Fuel Gauge - Fixing / Repair

**Note: This is an old article that has been revived from the old CT forums - we have intentionally left it unchanged for the sake of preservation. A big shoutout to (VL_RB25DE) for originally putting this together for fellow enthusiasts.

This article has been provided by the Facebook Group "LW5 - Home of the GENUINE VL Turbo" - feel free to join us here for more articles and how-to's @ https://www.facebook.com/groups/1004266254031976/

Please note - For extra Information which addresses a complete fix - not just the ¼ tank issue is at the end of the document in the format of member replies*

If your fuel gauge has been playing up when it reads 1/4 or lower than this may help as well as not working at all.
FYI - This was done on a Standard Berlina dash with s2 calais inserts.

Tools required:

1) Remove the dash from the vehicle. (Instructions on how to do this can be found in the FB Group under “Files”)

2) Remove the upper indicator lights (low battery blinkers etc) there are 5 screws as circled in the following pic.

3) Remove the clear cover on the dash, there are 4 screws up top and 4 screws down low as per the following picture

4) This next picture shows the dash with the clear cover and lights removed, it also shows the next step in removing the tacho needle, I used a fork. the digital camera died at this point, so don't mind the blue drawing. t

   The blue is where the fork would go. You can also see little marks, they polish off easily and can not be seen when reinstalled, also the orange circles are the 2 screws to undo as well, the small screwdrivers works a treat, $2.95 from coles (yes i know 9 o'clock i bought them though)

5) OK the next step is to turn the dash over (carefully) and remove the small nut retaining the oil pressure gauge in. Once the nut is off press lightly and the gauge unit will pop out.


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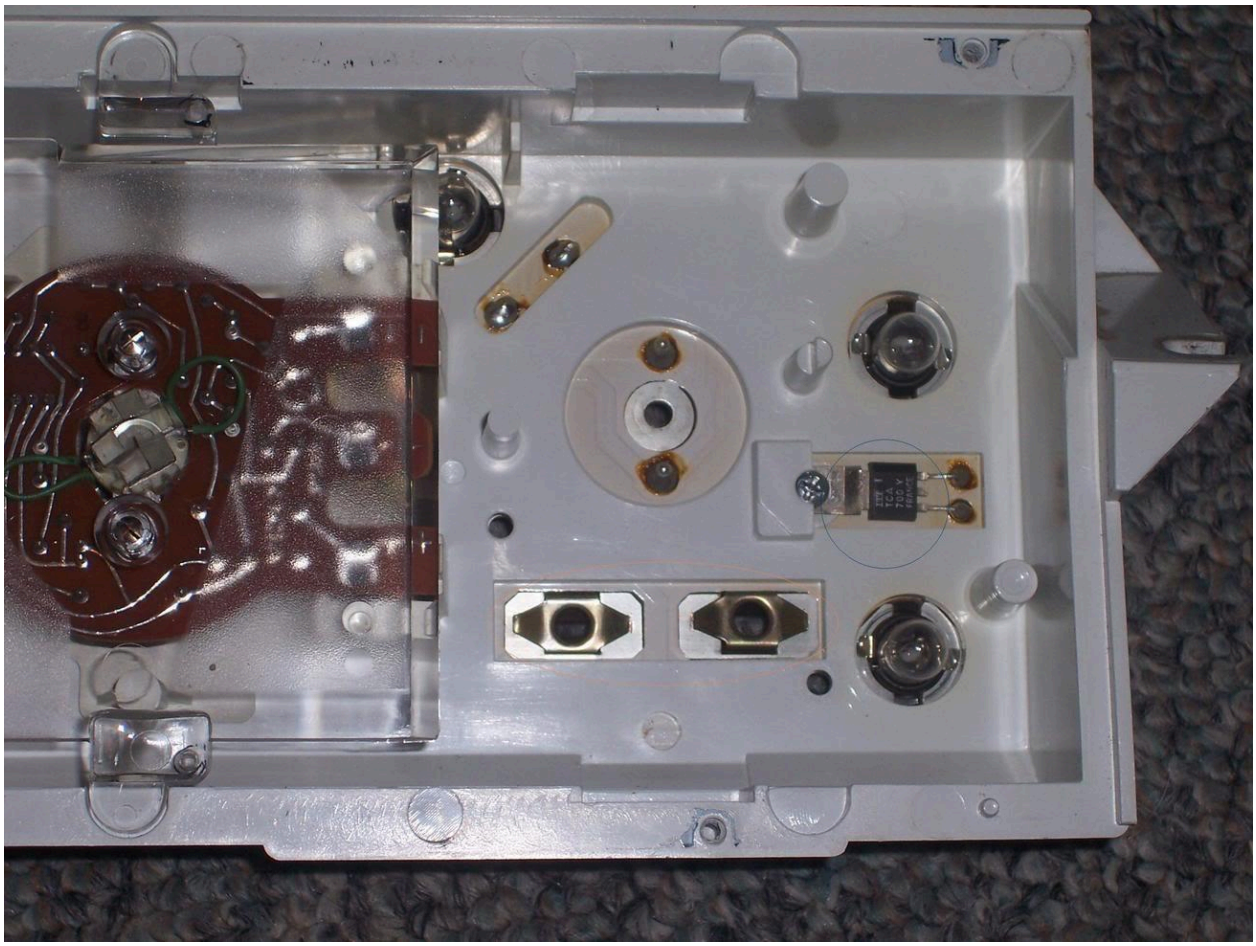
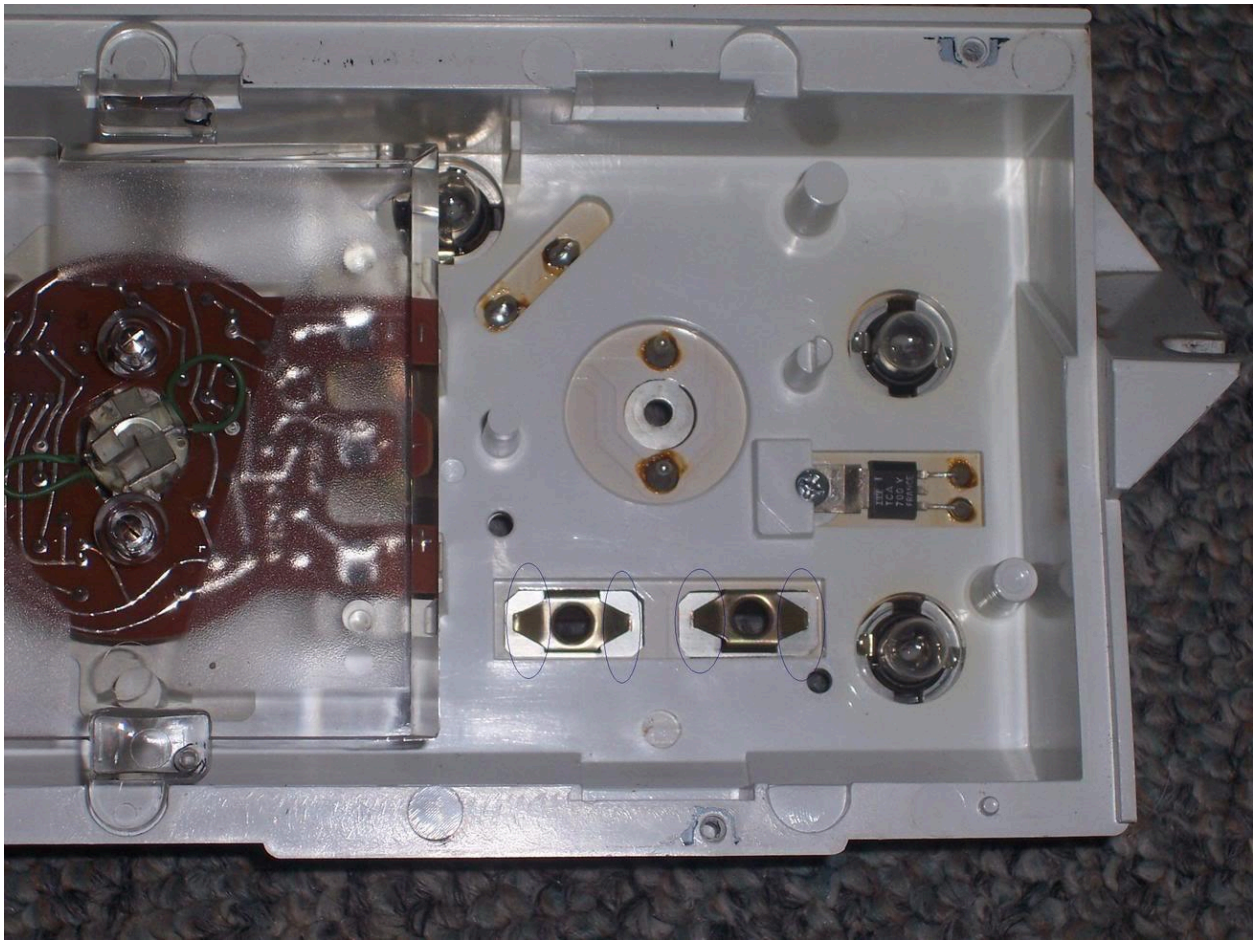
6) It should now look like this.



The 2 clips can now be pushed out.

7) Now these clips are what we are after, they need to be bent so a good contact can be achieved. This is what they are meant to look like. sorry about the pic I took about 40 and this is the best.

These clips have to be bent toward each other and also the wing part, circled in blue below, they need to be bent toward the point.



8) Reinstall gauge unit making sure the clips are back in place and look like they are making good contact if not, repeat.

9) Replace the clear cover and light unit. Then refit back to the vehicle.

ADDITIONAL READING - Posts that followed.

Reply 1:
“Do you know what that little transistor looking thing is? you have it circled in one of the pics. what does it do?”

Reply 2:
"I tried it, my fuel gauge still doesn't work properly, but my oil pressure stays on now lol it used to go to zero on idle, and then go to normal as i accelerated, now it stays on... weird”

Reply 3:
“What was your fuel gauge doing before you did this?
My car runs out as soon as it goes below a ¼”

Reply 4:
“this fix probably won't work for all and was meant for a starting point
its for when the gauge drops out when the tank level hits approx 1/4
its due to Resistance over the 2 pins
That blue circle around the transistor type thing, it's the voltage regulator i think it's what keeps the dash at a constant voltage the circle wasn't meant to be on that diagram and has no relevance”

Reply 5:
“Cool. I tried to fix mine but it didn't work. mine will drop to zero no matter how full the tank is. it is very intermittent and will drop down to zero and back constantly, but when it reads it is pretty accurate. when you knock the dash it will come back up again. but not always.
I might try and run a new wire from the plug directly to the back of the gauge and see if that fixes it.”

Reply 6:
“My fuel gauge sometimes shows how much fuel I actually have, other times it shows less than what I do have...
or sometimes it goes completely to empty... so who knows...very annoying though”

Reply 7:
“Had the same problem as ours. pulled the pcb off and reflowed the soldered joints as they had gone dry. found they were all cracked around the pins.
Re-followed them all, the fuel gauge now works perfectly and am actually getting a speed sensor signal so the box is now working properly too.
good result for an hour's work!”

Reply 8:
“What I did today is remove the PCB and solder a new wire from the pin connection on the PCB to the part that the fuel gauge goes into. This bypasses all the circuitry on the pcb and it seems to work well now. only went on a 20 min drive though.
I also soldered the thread for the gauge to the points on the pcb so it has a really good contact.
The only problem now is when I go around corners the needle moves a bit about the width of the needle. I am not sure if this is caused by the fuel moving sideways in the tank or whether it is lateral force on the gauge.”

Reply 9:
“That's a better idea, tho i stumbled upon the way i fixed mine cause I had a play fitting the s2 Calais inserts. as the above pic would be better, now where is my soldering iron?”

Reply 10:

> Originally Posted by VL_Nick
> "What I did today is remove the PCB and solder a new wire from the pin connection on the PCB to the part that the fuel gauge goes into. This bypasses all the circuitry on the pcb and it seems to work well now. only went on a 20 min drive though.
>
> I also soldered the thread for the gauge to the points on the pcb so it has a really good contact.
>
> The only problem now is when I go around corners the needle moves a bit about the width of the needle. I am not sure if this is caused by the fuel moving sideways in the tank or whether it is lateral force on the gauge."

"Did you find it works better now than ever?
this is what i was on about but I just didn't have the time and I couldn't find my iron
and I think the needle now moves because it's more sensitive and runs better, do u find it moves more up the top end of the tank or anywhere."

Reply 11:
"I haven't had a chance to test it properly yet, only been on a 20 min drive where it didn't drop to zero once, but it wavers around when I go around corners. when I turn left it moves to the right a little bit and vice versa. Once I fill it up and go through a tank I will know for sure if it fixed the problem.
Now onto the oil pressure gauge. pretty sure it's the sender though."

Reply 12:
"PCB = printed circuit board."

Reply 13:
"ahhh.. thanks.. I will give your method a go, hope it fixes it
ill let ya know"

Reply 14:
"Ok, when I got back from the cruise i had a go at your idea vl nick
went for a 10 minute drive when i was done...gauge did not turn off once...
noticed movement around corners... but once i straightened up the gauge went back to normal...
fuel went down a little when i floored it... then went back to normal when I drove normally...
so far it seems it's fixed...thanks a lot man, it was really getting on my nerves
my gauge barely ever worked, now it's staying on"

Reply 15:
cool, glad to know i could help. I have been on more of a drive now and mine is the same. it hasn't dropped once. This seems to be the problem that causes it. just a dodgy circuit board. Everyone should try this if they have a dodgy gauge, which means anyone with a VL. Lol

Reply 16:
“lol.... the needle moves around a bit, but it always goes back to normal ...
i drove the car for about an hour now, still hasn’t turned off once...
Cant thank you enough lol... it sh!tted me so bad when it turned off all the time”

Reply 17:
“yeah, I’m stoked I fixed mine don’t have to hit the dash anymore to find out how much petrol I have”

Reply 18:
“Champion, this worked a treat!
VL_Nick: i had the same problem as you (the fuel gauge will work/not work regardless if its under 1/4 tank)
But this seemed to work fine. I fixed it as I had hardly any fuel, then went to fill up, worked no worries.”

Reply 19:
“Good job guys. Fixed my problem, no worries. Thanks”

Reply 20:
“I tried the original poster's way and had no luck. decided to try this way and now it works perfectly. only 45 mins work and now I won't run out of petrol in the middle of nowhere anymore thx”

Reply 21:
“My gauge didn't work at all, so I ripped out the cluster and added the extra wire bypassing the PCB and soldered the back and all works beautifully now.
A big thanks to VL_RB25DE and VL_Nick for the help
cheers”