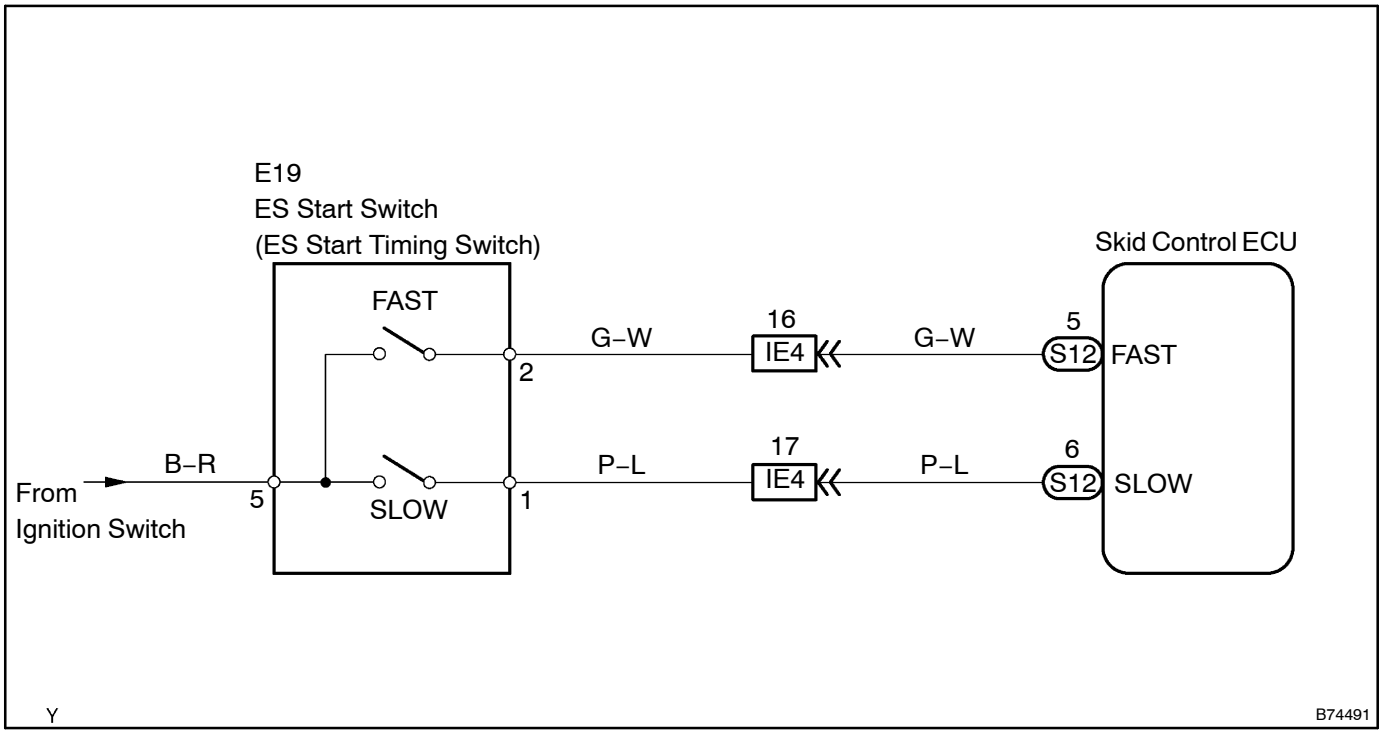
DTC	C1387/115	MALFUNCTION IN ES STARTING RELEASE TIMING SWITCH

CIRCUIT DESCRIPTION

The ES start timing switch can adjust the timing of releasing the brake hydraulic pressure. When the timing switch is operated, a release timing input signal (FAST input signal or SLOW input signal) is input to the skid control ECU. In response to this input signal, the skid control ECU adjusts the timing of releasing the brake hydraulic pressure.

DTC No.	DTC Detection Condition	Trouble Area
C1387/115	Both terminals FAST and SLOW are ON for 2 seconds	• ES start switch • Skid control ECU • Wire harness

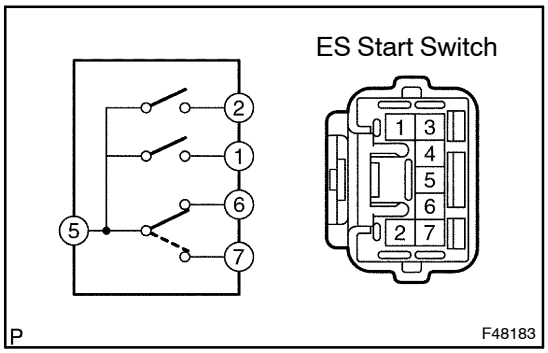
WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
As the ES starting system is controlled by the skid control ECU, a malfunction in the ABS & BA system may affect ES starting system operation. Before proceeding to the flowchart below, check for ABS & BA system's DTCs. If any of the ABS & BA system's DTCs is present, troubleshoot those DTCs first (see page 05–191).

1 INSPECT ES START SWITCH (ES START TIMING SWITCH)



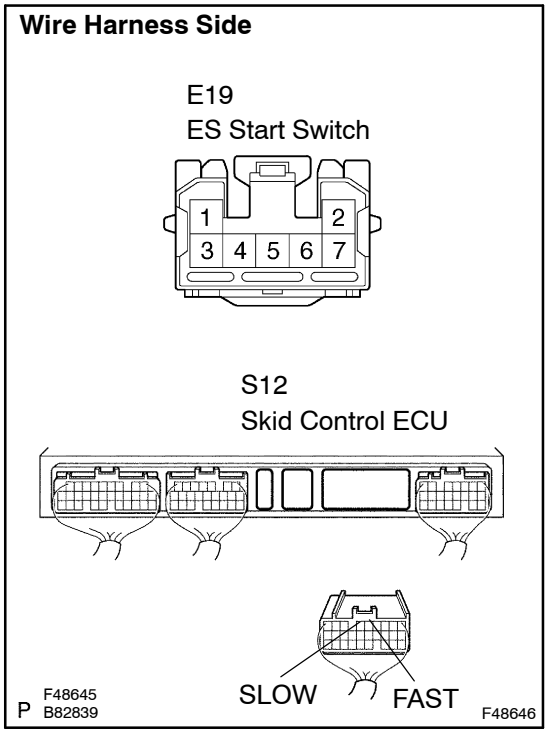
(a) Remove the ES start switch.
(b) Measure the resistance of the switch.
Standard:

Tester Connection	ES Start Timing Switch Condition	Specified Condition
E19–5 – E19–2	OFF → FAST (pressed)	Below 1 Ω → 10 kΩ or higher
E19–5 – E19–1	OFF → FAST (pressed)	10 kΩ or higher
E19–5 – E19–1	OFF → SLOW (pressed)	Below 1 Ω → 10 kΩ or higher
E19–5 – E19–2	OFF → SLOW (pressed)	10 kΩ or higher

NG → **REPLACE ES START SWITCH**

OK

2 CHECK WIRE HARNESS (ES START SWITCH – SKID CONTROL ECU AND BATTERY)



(a) Disconnect the S12 ECU connector.
(b) Disconnect the E19 switch connector.
(c) Measure the voltage and resistance of the wire harness side connectors.
Standard:

Tester Connection	Condition	Specified Condition
E19–2 – S12–5 (FAST)	Always	Below 1 Ω
E19–1 – S12–6 (SLOW)	Always	Below 1 Ω
E19–5 – Body ground	Ignition switch ON	20 to 28 V

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

OK

3	CHECK FOR DTCS

(a) Clear the DTC (see page 05–268).
(b) Drive the vehicle at the vehicle speed of 7 km/h (4 mph) or more.
(c) Check that no code is output.

NG → REPLACE SKID CONTROL ECU

OK

END