

PROBLEM SYMPTOMS TABLE

HINT:

If a normal code is 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 3 chapters.

1. Chapter 1: Electronic Circuit Matrix Chart

- Refer to the table below when the trouble cause is considered to be electrical.
- If the instruction "Proceed to next circuit inspection shown on matrix chart" is given in the flow chart of each circuit, proceed to the circuit with the next highest number in the table to continue the check.
- If the trouble still occurs even though there are no abnormalities in any of the other circuits, check and replace the ECM.

HINT:

*1: When the circuit on which mark *1 is attached is defective, DTC could be output (see page [DI-1156](#)).

Symptom	Suspect 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 2. Shift solenoid valve (S2) circuit *1 3. ECM	DI-1226 DI-1231 IN-30
No up-shift (4th → 5th)	1. O/D main switch circuit 2. Engine coolant temp. sensor circuit *1 3. Speed sensor NT circuit *1 4. Shift solenoid valve (SL1) circuit *1 5. Shift solenoid valve (SL2) circuit *1 6. Shift solenoid valve (SR) circuit *1 7. ECM	DI-1274 DI-477 DI-1175 DI-1188 DI-1216 DI-1236 IN-30
No up-shift (3rd → 4th)	1. Engine coolant temp. sensor circuit *1 2. Shift solenoid valve (S2) circuit *1 3. ECM	DI-477 DI-1231 IN-30
No up-shift (1st → 2nd)	1. Shift position L switch circuit *1 2. Shift solenoid valve (S2) circuit *1 3. ECM	DI-1277 DI-1231 IN-30
No down-shift (5th → 4th)	1. O/D main switch circuit 2. Shift solenoid valve (SL1) circuit *1 3. Shift solenoid valve (SL2) circuit *1 4. Shift solenoid valve (SR) circuit *1 5. ECM	DI-1274 DI-1188 DI-1216 DI-1236 IN-30
No down-shift (2nd → 1st)	1. Shift position L switch circuit 2. Shift solenoid valve (S2) circuit *1 3. ECM	DI-1277 DI-1231 IN-30
No down-shift (A particular gear, from 1st to 4th gear, is not down-shifted)	1. Shift solenoid valve (S1) circuit *1 2. Shift solenoid valve (S2) circuit *1 3. ECM	DI-1226 DI-1231 IN-30
No lock-up	1. ATF temperature sensor circuit *1 2. Stop light switch circuit *1 3. Speed sensor NT circuit *1 4. Shift solenoid valve (SLU) circuit *1 5. Engine coolant temp. sensor circuit *1 6. ECM	DI-1166 DI-1184 DI-1175 DI-1265 DI-477 IN-30
No lock-up off	1. Shift solenoid valve (SLU) circuit *1 2. ECM	DI-1265 IN-30

Shift point too high or too low	1. Shift solenoid valve (SLT) circuit *1 2. Speed sensor NT circuit *1 3. Speed sensor SP2 circuit *1 4. Throttle position sensor circuit *1 5. ATF temperature sensor circuit *1 7. ECM	DI-1247 DI-1175 DI-1180 DI-477 DI-1166 IN-30
Up-shift to 5th from 4th while shift lever is in 4 position	1. O/D main switch circuit 2. ECM	DI-1274 IN-30
Up-shift to 5th from 4th while engine is cold	1. Engine coolant temp. sensor circuit *1 2. ECM	DI-477 IN-30
Up-shift to 4th from 3rd while shift lever is in 3 position	1. Park/neutral position switch circuit *1 2. ECM	DI-1159 IN-30
Up-shift to 3rd from 2nd while shift lever is in 2 position	1. Park/neutral position switch circuit *1 2. ECM	DI-1159 IN-30
Up-shift to 2nd from 1st while shift lever is in L position	1. Shift position L switch circuit 2. ECM	DI-1277 IN-30
Harsh engagement (N → D)	1. Speed sensor NT circuit *1 2. Shift solenoid valve (SL1) circuit *1 3. Shift solenoid valve (SLT) circuit *1 4. ECM	DI-1175 DI-1188 DI-1247 IN-30
Harsh engagement (Lock-up)	1. Speed sensor NT circuit *1 2. Speed sensor SP2 circuit *1 3. Shift solenoid valve (SLU) circuit *1 4. ECM	DI-1175 DI-1180 DI-1265 IN-30
Harsh engagement (Any driving position)	ECM	IN-30
Poor acceleration	1. ATF temperature sensor No.2 circuit *1 2. Engine coolant temp. sensor circuit *1 3. Shift solenoid valve (SLT) circuit *1 4. ECM	DI-1251 DI-477 DI-1247 IN-30
No engine braking	ECM	IN-30
No kick-down	ECM	IN-30
Engine stalls when starting off or stopping	1. Shift solenoid valve (SLU) circuit *1 2. ECM	DI-1265 IN-30
AT Oil Temp. warning light remains on	1. ATF temperature sensor No.2 circuit *1 2. Engine coolant temp. sensor circuit *1 3. ECM	DI-1251 DI-477 IN-30
Lock-up at 3rd gear		
Shift point too high		
Malfunction in shifting	1. Park/neutral position switch circuit *1 2. ECM	DI-1159 IN-30

Chapter 2: On-Vehicle Repair**(★: A750E, A750F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM999U)**

Symptom	Suspect Area	See page
Vehicle does not move with shift lever in any forward position and reverse position	1. Transmission control cable 2. Manual valve 3. Parking lock pawl 4. Off-vehicle repair matrix chart	DI-1117 ★ ★ –
Vehicle does not move with shift lever in R position	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No up-shift (1st → 2nd)	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No up-shift (2nd → 3rd)	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No up-shift (3rd → 4th)	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No up-shift (4th → 5th)	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No down-shift (5th → 4th)	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No down-shift (4th → 3rd)	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No down-shift (3rd → 2nd)	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No down-shift (2nd → 1st)	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No lock-up or No lock-up off	1. Shift solenoid valve (SLU) 2. Valve body assy 3. Off-vehicle repair matrix chart	DI-1257 AT-12 –
Harsh engagement (N → D)	1. Shift solenoid valve (SL1) 2. Valve body assy 3. C ₁ accumulator 4. Off-vehicle repair matrix chart	DI-1205 AT-12 ★ –
Harsh engagement (Lock-up)	1. Shift solenoid valve (SLU) 2. Valve body assy 3. Off-vehicle repair matrix chart	DI-1257 AT-12 –
Harsh engagement (N → R)	1. Shift solenoid valve (SLT) 2. Shift solenoid valve (SLU) 3. Valve body assy 4. C ₃ accumulator 5. Off-vehicle repair matrix chart	DI-1241 DI-1257 AT-12 ★ –
Harsh engagement (1st → 2nd → 3rd → 4th → 5th)	1. Shift solenoid valve (SLT) 2. Shift solenoid valve (SL1) 3. Valve body assy	DI-1241 DI-1205 AT-12
Harsh engagement (1st → 2nd)	1. Valve body assy 2. B ₃ accumulator 3. Off-vehicle repair matrix chart	AT-12 ★ –
Harsh engagement (2nd → 3rd)	1. Valve body assy 2. C ₃ accumulator 3. Off-vehicle repair matrix chart	AT-12 ★ –
Harsh engagement (3rd → 4th)	1. Valve body assy 2. C ₂ accumulator 3. Off-vehicle repair matrix chart	AT-12 ★ –

Harsh engagement (4th → 5th)	1. Shift solenoid valve (SL1) 2. Shift solenoid valve (SL2) 3. Valve body assy 4. Off-vehicle repair matrix chart	DI-1205 DI-1210 AT-12 –
Harsh engagement (5th → 4th)	1. Shift solenoid valve (SL1) 2. Shift solenoid valve (SL2) 3. Valve body assy 4. Off-vehicle repair matrix chart	DI-1205 DI-1210 AT-12 –
Slip or shudder (Forward and reverse)	1. Transmission control cable 2. Valve body assy 3. Oil strainer 4. Off-vehicle repair matrix chart	DI-1117 AT-12 AT-12 –
No engine braking (1st: L position)	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No engine braking (2nd: 2 position)	1. Valve body assy 2. Off-vehicle repair matrix chart	AT-12 –
No kick-down	Valve body assy	AT-12
Shift point too high or too low	1. Shift solenoid valve (SLT) 2. Shift solenoid valve (SL1) 3. Valve body assy	DI-1241 DI-1205 AT-12
Poor acceleration	1. Shift solenoid valve (SLT) 2. Valve body assy	DI-1241 AT-12
Engine stalls when starting off or stopping	1. Shift solenoid valve (SLU) 2. Valve body assy	DI-1257 AT-12

Chapter 3: Off-Vehicle Repair**(★: A750E, A750F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM999U)**

Symptom	Suspect Area	See page
Vehicle does not move with shift lever in any forward position and reverse position	1. Rear planetary gear unit 2. Torque converter clutch	★ AT-39
Vehicle does not move with shift lever in R position	1. Brake No. 4 (B ₄) 2. Clutch No. 3 (C ₃) 3. One-way clutch No.4 (F ₁)	★ ★ ★
No up-shift (1st → 2nd)	1. Brake No. 3 (B ₃) 2. One-way clutch No.1 (F ₁) 3. One-way clutch No. 2 (F ₂)	★ ★ ★
No up-shift (2nd → 3rd)	Clutch No. 3 (C ₃)	★
No up-shift (3rd → 4th)	Clutch No. 2 (C ₂)	★
No up-shift (4th → 5th)	1. Brake No. 1 (B ₁) 2. Clutch No. 1 (C ₁)	★ ★
No lock-up or No lock-up off	Torque converter clutch	AT-39
Harsh engagement (N → D)	1. Clutch No. 1 (C ₁) 2. One-way clutch No.3 (F ₃)	★ ★
Harsh engagement (N → R)	1. Clutch No. 3 (C ₃) 2. Brake No. 4 (B ₄) 3. One-way clutch No.1 (F ₁)	★ ★ ★
Harsh engagement (1 → 2)	1. Brake No. 3 (B ₃) 2. One-way clutch No.1 (F ₁) 3. One-way clutch No. 2 (F ₂)	★ ★ ★
Harsh engagement (2 → 3)	Clutch No. 3 (C ₃)	★
Harsh engagement (3 → 4)	Clutch No. 2 (C ₂)	★
Harsh engagement (4 → 5th)	1. Brake No. 1 (B ₁) 2. Clutch No. 1 (C ₁)	★ ★
Harsh engagement (Lock-up)	Torque converter clutch	AT-39
Slip or shudder (Forward and reverse: After warm-up)	1. One-way clutch No.1 (F ₁) 2. Clutch No. 3 (C ₃) 3. Torque converter clutch	★ ★ ★
Slip or shudder (Particular position: Just after engine starts)	Torque converter clutch	AT-39
Slip or shudder (R position)	1. Brake No. 4 (B ₄) 2. One-way clutch No.1 (F ₁) 3. Clutch No. 3 (C ₃)	★ ★ ★
Slip or shudder (1st)	1. Clutch No. 1 (C ₁) 2. One-way clutch No.3 (F ₃)	★ ★
Slip or shudder (2nd)	1. Clutch No. 1 (C ₁) 2. Brake No. 3 (B ₃) 3. One-way clutch No.1 (F ₁) 4. One-way clutch No.2 (F ₂)	★ ★ ★ ★
Slip or shudder (3rd)	1. Clutch No. 1 (C ₁) 2. Clutch No. 3 (C ₃) 3. One-way clutch No.1 (F ₁)	★ ★ ★
Slip or shudder (4th)	1. Clutch No. 1 (C ₁) 2. Clutch No. 2 (C ₂)	★ ★
Slip or shudder (5th)	1. Clutch No. 2 (C ₂) 2. Clutch No. 3 (C ₃) 3. Brake No. 1 (B ₁)	★ ★ ★
No engine braking (1st – 4th: D position)	Clutch No. 1 (C ₁)	★

No engine braking (1st: L position)	Brake No. 4 (B ₄)	★
No engine braking (2nd: 2 position)	Brake No. 2 (B ₂)	★
No engine braking (3rd: 3 position)	Brake No. 1 (B ₁)	★
Poor acceleration (All positions)	Torque converter clutch	AT-39
Poor acceleration (5th)	1. Clutch No. 1 (C ₁)	★
	2. Clutch No. 3 (C ₃)	★
	3. Brake No. 1 (B ₁)	★
	4. Front planetary gear unit	★
Engine stalls when starting off or stopping	Torque converter clutch	AT-39