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Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: ELECTRONICALLY CONTROLLED BRAKE SYSTEM: FREEZE FRAME DATA; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

FREEZE FRAME DATA

FREEZE FRAME DATA

(a) Using the GTS, check the vehicle condition (ECU, sensor) when a DTC is output.

CHECK FREEZE FRAME DATA WHEN DTC WAS STORED

(a) Freeze Frame Data is stored when a DTC is output.

(b) Once Freeze Frame Data is stored when a DTC is output, it is not updated or cleared until the DTC is cleared.

(c) Check the Freeze Frame Data when a DTC is output.

(1) Turn the ignition switch off.

(2) Connect the GTS to the DLC3.

(3) Turn the ignition switch to ON.

(4) Turn the GTS on.

(5) Enter the following menus: Chassis / Brake Booster / Trouble Codes.

Chassis > Brake Booster > Trouble Codes

(6) Enter the following menus: Chassis / Brake/EPB* / Trouble Codes.

*: Electric Parking Brake System

Chassis > Brake/EPB > Trouble Codes

(7) Select a DTC to display the Freeze Frame Data.

(8) Check the Freeze Frame Data for the output DTC.

Chassis > Brake Booster

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Total Distance Traveled - Unit	Total distance traveled unit	km / mile	-	-
Total Distance Traveled	Total distance traveled	Min.: 0 Max.: 16777215	-	-
Solenoid Power Supply Voltage	Solenoid power supply voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage
Stop Light SW	Stop light switch assembly (STP terminal input)	OFF / ON	OFF: Brake pedal released ON: Brake pedal depressed	**HINT:** The brake pedal state is determined using the voltage at terminal STP

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Parking Brake SW	Parking brake status	OFF / ON	OFF: Parking brake released ON: Parking brake applied	-
Buzzer	Meter buzzer	OFF / ON	OFF: Buzzer off ON: Buzzer on	-
Dealer Mode	Dealer Mode (Signal Check mode or Calibration mode) status	OFF / ON	OFF: Normal mode ON: Dealer Mode (Signal Check mode or Calibration mode)	**HINT:** • For details on Dealer Mode (Signal Check), refer to Signal Check*1 • For details on Dealer Mode (Calibration), refer to Reset Memory / Calibration *2
Reservoir Warning SW	Brake fluid level warning switch	OFF / ON	OFF: Reservoir level normal ON: Reservoir level low	-
ECB Solenoid (SGH)	Switching solenoid valve (SGH)	OFF / ON	OFF: Solenoid off ON: Solenoid on	ECB: Electronically Controlled Brake System
ECB Solenoid (SSA)	Switching solenoid valve (SSA)	OFF / ON	OFF: Solenoid off ON: Solenoid on	ECB: Electronically Controlled Brake System
IGP_PT2	IGP_PT2 status	OFF / ON	OFF: IGP_PT2 OFF ON: IGP_PT2 ON	-
Stop Switch Open	Momentary interruption (open circuit) status in wire harness between No. 1 skid control ECU (brake booster with master cylinder assembly) and stop light switch assembly status	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Stroke Open	Brake pedal stroke sensor 1 open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Servo Pressure Sensor Open	Servo pressure sensor open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Gap Hold Chamber Pressure Sensor Open	Gap pressure sensor open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Stroke Sensor	Brake pedal stroke sensor 1	Min.: 0.0 V Max.: 5.0 V	Brake pedal released: 0.6 to 1.4 V	Reading increases when brake pedal is depressed
Quantity of Brake Pedal Stroke	Brake pedal stroke amount	Min.: 0 mm Max.: 255 mm	Brake pedal released: 0 mm	Reading increases when brake pedal is depressed
Servo Pressure	Pressure value of servo	Min.: 0.00 MPa Max.: 24.48 MPa	0.00 to 21.60 MPa	Brake pedal is being depressed: Changes in proportion to the depression force of the brake pedal Brake pedal released: 0.00 to 1.53 MPa
Voltage of Stroke Sensor	Voltage of brake pedal stroke sensor 1	Min.: 0.0 V Max.: 5.0 V	-	-
Brake Pedal Stroke Change Speed	Brake pedal stroke rate of change	Min.: -2560 mm/s Max.: 2540 mm/s	Brake pedal released or depressed and held: 0 mm/s	Brake pedal is being moved: Changes in proportion to the operation speed of the brake pedal

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Target Oil Pressure	Wheel target hydraulic pressure	Min.: 0.00 MPa Max.: 20.00 MPa	-	Changes according to the target wheel cylinder hydraulic pressure
VCSK Voltage Value	VCSK voltage value	Min.: 0.000 V Max.: 5.500 V	4.800 to 5.200 V	-
SGH Solenoid Current	Switching solenoid valve (SGH) current	Min.: 0.000 A Max.: 3.000 A	0.000 to 1.500 A	-
SSA Solenoid Current	Switching solenoid valve (SSA) current	Min.: 0.000 A Max.: 3.000 A	0.000 to 1.500 A	-
The Number of Capacitor Operation	Displays the number of integration control supply operations	Min.: 0 Max.: 255	-	-
Gap Hold Chamber Oil Pressure	Pressure value of stroke simulator	Min.: 0.00 MPa Max.: 24.48 MPa	Brake pedal released: 0.00 to 1.53 MPa	Brake pedal is being depressed: Changes in proportion to the depression force of the brake pedal
Gap Hold Chamber Oil Pressure Grade	Amount of change in stroke simulator oil pressure	Min.: -30 MPa/s Max.: 225 MPa/s	-	-
Linear Solenoid Current (SLM1)	Linear solenoid valve (SLM1) current	Min.: 0.000 A Max.: 1.500 A	Brake pedal released: 0 A	-
Linear Solenoid Current (SLM2)	Linear solenoid valve (SLM2) current	Min.: 0.000 A Max.: 1.500 A	Brake pedal released: 0 A	-
IGR Voltage	IGR voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage
BS Voltage	BS voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage
BM Voltage	BM voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Zero point Calibrated Value of Phase U Current Monitor	Displays zero point calibrated value of phase U current monitor for brushless motor	Min.: -32.768 A Max.: 32.767 A	-	-
Zero point Calibrated Value of Phase V Current Monitor	Displays zero point calibrated value of phase V current monitor for brushless motor	Min.: -32.768 A Max.: 32.767 A	-	-
Zero point Calibrated Value of Phase W Current Monitor	Displays zero point calibrated value of phase W current monitor for brushless motor	Min.: -32.768 A Max.: 32.767 A	-	-
Thermistor1 Temperature for Inverter Circuit	Temperature of thermistor1 in inverter circuit	Min.: -327.68°C (-558°F) Max.: 327.67°C (622°F)	-	-
Thermistor2 Temperature for Inverter Circuit	Temperature of thermistor2 in inverter circuit	Min.: -327.68°C (-558°F) Max.: 327.67°C (622°F)	-	-
Brushless Motor Inverter end Voltage	Inverter end voltage for brushless motor	Min.: 0.00 V Max.: 655.35 V	-	Changes in proportion to auxiliary battery voltage
Brushless Motor Required Rotation Speed (with Rotation Angle Sensor)	Requested brushless motor rotation speed	Min.: -32768 rpm Max.: 32767 rpm	Brake pedal released: 0 rpm	-
Brushless Motor Actual Rotation Speed (with Rotation Angle Sensor)	Actual brushless motor rotation speed	Min.: -32768 rpm Max.: 32767 rpm	Brake pedal released: 0 rpm	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Brushless Motor Operation Status (with Rotation Angle Sensor)	Operation status of brushless motor	Abnormal / Stop / Synchronization drive / Extended Induced voltage	-	-
Down Stream Voltage Solenoid Relay	Solenoid relay downstream voltage	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage
CBKP Voltage	CBKP voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage

*1: for performing Dealer Mode (Signal Check): Click here INFO

*2: for entering Dealer Mode (Calibration): Click here INFO

Chassis > Brake/EPB

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Total Distance Traveled - Unit	Total distance traveled unit	km / mile	-	-
Total Distance Traveled	Total distance traveled	Min.: 0 Max.: 16777215	-	-
FR Wheel Speed	Front wheel speed sensor RH reading	Min.: 0.0 km/h (0 mph) Max.: 6553.5 km/h (4072 mph)	Vehicle stopped: 0.0 km/h (0 mph)	When driving at constant speed: No large fluctuations
FL Wheel Speed	Front wheel speed sensor LH reading	Min.: 0.0 km/h (0 mph) Max.: 6553.5 km/h (4072 mph)	Vehicle stopped: 0.0 km/h (0 mph)	When driving at constant speed: No large fluctuations
RR Wheel Speed	Rear wheel speed sensor RH reading	Min.: 0.0 km/h (0 mph) Max.: 6553.5 km/h (4072 mph)	Vehicle stopped: 0.0 km/h (0 mph)	When driving at constant speed: No large fluctuations

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
RL Wheel Speed	Rear wheel speed sensor LH reading	Min.: 0.0 km/h (0 mph) Max.: 6553.5 km/h (4072 mph)	Vehicle stopped: 0.0 km/h (0 mph)	When driving at constant speed: No large fluctuations
Master Cylinder Sensor 1	Master cylinder pressure sensor pressure (value detected by ECU)	Min.: -1.00 MPa Max.: 23.99 MPa	Brake pedal released: -1.00 to 0.00 MPa	Reading increases when brake pedal is depressed
Master Cylinder Sensor Temperature	Master cylinder pressure sensor temperature	Min.: -80°C (-112°F) Max.: 175°C (347°F)	Current master cylinder pressure sensor temperature	-
M/C Sensor Grade	Master cylinder pressure sensor change (value detected by ECU)	Min.: -30 MPa/s Max.: 225 MPa/s	Brake pedal released or pedal held at constant position: 0 MPa/s	When brake pedal is being operated: Changes in proportion with the pedal movement speed
Lateral G	Lateral G	Min.: -25.105 m/s^2 Max.: 24.908 m/s^2	Turning right: -25.105 to 0.000 m/s^2 Turning left: 0.000 to 24.908 m/s^2	During turning: Changes in proportion with lateral acceleration
Forward and Rearward G	Forward and rearward G	Min.: -25.105 m/s^2 Max.: 24.908 m/s^2	During deceleration: -25.105 to 0.000 m/s^2 During acceleration: 0.000 to 24.908 m/s^2	During acceleration/deceleration: Changes in proportion with acceleration
Yaw Rate Sensor Value	Yaw rate sensor value	Min.: -128°/s Max.: 127°/s	Vehicle stopped: 0°/s Turning right: -128 to 0°/s Turning left: 0 to 127°/s	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Steering Angle Value	Steering angle sensor value	Min.: -3276.8° Max.: 3276.7°	Turning left: 0.0 to 3276.7° Turning right: -3276.8 to 0.0°	-
Zero Point of Steering Angle	Zero point of steering angle	Min.: -3276.8° Max.: 3276.7°	-	-
MT Voltage Value	ABS motor drive voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage **HINT:** This is the voltage downstream of the ABS motor as monitored by the No. 2 skid control ECU (brake actuator assembly)
Solenoid Power Supply Voltage	Solenoid power supply voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage **HINT:** This is the voltage output (which supplies power to each solenoid) from the No. 2 skid control ECU (brake actuator assembly) to the ABS solenoid relay
Accelerator Opening Angle %	Percentage of accelerator pedal opening angle	Min.: 0.0% Max.: 127.5%	Accelerator pedal released: 0.0%	During accelerator pedal operation: Changes in proportion with the pedal movement
Shift Lever Position	Shift position information	fail / 1st / 2nd / 3rd / 4th / 5th / 6th / B / D/M / N / P / R / No input	Actual shift position	-
TRC(TRAC)/VSC OFF Mode	TRAC/VSC off mode	Normal mode (TRC(TRAC) ON/VSC ON) / TRC(TRAC) OFF mode	Normal mode (TRC(TRAC) ON/VSC ON): Normal mode	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
		(TRC(TRAC) OFF/VSC ON) / VSC expert mode (VSC expert mode MID ON) / VSC OFF mode (TRC(TRAC) OFF/VSC OFF)	TRC(TRAC) OFF mode (TRC(TRAC) OFF/VSC ON): TRAC off mode VSC expert mode (VSC expert mode MID ON): VSC expert mode VSC OFF mode (TRC(TRAC) OFF/VSC OFF): VSC off mode	
Brake Hold Control Mode	Brake hold control mode	Out of control mode / Pressure hold mode / Pressure release mode / EPB lock mode	Out of control mode: Brake hold control system is off or brake hold control system is stand-by mode (brake hold standby indicator light is illuminated) Pressure hold mode: Brake hold control is operating (brake hold operated indicator light is illuminated) Pressure release mode: Brake hold control is released (brake hold operated indicator light not illuminated) EPB lock mode: Parking brake is engaged during brake hold control	**HINT:** • EPB: Electric Parking Brake System • If the brake pedal is not depressed for 3 minutes or more after entering pressure hold mode, the system automatically changes to EPB lock mode
FR Target Oil Pressure	Front wheel RH target oil pressure	Min.: 0.0 MPa Max.: 20.0 MPa	-	Different according to target oil pressure of each wheel

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
FL Target Oil Pressure	Front wheel LH target oil pressure	Min.: 0.0 MPa Max.: 20.0 MPa	-	Different according to target oil pressure of each wheel
RR Target Oil Pressure	Rear wheel RH target oil pressure	Min.: 0.0 MPa Max.: 20.0 MPa	-	Different according to target oil pressure of each wheel
RL Target Oil Pressure	Rear wheel LH target oil pressure	Min.: 0.0 MPa Max.: 20.0 MPa	-	Different according to target oil pressure of each wheel
Vehicle Speed	Vehicle speed (estimated vehicle speed used for various controls)	Min.: 0.0 km/h (0 mph) Max.: 6553.5 km/h (4072 mph)	Vehicle stopped: 0.0 km/h (0 mph)	When driving at constant speed: No large fluctuations
Vehicle Speed Grade	Vehicle acceleration/deceleration	Min.: -25.105 m/s^2 Max.: 24.908 m/s^2	Vehicle stopped: 0.000 m/s^2 During deceleration: -25.105 to 0.000 m/s^2 During acceleration: 0.000 to 24.908 m/s^2	During driving: Changes in proportion with vehicle acceleration/deceleration
Vehicle Stop Time from IG ON	Time vehicle stopped after ignition switch turned to ON	Min.: 0 s Max.: 1275 s	-	-
Travel Distance from IG ON	Driving time after ignition switch turned to ON	Min.: 0 s Max.: 1275 s	-	-
Stop Light SW	Stop light switch assembly status (STP or STP2 terminal input)	OFF / ON	OFF: Brake pedal released ON: Brake pedal depressed	**HINT:** • Stop light control relay (semiconductor power integration ECU) off: STP terminal status displayed. • Stop light control relay (semiconductor power integration ECU) on: STP2 terminal status displayed.

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Parking Brake SW	Parking brake status	OFF / ON	OFF: Parking brake released ON: Parking brake applied	-
Brake Hold Switch	Brake hold switch (electric parking brake switch assembly) (BH terminal input)	OFF / ON	OFF: Brake hold switch (electric parking brake switch assembly) OFF ON: Brake hold switch (electric parking brake switch assembly) ON	**HINT:** The brake hold switch (electric parking brake switch assembly) state is determined using the voltage at terminal BH
Stop Light Relay	Stop light control relay (stop light switch assembly) status (STP terminal input)	OFF / ON	OFF: Stop light control relay (stop light switch assembly) off and brake pedal released ON: Stop light control relay (stop light switch assembly) on or brake pedal depressed	**HINT:** The voltage of power supplied to the stop lights is measured at the STP terminal.
Inspection Mode	Inspection mode	OFF / ON	OFF: Normal mode ON: Inspection mode	-
TRC(TRAC) Control	TRAC control status	Out of controlling / Under Controlling	Out of controlling: Not during control Under Controlling: During control	-
TRC(TRAC) Engine Control	TRAC throttle control status	Out of controlling / Under Controlling	Out of controlling: Not during control	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
			Under Controlling: During control	
TRC(TRAC) Brake Control	TRAC brake control status	Out of controlling / Under Controlling	Out of controlling: Not during control Under Controlling: During control	-
FR Wheel VSC Ctrl Status	Front wheel RH VSC control status	Out of controlling / Under Controlling	Out of controlling: Not during control Under Controlling: During control	-
FL Wheel VSC Ctrl Status	Front wheel LH VSC control status	Out of controlling / Under Controlling	Out of controlling: Not during control Under Controlling: During control	-
RR Wheel VSC Ctrl Status	Rear wheel RH VSC control status	Out of controlling / Under Controlling	Out of controlling: Not during control Under Controlling: During control	-
RL Wheel VSC Ctrl Status	Rear wheel LH VSC control status	Out of controlling / Under Controlling	Out of controlling: Not during control Under Controlling: During control	-
FR Wheel ABS Ctrl Status	Front wheel RH ABS control status	Out of controlling / Under Controlling	Out of controlling: Not during control Under Controlling: During control	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
FL Wheel ABS Ctrl Status	Front wheel LH ABS control status	Out of controlling / Under Controlling	Out of controlling: Not during control Under Controlling: During control	-
RR Wheel ABS Ctrl Status	Rear wheel RH ABS control status	Out of controlling / Under Controlling	Out of controlling: Not during control Under Controlling: During control	-
RL Wheel ABS Ctrl Status	Rear wheel LH ABS control status	Out of controlling / Under Controlling	Out of controlling: Not during control Under Controlling: During control	-
BA Ctrl Status	BA control status	OFF / ON	OFF: Not during control ON: During control	-
PBA Ctrl Status	PBA control status	OFF / ON	OFF: Not during control ON: During control	-
Stop Light Relay State for ECU Control	Stop light control relay (stop light switch assembly) status (STPO terminal output) (for ECU control)	OFF / ON	OFF: Stop light control relay (stop light switch assembly) off (Stop light off) ON: Stop light control relay (stop light switch assembly) on (Stop light on)	-
Solenoid State for ECU Control	ABS solenoid relay status (for ECU control)	OFF / ON	OFF: ABS solenoid relay not operating	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
			ON: ABS solenoid relay operating	
Motor State for ECU Control	ABS motor relay status (for ECU control)	OFF / ON	OFF: ABS motor relay not operating ON: ABS motor relay operating	-
Buzzer	Meter buzzer	OFF / ON	OFF: Buzzer off ON: Buzzer on	-
Dealer Mode	Dealer Mode (Signal Check mode or Calibration mode) status	OFF / ON	OFF: Normal mode ON: Dealer Mode (Signal Check mode or Calibration mode)	**HINT:** • For details on Dealer Mode (Signal Check), refer to Signal Check*1 • For details on Dealer Mode (Calibration), refer to Reset Memory / Calibration*2
Zero Point Memory State of Steering Angle Sensor	Steering angle sensor zero point memorization status	Zero point is not memorized / Zero point is memorized	-	**HINT:** The steering angle sensor zero point is acquired when the vehicle is being driven in a straight line at a speed of 35 km/h (22 mph) or more for approximately 5 seconds.
Regenerative Cooperation	Regenerative cooperation	OFF / ON	OFF: Not operating ON: Operating	-
TRC(TRAC)/VSC OFF SW	VSC OFF switch (electric parking brake switch assembly) (CSW terminal input)	OFF / ON	OFF: VSC OFF switch (electric parking brake switch assembly) OFF ON: VSC OFF switch (electric parking brake switch assembly) ON	**HINT:** The VSC OFF switch (electric parking brake switch assembly) state is determined using the voltage at terminal CSW

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
IGP_PT2	IGP_PT2 status	OFF / ON	OFF: IGP_PT2 OFF ON: IGP_PT2 ON	-
FR Wheel	Front right wheel rotation direction	Forward / Back	When driving forward: forward When reversing: Back	-
FL Wheel	Front left wheel rotation direction	Forward / Back	When driving forward: forward When reversing: Back	-
RR Wheel	Rear right wheel rotation direction	Forward / Back	When driving forward: forward When reversing: Back	-
RL Wheel	Rear left wheel rotation direction	Forward / Back	When driving forward: forward When reversing: Back	-
FR Speed Open	Front speed sensor RH open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
FL Speed Open	Front speed sensor LH open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
RR Speed Open	Rear speed sensor RH open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
RL Speed Open	Rear speed sensor LH open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Yaw Rate Open	Yaw rate sensor (airbag ECU assembly) open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Deceleration Open	Acceleration sensor (airbag ECU assembly) open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Steering Open	Steering angle sensor open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Master Cylinder Open	Master cylinder pressure sensor open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
FR Speed Sensor Voltage Open	Front speed sensor RH voltage open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
FL Speed Sensor Voltage Open	Front speed sensor LH voltage open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
RR Speed Sensor Voltage Open	Rear speed sensor RH voltage open detection	Normal / Under intermittent	Normal: Normal Under intermittent:	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
			Momentary interruption	
RL Speed Sensor Voltage Open	Rear speed sensor LH voltage open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
M/C Pressure Sensor Noise	Master cylinder pressure sensor noise detection	Normal / Under intermittent	Normal: Noise is not detected Under intermittent: Noise is detected	-
Yaw Rate Sensor Voltage Open	Yaw rate sensor (airbag ECU assembly) voltage open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Master Cylinder Pressure Sensor Power Supply Open	Master cylinder pressure sensor power supply voltage status	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Solenoid Power Supply Open	Solenoid power supply voltage status	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Motor Power Supply Open	Motor power supply voltage status	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Stop Switch Open	Momentary interruption (open circuit) status in wire harness between No. 2 skid control ECU (brake actuator assembly) and stop light switch assembly status	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
A/C ECU Communication Open	Air conditioning amplifier assembly communication open detection	Normal / Under intermittent	Normal: Momentary interruption not detected Under intermittent: Momentary interruption detected	-
Air Bag ECU Communication Open	Airbag ECU assembly open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Stroke2 Open	Brake pedal stroke sensor 2 open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
HV Communication Open	Hybrid vehicle control ECU communication open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Body ECU Communication Open	Main body ECU (multiplex network body ECU) communication open detection	Normal / Under intermittent	Normal: Normal Under intermittent: Momentary interruption	-
Brake Hold Ready	Brake hold control permission status	Not in stand-by mode / Stand-by mode	Not in stand-by mode: Brake hold function not operating (brake hold standby indicator light not illuminated) Stand-by mode: Brake hold function stand-by state (brake hold standby	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
			indicator light illuminated)	
Stroke Sensor2	Brake pedal stroke sensor 2	Min.: 0.0 V Max.: 5.0 V	Brake pedal released: 3.6 to 4.4 V	Reading decreases when brake pedal is depressed
Quantity of Brake Pedal Stroke	Brake pedal stroke amount	Min.: 0 mm Max.: 255 mm	Brake pedal released: 0 mm	Reading increases when brake pedal is depressed
Voltage of Stroke Sensor2	Voltage of brake pedal stroke sensor 2	Min.: 0.0 V Max.: 5.0 V	-	-
FR Regenerative Request	FR regenerative request torque	Min.: 0 Nm Max.: 1048560 Nm	-	Changes according to brake pedal force (When depressing the brake pedal lightly after reaching 30 km/h (19 mph) or more, avoiding sudden braking.)
FR Regenerative Operation	FR regenerative operation torque	Min.: 0 Nm Max.: 1048560 Nm	-	Changes according to brake pedal force (When depressing the brake pedal lightly after reaching 30 km/h (19 mph) or more, avoiding sudden braking.)
Brake Pedal Stroke Change Speed	Brake pedal stroke rate of change	Min.: -2560 mm/s Max.: 2540 mm/s	Brake pedal released or depressed and held: 0 mm/s	Brake pedal is being moved: Changes in proportion to the operation speed of the brake pedal
VCSK Voltage Value	VSK2 voltage value	Min.: 0.000 V Max.: 5.500 V	4.800 to 5.200 V	-
IGR Voltage	IG1 voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage
+BS Voltage	+BS voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage
+BM Voltage	BM voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Voltage Difference between Motor Input-Output Terminal	Voltage difference between motor input-output terminal	Min.: -640.00 V Max.: 639.98 V	-	-
Yaw Rate Sensor 1 Higher Resolution Signal	Yaw rate sensor 1 higher resolution signal	Min.: -327.68 deg/sec Max.: 327.67 deg/sec	Turning right: -327.68 to 0.00 deg/sec Turning left: 327.68 to 0.00 deg/sec	-
Yaw Rate Sensor 2 Higher Resolution Signal	Yaw rate sensor 2 higher resolution signal	Min.: -327.68 deg/sec Max.: 327.67 deg/sec	Turning right: -327.68 to 0.00 deg/sec Turning left: 327.68 to 0.00 deg/sec	-
GL1 GX Sensor Higher Resolution Signal	GL1 GX sensor higher resolution signal	Min.: -32768 mG Max.: 32767 mG	During deceleration: -32768 to 0 mG During acceleration: 0 to 32767 mG	-
GL2 GY Sensor Higher Resolution Signal	GL2 GY sensor higher resolution signal	Min.: -32768 mG Max.: 32767 mG	Turning right: -32768 to 0 mG Turning left: 0 to 32767 mG	-
Brakes Specifications Change by C-BEST	Brakes specifications change by C-BEST	None / Exist	-	-
SLM2 Refresh Drive Completed Status	Linear solenoid (SLM2) refresh complete/incomplete	Not Complete / Complete	Complete: Linear solenoid (SLM2) refresh complete Not complete: Linear solenoid (SLM2) refresh incomplete	-

*1: for performing Dealer Mode (Signal Check): Click here INFO

*2: for entering Dealer Mode (Calibration): Click here INFO

CLEAR FREEZE FRAME DATA

NOTICE:

Clearing the DTCs will also clear the Freeze Frame Data.

(a) Turn the ignition switch off.

(b) Connect the GTS to the DLC3.

(c) Turn the ignition switch to ON.

(d) Turn the GTS on.

(e) Enter the following menus: Chassis / Brake Booster / Trouble Codes.

Chassis > Brake Booster > Clear DTCs

(f) Enter the following menus: Chassis / Brake/EPB* / Trouble Codes.

*: Electric Parking Brake System.

Chassis > Brake/EPB > Clear DTCs

(g) Press the clear button.