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Vstar 1100

Tools Needed

4mm Allen
8mm socket or wrench
Philips Screwdriver
Dremel tool (optional)
Cutoff wheels (optional)
A narrow/thin straight slotted screwdriver
A lint free cloth
Patience, patience, patience. Can't say this enough!

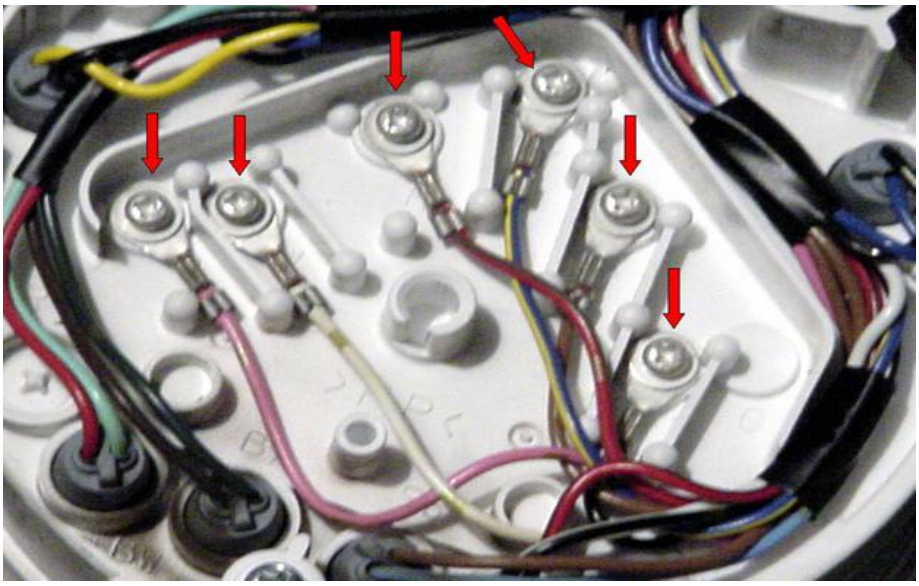
Step 1: Remove the 3 screws holding the dashboard in place using the 4mm Allen socket. See the photo to the right. Arrows mark the spot.

Step 2 - Disconnect the connector between the dashboard and the speedometer.

Step 3 - Remove the 3 nuts holding the speedometer in place using a 8mm socket.

Step 4 - Remove the 3 Phillips screws holding the mounting bracket in place.
Also remove the Phillips screw holding the cable guide in place.

Step 5 - Disconnect the 6 wires by removing the Phillips screws. You're not able to remove all of the wiring harness. Be careful here because if the six wires touch each other once removed, you'll blow a 5A fuse that keeps the memory for the trip odometer. I would recommend putting the screws back in place after removing the wires. This will prevent you from misplacing the screws, and it will keep the internal parts of the speedometer in place after removing the needle later in the process.

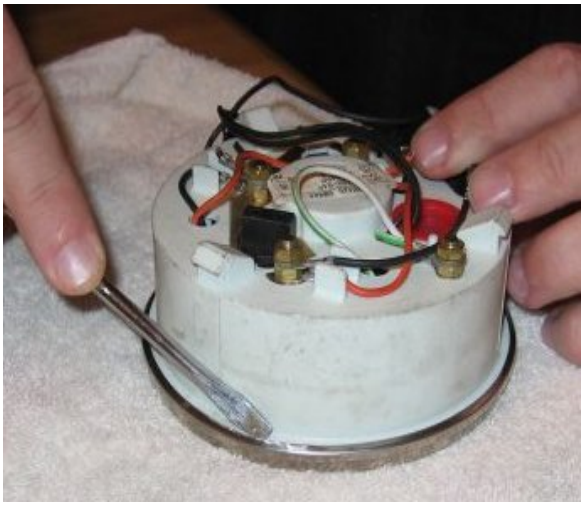


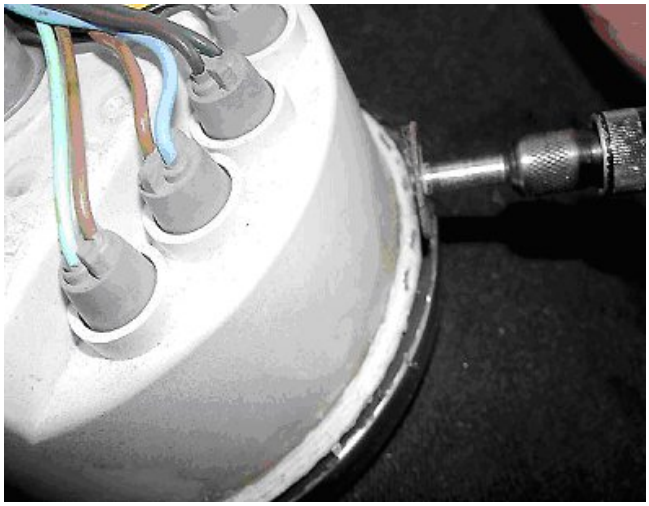
Step 6 - Another option to the above steps would be to remove the gas tank before removing the speedometer. If you will have to disconnect the wires from the wiring harness in order to remove the gas tank, this will allow you to leave the wires attached to the back of the speedometer. If you use this method you will have to be careful not to cut any of the wires when using the Dremel tool. Use whatever method makes you the most comfortable.

Step 7 - This lip of the chrome bezel is what you will be cutting to gain access to the inside of the speedometer. This is obviously the before picture.

Step 8 - Now it's time to make the cuts in the lip of the bezel that will allow you to bend back the crimp and remove the bezel form the speedometer housing. This is where make the choice to dremel or pry by using a screwdriver. The pictures below show prying or cutting with a dremel.

Use a dremel cutoff wheel to remove the bezel ring – cut all the way around – "Except" for enough to leave several tabs for re-installation – this metal is very thin…. Usually all you have to do is score it well and the use pliers to bend it off.





This picture shows the tabs left so you can secure the bezel back on when you reinstall your new dial. Leave about 8 tabs evenly spaced around your ring.

STEP 9 - Using a thin and narrow straight slot screwdriver carefully wedge it in one of the slits you cut with the cutoff wheel. Carefully rotate it outwards to push the first tab of metal up and away from the speedometer. Continue working around the speedometer until you have all the tabs pushed up and away from the plastic.

STEP 10 - You will want to be very careful with this step, as the metal cuts will be very sharp. I used a towel to push on the metal ring. Whatever you use, you want to push the metal ring away from the speedometer housing, pushing a little at a time around the speedometer until the metal ring comes off.

STEP 11 - This is what the bezel looks like once it is removed from the speedometer. This one was done with a screwdriver.

STEP 12 - Try and help keep dirt out of the speedometer glass housing area once you have it disassembled; I placed the speedo glass-housing ring inside of a folded lint-free cloth. DO NOT TOUCH THE UNDERSIDE OF THE GLASS – SEE INSTRUCTION 18 RIGHT NOW.

STEP 13 - Time for the hardest part of the entire operation, removing the speedometer needle. I don't know of an easy way to do this. This is going to take time and patience. Don't bend it!! First you will gently pry the needle away from the face of the speedometer, (its actually rather stiff at first). Once the needle breaks loose, carefully lift the end of the needle over the top of the "0" (zero) stop pin (the needle is still attached to the case at this point at its pivot point). When the needle has been lifted over the stop pin, it will be pointing straight down (or close to that) on the speedometer, finish removing the needle from the case by sliding it the rest of the way off of the pivot point. ** Make sure you mark where the needle rests at after lifting it over the stop pin. You will need to do this to reinstall it properly. I have heard that a computer chip puller works well for this step, but I didn't try one.

STEP 14 - Remove the 2 screws holding the faceplate on.

STEP 15 – Remove your old faceplate and install your new faceplate. Now secure it down with the two screws you just took off. Don't over tighten this as you may crack your new dial.

STEP 16 - Put the needle back on the speedometer loosely. It will be pointing straight down again. Lift the needle back over the stop pin so it is now pointing at 0 (zero) again.

Turn on the key and make several checks to see if things are calibrated, if the needle makes a jerking motion, it is not calibrated properly. You may have to do this 3-4 times to make sure that the needle sweeps smoothly.

Press the needle all the way back on the pivot point if you feel you have it calibrated correctly. Calibrating is VERY important; you don't want to disassemble it after it's been sealed up again.

STEP 17 - Run the needle through the range of speed to make sure that if moves freely. If you push the needle down too far it could interfere with the movement of the needle and cause it to stop at a certain speed.

STEP 18 - Triple check for any dust on the new faceplate, **DO NOT** clean the glass on the inside before putting it back together. Dust materializes out of nowhere, static can bring it on quick, so be very careful after you remove the speedometer bezel, don't cover it with a towel that may have lint on it. Turn it face down on a sturdy table, and do not touch the inside of the glass for any reasons. (If dust is present, do not blow it off using your mouth, or an air compressor; they both will 'spit' water on it, which can ruin the factory anti-fogging agent. Use "DUST-OFF!" in a can).

Place the speedometer glass side down onto a thick soft surface (I used a folded lint free towel). Now push on the plastic housing and bend each of the tabs back into their original position on the housing. Take your time. Once you've made one complete revolution around the case, double check each tab to insure they've all been pressed back into their original shape. (Realize they are not going to be perfect as they've been pried off, but press them back as well as you can and they will hold the two pieces together again)

STEP 19 - I put a bead of silicone seal over the tabs that were cut into the bezel just to ensure that no moisture entered the speedometer, although it might be slight overkill.

STEP 20 - Simply redo what you undid in steps 5, 4, 3, 2, then and 1 to finish up.

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