05G98–05

SYSTEM DESCRIPTION

1. BRIEF DESCRIPTION

(a) CAN (Controller Area Network) is a serial data communication system for real time application. It is an in–vehicle multiplex communication system which has a high communication speed (500 kbps) and a function to detect malfunctions.

(b) The CAN performs communication based on differential voltage by pairing the CANH bus line and CANL bus line.

(c) This vehicle uses the CAN communication system for communication between the components in the ABS with EBD & BA & TRC & VSC system.

(d) The CAN has two resistors of 120 Ω that are necessary for communication with the main bus line.

2. DEFINITION OF TERMS

(a) Main bus line

(1) The main bus line is a wire harness between the two terminus circuits on the bus (communication line). This is the main bus in the CAN communication system.

(b) Sub bus line

(1) The sub bus line is a wire harness which diverges from the main bus line to an ECU or sensor.

(c) Terminus circuit

(1) The terminus circuit is a circuit which is placed to convert communication current of the CAN communication into bus voltage. It consists of a resistor and condenser. Two terminus circuits are necessary for a bus.

(d) CAN J/C

(1) The CAN J/C is a junction designed for CAN communication, which stores a terminus circuit.

3. COMPONENTS WHICH COMMUNICATE THROUGH THE CAN COMMUNICATION SYSTEM

(a) Skid Control ECU

(b) Steering Angle Sensor

(c) Yaw Rate Sensor

(d) ECM (1GR–FE, 1KD–FTV)

4. DIAGNOSTIC CODES FOR THE CAN COMMUNICATION SYSTEM

(a) DTCs for the CAN communication system are as follows:
U0073/94, U0123/62, U0124/95, U0126/63, U0100/65

5. REMARKS FOR TROUBLESHOOTING

(a) Trouble in the CAN bus (communication line) can be checked from the DLC3 (except a wire break in lines other than the DLC3 sub bus line).

(b) The CAN communication system cannot detect trouble in the DLC3 sub bus line even though the DLC3 is also connected to the CAN communication system.

6. HOW TO DISTINGUISH THE J/C CONNECTOR

(a) In the CAN communication system, all connectors connected to the CAN J/C are the same shape. The connectors connected to the CAN J/C can be distinguished by the colors of the bus lines and the connecting side of the connector.

HINT:

See ”TERMINALS OF ECU” (see page 05–1437) for bus line colors or the type of connecting surface.