



**STIFFLERS**  
CHASSIS & SUSPENSION

1511 Hancel Parkway Mooresville, IN 46158 317-837-2444

**Front Lower Control Arms for Coil-Overs**  
**1997-2004 F-150 (2WD)/1999-'04 Lightning & Harley Davidson**  
**(FLCA-FT02)**

**Basic Kit Includes:**

- (1) Driver Side Control Arm Assembly
- (1) Passenger Side Control Arm Assembly
- (2) Castle Nuts with Cotter pins
- (6) Grease Fittings

- (2) 3/8-24 x 5/8" SHCS
- (2) 3/8-24 Jam Nut
- (2) Tie Wraps
- (1) End-Link Kit
- (1) Coil Over Mounting Kit

- Required Tools:**
- Jack Stands
  - Floor Jack
  - Basic Hand Tools
  - Torque Wrench
  - Grease Gun
  - Thread Locker (242 Loctite or equivalent)

**Install Time:** Approximately 2~3hrs.

**READ THESE INSTRUCTIONS BEFORE STARTING.**

**(If you are not comfortable doing the work, please have installed by a professional.)**

**Installation:**

- 1) Raise front of truck to allow access for installation; support with jackstands on frame.
- 2) Remove front wheels.
- 3) Remove front shocks.
- 4) Disconnect brake hose bracket from control arm.
- 5) Remove OEM sway bar endlinks, they will not be reused.
- 6) Beginning with either side, loosen control arm mounting bolts but **DO NOT REMOVE**.
- 7) Remove cotter pin from lower ball joint, loosen castle nut and unscrew but **DO NOT REMOVE** (Fig.1)
- 8) Securely position floor jack under control arm and raise jack 2-3 inches. This will put a small tension load on the lower ball joint and also keep the spring securely in place when the ball joint is loosened.  
*[NOTE: Be sure to position jack out of the way as much as possible.]*
- 9) Separate ball joint by sharply striking the knuckle with a hammer. (Fig.1)
- 10) Remove castle nut.
- 11) Continue raising jack until the ball joint stud can be removed from the knuckle.
- 12) Once the ball joint has been removed, allow the upper control arm and spindle assembly to hang down being careful not to damage the brake hose.
- 13) Carefully lower jack to release spring load, remove spring once it is free.
- 14) Remove control arm.
- 15) Clean old grease and dirt from control arm frame mounts.
- 16) Install the three grease fittings into ball joint and bushings.



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- 17) Lube ball joint until grease comes from weep hole. (Fig.2)
- 18) Lube the bushings until grease comes out of the ends. Spread grease around the bushing face. (Fig.3)
- 19) Apply a small amount of new grease to control arm frame mounts.
- 20) Loosely install control arm.
- 21) Move arm up/down several times to work in grease.
- 22) Torque mounting bolts to 130 ft-lbs
- 23) If using RideTech coil-over shock (Stifflers P/N: COS-FT01) assemble as per manufacturer's directions.
- 24) Loosely install coil-over shock assembly in upper mount. If using RideTech shocks, insert nylon spacer supplied with this kit as shown. (Fig.4) **USE THIS ONLY WITH RIDETECH SHOCKS.**
- 25) Raise arm until high enough to insert ball joint stud into knuckle. Tilting the bottom of the spindle assembly outward will help to insert the ball joint. (Fig.5)
- 26) Install castle nut and torque to 98 ft-lbs. If holes are not aligned continue tightening until cotter pin can be installed.
- 27) Using supplied hardware attach coil-over shock to control arm. (Fig.6)
- 28) Repeat steps 6-27 for other side.
- 29) Place drop of thread locker on each end of stud and assemble swaybar endlinks. (Fig.7)
- 30) Attach straight side of endlinks to swaybar using supplied hardware. For OEM swaybar use large diameter reducer, use small one for Aftermarket swaybars. (Fig.8)
- 31) Attach endlinks to control arms. (Fig.9)
- 32) Using supplied tie wraps, secure brake hose to control arms. (Fig.9)
- 33) Install tires and lower truck.
- 34) **ADJUST RIDE HEIGHT**
  - Measure current ride height and confirm how much adjustment is needed to reach your desired height. (Fig.10)
  - Raise front of truck until tires are off the ground, support with jackstands on frame.
  - Loosen lock screw on lower adjuster nut (Fig.11).
  - Rotate nut up to raise truck, down to lower. One complete turn is approximately 1/8" of change. Use supplied spanner wrench to turn nut.
  - Tighten lock screw and lower the truck.
  - Confirm ride height and repeat adjustment if needed. Be sure that both side of the truck have equal measurements.
- 35) **ADJUST STEERING STOPS.**

Slowly turn the wheel full-lock to the left until it stops. Turn wheel back slightly to the right and adjust bolt until it touches the knuckle. Tighten jam nut. Check for any possible clearance issues. Repeat for other side. (Fig.12)





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Fig. 1



Fig. 2



Fig. 3



Fig. 4





Fig. 5



Fig. 6



Fig. 7



Fig. 8







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Fig. 9

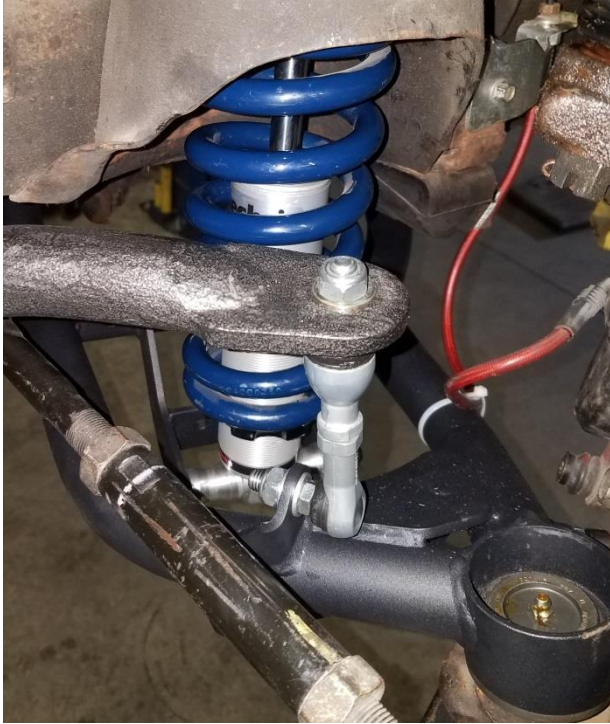


Fig. 10

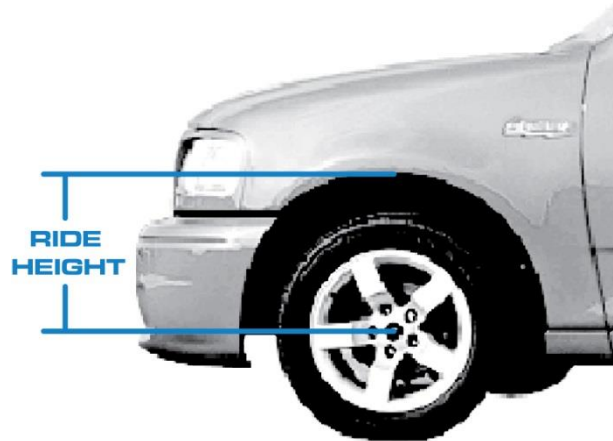


Fig. 12

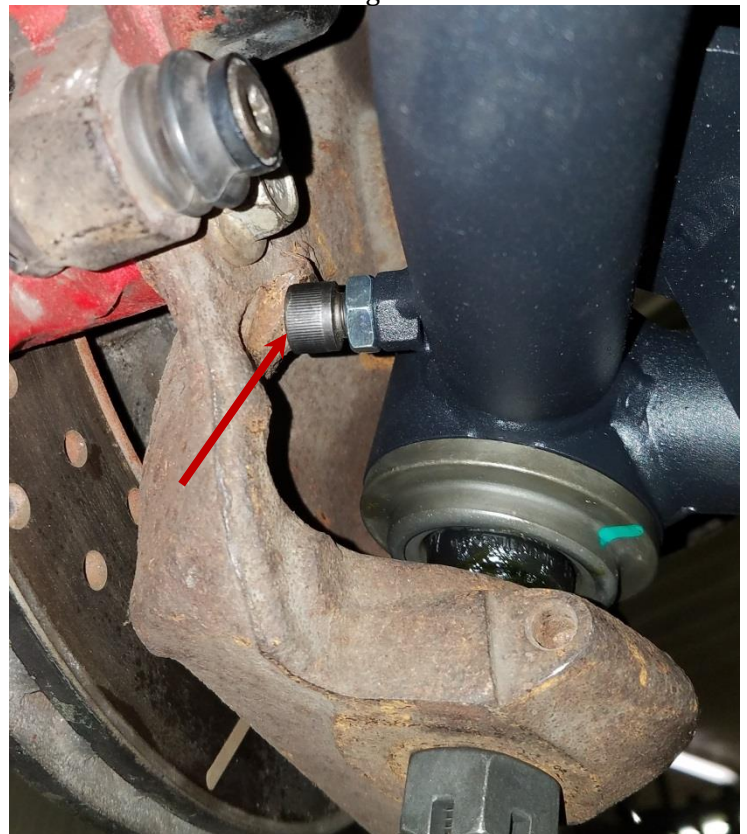


Fig. 11

