Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BM0K
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: M20A-FXS (ENGINE CONTROL): SFI SYSTEM: P107A2A,P107A64; Fuel Rail Pressure Sensor (Low) Signal Stuck in Range; 2023 - 2024 MY Prius Prius Prime [03/2023 -]		

DTC	**P107A2A**	**Fuel Rail Pressure Sensor (Low) Signal Stuck in Range**

DTC	**P107A64**	**Fuel Rail Pressure Sensor (Low) Signal Plausibility Failure**

DESCRIPTION

Refer to DTC P107A11.

Click here INFO

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	DTC OUTPUT FROM	PRIORITY	NOTE
P107A2A	Fuel Rail Pressure Sensor (Low) Signal Stuck in Range	When the target fuel pressure for the low pressure side changes, the change in the No. 2 fuel pressure sensor (for low pressure side) value is abnormal (2 trip detection logic).	• Leak of fuel • Fuel pump control ECU • No. 2 fuel pressure sensor (for low pressure side) • Fuel pump (for low pressure side) • Fuel main valve assembly • ECM	Comes on	Engine	B	SAE Code: P107B
P107A64	Fuel Rail Pressure Sensor (Low) Signal Plausibility Failure	When the fuel pump on the low pressure side is operated at maximum speed when the engine is stopped at vehicle speed of 45 km/h (28 mph) or more, the low pressure side fuel pressure is higher or lower than threshold (2 trip detection logic).	• Leak of fuel • Fuel pump control ECU • No. 2 fuel pressure sensor (for low pressure side) • Fuel pump (for low	Comes on	Engine	B	SAE Code: P107B

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	DTC OUTPUT FROM	PRIORITY	NOTE
			pressure side) • Fuel main valve assembly • ECM				

MONITOR DESCRIPTION

Fuel Pressure Sensor Stuck Monitor

If the No. 2 fuel pressure sensor (for low pressure side) value does not follow the change in the target low pressure side fuel pressure, it is judged as a malfunction. If this malfunction is detected in 2 consecutive driving cycles, the ECM will illuminate the MIL and store DTC P107A2A.

Fuel Pressure Sensor Correlation Monitor

If the No. 2 fuel pressure sensor (for low pressure side) value is less than or higher than the threshold value when the fuel pump on the low pressure side is operated at maximum speed when the engine is stopped at vehicle speed of 45 km/h (28 mph) or more, it is judged as a malfunction has occurred. If this malfunction is detected for 2 consecutive driving cycles, the ECM will illuminate the MIL and store DTC P107A64.

MONITOR STRATEGY

Related DTCs	P107B: Fuel pressure sensor rationality (stuck monitor) P107B: Fuel pressure sensor rationality (correlation monitor)
Required Sensors/Components (Main)	No. 2 fuel pressure sensor (for low pressure side)
Required Sensors/Components (Related)	Atmospheric pressure sensor
Frequency of Operation	Continuous: Stuck monitor Once per driving cycle: Correlation monitor
Duration	Less than 30 seconds: Stuck monitor Less than 10 seconds: Correlation monitor
MIL Operation	2 driving cycles
Sequence of Operation	None

TYPICAL ENABLING CONDITIONS

Stuck Monitor

All of the following conditions are met	2 seconds or more
Engine coolant temperature sensor malfunction (P0117, P0118)	Not detected
Intake air temperature sensor (mass air flow meter sub-assembly) malfunction (P0112, P0113)	Not detected
No. 2 fuel pressure sensor (for low pressure side) circuit malfunction (P107C, P107D)	Not detected
Auxiliary battery voltage	11 V or higher

Fuel cut	Off

Correlation Monitor

All of the following conditions are met	-
Engine coolant temperature sensor malfunction (P0117, P0118)	Not detected
Intake air temperature sensor (mass air flow meter sub-assembly) malfunction (P0112, P0113)	Not detected
No. 2 fuel pressure sensor (for low pressure side) circuit malfunction (P107C, P107D)	Not detected
Auxiliary battery voltage	11 V or higher
Engine coolant temperature	75°C (167°F) or higher
Intake air temperature	-10°C (14°F) or higher
Atmospheric pressure	76 kPa(abs) [11 psi(abs)] or higher
Fuel pump (for low pressure) operation at maximum duty	1 second or more
Engine shut off	Executing
Vehicle Speed	45 km/h (28 mph) or more

TYPICAL MALFUNCTION THRESHOLDS

Stuck Monitor

Malfunction counter	3 times or more
Malfunction counter is incremented when No. 2 fuel pressure sensor (for low pressure side) output deviation	Less than 12 kPa (0.1 kgf/cm ^{2} , 1.7 psi)

Correlation Monitor

Malfunction counter	2 seconds or more
Malfunction counter is counted when following condition is met	-
No. 2 fuel pressure sensor (for low pressure side) output	Higher than 770 kPa (7.9 kgf/cm ^{2} , 112 psi), or less than 540 kPa (5.5 kgf/cm ^{2} , 78.3 psi)

CONFIRMATION DRIVING PATTERN

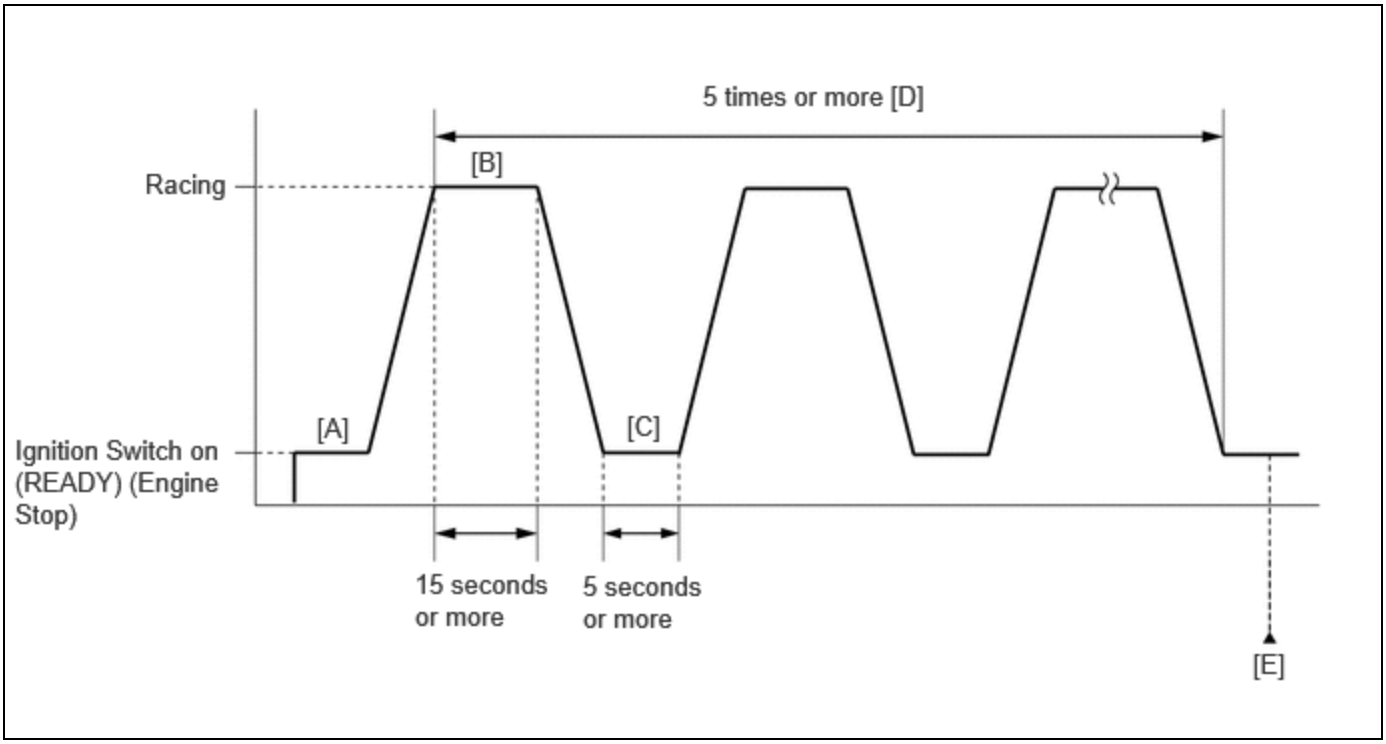
HINT:

- After repair has been completed, clear the DTC and then check that the vehicle has returned to normal by performing the following All Readiness check procedure.

  Click here INFO
- When clearing the permanent DTCs, refer to the "CLEAR PERMANENT DTC" procedure.

  Click here INFO

P107A2A



1. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
2. Turn the ignition switch off and wait for at least 30 seconds.
3. Put the engine in Inspection Mode (Maintenance Mode).

   Click here INFO
4. Start the engine and warm it up until the engine coolant temperature reaches 75°C (167°F) or higher.
5. Turn the ignition switch off.
6. Turn the ignition switch on (READY) [A].
7. Rev the engine for 15 seconds or more with the shift lever in P [B].
8. Allow the engine to stop for 5 seconds or more [C].

   HINT:

   - If the engine does not stop, wait till the engine stops.
   - If the engine coolant temperature is low, it may take some time for the engine to stop.
9. Repeat [B] and [C] 5 times or more [D].
10. Enter the following menus: Powertrain / Engine / Trouble Codes [E].
11. Read the pending DTCs.

    HINT:

    - If a pending DTC is output, the system is malfunctioning.
    - If a pending DTC is not output, perform the following procedure.
12. Enter the following menus: Powertrain / Engine / Utility / All Readiness.
13. Input the DTC: P107A2A.
14. Check the DTC judgment result.

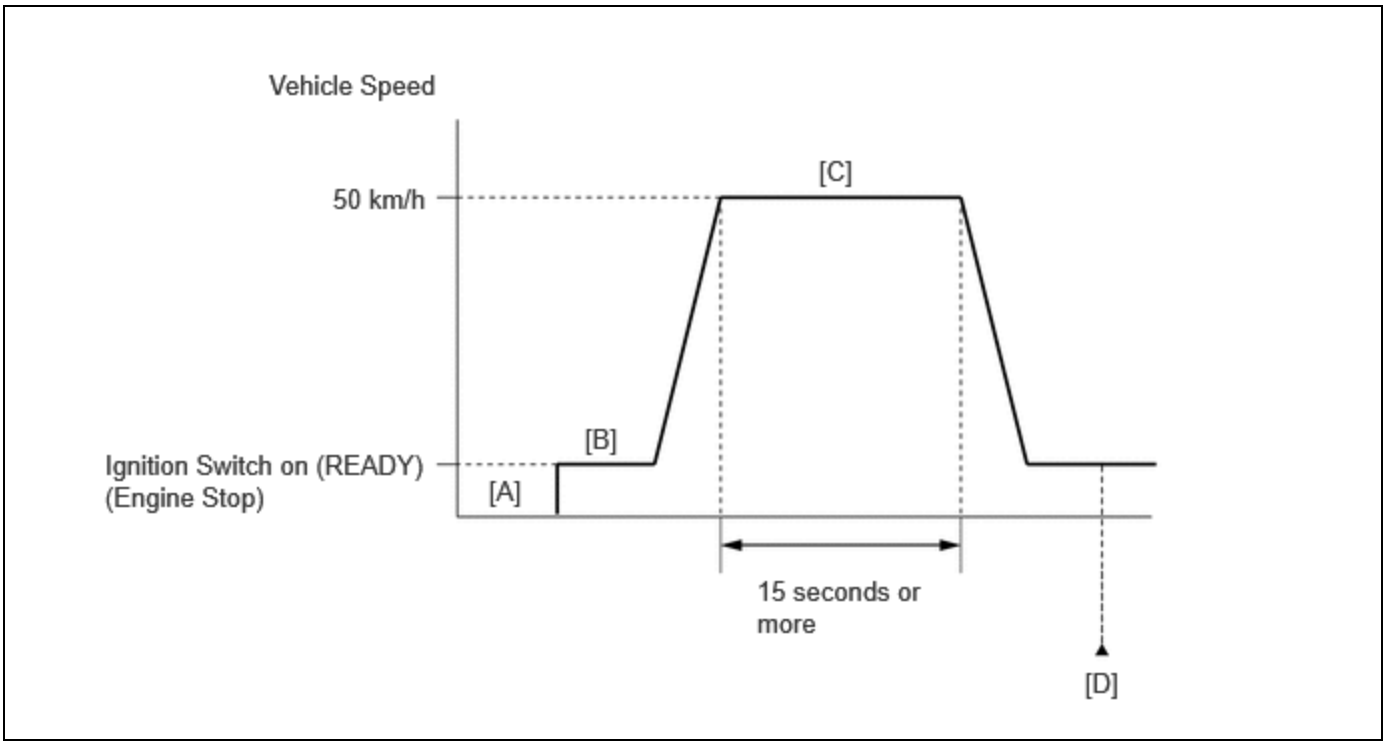
    HINT:

    - If the judgment result is NORMAL, the system is normal.
    - If the judgment result is ABNORMAL, the system has a malfunction.
    - If the judgment result is INCOMPLETE, perform steps [B] through [E] again.
    - [A] to [E]: Normal judgment procedure.

The normal judgment procedure is used to complete DTC judgment and also used when clearing permanent DTCs.

- When clearing the permanent DTCs, do not disconnect the cable from the auxiliary battery terminal or attempt to clear the DTCs during this procedure, as doing so will clear the universal trip and normal judgment histories.

P107A64



1. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
2. Turn the ignition switch off and wait for at least 30 seconds.
3. Put the engine in Inspection Mode (Maintenance Mode).

Click here INFO

4. Start the engine and warm it up until the engine coolant temperature reaches 75°C (167°F) or higher [B].
5. Turn the ignition switch off [A].
6. Turn the ignition switch on (READY) [B].
7. Press the EV/HV mode selection switch to select HV mode. (for PHEV Model)
8. Drive the vehicle at approximately 50 km/h (31 mph) for 15 seconds or more [C].

CAUTION:

When performing the confirmation driving pattern, obey all speed limits and traffic laws.

9. Enter the following menus: Powertrain / Engine / Trouble Codes [D].
10. Read the pending DTCs.

HINT:

- If a pending DTC is output, the system is malfunctioning.
- If a pending DTC is not output, perform the following procedure.

11. Enter the following menus: Powertrain / Engine / Utility / All Readiness.
12. Input the DTC: P107A64.
13. Check the DTC judgment result.

HINT:

- If the judgment result is NORMAL, the system is normal.
- If the judgment result is ABNORMAL, the system has a malfunction.

- If the judgment result is INCOMPLETE, perform steps [A] through [D] again.
- [B] to [D]: Normal judgment procedure.

  The normal judgment procedure is used to complete DTC judgment and also used when clearing permanent DTCs.
- When clearing the permanent DTCs, do not disconnect the cable from the auxiliary battery terminal or attempt to clear the DTCs during this procedure, as doing so will clear the universal trip and normal judgment histories.

CAUTION / NOTICE / HINT

NOTICE:

- Vehicle Control History may be stored in the hybrid vehicle control ECU if the engine is malfunctioning. Certain vehicle condition information is recorded when Vehicle Control History is stored. Reading the vehicle conditions recorded in both the freeze frame data and Vehicle Control History can be useful for troubleshooting.

  for HEV Model: Click here INFO

  for PHEV Model: Click here INFO

  (Select Powertrain in Health Check and then check the time stamp data.)
- If any "Engine Malfunction" Vehicle Control History item has been stored in the hybrid vehicle control ECU, make sure to clear it. However, as all Vehicle Control History items are cleared simultaneously, if any Vehicle Control History items other than "Engine Malfunction" are stored, make sure to perform any troubleshooting for them before clearing Vehicle Control History.

  for HEV Model: Click here INFO

  for PHEV Model: Click here INFO

PROCEDURE

1.	**CHECK ANY OTHER DTCS OUTPUT (IN ADDITION TO DTC P107A2A, P107A64, P008A00 OR P008B00)**

(a) Read the DTCs and record the Freeze Frame Data.

Powertrain > Engine > Trouble Codes

RESULT	PROCEED TO
P107A2A, P107A64, P008A00 or P008B00 and other DTCs are output	A
P107A2A, P107A64 and P008A00 are output	B
P107A2A, P107A64 and P008B00 are output	C
P107A2A is output	D
P107A64 is output	E

HINT:

If any DTCs other than P107A2A, P107A64, P008A00 and/or P008B00 are output, troubleshoot those DTCs first.

A ▶ **GO TO DTC CHART**

B ▶ **GO TO STEP 11**

C ▶ **GO TO STEP 7**

E ▶ **GO TO STEP 6**

D ▼

2.	**READ VALUE USING GTS (FUEL PRESSURE (LOW) / FUEL PRESSURE 2)**

Pre-procedure1

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(b) Start the engine.

(c) Record the Fuel Pressure (Low) / Fuel Pressure 2 value.

Powertrain > Engine > Data List

TESTER DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

(d) Turn the ignition switch off.

(e) Discharge the fuel pressure.

HINT:

DTCs may be stored during this inspection. Check for DTCs and clear them using the GTS.

(1) Disconnect the fuel suction tube with pump and gauge assembly connector.

(2) Disconnect the fuel (engine room side) pump assembly (for high pressure side) connector.

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(4) Start the engine.

(5) After the engine has stopped on its own, turn the ignition switch off.

HINT:

If the engine does not stop naturally, perform direct injection by racing the engine to reduce the fuel pressure [Fuel Pressure (High)] and stop the engine.

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(7) Crank the engine again and make sure that the engine does not start.

(8) Connect the fuel (engine room side) pump assembly (for high pressure side) connector.

(9) Connect the fuel suction tube with pump and gauge assembly connector.

Procedure1

(f) Compare the Fuel Pressure (Low) / Fuel Pressure 2 value recorded with the engine running to the Fuel Pressure (Low) / Fuel Pressure 2 value currently shown on the GTS.

Powertrain > Engine > Data List

TESTER DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

RESULT	PROCEED TO
Fuel Pressure (Low) / Fuel Pressure 2 value drops	A
Fuel Pressure (Low) / Fuel Pressure 2 value does not fluctuate	B

Post-procedure1

(g) None

B ▶ **REPLACE NO. 2 FUEL PRESSURE SENSOR (FOR LOW PRESSURE SIDE)**

A

3.	**CLEAR DTC**

Pre-procedure1

(a) None

Procedure1

(b) Clear the DTCs.

Powertrain > Engine > Clear DTCs

Post-procedure1

(c) Turn the ignition switch off and wait for at least 30 seconds.

NEXT

4.	**CHECK WHETHER DTC OUTPUT RECURS (DTC P107A2A OR P107A64)**

Pre-procedure1

(a) Drive the vehicle in accordance with the driving pattern described in Confirmation Driving Pattern.

Procedure1

(b) Check the DTC judgment result.

Powertrain > Engine > Utility

TESTER DISPLAY
All Readiness

(c) Input the DTC: P107A2A or P107A64.

RESULT	PROCEED TO
NORMAL (DTCs are not output)	A
ABNORMAL (DTC P107A2A or P107A64 is output)	B

Post-procedure1

(d) None

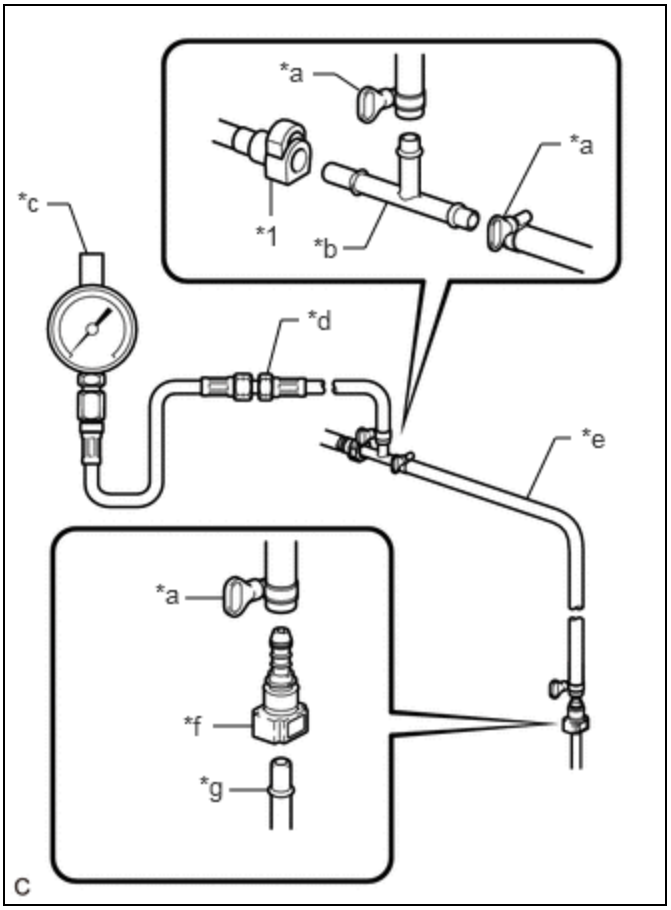
A CHECK FOR INTERMITTENT PROBLEMS

B

5.	**PERFORM ACTIVE TEST USING GTS (CONTROL THE FUEL PUMP DUTY RATIO (BRUSHLESS))**

Pre-procedure1

(a) Install the fuel pressure gauge (for low pressure line of low pressure side).



*1	Fuel Tube Sub-assembly (Vehicle Side)
*a	SST (Hose Band)
*b	SST (T Joint)
*c	SST (Gauge)
*d	SST (Hose Joint)
*e	SST (Hose)
*f	SST (Fuel Tube Connector)
*g	Fuel Pipe (Vehicle Side)

Procedure1

(b) Compare the values in the Data List using the GTS and the fuel pressure gauge when the Active Test was performed.

Powertrain > Engine > Active Test

ACTIVE TEST DISPLAY
Control the Fuel Pump Duty Ratio (Brushless)

DATA LIST DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

Standard:

GTS OPERATION	STANDARD
Low	Data List value and fuel pressure gauge are within +/-50 kPa of each other
High	

Post-procedure1

(c) None

OK ▶ **REPLACE ECM**

NG ▶ **REPLACE NO. 2 FUEL PRESSURE SENSOR (FOR LOW PRESSURE SIDE)**

6.	**READ FREEZE FRAME DATA (FUEL PRESSURE (LOW) / FUEL PRESSURE 2)**

(a) Read the Freeze Frame Data value from step 1.

Powertrain > Engine > DTC(P107A2A) > Freeze Frame Data

TESTER DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

RESULT	PROCEED TO
Fuel Pressure (Low) / Fuel Pressure 2 value is 770 kPa or higher	A
Fuel Pressure (Low) / Fuel Pressure 2 value is 540 kPa or less	B

B ▶ **GO TO STEP 11**

A

7.	**READ VALUE USING GTS (FUEL PRESSURE (LOW) / FUEL PRESSURE 2)**

Pre-procedure1

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(b) Start the engine.

(c) Record the Fuel Pressure (Low) / Fuel Pressure 2 value.

Powertrain > Engine > Data List

TESTER DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

(d) Turn the ignition switch off.

(e) Discharge the fuel pressure.

HINT:

DTCs may be stored during this inspection. Check for DTCs and clear them using the GTS.

(1) Disconnect the fuel suction tube with pump and gauge assembly connector.

(2) Disconnect the fuel (engine room side) pump assembly (for high pressure side) connector.

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(4) Start the engine.

(5) After the engine has stopped on its own, turn the ignition switch off.

HINT:

If the engine does not stop naturally, perform direct injection by racing the engine to reduce the fuel pressure [Fuel Pressure (High)] and stop the engine.

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(7) Crank the engine again and make sure that the engine does not start.

(8) Connect the fuel (engine room side) pump assembly (for high pressure side) connector.

(9) Connect the fuel suction tube with pump and gauge assembly connector.

Procedure1

(f) Compare the Fuel Pressure (Low) / Fuel Pressure 2 value recorded with the engine running to the Fuel Pressure (Low) / Fuel Pressure 2 value currently shown on the GTS.

Powertrain > Engine > Data List

TESTER DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

RESULT	PROCEED TO
Fuel Pressure (Low) / Fuel Pressure 2 value drops	A
Fuel Pressure (Low) / Fuel Pressure 2 value is maintained	B

Post-procedure1

(g) None

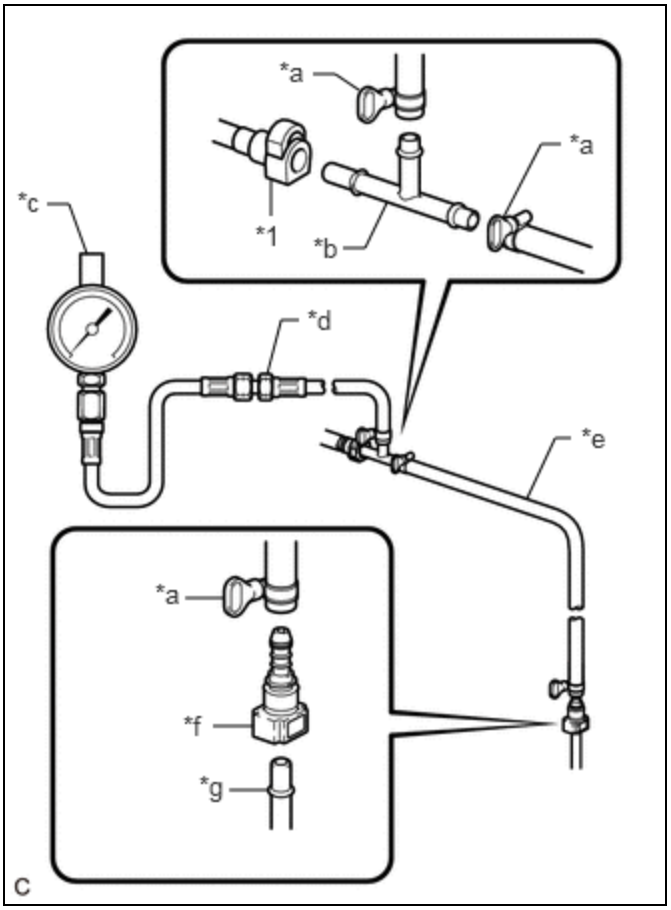
B ▶ **REPLACE NO. 2 FUEL PRESSURE SENSOR (FOR LOW PRESSURE SIDE)**

A ▼

8.	**PERFORM ACTIVE TEST USING GTS (CONTROL THE FUEL PUMP DUTY RATIO (BRUSHLESS))**

Pre-procedure1

(a) Install the fuel pressure gauge (for low pressure line of low pressure side).



*1	Fuel Tube Sub-assembly (Vehicle Side)
*a	SST (Hose Band)
*b	SST (T Joint)
*c	SST (Gauge)
*d	SST (Hose Joint)
*e	SST (Hose)
*f	SST (Fuel Tube Connector)
*g	Fuel Pipe (Vehicle Side)

Procedure1

(b) Compare the values in the Data List using the GTS and the fuel pressure gauge when the Active Test was performed.

Powertrain > Engine > Active Test

ACTIVE TEST DISPLAY
Control the Fuel Pump Duty Ratio (Brushless)

DATA LIST DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

Standard:

GTS OPERATION	STANDARD
Low	Data List value and fuel pressure gauge are within +/-50 kPa of each other
High	

Post-procedure1

(c) None

NG ▶ **REPLACE NO. 2 FUEL PRESSURE SENSOR (FOR LOW PRESSURE SIDE)**

OK ▼

9.	CLEAR DTC

Pre-procedure1

(a) None

Procedure1

(b) Clear the DTCs.

Powertrain > Engine > Clear DTCs

Post-procedure1

(c) Turn the ignition switch off and wait for at least 30 seconds.

NEXT ▼

10.	CHECK WHETHER DTC OUTPUT RECURS (DTC P107A2A OR P107A64)

Pre-procedure1

(a) Drive the vehicle in accordance with the driving pattern described in Confirmation Driving Pattern.

Procedure1

(b) Check the DTC judgment result.

Powertrain > Engine > Utility

TESTER DISPLAY
All Readiness

(c) Input the DTC: P107A2A or P107A64.

RESULT	PROCEED TO
NORMAL (DTCs are not output)	A
ABNORMAL (DTC P107A2A or P107A64 is output)	B

Post-procedure1

(d) None

A ▶ **CHECK FOR INTERMITTENT PROBLEMS**

B ▶ **REPLACE ECM**

11.	**CHECK FUEL LEAK**

(a) Check around and beneath the vehicle for fuel leaks, fumes, etc.

OK:
No fuel leaks present.

NG ▶ **REPAIR OR REPLACE FUEL LEAK POINT**

OK ▼

12.	**PERFORM ACTIVE TEST USING GTS (CONTROL THE FUEL PUMP DUTY RATIO (BRUSHLESS))**

(a) Check whether the fuel pump operating sound occurs when performing the Active Test on the GTS.

Powertrain > Engine > Active Test

TESTER DISPLAY
Control the Fuel Pump Duty Ratio (Brushless)

Standard:

GTS OPERATION	STANDARD
High	Operating sounds can be heard from fuel pump (for low pressure side)

NG ▶ **GO TO FUEL PUMP CONTROL CIRCUIT**

OK ▼

13.	**PERFORM ACTIVE TEST USING GTS (CONTROL THE FUEL PUMP DUTY RATIO (BRUSHLESS))**

Pre-procedure1

(a) Discharge the fuel pressure.

HINT:

DTCs may be stored during this inspection. Check for DTCs and clear them using the GTS.

(1) Disconnect the fuel suction tube with pump and gauge assembly connector.

(2) Disconnect the fuel (engine room side) pump assembly (for high pressure side) connector.

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(4) Start the engine.

(5) After the engine has stopped on its own, turn the ignition switch off.

HINT:

If the engine does not stop naturally, perform direct injection by racing the engine to reduce the fuel pressure [Fuel Pressure (High)] and stop the engine.

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(7) Crank the engine again and make sure that the engine does not start.

(8) Connect the fuel (engine room side) pump assembly (for high pressure side) connector.

(9) Connect the fuel suction tube with pump and gauge assembly connector.

Procedure1

(b) Enter the following menus.

(c) Read the value displayed on the GTS when the Active Test was performed.

Powertrain > Engine > Active Test

ACTIVE TEST DISPLAY
Control the Fuel Pump Duty Ratio (Brushless)

DATA LIST DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

Standard:

GTS OPERATION	STANDARD
Low to High	When switching from Low to High, Fuel Pressure (Low) / Fuel Pressure 2 value changes

HINT:

Once the fuel pressure becomes high, the fuel pressure will not decrease, even when switched from High to Low. Therefore, make sure that the fuel pressure is low before checking that the fuel pressure changes when switching from Low to High.

Post-procedure1

(d) None

NG ▶ **GO TO STEP 19**

OK ▼

14.	**PERFORM ACTIVE TEST USING GTS (CONTROL THE FUEL PUMP DUTY RATIO (BRUSHLESS))**

Pre-procedure1

(a) Discharge the fuel pressure.

HINT:

DTCs may be stored during this inspection. Check for DTCs and clear them using the GTS.

(1) Disconnect the fuel suction tube with pump and gauge assembly connector.

(2) Disconnect the fuel (engine room side) pump assembly (for high pressure side) connector.

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(4) Start the engine.

(5) After the engine has stopped on its own, turn the ignition switch off.

HINT:

If the engine does not stop naturally, perform direct injection by racing the engine to reduce the fuel pressure [Fuel Pressure (High)] and stop the engine.

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(7) Crank the engine again and make sure that the engine does not start.

(8) Connect the fuel (engine room side) pump assembly (for high pressure side) connector.

(9) Connect the fuel suction tube with pump and gauge assembly connector.

Procedure1

(b) Read the value displayed on the GTS when the Active Test was performed.

Powertrain > Engine > Active Test

ACTIVE TEST DISPLAY
Control the Fuel Pump Duty Ratio (Brushless)

DATA LIST DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

Standard:

GTS OPERATION	FUEL PRESSURE (LOW) / FUEL PRESSURE 2
Low	50 kPag or higher
High	420 kPag or higher

HINT:

Once the fuel pressure becomes high, the fuel pressure will not decrease, even when switched from High to Low. Therefore, make sure that the fuel pressure is low before checking that the fuel pressure changes when

switching from Low to High.

OK:

Actual Low and High values are as shown above.

Post-procedure1

(c) None

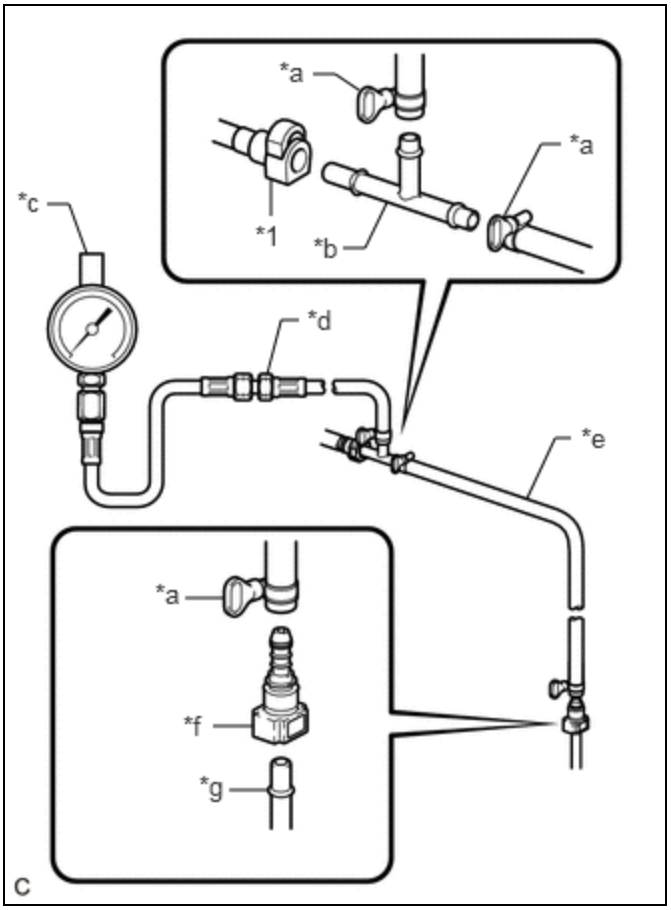
NG ▶ **GO TO STEP 18**

OK ▼

15.	**PERFORM ACTIVE TEST USING GTS (CONTROL THE FUEL PUMP DUTY RATIO (BRUSHLESS))**

Pre-procedure1

(a) Install the fuel pressure gauge (for low pressure line of low pressure side).



*1	Fuel Tube Sub-assembly (Vehicle Side)
*a	SST (Hose Band)
*b	SST (T Joint)
*c	SST (Gauge)

*d	SST (Hose Joint)
*e	SST (Hose)
*f	SST (Fuel Tube Connector)
*g	Fuel Pipe (Vehicle Side)

Procedure1

(b) Compare the values in the Data List using the GTS and the fuel pressure gauge when the Active Test was performed.

Powertrain > Engine > Active Test

ACTIVE TEST DISPLAY
Control the Fuel Pump Duty Ratio (Brushless)

DATA LIST DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

Standard:

GTS OPERATION	STANDARD
Low	Data List value and fuel pressure gauge are within +/-50 kPa of each other
High	

Post-procedure1

(c) None

NG ▶ **REPLACE NO. 2 FUEL PRESSURE SENSOR (FOR LOW PRESSURE SIDE)**

OK ▼

16.	**CLEAR DTC**

Pre-procedure1

(a) None

Procedure1

(b) Clear the DTCs.

Powertrain > Engine > Clear DTCs

Post-procedure1

(c) Turn the ignition switch off and wait for at least 30 seconds.

NEXT

17.	**CHECK WHETHER DTC OUTPUT RECURS (DTC P107A2A OR P107A64)**

Pre-procedure1

(a) Drive the vehicle in accordance with the driving pattern described in Confirmation Driving Pattern.

Procedure1

(b) Check the DTC judgment result.

Powertrain > Engine > Utility

TESTER DISPLAY
All Readiness

(c) Input the DTC: P107A2A or P107A64.

RESULT	PROCEED TO
NORMAL (DTCs are not output)	A
ABNORMAL (DTC P107A2A or P107A64 is output)	B

Post-procedure1

(d) None

A ▶ **CHECK FOR INTERMITTENT PROBLEMS**

B ▶ **REPLACE ECM**

18.	**READ VALUE USING GTS (FUEL PRESSURE (LOW) / FUEL PRESSURE 2)**

Pre-procedure1

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

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(b) Start the engine.

(c) Record the Fuel Pressure (Low) / Fuel Pressure 2 value.

Powertrain > Engine > Data List

TESTER DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

(d) Turn the ignition switch off.

(e) Wait for 10 seconds.

Procedure1

(f) Compare the Fuel Pressure (Low) / Fuel Pressure 2 value recorded with the engine running to the Fuel Pressure (Low) / Fuel Pressure 2 value currently shown on the GTS.

Powertrain > Engine > Data List

TESTER DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

RESULT	PROCEED TO
Fuel Pressure (Low) / Fuel Pressure 2 value is maintained	A
Fuel Pressure (Low) / Fuel Pressure 2 value drops	B

Post-procedure1

(g) None

A **REPLACE FUEL PUMP (FOR LOW PRESSURE SIDE)**

for HEV Model: Click here INFO

for PHEV Model: Click here INFO

B **REPLACE FUEL MAIN VALVE ASSEMBLY**

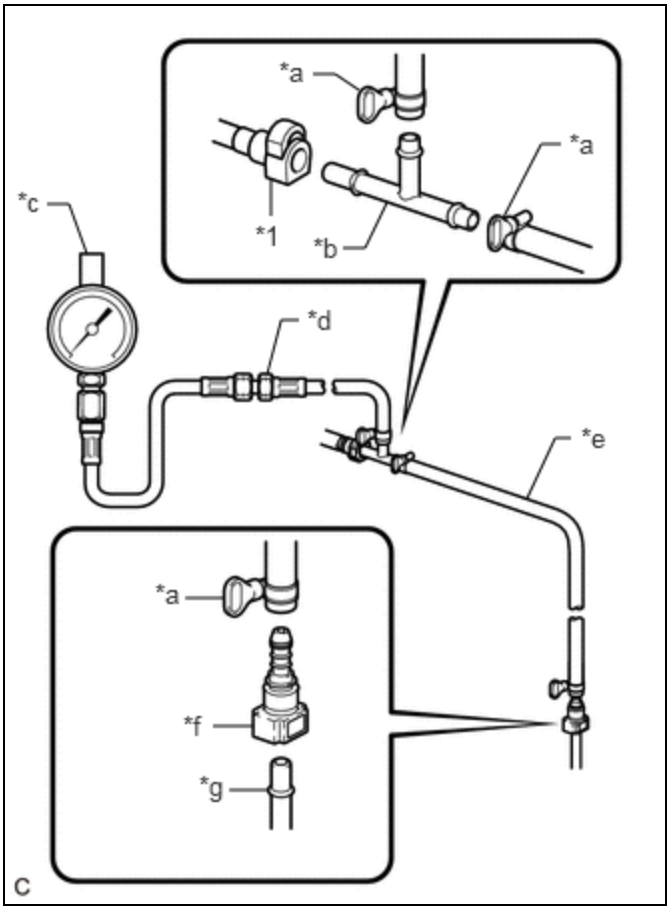
for HEV Model: Click here INFO

for PHEV Model: Click here INFO

19.	**PERFORM ACTIVE TEST USING GTS (CONTROL THE FUEL PUMP DUTY RATIO (BRUSHLESS))**

Pre-procedure1

(a) Install the fuel pressure gauge (for low pressure line of low pressure side).



*1	Fuel Tube Sub-assembly (Vehicle Side)
*a	SST (Hose Band)
*b	SST (T Joint)
*c	SST (Gauge)
*d	SST (Hose Joint)
*e	SST (Hose)
*f	SST (Fuel Tube Connector)
*g	Fuel Pipe (Vehicle Side)

Procedure1

(b) Read the values in the Data List using the GTS and the fuel pressure gauge when the Active Test was performed.

Powertrain > Engine > Active Test

ACTIVE TEST DISPLAY
Control the Fuel Pump Duty Ratio (Brushless)

DATA LIST DISPLAY
Fuel Pressure (Low) / Fuel Pressure 2

GTS OPERATION	RESULT	PROCEED TO
Low to High	Data List value does not change, but fuel pressure gauge changes	A
	Data List value and fuel pressure gauge do not change	B

Post-procedure1

(c) None

A ▶ **REPLACE NO. 2 FUEL PRESSURE SENSOR (FOR LOW PRESSURE SIDE)**

B ▶ **REPLACE FUEL PUMP CONTROL ECU**