Volvo 240/260 White Face Gauge Installation

1975-80 Models

By Dave Barton

These white 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, small tack puller or similar, small piece (a few square inches) of thin scrap sheet metal or plastic, some day-glow orange hobby paint (optional for painting gauge needles), 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

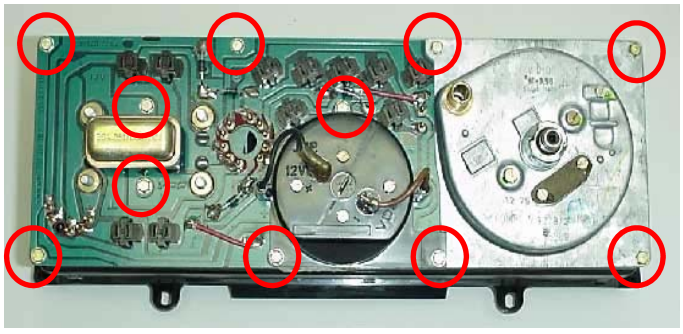
For this procedure, you may want to unbolt the front center dash panel as shown in the photo. This panel holds the switches. You need to remove the flexible horizontal trim piece under the clock, however, sometimes the trim piece cannot be removed without removing the front center dash panel.

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.

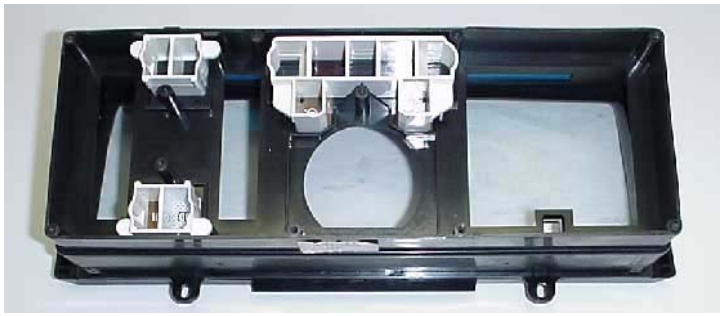
To remove the flexible trim piece, simply push it down and it will slide off the mounting teeth. Behind this piece, you will find **two Phillip's screws**. Remove them. Now you may pull the whole clock/vent assembly toward you. After pulling it out a few inches, look at the wire connections on the back 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 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 Original Speedometer 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 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 "0".

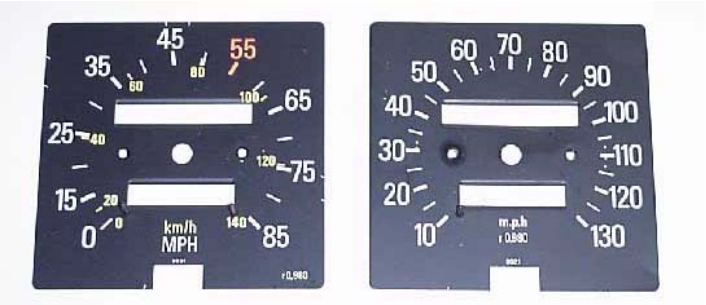
Your speedometer needle is pressed on to a very small shaft in the speedometer. **<u>It is on very tight</u>. DO NOT ATTEMPT TO PULL IT OFF WITH YOUR FINGERS OR PLIERS.** If you try to pull it off with your fingers or pliers, **you will break the needle.**

Now, after I've scared the crap out of you… here's how to do it. Use a **small nail puller** as shown to pry the needle **<u>straight up</u>** and off the shaft. If you can't find a small nail puller, some customers have had success with a **regular dinner fork or even two spoons** (one on each side to evenly balance the pressure).

As illustrated in the photo... place a piece of sheet metal, plastic or other material on the face to protect it from dents or scratches by the pry tool. The under side of the center of the needle is metal**.** You should place the needle at approximately a 180 degree angle to the pry tool (see photo). The trick is to apply pressure **straight up**… not at an angle. It will take a significant amount of pressure to pop the needle off. Most likely, the needle will fly across the room when it does come off, so don't lose it (and don't put your face directly above it).

If you should damage your needle, please contact me as I can supply a spare for a small price.

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 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 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 Clock
Looking at the rear of the clock/vent assembly, you will find two small nuts holding it 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 for these.

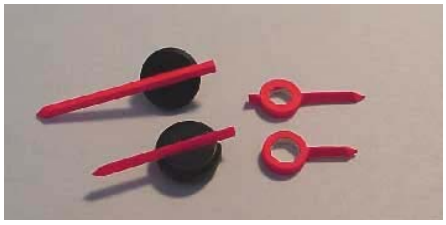
Now you may remove the metal face plate and put it aside.

Step 7: Coloring your Needles
Since your original needles are white, you might want to color them, especially 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.

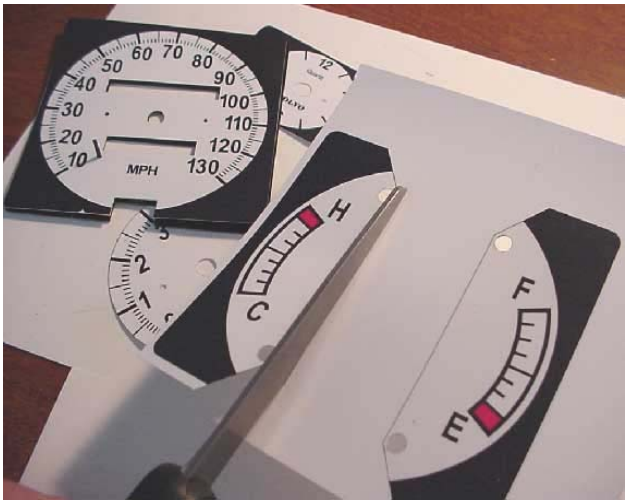
Place a piece of paper under the temperature and fuel level gauge needles when painting, to avoid painting the faceplate.

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.

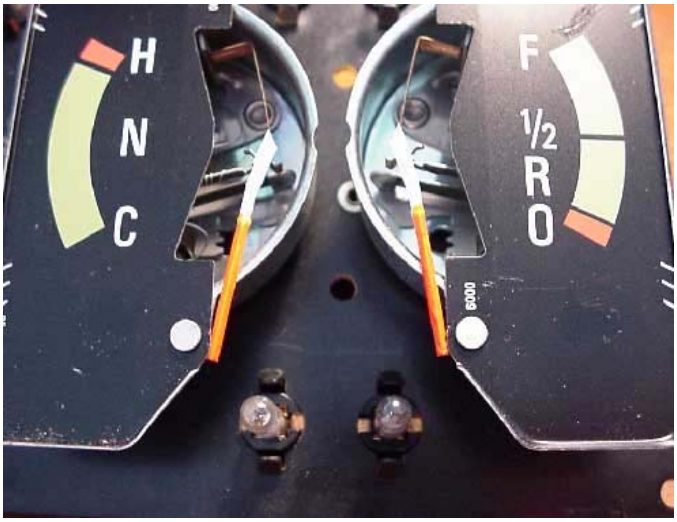


Step 8: Attaching the new faces
All face shapes and inner holes have already been cut out for you.



Trial Fit First.
<u>Before peeling the back liner,</u> 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 <u>the priority</u> when fitting the <u>new face</u> 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 faces.
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 face back up if you need to reposition the face.

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 faces.

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 set it using the knob, so they will be in correct position. If you need to pull the needles off any gauge again later, 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.