

TECHNICAL NOTICE

Titanium Bolt Installation Basics

General installation guidance for titanium fasteners. Follow the vehicle or component manufacturer's service procedure and joint-specific torque specification.

AIG-DD57F95F0B | Rev 3

Before you begin

Required tools

- Required: Calibrated torque wrench
- Required: Correct hand tools for the joint

Required parts

- Correct-length titanium bolt, matching nut, and joint-specific spacers or washers

Consumables

- Pure nickel anti-seize
- Blue threadlocker approved for titanium fasteners
- Torque marker

Clean and dry-fit the hardware, confirming spacer or washer placement before applying anti-seize or threadlocker.

Follow the vehicle or component manufacturer's procedure and torque specification. Joint design plus material and lubrication affect the required torque.

Keep anti-seize off threads when threadlocker will be used.

Verify the nut remains on the threaded portion and does not bottom against the smooth shank.

Preparation references

Titanium torque & installation reference

Confirm the vehicle or component manufacturer's torque, thread size, bolt grade, head style and lubrication requirements before tightening. The installed joint's specification takes priority over these reference values.

Torque reference chart

Metric size	Torque (ft-lb)	SAE thread	Torque (ft-lb)
M6	8.2	1/4-20	6
M8	20.9	5/16-18	13
M10	42.5	5/16-24	14
M12	71.9	3/8-16	23
M14	114.5	3/8-24	25
M16	173.8	7/16-20	40
		1/2-13	55
		5/8-11	110

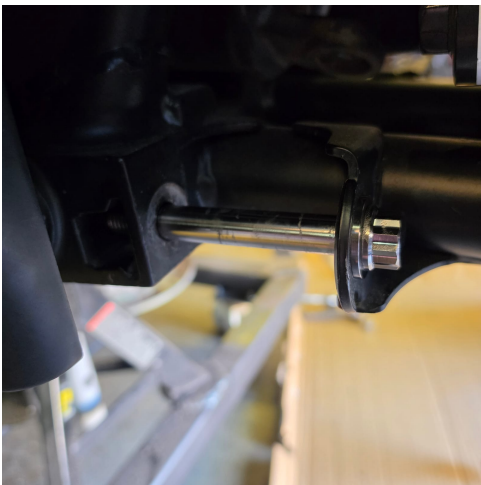
Installation

Step 1: Position the shank



Dry-fit the bolt with the smooth shank, not the threads, spanning the loaded or shear area as far as the assembly permits. Locate the thread start before choosing spacer placement, leaving sufficient threads for the nut.

Step 2: Space for a nut retainer



If a nut retainer blocks nut-side spacing, place the required spacer or washer stack under the bolt head so the smooth shank reaches into the retainer as far as the assembly permits. Confirm the nut engages the threads before tightening.

Step 3: Apply anti-seize



Apply a generous, even coat of pure nickel anti-seize to the smooth shank and underside of the bolt head only. Keep the threads clean and free of anti-seize.

The pictured nickel anti-seize label warns: harmful if swallowed. Read the other cautions on the container's back panel.

Step 4: Set nut-side spacing



Where nut-side spacing is possible, confirm the smooth shank passes through the sheet metal or bracket, then add the required spacer or washer stack so the nut tightens on threads, not against the smooth shank.

Step 5: Apply threadlocker



Apply blue threadlocker approved for titanium fasteners to the clean, dry threaded engagement area only. AVID recommends Vibra-Tite 122. Keep it off the shank and head bearing surface; do not mix it with anti-seize on the threads.

Step 6: Torque and mark



Tighten to the vehicle or component manufacturer's torque specification; do not substitute a generic value for a joint-specific specification. After final torque, apply a torque marker across the nut and adjacent fastener or joint surface as a visual reference.

Final checks and support

- Recheck the joint only as directed by the vehicle or component manufacturer's service procedure and interval.
- Remove excess compound from surrounding surfaces and leave the torque marker visible.
- If the nut approaches the smooth shank or adequate thread engagement cannot be achieved, stop and correct the bolt length or spacer arrangement before tightening.
- Use the vehicle, component, and fastener manufacturer instructions for the exact assembly. Contact AVID Racing support when the supplied hardware or application is unclear.

Important notice

This Technical Notice is a concise supplemental reference for professional installers. It is not a complete installation manual or a substitute for a qualified professional installation shop. Follow the vehicle and component manufacturer procedures, safety requirements and specifications for the exact application.