3. Diagnostic Chart for On-board Diagnostic System

A: BASIC DIAGNOSTICS PROCEDURE



B: ABNORMAL DISPLAY ON "AT OIL TEMP" INDICATOR

When any on-board diagnostic item is malfunctioning, the display on the "AT OIL TEMP" indicator blinks immediately after the engine starts.

The malfunctioning part or unit can be determined by a trouble code during on-board diagnostic operation. Problems which occurred previously can also be identified through the memory function.

If the "AT OIL TEMP" indicator does not show a problem (although a problem is occurring), the problem can be determined by checking the performance characteristics of each sensor using the select monitor.

Indicator signal is as shown in the figure.

WARNING:

Warning can be noticed only when the engine is initially started.



Warm-up the engine.					
Turn ignition switch OFF.					
↓					
Turn ignition switch ON.					
Check if indicator light comes ON.	No Faulty indicator light circuit or TCM				
Yes					
Drive vehicle at speeds greater than 20 km/h (12 MPH).					
Stop vehicl	e at ignition switch OFF.				
Existing problem, check procedure.	Previous problem history check procedure				
Move select lever to "D" and connect diagnosis switch to ON.**	* Move select lever to "1" and connect diagnosis switch to ON.***				
Turn ignition switch ON.	Turn ignition switch ON.				
•					
Move select lever to "3".	Move select lever to "2".				
↓					
Move select lever to "2".	Move select lever to "3".				
↓	\				
Move select lever to "1".	Move select lever to "D".				
└────	+				
Partially depress accelerator pedal.	Partially depress accelerator pedal.				
↓ ↓					
Ensure indicator light blinks.					
\downarrow \downarrow	\downarrow \downarrow				
Indicator light blinks at 4-Hz Indicator light blinks at 2-Hz intervals.*	z Trouble code is outputted. Indicator light remains illumi- nated.				
Faulty battery Normal	Check problem corresponding with trouble code. Check inhibitor switch, diagno- sis switch, wiring, TCM, etc.				
\downarrow \downarrow	\downarrow				
Disconnect diagnosis switch to OFF.					

C: ON-BOARD DIAGNOSTICS

* : Blinks every 0.125 (1/8) seconds (until ignition switch is turned OFF).

*** : Blinks every 0.25 (1/4) seconds (until ignition switch is turned OFF).
 ***: Plug in diagnosis terminal to diagnosis connector No. 5 located below instrument lower cover.



ON

OFF ●

D: ON-BOARD DIAGNOSTICS WITH SELECT MONITOR

1. CONNECT SELECT MONITOR.

1) Connect select monitor to data link connector located under instrument panel (on driver's side).

Applicable cartridge : No. 498349300

- 2) Turn ignition switch and select monitor switch ON.
- 3) After display is shown, press slash "/" key.
- 4) After AT mode is displayed, press function "[0]".
 (Display returns to AT mode when slash "/" is pressed during on-board diagnostic operation.)

2. READ TROUBLE CODE SHOWN ON DISPLAY.

- 1) Connect select monitor.
- 2) Designate mode using function key.
- Press [F] [B] [0] [ENT] in that order.
- 3) Ensure trouble code(s) is shown.



- 1) Connect select monitor.
- 2) Designate mode using function key.
- Press [F] [B] [1] [ENT] in that order.
- 3) Ensure displayed trouble code(s).



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E: LIST OF TROUBLE CODE

1. TROUBLE CODE

Trouble code	Item	Content of diagnosis	Abbr. (Select monitor)	Page
11	Duty solenoid A	Detects open or shorted drive circuit, as well as valve seizure.	PL	11
12	Duty solenoid B	Detects open or shorted drive circuit, as well as valve seizure.	L/U	14
13	Shift solenoid 3	Detects open or shorted drive circuit, as well as valve seizure.	OVR	16
14	Shift solenoid 2	Detects open or shorted drive circuit, as well as valve seizure.	SFT2	18
15	Shift solenoid 1	Detects open or shorted drive circuit, as well as valve seizure.	SFT1	20
21	ATF temperature sensor	Detects open or shorted input signal circuit.	ATFT	22
23	Engine speed signal	Detects open or shorted input signal circuit.	EREV	24
24	Duty solenoid C	Detects open or shorted drive circuit, as well as valve seizure.	4WD	26
31	Throttle position sensor	Detects open or shorted input signal circuit.	THV	29
32	Vehicle speed sensor 1	Detects open or shorted input signal circuit.	VSP1	32
33	Vehicle speed sensor 2	Detects open or shorted input signal circuit.	VSP2	34

2. HOW TO READ TROUBLE CODE OF INDICATOR LIGHT

The power indicator light flashes the code corresponding to the faulty part.

The long segment (1.2 sec on) indicates a "ten", and the short segment (0.2 sec on) signifies a "one".



F: CLEAR MEMORY

Current trouble codes shown on the display are cleared by turning the ignition switch OFF after conducting on-board diagnostic operation. Previous trouble codes, however, cannot be cleared since they are stored in the TCM memory which is operating on the back-up power supply. These trouble codes can be cleared by removing the specified fuse (located under the right lower portion of the instrument panel).

CLEAR MEMORY:

Removal of No. 14 fuse (for at least one minute)

- The No. 14 fuse is located in the line to the memory back-up power supply of the TCM and ECM (MFI). Removal of this fuse clears the previous trouble codes stored in the TCM and ECM (MFI) memory.
- Be sure to remove the No. 14 fuse for at least the specified length of time. Otherwise, trouble codes may not be cleared.