



SUPERCHARGER INSTALLATION MANUAL



Ford Terminator Cobra 4.6L
2003-2004 Model Years

Engine: Ford 4.6L 4 Valve
Model Years: 2003-2004

Draft #8
August 20th, 2018

CALIFORNIA AIR RESOURCE BOARD EXECUTIVE ORDER #D-231-23

**COMPETITION BASED PRODUCT MAY BE USED SOLELY ON VEHICLES USED IN SANCTIONED
COMPETITION WHICH MAY NEVER BE USED UPON A PUBLIC ROAD OR HIGHWAY**

INTRODUCTION

Before beginning installation, please read this manual and important notes:

- Please read the installation manual and verify that all items are present. If you are missing hardware or have any questions, please contact your dealer or Whipple Superchargers before you start the installation.
- Premium fuel (US 91 octane) is required to prevent spark-knock/detonation under certain operating conditions. Other countries must meet US 91 octane standards, RON+MON/2. If fuel of less than 91-octane is present in the vehicle fuel tank, the tank must be completely drained and refilled with 91 or higher octane to 1/8th of a tank.
- Operating your engine without the Whipple Calibration can result in engine damage or failure and will void your warranty.
- **NEVER MANUALLY MOVE THE BYPASS ACTUATOR, YOU CAN RUPTURE THE INTERNAL DIAPHRAM.**

COMPETITION BASED PRODUCT MAY BE USED SOLELY ON VEHICLES USED IN SANCTIONED COMPETITION WHICH MAY NEVER BE USED UPON A PUBLIC ROAD OR HIGHWAY, UNLESS PERMITTED BY SPECIFIC REGULATORY EXEMPTION (VISIT THE "EMISSIONS" PAGE AT [HTTP://WWW.SEMASAN.COM/EMISSIONS](http://www.semasan.com/emissions) FOR STATE BY STATE DETAILS.

COMPETITION BASED PRODUCT IS LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY.

IT IS THE RESPONSIBILITY OF THE INSTALLER AND/OR USER OF THIS PRODUCT TO ENSURE THAT IT IS USED IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

RECOMMENDED TOOLS AND SUPPLIES

The following items are not included in this supercharger kit and it is strongly recommended that they're used for ease of installation or maximum performance:

Engine Oil

Whipple highly recommends running Ford Motorcraft 5W-50 full synthetic motor oil (PN #XL-5W50-QGT) vs the stock 5W-20. You will need a Motorcraft oil filter #FL-500.

Tools

1/4" and 3/8" torque wrenches. Safety glasses, metric wrench set, electric or air drill, 1 1/2" hole-saw, hack saw, 1/4", 3/8", 1/2" assorted metric socket set, 5mm ball head allen, 3/8" assorted metric allen socket set, 3/8" assorted torx socket set, 8mm hex allen wrench, 1/2" breaker bar, flat head and Philips screw drivers and drain pan (for coolant). Fuel line removal tool. Heat gun or small torch for heat shrinking. Electric tape. Trim pad tool (for pushpin removal). Fuel pressure gauge, 0-90psi.

Tie Straps

These will be useful for securing the wiring harness away from the installation area as directed in the instruction manual. They are inexpensive and will be very handy during installation. You will need an assortment of 4", 8" and 12".

Sealants, Chemicals and Lubricants

Anti-seize for bolt and spark plug threads (use only when stated, otherwise the torque value must be reduced). Assembly lubricant (white lithium grease or petroleum jelly). Cleaner/degreaser such as carb cleaner. Blue Loctite #243 or equivalent.

Clean Shop Towels

Use these to keep the installation area clean.

PRE-INSTALLATION CHECKLIST

Before installing your Whipple Supercharger Kit, complete the following checklist.

1. Vehicle Break-in: Brand new vehicles with sub 1000 miles should maintain OEM break-in procedures for the engine, clutch or transmission. Applying extra stress to the power-train before proper break-in is not recommended and could lead to damage.
2. Verify Condition of Vehicle: Before the supercharger kit is installed, ensure the engine runs smoothly and that the factory malfunction indicator light (MIL) is off. Only install the supercharger kit if the engine runs smoothly *and* the MIL is off.
3. **!! CAUTION !!** This product is intended for use only on **STOCK, UNMODIFIED, WELL-MAINTAINED engines**. Installation on a worn-out or modified engine is not recommended without factory computer and fuel system modifications. Custom engine configurations could require custom tuning and other supporting modifications. Whipple does not offer custom calibrations.
4. Verify Fuel System: Supercharger systems should only be installed on vehicles that have new or clean fuel filters.
5. Assess Cleanliness of Installation Area: Make sure your work area and the under-hood area are free from debris. This supercharger is a high-quality, close-tolerance compressor and must not be subjected to contamination by dirt or any type of foreign material. If necessary, vacuum around engine to remove any foreign material.
6. **!! CAUTION !!** DO NOT remove the protective seal on the supercharger prior to installation. Foreign material entering the supercharger will automatically void all warranties.
7. Identify Supercharger Kit Components: Before beginning installation, identify all the components of your Whipple Supercharger Kit and ensure all items are present and undamaged.
8. **!! CAUTION !!** Do not attempt to start the engine before adding the supplied Supercharger Oil to the supercharger!

SAFETY PRECAUTIONS



CAREFULLY READ THE IMPORTANT SAFETY PRECAUTIONS AND WARNINGS BEFORE PROCEEDING WITH THE INSTALLATION!

Appropriate disassembly, assembly methods and procedures are essential to ensure the personal safety of the individual performing the kit installation. Improper installation due to the failure to correctly follow these instructions could cause personally injury or death. Read each step of the installation manual carefully before starting the installation.

- Always wear safety glasses for eye protection.
- Place the ignition switch in the off position.
- Always apply the parking brake when working on vehicle.
- Block the front and rear tire surfaces to prevent unexpected vehicle movement.
- Operate the engine only in well-ventilated areas to avoid exposure to carbon monoxide.
- Do not smoke or use flammable items near or around fuel system.
- Use chemicals and cleaners only in well-ventilated areas.
- Batteries can produce explosive hydrogen gas which can cause personal injury. Do not allow flames, sparks or flammable sources to come near the battery.
- Keep hands and any other objects away from the radiator fan blades.
- Keep yourself and your clothing away from moving parts when the engine is running.
- Do not wear loose clothing or jewelry that can be caught in rotating or moving parts.

GLOSSARY OF TERMS

ABBREVIATION	DESCRIPTION
ACT	Air Charger Temperature
DTC	Diagnostic Trouble Code
ECT	Engine Coolant Temperature
EGR	Exhaust Gas Recirculation
ETC	Electronic Throttle Control
EECPV	Electronic Evaporative emissions Canister Purge Valve
FHSCS	Flat Head Socket Cap Screw
IAT	Inlet Air Temperature
IC	Intercooler
ID	Internal Diameter
LB-IN	Pound-force inch
LB-FT	Pound-force foot
LTR	Low temp radiator
MAF	Mass Air Flow
MAP	Manifold Absolute Pressure
MY	Model Year
OBD	On Board Diagnostics
OD	Outside Diameter
PCV	Positive Crankcase Ventilation
PSI	Pound per Square Inch
SC	Supercharger
SHCS	Socket Head Cap Screw
TPS	Throttle Pressure Sensor
TRQ	Torque



****NOTICE:** Installation of Whipple Supercharger products signifies that you have read this document and have agreed to the terms stated within.

It's the purchaser's responsibility to follow all installation instruction guidelines and safety procedures supplied with the product as it's received by the purchaser to determine the compatibility of the product with the vehicle or the device the purchaser intends to install the product on.

Whipple Superchargers assumes no responsibility for damages occurring from accident, misuse, abuse, improper installation, improper operation, lack of reasonable care or all previously stated reasons resulting from incompatibility with other manufacturer's products.

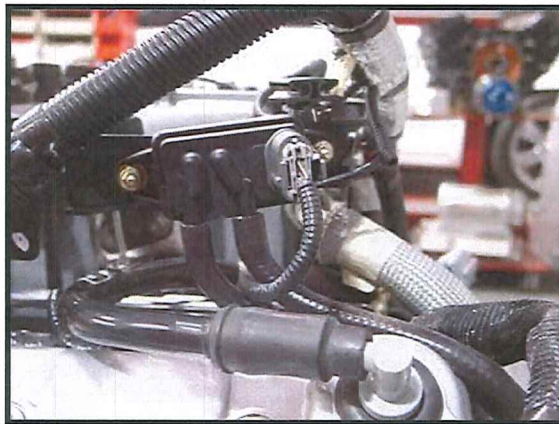
There are no warranties expressed or implied for engine failure or damage to the vehicle in any way, loss of use or inconvenience or labor reimbursement. This includes merchantability and fitness.

The information contained in this publication was accurate and in effect at the time the publication was approved for printing and is subject to change without notice or liability. Whipple Superchargers reserves the right to revise the information presented herein or to discontinue the production of parts described at any time.

SUPERCHARGER INSTALLATION INSTRUCTIONS

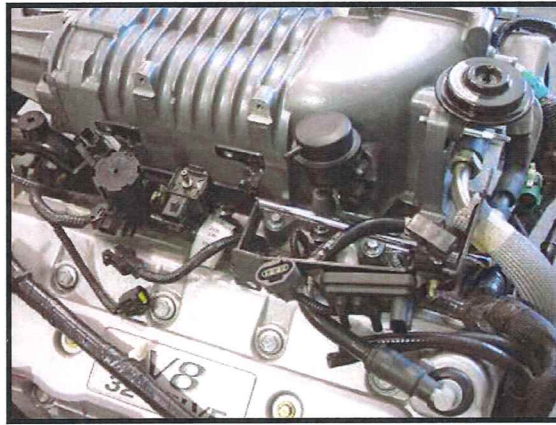
It is strongly recommended that you read through this guide before you begin installing the Whipple Supercharger.

1. Disconnect ground cable from battery.
2. Using an air hose, blow off any loose dirt or debris from engine compartment.
3. Remove mass air sensor to throttle body tube.
4. Disconnect vehicle wiring harness connectors that are leading from the ignition coils to:
 - ☐ Throttle position sensor
 - ☐ Idle air control
 - ☐ EGR valve solenoid
 - ☐ EGR pressure transducer
 - ☐ Fuel pressure sensor
 - ☐ Boost bypass actuator solenoid
5. Disconnect vehicle vacuum lines from:
 - ☐ Rear side of intake
 - ☐ Rear side of discharge
 - ☐ EGR valve
 - ☐ Boost actuator
 - ☐ EGR valve solenoid
 - ☐ Fuel pressure sensor
6. Remove vacuum line harness clip from bracket.
7. Remove hoses from EGR pressure transducer.

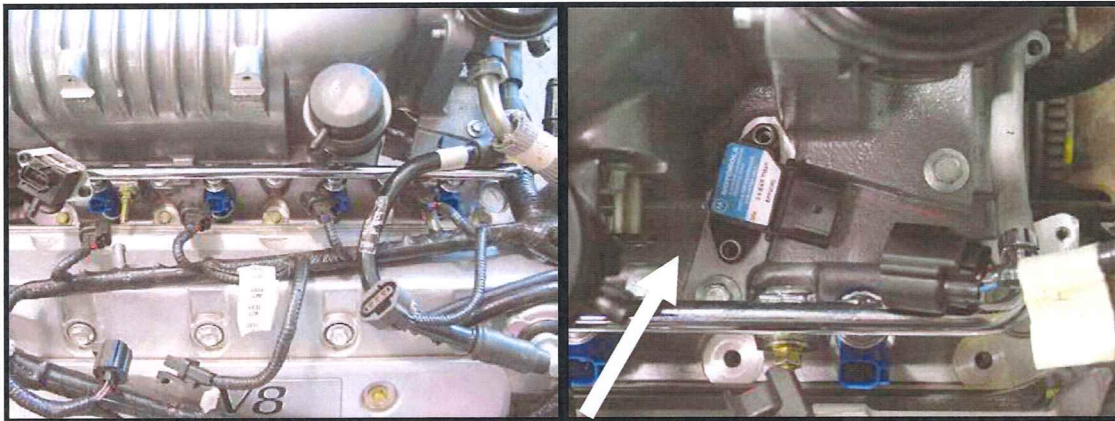


8. Disconnect throttle cable and cruise control cable from throttle body and mounting bracket. Un-clip cable from solenoid bracket.
9. Remove throttle body and intake from s/c assembly. There are four nuts holding it on.

10. Remove solenoid bracket. There are two bolts on the s/c housing and one nut on the EGR bolt stud.



11. Disconnect vehicle wiring harness connectors that are leading from the ignition coils to the fuel injectors and tmap (temperature and manifold pressure) sensor.



12. Disconnect wiring harness clips from fuel rail bolts and rear of manifold.

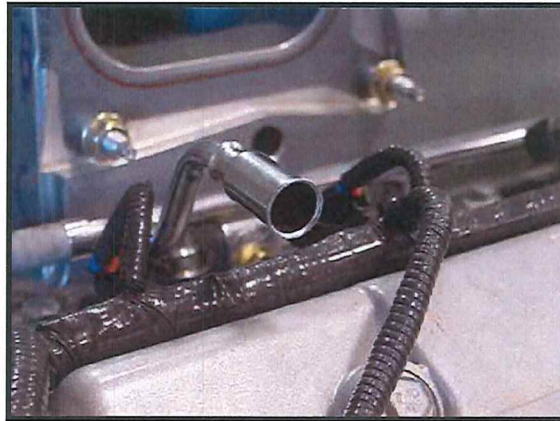
13. Disconnect EGR tube from valve. You may have to loosen the bottom nut on the EGR tube at the exhaust header to be able to swing it out of the way.



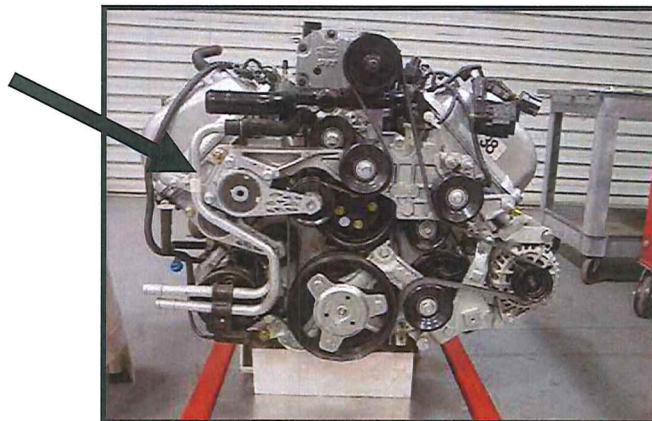
14. Disconnect PCV tube from valve cover and connecting hoses from manifold and s/c.



15. Drain engine coolant from petcock valve located on bottom of radiator.
16. Relieve fuel system pressure and disconnect spring lock coupling on fuel rail. **A special tool is required.**

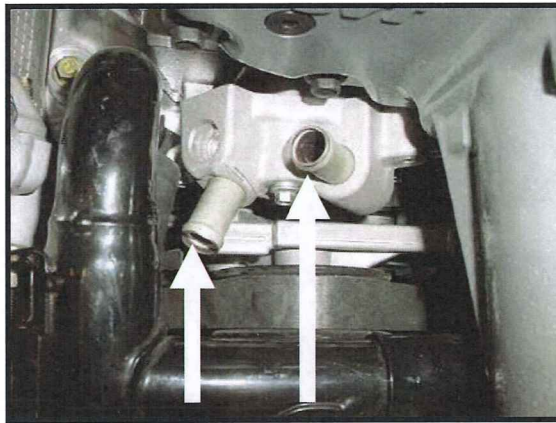


17. Remove belt from s/c system by opening the spring loaded tensioner to the max open position.



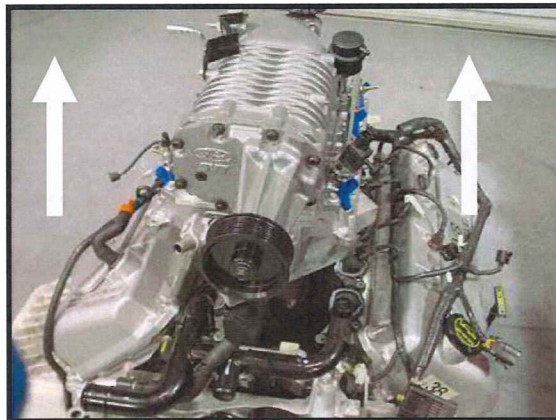
18. Drain i/c coolant tank and lines.

19. Disconnect i/c water lines at the IC water housing, front of intake manifold.



20. Loosen and remove intake manifold bolts.

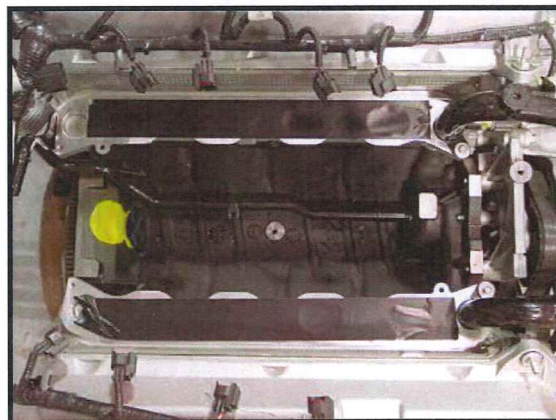
21. Remove entire intake and s/c assembly. This comes off as one complete unit.



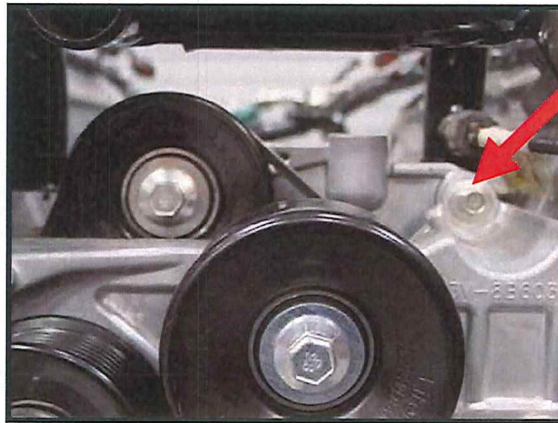
22. Remove intake gaskets.

23. Set gaskets in a clean and safe place. These will be re-used if not damaged.

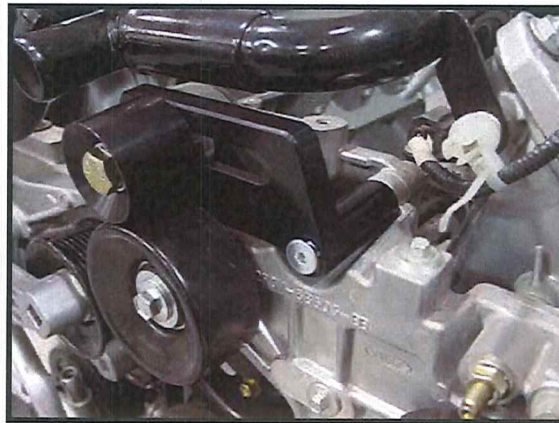
24. Clean any dirt and debris from intake manifold surface and cover with duct tape.



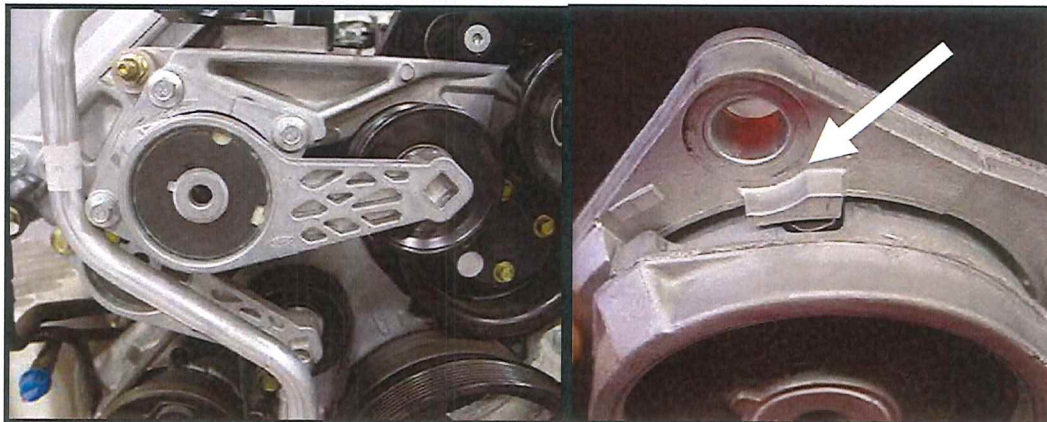
25. (This step if using optional sliding idler pulley). Remove top-right bolt from vehicles front idler support and the top-center pulley bolt.



26. (This step if using optional sliding idler pulley). Install idler pulley assembly with supplied bolts. Apply light amount of blue Loctite #242 to threads. Torque to 25ft lbs.

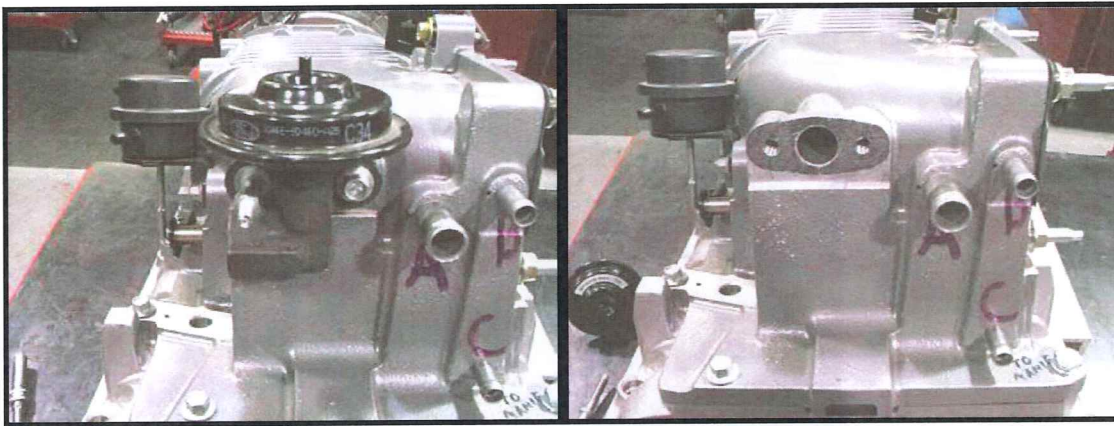


27. Open spring loaded tensioner to max opening. Mark with felt pin the tensioners stop. Remove factory belt tensioner. You will need to remove the stop on the tensioner to gain more travel. Grind or file tensioner stop to gain more travel. Re-install the belt tensioner. Torque to 20ft lbs.



28. Remove the fuel rail from the intake manifold.

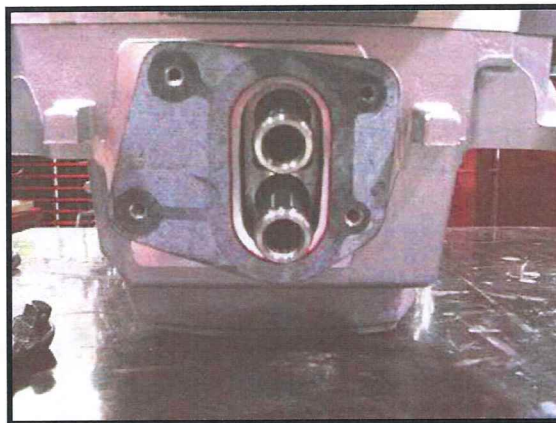
29. Remove the EGR valve from the factory s/c housing.



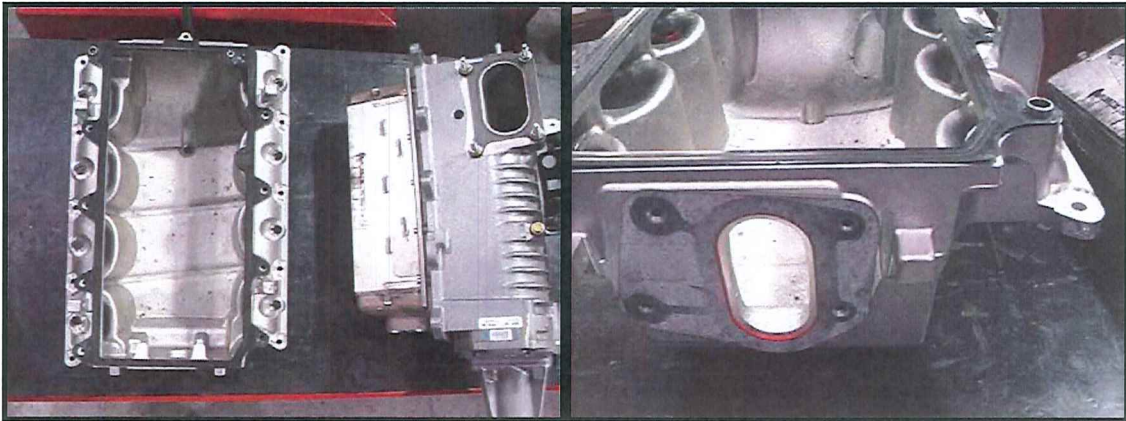
30. Remove i/c water block from front of intake manifold. Keep gasket with intake manifold.



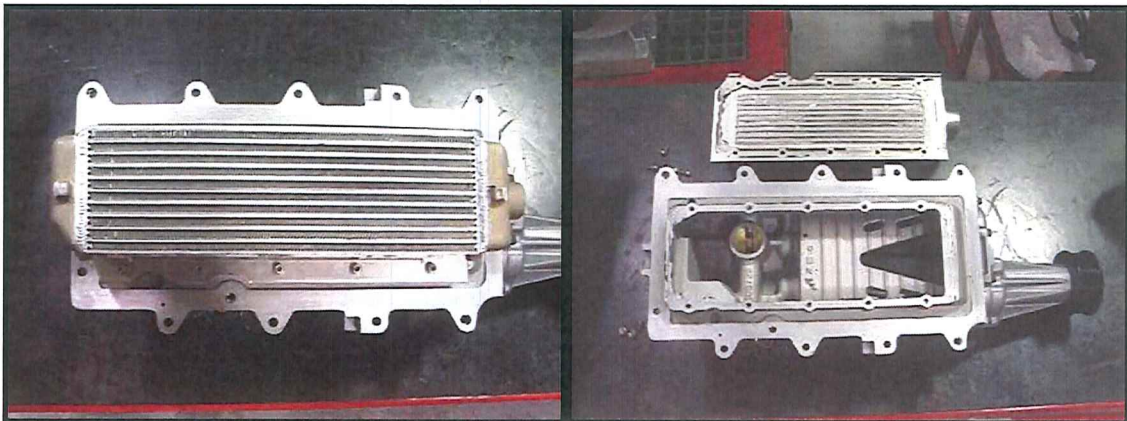
31. Remove o-ringed unions from i/c.



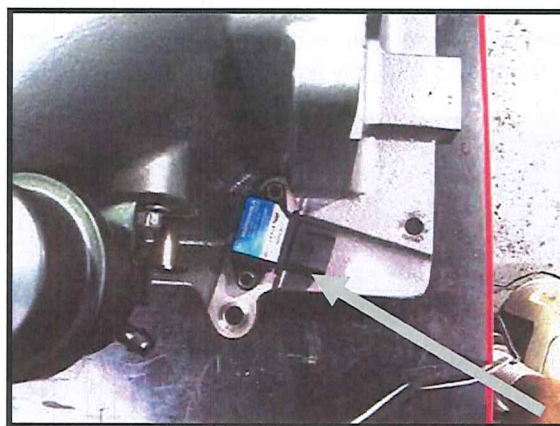
32. Remove s/c assembly from intake manifold. This will have the i/c bolted to the bottom of it. Be sure to keep the gasket and the alignment dowels with the intake manifold.



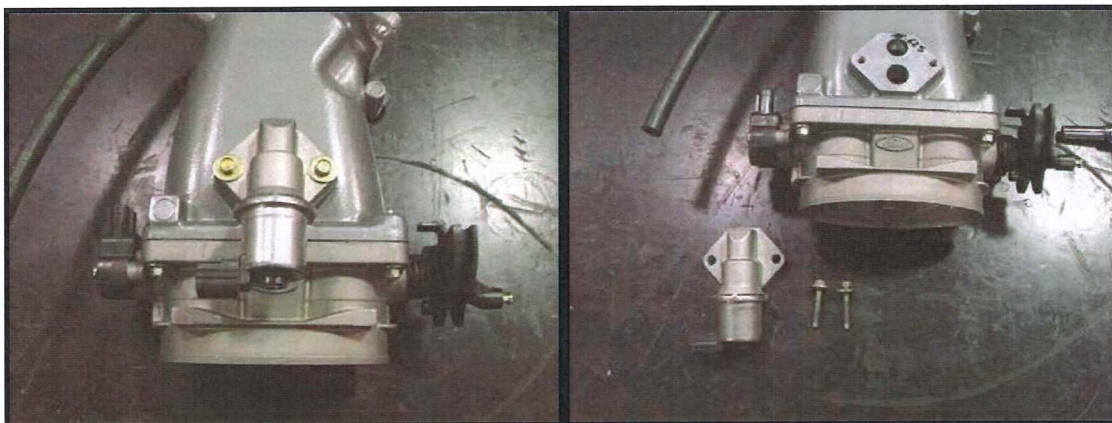
33. Remove the i/c and gasket from the s/c assembly.



34. Remove the tmap sensor from the s/c assembly.



35. Remove idle air control valve and gasket from factory s/c intake.



36. Remove factory hose from factory s/c intake.



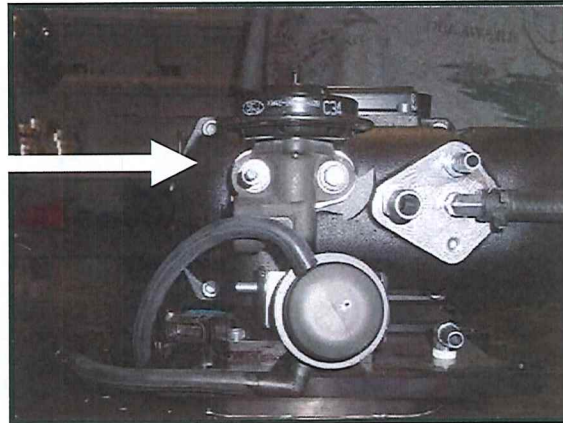
WHIPPLE CHARGER INSTALL

When you receive your new s/c kit, it will come with the new discharge plate sealed and the new s/c air intake casting sealed to the compressor. It will have the necessary fittings and brackets installed on it. There will be a few of the components removed from the factory kit that will need to be installed on to your new s/c kit.

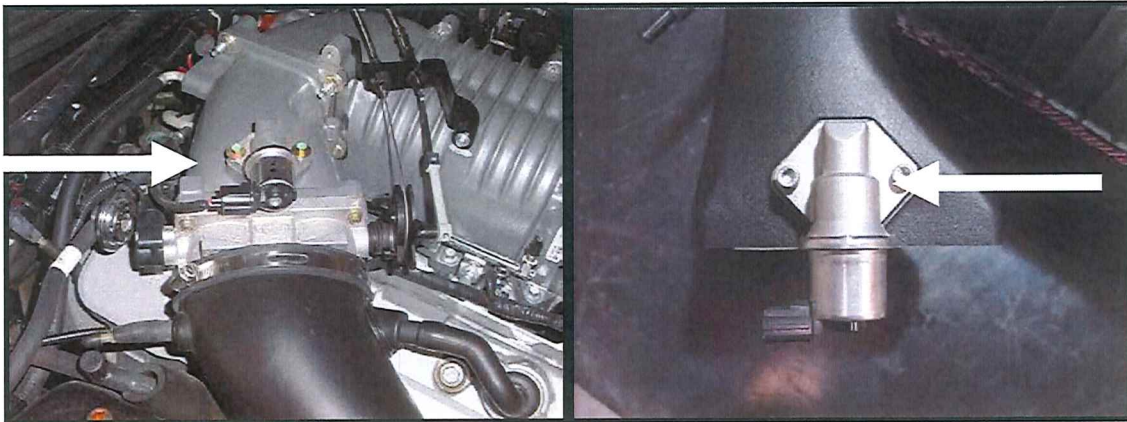
37. Transfer the tmap sensor to the new discharge plate with the bolts provided. Be sure to **lubricate the o-ring** on the sensor prior to installation to prevent damage to it. Apply light amount of blue Loctite #242 to threads of bolts.



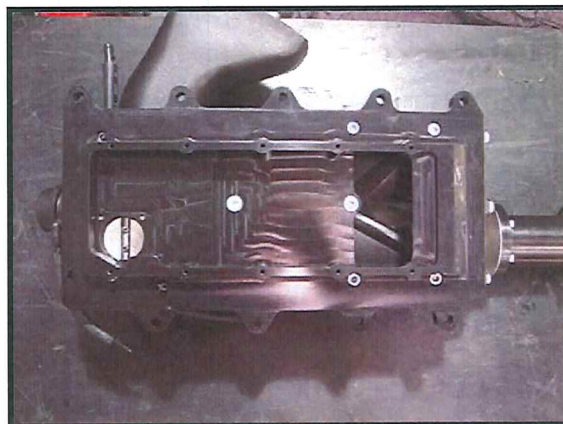
38. Transfer the EGR valve to the new s/c air intake using the stock bolts. Torque to 15ft lbs. Be sure to replace the gasket.



39. Transfer the idle air control valve to the new s/c air intake using supplied bolts. Reuse gasket as long as it is not damaged.



40. Carefully flip the new s/c assembly over. Place on clean surface or towel in order not to scratch top side. Remove tape from i/c surface. Be careful not to let anything fall into the rotors of the compressor.



41. Transfer the i/c to the new s/c assembly using the factory gasket (if not damaged) or seal with silicone. Use the bolts provided. Use red Loctite to secure bolts. Position the i/c so that the holes for the water unions are facing forward toward the drive pulley on the s/c. Torque to 53 in-lbs. NOTE: Some adapters skip a IC mounting bolt due to location to SC mount bolt.



42. Install the throttle body to the new s/c air intake using bolts provided. Reuse the gasket as long as it is not damaged. (Throttle body may differ from photos depending on the use of the stock or an aftermarket throttle body).



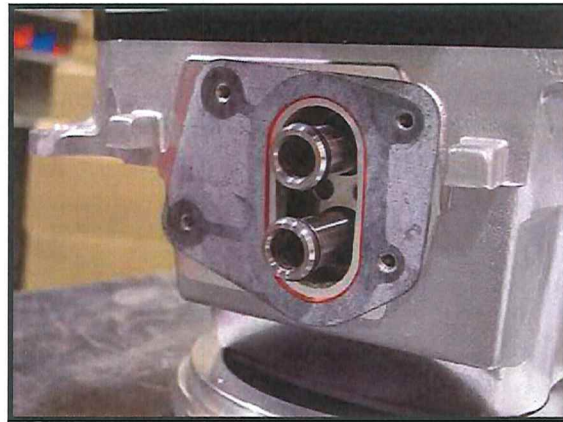
43. Install the factory fuel rail and injectors on to the intake manifold. Be sure the injector bores are clean and free of debris before installation. **Lube the o-rings** on the injectors to prevent damage of seal. Do not install fuel rail bolts at this time.



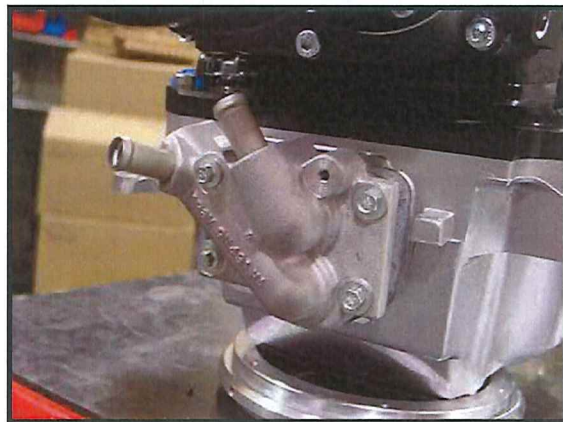
44. Install new s/c assembly to the factory intake manifold. Reuse factory gasket (if not damaged) and locating dowels. Use bolts provided. Torque to factory specifications



45. Reinstall water unions into i/c. make sure they are clean. Be sure to **lube o-rings** prior to installation to prevent the o-ring from tearing.

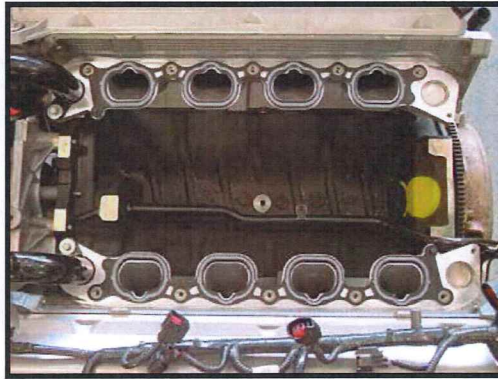


46. Reinstall the factory i/c water block to the intake manifold. Reuse the factory gasket (if not damaged). Be sure the water housing is clean and free of any debris. Lube the o-ring bores for the water unions to prevent damage to the seal.



47. Wipe off any dirt and debris that might have gotten on the cylinder heads. Remove protective tape from gasket surfaces. Reinstall the intake gaskets on the engine. Make sure they are not damaged in any way.

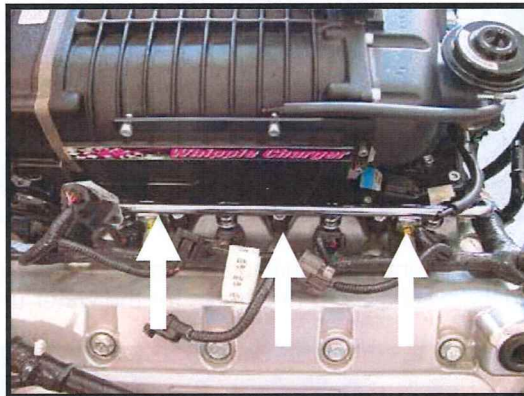
48. Set the intake manifold/ s/c assembly on to engine. Make sure not to damage the gaskets. The wiring harness will need to be set out of the way on the engine to make sure none of the connectors get caught underneath the manifold. **(Note: the wiring harness needs to be on the inside of the valve cover on the throttle body intake side in order to get it under the new air intake casting).** Make sure of proper alignment with the gasket pins and the intake manifold.



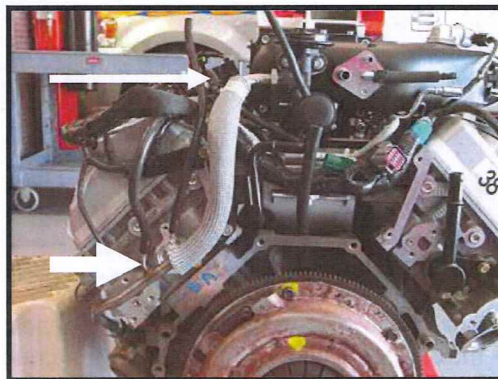
49. Reinstall the factory intake manifold bolts. Torque to factory specifications.

50. You can now reinstall the factory fuel rail bolts. Torque to factory specifications.

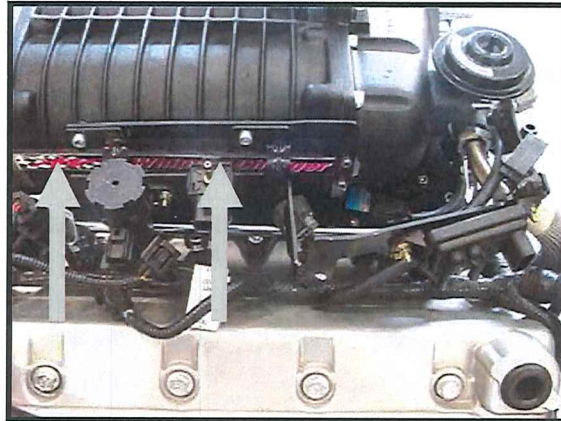
51. Plug in the electrical connectors for: fuel injectors, throttle body, idle air control valve, fuel pressure sensor, and the tmap sensor. Reconnect the wiring harness clips to the factory positions: fuel rail bolts, valve cover studs and rear of intake manifold.



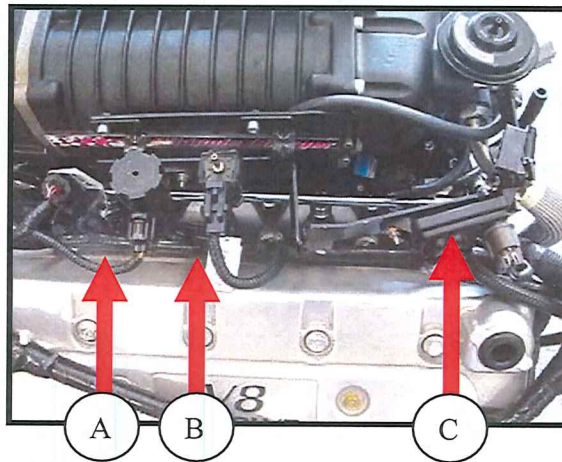
52. Reconnect the EGR tube to the EGR valve. Be sure to tighten both ends of the tube.



53. Reinstall the factory solenoid bracket to the supplied bracket on the new s/c air intake using the supplied bolts and the factory nut to the stud on the EGR valve bolt.

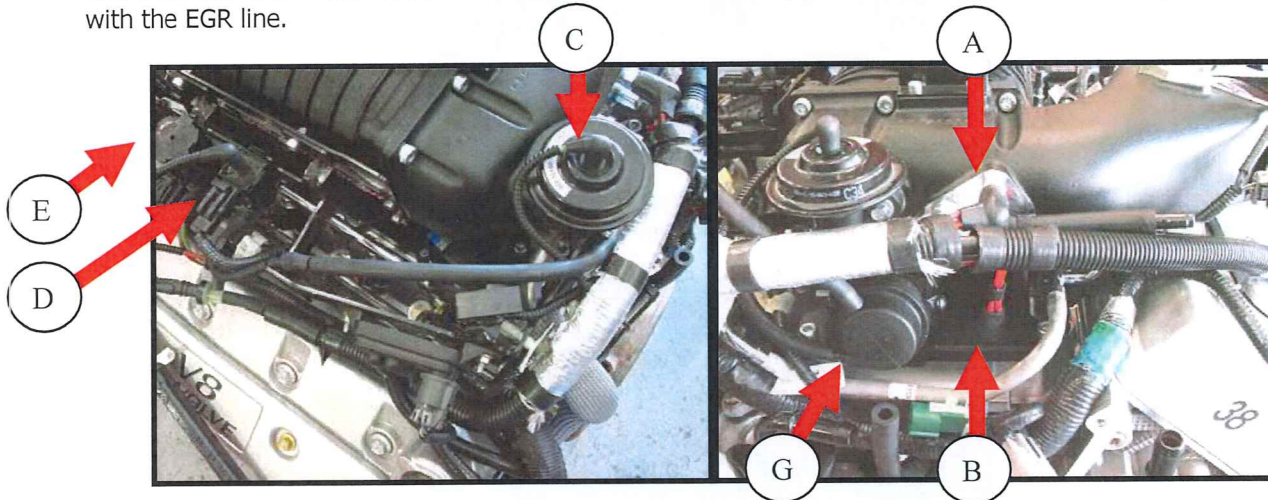


54. Plug in the electrical connectors for: (A) EGR valve solenoid, (C) EGR pressure transducer, and (B) the boost bypass actuator solenoid. Reconnect the EGR hoses to the EGR transducer.

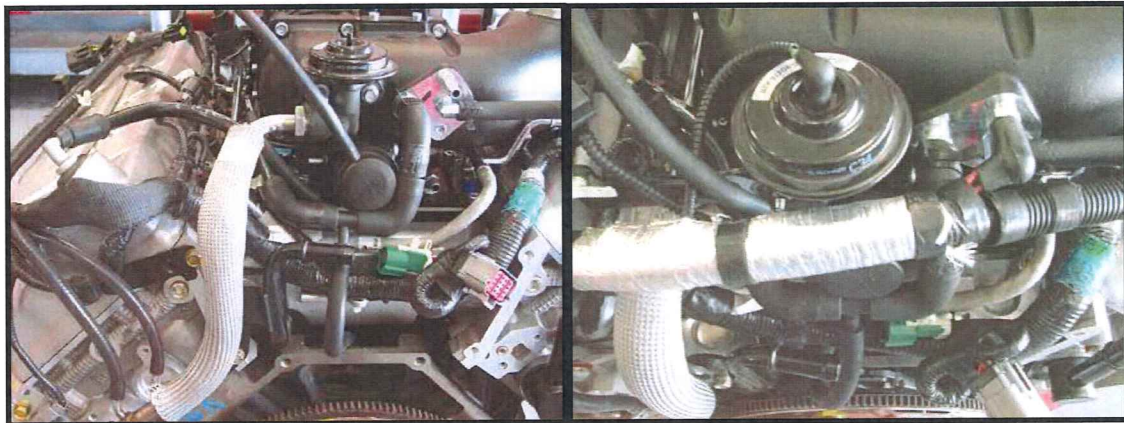


55. Reconnect vacuum line harness to:

- ☐ A: Rear of intake
- ☐ B: Rear of discharge
- ☐ C: EGR valve
- ☐ D: Boost bypass actuator solenoid
- ☐ E: EGR valve solenoid
- ☐ F: Fuel pressure sensor
- ☐ G: Bypass actuator
- ☐ Bypass actuator: the long top hose from the outside port goes to the vacuum line at the boost bypass actuator solenoid. The short hose with 90 elbow from the inside port, goes to the vacuum line coming out of the harness with the EGR line.



56. Reattach the PCV to the valve cover and the connecting hoses to : manifold vent hose and the new s/c air intake using supplied clamp.

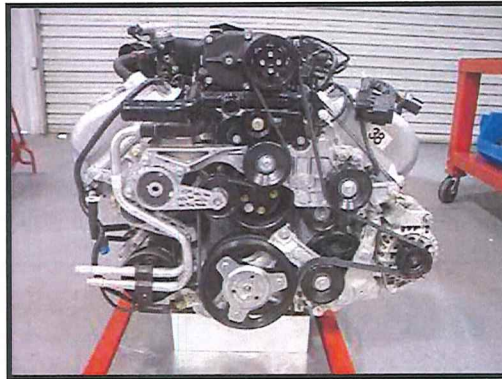


57. Reattach the i/c water lines to the i/c water block on the intake manifold.

58. Reattach the throttle and cruise control cable using the new bracket supplied.

59. Reconnect fuel line to fuel rail

60. Reinstall s/c drive belt.



61. Re fill engine coolant system and i/c cooling system.

62. The battery cable can now be re connected.

63. Install the supplied C.A.R.B. 50-state emissions sticker in a visible location on the factory radiator shroud. To properly install, use a light abrasive material such as scotch brite to scuff the mounting area. Clean the area off and install the sticker.

64. Fill the new s/c compressor with oil.

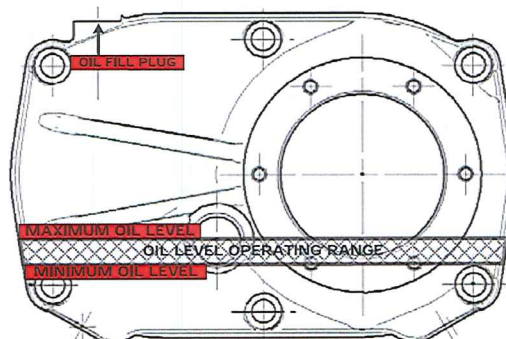
- ☐ Make sure the SC is sitting square/flat.
- ☐ Remove AN allen plug and fill SC with **WHIPPLE SC OIL ONLY!!**
- ☐ Fill to the middle of the sight glass. NOTE: The W140AX/175AX compressor takes a maximum of 5.8 fl/oz. W200AX/W245AX takes 6.8 fl/oz.
- ☐ Reinstall AN allen plug.
- ☐ NOTE: After running the SC, the oil level will lower due to oil filling the bearings. The proper level should be between the bottom of the sight glass and the middle.
- ☐ Change SC oil every 50,000 miles and only use **WHIPPLE SC OIL ONLY!!** Changing SC pulley ratios will require oil to be changed earlier.

CAUTION!! Severe damage to the compressor will occur if you overfill the supercharger front gear case.

WHIPPLE SC OIL LEVEL

Fill to center of oil sight glass.

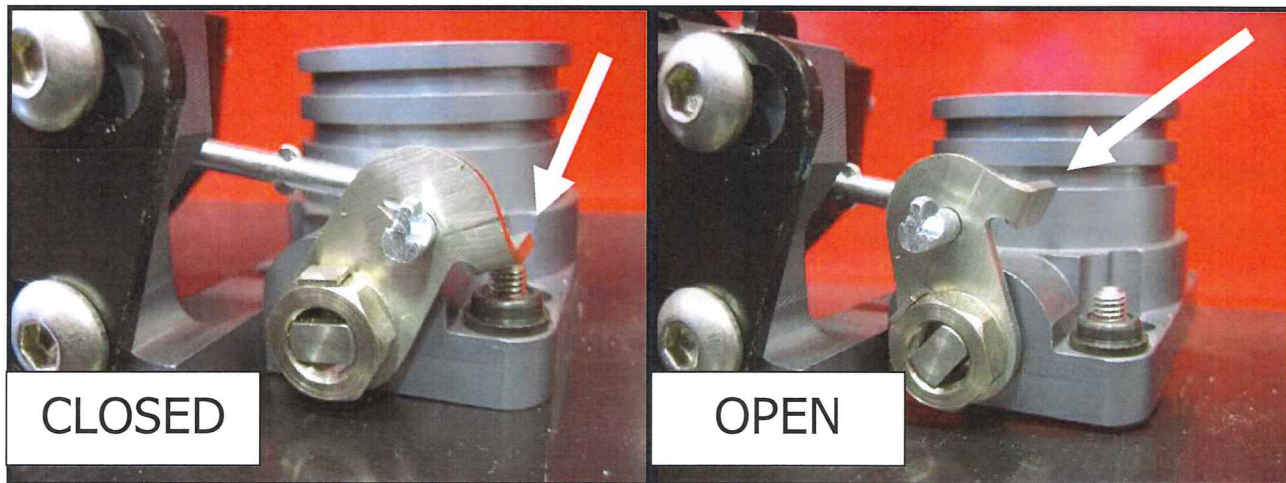
DO NOT OVERFILL, WILL VOID WARRANTY!!



65. Reconnect the air mass tube to the throttle body. Reconnect all hoses, vents and sensors that are connected to the air mass tube. The factory hose removed from the intake should now be connected to the hose from the new s/c air intake.

66. Start engine and check for any fuel or coolant leaks, top off coolant if needed.

67. **⚠ WARNING!!** Verify the bypass actuator is working properly. To monitor, look at the bypass arm when the motor is not running. Start engine and verify that the actuator arm has opened. This arm will be extended when the engine is above 1" of vacuum and will be open when there is more than 1" of engine vacuum.



MAINTENANCE AND SERVICE

Be sure to follow the maintenance and service recommendations below to optimize the life and performance of your Whipple-supercharged vehicle.

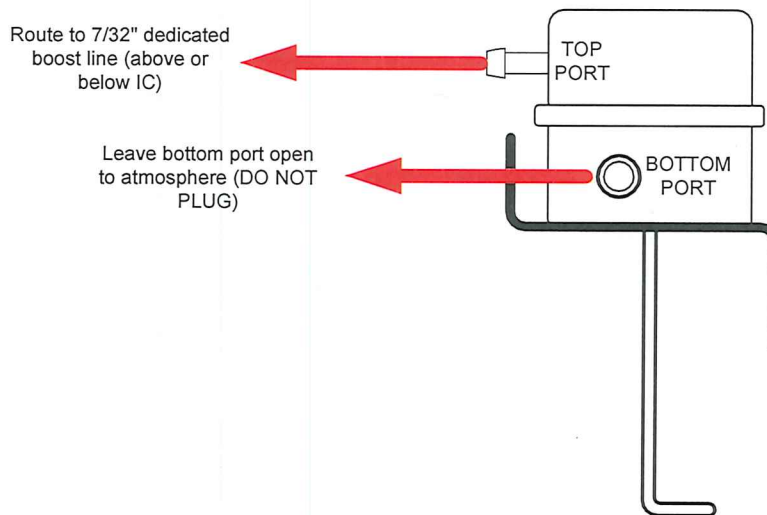
For best performance and continued reliability, it is essential to adhere to the following guidelines:

1. Use only premium grade fuel (91-octane or higher). RON+MON/2. The PCM calibration will automatically detect higher octane levels and will increase power accordingly.
2. Always listen for any sign of spark knock or pinging. If present, discontinue use immediately and consult your vehicle owner's manual.
3. Do not operate the vehicle at large throttle opening if the MIL lamp is on steadily. This indicates an electronic engine control malfunction: reduce throttle opening and consult your vehicle dealer.
4. Check the supercharger oil level at every engine oil change. Add Whipple SC oil to the supercharger if required. Do not overfill the supercharger rear gear case.
5. Change the oil in the supercharger every 100,000 miles. Use Whipple SC oil or Ford #XL-4 only. **NOTE: If spinning the SC faster than standard operation, oil should be changed earlier. Severe damage will occur if oil level is over filled.**
6. Do not operate the vehicle at large throttle opening if the MIL lamp is on steadily. This indicates an electronic engine control malfunction: reduce throttle opening and consult your vehicle dealer.
7. Inspect and clean your high-flow air filter element every 7,500 miles.
8. Inspect and replace spark plugs every 20,000 miles. Only run specified plugs with specified gap.
9. Follow your factory service intervals for oil changes and other typical maintenance items.
10. Check the supercharger/accessory drive belt. Adjust or replace as required

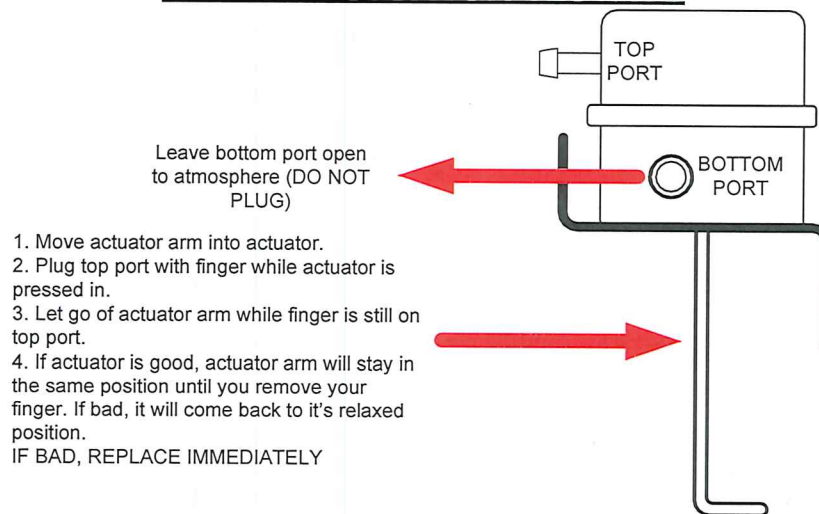
BYPASS ACTUATOR ROUTING

⚠ WARNING!! For systems that remove Ford factory boost solenoid system **ONLY**

1. If you remove the factory Ford boost solenoid system, then it is very important to re-route the bypass actuator properly. Incorrect routing can result in supercharger failure which will not be warranted!
2. Locate the actuator on the passenger rear side of supercharger.
3. Disconnect the hose to the bottom port of actuator and leave this port open, do not cap.
4. Route a dedicated boost line from intake manifold, above or below intercooler to top port of actuator. Secure lines with tie wraps.



BYPASS ACTUATOR TESTING



IMPORTANT INFORMATION

Pulley/Belt Guide

SC Pulley	Gates Belt #
3.50"	K080751 (or stock)
3.25"	K080745
3.00"	K080745
2.75"	K080740

Belt sizes figured with factory crank and idler pulley system.

PULLEY SIZE VS. BOOST

SC Pulley	7.5" Crank (stock)		9.0 Crank	
	Boost	Ratio	Boost	Ratio
3.50"	13.0	2.14	17.0	2.57
3.25"	15.0	2.31	19.0	2.77
3.00"	17.0	2.50	21.0	3.00
2.75"	19.0	2.73	23.0	3.27

Boost measurements are made at 6000rpm.

Compressor RPM = (Crank pulley/SC pulley)*Engine RPM

BOOST LEVELS

All Whipple kits are shipped with 13psi pulleys for stock engines. Additional pulley's are available for higher boost levels. With proper PCM calibration, the factory engine has proven to withstand 15psi before detonation on 91 octane fuel. With additional modifications, 17psi is achievable on 91 octane but must have a custom calibration for the octane level. Vehicles that run 93-94 octane can run 17psi before detonation with proper tuning. The Whipple Supercharger has the ability to produce over 700RWHP but additional modifications are needed.

FUEL SYSTEM

The factory PCM and fuel system is ok and needs no additional changes for boost levels up to 13psi. After 13psi, the factory PCM must be reflashed/recalibrated for additional fueling. The factory fuel system including the pumps and injectors are adequate for 15psi on stock engines. Engines that run more than 15psi or are heavily modified need larger injectors and more fuel flow. Whipple Superchargers recommends going to 60lb fuel injectors (available from Whipple) and dual SVT Focus pumps for the additional fuel flow. This will require custom calibration.

AIR FUEL RATIO

Air fuel ratio is the measurement of the amount of air and fuel being burned during the combustion process. There are currently many different air fuel monitoring systems and accuracy is not always guaranteed. Wide band oxygen sensors vary over time and deteriorate with uses of leaded gasoline. Whipple only uses Horiba wide band analyzers and UEGO 6-wire sensors, the most accurate available. Our sensors are checked after every use and transfer functions are changed every time so make sure you're using an accurate meter.

Whipple has found that 12.6:1 is approx. the best a/f for power. Be very careful though, too lean of an air fuel ratio increase cylinder temps and increase the chance of detonation, which is detrimental to engine life. Under high boost applications such as 13-15PSI, Whipple recommends 12:25:1. For levels above 15psi, you should never run leaner than 12.25:1 unless you're using 100+ octane and are monitoring detonation/knock. Race gas setups can run 12.6:1 up to 21psi. Once again, this is based with a very accurate a/f meter so this should only be used as a rule of thumb because most meters will vary.

SPARK PLUGS

Factory spark plugs are acceptable for up to 13psi. Any boost level beyond 13 should only be run with Denso Iridium plugs, which offer superior performance. We recommend a Denso Iridium IT20 for 14-20psi and the Denso Iridium IT22 for boost levels over 20psi. Run all these spark plugs with factory gapping.

ENGINE COOLANT

For boost levels above 15psi, Whipple recommends running a 75/25 mix of distilled water and coolant vs. the factory 50/50. We also recommend 1-2 bottles of Red Line Water Wetter coolant additive. This will reduce air bubble insulation, which increases overall engine temp.

INTERCOOLER COOLANT AND COOLERS

The factory intercooler system is very well designed and Whipple saw no increased benefits from any changes below 13psi of boost. For systems that run more than 13psi, Whipple recommends changing the 50/50 factory ratio to 75/25 distilled water and factory Ford coolant. We also recommend 1 bottle of Red Line Water Wetter coolant additive. If you are running above 15psi, a higher capacity heat exchanger such as Fluidyne's is a good choice as well as a larger capacity reservoir and electric fan kit. This will have a higher capacity to maintain low discharge temperatures. When going to larger capacity heat exchangers and reservoirs, you should install one extra bottle of Red Line Water Wetter (2 total).

FUEL LEVEL

Never operate at WOT when the vehicle fuel levels are below a ¼ tank. Low fuel levels could cause the fuel pump to cavitate and you'll have fuel flow spikes resulting in lean conditions and consequently detonation.

TRACTION CONTROL

The factory traction control system controls power output to reduce wheel spin. The factory system reduces spark advance and cuts fuel from the engine. Although this works well for a factory engine, with the extra power and cylinder pressure, this creates a very dangerous situation with the possible lean condition. This may lead to severe detonation and ultimately cause engine failure. Traction control should be used at the discretion of the driver.



LIMITED WARRANTY

All merchandise manufactured by Whipple Industries has a limited warranty against defects in workmanship and materials to the original purchaser of the Whipple Supercharger System for one calendar year from Whipple Industries ship date. The limited warranty must be signed, dated and returned to Whipple Industries within 30 days of the Whipple Industries ship date and must be accompanied by a copy of the original sales invoice. This warranty is non-transferable.

If an item is suspected of being defective, return it to Whipple Industries for inspection after obtaining the proper Return Authorization Number. If an item is determined to be defective, we will repair or replace it at our discretion within a period of one year from the shipping date on your invoice.

Whipple Industries Inc. limited warranty specifically does not apply to products which have been (a) modified or altered in any way, (b) subjected to adverse conditions such as misuse, neglect, accident, improper installation or adjustment, dirt, or other contaminants, water, corrosion or faulty repair; or (c) used in other than those specifically recommended by Whipple Industries Inc. All products designed for off-road use are considered racing parts and carry no warranty, either expressed or implied, as we have no control over how they are used.

On warranty items, repair/replacements will be limited to parts manufactured by Whipple Industries and will not include claims for labor or inconvenience. All other merchandise distributed by Whipple Industries is warranted in accordance with the respective manufacturer's own terms of warranty. This warranty is expressly made in lieu of any and all other warranties expressed or implied, including the warranties of merchantability and fitness.

Whipple Industries will not be responsible for any other expenses incurred by the customer under the terms of this warranty, nor shall it be responsible for any damages either consequential, special, contingent, expenses or injury arising directly or indirectly from the use of these products.

Whipple Industries reserves the right to determine whether the terms of the warranty, set out above, have been properly complied with. In the event that the terms are not complied with, Whipple Industries shall be under no obligation to honor this warranty. By signing this form, you understand and agree to the terms above.

NAME (Print) _____ ADDRESS _____

SIGNATURE _____ CITY _____ STATE _____ ZIP _____

DATE _____ PHONE _____

SC SERIAL # _____ EMAIL _____

(Found on compressor bearing plate)

(Optional)

VIN # _____