PROBLEM SYMPTOMS TABLE

HINT:

- If a normal code is displayed during the DTC 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.
- When the circuit on which mark *1 is attached is a malfunction, DTC could be output.

Chapter 1: Electronic Circuit Matrix Chart

Refer to the table below when the trouble cause is considered to be electrical. The instruction "Proceed to next circuit inspection shown on matrix chart" is given in the flow chart for 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, then check and replace the ECM.

Symptom	Suspected area	See page
No up-shift (1st to 2nd)	1. Shift solenoid valve (S2) circuit *1	AT-64
	2. Speed sensor SP2 circuit *1	AT-48
	3. ECM	IN-34
No up-shift (2nd to 3rd)	1. Shift solenoid valve (S1) circuit *1	AT-64
	2. ECM	IN-34
No up-shift (3rd to 4th)	1. Park/neutral position switch circuit *1	AT-34
	2. Engine coolant temperature sensor circuit *1	ES-54
	3. Shift solenoid valve (S2) circuit *1	AT-64
	4. ECM	IN-34
No down-shift (4th to 3rd)	1. Park/neutral position switch circuit *1	AT-34
	2. Shift solenoid valve (S2) circuit *1	AT-64
	3. ECM	IN-34
No down-shift (3rd to 2nd)	1. Shift solenoid valve (S1) circuit *1	AT-64
	2. ECM	IN-34
No down-shift (2nd to 1st)	1. Shift solenoid valve (S2) circuit *1	AT-64
	2. ECM	IN-34
No lock-up or no lock-up off	1. Shift solenoid valve (SLU) circuit *1	AT-81
	2. Stop light switch circuit *1	AT-52
	3. ECM	IN-34
No lock-up	1. Shift solenoid valve (SLU) circuit *1	AT-81
	2. Engine coolant temperature sensor circuit *1	ES-54
	3. Stop light switch circuit *1	AT-52
	4. Speed sensor NCO circuit *1	AT-44
	5. ECM	IN-34
No lock-up off	1. Shift solenoid valve (SLU) circuit *1	AT-81
	2. ECM	IN-34
Shift point too high or too low	1. Shift solenoid valve (SLT) circuit *1	AT-68
	2. Speed sensor NCO circuit *1	AT-44
	3. Speed sensor SP2 circuit *1	AT-48
	4. Throttle position sensor circuit *1	ES-54
	5. ATF temperature sensor THOC circuit *1	AT-40
	6. ATF temperature sensor THO1 circuit *1	AT-72
	7. ECM	IN-34
Up-shift to 2nd while in L position	1. Park/neutral position sensor circuit *1	AT-34
	2. ECM	IN-34

Symptom	Suspected area	See page
Up-shift to 3rd while in 2 position	1. Park/neutral position sensor circuit *1	AT-34
	2. ECM	IN-34
Up-shift from 3rd to 4th while engine is cold	1. Engine coolant temperature sensor circuit *1	ES-54
	2. ECM	IN-34
Harsh engagement (N to D)	1. Shift solenoid valve (SLT) circuit *1	AT-68
	2. Speed sensor NCO circuit *1	AT-44
	3. ECM	IN-34
Harsh engagement (Lock-up)	1. Speed sensor NCO circuit *1	AT-44
	2. Speed sensor SP2 circuit *1	AT-48
	3. Shift solenoid valve (SLU) circuit *1	AT-81
	4. ECM	IN-34
Harsh engagement (Any driving position)	1. Throttle position sensor circuit *1	ES-54
	2. Shift solenoid valve (SLU) circuit *1	AT-81
	3. Shift solenoid valve (SLT) circuit *1	AT-68
	4. Speed sensor NCO circuit *1	AT-44
	5. ECM	IN-34
Poor acceleration	1. Shift solenoid valve (SLT) circuit *1	AT-68
	2. 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-81
	2. ECM	IN-34

Chapter 2: On-Vehicle Repair and Off-Vehicle Repair

(▲: A340E AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM998U)

Symptom	Suspected area	See page
Vehicle does not move in any forward position or reverse position	1. Shift solenoid valve SLT	AT-68
	2. Transmission control cable	AT-105
	3. Manual valve	▲
	4. Parking lock pawl	▲
	5. O/D one-way clutch (F0)	▲
	6. O/D direct clutch (C0)	▲
	7. O/D brake (B0)	▲
	8. O/D planetary gear unit	▲
	9. Torque converter clutch	AT-117
Vehicle does not move in R position	1. 2nd coast brake (B1)	▲
	2. Front and rear planetary gear unit	▲
	3. Direct clutch (C2)	▲
	4. 1st and reverse brake (B3)	▲
	5. O/D direct clutch (C0)	▲
No up-shift (1st to 2nd)	1. 1-2 shift valve	▲
	2. 2nd brake (B2)	▲
	3. No. 1 one-way clutch (F1)	▲
No up-shift (2nd to 3rd)	1. 2-3 shift valve	▲
	2. Direct clutch (C2)	▲
No up-shift (3rd to 4th)	1. 3-4 shift valve	▲
	2. O/D brake (B0)	▲

Symptom	Suspected area	See page
No down-shift (4th to 3rd)	3-4 shift valve	▲
No down-shift (3rd to 2nd)	2-3 shift valve	▲
No down-shift (2nd to 1st)	1. 1-2 shift valve	▲
	2. 2nd coast brake (B1)	▲
	3. 2nd brake (B2)	▲
No lock-up or no lock-up off	1. Lock-up control valve	▲
	2. Lock-up relay valve	▲
	3. Torque converter clutch	AT-117
Harsh engagement (N to D)	1. Accumulator control valve	▲
	2. Forward clutch (C1)	▲
Harsh engagement (Lock-up)	1. Lock-up control valve	▲
	2. Lock-up relay valve	▲
	3. Torque converter clutch	AT-117
Harsh engagement (N to R)	1. Accumulator control valve	▲
	2. C2 accumulator	▲
	3. Direct clutch (C2)	▲
	4. 1st and reverse brake (B3)	▲
Harsh engagement (N to L)	Low coast modulator valve	▲
Harsh engagement (1st to 2nd, 2nd to 3rd and 3rd to 4th)	1. Accumulator control valve	▲
	2. Throttle valve	▲
Harsh engagement (2nd to 3rd)	1. Accumulator control valve	▲
	2. C2 accumulator	▲
	3. 2nd coast brake (B1)	▲
Harsh engagement (3rd to 4th)	1. Accumulator control valve	▲
	2. Solenoid modulator valve	▲
	3. O/D direct clutch (C0)	▲
	4. O/D brake (B0)	▲
	5. O/D planetary gear unit	▲
Harsh engagement (4th to 3rd)	1. Accumulator control valve	▲
	2. C0 accumulator	▲
	3. O/D brake (B0)	▲
Slippage or shuddering (Forward and reverse: After warm-up)	1. Shift solenoid valve SLT	AT-68
	2. Transmission control cable	AT-105
	3. Oil strainer	▲
	4. Pressure relief valve	▲
	5. Torque converter clutch	▲
	6. O/D one-way clutch (F0)	▲
	7. O/D direct clutch (C0)	▲
Slippage or shuddering (Particular position: Just after engine starts)	1. Shift solenoid valve SLT	AT-68
	2. Transmission control cable	AT-105
	3. Torque converter clutch	AT-117
Slippage or shuddering (R position)	1. Direct clutch (C2)	▲
	2. 1st and reverse brake (B3)	▲

Symptom	Suspected area	See page
Slippage or shuddering (1st position)	1. Forward clutch (C1)	▲
	2. No. 2 one-way clutch (F2)	▲
Slippage or shuddering (2nd position)	1. 2nd brake (B2)	▲
	2. 2nd coast brake (B1)	▲
	3. No. 1 one-way clutch (F1)	▲
Slippage or shuddering (3rd position)	Direct clutch (C2)	▲
Slippage or shuddering (4th position)	O/D brake (B0)	▲
Engine brake does not work only in 1st gear at L position	1. Low coast modulator valve	▲
	2. 1st and reverse brake (B3)	▲
Engine brake does not work only in 2nd gear at 2 position	1. 2nd coast modulator valve	▲
	2. 2nd coast brake (B1)	▲
Engine brake does not work only in 3rd gear at 3 position	O/D direct clutch (C0)	▲
Engine brake does not work only in 1st to 4th gear at D position	O/D direct clutch (C0)	▲
No kick-down	1. 1-2 shift valve	▲
	2. 2-3 shift valve	▲
	3. 3-4 shift valve	▲
Poor acceleration (All position)	Torque converter clutch	AT-117
Poor acceleration (4th)	1. O/D direct clutch (C0)	▲
	2. O/D planetary gear unit	▲
Poor acceleration (other than 4th)	O/D brake (B0)	▲
Poor acceleration (other than 2nd)	1. 2nd coast brake (B1)	▲
	2. 2nd brake (B2)	▲
Poor acceleration (1st and 2nd)	Direct clutch (C2)	▲
Poor acceleration (L and R positions)	1st and reverse brake (B3)	▲
Poor acceleration (R position)	Forward clutch (C1)	▲
Engine stalls when starting off or stopping	Torque converter clutch	AT-117