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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: ELECTRONICALLY CONTROLLED BRAKE SYSTEM: VSC OFF Switch Circuit; 2023 - 2024 MY Prius Prius Prime [03/2023 -]		

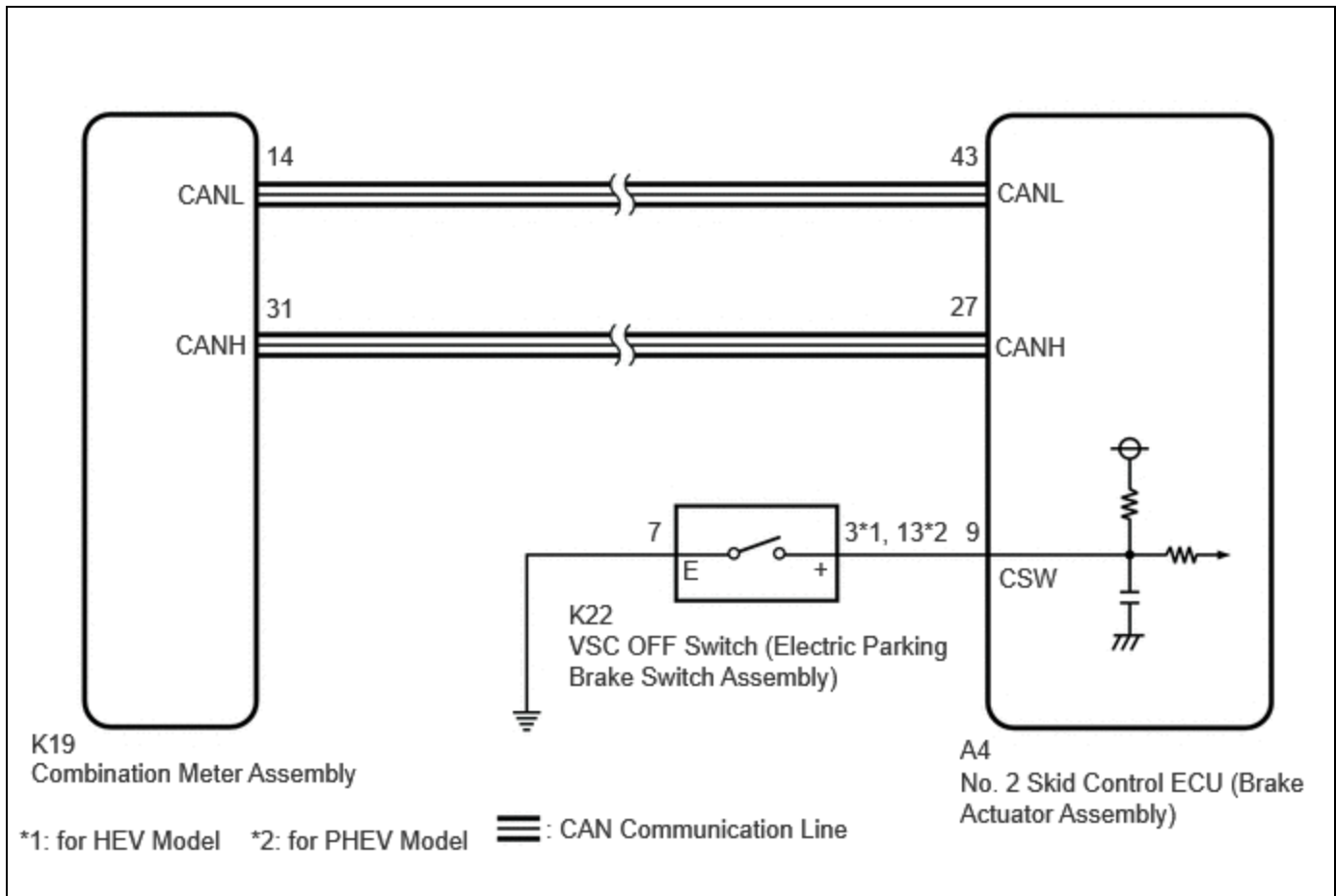
VSC OFF Switch Circuit

DESCRIPTION

The No. 2 skid control ECU (brake actuator assembly) is connected to the combination meter assembly via CAN communication.

Pressing the VSC OFF switch (electric parking brake switch assembly) turns off TRAC operation, and pressing and holding this switch turns off TRAC and VSC operation. If TRAC and VSC operations are turned off, the "Traction Control Turned OFF" will be displayed on the multi-information display and the VSC OFF indicator light will come on.

WIRING DIAGRAM



PROCEDURE

1.	READ VALUE USING GTS (TRAC/VSC OFF MODE)
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- (a) Check that the indicator light and mode condition on the GTS change according to VSC OFF switch (electric parking brake switch assembly) operation.

Chassis > Brake/EPB > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
TRC(TRAC)/VSC OFF Mode	TRAC/VSC off mode	Normal mode (TRC(TRAC) ON/VSC ON) / TRC(TRAC) OFF mode (TRC(TRAC) OFF/VSC ON) / VSC expert mode (VSC expert mode MID ON) / VSC OFF mode (TRC(TRAC) OFF/VSC OFF)	Normal mode (TRC(TRAC) ON/VSC ON): Normal mode TRC(TRAC) OFF mode (TRC(TRAC) OFF/VSC ON): TRAC off mode VSC expert mode (VSC expert mode MID ON): VSC expert mode VSC OFF mode (TRC(TRAC) OFF/VSC OFF): VSC off mode	-

Chassis > Brake/EPB > Data List

TESTER DISPLAY
TRC(TRAC)/VSC OFF Mode

Standard:

SWITCH OPERATION	MODE CONDITION DISPLAY	MULTI-INFORMATION DISPLAY (TRACTION CONTROL TURNED OFF)	VSC OFF INDICATOR LIGHT
Not pressed	Normal mode (TRC(TRAC) ON/VSC ON)	Not displayed	Does not come on
Pressing the VSC OFF switch (electric parking brake switch assembly)	TRC(TRAC) OFF mode (TRC(TRAC) OFF/VSC ON)	Displayed	Does not come on
Pressing and holding the VSC OFF switch (electric parking brake switch assembly)	VSC OFF mode (TRC(TRAC) OFF/VSC OFF)	Displayed	Comes on

RESULT	PROCEED TO
Indicator light and mode condition display do not change.	A

RESULT	PROCEED TO
Mode condition display is normal, but indicator light does not change.	B
Indicator light and mode condition display are normal.	C

B ► **INSPECT METER / GAUGE SYSTEM**

C ► **USE SIMULATION METHOD TO CHECK**

A



2. INSPECT ELECTRIC PARKING BRAKE SWITCH ASSEMBLY

- (a) Turn the ignition switch off.
- (b) Inspect the VSC OFF switch (electric parking brake switch assembly).

Click here [INFO](#)

OK:

The VSC OFF switch (electric parking brake switch assembly) is normal.

NG ► **REPLACE ELECTRIC PARKING BRAKE SWITCH ASSEMBLY**

OK



3. CHECK HARNESS AND CONNECTOR (BRAKE ACTUATOR ASSEMBLY - ELECTRIC PARKING BRAKE SWITCH ASSEMBLY)

- (a) Make sure that there is no looseness at the locking part and the connecting part of the connector.
- OK:
The connector is securely connected.
- (b) Disconnect the A4 No. 2 skid control ECU (brake actuator assembly) connector.
- (c) Check both the connector case and the terminals for deformation and corrosion.
- OK:
No deformation or corrosion.
- (d) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

for HEV Model
[Click Location & Routing\(A4,K22\).](#)
[Click Connector\(A4\).](#)
[Click Connector\(K22\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A4-9 (CSW) - K22-3 (+)	Always	Below 1 Ω
A4-9 (CSW) or K22-3 (+) - Body ground	Always	10 k Ω or higher
K22-7 (E) - Body ground	1 minute or more after disconnecting the cable from the negative (-) auxiliary battery terminal	Below 1 Ω

for PHEV Model
[Click Location & Routing\(A4,K22\).](#)
[Click Connector\(A4\).](#)
[Click Connector\(K22\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A4-9 (CSW) - K22-13 (+)	Always	Below 1 Ω
A4-9 (CSW) or K22-13 (+) - Body ground	Always	10 k Ω or higher
K22-7 (E) - Body ground	1 minute or more after disconnecting the cable from the negative (-) auxiliary battery terminal	Below 1 Ω

OK ► REPLACE BRAKE ACTUATOR ASSEMBLY

NG ► REPAIR OR REPLACE HARNESS OR CONNECTOR
