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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: PA10/PB10/PB12 (HYBRID TRANSMISSION / TRANSAXLE): ELECTRONIC SHIFT LEVER SYSTEM: FAIL-SAFE CHART; 2023 - 2024 MY Prius Prius Prime [03/2023 -]		

FAIL-SAFE CHART

If the shift control ECU detects a malfunction, a fail-safe function in the following table will be operated.

DTC NO.	DETECTION ITEM	PROBLEM SYMPTOMS	FAIL-SAFE FUNCTION
P085011	Park/Neutral Switch Circuit Short to Ground	The shift state cannot be changed to P by operating the P position switch	-
P085015	Park/Neutral Switch Circuit Short to Battery or Open	The shift state cannot be changed to P by operating the P position switch	-
P085D04	Gear Shift Control Module "A" System Internal Failure	Depending on the conditions, the shift state may not be able to be changed from P to a state other than P	-
P085D94	Gear Shift Control Module "A" Unexpected Operation	<ul style="list-style-type: none"> Vehicle cannot be driven The shift state cannot be changed to P The shift state cannot to be changed from P to a state other than P 	-
P08A662	Gear Lever Position Sensor Signal Compare Failure	<ul style="list-style-type: none"> The shift state cannot be changed to D, R or B Depending on the conditions, the shift state may not be able to be changed from P to a state other than P 	Shift state only permitted between P and N (however, shift state may not be able to be changed from P)
P09142B	Gear Shift Position Circuit "A" Range/Performance Signal Cross Coupled	<p>The following restrictions may occur:</p> <ul style="list-style-type: none"> The shift state cannot be changed to P The shift state cannot to be changed from P to a state other than P 	<p>The following fail-safe operations may occur:</p> <ul style="list-style-type: none"> Shift state change to P prohibited Shift state change from P to other state prohibited
P175231	Fail Safe Signal (Gear Shift Control Module "B" to "A") No Signal	-	-

DTC NO.	DETECTION ITEM	PROBLEM SYMPTOMS	FAIL-SAFE FUNCTION
P175387	Lost Communication with Gear Shift Control Module "B" (Local-CAN) Missing Message	-	-
P1761A2	Gear Shift Control Module "A" System Voltage Low	-	-
P1765A2	Sub Battery Module System Voltage Low	-	-
P176900	Gear Shift Control Module "A" A/D Processing Performance	<ul style="list-style-type: none"> The shift state cannot be changed to D, R or B The shift state cannot to be changed from P to a state other than P The shift state may not change to P by operating the P position switch 	<ul style="list-style-type: none"> When driving at a vehicle speed of 11 km/h (7 mph) or more, shift state change is prohibited When driving at a vehicle speed of less than 11 km/h (7 mph), shift state changes to N
P176D12	IG2 Signal (Gear Shift Control Module "A") Circuit Short to Battery	-	-
P1771A2	Gear Shift Control Module "B" System Voltage Low	-	-
P1775A2	Sub Battery Module (Gear Shift Control Module "B") System Voltage Low	-	-
P177949	Gear Shift Control Module Backup Power Supply Internal Electronic Failure	-	-
P177996	Gear Shift Control Module Backup Power Supply Component Internal Failure	-	-
P177A87	Lost Communication with Gear Shift Control Module Backup Power Supply Missing Message	-	-
P178987	Lost Communication with Gear Shift Control Module "A" from "B" Missing Message	-	-
P178A14	Gear Shift Control Module "B" Wake-up Circuit Short to Ground or Open	-	-

DTC NO.	DETECTION ITEM	PROBLEM SYMPTOMS	FAIL-SAFE FUNCTION
P179014	Gear Shift Actuator "A" Supply Voltage "A" Circuit Short to Ground or Open	<ul style="list-style-type: none"> The shift state cannot be changed to P The shift state cannot be changed from P to a state other than P 	<ul style="list-style-type: none"> Shift state change to P prohibited Shift state change from P to other state prohibited
P179314	Gear Shift Actuator "A" Supply Voltage "B" Circuit Short to Ground or Open	-	-
P179C49	Gear Shift Actuator "A" Control Circuit Internal Electronic Failure	<p>The following restrictions may occur:</p> <ul style="list-style-type: none"> The shift state cannot be changed to P The shift state cannot be changed from P to a state other than P 	<p>The following fail-safe operations may occur:</p> <ul style="list-style-type: none"> Shift state change to P prohibited Shift state change from P to other state prohibited
P179E00	Gear Shift Actuator "A" Performance	<ul style="list-style-type: none"> The shift state cannot be changed to P The shift state cannot be changed from P to a state other than P Shift state change prohibited (drive torque limit) 	<ul style="list-style-type: none"> Shift state change to P prohibited Shift state change from P to other state prohibited
P18A762	Gear Shift Control Module "A"/"B" IGCT Signal Compare Failure	-	-
P18A862	Gear Shift Control Module "A"/"B" IGCT-Scene Signal Compare Failure	-	-
P18AF12	Gear Shift Control Module "B" EPBT Circuit Short to Battery	-	-
P18B200	Gear Shift Control Module "B" Motor Angle Sensor "A" Performance	<p>The following restrictions may occur:</p> <ul style="list-style-type: none"> The shift state cannot be changed to P The shift state cannot be changed from P to a state other than P 	<p>The following fail-safe operations may occur:</p> <ul style="list-style-type: none"> Shift state change to P prohibited Shift state change from P to other state prohibited
P18B31C	Gear Shift Control Module "B" Motor Temperature Sensor "A" Circuit Voltage Out of Range	-	-

DTC NO.	DETECTION ITEM	PROBLEM SYMPTOMS	FAIL-SAFE FUNCTION
P18B562	Gear Shift Actuator "A" Phase U-V-W Current Sensor Signal Compare Failure	<ul style="list-style-type: none"> The shift state cannot be changed to P The shift state cannot be changed from P to a state other than P 	<ul style="list-style-type: none"> Shift state change to P prohibited Shift state change from P to other state prohibited
P2E0064	Gear Lever Position Sensor "A" Signal Plausibility Failure	<ul style="list-style-type: none"> The shift state cannot be changed to D, R or B Depending on the conditions, the shift state may not be able to be changed from P to a state other than P 	Shift state only permitted between P and N (however, shift state may not be able to be changed from P)
P2E0464	Gear Lever Position Sensor "B" Signal Plausibility Failure	<ul style="list-style-type: none"> The shift state cannot be changed to D, R or B Depending on the conditions, the shift state may not be able to be changed from P to a state other than P 	Shift state only permitted between P and N (however, shift state may not be able to be changed from P)
P2E0864	Gear Lever Position Sensor "C" Signal Plausibility Failure	<ul style="list-style-type: none"> The shift state cannot be changed to D, R or B Depending on the conditions, the shift state may not be able to be changed from P to a state other than P 	Shift state only permitted between P and N (however, shift state may not be able to be changed from P)
U014000	Lost Communication with Body Control Module (Sub) Missing Message	-	-
U015586	Lost Communication with Instrument Panel Cluster (IPC) Control Module Signal (some circuit quantity, reported via serial data) Invalid	<ul style="list-style-type: none"> Shift position cannot be displayed P position automatic change function may not operate 	-
U029100	Lost Communication with Gear Shift Control Module "B" (System 2) Missing Message	-	-
U029300	Lost Communication with Hybrid/EV Powertrain Control Module from Gear Shift Control Module "A"	-	-

DTC NO.	DETECTION ITEM	PROBLEM SYMPTOMS	FAIL-SAFE FUNCTION
U110700	Lost Communication with Power Management Module (Gear Shift Control Module "A")	P position automatic change function does not operate	-
U114F00	Lost Communication with Power Integration Module (System 2) Missing Message	-	-
U117000	Lost Communication with Brake System Control Module (Gear Shift Control Module "A")	Shift shock may occur when shift state changes from P to other state	-

