

<b>DTC</b>	<b>P1500</b>	<b>Starter Signal Circuit Malfunction</b>
------------	--------------	---

## CIRCUIT DESCRIPTION

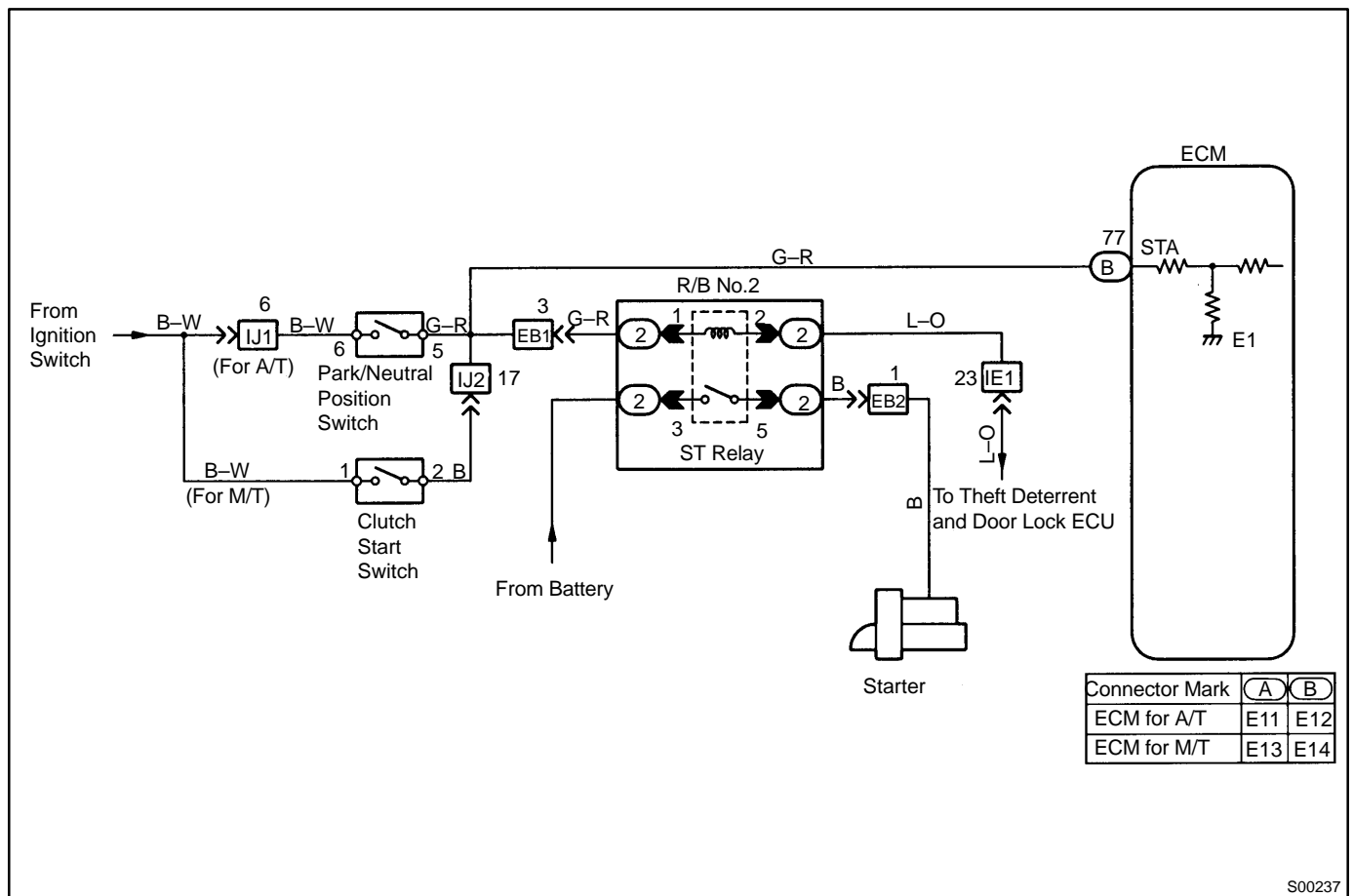
When the engine is cranked, the intake air flow is slow, so fuel vaporization is poor. A rich mixture is therefore necessary in order to achieve good startability. While the engine is being cranked, the battery voltage is applied to terminal STA of the ECM. The starter signal is mainly used to increase the fuel injection volume for the starting injection control and after-start injection control.

DTC No.	DTC Detecting Condition	Trouble Area
P1500	No starter signal to ECM	<ul style="list-style-type: none"> <li>• Open or short in starter signal circuit</li> <li>• Open or short in ignition switch or starter relay circuit</li> <li>• ECM</li> </ul>

**HINT:**

In this circuit, diagnosis can only be made in the check mode.

## WIRING DIAGRAM



## INSPECTION PROCEDURE

### HINT:

This diagnostic chart is based on the premise that the engine is cranked normally. If the engine is not cranked, proceed to the matrix chart of problem symptoms on page [DI-23](#).

1	<b>Connect the LEXUS hand-held tester and check STA signal.</b>
---	---

### PREPARATION:

- (a) Connect the LEXUS hand-held tester to the DLC3.
- (b) Turn ignition switch ON and LEXUS hand-held tester main switch ON.

### CHECK:

Read STA signal on the LEXUS hand-held tester while starter operates.

### OK:

Ignition Switch Position	ON	START
STA Signal	OFF	ON

OK

Proceed to next circuit inspection shown on matrix chart (See page [DI-23](#)).

NG

2	<b>Check for open in harness and connector between ECM and starter relay (Marking: ST).</b>
---	---

NG

Repair or replace harness or connector.

OK

Check and replace ECM (See page [IN-29](#)).