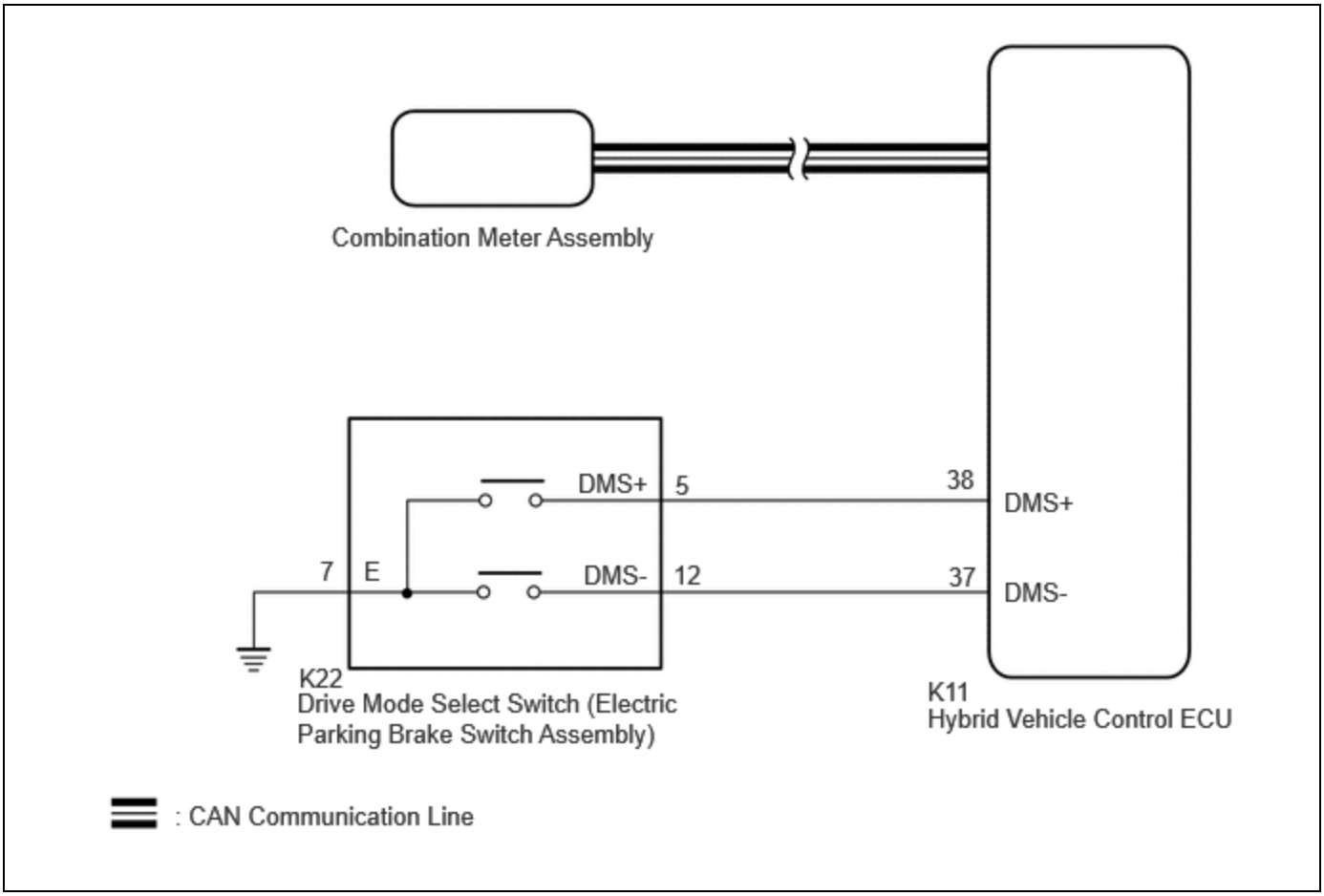
Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM1000000028ZWE
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for M20A-FXS): Drive Mode Select Switch Circuit; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

Drive Mode Select Switch Circuit

DESCRIPTION

When the drive mode select switch (combination switch assembly) is operated, a switch signal is sent to the hybrid vehicle control ECU and the hybrid vehicle control ECU changes the drive mode.

WIRING DIAGRAM



PROCEDURE

1.	**READ VALUE USING GTS (CAN BUS CHECK)**

Click here INFO

RESULT	PROCEED TO
All of the ECUs and sensors that are currently connected to the CAN communication system are displayed	A
None of the ECUs and sensors that are currently connected to the CAN communication system are displayed, or some of them are not displayed	B

B ▶ **GO TO CAN COMMUNICATION SYSTEM**

A ▼

2.	**CHECK DTC OUTPUT (HEALTH CHECK)**

Click here INFO

RESULT	PROCEED TO
No DTCs are output	A
DTCs are output	B

B ▶ **GO TO DTC CHART**

A ▼

3.	**CHECK DRIVE MODE STATUS**

(a) Turn the ignition switch to ON.

(b) Operate the drive mode select switch (combination switch assembly) to change the drive mode.

(c) Check that the drive mode indicator is displayed on the multi-information display and changes according to the selected drive mode.

RESULT	PROCEED TO
The display changes according to the drive mode select switch operation	A
The display does not change according to the drive mode select switch operation	B

(d) Turn the power switch off.

A ▶ **GO TO PROBLEM SYMPTOMS TABLE**

B ▼

4.	**READ VALUE USING GTS (DRIVE MODE SWITCH)**

(a) Read the value displayed on the GTS.

Powertrain > Hybrid Control > Data List

TESTER DISPLAY
Drive Mode Switch-
Drive Mode Switch+

RESULT	PROCEED TO
The display changes according to the drive mode select switch operation	A
Other than above	B

(b) Turn the ignition switch off.

A ▶ **CHECK METER / GAUGE SYSTEM** INFO

B ▼

5.	**INSPECT DRIVE MODE SELECT SWITCH (COMBINATION SWITCH ASSEMBLY)**

Click here INFO

NG ▶ **REPLACE COMBINATION SWITCH ASSEMBLY**

OK ▼

6.	**CHECK HARNESS AND CONNECTOR (DRIVE MODE SELECT SWITCH (COMBINATION SWITCH ASSEMBLY) - BODY GROUND)**

(a) Disconnect the drive mode select switch (combination switch assembly) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K22)
Click Connector(K22)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K22-7 (E) - Body ground	Always	Below 1 Ω

(c) Reconnect the drive mode select switch (combination switch assembly) connector.

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

OK ▼

7.	**CHECK HARNESS AND CONNECTOR (HYBRID VEHICLE CONTROL ECU - DRIVE MODE SELECT SWITCH (COMBINATION SWITCH ASSEMBLY))**

(a) Disconnect the hybrid vehicle control ECU connector.

(b) Disconnect the drive mode select switch (combination switch assembly) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K11,K22)
Click Connector(K11)
Click Connector(K22)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K11-37 (DMS-) - K22-12 (DMS-)	Always	Below 1 Ω
K11-38 (DMS+) - K22-5 (DMS+)	Always	Below 1 Ω
K11-37 (DMS-) or K22-12 (DMS-) - Body ground	Always	10 kΩ or higher
K11-38 (DMS+) or K22-5 (DMS+) - Body ground	Always	10 kΩ or higher

(d) Reconnect the drive mode select switch (combination switch assembly) connector.

(e) Reconnect the hybrid vehicle control ECU connector.

OK ▶ **REPLACE HYBRID VEHICLE CONTROL ECU** INFO

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