

Volvo 240/260 New Face Overlay Installation

1981-93 Models

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BEFORE STARTING ANYTHING... READ ALL THESE INSTRUCTIONS. ALL OF THEM!

These new face overlays the product of a years of research and experimentation. They are printed on special, high quality self adhesive vinyl and then clear UV coated for ultimate protection. Please follow these instructions closely and you will have a very nice looking set of gauges in your Volvo.

Also, many of the ideas I use for these faces and the techniques shown in these instructions have come from customers like yourself over the years. If you have an idea that will help future Volvonuts with a smoother installation, please let me know.

Recommended List of Tools: Small flat screwdrivers, medium or large flat screwdriver, medium Phillips head screwdriver, T-25 Torx driver (and maybe some other sizes) for some later models.

Step 1: Removing the Gauge Pod from Your Dash

It is a very simple procedure. **The photo below shows the removal of the steering wheel. This was done for photo purposes only and is not required.**

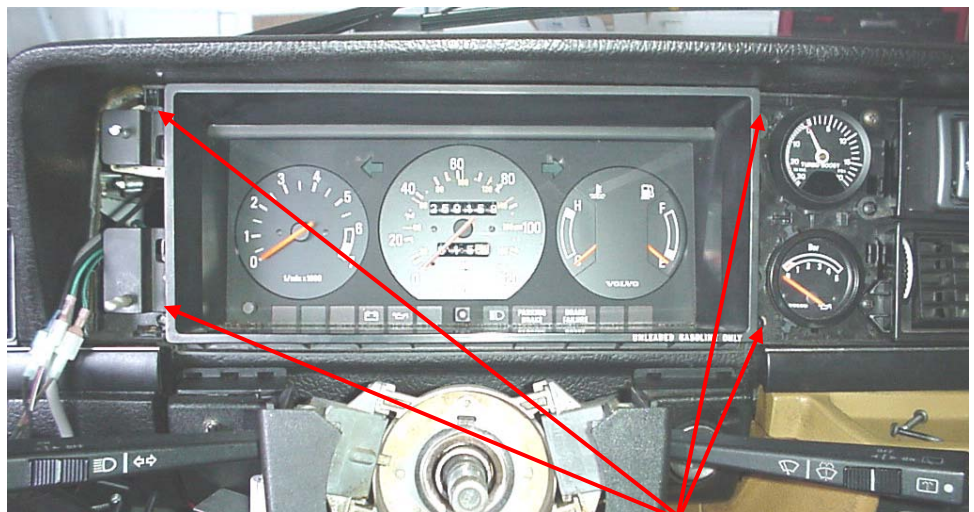
If you have a 1981 through 1985 240, you will need to disconnect the speedometer cable from the back of the speedometer. If you have an '86 and later car, you have an electronic speedometer and do not have a cable attached to the back. There will be an electrical plug to disconnect, which you'll be able to see after you pull the gauge pod out of the dash a short distance.

(1981-85 240) To remove the speedo cable, look under the dash area and remove the plastic fasteners that hold the black cloth insulation cover under the dash. There should also be a fat rubber band around the heater vent... remove it also. Now lower the cloth cover. You may now reach up to the back of the speedo and find a plastic retainer collar on the cable end that attaches to the speedo. This collar needs to be twisted approximately 90 degrees counter-clockwise to release the cable. Then the cable may be pulled free from the speedo. NOTE: If you have trouble twisting the collar, there may be a larger plastic "anti-tamper" collar over the cable collar on the speedometer back. This anti-tamper collar may be pried off with a screwdriver and discarded. There may also be a second small cable going from the back of the pod to a small box in the dash. This is a service interval relay. Disconnect this cable too.

(1986-93 240) For the later models with an electric speedo, there may also be a plastic "anti-tamper" cover that makes it difficult to unplug the electrical speedo connector. It too, may be pried off (this may be done after you pull the gauge pod out a few inches). And for 1990-93 models, there is a padded knee pad under the dash to remove. There are two Torx screws behind two plastic plugs.

On the front of the dash (left side of pod), pull off the headlight switch knob and the dash light dimmer knob (pry off with a screwdriver if it's hard to pull off). Pry off the plastic cover. If it's connected to a switch (i.e.: fog lights), there is no need to unplug it as long as you can let it hang out of the way. If not, unplug it.

(Right side of pod) With a flat screwdriver, gently pry the black plastic surrounds that fit around the 2 inch gauges to the right. Some cars don't have these gauges. The square plastic trim pieces remove the same way. By removing these plastic pieces, you have exposed four Phillips head screws that hold the gauge pack. Two on the right and two on the left (T-25 Torx screws on some later cars). Remove these screws and pull out the black aluminum brace on the left near the headlight/dash light switches. (OPTIONAL): Remove the plastic cover on top of the steering column that covers the turn signal and wiper controls. There are two Phillips head screws on top



(T-25 Torx screws for later cars). Now the gauge pod may be gently pulled toward you. It will be tight at first, so some pushing from behind will help. Pull it out enough so you can see the wire plug connections on the back. **Take note of each connection so you will remember exactly where they go.** Writing them down is best. Now disconnect the wire connections.

On some early models, there will be a smaller second cable to disconnect. To disconnect this cable, simply turn the collar counter-clockwise until it is free. This cable goes from the speedo head to the "Sond" switch, which tells you to service your oxygen sensor at periodic mileage intervals.

Once you have the pod out, go to step 2.

Step 2: Disassembly of Gauge Pod

**Look at your hands. They're DIRTY!
It is recommended that you wash your hands
before handling any internal parts of the gauge pod.**

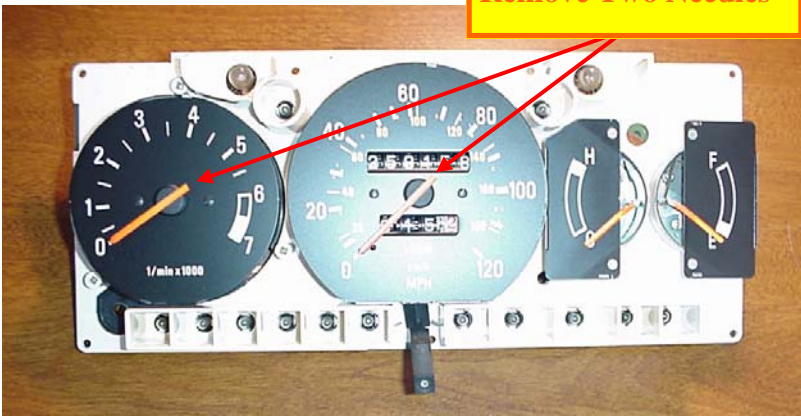


Turn the gauge pod over and locate the seven Phillips head screws on the outer edge. Removing these screws will allow you to lift out the **gauge/circuit board assembly** from the pod box.

Place the removed gauge/circuit board assembly on a nice, clean work surface. Your dining room table works great, as long as the wife isn't home.



Remove Two Needles



Step 3a: Removing Needles (1981-85 240)
1986-93 240 owners should skip to step 3b.

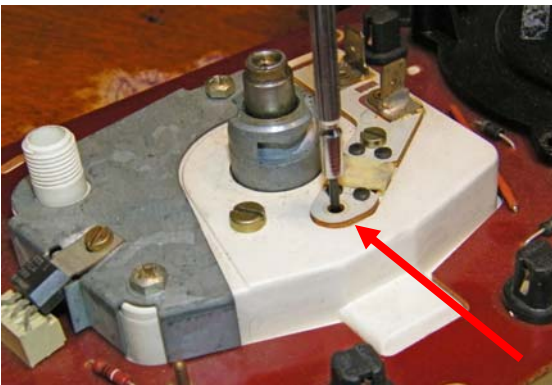
1981 to 1985 year speedometers ONLY. Now it's time to remove the needles from the tachometer and speedometer. **This is where caution comes into play.**

First, you will notice you have the type of speedo face with a small pin at "0" MPH where the needle comes to rest. **Gently lift** the end of the needle up and over the pin. Make a note of where the needle rests, as it will usually rest about 1/16 to 1/8 inch to

the right of the pin, as shown in the photo. This will be **very important for reassembly** as this is the position you will place the needle back on before lifting it back over to the left of the pin.



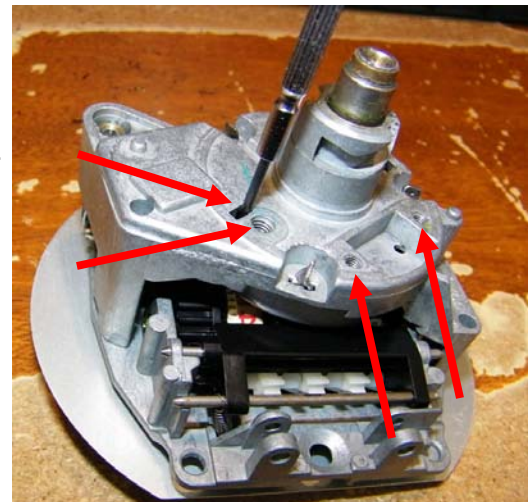
Your speedometer needle is tightly pressed onto a very small shaft in the speedometer. **It is on tight. DO NOT ATTEMPT TO PULL IT OFF WITH YOUR FINGERS, PLIERS, TEETH, ETC.** If you do, you will **BREAK** the needle...



Locate and remove a small slotted screw on the back, near the bottom of the speedo. Insert a small slotted screwdriver down into the hole.

This will lock the speed cup and mechanism inside the speedometer so the needle shaft cannot move.

If the hole is not present or if you have your speedo separated from the circuit board, you may choose from 6 holes (4 round threaded or 2 rectangular) to lock the mechanism.



Now, grip the center plastic hub of the speedo needle and turn it counter-clockwise (toward the "MPH"). Be careful not to put pressure on the orange needle pointer. It's plastic and will snap off if you do.

Since the internal mechanism inside the speedometer is locked, you will be turning and forcing it counter-clockwise until you feel it come loose and get easier to turn. Now you may turn it back and forth, while at the same time gently pulling it toward you. It'll come off in your hand without any fuss.

If you should break your speedo needle (or tach needle), it may be a simple fix with a little Super Glue (Cyanoacrylate). Or I can usually supply a spare used needle for a modest price.

Removing CLOCK NEEDLES (all years):

Both needles are press-fit. If you grasp the center hub of each hand (NOT the pointer), twist slightly and pull. Each will easily come off.

Step 3b: Removing Speedo Needle (1986-1993 240)

This speedometer is a bit easier to remove the needle. The needle rests at zero (with no pin like the earlier speedometer), so keep in mind when re-installing this needle, it simply needs to point at zero.

No locking of the mechanism is needed. Gently grip the needle with your fingers at the **center**. Twist the needle counter-clockwise. It will give a slight amount of resistance, so **don't put any pressure on the needle pointer end, as it can break off**. Continue twisting the needle in a counter-clockwise direction while pulling gently. The needle will eventually pull off the small shaft. Re-installation is as simple as pushing the needle back on the shaft with a little thumb pressure.

Removing any **TACHOMETER NEEDLE** (all years) can be done in the same way as the above 1986-93 speedo method. **Do not pry off a needle.**

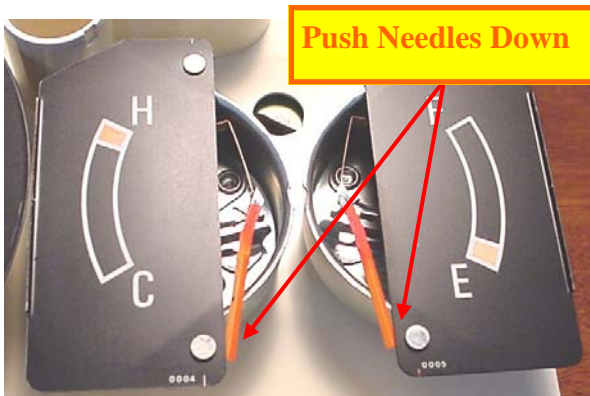
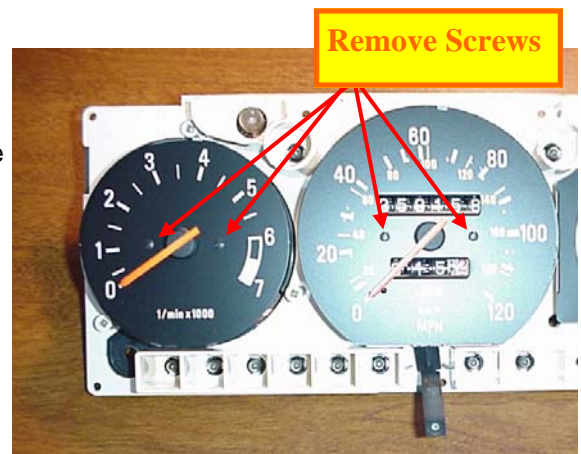


Step 4: Preparing to Apply your new Face Overlays

These custom face overlays come with a clear UV poly coating over the printed surfaces, so they are well protected from handling, however, I still recommend using **clean fingers** when handling and installing these.

Using a very small flat blade screwdriver, remove the screws holding the metal faceplates for the **speedometer and tachometer (or clock)**. The screws are fairly soft brass. Use a proper fitting screwdriver and try not to gouge them. Keep the screws for the speedometer **separate** from the screws for the tach (or clock) as many instrument clusters used different thread-pitch screws for each gauge. **There is no need to remove the water temperature or fuel level gauges from the gauge cluster.**

Before removing the peel-off backing on the overlays, test-fit them on the metal faceplates. The odometer cut-outs on the speedo face should be a good fit. **The odometer cut-outs should be the priority when fitting the speedo overlay to the speedo faceplate.**



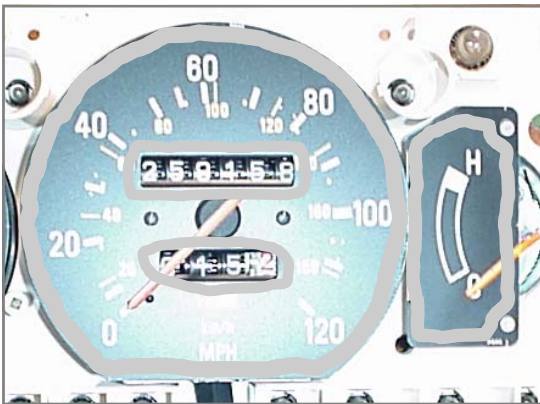
FUEL and TEMP: Prior to applying the new faces to the **fuel and temperature gauges**, you will need to **gently** push the needles down and hook them on the bottom of the gauge **as shown in the photo**. This way, they'll be out of the way and will not get damaged.

Step 5: Applying your new Face Overlays

These overlays have a pressure sensitive adhesive on the back. You will be peeling the back liner off and carefully apply the overlays. **BEFORE YOU START**, you may want to consider using an “ADHESION PROMOTER” on the faceplate surfaces.



An adhesion promoter is a strong primer that is applied to the surface before putting down a label. For this installation, it is recommended for any car that will be in high outside heat for long periods. In these circumstances the car interior would be affected by high temperatures. Vinyl labels have been known to shrink slightly and when that occurs, the outside edges can begin to lift or peel up as high heat softens the glue. It might take years. Using an adhesion promoter makes the adhesion many times stronger and able to withstand heat many times better. This chemical can be purchased in **small inexpensive packets (like photo at left) with sponge tip applicators**, or in pen type applicators, or in bottles for more frequent use. It is generally used when vinyl wrapping a vehicle.

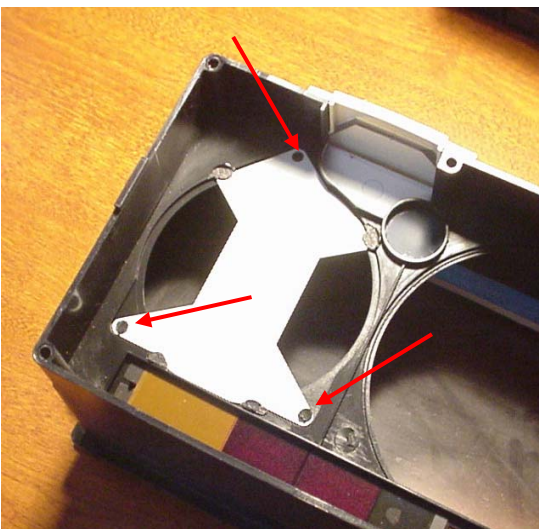


<<< Application should be done with a swab along the edges, like shown here. It dries clear and provides a better surface for the labels. Allow it to dry, then apply the labels.

CAUTION: Using an adhesion promoter means you need to be accurate when lining up a label. Pulling the label back up for repositioning will be harder, but can be done in most circumstances. Be careful. It will stick really, really well.

Step 6: Installing the White Center Piece Between Fuel and Temp Gauges

The following procedure covers **1981-1988 models only.**



After the gauge/circuit board assembly is removed from the gauge box, you will see a metal center plate mounted in the gauge box. It will be held in place by a few bits of melted plastic or glue in **three little holes**. Sometimes this plate can just be pulled free. If not, use an Exacto knife or a hot soldering iron to remove enough of the melted plastic in the three little holes so that the metal plate can be pulled out. Try not to bend this plate.

Read and consider the section above about using an optional adhesion promoter on the edges. Test fit the new overlay first, then peel and apply it.

Re-install the plate and use a small amount of glue at the three little holes. Almost any glue will work. Let it dry before turning the box over and continuing.

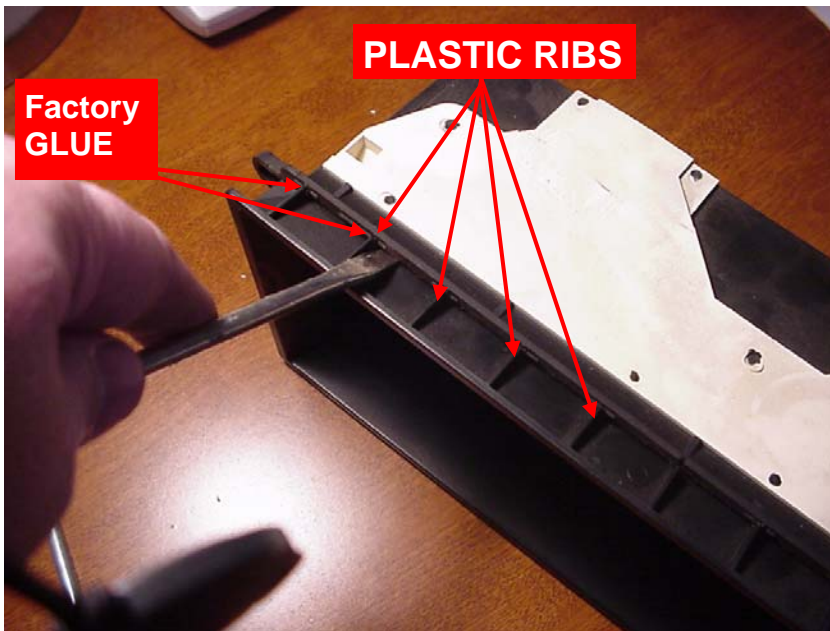
The following procedure covers **1989-1993 models only.**



You will notice that this later gauge box has **no removable metal plate** between the Temp and Fuel gauges. This plate is plastic and one piece with the box. Not to fear.... **I have designed and cut your white face to fit correctly. It will be mounted from the front instead.**

To accomplish this magical feat, I recommend you separate the front frame box (which holds the clear plastic window) from the back gauge box. The two boxes are glued together, but it is much easier than it looks to separate them without any damage. **This procedure will also allow you to**

thoroughly clean behind the clear plastic lens too. This procedure works for earlier 240 models also if you want to separate the two halves for cleaning, etc.



Around the outer edge of the front of the frame box are a series of **plastic ribs**. The two boxes are glued together at each rib. The photo to the LEFT shows how you will place a flat blade screwdriver next to each rib and carefully pry it to break the glue joint. Each glue joints will break easily without damaging the frame or box. Work your way around and “pop” each glue joint until they are all loose.

Now you may lift out the front frame box from the rear gauge box.



The **photo at lower right** shows where the new face overlay will go on the center piece. Before putting the overlay on, **I recommend wiping the surface with alcohol or a similar mild solvent to clean off any plastic residue.** This residue can interfere with the adhesion of the overlay and it can begin to lift later. You may also consider using an **adhesion promoter** around the edges as mentioned earlier and as shown here to the left. If you do, be careful to not put any of



it on parts of the plastic that will show to the front, because it can discolor the delicate black color. Try testing on a non-visible place first.



Always test fit the overlay first, then peel the liner and apply it.

Now you may reassemble the two frame halves. A very small amount of glue on a few of the ribs will hold the frame in place. **You may use something like Tes-tors plastic model glue or Crazy Glue (Cyanoacrylate) for this part.**

ALTERNATE METHOD OF MOUNTING CENTER TEMP/FUEL PIECE IN 1989 TO 1993 GAUGE BOX

If you do not wish to separate the two gauge box halves, you may instead insert the new face overlay through the speedo hole and lay it in place. This method takes a steady hand and you should try it

first **without** peeling the rear liner. It will be very important to keep from getting your grimy fingers all over the clean black plastic interior of the box as they may stain the flat black finish. As mentioned above, it's also important to wipe away any plastic residue first so the overlay sticks well.

Final Step: Reassembling the Gauge Pod

Before reassembly, it's a good idea to spend a little time cleaning your cluster. The two larger bulbs that insert into the top-rear can be pulled out and cleaned. Over time they tend to get fouled with dust, reducing your nighttime gauge illumination. On my website I have also illustrated other ideas for improving the lighting in these clusters.

When you push the needles back onto the **speedometer and tachometer**, very little pressure is needed. If the needles need to be moved a little to the left or right after they are on, it will be very easy to do at this stage. Just don't grab the needle by the end and push as you can break it off pretty easily. If you need to pull the needles off again, use the same methods, however you will find them much easier to pull off the second time around.

If you have the **large clock**, make sure the screws holding the face to the clock body are tightened securely. If not, they'll protrude and contact the hour hand. Likewise, when installing clock hands, do not push the hour hand back down onto the clock face so far that it contacts the face (yes, this can be done). Otherwise, again, it will contact the screws and it'll always be at either 3 or 9 o'clock. Double-check your work . . . When the hour hand is reattached, sight along the clock face to make sure that it will clear the screws. If needed, you can gently lift the pointer end of the hand to make sure it clears.

The rest of the re-assembly is simple with no surprises.

These new faces (especially white or light colored faces) will come alive at night with your dash lights. The visibility is much improved. Have fun with your new gauges.

