



Intercooler Upgrade Kit

'04-'06 Ford 6.0L – P/N 70057

'99-'03 Ford 7.3L – P/N 70058





READ THIS FIRST: Study these instructions completely before proceeding. Engine and / or turbocharger damage may occur if any component within these instructions is improperly installed. Turbonetics, Inc or any of its distributors cannot be held responsible for damages as a result of negligent or improper installation. This complete turbocharger system can be installed using common tools and automotive procedures, but installer must have a thorough knowledge of automotive engine operation and feel comfortable working on the vehicle. If in doubt, contact Turbonetics' technical support staff at 805-581-0333, between the hours of 8:00AM and 5:00PM PST, Monday through Friday.

Remove the heat exchanger from its carton and inspect for any obvious physical damage. All kit components are thoroughly inspected and carefully packaged prior to shipment from the factory. If any shipping damage is evident, contact your supplier and request that they process a claim with the shipper involved. Be sure to review the parts list on page 2 to verify that you have all necessary system components to proceed. If any components in the parts list are missing, contact Turbonetics' customer service staff.

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. Turbonetics reserves the right to revise the information presented herein or to discontinue the production of parts described at any time.

SAFETY REQUIREMENTS: It is recommended to follow these precautions.

- Always wear safety glasses & gloves.
- Turn the ignition switch to the OFF position & disconnect the batteries.
- Always use properly rated jack stands when working under the vehicle.
- Prevent unexpected vehicle movement by using wheel chocks and/or parking brake.
- Operate the vehicle only in well ventilated areas.
- Do not smoke or use flammable items near or around the vehicle's fuel system.
- Keep hands, clothing and other objects away from moving parts when engine is running.

SUPPLIES: It is recommended to have the following items before beginning installation.

- Ford factory service manual, for your model year
- A large table or bench, and plenty of adjacent available workspace
- Standard selection of automotive tools, primarily metric sizes
- Medium strength threadlocker (Loctite or equiv.)
- Std silicone sealer/adhesive

TOOLS REQUIRED:

- 8, 11& 12mm Deep socket
- Socket Extension
- Ratchet
- 10mm, 12mm Wrench
- Pry bar
- Pliers

EST. INSTALL TIME: 2 Hr.



PARTS LIST – P/N 70058 – Ford 7.3L

Part Number	Description	Quantity
70065	Intercooler Assembly	1
11568	Hardware Kit	1
22172	Silicone Hump Trans Hose, 3.00"-3.25"	1
22173	Silicone Hump Hose, 3.00"	1
30315	License Frame – Turbonetics	1
31317-300	Hose Clamp, T-Bolt Spring 3.00	3
31317-325	Hose Clamp, T-Bolt Spring 3.25	1
31364	Box Insert, 25.0 x 3.5" cardboard	2
60205	Instruction Packet	1

PARTS LIST – P/N 70057 – Ford 6.0L

Part Number	Description	Quantity
70056	Intercooler Assembly	1
21472	Tube Ass'y, I/C to engine	1
21525	Silicone Hump Hose, 3.0" (w/ internal bead)	1
22174	Silicone Hump Hose, 3.0"	1
30315	License Frame – Turbonetics	1
31317-300	Hose Clamp, T-Bolt Spring 3.00	4
60205	Instruction Packet	1

HARDWARE KIT – P/N 11568 (only included with 70058 - Ford 7.3L)

Part Number	Description	Quantity
22084	Rubber Spacer, 3/8" ID x 1.0" OD	4
22085	Spacer Block, Hood Latch	2
22086	"L" Bracket, IC Support	2
30576-40	Bolt, M8-1.25 x 40mm, Hex Head	2
30591	Washer, Flat, M6	2
30593	Washer, Lock, M8	2
30596	Washer, Split Lock, M6	2
30807	Washer, Flat, M8 x 30mm OD	2
31067	Mount, Vibration Damping, M6	2
31312	Hex Nut, M6-1.0 Wizlock	2
31313	Hex Head Bolt, M6-1.0 x 30mm	2
31314	Hex Head Bolt, M6-1.0 x 20mm, Wizlock	2

INSTRUCTION PACKET – P/N 60205 (included with both Ford 7.3L and 6.0L)

Part Number	Description	Quantity
21415	Badge, Polydome	2
22035	Spacer Block, Rubber	2
60204	Install Instructions, Ford 7.3L/6.0L I/C Kit	1



INSTALLATION

- 1.) Disconnect negative terminals from both batteries by loosening the 8mm bolts on the battery terminals.
SEE FIGURES 1 & 2

FIGURE 1

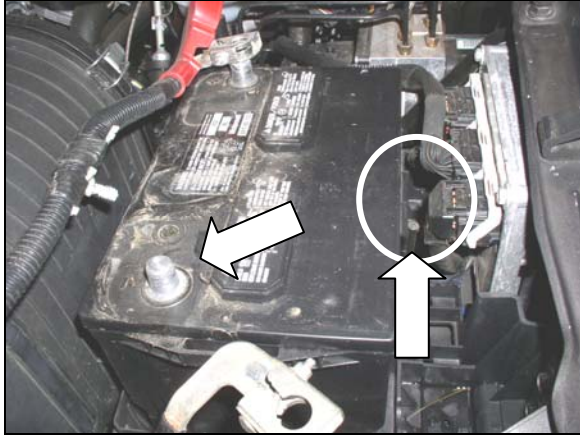


FIGURE 2

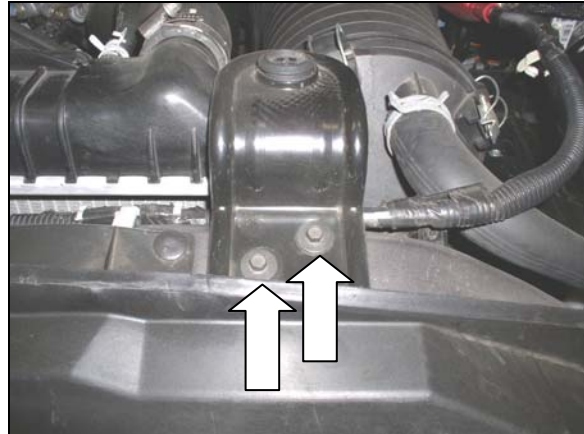


- 2.) For 6.0L, remove both battery terminals on the driver's side battery and remove the battery cover by pulling upwards and remove the battery out of the vehicle by unbolting the 8mm bolt. SEE FIGURE 1.
- 3.) For 6.0L, Remove upper radiator mounts by unbolting the two 8mm bolts on each mount. SEE FIGURES 3 & 4.

FIGURE 3



FIGURE 4





- 4.) For 7.3L, Remove the wing nut that secures the emergency jack and tools in the engine bay. SEE FIGURE 5.

FIGURE 5



- 5.) For 7.3L, Remove the five 8mm bolts that secure the upper radiator mount to the core support. SEE FIGURES 6 to 8.

FIGURE 6

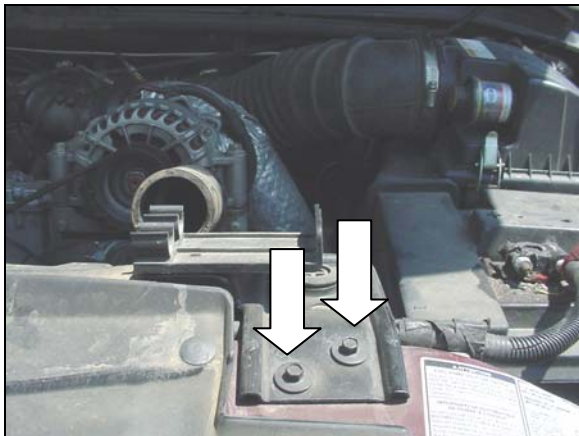


FIGURE 7

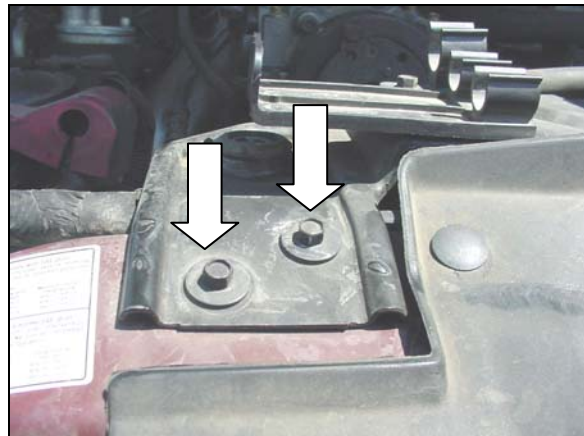
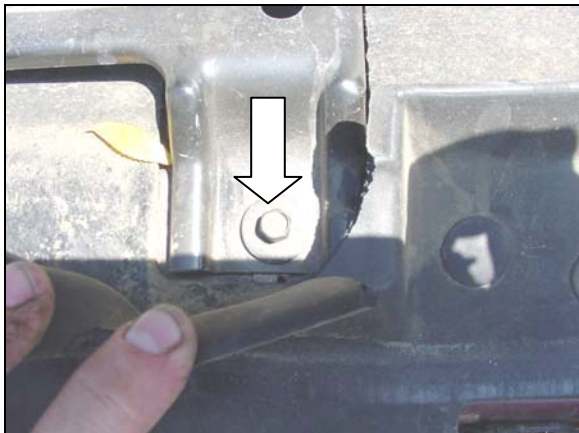


FIGURE 8





6.) For 7.3L, Remove three 8mm bolts securing radiator overflow tank to the truck. SEE FIGURES 9 & 10.
NOTE: Do not remove the coolant tank completely out of the vehicle.

FIGURE 9

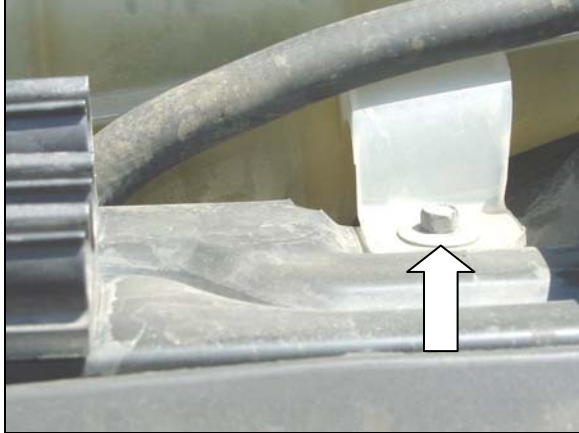
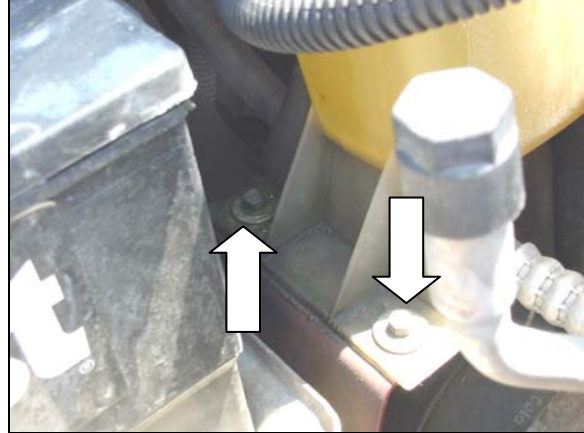


FIGURE 10



7.) For 7.3L and 6.0L, remove the four plastic snap in fasteners that secures the plastic trim to the core support. SEE FIGURES 11, 12, 13 & 14 (6.0L).

FIGURE 11



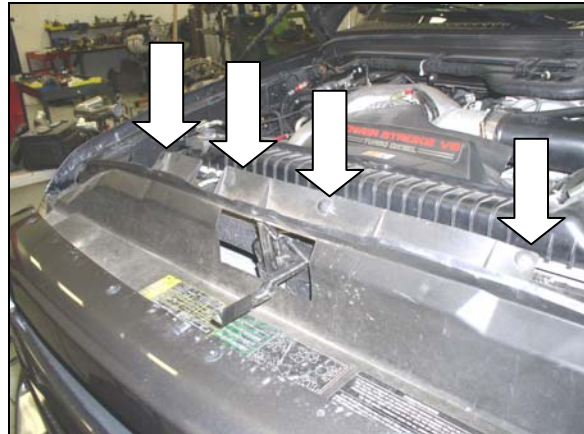
FIGURE 12



FIGURE 13



FIGURE 14





- 8.) For 7.3L and 6.0L, use a marker and mark the location of the hood latch in relative to the core support, this will help latch alignment during re-assembly. SEE FIGURES 15 & 16.

FIGURE 15

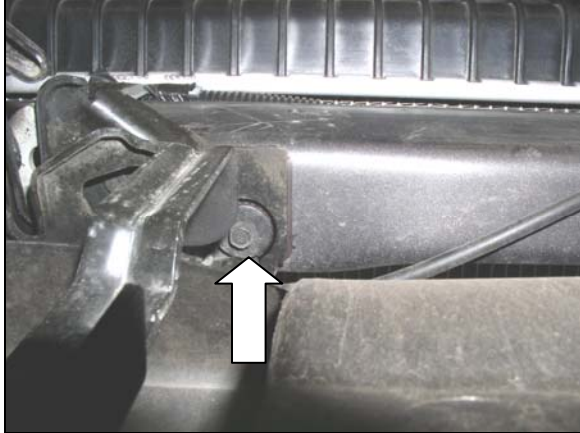


FIGURE 16

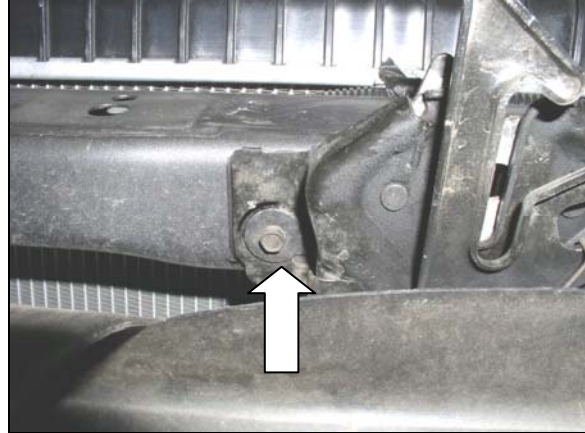


FIGURE 17



- 9.) For 7.3L and 6.0L, carefully unclip the plastic fastener that secures the hood latch cable to the core support. SEE FIGURE 18.

FIGURE 18





10.) For 7.3L and 6.0L, unbolt the two 8mm bolts for the upper A/C condenser brackets. SEE FIGURES 19, 20 (6.0L) and 21, 22 (7.3L).

FIGURE 19



FIGURE 20



FIGURE 21

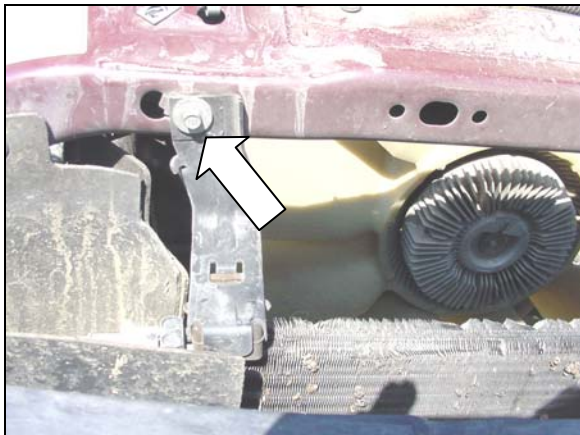


FIGURE 22



11.) For 6.0L, remove the air filter and then the plastic intake tube that goes from the front of the truck to the filter. SEE FIGURE 23.

FIGURE 23





12.) For the 7.3L, remove the plastic intake tube that goes from the intake box to the front of the truck by lifting the cover and depressing the tab from inside the box on each side of the tube. SEE FIGURES 24-27.

FIGURE 24

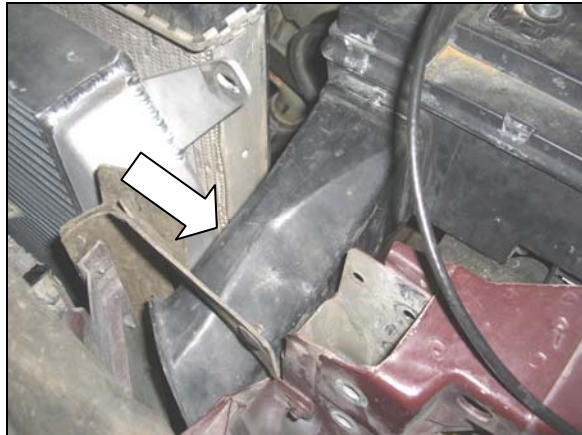


FIGURE 25



FIGURE 26



FIGURE 27



13.) For 7.3L and 6.0L, remove two 10mm bolt that secures the factory intercooler to the core support. SEE FIGURES 28, 29 (6.0L) and 30, 31 (7.3L).

FIGURE 28

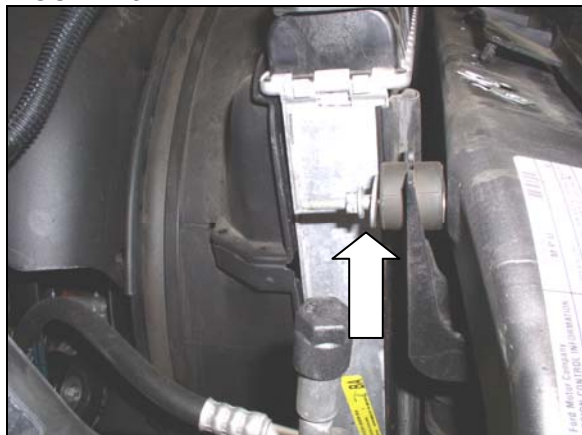


FIGURE 29

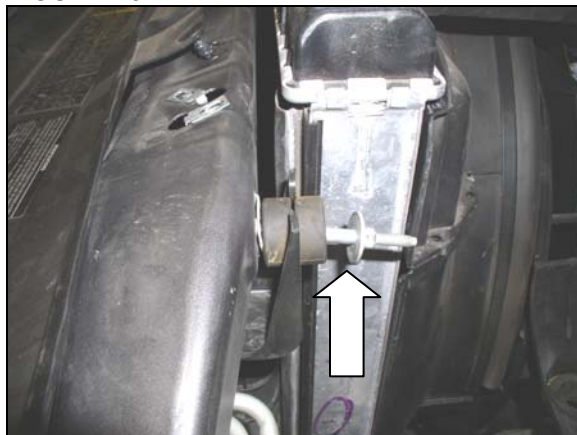




FIGURE 30

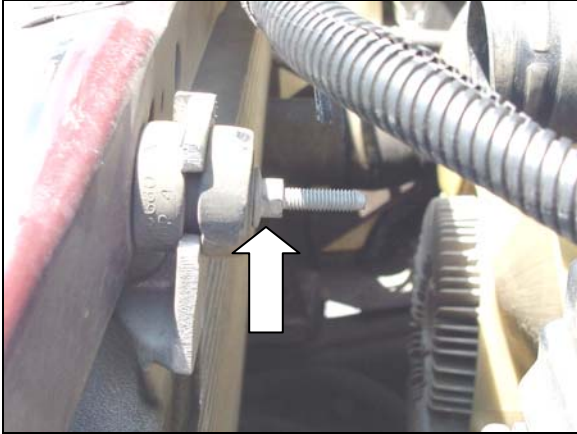
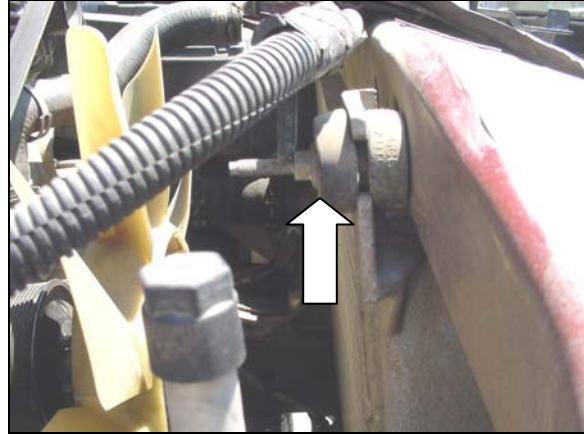


FIGURE 31



14.) For 7.3L and 6.0L, using a 12mm open wrench or socket, remove the eight bolts that secure the core support to the chassis. SEE FIGURES 32-35.

FIGURE 32



FIGURE 33

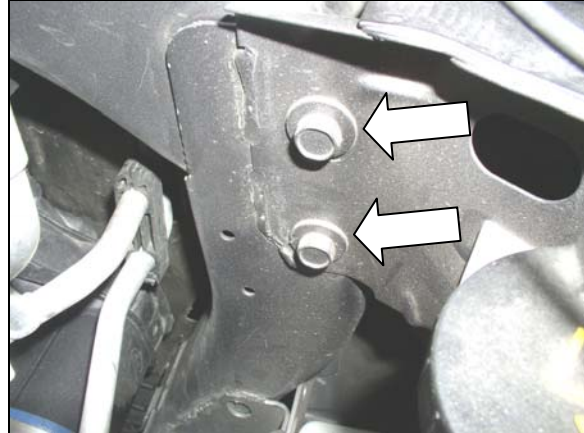


FIGURE 34

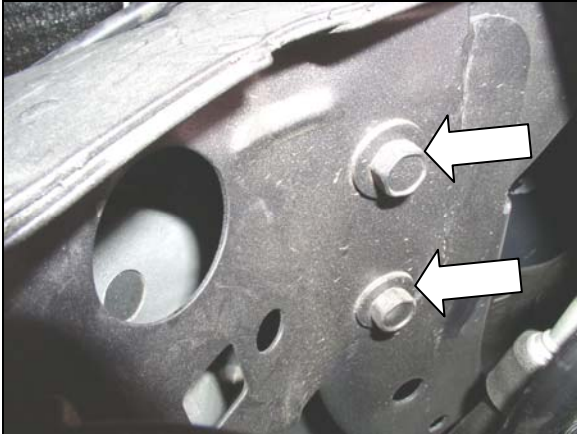
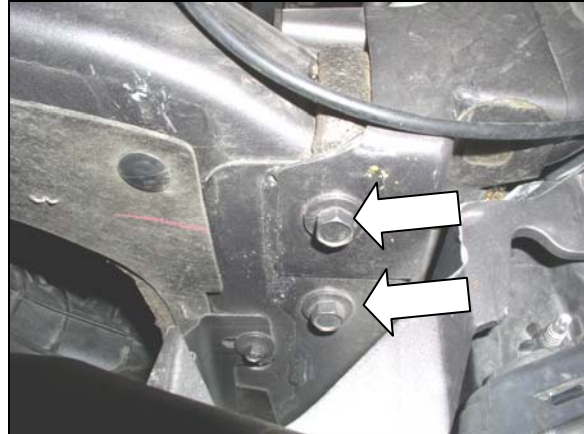


FIGURE 35





15.) Ford 7.3L and 6.0L, carefully pry the top core support out with a pry bar without scratching it. SEE FIGURES 36 & 37.

FIGURE 36



FIGURE 37



16.) For 6.0L, remove the driver's side boost tube (some years may come with a plastic boost tube while others may come with a steel tube). SEE FIGURES 38 & 39.

FIGURE 38

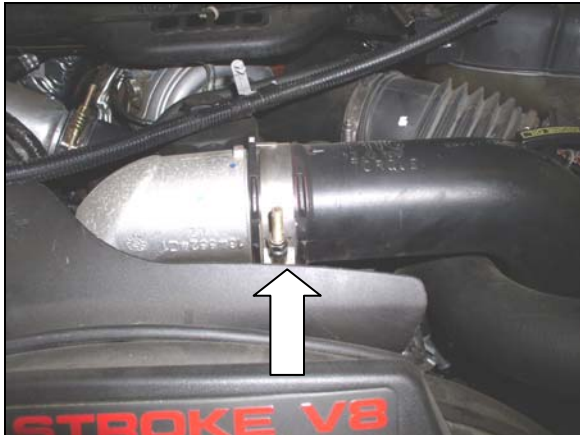
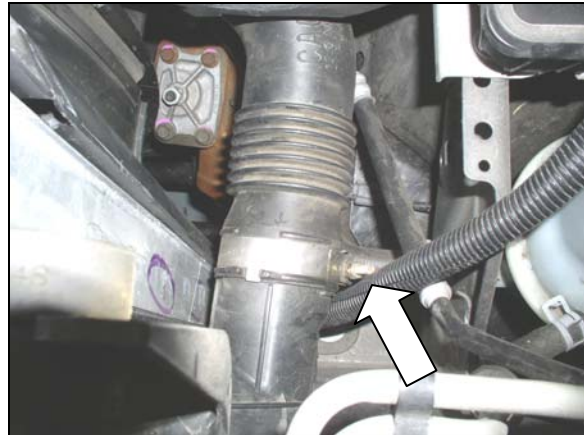


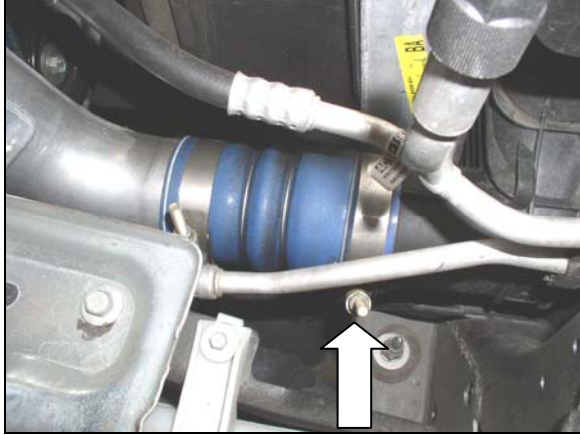
FIGURE 39





17.) For 6.0L, loosen the hose clamp that secures the boost tube from the turbo to the intercooler on the passenger's side. SEE FIGURE 40.

FIGURE 40



18.) For 7.3L, loosen the hose clamps on both driver and passenger side boost tube. SEE FIGURES 41 & 42.

FIGURE 41

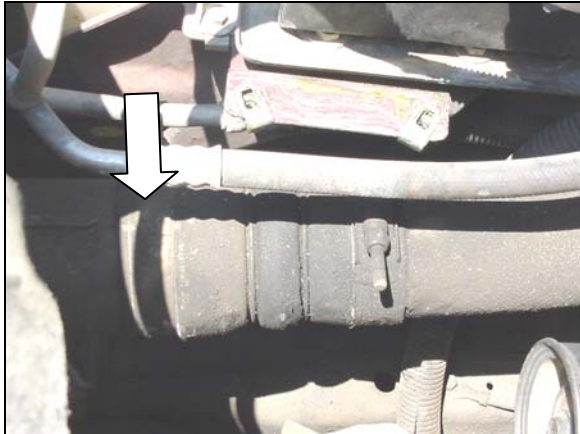
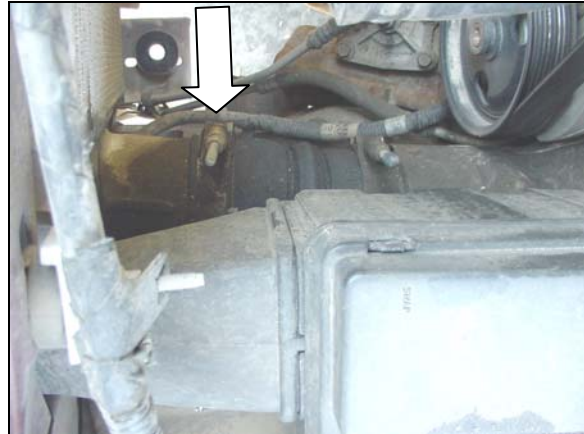


FIGURE 42





19.) For 7.3L & 6.0L, slowly remove the factory intercooler out of the vehicle by lifting upwards. SEE FIGURE 43. **NOTE:** Be careful of when working around the A/C lines, the lines are soft and can be bent slightly out of the way easily.

FIGURE 43



20.) For the 7.3L, remove the rubber flap on the bottom of the bumper. The flap is secured to the bumper with plastic snap in clips. This will allow you to gain access to install the lower support brackets on the new Spearco intercooler. SEE FIGURES 44 & 45.

FIGURE 44



FIGURE 45





21.) Carefully remove the small section of rubber flap on each side of the vehicle to gain access to the bolts on the oil cooler. The rubber flap is secured to the vehicle using plastic snap in clips. SEE FIGURES 46 & 47.

FIGURE 46

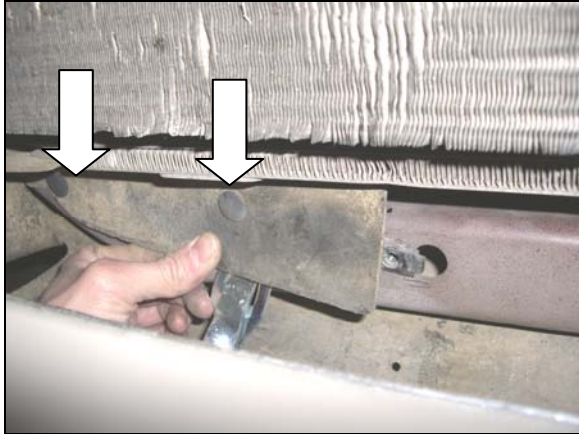
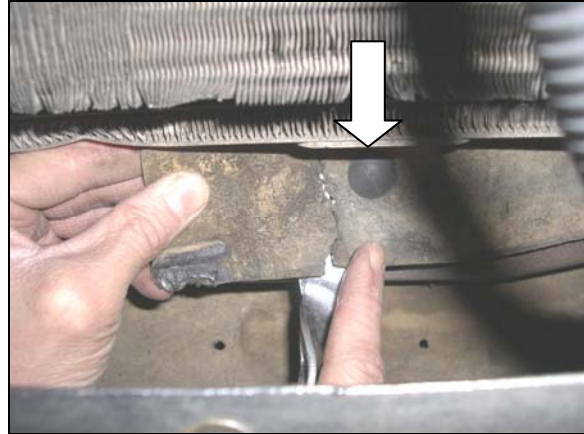


FIGURE 47



22.) For 7.3L, unbolt the two M6 screws that secure the oil cooler to the lower core support. SEE FIGURES 48 & 49.

FIGURE 48

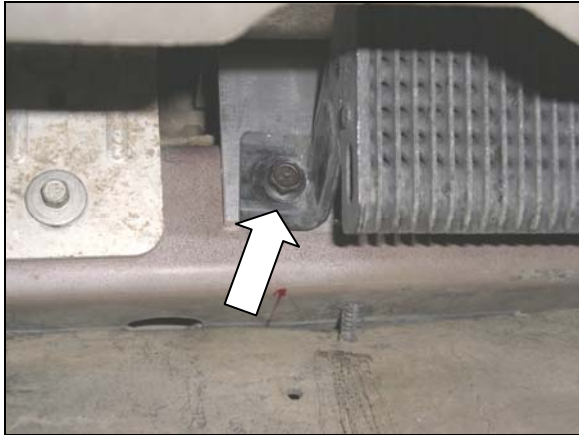
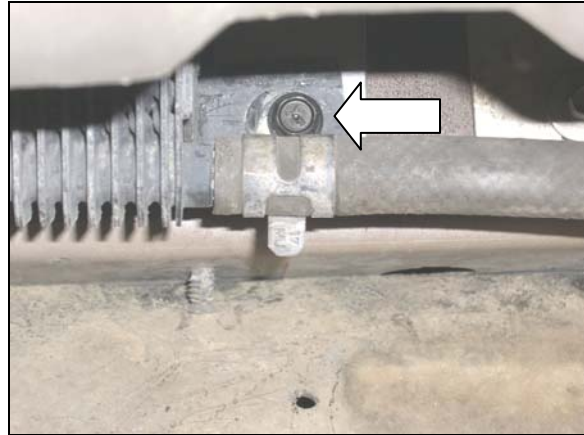


FIGURE 49



23.) For 6.0L, remove the rubber isolator from the lower mounting brackets of the factory intercooler and re-install it onto the new Spearco intercooler. Making sure the rubber isolator is flush to the edge of the new intercooler lower mount. **NOTE:** Adhere the factory rubber isolator to the intercooler with silicone to make installation easier.



24.) For the 7.3L, install the new supplied rubber isolator (PN 22035) to the lower mounting brackets of the Spearco intercooler. Making sure the rubber isolator is flush to the edge of the new intercooler lower mount. SEE FIGURE 50 & 51. **NOTE:** Adhere the factory rubber isolator to the intercooler with silicone to make installation easier.

FIGURE 50



FIGURE 51



25.) For 7.3L, install the supplied lower support "L" brackets to the threaded boss on the bottom of the new intercooler using the supplied M6 rubber isolators (PN 31067) and M6 serrated flange hex nut (PN 31312). Apply threadlocker to both sides of the thread on the supplied rubber isolator. Hand tighten the serrated flange hex nut to the rubber isolator. SEE FIGURES 52-57. **NOTE:** Notice the orientation of the L brackets to the hose connectors on the intercooler. SEE FIGURE 56 & 57.

FIGURE 52



FIGURE 53





FIGURE 54

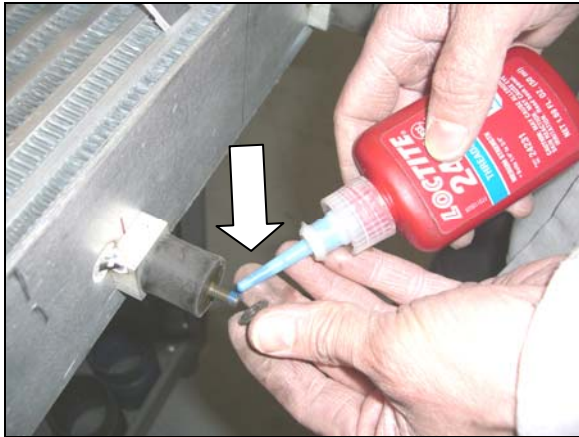


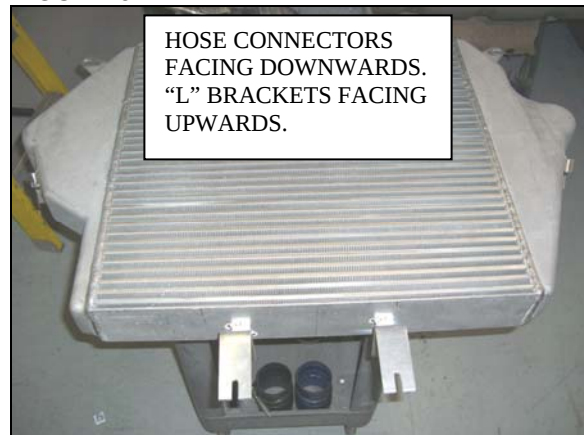
FIGURE 55



FIGURE 56



FIGURE 57



26.) For 7.3L, carefully slide the new intercooler into the vehicle. The two bottom "L" brackets should line up with the mounting holes of the factory oil cooler. SEE FIGURE 58.

FIGURE 58





27.) For the 7.3L, insert the 2 supplied cardboard spacers (PN 31364) between the intercooler and the radiator. Insert the spacers diagonally where the bottom edge of the spacers would rest on the ledge of the radiator core and the top side resting on the hose connector of the intercooler. SEE FIGURES 59-63.

FIGURE 59



FIGURE 60

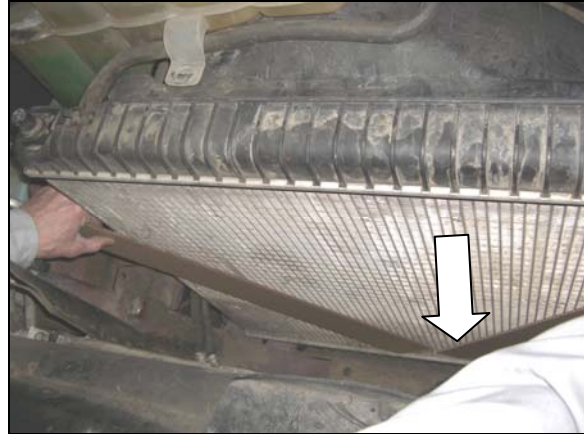


FIGURE 61

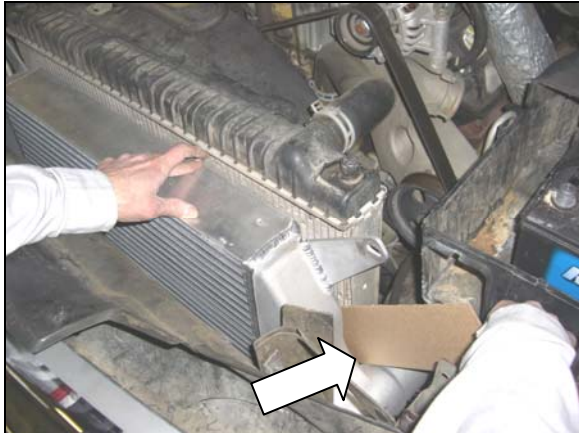


FIGURE 62



FIGURE 63





28.) For 7.3L, adjust the bottom "L" brackets as necessary until they are lined up with the mounting holes of the factory oil cooler. Line up the machined notch on the "L" bracket with the factory threaded clip. The notch will allow the "L" bracket to sit flush against the factory core support. Re-install the oil cooler to the core support using the supplied M6 serrated flange hex bolt (PN 31314). SEE FIGURES 64 & 65.

FIGURE 64

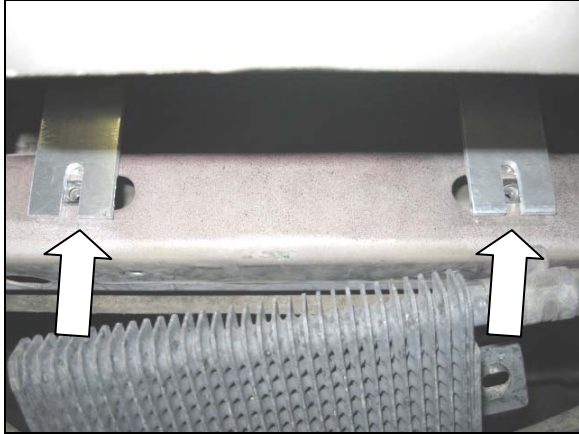


FIGURE 65



29.) Carefully pry the rubber flap away from the core support, which will allow you to gain access to the hex nut that is securing the "L" bracket to the rubber isolator on the bottom of the intercooler. Using a long extension and a socket, tighten nuts on both brackets. SEE FIGURE 66.

FIGURE 66



30.) Using the supplied M8-1.25 hex bolt (PN 30576-40), M8 fender washer (PN 30807), and 4 supplied rubber spacers (PN 22084), with one on each side of the top intercooler bracket. Secure the new intercooler to the vehicle.

31.) For 7.3L, install the factory boost tube on the passenger side of the vehicle to the intercooler using the supplied silicone transition hose (PN 22172) and supplied 3.0" t-bolt clamps (PN 31317-300), 3.25" t-bolt clamps (PN 31317-325). Make sure the side with a hose bead inside the silicone hose faces toward the boost tube. SEE FIGURE 67.

32.) For 7.3L, install the factory boost tube on the driver's side of the vehicle to the intercooler using the supplied silicone hump hose (PN 22173) and 3.0" t-bolt clamps (PN 31317-300). Make sure the side with a hose bead inside the silicone hose faces toward the boost tube. SEE FIGURE 68.



FIGURE 67

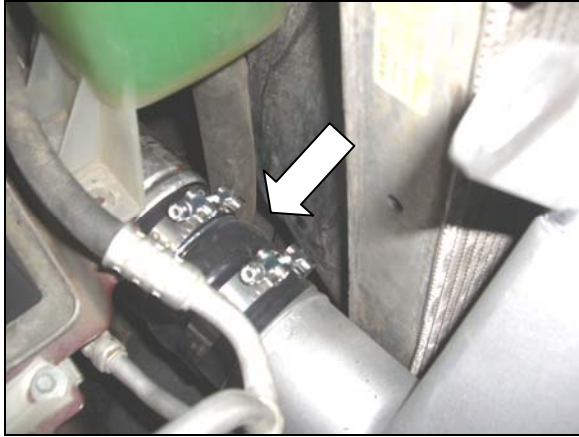
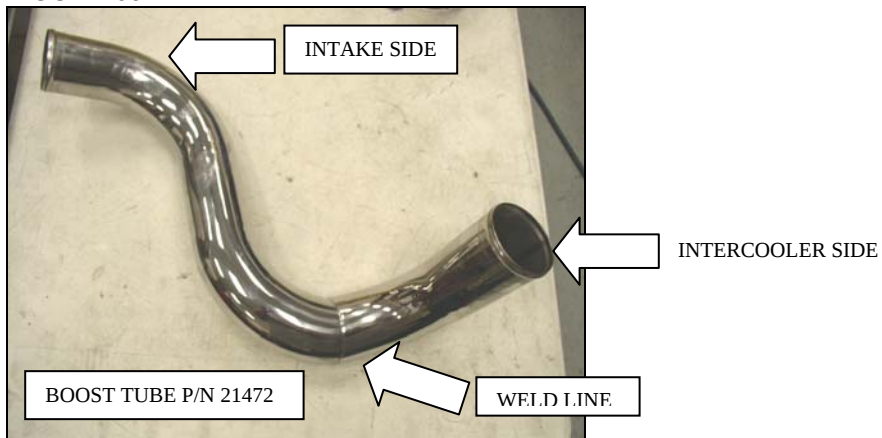


FIGURE 68



33.) For 6.0L, install the new supplied stainless boost tube (PN 21472) that connects the intercooler to the engine using the supplied 3.0" t-bolts clamps (P/N 31317-300), silicone hump connector (PN 22174), and silicone hose adapter (PN 21525). SEE FIGURE 69.

FIGURE 69





- 34.) Install the boost tube (PN 21472) in between the intercooler and the intake manifold using the supplied silicone hump hose (PN 22174) and two 3.0" t-bolt clamp (P/N 31317-300) on the intercooler side and the silicone hose adapter (PN 21525) and two 3.0" t-bolt clamp (PN 31317-300) on the intake manifold side. SEE FIGURES 70 & 71.

FIGURE 70

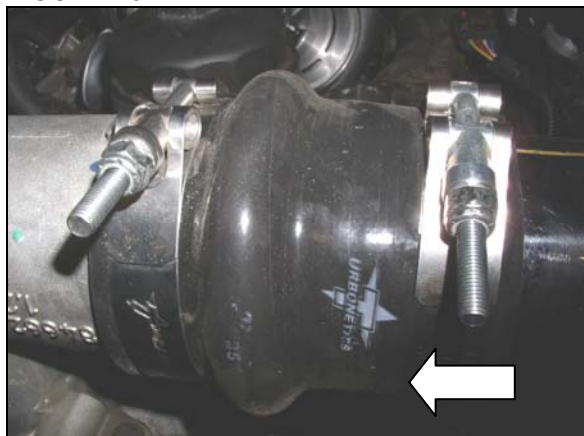
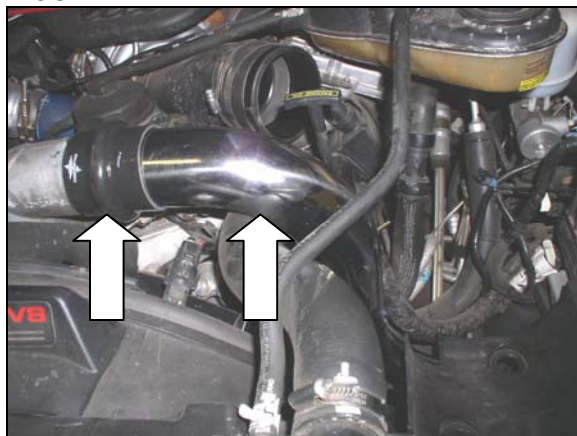


FIGURE 71



- 35.) For 6.0L, when installing the new supplied silicone hose adapter (PN 21525), the side with the bead on the inside of the hose goes on the engine side. Re-install the factory hood latch making sure the latch lines up with the lines marked on the core support earlier.

- 36.) For 7.3L, re-install the factory hood latch with supplied spacers (PN 22085) in between the hood latch and the core support and secure using supplied M6-1.0x30mm bolts (PN 31313) and M6 washers (PN 30591). SEE FIGURES 72-73.

FIGURE 72



FIGURE 73



- 37.) Re-install the remaining factory pieces (rubber flaps and plastic trims).

- 38.) Complete.



FINAL CHECKLIST:

- Review these instructions to make sure that all fasteners, clamps connections have been installed correctly.
- Check that all hose routings are free of any kinks or near any hot or abrasive surfaces, which may cause wear over time. Adjust or reroute as necessary to provide adequate slack for engine movement.

“NO FAULT / NO HASSLE” WARRANTY PROGRAM:

TURBONETICS will repair or replace, at our expense, any new TURBONETICS / SPEARCO products that fail, including products used in racing or competition applications, for a period of one year from the original date of purchase. All turbocharger and cartridge assemblies have a factory installed inline oil filtration device. This filter device must remain in place if any warranty is to be considered under the No-Fault / No-Hassle program. Electrical components that fail due to misuse are not covered under the No-Fault / No-Hassle Warranty Program.

Warranty is limited to TURBONETICS products and does not include progressive or sub sequential damage and does not cover removal or installation labor or associated parts. No warranty is made for any other claims for special, indirect or consequential damages including but not limited to component removal or installation equipment downtime, prospective profits or other economic loss.

Warranty will not be granted for recurring damage, malfunction, or failure due to improper installation, misuse, unauthorized repair or alterations, or externally induced physical damage.

Warranty is non-transferable and must be processed via the original purchaser from TURBONETICS.

Remanufactured units, performance upgraded units, and O.E.M. replacement units are covered by a 90-day warranty or the O.E. warranty period.

TURBONETICS highly recommends that the installation of mechanical or electrical parts be performed by trained professionals. Improperly installed products may lead to unsafe and unreliable conditions.

RETURN POLICY:

Only unused and complete merchandise may be accepted for return subject to inspection and acceptance by TURBONETICS. No goods will be accepted without prior return authorization from TURBONETICS. Call for approval and RGA (Returned Goods Authorization) tracking number. No returns will be accepted without an RGA tracking number. No returns will be accepted after ninety (90) days from the original shipping date from TURBONETICS unless approved. All approved returns are subject to a 15% restocking charge – NO EXCEPTIONS. The original invoice must accompany the return. Accepted warehouse / distributor and open account returns will be issued credit only.

RETURNED GOODS AUTHORIZATION TRACKING NUMBER:

TURBONETICS will only accept product returns, repair orders / upgrades, and warranty requests that have been approved and are returned with a corresponding RGA (Returned Goods Authorization) tracking number.

Contact TURBONETICS for approval and the RGA number. Write the RGA number clearly on the outside of the package and include it inside the package. This is very important in allowing us to properly identify and process your request. Failure to comply with this requirement will result in the delay of processing or the product being returned to you.