DI1L4−17

DIAGNOSTIC TROUBLE CODE CHART

HINT:

- As for the vehicle for Central America, refer to Repair Manual of 2002 LEXUS LS430 (Pub. No. RM874U1).
- Parameters listed in the chart may not be exactly the same as your reading due to the type of instrument or other factors.
  If a malfunction code is displayed during the DTC check in check mode, check the circuit for the codes listed in the table below. For details of each code, turn to the page referred to under the ''See page'' for the respective ''DTC No.'' in the DTC chart.

DTC No. (See page)	Detection Item	Trouble Area	MIL*1	Memory
P0010 (DI−28)	Camshaft Position ”A” Actuator Circuit (Bank 1)	• Open or short in OCV circuit • OCV • ECM	○	○
P0011 (DI−32)	Camshaft Position ”A” −Timing Over− Advanced or System Performance (Bank 1)	• Valve timing • OCV • VVT controller assembly • ECM	○	○
P0012 (DI−32)	Camshaft Position ”A” −Timing Over− Retarded (Bank 1)	• Valve timing • OCV • VVT controller assembly • ECM	○	○
P0016 (DI−39)	Crankshaft Position − Camshaft Position Correlation (Bank 1 Sensor A)	• Open or short in VVT sensor circuit • VVT sensor • ECM	○	○
P0018 (DI−39)	Crankshaft Position − Camshaft Position Correlation (Bank 2 Sensor A)	• Open or short in VVT sensor circuit • VVT sensor • ECM	○	○
P0020 (DI−28)	Camshaft Position ”A” Actuator Circuit (Bank 2)	• Open or short in OCV circuit • OCV • ECM	○	○
P0021 (DI−32)	Camshaft Position ”A” −Timing Over− Advanced or System Performance (Bank 2)	• Valve timing • OCV • VVT controller assembly • ECM	○	○
P0022 (DI−32)	Camshaft Position ”A” −Timing Over− Retarded (Bank 2)	• Valve timing • OCV • VVT controller assembly • ECM	○	○
P0031 (DI−41)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 1)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0032 (DI−41)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 1)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0037 (DI−41)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI MAIN relay • ECM	○	○
P0038 (DI−41)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI MAIN relay • ECM	○	○

P0051 (DI−41)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 1)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0052 (DI−41)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 1)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0057 (DI−41)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 2)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0058 (DI−41)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 2)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0100 (DI−47)	Mass or Volume Air Flow Circuit	• Open or short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0101 (DI−52)	Mass or Volume Air Flow Circuit Range/Performance Problem	• Mass air flow meter	○	○
P0102 (DI−47)	Mass or Volume Air Flow Circuit Low Input	• Open or short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0103 (DI−47)	Mass or Volume Air Flow Circuit High Input	• Open in mass air flow meter circuit (EVG circuit) • Short in mass air flow meter circuit (+B circuit) • Mass air flow meter • ECM	○	○
P0110 (DI−53)	Intake Air Temperature Circuit	• Open or short in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM	○	○
P0112 (DI−53)	Intake Air Temperature Circuit Low Input	• Short in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM	○	○
P0113 (DI−53)	Intake Air Temperature Circuit High Input	• Open in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM	○	○
P0115 (DI−58)	Engine Coolant Temperature Circuit	• Open or short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM	○	○
P0116 (DI−62)	Engine Coolant Temperature Circuit Range/Performance Problem	• Cooling system • Engine coolant temp. sensor	○	○
P0117 (DI−58)	Engine Coolant Temperature Circuit Low Input	• Short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM	○	○
P0118 (DI−58)	Engine Coolant Temperature Circuit High Input	• Open or short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM	○	○
P0120 (DI−64)	Throttle Pedal Position Sensor/ Switch "A" Circuit	• Open or short in throttle position sensor circuit • Throttle position sensor • ECM	○	○
P0121 (DI−69)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Range/Performance Problem	• Throttle position sensor	○	○
P0122 (DI−64)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Low Input	• Open in throttle position sensor circuit • Throttle position sensor • ECM	○	○

P0123 (DI−64)	Throttle/Pedal Position Sensor/ Switch "A" Circuit High Input	• Short in throttle position sensor circuit • Throttle position sensor • ECM	○	○
P0125 (DI−62)	Insufficient Coolant Temperature for Closed Loop Fuel Control	• Cooling system • Engine coolant temp. sensor	○	○
P0128 (DI−70)	Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)	• Thermostat • Cooling system • Engine coolant temp. sensor • ECM	○	○
P0130 (DI−71)	Oxygen Sensor Circuit (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1) • Heated oxygen sensor (Bank 1 Sensor 1) • Air induction system • Fuel pressure • Injector • ECM	○	○
P0133 (DI−75)	Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1) • Heated oxygen sensor (Bank 1 Sensor 1) • Air induction system • Fuel pressure • Injector • ECM	○	○
P0134 (DI−78)	Oxygen Sensor Circuit No Activity Detected (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1) • Heated oxygen sensor (Bank 1 Sensor 1) • Air induction system • Fuel pressure • Injector • Gas leakage on exhaust system • PCV piping • ECM	○	○
P0136 (DI−82)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	• Open or short in heated oxygen sensor circuit (Bank 1 Sensor 2) • Heated oxygen sensor (Bank 1 Sensor 2)	○	○
P0150 (DI−71)	Oxygen Sensor Circuit (Bank 2 Sensor 1)	• Open or short in heated oxygen sensor circuit (Bank 2 Sensor 1) • Heated oxygen sensor (Bank 2 Sensor 1) • Air induction system • Fuel pressure • Injector • ECM	○	○
P0153 (DI−75)	Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)	• Open or short in heated oxygen sensor circuit (Bank 2 Sensor 1) • Heated oxygen sensor (Bank 2 Sensor 1) • Air induction system • Fuel pressure • Injector • ECM	○	○

P0154 (DI−78)	Oxygen Sensor Circuit No Activity Detected	• Open or short in heated oxygen sensor circuit (Bank 2 Sensor 1) • Heated oxygen sensor (Bank 2 Sensor 1) • Air induction system • Fuel pressure • Injector • Gas leakage on exhaust system • PCV piping • ECM	○	○
P0156 (DI−82)	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	• Open or short in heated oxygen sensor circuit (Bank 2 Sensor 2) • Heated oxygen sensor (Bank 2 Sensor 2)	○	○
P0171 (DI−84)	System too Lean (Bank 1)	• Air induction system • Injector blockage • Mass air flow meter • Engine coolant temp. sensor • Fuel pressure • Gas leakage on exhaust system • Open or short in heated oxygen sensor (Bank 1 sensor 1) circuit • Heated oxygen sensor (Bank 1 sensor 1) • PCV piping • ECM	○	○
P0172 (DI−84)	System too Rich (Bank 1)	• Injector leak, blockage • Mass air flow meter • Engine coolant temp. sensor • Ignition system • Fuel pressure • Gas leakage on exhaust system • Open or short in heated oxygen sensor (Bank 1 sensor 1) circuit • Heated oxygen sensor (Bank 1 sensor 1) • ECM	○	○
P0174 (DI−84)	System too Lean (Bank 2)	• Air induction system • Injector blockage • Mass air flow meter • Engine coolant temp. sensor • Fuel pressure • Gas leakage on exhaust system • Open or short in heated oxygen sensor (Bank 2 sensor 1) circuit • Heated oxygen sensor (Bank 2 sensor 1) • PCV piping • ECM	○	○
P0175 (DI−84)	System too Rich (Bank 2)	• Injector leak, blockage • Mass air flow meter • Engine coolant temp. sensor • Ignition system • Fuel pressure • Gas leakage in exhaust system • Open or short in heated oxygen sensor (Bank 2 sensor 1) circuit • Heated oxygen sensor (Bank 2 sensor 1) • ECM	○	○
P0220 (DI−64)	Throttle/Pedal Position Sensor/ Switch ”B” Circuit	• Open or short in throttle position sensor circuit • Throttle position sensor • ECM	○	○

P0222 (DI−64)	Throttle/Pedal Position Sensor/ Switch "B" Circuit Low Input	• Open in throttle position sensor circuit • Throttle position sensor • ECM	○	○
P0223 (DI−64)	Throttle/Pedal Position Sensor/ Switch "B" Circuit High Input	• Short in throttle position sensor circuit • Throttle position sensor • ECM	○	○
P0230 (DI−89)	Fuel Pump Primary Circuit	• Open or short in fuel pump relay circuit • Fuel pump relay • ECM	−	○
P0300 (DI−92)	Random/Multiple Cylinder Misfire Detected	• Open or short in engine wire • Connector connection • Vacuum hose connection • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temp. sensor • Compression pressure • Valve clearance • Valve timing • PCV piping • ECM	○*2	○
P0301 (DI−92)	Cylinder 1 Misfire Detected		○*2	○
P0302 (DI−92)	Cylinder 2 Misfire Detected		○*2	○
P0303 (DI−92)	Cylinder 3 Misfire Detected		○*2	○
P0304 (DI−92)	Cylinder 4 Misfire Detected		○*2	○
P0305 (DI−92)	Cylinder 5 Misfire Detected		○*2	○
P0306 (DI−92)	Cylinder 6 Misfire Detected		○*2	○
P0307 (DI−92)	Cylinder 7 Misfire Detected		○*2	○
P0308 (DI−92)	Cylinder 8 Misfire Detected		○*2	○
P0325 (DI−102)	Knock Sensor 1 Circuit (Bank 1 or Single Sensor)	• Open or short in knock sensor 1 circuit • Knock sensor 1 (looseness) • ECM	○	○
P0330 (DI−102)	Knock Sensor 2 Circuit (Bank 2)	• Open or short in knock sensor 2 circuit • Knock sensor 2 (looseness) • ECM	○	○
P0335 (DI−106)	Crankshaft Position Sensor "A" Circuit	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate (Timing belt guide) • ECM	○	○
P0339 (DI−108)	Crankshaft Position Sensor "A" Circuit Intermittent	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate (Timing belt guide) • ECM	−	○
P0340 (DI−109)	Camshaft Position Sensor "A" Circuit (Bank 1 or Single Sensor)	• Open or short in camshaft position sensor circuit • VVT sensor • ECM	○	○
P0341 (DI−109)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 1 or Single Sensor)		○	○
P0345 (DI−109)	Camshaft Position Sensor "A" Circuit (Bank 2)	• Open or short in camshaft position sensor circuit • VVT sensor • ECM	○	○
P0346 (DI−109)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 2)		○	○

P0351 (DI−112)	Ignition Coil "A" Primary/Secondary Circuit	• Open or short in IF1L and IGT1 circuit from No. 1 ignition coil with igniter to ECM • No. 1 ignition coil with igniter • Ignition system • ECM	○	○
P0352 (DI−112)	Ignition Coil "B" Primary/Secondary Circuit	• Open or short in IF2R and IGT2 circuit from No. 2 ignition coil with igniter to ECM • No. 2 ignition coil with igniter • Ignition system • ECM	○	○
P0353 (DI−112)	Ignition Coil "C" Primary/Secondary Circuit	• Open or short in IF2L and IGT3 circuit from No. 3 ignition coil with igniter to ECM • No. 3 ignition coil with igniter • Ignition system • ECM	○	○
P0354 (DI−112)	Ignition Coil "D" Primary/Secondary Circuit	• Open or short in IF1R and IGT4 circuit from No. 4 ignition coil with igniter to ECM • No. 4 ignition coil with igniter • Ignition system • ECM	○	○
P0355 (DI−112)	Ignition Coil "E" Primary/Secondary Circuit	• Open or short in IF2L and IGT5 circuit from No. 5 ignition coil with igniter to ECM • No. 5 ignition coil with igniter • Ignition system • ECM	○	○
P0356 (DI−112)	Ignition Coil "F" Primary/Secondary Circuit	• Open or short in IF1R and IGT6 circuit from No. 6 ignition coil with igniter to ECM • No. 6 ignition coil with igniter • Ignition system • ECM	○	○
P0357 (DI−112)	Ignition Coil "G" Primary/Secondary Circuit	• Open or short in IF1L and IGT7 circuit from No. 7 ignition coil with igniter to ECM • No. 7 ignition coil with igniter • Ignition system • ECM	○	○
P0358 (DI−112)	Ignition Coil "H" Primary/Secondary Circuit	• Open or short in IF2R and IGT8 circuit from No. 8 ignition coil with igniter to ECM • No. 8 ignition coil with igniter • Ignition system • ECM	○	○
P0420 (DI−119)	Catalyst System Efficiency Below Threshold (Bank 1)	• Gas leakage on exhaust system • Heated oxygen sensor (bank 1 sensor 1, 2) • Three−way catalytic converter	○	○
P0430 (DI−119)	Catalyst System Efficiency Below Threshold (Bank 2)	• Gas leakage on exhaust system • Heated oxygen sensor (bank 2 sensor 1, 2) • Three−way catalytic converter	○	○

P0441 (DI−122)	Evaporative Emission Control System Incorrect Purge Flow	• Vacuum hose cracks, holed, blocked, damaged or disconnected ((1), (2), (3), (4), (5), (6), (7), (8), (9), (10) and (11) in Fig. 1) • Fuel tank cap incorrectly installed • Fuel tank cap cracked or damaged • Open or short in vapor pressure sensor circuit • Vapor pressure sensor • Open or short in VSV circuit for EVAP • VSV for EVAP • Open or short in VSV circuit for CCV • VSV for CCV • Open or short in VSV circuit for pressure switching valve • VSV for pressure switching valve • Fuel tank cracked, holed or damaged • Charcoal canister cracked, holed or damaged • Fuel tank over fill check valve cracked or damaged • ECM	○	○
P0442 (DI−156)	Evaporative Emission Control System Leak Detected (Small Leak)	• Hose or tube cracked, holed, damaged or loose seal ((3) or (9) in Fig. 1) • Fuel tank cap incorrectly installed • Fuel tank cap cracked or damaged • Vacuum hose cracked, holed, blocked, damaged or disconnected ((1), (2), (4), (5), (6), (7), (8), (10) and (11) in Fig. 1) • Fuel tank cracked, holed or damaged • Charcoal canister cracked, holed or damaged • Open or short in vapor pressure sensor circuit • Vapor pressure sensor • Fuel tank over fill check valve cracked or damaged • ECM	○	○
P0446 (DI−122)	Evaporative Emission Control System Vent Control Circuit	• Same as DTC No. P0441	○	○
P0451 (DI−178)	Evaporative Emission Control System Pressure Sensor/Switch Range/Performance	• Open or short in vapor pressure sensor circuit • Vapor pressure sensor • ECM	○	○
P0452 (DI−178)	Evaporative Emission Control System Pressure Sensor/Switch Low Input	• Short in vapor pressure sensor circuit • Vapor pressure sensor • ECM	○	○
P0453 (DI−178)	Evaporative Emission Control System Pressure Sensor/Switch High Input	• Open in vapor pressure sensor circuit • Vapor pressure sensor • ECM	○	○
P0456 (DI−156)	Evaporative Emission Control System Leak Detected (Very Small Leak)	• Same as DTC No. P0442	○	○
P0500 (DI−181)	Vehicle Speed Sensor ”A”	• Combination meter • Open or short in vehicle speed sensor circuit • Vehicle speed sensor • ECM	○	○
P0503 (DI−181)	Vehicle Speed Sensor ”A” Intermittent/Erratic/High	• Combination meter • Open or short in vehicle speed sensor circuit • Vehicle speed sensor • ECM	–	○
P0504 (DI−184)	Brake Switch ”A”/”B” Correlation	• Stop light switch signal circuit • Stop light switch • ECM	–	○

P0505 (DI−187)	Idle Air Control System	• Air induction system • Electric throttle control system • Electric throttle control system circuit • PCV piping • ECM	○	○
P0513 (DI−189)	Incorrect Immobilizer Key	• Key	−	○
P0560 (DI−190)	System Voltage	• Open in back−up power source circuit • EFI No.1 fuse • ECM	○	○
P0604 (DI−192)	Internal Control Module Random Access Memory (RAM) Error	• ECM	○	○
P0606 (DI−192)	ECM/PCM Processor	• ECM	○	○
P0607 (DI−192)	Control Module Performance	• ECM	○	○
P0617 (DI−193)	Starter Relay Circuit High	• Park/neutral position switch • Starter relay circuit • Ignition switch • ECM	○	○
P0657 (DI−192)	Actuator Supply Voltage Circuit / Open	• ECM	○	○
P1340 (DI−199)	Camshaft Position Sensor ”A” Circuit (Bank 1 Sensor 2)	• Open or short in camshaft position sensor circuit • Camshaft position sensor • LH camshaft timing pulley • ECM	○	○
P1341 (DI−199)	Camshaft Position Sensor ”A” Circuit Range/Performance (Bank 1 Sensor 2)		○	○
P1645 (DI−201)	Body ECU Malfunction	• Body ECU • A/C ECU • Communication bus	○	−
P2102 (DI−202)	Throttle Actuator Control Motor Circuit Low	• Open in throttle control motor circuit • Throttle control motor • ECM	○	○
P2103 (DI−202)	Throttle Actuator Control Motor Circuit High	• Short in throttle control motor circuit • Throttle control motor • ECM	○	○
P2111 (DI−206)	Throttle Actuator Control System − Stuck Open	• Throttle control motor • Throttle body	○	○
P2112 (DI−206)	Throttle Actuator Control System − Stuck Closed	• Throttle control motor • Throttle body	○	○
P2118 (DI−208)	Throttle Actuator Control Motor Current Range/Performance	• Open in ETCS power source circuit • ECM	○	○
P2119 (DI−210)	Throttle Actuator Control Throttle Body Range/Performance	• Electric throttle control system • ECM	○	○
P2120 (DI−212)	Throttle/Pedal Position Sensor/ Switch ”D” Circuit	• Open or short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2121 (DI−216)	Throttle/Pedal Position Sensor/ Switch ”D” Circuit Range/Performance	• Accelerator pedal position sensor	○	○
P2122 (DI−212)	Throttle/Pedal Position Sensor/ Switch ”D” Circuit Low Input	• Open in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○

P2123 (DI−212)	Throttle/Pedal Position Sensor/ Switch ”D” Circuit High Input	• Short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2125 (DI−212)	Throttle/Pedal Position Sensor/ Switch ”E” Circuit	• Short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2127 (DI−212)	Throttle/Pedal Position Sensor/ Switch ”E” Circuit Low Input	• Short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2128 (DI−212)	Throttle/Pedal Position Sensor/ Switch ”E” Circuit High Input	• Short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2135 (DI−64)	Throttle Pedal Position Sensor/ Switch ”A” / ”B” Voltage Correlation	• VTA1 and VTA2 circuit are short−circuited • Throttle position sensor • ECM	○	○
P2138 (DI−212)	Throttle/Pedal Position Sensor/ Switch ”D”/”E” Voltage Correlation	• Short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2195 (DI−71)	Oxygen Sensor Signal Stuck Lean (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit (Bank 1, 2 Sensor 1) • Heated oxygen sensor (Bank 1, 2 Sensor 1) • EFI MAIN relay • Air induction system • Fuel pressure • Injector • ECM	○	○
P2196 (DI−71)	Oxygen Sensor Signal Stuck Rich (Bank 1 Sensor 1)		○	○
P2197 (DI−71)	Oxygen Sensor Signal Stuck Lean (Bank 2 Sensor 1)		○	○
P2198 (DI−71)	Oxygen Sensor Signal Stuck Rich (Bank 2 Sensor 1)		○	○

*1: MIL lights up.
*2: MIL lights up or blinks.
*: − .... MIL does not light up, ○ .... MIL lights up

DI8E9−04

DIAGNOSTIC TROUBLE CODE CHART

HINT:

- As for the vehicle for Central America, refer to Repair Manual of 2002 LEXUS LS430 (Pub. No. RM874U1).
- If a DTC is displayed during the DTC check, check the circuit listed in the table below and proceed to the page given.

* : ●...MIL light up

DTC No. (See Page)	Detection Item	Trouble Area	MIL*	Memory
P0500 (DI−258)	Vehicle Speed Sensor "A"	• Open or short in vehicle speed sensor (SP2) circuit • Speed sensor (SP2) • ECM • Automatic transmission assembly	●	○
P0705 (DI−261)	Transmission Range Sensor Circuit Malfunction (PRNDL Input)	• Short in park/neutral position switch circuit • Park/neutral position switch • ECM	●	○
P0710 (DI−265)	Transmission Fluid Temperature Sensor "A" Circuit	• Open or short in ATF temperature sensor circuit • ATF temperature sensor • ECM	●	○
P0711 (DI−268)	Transmission Fluid Temperature Sensor "A" Performance		●	○
P0712 (DI−265)	Transmission Fluid Temperature Sensor "A" Circuit Low Input		●	○
P0713 (DI−265)	Transmission Fluid Temperature Sensor "A" Circuit High Input		●	○
P0717 (DI−270)	Input Speed Sensor Circuit No Signal	• Open or short in speed sensor (NC0) circuit • Speed sensor (NC0) • ECM • Automatic transmission assembly	●	○
P0724 (DI−273)	Brake Switch "B" Circuit High	• Open or short in stop light switch signal circuit • Stop light switch • ECM	●	○
P0751 (DI−274)	Shift Solenoid "A" Performance (Shift Solenoid Valve S1)	• Shift solenoid valve No. 1 is stuck open or closed • Valve body is blocked up or stuck • Automatic transmission assembly	●	○
P0756 (DI−274)	Shift Solenoid "B" Performance (Shift Solenoid Valve S2)	• Shift solenoid valve No. 2 is stuck open or closed • Valve body is blocked up or stuck • Automatic transmission assembly	●	○
P0761 (DI−274)	Shift Solenoid "C" Performance (Shift Solenoid Valve S3)	• Shift solenoid valve No. 3 is stuck open or closed • Valve body is blocked up or stuck • Automatic transmission assembly	●	○
P0973 (DI−277)	Shift Solenoid "A" Control Circuit Low (Shift Solenoid Valve S1)	• Open or short in shift solenoid valve No. 1 circuit • Shift solenoid valve No. 1 • ECM	●	○
P0974 (DI−277)	Shift Solenoid "A" Control Circuit High (Shift Solenoid Valve S1)		●	○
P0976 (DI−277)	Shift Solenoid "B" Control Circuit Low (Shift Solenoid Valve S2)	• Open or short in shift solenoid valve No. 2 circuit • Shift solenoid valve No. 2 • ECM	●	○
P0977 (DI−277)	Shift Solenoid "B" Control Circuit High (Shift Solenoid Valve S2)		●	○
P0979 (DI−277)	Shift Solenoid "C" Control Circuit Low (Shift Solenoid Valve S3)	• Open or short in shift solenoid valve No. 3 circuit • Shift solenoid valve No. 3 • ECM	●	○
P0980 (DI−277)	Shift Solenoid "C" Control Circuit High (Shift Solenoid Valve S3)		●	○

P0982 (DI−283)	Shift Solenoid "D" Control Circuit Low (Shift Solenoid Valve S4)	• Open or short in shift solenoid valve No. 4 circuit • Shift solenoid valve No. 4 • ECM	●	○
P0983 (DI−283)	Shift Solenoid "D" Control Circuit High (Shift Solenoid Valve S4)		●	○
P2716 (DI−286)	Pressure Control Solenoid "D" Electrical (Shift Solenoid Valve SLT)	• Open or short in shift solenoid valve SLT circuit • Shift solenoid valve SLT • ECM	●	○
P2725 (DI−290)	Pressure Control Solenoid "E" Electrical (Shift Solenoid Valve SLN)	• Open or short in shift solenoid valve SLN circuit • Shift solenoid valve SLN • ECM	●	○
P2757 (DI−294)	Torque Converter Clutch Pressure Control Solenoid Performance (Shift Solenoid Valve SLU)	• Shift solenoid valve SLU is stuck open or closed • Valve body is blocked up or stuck • Lock−up clutch • Automatic transmission assembly	●	○
P2759 (DI−296)	Torque Converter Clutch Pressure Control Solenoid Control Circuit Electrical (Shift Solenoid Valve SLU)	• Open or short in shift solenoid valve SLU circuit • Shift solenoid valve SLU • ECM	●	○

HINT:
This DTC may be output when the clutch, brake and gear components etc. inside the automatic transmission are damaged.

DI0VS−07

DIAGNOSTIC TROUBLE CODE CHART

HINT:

- Using SST 09843−18040, connect terminals Tc and CG of the DLC3.
- If any abnormality is not found when the parts are inspected, inspect the suspension control ECU.
- If a malfunction code is displayed during the DTC check, check the circuit listed for that code. For details of each code, turn to the page mentioned below "DTC No." in the DTC chart.

DTC No. (See Page)	Detection Item	Trouble Area	Indicator Light*1 ( )*2	Memory*3
C1711 / 11 (DI−318)	Open or short circuit in right front height control sensor circuit	• Right front, left front, right rear, left rear height control sensors • Each height control sensor circuit	○ (○)	○
C1712 / 12 (DI−318)	Open or short circuit in left front height control sensor circuit		○ (○)	○
C1713 / 13 (DI−318)	Open or short circuit in right rear height control sensor circuit		○ (○)	○
C1714 / 14 (DI−318)	Open or short circuit in left rear height control sensor circuit		○ (○)	○
C1715 / 15 (DI−323)	Open or short circuit in right front acceleration sensor circuit	• Right front, left front, rear acceleration sensors • Each acceleration sensor circuit	○ (−)	○
C1716 / 16 (DI−323)	Open or short circuit in left front acceleration sensor circuit		○ (−)	○
C1717 / 17 (DI−323)	Open or short circuit in rear acceleration sensor circuit		○ (−)	○
C1725 / 21 (DI−328)	Open or short circuit in right front suspension control actuator circuit	• Right front, left front, right rear, left rear suspension control actuators • Each suspension control actuator circuit	○ (−)	○
C1726 / 22 (DI−328)	Open or short circuit in left front suspension control actuator circuit		○ (−)	○
C1727 / 23 (DI−328)	Open or short circuit in right rear suspension control actuator circuit		○ (−)	○
C1728 / 24 (DI−328)	Open or short circuit in left rear suspension control actuator circuit		○ (−)	○
C1737 / 31 (DI−334)	Open or short circuit in right front height control solenoid valve circuit	• Right front, left front, right rear, left rear height control solenoid valves • Each height control solenoid valve circuit	○ (○)	○
C1739 / 32 (DI−334)	Open or short circuit in left front height control solenoid valve circuit		○ (○)	○
C1739 / 33 (DI−334)	Open or short circuit in right rear height control solenoid valve circuit		○ (○)	○
C1740 / 34 (DI−334)	Open or short circuit in left rear height control solenoid valve circuit		○ (○)	○
C1735 / 35 (DI−334)	Open or short circuit in height control exhaust valve circuit	• Height control exhaust valve • Height control exhaust valve circuit	○ (○)	○
C1741 / 41 (DI−341)	Open or short circuit in AIR SUS relay circuit	• AIR SUS relay • AIR SUS relay circuit	○ (○)	○
C1742 / 42 (DI−346)	Lock, open or short circuit in height control compressor circuit	• Height control compressor • Height control compressor circuit	○ (○)	○

C1751 / 51*4 (DI−352)	Continuous electric current to height control compressor circuit	• Height control compressor • Height control compressor circuit • Height control sensor link • Height control sensor • Relief valve • Height control relay comes off • Air leakage from the air tube or each valve • Clogging in the air tube or each valve	○ (−)	○
C1752 / 52*5 (DI−354)	Continuous electric current to height control exhaust valve	• Height control link • Height control sensor • Clogging in the air tube or each valve	○ (−)	○
C1774 / 74 (DI−355)	Power voltage drop	• Battery • Power source circuit	○ (−)	−
C1776 / 76 (DI−360)	Vehicle speed sensor circuit malfunction	• ABS speed sensor • Vehicle speed sensor circuit • Skid control ECU	○ (−)	○
C1777 / 77 (DI−362)	Open or short circuit in steering angle sensor circuit	• Steering angle sensor • Steering angle sensor circuit	○ (−)	○
C1778 / 78 (DI−365)	Open or short circuit in chassis ECU (skid control ECU) communication circuit malfunction	• Skid control ECU • Chassis ECU communication circuit	○ (−)	−
C1779 / 79 (DI−367)	Engine revolution signal circuit malfunction	• Crankshaft position sensor • Crankshaft position sensor circuit • ECM	○ (−)	○

*1: For codes in the "Indicator Light" column with a "○" mark, the absorber control indicator light blinks at 1 second intervals.

*2: When a trouble occurs, "HEIGHT HI" is displayed in the multi−information. Also, the master warning light is lit on the combination meter and an alarm sounds.

*3: Codes with the "○" mark in the "Memory" column are stored in memory even when the ignition switch is OFF. For codes with the "−" mark, it does not memory.

*4: Since the relief pressure of the compressed air is 980 kPa (10 kgf/cm^2, 142 psi), if the vehicle height control is attempted on a steeply sloping road, when the vehicle is overloaded, or when the vehicle height is jacked up with the engine running, code "C1751 / 51" may be output and vehicle height control may be suspended. (This is not abnormal.) In this case, however, when detecting the first error, approx. 10 minutes after the ignition switch was turned ON, vehicle height control is resumed. When the following errors are detected, it takes 70 minutes until the control is resumed.

*5: If vehicle height control is operated while the wheels are removed or the vehicle is jacked up, code "C1752 / 52" may be output, but this is not abnormal. When code "C1752 / 52" is output, the vehicle height control is not carried out. However, the control is resumed if the ignition switch is turned OFF, then ON again.

DI0WA−13

DIAGNOSTIC TROUBLE CODE CHART

NOTICE:

Before replacing or removing the part, turn the ignition switch OFF.

HINT:

- Using SST 09843−18040, connect the terminals Tc and CG of DLC3.
- If any abnormality is not found on inspected parts, inspect the ECU.
- If a malfunction code is displayed during the DTC check, check the circuit indicated by DTC. For details of each code, turn to the pages in the "See page" for respective "DTC No." in the DTC chart.

DTC chart of ABS:

DTC No. (See Page)	Detection Item	Trouble Area
C0200 / 31*1 (DI−411)	Right front wheel speed sensor signal malfunction	• Right front, left front, right rear, left rear speed sensor • Each speed sensor circuit • Sensor rotor
C0205 / 32*1 (DI−411)	Left front wheel speed sensor signal malfunction	
C0210 / 33*1 (DI−411)	Right rear wheel speed sensor signal malfunction	
C0215 / 34*1 (DI−411)	Left rear wheel speed sensor signal malfunction	
C0226 / 21 (DI−418)	Open or short circuit in brake actuator solenoid circuit (SFR circuit)	• Brake actuator • SFRH or SFRR circuit
C0236 / 22 (DI−418)	Open or short circuit in brake actuator solenoid circuit (SFL circuit)	• Brake actuator • SFLH or SFLR circuit
C0246 / 23 (DI−418)	Open or short circuit in brake actuator solenoid circuit (SRR circuit)	• Brake actuator • SRRH or SRRR circuit
C0256 / 24 (DI−418)	Open or short circuit in brake actuator solenoid circuit (SRL circuit)	• Brake actuator • SRLH or SRLR circuit
C0273 / 13*1 (DI−420)	Open circuit in ABS MTR relay circuit	• ABS MTR relay • ABS MTR relay circuit
C0274 / 14 (DI−420)	Short circuit in ABS MTR relay circuit	
C0278 / 11 (DI−424)	Open circuit in ABS SOL relay circuit	• ABS SOL relay • ABS SOL relay circuit
C0279 / 12 (DI−424)	Short circuit in ABS SOL relay circuit	
C1225 / 25 (DI−435)	Open or short circuit in brake actuator solenoid circuit (SM circuit)	• Brake actuator • SMF or SMR circuit
C1226 / 26 (DI−435)	Open or short circuit in brake actuator solenoid circuit (SRM circuit)	• Brake actuator • SRMF or SRMR circuit
C1227 / 27 (DI−435)	Open or short circuit in brake actuator solenoid circuit (SRC circuit)	• Brake actuator • SRCF or SRCR circuit
C1235 / 35 (DI−411)	Foreign matter is attached on the tip of the right front sensor	• Right front, left front, right rear, left rear speed sensor • Sensor rotor
C1236 / 36 (DI−411)	Foreign matter is attached on the tip of the left front sensor	
C1238 / 38 (DI−411)	Foreign matter is attached on the tip of the right rear sensor	
C1239 / 39 (DI−411)	Foreign matter is attached on the tip of the left rear sensor	

C1241 / 41 (DI−445)	Low battery positive voltage or abnormally high battery positive voltage	• Battery • Charging system • Power source circuit
C1243 / 43*1 (DI−449)	Malfunction in deceleration sensor (constant output)	• Deceleration sensor • Wire harness for deceleration sensor system
C1244 / 44 (DI−453)	Open or short circuit in deceleration sensor circuit	• Deceleration sensor • Deceleration sensor circuit
C1245 / 45*1 (DI−449)	Malfunction in deceleration sensor	• Deceleration sensor • Wire harness for deceleration sensor system
C1246 / 46*2 (DI−457)	Malfunction in master cylinder pressure sensor	• Master cylinder pressure sensor • Master cylinder pressure sensor circuit
C1249 / 49 (DI−460)	Open circuit in stop light switch circuit	• Stop light bulb • Stop light switch circuit
C1251 / 51*1 (DI−463)	ABS pump motor is locked Open circuit in pump motor circuit	ABS pump motor
C1267 / 67 (DI−465)	Malfunction in brake pedal load sensing switch	• Brake pedal load sensing switch • Brake pedal load sensing switch circuit
Always ON (DI−473)	Malfunction in skid control ECU	• Power source circuit • ABS warning light circuit • Multiplex communication circuit • Skid control ECU

*1, *2:

Even after the troubled areas are repaired, ABS warning light will not go OFF unless the following operations are performed.

- *1:
  (1) Drive the vehicle at 20 km/h (12 mph) for 30 seconds or more and check that the ABS warning light goes off.
  (2) Clear the DTC (See page DI−390).
- *2:
  (1) Keep the vehicle in the stationary condition for 5 seconds or more and depress the brake pedal lightly 2 or 3 times.
  (2) Drive the vehicle at the vehicle speed 50 km/h (31 mph) and keep depressing the brake pedal strongly for about 3 seconds.
  (3) Repeat the above operation 3 times or more and check that the ABS warning light goes off.
  (4) Clear the DTC (See page DI−390).

HINT:

There is a case that LEXUS hand−held tester cannot be used when ABS warning light is always on.

DTC chart of VSC:

DTC No. (See Page)	Detection Item	Trouble Area
C1201 / 51 (DI−428)	Malfunction in ECM	Engine control system
C1202 / 52 (DI−429)	Brake fluid level low Open circuit in brake fluid level warning switch circuit	• Brake fluid level • Brake fluid level warning switch • Brake fluid level warning switch circuit
C1203 / 53 (DI−431)	Malfunction in ECM communication circuit	• TRC+ or TRC− circuit • ENG+ or ENG− circuit • ECM
C1210 / 36 (DI−441)	Zero point calibration of yaw rate sensor undone	• Yaw rate sensor • Yaw rate sensor circuit • P position switch circuit
C1224 / 44 (DI−433)	Open or short circuit in NEO signal circuit	• NEO circuit • ECM
C1231 / 31 (DI−437)	Malfunction in steering angle sensor	• Steering angle sensor • Steering angle sensor circuit
C1232 / 32 (DI−453)	Malfunction in deceleration sensor (constant output)	• Deceleration sensor • Deceleration sensor circuit
C1233 / 33 (DI−441)	Open or short circuit in yaw rate sensor circuit	• Yaw rate sensor • Yaw rate sensor circuit
C1234 / 34 (DI−441)	Malfunction in yaw rate sensor	
C1303 / 57 (DI−468)	Malfunction in multiplex communication circuit	• MPX1 circuit • MPX2 circuit
C1335 / 35 (DI−437)	Open circuit in steering angle sensor	• Steering angle sensor • Steering angle sensor circuit
C1336 / 39 (DI−449)	Zero point calibration of deceleration sensor undone	• Deceleration sensor • Deceleration sensor circuit • P position switch circuit
Always ON (DI−477)	Malfunction in skid control ECU Open circuit in VSC warning indicator circuit	• Power source circuit • Skid control ECU

HINT:

In some cases LEXUS hand−held tester cannot be used when VSC warning light is always on.

DTC chart of PPS:

DTC No. (See Page)	Detection Item	Trouble Area
C1560 (DI−470)	Malfunction in PPS solenoid circuit	• PPS solenoid • PPS solenoid circuit
C1561 (DI−470)		

DI1T7−10

DIAGNOSTIC TROUBLE CODE CHART

If a DTC is displayed during the DTC check, check the circuit for that code listed in the table below. For details of each code, turn to the page referred to under the ”See page” for the respective ”DTC No.” in the DTC chart.

DTC No. (See Page)	Detection Item	Trouble Area
B2602 (DI−508)	Key unlock warning switch malfunction	• Key unlock warning switch
B2610 (DI−509)	Tilt position sensor or tilt motor malfunction	• Sensor power source circuit • Actuator power source circuit • Tilt motor circuit • Power tilt and power telescopic ECU
B2611 (DI−511)	Telescopic position sensor or telescopic motor malfunction	• Sensor power source circuit • Actuator power source circuit • Telescopic motor circuit • Power tilt and power telescopic ECU
B2620 (DI−513)	ECU power source circuit malfunction	• Battery • ECU power source circuit • Power tilt and power telescopic ECU
B2621 (DI−515)	Communication interruption	• Multiplex communication system • Power tilt and power telescopic ECU

DI6OZ−24

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during the DTC check, check the circuit listed for that code in the table below (Proceed to the page given for that circuit.).

DTC No. (See Page)	Detection Item	Trouble Area	SRS Warning Light
B0100/13 (DI−549)	Short in D squib circuit	• Steering wheel pad (squib) • Spiral cable • Airbag sensor assembly • Instrument panel wire	ON
B0101/14 (DI−554)	Open in D squib circuit	• Steering wheel pad (squib) • Spiral cable • Airbag sensor assembly • Instrument panel wire	ON
B0102/11 (DI−558)	Short in D squib circuit (to ground)	• Steering wheel pad (squib) • Spiral cable • Airbag sensor assembly • Instrument panel wire	ON
B0103/12 (DI−562)	Short in D squib circuit (to B+)	• Steering wheel pad (squib) • Spiral cable • Airbag sensor assembly • Instrument panel wire	ON
B0105/53 (DI−566)	Short in P squib circuit	• Front passenger airbag assembly (squib) • Airbag sensor assembly • Instrument panel wire	ON
B0106/54 (DI−570)	Open in P squib circuit	• Front passenger airbag assembly (squib) • Airbag sensor assembly • Instrument panel wire	ON
B0107/51 (DI−573)	Short in P squib circuit (to ground)	• Front passenger airbag assembly (squib) • Airbag sensor assembly • Instrument panel wire	ON
B0108/52 (DI−576)	Short in P squib circuit (to B+)	• Front passenger airbag assembly (squib) • Airbag sensor assembly • Instrument panel wire	ON
B0110/43 (DI−579)	Short in side squib RH circuit	• Side airbag assembly RH (squib) • Airbag sensor assembly • Floor wire	Blink
B0111/44 (DI−583)	Open in side squib RH circuit	• Side airbag assembly RH (squib) • Airbag sensor assembly • Floor wire	Blink
B0112/41 (DI−586)	Short in side squib RH circuit (to ground)	• Side airbag assembly RH (squib) • Airbag sensor assembly • Floor wire	Blink
B0113/42 (DI−589)	Short in side squib RH circuit (to B+)	• Side airbag assembly RH (squib) • Airbag sensor assembly • Floor wire	Blink
B0115/47 (DI−592)	Short in side squib LH circuit	• Side airbag assembly LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B0116/48 (DI−596)	Open in side squib LH circuit	• Side airbag assembly LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink

B0117/45 (DI−599)	Short in side squib LH circuit (to ground)	• Side airbag assembly LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B0118/46 (DI−602)	Short in side squib LH circuit (to B+)	• Side airbag assembly LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B0121/26 (DI−605)	Seat belt buckle switch RH malfunction	• Seat belt buckle switch RH • Airbag sensor assembly • Floor wire	ON
B0122/26 (DI−605)	Seat belt buckle switch RH malfunction	• Seat belt buckle switch RH • Airbag sensor assembly • Floor wire	ON
B0126/27 (DI−609)	Seat belt buckle switch LH malfunction	• Seat belt buckle switch LH • Airbag sensor assembly • Floor No. 2 wire	ON
B0127/27 (DI−609)	Seat belt buckle switch LH malfunction	• Seat belt buckle switch LH • Airbag sensor assembly • Floor No. 2 wire	ON
B0130/63 (DI−613)	Short in front P/T squib RH circuit	• Front seat belt pretensioner RH (squib) • Airbag sensor assembly • Floor wire	Blink
B0131/64 (DI−617)	Open in front P/T squib RH circuit	• Front seat belt pretensioner RH (squib) • Airbag sensor assembly • Floor wire	Blink
B0132/61 (DI−620)	Short in front P/T squib RH circuit (to ground)	• Front seat belt pretensioner RH (squib) • Airbag sensor assembly • Floor wire	Blink
B0133/62 (DI−623)	Short in front P/T squib RH circuit (to B+)	• Front seat belt pretensioner RH (squib) • Airbag sensor assembly • Floor wire	Blink
B0135/73 (DI−626)	Short in front P/T squib LH circuit	• Front seat belt pretensioner LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B0136/74 (DI−630)	Open in front P/T squib LH circuit	• Front seat belt pretensioner LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B0137/71 (DI−633)	Short in front P/T squib LH circuit (to ground)	• Front seat belt pretensioner LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B0138/72 (DI−636)	Short in front P/T squib LH circuit (to B+)	• Front seat belt pretensioner LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B1100/31 (DI−639)	Airbag sensor assembly malfunction	• Instrument Panel Wire • Engine Room Main Wire • Front Airbag Sensor LH • Front Airbag Sensor RH • Airbag Sensor Assembly	ON
B1135/24 (DI−641)	Half connection in airbag sensor assembly connector	• Airbag sensor assembly • Instrument panel wire • Floor wire • Floor No. 2 wire	ON
B1140/32 (DI−644)	Side airbag sensor assembly RH malfunction	• Side airbag sensor assembly RH • Airbag sensor assembly • Floor wire	Blink

B1141/33 (DI−650)	Side airbag sensor assembly LH malfunction	• Side airbag sensor assembly LH • Airbag sensor assembly • Floor No. 2 wire	Blink
B1148/36 (DI−656)	Front airbag sensor RH malfunction	• Front airbag sensor RH • Airbag sensor assembly • Instrument panel wire • Engine room main wire	ON
B1149/37 (DI−663)	Front airbag sensor LH malfunction	• Front airbag sensor LH • Airbag sensor assembly • Instrument panel wire • Engine room main wire	ON
B1150/23 (DI−670)	Occupant detection malfunction	• Occupant detection sensor • Airbag sensor assembly • Floor wire	ON
B1153/25 (DI−674)	Seat position sensor malfunction	• Seat position sensor assembly • Airbag sensor assembly • Floor No. 2 wire	ON
B1154/38 (DI−680)	Curtain shield airbag sensor RH malfunction	• Curtain shield airbag sensor RH • Airbag sensor assembly • Floor wire	Blink
B1155/39 (DI−685)	Curtain shield airbag sensor LH malfunction	• Curtain shield airbag sensor LH • Airbag sensor assembly • Floor No. 2 wire	Blink
B1160/83 (DI−690)	Short in curtain shield squib RH circuit	• Curtain shield airbag assembly RH (squib) • Airbag sensor assembly • Floor wire	Blink
B1161/84 (DI−694)	Open in curtain shield squib RH circuit	• Curtain shield airbag assembly RH (squib) • Airbag sensor assembly • Floor wire	Blink
B1162/81 (DI−697)	Short in curtain shield squib RH circuit (to ground)	• Curtain shield airbag assembly RH (squib) • Airbag sensor assembly • Floor wire	Blink
B1163/82 (DI−700)	Short in curtain shield squib RH circuit (to B+)	• Curtain shield airbag assembly RH (squib) • Airbag sensor assembly • Floor wire	Blink
B1165/87 (DI−703)	Short in curtain shield squib LH circuit	• Curtain shield airbag assembly LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B1166/88 (DI−707)	Open in curtain shield squib LH circuit	• Curtain shield airbag assembly LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B1167/85 (DI−710)	Short in curtain shield squib LH circuit (to ground)	• Curtain shield airbag assembly LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B1168/86 (DI−713)	Short in curtain shield squib LH circuit (to B+)	• Curtain shield airbag assembly LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B1180/17 (DI−716)	Short in D squib (2nd step) circuit	• Steering wheel pad (D squib, 2nd step) • Spiral cable • Airbag sensor assembly • Instrument panel wire	ON

B1181/18 (DI−721)	Open in D squib (2nd step) circuit	• Steering wheel pad (D squib, 2nd step) • Spiral cable • Airbag sensor assembly • Instrument panel wire	ON
B1182/19 (DI−725)	Short in D squib (2nd step) circuit (to ground)	• Steering wheel pad (D squib, 2nd step) • Spiral cable • Airbag sensor assembly • Instrument panel wire	ON
B1183/22 (DI−729)	Short in D squib (2nd step) circuit (to B+)	• Steering wheel pad (D squib, 2nd step) • Spiral cable • Airbag sensor assembly • Instrument panel wire	ON
B1185/57 (DI−733)	Short in P squib (2nd step) circuit	• Front passenger airbag assembly (squib) • Airbag sensor assembly • Instrument panel wire	ON
B1186/58 (DI−737)	Open in P squib (2nd step) circuit	• Front passenger airbag assembly (squib) • Airbag sensor assembly • Instrument panel wire	ON
B1187/55 (DI−740)	Short in P squib (2nd step) circuit (to ground)	• Front passenger airbag assembly (squib) • Airbag sensor assembly • Instrument panel wire	ON
B1188/56 (DI−743)	Short in P squib (2nd step) circuit (to B+)	• Front passenger airbag assembly (squib) • Airbag sensor assembly • Instrument panel wire	ON
B1190/67 (DI−746)	Short in rear P/T squib RH circuit	• Rear seat belt pretensioner RH (squib) • Airbag sensor assembly • Floor wire	Blink
B1191/68 (DI−750)	Open in rear P/T squib RH circuit	• Rear seat belt pretensioner RH (squib) • Airbag sensor assembly • Floor wire	Blink
B1192/65 (DI−753)	Short in rear P/T squib RH circuit (to ground)	• Rear seat belt pretensioner RH (squib) • Airbag sensor assembly • Floor wire	Blink
B1193/66 (DI−756)	Short in rear P/T squib RH circuit (to B+)	• Rear seat belt pretensioner RH (squib) • Airbag sensor assembly • Floor wire	Blink
B1195/77 (DI−759)	Short in rear P/T squib LH circuit	• Rear seat belt pretensioner LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B1196/78 (DI−763)	Open in rear P/T squib LH circuit	• Rear seat belt pretensioner LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B1197/75 (DI−766)	Short in rear P/T squib LH circuit (to ground)	• Rear seat belt pretensioner LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
B1198/76 (DI−769)	Short in rear P/T squib LH circuit (to B+)	• Rear seat belt pretensioner LH (squib) • Airbag sensor assembly • Floor No. 2 wire	Blink
Normal (DI−772)	System normal	−	OFF
	Voltage source drop	• Battery • Airbag sensor assembly	ON

HINT:

- When the SRS warning light remains lit up and the DTC is the normal code, a voltage source drop is possible.
  This malfunction is not stored in memory by the airbag sensor assembly and if the power source voltage returns to normal, the SRS warning light will automatically go out.
- When 2 or more codes are indicated, smaller numbered code will be shown first.
- If a code not listed on the chart is displayed, the airbag sensor assembly is at fault.
- In the case of any malfunction concerning any open circuit, ground short, or B+ short due to any squib, another malfunction code may not be detected. In this case, correct the malfunction currently indicated and then perform malfunction diagnosis again. Another malfunction code may then be detected.

DI8U6−02

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during the DTC check, check the circuit listed for that code in the table below and proceed to the appropriate page.

DTC No. (See Page)	Circuit Inspection	Trouble Area
B1242 (DI−879)	Wireless Door Lock Tuner Circuit Malfunction	• Wire harness • Wireless Door Lock Tuner • Luggage Tuner • Theft deterrent ECU

DI8WR−02

DIAGNOSTIC TROUBLE CODE CHART

If an error code is displayed during the DTC check, check the circuit listed for that code in the table below and proceed to an appropriate page.

w/o Adaptive laser cruise control system

DTC No. (See Page)	Circuit Inspection	Trouble Area
P0500/ 21, P0503/ 23 (DI−911)	Vehicle speed sensor circuit	• Vehicle speed sensor • Wire harness or connector • ECM
P0571/ 52 (DI−912)	Stop light switch circuit	• Stop light switch • Wire harness or connector • ECM
P0607/ 54 (DI−916)	Input signal circuit	• ECM

w/ Adaptive laser cruise control system

DTC No. (See Page)	Circuit Inspection	Trouble Area
P0500/ 21, P0503/ 23 (DI−911)	Vehicle speed sensor circuit	• Speed sensor • Wire harness or connector between ECM and vehicle speed sensor • Vehicle speed sensor • ECM
P0571/ 52 (DI−912)	Stop light switch circuit	• Stop light switch • Wire harness or connector between ECM and stop light switch circuit • ECM
P0607/ 54 (DI−916)	Input signal circuit	• ECM
P1615/ 61 (DI−923)	Communication error from distance control ECU to ECM	• Wire harness or connector • Distance control ECU • ECM
P1616/ 62 (DI−925)	Communication error from ECM to distance control ECU	• Wire harness or connector • ECM • Distance control ECU
P1617/ 63 (DI−927)	Distance control ECU malfunction	• Distance control ECU
P1630/ 64 (DI−932)	Communication error from skid control ECU to ECM	• Wire harness or connector • Skid control ECU • ECM
U0100/ 65 (DI−934)	Communication error from ECM to skid control ECU	• Wire harness or connector • ECM • Skid control ECU
P1575/ 66 (DI−919)	Warning buzzer malfunction	• VSC system (Buzzer active test) • VSC buzzer • Wire harness or connector • Skid control ECU
* P1576/ 67 (DI−920)	Steering angle sensor malfunction	• VSC system • Steering position sensor • Wire harness or connector • ECM

* P1577/ 68 (DI−921)	Yaw rate sensor malfunction	• VSC system • Yaw rate sensor • Wire harness or connector • ECM
* P1578/ 69 (DI−922)	Brake system malfunction	• VSC system • ECM
U0235/ 71 (DI−928)	Communication error from laser radar sensor to distance control ECU	• Wire harness or connector • Laser radar sensor • Distance control ECU
U0235/ 72 (DI−930)	Communication error from distance control ECU to laser radar sensor	• Wire harness or connector • Laser radar sensor • Distance control ECU
P1570/ 73 (DI−917)	laser radar sensor malfunction	• Laser radar sensor
P1572/ 75 (DI−918)	Improper aiming of laser radar sensor beam axis	• Laser radar sensor

HINT:

*: When DTC P1576 (67), P1577 (68) and / or P1578 (69) is output, check the skid control ECU for DTC in the diagnosis mode. Only when any code is output, inspect the trouble area according to the DTC.

For P1576 (67) and P1577 (68) especially, if no DTC is detected in the skid control ECU, the DTC may be caused by the driving condition with adaptive radar cruise control, such as a case of driving on a road with consecutive curves immediately after starting the vehicle.

Provide your customers with the information that the radar cruise control will not properly function if he/she drives the vehicle on a road with consecutive curves and does not drive straight immediately after start.

Because the steering sensor or yaw rate sensor itself is not regarded as faulty in this case, its replacement is not necessary.

Clear the DTC and recheck the operation on an ordinary road (radar cruise control).

DI8S7−03

DIAGNOSTIC TROUBLE CODE CHART

DTC No. (See page)	Detection Item	Trouble Area
B2780 (DI−952)	Key Unlock Warning Switch Malfunction	• Key unlock warning switch
B2793 (DI−955)	Transponder Chip Malfunction	• Key
B2794 (DI−956)	Unmatched Encryption Code	• Key • Transponder key amplifier
P0513 (DI−957)	Unmatched key code	• Key • Unregistered key inserted before
B2796 (DI−958)	No communication in immobiliser system	• Key • Transponder key amplifier (w/ Coil) • Wire harness • Transponder key ECU
B2797 (DI−960)	Communication malfunction No.1	• Key • Wire harness • Transponder key amplifier (w/ Coil) • Transponder key ECU
B2798 (DI−963)	Communication malfunction No.2	• Key • Transponder key amplifier (w/ Coil) • Wire harness • Transponder key ECU
B2799 (DI−966)	Engine immobiliser system	• Wire harness • Transponder key ECU • ECM

DI8JK–02

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during the DTC check, check the circuit listed for that code in the table below and proceed to the appropriate page.

DTC No. (See Page)	Detection Item	Trouble Area
B1244 (DI–1055)	Light sensor circuit malfunction	• Light sensor • Driver side J/B ECU
B1268 (DI–1057)	Back–up communication bus malfunction (between Combination Switch ECU and Driver Side J/B ECU)	• Wire harness • Combination switch ECU • Driver side J/B ECU

DI8O3–02

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during the DTC check, check the circuit listed for that code in the table below and proceed to the appropriate page.

DTC No. (See Page)	Circuit Inspection	Trouble Area
B1268 (DI–1150)	Back–up communication bus malfunction (between Driver Side J/B ECU and Luggage Room J/B ECU)	• Wire harness • Luggage room J/B ECU
B2402 (DI–1153)	Transistor relay overload malfunction	• Luggage room J/B ECU • Wire harness
B2403 (DI–1153)	Transistor relay overheat malfunction	• Luggage room J/B ECU • Wire harness

DI8UU−02

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during DTC check, find the circuit corresponding to the code in the table below and proceed to the appropriate page.

DTC No. (See Page)	Circuit Inspection	Trouble Area
B1221 (DI−1232)	Power Window Switch Circuit on Driver Door	• Power window switch • Wire harness • Driver door ECU
B1222 (DI−1232)	Door Lock Switch Circuit on Driver Door	• Door lock switch • Door key lock and unlock switch • Wire harness • Driver door ECU
B1231 (DI−1233)	Jam Protection Limit Switch Circuit on Driver Door	• Jam protection limit switch • Wire harness • Driver door ECU
B1232 (DI−1236)	Jam Protection Pulse Switch Circuit on Driver Door	• Jam protection pulse switch • Wire harness • Driver door ECU
B2211 (DI−1238)	Door Closer Motor Malfunction on Driver Door	• Door closer motor • Wire harness • Driver door ECU

DI8SI−02

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during DTC check, find the circuit corresponding to the code in the table below and proceed to the appropriate page.

DTC No. (See Page)	Circuit Inspection	Trouble Area
B1223 (DI−1297)	Power Window Switch Circuit on Passenger Door	• Power window switch • Manual door lock switch • Wire harness • Passenger door lock switch
B1224 (DI−1298)	Door Lock Switch Circuit on Passenger Door	• Door lock switch • Wire harness • Front passenger door ECU
B1233 (DI−1298)	Jam Protection Limit Switch Circuit on Passenger Door	• Jam protection limit switch • Wire harness • Front passenger door ECU
B1234 (DI−1301)	Jam Protection Pulse Switch Circuit on Passenger Door	• Jam protection pulse switch • Wire harness • Front passenger door ECU
B2212 (DI−1303)	Door Closer Motor Malfunction on Passenger Door	• Door closer motor • Wire harness • Front passenger door ECU

DI8QN−02

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during DTC check, find the circuit corresponding to the code in the table below and proceed to the appropriate page.

DTC No. (See Page)	Circuit Inspection	Trouble Area
B1226 (DI−1402)	Power Window Switch Circuit on Rear Left Door	• Power window switch • Wire harness • Rear door LH ECU
B1237 (DI−1403)	Jam Protection Limit Switch Circuit on Rear Left Door	• Jam protection limit switch • Wire harness • Rear door LH ECU
B1238 (DI−1406)	Jam Protection Pulse Switch Circuit on Rear Left Door	• Jam protection pulse switch • Wire harness • Rear door LH ECU
B2214 (DI−1408)	Door Closer Motor Malfunction on Rear Left Door	• Door closer motor • Wire harness • Rear door LH ECU

DI8PW−02

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during DTC check, find the circuit corresponding to the code in the table below and proceed to the appropriate page.

DTC No. (See Page)	Circuit Inspection	Trouble Area
B1225 (DI−1355)	Power Window Switch Circuit on Rear Right Door	• Power window switch • Wire harness • Rear door RH ECU
B1235 (DI−1356)	Jam Protection Limit Switch Circuit on Rear Right Door	• Jam protection limit switch • Wire harness • Rear door RH ECU
B1236 (DI−1359)	Jam Protection Pulse Switch Circuit on Rear Right Door	• Jam protection pulse switch • Wire harness • Rear door RH ECU
B2213 (DI−1361)	Door Closer Motor Malfunction on Rear Right Door	• Door closer motor • Wire harness • Rear door RH ECU

DI8OV−02

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during DTC check, check the circuit corresponding to the code in the table below (Proceed to the page given for the circuit).

DTC No. (See Page)	Detection Item	Trouble Area
B1211 (DI−1472)	Driver door ECU communication stop	• Wire harness • Driver door ECU
B1212 (DI−1474)	Passenger door ECU communication stop	• Wire harness • Passenger door ECU
B1213 (DI−1476)	Tilt and telescopic ECU communication stop	• Wire harness • Tilt and telescopic ECU
B1214 B1215 (DI−1478)	Door system communication bus malfunction (+B short)	• Wire harness • ECU (Door system bus)
	Door system communication bus malfunction (GND short)	
B1216 (DI−1484)	Rear right door ECU communication stop	• Wire harness • Rear door RH ECU
B1217 (DI−1486)	Rear left door ECU communication stop	• Wire harness • Rear door LH ECU
*B1219 (DI−1488)	Rear seat switch communication stop	• Wire harness • Rear seat switch
B1248 (DI−1490)	AVC−LAN communication impossible	• Wire harness • ECU (AVC−LAN system bus)
B1261 (DI−1492)	Engine ECU communication stop	• Wire harness • ECM
B1262 (DI−1494)	A/C ECU communication stop	• Wire harness • A/C ECU
B1263 (DI−1496)	Luggage room junction block ECU communication stop	• Wire harness • Luggage room junction block ECU
B1266 B1267 (DI−1498)	Instrument panel system communication bus malfunction (+B short)	• Wire harness • ECU (Instrument system bus)
	Instrument panel system communication bus malfunction (GND short)	
B1269 (DI−1503)	Theft deterrent ECU communication stop	• Wire harness • Theft deterrent ECU
B1271 (DI−1505)	Combination meter ECU communication stop	• Wire harness • Combination meter ECU
*B1272 (DI−1507)	Power seat ECU communication stop	• Wire harness • Driver seat ECU
*B1273 (DI−1509)	Sliding roof ECU communication stop	• Wire harness • Moon roof control ECU
*B1275 (DI−1511)	Accessory bus buffer communication stop	• Wire harness • Accessory bus buffer ECU
*B1277 (DI−1513)	Center cluster integration panel communication stop	• Wire harness • Center cluster integration panel
B1278 (DI−1515)	Combination switch ECU communication stop	• Wire harness • Combination switch ECU
*B1279 (DI−1517)	Rain sensor communication stop	• Wire harness • Rain sensor
B1281 (DI−1519)	Airbag ECU communication stop	• Wire harness • Airbag sensor assembly

B1282 (DI−1521)	Skid control ECU communication stop	• Wire harness • Skid control ECU
B1283 (DI−1523)	Driver side junction block ECU communication stop	• Wire harness • Driver side junction block ECU
B1284 (DI−1525)	Passenger side junction block ECU communication stop	• Wire harness • Passenger side junction block ECU
B1285 (DI−1527)	Steering pad switch communication stop	• Wire harness • Steering pad switch
B1291 B1292 (DI−1529)	Light control system communication bus malfunction (+B short)	• Wire harness • ECU (Light control system bus)
	Light control system communication bus malfunction (GND short)	
B1294 (DI−1534)	Immobiliser ECU communication stop	• Wire harness • Transponder key ECU
B1296 (DI−1536)	Front light ECU communication stop	• Wire harness • Front light ECU
*B1297 (DI−1538)	Clearance sonar ECU communication stop	• Wire harness • Clearance sonar ECU
*B1298 (DI−1540)	Rear right seat ECU communication stop	• Wire harness • Rear RH seat ECU
*B1299 (DI−1542)	Rear left seat ECU communication stop	• Wire harness • Rear LH seat ECU

HINT:

- *: Optional setting
- When DTC of ”+B or GND short malfunction of communication bus (such as B1214, B1215 etc.)” and ”communication stop (such as B1211, B1212 etc.)” is detected simultaneously, please repair DTC of ”+B or GND short malfunction of communication bus first.

DI8QZ−01

DIAGNOSTIC TROUBLE CODE CHART

Terms	Meaning
Physical address	Three−digit code (shown in hexadecimal) which is given to each component comprising the AVC−LAN. Corresponding to the function, individual symbols are specified.
Logical address	Two−digit code (shown in hexadecimal) which is given to each function comprising the inner system of the AVC−LAN.

1. GATEWAY ECU (Physical address: 1C4)

HINT:

*1: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D4 *1	Regular Communication Error	Component in which this code is recorded has been disconnected after engine start. Or, when this code was recorded, multi−display was disconnected.	• Check harness for power supply system of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for power supply system of gateway ECU. • Check harness for communication system of gateway ECU.

2. RADIO AND PLAYER (Physical address: 190)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting the engine.
- *2: This code is stored when 180 sec. has passed after the power supply connector is pulled out after engine start.
- *3: This code may be stored when the engine key is turned again 1 min. after engine start.
- *4: This code may be stored when the engine key is turned again after engine start.
- *5: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

(a) Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded has been disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply system of multi−display. • Check harness for communication system of multi−display. • Check harness for power supply system of radio and player. • Check harness for communication system of radio and player.
D8 *2	No Response to Connection Check	Component shown by auxiliary code is or had been disconnected from system after engine is start.	• Check harness for power supply system of component shown by auxiliary code. • Check harness for communication system of component shown by auxiliary code.
D9 *1	Last Mode Error	Component operated (sounds and/or images were provided) before engine stop is or has been disconnected with ignition switch in ACC or ON.	• Check harness for power supply system of component shown by auxiliary code. • Check harness for communication system of component shown by auxiliary code.

DA	No Response to ON/OFF Instruction	No response is identified when changing mode (audio and visual mode change). Detected when sound and picture does not change by button operation.	• Check harness for power supply system of component shown by auxiliary code. • Check harness for communication system of component shown by auxiliary code. • If error occurs again, replace component shown by auxiliary code.
DB *1	Mode Status Error	Dual alarm is detected.	• Check harness for power supply of component shown by auxiliary code. • Check harness for communication system of component shown by auxiliary code.
DC *3	Transmission Error	Transmission to component shown by auxiliary code has been failed. (Detecting this DTC does not necessarily mean actual failure.)	If same auxiliary code is recorded in other component, check harness for power supply and communication system of all components shown by code.
DD *4	Master Reset (Momentary Interruption)	After engine was started, multi−display assembly was disconnected from system.	• Check harness for power supply system of multi−display. • Check harness for communication system of multi−display. • Check harness for power supply system of radio and player. • Check harness for communication system of radio and player. • If this error occurs frequently, replace multi−display assembly.
DE *4	Slave Reset (Momentary Interruption)	After engine was started, slave component was disconnected from system.	• Check harness for power supply of component shown by auxiliary code. • Check harness for communication system of component shown by auxiliary code.
DF *5	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub−master (audio) and master component.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for communication system between multi−display assembly and sub−master component.
E0 *1	Registration Completion Instruction Error	”Registration Completion Instruction” command from master cannot be received.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E1 *1	Audio processor ON error	While source equipment is operating, AMP output is stopped.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly.
E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from multi−display assembly.	Replace multi−display assembly.
E3 *1	Registration Request Transmission	Registration Request command is output from slave component. Receiving Connection Check Instruction, Registration Request command is output from sub−master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

(b) Logical address: 61 (Cassette switch)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
40	Mechanical error of Media	Malfunction due to mechanical failure is identified. Or cassette tape is cut or entangled.	• Inspect cassette tape. • Replace radio and player.

(c) Logical address: 63 (In−dash CD changer)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
42	No Disc Readout	Disc cannot be read.	Inspect CD.
44	CD Error	Error is detected in CD player.	Replace radio and player.
45	EJECT Error	Disc cannot be ejected.	Replace radio and player.
47	CD High Temp.	High temperature is detected in CD changer.	Replace radio and player.
48	CD Excess Current	Excess current is applied to CD changer.	Replace radio and player.

3. STEREO COMPONENT AMPLIFIER (Physical address: 440)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting an engine.
- *2: This code be stored when the engine key is turned again 1 min. after engine start.
- *3: This code may be stored when the engine key is turned again after engine start.
- *4: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded has been disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply of radio and player. • Check harness for communication system of radio and player. • Check harness for power supply of stereo component amplifier. • Check harness for communication system of stereo component amplifier.
D7	Communication Check Error	Component in which this code is recorded is or was disconnected from system after engine start. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply of radio and player. • Check harness for communication system of radio and player. • Check harness for power supply of stereo component amplifier. • Check harness for communication system of stereo component amplifier.
DC *2	Transmission Error	Transmission to component shown by auxiliary code has been failed. (Detecting this DTC does not necessarily mean actual failure.)	If same auxiliary code is recorded in other component, check harness for power supply and communication system of all components shown by code.
DD *3	Master Reset (Momentary Interruption)	After engine was started, multi−display assembly was disconnected from system.	• Check harness for power supply of radio and player. • Check harness for communication system of radio and player. • Check harness for power supply of stereo component amplifier. • Check harness for communication system of stereo component amplifier. • If this error occurs frequently, replace multi−display assembly.

DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub−master (audio) and master component.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for communication system between multi−display assembly and sub−master component.
E0 *1	Registration Completion Instruction Error	”Registration Completion Instruction” command from master cannot be received.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E1 *1	Audio processor ON error	While source equipment is operating, AMP output is stopped.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly.
E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from multi−display assembly.	Replace multi−display assembly.
E3 *1	Registration Request Transmission	• Registration Request command is output from slave component. • Registration Connection Check Instruction, Registration Request command is output from sub−master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

4. STEREO COMPONENT TURNER (Physical address: 1FO)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting an engine.
- *2: This code may be stored when the engine key is turned again 1 min. after engine start.
- *3: This code may be stored when the engine key is turned again after engine start.
- *4: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded has been disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply of stereo component tuner. • Check harness for communication system of stereo component tuner. • Check harness for power supply system of radio and player. • Check harness for communication system radio and player.
D7	Communication Check Error	Component in which this code is recorded is or was disconnected from system after engine start. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply of stereo component tuner. • Check harness for communication system of stereo component tuner. • Check harness for power supply system of radio and player. • Check harness for communication system radio and player.
DC *2	Transmission Error	Transmission to component shown by auxiliary code has been failed. (Detecting this DTC does not necessarily mean actual failure.)	If same auxiliary code is recorded in other component, check harness for power supply and communication system of all components shown by code.

DD *3	Master Reset (Momentary Interruption)	After engine start multi−display assembly was disconnected from system.	• Check harness for power supply system of stereo component tuner. • Check harness for communication system of stereo component tuner. • Check harness for power supply system of radio and player. • Check harness for communication system radio and player. • If this error occurs frequently, replace multi−display assembly.
DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub−master (audio) and master component.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for communication system between multi−display assembly and radio and player.
E0 *1	Registration Completion Instruction Error	”Registration Completion Instruction” command from master cannot be received.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from radio and player.	Replace radio and player.
E3 *1	Registration Request Transmission	• Registration Request command is output from slave component. • Receiving Connection Check Instruction, Registration Request command is output from sub−master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

5. AUDIO AND A/C CONTROL SWITCH (Physical address: 1CO)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting an engine.
- *2: This code may be stored when the engine key is turned again 1. minafter engine start.
- *3: This code may be stored when the engine key is turned again after engine start.
- *4: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded has been disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply system of multi−display. • Check harness for communication system multi−display. • Check harness for power supply system of audio and rear A/C control switch. • Check harness for communication system audio and rear A/C control switch.
D7 *2	Communication Check Error	Component in which this code is recorded is or was disconnected from system after engine start. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply system of multi−display. • Check harness for communication system of multi−display. • Check harness for power supply system of audio and rear A/C control switch. • Check harness for communication system audio and rear A/C control switch

DC *2	Transmission Error	Transmission to component shown by auxiliary code has been failed. (Detecting this DTC does not necessarily mean actual failure.)	If same auxiliary code is recorded in other component, check harness for power supply and communication system of all components shown by code.
DD *3	Master Reset (Momentary Interruption)	After engine start, multi−display assembly was disconnected from system.	• Check harness for power supply system of multi−display. • Check harness for communication system of multi−display. • Check harness for power supply system of audio and rear A/C control switch. • Check harness for communication system of audio and rear A/C control switch • If this error occurs frequently, replace multi−display assembly.
DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub−master (audio) and master component.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for communication system between multi−display assembly and radio and player.
E0 *1	Registration Completion Instruction Error	”Registration Completion Instruction” command from master cannot be received.	Since this DTC is provided for engineering, it may be detected when no actual failure exists.
E3 *1	Registration Request Transmission	• Registration Request command is output from slave component. • Receiving Connection Check Instruction, Registration Request command is output from sub−master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

DI27Z−11

DIAGNOSTIC TROUBLE CODE CHART

Terms	Meaning
Physical address	Three−digit code (shown in hexadecimal) which is given to each component comprising the AVC−LAN. Corresponding to the function, individual symbols are specified.
Logical address	Two−digit code (shown in hexadecimal) which is given to each function comprising the inner system of the AVC−LAN.

1. MULTI DISPLAY (Physical address: 110)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting an engine.
- *2: This code is stored when 180 sec. has passed after the power supply connector is pulled out after engine start.
- *3: This code may be stored when the engine key is turned again after engine start.
- *4: This code may be stored when the engine key is turned again 1 min. after engine start.

(a) Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
21	ROM Error	Abnormal condition of ROM is detected.	Replace multi−display assembly.
22	RAM Error	Abnormal condition of RAM is detected.	Replace multi−display assembly.
D5 *1	Registered component disconnected	Component shown by sub−code is or was disconnected from system with ignition switch in ACC or ON. Communication with component shown by sub−code is not ensured when engine is started.	• Check harness for power supply of component shown by sub−code. • Check harness for communication system of component shown by sub−code.
D8 *2	No response to connection check	Component shown by sub−code is or was disconnected from system after engine is started.	• Check harness for power supply of component shown by sub−code. • Check harness for communication system of component shown by sub−code.
D9 *1	Last Mode Error	Component operated (sound and/or image was provided) before engine stop is or was disconnected with ignition switch in ACC or ON.	• Check harness for power supply of component shown by sub−code. • Check harness for communication system of component shown by sub−code.
DA	No Response to ON/OFF Instruction	No response is identified when changing mode (audio and visual mode change). Detected when sound and picture does not change by button operation	• Check harness for power supply system of component shown by sub−code. • Check harness for communication system of component shown by sub−code. • If error occurs again, replace component shown by auxilxary code
DB *1	Mode Status Error	Dual alarm is detected.	• Check harness for power supply system of component shown by sub−code. • Check harness for communication system of component shown by sub−code.
DC *4	Transmission Error	Transmission to component shown by sub−code has been failed. (This code does not necessarily mean actual failure.)	If same sub−code is recorded in other component(s), check harness for power supply and communication system of all components shown by code.
DE *3	Slave Reset (Momentary Interruption)	After engine start, slave component has been disconnected. DB	• Check harness for power supply system of component shown by sub−code. • Check harness for communication system of component shown by sub−code.

E2	ON/OFF Instruction Parameter Error	Error is detected in ON/OFF control command from multi−display assembly.	Replace multi−display assembly.
E3 *1	Registration Request Transmission	• Registration Request command is output from slave component. • By reception of connection check instruction, Registration Request command is output from sub−master component.	Since this DTC is provided for engineering, it may be detected when no actual failure exists.

(b) Logical address: 21 (Switch)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
10	Panel Switch Error	Error in panel switch input part is detected. (Error in switch control part, or internal communication error with switch control part is detected.)	• Inspect all switches on panel switch test screen in display check mode. If any of them does not function, replace multi−display assembly. • If all switches function without problem, observe them for a while.
11	Touch Switch Error	Error in touch switch sensor is detected. (Light level of LED is detected to be less than a fixed value.)	• Inspect all touch switches on touch switch test screen in display check mode. If any of lines does not react, replace multi−display assembly. • If all of vertical and horizontal lines react normally, observe them for a while.

(c) Logical address: 34 (Front passenger monitor)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
10	Error in Picture Circuit	Error in power supply system for picture circuit (abnormal voltage) is detected.	Replace multi−display assembly.
11	Back−light Error (No current)	Decline in power output from inverter circuit for back−light.	Replace multi−display assembly.
12	Back−light Error (Excess current)	Excess power output from inverter circuit for back−light.	Replace multi−display assembly.

2. GATEWAY ECU (Physical address: 1C6)

HINT:

*1: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D4 *1	Regular Communication Error	Component in which this code is recorded has been disconnected after engine start. Or, when this code was recorded, multi−display was disconnected.	• Check harness for power supply system of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for power supply system of gateway ECU. • Check harness for communication system of gateway ECU.

3. RADIO AND PLAYER (Physical address: 190)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting an engine.
- *2: This code is stored when 180 sec. has passed after the power supply connector is pulled out after engine start.
- *3: This code may be stored when the engine key is turned again 1 min. after engine start.
- *4: This code may be stored when the engine key is turned again after engine start.
- *5: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

(a) Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded has been disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply system of multi−display • Check harness for communication system of multi−display. • Check harness for power supply system of radio and player. • Check harness for communication system of radio and player.
D8 *2	No Response to Connection Check	Component shown by sub−code is or had been disconnected from system after engine is start.	• Check harness for power supply system of component shown by sub−code. • Check harness for communication system of component shown by sub−code.
D9 *1	Last Mode Error	Component operated (sounds and/or images were provided) before engine stop is or has been disconnected with ignition switch in ACC or ON.	• Check harness for power supply system of component shown by sub−code. • Check harness for communication system of component shown by sub−code.
DA	No Response to ON/OFF Instruction	No response is identified when changing mode (audio and visual mode change). Detected when sound and picture does not change by button operation.	• Check harness for power supply system of component shown by sub−code. • Check harness for communication system of component shown by sub−code. • If error occurs again, replace component shown by sub−code.
DB *1	Mode Status Error	Dual alarm is detected.	• Check harness for power supply of component shown by sub−code. • Check harness for communication system of component shown by sub−code.
DC *3	Transmission Error	Transmission to component shown by sub−code has been failed. (Detecting this DTC does not necessarily mean actual failure.)	If same sub−code is recorded in order component, check harness for power supply and communication system of all components shown by code.
DD *4	Master Reset (Momentary Interruption)	After engine is started, multi−display assembly was disconnected from system.	• Check harness for power supply system of multi−display. • Check harness for communication system of multi−display. • Check harness for power supply system of radio and player. • Check harness for communication system of radio and player. • If this error occurs frequently, replace multi−display assembly.

DE *4	Slave Reset (Momentary Interruption)	After engine is started, slave component was disconnected from system.	• Check harness for power supply of component shown by sub−code. • Check harness for communication system of component shown by sub−code.
DF *5	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub−master (audio) and master component.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for communication system between multi−display assembly and sub−master component.
E0 *1	Registration Completion Instruction Error	”Registration Completion Instruction” command from master cannot be received.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E1 *1	Audio processor ON error	While source equipment is operating, AMP output is stopped.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly.
E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from multi−display assembly.	Replace multi−display assembly.
E3 *1	Registration Request Transmission	Registration Request command is output from slave component. Receiving Connection Check Instruction, Registration Request command is output from sub−master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

(b) Logical address: 61 (Cassette tape player’s switch)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
40	Mechanical Error of Media	Malfunction due to mechanical failure is identified. Or cassette tape is cut or entangled.	• Inspect cassette tape. • Replace radio and player.

(c) Logical address: 63 (In−dash CD changer)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
42	No Disc Readout	Disc cannot be read.	Inspect CD.
44	CD Error	Error is detected in CD player.	Replace radio and player.
45	EJECT Error	Disc cannot be ejected.	Replace radio and player.
47	CD High Temp.	High temperature is detected in CD changer.	Replace radio and player.
48	CD Excess Current	Excess current is applied to CD changer.	Replace radio and player.

4. NAVIGATION ECU (Physical address: 178)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting the engine.
- *2: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.
- *3: This code may be stored when the engine key is turned 1 min. again after engine start.
- *4: This code may be stored when the engine key is turned again after engine start.

(a) Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded has been disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply system of multi−display. • Check harness for communication system of multi−display. • Check harness for power supply system of navigation ECU. • Check harness for communication system of navigation ECU.
D7 *2	Connection Check Error	Component in which this code is recorded has been disconnected from system after engine start. Or, when this code was recorded, multi−display assembly was disconnected. D6	• Check harness for power supply system of multi−display. • Check harness for communication system of multi−display. • Check harness for power supply system of navigation ECU. • Check harness for communication system of navigation ECU.
DC *3	Transmission Error	Transmission to component shown by sub−code has been failed. (This code does not necessarily mean actual failure.)	If same sub−code is recorded in other component(s), check harness for power supply and communication system of all components shown by code.
DD *4	Master Reset (Momentary Interruption)	Component that is to be master has been disconnected after engine start.	• Check harness for power supply system of multi−display assembly. • Check harness for communication system of multi−display assembly. • If error occurs frequently, replace multi−display assembly.
E0 *1	Registration Completion Instruction Error	”Registration Completion Instruction” command from master cannot be received.	Since this DTC is provided for engineering, it may be detected when no actual failure exists.
E2	ON/OFF Instruction Parameter Error	Error is detected in ON/OFF control command from multi−display assembly.	Replace multi−display assembly.
E3 *1	Registration Request Transmission	• Registration Request command is output from slave component. • Registration Request command is output from sub−master component.	Since this DTC is provided for engineering, it may be detected when no actual failure exists.

DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub−master (audio) and master component.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for communication system between multi−display assembly and radio and player.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

(b) Logical address: 80 (Navigation ECU)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
10	Gyro Error	Error in gyro sensor is detected. (Abnormal value in voltage output from sensor is detected for more than specified time.)	Replace navigation ECU.
42	Map Disc Error	Data cannot be read for a certain time due to scratches or dirt on disc surface or insertion of wrong disc.	Inspect disc and replace if necessary. (Visually check disc surface and wipe it with soft cloth.)
43	Vehicle Signal Error	Input error of vehicle signal is detected. (When no vehicle signal has been input for a certain time.)	• Inspect wire harness. • If wire harness is normal, replace navigation ECU.
44	Player Error	Malfunction of playre continues for a certain length of time.	• Check if disc can be inserted/taken out or not. If not, replance navigation ECU. • If it can be inserted/taken out and this code is output, replace navigation ECU.

(c) Logical address: 80 (GPS receiver)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
11	GPS Receiver Error	Operation error of GPS receiver is detected.	At an outdoor site with a clear view, operate to display GPS data. If GPS mark is not properly displayed after 15 min. or more, replace navigation ECU.
40	GPS Antenna Error	Open condition of GPS antenna is detected. (Open circuit, connection failure of connectors, etc.)	Inspect antenna and replace if necessary.
41	Power Supply Error of GPS Antenna	Abnormal voltage of GPS antenna cable or short circuit is detected.	• Inspect GPS antenna and replace if necessary. (When no continuity is identified between connector's core and sealed part, GPS antenna is normal.) • If GPS antenna is normal, replace navigation ECU.
45	Player Temp. Too High	Readout cannot be dome because temperature around player's pickup (reading part) is too high.	• With ignition switch OFF, leave in cool shaded place for a while and recheck. • If same code detected, replace navigation ECU.

5. STEREO COMPONENT AMPLIFIER (Physical address: 440)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting an engine.
- *2: This code may be stored when the engine key is turned again 1 min. after engine start.
- *3: This code may be stored when the engine key is turned again after engine start.
- *4: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded has been disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply of multi display. • Check harness for communication system of multi display. • Check harness for power supply of stereo component amplifier. • Check harness for communication system of stereo component amplifier.
D7	Communication Check Error	Component in which this code is recorded is or was disconnected from system after engine start. Or, when recording this code, multi−display assembly was disconnected.	• Check harness for power supply of multi display. • Check harness for communication system of multi display. • Check harness for power supply of stereo component amplifier. • Check harness for communication system of stereo component amplifier.
DC *2	Transmission Error	Transmission to component shown by sub−code has been failed. (Detecting this DTC does not necessarily mean actual failure.)	If same sub−code is recorded in other component, check harness for power supply and communication system of all components shown by code.
DD *3	Master Reset (Momentary Interruption)	After engine start, multi−display assembly was disconnected from system.	• Check harness for power supply of multi display. • Check harness for communication system of multi display. • Check harness for power supply of stereo component amplifier. • Check harness for communication system of stereo component amplifier. • If this error occurs frequently, replace multi−display assembly.
DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub−master (audio) and master component.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for communication system between multi−display assembly and sub−master component.
E0 *1	Registration Completion Instruction Error	”Registration Completion Instruction” command from master cannot be received.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E1 *1	Audio processor ON error	While source equipment is operating, AMP output is stopped.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly.

E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from multi−display assembly.	Replace multi−display assembly.
E3 *1	Registration Request Transmission	• Registration Request command is output from slave component. • Registration Connection Check Instruction, Registration Request command is output from sub−master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

6. STEREO COMPONENT TURNER (Physical address: 1F0)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting an engine.
- *2: This code may be stored when the engine key is turned again 1 min. after engine start.
- *3: This code may be stored when the engine key is turned again after engine start.
- *4: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded has been disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply of stereo component tuner. • Check harness for communication system of stereo component tuner. • Check harness for power supply system of multi display. • Check harness for communication system multi display.
D7	Communication Check Error	Component in which this code is recorded is or was disconnected from system after engine start. Or, when recording this code, multi−display assembly was disconnected.	• Check harness for power supply of stereo component tuner. • Check harness for communication system of stereo component tuner. • Check harness for power supply system of multi display. • Check harness for communication system multi display.
DC *2	Transmission Error	Transmission to component shown by sub−code has been failed. (Detecting this DTC does not necessarily mean actual failure.)	If same sub−code is recorded in order component, check harness for power supply and communication system of all components shown by code.

DD *3	Master Reset (Momentary Interruption)	After engine start, multi−display assembly was disconnected from system.	• Check harness for power supply system of stereo component tuner. • Check harness for communication system of stereo component tuner. • Check harness for power supply system of multi display. • Check harness for communication system multi display. • If this error occurs frequently, replace multi−display assembly.
DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub−master (audio) and master component.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for communication system between multi−display assembly and radio and player.
E0 *1	Registration Completion Instruction Error	”Registration Completion Instruction” command from master cannot be received.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from radio and player.	Replace multi display.
E3 *1	Registration Request Transmission	• Registration Request command is output from slave component. • Receiving Connection Check Instruction, Registration Request command is output from sub−master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

7. AUDIO AND REAR A/C CONTROL SWITCH (Physical address: 1C0)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting an engine.
- *2: This code may be stored when the engine key is turned again 1 min. after engine start.
- *3: This code may be stored when the engine key is turned again after engine start.
- *4: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded has been disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply system of multi−display. • Check harness for communication system multi−display. • Check harness for power supply system of audio and rear A/C control switch. • Check harness for communication system audio and rear A/C control switch.
D7 *2	Communication Check Error	Component in which this code is recorded is or was disconnected from system after engine start. Or, when recording this code, multi−display assembly was disconnected.	• Check harness for power supply system of multi−display. • Check harness for communication system of multi−display. • Check harness for power supply system of audio and rear A/C control switch. • Check harness for communication system audio and rear A/C control switch

DC *2	Transmission Error	Transmission to component shown by sub−code has been failed. (Detecting this DTC does not necessarily mean actual failure.)	If same sub−code is recorded in order component, check harness for power supply and communication system of all components shown by code.
DD *3	Master Reset (Momentary Interruption)	After engine start, multi−display assembly was disconnected from system.	• Check harness for power supply system of multi−display. • Check harness for communication system multi−display. • Check harness for power supply system of audio and rear A/C control switch. • Check harness for communication system audio and rear A/C control switch • If this error occurs frequently, replace multi−display assembly.
DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub−master (audio) and master component.	• Check harness for power supply of multi−display assembly. • Check harness for communication system of multi−display assembly. • Check harness for communication system between multi−display assembly and radio and player.
E0 *1	Registration Completion Instruction Error	”Registration Completion Instruction” command from master cannot be received.	Since this DTC is provided for engineering, it may be detected when no actual failure exists.
E3 *1	Registration Request Transmission	• Registration Request command is output from slave component. • Receiving Connection Check Instruction, Registration Request command is output from sub−master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

8. TELEPHONE ECU (Physical address :17C)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting an engine.
- *2: This code may be stored when the engine key is turned again 1 min. after engine start.
- *3: This code may be stored when the engine key is turned again after engine start.
- *4: When 210 sec. has passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
21	ROM Error	Abnormal condition of ROM is detected.	Replace multi−display assembly.
22	RAM Error	Abnormal condition of RAM is detected.	Replace multi−display assembly.
D6 *1	Absence of Master	Component in which this code is recorded has been disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi−display assembly was disconnected.	• Check harness for power supply of radio and player. • Check harness for communication system of radio and player. • Check harness for power supply of stereo component amplifier. • Check harness for communication system of stereo component amplifier.

D7	Communication Check Error	Component in which this code is recorded is or was disconnected from system after engine start. Or, when recording this code, multi−display assembly was disconnected.	• Check harness for power supply of radio and player. • Check harness for communication system of radio and player. • Check harness for power supply of telephone tranceiver and speaker relay. • Check harness for communication system of telephone tranceiver and speaker relay.
DC *2	Transmission Error	Transmission to component shown by sub−code has been failed. (Detecting this DTC does not necessarily mean actual failure.)	If same sub−code is recorded in order component, check harness for power supply and communication system of all components shown by code.
DD *3	Master Reset (Momentary Interruption)	After engine start, multi−display assembly was disconnected from system.	• Check harness for power supply of radio and player. • Check harness for communication system of radio and player. • Check harness for power supply of telephone receiver and speaker relay. • Check harness for communication system of telephone receiver and speaker relay. • If this error occurs frequently, replace multi−display assembly.
E0 *1	Registration Completion Instruction Error	”Registration Completion Instruction” command from master cannot be received.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from multi−display assembly.	Replace multi−display assembly.
E3 *1	Registration Request Transmission	• Registration Request command is output from slave component. • Registration Connection Check Instruction, Registration Request command is output from sub−master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

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DIAGNOSTIC TROUBLE CODE CHART

DTC No. (See Page)	Circuit Inspection	Trouble Area
No DTC	”System OK”	−
1 (DI−1729)	”Code 1” GPS antenna failure	• GPS antenna • Telephone ECU (Mayday ECU) • Wire harness
2 (DI−1730)	”Code 2” Button module failure	• Mayday switch • Telephone ECU (Mayday ECU) • Wire harness
3 (DI−1732)	”Code 3” Transceiver failure	• Transceiver • Telephone ECU (Mayday ECU) • Wire harness
4 (DI−1734)	”Code 4” ECU failure	Telephone ECU (Mayday ECU)
5 (DI−1735)	”Code 5” Back−up battery failure	• Back−up battery • Telephone ECU (Mayday ECU) • Wire harness
6 (DI−1737)	”Code 6” Loss of BEAN communication	• Accessory bus buffer • Telephone ECU (Mayday ECU) • Wire harness

HINT:

After all of the instruction messages have been provided, the voice of ”Diagnostic complete” follows.

DI8MW−02

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during the DTC check, check the circuit listed for that code in the table below and proceed to the appropriate page.

DTC No. (See page)	Circuit Inspection	Trouble Area
B2231 (DI−1762)	Front Left Side sensor Malfunction	• Front Left Side sensor • Wire harness
B2232 (DI−1764)	Front Left sensor Malfunction	• Front Left sensor • Wire harness
B2233 (DI−1766)	Front Left Center sensor Malfunction	• Front Left Center sensor • Wire harness
B2234 (DI−1768)	Front Right Center sensor Malfunction	• Front Right Center sensor • Wire harness
B2235 (DI−1770)	Front Right sensor Malfunction	• Front Right sensor • Wire harness
B2236 (DI−1772)	Front Right Side sensor Malfunction	• Front Right Side sensor • Wire harness
B2237 (DI−1774)	Rear Left sensor Malfunction	• Rear Left sensor • Wire harness
B2238 (DI−1776)	Rear Left Center sensor Malfunction	• Rear Left Center sensor • Wire harness
B2239 (DI−1778)	Rear Right Center sensor Malfunction	• Rear Right Center sensor • Wire harness
B2241 (DI−1780)	Rear Right sensor Malfunction	• Rear Right sensor • Wire harness

DI8BI−03

DIAGNOSTIC TROUBLE CODE CHART

If malfunction code is displayed during the DTC check (sensor check), check the circuit listed for that code in the table below (Proceed to the page given for that circuit.)

DTC No. (See Page)	Detection Item	Trouble Area	Memory*6
B1400/00	Normal		
B1411/11*1 (DI−1809)	Room temperature sensor circuit	• Room temperature sensor • Harness or connector between room temperature sensor and A/C ECU • A/C ECU	○ (8.5 min. or more)
B1412/12*2 (DI−1812)	Ambient temperature sensor circuit	• Ambient temperature sensor • Harness or connector between ambient temperature sensor and ECM • ECM	○ (8.5 min. or more)
B1413/13 (DI−1815)	Evaporator temperature sensor circuit	• Evaporator temperature sensor • Harness or connector between evaporator temperature sensor and A/C ECU • A/C ECU	○ (8.5 min. or more)
B1415/15 (DI−1818)	Duct sensor circuit (Driver side)	• Duct sensor (Driver side) • Harness or connector between duct sensor and A/C ECU • A/C ECU	○ (8.5 min. or more)
B1416/16 (DI−1821)	Duct sensor circuit (Passenger side)	• Duct sensor (Passenger side) • Harness or connector between duct sensor and A/C ECU • A/C ECU	○ (8.5 min. or more)
B1418/18 (DI−1824)	Exhaust gas sensor circuit (HC, CO)	• Exhaust gas sensor • Harness or connector between exhaust gas sensor and A/C ECU • A/C ECU	−
B1421/21*3 (DI−1827)	Solar sensor circuit (Passenger side)	• Solar sensor (Front side) • Harness or connector between solar sensor and A/C ECU • A/C ECU	− ○ (8.5 min. or more)
B1422/22*5 (DI−1830)	All conditions below are detected for 3 secs. or more. (a) Engine speed : 450 rpm or more (b) Ratio between engine and compressor rpm deviates 20% or more in comparison to normal operation	• Compressor drive belt • Compressor lock sensor • Compressor • Harness and connector between ECM and compressor, compressor lock sensor • ECM	−
B1423/23 (DI−1833)	Open in pressure sensor circuit Abnormal refrigerant pressure [below 181 kPa (1.8 kgf/cm^2, 26 psi) over 3,110 kPa (31.1 kgf/cm^2, 451 psi)]	• Pressure sensor • Harness or connector between pressure switch and A/C amplifier • Refrigerant pipe line • A/C ECU	−
B1424/24*4 (DI−1836)	Solar sensor circuit (Driver side)	• Solar sensor (Front side) • Harness or connector between solar sensor and A/C ECU • A/C ECU	− ○ (8.5 min. or more)
B1428/28*7 (DI−1839)	Solar sensor circuit (Rear side)	• Solar sensor (Rear side) • Harness or connector between solar sensor and A/C ECU • A/C ECU	− ○ (8.5 min. or more)

DTC No. (See Page)	Detection Item	Trouble Area	Memory
B1432/32 (DI−1842)	Air inlet damper position sensor circuit	• Air inlet damper position sensor • A/C ECU • Harness or connector between air inlet damper position sensor and A/C ECU	○ (1 min. or more)
B1434/34 (DI−1847)	Cool air bypass damper position sensor circuit (Driver side)	• Cool air bypass damper position sensor (Driver side) • A/C ECU • Harness or connector between cool air bypass damper position sensor and A/C ECU	○ (1 min. or more)
B1435/35 (DI−1851)	Cool air bypass damper position sensor circuit (Passenger side)	• Cool air bypass damper position sensor (Passenger side) • A/C ECU • Harness or connector between cool air bypass damper position sensor and A/C ECU	○ (1 min. or more)
B1442/42 (DI−1855)	Air inlet damper control servomotor	• Air inlet damper control servomotor • Air inlet damper position sensor • Harness and connector between A/C ECU and air inlet position sensor • Harness and connector between A/C ECU and air inlet damper control servomotor • A/C ECU	○ (15 secs. or more)
B1451/51 (DI−1858)	Solenoid of the externally changeable compressor circuit	• Compressor • Harness and connector between A/C ECU and solenoid of the externally changeable compressor • A/C ECU	○ (1 min. or more)
B1461/61 (DI−1861)	Exhaust gas sensor circuit (NOx)	• Exhaust gas sensor • Harness or connector between exhaust gas sensor and A/C ECU • A/C ECU	−

HINT:

- *1 If the room temp. is approx. −20˚C (−4˚F) of less, DTC B1411/11 maybe output even though the system is normal.
- *2 If the ambient temperature is approx. −50˚C (−58˚F) or less, a DTC maybe output even though the system is normal.
- *3 If the check is being performed in a dark place, DTC B1421/21 (solar sensor circuit abnormal) could be displayed. In this case, perform DTC check again while shining a light, such as inspection light, on the solar sensor. If DTC B1421/21 is still displayed, there could be trouble in the solar sensor circuit.
- *4 If the check is being performed in a dark place, DTC B1424/24 (solar sensor circuit abnormal) could be displayed. In this case, perform DTC check again while shining a light, such as inspection light, on the solar sensor. If DTC B1424/24 is still displayed, there could be trouble in the solar sensor circuit.
- *5 Compressor lock (DTC B1422/22) is indicated only for a current malfunction (See page DI−1830). To confirm DTC B1422/22, perform the following steps.
  (1) With the engine ON, enter the DTC check mode.
  (2) Press the R/F switch to enter actuator check mode, and set the operation to Step No. 3.
  (3) Press the AUTO switch to return to DTC check mode.
  (4) The DTC is displayed after approx. 3 secs.
- *6 The A/C control assembly memorizes the DTC of the respective malfunction when it occurs for period of time indicated in the brackets.
- *7 If the check is being performed in a dark place, DTC B1421/21 (solar sensor circuit abnormal) could be displayed. In this case, perform DTC check again while shining a light, such as inspection light, on the solar sensor. If DTC B1421/21 is still displayed, there could be trouble in the solar sensor circuit.

DI8BI−03

DIAGNOSTIC TROUBLE CODE CHART

If malfunction code is displayed during the DTC check (sensor check), check the circuit listed for that code in the table below (Proceed to the page given for that circuit.)

DTC No. (See Page)	Detection Item	Trouble Area	Memory*6
B1400/00	Normal		
B1411/11*1 (DI−1809)	Room temperature sensor circuit	• Room temperature sensor • Harness or connector between room temperature sensor and A/C ECU • A/C ECU	○ (8.5 min. or more)
B1412/12*2 (DI−1812)	Ambient temperature sensor circuit	• Ambient temperature sensor • Harness or connector between ambient temperature sensor and ECM • ECM	○ (8.5 min. or more)
B1413/13 (DI−1815)	Evaporator temperature sensor circuit	• Evaporator temperature sensor • Harness or connector between evaporator temperature sensor and A/C ECU • A/C ECU	○ (8.5 min. or more)
B1415/15 (DI−1818)	Duct sensor circuit (Driver side)	• Duct sensor (Driver side) • Harness or connector between duct sensor and A/C ECU • A/C ECU	○ (8.5 min. or more)
B1416/16 (DI−1821)	Duct sensor circuit (Passenger side)	• Duct sensor (Passenger side) • Harness or connector between duct sensor and A/C ECU • A/C ECU	○ (8.5 min. or more)
B1418/18 (DI−1824)	Exhaust gas sensor circuit (HC, CO)	• Exhaust gas sensor • Harness or connector between exhaust gas sensor and A/C ECU • A/C ECU	−
B1421/21*3 (DI−1827)	Solar sensor circuit (Passenger side)	• Solar sensor (Front side) • Harness or connector between solar sensor and A/C ECU • A/C ECU	− ○ (8.5 min. or more)
B1422/22*5 (DI−1830)	All conditions below are detected for 3 secs. or more. (a) Engine speed : 450 rpm or more (b) Ratio between engine and compressor rpm deviates 20% or more in comparison to normal operation	• Compressor drive belt • Compressor lock sensor • Compressor • Harness and connector between ECM and compressor, compressor lock sensor • ECM	−
B1423/23 (DI−1833)	Open in pressure sensor circuit Abnormal refrigerant pressure [below 181 kPa (1.8 kgf/cm^2, 26 psi) over 3,110 kPa (31.1 kgf/cm^2, 451 psi)]	• Pressure sensor • Harness or connector between pressure switch and A/C amplifier • Refrigerant pipe line • A/C ECU	−
B1424/24*4 (DI−1836)	Solar sensor circuit (Driver side)	• Solar sensor (Front side) • Harness or connector between solar sensor and A/C ECU • A/C ECU	− ○ (8.5 min. or more)
B1428/28*7 (DI−1839)	Solar sensor circuit (Rear side)	• Solar sensor (Rear side) • Harness or connector between solar sensor and A/C ECU • A/C ECU	− ○ (8.5 min. or more)

DTC No. (See Page)	Detection Item	Trouble Area	Memory
B1432/32 (DI−1842)	Air inlet damper position sensor circuit	• Air inlet damper position sensor • A/C ECU • Harness or connector between air inlet damper position sensor and A/C ECU	○ (1 min. or more)
B1434/34 (DI−1847)	Cool air bypass damper position sensor circuit (Driver side)	• Cool air bypass damper position sensor (Driver side) • A/C ECU • Harness or connector between cool air bypass damper position sensor and A/C ECU	○ (1 min. or more)
B1435/35 (DI−1851)	Cool air bypass damper position sensor circuit (Passenger side)	• Cool air bypass damper position sensor (Passenger side) • A/C ECU • Harness or connector between cool air bypass damper position sensor and A/C ECU	○ (1 min. or more)
B1442/42 (DI−1855)	Air inlet damper control servomotor	• Air inlet damper control servomotor • Air inlet damper position sensor • Harness and connector between A/C ECU and air inlet position sensor • Harness and connector between A/C ECU and air inlet damper control servomotor • A/C ECU	○ (15 secs. or more)
B1451/51 (DI−1858)	Solenoid of the externally changeable compressor circuit	• Compressor • Harness and connector between A/C ECU and solenoid of the externally changeable compressor • A/C ECU	○ (1 min. or more)
B1461/61 (DI−1861)	Exhaust gas sensor circuit (NOx)	• Exhaust gas sensor • Harness or connector between exhaust gas sensor and A/C ECU • A/C ECU	−

HINT:

- *1 If the room temp. is approx. −20˚C (−4˚F) of less, DTC B1411/11 maybe output even though the system is normal.
- *2 If the ambient temperature is approx. −50˚C (−58˚F) or less, a DTC maybe output even though the system is normal.
- *3 If the check is being performed in a dark place, DTC B1421/21 (solar sensor circuit abnormal) could be displayed. In this case, perform DTC check again while shining a light, such as inspection light, on the solar sensor. If DTC B1421/21 is still displayed, there could be trouble in the solar sensor circuit.
- *4 If the check is being performed in a dark place, DTC B1424/24 (solar sensor circuit abnormal) could be displayed. In this case, perform DTC check again while shining a light, such as inspection light, on the solar sensor. If DTC B1424/24 is still displayed, there could be trouble in the solar sensor circuit.
- *5 Compressor lock (DTC B1422/22) is indicated only for a current malfunction (See page DI−1830). To confirm DTC B1422/22, perform the following steps.
  (1) With the engine ON, enter the DTC check mode.
  (2) Press the R/F switch to enter actuator check mode, and set the operation to Step No. 3.
  (3) Press the AUTO switch to return to DTC check mode.
  (4) The DTC is displayed after approx. 3 secs.
- *6 The A/C control assembly memorizes the DTC of the respective malfunction when it occurs for period of time indicated in the brackets.
- *7 If the check is being performed in a dark place, DTC B1421/21 (solar sensor circuit abnormal) could be displayed. In this case, perform DTC check again while shining a light, such as inspection light, on the solar sensor. If DTC B1421/21 is still displayed, there could be trouble in the solar sensor circuit.