

Instructions Created by an:



**Automotive
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Suzuki Sidekick / Tracker / X90 / Vitara / Grand Vitara Defiant Armor Differential Guard (SKU# KAR-DG)

Installation Instructions



CAUTION: Safety glasses should be worn at all times when working with vehicles and related tools and equipment.



Suggested Tools:

- Welder (Arc or MIG) and Related Safety Equipment
- Angle Grinder (With a Bristle Roloc™ Disc or a Wire Wheel)
- Permanent Marker: White
- Paint: Rust Inhibiting
- Degreasing Cleaner



FOR ADDITIONAL COPIES OF THESE AND OTHER INSTRUCTIONS GO TO:
www.lowrangeoffroad.com and click on the "INSTRUCTIONS" tab.



Bristle Roloc™ Disc



Step 1

Place the vehicle on a lift according to the vehicle manufacturer recommendations and lift instructions.

Note: This job could be done with the rear of the vehicle raised with a floor jack and supported on (2) jack stands.

CAUTION: NEVER work on a vehicle that supported by a jack only. ALWAYS use safety stands.



Step 2

Wipe down the differential with a good degreaser and a cloth. Brake Cleaner works well for this.



Step 3

Position the differential guard on the differential. Be sure it is level and the gear oil fill plug is accessible through the hole in the differential cover.



Step 4

While holding the differential guard in place, make marks on the differential showing where the welds will be made.



Step 5

Trace around the outside of the differential guard showing where the welds will be made.



Step 6

Set the differential guard aside for now.

Note: Notice where the white marks are.



Step 7

Using an angle grinder with a Bristle Roloc® Wheel (or wire wheel), clean any dirt, paint or rust from the metal so a good clean weld can be made.



CAUTION:

DO NOT remove any of the existing weld. This could weaken the differential housing, which could result in premature differential housing failure.





Tech Tip 7

This shows the differential housing clean and ready to weld.



Step 8

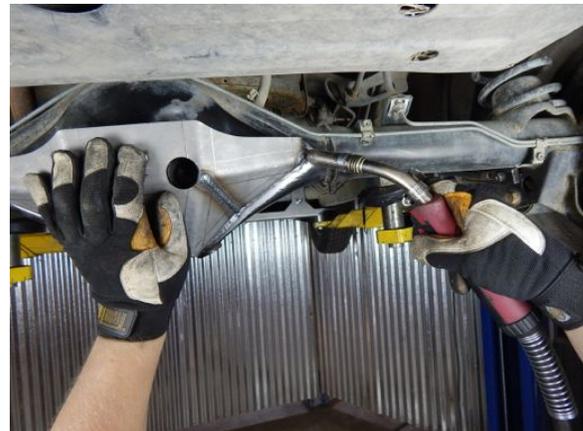
Paint the back side of the differential guard with a good quality rust inhibiting paint before installation. Avoid painting the edges so as not to contaminate the welds. (See Step 12 to see where the welds will be made)



Step 9

Connect the welder ground lead to the differential housing as close as possible to the area to be welded.

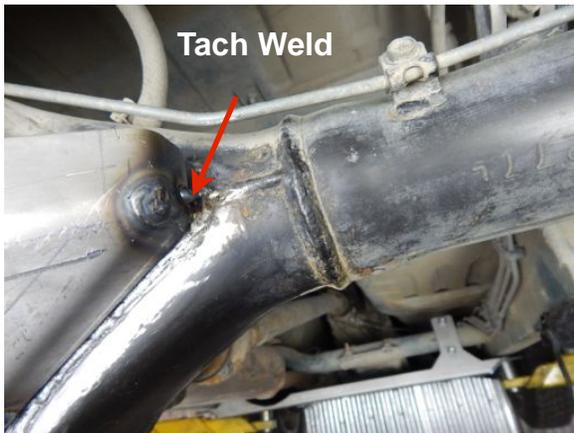
Note: It may be necessary to clean the part of the differential housing where the ground lead is connected to make good electrical contact. Remember to repaint this area if later.



Step 10

Reposition the differential guard back where it was before, and tack weld the passenger side as shown.





Tech Tip 10

This shows the tack weld on the passenger side.



Step 11

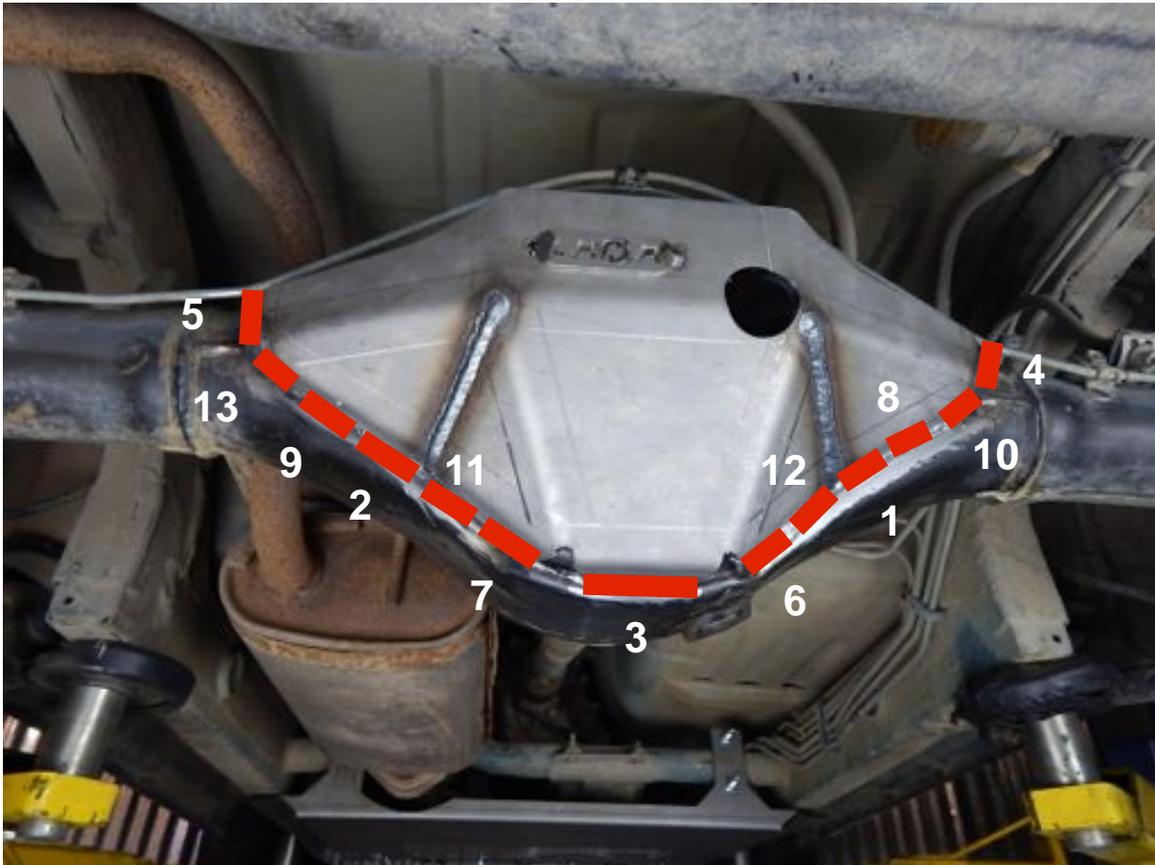
Tack weld the driver side of the differential guard.



Tech Tip 11

This shows the tack weld on the driver side.

Welding the Differential Guard



Step 12

Weld the differential guard to the differential housing.

Note: It is very important to control the metal temperature (keep heat to a minimum) during the welding process. This is done by making short beads (approximately one inch long) alternating side-to-side. The above picture shows the recommended order that the welds should be made.



Step 13

After the differential guard is completely welded. Let it cool and then paint it with a good quality rust inhibiting paint.

Note: If you removed paint for the welder ground lead, paint this area as well.



Congratulations!

You have successfully installed a Defiant Armor Differential Guard. We hope these instructions have been helpful. If you have suggestions on how to make these instructions (or products) better, please email us at: sales@lowrangeoffroad.com





As always, If you experience any difficulty during the installation of this product please contact Low Range Off-Road Technical Support at 801-805-6644 M-F during regular store hours. Thank you for purchasing from Low Range Off-Road.



These instructions are designed as a general installation guide. Installation of many Low Range Off-Road products require specialized skills such as metal fabrication, welding and mechanical trouble shooting. If you have any questions or are unsure about how to proceed, please contact our shop at 801-805-6644 or seek help from a competent fabricator. Using fabrication tools such as welders, torches and grinders can cause serious bodily harm and death. Please operate equipment carefully and observe proper safety procedures.

Rock crawling and off-road driving are inherently dangerous activities. Some modifications will adversely affect the on-road handling characteristics of your vehicle. All products sold by Low Range Off-Road are sold for off road use only. Any other use or application is the responsibility of the purchaser and/or user. Some modifications and installation of certain aftermarket parts may under certain circumstances void your original dealer warranty. Modification of your vehicle may create dangerous conditions, which could cause roll-overs resulting in serious bodily injury or death. Buyers and users of these products hereby expressly assume all risks associated with any such modifications and use.

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