

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

2019 Ranger

Procedure revision date: 05/17/2018

E Clutch

Symptom Chart

E Clutch

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

E Clutch

Condition	Possible Sources	Action
E clutch does not apply	SSE is mechanically stuck OFF	INSTALL a new solenoid. REFER to: Shift Solenoids (SS) (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).
	E 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: Main Control Valve Body (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). PERFORM the Transmission Strategy Download, REFER to: Transmission Strategy Download (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).
	E 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: Main Control Valve Body (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-

		Speed Automatic Transmission - 10R80, Removal and Installation).
	E clutch hub	INSPECT components wear and damage. CLEAN and/or INSTALL new components as necessary. REFER to: Transmission (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	E clutch friction plates	INSPECT components wear and damage. CLEAN and/or INSTALL new components as necessary. REFER to: Transmission (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	E clutch piston seals	INSPECT components wear and damage. CLEAN and/or INSTALL new components as necessary. REFER to: Transmission (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
E clutch always applied	<u>SSE</u> mechanically stuck	INSTALL a new solenoid. REFER to: Shift Solenoids (SS) (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).
	E Clutch regulator valve or CL E 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: Main Control Valve Body (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). PERFORM the Transmission Strategy Download, REFER to: Transmission Strategy Download (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).
	E 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: Main Control Valve Body (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).
	E 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: Transmission (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	E clutch friction plates	INSPECT components wear and damage. CLEAN and/or INSTALL new components as necessary. REFER to: Transmission (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
	E clutch piston seals	INSPECT components wear and damage. CLEAN and/or INSTALL new components as necessary. REFER to: Transmission (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).
E clutch delayed/soft/slipping apply	Incorrect transmission strategy programmed into <u>PCM/ TCM</u> .	PERFORM the Transmission Strategy Download, REFER to: Transmission Strategy Download (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).
	Low line pressure	PERFORM line pressure test. REFER to: Special Testing Procedures (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Diagnosis and Testing).
	<u>SSE</u> mechanically sticking	INSTALL a new solenoid. REFER to: Shift Solenoids (SS) (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).
	E 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: Main Control Valve Body (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). PERFORM the Transmission Strategy Download, REFER to: Transmission Strategy Download (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: Main Control Valve Body (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).

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

	<p>REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).</p> <p>PERFORM the Transmission Strategy Download, REFER to: Transmission Strategy Download (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: Transmission Strategy Download (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).</p>
E CL CONTR, E 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: Main Control Valve Body (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). REFER to: Main Control Valve Body - Vehicles With: Auto-Start-Stop (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation). PERFORM the Transmission Strategy Download, REFER to: Transmission Strategy Download (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).</p>
E clutch friction plates	<p>DISASSEMBLE and INSPECT the transmission passages for debris/blockage. CLEAN as necessary. REFER to: Transmission (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).</p>
E clutch piston return springs	<p>DISASSEMBLE and INSPECT the transmission passages for debris/blockage. CLEAN as necessary. REFER to: Transmission (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Overhaul).</p>

