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Service Category: Drivetrain	Section: Automatic Transmission/Transaxle	
Model Year: 2008	Model: LX570	Doc ID: RM000000W7308ZX
Title: AB60F AUTOMATIC TRANSMISSION / TRANSAXLE: AUTOMATIC TRANSMISSION SYSTEM: PROBLEM SYMPTOMS TABLE (2008 LX570)		

PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- The Matrix Chart is divided into 2 chapters. When troubleshooting, check Chapter 1 first. If instructions are given in Chapter 1 to proceed to 2, proceed as instructed.
- If the instruction "Proceed to next circuit inspection shown in problem symptoms table" is given in the flowchart for a circuit, proceed to the next suspected area in the table.
- If the problem still occurs even though there are no malfunctions in any of the circuits, check the ECM and replace it if necessary.
- *: When the circuit is defective, a DTC may be output.

1. Chapter 1: Electronic Circuit Matrix Chart

SYMPTOM	SUSPECTED AREA	SEE PAGE
No up-shift (1st -> 2nd)	Shift solenoid valve S1 circuit*	INFO
	ECM	INFO
No up-shift (2nd -> 3rd)	Shift solenoid valve S2 circuit*	INFO
	ECM	INFO
No up-shift (3rd -> 4th)	Shift solenoid valve S3 circuit*	INFO
	Engine coolant temperature sensor circuit*	INFO
	ECM	INFO
No up-shift (4th -> 5th)	Shift solenoid valve S4 circuit*	INFO
	Shift solenoid valve SR circuit*	INFO
	Shift solenoid valve SL1 circuit*	INFO
	Shift solenoid valve SL2 circuit*	INFO
	Engine coolant temperature sensor circuit*	INFO
	ECM	INFO
No up-shift (5th -> 6th)	Park/neutral position switch circuit*	INFO
	Shift solenoid valve S2 circuit*	INFO
	Engine coolant temperature sensor circuit*	INFO
	ECM	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
No down-shift (6th -> 5th)	Park/neutral position switch circuit*	INFO
	Shift solenoid valve S2 circuit*	INFO
	Engine coolant temperature sensor circuit*	INFO
	ECM	INFO
No down-shift (5th -> 4th)	Shift solenoid valve S4 circuit*	INFO
	Shift solenoid valve SR circuit*	INFO
	Shift solenoid valve SL1 circuit*	INFO
	Shift solenoid valve SL2 circuit*	INFO
	ECM	INFO
No down-shift (4th -> 3rd)	Shift solenoid valve S3 circuit*	INFO
	ECM	INFO
No down-shift (3rd -> 2nd)	Shift solenoid valve S2 circuit*	INFO
	ECM	INFO
No down-shift (2nd -> 1st)	Shift solenoid valve S1 circuit*	INFO
	ECM	INFO
No lock-up or no lock-up off	Shift solenoid valve SLU circuit*	INFO
	Stop light switch circuit*	INFO
	ECM	INFO
No lock-up	No. 1 ATF temperature sensor circuit*	INFO
	Shift solenoid valve SLU circuit*	INFO
	Engine coolant temperature sensor circuit*	INFO
	Stop light switch circuit*	INFO
	Speed sensor NT circuit*	INFO
	ECM	INFO
No lock-up off	Shift solenoid valve SLU circuit*	INFO
	ECM	INFO
Shift point too high or too low	Shift solenoid valve SLT circuit*	INFO
	Speed sensor NT circuit*	INFO
	Speed sensor SP2 circuit*	INFO
	Throttle position sensor circuit*	INFO
	No. 1 ATF temperature sensor circuit*	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
	Pattern select switch (PWR) circuit	INFO
	ECM	INFO
Up-shift to 4th from 3rd while engine is cold	Engine coolant temperature sensor circuit*	INFO
	ECM	INFO
Up-shift to 5th from 4th while engine is cold	Engine coolant temperature sensor circuit*	INFO
	ECM	INFO
No gear change by shifting into "+" or "-" while shift lever in S	Transmission control switch circuit	INFO
	ECM	INFO
Harsh engagement (N -> D)	Shift solenoid valve SLT circuit*	INFO
	Speed sensor NT circuit*	INFO
	ECM	INFO
Harsh engagement (lock-up)	Speed sensor NT circuit*	INFO
	Speed sensor SP2 circuit*	INFO
	Shift solenoid valve SLU circuit*	INFO
	ECM	INFO
Harsh engagement (any gear position)	Throttle position sensor circuit*	INFO
	Shift solenoid valve SL1 circuit*	INFO
	Shift solenoid valve SL2 circuit*	INFO
	Shift solenoid valve SLU circuit*	INFO
	Shift solenoid valve SLT circuit*	INFO
	Speed sensor NT circuit*	INFO
	ECM	INFO
Poor acceleration	No. 2 ATF temperature sensor circuit*	INFO
	Shift solenoid valve SLT circuit*	INFO
	Pattern select switch (2ND) circuit	INFO
	ECM	INFO
No engine brake	ECM	INFO
No kick-down	ECM	INFO
Engine stalls when starting off or stopping	Shift solenoid valve SLU circuit*	INFO
	ECM	INFO
ECT 2ND does not operate	Shift solenoid valve SLT circuit*	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
ATF temperature warning indicator remains on, lock-up at 3rd gear and/or shift point too high	Pattern select switch (2ND) circuit	INFO
	ECM	INFO
	No. 2 ATF temperature sensor circuit*	INFO
Malfunction in shifting	Engine coolant temperature sensor circuit*	INFO
	ECM	INFO
	Park/neutral position switch circuit*	INFO
Harsh engagement (1st -> 2nd -> 3rd -> 4th -> 5th)	Transmission control switch circuit	INFO
	ECM	INFO
	Shift solenoid valve SR circuit*	INFO
Slip or shudder (5th -> 6th -> and 6th -> 5th)	Shift solenoid valve SR circuit*	INFO

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

SYMPTOM	SUSPECTED AREA	SEE PAGE
Vehicle does not move when shift lever is in any forward position or reverse position	Floor shift gear shifting rod sub-assembly	INFO
	Manual valve	INFO
	Parking lock pawl	INFO
	Rear planetary gear unit	INFO
	Torque converter clutch	INFO
Vehicle does not move with shift lever in R	Valve body assembly	INFO
	B4 brake	INFO
No up-shift (1st -> 2nd)	Valve body assembly	INFO
	B3 brake	INFO
	F1 one-way clutch	INFO
	F2 one-way clutch	INFO
No up-shift (2nd -> 3rd)	Valve body assembly	INFO
	C3 clutch	INFO
No up-shift (3rd -> 4th)	Valve body assembly	INFO
	C2 clutch	INFO
No up-shift (4th -> 5th)	Valve body assembly	INFO
	B1 brake	INFO
No up-shift (5th -> 6th)	Valve body assembly	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
	B2 brake	INFO
No down-shift (6th -> 5th)	Valve body assembly	INFO
No down-shift (5th -> 4th)	Valve body assembly	INFO
No down-shift (4th -> 3rd)	Valve body assembly	INFO
No down-shift (3rd -> 2nd)	Valve body assembly	INFO
No down-shift (2nd -> 1st)	Valve body assembly	INFO
No lock-up or no lock-up off	Valve body assembly	INFO
	Torque converter clutch	INFO
Harsh engagement (N -> D)	Valve body assembly	INFO
	C1 accumulator	INFO
	C1 clutch	INFO
	F3 one-way clutch	INFO
	F4 one-way clutch	INFO
Harsh engagement (lock-up)	Valve body assembly	INFO
	Torque converter clutch	INFO
Harsh engagement (N -> R)	Valve body assembly	INFO
	C3 accumulator	INFO
	C3 clutch	INFO
	B4 brake	INFO
	F1 one-way clutch	INFO
Harsh engagement (1st -> 2nd -> 3rd -> 4th -> 5th -> 6th)	Valve body assembly	INFO
Harsh engagement (1st -> 2nd)	Valve body assembly	INFO
	B3 accumulator	INFO
	B3 brake	INFO
	F1 one-way clutch	INFO
	F2 one-way clutch	INFO
Harsh engagement (2nd -> 3rd)	Valve body assembly	INFO
	C3 accumulator	INFO
	C3 clutch	INFO
Harsh engagement (3rd -> 4th)	Valve body assembly	INFO
	C2 accumulator	INFO
	C2 clutch	INFO
Harsh engagement (4th -> 5th)	Valve body assembly	INFO
	B1 accumulator	INFO
	B1 brake	INFO

SYMPTOM	SUSPECTED AREA	SEE INFO PAGE
Harsh engagement (5th -> 6th)	Valve body assembly	INFO
	B2 accumulator	INFO
	B2 brake	INFO
Harsh engagement (6th -> 5th)	Valve body assembly	INFO
	C3 accumulator	INFO
	C3 clutch	INFO
Slip or shudder (forward and reverse, after warm-up)	Floor shift gear shifting rod sub-assembly	INFO
	Valve body assembly	INFO
	Oil strainer	INFO
	F1 one-way clutch	INFO
	C3 clutch	INFO
	Torque converter clutch	INFO
Slip or shudder (particular position, just after engine starts)	Torque converter clutch	INFO
Slip or shudder (shift lever in R)	B4 brake	INFO
	F1 one-way clutch	INFO
	C3 clutch	INFO
Slip or shudder (1st)	C1 clutch	INFO
	F3 one-way clutch	INFO
	F4 one-way clutch	INFO
Slip or shudder (2nd)	C1 clutch	INFO
	B3 brake	INFO
	F1 one-way clutch	INFO
	F2 one-way clutch	INFO
	F4 one-way clutch	INFO
Slip or shudder (3rd)	C1 clutch	INFO
	C3 clutch	INFO
	F1 one-way clutch	INFO
	F4 one-way clutch	INFO
Slip or shudder (4th)	C1 clutch	INFO
	C2 clutch	INFO
	F4 one-way clutch	INFO
Slip or shudder (5th)	C2 clutch	INFO
	C3 clutch	INFO
	B1 brake	INFO
Slip or shudder (6th)	C2 clutch	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
	B2 brake	INFO
No engine braking (1st to 4th, shift lever in S)	C4 clutch	INFO
No engine braking (1st: shift lever in 1)	Valve body assembly	INFO
	B4 brake	INFO
No engine braking (2nd: shift lever in 2)	Valve body assembly	INFO
	B2 brake	INFO
No engine braking (3rd: shift lever in 3)	Valve body assembly	INFO
	B1 brake	INFO
No engine braking (4th: shift lever in 4)	Valve body assembly	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)	B2 brake	INFO
	C2 clutch	INFO
	Front planetary gear unit	INFO
Engine stalls when starting off or stopping	Valve body assembly	INFO
	Torque converter clutch	INFO

