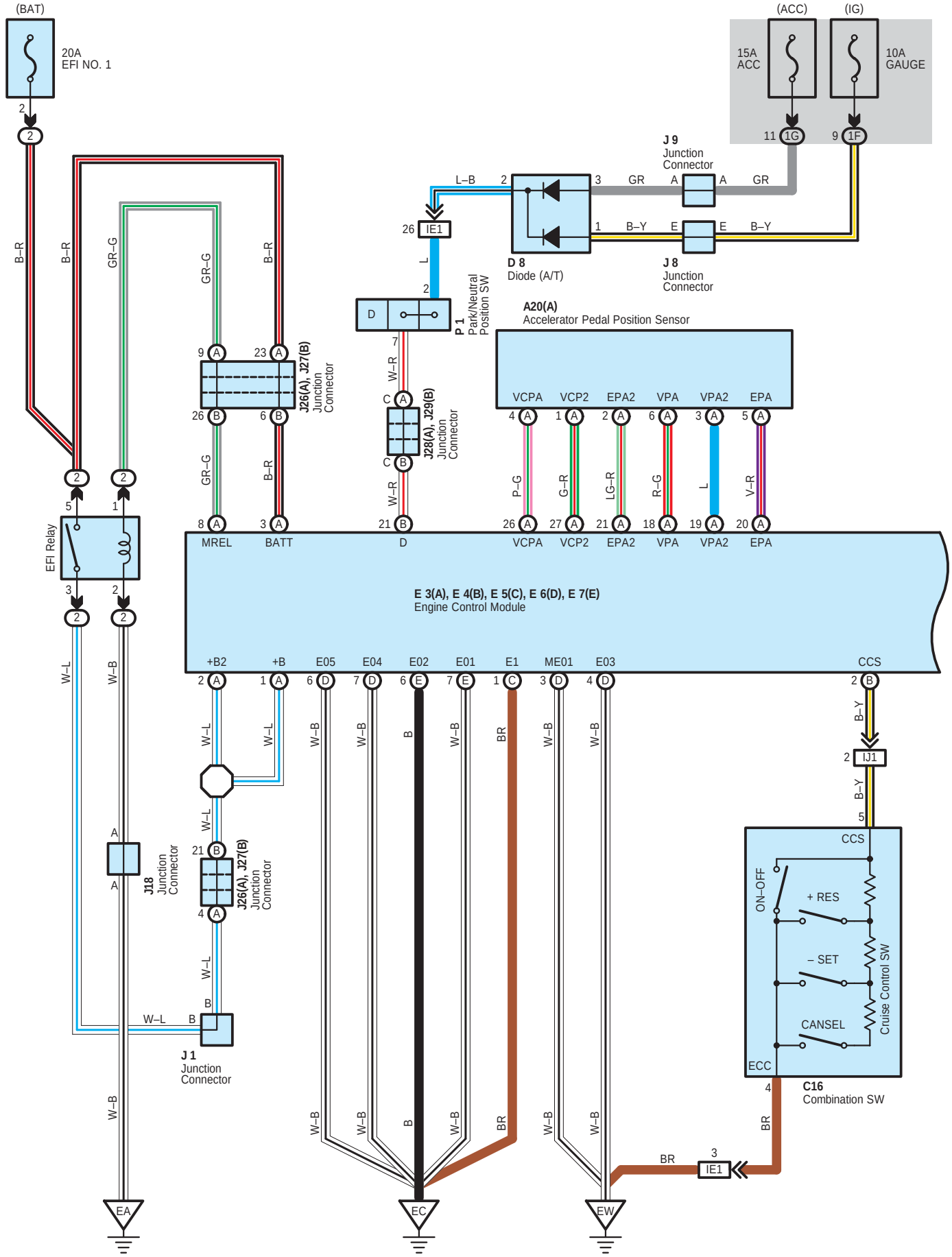
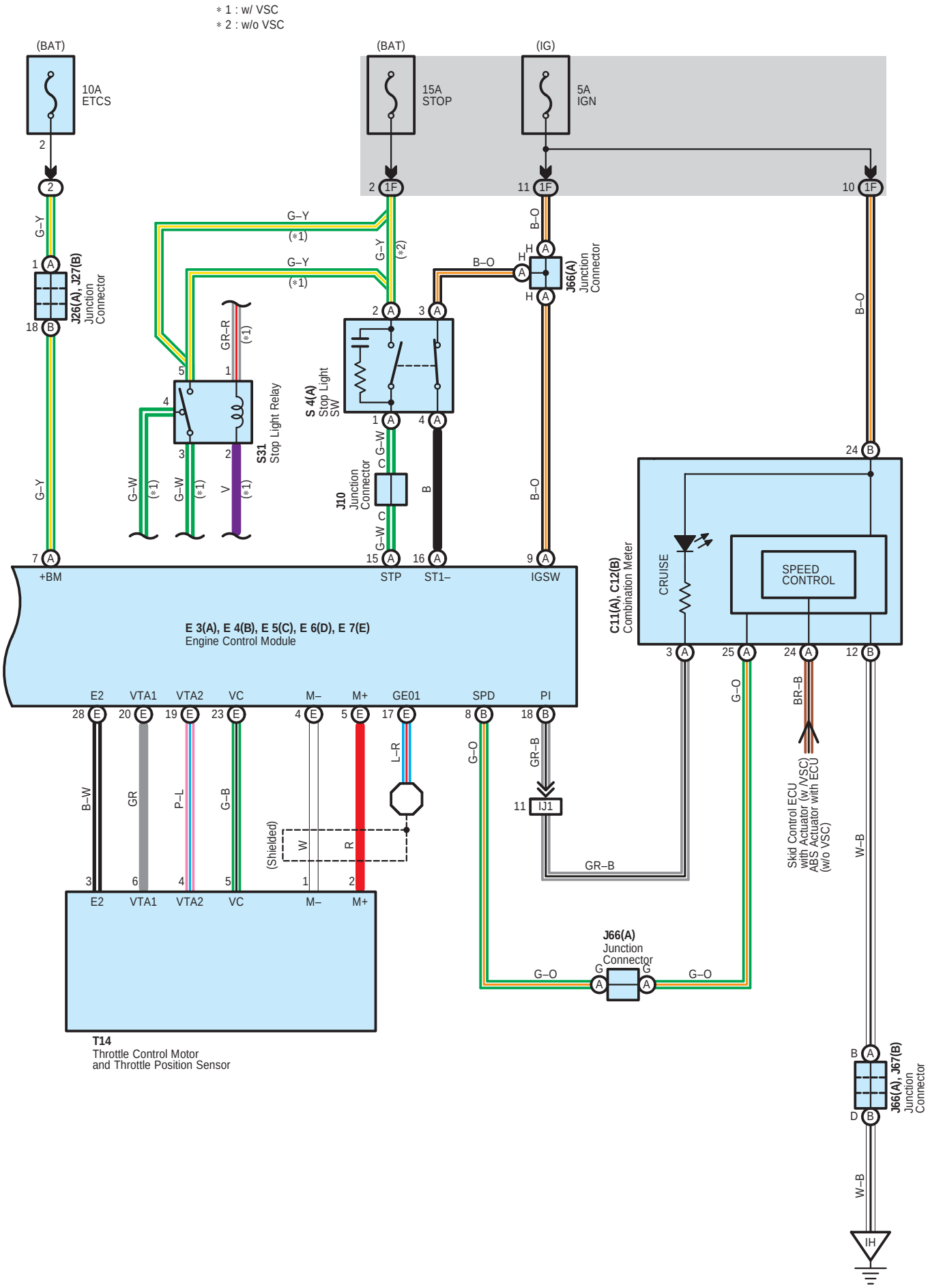
Cruise Control for 2UZ–FE (Access/Standard Cab)




* 1 : w/ VSC
* 2 : w/o VSC
(BAT)
10A
ETCS
(BAT)
15A
STOP
(IG)
5A
IGN
J26(A), J27(B)
Junction
Connector
J66(A)
Junction
Connector
S 4(A)
Stop Light
SW
S31
Stop Light Relay
J10
Junction
Connector
+BM
STP
ST1–
IGSW
E 3(A), E 4(B), E 5(C), E 6(D), E 7(E)
Engine Control Module
C11(A), C12(B)
Combination Meter
CRUISE
SPEED
CONTROL
E2
VTA1
VTA2
VC
M–
M+
GE01
SPD
PI
(Shielded)
IJ1
Skid Control ECU
with Actuator (w /VSC)
ABS Actuator with ECU
(w/o VSC)
J66(A)
Junction
Connector
T14
Throttle Control Motor
and Throttle Position Sensor
J66(A), J67(B)
Junction
Connector
IH

Cruise Control for 2UZ–FE (Access/Standard Cab)

System Outline

The cruise control system is a constant vehicle speed controller which controls the opening angle of the engine throttle valve by the SW, and allows driving at a constant speed without depressing the accelerator pedal.

1. Set Control

When the – SET SW is operated while traveling with the ON–OFF SW on, the speed when the – SET SW is operated to off is memorized, and the vehicle speed is controlled at that speed.

2. Coast Control

When the – SET SW is operated to on, the cruise control opening angle requirement is turned to 0 to decrease the vehicle speed, and the speed when the – SET SW is operated to off is memorized, and the vehicle speed is controlled at that speed. Furthermore, every time the – SET SW is operated momentarily (Approx. 0.5 sec.) to on, the memorized vehicle speed is decreased by approx. 1.6 km/h (1.0 mph).

3. Accel Control

When the + RES SW is operated to on, the throttle motor rotates the throttle valve to open direction to increase the vehicle speed, and the speed when the + RES SW is operated to off is memorized, and the vehicle speed is controlled at that speed.
Furthermore, every time the + RES SW is operated momentarily (Approx. 0.5 sec.) to on, the memorized vehicle speed is increased by approx. 1.6 km/h (1.0 mph).

4. Manual Cancel Mechanism

If any of the following signals are input during cruise control traveling, the current to the motor flows in the direction to close the throttle valve, and cancel the cruise control.

(1) Stop lamp SW is on (Brake pedal is depressed)

(2) The CANCEL SW of the control SW is on

(3) ON–OFF SW is off

(4) Gear is shifted from D position to other positions than D.

5. Resume Control

After canceling the cruise control (Except when the ON–OFF SW is off) if the vehicle speed is above the minimum speed limit (Approx. 40km/h, 25mph), operating the + RES SW to on from off will cause the system to accelerate and resume to the vehicle speed before manual cancellation.

6. Overdrive Function

The overdrive may be cut on an uphill grade, while traveling with the cruise control.
After the overdrive is cut, when the throttle opening information indicates the hill climbing is finished after the overdrive is canceled, the vehicle returns to overdrive mode again as the overdrive return timer is completed, and if the system determines that the uphill grade has finished, the overdrive will resume after the overdrive timer operation.

7. Auto Cancel Operation

If any of the following conditions are detected, the control is canceled.

(1) Disconnection and/or short in the stop light SW

(2) Malfunction in the vehicle speed signal

(3) Malfunction in the electronic throttle parts

(4) Malfunction in the stop light SW input circuit

(5) Malfunction in the cancel circuit

(6) When the vehicle speed gets slower than the low speed limit.

(7) The actual vehicle speed becomes –16 km/h (10 mph) slower than the set speed

○ **: Parts Location**

Code		See Page	Code		See Page	Code		See Page
A20	A	60	E7	E	61	J29	B	62
C11	A	60	J1		57 (2UZ–FE)	J66	A	62
C12	B	60	J8		62	J67	B	62
C16		60	J9		62	P1		57 (2UZ–FE)
D8		61	J10		62	S4	A	63
E3	A	61	J18		57 (2UZ–FE)	S31		63
E4	B	61	J26	A	62	T14		57 (2UZ–FE)
E5	C	61	J27	B	62			
E6	D	61	J28	A	62			

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	26 (*1)	Cowl Wire and Driver Side J/B (Lower Finish Panel)
	30 (*2)	
1G	26 (*1)	
	30 (*2)	

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	83	Engine Wire and Cowl Wire (Right Side of Instrument Panel)
IJ1	83	Cowl Wire and Cowl Wire (Right Side of Instrument Panel)

: Ground Points

Code	See Page	Ground Points Location
EA	80 (2UZ–FE)	Front Left Fender
EC	80 (2UZ–FE)	Rear Bank of Left Cylinder Head
EW	80 (2UZ–FE)	Front Left Side of Cylinder Head
IH	82	Right Kick Panel

* 1 : w/o Daytime Running Light * 2 : w/ Daytime Running Light * 3 : Access Cab * 4 : Standard Cab * 5 : Access Cab Captain Seat
* 6 : Access Cab Separate Seat * 7 : Standard Cab Bench Seat