

Leo's Z3 Corner!

Episode 7: Zee Hot Car with the Plastic Water pump! What could go wrong???

In a word, PLENTY!! I went and checked if any of the BMW factory recalls for Z3's pertained to the cooling system. I saw some issues with early 4 cylinders that changed leaky or failed water pumps. There were only relatively minor other things that the dealers would have corrected along the way (lighting, electrical) One of our club members, Ken Yonak had his plastic impellor disintegrate at 37k miles in his Z3. He is now at 68k after using a metal WP as part of the repair that included the damaged radiator. So here we are..... Many of us now with 75K plus miles and have 20 something years of service on our cars and we want to maintain the **reliability** of the vehicle. I started reading, as many of you know, the BMW Forums. I found much information about our cooling systems components and potential breakdowns. See Forums below.

<https://www.bimmerfest.com/forums/gtsearch.php?q=water%20pumps%20z3> water pumps List

<https://www.bimmerfest.com/forums/showthread.php?t=452603>
Water pump failure -fact or fiction

<https://www.bimmerfest.com/forums/showthread.php?t=713745> Cooling system for BMW 101- why does the E-36 (what our car is based on!) Cooling system have to be replaced every 75K -100K miles /

So, mechanics, turned writers, have firsthand knowledge with the issues of wear and aging. Yes we have a mechanical water pump with a plastic impeller. There is a discussion about metal verses the new resin impeller. Weight is not the issue and the new metal one should never suddenly disintegrate and crunch damaging pieces into the radiator... possibly cutting hoses and taking the fan and the radiator with it, spilling hot coolant and blasting steam all around your hood and engine. AND shutting you down God only knows where? It really is just a matter of preventive maintenance with these lovely little cars, I conclude.

As well as our cars run, the issue is still about what happens when the plumbing fails unexpectedly AND if there will be any warning signs. It turns out, unfortunately, the Z3 temp gauge is really a three zone light switch; cold, normal and hot, like; green yellow and red positions for the needle, not varying by increments of degrees. If you suddenly **see the needle in the RED, shut it off!!** With our aluminum blocks and head and with iron threaded inserts for the head bolts, overheating these engines can be catastrophic. Just **don't** try driving them HOT even for a little bit! Ever!! So now I know why, (and I'm shuddering to recall it!!) that my temp guage never moves a dot; not in driveway, not on the hyway or on the race track! Yikes! I've been lucky!! Feeling a little urgency yet?

Seems to me, the time to replace a LOT of brittle plastic and old rubber is NOW! The plastic thermostat housing, plastic expansion tank, end caps on the radiator, old fan clutch ?? Water pump... Where do I stop? What can I keep? Maybe you were going to flush out and change your coolant anyway. So just add a zero after the original cost of two gallons of Beemer correct

antifreeze!! Actually, we, being in such a Hot climate, only need 1 gallon to keep the maximum cooling efficiency, not protection from freezing. Water is a better thermal conductor of heat than anti-freeze.

SO, WHERE is it possible to get ALL the pieces to install a nearly complete cooling system? I guess each after market supplier for BMW sport cars has their strength. I started comparing on-line, the info and parts listed for the complete undertaking. TurnerMotorsports.com has a lot but takes too much time to figure the right parts. I found that BimmerWorld.com was better at putting pieces in groups that belong or work together. See Bimmerworld links to our Z's below... My techie, sales-guide/guru, (Patrick Grace ext.3017) was very patient and thorough having done the same upgrade to his '90's 318i which shares much of our E36 mechanical platform. Terry Condon, in our Z Club pointed out that ECS Tuning, Parts and Performance, a subsidiary of TURNERS MS, ecstuning.com, IS indeed another vast resource for finding what you need esp. if you are considering doing the labor yourself. I am definitely not!

<https://www.bimmerworld.com/Cooling/> Intro to cooling systems from Bimmerworld

Patrick Grace

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[Coolant Expansion Tank Cap, OEM - E36, E46, E34, E39, E38, X3, X5, Z3, Z4](#)

\$9.99

SKU: #17117639022.Behr/Hella

Quantity:

Amount: \$9.99

[Remove](#)



[Expansion Tank, Rein - E36 323i/325i/328i/M3, E39 528i, Z3 2.8, MZ3 S52](#)

\$29.99

SKU: #17111723520.Rein

Quantity:

Amount: \$29.99

[Remove](#)



[Brass Radiator Bleeder Screw - Most BMWs](#)

\$5.99

SKU: #17 11 1 712 788

Quantity:

Amount: \$5.99

[Remove](#)



[Radiator, OEM - Z3 2.8 97-98, MZ3](#)

\$170.99

SKU: #17111433025

Quantity:

Amount: \$170.99

[Remove](#)



[Expansion Tank to Return Hose, Rein - 11 53 1 740 649](#)

\$19.99

SKU: #11 53 1 740 649

Quantity:

Amount: \$19.99

[Remove](#)



[Expansion Tank to Radiator Overflow Hose, Rein - E36 325/328/M3, Z3, MZ3](#)

\$5.99

SKU: #17 11 1 723 521

Quantity:

Amount: \$5.99

[Remove](#)



[Fan Clutch - M50 / M52 / M54 / S50 / S52 - 11527505302](#)

\$47.17

SKU: #11527505302.Aftermarket

Quantity:

Amount: \$47.17

[Remove](#)



[Lower Radiator Hose, Rein - 11 53 1 436 988](#)

\$11.99

SKU: #11 53 1 436 988

Quantity:

Amount: \$11.99

[Remove](#)



[Upper Radiator Hose, Rein - E36 323is/325i/328i/M3](#)

\$13.99

SKU: #11531708499

Quantity:

Amount: \$13.99

[Remove](#)



[Belt and Pulley Set, OEM - E36, E34, E39, Z3](#)

\$89.99

SKU: #S52-BELTS-PKG2

Quantity:

Amount: \$89.99

[Remove](#)



[E46 3 Series / E36 328i / Z3 Aluminum Pulley For Power Steering](#)

\$24.99

SKU: #32 42 1 740 858

Quantity:

Amount: \$24.99

[Remove](#)



[Water Pump & Thermostat Package, Composite - E36, Z3](#)

\$116.06

SKU: #11517527799KC

Quantity:

Amount: \$116.06

