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| Last Modified: 7-13-2007 | | 1.6 T |
| Service Category: Drivetrain | Section: Automatic Transmission/Transaxle | |
| Model Year: 2008 | Model: ES350 | Doc ID: RM000000W7306MX |
| Title: U660E AUTOMATIC TRANSAXLE: AUTOMATIC TRANSAXLE SYSTEM: PROBLEM SYMPTOMS TABLE (2008 ES350) | | |

PROBLEM SYMPTOMS TABLE

HINT:

If a normal code is displayed during the diagnostic trouble code check although the problem or symptom still occurs, check the electrical circuits for each symptom in the order given in the charts on the following pages. Proceed to the page given in the chart and perform troubleshooting.

The Matrix Chart is divided into 2 chapters.

Chapter 1:

Refer to the table below when the trouble cause is considered to be electrical.

If the instruction "Proceed to next circuit inspection shown on matrix chart" is given in the flow chart of each circuit, inspect the suspected areas in descending order for each symptom.

If the trouble still occurs even though there are no abnormalities in any of the other circuits, check and replace the TCM.

Chapter 2:

Chapter 2 covers on-and off-vehicle repair of the transaxle. Contents specified in the table below may not match while fail-safe control is operating.

1. Chapter 1: Electronic Circuit Matrix Chart

| SYMPTOM | SUSPECTED AREA | SEE PAGE |
|--------------------------|--|----------------------|
| No up-shift (1st to 2nd) | Shift solenoid valve (SL3) circuit *1 | INFO |
| | TCM | INFO |
| No up-shift (2nd to 3rd) | Shift solenoid valve (SL4) circuit *1 | INFO |
| | TCM | INFO |
| No up-shift (3rd to 4th) | Shift solenoid valve (SL2) circuit *1 | INFO |
| | Engine coolant temp. sensor circuit *1 | INFO |
| | TCM | INFO |
| | Shift solenoid valve (SL1) circuit *1 | INFO |
| | Shift solenoid valve (SL4) | INFO |

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| No up-shift (4th to 5th) | circuit *1 | |
| | Engine coolant temp. sensor circuit | INFO |
| | TCM | INFO |
| No up-shift (5th to 6th) | Engine coolant temp. sensor circuit *1 | INFO |
| | Shift solenoid valve (SL3) circuit *1 | INFO |
| | Shift solenoid valve (SL4) circuit *1 | INFO |
| | TCM | INFO |
| No down-shift (6th to 5th) | Shift solenoid valve (SL4) circuit *1 | INFO |
| | TCM | INFO |
| No down-shift (5th to 4th) | Shift solenoid valve (SL1) circuit *1 | INFO |
| | TCM | INFO |
| No down-shift (4th to 3rd) | Shift solenoid valve (SL2) circuit *1 | INFO |
| | Shift solenoid valve (SL4) circuit *1 | INFO |
| | TCM | INFO |
| No down-shift (3rd to 2nd) | Shift solenoid valve (SL4) circuit *1 | INFO |
| | Shift solenoid valve (SL3) circuit *1 | INFO |
| | TCM | INFO |
| No down-shift (2nd to 1st) | Shift solenoid valve (SL3) circuit *1 | INFO |
| | TCM | INFO |
| No lock-up | Shift solenoid valve (SLU) circuit *1 | INFO |
| | Shift solenoid valve (SL) circuit | INFO |
| | Engine coolant temp. sensor circuit *1 | INFO |
| | Stop light switch circuit *1 | INFO |
| | Speed sensor NT circuit *1 | INFO |
| | TCM | INFO |
| No lock-up off | TCM | INFO |
| | Shift solenoid valve (SLT) | INFO |

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| Shift point too high or too low | circuit *1 | |
| | Speed sensor NT circuit *1 | INFO |
| | Speed sensor NC circuit *1 | INFO |
| | Accelerator pedal position sensor circuit *1 | INFO |
| | ATF temperature sensor circuit *1 | INFO |
| | TCM | INFO |
| Up-shift from 3rd to 4th while engine is cold | Engine coolant temp. sensor circuit *1 | INFO |
| | TCM | INFO |
| Up-shift from 4th to 5th while engine is cold | Engine coolant temp. sensor circuit *1 | INFO |
| | TCM | INFO |
| No gear change by shifting into "+" or "-" while shifting the lever | Transmission control switch circuit | INFO |
| | TCM | INFO |
| Harsh engagement (N to D) | Shift solenoid valve (SL1) circuit *1 | INFO |
| | TCM | INFO |
| Harsh engagement (Lock-up) | Speed sensor NT circuit *1 | INFO |
| | Speed sensor NC circuit *1 | INFO |
| | Shift solenoid valve (SLU) circuit *1 | INFO |
| | TCM | INFO |
| Harsh engagement (Any driving position) | Accelerator pedal position sensor circuit *1 | INFO |
| | Shift solenoid valve (SLT) circuit *1 | INFO |
| | Speed sensor NC circuit | INFO |
| | Speed sensor NT circuit *1 | INFO |
| | TCM | INFO |
| Poor acceleration | Shift solenoid valve (SLT) circuit *1 | INFO |
| | TCM | INFO |
| No engine brake | TCM | INFO |
| No kick-down | TCM | INFO |
| Engine stalls when starting off or stopping | TCM | INFO |
| | Park/neutral position switch | INFO |

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|--|---------------------------------------|----------------------|
| Malfunction in shifting | circuit *1 | |
| | Transmission control switch circuit | INFO |
| | TCM | INFO |
| Slip or shudder (5th to 6th and 6th to 5th) | Shift solenoid valve (SLT) circuit *1 | INFO |
| Initial acceleration or subsequent acceleration is improper. Vehicle is stuck in a gear (1st to 6th). | Shift solenoid valve (SL1) circuit | INFO |
| | Shift solenoid valve (SLT) circuit | INFO |
| | TCM | INFO |
| Acceleration is improper when the gear is 4th or higher. | Shift solenoid valve (SL2) circuit | INFO |
| | Shift solenoid valve (SLT) circuit | INFO |
| | TCM | INFO |
| Initial acceleration or subsequent acceleration is improper. Vehicle does not shift down (from 4th to 3rd). Vehicle is stuck in a gear (1st to 6th). | Shift solenoid valve (SL2) circuit | INFO |
| | TCM | INFO |
| Acceleration is improper when the gear is 6th. | Shift solenoid valve (SL3) circuit | INFO |
| | TCM | INFO |
| Acceleration is improper when the gear is 3rd or 5th. | Shift solenoid valve (SL4) circuit *1 | INFO |
| | Shift solenoid valve (SLT) circuit *1 | INFO |
| | TCM | INFO |
| Initial acceleration or subsequent acceleration is improper. Vehicle does not shift down (from 3rd to 2nd). No up-shift (5th to 6th). | Shift solenoid valve (SL4) circuit *1 | INFO |
| | TCM | INFO |

HINT:

*1: When the circuit is defective, a DTC may be output.

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

| SYMPTOM | SUSPECTED AREA | SEE PAGE |
|---|-------------------------|----------------------|
| Vehicle does not move in any forward and reverse positions. | Valve body assembly | INFO |
| | Torque converter clutch | INFO |
| Vehicle does not move in R position. | Valve body assembly | INFO |
| | Brake No. 2 (B2) | INFO |

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|----------------------------|------------------------------|----------------------|
| | Brake No. 3 (B3) | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| No up-shift (1st to 2nd) | Valve body assembly | INFO |
| | Brake No. 1 (B1) | INFO |
| | Shift solenoid valve (SL3)*1 | INFO |
| No up-shift (2nd to 3rd) | Valve body assembly | INFO |
| | Brake No. 3 (B3) | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| No up-shift (3rd to 4th) | Valve body assembly | INFO |
| | Clutch No. 2 (C2) | INFO |
| | Shift solenoid valve (SL2)*1 | INFO |
| No up-shift (4th to 5th) | Valve body assembly | INFO |
| | Brake No. 3 (B3) | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| | Shift solenoid valve (SL1)*1 | INFO |
| No up-shift (5th to 6th) | Valve body assembly | INFO |
| | Brake No. 1 (B1) | INFO |
| | Shift solenoid valve (SL3)*1 | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| No down-shift (6th to 5th) | Valve body assembly | INFO |
| | Brake No. 3 (B3) | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| No down-shift (5th to 4th) | Valve body assembly | INFO |
| | Shift solenoid valve (SL1)*1 | INFO |
| | Clutch No. 1 (C1) | INFO |
| No down-shift (4th to 3rd) | Valve body assembly | INFO |
| | Brake No. 3 (B3) | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| | Shift solenoid valve (SL2)*1 | INFO |
| No down-shift (3rd to 2nd) | Valve body assembly | INFO |
| | Brake No. 1 (B1) | INFO |
| | Shift solenoid valve (SL3)*1 | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| | Valve body assembly | INFO |

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|---|------------------------------|----------------------|
| No down-shift (2nd to 1st) | Shift solenoid valve (SL3)*1 | INFO |
| No lock-up, or no lock-up off | Valve body assembly | INFO |
| | Torque converter clutch | INFO |
| Harsh engagement (N to D) | Valve body assembly | INFO |
| | C1 accumulator | INFO |
| | One-way clutch No. 1 (F1) | INFO |
| | Clutch No. 1 (C1) | INFO |
| | Shift solenoid valve (SL1)*1 | INFO |
| Harsh engagement (Lock-up) | Valve body assembly | INFO |
| | Torque converter clutch | INFO |
| | Shift solenoid valve (SLU)*1 | INFO |
| Harsh engagement (N to R) | Valve body assembly | INFO |
| | Brake No. 2 (B2) | INFO |
| | Brake No. 3 (B3) | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| Harsh engagement (1 to 2 to 3 to 4 to 5 to 6) | Valve body assembly | INFO |
| | Shift solenoid valve (SLT)*1 | INFO |
| Harsh engagement (1st to 2nd) | Valve body assembly | INFO |
| | B1 accumulator | INFO |
| | Brake No. 1 (B1) | INFO |
| | Shift solenoid valve (SL3)*1 | INFO |
| Harsh engagement (2nd to 3rd) | Valve body assembly | INFO |
| | B3 accumulator | INFO |
| | Brake No. 3 (B3) | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| Harsh engagement (3rd to 4th) | Valve body assembly | INFO |
| | C2 accumulator | INFO |
| | Clutch No. 2 (C2) | INFO |
| | Shift solenoid valve (SL2)*1 | INFO |
| Harsh engagement (4th to 5th) | Valve body assembly | INFO |
| | B3 accumulator | INFO |
| | Brake No. 3 (B3) | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| | Valve body assembly | INFO |

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|---|------------------------------|----------------------|
| Harsh engagement (5th to 6th) | B1 accumulator | INFO |
| | Brake No. 1 (B1) | INFO |
| | Shift solenoid valve (SL3)*1 | INFO |
| Harsh engagement (6th to 5th) | Valve body assembly | INFO |
| | B3 accumulator | INFO |
| | Brake No. 3 (B3) | INFO |
| | Shift solenoid valve (SL4)*1 | INFO |
| Slip or shudder (Forward and reverse: After warm-up) | Valve body assembly | INFO |
| | Oil strainer | INFO |
| | Brake No. 1 (B1) | INFO |
| | Brake No. 2 (B2) | INFO |
| | Brake No. 3 (B3) | INFO |
| | One-way clutch No. 1 (F1) | INFO |
| | Clutch No. 1 (C1) | INFO |
| | Clutch No. 2 (C2) | INFO |
| Slip or shudder (Particular position: just after engine starts) | Torque converter clutch | INFO |
| Slip or shudder (R position) | Brake No. 2 (B2) | INFO |
| | Brake No. 3 (B3) | INFO |
| Slip or shudder (1 position) | One-way clutch No. 1 (F1) | INFO |
| | Clutch No. 1 (C1) | INFO |
| Slip or shudder (2 position) | Brake No. 1 (B1) | INFO |
| | Clutch No. 1 (C1) | INFO |
| Slip or shudder (3 position) | Brake No. 3 (B3) | INFO |
| | Clutch No. 1 (C1) | INFO |
| Slip or shudder (4 position) | Clutch No. 1 (C1) | INFO |
| | Clutch No. 2 (C2) | INFO |
| Slip or shudder (5 position) | Brake No. 3 (B3) | INFO |
| | Clutch No. 2 (C2) | INFO |
| Slip or shudder (6 position) | Brake No. 3 (B3) | INFO |
| | Clutch No. 2 (C2) | INFO |
| No engine braking (1st position) | Valve body assembly | INFO |
| | Brake No. 2 (B2) | INFO |
| No engine braking (2nd position) | Valve body assembly | INFO |
| | Brake No. 1 (B1) | INFO |

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|---|-------------------------|----------------------|
| No engine braking (3rd position) | Valve body assembly | INFO |
| | Brake No. 3 (B3) | INFO |
| No engine braking (4th position) | Valve body assembly | INFO |
| | Clutch No. 2 (C2) | INFO |
| No kick-down | Valve body assembly | INFO |
| Shift point too high or too low | Valve body assembly | INFO |
| Poor acceleration (All positions) | Valve body assembly | INFO |
| | Torque converter clutch | INFO |
| Poor acceleration (6th) | Brake No. 1 (B1) | INFO |
| | Clutch No. 2 (C2) | INFO |
| Engine stalls when starting off or stopping | Valve body assembly | INFO |
| | Torque converter clutch | INFO |

HINT:

*1: When the circuit is defective, a DTC may be output.

