Installation Manual for VMAC System V900079

General Motors 2004.5 – 2005 Duramax Diesel

C4500 – 5500

VMAC – *Vehicle Mounted Air Compressors*
Toll Free: 1-800-738-8622
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Changes and Revisions

Version	Revision Details	Revised by/date	Approved	Implemented
00	Original manual	IB Nov 06 2004	SM/SC 26 Jan 2005	26 Jan 2005
a	Electrical changes	IB 29 Jan 2005	SM 02 Feb 2005	04 Feb 2005
b	Content revisions	IB 12 Feb 2005	SC 10 Mar 2005	14 Mar 2005
c	Main bracket mount	IB 15 Sep 2005	SM 20 Sep 2005	23 Sep 2005
d	ECN 06-179 main brkt bolt	IB 13 Aug 2006		
e	ECN 06-239 main brkt chng	IB 23 Nov 2006	TG 29 Nov 2006	01 Dec 2006
f	ECN 06-265 comp. mount	IB 21 Dec 2006	TG 21 Dec 2006	27 Dec 2006

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 underhood mechanical work. Any grinding, bending or restructuring operations for correct fit in modified vehicles must follow standard shop practices.

These instructions are a general guide for installing this system on standard production trucks and do not contain information for installation on non-standard trucks. This system may not fit special order models or those which have had other changes without additional modifications. If you have difficulty with the installation, contact VMAC.

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

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.

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. Open the package, unpack the components and identify the parts. Identify variations for different model years or OEM options that are listed in the manual.

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	¾
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	¾
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

Hose Coding

Different frame designations will affect the tank mounting position. You may have to move the tank rearward from the standard position on your application. If you must move the tank, the lines may be too short. If this is the case, measure the hose shortfall and order a *Hose Extender Kit*. The following table shows the color code used by VMAC to define the different hose diameters.

Hose Diameter	Colour-Coded Label
1/4 inch	Yellow
5/16 inch	Orange
1/2 inch	Blue
5/8 inch	Blue
3/4 inch	Green
1 inch	Green

Special Installation Notes

The following special tools are required:

- 36 mm 12 point 1/2 inch drive socket for removing the OEM crankshaft bolt
- crankshaft locking tool (GM #J-44643) or VMAC equivalent (Part #5900010)
- VMAC crankshaft pin extraction tool (Part #5900076) or equivalent

The following additional materials are recommended:

- assorted sizes of fireproof protective plastic loom
- assorted lengths of nylon tie-straps

Part 1: Preparing for Installation

1.0 Preparing for Installation

Preparation for installation is very important. Missing an item can cause problems in the installation or even damage to components. Check off each item as it is completed so that you do not miss any preparation steps.

☐ Disconnect the batteries.

☐ Drain the coolant.

☐ Disconnect the MAF sensor wire from the air cleaner and remove the complete air intake assembly, complete with rubber air intake pipe, air ducting and the plastic intake resonator chamber from the top of the engine.

☐ On trucks with dual alternators, remove the plastic centering lug from the back of the air cleaner housing.

☐ Remove the plastic inner fender liner on the passenger side.

☐ Disconnect the hoses from the coolant expansion tank, disconnect the level sensor connector and remove the tank.

☐ Remove the air cleaner base mounting plate and the air cleaner support bracket.

☐ Remove the top radiator hose.

☐ Remove the upper fan shroud. Remove the mount bolts from the lower fan shroud, but leave the shroud in position.

☐ Remove the fan using the appropriate fan wrench.

☐ Remove the passenger side intercooler tube and hoses.

☐ Remove and discard the heater hose and metal connector pipe from the lower radiator hose.

☐ Disconnect the fuel inlet and outlet banjos from the fuel management module, remove the module and move it out of the way. Remove the rubber washers, plastic spacers, mounting bolts and banjo fitting seals so they will not get lost.

☐ Remove and discard the rubber hose that connects between the fuel rail and the module.

☐ Remove the OEM belt.

☐ Remove all wire harness retainers from the OEM alternator mount bracket.

☐ Remove the alternator (passenger side on dual alternator trucks) and keep the bolts.

☐ Remove the OEM idler and tensioner from the alternator mount bracket.

☐ Remove the OEM alternator mount bracket.

☐ Remove the rock guard from under the front of the truck (if equipped).

☐ Install a crankshaft locking tool, remove the crank pulley bolt and remove the crank pulley. If you are using the VMAC tool:
- put the socket on the nut
- put the single-pin end of the tool on the front of the pulley with the locking tool hanging straight down
- put a short extension and long flex-bar on the socket
- turn the engine until the pin on the tool makes contact and the tool jams against the protruding center-piece of the cross-member under the front of the engine.

☐ Remove the crankshaft pin. If you are using the VMAC extraction tool:
- fit the split end of the tool (on the end of the shaft) over the crankshaft pin and tap downward with the slide-hammer to make sure that it is seated correctly
- tighten the pinch bolt securely
- use the hammer action of the slider in an upward motion to remove the pin from the crankshaft

☐ Install the replacement crankshaft/harmonic balancer locating pin and tap it home using a brass drift and a small hammer. Ensure that the head of the pin is aligned with the crankshaft. You may have to twist it into position (Figure 1.1).

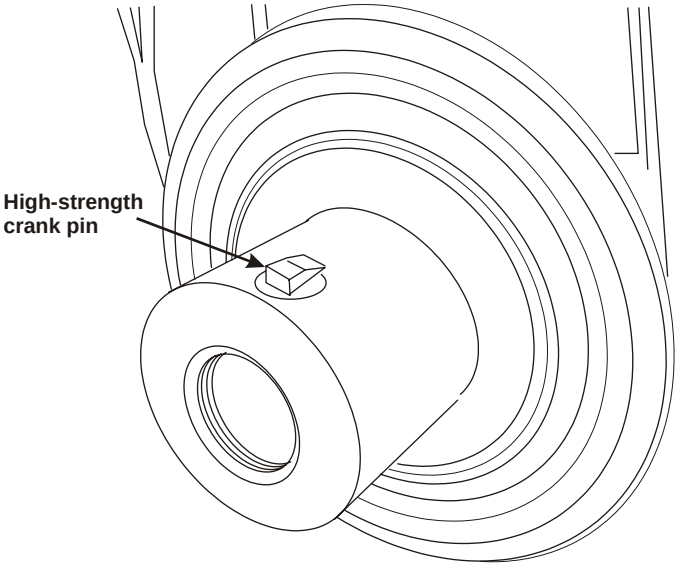


Figure 1.1

☐ Apply a light wipe of oil to the inside of the OEM crank pulley and install the pulley back onto the crankshaft.

1.1 Dual Alternator Trucks

☐ Loosen the top mounting bolt on the driver's side alternator and remove the lower mounting bolts.

☐ Install the supplied bracket under the alternator and insert the mounting bolts.

☐ Push the alternator upward and tighten all the bolts.

Part 2: Installing the Main Bracket and Compressor

2.1 Installing the Main Bracket

☐ Remove the belt tensioner assembly from the VR main bracket.

☐ Remove the plastic caps and remove the four M10 x 85 mm low profile socket head screws from the bracket. Place the bracket in position on the front of the engine.

☐ Insert the two M10 x 85 low profile socket bolts and thread the two OEM 10 mm flange nuts onto the two studs. Thread all fasteners in just enough to hold the bracket in place (Figure 2.1). Check the fit of the bracket against the engine to make sure that it fits flat and has no obstructions, tighten the bolts evenly and then torque them to specifications.

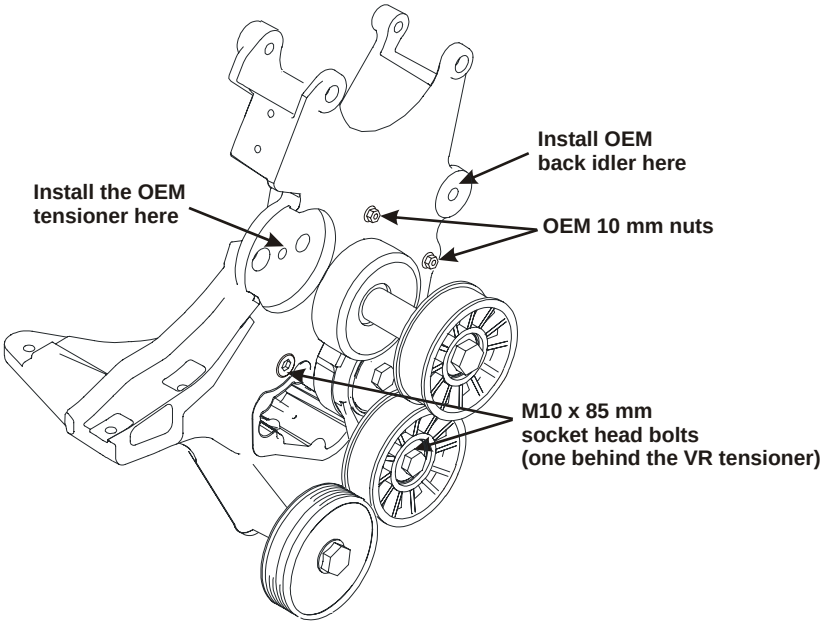


Figure 2.1

☐ Apply Loctite and install the VR tensioner, the OEM belt tensioner and one OEM back idler (Figure 2.1).

☐ Install the alternator.

☐ Place the VR crank pulley in position with the two roll pins on both sides of the counter balance weight of the OEM pulley (Figure 2.2).

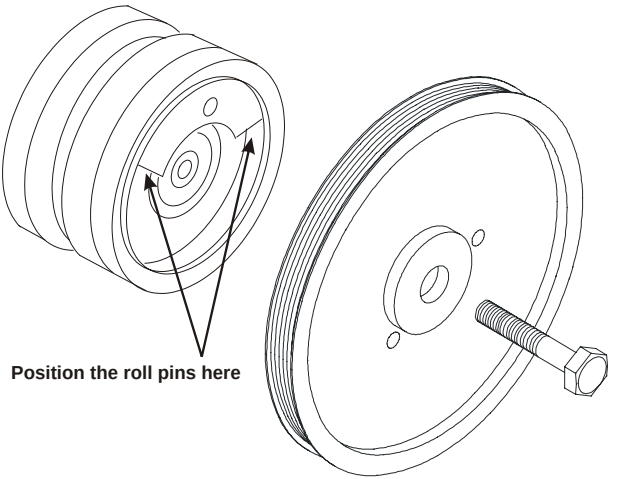


Figure 2.2

☐ Apply Loctite and thread the M18 x 100 mm center bolt with OEM washer into the crankshaft. Install an engine-locking tool and torque the center bolt to manufacturer's specifications (usually about 250 ft-lbs (340 N.m).

☐ On single alternator trucks, install the supplied replacement for the OEM belt (Figure 2.3). On dual alternator trucks, install the OEM belt (Figure 2.4).

☐ Remove the bolts holding the compressor to the packaging base.

☐ Attach the straight end of the short 1/2 inch hose to the fitting on the side of the compressor, route the hose over the top of the compressor behind the clutch assembly and tighten the fitting.

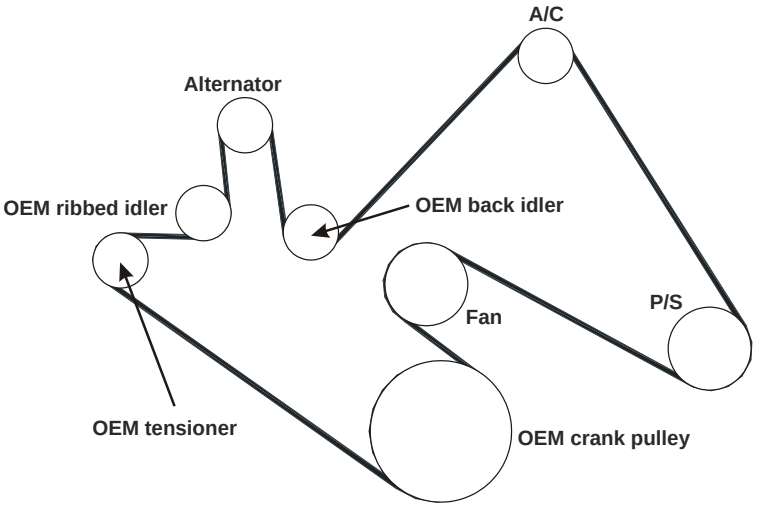


Figure 2.3

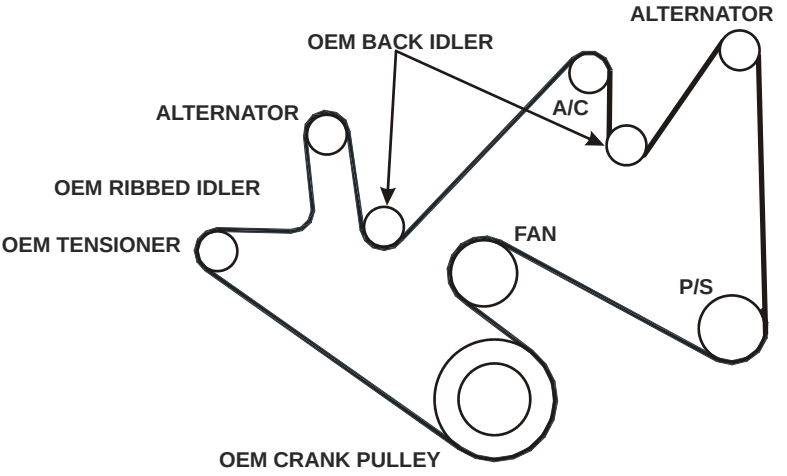


Figure 2.4

☐ Remove the inlet control valve and immediately cover the opening on the compressor to prevent contamination.

☐ Place the compressor on the mounting bracket and install two M8 x 25 mm bolts in the front holes and one M8 x 20 mm bolt in the rear hole, complete with serrated washers.

☐ Tighten the bolts evenly, making sure that they do not bottom-out in the holes and that the compressor is properly secured to the bracket, then torque them to specifications.

☐ Install the VR drive belt (Figure 2.5).

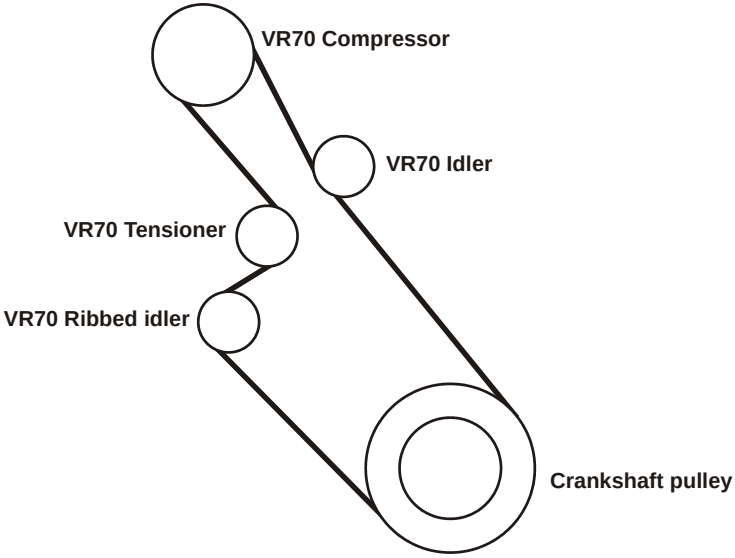


Figure 2.5

2.2 Installing the Cooler

☐ Remove the strap and the support bracket from the cooler assembly (Figure 2.6).

☐ Move the lower fan shroud up to provide clearance and position the cooler (from under the truck) on the inside of the U-channel cross-member where the rock guard was located. Insert the two 3/8 x 1 inch flange lock bolts through the rock guard mounting holes into the cooler.

☐ Place the cooler support bracket on the two bolts with the center hole facing toward the front of the vehicle, install flange lock nuts on the bolts and torque to specifications.

☐ Pass the support strap through the hole in the top of the cooler back plate, around the U-channel frame and through the support bracket. Install a flat washer and 5/16 inch nut and tighten, then install a second 5/16 inch nut as a lock.

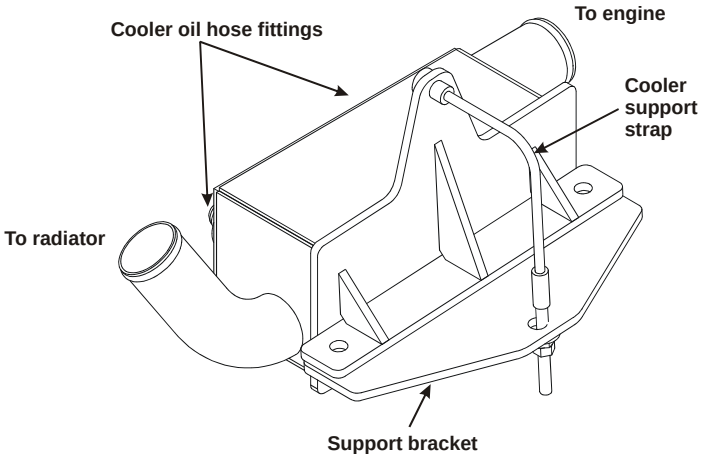


Figure 2.6

☐ Cut the lower radiator hose to length (Figure 2.7) and install each hose section back to the original positions, between the radiator and the cooler and the engine and the cooler.

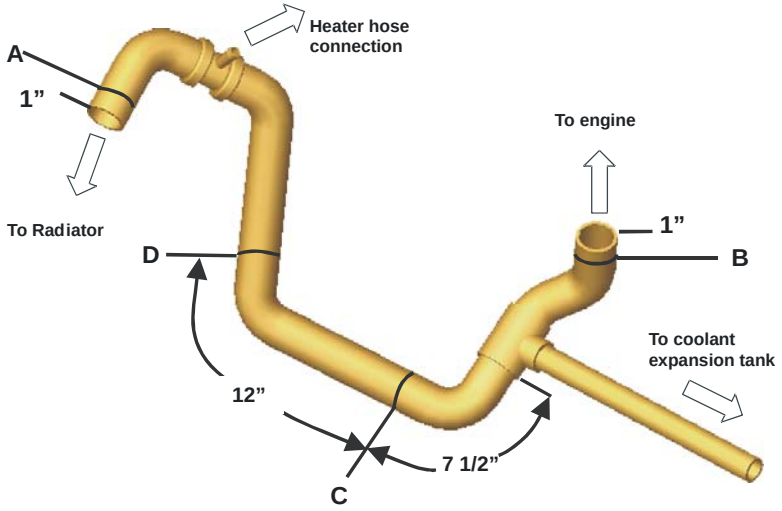


Figure 2.7

2.3 Connecting the Hoses

☐ Connect the straight end of the long 1/2 inch hose to the 90 degree fitting on the cooler but do not tighten the fitting. Route the hose under the compressor and along the passenger side frame back to the transfer case cross-member.

☐ Connect the 90 degree end of the 1/2 inch hose from the compressor to the passenger side fitting on the cooler and tighten the fitting.

☐ Connect the straight end of the 3/4 inch hose to the fitting on the back of the compressor but do not tighten the fitting. Route the hose from the compressor to the same position on the frame as the 1/2 inch hose from the cooler.

No part of the 3/4 inch hose can be higher than the compressor. If it is, the system will not function correctly.

☐ Connect the heater return from the lower radiator hose to the heater hose using the supplied hose barbs and hose, cutting the hose to length as required for a good fit.

Part 3: Installing the Tank and Hoses

3.1 Installing the Tank and Brackets

The tank will mount to the passenger side frame rail between the leaf spring shackle and the transmission skid plate (Figure 3.1).

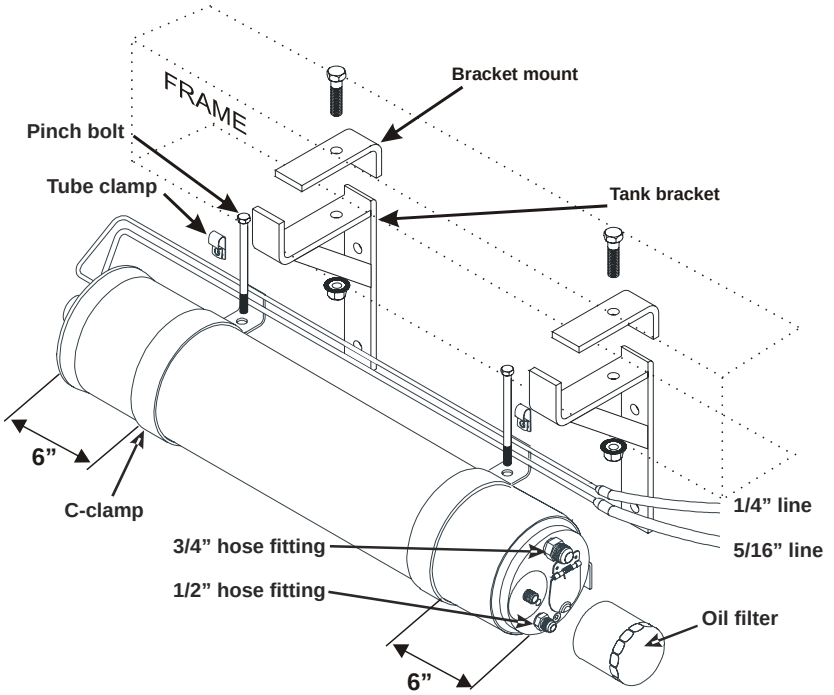


Figure 3.1

☐ Remove the oil filter from the front of the tank, fill it with compressor oil, cover it and place it out of the way.

☐ Place the tank on a work bench with the front (oil filter end) of the tank to your right.

☐ Loosen the two 1/4 inch pinch bolts from the C-clamps. Expand the clamps slightly, slide them over the front of the tank with the bolt heads facing away from you and position them about 6 inches from each end of the tank, with the flats of the clamps on the work bench.

☐ Rotate the tank so that the directional arrow on the end of the tank is parallel to the work bench and points away from you, check the distance of each C-clamp from the ends of the tank and tighten the pinch bolts so that the clamps grip the tank securely.

☐ Apply Loctite pipe thread sealant and install a 90 degree fitting to the outlet on the tank. Tighten it to about the four O'clock position for testing, then reposition or replace as required for operational connections.

☐ Thread the 1/4 and 5/16 inch fittings on the steel lines to the matching fittings on the back end of the tank, but do not tighten the fittings. Route the lines along the top of the tank across the two C-clamps.

☐ Route the hose ends of the 1/4 and 5/16 inch lines through the gap formed by the tank bracket and the angled support and position a tank bracket under each C-clamp.

☐ Place the tank brackets and bracket mounts on the frame, one in front of the spring shackle and one just behind the transfer case skid plate. Install the bolts and nuts but do not tighten them.

☐ Place insulated tube clips over the steel lines with the mounting holes downward and the flat side toward the frame and align them with the top mounting holes on each C-clamp.

☐ Apply Loctite and insert 5/16 x 1/2 inch bolts through the tube clip, the upper C-clamp holes and into the tank bracket. Repeat for the lower C-clamp holes and tighten all the bolts.

☐ Tighten the 1/4 and 5/16 inch fittings on the back of the tank.

☐ Lift the tank assembly and support it in position so the two tank mounts sit on the bottom of the frame rail with the bend on the outside of the frame. Loosely connect the 3/4 and 1/2 inch lines to the tank to establish position.

☐ Position a bracket mount over each tank bracket and install bolts and nuts through each bracket, adjust the position of the tank as required and tighten.

☐ Route the 1/4 and 5/16 inch hoses to the compressor.

☐ Tighten the 1/2 and 3/4 inch hose connections on the tank, compressor and cooler, adjusting the positions as necessary to provide a good fit and clearance.

☐ Secure all hoses together and in place using plastic ties at regular intervals along the frame, other harnesses or the cross-member so that they do not touch the exhaust or moving parts.

☐ Apply a light coating of oil to the filter gasket and install the filter on the tank. Tighten an additional 3/4 turn after the gasket contacts the base.

3.2 Filling the System with Oil

☐ Remove the protective covering from the compressor and pour the supplied compressor oil into the compressor, turning the center of the compressor clutch clockwise to speed oil flow into the tank.

You must use VMAC compressor oil in this system. Failure to use this special oil will result in damage to the compressor and will void your warranty.

☐ Allow 5 minutes for the oil to drain into the tank, then check the level at the sight glass at the front of the tank. Continue adding oil until the level is correct.

Do not overfill the system.

3.3 Completing the Installation

☐ Place the inlet control valve in position and thread in the two mounting bolts nearest the engine.

☐ Place the supplied fuel control module bracket in position over the remaining inlet control valve holes and thread in the remaining bolts (Figure 3.2). Torque all the bolts to specifications.

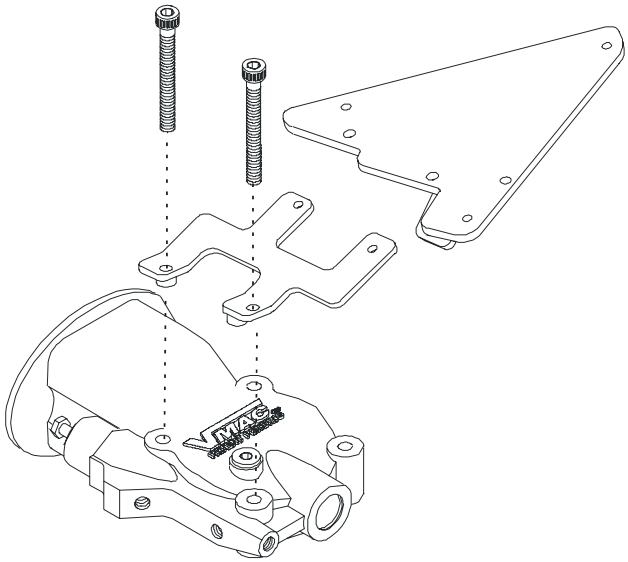


Figure 3.2

☐ Mount the fuel control module onto the new mount plate with the OEM fasteners, making sure that you install all the rubber and plastic mount parts. Leave the mount bolts loose until all of the fittings have been attached.

☐ Install the supplied banjo fitting to the top fitting on the fuel control module. Point it toward the firewall and tighten the fitting.

☐ Install the straight hose connector fitting to the banjo fitting on the steel fuel rail (originally connected to the top of the module) with the hose connector pointing up and toward the driver side of the truck.

☐ Cut a suitable length of fuel hose to connect between the banjo fitting on the fuel rail and the top fitting on the fuel control module. Leave enough length so that the line bends in a smooth curve without crimping.

☐ Install the intercooler tube, making sure that the tube is pushed in all the way and that the clamps are securely tightened. Do not apply any lubricant to the metal pipe or rubber connectors.

☐ Install the air cleaner/coolant fill tank support bracket and coolant expansion tank.

☐ On dual alternator trucks, install the supplied positioning bracket to the driver's side air cleaner mount to reposition the air cleaner away from the alternator. Once installed, the air cleaner should be touching the firewall and provide about 1/2 inch clearance between the air cleaner and the alternator

☐ Connect the MAF sensor plug and the coolant bottle-wiring plug.

☐ Mark the aluminum fan clutch and blade assembly to ensure correct orientation, then separate the fan clutch from the fan blade assembly.

☐ Place the supplied fan blade spacing ring on to the fan clutch. Ensure the recessed side of the ring is mating with the fan clutch, align the fan blade assembly onto the spacer and install the supplied M8 x 30 mm bolts and washers. Use Loctite and torque to specification.

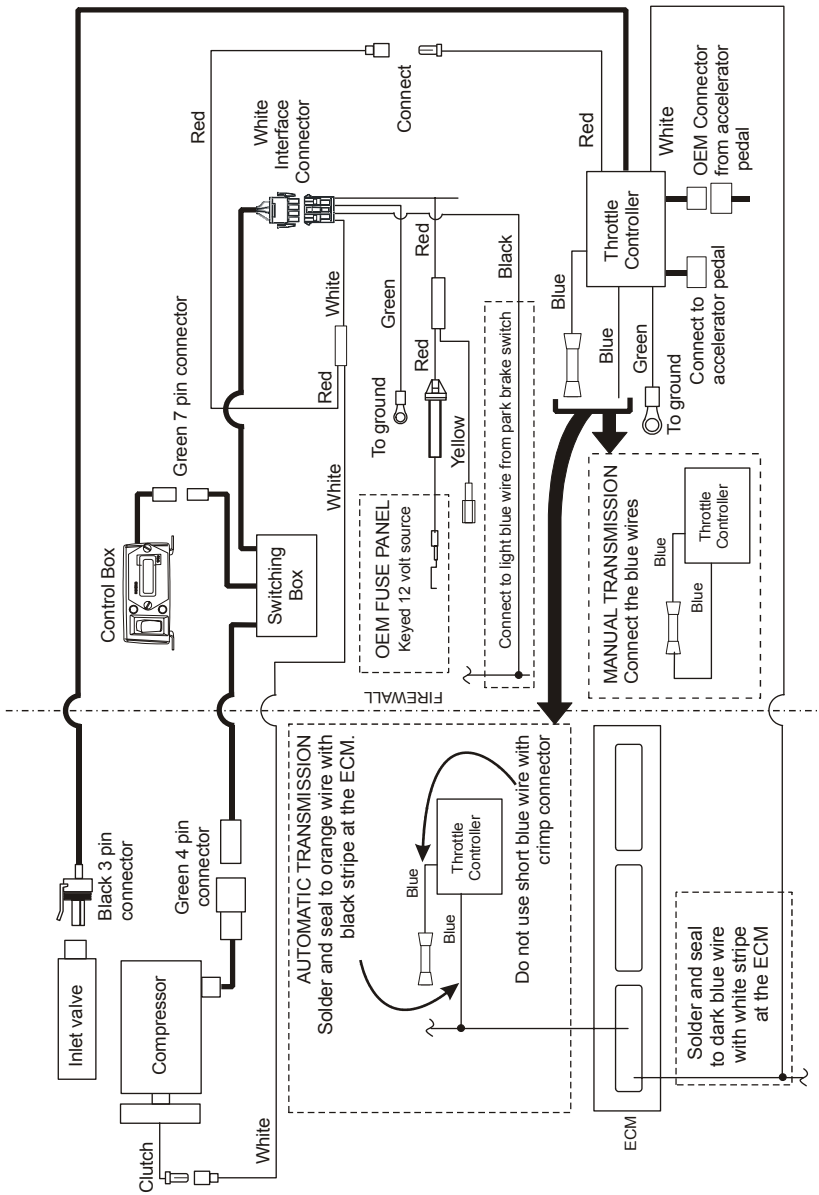
☐ Install the large fan nut spacer into the existing fan clutch. Check for correct seating of the aluminum fan spacer between the fan blade and clutch assembly, then install the fan assembly.

☐ Install the upper fan shroud and top radiator hose.

☐ Connect hoses to the coolant fill tank, then fill the cooling system with coolant to the correct level.

☐ Install all other OEM parts removed previously. Check all the hoses, lines and OEM harnesses to make sure that they are secured and protected.

Part 4: Installing the Control Components



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☐ Lay out all of the control components and identify the wiring and connections according to the wiring diagram.

4.1 Installing the Control Components

☐ Install the control box where it will be accessible but will not be subject to damage, such as under the center of the dash or on the body panel behind the driver's seat.

☐ Tighten the two side brackets, mark the position of the mounting holes, drill two 7/64 inch holes for the brackets then mount the control box with the wire harness coming out the back of the unit.

- If the control box is mounted to the dash, route the wiring under the dash and secure the excess wiring out of the way using plastic ties.
- If the control box is mounted to the body panel, remove the plastic door trim and route the wiring along the body panel under the trim and up under the dash.

☐ Remove the center panel under the steering column on the dash and mount the switching box under the dash near the steering column using plastic ties.

☐ Mount the throttle control under the dash using plastic ties, in a location where the harness connectors on the throttle control will easily reach the OEM accelerator connectors.

☐ Route the following wires into the engine compartment through a suitable OEM opening in the firewall (above the throttle pedal):

- grey wire with a 3 pin black connector
- grey wire with a 4 pin green connector
- white wire with a plug connector
- white wire with no connector
- automatic transmission vehicles – blue wire with no connector

☐ Leave all other wires inside the cab.

4.2 Connecting the In-cab Wiring

☐ Unplug the OEM cable from the accelerator pedal and plug it into the matching connector from the throttle control box. Plug the cable from the throttle control into the matching connector on the accelerator pedal.

☐ Connect the grey cable with the green 7 pin connector from the control box to the matching cable on the switching box.

☐ Connect the two white interface connectors together.

☐ Connect the red wire from the interface connector to the red wire from the throttle controller.

☐ Connect the ground wires from the interface connector and the throttle control to a good ground under the dash.

4.2.1 All Trucks

☐ Remove the kick panel on the front driver's side of the cab. Locate the park brake connector with a light blue wire next to the chassis ground wire bolted to the body (Figure 4.1). Solder the black wire from the DDC to this wire and seal the connection with a shrink sleeve. The preferred connection method is shown in Figure 4.2.

☐ The yellow wire is not used. Tape or cut off the connector to prevent an accidental short circuit.

4.2.2 Manual Transmissions

☐ Cut the long blue wire to about 6 inches, strip the end and connect it to the short blue wire using the attached crimp connector.

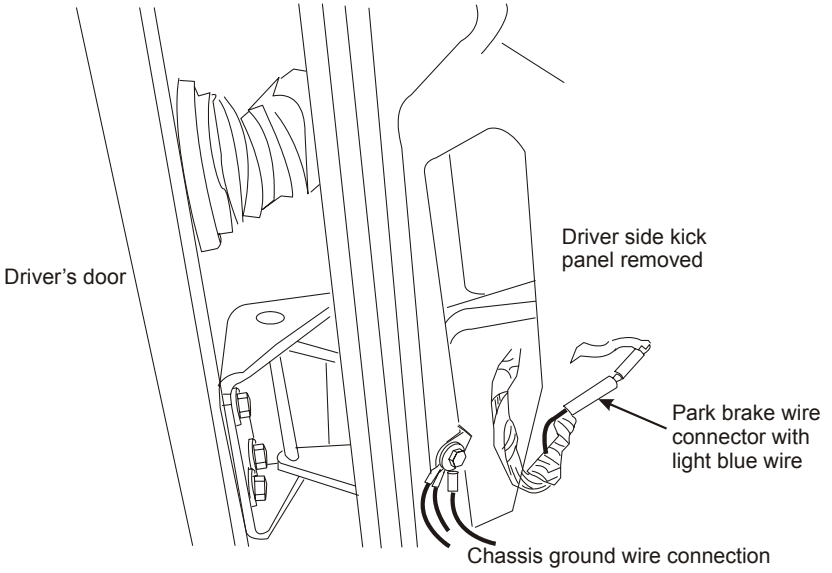


Figure 4.1

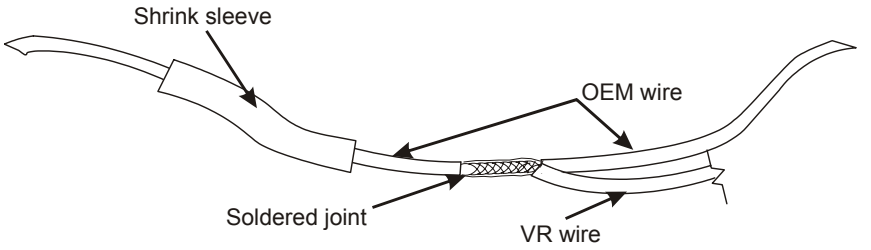


Figure 4.2

4.3 Connecting the Underhood Wiring

Cover all underhood wiring with plastic fireproof loom. Secure the harnesses with nylon ties and pull all excess wire back into the cab.

☐ Route the two grey wires and the white wire with the plug connector across the engine to the compressor. Connect the wires to the matching connectors at the compressor.

☐ Route the white tachometer wire and the long blue wire from the throttle control (if the truck has an automatic transmission) to the ECM in the stack on the passenger side firewall.

☐ Locate the connector nearest to the engine on the ECM (Figure 4.3). Peel back the tape on the wire bundle for easier access to the wires.

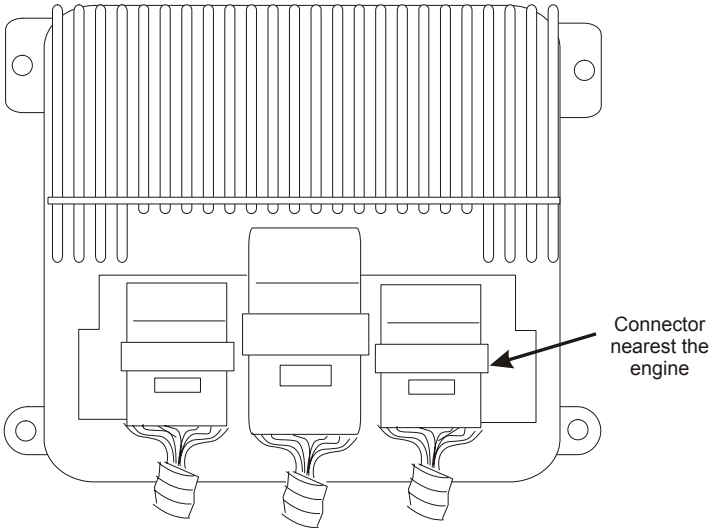


Figure 4.3

☐ Locate the dark blue wire with a white stripe. Solder the white tachometer wire from the throttle controller to this wire and seal the connection with a shrink sleeve.

4.3.1 Automatic Transmission Trucks

☐ If the truck has an automatic transmission, locate the orange wire with a black stripe at the same ECM connector. Solder the long blue wire to this wire and seal the connection using the remaining piece of shrink sleeve.

Do not connect to the solid orange wire that may be in the same harness.

4.4 Connecting the Power Supply Wire

☐ Route the red wire from the interface connector (with the inline fuse) to the fuse panel.

☐ Connect the truck batteries.

☐ Locate a fuse in the fuse panel dash that provides power when the ignition switch is in the “ON” position. Remove the selected fuse from the panel and connect the fuse tap to one side. Plug the fuse back into the empty socket using needle-nose pliers to make sure that it seats properly.

Make sure that the fuse is inserted with the tap on the battery power side (hot), not the fused side.

4.5 Completing and Testing the Installation

☐ Pull all excess wiring back into the cab, bundle the wiring together and tie it up out of the way under the dash.

☐ Replace all dash panels and other covers removed during installation.

4.5.1 Safety Test

☐ Place the automatic transmission in Park or manual transmission in neutral and apply the park brake.

☐ Turn the ignition key “ON” but do not start the engine.

☐ Check the control box to see if there is a number showing in the hour-meter. If there is no display, there is no power to the control box.

☐ Turn the control box switch to the “ON” position. The green light should come on and you should hear the compressor clutch engage.

☐ Release the park brake. The green light should go out and the compressor clutch should disengage. Apply the park brake again and the light should come on and the clutch should engage.

The engine must be running to complete the final step in the safety test. This will be done after the pre-start checks have been completed.

☐ Turn the ignition key “OFF”.

If the vehicle fails the test, check the wiring to make sure that all the connections are correct and secure. If you require additional assistance, contact your local VMAC dealer. Call 1-800-738-8622 or 250-740-3200.

Part 5: Finishing the Installation

5.1 Before Starting the Engine Checklist

Make sure that the following have been completed:

☐ Check the vehicle coolant.

☐ Check the compressor oil level.

☐ Do a final inspection to make sure that everything has been completed and tightened.

☐ Perform a final belt alignment check.

☐ Check all wiring to make sure it is secure and protected.

☐ Loosen the banjo fitting at the high point of the fuel module and pump the primer on the fuel filter (Figure 5.1) to bleed air from the system. Tighten the fitting.

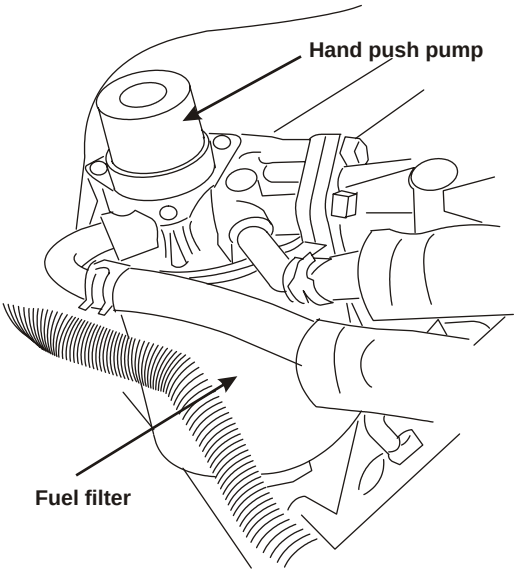


Figure 5.1

☐ Start the engine. If the engine stops, pump the primer again until you feel fuel pressure resistance and restart the engine.

You may have to prime two or three times to eliminate air from the fuel system.

5.2 After Starting the Engine Checklist

Place the truck in a safe operating position and block the wheels. Ensure that there are no people around the truck before beginning the test.

Make sure that the following have been completed:

5.2.1 Automatic Transmission Trucks

☐ With the engine running, engage the park brake; place your foot firmly on the brake pedal, shift the automatic transmission out of Park and into gear.

☐ Turn the switch on the control box to the “on” position. The green light will come on and the compressor will engage, but the engine will not idle up. Turn the switch off.

☐ Repeat this test in all gear selector positions to make sure that the engine does not idle up unless the selector is in Park or Neutral.

5.2.2 All Trucks

☐ Operate the system with an air tool for at least 1/2 hour (1 hour preferred).

☐ Road test the vehicle for approximately 14 miles (20 km).

☐ Watch the underhood operation to make sure that belts travel properly and nothing is rubbing or contacting hot parts.

If you see unusual belt fluctuations during initial operation, stop the engine and move the tensioners back and forth, then restart the engine. Belt fluctuations should stop within the first 30 minutes of operation.

☐ Check all components once the engine is turned off and the system has cooled.

☐ Check the vehicle coolant after the vehicle reaches operating temperature.

☐ Check the compressor oil level after the vehicle has been shut down and the oil level has had time to stabilize.

5.3 Setup, Performance Testing and Adjustments

This system has been adjusted at the factory for general operation. If your tests indicate that adjustment is necessary, refer to the owner's manual for specific instructions on how to adjust the system.

You can test the system operation using the tools that will be operated by the system or you can test operations using an orifice in the outlet to simulate tool use (Figure 5.2).

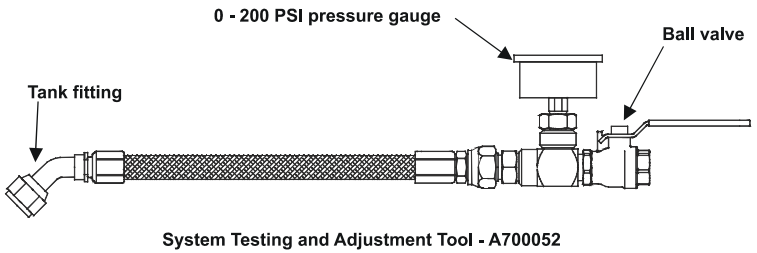


Figure 5.2

1. Install the test tool in the tank outlet fitting.
2. Make sure that the ball valve is closed.
3. Place the manual transmission in neutral or the automatic transmission in park and fully apply the park brake.
4. Allow the vehicle to run until the engine is at operating temperature.
5. Operate the air compressor system until the oil is warm.
6. Observe the pressure gauge. Pressure should be approximately 150 psi (See the owner's manual for adjustment procedures).

7. Open the ball valve on the test tool and observe the engine tachometer. Engine speed should increase to about 1,800 to 2,200 RPM.
8. Close the air valve slowly to allow the system pressure to rise.
9. Once the system pressure is at maximum, slowly open the ball valve on the test tool until the pressure on the gauge begins to drop. Engine speed should start to ramp-up when air pressure drops to approximately 140 psi.

5.4 System Identification and Warnings

The System Identification Number Plate must be attached to the vehicle at the time of installation (Figure 5.3). This plate provides information which allows VMAC to assist in customer inquiries and the ordering of parts. Mark and drill two 7/64 inch holes, then secure the plate with self-tapping screws.

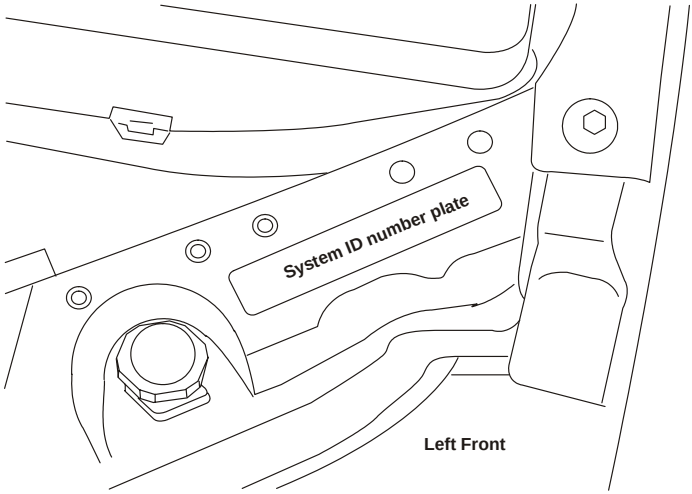


Figure 5.3

As part of the installation process, ensure that the safety and operational instruction decal is affixed in an obvious location so that it can be seen by vehicle operators (Figure 5.4).

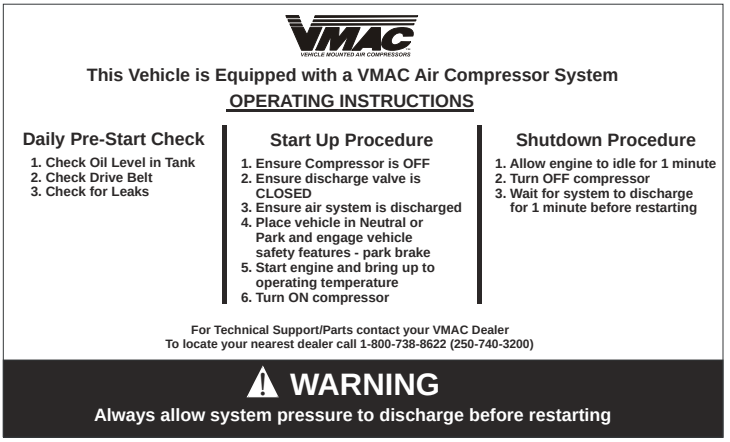


Figure 5.4

5.5 Auxiliary Air Receiver

If you intend to use an auxiliary air receiver with this system you must observe the following installation procedure to prevent damage to the system.

The line from the VMAC tank to the auxiliary air receiver must have a one-way check valve installed (part #3600078) to prevent blow back from the auxiliary tank to stop moisture from entering the VMAC tank (Figure 5.5).

The line to the auxiliary tank must not be installed in the bottom of the tank, but must be installed as high as possible to prevent water from entering the line.

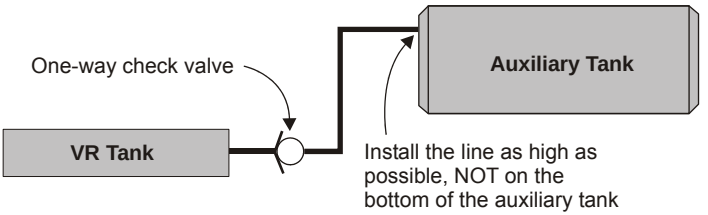
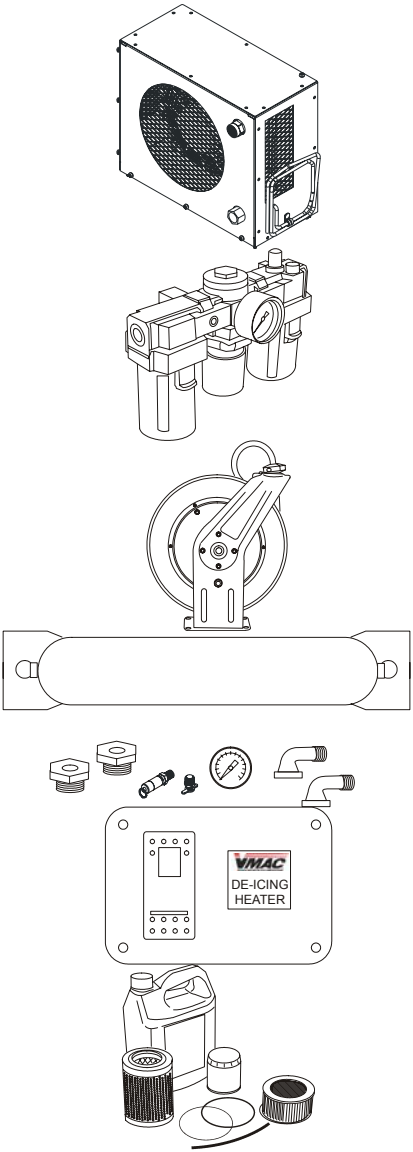


Figure 5.5

Accessory Products from VMAC

The following accessory products for your VR compressor system are available from VMAC. For more information or to order these products, call 1-800-738-8622.



Eliminator Aftercooler

Removes up to 80% of moisture from compressed air. Quick installation, automatic drain and compact design

Filter Regulator Lubricator

Removes lubricants, water and dirt from the air stream. Adds atomized tool oil to lubricate tools. Reduces pressure for longer tool life.

Hose Reel

Secure, compact, retractable hose storage in a sturdy reel.

Air Receiver Tank

Thirty-five gallon capacity in a compact tank, complete with fittings and a gauge.

De-icer Kit

Insulated rope heater prevents freezing of lines and regulator.

Service Kits

Using OEM service products will extend the life of your system. Includes oil, filters, seals and O-rings. 200 hour and 400 hour service interval kits are available

VMAC – ***Vehicle Mounted Air Compressors***
Toll Free: 1-800-738-8622
Fax: 1-250-740-3201