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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: HYBRID / BATTERY CONTROL: MOTOR GENERATOR CONTROL SYSTEM (for M20A-FXS): FREEZE FRAME DATA; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

FREEZE FRAME DATA

FREEZE FRAME DATA

HINT:

The motor generator control ECU records vehicle and driving condition information as freeze frame data the moment a DTC is stored. It can be used for estimating or duplicating the vehicle conditions that were present when the malfunction occurred.

(a) Select a DTC in order to display its freeze frame data.

Powertrain > Motor Generator > Trouble Codes

(b) Check the freeze frame data recorded with the DTC.

Powertrain > Motor Generator

TESTER DISPLAY
Calculate Load
Coolant Temperature
Engine Speed
Vehicle Speed
Intake Air Temperature
Throttle Position Sensor No.1 Voltage %
Engine Run Time
MIL ON Run Distance
Warmup Cycle Cleared DTC
Distance from DTC Cleared
Battery Voltage
Ambient Temperature

TESTER DISPLAY
Running Time from MIL ON
Time after DTC Cleared
Shift SW Status (N,P Range)
Hybrid/EV Battery System Voltage
Hybrid/EV Battery System Current
Motor U Current(Lower Resolution)
Motor V Current(Lower Resolution)
Motor W Current(Lower Resolution)
Generator U Current(Lower Resolution)
Generator V Current(Lower Resolution)
Generator W Current(Lower Resolution)
Motor ECU Power Supply (For 31V)
Motor ECU Power Supply (For AD0)
Motor ECU Power Supply (For 2.5V)
Motor ECU Power Supply (For 2.5V Sub)
Motor Revolution
Motor Torque
Motor Control Mode
Motor Carrier Frequency

TESTER DISPLAY
Motor Inverter Shut Down Signal
Generator Revolution
Generator Torque
Generator Control Mode
Generator Carrier Frequency
Generator Inverter Shut Down Signal
Inverter Coolant Temperature
Inverter Input Current
Inverter Water Pump Duty
Inverter Water Pump Revolution
Collinear Graphic Engine Revolution
Motor Resolver After Offset
Motor Resolver Offset Value
Generator Resolver After Offset
Generator Resolver Offset Value
VL Voltage
VH Voltage
Boosting Converter PWM Duty
Boosting Converter Control Mode

TESTER DISPLAY
Boosting Converter Carrier Frequency
Boosting Converter Shut Down Signal
Generate Request Torque
Shift Position
Short Wave Highest Value
Fail Safe Mode
Accelerator Position
WIN Control Limit Power
WOUT Control Limit Power
Engine Control Mode
Emergency Shutdown Signal
Ready ON Status
SMR Status
Generator Resolver Offset Complete Status
Generator Inverter High Current(GFINV)
Generator Inverter Shut Down Status
Motor Resolver Offset Complete Status
Motor Inverter High Current(MFINV)
Motor Inverter Shut Down Status

TESTER DISPLAY
Inverter Input High Voltage(OVH)
Boosting Converter Input High Voltage(OVL)
Boosting Converter Input High Current(CFINV)
Boosting Converter Shut Down Status
Generator Inverter Temperature
Boosting Converter Temperature(Upper)
Boosting Converter Temperature 1(Lower)
Motor Inverter Temperature
Total Distance Traveled
Total Distance Traveled - Unit
Rear Motor Generate Request Torque
Rear Motor Resolver After Offset
Rear Motor Resolver Offset Value
Rear Motor Revolution
Rear Motor Torque
Rear Motor Control Mode
Rear Motor Carrier Frequency
Rear Motor Inverter Shut Down Signal
Rear Motor Temperature

TESTER DISPLAY
Rear Motor U Current (Lower Resolution)
Rear Motor V Current (Lower Resolution)
Rear Motor W Current (Lower Resolution)
Rear Motor Inverter Temperature
Rear Motor Resolver Offset Complete Status
Rear Motor Inverter Input High Current (RFINV)
Rear Motor Inverter Shut Down Status
Generator Temperature Sensor Voltage
Generator Temperature
Generator Temperature just after IG ON
Generator Maximum Temperature
Motor Temperature Sensor Voltage
Motor Temperature
Motor Temperature just after IG ON
Motor Maximum Temperature
Transaxle Oil Temperature Sensor Voltage
Transaxle Oil Temperature
Rear Motor ECU Power Supply
Rear Motor ECU Power Supply (For AD0)

TESTER DISPLAY
Rear Motor ECU Power Supply (For 2.5V)
Generator ECU Power Supply
Generator ECU Power Supply (For AD0)
Generator ECU Power Supply (For 2.5V)
Generator Torque
Battery Temperature
M/C Control Torque
Hybrid/EV Battery SOC
Rear Motor W High Current Flag
Rear Motor V High Current Flag
Rear Motor U High Current Flag
Boosting Converter Shut Down Status (Generator Output)
Rear Motor Inverter Shut Down Status (Generator Output)
Motor Inverter Shut Down Status (Generator Output)
Generator Inverter Shut Down Status (Generator Output)
Boosting Converter Overcurrent Status
Motor W High Current Flag
Motor V High Current Flag
Motor U High Current Flag

TESTER DISPLAY
Generator W High Current Flag
Generator V High Current Flag
Generator U High Current Flag
Generator Rectangle Control Status
Motor Rectangle Control Status
Rear Motor Rectangle Control Status
Generator PWM Control Request Status
Motor PWM Control Request Status
Generator PWM Control Status
Motor PWM Control Status
Generator PWM Rate Control Request Status
Motor PWM Rate Control Request Status
Generator PWM Rate
Motor PWM Rate
Engine Speed (Camshaft Position Sensor)
Engine Speed (Crankshaft Position Sensor)

