056IN–23

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 05–1052).

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 2. Shift solenoid valve (S2) circuit *1 3. ECM	05–1104 05–1107 01–36
No up–shift (4th → 5th)	1. Transmission control switch circuit (D – 4) *1 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	05–1055 05–220 05–1067 05–1077 05–1094 05–1110 01–36
No up–shift (3rd → 4th)	1. Engine coolant temp. sensor circuit *1 2. Shift solenoid valve (S2) circuit *1 3. ECM	05–220 05–1107 01–36
No up–shift (1st → 2nd)	1. Transmission control switch circuit (2 – L) *1 2. Shift solenoid valve (S2) circuit *1 3. ECM	05–1055 05–1107 01–36
No down–shift (5th → 4th)	1. Transmission control switch circuit (D – 4) *1 2. Shift solenoid valve (SL1) circuit *1 3. Shift solenoid valve (SL2) circuit *1 4. Shift solenoid valve (SR) circuit *1 5. ECM	05–1055 05–1077 05–1094 05–1110 01–36
No down–shift (2nd → 1st)	1. Transmission control switch circuit (2 – L) *1 2. Shift solenoid valve (S2) circuit *1 3. ECM	05–1055 05–1107 01–36
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	05–1104 05–1107 01–36
No lock–up	1. ATF temperature sensor circuit *1 2. Transfer L4 position switch circuit *1 3. Stop light switch circuit *1 4. Speed sensor NT circuit *1 5. Shift solenoid valve (SLU) circuit *1 6. Engine coolant temp. sensor circuit *1 7. ECM	05–1060 05–1142 05–1075 05–1067 05–1129 05–220 01–36
No lock–up off	1. Shift solenoid valve (SLU) circuit *1 2. ECM	05–1129 01–36

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 6. Transfer L4 position switch circuit *1 7. ECM	05–1117 05–1067 05–1071 05–220 05–1060 05–1142 01–36
Up–shift to 5th from 4th while shift lever is in 4 position	1. Transmission control switch circuit (D – 4) *1 2. ECM	05–1055 01–36
Up–shift to 5th from 4th while engine is cold	1. Engine coolant temp. sensor circuit *1 2. ECM	05–220 01–36
Up–shift to 4th from 3rd while shift lever is in 3 position	1. Park/neutral position switch circuit *1 2. ECM	05–1055 01–36
Up–shift to 3rd from 2nd while shift lever is in 2 position	1. Park/neutral position switch circuit *1 2. ECM	05–1055 01–36
Up–shift to 2nd from 1st while shift lever is in L position	1. Transmission control switch circuit (2 – L) *1 2. ECM	05–1055 01–36
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	05–1067 05–1077 05–1117 01–36
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	05–1067 05–1071 05–1129 01–36
Harsh engagement (Any driving position)	ECM	01–36
Poor acceleration	1. ATF temperature sensor No.2 circuit 2. Engine coolant temp. sensor circuit *1 3. Shift solenoid valve (SLT) circuit *1 4. ECM	05–1120 05–220 05–1117 01–36
No engine braking	ECM	01–36
No kick–down	ECM	01–36
Engine stalls when starting off or stopping	1. Shift solenoid valve (SLU) circuit *1 2. ECM	05–1129 01–36
AT Oil Temp. warning light remains on Lock–up at 3rd gear Shift point too high	1. ATF temperature sensor No.2 circuit 2. Engine coolant temp. sensor circuit *1 3. ECM	05–1120 05–220 01–36
No 2nd start	1. Pattern select switch circuit (2nd start switch) 2. Park/neutral position switch circuit *1 3. ECM	05–1135 05–1055 01–36
A/T.P. indicator light does not light up	1. A/T.P. indicator light circuit 2. Combination meter circuit	05–1138 05–1416
Malfunction in shifting	1. Park/neutral position switch circuit *1 2. ECM	05–1055 01–36

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

Symptom	Suspected 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	40–84 ★ ★ –
Vehicle does not move with shift lever in R position	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No up–shift (1st → 2nd)	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No up–shift (2nd → 3rd)	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No up–shift (3rd → 4th)	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No up–shift (4th → 5th)	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No down–shift (5th → 4th)	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No down–shift (4th → 3rd)	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No down–shift (3rd → 2nd)	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No down–shift (2nd → 1st)	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No lock–up or No lock–up off	1. Shift solenoid valve (SLU) 2. Valve body assy 3. Off–vehicle repair matrix chart	05–1124 40–71 –
Harsh engagement (N → D)	1. Shift solenoid valve (SL1) 2. Valve body assy 3. C_1 accumulator 4. Off–vehicle repair matrix chart	05–1086 40–71 ★ –
Harsh engagement (Lock–up)	1. Shift solenoid valve (SLU) 2. Valve body assy 3. Off–vehicle repair matrix chart	05–1124 40–71 –
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	05–1113 05–1124 40–71 ★ –
Harsh engagement (1st →2nd → 3rd → 4th → 5th)	1. Shift solenoid valve (SLT) 2. Shift solenoid valve (SL1) 3. Valve body assy	05–1113 05–1086 40–71
Harsh engagement (1st → 2nd)	1. Valve body assy 2. B_3 accumulator 3. Off–vehicle repair matrix chart	40–71 ★ –
Harsh engagement (2nd → 3rd)	1. Valve body assy 2. C_3 accumulator 3. Off–vehicle repair matrix chart	40–71 ★ –
Harsh engagement (3rd → 4th)	1. Valve body assy 2. C_2 accumulator 3. Off–vehicle repair matrix chart	40–71 ★ –

Harsh engagement (4th → 5th)	1. Shift solenoid valve (SL1) 2. Shift solenoid valve (SL2) 3. Valve body assy 4. Off–vehicle repair matrix chart	05–1086 05–1090 40–71 –
Harsh engagement (5th → 4th)	1. Shift solenoid valve (SL1) 2. Shift solenoid valve (SL2) 3. Valve body assy 4. Off–vehicle repair matrix chart	05–1086 05–1090 40–71 –
Slip or shudder (Forward and reverse)	1. Transmission control cable 2. Valve body assy 3. Oil strainer 4. Off–vehicle repair matrix chart	40–84 40–71 40–71 –
No engine braking (1st: L position)	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No engine braking (2nd: 2 position)	1. Valve body assy 2. Off–vehicle repair matrix chart	40–71 –
No kick–down	Valve body assy	40–71
Shift point too high or too low	1. Shift solenoid valve (SLT) 2. Shift solenoid valve (SL1) 3. Valve body assy	05–1113 05–1086 40–71
Poor acceleration	1. Shift solenoid valve (SLT) 2. Valve body assy	05–1113 40–71
Engine stalls when starting off or stopping	1. Shift solenoid valve (SLU) 2. Valve body assy	05–1124 40–71

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

Symptom	Suspected 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	★ 40–64
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.1 (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	40–64
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	40–64
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 clutch	★ ★ ★
Slip or shudder (Particular position: Just after engine starts)	Torque converter clutch	40–64
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	40–64
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	40–64