

## SCITOO 172113

# SCITOO Front Strut Assembly Instruction Manual

Model: 172113

## 1. INTRODUCTION

This instruction manual provides essential information for the proper installation, operation, and maintenance of your SCITOO Front Strut Assembly. Designed for specific Buick Rendezvous and Pontiac Aztek models, this assembly is engineered to restore your vehicle's suspension performance, offering a smooth and stable ride. Please read this manual thoroughly before beginning any installation or maintenance procedures.



Image 1.1: Two SCITOO Front Strut Assemblies, ready for installation.

## 2. PRODUCT COMPONENTS

The SCITOO Front Strut Assembly is a complete unit, designed for straightforward replacement. It includes all necessary components pre-assembled:

- **Strut:** The primary shock-absorbing component.
- **Coil Spring:** Supports the vehicle's weight and absorbs road impacts.
- **Strut Mount:** Connects the strut to the vehicle's chassis.
- **Boot:** Protects the strut shaft from dirt and debris.
- **Bumper Kit:** Prevents harsh bottoming out of the suspension.

# HOW TO INSTALL

- 1. Prepare tools and materials
- 2. Park the vehicle safely
- 3. Release the brakes
- 4. Remove the tires
- 5. Find the struts connection points
- 6. Remove the old shock struts
- 7. Install the new shock struts
- 8. Reinstall the tires

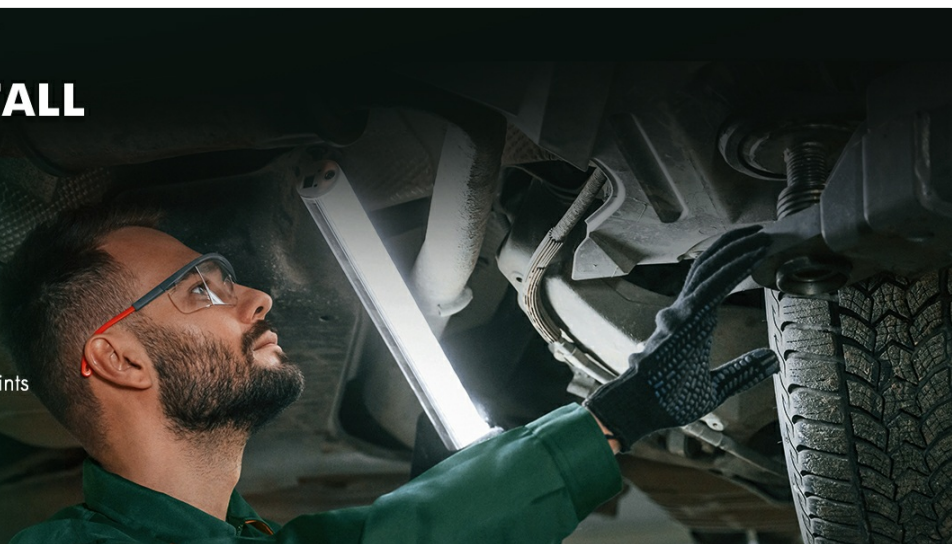


Image 2.1: Exploded view illustrating the various components of the SCITOO Complete Strut Assembly.



Image 2.2: Detailed view of the strut assembly highlighting the upper strut mount, coil spring, and premium strut.

## 3. VEHICLE COMPATIBILITY

This SCITOO Front Strut Assembly (OEM Part Number 172113) is compatible with the following vehicle models:

Year	Make	Model	Engine
2002-2005	Buick	Rendezvous	3.4L
2006-2007	Buick	Rendezvous	3.5L
2004-2006	Buick	Rendezvous	3.6L
2001-2005	Pontiac	Aztek	3.4L

Before purchasing and installation, please verify compatibility by checking the OEM part number and your vehicle's year, make, and model.



Image 3.1: Visual representation of vehicle compatibility.

## 4. SAFETY INFORMATION

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Always prioritize safety when working on your vehicle's suspension system. Improper installation can lead to serious injury or vehicle damage. If you are not confident in your ability to perform this installation, seek professional assistance.

- **Verify Compatibility:** Carefully check the OEM part number and your vehicle's year, make, model, and engine to ensure correct fitment.
- **Shipping:** Due to packaging requirements, strut assemblies may sometimes be shipped in two separate packages. Ensure all components are received before starting installation.
- **Disclaimer:** All references to brand names and models are for compatibility purposes only and do not imply any affiliation or endorsement by the original manufacturer.
- **Personal Protective Equipment:** Always wear appropriate safety gear, including safety glasses and gloves, during installation.
- **Vehicle Support:** Use jack stands to securely support the vehicle after lifting it. Never rely solely on a jack.

## 5. INSTALLATION (SETUP)

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The SCITOO Front Strut Assembly is designed for easy, direct-fit installation, requiring no spring compressor or specialized tools for assembly. However, standard automotive tools are necessary for removal and replacement.

### Required Tools and Materials:

- Vehicle Jack and Jack Stands
- Wheel Chocks
- Socket Wrench Set
- Torque Wrench
- Pry Bar (optional, for leverage)

- Penetrating Oil
- Safety Glasses and Gloves

## Installation Steps:

1. **Prepare Tools and Materials:** Gather all necessary tools and ensure you have a clean, well-lit workspace.
2. **Park Vehicle Safely:** Park the vehicle on a level, firm surface. Engage the parking brake and place wheel chocks behind the rear wheels.
3. **Loosen Lug Nuts:** Slightly loosen the lug nuts on the front wheels while the vehicle is still on the ground.
4. **Lift and Secure Vehicle:** Using a jack, lift the front of the vehicle and place it securely on jack stands. Remove the front wheels.
5. **Remove Brake Line and ABS Sensor Clips:** Carefully detach any brake lines or ABS sensor wires clipped to the old strut assembly. Do not disconnect the lines themselves.
6. **Disconnect Stabilizer Bar Link:** Disconnect the stabilizer bar end link from the strut.
7. **Remove Lower Strut Bolts:** Remove the bolts connecting the bottom of the strut to the steering knuckle.
8. **Remove Upper Strut Mount Nuts:** In the engine bay, locate and remove the nuts securing the top of the strut mount to the vehicle's chassis. Support the strut assembly as you remove the last nut.
9. **Remove Old Strut Assembly:** Carefully remove the old strut assembly from the vehicle.
10. **Install New Strut Assembly:** Position the new SCITOO strut assembly into place. Secure the upper strut mount nuts first, then align and secure the lower strut bolts to the steering knuckle.
11. **Reconnect Components:** Reconnect the stabilizer bar end link, brake line, and ABS sensor clips.
12. **Reinstall Wheels:** Reinstall the front wheels and hand-tighten the lug nuts.
13. **Lower Vehicle:** Carefully lower the vehicle to the ground.
14. **Torque Lug Nuts:** Torque the lug nuts to the manufacturer's specified settings.
15. **Final Check:** Double-check all connections and ensure everything is securely fastened. It is recommended to have a wheel alignment performed after strut replacement.



Image 5.1: Visual guide for the installation process of the strut assembly.





Image 5.2: A mechanic performing an inspection, highlighting the ease of installation for the strut assembly.

## 6. OPERATING CHARACTERISTICS

After installing new SCITOO Front Strut Assemblies, you should experience improved vehicle handling, stability, and ride comfort. The new struts are designed to:

- **Enhance Tire Grip:** Maintain consistent contact between tires and the road surface, especially over uneven terrain.
- **Reduce Vehicle Tilt:** Minimize body roll during turns, contributing to better control.
- **Shorten Braking Distance:** Improve braking efficiency by preventing excessive nose-dive and maintaining tire contact.
- **Absorb Road Vibrations:** Provide a quieter and more comfortable ride by effectively dampening impacts from bumps and potholes.

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Video 6.1: This video demonstrates the performance difference between SCITOO struts and worn struts, highlighting improved tire grip, reduced vehicle tilt during turns, and shorter braking distances for enhanced safety and stability.

## COMPATIBLE WITH:

### Compatible With Models:

Year	Make	Model	Engine
• 2002-2005	For Buick	Rendezvous	3.4L
• 2006-2007	For Buick	Rendezvous	3.5L
• 2004-2006	For Buick	Rendezvous	3.6L
• 2001-2005	For Pontiac	Aztek	3.4L

### Reference Number:

- 172113

Image 6.1: Visual comparison of vehicle performance with new struts, showing improvements in control, braking, and overall driving experience.

## 7. MAINTENANCE

Proper maintenance of your vehicle's suspension components can extend their lifespan and ensure continued safe operation. While SCITOO strut assemblies are designed for durability, regular checks are recommended:

- **Regular Inspections:** Periodically inspect the struts for signs of fluid leaks, bent rods, or damaged boots.
- **Tire Wear:** Uneven tire wear can indicate suspension issues. Check tire pressure and tread wear regularly.
- **Alignment:** It is highly recommended to have a professional wheel alignment performed after replacing struts to ensure proper vehicle handling and tire longevity.
- **Component Check:** Ensure all nuts and bolts related to the strut assembly remain tightened to specifications.

## 8. TROUBLESHOOTING

If you experience any issues after installing your new SCITOO Front Strut Assemblies, consider the following common problems and solutions:

- **Noise (Clunking/Rattling):**
  - **Cause:** Loose mounting bolts, damaged sway bar links, or improper installation.
  - **Solution:** Re-check all bolts for proper torque. Inspect sway bar links for wear or damage.
- **Poor Ride Quality (Bouncy/Harsh):**
  - **Cause:** Incorrect part for vehicle, or other worn suspension components.
  - **Solution:** Verify correct part number for your vehicle. Inspect other suspension parts like control arms or bushings.
- **Uneven Ride Height:**
  - **Cause:** Incorrect installation, or issues with other suspension components.
  - **Solution:** Ensure struts are seated correctly. Check for damaged springs or mounts on other wheels.
- **Steering Issues (Pulling/Loose Steering):**
  - **Cause:** Misalignment after installation.
  - **Solution:** Have a professional wheel alignment performed.

For persistent issues, consult a certified automotive technician.

## 9. SPECIFICATIONS

Key specifications for the SCITOO Front Strut Assembly:

Feature	Detail
Brand	SCITOO
Auto Part Position	Front
OEM Part Number	172113

Feature	Detail
Material	Alloy Steel
Item Weight (per pair)	Approximately 51.5 pounds
Product Dimensions	26.18 x 8.58 x 8.46 inches
Special Features	Easy Installation, OEM quality

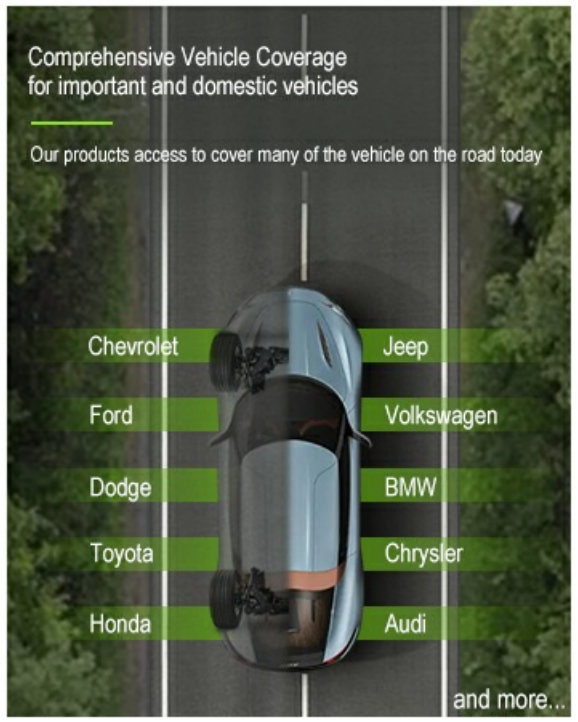


Image 9.1: Diagram illustrating the key dimensions of the strut assembly.


## 10. WARRANTY AND SUPPORT

SCITOO is committed to providing quality automotive parts. For any questions regarding your Front Strut Assembly, including installation, troubleshooting, or warranty information, please contact SCITOO Customer Support. You can typically find contact information on the product packaging or through the official SCITOO website. Please have your product model number (172113) and purchase details ready when contacting support.



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### Related Documents - 172113

	<p><a href="#">SCITOO Towing Mirrors Wiring Guide - Part 116466</a></p> <p>Comprehensive wiring pinout and function guide for SCITOO Towing Mirrors (Part 116466). This document details the connections for 2008-2016 Ford F-Series Super Duty trucks, covering signal lights, heating elements, sensors, and directional controls.</p>
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