Engine	When the cruise control main switch is kept pushed to the RES/+ direction while the cruise control system is running, the throttle control motor is energized in the throttle opening direction. The vehicle keeps accelerating and the ECM stores the vehicle speed when the cruise control main switch is released. From then on, the ECM controls the vehicle speed at that speed constantly.
	Diesel Engine	When the cruise control main switch is kept pushed to the RES/+ direction while the cruise control system is running, the ECM increases the fuel injection volume by regulating the 4 injector assemblies via the injector driver. As the vehicle continues to accelerate, the ECM stores the vehicle speed at the time the cruise control main switch is released. From then on, the ECM continues to control the vehicle at that speed.
Tap-up Control	When the difference between the actual vehicle speed and the set speed is less than 5 km/h (3 mph), the set speed can be increased by approx. 1.6 km/h (1 mph) each time by operating the cruise control switch to the RES/+ side quickly within approx. 0.6 seconds.	
Coast Control	Gasoline Engine	When the cruise control main switch is kept pushed to the SET/– side while running in cruise control mode, the throttle control motor is energized in the throttle closing direction and the vehicle keeps decelerating. The ECM stores the vehicle speed when the hand is released from the cruise control main switch. From then on, the ECM controls the vehicle speed at that speed constantly.
	Diesel Engine	When the cruise control main switch is kept pushed to the SET/– side while the vehicle is running in cruise control mode, the ECM decreases the injection volume by regulating the injector driver. As the vehicle continues to decelerate, the ECM stores the vehicle speed at the time the driver's hand is released from the cruise control main switch. From then on, the ECM continues to control the vehicle at that speed.
Tap-down Control	When the difference between the actual vehicle speed and the set speed is less than 5 km/h (3 mph), the set speed can be lowered by approx. 1.6 km/h (1 mph) each time by operating the cruise control main switch to the SET/– side quickly within approx. 0.6 seconds.	

(Continued)

Function	Outline
Resume Control	After cruise control mode is canceled by any of the cancel switches, that mode can be resumed and controlled at the set speed by operating the cruise control main switch in the RES/+ direction providing that the vehicle speed has not dropped below the low speed limit [approx. 40 km/h (25 mph)]. ● If the vehicle speed is below the low speed limit, the system will not delete the speed in the memory, allowing cruise control mode to be resumed once the vehicle speed reaches above the low speed limit.
Manual Cancel Control	If any of the following signals are sent to the ECM while the vehicle is running in cruise control mode, cruise control mode is canceled accordingly. ● Stop light switch on signal (Depress the brake pedal) ● Clutch start switch off signal (Depress the clutch pedal/models with manual transmission) ● D position circuit in neutral start switch off signal (models with automatic transmission) The shift lever is moved from D to any position except D*1 The shift lever is moved from D to any position except D*2 ● CANCEL switch on signal ● Main switch off signal
Automatic Cancel Control	When any of the following conditions occurs during cruise control driving, the speed that is set in the memory is cleared to cancel cruise control mode. Furthermore, the cruise control indicator light blinks until the main switch is turned off, and the operation of the cruise control is disabled until the main switch is turned on again. ● Stop light switch open or short circuit ● The vehicle speed signal abnormal
	When any of the following conditions occurs during cruise control driving, the speed that is set in the memory is cleared to cancel cruise control mode. Furthermore, the cruise control indicator light is turned off, and the operation of the cruise control is restricted until these malfunctions are resolved. ● ETCS-i malfunction*1 ● Common-rail fuel injection system abnormal*2
	When any of the following conditions occurs during cruise control driving, the speed that is set in the memory is cleared to cancel cruise control mode. Furthermore, the cruise control indicator light blinks until the main switch is turned off, and the operation of the cruise control is disabled until the IG signal is turned off again. ● Stop light switch input signal abnormal ● Cancel circuit abnormal
	When any of the following conditions occurs during cruise control driving, cruise control is canceled. (Cruise control can be restarted.) ● The vehicle speed falls below the low speed limit (approx. 40 km/h). The set speed in the memory is maintained. ● The vehicle speed drops more than 16 km/h below the speed set for uphill driving. The set speed in the memory is cleared.
Other Cancellation Items	When the IG signal is turned off, set speed in the memory is cleared.
Shift-down Control	When the vehicle is cruising uphill, shift-down control may be performed by the ECT (Electronic Control Transmission). The ECM permits the transmission control ECU assembly to shift up when the ECM judges the end of cruising uphill based on the throttle valve angle. If shift-down control is performed during accelerator or resume control, the ECM permits the transmission control ECU assembly to shift up after accelerator or resume control is completed.

*1: Models with gasoline engine
*2: Models with diesel engine