

Operating Manual for VMAC Accessory

A510023

Shocker PASS (Positive Air Shutoff System)

www.vmacair.com

Document: 1901052
Changes and Revisions

Revision	Revision Details	Revised by	Checked by				Implemented
			Eng.		Tech.	Qual.	
			Mech.	Elec.			
A	Initial Release	MSP	N/A	AJH	GB	AMG	17 Nov. 2016
B	ECN 17-066 PASS touchpad installed	MSP	MH	N/A	GB	AMG	21 April 2017

Additional Application Information

- Shocker PASS operating manual

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Shocker PASS™ is a trademark of Headwind Solutions.

Important Information

The information in this manual is intended for certified VMAC installers who have been trained in installation procedures and for people with mechanical trade certification who have the tools and equipment to properly and safely perform the installation. Do not attempt this installation if you do not have the appropriate mechanical training, knowledge and experience.

Follow all safety precautions for mechanical work. Any grinding, bending or restructuring operations for correct fit in modified vehicles must follow standard shop 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.

Safety Precautions



General Warnings

- Before performing any service or repair, ensure the system is de-energised and locked out to prevent unexpected engine start.
- Keep hoses and wiring away from sharp edges or moving components.
- Do not perform any unauthorized modifications to the equipment.
- Know how to operate the compressor, fully read the manual.
- Check equipment before every use.
- Never bypass or disable any safety equipment.
- Never adjust or attempt to make any repairs to the compressor system while the engine is running. Components and hoses under pressure could fail and cause serious injury or death.



Burn Hazard

- The engine, exhaust and the compressor system get very hot during operation, contact with the components or the oil can cause serious injury. Allow sufficient time for the system to cool before performing service.



Compressor Air and Oil Hazard

- When pressurized, the compressor system is under sufficient pressure that a leak could force the air/oil mixture through the skin directly into the bloodstream. This could cause serious injury or death.
- Ensure the system is completely depressurized before attempting maintenance or repair.
- Do not move or service the compressor while it is pressurized or operating.
- Components and hoses under pressure could separate suddenly and cause serious injury or death. If equipped, the auxiliary air tank must be drained before servicing any components in the compressor system.

Operating Instructions

The Multifunction Power System (D600012) is equipped with a Shocker PASS (Positive Air Shutoff System). In case of an engine overspeed event, the PASS will automatically activate and close the engine air intake, shutting down the engine. The valve can also be tripped manually, via the touch pad, in the event of a run-on situation where the engine rpm is not elevated above the stock governor set point (e.g. stuck injector) (Figure 1).

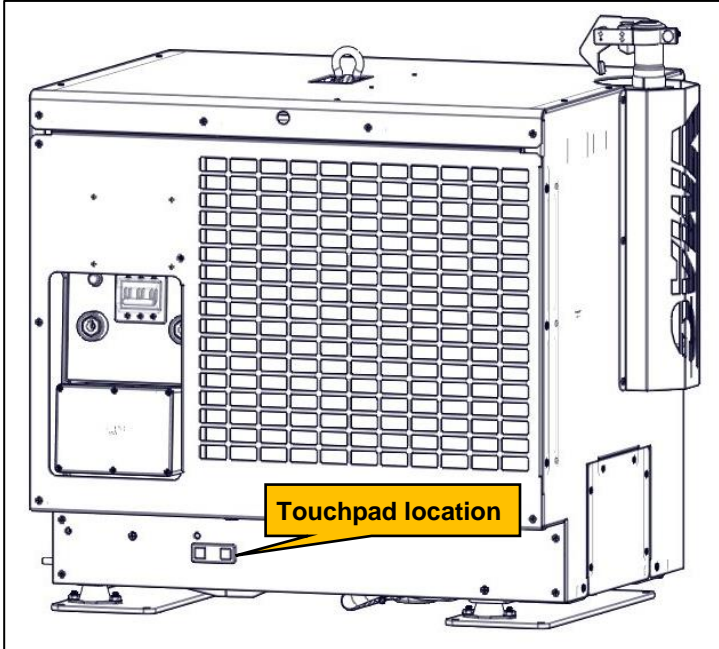


Figure 1 – Multifunction Power System touchpad location

Touchpad testing:

- With the key in the “RUN” position and the engine off, press the “TRIP” button on the Shocker touchpad. The PASS valve should audibly click as it actuates.
- Wait for the PASS valve to deactivate.
- Ensure that the generator, compressor, and PTO are off and start the engine.
- Press the “TEST” button on the SHOCKER touchpad. This reduces the trip rpm by 40% from approximately 4500 rpm, to approximately 2700 rpm. This is roughly the same rpm as the low speed setting for the Multifunction Power System so the user may have to increase the engine speed by enabling the generator or PTO to trigger the shutoff valve.
- Once the machine shuts down and the valve resets, clear any errors on the Multifunction Power System control system and restart to verify the valve deactivated successfully.

VMAC – Vehicle Mounted Air Compressors

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