## ■DIAGNOSIS FUNCTION

### 1. General

- If the airbag sensor assembly detects a malfunction in the SRS airbag system, the airbag sensor assembly stores the malfunction data in memory, in addition to illuminating the SRS warning light. Then, the DTCs (Diagnostic Trouble Codes) can be accessed by connecting a hand-held tester to the DLC3 terminal or the SST (09843-18040) to the Tc and CG terminals of the DLC3 and reading the blinking of the SRS warning light. For details, see the Kluger Repair Manual (Pub. No. RM1087E).
- Electrical connection check mechanism to detect the connection condition of the connector in the airbag sensor assembly is used.
- The past DTCs of the SRS airbag system can be cleared without using the hand-held tester.
- If the SRS airbag deploys, the airbag sensor assembly will turn on the SRS airbag warning light. However, different from the ordinary diagnosis function, a DTC will not be memorized. The airbag warning light can be turned off only by changing the airbag sensor assembly to a new one.
- The DTCs are listed below.

**▶ DTC Chart for All Models ◀**

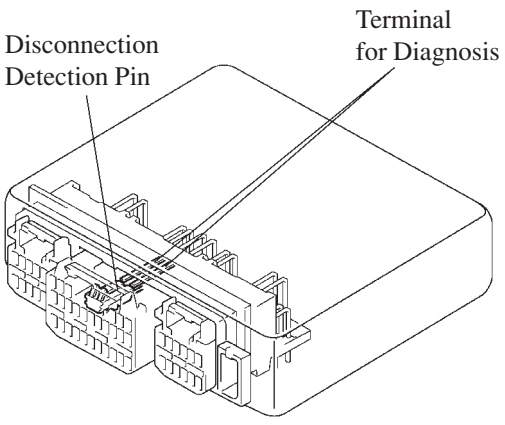
| DTC No. | Detection Item | DTC No. | Detection Item |
|---|---|---|---|
| B0102/11 | Short in D squib (1st step) circuit (to ground) | B0108/52 | Short in P squib (1st step) circuit (to B+) |
| B0103/12 | Short in D squib (1st step) circuit (to B+) | B0105/53 | Short in P squib (1st step) circuit |
| B0100/13 | Short in D squib (1st step) circuit | B0106/54 | Open in P squib (1st step) circuit |
| B0101/14 | Open in D squib (1st step) circuit | B1187/55 | Short in P squib (2nd step) circuit (to ground) |
| B1180/17 | Short in D squib (2nd step) circuit | B1188/56 | Short in P squib (2nd step) circuit (to B+) |
| B1181/18 | Open in D squib (2nd step) circuit | B1185/57 | Short in P squib (2nd step) circuit |
| B1182/19 | Short in D squib (2nd step) circuit (to ground) | B1186/58 | Open in P squib (2nd step) circuit |
| B1183/22 | Short in D squib (2nd step) circuit (to B+) | B0132/61 | Short in P/T squib RH circuit (to ground) |
| B1135/24 | Half connection in airbag sensor assembly center connectors | B0133/62 | Short in P/T squib RH circuit (to B+) |
| B1153/25 | Seat position sensor assembly malfunction | B0130/63 | Short in P/T squib RH circuit |
| B0121/26 | Seat belt buckle switch (RH) malfunction | B0131/64 | Open in P/T squib RH circuit |
| B1100/31 | Airbag sensor assembly malfunction | B0137/71 | Short in P/T squib LH circuit (to ground) |
| B1148/36 | Front airbag sensor (RH) malfunction | B0138/72 | Short in P/T squib LH circuit (to B+) |
| B1149/37 | Front airbag sensor (LH) malfunction | B0135/73 | Short in P/T squib LH circuit |
| B0107/51 | Short in P squib (1st step) circuit (to ground) | B0136/74 | Open in P/T squib LH circuit |

**▶ DTC Chart for Models with Side and Curtain Shield Airbags ◀**

| DTC No. | Detection Item | DTC No. | Detection Item |
|---|---|---|---|
| B1140/32 | Side airbag sensor assembly RH malfunction | B0115/47 | Short in side airbag (LH) squib circuit |
| B1141/33 | Side airbag sensor assembly LH malfunction | B0116/48 | Open in side airbag (LH) squib circuit |
| B1154/38 | Curtain shield airbag sensor assembly (RH) malfunction | B1162/81 | Short in curtain shield airbag (RH) circuit (to ground) |
| B1155/39 | Curtain shield airbag sensor assembly (LH) malfunction | B1163/82 | Short in curtain shield airbag (RH) circuit (to +B) |
| B0112/41 | Short in side airbag (RH) squib circuit (to ground) | B1160/83 | Short in curtain shield airbag (RH) squib circuit |
| B0113/42 | Short in side airbag (RH) squib circuit (to +B) | B1161/84 | Open in curtain shield airbag (RH) squib circuit |
| B0110/43 | Short in side airbag (RH) squib circuit | B1167/85 | Short in curtain shield airbag (LH) circuit (to ground) |
| B0111/44 | Open in side airbag (RH) squib circuit | B1168/86 | Short in curtain shield airbag (LH) circuit (to +B) |
| B0117/45 | Short in side airbag (LH) squib circuit (to ground) | B1165/87 | Short in curtain shield airbag (LH) squib circuit |
| B0118/46 | Short in side airbag (LH) squib circuit (to +B) | B1166/88 | Open in curtain shield airbag (LH) squib circuit |

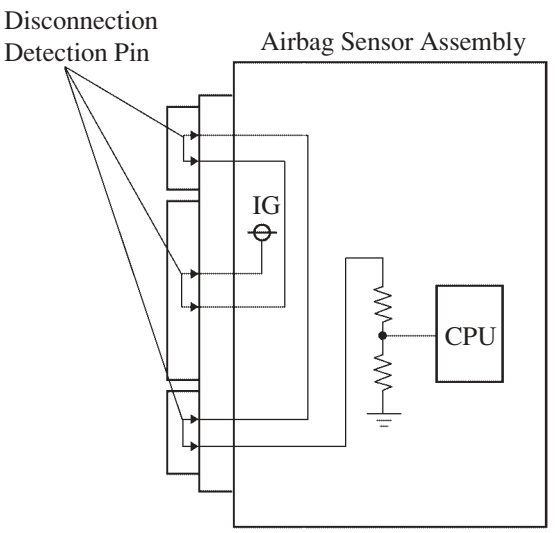
## 2. Electrical Connection Check Mechanism

- This mechanism is composed from the terminals for diagnosis arranged for each of 3 connectors of the airbag sensor assembly side and the disconnection detection pin arranged for each of 3 connectors of wiring harness side.
- The disconnection detection pin connects with the diagnosis terminals when the connector housing lock is completely locked.
- When these connectors are connected (the connector housing lock is completely locked), the terminals for diagnosis and the disconnection detection pin will be similarly connected. As a result, a series circuit is created. Upon detecting this condition, the airbag sensor assembly will determine that these connectors are completely locked.
  When these connectors are partially connected (the connector housing lock is not completely locked), the terminals for diagnosis and the disconnection detection pin will not be connected. As a result, the series circuit is not created, and the electrical connection check circuit voltage changes to 0 V. Upon detecting this condition, the airbag sensor assembly will determine that these connectors are partially connected, and will cause the SRS warning light to illuminate. At this time, output the DTC (B1135/24).




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**Airbag Sensor Assembly**




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**Circuit Diagram**

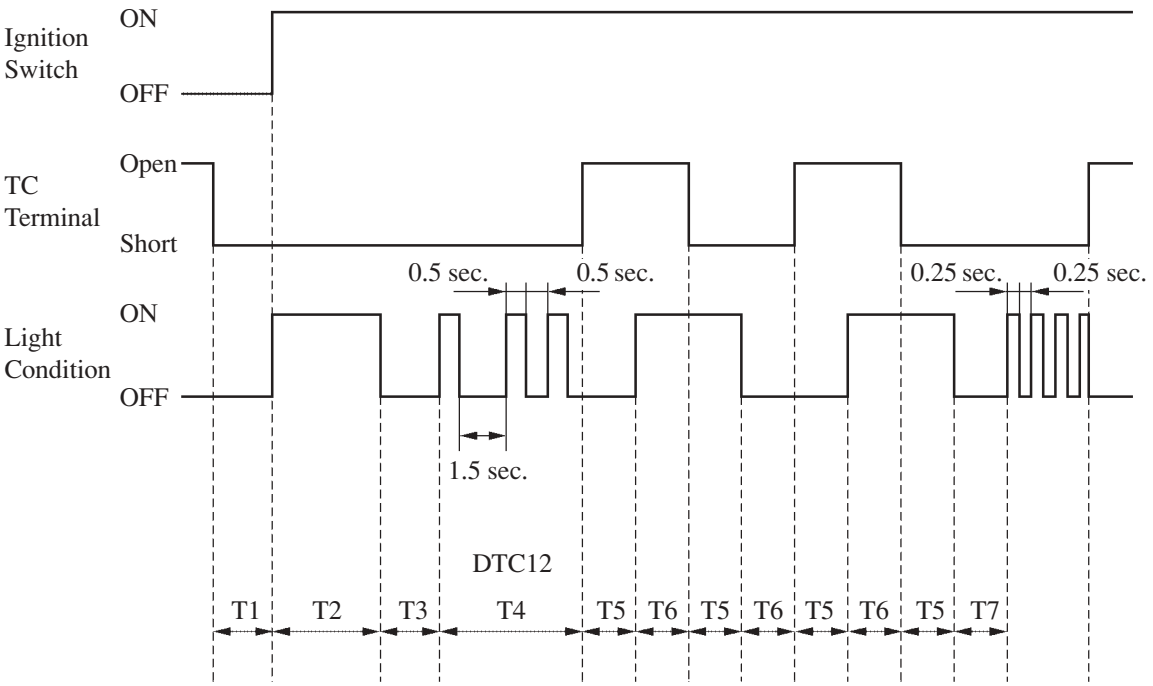
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**Service Tip**

**DTC Clearance (Without using the hand-held tester)**

The DTCs are cleared by opening and shorting the Tc and CG (or ground) terminals of the DLC3 in accordance with the timing chart shown below.

1) Using SST (09843-18040), connect terminal TC and CG terminals of the DLC3.
2) Disconnect terminal TC of DLC3 within 10 seconds after the DTCs appear, and check if the SRS warning light comes on within 3 seconds.
3) Within 2 to 4 seconds after the SRS warning light comes on, reconnect the Tc and CG terminals of the DLC3.
4) SRS warning light goes off 3 seconds after reconnecting the Tc and CG terminals of the DLC3. Then disconnect the terminal TC of the DLC3 within 2 to 4 seconds after the SRS warning light goes off.
5) Warning light comes on within 3 seconds after re-disconnecting the Tc and CG terminals of the DLC3.
6) Within 2 to 4 seconds after the SRS warning light comes on, reconnect the Tc and CG terminals of the DLC3.
7) SRS warning light goes off 3 seconds after reconnecting the Tc and CG terminals of the DLC3.
8) Normal code appears 1 second after the SRS warning light goes off.




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T1: 0～∞ seconds
T2: Approx. 6 seconds
T3: 3～5 seconds
T4: 3～10 seconds
T5: 2～4 seconds
T6: 1～5 seconds
T7: within 1 second