



INSTALLATION INSTRUCTIONS

SUPERCHARGER SYSTEM | 2010-2015 CAMARO SS

#150-02-1013

CAMARO

INTRODUCTION

The Kraftwerks Supercharger kit for the '10-'15 Camaro was designed for easy installation. Competent mechanics with the appropriate tools will find the process to be relatively simple. This is a GENERAL installation guide; the installation and vehicle may vary slightly and some parts may not reflect current production pieces.

PLEASE BE AWARE THAT SOME PARTS MAY COME PRE-ASSEMBLED BUT ARE NOT TORQUED TO SPEC.

Review the installations in its entirety before beginning the installation. If you have any questions about your ability to perform the installation, take your vehicle to a qualified installer. If you cannot find an installer, please contact the seller or Kraftwerks directly for a referral.

A minimal amount of work will be performed underneath the vehicle so you will need access to a lift or a floor jack. If you will be using a floor jack, be sure to have properly rated jack stands to safely keep the vehicle in the air while it is being worked on.

NEVER WORK UNDER A VEHICLE WITHOUT APPROPRIATE JACK STANDS.

DISCLAIMER

- Engine Rev Limiter must be set at or below 7,000 RPM with the standard 80mm Pulley, 6,600 RPM with an 75mm Pulley, or 6,150 RPM with a 70mm Pulley. Any higher RPM will OVER-SPIN the Rotrex Supercharger head unit and WILL void its warranty.
- Kraftwerks Supercharger Kits do not require break-in or warm-up periods. However, always warm your engine up properly before operating at full boost.
- If an engine oil and filter change has not been performed recently, do so now using a high quality oil and filter.
- A minimum of 91 OCTANE fuel must be used.
- Fuel Filters with more than 50,000 miles of use must be replaced prior to operating engine under boost (this is critical to proper fuel flow and engine performance). Kraftwerks USA highly recommends the use of 20 MICRON post fuel pump in-line fuel filter. The factory in-tank filter is insufficient and can lead to injector wear and eventual failure. 99.98% of fuel injector failures are due to insufficient filtering beyond 35 microns! Not running a 20 Micron fuel filter will void the Grams Fuel Injector warranty.
- Vehicles with more than 100,000 miles of use, consider installing a new radiator and thermostat (coolant/water with high calcium content can leave deposits over time that can inhibit proper cooling).

ROTREX DISCLAIMER

- Only use genuine Rotrex SX150 Traction Oil for supercharger lubrication. The proprietary traction formula protects the supercharger where other oils would fail, and is what allows its high-RPM operating levels. Use of Non-Genuine Rotrex SX150 Traction Oil WILL void the warranty of the Rotrex Supercharger.
- Keep all Pipes and Hoses sealed and clean until ready for installation. The Rotrex Supercharger operates at speeds as high as 100,000 RPM on this application. ANY debris that inadvertently enters the inlet pipes or becomes stuck to the silicone hoses can enter the Rotrex Supercharger and damage its compressor blades. Compressor blade damage is NOT covered by the Rotrex two-year warranty.
- NEVER rotate the Rotrex Supercharger counter-clockwise. Rotating the Rotrex Supercharger counter-clockwise will void the warranty.

THIS SUPERCHARGER KIT MAY NOT BE LEGAL FOR USE ON PUBLIC ROADS OR POLLUTION CONTROLLED ENVIRONMENTS. CHECK YOUR LOCAL REGULATIONS BEFORE INSTALLING THIS SUPERCHARGER KIT.

SUPPORT PARTS

GRAMS PERFORMANCE LONG TUBE HEADERS

» The Grams Performance Long Tube Headers (PN# G12-02-0050) for 2010-2015 Camaro SS use true merge collectors that optimize exhaust gas scavenging and improve volumetric efficiency.

Every Grams header is designed and precisely engineered to maximize exhaust flow and increase, both, horsepower and torque throughout the power-band (increases from 30+ whp) and include cat-delete pipes which can easily be switched to high flow cats.

FEATURES:

- 3" True Merge Collectors
- Corrosion Resistant Stainless Steel
- Stepped 1-3/4" to 1-7/8" Long-Tube Design
- Cat-Delete Pipes Included
- 30+ whp Increase



GRAMS PERFORMANCE WIDEBAND GAUGE

» The Grams Performance Digital Wideband Gauge (PN# G2-99-0055) is a wideband UEGO air/fuel ratio controller (AFR) and gauge all in one. It is lightning fast, extremely accurate and has an easy to read four digit digital LED display.

The digital wideband gauge is a must when trying to maximize your engine's performance... safely.

FEATURES:

- Bosch 4.9 LSU Wideband Sensor
- Mild Steel Weld-In Bung
- 3 Color Sweeping Indicator (Green, Yellow, Red)
- 52mm (2-1/16") Gauge Housing
- Accuracy Down to 0.001 AFR
- 0-5v Analog Output (10:1-20:1 AFR Range Only)



GRAMS PERFORMANCE BILLET ALUMINUM FUEL RAILS

» The Grams Performance Billet Aluminum Fuel Rails (PN# G50-02-1005) make a great addition to your supercharger system with quick connect OE drop-in compatibility and big fuel delivery!

Machined from Billet 6061 Aluminum and hard anodized for corrosion resistance. The rails use -8AN fittings to aid in delivering consistent fuel pressure across the system while delivering more fuel to the injectors.

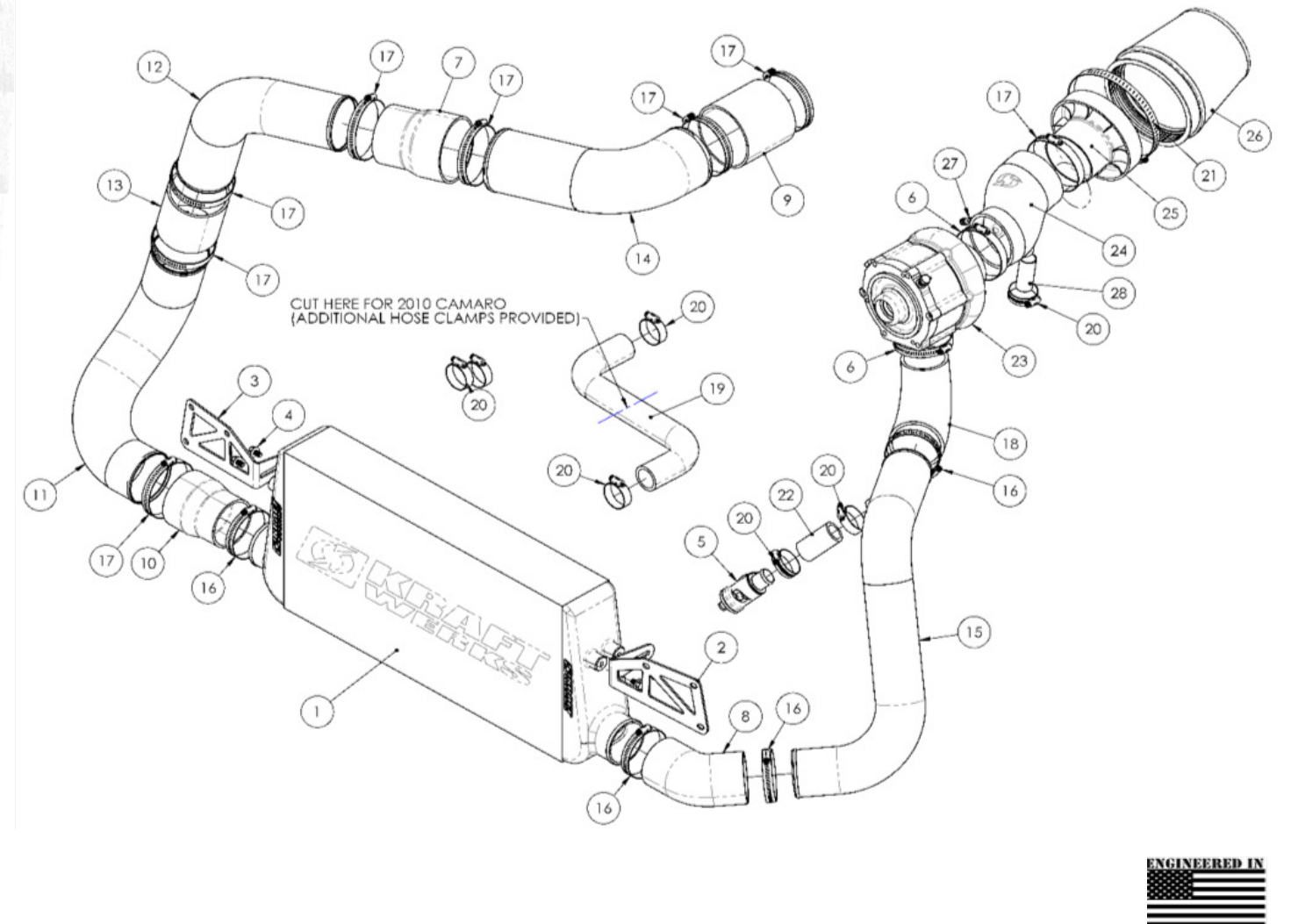
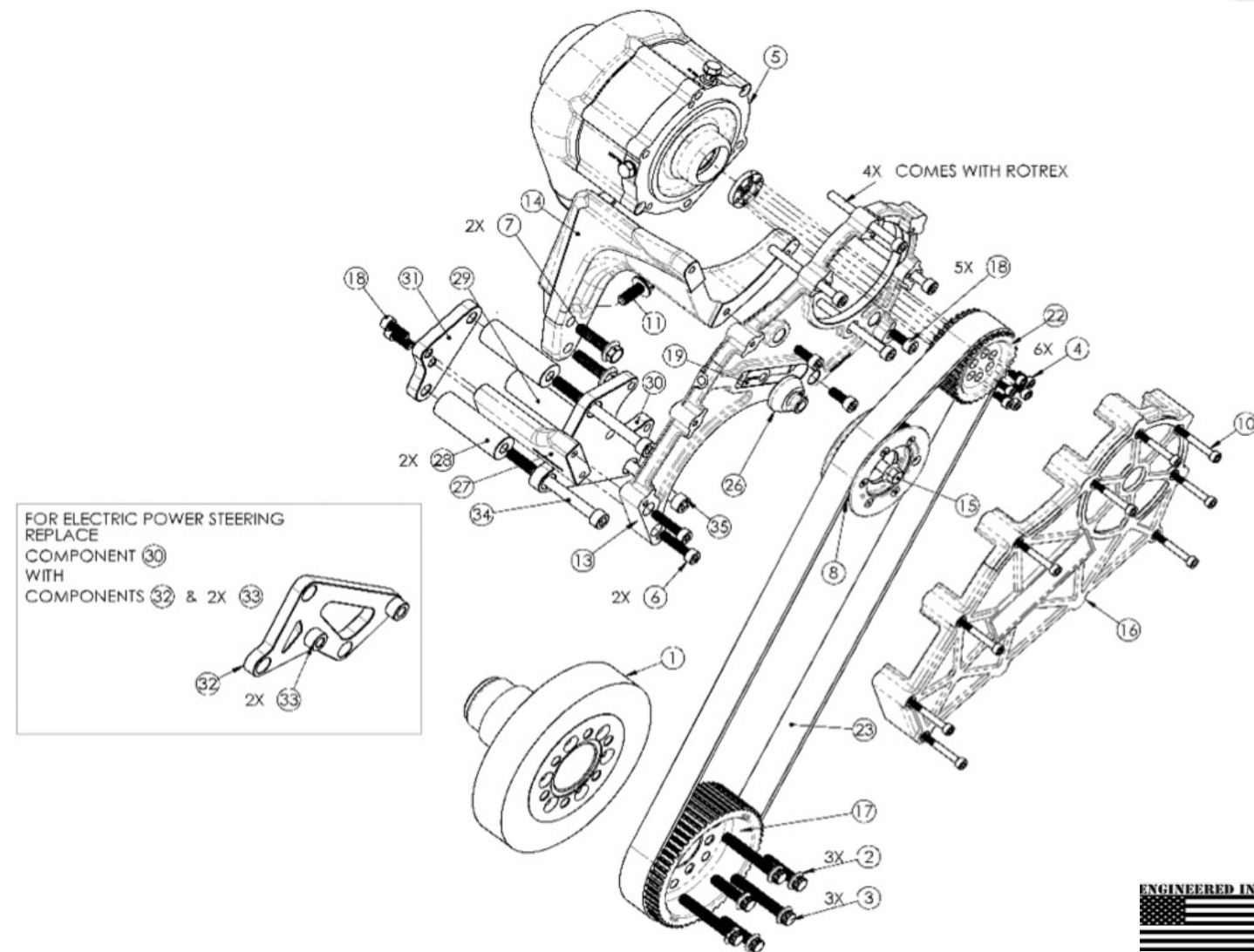
FEATURES:

- Manufactured from Billet 6061 Aluminum
- Hard Anodized for Corrosion Resistance
- Large .669" Internal Bore
- 8 ORB Ports
- 2,000hp+ ready

NOTE: Add G50-02-1050 Grams Fuel Line Kit for a complete plug-n-play system.



COMPONENT DIAGRAMS



NO.	DESCRIPTION	QTY
1	ATI Damper	1
2	1.50" Long ARP Bolts	3
3	1.50" Long ARP Bolts	3
4	Socket Head Bolt M6 x 1.0 x 12	6
5	Rotrex Supercharger	1
6	Socket Head Bolt M8 x 1.25 x 35	2
7	Hex Head Flange Bolt M8 x 1.50 x 40	2
8	Tensioner Pulley 90mm x 33mm 36 T	1
10	Socket Head Bolt M6 x 1.0 x 55	9

NO.	DESCRIPTION	QTY
11	Hex Head Flange Bolt M8 x 1.50 x 25	1
13	S/C Base Plate	1
14	S/C Cylinder Head Bracket	1
15	Hex Head Flange Bolt M10 x 1.50 x 25	1
16	S/C Belt Guard	1
17	Crank Pulley 136mm x 44mm 54 T	1
18	Socket Head Bolt M8 x 1.25 x 20	5
19	Tensioner Adjuster	1
22	S/C Pulley 80mm x 42mm 32 T	1
23	S/C Belt 1440mm x 30mm	1

NO.	DESCRIPTION	QTY
26	Tensioner Pulley Spacer	1
27	S/C Bracket Spacer	1
28	P/S Bracket Spacer Short	2
29	P/S Bracket Spacer Long	1
30	P/S Bracket	1
31	S/C Bracket Spacer Base	1
32	Idler Pulley Bracket	1
33	Idler Pulley Spacer	2
34	Socket Head Bolt M10 x 1.50 x 110	2
35	Socket Head Bolt M10 x 1.50 x 130	1

NO.	DESCRIPTION	QTY
1	Intercooler 31" x 12" x 4" - 3" In/Out	1
2	Intercooler Bracket - Driver Side	1
3	Intercooler Bracket - Passenger Side	1
4	Hex Head Flange Bolt M8 x 1.25 x 12	4
5	Bypass Valve Assembly	1
7	Straight Reducer Coupler - 4" to 3.5"	1
8	45° Coupler - 3"	1
9	Straight Coupler - 4"	1

NO.	DESCRIPTION	QTY
10	Straight Reducer Coupler - 3.5" to 3"	1
11	Lower Cold-Side Charge Pipe - 3.5"	1
12	Upper Cold-Side Charge Pipe - 3.5"	1
13	Straight Coupler - 3.5"	1
14	Upper Cold-Side Charge Pipe - 4"	1
15	Hot-Side Charge Pipe - 3"	1
16	#52 Lined Hose Clamp	4
17	#64 Lined Hose Clamp	8
18	90° Reducer Coupler - 3" to 2.5"	1

NO.	DESCRIPTION	QTY
19	Upper Radiator Hose	1
20	#16 Lined Hose Clamp	7
21	#104 Lined Hose Clamp	1
22	Hose 1"	1
23	Supercharger	1
24	Molded Silicone Hose	1
25	Velocity Stack	1
26	Air Filter	1
27	Hose Barb	1
28	Aluminum Insert	1

1 ENGINE BAY

» The installation of your new Kraftwerks supercharger kit requires the removal of several OEM engine parts and body panels. Installation requires an experienced level of mechanical aptitude, proper tools, and a factory repair manual.

If you do not possess these things; we highly recommend taking your vehicle to a qualified installer.



3 ENGINE COVER REMOVAL

» Remove the engine cover by temporarily removing the oil filler cap, pulling on the front half of the engine cover and unhooking the rear half.

Reinstall the oil filler cap once the cover has been removed.



4 AIR BOX REMOVAL

» Disconnect the mass air flow (MAF) sensor wire harness from the MAF sensor, disconnect all breather and vacuum lines attached to the intake tube, and remove the intake tube and air box assembly.

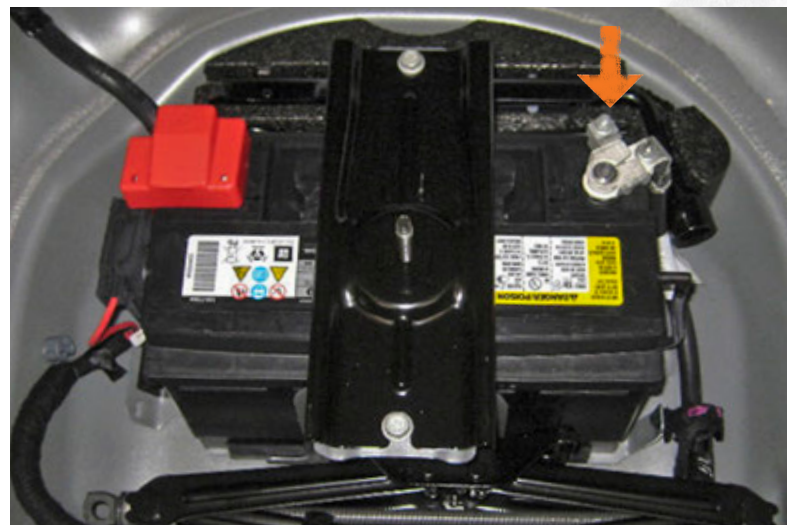
Note: The vehicle we performed the installation on was equipped with an aftermarket intake system. You will need to refer to the factory repair manual for the specifics regarding the OEM air cleaner assembly.



2 DISCONNECT BATTERY

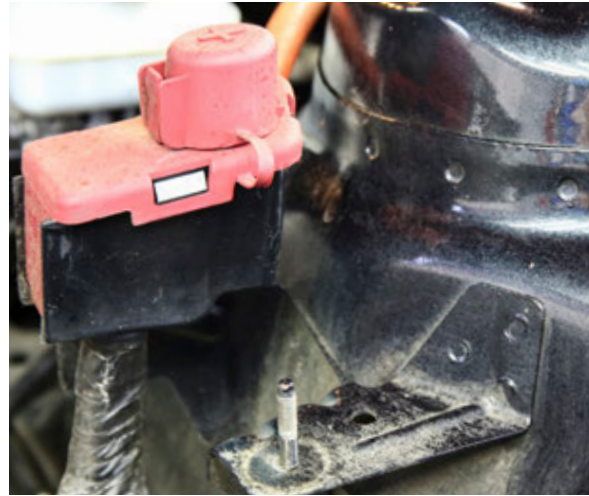
» Lets get started by first disconnecting the negative battery terminal.

NOTE: The battery is located in the trunk, under the false floor.



5 REMOTE BATTERY TERMINAL - I

» Locate the remote positive battery terminal on the driver-side shock tower and remove the red plastic cover.



6 REMOTE BATTERY TERMINAL - II

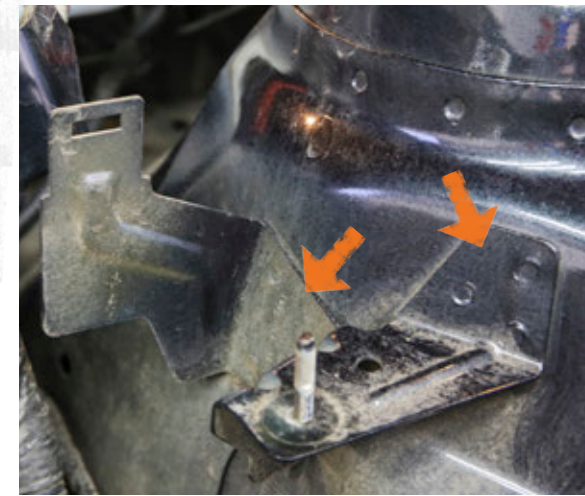
» Disconnect the remote positive battery terminal from the shock tower and push it aside.



9 BRACKET REMOVAL - I

» There are a total of six spot welds that need to be cut.

We recommend using a center-punch to locate each weld as well as to keep the spot weld cutter in position while drilling.



10 BRACKET REMOVAL - II

» The spot weld cutter has aggressive teeth that can cut quickly. A firm hold and a slow steady speed works best.

Cutting quickly can cause the bit to jump so be careful.



7 SPOT WELD CUTTER

» Locate the included spot weld cutter.



8 DRILL

» Install the spot weld cutter in a compact drill.



11 BRACKET REMOVAL - III

» Once the spot welds have been cut and the bracket has been removed, you will be left with six raised bumps and an unpainted surface.

The raised bumps do not impact the installation so it is completely optional to sand them down.



12 BRACKET REMOVAL - IV

» We recommend treating the unpainted surfaces to prevent rust.

How much time/ effort spent on this step is entirely up to you.

We did not have a factory colored touch-up paint so we choose to only paint the area that was exposed using a semi-gloss spray paint applied with a q-tip.



13 BATTERY TERMINAL BRACKET

» Locate the new remote positive battery terminal bracket and mounting hardware.

NOTE: No Need to Remove the Hardware.



14 BRACKET INSTALLATION LOCATION

» Locate the factory holes in the lower portion of the driver-side shock tower.

Tighten the hardware with the bracket pointing to the firewall.



17 BUMPER REMOVAL

» This step is going to require a jack, jack-stands, and a factory service manual.

With the vehicle on a flat and level surface, jack the vehicle up high enough you can comfortably get underneath. Once the vehicle is high enough, set it down on properly rated jack-stands.

Bumper removal can involve many screws and clips. Please refer to a factory service manual so you don't remove things unnecessarily.



18 UPPER SUPPORT REMOVAL

» Remove the bumper support attached to the upper radiator core support.



15 BRACKET INSTALL

» Reinstall the red cover on the remote terminal.

Install the remote positive battery terminal onto the new bracket.



16 CABLE ADJUSTMENT

» With the remote positive battery terminal mounted in its new location, the cable may come in contact with other items, slide the cable through the zip tie until the cable is free from making contact with anything.



19 HEADLIGHT REMOVAL - L

» Disconnect the driver-side headlight harness and remove the headlight assembly.



20 HEADLIGHT REMOVAL - R

» Disconnect the passenger-side headlight harness and remove the headlight assembly.



21 CRASH BEAM REMOVAL

» Remove the bumper reinforcement/ crash beam.



22 DRAIN COOLANT

» Loosen the radiator cap from the radiator.

Locate the radiator drain; it's on the bottom drivers-side of the radiator, you will find the radiators drain plug is white with two wings so it can be loosened by hand.

Place a large drain pan or bucket under the drain and remove the plug.

NOTE: Inspect the drain plug gasket/ o-ring for cracks or damage and replace as necessary. Reinstall the drain plug once the cooling system has completely drained.



23 UPPER HOSE REMOVAL

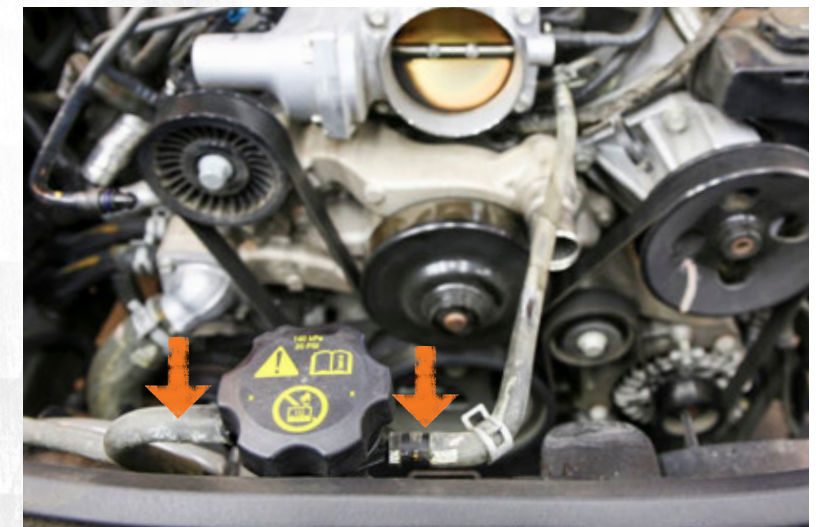
» Remove the upper radiator hose by pinching the large spring clamps with a pair of pliers and moving the clamps up the hose about two inches.

Twist the radiator hose while firmly pulling away from the water neck/ radiator.



24 SMALL HOSE REMOVAL

» Disconnect the two small coolant lines attached to the upper portion of the radiator and push them aside.



25 LOWER HOSE REMOVAL

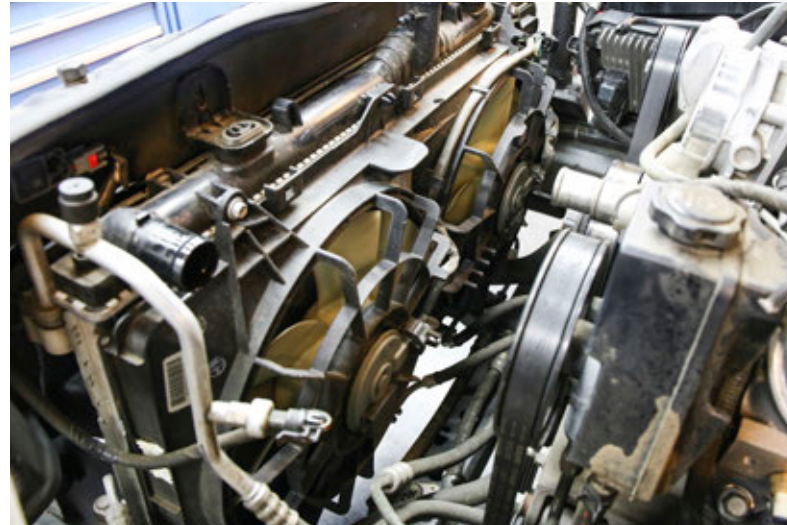
» Disconnect the lower radiator hose by pinching the large spring clamp with a pair of pliers and moving the clamp up the hose about two inches.

Twist the radiator hose while firmly pulling away from the water neck.



26 UNPLUG FANS

» Unplug the radiator fans and remove the radiator fan assembly mounting bolts.



27 FAN ASSEMBLY REMOVAL

» Remove the radiator fan assembly.



28 BYPASS HOSE REMOVAL

» Disconnect the small lower radiator bypass hose by pinching the small spring clamp with a pair of pliers and moving the clamp up the hose about two inches.

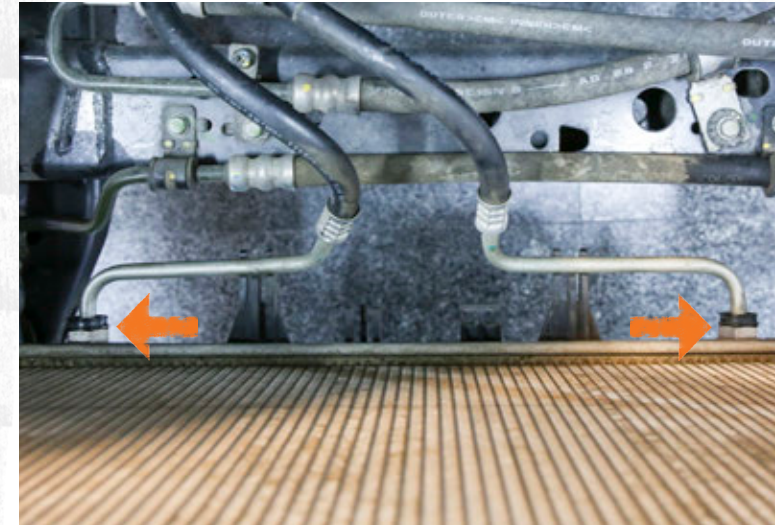
Twist the radiator hose while firmly pulling away from the radiator.



29 HARD LINE REMOVAL

» Slide the two black c-clip retainers off of the c-clips.

Using a pic or small flat head screwdriver, remove the two c-clips holding the hard lines to the radiator.



30 RADIATOR REMOVAL

» Gently pull each of the hard lines from the radiator, prop them up as shown, and remove the radiator.

NOTE: Have a pair of rags ready as a small amount of fluid will drain from each line.

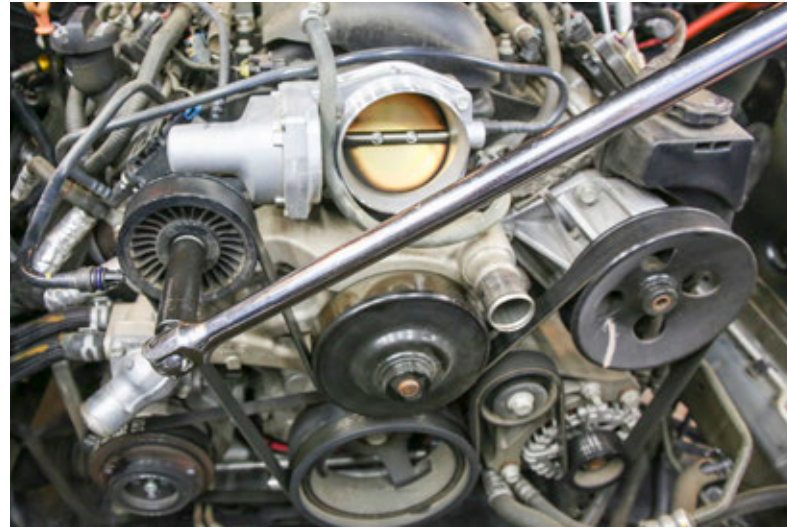


31 ACCESSORY BELT REMOVAL

» Remove the accessory drive belt by using a 12 pt. socket and a long handle breaker bar.

Use the breaker bar and socket to swing the tensioner clockwise. Hold the tensioner in position until you have slipped the belt off one of the pulleys.

Remove the A/C belt by walking the belt off one of the pulleys with one hand and rotating the engine with the other hand. See factory service manual for additional help.



32 CRANKSHAFT BOLT REMOVAL

» Using a long handle breaker bar or an impact, remove the factory crankshaft pulley bolt.



33 CRANKSHAFT PULLEY REMOVAL

» Using a crankshaft pulley remover, remove the OEM crankshaft pulley / damper.



34 ATI DRILL & PIN KIT

» Locate the crankshaft drill and pin kit.



36 DRILLING FIXTURE INSTALL - I

» Install the crankshaft pin drilling fixture onto the crankshaft.



35 DRILLING FIXTURE

» Prep the crankshaft pin drilling fixture by installing the smaller of the two pilots.



37 DRILLING FIXTURE INSTALL - II

» Hold the fixture in place by reinstalling the OEM crank pulley bolt and torquing to a min. of 50 lb. ft.

NOTE: Install the pin drilling fixture in a similar position as shown as it provides the best clearance for the angled drill that is going to be used in the next few steps.



38 DRILL BIT

» Locate the drill bit included in the crankshaft drill and pin kit.

Check the length/ clearance of the drill bit with your angled drill. Cut the drill bit down to the necessary length, in our case... 4.50" long, using a cutoff wheel.



40 REAM

» Locate the ream included in the crankshaft drill and pin kit.

Check the length/ clearance of the ream with your angled drill. Cut the ream down to the necessary length.



39 DRILLING CRANKSHAFT

» Install the drill bit into an angled drill and begin drilling. Drill using a steady speed and mild force until it drills completely through the crankshaft.



41 REAM PILOT

» Swap the small pilot out for the unused pilot in the kit.



42 REAMING CRANKSHAFT

» Install the ream into your angled drill.

The ream must be used at a slow to medium speed with mild pressure. The ream must not sit in one place too long but must make one full stroke inward and outward.

NOTE: Do NOT Deviate from the Above Instructions or the hole may end up to loose for the pin being installed.



43 PINNING THE CRANKSHAFT

» Remove the OEM crank pulley bolt and pin drilling fixture.

The fixture should have caught a large majority of the metal shavings from drilling and reaming but there may still be some in the crank pulley bolt hole.

Use a magnet to draw any remaining shaving out of the crank pulley bolt hole.

Once everything is clean, install one of the pins in the newly drilled hole.



44 ATI DAMPER KIT

» Locate the ATI Damper kit and read the ATI instructions COMPLETELY.

The ATI instructions talk about hub to crankshaft clearances and the need to possibly machine / hone the hub to fit your crankshaft.

Take the recommended steps and proceed once they have been followed.



45 ATI HUB & A/C PULLEY

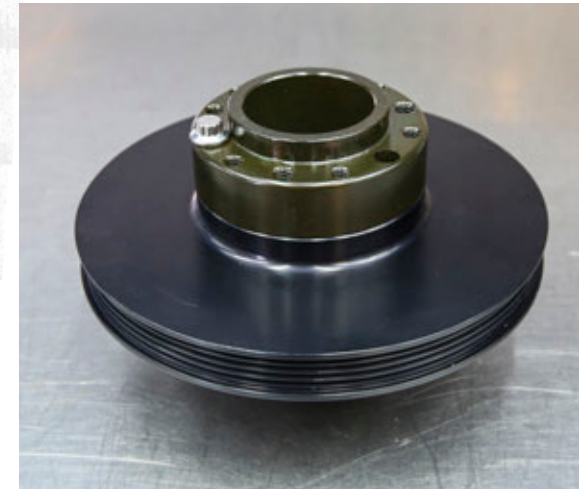
» Grab the crankshaft pulley hub and A/C pulley (if your vehicle is equipped with A/C).



46 ATI HUB & PULLEY ASSEMBLY

» Using one of the longer bolts in the ATI Damper hardware kit, fasten the A/C pulley to the crankshaft pulley hub as shown.

NOTE: Skip this step if your vehicle does NOT have A/C.



48 CRANKSHAFT BOLT & WASHER

» Locate the new crank pulley bolt and washer.



47 SHIM SEAL

» Remove the small shim seal from the OEM crankshaft pulley.

Make sure to line up the key-way cut out with the key-way in the hub.



49 S/C MAIN BRACKET INSTALL - I

» Apply red thread locker to the new crank pulley bolt.



50 ATI HUB & A/C PULLEY INSTALL

» Line up the key-way on the crankshaft pulley hub with the newly installed pin in the crankshaft and with even force; firmly push the crankshaft pulley hub onto the crankshaft.

The crankshaft pulley hub should slide far enough onto the crankshaft that you can use the crank pulley bolt and washer to manually pull the hub into position. If it does not... you can purchase a longer bolt just for that purpose or use a crank pulley installer to finish.

Once the hub is seated, torque to 37 lb. ft. and then turn the bolt an additional 140 degrees.



51 ATI DAMPER & HARDWARE

» Locate the ATI Damper and hardware.



52 OFFSET ALIGNMENT - I

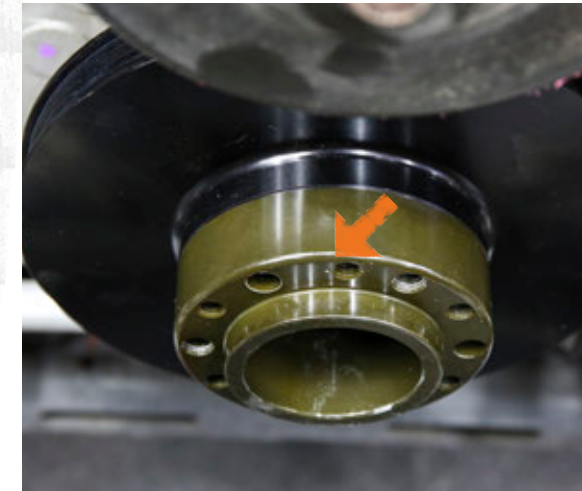
» Identify the "Offset Hole" dot on the ATI Damper.



53 OFFSET ALIGNMENT - II

» Remove long ARP bolt used to hold the A/C pulley to the crankshaft hub.

Identify the matching dot on the crankshaft pulley hub for the "Offset Hole" dot on the ATI Damper.



55 S/C DRIVE PULLEY

» Locate the supercharger drive pulley.



54 ATI DAMPER INSTALL

» Install the ATI Damper by lining up the "Offset Hole" dots.

Install the six flat head Torx Plus screws in the six counter-sunk holes. Torque to 16 lb. ft. using a T40 Torx Plus socket. Do NOT use a standard Torx socket.



56 LONG ARP BOLTS

» Locate the three long ARP bolts and flat washers in the ATI Damper hardware kit.

Install one washer on each bolt and then apply blue thread locker.



57 SHORT ARP BOLTS

» Locate the three short ARP bolts and flat washers in the ATI Damper hardware kit.

Install one washer on each bolt and then apply blue thread locker.



58 S/C DRIVE PULLEY INSTALL

» Install the three long ARP bolts with washers into the unthreaded holes in the hub that have clearance for this size bolt; these bolts will thread into the A/C pulley and draw it up tight to the rear of the damper hub.

Torque to 28 lb. ft.

Install the three short ARP bolts with washers into the threaded holes in the hub that have clearance for this size bolt.

Torque to 28 lb. ft.



59 A/C BELT INSTALL

» Install the A/C belt in the reverse order of removal. See factory service manual for additional help.



60 P/S PUMP

» Rotate the power steering pulley until the holes in the pulley line up with the three pump mounting bolts.



62 P/S PUMP BRACKET REMOVAL

» Now remove the three power steering pump mounting bracket bolts.



61 P/S PUMP REMOVAL

» Remove the three pump mounting bolts.

NOTE: Hang on to these as they will be reused.



63 S/C MOUNTING SURFACE

» Tuck the power steering pump away and dust off the cylinder heads machined surface.



64 S/C BRACKET

» Locate the large supercharger mounting bracket and hardware.



65 S/C BRACKET BOLTS

» Apply red thread locker to the three flanged hex head bolts.



66 S/C BRACKET INSTALL

» Install the large supercharger mounting bracket by loosely installing the two longer bolts on the face and the one shorter bolt on the side.

Snug the short bolt on the side first and then snug the two longer bolts on the face.

Go back and torque all three to 17 lb. ft.



67 P/S BRACKET - I

» Locate the supercharger mounting bracket(s) with power steering mount as shown.



69 P/S BRACKET - III

» The large billet bracket with the three counter sunk bolt holes lines up with the large spacers. The longest of the three spacers will install directly against the cylinder head.



68 P/S BRACKET - II

» This combo of brackets can get a little confusing so here is a picture that shows how the brackets will ultimately go together.



70 SHORT SPACER & BOLT

» Grab one of the two shorter spacers, the pre-assembled supercharger mounting bracket, the power steering mount, and a socket head bolt.

Apply red thread locker to the socket head bolt.

NOTE: Thread locker sets up within 8-10 minutes; be sure to complete the step 70-76 within that time.



71 P/S BRACKET INSTALL - I

» Assemble the power steering mount, spacer, pre-assembled super charger mounting bracket, and socket head bolt around the power steering pump.

Thread the socket head bolt into the cylinder head no more than two turns. The assembly must be very loose for the following steps.



72 LONG SPACER & BOLT

» Grab the longest of the three spacers and a socket head bolt.

Apply red thread locker to the socket head bolt.

NOTE: Thread locker sets up within 8-10 minutes; be sure to complete the step 72-76 within that time.



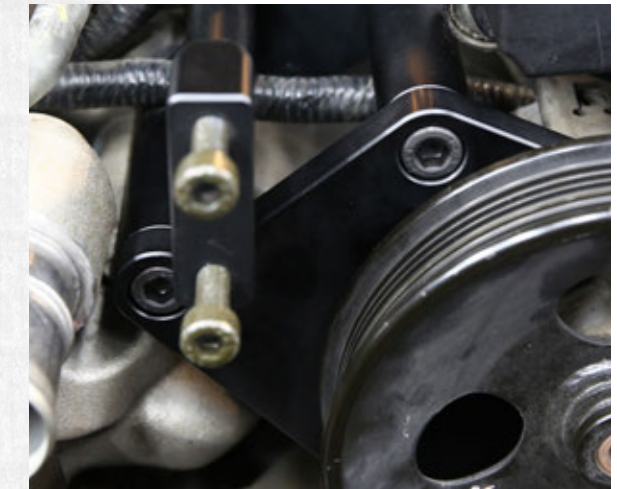
75 P/S BRACKET INSTALL - III

» Install the spacer and a socket head bolt in the remaining mounting hole in the power steering bracket while you tilt the power steering pump down and away.



76 P/S BRACKET INSTALL - IV

» Drive each of the three socket head bolts until they are tight and Torque to 36 lb. ft.



73 P/S BRACKET INSTALL - II

» Install the longest spacer and a socket head bolt in the lower mounting hole in the power steering bracket while you lift up on the power steering pump.

The pulley gets in the way so the pump must be lifted and tilted to start the bolt. Once you get the bolt started, use a traditional Allen key to drive the bolt in about 90%



74 SHORT SPACER & BOLT

» Grab the remaining short spacer and socket head bolt.

Apply red thread locker to the socket head bolt.



77 P/S PUMP BOLTS

» Dig up the OEM power steering pump bolts removed in step #61 and give them a cleaning with a wire brush.

Apply blue thread locker to all three.



78 P/S PUMP INSTALL

» Line up the holes in the power steering pulley with the three mounting bolt holes on the pump and then line up the pump mounting holes with the Kraftwerks power steering mounting bracket.

Install the OEM power steering bolts and torque to 25 lb. ft.



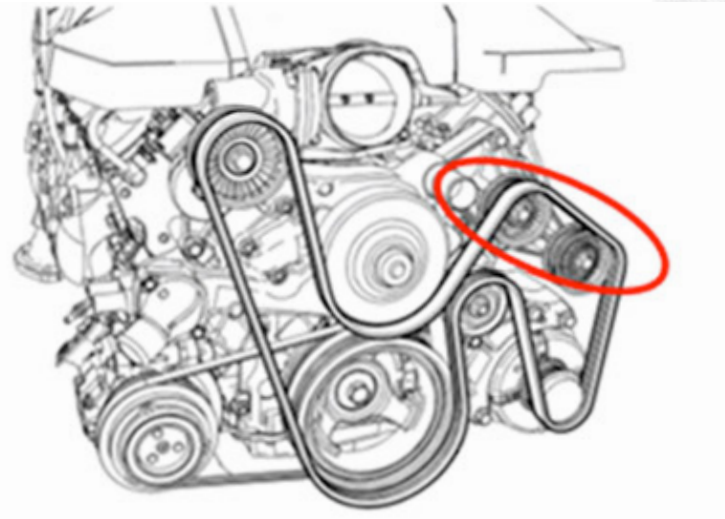
79 IDLER BRACKET

» If your vehicle is equipped with electronic power steering, you will have a pair of idler pulleys in place of the mechanical pump, this is the combination of parts you will be using to install the supercharger kit.



80 IDLER PULLEY LOCATION

» The factory idler pulleys are located in same general area as the mechanical pump as shown in this diagram.



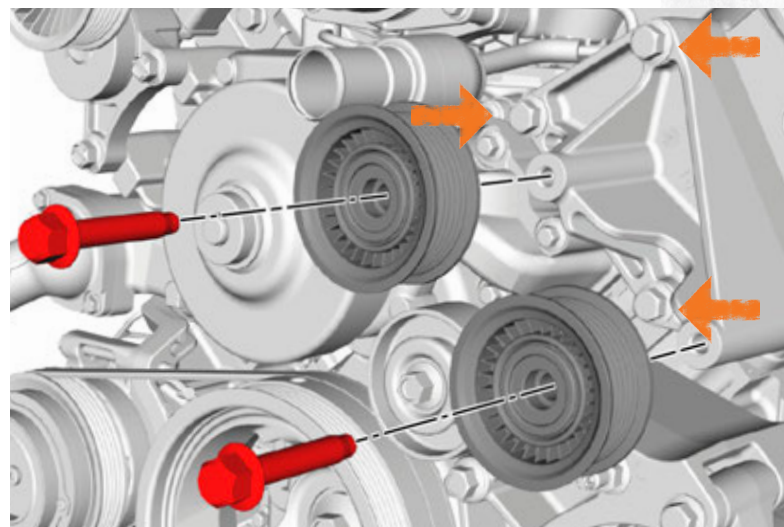
81 IDLER PULLEY REMOVAL

» Remove the two idler pulleys.

Set the pulleys and bolts aside as they will be reused in the installation of the Kraftwerks bracket.

Remove the idler pulley bracket assembly.

Install the Kraftwerks supercharger idler bracket and OEM pulleys.



82 S/C MAIN BRKT - I

» Locate the main super charger mounting bracket.



83 S/C MAIN BRKT - II

» Remove the belt guard from the main super charger mounting bracket and set the nine socket head bolts aside.



84 S/C BRKT H-WARE - I

» Remove the five M8 socket head bolts from the previously installed brackets.



85 S/C BRKT H-WARE - II

» Apply red thread locker to the five socket head bolts.



86 S/C BRKT INSTALL - I

» Install the main super charger mounting bracket using two short and two long socket head bolts. Do not completely tighten.



87 S/C BRKT INSTALL - II

» Remove the supercharger belt tensioner pulley and install the remaining short socket head bolt.

Torque all five bolts to 17 lb. ft.

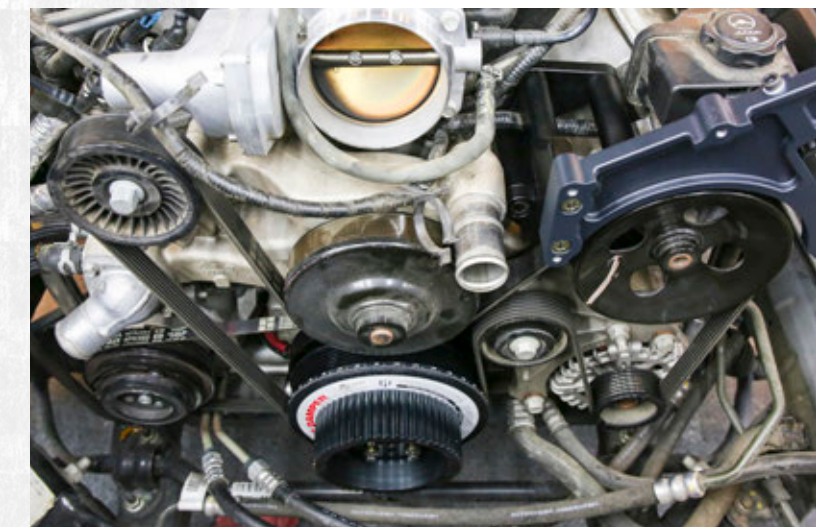


88 ACCESSORY BELT INSTALL

» Install the accessory drive as shown but leaving the belt off of the water pump pulley.

Use the breaker bar and socket to swing the tensioner clockwise. Hold the tensioner in position until you have slipped the belt under the water pump pulley.

NOTE: Check the condition of your accessory belt. If the belt is nearing the end of its service life, now would be a great time to replace it.



88 TENSIONER INSTALL

» Install the supercharger belt tensioner pulley but do not tighten.



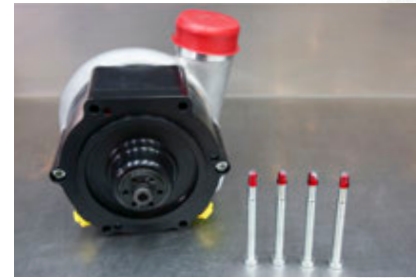
89 S/C HEAD UNIT KIT

» Locate the supercharger head unit and supercharger pulley kit.



90 S/C MNTG BOLTS

» Remove the four M8 socket head bolts from the supercharger and apply red thread locker to each of the four bolts.



91 GATES CARBON DRIVE APP

» Download the Gates Carbon Drive Mobile App to your smart phone.

CHECKING BELT TENSION: GATES CARBON DRIVE MOBILE APP [FOR IPHONE & ANDROID]

Gates Carbon Drive Mobile App measures belt tension from the natural frequency (Hz) of the belt span. Using the microphone, the App converts the sound into the primary frequency of the belt.

From the App, click the Tension icon and then click Measure. Hold the device microphone (be sure microphone is "on") facing the belt. Pluck the belt so that it vibrates similar to a guitar string. Rotate the crank 1/4 turn and repeat the frequency measurement. Compare your belt's frequency to the chart pg 44 to review any necessary tension adjustments. The Gates Carbon Drive Mobile App works best in a quiet environment.

- Find key parameters of your drive such as speed ratio and center distance
- Change belt length or sprocket sizes to better suit your riding needs
- Compare two belt drive bikes to each other
- Check out what sprocket sizes, mounting options, and belt lengths are available in our catalog
- Check tension with our frequency measuring tool (iPad Touch needs an external microphone)



92 S/C BELT TENSIONING

» Flicking the belt while holding your smart phone near this location will net you the best results / reading.

Tighten the belt to increase the frequency or loosen to decrease the frequency. Torque the M10 flanged hex head tensioner pulley bolt to 36 lb. ft. when finished.



93 S/C INSTALL

» Install the supercharger onto the main super charger mounting bracket.

Start each of the bolts by hand and final torque to 17 lb. ft.



94 S/C PULLEY

» Apply red thread locker to each of the six M6 socket head bolts.



95 S/C PULLEY INSTALL

» Install the six M6 socket head bolts hand tight.

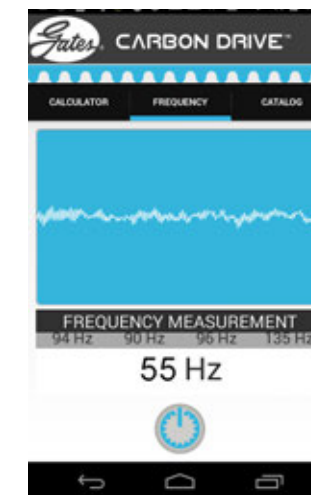
DO NOT SPIN THE SUPERCHARGER COUNTERCLOCKWISE!!



96 BELT FREQUENCY

» The belt tension, or vibrating frequency, should be measured near the mid-point of the longest free belt span between drive pulleys.

The target is 54-56hz.



97 S/C BELT COVER BOLTS

» Apply blue thread locker to the nine M6 socket head bolts you set aside in step 83.



98 S/C DRIVE BELT INSTALL

» Install the supercharger drive belt as shown.

Adjust the belt tension by using the adjuster bolt located on the top edge of the main bracket.

Torque the six M6 socket head bolts of the supercharger drive pulley to 84 in. lbs.

100 S/C BELT COVER INSTALL

» Install the belt guard onto the main super charger mounting bracket using the nine M6 socket head bolts.

Start each of the bolts by hand and final torque to 84 in. lbs.



103 HARD LINE INSTALL

» Push the two hard lines back into the radiator. Lock the lines in place by installing the two c-clips. Now slide the two black c-clip retainers over the c-clips to keep them in place.



104 BYPASS HOSE INSTALL

» Attach the small lower bypass hose.



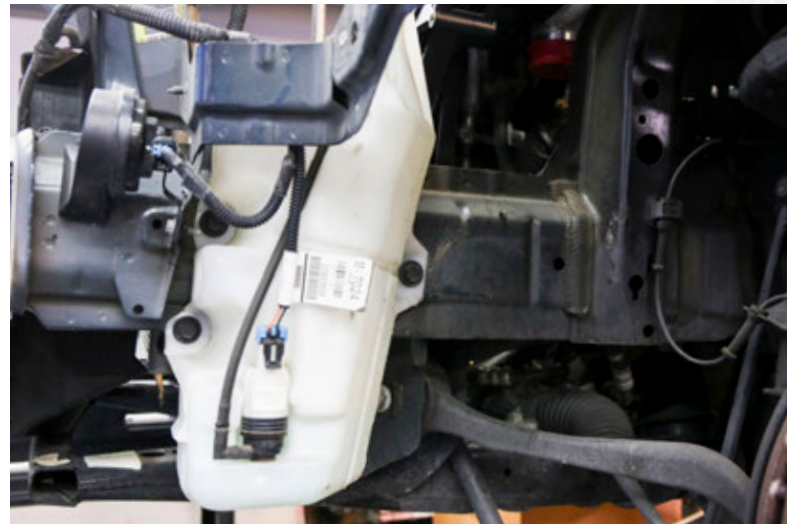
105 FAN INSTALL

» Install the fan shroud assembly and plug the fans back into the main harness.



101 WASHER RESERVOIR REMOVAL

» Disconnect the windshield washer motor and remove the OEM windshield washer fluid reservoir assembly.



106 LOWER HOSE INSTALL

» Attach the lower radiator hose.



107 UPPER HOSE

» Locate the Kraftwerks silicone upper radiator hose and clamps.



108 UPPER HOSE INSTALL

» Install the new silicone upper radiator hose and tighten the lined worm clamps.



102 RADIATOR INSTALL

» Install the radiator and lower radiator hose.

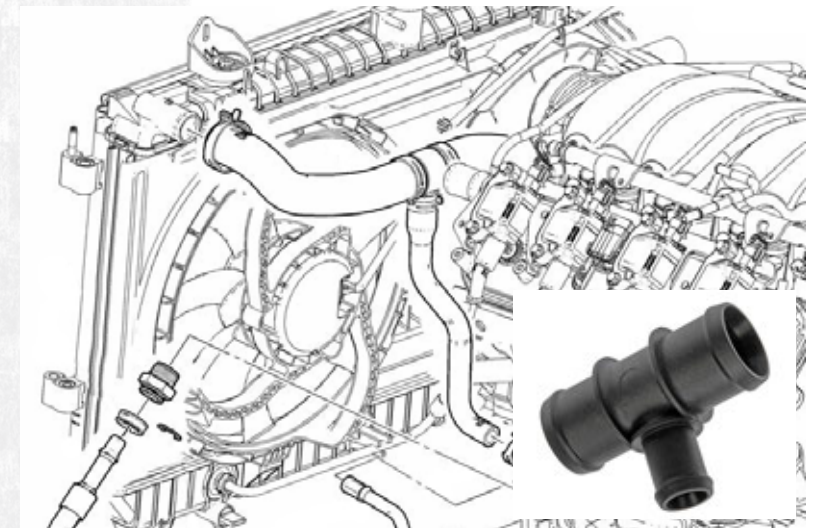


109 UPPER HOSE OPTION

» Some years came with an upper radiator hose that looks like a "T".

If your vehicle came equipped with this "T" please contact your closest dealer ship or auto parts store and order GM part number 23333192 to complete the install.

The "T" is not included.



110 BULK HOSE

» Locate the roll of bulk oil hose and spring clamps.



111 11" HOSE

» Cut a 11" section of hose and install a spring clamp on each end.



112 24" HOSE

» Cut a 24" section of hose and install a spring clamp on one end.



117 BANJO ASSEMBLY

» Locate the oil reservoir, oil reservoir mounting bracket, and mounting bolt.



118 RESERVOIR ASSEMBLY

» Thread the hose assembly from step #116 into the bottom of the reservoir but do not tighten.



119 MNTG LOCATION

» The reservoir assembly is going to be mounted in this location.



113 OIL FILTER

» Locate the magnetic oil filter.



114 HOSE ASSEMBLY

» Install the 11" section of hose to the oil filter inlet.

Install the 24" section of hose to the oil filter outlet.



115 BANJO INSTALL

» Locate a banjo bolt, a banjo fitting, and two crush washers.



120 RESERVOIR INSTALL

» Install the reservoir assembly using the supplied M8 flanged hex head bolt.



121 OIL FILTER LOCATION

» Route the filter to this M6 bolt, wrap the included p-clamp around the filter (as shown) and clamp it down using this bolt.



122 OIL FILTER INSTALL

» Locate a banjo bolt, a banjo fitting, and two crush washers.



116 OIL FILTER ASSEMBLY

» Insert a banjo fitting into the open end of the 11" hose.



123 OIL LINE "IN"

» Install the banjo bolt assembly into the "OIL IN" port on the supercharger. Do not tighten.

Route the hose from the oil filter to the banjo fitting you just installed in a manner that avoids anything hot, sharp and/or moves.

Line the hose up with the fitting, trim any excess, install a spring clamp, and attach the line to the banjo fitting.

Tighten the banjo fitting on the bottom of the reservoir but leave the banjo fitting on the supercharger loose.



124 OIL LINE - III

» Cut another 24" section of hose from the roll.



127 OIL LINE - IV

» Install a spring clamp on either end of the remaining hose.



128 OIL COOLER

» Locate the oil cooler assembly with mounting brackets.



129 OIL COOLER ASSEMBLY

» Attach the 24" section of hose to the bottom hose barb on the oil cooler and the remaining bulk section of hose to the top hose barb on the oil cooler.



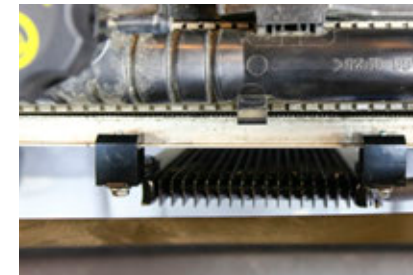
125 BANJO BOLTS & SPRING CLAMPS

» Locate the remaining banjo bolts, banjo fittings, copper crush washers and spring clamps.



130 OIL COOLER INSTALL

» Install the oil cooler assembly onto the upper edge of the A/C condenser by loosening the pinch bolts and sliding the blocks over the lip. Tighten once in position.



131 OIL LINE ROUTING - I

» Route the 24" section of hose from the bottom of the cooler to the top of the oil reservoir.



132 OIL LINE ROUTING - II

» Install the banjo bolt and copper crush washers (same order as step #117), into the banjo fitting. Thread into the top of the reservoir and tighten.



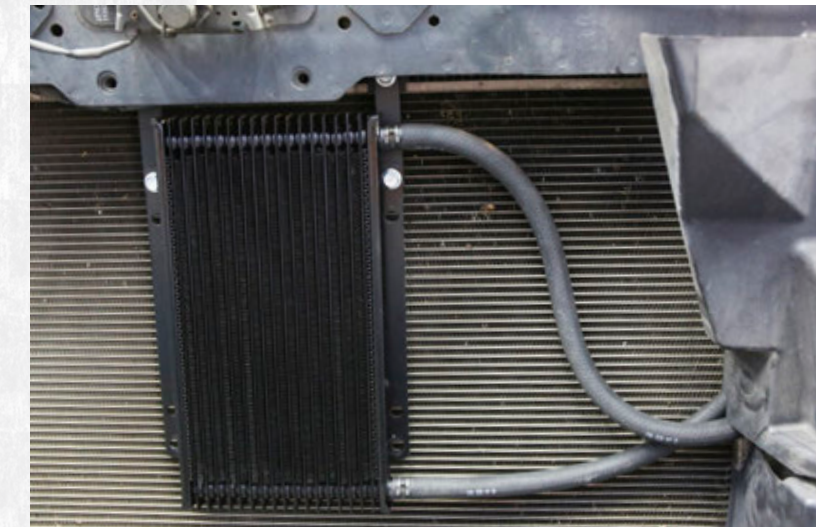
126 BANJO BOLT INSTALL

» Install a spring clamp on each end of the 24" section of hose and then install the banjo fitting into either end.



133 OIL LINE ROUTING - III

» Route the remaining bulk section of hose from the top of the cooler in the same general direction of the oil reservoir.



134 OIL LINE ROUTING - IV

» If you run the two hoses together as they pass the plastic shroud, you will only need to make one small cut to the shroud to avoid contact/ abrasion.



135 OIL LINE ROUTING - V

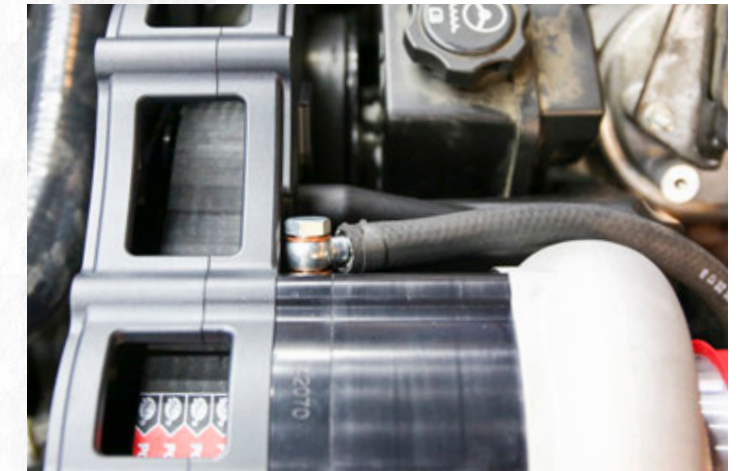
» Using a sharp razor, cut from the top down, be careful not to cut the hose.

Once you are happy with the fitment, zip tie the two lines together so they support each other and reduce movement.



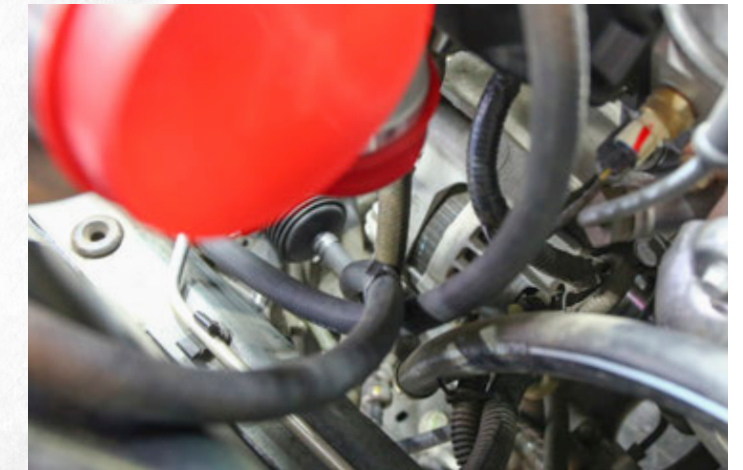
138 OIL LINE "OUT"

» Trim the hose and install the remaining banjo fitting. Assemble the banjo fitting using the last banjo bolt and copper crush washers. Tighten.



139 SECURE HOSE

» Zip tie the two oil cooler lines that cross; just under the supercharger inlet.



136 OIL LINE ROUTING - VI

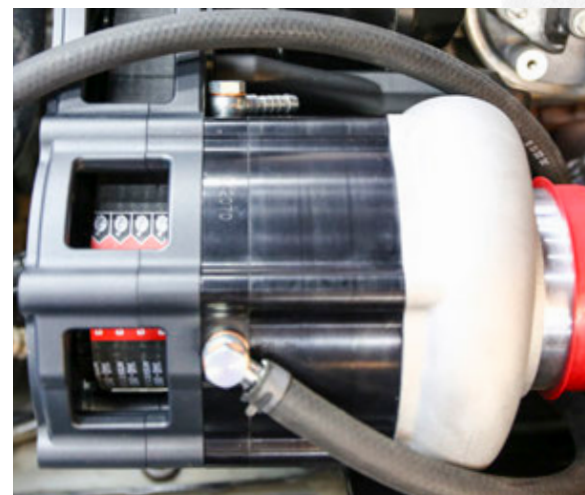
» As the oil line passes the plastic shroud, guide it along the frame rail and zip tie it to the A/C hard line.



137 OIL LINE ROUTING - VII

» The line will pass under the supercharger just like the line coming from the reservoir and should cross just below the supercharger inlet.

Route the line to the "OIL OUT" port on the supercharger in a manner that avoids anything hot or sharp!



140 INTERCOOLER KIT

» Locate the intercooler, intercooler mounting brackets, and hardware.



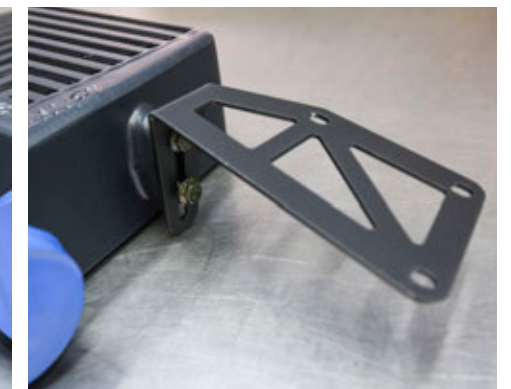
141 LEFT IC BRACKET

» Install the left mounting bracket using the hardware that is pre-installed into the intercooler. Snug the hardware but make sure the bracket still slides.



142 RIGHT IC BRACKET

» Install the right mounting bracket using the hardware that is pre-installed into the intercooler. Snug the hardware but make sure the bracket still slides.



143 INTERCOOLER MOCK INSTALL

» Lay the intercooler assembly just in front of the vehicle with the bumper beam just behind it.

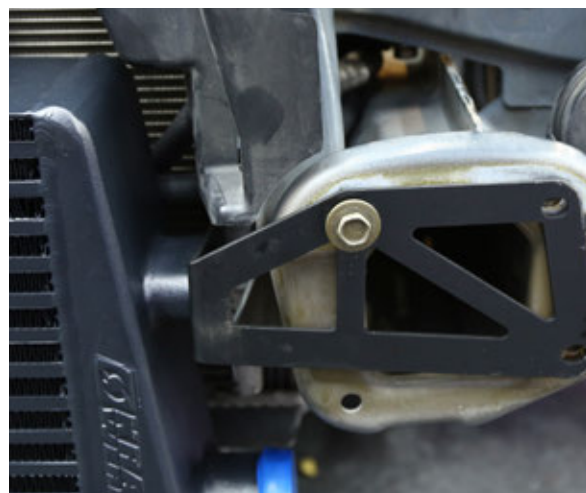
If you have a friend helping you out... you can use his/ her help with the next few steps. You can eliminate step #150 all together.



145 IC INSTALL HELPER

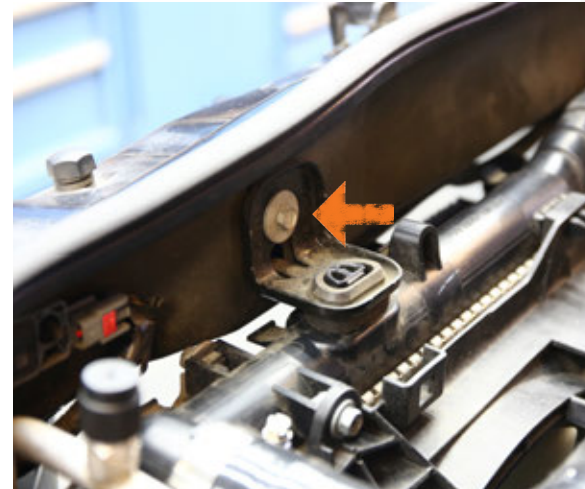
» The intercooler mounting brackets get sandwiched between the frame horn and bumper beam.

If you are doing this install solo... prop one side of the intercooler up and start one bolt to hold it in place.



144 RADIATOR SUPPORT

» You are going to be adjusting the intercoolers front to back clearance in the next few steps, it is important that the radiator is in its original position, if you have not already reinstalled the upper radiator brackets, do so now.



146 BUMPER BEAM INSTALL

» Prop the opposite end of the intercooler and bumper beam up with your hand. Start one bolt to hold the bumper beam and intercooler in place.

Jump over to the other side and remove the bolt you installed in the previous step. While holding the intercooler up with your hand... lift the bumper up, line up the holes and start a bolt to hold it in place.



147 INTERCOOLER CLEARANCE

» Install at least one more bolt per side and completely tighten all four bolts.

Check the clearance between the oil cooler and the back of the intercooler as well as the clearance between the intercooler and the bumper beam. Adjust accordingly.



148 TIGHTEN IC BRACKETS

» Once you have the desired clearance, tighten the accessible intercooler bracket bolt(s) on each side of the intercooler.

Now that the intercooler brackets are in the correct position, remove the bumper beam and intercooler assembly.

Tighten the remaining intercooler bracket bolt(s).

Once the bolts are tight, reinstall the intercooler and bumper beam by repeating steps 148 through 151.



149 LONG CHARGE PIPE

» Locate the driver-side (long length with two bends) intercooler charge-pipe, coupler, and clamps.

Snug the clamp on the supercharger.



150 OUTLET PIPE INSTALL - I

» Install the 90 coupler onto the supercharger and then install the charge pipe into the coupler.



151 OUTLET PIPE INSTALL - II

» Place the 45 coupler at the very end of the charge pipe and work the open end onto the intercooler.



156 SHORT CHARGE PIPE

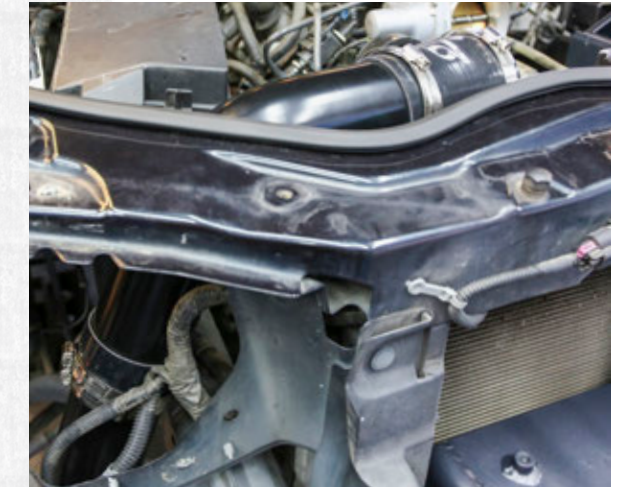
» Locate the upper passenger-side (short length with one bend) intercooler charge-pipe, coupler, and clamps.



157 INLET PIPE INSTALL - II

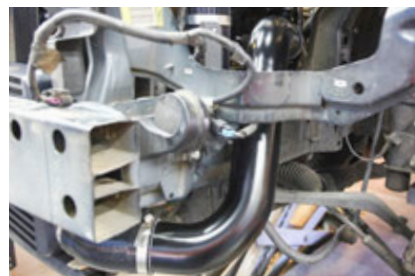
» Loosen the clamp at the end of the coupler.

Install the end of the pipe, without a coupler, into the lower passenger-side charge pipe coupler so that it is pointing in the general direction of the throttle body.



152 OUTLET PIPE INSTALL - III

» Once the desired fitment has been achieved, go through and tighten each of the hose clamps.



153 COOLANT OVERFLOW REMOVAL

» Disconnect the coolant overflow tube and remove the OEM coolant overflow reservoir assembly.



154 MEDIUM CHARGE PIPE

» Locate the lower passenger-side (medium length with two bends) intercooler charge-pipe, coupler, and clamps.



158 MAF CHARGE PIPE

» Locate the MAF (short length with one bend and billet MAF sensor bung) intercooler charge-pipe, coupler, and clamps.



159 INLET PIPE INSTALL - III

» Loosen the clamp at the end of the coupler.

Install the end of the pipe, without a coupler, into the upper passenger-side charge pipe coupler. Once installed, rotate the MAF pipe so that it lines up with the throttle body.

Tighten the clamp that holds the coupler to the throttle body.

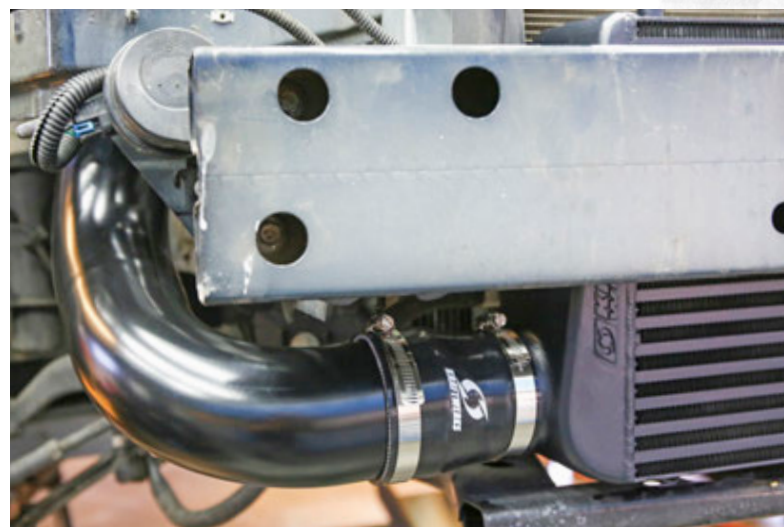


155 INLET PIPE INSTALL - I

» Fish the end of the pipe with the straight coupler up and through the inner fender (into the engine bay) and install the end with the reducer coupler onto the intercooler.

Snug the clamp that holds the coupler to the intercooler.

NOTE: This pipe and those being connected to it will remain loose, as clocking/ fitment will need to be adjusted once the headlight is in place.



160 MAF SENSOR

» Remove the MAF sensor from the factory intake tube.
Remove the two button head screws from the MAF charge pipe.
NOTE: Be sure to inspect the MAF sensors seal/ gasket and replace as necessary.



161 MAF SENSOR INSTALL

» Install the MAF sensor into the MAF charge pipe, using the supplied button head screws, making sure that the sensor installs completely and sits flush.



164 BRTHR HOSE

» Locate the section of breather/ emissions hose and bundle of zip ties.



165 OEM BRTHR HOSE

» Disconnect the OEM breather hose from this hard line.



166 BRTHR HOSE INSTALL - II

» Attach the open end of the breather hose to the hard line shown in the previous step and route as shown.



Secure with a zip tie.

162 MAF SENSOR HARNESS - I

» Completely optional.
Carefully cut the tape holding the wire harness radiator hose clamp to the MAF sensor harness. Reroute the harness to follow the upper radiator hose, select a new location for the clamp and tape it in place with new electrical tape.



163 MAF HARNESS - II

» Plug the MAF harness into the MAF sensor.



167 VAC HOSE

» Locate the partially assembled vacuum line and remainder of zip ties.



168 VAC HOSE INSTALL - I

» Locate this factory vacuum line.



169 VAC HOSE INSTALL - II

» Remove a 1-1/2" (min.) section of the rigid vacuum line as shown.



171 VAC HOSE INSTALL - III

» Install the partially assembled vacuum line by inserting each end of the factory vacuum line into the rubber hose.
Secure each end of the rubber hose on the "T" with a zip tie.
Route the small vacuum line that comes off the bottom of the "T" towards the power steering pump.



170 BYPASS VALVE - B.O.V.

» Locate the bypass valve, recirculation tube, and hose clamps.



172 B.O.V. INSTALL - II

» If your install places the bypass valve in contact with the power steering hard line, gently adjust the hard line so that it clears.



171 B.O.V. INSTALL - I

» Loosen the hose clamp on the end of the pre-assembled bypass valve and install it on the un-used port on the supercharger outlet pipe.



173 VAC HOSE INSTALL - IV

» Finish routing the small vacuum line around the power steering pump, away from the pulley and belt, and to the vacuum port on the top of the blow-off valve.



174 B.O.V. INSTALL - III

» Install the recirculation tube so that the tubes natural curve points up towards the inlet of the supercharger.



177 B.O.V. INSTALL - V

» Insert the other end of the small aluminum tubing into the air filter assembly.

Do not tighten.



182 AIR FILTER INSTALL - II

» Adjust the air filter assembly by rotating it on the supercharger inlet so that the air filter does not make contact with the shock tower.

Tighten once you have achieved the desired fitment.

Tighten all clamps associated with the blow-off valve and recirculation tube.



175 B.O.V. INSTALL - IV

» Insert the small section of aluminum tubing into the recirculation tube and tighten.



178 BRTHR HOSE INSTALL - II

» Finish routing the breather line around the power steering pump and connect it to the air filter assembly.

Secure with zip ties.



176 AIR FILTER ASSEMBLY

» Locate the air filter assembly.



179 AIR FILTER INSTALL - I

» Loosen the large clamp on the end of the coupler and install the air filter assembly onto the supercharger inlet.



180 COOLANT OVERFLOW

» Locate the coolant overflow tank, hardware kit, and tubing.



181 HOSE BARB INSTALL

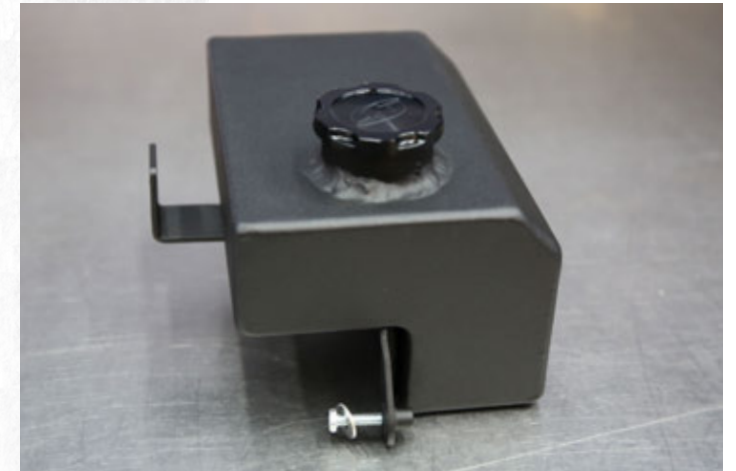
» Install the two hose barb fittings in the coolant overflow tank.

The fitting in the side of the tank should point down and the fitting in the bottom of the tank should point to the passenger-side of the engine bay.



184 S/C DRIVE BELT INSTALL - III

» Start the 10-24 flanged hex head screw.



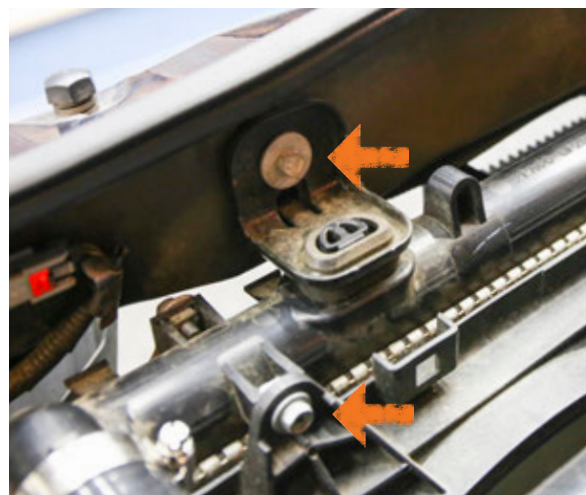
185 OVERFLOW HOSE - I

» Attach the longer length of coolant tubing to the hose barb fitting on the bottom of the coolant overflow tank.



182 HARDWARE REMOVAL

» Remove the M6 bolts that hold the driver-side radiator stay to the core support and the fan shroud mounting bolt nearest the upper radiator hose.



183 OVERFLOW BRACKET INSTALL

» Install the billet mounting bracket where you removed the M6 bolt from the fan shroud.

Install with the slotted portion facing up.



186 OVERFLOW INSTALL - III

» Install the tank by sliding the 10-24 flanged hex head screw into the slotted bracket you installed in step #187.



187 OVERFLOW INSTALL - IV

» Line up the upper mounting bracket with the radiator stay mounting hole. The bracket should fit snugly into the shape of the radiator stay.

Go back and tighten the 10-24 flanged hex head screw.



188 OVERFLOW HOSE - II

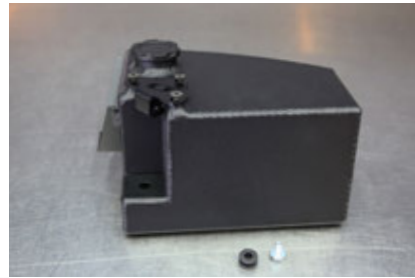
» Route the coolant tubing from the lower hose barb to the open hose barb on the passenger-side of the radiator cap neck.

Install the shorter length of coolant tubing to the hose barb fitting on the side (drain) of the coolant overflow. Zip tie in place.



189 WASHER RESERVOIR

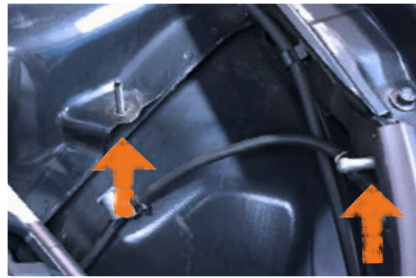
» Locate the washer reservoir and mounting hardware.



190 WASHER RES INSTALL - I

» The washer reservoir will mount to these preexisting mounting points.

Remove the stud occupying the forward most mounting hole.



191 WASHER RES INSTALL - II

» Install the washer reservoir using the included M6 nut and bolt.



186 WASHER PUMP HARNESS EXTENSION

» Locate the washer reservoir pump harness extension.



192 WASHER PUMP

» Remove the washer reservoir pump from the OEM tank by pulling the pump away and up.



193 WASHER PUMP INSTALL

» Install the washer pump into the Kraftwerks reservoir.

NOTE: Make sure the rubber grommet is installed in the reservoir first.



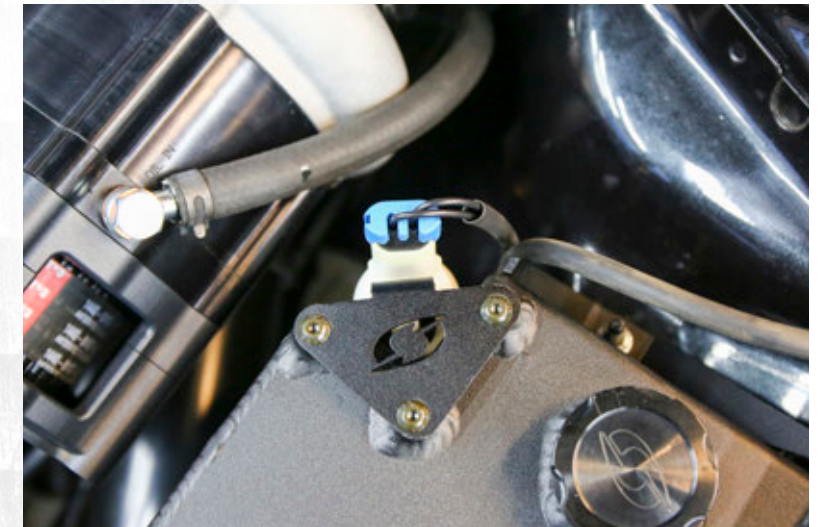
194 WASHER PUMP HOSE - I

» Zip tie the washer line to the hood release cable as shown.



197 WASHER PUMP EXTENSION INSTALL - I

» Plug the end of the harness extension with a blue clip into the washer pump.



195 WASHER PUMP HOSE - II

» Reinstall the washer pump mounting bracket.

Route the remainder of the washer line to the pump inlet and trim as needed.



198 WASHER PUMP EXTENSION INSTALL - II

» Plug the opposite end of the harness extension into the OEM harness.



199 ENGINE TUNE-UP KIT

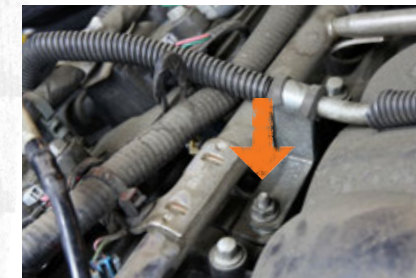
» Locate the engine tune-up kit.

The engine tune-up kit includes eight spark plugs (one step colder), eight 550cc Grams fuel injectors, and an OEM 3 BAR MAP sensor.



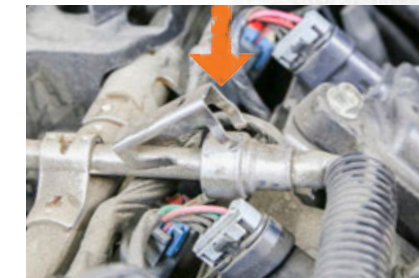
201 FUEL LINE REMOVAL - II

» Unbolt the fuel rail feed line.



202 FUEL LINE REMOVAL - III

» Remove the fuel feed line retainer clip.



203 FUEL LINE REMOVAL - IV

» Disconnect the fuel line using a quick disconnect coupler tool. The tool slides down the line and into the connector; separating the clip without damaging the quick connect seals.



204 FUEL RAIL REMOVAL - I

» Place a rag at the fuel rail connection to absorb any fuel that drips out.

Unbolt the fuel rail feed line.



205 FUEL RAIL REMOVAL - II

» Remove the engine cover mount.



206 FUEL RAIL REMOVAL - III

» Remove the four fuel rail mounting bolts.



200 FUEL CAP REMOVAL

» Gasoline is extremely flammable and its vapors are potentially explosive. Work in a well-ventilated area away from sparks or open flames. Prohibit smoking and eliminate all sources of ignition within the area of work being performed.

Always relieve the fuel systems pressure using the original equipment manufactures recommended procedure before servicing fuel system components.

Keep a Class A/B/C fire extinguisher nearby and always wear eye protection.



207 FUEL RAIL REMOVAL - IV

» Loosen the four fuel rail retainer bolts.

NOTE: You can remove these bolts completely but it is not necessary. Loosen the bolts just enough to allow the fuel rail(s) clearance to be removed.



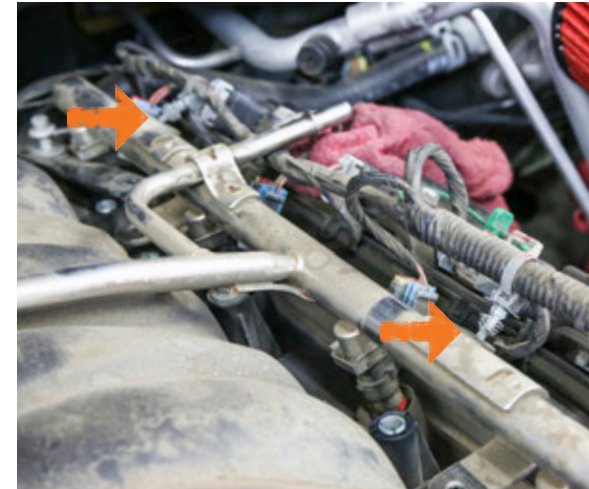
208 FUEL RAIL REMOVAL - V

» Remove the engine harness retainer clips from the passenger-side fuel rail.



209 FUEL RAIL REMOVAL - VI

» Remove the engine harness retainer clips from the driver-side fuel rail.



212 FUEL INJECTOR CLIP REMOVAL - III

» Once all injector clips have been disconnected, firmly pull upwards on the fuel rails to remove.

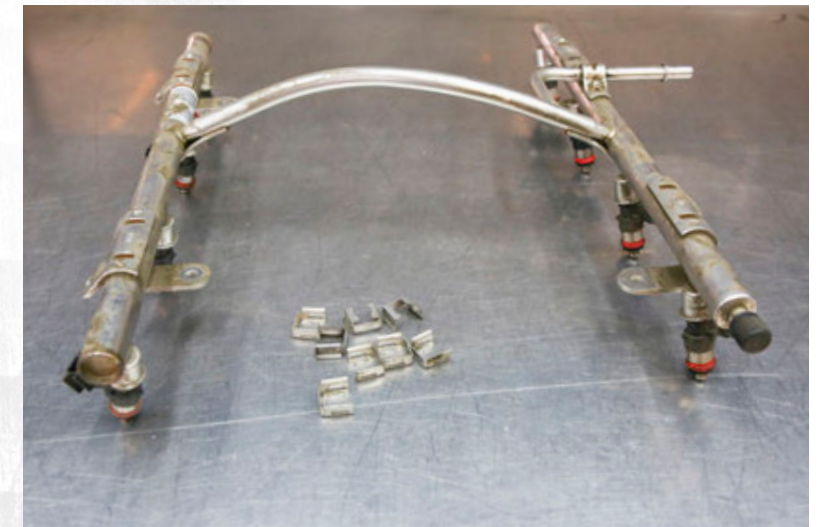
NOTE: The o-ring seal(s) on the manifold may cause the fuel rail to be difficult to remove. You can use WD40 on each of the injectors to help. You can also use a pry bar and some rags (to protect the leverage/ prying points) to aid in the removal.



213 FUEL INJECTOR CLIP REMOVAL

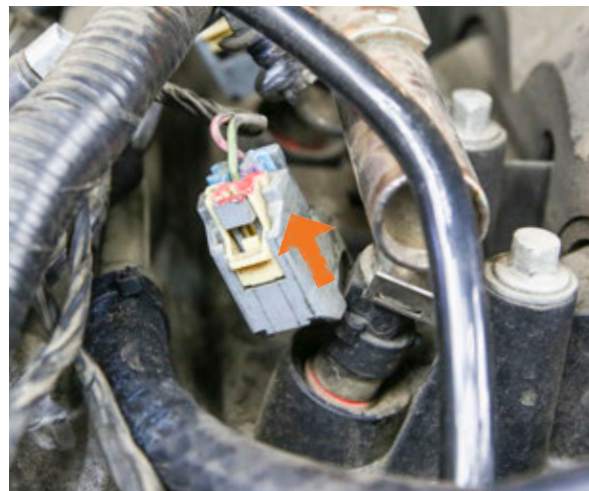
» Place the fuel rail assembly on a clean work surface that can't be damaged by fuel.

Remove each of the fuel injector retaining clips and set them aside for use in the next step.



210 FUEL INJECTOR CLIP REMOVAL - I

» Disconnect the fuel injector clips by pushing the white locks upwards.



211 FUEL INJECTOR CLIP REMOVAL - II

» Once the clips are unlocked, pinch the white and gray portion of the clip to remove.

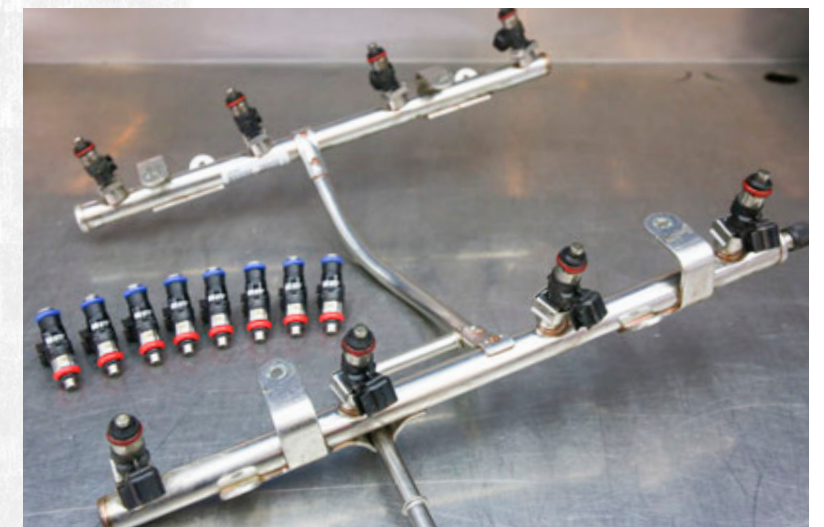


214 FUEL INJECTOR REMOVAL & INSTALL

» Remove the OEM fuel injectors by firmly pulling them away from the fuel rail.

Again, the use of WD40 may aid in their removal if they are stubborn.

Install the Grams Performance fuel injectors in the reverse order of removal.



215 FUEL CAP INSTALL

» Install and tighten the fuel cap.



218 SPARK PLUG GAP

» The Kraftwerks super charger kit requires that a colder plug be used, so we include a set of NGK TR6 V-Power plugs in the engine tune up kit.

We highly recommend that each of the plugs gap be checked and adjusted to .028"-.035" depending on other modifications to the engine.



216 MAP SENSOR REMOVAL

» Unplug and remove the OEM MAP sensor.



219 SPARK PLUG INSTALL

» We recommend the use of anti-seize on the spark plug threads to aid in the installation and removal in the future.



217 MAP SENSOR INSTALL

» Install the GM 3 BAR MAP sensor and reconnect the harness.



220 PLUG WIRE INSTALL

» You may have experienced a difficult time removing the spark plug boots, possibly even damaging a wire or two... to aid in the installation and removal of the spark plug wire in the future, apply a small amount of dielectric grease to the inside of the spark plug boot.



221 TRACTION FLUID

» To ensure proper traction fluid circulation and adequate lubrication, it is important to prime the oil system before the engine is started for the first time; after the supercharger installation.



222 FLUID LEVEL

» Fill the reservoir with traction fluid without exceeding the maximum mark on the dip stick.

NOTE: The oil level is measured with the thread of the dip stick cap fully engaged.



225 R HEADLIGHT INSTALL

» Reinstall the passenger-side head light.



226 PIPE ADJUSTMENT

» With the head light in place, adjust the cold-side charge pipes. Proper adjustment will yield a finished install where none of the pipes make contact other components.



227 L HEADLIGHT INSTALL

» Reinstall the driver-side head light.



223 PRIMING THE SYSTEM

» Carefully apply pressurized air to the reservoir fill hole. Do not exceed 15psi. Use a rag or a sponge as a seal between the air gun and the canister.

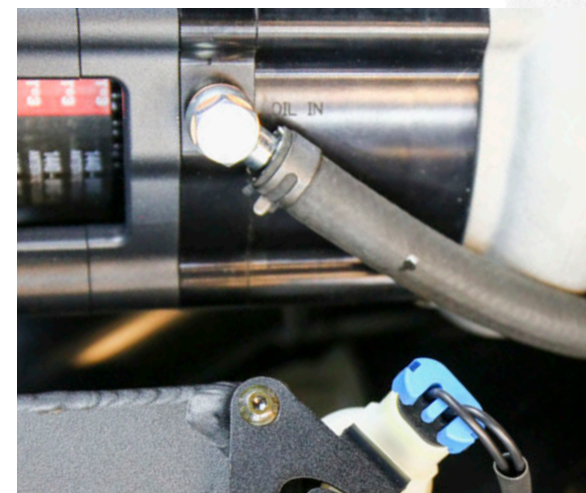


224 TIGHTEN BANJO FITTING

» When oil appears at the "OIL IN", tighten the banjo bolt and the system is primed.

Carefully top off the reservoir to the maximum mark on the dip stick.

REMEMBER... The oil level is measured with the thread of the dip stick cap fully engaged.



228 SUPPORT INSTALL

» Reinstall the upper bumper support to the radiator core support.



229 CONNECT BATTERY

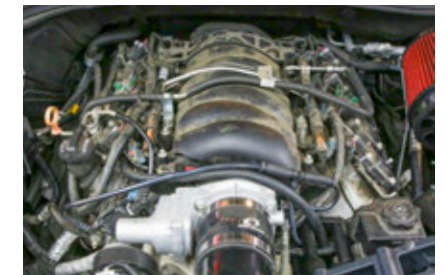
» Reconnect the negative battery terminal.



230 CHECK FOR FUEL LEAKS

» Cycle the key in the ignition (do NOT start) to allow the fuel system to build pressure.

Check all connections for leaks.



234 START UP

» Now that the fuel system has been checked for leaks, it is time to upload your base calibration, start the vehicle and fill the superchargers oil system.

Do NOT start the vehicle until a supercharged base calibration has been uploaded or the ECU has been remapped.



231 BURPING THE OIL SYSTEM

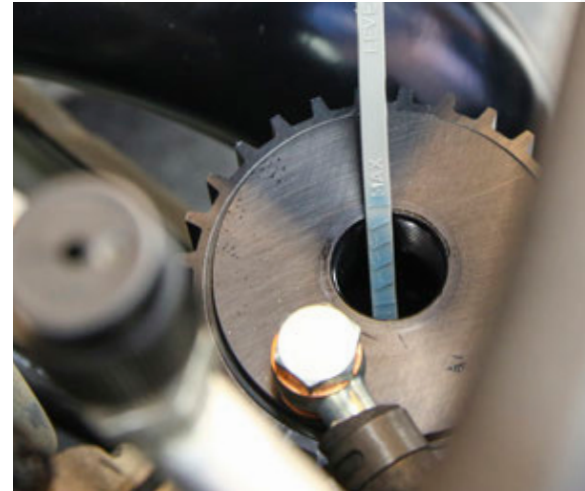
» Closely monitor the oil level in the reservoir as the engine idles and check all oil system components and connections for leaks.

Add fluid as needed to keep the reservoir from going dry but be careful not to overfill the reservoir at any point.

**232 TOPPING OFF THE OIL SYSTEM**

» Once the fluid level is stable at an idle, check the level with the dip stick and add fluid until you have reached the "MAX" mark.

Now hold the engine between 2,000-2,500 rpm for 2-3 minutes, continue to monitor the fluid level and add fluid as needed to keep the reservoir from going dry!

**233 ENGINE COVER**

» Reinstall the engine cover by removing the oil filler cap, installing the cover and then reinstall the oil cap.

**234 BUMPER INSTALL**

» Install the front bumper, fender liners, wheels and you are good to go!

NOTE: Be sure to continue to monitor the fluid level in the superchargers oil system cautiously in the first few miles. Once the system is stable... you can check it less frequently.



LIMITED WARRANTY

Kraftwerks USA offers a 12 MONTH Limited Warranty against defects in materials, components, and workmanship unless specified otherwise. The warranty period starts on the ORIGINAL date of retail purchase directly from Kraftwerks or from your local dealer (Warranty of the Rotrex Supercharger Head Unit is 3 years from date of manufacture). This limited warranty is only offered to the ORIGINAL OWNER (receipt will be required for verification). Furthermore, the warranty excludes any electronic components manufactured by other companies. **IF THE KRAFTWERKS SUPERCHARGER KIT IS ALTERED FROM THE FACTORY SETTINGS, THE WARRANTY MAY BE VOID.**

This includes but is not limited to the following:

- Over spinning of the Rotrex supercharger head unit
- Use of non-approved or custom hubs/pulleys
- Alteration of brackets, pulleys, and other drive components
- Modification or re-routing of any charge piping or intake system that is included in the "FULL" Kits

Kraftwerks will honor a warranty claim at its sole discretion after the component in question is inspected at the Kraftwerks facility and/or the Rotrex A/S facility located in Denmark. **NO WARRANTY CLAIM WILL BE ACCEPTED IF THE COMPONENT IS FOUND TO HAVE BEEN TAMPERED, MISINSTALLED, MISUSED, OR MISHANDLED (I.E. DROPPED) IN ANY WAY.** Furthermore, disassembly of the Rotrex Supercharger Head Unit voids ALL warranty claims. No Kraftwerks dealer is authorized to make any warranty claims, repair, or modification. Any claims for freight/shipping damages will need to be directed towards the freight/shipping company.

- If the component in question is covered under the Kraftwerks USA limited warranty, the product will be repaired or replaced at the discretion of Kraftwerks USA.
- If the component in question is not covered by the Kraftwerks USA limited warranty, our Kraftwerks staff will advise you on the specific reason, the cost of replacement/repair, and the estimated time it will take.

TO PROCEED WITH A WARRANTY CLAIM

Contact KraftwerksUSA directly at (951) 808-9888 and be prepared to send the following information to support@kraftwerksusa.com

1. Copy of original receipt or invoice. Please note that PayPal payment verification alone is not accepted
2. Pictures and description of issue. Please limit 1-2 pictures per email or compress images
3. Contact information: Name, address, and phone number
4. Vehicle description: Year, make, model, and any additional/supporting modifications

Once all of the above have been received and the warranty claim has been INITIALLY approved by Kraftwerks USA; you will be contacted with a Return Merchandise Authorization (RMA) number. You will then be directed to package the component(s) in question, write the RMA number (in BOLD) on the outside of the box, and a call tag will be issued to pick up the package from your location.

Kraftwerks USA is located in California. Please be aware that warranty claims will be shipping GROUND (faster shipping available at an additional cost to you) so please allow enough lead time for shipping and inspection of the component(s). Please package components securely as any damage to components due to improper packaging will NOT be covered by the limited warranty. Please note that if a Rotrex supercharger head unit is being sent in for warranty inspection, the lead time will be longer due all head unit warranty inspections are handled by Rotrex in Denmark. Only Rotrex can approve or deny head unit warranty claims (if this is a time sensitive case, we do offer CORE CHARGE options. Please contact a KraftwerksUSA representative for more information).

Please note that KRAFTWERKS USA is NOT liable for the voiding of your factory warranty nor any damage(s) to clutch, transmission, and/or drive-line components.

