Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BI3M
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for PHEV Model): P176A87; Lost Communication with Fail Safe Signal (Gear Shift Control Module "A") Missing Message; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P176A87**	**Lost Communication with Fail Safe Signal (Gear Shift Control Module "A") Missing Message**

DESCRIPTION

The shift control ECU sends SBFS (fail-safe) signals to the hybrid vehicle control ECU

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P176A87	Lost Communication with Fail Safe Signal (Gear Shift Control Module "A") Missing Message	The SBFS (fail-safe) signals sent from the shift control ECU cannot be received by the hybrid vehicle control ECU continuously for 2 seconds or more. (1 trip detection logic)	• Transmission Floor Shift Assembly (shift control ECU) • Hybrid vehicle control ECU • Wire harness or connector	Does not come on	Master Warning: Comes on	Hybrid Control	A	SAE Code: P176A

CONFIRMATION DRIVING PATTERN

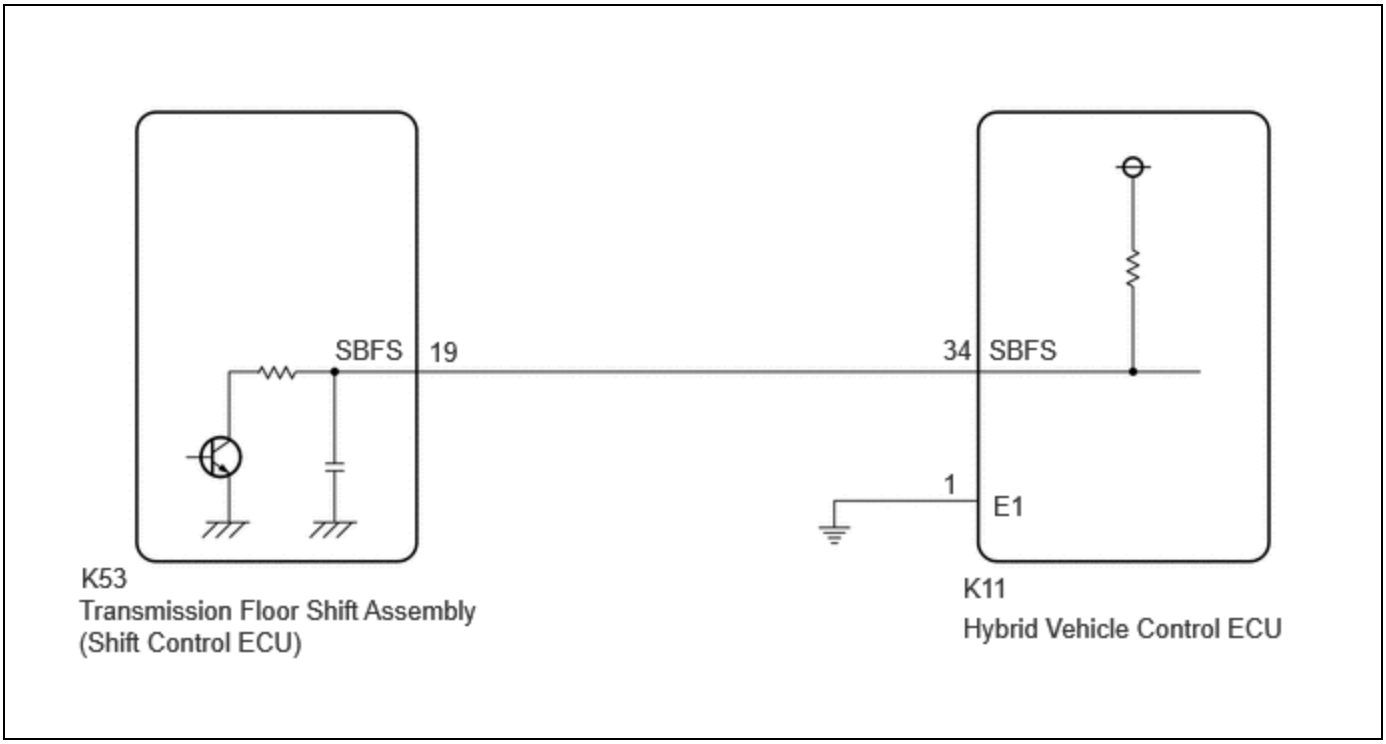
HINT:

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

Click here INFO

1. Turn the ignition switch to ON (READY) and wait for 2 minutes or more.

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

The vehicle is equipped with a shift control supply. Therefore, ensure there is no power being supplied to the vehicle when disconnecting or reconnecting the connector of the shift control ECU and when removing or installing the shift control ECU.

Click here INFO

PROCEDURE

1.	**CHECK HARNESS AND CONNECTOR (SHIFT CONTROL ECU - HYBRID VEHICLE CONTROL ECU)**

Pre-procedure1

(a) Disconnect the transmission floor shift assembly (shift control ECU) connector.

(b) Disconnect the hybrid vehicle control ECU connector.

Procedure1

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

Standard Resistance:

EWD INFO

Click Location & Routing(K53,A57)
Click Connector(K53)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K53-19 (SBFS) - A57-34 (SBFS)	Always	Below 1 Ω	Ω
K53-19 (SBFS) or A57-34 (SBFS) - Body ground and other terminals	Always	10 kΩ or higher	kΩ

Post-procedure1

(d) Reconnect the hybrid vehicle control ECU connector.

(e) Reconnect the transmission floor shift assembly (shift control ECU) connector.

OK ▶ **REPLACE TRANSMISSION FLOOR SHIFT ASSEMBLY**

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**