

Fiero Instrument Cluster PCB GM# 25077762 Installation Instructions

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By purchasing and choosing to install this Flexible Printed Circuit Board (FPCB) - whether you use these Instructions or not, you acknowledge that you have read and understand this disclaimer and agree to be bound by its terms.

Read and understand these instructions prior to beginning this procedure, and compare the version number (at the bottom of each page) and check for updates to these instructions at:

<https://www.deloreangarage.com/fiero-instrument-cluster-pcb.html>

If you have any suggestions for improving these instructions, please reach out to me by email at jvespey@gmail.com - thanks!

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Installing a Flexible Printed Circuit Board (FPCB) on your Fiero instrument cluster is a delicate process that requires attention to detail, precision, and care to avoid damaging the components. The following instructions are meant to guide you through the process. Please note that different models of Fieros and instrument clusters might require additional steps or precautions - or even a completely different Flexible Printed Circuit Board (FPCB). **Before disassembling your instrument cluster, carefully compare the one on your cluster to the new one accompanying these instructions, specifically the part number on the center.** This part is intended as a replacement for Fieros originally fitted with the GM# 25077762 Flexible Printed Circuit Board (FPCB) and use as a replacement for any other part number is not advised.

Tools Needed:

- 1/4" drive 5.5mm socket (7/32" acceptable)
- 1/4" nut driver
- Digital camera or smartphone (optional, for taking reference pictures)

Preparations:

Removing the instrument cluster from the vehicle is beyond the scope of these Flexible Printed Circuit Board (FPCB) replacement instructions and are not included here. Refer to the appropriate vehicle service manual for details.

1. **Work Environment:** Prepare a clean, well-lit work area. A clean towel white towel to prevent damage to the instrument cluster lens when working on the backside of the cluster is an excellent idea.
2. **Documentation:** The importance of taking detailed pictures of the instrument cluster before AND during disassembly cannot be overstated. These photos will serve as a reference for component placement and screw locations among other things.

Additional Tips:

1. Take your time and handle all components gently to avoid damage.
2. Keep track of all screws and components removed during disassembly to ensure a smooth reassembly process.
3. If you encounter any issues during the installation, refer to the reference pictures taken before disassembly or consult the vehicle's service manual.

By following these detailed instructions, you should be able to successfully install a Flexible Printed Circuit Board on a Fiero instrument cluster. If at any point you feel unsure or uncomfortable with the process, consider seeking the assistance of a professional technician.

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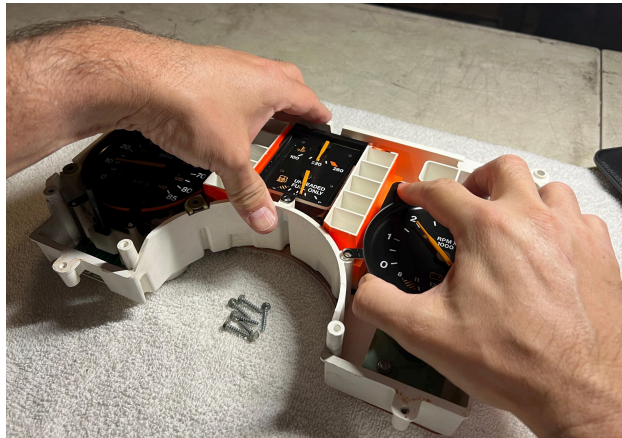
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Disassemble Instrument Cluster:

1. Place the instrument cluster on a clean, flat surface.
2. Remove the lens of the instrument cluster by unscrewing all six screws. Keep the screws organized and note their locations for reassembly. Set the lens aside in a safe place to avoid damage to the lens.



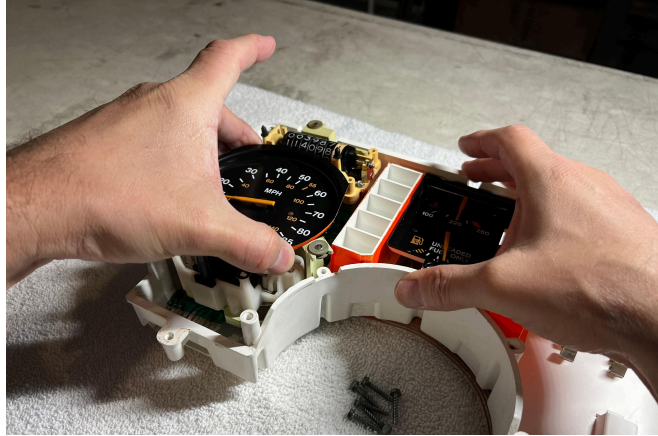
3. Pay attention to the two rubber alignment guides between the odometer and speedometer - they are fragile! Carefully lift off the black metal cover and set aside in a safe place to avoid damage.
4. Hold the cluster housing with one hand and with the other remove the tachometer by gently, but firmly, pulling up on the tach assembly. Once removed, you'll be able to see how the studs of the underside of the tach are pushed into the silver metal clips that will be removed in a later step. Set the tach aside in a safe place to avoid damage.



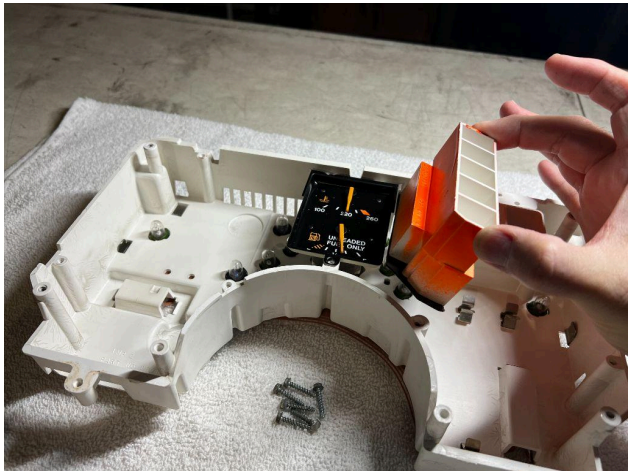
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- Repeat the same process as you did for the tachometer for the speedometer and set it aside in a safe place to avoid damage.



- With the tach and the speedo assemblies removed, the orange warning light filters are loose in the cluster and can be lifted out and set aside in a safe place to avoid damage.



- Finally, like the tach, remove the engine temperature/fuel gauge by gently, but firmly pulling up on the complete assembly and - yes - set aside in a safe place to avoid damage.



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With all these components removed, can you see the instrument cluster light bulbs & sockets along with the metal clips that the threaded studs on the back side of the gauges slide into to make their electrical connection. Before proceeding, make sure you have a photo of the backside of the cluster showing where the metal clips light bulb/sockets are installed.

Looking again at the inside of the cluster housing, remove the metal clips. Removing the metal clips is easy once you've done it once or twice. As you are pushing the metal clip out the back of the cluster housing, apply pressure to one side of the metal clip.



Once one side of the clip has come loose, squeezing it together a bit is all it takes to pop them out. Keep the clips organized and set them aside for later reinstallation.

Turn the cluster over, then apply a little pressure and you twist the plastic socket counter-clockwise about $\frac{1}{8}$ " - some may be tight! The socket will then pull straight out. Now is

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the time to consider replacing the bulbs or at least dusting them off. With the bulb in the socket, gently bend up the contacts towards the bulb - this can help make them make better contact on reinstallation, especially if you have some intermittent bulbs.

Installation of the FPCB:

1. Before pulling off the old PCB, compare it side-by-side with the new one. Look for any differences. You'll notice the new one is completely flat, where your existing one likely appears to be molded to contours of the cluster housing. So long as the bulb sockets and metal clip contact areas are in the same places from old to new, this will fit and work with your cluster.
2. Gently remove the old PCB and set aside.
3. Lay the new PCB gently on the back of the cluster housing - DO NOT attempt to attach it to the cluster housing just yet. Get a feel for how everything lines up - bulb socket, metal clip locations, electrical connectors.
4. Some clusters have minor differences, particularly in the lower right where the horizontal electrical connector plugs in. So long as your old PCB has the part number 25077762, everything should be good!

Re-installing the metal clips:

1. From the backside of the cluster housing (the opposite of the way you popped them out) start in the center, just above the arch where the steering column sits. Firmly snap each of the center top and center bottom metal clips into place, ensuring they are fully inserted, and the "wings" are on top of the copper contact material.



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2. Do the same with the other four metal clips in the center section.



3. Work your way to the left, insert the two that are almost in a vertical row and then the last one that is directly above the vertical electrical connector until they are all in the same places that they were before you removed them.



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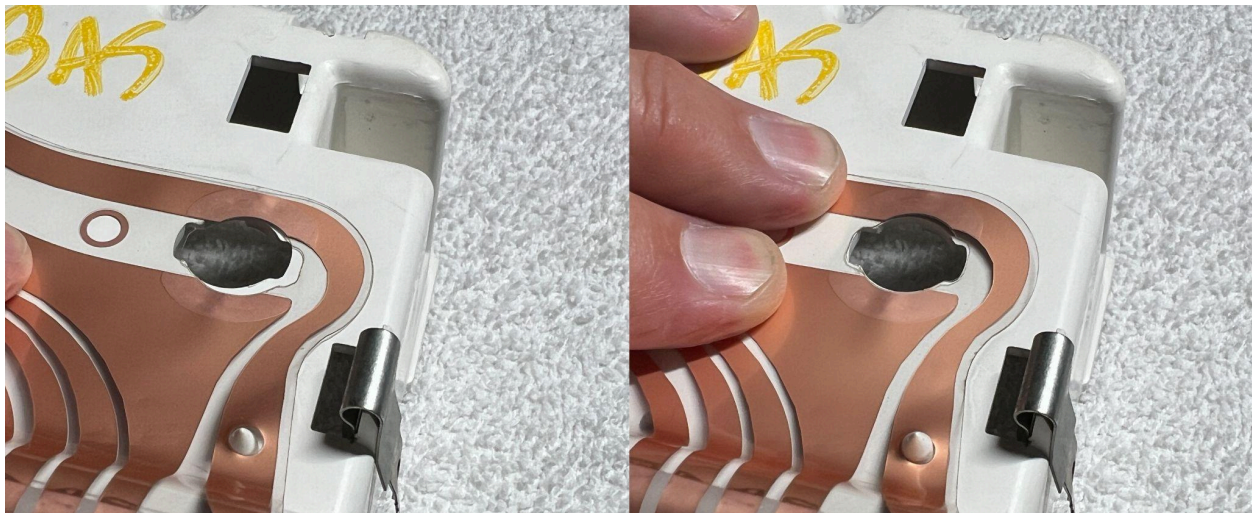
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Re-installing the light sockets:

1. Again starting in the center, just above the arch where the steering column sits. Insert each socket - they will only fit one way, then turn them to the right to lock them into position. Ensure the contacts are on top of and snug against the copper contact material.



2. Go back and forth from left to right, top to bottom. As you get to the outermost sockets, you may have to gently apply pressure one direction to get the hole in the PCB to line up with the hole in the instrument cluster housing.



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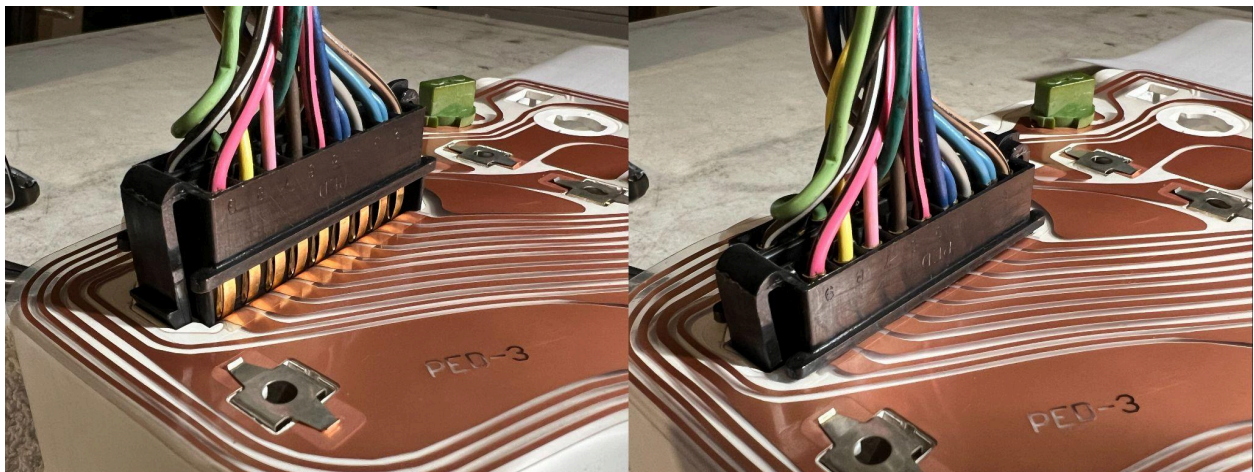
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Press the PCB into place over the pointy locator peg on the **left** hand side.



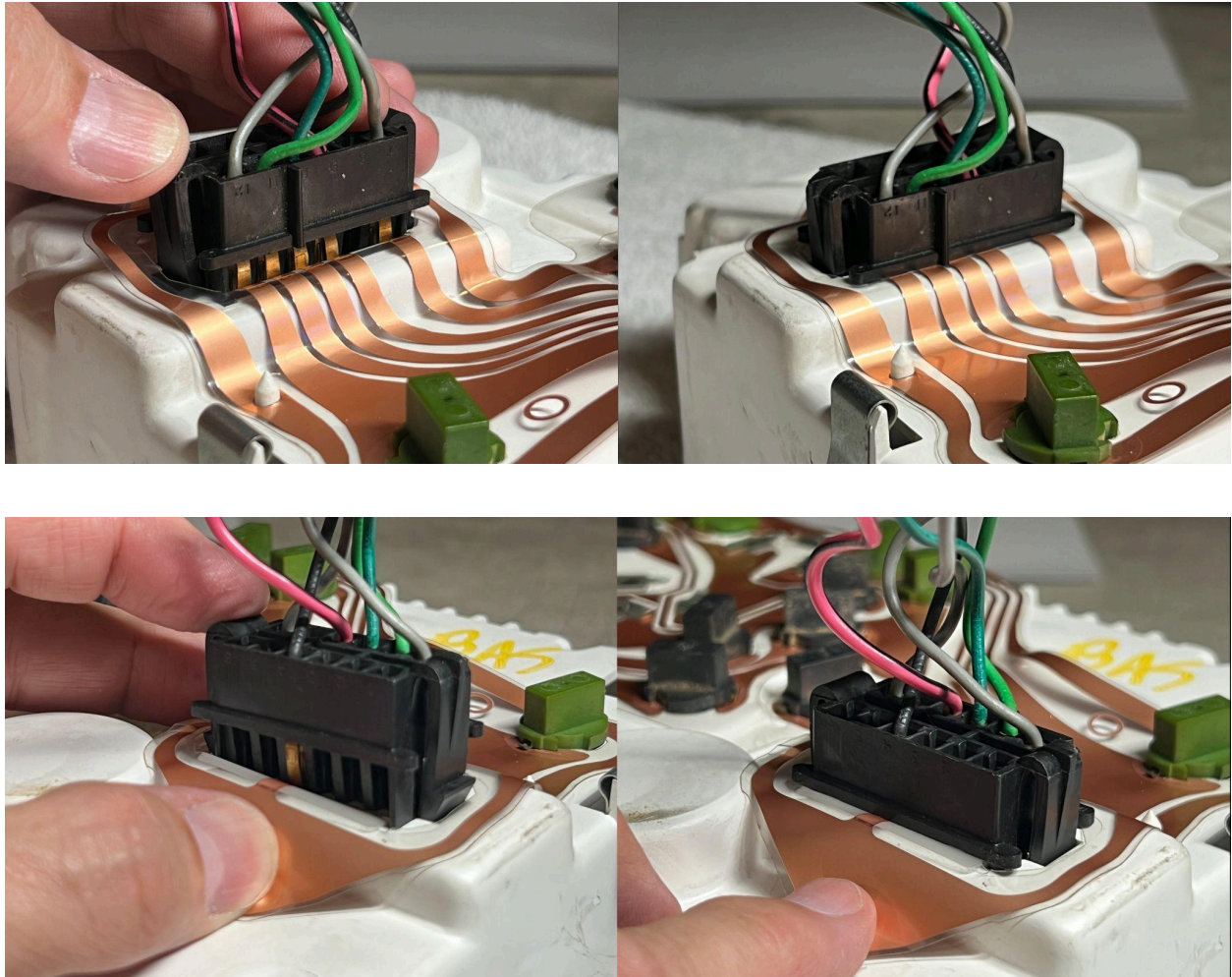
Wait to press the PCB into place over the right side locator peg until after you have made the final connections when installing the cluster back into the car.

The most important thing when doing the final installation in the car is to make sure that the contacts on the connectors are lined up nicely with the copper contacts on the PCB and that the connector is firmly and securely seated as seen in the remaining photos.



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Testing

Before completely reinstalling in the car, but after all electrical connections to the cluster have been made and inspected to correct connector contact to PCB contact alignment, it makes sense to test your work. Reconnect battery and turn the ignition to the "on" position and check for normal operation of indicators, lights and gauges. If possible, start the car and check again for normal operation of lights and gauges, as well.