

Possible Component	Reference/Action
<ul style="list-style-type: none"> Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> Inspect for damage, mislocation, poor seating. Install a new cylinder as necessary.
<ul style="list-style-type: none"> Friction elements damaged or worn. 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Return springs damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Case	
<ul style="list-style-type: none"> Manual control lever assembly damage, manual valve inner lever pin bent, manual valve inner lever damaged, spring rod damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, repair as necessary.
<ul style="list-style-type: none"> Manual valve lever shaft retaining pin damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, repair as necessary.

Other Concern: Slips/Chatters in Manual 1st Position

Possible Component	Reference/Action
263 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, pressure control solenoids A, B (PC A, B) 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test D.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Transmission Fluid	
<ul style="list-style-type: none"> Incorrect transmission fluid level 	<ul style="list-style-type: none"> Adjust transmission fluid to the correct level. Refer to Transmission Fluid Level Check in this section.
<ul style="list-style-type: none"> Transmission fluid condition 	<ul style="list-style-type: none"> Carry out Transmission Fluid Condition Check. Refer to Preliminary Inspection in this section.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Pump Assembly	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten screws to specification.
<ul style="list-style-type: none"> Gasket damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new gasket.
<ul style="list-style-type: none"> Porosity, cross leaks, ball missing, plugged hole 	<ul style="list-style-type: none"> Inspect for damage. If damaged, repair as necessary.
<ul style="list-style-type: none"> Pump gears cracked and/or seized 	<ul style="list-style-type: none"> Inspect for damage. Install a new pump.
<ul style="list-style-type: none"> Flow control valves, springs, or seals damaged, stuck or not assembled correctly 	<ul style="list-style-type: none"> Inspect for damage. Install a new seal or flow control valve.
Forward Clutch Assembly	
<ul style="list-style-type: none"> Seals, piston damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.
<ul style="list-style-type: none"> Friction elements damaged or worn 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Return springs damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Bronze seal ring or bearing damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Reverse Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Reverse Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Direct One-Way Clutch	
<ul style="list-style-type: none"> Worn, damaged or assembled incorrectly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Other Concern: Slips/Chatters in Manual 2nd Position

Possible Component	Reference/Action
264 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, pressure control solenoids A, B (PC A, B) 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test D.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Transmission Fluid	
<ul style="list-style-type: none"> Incorrect transmission fluid level 	<ul style="list-style-type: none"> Adjust transmission fluid to the correct level. Refer to Transmission Fluid Level Check in this section.
<ul style="list-style-type: none"> Transmission fluid condition 	<ul style="list-style-type: none"> Carry out Transmission Fluid Condition Check. Refer to Preliminary Inspection in this section.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Possible Component	Reference/Action
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Planetary Assembly	
<ul style="list-style-type: none"> Planetary damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Forward Clutch Assembly	
<ul style="list-style-type: none"> Seals, piston damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.
<ul style="list-style-type: none"> Friction elements damaged or worn 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Return springs damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Bronze seal ring or bearing damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Other Concern: Slip/Chatters in Manual 3rd Position

Possible Component	Reference/Action
282 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, pressure control solenoids A, B (PC A, B) 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test D.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Transmission Fluid	
<ul style="list-style-type: none"> Incorrect transmission fluid level 	<ul style="list-style-type: none"> Adjust transmission fluid to the correct level. Refer to Transmission Fluid Level Check in this section.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Transmission fluid condition 	<ul style="list-style-type: none"> Carry out Transmission Fluid Condition Check. Refer to Preliminary Inspection in this section.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Forward Clutch Assembly	
<ul style="list-style-type: none"> Seals, piston damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.
<ul style="list-style-type: none"> Friction elements damaged or worn 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Return springs damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Bronze seal ring or bearing damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Direct One-way Clutch	
<ul style="list-style-type: none"> Worn, damaged or assembled incorrectly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Low One-Way Clutch	
<ul style="list-style-type: none"> Worn, damaged or assembled incorrectly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Other Concern: Engine Braking in ALL Gears

Possible Component	Reference/Action
283 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid D 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Torque Converter Assembly	
<ul style="list-style-type: none"> Torque converter internal failure preventing engagement, piston release 	<ul style="list-style-type: none"> Remove the transmission. Inspect for damage. Refer to Torque Converter Contamination Inspection in this section. If the torque converter fails to pass the criteria or is damaged, install a new or remanufactured torque converter.

Other Concern: No 2nd and 5th Gears (Manual 2nd is OK)

Possible Component	Reference/Action
284 — ROUTINE	
Hydraulic/Mechanical	
	<ul style="list-style-type: none"> Verify that Manual 2 is present and functions correctly. If Manual 2 is not operating correctly, go to Shift Concerns: Routine 210 — Some/All Shifts Missing (Automatic Mode) and continue diagnosis. If Manual 2 is operating correctly, continue with this routine.
Powertrain Control System	

Possible Component	Reference/Action
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, pressure control solenoids B, C (PC B, C) 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test D.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.

Other Concern: No 3rd, 4th and 5th Gears

Possible Component	Reference/Action
285 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, pressure control solenoids A, B (PC A, B) 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test D.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Planetary Assembly	
<ul style="list-style-type: none"> Planetary damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: Harsh 1-2 Shift

Possible Component	Reference/Action
232 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift control solenoid C, pressure control solenoids B (PC B), turbine shaft speed (TSS) sensor, digital transmission range (TR) sensor, transmission fluid temperature (TFT) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test B, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: Harsh 2-3 Shift

Possible Component	Reference/Action
233 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift control solenoid B, pressure control solenoids A (PC A), turbine shaft speed (TSS) sensor, intermediate shaft speed sensor, digital transmission range (TR) sensor, transmission fluid temperature (TFT) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test B, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Direct Clutch Assembly	
<ul style="list-style-type: none"> Seals, piston damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.
<ul style="list-style-type: none"> Friction elements damaged or worn 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Return springs damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Direct One-Way Clutch	
<ul style="list-style-type: none"> Worn, damaged or assembled incorrectly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: Harsh 3-4 Shift

Possible Component	Reference/Action
234 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift control solenoid A, pressure control solenoids C (PC C), digital transmission range (TR) sensor, transmission fluid temperature (TFT) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test B, GO to Pinpoint Test C and GO to Pinpoint Test D.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Center Support	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Seal rings or bearing damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Outside diameter of case bore damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Support damaged or leaking 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Direct Clutch Assembly	
<ul style="list-style-type: none"> Seals, piston damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.
<ul style="list-style-type: none"> Friction elements damaged or worn 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Return springs damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Servo	
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concerns: Harsh 4-5 Shift

Possible Component	Reference/Action
274 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid C, pressure control solenoid B (PC B), turbine shaft speed (TSS) sensor, digital transmission range (TR) sensor, transmission fluid temperature (TFT) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test B, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	

Possible Component	Reference/Action
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seal (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: Harsh 5-4 Shift

Possible Component	Reference/Action
275 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift control solenoid C, pressure control solenoid C (PC C), turbine shaft speed (TSS) sensor, digital transmission range (TR) sensor, transmission fluid temperature (TFT) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test B, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.

Possible Component	Reference/Action
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Direct One-Way Clutch	
<ul style="list-style-type: none"> Worn, damaged or assembled incorrectly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: Harsh 4-3 Shift

Possible Component	Reference/Action
235 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid A, pressure control solenoid A (PC A), digital 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and

Possible Component	Reference/Action
transmission range (TR) sensor, transmission fluid temperature (TFT) sensor	testing of the PCM.
	<ul style="list-style-type: none"> • GO to Pinpoint Test A, GO to Pinpoint Test B, GO to Pinpoint Test C and GO to Pinpoint Test D.
	<ul style="list-style-type: none"> • Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	
<ul style="list-style-type: none"> • High/low pressures 	<ul style="list-style-type: none"> • Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> • Screws not tightened to specification 	<ul style="list-style-type: none"> • Tighten to specification.
<ul style="list-style-type: none"> • Separator plate damaged 	<ul style="list-style-type: none"> • Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> • Contamination 	<ul style="list-style-type: none"> • Disassemble and clean.
<ul style="list-style-type: none"> • Valves, springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> • If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> • Filter damaged, missing 	<ul style="list-style-type: none"> • Inspect for damage, repair as necessary.
Direct Clutch Assembly	
<ul style="list-style-type: none"> • Seals, piston damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> • Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> • Inspect for mislocation, poor seating, damage. Install a new cylinder.
<ul style="list-style-type: none"> • Friction elements damaged or worn 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> • Return springs damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
Intermediate Servo	
<ul style="list-style-type: none"> • Servo retaining screws damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> • Seals (piston and cover) damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
Intermediate Band	
<ul style="list-style-type: none"> • Band damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: Harsh 3-2 Shift

Possible Component	Reference/Action
236 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift control solenoid C, pressure control solenoid B (PC B), turbine shaft speed (TSS) sensor, intermediate shaft speed sensor, digital transmission range (TR) sensor, transmission fluid temperature (TFT) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test B, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Overdrive Servo	

Possible Component	Reference/Action
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: Harsh 2-1 Shift

Possible Component	Reference/Action
237 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift control solenoid C, pressure control solenoid B (PC B), turbine shaft speed (TSS) sensor, digital transmission range (TR) sensor, transmission fluid temperature (TFT) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test B, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	

Possible Component	Reference/Action
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Direct Clutch One-Way Clutch	
<ul style="list-style-type: none"> Worn, damaged or assembled incorrectly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: No 1-2 Shift

Possible Component	Reference/Action
220 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid C, pressure control solenoid B (PC B), output shaft 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM and VSS.

Possible Causes	Reference/Action
speed (OSS) sensor, transmission range (TR) sensor, vehicle speed sensor (VSS) input	
	<ul style="list-style-type: none"> • GO to Pinpoint Test A, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> • Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Transmission Fluid	
<ul style="list-style-type: none"> • Incorrect transmission fluid level 	<ul style="list-style-type: none"> • Adjust the transmission fluid to correct level. Refer to Transmission Fluid Level Check in this section.
Incorrect Pressures	
<ul style="list-style-type: none"> • High/low pressures 	<ul style="list-style-type: none"> • Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> • Screws not tightened to specification 	<ul style="list-style-type: none"> • Tighten to specification.
<ul style="list-style-type: none"> • Separator plate damaged 	<ul style="list-style-type: none"> • Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> • Contamination 	<ul style="list-style-type: none"> • Disassemble and clean.
<ul style="list-style-type: none"> • Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> • If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> • Filter damaged, missing 	<ul style="list-style-type: none"> • Inspect for damage, repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> • Servo retaining screws damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> • Seals (piston and cover) damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> • Band damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> • Servo worn or damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> • Not adjusted correctly 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
Overdrive Planetary Assembly	

Possible Component	Reference/Action
<ul style="list-style-type: none"> Planetary damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: No 2-3 Shift

Possible Component	Reference/Action
221 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid B, torque converter clutch (TCC) solenoid, pressure control solenoid A (PC A), output shaft speed (OSS) sensor, digital transmission range (TR) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Forward Clutch Assembly	
<ul style="list-style-type: none"> Seals, piston damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Check ball, damaged, missing, not seating, off location 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Friction elements damaged or worn 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Return springs damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Bronze seal ring or bearing damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.
Intermediate Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: No 3-4 Shift

Possible Component	Reference/Action
222 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid A, pressure control solenoid C (PC C), output shaft speed (OSS) sensor, digital transmission range (TR) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	

Possible Component	Reference/Action
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Center Support	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Seal rings or bearing damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Outside diameter of case bore damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Support damaged or leaking 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Direct Clutch Assembly	
<ul style="list-style-type: none"> Seals, piston damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.
<ul style="list-style-type: none"> Friction elements damaged or worn 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Return springs damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Forward Clutch Assembly	
<ul style="list-style-type: none"> Seals, piston damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.
<ul style="list-style-type: none"> Friction elements damaged or worn 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Return springs damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Bronze seal ring or bearing damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.

Shift Concern: No 4-5 Shift

Possible Component	Reference/Action
270 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid C, pressure control solenoid B (PC B), output shaft speed (OSS) sensor, digital transmission range (TR) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
<ul style="list-style-type: none"> Transmission control switch (TCS) 	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
	<ul style="list-style-type: none"> For TCS diagnosis, refer to Section 307-05.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: No 5-4 Shift

Possible Component	Reference/Action
271 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid C, pressure control solenoid C (PC C), output shaft speed (OSS) sensor, digital transmission range (TR) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
<ul style="list-style-type: none"> Transmission control switch (TCS) 	<ul style="list-style-type: none"> For TCS diagnosis, refer to Section 307-05.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valves/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: No 4-3 Shift

Possible Component	Reference/Action
223 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid A, B, pressure control solenoid A (PC A), output shaft speed (OSS) sensor, digital transmission range (TR) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	

Possible Component	Reference/Action
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valves/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Intermediate Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Intermediate Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: No 3-2 Shift

Possible Component	Reference/Action
224 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid C, pressure control solenoid B, output shaft speed (OSS) sensor, digital transmission range (TR) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.

Possible Component	Reference/Action
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valves/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Forward Clutch Assembly	
<ul style="list-style-type: none"> Seals, piston damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> Inspect for mislocation, poor seating, damage. Install a new cylinder.
<ul style="list-style-type: none"> Friction elements damaged or worn 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Return springs damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Bronze seal ring or bearing damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: No 2-1 Shift

Possible Component	Reference/Action
225 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> • PCM, vehicle wiring harnesses, shift solenoid C, pressure control solenoid B (PC B), output shaft speed (OSS) sensor, digital transmission range (TR) sensor 	<ul style="list-style-type: none"> • Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> • GO to Pinpoint Test A, GO to Pinpoint Test C, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> • Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Incorrect Pressures	
<ul style="list-style-type: none"> • High/low pressures 	<ul style="list-style-type: none"> • Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.
Main Control	
<ul style="list-style-type: none"> • Screws not tightened to specification 	<ul style="list-style-type: none"> • Tighten to specification.
<ul style="list-style-type: none"> • Separator plate damaged 	<ul style="list-style-type: none"> • Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> • Contamination 	<ul style="list-style-type: none"> • Disassemble and clean.
<ul style="list-style-type: none"> • Valves/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> • If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> • Filter damaged, missing 	<ul style="list-style-type: none"> • Inspect for damage, repair as necessary.
Forward Clutch Assembly	
<ul style="list-style-type: none"> • Seals, piston damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> • Check ball damaged, missing, not seating, off location 	<ul style="list-style-type: none"> • Inspect for mislocation, poor seating, damage. Install a new cylinder.
<ul style="list-style-type: none"> • Friction elements damaged or worn 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> • Return springs damaged 	<ul style="list-style-type: none"> • Inspect for damage. Repair as necessary.

Possible Component	Reference/Action
<ul style="list-style-type: none"> Bronze seal ring or bearing damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: Soft/Slipping 1-2 Shift

Possible Component	Reference/Action
226 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid C, pressure control solenoid B (PC B), transmission fluid temperature (TFT) sensor, vehicle speed sensor (VSS) input 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test B and GO to Pinpoint Test D.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.
Transmission Fluid	
<ul style="list-style-type: none"> Incorrect transmission fluid level 	<ul style="list-style-type: none"> Adjust transmission fluid to correct level. Refer to Transmission Fluid Level Check in this section.
<ul style="list-style-type: none"> Transmission fluid condition 	<ul style="list-style-type: none"> Carry out Transmission Fluid Condition Check. Refer to Preliminary Inspection in this section.
Incorrect Pressures	
<ul style="list-style-type: none"> High/low pressures 	<ul style="list-style-type: none"> Carry out Line Pressure Test. Refer to Special Testing Procedures in this section.

Possible Component	Reference/Action
Main Control	
<ul style="list-style-type: none"> Screws not tightened to specification 	<ul style="list-style-type: none"> Tighten to specification.
<ul style="list-style-type: none"> Separator plate damaged 	<ul style="list-style-type: none"> Inspect for damage. If damaged, install a new separator plate.
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Disassemble and clean.
<ul style="list-style-type: none"> Valve/springs damaged, misassembled, missing, stuck or bore damaged 	<ul style="list-style-type: none"> If damaged or parts are missing, install new main control assembly. If misassembled, reassemble correctly. DO NOT stone, file or sand valves. This will remove the anodized finish and may result in further main control or transmission damage.
<ul style="list-style-type: none"> Filter damaged, missing 	<ul style="list-style-type: none"> Inspect for damage, repair as necessary.
Overdrive Servo	
<ul style="list-style-type: none"> Servo retaining screws damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Seals (piston and cover) damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
Overdrive Band	
<ul style="list-style-type: none"> Band damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Servo worn or damaged 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.
<ul style="list-style-type: none"> Not adjusted correctly 	<ul style="list-style-type: none"> Inspect for damage. Repair as necessary.

Shift Concern: Soft/Slipping 2-3 Shift

Possible Component	Reference/Action
227 — ROUTINE	
Powertrain Control System	
<ul style="list-style-type: none"> PCM, vehicle wiring harnesses, shift solenoid A, pressure control solenoid A (PC A), intermediate shaft speed sensor, transmission fluid temperature (TFT) sensor 	<ul style="list-style-type: none"> Carry out on-board diagnostic tests. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for diagnosis and testing of the PCM.
	<ul style="list-style-type: none"> GO to Pinpoint Test A, GO to Pinpoint Test B, GO to Pinpoint Test D and GO to Pinpoint Test E.
	<ul style="list-style-type: none"> Repair as required. Clear DTCs, road test and rerun on-board diagnostic test.