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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: M20A-FXS (ENGINE CONTROL): MASS AIR FLOW METER: ON-VEHICLE INSPECTION; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

ON-VEHICLE INSPECTION

PROCEDURE

1. INSPECT MASS AIR FLOW METER SUB-ASSEMBLY

Pre-procedure1

(a) Read the value of Data List item "Mass Air Flow Sensor" using the GTS.

NOTICE:

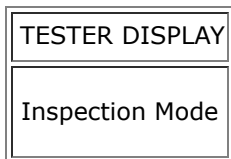
Perform the inspection of the mass air flow meter sub-assembly while it is installed to the air cleaner cap sub-assembly (installed to the vehicle).

(1) Check and ensure the following conditions:

1. Turn off all electrical loads, such as the air conditioning, etc.
2. Check that the coolant temperature is 75°C (167°F) or more.
3. Put the shift lever in the N position.

(2) Put the engine in Inspection Mode (Maintenance Mode).

Powertrain > Hybrid Control > Utility

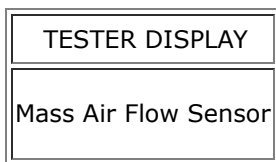


(3) Start the engine.

Procedure1

(b) According to the display on the GTS, read the Data List when the engine is running.

Powertrain > Engine > Data List



Standard Condition:

GTS DISPLAY	CONDITION	SPECIFIED CONDITION	RESULT
Mass Air Flow Sensor	Idling (shift lever in N, engine warmed up, inspection mode [maintenance mode] and not charge control)	2.6 to 8.6 gm/sec	gm/sec
Mass Air Flow Sensor	2500 rpm (shift lever in N, engine warmed up and inspection mode [maintenance mode])	5.5 to 18.6 gm/sec	gm/sec

If the result is not as specified, clean the mass air flow meter sub-assembly.

If the result is within the specified range, inspect the mass air flow meter sub-assembly.

Click here [INFO](#)

Post-procedure1

(c) None

2. CLEAN MASS AIR FLOW METER SUB-ASSEMBLY

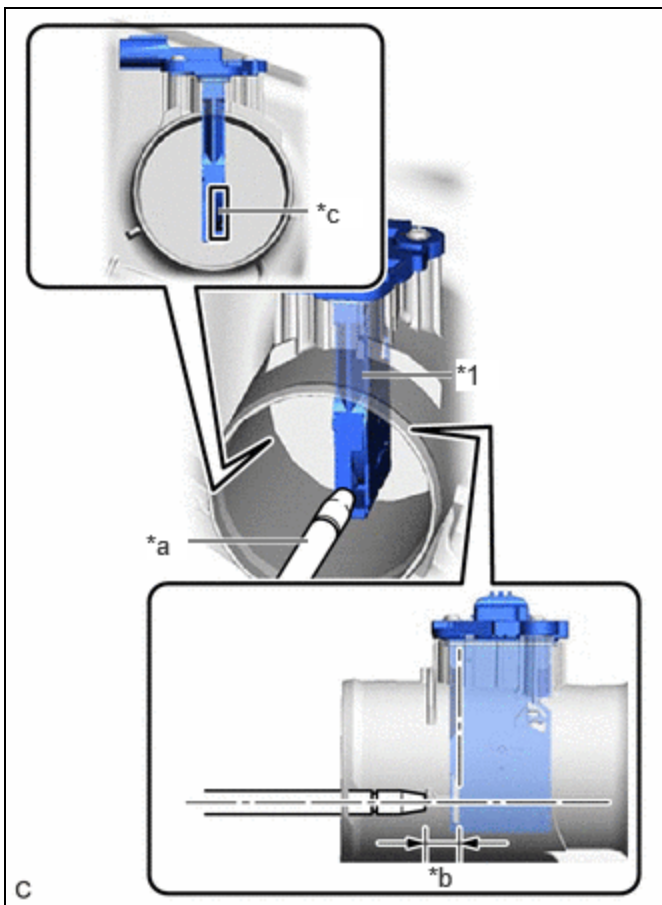
NOTICE:

If the mass air flow meter sub-assembly is removed and installed 10 times or more, the thread of the hole of the mass air flow meter sub-assembly may be damaged. Therefore, do not loosen the screws of the mass air flow meter sub-assembly.

Pre-procedure1

(a) Remove the air cleaner cap sub-assembly.

Procedure1



*1	Mass Air Flow Meter Sub-assembly
*a	Air Blow Gun
*b	10 mm (0.394 in.)
*c	Airflow Hole

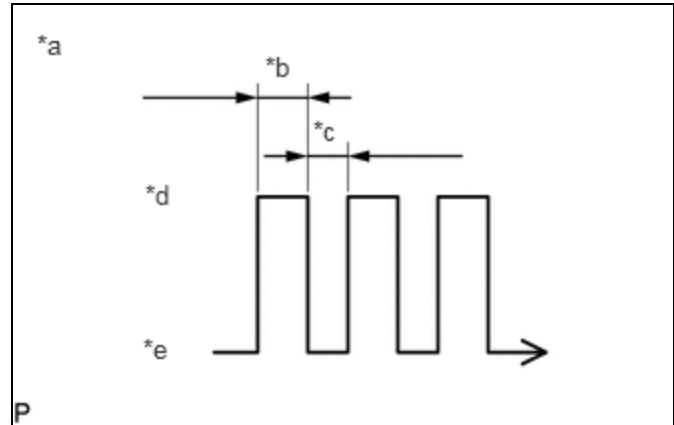
(b) Clean the mass air flow meter sub-assembly.

NOTICE:

- Do not contact the mass air flow meter sub-assembly with the nozzle of the air blow gun.

- Do not insert the nozzle of the air blow gun into the airflow hole.

(1) Using an air blow gun, clean the hole of the mass air flow meter sub-assembly by applying approximately 10 intermittent bursts of air to the airflow hole at a pressure of approximately 392 to 981 kPa (4.0 to 10.0 kgf/cm², 57 to 142 psi).



*a	Air Blow Duration
*b	3 to 6 Seconds
*c	1 Second
*d	Air Blowing
*e	Air Stopped

Post-procedure1

(c) Install the air cleaner cap sub-assembly.

3. PERFORM INITIALIZATION

(a) Perform "Inspection After Repair" after replacing the mass air flow meter sub-assembly.

HINT:

[Click here](#) INFO

