

## 5A-13 Automatic Transmission/Transaxle:

### 2 Driving cycle detection logic

The malfunction detected in the first driving cycle is stored in TCM memory (in the form of pending DTC and freeze frame data) but the malfunction indicator lamp does not light at this time. It lights up at the second detection of same malfunction also in the next driving cycle.

### Pending DTC

Pending DTC means a DTC detected and stored temporarily at 1 driving cycle of the DTC which is detected in the 2 driving cycle detection logic.

### Freeze frame data

TCM stores the engine and driving conditions at the moment of the detection of a malfunction in its memory. This data is called "Freeze frame data".

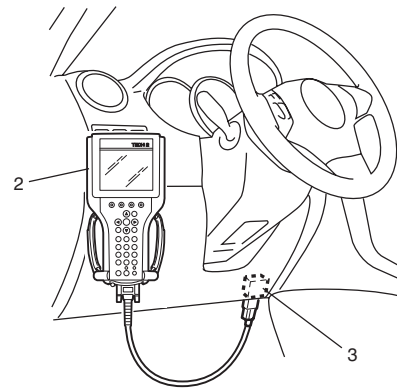
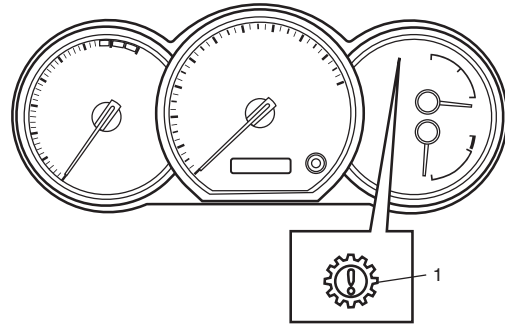
Therefore, it is possible to know engine and driving conditions (e.g., whether the engine was warm or not, where the vehicle was running or stopped) when a malfunction was detected by checking the freeze frame data.

### For Non-E-OBD Model

For automatic transmission control system, TCM has the following functions. Refer to "Inspection of TCM and Its Circuits".

- When ignition switch is turned ON with no malfunction in A/T control system is detected, transmission warning light (1) lights for about 2 seconds after ignition switch is turned ON and then goes OFF for bulb check.
- When TCM detects a malfunction in A/T control system, it indicates transmission warning light (1) and stores malfunction DTC in its memory.

- It is possible to communicate with TCM through data link connector (DLC) (3) by using SUZUKI scan tool (2). Diagnostic information can be checked and erased by using SUZUKI scan tool.



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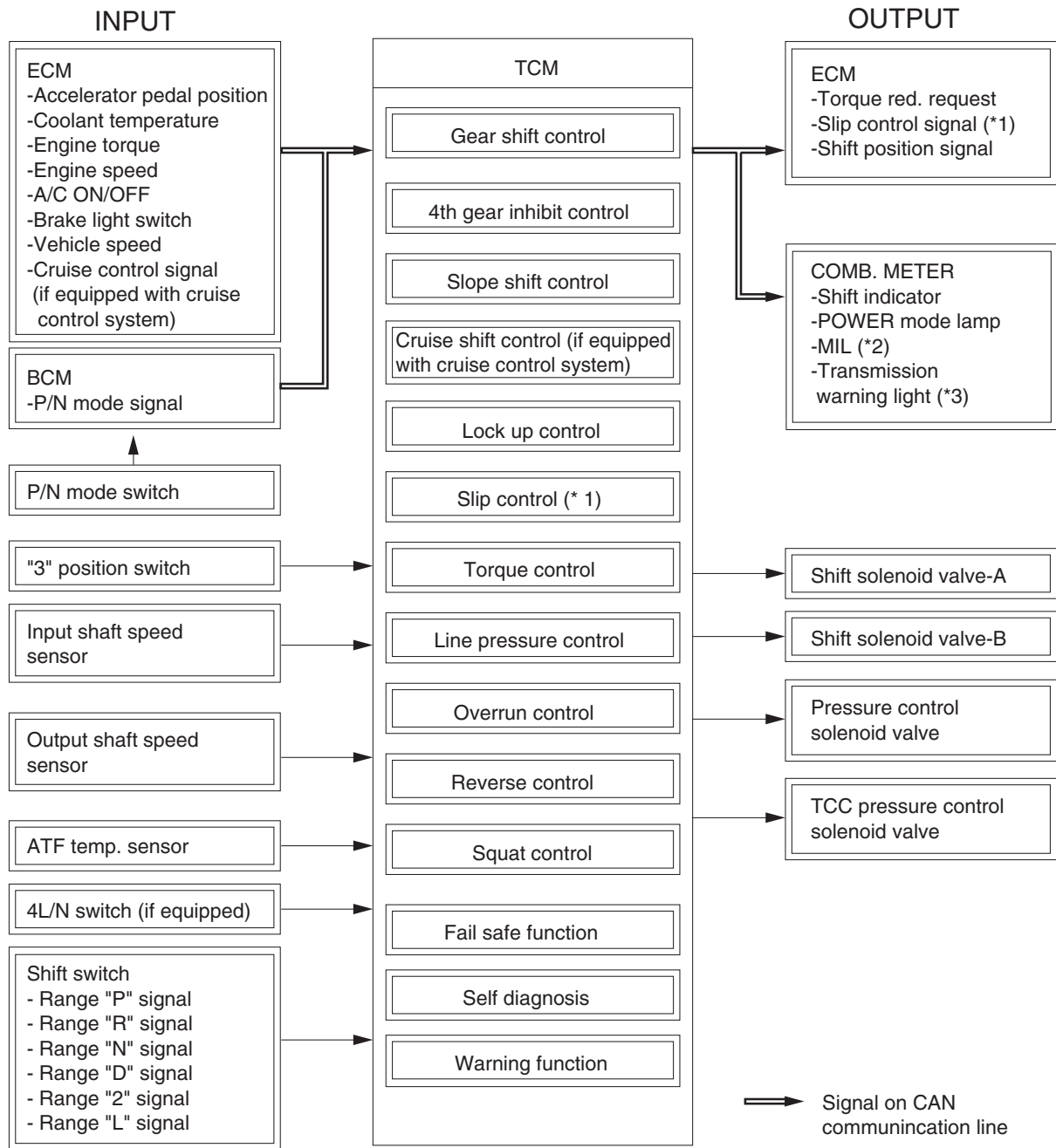
### Pending DTC

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## Schematic and Routing Diagram

## Electronic Shift Control Input / Output Diagram

S6JB0A5102003



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**NOTE**

\*1: For E-OBD model (Except RH steering vehicle not equipped with rear fog light model)

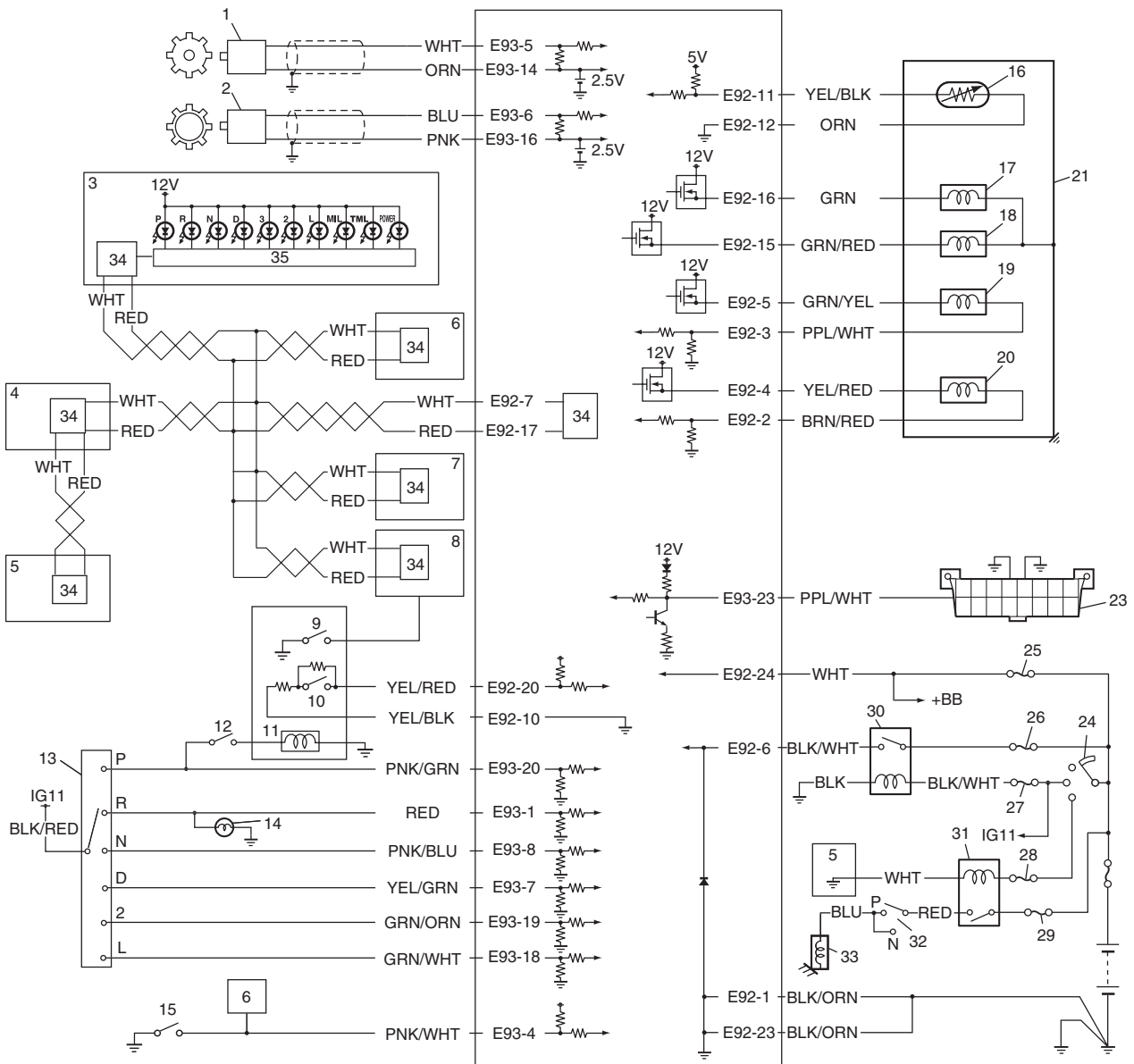
\*2: For E-OBD model

\*3: For non-E-OBD model

5A-15 Automatic Transmission/Transaxle:

Electronic Shift Control System Wiring Diagram

S6JB0A5102004



[A]

E92						E93					
6	5	4	3	2	1	6	5	4	3	2	1
16	15	14	13	12	11	17	16	15	14	13	12
24	23	22	21			26	25	24	23	22	
				20	19					21	20
				18	17					19	18

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**Automatic Transmission/Transaxle: 5A-16**

[A]: TCM connector (viewed from harness side)	9. P/N mode switch	18. Shift solenoid valve-B	27. "IG COIL" fuse
1. Output shaft speed sensor	10. "3" position switch	19. TCC pressure control solenoid valve	28. "ST SIG" fuse
2. Input shaft speed sensor	11. Shift lock solenoid	20. Pressure control solenoid valve	29. "ST" fuse
3. Combination meter	12. Brake light switch	21. Valve body assembly	30. AT relay included in integration relay No.2 in main fuse box
4. ABS/ESP® control module	13. Transmission range switch	22. —	31. Starting motor relay
5. ECM	14. Back-up light	23. DLC	32. Inhibit switch
6. 4WD control module (if equipped)	15. 4L/N switch (if equipped)	24. Ignition switch	33. Starting motor
7. Keyless start control module (if equipped)	16. Transmission fluid temperature sensor	25. "DOME" fuse	34. CAN driver
8. BCM	17. Shift solenoid valve-A	26. "AT" fuse	35. Meter driver

# Component Location

## Electronic Shift Control System Components Location

S6JB0A5103001

