

Dedicated to improving vehicle fun, safety & performance

Installation Instructions

ECU Unit Removal Tool

ipd #T7

for use with #8700 ECU Upgrades
(1999-2002 S70, V70, S60, S80 turbos)



SAFETY WARNINGS

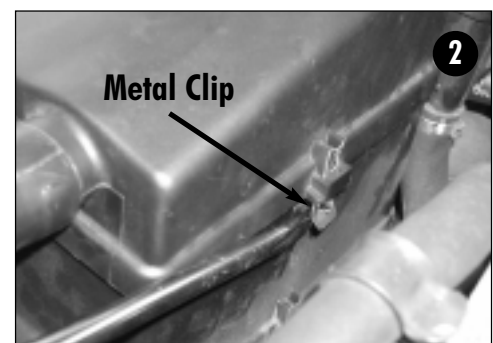


WARNING: Serious damage can occur if the ignition is switched on while the ECU is removed from the car. Park the car where it won't need to be moved for several days, remove the keys from the ignition and attach a note to the ignition switch or steering wheel as a reminder. Also, wait 5 minutes after the key has been removed from the ignition before removing the ECU.

INSTALLATION

Where's the ECU?

- 1 Locate the ECU, it is housed in a plastic box behind the passenger side headlamp. "A" in the photo.
- 2 To remove the access cover, use a 6-8" flat blade screwdriver to gently unlatch the cover retaining clips as shown. There are 2 clips, one on the engine side of the plastic box and one on the side next to the fender. Place the tip of the screwdriver under the bottom of the clip, pry it away from the box and lift up on the cover a bit so the clip will dis-engage from the lower portion of the box.



INSTALLATION

- 3** Grab the coolant / power steering fluid reservoir as shown in photo #3 and lift it upwards until it snaps out of its mounting brackets. (this may take a bit of force) This will make removal and replacement of the box cover easier. Note that the 2 upper attachment points for the reservoir assembly are clearly visible. There is also a 3rd attachment point just below the upper attachment point closest to the engine. Be sure that this is engaged when you snap the reservoirs back into place.



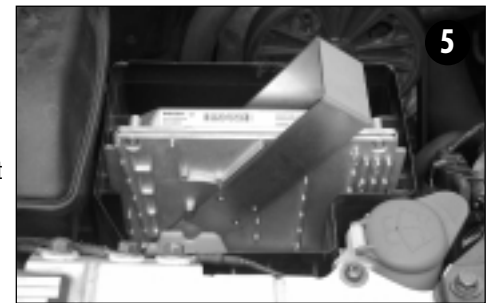
- 4** You should now be able to lift the cover away from the lower housing. Remove the cover from the air pipe and set the cover out of the way.

NOTE: The example shown is a manual transmission car, so there is only one ECU shown. Cars with automatic transmission will have two ECUs, The ECU closest to the engine is the auto trans ECU. There is no need to remove it.

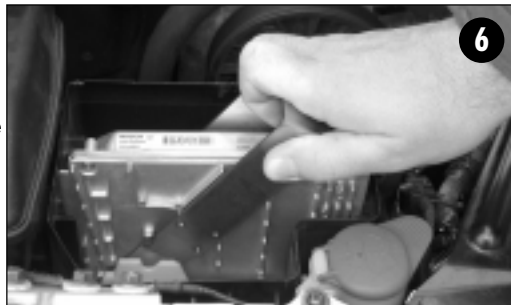


REMOVING ECU

- 5** The tool is marked with an ipd decal on one leg. This is the side of the tool that should be closest to the fender. If the sticker is missing, this is the leg of the tool that has the bend in it. Insert the tool at approximately a 45 degree angle so that it lines up with and is guided by the guide rails on the side of the ECU as shown in photo #5. Insert the tool until the pivot pins on the outer sides of the tool are fully seated into the "V" notches at the base of the control unit housing. It may be necessary to manipulate the tool a bit so that the tips of the tool can be fully inserted.



- 6** Confirm that the pivot pins are fully seated and then carefully push on the handle of the tool toward the firewall of the car as shown in photo #6 while simultaneously applying downward pressure on the tool to keep it seated. Stop when the tool handle is vertical as shown in the photo #7.



- 7** Once the handle of the tool is in the vertical position as shown in photo #7, you should be able to lift the tool away and then pull the ECU straight up and out of the housing. Close the hood of the car to prevent anything from getting into the open ECU socket. Did you follow the warning at the top of these instructions? Carefully pack the ECU and ship it pre-paid and insured for \$1000 value to:

ME7 Programming Dept.
c/o ipd Co Inc
11744 NE Ainsworth Circle
Portland Oregon 97220

Keep the tool for re-installation. Be sure to complete the provided vehicle data sheet and include the **ipd** copy (last page of instructions) with the ECU to help expedite the upgrade process. Make a copy for yourself and keep it in a safe place for future reference.

INSTALLATION

INSTALLING THE ECU:

When your upgraded ECU is returned, confirm that it is your original ECU by comparing the numbers recorded on your data sheet.

- 8 Install the ECU into the housing by carefully aligning the guide rails on the edges of the ECU with the plastic guide channels in the ECU housing box, insert until the ECU is squarely seated into the socket. As described before, the tool is marked with an ipd decal on one leg. This is the side of the tool that should be closest to the fender. If the sticker is missing, this is the leg of the tool that has the bend in it. Now carefully insert the tool in the vertical position as shown in photo #8. Insert the tool until the pivot pins on the outer sides of the tool are fully seated into the "V" notches at the base of the control unit housing. It may be necessary to manipulate the tool a bit so that the tips of the tool can be fully inserted.

Confirm that the pivot pins are fully seated and then carefully pull the handle of the tool toward the front of the car as shown while simultaneously applying downward pressure on the tool to keep it seated and pressing downward on the ECU with your free hand to assist seating. Stop when the tool handle is lined up with the angled guide rails on the side of the ECU as shown in the photo #9. If you experience resistance in getting the handle all the way to the angled position, apply more downward pressure to the ECU while pulling on the handle. The tool should now be easy to remove by pulling it upwards at the angle of the guide rails. Check that the ECU is solidly mated to the socket.

- 9 Prepare to replace the plastic cover. Lift the reservoirs out of the way so that the cover can be placed directly on top of the housing. When it appears to be correctly positioned, press down on the cover to engage the metal clips to the lower housing. Now align all 3 of the mounting points (2 upper and 1 lower) on the reservoir assembly and press it into place. Make sure that the plastic ears are fully seated onto the brackets.

Enjoy!

NOTES

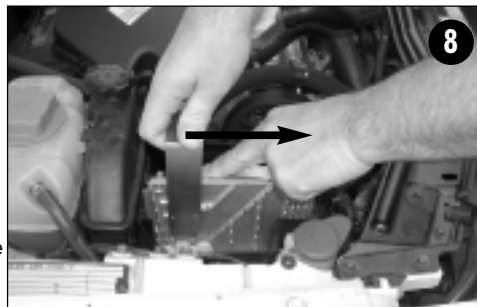
FUEL REQUIREMENTS:

For optimal performance it is very important that you always run premium octane fuel with an octane rating of 91 to 94. If you have to run a lower octane for a tank or two it is permissible, but you must adjust your driving to avoid any extended high load situations. No lead footing, no towing and no long grades or conditions that would dictate sustained boost. Low octane and high boost do not mix, at least not for very long! Make sure all potential drivers know this and consider placing a warning on the dash where it can't be missed.

ENGINE OIL:

We recommend that you use a good quality synthetic engine oil in the viscosity range called out in your owners manual for your conditions. Change it at 3-5K mile intervals.

VOLVO recommends Mobil 1 10W-30 for extreme engine operation.



NOTES

AUTOMATIC TRANSMISSION FLUID SERVICE:

Volvo does not list a service interval for the transmission fluid. The maintenance schedule says the fluid should be inspected at every oil change. We have found that shift quality can begin to degrade around 20-30K miles, sooner if the car is driven hard. We recommend flushing the fluid every 20-30K miles for best performance and to ensure longevity.

SPARK PLUGS:

Fresh spark plugs are required for optimum performance. We recommend that the plugs be changed every 20-30K miles for best performance. We do not recommend any hi-performance or "miracle" spark plugs. Use the stock VOLVO plugs or the equivalent Bosch or NGK plugs and keep them fresh.

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.

EXCEPT AS STATED OTHERWISE IN THIS WARRANTY, **ipd** MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. **ipd** shall not in any case be liable for special, incidental, consequential, indirect, or other similar damages arising from any breach of these warranties even if **ipd** or its agent has been advised of the possibility of such damages. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

This warranty is governed by the laws of the State of Oregon.



DATA SHEET FOR ipd's RECORDS

Please return this sheet to ipd with your stock ECU. (Be sure to make a copy for your records)

Your Name: _____

Home Address:

Street: _____

Street #2: _____

State / Province: _____

Zip / Postal Code: _____

Return ECU to this address if different:

Street: _____

Street #2: _____

State/Province: _____

Zip/Postal Code: _____

Your Contact Information:

Check here if this is a covert operation requiring the utmost in discretion. (i.e. Don't tell my significant other and don't leave any messages on my answering machine that might get me kicked out of the house!)

Daytime Phone: _____

Home Phone: _____

Cell Phone: _____

e-mail: _____

Your Payment Information:

Use the credit card that I used to rent the tool with.

Call me for the payment information.

Use this credit card # _____ Expires: _____

How would you like us to return the ECU?

Federal Express: Overnight 2-Day Service Ground

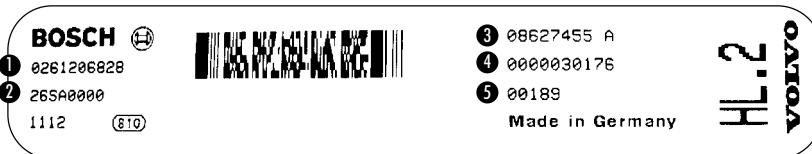
United Parcel Service: Overnight 2-Day Service 3-Day Service Ground

United States Postal Service: Priority / First Class Mail

Your Volvo:

Year: _____ VIN # _____ (from registration, title or chassis id plate)

Data From ECU Label:



- ① _____
- ② _____
- ③ _____
- ④ _____
- ⑤ _____

Model:

- S60 2.4T Light pressure S60 2.4T AWD Light pressure S60 T5 S60 R
- S70 2.4T Light pressure S70 2.4T AWD Light pressure S70 T5
- V70 2.4T Light pressure V70 2.4T AWD Light pressure V70 Cross Country
- V70 T5 V70 R S80 T6 XC-90 T5 XC-90 T6 XC-90 T8 (Dream On!)

Transmission :

- AUTO Gear Tronic 5 speed Manual 6 speed Manual