1. List of Diagnostic Trouble Code (DTC)

A: LIST

1. HYBRID POWERTRAIN CONTROL SYSTEM

DTC	Item	Note
P0506	Idle Air Control System RPM Lower Than Expected	<Ref. to GD(HEV)-11, DTC P0506 IDLE AIR CONTROL SYSTEM RPM LOWER THAN EXPECTED, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0507	Idle Air Control System RPM Higher Than Expected	<Ref. to GD(HEV)-12, DTC P0507 IDLE AIR CONTROL SYSTEM RPM HIGHER THAN EXPECTED, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0572	Brake Switch "A" [Stop Lamp Switch] Circuit Low	<Ref. to GD(HEV)-13, DTC P0572 BRAKE SWITCH "A" [STOP LAMP SWITCH] CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0573	Brake Switch "A" [Stop Lamp Switch] Circuit High	<Ref. to GD(HEV)-14, DTC P0573 BRAKE SWITCH "A" [STOP LAMP SWITCH] CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P057B	Brake Pedal Position Sensor Circuit Range/Performance	<Ref. to GD(HEV)-16, DTC P057B BRAKE PEDAL POSITION SENSOR CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P057C	Brake Pedal Position Sensor Circuit Low	<Ref. to GD(HEV)-18, DTC P057C BRAKE PEDAL POSITION SENSOR CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P057D	Brake Pedal Position Sensor Circuit High	<Ref. to GD(HEV)-19, DTC P057D BRAKE PEDAL POSITION SENSOR CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P05DD	Brake Pedal Position Sensor "B" Circuit Low	<Ref. to GD(HEV)-20, DTC P05DD BRAKE PEDAL POSITION SENSOR "B" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P05DE	Brake Pedal Position Sensor "B" Circuit High	<Ref. to GD(HEV)-21, DTC P05DE BRAKE PEDAL POSITION SENSOR "B" CIRCUIT HIGH , Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0604	Internal Control Module Random Access Memory (RAM) Error	<Ref. to GD(HEV)-22, DTC P0604 INTERNAL CONTROL MODULE RANDOM ACCESS MEMORY (RAM) ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0605	Internal Control Module Read Only Memory (ROM) Error	<Ref. to GD(HEV)-24, DTC P0605 INTERNAL CONTROL MODULE READ ONLY MEMORY (ROM) ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0719	Brake Switch "B" Circuit Low	<Ref. to GD(HEV)-26, DTC P0719 BRAKE SWITCH "B" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0724	Brake Switch "B" Circuit High	<Ref. to GD(HEV)-28, DTC P0724 BRAKE SWITCH "B" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A1D	Hybrid Powertrain Control Module	<Ref. to GD(HEV)-29, DTC P0A1D HYBRID POWERTRAIN CONTROL MODULE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C16	Idle Control System RPM Lower Than Expected(HPCM)	<Ref. to GD(HEV)-29, DTC P1C16 IDLE CONTROL SYSTEM RPM LOWER THAN EXPECTED(HPCM), Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C17	Idle Control System RPM Higher Than Expected(HPCM)	<Ref. to GD(HEV)-29, DTC P1C17 IDLE CONTROL SYSTEM RPM HIGHER THAN EXPECTED(HPCM), Diagnostic Trouble Code (DTC) Detecting Criteria.>
P2158	Vehicle Speed Sensor "B"	<Ref. to GD(HEV)-30, DTC P2158 VEHICLE SPEED SENSOR "B", Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0073	CAN Failure, Bus 'Off' Detection	<Ref. to GD(HEV)-157, DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>

List of Diagnostic Trouble Code (DTC)

DTC	Item	Note
U0075	Control Module Communication Bus "PU-CAN" Off	<Ref. to GD(HEV)-158, DTC U0075 CONTROL MODULE COMMUNICATION BUS "PU-CAN" OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0076	Control Module Communication Bus "HEV-CAN" Off	<Ref. to GD(HEV)-159, DTC U0076 CONTROL MODULE COMMUNICATION BUS "HEV-CAN" OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0100	Lost Communication With ECM/PCM "A"	<Ref. to GD(HEV)-161, DTC U0100 LOST COMMUNICATION WITH ECM/PCM "A", Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0101	Lost Communication With TCM	<Ref. to GD(HEV)-162, DTC U0101 LOST COMMUNICATION WITH TCM, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0110	Lost Communication With Drive Motor Control Module "A"	<Ref. to GD(HEV)-163, DTC U0110 LOST COMMUNICATION WITH DRIVE MOTOR CONTROL MODULE "A", Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0111	Lost Communication With Battery Energy Control Module	<Ref. to GD(HEV)-165, DTC U0111 LOST COMMUNICATION WITH BATTERY ENERGY CONTROL MODULE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0122	Lost Communication With Vehicle Dynamics Control Module	<Ref. to GD(HEV)-167, DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0401	Invalid Data Received From ECM/PCM "A"	<Ref. to GD(HEV)-168, DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM "A", Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0402	Invalid Data Received From TCM	<Ref. to GD(HEV)-169, DTC U0402 INVALID DATA RECEIVED FROM TCM, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0411	Invalid Data Received From Drive Motor Control Module "A"	<Ref. to GD(HEV)-170, DTC U0411 INVALID DATA RECEIVED FROM DRIVE MOTOR CONTROL MODULE "A", Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0412	Invalid Data Received From Battery Energy Control Module	<Ref. to GD(HEV)-172, DTC U0412 INVALID DATA RECEIVED FROM BATTERY ENERGY CONTROL MODULE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0416	Invalid Data Received From Vehicle Dynamics Control Module	<Ref. to GD(HEV)-174, DTC U0416 INVALID DATA RECEIVED FROM VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U1100	Lost Communication With ECM/PCM PU-CAN	<Ref. to GD(HEV)-175, DTC U1100 LOST COMMUNICATION WITH ECM/PCM PU-CAN, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U1101	Lost Communication With TCM PU-CAN	<Ref. to GD(HEV)-176, DTC U1101 LOST COMMUNICATION WITH TCM PU-CAN, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U1401	Invalid Data Received From ECM/PCM PU-CAN	<Ref. to GD(HEV)-179, DTC U1401 INVALID DATA RECEIVED FROM ECM/PCM PU-CAN, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U1402	Invalid Data Received From TCM PU-CAN	<Ref. to GD(HEV)-180, DTC U1402 INVALID DATA RECEIVED FROM TCM PU-CAN, Diagnostic Trouble Code (DTC) Detecting Criteria.>

2. DRIVE MOTOR CONTROL SYSTEM

DTC	Item	Note
P0A2A	Drive Motor "A" Temperature Sensor Circuit	<Ref. to GD(HEV)-31, DTC P0A2A DRIVE MOTOR "A" TEMPERATURE SENSOR CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A2C	Drive Motor "A" Temperature Sensor Circuit Low	<Ref. to GD(HEV)-32, DTC P0A2C DRIVE MOTOR "A" TEMPERATURE SENSOR CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A2D	Drive Motor "A" Temperature Sensor Circuit High	<Ref. to GD(HEV)-33, DTC P0A2D DRIVE MOTOR "A" TEMPERATURE SENSOR CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A3C	Drive Motor "A" Inverter Over Temperature	<Ref. to GD(HEV)-34, DTC P0A3C DRIVE MOTOR "A" INVERTER OVER TEMPERATURE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A3F	Drive Motor "A" Position Sensor Circuit	<Ref. to GD(HEV)-35, DTC P0A3F DRIVE MOTOR "A" POSITION SENSOR CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A40	Drive Motor "A" Position Sensor Circuit Range/Performance	<Ref. to GD(HEV)-36, DTC P0A40 DRIVE MOTOR "A" POSITION SENSOR CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A43	Drive Motor "A" Position Sensor Circuit Intermittent	<Ref. to GD(HEV)-37, DTC P0A43 DRIVE MOTOR "A" POSITION SENSOR CIRCUIT INTERMITTENT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A44	Drive Motor "A" Position Sensor Circuit Overspeed	<Ref. to GD(HEV)-38, DTC P0A44 DRIVE MOTOR "A" POSITION SENSOR CIRCUIT OVERSPEED, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A5D	Drive Motor "A" Phase U Current	<Ref. to GD(HEV)-39, DTC P0A5D DRIVE MOTOR "A" PHASE U CURRENT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A60	Drive Motor "A" Phase V Current	<Ref. to GD(HEV)-40, DTC P0A60 DRIVE MOTOR "A" PHASE V CURRENT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A63	Drive Motor "A" Phase W Current	<Ref. to GD(HEV)-41, DTC P0A63 DRIVE MOTOR "A" PHASE W CURRENT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A78	Drive Motor "A" Inverter Performance	<Ref. to GD(HEV)-42, DTC P0A78 DRIVE MOTOR "A" INVERTER PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A82	Hybrid/Ev Battery Pack Cooling Fan 1 Performance/Stuck Off	<Ref. to GD(HEV)-43, DTC P0A82 HYBRID/EV BATTERY PACK COOLING FAN 1 PERFORMANCE/STUCK OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A83	Hybrid/Ev Battery Pack Cooling Fan 1 Stuck On	<Ref. to GD(HEV)-44, DTC P0A83 HYBRID/EV BATTERY PACK COOLING FAN 1 STUCK ON, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A90	Drive Motor "A" Performance	<Ref. to GD(HEV)-45, DTC P0A90 DRIVE MOTOR "A" PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AED	Drive Motor Inverter Temperature Sensor "A" Circuit	<Ref. to GD(HEV)-46, DTC P0AED DRIVE MOTOR INVERTER TEMPERATURE SENSOR "A" CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AEE	Drive Motor Inverter Temperature Sensor "A" Circuit Range/Performance	<Ref. to GD(HEV)-47, DTC P0AEE DRIVE MOTOR INVERTER TEMPERATURE SENSOR "A" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AF2	Drive Motor Inverter Temperature Sensor "B" Circuit	<Ref. to GD(HEV)-49, DTC P0AF2 DRIVE MOTOR INVERTER TEMPERATURE SENSOR "B" CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AF3	Drive Motor Inverter Temperature Sensor "B" Circuit Range/Performance	<Ref. to GD(HEV)-50, DTC P0AF3 DRIVE MOTOR INVERTER TEMPERATURE SENSOR "B" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>

DTC	Item	Note
P0BD1	Drive Motor Inverter Temperature Sensor "C" Circuit	<Ref. to GD(HEV)-52, DTC P0BD1 DRIVE MOTOR INVERTER TEMPERATURE SENSOR "C" CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BD2	Drive Motor Inverter Temperature Sensor "C" Circuit Range/Performance	<Ref. to GD(HEV)-53, DTC P0BD2 DRIVE MOTOR INVERTER TEMPERATURE SENSOR "C" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BE6	Drive Motor "A" Phase U Current Sensor Circuit Range/Performance	<Ref. to GD(HEV)-55, DTC P0BE6 DRIVE MOTOR "A" PHASE U CURRENT SENSOR CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BE7	Drive Motor "A" Phase U Current Sensor Circuit Low	<Ref. to GD(HEV)-56, DTC P0BE7 DRIVE MOTOR "A" PHASE U CURRENT SENSOR CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BE8	Drive Motor "A" Phase U Current Sensor Circuit High	<Ref. to GD(HEV)-57, DTC P0BE8 DRIVE MOTOR "A" PHASE U CURRENT SENSOR CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BEA	Drive Motor "A" Phase V Current Sensor Circuit Range/Performance	<Ref. to GD(HEV)-58, DTC P0BEA DRIVE MOTOR "A" PHASE V CURRENT SENSOR CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BEB	Drive Motor "A" Phase V Current Sensor Circuit Low	<Ref. to GD(HEV)-59, DTC P0BEB DRIVE MOTOR "A" PHASE V CURRENT SENSOR CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BEC	Drive Motor "A" Phase V Current Sensor Circuit High	<Ref. to GD(HEV)-60, DTC P0BEC DRIVE MOTOR "A" PHASE V CURRENT SENSOR CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BEE	Drive Motor "A" Phase W Current Sensor Circuit Range/Performance	<Ref. to GD(HEV)-61, DTC P0BEE DRIVE MOTOR "A" PHASE W CURRENT SENSOR CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BEF	Drive Motor "A" Phase W Current Sensor Circuit Low	<Ref. to GD(HEV)-62, DTC P0BEF DRIVE MOTOR "A" PHASE W CURRENT SENSOR CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BF0	Drive Motor "A" Phase W Current Sensor Circuit High	<Ref. to GD(HEV)-63, DTC P0BF0 DRIVE MOTOR "A" PHASE W CURRENT SENSOR CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BFD	Drive Motor "A" Phase U-V-W Current Sensor Correlation	<Ref. to GD(HEV)-64, DTC P0BFD DRIVE MOTOR "A" PHASE U-V-W CURRENT SENSOR CORRELATION, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0C05	Drive Motor "A" Phase U-V-W Circuit/Open	<Ref. to GD(HEV)-65, DTC P0C05 DRIVE MOTOR "A" PHASE U-V-W CIRCUIT/OPEN, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0C0C	Drive Motor "A" Inverter Power Supply Circuit Low	<Ref. to GD(HEV)-66, DTC P0C0C DRIVE MOTOR "A" INVERTER POWER SUPPLY CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0C0D	Drive Motor "A" Inverter Power Supply Circuit High	<Ref. to GD(HEV)-67, DTC P0C0D DRIVE MOTOR "A" INVERTER POWER SUPPLY CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0C52	Drive Motor "A" Position Sensor Circuit "A" Low	<Ref. to GD(HEV)-68, DTC P0C52 DRIVE MOTOR "A" POSITION SENSOR CIRCUIT "A" LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0C5C	Drive Motor "A" Position Sensor Circuit "B" Low	<Ref. to GD(HEV)-69, DTC P0C5C DRIVE MOTOR "A" POSITION SENSOR CIRCUIT "B" LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0C79	Drive Motor "A" Inverter Voltage Too High	<Ref. to GD(HEV)-70, DTC P0C79 DRIVE MOTOR "A" INVERTER VOLTAGE TOO HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0CDC	Drive Motor "A" Position Sensor Circuit "C" Low	<Ref. to GD(HEV)-71, DTC P0CDC DRIVE MOTOR "A" POSITION SENSOR CIRCUIT "C" LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>

List of Diagnostic Trouble Code (DTC)

DTC	Item	Note
P0CDD	Drive Motor "A" Position Sensor Circuit "C" High	<Ref. to GD(HEV)-72, DTC P0CDD DRIVE MOTOR "A" POSITION SENSOR CIRCUIT "C" HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0DA8	Hybrid/Ev Battery Voltage/Drive Motor "A" Inverter Voltage Correlation	<Ref. to GD(HEV)-73, DTC P0DA8 HYBRID/EV BATTERY VOLTAGE/ DRIVE MOTOR "A" INVERTER VOLTAGE CORRELATION, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C20	Drive Motor "A" Inverter Voltage Too Low	<Ref. to GD(HEV)-74, DTC P1C20 DRIVE MOTOR "A" INVERTER VOLTAGE TOO LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C24	Drive Motor "B" Temperature Sensor Circuit	<Ref. to GD(HEV)-75, DTC P1C24 DRIVE MOTOR "B" TEMPERATURE SENSOR CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C25	Drive Motor "B" Temperature Sensor Circuit Low	<Ref. to GD(HEV)-76, DTC P1C25 DRIVE MOTOR "B" TEMPERATURE SENSOR CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C26	Drive Motor "B" Temperature Sensor Circuit High	<Ref. to GD(HEV)-77, DTC P1C26 DRIVE MOTOR "B" TEMPERATURE SENSOR CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C27	Drive Motor "A" and "B" Temperature Sensor Correlation	<Ref. to GD(HEV)-78, DTC P1C27 DRIVE MOTOR "A" AND "B" TEMPERATURE SENSOR CORRELATION, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C30	Lost Communication With Drive Motor Inverter	<Ref. to GD(HEV)-80, DTC P1C30 LOST COMMUNICATION WITH DRIVE MOTOR INVERTER, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C31	Invalid Data Received From Drive Motor Inverter	<Ref. to GD(HEV)-81, DTC P1C31 INVALID DATA RECEIVED FROM DRIVE MOTOR INVERTER, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0604	Internal Control Module Random Access Memory (RAM) Error	<Ref. to GD(HEV)-22, DTC P0604 INTERNAL CONTROL MODULE RANDOM ACCESS MEMORY (RAM) ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0605	Internal Control Module Read Only Memory (ROM) Error	<Ref. to GD(HEV)-24, DTC P0605 INTERNAL CONTROL MODULE READ ONLY MEMORY (ROM) ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A1B	Drive Motor "A" Control Module	<Ref. to GD(HEV)-82, DTC P0A1B DRIVE MOTOR "A" CONTROL MODULE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P06B1	Sensor Power Supply "A" Circuit Low	<Ref. to GD(HEV)-83, DTC P06B1 SENSOR POWER SUPPLY "A" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P06B2	Sensor Power Supply "A" Circuit High	<Ref. to GD(HEV)-84, DTC P06B2 SENSOR POWER SUPPLY "A" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0076	Control Module Communication Bus "HEV-CAN" Off	<Ref. to GD(HEV)-159, DTC U0076 CONTROL MODULE COMMUNICATION BUS "HEV-CAN" OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0111	Lost Communication With Battery Energy Control Module	<Ref. to GD(HEV)-165, DTC U0111 LOST COMMUNICATION WITH BATTERY ENERGY CONTROL MODULE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0412	Invalid Data Received From Battery Energy Control Module	<Ref. to GD(HEV)-172, DTC U0412 INVALID DATA RECEIVED FROM BATTERY ENERGY CONTROL MODULE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U1290	Lost Communication With Hybrid Powertrain Control Module HEV-CAN	<Ref. to GD(HEV)-177, DTC U1290 LOST COMMUNICATION WITH HYBRID POWERTRAIN CONTROL MODULE HEV-CAN, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U1591	Invalid Data Received From Hybrid Powertrain Control Module HEV-CAN	<Ref. to GD(HEV)-181, DTC U1591 INVALID DATA RECEIVED FROM HYBRID POWERTRAIN CONTROL MODULE HEV-CAN, Diagnostic Trouble Code (DTC) Detecting Criteria.>

3. BATTERY ENERGY CONTROL SYSTEM

DTC	Item	Note
P0604	Internal Control Module Random Access Memory (RAM) Error	<Ref. to GD(HEV)-22, DTC P0604 INTERNAL CONTROL MODULE RANDOM ACCESS MEMORY (RAM) ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0605	Internal Control Module Read Only Memory (ROM) Error	<Ref. to GD(HEV)-24, DTC P0605 INTERNAL CONTROL MODULE READ ONLY MEMORY (ROM) ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P062F	Internal Control Module EEPROM Error	<Ref. to GD(HEV)-85, DTC P062F INTERNAL CONTROL MODULE EEPROM ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A1F	Battery Energy Control Module	<Ref. to GD(HEV)-86, DTC P0A1F BATTERY ENERGY CONTROL MODULE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A7D	Hybrid Battery Pack State of Charge Low	<Ref. to GD(HEV)-87, DTC P0A7D HYBRID BATTERY PACK STATE OF CHARGE LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A7E	Hybrid Battery Pack Over Temperature	<Ref. to GD(HEV)-88, DTC P0A7E HYBRID BATTERY PACK OVER TEMPERATURE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A7F	Hybrid Battery Pack Deterioration	<Ref. to GD(HEV)-89, DTC P0A7F HYBRID BATTERY PACK DETERIORATION, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A95	High Voltage Fuse	<Ref. to GD(HEV)-92, DTC P0A95 HIGH VOLTAGE FUSE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A9C	Hybrid Battery Temperature Sensor "A" Circuit Range/Performance	<Ref. to GD(HEV)-93, DTC P0A9C HYBRID BATTERY TEMPERATURE SENSOR "A" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A9D	Hybrid Battery Temperature Sensor "A" Circuit Low	<Ref. to GD(HEV)-94, DTC P0A9D HYBRID BATTERY TEMPERATURE SENSOR "A" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0A9E	Hybrid Battery Temperature Sensor "A" Circuit High	<Ref. to GD(HEV)-95, DTC P0A9E HYBRID BATTERY TEMPERATURE SENSOR "A" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AAD	Hybrid Battery Pack Air Temperature Sensor "A" Circuit Range/Performance	<Ref. to GD(HEV)-96, DTC P0AAD HYBRID BATTERY PACK AIR TEMPERATURE SENSOR "A" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AAE	Hybrid Battery Pack Air Temperature Sensor "A" Circuit Low	<Ref. to GD(HEV)-97, DTC P0AAE HYBRID BATTERY PACK AIR TEMPERATURE SENSOR "A" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AAF	Hybrid Battery Pack Air Temperature Sensor "A" Circuit High	<Ref. to GD(HEV)-98, DTC P0AAF HYBRID BATTERY PACK AIR TEMPERATURE SENSOR "A" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0ABF	Hybrid Battery Pack Current Sensor "A" Circuit	<Ref. to GD(HEV)-99, DTC P0ABF HYBRID BATTERY PACK CURRENT SENSOR "A" CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AC0	Hybrid Battery Pack Current Sensor "A" Circuit Range/Performance	<Ref. to GD(HEV)-100, DTC P0AC0 HYBRID BATTERY PACK CURRENT SENSOR "A" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AC1	Hybrid Battery Pack Current Sensor "A" Circuit Low	<Ref. to GD(HEV)-101, DTC P0AC1 HYBRID BATTERY PACK CURRENT SENSOR "A" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AC2	Hybrid Battery Pack Current Sensor "A" Circuit High	<Ref. to GD(HEV)-102, DTC P0AC2 HYBRID BATTERY PACK CURRENT SENSOR "A" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AC3	Hybrid Battery Pack Current Sensor "A" Circuit Intermittent/Erratic	<Ref. to GD(HEV)-103, DTC P0AC3 HYBRID BATTERY PACK CURRENT SENSOR "A" CIRCUIT INTERMITTENT/ERRATIC, Diagnostic Trouble Code (DTC) Detecting Criteria.>

List of Diagnostic Trouble Code (DTC)

GENERAL DESCRIPTION (HEV)

P0AC6	Hybrid Battery Temperature Sensor "B" Circuit Range/Performance	<Ref. to GD(HEV)-105, DTC P0AC6 HYBRID BATTERY TEMPERA-TURE SENSOR "B" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AC7	Hybrid Battery Temperature Sensor "B" Circuit Low	<Ref. to GD(HEV)-106, DTC P0AC7 HYBRID BATTERY TEMPERA-TURE SENSOR "B" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AC8	Hybrid Battery Temperature Sensor "B" Circuit High	<Ref. to GD(HEV)-107, DTC P0AC8 HYBRID BATTERY TEMPERA-TURE SENSOR "B" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0ACB	Hybrid Battery Temperature Sensor "C" Circuit Range/Performance	<Ref. to GD(HEV)-108, DTC P0ACB HYBRID BATTERY TEMPERA-TURE SENSOR "C" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0ACC	Hybrid Battery Temperature Sensor "C" Circuit Low	<Ref. to GD(HEV)-109, DTC P0ACC HYBRID BATTERY TEMPERA-TURE SENSOR "C" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0ACD	Hybrid Battery Temperature Sensor "C" Circuit High	<Ref. to GD(HEV)-110, DTC P0ACD HYBRID BATTERY TEMPERA-TURE SENSOR "C" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AD9	Hybrid Battery Positive Contactor Control Circuit/Open	<Ref. to GD(HEV)-111, DTC P0AD9 HYBRID BATTERY POSITIVE CONTACTOR CONTROL CIRCUIT/OPEN, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0ADB	Hybrid Battery Positive Contactor Control Circuit Low	<Ref. to GD(HEV)-112, DTC P0ADB HYBRID BATTERY POSITIVE CONTACTOR CONTROL CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0ADD	Hybrid Battery Negative Contactor Control Circuit/Open	<Ref. to GD(HEV)-113, DTC P0ADD HYBRID BATTERY NEGATIVE CONTACTOR CONTROL CIRCUIT/OPEN, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0AE4	Hybrid Battery Precharge Contactor Control Circuit	<Ref. to GD(HEV)-114, DTC P0AE4 HYBRID BATTERY PRE-CHARGE CONTACTOR CONTROL CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B25	Hybrid Battery "A" Voltage Low	<Ref. to GD(HEV)-115, DTC P0B25 HYBRID BATTERY "A" VOLT-AGE LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B26	Hybrid Battery "A" Voltage High	<Ref. to GD(HEV)-116, DTC P0B26 HYBRID BATTERY "A" VOLT-AGE HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B37	High Voltage Service Disconnect Open	<Ref. to GD(HEV)-117, DTC P0B37 HIGH VOLTAGE SERVICE DIS-CONNECT OPEN, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B3C	Hybrid Battery Voltage Sense "A" Circuit Range/Performance	<Ref. to GD(HEV)-118, DTC P0B3C HYBRID BATTERY VOLTAGE SENSE "A" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B3D	Hybrid Battery Voltage Sense "A" Circuit Low	<Ref. to GD(HEV)-119, DTC P0B3D HYBRID BATTERY VOLTAGE SENSE "A" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B3E	Hybrid Battery Voltage Sense "A" Circuit High	<Ref. to GD(HEV)-120, DTC P0B3E HYBRID BATTERY VOLTAGE SENSE "A" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B41	Hybrid Battery Voltage Sense "B" Circuit Range/Performance	<Ref. to GD(HEV)-121, DTC P0B41 HYBRID BATTERY VOLTAGE SENSE "B" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B42	Hybrid Battery Voltage Sense "B" Circuit Low	<Ref. to GD(HEV)-122, DTC P0B42 HYBRID BATTERY VOLTAGE SENSE "B" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B43	Hybrid Battery Voltage Sense "B" Circuit High	<Ref. to GD(HEV)-123, DTC P0B43 HYBRID BATTERY VOLTAGE SENSE "B" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B46	Hybrid Battery Voltage Sense "C" Circuit Range/Performance	<Ref. to GD(HEV)-124, DTC P0B46 HYBRID BATTERY VOLTAGE SENSE "C" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>

P0B47	Hybrid Battery Voltage Sense "C" Circuit Low	<Ref. to GD(HEV)-125, DTC P0B47 HYBRID BATTERY VOLTAGE SENSE "C" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B48	Hybrid Battery Voltage Sense "C" Circuit High	<Ref. to GD(HEV)-126, DTC P0B48 HYBRID BATTERY VOLTAGE SENSE "C" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B4A	Hybrid Battery Voltage Sense "D" Circuit	<Ref. to GD(HEV)-127, DTC P0B4A HYBRID BATTERY VOLTAGE SENSE "D" CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B4B	Hybrid Battery Voltage Sense "D" Circuit Range/Performance	<Ref. to GD(HEV)-128, DTC P0B4B HYBRID BATTERY VOLTAGE SENSE "D" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B4C	Hybrid Battery Voltage Sense "D" Circuit Low	<Ref. to GD(HEV)-129, DTC P0B4C HYBRID BATTERY VOLTAGE SENSE "D" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B4D	Hybrid Battery Voltage Sense "D" Circuit High	<Ref. to GD(HEV)-130, DTC P0B4D HYBRID BATTERY VOLTAGE SENSE "D" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B50	Hybrid Battery Voltage Sense "E" Circuit Range/Performance	<Ref. to GD(HEV)-131, DTC P0B50 HYBRID BATTERY VOLTAGE SENSE "E" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B51	Hybrid Battery Voltage Sense "E" Circuit Low	<Ref. to GD(HEV)-132, DTC P0B51 HYBRID BATTERY VOLTAGE SENSE "E" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B52	Hybrid Battery Voltage Sense "E" Circuit High	<Ref. to GD(HEV)-133, DTC P0B52 HYBRID BATTERY VOLTAGE SENSE "E" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B55	Hybrid Battery Voltage Sense "F" Circuit Range/Performance	<Ref. to GD(HEV)-134, DTC P0B55 HYBRID BATTERY VOLTAGE SENSE "F" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B56	Hybrid Battery Voltage Sense "F" Circuit Low	<Ref. to GD(HEV)-135, DTC P0B56 HYBRID BATTERY VOLTAGE SENSE "F" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B57	Hybrid Battery Voltage Sense "F" Circuit High	<Ref. to GD(HEV)-136, DTC P0B57 HYBRID BATTERY VOLTAGE SENSE "F" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B5A	Hybrid Battery Voltage Sense "G" Circuit Range/Performance	<Ref. to GD(HEV)-137, DTC P0B5A HYBRID BATTERY VOLTAGE SENSE "G" CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B5B	Hybrid Battery Voltage Sense "G" Circuit Low	<Ref. to GD(HEV)-138, DTC P0B5B HYBRID BATTERY VOLTAGE SENSE "G" CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0B5C	Hybrid Battery Voltage Sense "G" Circuit High	<Ref. to GD(HEV)-139, DTC P0B5C HYBRID BATTERY VOLTAGE SENSE "G" CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0BB8	Hybrid Battery Voltage Sense "Z" Circuit	<Ref. to GD(HEV)-140, DTC P0BB8 HYBRID BATTERY VOLTAGE SENSE "Z" CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0C30	Hybrid Battery Pack State of Charge High	<Ref. to GD(HEV)-141, DTC P0C30 HYBRID BATTERY PACK STATE OF CHARGE HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0C78	Hybrid Battery System Precharge Time Too Long	<Ref. to GD(HEV)-142, DTC P0C78 HYBRID BATTERY SYSTEM PRECHARGE TIME TOO LONG, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P0CA6	Hybrid Battery Charging Current High	<Ref. to GD(HEV)-143, DTC P0CA6 HYBRID BATTERY CHARGING CURRENT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>

List of Diagnostic Trouble Code (DTC)

P0CA7	Hybrid Battery Discharging Current High	<Ref. to GD(HEV)-144, DTC P0CA7 HYBRID BATTERY DISCHARGING CURRENT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C40	Hybrid Battery Positive Contactor or Pre-Charge Contactor Circuit Stuck Closed	<Ref. to GD(HEV)-145, DTC P1C40 HYBRID BATTERY POSITIVE CONTACTOR OR PRE-CHARGE CONTACTOR CIRCUIT STUCK CLOSED, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C41	High Voltage Circuit Short	<Ref. to GD(HEV)-146, DTC P1C41 HIGH VOLTAGE CIRCUIT SHORT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C42	High Voltage Circuit Open	<Ref. to GD(HEV)-147, DTC P1C42 HIGH VOLTAGE CIRCUIT OPEN, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C43	Hybrid Battery Contactor Power Supply Circuit	<Ref. to GD(HEV)-148, DTC P1C43 HYBRID BATTERY CONTACTOR POWER SUPPLY CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C44	Sub CPU in BECM	<Ref. to GD(HEV)-149, DTC P1C44 SUB CPU IN BECM, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C45	Hybrid Battery Block 1 Balancing Performance	<Ref. to GD(HEV)-150, DTC P1C45 HYBRID BATTERY BLOCK 1 BALANCING PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C46	Hybrid Battery Block 2 Balancing Performance	<Ref. to GD(HEV)-151, DTC P1C46 HYBRID BATTERY BLOCK 2 BALANCING PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C47	Hybrid Battery Block 3 Balancing Performance	<Ref. to GD(HEV)-152, DTC P1C47 HYBRID BATTERY BLOCK 3 BALANCING PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C48	Hybrid Battery Block 4 Balancing Performance	<Ref. to GD(HEV)-153, DTC P1C48 HYBRID BATTERY BLOCK 4 BALANCING PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C49	Hybrid Battery Block 5 Balancing Performance	<Ref. to GD(HEV)-154, DTC P1C49 HYBRID BATTERY BLOCK 5 BALANCING PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C4A	Hybrid Battery Block 6 Balancing Performance	<Ref. to GD(HEV)-155, DTC P1C4A HYBRID BATTERY BLOCK 6 BALANCING PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>
P1C5E	Hybrid Battery Block Voltage Too Low	<Ref. to GD(HEV)-156, DTC P1C5E HYBRID BATTERY BLOCK VOLTAGE TOO LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0076	Control Module Communication Bus "HEV-CAN" Off	<Ref. to GD(HEV)-159, DTC U0076 CONTROL MODULE COMMUNICATION BUS "HEV-CAN" OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0110	Lost Communication With Drive Motor Control Module "A"	<Ref. to GD(HEV)-163, DTC U0110 LOST COMMUNICATION WITH DRIVE MOTOR CONTROL MODULE "A", Diagnostic Trouble Code (DTC) Detecting Criteria.>
U0411	Invalid Data Received From Drive Motor Control Module "A"	<Ref. to GD(HEV)-170, DTC U0411 INVALID DATA RECEIVED FROM DRIVE MOTOR CONTROL MODULE "A", Diagnostic Trouble Code (DTC) Detecting Criteria.>
U1290	Lost Communication With Hybrid Powertrain Control Module HEV-CAN	<Ref. to GD(HEV)-177, DTC U1290 LOST COMMUNICATION WITH HYBRID POWERTRAIN CONTROL MODULE HEV-CAN, Diagnostic Trouble Code (DTC) Detecting Criteria.>
U1591	Invalid Data Received From Hybrid Powertrain Control Module HEV-CAN	<Ref. to GD(HEV)-181, DTC U1591 INVALID DATA RECEIVED FROM HYBRID POWERTRAIN CONTROL MODULE HEV-CAN, Diagnostic Trouble Code (DTC) Detecting Criteria.>