

42 Draft Designs

VW mk4 1.8T Water Temp Sender Adaptor Installation Instructions

Tools Recommended: 5mm T-handle Allan wrench, pliers, steel wool or coarse scotch-brite pad, basic screwdriver set, basic metric and American socket set

In order to perform this installation you need to know your way around the 1.8T engine bay. The coolant must be drained, the factory airbox must be removed, and various hoses need to be removed in order to access the factory coolant flange. Anything removed needs to be re-installed correctly in order for the engine to run properly. These installation instructions will cover installation of the adaptor at the factory coolant flange. If you are uncomfortable working under the hood, do not hesitate to seek professional help.

Warning! Never work on a warm motor! Hot coolant and metal burns skin. This installation should only be performed on a cold motor.

Warning! Use **Blue Loctite** on the included hardware.

Warning! Thread sealant should be used on the water temp sender. Use 1-2 wraps of Teflon tape to create a tight seal. Too much sealant will cause a loss of ground. In this case less is more. Liquid pipe thread sealant may also be used.

1. Drain the coolant using the factory drain valve located at the bottom of the radiator. Use a clean, low profile container and be careful not to spill or dirty the coolant.
2. Remove the factory airbox or aftermarket intake. Remove the factory engine cover. Remove the secondary air injection hose at the combi valve. Unplug the factory coolant temp sender. You may choose to remove the brake booster vacuum tube and valve cover PCV hose if either block access to the factory coolant flange.
3. Using a 5mm T-handle Allan wrench, remove the two bolts which hold the factory coolant flange to the head. There is a pair of stainless steel lines mounted to the factory coolant flange via a thin tab. Push these lines down and pull the coolant flange away from the head.
4. Remove the factory seal and clean up the coolant flange. Wipe away any crystallized coolant or dirt.
5. Clean up the side of the head using steel wool, a wire brush, coarse scotch-brite, or any combination of the three. The sealing surface on the side of the head should be smooth and free of crystallized coolant, dirt, and grease.
6. Install your aftermarket sending unit into the adaptor now. Use 1-2 wraps of Teflon tape and the appropriately sized wrench to tighten the sender.
7. Install a new factory seal in the groove on the adaptor. Install a new factory seal in the groove on the coolant flange. With seals installed, sender installed, and everything clean you may now install the adaptor. Fit the adaptor in place by sliding the tab on the stainless lines into the slot on the bottom of the adaptor. The seal should face the head. Move the factory coolant flange back into place and line everything up using the included bolts. Hand tighten the bolts and adjust fitment as needed. Be sure to install the included washers directly under the head of the bolts and use **Blue Loctite** on the threads.
8. Tighten the bolts to roughly 30 ft/lbs using a 5mm T-handle Allan wrench. The adaptor should sit flat on the head and the coolant flange should sit flat on the adaptor. Connect your wire to the sending unit now while there is room to work.
9. Re-connect and re-install any factory parts removed. Refill the coolant using what you drained. Start the motor and watch carefully for leaks while refilling the coolant. It will take a short drive to bleed any air out of the coolant system.

This adaptor will allow installation of an aftermarket water temp sender directly inline with the factory sender. Like the factory water temp gauge, your aftermarket gauge will not provide any reading until the thermostat has opened and warm coolant is being circulated through the system. Unlike the factory gauge, your new gauge should provide an accurate reading of your engine's water temperature.

Go drive and enjoy your new gauges!