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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: HYBRID / BATTERY CONTROL: HYBRID BATTERY SYSTEM (for M20A-FXS): VEHICLE BEHAVIOR CHART; 2023 - 2024 MY Prius Prime [12/2022 -]		

VEHICLE BEHAVIOR CHART

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(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
P056014	System Voltage (BATT) Circuit Short to Ground or Open	Normal driving
P060629	Hybrid/EV Battery Energy Control Module Processor to Monitoring Processor Signal Invalid	<ul style="list-style-type: none"> Reduced output power Engine not stopped
P060687	Hybrid/EV Battery Energy Control Module Processor to Monitoring Processor Missing Message	<ul style="list-style-type: none"> Reduced output power Engine not stopped
P060A47	Hybrid/EV Battery Energy Control Module Monitoring Processor Watchdog / Safety MCU Failure	<ul style="list-style-type: none"> Reduced output power Engine not stopped
P060A87	Hybrid/EV Battery Energy Control Module Processor from Monitoring Processor Missing Message	<ul style="list-style-type: none"> Reduced output power Engine not stopped
P060B16	Hybrid/EV Battery Energy Control Module A/D Processing Circuit Voltage Below Threshold	<ul style="list-style-type: none"> Reduced output power Engine not stopped
P060B49	Hybrid/EV Battery Energy Control Module A/D Processing Internal Electronic Failure	<ul style="list-style-type: none"> Reduced output power Engine not stopped
P062F44	Hybrid/EV Battery Energy Control Module EEPROM Data Memory Failure	Normal driving
P062F46	Hybrid/EV Battery Energy Control Module EEPROM Calibration / Parameter Memory Failure	Normal driving
P0A1D94	Hybrid/EV Powertrain Control Module Unexpected Operation	READY OFF
P0A8100	Hybrid/EV Battery Cooling Fan 1 Control Circuit High	Normal driving
P0A8111	Hybrid/EV Battery Cooling Fan 1 Circuit Short to Ground	Normal driving
P0A8115	Hybrid/EV Battery Cooling Fan 1 Circuit Short to Auxiliary Battery or Open	Normal driving
P0A814B	Hybrid/EV Battery Cooling Fan 1 Over Temperature	Normal driving
P0A8196	Hybrid/EV Battery Cooling Fan 1 Component Internal Failure	Normal driving

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P0A8198	Hybrid/EV Battery Cooling Fan 1 Component or System Over Temperature	Normal driving
P0A9563	High Voltage Fuse Accumulated Load History	Normal driving
P0A9B11	Hybrid/EV Battery Temperature Sensor "A" Circuit Short to Ground	Normal driving
P0A9B15	Hybrid/EV Battery Temperature Sensor "A" Circuit Short to Auxiliary Battery or Open	Normal driving
P0A9B1C	Hybrid/EV Battery Temperature Sensor "A" Voltage Out of Range	Normal driving
P0A9B2A	Hybrid/EV Battery Temperature Sensor "A" Signal Stuck In Range	Normal driving
P0AAC11	Hybrid/EV Battery Air Temperature Sensor "A" Circuit Short to Ground	Normal driving
P0AAC15	Hybrid/EV Battery Air Temperature Sensor "A" Circuit Short to Auxiliary Battery or Open	Normal driving
P0ABF11	Hybrid/EV Battery Current Sensor "A" Circuit Short to Ground	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P0ABF15	Hybrid/EV Battery Current Sensor "A" Circuit Short to Auxiliary Battery or Open	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P0ABF28	Hybrid/EV Battery Current Sensor "A" Signal Bias Level Out of Range / Zero Adjustment Failure	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P0ABF2A	Hybrid/EV Battery Current Sensor "A" Signal Stuck In Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P0AC511	Hybrid/EV Battery Temperature Sensor "B" Circuit Short to Ground	Normal driving
P0AC515	Hybrid/EV Battery Temperature Sensor "B" Circuit Short to Auxiliary Battery or Open	Normal driving
P0AC51C	Hybrid/EV Battery Temperature Sensor "B" Voltage Out of Range	Normal driving
P0AC52A	Hybrid/EV Battery Temperature Sensor "B" Signal Stuck In Range	Normal driving
P0ACA11	Hybrid/EV Battery Temperature Sensor "C" Circuit Short to Ground	Normal driving
P0ACA15	Hybrid/EV Battery Temperature Sensor "C" Circuit Short to Auxiliary Battery or Open	Normal driving
P0ACA1C	Hybrid/EV Battery Temperature Sensor "C" Voltage Out of Range	Normal driving
P0ACA2A	Hybrid/EV Battery Temperature Sensor "C" Signal Stuck In Range	Normal driving
P0AE811	Hybrid/EV Battery Temperature Sensor "D" Circuit Short to Ground	Normal driving
P0AE815	Hybrid/EV Battery Temperature Sensor "D" Circuit Short to Auxiliary Battery or Open	Normal driving
P0AE81C	Hybrid/EV Battery Temperature Sensor "D" Voltage Out of Range	Normal driving
P0AE82A	Hybrid/EV Battery Temperature Sensor "D" Signal Stuck In Range	Normal driving
P0B0E11	Hybrid/EV Battery Current Sensor "B" Circuit Short to Ground	<ul style="list-style-type: none"> • Reduced output power

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		<ul style="list-style-type: none"> • Engine not stopped
P0B0E15	Hybrid/EV Battery Current Sensor "B" Circuit Short to Auxiliary Battery or Open	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P0B1362	Hybrid/EV Battery Current Sensor "A"/"B" Signal Compare Failure	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P0BC211	Hybrid/EV Battery Temperature Sensor "E" Circuit Short to Ground	Normal driving
P0BC215	Hybrid/EV Battery Temperature Sensor "E" Circuit Short to Auxiliary Battery or Open	Normal driving
P0BC21C	Hybrid/EV Battery Temperature Sensor "E" Voltage Out of Range	Normal driving
P0BC22A	Hybrid/EV Battery Temperature Sensor "E" Signal Stuck In Range	Normal driving
P0C3000	Hybrid/EV Battery State of Charge High	<ul style="list-style-type: none"> • Greatly reduced output power • Driving range is limited • Engine always stopped
P0C3311	Hybrid/EV Battery Temperature Sensor "F" Circuit Short to Ground	Normal driving
P0C3315	Hybrid/EV Battery Temperature Sensor "F" Circuit Short to Auxiliary Battery or Open	Normal driving
P0C331C	Hybrid/EV Battery Temperature Sensor "F" Voltage Out of Range	Normal driving
P0C332A	Hybrid/EV Battery Temperature Sensor "F" Signal Stuck In Range	Normal driving
P0E2D00	Hybrid/EV Battery Energy Control Module Hybrid/EV Battery Monitor Performance	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1A001C	Hybrid Battery Stack 2 Cell Voltage Detection Voltage Out of Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1A6017	Hybrid/EV Battery Stack 2 Cell Circuit Voltage Above Threshold	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1A6116	Hybrid/EV Battery Stack 2 Cell Circuit Voltage Below Threshold	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1A8000	Hybrid/EV Battery Stack 1 Delta SOC High	Normal driving
P1A8100	Hybrid/EV Battery Stack 1 Delta SOC High (Extreme)	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1A8500	Hybrid/EV Battery Stack 2 Delta SOC High	Normal driving
P1A8600	Hybrid/EV Battery Stack 2 Delta SOC High (Extreme)	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P1AFC00	System Voltage (AM) Circuit Voltage Below Threshold	READY OFF
P1AFD00	Flying Capacitor Circuit Voltage Out of Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1AFD1C	Flying Capacitor/Internal Control Module Hybrid/EV Battery Monitor Voltage Out of Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1AFF00	Hybrid/EV Battery ECU Multiple Reset	READY OFF
P1C8549	High Voltage Power Resource Internal Electronic Failure	READY OFF
P1C9F11	Hybrid/EV Battery Current Sensor for Driving Control Circuit Short to Ground	Normal driving
P1C9F15	Hybrid/EV Battery Current Sensor for Driving Control Circuit Short to Auxiliary Battery or Open	Normal driving
P1C9F1C	Hybrid/EV Battery Current Sensor for Driving Control Voltage Out of Range	Normal driving
P1CBB12	Hybrid/EV Battery Current Sensor Power Supply Circuit Short to Auxiliary Battery	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1CBB14	Hybrid/EV Battery Current Sensor Power Supply Circuit Short to Ground or Open	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1CC81E	Hybrid/EV Battery Stack 1 Voltage Difference Out of Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1CC91E	Hybrid/EV Battery Stack 2 Voltage Difference Out of Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P300000	Hybrid/EV Battery Discharge Control Malfunction	READY OFF
P300016	Hybrid/EV Battery Control System Circuit Voltage Below Threshold	READY OFF
P30004B	Hybrid/EV Battery Control System Over Temperature	READY OFF
P301A1C	Hybrid Battery Stack 1 Cell Voltage Detection Voltage Out of Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P306562	Hybrid/EV Battery Temperature Sensor "Group 1" Signal Compare Failure	Normal driving
P306A62	Hybrid/EV Battery Temperature Sensor "Group 2" Signal Compare Failure	Normal driving
P31AA17	Hybrid/EV Battery Stack 1 Cell Circuit Voltage Above Threshold	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P31AB16	Hybrid/EV Battery Stack 1 Cell Circuit Voltage Below Threshold	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P31B300	Hybrid/EV Battery Voltage High	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P31B400	Extreme Hybrid/EV Battery Charging Current	READY OFF
P31B549	Hybrid/EV Battery Internal Electronic Failure	READY OFF
P33DA1E	Hybrid/EV Battery Stack 1 Circuit Resistance Out of Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P33DB1E	Hybrid/EV Battery Stack 2 Circuit Resistance Out of Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P33E01B	Hybrid/EV Battery Stack 1 Circuit Resistance Above Threshold	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P33E11B	Hybrid/EV Battery Stack 2 Circuit Resistance Above Threshold	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P33E600	Hybrid/EV Battery Stack 1 Capacity Decline	Normal driving
P33E700	Hybrid/EV Battery Stack 2 Capacity Decline	Normal driving
P33EC16	(Extreme) Hybrid/EV Battery Stack 1 Cell Circuit Voltage Below Threshold	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P33ED16	(Extreme) Hybrid/EV Battery Stack 2 Cell Circuit Voltage Below Threshold	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
U010087	Lost Communication with ECM/PCM "A" Missing Message	Normal driving
U029387	Lost Communication with Hybrid/EV Powertrain Control Module Missing Message	Normal driving
U115087	Lost Communication with Hybrid Powertrain Control Module (Hybrid/EV Battery Local Bus) Missing Message	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped

