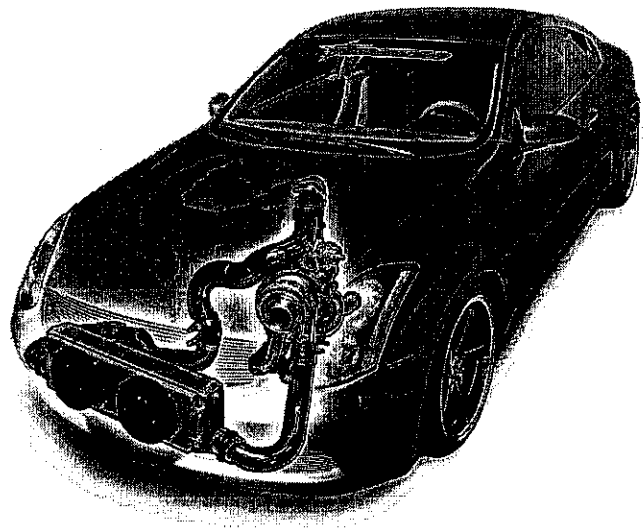
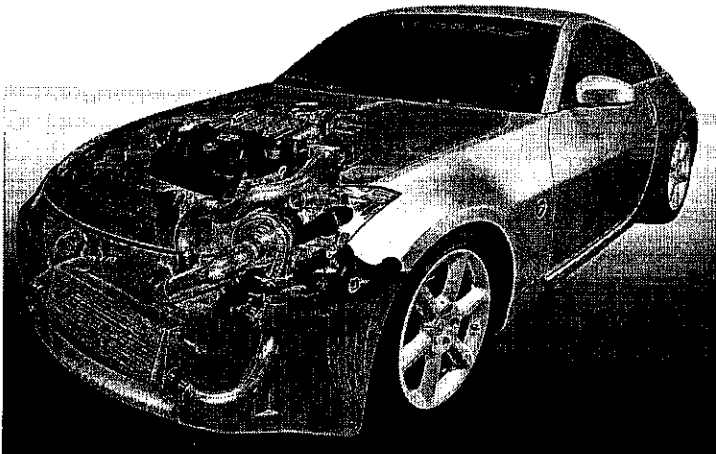




INSTALLATION INSTRUCTIONS:

**WASTEGATE RELOCATION KIT
P/N 11151**

**2003 - 2004 Nissan 350Z / Infiniti G35
VQ35 3.5L V6 Engine**





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

Remove the turbocharger system from its carton and inspect for any obvious physical damage. All kit components are thoroughly inspected and carefully packaged prior to shipment from the factory. If any shipping damage is evident, contact your supplier and request that they process a claim with the shipper involved. Be sure to review the parts list on page 3 to verify that you have all necessary system components to proceed. If any components in the parts list are missing, contact Turbonetics' customer service staff.

Although this turbocharger system has been designed to use many of the factory emissions controls (P/N 15136 includes a replacement catalytic converter), it is not currently "smog" legal in California, and therefore recommended for "off road" use only. In other states, check local laws regarding aftermarket modification to emission controlled vehicles.

This Turbonetics' turbocharger system is available in 3 combinations. P/N 15134 and 15136 are intended for the typical enthusiast, and include all necessary components and hardware to simply "bolt on" the turbo system and drive. Both of these systems are identical except for 1 exhaust tube (which does or doesn't contain an aftermarket catalytic converter). P/N 15138 is intended for the "tuner" enthusiast who wants the freedom to choose his own fuel components and controls, and includes all the same components and hardware as P/N 15134, except NO fuel injectors, fuel pump or ECU upgrade.

The information contained in this publication was accurate and in effect at the time the publication was approved for printing and is subject to change without notice or liability. Turbonetics reserves the right to revise the information presented herein or to discontinue the production of parts described at any time.

SAFETY REQUIREMENTS: It is recommended to follow these precautions.

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

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

- Nissan / Infiniti factory service manual, for your model year 350Z / G35
- A large table or bench, and plenty of adjacent available workspace
- Standard selection of automotive tools, primarily metric sizes
- An assortment of "zip ties" and/or thin-gauge steel wire
- The ability to securely lift the vehicle at least a few feet off the ground
- High temp. automotive RTV sealant



TORQUE RECOMMENDATION: When removing and re-installing factory fasteners, refer to the Nissan service manual for torque values. When installing fasteners included in this kit, refer to the following chart:

Fastener Size	Torque (Pound-Feet)	Torque (Newton-Meters)
1/4" or 6mm	10	13
5/16" or 8mm	19	25
3/8" or 10mm	33	45
NPT fittings	2-3 turns past finger tight	

PARTS LIST:

QTY	P/N	DESCRIPTION
1	20251	Flange, Wastegate Block-off Plate
3	20142	Gasket, Wastegate
6	31076	Bolt, Hex Head – M8-1.25x30mm
6	30589	Washer, Flat – M8
6	30593	Washer, Lock – M8
1	31007	Heat Wrap, 1.50" wide x 7.5ft. long
6	30653	Nuts, Hex – M8-1.25

TURBO SYSTEM INSTRUCTIONS LIST:

P/N	DESCRIPTION
60130	Nissan 350Z Manual Trans.
60132	Infiniti G35 Manual Trans.
60134	Nissan 350Z Auto Trans.

- 1.) Locate the original 350Z or G35 instructions that came with your turbo system and use it as a reference when installing the new wastegate relocation kit. If you are not able to locate your original instructions, please feel free to contact a Turbonetics distributor or download it from our website. Part numbers of the Instruction are on page 3 of this instructions.
- 2.) Lift the vehicle to a workable height and take all necessary precautions to secure the vehicle.
- 3.) Remove the plastic splashguard from under the front bumper cover, the plastic inner fenders (in front of the wheels), the front bumper cover, styrofoam bumper pad, aluminum front bumper, and any remaining plastic fascia pieces. SEE FIGURE 1, 2 & 3

FIGURE 1

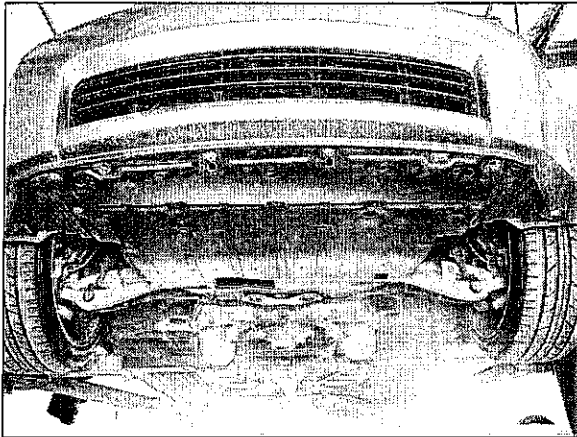


FIGURE 2

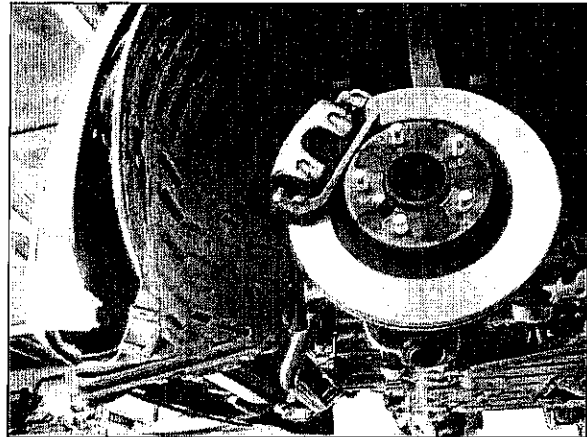
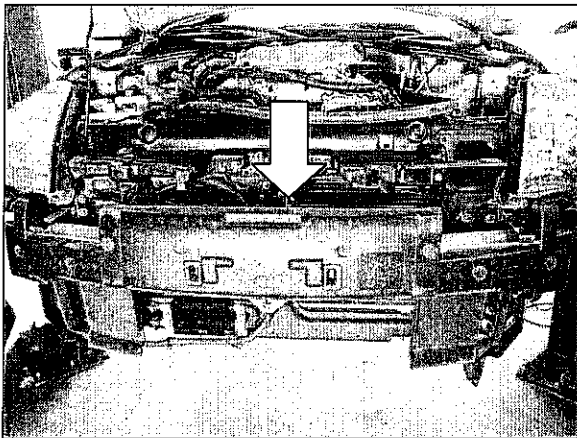


FIGURE 3



- 4.) Loosen the T-bolt clamps (P/N 30275-250) that secures boost tube (P/N 21175) from the turbocharger compressor discharge to the driver's side intercooler inlet and remove tube. SEE FIGURE 4 & 5

FIGURE 4

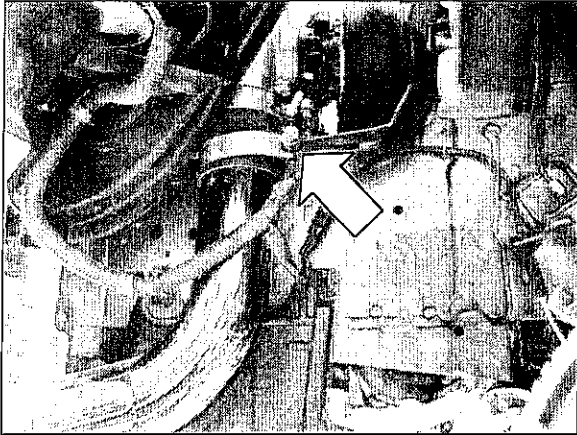
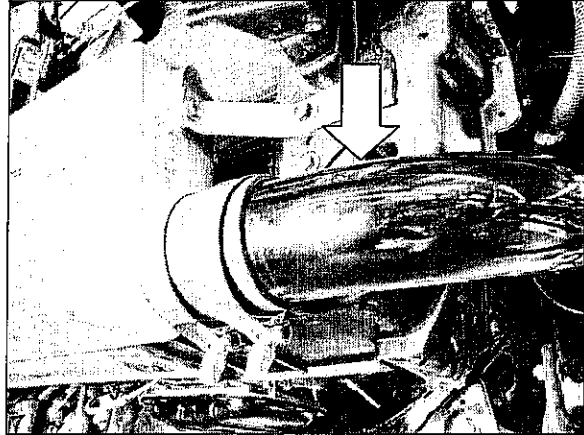


FIGURE 5



5.) Remove the 5/8" ID rubber hose from the intake pipe that connects the turbo to the air filter (P/N 21180 – 350Z) or (P/N 21281 – G35) and then remove intake pipe from the turbo. SEE FIGURE 6, 7 & 8

FIGURE 6 (Nissan 350Z)

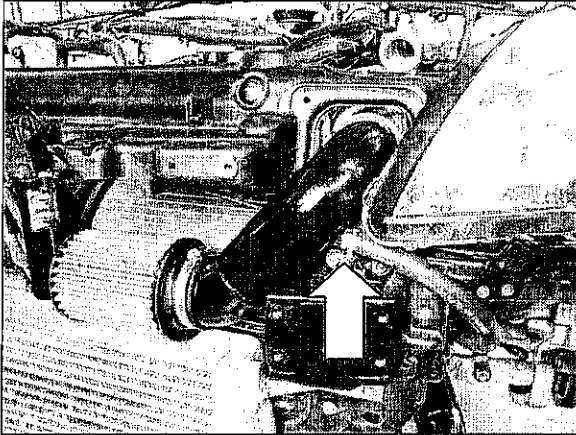


FIGURE 7 (Infiniti G35)

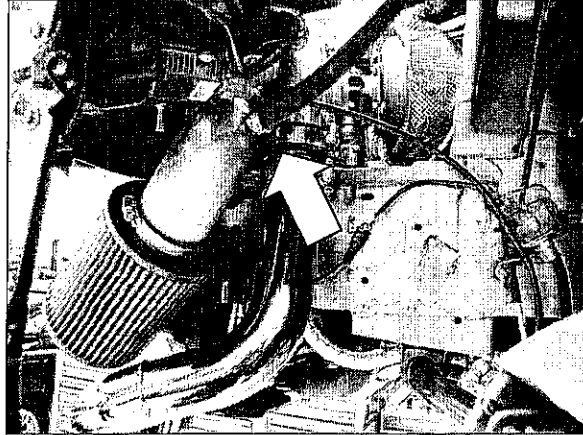
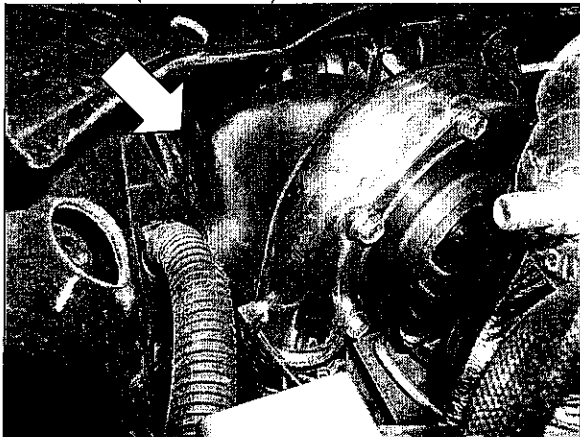


FIGURE 8 (Infiniti G35)



6.) Loosen the factory bolt from the front side of the engine, and remove the boost tube assembly (P/N 21178), and the complete boost tube assembly to the throttle body. SEE FIGURE 9-12

FIGURE 9

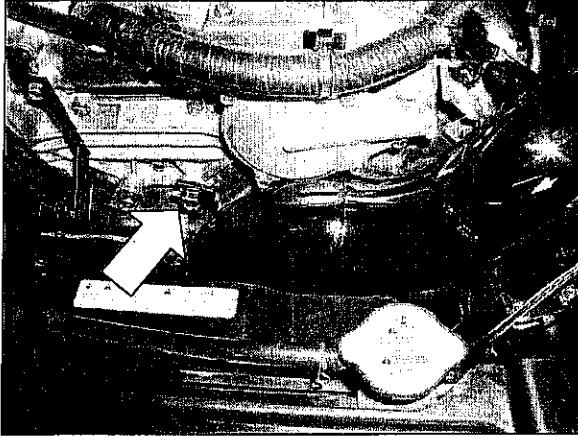


FIGURE 10

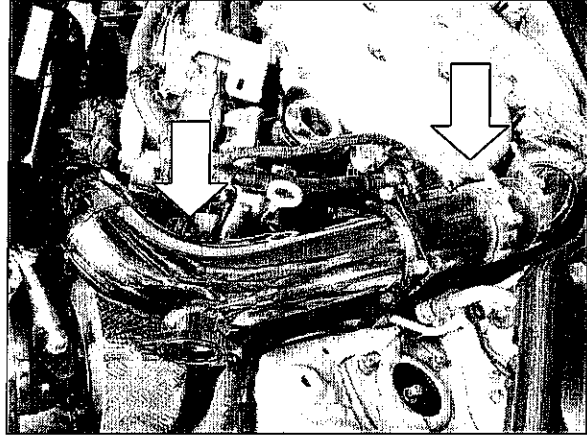


FIGURE 11

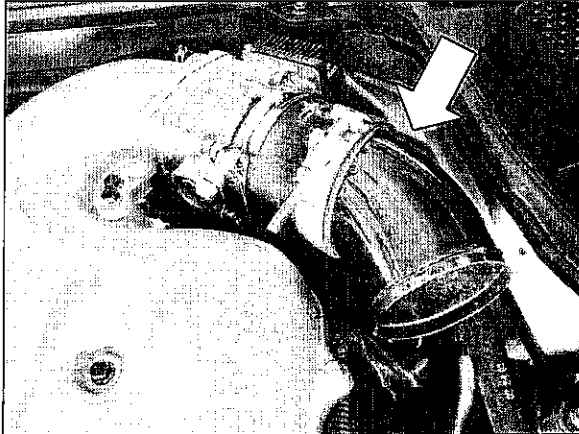
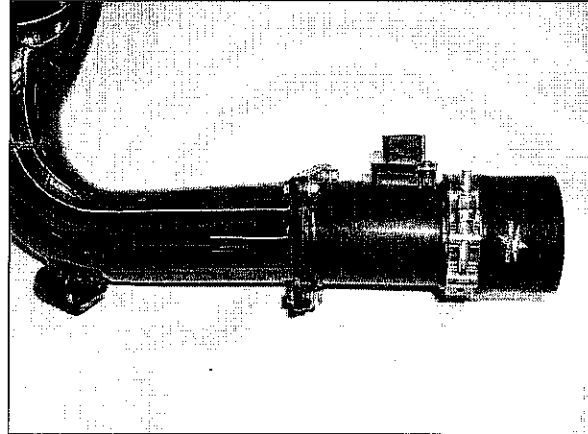
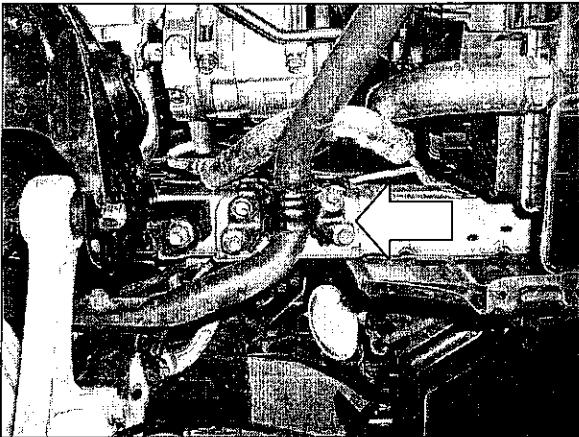


FIGURE 12



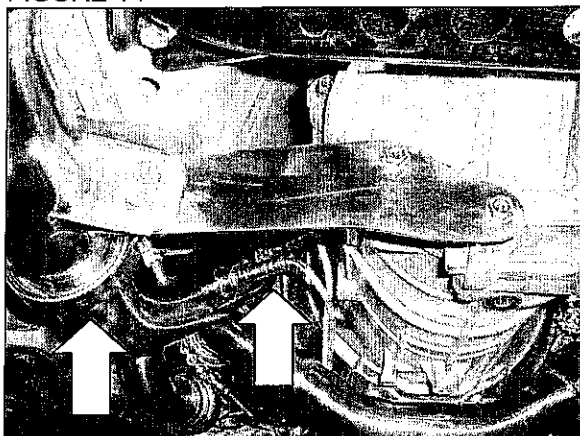
7.) Remove the front sway bar mounting brackets that is connected to the frame rails. SEE FIGURE 13

FIGURE 13



8.) Disconnect the two O2 sensor on the second downpipe and remove the V-band clamp (P/N 30232) that connects the second downpipe to the third downpipe. SEE FIGURE 14

FIGURE 14

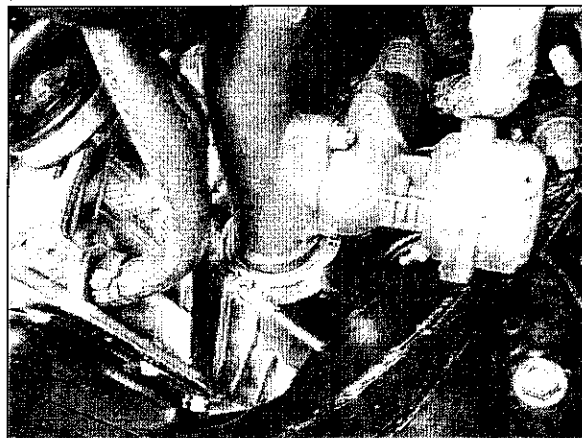


9.) Disconnect the wastegate discharge tube. Unbolt the Evolution wastegate (P/N 10781) on exhaust tube assembly P/N 21184. SEE FIGURE 15 & 16

FIGURE 15



FIGURE 16



10.) Disconnect the 5/8" turbo oil drain hose from the turbo and set it aside. Make sure you have a bucket or pan set aside for any oil that is left in the system.

11.) Remove the oil feed line (P/N 10721) from the top of the turbo.

12.) Loosen and remove the V-band clamp between downpipe 1 and downpipe 2. Unbolt the four M10-1.5 hex bolts that secure downpipe 1 to the turbocharger and remove. SEE FIGURE 17 & 18

FIGURE 17

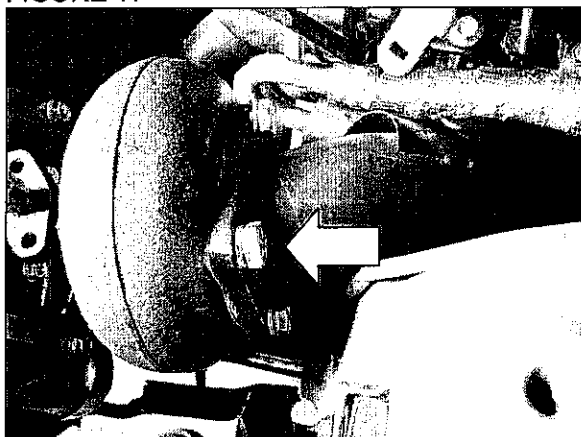
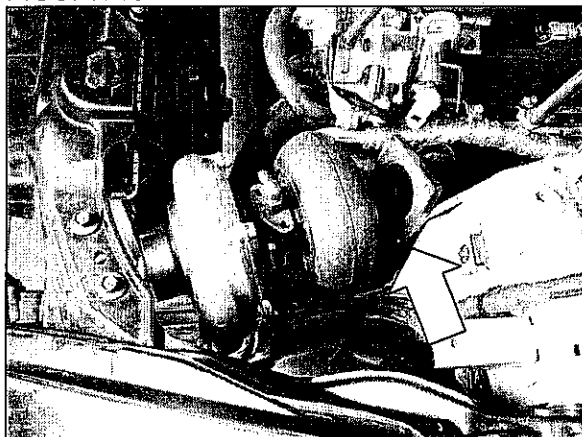


FIGURE 18



13.) Remove the turbocharger. Remember, there is a hex nut on the underside of the socket head screw.
SEE FIGURE 19 & 20

FIGURE 19

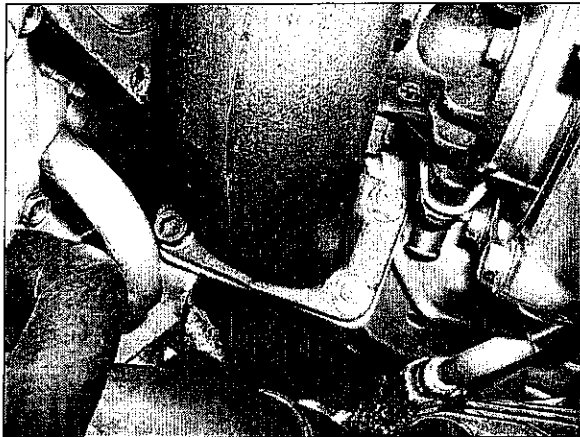
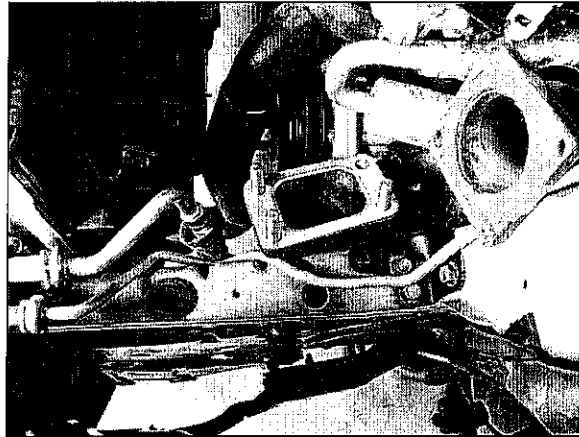
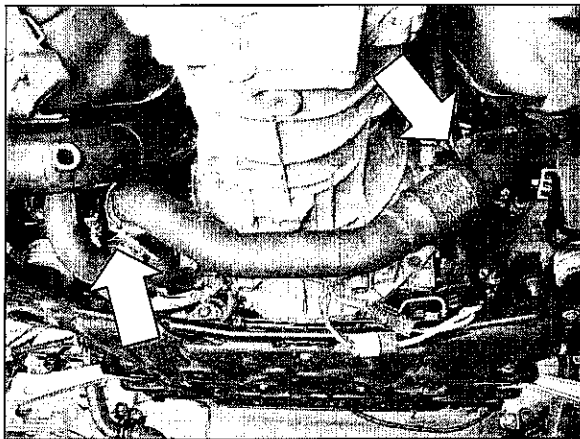


FIGURE 20



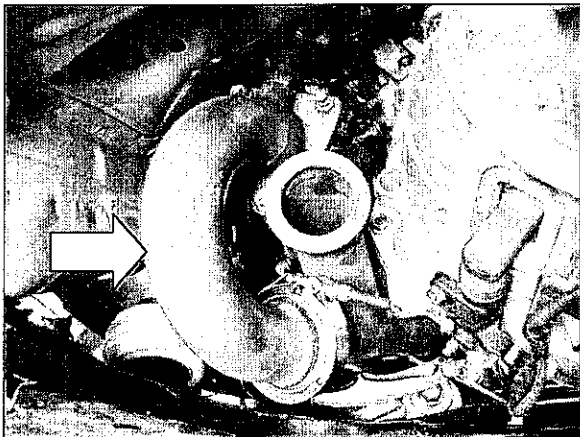
14.) Remove the exhaust cross-over pipe from the vehicle. SEE FIGURE 21

FIGURE 21



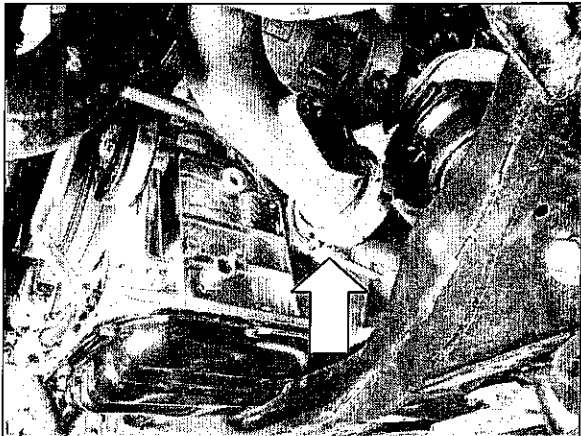
15.) Disconnect the O2 sensor that is on the U-exhaust pipe (P/N 21182) and remove the pipe from the factory exhaust manifold and the Y-exhaust pipe (P/N 21183). SEE FIGURE 22

FIGURE 22



16.) Loosen the V-band clamp that connect the Y-pipe to the turbo inlet pipe (P/N 21184 rev.A) and remove the Y-exhaust pipe (P/N 21183) from the vehicle. FIGURE 23

FIGURE 23



17.) Loosen the left factory hex bolt and remove the right hex bolt holding the A/C compressor in place. Remove the turbo inlet pipe (P/N 21184 rev.A). SEE FIGURE 24, 25 & 26

FIGURE 24

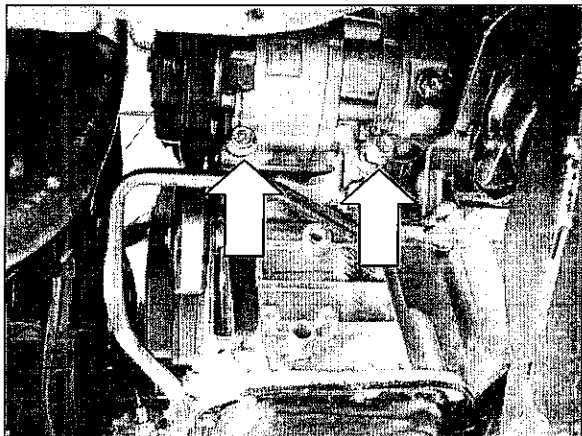
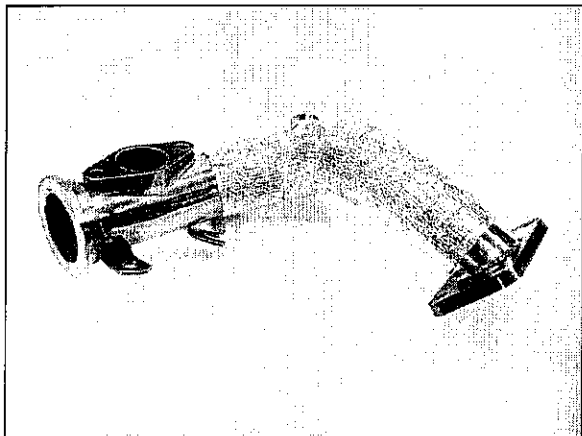


FIGURE 25



FIGURE 26



18.) Cut a length of heat shield wrap (P/N 31007) to 5.0 feet. Wrap P/N 21184 rev.B (Exh. Tube Ass'y, Turb. Housing Inlet). The heat wrap is adhesive backed, so it should stay in place, but as an added measure you may want to secure the end with a zip tie or steel wire.

NOTE: During the next few steps, only loosely secure the new exhaust tubes in place. Once all exhaust tubes are loosely installed, go thru and tighten all the hardware & clamps.

19.) Re-install P/N 21184 rev.B (Exh. Tube Ass'y, Turb. Housing Inlet) tube into position as shown in FIGURE 28, using the A/C bolts to loosely secure it in place.

FIGURE 27

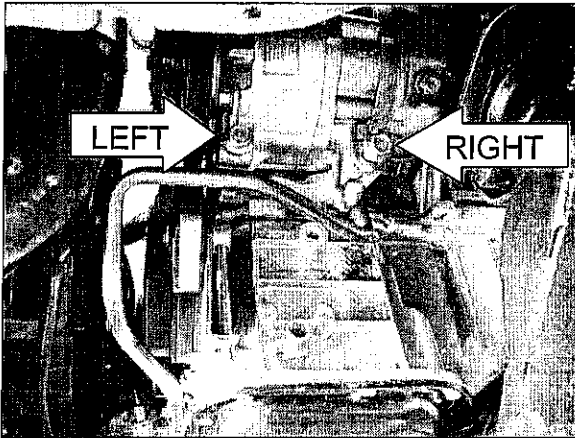
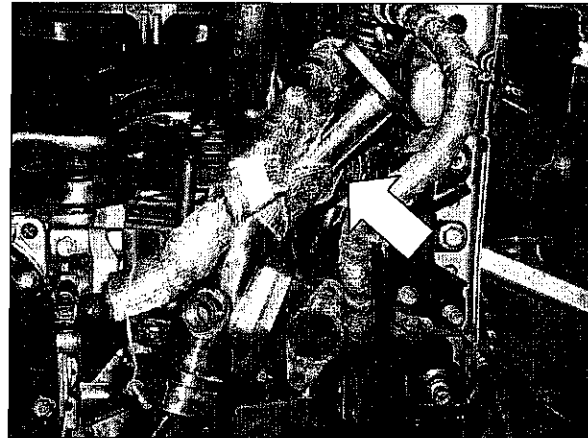
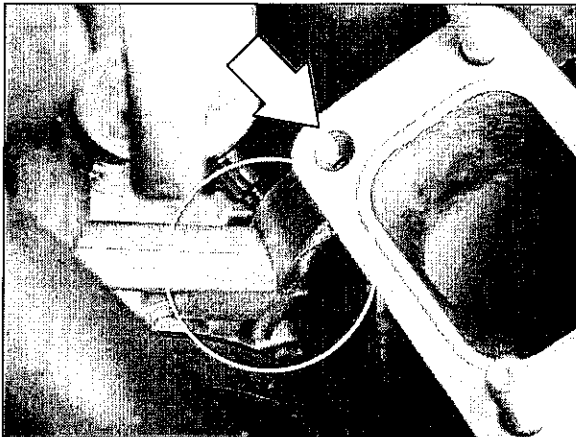


FIGURE 28



20.) Either before or after loosely installing the "Turb. Housing Inlet" tube, install the "Turbo Support Bracket" (P/N 21202) circled in FIGURE 29, by loosening another of the A/C compressor bolts (on the driver's side top), and sliding the slotted end of the bracket under the loosened A/C bolt. The end of the bracket with the hole should line up with one of the holes in the turbocharger inlet flange SEE FIGURE 29.

FIGURE 29



21.) Install P/N 21183 (Exh. Tube Ass'y, Y-Pipe) into position shown in FIGURE 30, loosely securing it to the previous tube with v-band clamp P/N 31073.

22.) Connect the O2 sensor back onto the engine harness.

23.) Install P/N 21182 (Exh. Tube Ass'y, U-bend) into position shown in FIGURE 31, loosely securing it to the previous tube with v-band clamp P/N 31073. Attach & tighten the other end of the tube to the exhaust manifold, re-using one of the factory studs & nuts, and (2) M10 x 40mm hex bolts, lockwashers & nuts (Part Hardware Kit# 11098). Attach & tighten the O2 sensor (removed in the previous step) into the boss in this "U-bend" tube, circled in FIGURE 31. Recommend using anti-seize lubricant on this connection.

FIGURE 30

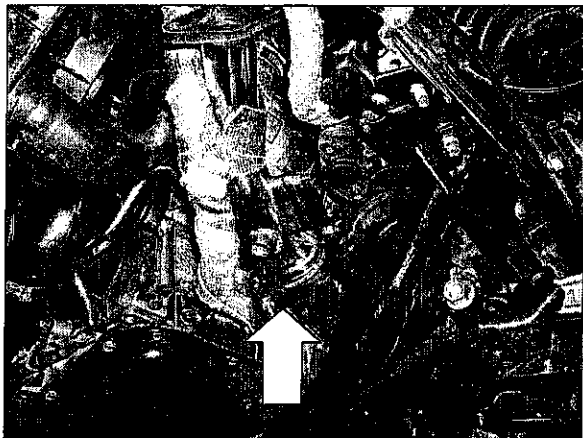
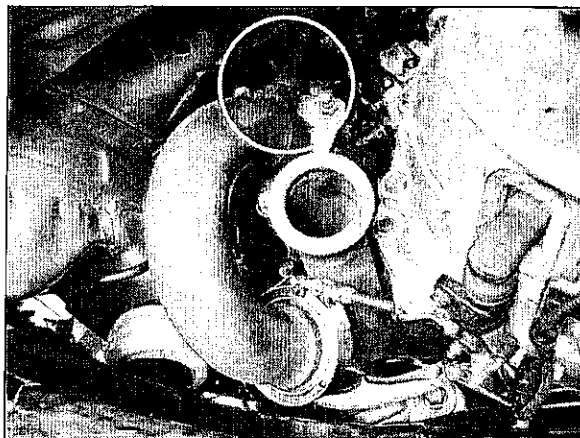


FIGURE 31



24.) Install P/N 21186 (Exh. Tube Ass'y, Downpipe 2) into position shown in FIGURE 32, loosely holding it in position with steel wire, not fastened to anything. This is done now, because it is more difficult to install later in the instructions.

25.) Install P/N 21181 (Exh. Tube Ass'y, Crossover) into position shown in FIGURE 33, loosely securing it to the "Y-pipe" tube with v-band clamp P/N 31073. Attach & tighten the other end of the tube to the exhaust manifold, re-using one of the factory studs & nuts, and (2) M10 x 40mm hex bolts, lockwashers & nuts (P/Ns 31003, 30805, 30803).

FIGURE 32

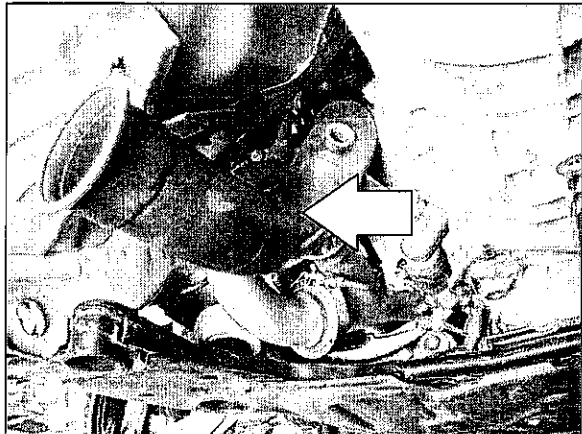
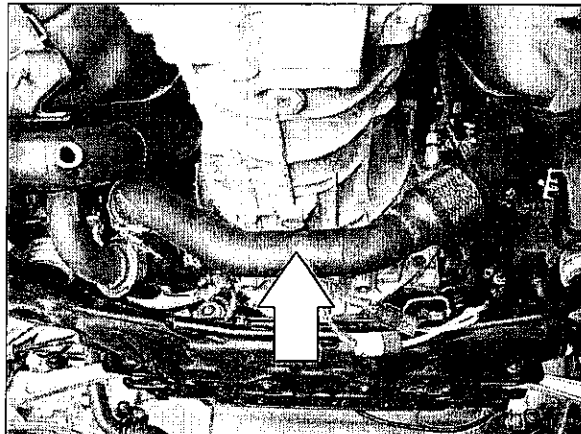


FIGURE 33



26.) Using the supplied M8-1.25 bolts (P/N 31076), lock washers (P/N 30593), and flat washers (P/N 30589), secure the Evolution wastegate to the new turbo inlet pipe (P/N 21184 rev.B). SEE FIGURE 34 & 35

FIGURE 34

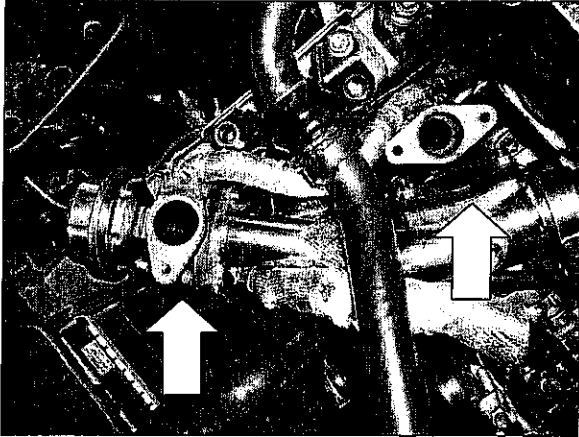
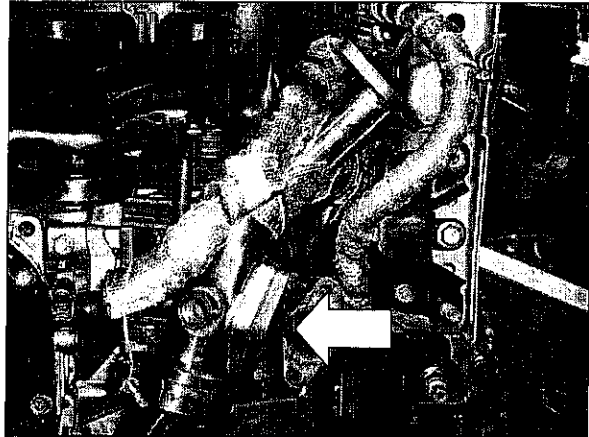


FIGURE 35



- 27.) Block off the original wastegate mounting flange on the turbo inlet pipe (P/N 21184 rev.B) with the supplied block off plate (P/N 20251). Make sure there is a gasket (P/N 20142) between the flanges. Secure the block off flange to the pipe using existing hardware. SEE FIGURE 34 & 35
- 28.) Mount the sway bar back onto the chassis and route the A/C line as shown in FIGURE 36.
- 29.) Bolt one side of the new supplied wastegate dump tube (P/N 21427) to the to discharge side of the wastegate and bolt the other side to the original wastegate dump tube (P/N 21200) using the supplied M8-1.25 bolts (P/N 31076), lock washers (P/N 30593), and flat washers (P/N 30589) making sure there is a gasket (P/N 20142) in between each flange. SEE FIGURE 36, 37 z7 38

FIGURE 36

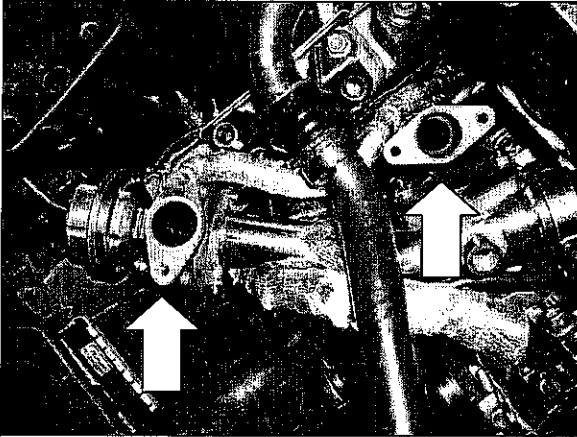


FIGURE 37

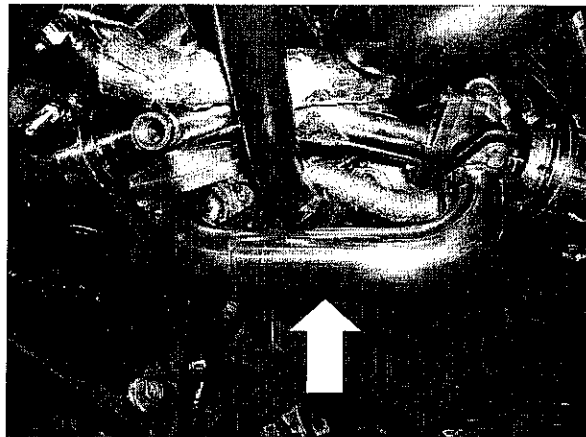
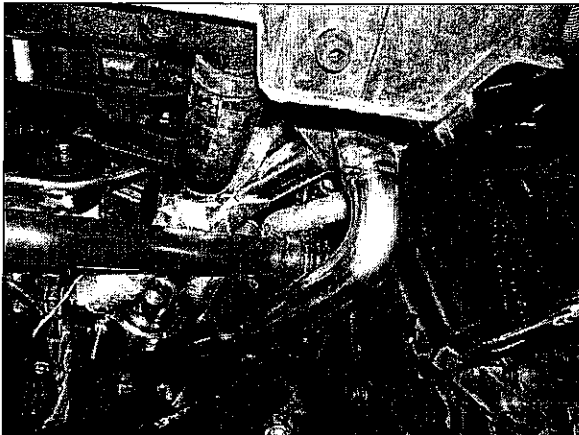


FIGURE 38



30.) Apply a bead of high temp. RTV sealant to the rectangular downpipe flange face, pointed out in FIGURE 39

FIGURE 39

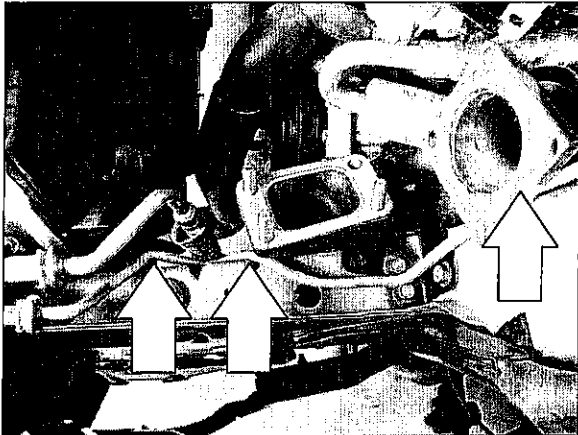
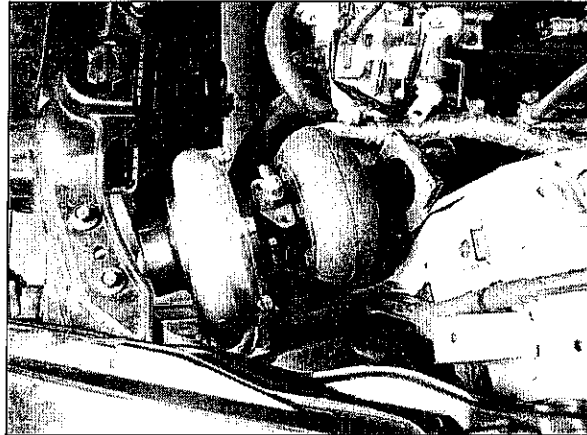


FIGURE 40



31.) Attach & tighten the turbocharger to the turbine inlet flange, using (3) M10 flatwashers, lockwashers & nuts, and (1) M10 x 50mm socket head screw & flatwasher thru the 4th hole. This 4th fastener (pointed out in FIGURE 41) will go thru the turbine housing, turbine inlet flange & previously installed "turbo support bracket". Tighten it using (1) M10 lockwasher & nut on the underside of the support bracket, and also tighten the factory (A/C compressor) hex bolt holding the "turbo support bracket". Temporarily route the 5/8" oil drain hose down towards the fitting attached to the engine block.

32.) Attach & tighten the "Downpipe 1" (pointed out in FIGURE 42) tube to the turbocharger turbine housing, using (4) M10-1.50 x 20mm hex bolts & lockwashers. Tighten the v-band clamp between the "Downpipe 1" and "Downpipe 2" tubes.

FIGURE 41

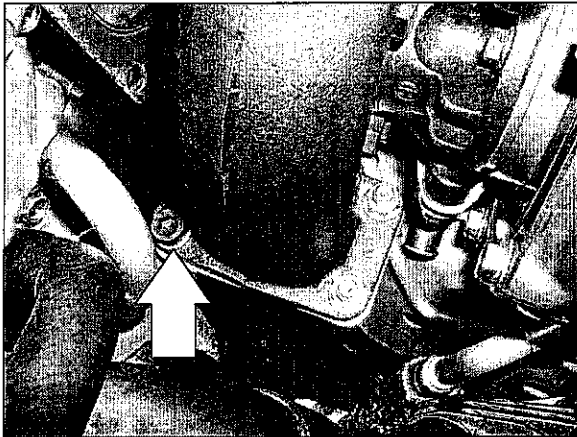
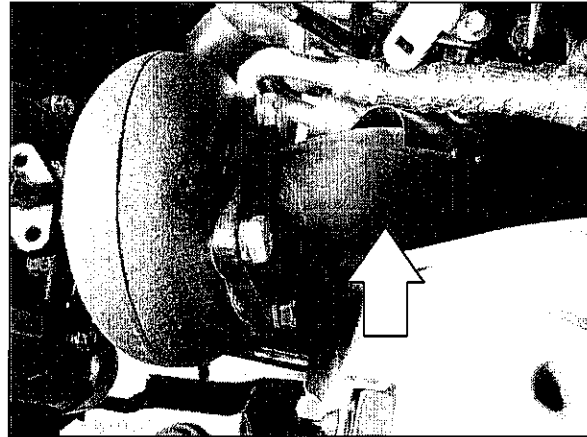


FIGURE 42



33.) Re-install the braided oil supply hose (P/N 10721) to oil feed fitting on the top of the turbocharger.

34.) Re-connect the second downpipe to the third downpipe (P/N 21201 or 21204, depending on which turbocharger system you purchased) using V-band clamp (P/N 30232)

35.) Install the bottom half of the 5/8" oil drain hose to the oil drain fitting in the block, and secure with the attached hose clamp. Cut the length of the hose to suit, so that no part of the hose is lower than the fitting in the block. Route the hose (downward from the turbocharger) away from hot exhaust pipes, and secure with zip ties. If any heat shield wrap is left over, use as needed.

36.) Re-install the turbo to air filter pipe and the rest of the boost tube assembly to the throttle body.

FIGURE 43 (Nissan 350Z)

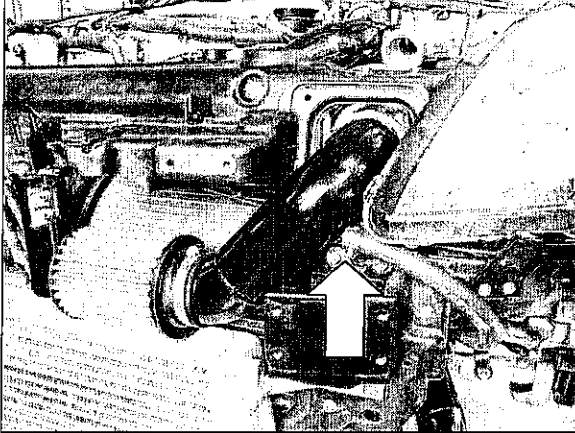


FIGURE 44 (Infiniti G35)

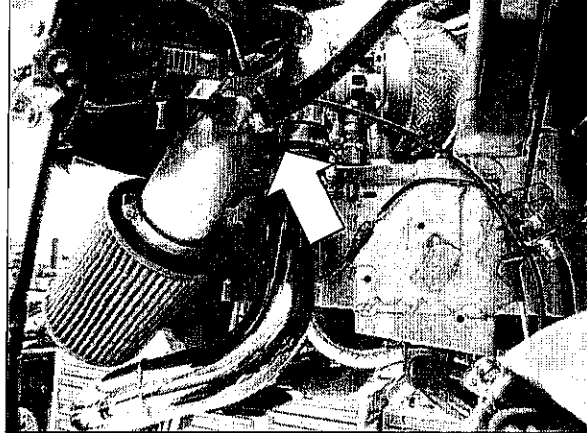


FIGURE 45 (Infiniti G35)

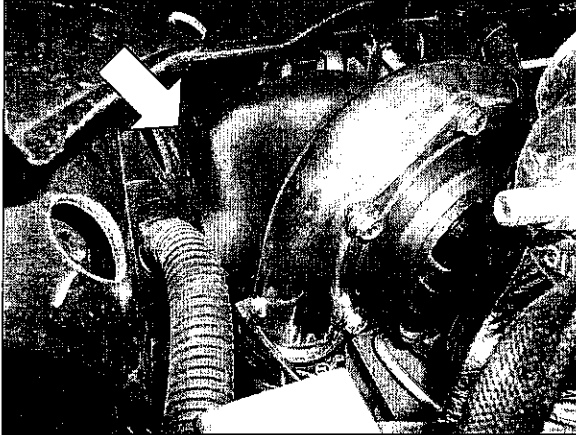


FIGURE 46

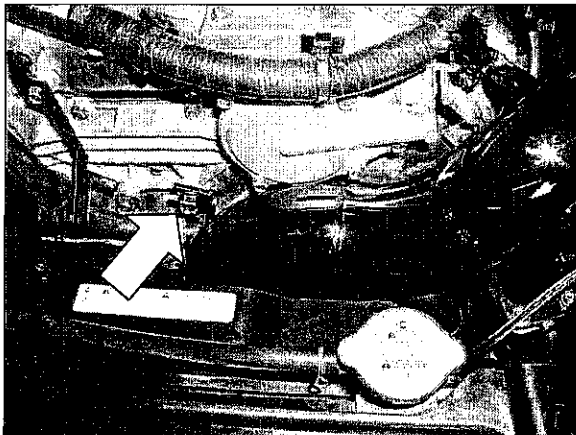


FIGURE 47

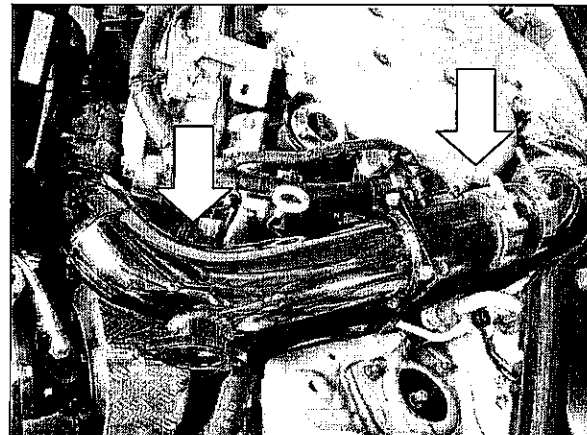


FIGURE 48

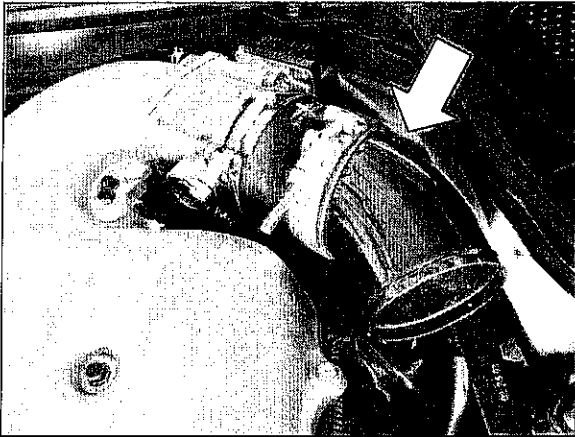
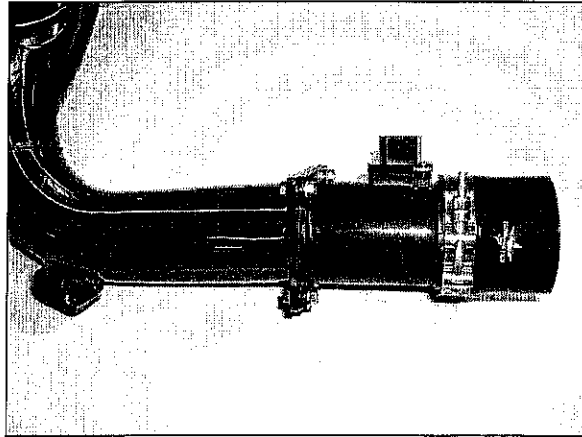


FIGURE 49



37.) Re-install intake cover, bodywork, etc.

FINAL CHECKLIST:

- Review these instructions to make sure that all fasteners, clamps & electrical connections have been installed & torqued correctly.
- Check that all hose routings are free of any kinks or near any hot or abrasive surfaces, that may cause wear over time. Adjust or reroute as necessary to provide adequate slack for engine movement.
- Refill all fluids (oil & power steering) to factory recommended levels.
- The use of synthetic oil (with the factory recommended oil weight) is strongly recommended, as it will prolong the life of the turbocharger. Regardless of factory recommended intervals, the addition of a turbocharger requires that the oil be changed every 3000 miles.



- The use of premium octane unleaded fuel is required for proper engine performance and to reduce the possibility of internal engine damage from detonation.
- Cycle the ignition to the "ON" position several times to pressurize the fuel system & check for any leaks.
- Start the vehicle and check for any oil, power steering or air pressure leaks.
- **NOTE:** It is normal for the vehicle to emit some amount of white smoke & a strange odor for an hour or two of operation, as the oils within the exhaust pipes burn off.



“NO FAULT / NO HASSLE” WARRANTY PROGRAM:

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

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

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

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

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

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

RETURN POLICY:

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

RETURNED GOODS AUTHORIZATION TRACKING NUMBER:

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

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