DTC	P0617	STARTER RELAY CIRCUIT HIGH

CIRCUIT DESCRIPTION

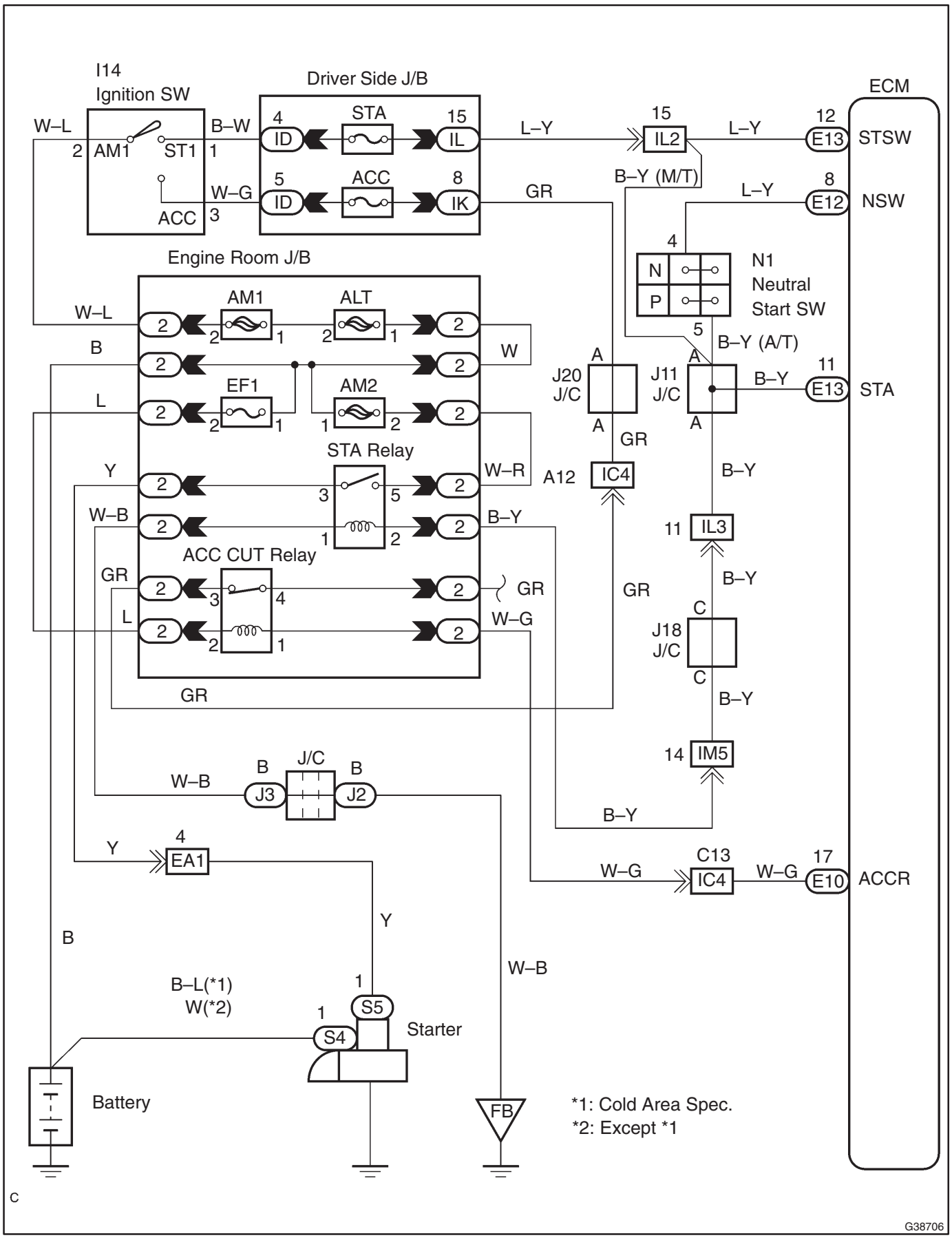
HINT:

Refer to cranking holding function circuit on page 05–405.

While the engine is being cranked, current flows from terminal STAR of the ECM to the starter relay coil and also current flows to terminal STA of the ECM (STA signal).

DTC No.	DTC Detection Condition	Trouble Area
P0617	When conditions (a), (b) and (c) are met when the battery (+B) voltage 10.5 V or more is applied for 20 sec. (a) Vehicle speed ≧ 20 km/h (12 mph) (b) Engine revolution ≧ 1,000 rpm (c) STA signal ON	• Short in Park/Neutral position switch circuit • Park/Neutral position switch • Cranking holding function circuit • ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

- This DTC chart is on the premise that the engine is cranked normally. If the engine is not cranked, proceed to the problem symptoms table on page 05–202.
- Read freeze frame data using the Intelligent Tester II. Freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, freeze frame data can help determine if the vehicle was running or stopped, if the engine was warmed up or not, if the air–fuel ratio was lean or rich, and other data from the time the malfunction occurred.

1 READ VALUE OF INTELLIGENT TESTER II(STA SIGNAL)

(a) Connect the Intelligent Tester ll to the DLC3.
(b) Turn the ignition switch to ON and turn the Intelligent Tester ll ON.
(c) Select the following menu items: Powertrain / Engine and ECT / Data List / Starter SIG.
(d) Check the result when the engine switch is turned to ON and START.

Standard:

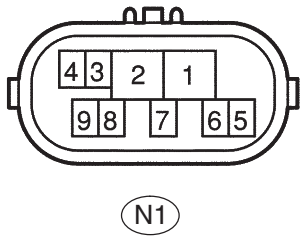
Engine Switch Position	ON	START
STARTER SIG	OFF	ON

OK → **REPLACE ECM (See Pub. No. RM1017E, page 10–11)**

NG

2 INSPECT PARK/NEUTRAL POSITION SWITCH ASSY

Switch Side:
(Connector Front View):



(a) Disconnect the park/neutral position switch connector.
(b) Check for resistance between each terminal shown below when the shift lever is moved to each range.

Standard:

Shift Position	Tester Connection	Specified Condition
P	2 – 6 and 4 – 5	Below 1 Ω
R	2 – 1	Below 1 Ω
N	2 – 9 and 4 – 5	Below 1 Ω
D and 4	2 – 7	Below 1 Ω
3	2 – 3	Below 1 Ω
2 and L	2 – 8	Below 1 Ω

NG → **REPLACE PARK/NEUTRAL POSITION SWITCH ASSY (THEN CHECK FOR CRANKING HOLDING FUNCTION CIRCUIT) (See page 05–405)**

OK

CHECK CRANKING HOLDING FUNCTION CIRCUIT (See page 05–405)