



Toyota Supra HVAC Unit LED Conversion Kit Installation Guide

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INTRODUCTION

The Toyota Supra HVAC LED conversion kit by JP Ledworx is the closest we have come to obtain a Plug and Play LED conversion kit that offers the most OEM-looking and reliable LED conversion so far.

Focusing on ease of installation and reliability, this kit is made to be installed by anyone with the simplest of tools.

The kit is delivered with high-quality, long-life LED's and complete new shrouds made in heat-resistant PET and already pre-assembled where possible.

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/rpdlALlg-gs>
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.

- Sidecutters (preferably flush cutters)
- Flat nose pliers
- Small sized flat head screwdriver
- Medium sized flat head screwdriver
- Small sized Phillips head screwdriver
- Medium sized Phillips head screwdriver
- Desoldering tool (Suction, Wigs or Desoldering iron)
- Soldering iron
- Tin

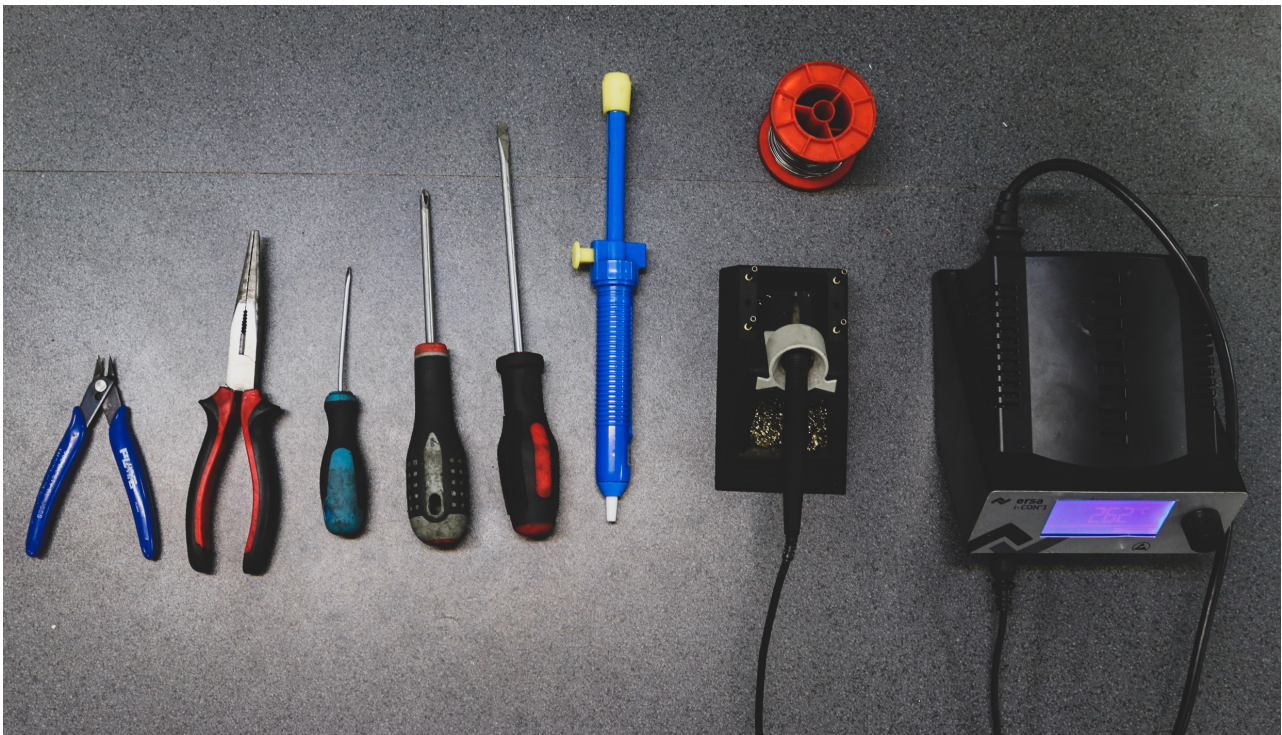


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PART 1 - REMOVAL OF DASHBOARD PANEL

Remove the 5 screws from the top dash panel and pull it out.



Disconnect the wires from the LH and RH warning light pods and the emergency blinker button (for LHD the lights and button are inverted).

**Reference image 1*



**Reference image 2*



**Reference image 3*



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



Remove the shifter surround (for manuals, undo the velcro on the leather boot). The surround is only held in place by clips. Simply pull up.



Disconnect the connector for the ash tray lighting.



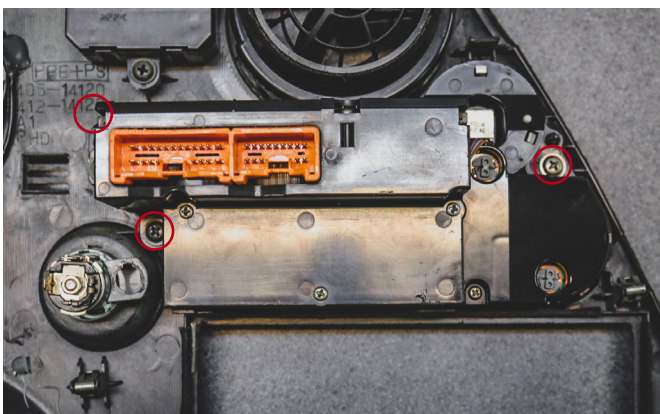
Remove the screw holding the radio dash panel in place and pull it out. The rest of the panel is mounted with clips.



Reach around the panel and disconnect all the connectors from the HVAC unit, clock, cigarette lighter and optional other buttons.

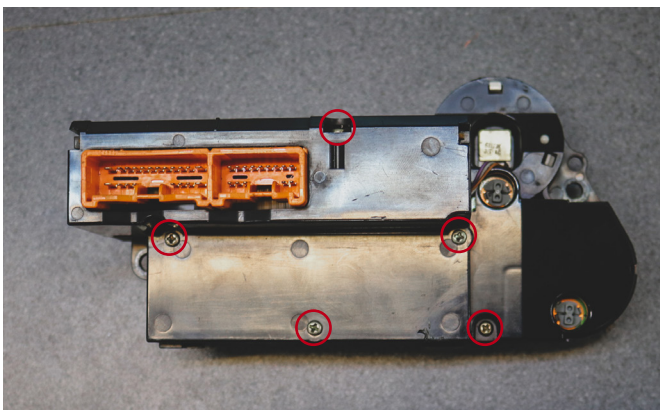


You are now ready for the disassembly of the HVAC unit.

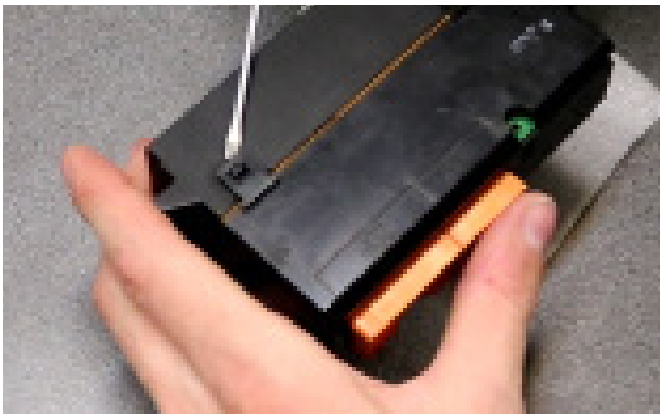


PART 2 - DISASSEMBLY OF THE HVAC UNIT

Unscrew the panel from the HVAC unit (3 screws).



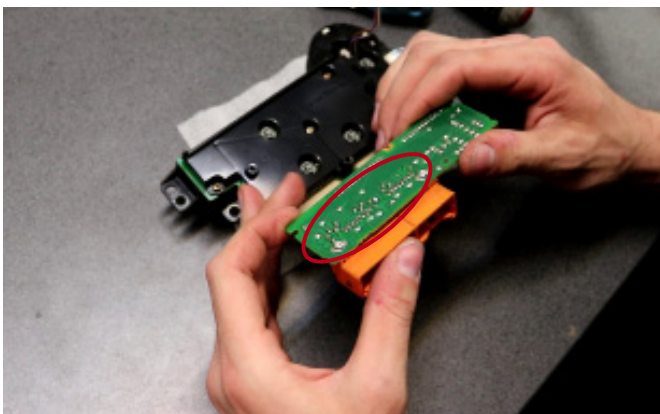
Remove the 5 screws from the HVAC unit to remove the cover.



With a flat screwdriver, tip open the tabs (2 top, 2 bottom, 2 on the sides) and remove the plastic cover.

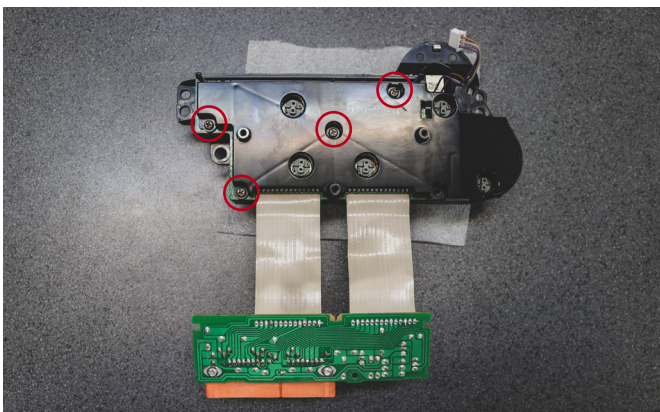


Remove the PCB (again, unhook the tabs) and pull out the connector.

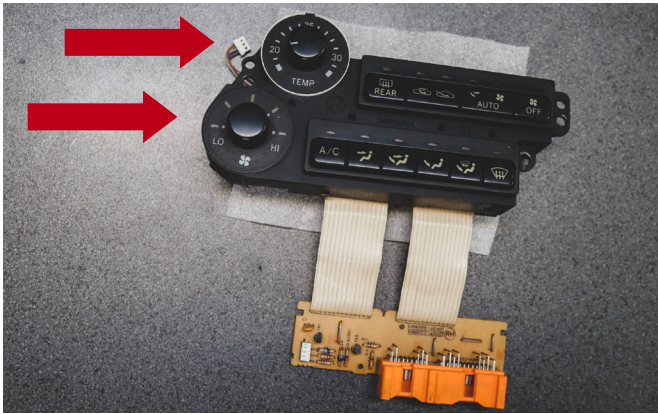


****NOTE****

It's always a good idea to check if any of the solder points have broken off / if they are okay. If not, it can cause blinking or inconsistent lighting.



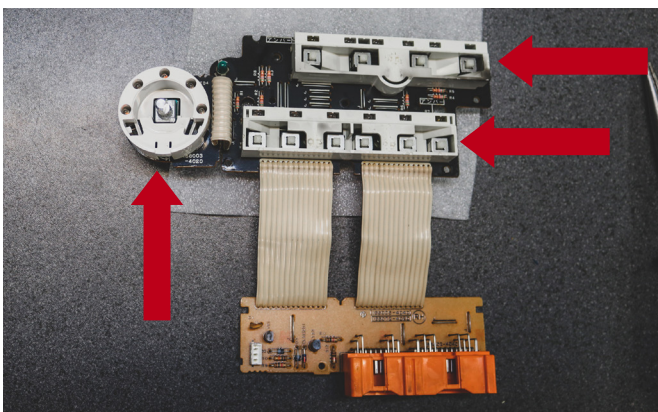
Additionally, remove the last 4 screws from the back cover.



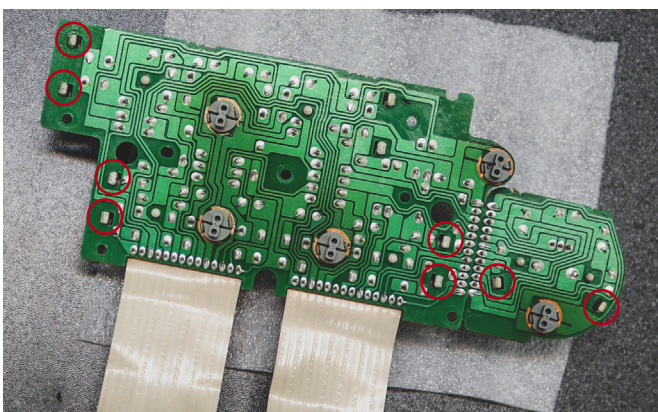
Turn it around and remove the buttons.
Simply pull them up.



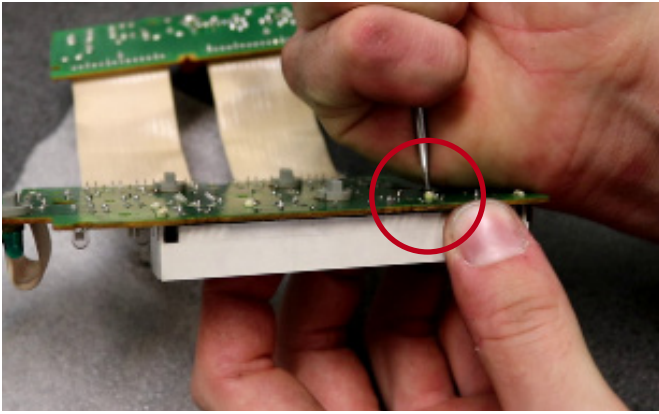
Loosen the nut from the fan speed
potentiometer.
When loose, you can use a flathead screw-
driver to help unscrew the nut.



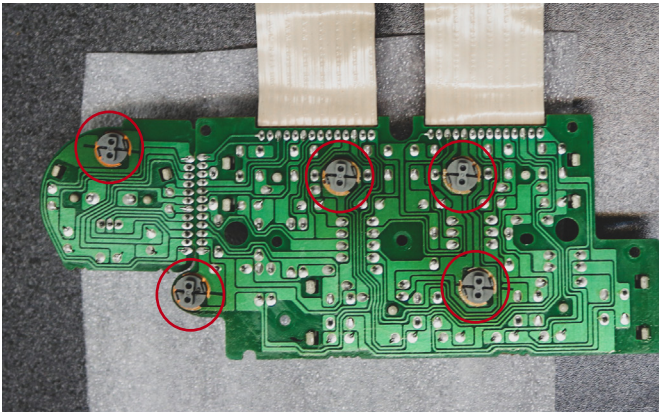
Next part, is the removal of the 3 plastic
elements.



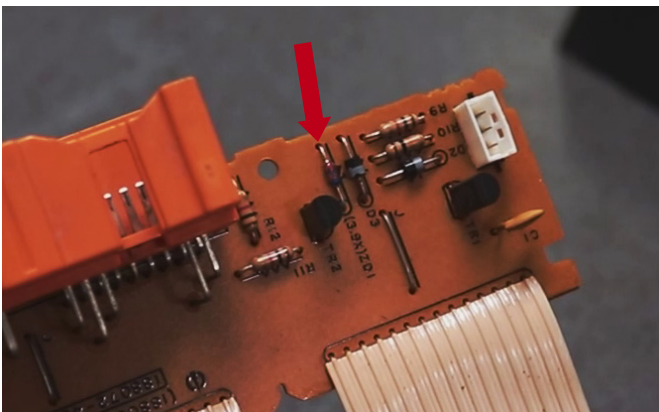
This is done by pushing out the small white
tabs on the back.



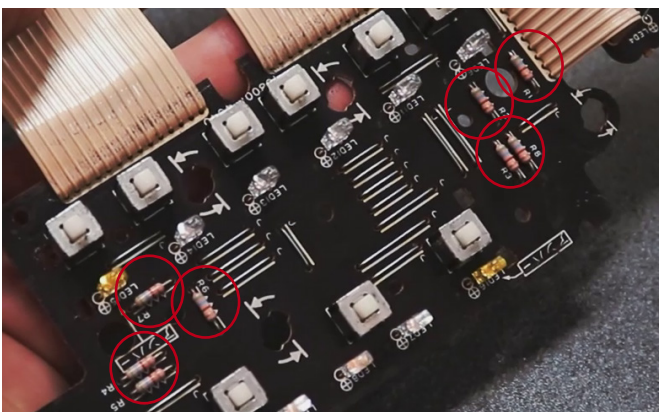
You can use a flathead screwdriver to help you, as the tabs can be a bit stuck.
(They were slightly melted from the factory to keep in place)



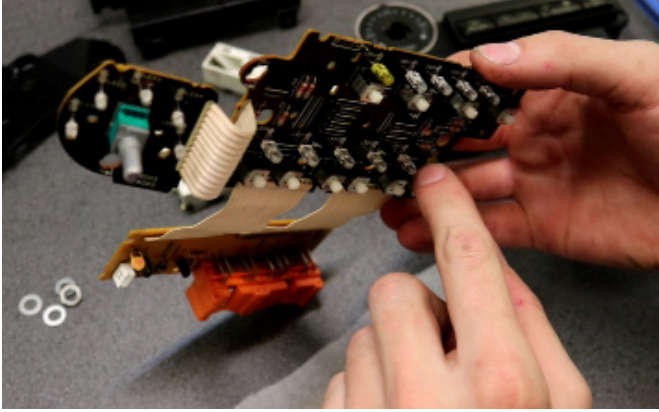
Remove the lightbulbs by simply turning them 1/4 turn.



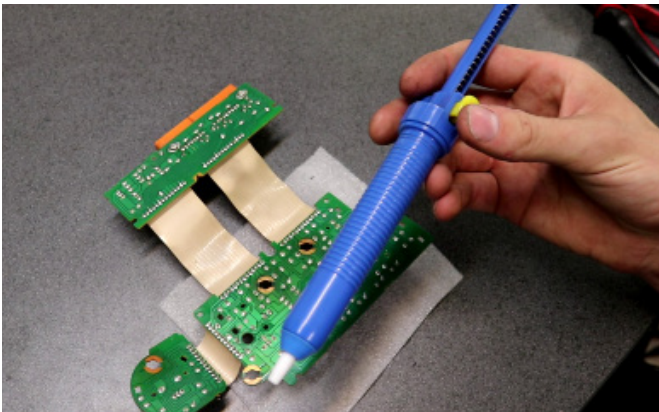
Locate the rest of the elements that need to be removed, such as the Zener diode...



And the pink resistors.

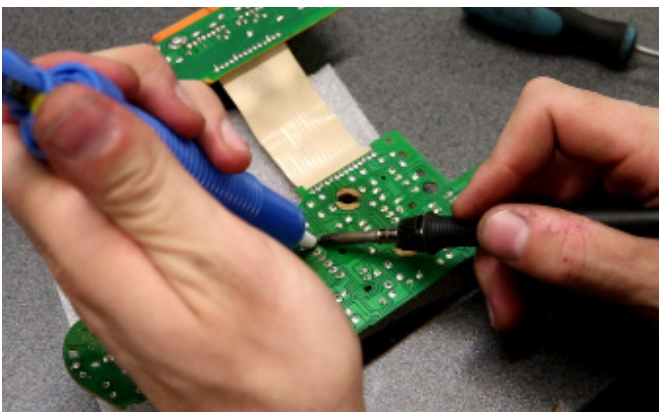


After that, locate all your LEDs. (In case you want to keep any LED, yellow one fx, leave them in)
Start removing all the LEDs and the resistors.

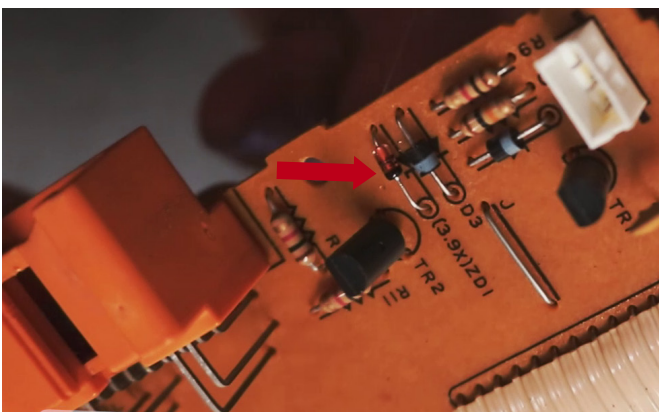


PART 3 - SOLDERING OF LEDS AND RESISTORS

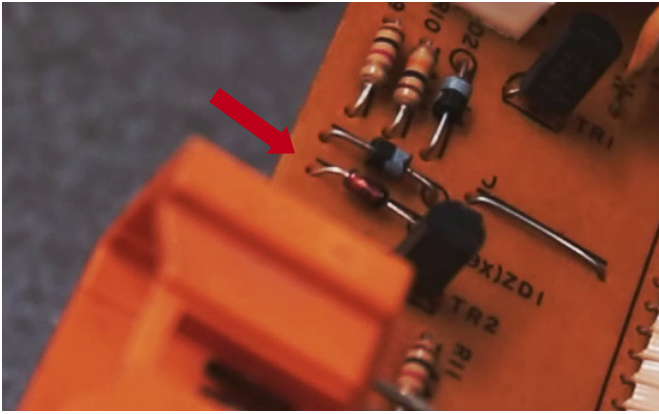
Use a tin sucker (or another desoldering method) and start desoldering the LEDs and the resistors.



*(This process takes a bit of time.
Remember to remove the LEDs and resistors as you go)*

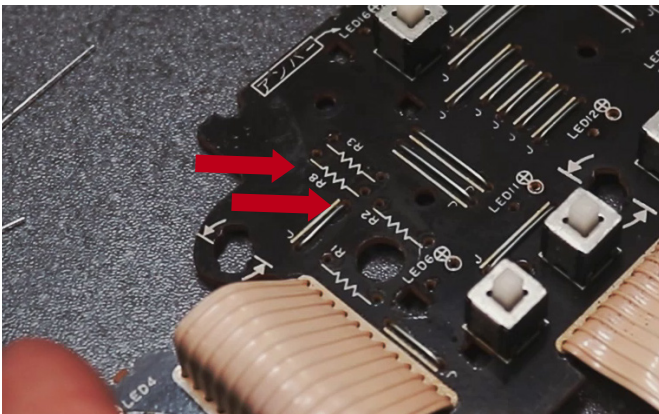


Start with replacing the Zener diode.



PLEASE NOTE: This diode is directional and needs to face the same way when replaced with the new one. The blue part was facing away from the connector. The new diode bottom color is black. Make sure the black part is facing away from the connector when installing.

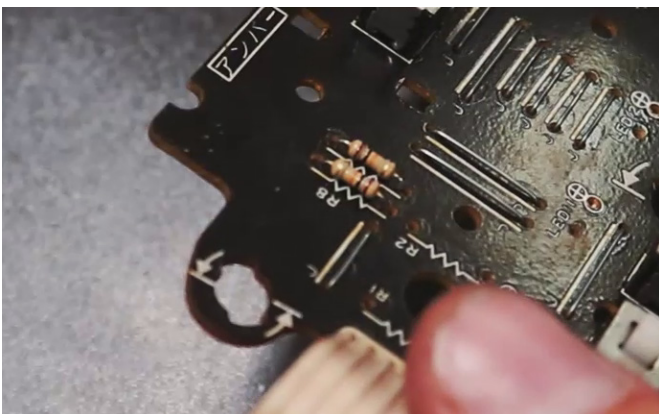
Solder in place



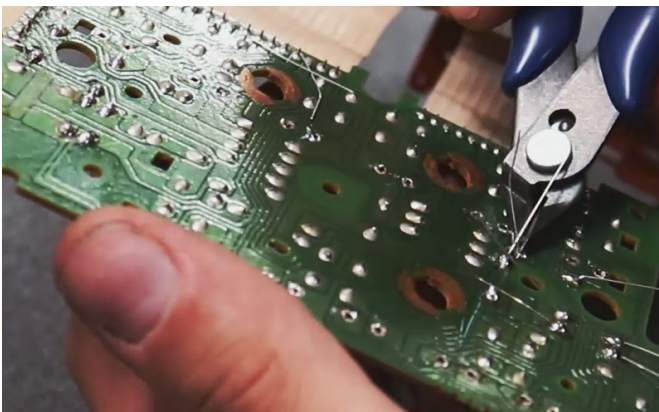
Next. Install the resistors.

It's marked on the board from where to where the resistors need to go.

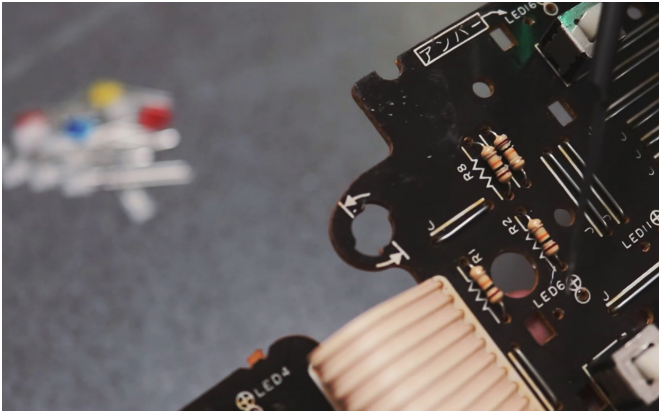
These resistors are non-directional. They work in any direction.



Solder the resistors into place.



Once you are satisfied with your resistors, you can cut out the legs.

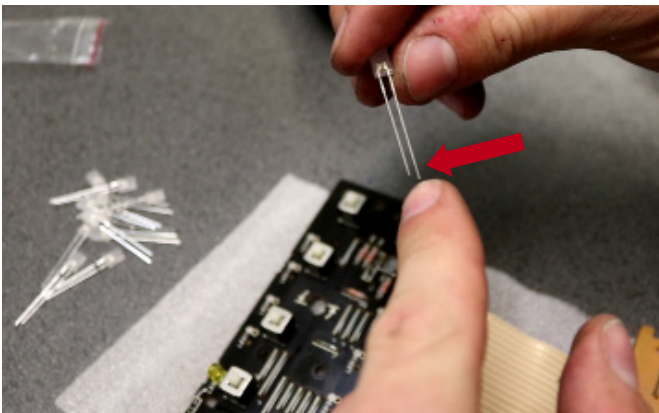


Once you are finished, get your LEDs.

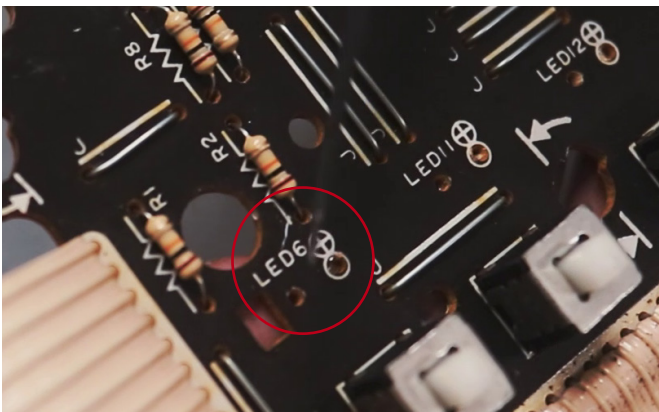


You get different LEDs in the multicolor kit. Enough to make a full white panel or to combine with some blues, reds, and yellows.

(You only get one color, in the color-specific kits.)

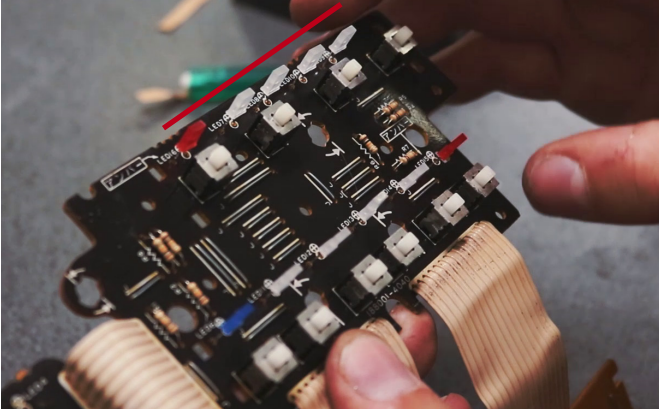


Be aware of the **+** and **-** side.
You can see on the LED, the **long** leg is the **+**.

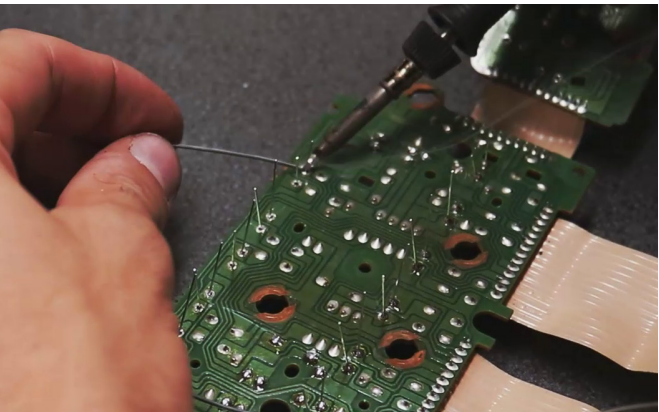


You can also see on the PCB, where the **+** side should go.

You are now ready to install the LEDs.



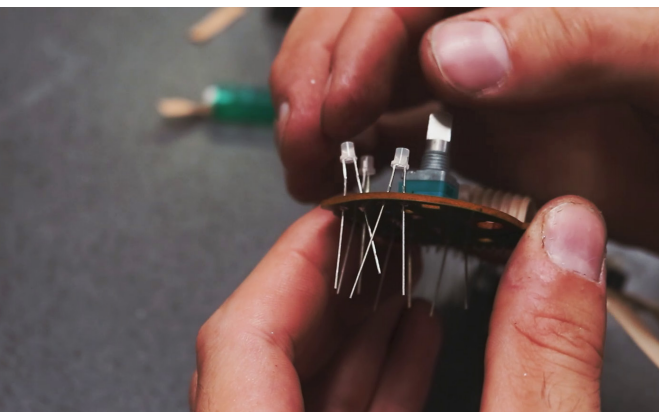
Keep in mind the height placement of your LED's.
They should be the same height as the original ones.



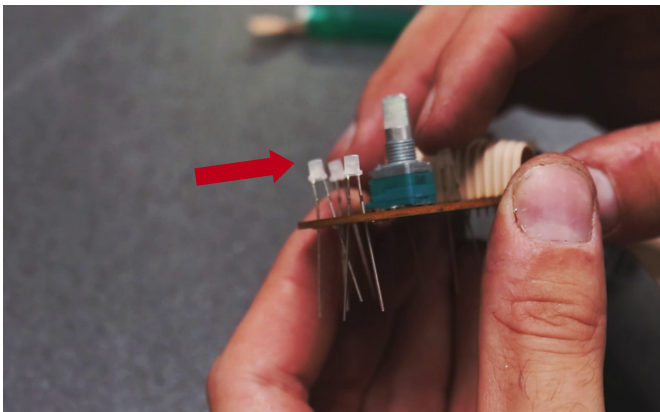
Solder your LEDs.



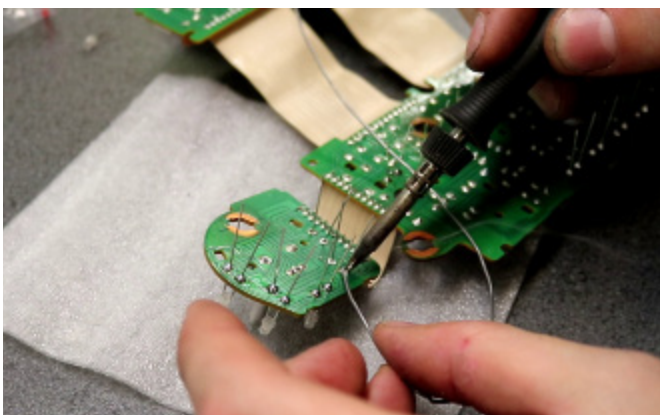
Repeat the process for the fan indicator LEDs.



Again, the **long** leg indicates the + side.
And the + is also indicated on the PCB.



Once more, try to replicate the height of the original LEDs.

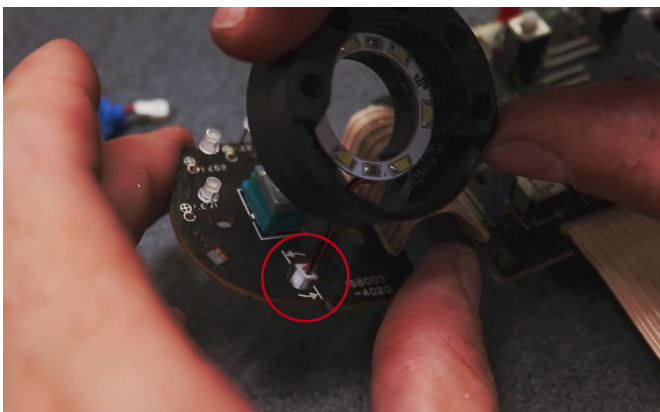


Solder your LEDs. If satisfied with the placements of your LEDs, cut the legs.

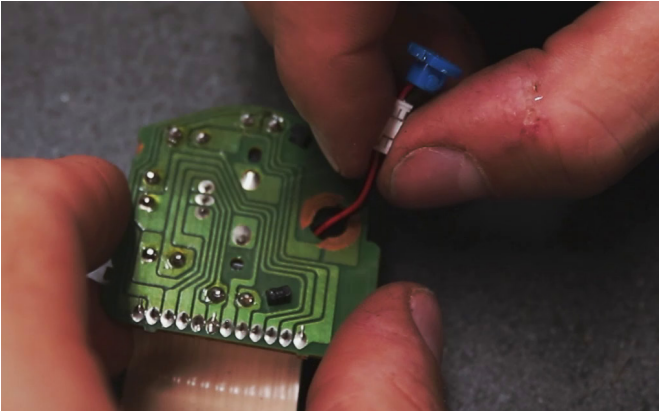


PART 4 - SHROUD INSTALLATION

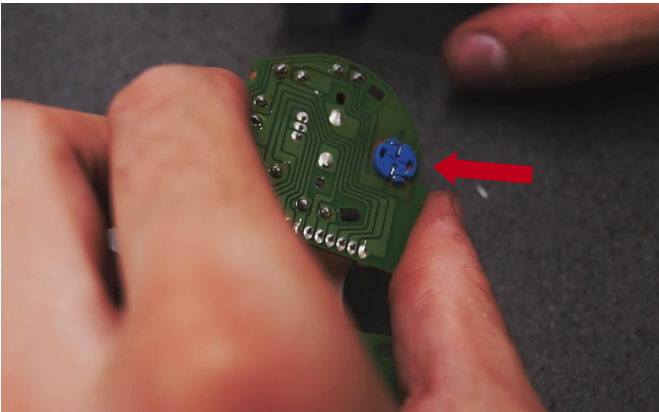
Take your fan speed shroud and remove the connector.



Feed the connector through where the light-bulb used to be and place the shroud over the LEDs.



Plug the connector in and feed the wires back into the hole.

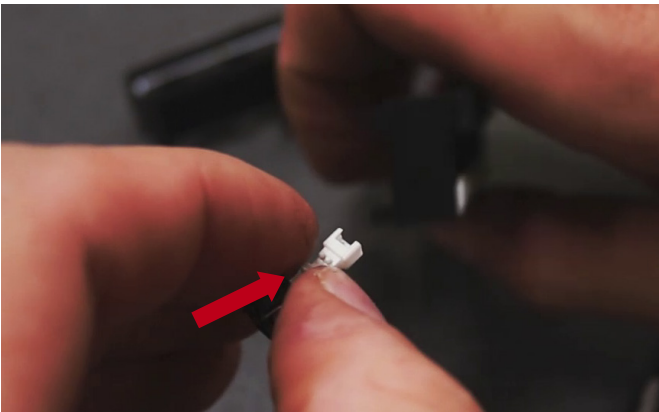


Twist the connector into place.

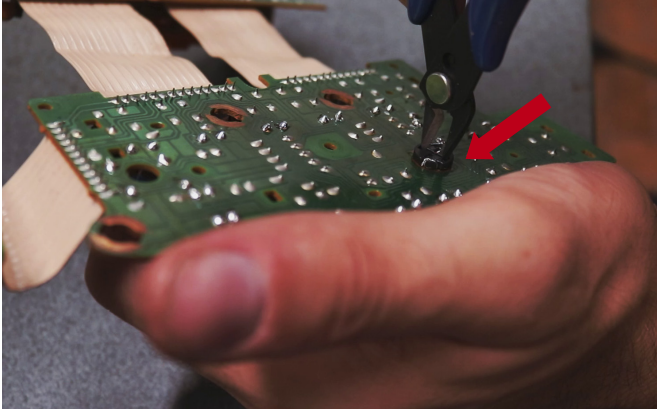
**Note. There's no way to know the correct direction of the connector. If it doesn't light up when you test it, take out the connector, turn 180° and put it back in.*



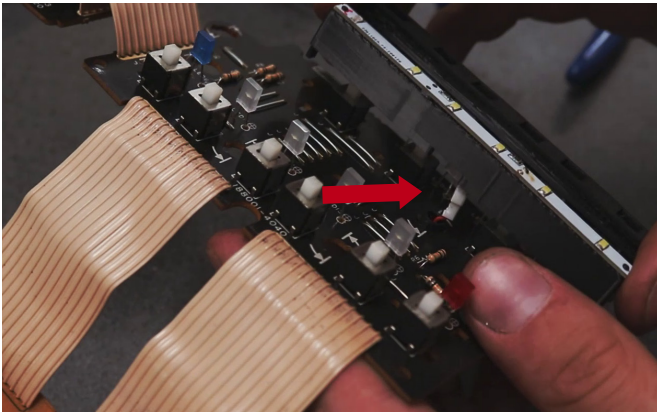
Take the light shroud for the top part.
This is for the top button row.



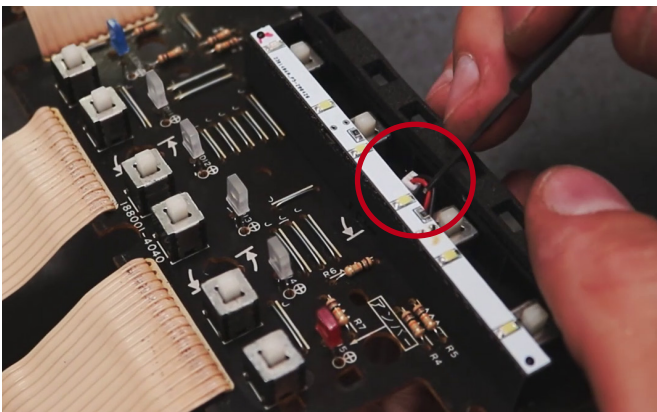
Unplug the connector.



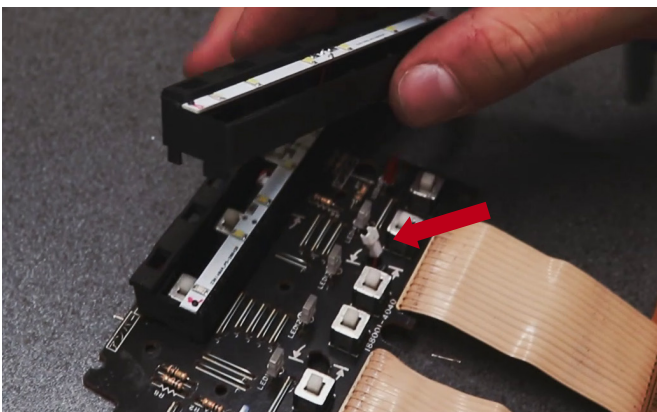
Feed it through the back of the PCB.
Tighten with the help of a flat screwdriver or
flush cutter.



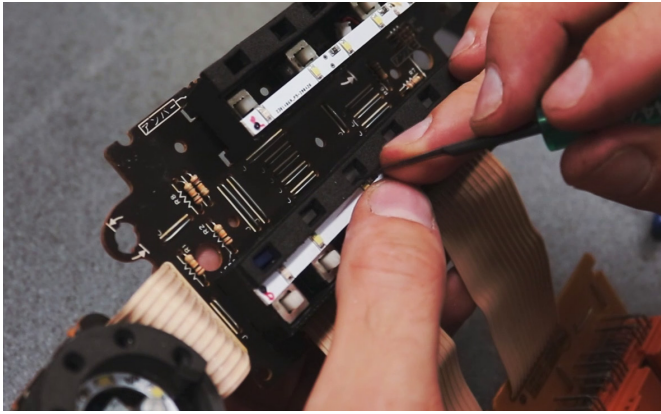
Plug in the connector and mount the shroud.
Click into place.



Make sure the connector is out of the way
for the buttons.



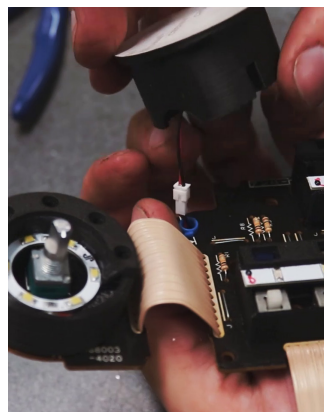
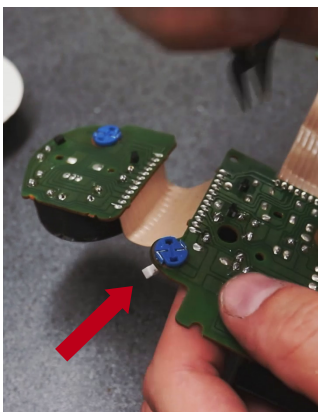
Repeat the process for the bottom row.



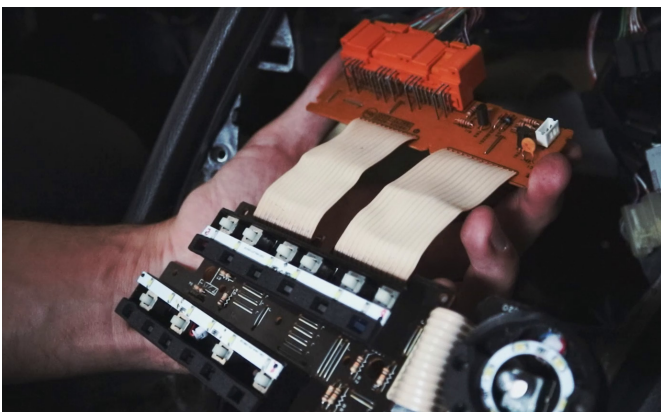
Once installed, make sure the LEDs are aligned and centered in the shroud holes.



For testing purposes, take the last shroud and install it as well.



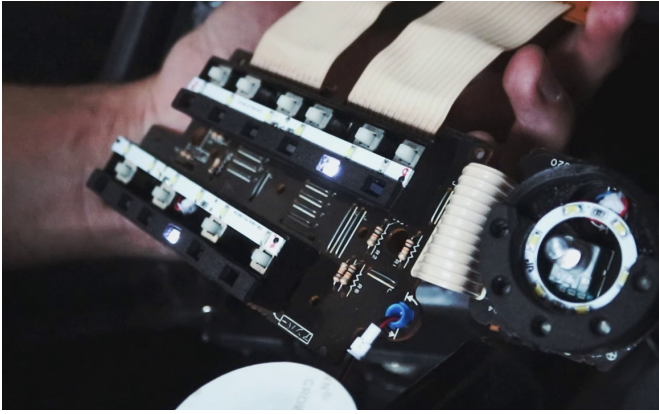
Put the connector through the PCB and tighten it. Plug the connector back in.



PART 5. TESTING

Connect the HVAC unit back into the car to test that the LEDs all work as they should.

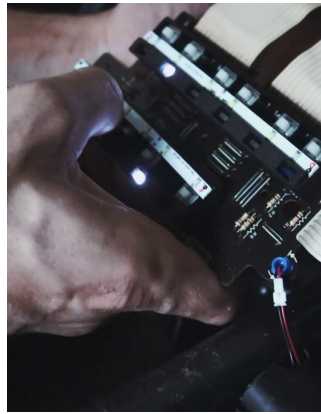
(Start the car to turn on the lights)



The lights should all work.

If they don't, take out the 'faulty' connector, turn them 180° around, and put it back in place.

**See FAQ page if needed*

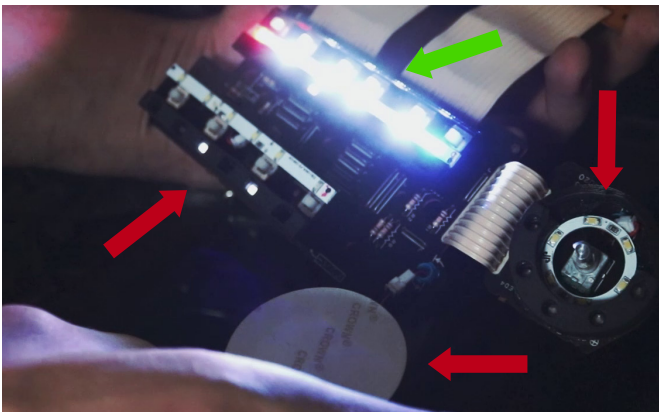


Test the status LEDs by turning the knob on the fan and pushing the different buttons.



Next, test that the connectors are in correctly. The background lighting.

For that, make sure your light dimmer is connected.



Turn on your headlights.

Now you will be able to see what works and what doesn't.

As mentioned above, this is fixed by rotating the 'faulty' connector 180°.

Find full explanation under FAQs.



PART 6. TEMPERATURE DISPLAY

Remove the front face of the temperature display. It's mounted with some double-sided tape. It's advised to heat up the display a bit with a hairdryer to heat the glue. This will make it easier and safer to remove the display cover.



For the best result, it's advised to remove the old tape from the face. The old tape creates a yellow hue for the light. Carefully scrape it off and finish it off with some brake cleaner.



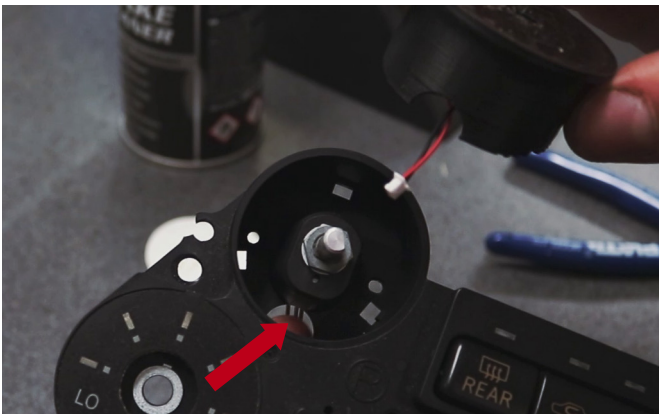
From the back, push out the white insert and remove it.



Take the new shroud and remove the protecting layer.



Poke a hole into the tape to make space for the potentiometer.
A scalpel is advised, but a screwdriver/pick can do as well.



Straighten out the wire so it comes through the bottom hole and aligns with the tabs inside.
Push in the shroud all the way.

Make sure the tabs come out on the back. It may require a bit of 'wiggle' into place.

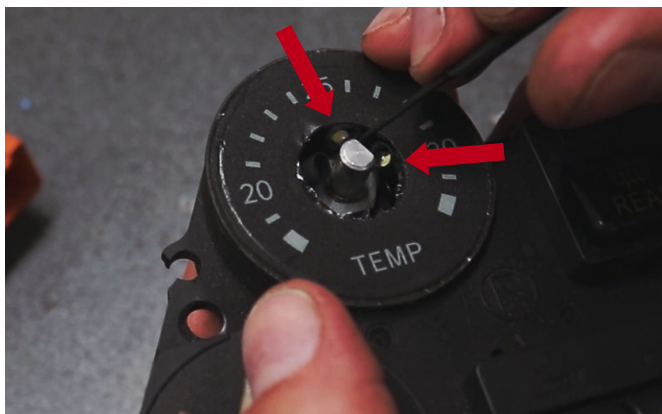


Stick back the temperature face. Make sure it's centered.

You can use the tab on the face and the tab on the shroud to help you align it.



Once installed, you can remove the excess tape.

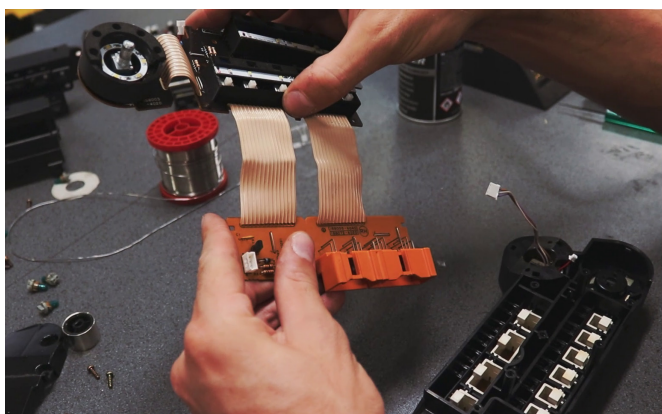


Make sure the DOT LEDs are not in the way of the button.

Push a bit aside if needed.

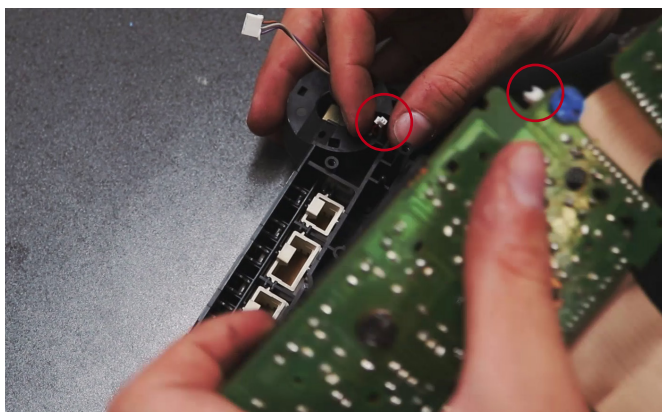


Put the button back on.



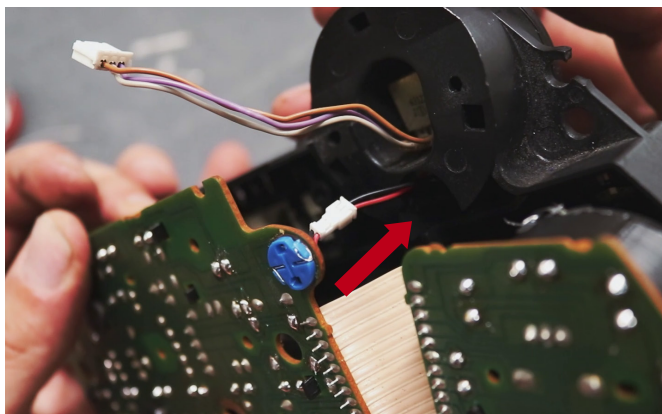
PART 7 - RE-ASSEMBLY OF THE HVAC UNIT

You are now ready to re-install the main circuit board.

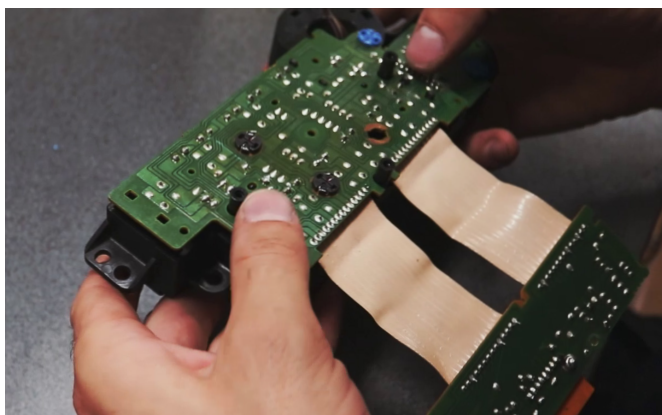


Put the circuit board back in.

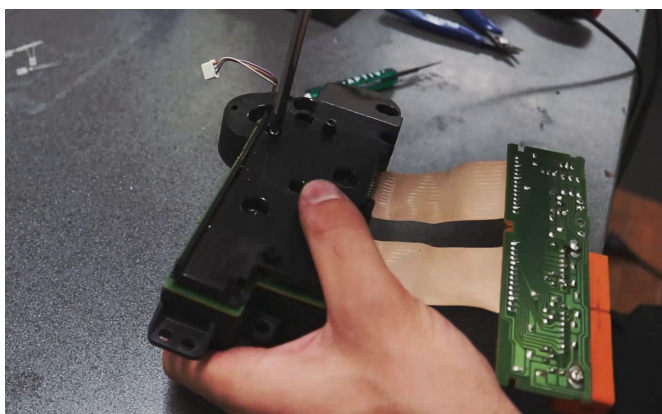
Plug in the remaining pre-installed connector.



Make sure the connector and cables fall back into the bottom hole of the shroud.



Push the circuit board elements into place.



Screw the back plate back in.



Test that the buttons move freely and feel good.

(If not, remove the circuit board and check again that no connectors or wires are interfering with the buttons)



You can now put the nut back in and tighten it.

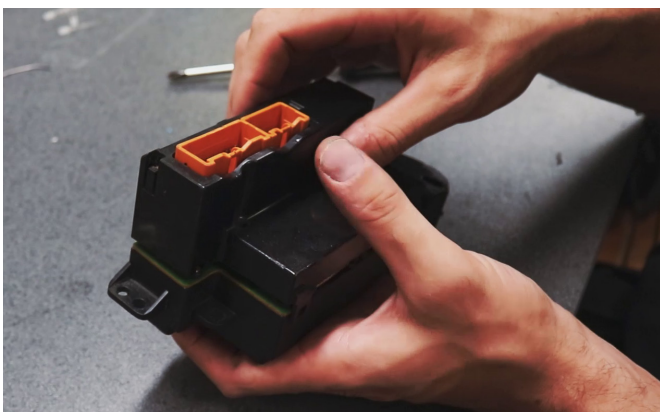


Put the button back on.



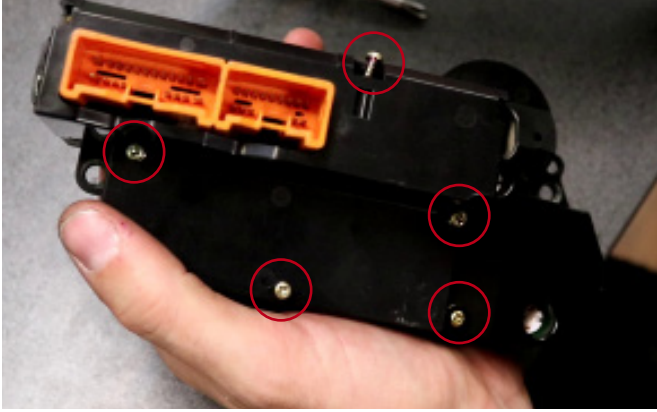
Mount the circuit board back in place. Simply mount back into the clips.

Put the connector back in and place the wire under its holder.



After that, take the last cover and put it back on.

Simply click back in place and make sure the tabs are locked in place.



Finish it off by screwing back the last 5 screws.



Screw the HVAC into the dash panel (3 screws).



Install back into your car.

You are now done!

FAQ

FAQ 1: **How to replace buttons?**

FAQ 2: **Lightbulb powered elements not working?**



FAQ 1 - BUTTON REPLACEMENT

If you want to replace your buttons, simply use a flat screwdriver and insert it on the right side (there's a small hole), and flip it out.



Repeat this for all the buttons.

Click the new buttons back in place.

(This can also be done directly in the car.)



BEFORE

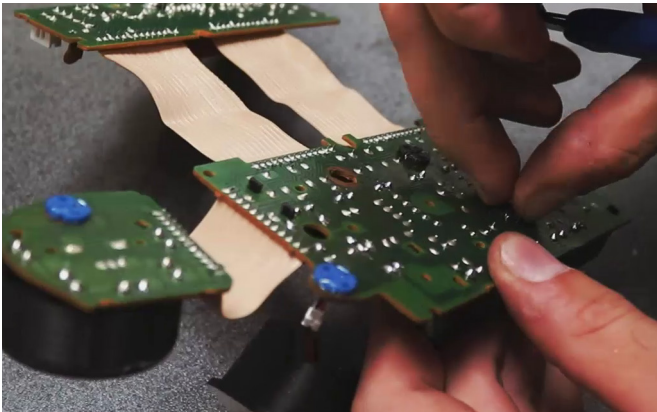


AFTER



FAQ 2 - LIGHTS NOT WORKING

There's no actual way to know which way is the correct one. So remember to test before the final installation.



For connector powered elements that don't light up, simply unscrew the connector, take it out, turn it 180°, and put it back in.



Repeat for all affected elements.