Valve Bodies and Intermediate Band Servo

NOTE: If a transmission has been disassembled to replace worn or damaged parts and the valve body sticks repeatedly from foreign material, the torque converter must be removed and cleaned by using a mechanically agitated cleaner, such as Rotunda Torque Converter/Oil Cooler Cleaner 014-00028 or equivalent.

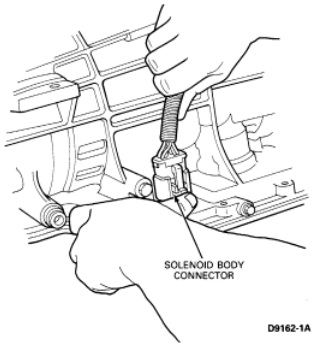
Removal

If solenoid valve body is going to be replaced:

- Remove solenoid body connector heat shield and loosen both bolts using an 8mm socket.
- Remove slotted heat shield.

CAUTION: Do not attempt to pry tab with pry bar or screwdriver. Remove the heat shield from the transmission before attempting to remove the connector.

- Remove solenoid body connector by pushing on the center tab and pulling on the wire harness.



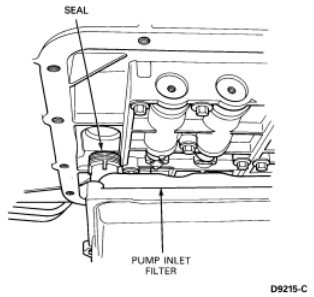
- Check electrical connectors for terminal condition, corrosion and contamination. Repair or replace as required.

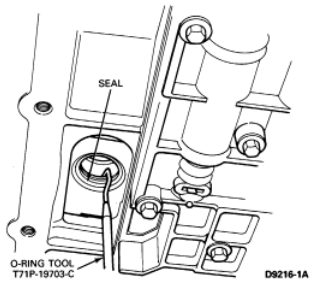
1. Position a drain pan under transmission.
2. Remove all transmission pan bolts except the front ones using a 10mm socket. Loosen only the front bolts at this time.

3. Pry the rear of the pan down and allow the fluid to drain.
4. Remove front pan bolts using a 10mm socket. Remove transmission pan.
5. Remove pump inlet filter and seal assembly by carefully pulling and rotating the filter as necessary. If seal remains in bore, carefully remove using O-Ring Tool T71P-19703-C.

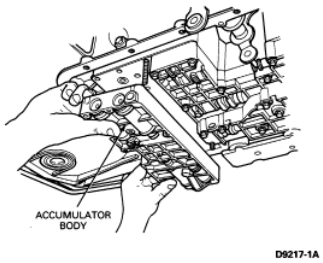
   NOTE: Discard pump inlet filter and seal.

   CAUTION: Use care not to scratch or damage aluminum pump bore.

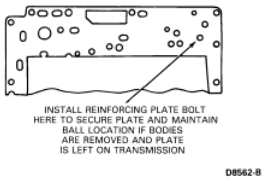




6. Remove 11 accumulator body bolts using an 8mm socket and two nuts using a 10mm socket. Remove accumulator body assembly.

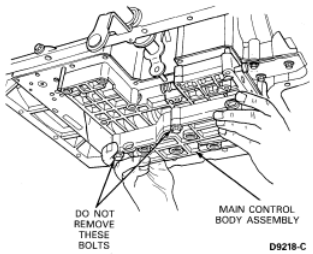


NOTE: If separator plate is to be left on the transmission, use one of the reinforcing plate bolts in the hole shown to prevent front of plate from sagging and displacing balls.

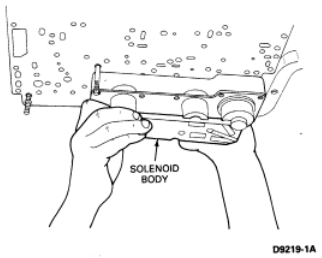


7. Remove 14 main control body bolts using an 8mm socket and two nuts using a 10mm socket. Remove main control body.

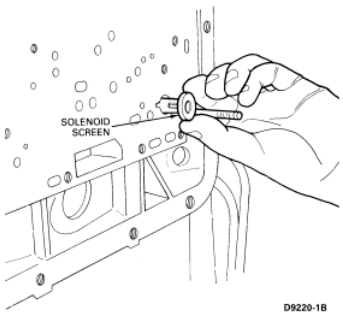
NOTE: Do not remove the two bolts as shown on illustration. This will keep the upper and lower control bodies attached as an assembly.



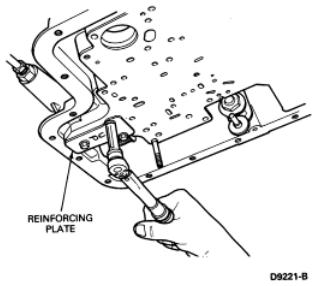
8. Remove nine solenoid body bolts using a T30 Torx® bit and one nut using a 10mm socket. Push down on solenoid body receptacle to remove solenoid body.



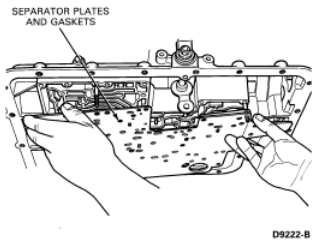
9. Remove solenoid screen by rotating and pulling it out.



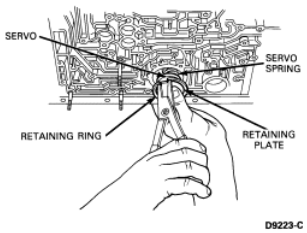
10. Remove reinforcing plate bolts using an 8mm socket. Remove plate.



11. Lower separator plate and gasket carefully so that check balls, EPC ball and spring are retained.



12. Remove intermediate accumulator regulator filter and spring assembly. Clean or replace filter as required.
13. Depress retaining plate, remove retaining ring, retaining plate, servo piston and rod assembly and servo spring.

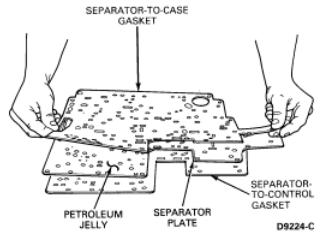


Installation

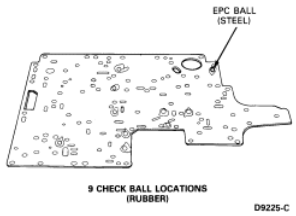
1. Install servo spring, servo piston and rod assembly.
2. Install servo retaining plate. Depress and install retaining ring.

   NOTE: If the gasket and separator plate holes do not align, heat the gasket (if gasket is too large) or soak in transmission fluid (if gasket is too small) to obtain proper alignment before assembly.

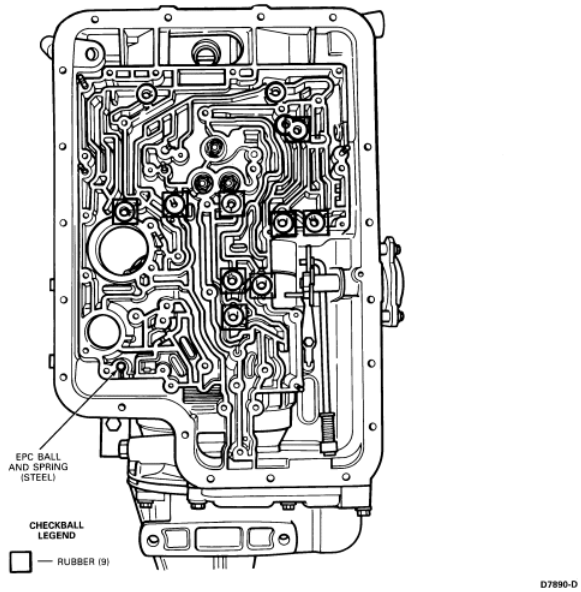
   CAUTION: Do not overheat gasket. Damage may result.
3. Apply a light film of petroleum jelly to separator plate to hold new separator-to-control gasket.



4. Apply light film of petroleum jelly to separator plate to hold new separator-to-case gasket on separator plate.
5. Place a daub of petroleum jelly on each of the nine rubber check balls and the EPC check ball. Position balls on the separator plate as shown.

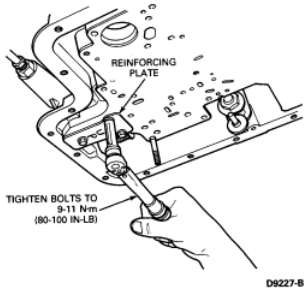


6. Place a daub of petroleum jelly onto intermediate accumulator regulator filter and spring assembly and EPC spring. Install them into their locations as shown.



7. Install separator plate and gaskets. Install reinforcing plate using three reinforcing plate bolts. Tighten to 9-11 Nm (80-100 in-lb).

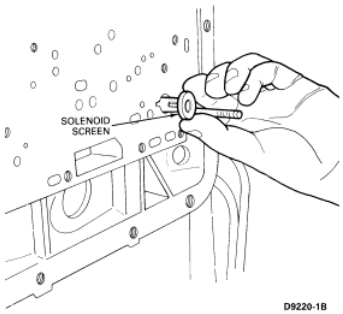
   NOTE: Check location of check balls and EPC ball.



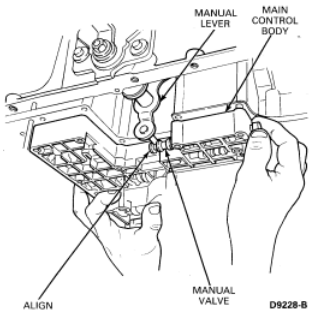
NOTE: If reinforcing plate bolt has been used to retain separator plate to case, do not reinstall in reinforcing plate until Step 10.

NOTE: The "UP" stamped on reinforcing plate must be visible.

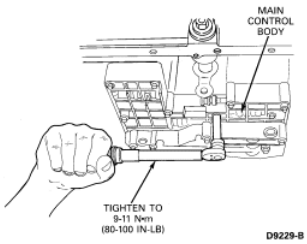
8. Install solenoid screen and rotate lock in place.



9. Install main control body over studs. Align manual valve with manual lever pin.

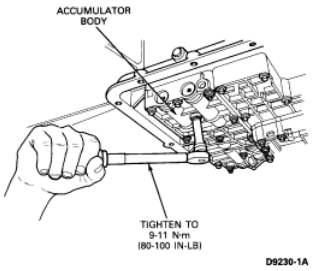


10. Attach valve body with two nuts using a 10mm socket and 14 bolts using an 8mm socket. Tighten to 9-11 Nm (80-100 in-lb).



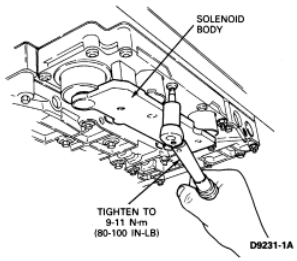
NOTE: If reinforcing plate bolt has been used to retain separator plate to case, reinstall after main body is attached.

11. Install accumulator body over studs and attach with two nuts using a 10mm socket and 11 bolts using an 8mm socket. Tighten to 9-11 Nm (80-100 in-lb).

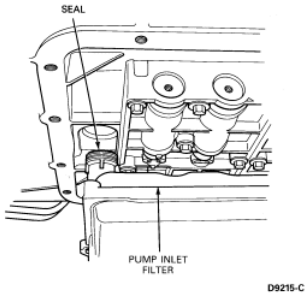


NOTE: Prior to solenoid body assembly installation, coat the case connector bore with D7AZ-19590-A (ESA-MIC172-A) or equivalent. Inspect solenoid body electrical connector for proper seating and condition.

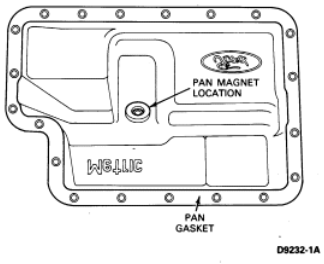
12. Install solenoid body over stud and attach with nine Torx® bolts using a T30 bit and one nut using a 10mm socket. Tighten to 9-11 Nm (80-100 in-lb).



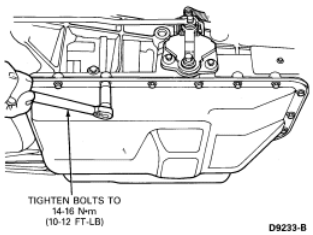
13. Install a new pump inlet filter and seal assembly by lubricating the seal with transmission fluid and pressing the filter into place. Do not reuse old filter or seal.



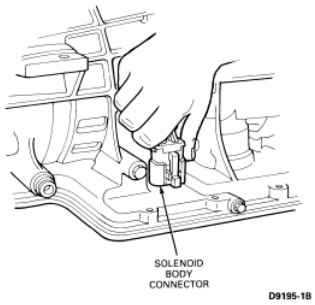
14. Check condition of pan magnet. Replace if damaged. Check for correct placement of magnet over dimple in pan. Install new pan gasket.



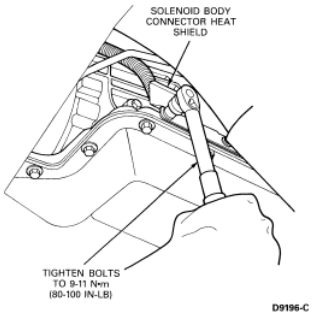
15. Install pan bolts using a 10mm socket. Tighten to 14-16 Nm (10-12 ft-lb).



16. Completely seat solenoid body connector into solenoid valve body receptacle by pushing on top of connector. Audible click indicates full connection.



17. Install solenoid body connector heat shield with off-set bending inward. Tighten to 9-11 Nm (80-100 in-lb).



18. Lower vehicle.

19. Fill the transmission to the proper level with a minimum of 6.1 liters (6.5 quarts) Motorcraft MERCON® Multi-Purpose Automatic Transmission Fluid (E4AZ-19582-B) or equivalent.