

Installing New Face Overlays in 52mm (2 1/16") Gauges

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READ ALL INSTRUCTIONS COMPLETELY BEFORE STARTING. THIS MEANS YOU!

There are several options for dismantling these Volvo or VDO small gauges. I will be illustrating the best options I know along with my recommendations. As always, I welcome your input or experiences. If you have any suggestions for improving these instructions, please let me know.

OPTION 1: PRYING THE BEZEL RING

Some of you may have tried prying back the metal bezel ring around the edge of the gauge. This method can work, but it takes time and patience or the result is a bent and unsightly metal ring... or, in rare cases, a broken glass lens. This method works very well for gauges with **METAL BODIES**. There is a risk doing this with plastic body gauges. Some older plastic gauges have become brittle over the years and can crack when pressure is applied. If this becomes a problem for your gauges, then I recommend using one of the other options.

The trick to getting this right is to use a **small jeweler's screwdriver**. The one pictured below might even be too big to get the bezel started, but whatever you use, it needs to be sharp enough to wedge behind the crimped metal bezel ring and push it away from the gauge body. If you don't have a screwdriver small enough to get a start, then a sharp pick or awl will do. Once you have it started it's pretty easy.

Once you get a tool in there, slowly pry the ring outward a little at a time while rotating the gauge. Don't bend it too much at a time or the ring will get bent up. Bending too fast can also warp the front side of the ring.

As you can see in the below photo, the gauge on the right is untouched, while the gauge on the left has the bezel ring bent out enough to remove it. Take your time on this and you will have a nice result.

When reassembling, the bezel ring can simply be re-crimped using a screwdriver to push down on the back of the ring. It will not be necessary to re-crimp all the way around, in case you want to keep the option of disassembling the gauge again in the future.



OPTION 2: TRIMMING THE BEZEL RING

For this method, you will need a small rotary (Dremel type) tool with a friction cutting wheel. It involves carefully cutting/trimming a small portion of the BACK of the thin metal bezel ring until it can be gently pried off without ruining it. This works very well for plastic body gauges, where the first option is riskier.

This method (along with Option 1) is particularly useful for gauges mounted in the 240's upper 3-gauge cluster, where there is a U-bracket exerting pressure to the back half of each gauge. The **cutting-in-half method** (Option 3) will not work as well when gauges need to be mounted with a U-bracket as the pressure can separate the two halves of the gauge. The choice will be yours.

Using a rotary (Dremel type) tool with a friction cutting wheel, carefully trim around the outer edge of the rear of the metal bezel ring. **The object is to remove the lip from the bezel ring that is crimped over the edge of the lip on the gauge body.** It takes only about 10 minutes per gauge. Once removed, the bezel can be gently pried off over the front. **I strongly recommend you leave a few small tabs** that can be bent over the lip for reassembly (see below pic). If not, it can also be reattached with a few dabs of glue later, but it won't be as strong.



In the photo at left, you can see how a portion of the bezel ring has been trimmed away, exposing the lip on the gauge body.

In the below left photo you can see where some small tabs have been left. These tabs bend over the lip and will be used to hold the ring on after it's reassembled.



The below photo shows the bezel ring removed from the gauge body.



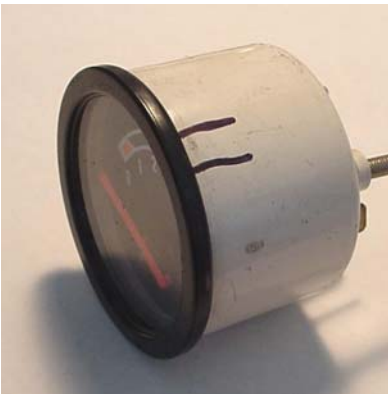
OPTION 3: CUTTING-IN-HALF METHOD

This method is recommended ONLY for gauges that do not use the U-bracket to hold the gauge in place, such as the two positions to the immediate right of the main instrument cluster.

This method the easiest one for plastic body gauges. It takes more time for metal body gauges.

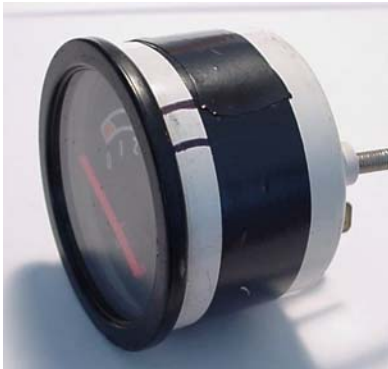


If your gauge has this plastic guide piece on the bottom, remove it. Simply pull it off with pliers.

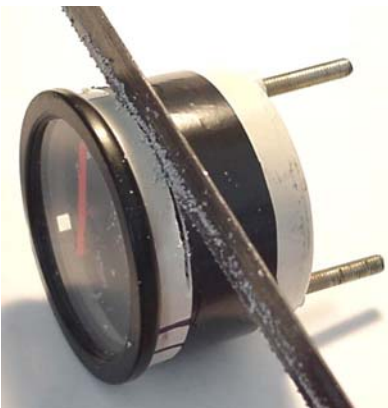


Using a felt tip marker, make a mark or two on the plastic housing behind the metal ring. This will help you when reassembling the two halves of the body.

The gauge pictured is the 5 Bar Oil Pressure Gauge.



Measure about 1/4 inch away from the metal ring and place masking tape or electrical tape around the gauge for a cutting guide. A simple marker line works OK too.



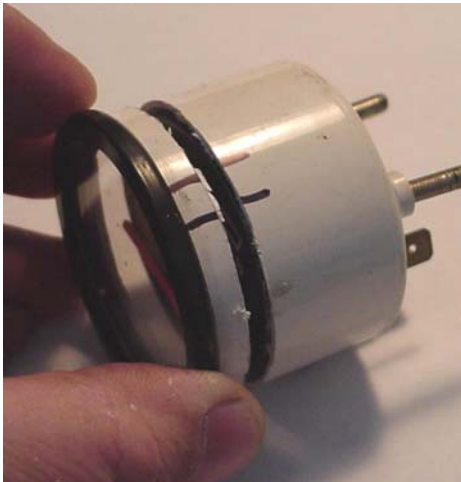
With a hack saw, slowly cut through the gauge housing, rotating the housing a little as you go. Be careful... don't allow the blade to go too deep; just allow it to break through the surface of the housing. Take your time.

If you're cutting a metal housing, you will need to exert more pressure and it will obviously take much more time.



NOTE: If you are cutting an OEM VOLVO 240 Turbo Boost Gauge, you will need to cut a little closer to the ring. Make your cut on this gauge about 3/16" from the ring.

The OEM Boost Gauge is unique. The original metal face is held in place by three metal tabs tucked into the inside of the ring. You can pry these tabs down and away from the ring or simply cut through them. **Or better yet, refer to one of the other methods for disassembly.**



Back to our Oil Pressure Gauge.

After cutting, simply separate the two halves.



Notice that I placed a mark with a felt pen on the edge of the housing? This mark should be to record the position of the needle when at rest. It will be used later for lining up the needle when you reassemble. You should not skip this step.

A little compressed air comes in handy when cleaning all those plastic shavings out of your gauge housing.





Now it's time to remove the needle. **Do not try to pull it off with your fingers or you will break it.** A simple kitchen fork does this job very well. **Be sure to pry straight up.**

The needle will probably fly across the room... so don't lose it.

NOTE: If you are using a different method to disassemble (Option 1 or 2), the face may be too deep in the housing to reach behind the needle with the fork. You may need to remove fasteners from the back of the gauge body to allow the inner mechanism to be pushed up or be removed from the body.



If your gauge face has these little screws (almost all do), use a proper fitting small screwdriver to remove them.

Try to be careful not to gouge the screws. They are brass and fairly soft.



When you receive your new face overlays, the center holes will have already been cut out for you.

If the metal face is cupped on the edges, such as the one shown, then you will need to press the new face into the shape of the cup. You might try this before peeling off the back liner and applying the overlay. If needed, the new face may be gently pulled off after it is applied and repositioned without any trouble.



You might have noticed a blue plastic lens piece like this one behind the metal face. It makes the gauge light up with a slight blue tint. You may leave it in or remove it. Removing it will offer more light on the face at night and the light will look more white.



Back to our unique OEM VOLVO 240 Turbo Boost Gauge.

You will notice in the photo I have cut the three metal tabs down to about one half the length they were. This is so it is much easier to re-install the face.

Also, since there are no screws to hold the face in place, you should use a little glue on the three tabs to hold them to the plastic housing. A little clear silicone, or any thick glue, will work well.

Replace the face on the gauge and tighten the screws. These screws do not need to be really tight, so just make them snug.

Replace the needle in the same position it was and give it a push on with your finger. If you're installing a boost gauge needle, set it at zero. After you push it on, it will be easy to nudge a little to the left or right if needed.



Now reassemble the gauge. If you used method #1, place the bezel ring back on and crimp the outside edge using a flat screwdriver.

If you cut the body in half (method #3), you can now place the two housing halves of the gauge body together. You have the option of gluing the two halves (use epoxy if you do this) or using electrical tape as pictured. The electrical tape method works very well and allows you to quickly disassemble the gauge again if you need to.

Using tape does not work well if the gauge must be mounted in the dash using a U-bracket behind it, such as in the upper center. The force of the bracket will pull the two body halves apart.