DI3QZ–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 and ECT ECU or ECT ECU.

CHAPTER 1: ELECTRONIC CIRCUIT MATRIX CHART

Symptom	Suspect Area	See page
No up –shift (A particular gear, from 1st to 3rd gear, is not –up shifted)	Engine and ECT ECU or ECT ECU	IN–35
No up –shift (3rd → O/D)	1. O/D main switch & O/D OFF indicator circuit 2. O/D cancel signal circuit 3. Water temperature switch circuit. 4. Engine and ECT ECU or ECT ECU	DI–169 DI–175 DI–191 IN–35
No down –shift (O/D → 3rd)	1. O/D main switch & O/D OFF indicator circuit 2. O/D cancel signal circuit 3. Engine and ECT ECU or ECT ECU	DI–169 DI–175 IN–35
No down –shift (A particular gear, from 1st to 3rd gear, is not –down shifted)	Engine and ECT ECU or ECT ECU	IN–35
No lock –up	1. Stop light switch signal circuit 2. Engine and ECT ECU or ECT ECU	DI–163 IN–35
No lock –up off	Engine and ECT ECU or ECT ECU	IN–35
Shift point too high or too low	1. Pattern select switch circuit 2. L4 position switch circuit 3. Engine and ECT ECU or ECT ECU	DI–178 DI–200 IN–35
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. Water temperature switch circuit 3. Engine and ECT ECU or ECT ECU	DI–169 DI–191 IN–35
Up–shift to O/D from 3rd while engine is cold	Engine and ECT ECU or ECT ECU	IN–35
No kick –down	Engine and ECT ECU or ECT ECU	IN–35
Engine stalls when starting off or stopping	Engine and ECT ECU or ECT ECU	IN–35
No pattern select	1. Pattern select switch circuit 2. Engine and ECT ECU or ECT ECU	DI–178 IN–35
No 2nd start	1. Pattern select switch circuit 2. Engine and ECT ECU or ECT ECU	DI–178 IN–35
A/T.P. indicator light does not light up	A/T. P. indicator light circuit	DI–194

CHAPTER 2: ON–VEHICLE REPAIR
(□: A442F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM314E)

Symptom	Suspect Area	See page
Vehicle does not move in any forward range and reverse range	1. Throttle cable (1FZ–FE, 1HZ, 1HD–T) 2. Transmission control rod 3. Manual valve 4. Off –vehicle repair matrix chart	DI–80 DI–80 □ –
Vehicle does not move in R range	1. Reverse control valve 2. 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 signal valve 2. Lock –up control valve 3. Off –vehicle repair matrix chart	□ □ –
Harsh engagement (N → D)	1. Accumulator control valve 2. C_1 accumulator 3. Off –vehicle repair matrix chart	□ □ –
Harsh engagement (Lock –up)	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)	1. Accumulator control valve 2. C_1 accumulator 3. C_2 accumulator 4. Off –vehicle repair matrix chart	□ □ □ –
Harsh engagement (1st → 2nd / D range)	1. Accumulator control valve 2. B_1 accumulator 3. Off –vehicle repair matrix chart	□ □ –
Harsh engagement (1st → 2nd / 2 range)	1. Accumulator control valve 2. B_2 accumulator 3. C_1 accumulator 4. Off –vehicle repair matrix chart	□ □ □ –
Harsh engagement (1st → 2nd → 3rd → O/D)	1. Accumulator control valve 2. Check ball 3. Throttle valve 4. Off –vehicle repair matrix chart	□ □ □ –
Harsh engagement (2nd → 3rd)	1. Accumulator control valve 2. C_2 accumulator 3. 2 –3 shift timing valve 4. Off –vehicle repair matrix chart	□ □ □ –

Harsh engagement (3rd → O/D)	1. Accumulator control valve 2. B_0 accumulator 3. Check ball 4. Off –vehicle repair matrix chart	□ □ □ –
Harsh engagement (O/D → 3rd)	1. Accumulator control valve 2. B_0 accumulator 3. Off –vehicle repair matrix chart	□ □ –
Slip or shudder (Forward and reverse)	1. Throttle cable (1FZ–FE, 1HZ, 1HD–T) 2. Transmission control rod 3. Oil strainer 4. Off –vehicle repair matrix chart	DI–80 DI–80 □ –
Slip or shudder (Particular range)	1. Throttle cable (1FZ–FE, 1HZ, 1HD–T) 2. Transmission control rod 3. Off –vehicle repair matrix chart	DI–80 DI–80 –
No engine braking (1st / L range)	1. Low coast modulator valve 2. Modulator valve 3. Off –vehicle repair matrix chart	□ □ –
No engine braking (2nd / 2 range)	Off–vehicle repair matrix chart	–
No kick –down	1. 1–2 shift valve 2. 2 –3 shift valve 3. 3 –4 shift valve 4. Off –vehicle repair matrix chart	□ □ □ –
Poor acceleration	1. C^0 exhaust valve 2. Off –vehicle repair matrix chart	□ –
Engine stall when starting off or stopping	Off–vehicle repair matrix chart	–

CHAPTER 3: OFF –VEHICLE REPAIR
(□ : A442F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM3 14E)

Symptom	Suspect Area	See page
Vehicle does not move in any forward range and reverse range	1. Torque converter 2. Oil pump 3. O/D direct clutch (C 0) 4. Front clutch (C 1) 5. Rear clutch (C 2) 6. O/D one –way clutch (F 0) 7. O/D planetary gear unit	□ □ □ □ □ □ □
Vehicle does not move in R range	1. O/D direct clutch (C 0) 2. Rear clutch (C 2) 3. 1st & reverse brake (B 3)	□ □ □
Vehicle does not move in D, 2 and L ranges	1. O/D direct clutch (C 0) 2. Front clutch (C 1)	□ □
Vehicle does not move in D, 2 ranges	Front clutch (C 1)	□
Vehicle does not move in 2 range	2nd brake (B 2)	□
Vehicle does not move in L range	1st & reverse brake (B 3)	□
No up –shift (1st → 2nd)	1. O/D direct clutch (C 0) 2. 2nd brake (B 2)	□ □
No up –shift (2nd → 3rd)	Direct clutch (C 2)	□
No up –shift (3rd → O/D)	1. O/D brake (B 0) 2. O/D direct clutch (C 0) 3. O/D one –way clutch (F 0)	□ □ □
No down –shift (2nd → 1st)	1. 2nd brake (B 2) 2. 1st & reverse brake (B 3) 3. No. 1 one–way clutch (F 1)	□ □ □
No lock –up or No lock –up off	Torque converter	□
Harsh engagement (N → D)	1. Front clutch (C 1) 2. No. 1 one–way clutch (F 1)	□ □
Harsh engagement (N → R)	1. Rear clutch (C 2) 2. 1st & reverse brake (B 3)	□ □
Harsh engagement (2nd → 3rd)	1. O/D direct clutch (C 0) 2. Rear clutch (C 2)	□ □
Harsh engagement (3rd → O/D)	O/D brake (B 0)	□
Harsh engagement (O/D → 3rd)	1. O/D brake (B 0) 2. O/D one –way clutch (F 0)	□ □
Harsh engagement (Lock –up)	Torque converter	□
Slip or shudder (Forward and reverse / After warm –up)	1. Torque converter 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	□
Slip or shudder (R range)	1. 2nd brake (B 2) 2. Rear clutch (C 2)	□ □
Slip or shudder (1st)	1. 1st & reverse brake (B 3) 2. No. 1 one–way clutch (F 1)	□ □
Slip or shudder (2nd)	1. 2nd brake (B 2) 2. Front clutch (C 1)	□ □
Slip or shudder (3rd)	1. Front clutch (C 1) 2. Rear clutch (C 2)	□ □

Slip or shudder (O/D)	1. O/D brake (B_0) 2. Front clutch (C_1) 3. Rear clutch (C_2)	L L L
No engine braking (1st ~ 3rd: D range)	1. O/D direct clutch (C_0) 2. O/D one−way (F_0)	L L
No engine braking (1st: L range)	1st & reverse brake (B_3)	L
No engine braking (2nd: 2 range)	O/D direct clutch (C_1)	L
Poor acceleration (All range)	Torque converter	L
Poor acceleration (O/D)	1. O/D direct clutch (C_0) 2. O/D planetary gear unit	L L
Poor acceleration (other than O/D)	O/D brake (B_0)	L
Poor acceleration (other than 2nd)	2nd brake (B_2)	L
Poor acceleration (1st and 2nd)	Direct clutch (C_2)	L
Poor acceleration (L and R ranges)	1. 1st & reverse brake (B_3) 2. O/D brake (B_0) 3. Rear clutch (C_2)	L L L
Poor acceleration (R range)	Forward clutch (C_1)	L
Engine stalls when starting off or stopping	Torque converter	L