



INSTALLATION MANUAL

Vehicle: 2004-2008 Ford F150, 2WD and 4WD Race Kit
2009-2014 Ford F150, 2WD and 4WD Race Kit
2015+ Ford F150, 4WD Race Kit
2009-2014 Ford Raptor, Race Kit

Part # F10R04, F10R09, F10R15

Level 3 Install: Welding, drilling, grinding, and fabrication required

Install Time: 40 hours (approximate, times will vary depending on knowledge and skill level)

****NOTE:** Read through entire installation manual before deciding whether to attempt the procedure. Do not attempt if you do not possess the proper know-how and tools necessary to complete the installation. **Below is Baja Kits suggested install procedure, ultimately it is up to the installer/fabricator to cycle the suspension and verify all components are functioning properly before welding.**

Race Kit

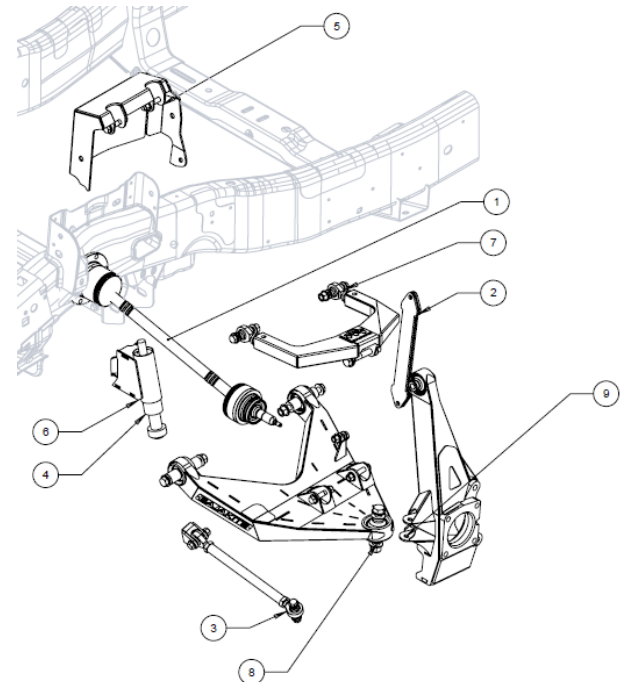
Vehicle: 2004-2014 Ford F150, 2WD and 4WD
2015+ Ford F150, 4WD
2009-2014 Ford Raptor

Parts List:

- LH & RH Upper Control Arm (UCA)
 - Rod ends (installed but may require adjustment)
 - Baja Kits badges (installed)
 - Misalignment spacers (installed)
- LH & RH Lower Control Arm (LCA)
 - Uniballs (installed)
 - Baja Kits badges (installed)
 - Misalignment spacers (installed)
 - Uniball spacers
- Steering Tie Rod
 - Billet steering clevis and CNC machined bolt
 - Adjustable tie rod with rod ends
 - Misalignment spacers
- Custom fabricated upright with uniball installed
- Extended brake lines with hardware
- King coilover and Bypass with all necessary hardware
- King bump stop and fabricated mount (depending on year of truck)
- Coilover and Bypass fabricated mount
- Limit straps with hardware and weld on tabs

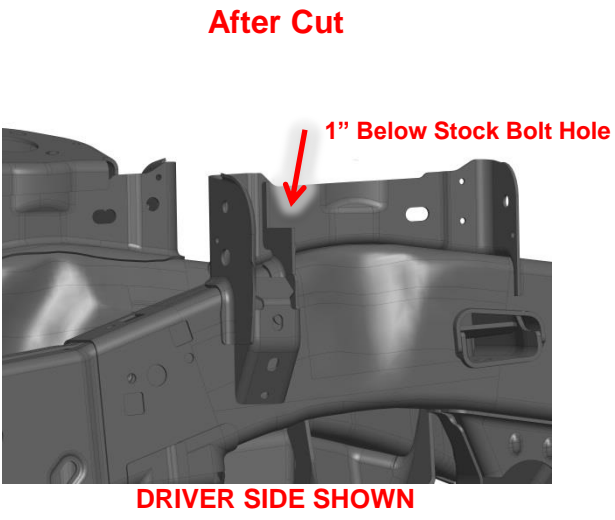
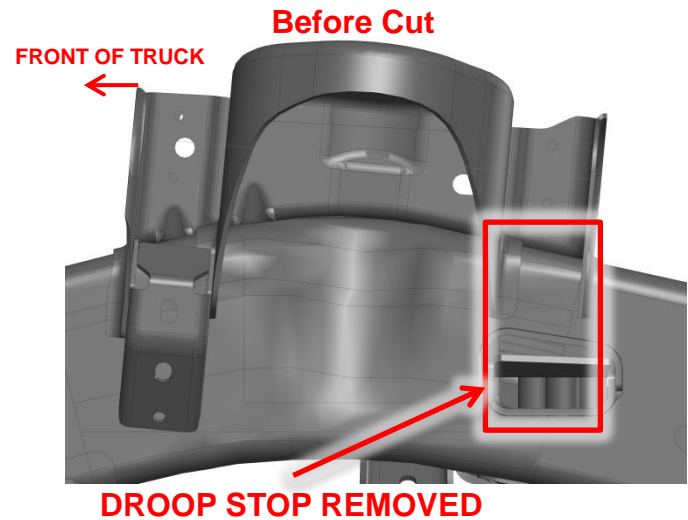
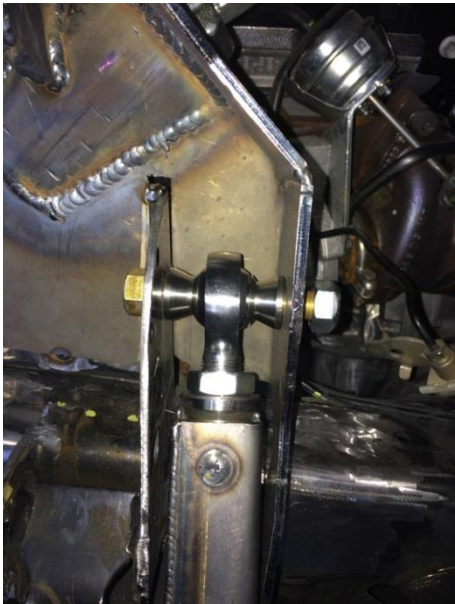
Tool List:

- Metric socket/wrench set
- SAE socket/wrench set
- 1/2" 12 point socket
- Cut off wheel
- Grinder
- Welder
- Vehicle jack and jack stands
- Various pliers
- Torque wrench



Race Kit

1. Start by jacking the front end of the truck up and placing it on jack stands. Make sure the truck is stable.
2. Remove stock suspension components, CV axle, and steering tie rod
3. Cut away the stock shock bucket as shown in the pictures below
 - Outside vertical plates will need to be trimmed to clear coil-over, but not fully cut off
 - Completely remove stock rear droop stop
- ** If truck has Eco-Boost engine, jump to page 3 **
4. Using the UCA rod end and misalign assembly, make sure the shock box is lined up correctly and is flush against the inside of the stock shock box
 - **2015+ NOTE:** Place weld washer between UCA forward misalign and pivot on both front and rear UCA pivot
5. Tack shock box into place



Race Kit

Eco-boost turbo rerouting, 2009 - 2014 ONLY

- Remove tube from passenger side turbo discharge port and disconnect from intercooler
- Turbo plumbing needs to be re-routed to give clearance for shock box
 - *See image for routing reference
- Make sure all hose clamps are fastened securely, run engine to make sure hoses do not blow off
- Return to step 4



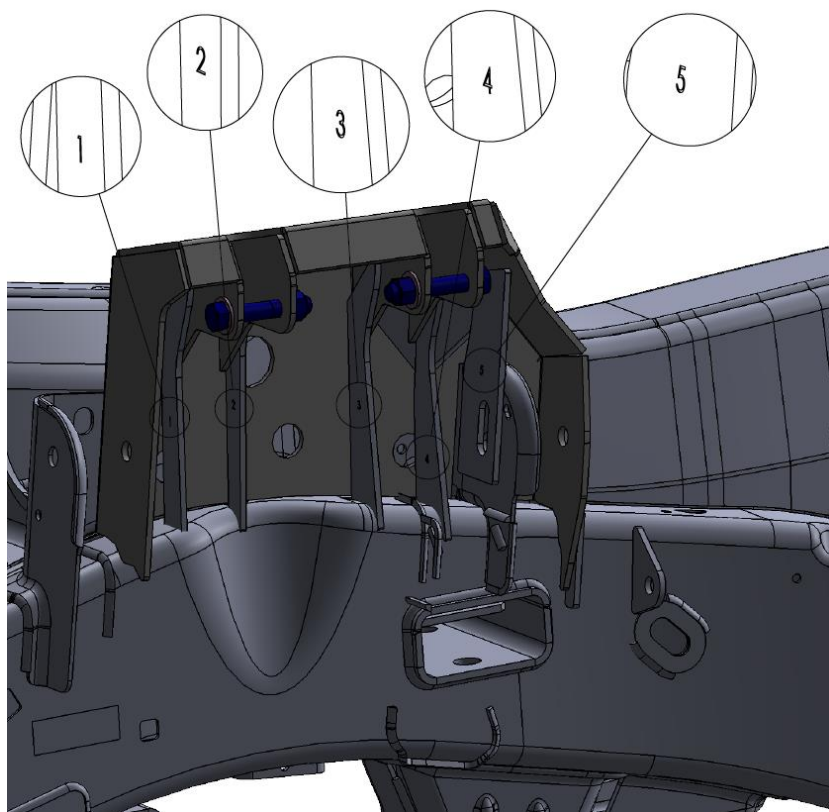
- **2015 NOTE:** For Eco-boost models, use large hose clamp to fasten both passenger turbo pipes to the cherry picker mount on the engine block
 - To keep these parts from rubbing and causing damage, it is advised to place a protective pad between the two hoses (i.e. silicon hose or neoprene rubber)



HOSE CLAMP

Race Kit

6. Locate each plate for the shock mount weldment as detailed in the picture below
 - Plate 5 is located according to the OEM rear UCA plate and top of new shock mount weldment
7. Attach the LCA weld washers to the frame as far toward the center of the vehicle as possible
8. Assemble the LCA and UCA and bolt them into place
 - Check to make sure the components cycle smoothly



Race Kit

- 9. Clear away the lower piece of the wheel well structure to give the UCA clearance throughout its travel
 - Make sure there are no points of contact with the UCA and frame or cab structure
 - See pictures
- 10. Locate bump stop mount (if supplied; some models will require custom made mount) on frame and tack into place
 - Attach steering clevis to rack and check clearance at full lock (keep clevis oriented as shown)
 - Steering boots need to be added to protect the electric steering rack



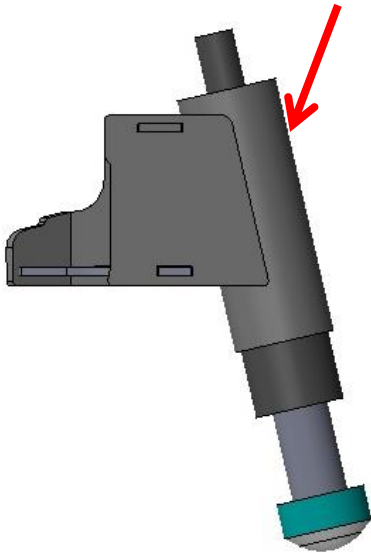
Before



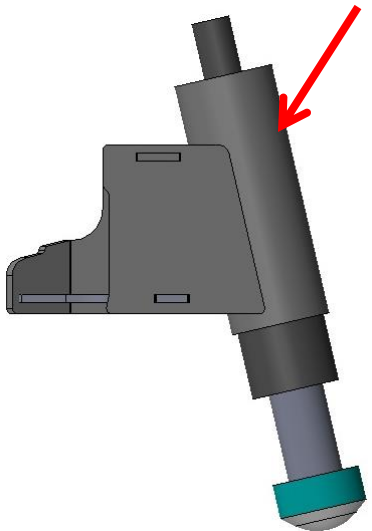
After



Approx. 4WD Can Location

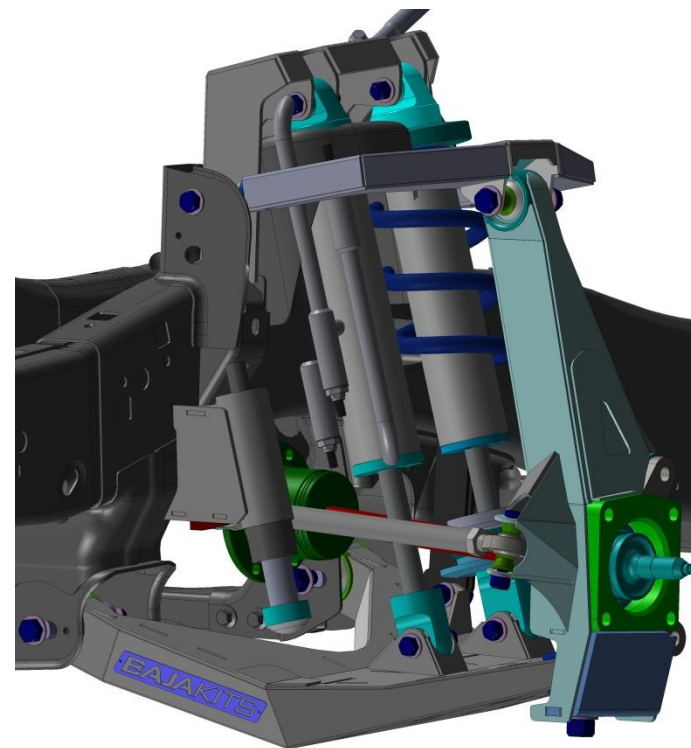
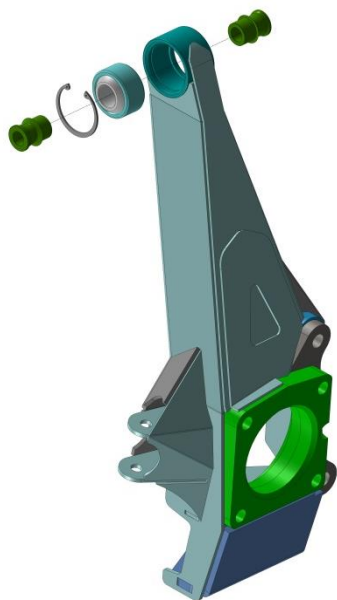


Approx. 2WD Can Location



Race Kit

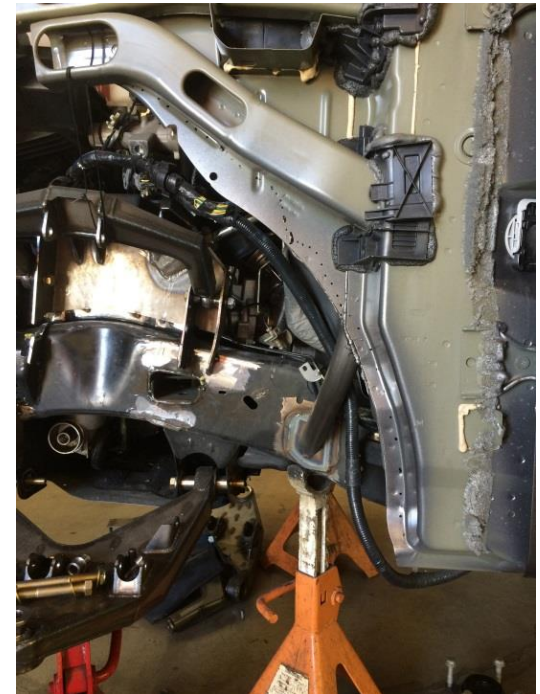
11. Assemble upright to wheel hub and then connect to LCA
12. Rebuild the axle with the extended length center section provided (**4WD only**)
 - The BajaKits "Axle Rebuild Manual" used for this procedure can be found included in the package or on our website
13. Reconnect the axle to the differential and upright (**4WD only**)
 - Remove material from the stock hub bolts as shown in the photo below
14. Connect the coil-over and bypass to the shock box using the supplied hardware and then connect to the LCA



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15. Using a jack to lift the LCA, connect the upright to the UCA and tighten the CV nut to the axle
16. Assemble and connect the steering tie rod and check motion from left lock to right lock
17. Mount wheel and tire and check clearance with wheel well and fenders
 - Trimming will be needed depending on wheel and tire combination
18. Once trimming is complete, remove wheel and weld all components into place
 - Install bump stop so that it reaches full compression at the same time shocks do (failure to do this will result in major damage)
 - Before welding, make sure to disconnect battery and prep all surfaces being welded (remove paint, dirt, and rust)
 - After welding, make sure to let the components cool completely. It is suggested to paint the raw steel with a rust preventative paint (i.e. Rust-Oleum)
19. Connect brake line using supplied brake line adaptor

DRIVER SIDE SHOWN



Race Kit

20. Once the kit is fully installed with all bolts torqued to spec, align the truck
21. Make sure to follow the BajaKits “General Maintenance Manual” that can be found on our webpage for the lifetime of the truck
 - This will ensure that the suspension will always be at its top performance level



FOR ANY TECHNICAL QUESTIONS OR
SUPPORT, PLEASE CONTACT BAJA KITS AT
949-566-8615

Rev	Description	Date	Initial
-	Initial Release	8/11/2017	JOS