

BASIC INSPECTION

When the normal code is displayed in the diagnostic code check, troubleshooting should be performed in the order for all possible circuits to be considered as the causes of the problems.

In many cases, by carrying out the basic engine check shown in the following flow chart, the location causing the problem can be found quickly and efficiently. Therefore, use of this check is essential in engine troubleshooting.

1 Is battery voltage 11 V or more when engine is stopped?

YES

NO

Charge or replace battery.

2 Is engine cranked?

YES

NO

Proceed to matrix to matrix chart of problem symptoms on page [TR-35](#).

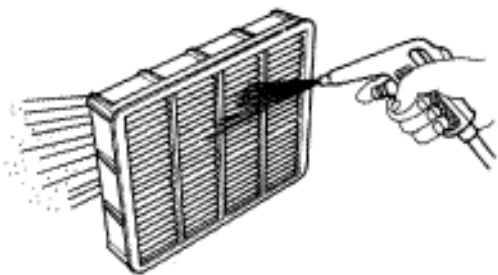
3 Does engine start?

YES

NO

Go to step [7]

4 Check air filter



MA0668

P

Remove air filter

C

Visually check that the air cleaner element is not excessively damaged or oily.

Hint

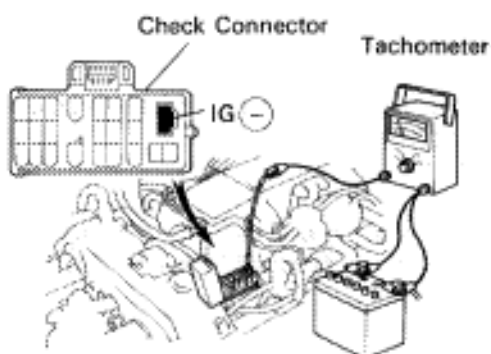
If necessary, clean element with compressed air. First blow from inside thoroughly, then blow off outside of element.

OK

NG

Repair or replace

Go to Step [5].

5 Check idle speed.

P00216

- P** (1) Warm up engine at normal operating temperature.
 (2) Switched off all accessories.
 (3) Switched off air conditioner.
 (4) Shift transmission into "N" range.
 (5) Connect tachometer test probe to terminal IG ⊖ of check connector, and set the tachometer to the 4-cylinder range.

C Check idle speed.

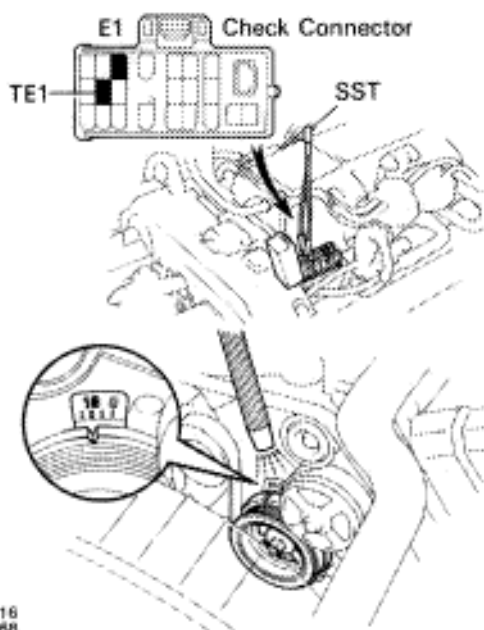
OK Idle speed: 650 ~ 750 rpm

Caution:

- **NEVER** allow tachometer test probe to touch ground as it could result in damage to igniter and/or coil.
- As some tachometers are not compatible with this ignition system, we recommended that you confirm compatibility of your unit before use.

OK**NG**

Proceed to matrix chart of problem symptoms on page [TR-35](#).

6 Check ignition timing.P00216
P00068

- P** (1) Warm up engine at normal operating temperature.
 (2) Shift transmission into "N" range.
 (3) Keep the engine speed at idle.
 (4) Using SST, connect terminals TE1 and E1 of check connector.
 SST 09843-18020
 (5) Using a timing light, connect the tester to No. 6 high-tension cord.

C Check ignition timing.

OK Ignition Timing: 8-12° BTDC at idle

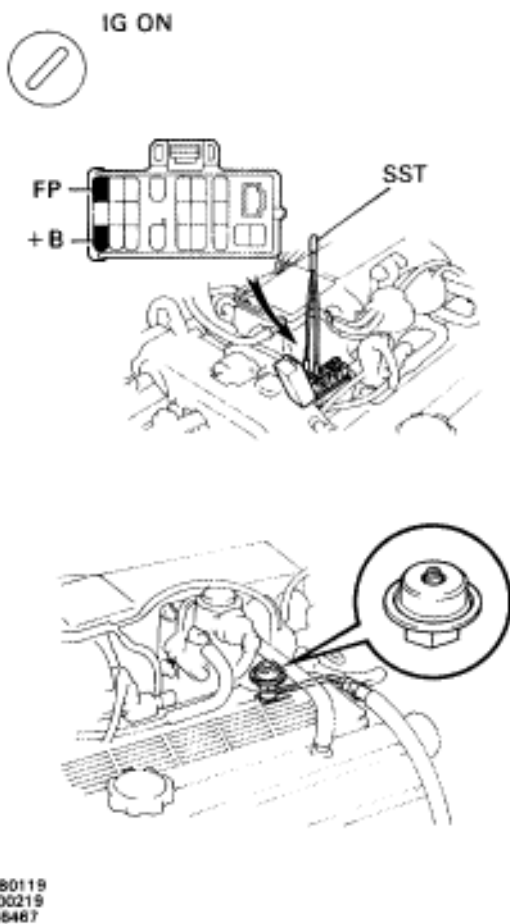
OK**NG**

Proceed to page [IG-28](#) and continue to troubleshoot.

Proceed to matrix chart of problem symptoms on page [TR-35](#).

7

Check fuel pressure.



- P** (1) Be sure that fuel is enough in tank.
(2) Turn ignition switch on.
(3) Using SST, connect terminals FP and + B of check connector.

SST 09843-18020

- C** Check that pulsation damper screw rises up when terminals are connected.

Caution:

Never make a mistake with the terminal connection position as this will cause a malfunction.

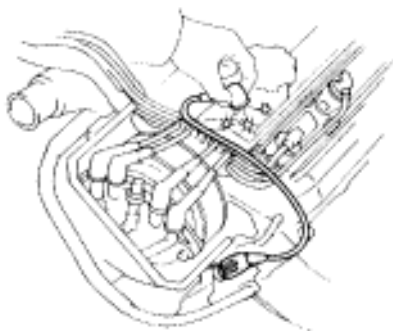
OK

NG

Proceed to page [FI-18](#) and continue to troubleshoot.

8

Check for spark.



- C** Disconnect the high-tension cord from the distributor and, hold the end about 12.5 mm (1/2") from the ground, see if spark occurs while the engine is being cranked.

Hint To prevent excessive fuel injected from the injectors during this test, Don't crank the engine for more than 1 – 2 seconds at a time.

OK

NG

Proceed to the page [IG-6](#) and continue to troubleshoot.

Proceed to matrix chart of problem systems on page [TR-35](#).