

Diag. Code 51 Switch Condition Signal Circuit

— CIRCUIT DESCRIPTION —

Neutral Start Switch Signal

The ECU uses the signals from the neutral start switch to determine whether the transmission is in park or neutral, or in some other gear.

Air Conditioner Switch Signal

The ECU uses the output from the air conditioner switch to determine whether or not the air conditioner is operating so that it can increase the idling speed of the engine if necessary.

Throttle Position Sensor IDL Signal

The IDL contacts are mounted in the throttle position sensor, and detects the idle condition.

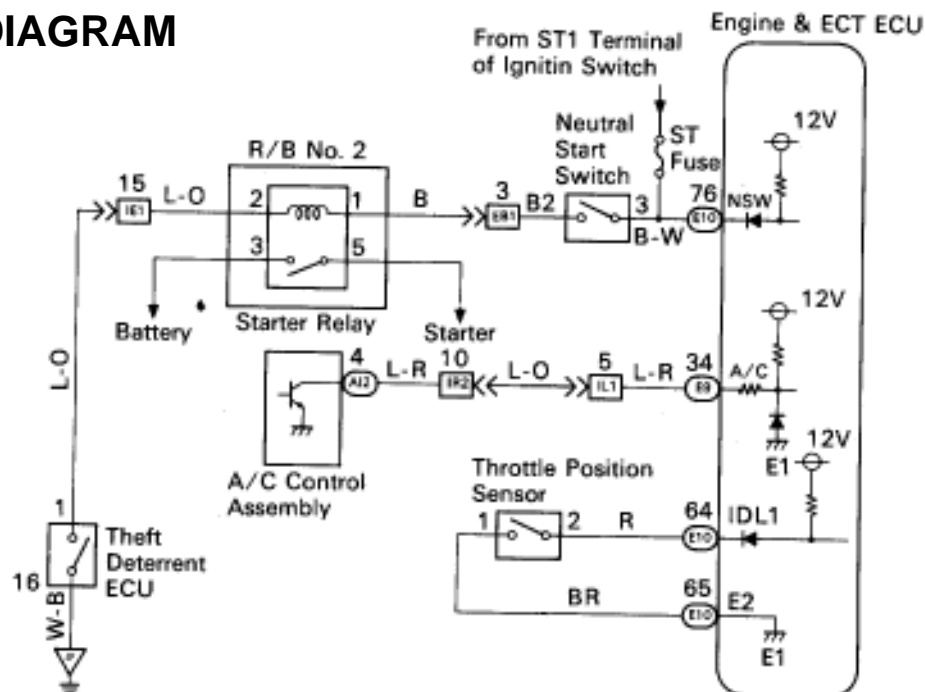
Code No.	Diagnostic Code Detecting Condition	Trouble Area
51	(1) 3 sec. or more after engine start, side switch OFF (IDL1). (2) Neutral start switch OFF (NSW). (Shift position in "R", "D", "2" or "1" ranges). (3) A/C switch ON.	<ul style="list-style-type: none"> • Throttle position sensor IDL circuit • Accelerator pedal and cable • Neutral start switch circuit • A/C switch circuit • ECU

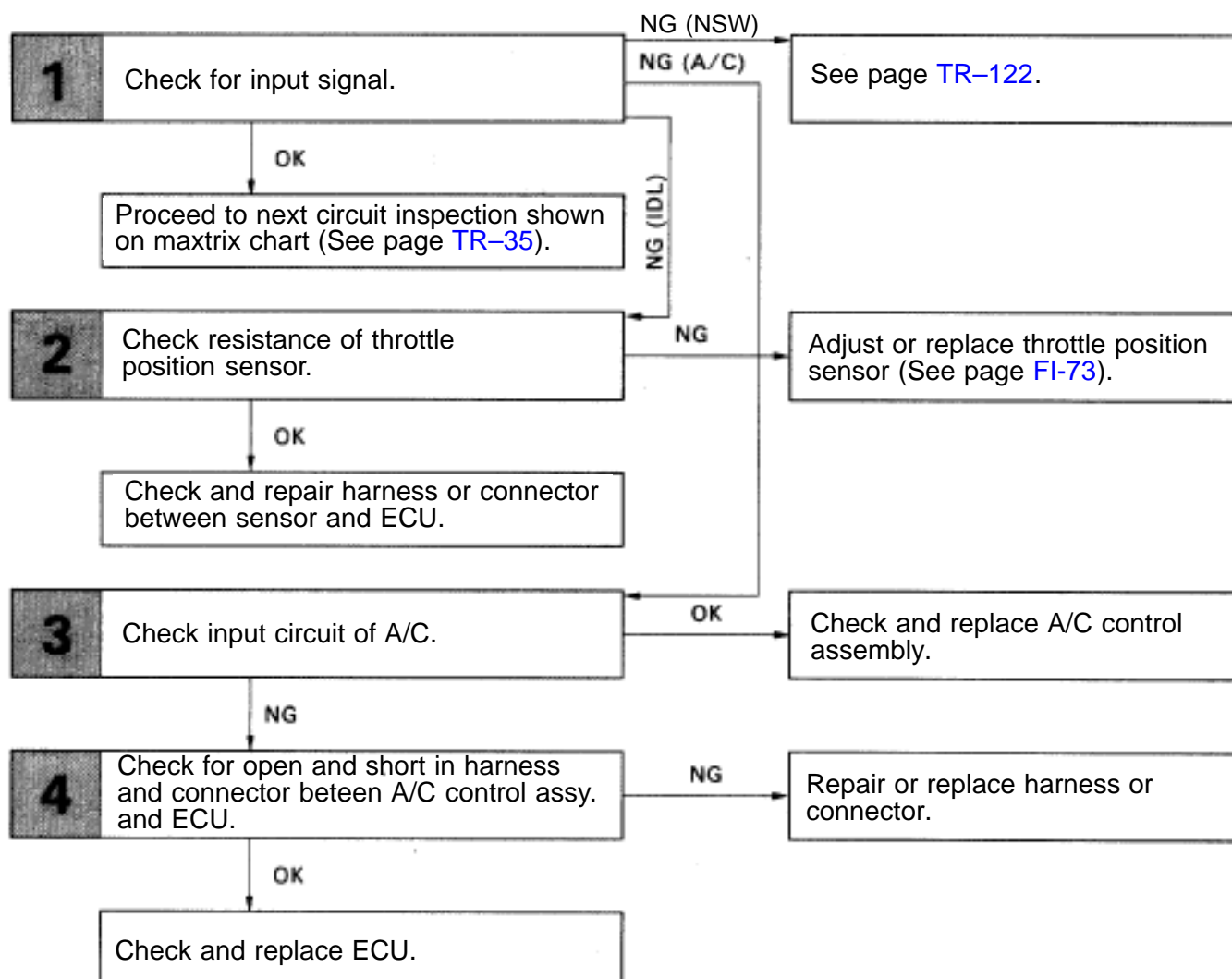
HINT: In this circuit, diagnosis can only be made in the test mode.

— DIAGNOSTIC CHART —

See next page for DIAGNOSTIC CHART

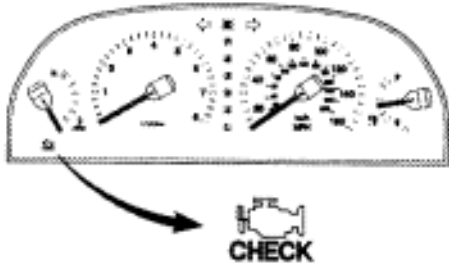
WIRING DIAGRAM



DIAGNOSTIC CHART

INSPECTION PROCEDURE

1 Check output condition of diag. code 51.



FI8433

P Setting the test mode.

- (2) Turn ignition switch OFF.
- (2) Connect terminals TE2 and E1 and TDCL.
- (2) Turn ignition switch ON.
(For checking terminal A/C, start the engine.)
- (2) Connect terminals TE1 and E1 of TDCL.

C Check if code "51" is output by the "CHECK" engine warning light.

OK

	Condition	Code
Neutral Start Switch (NSW)	P or N range	Normal*
	R,D,2 or L range	51*
Throttle Position Sensor (IDL1)	Accelerator pedal released	Normal*
	Accelerator pedal depressed	51*
A/C Switch (A/C)	A/C SW ON	51
	A/C SW OFF	Normal

*: Before the STA signal is input (ST is not ON), diagnostic code 43 is also output.

Hint Diag. code 42 is output with vehicle speed 5 km/h (3 mph) or below

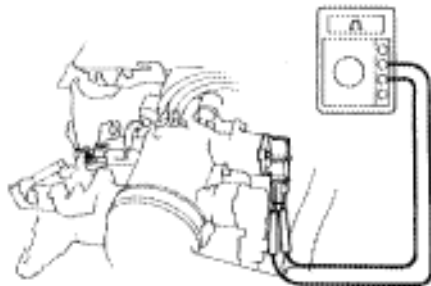
OK

NG

IDL1 Go to step 2 NSW ... Go to page [TR-22](#).
A/C Go to step 3

Proceed to next circuit inspection shown on maxtrix chart (See page [TR-35](#)).

2 Check throttle position sensor.



FI4755

P Disconnect throttle position sensor connector.

C Measure resistance between terminals IDL1 and E2 of throttle position sensor connector.

OK

Throttle Valve	Resistance
Fully closed	Less than 0.5 kΩ
Opened	1 MΩ or higher

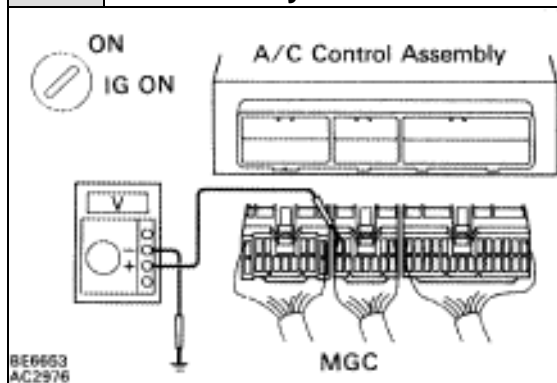
OK

NG

Adjust or replace throttle position sensor
See page [FI-73](#)).

Check and repair harness or connector between engine & ECT ECU and throttle position sensor.

3 Disconnect A/C control assembly connector, check voltage between terminal MGC of A/C control assembly connector and body ground.



- P** (2) Remove air conditioner control assembly.
 (2) Disconnect air conditioner control assembly connector.
 (2) Turn ignition switch on.

C Measure voltage between terminal MGC of air conditioner control assembly connector and body ground.

OK Voltage: 10 – 14 V

NG

OK

Check and replace A/C control assembly.

4 Check for open and short in harness and connector between engine & ECT ECU and A/C control assembly (See page [IN-27](#))

OK

NG

Repair or replace harness or connector.

Check and replace engine & ECT ECU.