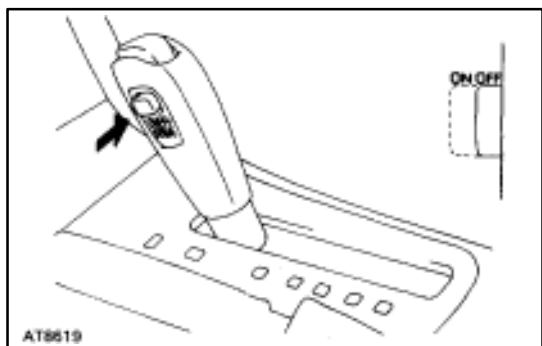


DIAGNOSIS SYSTEM

The ECT system has built-in self-diagnostic functions. If the malfunction occurs in the system, the ECU stores the malfunction code in memory and the O/D OFF (Overdrive OFF) indicator light blinks to inform the driver. The diagnostic code stored in memory can be read out by the following procedure.



O/D OFF INDICATOR LIGHT INSPECTION

1. Turn the ignition switch to ON.
2. Check if the O/D OFF indicator light lights up when the O/D main switch is pushed out to OFF and goes off when the O/D main switch is pushed in to ON.

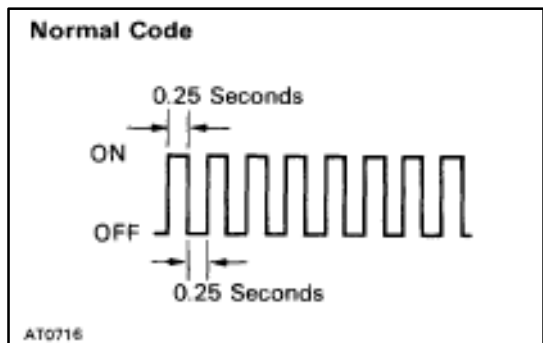
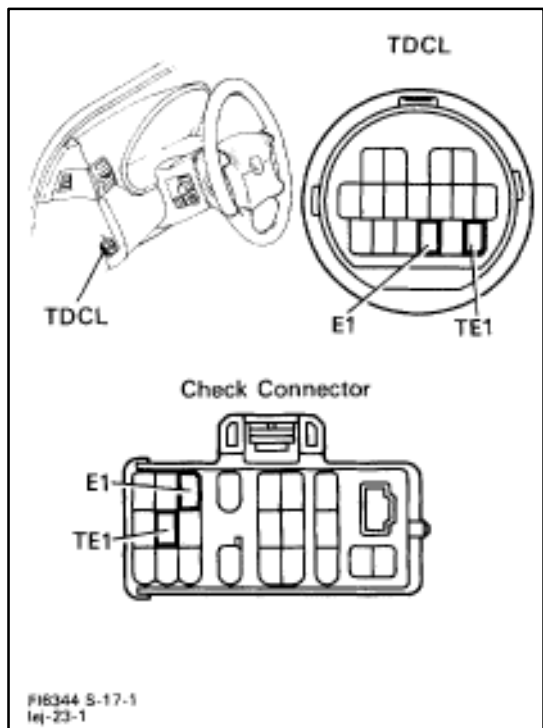
HINT:

- If the O/D OFF indicator light does not light up or stay on all the time, carry out the check for "O/D OFF Indicator Light Circuit" on page [AT-106](#).
- If the O/D OFF indicator light blinks, a malfunction code is stored in the ECU memory.

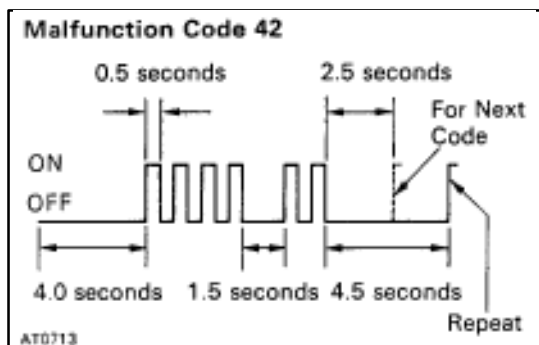
DIAGNOSTIC CODE CHECK

1. Turn the ignition switch ON, but do not start the engine.
2. Push in the O/D main switch to ON.
HINT: Warning and diagnostic codes can be read only when the O/D main switch is ON. If OFF, the O/D OFF indicator light will light continuously and will not blink.
3. Using SST, connect terminals TE1 and E1 of the TDCL or check connector.

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4. Read the diagnostic code indicated by the number of times the O/D OFF indicator light blinks (See next page).
HINT: If the system is operating normally, the light will blink 2 times per second.



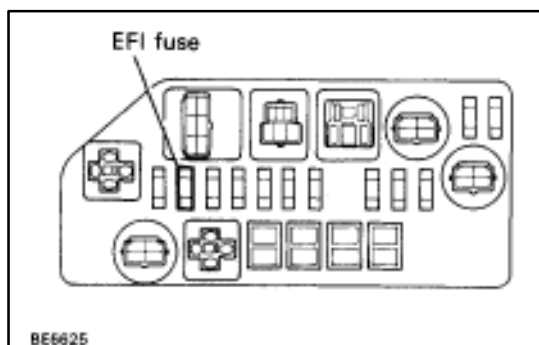
The malfunction code is indicated as shown in the illustration at left (Diagnostic code "42" is shown as an example).

HINT: When 2 or more malfunction codes are stored in memory, the lower-numbered code is displayed first.

If no diagnostic code is output, or if a diagnostic code is output even though no diagnostic code output operation is performed, check the TE1 terminal circuit on page [AT-112](#).

CANCELING DIAGNOSTIC CODE

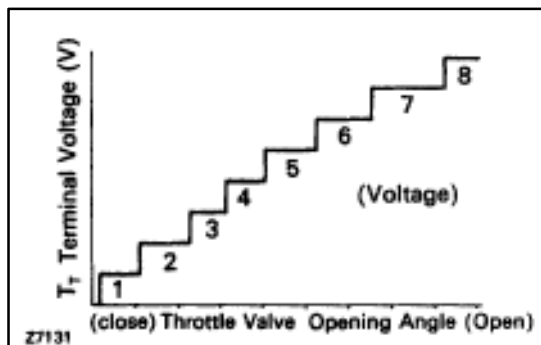
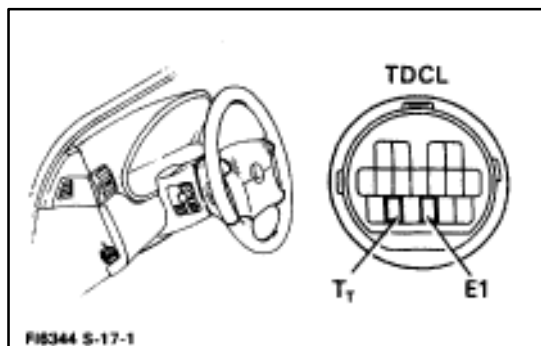
After repair of the trouble area, the diagnostic code retained in the ECU memory must be cancelled out by removing the EFI fuse for 10 seconds or more, with the ignition switch off. Check that the normal code is output after connecting the fuse.



CHECK TERMINAL T_T OUTPUT VOLTAGE

When a voltmeter is connected to the TDCL, the following items can be checked:

1. Throttle position sensor signal
2. Brake signal
3. Shift position signal



1. VOLTMETER CONNECTION

Connect the (+) positive probe of the voltmeter to terminal T_T and the negative (-) probe to terminal E1 of the TDCL connector.

HINT: If a voltmeter with small internal resistance is used, the correct voltage will not be indicated, so use a voltmeter with an internal resistance of at least 10 kΩ.

2. TURN IGNITION SWITCH TO ON (DO NOT START THE ENGINE)

3. CHECK THROTTLE POSITION SENSOR SIGNAL

Check if the voltage changes from approximately 0 V to approximately 8 V when the accelerator pedal is gradually depressed from the fully closed position.

4. CHECK BRAKE SIGNAL (LOCK-UP CUT SIGNAL)

- (a) Open the throttle valve fully to apply approximately 8 V to terminal T_T.
- (b) In this condition, check terminal T_T voltage when the brake pedal is depressed and released.

When brake pedal is depressed : 0 V

When brake pedal is released : 8 V

5. START THE ENGINE

6. CHECK SHIFT POSITION SIGNAL

(VEHICLE SPEED ABOVE 60 KM/H OR 37 MPH)

Check upshifting together with terminal T_T voltage.

HINT: Check for light shocks from upshifting and for changes in the tachometer.

Gear position	Terminal TT output Voltage
1st Gear	Below 0.5 V
2nd Gear	1.5 ~ 2.6 V
3rd Gear	3.5 ~ 4.6 V
3rd Lock-up	4.5 ~ 5.9 V
O/D	5.5 ~ 6.9 V
O/D Lock-up	6.5 ~ 7.9 V

If Terminal TT Output voltage check cannot be performed, perform the check of TT terminal circuit on page [AT-114](#).