DIAG6–01

PROBLEM SYMPTOMS TABLE

HINT:

If a normal code is displayed during the DTC check but the trouble still occurs, check the circuits for each symptom in the order given in the charts on the following pages and proceed to the page given for trouble-shooting.

The Matrix Chart is divided into 3 chapters.

When troubleshooting, check Chapter 1 first. If instructions are given in Chapter 1 to proceed to Chapter 2 or 3, proceed as instructed.

- If 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 Engine & ECT ECU.

1. CHAPTER 1: ELECTRONIC CIRCUIT MATRIX CHART

Symptom	Suspect Area	See page
No up–shift (1st → 2nd)	Engine & ECT ECU	IN–26
No up–shift (2nd → 3rd)	Engine & ECT ECU	IN–26
No up–shift (3rd → O/D)	1. O/D main switch & O/D OFF indicator circuit 2. Engine & ECT ECU	DI–43 IN–26
No down–shift (O/D → 3rd)	1. O/D main switch & O/D OFF indicator circuit 2. Engine & ECT ECU	DI–43 IN–26
No down–shift (3rd → 2nd)	Engine & ECT ECU	IN–26
No down–shift (2nd → 1st)	Engine & ECT ECU	IN–26
No lock–up or No lock–up off	1. Stop light switch circuit 2. L4 position switch circuit 3. Engine & ECT ECU	DI–46 DI–55 IN–26
Shift point too high or too low	1. Pattern select switch circuit 2. Engine & ECT ECU	DI–49 IN–26
Up–shift to 2nd while in L range	1. Neutral start switch circuit 2. Engine & ECT ECU	DI–39 IN–26
Up–shift to 3rd while in 2 range	1. Neutral start switch circuit 2. Engine & ECT ECU	DI–39 IN–26
Up–shift to O/D from 3rd while O/D main switch is OFF	1. O/D main switch & O/D OFF indicator circuit 2. Engine & ECT ECU	DI–43 IN–26
Up–shift to O/D from 3rd while engine is cold	Engine & ECT ECU	IN–26
Poor acceleration	Engine & ECT ECU	IN–26
No kick–down	Engine & ECT ECU	IN–26
Engine stalls when starting off or stopping	Engine & ECT ECU	IN–26
No pattern select	1. Pattern select switch circuit 2. Engine & ECT ECU	DI–49 IN–26
A/T.P. indicator light does not light up	A/T.P. indicator light circuit	DI–52

2. CHAPTER 2: ON–VEHICLE REPAIR (★: A340E, A340F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM688U)

Symptom	Suspect Area	See page
Vehicle does not move in any forward range and reverse range	1. Transmission control rod 2. Manual valve 3. Parking lock pawl 4. Off–vehicle repair matrix chart	DI–4 ★ ★ –
Vehicle does not move in R range	Off–vehicle repair matrix chart	–
Vehicle does not move in particular range or ranges (except R range)	Off–vehicle repair matrix chart	–
No up–shift (1st → 2nd)	1. 1–2 shift valve 2. Off–vehicle repair matrix chart	★ –
No up–shift (2nd → 3rd)	1. 2–3 shift valve 2. Off–vehicle repair matrix chart	★ –
No up–shift (3rd → O/D)	1. 3–4 shift valve 2. Off–vehicle repair matrix chart	★ –
No down–shift (O/D → 3rd)	1. 3–4 shift valve 2. Off–vehicle repair matrix chart	★ –
No down–shift (3rd → 2nd)	1. 2–3 shift valve 2. Off–vehicle repair matrix chart	★ –
No down–shift (2nd → 1st)	1. 1–2 shift valve 2. Off–vehicle repair matrix chart	★ –
No lock–up or No lock–up off	1. Lock–up control valve 2. Lock–up relay valve 3. Off–vehicle repair matrix chart	★ ★ –
Harsh engagement (N → D)	1. Accumulator control valve 2. Off–vehicle repair matrix chart	★ –
Harsh engagement (Lock–up)	1. Lock–up control valve 2. Lock–up relay valve 3. Off–vehicle repair matrix chart	★ ★ –
Harsh engagement (N → R)	1. Accumulator control valve 2. C_2 accumulator 3. Off–vehicle repair matrix chart	★ ★ –
Harsh engagement (N → L)	Low coast modulator valve	★
Harsh engagement (1st → 2nd / D range)	1. Accumulator control valve 2. B_2 accumulator	★ ★
Harsh engagement (1st → 2nd / 2 range)	1. Accumulator control valve 2. B_2 accumulator	★ ★
Harsh engagement (1st → 2nd → 3rd → O/D)	1. Accumulator control valve 2. Throttle valve	★ ★
Harsh engagement (2nd → 3rd)	1. Accumulator control valve 2. C_2 accumulator 3. Off–vehicle repair matrix chart	★ ★ –
Harsh engagement (3rd → O/D)	1. Accumulator control valve 2. Solenoid modulator valve 3. Off–vehicle repair matrix chart	★ ★ –
Harsh engagement (O/D → 3rd)	1. Accumulator control valve 2. C_0 accumulator 3. Off–vehicle repair matrix chart	★ ★ –

Slip or shudder (Forward and reverse)	1. Transmission control rod 2. Oil strainer 3. Pressure relief valve 4. Off–vehicle repair matrix chart	DI–4 ★ ★ –
Slip or shudder (Particular range)	1. Transmission control rod 2. Off–vehicle repair matrix chart	DI–4 –
No engine braking (1st / L range)	1. Low coast modulator valve 2. Off–vehicle repair matrix chart	★ –
No engine braking (2nd / 2 range)	1. 2nd coast modulator valve 2. Off–vehicle repair matrix chart	★ –
No kick–down	1. 1–2 shift valve 2. 2–3 shift valve	★ ★

3. CHAPTER 3: OFF–VEHICLE REPAIR (★: A340E, A340F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM688U)

Symptom	Suspect Area	See page
Vehicle does not move in any forward range and reverse range	1. O/D one–way clutch (F_0) 2. O/D direct clutch (C_0) 3. O/D brake (B_0) 4. O/D planetary gear unit 5. Torque converter	★ ★ ★ ★ AT–20
Vehicle does not move in R range	1. 2nd coast brake (B_1) 2. Front and rear planetary gear unit 3. Direct clutch (C_2) 4. 1st & reverse brake (B_3) 5. O/D direct clutch (C_0)	★ ★ ★ ★ ★
Vehicle does not move in D, 2 and L ranges	Forward clutch (C_2)	★
Vehicle does not move in D and 2 ranges	No.2 one–way clutch (F_2)	★
Vehicle does not move in 2 range	1st & reverse (B_3)	★
Vehicle does not move in L range	1. 2nd brake (B_2) 2. 2nd coast brake (B_1) 3. Direct clutch (C_2)	★ ★ ★
No up–shift (1st → 2nd)	1. 2nd brake (B_2) 2. No. 1 one–way clutch (F_1)	★ ★
No up–shift (2nd → 3rd)	Direct clutch (C_2)	★
No up–shift (3rd → O/D)	O/D brake (B_0)	★
No down–shift (2nd → 1st)	1. 2nd coast brake (B_1) 2. 2nd brake (B_2)	★ ★
No lock–up or No lock–up off	Torque converter	AT–20
Harsh engagement (N → D)	Forward clutch (C_1)	★
Harsh engagement (N → R)	1. Direct clutch (C_2) 2. 1st & reverse brake (B_3)	★ ★
Harsh engagement (2nd → 3rd)	2nd coast brake (B_1)	★
Harsh engagement (3rd → O/D)	1. O/D direct clutch (C_0) 2. O/D brake (B_0) 3. O/D planetary gear unit	★ ★ ★
Harsh engagement (O/D → 3rd)	O/D brake (B_0)	★
Harsh engagement (Lock–up)	Torque converter	AT–20
Slip or shudder (Forward and reverse / After warm–up)	1. Torque converter clutch 2. O/D one–way clutch (F_0) 3. O/D direct clutch (C_0)	★ ★ ★
Slip or shudder (Forward and reverse / Just after engine starts)	Torque converter	AT–20
Slip or shudder (R range)	1. Direct clutch (C_2) 2. 1st & reverse brake (B_3)	★ ★
Slip or shudder (1st)	1. Forward clutch (C_1) 2. No. 2 one–way clutch (F_2)	★ ★
Slip or shudder (2nd)	1. 2nd brake (B_2) 2. 2nd coast brake (B_1) 3. No. 1 one–way clutch (F_1)	★ ★ ★
Slip or shudder (3rd)	Direct clutch (C_2)	★
Slip or shudder (O/D)	O/D brake (B_0)	★
No engine braking (1st ~ 3rd: D range)	O/D direct clutch (C_0)	★
No engine braking (1st: L range)	1st & reverse brake (B_3)	★

No engine braking (2nd: 2 range)	2nd coast brake (B_1)	★
Poor acceleration (All range)	Torque converter	AT–20
Poor acceleration (O/D)	1. O/D direct clutch (C_0) 2. O/D planetary gear unit	★ ★
Poor acceleration (other than O/D)	O/D brake (B_0)	★
Poor acceleration (other than 2nd)	1. 2nd coast brake (B_1) 2. 2nd brake (B_2)	★ ★
Poor acceleration (1st and 2nd)	Direct clutch (C_2)	★
Poor acceleration (L and R ranges)	1st & reverse brake (B_3)	★
Poor acceleration (R range)	Forward clutch (C_1)	★
Engine stalls when starting off or stopping	Torque converter	AT–20