

# LUG STUDS 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 studs if you don't understand the adjusted torque values. Using an anti-seize drastically increases clamp-load if the factory torgue 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.

24 HOURS is needed for the thread locker to fully cure. This means NO DRIVING. Schedule accordingly if this is your daily driver.



# LUG STUD FITMENT

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

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

#### THREAD SIZE AND PITCH

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

#### 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 stud will have enough threads to properly engage the lug nuts you have chosen for your build. Refer to our minimum thread engagement chart to determine the number of turns typical for your hub or bolt size.

THREAD SIZE	NUMBER OF TURNS

M14x1.5	9.5
M14x1.25	11
M12x1.5	8

#### **RUNNING SPACERS?**

Raceseng Lug Studs are a standard 80mm long overall and 65mm from the face of the hub to the end of the stud. This length is long enough to accomodate up to a 15mm wheel spacer for the majority of wheel thicknesses. However, because wheel thickness varies for the wheel market, we recommend taking every step necessary to make sure you have enough thread engagment for the lug nuts.



#### STEP 1

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

#### STEP 2

Loosen the lug bolts 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 bolts, then the wheel.



# INSTALLATION

We recommend following the **RIST** method:

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

### STEP 1

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

#### STEP 2

Apply a generous amount of the included thread locker to the short side of threads on the Lug Stud. Place a small dot of thread locker on the deepest part of the threads inside the hub itself to insure adequate thread coverage once the stud is fully threaded into it.

#### STEP 3

Hand tighten each stud into place, then use the included T40 driver to torque each Lug Stud to 25 ft/lbs.

#### STEP 4

Let thread locker cure for 24 hours. This is a critical step. Not waiting and going right to driving could cause the wheel to leave the vehicle during use. Don't be that person.

#### STEP 5

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 6

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 7

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 8

Always check & re-torque your lug nuts after the first 25 miles of use. Repeat this every time the lug nuts are removed and installed. Failure to re-torque could result in unsafe driving conditions. Whenever a wheel is removed, use the T40 driver to make sure the torque specification is still at 25 ft\lbs on the lug studs.





### **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 check the seat surfaces for marring.

We also recommend checking the torque on all the lug bolts before and after your first drive with them installed.

It is strongly recommended to check the torque values at regular intervals.



