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TCI® 436000 TRANS-SCAT®

Installation Instructions for Ford AOD 1980 - 1993

TCI® 436000 Kit Contains:

Qty.	*Description*	
Five (5)	Gaskets:	Three (3) Valve Body
		One (1) Filter
		One (1) Duraprene® Pan
Two (2)	Springs:	One (1) Purple Throttle Valve
		One (1) White Main Pressure Regulator
One (1)	Filter	
One (1)	Blocker Rod	
One (1)	Accumulator Spacer	
One (1)	4mm Bolt	
Three (3)	Drill Bits:	One (1) 3/32"
		One (1) 5/64"
		One (1) 7/64"

NOTE: This kit is not intended for installation in a transmission in poor general condition. It will not correct a malfunctioning or slipping transmission.

This kit will allow you to modify your AOD transmission for your particular driving requirements.

STREET/STRIP: This is the level of modification TCI® builds into the Street Fighter™ Transmission. The shift feel is very positive and sharp.

HEAVY DUTY: This type of modification is used for towing, camping, motor homes, police, taxi and other vehicles that put a lot of stress on the transmission. The shift is firm but not harsh.

STREET: This type of modification is a step above the stock transmission performance and shift feel.

Step 1 Drain oil pan. You will need a pan to catch fluid. Remove transmission oil pan bolts. When removing bolts, remove so pan will not drop completely off but will be held in place so that one side will allow the fluid to be drained. After the fluid has drained, remove the rest of the bolts and pour out the remaining fluid. Dispose of the fluid in an environmentally responsible manner. If you encounter a loose plastic plug in the bottom of the pan, just discard it. This was used by the factory to keep debris out of the dipstick hole prior to vehicle installation. Remove gasket and discard. If gasket material sticks to transmission pan or case, remove all material completely. AOD transmissions do not have a drain plug. You may want to install a TCI 805800 universal drain plug kit into your pan now that it's off.

Step 2 Carefully remove the oil filter by remove the three (3) filter bolts with an 8mm socket. Pull the filter straight down. Inspect the oil filter. Replace the filter if it is dirty or has not been changed in over 25,000 miles. TCI part number 438500 is a replacement filter and pan gasket.

Step 3 Remove the twenty-four (24) valve body bolts and lower the valve body taking care not to damage the manual valve linkage.

Step 4 Remove the three (3) reinforcement plates from the valve body using a 10mm wrench. **(See Photo 1)** Using an 8mm wrench, remove the last separator plate retaining bolt. Lift the separator plate straight up and keep the valve body level so that the check balls do not get lost. Remove all the check balls (7 or 8) and the two (2) pressure relief valves and store them in a separate container. **(See Photo 12 on back page)**

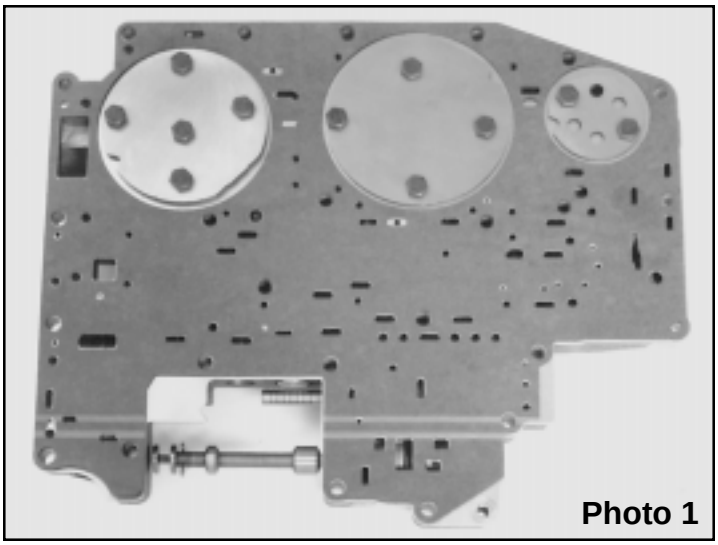

Photo 1

Step 5 Separator plate modifications: Refer to **Illustration 1** for orifice location. **NOTE:** Orifice H is a new hole which will not be found on your OEM separator plate. Once the hole is drilled you must also modify your gaskets accordingly. Also, be aware that not all models will have all of the orifices shown in **Illustration 1.** Only enlarge an orifice if it is already in your OEM separator plate. **NOTE:** Some later models have larger holes.

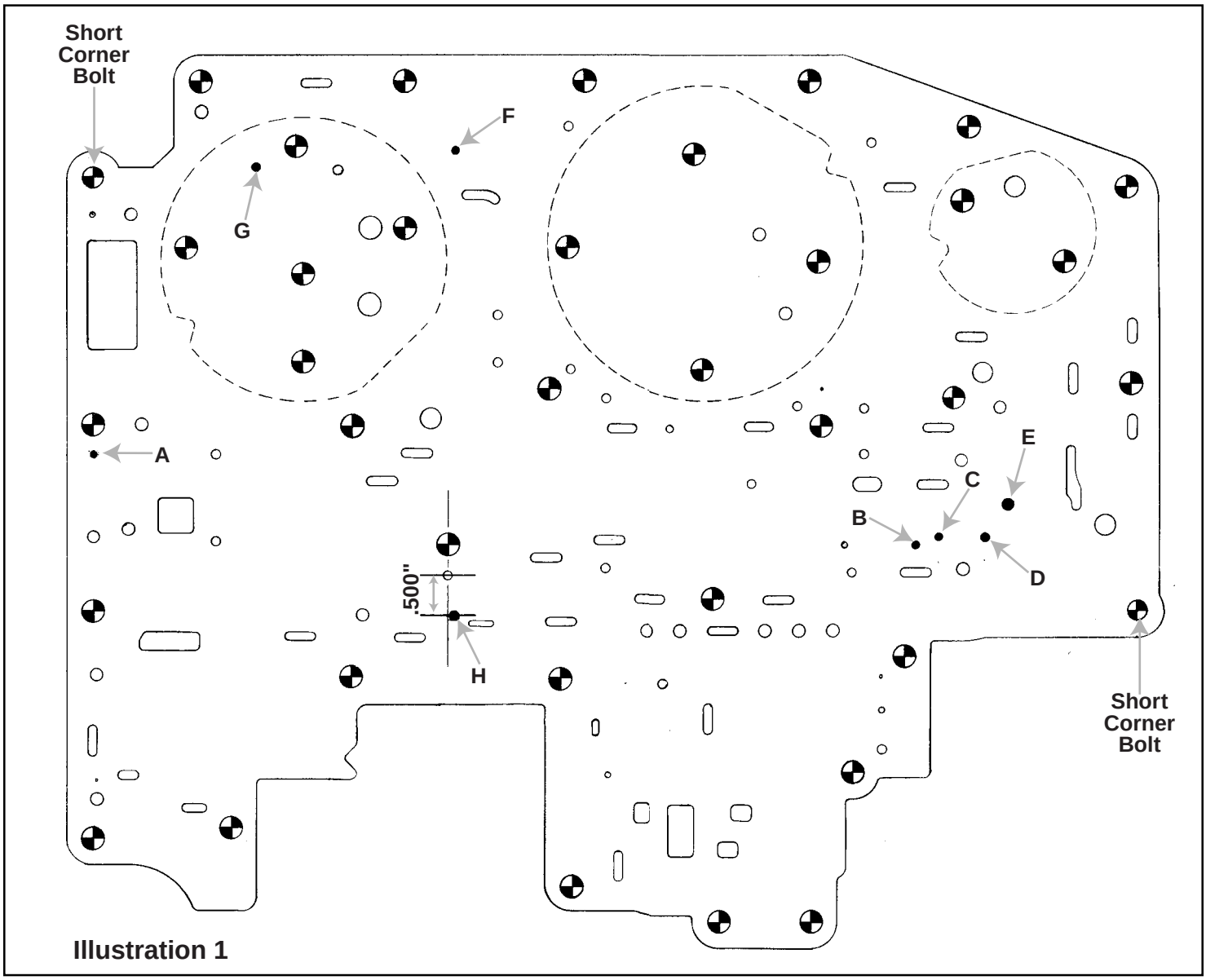

Illustration 1

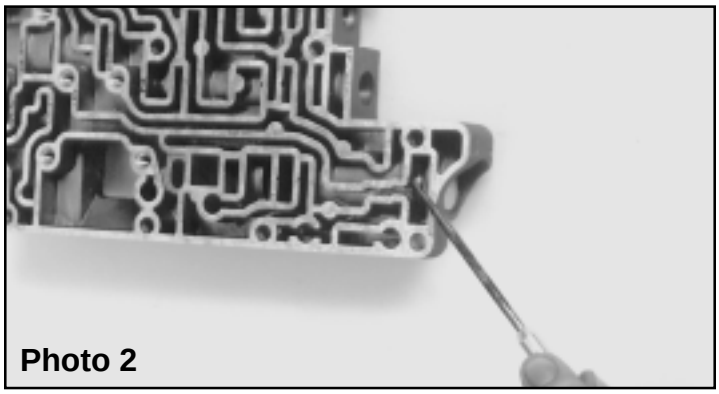

Photo 2

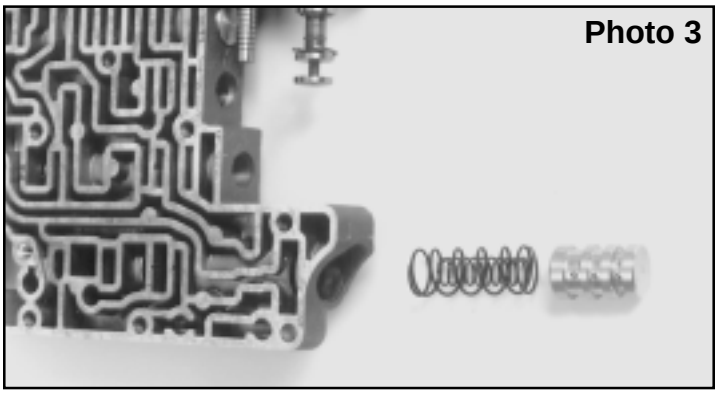

Photo 3

STREET/STRIP: A - 3/32"; B - 5/64"; C - 5/64"; D - 3/32"; E - 1/8"; F - 7/64"; G - 3/32"; H - 3/32"

HEAVY DUTY: A - 3/32"; B - 5/64"; C - 5/64"; D - 5/64"; E - 1/8"; F - 3/32"; G - 3/32"; H - 3/32"

STREET: A - 5/64"; B - 5/64"; C - 5/64"; D - N/C; E - 1/8"; F - 5/64"; G - 3/32"; H - 3/32"

Step 6 Locate the pressure regulator assembly in your valve body. Remove the retaining clip being careful not to lose any parts. Remove the booster valve and the springs. Replace the large spring with the TCI® spring. Reassemble the pressure regulator. **(See Photo 2 and Photo 3)**

Step 7 Locate the throttle plunger mechanism. Remove the retaining clip from the bottom of the valve body. Remove the throttle control valve assembly and replace the throttle valve spring with the TCI® throttle valve spring. **(See Photo 4 and Photo 5)**

Step 8 **STREET:** Go to **STEP 9.**

Locate the 1-2 accumulator valve assembly. Remove retaining clip. Early model valve bodies require the use of a scribe or similar tool to pry the end plug out of the valve body. Late model valve bodies will have a plug that is drilled and tapped to allow the use of the TCI® 4mm screw to be inserted as seen in **Photo 6.** Use pliers to pull on the screw and remove the end plug. **(See Photo 7)**

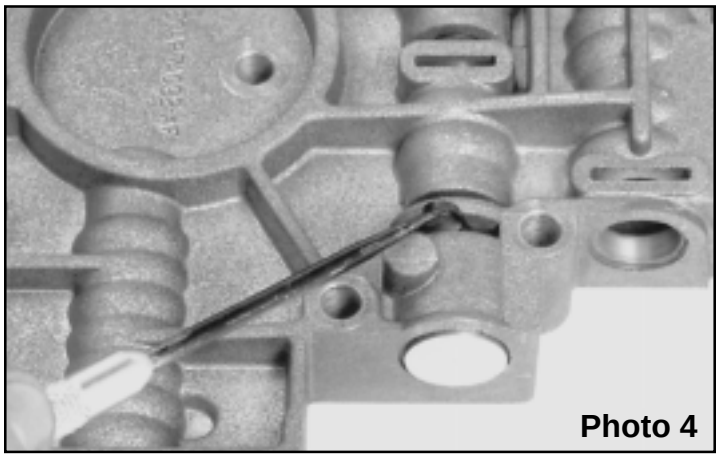

Photo 4

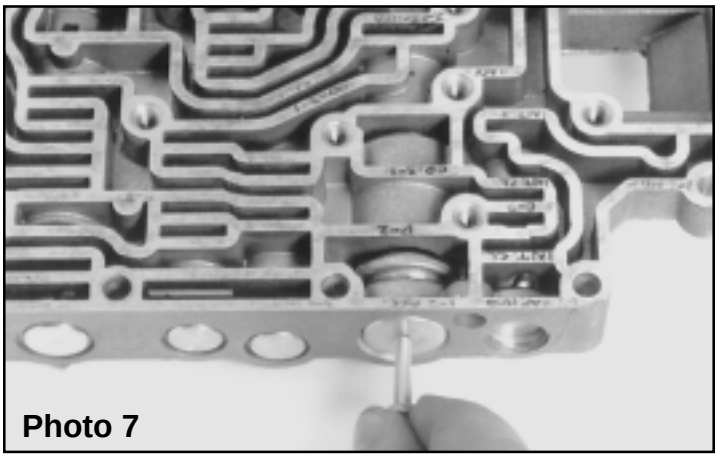

Photo 7

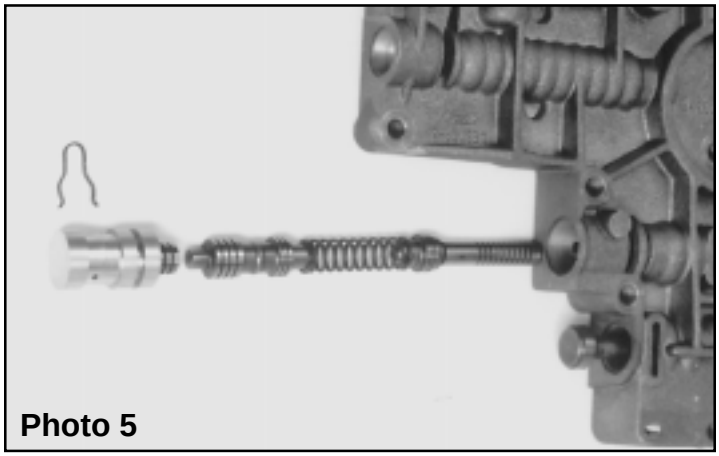

Photo 5

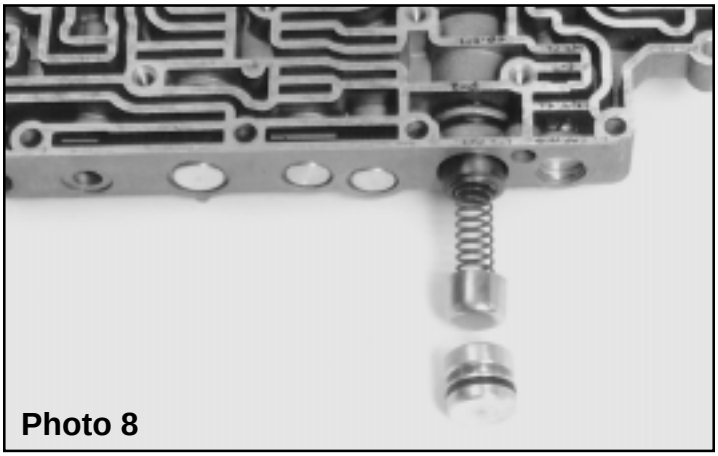

Photo 8

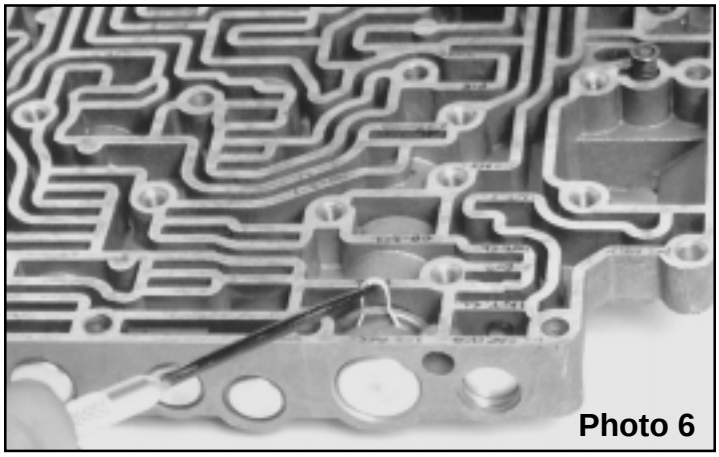

Photo 6

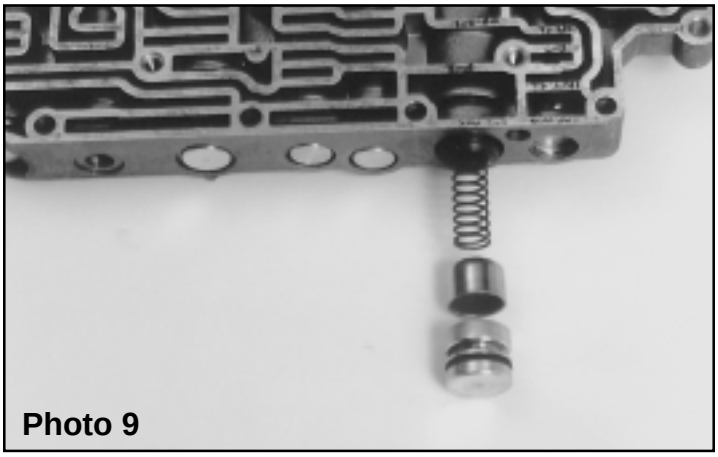

Photo 9

STREET/STRIP: Position the accumulator spacer as shown in **Photo 8** and reassemble.

HEAVY DUTY: Position the accumulator spacer as shown in **Photo 9** and reassemble.

Step 9 Locate the passage on your valve body as shown in **Photo 10.** This area must be enlarged for blocker rod. Use a 7/32" drill bit and drop it down into area shown in photo. Next, take some tape and mark where the drill stopped. This will help keep you from drilling into bottom of casting. WARNING! YOU MUST STOP when drill contacts bottom of passage. Seal passage with aluminum blocker rod. Slip rod into drilled area. Next, use a wide sanding block or belt sander and remove aluminum plug material until it is flush with the valve body. You may want to tape around the plug to protect the valve body surface. An uneven or nicked surface can prevent the valve body from functioning properly. Clean valve body thoroughly before proceeding. **IMPORTANT:** Trial fit the separator plate on the valve body at this time and check that hole H that was drilled in **Step 5** is open to the passage directly below the aluminum plug that was put in the valve body. It may be necessary to clearance the bottom of the plug so that hole H is unobstructed.

Step 10 Replace the check balls in their proper locations. Select the proper inner valve body gasket for your application. **(See Photo 11)** The inner gasket with the double white stripes is for 1980-1989 applications. The inner gasket with the red stripe is for 1990-1993 applications. Using the wrong gasket may reduce throttle pressure boost and cause transmission failure! Lay the inner valve body gasket on the valve body and put the separator plate on top of it. Line everything up and install the three (3) steel support plates and the separator plate retaining bolt. Tighten these bolts to 7-8 foot/pounds. Place the outer valve body gasket on the assembly. You may use a little grease under the gasket to keep it aligned during reassembly. **(See Photo 12)**

Step 11 INSTALL THE VALVE BODY: Clean all debris from the pan and case. On 1988 and later reinstall the small filter screen in the case passage. Again, you may use a little grease to hold the screen in place. Be sure to engage the manual valve with the shift lever properly and align the throttle lever with the plunger. Once everything is aligned and nothing is binding, insert the two (2) short corner bolts shown in Illustration 1. Be sure to engage the throttle lever return spring into the slot on the separator plate. Reinstall the remaining twenty-two (22) bolts, paying attention to the long and short

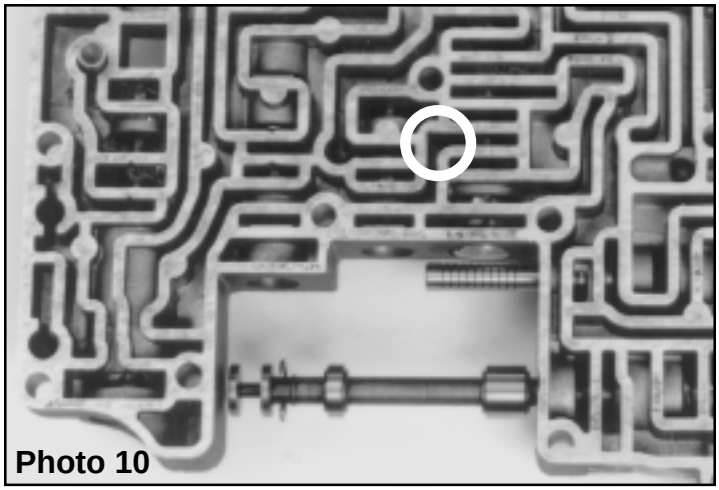

Photo 10

bolt locations. Tighten the bolts to 7-8 foot/pounds working from the middle of the valve body out. Using the new filter gasket, attach and tighten the filter to 7-8 foot/pounds. DO NOT OVERTIGHTEN BOLTS! Reinstall the oil pan using the TCI® Duraprene pan gasket. Tighten the bolts to 12-14 foot/pounds. Refill the transmission. With the vehicle on jack stands so that the rear wheels are free to rotate, run the transmission through all the ranges while slowly adding more fluid. DO NOT OVERFILL TRANSMISSION! After first road test recheck transmission for leaks and proper fluid level.

NOTE: The T.V. linkage and pressure adjustment is critical to proper operation and service life of your AOD. If you experience shift malfunctions they may very well be related to your T.V. system adjustments. Refer to T.V. linkage adjustment sheet.

VERIFY CORRECT VALVE BODY GASKET FOR YOUR APPLICATION

Do Not Mix These Gaskets!

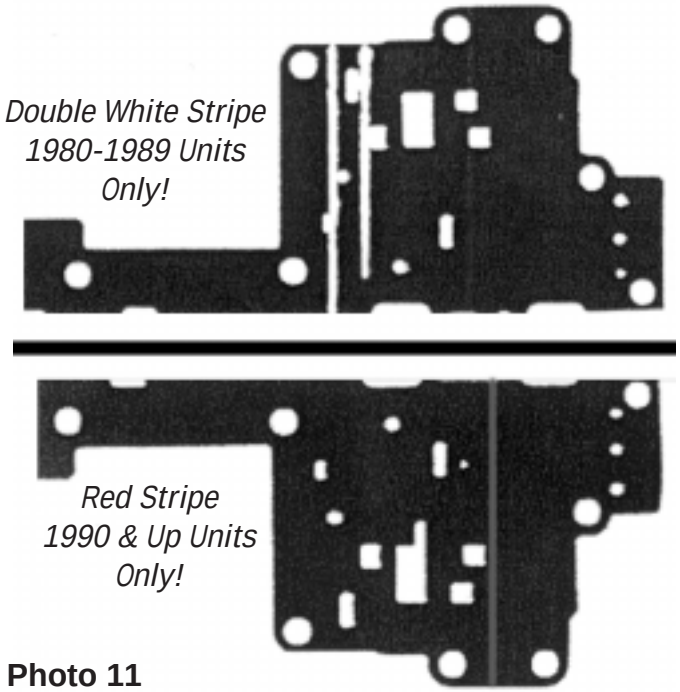

Photo 11

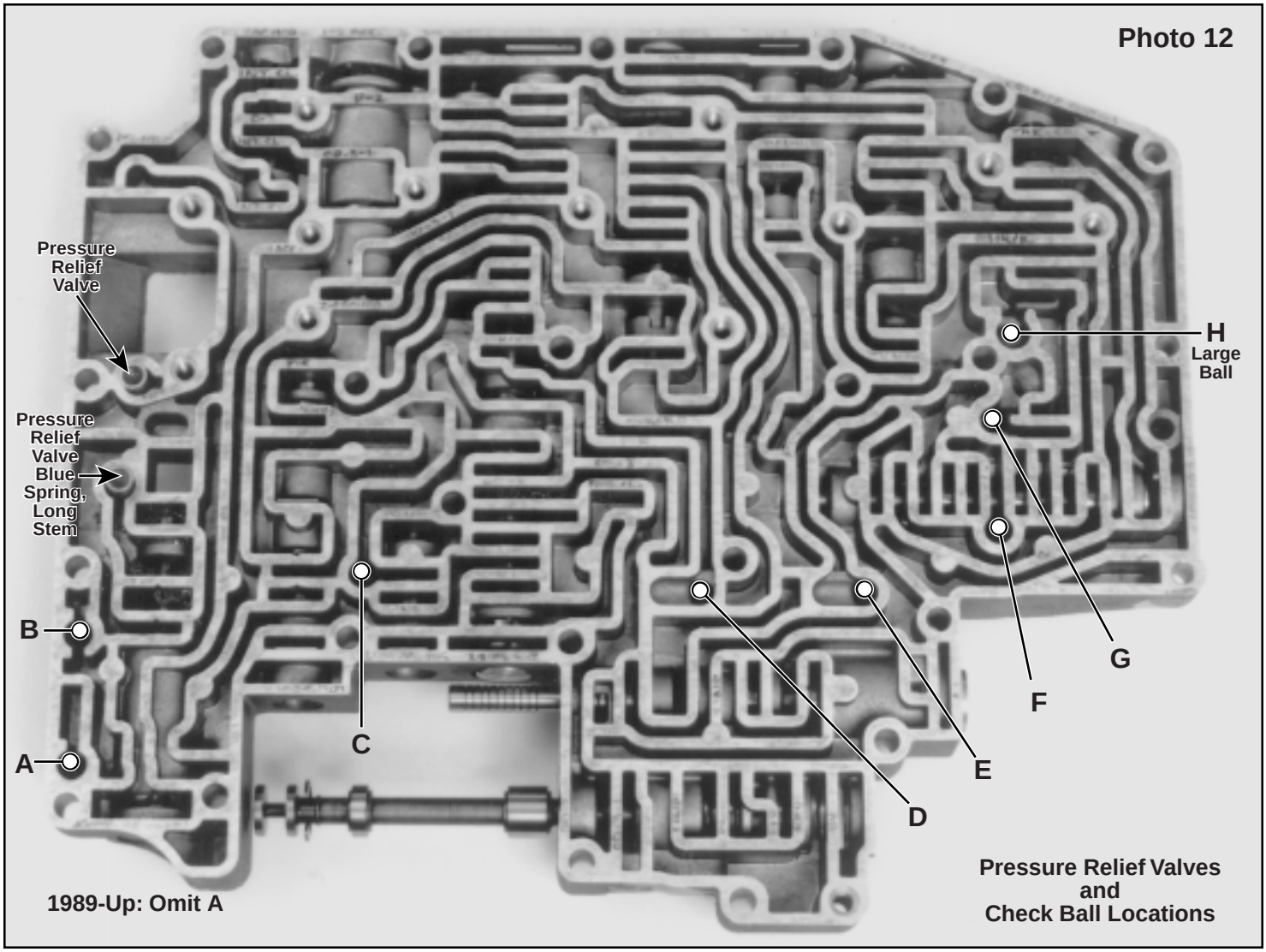

Photo 12

Pressure Relief Valves and Check Ball Locations