



**2006-11 Honda Civic R18 All Models  
Jackson Racing Supercharger System  
Installation Instructions**



Congratulations on your purchase of the Jackson Racing Civic R18 Supercharger System!

Jackson Racing supercharger systems are designed to be installed by a professional mechanic with a complete tool selection. If you have decided to complete the installation on your own, please be sure that you have the tools to handle the installation and ability to follow all instructions completely.

Please review the complete instruction manual before starting your installation. Please follow the instruction manual step by step and do not skip ahead.

Please refer to the Genuine Honda Service Manual for all mechanical and safety procedures. The Honda Civic EX, DX, LX R18 Service Manual is highly recommended and can be ordered online from [helminc.com](http://helminc.com).

Many stock parts are reused during installation. Do not damage or discard any pieces during disassembly or installation. We recommend marking any hose or wire before disconnecting to avoid confusion during reassembly.



Civic EX and LX models have a soft lining attached to the underside of the engine hood. The Civic DX does not have this lining. We recommend removing this lining on the EX and LX models as the supercharger and tubing will touch the lining possibly causing indentions to the liner.

Jackson Racing supercharger systems require Premium grade (91 Octane or greater) gasoline, preferably a "Top Tier" gasoline. Before performing this installation, be sure to drive your Civic until the fuel tank is empty of regular grade gasoline. If you already operate your Civic on Premium fuel disregard this instruction. Do NOT use Octane Boosters in your fuel system. Octane Boosters will damage your spark plugs and your oxygen sensors when mixed incorrectly.

You will be working under the car during this installation. Be prepared to raise the car up with a floor jack and support stands or a professional hydraulic vehicle lift. Do not work under your car without proper vehicle support!

Always wear safety glasses while performing your installation. You will be working with the fuel system and will have flammable gasoline vapors in the engine compartment area. Do not smoke while performing this installation.

#### Tools Required:

- Set of Metric wrenches from 8mm to 19mm
- Set of Metric sockets from 8mm to 19mm
- Set of Phillips and Flat Blade Screwdrivers
- Set of Metric Allen wrenches
- Set of Pliers
- Pen Magnet (Magnetic Pick Up Tool)

#### Special Tools Recommended:

- The automatic belt tensioner on the Civic R18 is a Hydraulic-over-Spring type tensioner. It has a great deal of tension against it and makes belt installation difficult whether in stock form or with a supercharger. Jackson Racing has designed a Honda Tensioner Tool that makes this operation much easier. This tool is highly recommended and available only through Jackson Racing and Jackson Racing dealers.
- The plastic trim panel retaining clips, or push-pin clips, on the Civic are difficult to remove. We recommend buying a set of KD Tools Push-Pin Pliers Set. This Pliers set is available through Jackson Racing.
- Torque wrench capable of reading in Inch Pounds and Foot Pounds.

Part Numbers will be listed throughout the installation instructions in parentheses. (1234-56-789) or (12345-67890)



## **DISASSEMBLY OF FACTORY COMPONENTS:**

1. Disconnect the battery cables from the battery and remove the battery from the engine compartment. Remove the plastic battery trays. Under the bottom battery tray is the mounting bolts for the air intake resonance tube and the support bracket for the positive battery cable. Remove the resonance tube mounting bolts and the battery cable support bracket, as you will not be reusing these parts. Remove the (4) battery tray mounting bolts and remove the battery tray. Removal of the battery tray will make intercooler tube installation easier later on.
2. If you purchased the Factory Tuned system, unbolt the engine computer (ECU) from its mounting bracket located just behind the battery in the engine compartment. Fill in the Hondata/Jackson Racing Reflash form and ship the ECU using the prepaid shipping label and box supplied with your kit. If you purchased the FlashPro Tuner system, there is no need to remove the ECU.
3. Pull 4 plastic trim clips and remove the plastic cover from the hood latch area that covers the radiator. Raise the car up and remove the under side plastic panels and front bumper. You will need either a small screwdriver and patience to pry open the push-pin plastic clips on the plastic trim parts or the push-pin pliers listed in the "Recommended Tools" section to remove the clips. Remove the plastic under trays that cover the bottom of the engine and the plastic clips that hold the lower part of the front bumper to the sub frame. Remove the vertically mounted Phillips screws from the pointed ends of the front bumper where it meets the fender. Remove the two allen bolts from the upper radiator area. Pull on the outer corners of the front bumper to get it to "pop" off of its mounting points. Unplug the fog lamps if your vehicle is so equipped and set the bumper in a safe place.
4. Remove the aluminum bumper support bracket at this time. Removal of this bracket makes the intercooler installation much easier.
5. Remove the horn and the horn mount on the driver side of the radiator. Remove the plastic shroud on the driver side of the radiator. Remove the air temperature sensor and mount from the air conditioning condenser. You will not be reusing the horn mount or the plastic shroud. You will be reusing the air temperature mounting bracket and bolt.
6. Unplug the Mass Air Flow (MAF) sensor and remove the two (2) Phillips head screws that secure the MAF sensor to the air box lid. Set the sensor and the screws in a SAFE place for installation in the new intercooler piping later in the installation.
7. Unbolt and remove the lower air box resonance chamber from the drivers' side of the inner fender. You will not be reusing this chamber.
8. Remove the stock air box assembly and related air box mounting components. You will not be reusing any of these parts.
9. Remove the valve cover vent pipe assembly from the valve cover. You will find that there are two small coolant hoses attached to each end of the valve cover vent pipe assembly. Remove

the two coolant hoses from the valve cover vent pipe assembly and insert a new 5/16" brass connector (03110-08000) supplied with your kit to connect the two hoses together using the original clamps to secure these two hoses. Be prepared for a small amount of coolant loss during this procedure. You will not be reusing the vent pipe or valve cover pipe assembly. You will be reusing the flexible hose that is connected to your valve cover (Top Left of Photo) later in the installation.



## **FUEL INJECTOR INSTALLATION**

10. Remove the plastic cowl at the base of the windshield. It is held in place by three small plastic clips. Be careful not to lose them as you pull them loose from the cowl. Pull up on the plastic cowl to get it to unclip from the retaining clips in the base of the windshield and remove it from each of the two outer trim pieces at the outer base of the windshield. Unplug the windshield washer hose and lay the trim panel aside for reinstallation later in the instructions.

11. Remove the bolts that hold the steel lower cowl in place and remove the lower cowl. This will open the area of the fuel injectors up so that you can install the new high flow fuel injectors.

12. Remove the plastic injector shield. Remove the bolts that hold the wiring harness cover to the valve cover. This cover is directly above the fuel injectors. Unplug all the stock injector clips from the injectors. Clean out the area around the fuel injectors with compressed air if available so that no debris falls into the injector holes once the injectors are removed.

13. Remove the fuel connector safety cover and then remove the fuel rail connector from the main fuel hose on the top of the fuel rail. Be prepared for some residual fuel to spray from this fitting. Remove the fuel rail mounting nuts and lift the fuel rail and injectors from the engine compartment.

14. Replace the stock fuel injectors with the new high-flow fuel injectors (3301-02-100) supplied with your kit by removing and replacing one injector at a time. Keep the new and old injectors separate. Do NOT mix them up. Be sure to apply a small amount of grease to all of the injector O rings so that they don't get pinched during the installation process.



15. Reinstall the injector/fuel rail assembly, fuel line, and fuel line safety cover. Plug in the fuel injectors. Reinstall the plastic injector shield, wiring harness cover and bolts.

### **BELT DRIVE INSTALLATION**

16. Loosen the automatic belt tensioner and remove the stock belt. You will not be reusing the stock belt.

17. Remove the ground strap from the upper engine mount support on the passenger side of the engine.

18. Support the passenger side of the engine from under the oil pan using a floor jack before proceeding with the next steps and then remove the passenger side “Dog Bone” torque mount from the engine and the chassis.

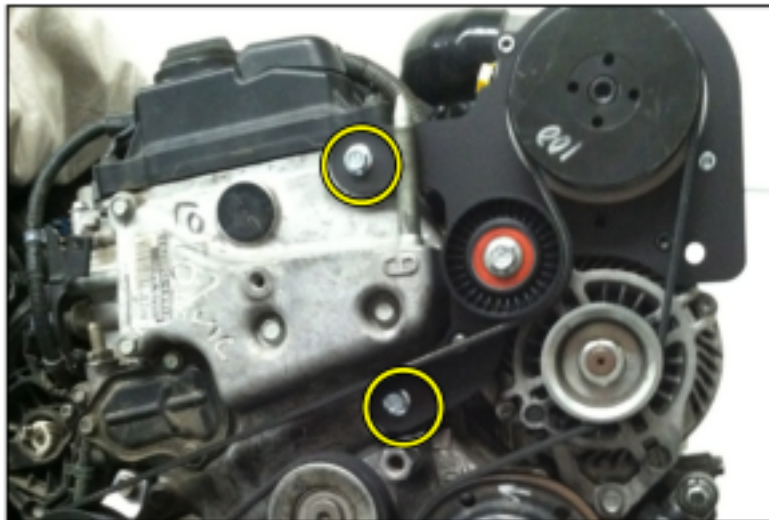
19. Remove the upper engine mount support bolt so that the engine can be lifted up by the floor jack and separated from the large rubber engine mount.



20. Lift the engine up via the floor jack. With the engine raised up from its normal position you will have access to the timing chain cover bolts and the alternator mounting bolt.

21. You will find a large pointed stud mounted vertically coming from the motor mount casting on the timing cover. Directly above and directly below the stud-mounting surface are two 12mm headed bolts that hold the timing cover in place. Remove these two bolts. They will be replaced with longer bolts. You will find the ideal engine height by removing the lower timing cover bolt (Bottom circle). That bolt will be removable if its horizontal position is just below the top of the large rubber factory engine mount.

Note: These bolts are installed into the timing cover at the factory with gasket adhesive. This gasket adhesive can clog up the mounting holes and cause the new bolts to damage the existing threads. We recommend spraying penetrating oil in the holes and blowing them out with compressed air before installing the new bolts supplied with your kit.



22. Remove the upper alternator-mounting bolt at this time. It will not be reused.

## SUPERCHARGER INSTALLATION

23. Locate your Rotrex C30-74 supercharger (2031-00-300) and install the two banjo bolts, four copper crush washers, and two banjo fittings supplied on the supercharger unit. The banjo fittings will be in your oil kit while your supercharger banjo bolts/washers will be in your supercharger box. Install a crush washer on the top and bottom of each banjo fitting. With the supercharger pulley facing you and the compressor inlet facing away from you, install the two banjo fittings so that they face away from you at a 45-degree downward angle from the supercharger-mounting surface. Torque to 15 ft lbs. (20Nm)



### Locate:

- Civic R18 Supercharger Bracket
- (1) 040" Shim Spacer Set (Two Shims)
- (1) .18" (4.6mm) Spacer
- (1) .567" (14.4mm) Spacer
- (1) M8x1.25x70mm Flanged Bolt (91100-08070)
- (1) M8x1.25x75mm Flanged Bolt (91100-08075)
- (1) M8x1.25x110mm Button Head Cap Screw (BHCS)
- (1) M6x1.0x55mm Hex Bolt
- (2) M6x1.0 Hex Nuts
- (1) M6x1.0x18mm Coupling Nut
- (1) M6x1.0x12mm Allen Head Cap Screw (AHCS)
- (1) Red Loctite Thread Locking Adhesive (99300-10002)

24. The supercharger will be located directly above the alternator when installed. To make room for the supercharger the alternator wiring must be moved back towards the engine and tied out of the way with plastic ties. Remove the air conditioning power wire bracket from the back of the alternator and route the wire back against the alternator static shield. Tie this wire with the other alternator wires as close to the engine area as possible. The air conditioning power wire bracket and bolt will not be reused.

25. Thread the M6x1.0x55mm hex bolt through the back of the threaded alternator boss that held the air conditioning power wire support bracket. Thread the 55mm hex bolt all the way through the alternator boss, towards the passenger fender. Loosely thread the (2) M6x1.0 hex nuts onto the open end of the 55mm hex bolt. Torque this bolt to 9ft lbs against the alternator.



26. Thread the first hex nut until it seats up against the threaded alternator boss and tighten it so that the 55mm hex bolt cannot move.

27. Thread the M6x1.0x18mm coupling nut onto the 55mm hex bolt until you see the 55mm bolt coming through the backside of the coupling nut. This coupling nut will be the outer support and alignment point for the belt drive once the supercharger bracket installation is complete.



28. With the wiring relocated, the supercharger bracket is ready to be installed. Rotate the supercharge bracket's two long mounting fingers so that they are facing back towards the firewall and the hole for the supercharger is aligned so that it sits above the alternator when looking at the engine from the passenger fender. Your supercharger bracket is ready for installation. Install the M8x1.25x75mm flanged bolt (91100-08075) through the lower mounting finger and install the .180" spacer on M8x1.25x75mm flanged bolt between the bracket and the

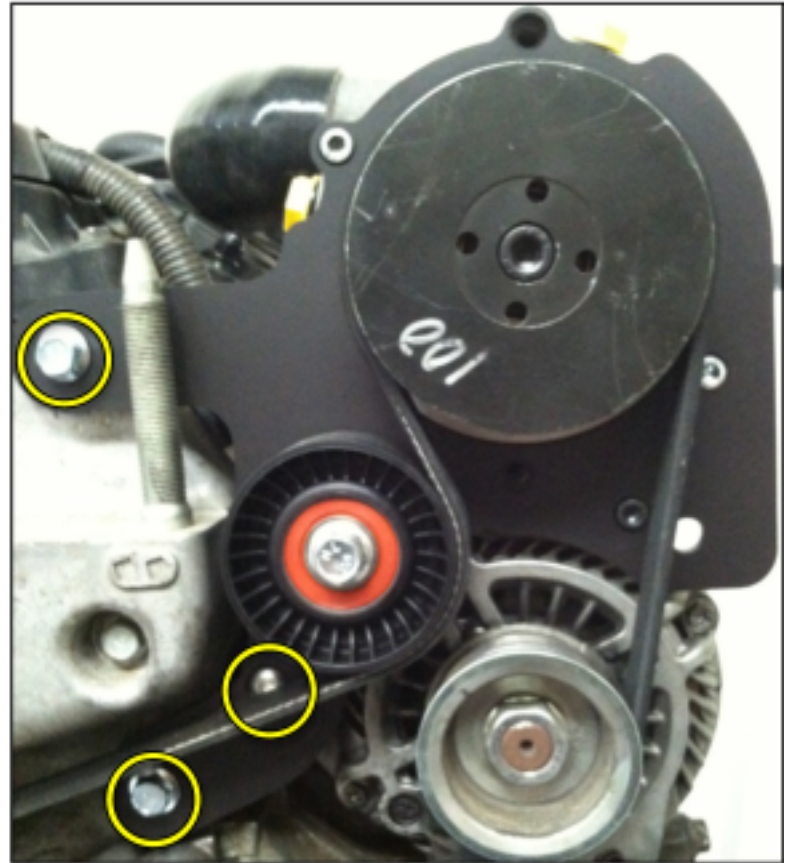


engine. Apply a very small amount of grease to the threads so that the bolt doesn't get bound up from the original gasket adhesive.

29. Lower the bracket into the engine area. The lower supercharger bracket mounting bolt will fit into the timing cover if your engine height is set so the hole is just below the top of the large rubber factory engine mount. Be careful to not lose the .180" spacer off the backside of the bolt. Thread the bolt in part of the full distance at this time. Try starting this bolt by hand. If the mounting bolts bind up for any reason remove the bolts/bracket and clean the threads in the block again. You do not want to damage these threads.

30. Locate the M8x1.25x70mm flanged bolt (91100-08070) and apply a small amount of grease to the threads on the bolt. Install it in the top hole of the mounting bracket. Install the .040" shim spacer set on this bolt between the supercharger bracket and engine.

31. Lower the .567" spacer down behind the supercharger bracket using a magnet to hold the spacer until it aligns with the main alternator mounting point. Apply a small amount of grease to the M8x1.25x110mm BHCS and thread the bolt through the supercharger bracket, the .567" thick spacer, and into the alternator mounting point. Do not torque the supercharger bracket mounting bolts at this time. Snug them so the bracket is not loose.



With the three main supercharger bracket mounting bolts in place, focus your attention on the front alternator mounting point.

Note: Because the supercharger bracket is mounted to "as cast" mounting points on the timing cover/alternator and not "machined" surfaces there will be a small natural variation in castings from car to car. For this reason, we have developed the front alternator support/alignment point. We have found natural casting variations from car to car and to accommodate these natural casting variations the supercharger kit has been developed to use the M6x1.0x18mm coupling nut as an integral support and belt alignment point.

32. Adjust the coupling nut until it just makes contact with the back of the supercharger bracket. Then turn the coupling nut (2) “flats” of the coupling nut. NOT (2) “rotations,” but only (2) “flats.” This will add a very small amount of preload to the supercharger bracket. Lock the loose hex nut against the coupling nut at this time. This will pre-set your bracket alignment.

33. Install the M6x1.0x12mm AHCS through the front of the supercharger bracket and into the coupling nut at this time. Torque the AHCS to 9 ft lbs while holding the coupling nut on the backside with a 10mm wrench.



Alignment Notes: The belt alignment may need to be adjusted for some vehicles to allow for the natural variations common in cast aluminum surfaces. Once the installation is complete and the car is running, watch the serpentine belt as it travels over the idler pulley just prior to going over the supercharger pulley. If the belt is riding too far to the outside (furthest from the supercharger bracket) of the idler pulley or the belt won't stay centered on the supercharger pulley readjust the coupling nut and the supercharger bracket until the belt rides on the pulley correctly. If the belt is riding too close to the supercharger bracket add more tension to the supercharger bracket by turning the coupling nut one or two “flats” of the coupling nut at a time up against the supercharger bracket until the supercharger belt rides at approximately 1/16” from the outside edge of the idler pulley when running with the supercharger belt centered on the supercharger pulley.

34. Finish by torquing the three (3) supercharger bracket mounting bolts to 12 ft lbs (16Nm) at this time.

35. Install the idler pulley spacer (2630-01-000) into the 70mm idler pulley (2150-01-000) and install this assembly onto the 10mm hole in the supercharger bracket using the 10 x 1.25 x 40mm flanged bolt (91100-10040) and flanged nut (91600-10000). Torque to 16ft lbs.

36. Lower the Rotrex supercharger into the supercharger bracket and install the four supercharger mounting bolts through the bracket and into the supercharger. Torque to 6.6 ft lbs (7Nm). Do not over tighten these bolts as it could damage the compressor housing and compressor wheel. Compressor wheel damage from foreign objects and over tightening are not covered under Rotrex warranty.

37. Reinstall the engine mounts and chassis ground strap in the reverse order that you removed them.



## SERPENTINE BELT INSTALLATION

The 2006-2011 Civics come equipped from the factory with a 7-rib belt. The 2012+ Civics, S2000s and most other Hondas come equipped with a 6-rib belt. We supply a 6-rib belt with our R18 supercharger system. The 6-rib system works perfectly on this car and many other Honda models.

38. Have a helper hold the automatic belt tensioner in its loosest position while you work the belt onto all of the driven pulleys. Route the supercharger drive belt (2200-02-101) forward from the bottom of the crankshaft pulley to the air conditioning compressor pulley. From the compressor pulley route the belt up and back so that the flat side of the belt rides on the water pump pulley. From the water pump pulley route the belt up and around the alternator pulley. From the alternator pulley route the belt up to the supercharger pulley. From the supercharger pulley route the belt below the 70mm idler pulley and route it so that it is headed towards the power steering pump. Route the belt around the power steering pump and then bring it forward around the automatic belt tensioner pulley. From the automatic belt tensioner pulley it will be routed back to the crank pulley. Install the belt so that the inside groove on the crank pulley, power steering pulley, alternator pulley and air conditioning pulley is empty. You will be using the six (6) belt ribs that start on the outside of each of these pulleys. Align the belt on the standard 8 rib Rotrex supercharger pulley so there is an open rib on the outside and an open rib on the inside of the pulley.



## INTERCOOLER AND OIL COOLER INSTALLATION

The Jackson Racing supercharger system uses the A/C condenser mounts as the mounting point for the intercooler/Rotrex oil cooler mount. There are two different A/C condensers supplied for the Civic R18 vehicles. The 2 Door Coupe uses an A/C condenser with mounting points on the side of the condenser while the 4 Door Sedan uses an A/C condenser with mounting holes in the front of the condenser. The Jackson Racing kit is supplied with mounting hardware to fit either model.

Coupe- ALL intercooler hardware will be used. The Jackson Racing main intercooler/oil cooler mounting bracket, the Jackson Racing A/C condenser bracket, and the two Jackson Racing side-mounting brackets.

Sedan- ONLY the Jackson Racing main intercooler/oil cooler mounting bracket will be used. The two Jackson Racing side-mounting brackets, the Jackson Racing A/C condenser bracket, and hardware will not be used.

39. Sedans (4-Door): Remove the A/C condenser mounting brackets from the radiator support and the A/C condenser. Move the bracket from the center slot on the rubber isolator to the slot closest to the radiator support and reinstall. This will move the A/C condenser back towards the radiator to leave room for the intercooler hose between the bumper support and A/C condenser.

Coupes (2-Door): Remove the A/C condenser mounting brackets from the radiator support and the A/C condenser. Move the passenger side bracket from the center slot on the rubber isolator to the slot closest to the radiator support and reinstall. Install the Jackson Racing driver side A/C Condenser bracket on the rubber isolator to the slot closest to the radiator support and install. This will move the A/C condenser back towards the radiator to leave room for the intercooler hose between the bumper support and A/C condenser.



40. Sedans (4-Door): Locate the upper intercooler mounting bracket (2710-02-000) and lay it up in the front grill area so that the mounting holes line up with the air conditioning condenser upper mounting bolts. Once you know where the upper intercooler-mounting bracket is going to be mounted, remove the two 10mm headed bolts in that location. These bolts will be replaced with M6x1.0x20mm flanged bolts (91100-06020), M6 x 4mm spacers (Silver), and .18" (Black/4.6mm) spacers. Install the .18" (Black) spacers between the A/C condenser bracket and the A/C condenser and the 4mm (Silver) spacers between the intercooler bracket and the A/C condenser bracket. Torque to 7 ft lbs.

Coupes (2-Door): Install the two Jackson Racing side-mounting brackets to the outside mounting points for the A/C condenser using a M6x1.0x18mm flanged bolt and a M6 x 6mm spacers (01200-06006) between the A/C condenser bracket and the Jackson Racing side-mounting bracket. The main Jackson Racing intercooler bracket will be mounted on the front of the side-mounting brackets. (See "COUPE" Photo)



SEDAN

COUPE

41. Sedans (4-Door): Bolt the intercooler (4100-02-101) to the top of the intercooler bracket using an M8x1.25x16mm flanged bolt (91100-08016). Use the horizontal and vertical mounting bracket holes FURTHEST from the A/C condenser. The intercooler inlet and outlet tubes should be facing the drivers' side fender.

Coupe (2-Door): Bolt the intercooler (4100-02-101) to the top of the intercooler bracket using an M8x1.25x16mm flanged bolt (91100-08016). Use the horizontal and vertical mounting bracket holes CLOSEST to the A/C condenser. The intercooler inlet and outlet tubes should be facing the drivers' side fender. (See Photo On Next Page)

42. Raise the vertical intercooler/oil cooler mounting bracket up to the intercooler-mounting bosses on the side of the intercooler. Verify that the top mounting holes in the upper intercooler bracket line up with the vertical intercooler mounting holes. Install two M8x1.25x16mm BHCS (92510-08016) through the vertical intercooler bracket and into the intercooler. Install two (2) M8x1.25x16mm flanged bolts (91100-08016) and two (2) M8x1.25mm flanged nuts (91600-08000) through the vertical intercooler bracket and horizontal intercooler bracket. Torque all bolts to 12ft-lbs at this time.



COUPE SHOWN

43. Install the billet aluminum lower intercooler-mounting bracket to the chassis by installing the slot in the bracket over the steel seam of the chassis. Install the steel Lower Intercooler bracket (Z-shaped) between the billet mounting bracket and the mounting boss on the bottom of the intercooler. Install an M8x1.25x20mm flanged bolt (91100-08020) through the steel bracket and into the billet aluminum bracket at the chassis. Install an M8x1.25x16mm flanged bolt (91100-08016) through the steel bracket and into the lower intercooler mount. Hold the billet bracket with an adjustable wrench so that it doesn't twist while torquing the mounting bolt to 16ft lbs. Torque the intercooler-mounting bolt at the intercooler to 16ft-lbs.



44. Install the Rotrex oil cooler to the vertical intercooler bracket using four (4) M6x1.0x20mm flanged bolts (91100-06020), four (4) M6 x 6mm spacers (01200-06006), and four (4) flanged nylock nuts (91610-06000). Install the spacers between the oil cooler and the mounting bracket and torque to 7ft-lbs.



45. Tighten the M22 to AN6 adapters (03601-22006) and 90° oil cooler fittings (03530-06008) to the oil cooler so that the two fittings face towards each other. Lube the threads of the oil cooler with a small amount of oil before installing. Hold the lower hex on the oil cooler fitting with a wrench while gently tightening fittings with another wrench. Failure to hold the oil cooler hex while tightening the oil cooler fitting may damage the oil cooler and it will not be covered under warranty.



46. Install a 5/16" x 36"L Rotrex oil hose (02300-08036) from the "OUT" fitting on the supercharger (closest to the cylinder head) using the 5/16" spring clamps provided. Run the oil hose in a soft loop under the supercharger following the alternator lines down and then following the high-pressure A/C hose that runs from the A/C compressor to the A/C condenser. Route the hose through the front radiator area just above the A/C condenser-mounting flange. Connect this hose to the upper fitting on the Rotrex oil cooler and secure with special screw clamp provided.



Locate the Rotrex Oil Reservoir from your Rotrex Oil Kit. It will be preassembled with a M6 x 38mm spacer (01200-06038), an M6x1.0x60mm flanged bolt (91100-06060), an M6x1.0mm flanged nylock nut (91610-06000), and a Rotrex reservoir mount bracket (2530-01-000).

47. Using a M6x1.0x45mm flanged bolt (91100-06045), M6x18mm fender washer (93600-06000), and a .96" long spacer attach the reservoir assembly to the original air box mounting tab near the driver side shock tower before installing the two banjo bolts and washers to the reservoir. Bolt the banjo bolts, banjo fittings, and copper crush washers to the top and bottom of the reservoir so that they face the front of the car when the reservoir is mounted to the original air box mounting tab. Install a crush washer on the top and bottom of each banjo fitting. You will want to do a test fit to be sure the banjo bolts are facing towards the front of the car before applying the final 12ft lbs torque to the banjo bolts. Apply a small amount of thread locking adhesive to the first two threads of the M6x1.0x45mm flanged bolt before final installation into the original air box mounting tab. Torque the 6 x 1.0 x 45mm flanged bolt to 7ft lbs.



48. Route a 5/16" x 65"L Rotrex oil hose from the top fitting of the Rotrex reservoir down to the lower Rotrex oil cooler fitting. Route the hose near the battery and out to the front grill area to where the Rotrex oil cooler is located. Secure this hose on the reservoir end with a standard spring clamp and on the oil cooler end with a special screw clamp provided. The remainder of the Rotrex oil hoses will be installed after the intercooler tubing installation is complete. Use plastic ties to secure the hose to the intercooler mount so that the hose doesn't lay loose in the front bumper area. Check to make sure the hose does not rub any sharp edges of the chassis.



## INTERCOOLER TUBING INSTALLATION

NOTE: Check all tubes and hoses for any foreign material inside left over from manufacturing. Lube all hoses lightly with penetrating oil spray prior to installation to make it easier to align the tubes and hoses.



49. There are three (3) 2"ID x 90° hoses included in the kit. One of these hoses has a shorter leg on one side of the 90° bend. Install the "short leg" of this silicone hose onto the compressor outlet and point it towards the driver's side of the car. This hose will be pointed directly over the ignition coils on the cylinder head. Loosely clamp with a #32 hose clamp (95100-32000). You will also find two (2) "standard" 2"ID x 90° hoses with equal lengths and bends that look identical. These hoses will be used later in the installation.

50. Install the 2"OD x 14"L compressor outlet tube into the compressor outlet hose and loosely secure with a #32 hose clamp. Install this tube so that the 1" spigot for the bypass valve hose is nearest the transmission and facing back towards the firewall.

51. Install a standard 2"ID x 90° silicone hose on the end of the compressor outlet tube so that its open end is pointed down towards the transmission. Secure loosely with a #32 hose clamp.

52. Install a 2"OD x 7.5"L intercooler tube into the 90° silicone hose. Loosely secure with a #32 hose clamp.

53. Install a 2"ID straight hose to the end of the 7.5"L intercooler tube and loosely secure with a #32 hose clamp.

54. Install the SC outlet support bracket from the existing air box-mounting bracket near the cylinder head to the new 2"OD x 7.5"L intercooler tube. Secure the SC outlet support bracket to the existing air box mounting point using an M6x1.0x18mm flange bolt (91100-06018) and fender washer provided (93600-06000). Secure the support bracket to the tube using a #32 hose clamp provided. This support bracket will keep the SC outlet tubing from rubbing on any under hood components.



55. Install a 2"OD x 90° aluminum intercooler tube into the 2"ID straight hose. Loosely clamp with a #32 clamp. Route it so the long leg of the intercooler tube is in the 2"ID straight hose and the short 90° bend is facing the driver side of the car directly behind the radiator cooling fan.

56. Route the Intercooler Inlet hose (Preformed hose with two 90° bends and a 45° bend) through the area between the radiator and the chassis so that it is ready to be connected to the compressor outlet tubing from the top. Install the hose onto the bottom fitting of the intercooler and loosely secure with a #32 hose clamp.

57. Finalize the Intercooler Inlet hose by installing onto the 90° aluminum intercooler inlet tube and secure with #32 clamp provided. Rotate the tube and hose until you have a natural alignment and there is no rubbing on any engine bay components. Tighten all hose clamps including the clamp for the support bracket near the cylinder head.



58. Install a 2"ID x 90° silicone hose on the vacant intercooler outlet. Route the hose so that it fits between the radiator and the chassis. Loosely secure with a #32 hose clamp.
59. Install a 2"OD x 5.25"L intercooler tube into the 2"ID x 90° silicone hose. Secure with a #32 clamp.
60. Install a 2"ID x 45° silicone hose onto the open end of the 2"OD x 5.25"L intercooler tube. Rotate the hose so that the open end of the hose is facing towards the passenger side of the car. Secure with a #32 clamp provided.
61. Install the short end of the 2"OD x 90° aluminum intercooler exit tube into the 2"ID x 45° silicone hose and secure with a #32 hose clamp provided. Align the tubing/hoses so that the 90° aluminum intercooler exit tube is routed near the 90° intercooler inlet tube. They will sit side by side in the engine compartment.



62. Install the 2"-2.5"ID x 45° silicone hose onto the open end of the 2"OD x 90° aluminum intercooler tube. Secure with a #32 hose clamp provided. Route the hose so that the 2.5" end faces up and over the top of the transmission.
63. Install the 2.5"OD MAF tube with the "JR MAF Straightener" end into the 2"-2.5"ID x 45° silicone hose. Install this MAF tube with the "JR MAF Straightener" on the inlet side, opposite of the Throttle Body side of the tube. Rotate the MAF tube so that the mounting boss for the MAF sensor sits in a vertical direction and not off to the side. Loosely secure with a #40 hose clamp provided. (See Photo On Next Page)
64. Install a 2.5"ID x 90° silicone hose onto the throttle body and onto the open end of the MAF tube and loosely secure with two #40 clamps provided. (See Photo On Next Page)



Now that all the tubing and hoses have been installed, carefully rotate each tube so there is a natural alignment of all tubes and that no tubes/hoses make contact with any under hood components. Tighten all hose clamps at this time.

65. Reinstall the battery box, battery trays and battery at this time.

66. Remove the 90° plastic cover from the end of the positive battery cable. This will allow the battery cable to be rotated closer to the battery.

67. Rotate the positive battery cable as close to the battery and battery hold down bracket as possible and tighten. This positive battery cable needs to be rotated to make room for the air filter and air filter tube. Zip tie the positive battery to the battery hold down bracket.



## ROTEX OIL HOSE INSTALLATION FINISH

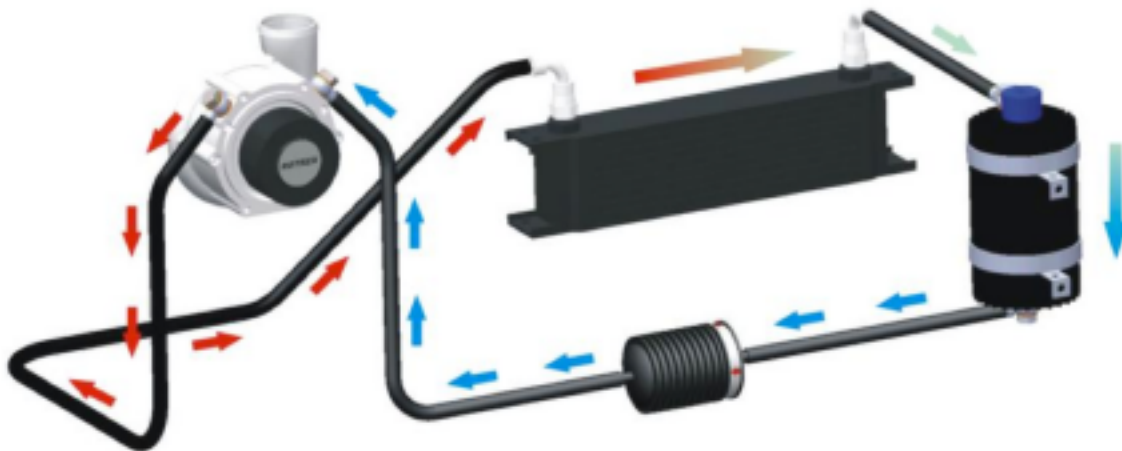
68. Route a 5/16" x 27"L Rotrex oil hose from the bottom of the Rotrex reservoir forward towards the battery and across the upper radiator support area towards the hood latch mechanism.

69. Install the magnetic oil filter into the 5/16" x 27" Rotrex oil hose with the "Flow" arrow facing towards the supercharger. Route it so that the magnetic filter is located next to the hood latch mechanism. Secure this hose on both ends with the spring clamps provided. Secure this hose to the wiring harness that travels across the top of the radiator area using the plastic ties provided with your kit so that the hose doesn't make contact with any under hood components or the exhaust system.

70. Route an 5/16" x 11"L Rotrex oil hose from the outlet of the magnetic filter and route it to the "IN" fitting of the supercharger. Secure this hose to the fittings using the spring clamps provided.



71. Carefully fill the Rotrex reservoir with Rotrex Traction Oil so that the level is close to the top of the reservoir at this time. Once the system is running it will draw down the excess amount of oil in the reservoir to fill the supercharger and the oil cooler. There will be specific instructions about initial start up procedures later in the installation.



## SUPERCHARGER INTAKE AND VACUUM INSTALLATION

72. Find the thermostat housing on the transmission end of the cylinder head. It has three bolts on it. Two of the bolts hold the thermostat housing to the cylinder head and one bolt is used to hold part of a bracket. Remove the bolt that doesn't hold the thermostat to the cylinder head and only holds the bracket. This bolt will not be used. Install the Intake Tube Support Bracket (L-Shaped) using an M6x1.0x18mm flange bolt (91100-06018) and M6 x 6mm spacer (01200-06006). Mount the bracket/spacer so that the open end of the "L" faces towards the transmission and the driver side of the car. This will support the intake tube once it is mounted. Apply a small amount of thread locking adhesive to this bolt prior to installation. Torque to 7ft lbs.



73. Factory Tuned or FlashPro Tuner System: Install the CARB trim supercharger insert into the supercharger inlet at this time. Apply a small amount of lubricant to the O-rings. Failure to install this supercharger insert on CARB systems and attempting to run the CARB calibration could result in catastrophic engine damage. Do NOT attempt.



74. Install two #40 hose clamps (95100-40000) and a 2.5"ID straight silicone hose over the restrictor and onto the supercharger inlet. Do not tighten the hose clamps at this time.

75. Install the 2.5"OD x 15"L supercharger intake tube, with 1.0" and .5" spigots, into the 2.5"ID silicone hose. The 1.0" spigot will be on the radiator side facing down towards the ground and the .5" spigot will face back towards the valve cover. Loosely tighten the two #40 hose clamps at this time.

76. Install a 2.5"ID x 45° silicone hose onto the end of the 2.5" x 15" inlet tube. Route the hose so that it faces back towards the engine's ECU. Secure this hose to the 2.5"OD x 15"L intake tube using a #40 hose clamp. Wrap the clamp around the support bracket installed earlier so that the tube is level horizontally in the engine compartment.

77. Install a 2.5"OD x 4"L intake tube onto the 2.5" x 45° silicone hose and secure with a #40 hose clamp provided.

78. Install the new Jackson Racing air filter (4200-01-000) onto the end of the 2.5"OD x 4"L intake tube and secure with the hose clamp provided with the air filter. You will need to finish installing the bypass valve system and valve cover vent hose before making your final tube rotation and alignment. The next section will cover the bypass and valve cover vent routing.





79. Install a .5"OD x 90° plastic fitting into the original valve cover rubber hose that is attached to the valve cover. Install the fitting so that it faces forward towards the intake tubing.

80. Route a .5"ID x 10"L long vent hose (02501-13010) from the valve cover vent plastic fitting to the .5" spigot on the inlet pipe. Secure on each end using a #20 spring clamp provided. Route the 10" long hose under the compressor outlet tube and straight to the intake tube spigot.



81. Install the long 1.0"ID hose with the 90° formed end onto the intake tube fitting so that the hose faces down towards the area between the transmission and the radiator cooling fans. Route the hose up from that area and back towards the MAF tube. Secure this hose to the intake tube with a #16 hose clamp (95100-16000) provided with your kit.

82. Insert the bypass valve (04000-25000) provided with your kit into this 1.0"ID x 90° hose and secure to this hose with a #16 hose clamp (95100-16000) provided. Insert the bypass valve end opposite of the vacuum fitting into this 1.0" hose. The bypass valve should be aligned so that the open end of the bypass valve faces the direction of the passenger fender.

83. Route the short, formed 1.0"ID x 90° bypass hose from the bypass valve over to the 1.0" spigot on the compressor outlet tube. Install it so that the short 90° end is closest to the compressor outlet tube and the long end is installed onto the bypass valve. Clamp with #16 hose clamps (95100-16000) provided.



84. Find the grey colored hose that is mounted to the back of the intake manifold. Twist the hose until it comes off of the intake manifold. Install a new 3/8"ID x 2"L long grey hose onto the vacant fitting on the intake manifold. Secure with a new gray spring clamp provided.

85. Insert the 3/8" Vacuum Tee with the 5/32" fitting (03301-10004) into the 3/8" x 2" hose and secure with a new gray spring clamp provided.

86. Reinstall the original grey hose onto the 3/8" vacuum Tee and secure with the original spring clamp.



87. Route the 30" vacuum hose (02200-04030) from the Vacuum Tee to the bypass valve. Use plastic ties to hold the vacuum hose so that it does not chafe against the chassis or any other components.

## **HORN / AIR TEMPERATURE SENSOR / BUMPER REINSTALLATION**

88. Remove a 12mm headed bolt that holds the bumper support bracket to the radiator core support. Insert a .18" spacer in place of the bolt, install the horn over the spacer and insert a new M8x1.25x30mm flanged bolt into the bumper support/radiator core support. Torque to 16ft lbs.

89. Flip the original air temperature sensor bracket over from its original mounting position and reinstall the sensor bracket to the A/C condenser using the original mounting bolt.





90. Reinstall the aluminum bumper support to the bumper support bracket at this time. Reinstall the bumper and all under trays at this time. Do not reinstall the hood latch cosmetic cover until your belt alignment check has been completed. There may be a small amount of contact between the silicone intercooler hose and the bumper support. This is normal and safe as the hose and the bumper support do not move during operation and no chaffing will occur.

## **ECU INSTALLATION**

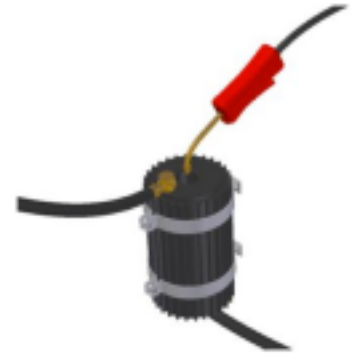
91. Factory Tuned System: Reinstall the Hondata/Jackson Racing calibrated ECU once it has been returned from Hondata.

FlashPro Tuner System: Follow FlashPro Tuner Guide to calibrate your ECU.

## ROTEX SUPERCHARGER STARTING PROCEDURE

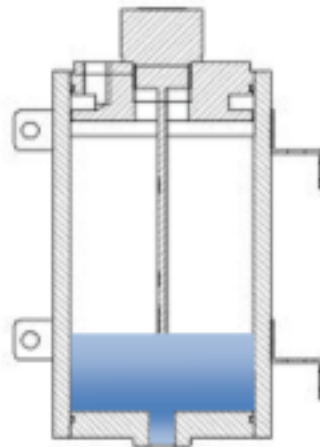
### Priming Your Oiling System:

92. Gently blow compressed air into the Rotrex oil reservoir while leaving the "IN" banjo bolt on the Rotrex supercharger loose. Cover the top of the reservoir with a shop towel while gently blowing compressed air into the reservoir until you see Rotrex oil leak from the "IN" fitting. Tighten the "IN" fitting at this time. Your system is primed and ready to be started. Once the car starts, keep a close watch over the Rotrex reservoir oil level. The oil level will decrease as the system fills all hoses, oil cooler, oil filter, and the Supercharger itself. Do NOT allow the reservoir to run dry or the supercharger will be damaged and will not be covered by the warranty.



### Checking the Rotrex Oil Level:

93. The Rotrex oiling system is a "dry sump" system meaning that it scavenges all oil from the supercharger and pumps it back to the Rotrex reservoir. At high rpm, the scavenging is stronger and the oil transfer happens quicker, filling the reservoir. To check the oil level, make sure the car is completely warmed up. Hold the throttle at 2000-2500rpm for approximately 1 minute. Let the idle come back to normal and then unscrew the dipstick, wipe it dry, and then reinsert it into the reservoir without threading it back in. The oil level should be between the low and high marks. This way of reading the oil level will give you a more accurate "real world" reading of what the oil level is while driving than simply checking it first thing in the morning.



94. Check for any fuel leaks and check all hoses, hose clamps, fittings, and fluid levels at this time.

95. Reinstall the steel cowl below the windshield at this time and the plastic lower windshield cowl after plugging the windshield washer hose back into the windshield washer nozzle connector.



## BELT ALIGNMENT CHECK PROCEDURE

Start the car and check to see if your belt is running true on the idle pulley and staying in the center of the supercharger pulley. Follow Step 32-33 for proper alignment. After test-driving your car recheck this belt alignment after the drive belt has fully warmed up and stretched to its production length.

If the belt alignment is off:

- Shut the engine off
- Loosen the AHCS on the front of the supercharger bracket
- Loosen the 10mm headed lock nut from the 10mm coupling nut
- Restart the engine
- Turn the coupling nut in or out to move the belt in or out on the idler pulley as instructed in section #32-33
- Once you have found proper belt alignment, shut your engine off
- Tighten the lock nut back down onto the coupling nut
- Retighten the AHCS to the coupling nut and test-drive the car.

Remember that it takes very little adjustment of the coupling nut to achieve proper belt alignment. Once set the adjustment will stay correct and no other adjustment will be necessary.

The “Step 33” Alignment Notes:

Watch the serpentine belt as it travels over the idler pulley just prior to going over the supercharger pulley. If the belt is riding too far to the outside (furthest from the supercharger bracket) of the idler pulley or the belt won't stay centered on the supercharger pulley readjust the coupling nut and the supercharger bracket until the belt rides on the pulley correctly. If the belt is riding too close to the supercharger bracket add more tension to the supercharger bracket by turning the coupling nut one or two “flats” of the coupling nut at a time up against the supercharger bracket until the supercharger belt rides at approximately 1/16” from the outside edge of the idler pulley when running with the supercharger belt centered on the supercharger pulley.

96. Reinstall the hood latch cosmetic cover.

Your installation is complete! Test drive your new Jackson Racing Supercharger system and enjoy! Once you finish your first test drive, always double check the all hoses, fittings, and fluid levels.