



AMT Motorsport C5-C8 Corvette Upper Control Arm Stud Kit

Thank you for purchasing the AMT Motorsport Upper Control Arm Stud Kit. This kit will allow you to adjust your alignment using shims behind the upper control arm trunions. This kit includes everything needed to replace the stock bolts with studs which make changing shims a much simpler task. It also eliminates the need to continually torque and un-torque the stock bolts which over will time damage the threads in the frame. This kit can be used with any lower control arm camber kit but makes for an especially effective solution when used in conjunction with an AMT Camber Kit. These instructions cover both the single front stud kit as well as the front and rear stud kit for C6Z/ZR1, C7, and C8 Corvettes.



What's in the Box?

8 – Grade 10.9 M10 x 1.5 Studs, internally broached hex

8 – Grade 10.9 M10 nuts and lockwashers

8 – Grade 10.9 oversized washers (not shown)

1 – Tube 243 Loctite (not shown)

(Optional) 16 – 1/16” and 16 1/32” thick shims for Front Upper Control Arm Adjustment

Using the Shims (Optional)

Shims are optional with the stud kit should you choose to use them. The shims can be used to fine tune your alignment. There are many shims available from many sources if you want to use your own shims.

1/16" thick shim reduces camber by approximately .3 degrees

1/32" thick shim reduces camber by approximately .15 degrees

TIP You can adjust caster with shims on the upper control arm studs. In this case more shim in the front most control arm bolts will increase caster by tilting the spindle upright towards the rear of the car.

Stud Installation Depth Guidelines

-Installation of the studs protruding too far beyond the trunnions may cause the stud to hit the tire with very wide front tires, lots of camber, low suspension, compression, and steering lock. Please follow guidelines below for proper insertion:



Stud installed with no shims, minimal protrusion from trunnion. Nut is torqued below the removed threads on the end of the stud



Stud installed with a large amount of shims, removing 1.5 degrees of camber. There should be no reason to use this number of shims, but we still have minimal protrusion of the stud.



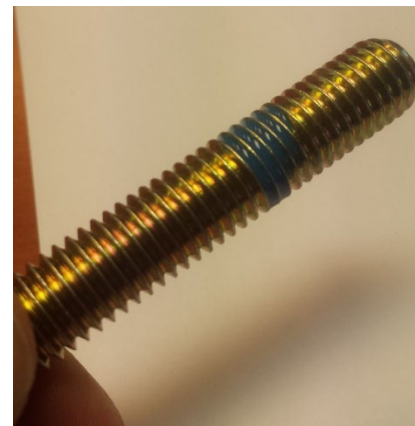
Nut installed ABOVE the turned portion of the end of the stud. This will cause the end of the threads to rip out when torqued



See? Told you so! But if you make this mistake we'll send you some extra studs – just pay the shipping.

Installation Instructions for front of car (C5 – C8)

- Lift car from front jacking point and insert jack stand. Remove front wheel.
- Loosen both sets of M10 bolts on the upper control arms and remove bolts. You will not reuse these bolts.
- The AMT studs are 60mm long, which will be way more than enough for as many shims as you wish to use with any trunion available. Screw the studs in by hand, or with a 5mm allen key, to approximate where you want the stud to screw in to the frame. Check length by placing the loose upper control arm over the studs to gauge your stud length, keeping in mind any shims you want to use.
- Once you know where you want the stud to be installed, put a drop or two of Loctite on the threads of the stud, and screw the stud into the frame. Go grab a beverage and give the Loctite 10 minutes or so to start to harden before you complete installation. **Note** – *The threads in the frame are only about 10mm long, so no need to cover the entire stud in Loctite. Also note the threads in the frame go all the way through, so you can feasibly thread the stud all the way through the frame and have the stud drop into the frame and rattle around in there in perpetuity. You'll want to sell your car if you have a stud rattling around in your frame. Don't do this.*
- With studs installed in frame and whatever shims you wish to use in place on the studs, re-install control arms over the studs. Then install hardened oversized washer, lockwasher, and nut, and torque nut to 45 ft lbs



-The hardened oversized washer is not needed on most trunions, however you're using the AMT Monoball Bushing kit (or other inferior kits) the trunion will be narrower than stock, poly, or most delrin bushing kits. In this case the oversized washer is in place to spread the load of the lockwasher without having to worry about the lockwasher seating properly on the trunion. It's just an extra assurance to make the install as thorough as possible.



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Installation Instructions for rear of car (C6Z/ZR1 and C7)

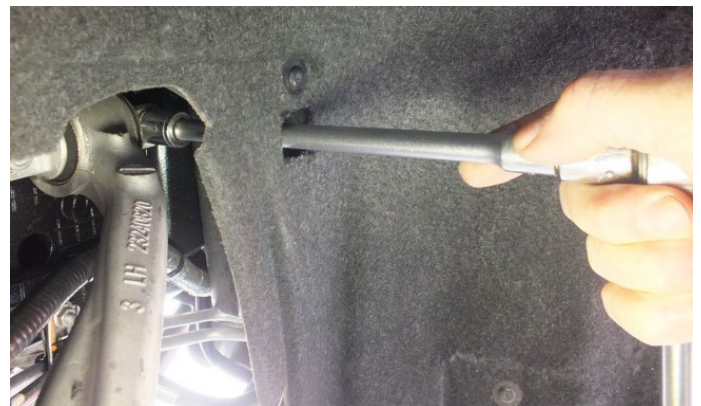
-Lift car from rear jacking point and insert jack stand. Remove rear wheel

-Loosen both sets of M10 bolts on the upper control arms and remove bolts. You will not reuse these bolts.

- The AMT studs are 60mm long, which will be way more than enough for as many shims as you wish to use with any trunion available. Screw the studs in by hand, or with a 5mm allen key, to approximate where you want the stud to screw in to the frame. Check length by placing the loose upper control arm over the studs to gauge your stud length, keeping in mind any shims you want to use.

-Once you know where you want the stud to be installed, put a drop or two of Loctite on the threads of the stud, and screw the stud into the frame (see previous picture of Loctite example)

-C7 Rear – Chevy put all kinds of nice felt in the wheel wells which can make getting a wrench on the rear-most bolt a pain. You can cut a small hole in the felt and use a 15mm socket on an extension to more easily remove the bolt.



-C8 Rear – The C8 is more complicated because there is an aluminum block which exists only to attach the inner fender liner. Three of the upper control arm bolts are exposed and have easy access, but unfortunately the fender liner and aluminum block need to be removed to access the 4th upper control arm bolt. It's an easy job – just need to remove quite a few fasteners. Google that one and watch a 2-minute video so we can save some trees.



-With studs installed in frame and whatever shims you wish to use in place on the studs, re-install control arms over the studs. Then install hardened oversized washer, lockwasher, and nut, and torque nut to 45 ft lbs

Thanks for your business! Any questions please call 518-877-8560 or e-mail
Mark@amtmotorsport.com - See you at the track!