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maXpeedingrods HY45

maXpeedingrods HY45 Coilovers Instruction Manual

For BMW E90, E91, E92, E93 (2006-2013)

[Introduction](#)[Safety](#)[Package Contents](#)[Specifications](#)[Compatibility](#)[Installation](#)[Adjustment](#)[Maintenance](#)[Troubleshooting](#)[Support](#)

1. INTRODUCTION

This manual provides essential information for the installation, adjustment, and maintenance of your maXpeedingrods HY45 Height Adjustable Coilovers. These coilovers are designed to enhance the performance and aesthetics of your BMW 3 Series by allowing precise control over ride height and improving handling characteristics. Please read this manual thoroughly before beginning any installation or adjustment procedures.

2. SAFETY INFORMATION

WARNING: Improper installation or adjustment of suspension components can lead to serious injury or death. Professional installation is highly recommended.

- Always wear appropriate personal protective equipment, including safety glasses and gloves.
- Ensure the vehicle is securely supported on jack stands or a lift before working underneath it. Never rely solely on a jack.
- Use appropriate tools for all steps. Do not use damaged or incorrect tools.
- Do not modify any components of the coilover kit.
- After installation, ensure all fasteners are torqued to manufacturer specifications.
- A professional wheel alignment is mandatory after any suspension component replacement or ride height adjustment.

3. PRODUCT OVERVIEW AND PACKAGE CONTENTS

Your maXpeedingrods HY45 Coilover Kit includes the following components:

- 2 x Front Coilover Assemblies
- 2 x Rear Coilover Assemblies (shocks and springs)
- 1 x Pair of Adjustment Wrenches

Note: Top mounts are not included and must be reused from your original suspension or purchased separately.



Image: All components of the maXpeedingrods HY45 Coilover Kit, including front and rear coilover assemblies and adjustment wrenches.



Image: Detailed view highlighting the 55CrSi steel springs, durable TPV dust boots, and sturdy lower brackets, key features of the coilover design.

4. SPECIFICATIONS

Feature	Detail
Model Number	HY45
Application	BMW 3 Series E90, E91, E92, E93 (2006-2013)
Front Strut Diameter	50mm (Confirm before purchase)
Spring Material	High-Tensile 55CrSi Steel
Front Spring Rate	8 kg/mm (448 lbs/in) + 1 kg/mm (56 in/lbs)
Rear Spring Rate	9.5 kg/mm (532 lbs/in)
Spring Durability	Less than 0.04% distortion after 600,000 tests
Dust Cover Material	Durable TPV Rubber
Lower Bracket Material	Carbon Steel
Item Weight	Approximately 42.9 pounds (total package)
Product Dimensions	27.95 x 20.08 x 7.87 inches (package)

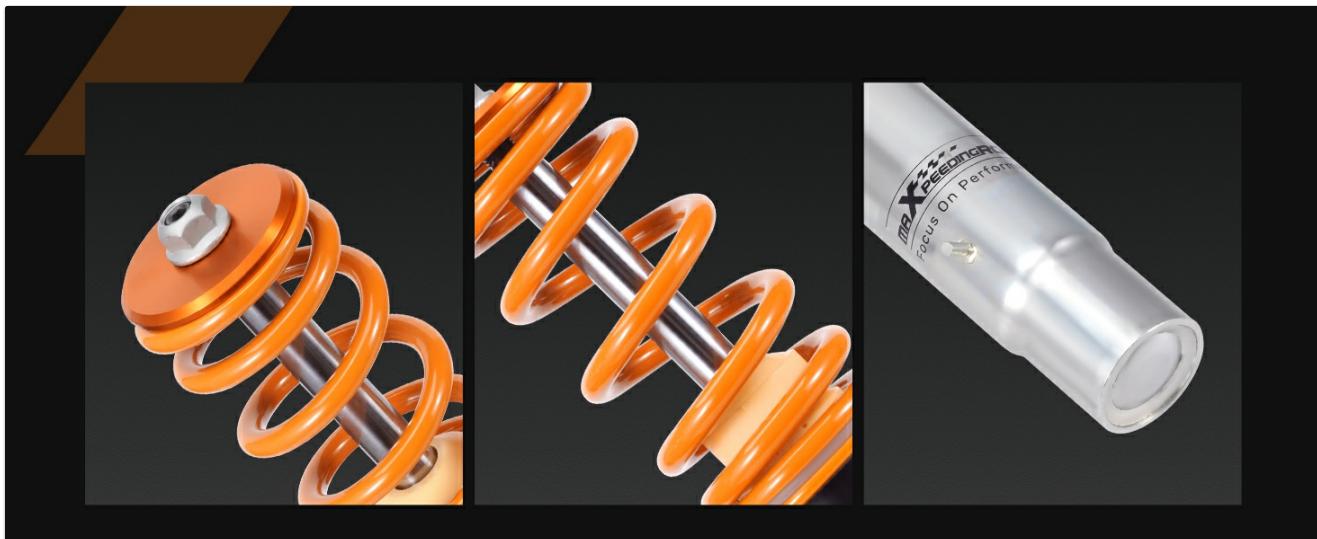


Image: Illustration detailing the high-tensile 55CrSi springs and their specific front and rear spring rates.

5. VEHICLE COMPATIBILITY

Compatible Models:

- BMW 3 Series E90 (Sedan) 2005-2013
- BMW 3 Series E91 (Wagon) 2005-2013
- BMW 3 Series E92 (Coupe) 2005-2013
- BMW 3 Series E93 (Convertible) 2005-2013

Incompatible Models:

- BMW 325i E92 Coupe
- BMW 335i E92 Coupe
- BMW E93 330d
- BMW 320d, 318d
- All M3 models
- All-wheel drive (AWD) models

Important: Please verify your vehicle's front strut diameter is 50mm before purchase. This kit is not compatible with 52mm struts.

6. INSTALLATION GUIDE

The installation of coilovers requires specialized tools and automotive knowledge. It is strongly recommended that installation be performed by a qualified professional technician.

General Installation Steps (Professional Installation Recommended):

1. **Preparation:** Park the vehicle on a level surface. Engage the parking brake. Gather all necessary tools and safety equipment.
2. **Vehicle Lift and Wheel Removal:** Safely lift the vehicle using a hydraulic lift or jack stands. Remove the wheels.
3. **OEM Suspension Removal:** Carefully disconnect and remove the original shock absorbers and springs. This

typically involves detaching brake lines, ABS sensors, sway bar links, and unbolting the top mount and lower strut/shock mounts.

4. **Coilover Assembly (if required):** If your kit requires reusing OEM top mounts, transfer them to the new coilover assemblies. Ensure all components are correctly oriented and secured.
5. **Coilover Installation:** Install the new coilover assemblies into the vehicle. Secure the top mounts and lower mounts. Reattach all disconnected components (brake lines, ABS sensors, sway bar links). Ensure no lines or wires are pinched.
6. **Initial Height Adjustment:** Before lowering the vehicle, perform an initial height adjustment. Refer to Section 7 for detailed adjustment instructions.
7. **Final Checks:** Lower the vehicle carefully. Torque all fasteners to the vehicle manufacturer's specifications. Reinstall wheels and torque lug nuts.
8. **Post-Installation:** Drive the vehicle for a short distance to allow the suspension to settle. Re-check all fasteners for tightness. A professional wheel alignment is crucial after installation to ensure proper handling and tire wear.



Image: An assembled front coilover unit and a separate rear shock absorber, illustrating the components before installation.

7. HEIGHT ADJUSTMENT

The maXpeedingrods HY45 Coilovers allow for adjustable ride height. Use the provided wrenches to make adjustments.

Adjustment Procedure:

1. **Lift Vehicle:** Safely lift the vehicle to relieve pressure from the suspension.
2. **Loosen Locking Collars:** Use the larger wrench to loosen the locking collar located directly below the spring perch.
3. **Adjust Spring Perch:** Use the smaller wrench to turn the spring perch. Turning clockwise will lower the vehicle; turning counter-clockwise will raise it. Make small, even adjustments to both sides of the vehicle (front or rear) to maintain balance.
4. **Tighten Locking Collars:** Once the desired height is achieved, firmly tighten the locking collar against the spring perch using the wrenches. This prevents the perch from moving during operation.
5. **Lower Vehicle and Settle:** Carefully lower the vehicle and allow the suspension to settle by driving a short distance.
6. **Measure and Fine-tune:** Measure the ride height at all four corners. Repeat the adjustment process as needed until the desired and even ride height is achieved.
7. **Wheel Alignment:** After any significant height adjustment, a professional wheel alignment is absolutely necessary to ensure correct steering geometry and prevent premature tire wear.



Image: A close-up view of the coilover's threaded body, spring perch, and locking collars, which are used for height adjustment.

8. MAINTENANCE

Regular inspection and maintenance will prolong the life and performance of your coilovers.

- **Regular Inspection:** Periodically inspect the coilovers for any signs of damage, leaks, or corrosion. Check the dust boots for tears.
- **Cleanliness:** Keep the coilover threads and components clean from dirt, salt, and debris, especially in harsh weather conditions. This helps prevent corrosion and ensures smooth height adjustment.
- **Fastener Torque:** After the initial settling period and periodically thereafter, re-check the torque of all mounting bolts and locking collars.
- **Alignment:** Maintain proper wheel alignment as recommended by your vehicle manufacturer, especially after any ride height changes.

9. TROUBLESHOOTING

If you experience issues with your coilovers, consider the following common troubleshooting steps:

- **Unusual Noises (Clunking/Rattling):**
 - Check all mounting bolts and nuts for proper tightness.
 - Ensure locking collars are securely tightened against the spring perches.
 - Inspect for any loose components or contact between the coilover and other vehicle parts.
- **Uneven Ride Height:**
 - Re-measure the ride height at all four corners.
 - Adjust the spring perches as described in Section 7 to achieve an even height.
 - Ensure the vehicle has been driven to allow the suspension to settle after adjustments.
- **Poor Handling/Steering Issues:**
 - Verify that a professional wheel alignment has been performed after installation or significant height changes.
 - Check tire pressures.
 - Ensure all suspension components are correctly installed and torqued.
- **Leaking Shock Absorber:**
 - A small amount of oil residue can be normal, but significant oil leakage indicates a faulty shock. Contact maXpeedingrods support.

If problems persist after performing these checks, please contact maXpeedingrods customer support for further assistance.

10. WARRANTY AND CUSTOMER SUPPORT

maXpeedingrods is committed to providing high-quality products and excellent customer service. For any questions, technical assistance, or warranty inquiries regarding your HY45 Coilovers, please contact maXpeedingrods customer support.

You can typically find contact information on the official maXpeedingrods website or through your purchase platform. Please have your product model number (HY45) and purchase details ready when contacting support.



Image: maXpeedingrods emphasizes easy installation, expert engineering support, and a customer-centric approach to service.

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Model: HY45

Related Documents - HY45

 MAXPEEDINGRODS 3-Inch Front/Rear Lift Kit Installation for Jeep Grand Cherokee WK (2005-2010) Installation instructions for the MAXPEEDINGRODS 3-inch front and rear lift kit designed for Jeep Grand Cherokee WK models from 2005 to 2010. Includes parts list and step-by-step guidance.	 GMC Sierra 1500 Axle Lowering Drop Flip Kit Installation Guide maXpeedingrods Detailed installation instructions and kit contents for the maXpeedingrods Axle Lowering Drop Flip Kit, designed to lower the rear of GMC Sierra 1500 trucks by up to 7 inches. Includes step-by-step guidance and maintenance tips.
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	<p>Control Arms Installation Instructions for Honda Accord, Acura TL/TSX - maXpeedingrods CA-ACC-0813-LC</p> <p>Comprehensive installation guide for maXpeedingrods adjustable control arms (CA-ACC-0813-LC) for Honda Accord (2008-2013) and Acura TL/TSX (2009-2013). Includes front and rear arm installation steps for adjusting camber, toe, and setback.</p>
	<p>maXpeedingrods Car Stereo Installation and Troubleshooting Guide for Honda Accord (2003-2007)</p> <p>Comprehensive guide for installing and troubleshooting the maXpeedingrods Double Din Car Stereo for Honda Accord models from 2003 to 2007. Covers cable connections, component identification, and common issues with solutions, supporting features like Apple CarPlay, Android Auto, GPS, and Bluetooth.</p>
	<p>MAXPEEDINGRODS Air Spring Kit Installation Guide for GMC Sierra & Chevrolet Silverado 1500</p> <p>Comprehensive installation guide for the MAXPEEDINGRODS Rear Air Helper Spring Leveling Kit, compatible with GMC Sierra 1500 and Chevrolet Silverado 1500 (1999-2007). Includes a detailed parts list, pre-installation warnings, step-by-step assembly instructions, and final checks.</p>
	<p>Installation Instructions: Tie Rods and Drop Links for Lincoln LS & Ford Thunderbird</p> <p>Comprehensive installation guide for maXpeedingrods adjustable tie rods and rear sway bar end links, designed for Lincoln LS (2000-2006) and Ford Thunderbird (2002-2005) models. Includes kit contents and step-by-step instructions.</p>