

Diagnosis System

DESCRIPTION

If a functional malfunction occurs, diagnosis system will identify the problem and ECU stores the codes for the trouble items.

At the same time, the system informs the driver of a malfunction via the "REAR ANTILOCK" warning light in the combination meter.

By turning on the ignition switch and disconnecting the service connector, the trouble can be identified by the number of blinks (diagnosis code) of the warning light. In event of two codes, that having the smallest number (code) will be identified first.

HINT: The warning light do not show the diagnostic trouble codes while the vehicle is running.

INSPECTION OF DIAGNOSIS SYSTEM

1. INSPECT BATTERY POSITIVE VOLTAGE

Inspect that the battery positive voltage is about 12 V.

2. CHECK THAT WARNING LIGHT TURNS ON

- Turn the ignition switch to ON.
- Check that the "REAR ANTILOCK" warning light turns on for about 3 seconds.

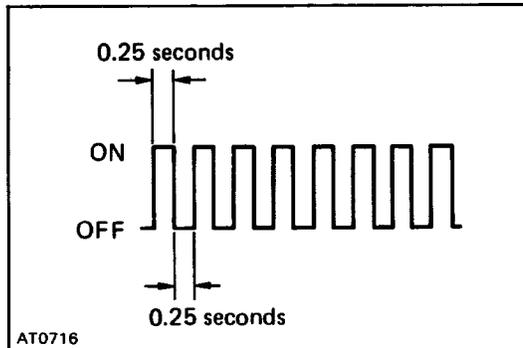
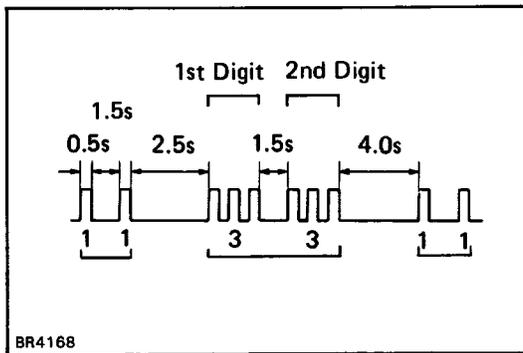
If not, inspect and repair or replace the fuse, bulb and wire harness.

3. READ DIAGNOSTIC TROUBLE CODE

- Turn the ignition switch to ON.
- Disconnect the service connector.

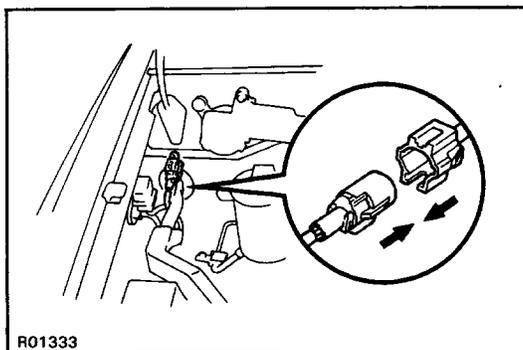
SST 09843-18020

- Using SST, connect the terminal Tc to E₁ of the data link connector 1.



- (d) In event of a malfunction, 4 seconds later the warning light will begin to blink. Read the number of blinks.
(See DIAGNOSTIC TROUBLE CODE on page [BR-75](#))
HINT: The first number of blinks will equal the first digit of a two digit diagnostic trouble code. After a 1.5 seconds pause, the 2nd number of blinks will equal the 2nd number of a two digit code. If there are two or more codes, there will be a 2.5 seconds pause between each, and indication will begin after 4.0 seconds pause from the smaller value and continue in order to larger.
- (e) If the system is operating normally (no malfunction), the warning light will blink 2 times per second.

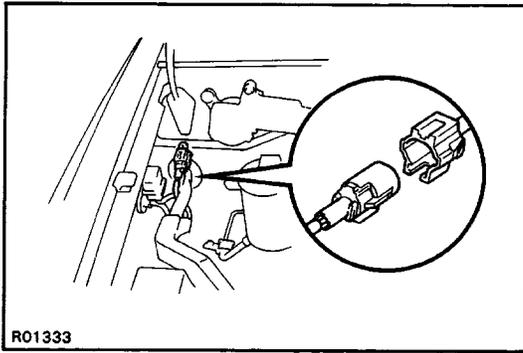
- (f) Repair the malfunctioning parts.
- (g) After the malfunctioning parts has been repaired, clear the diagnostic trouble codes stored in the ECU .
(See page [BR-76](#))
HINT: If you disconnect the battery cable while repairing, all diagnostic trouble codes in the ECU will be erased.
- (h) Disconnect the terminal Tc from E1 of the data link connector 1.



- (i) Connect the service connector.
Turn the ignition switch to ON, and check that the "REAR ANTILOCK" warning light goes off after the warning light goes on for about 2 seconds.

DIAGNOSTIC TROUBLE CODE

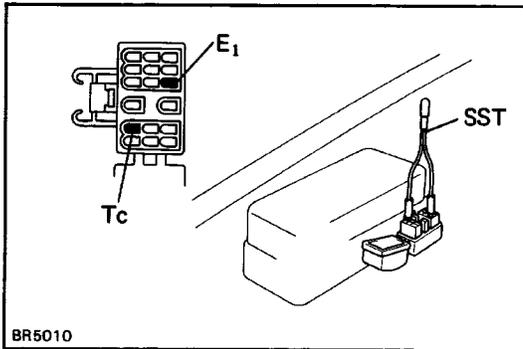
| Code No. | Light Pattern | Diagnosis | Trouble Part |
|-----------|---|--|--|
| 11 | ON OFF  | Open circuit in solenoid relay circuit or solenoid circuit | <ul style="list-style-type: none"> • Solenoid • Solenoid relay • Wire harness and connector of solenoid and/or solenoid relay circuit |
| 12 |  | Short circuit in solenoid relay circuit | |
| 25 |  | Short circuit in solenoid circuit | |
| 33 |  | Open or short circuit in speed sensor circuit | <ul style="list-style-type: none"> • Speed sensor • Wire harness and connector of speed sensor circuit |
| 41 |  | Low battery positive voltage (9.5 V or lower) | <ul style="list-style-type: none"> • Battery |
| 42 |  | Abnormally high battery positive voltage (17 V or higher) | |
| 43 |  | Mechanical malfunction in deceleration sensor | <ul style="list-style-type: none"> • Deceleration sensor • Wire harness and connector of deceleration sensor circuit |
| 44 |  | Electrical malfunction in deceleration sensor circuit | |
| Always ON |  | Malfunction in ECU | <ul style="list-style-type: none"> • ECU |



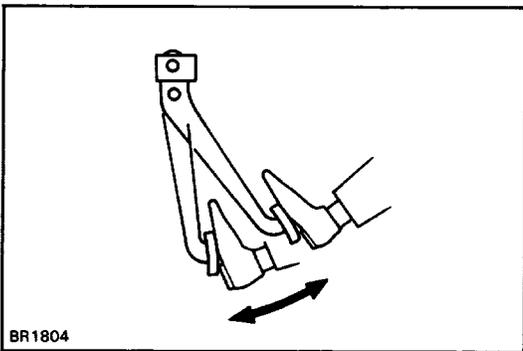
CLEARING OF DIAGNOSTIC TROUBLE CODES

CLEAR DIAGNOSTIC TROUBLE CODES

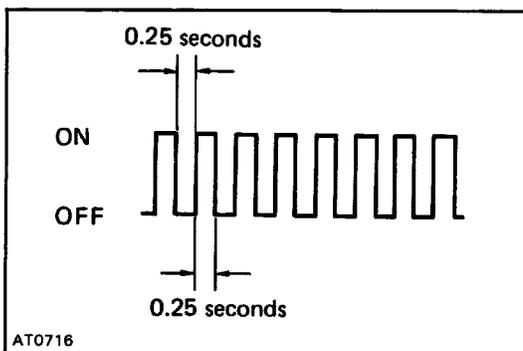
- (a) Turn the ignition switch to ON.
- (b) Disconnect the service connector.
HINT: Keep the vehicle stopped (vehicle speed 0 km/h (0 mph)).



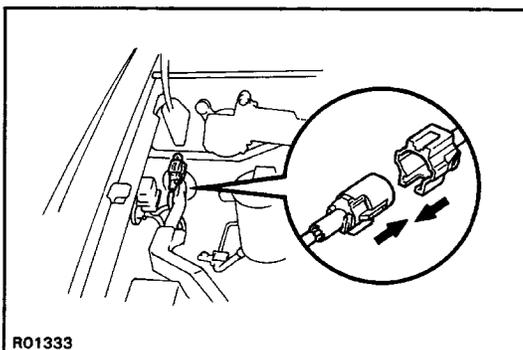
- (c) Using SST, connect the terminal Tc to E₁ of the data link connector 1.
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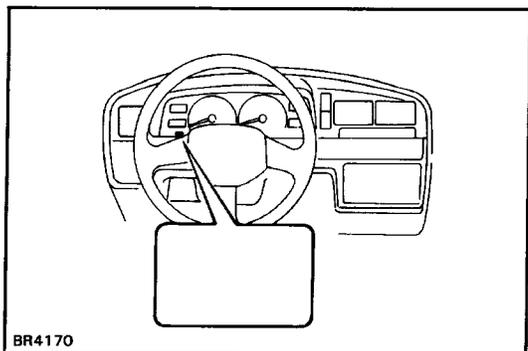
- (d) Clear the diagnostic trouble codes stored in ECU by depressing the brake pedal 8 or more times within 3 seconds.



- (e) Check that the warning light shows the -normal code.
If the warning light still shows the diagnostic trouble codes, check for cause and repair or replace the trouble parts, then clear the diagnostic trouble codes again.



- (f) Connect the service connector.
- (g) Disconnect the terminal Tc from E₁ of the data link connector 1.



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(h) Check that the warning light goes off.