

Edelbrock 1905

Edelbrock 1905 AVS2 Series Carburetor Instruction Manual

Model: 1905 | 650 cfm Square Flange Non-EGR Manual Choke

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Edelbrock 1905 AVS2 Series Carburetor. The AVS2 Series is engineered for improved off-idle and cruising performance through its annular flow primary boosters, which enhance fuel atomization.

2. SAFETY INFORMATION

CALIFORNIA WARNING: Cancer and Reproductive Harm -www.P65Warnings.ca.gov

Always wear appropriate personal protective equipment, such as safety glasses and gloves, when working with automotive components. Ensure the engine is cool and disconnected from the battery before beginning any installation or maintenance procedures. Work in a well-ventilated area.

3. PRODUCT OVERVIEW

The Edelbrock 1905 AVS2 Series Carburetor features annular flow primary boosters designed to deliver improved fuel atomization. This design helps eliminate flat spots during transitions from idle to full throttle. Each annular booster incorporates eight equally spaced orifices for precise fuel metering across the RPM range. This carburetor is suitable for a wide range of small-block and big-block engines, compatible with both dual- and single-plane intake manifolds. It includes both timed and full vacuum ports for ignition advance.

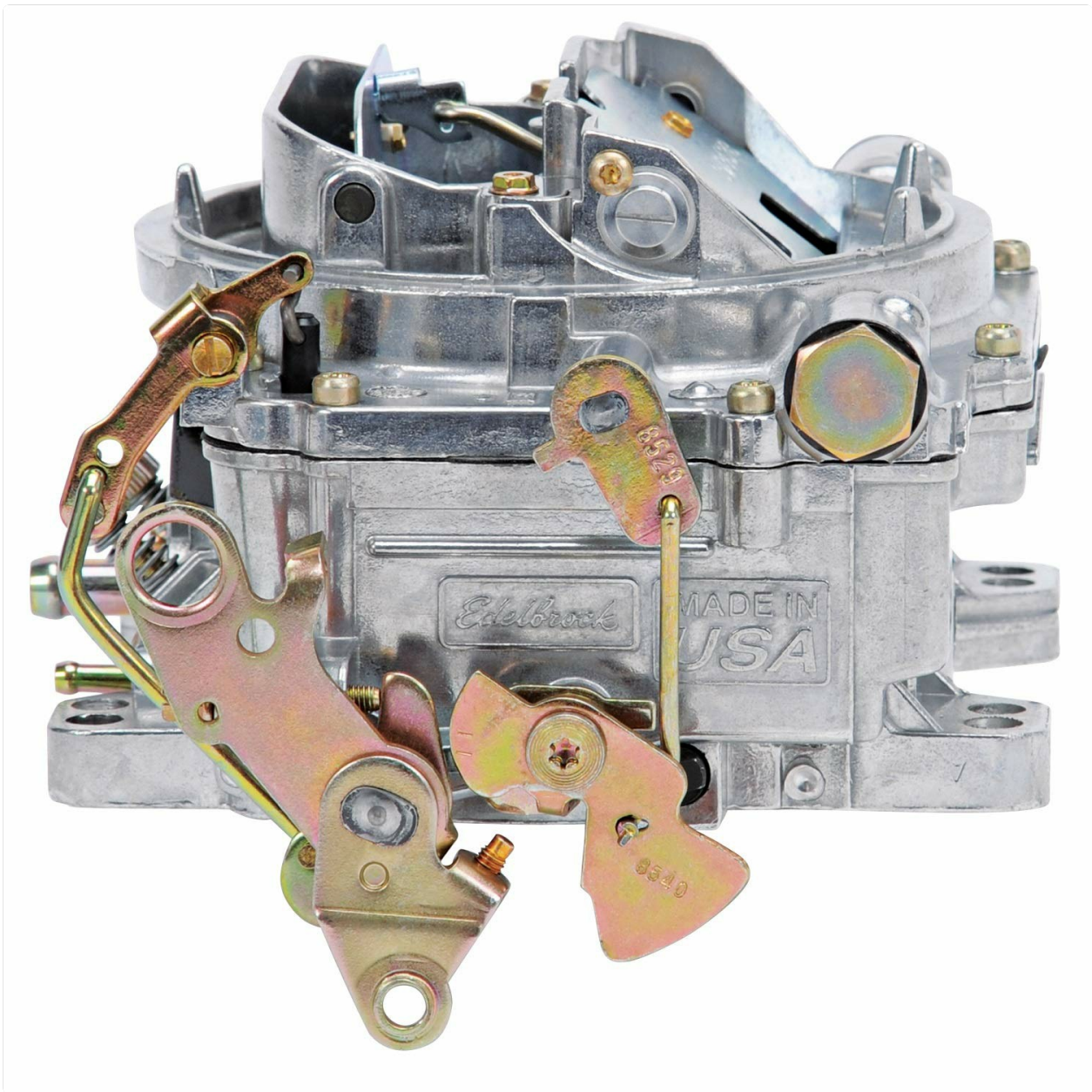


Figure 1: Edelbrock 1905 AVS2 Series Carburetor and included components, including the carburetor unit, installation instructions, wiring, and gasket kit.

4. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance. Refer to the detailed installation instructions provided in the box for specific steps tailored to your vehicle.

4.1 Pre-Installation Checks

- Ensure the engine intake manifold is clean and free of debris.
- Verify compatibility with your engine and intake manifold.
- If replacing an existing carburetor, note the existing throttle linkage and fuel line connections.

4.2 Installation Steps

1. **Manifold Preparation:** For some applications, it may be necessary to miter the manifold port slightly

(e.g., 1/8 x 45 degree chamfer) to ensure secondary butterfly clearance.

2. **Gasket Placement:** Place the appropriate carburetor base gasket onto the intake manifold.
3. **Carburetor Mounting:** Carefully position the Edelbrock 1905 AVS2 Carburetor onto the manifold studs. Use carb studs #8008 or #8024 if needed for proper fitment.
4. **Secure Fasteners:** Tighten the carburetor mounting nuts evenly in a crisscross pattern to the manufacturer's recommended torque specifications.
5. **Fuel Line Connection:** Connect the fuel line to the carburetor. A longer 3/8" fuel hose may be required depending on your vehicle's setup.
6. **Throttle Linkage:** Connect the throttle linkage and ensure smooth operation without binding. Adjust as necessary.
7. **Choke Connection:** Connect the manual choke cable.
8. **Vacuum Lines:** Connect all necessary vacuum lines to the timed and full vacuum ports.

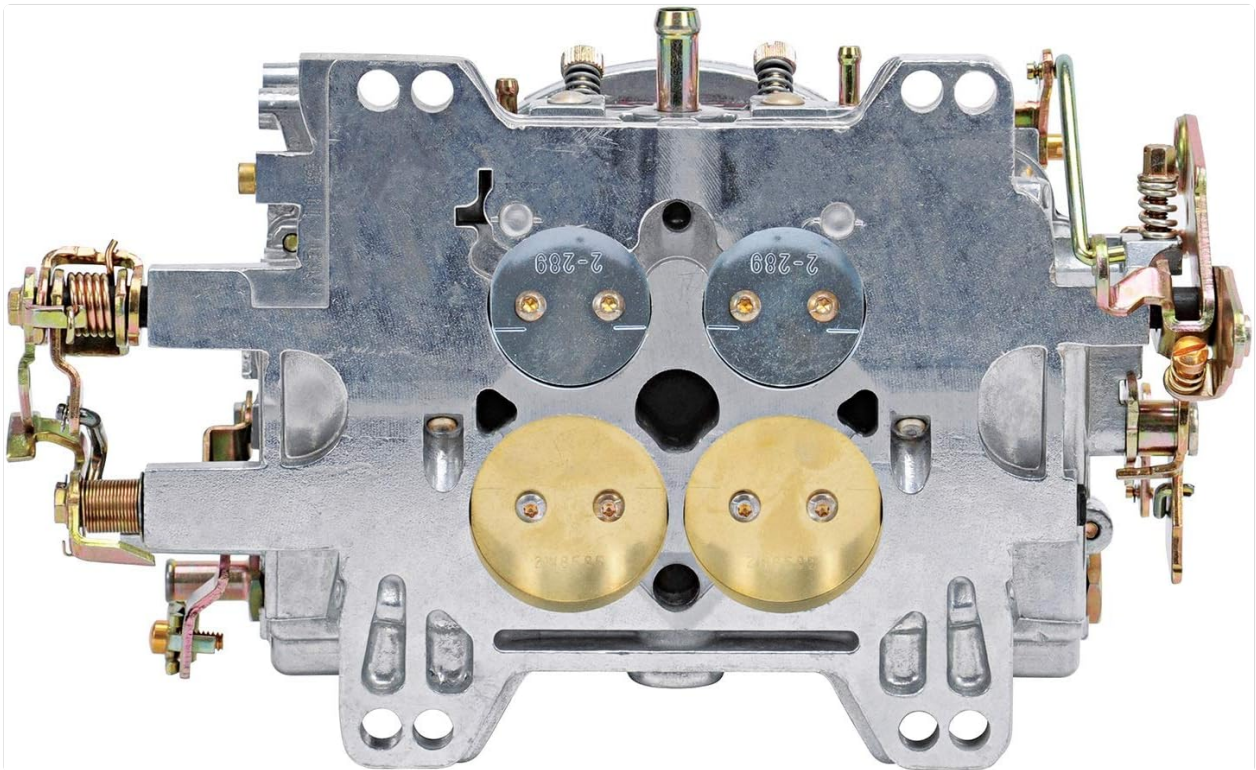


Figure 2: Bottom view of the Edelbrock 1905 AVS2 Series Carburetor, illustrating the square flange and throttle plates.

For optimal induction upgrades, consider pairing this carburetor with an Edelbrock intake manifold.

5. OPERATING INSTRUCTIONS

5.1 Initial Start-Up and Tuning

- After installation, ensure all connections are secure and there are no fuel leaks.
- Start the engine and allow it to reach operating temperature.
- Adjust the idle mixture screws for the smoothest idle and highest vacuum reading. The carburetor is typically set up rich from the factory, so initial adjustments are expected.
- If further tuning is required for specific engine combinations or performance goals, an Edelbrock calibration kit may be beneficial.

5.2 Manual Choke Operation

The manual choke allows for precise control during cold starts. Pull the choke knob fully out for cold starting, then gradually push it in as the engine warms up to prevent over-rich conditions.

6. MAINTENANCE

Regular maintenance ensures the longevity and performance of your carburetor.

- **Fuel Filter:** Periodically check and replace the fuel filter to prevent contaminants from entering the carburetor.
- **Linkage Lubrication:** Lubricate all moving throttle and choke linkage points with a light oil to ensure smooth operation.
- **Gasket Inspection:** Inspect the carburetor base gasket and other seals for signs of wear or leaks. Replace as needed.
- **Cleaning:** Use a carburetor cleaner specifically designed for automotive use to clean external surfaces. Avoid spraying directly into internal passages unless performing a full rebuild.

7. TROUBLESHOOTING

This section addresses common issues you might encounter.

7.1 Engine Stumbles or Hesitates

- **Check Accelerator Pump:** Ensure the accelerator pump is functioning correctly and delivering a strong, consistent stream of fuel when the throttle is opened.
- **Fuel Level:** Verify proper fuel level in the float bowls.
- **Ignition Timing:** Confirm ignition timing is set correctly for your engine.

7.2 Poor Idle Quality

- **Idle Mixture:** Re-adjust idle mixture screws for optimal air/fuel ratio.
- **Vacuum Leaks:** Check for any vacuum leaks around the carburetor base or vacuum lines.
- **Choke Adjustment:** Ensure the manual choke is fully open when the engine is warm.

7.3 Fuel Leaks

- **Gaskets:** Inspect all gaskets (base, fuel bowl) for proper sealing and damage.
- **Fuel Line Connections:** Tighten fuel line fittings, but do not overtighten.
- **Float Level:** An incorrect float level can cause fuel to overflow.

8. SPECIFICATIONS

Feature	Specification
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Feature	Specification
Brand	Edelbrock
Model Number	1905
Maximum Flow Rating	650 cfm
Flange Type	Square Bore
Choke Type	Manual Choke
Booster Type	Annular
EGR Compatibility	Non-EGR
Finish	Satin
Fuel Type	Gasoline
Product Dimensions	7.38"D x 13.25"W x 6.75"H
Item Weight	8.9 pounds
Metering Jets (Primary)	.101
Metering Jets (Secondary)	.098
Metering Rods	.070 x .037
Step-Up Spring	Orange (5" Hg)

9. WARRANTY INFORMATION

Specific warranty details for the Edelbrock 1905 AVS2 Series Carburetor are typically provided with the product packaging or can be found on the official Edelbrock website. Please refer to these resources for the most current and accurate warranty terms and conditions.

10. CUSTOMER SUPPORT

For technical assistance, parts inquiries, or further information regarding your Edelbrock AVS2 Series Carburetor, please visit the official Edelbrock website or contact their customer service department directly. Always provide your product model number (1905) when seeking support.

Edelbrock Official Website: www.edelbrock.com