



# Performer X Turbocharging System for 1996-2000 Honda Civic D16Y8 Catalog #1500 INSTALLATION INSTRUCTIONS

**PLEASE** study these instructions carefully before installing your Edelbrock Performer X Turbocharging System for Honda Civic D16Y8. If you have any questions or problems, do not hesitate to contact our **Technical Hotline at: 1-800-416-8628**, from 7am-5pm Monday-Friday, Pacific Standard Time or via e-mail at: **[Edelbrock@Edelbrock.com](mailto:Edelbrock@Edelbrock.com)**. Please complete and mail your warranty card.

**Description:** The Edelbrock Performer X Turbocharging System is a **complete Turbo Kit** that gives 1996-2000 Honda Civic SOHC VTEC D16Y8 owners a 60-70 horsepower increase from turbocharging. The Garrett T-28 ball bearing turbo comes pre-assembled as one unit with a Ni-resist cast exhaust manifold and exhaust elbow, and inlet oil and water lines for the simplest possible installation. The system includes a high-performance Performer X intake manifold with four additional injectors and a separate electronic controller to add fuel and retard spark under boosted conditions. The Edelbrock Exhaust manifold and elbow are designed for maximum flow and high velocity for quicker turbo spool-up. We have included an intercooler, blow-off valve, windshield pillar mount boost gauge, o-ring sealed compressor flanges, a turbo oil supply adapter, and pre-assembled Russell oil, water, and fuel lines to make this one of the most complete kits on the market.

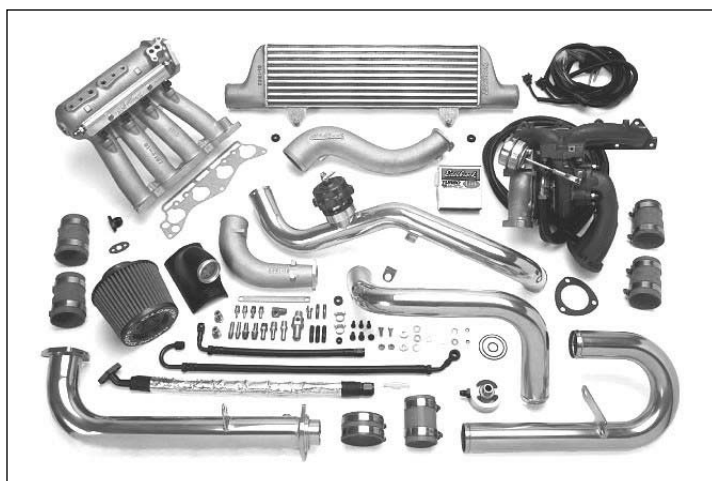
**Before Beginning:** This installation can be accomplished using common tools and procedures. However, one should have a basic knowledge of automotive repair and modification and be familiar with and comfortable working on this vehicle. If you do not feel comfortable working on a large project such as this, it is recommended to have the installation completed by a professional mechanic. Keeping a 1996-2000 Honda Civic Service Manual on hand for reference is helpful. **REMEMBER: WHEN WORKING AROUND GASOLINE, DO NOT SMOKE, AND KEEP ALL OPEN FLAMES, SPARKS AND OTHER SOURCES OF IGNITION AWAY FROM THE WORK AREA. Failure to do so can result in a FIRE or EXPLOSION.** Installing this turbocharger kit will substantially increase the power output of your engine. Before installing this kit, you should perform a compression test to ensure that your engine is in good condition. Consult a Factory Service Manual for the proper compression test procedure and acceptable in-service limits. The valve lash should be properly adjusted. If the valves are not properly seating, or the valve lash is not properly adjusted, the increased temperatures created by the increased power output could accelerate valve seat wear and cause burnt valves. If for any reason your engine has oil pressure that is below the acceptable service limits as specified in the Factory Service Manual, this problem should be corrected before installing this turbocharger kit. (**Note:** Check kit contents on the following page before starting your installation).

### After Installation, Before Starting the Vehicle:

We recommend the use of a synthetic 10W30 motor oil. Mobil1 was used in our testing. Before starting the vehicle, the oil drain hose should be disconnected from the oil pan and the engine should be turned over with the starter until oil is running out of the oil drain hose (*Note: This may take one or two minutes of intermittent cranking for the oil system to be primed and for oil to reach the drain hose. To keep from abusing the starter, crank the engine in 20-30 second intervals, until oil reaches the drain hose.*). This will ensure that the turbo is lubricated before the initial start-up. This should be done with the spark plugs removed and the wiring disconnected from the Turbo-Link box. Disconnecting the wiring from the Turbo-Link box will disable the ignition. Along with synthetic oil, we strongly recommend using a colder spark plug in the engine. In our testing, we used Champion RC9MC4 spark plugs (Stock #434). You may use any manufacturer's plug that matches the stock plug configuration and is two to three heat ranges colder than stock. The use of 91 octane fuel minimum is required with the use of this Performer X turbocharger kit. The increased cylinder pressures created as a result of turbocharging can lead to detonation (pinging), if lower grade fuel is used.



## **Kit Contents**



<b><u>Qty.</u></b>	<b><u>Description</u></b>
<input type="checkbox"/> 1	Turbocharger / Exhaust Manifold / Exhaust Elbow / Oil-Water Line Assembly
<input type="checkbox"/> 1	Performer X Intake Manifold / Turbo Fuel System Assembly
<input type="checkbox"/> 1	Oil Supply Sandwich Adapter Assembly
<input type="checkbox"/> 1	Intercooler
<input type="checkbox"/> 1	Compressor Inlet Pipe
<input type="checkbox"/> 1	Compressor Inlet Pipe Support Brace
<input type="checkbox"/> 1	Compressor Outlet Pipe
<input type="checkbox"/> 1	Intercooler Inlet Pipe
<input type="checkbox"/> 1	Intercooler Outlet Pipe
<input type="checkbox"/> 1	Intake Manifold Inlet Pipe
<input type="checkbox"/> 1	Exhaust Down Pipe
<input type="checkbox"/> 1	Air Filter / Attachment Hose / Clamps Assembly
<input type="checkbox"/> 1	Blow Off Valve Assembly
<input type="checkbox"/> 1	Boost Gauge / Plumbing Assembly
<input type="checkbox"/> 1	Boost Gauge Mounting Pod (Pillar Mount)
<input type="checkbox"/> 1	Auxiliary Engine Management Computer
<input type="checkbox"/> 1	Main Wiring Harness
<input type="checkbox"/> 1	Auxiliary Fuel Injector Wiring Harness
<input type="checkbox"/> 1	Fuse Wiring Harness and Fuse.
<input type="checkbox"/> 1	VTEC Resistor Wire
<input type="checkbox"/> 2	MAP Sensor Resistor Wire
<input type="checkbox"/> 8	Ring Connectors, Wiring
<input type="checkbox"/> 1	Butt Splice Connectors, Wiring
<input type="checkbox"/> 1	Turbo Oil Drain Adapter Fitting
<input type="checkbox"/> 1	Turbo Oil Drain Hose Assembly
<input type="checkbox"/> 1	Turbo Fuel Rail to Stock Fuel Rail Hose Assembly
<input type="checkbox"/> 1	Fuel Filter to Turbo Fuel Rail Fuel Hose Assembly
<input type="checkbox"/> 4	2 ¼" Silicone Hose Couplings
<input type="checkbox"/> 5ft.	2 ¼" - 2 ½" Silicone Hose Couplings
<input type="checkbox"/> 3ft.	5/32" I.D. Vacuum Hose

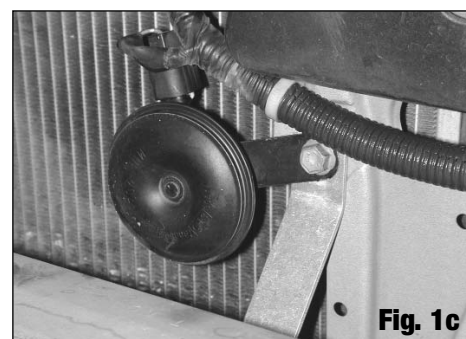
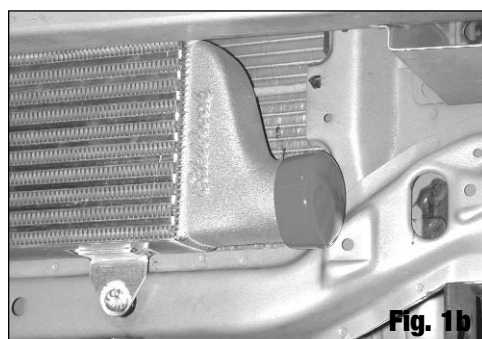
## **Kit Contents (Continued)**

- 7ft. 3/8" Cam Cover Breather Hose
- 5ft. 1/4" Red Silicone Hose, Wastegate & Blow-Off Valve
- 3ft. 5/16" Fuel Injector Air Supply / Purge / PVC Hose
- 6 1/4" Fuel Hose, Fuel Pressure Regulator Return
- 4 Hose Clamps, 1 13/16" - 2 3/4", 9/16" Wide Band
- 2 Hose Clamps, 2 1/16" - 3", 9/16" Wide Band
- 3 Hose Clamps, 5/16" I.D.
- 2 10mm x 1.5 Studs (Exhaust Downpipe to Turbo Outlet Elbow)
- 2 8mm x 1.25, 1.31" Long Stud (Compressor Inlet Pipe Mounting)
- 1 1/4-20 x 5/8" Hex Head Bolt (Turbo Oil Drain Adapter Fitting)
- 3 6mm x 1.0-12mm Long Hex Bolt (Support Brace to Compressor Inlet Pipe)
- 2 Socket Head Cap Screw, 6mm x 1.0, 20mm Long (Compressor Outlet Pipe to Turbo Mounting)
- 2 Socket Head Cap Screw, 8mm x 1.25, 20mm Long (Turbo Oil Drain Hose to Turbo Mounting)
- 3 8mm x 1.25 Nylon Locking Nut (Compressor Inlet Pipe Mounting)
- 2 10mm x 1.5 Flange Nut (Exhaust Downpipe to Turbo Outlet Elbow)
- 3 8mm Spring Washer (Turbo Oil Drain Hose Mounting)
- 2 6mm Spring Washer (Compressor Outlet Pipe Mounting)
- 4 8mm Flat Washer (Compressor Inlet Pipe Mounting)
- 2 12.3mm I.D. / 16.2mm O.D. / 1.5mm Thick Aluminum Crush Washer (Fuel Banjo Fittings)
- 1 1/4" Stato Seal Washer (Turbo Oil Drain Adapter)
- 1 Intake Manifold Gasket
- 1 Turbo Outlet Elbow to Exhaust Down Pipe Gasket
- 1 Oil Drain Adapter Fitting Gasket
- 1 O-Ring, Compressor Inlet Pipe to Compressor Inlet Flange
- 1 O-Ring, Turbocharger Oil Drain Flange
- 1 O-Ring, Compressor Outlet Flange to Compressor Outlet Pipe
- 1 10mm Barb to 1/4"NPT Adapter Fitting (Intake Manifold Fitting Kit)
- 2 17mm Barb to 3/8"NPT Adapter Fitting (Intake Manifold Fitting Kit)
- 1 3/16" Barb to 1/8"NPT Adapter Fitting (Intake Manifold Fitting Kit)
- 2 1/4" Barb to 1/4"NPT Female Street Elbow (Intake Manifold Fitting Kit)
- 2 1/8"NPT Pipe Plugs (Intake Manifold Fitting Kit)
- 2 1/4" Barb to 1/8"NPT Adapter Fitting (Intake Manifold Fitting Kit)
- 1 8mm Barb to 1/8"NPT Adapter Fitting (Intake Manifold Fitting Kit)
- 4 9mm Barb to 1/4"NPT Adapter Fitting (Intake Manifold Fitting Kit)
- 1 Lee Plug .093" Diameter (Intake Manifold Fitting Kit)
- 1 1/4"NPT Pipe Plug
- 2 #3 Plastic Vacuum Tee, 5/32" Diameter
- 1 8mm Barb to 1/4"NPT Adapter Fitting
- 1 3/8" Barb to 1/4"NPT Male Adapter Fitting
- 1 Check Valve, Fuel Injector Air Supply Hose
- 2 Inlet Air Temperature Sensor Grommet
- 10 Lower Intercooler Mount Grommets
- 1 8" Tie Wraps
- 1 E.O. Sheet
- 1 E.O. Decal

## INSTALLATION INSTRUCTIONS

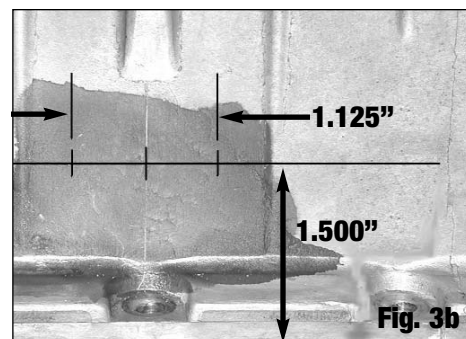
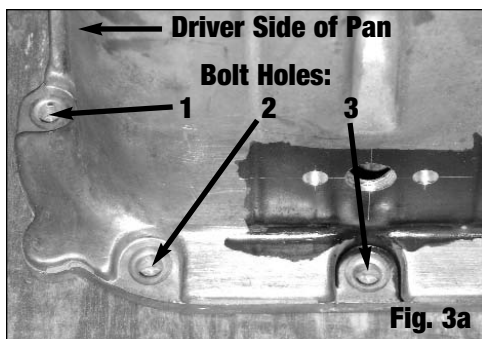
### Initial Parts Removal and Intercooler Installation (See factory service manual for procedures where noted)

1. Begin by disconnecting the battery and draining the engine oil and coolant from the engine. Remove the battery hold down using a 12mm wrench and remove the battery. Disconnect any wiring attached to the battery tray, and remove the tray. Set aside. (This will provide access to the firewall for wiring later on.)
2. Remove the front lower splash shield and front bumper cover, as per the factory service manual procedure. The front inner fender liners do not need to be removed. You can allow the front inner fender liners to hang free, remaining attached to the rear of the front wheel well openings. Remove the stock intake tube and upper/lower air box following the service manual instructions. Save the air box mounting bolts and grommets. These will be used to mount the compressor piping to the chassis.
3. Remove the bolt holding the horn onto the center radiator support and move the horn to the side.
4. Remove the driver's side tie down bracket located behind the lower radiator support.
5. Remove the Oxygen Sensor from the factory lower exhaust header (B-Pipe), and move to the side. Disconnect the factory B-Pipe from the Catalytic Converter, inspect the donut gasket for wear. If it is in good shape, it may be re-used. Disconnect the B-Pipe from the upper exhaust header. Remove the lower intake manifold support bracket bolts at this time. Remove the exhaust manifold heat shield and upper exhaust manifold. If exhaust manifold gasket is not damaged, re-use.
6. Install the intercooler grommets into the holes in the lower radiator support as shown (**See Fig. 1a**). Using a small amount of silicone-based spray lubricant on the grommets will make installation easier. Mount the intercooler by pressing the pins on the lower edge of intercooler into the grommets (**See Fig. 1b**). Using the bolt removed from the horn, attach the intercooler brace and horn to the center radiator support (**See Fig. 1c**).

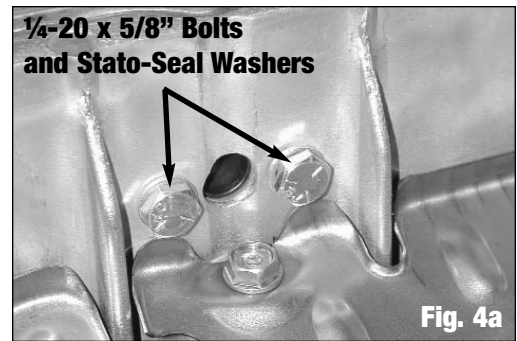


### Oil Drain Adapter Installation (Note: Removal of the oil pan is required to install the turbo oil drain adapter)

1. Remove the transaxle to oil pan braces using a 12mm wrench on the smaller bolts, and a 14mm wrench on the larger bolts (**See Fig. 2**). Remove the bellhousing cover using a 12mm wrench (**See Fig. 2**). Using a 10mm socket, remove the oil pan bolts and remove the oil pan. If necessary, gently tap on the oil pan with a rubber or plastic mallet to loosen the seals between the oil pan and the engine block. Carefully remove and inspect the oil pan gasket. If it is not cracked or torn, it may be re-used.
2. The Oil Drain Adapter requires the oil pan to be drilled. Mark the area to be drilled. Center the drain hole below the third bolt hole from the drivers side on the front of the oil pan (**See Fig. 3a**), 1.5" from the Oil Pan Rail (**See Fig. 3b**). Using a scratch awl, mark the center of each bolt hole 9/16" away from the center of the center drain hole so the distance from center to center is 1.125" as shown in **Fig. 3b**.

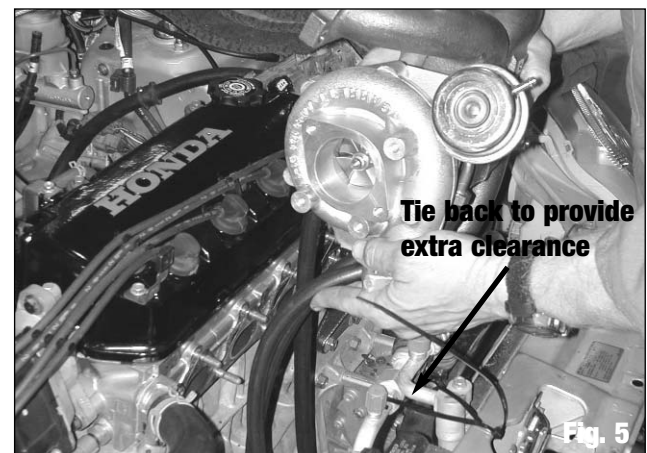
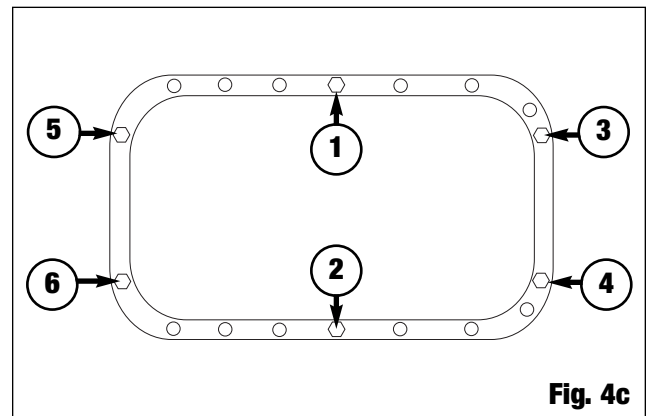


3. Using a center punch, indent each drilling location to prevent the drill bit from walking. Pre-drill each hole with a 1/8" bit. Secure the oil pan on a work bench or on a drill press, and drill the outer bolt holes to 1/4". Drill the center drain hole to 1/2". Deburr the holes and thoroughly clean the oil pan to remove any metal shavings.
4. Install the Oil Drain Adapter onto the oil pan using the two 1/4-20 x 5/8" bolts (We recommend using blue Loctite on the threads) and the two 1/4" Stato-Seal washers on the inside of the oil pan, using the gasket on the outside of the pan **(See Fig. 4a & 4b)**. Torque the bolts to 6-8 ft/lbs.
5. Reinstall the oil pan. Finger tighten nuts 1-6 **(See Fig. 4c)** to hold the pan in place. Install the remaining bolts finger tight. Tighten all nuts/bolts to 8-9 ft/lbs, starting with nuts 1-6, and tightening the remaining bolts in a clockwise manner, starting in the center and working your way out.
6. Reinstall the belhousing cover. Torque bolts to 17 ft/lbs.
7. Reinstall the transaxle to the oil pan braces. Make sure the braces line up flush with both the oil pan and the transaxle before tightening the bolts. These braces are an integral part of the engine / transaxle structure and if they are not aligned properly before the bolts are tightened, this will put undue structural stress on the engine / transaxle.



### Turbocharger / Exhaust Manifold Assembly Installation

1. Remove the upper air conditioner condenser support bracket and air conditioner line bracket. Using a zip-tie or twine, carefully flex the lines and condenser as far forward as possible and temporarily secure. This will allow more clearance to place the turbo / exhaust manifold assembly **(See Fig. 5)**.
2. Being careful not to damage the oil feed and coolant lines, set turbo assembly in place using the stock exhaust gasket **(See Fig. 5)**. **Note:** If the gasket is in good condition, it may be reused. The gasket should show no signs of leaking, cracks, missing pieces, or burnt areas. If the gasket is not in good condition, it should be replaced. Thoroughly clean flange of old gasket material). Using the stock nuts, attach the turbo assembly to the engine block. **Note:** Holding the turbo assembly about 1/4"-1/2" away from the engine block while starting the nuts onto the studs provides clearance to get the nuts started. Refer to the Honda Factory Service Manual for torque values and sequence.
3. Lay out the Coolant Lines and Oil Feed Line in their approximate routing locations. The Oil Feed Line (the line with the 6AN female fitting) should head down below the air conditioning condenser fan, towards the drivers side, then up along the drivers side of the condenser and towards the back of the engine, taking care not to route the line in the way of any moving parts (such as: pulleys, timing belts, etc.). The coolant lines should be routed down toward the passenger side, then up and toward the rear of the engine.



## Factory Intake Manifold Removal

1. Relieve fuel pressure first by loosening the banjo bolt connecting the fuel line to the fuel filter. Place a shop towel or rag over the wrench while loosening the banjo to soak up any fuel spray (**See Fig. 6**). When loosening or tightening the banjo bolt on the fuel filter can, use a 19mm wrench on the hex of the fuel filter can to counteract the torque of loosening or tightening the banjo bolt. This will prevent the fuel filter can and bracket from being improperly loaded during loosening or tightening at the banjo bolt.
2. Disconnect the fuel injector wiring harness from the bracket on the fuel rail and unplug the harness from the fuel injectors and purge valve (Note the locations of each plug on the harness to prevent improper connection during re-installation). Disconnect the Throttle Position Sensor plug and Idle Air Control Motor plug. Disconnect the purge line from the purge valve. Disconnect the fuel return line from the steel chassis fuel line. Disconnect the fuel line from the fuel filter. Disconnect the coolant lines from the throttle body and manifold flange. Remove the two bolts at the rear of the stock manifold attaching the manifold support bracket. Disconnect the vacuum lines at the rear of the manifold. Remove the throttle cable. Remove the factory intake manifold nuts. Remove the intake manifold and set aside.
3. Stuff the open intake ports in the cylinder head with paper towels to prevent any debris from entering the engine. Thoroughly clean the gasket surface removing any remaining sealant or gasket material.



Fig. 6

## Oil Supply Line Installation

1. With the intake manifold removed, there will be much more clearance to install the Oil Supply Adapter. Remove the stock oil filter (Replace). Install the Oil Supply Sandwich Adapter in place of the stock oil filter. Make sure the O-Ring is facing toward the engine block, and the threaded stud with 1/2" hex opening is facing out. Tighten with a 1/2" Allen Wrench. Make sure the blue fitting is facing toward the driver's side, pointing upward slightly, about the 10 o'clock position. Install a new oil filter. Route the oil supply line to the sandwich adapter. Using a light coat of oil on the threads, tighten the female fitting onto the blue fitting on the sandwich adapter.

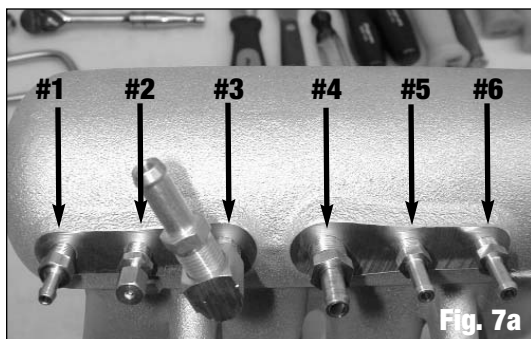


Fig. 7a



Fig. 7b

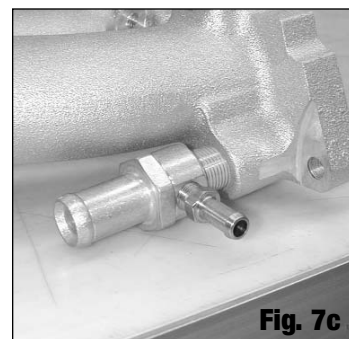


Fig. 7c

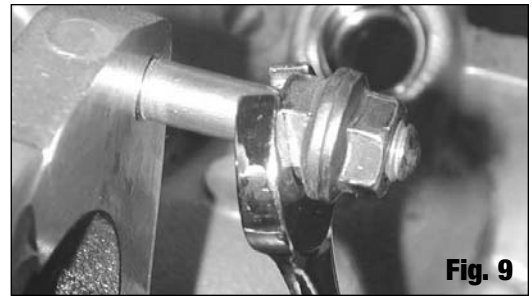
## Performer X Manifold Installation

1. (**Note:** Use anti-sieze or teflon paste on the threads of fittings before installing them into the intake manifold). Install the vacuum fittings into the underside of the Performer X intake manifold (**See Fig. 7a**), and on top of the Performer X intake manifold (**See Fig. 7b**). Install the water outlet fitting into the mounting flange. Install the 1/8" NPT x 5/16" barb into the water outlet fitting (**See Fig. 7c**). (Refer to **Fig. 8** for Fitting Descriptions). **Note:** On 99-00 vehicles equipped with air injection, install the 5/16" Barb to 1/8" NPT adapter fitting into the center of the top of the intake mounting flange. On 96-98 models, install a 1/8" NPT pipe plug and install the four .093" Lee plugs into the holes directly above the intake ports on the intake flange. Using a small punch, gently tap the plugs into the flange until flush.

- |   |
|---|
| #1 - 3/16" Barb x 1/8" NPT (Cruise Control Vacuum Hose)                           |
| #2 - Boost Gauge Adapter Fitting (Boost Gauge Line, Found in the Boost Gauge Box) |
| #3 - 1/4" NPT Street Elbow & 10mm Barb x 1/4" NPT (Power Brake Booster Hose)      |
| #4 - 8mm Barb x 1/4" NPT (PVC Hose)   |
| #5 - 1/4" Barb x 1/8" NPT (Wastegate Actuator Hose)                               |
| #6 - 1/4" Barb x 1/8" NPT (Blow-Off Valve Hose)                                   |
| #7 - 3/16" Barb x 1/8" NPT (Fuel Pressure Regulator Hose)                         |
| #8 - 9mm Barb x 1/4" NPT (Purge Valve Hose)                                       |

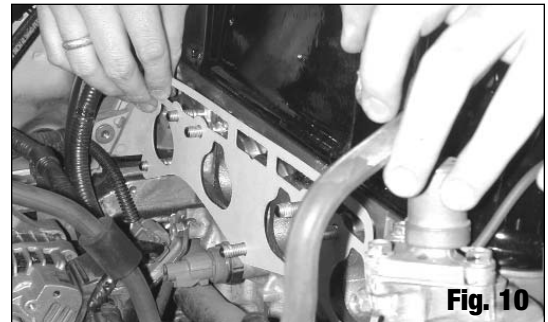
Fig. 8

- Remove the idle air control motor from the factory intake manifold and install onto the Performer X intake manifold. Remove the throttle body, and two throttle body studs from the factory intake manifold. Using two nuts on the studs, and jamming them, will help get the studs out of the stock intake manifold **(See Fig 9)**. Install the two throttle body studs into the Performer X intake manifold, one on the upper right bolt hole of the throttle body mounting flange and one on the lower left bolt hole. Install the stock throttle body and gasket onto the Performer X manifold. Remove the stock throttle cable bracket and install onto the Performer X manifold using the stock bolts. Remove the stock fuel rail/injectors/purge valve/fuel pressure regulator and install onto the Performer X manifold using the stock hardware (Inspect all O-Rings and Seals for wear, replace if necessary). Attach the Turbo Fuel Rail to Stock Fuel Rail hose assembly female end with the 180° bend to the driver's side of the turbo fuel rail. Loop the hose under the Performer X intake manifold and attach the banjo end to the stock fuel rail using the stock banjo nut. Use the new banjo sealing washers supplied in the kit. Attach the auxiliary fuel injector wiring harness to the auxiliary injectors.



**Fig. 9**

- Using the supplied gasket, install the Performer X manifold / throttle body / fuel system assembly onto the engine **(See Fig. 10)**. (Remember: Remove the paper towels or rags before installing the intake manifold). Follow the factory service manual for proper torque values and tightening sequence. Reconnect all factory sensors and vacuum hoses. Reconnect the factory fuel injector wiring harness to the stock fuel injectors, and reattach the harness to the fuel rail bracket. Reconnect the stock throttle cable to the bracket and following the factory service manual, adjust the throttle cable for proper operation.



**Fig. 10**

- Connect the Fuel Filter to Turbo Fuel rail hose assembly. Connect the 90° banjo end to the fuel filter using the factory banjo bolt. Use the new banjo sealing washers supplied in the kit. Connect the -6 AN female end to the auxiliary fuel rail. Using the supplied 1/4" SAE fuel hose, connect the fuel pressure regulator outlet to the fuel return line using the stock hose clamps.

### **Compressor Inlet / Outlet and Intercooler Plumbing Installation**

- Press the Manifold Air Temperature sensor grommet into the non-threaded hole in the compressor inlet pipe. Install a 3/8" barb x 1/4" NPT fitting into one of the threaded holes in the pipe. On 99-00 vehicles, equipped with air injection, install a 5/16" barb x 1/4" NPT fitting into the other hole. On other vehicles, install a 1/4" NPT pipe plug into this hole. Thread the two 8mm x 1.25 (1.31" long) studs into the compressor inlet flange using some blue Loctite, hand tight only. With a light coat of grease on the Compressor Inlet Flange O-Ring, lightly press the o-ring into the receiver groove on the Compressor Inlet Pipe mounting flange. Fit the Compressor Inlet Pipe over the studs and with washers in place, hand tighten the 8mm x 1.25 nuts onto the studs **(See Fig 11)**. Adjust the compressor Inlet pipe for alignment, and using the Compressor Inlet Pipe support brace, connect the support brace to the compressor inlet pipe using the 6mm x 1.0 (12mm long) bolt. Hand tighten. Find the transaxle housing bolt that lines up closest with the compressor inlet pipe and support brace. (This normally has a small wiring bracket held in place by the bolt. The wiring bracket can be discarded). Remove the bolt and attach the support brace using this bolt. Tighten all nuts/bolts. Connect Air Filter Assembly to the compressor inlet pipe using the supplied silicone coupling and hose clamps.
- Cut the 3/8" hose to length and connect it to the fitting on the compressor inlet pipe on one end and to the valve cover breather port on the other end. On models equipped with air injection, cut the 5/16" hose to length and connect it to the 5/16" barb on the compressor inlet pipe, and to the air injection switch located near the thermostat housing. Remove the factory Manifold Air Temperature Sensor from the factory Air Inlet Pipe and install into the grommet in the Compressor Inlet Pipe. The wiring for the manifold air temperature sensor (MAT sensor) plug needs to be separated from the wiring harness so that the MAT plug can reach the MAT sensor in the compressor inlet pipe. Rewrap the harness with electrical tape. Attach the plug to the MAT sensor.



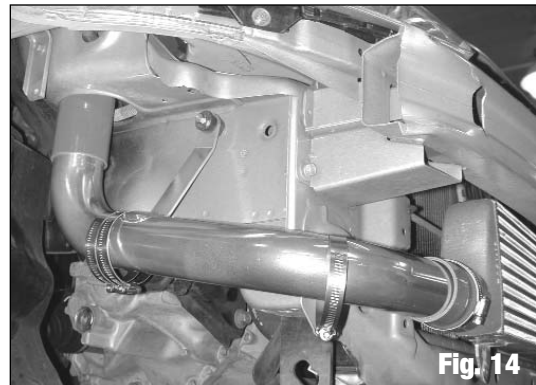
**Fig. 11**

3. Attach the Oil Drain Hose Assembly to the turbo housing using the two 8mm x 1.25 (20mm long) Socket Head Capscrews and the two 8mm spring washers. Be sure the Turbo Oil Drain flange O-Ring is in place. (A bit of grease on the O-Ring helps to hold it in place). The bend in the fitting at the turbo end should point toward the front of the vehicle. Attach the female AN fitting to the Oil Drain Adapter on the oil pan. Make sure the hose is not kinked.

4. Attach Compressor Outlet Pipe to the compressor outlet flange using the three 6mm x 1.0 (20mm long) Socket Head Capscrews, O-Ring (Use a bit of grease on the O-Ring to hold in place), and the three 6mm spring washers (**See Fig 12**). The outlet of the compressor outlet pipe should face toward the driver's side of the vehicle. Attach the intercooler inlet pipe to the compressor outlet

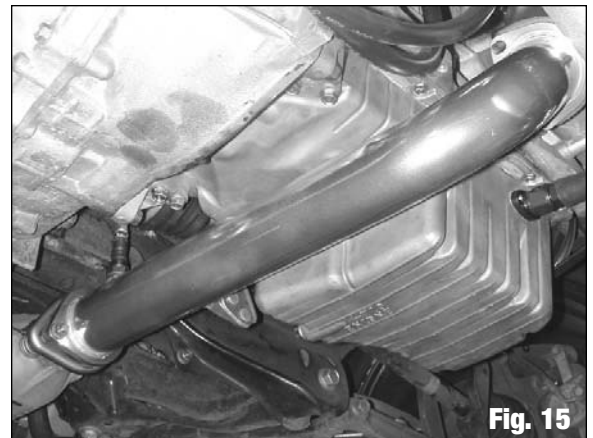


pipe and to the intercooler using two of the 2 ¼" to 2 ½" silicone couplings and the appropriate hose clamps. Attach the bracket on the intercooler inlet pipe to the factory tie-down bracket location (which was removed earlier) using the factory bolt (**See Fig.13**). Attach the intercooler outlet pipe to the intercooler with one of the 2 ¼" to 2 ½" silicone couplings and the appropriate hose clamps. Bolt the support bracket on the pipe to the inner fender using one of the factory lower airbox bolts (**See Fig.14**). Attach the intake manifold inlet pipe to the intercooler outlet pipe using the 2 ¼" silicone coupling and the appropriate hose clamps. Attach the intake manifold inlet pipe to the throttle body using one of the 2 ¼" to 2 ½" silicone couplings and the appropriate hose clamps. Attach the intake manifold inlet pipe to the passenger side shock tower using one of the stock air box bolts.



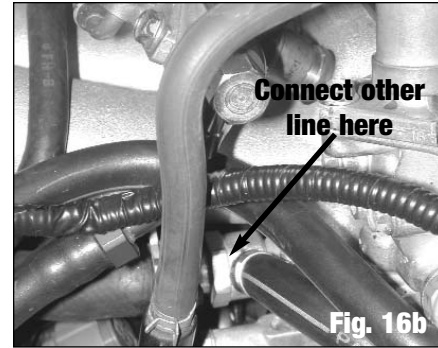
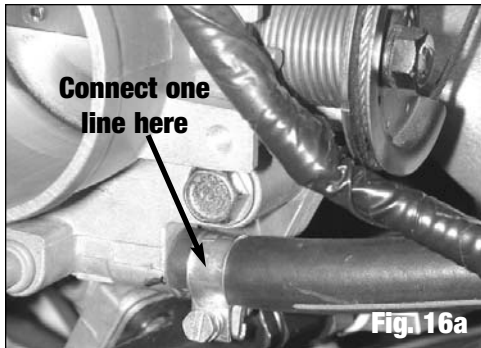
5. Install the Blow-Off Valve. Make sure the O-Ring is properly seated on the Blow-Off Valve flange. Install the Blow-Off Valve and V-Band and tighten the V-Band. Install the supplied banjo fitting onto the Blow-Off Valve using the supplied sealing washers.

6. Install the Exhaust Down-Pipe. Thread the three 10mm x 1.5 studs into the exhaust elbow, hand tight. Making sure the exhaust down-pipe gasket is in place, install the exhaust down-pipe onto the exhaust elbow using the provided 10mm x 1.5 flanged nuts. Using the stock donut gasket (if in good condition), attach the exhaust down-pipe using the factory bolts. Attach the down pipe to the lower exhaust bracket using the factory bolts (**See Fig. 15**). Reinstall the factory O<sub>2</sub> sensor (*Note: On 96-98 models, the O<sub>2</sub> sensor wiring must be separated from the wire harness to allow it to reach the position at the rear of the down pipe. Unwrap the wiring harness, separate the O<sub>2</sub> sensor wiring, and re-wrap the wiring harness with electrical tape. Make sure to secure the O<sub>2</sub> sensor wiring away from the exhaust down pipe to avoid heat damage to the wiring.*).

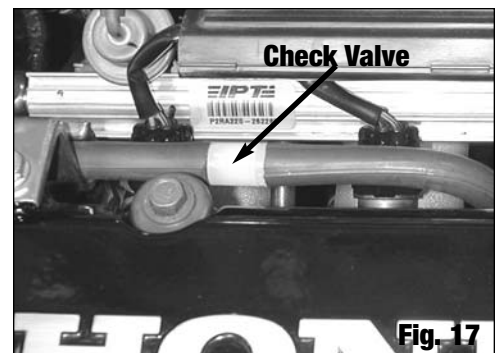


## Coolant Line and Vacuum Hose Connections

1. Route one of the coolant lines from the turbo to the intake manifold coolant outlet. Cut to fit. Connect the coolant line to the T-Fitting on the side of the coolant outlet. Route the other coolant line from the turbo to the throttle body coolant fitting. Cut to fit. Connect the line to the throttle body coolant fitting (**See Fig. 16a & 16b**). Use the supplied hose clamps to secure.

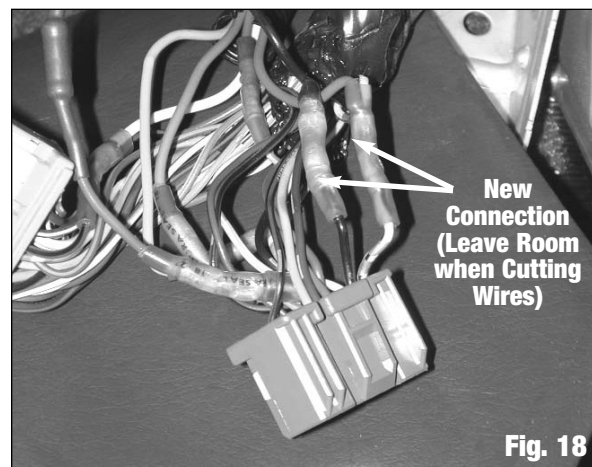


2. Measure and cut to length the 1/4" Red Silicone Hose and connect the wastegate to the fitting on the intake manifold specified in **Fig. 8**. Measure and cut to length the 1/4" Red Silicone Hose and connect the Blow-Off Valve to the fitting on the intake manifold specified in **Fig. 8**.
3. On 99-00 models (equipped with Air Injection) only: Connect the Air Injection Hose to the barb fitting in the top center of the intake manifold mounting flange and secure it into it's bracket on the valve cover. Splice the supplied check valve into the hose by cutting the hose between the barb fitting and the bracket on the valve cover (**See Fig. 17**). Make sure the arrow on the check valve is pointing toward the barb fitting on the intake manifold mounting flange.



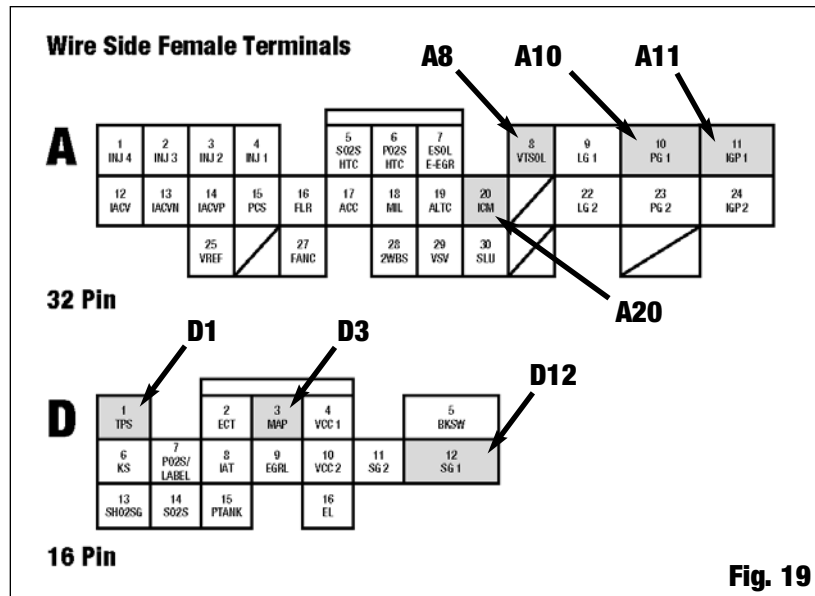
## Turbo-Link Installation

1. (**Note:** Whenever cutting wires, do not cut next to the plug end. Make sure to leave room for a new connection. **See Fig. 18**) Remove the passenger side kick panel in the interior of the vehicle in order to access the factory ECU. Carefully route the end of the main wiring harness, with the light blue, pink, orange, and black wires, from under the dash through the boot in the fire wall under the battery tray. Route the supplied 5/32" vacuum line through the boot as well. Make sure the other non-terminated end of the harness, with the red, white, green, light green, and dark blue wires, reaches the factory ECU. Partially unwrap the wiring harness coming out of the factory ECU to have more room to work with the wiring. The 1996-1998 Civic ECU wiring differs somewhat from the 1999-2000 models. The instructions for each type are as follows:



## 1996-1998 Models

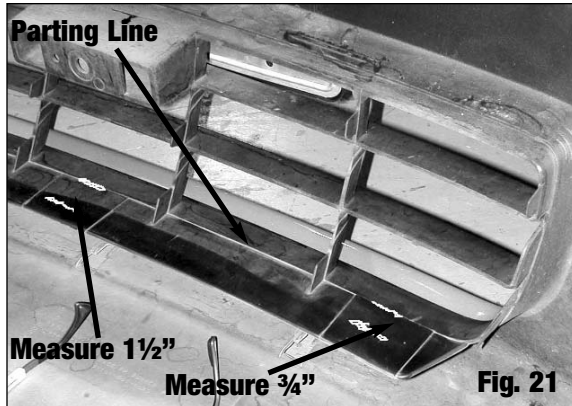
1. Unplug the A and D plugs from the factory ECU.
2. When the Turbo-Link is controlling the VTEC solenoid, the factory ECU output must be terminated with a “dummy load” to prevent the diagnostic system from sensing an open circuit from the wire you will cut. Locate the VTEC solenoid wire on the wire side of the factory wiring harness at the ECU. This is a green wire with a yellow stripe, located in position A-8 (**See Fig. 19**). Cut the wire coming from position A-8, leaving room for the connection of the new wire (about 1-2 inches away from the connector is usually ok). Using the VTEC resistor wire assembly (green and black wire with a resistor in the center), with a butt-splice connector, connect the green end of the wire to the plug side of the now cut VTEC solenoid wire.
3. Cut the ECU ground wire (remember: always leave room for the new connection). This is a black wire located at position A-10 (**See Fig. 19**). Strip about ¼ inch off of both exposed ends of the now cut ECU ground wire. Using a butt-splice connector, connect the black end of the VTEC resistor wire to both ends of the ECU ground wire.
4. Using a butt-splice connector, connect the light green wire on the Turbo-Link wiring harness to the other cut end of the VTEC solenoid wire, which leads to the VTEC solenoid.
5. Locate the ICM (Ignition Control) wire. This is a yellow wire with a green stripe, located at position A-20 (**See Fig. 19**). Cut the wire and connect the plug side of the wire to the medium green wire on the Turbo-Link wiring harness using a butt-splice connector. With another butt-splice connector, connect the other end of the cut ICM wire to the dark blue wire on the Turbo-Link harness.
6. Find the TPS signal wire. It is a red wire with a black stripe located at D-1 (**See Fig. 19**). Cut this wire and strip both cut ends, and using a butt-splice connector, connect both ends to the white wire on the Turbo-Link harness.
7. Locate the Ignition Power wire, a yellow wire with a black stripe, in position A-11 (**See Fig. 19**). Cut and strip both ends of the cut wire and connect them to the red wire on the Turbo-Link harness, using a butt-splice connector. Follow the remainder of the wiring directions to complete the installation.
8. 1996-98 models require the use of the MAP Sensor Resistor Wire. This device limits the output voltage of the factory MAP sensor in order to prevent the ECU from “seeing” any boost pressure. Locate the MAP sensor signal wire. This is a red wire with a green stripe located at D-3 (**See Fig. 19**). Cut the wire and strip both ends of the cut wire. Using a butt-splice connector, attach the yellow end of the MAP sensor resistor wire to both ends of the cut MAP sensor signal wire. Find the MAP sensor ground wire. It is located at position D-12 (**See Fig. 19**). Cut this wire and strip the cut ends. Use a butt-splice connector to connect both ends of the cut MAP sensor ground wire to the black end of the MAP sensor resistor wire.
9. Continue to the next page, under “Turbo-Link Installation (Continued)”, for the remainder of the wiring installation instructions.





## Bumper Cover and Fender Liner Modification and Final Parts Reinstallation

1. On the inside of the front bumper cover, a strip of material from the back side of the grill will need to be cut off to clear the intercooler. Measure  $\frac{3}{4}$ " from the mold parting line at each end of the grill and mark the measurement (**See Fig. 21**). Measure  $1\frac{1}{2}$ " from the parting line at the center of the grill (**See Fig. 21**). Mark a line connecting the three measuring locations. Using a cutoff wheel or other suitable tool, cut along the marked out line. Temporarily place bumper cover on the vehicle and check for clearance (Note: 1996-98 vehicles may require additional trimming for clearance. Trim additional material as needed.).
2. Temporarily place each fender liner in place and mark area where interference with the intake piping occurs. Trim out material as needed (**See Fig. 22 for reference**).
3. Install the fender liners and bumper cover following the Factory Service Manual instructions.
4. Install the battery tray and battery. Install the battery tie down and reconnect the battery cables.
5. Fill the oil and coolant to Factory Service Manual specifications.



## Boost Gauge and Boost Gauge Mounting Pod Installation

Follow the installation instructions included with the boost gauge and mounting pod for installation.

*(Note: The boost gauge must be installed to allow you to properly monitor the amount of boost pressure. If the boost reads higher than normal (6-7 psi) for any reason, do not drive the vehicle. Running higher than recommended boost pressures on a stock engine could result in engine damage if driven repeatedly. Contact our Tech Line at 800-416-8628 for assistance if overboost occurs.)*

### **Final Checklist (Note: Do not start vehicle before completing this list.)**

- Make sure that all fluids are at the recommended factory levels. (Note: As stated above, we recommend the use of a synthetic 10W30 motor oil. Mobil1 was used in our testing.)
- Prime the turbocharger oil supply. Before starting the vehicle, the turbocharger oil drain hose should be disconnected from the oil pan and the engine should be turned over with starter until oil is running out of the oil drain hose. This will ensure that the turbo is lubricated before initial start-up. This should be done with the spark plugs removed and the wiring harness plug disconnected from the Turbo-Link box. Disconnecting the wiring harness from the Turbo-Link box will disable the ignition (*Note: It may take one or two minutes of intermittent cranking for the oil system to be primed and for oil to reach the drain hose. To keep from abusing the starter, crank the engine in 20-30 second intervals, until oil reaches the drain hose.*). Once oil flow is established, reconnect the turbocharger oil drain hose. Check the oil level again after priming the oil supply.
- Make sure the oil drain hose has no kinks, and that portions of the hose do not hang more than slightly lower than the drain fitting in the oil pan. This can cause a back-up of oil in the hose, preventing proper draining of oil from the turbo housing. This can result in small amounts of oil being drawn into the turbine housing, causing oil smoke to be seen coming from the exhaust.
- Along with synthetic oil, we strongly recommend using a colder sparkplug in the engine. In our testing, we used Champion RC9MC4 sparkplugs (stock #434). You may use any manufacturer's plug that matches the stock plug configuration and is two to three heat ranges colder than stock.
- Start the engine and check for any vacuum, fuel, or oil leaks.
- PLEASE complete and mail your warranty card. Be sure to write the model number of this product in the "Part # \_\_\_\_" space.  
THANK YOU.

### **Maintenance and Service**

Follow your regular factory recommended service intervals. However, we recommend changing the oil every 3000 miles, as compared to the factory recommended 7500 miles.

### **Special Notice**

This Edelbrock part has received an Executive Order number (E.O. #) from the California Air Resources Board (C.A.R.B.) making it legal for street use on pollution-controlled motor vehicles in all 50 states. To assist you with emissions inspection, we have included a silver fan shroud decal to verify that this part is a legal replacement part on the vehicle for which it is cataloged. The adhesive-backed decal should be affixed next to the existing emission and engine specification decal. Do not cover your original equipment specification decal with the Edelbrock fan shroud decal.

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