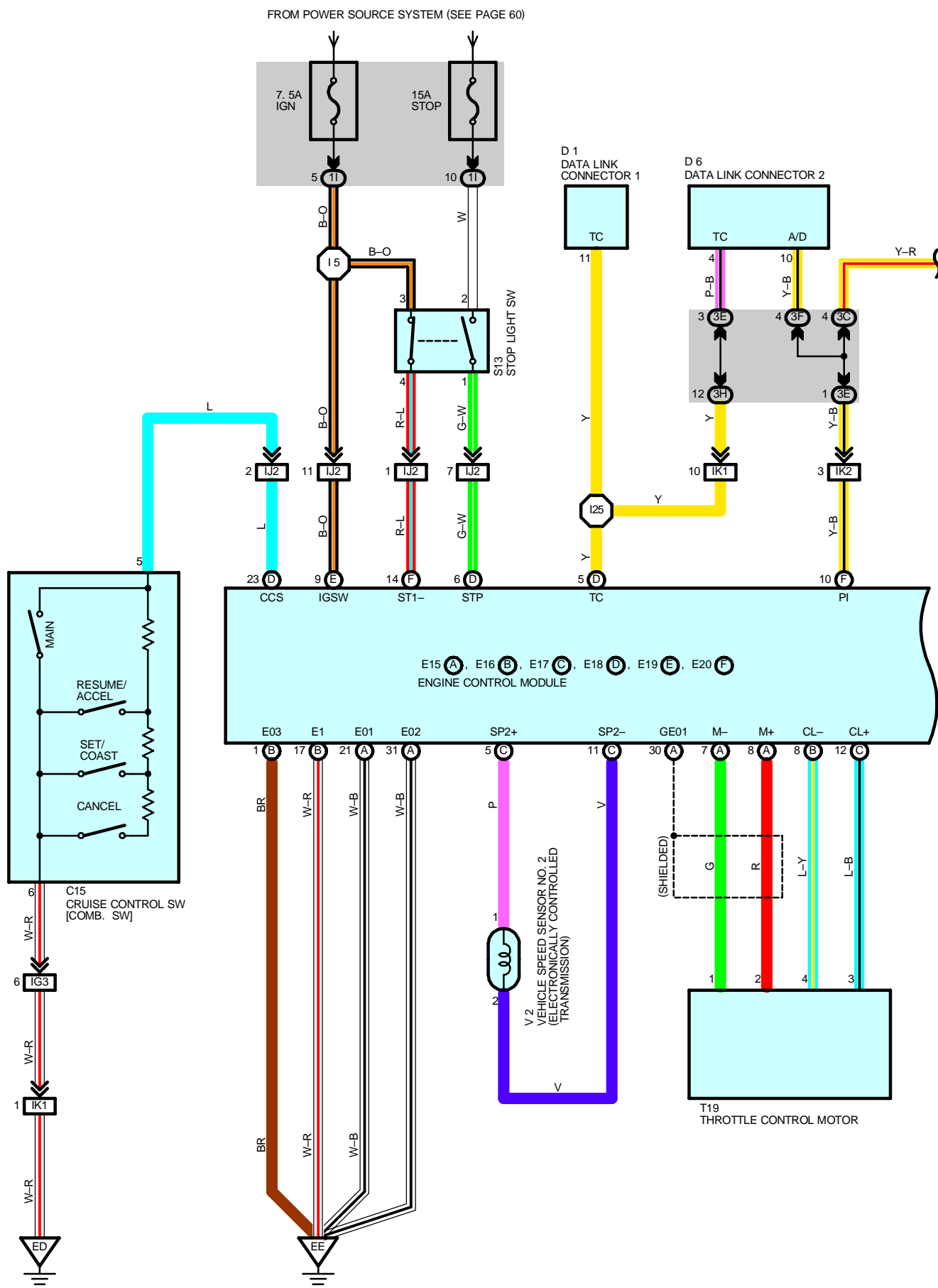


CRUISE CONTROL (1UZ-FE)



CRUISE CONTROL (1UZ-FE)

SYSTEM OUTLINE

Current is applied at all times through the **STOP** fuse to **TERMINAL 2** of the stop light SW and to **TERMINAL 1**. With the ignition SW turned to on, the current flows through **GAUGE** fuse to **TERMINAL 1** of the cruise control indicator light and **TERMINAL 4** of the A/T indicator SW. At the same time, the current through **EFI** fuse flows to **TERMINAL 2** of the EFI MAIN relay to **TERMINAL 4** to **TERMINAL (E) 8** and **(E) 16** of the engine control module.

When the ignition SW is on and the cruise control SW is turned on, a signal is input from **TERMINAL 3** of the cruise control SW to **TERMINAL (E) 9** of the engine control module.

As a result, the engine control module functions and current flows to **TERMINAL (E) 8** and **(E) 16** of the engine control module to **TERMINALS (A) 21, (A) 31, (B) 1** and **(B) 17** to **GROUND**, and the cruise control system is ready for operation.

At the same time, the cruise control indicator light to light up, indicating that the cruise control is ready for operation.

1. SET OPERATION

When the cruise control SW is turned on and the set SW is pushed with the vehicle speed within the set limit (Approx. **40 km/h, 25 mph** to **200 km/h, 124 mph**), a signal is input to **TERMINAL (D) 23** of the engine control module and the vehicle speed at the time set SW is released is memorized in the engine control module as the set speed.

2. SET SPEED CONTROL

During cruise control driving, the engine control module compares the set speed memorized in the engine control module with the actual vehicle speed input into **TERMINAL (C) 11** of the engine control module from the vehicle speed sensor, and controls the engine control module to maintain the set speed.

When the actual driving speed is lower than the set speed, the current flows from **TERMINAL (A) 8** of the engine control module to **TERMINAL 2** of the throttle control motor to **TERMINAL 1** to **TERMINAL (A) 7** of the engine control module to **TERMINAL (A) 9** to **GROUND**. As a result, the throttle control motor causes the throttle valve to open and the throttle cable is pulled to increase the vehicle speed. When the actual driving speed is higher than the set speed, the current flows from **TERMINAL (A) 7** of the engine control module to **TERMINAL 1** of the throttle control motor to **TERMINAL 2** to **TERMINAL (A) 8** of the engine control module to **TERMINAL (A) 9** to **GROUND** and the throttle control motor causes the throttle valve to close and return the throttle cable to decrease the vehicle speed.

3. COAST CONTROL

During the cruise control driving, while the coast SW is on, the throttle control motor returns the throttle cable to close the throttle valve and decrease the driving speed. The vehicle speed when the coast SW is turned off is memorized and the vehicle continues at the new set speed.

4. ACCEL CONTROL

During cruise control driving, while the accel SW is turned on, the throttle control motor pulls the throttle cable to open the throttle valve and increase the driving speed.

The vehicle speed when the accel SW is turned off is memorized and the vehicle continues at the new set speed.

5. RESUME CONTROL

Unless the vehicle speed falls below the minimum speed limit (Approx. **40 km/h, 25 mph**) after canceling the speed by the cancel SW, pushing the resume SW will cause the vehicle to resume the speed set before cancellation.

6. MANUAL CANCEL MECHANISM

If any of the following operations occurs during cruise control operation, the magnetic clutch of the actuator turns off and the motor rotates to close the throttle valve and the cruise control is released.

- * Placing the shift lever except "D" position. "Signal is not input to **TERMINAL (F) 1** of the engine control module"
- * Depressing the brake pedal (Stop light SW on). "Signal is input to **TERMINAL (F) 14** of the engine control module"
- * Pushing the cancel SW (Cancel SW on). "Signal is input to **TERMINAL (D) 23** of the engine control module"

7. AUTO CANCEL FUNCTION

- A) If any of the following operating conditions occurs during cruise control operation, the set speed is erased, cruise control is released. (Cruise control SW turns off).

When this occurs, the ignition SW must be turned off once before the main SW will turn on.

- * Open circuit for **TERMINAL (F) 14** of the engine control module and **TERMINAL 3** of the stop light SW.

- B) If any of the following conditions occurs during cruise control operation, the set speed is erased and the cruise control is released.

- * When the vehicle speed falls below the minimum speed limit (Approx. **40 km/h 25 mph**).
- * When the vehicle speed falls more than **16 km/h (10 mph)** below the set speed, E.G. on an upward slope.

8. AUTOMATIC TRANSMISSION CONTROL FUNCTION

- * During cruise control driving, this signal, the engine control module changes the shift pattern to normal.

SERVICE HINTS

C15 CRUISE CONTROL SW [COMB. SW]

3-6 : Continuity with MAIN SW on

5-6 : Approx. **1540 Ω** with CANCEL SW on

Approx. **240 Ω** with RESUME/ACCEL SW on

Approx. **630 Ω** with SET/COAST SW on

E15 (A), E16 (B), E17 (C), E18 (D), E19 (E), E20 (F) ENGINE CONTROL MODULE

(E) 7-GROUND : Approx. **12 volts** with ignition SW at **ON** position

(E) 1-GROUND : Always approx. **12 volts**

(D) 23-GROUND : Approx. **1540 Ω** with CANCEL SW on in cruise control SW

Approx. **630 Ω** with SET/COAST SW on in cruise control SW

Approx. **240 Ω** with RESUME/ACCEL SW on in cruise control SW

(A) 9-GROUND : Always continuity



: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A35	26 (1UZ-FE)	E15	A 30	P1	27 (1UZ-FE)
C14	C 30	E16	B 30	S13	31
C15	30	E17	C 30	T2	27 (1UZ-FE)
C25	D 30	E18	D 30	T19	27 (1UZ-FE)
D1	26 (1UZ-FE)	E19	E 30	V2	27 (1UZ-FE)
D6	30	E20	F 30		



: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	19	R/B No. 2 (Engine Compartment Left)

CRUISE CONTROL (1UZ-FE)



: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	20	Instrument Panel Wire and J/B No.1 (Left Kick Panel)
1H	20	Cowl Wire and J/B No.1 (Left Kick Panel)
1I		
3A	22	Instrument Panel Wire and J/B No.3 (Behind the Instrument Panel Center)
3C		
3D		
3E		
3F		
3H		



: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	36 (1UZ-FE)	Engine Wire and Engine Room Main Wire (Front Side of R/B No.2)
EB2		
IE1	40	Engine Room Main Wire and Cowl Wire (R/B No.4)
IG3	40	Instrument Panel Wire and Cowl Wire (Right Kick Panel)
IJ1	40	Engine Wire and Cowl Wire (Right Kick Panel)
IJ2		
IK1	40	Engine Wire and Instrument Panel Wire (Right Kick Panel)
IK2		



: GROUND POINTS

Code	See Page	Ground Points Location
EB	36 (1UZ-FE)	Front Side of Left Fender
ED	36 (1UZ-FE)	Rear Side of Cylinder Head RH
EE	36 (1UZ-FE)	Rear Side of Cylinder Head LH



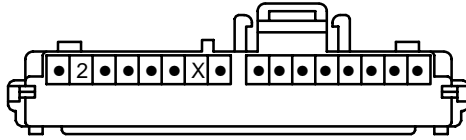
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E28	36 (1UZ-FE)	Engine Wire	I5	42	Cowl Wire
E29			I25	42	Engine Wire

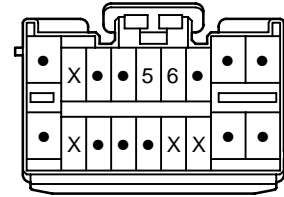
A35 BLACK



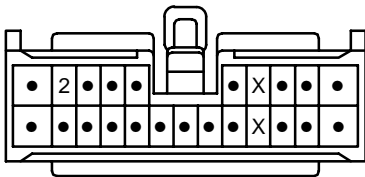
C14 (C)



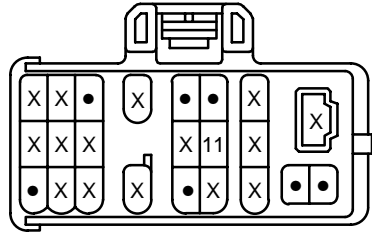
C15



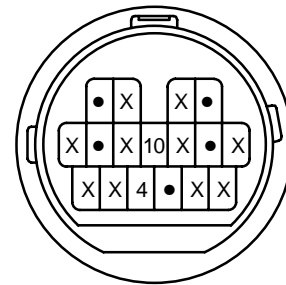
C25 (D) ORANGE



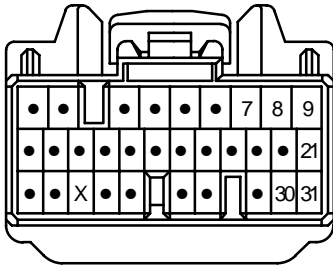
D1 BLACK



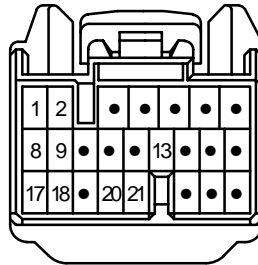
D6 DARK GRAY



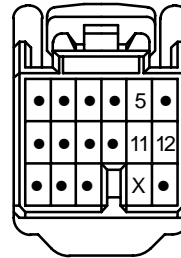
E15 (A)



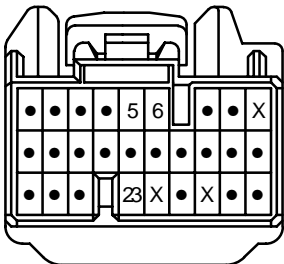
E16 (B)



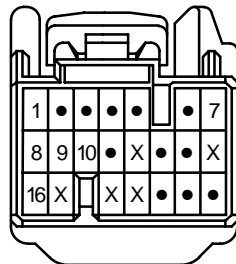
E17 (C)



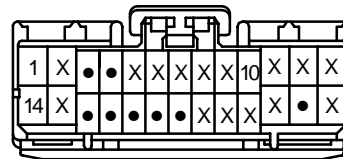
E18 (D)



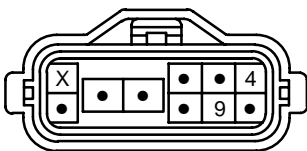
E19 (E)



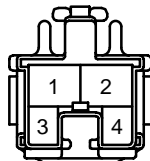
E20 (F)



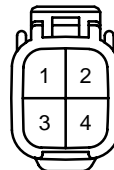
P1 GRAY



S13



T2 GRAY



T19 GRAY



V2 BLACK

