

Direct Clutch Assembly

Direct Clutch

For direct clutch operation,

REFER to: Direct Clutch Assembly (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Description and Operation).

For hydraulic circuit identification,

REFER to: Transmission Description - System Operation and Component Description (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Description and Operation).

Direct Clutch

Condition	Possible Sources	Action
Direct clutch does not apply	SSB mechanically stuck OFF	INSTALL a new solenoid. REFER to: Shift Solenoids (SS) (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal and Installation).
	Clutch B regulator valve stuck OFF	DISASSEMBLE, CLEAN and INSPECT the clutch B regulator valve. If the bore or valve is damaged, INSTALL a new main control valve body. REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).
	CL B, REV, REV/DRIVE, VFS2 hydraulic circuits blocked/leaking	DISASSEMBLE, CLEAN and INSPECT the main control valve body and separator plate passages for debris/blockage/damage. CLEAN as necessary. REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).
	Reverse/drive control check ball missing/damaged	REMOVE and DISASSEMBLE the main control valve body. INSPECT all check balls for missing/damage. REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).
	Center support, direct clutch drum, direct clutch drum Teflonâ„¢ seals	DISASSEMBLE and INSPECT the components for wear and damage. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal).
	Direct clutch friction plates	DISASSEMBLE and INSPECT the direct clutch friction and steel plates. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal).
	Direct clutch piston seals	DISASSEMBLE and INSPECT the direct clutch piston seals for damage and wear. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal).

Direct clutch always applied	SSB mechanically stuck ON	INSTALL a new solenoid. REFER to: Shift Solenoids (SS) (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal and Installation).
	Clutch B regulator valve stuck ON	DISASSEMBLE, CLEAN and INSPECT the clutch B regulator valve. If the bore or valve is damaged, INSTALL a new main control valve body. REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).
	CL B, REV, REV/DRIVE, VFS2 hydraulic circuits blocked/leaking	DISASSEMBLE, CLEAN and INSPECT the main control valve body and separator plate passages for debris/blockage/damage. CLEAN as necessary. REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).
	Center support, direct clutch drum, direct clutch drum Teflonâ„¢ seals	DISASSEMBLE and INSPECT the components for wear and damage. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal).
	Direct clutch friction plates	DISASSEMBLE and INSPECT the direct clutch friction and steel plates. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal).
	Direct clutch piston return spring	DISASSEMBLE and INSPECT the direct clutch piston return spring for damage. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).
Direct clutch delayed/soft/slipping apply	Incorrect transmission strategy programmed into PCM.	CARRY OUT the Transmission Strategy Download. REFER to: Transmission Strategy Download (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, General Procedures).
	SSB mechanically sticking	INSTALL a new solenoid. REFER to: Shift Solenoids (SS) (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal and Installation).
	Clutch B regulator valve or latch valve sticking	DISASSEMBLE, CLEAN and INSPECT the clutch B regulator and latch valves. If the bore or valve is damaged, INSTALL a new main control valve body . REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal and Installation).
	CL B, REV, REV/DRIVE, VFS2 hydraulic circuits blocked/leaking	DISASSEMBLE, CLEAN and INSPECT the main control valve body and separator plate passages for debris/blockage/damage. CLEAN as necessary. REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).
	Reverse/drive control check ball missing/damaged	REMOVE and DISASSEMBLE the main control valve body. INSPECT all check balls for missing/damage. REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).
	Center support, direct clutch drum, direct clutch drum Teflonâ„¢ seals	DISASSEMBLE and INSPECT the components for wear and damage. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal).

	Direct clutch friction plates	DISASSEMBLE and INSPECT the direct clutch friction and steel plates. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal).
	Direct clutch piston seals	DISASSEMBLE and INSPECT the direct clutch piston seals for damage and wear. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal).
Direct clutch harsh apply	Incorrect transmission strategy programmed into PCM.	CARRY OUT the Transmission Strategy Download. REFER to: Transmission Strategy Download (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, General Procedures).
	SSB mechanically stuck OFF	INSTALL a new solenoid. REFER to: Shift Solenoids (SS) (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal and Installation).
	Clutch B regulator valve or latch valve sticking	DISASSEMBLE, CLEAN and INSPECT the clutch B regulator and latch valves. If the bore or valve is damaged, INSTALL a new main control valve body. REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal and Installation).
	CL B, REV, REV/DRIVE, VFS2 hydraulic circuits blocked/leaking	DISASSEMBLE, CLEAN and INSPECT the main control valve body and separator plate passages for debris/blockage/damage. CLEAN as necessary. REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).
	Reverse/drive control check ball missing/damaged	REMOVE and DISASSEMBLE the main control valve body. INSPECT all check balls for missing/damage. REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul). REFER to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).
	Center support, direct clutch drum, direct clutch drum Teflonâ„¢ seals	DISASSEMBLE and INSPECT the components for wear and damage. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal).
	Direct clutch friction plates	DISASSEMBLE and INSPECT the direct clutch friction and steel plates. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal).
	Direct clutch piston return spring	DISASSEMBLE and INSPECT the direct clutch piston return spring for damage. INSTALL new components as necessary. REFER to: Transmission (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Overhaul).

