



INSTALLATION INSTRUCTIONS

APPLICATION: 2011-2014 MUSTANG GT 5.0

ENGINE OIL COOLER KIT - PART # 20542



Please read these instructions completely before beginning installation

KIT CONTENTS

QTY.	DESCRIPTION	QTY.	DESCRIPTION
1	16 Row Stacked plate cooler	2	-10AN x -10AN alum fitting
2	Aluminum Dual cooler brackets	1	Sand Adapter 1/2 NPT
2	Mounting brackets	1	230 O-ring
4	M8-1.25 x 40mm 10.9 hex head bolts	1	22mm x 1.5 Sleeve nut
4	M8-1.25 nylon lock nuts	1	Hose mounting bracket
4	M8 flat washers	2	1/2" NPT to 10AN fitting
4	3/16" mounting bracket spacers	2	Pre made braided hoses
		2	8" Wire ties

TOOLS NEEDED

11mm wrench	8/10 AN wrenches
13mm wrench	Trimming tool
11mm socket drive	Thread sealing tape
7mm socket drive	Plastic fastener removal tool
1 1/8" socket drive	OR flathead screwdriver
3/8" drive ratchet	2 quart of oil
1/2" drive ratchet	Various ratchet extensions

PRE-INSTALLATION

1. Make sure to have an extra two quarts of oil available to top off capacity. Installation may not use the entire 2 quarts, be sure to check the dipstick every half quart to prevent overfilling.

VEHICLE PREPARATION

1. Park vehicle on a solid, level surface and allow vehicle to completely cool before beginning installation.
2. Engage the parking brake.
3. Disconnect the Negative (-) terminal on the vehicles battery.

REMOVAL OF BODY COMPONENTS

1. Begin by removing the plastic fasteners holding the plastic radiator cover in place and lift off the whole piece (See Diagram #1).
2. Remove the (2) 8mm bolts close to the inside of the headlights (See Diagram # 2).
3. Remove (2) 7mm screws in the edge of the wheel well from each side of the bumper (See Diagram # 3).
4. Remove (10) 7mm screws on the front air dam and remove the piece to set aside. (See Diagram # 4).
5. Remove (3) 8mm screws from the service cover and let hang in place (See Diagram # 5).
6. Unhook connectors for side marker lights and remove ambient temp sensor from the lower grill opening.
7. Unhook the fog lights (if applicable).
8. Lift the bumper skin off the vehicle and set it aside in a safe location (See Diagram # 6).
9. Remove the four tree clips holding the bumper crush foam onto the crash bar and set aside for re-installation (See Diagram # 7).



Diagram 1



Diagram 2



Diagram 3



Diagram 4



Diagram 5



Diagram 6



Diagram 7

PREPARATION OF THE KIT

1. Take 1/2" NPT x -10AN male adapter and wrap NPT side with layer of thread sealing tape. Do not use thread sealant on the -10AN male adapter.
2. Install fittings into the sandwich adapter and tighten down with AN wrench.
3. Install straight swivel fittings from pre-made hoses onto the sandwich adapter and tighten down using AN wrench. (See Diagram # 8)
4. Lubricate the sandwich adapter o-ring and install into groove on the top of the sandwich adapter then set aside for later.
5. Take the two cooler brackets and locate the cooler so that the mounting tabs are on the front of the unit with the cooler located in the right-side position of the brackets.
6. Mount the cooler into the brackets using the supplied hardware kit and tighten all the way.
7. Once cooler and brackets are assembled (See Diagram # 9), loosely assemble the mounting brackets onto the holes of the cooler assembly.
8. Lubricate o-rings on fittings for cooler then install and tighten down into the cooler.



Diagram 8

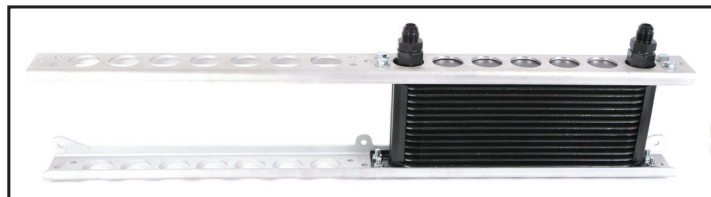


Diagram 9

INSTALLATION

1. Remove the oil filter off the block and set aside for reinstallation later
2. Slide sandwich adapter over subframe of the car to the filter location on the block. Install with the gasket on the block side and the flat smooth surface facing outwards. Screw the sleeve nut onto the filter threads and tighten down being sure to keep hoses away from the belt (See Diagram # 10).
3. Place cooler onto the upper and lower inner bolts from the crash bar then loosely secure in place with the provided nuts.
4. Remove the 10mm nut on factory stud located just right of the radiator then install the angular bracket and reinstall the nut back in place tightly. (See Diagram # 11)
5. Route your lines around that bracket and loop back up between the new cooler and radiator.
6. Install lines onto the cooler and tighten down securely making sure to clock fittings as show in figure and use provided zip ties to secure to secondary bracket. (See Diagram # 12)
7. Tighten down all hardware making sure it is all now snug and secure as intended.
8. Reinstall oil filter onto the sleeve nut making sure it is sealed to the base
9. Start car to check for leaks on all connections and make sure pressure is adequate
10. Once it is confirmed there are no leaks, shut off car, top off oil, and reassemble the vehicle in the reverse process listed for disassembly

NOTE : lower grille may require slight trimming on top edge to clear the cooler. Cut slowly and move in small increments to avoid over cutting.



Diagram 10



Diagram 11

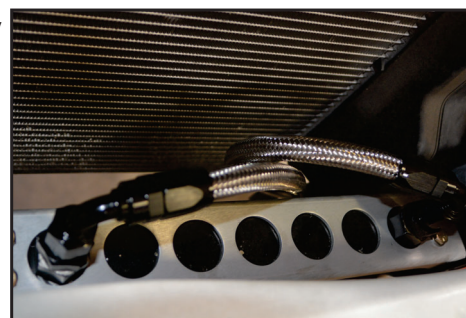
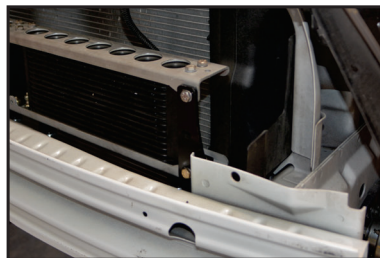


Diagram 12



Alternate Mounting Direction

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Warning: Installation of accessories should only be undertaken by those with mechanical knowledge and are familiar with working on vehicles. Always use eye protection (goggles, safety glasses or shield). Park the vehicle in a well lit area, on level ground and apply the parking brake. Only work on a cold vehicle that has been sitting overnight, failure to do so will result in severe burns and injury. Before starting the vehicle, make sure no tools or any other items are left under hood that could interfere with or be drawn into moving parts of the engine. Failure to follow instructions can lead to severe damage and personal injury.