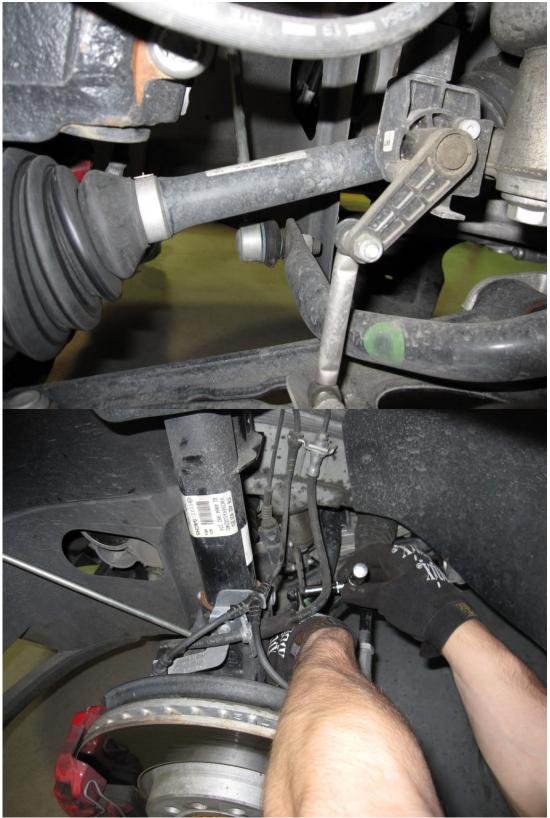




With the lug bolts loosened and the front axle bolts loosened, raise the car (pop the hood before you do). I was fortunate to have access to a 4 point lift so I raised the entire car at once. If using a floor jack and jack stands, refer to the following post for jack point locations and procedure: http://forums.wwortex.com/zer..4928
 With the car in the air, remove the lug bolts and wheels. Position the wheels in such a way that you remember where to put them back on, unless you are rotating the wheels or something.
 Start on one side of the car. I started with the driver side and therefore these pics are from the driver side. Remove the brake sensor wires.



7. Remove the HID leveler arm. I believe these were only on the front and rear drivers side. Make sure to note the orientation of the arm before removing. Use a 10mm socket remove the nut at the joint and use needle nose pliers to hold the nut in between from spinning.



8. Remove the M14 triple square pinch bolt at the bottom of the strut. Hold the 18mm nut on the other end of the bolt.



10. Remove the axle bolt. You should have already loosened it at this point. 11. Use the strut spreader bit to expand the hub around the bottom of the strut. Insert the bit into the slot around the area the pinch bolt was. Then turn the bit 90 degrees to open up the gap and in effect, release the hubs clamp on the bottom of the strut. Leave the spreader bit in while you follow the next few steps.



12. Separate the ball joint from the control arm. This will take a little force and maneuvering around. I found it easiest to push down on the control arm while using a flathead screwdriver to pry between the ball joint and the control arm.



13. Use an axel puller to remove the axle from the hub. Be careful not to damage the splines on the end of the axle or in the hub. I was lucky enough to not have to use an axle puller cause my car is relatively new and has rarely driven in any rain (I live in the desert). Therefore, I do not have any pics of this process.
14. Now the axle should be free, the ball joint separated from the control arm, and the hub loose around the bottom of the strut. The next step is to remove the hub from the bottom of the strut. This may take a little force and maneuvering. (If you are having trouble, Dan GSR suggested removing the brake caliper and rotor as it makes the assembly lighter and less cumbersome. Sorry, no instructions for this, but it's pretty easy) Note: There is a tab on the bottom of the strut which aligns the strut with the split in the hub. This tab may be impeded by the spreader bit depending on where you placed it. If so, try putting the spreader bit lower in the split so the tab can move freely past it. Once you separate everything, either suspend the hub with rope or rest it on something. I rested it on a wheel chock that was nearby. DO NOT put any stress on the brake lines.
Now the stock spring and shock assembly should be free







17. Now, disassemble the stock spring/strut assembly. First, use your spring compressors to compress the spring until the strut mount moves freely (independent of the spring).



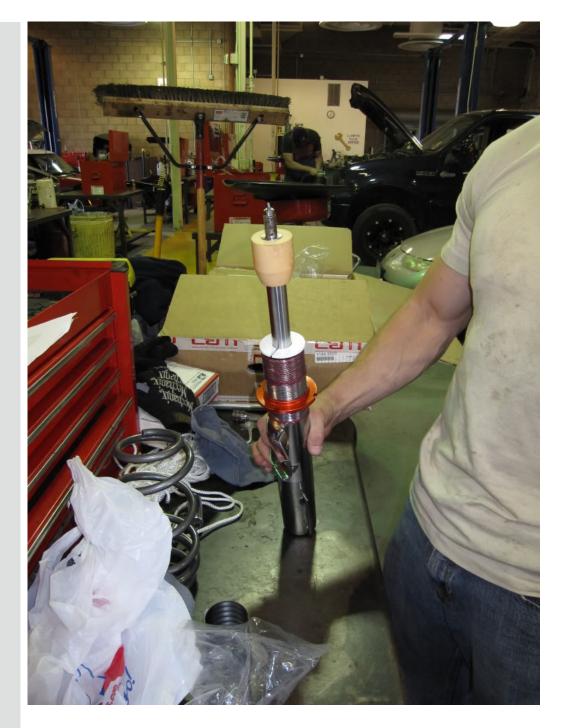
18. Remove the 21 mm nut on top of the stock strut. Use the 21mm side of the specialty tool double sided socket. Then pass a 7mm allen socket on the end of an extension through the double sided socket. This prevents the strut shaft from spinning while removing the 21 mm nut.



Once the strut nut is removed, remove the spring and carefully remove the spring compressors. You will reuse the stock strut mount and bearing.
 Assemble the new strut/shock assembly. First, coat the threads on the strut with lithium grease. Thread the collar and locking plate all the way down.
 (Yes, I know this picture is just begging for a hilarious caption)



21. Put the white split washer on the strut followed by the new bumpstop, and then the dust cover.





22. Compress the new spring and place it on top of the strut so the bottom of the spring rests on the adjustable collar. Then place the stock strut mount and bearing on top. Then place the new provided lock washer and nut on top of the strut to hold the assembly in place. Make sure the spring and all components are in the orientation shown.





23. Tighten the nut on top of the strut to 60NM. Use the double sided strut socket with a torque wrench connected to it at a 90 degree angle (the instructions for the double socket say the torque read by the wrench is approximately correct when placed this way). Then use a driver with an extension and 11mm deep socket to pass through the open socket. This prevents the strut from turning when tightening down the top nut. (sorry, I don't have picture of this but it is much like the one found in step 18. 24. Remove the spring compressor and make sure the spring is seated on the bottom collar and upper strut mount. At this point, I adjusted the height on the strut so I would not have to do it while it was on the car. I spun the collar 10 full turns up from the bottom. Make a mark on the collar to make it easier to count the number of turns. Using the provided wrench, tighten the collar against the locking plate.



15. Reinstall the new assembly. Make sure the strut mount is aligned correctly as described in step 16. Install and tighten the three 13mm strut

tower bolts to 15NM + 90 degrees. Reattach raintray.

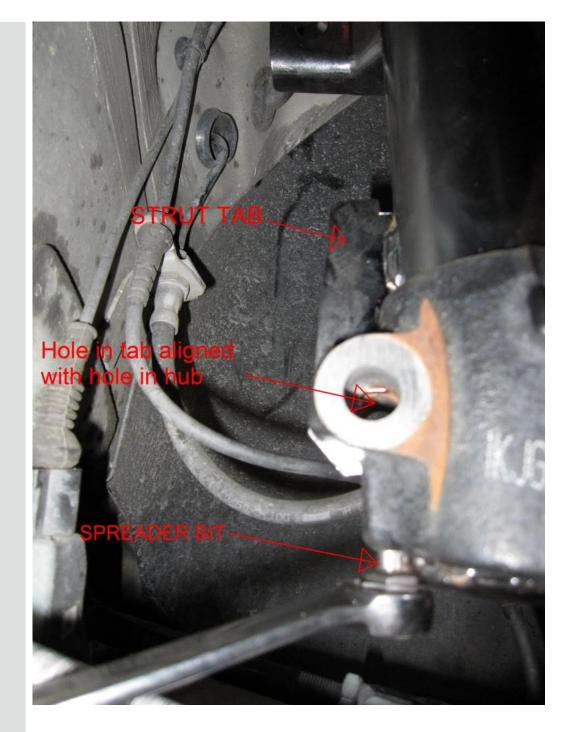


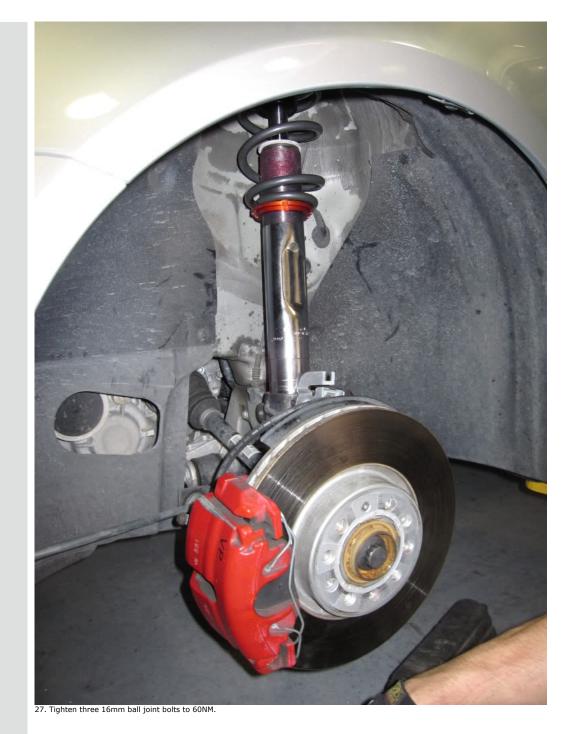
26. Now you need to reassemble the 3 major components: the ball joint back onto the control arm, the axle back into the hub, and the bottom of the strut back into the hub. This is difficult and requires a lot of maneuvering the various components around. I found it easiest to do it in this order:

Reconnect the ball joint to the control arm (place ball joint studs through holes in control arm). Hand tighten the 16mm nuts.
 Place the bottom of the strut in the hub (it does not need to be all the way down in at this point). At the same time, slide the axle back into the

hub. - Thread the new axle bolt into the axle and lightly tighten to help pull the axle through. (make sure the splines are lined up as to not damage

Intread the new axie built into the axie bit ingular, dynamics, dyn

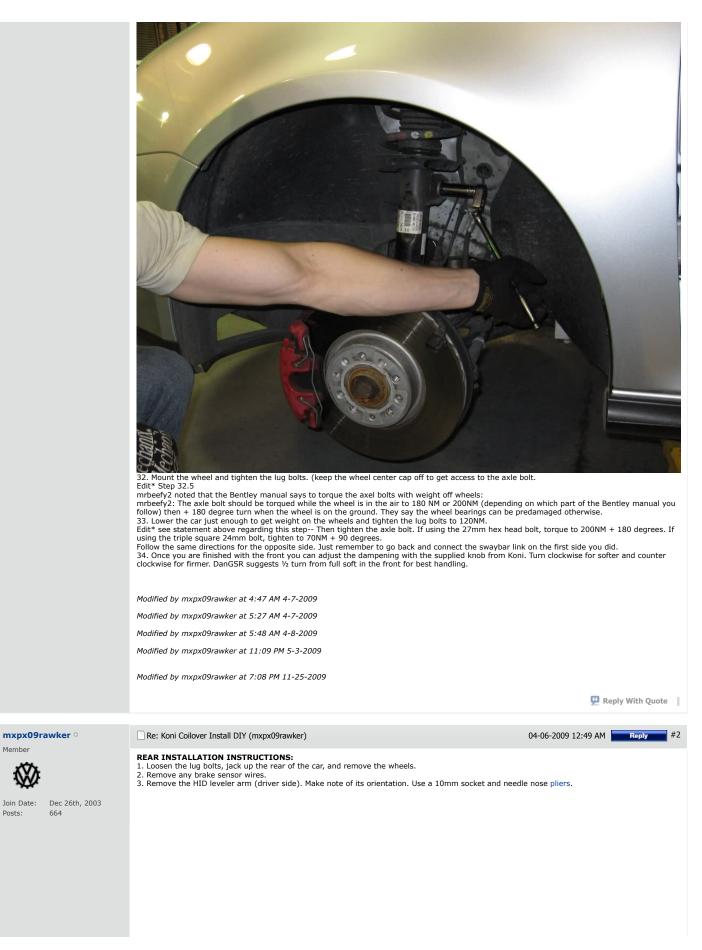








30. Reattach brake sensor wires. 31. Do not reattach swaybar endlink until the reverse side is completed. Do the other side and reattach the swaybar endlink in the same order as removed. Torque the 18mm nut to 65NM.





5. Place a jack under the control arm and lift only slightly.
 6. Remove the 18mm bolt and 18mm nut connecting the control arm to the hub assembly. Raise and lower the jack slightly to get the best alignment so that you can remove the 18mm bolt easily.
 (sorry I forgot to take a picture of this so this is the best I can do)



9. Place the stock strut mount in a vice. Remove the black cap and remove the nut on top of the stock strut. To do this I first used an impact gun to loosen the nut. Then, I used a pair of vice grips to hold the nut and a pair of pliers to hold the top of the shaft so it would not spin. The ideal tool for this would be a deep socket box wrench instead of vice grips.

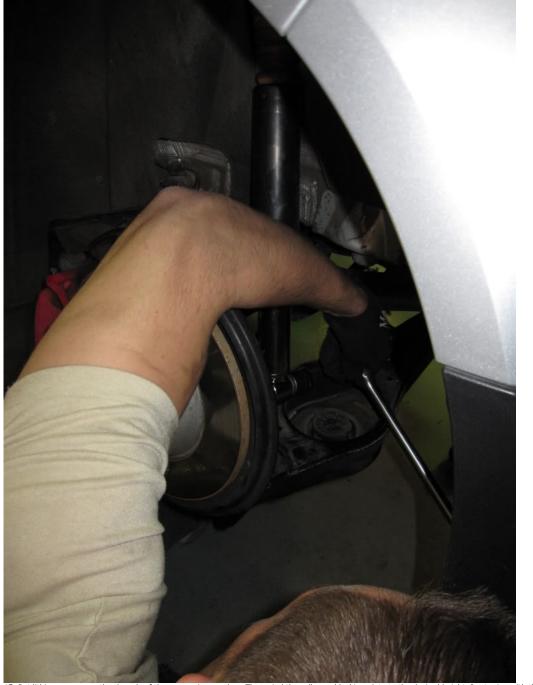


10. Remove the stock bumpstop and dust cover from the stock strut as you will use this on the new assembly
11. Before assembling the new strut, adjust the dampening as you will not be able to do so when it is installed in the car. Do this by pushing the strut shaft all the way into the strut body. Then slightly turn the shaft using a 7mm allen on the top until you feel it "click" into some grooves. Once you have engaged the grooves, carefully rotate the strut shaft clockwise or counter clockwise to adjust the dampening. Clockwise is firmer and counter clockwise is softer. DanGSR suggests ¼ turn from full stiff for the rear.





14. Install new rear strut assembly. Tighten 21mm nut. I do not have torque specs for this.



15. Put lithium grease on the threads of the rear spring perches. Then wind the collar and locking plate to the desired height. I set mine with the threads all the way up (lowest setting)

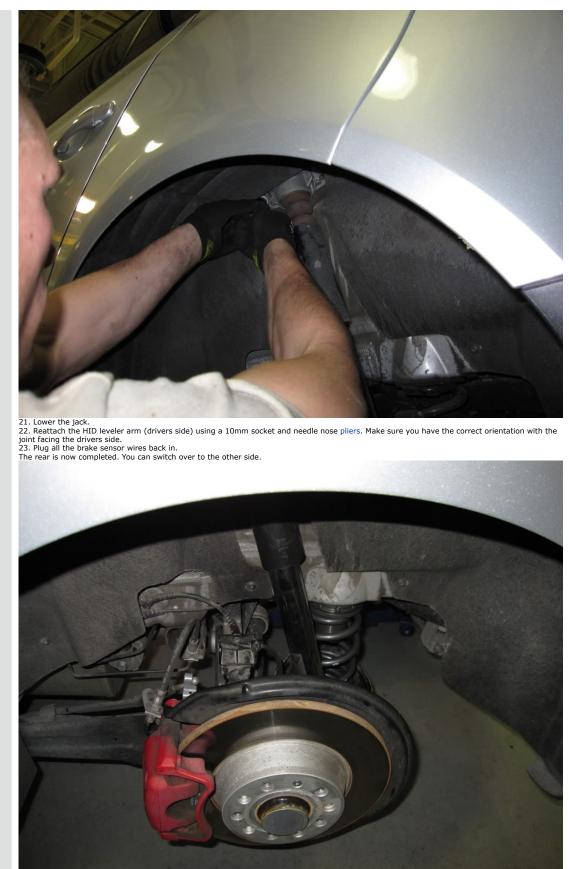




18. Jack up the control arm making sure the top of the spring and perch assembly sits correctly on the nub on the frame of the car.

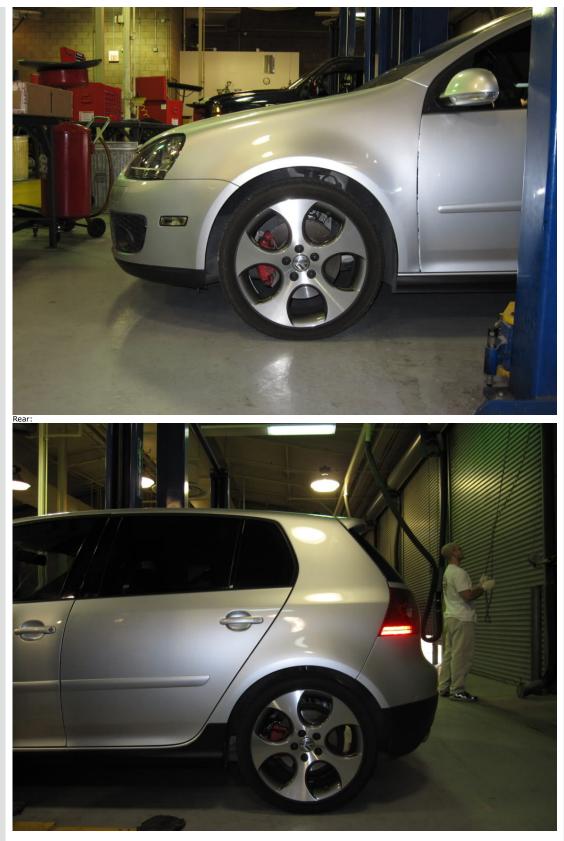


20. Install the 16mm bolts in the strut mount. I do not have torque specs for these.



24. Once finished with both sides, mount the wheels and tighten down the lug bolts. Take the car off stands and torque the lug bolts to 120NM. 25. Stand back and admire your work!

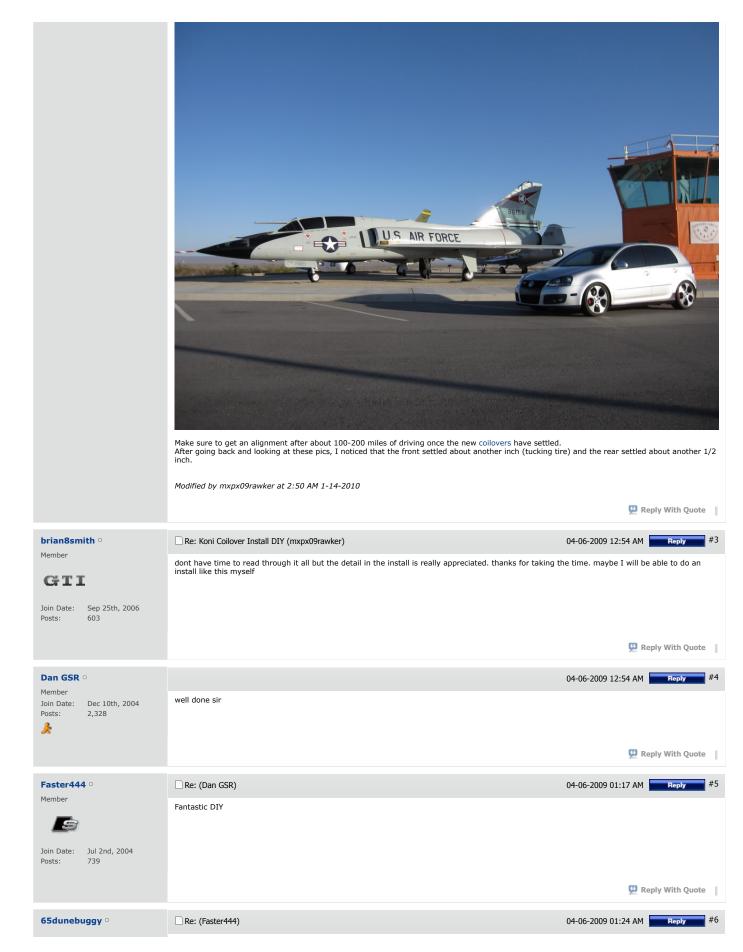
BEFORE: Front:

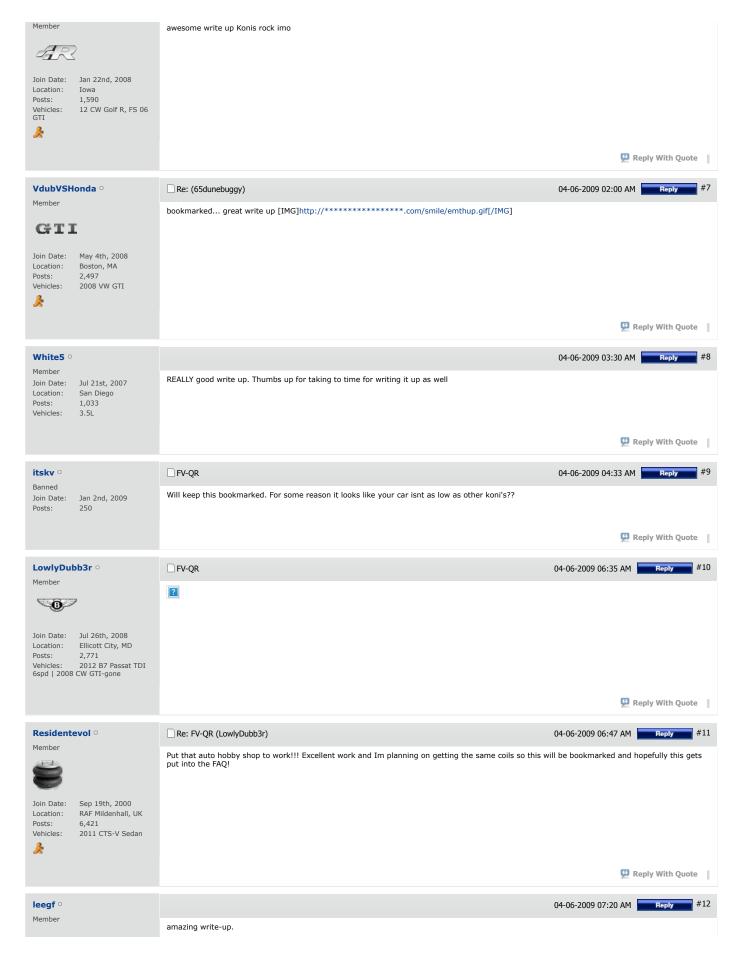


AFTER: Front (with 10 threads left):

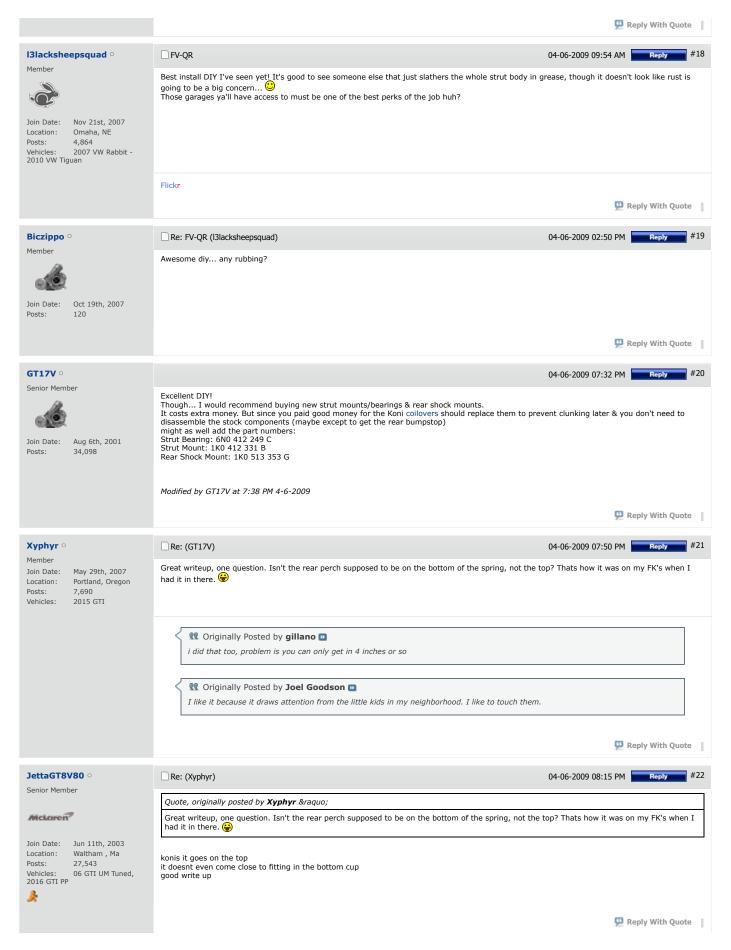


And the Finished Product!

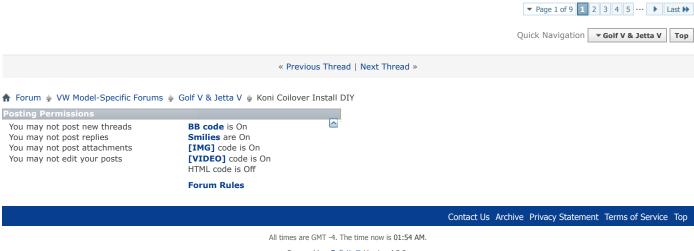




NSU		
Join Date: Jul 21st, 2007 Posts: 2,671 Vehicles: '87 Euro 535i, '98 M3/4/5		
	Originally Posted by Jeremy Clarkson Asking the front wheels of a car to do their normal job of steering while handling - let's say, mou like asking a man to wire a plug while juggling penguins, while making love to a beautiful woma of the queen. It's all going to go wrong.	
	motoring con brio	💯 Reply With Quote 🛛
MN6583 •	Re: (leegf)	04-06-2009 07:26 AM Reply #13
GTI	Very detailed, should be in FAQs. [IMG]http://***************.com/smile/emthup.gif[/IMG]	
Join Date: Aug 11th, 2002 Location: SW Ohio Posts: 2,946 Vehicles: 2015 GTI		
		💯 Reply With Quote 📗
ttempted • Member		04-06-2009 07:43 AM Reply #14
Join Date: Apr 6th, 2004 Location: GR MI Posts: 571 Vehicles: '07 F-GTI, '15 Golf R	How long did this take to complete?	
	My MK7 R Build Thread	💯 Reply With Quote 🏻
mxpx09rawker •	Re: (MN6845)	04-06-2009 09:47 AM Reply #15
Member	Thanks for the comments everyone. Your appreciation makes it all worth it!	
Join Date: Dec 26th, 2003 Posts: 664		
		💯 Reply With Quote
mxpx09rawker • Member	Re: FV-QR (itskv)	04-06-2009 09:49 AM Reply #16
\otimes	Quote, originally posted by itskv » Will keep this bookmarked. For some reason it looks like your car isnt as low as other koni's??	
Join Date: Dec 26th, 2003 Posts: 664	If I took the perches out of the rear, I could get another 3/4" or so. I also have another 10 threads in th I don't want to be super low though. I just wanted to get rid of that fender gap. This is my ideal drop, a little.	
		💯 Reply With Quote 📗
mxpx09rawker Member	Re: (ttempted)	04-06-2009 09:53 AM Reply #17
\otimes	Quote, originally posted by ttempted » How long did this take to complete?	
Join Date: Dec 26th, 2003 Posts: 664	Waaaaaay too long! Haha. It took approximately 7 hours. We spent alot of time taking pictures and this was also my first time doin the learning curve as well. If you subtract the time to take pictures and are well prepared before attempting the job (ie. have all th directions thoroughly), then I would estimate the job taking between 4-5 hours.	-



vince557 o	FV-QR 04-06-2009 08:18 PM Reply #23
Member	mine didn't come with new bump stops or a dustcover o.O
Location: southern MA Posts: 4,485 Vehicles: 08 jetta wolfsburg 2.0t, 95 vr6 Gti(sold), 01 jetta Vr6(sold), 98 jetta TDI(sold), 08 Rabbit(RIP)	
	VolkShore MINI tech
mxpx09rawker • Member	Re: FV-QR (I3lacksheepsquad) 04-06-2009 11:42 PM Reply #24
	Quote, originally posted by I3lacksheepsquad »
Join Date: Dec 26th, 2003	Best install DIY I've seen yet! It's good to see someone else that just slathers the whole strut body in grease, though it doesn't look like rust is going to be a big concern 😳 Those garages ya'll have access to must be one of the best perks of the job huh?
Posts: 664	Yeah. You can't beat 4 bucks an hour for access to a lift, complete snap-on tool set, and countless other special automotive tools. [IMG]http://**********************************
	There is rubbing under hard turning on the outside front wheel. I think it is rubbing on the fender screw. I'm going to try to solve it this weekend with the fender screw mod.
	Quote, originally posted by GT17V »
	Excellent DIY! Though I would recommend buying new strut mounts/bearings & rear shock mounts. It costs extra money. But since you paid good money for the Koni coilovers should replace them to prevent clunking later & you don't need to disassemble the stock components (maybe except to get the rear bumpstop) might as well add the part numbers: Strut Bearing: 6N0 412 249 C Strut Mount: 1K0 412 331 B Rear Shock Mount: 1K0 513 353 G
	I only have 18k miles on the car and the strut mounts are still in good condition so it was not necessary to replace them. It is a good idea however, for a higher mileage car. I'll add the info to the original post. Thanks! Quote, originally posted by JettaGT8V80 » konis it goes on the top
	Koms it goes on the top
	Correct. The rear perch goes on top of the spring for Konis. Quote, originally posted by vince557 » mine didn't come with new bump stops or a dustcover
	The Konis should come with new front bumpstops and dust covers. You reuse the stock rear bumpstops and dust covers. Based on the replies to this thread, I'm going to ask a mod to sticky this in the DIY/FAQ thread under Suspension.
	💯 Reply With Quote 🏢
dekoone505 • Member	FV-QR 04-07-2009 12:13 AM Reply #25
	Quote, originally posted by mxpx09rawker »
GLI	Based on the replies to this thread, I'm going to ask a mod to sticky this in the DIY/FAQ thread under Suspension.
Join Date: Aug 21st, 2005 Location: fiveohfive! Posts: 3,760 Vehicles: 06 GLi	Good idea [IMG]http://****************.com/smile/emthup.gif[/IMG]
	💯 Reply With Quote



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