FORD AX4N

PRELIMINARY INFORMATION AND DIFFERENCES WITH AX4S (AXODE)

EXTERNAL DIFFERENCES:
The AX4N transaxle was introduced by Ford Motor Company in model year 1994, and has been expanded into more models for 1995. The AX4N is found in *some* Taurus and Sable vehicles, and all 1995 Lincoln Continentals. The AX4N transaxle is a completely different unit than the AX4S/AXODE, but could be easily mistaken for an AX4S/AXODE at a quick glance. Refer to Figure 1, and you will notice that there is no servo cover on the AX4N, and "AX4N" is stamped into the side cover.

SOLENOID LOCATIONS:
The Shift Solenoids, EPC Solenoid, and TCC Solenoid are in different locations between these two units, as shown in Figure 2. We have provided you with both of the internal wiring schematics to identify case connector pin cavities and internal wiring colors, as shown in Figure 3. Notice also in Figure 3, that the case connectors and wire colors are the same for 93-96 AX4S/AXODE and the AX4N transaxles. This may *present problems in the future, as these trunsuxles will not interchange.* Notice *in* Figure 4 that *the solenoid shift patterns are di,fferent between AX4WAXODE and AX4N,* even though the resistance values and the OEM part numbers are the same.

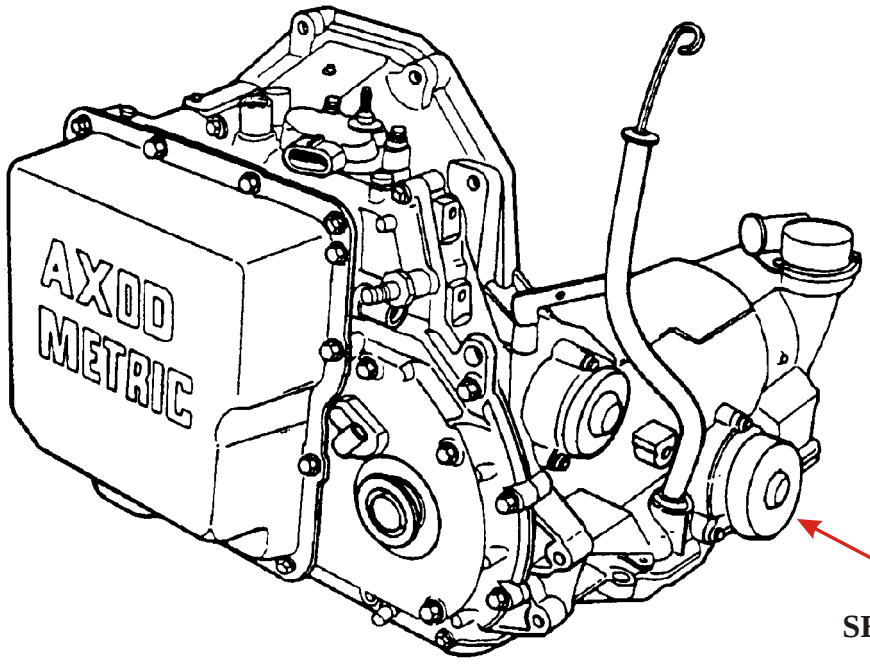
OIL TUBE LOCATIONS:
The difference in oil tube locations, located in the bottom pan, are shown in Figure 5, and we have shown both the early and the late "Cross-Over" tube locations on the AX4S/AXODE version.

OIL FILTER DIFFERENCES:
The bottom pan oil filters are also different between these two units, as shown in Figure 6. Complicating things even further, the AX4N transaxle has two different types of oil filters, two different depth bottom pans, and *some models* require a "Baffle", as shown in Figure 6.

INTERNAL DIFFERENCES:
Internally there is an added Low Intermediate Roller Clutch, an added Low Intermediate Clutch Pack Assembly, and an added Overrun Band that goes around the rear sun gear drum to provide engine braking in low and second are just a few of the internal changes. There are many others. Refer to Figure 7 for the new roller clutch changes.

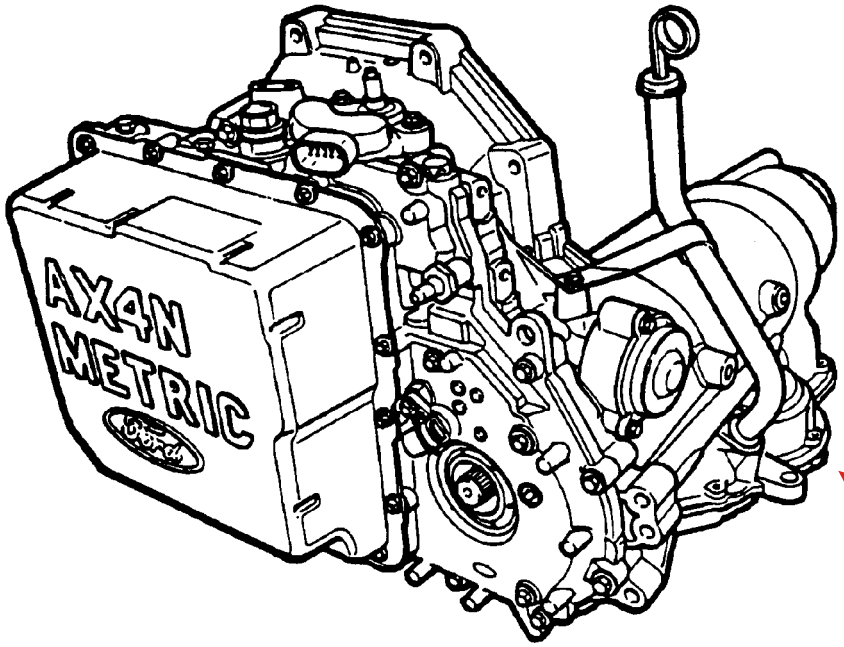
SERVICE INFORMATION:
EPC Solenoid, 91 -UP, All Models, AX4S/AXODE and AX4N F4DZ-7H144-A
Lock-up Solenoid, 199 1Taurus/Sable Only F1DZ-7G136-A
Lock-up Solenoid, 91-93 Continental (Before 5-15-93) ..... Fl OY-7G136-A
Lock-up Solenoid, 1993 Continental (After 5-l 5-93) F3DZ-7G 136-A
Lock-up Solenoid, 92-93 All Models (Before 5-15-93 ..... Fl OY-7G136-A
Lock-up Solenoid, 93-95 All Models (After 5-15-93), AX4S/AXODE and AX4N F3DZ-7Gl36-A
Shift Control Solenoid (3 Reqd), All Models, AX4S/AXODE and AX4N F1DZ-7G484-A
Turbine Shaft Speed Sensor, All Models, AX4S/AXODE and AX4N ..... Fl DZ-7M101-A

AXODE (AX4S)



SERVO COVER

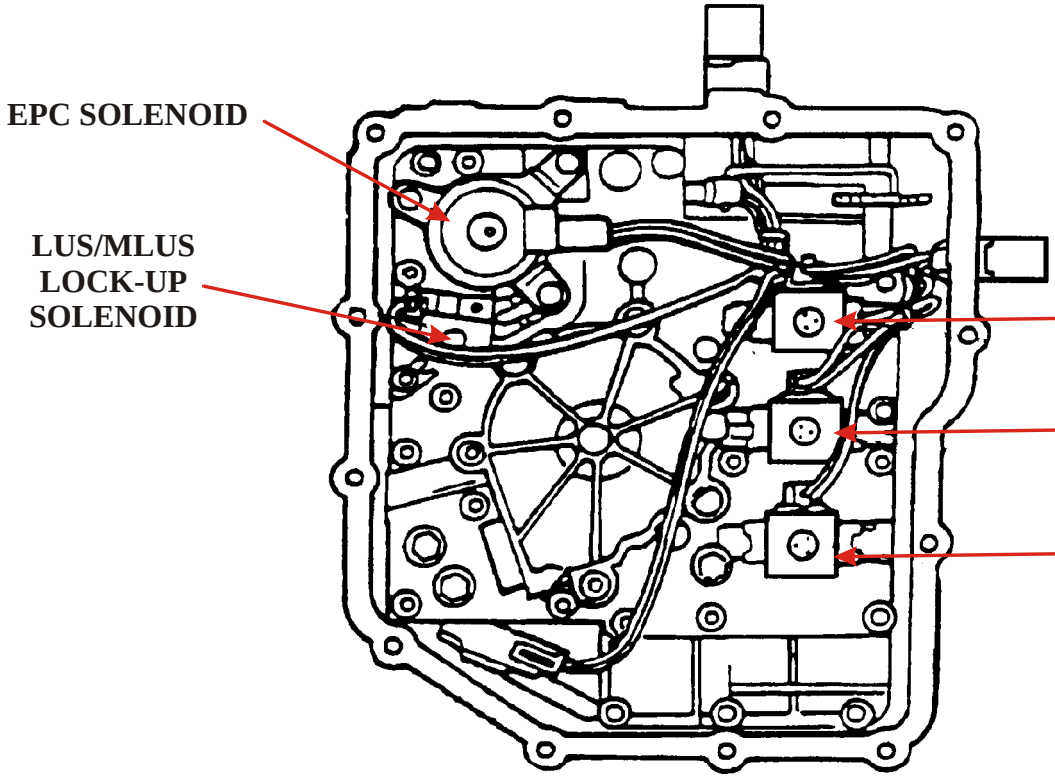
AX4N



NO SERVO COVER

Figure 1

AXODE (AX4S)



AX4N

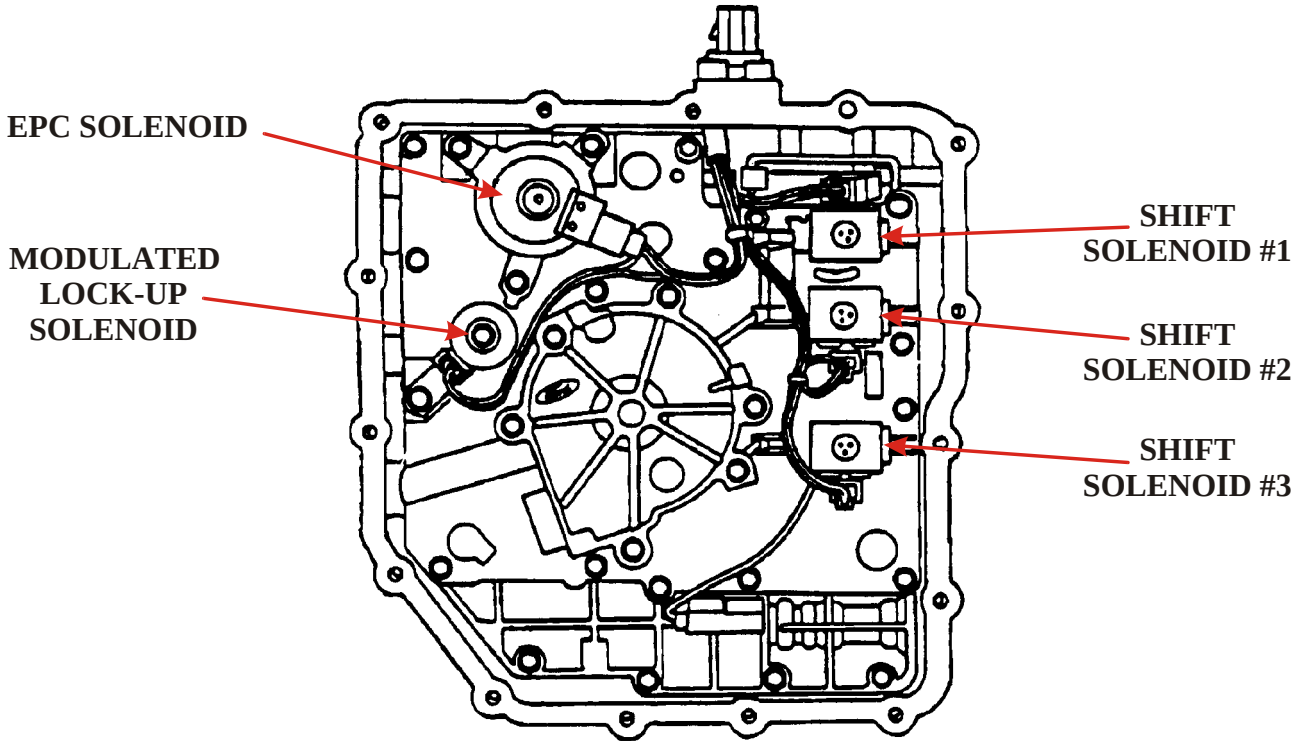
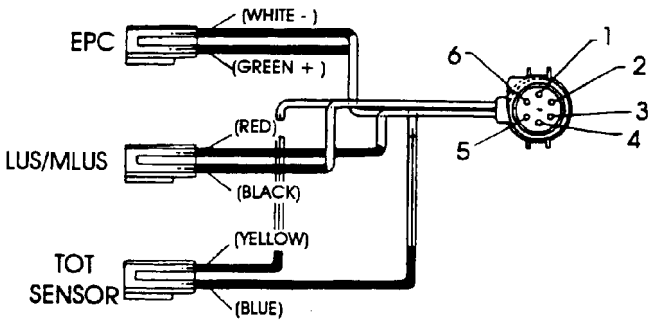
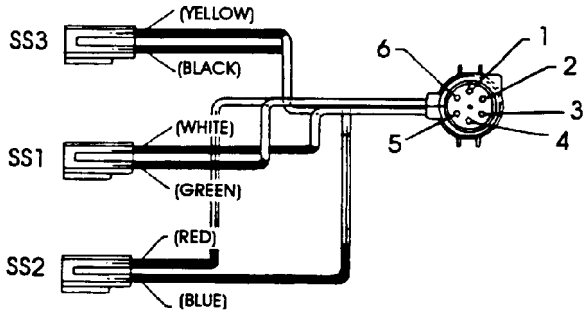


Figure 2

91-92 AXODE (AX4S) ONLY



91-92 CASE CONNECTOR ON THE "TOP" OF THE TRANSAXLE
1. EPC POWER (WHITE)
2. TOT (YELLOW)
3. TOT (BLUE)
4. LUWMLUS POWER (RED)
5. LUS/MLUS GROUND (BLACK)
6. EPC GROUND (GREEN)



91-92 CASE CONNECTOR ON THE "SIDE" OF THE TRANSAXLE
1. SS2 POWER (RED)
2. SS2 GROUND (BLUE)
3. SS3 GROUND (BLACK)
4. SS3 POWER (YELLOW)
5. SS1 POWER (WHITE)
6. SSl GROUND (YELLOW)

1. EPC GROUND (BLUE)
2. EPC/MCCC POWER (GREEN)
3. SS3 GROUND (YELLOW)
4. MCCC GROUND (BROWN)
5. SHIFT SOLENOID POWER (RED)
6. SSl GROUND (ORANGE)
7. TFT (BLACK)
8. SS2 GROUND (PINK)
9. TOT RETURN (WHITE)

AX4N

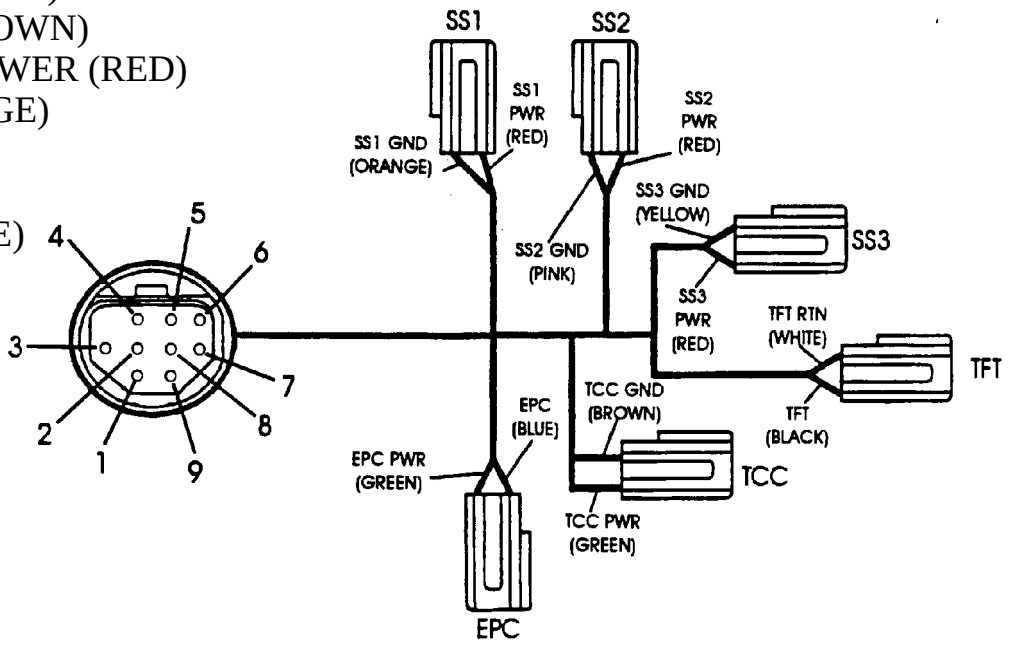


Figure 3

SHIFT SOLENOID PATTERN

AX4S/AXODE *ONLY*				
GEAR SELECTOR	PCM GEAR COMMANDED	SHIFT SOLENOIDS		
		SS1	SS2	SS3
P/N	P/N	OFF	ON	OFF
REV	REV	OFF	ON	OFF
OD	1ST	*OFF*	*ON*	*OFF*
OD	2ND	*ON*	*ON*	*OFF*
OD	3RD	*OFF*	*OFF*	*ON*
OD	4TH	*ON*	*OFF*	*ON*

SHIFT SOLENOID PATTERN

AX4N *ONLY*				
GEAR SELECTOR	PCM GEAR COMMANDED	SHIFT SOLENOIDS		
		SS1	SS2	SS3
P/N	P/N	OFF	OFF	OFF
REV	REV	OFF	OFF	OFF
OD	1ST	*OFF*	*ON*	*OFF*
OD	2ND	*OFF*	*OFF*	*OFF*
OD	3RD	*ON*	*OFF*	*ON*
OD	4TH	*ON*	*ON*	*ON*

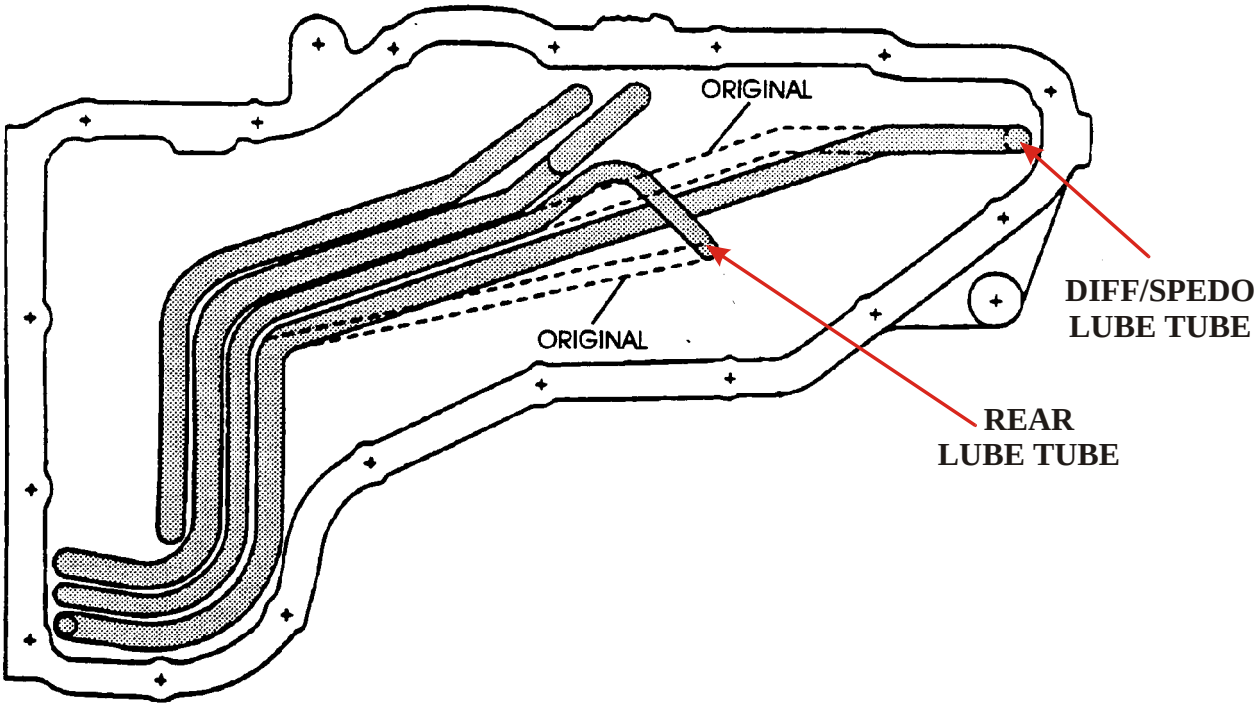
SHIFT SOLENOID RESISTANCE CHART AND TFT SENSOR RESISTANCE CHART FOR BOTH AX4S AND AX4N

SOLENOID	SOLENOID RESISTANCE (OHMS)
SS1	15 - 25
SS2	15 - 25
SS3	15 - 25
LUS	21 - 36
MLUS	.98 - 1.6
EPC	3.23 - 5.50
TSS	100 - 200

°C	°F	TFT SENSOR (OHMS)
0-20	32-58	100k - 37k
21-40	59-104	37k - 16k
41-70	105-158	16k - 5k
71-90	159-194	5k - 2.7k
91-110	195-230	2.7k - 1.5k
111-130	231-266	1.5k - 0.8k
131-150	267-302	0.8k - 0.5k

Figure 4

AXOD/AX4S TUBE LOCATIONS



AX4N TUBE LOCATIONS

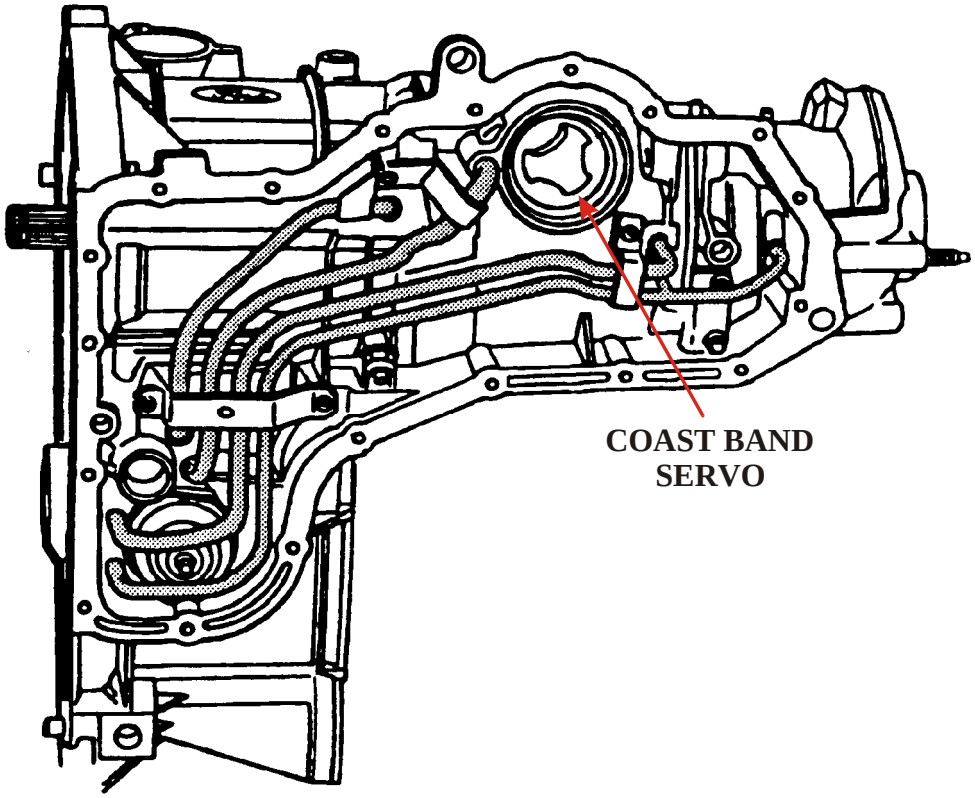
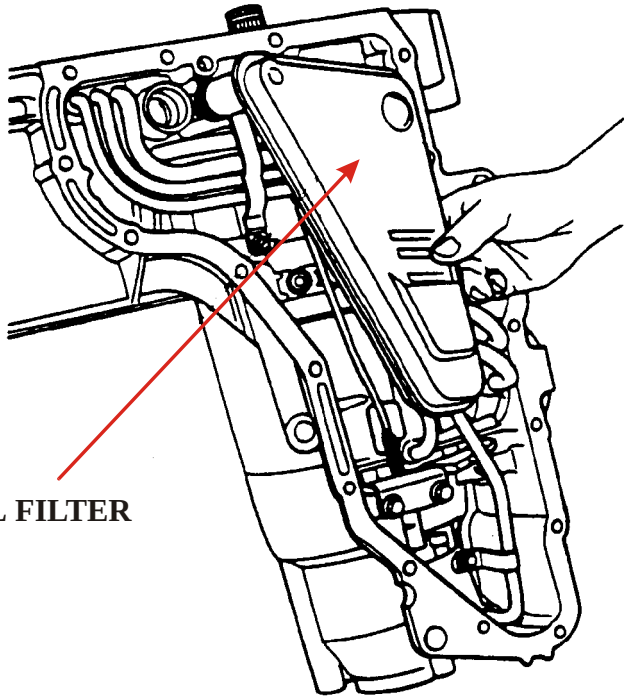
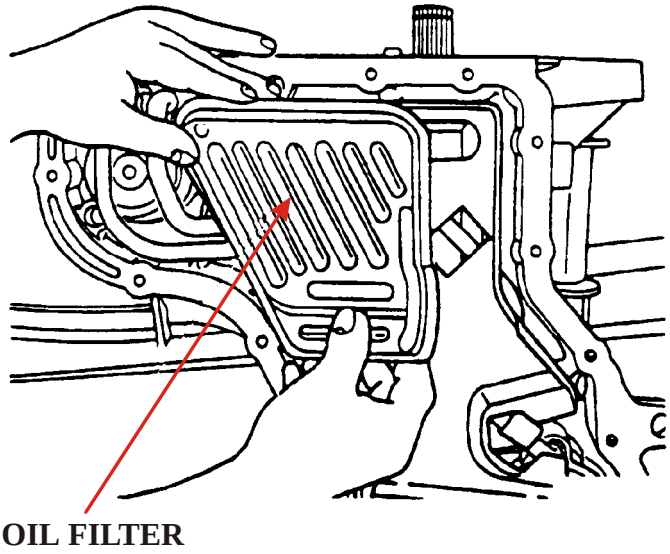


Figure 5

AXOD FILTER



AX4N FILTER



FILTER BAFFLE FOUND ON SOME MODELS

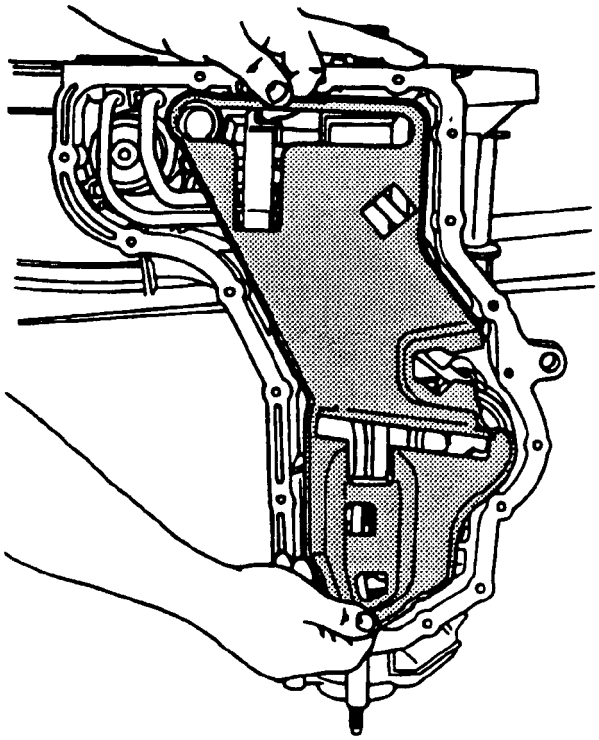
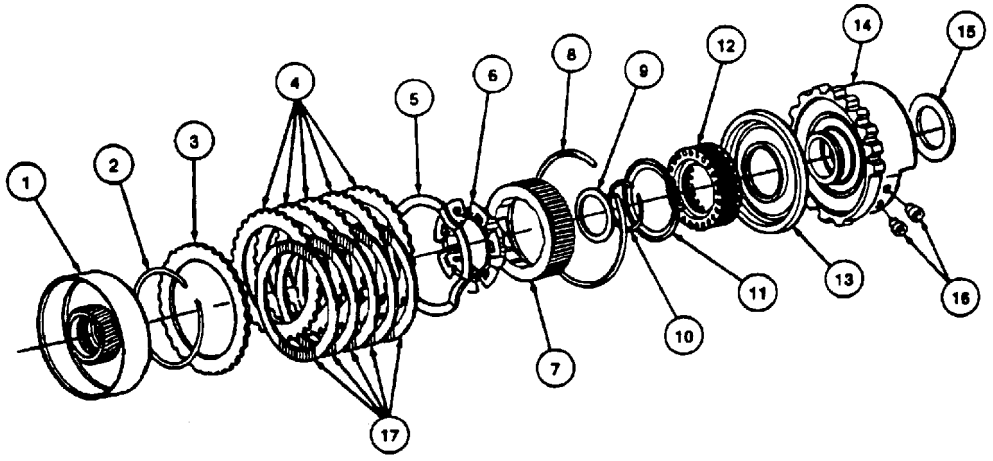


Figure 6

LOW INTERMEDIATE ROLLER CLUTCH AND LOW INTERMEDIATE CLUTCH PACK ASSEMBLY



1. REAR SUN GEAR ASSEMBLY
2. LOW INTERMEDIATE CLUTCH SNAP RING (SELECTIVE)
3. LOW INTERMEDIATE PRESSURE PLATE
4. LOW INTERMEDIATE STEEL CLUTCH PLATES
5. LOW INTERMEDIATE CLUTCH WAVE PLATE
6. LOW INTERMEDIATE ROLLER CLUTCH ASSEMBLY
7. LOW INTERMEDIATE ROLLER CLUTCH OUTER RACE
8 . REAR PLANET SUPPORT BEVELED SNAP RING (SELECTIVE)
9. NUMBER 15 SUN GEAR THRUST BEARING
10. RETAINING SNAP RING
11. NUMBER 15 THRUST WASHER
12. LOW INTERMEDIATE CLUTCH RETURN SPRING ASSEMBLY
13. LOW INTERMEDIATE CLUTCH PISTON AND SEAL ASSEMBLY
14. REAR PLANETARY SUPPORT ASSEMBLY
15. NUMBER 16 THRUST WASHER
16. LUBE OIL TRANSFER TUBE SEALS (2 REQUIRED)
17. LOW INTERMEDIATE CLUTCH LINED PLATES