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Installation Instructions

Automatic Transmission Flush Hose Kit

for 850/70 series 1993-2000, C70 1998-2004,
*S80 1999-2006, *S60 2001-2010, *XC90

2003-on, and *V70 2001-2007

*not for 6 speed automatic 2005 and later

ipd #T7072



SUGGESTED TOOLS

- Needle nose or snap-ring pliers
- Flat-blade screwdriver
- Pick set • ATF funnel
- Shop rags and a suitable container to collect the old transmission fluid (3-4 gallons)
- 12-14 Quarts of the recommended transmission fluid for your Volvo or equivalent

SAFETY WARNINGS



Some people would say that it is most effective to perform this ATF service right after driving the car to full operating temperature because more contaminants are suspended in the fluid when it is hot. However, we strongly advise that you allow at least 1 hour of cool down time to prevent being seriously burned by any hot ATF that might accidentally come into contact with your skin during the job. Also, if the fluid in your car is severely burnt (black in color instead of red) we have heard of a situation where replacing the old fluid can cause the transmission to stop working. Apparently, debris in the dirty fluid acts as a friction enhancer allowing worn out clutch packs to function. The new fluid removes the debris and the transmission may now slip to the point of immobility. This is extremely unusual, but it is something you should be aware of if the transmission in your Volvo has been neglected for many years.

KIT CONTENTS

- Clear hose
- O-ring
- Clip
- Instructions

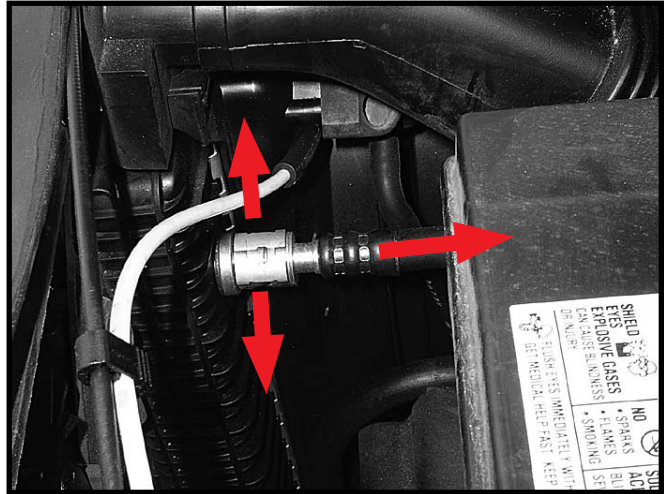
INSTALLATION

1 Prepare your Collection Bucket or Gallon Jugs

You might want to use an old 5-gallon bucket to collect the expelled fluid. Be sure to mark it in 1/2 gallon (2 quart) increments to measure the quantity of fluid you are exchanging. An alternate method is to use 1 gallon plastic jugs where it is fairly easy to estimate the 1/2 gallon point. Be sure to have some shop rags on hand as you will inevitably spill some ATF in the process.

2 Disconnect the Transmission Line at the Radiator

850, 70 Series 1993-2000: There is a metal clip that holds the fluid line in place on the upper driver's side of the radiator. To remove the transmission line gently open the clip and pull the line backward, out of the radiator. The clip can be a little bit difficult to open. You may want to use snap-ring pliers or a screwdriver to help with this part of the job.



For Later Models S80, S60, XC90, and V70 (2001-later):

Disconnect the lower hose by pinching in the two tabs at the end of the green clip and remove it from the radiator. Slip the supplied hose onto the end of the lower trans line and route it to your chosen container.



WARNING: Later models vehicles may take synthetic fluids. The dipstick will be labeled as shown in the photo. Be sure to use approved fluid for these models like MOBIL ATF 3309. This applies to Volvo S60, S70, V70, C70, S80, XC90, S40, V40, all 5-speed automatics requiring synthetic fluid.



INSTALLATION

3 *Attach the Flush Hose to the Transmission Line*

Slip the hose onto the metal end of the transmission line and route it to your chosen container for collecting the expelled ATF. The clear hose will help you to monitor the color of the fluid as you replace the old fluid with the new.

4 *Start Flushing!*

Remove the transmission dipstick and securely place your funnel into the dipstick tube. Check your routing of the clear flush hose to your collection bucket. If possible, have an assistant hold the hose and collection bucket. At idle, the ATF will pump out at about 2-3 psi at a rate of about 2 quarts per 30-45 seconds. Do not rev the engine to speed up the process. Apply the parking brake (car in park) and start the engine. Turn the ignition off when you have expelled 2 quarts from the transmission. Then add 2 quarts of fresh ATF through the dipstick tube funnel. Repeat this process 6 times for a total flush of 12 quarts. You should see bright red ATF after flushing out 10-11 quarts, if not, you might need to do it one more time using 2 more quarts (for a total of 14 quarts used).



5 *Re-attaching the Transmission Line to the Radiator*

Disconnect the clear flush hose from the transmission line. Install the new o-ring on the transmission line to help ensure a good seal. Using the new clip provided, insert the end of the transmission line into the radiator until you hear it click into place.

6 *Checking Fluid Level*

To properly check the fluid level, the ATF should be at operating temperature as the fluid expands quite a bit when hot. Ideally, if the level was correct before your flush procedure, and you added as much as you removed, it will be close to where it was before. Go for a 10-15 mile drive, stop the car on a flat level surface, apply the brake and move the shift lever slowly from Park to "L" and back to Park. With the engine running at idle re-check the fluid level and adjust as necessary. If the car has been driven very hard on the test drive, or if it is extremely hot outside, you may not get an accurate reading until the car has cooled off for 30 minutes.

7 *Clean Up*

Check the transmission line connection to make sure that it's securely connected and that it's not leaking. Wipe up any spilled fluid. Prepare the used fluid for proper recycling. Allow the clear flush hose to drain as much as possible, and store it in the plastic zip-lock bag for future use. Note in your records the date and mileage of the fluid change. You might also want to make a similar note somewhere in the engine compartment with a permanent felt tip marker. It is a good idea to change the ATF approx. every 20-30K miles.

INSTALLATION

Fluid Types

1993-2000 Front Wheel Drive 850/70 Series use Dexron III

1998-2000 All Wheel Drive models use Dexron III Capacity = approx. 10 quarts

2001-06 5-speed with synthetic use equivalent to Mobil ATF 3309

WARRANTY

One Year Limited Warranty

ipd warrants to the original purchaser that the parts manufactured and/or sold by ipd (the Product) is free from defects in material and workmanship under normal use. ipd warrants that the Product will perform substantially in accordance with the specifications set forth in the documentation provided with it. The above express warranties are made for a period of the lesser of 12,000 miles or 12 months from the date the Product is installed in your vehicle.

Any improper use, operation beyond capacity, substitution of parts not approved by ipd in writing, any alteration or repair by others, or any removal, defacing or altering of the identification shall void this warranty. There is no warranty on high-performance or race related parts due to the nature of usage.

The purchaser shall notify ipd at 1-800-444-6473 of any defect within the warranty period no later than thirty (30) days after purchaser discovers the defect. Should any failure to conform to this warranty appear within the warranty period, ipd shall, on notification, correct the nonconformity at its option, either by repairing any defective part, or by making available, FOB ipd's plant, a repaired or replacement part. The purchaser must insure any defective item being returned because ipd does not assume risk of loss or damage while in transit. No payment or reimbursement shall be made for installation, removal, transportation or other charges. The remedies set forth in this instrument are exclusive, and the liability of ipd with respect to any sale shall not exceed the price of the product on which the liability is based.

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