

LUG NUTS INSTALLATION AND CARE GUIDE

READ BEFORE INSTALLATION

Please read this entire guide before installation and make sure the fitment is correct for your application.

DO NOT use anti-seize on lugs or studs if you don't understand the adjusted torque values. Using an anti-seize drastically increases clamp-load if the factory torque value is applied. We do not recommend the use of an anti-seize if you are not familiar with the adjusted torque value for your application.

DO NOT use air impact wrenches to tighten your lugs. This may result in weakening of your wheel studs causing them to fail while driving.



LUG NUT FITMENT

The most important step to lug nut installation is making sure you have the right fitment for your vehicle and wheel application. Failure to use the correct lug nuts will cause unsafe driving conditions that can result in wheel loss while driving. Only use lug nuts designed to fit your vehicle and wheel application.

Use the checklist below to verify your lug nut fitment prior to installation.

THREAD SIZE AND PITCH

Each lug nut has a specific thread size and thread pitch determined by your vehicle specifications. The thread size of the lug nut must match your vehicle's wheel studs.

SEATING STYLE

There are three common types of lug nut seating styles determined by your type of wheels: (1) tapered seat. (2) mag or shank seat, and (3) radius or ball seat. The seating style of the lug nut must match the wheel lug seat. Using the wrong seating style will cause vibration, loosening of lug nuts, or damage to vour vehicle.

MINIMUM THREAD ENGAGEMENT

The thickness of a wheel can differ from factory wheels to aftermarket wheels. For that reason, it's essential to verify that the lug nuts will properly engage the threads on your vehicle's wheel studs. Refer to our minimum thread engagement chart to determine the number of turns typical for your stud or bolt size.

THREAD SIZE	NUMBER OF TURNS
M14x1.5	9.5
M14x1.25	11
M12x1.5	8
M12x1.25	9.5
1/2"-20	10



PREPARE FOR INSTALLATION

STFP 1

Park on a hard, level surface and apply parking brake.

STEP 2

Loosen the lug nuts one quarter turn but do not remove them from the wheel.

STEP 3

Raise up your vehicle following the process outlined in your vehicle owner's manual.

STEP 4

Secure the wheel and remove the lug nuts, then the wheel.



INSTALLATION

We recommed following the **RIST** method:

- R Removing debris from mounting surfaces
- Inspecting components for damage or excessive wear L
- S Snugging the lugs in a star pattern
- Т Torquing to manufacturer specifications. Follow all instructions in the order presented.

STEP 1

Clean and inspect all stud threads and mounting surfaces before installation. Threads must be free of corrosion, rust, burrs, fractures, and damage. Replace studs if they are corroded, stripped, damaged, or if any fractures are found.

STEP 2

Place the wheel back onto the vehicle hub. Match the bolt circle of the wheel to that of your vehicle. The wheel must make full contact with the mating surface of the hub.

STEP 3

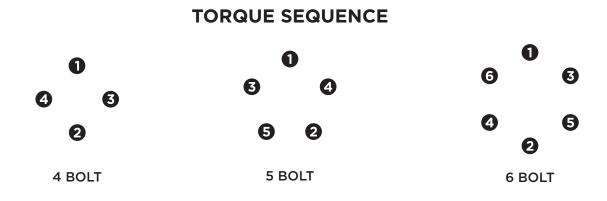
Install your lug nuts and tighten by hand with your driver or socket in a star, or criss cross, pattern until you cannot hand tighten anymore. Refer to our wheel torque sequence chart below to determine proper pattern and sequence for your installation.

STEP 4

Once all lug nuts have been tightened to meet minimum thread engagement and your wheel is sitting flush against the mating surface, lower the vehicle to ground and tighten all lug nuts to the proper torque specifications shown in your vehicle owner's manual. We recommend using a calibrated torque wrench for this step. Refer to our wheel torque sequence chart below to determine proper pattern and sequence for your installation.

STEP 5

Always re-torque your lug nuts after the first 25 miles of use each time the lug nuts are removed and installed. Failure to re-torque could result in unsafe driving conditions.





CARE AND MAINTENANCE

CLEANING

Wheel acids and degreasers are fairly harsh and we want to make sure you understand what to look for when buying cleaners to detail your car. Look for either PH-Neutral or PVD Safe wheel cleaners. These types of cleaners are acid-free and formulated to be gentle enough for high-end wheel finishes.

When using a wheel cleaner, **DO NOT** let the cleaner soak on the lugs for more than one minute.

When cleaning the lug nuts, DO NOT use an abrasive brush or pad. An abrasive pad will scratch the lug nuts.

MAINTENANCE

When removing the wheel hardware for servicing the brakes or just rotating tires, keep an eye on the thread condition and seat marring.

We also recommending checking the torgue on all the lug nuts before and after your first drive with them installed. Additionally, it is strongly recommended to check the torque values at regular intervals.

NEED HELP? tech@raceseng.com