



Toyota Supra Gauge Face Kit

Installation Guide

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INTRODUCTION

Thanks for purchasing the Toyota Supra Gauge Face kit.

The kit is delivered with a set of blue needle illuminations, a set of red needle illuminations, a calibration tool, a remote for the LED panel (battery included), needed resistors; the plug-and-play, high-quality, long-life LED panel and the gauge faces.

We hope you will be happy with your kit!

(And please let us know how you think we could improve! We are more than happy to hear your opinion.)

/ CBS Racing & JP Ledworx



For a full installation video, follow this link: <https://youtu.be/HWNdy4Kmxzc>
Or scan the QR code.



TOOLS REQUIRED

It is recommended that you collect all the tools mentioned in this section before starting the work. This way you will have the tools at hand before disassembling your car.

- Soldering station
- Solder remover
- Solder
- Short philipshead screwdriver
- Small philipshead screwdriver
- Normal philipshead screwdriver
- Flush cutters
- Plastic pry tool
- Scissors
- Sharp knife or scalpel
- A piece of paper
- Power supply (12v)
- Pick
- Glass cleaner or alcohol to degrease



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PART 1 - REMOVAL OF THE CLUSTER

Start with removing the shifter panel. It's held in place with clips. Simply pull up from the inside as shown on the picture.



Unplug the connector, and put panel aside.



Next up, remove the 5 screws from the top dash panel and pull it out.



Disconnect the LH warning lights connector.



Disconnect the wires from the RH warning light pods and the emergency blinker button.

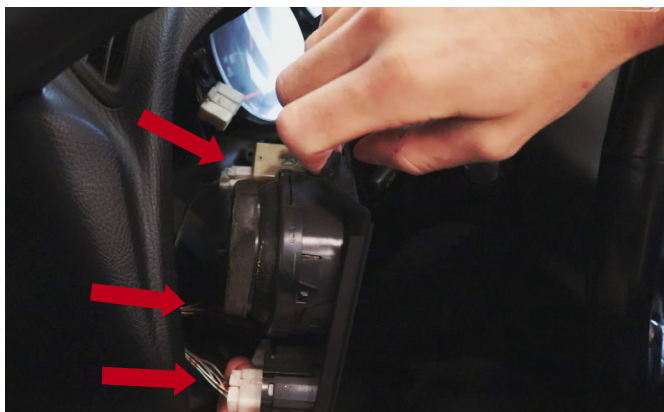
Remove the panel.



Grab the cluster shroud dash panel and pull it out. It is mounted with 4 clips.



Next, remove shown dash panel. Remove the top screw and pull the panel out. It's held in place with clips.



Unplug the connectors and remove the panel.



Remove the radio panel. It's held in place by one screw and clips.
Pull out the panel from the bottom. After loosening, pull on the top part.



Unplug all the connectors from the backside of the panel.



Remove the 4 screws from the cluster.

**Be careful with the 2 bottoms ones, since they tend to drop. If you drop the screws, you most likely will have to remove the lower panel of dashboard to reach them.*



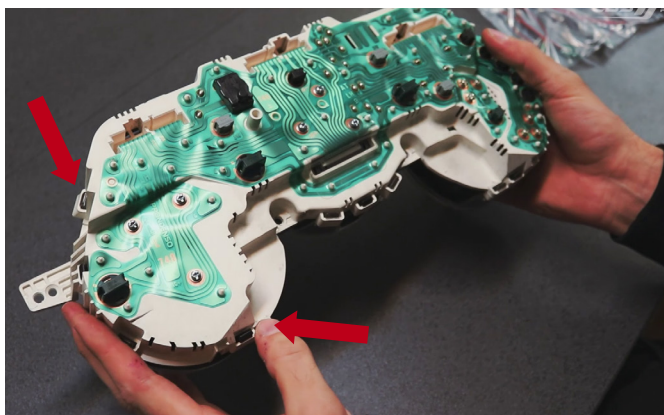
Take out the cluster a bit, carefully and unplug all connectors on the back.
(There's 2 or 3 connectors)
When unplugged, take the cluster out.

PART 2 - GAUGE KIT INSTALLATION

Remove the plastic cover.



Turn around the cluster, and push out all the tabs.

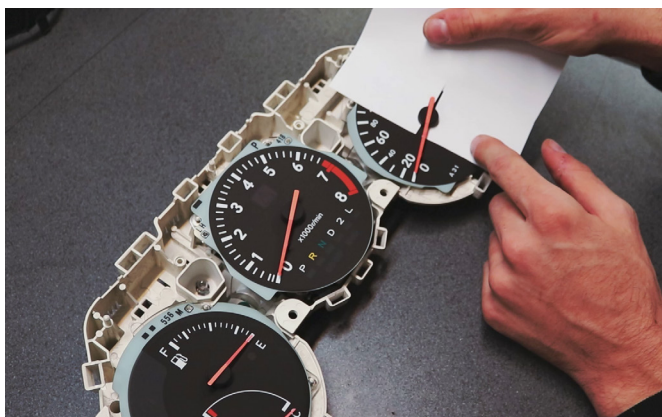


Repeat the process for the black shroud.



Start with resetting the needles.
Push them down to empty / zero. Do this slowly.



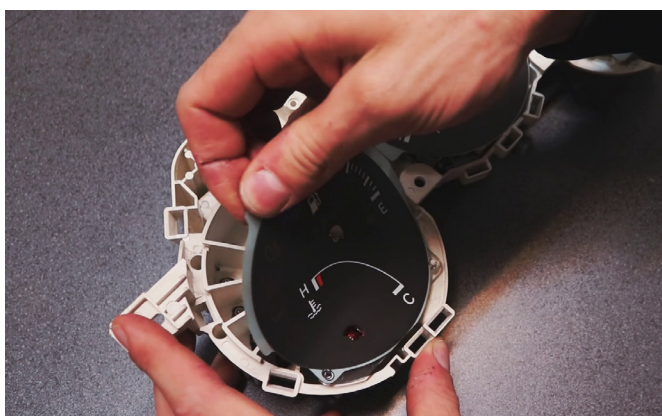


If you want to preserve your old faces, you can use a piece of paper to slide under the needles.



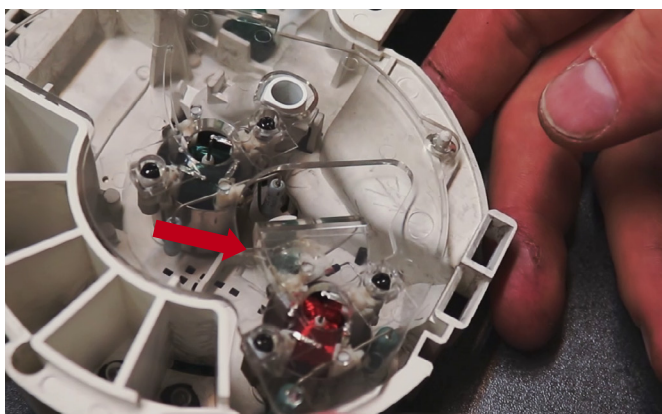
This way you can pry the needles up, without scratching the faces. Use the plastic clip remover for prying up the needles.

Repeat this process for every needle.

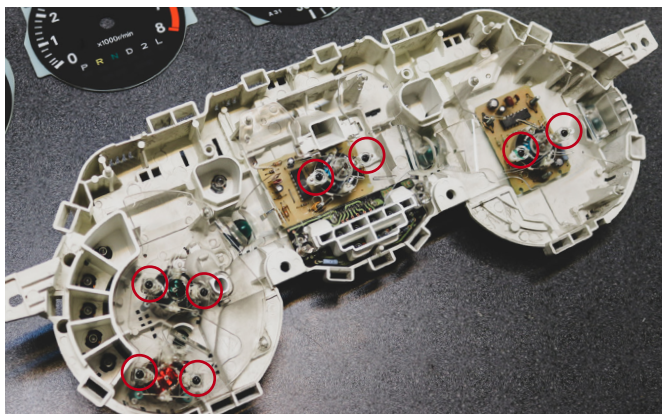


Next, proceed to remove the faces.

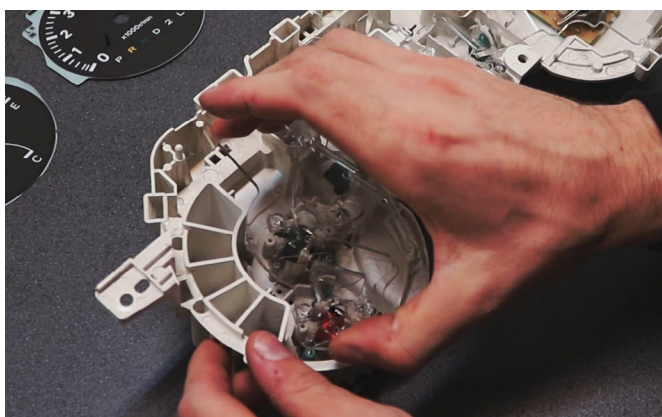
They are held in place with some tape. Simply pull them off.



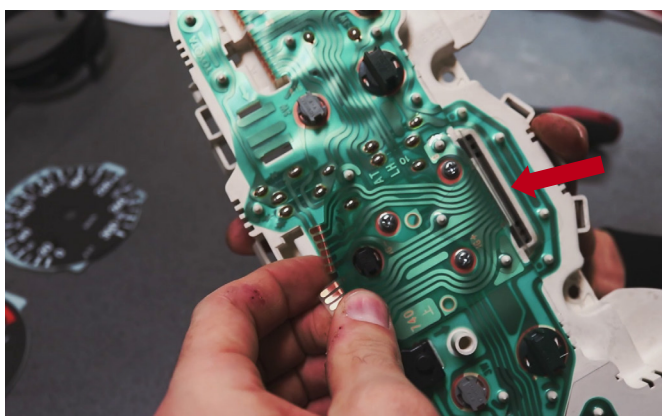
Look out for remaining pieces of tape on the plastic moulders, and remove if any.



Use a small phillipshead screwdriver to remove the 8 screws from the moulders.

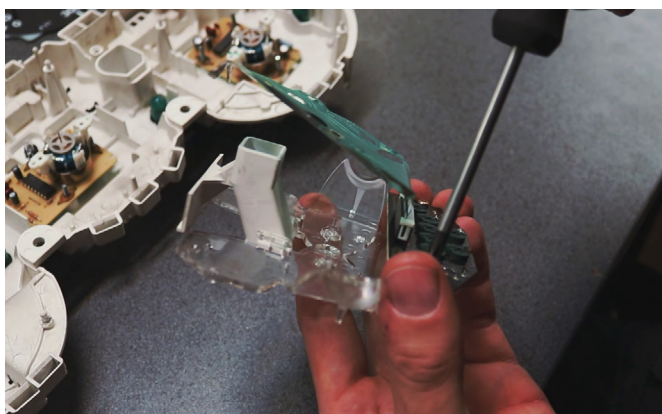


Next up, remove the acrylic faces.

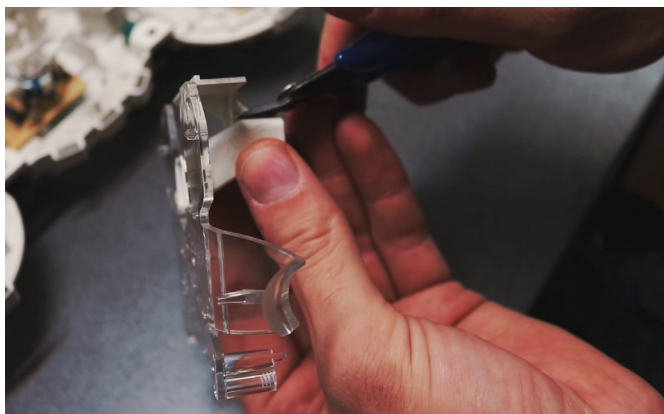


****NOTE****

If your car is an automatic, the middle face will have an extra PCB piece for the gear indicators. Pull up and feed through the hole to remove.



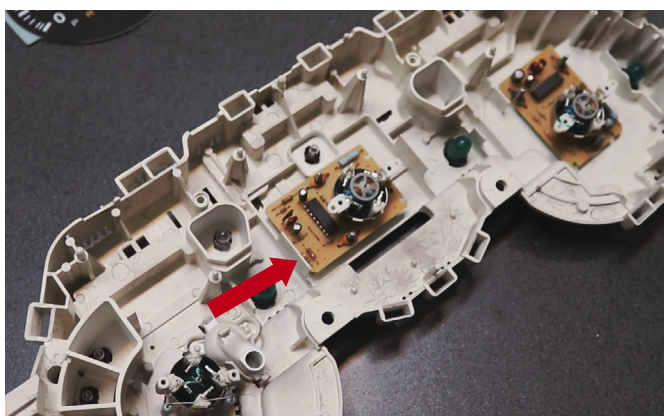
If your are converting a automatic cluster to manual, remove and discard the gear indicator PCB.



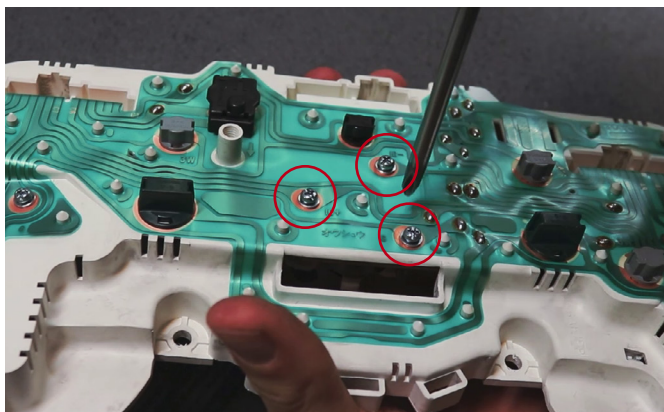
Remove the top plastic part. It's in the way for the new LED panel.



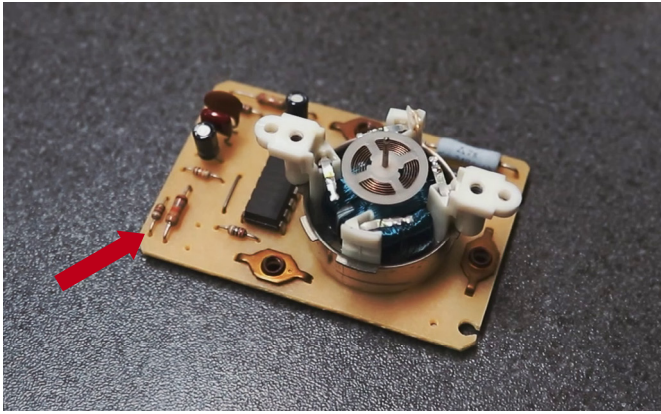
Cut it off with flushcutters, and remove the excess.



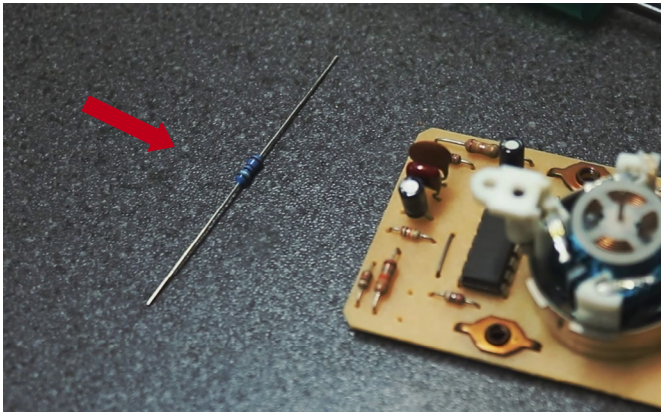
Next up, the TACH motor PCB.



Start with removing the 3 screws from the back of the cluster.



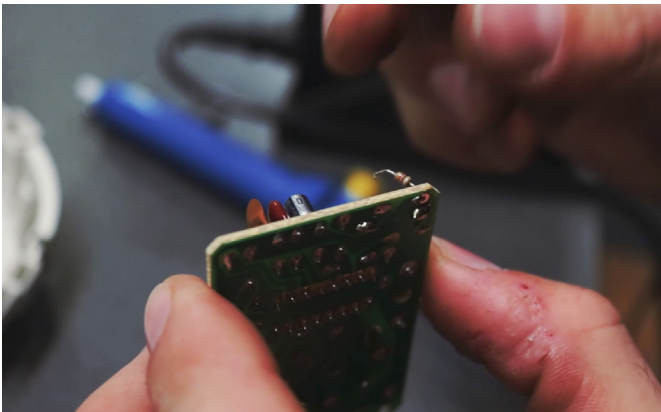
Replace the shown resistor, with the one included in the kit.
It's in the bag with the remote.



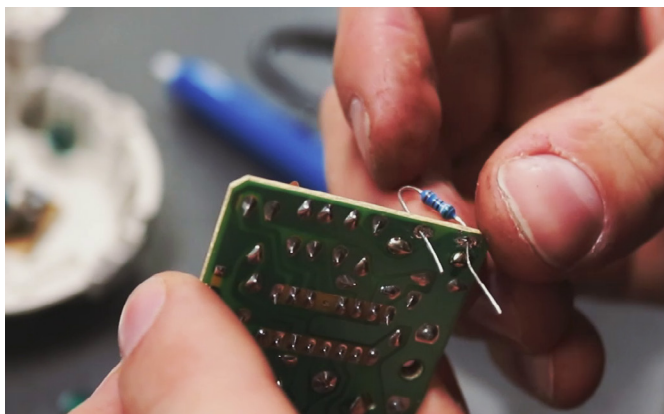
Remove the small stickers from the resistor.



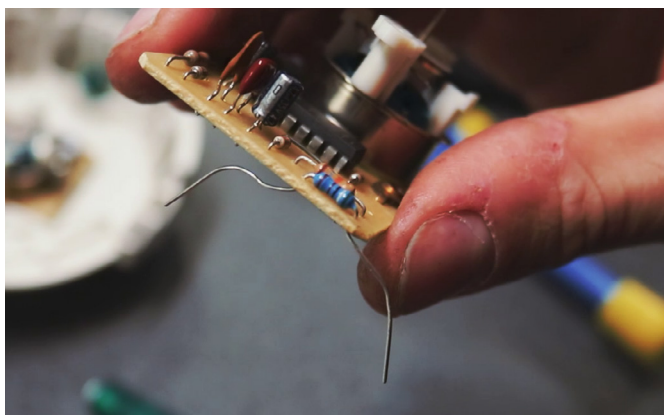
Remove the resistor with a soldering iron and something to remove solder with.



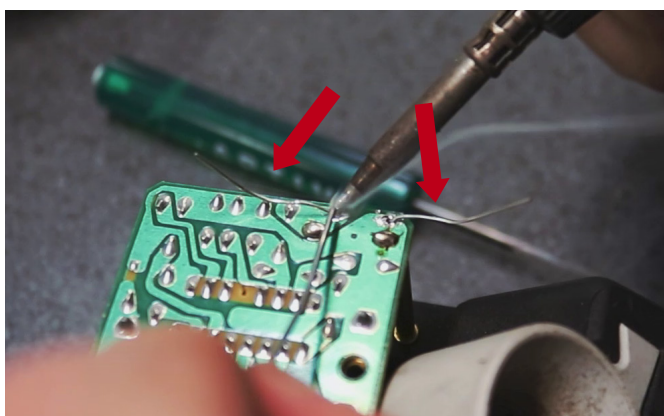
**Since the legs of the resistor are a bit bent, they can be a bit difficult to get out.
Use the soldering iron to pride the legs a bit upwards and make them possible to pull out.*



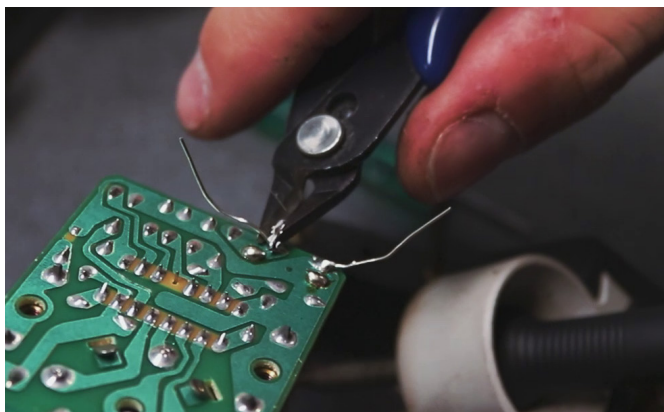
Make sure both holes are clear, and insert the new resistor.



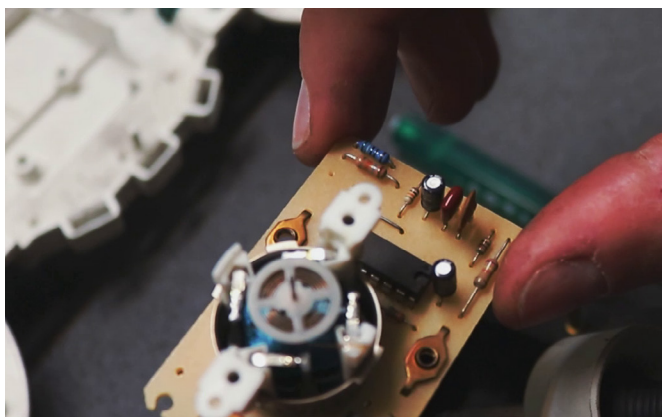
Pull the resistor all the way down. Its not polarized, (no + and -) meaning you can put it in, in any direction.



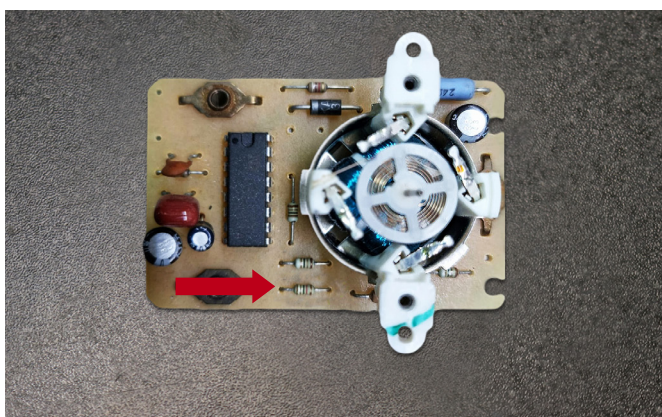
Then, bend the legs outwards and add some new solder.



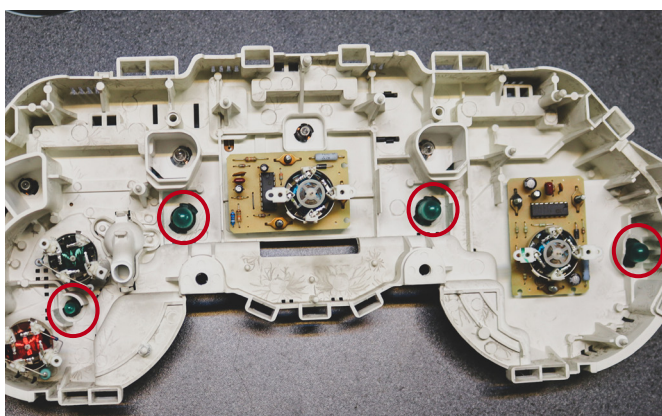
Take some flushcutters, and remove the excess.



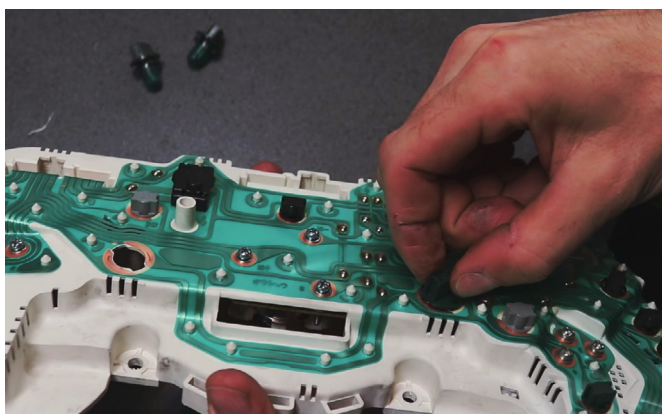
You can now install the TACH motor PCB into the cluster and screw it back in place.



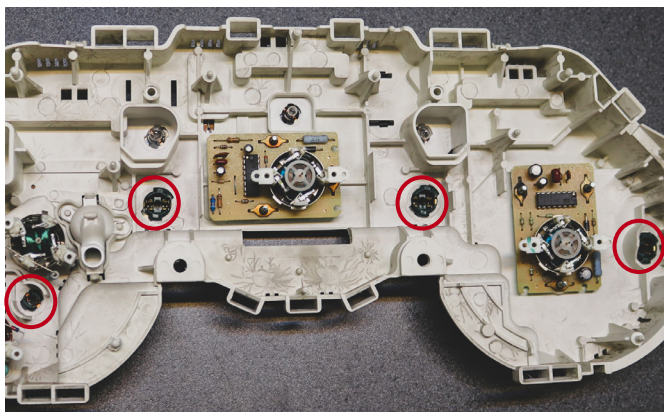
(For JDM 180km/h clusters, repeat the process for the Speed motor PCB, with the shown resistor.
Replace the resistor, with the SPD marked resistor included in the kit).



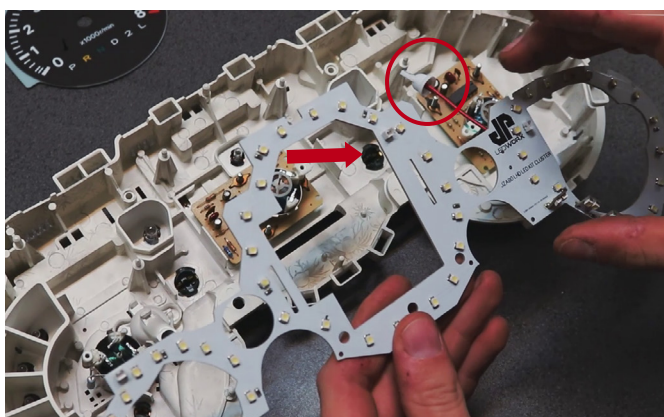
Next, remove the lightbulbs.



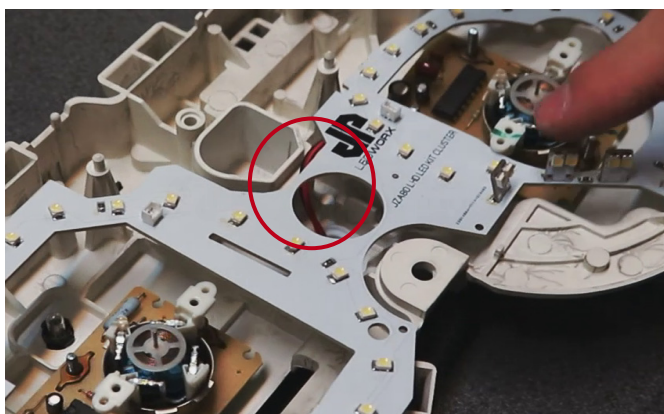
Unscrew them from the back and pull out the lightbulbs.



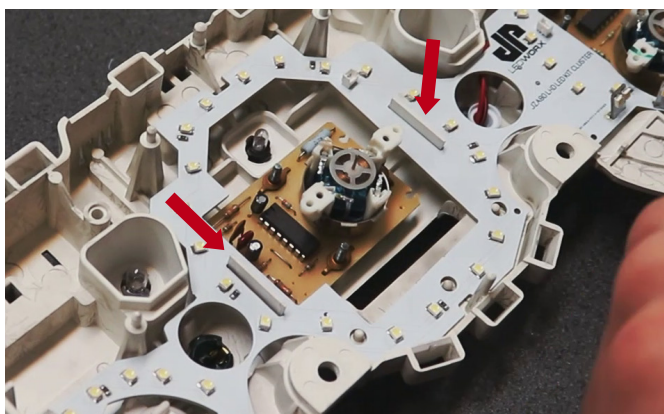
Put the empty fittings back into the cluster.



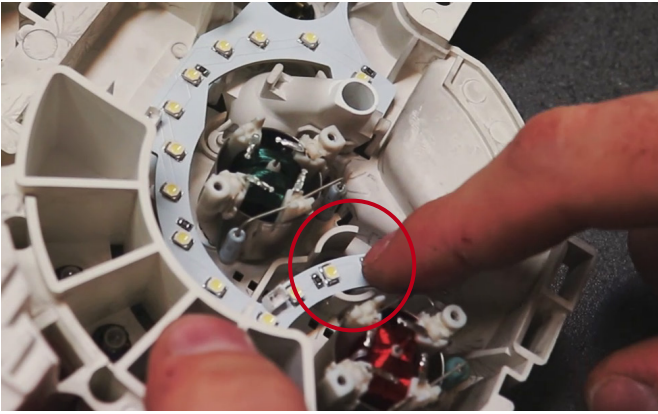
Take your new LED panel, and start with plugin in the connector into the empty fitting.



Make sure the cable goes upwards and doesn't interfere with anything on the back.



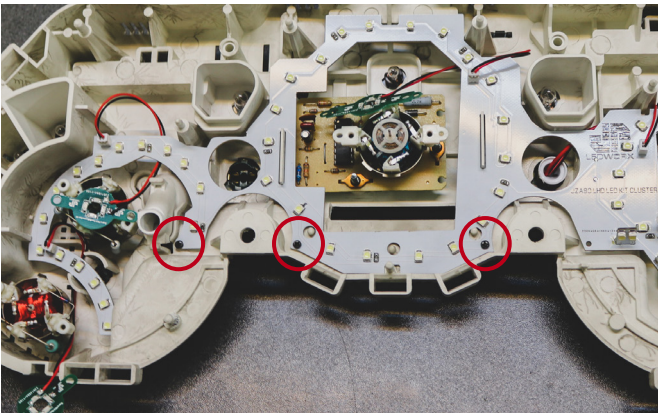
From the right side, slowly start pushing the LED panel down.
When you hit something, simply press a bit and it will click into place.



For the left side. You may see it doesn't quite fit.

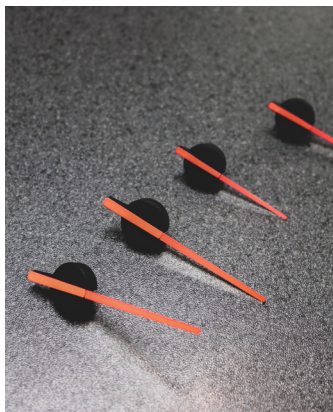
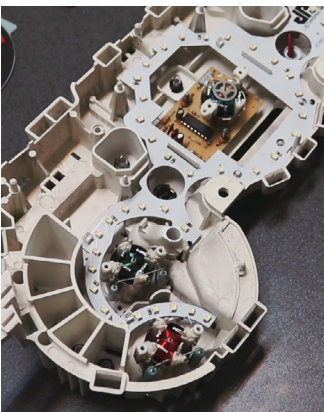
You have to lift the LED panel and warp it slightly to make it sit in between the plastic piece. This is to create a bit of friction.

This will avoid panel rattling.



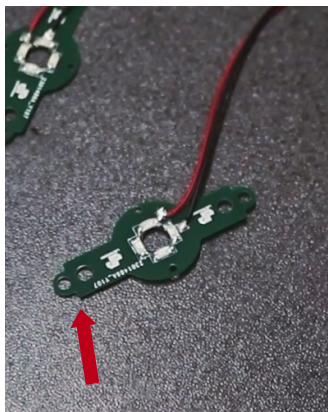
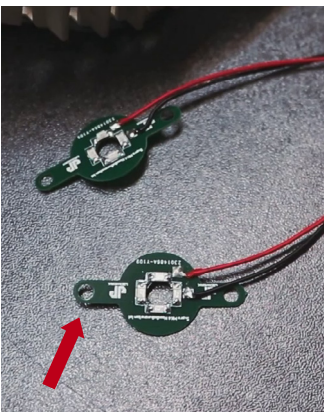
Find the screws from the remote bag and install the 3 screws.

Press and screw, they will thread into the plastic.



Next up, take the needle illumination boards. In this case we are using **red** needle illumination boards.

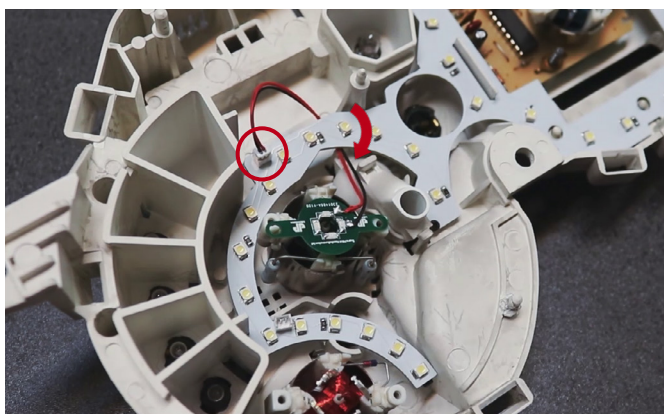
Note: For an improved color/look of the needles, you can rub off the red coating with a high grit sand paper. This is required non-red colored illumination.



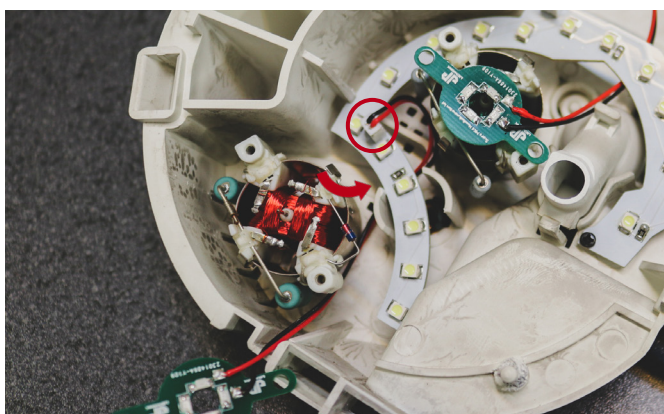
There are 2 different types.

The ones with 2 holes are for the fuel tank and temperature.

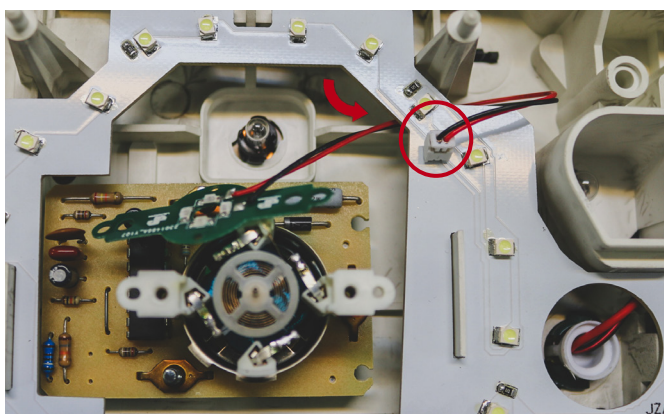
The ones with 4 holes are for the speed and tach.



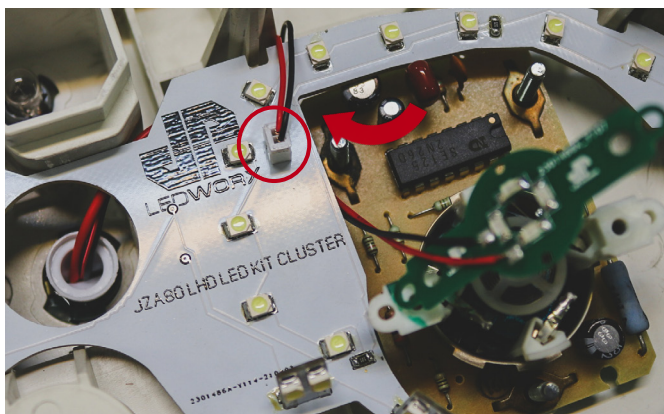
Start with the one for the fuel. Feed the wire under the LED panel, and plug in the connector.



Repeat for the temperature.

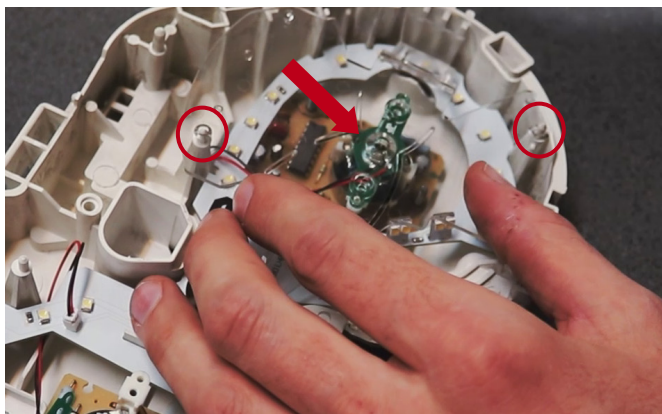


Next, the tach.



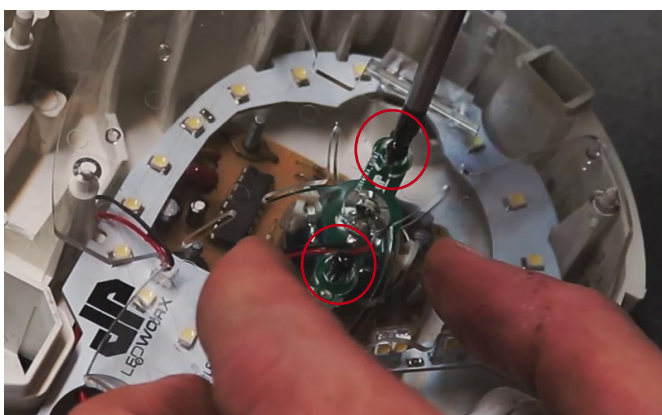
And lastly, the speedometer.

Note. Try to shape all the wires, making sure they dont touch anything and arent in the way of the LEDs.



You can now re-install the acrylic faces. The needle illumination panel simply “sandwich” inbetween.

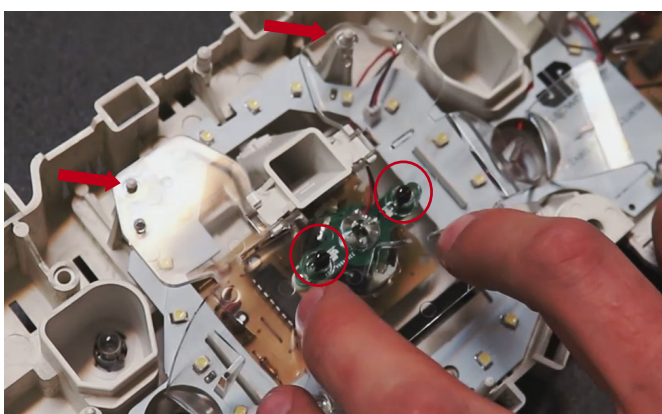
Use the guide pins for aligning the acrylic panel.



Make sure the needle panel is aligned and put back in the screws.

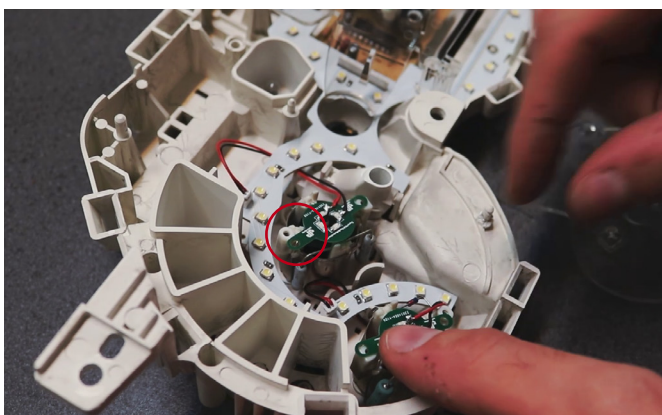
Make sure the wire doesn't get caught anywhere.

Use the guide pins or a small pick to align the panel.

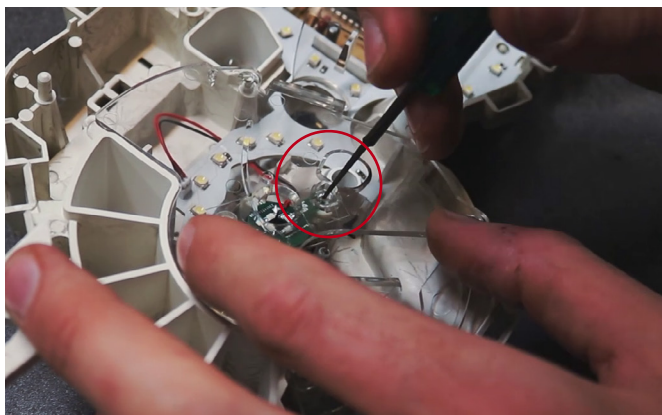


Repeat for the middle panel.

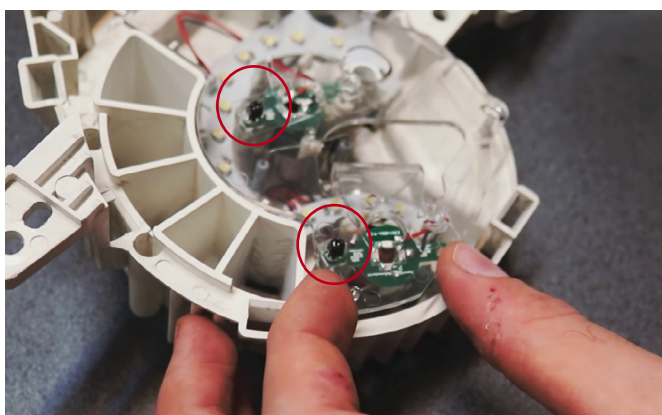
Use the guide pins for aligning the panel. When the needle illumination board is aligned, put back the screws.



The third panel is the most difficult one, as it doesn't have any centering pins. You will have to place the LEDs board as close possible so they stay somewhat in position.

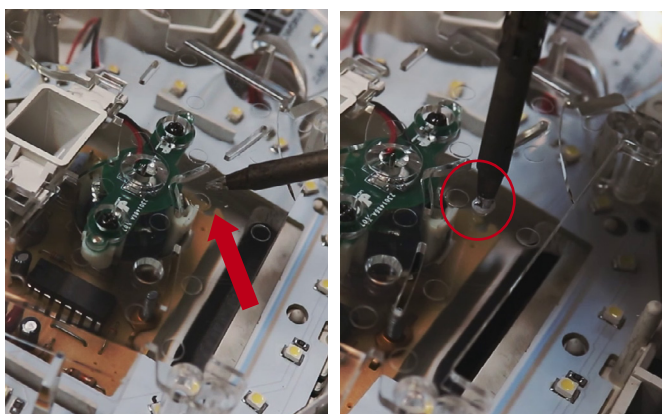


Use the acrylic panel and a small pick to guide the LEDs boards into position.

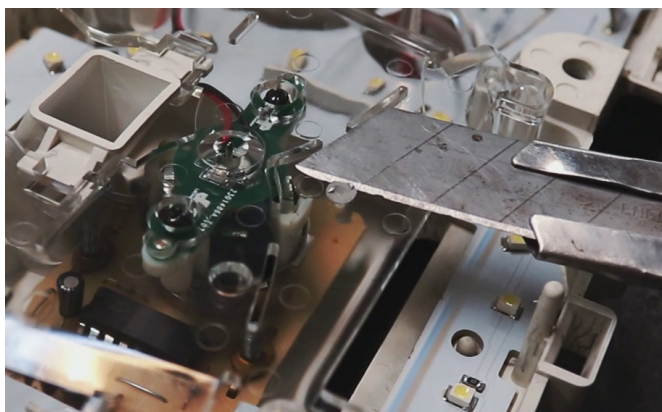


Align one hole at the time and use a screw to keep it in place, while you manouvre the next hole into position.

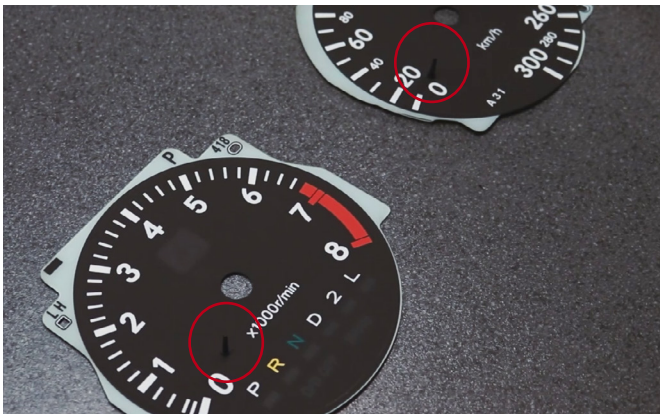
When all 4 screws are placed, tighten them down.



Burn a small hole under the little halo on the plastic with the soldering iron. This is to make space for the bottom of the needle's face sits flush.



Take a knife and cut away the excess.



Next, remove the needles from the original faces. Put on some gloves for this.

This way you avoid scratching your faces.



The needles are just melted into place from the backside. Squeeze in carefully the melted plastic so you can pull the needle out.

We are going to need the extra plastic, so to avoid cutting too much off.

Pull the needle out carefully.



Repeat with the other panel.



Now, take you new faces.



Don't touch the faces to remove them from the plastic holder. Simply wiggle the faces a bit back and forth until they come loose.



Repeat with all faces.



Take your new speedometer face and one of the needles you just removed and insert it into your new face.



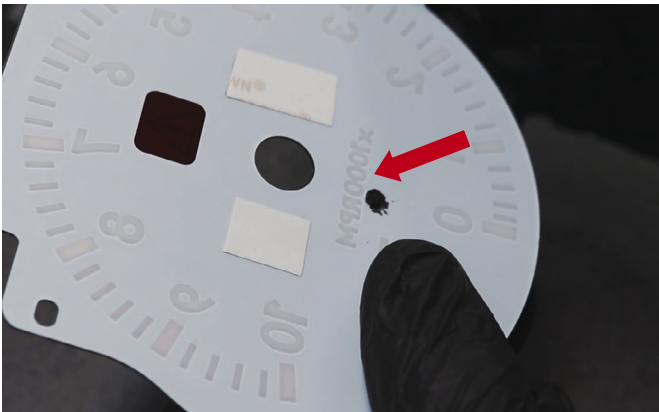
Hold the needle in place against the face like shown.



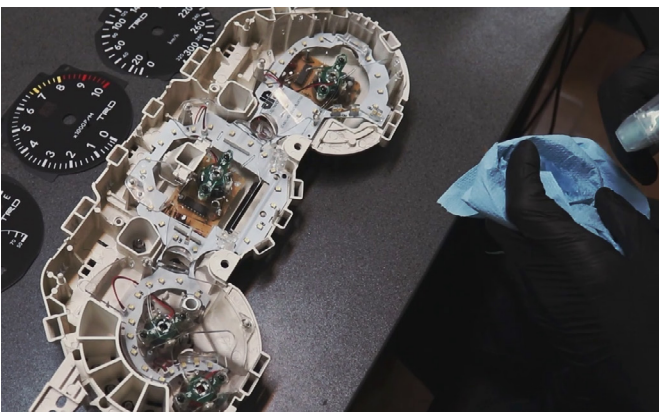
Use the soldering iron to melt the plastic to the new face and secure the needle like the old ones.

Make sure the needle is straight, and let it cool off.

Repeat with process for the other face.



Make sure the plastic doesn't reach anything where the light has to shine through.



Use some degreaser to clean the acrylic covers.

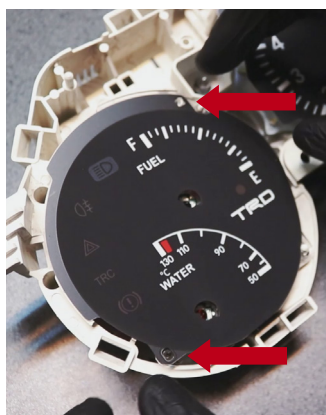
Make sure the covers are completely dry before moving until next step.



Take your faces and remove the tape from the back



Now, align the pins on the acrylic cover, with the holes on the faces and stick the face down. Press where the tape is.



Repeat for the TACH and fuel gauge face. Use the guides for aligning and press down the face.



Put the black shroud back on. Click into place.

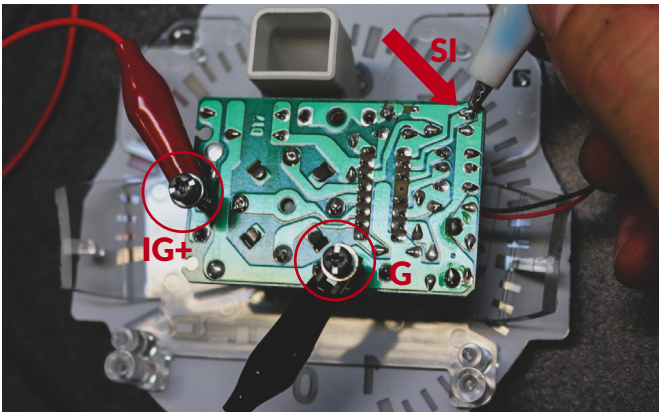


Take out the calibration tools.

For turbo or converted non-turbo clusters skip and go to page 25.



Remove the 3 screws from the TACH.



Insert the 2 screws as shown in the picture. Take you calibration tool and place wires IG+, G and SI as shown in the picture.

Make sure SI is touching the pad shown on the picture or the resistor on the back.

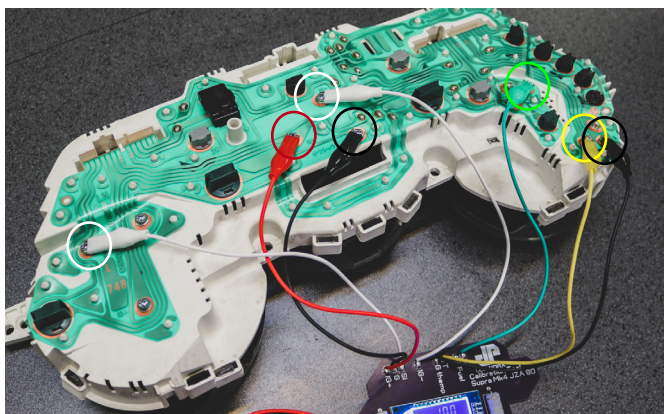


Power up the calibration tool. Place the needle at 2000RPM. Do not press down the needle. Just lay on top softly. Power off the calibration tool to see the needle drop. Power back on, to confirm its position at 2000RPM. If satisfied, fully seat the needle.

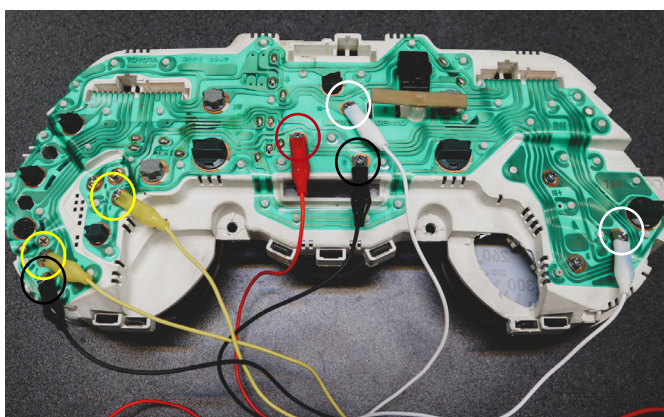
Install the TACH unit back into the cluster.

Follow the rest of the guide from here, but ignore the TACH unit.

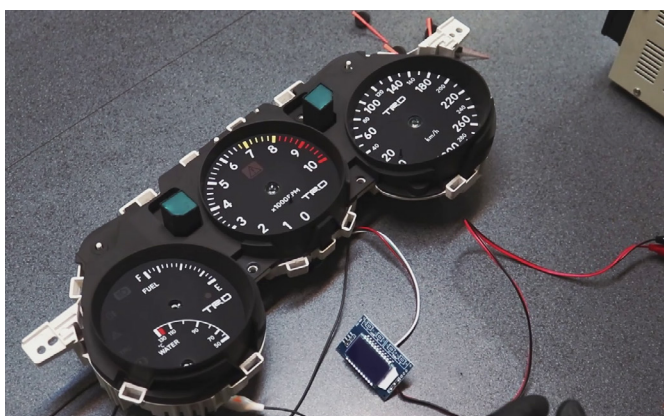
Note. The TACH unit wont work on the following steps, but will work when installed in the car.



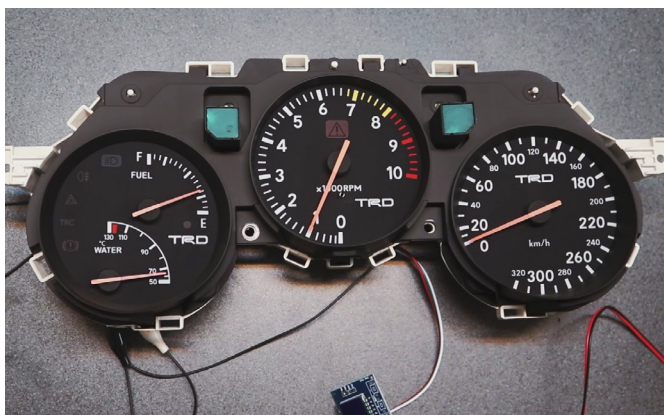
Place the wires as shown in the image.
(For LHD)



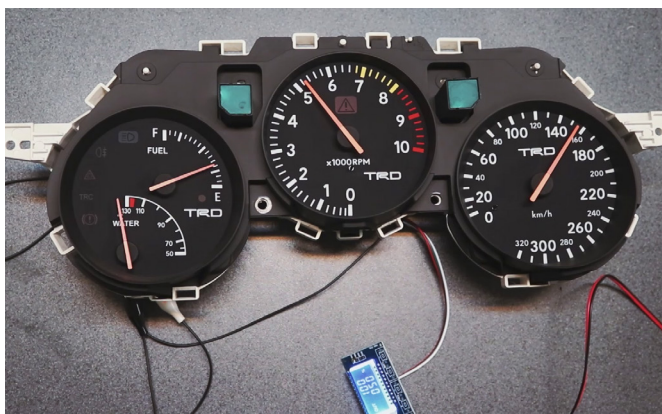
(For RHD)



Once placed, carefully turn around the cluster and get a 12v supply ready.



Take your needles and put them back in place. **DO NOT press them down.** Simply let them lay loosely on top.



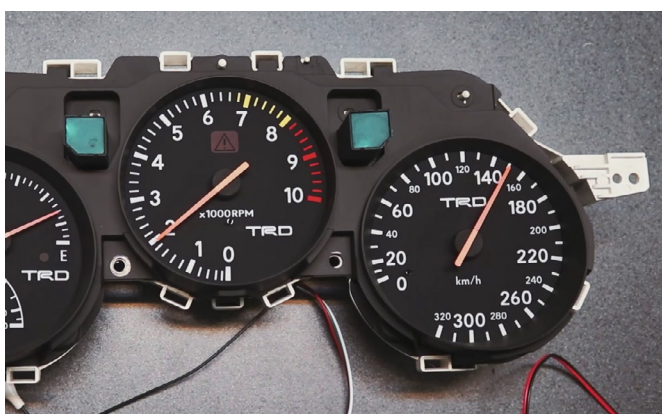
Turn on the power. Notice how the needles move.

(Fuel level rises very slowly - takes around 10min to come up)



Next (with the power still on) adjust the needles as shown:

- RPM: place at 2000RPM
- Speed: 150 km/h



Turn off the power to see the needles fall back.

Turn the power back on.

Let the needles come back to the previous position.

If you are satisfied with the placement, you can fully seat the RPM and Speed needles.

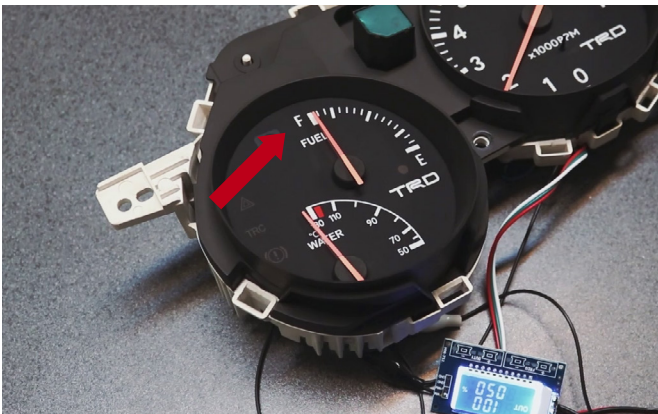


Start with placing the water temperature needle on "full".

Turn the power off and on, to check the needle moves to its intended position.



When satisfied with the position, fully seat the temperature needle.



For the fuel, it's a matter of time. (Around 10 min). Leave the needle until it doesn't get higher.

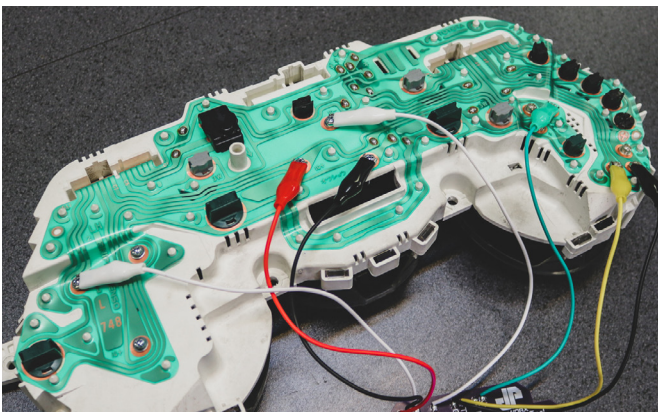
Then, you can take the needle out and place it on full. Do not press it down yet.



Slowly, push the needle back to empty. Let it come up once again.

(This is to confirm the needle comes up to exactly "full" - if not, place the needle back on "full" and repeat until position for "full" is correct)

When position is correct, fully seat the fuel gauge needle.



You can now turn off the power and remove the calibration tools.



Put your plastic cover back on.



Make sure all the tabs are clicked in.

Your cluster is now ready for testing and re-install back in the car.



PART 3 - TESTING

Put the cluster back into the car, remember to plug in the connectors.



Mount back the panel that holds the dimmer.
(The panel controls the power to the dimmer)



Plug in the dimmer and mount the panel.
(This is only temporarily for testing,
therefore no need to plug in every connector
at this moment)

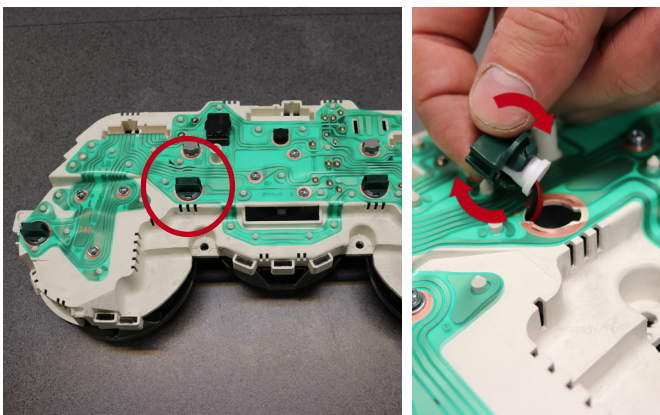


Turn on the ignition. Check if the cluster
works.

Turn on the lights.



If the panel does not light up, turn it on with
the remote.



If it still doesnt light up, take out the cluster
and turn the light fitting 180° and plug it
back in so that the polarity is reversed.

Test again.

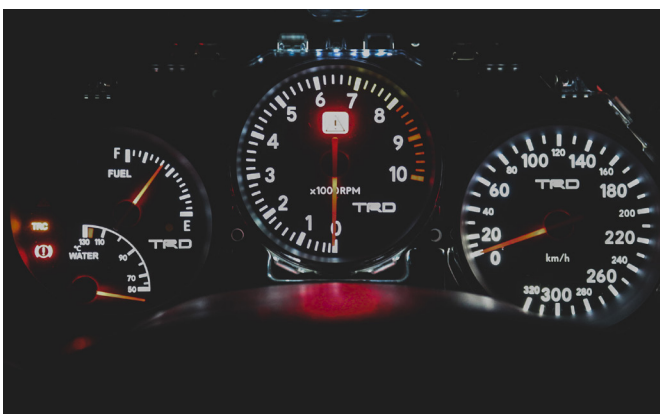


Now, the lights should turn on.



For 'adjusting' the lights correctly, do the adjusting at night - this way you can find your comfortable MAX brightness. This is done with the remote.

(NOTE: The engine must be running and your original dimmer set to max)



Once you found your max brightness, you can still use the original dimmer to dim the brightness of the cluster.

Note: The cluster "remembers" your max brightness setting, so you no longer need the remote. Save it, in case you want to change your settings later.



You can now re-install the rest of the panels.

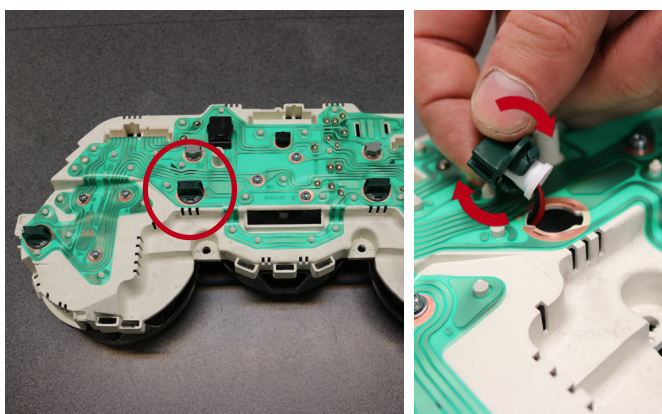
FAQ

FAQ 1: **LED** panel illumination not working?



FAQ 1- LED PANEL ILLUMINATION NOT WORKING?

If the panel does not light up, turn it on with the remote.



If it still doesn't light up, then take out the cluster and turn the light fitting 180° and plug it back in so that the polarity is reversed.

Test again.