

307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80  
 Diagnosis and Testing

2019 Ranger

Procedure revision date: 05/17/2018

## B Clutch

### Symptom Chart

#### B Clutch

For B clutch operation,  
 REFER to: [B Clutch](#) (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Description and Operation).

#### B Clutch

Condition	Possible Sources	Action
B clutch does not apply	<a href="#">SSB</a> is mechanically stuck OFF	INSTALL a new solenoid. REFER to: <a href="#">Shift Solenoids (SS)</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).
	B Clutch regulator valve stuck OFF	DISASSEMBLE, CLEAN and INSPECT the regulator valve. If bore or valve is damaged, INSTALL a new main control valve body. REFER to: <a href="#">Main Control Valve Body</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). PERFORM the Transmission Strategy Download, REFER to: <a href="#">Transmission Strategy Download</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).
	B CL CONTR, hydraulic circuit blocked/leaking	DISASSEMBLE and INSPECT the main control valve body and separator plate passages for debris/blockage. CLEAN as necessary. REFER to: <a href="#">Main Control Valve Body</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-

		Speed Automatic Transmission - 10R80, Removal and Installation).
	B clutch hub	INSPECT components wear and damage. CLEAN and/or INSTALL new components necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	B clutch friction plates	INSPECT components wear and damage. CLEAN and/or INSTALL new components necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	B clutch piston seals	INSPECT components wear and damage. CLEAN and/or INSTALL new components necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
B clutch always applied	<u>SSB</u> mechanically stuck	INSTALL a new solenoid. REFER to: <a href="#">Shift Solenoids (SS)</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).
	B Clutch regulator valve or CL B latch valve stuck ON	DISASSEMBLE, CLEAN and INSPECT the regulator valve. If bore or valve is damaged, INSTALL a new main control valve body. REFER to: <a href="#">Main Control Valve Body</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). PERFORM the Transmission Strategy Download, REFER to: <a href="#">Transmission Strategy Download</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).
	B CL CONTR, hydraulic circuit cross leaks	DISASSEMBLE and INSPECT the main control valve body and separator plate passages for debris/blockage. CLEAN as necessary. REFER to: <a href="#">Main Control Valve Body</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).
	B clutch hub, clutch and	INSPECT components wear and damage. CLEAN

	planetary carrier, No. 4 ring gear	and/or INSTALL new components necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	B clutch friction plates	INSPECT components wear and damage. CLEAN and/or INSTALL new components necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	B clutch piston seals	INSPECT components wear and damage. CLEAN and/or INSTALL new components necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
B clutch delayed/soft/slipping apply	Incorrect transmission strategy programmed into <u>PCM/ TCM</u> .	PERFORM the Transmission Strategy Download, REFER to: <a href="#">Transmission Strategy Download</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).
	Low line pressure	PERFORM line pressure test. REFER to: <a href="#">Special Testing Procedures</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Diagnosis and Testing).
	<u>SSB</u> mechanically sticking	INSTALL a new solenoid. REFER to: <a href="#">Shift Solenoids (SS)</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).
	B Clutch regulator valve sticking	DISASSEMBLE, CLEAN and INSPECT the valves. If bore or valve is damaged, INSTALL a new main control valve body. REFER to: <a href="#">Main Control Valve Body</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).
	B CL CONTR, hydraulic circuits blocked/leaking	DISASSEMBLE and INSPECT the main control valve body and separator plate passages for debris/blockage. CLEAN as necessary. REFER to: <a href="#">Main Control Valve Body</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).

	B clutch friction plates	DISASSEMBLE and INSPECT the transmission passages for debris/blockage. CLEAN as necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	B clutch piston seals	DISASSEMBLE and INSPECT the transmission passages for debris/blockage. CLEAN as necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
B clutch harsh apply	Incorrect transmission strategy programmed into <u>PCM/ TCM</u> .	PERFORM the Transmission Strategy Download, REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	High line pressure	PERFORM line pressure test. REFER to: <a href="#">Special Testing Procedures</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Diagnosis and Testing).
	<u>SSB</u> mechanically sticking	INSTALL a new solenoid. REFER to: <a href="#">Shift Solenoids (SS)</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).
	B Clutch regulator valve sticking	DISASSEMBLE, CLEAN and INSPECT the valves. If bore or valve is damaged, INSTALL a new main control valve body. REFER to: <a href="#">Main Control Valve Body</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). PERFORM the Transmission Strategy Download, REFER to: <a href="#">Transmission Strategy Download</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).
	B CL CONTR hydraulic circuit blocked/leaking	DISASSEMBLE and INSPECT the main control valve body and separator plate passages for debris/blockage. CLEAN as necessary. REFER to: <a href="#">Main Control Valve Body</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: <a href="#">Main Control Valve Body - Vehicles With: Auto-Start-Stop</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).

	B clutch friction plates	DISASSEMBLE and INSPECT the transmission passages for debris/blockage. CLEAN as necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	B clutch piston return springs	DISASSEMBLE and INSPECT the transmission passages for debris/blockage. CLEAN as necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).

---

Copyright © 2019 Ford Motor Company

---