ASSEMBLY INSTRUCTIONS REINFORCEMENT PLATES BMW E46

These products are intended to reinforce certain parts of the chassis at the rear axle mounting locations. The principle will be to weld an additional metal plate to strengthen and distribute the load on a larger surface of the chassis.

This kit will save you time when repairing the chassis and it is also highly recommended as a preventive measure.

Note: The rear suspension, rear axle, fuel tank and exhaust system must be removed to install these reinforcement plates.

Caution:
Only a professional welder should perform this work.
The ECU, alternator and battery must all be disconnected before welding to avoid electrical damage. The welding machine should be grounded directly to the chassis, not to a suspension part.
It is also strongly recommended to remove the interior of the trunk and to plug all fuel lines in order to reduce the risk of fire during welding.

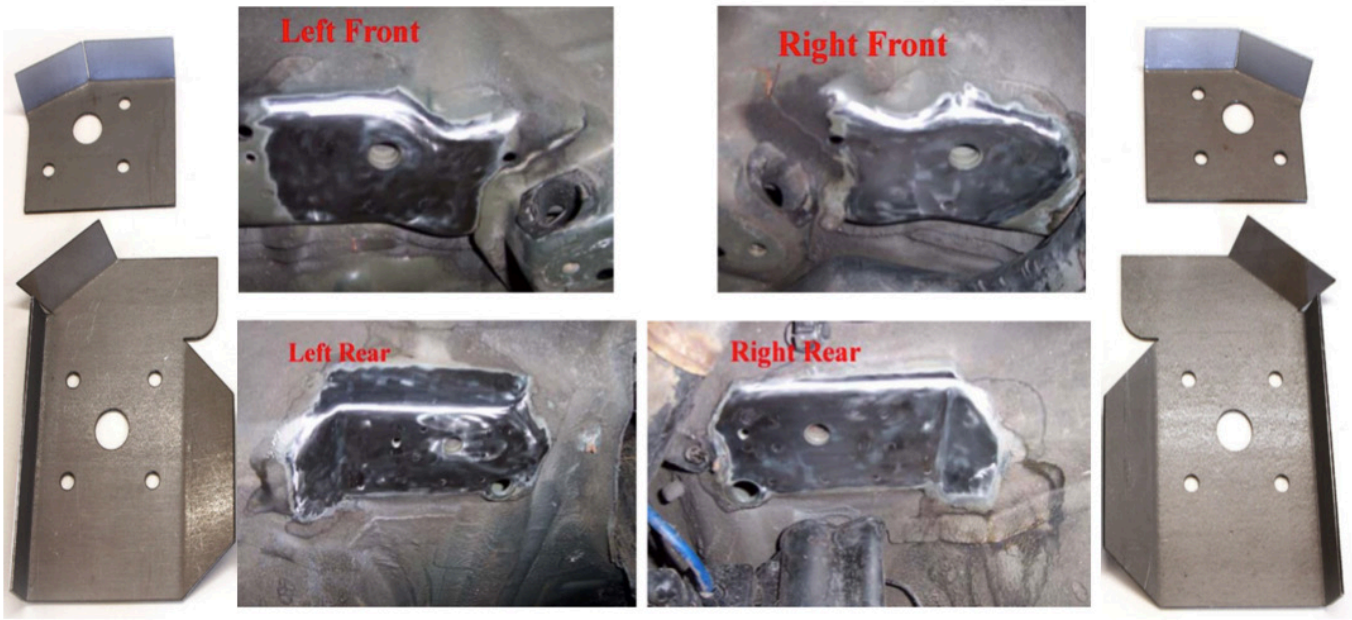
Compatible Vehicules: 1999 - 2005 (E46 3-Series and M3)

1. Lift and secure the car properly to access the rear suspension.

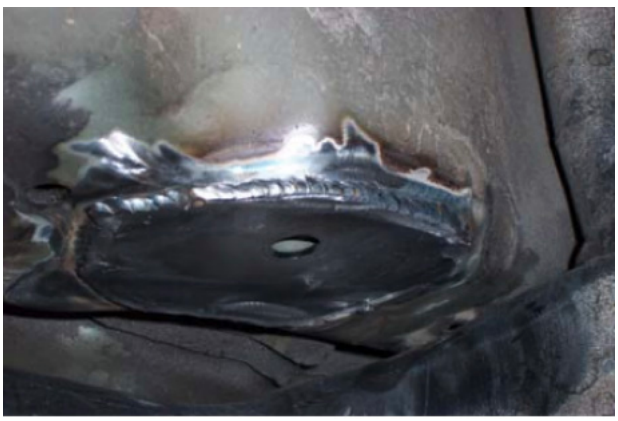
2. Remove the above assemblies (rear suspension, rear axle, fuel tank and exhaust system) as described in the repair manual.

3. Put the reinforcement plates in the right place to mark the areas to be cleaned.
Then remove all paint and undercoating to expose the sheet metal at the weld locations.

Note: Any paint or undercoat left on the welding surface will cause weld defects and weaknesses.



You can use two 12x1.5 bolts to hold the plates in place in the original mounting hole.
The bolt does not need to be tightened much as it only serves to align the plate hole with the frame and hold the reinforcement in place during welding.



In addition to the welding on the edges of the reinforcement sheet, the small holes allow the stock chassis to be drilled in order to spot weld the two sheets together, always with the aim of strenghtening as much as possible.

Clean off solder residue and burnt paint.
Primer and paint should then be applied to all bare metal parts.
We suggest that you perform these tasks at this stage so that the assembly can dry while you take care of the next step.

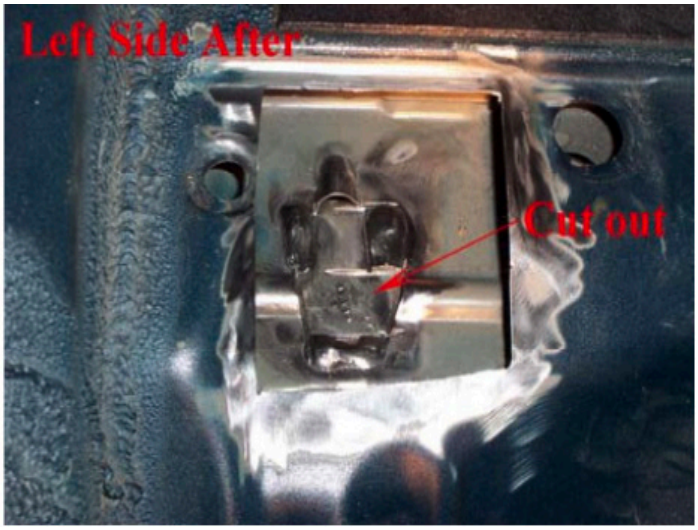
Remove the interior of the trunk to access the top of the rear axle anchor.
This is where the first crack in the sheet metal is usually noticed, in a spot that is not clearly visible.

Inside each cutout you will see three rosette welds. Cut a section of the sheet between the three «triangle» welds (see photo below).
This is necessary because the three welds do not have enough surface area to support the load placed on them; this will increase the surface area and also repair any cracks that may already be present.

Tips:

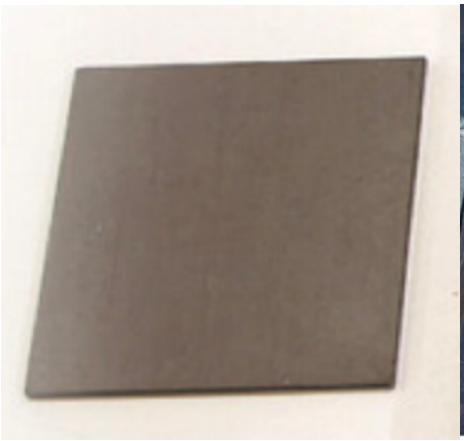
A. Clean the inner sheet before cutting. Welding will then be easier.

B. You can use an angle grinder or a cutting disc that is already used and therefore smaller in diameter to make the work easier.



Weld the top sheet to the bottom sheet around the area you just cut out. If you notice cracks in the sheet metal due to chassis fatigue, weld them at this stage. Then clean off the solder residue and burnt paint.
Primer and paint should then be applied to all bare metal parts..

Close the hole in the bottom of the trunk either using the square sheets supplied, or with the original sheet cut previously.

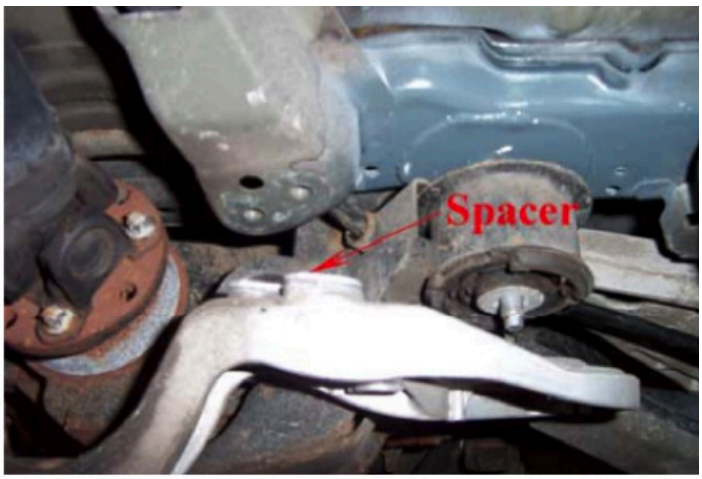


Reassemble the rear suspension as indicated in the repair manual with one exception:

- when installing the aluminum cross member on Series 3 or the steel one on M3, you must use the two spacers provided in the kit.

Caution: If you do not use the spacers, you risk cracking the cross member because it will no longer be correctly aligned. It is indeed necessary to compensate for the height of the welded sheets.

Place a small dab of silicone between the cross member and the spacer to glue it in place.
This will allow it to remain in place during a future disassembly.



Reassemble the interior of the trunk and any other components you removed from the car.

Don’t forget to perform a wheel alignment after all the work is done.

Do you have a doubt? Questions?
Don’t hesitate to contact us at **+33 185 086 186** or by email **contact@driftshop.com**