■ FUNCTION

The cruise control has the following functions.

Function	Outline
Constant Speed Control	The HV ECU compares the actual vehicle speed with the set speed, and regulates the drive force of the electric motor and the engine so that the actual vehicle speed and the set speed will become equal.
Set Control	When this system fulfils the following conditions, and the cruise control switch is pressed to the SET/- side and released with the MAIN switch turned on, the HV ECU stores the vehicle speed and controls it constantly at that speed. • The vehicle is running within a cruising speed control range [approx. 40 km/h (25 mph) or more]. • While the shift position is in position D.
Low Speed Limit Control	The low speed limit is the lowest speed that cruise control can be set and is designed at approx. 40 km/h (25 mph). The cruise control cannot be set below that speed. If the vehicle speed drops below that speed while running in the cruise control mode, the cruise control is cancelled automatically and the set speed in the memory is cleared.
Accelerator Control	When the driver keeps the cruise control switch pushed to the RES/+ side while the vehicle operates in the cruise control mode, the HV ECU regulates the drive force of the electric motor and the engine in the direction that increases the vehicle speed. As the vehicle keeps accelerating, the HV ECU stores the vehicle speed at the time the driver's hand is released from the cruise control switch. From then on, the HV ECU keeps the vehicle operating 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 approx 1.6 km/h (1 mph) each time by operating the RES/+ switch quickly within approx 0.5 seconds.
Coast Control	When the driver keeps the cruise control switch pushed to the SET/- side while the vehicle operates in the cruise control mode, the HV ECU regulates the drive force of the electric motor and the engine in the direction that decreases the vehicle speed. As the vehicle keeps decelerating, the HV ECU stores the vehicle speed at the time the driver's hand is released from the cruise control switch. From then on, the HV ECU keeps the vehicle operating at that speed.
Tap-Down	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 approx. 1.6 km/h (1 mph) each time by operating the SET/- switch quickly within approx. 0.5 seconds
Resume Control	After the cruise control mode is cancelled by any of the cancel switches, the mode can be resumed and controlled at the set speed by operating the cruise control switch in the RES/+ direction providing that the vehicle speed has not dropped below the low speed limit [approx. 40 km/h (25 mph)]. The mode cannot be resumed if the vehicle speed once drops below the low speed limit, because the speed in the memory is cleared.
Manual Cancel Control	If any of the following signals is sent to the HV ECU while the vehicle is running in the cruise control, the cruise control is cancelled accordingly. • Stop light switch ON signal (Depress the brake pedal) • Shift the shift lever from D to B or N • CANCEL switch ON signal • MAIN switch OFF signal • During VSC+ operation

(Continued)

Automatic Cancel Control	When any of the following conditions occur during cruise control driving, the speed that is set in the memory is cleared to cancel the cruise control mode. Furthermore, the cruise main 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 • ETCS-i malfunction • When there is a considerable change in the vehicle speed signal values that are input in the HV ECU, this condition can be verified in the CRUISE CONTROL DATA LIST of the intelligent tester II. For details, see the Prius Repair Manual (Pub. No. RM1076E).
	When any of the following conditions occur during the cruise control driving, the speed that is set in the memory is cleared to cancel the cruise control mode. Furthermore, the cruise main indicator light blinks until the MAIN switch is turned OFF, and the operation of the cruise control is disabled until the power switch is turned OFF again. • Stop light switch input signal abnormal • HV ECU malfunction
	When any of the following conditions occurs during the cruise control driving, the set speed in the memory is cleared to cancel the cruise control mode. Cruise control can be resumed at the set speed by operating the SET or RESUME switch providing that the vehicle speed is above the lower speed limit [approx. 40 km/h (25 mph)]. • The vehicle speed falls below the low speed limit [approx. 40 km/h (25 mph)]. • The vehicle speed drops more than 16 km/h (10 mph) below the set speed as in uphill driving.
Diagnosis	If a malfunction occurs in the cruise control system, during cruise control driving, the HV ECU actuates Auto Cancel of the cruise control and turns on and off the cruise main indicator light to inform the driver of a malfunction. At the same time, the malfunction is stored in memory as a DTC (Diagnostic Trouble Code).

■DIAGNOSIS

- If a malfunction occurs in the cruise control system, during cruise control driving, the HV ECU actuates Auto Cancel of the cruise control and turns on and off the cruise main indicator light to inform the driver of a malfunction. At the same time, the malfunction is stored in memory as a DTC (Diagnostic Trouble Code).
- The DTC can be accessed by connecting a intelligent tester II to DLC3 terminal. For details, see the Prius Repair Manual (Pub. No. RM1076E).
- The DTC listed below is used.

DTC No.	Detection Item
P0500	Vehicle Speed Sensor “A”
P0571	Brake Switch “A” Circuit
P0607	Control Module Performance