

[Manuals.plus](#) /

> [maXpeedingrods](#) /

> maXpeedingrods Front Strut Assembly Instruction Manual for Subaru Crosstrek/XV Crosstrek

maXpeedingrods IE43RA

maXpeedingrods Front Strut Assembly Instruction Manual

For Subaru Crosstrek (2016-2017) & Subaru XV Crosstrek (2013-2015)

1. PRODUCT OVERVIEW

The maXpeedingrods Front Strut Assembly is engineered to provide consistent shock absorption and stable handling for your vehicle. This complete strut assembly is designed for direct replacement, ensuring a straightforward installation process and restoring optimal ride quality.

Adopting Top Brand ENEOS Damping Oil



More Pure to Reduce Piston Clogging



Keeping Stable within -40°C to 80°C



Excellent Heat and Cold Resistance



MAX SPEEDING RODS
Since 2006



Image 1.1: General view of the maXspeedingrods Front Strut Assembly.

2. FITMENT INFORMATION

This front strut assembly is compatible with the following vehicle models:

- Subaru Crosstrek: 2016-2017
- Subaru XV Crosstrek: 2013-2015

Reference Part Numbers: 13321, 13322, 183070, 183071, 1333749L, 1333749R, 20310FJ160, 2701685310, 20310FJ080, 20310FJ220, 20310FJ420, 92141350, 920208, PM7000588, 20310FJ230, 2701685311, 20310FJ090, PM7000587, 20310FJ430, 20310FJ170, 920207, 92141351.

3. PRODUCT FEATURES AND COMPONENTS

The maXspeedingrods Front Strut Assembly is constructed with high-quality materials and advanced design features to ensure durability and performance.

Key Features:

- **ENEOS Damping Oil:** Utilizes high-purity ENEOS damping oil to reduce piston clogging and maintain stable performance across a wide temperature range (-40°C to 80°C), offering excellent heat and cold resistance.
- **High-Strength Piston Rod:** Made from premium 45# steel with less than Ra0.1 roughness, providing excellent bending resistance and durability.
- **High-Tensile Damper Pipe:** Constructed from premium Q235 carbon steel with a 3mm thickness, ensuring strong corrosion resistance.
- **Noise Reduction:** Features powerful static stiffness and a standard rubber washer to absorb noise, having passed professional noise tests.
- **Optimized Damping Seal:** Designed to effectively prevent oil leaks, ensuring consistent performance.
- **55Crsi Coil Spring:** Features a larger diameter and stronger support gasket for enhanced performance and longevity.
- **Factory Tested:** Each assembly undergoes rigorous testing, including 3 million fatigue tests without distortion or damage, and 250-hour salt spray tests without bubbles or shedding.



Image 3.1: Illustration of ENEOS damping oil within the strut, highlighting temperature stability.



Image 3.2: Detail of the high-strength piston rod, emphasizing material quality and finish.

Buy with Confidence

As a seller and manufacturer, maXpeedingrods has been tirelessly researching and producing high-performance auto parts.



Thorough Quality Control Standard



Millions of Extensive Product Tests



Experienced Engineers and Skilled Technicians



Image 3.3: Cross-section view of the high-tensile damper pipe, showing its 3mm thickness.

Stable Performance

Using the top brand ENEOS damping oil, one of the highest quality oil brand in the global market, can maintain optimal performance under extreme weather conditions



Image 3.4: Visual representation of noise reduction capabilities, including the rubber washer.

More Durable and Longer Life

Using durable materials such as high-strength steel, with corrosion and deformation resistance, can achieve greater rigidity and is less prone to damage



Image 3.5: Diagram illustrating the optimized damping seal designed to prevent oil leaks.

Strict **Factory Test**



- Passed 3 Million Fatigue Tests With No Distortion Or Damage.
- Passed 250-Hour Salt Spray Tests With No Bubbles Or Shedding.

MAX SPEEDING RODS
Since 2006



Image 3.6: Depiction of the strut assembly undergoing strict factory testing procedures.

55Crsi Coil Spring



- ▣ Larger Diameter
- ▣ Stronger Support Gasket

MAX SPEEDING RODS
Since 2006



Image 3.7: Close-up view of the 55Crsi coil spring, highlighting its robust design.

Component Breakdown:

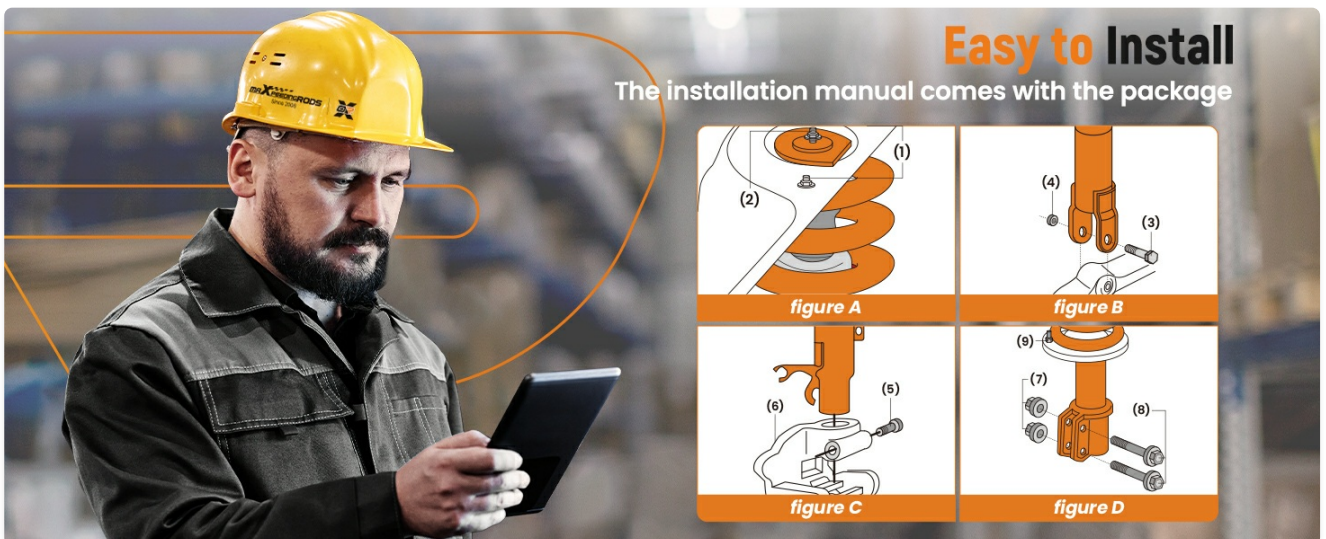


Image 3.8: Exploded view illustrating the main components of the strut assembly, including Top Mount, Bump Stop, Coil Spring, Dust Cap, and Lower Control Arm.

4. SETUP (INSTALLATION)

This strut assembly is designed for quick and direct replacement. While the product includes a detailed installation manual, the following provides general guidance. Professional installation is recommended.

Safety Precautions:

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure the vehicle is securely supported on jack stands on a level surface before beginning work. Never rely solely on a jack.
- Disconnect the negative terminal of the vehicle's battery if working near electrical components.
- Refer to your vehicle's service manual for specific torque specifications and procedures.

General Installation Steps:

1. Loosen lug nuts on the front wheels, then lift the front of the vehicle and secure it with jack stands. Remove the front wheels.
2. Locate and disconnect any brake lines, ABS sensor wires, or sway bar links attached to the strut assembly.
3. Remove the lower mounting bolts connecting the strut to the steering knuckle.
4. Open the hood and locate the upper strut mount bolts. Remove these bolts.
5. Carefully remove the old strut assembly from the vehicle.
6. Position the new maXpeedingrods strut assembly into place, aligning the upper mounting studs. Secure with nuts, but do not fully tighten yet.
7. Align the lower mounting holes and insert the bolts. Secure with nuts, but do not fully tighten yet.
8. Reconnect any brake lines, ABS sensor wires, or sway bar links.
9. Once all components are in place, tighten all mounting bolts to the manufacturer's specified torque.
10. Reinstall the wheels, lower the vehicle, and tighten lug nuts to specification.
11. It is highly recommended to perform a wheel alignment after strut replacement to ensure proper vehicle handling and tire wear.

Buy with Confidence

As a seller and manufacturer, maXpeedingrods has been tirelessly researching and producing high-performance auto parts.



Thorough Quality
Control Standard



Millions of Extensive
Product Tests



Experienced Engineers
and Skilled Technicians



Image 4.1: General installation diagrams for strut assembly, showing various mounting points.

5. OPERATING CONSIDERATIONS

After installation, the maXpeedingrods Front Strut Assembly will enhance your vehicle's driving dynamics. Observe the following benefits during operation:

- **Improved Traction and Control:** Experience better grip and responsiveness on various road surfaces.
- **Enhanced Stability and Comfort:** Maintain vehicle stability and passenger comfort, especially on uneven roads.
- **Preserved Steering and Braking Control:** Contribute to more precise steering and effective braking, particularly when navigating curves.



Image 5.1: A vehicle driving on a road, representing improved performance after strut replacement.

6. MAINTENANCE

Regular inspection and maintenance are crucial for the longevity and optimal performance of your strut assemblies.

- **Visual Inspection:** Periodically inspect the struts for any signs of oil leaks, physical damage, bent components, or corrosion.
- **Mounting Hardware:** Check all mounting bolts and nuts for tightness during routine vehicle inspections. Loose hardware can lead to noise and premature wear.
- **Dust Boots:** Ensure the dust boots are intact and free from tears to protect the piston rod from dirt and debris.
- **Alignment:** Maintain proper wheel alignment as recommended by your vehicle manufacturer to prevent uneven tire wear and undue stress on suspension components.
- **Cleaning:** Keep the strut assemblies free from excessive dirt and road grime, especially around seals.

7. TROUBLESHOOTING: WHEN TO REPLACE STRUT ASSEMBLIES

Strut assemblies are wear items and will eventually require replacement. Pay attention to the following indicators that suggest your struts may need to be replaced:

- **Excessive Bouncing:** The vehicle continues to bounce significantly after hitting bumps or dips in the road.
- **Poor Handling and Stability:** Reduced control, excessive body roll during turns, or a general feeling of instability.
- **Nose Dives during Braking:** The front of the vehicle dips excessively when braking.
- **Uneven Tire Wear:** Scalloped or cupped wear patterns on tires can indicate worn suspension components.
- **Visually Damaged Struts:** Visible oil leaks from the strut body, bent piston rods, or damaged coil springs.
- **High Mileage:** Typically, struts may need inspection or replacement after 50,000 miles, depending on driving

conditions and vehicle usage.



Image 7.1: Visual indicators of when shock absorbers may need replacement, including excessive bouncing and uneven tire wear.

8. SPECIFICATIONS

Attribute	Value
Brand Name	maXpeedingrods
Manufacturer Part Number	IE43RA
Item Weight	20800 Grams
Manufacturer	maXpeedingrods
ASIN	B0GGRLRKZ1
Piston Rod Material	Premium 45# Steel
Damper Pipe Material	Premium Q235 Carbon Steel
Damper Pipe Thickness	3mm
Coil Spring Material	55Crsi
Damping Oil Type	ENEOS
Operating Temperature Range	-40°C to 80°C

9. WARRANTY AND SUPPORT

maXpeedingrods is committed to product quality and customer satisfaction.

- **Warranty:** A 1-year limited warranty is provided for quality-related issues, effective from the date of purchase.
- **Technical Support:** Lifetime technical support is available to assist with any questions or concerns regarding the product.

For warranty claims, technical assistance, or any other inquiries, please contact maXpeedingrods customer support through their official channels or the retailer from whom the product was purchased.

