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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: ADVANCED DRIVER ASSISTANCE SYSTEM: FRONT RADAR SENSOR SYSTEM: DATA LIST / ACTIVE TEST; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DATA LIST / ACTIVE TEST

DATA LIST

NOTICE:

In the table below, the values listed under "Normal Condition" are reference values. Do not depend solely on these reference values when deciding whether a part is faulty or not.

HINT:

Using the GTS to read the Data List allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

(a) Read the Data List according to the display on the GTS.

Body Electrical > Front Radar Sensor > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Total Distance Traveled	-	-	-	Cannot be used
Total Distance Traveled - Unit	-	-	-	Cannot be used
Vehicle Setting Value Delta X	Sensor position	-1.28 to 1.27 m	Actual sensor position displayed	-
Vehicle Setting Value Delta Z	Sensor position	0.00 to 655.35 m	Actual sensor position displayed	-
Vehicle Setting Value H	Sensor position	0.00 to 2.55 m	Actual sensor position displayed	-
Radio Wave Irradiation Condition	Status of radio wave irradiation	Under Radio Wave Irradiation or Under Radio Wave Stopping	Under Radio Wave Irradiation: Radio wave irradiation status displayed Under Radio Wave Stopping: Radio wave irradiation stop displayed	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Optical Axis Not Adjusted Status	Beam axis not adjusted status	Complete or Not Complete	Complete: Beam axis adjustment completed Not Complete: Beam axis adjustment not completed	-
Axis Adjustment Error Code	Error code for axis alignment	Normal or 0 to 31	Error code applicable for beam axis alignment	-
Optical Axis Adjustment Angle (Horizontal) (Latest)	Latest beam axis adjustment angle value (horizontal)	-12.8 to 12.7 deg	Adjusted angle of beam axis alignment (Default value: 0.0 deg.)	-
Optical Axis Adjustment Angle (Vertical) (Latest)	Latest beam axis adjustment angle value (vertical)	-12.8 to 12.7 deg	Adjusted angle of beam axis alignment (Default value: 0.0 deg.)	-
Optical Axis Adjustment Angle (Horizontal) (2nd Latest)	2nd latest beam axis adjustment angle value (horizontal)	-12.8 to 12.7 deg	Adjusted angle of beam axis alignment (Default value: 0.0 deg.)	-
Optical Axis Adjustment Angle (Vertical) (2nd Latest)	2nd latest beam axis adjustment angle value (vertical)	-12.8 to 12.7 deg	Adjusted angle of beam axis alignment (Default value: 0.0 deg.)	-
Optical Axis Offset Angle (Horizontal)	Beam axis offset value (horizontal)	-12.8 to 12.7 deg	Beam axis offset value	-
Optical Axis Offset Angle (Vertical)	Beam axis offset value (vertical)	-12.8 to 12.7 deg	Beam axis offset value	-
Optical Axis Offset Angle (Horizontal) (with On-Line Calibration Angle)	Beam axis offset value (horizontal) (after completing calibration)	-12.8 to 12.7 deg	Beam axis offset value	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Optical Axis Offset Angle (Vertical) (with On-Line Calibration Angle)	Beam axis offset value (vertical) (after completing calibration)	-12.8 to 12.7 deg	Beam axis offset value	-
Dirt Detection for Radar Cruise	Dirt detection status for radar cruise	OFF or ON	OFF: Dirt not detected ON: Dirt detected	-
Dirt Detection for PCS	Dirt detection status for PCS	OFF or ON	OFF: Dirt not detected ON: Dirt detected	-
Partially Dirt Detection	Partial dirt detection status	OFF or ON	OFF: Dirt not detected ON: Dirt detected	-
Foreign Matter Detection	Foreign matter detection status	OFF or ON	OFF: No foreign matter detected ON: Foreign matter detected	-
Dirt Detection	Dirt detection status	OFF or ON	OFF: Dirt not detected ON: Dirt detected	-
Blockage Detection	Blockage detection status	OFF or ON	OFF: Blockage not detected ON: Blockage detected	-
Optical Axis Misalignment (Horizontal)	Beam axis misalignment (horizontal) result	OFF or ON	OFF: Normal ON: Misalignment	-
Optical Axis Misalignment (Vertical)	Beam axis misalignment (vertical) result	OFF or ON	OFF: Normal ON: Misalignment	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Front Radar Sensor Temporary Unavailable (Horizontal Direction Optical Axis Misalignment)	Millimeter wave radar sensor assembly temporarily unavailable due to horizontal beam axis misalignment	OFF or ON	OFF: Normal ON: Temporarily disabled due to beam axis misalignment	-
Front Radar Sensor Temporary Unavailable (Vertical Direction Optical Axis Misalignment)	Millimeter wave radar sensor assembly temporarily unavailable due to vertical beam axis misalignment	OFF or ON	OFF: Normal ON: Temporarily disabled due to beam axis misalignment	-
IG Voltage	IG voltage value	0.0 to 25.5 V	11.0 to 14.0 V: Ignition switch ON	-
Front Radar Sensor Temperature	Temperature of area around millimeter wave radar sensor assembly	-32768 to 32767°C	Actual temperature of area around millimeter wave radar sensor displayed	This value differs to the outside temperature.
Vehicle Speed	Vehicle speed	-30 km/h (-19 mph) to 225.99 km/h (159 mph)	Almost same as actual vehicle speed	-
Ambient Temperature	Actual ambient temperature	-78.75 to 78.125°C	Actual ambient temperature displayed	-
Wiper Operation Status	Wiper operation status	Front Wiper Stop, Front Wiper INT, Front Wiper LO, Front Wiper HI, Front Wiper Storage, Service Position or Front Wiper Malfunction	Front wiper operation status displayed	-
Heater Control Duty	Heater operation duty status of millimeter wave radar sensor assembly	0 to 255 %	Heater operation duty status of millimeter wave radar sensor assembly displayed	Cannot be used
Heater Control Status	Heater operation status of millimeter wave radar	OFF or ON	OFF: Heater not operating	Cannot be used

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
	sensor assembly		ON: Heater operating	
On-Line Calibration Angle (Horizontal)	Calibrated angle value (horizontal)	-12.8 to 12.7 deg	Learned value	-
On-Line Calibration Angle (Vertical)	Calibrated angle value (vertical)	-12.8 to 12.7 deg	Learned value	-

