

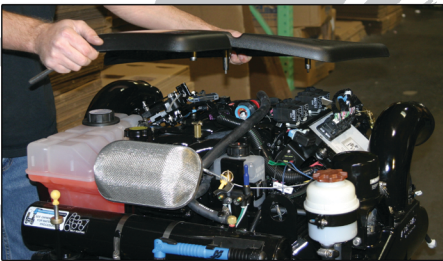
496 Vortex Exhaust Installation

***Congratulations on purchasing the finest
496 exhaust kit on the market.***



Please note:

Not following the instructions during the installation of this product can result in many wasted hours of unwanted labor. The step by step process we have created will ensure a smooth installation. There are several important steps that must be done in the proper sequence in order to achieve your goal of easy bolt on horsepower.



Remove engine cowling, and start on the port side.



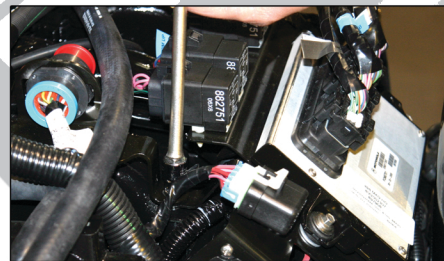
Remove main water feed line from manifold water inlet.



Leaving drain back hose intact, cut hose in half.



Remove oil filter bracket from manifold.

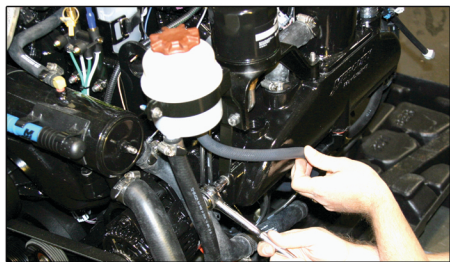


Remove all 4 ECM bracket bolts. 2 bolts off intake manifold, and 2 bolts off exhaust manifold.



After removing the circuit breaker from the bracket, lay ECM assembly back and set on top of the engine.

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Unbolt power steering reservoir from the oil filter bracket.



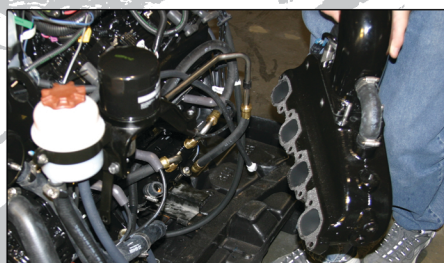
Secure the reservoir loosely to the engine lift ring using a tie wrap.



Unbolt the Adel clamp on the back of the exhaust manifold to free the oil line.



Unplug the temperature sensor.



Remove all manifold bolts, along with the manifold.



Remove remaining hose piece off of the oil cooler. Be sure to keep the hose clamp for the new installation.



Remove oil filter and lines from the filter head. Allow the excess oil to drain from the oil lines and the filter. (oil filter must be drained for re-installation)



Remove oil filter nipple from the filter head. (Be sure not to damage the o-ring, and save for re-installation)

ATTENTION: To prevent galling, before installing any of the Stainless fittings, lubricate the male threads and run the fitting in then out to break in the female threads. After doing so, wipe the male threads clean and apply teflon tape before the final installation of all Stainless fittings. Brass fittings only require teflon tape before installation.

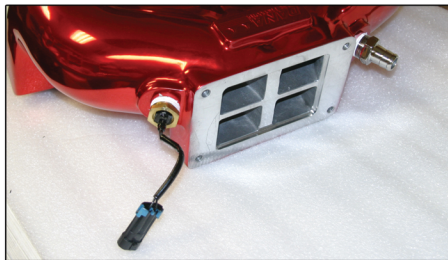


Please note: There are (2) 3/4" female water inlets in the bottom of the port manifold. The water inlet T fitting must be installed in the rear inlet port with the pipe threads facing the rear. The supplied 3/4" SS pipe plug installs in the front inlet port.



After applying teflon tape to 1/8" pipe fittings, proceed to installing them in the lower manifold drain holes.

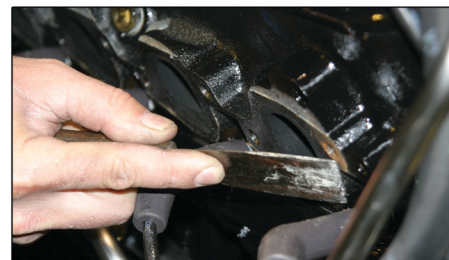
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Install straight fitting into the front of the exhaust manifold. Install heat sensor plug in the back of the manifold.

Remove the temperature sensor from the stock manifold, and install it in the new manifold.

ATTENTION: When handling the temperature sensor, use extreme caution. The sensors are very fragile, so handle with care.



Before installing the new manifold, be sure to clean the mounting surface of any old gasket material.



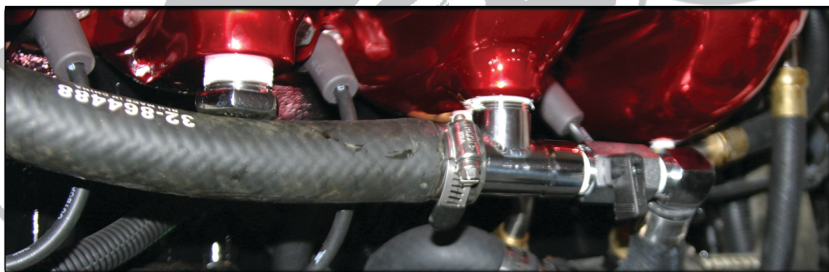
With the gasket in place along with the 2 outer bolts install the manifold loosely.



With the manifold loosely in place route the oil lines behind. Be sure that the rubber line is below the stainless line. Be sure not to pinch the drive reservoir line between the valve cover and manifold.



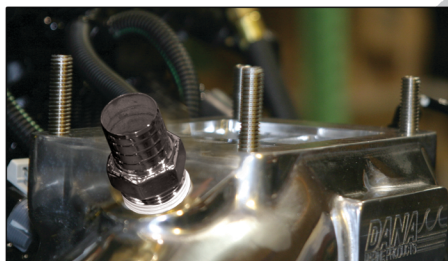
Install the remaining manifold bolts and tighten to 25 ft. lbs.



With sealant applied, install drainback valve with the valve handle facing outward. Next install the 90 deg. fitting, it is necessary to turn the lower SS fitting outward to thread in the 90 deg. fitting. Once tight, return the assembly back to a straight position.



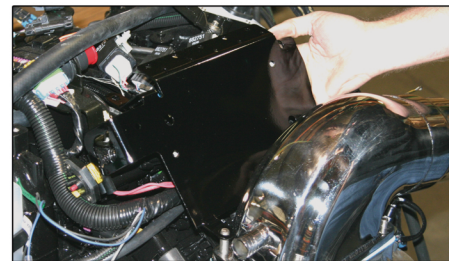
Create rubber "S" tube with supplied hoses and brass coupler to connect drainback 90 to the oil cooler.



Install riser studs, making sure the longer studs are in front. (Be sure to cover exhaust ports so nothing is dropped into the manifolds.)

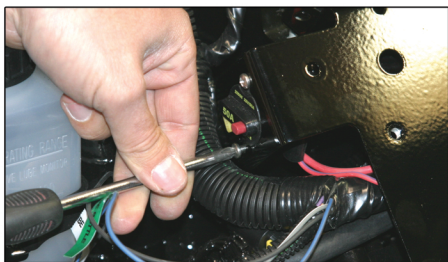


Set riser gasket and riser into place. (DO NOT install nuts and washer at this point.)

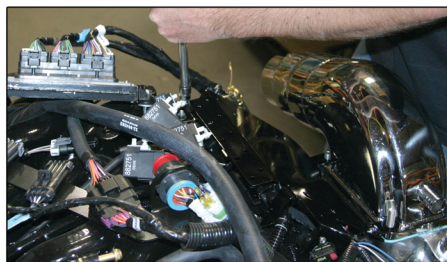


Install the new ECM bracket. (DO NOT reinstall ECM at this time.)

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Reinstall the breaker into the new ECM bracket.



At this time, only tighten the bolts that are holding the ECM bracket to the intake manifold.



Using the provided spacer, o-ring, and stock oil seal re-install nipple into new DMP head. Install oil seal on top & bottom of the spacer



When installing nipple, be sure seals are seated properly and not being crushed. Also install provided oil line adapter fitting using Teflon sealer.



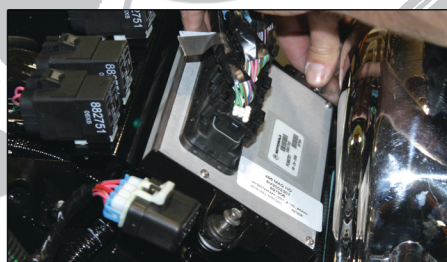
Set oil filter bracket into place. (DO NOT tighten at this point.)



Re-install oil lines to correct fittings, and tighten.



Install all 4 lock washers and nuts on the riser studs and tighten.



Remove and re-install relays, and ECM onto new bracket. (Using a flat screwdriver to remove relays from old plate.)



Install the drive reservoir bracket to the oil filter bracket, using the provided bolts.



Bolt the reservoir to the bracket using the stock bolts and the provided nuts.



Trim hose to fit properly using a small amount of liquid soap install the stbd. side jumper hose and tighten hose clamp.

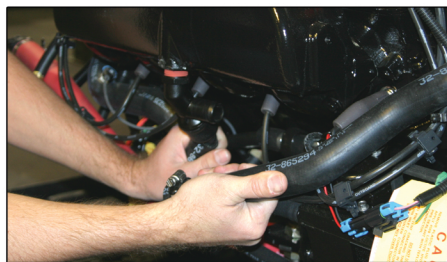


Re-install the drained oil filter and tighten.

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At this point in the installation, tighten all of the 4" hose and clamps.



Now on the Starboard side, Remove the main water line and drain back hose from manifold.



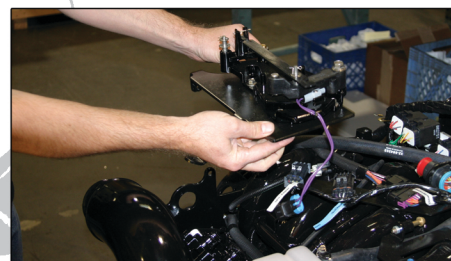
Unplug shift bracket and heat sensor connections.



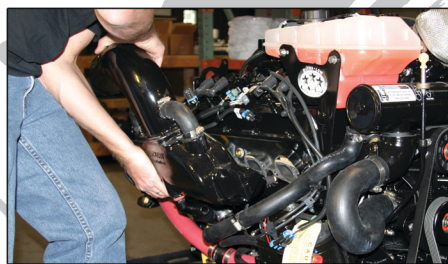
Remove shift bracket support bolt from manifold.



Remove rear bolts from shift bracket. (These bolts will be re-used.)



Set shift bracket and cables aside.



Remove all manifold bolts, along with the manifold.



Install lower "T" fitting and 1/8" pipe plugs, using the same procedure as the port side.

Same as on the port side, make sure the pipe threads on the "T" fitting are facing the rear.



Install straight fitting into the front of the exhaust manifold. Install heat sensor and plug in the back of the manifold.



Before installing the new manifold, be sure to clean the mounting surface of any old gasket material.

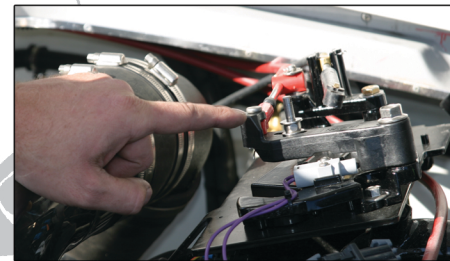
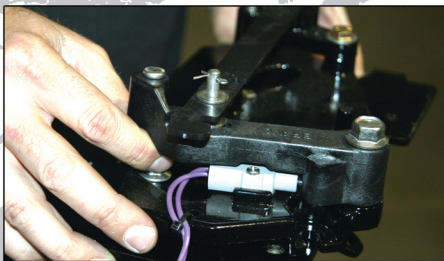


Install the new manifold and gasket tightening to 25 ft. lbs.

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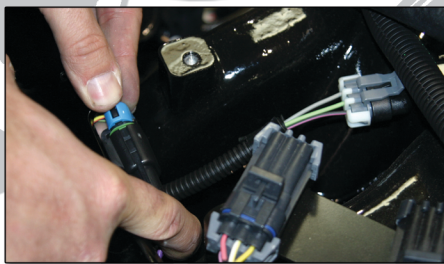
With sealant applied, install drainback valve with the valve handle facing outward. Next install the 90 deg fitting, it is necessary to turn the lower SS fitting outward to thread in the 90 deg. fitting. Once tight, return the assembly back to a straight position. Using the provided 1" hose and hose extension, re-connect the water supply line to "T" fitting inlet. Using (1) pre-molded hose and hose coupler, re-connect stbd. drainback. It will be necessary to twist the stock drainback hose to make proper alignment with the new drainback hose assembly.



For stbd. riser installation, install new studs, gasket, riser, lock washers and nuts. Tighten at this time

Remove shift lever assembly from stock bracket, and re-install onto the new bracket.

When removing lever assembly it is necessary to remove the drive intermediate cable from the lever arm. Re-install cable when install is complete.



Re-attach new shift bracket to the engine. (Note new upper bracket mount, remove nut from intake before bracket install. Re-install nut and tighten.)

Re-connect shift assembly plug and heat sensor plug.

Trim hose to fit properly using a small amount of liquid soap install the stbd. side jumper hose and tighten hose clamp..

After installation is complete, double check all connections and fasteners, and be sure that the drain back valves are closed operation. **DO NOT attempt to start the engine without adequate water flow.**