

## 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.

- 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.

### CHAPTER 1: ELECTRONIC CIRCUIT MATRIX CHART

| Symptom                                                                          | Suspect Area                                                                               | See page                                                                |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| No up-shift<br>(A particular gear, from 1st to 3rd gear, is not -up shifted)     | Engine and ECT ECU                                                                         | <a href="#">IN-35</a>                                                   |
| No up-shift (3rd → O/D)                                                          | 1. O/D main switch & O/D OFF indicator circuit<br>2. Engine and ECT ECU                    | <a href="#">DI-61</a><br><a href="#">IN-35</a>                          |
| No down-shift (O/D → 3rd)                                                        | 1. O/D main switch & O/D OFF indicator circuit<br>2. Engine and ECT ECU                    | <a href="#">DI-61</a><br><a href="#">IN-35</a>                          |
| No down-shift<br>(A particular gear, from 1st to 3rd gear, is not -down shifted) | Engine and ECT ECU                                                                         | <a href="#">IN-35</a>                                                   |
| No lock-up                                                                       | 1. Stop light switch signal circuit<br>2. Engine and ECT ECU                               | <a href="#">DI-57</a><br><a href="#">IN-35</a>                          |
| No lock-up off                                                                   | Engine and ECT ECU                                                                         | <a href="#">IN-35</a>                                                   |
| Shift point too high or too low                                                  | 1. Pattern select switch circuit<br>2. L4 position switch circuit<br>3. Engine and ECT ECU | <a href="#">DI-65</a><br><a href="#">DI-75</a><br><a href="#">IN-35</a> |
| Up-shift to O/D from 3rd while O/D main switch is OFF                            | 1. O/D main switch & O/D OFF indicator circuit<br>2. Engine and ECT ECU                    | <a href="#">DI-61</a><br><a href="#">IN-35</a>                          |
| Up-shift to O/D from 3rd while engine is cold                                    | Engine and ECT ECU                                                                         | <a href="#">IN-35</a>                                                   |
| No kick-down                                                                     | Engine and ECT ECU                                                                         | <a href="#">IN-35</a>                                                   |
| Engine stalls when starting off or stopping                                      | Engine and ECT ECU                                                                         | <a href="#">IN-35</a>                                                   |
| No pattern select                                                                | 1. Pattern select switch circuit<br>2. Engine and ECT ECU                                  | <a href="#">DI-65</a><br><a href="#">IN-35</a>                          |
| No 2nd start                                                                     | 1. Pattern select switch circuit<br>2. Engine and ECT ECU                                  | <a href="#">DI-68</a><br><a href="#">IN-35</a>                          |
| A/T.P. indicator light does not light up                                         | 1. A/T. P. indicator light circuit<br>2. Engine and ECT ECU                                | <a href="#">DI-72</a><br><a href="#">IN-35</a>                          |

**CHAPTER 2: ON-VEHICLE REPAIR****(★: A343F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM528E)**

| Symptom                                                              | Suspect Area                                                                                                                                                   | See page                |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Vehicle does not move in any forward range and reverse range         | 1. Transmission control rod<br>2. Manual valve<br>3. Parking lock pawl<br>4. Off-vehicle repair matrix chart                                                   | DI-4<br>★<br>AT-14<br>– |
| 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<br>2. Off-vehicle repair matrix chart                                                                                                       | ★<br>–                  |
| No up-shift (2nd → 3rd)                                              | 1. 2-3 shift valve<br>2. Off-vehicle repair matrix chart                                                                                                       | ★<br>–                  |
| No up-shift (3rd → O/D)                                              | 1. 3-4 shift valve<br>2. Off-vehicle repair matrix chart                                                                                                       | ★<br>–                  |
| No down-shift (O/D → 3rd)                                            | 1. 3-4 shift valve<br>2. Off-vehicle repair matrix chart                                                                                                       | ★                       |
| No down-shift (3rd → 2nd)                                            | 1. 2-3 shift valve<br>2. Off-vehicle repair matrix chart                                                                                                       | ★<br>–                  |
| No down-shift (2nd → 1st)                                            | 1. 1-2 shift valve<br>2. Off-vehicle repair matrix chart                                                                                                       | ★                       |
| No lock-up or No lock-up off                                         | 1. Lock-up control valve<br>2. Lock-up relay valve<br>3. Off-vehicle repair matrix chart                                                                       | ★<br>★<br>–             |
| Harsh engagement (N → D)                                             | 1. Accumulator control valve<br>2. Solenoid modulator valve<br>3. C <sub>1</sub> accumulator<br>4. Orifice control valve<br>5. Off-vehicle repair matrix chart | ★<br>★<br>★<br>★<br>–   |
| Harsh engagement (Lock-up)                                           | 1. Lock-up control valve<br>2. Lock-up relay valve<br>3. Solenoid relay valve<br>4. Off-vehicle repair matrix chart                                            | ★<br>★<br>★<br>–        |
| Harsh engagement (N → R)                                             | 1. Accumulator control valve<br>2. C <sub>2</sub> accumulator<br>3. Solenoid modulator valve<br>4. Off-vehicle repair matrix chart                             | ★<br>★<br>★<br>–        |
| Harsh engagement (N → L)                                             | Low coast modulator valve                                                                                                                                      | ★                       |
| Harsh engagement (1st → 2nd → 3rd → O/D)                             | 1. Accumulator control valve<br>2. Solenoid modulator valve                                                                                                    | ★<br>★                  |
| Harsh engagement (2nd → 3rd)                                         | 1. Accumulator control valve<br>2. Solenoid modulator valve<br>3. C <sub>2</sub> accumulator<br>4. Off-vehicle repair matrix chart                             | ★<br>★<br>★<br>–        |
| Harsh engagement (3rd → O/D)                                         | 1. Accumulator control valve<br>2. Solenoid modulator valve<br>3. B <sub>0</sub> accumulator<br>4. Off-vehicle repair matrix chart                             | ★<br>★<br>★<br>–        |

| Symptom                               | Suspect Area                                                                                                                       | See page                |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Harsh engagement (O/D → 3rd)          | 1. Accumulator control valve<br>2. Solenoid modulator valve<br>3. C <sub>0</sub> accumulator<br>4. Off-vehicle repair matrix chart | ★<br>★<br>★<br>–        |
| Slip or shudder (Forward and reverse) | 1. Transmission control rod<br>2. Oil strainer<br>3. Pressure relief valve<br>4. Off-vehicle repair matrix chart                   | DI-4<br>AT-10<br>★<br>– |
| Slip or shudder (Particular range)    | 1. Transmission control rod<br>2. Off-vehicle repair matrix chart                                                                  | DI-4<br>–               |
| No engine braking (1st: L range)      | 1. Low coast modulator valve<br>2. Off-vehicle repair matrix chart                                                                 | ★<br>–                  |
| No engine braking (2nd: 2 range)      | 1. 2nd coast modulator valve<br>2. Off-vehicle repair matrix chart                                                                 | ★<br>–                  |
| No kick-down                          | 1. 1-2 shift valve<br>2. 2-3 shift valve                                                                                           | ★<br>★                  |

**CHAPTER 3: OFF-VEHICLE REPAIR****(★: A343F AUTOMATIC TRANSMISSION Repair Manual Pub. No. RM528E)**

| Symptom                                                      | Suspect Area                                                                                                                                                            | See page                             |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Vehicle does not move in any forward range and reverse range | 1. O/D one-way clutch (F <sub>0</sub> )<br>2. O/D direct clutch (C <sub>0</sub> )<br>3. O/D planetary gear unit<br>4. Torque converter                                  | ★<br>★<br>★<br><a href="#">AT-35</a> |
| Vehicle does not move in R range                             | 1. Front and rear planetary gear unit<br>2. Direct clutch (C <sub>2</sub> )<br>3. 1st & reverse brake (B <sub>3</sub> )<br>4. O/D direct clutch (C <sub>0</sub> )       | ★<br>★<br>★<br>★                     |
| No up-shift (1st → 2nd)                                      | 1. 2nd brake (B <sub>2</sub> )<br>2. No. 1 one-way clutch (F <sub>1</sub> )                                                                                             | ★<br>★                               |
| No up-shift (2nd → 3rd)                                      | Direct clutch (C <sub>2</sub> )                                                                                                                                         | ★                                    |
| No up-shift (3rd → O/D)                                      | O/D brake (B <sub>0</sub> )                                                                                                                                             | ★                                    |
| No lock-up or No lock-up off                                 | Torque converter                                                                                                                                                        | <a href="#">AT-35</a>                |
| Harsh engagement (N → D)                                     | 1. Forward clutch (C <sub>1</sub> )<br>2. O/D one-way clutch (F <sub>0</sub> )<br>3. No. 2 one-way clutch (F <sub>2</sub> )                                             | ★<br>★<br>★                          |
| Harsh engagement (N → R)                                     | 1. Direct clutch (C <sub>2</sub> )<br>2. 1st & reverse brake (B <sub>3</sub> )<br>3. O/D one-way clutch (F <sub>0</sub> )                                               | ★<br>★<br>★                          |
| Harsh engagement (N → 2)                                     | 1. Forward clutch (C <sub>1</sub> )<br>2. O/D one-way clutch (F <sub>0</sub> )<br>3. No. 2 one-way clutch (F <sub>2</sub> )                                             | ★<br>★<br>★                          |
| Harsh engagement (N → L)                                     | 1. Forward clutch (C <sub>1</sub> )<br>2. 1st & reverse brake (B <sub>3</sub> )<br>3. O/D one-way clutch (F <sub>0</sub> )<br>4. No. 2 one-way clutch (F <sub>2</sub> ) | ★<br>★<br>★<br>★                     |
| Harsh engagement (Lock-up)                                   | Torque converter                                                                                                                                                        | <a href="#">AT-35</a>                |
| Slip or shudder (Forward and reverse: After warm-up)         | 1. Torque converter<br>2. O/D one-way clutch (F <sub>0</sub> )<br>3. O/D direct clutch (C <sub>0</sub> )                                                                | <a href="#">AT-35</a><br>★<br>★      |
| Slip or shudder (Particular range: Just after engine starts) | Torque converter                                                                                                                                                        | <a href="#">AT-35</a>                |
| Slip or shudder (R range)                                    | 1. Direct clutch (C <sub>2</sub> )<br>2. 1st & reverse brake (B <sub>3</sub> )                                                                                          | ★<br>★                               |
| Slip or shudder (1st)                                        | 1. Forward clutch (C <sub>1</sub> )<br>2. No. 2 one-way clutch (F <sub>2</sub> )                                                                                        | ★<br>★                               |
| Slip or shudder (2nd)                                        | 1. 2nd brake (B <sub>2</sub> )<br>2. 2nd coast brake (B <sub>1</sub> )<br>3. No. 1 one-way clutch (F <sub>1</sub> )                                                     | ★<br>★<br>★                          |
| Slip or shudder (3rd)                                        | Direct clutch (C <sub>2</sub> )                                                                                                                                         | ★                                    |
| Slip or shudder (O/D)                                        | O/D brake (B <sub>0</sub> )                                                                                                                                             | ★                                    |
| No engine braking (1st – 3rd: D range)                       | 2nd brake (B <sub>2</sub> )                                                                                                                                             | ★                                    |
| No engine braking (1st: L range)                             | 1st & reverse brake (B <sub>3</sub> )                                                                                                                                   | ★                                    |
| No engine braking (2nd: 2 range)                             | 2nd coast brake (B <sub>1</sub> )                                                                                                                                       | ★                                    |
| Poor acceleration (All range)                                | Torque converter                                                                                                                                                        | <a href="#">AT-35</a>                |
| Poor acceleration (O/D)                                      | 1. O/D direct clutch (C <sub>0</sub> )<br>2. O/D planetary gear unit                                                                                                    | ★<br>★                               |
| Engine stalls when starting off or stopping                  | Torque converter                                                                                                                                                        | <a href="#">AT-35</a>                |