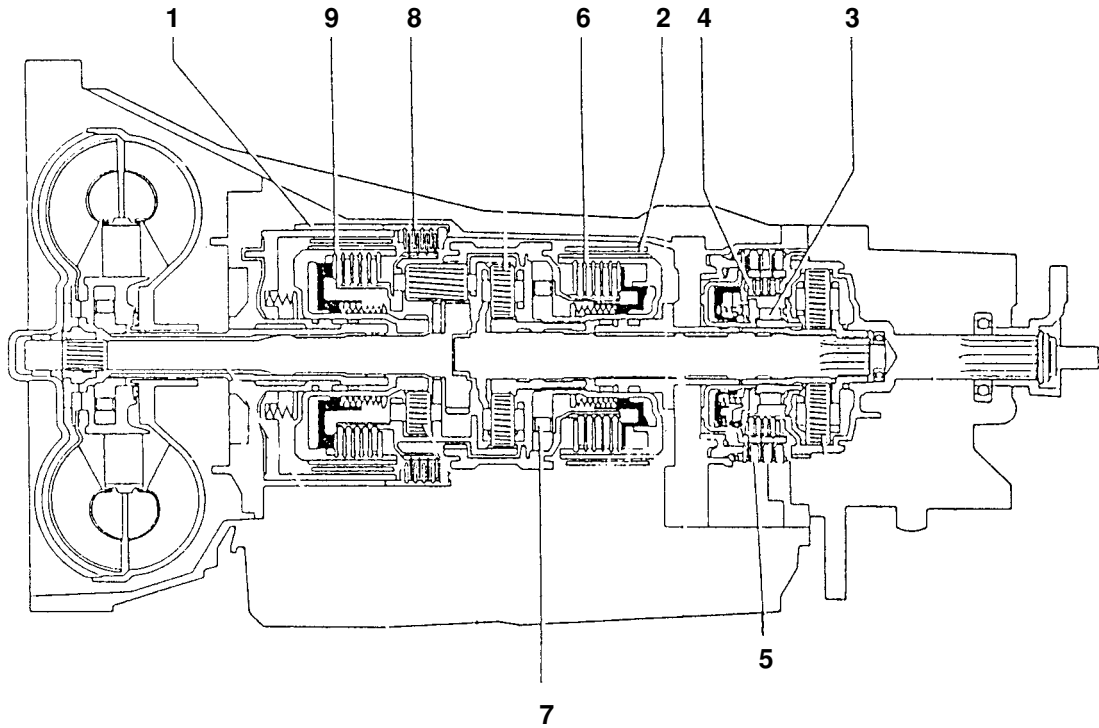


Mercedes 722.5



- | | | |
|---------------------|---------------|--------------------------|
| 1 - Brand Band B1 | 4 - Clutch KS | 7 - Sprag Clutch F1 |
| 2 - Brake Band B2 | 5 - Brake BS | 8 - Multi-Disc Clutch B3 |
| 3 - Sprag Clutch F2 | 6 - Clutch K2 | 9 - Clutch K1 |

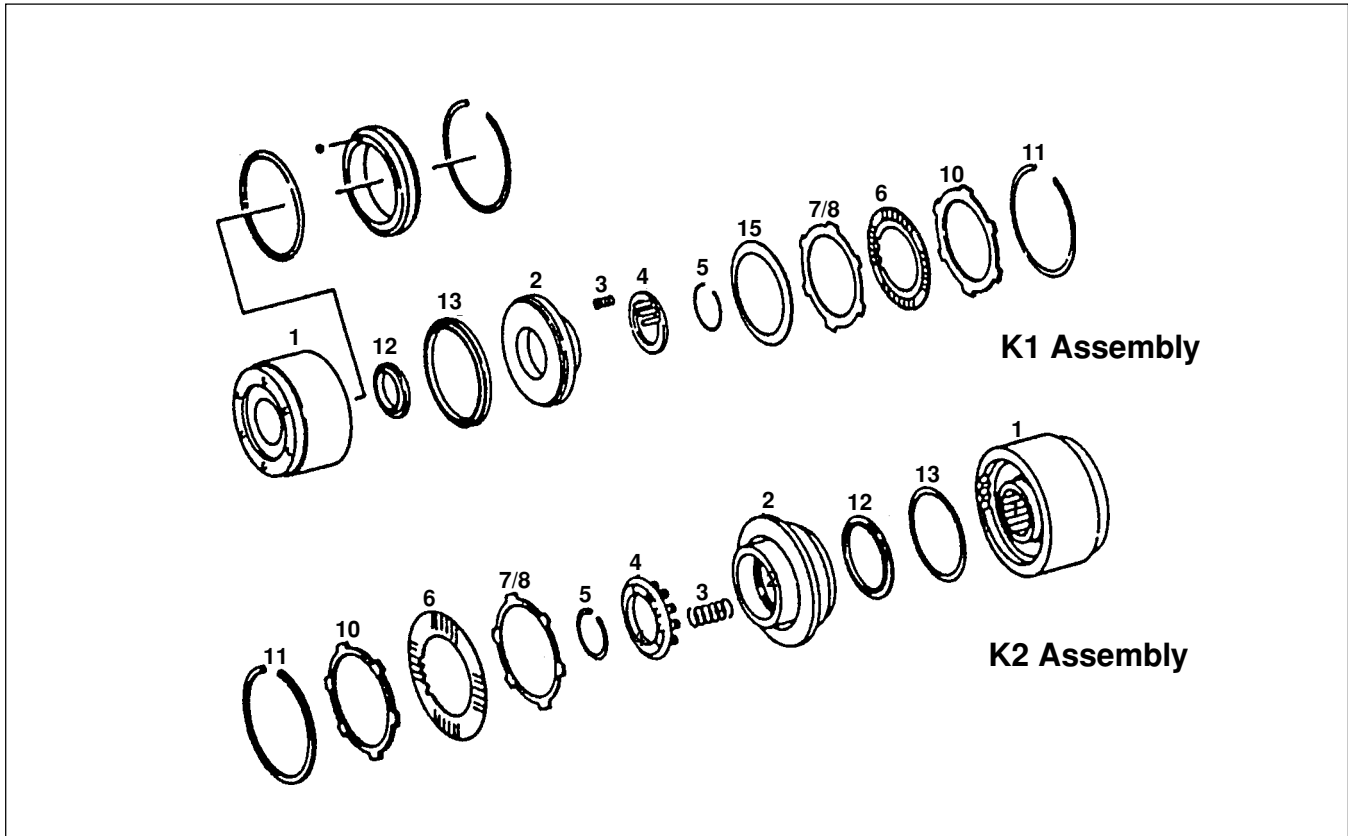
Application Chart													
Lever Position				Gear	B1	K1	B3	F1	K2	B2	BS	KS	F2
D	4	3	2	1st				X		X		X	X
				2nd	X					X		X	X
				3rd		X				X		X	X
				4th		X		X		X		X	X
				5th		X		X		X		X	
R				Rev			X	X	X		X		

Note: Transmission starts in first gear at full throttle and kick down.

Legend: X = Activated or locked.

K1 - Direct Clutch
KS - Overrun Clutch
F2 - O.D. One Way Clutch

K2 - Fourth Clutch
B1 - Intermediate Brake Band
B3 - Reverse Brake
BS - O. D. Brake
F1 - Low One Way Clutch
B2 - Forward Brake Band



Replacing K1 & K2 Aluminum Support O-Ring In Mercedes 722.3 And 722.4

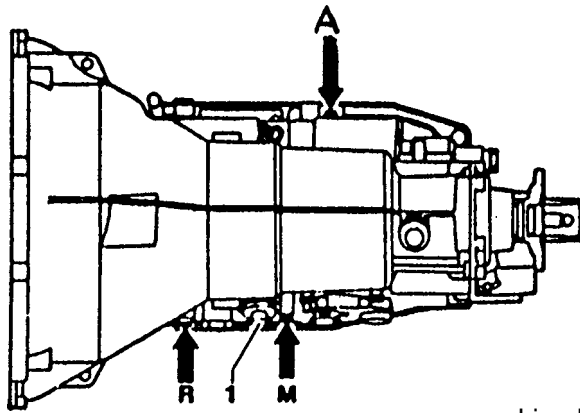
Read Complete Instructions Carefully And Completely Before Replacing O-Ring.

K1 Aluminum Support O-Ring Replacement

1. Remove three rivets from the drum holding the support to the drum.
2. Drill the holes in the aluminum to 3/16".
3. Counter sink the area on the inside of the support where the head of the bolt meets the support.
The head of the bolt needs to be recessed in the support so that the bolt doesn't interfere with the piston travel.
4. Tap the three holes in the drum with a 10-32 machine tap and clean all parts thoroughly.
5. Place the new O-Ring in the support groove using assembly lube to hold the O-Ring in place.
6. Install support into drum, install the three bolts being sure to pull down the support evenly, torque bolts to 36 inch pounds.
7. Turn the drum over and remove excess part of the bolt that is sticking out.

K2 Aluminum Support O-Ring Replacement

1. Do steps 1 and 2 from above.
2. The K2 drum support is a different design than the K1. You need to use a 1/4" counter sink drill bit so the support has the same counter as the bolts. The head of the bolts will not interfere with piston operation.
3. Grind off the edge of the bolt heads so that they clear the support and fit down in the pockets.
4. Do steps 4-7 from above.



- A - Working Line pressure
- M - Modulating Pressure
- R - Governor Pressure
- 1 - Vacuum Control Unit

Line Pressure 75-90 PSI in Drive @ Idle
 169-199 PSI @ Stall in Drive
 Governor Pressure: 18MPH = 13.05PSI, 56MPH = 33.35PSI
 Modulator Pressure: Adjusted W/ a gauge no vacuum, in drive
 @ 31MPH = 55PSI

B3 Clutch Clearance

Measurement "A"

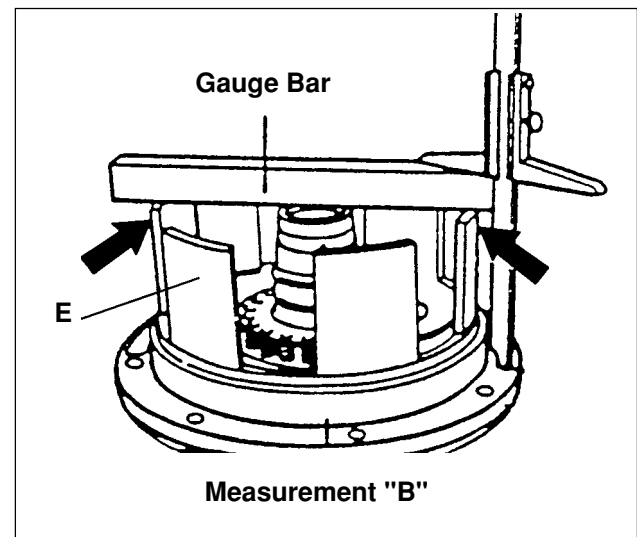
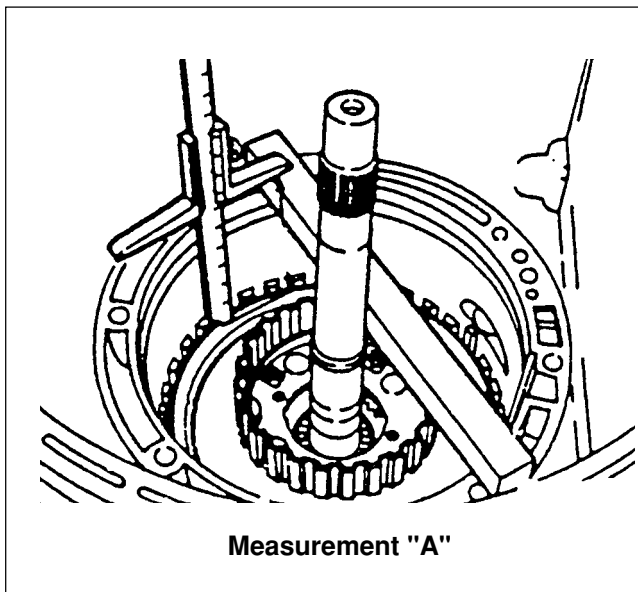
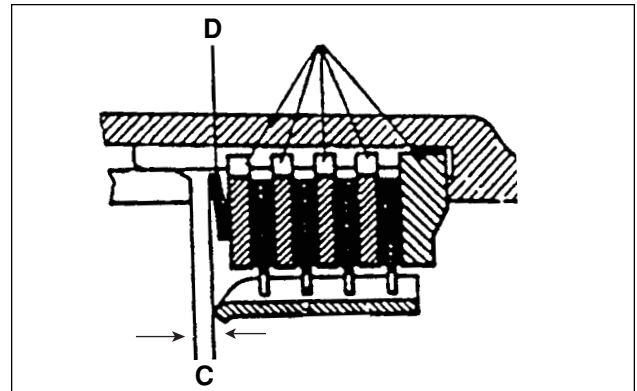
Position Gauge Bar on Case Surface.
 Measure Distance to Edge of B3 Plate Spring. (D)

Measurement "B"

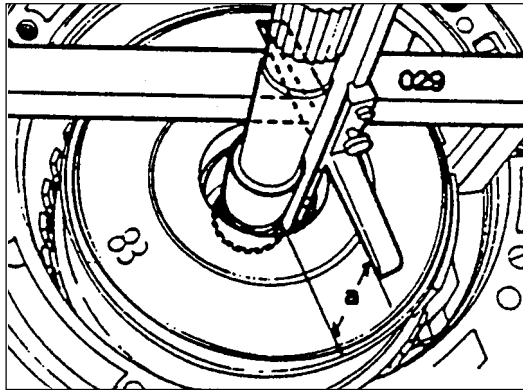
Position Gauge Bar on B3 Piston. (E)
 Measure Distance to Installed Gasket

"A" - "B" = "C"
 "C" = 1.5 - 2.0mm / .059" - .079"

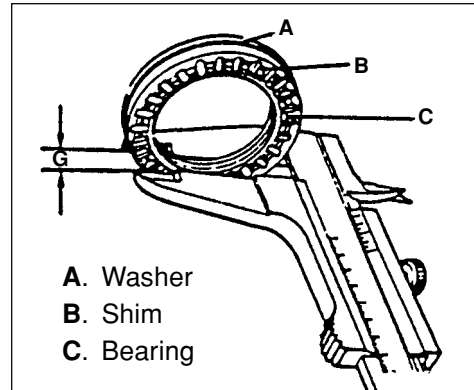
Measurement "A" Detail



Measurement "F" Detail



Measurement "H" Detail



K1 to Pump Clearance

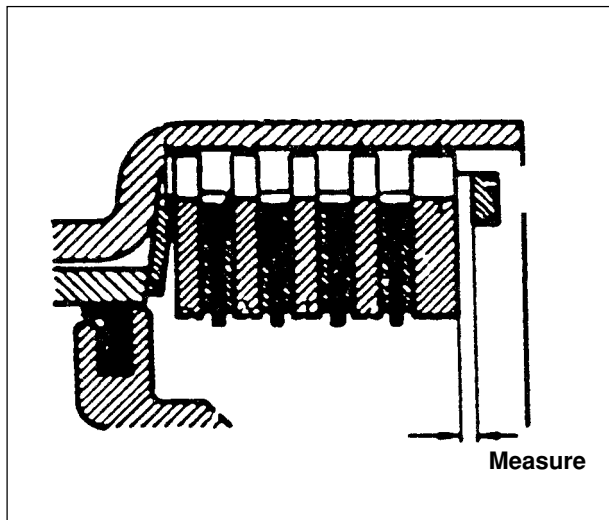
Measurement "B" (Previous Page)
Position Gauge Bar on B3 Piston.
Measure Distance to Installed Gasket.

Measurement "F"
Position Gauge Bar on Case Surface.
Measure Distance to K1 Thrust Surface

Measurement "G"
Add K1 Shim, Thrust Bearing & Washer
Thickness' Together

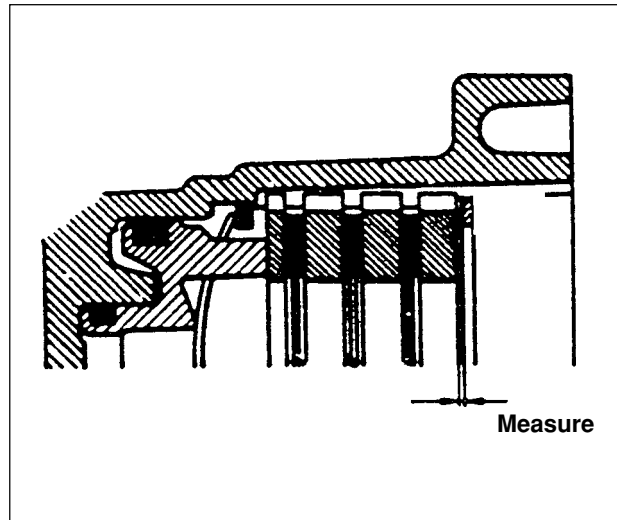
$"B" - "F" - "G" = "H"$
 $"H" = 0.4 - 0.6\text{mm} / .016" - .024"$
W/Rear Housing Installed

KS Clutch



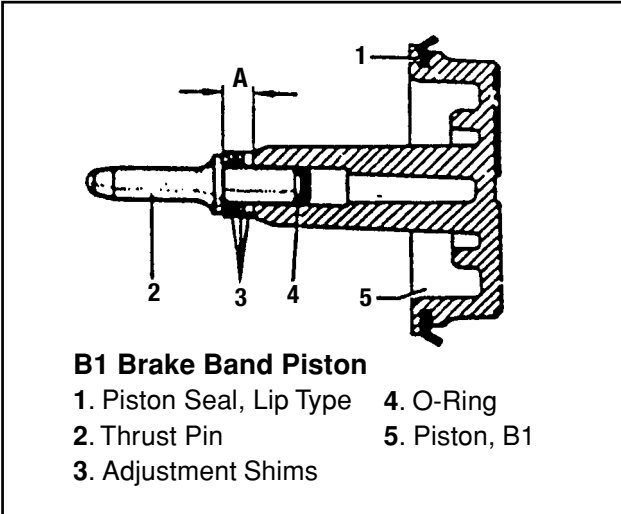
Clearance: 1.5-2.1mm/o.059"-0.083"

BS Brake



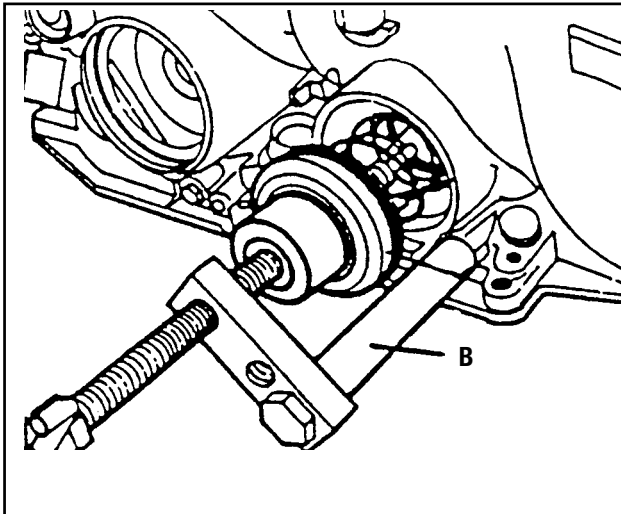
Clearance: 0.5-1.1mm/0.020"-0.043"

B1 Brake Band Adjustment

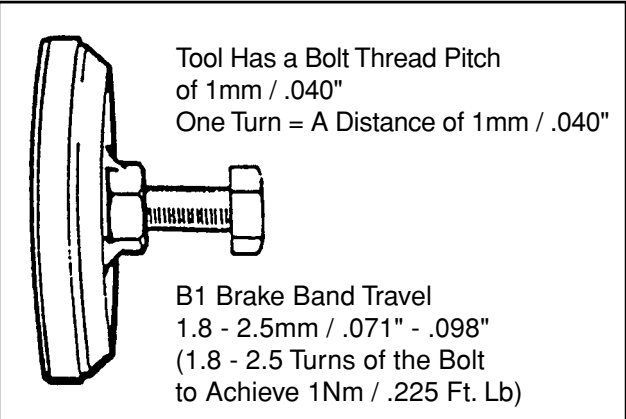


B1 Brake Band Piston
 1. Piston Seal, Lip Type 4. O-Ring
 2. Thrust Pin 5. Piston, B1
 3. Adjustment Shims

A: Servo Adjustment Shims Not to Exceed 6.5mm / .256"



B: Servo Assembly/Disassembly Tool, Mercedes #125 589 06 21 00 or Equivalent

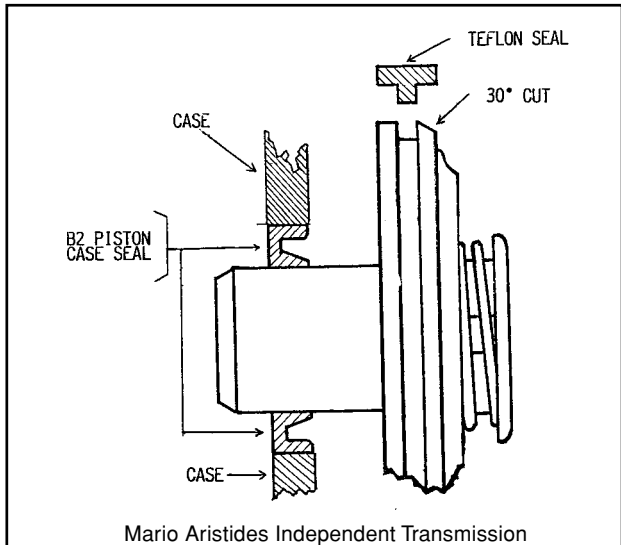
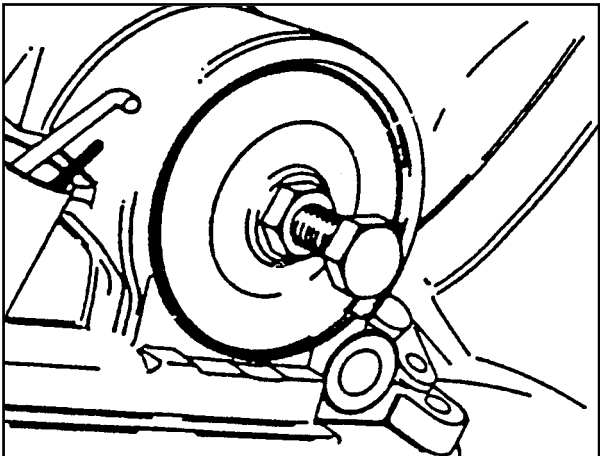


Tool Has a Bolt Thread Pitch of 1mm / .040"
 One Turn = A Distance of 1mm / .040"

B1 Brake Band Travel
 1.8 - 2.5mm / .071" - .098"
 (1.8 - 2.5 Turns of the Bolt to Achieve 1Nm / .225 Ft. Lb)

Delayed Engagement in all Forward Ranges May be Due to the "T" Type B2 Brake Piston Seal
 The "T" Type Seal is not as Flexible and May Not Seal Well Against the Servo Bore.

By Grinding a 30 Degree Chamfer Around the Outer Land on the Piston - See Illustration
 This Will Allow Additional Oil Pressure to Directly Affect the Piston Seal During the Apply



Mario Aristides Independent Transmission

B2 Brake Band Adjustment

Install Servo Cover & Ring

Press band toward band piston - direction of arrow so that piston contacts cover. (Fig. 1)

Measure dimension "A" on brake band

Press band toward thrust element - in direction of arrow until it bottoms (Fig. 2)

Measure dimension "B" on brake band

Measured A - B = C. C = Brake band travel
5.5 - 6.0mm / .217" - .236"

Fig. 1

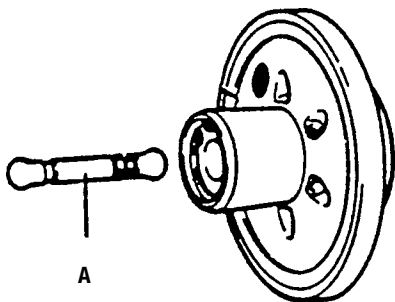
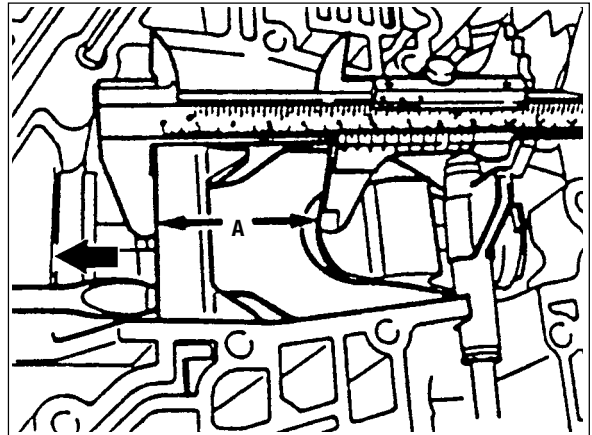
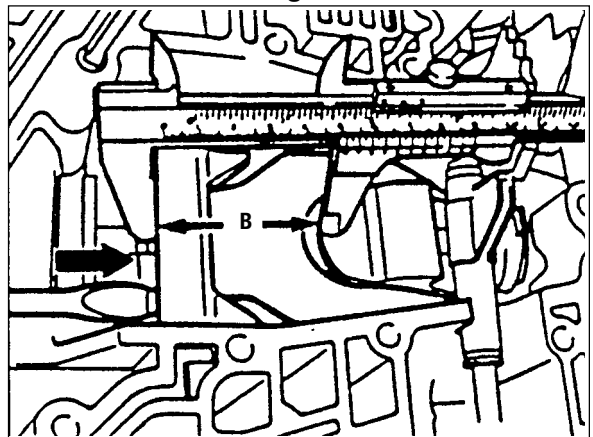
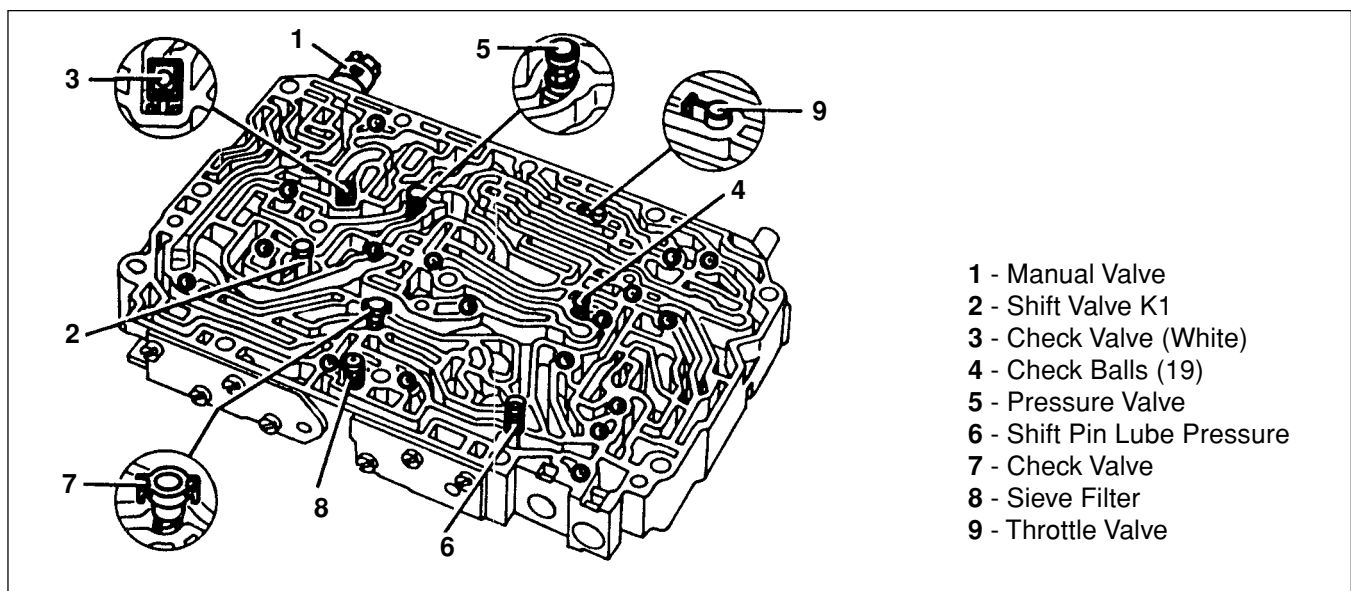
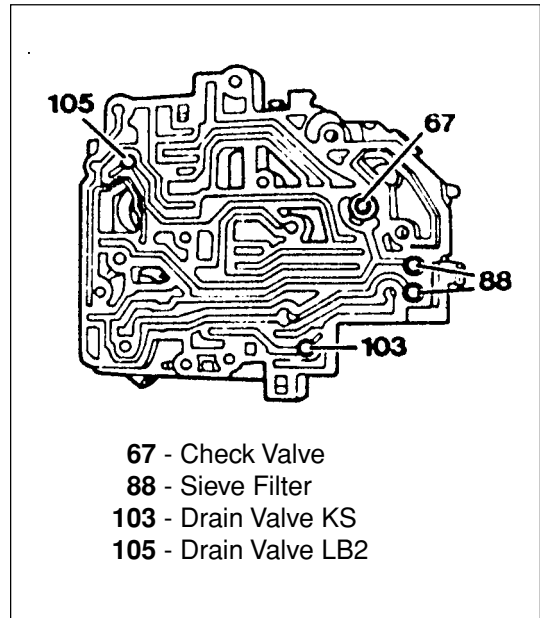
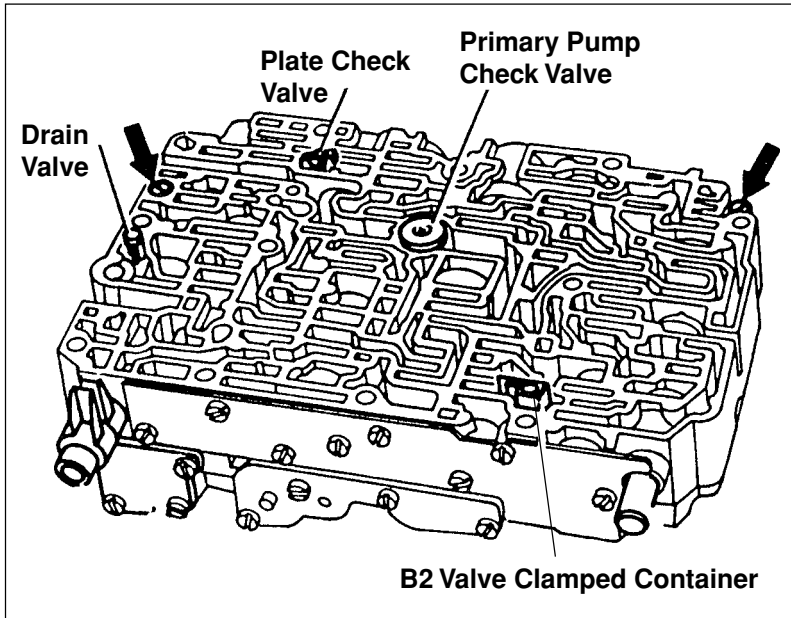


Fig. 2

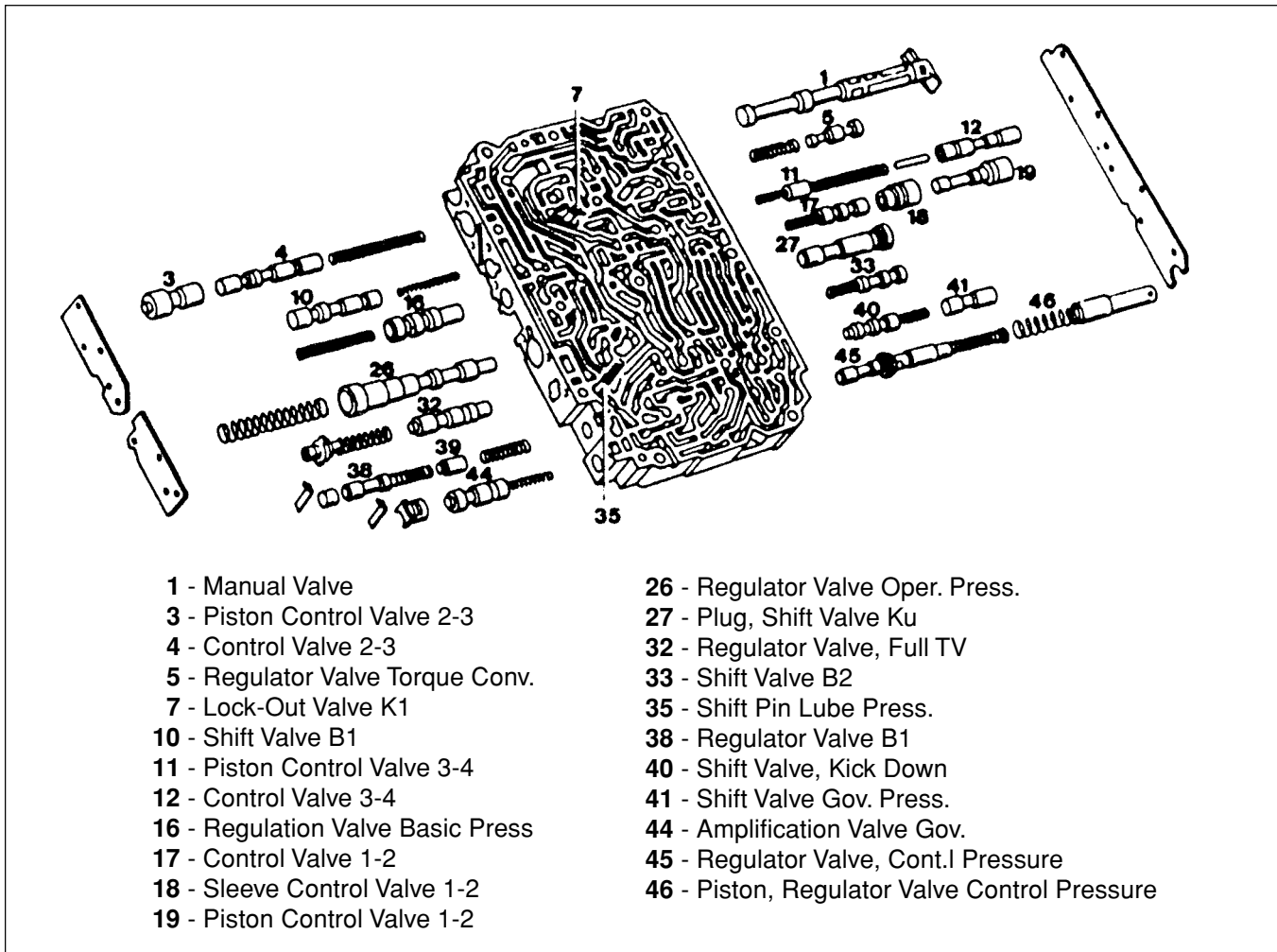


Note: Thrust pins (A) are available with lengths of 47.2; 48.8 and 49.6 mm for brake band B2 1.858", 1.921" & 1.953"

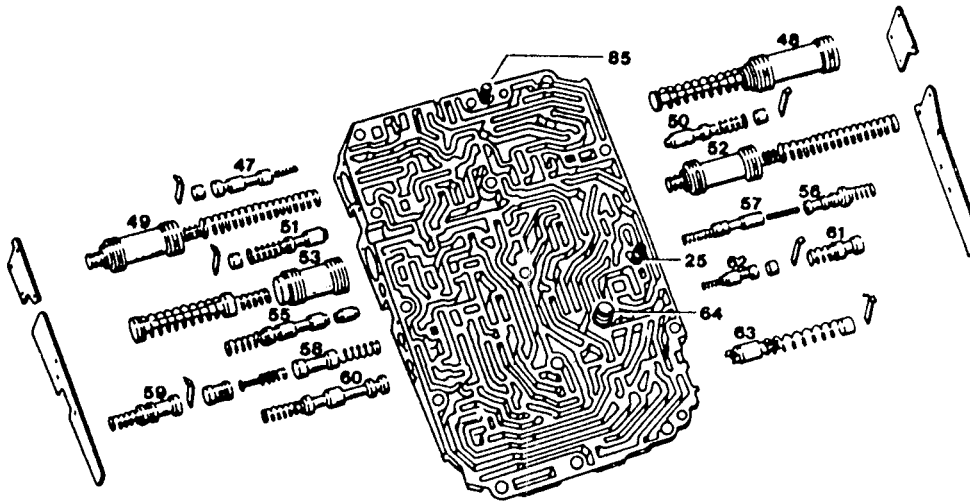




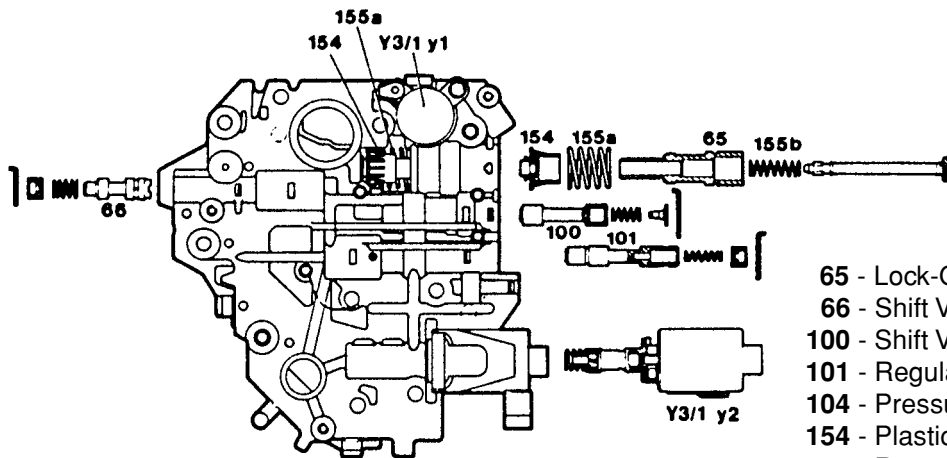
Upper Valve Body



Lower Valve Body



- | | |
|------------------------------------|--|
| 25 - Relief Valve | 57 - Regulator Valve Damper B1 |
| 47 - Regulator Valve Shift Pattern | 58 - Regulator Valve Damper, Switch On |
| 48 - Damper K1 | 59 - Shift Valve K2 |
| 49 - Damper K2 | 60 - Release Valve B2 |
| 50 - Regulator Valve Damper K1 | 61 - Lock-Out Valve Deceleration |
| 51 - Regulator Valve Damper K2 | 62 - Lock-Out Valve RV1 |
| 52 - Damper B1 | 63 - Damper, Kick-Down |
| 53 - Damper Switch On | 64 - Lubrication Pressure Valve |
| 55 - Lock-Out Valve RB2 | 65 - Pressure Limitation Valve |
| 56 - Shift Valve Deceleration | |



- | |
|---|
| 65 - Lock-Out Piston (Rev, Kick-Down) |
| 66 - Shift Valve Secondary Pump |
| 100 - Shift Valve Overlap KS/BS |
| 101 - Regulator Valve Shift Pressure BS |
| 104 - Pressure Valve K2 |
| 154 - Plastic Sleeve |
| 155a - Return Spring (Large) |
| 155b - Return Spring (Small) |
| Y3/1y1 - Kick-Down Solenoid Valve |
| Y3/1y2 - Regulator Valve |