

INSTRUMENT CLUSTER LCD DISPLAY FIX FOR MERCEDES W210 MY 2000, ALSO APPLICABLE TO W202, W208 AND OTHER MODELS

After many tries and with very valuable help from Coventry, UK forum member, Tim, I was able to fix the pixel problem, and a year after, still going strong. If done correctly, this should be considered a permanent fix.

I will not get into details on how to remove the instrument cluster from the vehicle, basically because I haven't got any pictures of it and also, a lot has been discussed on the topic, so please use the forum SEARCH tool.

ONE WORD OF ADVICE: MAKE SURE YOUR IGNITION IS OFF BEFORE REMOVING THE CLUSTER.

TOOLS AND MATERIALS NEEDED (AFTER INSTRUMENT CLUSTER REMOVAL FROM VEHICLE):

Shim: a strip cut from a mouse pad or some relatively high density foam pad material, like the one I received from the UK. I am sure there are many other alternatives. Be creative and use your imagination.

Cut a strip about 6mm (1/4 inch) wide and long enough so it will exceed the ribbon cable's width by a few millimeters on each end. This eases the installation process.

Foam blocks: I used packaging foam material from a computer component. I do not have any specifications for it though. It has to be resilient, as opposed to stiff, hard, or high density. Look at the picture for approximate dimensions. So again, use your imagination.

A few simple hand tools like a flat screwdriver, tweezers, a plastic and/or wood drink stirrer with rounded ends, single edge razor blade, scissors, etc., it's pretty much all I can think of.

PROCEDURE:

Once you have removed the instrument assembly from its housing, or shell, become familiar with its parts and identify the location of the specific display/ribbon to be repaired.

It is then advisable to hook the **unmounted** instrument cluster back to the vehicle, turn the ignition on and jiggle with the ribbon cable feeding the respective faulty display to determine what type of pressure will cause it to display fully. This is where the drink stirrer, wood or plastic, come in handy.

After this test you should be able to determine the type of fix to use. Either the shim pad or the foam block method.

The shim method I consider to be the best and more durable of the two. Relatively more difficult than the foam block fix.

The foam block fix is a lot easier and quicker. Works best when the loss of pixels is minimal or you were able to determine by close inspection that the ribbon cable is not visibly or significantly separated from its soldered contacts.

The next step after inserting shim or foam block is to take the **unmounted** cluster back to the car, hook it up to verify if display is fully lit up. By now, you should have become familiar with the procedure enough to be able to troubleshoot where the loose connection is and be able to adjust pressure according to method chosen.

Congratulations! By now you should have restored the displays back to 100% operational condition and feel very good about it.

Your Mercedes feels a little more solid now! Doesn't it?

TIMING:

Depending on the degree of difficulty and skills, consider a minimum of 20 minutes to one hour or so.

ONCE WE HAVE THE INSTRUMENT CLUSTER ON OUR WORK TABLE, WE MUST TAKE IT OUT OF ITS SHELL BY UNSNAPPING BOTH HALVES (EASY TO FIGURE OUT) APART.





**THIS IS WHAT WE GET – PRETTY MUCH
SELF-EXPLANATORY**

... AND THE BACK/BOTTOM VIEW



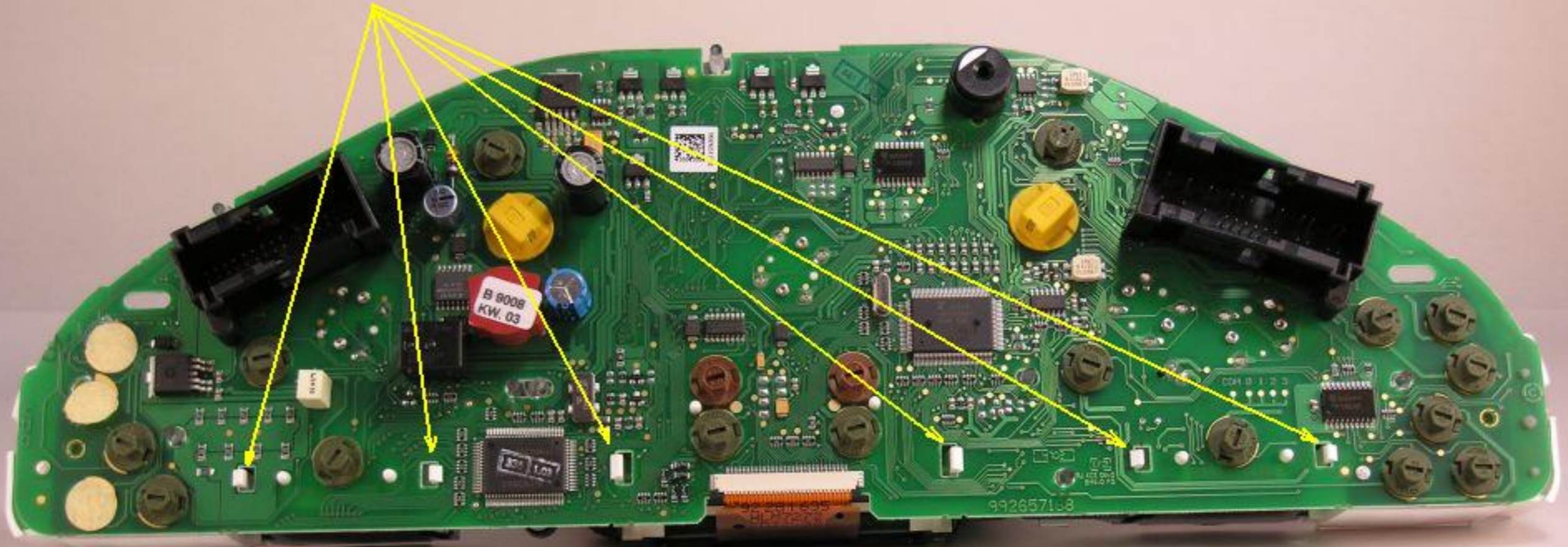
**CLOCK/GEAR
SELECTOR
DISPLAY**

**MULTIFUNCTION
DISPLAY**

**TEMPERATURE
DISPLAY**

**FREE ALL SIX SPRING PINS SO AS TO
SEPARATE CIRCUIT BOARD FROM MAIN ASSEMBLY.**

**NOTE WE ARE NOT ATTEMPTING TO REMOVE
OR DISASSEMBLE ANYTHING BUT
CREATE A GAP TO WORK ON THE RIBBON CABLE(S).**



**CLOCK/GEAR SELECTOR
DISPLAY**

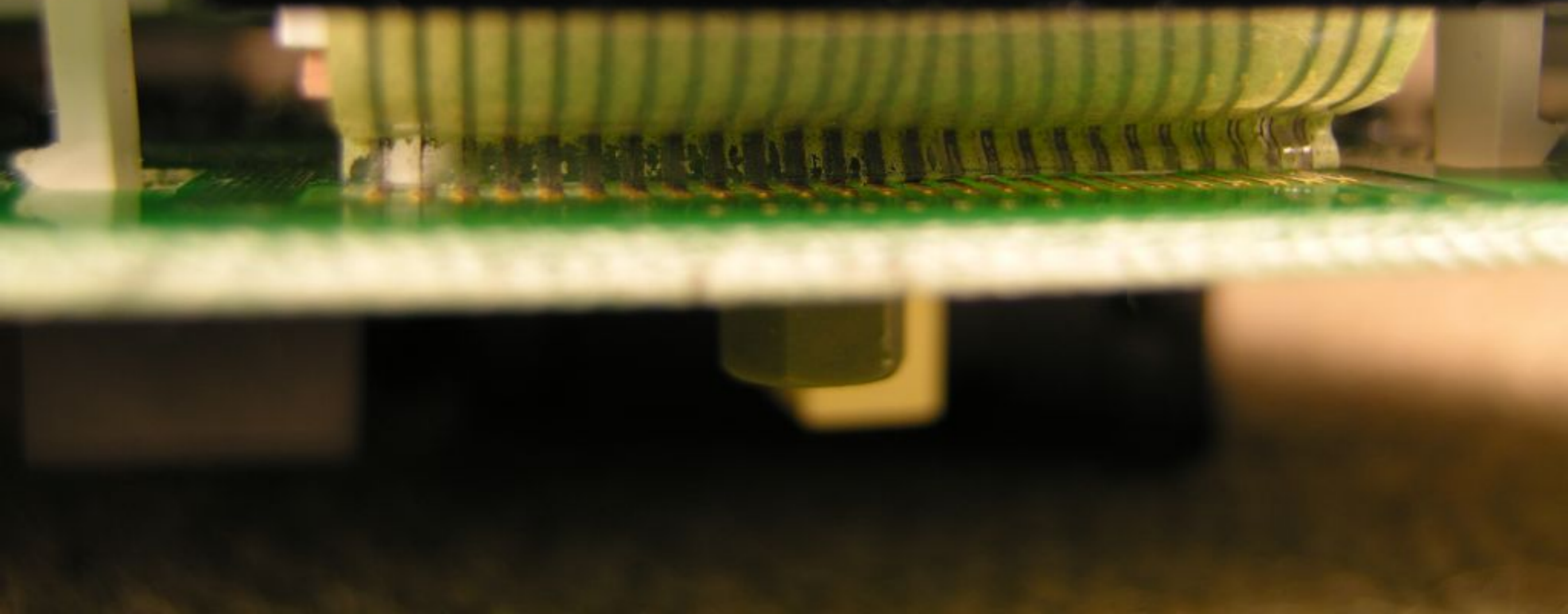
**MULTIFUNCTION
DISPLAY**

**TEMPERATURE
DISPLAY**

**THIS IS AN EXTREME CASE OF CONTACT SEPARATION
THAT HAPPENED DURING ONE OF THE FIRST
ATTEMPTS MADE.**

**AS A RESULT THE CLOCK WAS COMPLETELY BLACKED
OUT. WHAT A MESS!**

**NOTE THE PINK FOAM PAD THAT RUNS THE FULL
WIDTH OF THE RIBBON CABLE.**



**CLOCK/GEAR SELECTOR
DISPLAY**

**WE NEED TO SHIM UNDER THE PINK FOAM PRESSURE
PAD AND THE RIBBON CABLE.**

**THIS WILL CREATE ENOUGH PRESSURE TO
REESTABLISH ELECTRICAL CONTACT AGAIN.**

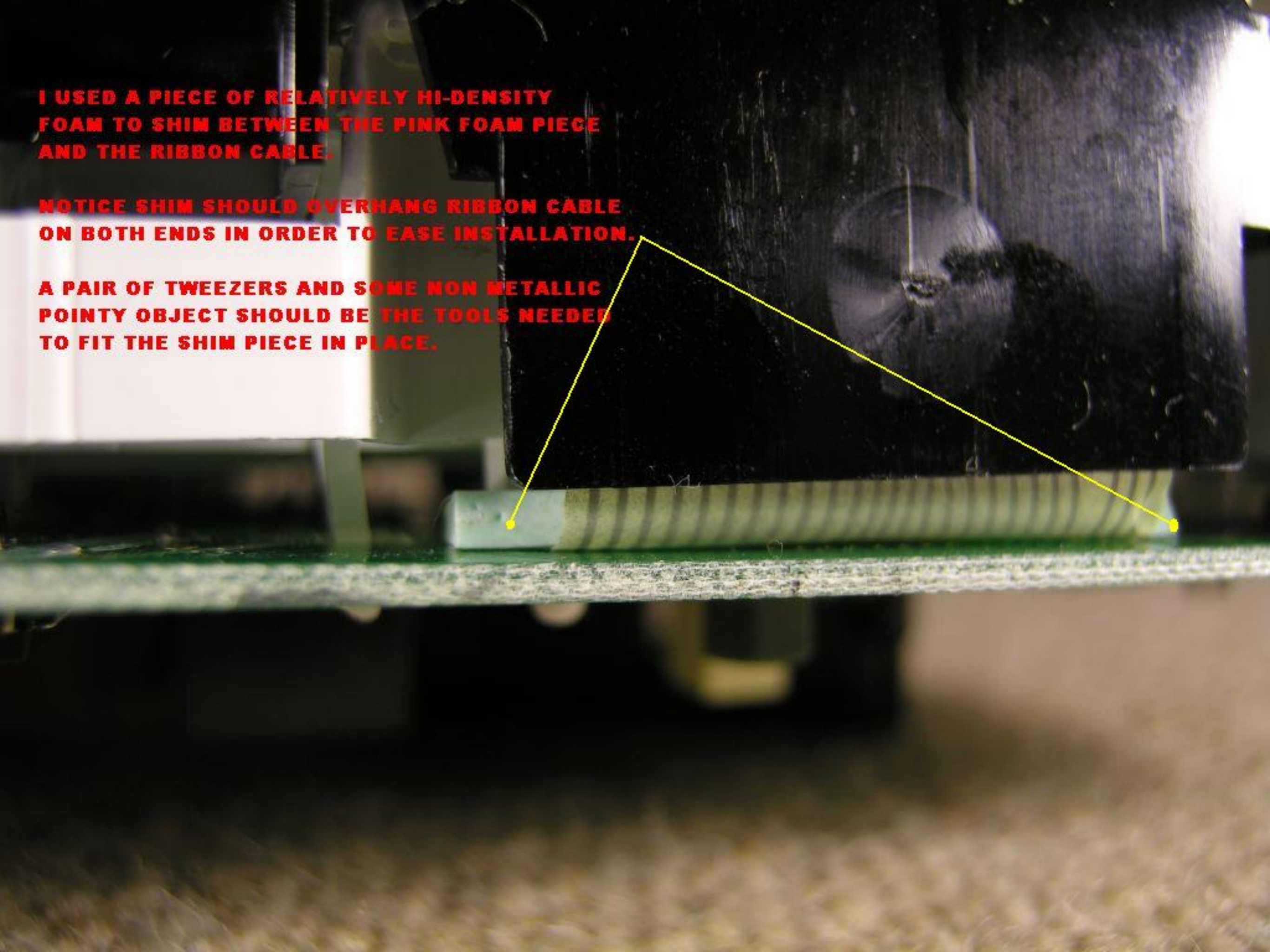
**FOAM/MOUSE PAD SHIM
GOES HERE**



**I USED A PIECE OF RELATIVELY HI-DENSITY
FOAM TO SHIM BETWEEN THE PINK FOAM PIECE
AND THE RIBBON CABLE.**

**NOTICE SHIM SHOULD OVERHANG RIBBON CABLE
ON BOTH ENDS IN ORDER TO EASE INSTALLATION.**

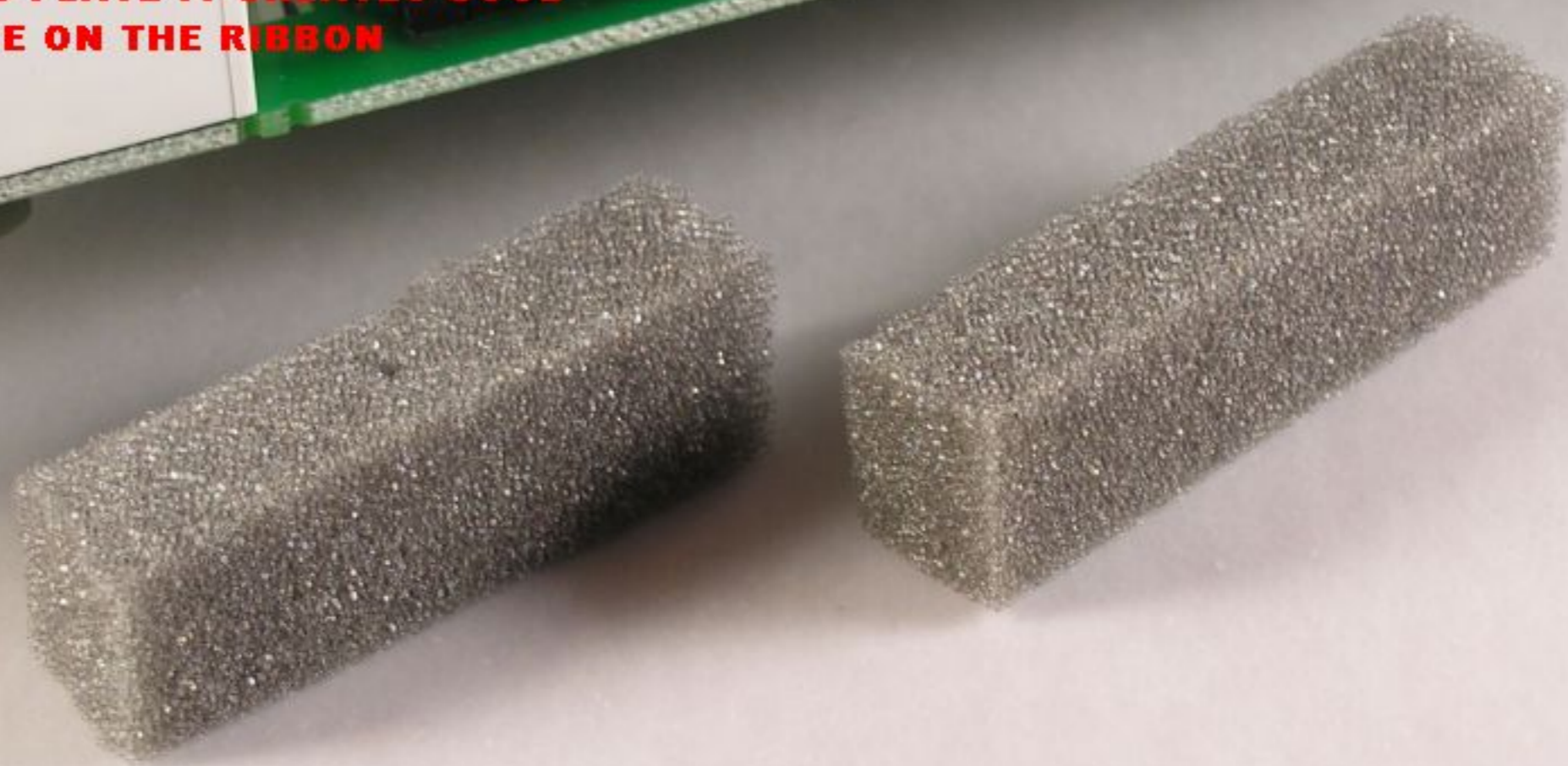
**A PAIR OF TWEEZERS AND SOME NON METALLIC
POINTY OBJECT SHOULD BE THE TOOLS NEEDED
TO FIT THE SHIM PIECE IN PLACE.**





**THIS IS THE FOAM BLOCK ALTERNATIVE.
THESE BLOCKS MUST BE FITTED BETWEEN
THE RIBBON CABLE AND THE BLACK
BACKING PLATE AS SHOWN ON THE
FOLLOWING PICTURE.**

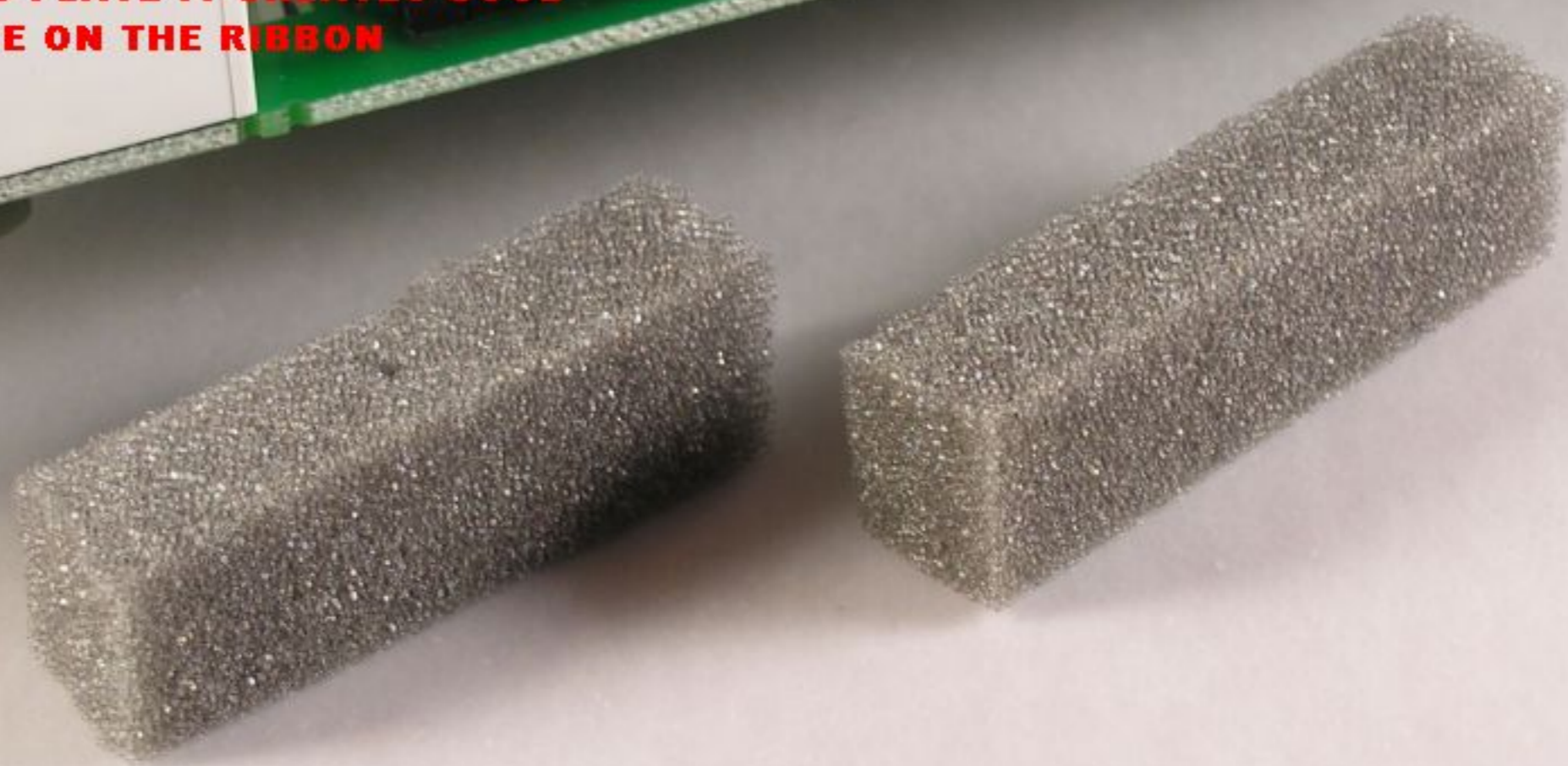
**BY BENDING THE RIBBON CABLE AWAY FROM
THE BLACK BACKING PLATE IT CREATES GOOD
ENOUGH DOWNFORCE ON THE RIBBON
CONTACTS.**

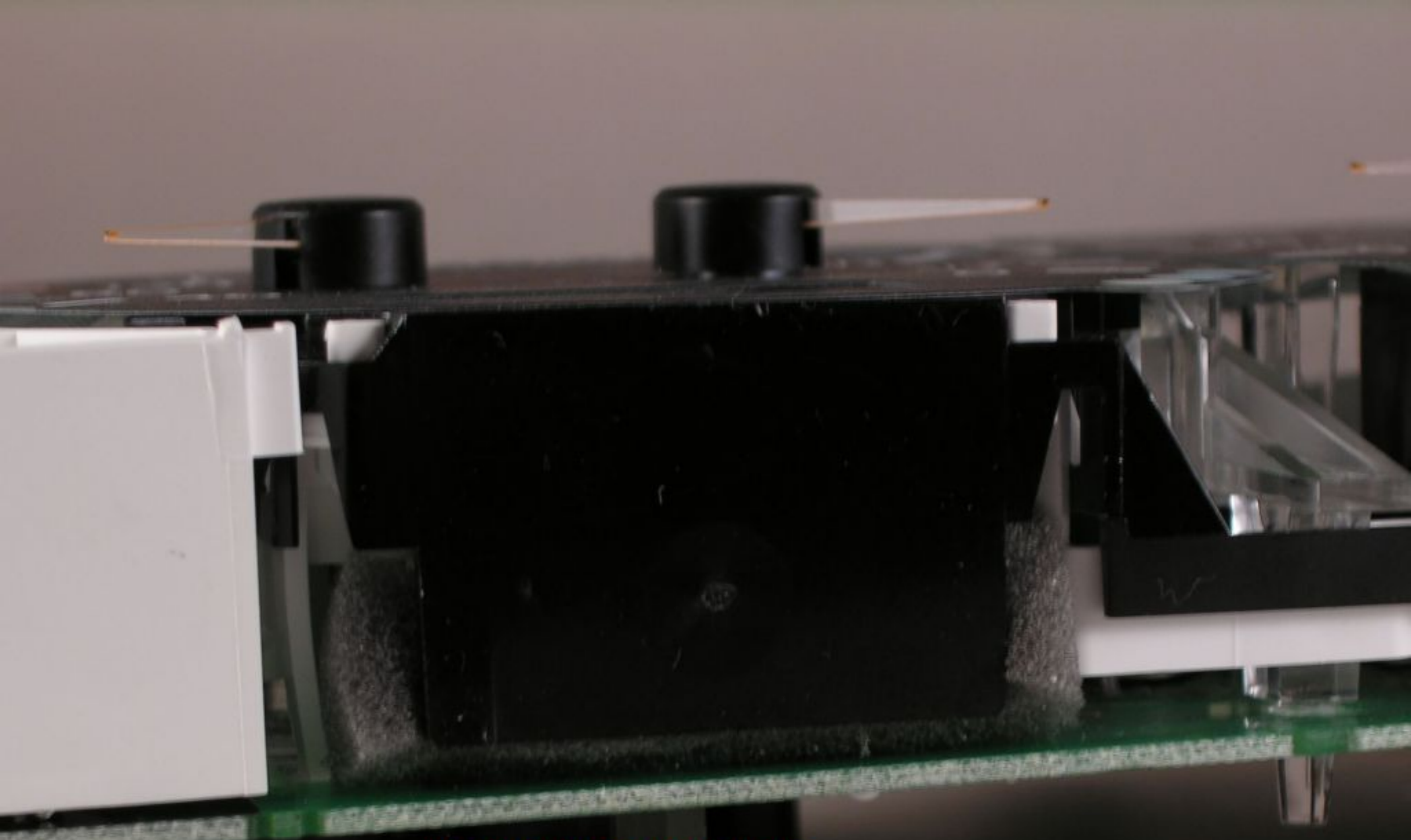




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**FOAM BLOCK FITTED TO THE
TEMPERATURE DISPLAY.**

**YOUR MERCEDES IS NOW COMPLETE!
ENJOY!**

