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Installation Instructions

ipd High Performance Automatic Transmission Cooler for 1993-2000 Volvo 850, C70, S70 & all V70 models. *ipd* #43.0001

SUGGESTED TOOLS

- Floor Jack & Jack Stands
- 24mm end wrench or 1" will also work
- 22mm end wrench or 7/8" crowfoot wrench
- 22mm end wrench or 7/8" will also work
- 10 and 12mm Sockets & Ratchet

INSTALLATION

- 1** Begin by supporting the front of the car on jack stands according to your owners manual or workshop manual.
- 2** Remove the lower plastic engine cover , there are two 10 mm bolts holding it in place, one on the driver side and one on the passenger side.
- 3** Mount the Cooler Assembly. The cooler is mounted using the left and right lower air conditioning condenser retaining bolts (10mm heads) that attach the condenser to the radiator. Remove the stock retaining bolts and use the supplied longer bolts, washers and spacers to install the cooler as shown in photo at right. Torque the new mounting bolts to 8-10 lbs/ft and check to make sure that the ends of the bolts do not protrude into the intercooler tanks. If you do run into a clearance issue, simply use some washers under the head of the bolts to gain the needed clearance.

Leave the lines hanging from the driver side of the cooler for now.



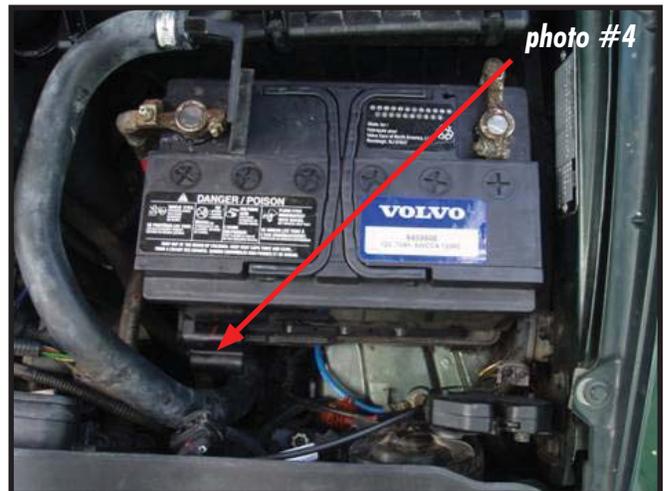
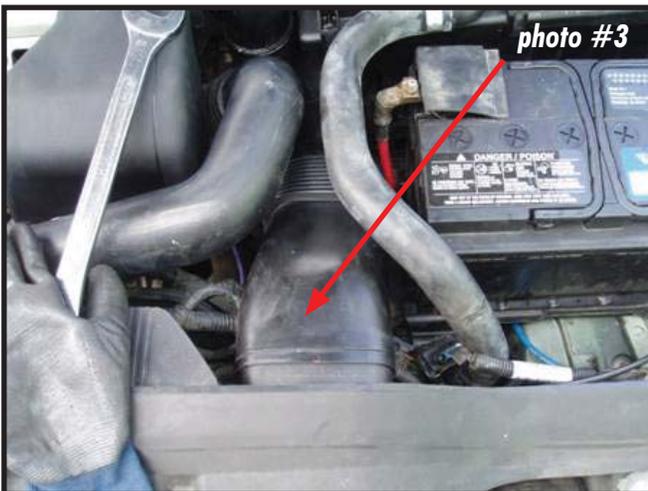
INSTALLATION

- 4 See photo #2 below and then take a look at your air filter box to determine if your Volvo has Supplemental Air System (SAS).



If your Volvo has Supplemental Air System (SAS) please proceed to step #5
If your Volvo does not have Supplemental Air System (SAS) please skip to step #7

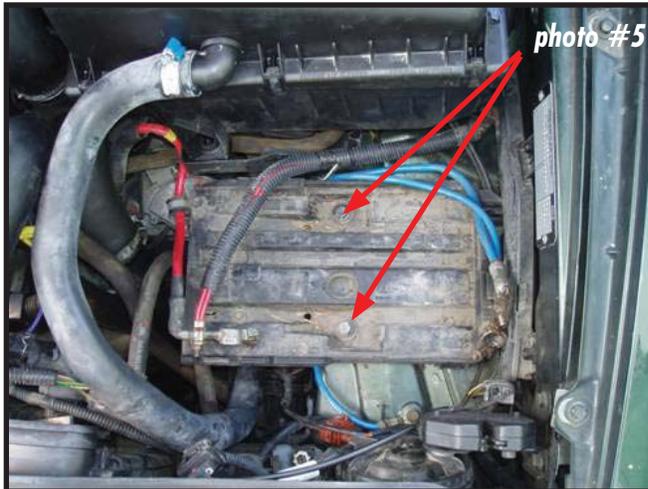
- 5 For SAS equipped cars, it is easiest to access the stock transmission oil cooler return line connection on top of the transmission by removing the battery and battery tray. Start by removing the plastic air intake ducting as shown below in photo #3. To remove the ducting grab it near the radiator core support and wiggle it free of the connector and then unsnap the other end from the bottom of the air box.



Disconnect both battery cables, Please note that you will need the radio security code to re-activate the radio once the cables are re-attached. If you do not have the radio code, your Volvo dealer can provide it once you give them the VIN of your Volvo.

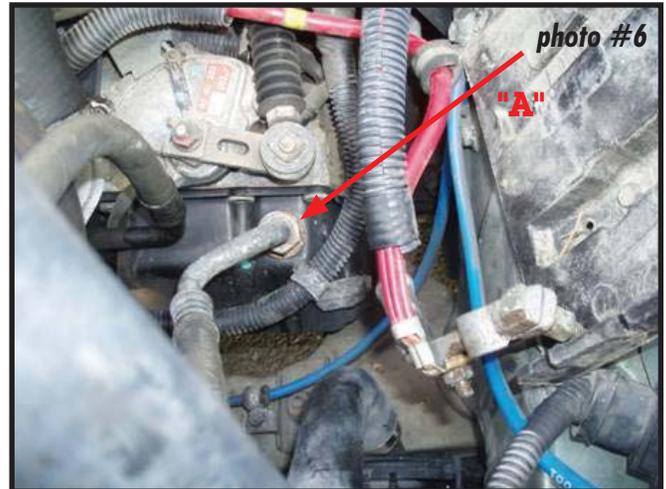
Lift up on the battery retaining tab as shown in the photo #4 and the tab should snap loose allowing the battery to be lifted out of the tray.

INSTALLATION



Remove the two bolts and then you will be able to lift the tray out of the way and set it to the side to allow access to the Transmission oil cooler return line fitting as shown in photo #6.

Once the battery has been removed, you will have access to the two 12mm bolts that hold the tray in place as shown in photo #5.



- 6 Use a 22mm or 7/8" open end wrench to disconnect the stock transmission cooler line from the transmission at point "A" in photo #6 above. If the nut is corroded in place, it may take some force to break it loose and you may have to use another wrench to prevent the fitting on the transmission from turning. If you are having difficulty with this connection, you may want to try using a 1/2 drive crowfoot wrench as it's tough to get good leverage on a regular open end wrench due to the limited space. Once you have disconnected the hose from the transmission fitting, please proceed to step 8.

- 7 Use a 22mm or 7/8" open end wrench to disconnect the stock transmission cooler line from the transmission at point "B" in photo #7 below. If the nut is corroded in place, it may take some force to break it loose and you may have to use another wrench to prevent the fitting on the transmission from turning. Please note that the hose fittings are pre installed and torqued with the proper orientation.

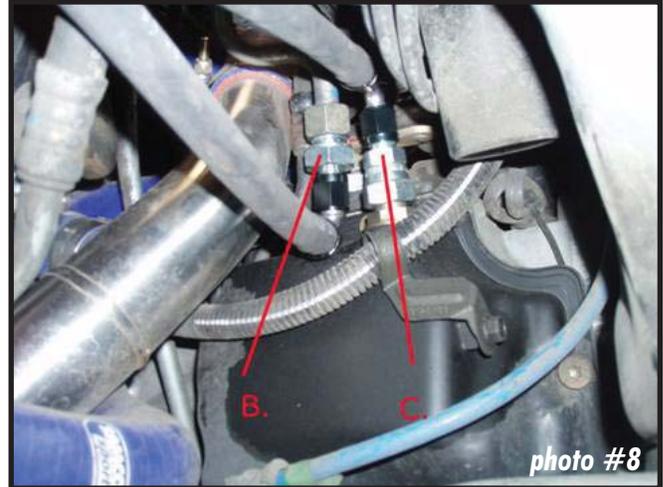


Looking back at the transmission from under the car at the driver side of the radiator. The car used in this photo had SAS and we removed the SAS pump to for a better view of the trans fitting.

(large blue hose in the image below is the lower radiator hose, disconnected hose above that is the SAS hose)

INSTALLATION

- 8** Route the cooler lines and connect them as shown in photo #8 at right. Attach the stock transmission line to the cooler fitting that points up "B" and attach the cooler fitting that points down to the transmission "C".



- 9** Use a 22mm or 7/8" end wrench and a 24mm or 1" end wrench to tighten the fittings snugly, but don't be tempted to over tighten them. They are precision JIC tapered seat flare fittings and will seal well with moderate torque. All other fittings have been pre assembled and torqued.
- 10** Double check the line routing to make sure they are not rubbing on any sharp abrasive surfaces and use the provided zip ties to tie the lines together at 6" intervals for a nice clean finish. For SAS equipped cars that required removal of the battery, battery tray and air intake duct, you can now re-install those parts.
- 11** Add ½ quart of trans fluid to the transmission to account for the increased fluid capacity. Test drive a short distance and double check for any signs of leaking.
- 12** Re-install lower plastic engine cover.

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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