

# PERRIN

## WRX/R160 Rear Diff Cover for all WRX's

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Thank you for purchasing this PERRIN product for your car! Installation of this product should only be performed by persons experienced with installation of aftermarket performance parts and proper operation of high performance vehicles. If vehicle needs to be raised off the ground for installation, the installer must use proper jacks, jack-stands and/or a professional vehicle hoist for safety of the installer and to protect property. If the vehicle is lifted improperly, serious injury or death may occur! Please read through all instructions before performing any portion of installation. If you have any questions, please contact our tech department prior to starting installation. We can be reached in any of the following methods:

Email [Tech@PERRINperformance.com](mailto:Tech@PERRINperformance.com)  
Instant Chat off the main page of [www.PERRINperformance.com](http://www.PERRINperformance.com)  
Or simply call our tech team at 503-693-1702

### GENERAL MODIFICATION NOTE

Modifications to any vehicle can change the handling and performance. As with any vehicle extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts, and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive a vehicle safely may result in serious injury or death. Do not drive a vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Some modifications (and combinations of modifications) are not recommended and may not be permitted in your state or country. Consult the owner's manual, service manual, instructions accompanying these products, and local laws before purchasing and installing these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.

### SPECIAL NOTES:

- 5 spd customers will need use roughly 1.1qt's of fluid to fill differential
- Make sure to use high quality synthetic oil suited for Limited slip differentials.
- We highly recommend installing a new gasket with this install.

### Parts Included with the PERRIN Rear Diff Cover

- (1) WRX R160 Rear diff cover for WRX models.

### REAR DIFF COVER INSTALLATION:

- 1) Raise vehicle onto jack stands or use commercial vehicle hoist. NOTE: NEVER WORK ON A VEHICLE SOLELY SUPPORTED BY A JACK!
- 2) Using a 1/2" drive wrench, remove gear oil from differential, by removing lower plug. **NOTE: This plug is very tight and using a long handled wrench is highly recommended.**
- 3) Remove upper plug using same 1/2" drive wrench.
- 4) Place jack under rear differential, and remove tension by lifting up diff roughly .25".
- 5) Remove 17mm nuts securing differential to rear cross member support.
- 6) Remove studs from differential using the "Jam-Nut" method. Using nuts removed, jam (2) 17mm nuts together on each stud, and tighten against each other. Unscrew stud using wrench on nut closest to diff. If this method doesn't work, use stud-extracting tool. Remove nuts from stud after stud is removed.
- 7) Lower diff from car enough to expose bolts securing cover to diff housing.
- 8) Remove (8) 14mm bolts securing cover to housing. Remove cover from housing by tapping on housing with rubber mallet.
- 9) Wipe out as much excess oil as possible, as this will allow new gasket to seal better. Raising front of vehicle will also help drain out any additional fluid. When cleaned out, lower front of car back to ground.
- 10) Locate differential breather on top of diff cover. Remove carefully by pulling straight up. Install breather into new diff cover.
- 11) Install new gasket to PERRIN diff cover, and loosely install bolts removed earlier.
- 12) Starting from the top 2 bolts, tighten bolts to 21.7ft-lbs. Continue to tighten bolts working from the top down.
- 13) Raise diff back into sub frame, and install studs through sub frame, and through diff cross brace, into diff. Thread studs into diff cover until they are bottomed out, or coarse threads are no visible. Install nuts and tighten to 52ft-lbs.
- 14) Install lower plug and tighten to 36.2ft-lbs. Make sure to use three bond 1105 or equivalent on threads of plug before installing.
- 15) Fill diff with proper high quality gear oil until oil starts to drip from fill hole. Install upper plug or temp sensor if equipped and tighten to 36.2ft-lbs. Make sure to use three bond 1105 or equivalent on threads of plug before installing.
- 16) Lower vehicle from jack stands, test drive car. Check for oil leaks after test drive. If oil leaks persist, reinstall new gasket.

Questions, Comments and Suggestions Contact: [Tech@PERRINperformance.com](mailto:Tech@PERRINperformance.com)

Visit Our Website for Instant Chat Options at [www.PERRINperformance.com](http://www.PERRINperformance.com)

Call Our Tech Team at 503-693-1702