

## DIAGNOSIS AND TESTING (Continued)

## EEC-IV ON-BOARD DIAGNOSTIC TROUBLE CODE DESCRIPTION CHART (Cont'd)

THREE DIGIT DTC	COMPONENT	DESCRIPTION	CONDITION	SYMPTOM	ACTION
652*	TCC	TCC solenoid circuit failure during on-board diagnostic.	TCC solenoid circuit fails to provide voltage drop across solenoid. Circuit open or shorted or PCM drive failure during on-board diagnostic.	Failed ON—engine runs rough / vehicle shudder, engine stalls in DRIVE (2nd, 3rd or 4th) at low idle speeds. (Short circuit). Failed OFF—converter never engages. (Open circuit).	C1
629*	TCC	Torque converter clutch circuit failure	TCC solenoid circuit fails to provide voltage drop across solenoid. Circuit open or shorted or PCM drive failure during on-board diagnostic.	Failed ON—engine runs rough / vehicle shudder, engine stalls in DRIVE (2nd, 3rd or 4th) at low idle speeds. (Short circuit). Failed OFF—converter never engages. (Open circuit).	C1
629**	TCC	Unscheduled engagement	Torque converter clutch engaged when not scheduled.	Engine runs rough / vehicle shudder, engine stalls in DRIVE (2nd, 3rd or 4th) at low idle speeds.	C1
656**	TCC	Continuous slip ERROR	Excessive variations in slip (engine speed surge) across the torque converter clutch detected.	Engine runs rough / vehicle shudders. You may feel a slight sensation of the engine running rough at road loads (approximately 35-40 mph in 3rd gear, 45-50 mph in 4th gear).	C1
631	TCIL	TCIL circuit failure.	TCIL circuit open or shorted.	Failed ON—Overdrive cancel mode always indicated, no flashing for EPC failure. Failed OFF—Overdrive cancel mode never indicated, no flashing for EPC failure.	PC/ED
632	TCS	TCS not changing state.	TCS not cycled during on-board diagnostic / circuit open or shorted.	Rerun on-board diagnostic and cycle switch. No overdrive cancel when switch is cycled.	PC/ED
998*		Failure Mode Effect Management (FMEM) failure.	Failure detected in one or more critical inputs.	PCM enables alternate functions. Check for other DTCs.	PC/ED

\*Output circuit check, generated only by electrical symptoms.

\*\*May also be generated by some other non-electric transmission hardware system.

PC/ED—Powertrain Control/Emissions Diagnosis Manual (Can be purchased as a separate item.)

SM—Service Manual A1, B1, C1, D1, E1, F1—Pinpoint tests in this manual.

TD8100A

### Rotunda Transmission Tester

Use Rotunda Transmission Tester 007-00085 or equivalent to diagnose electronically controlled transaxles. The following instructions outline the set-up and use of this tester in the pinpoint tests for the AXODE (AX4S).

#### Tester Jacks

- VPWR Pin Jacks (red):** VPWR test points for solenoid circuits.
- Solenoid (TCC, EPC) Signal Line Pin Jacks (black):** Signal line test points for solenoid circuits.
- BAT+ (red) and BAT- (black) Pin Jacks:** Battery reference points when measuring circuits for shorts.

- TOT Pin Jacks:** Test points for TOT sensor.

- TSS Pin Jacks:** Test points for TSS sensor.

#### Tester LEDs and Controls

- Overlay and Cable Correctly Installed LEDs:** Only LEDs with ☉ symbol and cable correctly match.
- Status LEDs:** LED "OFF" when not activated by tester (solenoid not activated, open circuit or signal line short to ground). LED "GREEN" when activated by tester and current draw is correct. LED "RED" when activated by tester and current draw is excessive (short to Battery Positive Voltage (B+)). All LEDs light orange during Self-Test.