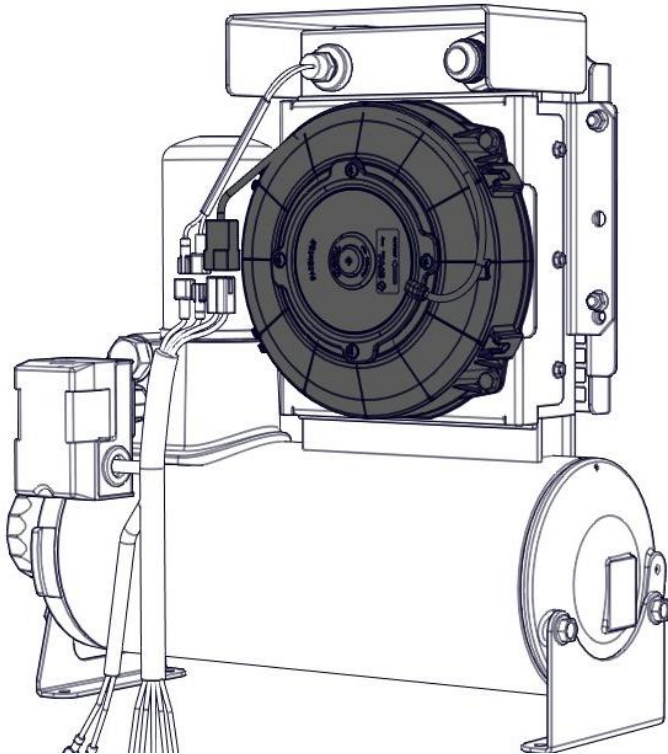


**VMAC**<sup>®</sup>  
VEHICLE MOUNTED AIR COMPRESSORS  
**COMPACT. POWERFUL.**



**Installation Manual for  
VMAC Accessory  
A700243  
WHASP Fan Controller Kit**



# Installation Manual for VMAC Accessory A700243 WHASP Fan Controller Kit

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 Changes and Revisions

Revision	Revision Details	Revised by	Checked by				Implemented
			Eng.		Tech.	Qual.	
			Mech.	Elec.			
A	Initial Release	MSP	N/A	SRD	GB	AMG	10 May 2017

## Additional Application Information

- For use with UNDERHOOD 30 Truck and Van applications with short duty cycles.

## Registered Trademarks

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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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# 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 and service techniques. If a discrepancy is noted 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 performs 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 performance or the operational safety 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 your first consideration in performing 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 your attention to instructions concerning your 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 alert to the possibility of personal injury or death. Be alert; your safety is involved. As it is impossible to warn about every conceivable hazard, let good common sense be your guide.



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

# General Information

## 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.

## 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

## Hose Information

Depending on other installed equipment, it might be necessary to move the air/oil separation tank from its intended location. The hoses used in VMAC compressor systems have a specific inner liner that is compatible with VMAC compressor oil. Use of hoses other than those supplied or recommended by VMAC may cause compressor damage and may void your warranty. Please contact VMAC for replacement hoses and further information.

## Ordering Parts

To order parts, contact your VMAC dealer. Your dealer will ask for the VMAC serial number, part number, description and quantity. To locate your nearest dealer, call 1-877-912-6605 or online at [www.vmacair.com](http://www.vmacair.com).

# Operation

## Normal Operation

During normal operation, screw compressors accumulate water as the air is compressed. In standard duty cycle systems, this water remains vaporized as it passes through our Waste Heat Air Separation Package (WHASP) Tank and either condenses and collects in an air receiver tank or is extracted via the VMAC AIR AFTERCOOLER 70 CFM.

When UNDERHOOD 30 Air Compressors systems are used in short duty applications, the system does not get hot enough to keep the water vaporized which causes the water to condense and collect inside of the WHASP tank.

Using this fan controller will allow the air/oil mixture to quickly reach a high enough temperature that the water vapor will pass through the WHASP tank instead of condensing inside of it.

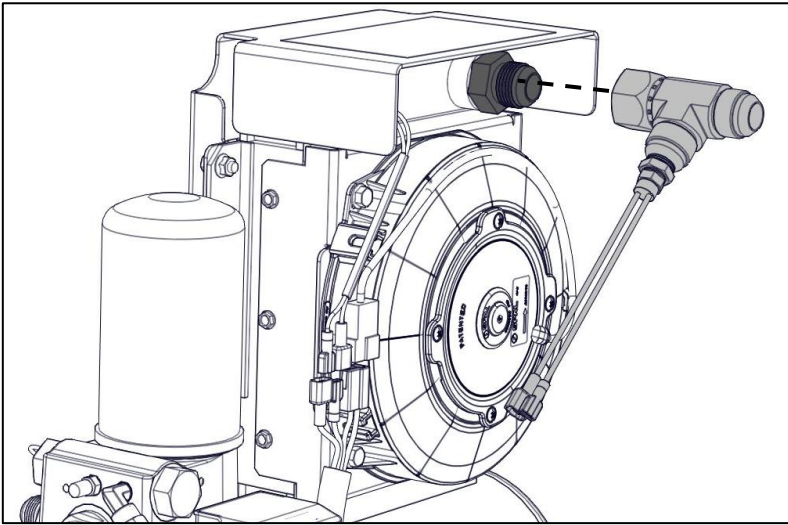
The fan will turn on once the air oil mixture reaches approximately 88° C (190° F) to prevent the system from overheating.

# Installation



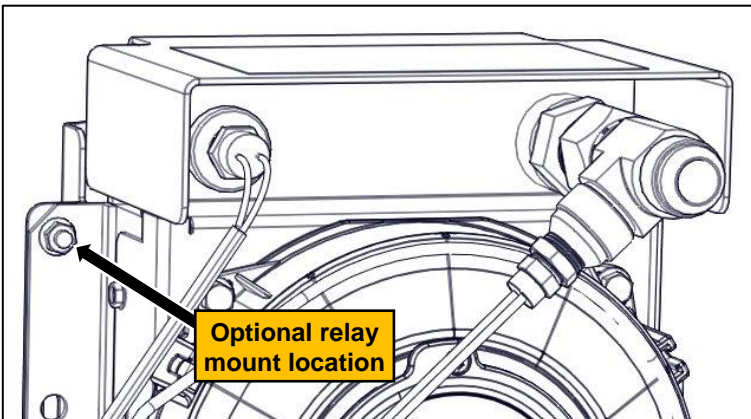
**Confirm that the system is cool and depressurized prior to performing any service work.**

- Disconnect the Compressor discharge hose from the #12 JIC fitting at the top of the cooler on the WHASP Tank.
- Attach the female side of the JIC T-fitting (with the temperature switch) to the #12 JIC fitting at the top of the cooler (Figure 1).



**Figure 1 – Install the temperature switch**

- Orient the T fitting so that the wiring is protected from any hot, sharp or moving objects
- Attach the relay to the side of the WHASP shroud (Figure 2).



**Figure 2 – Mount the relay**

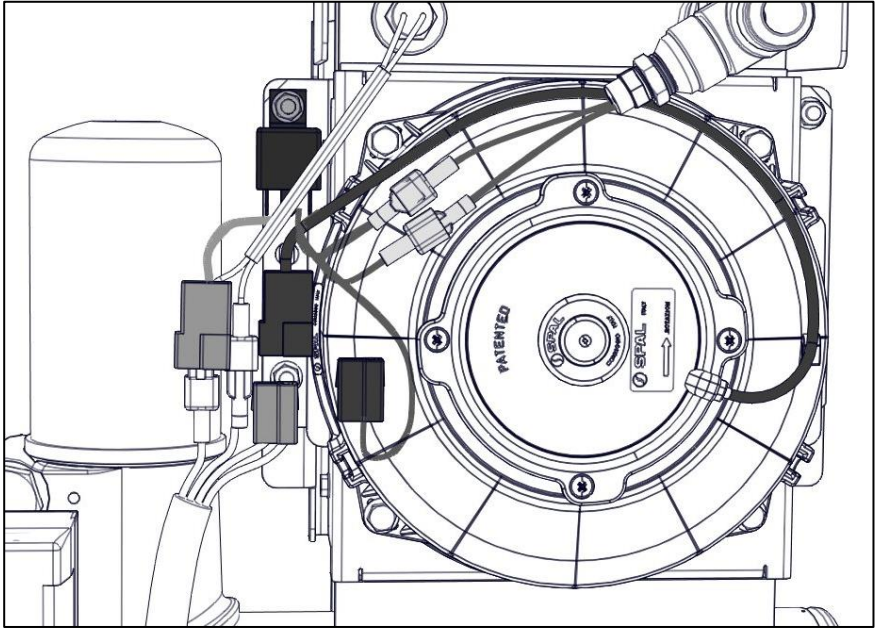
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- Disconnect the cooling fan connectors and plug in the corresponding connectors from the new harness (Figure 3).



**Figure 3 – Connect the harness**

- Connect the compressor discharge hose to the male #12 JIC T fitting.
- Bundle the wiring together and secure it with cable ties to prevent it from contacting any hot, sharp or moving objects.
- To test the system, allow the compressor to run until the fan turns on. The temperature switch should turn the fan on once the air/oil temperature reaches approximately 88° C (190° F).

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