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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: LIGHTING (EXT): AUTOMATIC LIGHT CONTROL SENSOR: ON-VEHICLE INSPECTION; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

ON-VEHICLE INSPECTION

PROCEDURE

1. INSPECT AUTOMATIC LIGHT CONTROL SENSOR

Pre-procedure1

- (a) Disconnect the G1 automatic light control sensor connector.

Procedure1

- (b) Measure the voltage and resistance according to the value(s) in the table below.

Standard Voltage:



[Click Location & Routing\(G1\)](#)

[Click Connector\(G1\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
G1-1 (CLTB) - G1-2 (CLTE)	Ignition switch on (IG)	11 to 14 V	V

Standard Resistance:



[Click Location & Routing\(G1\)](#)

[Click Connector\(G1\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
G1-2 (CLTE) - Body ground	Always	Below 1 Ω	Ω

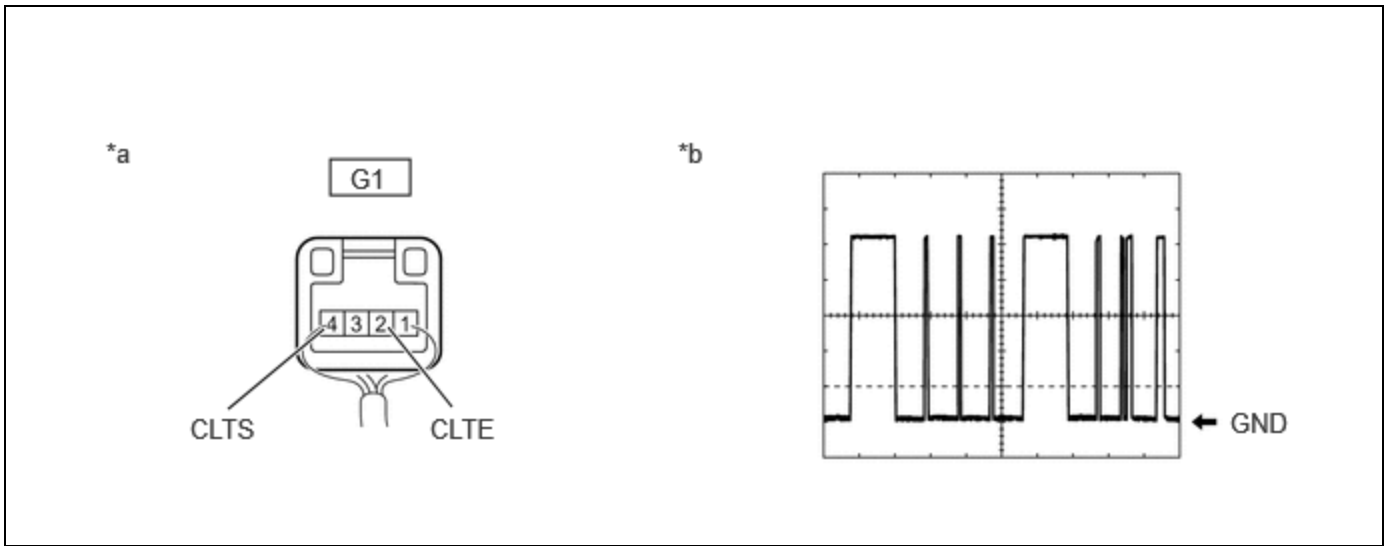
If the result is not as specified, there may be a malfunction on the wire harness side.

Post-procedure1

- (c) Connect the G1 automatic light control sensor connector.

Procedure2

- (d) Connect an oscilloscope to terminals G1-2 (CLTE) and G1-4 (CLTS) of the automatic light control sensor connector and check the waveform.



*a	Component with harness connected (Automatic Light Control Sensor)	*b	Waveform
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OK:



[Click Location & Routing\(G1\)](#)

[Click Connector\(G1\)](#)

TESTER CONNECTION	CONDITION	TOOL SETTING	SPECIFIED CONDITION
G1-2 (CLTE) - G1-4 (CLTS)	Ignition switch on (IG)	2 V/DIV., 10 ms./DIV.	Pulse generation (See waveform)

HINT:

The communication waveform changes according to the surrounding brightness.

If the result is not as specified, the automatic light control sensor may be malfunctioning.

