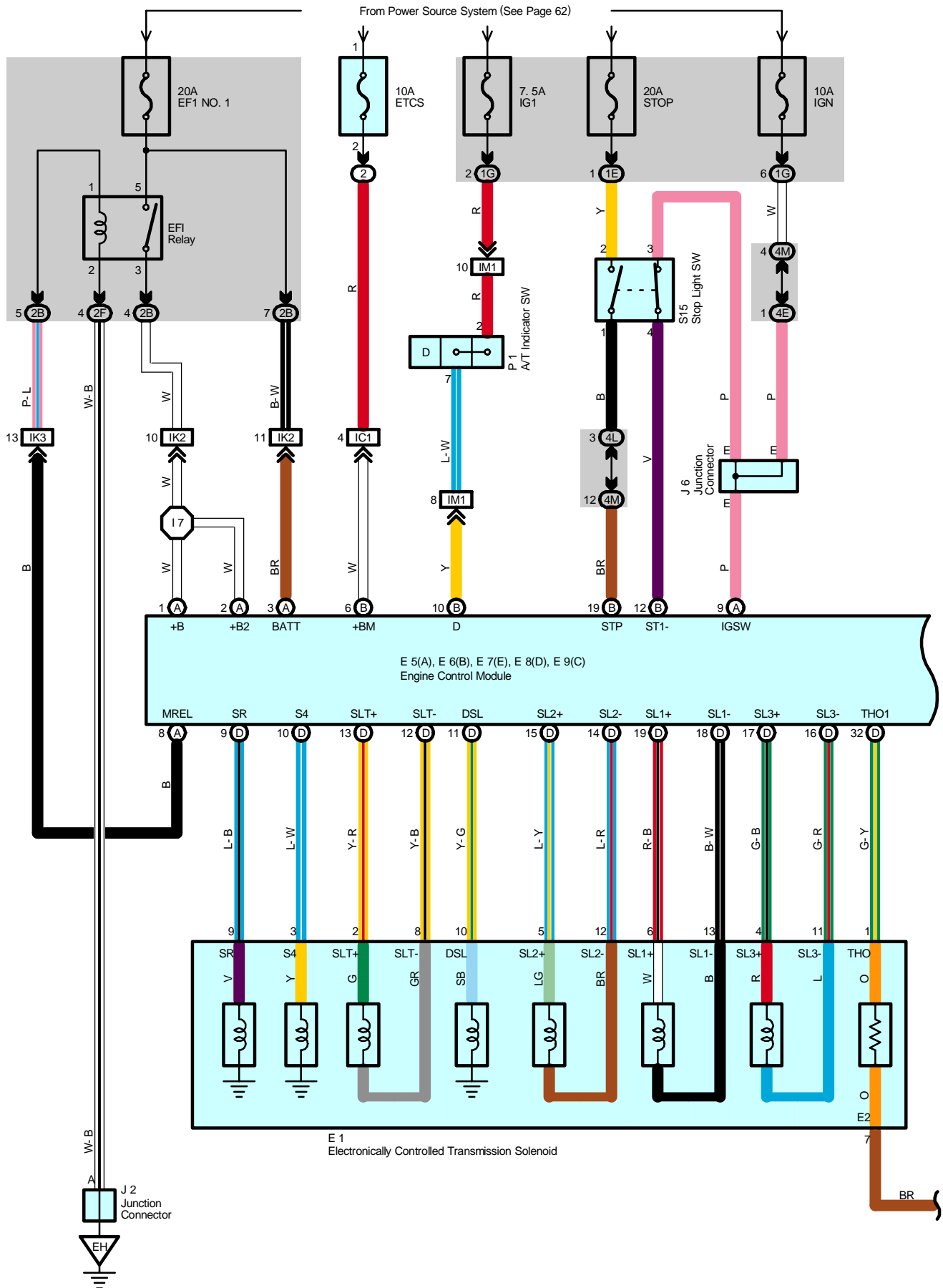
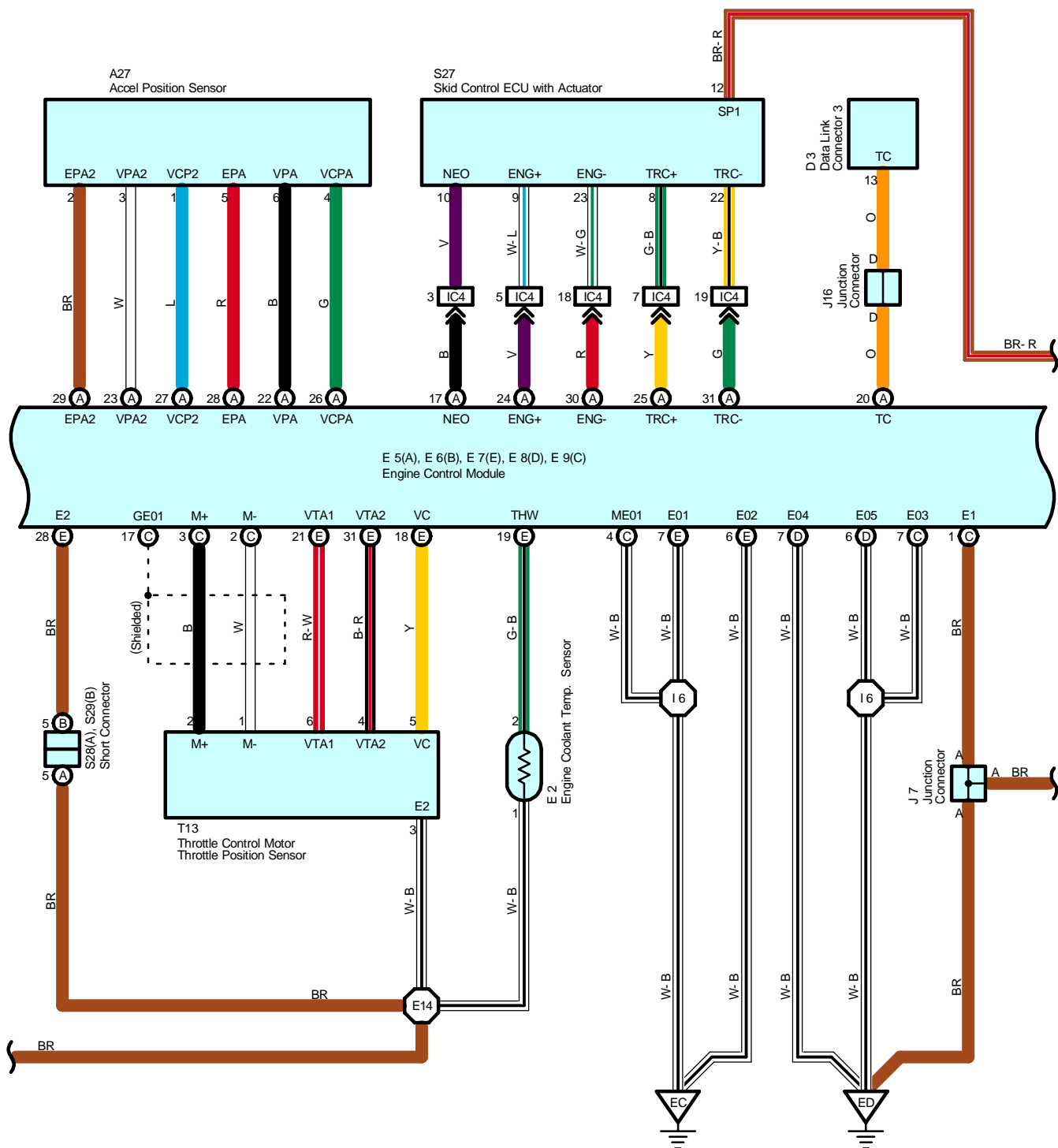
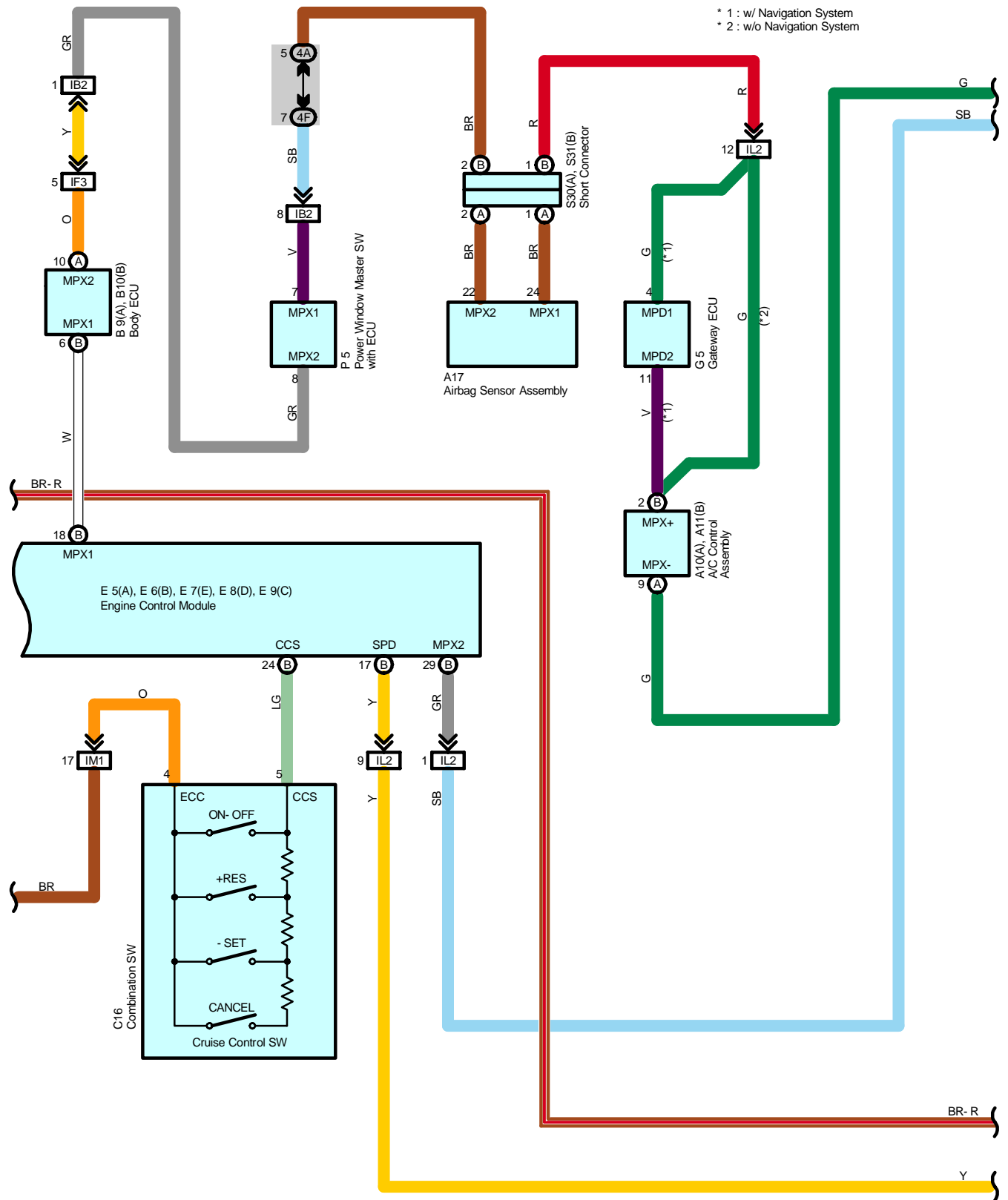


Cruise Control for 3MZ-FE





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System Outline

The cruise control system is a constant vehicle speed controller in which control of the switch on the instrument panel makes it possible to automatically adjust the opening of the engine throttle valve without depressing of the accel pedal.

1. Set Operation

When the ON-OFF SW is turned on, the system starts preparations necessary for the cruise control and turns on the indicator light in the combination meter.

2. Set Speed Control

When the - SET SW is operated with the ON-OFF SW turned on during travelling, the constant vehicle speed is controlled.

3. Coast Control

When the - SET SW is kept turned on during cruise control travelling, the engine control module controls the throttle valve to decelerate the vehicle. Every time the - SET SW is turned on instantaneously, the vehicle speed is decelerated approximately 1.5 km/h.

4. Accel Control

When the + RES SW is kept turned on during cruise control travelling, the engine control module controls the throttle valve to accelerate the vehicle. Every time the + RES SW is turned on instantaneously, the vehicle speed is accelerated approximately 1.5 km/h.

5. Resume Control

When the vehicle speed is within the low speed limit (Approximately 40 km/h, 25 mph) if the cruise control is cancelled, use of the + RES SW accelerates the vehicle to the speed level used before canceling the cruise control.

6. Manual Cancel Mechanism

If any of the following signals is input during cruise control travelling, the cruise control is cancelled.

- * The stop light SW is turned on.
- * The CANCEL SW is turned on.
- * The ON-OFF SW is turned off.
- * Gear is shifted from D position to other positions than D.

7. Auto Cancel Function

If any of the following conditions is encountered, the cruise control is automatically cancelled.

- * The stop light SW wiring is faulty or short-circuited.
- * The vehicle speed signal is faulty.
- * The electronically controlled throttle malfunctions.

8. Overdrive Control Function

The overdrive control may be cancelled if the vehicle travels on the slope during cruise control travelling. After the overdrive control has been cancelled, when climbing hill is judged to finish from throttle opening information, the vehicle returns to the overdrive control mode again after the overdrive return timer is completed.

Service Hints

E5 (A), E6 (B), E7 (E), E8 (D), E9 (C) Engine Control Module

- (A) 9-Ground : Approx. 12 volts with ignition SW at ON or ST position
- (A) 3, (B) 6-Ground : Always approx. 12 volts
- (C) 1, (C) 7, (D) 6, (D) 7, (E) 6, (E) 7-Ground : Always continuity
- (B)19-Ground : Approx. 12 volts with brake pedal depressed
- (B)24-Ground : Continuity with ON-OFF SW at on in cruise control SW
 - Approx. 1540 Ω with CANCEL SW on in cruise control SW
 - Approx. 240 Ω with + RES SW on in cruise control SW
 - Approx. 630 Ω with - SET SW on in cruise control SW

C16 Combination SW

- 5-4 : Approx. 1540 Ω with CANCEL SW on
 - Approx. 240 Ω with + RES SW on
 - Approx. 630 Ω with - SET SW on

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
A10	A	42	E2		38 (3MZ-FE)	P1		39 (3MZ-FE)
A11	B	42	E5	A	42	P5		44
A17		42	E6	B	42	S15		43
A27		42	E7	E	42	S27		39 (3MZ-FE)
B9	A	42	E8	D	42	S28	A	43
B10	B	42	E9	C	42	S29	B	43
C11	A	42	G5		43	S30	A	43
C12	B	42	J2		39 (3MZ-FE)	S31	B	43
C16		42	J6		43	T13		39 (3MZ-FE)
D3		42	J7		43			
E1		38 (3MZ-FE)	J16		43			

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	22	Engine Room R/B (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2F		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F		
3J	31	
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4D		
4E		
4F		
4H		
4L	32	
4M		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	52	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC1	52	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC3		
IC4		
IF3	52	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	54	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL2	54	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IM1	54	Engine Wire and Cowl Wire (Right Kick Panel)

Cruise Control for 3MZ-FE



: GROUND POINTS

Code	See Page	Ground Points Location
EC	48 (3MZ-FE)	Left Side of Cylinder Head
ED	48 (3MZ-FE)	Rear Side of Cylinder Head
EH	48 (3MZ-FE)	Under the Left Headlight
IB	52	Right Instrument Panel Brace



: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E14	48 (3MZ-FE)	Engine Wire	I7	54	Cowl Wire
I6	54				

