

### 11. Inspection Mode

#### A: PROCEDURE

Perform the diagnosis shown in the following DTC table.

When performing the diagnosis not listed in “List of Diagnostic Trouble Code (DTC)”, refer to the item on the drive cycle. <Ref. to HEV(diag)-32, Drive Cycle.>

- Hybrid powertrain control system

DTC	Item	Condition
P0516	Battery Temperature Sensor Circuit Low	—
P0517	Battery Temperature Sensor Circuit High	—
P0556	Brake Booster Pressure Sensor Circuit Range/Performance	After idling the engine, depress ↔ release the brake pedal.
P0572	Brake Switch "A" [Stop Lamp Switch] Circuit Low	After idling the engine, depress ↔ release the brake pedal.
P0573	Brake Switch "A" [Stop Lamp Switch] Circuit High	After idling the engine, depress ↔ release the brake pedal.
P057B	Brake Pedal Position Sensor Circuit Range/Performance	After idling the engine, depress ↔ release the brake pedal.
P057C	Brake Pedal Position Sensor Circuit Low	—
P057D	Brake Pedal Position Sensor Circuit High	—
P058D	Battery Monitor Module Voltage Monitoring Performance	—
P05DD	Brake Pedal Position Sensor "B" Circuit Low	—
P05DE	Brake Pedal Position Sensor "B" Circuit High	—
P0604	Internal Control Module Random Access Memory (RAM) Error	—
P0605	Internal Control Module Read Only Memory (ROM) Error	—
P0719	Brake Switch "B" Circuit Low	After idling the engine, depress ↔ release the brake pedal.
P0724	Brake Switch "B" Circuit High	After idling the engine, depress ↔ release the brake pedal.
P0A1D	Hybrid Powertrain Control Module	—
P1C00	Battery "2" Monitor Module Performance	—
P1C04	Output Clutch Linear Solenoid Control Circuit Low	After idling the engine, turn off the ignition switch and read the readiness code. (This is because the diagnosis is performed when the ignition switch is off.)
P1C05	Output Clutch Linear Solenoid Control Circuit High	After idling the engine, turn off the ignition switch and read the readiness code. (This is because the diagnosis is performed when the ignition switch is off.)
P1C11	Vacuum Pump Supply Voltage Low	—
P1C12	Vacuum Pump Supply Voltage High	—
P1C14	Generator Performance	—
P1C1E	Autodisconnect Experience	Inspection is not possible. (Inspection using drive cycle is not possible either.)
U0073	Control Module Communication Bus Off	—
U0075	Control Module Communication Bus "PU-CAN" Off	—
U0076	Control Module Communication Bus "HEV-CAN" Off	—
U0100	Lost Communication With ECM/PCM "A"	—
U0101	Lost Communication With TCM	—
U0110	Lost Communication With Drive Motor Control Module "A"	—
U0111	Lost Communication With Battery Energy Control Module	—
U0122	Lost Communication With Vehicle Dynamics Control Module	—
U0131	Lost Communication With Power Steering Control Module	—

## Inspection Mode

### HYBRID ELECTRIC VEHICLE (DIAGNOSTICS)

DTC	Item	Condition
U0140	Lost Communication With Body Control Module	—
U0151	Lost Communication With Restraints Control Module	—
U0155	Lost Communication With Instrument Panel Cluster (IPC) Control Module	—
U0164	Lost Communication With HVAC Control Module	—
U0287	Lost Communication With Transmission Fluid Pump Module	—
U0401	Invalid Data Received From ECM/PCM "A"	—
U0402	Invalid Data Received From TCM	—
U0411	Invalid Data Received From Drive Motor Control Module "A"	—
U0412	Invalid Data Received From Battery Energy Control Module	—
U0416	Invalid Data Received From Vehicle Dynamics Control Module	—
U0420	Invalid Data Received From Power Steering Control Module	—
U0422	Invalid Data Received From Body Control Module	—
U0423	Invalid Data Received From Instrument Panel Cluster Control Module	—
U0424	Invalid Data Received From HVAC Control Module	—
U0452	Invalid Data Received From Restraints Control Module	—
U0588	Invalid Data Received From Transmission Fluid Pump Module	—
U1100	Lost Communication With ECM/PCM PU-CAN	—
U1101	Lost Communication With TCM PU-CAN	—
U1401	Invalid Data Received From ECM/PCM PU-CAN	—
U1402	Invalid Data Received From TCM PU-CAN	—
U1676	LIN Communication Bus Error Hybrid Powertrain Control Module	—
U1711	Lost Communication With Battery "2" Monitor Module	—
U1720	Lost Communication With Integrated Starter Generator	—

# Inspection Mode

HYBRID ELECTRIC VEHICLE (DIAGNOSTICS)

## • Drive motor control system

DTC	Item	Condition
P0604	Internal Control Module Random Access Memory (RAM) Error	—
P0605	Internal Control Module Read Only Memory (ROM) Error	—
P06B1	Sensor Power Supply "A" Circuit Low	—
P06B2	Sensor Power Supply "A" Circuit High	—
P0A1B	Drive Motor "A" Control Module	—
P0A2C	Drive Motor "A" Temperature Sensor Circuit Low	—
P0A2D	Drive Motor "A" Temperature Sensor Circuit High	—
P0A3C	Drive Motor "A" Inverter Over Temperature	—
P0A40	Drive Motor "A" Position Sensor Circuit Range/Performance	—
P0A43	Drive Motor "A" Position Sensor Circuit Intermittent	—
P0A44	Drive Motor "A" Position Sensor Circuit Overspeed	—
P0A94	DC/DC Converter Performance	—
P0AED	Drive Motor Inverter Temperature Sensor "A" Circuit	—
P0AF2	Drive Motor Inverter Temperature Sensor "B" Circuit	—
P0BD1	Drive Motor Inverter Temperature Sensor "C" Circuit	—
P0BE6	Drive Motor "A" Phase U Current Sensor Circuit Range/Performance	—
P0BE7	Drive Motor "A" Phase U Current Sensor Circuit Low	—
P0BE8	Drive Motor "A" Phase U Current Sensor Circuit High	—
P0BEA	Drive Motor "A" Phase V Current Sensor Circuit Range/Performance	—
P0BEB	Drive Motor "A" Phase V Current Sensor Circuit Low	—
P0BEC	Drive Motor "A" Phase V Current Sensor Circuit High	—
P0BEE	Drive Motor "A" Phase W Current Sensor Circuit Range/Performance	—
P0BEF	Drive Motor "A" Phase W Current Sensor Circuit Low	—
P0BF0	Drive Motor "A" Phase W Current Sensor Circuit High	—
P0BFD	Drive Motor "A" Phase U-V-W Current Sensor Correlation	—
P0C0C	Drive Motor "A" Inverter Power Supply Circuit Low	—
P0C0D	Drive Motor "A" Inverter Power Supply Circuit High	—
P0C52	Drive Motor "A" Position Sensor Circuit "A" Low	—
P0C5C	Drive Motor "A" Position Sensor Circuit "B" Low	—
P0C79	Drive Motor "A" Inverter Voltage Too High	—
P0CDC	Drive Motor "A" Position Sensor Circuit "C" Low	—
P0CDD	Drive Motor "A" Position Sensor Circuit "C" High	—
P0DA8	Hybrid/Ev Battery Voltage/Drive Motor "A" Inverter Voltage Correlation	—
P1C20	Drive Motor "A" Inverter Voltage Too Low	—
P1C22	12V Auxiliary Battery Voltage Too Low	—
P1C25	Drive Motor "B" Temperature Sensor Circuit Low	—
P1C26	Drive Motor "B" Temperature Sensor Circuit High	—
P1C30	Lost Communication With Drive Motor Inverter	—
P1C31	Invalid Data Received From Drive Motor Inverter	—
P1C34	Lost Communication With DC/DC Converter	—
P1C35	Invalid Data Received From DC/DC Converter	—
U0076	Control Module Communication Bus "HEV-CAN" Off	—
U0111	Lost Communication With Battery Energy Control Module	—
U0412	Invalid Data Received From Battery Energy Control Module	—
U1290	Lost Communication With Hybrid Powertrain Control Module HEV-CAN	—
U1591	Invalid Data Received From Hybrid Powertrain Control Module HEV-CAN	—

## Inspection Mode

### HYBRID ELECTRIC VEHICLE (DIAGNOSTICS)

- Battery energy control system

DTC	Item	Condition
P0604	Internal Control Module Random Access Memory (RAM) Error	—
P0605	Internal Control Module Read Only Memory (ROM) Error	—
P062F	Internal Control Module EEPROM Error	—
P0A1F	Battery Energy Control Module	—
P0A7D	Hybrid Battery Pack State of Charge Low	—
P0A7E	Hybrid Battery Pack Over Temperature	—
P0A95	High Voltage Fuse	—
P0A9C	Hybrid Battery Temperature Sensor "A" Circuit Range/Performance	—
P0A9D	Hybrid Battery Temperature Sensor "A" Circuit Low	—
P0A9E	Hybrid Battery Temperature Sensor "A" Circuit High	—
P0AA4	Hybrid Battery Negative Contactor Circuit Stuck Closed	—
P0AA7	Hybrid Battery Voltage System Isolation Sensor Circuit	—
P0AAE	Hybrid Battery Pack Air Temperature Sensor "A" Circuit Low	—
P0AAF	Hybrid Battery Pack Air Temperature Sensor "A" Circuit High	—
P0AC0	Hybrid Battery Pack Current Sensor "A" Circuit Range/Performance	—
P0AC1	Hybrid Battery Pack Current Sensor "A" Circuit Low	—
P0AC2	Hybrid Battery Pack Current Sensor "A" Circuit High	—
P0AC3	Hybrid Battery Pack Current Sensor "A" Circuit Intermittent/Erratic	—
P0AC6	Hybrid Battery Temperature Sensor "B" Circuit Range/Performance	—
P0AC7	Hybrid Battery Temperature Sensor "B" Circuit Low	—
P0AC8	Hybrid Battery Temperature Sensor "B" Circuit High	—
P0ACB	Hybrid Battery Temperature Sensor "C" Circuit Range/Performance	—
P0ACC	Hybrid Battery Temperature Sensor "C" Circuit Low	—
P0ACD	Hybrid Battery Temperature Sensor "C" Circuit High	—
P0AD9	Hybrid Battery Positive Contactor Control Circuit/Open	—
P0ADB	Hybrid Battery Positive Contactor Control Circuit Low	—
P0ADD	Hybrid Battery Negative Contactor Control Circuit/Open	—
P0ADF	Hybrid Battery Negative Contactor Control Circuit Low	—
P0AE4	Hybrid Battery Precharge Contactor Control Circuit	—
P0AE6	Hybrid Battery Precharge Contactor Control Circuit Low	—
P0B25	Hybrid Battery "A" Voltage Low	—
P0B26	Hybrid Battery "A" Voltage High	—
P0B37	High Voltage Service Disconnect Open	—
P0B3C	Hybrid Battery Voltage Sense "A" Circuit Range/Performance	—
P0B3D	Hybrid Battery Voltage Sense "A" Circuit Low	—
P0B3E	Hybrid Battery Voltage Sense "A" Circuit High	—
P0B41	Hybrid Battery Voltage Sense "B" Circuit Range/Performance	—
P0B42	Hybrid Battery Voltage Sense "B" Circuit Low	—
P0B43	Hybrid Battery Voltage Sense "B" Circuit High	—
P0B46	Hybrid Battery Voltage Sense "C" Circuit Range/Performance	—
P0B47	Hybrid Battery Voltage Sense "C" Circuit Low	—
P0B48	Hybrid Battery Voltage Sense "C" Circuit High	—
P0B4A	Hybrid Battery Voltage Sense "D" Circuit	—
P0B4B	Hybrid Battery Voltage Sense "D" Circuit Range/Performance	—
P0B4C	Hybrid Battery Voltage Sense "D" Circuit Low	—
P0B4D	Hybrid Battery Voltage Sense "D" Circuit High	—
P0B50	Hybrid Battery Voltage Sense "E" Circuit Range/Performance	—
P0B51	Hybrid Battery Voltage Sense "E" Circuit Low	—
P0B52	Hybrid Battery Voltage Sense "E" Circuit High	—

# Inspection Mode

## HYBRID ELECTRIC VEHICLE (DIAGNOSTICS)

DTC	Item	Condition
P0B55	Hybrid Battery Voltage Sense "F" Circuit Range/Performance	—
P0B56	Hybrid Battery Voltage Sense "F" Circuit Low	—
P0B57	Hybrid Battery Voltage Sense "F" Circuit High	—
P0B5A	Hybrid Battery Voltage Sense "G" Circuit Range/Performance	—
P0B5B	Hybrid Battery Voltage Sense "G" Circuit Low	—
P0B5C	Hybrid Battery Voltage Sense "G" Circuit High	—
P0BB8	Hybrid Battery Voltage Sense "Z" Circuit	—
P0C78	Hybrid Battery System Precharge Time Too Long	—
P0CA6	Hybrid Battery Charging Current High	—
P0CA7	Hybrid Battery Discharging Current High	—
P1C40	Hybrid Battery Positive Contactor or Pre-Charge Contactor Circuit Stuck Closed	After idling the engine, turn off the ignition switch and read the readiness code. (This is because the diagnosis is performed when the ignition switch is off.)
P1C41	High Voltage Circuit Short	—
P1C42	High Voltage Circuit Open	—
P1C43	Hybrid Battery Contactor Power Supply Circuit	—
P1C44	Sub CPU in BECM	—
P1C45	Hybrid Battery Block 1 Balancing Performance	—
P1C46	Hybrid Battery Block 2 Balancing Performance	—
P1C47	Hybrid Battery Block 3 Balancing Performance	—
P1C48	Hybrid Battery Block 4 Balancing Performance	—
P1C49	Hybrid Battery Block 5 Balancing Performance	—
P1C4A	Hybrid Battery Block 6 Balancing Performance	—
P1C5E	Hybrid Battery Block Voltage Too Low	—
U0076	Control Module Communication Bus "HEV-CAN" Off	—
U0110	Lost Communication With Drive Motor Control Module "A"	—
U0411	Invalid Data Received From Drive Motor Control Module "A"	—
U1290	Lost Communication With Hybrid Powertrain Control Module HEV-CAN	—
U1591	Invalid Data Received From Hybrid Powertrain Control Module HEV-CAN	—

### PROCEDURE

- 1) Check that the 12 volt auxiliary battery voltage is 12 V or more and fuel remains approx. half [20 — 40 L (5.3 — 10.6 US gal, 4.4 — 8.8 Imp gal)].
- 2) Perform the Clear Memory Mode. <Ref. to HEV(diag)-25, Clear Memory Mode.>
- 3) Read the DTC and check that the DTC is not displayed. <Ref. to HEV(diag)-24, Read Diagnostic Trouble Code (DTC).>

#### NOTE:

If the DTC is displayed on the screen, the trouble is still present. Perform the diagnosis according to DTC. <Ref. to HEV(diag)-74, List of Diagnostic Trouble Code (DTC).> After solving the DTC, repeat from step 2).

- 4) Start the engine, and run the engine at idle for 10 seconds or more.

- 5) Read the readiness code and check that the concerned DTC is not displayed. <Ref. to HEV(diag)-26, All Readiness Diagnostic Code(s).>

#### NOTE:

If the concerned DTC is displayed, the self-diagnosis of the DTC is not complete. Repeat from step 4).

- 6) Read the DTC and check that the DTC is not displayed. <Ref. to HEV(diag)-24, Read Diagnostic Trouble Code (DTC).>

#### NOTE:

If the DTC is displayed on the screen, the trouble is still present. Perform the diagnosis according to DTC. <Ref. to HEV(diag)-74, List of Diagnostic Trouble Code (DTC).> After solving the DTC, repeat from step 2).