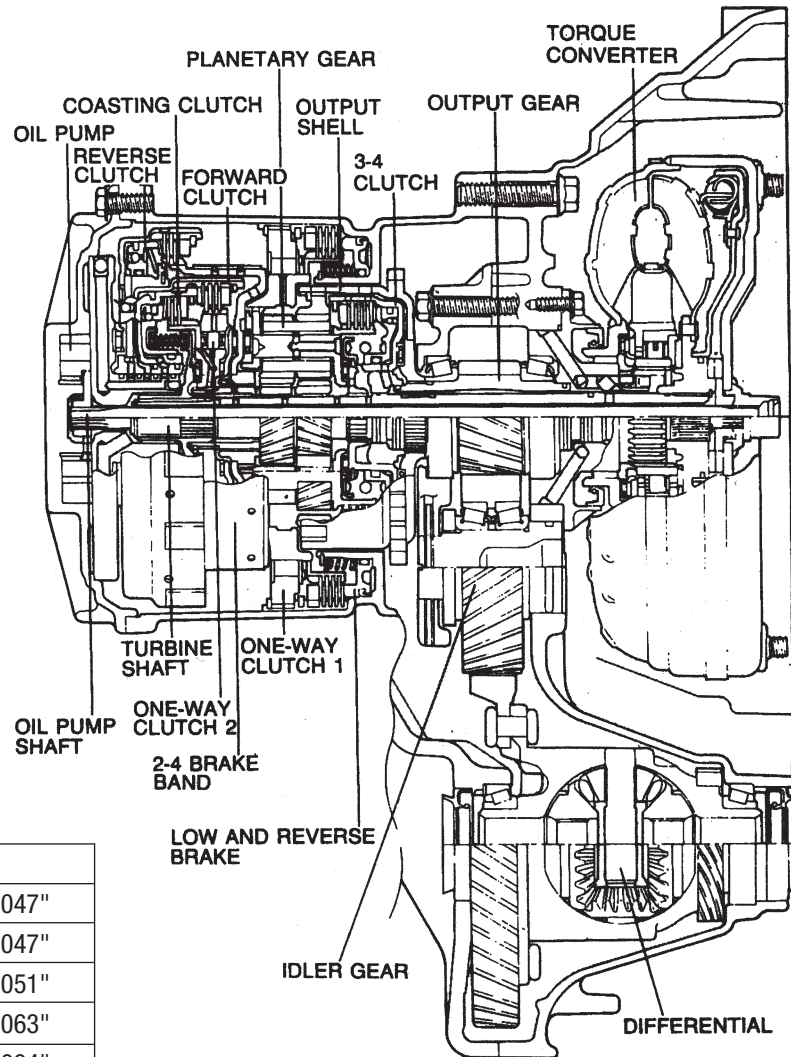


# TRANstec®

## Mazda F4A-EL Ford 4EAT-F

### Cross Section View



#### Clutch Pack Clearances

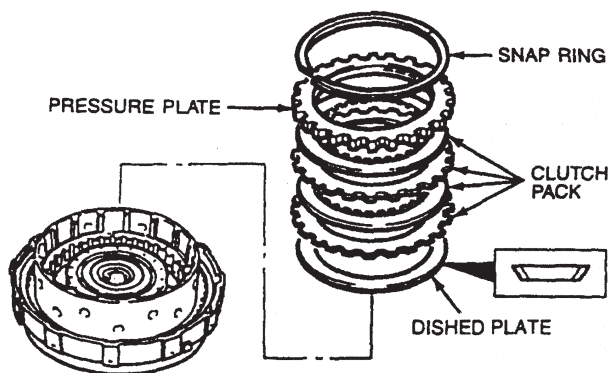
Forward Clutch	.040" - .047"
Coast Clutch	.040" - .047"
Reverse Clutch	.040" - .051"
3-4 Clutch	.051" - .063"
Low/Reverse Clutch	.083" - .094"

**Servo Piston Stroke:**  
.039" - .067"



11617 State Route 13  
Milan, Ohio 44846  
Phone: 419-499-2502  
Fax: 419-499-6099  
www.TransTec.com

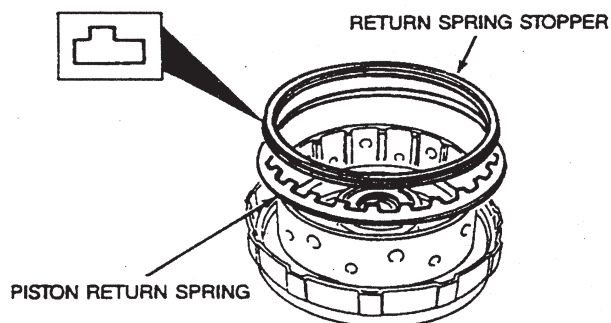
## COAST CLUTCH DISHED PLATE DIRECTION



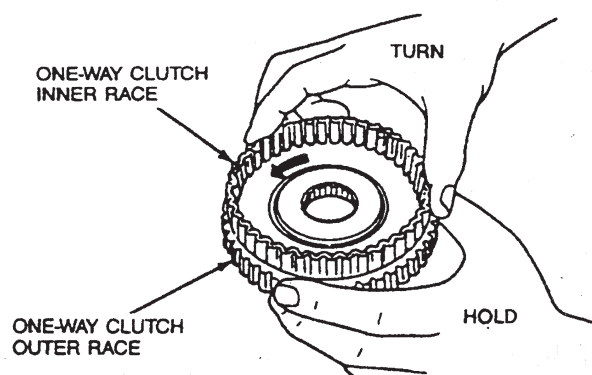
## REVERSE CLUTCH RETURN SPRING AND STOPPER DIRECTION

Install the new piston return spring with the tabs facing away from the reverse piston.

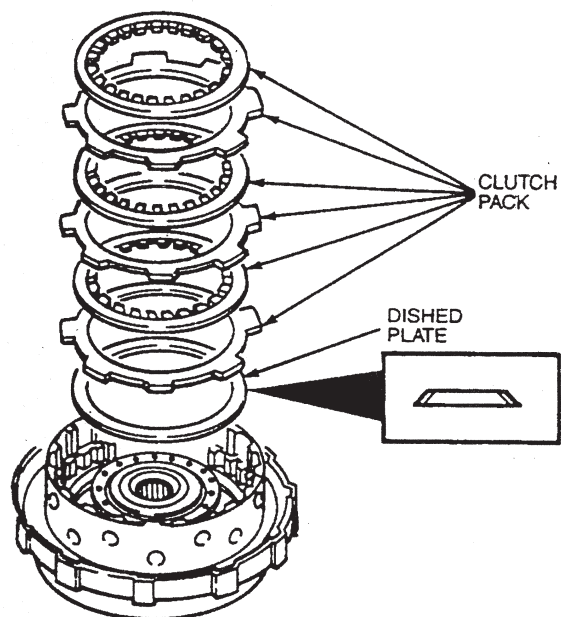
Install the return spring stopper with the step facing upwards.



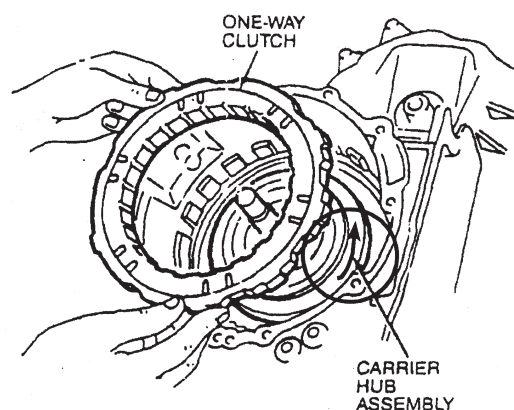
## ONE-WAY CLUTCH



## FORWARD CLUTCH DISHED PLATE DIRECTION

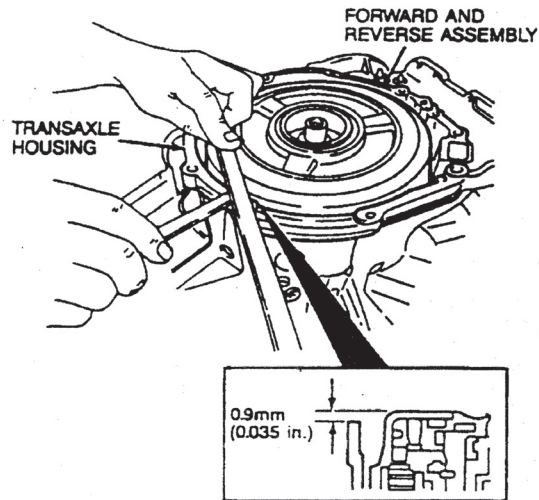


**CARRIER HUB ASSEMBLY MUST  
ROTATE COUNTERCLOCKWISE  
WHILE WORKING FROM THE REAR  
SIDE OF TRANSAXLE**

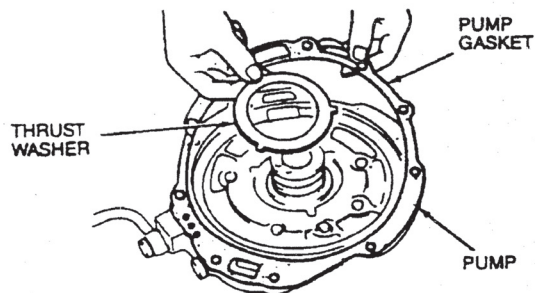


## TOTAL END PLAY PROCEDURE AND THRUST WASHER SELECTION

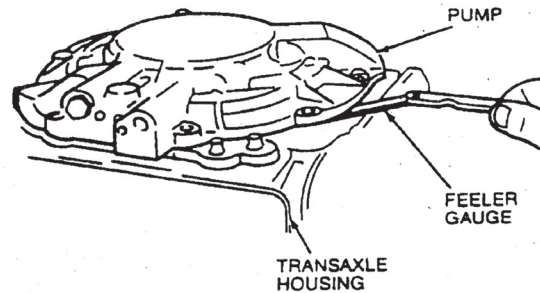
**NOTE:** Measure the height difference between the forward and reverse drum and the transaxle housing. Maximum clearance should be 0.9mm (0.035 inch).



1. To adjust the total end play, set the bearing onto the forward and reverse clutch assembly.
2. Remove the previously used thrust washer and gasket located on the pump.



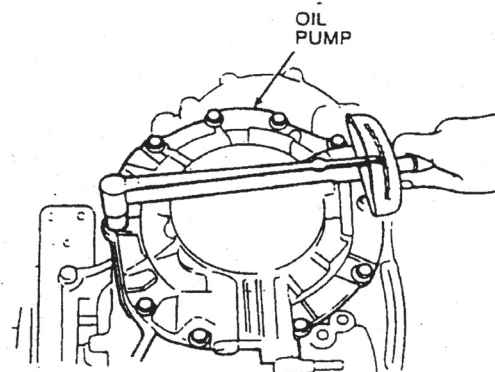
3. Set the thickest thrust washer, 2.2mm (0.087 inch), on the oil pump.
4. Set the oil pump onto the clutch assembly.
5. Using a feeler gauge, measure the clearance between the transaxle housing and the oil pump.

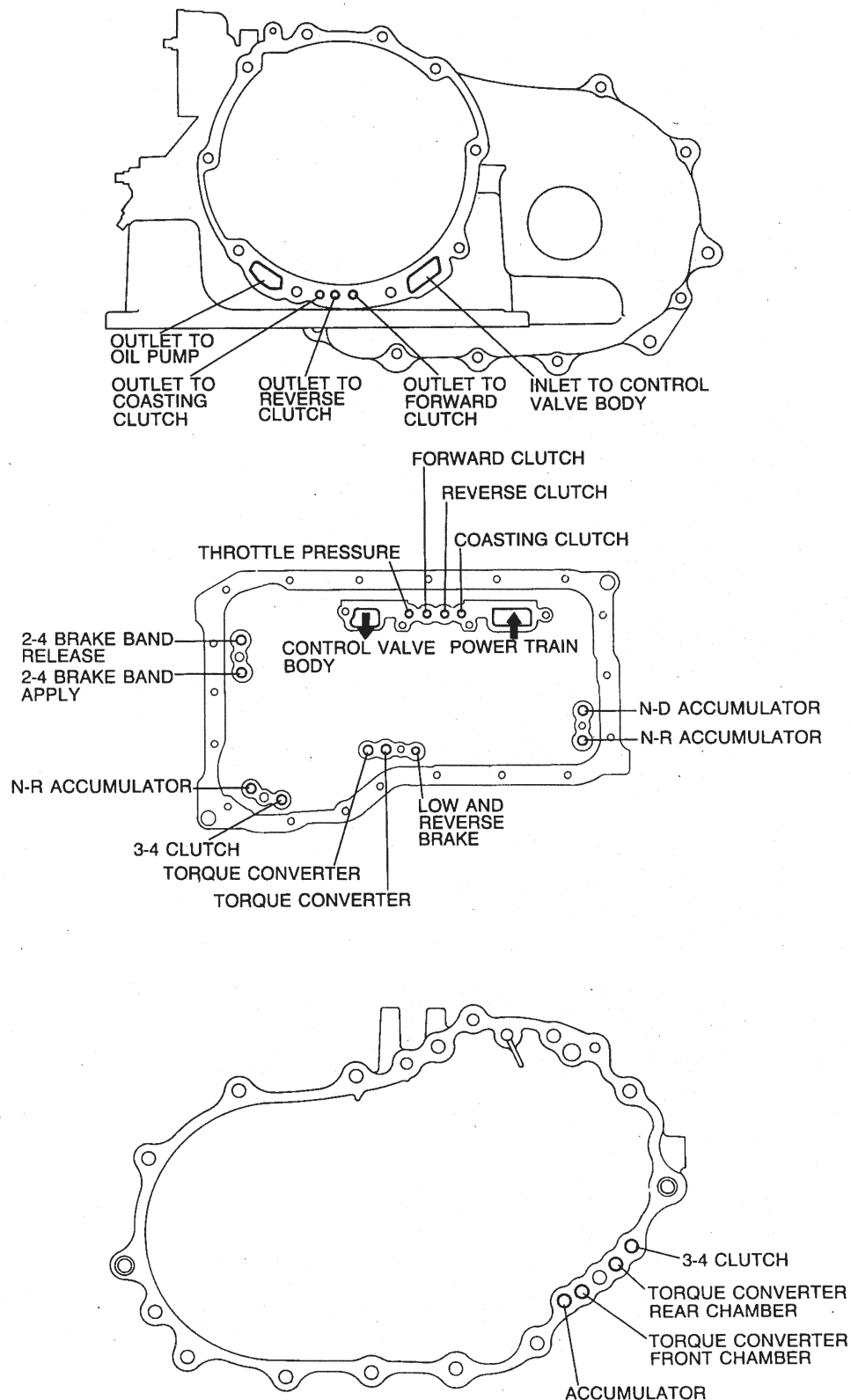


6. Select a suitable thrust washer.

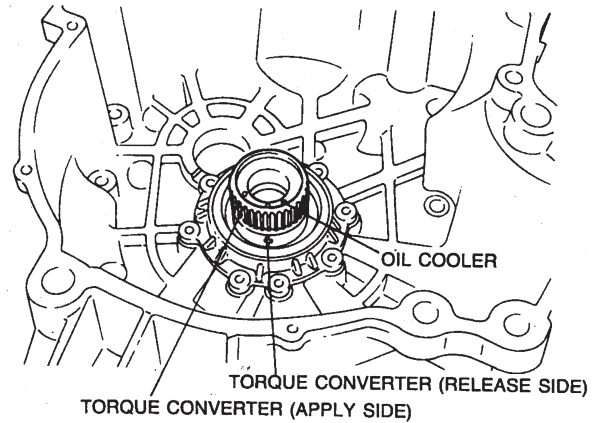
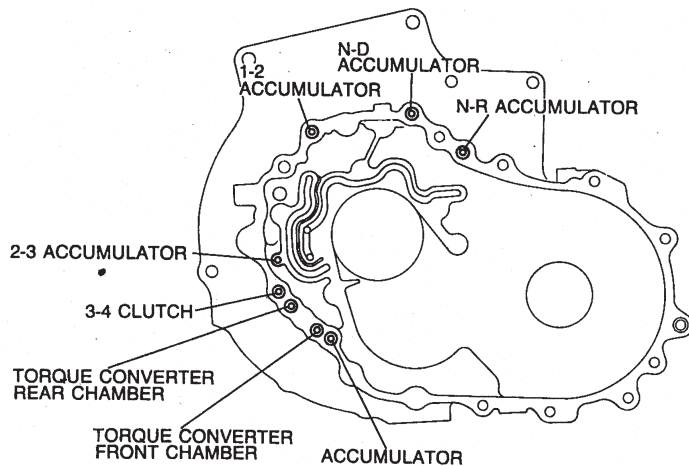
Clearance A mm (in)	Select this thrust washer mm (in)
0.91–1.10 (0.036–0.043)	1.2 (0.047)
0.71–0.90 (0.028–0.035)	1.4 (0.055)
0.51–0.70 (0.020–0.027)	1.6 (0.063)
0.31–0.50 (0.012–0.019)	1.8 (0.071)
0.11–0.30 (0.004–0.011)	2.0 (0.078)
0–0.10 (0)	2.2 (0.087)

7. Remove the oil pump.
8. Place the selected thrust washer and a new gasket onto the oil pump.
9. Install the oil pump onto the clutch assembly. Secure it with bolts. Tighten the bolts to 19-26 N-m (14-19 lb-ft).



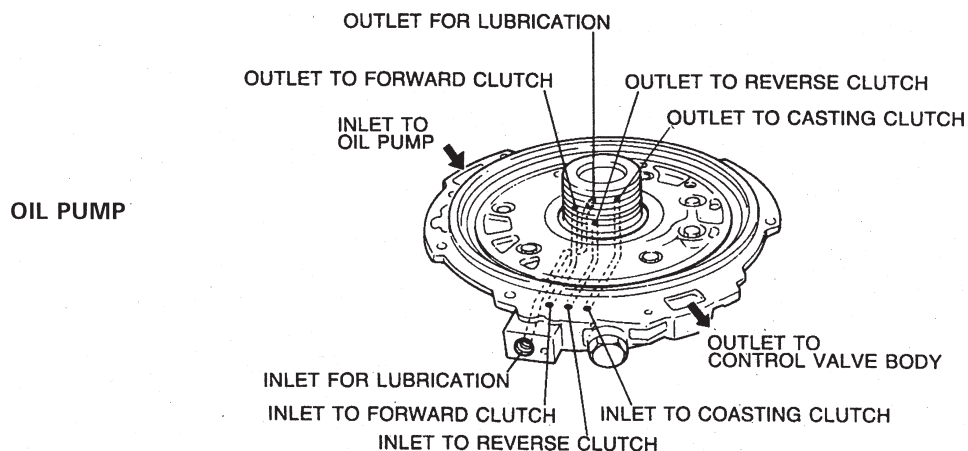
**FLUID PASSAGE LOCATIONS**

## CLUTCH HOUSING



The F4A-EL had some accumulator's that came from the factory with Teflon® sealing rings. To provide better sealing, TransTec® has engineered 4 large and 3 small D-rings to replace the original Teflon® rings used by the factory where applicable (see chart).

Application	Description	Color	O.E. Type	TransTec Type	Loc.
Mazda/Ford 89-Up	1-2 Accum.	Red	D-Ring D-Ring	D-Ring D-Ring	Large Small
Mazda/Ford 89-Up	2-3 Accum.	Green	Sealing-Ring Sealing Ring	D-Ring D-Ring	Large Small
Mazda to 3/23/98	Neutral-Drive	Green	Sealing Ring Sealing-Ring	D-Ring D-Ring	Large Small
Ford to 3/1/98	Neutral Drive	Blue	Sealing Ring O-Ring	D-Ring O-Ring 17.8 x 2mm	Large Small
Mazda from 3/23/98 Ford from 3/1/90	Neutral Drive	Yellow	Sealing Ring O-Ring	D-Ring O-Ring 17.6 x 2.4mm	Large Small
Mazda 89-Up	Neutral-Reverse	Clear	Sealing Ring Sealing Ring	D-Ring D-Ring	Large Small
Ford 89-Up	Neutral-Reverse	Blue	O-Ring Not Used	O-Ring 25 x .5mm	Large Small





## LINE AND THROTTLE PRESSURE SPECIFICATIONS

### Line pressure:

Range	Line pressure psi	
	Idle	Stall
D,S,L	61—81	132—152
R	105—127	216—249

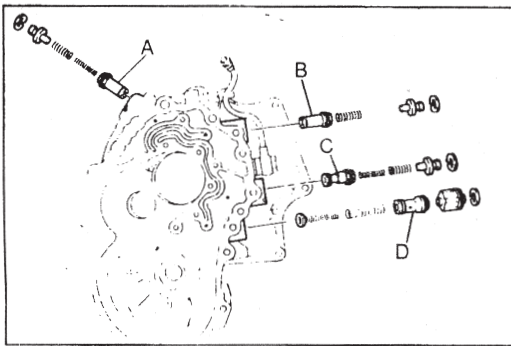
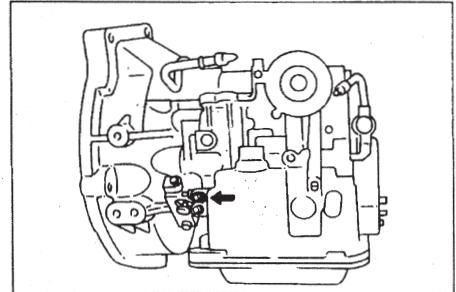
### Throttle pressure:

Range	Throttle pressure psi	
	Idle	Stall
D	7—17	58—75

### THROTTLE PRESSURE PORT LOCATION



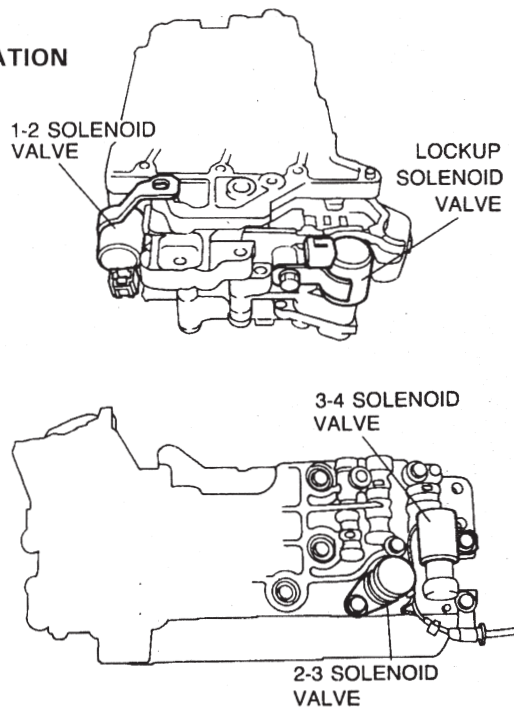
### LINE PRESSURE PLUG LOCATION



### ACCUMULATOR PISTON IDENTIFICATION

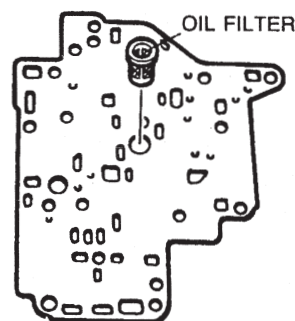
Piston	Seal ring	Large mm (in)		Small mm (in)	
		Large	mm (in)	Small	mm (in)
A	2-3 accumulator piston	29.87	(1.176)	21.91	(0.863)
B	1-2 accumulator piston	30.1	(1.185)	22.4	(0.882)
C	N-D accumulator piston	29.87	(1.176)	21.91	(0.863)
D	N-R accumulator piston	29.87	(1.176)	21.91	(0.863)

### SOLENOID IDENTIFICATION

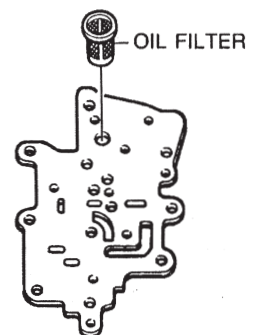


### OIL FILTER LOCATIONS IN VALVE BODY SEPARATOR PLATES

### LOWER SEPARATOR PLATE

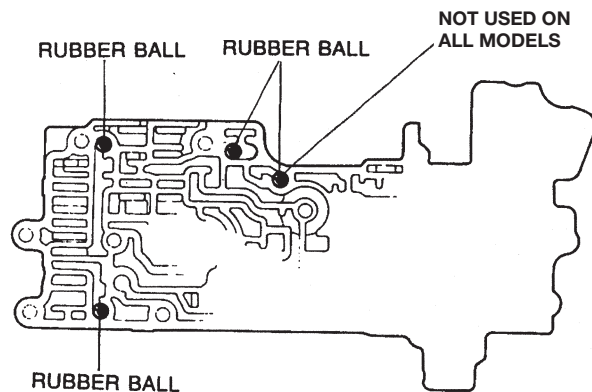


### UPPER SEPARATOR PLATE

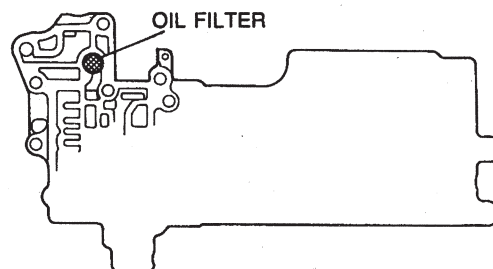


## MAIN CONTROL VALVE BODY

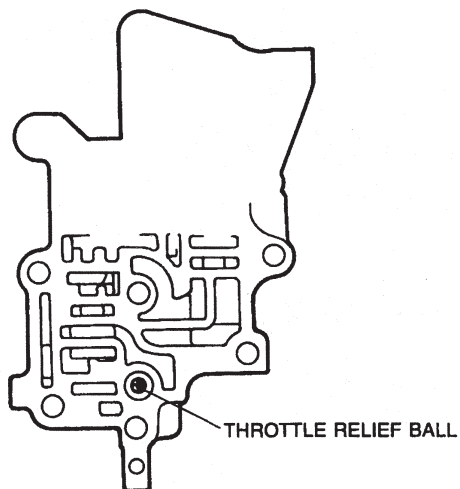
(PREMAIN CONTROL VALVE BODY SIDE - ALL)



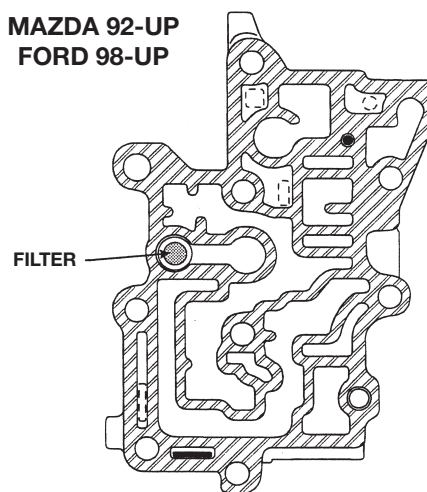
(UPPER CONTROL VALVE BODY SIDE - ALL)



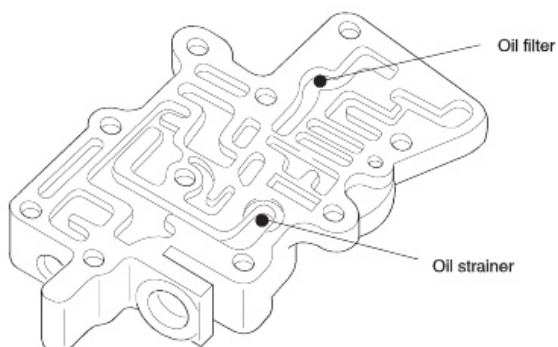
UPPER CONTROL VALVE BODY  
 MAZDA 90-95



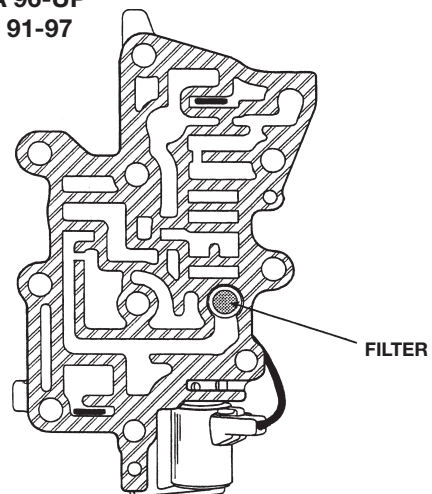
MAZDA 92-UP  
 FORD 98-UP



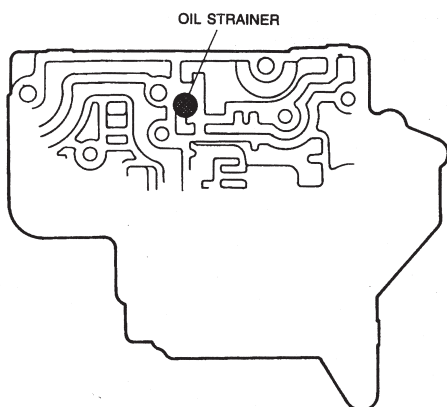
KIA 97-UP



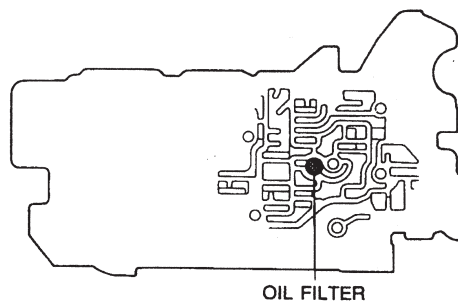
MAZDA 96-UP  
 FORD 91-97



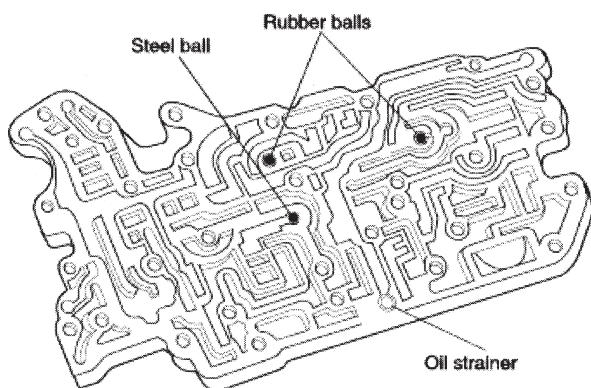
LOWER CONTROL VALVE BODY - ALL



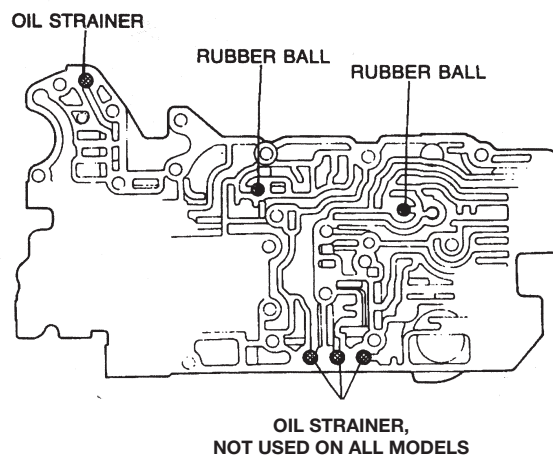
(LOWER CONTROL VALVE BODY SIDE - ALL)



MAIN CONTROL VALVE BODY SIDE  
KIA 97-UP



MAIN CONTROL VALVE BODY SIDE  
MAZDA 90-96 FORD 91-97



MAIN CONTROL VALVE BODY SIDE  
MAZDA 97-UP FORD 98-UP

