INS-F014 (Rev. A 1/17/20)



Installation Instructions (Page 1)

2017+ Ford Raptor 3.0 IBP Front Coilover

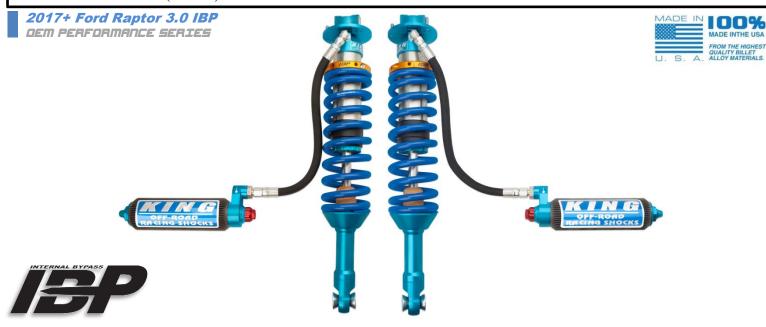
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Front Parts List:

- $\overline{2-3.0}$ IBP Front Coilovers (30001-403)
- 2 Front Reservoir Brackets (33403-103)
- 6 3/8-16 Nylock Nuts (CN2711)
- 6 3/8 SAE Heavy Duty Washers (CW1701)
- 4 Reservoir Clamp Retainers (40430-002)
- 4 1/4-20 X 1.75 SHCS (CB1508)

Tools Required:

Floor Jack/Jack Stands Metric Wrench/Socket Set Standard Wrench/Socket Set



FRONT: With the vehicle on level ground, set the emergency brake and block the rear tires. Using a floor jack, raise the front end and support the frame rails with jack stands for safety. Remove front tires. **NOTE:** Never work under an unsupported vehicle.

1. <u>Removing Factory Shocks</u> – First unbolt the ABS line at the spindle using an 8mm wrench/socket. Then unbolt the brake line brackets at the spindle and frame using a 10mm wrench/socket as shown below.







IMPORTANT: Read all instructions thoroughly from start to finish before beginning the install. Check parts list and make sure all parts are included in the kit. If the instructions are not properly followed severe frame, driveline and/or suspension damage may result. Check for frame and suspension damage prior to installation.



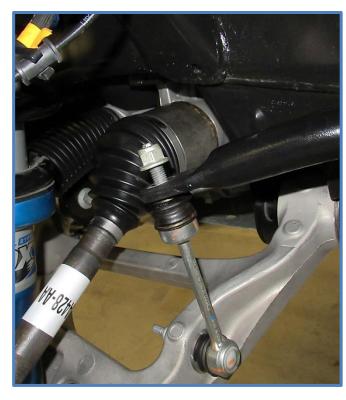
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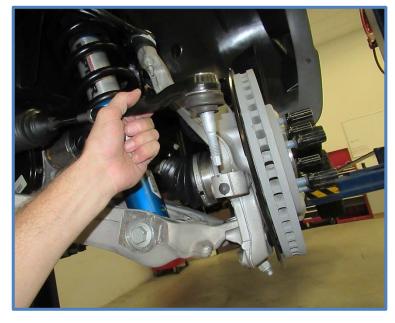
2. Loosen the upper nut on the sway bar link on both sides of the vehicle using an 18mm wrench/socket. Back the nut off to the last couple threads but don't remove.





3. Remove the tie rod nut using a 21mm Socket. Remove tie rod from steering arm.





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4. Remove lower mounting bolt using a 27mm wrench on the bolt head and a 30mm socket on the nut.







5. Remove the upper ball joint nut using an 18mm socket. Separate the upper control arm from the spindle.





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6. Remove the three upper mounting nuts using an 18mm Wrench. (Ratchet wrench works best.)



7. Remove factory shocks. You will need to push down on lower control arm to remove shock.



8. <u>Install King Shocks</u> – Place the coilover in position on the vehicle by inserting the upper mount with mounting studs into the upper mount (coil bucket) on the vehicle. Then, while pushing down on lower control arm, get the rod end into the mounting pocket on the lower control arm. Be aware the shocks are side specific and can only be mounted on the designated side. Photos below show the left side.







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This kit does not require welding. Do not weld on any component. Welding may void the warranty and/or cause the product to fail. If any parts are missing, or for tech assistance; Contact King Off Road Racing Shocks: 714-530-8701 Most important after the install, Feel the difference and have fun.



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9. Place 3/8 Heavy Duty Washers (CW1701) and 3/8 Nuts (CN2711) on upper mounting studs and thread nuts onto studs by hand to hold shock in place but don't fully tighten.





10. Install factory lower mounting bolt and nut but do not tighten yet.





11. Reconnect upper control arm to spindle.



12. Reconnect tie rod to steering arm.





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13. Repeat steps 8-12 on opposite side of vehicle. Once the shocks are mounted on both sides of the vehicle tighten all bolts to factory specs.

Upper Ball Joint Nut – 85 ft-lbs



Tie Rod Nut – 85 ft-lbs



Sway Bar Nut – 59 ft-lbs



Upper Mounting Nuts – 35 ft-lbs



Lower Mounting Bolt – 400 ft-lbs



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14. Reconnect ABS line and brake line brackets.







15. <u>Install Reservoir Brackets and Reservoirs</u> – First remove the two bolts from the frame above the skid plate using a 13mm socket. Then remove the bolt to the rear of the skid plate using a 15mm socket. Do one side at a time!







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OFF - ROAD RACING SHOCKS

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16. Pull the skid plate down enough to place the reservoir bracket between the frame and the skid plate bracket.





17. Push the skid plate back into position against the frame. Replace and tighten the two factory bolts you just removed. Then replace and tighten the rear skid plate bolt. Repeat steps 15-17 on opposite side of the vehicle.









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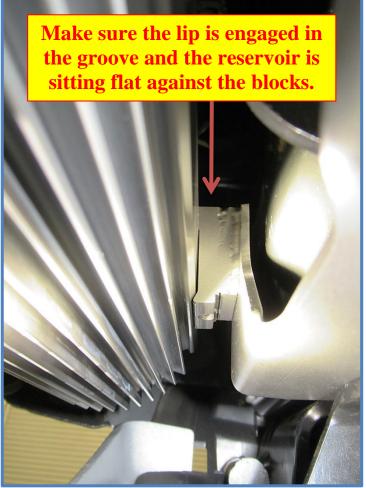
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18. Remove retaining clips (if applicable) then place the flat channel of the reservoir against the reservoir bracket and engage the lip of the channel on the reservoir with the groove on the blocks.









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19. Install the retaining clips with the provided 1/4-20 X 1.75 SHCS (CB1508). Make sure the retaining clip engages in the groove on the reservoir and tighten screws with a 3/16 allen wrench. Once the reservoir is mounted you can loosen the screws to adjust the position of the reservoir (if necessary).







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20. Final install should look like the photo below.



DOUBLE CHECK ALL HARDWARE:

Make sure everything is installed correctly and all hardware is tight before reinstalling tires. Install tires, remove jack stands and lower vehicle to the ground. Recheck all hardware and lug nuts after 100 miles and periodically after that as part of routine maintenance.

Alignment is critical:

A professional alignment must be performed before driving this vehicle at highway speeds. Do not attempt to drive your vehicle after this install without having the alignment readjusted to factory specs!

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Additional information:

Ride height can be adjusted by adding or removing preload to the coil spring, see separate instructions INS-1001 Coilover Adjusting Instructions for ride height adjustment information.

King's 3.0 shocks have a new level of versatility and performance. King Shocks Ford Raptor 3.0 Coilover comes standard with our 3.0 Wide Range Compression Adjuster giving you the ability to precisely adjust compression from super soft to super firm with the simple twist of a knob. You can soften your ride when just cruising or firm up the compression when hammering rough terrain or carrying additional payload. You'll have the ultimate in performance regardless of your pursuit.

Shocks should be shipped from the factory with the compression adjuster open or at its softest setting. To adjust compression, remove cover using a 1" wrench. Turn adjuster using a ½" wrench. There are approximately 30 "clicks" of adjustment in the compression adjuster, count the clicks as you make adjustments and match the opposite side.





Turn adjuster clockwise to make compression firmer.

Turn adjuster counterclockwise to make compression softer.

Maximum tire size for this kit is 35 x 12.50 - 37" tires will fit but expect rubbing and fender trimming may be required. Ideal wheel Backspacing is 5" or 6mm offset.

Be sure to check the hoses to make sure they are not coming in contact with moving parts (i.e. upper control arm). Hose routing can be adjusted by adjusting fittings and by adjusting swivel at compression adjuster.

Do not attempt to make adjustments if you are not familiar with working on shocks!

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