

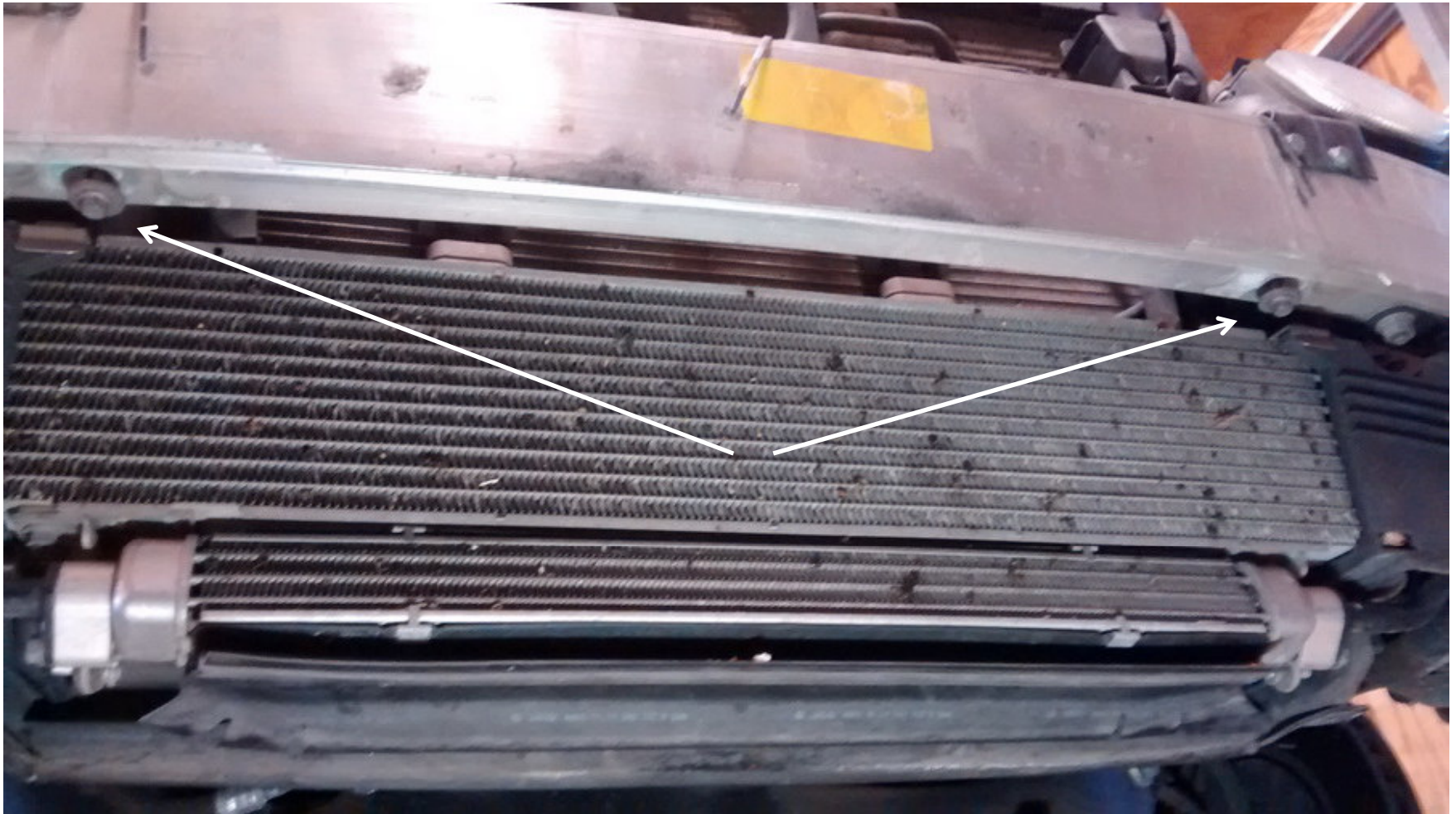
W211 PLM Heat Exchanger Install Tips and Information

The following slides are meant to show the “unknowns” of installing a PLM Heat Exchanger on a W211 Mercedes. Not all steps are explained. The intent is to assist a novice attempting a first-time heat exchanger install and to save labor and prevent frustration.

This document should be used with the Mercedes instructions to remove/install front bumper on a W211. Have that document available when reviewing the following slides.

Note: this is for informational purposes only and no responsibility is taken for other’s installations. I regard the following information as “nice-to-know” before starting a project.

Best of luck to you. bbirdwell – Jan 2015



These are the two bolts referenced in picture 1 of the MB document. Front under-tray must be removed, bumper lip pulled forward, and 12" extension to reach these 10mm hex head bolts. (Photo obviously taken after bumper removed.)



These hold on your bumper. The terminal strips are tight and dirt makes them difficult to remove. You may need to lightly tap them forward with a small hammer to break them loose. To reinstall place front pin in front slot, push strip onto the fender/bumper interface, then pull them towards the rear of the car (this may take some effort).



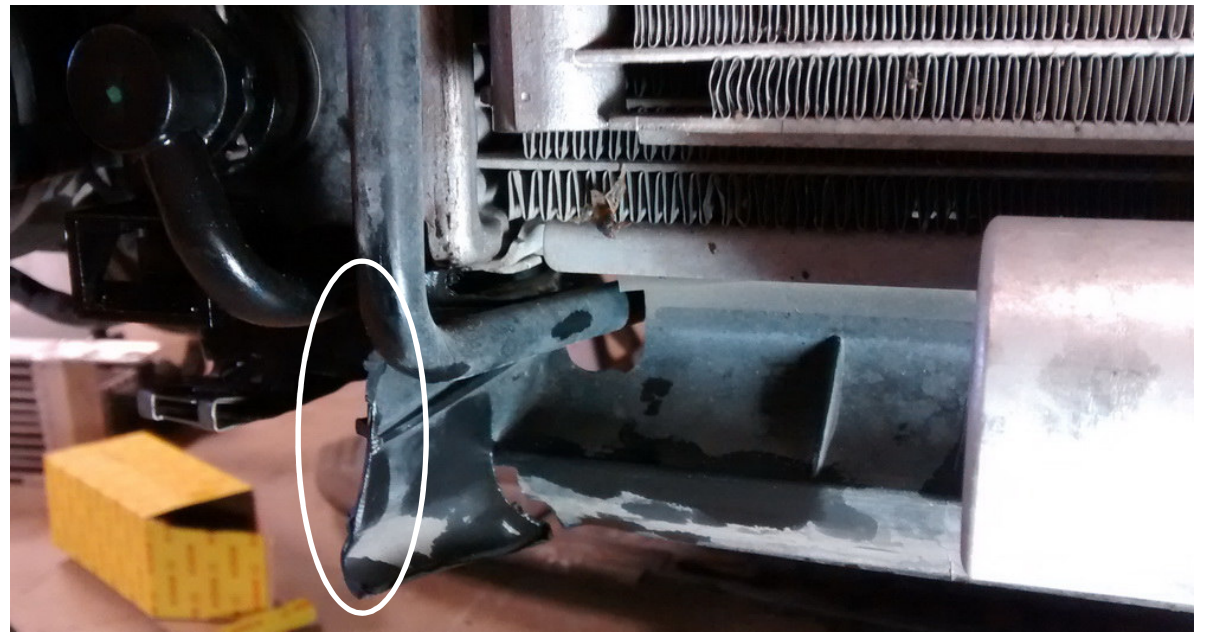
Remove two nuts on left side, bracket pulls off and cooler slides out of other mount to release from heat exchanger.



1-4: Remove clamps with water pump pliers. Sequence depends upon which you can reach.
5-6: Nuts to which you will attach the new heat exchanger (HE). Be advised you may need to place a washer (1/16" to 1/8") over the inside bolts between the HE mount and the aluminum frame. This lowers the HE so the bumper mounting tabs fit between the HE and the aluminum frame.
NOTE: Too thick of a washer reduces the number of threads engaging the nuts.
The bolts and nuts were 16mm hex head. Matching pair on other side of car. If you have the time, get a pair 5mm longer to replace the inside bolts.

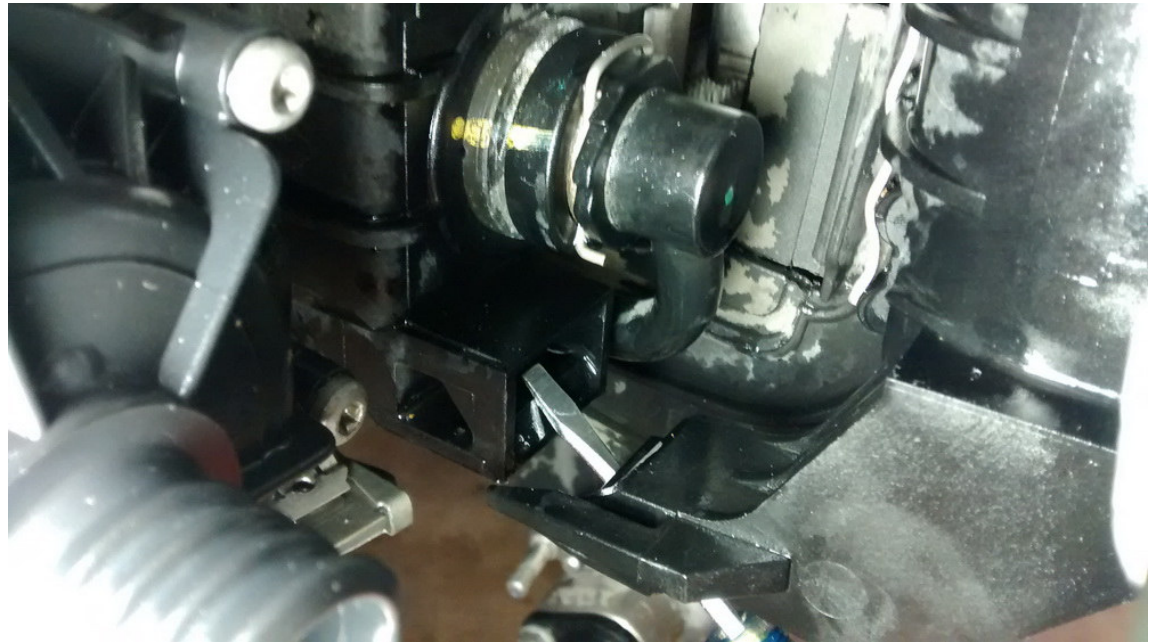
Be prepared to capture ~5 quarts of coolant.





Left photo: Use a small screwdriver to release the air guide clips on each side to prepare to remove the HE.

Above: after removing the HE, I cut the guides to leave as much of the ductwork in place as possible. The oval is where I cut on the passenger side.



Use a small screwdriver to release the heat exchanger from the lower brackets. Left-hand photo is of driver's side, above photo is of passenger side. Press up from underneath to release. Pull heat exchanger out and down to remove.

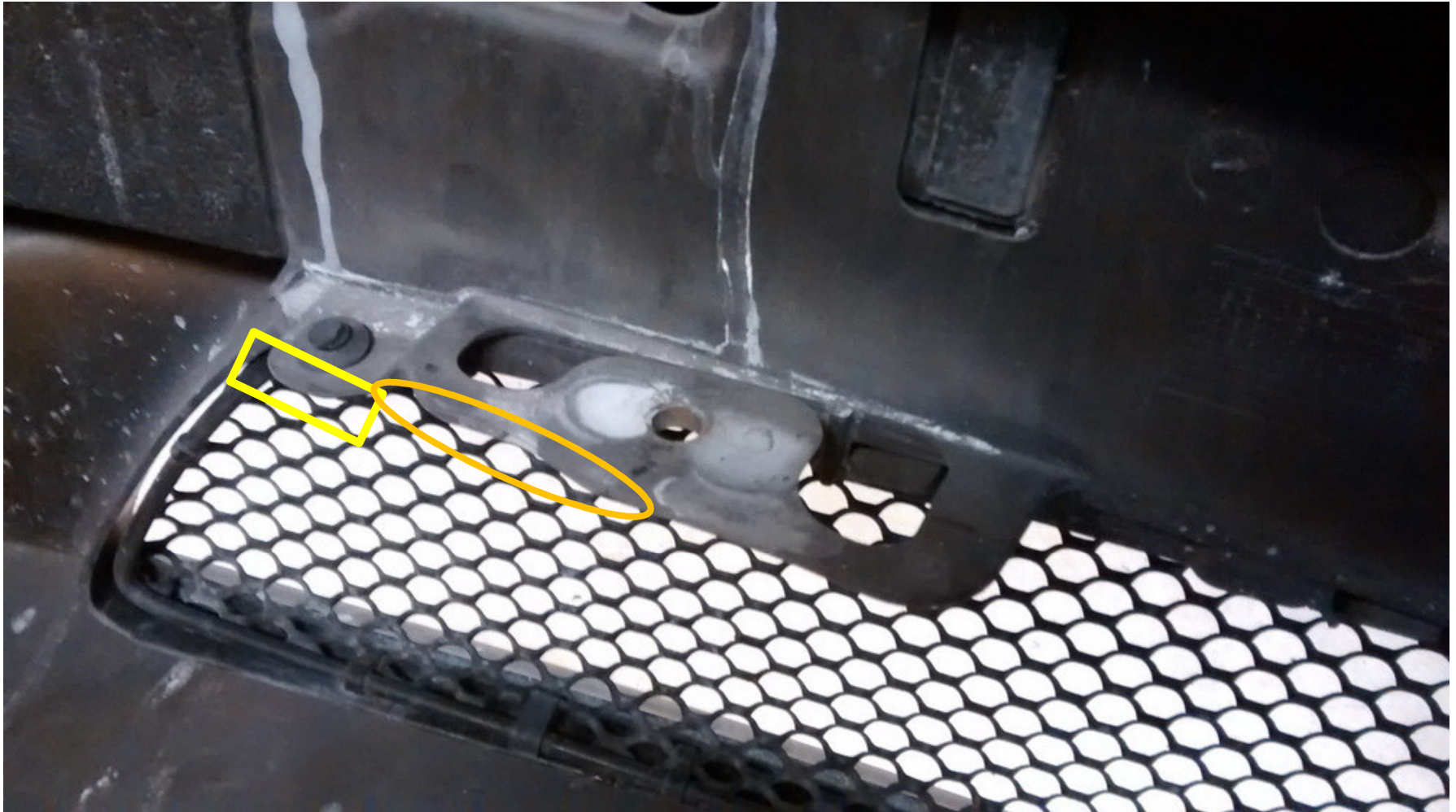


Install new I/C pump. One nut.



Transfer grommets from OEM brackets to aftermarket brackets, Loc-Tite or equivalent, mount the cooler to the HE.

Install HE with washers on inside bolts to allow bumper tab to fit between HE and frame. Modify bumper tab (next slide), test fit, then tighten HE mounting nuts using thread-locker (Use mechanical empathy so you don't strip the threads. 5mm longer bolts would have been good to have here.). You can tighten the driver-side HE nuts after installing the bumper if you want. The passenger side inside nut is blocked from access by the HE hoses after the bumper is installed; this one is the most problematic.



One of two bumper tabs that may need to be modified. The area in the rectangle was cut off. The area in the oval has a vertical “strengthening rib” located underneath. This “rib” should be filed off so only the horizontal portion of the tab remains. Only a $\frac{1}{4}$ ” or so of this tab needs to fit between the HE and the frame.



This is the interference point. 10mm hex head bolt screws into location shown by arrow. You can reach it by pulling out the lower lip of the bumper while pushing in at the tab location to thread the bolt into the frame. Challenging but not impossible.