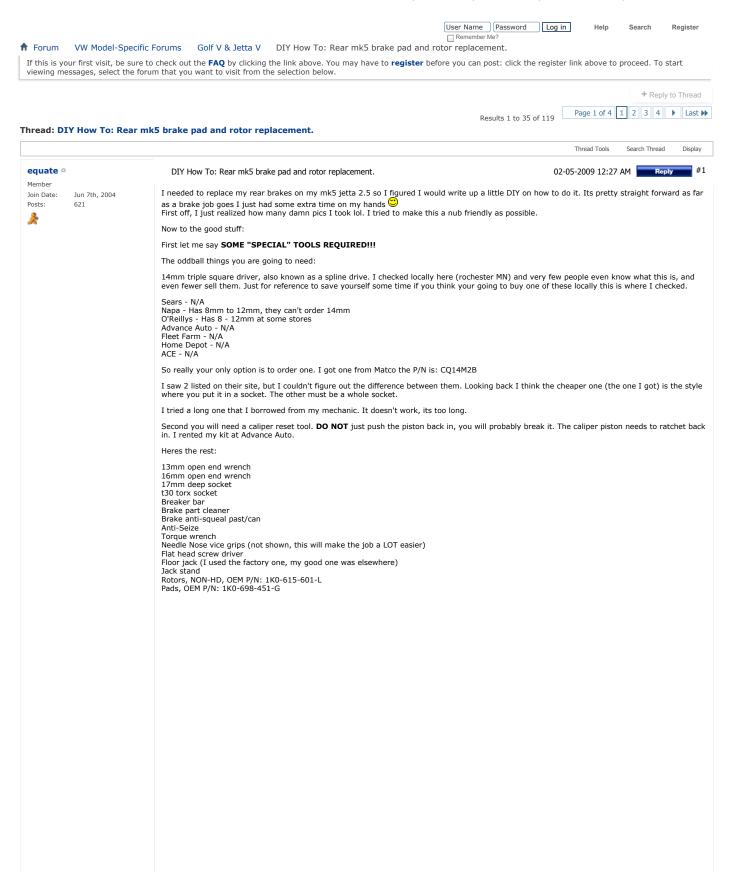
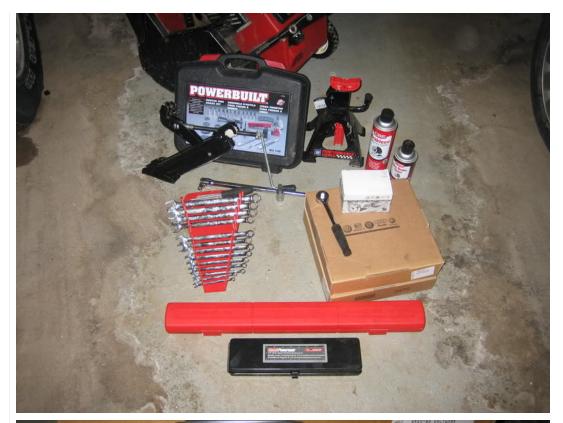
NEWS | ARTICLES | GALLERIES | MARKETPLACE | COMMUNITY FORUMS











Here is the 14mm triple square driver



And this is how it works!



First carefully remove your badass hub cap



Loosen up the lug bolts, 17mm



Jack up the car, you can sorta see the arrow for the jackpoint on the pinch weld



Insert jack stand



Remove the wheel!



Ok, first to come off is the bolts for the caliper guide pins. The actual bolt part on the back is a 13mm. The nut in front is a 16mm



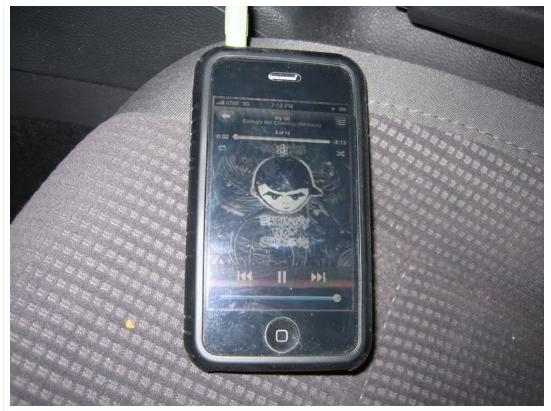
This is where the needle nose will come in handy. The 16mm nut is narrow, and you can't really fit a wrench on it. You can clamp on the needle nose just to hold it so you can crack it lose, then put the 16mm on like such:



After you get the top and bottom off, you are going to realize that you left the e-brake on and that's why the caliper isn't coming off. Now is a good time to chuck up the front wheels and take the brake off



While you're at it, throw on some MC Chris to pass the time  $\,$ 



Now the caliper will come off



Take your flat head and pop the pads off. They just go outward  $% \left( 1\right) =\left( 1\right) \left( 1$ 





Now to get the caliper carrier off
There's 2 big bolts, the 14mm triple square one



I would suggest blowing the heads of them with some compressed air or something. I had a lot of sand and road gunk in the heads so the socket wouldn't sit in right. I bet it wouldn't be fun at all to strip these out. They are TIGHT, and really awkward to get to

Well my socket didn't work because it was impossible to get on straight. It would probably work swell if you had the car up on a lift so you could swing your wrench from the bottom. But since I'm a badass and use jack stands I couldn't

Fix:



Here's the bugger:



I don't know why they couldn't just use regular hex bolts, or even damn allens like I am used to seeing on VW brakes.... \*\*\*\*\*\*\*s.

Now the caliper carrier will come off



Now all we gotta do is get the rotor off!



There's just 1 t30 torx to hold it on



This is about the time you realize you should have loosened this up before taking the brakes off. Improvise:



Woot! Now its all taken apart



My inner pad damage



Open up your pads and it should have come with new anti-rattle clips, guide bolts, and of course the pads



Pop off the old anti-rattle clips, and put the new ones on





You can see on this carrier the boot for the guide pin popped off at some point. Check yours over and push them back on the lip if they did. Not a huge deal or anything. If you feel like it you can take the pins out and re-lube them.



New rotor



Generally speaking new rotors are going to have an oil coating on them so they don't rust on the shelf. Take the new rotor outside and hose it off with the brake part cleaner. Get all the oil off the rotor. Oddly enough these OEM ones didn't have it, I hosed them anyways, not going to hurt it or anything.

Side note: Don't get that crap in your eyes. It hurts like f\*&king hell. I got a nice droplet in my eye a year or so back when I was soaking down an oil pan. Got me right behind my damn glasses. The vicodin from the ER was nice. The permanent vision loss wasn't.

Ok, mount the damn thing up



Re-install the caliper carrier and put some anti-seize on the bolts so they come out next time. Then add the pads. I bought anti-squeal for the back of the pads, I then noticed the OE pads already had a pad on the back for this, so I didn't put any on. If you are using aftermarket stuff just read the directions on what you need to do.



Now is the time to bust open your brake service kit. I rented mine from Advance Auto. Find the appropriate adapter for the piston.



You can see after you assemble the tool there are 2 bits that stick out and will go into the caliper piston to turn it



The 2 notches on the piston is where they fit.

Check your brake fluid level now. If its nice and full you will want to take some out. When you retract the caliper piston its going to raise the level in the reservoir. You should be ok unless someone added more fluid for whatever reason at some point.



Tighten (rather loosen) up the hex deal on the back and turn the handle clockwise. The piston should retract in some. Tighten the hex again and repeat until you get it in all the way. Don't crank the hex part down too hard or you won't be able to turn the handle. Its just tedious.





Here you can see the piston is fully retracted



Your pads should have come with new guide pin bolts, VW suggests that you replace these when you put in new pads. Mount up your caliper.



Put the wheel back on and torque to 90 FTLbs



Install hubcap and congratulate yourself for a job well done!



Now do the other side...

Torque Specs: Caliper Carrier bolts (triple square ones): 90nm/66 FTLbs + one 90 degree turn. Guide pin bolts: 35nm/26 FTLbs

Modified by equate at 6:31 AM 2-5-2009

**Reply With Quote** 

02-05-2009 12:37 AM Reply #2



Member



Join Date: Location: Posts: Vehicles:

🍌

Orange, long beach 3,287 mk6 on switches

Dec 7th, 2006

FV-QR

i wish i had this a couple months ago. voting to have to put in the DIY SECTION!!! yay!

 $\begin{tabular}{l} \hline \end{tabular}$  for you for the improvising part!

Useless 🎔 aka harelow

originally Posted by Squirrel Nuts

17's are for men who have balls.

**Reply With Quote** 

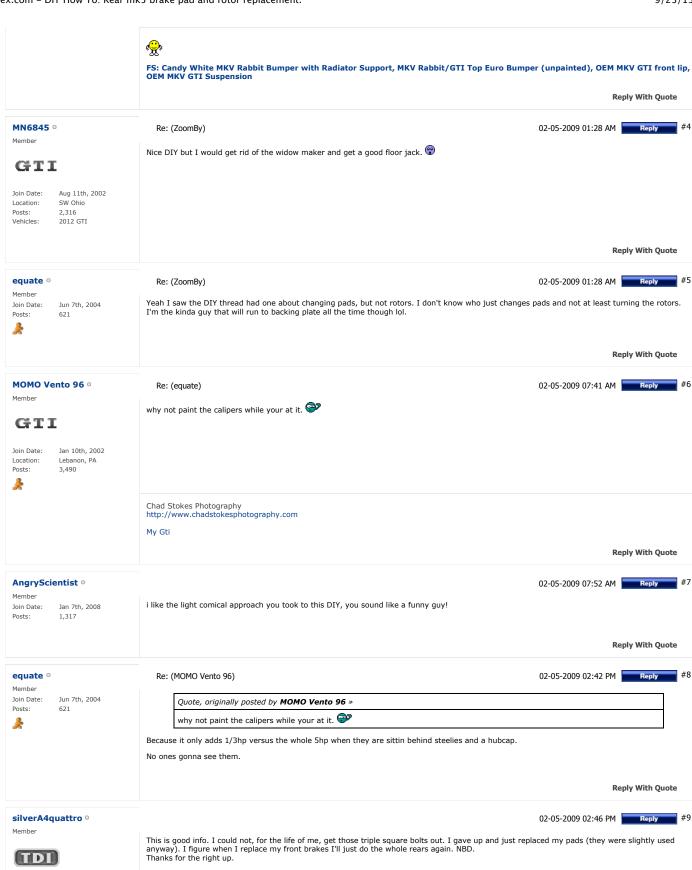
### ZoomBy o

Member



Jan 2nd, 2005 Join Date: Location: Connecticut Posts: 8,145 Vehicles: 2013 MKVI GLI -Manual / 1998 MKIII Jetta GLX VR6 -Manual 02-05-2009 01:02 AM Reply #3

nice write up, you make it seem so easy lol. Im going to need to change my pads come spring time and i'll be using this as a guide



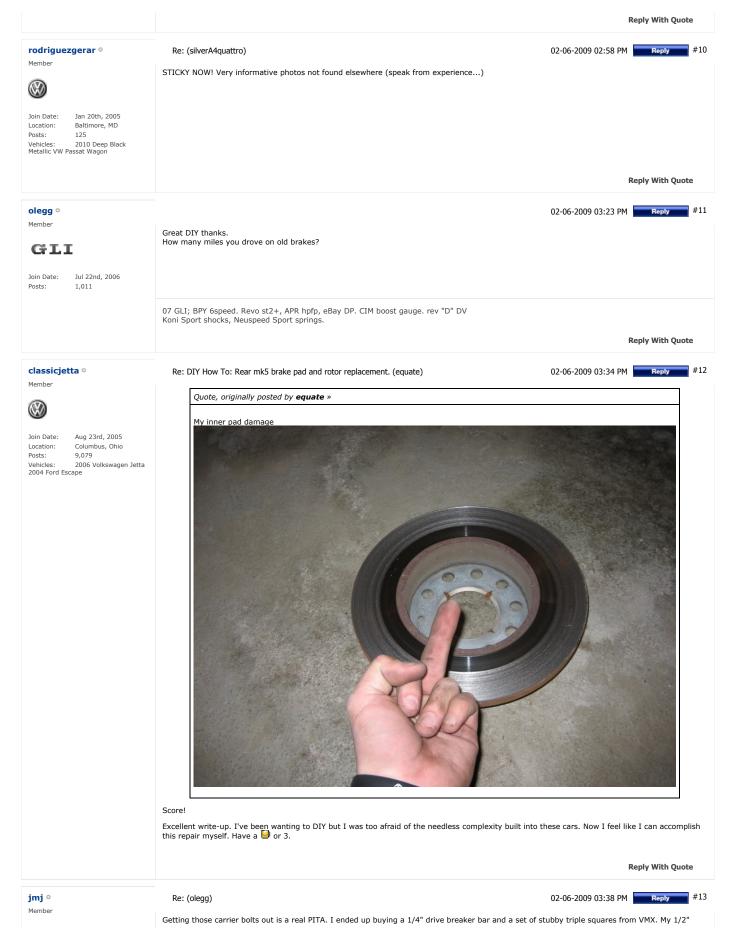
## Vehicles: '10 Jetta TDI, '13 Cruze Eco

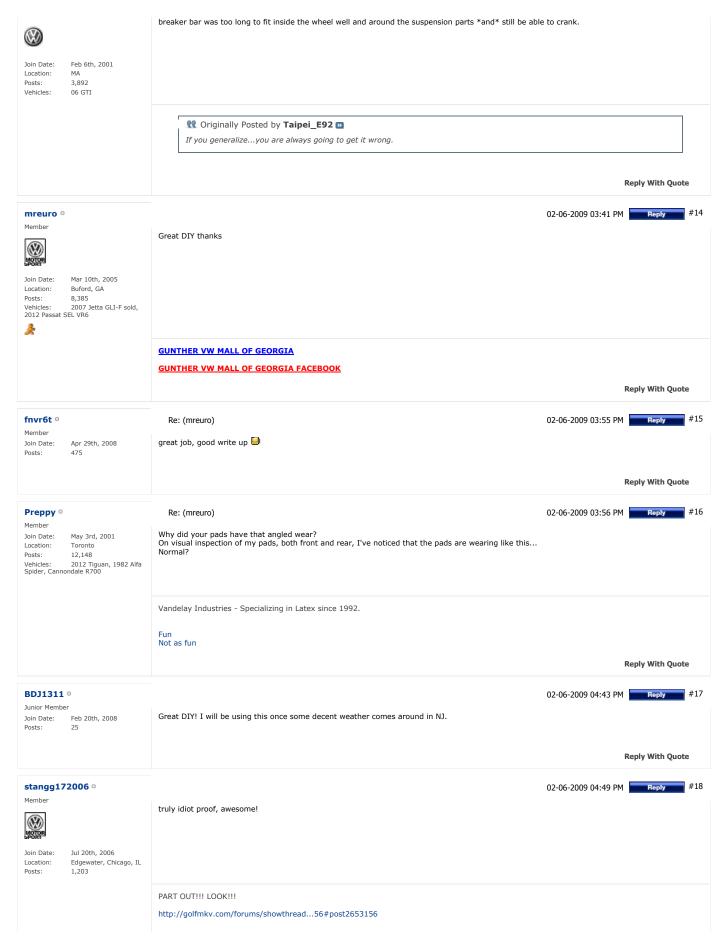
Jun 21st, 2004 Conshohocken, PA

12 594

Join Date

Location: Posts:





**Reply With Quote** dubsker o FV-OR 02-06-2009 05:04 PM Reply #19 it is ideal to open the bleeder nipple when you push the caliper back in, that way more worn out brake fluid doesnt go back into the resevoir. since you have to bleed brakes anyways, might as well. Jan 8th, 2006 Posts: 14,197 **Reply With Quote** #20 equate o Re: FV-QR (dubsker) 02-09-2009 09:49 PM Reply Member Join Date: Jun 7th, 2004 Quote, originally posted by olegg » Posts: 621 Great DIY thanks How many miles you drove on old brakes? I had about 30k on them. I thought this was bizarre to have them go out with that little miles on them, and before the fronts. I found by posting here (and talking to the VW service manager at my dealer) that this is completely normal for these cars. I think its a combination of soft pads and being really rear bias. Quote, originally posted by jmj » Getting those carrier bolts out is a real PITA. I ended up buying a 1/4" drive breaker bar and a set of stubby triple squares from VMX. My 1/2" breaker bar was too long to fit inside the wheel well and around the suspension parts \*and\* still be able to crank. Yes this was the same problem I had. Theres just not enough room to swing a breaker bar. Like I said, I think if you have the car on a lift you can access the bolts from directly below and having the car up that high would allow you to use a big breaker bar. Quote, originally posted by Preppy » Why did your pads have that angled wear?
On visual inspection of my pads, both front and rear, I've noticed that the pads are wearing like this... Normal? I wouldn't worry too much about it. The thickness of the pads were all pretty close. If one side has a lot more meat on it than the other you might have a problem. the difference wasn't significant enough for me to suspect a problem. Quote, originally posted by dubsker » it is ideal to open the bleeder nipple when you push the caliper back in, that way more worn out brake fluid doesnt go back into the resevoir. since you have to bleed brakes anyways, might as well. I mentioned somewhere to check the level in the reservoir before pushing them in and if its too full to take some out. I wouldn't open the bleeder just because it could allow air to get in more so than taking fluid out of the reservoir. Right now though, this car is new enough that the level is fine. I could only potentially see it as being a problem if you have had previous brake work done (or some knucklehead at a jiffy lube added fluid for no reason) And you don't have to bleed the brakes? I don't know why you would when you just change the pads out. As for the rest, thanks for the kind words on the right up! Edit: I should also note that this DIY is in the mk5 DIY sticky. Modified by equate at 3:32 AM 2-10-2009 Reply With Quote dubsker o FV-QR 02-10-2009 01:54 AM Reply manual says change brake fluid every 2 years regardless of mileage. Join Date Jan 8th, 2006 Posts: 14,197 Reply With Quote equate o Re: FV-QR (dubsker) 02-10-2009 07:39 PM Membe Join Date Jun 7th, 2004 Quote, originally posted by dubsker » Posts: 621 manual says change brake fluid every 2 years regardless of mileage Ah ok I see what you are saying then. I thought you meant you had to bleed the brakes every time you do a brake job.

I'm probably going to do it this summer some time. Should be due for a coolant flush and probably change out the tranny fluid while I'm at it

Reply With Quote

### dubsker o

Member



lan 8th, 2006 14,197 Posts:

FV-QR

02-10-2009 07:56 PM Reply #23

i always bleed brakes when i change pads, its easy to do when you have a power bleeder.

Reply With Ouote

#### scotaku o

Member

## ∆MAUEN ∠Marin

Join Date: Sep 3rd, 1999 Posts: 3,695

FV-QR 02-11-2009 06:43 AM Reply #24

I second the motion to bleed the brakes, 30K is too long to have not done it at least once or twice. Brake fluid boils, even in a daily driver, and beligh breaks the fluid down. Air bubbles reduce the efficiency of the brake fluid leading to a progressively softer and softer brake pedal.

And since we're talking of bleeding MkV brakes, let me -highly- recommend SpeedBleeders replacement bleeder check valves. Instead of an open bleeder that, as mentioned, could allow air into the braking system, SpeedBleeders only allow fluid to escape under pressure when opened. The traditional two-man brake bleeding tango is reduced to one man and complete confidence. Study the location of the bleeder screws on the rear calipers and then picture yourself trying to open/bleed/close with a flare wrench and a catch tube competing for space in there.

Some other recommendations...

Don't start this job without some fresh brake fluid on hand. even bleeding a few bubbles from a well-maintained system will leave you needing some juice. You will kick yourself on that long walk to the auto parts store if you bleed down so low that you draw air in from the reservoir. Bleed one brake at a time and top off in between to be absolutely sure.

And don't remove any fluid from the reservoir before pushing calipers back in. The fluid doesn't magically increase in volume. If you pop the cap off the reservoir and find you're overflowing when you push a brake piston back in (I rec' wrapping the open reservoir with a rag) you've got air in the system and need to bleed. In an otherwise air-free system, you're only redistributing the fluid and, at worst. you'll push the fluid back "up" to the full level.

Triple-squares... spline drives... twelve-points... what have you. VW uses them just the same as any other make uses specialty drive fasteners; to make sure their dealer service network stays in business. But you can buy them for home use. I've found brakes, seats, and suspension fasteners with these glorified Torx heads and I bought this 3/8ths set from ZDMak.

\$1.99 at Harbor Freight gets you a set of wire brushes to clean stuff up before you start working... such as those triple-square-headed carrier

When you find those brake pistons extended, take a moment to clean and DRY the dustboots. That accumulation of grit and dirt will gnaw into the boot and eventually lead to a failure and a caliper rebuild. Clean them up nice while they're so generously exposed before squashing them back in. Make sure they're good and dry too so you'll reduce the chance of attracting more crud.

Renting the caliper reset tool is okay, but once you know how to do brakes, HF has this kit for \$20.

If you are clever, you can loosely refit the carrier and caliper for a lot better leverage over the reset tool. Just put things back together, finger tight, while the old rotor is off the car. If you reset and/or bleed like this, the caliper is ready to go all the way back on with fresh pads after swapping the rotor.

Brake cleaner isn't absolutely necessary to remove the protective oil on a new rotor. Soap and hot water do just fine. You will notice the rotor oxidizing before your very eyes no matter what you clean with. If this bothers you, high temp paint for engines of barbecues works reeeeally well. Don't paint the braking surface, but the rotor edges and the hat are fine. A very light smear of antiseize inside and outside the hat makes future rotor replacement and wheel changes go smooth too.

About the angled or "uneven" pad wear, keep in mind these are floating calipers. They almost gimble along the caliper guide pins because the bushings are rubber. You can go hard core with metal bushings like Tyrolsport or others, but the brakes are designed to live, quietly, with the float. Just keep an eye on the pads and rotors and replace as needed... especially now with this nice guide to help.

**Reply With Quote** 

02-11-2009 07:54 AM Reply #25

### JetTurbo o

Member

# GTI

Sep 17th, 2001 Join Date: Location: Cincinnati, OH USA Posts: 1.973 2006 mk5 GTi, 2008 b6

Vehicles Passat 4-Motion Re: FV-QR (scotaku)

I have done rear disc brake work many times, including Mk IV, own all the tools.

I also have a Bentley shop manual for the car and use it for instruction on such tasks. Was reading the DIY as a review in prep for my first Mk V rear replacements.

then I tripped across the above post.

Wow!

scotaku, thank you so much for your insight That kind of experienced info makes a big difference.

Modified by scotaku at 6:49 AM 2-11-2009

I am facing this task soon (70k+ miles on originals) - again thanks

The tip on speedbleeders is superb, I was unaware they existed.

I plan on bleeding every time I change oil / rotate tires (10k) now that I can do it so efficiently. Any recommendation on steel vs stainless steel?

As a manual transmission owner, I assume they would work in the clutch slave cylinder too?

2006 US Mk V bmp GTI mt, 2008 US b6 Passat 4-motion

Reply With Quote

Tim@VMG o

Vortex Media Group Staff



Join Date Location:

Dec 11th, 2001 Baltimore, MD 17,787 Vehicles 2012 GTI Autobahn Re: FV-QR (JetTurbo)

This is in the FAQ now.

The artist formerly known as SilverSLC

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"When you're traveling at lower speeds, and by lower speeds I mean anything under 120 miles per hour..." -Allan McNish

**Reply With Quote** 

#27

02-11-2009 09:42 AM Reply

nickg o

Member

Join Date: Nov 10th, 2001 Posts:

02-11-2009 09:58 AM Reply your ebrake still work ok? normally you'd only retract the piston enough to go over the pads....not all the way so the hand brake works

Reply With Quote

02-11-2009 02:15 PM Reply #28

scotaku o

Member

Join Date Sep 3rd, 1999 Posts: 3,695

Re: FV-QR (JetTurbo)

Quote, originally posted by **JetTurbo** »

The tip on speedbleeders is superb, I was unaware they existed. I plan on bleeding every time I change oil / rotate tires (10k) now that I can do it so efficiently.

Any recommendation on steel vs stainless steel?

As a manual transmission owner, I assume they would work in the clutch slave cylinder too?

I went with stainless steel (part number SB1010SS, fits fronts too) but only because I gathered they would live up to use a little more often. When I was tracking the GTI, I would bleed the brakes before and after each date and sometimes the afternoon/evenings of multi-day events.

I've not used a SpeedBleeder in my manual cars but I cannot see why they wouldn't work. When closed, they seal the system. When open, they only weep when positive pressure in the fluid opens the check valve. Ambient air pressure doesn't overcome the checkvalve so a clutch bleed could be reduced to a one man job too. I'd still keep some fresh fluid on hand to make sure the system is always topped.

Speaking of brake fluid, there are some tradeoffs out there. The owners manual and the Bentley say two years regardless of mileage. That's because even without the rigor of life in a car, the fluid breaks down over time. Two years is the lifespan of your run-of-the-mill stock brake fluid most often seen with a DOT 4 quality label.

Going up from there to DOT 5 or higher temperature fluids nets you a shorter lifespan. The hot juice burns brighter but half as long and obligates you to an annual flush n fill instead of every other year. Ate has some great stuff called Super that comes in gold and blue colors helping make it plain that the exchange of old fluid for new is working. I know on MkIV's and B5's the blue tint in Super Blue would make for squeaky clutch pedals, so caveat emptor with MkV's.

And finally, don't let brake fluid touch your paint! The stuff is caustic and will eat through right down to the metal if left sitting long enough. For that matter, invest in a box of latex mechanics gloves (also found at Harbor Freight) and protect your skin too. if you didn't already know this

about brake juice, enlist a friend who has done brakes before to help you before you try yours a first time.

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Reply #29

02-11-2009 02:20 PM

02-11-2009 09:16 PM

silverA4quattro o

Member

Join Date



Conshohocken, PA Location: 12,594 Posts: Vehicles '10 Jetta TDI, '13 Cruze

Jun 21st, 2004

Those speed bleeders look like a trick idea, but they are exaggerating the cost of a power bleeder. Motive's is less than \$60, a far cry from \$300. Arguably it's just as easy to use as well http://store.motiveproducts.co...15255

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Reply

#30

scotaku 0

Member

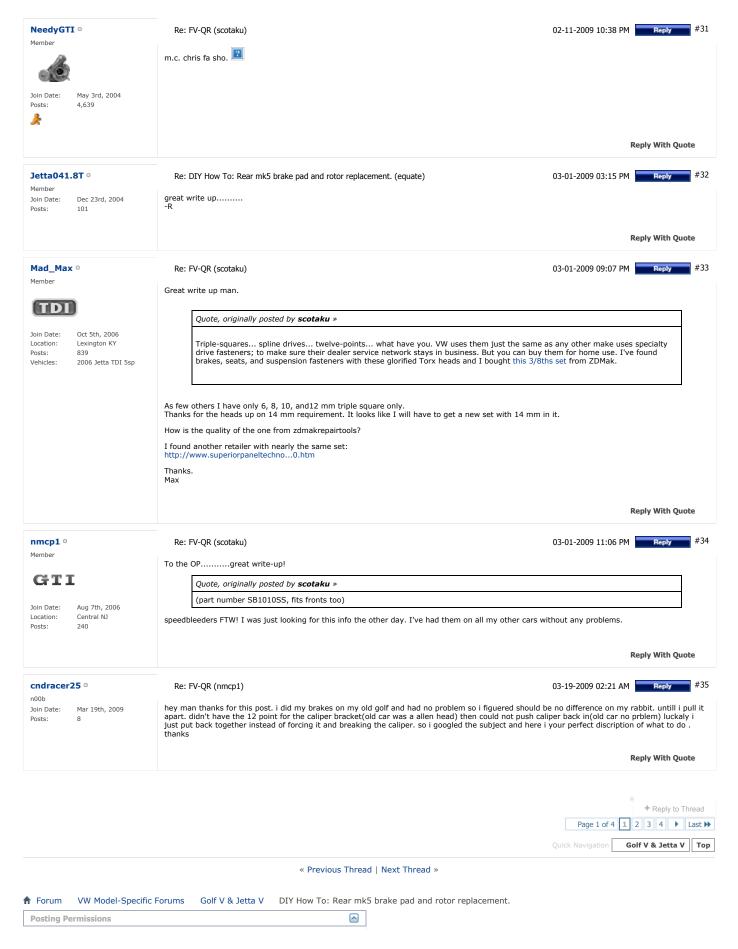
Join Date: Sep 3rd, 1999

FV-QR

I'll sell you my PowerBleeder... I'm not thrilled with it any more and I've honestly never used it on my MkV; I went to SpeedBleeders somewhere

The self you may rever be determined with it any mine and it is interested as a few may rever a sea it of may emptor.

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