

# COSWORTH

## Installation Instructions for: MX-5 SUPERCHARGER SYSTEM 2006 TO 2008 MAZDA MX-5



Step-by-step instructions for installing the best in supercharger systems.



**ATTENTION!**  
**Your COSWORTH intercooler system**  
**is sensitive to corrosion!**  
**Take care of it by using 50/50**  
**anti-freeze with de-ionized water.**

Cosworth LLC  
3031 Fujita Street, Torrance, CA, 90505  
(310) 534-1390 phone  
[www.cosworthusa.com](http://www.cosworthusa.com)

# SUPERCHARGER INSTALLATION MANUAL

COSWORTH

Mazda 2.0 Liter Engine

2005-2008 Mazda MX-5

Please take a few moments to review this manual thoroughly before you begin work:

A quick parts check to make certain your kit is complete (see shipper parts list in this manual). If you discover shipping damage or shortage, please call our office immediately. Take a look at exactly what you are going to need in terms of tools, time, and experience.

Review our limited warranty with care.

When unpacking the supercharger kit DO NOT lift the supercharger assembly by the black plastic bypass actuator. This is pre-set from the factory and can be altered if used as a lifting point!

Caution: Relieve the fuel system pressure before servicing fuel system components in order to reduce the risk of fire and personal injury. After relieving the system pressure, a small amount of fuel may be released when servicing the fuel lines or connections. In order to reduce the risk of personal injury, cover the fuel line fitting with with a shop towel before disconnecting. This will catch any fuel that may leak out. Place the towel in an approved container when the job is complete.

## **USE 91 OCTANE OR BETTER FUEL ONLY!**

COSWORTH has seen a variance in stock rear wheel horsepower. Numbers between 205 RWHP and 220 RWHP have been recorded on our in-house chassis Dynamometer. Horsepower numbers are reflected by base RWHP numbers and altitude. COSWORTH systems are manufactured to produce about 20 RWHP per pound of boost at sea level. high altitudes will produce different numbers.

Our COSWORTH kits are designed for engines in good mechanical condition only. Installation on high mileage or damaged engines is not recommended and may result in engine failure, in which we are not responsible. COSWORTH is not responsible for the engine or consequential damages.

Aftermarket engine recalibration devices that modify fuel and spark curv (including, but not limited to programmers) are not recommended and may cause engine damage or failure. Use of non-COSWORTH approved programming will void all warranties. If you have any questions, call us.

After you finish you installation and road test your vehicle, please fill out and mail in the limited warranty card, so we can add you to our files (this is important for your protection).

A new fuel filter is recommended at the time of supercharger installation.

Stock spark plugs and stock plug gap is recommended

Drives belt = Gates#K061058

## Tools Required

Metric wrench set

1/4" - 3/8" and 1/2" drive metric socket set (standard & deep)

3/8" and 1/2" drive Foot pound and inch pound torque wrenches

Phillips and flat head screwdrivers

1/2" breaker bar

Drain pan

Hose cutters

Hose clamp pliers

Safety glasses

Small drift punch

Hammer

Metric Torx socket set 3/8 drive

18 mm metric line wrench

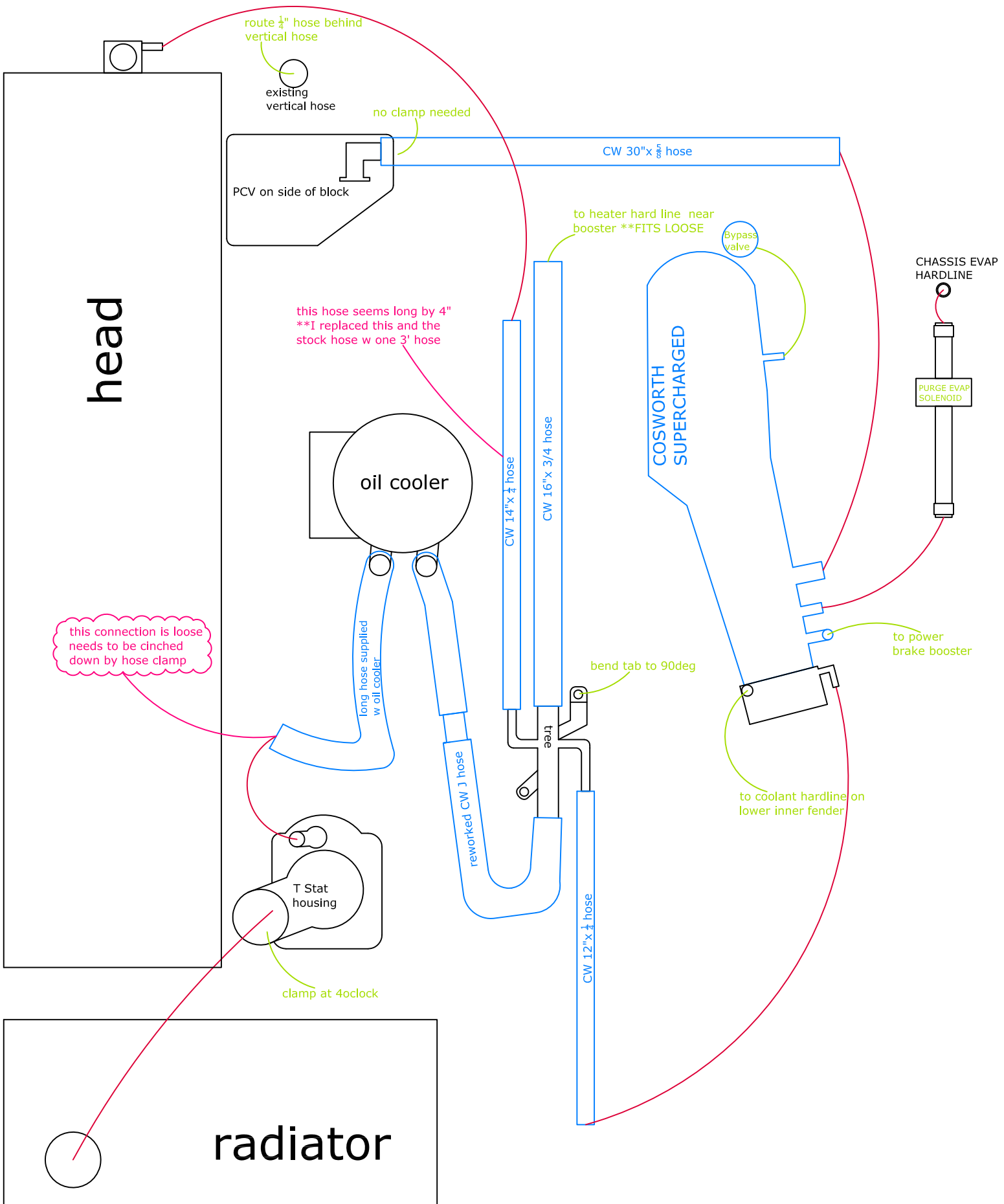
## Contact Information:

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head

PCV on side of block

route 1/4" hose behind vertical hose

existing vertical hose

no clamp needed

CW 30"x 5/8" hose

to heater hard line near booster \*\*FITS LOOSE

Bypass valve

CHASSIS EVAP HARDLINE

PURGE EVAP SOLENOID

this hose seems long by 4" \*\*I replaced this and the stock hose w one 3' hose

oil cooler

COSWORTH SUPERCHARGED

this connection is loose needs to be cinched down by hose clamp

long hose supplied w oil cooler

bend tab to 90deg

to power brake booster

to coolant hardline on lower inner fender

T Stat housing

clamp at 4oclock

reworked CW J hose

CW 14"x 1/4" hose

CW 16"x 3/4" hose

CW 12"x 1/4" hose

radiator

1. Start by removing the hood from the vehicle. Using a 12mm socket wrench, remove the two bottom bolts on both sides of the hood, and loosen the two upper bolts so the hood can slide free from the hinge brackets.



2. With the help of an assistant, carefully remove the hood and set aside for re-installed later.



3. Using a flat blade screwdriver, release the four retainer clips that hold the battery cover to the battery box.



4. To allow enough room to work, removal of the battery box and battery will be necessary. Start by disconnecting the **negative (-)** battery cable first, with a 10mm socket wrench. then the for **positive (+)** battery cable, take care to avoid grounding the wrench to any body/framework.



5. Loosen the two J-bolts that secure the battery hold-down bracket with a 10mm socket wrench, twist to disengage. Set bracket aside for now, it will be reinstalled later.



6. With bracket removed, you can now remove the battery. Place battery aside to be re-installed later.



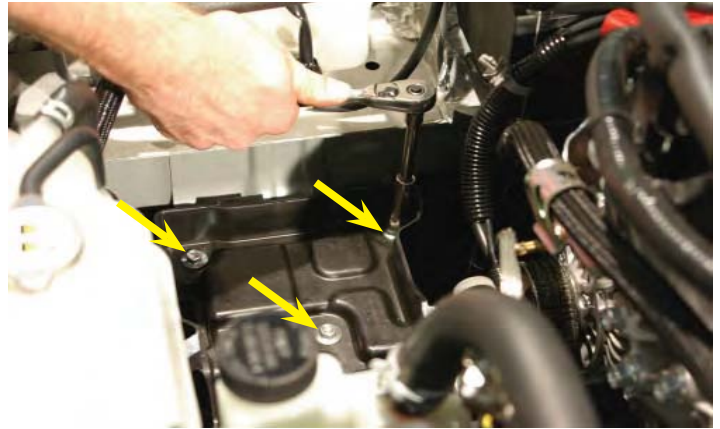
7. Before removing the battery box from vehicle, first detach the four battery cable retainers using needle nose pliers two are on the battery box wall-section, and two are on the battery box tray, located on the firewall side of the battery box.



8. When all the cable retainers are free from the battery box, remove the box wall section from the vehicle



9. Using a 10mm socket wrench, remove the three bolts that secure the battery tray, Remove the tray and set aside for later re-installation.



10. Disconnect the MAF sensor connector from the sensor located on the drivers-side of the air box.



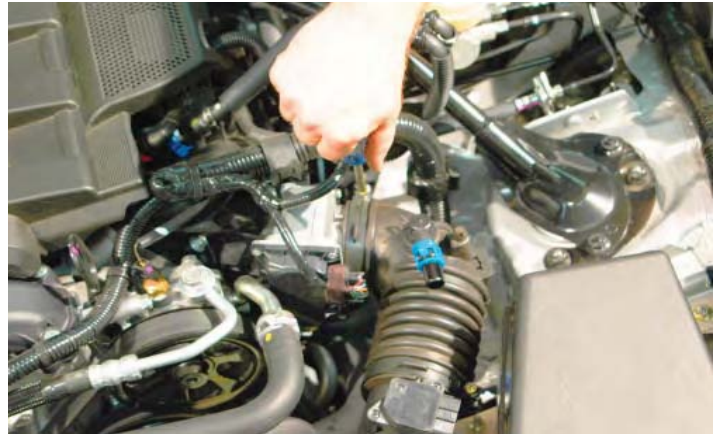
11. Disconnect the PCV hose from the intake bellows tube by pressing in the two blue tabs on each side of the connector. Repeat the procedure for the other end of the PCV hose at the valve cover. Set aside for now to be re-installed later.



12. Pull up carefully on the EVAP solenoid, located on the intake bellows tube and remove it from the tube. The wiring and hoses will allow you to move the solenoid off to the side for now.



13. Using either a Phillips screwdriver or a 10mm nut driver, loosen the hose clamps that secures the intake air tube to the throttle body and at the air box. Remove the air tube from the vehicle.



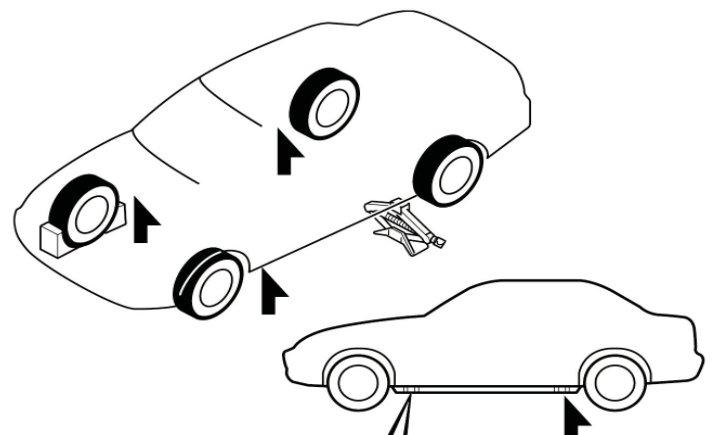
14. Release the two clips that secure the air box cover to the air box, then remove the cover from the vehicle. The air box cover will not be re-used.



15. Using a 10mm socket wrench, remove the two nuts that secure the lower air box to the front of the chassis, unsnap the rubber cup on the the bottom of the box and remove the air box from the vehicle. Again, set aside for later reinstallation.



16. Use the manufacturer recommended lift points as a guide to raise your car for the next steps. This image comes from the Miata owner's manual; make sure you pick appropriate locations based on your lift capabilities.





17. From underneath the vehicle, drain the coolant from the radiator. Use a Phillips screwdriver to open drain valve in the bottom of the radiator. This is located above the splash shield on the driver side through an access hole. Save the coolant to re-use later. Close valve after draining.



18. Remove the windshield wiper arms by removing the two plastic caps that cover the mounting nuts for the wipers.



19. Prior to removing the wipers, be sure to mark their position so that when reinstalled they will still have the same range of motion. Mark the stud with a felt tip pen, then remove the retaining nuts.



20. Using a 14mm socket wrench, remove the nut that secures the wiper to its mounting stud.



21. Make sure to mark the wiper arm itself to match the existing mark on the mounting stud to maintain range of motion.



22. Remove both wipers and set aside as they will be re-installed in a later step.



23. Remove the weather stripping off at the cowl by pulling lengthwise on the weather stripping release one side, and then push to release the other side as the mounting tabs are "T" shaped. Set the strip aside for later re-installation.



24. Remove the two round, plastic covers at the rear corners of the windshield.



25. Using a Phillips screwdriver, remove the two screws that hold down the cowl cover, and then remove the cowl cover from the vehicle. Note that the cowl cover is two pieces.



26. Using a 14mm socket wrench, remove the center portion of the strut tower brace by removing the four nuts, set aside for later reinstallation.



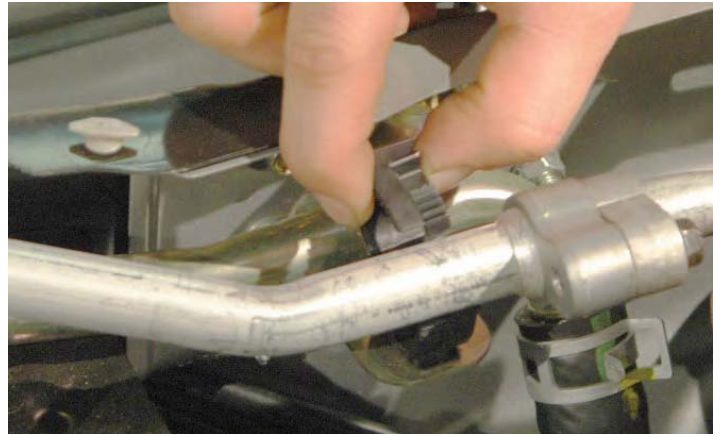
27. Remove the two arms of the strut-tower brace using the 14mm socket wrench to remove the two nuts located at each shock tower. Set aside arms for later use.



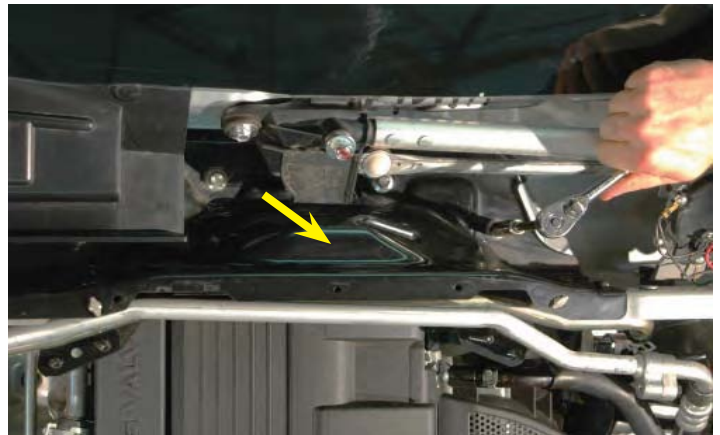
28. Using a 10mm socket wrench, unbolt the A/C and Heater hard lines from the firewall. They are attached in three places along the lines.



29. Use a small flathead screwdriver to release the plastic clip holding the AC hard-line to the mounting bracket.



30. Remove the eight bolts that secure the center cowl cover from the firewall/cowl area with a 10mm socket wrench. There are four on the face of the firewall, and four in the drain-well area in the center cowl area.



31. Remove the center cowl cover from the vehicle. Set aside as it will be re-installed in a later step.



32. Remove the heater hard-line that crosses over at the rear of the engine. Remove the clamped hose from each end of the hard-line with a pair of pliers and set it aside for later re-installation.



33. Pull up on the engine cover to remove it from the engine. This cover will be modified for later re-installation.



34. Using a pair of pliers, squeeze the tabs of the clamp that secures the Power Brake hose to the intake manifold and remove the hose.



35. Squeeze the red clamp that secures the Fuel line to the fuel rail and disconnect the line. **CAUTION! This line may be under pressure!** Use a shop towel to collect any fuel lost.



36. Squeeze the blue clamp that secures the EVAP line to the intake manifold and disconnect the Line.



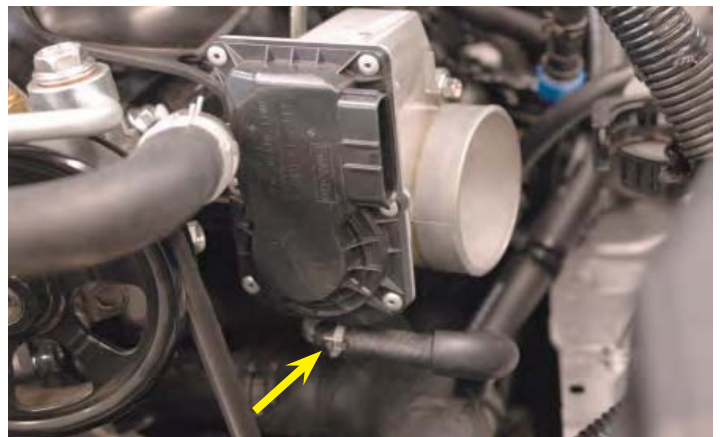
37. Squeeze the blue clamp that secures the EVAP line to the hard-line at the frame rail and disconnect the Line. Note that the two EVAP line connectors are different sizes.



38. Using a pair of pliers, squeeze the tabs of the clamp that secures the coolant hose to the top of the throttle body and remove the hose.



39. Using a pair of pliers, squeeze the tabs of the clamps that secures the coolant hose to the bottom of throttle body and remove the hose.



40. Disconnect the EVAP Solenoid electrical connection.



41. Disconnect the Power Steering Pressure Switch electrical connector on the top of the P.S. pump.



42. Disconnect the Electronic Throttle Control (ECT) connection from the throttle body.



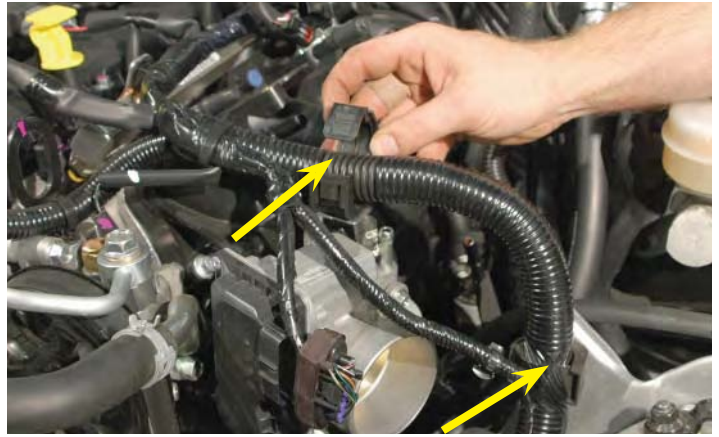
43. Disconnect the Vacuum Control Valve electrical connection on the top of the intake manifold. This connector will not be re-used and can be taped to the main harness.



44. Disconnect the Manifold Absolute Pressure (MAP) electrical connection at the rear of the intake manifold.



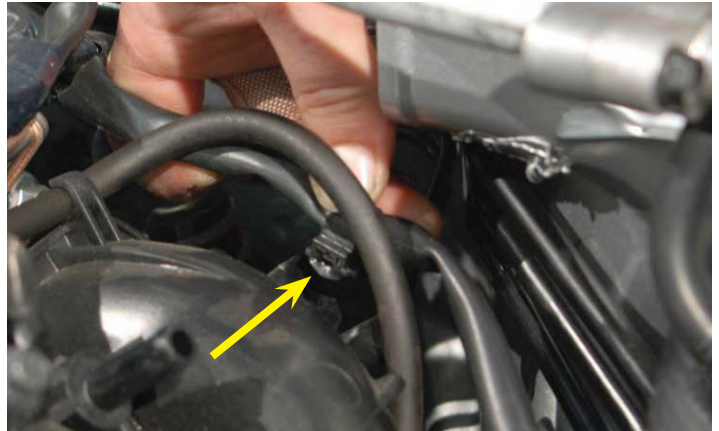
45. Release the wiring harness clamps on the top of the P.S. Pump and on the chassis brace



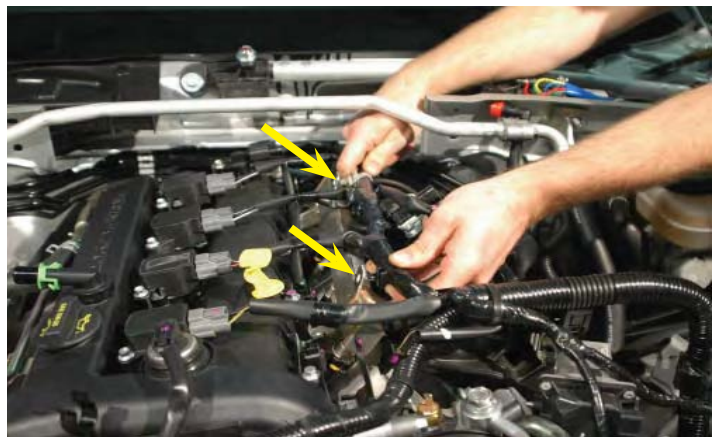
46. Release the wiring harness clamp on the top of the intake manifold.



47. Release the wiring harness clamp at the rear of the intake manifold.



48. Remove the wiring harness retaining clips from the fuel rail.





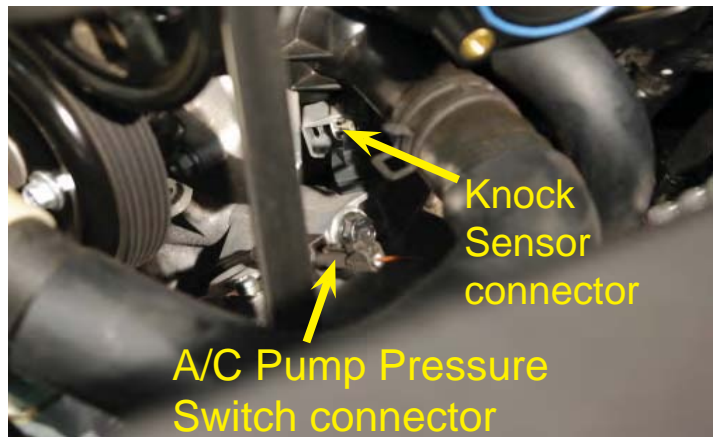
49. Using an 8mm socket wrench, unbolt the throttle body from the intake manifold. Remove and put aside for later installation on the super-charger inlet manifold.



50. Remove the wiring harness clip on the brace near the shock tower.



51. Disconnect the Knock Sensor and A/C Pressure switch electrical connectors located below the thermostat housing.



52. Using a T-25 - Torx socket, remove the two bolts that secure the coolant "Tree" to the intake-manifold.



53. Using a 10mm socket wrench, remove the six bolts that hold the plastic intake manifold to the aluminum manifold base.

Note: five bolts are located at intake flange are accessible from the engine compartment. The remaining 6th bolt on the bottom of the manifold will be removed in the next step.



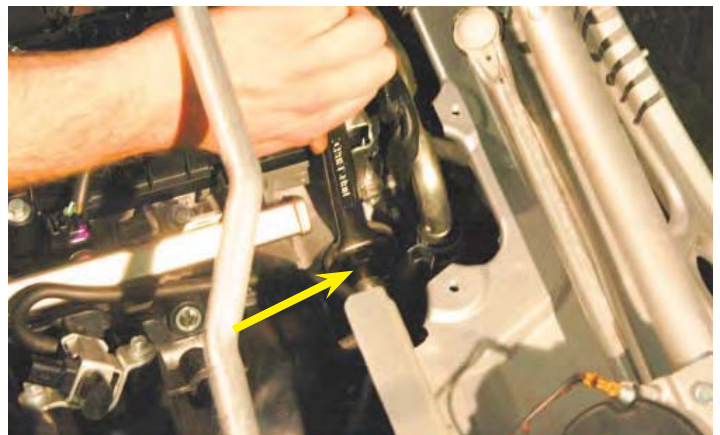
54. The bottom manifold bolt is located next to motor mount, and must be accessed from the driver side wheel well. For ease of access to the bottom bolt, we suggest you remove the driver side wheel and clutch line bracket. Using a long extension and 12mm socket, remove the clutch line bracket to expose the bottom intake manifold bolt.



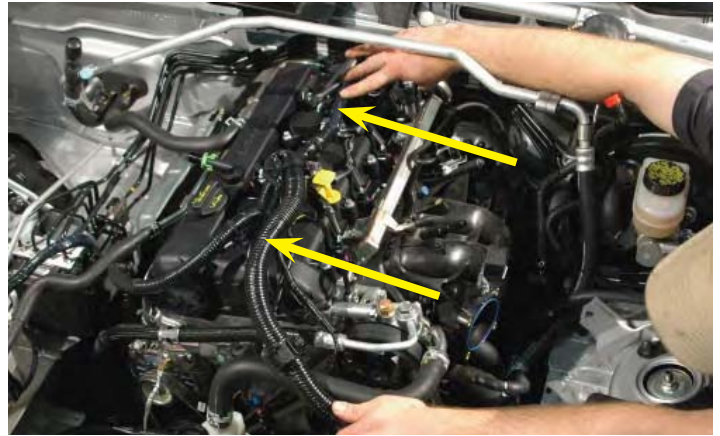
55. Using a 10mm socket on long extension remove the bottom bolt holding the plastic intake manifold in place.



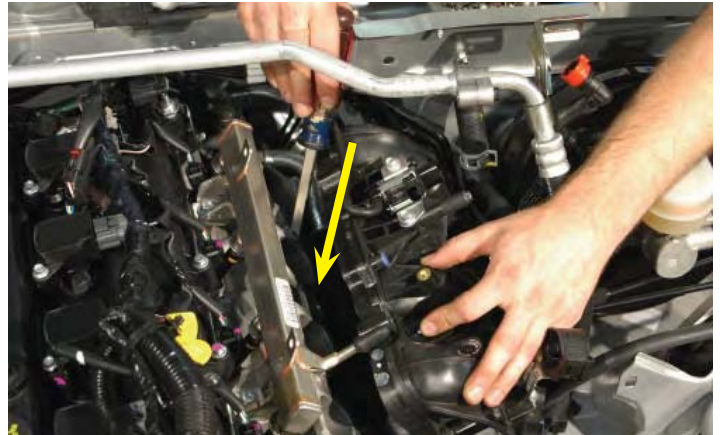
56. Using a 7/8" open end wrench, disconnect the EGR fitting at the rear of the cylinder head on the driver's side



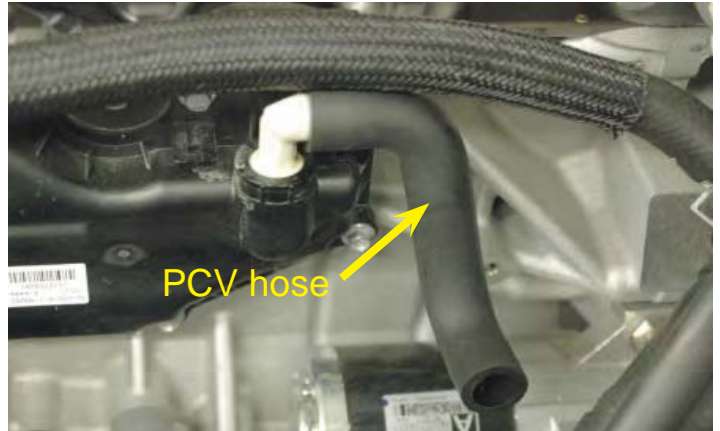
57. Push the wiring harness back over the cam cover to get it out of the way for the intake manifold removal.



58. As you start to pull the manifold off, disconnect the PCV hose between the manifold and engine block using a long flat blade screwdriver to pry the hose off. This is difficult within the tight compartment. Be patient, you may have to pull the manifold partially free to remove the PCV hose.



59. This is the PCV hose that must be disconnected between the manifold and the engine block. Remove this hose from the white elbow as it will not be re-used.



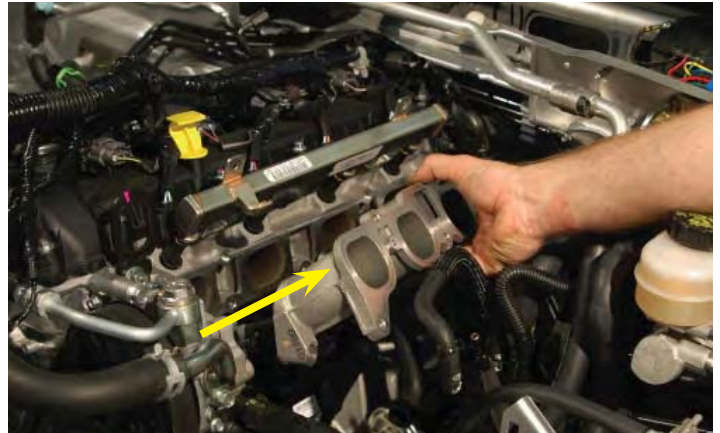
60. Remove the OEM intake manifold from the vehicle and put aside.



61. Using a 10mm socket wrench, remove the five bolts that hold the intake manifold base to the cylinder head.



62. Remove the intake manifold base from the engine. This part will not be re-used.



63. Clean the head mating surface using solvent, then tape up the intake ports to keep the engine clean. It's important to maintain a clean work environment and avoid debris entering exposed openings.



64. Remove the two water hoses from the thermostat housing on the side of the block using a pair of pliers to release their clamps



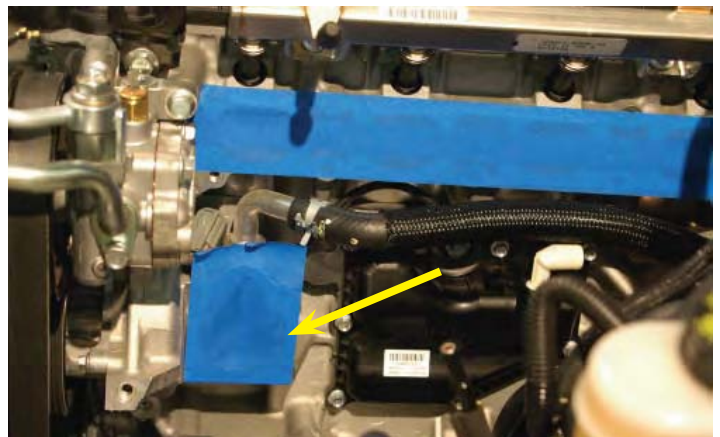
65. With an 8mm socket wrench, remove the three bolts securing the thermostat housing to the block.



66. Remove the thermostat housing from the engine and set aside. There will be some coolant loss, use shop towels to collect the leaking fluid.



67. Clean the mating surface and tape over the thermostat opening to avoid debris contamination.



68. Disconnect the four electrical connectors at the fuel injectors.



69. Using a 10mm socket wrench remove the two bolts holding down the fuel rail.



70. Carefully remove the fuel rail from the engine, this fuel rail will not be reused. **Use caution as there will be residual fuel in the rail.**



71. With a 14mm belt tensioning wrench or a 14mm socket wrench, release the tension on the tensioner pulley and remove the drive belt from the vehicle. This will not be re-used and is replaced by new belt supplied in the kit.



72. With the drive belt removed, use a 10mm socket wrench to remove the smooth idler pulley located to the right of the alternator pulley.



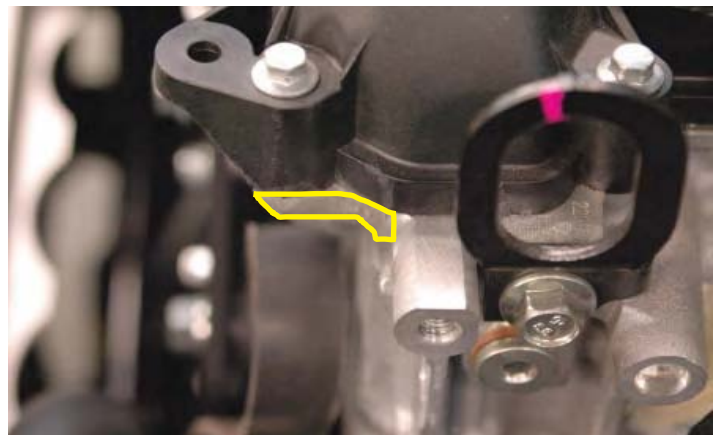
73. Use a 13mm socket wrench to remove the bolt shown. This bolt needs to be removed so that the new idler bracket can bolt into place.



74. Using an 8mm socket wrench, remove the bolt shown so the location can be used to mount the new idler bracket.



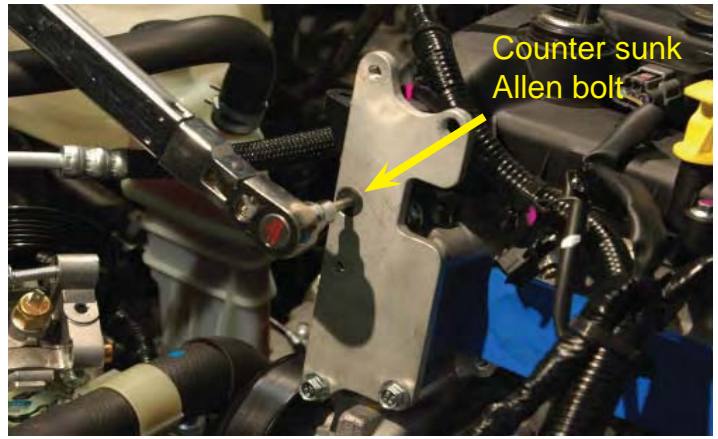
75. Due to variances in the cylinder head casting, it may be necessary to remove metal shown in the high-lighted area for accessory drive belt clearance. This can easily be done with a small file or grinder. The casting should follow the contour of the black cam cover.



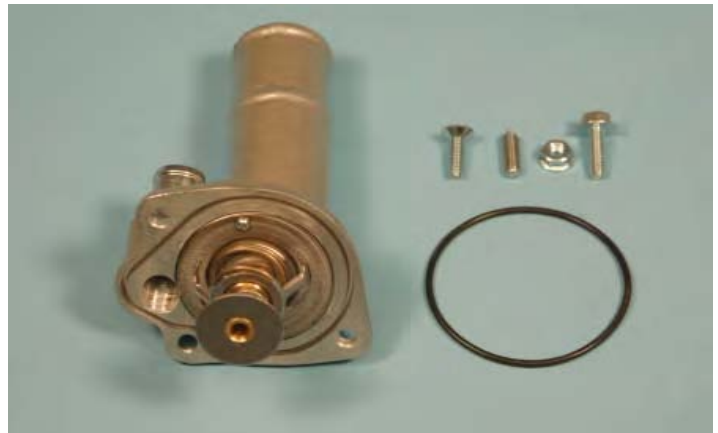
76. Using a 12mm socket and box wrench, remove the three bolts that mount the P.S. Pump to the engine. Move pump off to the side for now.



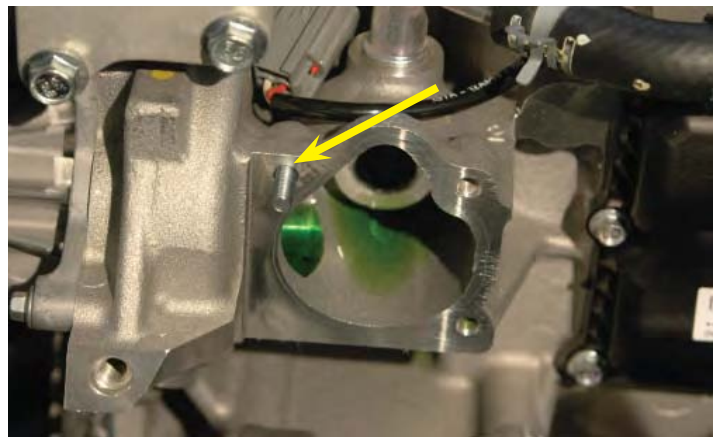
77. Install the supplied P.S. Pump Relocation Bracket in the original pump location with the new hardware provided. Note that the counter-sunk Allen bolt must be installed in the location shown. Verify that the engine hoist bracket behind the new bracket is not in the way of the Power Steering Pump bolts. Torque all mounting bolts to 20 ft-lbs.



78. Here is the new thermostat housing, thermostat and mounting hardware.



79. Remove the tape from the thermostat mount surface and install the 6mm stud in the top left mounting hole for the thermostat housing. Leave 16mm (5/8") of exposed thread.



80. Apply the supplied Lubriplate lubricant to the new thermostat O-ring.

Ought to show  
Loctite gasket  
eliminator sealant-  
AD





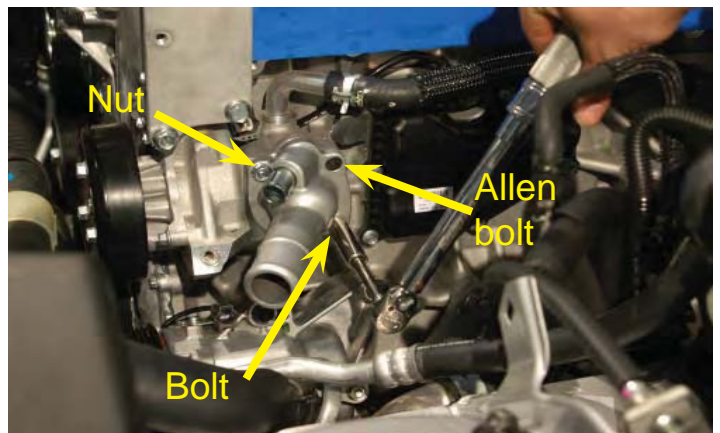
81. Insert the O-ring into the new thermostat housing groove.



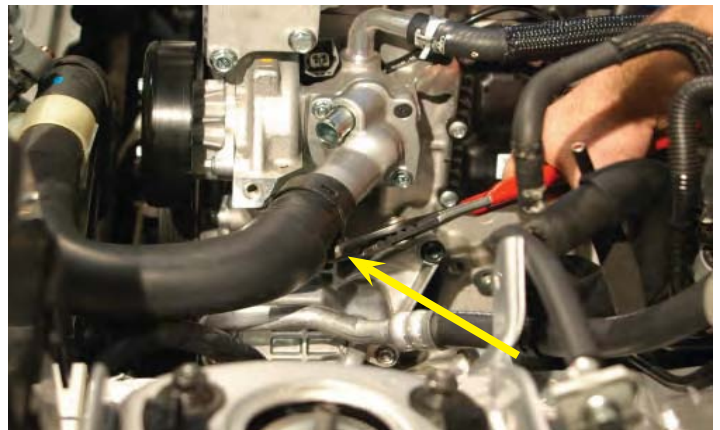
82. The thermostat is now ready for installation onto the engine.



83. Install thermostat assembly onto the engine. The counter-sunk Allen bolt will be installed into the upper right hand hole, The 10mm nut will be installed on the previously install stud and the remaining bolt will be installed into the lower right hole. Tighten the mounting bolts to 106 in/lbs. (Make sure you are using in-lbs on your torque wrench here.)



84. Re-install the lower radiator hose onto the new thermostat housing, using the stock clamp. Place the tabs of the clamp at approximately the 4:00 position.



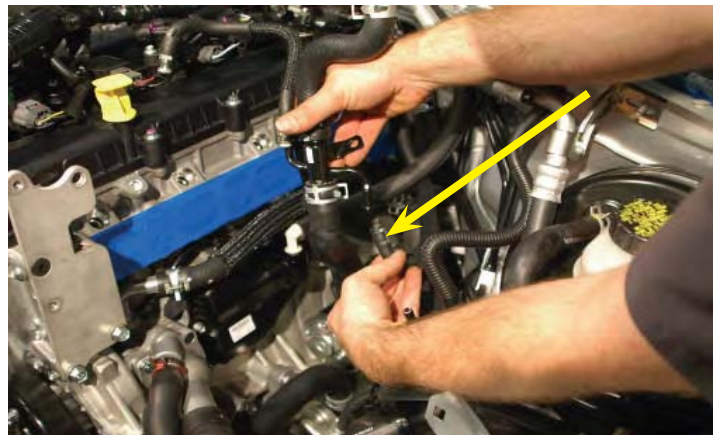
85. Using the 30" x 5/8" PCV line supplied, install one end onto the white PCV elbow. No clamp is necessary. Tuck the other end of the hose out of the way as shown for now to avoid clearance issues when installing the Supercharger.



86. Remove the coolant hose that connects from the oil cooler to the hose "Tree".



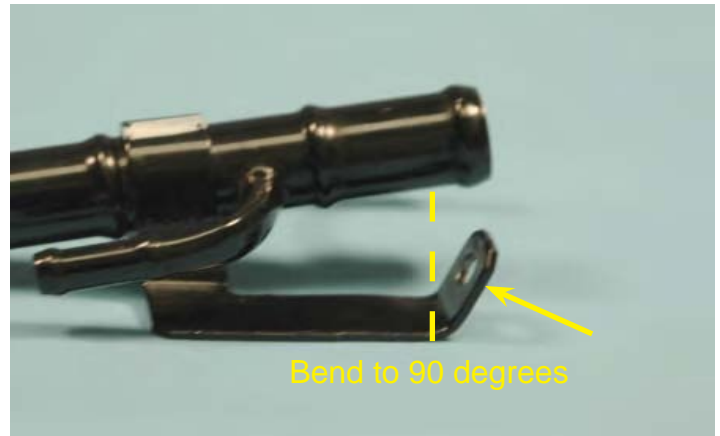
87. Remove the 1/4" coolant hose from the "Tree" fitting as shown. Set the hose "Tree" aside for later re-installation.



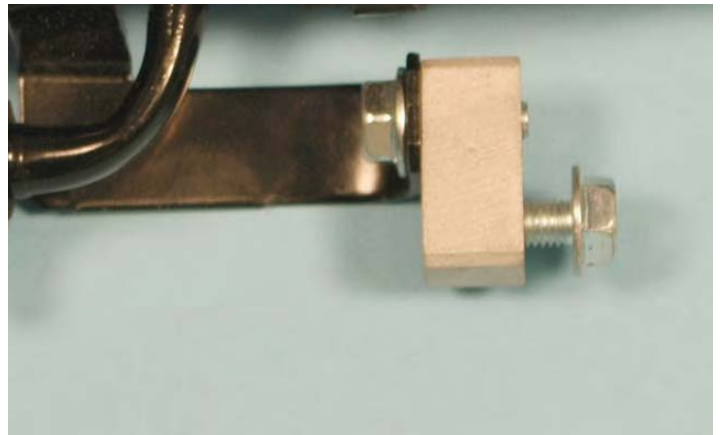
88. Here is the coolant tree removed from the vehicle.



89. Bend the lower mounting tab up to a 90° angle.



90. Install the coolant mounting block onto the lower tab as shown using the 6mm x 12mm bolt.



91. Pass a 6mm x 12mm bolt through the small hole in the chassis brace near the driver side shock tower from the rear face.



92. Mount the coolant tree on the front face of the chassis brace by threading the 6mm x 12mm bolt in the mounting block. Tighten both bolts securely with a 10mm socket wrench. Hoses will be attached in later steps



**The following steps are for vehicles fitted with a factory oil cooler, if your vehicle does not have a oil cooler, please skip to step 96.**

93. Using one of the “J” hoses supplied, cut the hose approximately 5.5” (64mm) from the inside of “J” along the straight section. The coupler and clamps will be used to reconnect the two sections.



**The following steps are for vehicles fitted with a factory oil cooler, if your vehicle does not have a oil cooler, please skip to step 96.**

94. Re-assemble the hose by using the coupler and clamps shown to reconnect the two sections. Push the coupler into the cut ends and secure it with the clamps provided. Rotate the two bends so they are 90 degrees from each other.



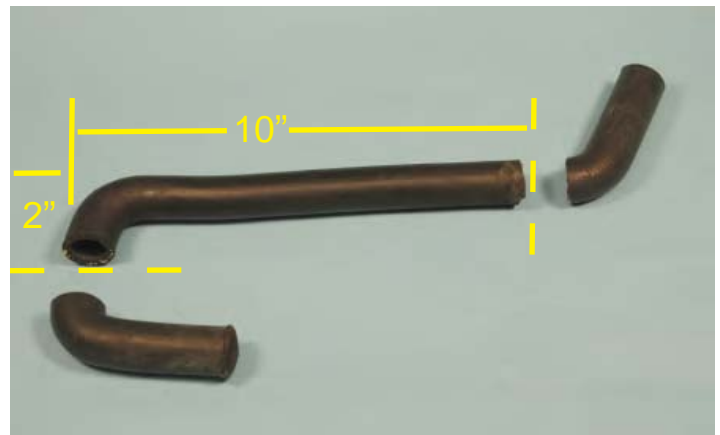
**The following steps are for vehicles fitted with a factory oil cooler, if your vehicle does not have a oil cooler, please skip to step 96.**

95. Connect the curved end of the re-worked J hose to the forward end of the coolant tree as shown. Rotate the ears of the clamps that secure the coupler so that they point down. Connect the remaining end to the barb on the Oil-Cooler and secure it with the clamp removed from the original oil cooler hose.



**The following steps are for vehicles NOT fitted with a factory oil cooler, if your vehicle has a oil cooler, please skip to step 98.**

96. Using one of the “J” hoses supplied, cut the hose approximately 2” (50mm) from the outside in the “J” section and 10” (250mm) along the straight section as shown

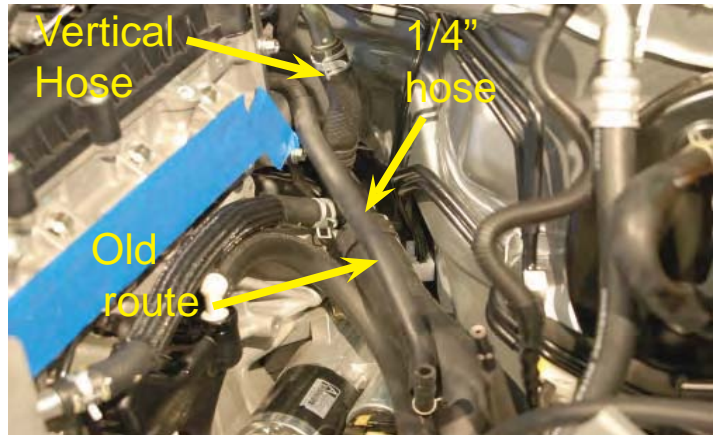


The following steps are for vehicles NOT fitted with a factory oil cooler, if your vehicle has a oil cooler, please skip to step 98.

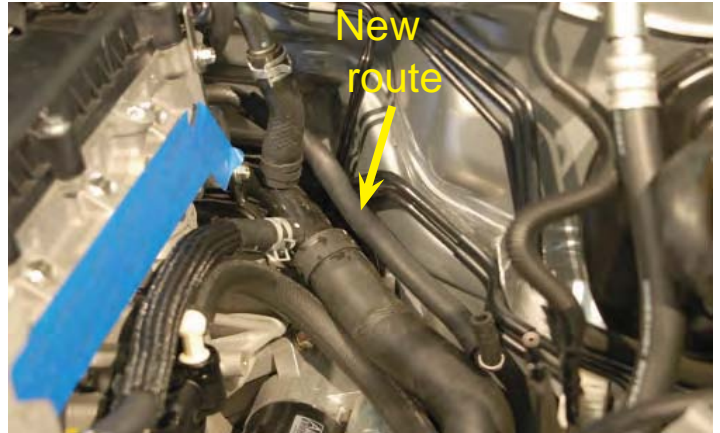
97. Install the straight end of the modified "J" hose onto the small barb of the thermostat housing. Connect the curved end onto the forward barb of the coolant tree as shown with the clamps provided.



98. Re-route the 1/4" hose removed from the "Tree" in step 74 to go behind the vertical coolant hose as shown. The next step shows the new location behind the vertical hose.

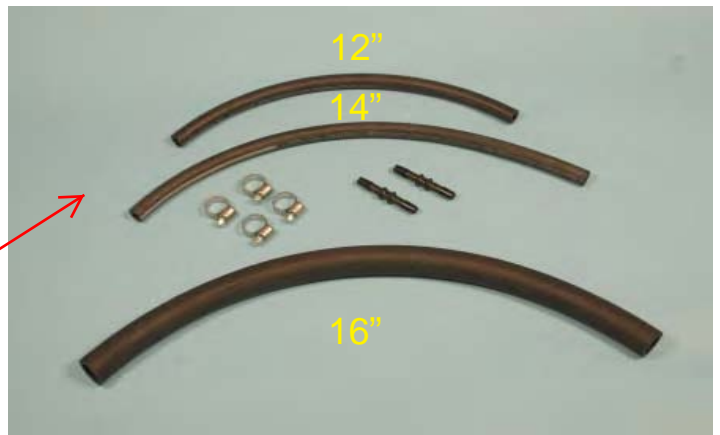


99. This picture shows the Re-routed 1/4" hose going behind the vertical coolant hose as shown. The remaining end of this hose will be connected in a later step.



100. Here are the hoses and hardware for the coolant hoses that will connect to the coolant tree.

cut supplied 1/4" hose to these lengths. Also, the supplied 16" hose is 5/8..not 3/4 as called for, we got 3/4" hose from store for this. Fits a little loose on heater hard line.-AD



101. Connect a 14" (355mm) of the 1/4" hose provided to the rear facing barb on the coolant tree with the clamp provided.



102. Connect the remaining end of the 14" x 1/4" hose to the coolant line that was re-routed in step 78. Insert a 1/4" hose coupler into the ends of the two hoses and secure it with the clamps provided.

should refer to step 98, not 78-AD



103. Connect a 12" (305mm) of the 1/4" hose provided to the forward facing barb on the coolant tree. Lay this hose aside as it will be connected to the throttle body in a later step.



104. Connect a 16" (406mm) of the 3/4" hose provided to the large, rear facing barb on the coolant tree. Route this line to the fire wall, it will connect to the heater hardline in a later step.



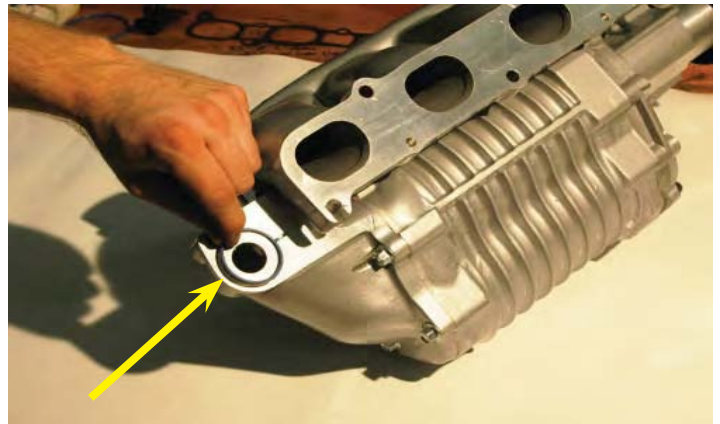
105. Remove the EGR tube and O-ring from the stock manifold. Using a 10mm socket wrench, remove the Stock EGR tube from the OEM manifold, this will not be re-used.



106. Carefully remove the EGR O-ring from the stock manifold.



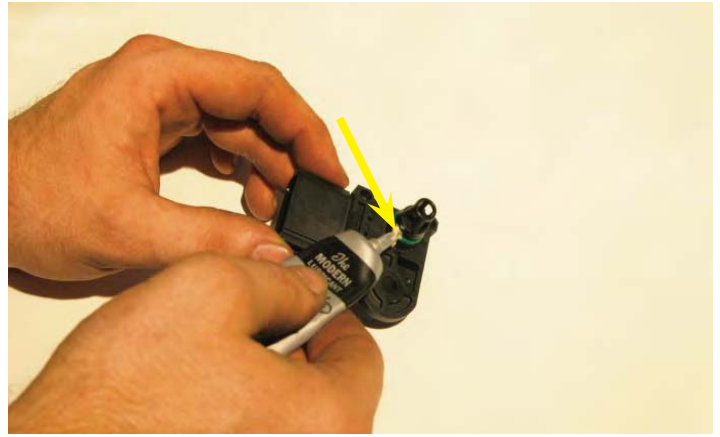
107. Install the stock EGR O-ring into the Supercharger Inlet elbow groove.



108. Using a T-25 torx socket wrench, remove the bolt that secures the MAP sensor in the stock intake manifold. This bolt will not be re-used.



109. Lubricate the o-ring of the MAP sensor with the supplied Lubriplate lubricant.



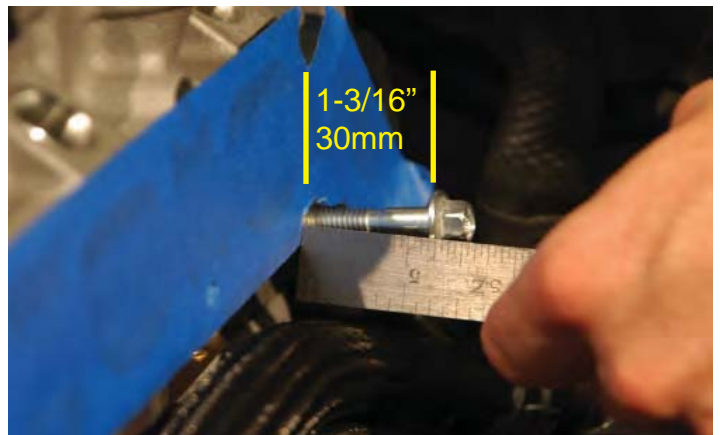
110. Install the sensor into the supercharger manifold. Secure the MAP sensor with the provided 5mm x 10mm bolt.



111. Remove the stock Throttle Body O-ring from the OEM intake manifold and put aside for later installation.

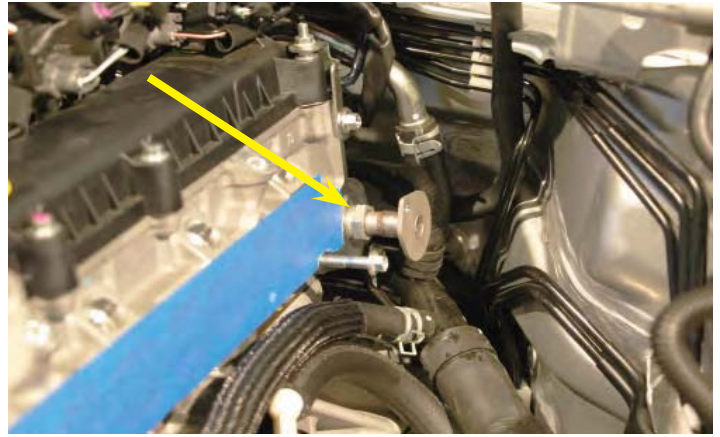


112. Pre-install the rear intake manifold mounting bolt so that the flange on the bolt is 30mm (1-3/16") from intake mating surface.





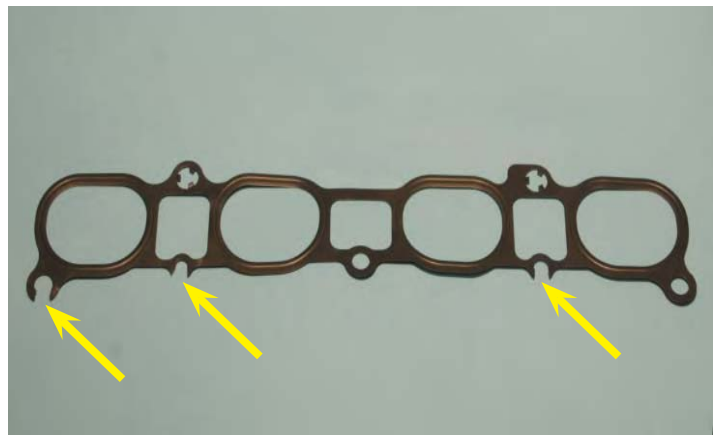
113. Install the new EGR tube into the cylinder head. DO NOT TIGHTEN, “finger tight” for now.



114. Remove the tape covering the inlet ports, and clean the surfaces using alcohol or suitable solvent. Then carefully install the Supercharger assembly into place by lowering the rear end of the manifold in first and locating it onto the intake bolt previously installed, then install one of the front intake bolts...leave the fasteners finger tight for now.



115. You will need to trim the intake manifold gasket as shown so you can drop it into position.



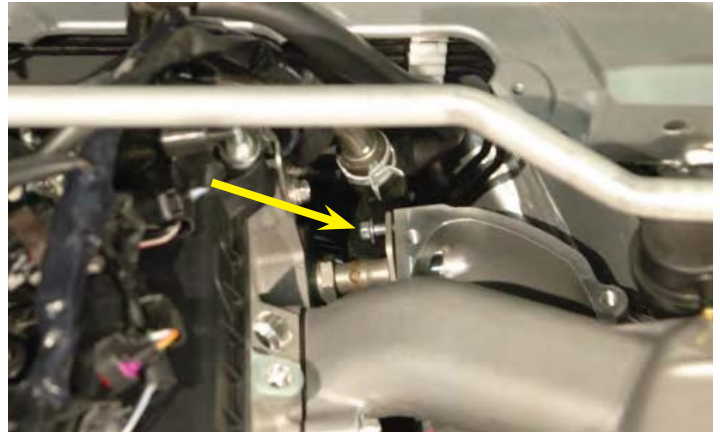
116. Install the modified intake manifold gasket by carefully sliding it between the supercharger manifold and the head. The slots in the gasket will slide onto the the aligning sleeves of the manifold and the bolt previously started.



117. Start the remaining bolts through the supercharger flange, finger tight only.



118. Start the 6mm bolt supplied for the EGR tube mounting flange into the Supercharger Inlet elbow, finger tighten only.



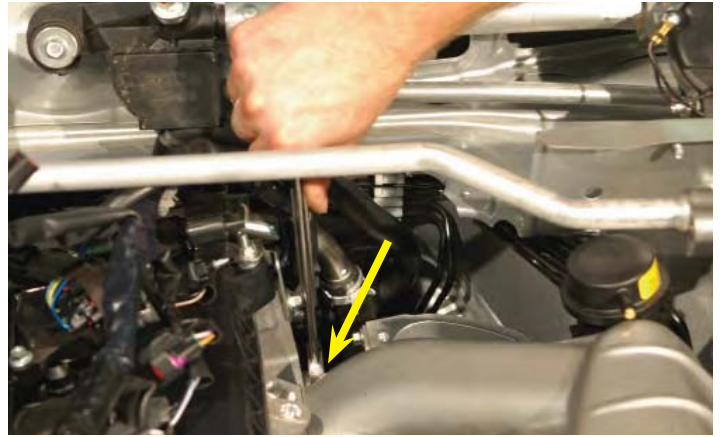
119. Once all five manifold bolts and the EGR tube are installed, torque the Supercharger manifold bolts to 22 ft-lbs using a 10mm socket on the torque wrench.



120. With the Supercharger manifold secure, now tighten the 6mm bolt of the EGR tube flange with an 8mm wrench.



121. Using a 7/8"(22MM) wrench, tighten the EGR nut going into the cylinder head securely.



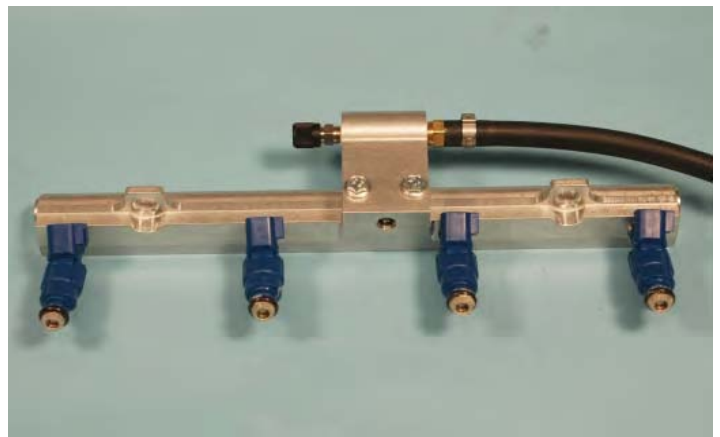
122. Spread a small amount of the Lubriplate lubricant to the new fuel injector O-rings on both ends of the injectors and install them into the fuel



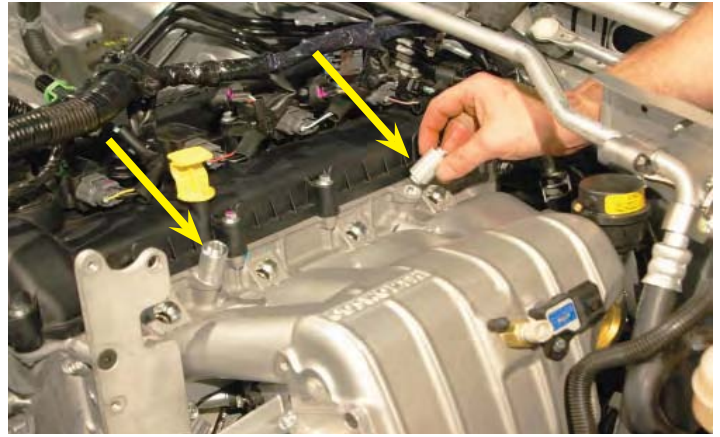
123. Using the lubricant, lubricate the Fuel Manifold O-ring and install it into the new fuel rail.



124. Install the fuel manifold and secure with the two 6mm x 35mm bolts. Torque these bolts to 106 in-lbs.



125. Install the two fuel rail spacers supplied into the holes in the supercharger flange.



126. Install the new fuel rail assembly onto the supercharger. Be careful not to damage the injector o-rings as you install the rail.



127. Using the two 8mm x 55mm bolts supplied, secure the fuel rail to the cylinder head. Torque bolts to 22 ft-lbs.

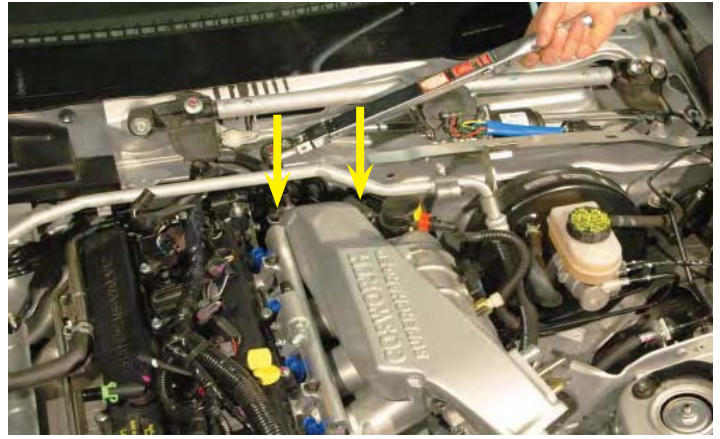


128. Next apply a bead of the supplied pink Loctite 510 to the flange of the Supercharger inlet manifold as shown in the picture.

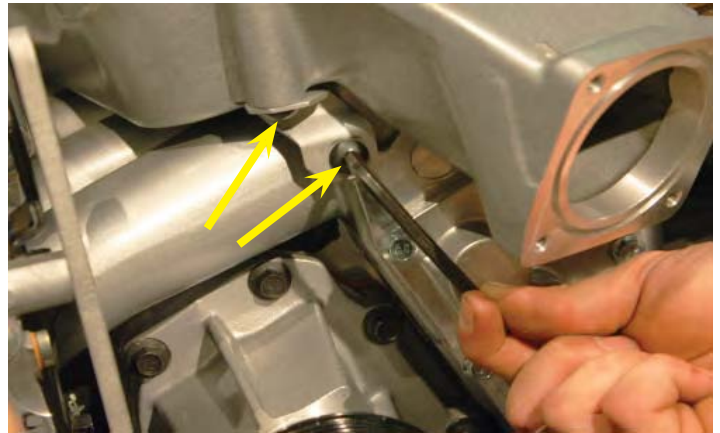


129. Carefully lower the Supercharger inlet under the A/C hard line, and over the Supercharger. Try to not disturb the bead of Locktite. Install the inlet manifold to the supercharger flange using the two 8mm x 90 bolts and tighten them finger tight for now.

bolts are 70mm  
and 90mm-AD



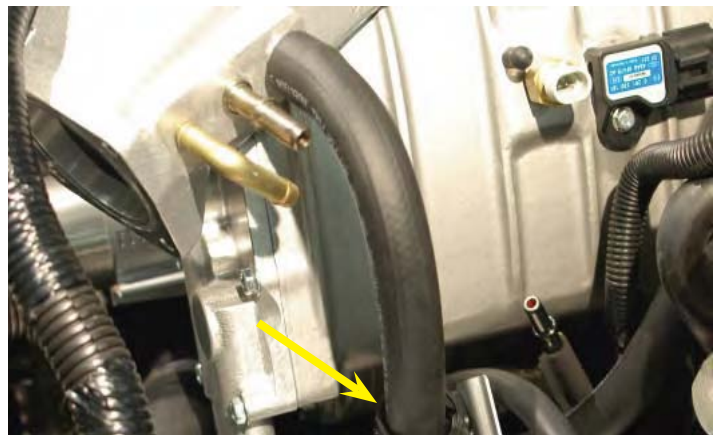
130. Install the Supercharger inlet support bracket and secure it using the supplied 6mm button head screws. Tighten these bolts securely with a 5mm Allen wrench. Tighten the two 8mm bolts from the previous step with a 13mm socket wrench and torque them to 20 ft-lbs.



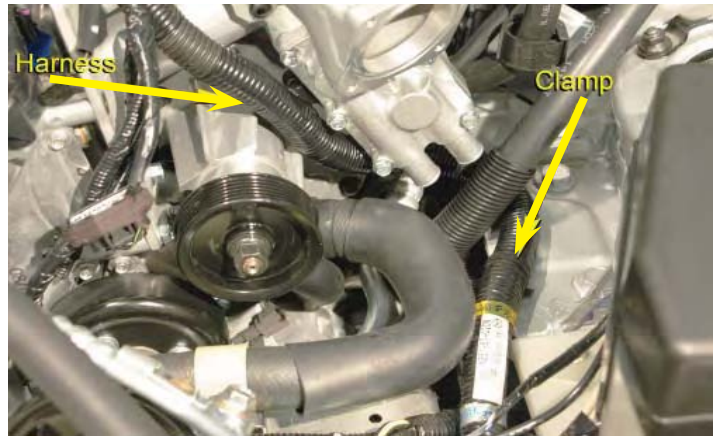
131. Install the supplied bypass actuator hose onto the barb located near the rear of the inlet manifold.



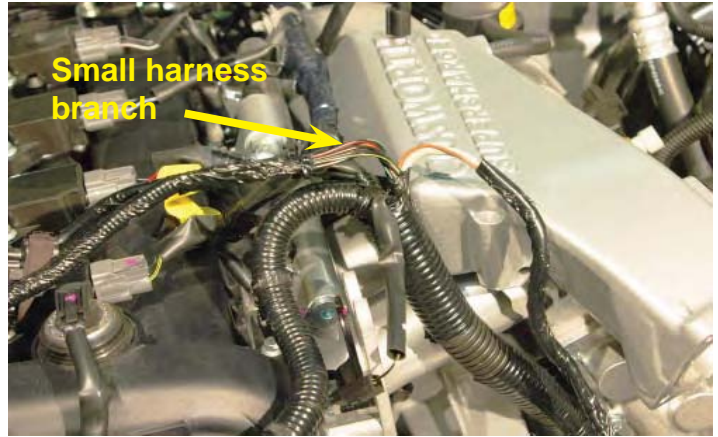
132. Connect the remaining end of the 5/8" PCV hose previously installed (in step 85) to the 5/8" barb on the Supercharger inlet. Use a provided zip-tie to secure the PCV hose to the Clutch line



133. Route the main wire harness down between the Supercharger nose and the Supercharger coolant manifold. Re-attach the existing harness clamp to the existing mounting hole at this time.



134. Cut the zip-tie holding the small branch of the wiring harness containing the Knock Sensor and the A/C Compressor connectors. Remove the tape from this harness branch.



135. Cut about 6" of the harness tape to split out the AC Switch from the Knock Sensor, then route the wires under the nose of the Supercharger. Connect the Knock Sensor plug and be sure to tuck the excess wire away from the Supercharger pulley.



136. Re-connect the AC Pressure Switch connector below the thermostat housing.



137. Re-install the P.S. pump on the re-location bracket installed, using the original hardware. Torque the bolts to 20 ft-lbs.



138. Re-connect the P.S. pump pressure switch connector.



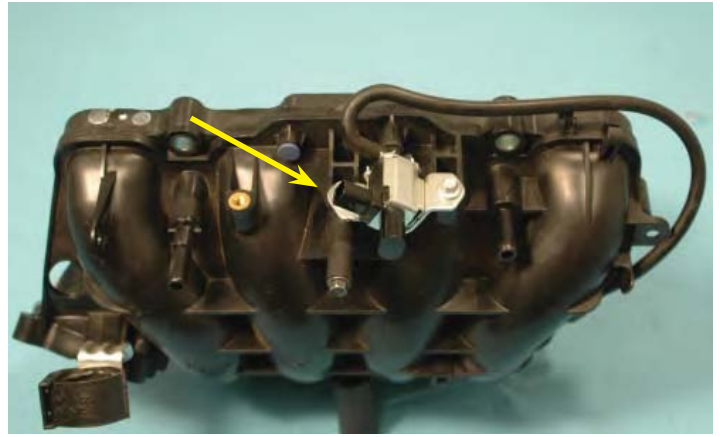
139. Re-connect the fuel injector connectors



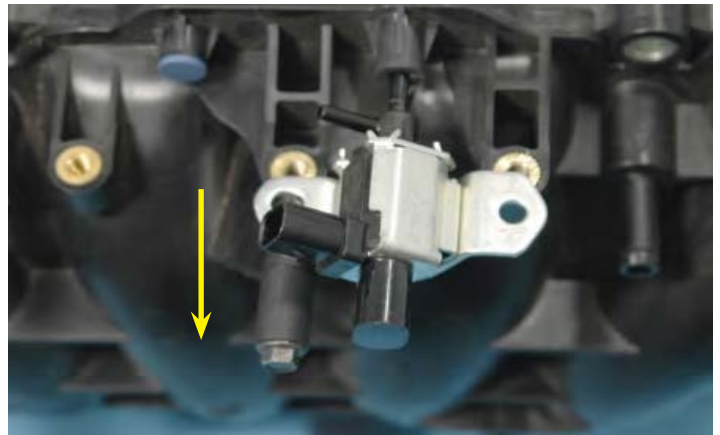
140. Route the new fuel line along the main wire harness and below the supercharger nose. It will be connected in a later step.



141. Locate the Vacuum Control Valve on factory intake manifold.



142. Remove the two mounting bolts with a 8mm socket wrench. remove the vacuum hose from the base of the valve. Pull firmly to remove the valve from manifold.



143. Locate the Vacuum Control Valve electrical connector on the wiring harness near the fuel injector connectors and connect it to the valve.



144. Using two of the Zip-ties provided, attach the valve to the wiring harness near the fuel rail. The valve will perform no function except to complete the electrical connection for the vehicle ECM, it must be installed in the circuit.

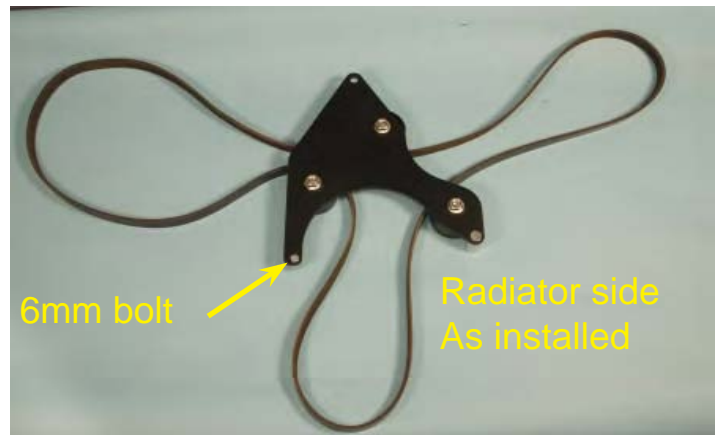




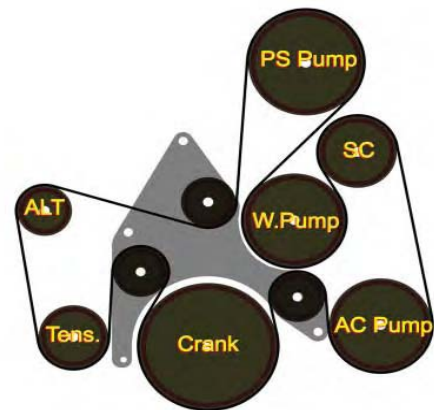
145. Here is the new Idler Bracket with the new accessory drive belt installed on it. This face of the bracket will face the engine on installation. Place the new belt in the bracket prior to installing the bracket onto the engine. Pull a loop of the new belt through each of the spaces between the idler pulleys to accomplish the belt diagram shown in the next step.



146. Carefully turn the Idler bracket over, ensuring the belt is loosely installed as shown. This photo shows the belt and bracket as they will be installed on the engine with the bracket facing the radiator. Pre-install the 6mm x 30mm in the bottom hole as shown.

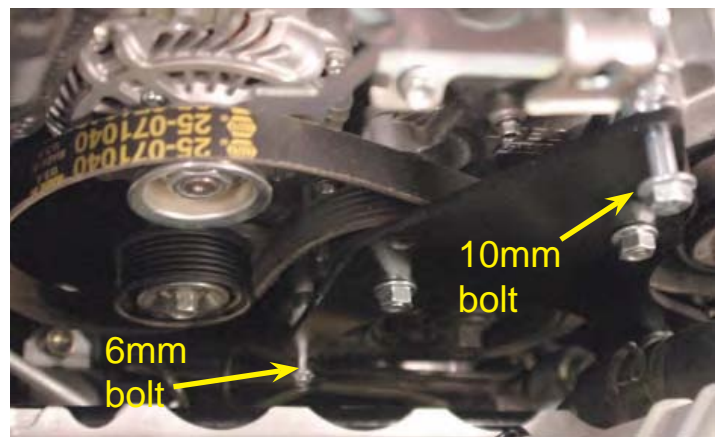


147. This is the new accessory drive belt diagram.

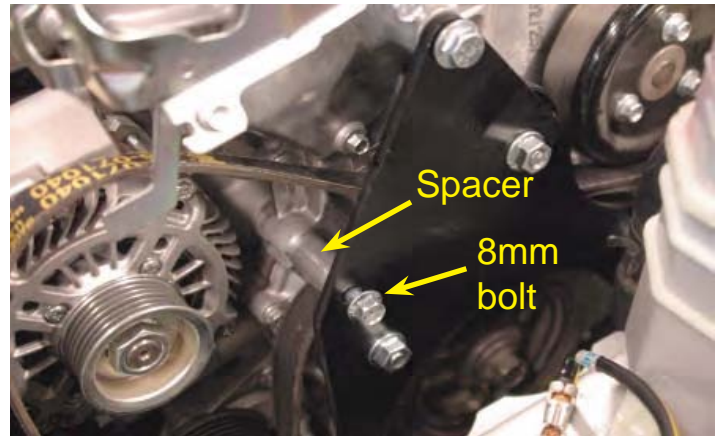


148. Install the idler bracket, drive belt and 6mm x 60mm bolt onto the front of the engine. Install the 10mm x 90mm bolt through the top hole of the idler bracket, into the hole in the timing cover, then install the 6mm bolt at the lower cover. Leave these bolts finger tight for now. Loop the belt around the Alternator and tensioner pulleys and around the crankshaft pulley at the bottom.

this bolt is actually 75mm-AD

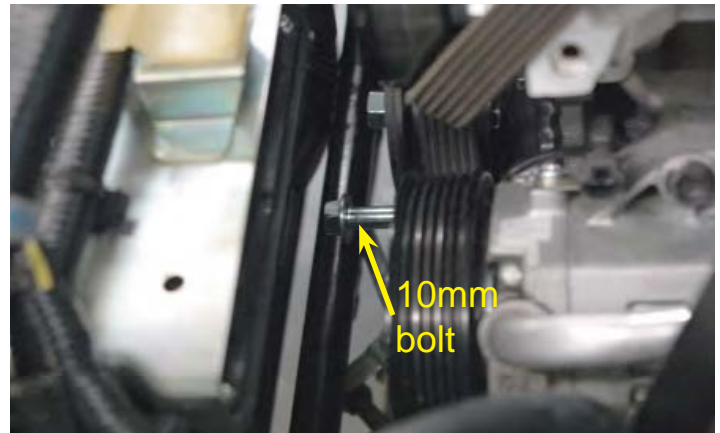


149. Install the spacer between the Idler bracket and the timing cover. Pass the 8mm x 90mm bolt through the idler bracket and the spacer into the timing cover.

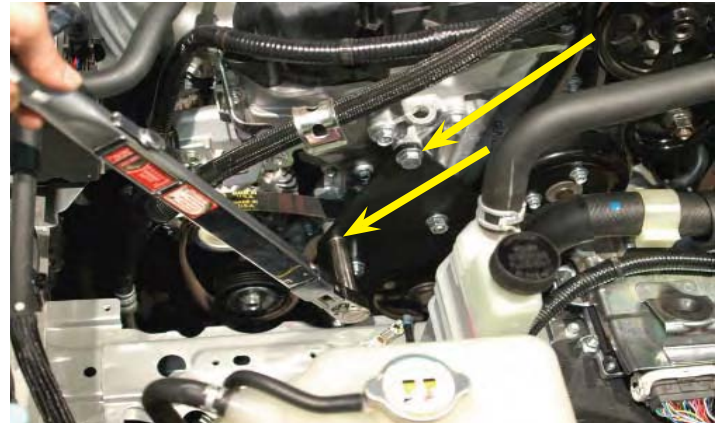


150. Install the 10mm x 110mm bolt through the idler bracket at the bottom corner and into the timing cover.

this bolt is actually 90mm. also must remove existing bolt on engine prior to this step-AD



151. Torque all the Idler plate bolts:  
10mm bolts to 35 Ft-lbs.  
8mm bolts to 22 Ft-lbs.  
6mm bolts to **106 In-lbs.**



152. Using a 14mm belt tensioning wrench or a 14mm socket wrench, release the tension on the tensioner pulley and slip the the new accessory drivebelt supplied over all the pulleys with the water pump pulley being the last. Release the tensioner arm and check the belt routing, See step 147.



153. Remove the original mounting bracket from the Purge solenoid by carefully pulling it from the rubber mounting collar. It will not be re-used.



154. Re-mount the Purge Solenoid on the bracket located on the front of the supercharger manifold as shown. Re-connect the Purge Solenoid electrical connector



155. Connect the larger of the two Purge/EVAP lines to the middle barb at the front of the inlet manifold.



156. Connect the smaller of the two Purge/ EVAP lines to the hard line barb at the side of the chassis.



157. Install Throttle Body O-ring removed from the stock intake manifold in step 85, and install it in the groove in the Supercharger inlet manifold.



158. Install the Throttle Body in the orientation shown, using the original bolts. Torque the four Throttle Body bolts to 106 in-lbs. using a 10mm torque wrench



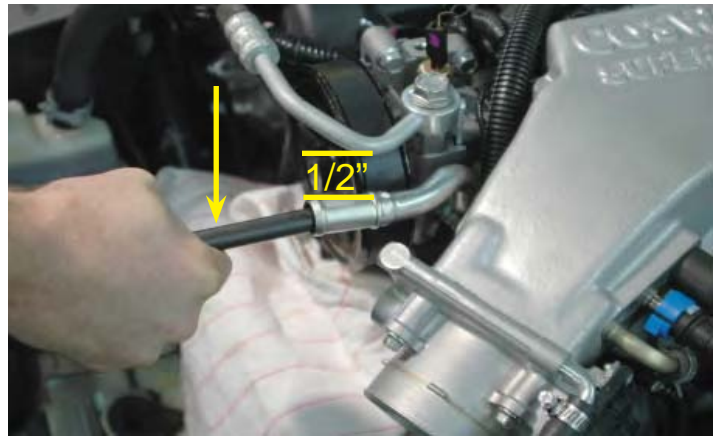
159. Untwist the Power Brake Booster hose to eliminate kinks, (Note: This is important as there is a one-way check valve in the hose) then push the end onto the 90° fitting on the Supercharger inlet. Secure the hose with the original clamp.



160. Use a pair of pliers to release the clamp on the PS return hose and remove the hose from the pipe barb.



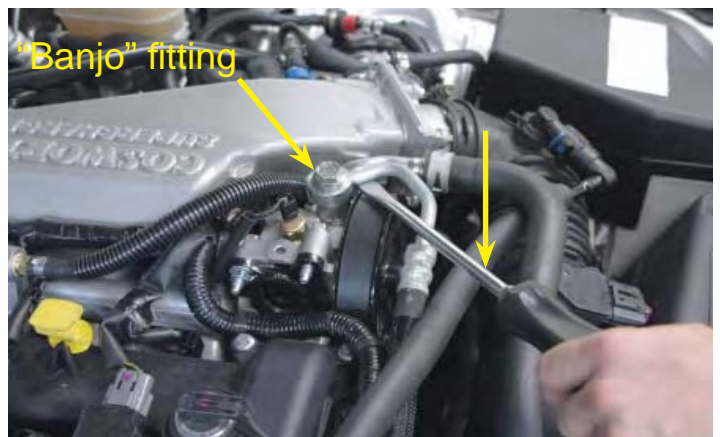
161. Insert a drift or long 3/8 extension into the PS pipe as far as it will go. Press down on the drift to gently bend the pipe down approximately 1/2" (13mm).



162. Re-install the PS return hose and using a straight edge ruler, check that the top edge of the hose does not protrude above the top edge of the throttle body. Repeat step 157 if necessary to achieve this.



163. Using a large flat-blade screwdriver, insert the tip of the screwdriver under the PS pressure pipe near the "banjo" fitting. Press down on the screwdriver until the top edge of the pipe is below the top edge of the "banjo" bolt.



164. Use a 17mm socket wrench to remove the banjo bolt.



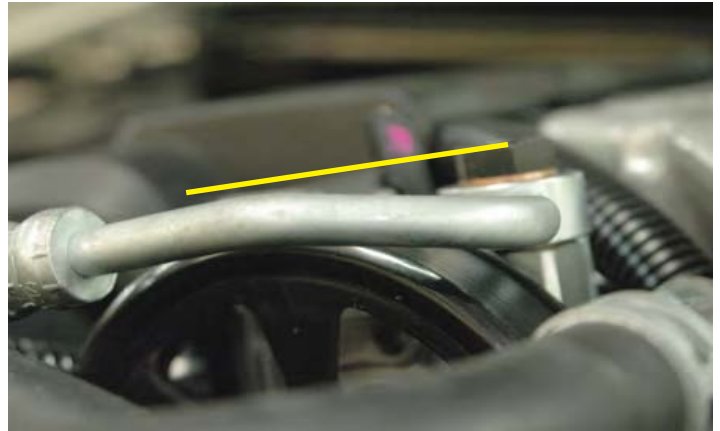
165. Replace the stock banjo bolt and the washers on the top and bottom of the fitting with the new parts supplied.



166. Carefully torque the new banjo fitting to 26 Ft-lbs. with a 17mm torque wrench.



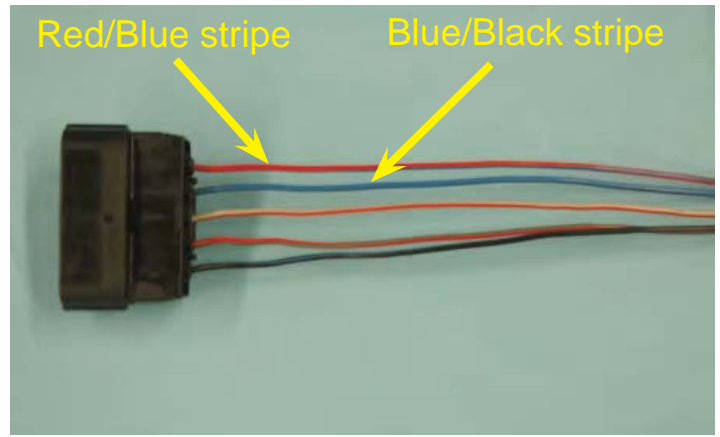
167. Check that the edge of the PS pipe is below the top of the banjo bolt. Repeat step 159 if necessary.



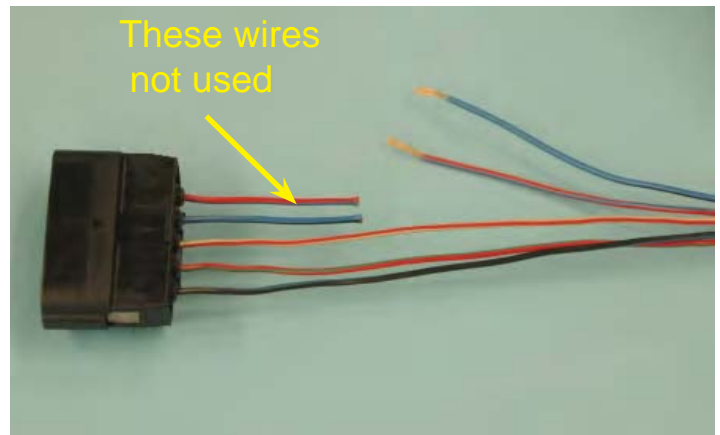
168. Locate the connector for the MAF sensor. This connector contains the wires for the Mass Air Flow sensor and the Intake Air Temperature sensor.



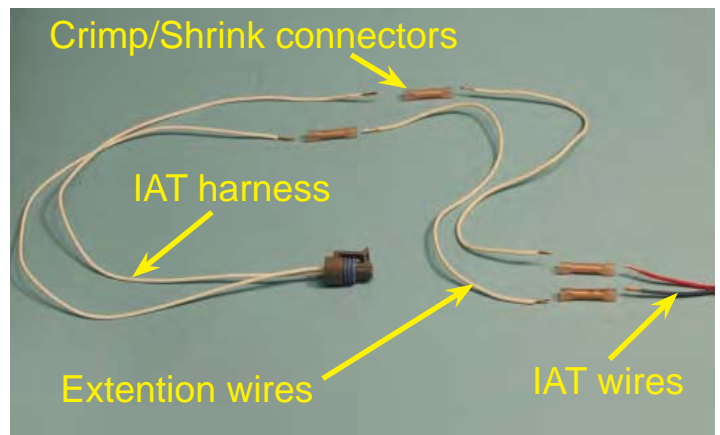
169. Locate the connector for the MAF sensor. This connector contains the wires for the Mass Air Flow sensor and the Intake Air Temperature sensor. The Intake Air Temperature sensor wires are **Red with Blue stripe**, and **Blue with Black stripe**. Note that these two wires are next to each other.



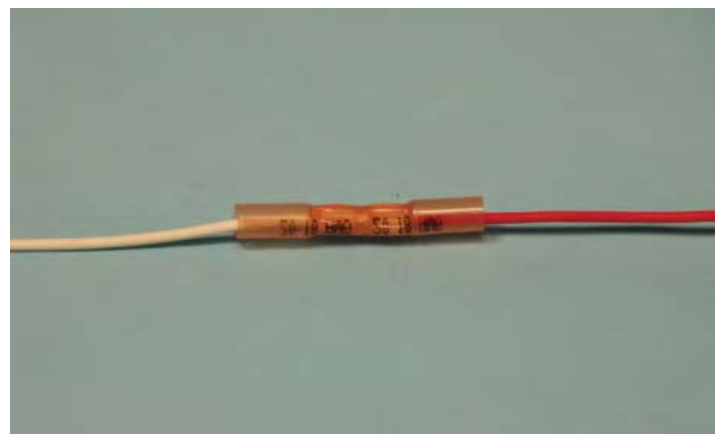
170. Start by cutting the two wires for the IAT sensor 2" (50mm) from the connector: These wires are **Red with Blue stripe**, and **Blue with Black stripe**. Pull these IAT wires apart from the rest of the bundle. The remaining ends at the MAF connector will not be used and can be taped off.



171. Here is an overview of the modifications needed to the IAT harness. The IAT wires will be extended 10" (250mm) using two pieces of the white wire supplied. On to the ends of the extension wires the new IAT harness will be connected. Note the Crimp/Shrink connectors, extension wires and the IAT harness. The polarity of the IAT harness does not matter, either of the white wires can be connected to the Red/Blue or Blue/Black/ IAT wires.

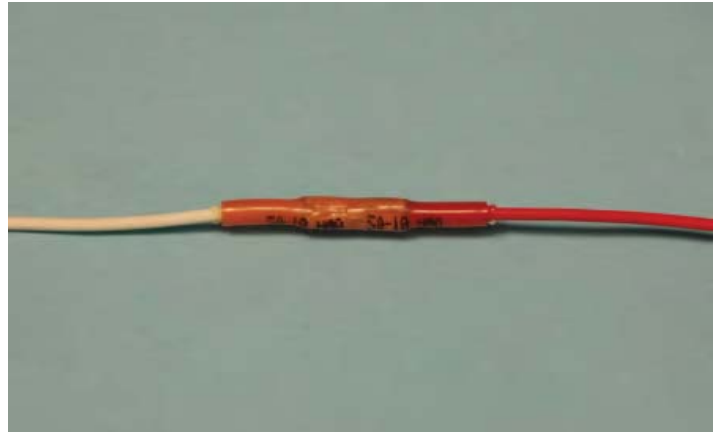


172. Strip 1/4" (6mm) insulation from the ends of the cut wires that lead into the harness and insert the ends into the Crimp/shrink connectors supplied. Using a pair of Crimp pliers, crimp the connectors onto the wires.



173. **IMPORTANT!**

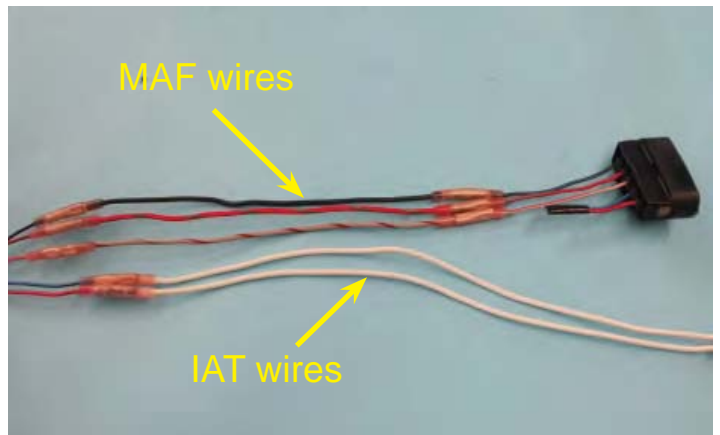
**Crimping the connectors alone is not enough to secure them! you must shrink the connectors as shown using a heat gun until the plastic contracts around the wires as shown.**



174. Cut the remaining three wires on the MAF connector and extend them 4" (100mm) using the color matched extension wires and connectors supplied. Strip, crimp and shrink the wires and connectors as before to lengthen them.



175. Here are the extended MAF and IAT wires.



176. Locate the ETC connector and extend them 8" (300mm) using the color matched extension wires and connectors supplied. Strip, crimp and shrink the wires and connectors as before to lengthen them.

extending these wires is not necessary, many have found-AD





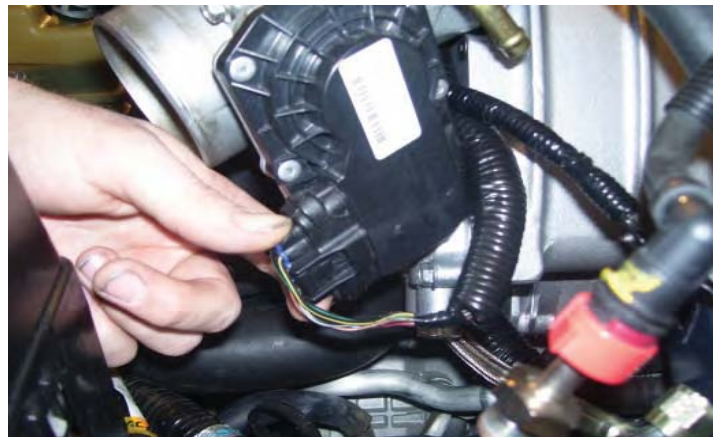
177. Locate the MAP connector and extend them 6" (150mm) using the color matched extension wires and connectors supplied. Strip, crimp and shrink the wires and connectors to lengthen them.



178. Cover the extended harness branches with the split loom supplied.



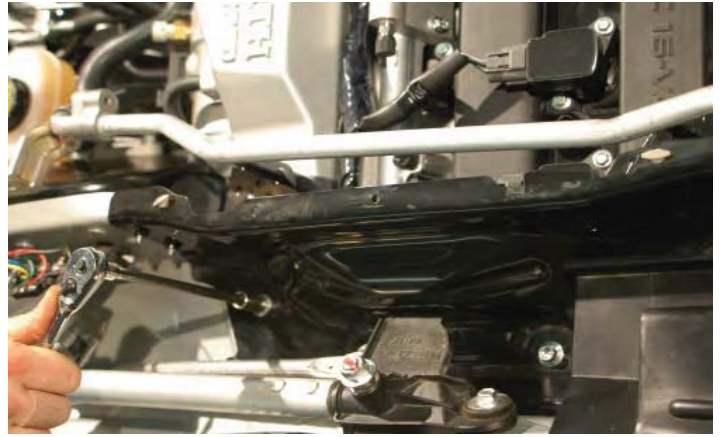
179. Re-connect the ECT connector to the throttle body



180. Connect the IAT and MAP connectors to the sensors on the side of the supercharger manifold.



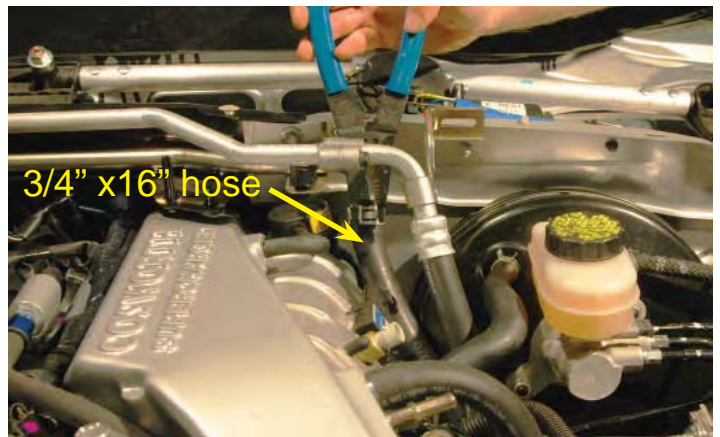
181 Replace the center cowl support and fasten it with the eight bolts that secure it to the firewall/cowl area. There are four bolts on the face of the firewall side, and four in the drain-well area between the center cowl support and the windshield.



182. Re-attach the A/C and heater hard lines to the firewall with their original fasteners.



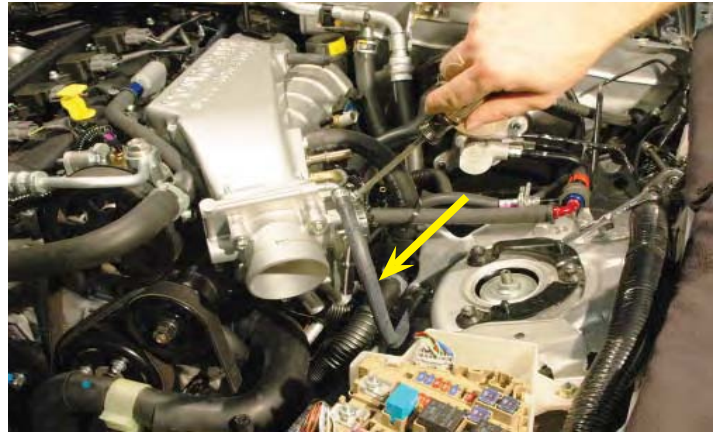
183. Connect the end of the 3/4" x 16" hose previously installed on the coolant tree, to the heater hard line using the original clamp.



184. On the right hand side of the vehicle, re-connect the heater hose to the heater hard line with the original clamp.



185. Connect the remaining end of the 1/4" x 12" coolant line from the tree to the upper barb of the throttle body. Secure with the clamp provided.



186. Using the remaining 12" length of 1/4" coolant hose, connect it to the coolant line disconnected in step 39 from the bottom barb of the throttle body using a 1/4" coupler. Secure with the clamps provided.



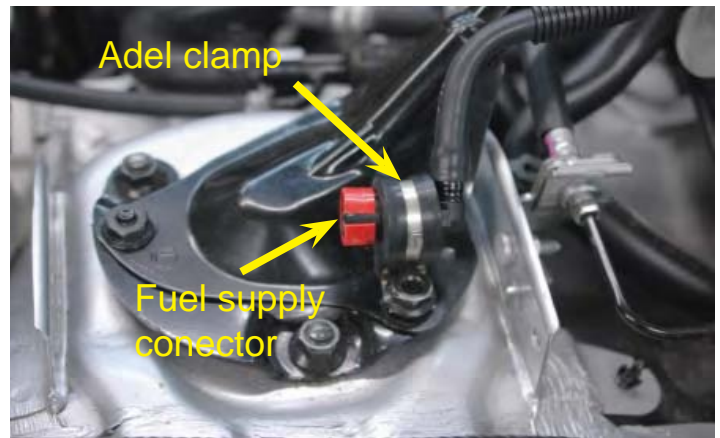
187. Connect the remaining end of the 1/4" hose installed in the last step, connect it to the bottom coolant barb on the throttle body. Secure with the clamp provided.



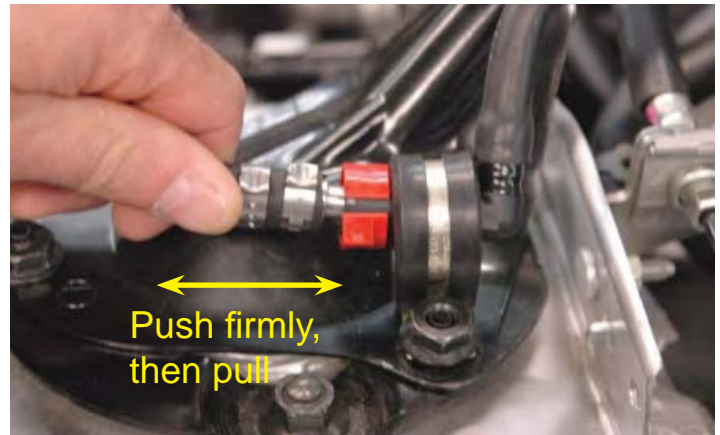
188. Re-install the supercharger side of the Strut Tower Brace using the original nuts.



189. Install the small Adel clamp provided around the Fuel line connector and then onto the rear stud of the driver side strut tower brace. Fasten it with the original nut and tighten the nut securely.



190. Insert the male connector on the end of the fuel rail line in to the original fuel supply connector. Press connector in firmly until it "clicks" into place. Check that the line is secure by attempting to pull connector out, you should not be able to remove it unless you depress the red release collar.



191. Re-install the two remaining sections of the Strut tower brace and torque the nuts to 22 ft-lbs. using a 14mm torque wrench.



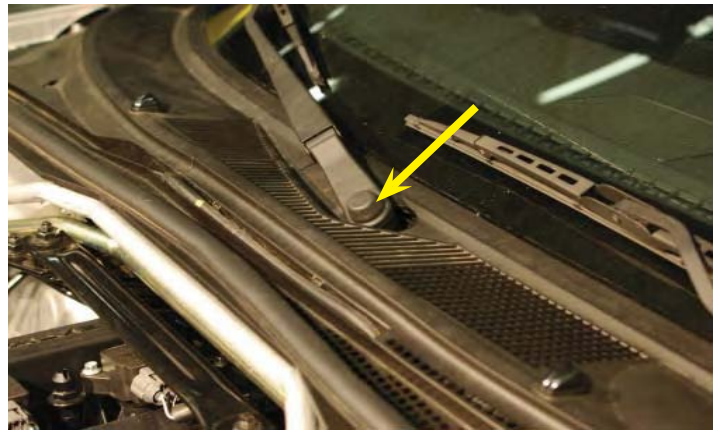
192. Re-install the cowl sections using the original hardware.



193. Re-install the wiper arms using the original hardware, by first aligning the marks previously made. Tighten the nut securely with a 14mm socket wrench.



194. Re-install the arm nut covers by snapping them back into place



195. Re-install the cowl seal by stretching the holes in the bottom over the "T" shaped fasteners.



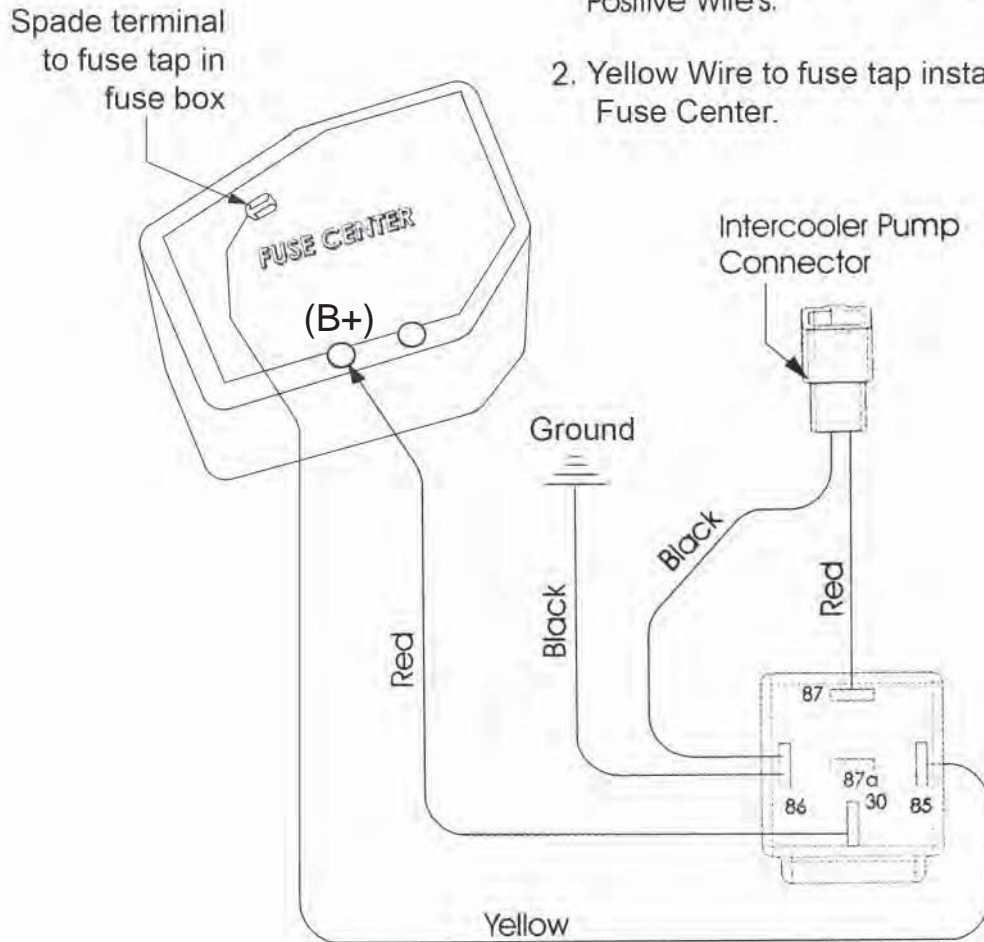
196. From under the nose of the vehicle, remove the front splash panel section using a 10, and 8mm socket wrench and a Phillips screwdriver to remove the sixteen fasteners.



## MX-5 INTERCOOLER PUMP WIRING

Notes:

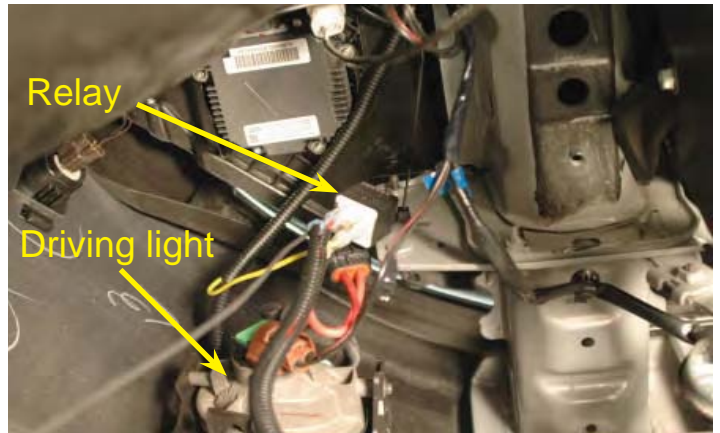
1. Fuse Center use Positive Lug for RED Positive Wire's.
2. Yellow Wire to fuse tap installed in Fuse Center.



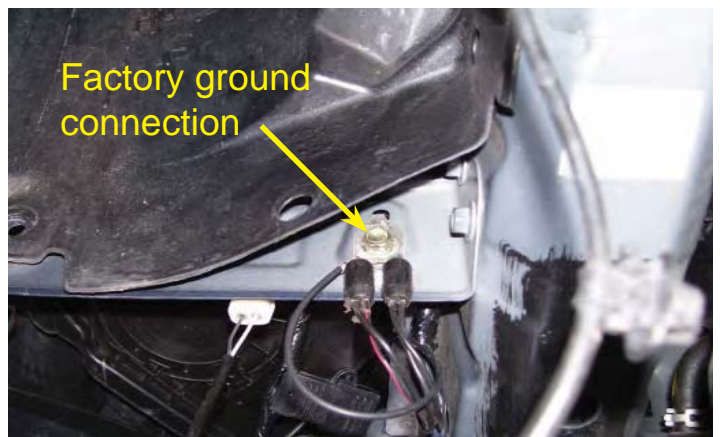
197. Here is the Intercooler pump relay and wiring harness.



198. From under the vehicle, mount the Intercooler pump relay on the frame flange just behind the drivers side driving light with a Zip-tie through the existing hole as shown.



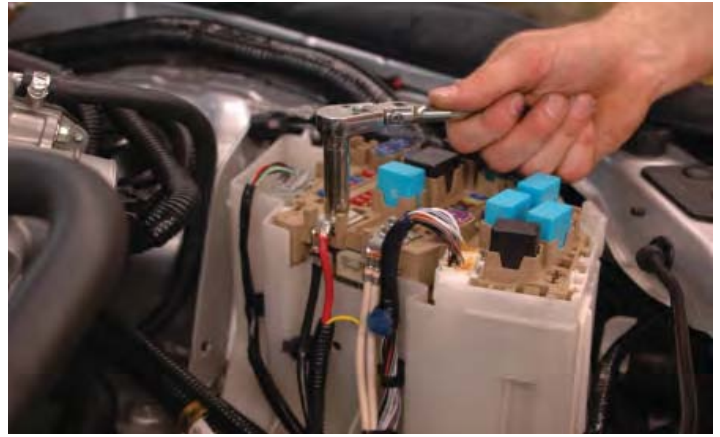
199. Follow the frame back towards the fire-wall to the front of the wheel well panel. Locate the factory ground connection there. Remove the ground connection bolt with a 10mm socket wrench. Pass the bolt through the eye connector on the end of the black wire from the intercooler pump relay harness and back into it original location. Ensure that all original factory ground connection at this bolt are secure. Tighten the bolt securely.



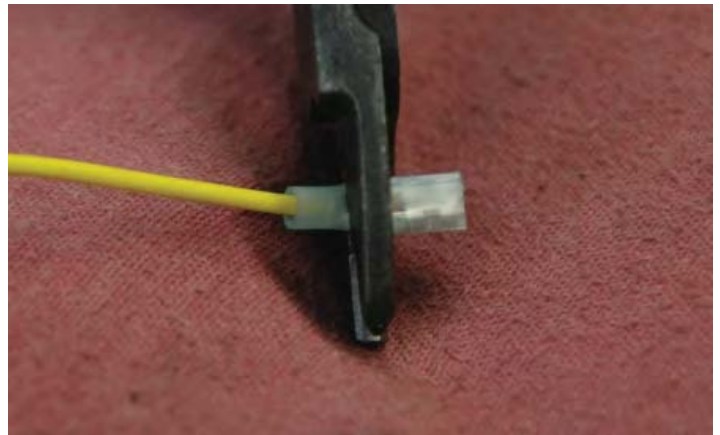
200. Remove the cover of the Fuse/Relay center.



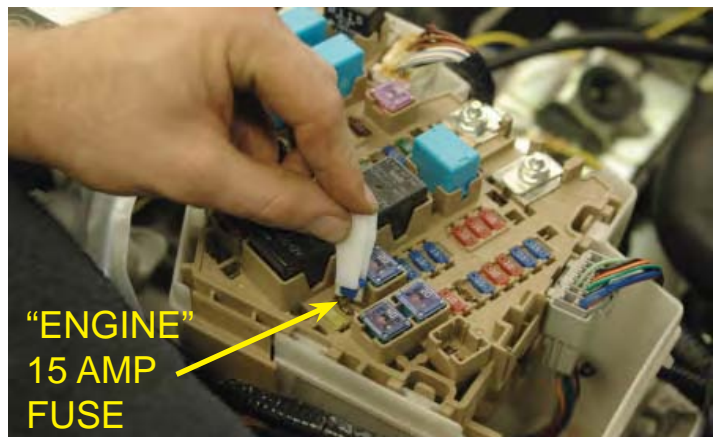
201. Route the Red and Yellow wires forward to the Fuse/Relay center and up to the **B+** terminal. Remove the nut on the **B+** terminal in with a 10mm socket wrench. Place the eye of the Red wire from the relay harness on the terminal and re-tighten the nut securely.



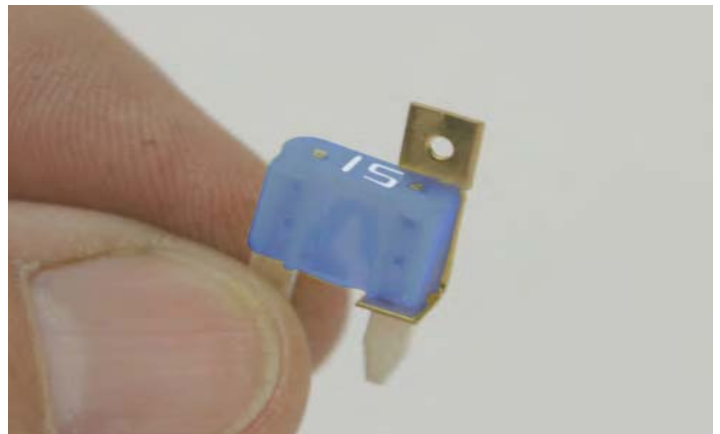
202. Locate the yellow wire, strip and crimp on the spade connector supplied.



203. Consult the legend inside the Fuse/ Relay cover and remove the blue 15 amp "ENGINE" fuse.

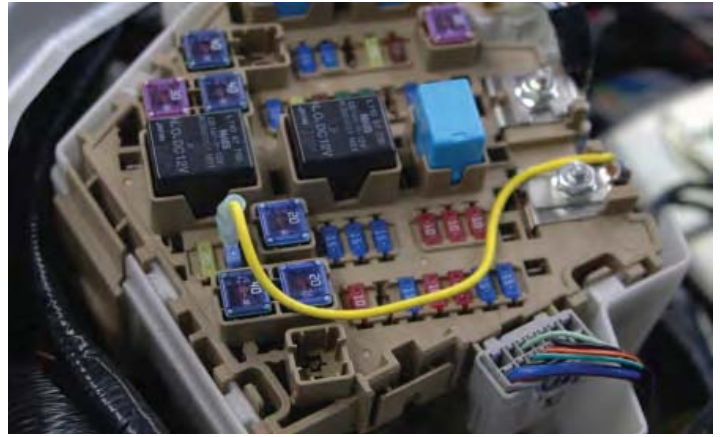


204. Install the Fuse-tap supplied onto the fuse as shown and replace the fuse into its original location.





205. Connect the yellow wire from the relay to the fuse tap



206. Replace the Fuse/Relay center cover and place the Cosworth Diagrams sticker supplied on it as shown.



207. Here are the Intercooler Reservoir and its mounting hardware.



208. Using a Phillips screwdriver, remove the plastic fastener shown from the inside of the front passenger wheel well.



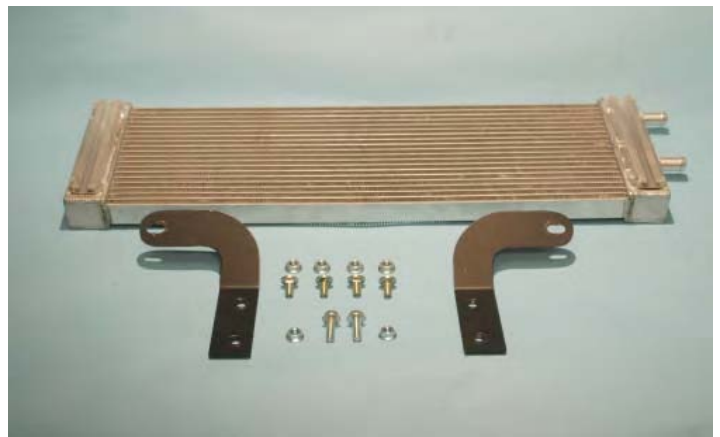
209. Through the hole the plastic fastener formerly occupied, pass the 6 x12mm bolt supplied. On to the threaded end place the reservoir bracket as shown. Secure the bolt with the nut supplied. Tighten the fasteners with a 10mm wrench.



210. Attach the reservoir to the bracket with the three 6 x 12mm bolts supplied. Tighten the bolts securely with a 10mm socket wrench.



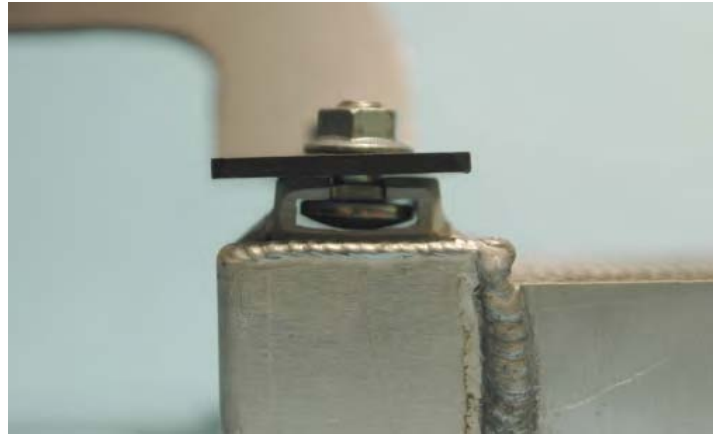
211. Here is the intercooler heat exchanger and mounting hardware.



212. Install two of the round-headed carriage bolts supplied into both channels on the sides of the heat exchanger. The square portion of the bolt shaft must be aligned with the side of the channel.



213. Align the bolts with the holes in the bracket. Torque the mounting nuts to 18 ft-lbs.



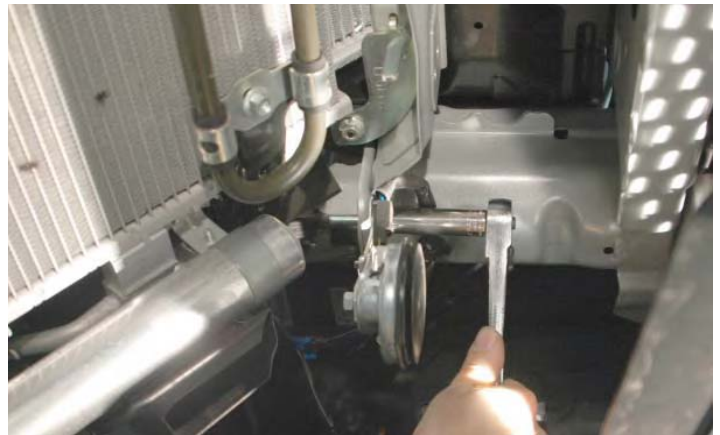
214. Here is the completed Heat exchanger assembly with the brackets mounted. Note that the coolant barbs are on the **RIGHT** side as shown.



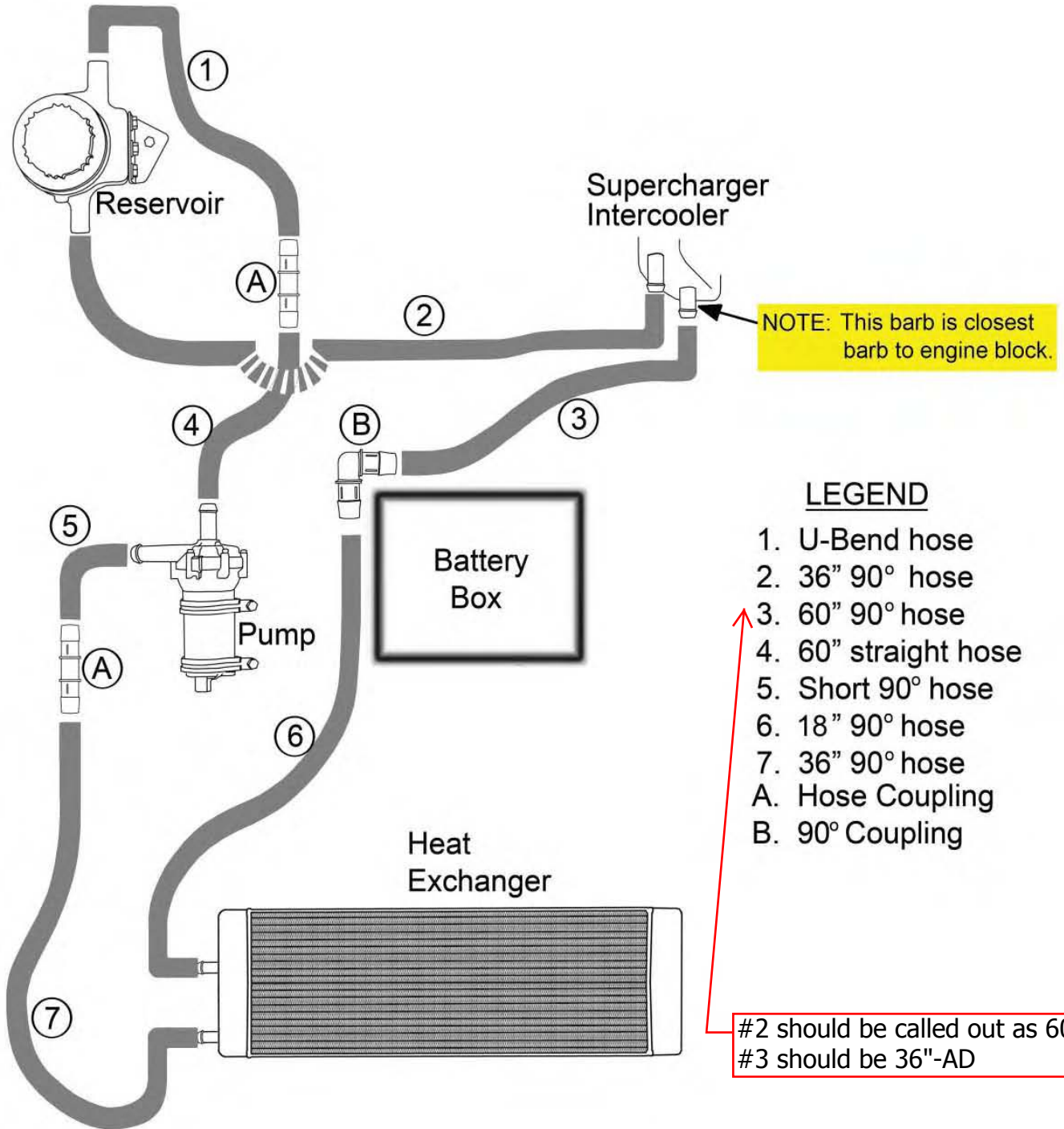
215. Underneath the front of the vehicle, on the right chassis extension, locate and remove the factory bolt shown. Replace it with the longer 8mm x 30mm bolt provided. This new bolt will be used to mount the Heat exchanger.



216. Replace the same bolt on the left side as well.



# SUPERCHARGER PLUMBING ROUTING DIAGRAM (NOT TO SCALE)

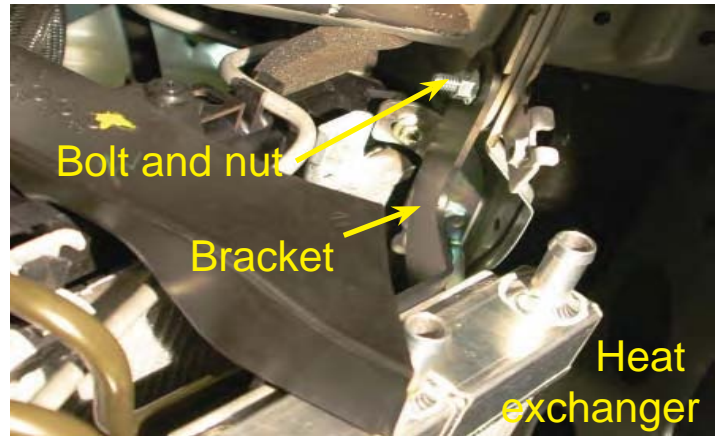


### LEGEND

- 1. U-Bend hose
- 2. 36" 90° hose
- 3. 60" 90° hose
- 4. 60" straight hose
- 5. Short 90° hose
- 6. 18" 90° hose
- 7. 36" 90° hose
- A. Hose Coupling
- B. 90° Coupling

#2 should be called out as 60"  
#3 should be 36"-AD

217. Lift the Heat exchanger assembly into place in front of the vehicles radiator and P.S. cooler coils. Slide the holes in the mounting brackets over the ends of the newly installed bolts. Secure the Heat exchanger in place with the 8mm nuts supplied.



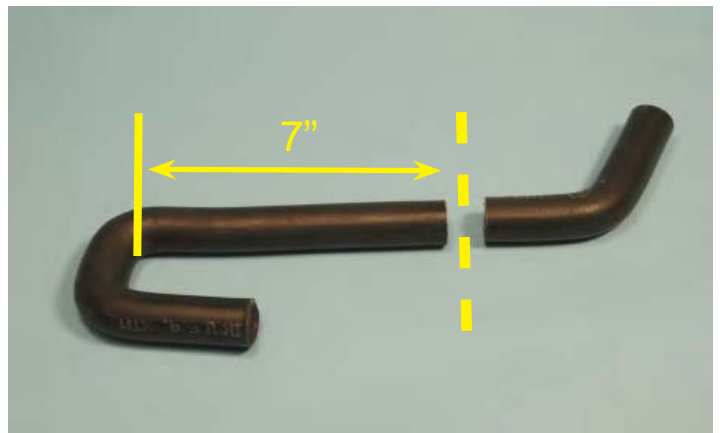
218. Here is the Intercooler pump, Adel mounting clamps, fasteners, relay and wiring harness.



219. Install the (2) Adel mounting clamps around the pump body as shown.



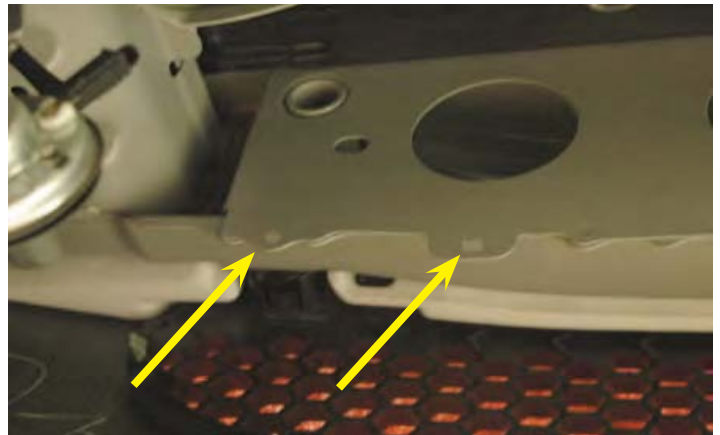
220. Locate one of the "J" hose and cut it as shown, forming a smaller "J" section and a 45 degree bend.



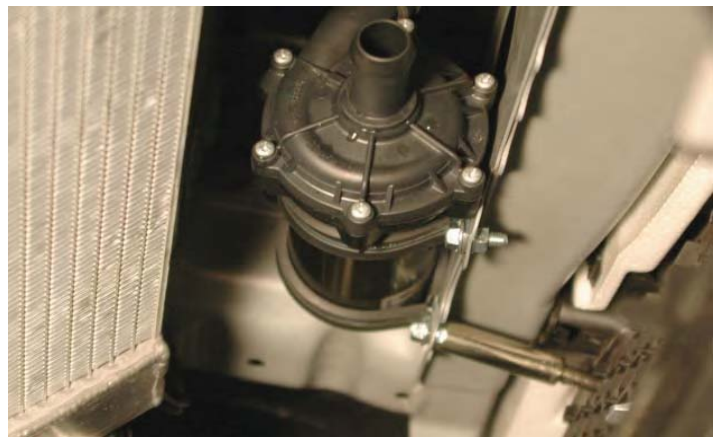
221. Install the 45 degree bend section from the cut "J" hose onto the outlet of the intercooler pump. Into the end of the bend hose install a 3/4" straight hose coupler. Secure the hose and coupler with the clamps provided.



222. From underneath the vehicle, locate the front crossmember flange. Along the bottom edge on the drivers side, there will appear two holes, one round and one square.



223. Mount the intercooler pump onto the back surface of the front crossmember as shown using the 6 x 20mm bolts and nuts supplied. Pass the bolts through the Adel clamps then the holes in the bottom edge of the flange. Secure the bolts with the nuts supplied.



224. Tighten the nuts that secure the pumps mounting Adel clamps by using a 10mm socket wrench with a long extension. Pass the socket and extension through the front grille to reach the nuts, tighten them securely.



225. Locate one of the long 60" 90 degree bend or "L" hoses and cut 2" off the short leg of the hose as shown.

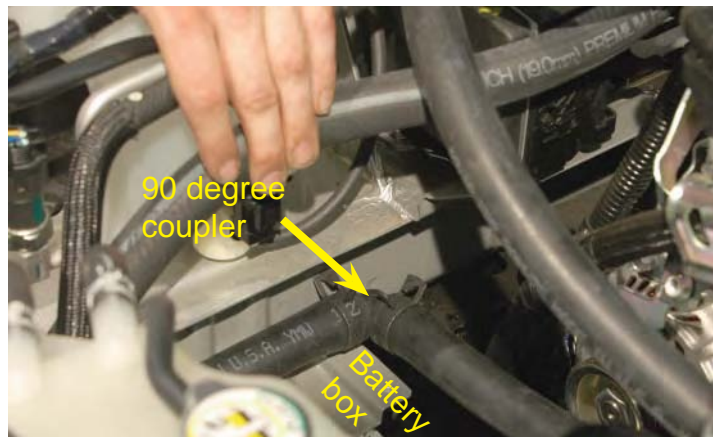
should be 36"-AD



226. Connect the short leg of the hose to the intercooler barb that is closest to the engine block.



227. Route the hose forward and behind the battery box to the frame rail on the passenger side (trim hose as necessary) Install the 90 degree coupler supplied and secure the hose with the clamps provided.



228. Locate the 18" L hose supplied and trim it like the other in step 121. Connect the long leg to the 90 degree coupler near the frame rail and the short leg to the upper barb on the heat exchanger. Secure the hose with the clamps provided

Not sure what this should be, but I had 18" as wrong.-AD



229. Locate the 36" "L" hose and cut the short leg as before and connect it to the remaining intercooler barb.

Should be 60" hose-AD



230. Route the hose along the top of the other one behind the battery box. Use Zip-ties provided to secure the hoses in place.

typo



231. connect the remaining leg of the "L" hose to the front barb on the intercooler reservoir. Secure the hose with the clamps provided.



232. Connect the shortened "J" hose from step 116 to the remaining barb on the intercooler reservoir with the clamp provided.

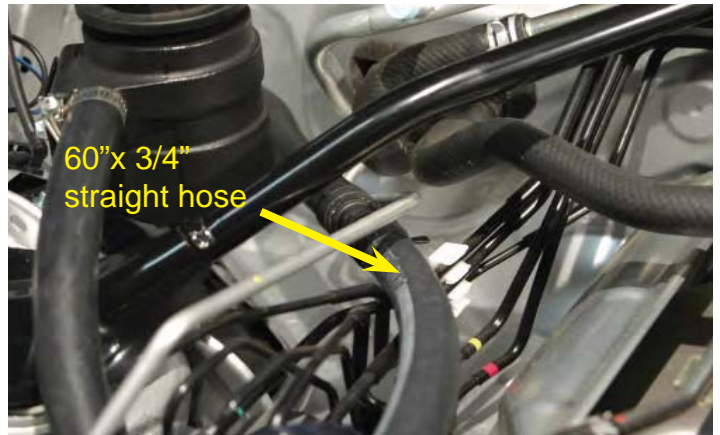




233. Install a 3/4" sraight coupler into the end of the "J" hose.



234. From the length of 3/4" straight hose supplied cut a 60" piece and connect it to the coupler in the end of the "J" hose. Secure the coupler with the clamps provided.



235. Route the 60" x 3/4" hose forward and down to the inlet barb on the intercooler pump. Secure the hose with the clamp and Zip-ties provided.



236. Locate a 36" "L" hose and cut it as before. Connect the long end to the coupler in the end of the pump outlet 45 degree hose.



237. Connect the remaining leg of the “L” hose to the bottom barb of the heat exchanger



238. Connect the intercooler pump harness connector to the pump.



239. From under the nose of the vehicle, replace the front splash panel section using a 10, and 8mm socket wrench and a Phillips screwdriver to replace the sixteen fasteners.



240. Use a Phillips screwdriver to remove the two screws that retain the MAF sensor in the original air box cover.



241. Remove the MAF sensor from the airbox cover. fasteners.



242. Apply some of the lubricant to the O-ring on the base of the MAF sensor.,



243. Install the MAF sensor into the new COSWORTH airbox cover Use the new fasteners supplied.



244. Install the airbox cover onto the original airbox.



245. Snap the airbox cover latches into place to secure the cover.



246 Re-Install the airbox into the original location.



247. Re-Install the MAF connector onto MAF sensor.



248. Re-Install the air intake air tube and tighten the clamps that secures the intake air tube to the air box.



249. Connect the PCV hose onto the cam cover.



250. Connect the PCV hose onto the air tube.



251. Re-Install the battery, battery box assembly and retaining bracket.



252. Re-connect the positive battery cable first and then the negative cable to the battery.



253. Replace the cover on to the battery and re-clip the coolant line onto the side of it.



254. Trim the engine cover as shown with a small saw or shop knife.



255. Re-place modified engine cover onto the engine.

I had trouble, as have many, in purging the air from the system to prime the pump. The easy fix is to hold the reservoir high as you fill it and power the cooler pump with the reservoir held high. the pump will prime very quickly this way.-AD



256. Fill the inter cooler system with a 50-50 mixture of purified (de-ionized) water and coolant. The system should hold approximately 1.5 gallons (6.0L)

I only put .75 gal in my system and have been checking flow and fill level regularly. Not sure if this 1.5 gal # is wrong-AD



257 Re-fill the radiator with the coolant removed earlier. Top-up the level as necessary due to coolant loss during installation.



258. With the help of a assistant replace the hood.



259. Replace the original fasteners and tighten them securely.



260. Start the vehicle for 5 seconds and shut off, once again check for fuel leaks and accessory/supercharger belt alignment. Check radiator and intercooler reservoir.



261. Test drive vehicle for the first few miles under normal driving conditions, listen for any noises, vibrations, engine missfire or anything that does not seem normal. The supercharger does have a slight whining noise under boost conditions, which is normal. Check & bleed intercooler reservoir as needed.

262. After the initial test drive gradually work the vehicle to wide open throttle runs, listen for any engine detonation (Pinging). If engine detonation is present let up on the throttle immediately. Most detonation causes are low octane gasoline still in the tank. If you have questions about your vehicles performance, please check with your installation facility or call Cosworth at (310) 534-1390 phone Monday through Friday, 8am to 5pm.

**COSWORTH**



**COSWORTH MX-5 SUPERCHARGER SYSTEM PARTS LIST**

10-62-44-007-SL		S/C MP62 COSWORTH MX-5, SILVER
31-62-44-013-SL		INLET & BARBS, COSWORTH MX-5,
Qty	Part Number	Item Description
31-62-44-015		SUBASSEMBLY, INLET HARDWARE, COSWORTH MX-5 INCLUDES:
Qty	Part Number	Item Description
1	65-62-44-011	BRACKET, INLET SUPPORT, COSWORTH
2	72-00-08-012	BOLT-SKT BUTTON HD 8mm x 1.25 x
1	85-05-10-050	LOCTITE 510 - 8 ML (EAT #85722)
1	71-08-12-070	BOLT-HEX FLANGE 8mm x 1.25 x 70mm
1	71-08-12-090	BOLT-HEX FLANGE 8mm x 1.25 x 90mm
1	82-55-00-005	BYPASS HOSE, 4.0MM ID, SILICONE, 7MM OD X 6"
31-62-44-017		SUBASSEMBLY, FUEL MANIFOLD, COSWORTH MX-5 INCLUDES:
Qty	Part Number	Item Description
1	35-15-01-315	FUEL MANIFOLD
1	48-46-10-022	CLAMP, ADEL #16 W/ 8mm BOLT HOLES
31-62-44-019		SUBASSEMBLY, FUEL RAIL, COSWORTH MX-5 INCLUDES:
Qty	Part Number	Item Description
1	35-15-01-320	FUEL RAIL
2	69-62-44-003	SPACER, FUEL RAIL
2	71-00-08-055	BOLT-HEX FLANGE 8mm x 1.25 x 55mm
4	84-12-41-003	INJECTOR, FORD M-9593-M39, 39
31-62-44-021		SUBASSEMBLY, IDLER BRACKET, COSWORTH MX-5 INCLUDES:
Qty	Part Number	Item Description
1	65-62-44-015	BRACKET, IDLER, COSWORTH MX-5 (DWG
1	69-62-44-006	SPACER, IDLER BRACKET, M6,
1	69-62-44-010	SPACER, IDLER BRACKET, M10,
3	56-50-47-000	IDLER, 60MM 6R FLAT
3	71-10-15-040	BOLT-HEX FLANGE 10mm x 1.5 x 40mm
3	69-90-57-003	SPACER, IDLER PULLEY, C6 (DWG REV
3	77-10-10-010	NUT 10MM HEX FLANGE, 1.5MM PITCH,
1	69-62-44-008	SPACER, IDLER BRACKET, M8,
1	71-08-12-080	BOLT-HEX FLANGE 8mm x 1.25 x 80mm ZINC (MTP # 1189108080)
1	71-06-10-045	BOLT-HEX FLANGE 6mm X 1.00mm X
1	71-10-15-075	BOLT-HEX FLANGE 10mm x 1.5 x 75mm
1	71-10-15-090	BOLT-HEX FLANGE 10mm x 1.5 x 90mm
31-62-44-023		SUBASSEMBLY, HEAT EXCHANGER, COSWORTH MX-5 INCLUDES:
Qty	Part Number	Item Description
1	68-01-00-082	HEAT EXCHANGER
1	90-01-02-013	BOX, HEAT EXCHANGER
1	68-01-03-019	RESERVOIR, COOLANT, WITHOUT BLEED
3	71-06-10-012	BOLT-HEX FLANGE 6mm x 1.0 x 12mm
1	68-01-03-002	RESERVOIR CAP, GEN3 TRUCK, I/C
1	68-14-59-002	INTERCOOLER PUMP, BOSCH
1	65-62-44-013	BRACKET, RESERVOIR, COSWORTH MX-5
3	71-06-10-016	BOLT-HEX FLANGE 6mm X 1.0mm X 16mm
3	77-73-06-100	NUT, FLG 6MM X 1.00, ZINC (MTP
4	72-08-12-016	BOLT, ROUND HEAD, SQUARE NECK
6	77-10-08-010	NUT 8MM HEX FLANGE, SERRATED, ZINC
2	71-00-08-031	BOLT-HEX FLNG 8mm x 1.25 x 30mm
2	48-46-10-036	CLAMP, ADEL #36 (DCW #2036)
1	65-62-44-017	BRACKET, HEAT EXCHANGER, DRIVER
1	65-62-44-019	BRACKET, HEAT EXCHANGER, PASSENGER
1	82-55-80-059	WIRE/CONN ASSY, IC PUMP,
1	82-55-50-215	FUSE, 15AMP, MINI-FUSE TYPE (DCW
1	82-55-50-115	FUSE, 15AMP, ATC TYPE (DCW #78155)
1	82-55-50-006	FUSE TAP-IN, .187", FOR MINIFUSE
1	82-55-60-113	16-14 GA.PUSH ON TERM FEMALE .187
24"	82-01-04-001	WIRE LOOM, 1/4" BLACK HIGH TEMP

**COSWORTH MX-5 SUPERCHARGER SYSTEM PARTS LIST**

<b>10-62-44-007-SL</b>		<b>S/C MP62 COSWORTH MX-5, SILVER</b>
10	48-46-12-106	CLAMP, WIDE-BAND SPRING, 1.063
4	48-46-10-003	CLAMP, HOSE, #10 (GRC 32010)
2	48-46-00-004	FITTING, HOSE MENDER, 3/4",
1	48-46-00-035	FITTING, 3/4 X 3/4 90° ELBOW,
60"	82-55-00-007	HOSE 3/4" COOLANT (GRC #28418)
1	82-55-00-030	HOSE, 3/4" 90DEG, COOLANT, 4" X
2	82-55-00-029	HOSE, 3/4" 90DEG, COOLANT, 4" X
1	82-55-00-028	HOSE, 3/4" 90DEG, COOLANT, 4" X
1	82-55-00-031	HOSE, 3/4" MOLDED, COOLANT (GRC
48"	82-55-20-004	WIRE LOOM- 1" BLACK FLEX (DCW
<b>31-62-44-025</b>		<b>SUBASSEMBLY, HOSES &amp; FITTINGS, COSWORTH INCLUDES:</b>
Qty	Part Number	Item Description
30"	82-05-08-025	HOSE, 5/8" FUEL/PCV/EEC (GRC
1	72-93-14-027	BOLT, BANJO, M14 X 1.5 X 27.7, COSWORTH MX-5
2	75-00-14-020	WASHER, 14mm ID x 20mm OD CRUSH, COSWORTH MX-5 (MAZDA 9956-21-400)
1	65-62-44-021	BRACKET, POWER STEERING, COSWORTH
1	72-08-10-025	BOLT, SKT HD, CSUNK/FLTHD, 8mm x
2	71-08-12-026	BOLT-HEX FLANGE 8mm x 1.25 x 25mm
1	77-10-08-010	NUT 8MM HEX FLANGE, SERRATED, ZINC
1	35-62-44-021	EGR TUBE, COSWORTH MX-5
1	65-62-44-023	BLOCK, TREE BRANCH PIPE, COSWORTH MX-5
3	71-06-10-012	BOLT-HEX FLANGE 6mm x 1.0 x 12mm ZINC (MTP #1189106012)
1	91-91-60-040	LABEL, VACUUM AND BELT DIAGRAM, COSWORTH MX-5 (DWG REV A)
<b>31-62-44-027</b>		<b>SUBASSEMBLY, THERMOSTAT MANIFOLD, COSWORTH INCLUDES:</b>
Qty	Part Number	Item Description
1	35-62-44-015-SL	THERMOSTAT HOUSING, COSWORTH
1	48-80-00-170	WH1 TUBE, 17.0MM DIA (DWG REV B)
1	72-10-06-030	SET SCREW 6mm X 30mm STAINLESS
1	71-06-10-020	BOLT-HEX FLANGE 6mm X 1.00mm X 20
1	72-06-10-020	BOLT, SKT HD, CSUNK/FLTHD, 6mm x
1	77-73-06-100	NUT, FLG 6MM X 1.00, ZINC (MTP
2	82-04-14-100	HOSE MENDER, 1/4" (GRC #28601)
8	48-46-10-019	CLAMP, HOSE, #4 (GRC 32001)
1	82-55-00-031	HOSE, 3/4" MOLDED, COOLANT (GRC 19623) see notes
1	48-46-00-004	FITTING, HOSE MENDER, 3/4", PLASTIC (GRC #28605) see notes
3	48-46-12-106	CLAMP, WIDE-BAND SPRING, 1.063 HOSE OD, BLACK (MCA 7329K16 OR KIT RCLCTB-27STFKB10)
38"	82-55-00-020	HOSE, 1/4 COOLANT - (GRC #28407)
16"	82-55-00-009	HOSE 5/8" RUBBER HEATER (GRC #28417)
1	48-46-11-094	CLAMP, SPRING, .938 HOSE OD,
1	69-62-44-021	THERMOSTAT, STANT 29048, COSWORTH
<b>31-62-44-029</b>		<b>SUBASSEMBLY, AIR BOX, COSWORTH MX-5 INCLUDES:</b>
Qty	Part Number	Item Description
1	35-62-44-025-MA	AIR BOX LID, COSWORTH
2	72-10-04-013	MAF SCREW 4mm X 5/8"
<b>31-62-44-031</b>		<b>SUBASSEMBLY, ELECTRICAL, COSWORTH MX-5 INCLUDES:</b>
Qty	Part Number	Item Description
12	82-55-10-104	WIRE, T-BODY 20 GAUGE BLUE (DCW
12	82-55-20-027	WIRE, 20GA, BLUE w/YELLOW STRIPE
12	82-55-20-026	WIRE, 20GA, YELLOW w/GREEN STRIPE
8	82-55-20-033	WIRE, 20GA, BLACK w/GREEN STRIPE
8	82-55-20-035	WIRE, 20GA, BLACK w/YELLOW STRIPE
8	82-55-20-015	WIRE, 20GA, BLACK w/WHITE STRIPE
8	82-55-20-039	WIRE, 20GA, BLACK w/RED STRIPE
8	82-55-20-014	WIRE, 20GA, BROWN w/BLACK STRIPE
14	82-55-20-037	WIRE, 20GA, BLACK w/BLUE STRIPE
6	82-55-20-022	WIRE, 20GA, RED w/GREEN STRIPE
6	82-55-20-018	WIRE, 20GA, GREY w/RED STRIPE
24	82-55-10-105	WIRE, 20 GAUGE WHITE (DCW

<b>COSWORTH MX-5 SUPERCHARGER SYSTEM PARTS LIST</b>
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<b>10-62-44-007-SL</b>		<b>S/C MP62 COSWORTH MX-5, SILVER</b>
1	82-55-53-005	IAT WIRE ASSY (GMC #12102620)
28	82-55-40-041	CONNECTOR, BUTT 18-20 GAUGE, PINK
36	82-01-04-001	WIRE LOOM, 1/4" BLACK HIGH TEMP
36	82-55-20-002	WIRE LOOM-3/8" BLK CON. (DCW
1	79-06-10-040	BELT, 6 RIB (GRC#K061040) COSWORTH MX-5