DIOSR-12

PROBLEM SYMPTOMS TABLE

HINT:

If a normal code is displayed during the diagnostic trouble code 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 troubleshooting.

The Matrix Chart is divided into 3 chapters.

- 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 ECM.

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)	1. ECM	IN-28
No up-shift (3rd \rightarrow O/D)	O/D main switch & O/D OFF indicator light circuit ECM	DI-218 IN-28
No down-shift (O/D \rightarrow 3rd)	1. ECM	IN-28
No down-shift (A particular gear from 1st to 3rd gear is not down-shifted)	1. ECM	IN-28
No lock-up	1. ECM	IN-28
No lock-up off	1. ECM	IN-28
Shift point too high or too low	Pattern select switch circuit ECM	DI-214 IN-28
Up-shift to O/D from 3rd while main switch is off	O/D main switch & O/D OFF indicator light circuit ECM	DI-218 IN-28
Up-shift to O/D from 3rd while engine is cold	1. ECM	IN-28
Poor acceleration	1. ECM	IN-28
No pattern select	Pattern select switch ECM	DI-214 IN-28
Large shift shock or engine stalls when starting off or stopping	1. ECM	IN-28

CHAPTER 2: ON-VEHICLE REPAIR

(★: A340E, A340F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM391U) (★: A340F, A343F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM479U)

Symptom	Suspect Area	See page
	Transmission control rod	DI-159
Vehicle does not move in any forward position and reverse position	2. Manual valve	*
	Parking lock pawl	*
	4. Off-vehicle repair matrix chart	DI-175
Vehicle does not move in R position	Off-vehicle repair matrix chart	DI-175
Vehicle does not move in particular position or positions (except R position)	Off-vehicle repair matrix chart	DI-175
No up-shift (1st → 2nd)	1. 1-2 shift valve 2. Off-vehicle repair matrix chart	★ DI-175
No up-shift (2nd \rightarrow 3rd)	2-3 shift valve Off-vehicle repair matrix chart	★ DI-175
No up-shift (3rd \rightarrow O/D)	3-4 shift valve Off-vehicle repair matrix chart	★ DI-175
No down-shift (O/D \rightarrow 3rd)	3-4 shift valve Off-vehicle repair matrix chart	★ DI-175
No down-shift (3rd \rightarrow 2nd)	2-3 shift valve Off-vehicle repair matrix chart	★ DI-175
No down-shift (2nd → 1st)	1. 1-2 shift valve 2. Off-vehicle repair matrix chart	★ DI-175
No lock-up or No lock-up off	Lock-up control valve Lock-up relay valve	* *
	Off-vehicle repair matrix chart	DI-175
	Accumulator control valve	*
	Solenoid modulator valve	*
Harsh engagement (N \rightarrow D)	3. C ₁ accumulator	*
	4. Orifice control valve	*
	Off-vehicle repair matrix chart	DI-175
	Lock-up control valve	*
Harsh engagement (Lock-up)	2. Lock-up relay valve	*
	3. Solenoid relay valve	*
	Off-vehicle repair matrix chart	DI-175
	Accumulator control valve	*
Harsh engagement (N \rightarrow R)	2. C ₂ accumulator	*
	Solenoid modulator valve	*
	4. Off-vehicle repair matrix chart	DI-175
Harsh engagement (N → L)	Low coast modulator valve	*
Harsh engagement (1st $ ightarrow$ 2nd $ ightarrow$ 3rd $ ightarrow$ O/D)	 Accumulator control valve Solenoid modulator valve 	*
	Accumulator control valve	*
	Solenoid modulator valve	*
Harsh engagement (2nd $ ightarrow$ 3rd)	3. C ₂ accumulator	*
	Off-vehicle repair matrix chart	DI-175
	Accumulator control valve	*
	Solenoid modulator valve	*
Harsh engagement (3rd $ ightarrow$ O/D)	3. B ₀ accumulator	*
	Off-vehicle repair matrix chart	DI-175

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DIAGNOSTICS - AUTOMATIC TRANSMISSION

Symptom	Suspect Area	See page
Harsh engagement (O/D $ ightarrow$ 3rd)	 Accumulator control valve Solenoid modulator valve C₀ accumulator Off-vehicle repair matrix chart 	* * * DI-175
Slip or shudder (Forward and reverse)	 Transmission control rod Oil strainer Pressure relief valve Off-vehicle repair matrix chart 	DI-159 * DI-175
Slip or shudder (Particular position)	Transmission control rod Off-vehicle repair matrix chart	DI-159 DI-175
No engine braking (1st: L position)	Low coast modulator valve Off-vehicle repair matrix chart	★ DI-175
No engine braking (2nd: 2 position)	2nd coast modulator valve Off-vehicle repair matrix chart	★ DI-175
No kick-down	 1. 1-2 shift valve 2. 2-3 shift valve 	*

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CHAPTER 3: OFF-VEHICLE REPAIR

(★: A340E, A340F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM391U) (★: A340F, A343F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM479U)

Symptom	Suspect Area	See page
Vehicle does not move in any forward position and reverse position	1. O/D one-way clutch (F ₀)	*
	2. O/D direct clutch (C ₀)	*
	3. O/D planetary gear unit	*
	4. Torque converter clutch	*
Vehicle does not move in R position	Front and rear planetary gear unit	*
	2. Direct clutch (C ₂)	*
	3. 1st and reverse brake (B₃)4. O/D direct clutch (C₀)	* *
No up-shift (1st \rightarrow 2nd)	1. 2nd brake (B ₂)	*
	2. No. 1 one-way clutch (F ₁)	*
No up-shift (2nd \rightarrow 3rd)	1. Direct clutch (C ₂)	*
No up-shift (3rd \rightarrow O/D)	1. O/D brake (B ₀)	*
No lock-up or No lock-up off	Torque converter clutch	*
are the test of th	1. Forward clutch (C ₁)	*
Harsh engagement (N \rightarrow D)	2. O/D one-way clutch (F ₀)	*
,	3. No. 2 one-way clutch (F ₂)	*
	1. Direct clutch (C ₂)	*
Harsh engagement $(N \to R)$	2. 1st and reverse brake (B ₃)	*
	3. O/D one-way clutch (F ₀)	*
	1. Forward clutch (C ₁)	*
Harsh engagement $(N \rightarrow 2)$	2. O/D one-way clutch (F ₀)	*
	3. No. 2 one-way clutch (F ₂)	*
	1. Forward clutch (C ₁)	*
Harsh engagement $(N \rightarrow L)$	2. 1st and reverse brake (B ₃)	*
	3. O/D one-way clutch (F₀)4. No. 2 one-way clutch (F₂)	*
Harsh engagement (Lock-up)	Torque converter clutch	*
Tidion ongagomoni (Esok ap)	Torque converter clutch	*
Slip or shudder (Forward and reverse: After warm-up)	2. O/D one-way clutch (F ₀)	*
	3. O/D direct clutch (C ₀)	*
Slip or shudder (Particular position: Just after engine starts)	Torque converter clutch	*
0" 1 (5 ";)	1. Direct clutch (C ₂)	*
Slip or shudder (R position)	2. 1st and reverse brake (B ₃)	*
Clip or shudder (1st)	1. Forward clutch (C ₁)	*
Slip or shudder (1st)	2. No. 2 one-way clutch (F ₂)	*
	1. 2nd brake (B ₂)	*
Slip or shudder (2nd)	2. 2nd coast brake (B ₁)	*
	3. No. 1 one-way clutch (F ₁)	*
Slip or shudder (3rd)	1. Direct clutch (C ₂)	*
Slip or shudder (O/D)	1. O/D brake (B ₀)	*
No engine braking (1st - 3rd: D position)	1. 2nd brake (B ₂)	*
No engine braking (1st: L position)	1. 1st and reverse brake (B ₃)	*
No engine braking (2nd: 2 position)	1. 2nd coast brake (B ₁)	*
Poor acceleration (All position)	Torque converter clutch	*
Poor acceleration (O/D)	1. O/D direct clutch (C ₀)	*
	2. O/D planetary gear unit	*
Engine stalls when starting off or stopping	Torque converter clutch	*

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