

BestRest Products, LLC

http://www.bestrestproducts.com
info@bestrestproducts.com

6908 - 220th St. SW
Mountlake Terrace, WA 98043

(425) 673-1023
fax (425) 673-0502

R1200GS Engine SkidPlate ESP4 (Mark 4)

This is the 4th generation R1200GS Engine SkidPlate. It replaces the stock skid plate and provides a protective shield for the underside of your engine block, exhaust system, and O² sensors.

This system will work with all known variants of the BMW R1200GS, including the Adventure and the HP2. Special thanks to Pete MacLachlan of BMW M/C of Ventura County (CA) for help with development of the upgraded mounting system.

Thank you for purchasing our BestRest SkidPlate. We truly appreciate every order. If you have problems with installation please call us at the number above or send us an email. May the Lord God bless you, watch over you, and keep you safe as you travel the world on your motorcycling adventures.

David & Judy Petersen
BestRest Products

Tools needed for installation:

- 4 mm hex (allen) wrench
- 5 mm hex (allen) wrench
- Channel lock pliers or similar
- 10 mm box end wrench
- 13 mm box end wrench
- 17 mm box end wrench
- Superglue or tape
- Blue (semi-permanent) Loctite or equivalent

Your parts package contains:

Quantity	Part #	Description
3	#1	6 x 12 mm flat head screw
2	#2	8 x 12 mm flat head screw
1	#3	8 x 45 mm flat head screw
1	#4	10 x 90 mm bolt
1	#5	10 mm locknut
2	#6	Small flat washers
2	#7	Large flat spacer washers
1	#8	Small RED rubber bushing
1	#9	Large BLACK rubber bushing
3	#10	Large RED rubber bushings
1	#11	Front bracket

Installation

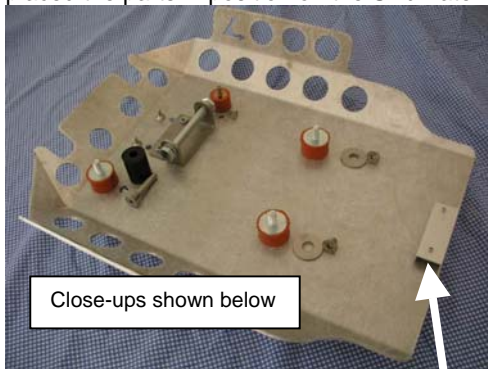
Read and follow these instructions carefully.

Improper installation may result in damage to your motorcycle or personal injury. Do not attempt installation unless you can perform it in a safe and professional fashion.

Place the motorcycle on the center stand. Use tie down straps or bracing to prevent it from tipping or falling when you're working underneath.

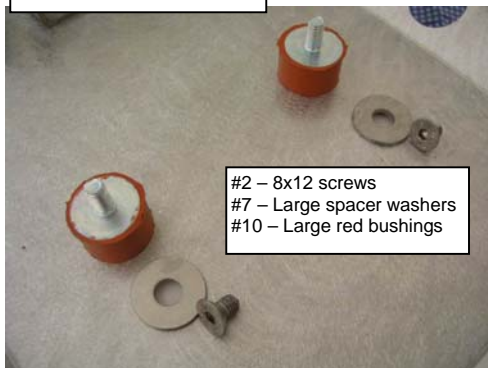
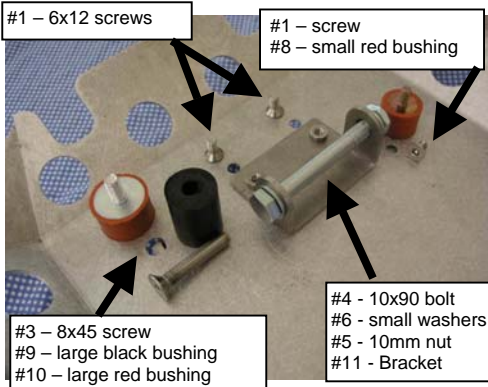
BestRest recommends use of a semi-permanent thread-locking compound (blue Loctite) on the screws. Do not use red Loctite or any permanent thread glue.

Step 1 Carefully sort the parts and identify each one for proper placement. We've placed the parts in position on the SkidPlate.

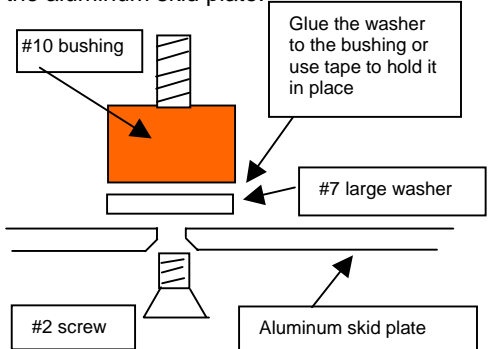


Close-ups shown below

The aluminum block at the far right of this photo has been discontinued – it may (or may not) be on your skidplate. You can leave it in place if it's there. Ignore the holes if it's not.

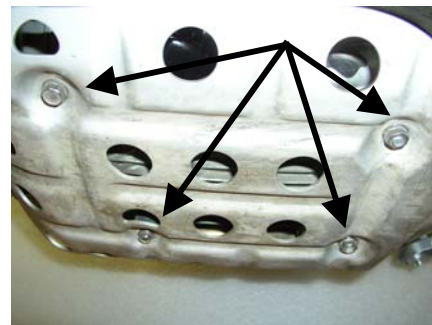


Step 2 Use superglue (or tape) to attach the large spacer washers (#7) to the underside of 2 of the large red bushings (#10). Placement of these spacers is required so the tapered screw will thread into the bushing properly, after it passes through the aluminum skid plate.

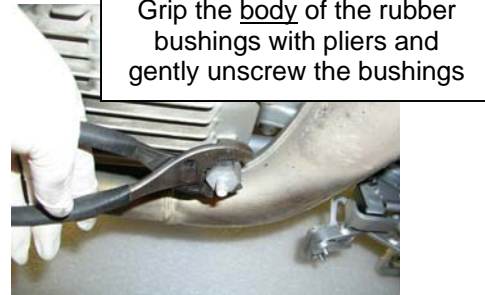


Do not attach the new stainless bracket to the front of the BestRest skid plate at this time.

Step 3 Remove the stock BMW skid plate using a 10mm and 13mm wrench.



Step 4 Use a pair of pliers and UNSCREW all 4 rubber-mounting studs that originally held the stock skid plate in place.



Grip the body of the rubber bushings with pliers and gently unscrew the bushings

On the Standard R1200GS, the left front bushing has a metal collar AND a rubber bushing. Unscrew and remove both pieces. (that's the oil filter hiding behind the bushing)



You removed all 4 of the stock BMW black rubber bushings, right?

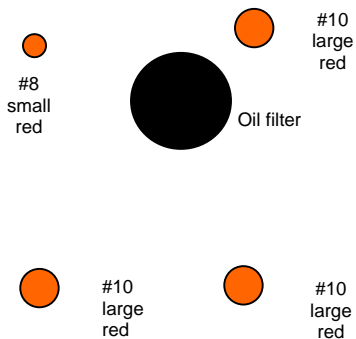
On the R1200GS Adventure the two front rubber bushings have been replaced with this bracket. Remove the bolt and bracket.



The Adventure bracket was an improvement over the 1st generation rubber mount system used by BMW, but it's still prone to bending and tear-off.

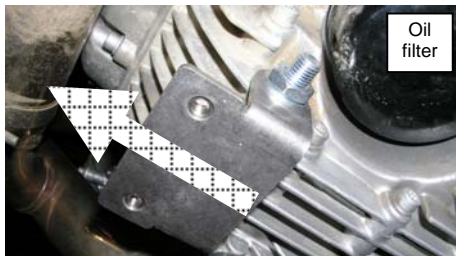
Step 5 Screw the red rubber bushings into the same holes that originally held the black BMW rubber bushings. Tighten the red bushings gently (but firmly) using the pliers. Use blue Loctite (semi-permanent).

Looking UP at the bottom of the engine

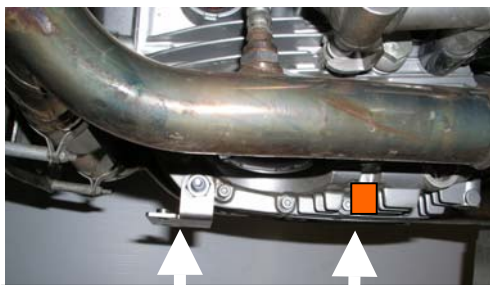


Step 6 Mount the front bracket using the M10x90 bolt, 2 washers and locknut.

DO NOT FULLY TIGHTEN THE NUT. Tighten it just enough so that the bracket will remain horizontal, but loose enough so that it will move upward when the skidplate makes hard contact with an obstacle. The bracket has oblong holes so it can be adjusted up and down as needed. Start with the bracket at the lowest point of travel.

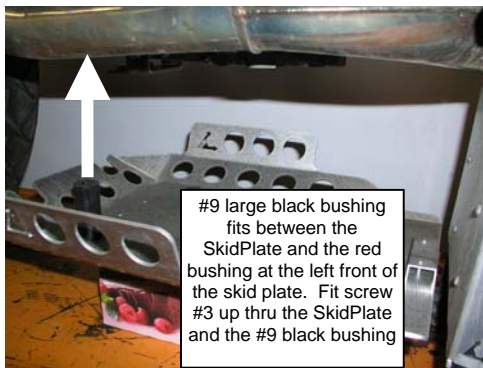


The two small screw holes in the bracket must be toward the **FRONT** of the motorcycle, which is to the left in this photo.

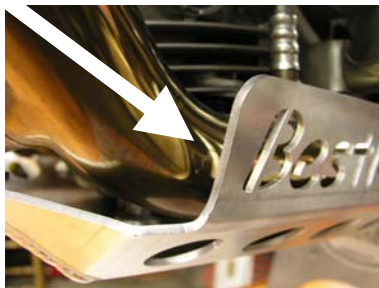


Adjust the bracket so the bottom of it is parallel to the ground, and to parallel to the fins at the rear of the engine.

Step 7 You'll have one rubber bushing remaining – #9 the large black one. It will fit between the skid plate and the large red bushing nearest the oil filter. (This is at the left front of the skid plate). Screw #3 M8x45 fits up thru this black rubber bushing, and into the large red bushing nearest the oil filter.



Step 8 "Dry fit" for proper placement, making sure the SkidPlate aligns with the 4 mounting holes. Confirm that the side flanges clear the exhaust headers.



The flanges should clear the exhaust by at least 1/4" or more. If they make direct contact with the exhaust, lower the plate and use a rubber mallet bang them out slightly and increase the clearance. One or two blows with a rubber mallet will do the job. You don't need to bend the entire side flange, just bend it at the front where they're closest to the exhaust headers

Step 9 Apply blue Loctite to screws #1 and #2 screws and thread them up thru the SkidPlate and into the red rubber bushings.

Start each screw by hand to prevent stripping the threads. Tighten the screws in a crisscross fashion so the SkidPlate rises evenly into place. Stop tightening the screws when the SkidPlate makes full contact with the red bushings.

As you tighten those 4 screws, the SkidPlate will push upward against the stainless bracket, moving it into proper final resting position. (Assuming you haven't over-tightened the nut and bolt holding the bracket in place). **DON'T OVER-TIGHTEN.** The bushings absorb some of the energy that occurs when you impact an obstacle. If the

bushings are pre-compressed they won't work as well.

Step 10 The two remaining front holes in the SkidPlate should align with the threaded inserts in the bracket. Adjust the bracket or SkidPlate as required so the remaining #1 screws will fit. Apply blue Loctite to the screws and thread them into place.

Step 11 Check all screws – they should be nearly flush with the underside of the SkidPlate. If necessary you can deepen the recesses with a drill and countersink bit.

Installation is complete. Now go for a ride!

Use and Care Instructions

The Engine SkidPlate is constructed from aircraft grade aluminum. It does not normally require any maintenance. As part of your daily pre-ride inspection you should inspect the screws holding the SkidPlate in place. Tighten or check the screws on a regular basis.

The aluminum plate is not anodized. Road salts, solvents, detergents, weather, and road grime will eventually give the aluminum a natural patina. When you've been riding on unimproved roads or trails, make sure you clean out any accumulations of mud or other materials that may pack between the engine and the SkidPlate. Failure to do so may cause the engine and/or exhaust to run warmer than normal. We purposely did not cut any drain holes in the bottom of the plate. We're more concerned about sliding smoothly over logs and rocks, than we were with providing muck draining holes. When it's time for an oil change, remove all 6 screws, then remove the SkidPlate. You do not need to remove the bracket at the front.

Your Engine SkidPlate is designed to integrate with the BestRest SplashGuard and Center Stand SkidPlate. When all three components are mounted you'll have ultimate engine protection.

It is the responsibility of the Consumer to evaluate the suitability of these products for personal use. Consumers must evaluate whether these products meet their needs and whether these products can be mounted and used in a safe fashion. The Consumer accepts full and complete responsibility for selection of products and for mounting and maintenance of these products. The Consumer agrees to follow and abide by all instructions, warnings, recommendations, or other information supplied or published by BestRest Products. It is the Consumer's responsibility to inspect all screws, fasteners and fittings on a daily basis, tighten or replace them as necessary, and to regularly inspect the SkidPlate and mounting hardware for signs of missing parts, excessive wear, metal fatigue, or imminent failure. Should any of these be observed the assembly should be removed from the motorcycle and not used until inspected and repaired by BestRest. BestRest Products, it's employees, agents, and owners assume no liability whatsoever for property damage, personal injury or other losses resulting from the Purchaser's failure to properly maintain the products, for unauthorized modifications of any kind, for use of unauthorized parts (including bushings, screws, pins, or other fasteners), or for use of any BestRest Product in a fashion not intended by BestRest or described as an approved application in BestRest literature.

Because installation of these products is done by others outside our control, we cannot assume any liability or responsibility for improper or unsafe installation, or installation which is contrary to published instructions, for products that are improperly secured or maintained, or improperly tightened or otherwise secured, or which are otherwise improperly fitted to the motorcycle. BestRest makes no claims or promises that this product will reduce or prevent damage to the underside of the engine or other components, when making contact with a hard object. Practical experiments have shown this product provides superior protection when compared to the stock unit, but we cannot anticipate every condition, so the level of protection is not guaranteed. BestRest is not responsible for incidental damages to your motorcycle from an impact that exceeds the design limits of the BestRest SkidPlate.

Only authorized, and approved replacement parts, assemblies, nuts, washers, screws, fasteners or fittings may be used when mounting, installing, or repairing any BestRest Product. Authorized replacement parts may be purchased only from BestRest Products. Parts from other sources or vendors are not covered under warranty and will void any Consumer claims against BestRest or others. Any use, modifications, or applications of any BestRest Product, other than those authorized by BestRest in writing, are specifically prohibited.

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