



# INSTALLATION INSTRUCTIONS

SUPERCHARGERSYSTEM | 2019-2021 YAMAHA YXZ1000R

#150-19-2000



## YXZ1000R

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# INTRODUCTION

The Kraftwerks Supercharger kit for the 2019-2021 Yamaha YXZ1000R 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 10,500 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).

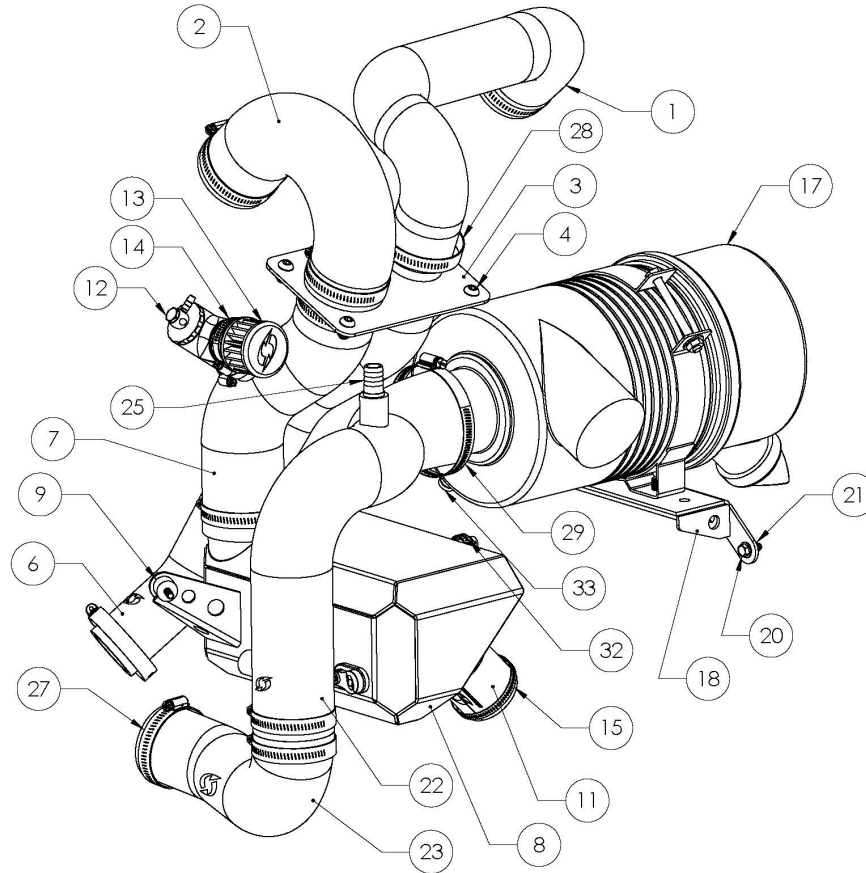
# ROTREX DISCLAIMER

- 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 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.

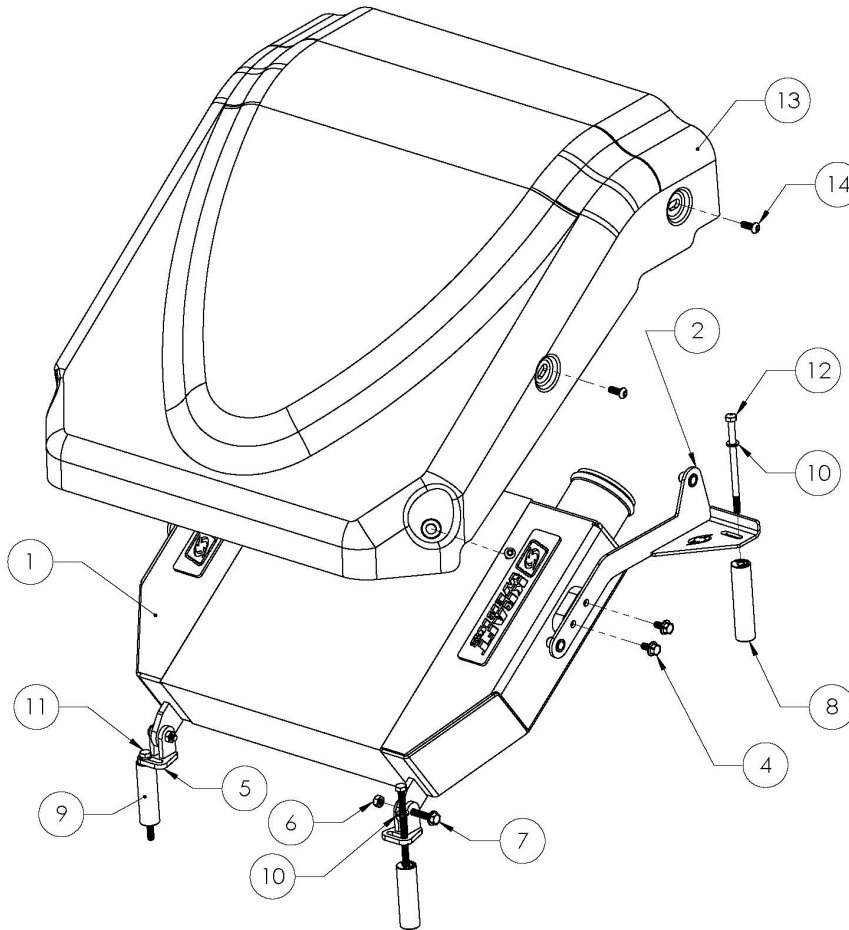


# COMPONENT DIAGRAMS



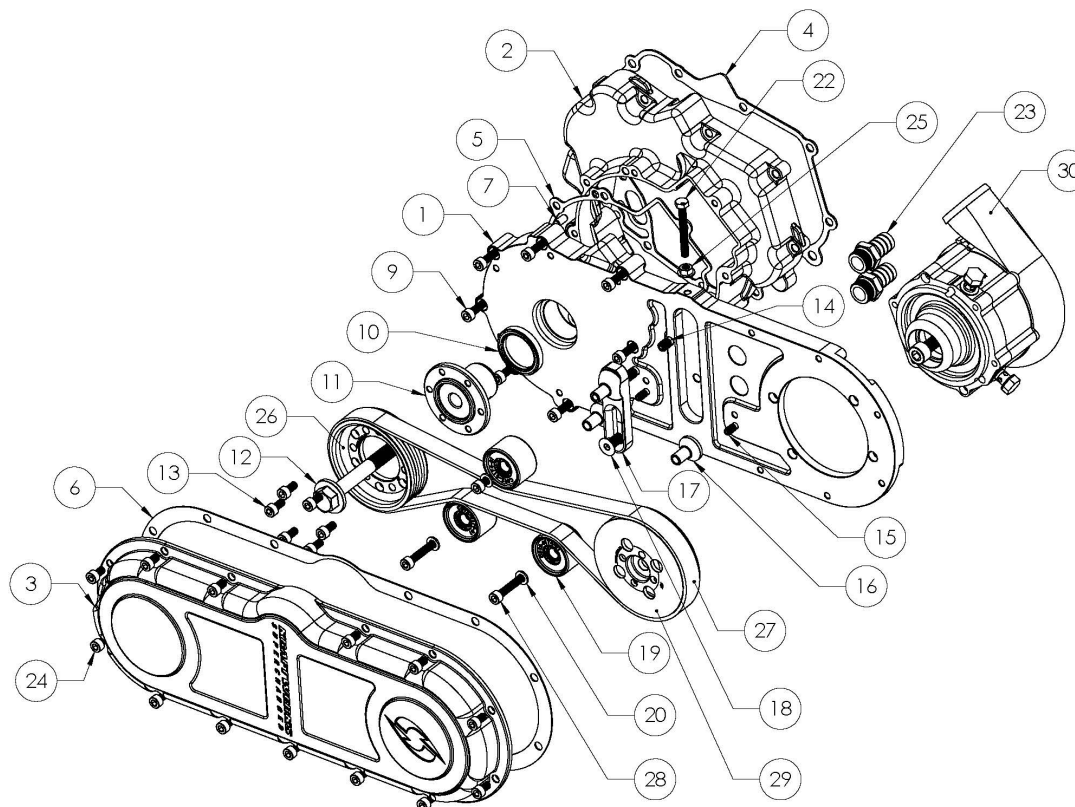
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C007-0090-01 REV NC	HOSE, SILICONE, HOT SIDE, TOP, 19+ YXZ SC KIT	1
2	C007-0092-01 REV A	HOSE, SILICONE, COLD SIDE, TOP, 19+ YXZ SC KIT	1
3	C056-0111-03 REV NC	TUBING JUNCTION, 19+ YXZ SC KIT	1
4	C2BH-0825-16	SCREW, BUTTON HEAD, M8 X 1.25 X 16	4
5	C1NN-0825-CZ	NUT, NYLOCK, M8 x 1.25	4
6	C007-0091-01 REV A	HOSE, SILICONE, HOT SIDE, BOTTOM, 19+ YXZ SC KIT	1
7	C007-0093-01 REV A	HOSE, SILICONE, COLD SIDE, BOTTOM, 19+ YXZ SC KIT	1
8	A071-0044-09 REV 000	INTAKE MANIFOLD ASSEMBLY, YXZ SC KIT	1
9	C017-0008-125	Isolator Mount, M6 x 1.00	1
10	C1NN-0600-CZ	NUT, NYLOCK, M6X1.0	1
11	C7SL-2020-SS	Hose, Silicone, Straight, 2.0"	3
12	<b>C097-0001-01</b>	KRAFTWERKS BLOW OFF VALVE ASSY, 1.00IN PORTS, 32MM BORE <b>(Picture may vary)</b>	1
13	C072-1000-RND REV NC	AIR FILTER, BREATHER, 51MM OD X 38MM H, 25MM OUTLET	1
14	C067-RCMP-20N	HOSE CLAMP, #20, 21-44MM, NARROW, 5/16" WIDE	2
15	C067-RCMP-32N	HOSE CLAMP, #32, 49-64MM, NARROW, 5/16" WIDE	3
16	C067-LIND-32	#32 LINED HOSE CLAMP, 46-64MM	3
17	C077-0013-06	AIR BOX ASSEMBLY, 19+ YXZ SC KIT	1
18	C032-0255-04 REV B	AIR BOX BRACKET, 19+ YXZ SC KIT	1
19	C2FH-0825-16	BOLT, FLANGE, M8X1.25X16mm	2
20	C2FH-0600-16	BOLT, FLANGE, M6X1.0X16	2
21	C1NF-0600-YZ	NUT, NYLOC, FLANGE, M6 x 1.0	2
22	C007-0089-01 REV A	HOSE, SILICONE, SC INTAKE, 19+ YXZ SC KIT	1
23	C007-0083-01 REV NC	HOSE, SILICONE, SC INTAKE, YAMAHA YXZ SC KIT	1
24	C056-0114-03 REV NC	TUBE, 2.5" OD X 2" LENGTH, SC INTAKE	1
25	C030-5858-SR	HOSE CONNECTOR, 5/8 X 5/8 STRAIGHT, HDPE PLASTIC	1
26	C030-0139-07	BARBED HOSE PLUG, 1/2" HOSE ID, NYLON	1
27	C067-LIND-16	#16 LINED HOSE CLAMP, 20-38MM	8
28	C067-LIND-40	#40 LINED HOSE CLAMP, 52-76MM	3
29	C067-LIND-56	#56 LINED HOSE CLAMP, 78-102MM	1
30	C086-0015-03 REV NC	PLATE, AIR INJECTION BLOCK OFF, YXZ1000R, BLACK	1
31	C086-0016-03 REV NC	PLATE, AIR INJECTION BLOCK OFF, YXZ1000R, BLACK	1
32	C067-0029-01	CLAMP, HOSE, 5/16" #6 HOSE CLAMP 11-20MM	1
33	C030-0125-04 REV A	5/8" HOSE FITTING, 3/4"-16 WITH O-RING	1
34	C030-0127-04 REV NC	-8AN BULKHEAD NUT, 3/4"-16 THREAD	1

# COMPONENT DIAGRAMS



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C122-0032-01 REV A	INTERCOOLER, 19+ YXZ SC KIT	1
2	A032-0271-04 REV 000	INTERCOOLER BRACKET ASSY, TOP PASSENGER SIDE, 19+ YXZ SC KIT	1
3	A032-0272-04 REV 000	INTERCOOLER BRACKET ASSY, TOP DRIVER SIDE, 19+ YXZ SC KIT	1
4	C2FH-0600-12	BOLT, FLANGE, M6x1.0x12MM 10AF	4
5	C032-0254-04 REV A	INTERCOOLER BRACKET, BOTTOM, 19+ YXZ SC KIT	2
6	C1NN-0600-CZ	NUT, NYLOCK, M6X1.0	2
7	C2FH-0600-25	BOLT, FLANGE, M6 X 1.0 X 25MM	2
8	C014-0179-04 REV NC	SPACER, INTERCOOLER SPACER, TOP, 19+ YXZ SC KIT	2
9	C014-0180-04 REV NC	SPACER, INTERCOOLER SPACER, BOTTOM, 19+ YXZ SC KIT	2
10	C3FT-1207-015	Washer, Flat, M6, 12mmOD x 7mmID x 1.5mm	4
11	C2HH-0600-90	BOLT, HEX, M6X1.0X90MM 10AF	2
12	C2HH-0600-100	BOLT, HEX, M6 X 1.0 X 100MM	2
13	C124-0008-03 REV C	Cover, Intercooler, 19+ YXZ SC Kit, Fiber Glass	1
14	C2BH-0600-16	SCREW, BUTTON HEAD, M6 X 1.00 X 16	6





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C032-0242-06 REV C	SC BRACKET, YAMAHA YXZ SC KIT	1
2	C032-0241-06 REV A	SIDE COVER, YAMAHA YXZ SC KIT	1
3	C032-0243-06 REV A	BELT COVER, YAMAHA YXZ SC KIT	1
4	C022-0094-08 REV B	GASKET, SIDE CASE, YAMAHA YXZ SC KIT	1
5	C022-0095-08 REV B	GASKET, SC PLATE, YAMAHA YXZ SC KIT	1
6	C022-0096-03 REV A	GASKET, BELT COVER, YXZ SC KIT	1
7	C025-0020-03 REV I	DOWEL PIN, 6.0 OD X 10MM LENGTH	2
8	C2AC-0600-25	AHCS M6X1.00X25	1
9	C2AC-0600-30	SCREW, AHCS, M6 X 1.0 X 30	7
10	C050-0019-00 REV NC	OIL SEAL, YAMAHA YXZ SC KIT	1
11	C014-0159-12 REV NC	ADAPTER, CRANK PULLEY, YAMAHA YXZ SC KIT	1
12	C002-0194-05 REV NC	CRANK BOLT, YAMAHA YXZ SC KIT	1
13	C2AC-0600-12	AHCS, M6 X 1.0 X 12MM	6
14	C2SS-0825-10	SET SCREW, HEX SOCKET, FLAT TIP, M8 X 1.25 X 10MM	2
15	C2SS-0600-10	SET SCREW, HEX SOCKET, FLAT TIP, M6 X 1.0 X 10MM	2
16	C014-0160-12 REV A	IDLER PULLEY SPACER, YAMAHA YXZ SC KIT	2
17	C081-0060-05 REV B	TENSIONER, YAMAHA YXZ SC KIT	1
18	C2CS-0825-18	SCREW, ALLEN SUNK CAP, M8X1.25X18	1
19	A120-SMO-38 REV 000	SMOOTH IDLER ASSY, 38 X 24	3
20	C3FT-1207-015	Washer, Flat, M6, 12mmOD x 7mmID x 1.5mm	3
21	C2AC-0600-15	SCREW, AHCS M6X1.0X15MM	1
22	C2HH-0600-50	SCREW, CAP, M6 X 1.0 X 50, FULLY THREADED	1
23	C030-0125-04 REV A	5/8" HOSE FITTING, 3/4"-16 WITH O-RING	2
24	C2AC-0600-10	SCREW, AHCS, M6 X 1.0 X 10	13
25	C1FN-0600-CZ	NUT, FLANGE, M6 X 1.0 10AF	1
26	C092-0163-01 REV B	PULLEY, CRANK, 85 ED, 6 RIB K	1
27	C119-0336-18	BELT, 336 RPM, K-BELT, 5 RIB	1
28	C2AC-0600-35	SCREW, AHCS, M6 X 1.0 X 35	2
29	C092-0175-01 REV NC	PULLEY, ROTREX, 92.5 ED, 6 RIB K	1
30	A121-1560-240	S/C, Rotrex, C15-60, 240 DEG	1

## I

### PRE-INSTALLATION

» Tools/Materials Required for Installation:

- Metric Wrench Set
- Screw Driver Set
- Metric Socket Set
- Dremel Tool
- Drill Bit Set
- Drill
- Hole Saw
- Hose Cutter
- Plier Set
- Torque Wrench
- Red Threadlocker
- Blue Threadlocker
- Silicone Sealant
- Razor Blade
- Wire Cutters
- Impact Driver



## 2

### DRAIN OIL DRY SUMP

» Disconnect the Battery Ground/ Negative Cable and drain the motor oil from the Dry Sump Tank.



## 3

### DRAIN ENGINE OIL

» Drain the Oil from the Engine.



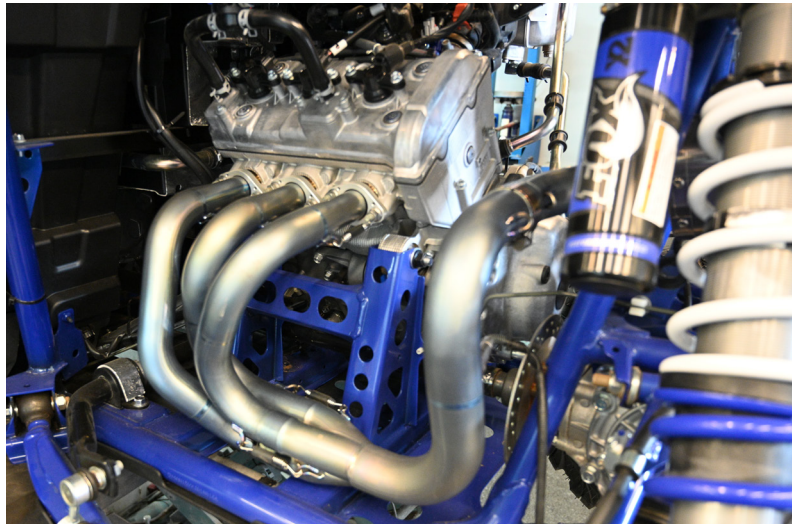


**4****REMOVE PANELS AND CARGO BED**

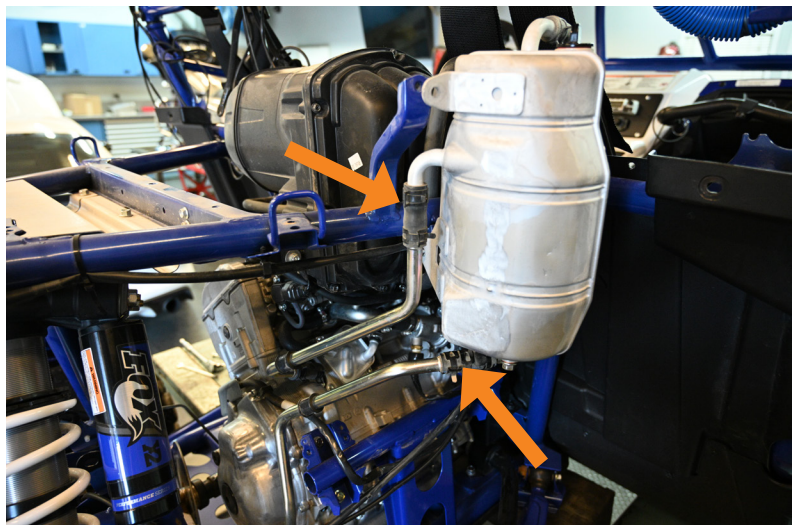
» Remove the side panels, and the rear cargo bed.

**5****HEADER & EXHAUST REMOVAL**

» Remove the Header and exhaust canister.

**6****OIL DRY SUMP AND LINES**

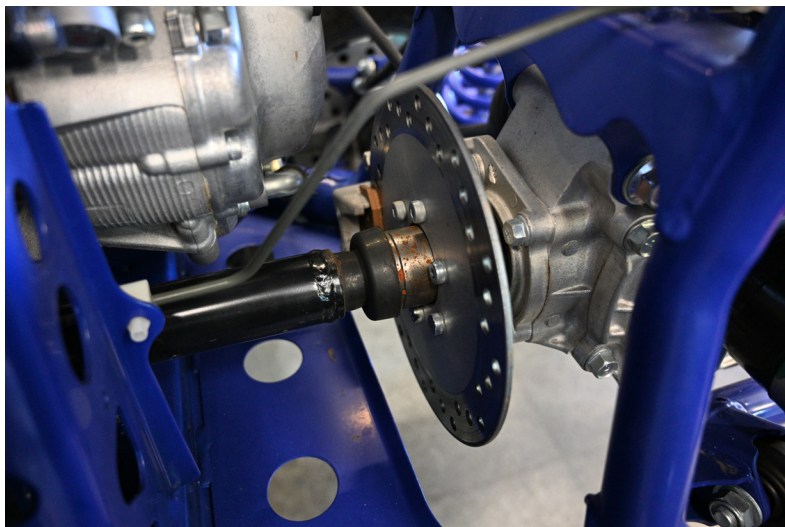
» Remove the factory oil lines but retain the factory spring clamp, these will be re-used in step 35. The hard oil lines and rubber hoses may be discarded. Remove the dry sump tank and set hardware aside these will be re-used in step 30.





**7****BRAKE COMPONENTS REMOVAL**

» Remove the Brake Caliper and remove all the bolts from the Brake Rotor.

**8****CATCH CAN HOSES**

» Remove & discard the factory catch can hoses & clamps, these will not be re-Used. Keep the factory vent tube on the bottom of the catch can, this will remain installed.

**9****AIR INTAKE BOX**

» Remove & discard the factory air box.



## 10

## SIDE COVER REMOVAL

» Remove the engine side cover and retain factory screws, they will be re-used in future steps. Remove the Qty 6 Allen bolts from the Stator, sensor & Harness Plate. Remove stator assembly & set aside.



## 11

## STATOR COMPONENTS

» Locate the Supercharger Main Bracket Assembly (pictured upper left). Install the Factory Stator Components to the Kraftwerks Crank Case drive plate as shown.

Re-use and Red Loctite the Qty 6 Factory Allen Bolts and torque to 9 ft lbs.



## 12

## SUCTION TUBE INSTALL

» Remove the OEM factory suction tube with O-Ring from factory side cover and mount it to the KRAFTWERKS Crank Case. Re-use and Red Loctite the Qty 1 Allen Bolt and torque to 9 ft /lbs.

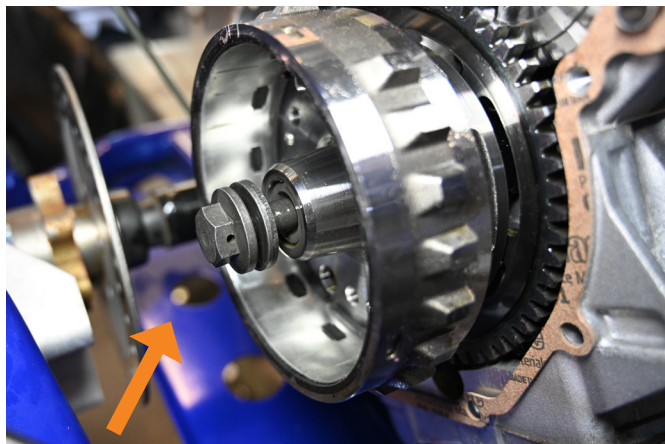
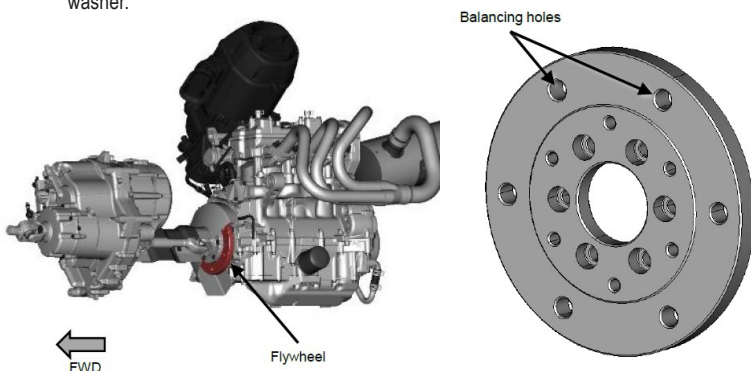




### 13

#### CRANK SHAFT BOLT REMOVAL

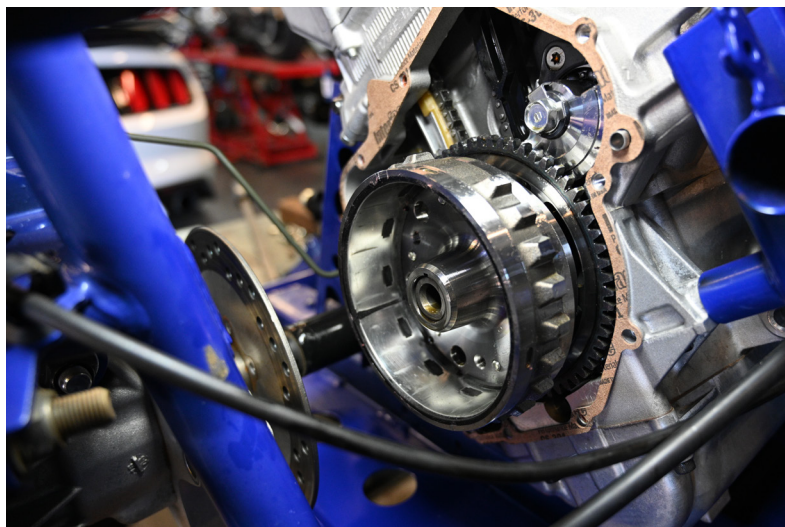
» Remove the crank shaft bolt and washer. If no impact gun is available you will need to stick a screwdriver in the balancing holes on the fly wheel to prevent the crankshaft from turning. A breaker bar should be sufficient enough to break the crank bolt loose. Set aside factory bolt and washer.



### 14

#### CRANK CASE GASKET INSTALL

» Remove/ scrape-off any excess Gasket Material remaining from the Factory OEM Gasket. Install the new Crank Case Gasket as shown. Add a thin layer of silicone to both sides of the provided side cover gasket and install.



### 15

#### SILICONE STATOR HARNESS

» Add Silicone to the Stator Harness that exits the Crank Case Cover to ensure that there are no fluid leaks.

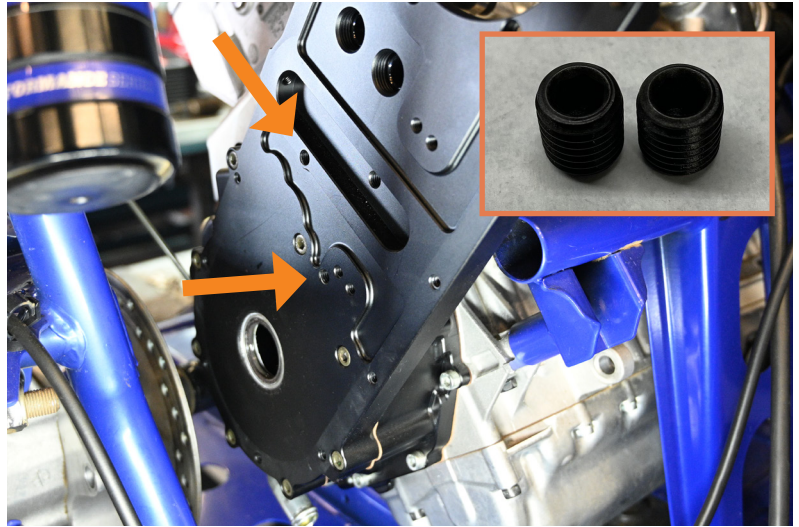




**16****CRANK CASE COVER DRIVE PLATE**

» Install the new Supercharger Drive Bracket Assembly (assembly is heavy and may require two people) by re-installing the QTY 12 factory Bolts with Red Loctite and torque them down to 9 ft/lbs. You will be able to access and tighten some of the bolts through the Access Holes pictured by the arrows.

Once the factory Bolts have been properly torqued down, you will need to locate the provided M8 Set Screws (pictured in the upper right). Add Red Loctite to the threads and install them into the Access Holes making sure that they sit LOWER than the plate itself.

**17****SILICONE NEW CRANK BOLT**

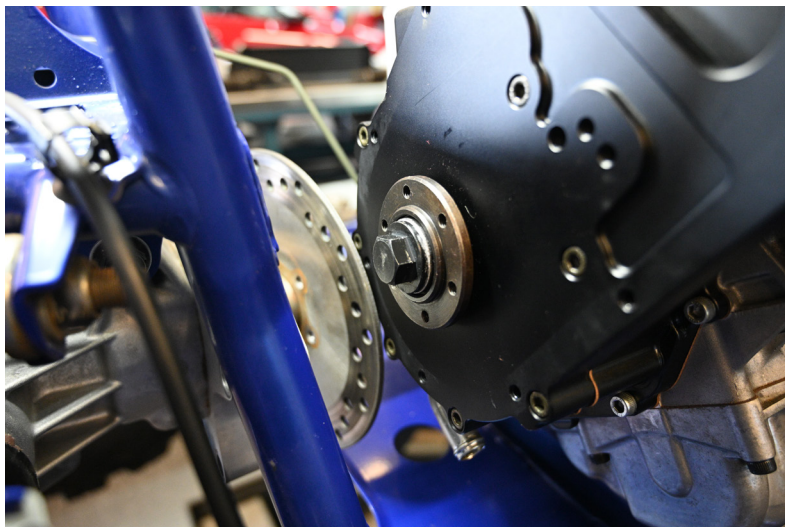
» Remove the stock washer from the crank bolt, clean and then add silicone to both sides (this is to avoid any oil leakage). Install on the provided Crank Bolt.

**18****CRANK PULLEY ADAPTER**

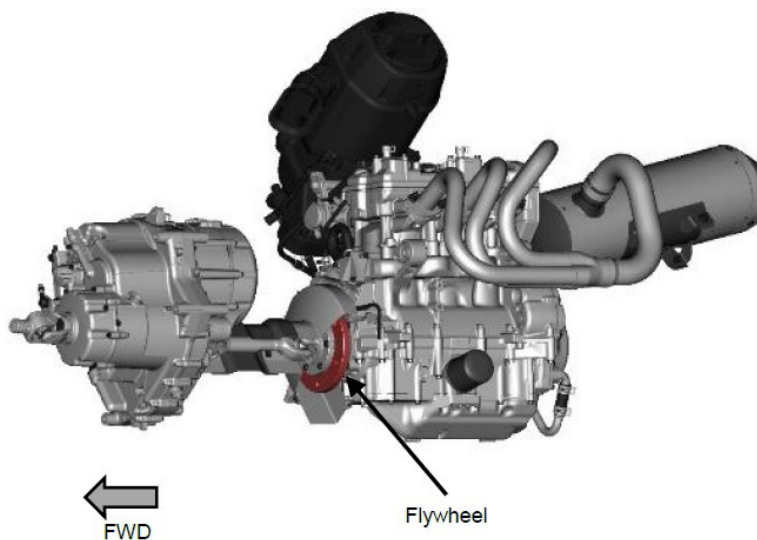
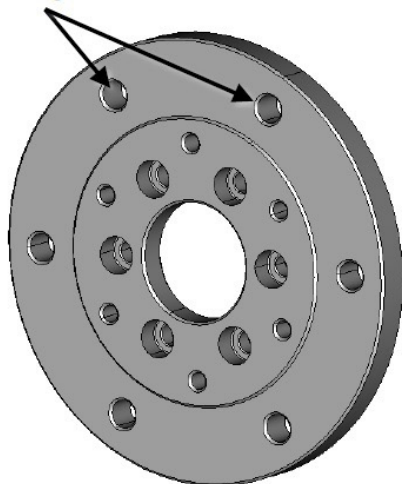
» Install the new bolt to the Crank Pulley Adapter as shown and then add Red Loctite to the threads.



» Install the Hub Adapter and torque the new bolt to 90ft lbs. You will need to put a screwdriver in the balancing hole on the flywheel to prevent the crankshaft from turning. Once the crankshaft bolt is torqued, make sure to remove screwdriver to avoid any future damage. The crank bolt is single use & will need to be replaced if removed.



Balancing holes





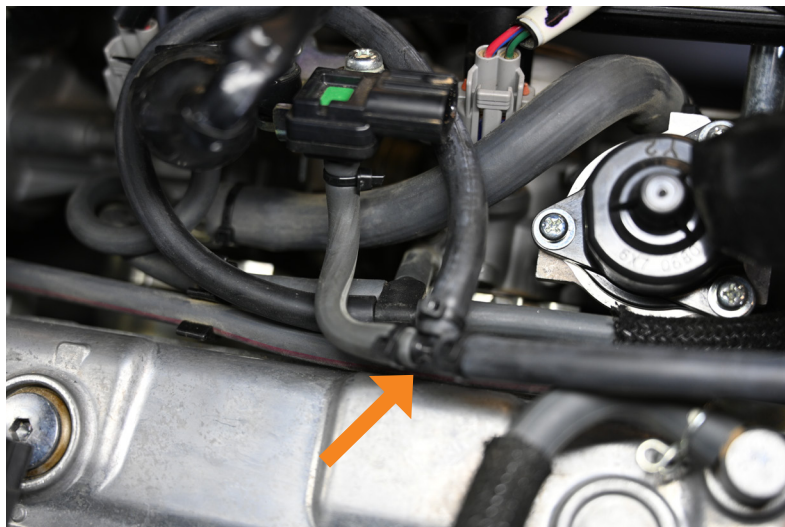
## 20 ECU INSTALLATION

» Install Selected ECU management system. This kit was tuned using Power Vision 3 (please refer to the Power Vision 3 instructions for installation). Do not start vehicle without installing an ECU management system doing so can cause critical damage.



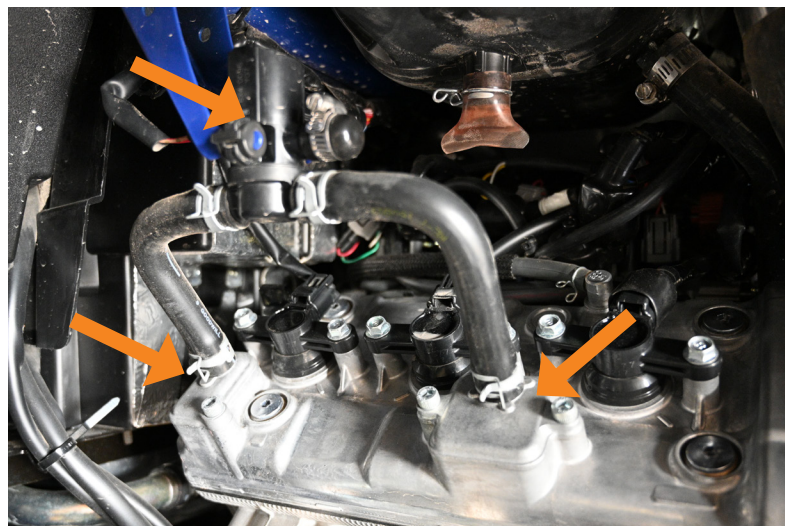
## 21 BLOW-OFF VALVE VACUUM LINE

» Install the supplied T-Fitting and attach the Vacuum line for the Blow-Off Valve (may differ than picture) as shown. Use the provided zip-ties to secure the ends of the vacuum hoses.



## 22 SMOG PUMP REMOVAL

» Remove the factory smog pump plates, hoses and solenoid. These may be discarded but must keep the factory Allen head screws. These will be used in step 23.

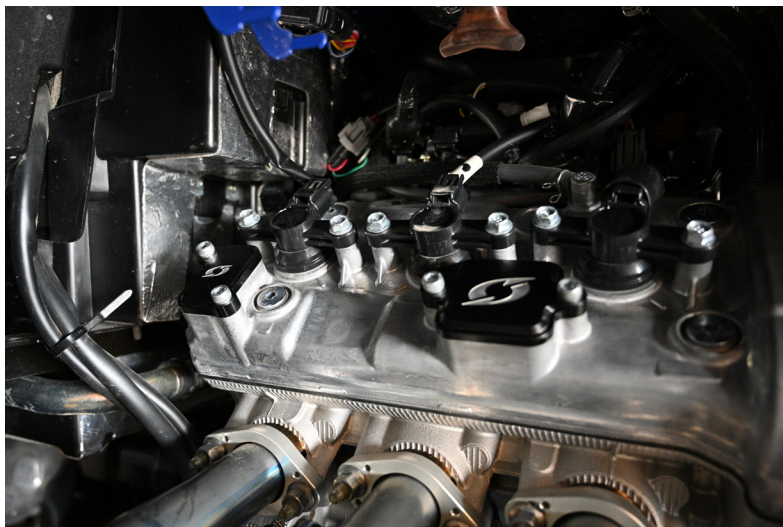




## 23

### BLOCK-OFF PLATE INSTALL

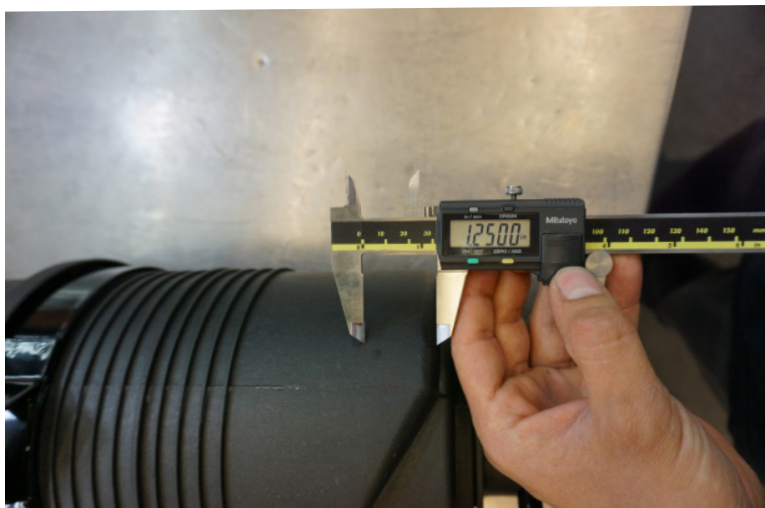
» Install the two KRAFTWERKS block off plates with the factory hardware add red Loctite to screw & torque to 9ft/lbs.



## 24

### KRAFTWERKS AIR BOX ASSEMBLY

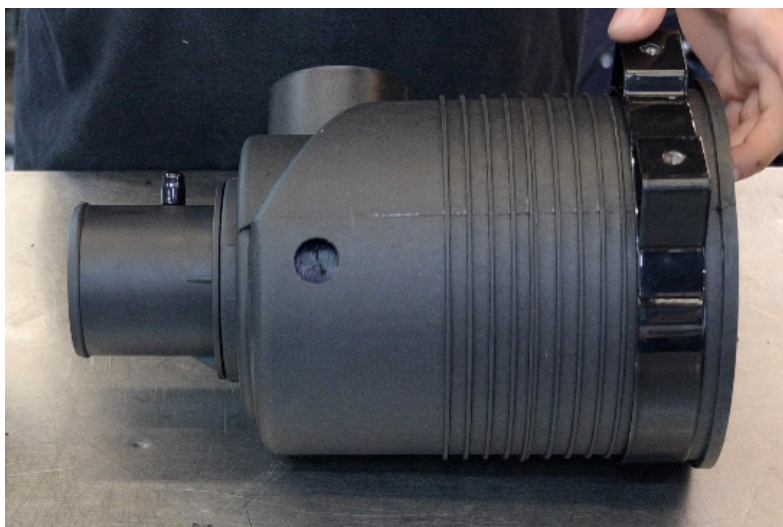
» Before the air box can be installed, a breather fitting for the supercharger plate needs to be added. Mark a location approximately as shown in picture.



## 25

### KRAFTWERKS AIR BOX

» Using a 3/4" or 19mm drill bit, drill a hole at the location marked in previous step.



**26 KRAFTWERKS AIR BOX ASSEMBLY**

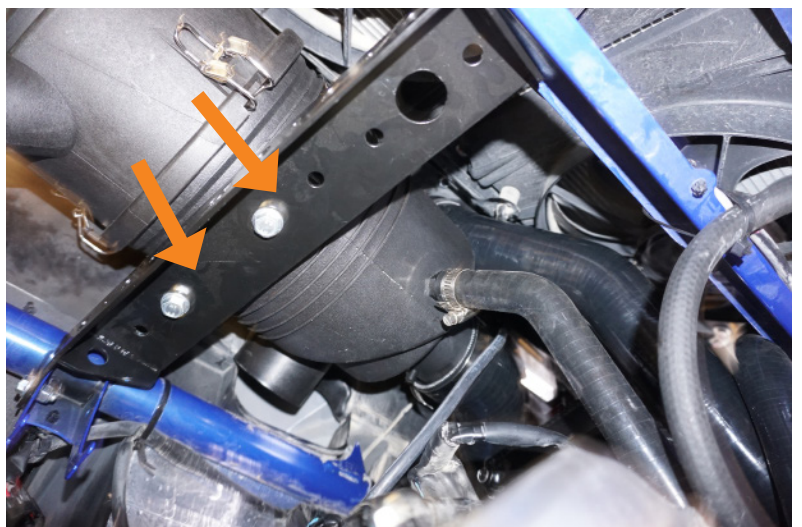
» Locate the provided barbed fitting & AN nut. Apply red Loctite & install in previously drilled hole. Tighten until fitting is snug. If over tightened, fitting may pull through plastic causing damage to air box

**27 KRAFTWERKS AIR BOX ASSEMBLY**

» Install the Kraftwerks Air Box bracket using supplied M6 flange head screws with lock nuts torque to 9ft/lbs

**28 KRAFTWERKS AIR BOX ASSEMBLY**

» Install the KRAFTWERKS air box bracket using supplied M8 Flange heads. Apply red Loctite & torque to 20ft/Lbs. Leave air box clamp loose at this time.





## 29

### CATCH CAN HOSES

» Install the KRAFTWERKS catch can hoses with hose clamps in the orientation shown in the picture to the right leave the hose clamps loose at this time, they will be tightened in later steps.



## 30

### DRY SUMP OIL TANK

» Re-install factory dry sump oil tank, you will re-use the factory flange heads in the top two mounting holes, The bottom mount will be held by provided rubber isolator. Top two screws apply red Loctite & torque to 20ft/lbs. Apply red Loctite to the rubber isolator and tighten till snug. Do not over torque, this will result in breaking the rubber. Attach the catch can hose installed in previous step to the top outlet. Tighten down clamps but do not over torque.





**31****INTAKE MANIFOLD**

» Locate the KRAFTWERKS intake manifold & install the factory intake air temp sensor. Install onto manifold using the supplied M5 Allen head. Apply red Loctite and tighten until snug.

**32****INTAKE MANIFOLD**

» Install intake manifold assembly onto the engine. Make sure the narrow hose clamps are used on the throttle body side. The mounting bracket goes onto the rubber isolator & held in place with provided nylock nut. Tighten hose clamps Note- Over tightening may result in silicone coupling coming off the throttle body.

**33****IACV VALVE TUBE**

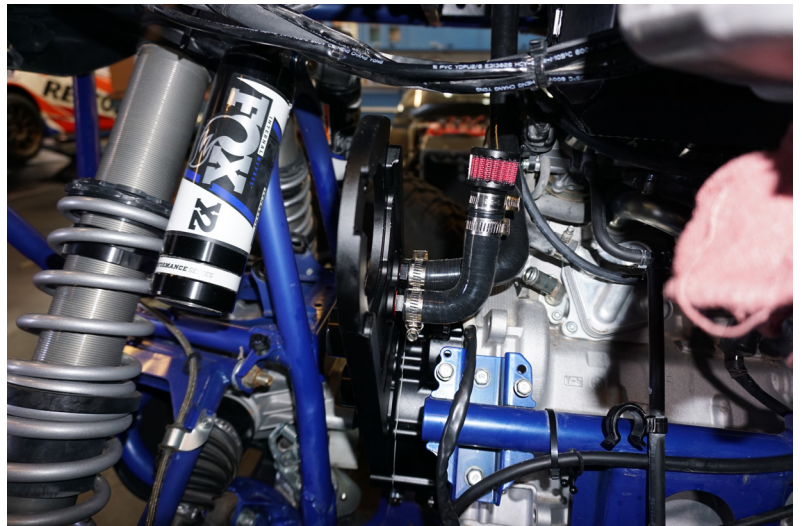
» Install the Idle Air Control Valve (IACV) Tube as shown and secure with provided clamp.



## 34

### BREATHER HOSE INSTALL

» Locate and install the KRAFTWERKS supercharger plate breather hose with provided clamps. The longer hose will attach to the top barb fitting on the backside of the super charger plate to the barb fitting added to the air box in step 26. The shorter hose with filter will attach to the bottom barb fitting leave loose at this time in case you have to rotate after the head unit and oil lines are installed.



## 35

### DRY SUMP TANK OIL HOSES

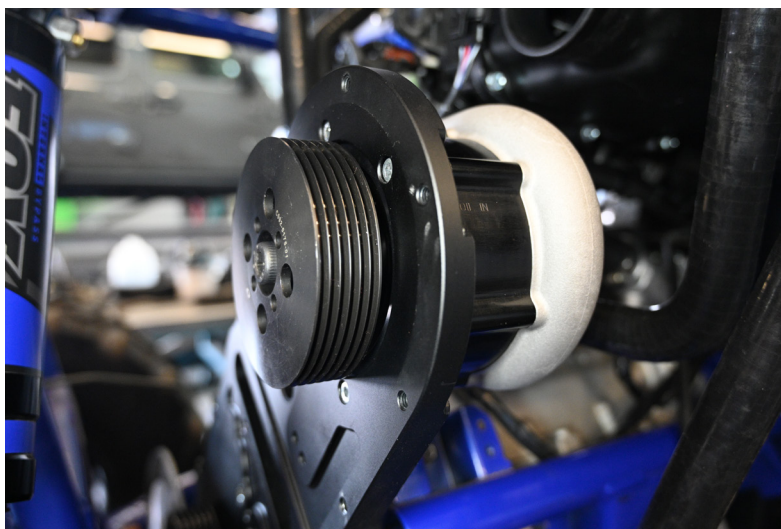
» Install the new KRAFTWERKS Oil Hoses and secure with the OEM Spring Clamps removed from Step #6. The top hose gets installed onto the oilcooler located underneath the thermostat housing and the bottom, hose installs onto the suction tube from step 12.



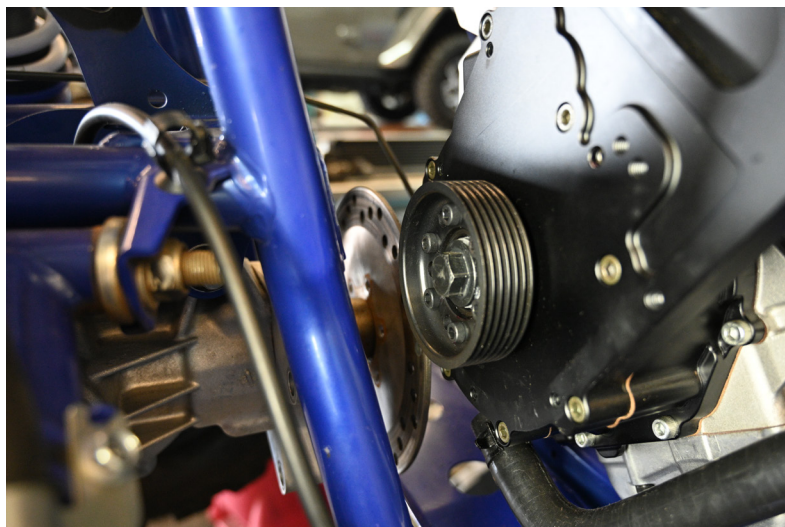


**36****ROTREX S/C HEAD UNIT**

» The supercharger pulley will be pre-installed on the Rotrex head unit. If for any reason the pulley needs to be removed & Re-installed, you must refer to the Rotrex set up and maintenance manual. Improper removal and installation procedure may result in damage to the head unit voiding warranty. Install the head unit with pulley using the supplied M5 Allen heads. Add red Loctite and torque to 4ft/lbs.

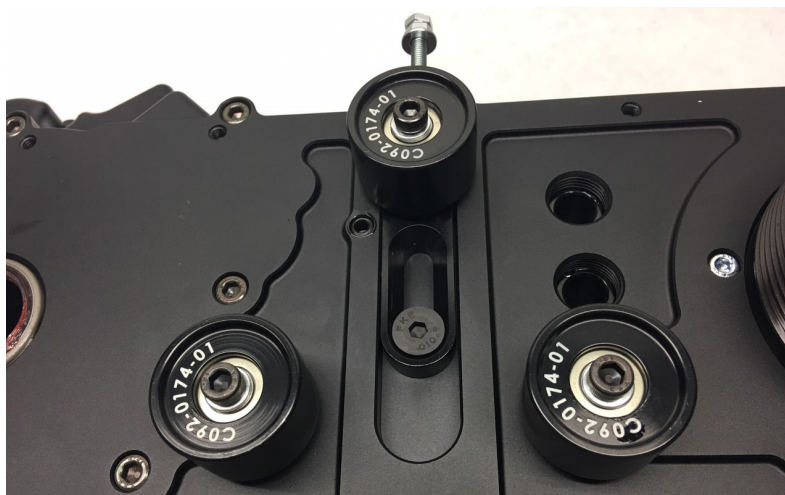
**37****LOWER DRIVE PULLEY**

» Install the lower pulley onto the crank adapter. Add red Loctite to the provided Allen head screws and tighten until snug. Torque the screws to 9ft/lbs. in criss cross pattern ensuring pulley is properly seated onto the adapter. You will have to hold the pulley to keep crankshaft from rotating.

**38****IDLER PULLEYS**

» Prepare to install the Belt by adjusting the Tensioner Pulley Assembly to the Full Upward position as shown.

Install the remaining Idler Pulley Assembly (highlighted by the arrow) by using Red Loctite and torquing down the M6 x 35mm Allen Bolt to 9 ft/lbs.



**39****S/C BELT / TENSIONER**

» Install and route the Supercharger Belt as shown. The belt should be installed on the first ribs of the pulley. This is the rib closest to the supercharger plate. Leave the countersunk Allen head loose, at this time.

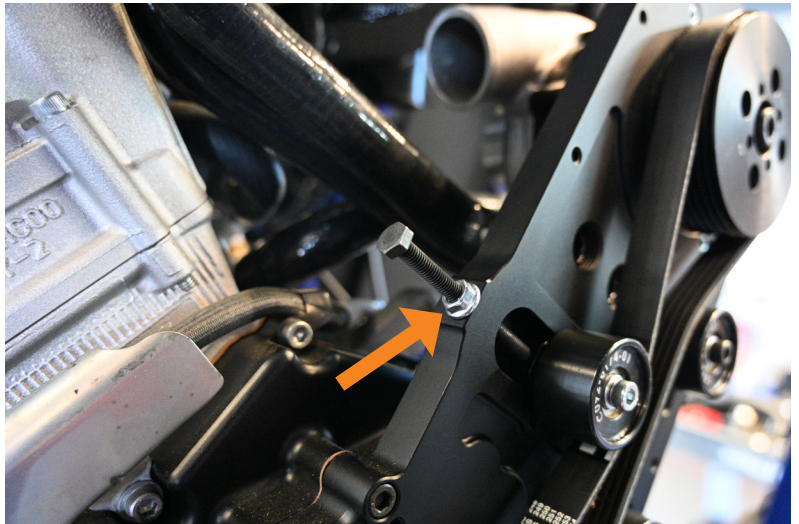
**40****TENSIONER ADJUSTMENT**

» Download the “Gates Carbon Belt” App for your smartphone. This App will be used to measure the vibration and tension of the belt.

Open the App and place the Smartphone Microphone next to the longest section of the belt. Flick the belt and it will give a HZ reading.

Tighten the Adjustment bolt until the belt tension is between **140-145 Hz**.

Once the proper tension has been set, torque the Tensioner Bolt to 15ft lbs and tighten the 10mm nut to lock the setting in place.

**41****BELT COVER PLATE**

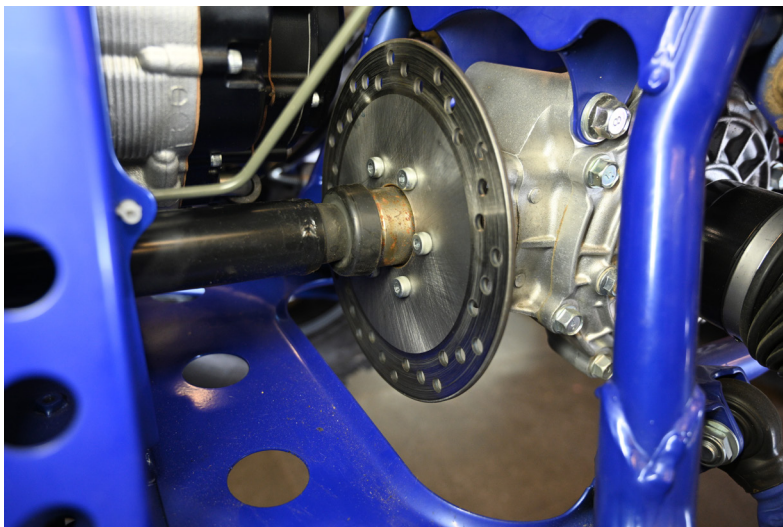
» Install the Belt Cover Plate and Gasket using the supplied M6 Allen screws. No silicone is needed for this gasket, add blue Loctite to the Allen screws & torque to 9ft/lbs.





**42****RE-INSTALL BRAKE ROTOR**

» Re-install the factory Brake Rotor. Torque bolts to 10ft lbs.

**43****RE-INSTALL BRAKE CALIPER**

» Re-install the factory Brake Caliper. Torque bolts to 25ft lbs.

**44****RE-INSTALL HEADER**

» Re-Install the header.

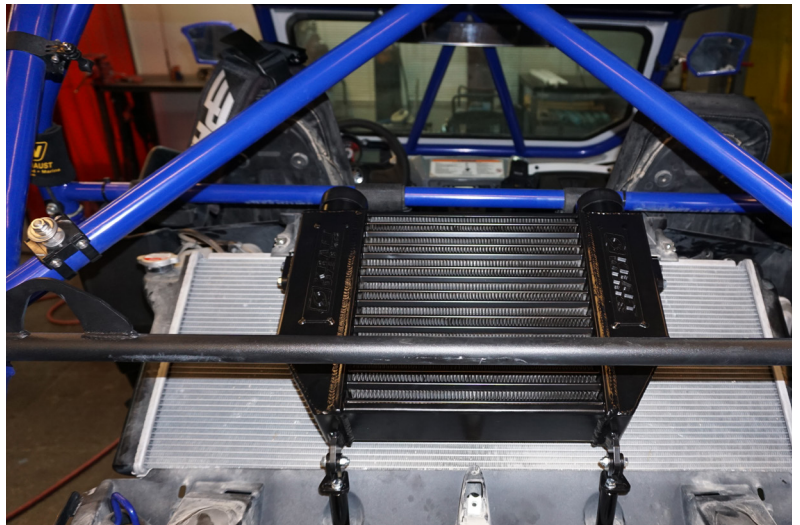


**45****INTERCOOLER INSTALL**

» Locate & install the lower intercooler mounts with 65mm spacers. Add the flat washer to the M6 x 90mm hex head & add red Loctite to the threads. Install but leave loose at this time

**46****INTERCOOLER INSTALL**

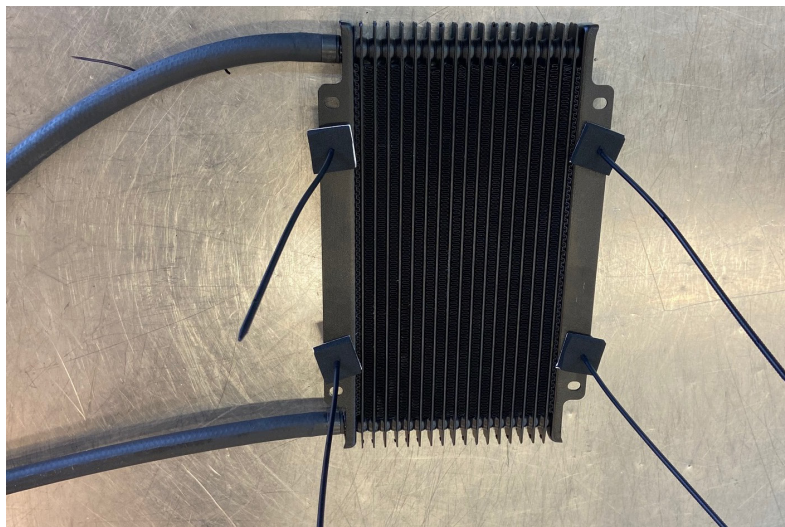
» Install the Kraftwerks intercooler onto the lower intercooler mount with badge facing outwards. Depending on the thickness of the powder coating you may need to use a flat head screwdriver to spread apart the tabs on the lower mounting brackets leave the hardware loose, at this time.





**47****OILCOOLER INSTALL**

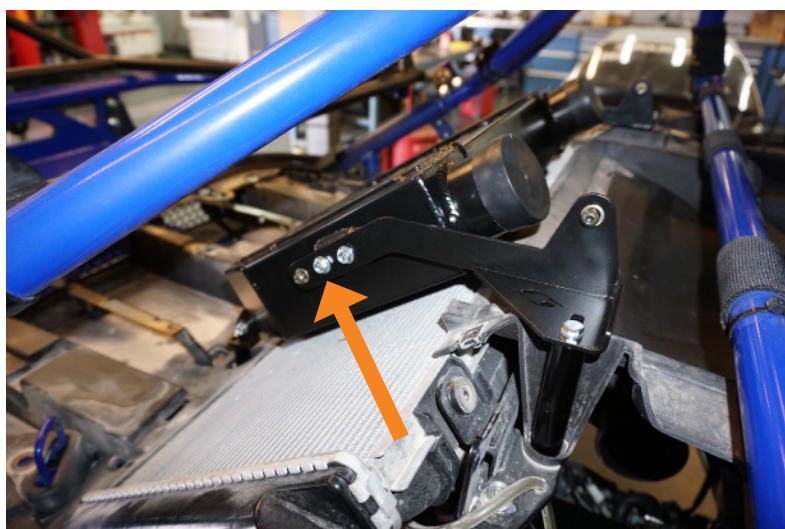
» Locate the Rotrex oil cooler assembly & install the QTY 2, 54" long x 5/16" ID oil hoses onto each fitting secure with provided 5/16" spring clamps. Slide clamps on hose first for ease of installation. Install mounting ties onto oil cooler with rubber pad on the inside of oil cooler.

**48****OILCOOLER INSTALL**

» With intercooler tilted upwards, install the oilcooler on the inside approximately as shown. Push the mounting ties through the intercooler fins and pull the base tight. The Rubber pad should be sandwiched between the oil cooler & intercooler.

**49****INTERCOOLER INSTALL**

» Locate & install the top driver & passenger side intercooler mounts. Apply red Loctite to the 4 flanged hex heads & torque to 9ft/lbs.

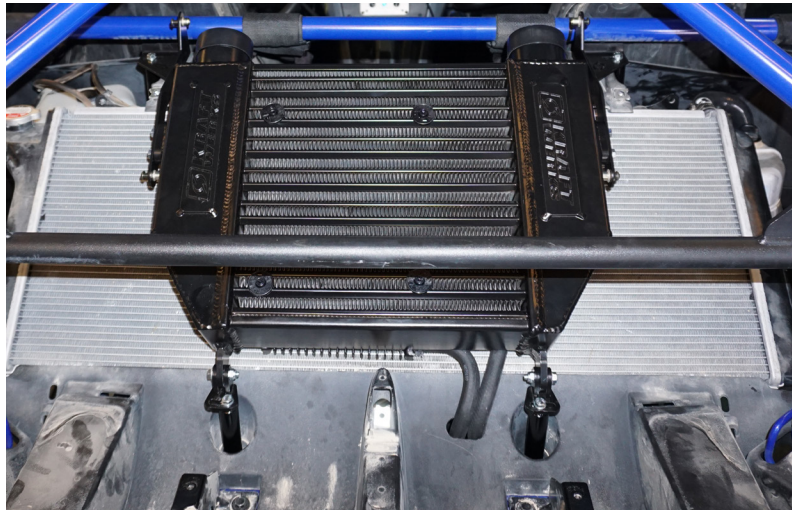


**50****INTERCOOLER INSTALL**

» Locate the provided 80mm spacer & M6 x 100mm Hex head flat washer, add red Loctite to the threads & torque to 9ft/lbs. At this time. Torque the bottom mounts to the same values.

**51****OILCOOLER HOSES**

» With the oil hoses fed through the bottom, drill two 3/4"-1" holes & trim approximately as shown for the oil hoses to pass through the cargo bed plastic.

**52****TUBING JUNCTION INSTALL**

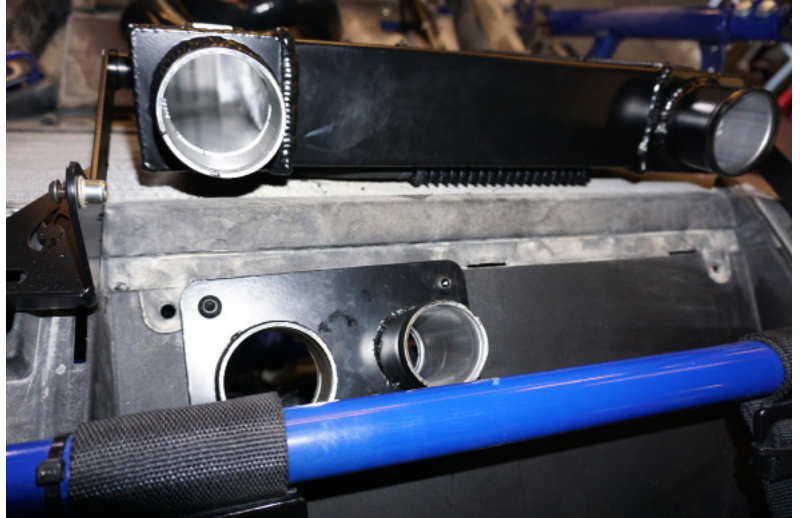
» This step requires the use of the provided tubing junction template. Trim out the template & place on the rear plastic. With both top hot and cold side hoses loosely installed rotate the hoses until they are closely aligned with the template, mark the center points of all 6-hole positions. Drill the 4 screw holes, with a drill bit similar in size to template. Drill the larger holes with a hole saw slightly larger than actual size.





**53 TUBING JUNCTION INSTALL**

» Install the KRAFTWERKS tubing junction plate with the 4 M8 button head screws & nylock nuts. Tighten until snug.

**54 HOT /COLD SIDE CHARGE PIPES**

» Install both top hot & cold side charge hoses with hose clamps. Tighten the clamps but do not over torque.

**55 HOT SIDE HOSE INSTALL**

» Locate & install lower hot side hose. The logo side attaches to the Rotrex outlet & the opposite side attaches to the smaller tube on the tubing junction. Tighten clamps but do not over torque. If needed refer to parts list at the beginning of the instructions for orientation.



**56****INTAKE HOSE ASSEMBLY**

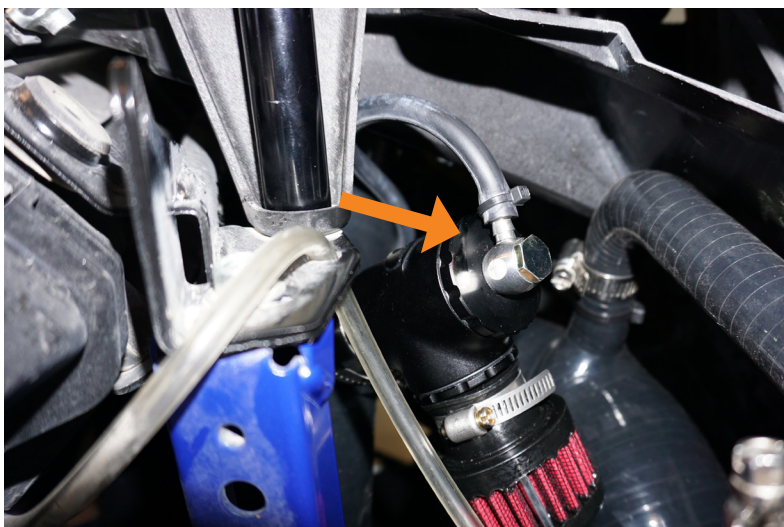
» Locate & install Rotrex intake hose assembly. If not already pre-installed, install the 5/8" Barb fitting on the top part & the 1/2" nylon plug on the bottom port, secure with provided zip-ties. Insert aluminum sleeve on logo side & tighten down clamp. Do not tighten air box side at this time. Install lower intake hose onto aluminum sleeve & Rotrex inlet. Tighten all remaining hosesclamps, but do not over torque. If needed refer to parts list at the beginning of the instructions for orientation.

**57****COLD SIDE HOSE ASSEMBLY**

» Locate & install the lower cold side hose assembly. If not pre-installed, install the KRAFTWERKS Blow off valve with narrow hose clamp onto the 1" port, do not tighten hose clamp currently. Install the hose assembly with the logo side attaching to the intake manifold & opposite side to the tubing junction. If needed refer to parts list at the beginning of the instructions for orientation. Now tighten down clamps, do not over torque. (Note: Actual blow off valve may vary than picture shown)

**58****BOV VACUUM HOSE**

» Rotate the BOV until it is clear from contact with surrounding components & tighten clamp. Break loose Banjo fitting on the BOV cap attach end of vacuum hose installed in step 21. Tighten down banjo bolt & secure hose with the provided zip-Tie.





**59****CATCH CAN HOSE**

» Attach the end of the breather hose installed in step 29 to the 5/8" barb fitting on the intake hose. Tighten down the clamp, but do not over torque.

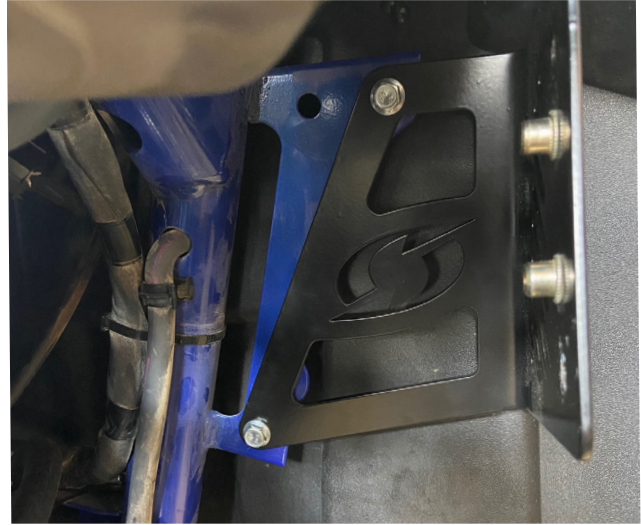
**60****RADIATOR HOSE INSTALL**

» Locate & install KRAFTWERKS radiator hose. The logo side will attach to the radiator outlet & the opposite end attaches to the thermostat tighten the clamp, but do not over torque.

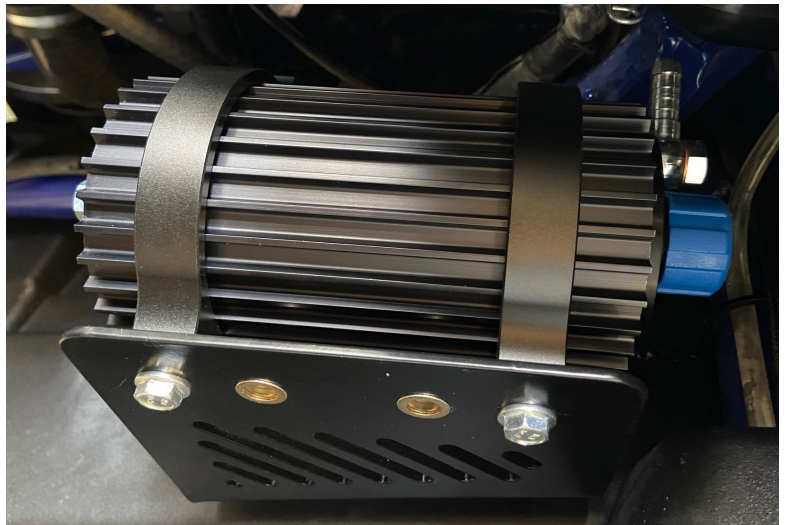


**61****ROTREX RESERVOIR INSTALL**

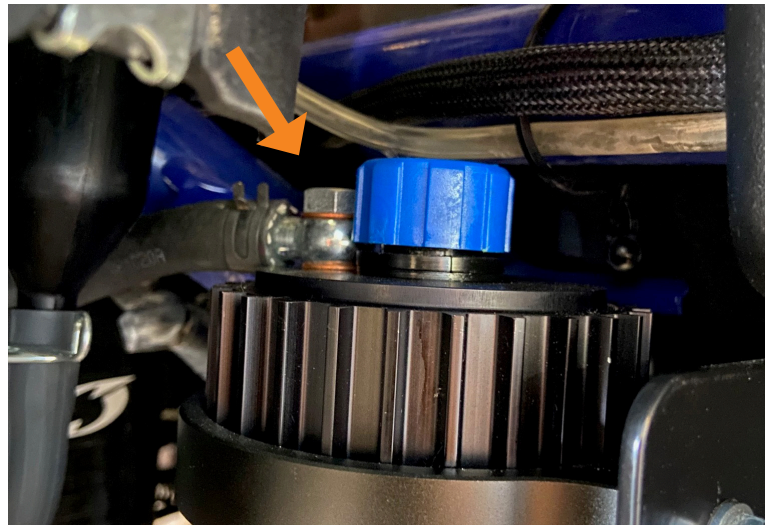
» Locate the Rotrex reservoir bracket assembly. If the assembly comes pre-installed, you will have to remove the rock guards & reservoir with brackets. Using the factory hardware. Add red Loctite to the threads and torque to 20ft/lbs.

**62****ROTREX RESERVOIR INSTALL**

» Install the Rotrex reservoir assembly onto the sheet metal bracket, add blue Loctite to the flange heads & torque to 9ft/lbs. Leave the Allen heads in the bracket loose so you are able to rotate & adjust the height of the reservoir as needed.

**63****ROTREX OIL RESERVOIR INLET**

» Place the spring clamp on one of the hoses coming from the oilcooler in step 47. Install onto the Rotrex oil reservoir inlet (top) as shown. Tighten the banjo bolt but do not over torque.





**64 ROTREX S/C OUTLET OIL LINE**

» Place the spring clamp on the remaining hose from the oilcooler. Install onto the "Oil Out" fitting on the Rotrex head unit as shown. Tighten the banjo bolt but do not over torque.

**65 ROTREX OIL FILTER INSTALL**

» Locate the Rotrex oil filter, 2.25" P-clamp, 1.375" P-clamp, 25mm tall spacer & 45mm long M6 flange head. Install the larger P-clamp onto oil filter & the smaller P-clamp around the radiator hose from step 60.

Add red Loctite to the threads & install parts as shown in picture, torque to 9ft/lbs.

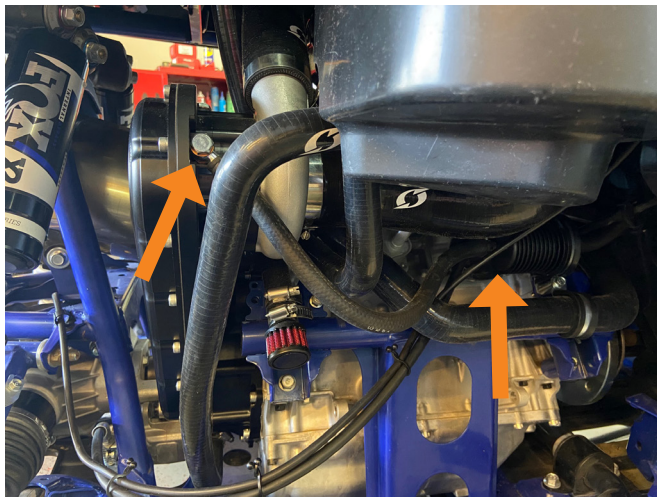
The oil filter clamp will be closest to the chassis & the radiator hose P-clamp the furthest with the spacer in between.

**66 ROTREX OIL FILTER HOSE**

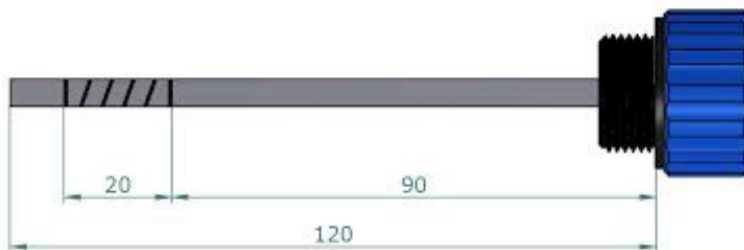
» Locate one of the 15" long oil hoses & install a spring clamp on both ends of the hose. Place one end of the hose onto the Rotrex oil reservoir outlet (bottom) & attach the opposite end to the oil filter inlet. Tighten the bottom banjo bolt of the Rotrex reservoir, but do not over torque.



» Install a spring clamp on each end of the remaining 15" oil hose. Install one end of the hose onto the oil filter & the opposite end onto the "Oil In" side of the Rotrex head unit. Tighten the banjo bolt, but do not over torque.



» Fill the Rotrex Fluid so that it shows the "Maximum" Level on the Dipstick (NOTE: Rotrex Fluid Level must be checked when the Dipstick on the Rotrex Oil Reservoir is FULLY threaded).



» Loosen the "OIL IN" Bolt at the Rotrex Head Unit but do not remove fitting.

Using a LOW PRESSURE (+/- 30 psi) Air Pump, use a Rag and Air Nozzle to push air through the Rotrex Oil Line until you see Rotrex Traction Fluid bleeding through the fitting you just loosened.

Once you see Rotrex Traction Oil. Tighten the Banjo Bolt back down.

Re-Fill the Rotrex Oil Reservoir as needed until the Fluid is at the Maximum Level.

Priming the Rotrex Head Unit is vital to ensure that the Rotrex Supercharger itself does not run dry on initial start-Up.

Running with improper oil levels will cause critical damage voiding manufactures warranty





**70 PRE-START CHECK**

» Top off both engine oil & radiator fluid. Refer to the Yamaha owner's manual for recommended fluid types & quantities.

» Loosen the hose clamp of the top hot side hose, remove hose end from the intercooler inlet & push to the side.

**71 INITIAL START-UP**

» Verify that the program has been loaded onto the tuning device. Unscrew the dipstick from the Rotrex oil reservoir so that someone is able to check oil levels. Start vehicle and let idle.

While the engine is running, check for leaks and Proper Rotrex oil levels. Once the Rotrex Fluid Level has stabilized, screw Dipstick back onto the Rotrex Oil Reservoir and stop the engine.

Check the Engine Oil and radiator fluid Levels and top off as necessary.

**72 INSTALL FACTORY PLASTICS**

» Re-install top hot side hose. Tighten clamp, but do not over torque.

Re-install the factory cargo bed & plastics with the exception of the top covers, these will need to be trimmed to fit around the KRAFTWERKS intercooler brackets.





## 73

### TOP COVER MODIFICATIONS

» Both driver a & passenger side top covers will need to be trimmed to fit around the intercooler brackets. Using a tool of choice trim the plastic approximately as shown in picture. Once able to sit flat with mating plastics, re-Install.



## 74

### INTERCOOLER SHROUD ASSEMBLY

» Locate the KRAFTWERKS intercooler shroud & provided button head screws. Install shroud & apply blue Loctite to the threads. The top screws will attach to the intercooler mounts & the bottom to the cargo bed. Tighten until snug.



## 75

### FINAL START-UP

» Check all Fluids, Charge Pipe Connections, and Hose Lines.

Start-up the engine and let it idle for 5 minutes checking all fluids and connections during the process.

After about 5 minutes of idling, rev engine progressively to make sure that there are no issues.

ENJOY AND SAFE RIDING OUT THERE!





# 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](mailto: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.





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WERKS**

REV. 02.20



