

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

2019 Ranger

Procedure revision date: 05/17/2018

## D Clutch

### Symptom Chart

#### D Clutch

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

#### D Clutch

Condition	Possible Sources	Action
D clutch does not apply	<a href="#">SSD</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).
	D 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).
	D 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).
	D clutch hub	INSPECT components wear and damage. CLEAN and/or INSTALL new components as necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	D clutch friction plates	INSPECT components wear and damage. CLEAN and/or INSTALL new components as necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	D clutch piston seals	INSPECT components wear and damage. CLEAN and/or INSTALL new components as necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
D clutch always applied	<u>SSD</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).
	D Clutch regulator valve or CL D 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).
	D 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).
	D clutch hub, clutch and	INSPECT components wear and damage. CLEAN

	planetary carrier, No.4 ring gear	and/or INSTALL new components as necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	D clutch friction plates	INSPECT components wear and damage. CLEAN and/or INSTALL new components as necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	D clutch piston seals	INSPECT components wear and damage. CLEAN and/or INSTALL new components as necessary. REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
D 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>SSD</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).
	D Clutch regulator valve sticking	DISASSEMBLE, CLEAN and INSPECT the 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).
	Gain control valve stuck in default position.	DISASSEMBLE, CLEAN and INSPECT the 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).

		<p>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).</p> <p>PERFORM the Transmission Strategy Download, REFER to: <a href="#">Transmission Strategy Download</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).</p>
	D CL CONTR, D CL-FB2 hydraulic circuits blocked/leaking	<p>DISASSEMBLE and INSPECT the main control valve body and separator plate passages for debris/blockage. CLEAN as necessary.</p> <p>REFER to: <a href="#">Main Control Valve Body</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).</p> <p>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).</p> <p>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).</p>
	D clutch friction plates	<p>DISASSEMBLE and INSPECT the transmission passages for debris/blockage. CLEAN as necessary.</p> <p>REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).</p>
	D clutch piston seals	<p>DISASSEMBLE and INSPECT the transmission passages for debris/blockage. CLEAN as necessary.</p> <p>REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).</p>
D clutch harsh apply	Incorrect transmission strategy programmed into <u>PCM/ TCM</u> .	<p>PERFORM the Transmission Strategy Download, REFER to: <a href="#">Transmission</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).</p>
	High line pressure	<p>PERFORM line pressure test.</p> <p>REFER to: <a href="#">Special Testing Procedures</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Diagnosis and Testing).</p>
	<u>SSD</u> mechanically sticking	<p>INSTALL a new solenoid.</p> <p>REFER to: <a href="#">Shift Solenoids (SS)</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).</p>
	D Clutch regulator valve sticking	<p>DISASSEMBLE, CLEAN and INSPECT the valves. If bore or valve is damaged, INSTALL a new main control valve body.</p> <p>REFER to: <a href="#">Main Control Valve Body</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).</p> <p>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).</p>

	<p>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).</p> <p>PERFORM the Transmission Strategy Download, REFER to: <a href="#">Transmission Strategy Download</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).</p>
Gain control valve stuck in applied position	<p>DISASSEMBLE, CLEAN and INSPECT the valve. If bore or valve is damaged, INSTALL a new main control valve body. PERFORM the Transmission Strategy Download, REFER to: <a href="#">Transmission Strategy Download</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).</p>
D CL CONTR, D CL-FB2 hydraulic circuit blocked/leaking	<p>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).</p> <p>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).</p> <p>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).</p> <p>PERFORM the Transmission Strategy Download, REFER to: <a href="#">Transmission Strategy Download</a> (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).</p>
D clutch friction plates	<p>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).</p>
D clutch piston return springs	<p>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).</p>

