

Volvo 240/260 New Face Overlay Installation

1975-80 Models

By Dave Barton

These custom faces are the product of years of research and experimentation. They are printed with a special printer using waterproof and UV resistant ink on high quality adhesive backed vinyl and then laminated with a high-quality, non-glare overlay. Follow these instructions closely and you will have a very nice looking set of gauges in your Volvo.

Some of the ideas you see in these instructions were suggested by customers like yourself. If you have an idea that will help future Volvonuts with a smoother installation, please let me know.

PLEASE READ THROUGH THESE INSTRUCTIONS BEFORE STARTING.

Recommended List of Tools: Small flat screwdriver, medium or large flat screwdriver, medium Phillips head screwdriver, a few assorted small sockets or combination wrenches, some day-glow orange hobby paint (optional for painting gauge needles orange if desired), and a brush.

Step 1: Removing the Instrument Cluster

First, you will need to remove your dash gauge pod. It's a very simple procedure.

The photo below shows the removal of the steering wheel. This was done for photo purposes and is NOT REQUIRED, although it makes access a little better.

You will need to disconnect the speedometer cable from the back of the speedometer. To remove the speedo cable, look under the driver's side dash area and remove the **plastic fasteners** which hold the black cloth cover under the dash (1/4 turn counter-clockwise). 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 on the cable end which attaches to the speedo. This retainer needs to be twisted approximately 1/4 turn counter-clockwise to release the cable from the speedo. The cable may then be pulled free from the speedo.

NOTE: If you have trouble twisting the retainer, there may be a larger plastic "anti-tamper" collar on the speedometer back. This collar may be pried off with a screwdriver and discarded.

Now you can concentrate on the front of the dash. Start by removing the **two Phillip's screws** that hold the plastic cover on top of your steering column. Lift up and pull the cover toward you to remove. The photo shows the cover already removed.

With the cover removed, you will see **two Phillip's screws** located under the front of the instrument cluster. Remove them. You will find the instrument cluster sort of wedged into the opening. To free it, reach your hand up under the dash (same area when you unhooked the speedo cable) and push the instrument cluster toward you. There are two spring metal tabs on top of the cluster housing that hold it snug. Push toward you until the cluster pops out.

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

Step 2: Removal of Clock Assembly

For this procedure, you may want to unbolt the front center dash panel as shown in the photo. This panel holds the switches. You need to remove the flexible horizontal trim piece under the clock, however, sometimes the trim piece cannot be removed without removing the front center dash panel.

To remove the panel, start by removing the **two plastic fasteners** on the lower right and left sides of this plastic panel (1/4 turn counter-clockwise). These fasteners hold the plastic center kick panels down near your feet. Next, remove the **two Phillip's screws** on the upper right and left sides of this panel. Look for **two Phillip's screws** at the very bottom front of this panel where it sits on your carpet. Remove them too. Now the panel may be gently pulled a few inches toward you. Try to be avoid pulling wires or light bulbs loose behind this panel.

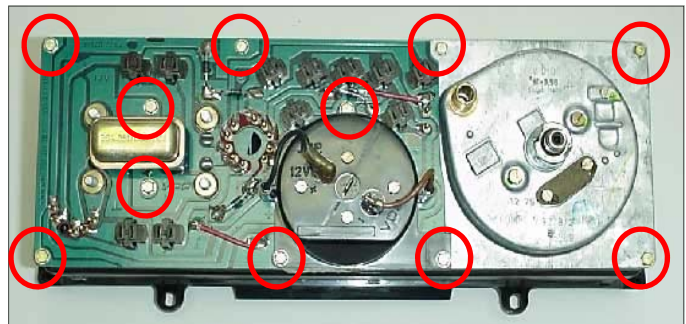
To remove the flexible trim piece, simply push it down and it will slide off the mounting teeth. Behind this piece, you will find **two Phillip's screws**.

Remove them. Now you may pull the whole clock/vent assembly toward you. After pulling it out a few inches, look at the wire connections on the back of the clock. There are **two light bulbs** and **two connectors** for the clock. **Write down where these connectors go.** The light bulbs may be twisted 1/4 turn counter-clockwise and pulled out. The two clock connections simply pull off.



Step 3: Remove Gauges from Instrument Cluster

Take the instrument cluster and clock assembly to your work bench. Turn the instrument cluster over and locate the **eleven hex screws** on the back (indicated in the photo). Remove these screws. A **5.5 MM or 7/32 inch socket** works for these.

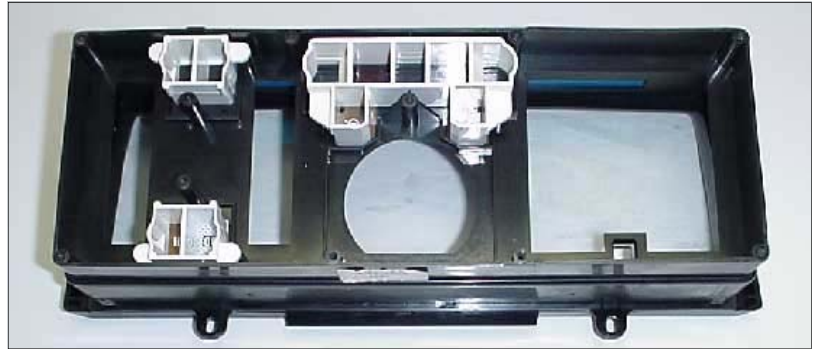


Lift out the **tachometer** first. It's held snug by two pins for the electrical current connection. Pull and it will come out.

Next, lift out the **speedometer**.

Then lift out the **circuit board with the attached temperature and fuel gauges**.

The empty box to the right is what's left. Put it aside, but be careful not to turn it upside-down or those white plastic pieces and your colored instrument light lens cels will fall out and end up where you don't want them.



Step 4:

Removal of Speedometer Needle and Faceplate

The speedometer pictured is an 85 MPH unit. If you have a 130 MPH or 200 km/h unit, the same procedures apply.

First, you will notice the speedo face has a **small limit pin at "0"** where the needle comes to rest as shown in the photo. You will need to gently lift the end of the needle up and over the pin.

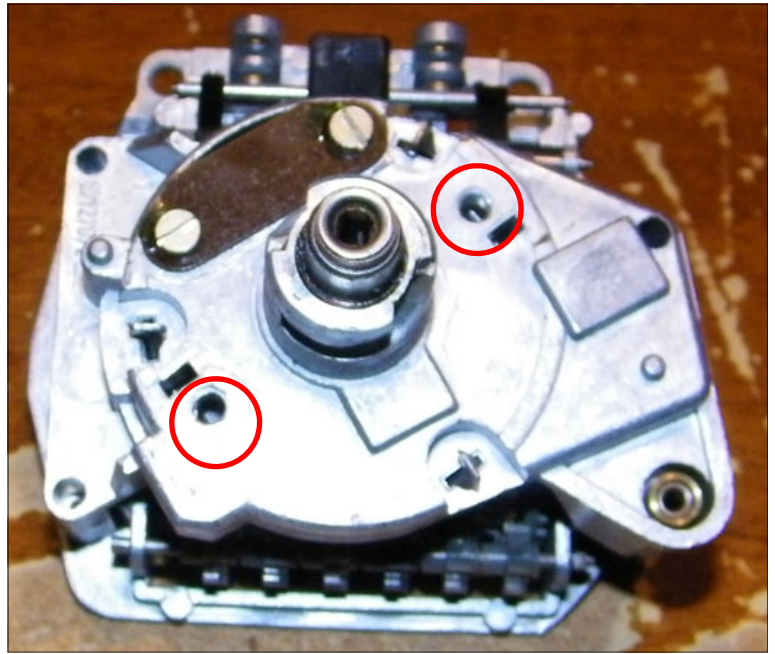


Make a note of where the needle rests. There may be a **small calibration mark** at the bottom of the face and the needle should point to it. This will be **very important for reassembly** as this is the position you will place the needle back on before lifting it back over the pin to the zero position.



Turn the speedo over and remove the two slotted screws shown and separate the back plate from the speedo.

Here is the back of the speedo after the backing plate has been removed. There are two screw-holes (where you just removed two screws). By gently placing a small screwdriver or other small tool into one of those holes until it stops, you will be able to lock the speed-cup, which is the internal part connected to the speedo needle. Once it is locked, you will find the needle will no longer move.

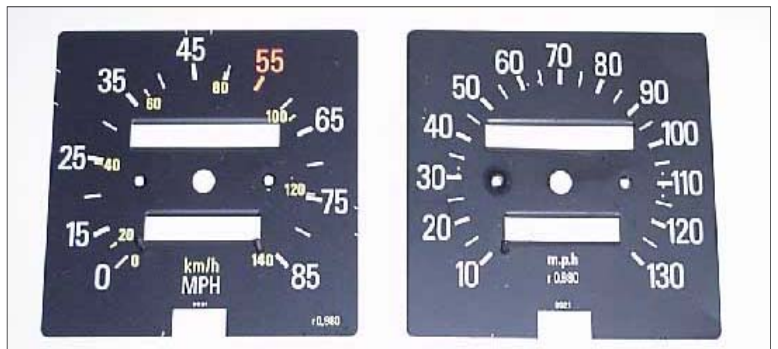


Now you should grasp the center round section of the needle. To remove the needle, you will turn it in a direction away from the stop pin at zero. Either direction is fine, just don't break the pointer arm on the pin. Some force will be necessary to release the grip on the shaft. Be very careful NOT to put pressure on the plastic needle pointer arm or it will break off.

The needle can be moved back and forth, while gently pulling, until it comes off the shaft.



Using a very small flat blade screwdriver, remove the **two small screws** holding the faceplate to the speedometer. These screws are a soft brass, so try not to gouge the screws (or the face). Keep these screws **separate** from the screws for the tachometer as they are different lengths. Remove the speedometer faceplate and set it aside.



Step 5: Removal of Original Tachometer Faceplate

There is a different method that is much easier for removing the needle from a tachometer. The needle rests at zero with no pin like on the speedometer, so keep in mind that when re-installing the needle, it needs to point at zero.



Gently grasp 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 pressure on the plastic needle pointer as it can break off**. While twisting the needle in a counter-clockwise direction, pull toward you. The needle will eventually pull off the small shaft. Re-installation is as simple as pushing the needle back on the shaft and pushing with your thumb.

Using the small flat blade screwdriver, remove the **two small screws** holding the faceplate to the tachometer. Keep these screws **separate** from the screws for the speedometer as they are different lengths. Remove the faceplate and set it aside.

Do not remove the water temperature or fuel level gauges or faces from the circuit board.

Step 6: Disassembling the Clock

Looking at the rear of the clock/vent assembly, you will find two small nuts holding the clock in the plastic vent assembly. These nuts are **7 MM** on most clocks. Remove them.



To disassemble the clock, remove the screws on the back. On some clocks, such as the one shown, there are two hex screws and two hex studs (5.5 MM or 7/32 inch). On others, there will be just two slotted screws. Next, gently pry off the two needles. They will come off easily. A small screwdriver works fine for these.



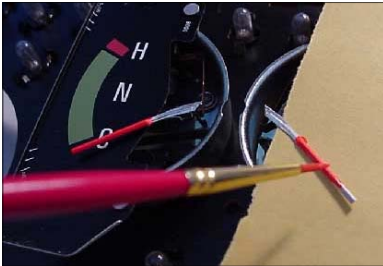
Now you may remove the metal face plate and put it aside.



Step 7: Option of Coloring your Needles

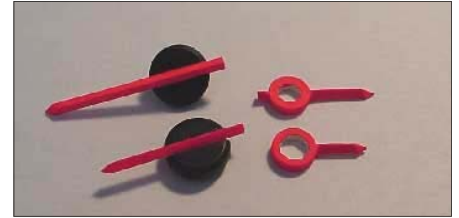
Since your original needles are white, you might want to color them if you're installing white faces. I suggest **day-glow orange**, found at hobby stores, since it's the color used on later Volvo needles.

Place a piece of paper under the temperature and fuel level gauge needles when painting, to avoid painting the faceplate.



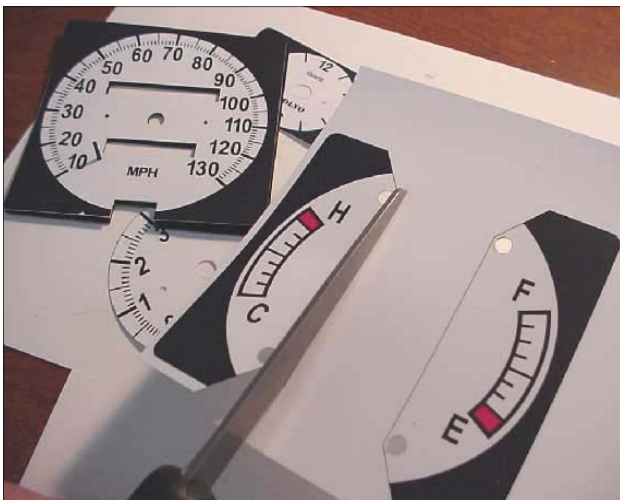
On the speedo and tach needles, use a bit a masking tape to keep from painting the black centers, or use a very gentle hand if you can.

Only the fronts of the needles need paint. The back side it's visible.



Step 8: Attaching the new faces

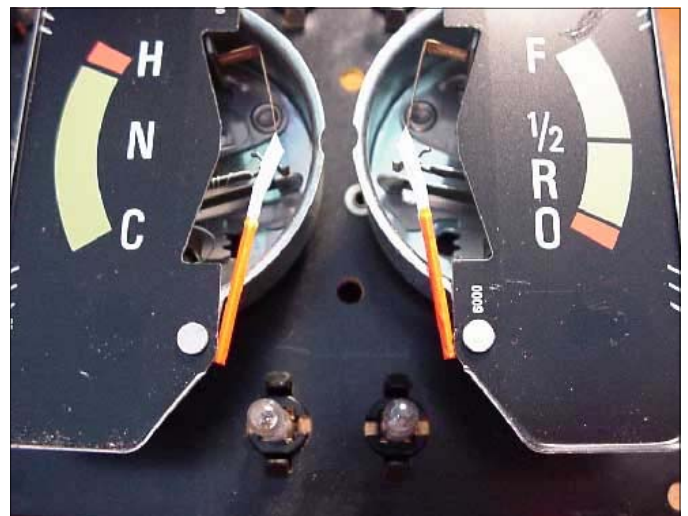
All face shapes and inner holes have already been cut out for you.



Trial Fit First.

Before installing, test-fit the new faces on the gauge faceplates. The odometer cut-outs should be a good fit. **The odometer cut-outs will need to be the priority when fitting the new face to the original speedometer faceplate.**

Prior to installing the new faces on 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 accidentally damaged.

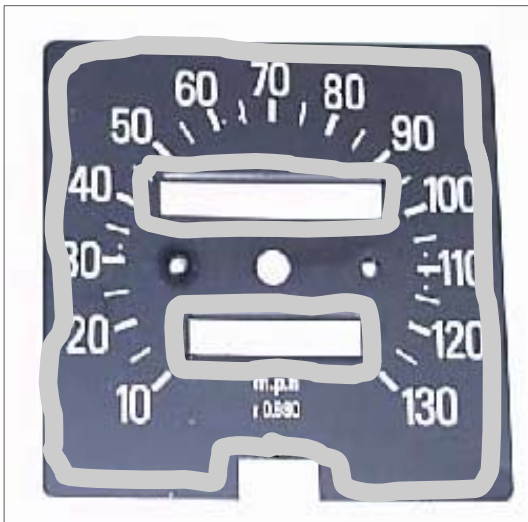


Now it's time to apply the new overlays to the faceplates.

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 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.

Working **one face at a time**, peel off the back liner and carefully fit the face. At this time, don't rub or push the new face down hard, as you will want to look it over to see if any adjustment is needed. The adhesive will allow you to pull the label back up if you need to reposition the face. When you are sure of the position, gently rub from the center outward to avoid air from being trapped under the label.

When replacing the small screws that hold the faceplates, **do not over-tighten them**. They only need to be slightly snug. Tighten just enough so that they won't vibrate loose later. Tightening them too much can make them dig into the new face overlays.

When you push the needles back onto the shafts for the speedometer, tachometer and clock, very little pressure is needed... just a firm push with your thumb. Try to be careful to have the needles in the correct position.

On the clock it's best to put both hands at the top (12 o'clock), then re-set it using the knob, so they will be in correct position.

If you need to pull the needles off any gauge again at a later time, you will find them all much easier to pull the second time around.

Final Step: Reassembling and Reinstalling the Gauge Pod

Before reassembly, it's a good idea to spend a little time cleaning your cluster. The bulbs that insert into the back can be pulled out and cleaned as they get fouled with dust.

The rest of the reassembly is simple with no surprises.