Porsche Climate Control LCD Rebuild Kit

Restores cracked, leaking or missing segment LCDs for the following vehicles:

- Porsche Boxster

Thank you for the purchase of this kit. Our new LCD panel offers a cost effective means of restoring your climate control panel to like-new appearance and functionality! The included premium LCD panel has an extended temperature range to eliminate future problems. If you have a flickering display or display that dims, the problem may be with the LCD controller IC and not LCD panel related. Please contact us at (208) 892-0764 or email info@modulemaster.com if you have any questions.

Contents of Kit:
- Premium custom LCD (1)
- Alcohol swab (2)
- Cotton inspection glove (2)

Required Tools:
- Needle nose pliers
- #1 Phillips head screwdriver
- #2 Phillips head screwdriver
Please read and become familiar with these instructions before performing the actual repair. The LCD panel is fragile and can be damaged if incorrectly installed. Installation is very simple and straightforward. Many color photos are included to ensure a trouble free installation. Place several paper towels on your work surface so as not to scratch the buttons on your climate control panel.

1) Remove controller from the center console

Gently pry fascia trim panel from center console using a flat edge tool. A flathead screwdriver with an overlay of electrical tape will prevent any marring of surfaces.

Remove the two Phillips head screws on left and right sides as indicated by the two arrows. Climate control center will slide out.

Remove all four electrical connectors by simply pushing the tab in with your thumb and pulling the connector away from its socket. All four connectors are mechanically different to prevent mismatch upon assembly.

2) Taking your controller apart

Remove the three Phillips head screws from holding the front control panel to the controller housing. In this photo two screws can be seen at the top. The 3rd is on the bottom.
Gently pull the front panel away from the housing to expose the LCD controller board and its ribbon connector.

3) Removing the circuit board from the plastic switch panel

Using a #1 Phillips screwdriver, remove all of the screws which attach the circuit board to the switch panel.

With the control panel housing facing down, lift off the printed circuit board with the LCD display. Set the plastic face panel in a safe place keeping it face down. If you turn it over, all the buttons will spill out.
4) Removing the LCD unit from the printed circuit board

The LCD is contained within a steel cage attached to the circuit board by 8 twist lock tabs. Untwist the tabs using your needle nose pliers so the tabs will pass through the slots in the circuit board.

Straighten all 8 tabs so they can pass through the circuit board as seen in this photo.

Keeping the LCD face down with one hand, lift the circuit board away using the other hand. The metal enclosure is called the "LCD cage".
5) Prep and cleaning of printed circuit board and switch contacts

Set the LCD unit aside. Open one of the two alcohol swab pads and use it to wipe down all of the graphite black-colored pads on the circuit board. After cleaning, avoid touching these surfaces with your fingers.

Using the same alcohol pad, clean off the elastomer contacts that are part of the silicone switch pad. The contacts are actually black conductive rubber “buttons” fused to the gray silicone pad. Wipe down all of the black contact surfaces on both silicon switch pads. After cleaning, avoid touching the black contacts with your fingers.

6) LCD disassembly; removing reflector and cleaning “zebra” connectors

Now it is time to work on the actual LCD. To separate the bad LCD and associated components from the metal cage, gently press as shown.
Disassemble the remaining components as shown. The two rubber strips are called “zebra strips”. The Zebra strip is made from rows of conductive and insulating channels of silicone rubber that transfer electrons from the graphite pads on the circuit board to the contacts on the LCD glass. The striped pattern is where this connector gets its name. **Note the orientation of the epoxy seal on the LCD and tab on the orange filter in relation to the slot on the metal cage as indicated by the red ovals.**

Clean both zebra strips with the second alcohol swab. Wipe down all sides of the zebra strip handling it by the large flat sides paying particular attention to cleaning the edges. Do not allow your fingers to touch the edges after cleaning. If you do by accident touch the edges, just wipe that area again with the swab. Set the zebra strips to the side for later.

7) **LCD assembly; aligning color filter and new LCD glass**

Put on both cotton gloves and remove the new LCD from its packaging. The LCD is protected from scratches/fingerprints by protective films on each side. Peel the film off from both sides of the LCD slowly. Sometimes a white label is attached to make removal easier. Pull on the white label to initiate removal of the clear film.

**Circuitry inside of the display may activate and cause segments and lines to appear as you pull the film away. Don’t be alarmed as this is harmless to the display.**
Assemble the new LCD into the cage. Pay particular attention to the details circled in red in the above photo. The largest panel of glass is the viewing side and goes towards the front. The top of the LCD also has two epoxy sealed fill ports marked in green paint. These are oriented up in relation to the large slot in the metal cage. If you still have activated numbers or icons on the LCD during handling, they will eventually turn off on their own.

Assemble the orange color filter as shown. Make sure that the tab (indicated by red arrow) is pointing up and aligned with the slot in the metal cage.
8) LCD assembly; reflector and zebra strip installation

Place the light reflector back into place. Note how the right side reflector cavities are spaced closer together. This tighter group must be towards the right as shown. The cavities will also have a concave or dish profile which must face towards the back of the LCD. Verify that your reflector looks exactly as in the photo to the right.

This is how the reflector appears from the backside when properly assembled. Each of the reflector cavities should have a protruding pyramid shape. If they are opposite (dished), then the reflector is upside down. Also be sure to center the reflector. The reflector tabs will line up with the notch on the metal cage as circled in red.
Install the zebra connectors on the left and right sides of the display. Both connectors should drop into place and be the same height. The tops of the connectors should just be slightly higher than the rim of the LCD cage. If protruding 1/16" or more each side above the metal edge of the cage; make sure the LCD is not upside down or that the color filter has not moved from center. The LCD surface should be semi-gloss. If one connector sits higher than the other, gently press on it to drop it into place. It is okay to touch the zebra contact surfaces now that you are wearing the inspection gloves.

9) Assembly of printed circuit board with completed LCD unit

The LCD unit is now complete and ready for assembly with the printed circuit board. The tabs are spaced in such a manner that the board only fits one way – the correct way!
Gently apply downward pressure on the printed circuit board so that the retaining tab can be twisted locking the assembly together.

Only light pressure is needed. If you find yourself forcing and still not able to get the tab to clear the slot for twisting; stop immediately as you could break the LCD. Contact us at (888)892-0764.

10) Final assembly of circuit board to switch bezel

Place completed circuit board and LCD back into the switch bezel assembly being careful not to allow the switch push buttons to fall out.

Replace the #1 Phillips head screws to attach the display circuit board to the faceplate. Then test press each of the pushbuttons to verify proper mechanical operation.
Insert the control panel back into the climate controller housing and attach with the 3 #2 Phillips screws originally removed. Then install in your vehicle making sure the key is to the OFF position.

That’s it! If all is well, you should have a bright and clear display with fully active segments. Congratulations! Please note that certain icons such as vent, recirculation and up/down arrows are slightly different from original. Numerical readout is also slightly bolder.

**If any segments are still missing or the display is still malfunctioning; please contact us at (888) 892-0764 for troubleshooting.**