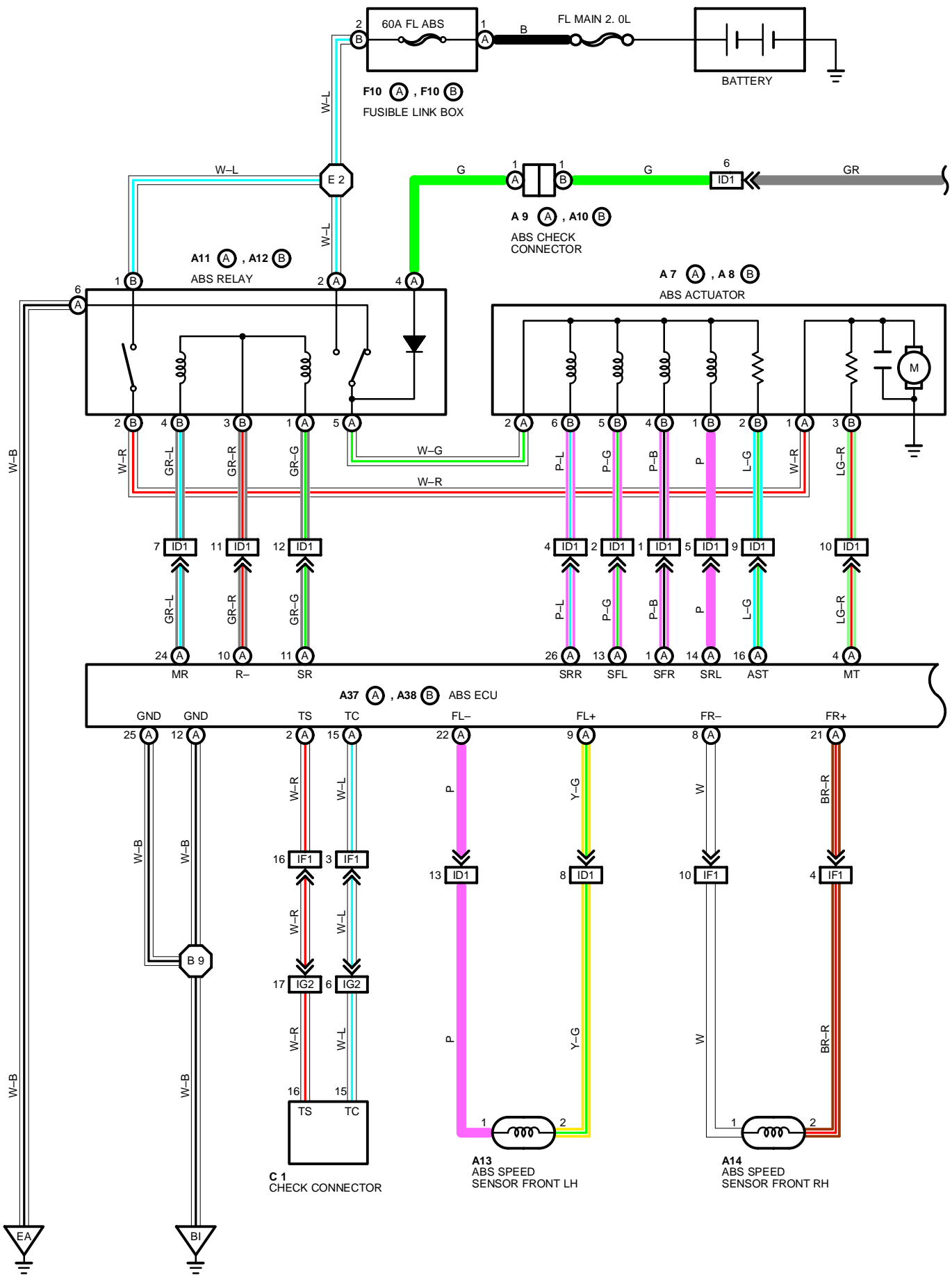
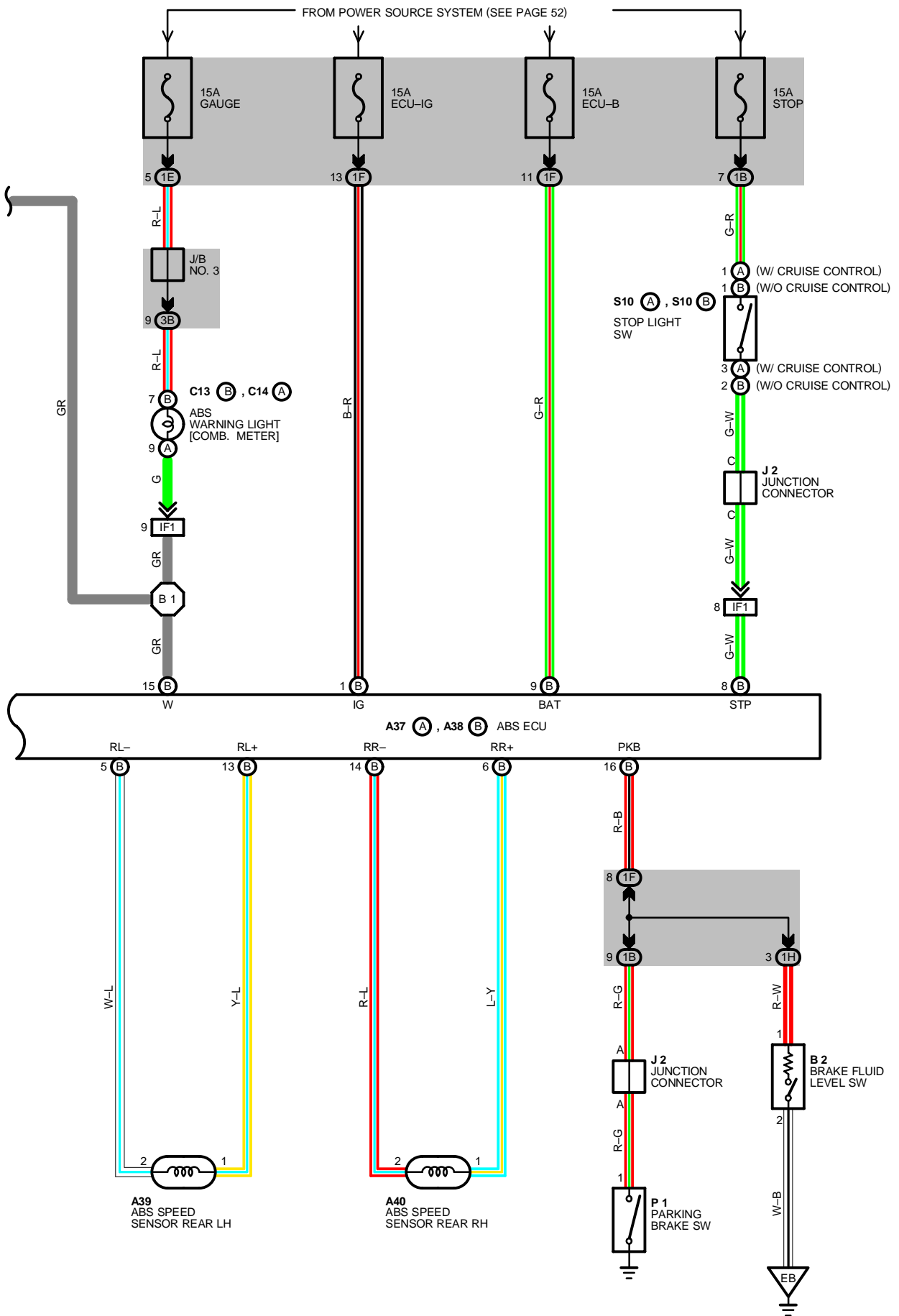


ABS (ANTI-LOCK BRAKE SYSTEM)





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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 FL+, FR+, RL+ AND RR+** OF THE ABS ECU.
- (2) STOP LIGHT SW SIGNAL
A SIGNAL IS INPUT TO **TERMINAL STP** OF THE ABS ECU WHEN BRAKE PEDAL IS OPERATED.
- (3) PARKING BRAKE SW SIGNAL
A SIGNAL IS INPUT TO **TERMINAL PKB** OF THE ABS ECU WHEN THE PARKING BRAKE IS OPERATED.

2. SYSTEM OPERATION

DURING SUDDEN BRAKING THE ABS ECU WHICH HAS SIGNALS INPUT FROM EACH SENSOR, CONTROLS THE CURRENT FLOWING 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 ECU JUDGES THAT THE HYDRAULIC PRESSURE ACTING ON THE WHEEL CYLINDER IS INSUFFICIENT, THE CURRENT ACTING ON THE SOLENOID IS CONTROLLED AND THE HYDRAULIC PRESSURE IS REDUCTION, HOLDING AND INCREASE ARE REPLIED TO MAINTAIN VEHICLE STABILITY AND TO IMPROVE STEERABILITY DURING SUDDEN BRAKING.

SERVICE HINTS

A37(A), A38(B) ABS ECU

(CONNECT THE ECU CONNECTOR)

- (A) 2-GROUND : APPROX. 12 VOLTS WITH THE IGNITION SW AT **ON** POSITION AND CHECK CONNECTOR TS-E1 NOT CONNECTED
- (A)15-GROUND : APPROX. 12 VOLTS WITH THE IGNITION SW AT **ON** POSITION AND CHECK CONNECTOR TS-E1 NOT CONNECTED
- (A)11-GROUND, (A) 13-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION ABS WARNING LIGHT GOES OFF
- (A)14-GROUND, (A) 16-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION ABS WARNING LIGHT GOES OFF
- (A)26-GROUND, (B) 15-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION ABS WARNING LIGHT GOES OFF
- (A)12-GROUND : ALWAYS CONTINUITY
- (A)25-GROUND : ALWAYS CONTINUITY
- (B) 1-GROUND : APPROX.. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- (B) 8-GROUND : APPROX. 12 VOLTS WITH BRAKE PEDAL DEPRESSED
- (B) 9-GROUND : ALWAYS APPROX. 12 VOLTS
- (B)16-GROUND : APPROX. 12 VOLTS WITH ENGINE RUNNING AND PARKING BRAKE LEVER RETURNED

(DISCONNECT THE ECU CONNECTOR)

- (A) 1-(A)16 : APPROX. 6 Ω
- (A)13-(A)16 : APPROX. 6 Ω
- (A)14-(A)16 : APPROX. 6 Ω
- (A)16-(A)26 : APPROX. 6 Ω
- (A) 8-(A)21 : APPROX. 0.8-1.3 Ω
- (A) 9-(A)22 : APPROX. 0.8-1.3 Ω
- (A)10-(A)11 : APPROX. 60-100 Ω
- (A)10-(A)24 : APPROX. 50-80 Ω
- (B) 5-(B)13 : APPROX. 1.1-1.5 K Ω
- (B) 6-(B)14 : APPROX. 1.1-1.5 K Ω

○ : PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE		SEE PAGE
A 7	A	26 (5S-FE)	A37	A	30 (L/B)	F10	A	26 (5S-FE)
A 8	B	26 (5S-FE)	A38	B	30 (L/B)		B	26 (5S-FE)
A 9	A	26 (5S-FE)	A39		30 (L/B)	J 2		29
A10	B	26 (5S-FE)	A40		30 (L/B)	P 1		29
A11	A	26 (5S-FE)	B 2		26 (5S-FE)	S10	A	29
A12	B	26 (5S-FE)	C 1		26 (5S-FE)		B	29
A13		26 (5S-FE)	C13	A	28			
A14		26 (5S-FE)	C14	B	28			

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	COWL WIRE AND J/B NO. 1 (LEFT KICK PANEL)
1E		
1F	18	FLOOR WIRE AND J/B NO. 1 (LEFT KICK PANEL)
1H	18	ENGINE ROOM MAIN WIRE AND J/B NO. 1 (LEFT KICK PANEL)
3B	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
ID1	36	ENGINE ROOM MAIN WIRE AND FLOOR WIRE (LEFT KICK PANEL)
IF1	36	FLOOR WIRE AND COWL WIRE (LEFT KICK PANEL)
IG2	36	ENGINE WIRE AND COWL WIRE (UNDER THE ENGINE ECU)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	32 (5S-FE)	FRONT RIGHT FENDER
EB	32 (5S-FE)	FRONT LEFT FENDER
BI	38 (L/B)	UNDER THE LEFT CENTER PILLAR

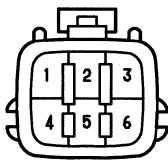
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 2	32 (5S-FE)	ENGINE ROOM MAIN WIRE	B 9	38 (L/B)	FLOOR WIRE
B 1	38 (L/B)	FLOOR WIRE			

A 7 (A) GRAY



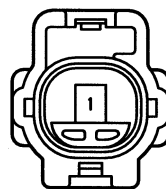
A 8 (B) GRAY



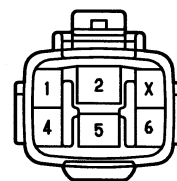
A 9 (A) DARK GRAY



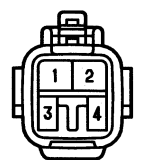
A10 (B) DARK GRAY



A11 (A) GRAY



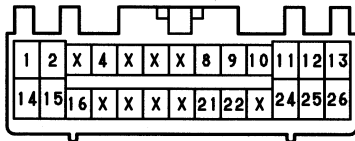
A12 (B) GRAY



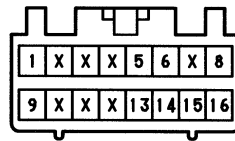
A13, A14 GRAY



A37 (A)



A38 (B) DARK GRAY



A39, A40 GRAY

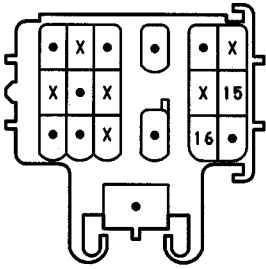


B 2 GRAY

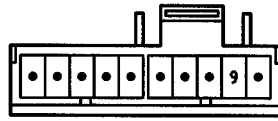


ABS (ANTI-LOCK BRAKE SYSTEM)

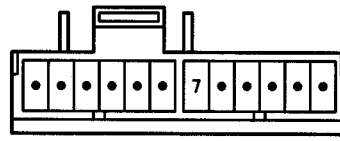
C 1 DARK GRAY



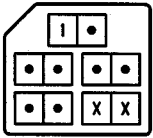
C13 (B) BROWN



C14 (A)



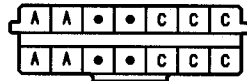
F10 (A) BLACK



F10 (B) BLACK



J 2



(HINT:SEE PAGE 7)

P 1 BLACK



(W/ CRUISE S10 (A) CONTROL)



(W/O CRUISE S10 (B) CONTROL)

