

PROBLEM SYMPTOMS TABLE

HINT:

If no DTCs are displayed during the diagnostic trouble code check although the trouble still occurs, check the electrical circuits for each symptom in the order given in the charts on the following pages and proceed to the page given for troubleshooting.

The Matrix Chart is divided into 2 chapters.

1. Chapter 1: Electronic Circuit Matrix Chart

- Refer to the table below when the cause of trouble is considered to be electrical.
- If the trouble still occurs even though there are no abnormalities in any of the other circuits, check and replace the ECM.

HINT:

*1: Denotes that when there are malfunctions in the circuit, DTCs may be set.

Symptom	Suspected area	See page
No up-shift (A particular gear, from 1st to 4th gear, is not up-shifted)	1. Shift solenoid valve (S1) circuit *1	AT-101
	2. Shift solenoid valve (S2) circuit *1	AT-104
	3. ECM	IN-34
No up-shift (4th -> 5th)	1. Transmission control switch circuit (D - 4) *1	AT-43
	2. Engine coolant temperature sensor circuit *1	ES-104
	3. Speed sensor NT circuit *1	AT-57
	4. Shift solenoid valve (SL1) circuit *1	AT-67
	5. Shift solenoid valve (SL2) circuit *1	AT-92
	6. Shift solenoid valve (SR) circuit *1	AT-107
	7. ECM	IN-34
No up-shift (3rd -> 4th)	1. Engine coolant temperature sensor circuit *1	ES-104
	2. Shift solenoid valve (S2) circuit *1	AT-104
	3. ECM	IN-34
No up-shift (1st -> 2nd)	1. Transmission control switch circuit (2 - L) *1	AT-43
	2. Shift solenoid valve (S2) circuit *1	AT-104
	3. ECM	IN-34
No down-shift (5th -> 4th)	1. Transmission control switch circuit (D - 4) *1	AT-43
	2. Shift solenoid valve (SL1) circuit *1	AT-67
	3. Shift solenoid valve (SL2) circuit *1	AT-92
	4. Shift solenoid valve (SR) circuit *1	AT-107
	5. ECM	IN-34
No down-shift (2nd -> 1st)	1. Transmission control switch circuit (2 - L) *1	AT-43
	2. Shift solenoid valve (S2) circuit *1	AT-104
	3. ECM	IN-34
No down-shift (A particular gear, from 1st to 4th gear, is not down-shifted)	1. Shift solenoid valve (S1) circuit *1	AT-101
	2. Shift solenoid valve (S2) circuit *1	AT-104
	3. ECM	IN-34

Symptom	Suspected area	See page
No lock-up	1. ATF temperature sensor circuit *1	AT-49
	2. Transfer L4 position switch circuit *1	AT-136
	3. Stop light switch circuit *1	ES-272
	4. Speed sensor NT circuit *1	AT-57
	5. Shift solenoid valve (SLU) circuit *1	AT-132
	6. Engine coolant temperature sensor circuit *1	ES-104
	7. ECM	IN-34
No lock-up off	1. Shift solenoid valve (SLU) circuit *1	AT-132
	2. ECM	IN-34
Shift point too high or too low	1. Shift solenoid valve (SLT) circuit *1	AT-118
	2. Speed sensor NT circuit *1	AT-57
	3. Speed sensor SP2 circuit *1	AT-62
	4. Throttle position sensor circuit *1	ES-112
	5. ATF temperature sensor circuit *1	AT-49
	6. Transfer L4 position switch circuit *1	AT-136
	7. ECM	IN-34
Up-shift from 4th to 5th while shift lever is in 4 position	1. Transmission control switch circuit (D - 4) *1	AT-43
	2. ECM	IN-34
Up-shift from 4th to 5th while engine is cold	1. Engine coolant temperature sensor circuit *1	ES-104
	2. ECM	IN-34
Up-shift from 3rd to 4th while shift lever is in 3 position	1. Park/neutral position switch circuit *1	AT-43
	2. ECM	IN-34
Up-shift from 2nd to 3rd while shift lever is in 2 position	1. Park/neutral position switch circuit *1	AT-43
	2. ECM	IN-34
Up-shift from 1st to 2nd while shift lever is in L position	1. Transmission control switch circuit (2 - L) *1	AT-43
	2. ECM	IN-34
Harsh engagement (N -> D)	1. Speed sensor NT circuit *1	AT-57
	2. Shift solenoid valve (SL1) circuit *1	AT-67
	3. Shift solenoid valve (SLT) circuit *1	AT-118
	4. ECM	IN-34
Harsh engagement (Lock-up)	1. Speed sensor NT circuit *1	AT-57
	2. Speed sensor SP2 circuit *1	AT-62
	3. Shift solenoid valve (SLU) circuit *1	AT-132
	4. ECM	IN-34
Harsh engagement (Any driving position)	ECM	IN-34
Poor acceleration	1. No. 2 ATF temperature sensor circuit *1	AT-122
	2. Engine coolant temperature sensor circuit *1	ES-104
	3. Shift solenoid valve (SLT) circuit *1	AT-118
	4. ECM	IN-34
No engine braking	ECM	IN-34
No kick-down	ECM	IN-34
Engine stalls when starting off or stopping	1. Shift solenoid valve (SLU) circuit *1	AT-132
	2. ECM	IN-34
ATF temperature warning light remains on	1. No. 2 ATF temperature sensor circuit *1	AT-122
	2. Engine coolant temperature sensor circuit *1	ES-104
	3. ECM	IN-34
Lock-up at 3rd gear	1. No. 2 ATF temperature sensor circuit *1	AT-122
	2. Engine coolant temperature sensor circuit *1	ES-104
	3. ECM	IN-34

Symptom	Suspected area	See page
Shift point too high	1. No. 2 ATF temperature sensor circuit *1	AT-122
	2. Engine coolant temperature sensor circuit *1	ES-104
	3. ECM	IN-34

2. Chapter 2: On-Vehicle Repair and Off-Vehicle Repair
 (▲: A750E, A750F AUTOMATIC TRANSMISSION
 Repair Manual Pub. No. RM999U)

AT

Symptom	Suspected area	See page
Vehicle does not move in any forward positions or reverse position	1. Transmission control cable	AT-158
	2. Manual valve	▲
	3. Parking lock pawl	▲
	4. Rear planetary gear unit	▲
	5. Torque converter clutch	AT-169
Vehicle does not move in R position	1. Valve body assembly	AT-147
	2. No. 3 clutch (C3)	▲
	3. No. 4 brake (B4)	▲
	4. No. 1 one-way clutch (F1)	▲
No up-shift (1st -> 2nd)	1. Valve body assembly	AT-147
	2. No. 3 brake (B3)	▲
	3. No. 1 one-way clutch (F1)	▲
	4. No. 2 one-way clutch (F2)	▲
No up-shift (2nd -> 3rd)	1. Valve body assembly	AT-147
	2. No. 3 clutch (C3)	▲
No up-shift (3rd -> 4th)	1. Valve body assembly	AT-147
	2. No. 2 clutch (C2)	▲
No up-shift (4th -> 5th)	1. Valve body assembly	AT-147
	2. No. 1 brake (B1)	▲
	3. No. 1 clutch (C1)	▲
No down-shift (5th -> 4th)	Valve body assembly	AT-147
No down-shift (4th -> 3rd)	Valve body assembly	AT-147
No down-shift (3rd -> 2nd)	Valve body assembly	AT-147
No down-shift (2nd -> 1st)	Valve body assembly	AT-147
No lock-up or No lock-up off	1. Shift solenoid valve (SLU)	AT-127
	2. Valve body assembly	AT-147
	3. Torque converter clutch	AT-169
Harsh engagement (N -> D)	1. Shift solenoid valve (SL1)	AT-82
	2. Valve body assembly	AT-147
	3. C1 accumulator	▲
	4. No. 1 clutch (C1)	▲
	5. No. 3 one-way clutch (F3)	▲
Harsh engagement (Lock-up)	1. Shift solenoid valve (SLU)	AT-127
	2. Valve body assembly	AT-147
	3. Torque converter clutch	AT-169

Symptom	Suspected area	See page
Harsh engagement (N -> R)	1. Shift solenoid valve (SLT)	AT-111
	2. Shift solenoid valve (SLU)	AT-127
	3. Valve body assembly	AT-147
	4. C3 accumulator	▲
	5. No. 3 clutch (C3)	▲
	6. No. 4 brake (B4)	▲
	7. No. 1 one-way clutch (F1)	▲
Harsh engagement (1st -> 2nd -> 3rd -> 4th -> 5th)	1. Shift solenoid valve (SLT)	AT-111
	2. Shift solenoid valve (SL1)	AT-82
	3. Valve body assembly	AT-147
Harsh engagement (1st -> 2nd)	1. Valve body assembly	AT-147
	2. B3 accumulator	▲
	3. No. 3 brake (B3)	▲
	4. No. 1 one-way clutch (F1)	▲
	5. No. 2 one-way clutch (F2)	▲
Harsh engagement (2nd -> 3rd)	1. Valve body assembly	AT-147
	2. C3 accumulator	▲
	3. No. 3 clutch (C3)	▲
Harsh engagement (3rd -> 4th)	1. Valve body assembly	AT-147
	2. C2 accumulator	▲
	3. No. 2 clutch (C2)	▲
Harsh engagement (4th -> 5th)	1. Shift solenoid valve (SL1)	AT-82
	2. Shift solenoid valve (SL2)	AT-87
	3. Valve body assembly	AT-147
	4. No. 1 brake (B1)	▲
	5. No. 1 clutch (C1)	▲
Slippage or shuddering (Forward and reverse: After warm-up)	1. Valve body assembly	AT-147
	2. Oil strainer	AT-147
	3. No. 1 one-way clutch (F1)	▲
	4. No. 3 clutch (C3)	▲
	5. Torque converter clutch	AT-169
Slippage or shuddering (Particular position: Just after engine starts)	Torque converter clutch	AT-169
Slippage or shuddering (R position)	1. No. 4 brake (B4)	▲
	2. No. 1 one-way clutch (F1)	▲
	3. No. 3 clutch (C3)	▲
Slippage or shuddering (1st)	1. No. 1 clutch (C1)	▲
	2. No. 3 one-way clutch (F3)	▲
Slippage or shuddering (2nd)	1. No. 1 clutch (C1)	▲
	2. No. 3 brake (B3)	▲
	3. No. 1 one-way clutch (F1)	▲
	4. No. 2 one-way clutch (F2)	▲

Symptom	Suspected area	See page
Slippage or shuddering (3rd)	1. No. 1 clutch (C1)	▲
	2. No. 3 clutch (C3)	▲
	3. No. 1 one-way clutch (F1)	▲
Slippage or shuddering (4th)	1. No. 1 clutch (C1)	▲
	2. No. 2 clutch (C2)	▲
Slippage or shuddering (5th)	1. No. 2 clutch (C2)	▲
	2. No. 3 clutch (C3)	▲
	3. No. 1 brake (B1)	▲
Engine brake does not work only in 1st to 4th gear at D position	No. 1 clutch (C1)	▲
Engine brake does not work only in 1st gear at L position	1. Valve body assembly	AT-147
	2. No. 4 brake (B4)	▲
Engine brake does not work only in 2nd gear at 2 position	1. Valve body assembly	AT-147
	2. No. 2 brake (B2)	▲
Engine brake does not work only in 3rd gear at 3 position	1. Valve body assembly	AT-147
	2. No. 1 brake (B1)	▲
No kick-down	Valve body assembly	AT-147
Shift point too high or too low	1. Shift solenoid valve (SLT)	AT-111
	2. Shift solenoid valve (SL1)	AT-82
	3. Valve body assembly	AT-147
Poor acceleration (All positions)	1. Shift solenoid valve (SLT)	AT-111
	2. Valve body assembly	AT-147
	3. Torque converter clutch	AT-169
Poor acceleration (5th)	1. No. 1 clutch (C1)	▲
	2. No. 3 clutch (C3)	▲
	3. No. 1 brake (B1)	▲
	4. Front planetary gear unit	▲
Engine stalls when starting off or stopping	1. Shift solenoid valve (SLU)	AT-127
	2. Valve body assembly	AT-147
	3. Torque converter clutch	AT-169

AT