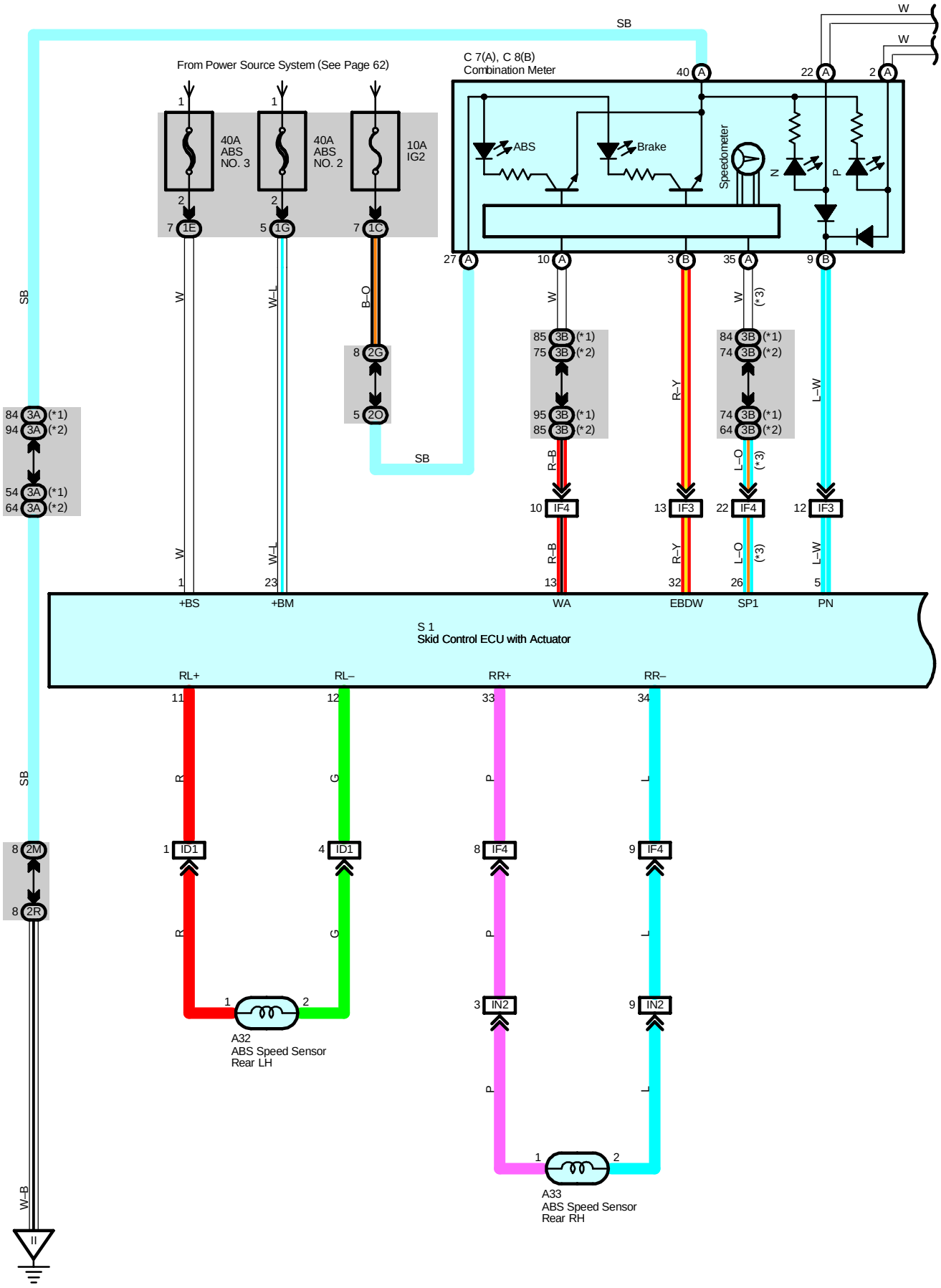
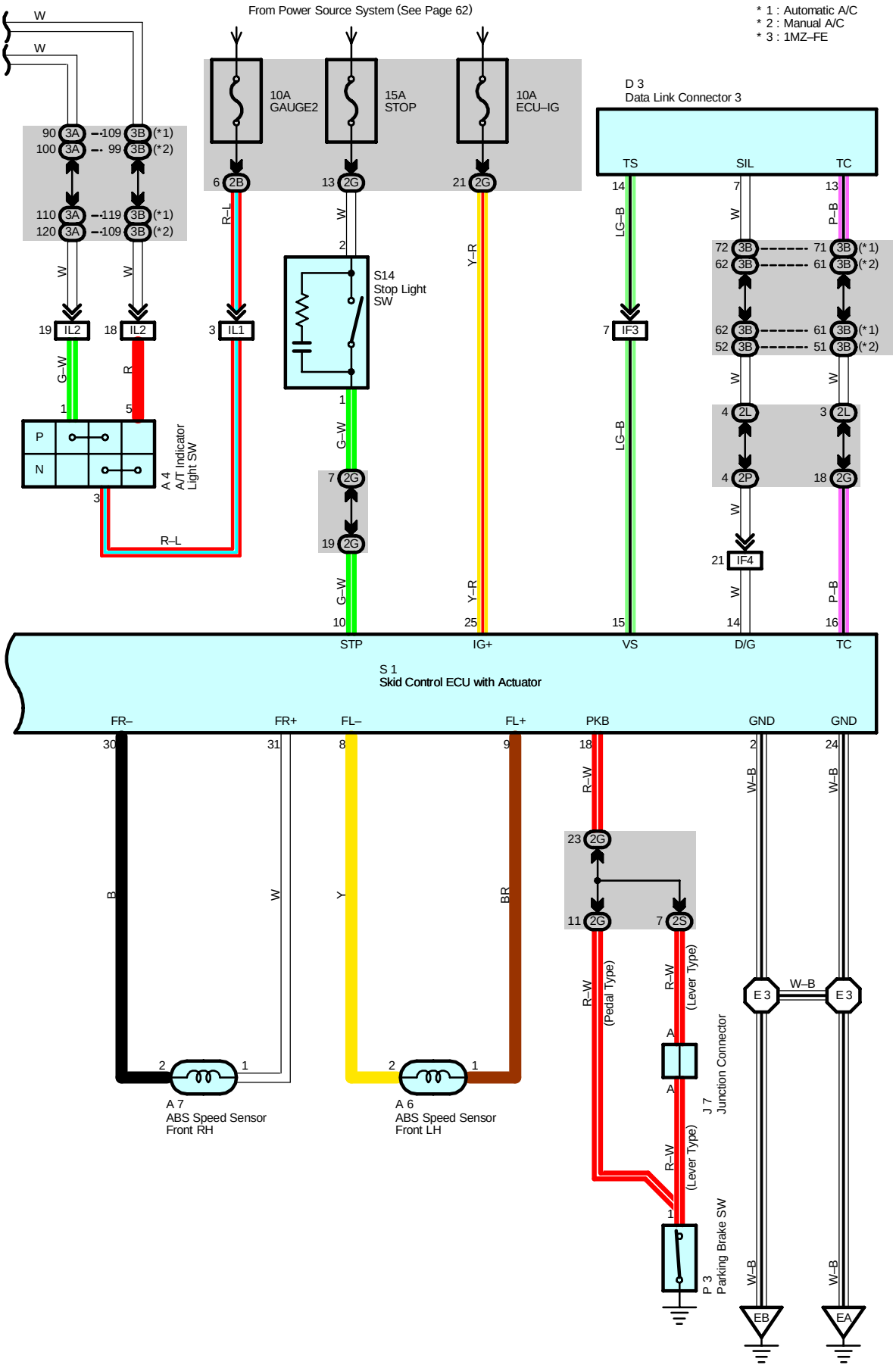
ABS (TMC Made)


From Power Source System (See Page 62)
C 7(A), C 8(B)
Combination Meter
40A ABS NO. 3
40A ABS NO. 2
10A IG2
ABS
Brake
Speedometer
SB
W
W–L
B–O
R–B
R–Y
L–O
L–W
(*3)
(*1)
(*2)
+BS
+BM
WA
EBDW
SP1
PN
S 1
Skid Control ECU with Actuator
RL+
RL–
RR+
RR–
R
G
P
L
W–B
A32
ABS Speed Sensor
Rear LH
A33
ABS Speed Sensor
Rear RH


From Power Source System (See Page 62)
* 1 : Automatic A/C
* 2 : Manual A/C
* 3 : 1MZ–FE
10A GAUGE2
15A STOP
10A ECU–IG
D 3
Data Link Connector 3
TS
SIL
TC
S14
Stop Light SW
A 4
A/T Indicator Light SW
S 1
Skid Control ECU with Actuator
STP
IG+
VS
D/G
TC
FR–
FR+
FL–
FL+
PKB
GND
GND
A 7
ABS Speed Sensor Front RH
A 6
ABS Speed Sensor Front LH
J 7
Junction Connector
P 3
Parking Brake SW
(Pedal Type)
(Lever Type)
EB
EA

System Outline

This system controls the respective brake fluid pressures acting on the disc brake cylinders of the right front wheel, left front wheel and rear wheels when the brakes are applied in a panic stop so that the wheels do not lock. This results in improved directional stability and steerability during panic braking.

1. Input Signals

(1) Speed sensor signal

The speed of the wheels is detected and input to TERMINALS 9, 11, 31 and 33 of the skid control ECU with actuator.

(2) Stop light SW signal

A signal is input to TERMINAL 10 of the skid control ECU with actuator when the brake pedal is depressed.

2. System Operation

During sudden braking the skid control ECU with actuator has signals input from each sensor, which controls the current to the solenoid inside the actuator and lets the hydraulic pressure acting on each wheel cylinder escape to the reservoir. The pump inside the actuator is also operating at this time and it returns the brake fluid from the reservoir to the master cylinder, thus preventing locking of the vehicle wheels.

If the skid control ECU with actuator judges that the hydraulic pressure acting on the wheel cylinder is insufficient, the current on the solenoid is controlled and the hydraulic pressure is increased. Holding of the hydraulic pressure is also controlled by the skid control ECU with actuator, by the same method as above. Pressure reduction, holding and increase are repeated to maintain vehicle stability and to improve steerability during sudden braking.

Service Hints

A6, A7 ABS Speed Sensor Front LH, RH

2–1 : Approx. 1.6 kΩ

A32, A33 ABS Speed Sensor Rear LH, RH

2–1 : Approx. 1.6 kΩ

S1 Skid Control ECU with Actuator

2, 24–Ground : Always continuity

25–Ground : Approx. 12 volts with the ignition SW at ON position

10–Ground : Approx. 12 volts with the brake pedal depressed

1, 25–Ground : Always approx. 12 volts

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A4	38 (1MZ–FE)	A32	44	P3	43
	40 (2AZ–FE)	A33	44	S1	39 (1MZ–FE)
A6	38 (1MZ–FE)	C7 A	42		41 (2AZ–FE)
	40 (2AZ–FE)	C8 B	42	S14	43
A7	38 (1MZ–FE)	D3	42		
	40 (2AZ–FE)	J7	43		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1E		
1G		
2B	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2G	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2L	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2M		
2O		
2P		
2R		
2S		
3A	34 (*1)	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
	36 (*2)	
3B	34 (*1)	
	36 (*2)	

∗ 1 : TMC Made Automatic A/C ∗ 2 : TMC Made Manual A/C

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	52	Engine Room Main Wire and Floor Wire (Left Side of Driver Side J/B)
IF3	52	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF4		
IL1	54	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IL2		
IN2	54	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)

: Ground Points

Code	See Page	Ground Points Location
EA	48 (1MZ–FE)	Right Fender
	50 (2AZ–FE)	
EB	48 (1MZ–FE)	
	50 (2AZ–FE)	
II	52	Cowl Side Panel LH

: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E3	48 (1MZ–FE)	Engine Room Main Wire	E3	50 (2AZ–FE)	Engine Room Main Wire