Edelbrock 2176

Edelbrock 2176 Performer Aluminum Intake Manifold Instruction Manual

Model: 2176 | Brand: Edelbrock

1. Introduction and Overview

The Edelbrock Performer 2176 is a dual-plane, low-rise aluminum intake manifold designed to optimize engine performance. It features a 180-degree firing order and a patented runner design, which collectively enhance torque across a broad RPM range, specifically from off-idle up to 5,500 RPM. This manifold is suitable for various vehicle types, including passenger cars, boats, tow vehicles, and RVs.

Key features of the Edelbrock 2176 Performer Intake Manifold include improved throttle response compared to stock intakes. It is available in non-EGR (Exhaust Gas Recirculation) styles and provides provisions for late-model choke, water neck, alternator, and air conditioning brackets, as well as an oil filler tube. The manifold is constructed from durable aluminum and comes with a natural finish.

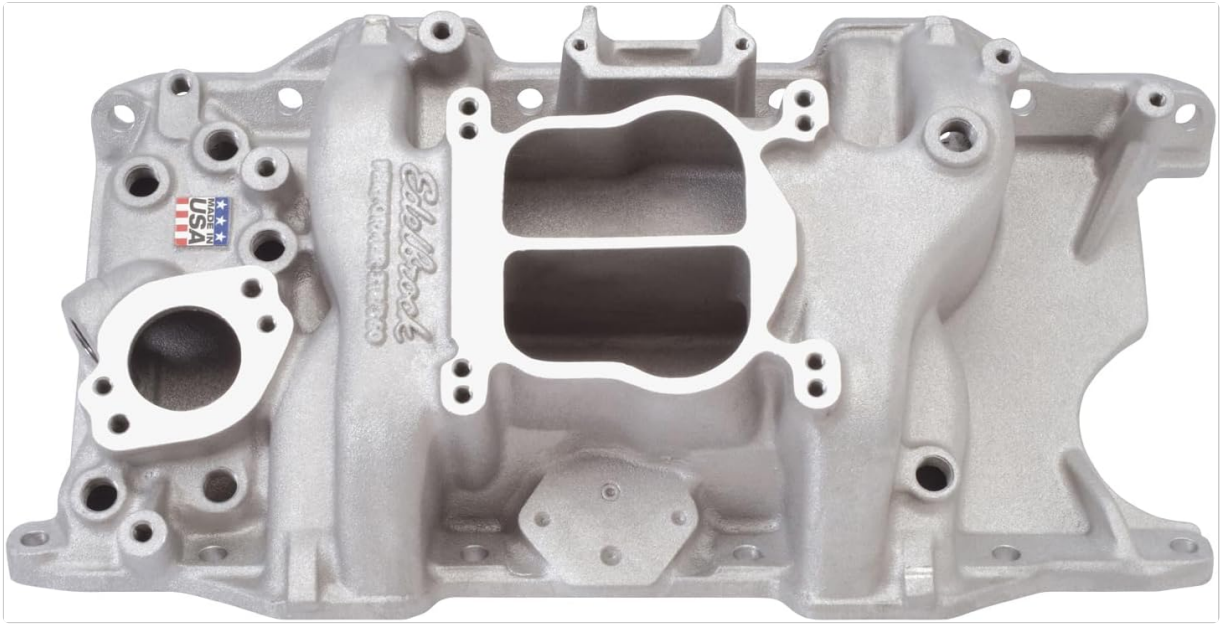


Figure 1: Top view of the Edelbrock 2176 Performer Aluminum Intake Manifold. This image displays the carburetor mounting pad and various ports.

2. Setup and Installation

Attention: Proper installation of an intake manifold requires mechanical expertise. It is highly recommended to consult the appropriate shop manual for your specific vehicle to obtain detailed, vehicle-specific instructions and torque specifications. If you lack sufficient experience or tools, seek assistance from a qualified mechanic.

General Installation Steps (Consult Vehicle-Specific Manual for Details):

1. **Preparation:** Disconnect the battery. Drain the cooling system. Remove the air cleaner assembly, carburetor (if applicable), and all associated hoses, wires, and linkages connected to the existing intake manifold.
2. **Old Manifold Removal:** Carefully unbolt and remove the old intake manifold. Be aware that older cast iron manifolds can be significantly heavier than the aluminum Edelbrock unit.
3. **Surface Cleaning:** Thoroughly clean the cylinder head intake manifold surfaces. Remove all old gasket material, sealant, and debris to ensure a proper seal with the new manifold. Inspect surfaces for any damage or irregularities.
4. **Gasket Installation:** Apply a thin, even coat of RTV sealant to the cylinder head intake ports and water passages as specified by your vehicle's shop manual or the gasket manufacturer. Carefully place new intake manifold gaskets onto the cylinder heads, aligning them correctly.
5. **Manifold Placement:** Gently lower the Edelbrock 2176 intake manifold onto the cylinder heads, ensuring the gaskets remain in place and all bolt holes align.
6. **Bolting and Torquing:** Install all intake manifold bolts finger-tight. Following the vehicle's shop manual, tighten the bolts in the specified sequence and to the correct torque specifications. This is crucial for preventing leaks and ensuring proper manifold seating.
7. **Component Reinstallation:** Reinstall the carburetor (if applicable), air cleaner, hoses, wires, and linkages. Connect the water neck, alternator, and A/C brackets as needed.
8. **Fluid Refill and Testing:** Refill the cooling system. Reconnect the battery. Start the engine and check for any leaks (coolant, vacuum, fuel). Allow the engine to reach operating temperature and check for proper idle and throttle response.



Figure 2: Angled view of the Edelbrock 2176 Performer Aluminum Intake Manifold, showcasing its lightweight aluminum construction and port design.

3. Operating Principles

The Edelbrock 2176 Performer Intake Manifold functions by efficiently distributing the air-fuel mixture from the carburetor (or throttle body) to the engine's cylinders. Its dual-plane design and optimized runners are engineered to create a balanced flow, which is essential for consistent performance and improved torque at lower to mid-range RPMs. The 180-degree firing order further contributes to this balance, ensuring each cylinder receives an adequate and uniform charge.

Proper operation relies on a correctly sealed manifold and compatible engine components. The manifold's design aims to enhance the volumetric efficiency of the engine, allowing it to draw in more air and fuel, leading to increased power output and improved throttle response.

4. Maintenance

Regular maintenance of the intake manifold is generally minimal due to its robust construction. However, periodic checks can help ensure continued optimal performance:

- **Visual Inspection:** Periodically inspect the manifold for any signs of damage, cracks, or corrosion. Check the integrity of all hoses and connections attached to the manifold.
- **Gasket Integrity:** Look for any signs of oil or coolant leaks around the manifold gaskets. A leaking gasket can lead to vacuum leaks, affecting engine performance.
- **Cleaning:** If the engine bay becomes excessively dirty, the exterior of the manifold can be cleaned with appropriate automotive cleaning products. Avoid harsh chemicals that could damage the aluminum finish.

- **Fastener Torque:** Over time, engine vibrations can sometimes loosen fasteners. It is advisable to periodically check the torque of the intake manifold bolts, referring to your vehicle's shop manual for the correct specifications.

5. Troubleshooting

If you experience engine performance issues after installing or while using the Edelbrock 2176 intake manifold, consider the following common troubleshooting steps:

- **Vacuum Leaks:** A common issue with intake manifolds. Symptoms include rough idle, poor acceleration, and lean fuel conditions. Inspect all vacuum lines and connections for cracks or disconnections. Check manifold gaskets for leaks using a vacuum leak detector or by spraying a small amount of carburetor cleaner around the gasket mating surfaces (engine RPM will change if a leak is present).
- **Coolant/Oil Leaks:** Visible puddles or residue around the manifold indicate a gasket leak. This requires replacing the affected gasket.
- **Poor Performance:** If the engine runs poorly, check the carburetor tuning (if applicable) and ensure all engine sensors are functioning correctly. Verify that the manifold was installed with the correct torque specifications and sequence.
- **Incorrect Fitment:** Double-check that the Edelbrock 2176 is the correct manifold for your specific engine application. Refer to Edelbrock's official fitment guide.

For persistent issues, consult a qualified automotive technician or contact Edelbrock technical support.

6. Specifications

Specification	Value
Brand	Edelbrock
Model Number	2176
Material	Aluminum
Configuration	180 degree
Vehicle Service Type	Car
Item Weight	9.63 Kilograms (approx. 21.2 pounds)
UPC	085347021765
Exterior Finish	Natural (Satin)
Automotive Fit Type	Vehicle Specific Fit

7. Warranty and Support

Warranty information for the Edelbrock 2176 Performer Aluminum Intake Manifold is typically provided by the manufacturer at the time of purchase or included with the product packaging. For specific details regarding warranty coverage, terms, and conditions, please refer to the documentation supplied with your

product or visit the official Edelbrock website.

For technical assistance, installation questions, or support, please contact Edelbrock customer service directly through their official channels. Ensure you have your product model number (2176) and any relevant purchase information available when seeking support.