

ADDENDUM 2012-2018 JEEP WRANGLER 3.6L V6 PENTASTAR SUPERCHARGER KIT







PLEASE NOTE THIS KIT DOES NOT INCLUDE TUNING HARDWARE OR ECM CALIBRATION FILES.

Tuning will have to be done for proper operation of vehicle once kit is installed. Consult with your selected tuner.

2015+ ECM are required to be "un-locked" before any tune can be done/uploaded. Sending your ECM in has a typical lead time of 3-7 days depending on your vendor choice for this service. Another possible quicker option is purchasing an unlocked ECU ahead of time as some vendors offer this service.

Kraftwerks is not liable for any recovery fees, including but not limited to, replacement of ECM/PCM, programmer and/or ECM/PCM flashing fees.

The below list can be a quick reference of tuning vendors for Jeep Wranglers. Kraftwerks is not affiliated with any of the below tuners. The list is only offered as a quick contact list of possible tuners that you can contact and discuss your induvial needs.

For discussion purposes be sure let them know that injectors have been changed to 52lbs injectors and MAP sensor has been changed to a 3-Bar MAP sensor.

Name	Phone	Email	<u>State</u>
D.Kasper / B&G Performance	888.248.8633	bgchrysler@gmail.com	Michigan
RPM Extreme	205.631.8225	info@rpmextreme.com	Alabama
Ryan Hogan / Flyin' Ryan Performance	732.539.9614	ryan@frptuning.com	Texas
John / Jestr Tuning *	321.252.4741	tuning@jestrtuning.com	Florida
Mike Doban / OST Dyno	724.368.9000	mike@ostdyno.com	Pennsylvania

^{*}Preferred



ECM REMOVAL 2012-2018 JEEP WRANGLER 3.6L V6 PENTASTAR SUPERCHARGER KIT

THE ECM ON A 2015-17 JEEP WRANGLER IS LOCATED UNDER THE HOOD ON THE DRIVER SIDE OF THE VEHICLE. FOLLOW THESE INSTRUCTIONS CAREFULLY TO REMOVE THE ECM

»1. DISCONNECT THE NEGATIVE BATTERY TERMINAL AND ISOLATE THE NEGATIVE CABLE SO IT DOES NOT COME IN CONTACT WITH THE BATTERY TERMINAL OR BODY OF THE VEHICLE.

 $\ensuremath{\mathtt{w}}\xspace$. LOCATE THE ECM. IT IS LOCATED ON THE DRIVERS SIDE ENGINE BAY AREA.

 $\mbox{\tt >\!3}.$ REMOVE THE MAIN HARNESS CONNECTORS BY LIFTING UP ON THE RED LEVERS AND PULLING THE PLUGS OUT.

 $\ensuremath{\mathsf{w}} 4.$ REMOVE THE THREE 3X 8MM BOLTS SECURING THE ECM TO THE BRACKET.

»5. REMOVE ECM FROM VEHICLE.

»6. UNIT IS READY TO BE PACKAGED UP AND SHIPPED TO VENDOR OF CHOICE.









TCM REMOVAL 2012-2018 JEEP WRANGLER 3.6L V6 PENTASTAR SUPERCHARGER KIT

THE TCM ON A 2015-17 JEEP WRANGLER IS LOCATED UNDER THE STEERING COLUMN ON THE DRIVER SIDE OF THE VEHICLE. FOLLOW THESE INSTRUCTIONS CAREFULLY TO REMOVE IF REQUIRED TO SEND TO YOU VENDOR FOR UNLOCKING.

»1. DISCONNECT THE NEGATIVE BATTERY TERMINAL AND ISOLATE THE NEGATIVE CABLE SO IT DOES NOT COME IN CONTACT WITH THE BATTERY TERMINAL OR BODY OF THE VEHICLE.





REMOVE TRIM PANEL

»REMOVE THE TRIM PANEL DIRECTLY UNDER THE STEERING COLUMN BY CAREFULLY PULLING STRAIGHT OUT ON THE PANEL BY HAND IN THE LOCATIONS INDICATED BELOW.





LOCATE TCM

»LOCATE THE TCM ON THE RIGHT SIDE OF THE WIRING COMPARTMENT. THE TCM WILL HAVE TWO HARNESS CONNECTIONS AT THE BOTTOM WITH A WHITE BARCODE LABEL.



REMOVE TCM

»REMOVE THE TCM FROM THE RETAINING BRACKET BY DEPRESSING THE CLIPS HOLDING THE MODULE'S EARS IN ON BOTH SIDES OF THE BRACKET. GENTLY PULL THE TCM OUT OF THE BRACKET FROM THE BOTTOM FIRST.

»7. ECM IS READY TO BE PACKAGED UP AND SHIPPED TO VENDOR OF CHOICE.





REMOVE WIRE COVER PLATE BOLTS

»USING A 10MM SOCKET, REMOVE THE TWO BOLTS THAT SECURE THE WIRE COVER PLATE.





REMOVE TCM CONNECTIONS

»REMOVE THE TWO TCM HARNESS CONNECTIONS BY DEPRESSING THE CLIPS HOLDING THEM IN PLACE





INTRODUCTION

The Kraftwerks Supercharger kit for the '12-'18 Jeep Wrangler 3.6L 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.

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 below 6,400 RPM. Any higher RPM will OVER-SPIN the Rotrex Supercharger head 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).
- 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 120,000 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 twoyear 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 WIDEBAND GAUGE

»The Grams Performance Digital Wideband Gauge is a wideband UEGO air/fuel ratio controller (AFR) and gauge all in one. It is lightning fast, extreemly 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 DBW THROTTLE BODY

» The Grams throttle body is a Plug-n-Play direct OEM replacement that does NOT require swapping electric motors, wiring or mounting adapters. These units are not re-manufactured. Each throttle body includes all new components including a CNC machined billet 6061-T6 aluminum housing with a precision-honed oversized bore, a responsive high-torque servo motor, and a proprietary Non-Contact Hall Effect TPS sensor. To ensure the best performance, throttle response and drive-ability, each TPS sensor is calibrated to meet the specific requirements of the vehicles engine management system. The Grams electronic throttle body is the perfect upgrade for both modified and stock engines with increased airflow demands.

FEATURES:

15% Increase in Airflow Over Stock Throttle Body Precision Honed Oversized Bore CNC Machined Billet 6061-T6 Aluminum Body Aluminum Throttle Plate Factory Programmable Non-Contact Hall Effect TPS Optimized TPS Response Curve High-Torque Precision Servo Motor Plug-n-Play



GRAMS PERFORMANCE 1000CC FUEL INJECTORS

» Grams Performance is proud to offer the most innovative highperformance fuel injectors for today's performance vehicles. Premium materials, advanced manufacturing techniques, and stringent quality control procedures make Grams Performance the leader in highperformance fuel injectors.

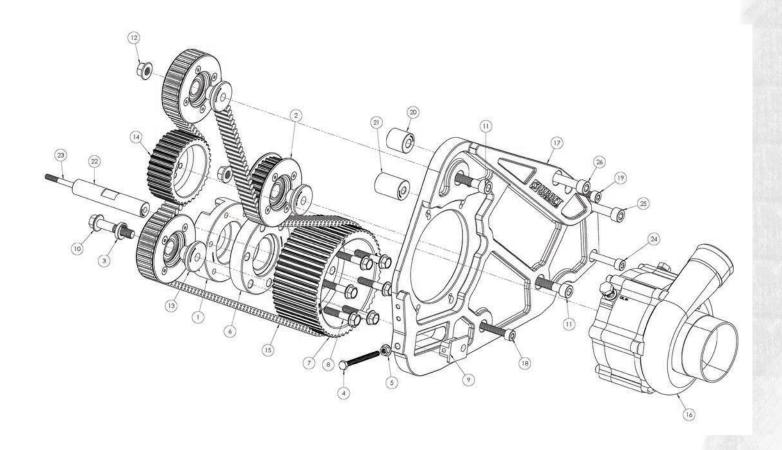


GRAMS PERFORMANCE 320LPH FUEL PUMP

» Utilizing premium materials, advanced manufacturing techniques, and stringent quality control procedures, Grams Performance is a leader in high-performance Fuel Pumps. Grams Hi-Flow Fuel Pumps are designed for high performance naturally aspirated or forced induction vehicles. **FEATURES**:

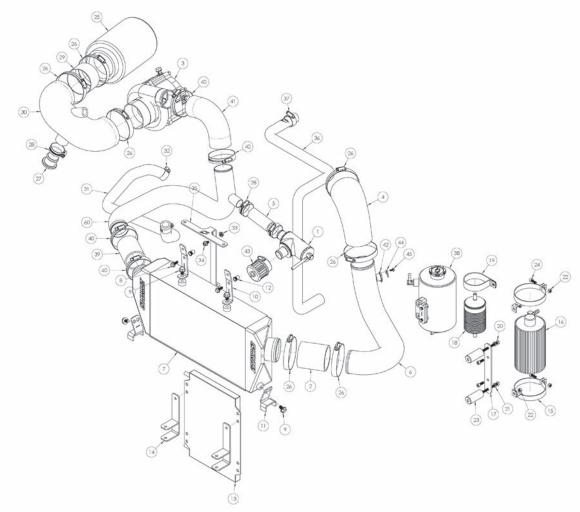
Flows 507 lbs/hr (320 lph) @ 40 psi Flows 490 lbs/hr (309 lph) @ 45 psi Outlet Size 0.47" (11.9mm) Application Specific In-Tank Fitment Compatible w/ All Fuel Types Quiet and Reliable Turbine Impeller

COMPONENT DIAGRAMS



1 - Crank Pulley Hub (C092-0078-01) 2 - Flanged Cogged Idler Assembly (A120-0015-01) 3 - Spacer 20mm ODx1.5mm IDx5mm (C014-0148-12) 4 - Hex Bolt M6x1.0x70mm (C2HH-0600-70) 5 - Flange Nut M6x1.0 (C1FN-0600-CZ) 6 - Crank Pulley Spacer (C014-0089-04) 7 - Crank Pulley 136mmx64mm (C092-0038-04) 8 - Flange Bolt M8x1.25x40mm (C2FH-0825-40) 9 - Tensioner Adjuster (C032-0013-06) 10- Flange Bolt M10x1.25x50mm (C2FH-1025-50) 11- Allen Bolt M10x1.25x45mm (91290A530) 12- Flange Nut M10x1.25 (C1FN-1025-CZ) 13- Spacer 38mm ODx10mm IDx21mm (C014-0065-06) 14- Rotrex Pulley 85mmx25mmx34 Teeth (C092-0051-04) 15- GT2 Belt 1512mmx8mm Pitch (C119-1512-09) 16- Rotrex Supercharger C30-94 (C121-3094-000) 17- Supercharger Base Plate (C032-0118-06) 18- Allen Bolt M8x1.25x40mm (C2AC-0825-40)	1 3 1 1 1 1 6 1 1
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,	1
10- Allen Rolt M8v1 25v20mm (C2AC-0825-20)	1
13- Alien Doit Wox 1.23x2011111 (02A0-0023-20)	1
20- Top Alternator Mount Spacer (C014-0087-04)	1
21- Bottom Alternator Mount Spacer (C014-0088-04)	1
22- Lower Mount Spacer (C014-0086-04)	1
23- Stud M6x1.0x70mm (C2SD-0600-70)	1
24- Allen Bolt M8x1.25x160mm (C2AC-0825-140)	1
25- Allen Bolt M10x1.5x160mm (C2AC-1050-160)	1
26- Allen Bolt M10x1.5x180mm (C2AC-1050-180)	11

INSTALLATION INSTRUCTIONS



Qty	# Description	Qty
1	26- Lined Hose Clamp #48 (C067-LIND-48)	7
1	27- Plug 1.25" Diameter (C030-0129-06)	1
1	28- Lined Hose Clamp #16 (C067-LIND-16)	4
1	29- Tube 3"ODx1.70"Length (C056-0070-03)	1
1	30- Silicone Intake Hose (C007-0086-01)	1
1	31- Power Steering Hose (C007-0044-01)	1
1	32- Hose Clamp #36 (C067-RCMP-10)	2
2	33- Flange Nut M6x1.0 (C1FN-0600-CZ)	1
4	34- Flange Bolt M6x1.0x10mm (C2FH-0600-10)	1
2	35- Power Steering Reservoir Bracket (C032-0229-04)	1
2	36- Heater Hose (C007-0076-01)	1
2	37- Lined Hose Clamp #20 (C067-LIND-20)	1
1	38- Coolant Reservoir Assembly (A078-0013-01)	1
2	39- Silicone Hose Straight 2.0" (C7SL-2020-SS)	1
2	40- Lined Hose Clamp #36 (C067-LIND-36)	4
1	41- Silicone Hose 90 Degree 2.0"ID (C7SL-2020-90D)	1
1	42- Bung Air Temp Sensor (C030-0103-06)	1
1	43- Air Filter Breather 51mmODx38mmHx25mm (C072-1000-RND)	1
1	44- Retaining Clip MAF Sensor (C031-0036-04)	1
2	45- Allen Bolt M4x0.7x8mm (C2AC-0407-08)	1
2		
4		
2		
4		
1		
	1 1 1 1 1 1 1 2 4 2 2 2 1 1 1 1 2 2 1 1 1 2 2 1 1 1 1	1 26- Lined Hose Clamp #48 (C067-LIND-48) 1 27- Plug 1.25" Diameter (C030-0129-06) 1 28- Lined Hose Clamp #16 (C067-LIND-16) 1 29- Tube 3"ODx1.70"Length (C056-0070-03) 1 30- Silicone Intake Hose (C007-0086-01) 1 31- Power Steering Hose (C007-0044-01) 1 32- Hose Clamp #36 (C067-RCMP-10) 2 33- Flange Nut M6x1.0 (C1FN-0600-CZ) 4 34- Flange Bolt M6x1.0x10mm (C2FH-0600-10) 2 35- Power Steering Reservoir Bracket (C032-0229-04) 2 36- Heater Hose (C007-0076-01) 2 37- Lined Hose Clamp #20 (C067-LIND-20) 1 38- Coolant Reservoir Assembly (A078-0013-01) 2 39- Silicone Hose Straight 2.0" (C7SL-2020-SS) 2 40- Lined Hose Clamp #36 (C067-LIND-36) 1 41- Silicone Hose 90 Degree 2.0"ID (C7SL-2020-90D) 1 42- Bung Air Temp Sensor (C030-0103-06) 1 43- Air Filter Breather 51mmODx38mmHx25mm (C072-1000-RND) 1 44- Retaining Clip MAF Sensor (C031-0036-04) 2 45- Allen Bolt M4x0.7x8mm (C2AC-0407-08)

1

GENERAL OVERVIEW/ PRE-INSTALLATION

REFERRING TO THE FACTORY REPAIR MANUAL, PERFORM THE FOLLOWING: 1. DISCONNECT THE NEGATIVE BATTERY TERMINAL

- 2. REMOVE THE GAS CAP TO RELIEVE THE FUEL VAPOR PRESSURE
- 3. DRAIN COOLANT FROM THE RADIATOR
- 4. REMOVE THE FRONT GRILLE
- 5. REMOVE THE ENGINE COVER
- 6.REMOVE THE AIR INTAKE BOX AND TUBE

- TOOLS REQUIRED:
- Metric Wrench Set
- Metric Allen Set
- Screwdriver Set
- Impact Gun
- All Purpose Shears
- Spark Plug Socket
- Wire Cutters
- Hose Cutters
- Pliers

- Low Pressure Air Compressor
- Needle Nose Pliers
- Metric Allen Socket Set
- Metric Socket Set
- Torx Bit Set
- Fluid Funnel
- Jeep Factory Manual
- Fuel/Trans Line Disconnect Tool
- Smartphone
- Dremel/Cut-Off Tool





REMOVE COOLANT RESERVOIR

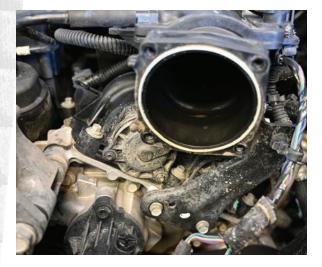
» REMOVE THE COOLANT RESERVOIR.



INSTALLATION INSTRUCTIONS

REMOVE THROTTLE BODY

» REMOVE THE FACTORY THROTTLE BODY ASSEMBLY.



REMOVE HEATER LINES

» REMOVE THE HEATER LINES PICTURED.



REMOVE VALVE COVER/HOSES

» REMOVE THE VALVE COVER HOSES AND EMISSION HOSES.



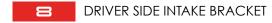
REAR BRACKET/STYROFOAM

» REMOVE THE REAR ENGINE COVER BRACKETS AND THE STYROFOAM COVER PICTURED.



7 FRONT INTAKE BRACKET

» REMOVE THE FRONT INTAKE BRACKET.



» REMOVE THE DRIVER SIDE INTAKE BRACKET.





PASSENGER SIDE INTAKE BRACKET

» REMOVE THE PASSENGER SIDE INTAKE BRACKET.



INTAKE MANIFOLD REMOVAL

» REMOVE THE QTY 7 INTAKE MANIFOLD BOLTS AND THEN REMOVE THE INTAKE MANIFOLD ASSEMBLY ITSELF.



INSTALLATION INSTRUCTIONS

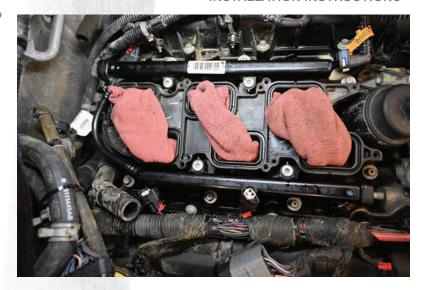
11

FUEL RAIL

» PLACE RAGS OVER THE INTAKE MANIFOLD HOLES TO ENSURE NO DIRT OR DEBRIS GET INTO THE ENGINE.

REMOVE THE FUEL LINE FROM THE FUEL RAIL.

REMOVE THE QTY 4 T30 TORX BOLTS AND THEN REMOVE THE FUEL RAIL ITSELF.



12

FUEL INJECTORS

» INSTALL THE NEW GRAMS 550CC FUEL INJECTORS (MAKE SURE TO USE LUBE OR CLEAN ENGINE OIL ON THE O-RINGS TO ENSURE THERE ARE NO FUEL LEAKS).

RE-INSTALL THE FUEL RAIL ASSEMBLY AND TORQUE DOWN THE QTY 4 T30 BOLTS TO 48 INCH/LBS.

RE-CONNECT THE FUEL LINE.

NOTE: AT THIS TIME IT IS HIGHLY RECOMMENDED THAT YOU INSTALL COLDER SPARK PLUGS. WE RECOMMEND USING NGK ILKR8E6.



13

VALVE COVER TUBES

 $\ensuremath{\mathbf{w}}$ CONNECT THE VALVE COVER TUBES AND THEN ZIP-TIE THEM AS SHOWN.



FOAM INSULATOR

» RE-INSTALL THE THE INTAKE MANIFOLD FOAM INSULATOR.

RE-INSTALL THE INTAKE MANIFOLD ASSEMBLY.

RE-INSTALL THE INTAKE MANIFOLD BRACKETS IN THE REVERSE ORDER



15

RE-INSTALL THROTTLE BODY ASSEMBLY

» RE-INSTALL THE THROTTLE BODY ASSEMBLY.



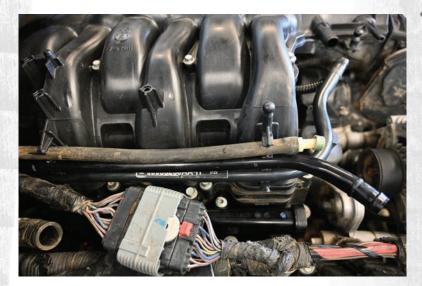
16

BRAKE BOOSTER HOSE

» CONNECT AND ZIP-TIE THE BRAKE BOOSTER HOSE AS SHOWN.



INSTALLATION INSTRUCTIONS

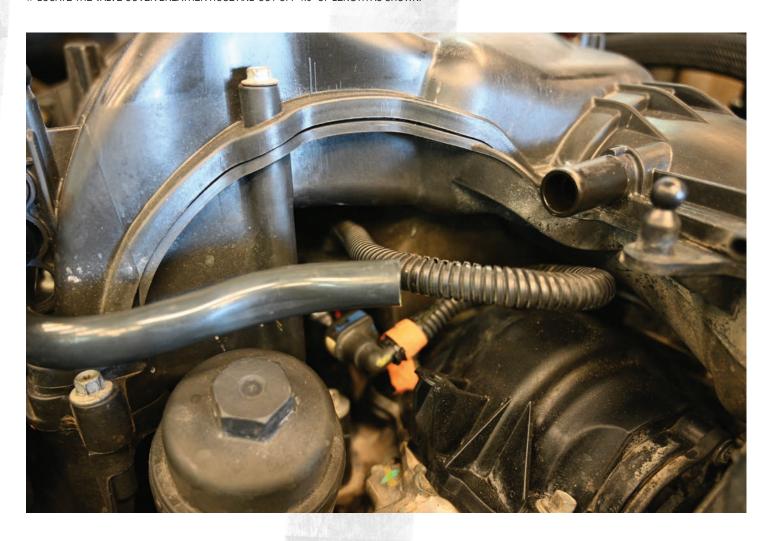


VALVE COVER BREATHER TUBES

» CONNECT THE VALVE COVER BREATHER TUBES TO THE INTAKE MANIFOLD.

VALVE COVER HOSE MODIFICATION

» LOCATE THE VALVE COVER BREATHER HOSE AND CUT OFF 1.5" OF LENGTH AS SHOWN.



19

HOSE MODIFICATION

» LOCATE THE FACTORY 45 DEGREE 5/8" ID BREATHER HOSE AND CUT OFF 0.5" AS SHOWN.





CHECK VALVE HOSE ASSEMBLY I

» INSTALL THE INCLUDED CHECK VALVE BETWEEN THE 1.5" HOSE FROM STEP 18 AND THE MODIFIED 45 DEGREE HOSE FROM THE PRIOR STEP AND ASSEMBLE AS SHOWN.

MAKE SURE THE CHECK VALVE FLOW DIRECTION IS GOING TOWARDS THE ANGLED HOSE SECTION.



21

CHECK VALVE ASSEMBLY II

» LOCATE THE CHECK VALVE ASSEMBLY FROM THE PRIOR STEP AND INSTALL IT WITH THE 5/8" SPRINGS CLAMPS AS SHOWN.





ALUMINUM HEATER TUBE I

» LOCATE THE FACTORY ALUMINUM HEATER TUBE ASSEMBLY.

MARK 4.5" AWAY FROM THE TAB AS SHOWN. CUT USING A CUTOFF WHEEL.



INSTALLATION INSTRUCTIONS

23

ALUMINUM HEATER TUBE II

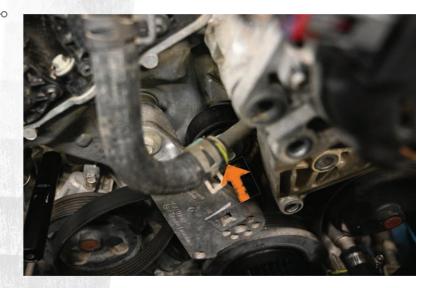
» INSTALL THE ALUMINUM HEATER HOSE.



24

HEATER HOSE

 $\ensuremath{\mathbf{w}}$ TRIM 1.25" OFF THE BOTTOM FACTORY HEATER TUBE AND INSTALL AS SHOWN.



25

FORMED HEATER HOSE

» INSTALL THE INCLUDED FORMED HEATER HOSE WITH THE QTY 2 \pm 10 HOSE CLAMPS AS SHOWN.



25 VACCUUM T-CONNECTOR

»LOCATE THE 30' LENGTH 5/16" HOSE AND CUT OFF 8" OF LENGTH.

INSTALL THE INCLUDED VACUUM "T" AND CONNECT THE REST OF HOSE ASSEMBLY AS SHOWN.

ZIP-TIE THE HOSE ON BOTH SIDES OF THE CONNECTOR TO PROPERLY SECURE IT.



EMISSIONS HOSE ASSEMBLY

» CONNECT THE 8" LENGTH 5/16" HOSE CREATED IN THE PRIOR STEP AND CONNECT IT TO THE INTAKE MANIFOLD.

CONNECT THE OTHER END OF THE 5/16" HOSE TO THE EMISSIONS CHECK VALVE AS SHOWN.

NOTE: HOSE SECTIONS MAY NEED ADDITIONAL TRIMMING TO FIT.



MAP SENSOR AND HARNESS

» LOCATE THE NEW MAP SENSOR AND JUMPER CONNECTOR.



INSTALLATION INSTRUCTIONS



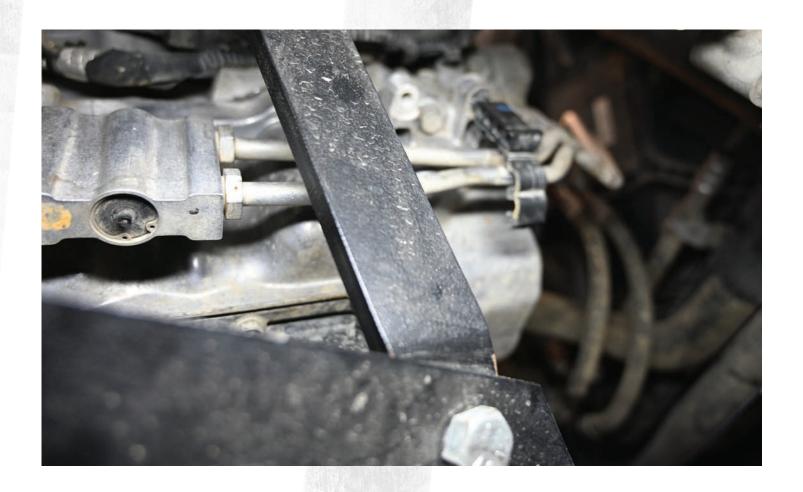
MAP SENSOR INSTALL- I

» INSTALL THE MAP SENSOR AND JUMPER CONNECTOR AS SHOWN.

AUTOMATIC TRANSMISSION ADDENDUM

» NOTE: THIS SECTION IS FOR AUTOMATIC TRANSMISSION APPLICATIONS ONLY. IF YOU HAVE A MANUAL TRANSMISSION, PLEASE SKIP TO STEP 44.

LOCATE THE TRANSMISSION COOLER LINES AND REMOVE THEM FROM THE COOLER BYPASS. REMOVE FRONT CLIP FROM VEHICLE FOR EASE OF ACCESS.



31

TRANSMISSION COOLER LINES

» IN THE DRIVER SIDE FENDER, SEPARATE THE TRANSMISSION COOLER LINES WITH A QUICK DISCONNECT TOOL.

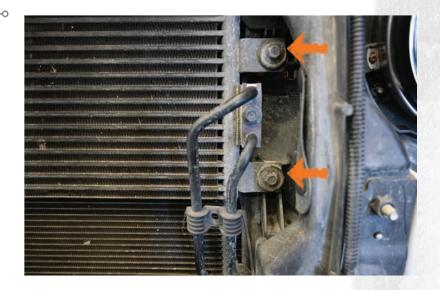
REMOVE THE FRONT TRANSMISSION COOLER LINES FROM THE TRANSMISSION COOLER.



32

TRANSMISSION COOLER

 $\ensuremath{\mathbf{y}}$ UNBOLT AND REMOVE THE TRANSMISSION COOLER ASSEMBLY AS SHOWN.



33

CRANKSHAFT BOLT

» REMOVE THE CRANKSHAFT BOLT WITH A HIGH TORQUE IMPACT GUN.



INSTALLATION INSTRUCTIONS

34

CRANK HUB ADAPTER I

» LOCATE THE CRANK HUB ADAPTER.



35 CR

CRANK HUB ADAPTER II

» INSTALL THE CRANK HUB ADAPTER BY RE-USING THE FACTORY CRANKSHAFT BOLT.

APPLY RED THREADLOCKER TO THE THREADS AND TORQUE THE BOLT DOWN TO 130 FT/LBS.



36

CRANK COG PULLEY/SPACER I

» LOCATE THE CRANK COG PULLEY ADAPTER, SPACER, AND QTY 6 M8X1.25 BOLTS.



37

CRANK COG PULLEY/SPACER II

» INSTALL THE CRANK COG PULLEY AND SPACER BY ADDING RED THREADLOCKER TO THE THREADS OF THE M8 BOLTS AND TORQUE THEM DOWN TO 18 FT/LBS.



NEW TRANSMISSION OIL COOLER

» LOCATE THE NEW TRANSMISSION OIL COOLER ASSEMBLY AS SHOWN (DO NOT TIGHTEN THE BOLTS COMPLETELY, BOLTS WERE LEFT LOOSE FOR ALIGNMENT PURPOSES LATER IN THE INSTALL).

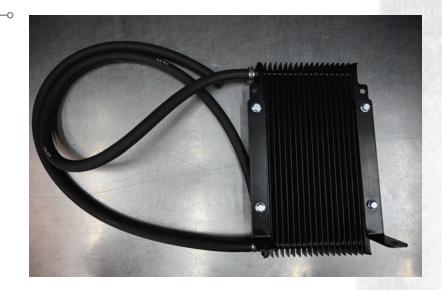


TRANSMISSION OIL COOLER LINES

» INSTALL THE SHORTER 5/16" HOSE ONTO THE BOTTOM FITTING OF THE TRANSMISSION COOLER.

INSTALL THE LONGER HOSE ONTO THE TOP FITTING OF THE TRANSMISSION COOLER AS SHOWN.

SECURE WITH THE PROVIDED 5/16" WORM GEAR CLAMPS.



LOWER RADIATOR HOSE

» LOCATE THE LOWER RADIATOR HOSE AND CUT 2" OFF AS SHOWN AND THEN RE-INSTALL (THIS IS FOR MORE CLEARANCE).



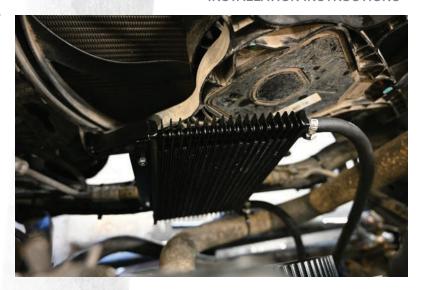
INSTALLATION INSTRUCTIONS

41

TRANSMISSION OIL COOLER INSTALL

» INSTALL THE NEW TRANSMISSION OIL COOLER ASSEMBLY ONTO THE LOWER POWER STEERING CLAMPS AS SHOWN.

TIGHTEN THE QTY 4 BOLTS THAT WERE MENTIONED IN STEP 38.



42

TRANSMISSION COOLER LINES I

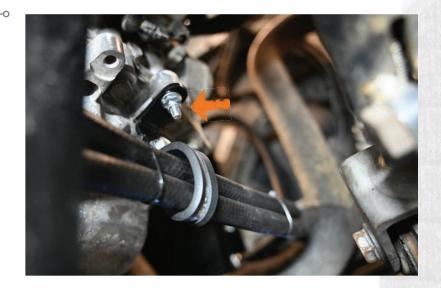
» LOCATE THE QTY 2 TRANSMISSION FITTINGS INCLUDED WITH THE KIT. LUBE THE O-RINGS AND RE-INSTALL THEM INTO THE TRANSMISSION BYPASS ASSEMBLY SHOWN BELOW. REFERRING BACK TO STEP #39, INSTALL THE UPPER TRANSMISSION OIL COOLER HOSE TO THE TOP OF THE TRANSMISSION BYPASS ASSEMBLY. NEXT, INSTALL THE LOWER HOSE TO THE OTHER TRANSMISSION BYPASS ASSEMBLY.



TRANSMISSION COOLER LINES II

» INSTALL THE M6X1.0X35MM BOLT INTO THE FRONT BOLT HOLE ON THE OIL PAN AS SHOWN WITH THE ARROW.

GROUP THE TRANSMISSION COOLER LINES TOGETHER BY INSTALLING THE TRANSMISION COOLER LINES BRACKET ASSEMBLY. WRAP THE P-CLAMP AROUND THE TRANSMISSION OIL COOLER LINES AS SHOWN.



MANUAL TRANSMISSION*

» THIS SECTION IS FOR THE MANUAL TRANSMISSION APPLICATIONS APPLICATIONS ONLY. (*IF YOU HAVE AN AUTOMATIC TRANSMISSION PLEASE SKIP TO STEP 49 SINCE YOU HAVE ALREADY DONE THESE THINGS IN THE PRIOR STEPS)

REMOVE THE CRANKSHAFT BOLT WITH AN IMPACT GUN.



CRANK HUB ADAPTER I

» LOCATE THE CRANK HUB ADAPTER AS PICTURED.

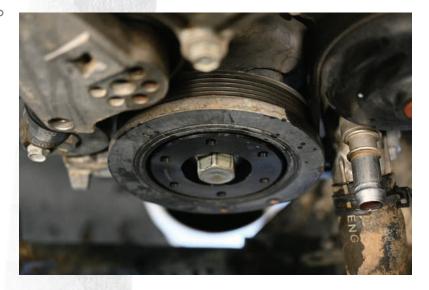


INSTALLATION INSTRUCTIONS

46

CRANK HUB ADAPTER II

» INSTALL THE CRANK HUB ADAPTER BY ADDING RED THREADLOCKER TO THE FACTORY CRANK BOLT REMOVED IN STEP 44 AND RE-INSTALL TORQUING THE BOLT DOWN TO 130 FT/LBS.



47

S/C COG PULLEY/SPACER I

» LOCATE THE CRANK COG SUPERCHARGER PULLEY, SPACER AND QTY 6 M8X1.25 BOLTS AS SHOWN.



48

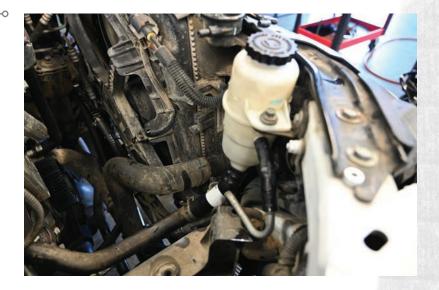
S/C COG PULLEY/SPACER II

» APPLY RED THREADLOCKER TO THE QTY 6 M8 BOLTS AND INSTALL THE SUPERCHARGER COG PULLEY AND SPACER BY TORQUING THE BOLTS DOWN TO 18 FT/LBS.



POWER STEERING RESERVOIR

» DRAIN AND REMOVE THE POWER STEERING RESERVOIR, RETURN, HOSE, AND INLET HOSE GOING TO THE POWER STEERING PUMP ITSELF.



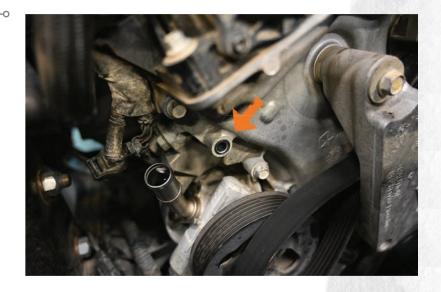
SERPENTINE BELT REMOVAL

 $\ensuremath{\mathbf{y}}$ REMOVE THE SERPENTINE BELT FROM THE POWER STEERING PULLEY



51 ENGINE COVER

» REMOVE THE M10 BOLT FROM THE ENGINE COVER



INSTALLATION INSTRUCTIONS

52 STUD AND SPACER I

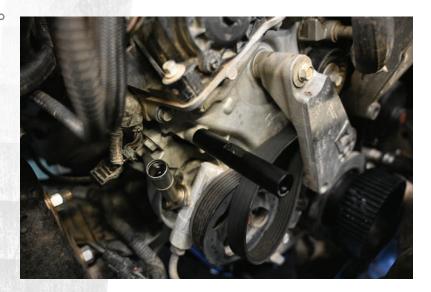
» LOCATE THE 70MM STUD AND SPACER.

ADD RED THREADLOCKER TO ONE SIDE OF THE STUD AND INSTALL IT ONTO THE SPACER AS SHOWN.



STUD AND SPACER II

» ADD RED THREADLOCKER TO THE OTHER SIDE OF THE 70MM STUD AND INSTALL IT INTO THE ENGINE COVER AREA WHERE THE M10 BOLT WAS REMOVED IN STEP 51.



ALTERNATOR BRACKET

 $\ensuremath{\mathbf{w}}$ REMOVE THE QTY 4 BOLTS FROM THE ALTERNATOR AND BRACKET.



ROTREX SUPERCHARGER PULLEY

» LOCATE THE 85MM ROTREX SUPERCHARGER COG PULLEY AND QTY 6 M6X1.0X12MM ALLEN BOLTS AS SHOWN.



ROTREX SUPERCHARGER PULLEY

» LOCATE THE ROTREX SUPERCHARGER HEAD UNIT. INSTALL THE 85MM COG PULLEY USING RED THREADLOCKER AND TORQUING THE ALLEN BOLTS DOWN TO 7 FT/LBS.

NOTE: TO KEEP THE COG PULLEY FROM TURNING WHILE TIGHTENING DOWN THE BOLTS, USE THE PROVIDED SUPERCHARGER BELT TO HOLD IN PLACE.



FOTREX SUPERCHARGER

» LOCATE THE MAIN SUPERCHARGER MOUNTING PLATE AND MOUNT THE SUPERCHARGER HEAD UNIT ASSEMBLY FROM THE PRIOR STEP AND TORQUING DOWN THE QTY 4 ALLEN BOLTS THAT COME WITH THE ROTREX HEAD UNIT TO 17 FT/LBS.



INSTALLATION INSTRUCTIONS

IDLER PULLEY ASSEMBLIES I

» LOCATE QTY 2 OF THE QTY 3 IDLER PULLEY ASSEMBLIES, SPACERS, BOLTS AND FLANGE NUTS AS SHOWN.



IDLER PULLEY ASSEMBLIES II

» INSTALL THE PULLEY ASSEMBLIES TO THE MAIN SUPERCHARGER MOUNTING PLATE IN STEP 57 MAKING SURE THAT THE FLANGE NUTS ARE ON THE PULLEY SIDE OF THE MOUNTING PLATE AS SHOWN.

USE RED THREADLOCKER AND TORQUE DOWN THE FLANGE NUTS TO 20 FT/LBS.



IDLER PULLEY ASSEMBLIES III

 $\ensuremath{\text{\textbf{y}}}$ LOCATE THE LAST IDLER PULLEY ASSEMBLY AND ADJUSTER HARDWARE AS SHOWN.



ADJUSTER PARTS INSTALL

» INSTALL THE BELT TENSIONER ADJUSTER BRACKET INTO THE S/C PLATE AND THEN THREAD THE LONG M6 BOLT THROUGH THE S/C PLATE AS SHOWN. INSTALL THE REMAINING PULLEY ASSEMBLY BY FIRST PLACING THE PROVIDED SPACER ONTO THE M8 FLANGE BOLT AND THEN THREADING IT INTO THE ADJUSTER (DO NOT TORQUE DOWN BOLT AT THIS TIME).



S/C MOUNTING PLATE I

» LOCATE THE QTY 4 SUPERCHARGER MOUNTING PLATE BOLTS AS SHOWN.

INSTALL BOLTS INTO THE MOUNTING PLATE IN THE ORDER SHOWN:



S/C MOUNTING PLATE II

» LOCATE THE 2 SPACERS (1 LONG + 1 SHORT).

INSTALL THE SHORT SPACER ON THE TOP AND THE LONG SPACER ON THE BOTTOM AS SHOWN.



SUPERCHARGER COG BELT

» LOCATE THE SUPERCHARGER COG BELT AND INSTALL AS SHOWN MAKING SURE THAT THE BELT ROUTING IS CORRECT.





INSTALLATION INSTRUCTIONS

65

S/C MOUNTING PLATE INSTALL I

» ADD RED THREADLOCKER TO ALL THREE BOLTS.

SLOWLY INSTALL THE SUPERCHARGER MOUNTING PLATE ASSEMBLY AND HAND-TIGHTEN THE BOLTS. DO NOT TORQUE DOWN AT THIS POINT.





S/C MOUNTING PLATE INSTALL II

» INSTALL THE REMAINING BOLT INTO THE SPACER FROM STEP 53 AS SHOWN.

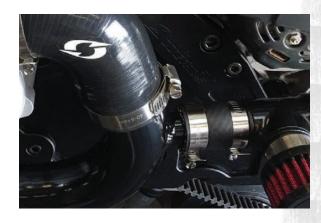


67

TORQUE MOUNTING PLATE BOLTS

» REFERRING BACK TO STEP 62, TORQUE ALL THE NUMBERED SUPERCHARGER MOUNTING PLATE BOLTS TO THE FOLLOWING SPECIFICATIONS:

BOLT #1- M10X1.5X180MM ALLEN BOLT = 38 FT/LBS BOLT #2- M8X1.25X20MM ALLEN BOLT = 18 FT/LBS BOLT #3- M10X1.25X160MM ALLEN BOLT = 40 FT/LBS BOLT #4- M8X1.25X160MM ALLEN BOLT = 18 FT/LBS



68

SUPERCHARGER COG BELT

» WRAP THE SUPERCHARGER COG BELT THAT WAS PRE-INSTALLED IN STEP 64 AND WRAP IT AROUND THE SUPERCHARGER CRANK COG PULLEY AS SHOWN.

NOTE: MAKE SURE THAT THE TENSIONER BOLT IS LOOSE OR ELSE IT WILL BE DIFFICULT TO GET THE BELT ON.



DOWNLOAD GATES APP

» GO TO THE APP STORE ON YOUR MOBILE DEVICE AND DOWNLOAD THE "GATES CARBON DRIVE" APP FOR EITHER ANDROID OR IOS

CHECKING BELT TENSION:

GATES CARBON DRIVE MOBILE APP

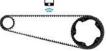
[FOR iPHONE & ANDROID]

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 ¼ 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 (iPod Touch needs an external microphone)





70

SET BELT TENSION TO PROPER FREQUENCY (HZ)

» YOU WILL NEED TO MEASURE THE HZ FROM THE LONGEST SECTION OF THE SUPERCHARGER BELT AS SHOWN. YOU WILL PLACE YOUR PHONE MICROPHONE NEXT TO THE BELT AND THEN "FLICK" IT TO CREATE VIBRATIONS THAT THE APP CAN READ.



INSTALLATION INSTRUCTIONS

71

BELT TENSION ADJUSTMENT

» ADJUST THE BELT TENSION ACCORDINGLY USING A 10MM WRENCH AND TURNING THE ADJUSTER BOLT.

SET TENSION TO 55-60 HZ.





TIGHTEN ADJUSTMENT BOLT

» WHEN YOU HAVE THE CORRECT HZ, TIGHTEN THE ADJUSTMENT NUT AND THEN THE PULLEY BOLT AFTER.



73

RE-INSTALL SERPENTINE BELT

 $\ensuremath{\mathbf{y}}$ PRELOAD THE FACTORY TENSIONER AND RE-INSTALL THE SERPENTINE BELT.



74

POWER STEERING T-BRACKET

 $\ensuremath{\text{\textbf{y}}}$ LOCATE THE POWER STEERING "T" BRACKET AND HARDWARE AS SHOWN.



75

DRILL T-BRACKET

» MARK WHERE THE HOLE WILL NEED TO BE. DRILL HOLE WITH A 6MM DRILL BIT.



76

T-BRACKET INSTALL

» AFTER DRILLING THE HOLE, CLEAN THE AREA COMPLETELY. APPLY RED THREADLOCKER TO THE M6X1.0X10MM BOLT AND INSTALL THE "T" BRACKET AS SHOWN.



77

POWER STEERING INLET HOSE

 $\ensuremath{\text{\textbf{y}}}$ LOCATE THE NEW POWER STEERING INLET HOSE AND CLAMP IT TO THE POWER STEERING UNIT.



78

POWER STEERING BRACKET

» USE A CUTTING TOOL AND CUT OFF A SECTION OF THE FACTORY POWER STEERING BRACKET AS SHOWN.



INSTALLATION INSTRUCTIONS

79

POWER STEERING BRACKET

» INSTALL THE MODIFIED FACTORY POWER STEERING BRACKET TO THE T-BRACKET AS SHOWN.





POWER STEERING RESERVOIR

» INSTALL THE POWER STEERING RESERVOIR USING THE FACTORY BOLT AND THEN INSTALL THE LOWER POWER STEERING HOSE AS SHOWN.



81

POWER STEERING HARD LINE

 $\mbox{\ensuremath{\mathsf{w}}}$ INSTALL THE POWER STEERING HARD LINE UNDER THE FAN SHROUD SUPPORT AND SECURE THE LINE WITH A ZIP TIE AS SHOWN.





POWER STEERING HOSE

» CONNECT THE 3/8" HOSE TO THE POWER STEERING RESERVOIR.



ROTREX OIL RESERVOIR BRACKET ASSY

» LOCATE THE ROTREX OIL RESERVOIR BRACKET ASSEMBLY AS SHOWN.



ECU BOLTS

» LOCATE THE ECU AND REMOVE THE QTY 2 BOLTS AND THEN INSTALL THE ROTREX OIL RESERVOIR BRACKET ASSEMBLY FROM THE PRIOR STEP AS SHOWN.



ROTREX OIL RESERVOIR ASSY

ROTREX OIL FILTER ASSY

OIL RESERVOIR INSTALL I

» LOCATE THE ROTREX OIL RESERVOIR ASSEMBLY AS SHOWN.

» LOCATE THE ROTREX OIL FILTER AND INSTALL THE » INSTALL THE ROTREX OIL RESERVOIR ASSEMBLY 23" HOSE TO THE INLET OF THE ROTREX OIL FILTER. NEXT INSTALL THE 36" HOSE TO THE OUTLET OF THE SHOWN. FILTER AS SHOWN.

TO THE OIL RESERVOIR ASSEMBLY BRACKET AS







INSTALLATION INSTRUCTIONS

88

OIL FILTER INSTALL

» INSTALL THE CUSHIONED P-CLAMP AROUND THE OIL FILTER AND THEN INSTALL IT ONTO THE MAIN SUPERCHARGER MOUNTING BRACKET AS SHOWN.





OIL RESERVOIR II

» INSTALL THE 23" HOSE TO THE BOTTOM OF THE ROTREX OIL RESERVOIR. INSTALL THE CUSHIONED P-CLAMP ONTO THE MANIFOLD BRACKET.





ROTREX OIL LINE I

» INSTALL THE 36" HOSE FROM THE OIL FILTER ASSEMBLY AND ATTACH THE OTHER END TO THE INLET OF THE ROTREX SUPERCHARGER HEAD UNIT.



91

S/C OIL COOLER I

» LOCATE THE SUPERCHARGER OIL COOLER ASSEMBLY AND INSTALL THE QTY 2 43" OIL HOSES AS SHOWN. USE THE INCLUDED SPRING CLAMPS TO SECURE EACH LINE.





S/C OIL COOLER II

» LOCATE THE SUPERCHARGER OIL COOLER BRACKETS AND ACCOMPANYING HARDWARE.





S/C OIL COOLER III

» INSTALL THE BRACKETS TO THE LOWER FRONT CROSSBAR AND THEN INSTALL THE SUPERCHARGER OIL COOLER ASSEMBLY AS SHOWN. ROUTE OIL HOSES OVER THE CROSSBAR AS SHOWN.



94

REMOVE RADIATOR SIDE COVERS

» REMOVE THE RADIATOR SIDE COVERS ON BOTH SIDES TO ALLOW SPACE TOR THE INTERCOOLER AND CHARGE PIPING.



95

OIL COOLER HOSE I

» INSTALL THE DRIVER SIDE OIL COOLER HOSE AND ROUTE IT TO THE TOP FITTING OF THE ROTREX OIL RESERVOIR.





OIL COOLER HOSE II

» INSTALL THE PASSENGER SIDE OIL COOLER HOSE TO THE OUTLET OF THE ROTREX SUPERCHARGER HEAD UNIT AS SHOWN.



97

RIVNUT HARDWARE KIT

» LOCATE THE QTY 2 RIVET NUTS, ACCOMPANYING M6X1.0X16MM FLANGE BOLTS, AND RIVNUT INSTALL TOOL AS SHOWN.





RIVNUT INSTALL TOOL

 $\ensuremath{\text{\textbf{w}}}$ SET UP THE RIVNUT INSTALL TOOL BY THREADING IT INTO THE REVNUT AS SHOWN.



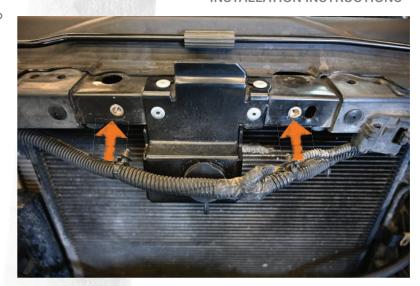
INSTALLATION INSTRUCTIONS

LOOM REMOVAL/RIVNUT

» REMOVE THE LOOM FROM THE UPPER RADIATOR SUPPORT.

DRILL TWO HOLES USING AN 11/64 DRILL BIT

INSTALL THE RIVET NUT TO THE UPPER FRAME BY USING THE RIVNUT INSTALL TOOL IN THE PRIOR STEP. INSERT RIVNUT WITH TOOL INSTALLED; USE A 10MM WRENCH TO HOLD THE NUT IN PLACE AND THEN USE A 10MM SOCKET TO TIGHTEN THE BOLT. CRANK DOWN ON THE BOLT UNTIL IT FULLY BOTTOMS OUT THE RIVET NUT.



INTERCOOLER ASSEMBLY

» LOCATE THE INTERCOOLER AND BRACKETS. MOUNT THE LOWER BRACKETS TO THE INTERCOOLER AS SHOWN.



INTERCOOLER ASSEMBLY INSTALL

» INSTALL THE INTERCOOLER ASSEMBLY BY MOUNTING IT TO THE LOWER RADIATOR SUPPORT. INSTALL THE UPPER INTERCOOLER BRACKETS AS SHOWN.





INTERCOOLER CHARGE PIPING I

» LOCATE THE HOT SIDE INTERCOOLER CHARGE PIPING AND ACCOMPANYING PARTS AS SHOWN.



INTERCOOLER CHARGE PIPING II

» INSTALL THE HOT SIDE INTERCOOLER CHARGE PIPE ASSEMBLY FROM THE PASSENGER SIDE INTERCOOLER TO THE ROTREX SUPERCHARGER OUTLET AS SHOWN.





BYPASS VALVE ASSEMBLY I

» LOCATE THE BYPASS VALVE AND ACCOMPANYING PARTS AS SHOWN.



INSTALLATION INSTRUCTIONS

BYPASS VALVE INSTALL II

» INSTALL THE BYPASS VALVE AS SHOWN. ATTACH THE VACUUM LINE TO THE FITTING ON TOP OF THE BYPASS VALVE AND SECURE WITH A ZIP TIE.





INTERCOOLER CHARGE PIPING III

» LOCATE THE COLD SIDE INTERCOOLER CHARGE PIPE AND ACCOMPANYING PARTS AS SHOWN.



107

INTERCOOLER CHARGE PIPING IV

» REMOVE THE OEM INTAKE AIR TEMPERATURE (IAT) SENSOR FROM THE FACTORY INTAKE TUBE AND INSTALL IT INTO THE IAT BUNG ON THE NEW CHARGE PIPE.



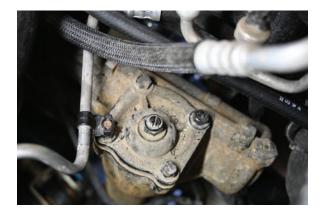
POWER STEERING BOX ASSEMBLY I

» REMOVE THE QTY 2 BOLTS FROM THE POWER STEERING BOX ASSEMBLY AS SHOWN.



POWER STEERING BOX ASSEMBLY II

» SWAP THE QTY 2 BOLTS AND THEN LOOSEN THE POWER STEERING HARD LINE. MOVE THE POWER STEERING HARD LINE TO THE NEW LOCATION AS SHOWN.



INTERCOOLER CHARGE PIPE ASSEMBLY

» INSTALL THE INTERCOOLER COLD SIDE ASSEMBLY BY ATTACHING ONE SIDE TO THE DRIVER SIDE INTERCOOLER OUTLET AND THE OTHER END TO THE THROTTLE BODY AS SHOWN. TIGHTEN THE INTERCOOLER BRACKETS.



IIII

AIR INTAKE ASSEMBLY I

» LOCATE THE AIR INTAKE ASSEMBLY PIECES AS SHOWN.



112

AIR INTAKE ASSEMBLY II

» INSTALL THE AIR INTAKE ASSEMBLY AND INSTALL IT ONTO THE ROTREX SUPERCHARGER HEAD UNIT INLET AS SHOWN.



INSTALLATION INSTRUCTIONS

113

AIR INTAKE ASSEMBLY III

» INSTALL THE 5/8" UNION BARB ONTO THE SILICONE INTAKE HOSE AND THEN INSTALL THE 5/8" HOSE ROUTING IT BACK TO THE VALVE COVER BREATHER AS SHOWN. NOTE: BREATHER HOSE MAY NEED TO BE TRIMMED TO FIT.





KRAFTWERKS COOLANT RESERVOIR I

» LOCATE THE NEW INCLUDED KRAFTWERKS COOLANT RESERVOIR AND ACCOMPANYING PARTS AS SHOWN.



115

KRAFTWERKS COOLANT RESERVOIR II

 $\ensuremath{\mathbf{w}}$ LOOSEN THE QTY 2 BOLTS ON THE MOUNTING BRACKET OF THE KRAFTWERKS RESERVOIR.





KRAFTWERKS COOLANT RESERVOIR III

» SLIDE THE BRACKET OF THE KRAFTWERKS COOLANT RESERVOIR INTO THE SAME SLOT THAT FACTORY COOLANT RESERVOIR WAS MOUNTED AND TIGHTEN THE QTY 2 BOLTS AS SHOWN.



RADIATOR COOLANT RETURN HOSE

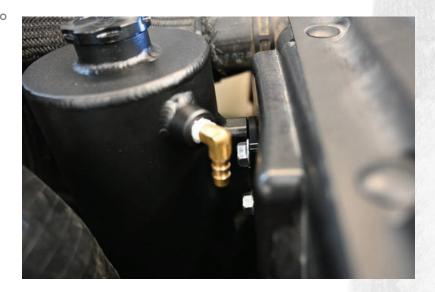
» INSTALL THE FACTORY RADIATOR COOLANT RETURN HOSE AND MOUNT IT TO THE LOWER FITTING OF THE NEW KRAFTWERKS COOLANT RESERVOIR.



118

COOLANT RESERVOIR HOSE

» MOUNT THE 10" HOSE TO THE TOP FITTING OF THE NEW KRAFTWERKS COOLANT RESERVOIR AS SHOWN.



119

RE-FILL FLUIDS/CHECK YOUR WORK

» REFILL THE POWER STEERING AND RADIATOR FLUIDS.

RECONNECT THE NEGATIVE BATTERY TERMINAL.

SCREW IN THE GAS CAP UNTIL IT CLICKS SO THAT NO FUEL VAPOR LEAKS.

DOUBLE CHECK ALL CHARGE PIPES, HOSES, AND FITTINGS ARE SECURE.

REMOVE ANY TOOLS AND DEBRIS/TRASH FROM THE ENGINE BAY BEFORE START-UP.



INSTALLATION INSTRUCTIONS

120

TRACTION FLUID

» FILL THE ROTREX OIL RESERVOIR WITH THE PROVIDED SX150 TRACTION FLUID (NEVER USE ANY OTHER FLUID AS ANY OTHER FLUID WILL DAMAGE THE ROTREX SUPERCHARGER AND VOID THE WARRANTY).

MAKE SURE THAT YOU DO NOT EXCEED THE "MAX FILL" LINE ON THE DIPSTICK OR THE FLUID WILL SPRAY ALL OVER THE ENGINE BAY. (NOTE: FLUID IS MEASURED WITH DIPSTICK CAP FULLY ENGAGED).

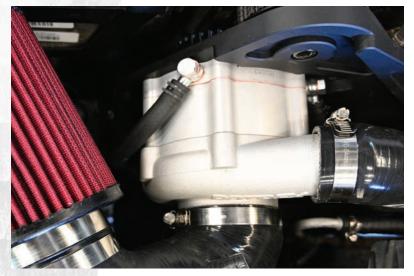


121

LOOSEN "OIL INLET" FITTING ON S/C

 $\ensuremath{\text{\textbf{y}}}$ GO to the rotrex supercharger head unit and look for the "oil inlet" fitting.

LOOSEN THE BANJO BOLT SLIGHTLY TO ALLOW AIR TO ESCAPE FROM THE BANJO FITTING.



122

PRIMING ROTREX S/C

» CAREFULLY APPLY PRESSURIZED AIR TO THE OIL FILLER HOLE AT THE TOP OF THE ROTREX OIL RESERVOIR (NOTE: DO NOT PRESSURIZE MORE THAN 15 PSI AND USE A RAG TO SEAL THE HOLE OR ROTREX FLUID MAY SPRAY ALL OVER).

WHEN YOU SEE FLUID COMING OUT THE "OIL INLET" BANJO FITTING TIGHTER BANJO BOLT.

TOP OFF THE ROTREX OIL COOLER RESERVOIR TO THE "MAX FILL" LEVEL ONCE AGAIN AND THE SYSTEM IS PRIMED.

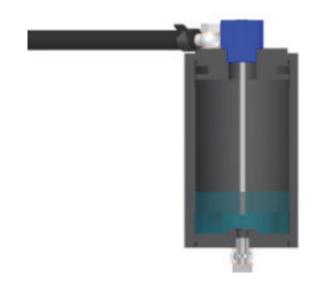


123 INITIAL START-UP

» ONCE YOU HAVE CONFIRMED THAT THE ROTREX OIL RESERVOIR FLUID LEVEL IS BETWEEN THE MINIMUM AND MAXIMUM, LEAVE THE FILLER CAP OFF AND START THE ENGINE.

WITH ONE PERSON IN THE CAR AND ONE PERSON OUTSIDE THE CAR CHECKING THE LEVEL OF THE ROTREX OIL RESERVOIR, REV THE ENGINE TO A MAXIMUM OF 2000-3000 RPM AND VISUALLY CONFIRM THAT THE ROTREX OIL IS FLOWING. ADD MORE OIL AS NECESSARY ENSURING THAT THE RESERVOIR NEVER GOES DRY.

WHILE THE ENGINE IS IDLING, CHECK FOR ALL TYPES OF LEAKS (FLUID, VACUUM, BOOST, ETC.). IF YOU FIND ANY LEAKS IMMEDIATELY SHUT OFF THE ENGINE AND FIX THE LEAK. LET THE ENGINE IDLE FOR A MINIMUM OF FIVE (5) MINUTES AND CONSTANTLY CHECKING THE ROTREX RESERVOIR OIL LEVEL



124

RE-ASSEMBLE FRONT END

 $\ensuremath{\text{\textbf{y}}}$ RE-ASSEMBLE THE FRONT END IN THE REVERSE ORDER THAT IT WAS TAKEN APART.

ONCE AGAIN CHECK FOR ANY POSSIBLE LEAKS.



125

TUNE VEHICLE

» NOW YOUR JEEP WRANGLER 3.6 IS READY FOR A DYNO TUNE.

(NOTE: 2015+ Applications will require an UNLOCKED ECU in order to be tuned)



INSTALLATION INSTRUCTIONS

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 also ONE YEAR from original purchase date). 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.

