

# ATI Performance Products 205322 Servo Piston Twin Seal Instruction Manual

Comprehensive guide for installation, function, and maintenance.

## 1. INTRODUCTION

This manual provides essential information regarding the ATI Performance Products 205322 Servo Piston Twin Seal. It covers product overview, installation guidelines, functional description, maintenance recommendations, and specifications. Please read this manual thoroughly before handling or installing the product to ensure proper function and safety.

## 2. PRODUCT OVERVIEW

The ATI Performance Products 205322 is a high-quality servo piston featuring a twin seal design, engineered for automotive brake systems. This component is designed to provide reliable sealing and precise operation within the brake caliper assembly, contributing to consistent braking performance.



**Figure 1:** The ATI Performance Products 205322 Servo Piston Twin Seal. This image displays the metallic piston component with its distinct twin seal rings, designed for optimal sealing within a brake system.

Key features include:

- Twin seal design for enhanced sealing integrity.
- Constructed for durability and consistent performance in demanding automotive environments.
- Designed as a replacement part for specific brake caliper applications.

### **3. SETUP AND INSTALLATION**

Installation of brake system components requires specialized knowledge and tools. It is highly recommended that the ATI Performance Products 205322 Servo Piston Twin Seal be installed by a qualified automotive technician.

#### **3.1 Safety Precautions**

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure the vehicle is securely supported on jack stands or a lift.
- Disconnect the vehicle's battery if working near electrical components.
- Handle brake fluid with care as it can damage paint and is harmful if ingested.

#### **3.2 Installation Steps (General)**

1. Refer to the vehicle manufacturer's service manual for specific brake caliper disassembly and reassembly procedures.
2. Carefully remove the old servo piston and seals from the brake caliper.
3. Clean the caliper bore thoroughly, ensuring no debris or corrosion remains.
4. Lubricate the new ATI 205322 Servo Piston Twin Seal with clean brake fluid or a compatible brake lubricant before insertion.
5. Gently press the new piston into the caliper bore, ensuring it seats correctly and without damage to the seals.

6. Reassemble the brake caliper and system according to the vehicle manufacturer's specifications.
7. Bleed the brake system to remove any air, ensuring a firm brake pedal.
8. Test the brakes in a safe environment before returning the vehicle to normal operation.

**Note:** Improper installation can lead to brake failure, which may result in serious injury or death. If you are unsure about any step, consult a professional.

## 4. OPERATION

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The ATI Performance Products 205322 Servo Piston Twin Seal functions as a critical component within the brake caliper. When hydraulic pressure is applied through the brake pedal, the piston moves, forcing the brake pads against the rotor to create friction and slow or stop the vehicle. The twin seals ensure that hydraulic fluid is contained within the caliper and that the piston moves smoothly and consistently, providing responsive and effective braking.

## 5. MAINTENANCE

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Regular inspection of brake components is crucial for vehicle safety and performance. While the servo piston itself is a durable component, its surrounding seals and the brake fluid require attention.

- **Brake Fluid:** Check brake fluid level and condition regularly. Replace brake fluid according to the vehicle manufacturer's recommendations, typically every 2-3 years, to prevent moisture contamination and corrosion.
- **Caliper Inspection:** During brake service, inspect the caliper for any signs of leaks around the piston seals, corrosion, or damage.
- **Piston Movement:** Ensure the piston moves freely within the caliper bore. Sticking pistons can lead to uneven pad wear and reduced braking efficiency.

**Warning:** Any signs of brake fluid leaks or compromised brake performance should be addressed immediately by a qualified technician.

## 6. TROUBLESHOOTING

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If you experience issues with your braking system after installing or using the ATI Performance Products 205322 Servo Piston Twin Seal, consider the following general troubleshooting steps. Note that these are general guidelines, and a professional diagnosis is always recommended for brake system problems.

- **Soft or Spongy Brake Pedal:** This often indicates air in the brake lines. Re-bleed the brake system thoroughly.
- **Brake Fluid Leakage:** Inspect the caliper seals and brake lines for any visible leaks. A leak around the piston area may indicate improper installation or a damaged seal.
- **Uneven Brake Pad Wear:** Could be caused by a sticking piston or caliper slide pins. Ensure the piston moves freely and the caliper is properly lubricated.
- **Reduced Braking Performance:** Check for proper brake fluid levels, air in the system, or issues with other brake components.

**Important:** Do not operate a vehicle with compromised brakes. Seek professional assistance immediately if you suspect a brake system malfunction.

## 7. SPECIFICATIONS

Attribute	Detail
<b>Product Type</b>	Auto Part (Servo Piston Twin Seal)
<b>Brand</b>	ATI Performance Products
<b>Model Number</b>	205322
<b>Item Package Dimensions</b>	4.0" L x 4.0" W x 1.5" H
<b>Item Package Weight</b>	0.28 lbs
<b>Country of Origin</b>	United States
<b>Position</b>	Rear (as per product specifications)

## 8. WARRANTY AND SUPPORT

For specific warranty information regarding the ATI Performance Products 205322 Servo Piston Twin Seal, please refer to the documentation provided at the time of purchase or contact ATI Performance Products directly. Support for installation and technical inquiries should be directed to a certified automotive technician or the manufacturer's customer service department.

Manufacturer: [ATI Performance Products](#)