



Parts Checklist:

***Box 1 * 50X12X3**

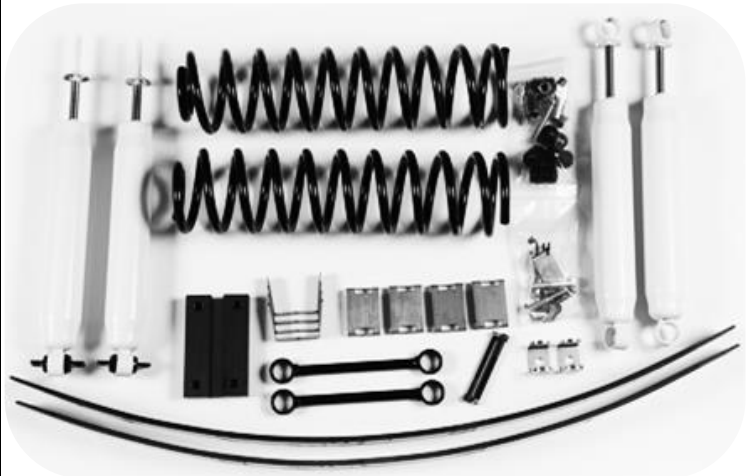
- ☐ **Default:** IRO Add-a-Leaf 96013 (2 Leafs)
 - ☐ Upper leaf clamp 91072 (4)
 - ☐ Lower leaf clamp 91073 (4)
 - ☐ Center pin (2)
 - ☐ 5/16-24 hex nut (2)
- ~OR~
- ☐ **Optional:** XJ 3.5" leaf spring 90149 (2)
- #72 - Leaf Spring Bushing Hardware (1)**
 - ☐ Main eye bushing M20774 (4)
 - ☐ Shackle bushing M20775(4)
 - ☐ Main eye bushing sleeve 91071 (2)
 - ☐ Shackle bushing sleeve 91070 (2)

***BOX 2* 24x12x12**

- ☐ Instructions
- ☐ Invoice
- ☐ Iron Rock Off Road Logo decal 10001 (1)
- ☐ IronRockOffRoad.com decal (1)
- ☐ Front coil spring 96016 (2)
- ☐ XJ T-case 1" drop spacer 90165 (2)
- ☐ Front sway bar links 8.75" center to center 92145 (2)
- ☐ U-Bolt set - specific to customer vehicle:
 - ☐ **Optional:** Ford 8.8 - 91093 (4 U-bolts)
 - ☐ 9/16-20 high nut (8)
 - ☐ 9/16 hardened flat washer (8)
 - ☐ **Optional:** Dana 35/44 - 91094 (4 U-bolts)
 - ☐ 1/2-20 high nut (8)
 - ☐ 1/2 hardened flat washer (8)
 - ☐ **Optional:** Chrysler 8.25 - 91095 (4 U-bolts)
 - ☐ 1/2-20 high nut (8)
 - ☐ 1/2 hardened fat washer (8)
- ☐ **#10 - Front Sway Bar Links Hardware (1)**
 - ☐ 3/4" I.D. hourglass shock bushing 94025 (4)
 - ☐ 12mm I.D. sway bar bolt sleeve 92038 (4)
 - ☐ 12mm x 70mm class 10.9 hex bolt (2)
 - ☐ 12mm class 8.8 hex nut (2)
 - ☐ 1/2" x 1 1/2" grade 8 hex bolt (2)
 - ☐ 1/2" grade 8 lock washer (2)
 - ☐ 1/2" grade 8 hex nut (2)
 - ☐ Sway bar link U-bracket 99000 (2)
- ☐ **#12 - Rear Sway Bar Spacer Hardware (1)**
 - ☐ 3/8 USS Flat Washer (4)
 - ☐ M10 x 60 hex bolt, cl10.9 (4)
- ☐ **#30 - Rear Brake Line Bracket Hardware (1)**
 - ☐ 5/16 x 1" hex bolt (1)
 - ☐ 5/16 washer (2)
 - ☐ 5/16 hex nut (1)
 - ☐ XJ rear brake line drop bracket 91089 (1)
- ☐ **#274 - XJ Rear Shock Spacer Hardware (1)**
 - ☐ Spacer 99170 (2)

Shocks:

- ☐ **Standard:** Trail Tamer HD Hydro Shocks
 - ☐ Front Shock 79000 (2)
 - ☐ Rear Shock 79003 (2)
- ☐ **Optional:** Doetsch Upgrade
 - ☐ Front shock DT 8352 (2)
 - ☐ Rear shock DT 8265 (2)
- #15 - Shock Hardware (1)**
 - ☐ 2.5" long front barpin 403872 (2)
 - ☐ 2.75" long rear barpin 404127 (2)
- ☐ **Optional:** Bilstein Upgrade
 - ☐ Front Shock 33-230337 (2)
 - ☐ Rear Shock 33-185606(2)
- #15 - Shock Hardware (1)**
 - ☐ Front barpin 2.5" 403872 (2)
 - ☐ Rear barpin 2.75" 404127 (2)



*****Safety Warning!*****

Installing a suspension lift kit raises the center of gravity of the vehicle. This increases the possibility of a rollover accident. Avoid sudden maneuvers at high speed and avoid all situations where a side rollover may occur. In addition, larger tires decrease braking performance, please drive accordingly. We recommend a tire and wheel combination that makes the vehicle's track width wider (wheels with less backspacing). This will lower the center of gravity and add stability. We also recommend that this system be installed by a qualified professional. Knowledge of suspension component function is necessary for safe installation and post installation inspections. Be sure to re-torque all suspension components after the first 100 miles of use, and frequently inspect all safety critical suspension components.

Before you begin:

- ☐ Read all safety warnings.
- ☐ Read and understand installation instructions.
- ☐ A coil spring compressor will make installation easier but is not required. You may wish to borrow, rent, or buy one if you don't have one.
- ☐ Check all steering and suspension components for wear and replace as needed.
- ☐ Contact Iron Rock Off Road customer service with any questions before, during, or after installation.
- ☐ **Ensure that all parts are present and in good condition per attached shipping checklist.**

Installation Instructions:

Front suspension:

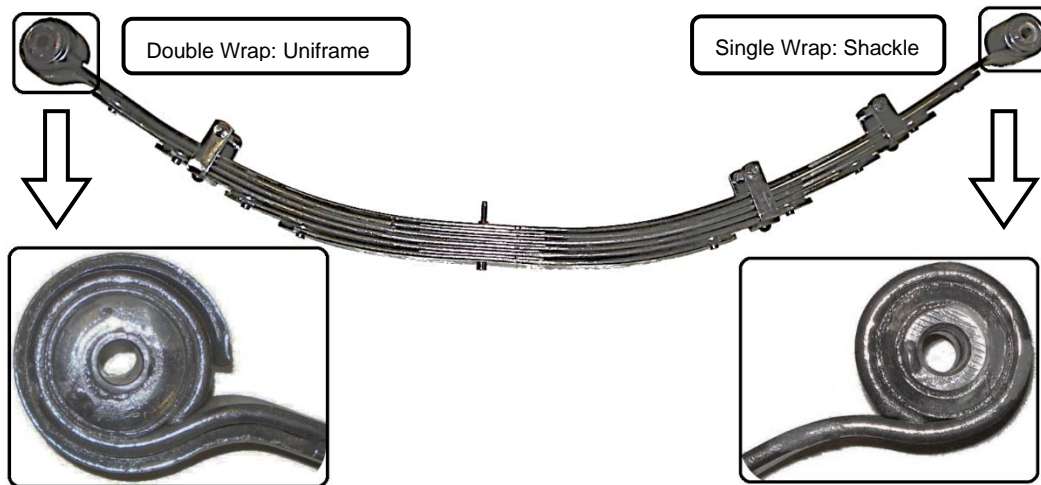
1. Lift front of vehicle and support with tall jack stands under the unibody frame.
***Tip: break lug nuts loose before lifting vehicle.**
2. Ensure that vehicle is safely supported.
3. Remove front tires.
4. Remove front shocks.
5. Remove front sway bar links.
6. Remove track bar bolt at axle end only (do not loosen the "tie rod end" at the uni-frame).
7. Loosen all upper and lower control arm bolts (do not remove).
8. Place a floor jack under the driver's side of front axle for support (do not lift vehicle).
9. If not using a coil spring compressor, unbolt the driver's side lower control arm at unibody.
10. Remove the coil spring clamp (at the axle).
11. Lower axle as far as needed to remove coil spring.
12. Install new spring in vehicle being careful to align the spring to the spring bucket on the axle.
13. Re-install lower control arm at unibody, do not tighten bolt at this time.
14. Repeat for passenger side of vehicle.
15. Install new front shocks re-using stock bolts, washers, and nuts. Tighten upper stud mount nuts just enough to slightly compress the bushings. Over compressing these bushings will result in damage to the bushings and premature bushing failure.
16. Locate front sway bar links (8.75" center to center), 2 u-brackets, and hardware kit 10.
17. Install sway bar link u-brackets to the sway bar using 1/2 x 1 1/2" grade 8 hex bolts, lock washers, and nuts. Brackets mount to the bottom of the sway bar with the bolt facing up and the lock washer and nut on top of the sway bar. Align brackets, tighten bolts.
18. Lubricate sway bar link bushings and bushing sleeves with multi-purpose grease and install into sway bar links.
19. Install sway bar links driver's side first using provided M12 x 70mm hex bolt and nut through the u-bracket with the nuts toward the outside of the vehicle, and the original bolt, nut, and washer at the axle. Rotate the bracket so it is offset away from the center of the vehicle. Align brackets, torque bolts to 80 lb.-ft.
20. Install track bar bolt, do not tighten at this time.
21. Install front tires.
22. Lower vehicle from jack stands.
23. With the vehicle on the ground, torque any loose bolts to spec. including upper and lower control arm bolts, track bar bolts, sway bar links, and lug nuts. Install coil spring clamps.

Rear Suspension:

24. Lift rear of vehicle and support with tall jack stands under the unibody frame. ***Tip: break lug nuts loose before lifting vehicle.**
25. Ensure that the vehicle is safely supported.
26. Remove rear tires.
27. Remove rear shocks.
28. Allow suspension to droop as much as possible.
29. Remove retaining clip from rear brake line at the unibody.
30. Push the brake line forward until it can be pulled down out of the bracket.
31. Install rear brake line bracket using 5/16 x 1" bolt, nut, and 2 washers hardware kit #30. Bracket should be oriented to extend the brake line down and back.
32. Gently bend the steel brake line into its new location in the bracket. Be very careful not to create a crack or a kink. Any rusted, worn, cracked, or damaged rubber or steel brake line should be replaced.
33. Install brake line retaining clip.

If replacing leaf springs: (if installing add-a-leaf kit proceed to step 43)

34. Starting with the driver's side: place a floor jack under the driver's side of the rear axle for support (do not lift vehicle).
35. Remove leaf spring bolts at unibody and shackle.
36. Remove the u-bolts.
37. Allow axle to droop and remove leaf spring.
38. Install new leaf spring bushings and install new leaf springs. (See attached Poly Leaf Spring Bushing instructions)



39. Install front bolt and rear bolts but do not tighten yet.
40. Clean any debris from axle seating surfaces.
41. Raise the axle up to the leaf spring, make sure the center pin drops into the axle and the axle seats flat against the leaf spring. Install u-bolts. Torque U-Bolts to 95 ft-lbs.
42. Repeat for passenger side.

If installing add-a-leaf kit:

43. Starting with the driver's side, remove u-bolts.
44. Allow axle to droop and remove leaf spring clamps and center pin to take apart the leaf spring pack. Note orientation of leaves.
45. Install the new highly arched leaf in the spring pack (directly under main leaf in the #2 spot) with the long end of leaf towards the rear of the vehicle. Use a c-clamp or two to help install the new center pin.
46. Tighten leaf spring centering pin.
47. Use a c-clamp or two to help install new leaf spring clamps.
48. Clean any debris from axle seating surfaces.
49. Raise the axle up to the leaf spring, make sure the center pin drops into the axle and the axle seats flat against the leaf spring. Install u-bolts and torque to spec. Be sure to re-torque u-bolts after first 100 miles of use.
50. Repeat for passenger side.
51. Install spacer from **HK #274** on lower rear shock stud then install rear shocks.
52. Torque lower bolts to 46 ft-lbs., and upper barpin bolts to 17 ft-lbs.
53. Install rear tires.
54. Lower vehicle from jack stands.
55. Torque U-Bolts to 95 ft-lbs.
56. With the vehicle on the ground, torque any loose bolts to spec. including leaf spring bolts and lug nuts.

Transfer Case Drop Kit:

57. Place a floor jack under the driver's side of transfer case crossmember for support.
58. Remove bolt and nut that hold the t-case crossmember to the unibody.
59. Lower t-case crossmember away from unibody and remove threaded stud from unibody. If you do not have a stud puller, you can install 2 nuts and tighten one against the other then remove using a box end wrench on the inner nut.
60. Install spacer using new bolts and washers from hardware kit #12. Torque to spec.
61. Repeat for passenger side.

Adjustments and Safety Inspection:

62. Check all components for clearance for suspension to fully cycle up and down and wheels to turn lock to lock. Pay special attention to brake line length and location of all brake lines, axle vent hoses, and ABS wires. Reposition as needed.
63. A professional front end alignment is required after installation. Your toe-in will be affected and may cause unpredictable steering and accelerated tire wear.
64. Re-torque all fasteners after 100 miles, and regularly inspect all safety critical suspension components.



Before you begin:

- Read and understand installation instructions.
- Contact Iron Rock Off Road with any questions before, during, or after installation.
- **Ensure that all parts are present and in good condition per attached shipping checklist.**
- You will need basic wheel bearing multi-purpose grease and a brush.

Shipping Checklist:

72 Hardware Kit

- ☐ Instructions
- ☐ Main Eye Leaf Spring Bushing M20774 (4)
- ☐ Leaf Spring Shackle Bushing M20775 (4)
- ☐ Main Eye Bushing Sleeve 91071 (2)
- ☐ Shackle Bushing Sleeve 91070 (2)

Installation Instructions:

Bushing Installation:

1. Locate main eye bushings (M20774) and main eye bushing sleeves (91071) and separate from other parts.
2. Liberally apply grease to the inside of the leaf spring main eye bushing opening.
3. Apply grease to bushing halves on mating surface and sleeves.
4. Press one bushing half into main eye bushing opening.
5. Press the other bushing half into the main eye bushing opening on the opposite side of the first half.
6. Apply grease to the bushing sleeve and slide it into the two bushing halves.
7. Repeat the bushing and sleeve installation for the shackle bushings using shortest sleeves and thinner flange bushing halves.

