DTC	P3102/524	TRANSMISSION CONTROL ECU MALFUNCTION

DTC	P3102/525	TRANSMISSION CONTROL ECU MALFUNCTION

DTC	P3102/581	TRANSMISSION CONTROL ECU MALFUNCTION

DTC	P3102/582	TRANSMISSION CONTROL ECU MALFUNCTION

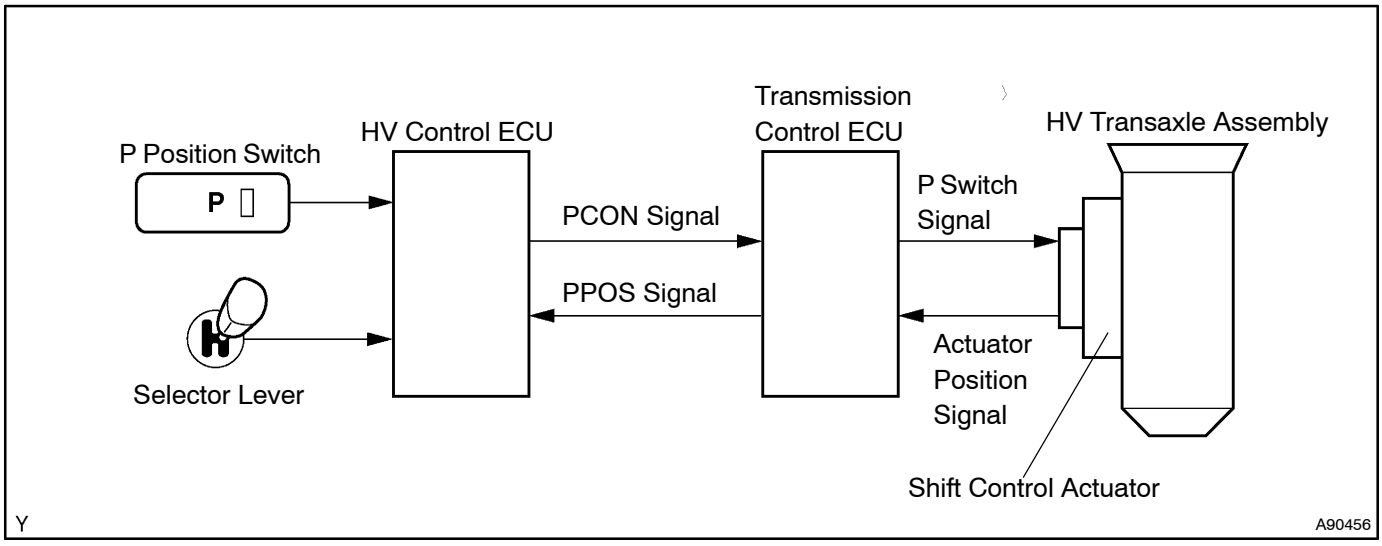
DTC	P3102/597	TRANSMISSION CONTROL ECU MALFUNCTION

DTC	P3102/598	TRANSMISSION CONTROL ECU MALFUNCTION

DTC	P3102/599	TRANSMISSION CONTROL ECU MALFUNCTION

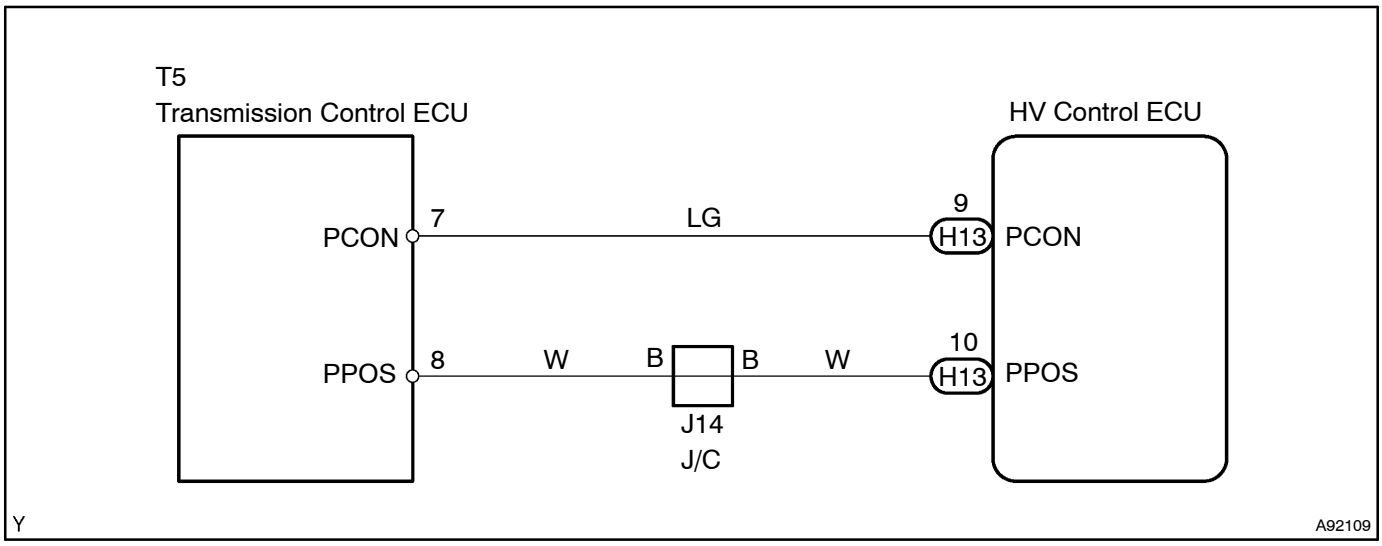
CIRCUIT DESCRIPTION

When a signal is input from the P position switch or selector lever, the HV control ECU transmits a P position control (PCON) signal to the transmission control ECU. Based on this signal, the transmission control ECU actuates the shift control actuator in order to mechanically lock or unlock the counter drive gear in the HV transaxle assembly. If the shift control actuator is in the P position, the transmission control ECU transmits a P position (PPOS) signal to the HV control ECU.



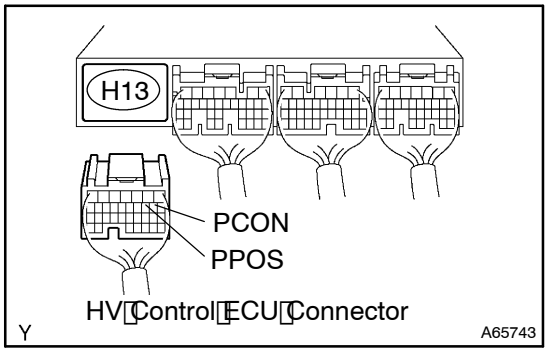
DTC No.	INF Code	DTC Detection Condition	Trouble Area
P3102	524	BEAN communication problem of transmission control ECU	• Wire harness or connector • Transmission control ECU • HV control ECU • Power source control ECU
P3102	525	Transmission control ECU IG OFF command malfunction	• Wire harness or connector • Transmission control ECU • HV control ECU • Power source control ECU
P3102	581	Transmission control ECU malfunction	• Wire harness or connector • Transmission control ECU • HV control ECU • Power source control ECU
P3102	582	P position (PPOS) signal is logically inconsistent	• Wire harness or connector • Transmission control ECU • HV control ECU • Power source control ECU
P3102	597	GND short in P position (PPOS) signal circuit	• Wire harness or connector • Transmission control ECU • HV control ECU • Power source control ECU
P3102	598	+B short in P position (PPOS) signal circuit	• Wire harness or connector • Transmission control ECU • HV control ECU • Power source control ECU
P3102	599	P position (PPOS) signal malfunction (output pulse is abnormal)	• Wire harness or connector • Transmission control ECU • HV control ECU • Power source control ECU

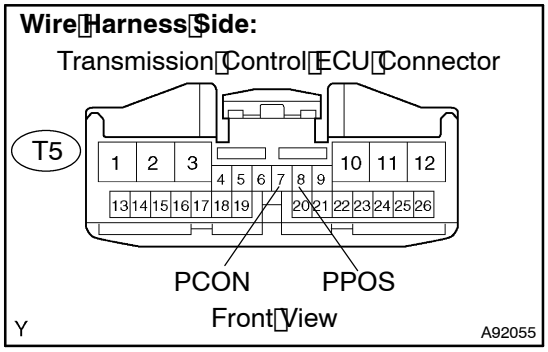
WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK HARNESS AND CONNECTOR(HYBRID VEHICLE CONTROL ECU – TRANSMISSION CONTROL ECU)





(a) Disconnect the H13 HV control ECU connector.
(b) Disconnect the T5 transmission control ECU connector.
(c) Turn the power switch ON (IG).
(d) Measure the voltage between the terminals of the HV control ECU connector and body ground.

Standard:

Tester Connection	Specified Condition
PCON (H13–9) – Body ground	Below 1 V
PPOS (H13–10) – Body ground	Below 1 V

(e) Turn the power switch OFF.
(f) Check the resistance between the wire harness side connectors.

Standard (Check for open):

Tester Connection	Specified Condition
PCON (H13–9) – PCON (T5–7)	Below 1 Ω
PPOS (H13–10) – PPOS (T5–8)	Below 1 Ω

Standard (Check for short):

Tester Connection	Specified Condition
PCON (H13–9) or PCON (T5–7) – Body ground	10 kΩ or higher
PPOS (H13–10) or PPOS (T5–8) – Body ground	10 kΩ or higher

(g) Reconnect the transmission control ECU connector.
(h) Reconnect the HV control ECU connector.

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

2	READ OUTPUT DTC(TRANSMISSION CONTROL)

(a) Connect the Intelligent Tester II to the DLC3.
(b) Turn the power switch ON (IG).
(c) Turn the Intelligent Tester II ON.
(d) On the Intelligent Tester II, enter the following menus: Powertrain / Transmission Control / DTC.
(e) Read DTCs.

Result: DTCs are output

YES → **GO TO RELEVANT DTC CHART** **(See page 05–929)**

NO

REPLACE HV CONTROL ECU, TRANSMISSION CONTROL ECU AND POWER SOURCE CONTROL ECU