



Ford F-150 09+



Properly installing suspension components is essential to ensure the safety and performance of your vehicle. This comprehensive installation guide provides step-by-step instructions for both front and rear suspension components. To guarantee a successful installation, please carefully follow these instructions and gather the necessary tools and equipment beforehand.

Required Tools and Equipment:

- Vehicle Jack or Lift*
- Vehicle Jack Stands*
- Standard Socket/Wrench Set
- Metric Socket/Wrench Set
- T45 Torque Bit
- ¼" Drill Bit
- RST Universal Reservoir Mounting Kit

Estimated Time Required:

- Front Suspension: Approximately 1-3 hours
- Rear Suspension: Approximately 1-2 hours

* Ensure Lift/Jack/Stands are rated for vehicle weight

Warnings and Advice

Prioritize Safety:

- Always prioritize safety by wearing appropriate personal protective equipment (PPE), including gloves and safety glasses.
- Perform all work on a stable and level surface and ensure the vehicle is securely supported on jack stands before any work beneath it.
- Never work under a vehicle supported solely by a jack.

Use Proper Tools and Equipment:

- Ensure you possess all the necessary tools and equipment before commencing the installation, as outlined in the introduction.
- Utilize high-quality, well-maintained tools, as damaged or worn tools can lead to accidents.

Torque Settings Matter:

- Make sure to torque all bolts and fasteners to the manufacturer's specified values, as over-tightening or under-tightening can result in component failure or safety hazards.
- Use a calibrated torque wrench to achieve accurate torque settings.

Brake Line Precautions:

- Exercise extreme caution when working near brake lines to prevent damage or stress during installation or removal.
- Post-reinstallation, meticulously inspect brake lines for correct routing and secure attachment.

Alignment:

- Ensure proper alignment, critical for vehicle handling and tire wear, by scheduling a professional alignment after suspension component installation.

Handle Threads with Care:

- Treat threads delicately, particularly when dealing with nuts and bolts during installation and removal. Cross-threading or over-tightening can harm threads, compromise safety, and dramatically increase install time.

Lubrication and Anti-Seize:

- Apply suitable lubrication to moving components and pivot points as specified by the manufacturer.

- Utilize anti-seize compound on bolts and threads to prevent corrosion and simplify future maintenance.

Double-Check Everything:

- Prior to concluding any installation step, verify alignment, torque settings, and the proper seating of components.
- Confirm that all components are correctly reassembled and no steps have been overlooked.

Seek Professional Assistance:

- If you encounter difficulties during the installation, do not hesitate to seek professional assistance.

Regular Maintenance and Inspections:

- After installation, routinely inspect suspension components for wear, loose fasteners, or damage.
- For on road driving, clean with soap and water every couple of months. Clean with soap and water after driving off road.
- Apply automotive wax to the bodies to aid in protection and longevity.

Contact Technical Support:

- For questions, concerns, or further assistance during the installation, please contact our customer support for technical assistance.

Radflo Suspension Technology

10840 Talbert Ave, Fountain Valley, CA 92708

714 965 7828

Properly installing suspension components is crucial for vehicle safety and optimal performance. Follow these detailed instructions meticulously, adhere to torque specifications, and always prioritize safety during the installation process. For additional information or assistance, contact our customer support team.

Front Suspension Removal

1. **Remove the Tire:**
 - **Tool:** M21 Socket
 - **Tip 1:** Ensure the vehicle is securely supported on jack stands during this step.
 - **Tip 2:** Loosen the lug nuts slightly before lifting the vehicle to make them easier to remove.
 - **Double-check:** Never work under a vehicle supported solely by a jack.
 - **Warning:** Always prioritize safety and use jack stands when lifting a vehicle.
2. **Detach Brake Line Tabs (x2): Picture 1A**
 - **Tool:** M10 Socket
 - **Tip 1:** Use cable ties or brake line clips to temporarily secure the brake lines out of the way.
 - **Tip 2:** Exercise caution not to damage the brake lines during this process.
 - **Tip 3:** Confirm proper routing and secure attachment of brake lines.
 - **Double-check:** Ensure brake lines are free from tension after removal.
3. **Loosen Sway Bar Link Upper Nut (x1): Picture 1B**
 - **Tools:** M21 Wrench, T45 Torque Bit
 - **Tip 1:** If the sway bar link spins while loosening, use T45 Torque Bit to hold the link.
 - **Tip 2:** Apply penetrating oil to stubborn fasteners to ease removal.
 - **Tip 3:** Rotate the spindle to allow for easier removal.
 - **Double-check:** Confirm that the sway bar link is properly seated during reinstallation.
4. **Remove Tie Rod Nut (x1): Picture 1C**
 - **Tools:** M21 Wrench, M8 Wrench
 - **Tip 1:** Secure the tie rod end with M8 Wrench to prevent it from spinning.
 - **Tip 2:** Use a ball joint separator tool if the tie rod end is stuck.
 - **Tip 3:** Utilize an M21 ratcheting-wrench for faster installation.
 - **Double-check:** Verify proper alignment of the tie rod during reassembly.
5. **Remove Upper Control Arm Nut (x1): Picture 1D**
 - **Tools:** M18 Wrench, M8 Wrench
 - **Tip 1:** Use the M8 wrench to hold the ball joint stud while removing the nut.
 - **Tip 2:** Support the lower control arm with a jack during removal.
 - **Double-check:** Ensure the upper control arm is properly aligned upon reinstallation.
6. **Remove Lower Stud Nuts (x2): Picture 1E**
 - **Tool:** M18 Wrench
 - **Double-check:** Inspect the condition of threads and nuts for reusability.
7. **Remove Upper Top Hat Nuts (x3): Picture 1F**
 - **Tool:** M18 Wrench
 - **Tip 1:** Use a ratcheting-wrench for quicker removal
 - **Double-check:** Note top hat bolt configuration.
8. **Remove the Stock Coilover:**
 - **Tip 1:** Carefully disengage the stock coilover from its mounting points.
 - **Tip 2:** Support the lower control arm with a jack or assistant while removing fasteners.
 - **Double-check:** Ensure that all necessary stock components have been removed.

Front Suspension Installation

1. **Insert the Radflo Coilover into Top Hat Mount:**
 - **Tip 1:** Ensure correct top hat positioning.
 - **Tip 2:** Confirm the orientation of the hose for alignment purposes.
 - **Double-check:** Confirm the orientation of the top hat bolts.
2. **Install Top Hat Bolts and Washers (x3): Picture 2A**
 - **Tool:** M15 Wrench
 - **Tip 1:** Apply a small amount of blue threadlocker to prevent loosening.
 - **Tip 2:** Use the first nut to hold the coilover in place.
 - **Double-check:** Ensure the top hat bolts are properly torqued.
3. **Install Bar Pin Bolts (x2): Picture 2B**
 - **Tool:** M18 Socket
 - **Tip 1:** Ensure proper bar pin positioning and torque settings.
 - **Tip 2:** Use a jack to support the lower control arm during installation.
 - **Double-check:** Confirm the bar pin bolts and nut are correctly positioned and torqued to manufacturer specifications.
4. **Connect the Tie Rod and Install Nut (x1): Picture 2C**
 - **Tools:** M21 Wrench, M8 Wrench
 - **Tip 1:** Secure the tie rod end with M8 Wrench to prevent it from spinning.
 - **Tip 2:** Ensure proper alignment of the tie rod.
 - **Double-check:** Torque to manufacturer specifications.
5. **Connect the Sway Bar Link and Install Nut (x1): Picture 2D**
 - **Tools:** M21 Wrench, T45 Torque Bit
 - **Tip 1:** Rotate the spindle to allow for alignment with the hole and bolt.
 - **Tip 2:** Apply blue threadlocker to the sway bar link nut.
 - **Double-check:** Torque to manufacturer specifications
6. **Connect Upper Control Arm and Install Nut (x1): Picture 2E**
 - **Tools:** M18 Wrench, M8 Wrench
 - **Tip 1:** Support the lower control arm with a jack during reinstallation.
 - **Tip 2:** Apply blue threadlocker to the nut.
 - **Double-check:** Confirm alignment and torque to manufacturer specifications.
7. **Reconnect Brake Line Tabs (x2): Picture 2F**
 - **Tool:** M10 Socket
 - **Tip 1:** Inspect brake lines for any signs of damage or wear.
 - **Tip 2:** Confirm proper routing and secure attachment of brake lines.
 - **Double-check:** Torque to manufacturer specifications.
8. **Mount Reservoir Brackets: Picture 2G**
 - **Tools:** ¼" Drill Bit, M15 Socket/Wrench
 - **Tip 1:** Use a center punch to mark the drilling location accurately.
 - **Tip 2:** Lubricate the drill bit for smoother drilling.
 - **Tip 3:** Insert Self-Tapping Screws and Tighten
 - **Double-check:** Confirm proper bracket alignment before drilling.
9. **Place Reservoir on Bracket and Secure with Hose Clamp (x2): Picture 2G**
 - **Tool:** 5/16" Socket/Wrench
 - **Tip 1:** Line up Hose Clamps with ends of Reservoir Decal.
 - **Tip 2:** Don't undo the hose clamps all the way!
 - **Double-check:** Verify hose clamp tightness and reservoir stability.
10. **Reinstall the Tire:**
 - **Tool:** M21 Socket
 - **Tip 1:** Tighten lug nuts partially while on lift/jack and fully when vehicle is on the ground.

- **Tip 2:** Tighten lug nuts in a star pattern for even pressure.
- **Double-check:** Torque the lug nuts to manufacturer specifications and recheck after driving.

Rear Suspension Removal:

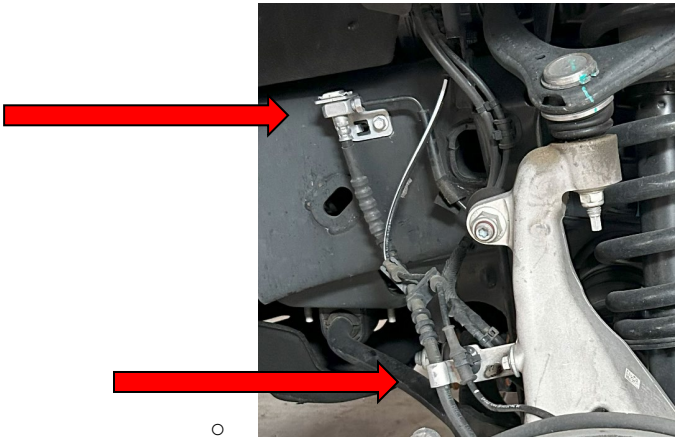
- 1. Remove the Tire:**
 - **Tool:** M21 Socket
 - **Tip 1:** Ensure the vehicle is securely supported on jack stands during this step.
 - **Tip 2:** Use a cordless impact wrench for faster lug nut removal.
 - **Double-check:** Always prioritize safety and use jack stands when lifting a vehicle.
 - **Warning:** Never work under a vehicle supported solely by a jack.
- 2. Remove Top Shock Bolt and Nut (x1): Picture 3A**
 - **Tools:** M21 Wrench, M18 Wrench
 - **Tip 1:** Apply penetrating oil to stubborn bolt threads.
 - **Tip 2:** Use a breaker bar for extra leverage on tough nuts.
 - **Double-check:** Make sure to keep this hardware.
- 3. Remove Lower Shock Bolt and Nut (x1): Picture 3B**
 - **Tools:** M18 Wrench, M14 Wrench
 - **Tip 1:** Apply a light coat of anti-seize to the bolt threads.
 - **Tip 2:** Use a breaker bar for extra leverage on tough nuts.
 - **Double-check:** Make sure to keep this hardware.
- 4. Remove the Stock Shock:**
 - **Tip 1:** Carefully disengage the stock shock from its mounting points.
 - **Tip 2:** Support the shock with a floor jack during removal.
 - **Tip 3:** Keep any stock hardware and dampers until the end of the installation.
 - **Double-check:** Ensure all stock components are removed before proceeding.

Rear Suspension Installation:

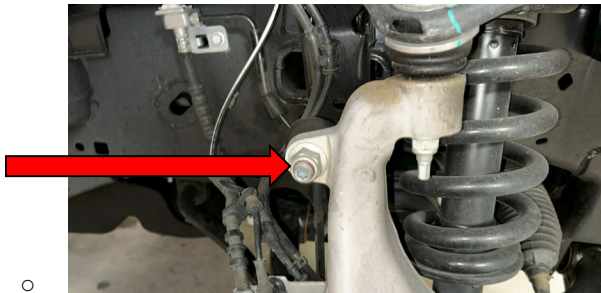
- 1. Install Radflo Piggyback:**
 - **Tip 1:** Lubricate bolt threads for smoother installation.
 - **Tip 2:** Confirm correct mounting hardware.
 - **Double-check:** Ensure the piggyback is securely attached.
- 2. Install Top Shock Bolt and Nut (x1): Picture 4A**
 - **Tools:** M21 Wrench, M18 Wrench
 - **Tip 1:** Use a wrench with a flex head for access to tight spaces.
 - **Double-check:** Torque to manufacturer specifications.
- 3. Install Lower Shock Bolt and Nut (x1): Picture 4B**
 - **Tools:** M18 Wrench, M14 Wrench
 - **Tip 1:** Apply a light coat of anti-seize to the bolt threads.
 - **Double-check:** Torque to manufacturer specifications.
- 4. Reinstall the Tire:**
 - **Tool:** M21 Socket
 - **Tip 1:** Use an accurate torque wrench or one with a digital display for precise torque readings.
 - **Tip 2:** Tighten lug nuts in a star pattern for even pressure.
 - **Double-check:** Torque the lug nuts to manufacturer specifications and recheck after driving.

Appendix:

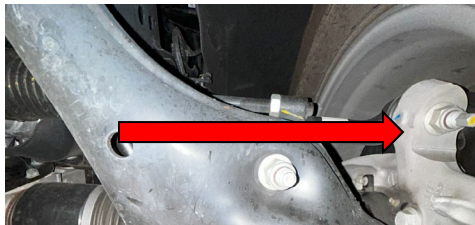
- Pictures referenced in the instructions:
 - Picture 1A



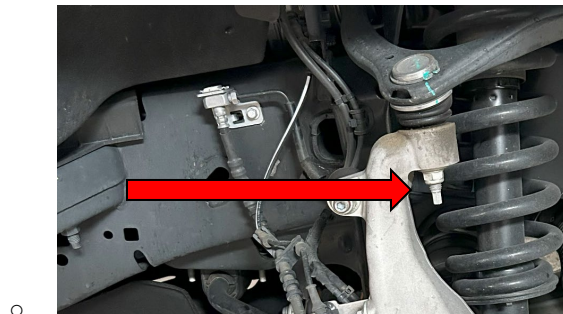
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- Picture 1B



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- Picture 1C

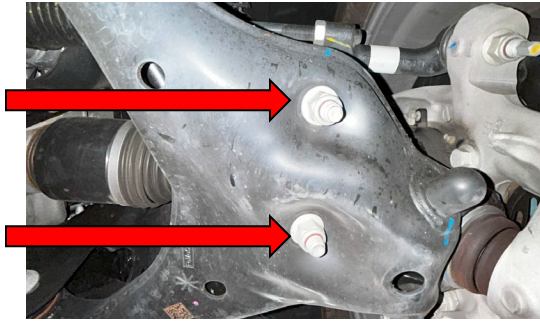


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- Picture 1D



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- Picture 1E



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- Picture 1F



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- Picture 2A

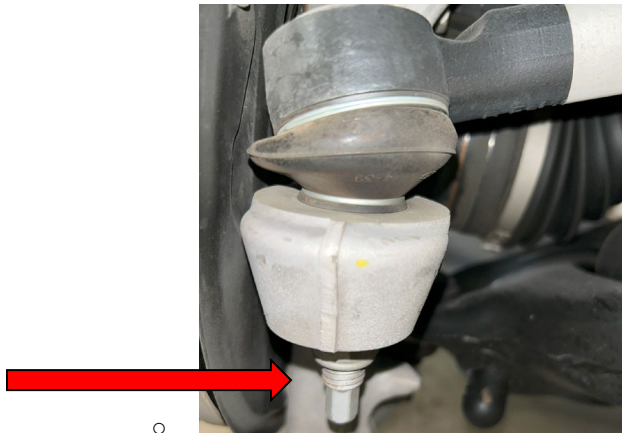


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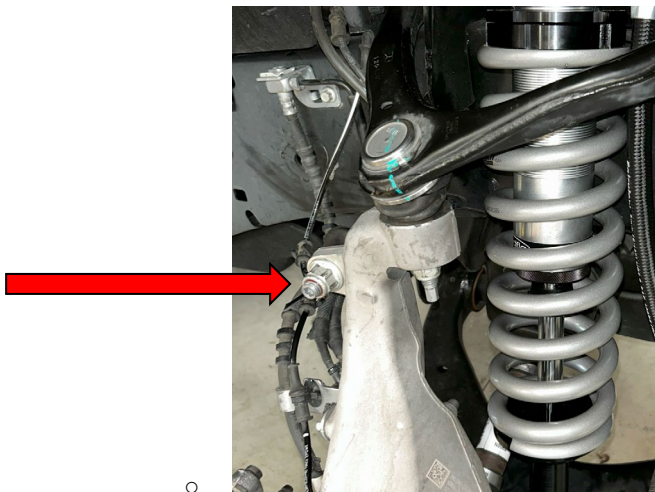
- Picture 2B



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- Picture 2C

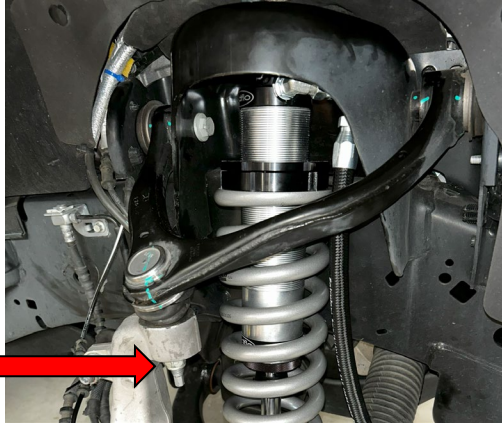


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- Picture 2D

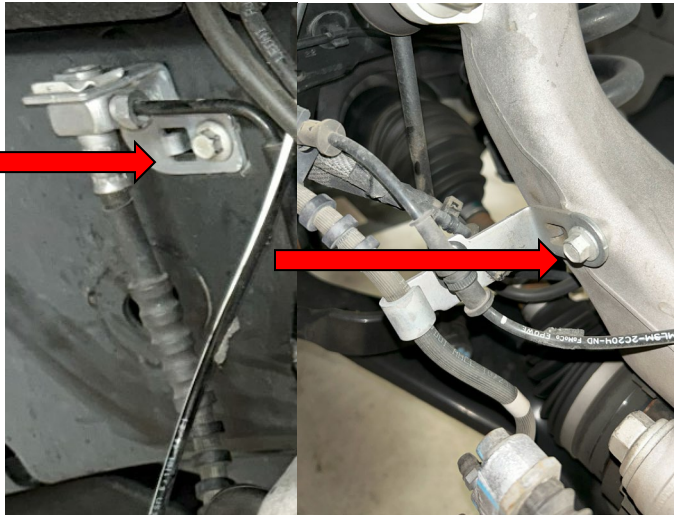


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- Picture 2E



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- Picture 2F

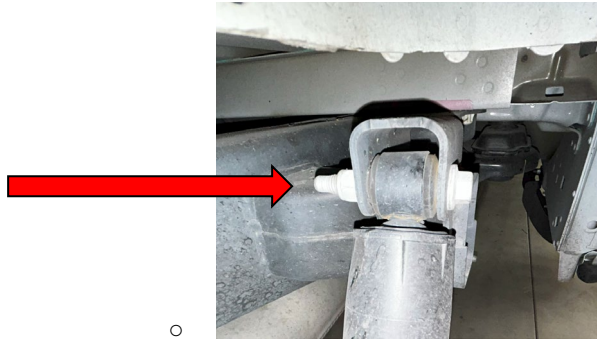


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- Picture 2G

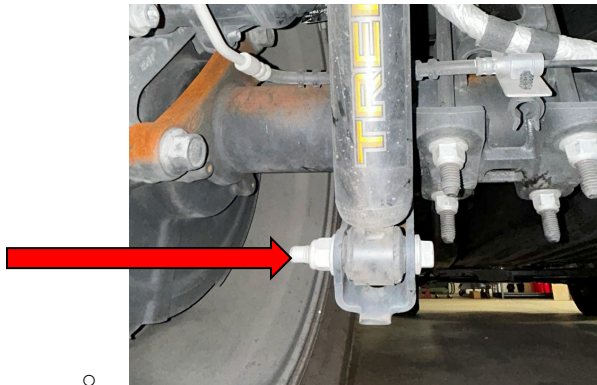


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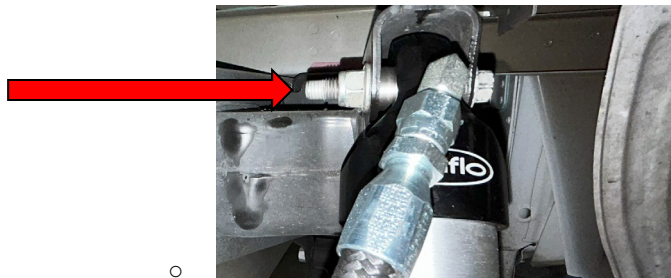
○ Picture 3A



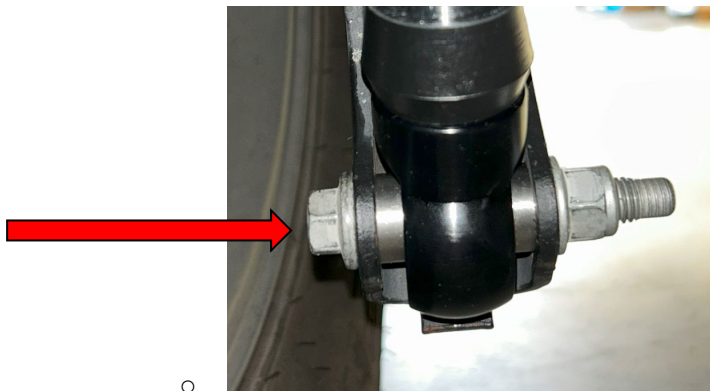
○
○ Picture 3B



○
○ Picture 4A



○
○ Picture 4B



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