MISHIMOTO BMW E36 328IS THERMOSTAT, 1992-1999

PARTS LIST AND INSTALLATION GUIDE

PARTS LIST

1PC | MISHIMOTO RACING THERMOSTAT

TOOLS NEEDED

RATCHET FLATHEAD SCREWDRIVER

8MM SOCKET NEEDLE NOSE PLIERS

10MM SOCKET COOLANT

13MM SOCKET COOLANT FUNNEL #4 HOSE CLAMP COOLANT DRAIN PAN

JACK + JACK STANDS ZIP TIES

EXTRA TOOLS

BMW SPECIFIC WATER PUMP HUB HOLDER

32MM WRENCH

DISCLAIMER

- Mishimoto Performance is not responsible for any vehicle damage or personal injury due to installation errors, misuse, or removal of MP products.
- MP always suggests that a trained professional install all MP products.
- Refill coolant system with 50/50 coolant, unless specified by the manufacturer.
- Do not run the engine or drive the vehicle while overheating.
 Serious damage may occur.

INSTALLATION INSTRUCTIONS

01 | REMOVING THE OEM RADIATOR & OEM RADIATOR HOSES

- 1. Using a jack, securely support the vehicle on jack stands or use a vehicle lift. Disconnect the negative terminal from the battery. (Located in the trunk).
- **2.** Use your flathead screwdriver to loosen the coolant bleed screw, located directly next to the coolant filler neck.
- **3.** Use your flathead screwdriver to remove the coolant drain plug located beneath the radiator under the car. Drain all coolant from the vehicle using a drain pan to catch all used coolant.
- **4.** To remove the front intake duct, use your ratchet to remove the four 8mm bolts securing it.
- **5.** Remove the alternator duct by using your flathead screwdriver to loosen the hose clamp securing it.

- **6.** Remove the upper radiator hose, again using your flathead screwdriver to loosen the hose clamp that secures it.
- 7. Remove the lower radiator hose. It is possible to do this from inside the engine bay. Using your flathead screwdriver, you will need to loosen the two hose clamps that secure it. One is located on the lower side of the radiator, and the other on the front of the engine.
- $\pmb{8}.$ Use your flathead screwdriver to unclip the upper radiator mounting points.
- 9. Use your needle nose pliers to remove the upper bleed-off tube.
- **10.** Remove the fan shroud from the radiator by using your flathead screwdriver to remove the push pins on each side at the top of the radiator.



- 11. Unplug the temperature sensor from the side of the radiator by pressing the push clip on the bottom of the sensor.
- 12. Remove the radiator from the engine, pulling straight up.

02 | REMOVING THE OEM THERMOSTAT

- 1. Unclip the lower coolant hose from the frame rail.
- 2. Unplug the coolant sensor on the bottom of the reservoir.
- **3.** Place the BMW specialty water pump tool on the water pulley bolts while placing your 32mm wrench on the clutch fan.



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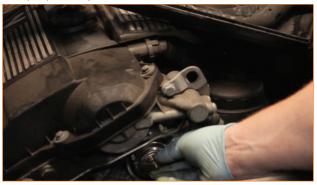
02 | REMOVING THE OEM THERMOSTAT CONTINUED

- 4. Twist your 32mm wrench clockwise to loosen the clutch fan.
- 5. Remove the clutch fan by turning it clockwise.
- **6.** Unbolt the thermostat housing by removing the 13mm bolt and three 10mm bolts.
- 7. Remove the thermostat housing to expose the OEM thermostat for removal.



03 | INSTALLATION OF THE MISHIMOTO PERFORMANCE THERMOSTAT

1. Install the new Mishimoto thermostat (there is no improper way) and replace the thermostat housing. Reinstall the four housing bolts you previously removed.



- ${\bf 2.}$ Screw the clutch fan back in place, turning it counterclockwise.
- **3.** Use the BMW specialty tool to hold the water pump pulley, while using your 32mm wrench to tighten the clutch fan in a counterclockwise direction.
- 4. Replace the fan shroud back over the clutch fan.
- **5.** Replace the lower coolant line back to the frame rail and secure with zip ties.

04 | REINSTALLATION OF THE OEM RADIATOR & RADIATOR HOSES

- 1. Place the OEM Radiator back into the vehicle, making sure to seat the mounting pegs back into the holsters properly. (The vehicle in the photo was previously equipped with a Mishimoto radiator, which shares the same installation process of the OEM radiator.)
- 2. Plug the coolant temperature sensor back in beneath the reservoir.
- **3.** Screw the fan shroud back into place onto the radiator. [The vehicle in the photo was previously equipped with a Mishimoto radiator and new Mishimoto hardware. For this install, the OEM hardware is reused.]
- 4. Refasten the upper radiator mounting points.
- **5.** Reconnect the upper bleed-off tube to the radiator and secure it with a #4 hose clamp.
- **6.** Reinstall the upper radiator hose and secure it, reusing the OEM hose clamps.
- **7.** Reinstall the lower radiator hose, utilizing the OEM hose clamps again. Sliding the clamps onto the hose prior to installation is recommended due to the tight spaces.
- 8. Reattach the front air intake duct, securing it with the four 8mm bolts.
- $oldsymbol{9}.$ Reattach the alternator duct and tighten the hose clamp to secure it.

05 | COOLANT REFILLING & INSTALL COMPLETION

- 1. It is now time to refill the vehicle with coolant. Screw the coolant drain plug back in if you have not done so already. Insert the funnel into the filler neck of the radiator and begin to pour in a 50/50 mix of coolant and distilled water.
- ${\bf 2.}\ {\sf Tighten}\ {\sf the}\ {\sf coolant}\ {\sf bleed}\ {\sf screw}\ {\sf that}\ {\sf you}\ {\sf loosened}\ {\sf earlier}.$
- **3.** Reinstall the radiator cap and reconnect the negative terminal on the battery and start the vehicle, making sure the vehicle is in neutral or park.
- **4.** With the vehicle running, turn the heat on high. Monitor the temperature gauge to make sure the vehicle does not overheat.
- **5.** Using a jack, raise the vehicle, remove the jack stands and lower the vehicle, or lower the vehicle on the lift you were using.