

# Ruf Steering Wheel Upgrade

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Is there any part of a car that a driver is in more intimate contact with than a steering wheel? Well, if we all drove Triumphs, MGs, or Jags, then perhaps the answer could be "Yes". It could be the coil, the alternator, the fuel pump, how about a headlight relay, maybe the distributor, what about the windshield wiper motor? However, since we do not drive these makes of cars we could probably agree that the answer is "No". No matter what the multi-task situation while driving, at least one hand is always on the steering wheel, ... or it should be.

Steering wheels for Porsches are relatively easy to find. A quick check of the usual aftermarket magazines will turn up lots of candidates; Momo, Dino, Sparco, Nardi, and of course the factory Porsche Motorsports wheel. These wheels have quite a range of prices and I can tell you the quality is a direct reflection of the price. When I chose my wheel, I was reminded of a saying a good friend of mine uses. "If you're going to be a bear, you might as well be a Grizzly". With that in mind I ordered the Ruf Steering wheel from Dallas. Yes, I like the Porsche Motorsports wheel, but it seems the Ruf wheel is based on the factory sports steering wheel. The final deciding factor was once again the Ruf logo on the horn pad.

Ruf has steering wheels for both air bag equipped cars and non air bag equipped cars, and the prices between the two are significant. Although I have removed two air bag equipped steering wheels, I am not sure I would recommend it for DIYers. Air bags can be dangerous if not handled properly during removal, storage, and installation. An air bag equipped wheel swap might be a job for your local trusty mechanic. As such, the following applies to NON air bag equipped cars only. Of course, it is possible to replace a non air bag steering wheel on an originally air bag equipped car. This, however, should be carefully considered due to the fact that a safety device would be disabled.

After disconnecting the battery, remove the horn pad, and find the wire that connects to the horn. Carefully unplug it from the wheel hub or horn pad depending on your particular wheel. This should allow for access to the large nut which holds the wheel to the steering column. It's 27 mm on the 911 series. If you haven't yet disconnected the battery, you will likely surprise yourself every time you ground the hub to the column. After two or three times of random horn honking, which is much louder in a closed garage, you will probably NOW be ready to disconnect the battery. This nut can be stubborn if it has never been off the car and some mechanics like to use an impact wrench to break it loose. I personally don't like the impact as it seems like overkill for this job. I use a  $\frac{1}{2}$  inch breaker bar or torque wrench to remove the nut. If the nut is stubborn, don't be afraid to try the impact, or have a friend hold the wheel while you turn the wrench. DO NOT use the rack and pinion stops to hold the wheel while removing the nut. After the nut is off, and before you remove the steering wheel, make sure that the road wheels are pointing straight forward and that the steering wheel is aligned with them. This will save you some time later with positioning the new wheel. Also at this point you can check the steering column shaft bearing for wear (see illustration below). There are actually two bearings on the

column but only one can be changed from the steering wheel end. It should be easy to see and feel if there is excessive play in the wheel when lifted up and down or side to side. A worn out bearing will also magnify any rough road or poorly balanced front wheels. After determining the condition of the bearing, remove the steering wheel by pulling it straight off. If the wheel is stubborn use a persuader such as a rubber mallet. You are now ready to install the new wheel, or the bearing can now be accessed. If the bearing has excessive play it is usually the plastic bearing liner that wears out and creates a loose feel. This can be easily fixed with a repair sleeve sold by most aftermarket suppliers for about \$15. It is tapped in replacing the worn plastic without removal of the bearing. If the bearing itself is bad, be prepared to spend some time removing the old bearing. I was able to drill a hole in my old bearing and carefully thread a metal screw into it and pull the bearing out with leverage applied to the screw. Be careful not to damage any of the surrounding parts on the column or dash.

Install the new wheel in the same position as that of the old wheel. If this is done incorrectly it will become painfully obvious on the first drive. Reconnect the ground wire for the horn, and torque the steering wheel nut to 54.2 ft. lbs while remembering not to use the pinion stops to hold against the wheel. Connect the battery and try out the new wheel. If the steering wheel is not straight on your test drive, return to the garage, remove the steering wheel nut, pull off the steering wheel and rotate it one spline at a time until the steering wheel is aligned with the road wheels. Enjoy the new look and feel of your new steering wheel...and always keep at least one hand on the wheel!



Original tired steering wheel



New steering wheel with adapter and parts bag



Steering wheel column bearing with retainer - Check for wear here by moving shaft.



Fertigprodukt!