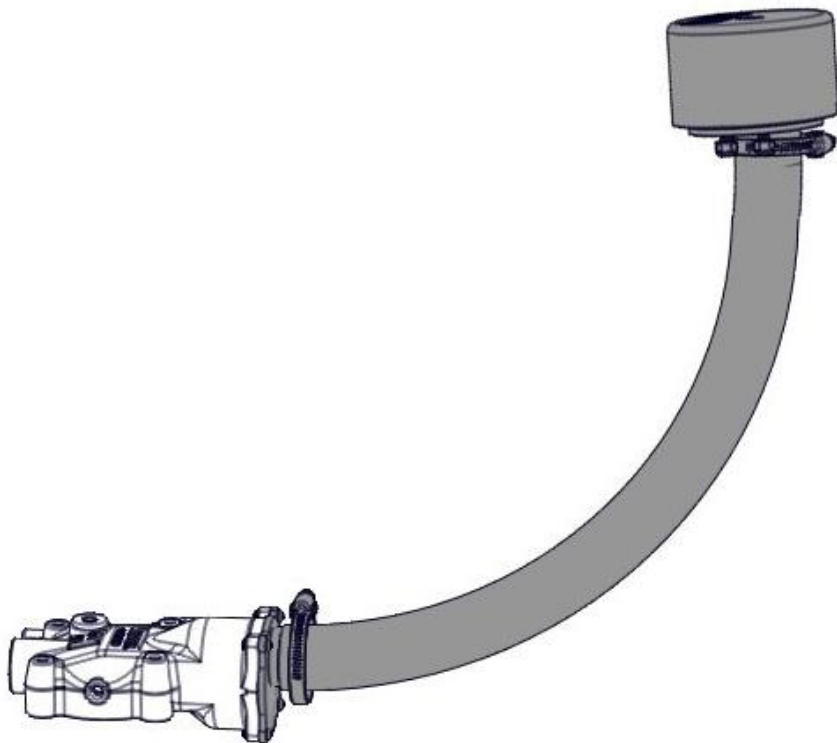


VMAC[®]
VEHICLE MOUNTED AIR COMPRESSORS
COMPACT. POWERFUL.



**Installation Manual for
VMAC Accessory
A700246
UNDERHOOD 70 Remote Air Filter**

Installation Manual for VMAC Accessory A700246 Underhood 70 Remote Air Filter

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Document: 1901059
 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	17 May 2017
A	Corr: 90° adaptor part number. Pg. 9	MSP	N/A	N/A	N/A	N/A	19 May 2017

Additional Application Information

- For use with all UNDERHOOD 70 applications

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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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Printed in Canada

VMAC – Vehicle Mounted Air Compressors
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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, 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.

Warranty

VMAC Standard Warranty (Limited)

For complete warranty information, including both our VMAC Standard Warranty (Limited) and VMAC Lifetime Warranty (Limited) requirements, please refer to our current published warranty located at:



www.vmacair.com/warranty

If you do not have access to a computer, please contact us and we will be happy to send you our warranty.

VMAC's warranty is subject to change without notice.

VMAC Lifetime Warranty (Limited)

A VMAC Lifetime Limited Warranty is offered on the base air compressor only and only on UNDERHOOD, Hydraulic Driven, Transmission Mounted, Gas and Diesel Engine Driven Air Compressors, Multifunction Power Systems, and other products as defined by VMAC, provided that (i) the purchaser fully



completes and submits a warranty registration form within 3 months of purchase, or 200 hours of operation, whichever occurs first; (ii) services are completed in accordance with the Owner's Manual; (iii) proof of purchase of applicable service kits are made available to VMAC upon request.

The VMAC Lifetime Warranty is applicable to new products shipped on or after 1 October, 2015.

Warranty Registration

The VMAC warranty form is located at the back of this manual. This warranty form must be completed and sent to VMAC at the time of installation for any subsequent warranty claim to be considered valid.

There are 4 ways warranty forms can be submitted to VMAC:

Online

www.vmacair.com/warranty

Email

warranty@vmacair.com

Fax

(250) 740-3201

Mail

VMAC - Vehicle Mounted Air Compressors
1333 Kipp Road, Nanaimo, BC, Canada V9X 1R3

VMAC – Vehicle Mounted Air Compressors

Toll Free: 1-888-241-2289

Fax: 1-250-740-3201

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.

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.

Specialty Tools Required for installation

- 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

Illustrated Parts List

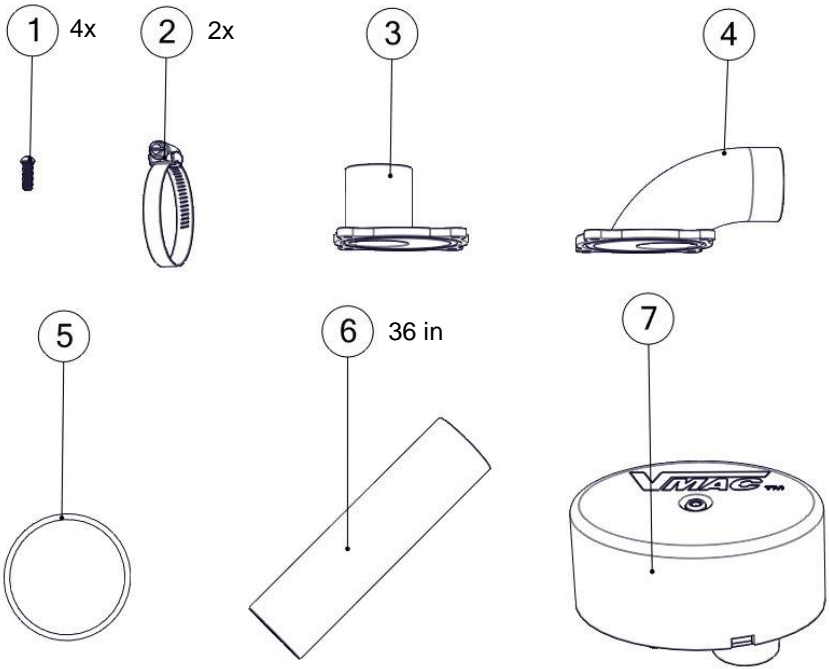


Figure 1

Item #	Part #	QTY	Description
1	1500533	4	SCREW, BUTTON HCS, 10-32 X 5/8 PL
2	2200062	2	CLAMP, HOSE HS24
3	3200354	1	ADAPTOR, REMOTE FILTER
4	3200530	1	ADAPTOR, REMOTE, FILTER
5	5830070	1	O-RING, VITON, 2 9/16 ID X 3/32
6	1700586	36 in	HOSE, FLEX/NITRILE AIR INTAKE 1.5 in
7	4800781	1	ASSEMBLY, REMOTE AIR FILTER

NOTE

Due to the variety of applications and possible mounting locations for the remote air filter, VMAC does not include a mounting bracket for the remote filter plate.

Installation



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

- Remove the inlet air filter cover and paper element. The cover can be discarded or retained as a spare.
- Clean the area around the inlet valve to prevent debris entering the system.
- Remove the inlet from the compressor.
- Cover the compressor opening to prevent any debris from entering the system.



The button head screws securing the filter plate are installed with Loctite 242 (blue). Gently heat the fasteners prior to attempting to loosen them to prevent them from stripping.

- Remove and discard the button head screws (Figure 2).

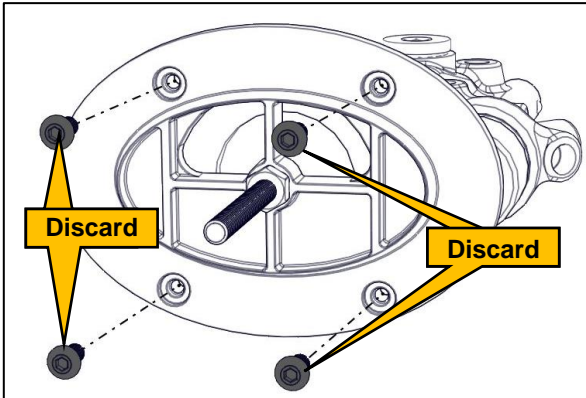


Figure 2 – Remove button head screws

- Discard the filter plate and O-ring (Figure 3).

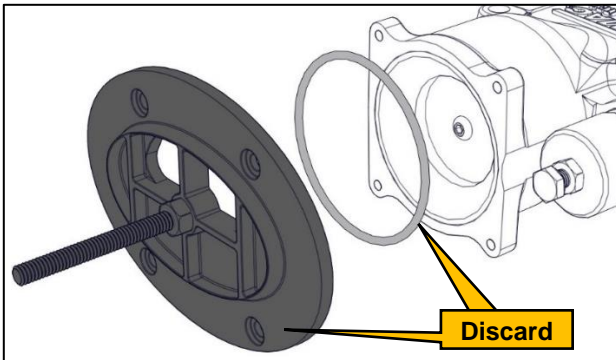


Figure 3 – Remove the filter plate and O-ring

NOTE

This accessory kit is supplied with (1x) 90° adaptor plate and (1x) straight adaptor plate. Choose the one that will provide the best hose routing to the remote air filter assembly for the application.

- Install the O-ring into the selected filter plate.

Ensure the “dam” of the straight adaptor filter plate (P/N#: 3200354) is oriented to the bottom of the inlet.

NOTE

The spigot of the 90° adaptor filter plate (P/N#: 3200530) can be installed in the 9 o'clock, 12 o'clock or 3 o'clock orientation dependant on the desired mounting location of the remote air filter assembly.

- Apply Loctite 242 (blue) to the button head fasteners and secure the filter plate to the inlet (Figure 4).

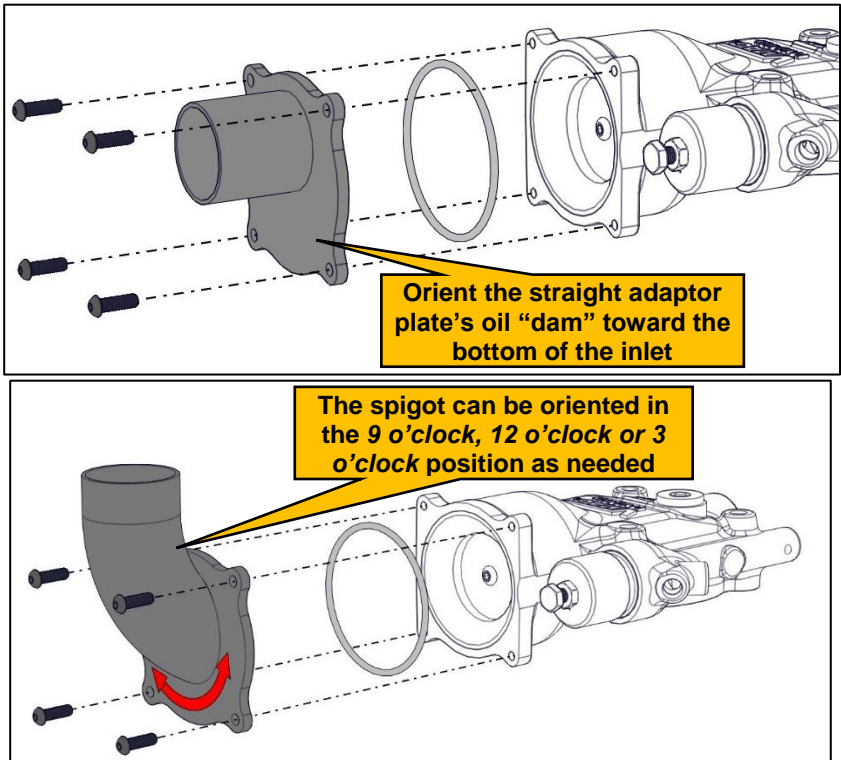


Figure 4 – Install the new filter plate

- Remove the material used to cover the compressor opening.
- Install the inlet onto the compressor and torque the fasteners to specification.

NOTE

Due to the variety of applications and possible mounting locations for the remote air filter, VMAC does not include a mounting bracket for the remote filter plate.

- When determining the location for the remote air filter, keep the following points in mind:
 - Mount the remote filter as close to the compressor as possible to maintain the best compressor performance (VMAC includes 36 in of hose).
 - Mount the remote filter where it will have access to clean, dry, cool air.
 - Mount the remote filter in a location that is easily accessed for maintenance.
 - The remote air filter must be mounted above the level of the inlet.
- or**
- The remote air filter hose must be installed with a “U” in it (similar to the trap in a sink) to prevent any accumulated oil from saturating the air filter (Figure 5).

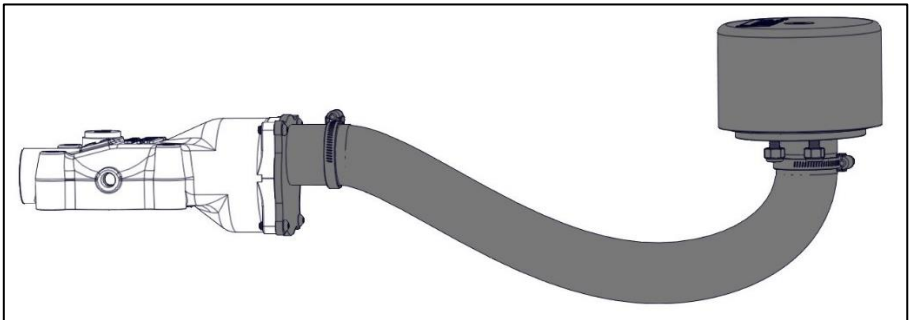


Figure 5 – Remote filter mounting

- Secure the supplied extension hose to the adaptor plate using a supplied gear clamp.



Protect the extension hose with split loom (not supplied) as necessary and use rubber coated P-clips and/or cable ties to prevent the extension hose from contacting any hot, sharp or moving components.

- Route the extension hose to the selected location for the remote filter.
- Secure the remote air filter assembly to the extension hose using a supplied gear clamp.

- Secure the remote air filter assembly in the selected location using an appropriate bracket (not supplied) (Figure 6).

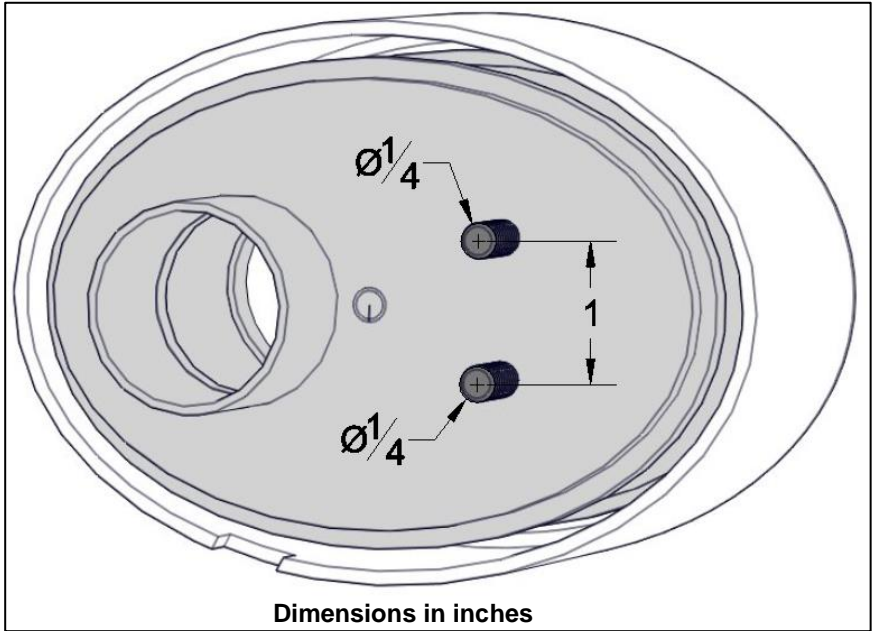


Figure 6 – Filter plate mounting stud dimensions

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