

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

This is a simple procedure. **The photo below shows the steering wheel removed. This was done for photo purposes and is not required to remove the gauge pod, but it can help and give you more room to work.**

On the front of the dash (left side of gauge pod), pull off the headlight switch knob and the dash light dimmer knob (pry them off with a screwdriver if they're hard to pull). Pry off the left 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 too.

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 will have an electronic speedometer and do not have a mechanical cable on 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.

(Right side of gauge 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 are removed 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 (these are T-25 Torx screws on some later cars). Remove these screws and pull out the black aluminum brace on the left side at the headlight and dimmer 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 (or T-25 Torx screws for later cars). This will make it easier to pull the gauge pod 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 and taking photos is best. Now disconnect the wire connections.

(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. This anti-tamper collar may be pried off with a screwdriver and discarded. There may also be a second smaller cable going from the back of the gauge pod to a small box in the dash. This is a service interval relay. Disconnect this cable too.



Phillips or Torx Screws

(1986-93 240) For these later models with an electric speed, there may also be a plastic “anti-tamper” cover that makes it difficult to unplug the electrical speedo connector. This cover may be pried off. This may be done from next to the gauge pod 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 which need to be removed.

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



RECOMMENDATION: If you are installing a speedo overlay without the number printed above “km/h” (shown at left), I recommend that you write that number on the back of your speedometer in case later you want to know what that number was.

Step 2: Disassembly of Gauge Pod

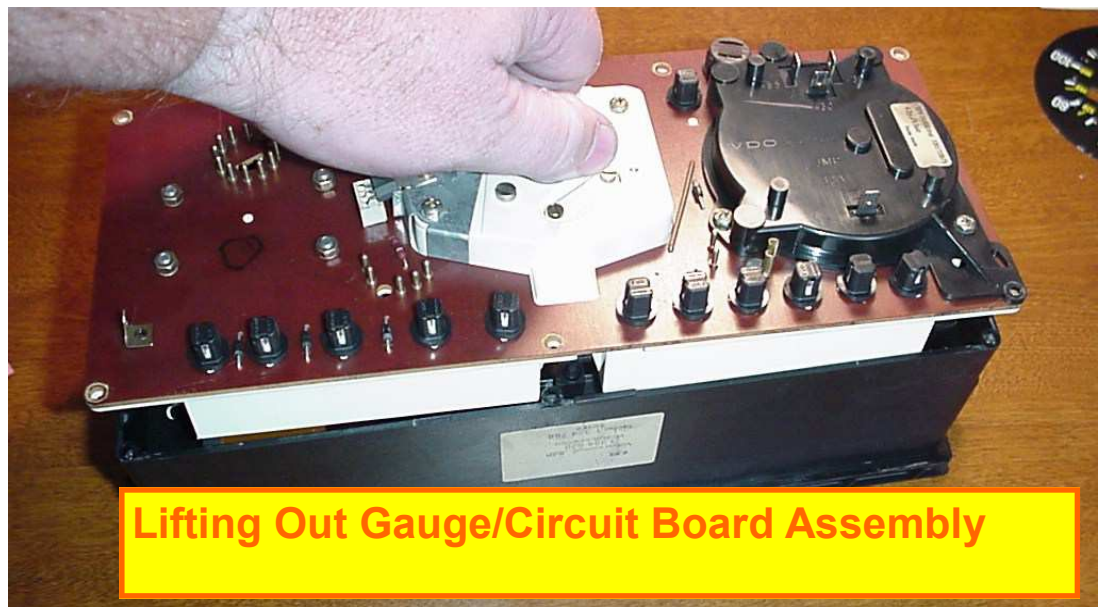
Look at your hands. They're DIRTY!

It's recommended that you wash your hands before handling any internal parts of the pod.

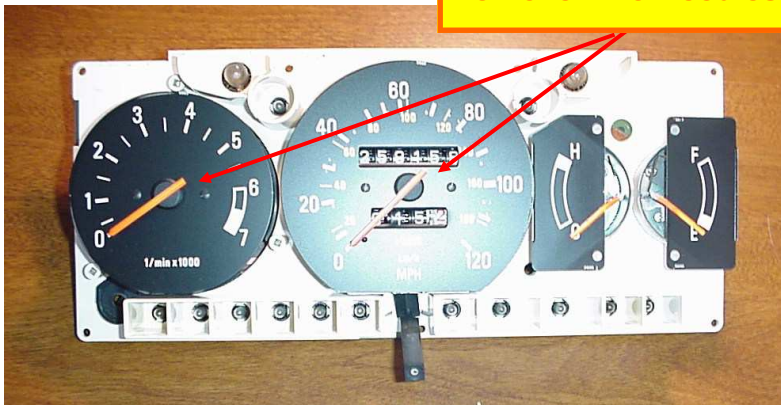
Turn the gauge pod over and locate the seven Phillips head screws on the outer edge. Remove them.



Removing these screws will allow you to lift out the **gauge/circuit board assembly** from the box.



Remove Two Needles

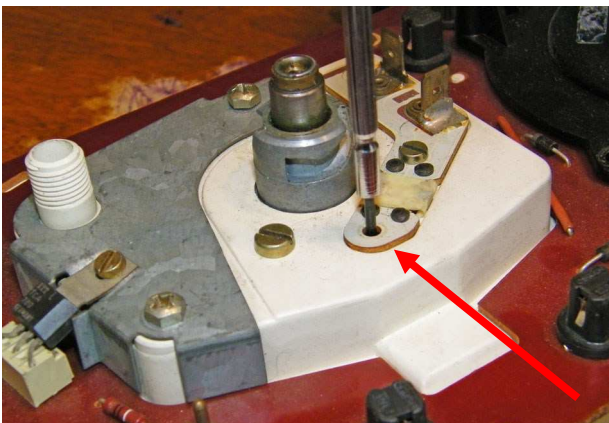


Place the removed gauge/circuit board assembly on a nice, clean work surface. Your dining room table works great, as long as the wife isn't home.

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

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

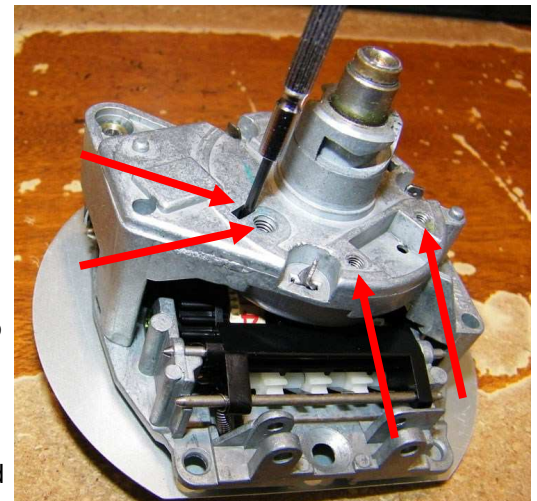
First, you'll notice an early speedo face will have a small pin at "0" MPH where the needle comes to rest. **Gently lift** the end of the needle up and over the pin. Make a note of where the needle rests, as it will usually rest about 1/16 to 1/8 inch to the right of the pin, as shown in the photo. This will be **very important for reassembly** as this is the precise position you will use when placing the needle back on.



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, ETC.** If you do, you can **BREAK** the needle.

LOCK THE SPEED CUP FIRST: Locate and remove a small slotted screw on the back, near the bottom of the speedo. **Insert a small slotted screwdriver down into that hole.**

This will lock the speed cup and the mechanism inside the speedometer so the needle shaft can no longer move.



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

With the speedo locked, 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 plastic orange needle pointer. The pointer is fragile and can snap off if you put force on it.

While the internal mechanism inside the speedometer is locked, you will be **turning and forcing the CENTER HUB counter-clockwise** until you feel it come loose and get easier to turn. This is sealer or glue breaking free. Now you may turn the hub back and forth easier. Keep doing that while at the same time gently pulling it toward you. It'll eventually come off in your hand without much trouble.

If you should break your speedo needle (or tach needle), it may be a simple fix with a little Super Glue (Cyanoacrylate).

Removing Large CLOCK HANDS (all years):

Both clock needles are mildly press-fit. Grasp the CENTER HUB of each hand (NOT the pointer end), twist slightly and pull up. Each clock will easily come off very easily.

Step 3b: Removing Speedo Needle for 1986-1993 240:

This electric speedometer is a bit easier to remove the needle. The needle rests at zero (with no pin like the earlier speedometers), so take note of the precise position. When re-installing this needle, it simply needs to point at zero.

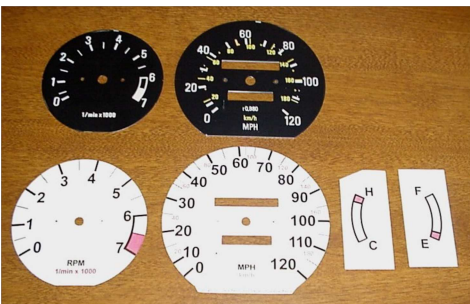
No locking of the speedo mechanism is needed. Gently grip the needle HUB with your fingers at the **CENTER**. **Don't put any pressure on the needle pointer end, as it can break off.** Twist the needle HUB counter-clockwise. It will give some resistance, but when the adhesive Volvo used in the needle shaft breaks free, the resistance will suddenly reduce. Then continue twisting the needle in a counter-clockwise direction while pulling gently. After a few rotations the needle will eventually pull off the small shaft.

Re-installation: Simply push the needle back on the shaft with a little thumb pressure. No adhesive is needed.

Removing a Tachometer Needle:

Any year tach needle (all years are the same) can be done using the same technique as the above 1986-93 speedo method. It is not recommended to pry off a tach needle.

Step 4: Preparing to Apply your new Face Overlays

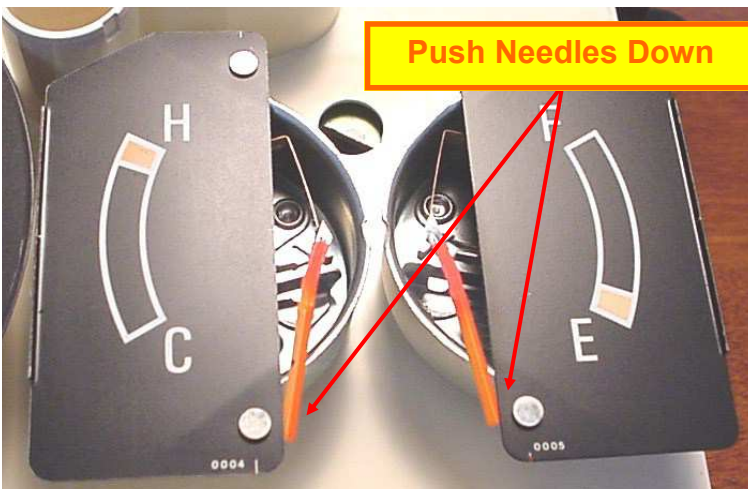
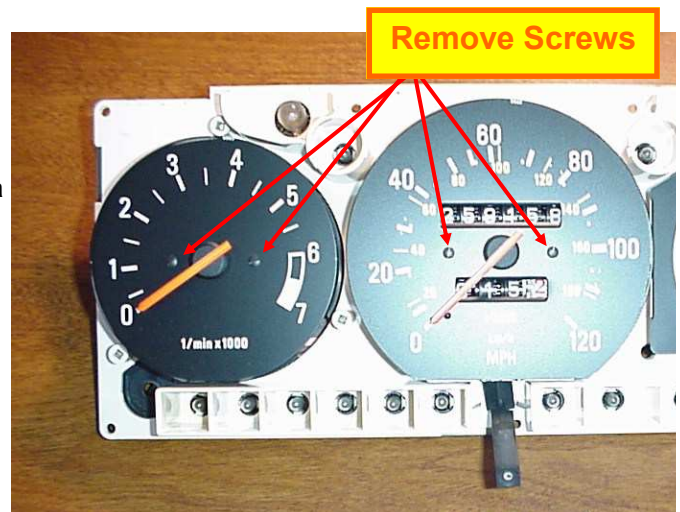


Custom face overlays come with a clear UV coating over the printed surfaces, so they are well protected from handling, however, I still recommend using **clean fingers** when handling and installing these.

Using a very small flat blade screwdriver, remove the screws holding the metal faceplates for the **speedometer and tachometer (or**

clock if that's present). The screws are fairly soft brass. Use a proper fitting screwdriver and try not to gouge them. **Keep the screws for the speedometer and tach (or clock) separate** because many instrument clusters used different length screws for each gauge. **There is no need to remove the water temperature or fuel level gauges from the gauge cluster or circuit board.**

Before removing the peel-off backing on the overlays, test-fit them on the removed 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.**

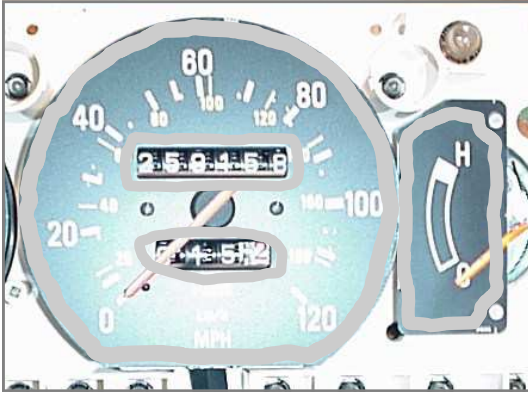


FUEL and TEMP: Prior to applying the new faces to the **fuel and temperature gauges**, you will need to **gently** push the needles down and hook them on the bottom of the gauge **as shown in the photo**. This way, they'll be out of the way and will not get damaged or stuck on the overlay adhesive.

Step 5: INSTALLING 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 faceplate 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 a professional wraps a vehicle with vinyl.



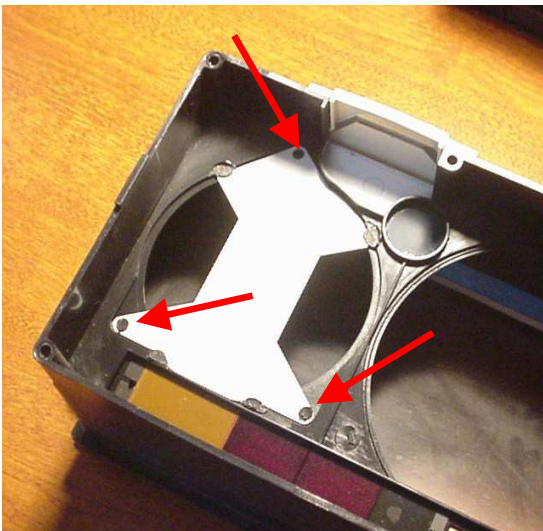
Application of primer should be done with a swab along the edges of the metal face plates, like shown here. It dries clear and provides a better surface for the labels.

Allow the primer to dry (only takes a few seconds), then you may proceed with applying the labels.

CAUTION: Using an adhesion promoter or primer means you need to be aware that once you place a label down, pulling the label back up for repositioning will be harder than normal because the primer chemical will help to increase the stickiness a lot.

Step 6: Installing the Center Piece Between the 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 (photo at left). 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 holes so that the metal plate can be pulled out. **Try not to bend this plate.**

Please read and consider the section above about using an **optional adhesion promoter or primer** 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.**



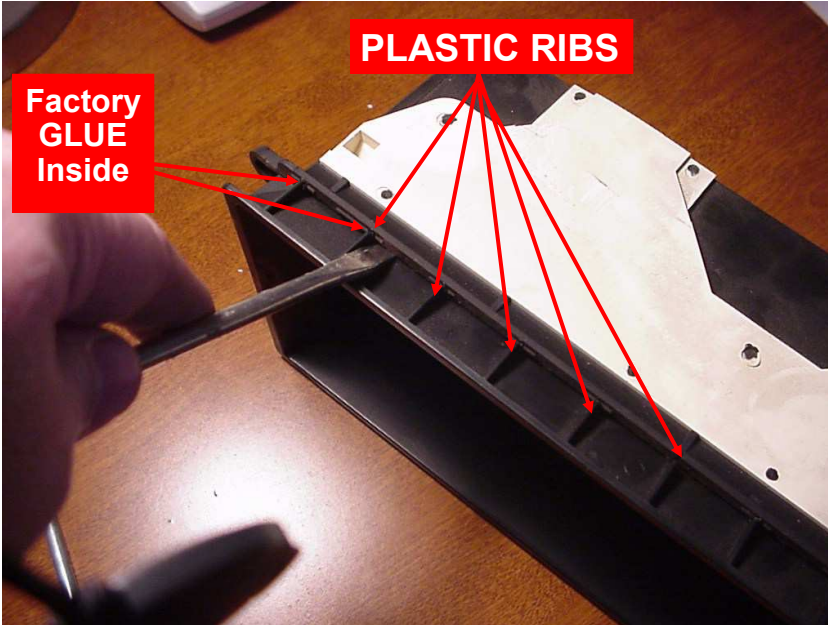
You will notice that this later gauge box has **no removable metal plate** between the Temp and Fuel gauges. This one is all one piece. **I have designed and cut the overlay for this part to fit correctly on the FRONT. It must be mounted from the front instead.**

To accomplish this, I recommend you separate the **front frame** (which holds the clear plastic window) **from the back gauge box**. They are glued together, but it is much easier than it looks. They can easily be separated without any damage.

SEPARATING the FRONT FRAME:

This procedure will also allow you to thoroughly clean behind the clear plastic lens if you want.

NOTE: 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 front frame are a series of **plastic ribs (left photo)**. The frame and two box are glued together behind each rib. The photo to the LEFT is demonstrating how to place a flat blade screwdriver next to each rib and carefully pry it to break each 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 from the rear gauge box. The **photo below** 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 solvent to clean it.** Any residue can interfere with the adhesion of the overlay and it can begin to lift later. You may also consider using an **adhesion promoter (primer)** around the edges on the plastic as mentioned earlier and as shown here to the left. **If you do, be especially 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 the overlay.

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 Testors plastic model glue or Crazy Glue (Cyanoacrylate) for this part.**

ALTERNATE METHOD OF MOUNTING THE CENTER TEMP/FUEL OVERLAY IN A 1989 TO 1993 GAUGE BOX

If you do not wish to separate the front frame from the gauge box, you may instead insert the new face overlay through the speedo hole and lay it in place. This method takes a very steady hand and you should **try it first without peeling the rear liner as a test fit.** It will be very important to keep from getting your dirty fingers all over the clean black plastic interior of the box as they may stain the matte black finish. As mentioned above, it's also important to wipe away any plastic residue first so the overlay sticks well. **I don't normally recommend this method.** I recommend separating the halves as shown above.

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.

Speedo and Tach NEEDLES: 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 bend it because you can break off the pointer pretty easily. If you need to pull the needles off again, use the same methods as before, however you will find them **much easier** to pull off the second time around.

If you have a **large clock**, make sure the screws holding the face to the clock body are tightened completely. If not, they can protrude out and contact the clock 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 gauge face (this has happened). Take your time and double-check your work . . . When the hour hand is reattached, look closely along the clock face to make sure that it will clear the face screws. If needed, you can gently lift the pointer end of the hour hand to make sure it clears.

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

