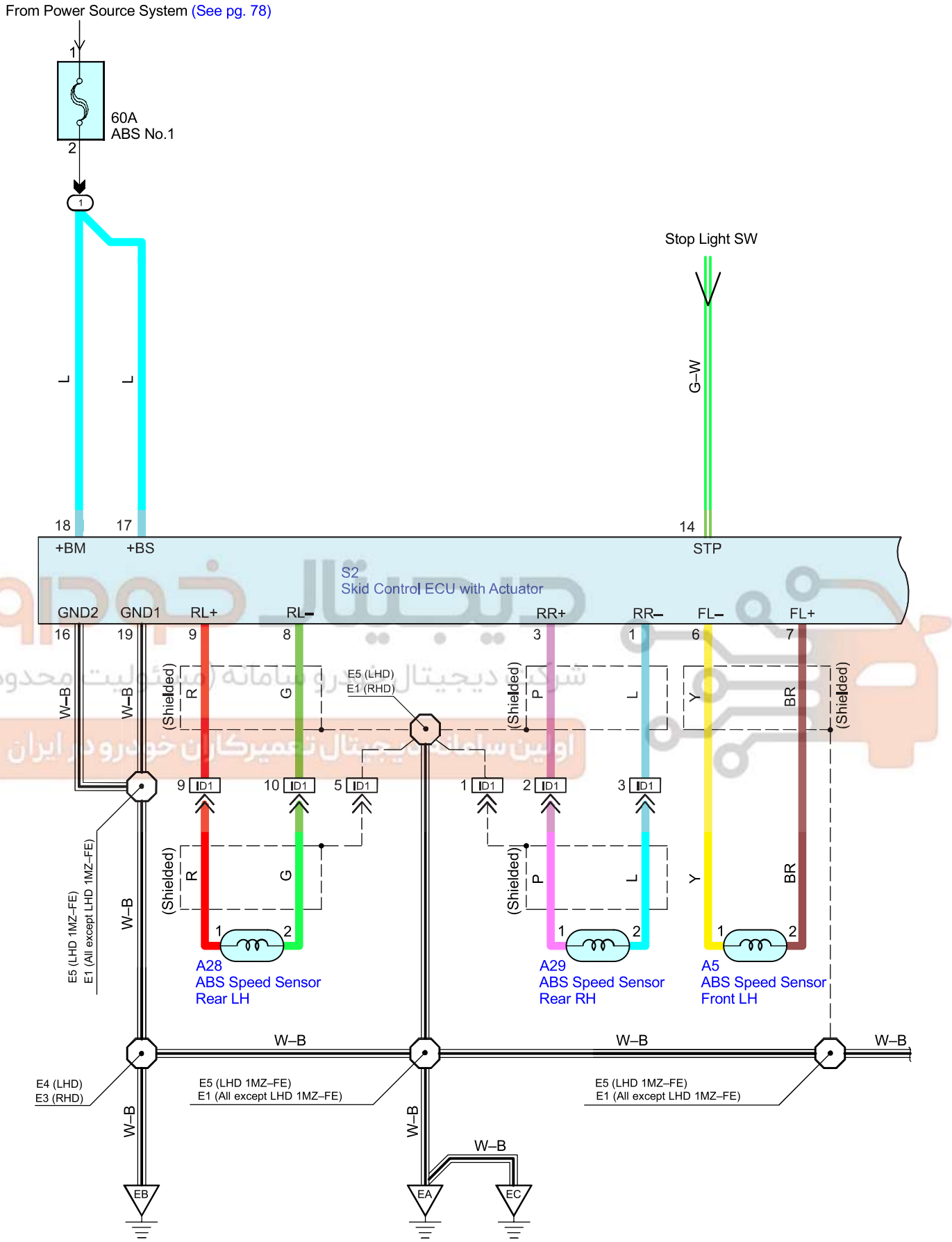

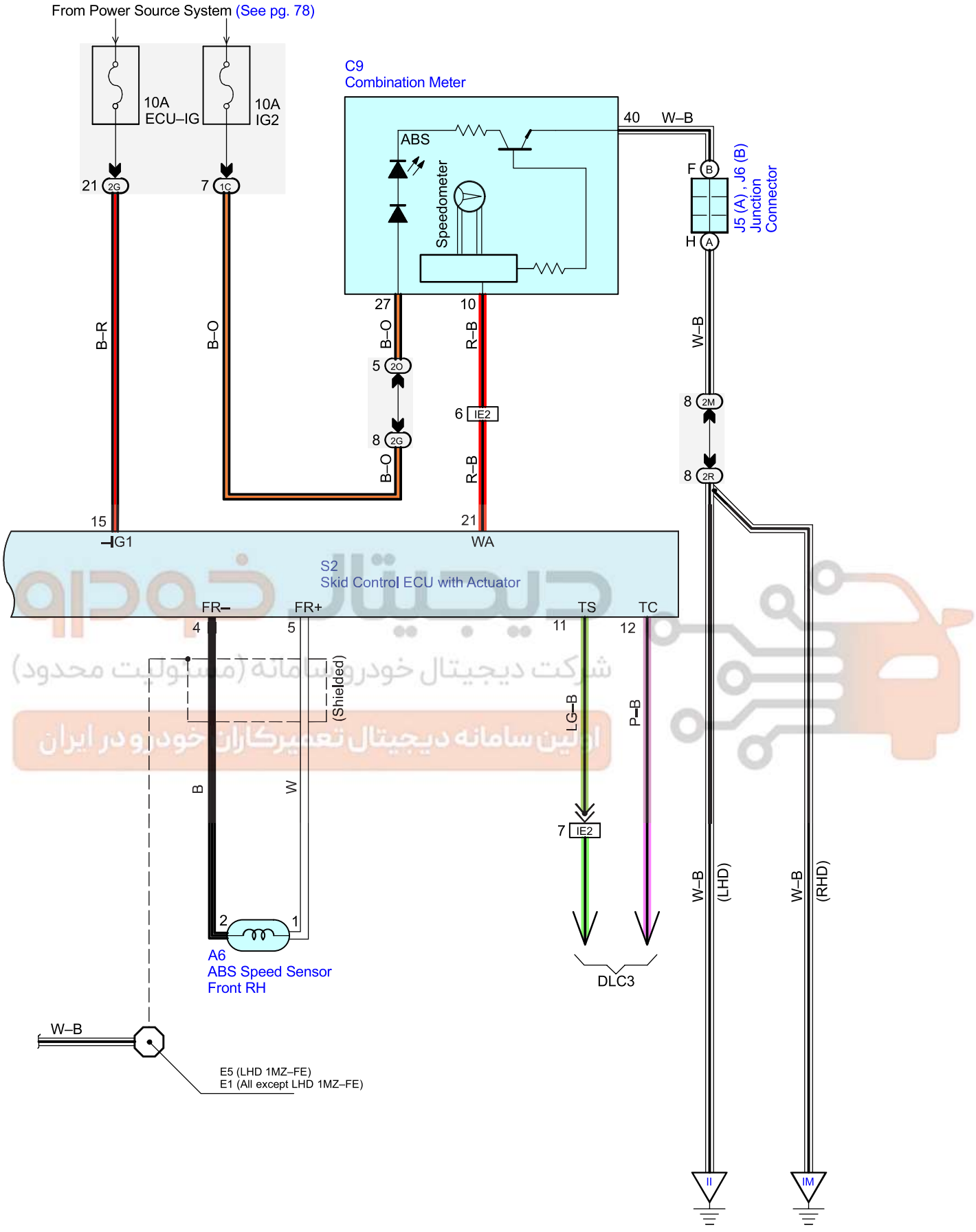

## System Outline

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 (B) 5, (B) 3, (C) 3 and (C) 1 of the skid control ECU.

(2) Stop light SW signal

A signal is input to TERMINAL (C) 11 of the skid control ECU when the brake pedal is depressed.

### 2. System Operation

During sudden braking the skid control ECU 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 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, 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

**A5, A6 ABS Speed Sensor Front LH, RH**

2–1 : Approx. 1.6 kΩ

**A28, A29 ABS Speed Sensor Rear LH, RH**

2–1 : Approx. 1.6 kΩ

**S2 Skid Control ECU**

–IG1–15–Ground : Approx. 12 volts with the ignition SW at ON position
STP–14–Ground : Approx. 12 volts with the brake pedal depressed
GND1–19 AND GND2–16–Ground : Always continuity
+BM–18 AND +BS–17–Ground : Approx. 12 Volts at ALL times.

### : Parts Location

| Code | See Page | Code | See Page | Code | | See Page |
|---|---|---|---|---|---|---|
| A5 | 32 (LHD 1MZ–FE) | A28 | 38 (LHD) | J5 | A | 37 (LHD) |
| | 42 (RHD 1MZ–FE) | | 48 (RHD) | | | 47 (RHD) |
| | 34 (LHD 2AZ–FE) | A29 | 38 (LHD) | J6 | B | 37 (LHD) |
| | 44 (RHD 2AZ–FE) | | 48 (RHD) | | | 47 (RHD) |
| A6 | 32 (LHD 1MZ–FE) | C9 | 36 (LHD) | S2 | | 33 (LHD 1MZ–FE) |
| | 42 (RHD 1MZ–FE) | | 46 (RHD) | | | 43 (RHD 1MZ–FE) |
| | 34 (LHD 2AZ–FE) | | | | | 35 (LHD 2AZ–FE) |
| | 44 (RHD 2AZ–FE) | | | | | 45 (RHD 2AZ–FE) |

### : Relay Blocks

| Code | See Page | Relay Blocks (Relay Block Location) |
|---|---|---|
| 1 | 22 | Engine Room R/B |

### : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location) |
|---|---|---|
| 1C | 24 | Engine Room Main Wire and Driver Side J/B |
| 2G | 26 | Engine Room Main Wire and Driver Side J/B |
| 2M | 26 | Instrument Panel Wire and Driver Side J/B |
| 2O | | |
| 2R | | |

: **Connector Joining Wire Harness and Wire Harness**

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location) |
|---|---|---|
| ID1 | 55 (LHD) | Engine Room Main Wire and Floor Wire (Left Kick Panel) |
| | 67 (RHD) | Engine Room Main Wire and Floor Wire (Right Kick Panel) |
| IE2 | 55 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
| | 67 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube) |

: **Ground Points**

| Code | See Page | Ground Points Location | Code | See Page | Ground Points Location |
|---|---|---|---|---|---|
| EA | 52 (LHD 1MZ–FE) | Right Fender | EC | 52 (LHD 1MZ–FE) | Left Fender |
| | 64 (RHD 1MZ–FE) | | | 64 (RHD 1MZ–FE) | |
| | 54 (LHD 2AZ–FE) | | | 54 (LHD 2AZ–FE) | |
| | 66 (RHD 2AZ–FE) | | | 66 (RHD 2AZ–FE) | |
| EB | 52 (LHD 1MZ–FE) | Right Fender | II | 55 (LHD) | Instrument Panel Reinforcement LH |
| | 64 (RHD 1MZ–FE) | | IM | 67 (RHD) | Instrument Panel Reinforcement RH |
| | 54 (LHD 2AZ–FE) | | | | |
| | 66 (RHD 2AZ–FE) | | | | |

: **Splice Points**

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|---|---|---|---|---|---|
| E1 | 64 (RHD 1MZ–FE) | Engine Room Main Wire | E4 | 52 (LHD 1MZ–FE) | Engine Room Main Wire |
| | 66 (RHD 2AZ–FE) | | | 54 (LHD 2AZ–FE) | |
| E3 | 64 (RHD 1MZ–FE) | | E5 | 52 (LHD 1MZ–FE) | |
| | 66 (RHD 2AZ–FE) | | | 54 (LHD 2AZ–FE) | |

NOTICE: When inspecting or repairing the SRS, perform the operation in accordance with the following precautionary instructions and the procedure and precautions in the Repair Manual for the applicable model year.

Malfunction symptoms of the SRS are difficult to confirm, so the DTCs become the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect the DTCs before disconnecting the battery.

**Work must not be started until after 90 seconds from when the ignition switch is turned to the "LOCK" position and the negative (–) terminal cable is disconnected from the battery.**
**(The SRS is equipped with a back–up power source so that if work is started within 90 seconds from disconnecting the negative (–) terminal cable of the battery, the SRS may be deployed.)**

When the negative (–) terminal cable is disconnected from the battery, the memory of the clock and audio system will be canceled. So before starting work, make a record of the contents memorized in the audio memory system. When work is finished, reset the audio systems as they were before and adjust the clock. This vehicle has power tilt and power telescopic steering, power seat and power outside rear view mirror which are all equipped with memory function. However, it is not possible to make a record of the memory contents. So when the work is finished, it will be necessary to explain this fact tot the customer, and ask the customer to adjust the features and reset the memory. To avoid erasing the memory in each memory system, never use a back–up power supply from outside the vehicle.

Before repairs, remove the airbag sensor if shocks are likely to be applied to the sensor during repairs.

Do not expose the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, seat belt pretensioner, airbag sensor assembly or side airbag sensor assembly directly to hot air or flames.

Even in cases of a minor collision where the SRS does not deploy, the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, seat belt pretensioner, airbag sensor assembly and side airbag sensor assembly should be inspected.

Never use SRS parts from another vehicle. When replacing parts, replace them with new parts.

Never disassemble and repair the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, seat belt pretensioner, airbag sensor assembly or side airbag sensor assembly in order to reuse it.

If the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, seat belt pretensioner, airbag sensor assembly or side airbag sensor assembly has been dropped, or if there are cracks, dents or other defects in the case, bracket or connector, replace them with new ones.

Use a volt/ohmmeter with high impedance (10 kΩ/V minimum) for troubleshooting the system's electrical circuits.

Information labels are attached to the periphery of the SRS components. Follow the instructions on the notices.

After work on the SRS is completed, perform the SRS warning light check.

If the vehicle is equipped with a mobile communication system, refer to the precaution in the IN section of the Repair Manual.