





* 1 : Shielded



H14(A), H15(B), H16(C), H17(D) Hybrid Vehicle Control ECU

Cruise Control







H14(A), H15(B), H16(C), H17(D) Hybrid Vehicle Control ECU





Cruise Control





System Outline

Cruise control is the speed control device, which can set desired speed by just operating the switch on the control panel without applying the accelerator pedal. The device can be used when driver would like to drive the vehicle at fixed speed.

1. Set Control

If the cruise control switch is pushed to – SET side and hand is released from the switch during driving, (The available range of set speed: between 40 and 200 km/h) with the ON–OFF switch at ON (Power indicator comes on), the device stores vehicle speed at that time and controls it constantly at the set speed.

2. Set Speed Control

The device compares the actual vehicle speed with the set speed, and controls the driving power of the motor and the engine by calculating the cruise control requirements to drive it constantly at the set speed.

3. Coast Control

If the cruise control switch is kept pushed to the – SET side during driving in the cruise control mode, the device recognizes the cruise control requirement is at zero and decelerates the vehicle speed. When hand is released from the cruise control switch, the device stores the vehicle speed while the vehicle speed is decelerating. From then on, vehicle speed is controlled to stay at that speed.

Every time the switch is operated to – SET side momentarily (For about 0.5 seconds), the set speed is decreased by about 1.6 km/h. However, in case of tap–down operation to make more than 5 km/h gap between the set speed and the actual vehicle speed, the device recalls the original set speed and controls it at the speed constantly.

4. Accel Control

If the cruise control switch is kept pushed to the + RES side during driving in the cruise control mode, the device recognizes the cruise control is on the acceleration side and accelerates the vehicle speed. When hand is released from the cruise control switch, the device stores the vehicle speed at that time and controls it with the set speed constantly.

Every time the switch is operated to + RES side momentarily (For about 0.5 seconds), the set speed is increased by about 1.6 km/h. However, in case of tap–up operation to make more than 5 km/h gap between the set speed and the actual vehicle speed, the device does not change the set speed. (Tap–up operation is not available.)

5. Resume Control

After the cruise control mode is cancelled by any one 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.

6. Manual Cancel Control

If any of the following signals is sent to the device while the vehicle is running in the cruise control, the cruise control is cancelled accordingly.

- * Stop light switch: ON (Depressing the brake pedal)
- * CANCEL switch of control switch: ON
- * ON-OFF switch: OFF

7. Auto Cancel Function

- A) The set speed is cleared and the cruise control is canceled under the following conditions. The cruise main indicator blinks until the main switch is turned OFF. The speed control is unavailable unless the main switch is turned ON again.
- * When the stop light switch open or short-circuits.
- * When signal of sudden change in the vehicle speed is sent.
- B) The set speed is cleared and the cruise control is canceled under the following conditions.
- * When there is malfunction of the stop light switch input circuit.
- * When the vehicle speed becomes lower than 40 km/h.
- * When the vehicle speed becomes lower than the speed that 16 km/h is subtracted from the set speed.

Service Hints

C12 Combination SW 1-2: Approx. 1540 Ω with the CANCEL SW on

Approx. 240 Ω with the + RES SW on Approx. 630 Ω with the – SET SW on

O : Parts Location

Code		See Page	Code		See Page	Code		See Page
A8		46	J1		45	M10 E		45
B5	А	46	J	3	45	P6		49
C2		44	J6		48	S4	А	49
C10		47	J9		48	S5	В	49
C12		47	J12	А	48	S7	А	49
D1		47	J13	В	48	S8	В	49
E4	А	47	J14		48	S9	С	49
E5	В	47	J15		48	S10	D	49
E6	С	47	J16		48	S11		49
E7	D	' J17		48	S16		49	
G1		47	J18		48	T2		45
H14	А	47	J24		48	Т3		45
H15	В	47	J25		48	T4		49
H16	С	47	M5		45	T5		49
H17	D	47	M9	D	45			

C : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

Sunction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)				
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)				
1F						
1G	- 28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)				
1L						
1M						
31	22	Engine Been Main Wire and Engine Been VR (Engine Compartment Leff)				
3J	22	Engine Room wain white and Engine Room J/B (Engine Compartment Left)				
4C						
4D						
4E						
4F	26	Lestrument Devel Mire and Center Connecter No. 4 (Debied the Combination Mater)				
4G	30	Instrument Panel Wire and Center Connector No.1 (Benind the Combination Meter)				
4H						
41						
4L						
5B						
5C						
5D						
5F						
5G	- 40	Lastrument Devel Wire and Contex Connectes No. 2 (Jastrument Devel Dress DI)				
5H		Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)				
5J						
5K						
5L]					
5M	<u> </u>					

Cruise Control

Connector Joining Wire Harness and Wire Harness					
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)			
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)			
IA1	56	Engine Ream Main Wire and Instrument Renal Wire (Upper Parts of Front Pady Dillor LH)			
IA3	50	Engine Room Main Wire and instrument Panel Wire (Opper Parts of Front Body Pillar LH)			
IG1	50	Instrument Danel Wire and Instrument Danel No. 2 Wire (Dehind the Combination Mater)			
IG2	50	Instrument Panel whe and instrument Panel No.2 whe (Denind the Combination Meter)			
1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)			

: Ground Points

Code	See Page	Ground Points Location	
EC	- 54	Engine Block	
ED			
EE	E A	Left Side of the Supremain Towar	
EF	54		
IH	56	Cowl Side Panel LH	
II	56	Instrument Panel Brace LH	

Splice Points

Code	See Page	Wire Harness with Splice Points	Code See Page		Wire Harness with Splice Points
12	58	Instrument Panel Wire	13	58	Engine Wire