

Installation Manual for VMAC Accessory

A700242

VMAC Cooler retrofit for Ford 6.7 L Diesel

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 Changes and Revisions

Revision	Revision Details	Revised by	Checked by				Implemented
			Eng.		Tech.	Qual.	
			Mech.	Elec.			
A	Initial Release	MSP	CAM	N/A	GB	AMG	29 Mar 2017
A	Corr. Clarify images	MSP	N/A	N/A	N/A	N/A	29 Mar 2017

Additional Application Information

- V900140: 2017+ Ford F250 – F550 6.7 L Diesel
- V910020: 2017+ Ford F250 – F550 6.7 L Diesel
- DM00011: 2017+ Ford F250 – F550 6.7 L Diesel

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Important Information

The information in this manual is intended for certified VMAC installers who have been trained in installation procedures and/or for people with mechanical trade certification who have the tools and equipment to properly and safely perform the installation. Do not attempt this installation without the appropriate mechanical training, knowledge and experience.

Follow all safety precautions for mechanical work. Any fabrication for correct fit in modified vehicles must follow industry standard "best practices".

Notice

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VMAC – Vehicle Mounted Air Compressors

Toll Free: 1-888-241-2289

Fax: 1-250-740-3201

Safety

Important Safety Notice

The information contained in this manual is based on sound engineering principles, research, extensive field experience and technical information. Information is constantly changing with the addition of new models, assemblies, service techniques and running OEM changes. If a discrepancy is found in this manual, contact VMAC prior to initiating or proceeding with installation, service or repair. Current information may clarify the issue. Any person with knowledge of such discrepancies, who proceeds to perform service and repair assumes all risks.

Only proven service procedures are recommended. Anyone who departs from the specific instructions provided in this manual must first assure that their safety and that of others is not being compromised and that there will be no adverse effects on the operational safety or performance of the equipment.

VMAC will not be held responsible for any liability, consequential damages, injuries, loss or damage to individuals or to equipment as a result of the failure of any person to properly adhere to the procedures set out in this manual or standard safety practices. Safety should be the first consideration when performing any service operations. If you have any questions concerning the procedures in this manual or require any more information on details that are not included in this manual, please contact VMAC before beginning repairs.

Safety Messages

This manual contains various warnings, cautions and notices that must be observed to reduce the risk of personal injury during installation, service or repair and the possibility that improper installation, service or repair may damage the equipment or render it unsafe.



This symbol is used to call attention to instructions concerning personal safety. Watch for this symbol; it points out important safety precautions, it means, "Attention, become alert! Your personal safety is involved". Read the message that follows and be aware of the possibility of personal injury or death. As it is impossible to warn about every conceivable hazard, common sense and industry standard safety practices must be observed.



This symbol is used to call attention to instructions on a specific procedure that if not followed may damage or reduce the useful life of the compressor or other equipment.



This symbol is used to call attention to additional instructions or special emphasis on a specific procedure.

General Information

Optional Equipment Compatibility

Whilst VMAC strives to design systems compatible with optional OEM equipment (such as running boards), it is impractical to develop systems that accommodate every OEM and aftermarket option or add-on. Whenever possible, VMAC endeavors to advise of compatibility issues in the “Additional Application Information” section of the manual. Even when specific optional equipment is determined by VMAC to be incompatible, it does not preclude the vehicle upfitter or end user from modifying the optional equipment to make it compatible with the installed VMAC system. VMAC does not warranty or accept responsibility or liability for the fitment, function or safety of any products modified in any way not expressly outlined in the installation manual.

Before You Start

Read this manual before attempting installation so that you can familiarize yourself with the components and how they fit on the vehicle. Identify variations for different engine models and different situations that are listed in the manual. Open the package, unpack the components and identify them.

Ordering Parts

To order parts, contact a VMAC dealer. The dealer will ask for the VMAC serial number, part number, description and quantity. To locate the nearest dealer, call 1-877-912-6605 or online at www.vmacair.com.

Specialty Tools

- None

Torque Specifications

All fasteners must be torqued to specifications. Use manufacturers' torque values for OEM fasteners. **Apply Loctite 242 (blue) or equivalent on all engine-mounted fasteners.** Torque values are with Loctite applied unless otherwise specified.

STANDARD GRADE 8 NATIONAL COARSE THREAD								
Size	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
Foot-pounds (ft•lb)	9	18	35	55	80	110	170	280
Newton meter (N•m)	12	24	47	74	108	149	230	379
STANDARD GRADE 8 NATIONAL FINE THREAD								
Size	3/8	7/16	1/2	5/8	3/4			
Foot-pounds (ft•lb)	40	60	90	180	320			
Newton meter (N•m)	54	81	122	244	434			
METRIC CLASS 10.9								
Size	M6	M8	M10	M12	M14	M16		
Foot-pounds (ft•lb)	4.5	19	41	69	104	174		
Newton meter (N•m)	6	25	55	93	141	236		

Table 1 – Torque Table

Installation

Preparation for installation is very important. Missing a step or an item can cause problems in the installation or damage to components.

Check off each item as it is completed so that you do not miss any steps.

- Raise and support the front of the vehicle using axle stands or ramps.
- Drain the primary radiator coolant into a clean container and set aside for use later.
- Disconnect the oil lines from the oil cooler and cap them to prevent debris entering the system (Figure 1).

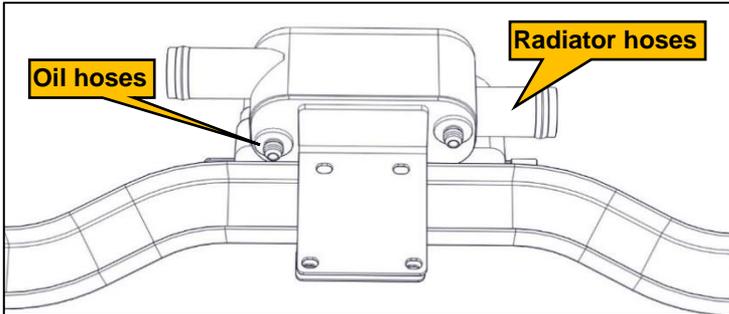


Figure 1 – Remove oil and radiator hoses

- Drain the remainder of the engine coolant by removing the hoses from both cooler spigots.
- Unbolt the cooler, retaining all fasteners and hardware.
- Install the new cooler, using the retained fasteners and hardware.
- Reconnect both oil hoses and radiator hoses.
- Disconnect the small flexible hose secured to the cable run tray on the front of the engine, above the steering linkage, from the metal coolant tube. Retain the OEM spring clamp (Figure 2).

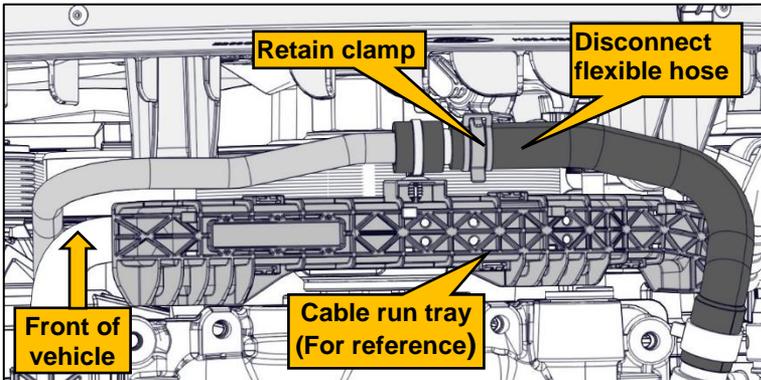


Figure 2 – Disconnect the heater return hose

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- Insert the supplied aluminum plug into the flexible hose section and secure using the OEM spring clamp (Figure 3).

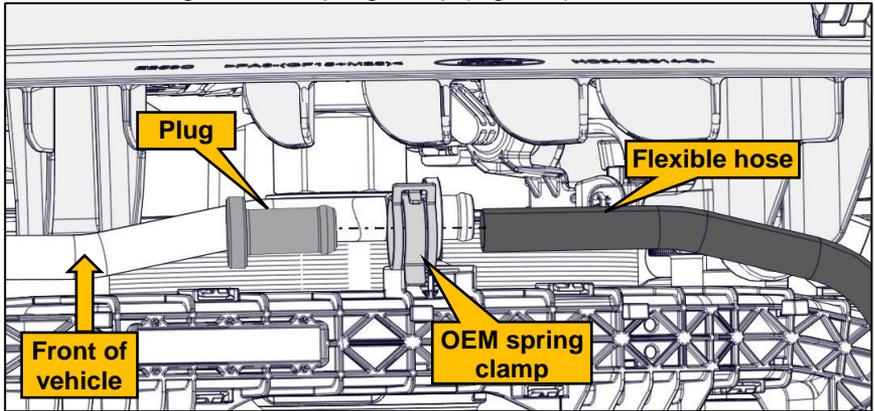


Figure 3 – Plug the flexible hose

- Connect one end of the supplied hose to the metal coolant tube. Ensure the hose is seated against the bead in the OEM hard line and secure using a hose clamp (Figure 4).

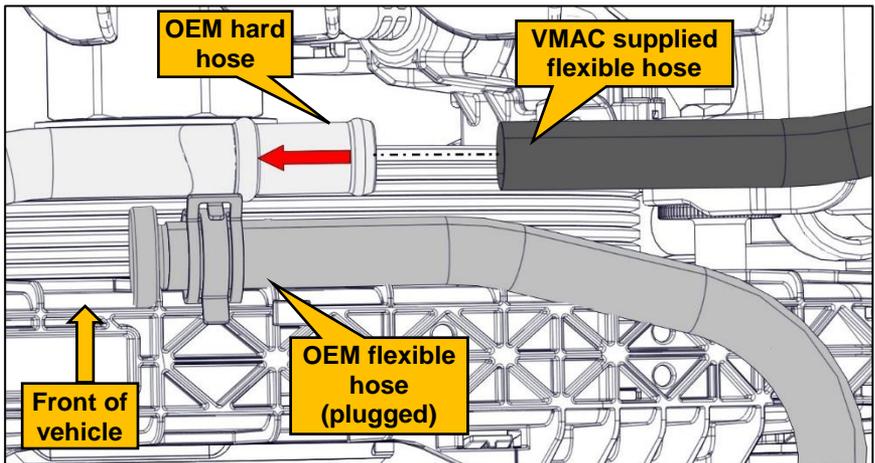


Figure 4 – Install VMAC hose

- Secure the plugged OEM flexible hose to the metal coolant tube using a cable tie.
- Route the supplied hose forward, following the path of the larger coolant tubes past the frame crossmember and over the cooler towards the passenger side of the vehicle.

- Connect the hose to the small spigot on the passenger side of the cooler using a hose clamp (Figure 5).

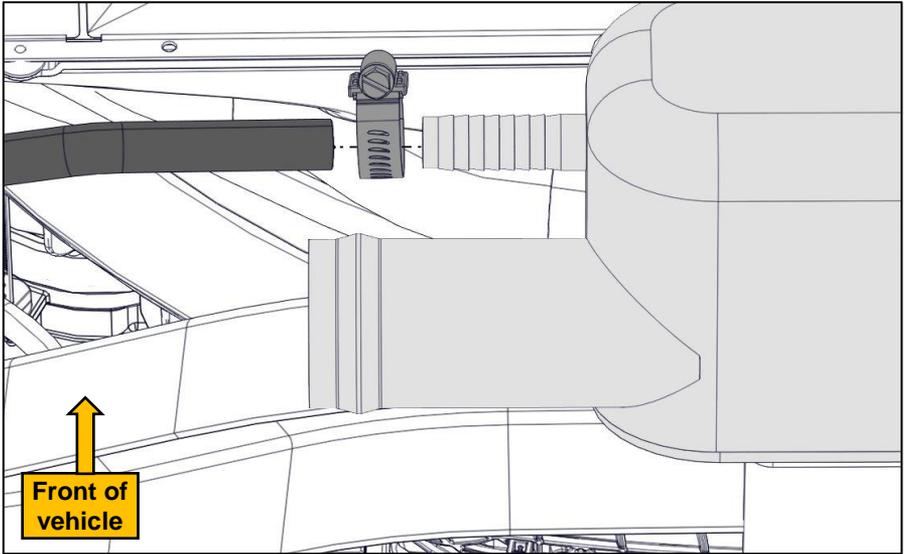


Figure 5 – Connect hose to VMAC cooler

- Ensure the hose is not kinked and is secured away from any hot, sharp or moving components.
- Refill the engine coolant.



If additional assistance is required, contact VMAC technical support at 1-888-241-2289.

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