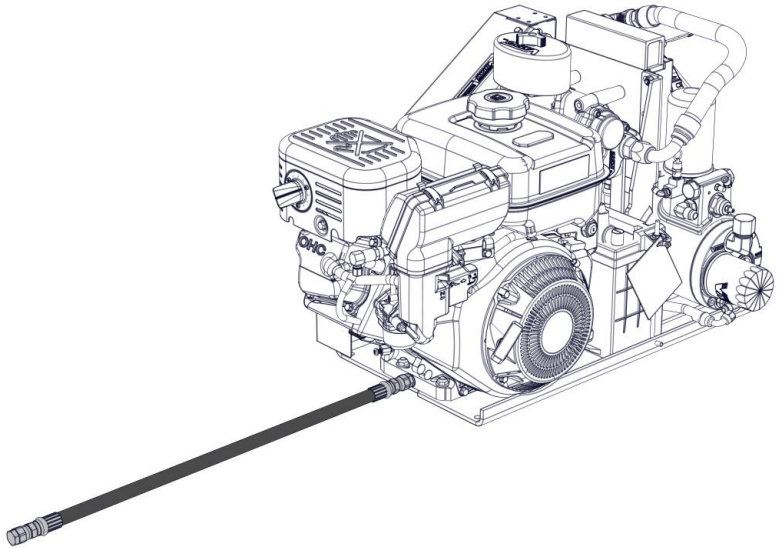


# Installation Manual

## A500036 Remote Oil Drain Kit



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### Changes and Revisions

Version	Revision Details	Revised by /date	Checked by /date	Reviewed by /date	Implemented
A	Engineering Release	REF 14 October 2015	RAR 19 October 2015	NAC 19 October 2015	19 October 2015

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 trucks must follow standard shop practices.

## Notice

Manuals are subject to change without notice.

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# General Information

## 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 service. 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, 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 service or repair and the possibility that improper 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. While 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.

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# Torque Specifications

All fasteners must be torqued to specifications. Use manufacturers torque values for OEM fasteners. **Apply Loctite 242® 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	M8	M10	M12	M14	M16			
Foot-pounds (ft-lb)	19	41	69	104	174			
Newton meter (N•m)	25	55	93	141	236			

## 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 1-800-738-8622 or online at [www.vmacair.com](http://www.vmacair.com)

## Part List



Figure 1 – A500036 contents




Item	Part Number	Quantity	Description
1	4900230	1	CONN, STR, #8MJIC X 14MM METRIC
2	1750036	1	HOSE, CRIMPED, 1/2" X 36"
3	4900063	1	PLUG, STEEL MALE JIC, 1/2

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# Safety Precautions

	<h2>Burn Hazard</h2> <ul style="list-style-type: none"><li>• 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.</li><li>• Never allow any part of your body to contact the engine or compressor components</li></ul>
	<h2>Compressor Air and Oil Hazard</h2> <ul style="list-style-type: none"><li>• The compressor system is under sufficient pressure that a leak could force the air/oil mixture through the skin directly into your bloodstream. This could cause serious injury or death.</li><li>• Ensure the system is completely depressurized before attempting maintenance or repair.</li><li>• Do not use compressor air to clean off clothing or skin, compressed air can penetrate the skin causing serious injury or death.</li><li>• Do not move or service the compressor while it is pressurized or operating.</li><li>• Do not move the compressor by pulling on any hoses.</li><li>• Components and hoses under pressure could separate suddenly, fly out and cause serious injury or death. If equipped, the auxiliary air tank must be drained before servicing any components in the compressor system.</li><li>• Never adjust or attempt to make any repairs to the system while the engine is running. Components and hoses under pressure could fail and cause serious injury or death.</li></ul>
	<h2>Moving Parts Hazard</h2> <ul style="list-style-type: none"><li>• Before performing service, disconnect the battery and disconnect the spark plug wire to prevent unexpected engine start.</li><li>• Do not operate the compressor without guards in place. If the guards are damaged or missing, replace them before operating the equipment.</li></ul>

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# Installation



The spark plug wire must be disconnected before attempting any repair or service. Turning the crankshaft may cause the engine to start, and cause serious injury.

- Disconnect the negative battery terminal (Figure 2).

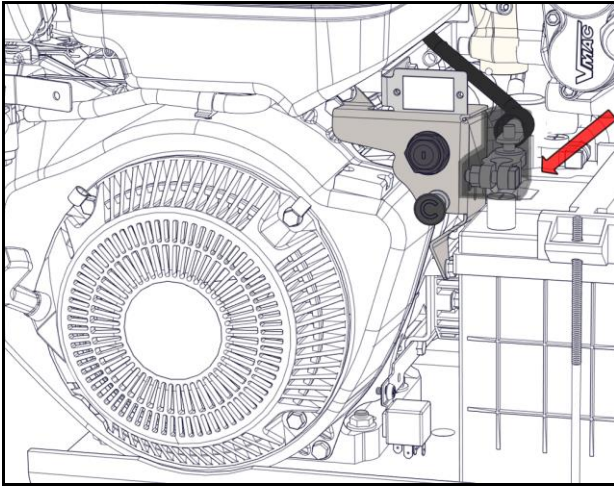


Figure 2 – Negative battery wire

- Disconnect the spark plug wire (Figure 3).

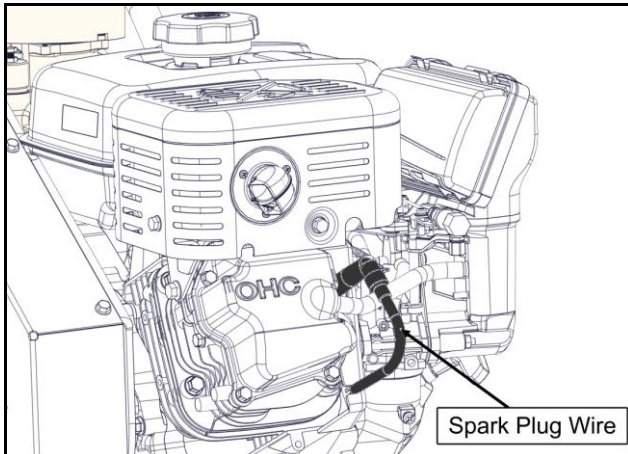


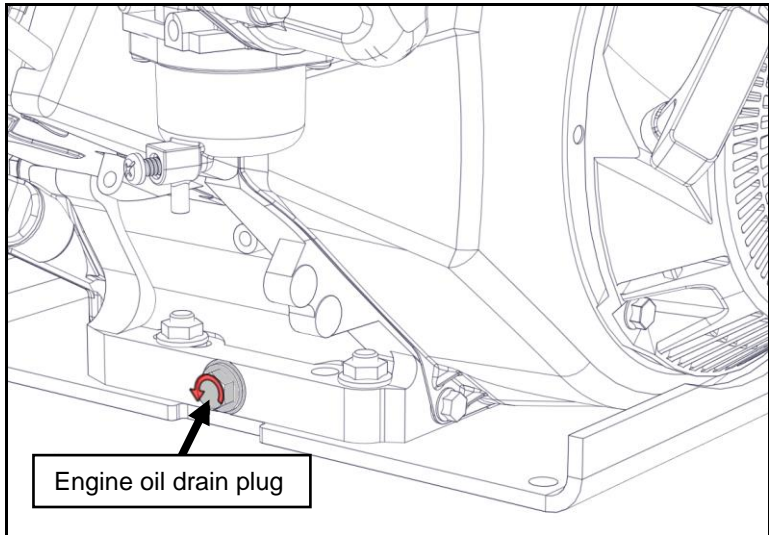
Figure 3 – Spark plug wire

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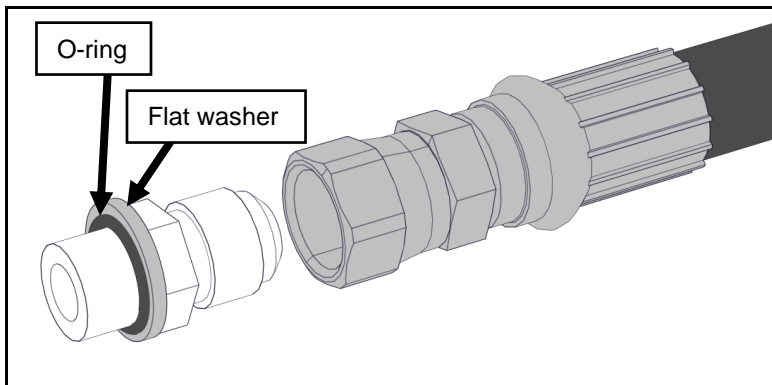
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- Locate the engine oil drain, and clean the area around the drain plug to prevent contamination (Figure 4).
- Remove the plug to drain the oil into a container large enough to hold at least 1-1/2 US Gallons (6 liters) (Figure 4).



**Figure 4 – Engine oil drain plug**

- Ensure the flat washer and O-ring are installed on the 4900230 threaded hose adapter, otherwise the fitting will leak (Figure 5).



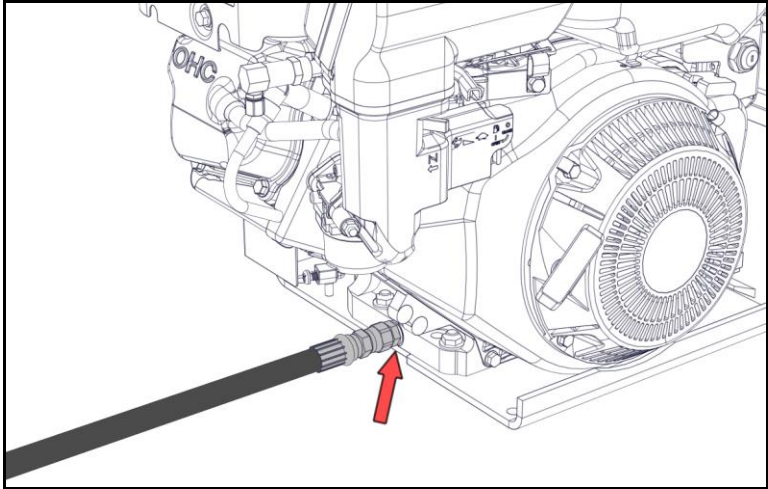
**Figure 5 – Adapter O-ring and washer**

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- Install the threaded end of the A500036 remote oil drain hose into the oil drain hole on the engine (Figure 6).



**Figure 6 – Connecting the remote oil hose**

- Route the oil fill hose in a way where it will be protected from damage, sharp edges, and environmental damage.

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## Adding Engine Oil

- Locate the oil fill cap. The oil fill cap is located adjacent to the oil drain (Figure 7).
- Clean the area around the fill cap to prevent contamination.
- Oil can be added using an accordion funnel (engine oil capacity is 1.2L)

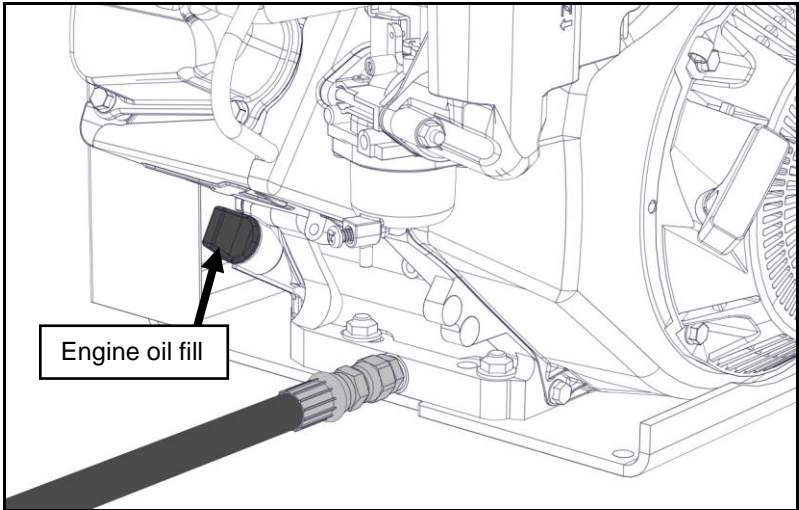


Figure 7 – Engine oil fill



***Due to the addition of the A500036 remote oil drain hose, the system oil capacity may be increased. Verify engine oil level on the dipstick before running the system.***

## System Testing

- Run the system, ensure system is operating normally and that there are no oil leaks.
- If system does not operate normally ensure lines are connected correctly and tightened down. If the problem still exists contact VMAC technical support at 1-888-241-2289 or [tech@vmacair.com](mailto:tech@vmacair.com).

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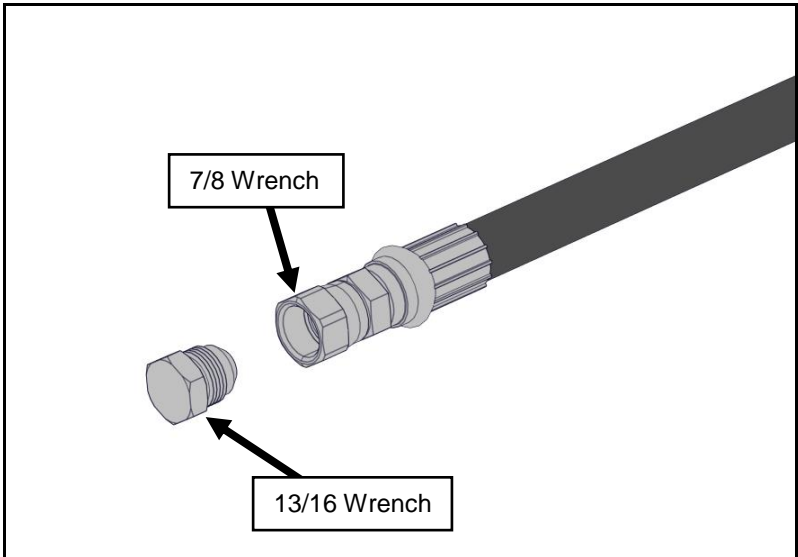
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# Operation and Maintenance



- Read the Subaru® engine manual before working on the system.
- Do not attempt to change the oil until the oil has cooled. Hot oil can cause severe burns.

- Clean the area around the drain plug to prevent contamination (Figure 8).
- Use a 7/8" wrench to hold the oil hose fitting, and a 13/16" wrench to remove the oil drain plug.
- Drain the oil into a container large enough to hold at least 1-1/2 US Gallons (6 liters).



**Figure 8 – Using the remote drain**

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