

Installation Manual for VMAC System V900104

2007-2009 25-3500 Dodge Cab & Chassis

2007-2009 2500-3500 4X4 Pickup

6.7L Cummins Diesel

System V900106

2008-2010 45-5500 Cab & Chassis 6.7L Cummins Diesel

2007-2008 Sterling Bullet 6.7L Cummins Diesel

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VMAC – Vehicle Mounted Air Compressors	
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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 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 trucks must follow standard shop practices.



All hoses, tubes, and wires that are rerouted or shifted during installation must be secure so that they do not contact excessively hot areas or sharp edges. Where possible, use rubber coated P-clips. Follow the routing suggestions in this manual and cover all hoses with the supplied plastic loom.

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 that have had other changes without additional modifications. If you have difficulty with the installation, contact VMAC.

The VMAC 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.

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VMAC – Vehicle Mounted Air Compressors

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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 truck. Identify variations for different model years and different situations that are listed in the manual. Open the package, unpack the components and identify them.

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 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 our 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.

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Part 1: 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.

1.1 Preparing for Installation

- ☐ Disconnect the battery terminals.
- ☐ Remove the air cleaner assembly and the passenger side intercooler tube.
- ☐ Drain the coolant and remove the lower radiator hose (save for use later).
- ☐ Disconnect the fan clutch wire and remove it from the mounting clips
- ☐ Remove the fan and the fan shroud from the engine locating brackets.
- ☐ Loosen the OEM crank pulley bolts but do not remove them. Now release the OEM belt from the OEM tensioner. Remove the OEM belt.
- ☐ Remove the OEM crank pulley and scrape off the clear coat from the inside front face of the hub. Discard the locking plate.
- ☐ Remove the lower fan shroud bracket and cut away the section shown in Figure 1.1.

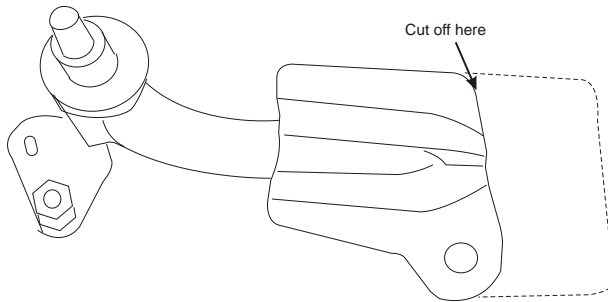


Figure 1.1

- ☐ Remove the plug from the passenger side of the cylinder head (Figure 1.2) and install the supplied 1/2 inch NPT nipple, NPT elbow and NPT to 3/4 inch hose barb in the cylinder head port. Face the elbow towards the passenger side of the truck. Use thread sealant on the NPT fittings.
- ☐ Remove the sway-bar mounts from the frame and allow the sway bar to drop.

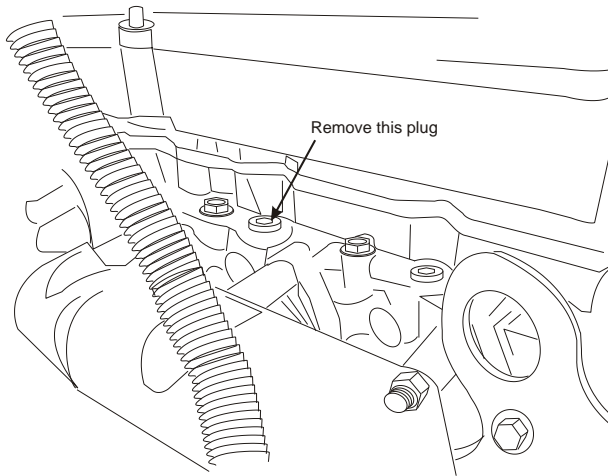


Figure 1.2

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Part 2: Installing the Tank

The tank will mount on the passenger side of the vehicle between the two cab mounts.

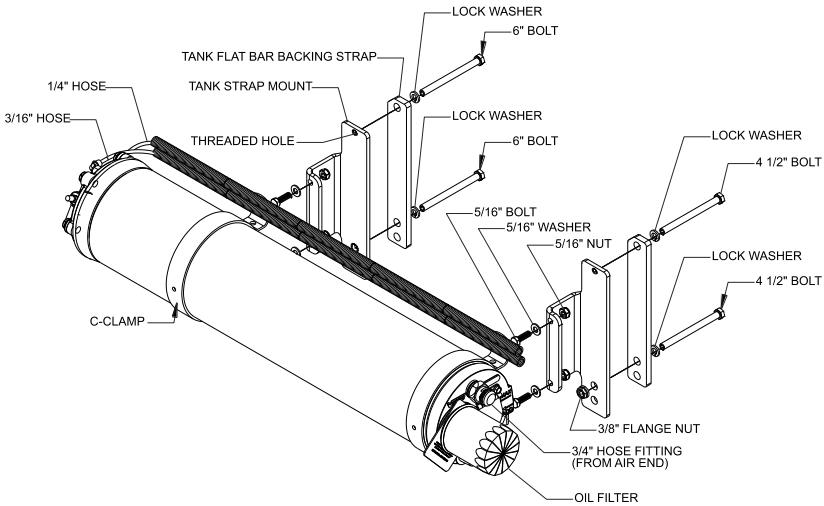


Figure 2.1

2.1 Assembling and Installing the Brackets

- ☐ Place the tank on a workbench with the front (oil filter end) of the tank to your left and remove the oil filter.
- ☐ Remove the two 1/4 inch pinch bolts from the C-clamps. Expand the clamps slightly and slide them over the front of the tank.
- ☐ Position the front clamp right behind the weld on the filter end of the tank and the rear clamp approximately 18 inches from the front weld.
- ☐ Place the two formed tank strap mounts under the C-clamps with the ends with threaded holes facing you.

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- ☐ Apply Loctite and insert 5/16 inch bolts with flat washers into the bottom hole on each bracket, install the nuts but do not tighten.
- ☐ Install the 1/4 inch pinch bolts into the C-clamps so that the heads of the bolts face toward you, apply Loctite and install the nuts but do not tighten.
- ☐ Rotate the tank so that the directional arrow on the end of the tank is parallel to the workbench and faces toward you.
- ☐ Install a 3/4 inch fitting (not supplied) in the back of the tank.
- ☐ Apply Loctite and insert 5/16 inch bolts through the C-clamps and the mount brackets, install the nuts but do not tighten.
- ☐ Check tank alignment then tighten the C-clamp bolts.
- ☐ Slide the tank all the way up on the tank mount brackets (away from you) and tighten the mounting bolts.

2.2 Installing the Tank Assembly

- ☐ Insert 3/8" bolt through the tank flat bar backing strap and route the bolt over the top of the frame so that the flat bar is on the inside of the frame rail (Figure 2.1).
- ☐ Support the tank body in position against the frame rail with the tank strap mounts on the outside of the frame rail and thread the top 3/8" bolt into the tank strap mount.
- ☐ Adjust the tank for the best fit and install the lower 3/8" tank strap bolts and nuts. Apply Loctite to the lower tank strap bolts.

Part 3: Installing the Cooler and Compressor

3.1 Installing the Oil Cooler

- ☐ Remove OEM hose clamps from OEM lower radiator hose. Cut 2 sections out of hose as seen in Figure 3.1.

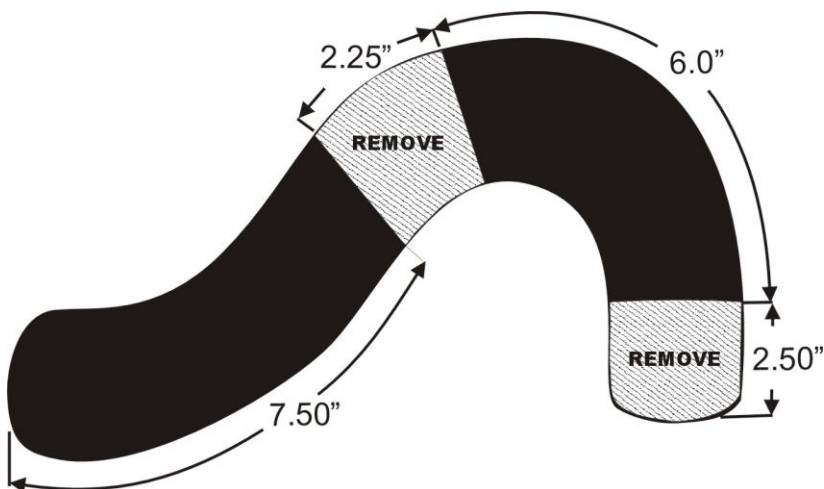


Figure 3.1

- ☐ Install cooler in engine bay on the passenger side beside engine. Tab on cooler will be bolted to the top of the body lift tab above passenger side frame. The cooler tab faces forward with oil ports facing up (Figure 3.2).

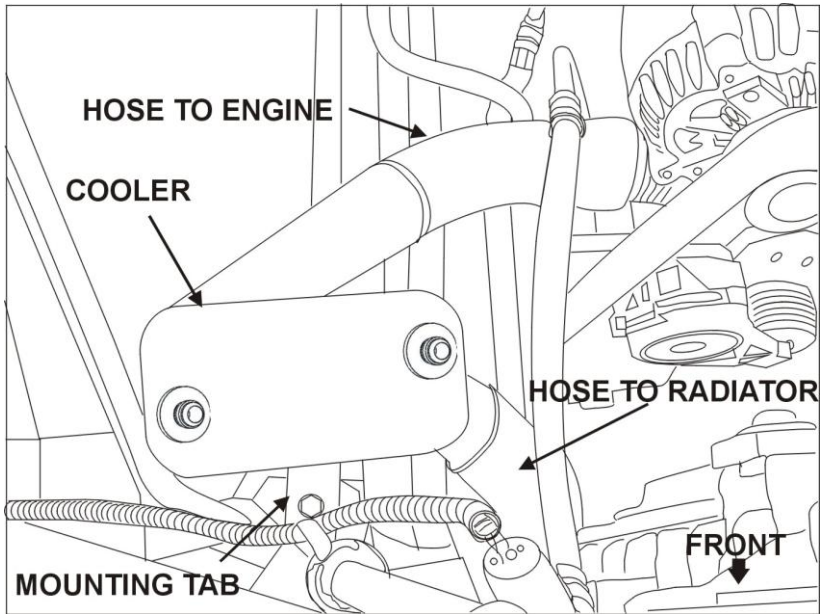


Figure 3.2

- ☐ Attach short elbow from OEM hose to the radiator and front spigot of cooler. Attach long section from OEM hose to engine and rear spigot of cooler (Figure 3.2).
- ☐ Install supplied bolt through cooler with washer and nut on bottom side of the body lift tab. Secure hoses with supplied hose clamps and tighten bolt to specifications.
- ☐ Connect the supplied 3/4 inch heater hose to the fitting on the oil cooler, route it up the passenger side of the engine and connect it to the 3/4 inch hose barb in the cylinder head. Make sure that it does not contact any sharp surfaces or interfere with any belts or moving components by securing with nylon ties and supplied hose clamps.

3.2 Installing the Main Bracket and Compressor

- ☐ Lock the tensioner in the loaded position with an M10 (Figure 3.5).
- ☐ Remove the idler from the VR main bracket.
- ☐ Loosen the two bottom bolts on the side of the air conditioning compressor.
- ☐ Install M12 washers on M12 bolts.
- ☐ Insert the short M12 bolt through the rear mount. Place the bracket in position on the engine so that you can see how it will mount once the compressor has been attached (Figure 3.3). Angle the front of the bracket up during installation to hook the front stud over the oil pan on the front of the engine.

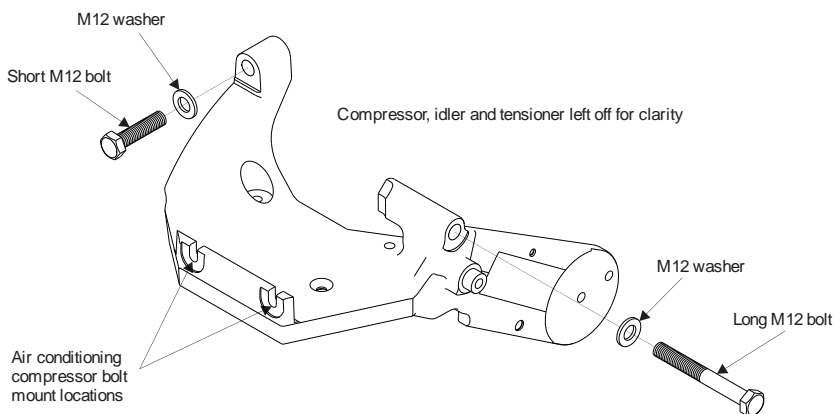


Figure 3.3



If the bracket does not fit correctly make sure that the dowel pin in the air conditioning mounting bracket against the front of the block is bottomed-out by using a pry-bar to push it into place (Figure 3.4).

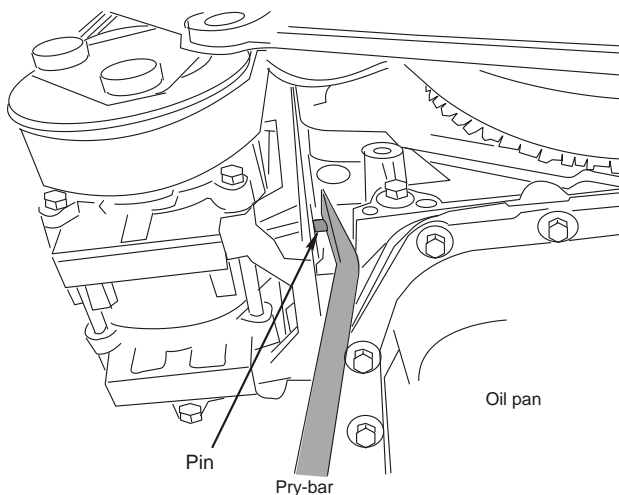


Figure 3.4

- ☐ Install the M12 bolts just finger tight (longest in the front and shortest in the rear) and check to make sure that the bracket is flush against the block. Once you have checked the fit, remove the bracket.
- ☐ Install the compressor on the bracket using the two hex head bolts and the countersunk bolt. Use Loctite and tighten securely.
- ☐ Ensure that the supplied 5/16" washer is installed on the hex head bolt that is closest to the front of the compressor and engine.
- ☐ Apply Loctite and insert the rear M12 bolt through the bracket, lift the compressor-bracket assembly up under the AC compressor and angle the front of the bracket over the front of the oil pan so that the bracket is "hung" in position.
- ☐ Apply Loctite and insert the front M12 bolt, lift the bracket into position and thread the bolt into the engine.
- ☐ Thread the rear M12 bolt into the engine. Tighten both M12 bolts then tighten the bottom AC bolts against the main bracket.
- ☐ Apply loctite and install the M6 tensioner stop bolt (Fig 3.5).

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The tensioner stop bolt must be installed after the bracket is mounted on the engine.

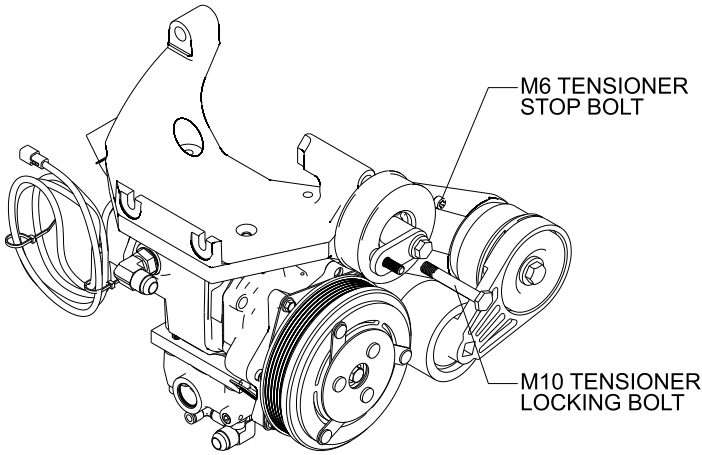


Figure 3.5

- ☐ Place the OEM crank pulley on the front of the crankshaft and rotate it to align it with the locating pin. Route the belt as per (Figure 3.6) but leave the belt loose.



Do not tension the OEM belt before the OEM crank bolts are torqued.

- ☐ Place the VR pulley in front of the OEM crank pulley and align it with the locating pin.

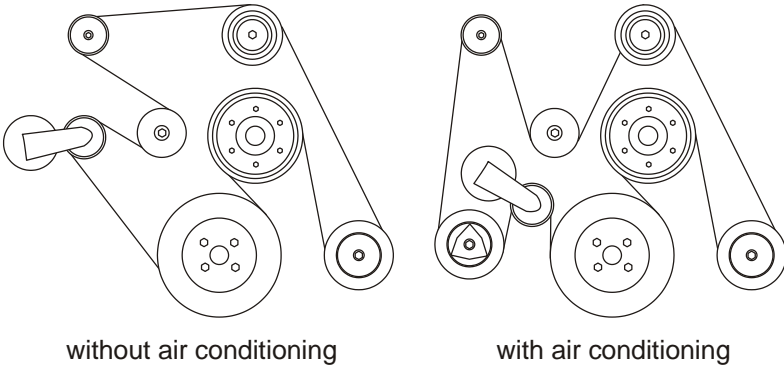


Figure 3.6

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- ☐ Apply Loctite to the four OEM bolts and install them through the two pulleys into the crankshaft. Torque the crank pulley bolts to 69 ft-lbs.
- ☐ Check the OEM belt routing diagram for the correct installation (Figure 3.6).
- ☐ Tension the OEM belt.
- ☐ Place the idler on the main bracket and install the fan shroud bracket so that it points toward the passenger side of the truck (Figure 3.7). Apply Loctite and fasten it in position with the M10 bolt.

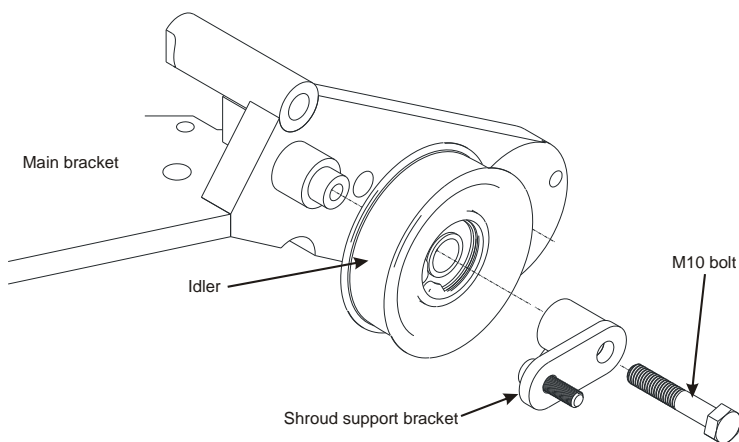


Figure 3.7

- ☐ Install the VR compressor belt (Figure 3.8) and remove the M10 tensioner lock bolt from the bracket.

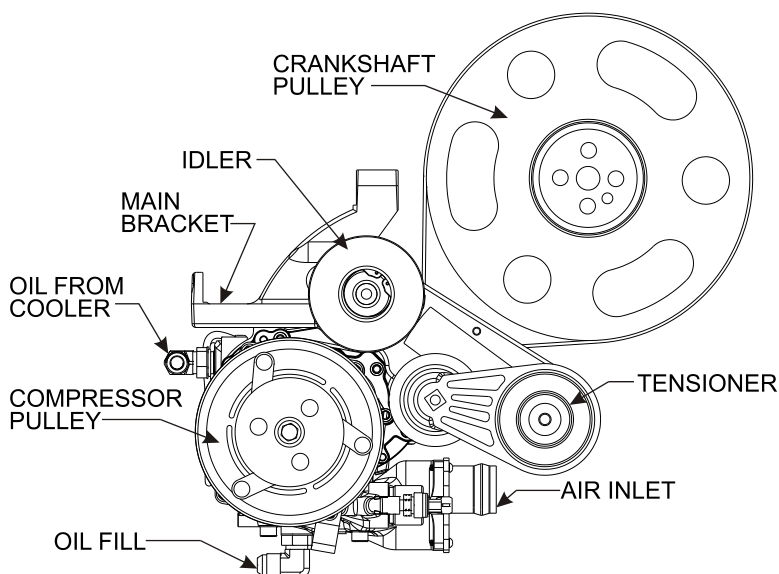


Figure 3.8

3.3 Connecting the Hoses

V900104 Only

- ☐ Connect straight end of the 3/4 inch hose to the top front tank fitting, route it between the suspension arms, over the engine cross-member, along the frame rail and connect it to the matching fitting on the back of the compressor. Route the hose as far as possible from the engine cross-member.

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- ☐ Connect the straight end of the 3/4-inch hose to the back of the compressor. Route the hose up and over the engine cross-member, and the engine mount, then down between the inner fender and frame. Run the hose along the frame rail and connect it to the matching fitting on the front of the tank.

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- ☐ Connect the 1/2 inch oil fill hose with the straight ends to the fitting on the bottom of the inlet control valve and route it up behind the passenger side battery box.
- ☐ Connect the straight end of the longest 1/2 inch hose (with the 90 degree fitting) to the matching fitting (furthest from frame) on the tank. Route the hose along the passenger side frame rail and attach the 90 degree fitting to the passenger side fitting on the top of the cooler.
- ☐ Connect the shortest 1/2 inch oil hose to the matching fitting on the compressor and the fitting on the top of the cooler. If needed, loosen the locknut on the fitting and rotate it to attach the hose. Tighten the locknut and make sure the hose clears all objects.
- ☐ Insert the 1/4 and 3/16 tubes into the fittings on the back of the tank and cover them with high temperature loom. Route them to clear any moving or high temperature components and connect them to the matching fittings on the inlet control valve.
- ☐ Drill a hole in the battery box just above the battery to secure the oil fill hose and fitting (Figure 3.9).
- ☐ Attach the hose to the supplied oil fill fitting and secure it to the back of the passenger side battery box with the supplied P-clip.

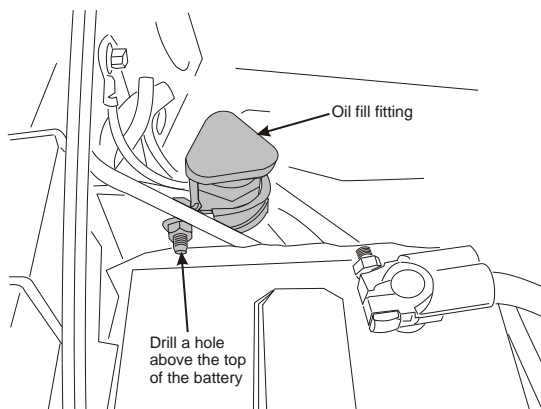


Figure 3.9

3.4 Completing the Installation

- ☐ Remove the OEM screws holding the fan to the hub. Use the VMAC tool 5900220 to countersink the holes and install the replacement 5/16 inch screws with Loctite.
- ☐ Install the fan spacer, fan, fan shroud and intercooler tube.
- ☐ Install the driver's side of the cut fan shroud bracket to the engine using the supplied bolt and spacer (Figure 3.10). Make sure that there is sufficient clearance between the bracket and the OEM belt. Use Loctite on the bolt. Install the fan shroud nuts.
- ☐ Install the fan clutch wire bracket using the supplied bolt, washer, and spacer (Figure 3.10).

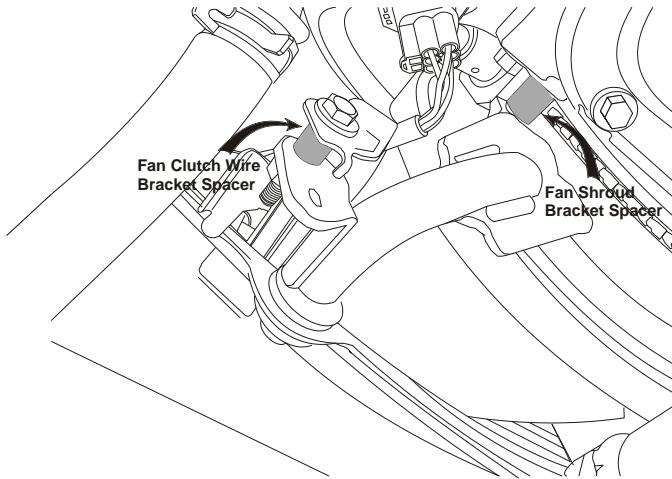


Figure 3.10

- ☐ Attach fan wiring harness to the fan shroud bracket. Ensure there is at least a 0.3" gap between the fan wire and the radiator.
- ☐ Route all hoses so that they do not interfere with any moving components and are not exposed to excessive heat or abrasive surfaces. Secure them with nylon ties and use plastic loom as required.

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- ☐ Remove the bolt holding the exhaust hanger to the transmission bell housing and install the supplied L-bracket with the horizontal part of the bracket facing the passenger side (Figure 3.11).
- ☐ Install a P-clip around the hoses and fasten it to the bracket to hold the hoses secure and away from the exhaust and suspension components.

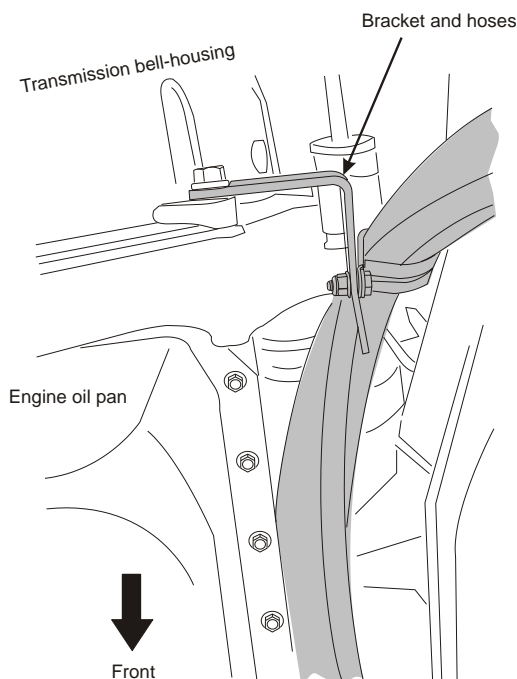


Figure 3.11

- ☐ Remove the cab mount bolt behind the passenger side of the front bumper. Insert the OEM bolt through the hole in the filter assembly mount bracket and install the filter assembly with the hose connection fitting pointing down (Figure 3.12). Adjust the position of the filter assembly so that it does not touch any body parts and tighten the bolt.

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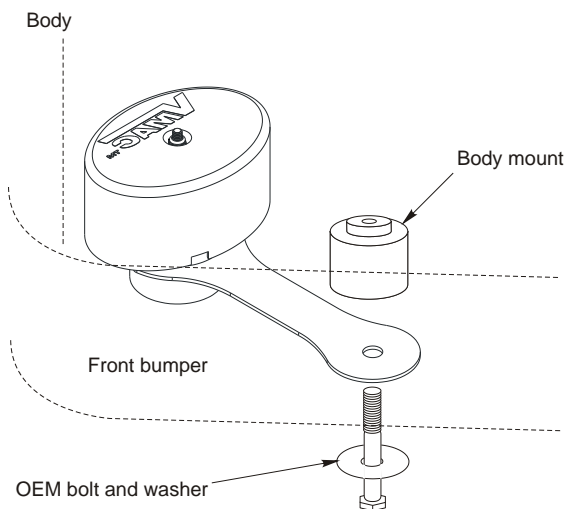


Figure 3.12

- ☐ Remove three bolts from the inlet valve on the compressor and install the intake guard plate using the three bolts (Figure 3.13). Position it so that the short end of the hose will attach to the intake and the long end to the remote filter. Tighten the inlet valve bolts and secure the hoses with the supplied clamps.

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- ☐ Insert the supplied spacers between the frame and the sway bar mount and fasten the sway bar in place with the supplied flange head bolts (Figure 3.13).

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- ☐ Attach the large supplied sway bar spacer to the frame using the OEM bolts. Use the 3/4" sway bar spacer between the sway bar and the large sway bar spacer. Attach the sway bar to the sway bar spacer using the supplied flange head bolts (Figure 3.14).

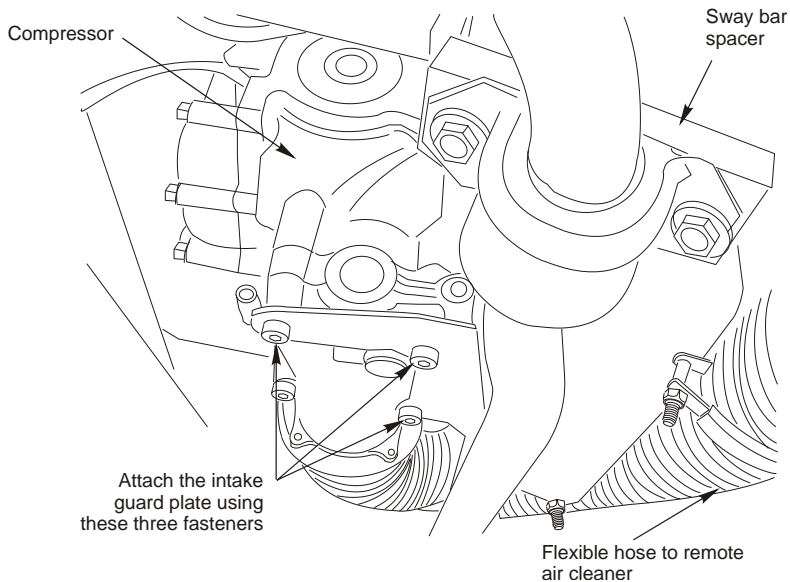


Figure 3.13

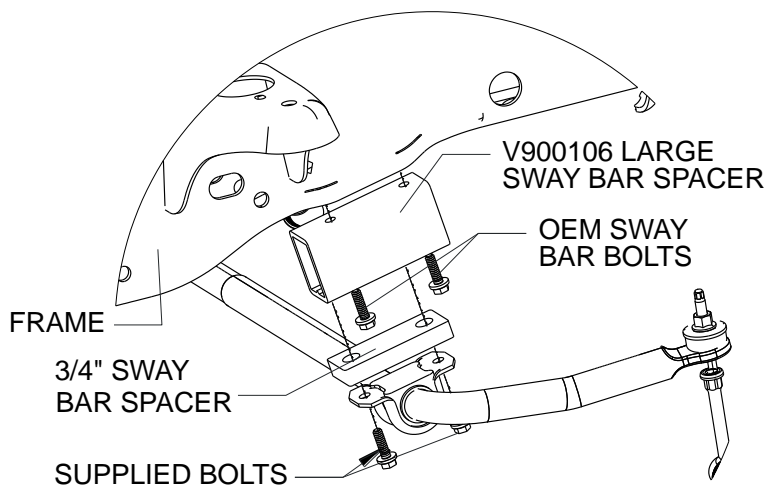


Figure 3.14

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3.5 Adding Oil to the System



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

- ☐ Remove the plug or open the outlet of the tank.
- ☐ Remove the plug from the fill tube and slowly pour oil into the opening using a funnel.
- ☐ Continue adding oil until the level is correct.
- ☐ Install the fill plug in oil fill fitting and tighten it securely.



Do not overfill the system. Overfilling the system with oil can flood the sight glass window and make the system appear empty.

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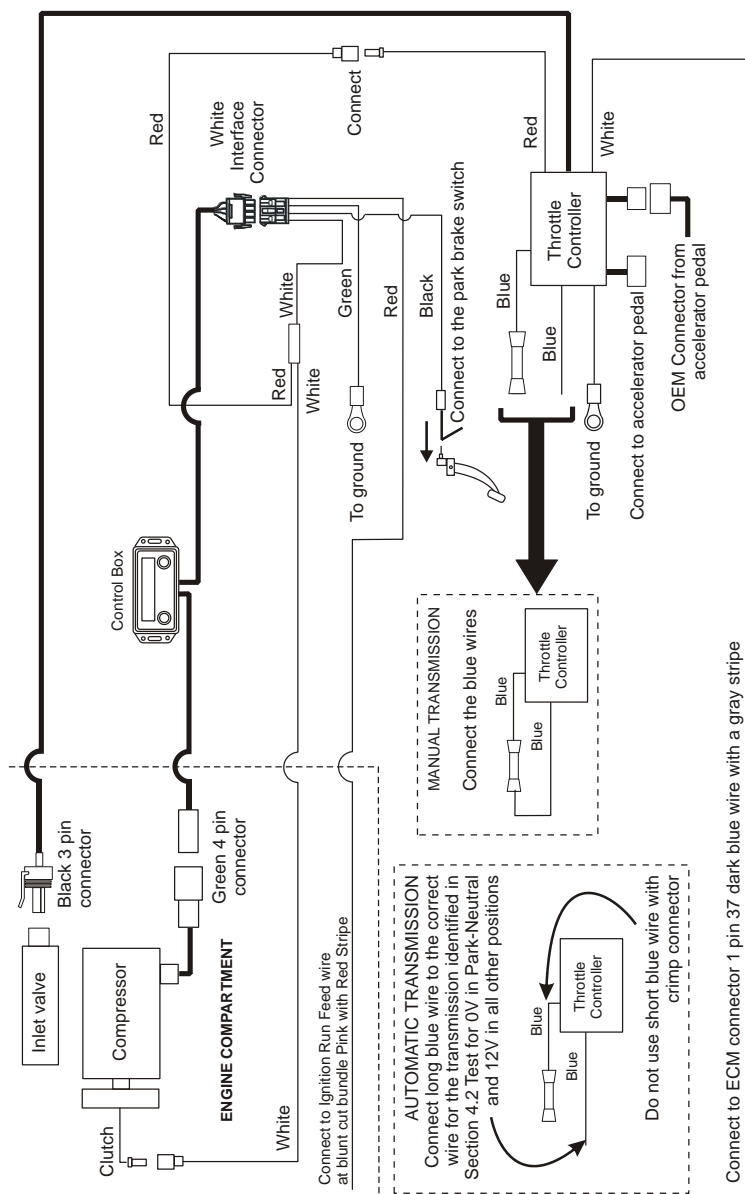
- ☐ Rotate the clutch clockwise during oil fill to speed up the oil fill time.

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Part 4: Installing the Control Components



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4.1 Installing the Control Box and Throttle Control

- ☐ Remove the plastic trim panel from the doorsill and the kick panel on the driver's side.
- ☐ Mount the control box on the floor beside the driver's seat. Use the bracket as a template, drill three 3/32 inch holes through the cab floor and fasten the bracket to the floor of the cab using three #8 pan head screws. Fasten the control box onto the bracket using the four screws, washers and nuts.
- ☐ Route the cables from the control box along the doorsill, under the trim panel, behind the kick panel and up under the dash. Replace the doorsill trim and the kick panel.
- ☐ Mount the throttle control under the dash to the right of the steering column so that the connectors will easily reach the accelerator pedal. Secure it in place with ties.



Keep wires away from the park brake mechanism. Route wires clear of the steering column and pedals so they do not contact moving parts. Before drilling holes, make sure that there are no OEM wire bundles where you will be drilling.

4.2 Connecting the Wiring

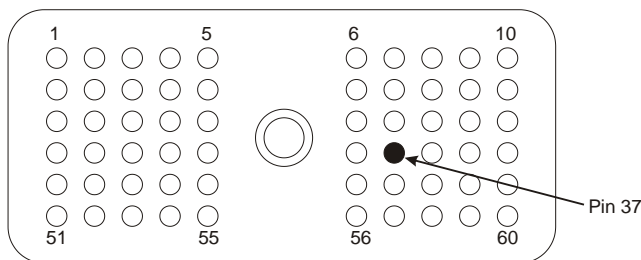
- ☐ Unplug the cable from the foot pedal assembly and connect it to the throttle control box. Connect the throttle control box cable to the foot pedal assembly.



NOTE: The connector from the throttle box does not have a positive mechanical lock to keep the connectors together. If this connection comes apart it will cause drivability problems. Secure the connection using a small nylon tie strap.

- ☐ Connect the interface harness to the matching connector from the control box.

- ☐ Attach the two green wires with the ring connectors to a good ground under the dash.
- ☐ Route the following wires into the engine compartment:
 - white wire with the blue bullet connector
 - white wire from the throttle control
 - red wire from the interface connector
 - the gray wire with the green four pin connector
 - the gray wire with the black three pin connector
 - the long blue wire (automatic transmission only)
- ☐ Insert all of the engine compartment wires (except the long blue wire) into a plastic loom and route them from the firewall, along the driver's side fender, across the top of the radiator to the compressor. Connect them to the matching connections at the compressor.
- ☐ Connect the gray wire with the green four pin connector to the matching connector at the compressor.
- ☐ Connect the gray wire with the black three pin connector to the matching connector at the compressor.
- ☐ Connect the white wire with the bullet connector to the compressor clutch.
- ☐ Locate the forward-most connector (C1) at the ECM on the driver's side of the engine. Solder and seal the white wire from the throttle control to the dark blue with gray stripe wire at pin 37 of connector 1 on the ECM (Figure 4.1).



Backside of connector facing driver's side of engine

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Figure 4.1

- ☐ Remove the OEM connector from the park brake switch; connect the black wire with the piggyback connector from the interface cable to the park brake switch and the OEM connector to the piggyback connector.

4.2.1 6.7L Diesel Aisin AS68RC 35/45/5500 cab chassis Ram pick up

- ☐ Route the long blue wire from the throttle control to the transmission range sensor on the driver side of the transmission above the oil pan (Figure 4.2). Solder and seal the blue wire to the yellow wire with the dark blue stripe at pin 10 on the connector. This wire should show 0 Volts in Park or Neutral and approximately 12 V in all other gear selections when tested with a multi-meter.

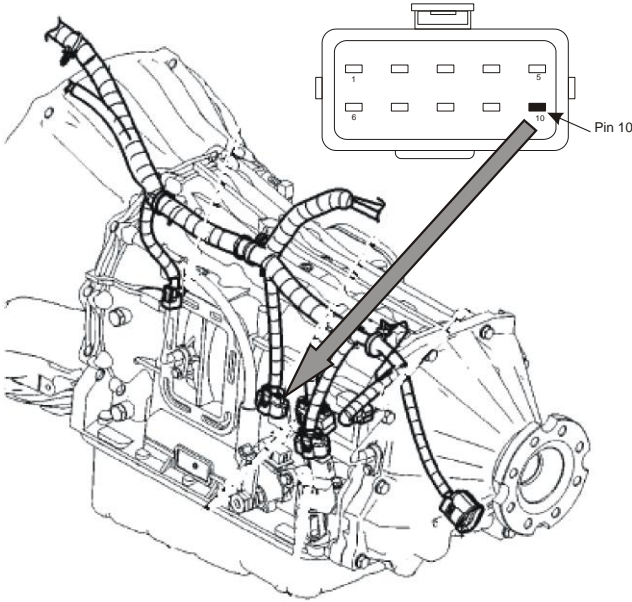


Figure 4.2

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4.2.2 6.7L Diesel 68RFE 2007 2500 3500 Ram pickup

- ☐ Locate the 23 pin connector near the shift mechanism on the driver's side of the transmission. Solder and seal the long blue wire from the throttle control to the yellow wire with the dark blue stripe (Figure 4.3). This wire should show 0 Volts in Park or Neutral and approximately 12 V in all other gear selections when tested with a multi-meter.

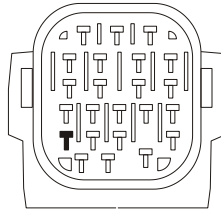


Figure 4.3

4.2.3 Ignition switched 12V cab chassis 35/45/5500

- ☐ Install a 20 Amp fuse in the Auxiliary Power Distribution Box (Figure 4.4).

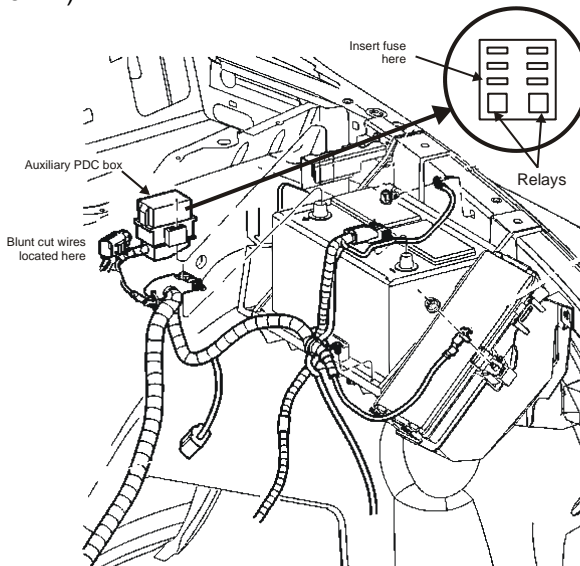


Figure 4.4

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- ☐ Connect the red ignition switched 12 Volt wire from the interface harness to the pink wire with a red stripe at the blunt cut harness (Figure 4.5).

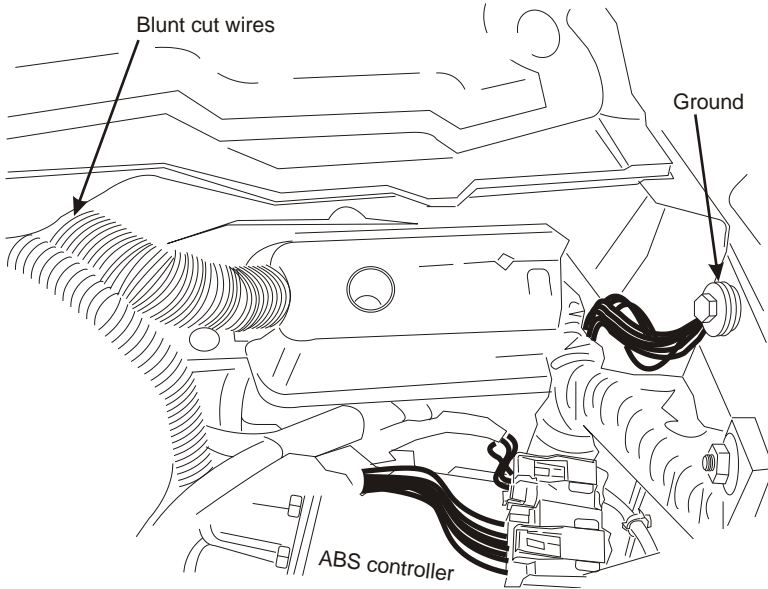


Figure 4.5

4.2.4 Ignitions switched 12V 2500-3500 pickup

- ☐ Locate the cigarette lighter (power outlet) at the instrument panel or power outlet console.
- ☐ Solder and seal the red ignition switched 12 Volt wire from the interface harness to the pink wire with the yellow stripe.

4.2.5 Manual Transmission

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

4.3 Completing and Testing the Installation

- ☐ Check all wiring to ensure that it will not contact any hot or moving components and will not interfere with the operation of the truck. Secure all wiring with nylon ties and loom as required.
- ☐ Install the air box in its original mounting position. Secure the air box and connect the intake ducting.
- ☐ Connect the batteries.

4.3.1 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.
- ☐ Press the "ON" button. The green light should come on and you should hear the compressor clutch engage.
- ☐ Release the park brake. The green light should flash and the compressor clutch should disengage and flash park brake. Apply the park brake again and press the "ON" button. The light should come on and the clutch should engage.
- ☐ On automatic transmission trucks, 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 truck 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 1-888-241-2289 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 coolant.
- ☐ Check the compressor oil level at the tank sight glass.
- ☐ Do a final inspection to make sure that everything has been completed and tightened.
- ☐ Perform a final belt alignment check.
- ☐ Check all wiring for security and protection. Make sure nothing is touching the compressor body.

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

- ☐ Ensure all compressor outlet valves are closed.
- ☐ With the engine running, engage the park brake; place your foot firmly on the brake pedal.
- ☐ Start the compressor and let the truck ramp up to 1800 rpm and then drop down to 1000 rpm. Shift the truck into gear. The engine should go to idle.
- ☐ 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.

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5.2.2 All Trucks

- ☐ Operate the system with an air tool for at least 1/2 hour (1 hour preferred).
- ☐ Road test the truck for approximately 14 miles (20 km).
- ☐ Watch the underhood operation to make sure that belts rotate properly, pulleys rotate smoothly and nothing is rubbing or contacting hot parts.
- ☐ Check all components, connections and fasteners once the engine is turned off and the system has cooled.
- ☐ Check the coolant level after the engine has been operated.
- ☐ Check the compressor oil level after the engine 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 operation requires different settings, 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 5.1).

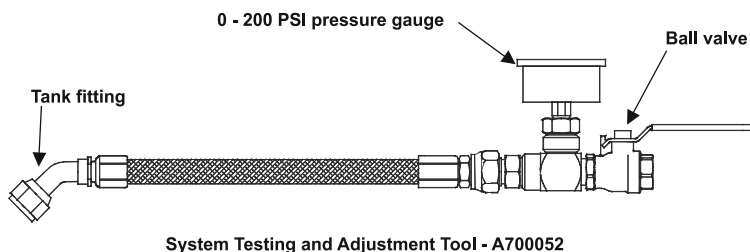


Figure 5.1

1. Install the test tool in the tank outlet fitting. If you are using the VMAC test tool, use the correct orifice fitting (small hole for VR70, large hole for VR140).

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2. Make sure that the ball valve is closed.
3. Place the transmission in park and fully apply the park brake.
4. Allow the engine to run until it 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.
7. Open the ball valve on the test tool and observe the engine tachometer. Engine speed should increase to 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 increase when air pressure drops to approximately 140 PSI.

5.4 System Identification and Warnings

The System Identification Number Plate must be attached to the truck at the time of installation. 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 to the top surface of the radiator support in front of the battery, then secure the plate with self-tapping screws.

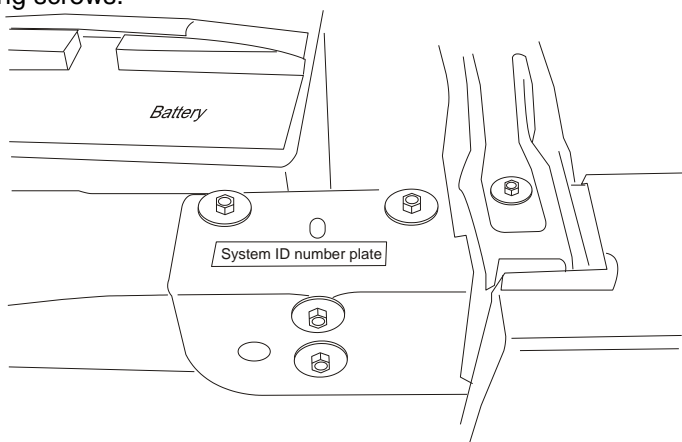



Figure 5.2

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 truck operators (Figure 5.3).



**This vehicle is equipped with a
VMAC Air Compressor System.**

OPERATING INSTRUCTIONS

Daily Pre Start Check:

1. Check oil level in tank.
2. Check drive belt system.
3. Check for leaks.

Start Up Procedure:


1. Ensure air system is depressurized.
2. Ensure all air outlets are CLOSED.
3. Place vehicle in Neutral or Park and engage park brake.
4. Start engine and bring to operating temperature.
5. Turn ON compressor.

Shutdown Procedure:

1. Ensure discharge valve is CLOSED.
2. Allow engine to idle for 1 minute.
3. Turn OFF compressor.
4. Wait for system to depressurize before restarting.

For Technical Support/Parts contact your VMAC Dealer
To locate your nearest dealer call 1-800-738-8622 (250-740-3200)

4400644-A



WARNING

**Always allow system to
depressurize before restarting**

Figure 5.3

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 to prevent blow back from the auxiliary tank and to stop moisture from entering the VMAC tank (Figure 5.4).

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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.

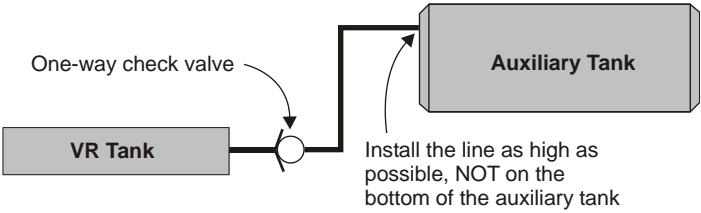
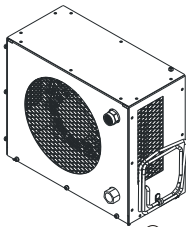


Figure 5.4

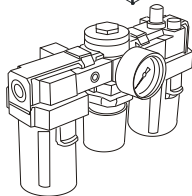
Accessory Products from VMAC

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.



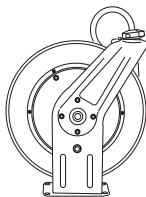
Eliminator Aftercooler

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.



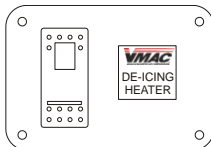
Air Receiver Tank

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



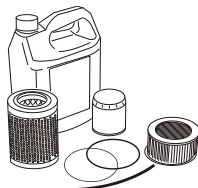
De-icer Kit

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



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