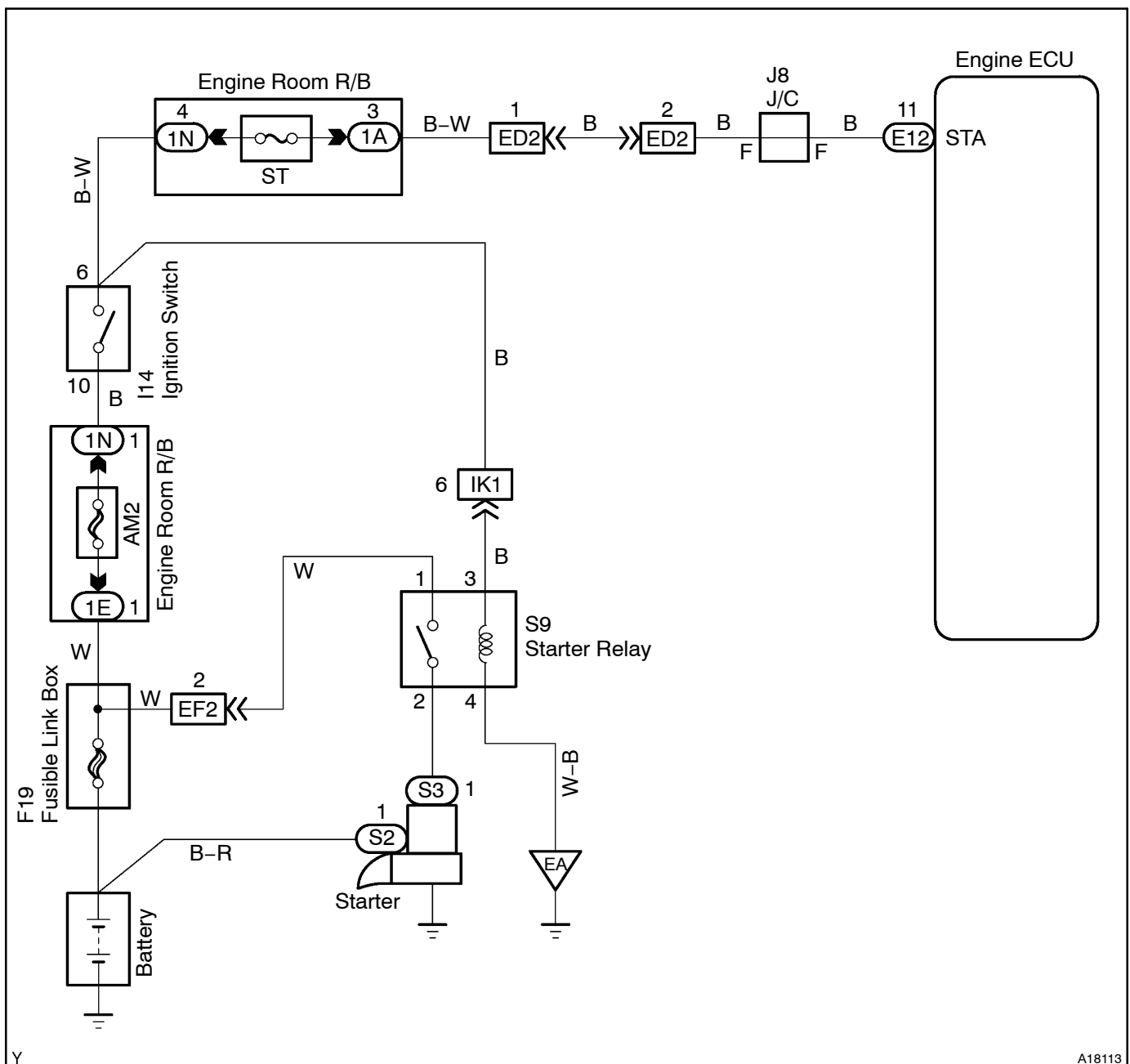


Starter Signal Circuit Malfunction

CIRCUIT DESCRIPTION

When the engine is being cranked, the intake air flow is slow, so the fuel vaporization is poor. Therefore a rich mixture is necessary in order to achieve good start ability. 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 hand-held tester

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-18](#).

1 Check STA signal on hand held tester.

OK:

Ignition switch position	ON	START
STA signal	OFF	ON

OK

Proceed to next circuit inspection shown on problem symptoms table ([See page DI-18](#)).

NG

2 Check for open in harness and connector between engine ECU and starter relay (Marking: ST) ([See page IN-19](#)).

NG

Repair or replace harness or connector.

OK

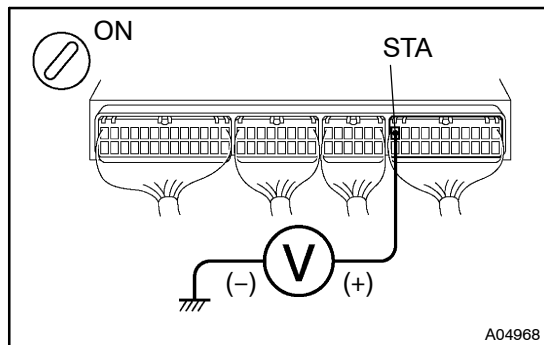
Check and replace engine ECU ([See page IN-19](#)).

When not using hand-held tester

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-18](#).

1 Check 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 the 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-18](#)).

NG

2 Check for open in harness and connector between engine ECU and starter relay (Marking: ST) ([See page IN-19](#)).

NG

Repair or replace harness or connector.

OK

Check and replace engine ECU ([See page IN-19](#)).