

# PERFORMER X INTAKE MANIFOLDS For Honda/Acura B-Series Engines Catalog #4771, 4774, & 4778

## **INSTALLATION INSTRUCTIONS**

**PLEASE** study these instructions carefully before beginning this installation. Most installations can be accomplished with common tools and procedures. However, you should be familiar with and comfortable working on your vehicle. If you do not feel comfortable performing this installation, it is recommended to have the installation completed by a qualified mechanic. If you have any questions, please call our **Technical Hotline at: 1-800-416-8628**, 7:00 am - 5:00 pm, Pacific Standard Time, Monday through Friday or e-mail us at **edelbrock@edelbrock.com**.

#### IMPORTANT NOTE: Proper installation is the responsibility of the installer. Improper installation may result in poor performance and engine or vehicle damage.

<u>WARNING</u>: When working around gasoline or with any fuel system, always work in a well-ventilated area. Keep all sparks, open flames, or other sources of ignition away from the work area. Failure to do so could result in a fire or explosion causing vehicle or property damage, personal injury, and/or death.

PLEASE complete and mail your warranty card. Be sure to write the model number of this product in the "Part #\_\_\_\_\_" space. THANK YOU.

**DESCRIPTION:** Designed for Honda/Acura B-Series engines, Performer X Intake Manifolds are optimized for the 3500-8500 RPM range. They feature 9" long, tapered runners for optimal air flow and a rectangular plenum to accentuate the natural tuning waves of the runners. These features are ideal for performance street vehicles using a naturally-aspirated or forced induction setup. A 66mm throttle body opening allows the use of oversized throttle bodies with no machining necessary. The angled throttle body pad improves air-flow and provides a better fit in stock engine compartments. Manifolds include four (4) partially machined secondary injector bosses, which may be drilled through for applications requiring a secondary fuel system, such as turbocharged, or alcohol-fueled engines (Use Secondary Fuel Rail Kit #4779). Performer X manifolds accept all factory emissions components and are a direct replacement for the stock intake manifold, making them 50 state emissions legal.

#### **APPLICATIONS:**

INTAKE MANIFOLD	APPLICATION
4771	Honda/Acura vehicles using the B18C1 engine. Typically found in 1994-2001 Acura Integra
4774	Honda/Acura vehicles using the B16A (USDM or JDM) or the B18C5 (Type-R) engine. The B16A is usually found in the Honda Del Sol VTEC or 1999-2000 Honda Civic Si. The B18C5 is original equipment for the Acura Integra Type-R.
4778	Honda/Acura vehicles using a B18 series, non-VTEC engine. These are usually referred to as the "LS" engine. These engines are commonly found in 1990-2000 Acura Integra GS, RS, or LS models.

#### **KIT CONTENTS:**

- □ 1 Throttle Cable Bracket
- □ 3 Fuel Rail Spacers
- □ 1 MAT Sensor Block-Off Plate
- 1 MAT Sensor Block-Off Plate Gasket
- □ 1 Throttle Body to Intake Manifold Gasket
- Q 2 M5 x 12mm Torx Head Screws With Integral Washers
- 2 8mm x 1.25 x 40mm Allen Head Bolt (4774 ONLY)
- □ 2 8mm Washers (4774 ONLY)
- □ 1 1/8" NPT x 3/8" Hose Barb Fitting
- □ 2 1/8" NPT x 3/16" Hose Barb Fitting
- □ 2 1/8" NPT x 8mm Hose Barb Fitting

- □ 1 1/4" NPT x 8mm Hose Barb Fitting
- □ 1 1/4" NPT x 9mm Hose Barb Fitting
- □ 1 1/4" NPT x 10mm Hose Barb Fitting
- 1 3/8" NPT x 17mm Hose Barb Fitting With 1/8" NPT Female Side Port
- □ 4 1/8" NPT Pipe Plug
- □ 2 1/4" NPT Pipe Plug
- □ 1 3/8" NPT Pipe Plug
- □ 1 12" of 18 Gauge Yellow Wire (4771 ONLY)
- □ 1 12" of 18 Gauge Blue Wire (4771 ONLY)
- □ 4 18 Gauge Splice Connectors (4771 ONLY)

**BEFORE BEGINNING:** If you wish to use the Performer X intake manifold with a secondary fuel system, use Edelbrock Secondary Fuel Rail Kit #4779, and perform the preparation for the secondary fuel rail before beginning the intake manifold installation. The intake manifold must be removed from the engine in order to install the secondary fuel rail kit.

1. Disconnect the battery and disconnect the air intake tube from the throttle body. Drain the engine coolant by loosening the petcock at the bottom of the radiator. Use a drain pan to collect drained coolant. Keep the coolant clean and free of dirt and debris, it can be re-used later

**NOTE:** On some vehicles, it may be necessary to remove the oil filter (Remember to re-install BEFORE starting engine) to access the intake manifold support bracket, and to remove the bracket from the underside of the vehicle. This simplifies the removal of the stock intake manifold. The support bracket is not necessary with the Performer X intake manifold.

 Relieve fuel pressure 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. 1). 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.



 Disconnect the fuel injector wiring harness from the bracket on the fuel rail and unplug the harness from the fuel injectors. Disconnect the Throttle Position Sensor, Manifold Air Pressure (MAP) Sensor, and Idle Air Control Motor connectors.

**NOTE:** Always mark connectors before removal. Some sensors have same plug ends. Also mark the locations of each fuel injector plug on the harness to prevent improper connection during re-installation.

4. Disconnect the purge line from the EVAP Purge Valve. Disconnect the fuel return line from the steel chassis fuel line. Disconnect the fuel line from the fuel filter.

**NOTE:** FUEL WILL DRAIN from the detached fuel lines. Use care to prevent fuel from spilling excessively.

5. Disconnect the coolant lines from the throttle body and manifold flange.

**NOTE:** Some coolant will drain from the coolant lines leading into the intake manifold when they are disconnected.

- 6. If the intake manifold support bracket was not removed previously, remove the bolts at the rear of the stock manifold attaching the manifold to the support bracket. Disconnect the vacuum lines at the rear of the manifold. Remove the throttle cable. Remove the factory intake manifold nuts. Remove the stock intake manifold assembly and set aside. If the manifold support bracket was not previously removed, finish removing the bracket.
- 7. 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. The gasket surface must be clean and free of any old gasket material in order to prevent sealing problems.
- 8. Install the water outlet fitting into the mounting flange. Install the 1/8" NPT x 8mm barb into the water outlet fitting if your supplies application coolant to the throttle body from the intake flange (See Fig. 2A). In applications where the throttle body coolant line is



routed from the cylinder head, install a 1/8" NPT pipe plug in the water outlet fitting instead. Install the vacuum fittings and the stock Manifold Air Temperature (MAT) Sensor on the back side of the Performer X intake manifold **(See Fig. 2B)**. Some applications may use a MAT sensor that is not mounted on the intake manifold. In those applications, install the supplied block off plate using the supplied gasket and M5 x 12mm Torx screws.

**NOTE:** See **Fig. 2C** on page 3 for fitting descriptions. Use teflon paste on the threads of fittings before installing them into the intake manifold. Use additional supplied fittings and plugs as necessary for your application.



- #1 3/8" NPT x 17mm Barb (Manifold Water Outlet) #2 1/8" NPT x 8mm Barb (Throttle Body Coolant Hose) or 1/8" NPT Pipe Plug (If coolant hose is routed from cylinder head) **#3** 1/8" NPT Pipe Plug #4 1/4" NPT Pipe Plug (FPR 1/4" NPT x 9mm Barb (Purge Valve Hose) #5 #6 1/4" NPT x 10mm Barb (Power Brake Booster Hose) #7 1/8" NPT Plpe Plug #8 1/8" NPT x 3/16" Barb (Vacuum Operated Cruise Control) or 1/8" NPT Pipe Plug (Non-Vacuum Cruise) **#9** 1/8" NPT Pipe Plug **#10** Factory MAT Sensor, or Supplied Block-Off Plate (Underside of Plenum, Not Pictured) #11 1/8" NPT x 3/16" Barb (Fuel Pressure Regulator Hose) Fig. 2C
- Remove Idle Air Control motor (IAC) from factory intake manifold and install onto the Performer X intake manifold. Remove the throttle body (with MAP sensor attached), and two throttle body studs from the factory intake



manifold. Using two throttle body nuts on each stud, and jamming them, will help get the studs out of the stock intake manifold **(See Fig. 3)**. 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 throttle body onto the Performer X manifold using the supplied gasket. Install the supplied throttle cable bracket onto the Performer X manifold using the stock bolts. Remove the stock fuel rail / injectors / fuel pressure regulator assembly and the stock fuel-rail-studs and spacers and install onto the Performer X manifold using the stock hardware.

**NOTE:** Inspect all o-rings and seals for wear, and replace if necessary. Also, make sure each injector can rotate freely in its bore after being installed, and the fuel rail hold down bolts/nuts have been fully tightened.

Certain models and years did not use fuel rail spacers (such as Integra Type-R and late Integra LS models). These applicatons may require the use of fuel rail spacers in order to install the Performer X intake manifold. If necessary, use the supplied fuel rail spacers in those applications.

**NOTE:** If installing intake manifold 4774 in an application requiring Edelbrock fuel rail spacers, use spacers with the supplied 8mm x 1.25 x 40mm allen bolts and 8mm washers.

10. Using a factory Honda intake manifold gasket, or equivalent aftermarket gasket, install the Performer X manifold/throttle body/fuel rail assembly onto the engine using the factory nuts (See Fig. 4 for proper torque values and sequence).

**NOTE:** Remember to remove the paper towels or rags before installing the intake manifold.



### Fig. 4 - Intake Manifold Tightening Sequence (Torque nuts to 17 ft./lbs. in two or three steps, following sequence above.)

11. Connect all factory sensors, coolant lines, and vacuum hoses. Connect the factory fuel injector wiring harness to the stock fuel injectors, and reattach the harness to the fuel rail bracket.

**Special Instructions for #4771:** In some cases, the idle air control motor (IAC) wire harness will no longer reach the solenoid. Use the supplied wires and connectors supplied in kit to extend the factory wire harness.

- 12. Connect the stock throttle cable to the Edelbrock bracket and following the factory service manual, adjust the throttle cable for proper operation.
- 13. Connect the fuel supply line to the fuel filter and connect the fuel return line. Refill the coolant to the factory specified level.
- 14. Turn the key to the engine "on" position and check for fuel leaks. Fix any leaks before starting the engine. Start the engine and check for water and/or fuel leaks. If leaks are present, shut off engine immediately, and repair any leaks before continuing.

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