

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM100000029ZW9
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: HEATING / AIR CONDITIONING: AMBIENT TEMPERATURE SENSOR: INSPECTION; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

INSPECTION

PROCEDURE

1. INSPECT THERMISTOR ASSEMBLY (for M20A-FXS)

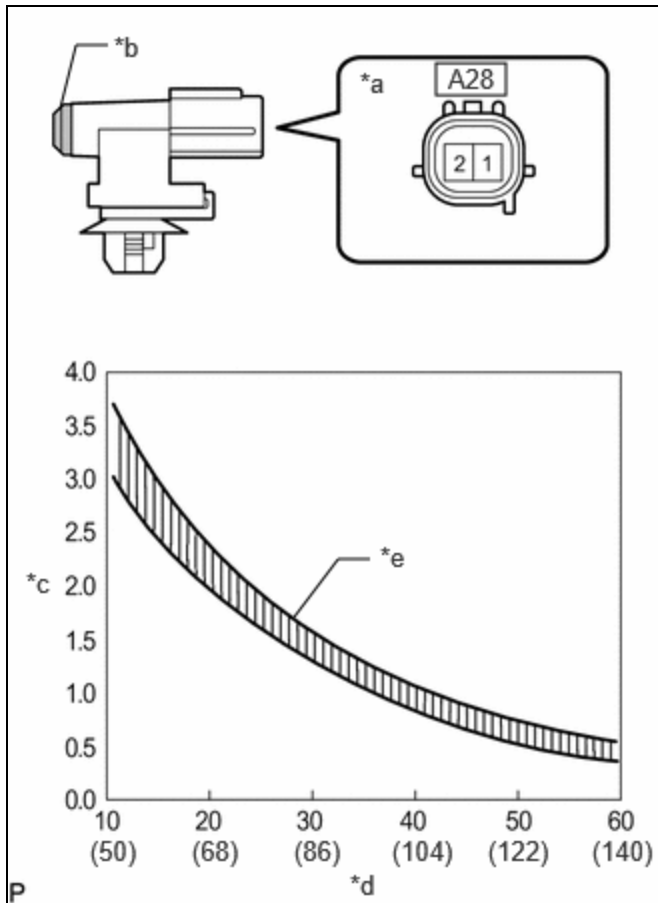
(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(A28\)](#)

[Click Connector\(A28\)](#)



*a	Component without harness connected (Thermistor Assembly)
*b	Sensing Portion
*c	Resistance (kΩ)
*d	Temperature (°C (°F))
*e	Allowable Range

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
A28-1 - A28-2	10°C (50°F)	3.00 to 3.73 kΩ	kΩ
A28-1 - A28-2	15°C (59°F)	2.45 to 2.88 kΩ	kΩ
A28-1 - A28-2	20°C (68°F)	1.95 to 2.30 kΩ	kΩ
A28-1 - A28-2	25°C (77°F)	1.60 to 1.80 kΩ	kΩ
A28-1 - A28-2	30°C (86°F)	1.28 to 1.47 kΩ	kΩ
A28-1 - A28-2	35°C (95°F)	1.00 to 1.22 kΩ	kΩ
A28-1 - A28-2	40°C (104°F)	0.80 to 1.00 kΩ	kΩ
A28-1 - A28-2	45°C (113°F)	0.65 to 0.85 kΩ	kΩ
A28-1 - A28-2	50°C (122°F)	0.50 to 0.70 kΩ	kΩ
A28-1 - A28-2	55°C (131°F)	0.44 to 0.60 kΩ	kΩ
A28-1 - A28-2	60°C (140°F)	0.36 to 0.50 kΩ	kΩ

NOTICE:

- Hold the sensor only by its connector. Touching the sensing portion may change the resistance value.
- When measuring, the sensor temperature must be the same as the ambient temperature.

HINT:

As the temperature increases, the resistance decreases (see the graph).

If the result is not as specified, replace the thermistor assembly.

2. INSPECT THERMISTOR ASSEMBLY (for 2ZR-FXE)

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(A23\)](#)

[Click Connector\(A23\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
A23-1 - A23-2	10°C (50°F)	3.00 to 3.73 kΩ	kΩ
A23-1 - A23-2	15°C (59°F)	2.45 to 2.88 kΩ	kΩ
A23-1 - A23-2	20°C (68°F)	1.95 to 2.30 kΩ	kΩ
A23-1 - A23-2	25°C (77°F)	1.60 to 1.80 kΩ	kΩ
A23-1 - A23-2	30°C (86°F)	1.28 to 1.47 kΩ	kΩ
A23-1 - A23-2	35°C (95°F)	1.00 to 1.22 kΩ	kΩ
A23-1 - A23-2	40°C (104°F)	0.80 to 1.00 kΩ	kΩ
A23-1 - A23-2	45°C (113°F)	0.65 to 0.85 kΩ	kΩ
A23-1 - A23-2	50°C (122°F)	0.50 to 0.70 kΩ	kΩ
A23-1 - A23-2	55°C (131°F)	0.44 to 0.60 kΩ	kΩ
A23-1 - A23-2	60°C (140°F)	0.36 to 0.50 kΩ	kΩ

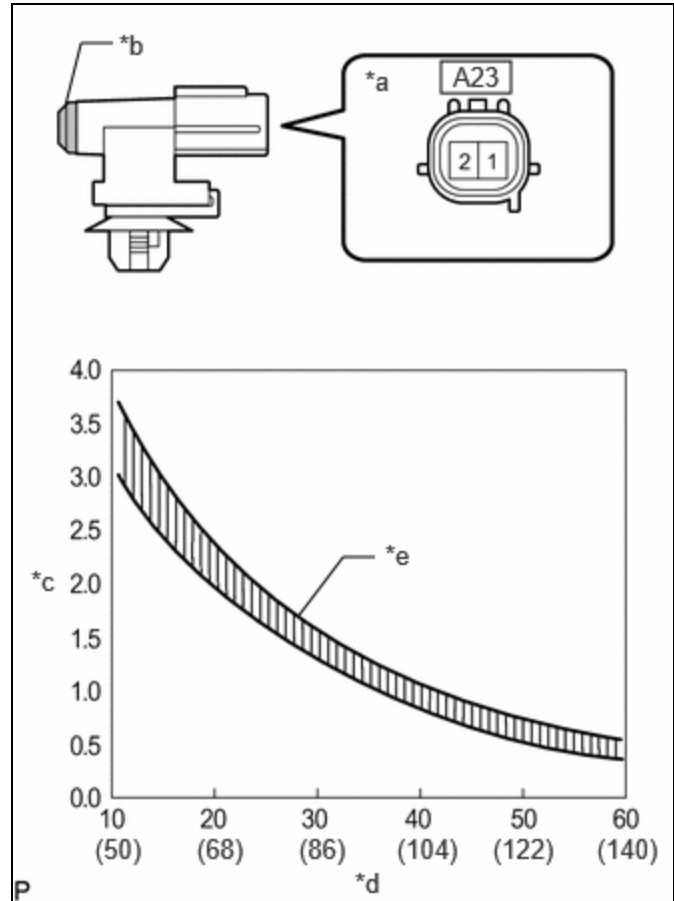
NOTICE:

- Hold the sensor only by its connector. Touching the sensing portion may change the resistance value.
- When measuring, the sensor temperature must be the same as the ambient temperature.

HINT:

As the temperature increases, the resistance decreases (see the graph).

If the result is not as specified, replace the thermistor assembly.



*a	Component without harness connected (Thermistor Assembly)
*b	Sensing Portion
*c	Resistance (kΩ)
*d	Temperature (°C (°F))
*e	Allowable Range

