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Title: HYBRID / BATTERY CONTROL: MOTOR GENERATOR CONTROL SYSTEM (for M20A-FXS): VEHICLE BEHAVIOR CHART; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

VEHICLE BEHAVIOR CHART

VEHICLE BEHAVIOR CHART

(a) Vehicle behavior categorized by DTC

If a DTC is output, the vehicle behaves as follows.

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P033506	Crankshaft Position Sensor "A" Algorithm Based Failure	Normal driving
P033516	Crankshaft Position Sensor "A" Circuit Voltage Below Threshold	Normal driving
P033517	Crankshaft Position Sensor "A" Circuit Voltage Above Threshold	Normal driving
P033523	Crankshaft Position Sensor "A" Signal Stuck Low	Normal driving
P033524	Crankshaft Position Sensor "A" Signal Stuck High	Normal driving
P033562	Crankshaft Position Sensor "A" Signal Compare Failure	Normal driving
P034006	Camshaft Position Sensor "A" Circuit Bank 1 or Single Sensor Algorithm Based Failure	Normal driving
P034016	Camshaft Position Sensor "A" Circuit Bank 1 or Single Sensor Circuit Voltage Below Threshold	Normal driving
P034017	Camshaft Position Sensor "A" Circuit Bank 1 or Single Sensor Circuit Voltage Above Threshold	Normal driving
P034023	Camshaft Position Sensor "A" Circuit Bank 1 or Single Sensor Signal Stuck Low	Normal driving
P034024	Camshaft Position Sensor "A" Circuit Bank 1 or Single Sensor Signal Stuck High	Normal driving
P034062	Camshaft Position Sensor "A" Circuit Bank 1 or Single Sensor Signal Compare Failure	Normal driving
P062F44	Internal Control Module EEPROM Data Memory Failure	Normal driving
P062F46	Generator Control Module (EEPROM Learning Value) Calibration / Parameter Memory Failure	Reduced output power
P06B01C	Generator Control Module Position Sensor REF Power Source Circuit Voltage Out of Range	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P06B31C	Drive Motor "B" Control Module Position Sensor REF Power Source Circuit Voltage Out of Range	1. AWD stopped 2. Malfunction continues

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		◦ READY OFF
P06B31F	Drive Motor "B" Control Module Position Sensor REF Power Source Circuit Intermittent	-
P06D61C	Generator Control Module Offset Power Circuit Voltage Out of Range	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0A0011	Motor Electronics Coolant Temperature Sensor Circuit Short to Ground	Normal driving
P0A0015	Motor Electronics Coolant Temperature Sensor Circuit Short to Battery or Open	Normal driving
P0A001C	Motor Electronics Coolant Temperature Sensor Circuit Voltage Out of Range	Normal driving
P0A1A47	Generator Control Module Watchdog / Safety MC Failure	• Greatly reduced output power • Driving range is limited • Engine always stopped
P0A1A49	Generator Control Module Internal Electronic Failure	• Greatly reduced output power • Driving range is limited • Engine always stopped
P0A1B1F	Generator Control Module Circuit Intermittent	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0A1B47	Drive Motor "A" Control Module Watchdog / Safety MC Failure	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0A1B49	Drive Motor "A" Control Module Internal Electronic Failure	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0A1B94	Drive Motor "A" Control Module Unexpected Operation	1. Normal driving 2. Hybrid system stopped when malfunction continues

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P0A1C47	Drive Motor "B" Control Module Watchdog / Safety MCU Failure	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0A1C49	Drive Motor "B" Control Module Internal Electronic Failure	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0A2A11	Drive Motor "A" Temperature Sensor Circuit Short to Ground	Normal driving
P0A2A15	Drive Motor "A" Temperature Sensor Circuit Short to Auxiliary Battery or Open	Normal driving
P0A2A1C	Drive Motor "A" Temperature Sensor Voltage Out of Range	Normal driving
P0A2A1F	Drive Motor "A" Temperature Sensor Circuit Intermittent	Normal driving
P0A3611	GeneratorTemperature Sensor Circuit Short to Ground	Normal driving
P0A3615	GeneratorTemperature Sensor Circuit Short to Auxiliary Battery or Open	Normal driving
P0A361C	GeneratorTemperature Sensor Voltage Out of Range	Normal driving
P0A361F	GeneratorTemperature Sensor Circuit Intermittent	Normal driving
P0A3F16	Drive Motor "A" Position Sensor Circuit Voltage Below Threshold	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0A3F1F	Drive Motor "A" Position Sensor Circuit Intermittent	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0A3F21	Drive Motor "A" Position Sensor Signal Amplitude < Minimum	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0A3F22	Drive Motor "A" Position Sensor Signal Amplitude > Maximum	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0A4516	Drive Motor "B" Position Sensor Circuit Voltage Below Threshold	1. AWD stopped 2. Malfunction continues

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		◦ READY OFF
P0A451F	Drive Motor "B" Position Sensor Circuit Intermittent	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0A4521	Drive Motor "B" Position Sensor Signal Amplitude < Minimum	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0A4522	Drive Motor "B" Position Sensor Signal Amplitude > Maximum	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0A4B16	Generator Position Sensor Circuit Voltage Below Threshold	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0A4B1F	Generator Position Sensor Circuit Intermittent	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0A4B21	Generator Position Sensor Signal Amplitude < Minimum	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0A4B22	Generator Position Sensor Signal Amplitude > Maximum	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0A6012	Drive Motor "A" Phase V Current (High Resolution) Circuit Short to Battery	Normal driving
P0A6014	Drive Motor "A" Phase V Current (High Resolution) Circuit Short to Ground or Open	Normal driving
P0A601C	Drive Motor "A" Phase V Current (High Resolution) Circuit Voltage Out of Range	Normal driving

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P0A601F	Drive Motor "A" Phase V Current (High Resolution) Circuit Intermittent	-
P0A6312	Drive Motor "A" Phase W Current (High Resolution) Circuit Short to Battery	Normal driving
P0A6314	Drive Motor "A" Phase W Current (High Resolution) Circuit Short to Ground or Open	Normal driving
P0A631C	Drive Motor "A" Phase W Current (High Resolution) Circuit Voltage Out of Range	Normal driving
P0A631F	Drive Motor "A" Phase W Current (High Resolution) Circuit Intermittent	-
P0A6912	Drive Motor "B" Phase V Current(High Resolution) Circuit Short to Battery	Normal driving
P0A6914	Drive Motor "B" Phase V Current(High Resolution) Circuit Short to Ground or Open	Normal driving
P0A691C	Drive Motor "B" Phase V Current(High Resolution) Circuit Voltage Out of Range	Normal driving
P0A691F	Drive Motor "B" Phase V Current(High Resolution) Circuit Intermittent	-
P0A6C12	Drive Motor "B" Phase W Current(High Resolution) Circuit Short to Battery	Normal driving
P0A6C14	Drive Motor "B" Phase W Current(High Resolution) Circuit Short to Ground or Open	Normal driving
P0A6C1C	Drive Motor "B" Phase W Current(High Resolution) Circuit Voltage Out of Range	Normal driving
P0A6C1F	Drive Motor "B" Phase W Current(High Resolution) Circuit Intermittent	-
P0A7872	Drive Motor "A" Inverter Actuator Stuck Open	• Greatly reduced output power • Driving range is limited • Engine used while driving and engine speed becomes high
P0A7873	Drive Motor "A" Inverter Actuator Stuck Closed	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0A789E	Drive Motor "A" Inverter Stuck On	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P0A7972	Drive Motor "B" Inverter Actuator Stuck Open	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0A7973	Drive Motor "B" Inverter Actuator Stuck Closed	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0A799E	Drive Motor "B" Inverter Stuck On	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0A7A72	Generator Inverter Actuator Stuck Open	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0A7A73	Generator Inverter Actuator Stuck Closed	1. Normal driving 2. Malfunction continues ◦ Reduced output power ◦ Driving range is limited ◦ Engine always stopped 3. Hybrid system stopped when malfunction continues
P0A7A9E	Generator Inverter Stuck On	• Reduced output power • Driving range is limited • Engine always stopped
P0A9000	Drive Motor "A" Performance	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0A9100	Drive Motor "B" Performance	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0A9200	Hybrid/EV Generator Performance	• Reduced output power

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		• Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0A949E	DC/DC Converter Stuck On	• Reduced output power • Driving range is limited • Engine not stopped
P0AED11	Drive Motor Inverter Temperature Sensor "A" Circuit Short to Ground	Normal driving
P0AED15	Drive Motor Inverter Temperature Sensor "A" Circuit Short to Battery or Open	Normal driving
P0AED1C	Drive Motor Inverter Temperature Sensor "A" Circuit Voltage Out of Range	Normal driving
P0AF211	Drive Motor Inverter Temperature Sensor "B" Circuit Short to Ground	Normal driving
P0AF215	Drive Motor Inverter Temperature Sensor "B" Circuit Short to Battery or Open	Normal driving
P0AF21C	Drive Motor Inverter Temperature Sensor "B" Circuit Voltage Out of Range	Normal driving
P0BCC11	Generator Inverter Temperature Sensor Circuit Short to Ground	Normal driving
P0BCC15	Generator Inverter Temperature Sensor Circuit Short to Battery or Open	Normal driving
P0BCC1C	Generator Inverter Temperature Sensor Circuit Voltage Out of Range	Normal driving
P0BE512	Drive Motor "A" Phase U Current Sensor Circuit Short to Battery	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BE514	Drive Motor "A" Phase U Current Sensor Circuit Short to Ground or Open	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BE51F	Drive Motor "A" Phase U Current Sensor Circuit Intermittent	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P0BE528	Drive Motor "A" Phase U Current Sensor Signal Bias Level Out of Range / Zero Adjustment Failure	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BE912	Drive Motor "A" Phase V Current Sensor Circuit Short to Battery	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BE914	Drive Motor "A" Phase V Current Sensor Circuit Short to Ground or Open	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BE91F	Drive Motor "A" Phase V Current Sensor Circuit Intermittent	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BE928	Drive Motor "A" Phase V Current Sensor Signal Bias Level Out of Range / Zero Adjustment Failure	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BED12	Drive Motor "A" Phase W Current Sensor Circuit Short to Battery	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BED14	Drive Motor "A" Phase W Current Sensor Circuit Short to Ground or Open	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BED1F	Drive Motor "A" Phase W Current Sensor Circuit Intermittent	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P0BED28	Drive Motor "A" Phase W Current Sensor Signal Bias Level Out of Range / Zero Adjustment Failure	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BF112	Drive Motor "B" Phase U Current Sensor Circuit Short to Battery	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0BF114	Drive Motor "B" Phase U Current Sensor Circuit Short to Ground or Open	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0BF11F	Drive Motor "B" Phase U Current Sensor Circuit Intermittent	-
P0BF128	Drive Motor "B" Phase U Current Sensor Signal Bias Level Out of Range / Zero Adjustment Failure	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0BF512	Drive Motor "B" Phase V Current Sensor Circuit Short to Battery	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0BF514	Drive Motor "B" Phase V Current Sensor Circuit Short to Ground or Open	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0BF51F	Drive Motor "B" Phase V Current Sensor Circuit Intermittent	-
P0BF528	Drive Motor "B" Phase V Current Sensor Signal Bias Level Out of Range / Zero Adjustment Failure	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0BF912	Drive Motor "B" Phase W Current Sensor Circuit Short to Battery	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0BF914	Drive Motor "B" Phase W Current Sensor Circuit Short to Ground or Open	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0BF91F	Drive Motor "B" Phase W Current Sensor Circuit Intermittent	-
P0BF928	Drive Motor "B" Phase W Current Sensor Signal Bias Level Out of Range / Zero Adjustment Failure	1. AWD stopped 2. Malfunction continues

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		◦ READY OFF
P0BFD62	Drive Motor "A" Phase U-V-W Current Sensor Signal Compare Failure	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0BFE62	Drive Motor "B" Phase U-V-W Current Sensor Signal Compare Failure	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0BFF1D	Drive Motor "A" Circuit Current Out of Range	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0C021D	Drive Motor "B" System Circuit Current Out of Range	AWD stopped
P0C1900	Drive Motor "A" Execution Torque Performance	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0C1A00	Drive Motor "B" Execution Torque Performance	AWD stopped
P0C3811	DC/DC Converter Temperature Sensor "A" Circuit Short to Ground	Normal driving
P0C3815	DC/DC Converter Temperature Sensor "A" Circuit Short to Battery or Open	Normal driving
P0C381C	DC/DC Converter Temperature Sensor "A" Circuit Voltage Out of Range	Normal driving
P0C3D11	DC/DC Converter Temperature Sensor "B" Circuit Short to Ground	Normal driving
P0C3D15	DC/DC Converter Temperature Sensor "B" Circuit Short to Battery or Open	Normal driving
P0C3D1C	DC/DC Converter Temperature Sensor "B" Circuit Voltage Out of Range	Normal driving
P0C5013	Drive Motor "A" Position Sensor Circuit "A" Circuit Open	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P0C5016	Drive Motor "A" Position Sensor Circuit "A" Circuit Voltage Below Threshold	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0C5017	Drive Motor "A" Position Sensor Circuit "A" Circuit Voltage Above Threshold	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0C501F	Drive Motor "A" Position Sensor Circuit "A" Circuit Intermittent	-
P0C5513	Drive Motor "B" Position Sensor Circuit "A" Circuit Open	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0C5516	Drive Motor "B" Position Sensor Circuit "A" Circuit Voltage Below Threshold	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0C5517	Drive Motor "B" Position Sensor Circuit "A" Circuit Voltage Above Threshold	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0C551F	Drive Motor "B" Position Sensor Circuit "A" Circuit Intermittent	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0C5A13	Drive Motor "A" Position Sensor Circuit "B" Circuit Open	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0C5A16	Drive Motor "A" Position Sensor Circuit "B" Circuit Voltage Below Threshold	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0C5A17	Drive Motor "A" Position Sensor Circuit "B" Circuit Voltage Above Threshold	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		• Engine used while driving and engine speed becomes high
P0C5A1F	Drive Motor "A" Position Sensor Circuit "B" Circuit Intermittent	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P0C5F13	Drive Motor "B" Position Sensor Circuit "B" Circuit Open	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0C5F16	Drive Motor "B" Position Sensor Circuit "B" Circuit Voltage Below Threshold	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0C5F17	Drive Motor "B" Position Sensor Circuit "B" Circuit Voltage Above Threshold	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0C5F1F	Drive Motor "B" Position Sensor Circuit "B" Circuit Intermittent	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P0C6413	Generator Position Sensor Circuit "A" Circuit Open	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0C6416	Generator Position Sensor Circuit "A" Circuit Voltage Below Threshold	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0C6417	Generator Position Sensor Circuit "A" Circuit Voltage Above Threshold	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0C641F	Generator Position Sensor Circuit "A" Circuit Intermittent	• Reduced output power • Engine used while driving and engine speed becomes high

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		• Driving range is limited when driving with engine stopped
P0C6913	Generator Position Sensor Circuit "B" Circuit Open	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0C6916	Generator Position Sensor Circuit "B" Circuit Voltage Below Threshold	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0C6917	Generator Position Sensor Circuit "B" Circuit Voltage Above Threshold	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0C691F	Generator Position Sensor Circuit "B" Circuit Intermittent	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0C7917	Drive Motor "A" Inverter Voltage Sensor (VH) Circuit Voltage Above Threshold	1. Normal driving 2. Hybrid system stopped when malfunction continues
P0CA300	DC/DC Converter Step Up Voltage Performance	• Greatly reduced output power • Driving range is limited • Engine always stopped
P0D2D16	Drive Motor "A" Inverter Voltage Sensor (VH) Circuit Voltage Below Threshold	Reduced output power
P0D2D17	Drive Motor "A" Inverter Voltage Sensor (VH) Circuit Voltage Above Threshold	Reduced output power
P0D2D1F	Drive Motor "A" Inverter Voltage Sensor (VH) Circuit Intermittent	-
P0D3319	DC/DC Converter Circuit Current Above Threshold	• Reduced output power • Driving range is limited • Engine not stopped
P0DFA62	Generator Phase U-V-W Current Sensor Signal Compare Failure	• Reduced output power

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		• Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P0E0012	Generator Phase U Current Sensor Circuit Short to Battery	• Reduced output power • Driving range is limited • Engine always stopped
P0E0014	Generator Phase U Current Sensor Circuit Short to Ground or Open	• Reduced output power • Driving range is limited • Engine always stopped
P0E001F	Generator Phase U Current Sensor Circuit Intermittent	• Reduced output power • Driving range is limited • Engine always stopped
P0E0028	Generator Phase U Current Sensor Signal Bias Level Out of Range / Zero Adjustment Failure	• Reduced output power • Driving range is limited • Engine always stopped
P0E0412	Generator Phase V Current Sensor Circuit Short to Battery	• Reduced output power • Driving range is limited • Engine always stopped
P0E0414	Generator Phase V Current Sensor Circuit Short to Ground or Open	• Reduced output power • Driving range is limited • Engine always stopped
P0E041F	Generator Phase V Current Sensor Circuit Intermittent	• Reduced output power • Driving range is limited • Engine always stopped
P0E0428	Generator Phase V Current Sensor Signal Bias Level Out of Range / Zero Adjustment Failure	• Reduced output power • Driving range is limited • Engine always stopped
P0E0812	Generator Phase W Current Sensor Circuit Short to Battery	• Reduced output power • Driving range is limited • Engine always stopped
P0E0814	Generator Phase W Current Sensor Circuit Short to Ground or Open	• Reduced output power • Driving range is limited • Engine always stopped
P0E081F	Generator Phase W Current Sensor Circuit Intermittent	• Reduced output power • Driving range is limited

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		• Engine always stopped
P0E0828	Generator Phase W Current Sensor Signal Bias Level Out of Range / Zero Adjustment Failure	• Reduced output power • Driving range is limited • Engine always stopped
P0E3116	DC/DC Converter Voltage Sensor "A" (VL) Circuit Voltage Below Threshold	Reduced output power
P0E3117	DC/DC Converter Voltage Sensor "A" (VL) Circuit Voltage Above Threshold	Reduced output power
P0E311F	DC/DC Converter Voltage Sensor "A" (VL) Circuit Intermittent	-
P0E5111	DC/DC Converter Current Sensor Circuit Short to Ground	Reduced output power
P0E5115	DC/DC Converter Current Sensor Circuit Short to Battery or Open	Reduced output power
P0E511F	DC/DC Converter Current Sensor Circuit Intermittent	-
P0E5128	DC/DC Converter Current Sensor Signal Bias Level Out of Range / Zero Adjustment Failure	Reduced output power
P0E512A	DC/DC Converter Current Sensor Signal Stuck In Range	Reduced output power
P0E5717	DC/DC Converter Voltage Sensor "A" (VL) Circuit Voltage Above Threshold	• Reduced output power • Driving range is limited • Engine always stopped
P0E7100	Generator Execution Torque Performance	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P19F81C	Generator Control Module Offset Power Circuit Voltage Out of Range	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P19F91C	Drive Motor "B" Control Module Offset Power Circuit Voltage Out of Range	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P1C2A1C	Generator A/D Converter Circuit Circuit Voltage Out of Range	• Greatly reduced output power • Driving range is limited • Engine always stopped
P1C2A49	Generator A/D Converter Circuit Internal Electronic Failure	• Greatly reduced output power • Driving range is limited

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		• Engine always stopped
P1C2A71	Generator A/D Converter Circuit Actuator Stuck	• Greatly reduced output power • Driving range is limited • Engine always stopped
P1C2B1C	Drive Motor "A" Control Module A/D Converter Circuit Voltage Out of Range	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P1C2B49	Drive Motor "A" Control Module A/D Converter Circuit Internal Electronic Failure	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P1C2B71	Drive Motor "A" Control Module A/D Converter Circuit Actuator Stuck	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P1C2C1C	Drive Motor "B" Control Module AD Converter Circuit Voltage Out of Range	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P1C2C49	Drive Motor "B" Control Module AD Converter Internal Electronic Failure	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P1C2C71	Drive Motor "B" Control Module A/D Converter Circuit Actuator Stuck	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P1C5D19	Drive Motor "A" Inverter Circuit Current Above Threshold	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P1C5E19	Drive Motor "B" Inverter Circuit Current Above Threshold	AWD stopped
P1C5F19	Generator Inverter Circuit Current Above Threshold	1. Normal driving 2. Malfunction continues

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		◦ Reduced output power ◦ Driving range is limited ◦ Engine always stopped 3. Hybrid system stopped when malfunction continues
P1C601F	Generator Control Module Position Sensor REF Power Source Circuit Intermittent	-
P1C621F	Generator Control Module Offset Power Circuit Intermittent	-
P1C641F	Generator Control Module Circuit Intermittent	-
P1C651F	Generator Control Module Circuit Intermittent	-
P1C661F	Drive Motor "B" Control Module Circuit Intermittent	-
P1C671F	Drive Motor "A" Phase U-V-W Current Sensor Circuit Intermittent	-
P1C681F	Drive Motor "B" Phase U-V-W Current Sensor Circuit Intermittent	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P1C691F	Generator Phase U-V-W Current Sensor Circuit Intermittent	-
P1CA51D	Hybrid/EV Generator Circuit Current Out of Range	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P1CAC49	Generator Position Sensor Internal Electronic Failure	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P1CAD49	Drive Motor "A" Position Sensor Internal Electronic Failure	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P1CAE49	Drive Motor "B" Position Sensor Internal Electronic Failure	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P1CAF38	Generator Position Sensor REF Signal Cycle Malfunction Signal Frequency Incorrect	• Reduced output power

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		• Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P1CB038	Drive Motor "A" Position Sensor REF Signal Frequency Incorrect	• Greatly reduced output power • Driving in reverse not possible • Driving range is limited • Engine used while driving and engine speed becomes high
P1CB138	Drive Motor "B" Position Sensor REF Signal Frequency Incorrect	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P1CB59E	DC/DC Converter Voltage Sensor "A" (VL) Stuck On	• Reduced output power • Driving range is limited • Engine not stopped
P1CB69E	Drive Motor "A" Inverter Voltage Sensor (VH) Stuck On	Reduced output power
P1CFF62	Hybrid/EV Battery Current/DC/DC Converter Current Signal Compare Failure	Reduced output power
P26DF1C	Generator Control Module Position Sensor REF Power Source Circuit Voltage Out of Range	• Reduced output power • Engine used while driving and engine speed becomes high • Driving range is limited when driving with engine stopped
P26DF1F	Generator Control Module Position Sensor REF Power Source Circuit Intermittent	-
P274A11	Transmission Fluid Temperature Sensor "C" Circuit Short to Ground	Normal driving
P274A15	Transmission Fluid Temperature Sensor "C" Circuit Short to Auxiliary Batteryor Open	Normal driving
P274A1C	Transmission Fluid Temperature Sensor "C" Voltage Out of Range	Normal driving
P274A1F	Transmission Fluid Temperature Sensor "C" Circuit Intermittent	Normal driving
P310A1F	Communication Error from Drive Motor "B" to Drive Motor "A" Circuit Intermittent	-
P310A83	Communication Error from Drive Motor "B" to Drive Motor "A" Value of Signal Protection Calculation Incorrect	1. AWD stopped 2. Malfunction continues ◦ READY OFF

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P310A86	Communication Error from Drive Motor "B" to Drive Motor "A" Signal (Some Circuit Quantity, Reported via Serial Data) Invalid	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P310A87	Communication Error from Drive Motor "B" to Drive Motor "A" Missing Message	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P310B1F	Communication Error from Drive Motor "A" to Drive Motor "B" Circuit Intermittent	-
P310B83	Communication Error from Drive Motor "A" to Drive Motor "B" Value of Signal Protection Calculation Incorrect	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P310B86	Communication Error from Drive Motor "A" to Drive Motor "B" Signal (Some Circuit Quantity, Reported via Serial Data) Invalid	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P310B87	Communication Error from Drive Motor "A" to Drive Motor "B" Missing Message	1. AWD stopped 2. Malfunction continues ◦ READY OFF
P31241F	Lost Communication between Drive Motor "A" and HV/EV ECU Circuit Intermittent	-
P313383	Communication Error from Generator to Drive Motor "A" Value of Signal Protection Calculation Incorrect	• Greatly reduced output power • Driving range is limited • Engine always stopped
P313386	Communication Error from Generator to Drive Motor "A" Signal Invalid	• Greatly reduced output power • Driving range is limited • Engine always stopped
P313387	Communication Error from Generator to Drive Motor "A" Missing Message	• Greatly reduced output power • Driving range is limited • Engine always stopped
P313483	Communication Error from Drive Motor "A" to Generator Value of Signal Protection Calculation Incorrect	• Greatly reduced output power • Driving range is limited • Engine always stopped
P313486	Communication Error from Drive Motor "A" to Generator Signal Invalid	• Greatly reduced output power • Driving range is limited • Engine always stopped

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P313487	Communication Error from Drive Motor "A" to Generator Missing Message	• Greatly reduced output power • Driving range is limited • Engine always stopped
P314F1F	DC/DC Converter Voltage Sensor "A" (VL) Circuit Intermittent	Reduced output power
P31531D	DC/DC Converter Current Sensor Circuit Current Out of Range	Reduced output power
P32BF1F	Lost Communication between Drive Motor "A" and "B" (Drive Motor "A") Circuit Intermittent	-
P32BF83	Lost Communication between Drive Motor "A" and "B" (Drive Motor "A") Value of Signal Protection Calculation Incorrect	AWD stopped
P32BF86	Lost Communication between Drive Motor "A" and "B" (Drive Motor "A") Signal (Some Circuit Quantity, Reported via Serial Data) Invalid	AWD stopped
P32BF87	Lost Communication between Drive Motor "A" and "B" (Drive Motor "A") Missing Message	AWD stopped
P32CF1F	Lost Communication between Drive Motor "A" and "B" (Drive Motor "B") Circuit Intermittent	-
P32CF83	Lost Communication between Drive Motor "A" and "B" (Drive Motor "B") Value of Signal Protection Calculation Incorrect	AWD stopped
P32CF86	Lost Communication between Drive Motor "A" and "B" (Drive Motor "B") Signal (Some Circuit Quantity, Reported via Serial Data) Invalid	AWD stopped
P32CF87	Lost Communication between Drive Motor "A" and "B" (Drive Motor "B") Missing Message	AWD stopped
U010087	Lost Communication With ECM/PCM "A" Missing Message	Normal driving
U029387	Lost Communication With Hybrid Powertrain Control Module Missing Message	Normal driving
U117008	Lost Communication with Brake System Control Module (ch2) Bus Signal / Message Failure	Normal driving
U117087	Lost Communication With Brake System Control Module(ch2) Missing Message	Normal driving
U11B300	Lost Communication with Hybrid/EV Powertrain Control Module (ch5) (System 2) Missing Message	• Reduced output power • Engine not stopped
U11B387	Lost Communication with Hybrid/EV Powertrain Control Module (ch5) Missing Message	• Reduced output power • Engine not stopped