Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BI1D
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for PHEV Model): P314779; Transmission (Shaft) Mechanical Linkage Failure; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P314779**	**Transmission (Shaft) Mechanical Linkage Failure**

DTC SUMMARY

Refer to the DTC summary for DTC P1C7779.

Click here INFO

DESCRIPTION

Refer to the description for DTC P1C7779.

Click here INFO

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P314779	Transmission (Shaft) Mechanical Linkage Failure	Drive force from motor (MG2) or the engine cannot be transmitted to the wheels. The engine, generator (MG1), motor (MG2) or hybrid vehicle transaxle assembly does not run smoothly due to a mechanical malfunction. (1 trip detection logic)	• Hybrid vehicle transaxle assembly • Transmission input damper assembly • Engine	Does not come on	Master Warning: Comes on	Hybrid Control	A	SAE Code: P3147

CONFIRMATION DRIVING PATTERN

HINT:

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

Click here INFO

1. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).

2. Turn the ignition switch off and wait for 2 minutes or more.
3. Turn the ignition switch to ON (READY).
4. Drive the vehicle at approximately 30 km/h (19 mph) or more for approximately 5 seconds or more using the engine.
5. Enter the following menus: Powertrain / Hybrid Control / Utility / All Readiness.
6. Check the DTC judgment result.

HINT:

- If the judgment result shows NORMAL, the system is normal.
- If the judgment result shows ABNORMAL, the system has a malfunction.
- If the judgment result shows INCOMPLETE, perform driving pattern again.

CAUTION / NOTICE / HINT

HINT:

- A seized engine, mechanical malfunction of the hybrid vehicle transaxle can be suspected.
- If this DTC is output, the engine or gears in the transaxle may have seized or foreign matter have been caught in either of them. Therefore, check the engine oil, hybrid transaxle fluid, coolant (for Engine) and coolant (for Inverter) levels.

PROCEDURE

1.	**CHECK DTC OUTPUT (ENGINE, MOTOR GENERATOR)**

(a) Check for DTCs.

Powertrain > Engine > Trouble Codes

Powertrain > Motor Generator > Trouble Codes

RESULT	PROCEED TO
No DTCs are output, or DTCs except the ones in the table below are also output.	A
DTCs of SFI system in the tables below are output.	B
DTCs of Motor Generator Control System in the tables below are output.	C

SYSTEM	MALFUNCTION CONTENT	RELEVANT DTC	
SFI system	Sensor and actuator circuit malfunction	P033511	Crankshaft Position Sensor "A" Circuit Short to Ground
		P033515	Crankshaft Position Sensor "A" Circuit Short to Battery or Open
		P03352A	Crankshaft Position Sensor "A" Signal Stuck in Range
		P033531	Crankshaft Position Sensor "A" No Signal
Motor generator control system	Motor resolver malfunction	P0A3F16	Drive Motor "A" Position Sensor Circuit Voltage Below Threshold
		P0A3F21	Drive Motor "A" Position Sensor Signal Amplitude < Minimum

SYSTEM	MALFUNCTION CONTENT	RELEVANT DTC	
		P0A3F22	Drive Motor "A" Position Sensor Signal Amplitude > Maximum
		P0C5013	Drive Motor "A" Position Sensor Circuit "A" Circuit Open
		P0C5016	Drive Motor "A" Position Sensor Circuit "A" Circuit Voltage Below Threshold
		P0C5017	Drive Motor "A" Position Sensor Circuit "A" Circuit Voltage Above Threshold
		P0C5A13	Drive Motor "A" Position Sensor Circuit "B" Circuit Open
		P0C5A16	Drive Motor "A" Position Sensor Circuit "B" Circuit Voltage Below Threshold
		P0C5A17	Drive Motor "A" Position Sensor Circuit "B" Circuit Voltage Above Threshold
	Motor resolver ECU malfunction	P1C621F	Generator Control Module Offset Power Circuit Intermittent
		P1CB038	Drive Motor "A" Position Sensor REF Signal Frequency Incorrect
	Motor ECU malfunction	P06B01C	Generator Control Module Position Sensor REF Power Source Circuit Voltage Out of Range
		P1CAD49	Drive Motor "A" Position Sensor Internal Electronic Failure

(b) Turn the ignition switch off.

B ▶ **GO TO DTC CHART (SFI SYSTEM)**

C ▶ **GO TO DTC CHART (MOTOR GENRATOR CONTROL SYSTEM)**

A

2.	**CHECK CRANKSHAFT PULLEY REVOLUTION (P POSITION)**

Click here INFO

NG ▶ **GO TO STEP 7**

OK

3.	**CLEAR DTC**

Click here INFO

NEXT

4.	**CHECK ENGINE RACING**

Click here INFO

NG ▶ **REPLACE HYBRID VEHICLE TRANSAXLE ASSEMBLY**

OK

5.	**CHECK CREEP MOVEMENT**

Click here INFO

NG ▶ **REPLACE HYBRID VEHICLE TRANSAXLE ASSEMBLY**

OK

6.	**INSPECT HYBRID VEHICLE TRANSAXLE ASSEMBLY**

(a) Check that the hybrid transaxle fluid level is not extremely low.

Click here INFO

(b) Drain the hybrid transaxle fluid.

HINT:

Click here INFO

(c) Check that the hybrid transaxle fluid is not contaminated by foreign matter.

OK:

- The hybrid transaxle fluid level is not extremely low.
- No foreign matter in the hybrid transaxle fluid.

OK ▶ **REPLACE TRANSMISSION INPUT DAMPER ASSEMBLY**

NG ▶ **REPLACE HYBRID VEHICLE TRANSAXLE ASSEMBLY AND TRANSMISSION INPUT DAMPER ASSEMBLY**

- Hybrid Vehicle Transaxle Assembly

  Click here INFO
- Transmission Input Damper Assembly

  Click here INFO

7.	**CHECK CRANKSHAFT PULLEY REVOLUTION (N POSITION)**

Click here INFO

OK ▶ **REPLACE HYBRID VEHICLE TRANSAXLE ASSEMBLY**

NG ▶ **REPAIR OR REPLACE ENGINE**