Instructions to replace LCD panels in R230 instrument panel

Notes: All movement directions are based on *the instrument panel in the car*. Forward is to the front of the car, Back is toward the rear, etc.

In my car, I experimented with disassembly on a donor instrument panel using Option A, then placed the donor LCD's in my current panel using Option B.

Replacing a complete instrument panel will require a Star Diagnostics system to marry the new panel to the car. Dropping a new panel in will not show correct mileage, which prevents tampering.

Proper static discharge grounding must be practiced, so the electrical circuits are not damaged.

Read all of the instructions before proceeding. There are details that will help if you get in a bind.

1. Remove Alcantara cover by prying from sides and bottom and pulling toward rear of car. There are 4-6 plastic clips holding it in place.

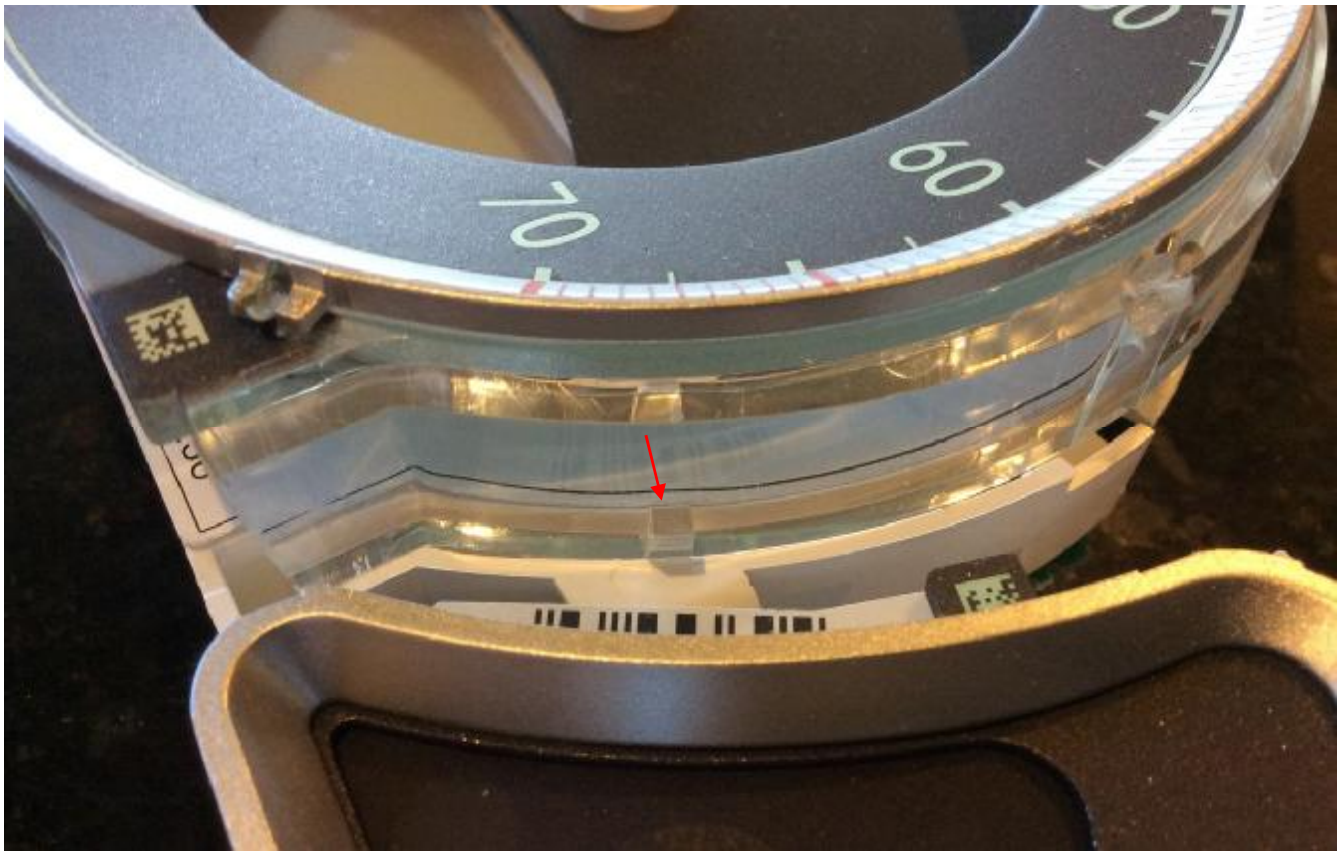
1. Remove 3 screws holding instrument panel to dashboard. Pull instrument assembly back.
2. Disconnect wiring from rear of instrument panel.
3. Take panel to a clean and padded, lint free workbench.
4. Place instrument panel face down.

5. Remove the front face by lifting the clips. Prying too far will break the clips.

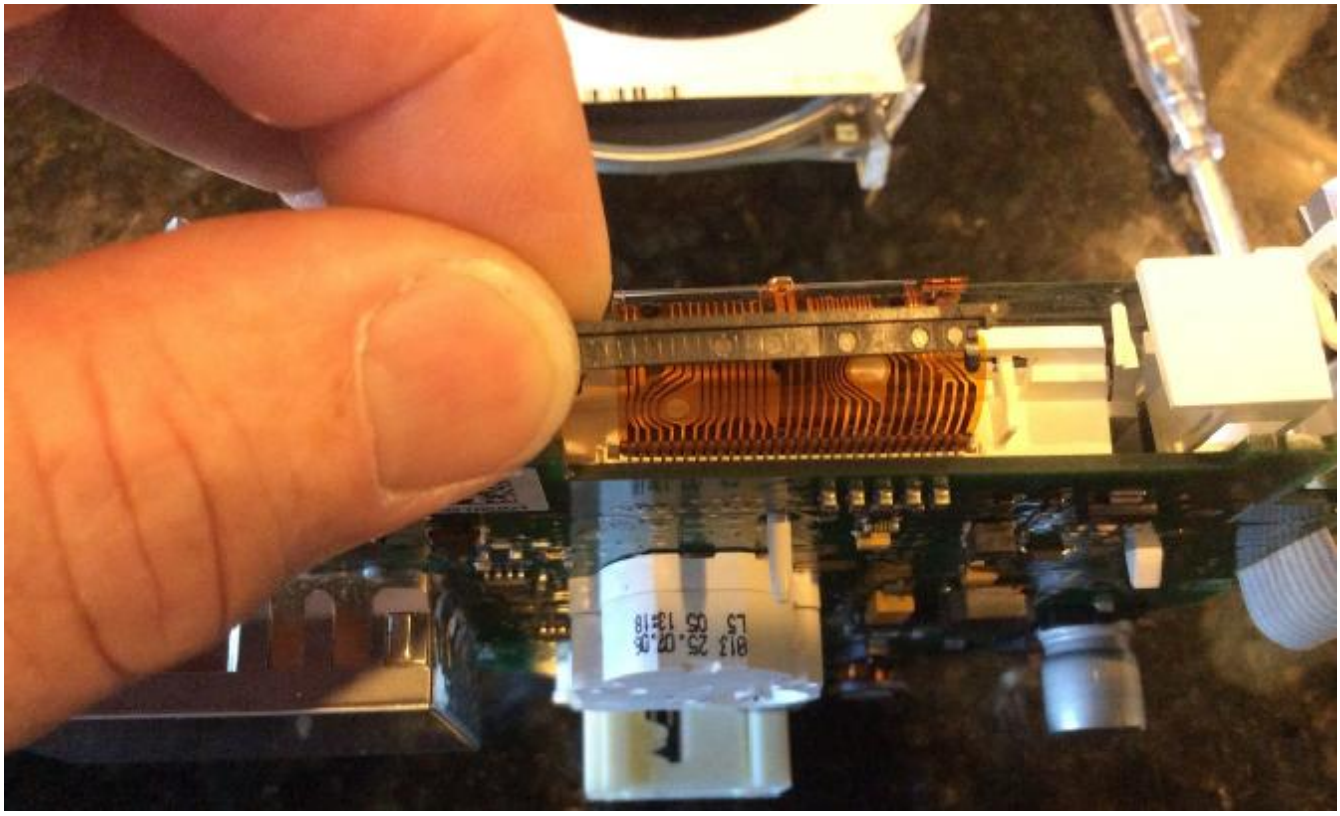
6. Now remove the circuit board from the back of the instrument panel. Open clips around the perimeter of instrument panel by gently prying them open, and working your way around. Once popped loose they should stay open. There are about 10-12 of these clips. Prying too far will break the clips.

7. You should now have the circuit board, with instruments, to work with on the bench.
8. This is where you have 2 options: A) Remove the instrument dial needles, and pull everything apart or B) Leave the dial needles in place, and barely open the bottom of the instrument to remove the LCD's. Removing the needles means they will need to be reset with the instruments back in the car and correctly reading. Directions following are option B. If B fails to work for you, go to A***. I removed donor panels using option A, then switched to B to place them in my panel. B is preferred, as you don't mess with the needles.

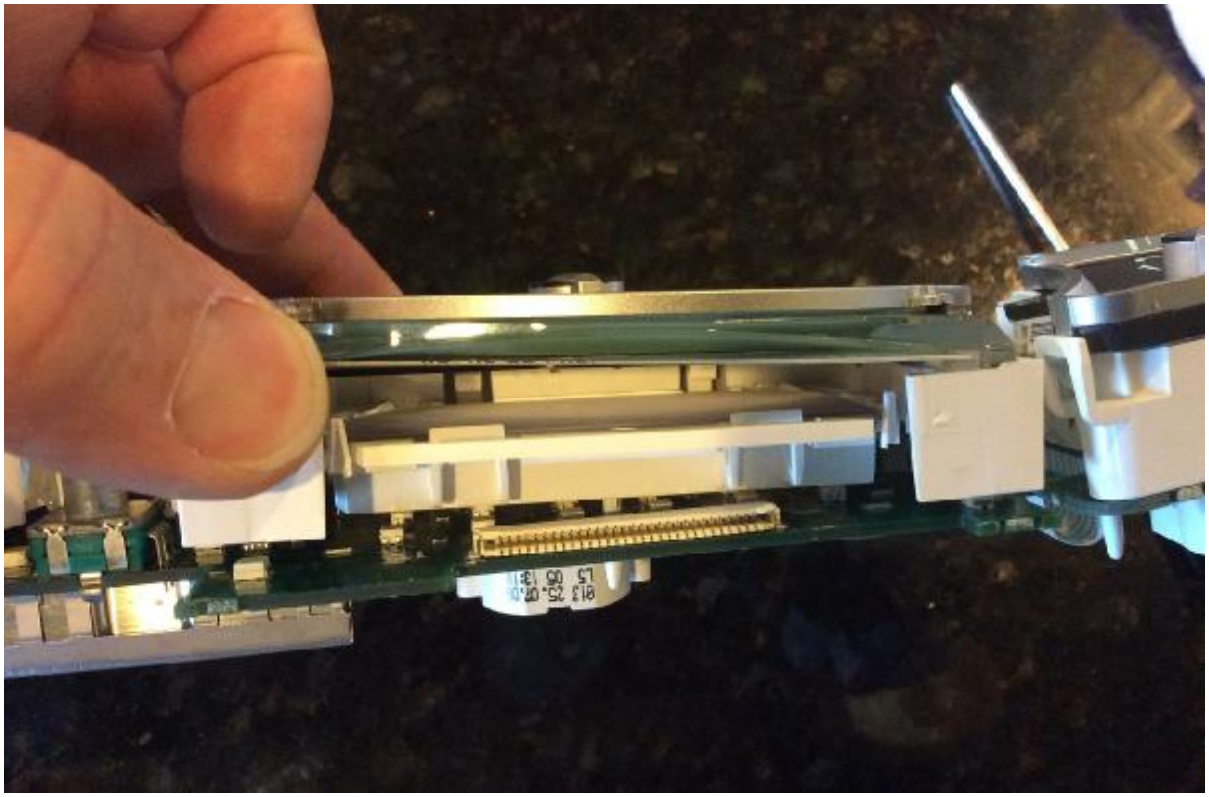
9. Option B: The next step is to loosen the clear MPH & RPM lighting bezel surround. There are 3 'nub' clips at 12, 4, and 8 o'clock. Gently pry the clear bezel surround away from the white structure while lifting away from the structure. This allows you to open the bottom of the cluster just enough (1/4") to leave the needles in place. This picture shows the 4 o'clock nub clip on the bezel. They are all the same style.



10. Once the bezel is loosened up, remove the ribbon cable clip from the circuit board to the LCD. Gently pry the tab on each side of the clip DOWN to remove the clip holding the ribbon in place. This clip is under the tape. It is shown removed below.

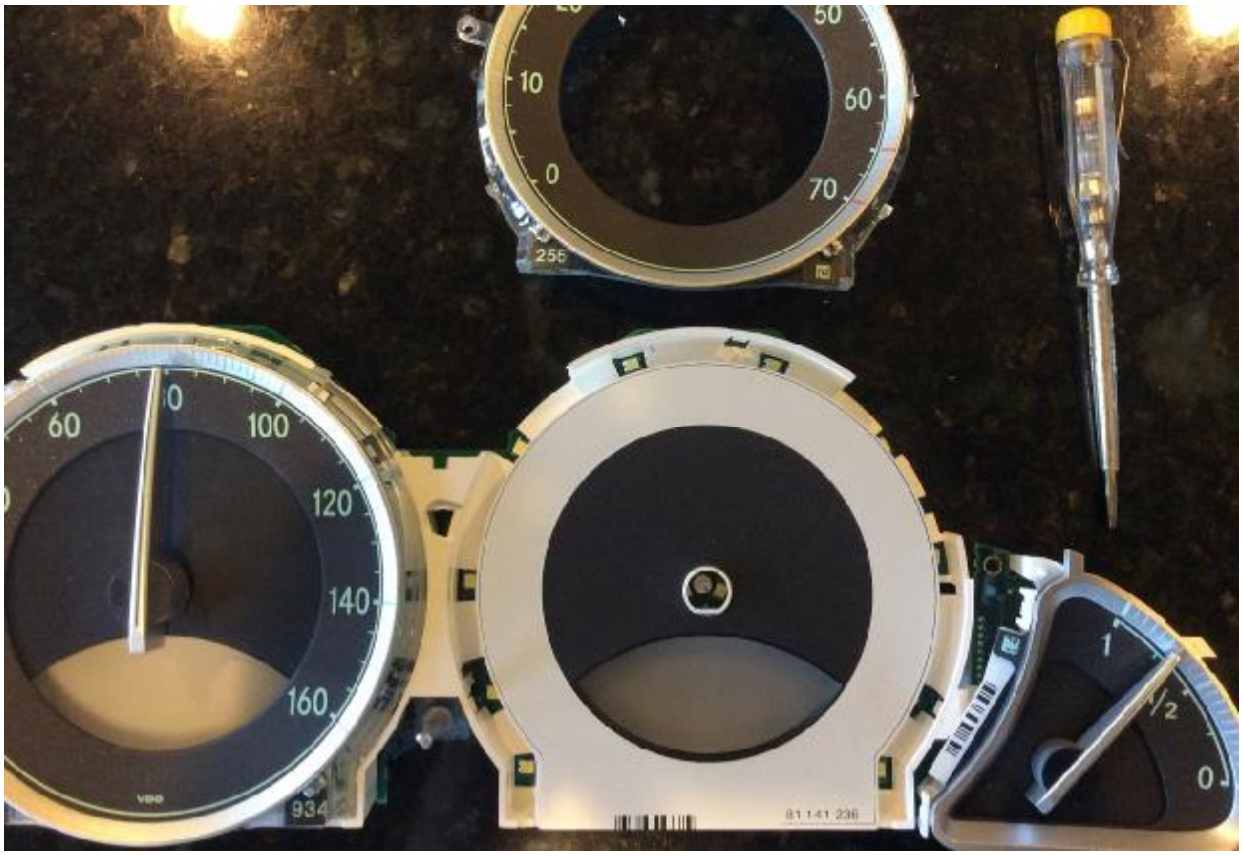


11. With the ribbon cable loose, you can now push the LCD UP (toward the needle), lift the bottom toward the REAR, and slide the LCD out from the bottom of the instrument. Below is a shot of the gap left by the LCD, and the empty ribbon slot.



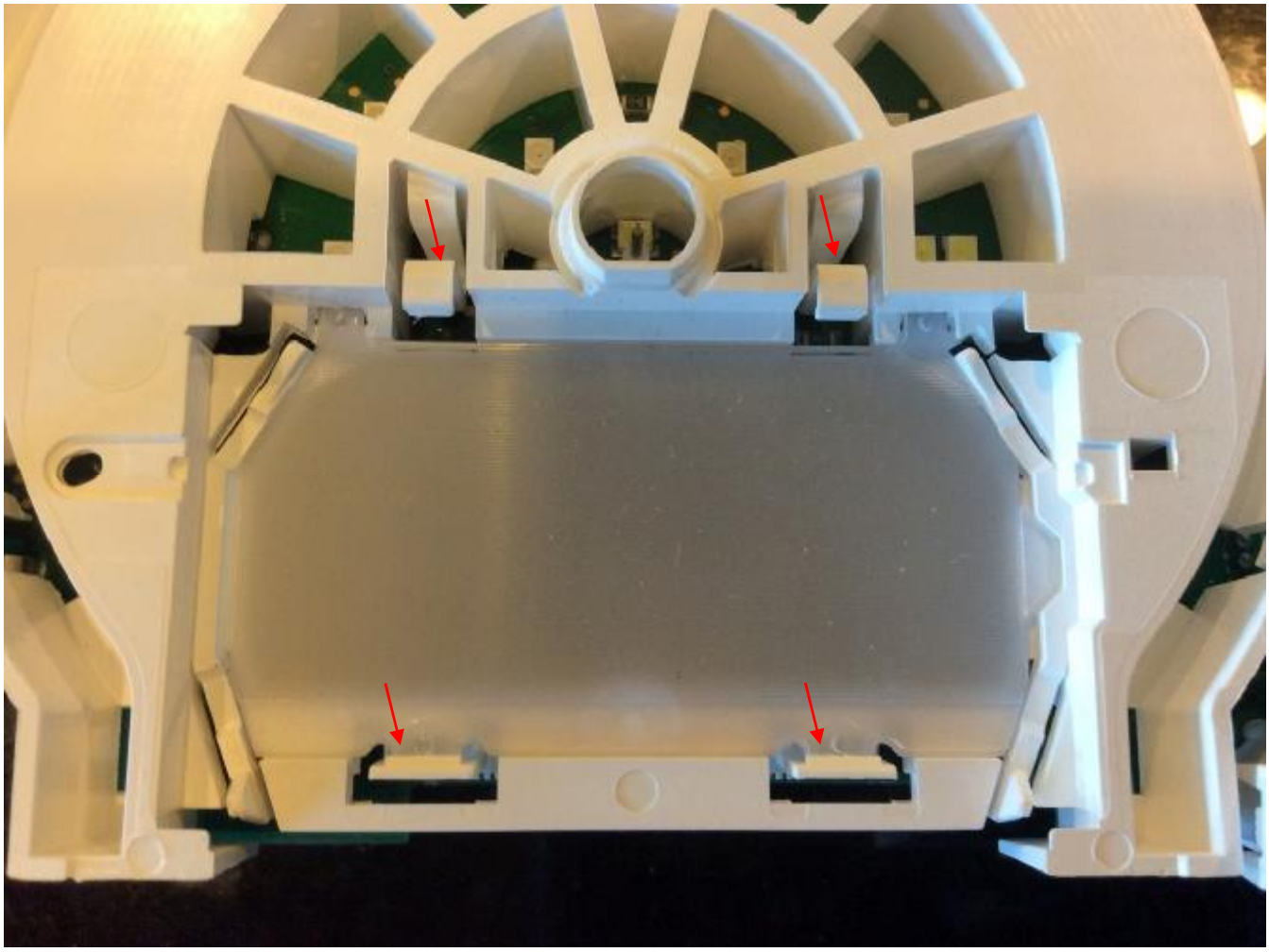
12. This sequence shows option A, which allows you to see the details of the LCD holder more clearly.

The RPM needle, and lighting bezel is removed here, with the black & white dial film is the next to come off.



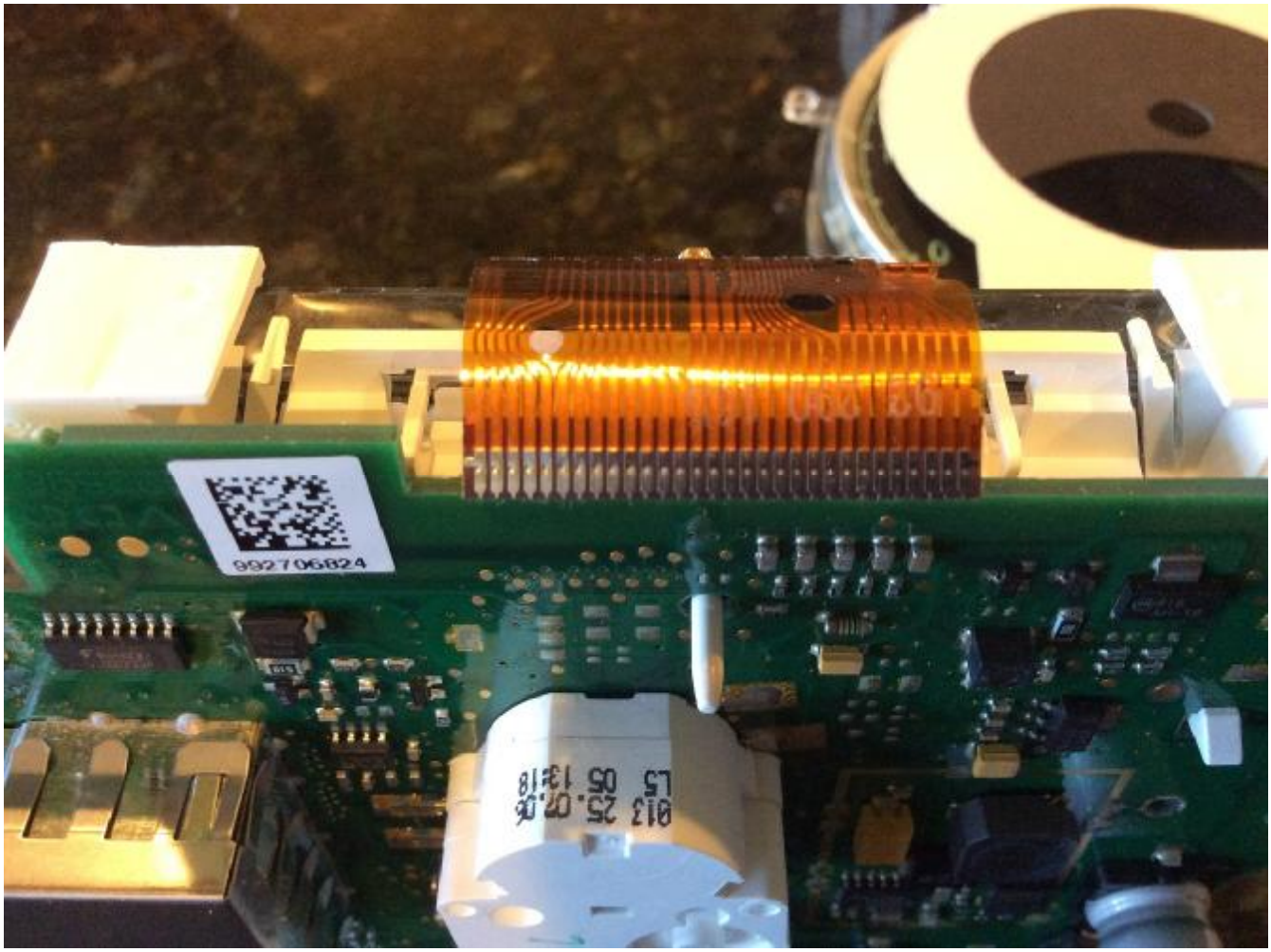
To remove the LCD in this image: Push LCD UP, then LIFT bottom ¼" (at ribbon), then slide DOWN.

This shows the spring clips you must push UP against, to LIFT over the locking tabs at the bottom.

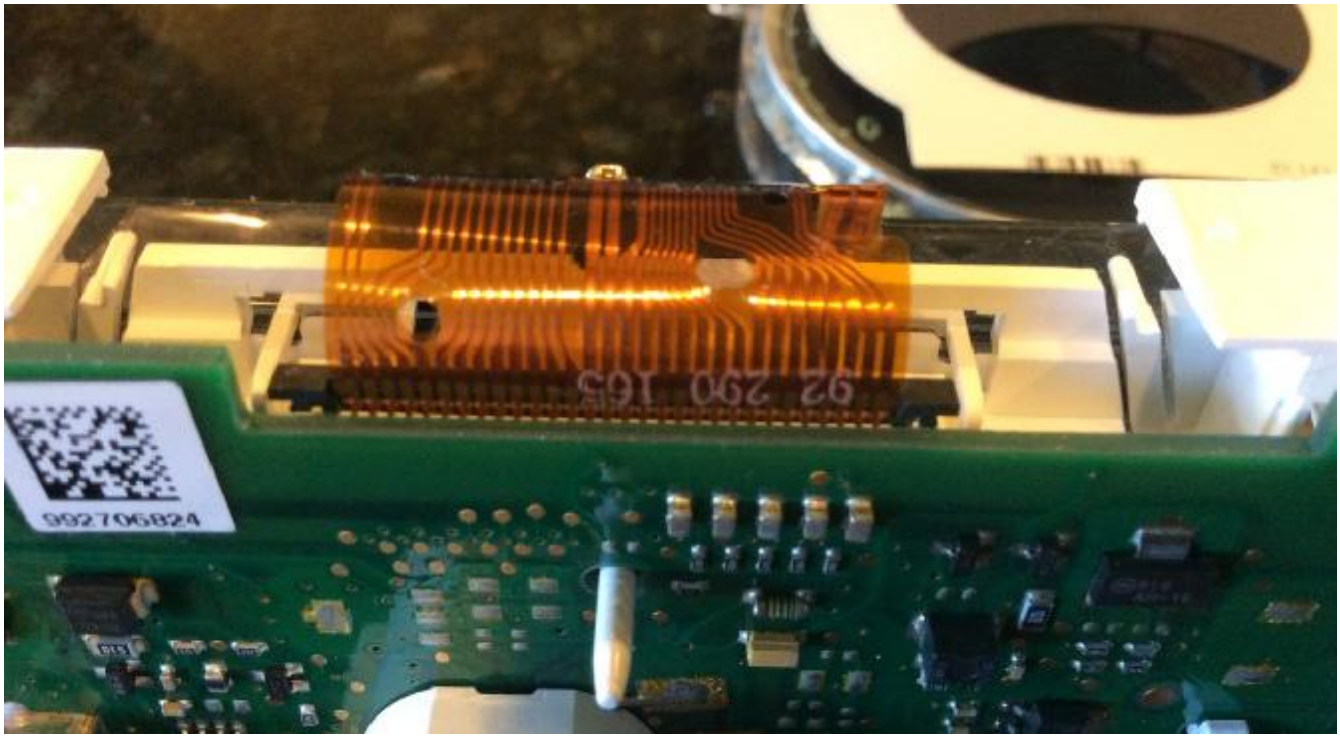


13. *Make sure everything is clean and clear of dust prior to assembly.* Any dust will remain in place.

14. Orient the contacts on the ribbon cable shown below – they should be facing you. Slide the replacement LCD *up* in place, then *forward* into the recess to lock. The curve of the ribbon cable (if a used LCD, should curve naturally) is shown. LCD is interchangeable for either location.



15. Carefully replace the ribbon cable in the slot, and then the ribbon clip *under* the tape. The clip has a notch on one side for the ribbon. Make sure the clip is correctly oriented, then push in gently to hold ribbon. Proper assembly below.



16. Now, take the circuit board and housing, assemble in reverse order, and then install in the car.

***NOTE: If you used option A, you will need to place the cluster back in the car, without the Plexiglas face, and hook up the wiring. Turn the ignition to position 1, and place the MPH and RPM needles in the zero position. Start the car to determine if the RPM is correct. You could also drive the car to see if MPH is correct. Once satisfied the needles are correct, remove, then complete the assembly, and then install the instrument panel.