



Oil Cooler Upgrade Install Guide

CAUTION: Before beginning please make sure that the engine is completely cold. Hot engine will have extremely hot oil and components leading to the danger of being burned. Install at your own risk. Not recommended for novice installers.

Tools needed for install:

13mm, 8mm, and 6mm socket wrenches with extension

T20H Torx wrench

7/8th stubby wrench

17/64 drill bit

Ruler

Dremel or similar cutting tool

STEP 1: Remove air duct screws and disconnect air intake piping so that you can have room to access the oil cooler thermostat housing.





STEP 2: Using a 13mm socket wrench remove the bolt that holds the oil cooler lines into the thermostat housing. Please place a container under the thermostat as it contains oil.



STEP 3: Using a 13mm socket wrench with extension, remove the screw on the other end of the oil lines. Note: Place a funnel under the oil fitting because the lines may contain oil.



STEP 4: Locate the thermostat housing adaptor provided in your V K Motorwerks oil cooler upgrade kit. It will look like the part shown below:



Step 5: Using the bolt that you previously removed from the thermostat, re-attach the V K Motorwerks adaptor to the thermostat housing. You may use some grease to help lubricate the adaptor.



Step 6: Lift up your car and remove your right wheel to access the wheel liner bolts.



Step 7: With the 8mm wrench remove all the bolts holding the wheel well cover in place. Caution: pull off the wheel well liner SLOWLY...there is a Tire Pressure Monitoring (TPM) sensor attached to the rear of the liner. Simply push the tabs together and the plug should slide out. Do not use excessive force.



Step 8: Remove the screws and bolts on both sides of the cooler. Please keep the cooler straight when you remove it since it will be filled with oil.





Step 9: Remove the air vent that is behind the OEM oil cooler by loosening the tab inside the oil cooler air vent and pulling up.



Step 10: Now you must remove the brake duct vent. You can do this by removing the 8mm bolt located on the bottom left and side of the air vent.



Step11: Using a T20H Torx socket remove the metal bracket attached to the top of the OEM oil cooler.



Step 12: Reinstall the bracket, you just removed to the top of the V K Motorwerks oil cooler with the two 6mm hex head bolts that came in your kit.



Step 13: Remove the rubber rings from the OEM oil cooler and install on your new oil cooler.



Step 14: Place your brake duct vent as shown below:



Step 15: From the left edge, measure 1 inch in and draw a line going perpendicular to the duct. From the same left edge, measure 4 inch in and draw a perpendicular line at this spot. It should look like this:



Step 16: Cut out the area in between the lines.



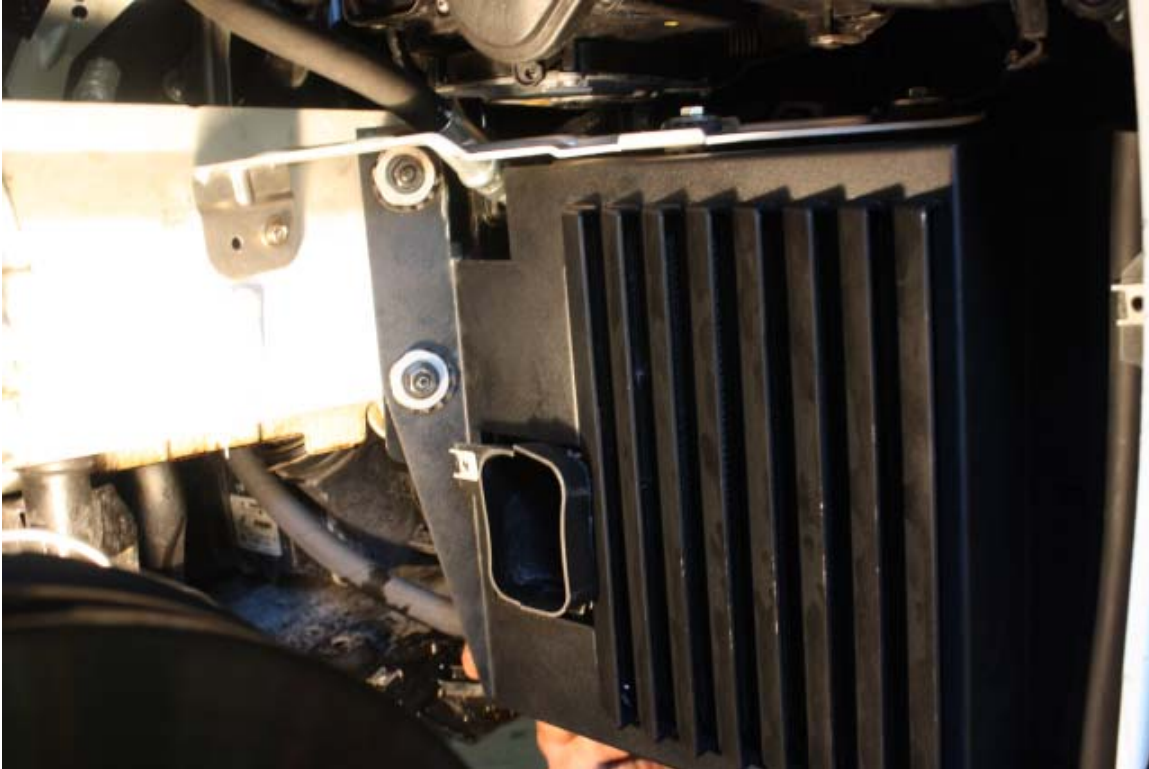
Step 17: After completing step 16, your brake duct vent should look like the picture shown below. Reinstall the vent.



Step 18: By hand, attach the hose with two 90 degree fittings to the inlet on the top of the V K Motorwerks oil cooler. Attach the straight fitting to the bottom of the oil cooler. Do not tighten the hoses yet.



Step 19: Mount the bracket and install the oil cooler to the car. Once the oil cooler is mounted use a 7/8th stubby wrench and tighten both of the hose fittings. This is probably the toughest part of the install because of the tight space. Now just for kicks compare your OEM oil cooler to the new one you just installed. ☺



Step 20: Run the lines to the thermostat adaptor and connect them. Make sure that they are not rubbing up against anything that can make them rip. Also make sure not to over-tighten the hoses.

Step 21: Now you will have to relocate your TPM sensor. To do this you will have to poke out the pins in your wheel well liner.



Step 22: Place the TPMS as shown in the picture below and use a 17/64 drill bit to make holes to install the locking tabs.



Step 23: Take the OEM oil cooler vent with the side of the vent that faces into the wheel well count to the third vent fin from the left. Measure up 5.25 inches from the bottom. Now mark this spot and cut as shown in the pictures below.



Step 24: Now you will need to cut the backing of that vent: Mark the top of the vent as shown and cut.



Step 25: Now you have to cut the wheel well liner. Mark and cut as shown below. Use the left and bolt screw as a reference point to figure out how far to cut down.



Step 26: Now install the wheel liner and vent and you should end up with this:



Step 27: Put on the wheel and air intake hose that you took out. Check your oil level, add a quart if needed.

Step 28: Enjoy your car!

