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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID BATTERY SYSTEM (for PHEV Model): VEHICLE BEHAVIOR CHART; 2023 - 2024 MY Prius Prime [03/2023 -]		

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
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	Hybrid system stopped
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
P0AA749	Hybrid/EV Battery Voltage Isolation Sensor Circuit Internal Electronic Failure	Normal driving

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
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 • 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

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
		<ul style="list-style-type: none"> • 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 • A driving range is limited • Engine always stopped
P0C3200	Hybrid/EV Battery Cooling System "A" Performance	<p>Vehicle behaves as follows when HV battery temperature is the specified value or higher:</p> <ul style="list-style-type: none"> • Reduced output power • Engine not 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
P0C4211	Hybrid/EV Battery Pack Coolant Temperature Sensor "A" Circuit Low Circuit Short to Ground	Normal driving
P0C4215	Hybrid/EV Battery Pack Coolant Temperature Sensor "A" Circuit High Circuit Short to Auxiliary Battery or Open	Normal driving
P0C7C11	Hybrid/EV Battery Temperature Sensor "G" Circuit Short to Ground	Normal driving
P0C7C15	Hybrid/EV Battery Temperature Sensor "G" Circuit Short to Auxiliary Battery or Open	Normal driving
P0C7C1C	Hybrid/EV Battery Temperature Sensor "G" Voltage Out of Range	Normal driving
P0C7C2A	Hybrid/EV Battery Temperature Sensor "G" Signal Stuck In Range	Normal driving
P0C8111	Hybrid/EV Battery Temperature Sensor "H" Circuit Short to Ground	Normal driving
P0C8115	Hybrid/EV Battery Temperature Sensor "H" Circuit Short to Auxiliary Battery or Open	Normal driving

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P0C811C	Hybrid/EV Battery Temperature Sensor "H" Voltage Out of Range	Normal driving
P0C812A	Hybrid/EV Battery Temperature Sensor "H" Signal Stuck In Range	Normal driving
P0C8811	Hybrid/EV Battery Temperature Sensor "I" Circuit Short to Ground	Normal driving
P0C8815	Hybrid/EV Battery Temperature Sensor "I" Circuit Short to Auxiliary Battery or Open	Normal driving
P0C881C	Hybrid/EV Battery Temperature Sensor "I" Voltage Out of Range	Normal driving
P0C882A	Hybrid/EV Battery Temperature Sensor "I" Signal Stuck In Range	Normal driving
P0C8D11	Hybrid/EV Battery Temperature Sensor "J" Circuit Short to Ground	Normal driving
P0C8D15	Hybrid/EV Battery Temperature Sensor "J" Circuit Short to Auxiliary Battery or Open	Normal driving
P0C8D1C	Hybrid/EV Battery Temperature Sensor "J" Voltage Out of Range	Normal driving
P0C8D2A	Hybrid/EV Battery Temperature Sensor "J" Signal Stuck In Range	Normal driving
P0C9211	Hybrid/EV Battery Temperature Sensor "K" Circuit Short to Ground	Normal driving
P0C9215	Hybrid/EV Battery Temperature Sensor "K" Circuit Short to Auxiliary Battery or Open	Normal driving
P0C921C	Hybrid/EV Battery Temperature Sensor "K" Voltage Out of Range	Normal driving
P0C922A	Hybrid/EV Battery Temperature Sensor "K" Signal Stuck In Range	Normal driving
P0C9711	Hybrid/EV Battery Temperature Sensor "L" Circuit Short to Ground	Normal driving
P0C9715	Hybrid/EV Battery Temperature Sensor "L" Circuit Short to Auxiliary Battery or Open	Normal driving
P0C971C	Hybrid/EV Battery Temperature Sensor "L" Voltage Out of Range	Normal driving
P0C972A	Hybrid/EV Battery Temperature Sensor "L" Signal Stuck In Range	Normal driving
P0CA811	Hybrid/EV Battery Temperature Sensor "M" Circuit Short to Ground	Normal driving
P0CA815	Hybrid/EV Battery Temperature Sensor "M" Circuit Short to Auxiliary Battery or Open	Normal driving
P0CA81C	Hybrid/EV Battery Temperature Sensor "M" Voltage Out of Range	Normal driving

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P0CA82A	Hybrid/EV Battery Temperature Sensor "M" Signal Stuck In Range	Normal driving
P0CAD11	Hybrid/EV Battery Temperature Sensor "N" Circuit Short to Ground	Normal driving
P0CAD15	Hybrid/EV Battery Temperature Sensor "N" Circuit Short to Auxiliary Battery or Open	Normal driving
P0CAD1C	Hybrid/EV Battery Temperature Sensor "N" Voltage Out of Range	Normal driving
P0CAD2A	Hybrid/EV Battery Temperature Sensor "N" Signal Stuck In Range	Normal driving
P0CB211	Hybrid/EV Battery Temperature Sensor "O" Circuit Short to Ground	Normal driving
P0CB215	Hybrid/EV Battery Temperature Sensor "O" Circuit Short to Auxiliary Battery or Open	Normal driving
P0CB21C	Hybrid/EV Battery Temperature Sensor "O" Voltage Out of Range	Normal driving
P0CB22A	Hybrid/EV Battery Temperature Sensor "O" Signal Stuck In Range	Normal driving
P0CD511	Hybrid/EV Battery Pack Coolant Temperature Sensor "B" Circuit Low Circuit Short to Ground	Normal driving
P0CD515	Hybrid/EV Battery Pack Coolant Temperature Sensor "B" Circuit High Circuit Short to Auxiliary Battery or Open	Normal driving
P0D0A11	Hybrid/EV Battery Charging System Positive Contactor Control Circuit Short to Ground	Plug-in charging suspended
P0D0A15	Hybrid/EV Battery Charging System Positive Contactor Control Circuit Short to Auxiliary Battery or Open	Plug-in charging suspended
P0D1111	Hybrid/EV Battery Charging System Negative Contactor Control Circuit Short to Ground	Plug-in charging suspended
P0D1115	Hybrid/EV Battery Charging System Negative Contactor Control Circuit Short to Auxiliary Battery or Open	Plug-in charging suspended
P0D1A18	Hybrid/EV Battery Pack Coolant Control Valve "B" Control Circuit Low Circuit Current Below Threshold	Normal driving
P0D1A19	Hybrid/EV Battery Pack Coolant Control Valve "B" Control Circuit High Circuit Current Above Threshold	Normal driving
P0D1A71	Hybrid/EV Battery Pack Coolant Control Valve "B" Performance/Stuck Off Actuator Stuck	Vehicle behaves as follows when HV battery temperature is the specified value or higher: <ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P0E2D00	Hybrid/EV Battery Energy Control Module Hybrid/EV Battery Monitor Performance	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P0E6D11	Hybrid/EV Battery Charging System Precharge Contactor Control Circuit Short to Ground	Plug-in charging suspended
P0E6D15	Hybrid/EV Battery Charging System Precharge Contactor Control Circuit Short to Auxiliary Battery or Open	Plug-in charging suspended
P19CF62	Hybrid/EV Battery Pack Coolant Temperature Sensor System Signal Compare Failure	Vehicle behaves as follows when HV battery temperature is the specified value or higher: <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
P1A051C	Hybrid Battery Stack 3 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
P1A6317	Hybrid/EV Battery Stack 3 Cell Circuit Voltage Above Threshold	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1A6416	Hybrid/EV Battery Stack 3 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
P1A8A00	Hybrid/EV Battery Stack 3 Delta SOC High	Normal driving
P1A8B00	Hybrid/EV Battery Stack 3 Delta SOC High (Extreme)	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1AC413	Hybrid/EV Battery Stack 1 Current Interrupt Device Circuit Open	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1AC49E	Hybrid/EV Battery Stack 1 Current Interrupt Device Stuck On	<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
P1AC513	Hybrid/EV Battery Stack 2 Current Interrupt Device Circuit Open	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1AC59E	Hybrid/EV Battery Stack 2 Current Interrupt Device Stuck On	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1AC613	Hybrid/EV Battery Stack 3 Current Interrupt Device Circuit Open	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1AC69E	Hybrid/EV Battery Stack 3 Current Interrupt Device Stuck On	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1AFC00	System Voltage (AM) Circuit Voltage Below Threshold	Hybrid system stopped
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
P1B4011	Hybrid/EV Battery Heater 1 Temperature Sensor Circuit Short to Ground	Normal driving
P1B4015	Hybrid/EV Battery Heater 1 Temperature Sensor Circuit Short to Auxiliary Battery or Open	Normal driving
P1B4511	Hybrid/EV Battery Heater 2 Temperature Sensor Circuit Short to Ground	Normal driving
P1B4515	Hybrid/EV Battery Heater 2 Temperature Sensor Circuit Short to Auxiliary Battery or Open	Normal driving
P1B4A62	Hybrid/EV Battery Heater Temperature Sensor Signal Compare Failure	Normal driving
P1B4B72	Hybrid/EV Battery Heater Relay Actuator Stuck Open	Normal driving
P1B4B73	Hybrid/EV Battery Heater Relay Actuator Stuck Closed	Normal driving
P1B8312	Hybrid/EV Battery Pack Refrigerant Pressure Sensor "A" Circuit High Circuit Short to Auxiliary Battery	Normal driving
P1B8314	Hybrid/EV Battery Pack Refrigerant Pressure Sensor "A" Circuit Low Circuit Short to Ground or Open	Normal driving
P1B831C	Hybrid/EV Battery Pack Refrigerant Pressure Sensor "A" Circuit Range/Performance Circuit Voltage Out of Range	<p>Vehicle behaves as follows when HV battery temperature is the specified value or higher:</p> <ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1C8549	High Voltage Power Resource Internal Electronic Failure	Hybrid system stopped

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
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
P1CCA1E	Hybrid/EV Battery Stack 3 Voltage Difference Out of Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P1F6900	Hybrid/EV Battery Pack Coolant Control Valve "B" Monitor Performance	Normal driving
P2BE411	Hybrid/EV Battery Pack Current Sensor "C" Low Circuit Short to Ground	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P2BE415	Hybrid/EV Battery Pack Current Sensor "C" High Circuit Short to Auxiliary Battery or Open	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P2BE41C	Hybrid/EV Battery Pack Current Sensor "C" Circuit Range/Performance Circuit Voltage Out of Range	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P2BE428	Hybrid/EV Battery Pack Current Sensor "C" Circuit Range/Performance Signal Bias Level Out of Range / Zero Adjustment Failure	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
P300000	Hybrid/EV Battery Discharge Control Malfunction	Hybrid system stopped
P300016	Hybrid/EV Battery Control System Circuit Voltage Below Threshold	Hybrid system stopped
P30004B	Hybrid/EV Battery Control System Over Temperature	Hybrid system stopped
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
P306B62	Hybrid/EV Battery Temperature Sensor "Group 3" Signal Compare Failure	Normal driving

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
P31AA17	Hybrid/EV Battery Stack 1 Cell Circuit Voltage Above Threshold	<ul style="list-style-type: none"> • Reduced output power • Engine not stopped
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	Hybrid system stopped
P31B549	Hybrid/EV Battery Internal Electronic Failure	Hybrid system stopped
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
P33DC1E	Hybrid/EV Battery Stack 3 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
P33E21B	Hybrid/EV Battery Stack 3 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
P33E800	Hybrid/EV Battery Stack 3 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
P33EE16	(Extreme) Hybrid/EV Battery Stack 3 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
U016487	Lost Communication with HVAC Control Module Missing Message	Reduced output power

DTC NO.	DETECTION ITEM	VEHICLE BEHAVIOR WHEN DTC IS OUTPUT
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
U115387	Lost Communication with Hybrid/EV Battery Charger Control Module "A" (ch2) Missing Message	Normal driving

