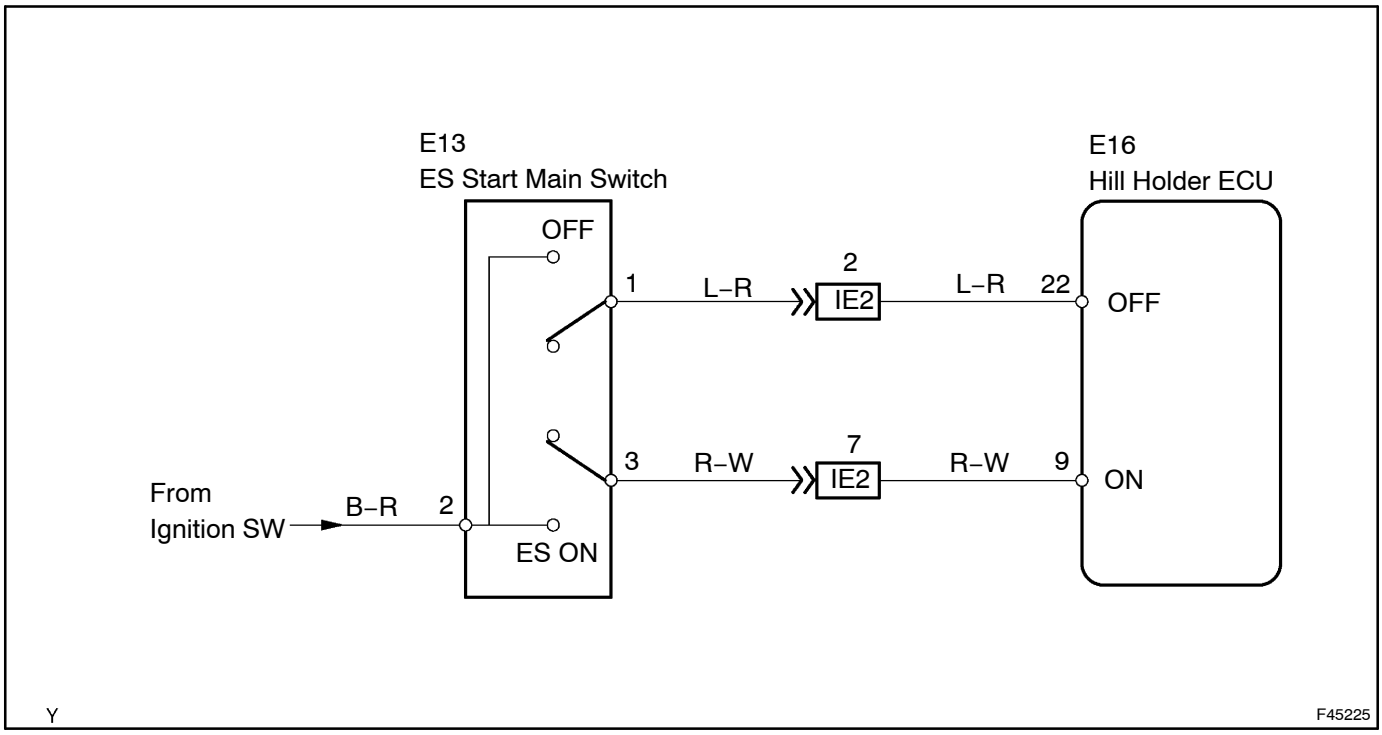
DTC 18 ES START MAIN SWITCH MALFUNCTION

CIRCUIT DESCRIPTION

The ES start main switch can switch operation of the ES start system, to the keep he brake hydraulic pressure and to release it. The hill holder ECU detects a malfunction in the ES start main switch, according to the conditions of the ON input terminal and the OFF input terminal from the ES start main switch.

DTC No.	DTC Detection Condition	Trouble Area
18	Either condition 1. or 2. is detected: 1. Both terminals are ON for 900 ms (short circuit) 2. Both terminals are OFF for 5 seconds (open circuit)	• ES start main switch • Hill holder ECU

WIRING DIAGRAM

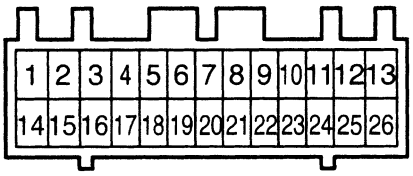


INSPECTION PROCEDURE

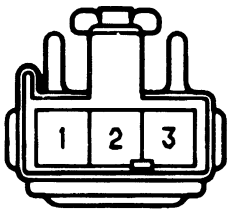
1	CHECK WIRE HARNESS (HILL HOLDER ECU ⇔ ES START MAIN SWITCH)

Wire Harness Side

E16
Hill Holder ECU



E13
ES Start Main Switch



F15695
F15703

F15720

(a) Disconnect the E16 ECU connector.
(b) Disconnect the E13 switch connector.
(c) Check the continuity between the wire harness side connectors.

Standard:

Symbols (Terminal No.)	Specified Condition
ON (E16–22) ⇔ – (E13–3)	Continuity
OFF (E16–9) ⇔ – (E13–1)	Continuity

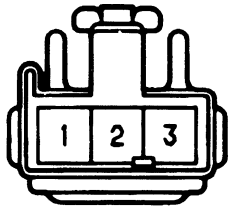
NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

2	CHECK ES START MAIN SWITCH (VOLTAGE)

Wire Harness Side

E13
ES Start Main Switch



F15703

(a) Disconnect the E13 switch connector.
(b) Check the voltage between the wire harness side connector and the body ground.

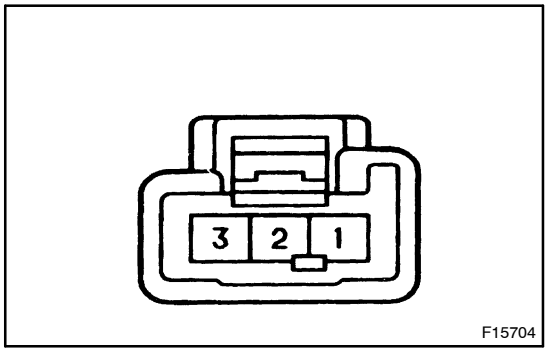
Standard:

Terminal No.	Condition	Specified Condition
E13–2 ⇔ Body ground	Ignition switch ON	20 – 28 V

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

OK

3 INSPECT ES START MAIN SWITCH



(a) Check the switch continuity.

Standard:

Terminal No.	Switch Position	Specified Condition
2 ⇔ 3	ON	Continuity
2 ⇔ 1	OFF	Continuity

NG → **REPLACE ES START MAIN SWITCH**

OK

CHECK AND REPLACE HILL HOLDER ECU