

Hello **dwvcfii** it appears that you have not posted on the Bimmerfest forums in several weeks, why not take a few moments to ask a question, help provide a solution or just engage in a conversation with another member in any one of our forums? We appreciate your help in making bimmerfest the best online BMW community!

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DIY: P/S lines replacement & complete FLUSH

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E46 (1999 - 2006)

The fourth generation 3 Series (E46 chassis) was introduced in 1999 and set the standard for engineering and performance during it's years of production including being named to Car & Driver's 10 best list every one of those years! ! -- [View the E46 Wiki](#)



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11-23-2009, 02:27 PM



Starless
 Location: STL, MO

Join Date: Sep 2
 Posts: 445
 Mein auto: 2002
[View My Garage](#)

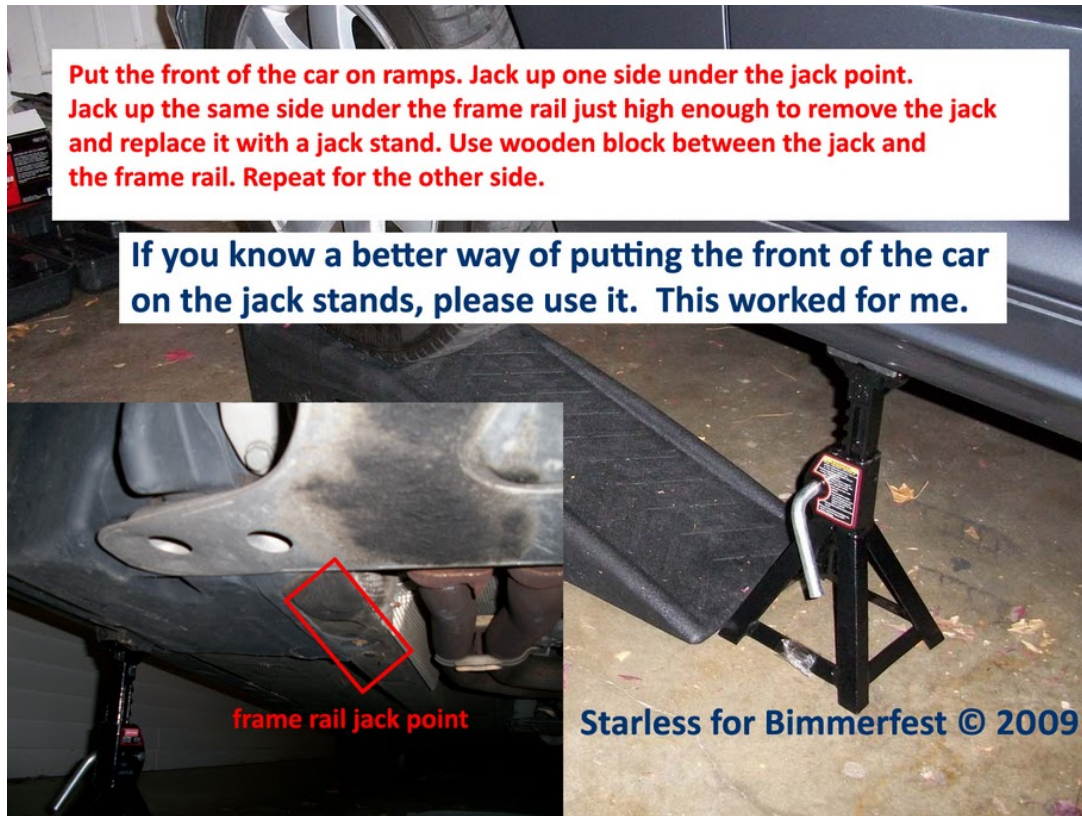
DIY: Power steering lines replacement & complete power steering FLUSH

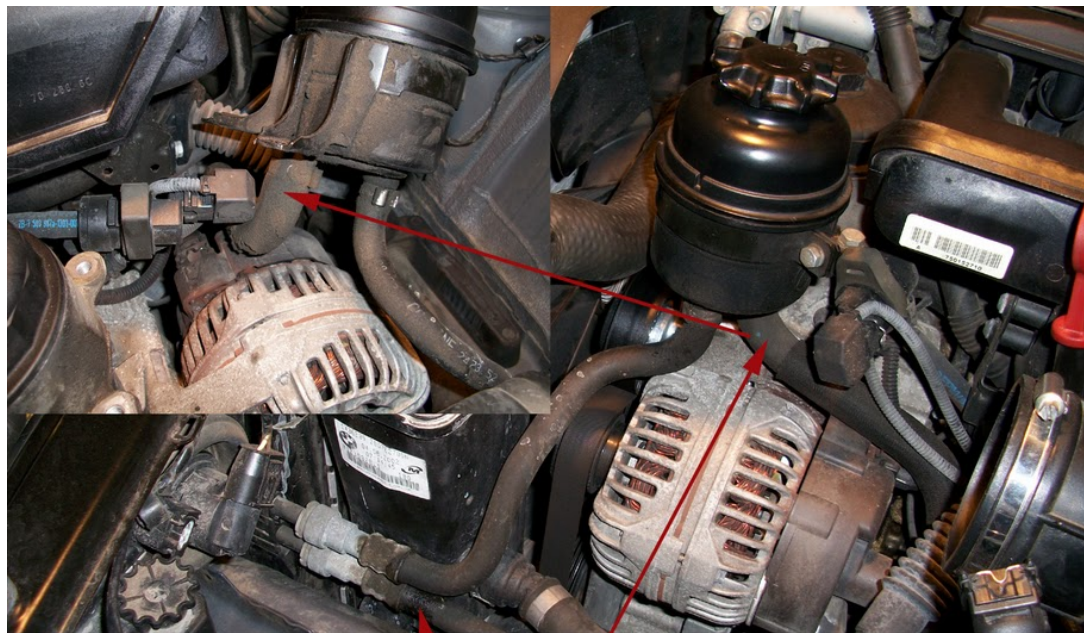
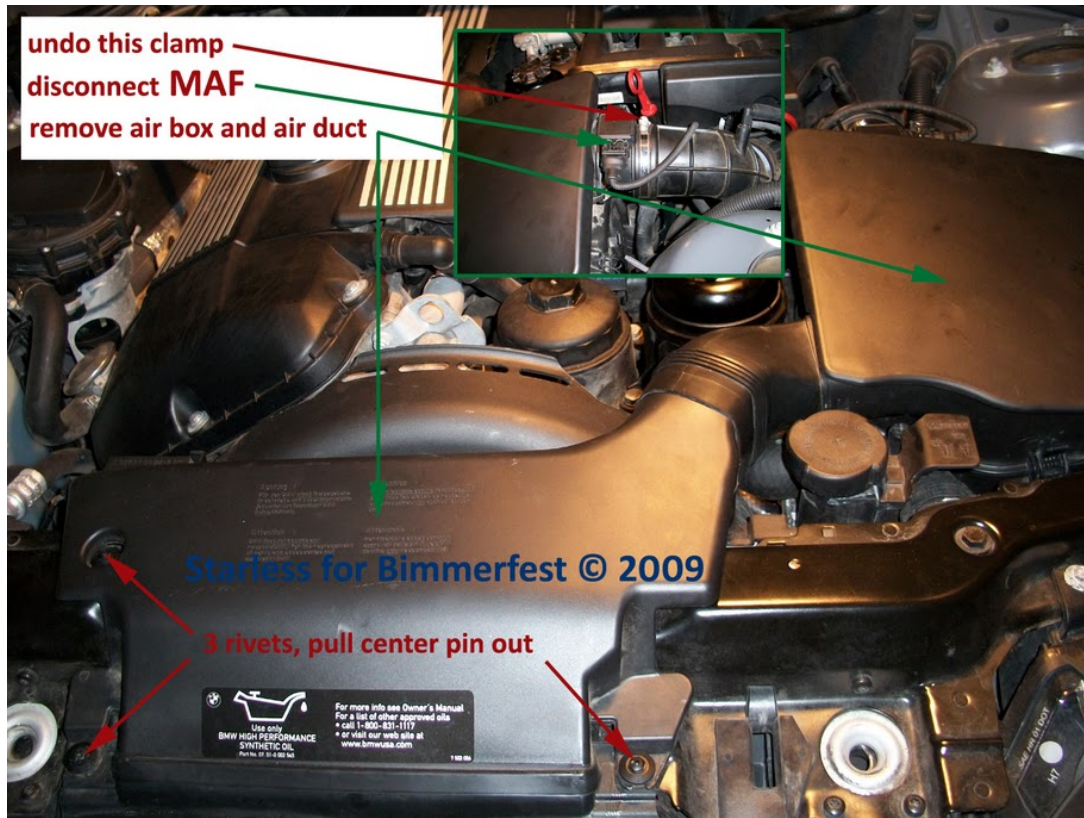
Hello, everybody. I was replacing my P/S lines yesterday and doing the complete system flush. I took pictures and made this picture guide. The reason for doing this was some lines were leaking at a couple of spots and the P/S pump started making louder noise than it used to. After everything is completed, I'm enjoying the non-leaking system and silently working pump.

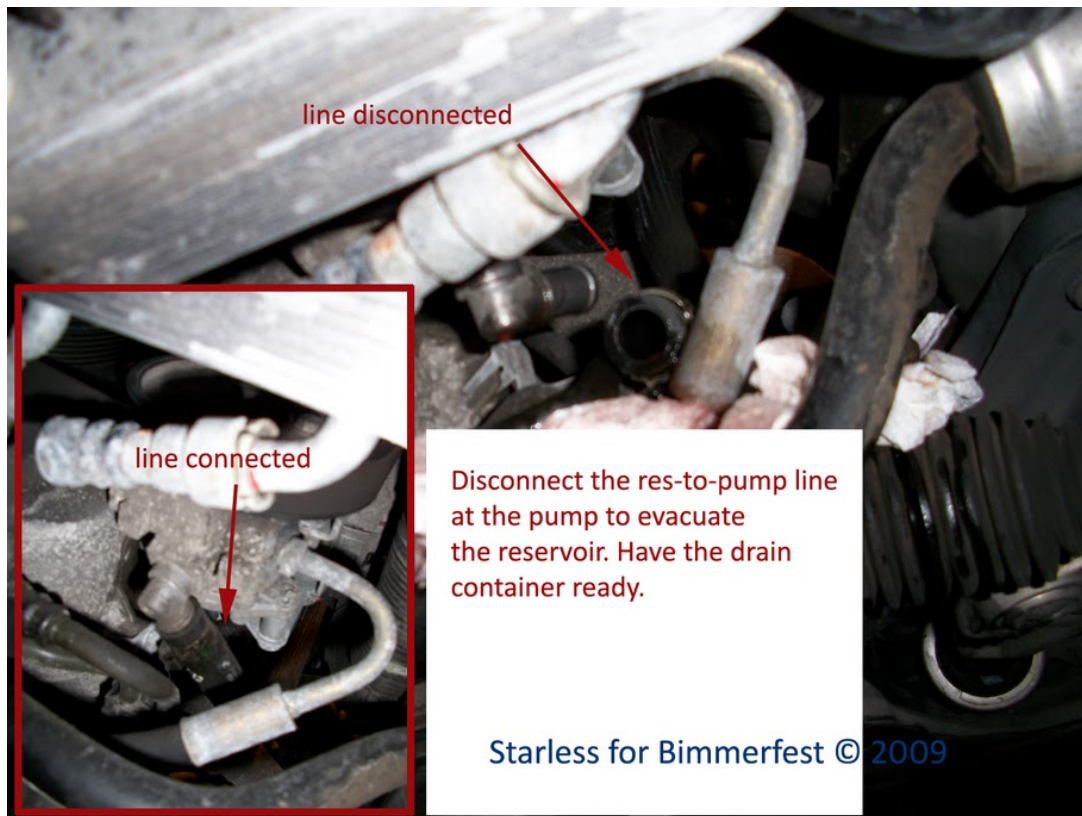
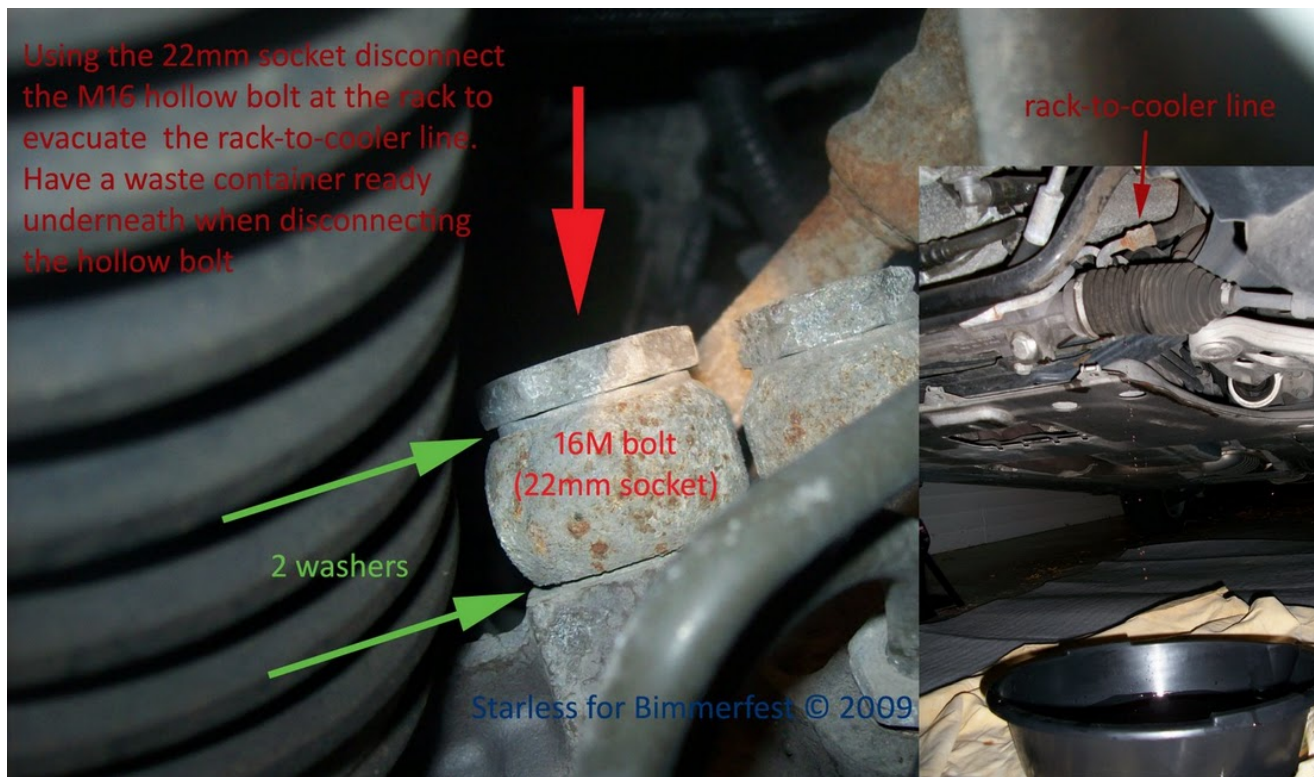
I hope somebody finds this info helpful. All the text is in the pictures. Enjoy!

P.S You know how it works: I'm not responsible if you decide to do the same using my write up and something goes wrong. This is for your information only. I do not recce following these instructions if you do not know what you are doing.









Remove the PS reservoir from its mount (13mm socket)
Cover the area below the res. (alternator, pulleys and belt) with towels
Disconnect the reservoir from lines. There will still be some ATF left in the high pressure line, but this line is rigid and it will stay upright.
Remove the old Res-to-pump line



Using the special tool "BMW 5346" remove the compression fitting of the Cooling coil-to res. line. Have the drain pan ready underneath as more ATF will drain



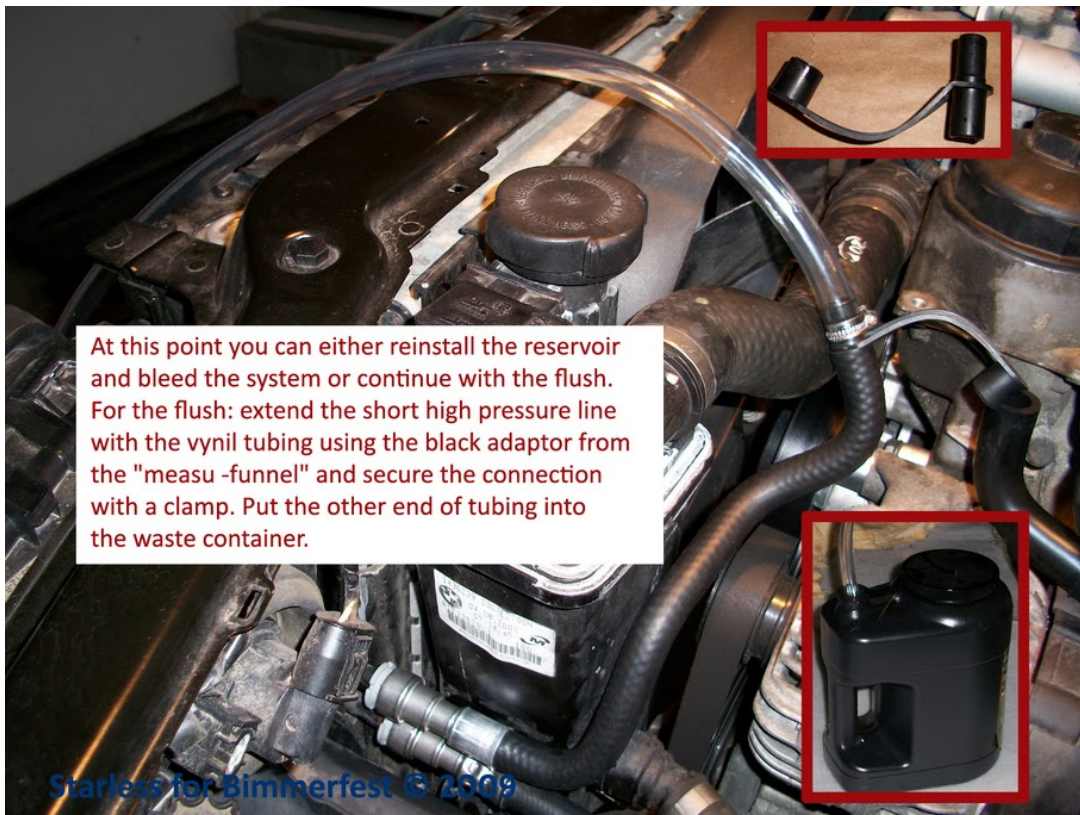
Remove the expansion tank hose from its rubber mount and remove this mount (pull up) in order to get access to one of the 2 fasteners of the rack-to-cooler line. Have the drain pan ready. Disconnect the line using the special tool.

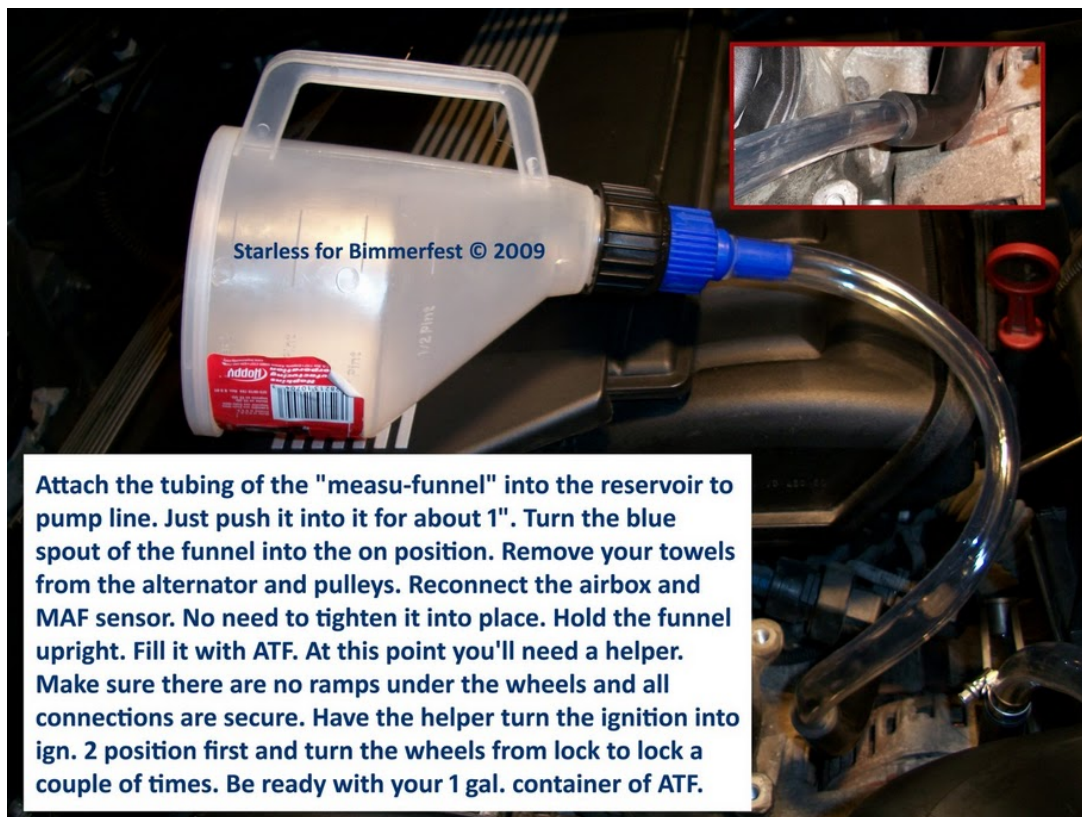
Starless for Bimmerfest © 2009



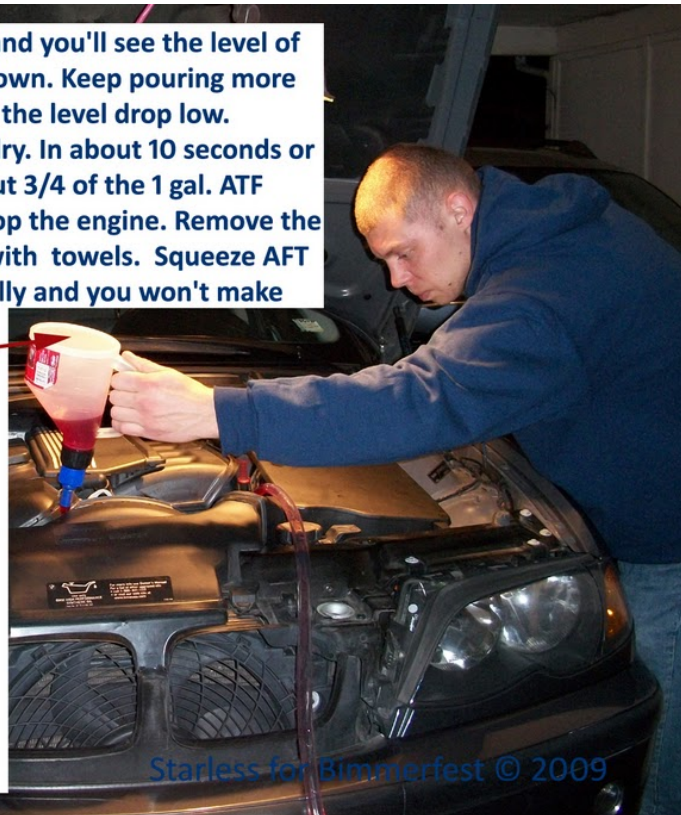
Connect your new res-to pump line to the pump securing it with a 15-19mm clamp (18-24mm will also work)

Install the new longer high pressure line. You will hear a click when it is in place. Put it through 2 fasteners. Reinstall the rubber mount and place expansion tank hose into it. Connect this line at the rack end using 2 new washers and 30 lbs of torque. Install the new short high pressure line. You'll know it's in place when you hear a click again.





Have your helper start the car and you'll see the level of ATF in the funnel start going down. Keep pouring more ATF into the funnel. Do not let the level drop low. Otherwise the pump will run dry. In about 10 seconds or so you'll be through with about 3/4 of the 1 gal. ATF container. Tell the helper to stop the engine. Remove the air box again. Cover the area with towels. Squeeze ATF from your tubing. Work carefully and you won't make a mess.



Install new PS reservoir. Tighten hoses with clamps (18-24 mm and 15-19mm). Install back the air box and the air intake duct. Connect MAF and tighten the clamp.

Fill the reservoir with ATF. Do not close the cap. Turn the key to ing. 2 position. Turn the wheels lock to lock 3 times. Check the level. Add ATF if needed. Start the car. Turn the wheels from lock to lock 3 times. Shut the engine. Check the level. Add ATF if needed. After the complete flush there will be very little air in the system. So bleeding is an easy process. Put the cap on. Make sure everything is installed correctly. Make sure there are no leaks at all connections. Check M16 bolt for signs of leak under the car.



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**Put back the plastic cover under the car.
Drive around the block. Re-check the level.**

Disclaimer: Follow these instructions at your own risc. I will not be responsible for any damage or injury following these instructions may cause to you or your car. These instructions are for your information only and I do not recommend following them unless you know what you are doing. This is only a discription of what I did to my car.

Thank you for reading!



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Regards,
Alex



[*P/S Maintenance and f](#)
[*Expansion](#)
[*Oil Separ](#)

Last edited by Starless; 11-26-2009 at 10:42 PM.



11-23-2009, 02:57 PM

sjanders
Registered User
Location: Richmond, VA

Very nice write-up 🙌

#2 ⚠️

Join Date: Jun 2009
Posts: 15
Mein auto: 2005 e46 325
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11-23-2009, 03:43 PM



MicahO
Dasawwwg will hunt!!
Location: Warwick, NY

Nice write-up - great flush method. I love seeing great DIY's for stuff I haven't had to do yet, but will someday.

#3 ⚠️

Join Date: Apr 2004
Posts: 903
Mein auto: 330i ZHP
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--Micah O'C

CCA 193374 '04 ZHP, Jet Black 6spd, hot seats, LightWerkz TFX-Xenon
Strut/SwayBarbarians, PowerFlex CAB/TAB, Performance Gearing 3.38 LSD



11-23-2009, 04:18 PM



Starless

Location: STL, MO

Quote:

Originally Posted by **sjanders** 🙌
Very nice write-up 🙌

Quote:

Originally Posted by **MicahO** 🙌
Nice write-up - great flush method. I love seeing great DIY's for stuff I haven't had to do yet, but will someday.

#4 ⚠️

Join Date: Sep 2009
Posts: 445
Mein auto: 2002 325i Auto
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Thank you guys! People ask about the PS flush all the time. I figured it'd be a good thing to offer an alternative to the "turkey buster" method.

Regards,
Alex



[*P/S Maintenance and Flush DIY*](#)
[*Expansion Tank DIY*](#)
[*Oil Separator DIY*](#)



#5

Join Date: Jul 2007
Posts: 12,433
Mein auto: A friggin manual trans!!
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11-23-2009, 04:28 PM



smolck
ROLL TIDE!
Location: Birmingham, AL

Wow, this is one of the best DIY's I have seen. We should all take notes, THIS is how to do a DIY!



^^That's my Subframe^^

Are you following my BMW Blog? <http://smolckbmw.blogspot.com/>



#6

Join Date: Oct 2009
Posts: 245
Mein auto: 2005 330Ci Convertible
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11-23-2009, 10:10 PM



daydreamer69
home sweet home...
Location: Strong Island, NY

u rock starless!!!
excellent write-up, pics & editing
i vote for wiki



PREMIUM | COLD | SPORT | XENON | BLUETOOTH | IPOD



#7

11-23-2009, 10:43 PM



Starless
Location: STL, MO

Join Date: Sep 2009
Posts: 445
Mein auto: 2002 325i Auto
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Quote:

Originally Posted by **smolck**
Wow, this is one of the best DIY's I have seen. We should all take notes, THIS is how to do a DIY!

Quote:

Originally Posted by **daydreamer69**
*u rock starless!!!
excellent write-up, pics & editing
i vote for wiki*

Thank you, guys! Appreciate your comments. The write-up took like 2 times longer than the job itself 😊

Regards,
Alex



11-23-2009, 11:15 PM



Solidjake
Location: NYC

Excellent work 😊

Please add this to the wiki

Jake



Solidjake

11-23-2009, 11:32 PM



jcatral14
Running around in circles
Location: Northern NJ

Excellent job 😊
Yes, this should be in the Wiki 😊

[*P/S Maintenance and Flush DIY*](#)
[*Expansion Tank DIY*](#)
[*Oil Separator DIY*](#)



#8

Join Date: May 2007
Posts: 13,966
Blog Entries: 1
Mein auto: Silver bullet
[View My Garage](#)



#9

Join Date: Aug 2003
Posts: 3,356
Mein auto: E46 ZHP
[View My Garage](#)

2005 Imola Red 330i 6MT, ZHP, ZCW, Xenons 🇺🇸



Previous Bimmers (All sorely missed 🙏):
2007 Mystic Blue 530i - ED 12-15-06 🇺🇸
2003 Grey Green 330i
2003 Electric Red 325iTa

Angular velocity is where it's at 😊



-Jay



11-24-2009, 01:39 AM

#10 🚩



wag-zhp
bimmerfest Supporting Member
Location: Sacramento, CA

Join Date: Apr 2004
Posts: 2,672
Mein auto: 97 White 328iC, 03 Red Z4
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Quote:

Originally Posted by **Starless** 🗨️
Thank you, guys! Appreciate your comments. The write-up took like 2 times longer than the job itself 😊

Yep, the actual repair or maintenance work never takes as long as developing a well written DIY guide. Nice job, with excellent pictures and descriptions! 🇺🇸

When it absolutely, positively, has to be destroyed overnight! OohRaah!!!

U. S. M. C.
Semper Fidelis



11-24-2009, 06:39 AM

#11 🚩



wingspan
Value Instiller
Location: Floriduh

Join Date: Jul 2003
Posts: 9,765
Blog Entries: 1
Mein auto: Sedan
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Quote:

Originally Posted by **Solidjake** 🗨️
*Excellent work 😊
Please add this to the wiki*



Great job.

"Optime positum est beneficium ubi meminit qui accipit"

-- **Syrus**



11-24-2009, 12:36 PM

#12 🚩



968RACER
Registered Loser
Location: New Berlin, WI

Join Date: Nov 2006
Posts: 258
Mein auto: 330Ci ZSP ZCW ZPP
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Wow. This had everything. Inventory of parts with prices. Step by step. Great photos. Well done.



11-24-2009, 01:50 PM

#13

gfeiner
Officially Welcomed to the 'Fest
Location: In lala land

Join Date: Jun 2003
Posts: 377
Mein auto: 2003 Titanium Silver 330i
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E46 (1999 - 2006)

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All times are GMT -5. The time now is 12:43 PM.

-- Bimmerfest 2009

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