DI8FT–01

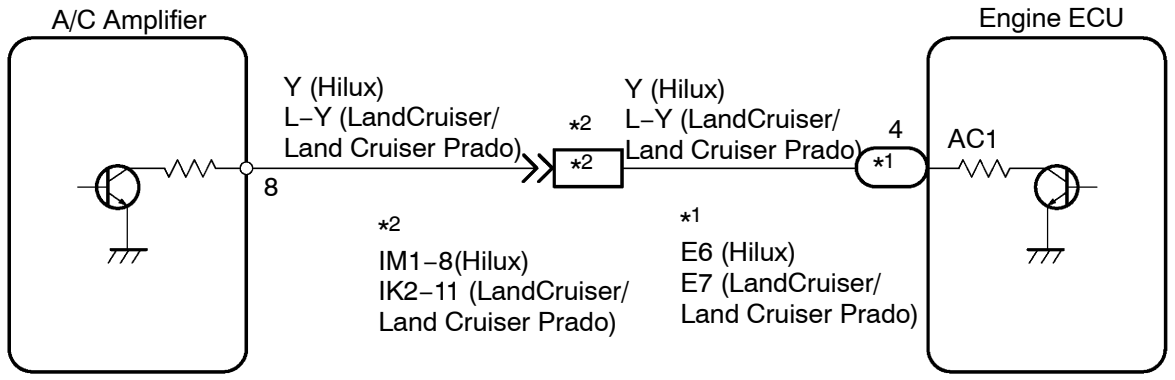
A/C Signal Circuit

CIRCUIT DESCRIPTION

When the A/C compressor is on, the A/C amplifier sends an A/C signal to the engine ECU, then engine ECU increases the fuel injection volume to improve the driveability during the engine idling.

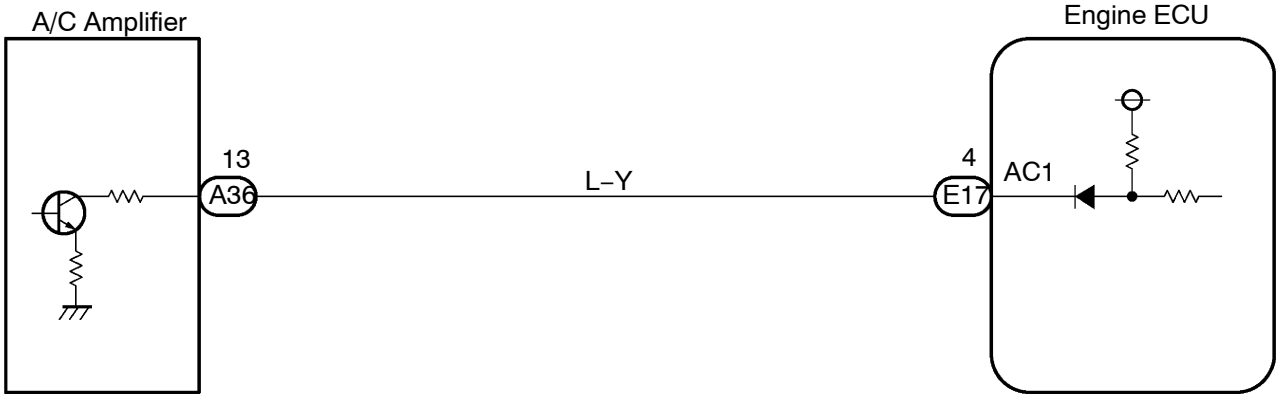
WIRING DIAGRAM

Hilux, Land Cruiser/LandCruiser Prado



Y A15052

4Runner



Y A15415

INSPECTION PROCEDURE

When using hand–held tester:

1	**Connect hand–held tester, and check A/C signal.**

PREPARATION:

(a) Connect the hand–held tester to the DLC3.

(b) Turn the ignition switch ON and push the hand–held tester main switch ON.

CHECK:

Read the A/C signal on the hand–held tester while the A/C compressor is on.

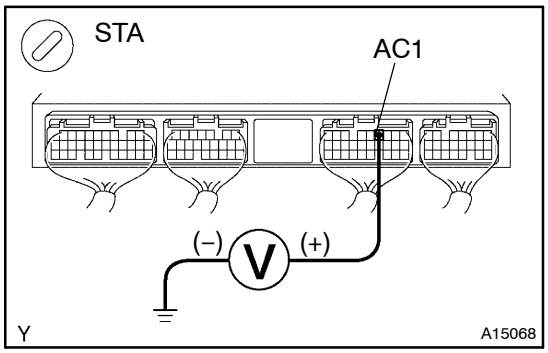
OK:

A/C Switch Condition	OFF	ON
A/C Signal	OFF	ON

OK → **Proceed to next circuit inspection shown on problem symptoms table (See page DI–24).**

NG

2	**Check voltage between terminal AC1 of engine ECU connector and body ground.**



PREPARATION:

(a) Remove the glove compartment door.

(b) Start the engine.

CHECK:

Measure the voltage between terminal AC1 of the engine ECU connector and the body ground when the A/C switch is turned to ON and OFF.

OK:

A/C Switch Condition	Voltage
ON	Below 1.5 V
OFF	9 – 14 V

OK → **Check and replace engine ECU (See page IN–20).**

NG

3	**Check for open and short in harness and connector between engine ECU and A/C amplifier (See page IN–20).**

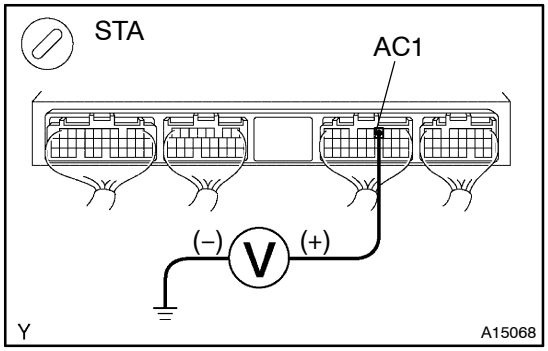
NG → **Repair or replace harness or connector.**

OK

Check and replace A/C amplifier.

When not using hand–held tester:

1	**Check voltage between terminal AC1 of engine ECU connector and body ground.**



PREPARATION:

(a) Remove the glove compartment door.

(b) Start the engine.

CHECK:

Measure the voltage between terminal AC1 of the engine ECU connector and the body ground when the A/C switch is turned to ON and OFF.

OK:

A/C Switch Condition	Voltage
ON	Below 1.5 V
OFF	9 – 14 V

OK → **Proceed to next circuit inspection shown on problem symptoms table (See page DI–24).**

NG

2	**Check for open and short in harness and connector between engine ECU and A/C amplifier (See page IN–20).**

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

OK

Check and replace A/C amplifier.