FORD AXOD-E
HYDRAULICALLY LOCKED T.V. PLUNGER

COMPLAINT: With engine running, you cannot pull T.V. cable out.

CAUSE: T.V. plunger hydraulicly locked out with oil pressure.

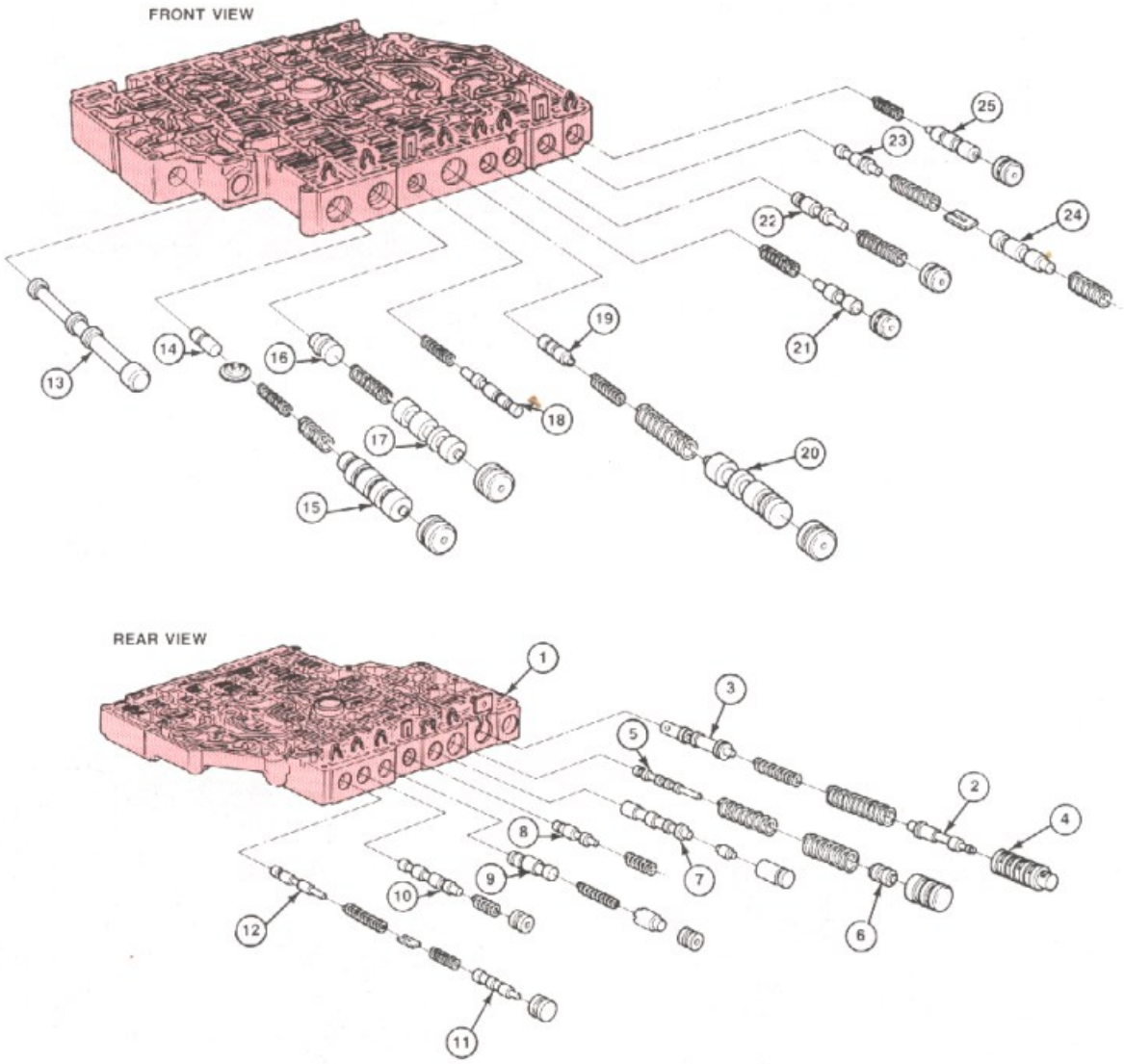
CORRECTION: the following valves for sticking or debris:
(1) T.V. LIMIT VALVE - (No. 24 in Figure 1). Limits T.V. pressure to a maximum of 90 PSI.

(2) TV/LINE MODULATOR VALVE - (No. 11 in Figure 1). Modifies T.V. pressure for control of line pressure to more closely match engine torque and transaxle capacity requirements.

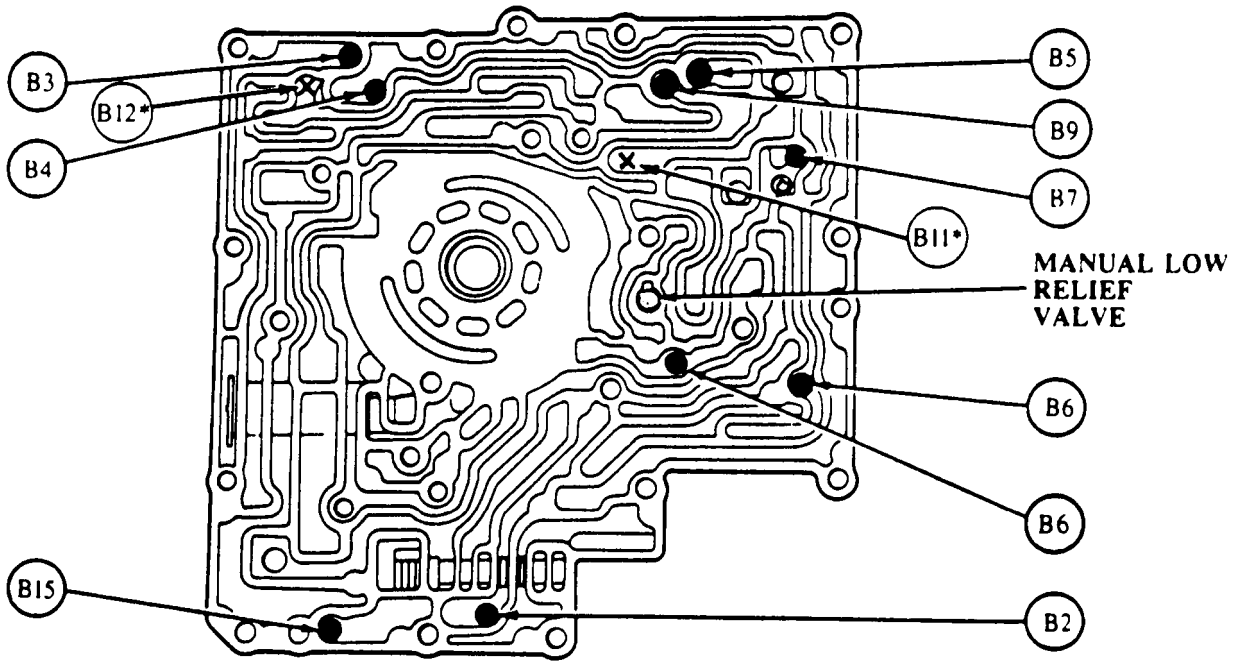
(3) THROTTLE VALVE - (No. 2 in Figure 1). Regulates T.V. pressure in relation to throttle plunger position.

NOTE:
If debris is found in valve body, be sure to inspect all checkballs. They have a habit of deteriorating, and spreading through the valve trains. New checkballs are now available under OEM part number E7DZ-7E195-A, and come five in a package. See Figure 2 for proper checkball locations, as some of the manuals are wrong. See Figure 3 for checkball function.

Figure 1

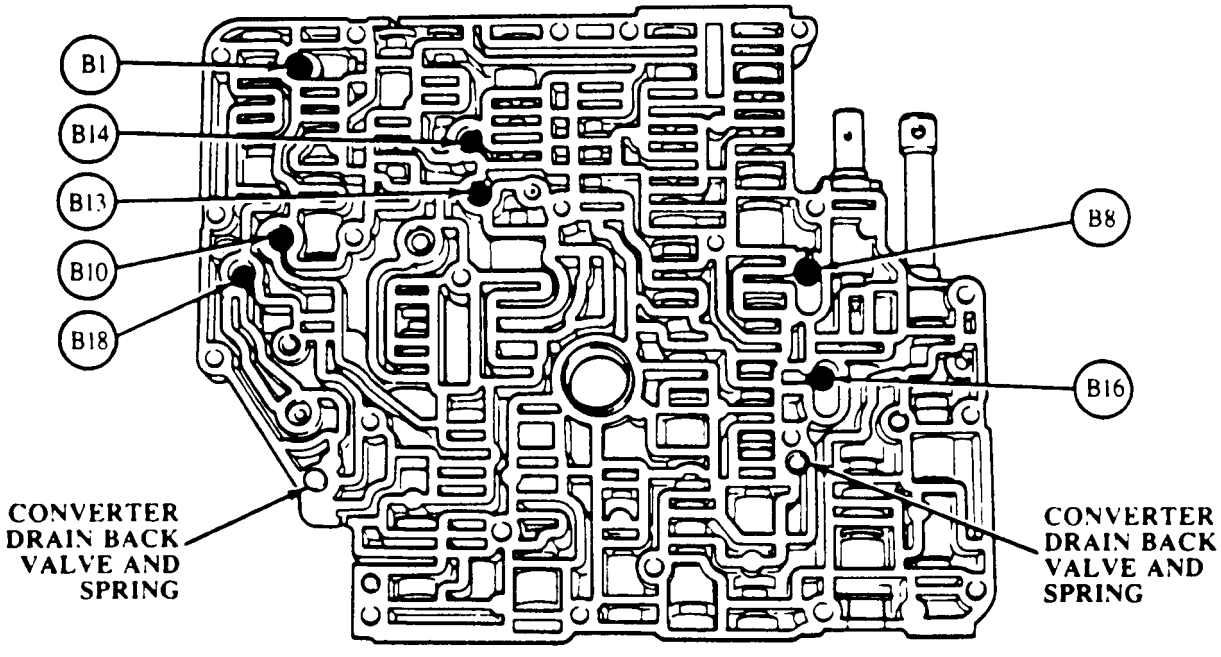


1 VALVE BODY
2 THROTTLE VALVE
3 TV PLUNGER
4 TV VALVE SLEEVE



OIL PUMP

Do not install ball check



VALVE BODY

Valve Body Ball Checks

The following information describes the function of the valve body ball checks. The location of the different ball checks is shown in figure 31.

Ball Checks:

B1: Forces reverse clutch feed oil through the A orifice and thermal element while allowing the clutch to exhaust without restriction.

B2: Separates reverse clutch and forward clutch circuits feeding the forward clutch.

B3: Separates manual low relief and TVLM passages to the main regulator boost valve.

B4: Separates manual low relief and direct clutch circuits to the direct clutch.

B5: Connects low/intermediate servo release and direct clutch passages during pressurization of these circuits while forcing low/intermediate servo release to be exhausted through the L orifice and the 3-2 control valve.

B6: (2 required) Forces forward clutch feed oil through the K orifice for the 4-3 downshift while bypassing the orifice for a drive engagement.

B7: Allows forward clutch to exhaust freely on the 3-4 upshift but forces forward clutch apply through the K orifice for the 4-3 downshift.

B8: Separates low and kickdown circuits to the 2-3 shift valve.

B9: Forces the direct clutch to exhaust through the M orifice on a 3-2 downshift while bypassing the orifice for the 3-1 downshift.

B10: Exhausts low/intermediate servo apply directly through the manual valve on a drive-neutral or a drive-reverse engagement, bypassing the B orifice.

B11: Not used.

B12: Not used.

B13: Forces direct clutch feed through the E and F orifices bypassing the M orifice.

B14: Forces overdrive servo apply feed through the H and G orifices while bypassing the orifices for exhaust.

B15: Applies forward clutch through the PP orifice as well as the K orifice for a manual 3 pull in.

B16: Separates the low and backout circuits to the backout valve.

B17: Not used.

B18: Feeds the N-D accumulator through the RR and SS orifices in parallel and exhausts N-D accumulator through the RR and SS orifices in series.

Relief and Drainback Valves

MANUAL LOW RELIEF — Controls direct clutch pressure to 55 psi during a manual low pull-in. Also acts to boost line pressure at low TV pressure during the manual low pull-in.

CONVERTER DRAINBACK — Prevents the converter from draining when the vehicle is not running.

Figure 3