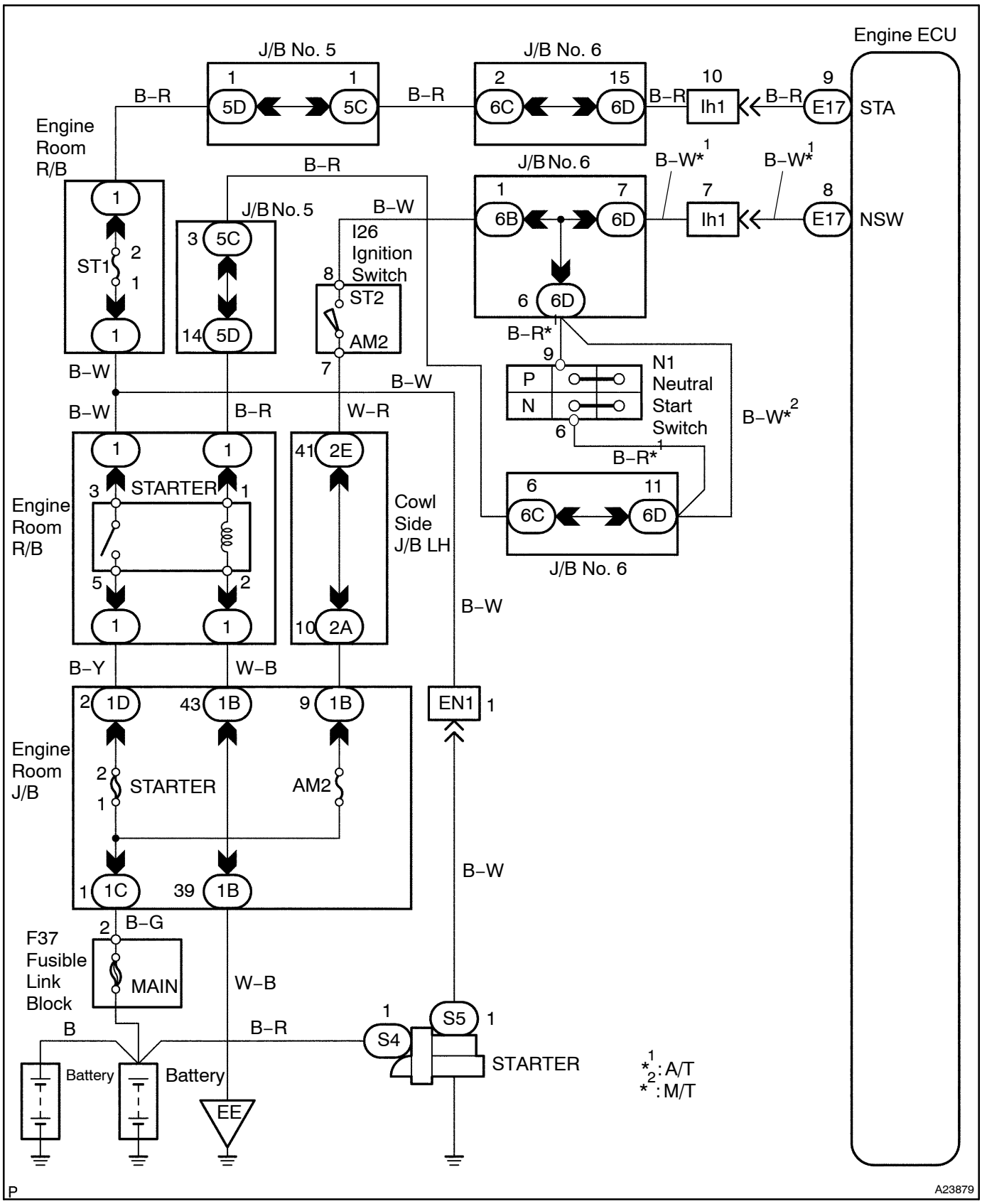
Starter Signal Circuit

CIRCUIT DESCRIPTION

When the engine is being 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 positive voltage is applied to terminal STA of the engine ECU. The starter signal is mainly used to increase the fuel injection volume for the starting injection control and after –start injection control.

WIRING DIAGRAM



INSPECTION PROCEDURE

When using intelligent tester II:

HINT:

This diagnostic chart is based on the premise that the engine is being cranked under normal conditions. If the engine does not crank, proceed to the problem symptoms table on page DI–16.

1	**Connect intelligent tester II and check Starter signal.**

PREPARATION:

(a) Connect the intelligent tester II to the DLC3.

(b) Turn the ignition switch ON and push the intelligent tester II main switch ON.

CHECK:

Read the starter signal on the intelligent tester II while the starter operates.

OK:

Ignition switch position	ON	STA
Starter signal	OFF	ON

OK → **Proceed to next circuit inspection shown on problem symptoms table (See page DI–16).**

NG

2	**Check for open in harness and connector between engine ECU and starter relay (Marking: STARTER) (See page IN–19).**

NG → **Repair or replace harness or connector.**

OK

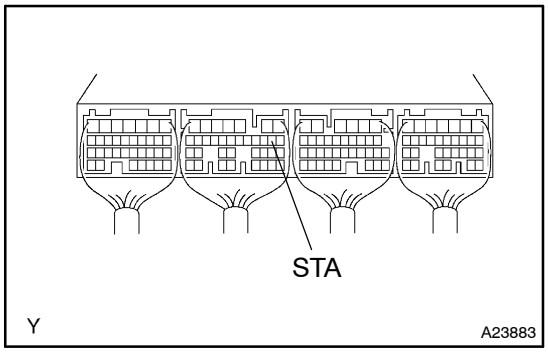
Check and replace engine ECU (See page IN–19).

When not using intelligent tester II:

HINT:

This diagnostic chart is based on the premise that the engine is being cranked under normal conditions. If the engine does not crank, proceed to the problem symptoms table on page DI–16.

1	**Check the starter signal.**



PREPARATION:

(a) Remove the glove compartment door.

(b) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal STA of the engine ECU connector and body ground during cranking.

OK:

Voltage: 6.0 V or more

OK	**Proceed to next circuit inspection shown on problem symptoms table (See page DI–16).**

NG

2	**Check for open in harness and connector between engine ECU and starter relay (Marking : STARTER) (See page IN–19).**

NG	**Repair or replace harness or connector.**

OK

Check and replace engine ECU (See page IN–19).