

Water (Heater) Valve Replacement

Blowing hot/warm air when the HVAC is set to 16 degrees? My immediate thought was the water valve which opens/closes, allowing hot coolant in the heater core. I assumed the valve was stuck and would not close completely, hence allowing coolant flow in the core. I went ahead and bought a replacement valve from Tischer BMW (USA).

The old one as it was in the car



First I had to remove the airbox to allow some space to work.



Remove 3 push-lock pins for the air intake assembly



Unplug MAF and loosen the big clamp that holds the intake boot on the MAF



Remove the 2 x 10mm bolts that hold the airbox assembly in place



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Airbox removed



Unplug the water valve connector



Pull the water valve out of its 3 rubber guides to reveal the 2 hose clamps screws. Use a flathead screwdriver to undo both screws, paying attention which is the upper and which is the lower hose.



The new water valve
Front:



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Rear:



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Coolant flow arrow



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I placed a rag underneath the water valve to catch the coolant and pulled both hoses out. Then I immediately placed the new water valve and pushed both hoses back in place. Screwed both clamps and secured the valve in place. Plug the connector in the valve. Re-install airbox and MAF connector. Job almost done.



Since air was introduced in the system from the partial coolant loss, I bled the system just to make sure. Removed coolant cap, loosened the bleed screw, started the engine and set the heater temp to its highest setting (32 degrees Celcius) in full blast. Setting the temp in the highest setting would open the water valve allowing coolant flow in the entire system. I topped up the coolant with a 50/50 mix of BMW Antifreeze and distilled water so that the indicator would go to the top mark. As soon as bubble-free coolant started to come out from the bleeder screw, I tightened it, turned off engine and replaced coolant cap.



Job done. Now I have outside environment temperature air even when the A/C is off. I'll open the old water valve to see what actually failed. The heater valve connector wires were a bit exposed for some reason so I applied a generous amount of PVC tape for protection.

