

INSTALLATION INSTRUCTIONS:

66-77 Bronco Street 4 Link Suspension, 2.5" or 3.5" lift

PART #5362

CONTENTS:

1	Rear Axle Truss	1	Stage 4 Shock Mount #5220
2	Frame Mounts	2	Coil Springs #5103A
2	Lower Links	4	70/30 Duff or 2 Eibach Shocks
2	Upper Links	2	HD Lower Coil Retainers #5120
2	HD Coil Towers #5111A		



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1/5 11/19

HARDWARE KIT:

2	Dual Durometer Bushings 1 1/4-12 AKA DDB
2	Dual Durometer Bushings 3/4-16
2	Small Poly Rod End Black
2	Large Poly Rod End
4	1.25"-12 Jam Nuts (2 LHT, 2 RHT)
4	3/4"-16 Jam Nuts (2 LHT, 2 RHT)
4	5/8-11 x 3" GR8 Bolts
2	5/8-11 x 4.5" GR8 Bolts
2	5/8 x 5" GR8 Bolts
4	5/8 GR8 Nyloc Nuts
4	5/8 GR5 Thin Nyloc Nuts
16	5/8 SAE Yellow Zinc Washers
2	1" To 5/8" Reducer
8t	1/2" x 3" NC Grade 5 Hex Bolts
16	1/2" USS Flat Washers
8	1/2" NC Nyloc Nuts
6	1/2" x 4.5" GR5 Hex Bolts
12	1/2" USS Flat Washers
6	1/2" NC Nyloc Nuts

Please read all instructions before beginning. A 1" Body lift is required for installation of this kit. WARNING: Installation of a rear 4-link coil set up will change the vehicles center of gravity and handling characteristics both on and off-road. In order to operate the vehicle safely, Extreme care must be taken to prevent vehicle rollover or loss of control, which could result in serious injury or death. Avoid sudden sharp turns or abrupt maneuvers and always make sure all vehicle occupants have their seat belts fastened. Many states and municipalities have laws restricting vehicle lifts. Consult state and local laws to determine if the changes you intend to make to the vehicle comply with your states road vehicle laws. We highly recommend that the James Duff anti-sway bar #5310 be used with this kit for any vehicle intended to be driven on the road.

We recommend installing these components in this order: Rear Axle Truss, Frame Mounts, Upper & Lower Links, Coil Towers, Upper then Lower Shock Mount Brackets. However, you may want to change this order based on your rear housing set up or variations on what you're trying to accomplish in your rear 4 link system. Before starting make sure you remove your front and rear leaf spring hangers, rear upper and lower shock mounts and the brake lines & leaf spring perches on your rear axle. This will be the best time to do any frame repairs. When prepping for welding be sure that all welded surfaces are free of rust, paint, & powder-coat. We recommend using the spinning edge of a cut off wheel to remove powder coat from our parts. Make sure the powder coat is removed at least 1/4" away from all welded surfaces.



Please note: We recommend that this kit be installed by an experienced welder. Welding on an axle housing and the heat generated by an untrained professional could cause damage to the truss, center section and bearings. CAUTION: Watch for brake lines, fuel lines and other possible items that may be on the other side of the frame.

STEP 1: Rear Axle Truss Test Fit - Ford 9" Axle Only

STOP! If the truss does not sit down on the axle needing only slight trimming if any, you might have the wrong truss. Call James Duff if you think it's not fitting correctly.

Test fit the rear axle truss on the rear end and mark for placement. Be sure to locate the truss on the rear housing level and centered from side to side. Make sure axle is located under the vehicle where desired and square to the frame. Clamp or tack weld the truss to the axle to mock up all the components of the 4 link. The truss is designed for approximately 12° to 13° pinion angle when installed as a 2 1/2" to 3 1/2" kit. The link ends will allow you +/-5° of adjustment. This truss works with aftermarket fabricated 9" housings but cutting and grinding is necessary.

STEP 2: LINK SETUP

LOWER LINKS Rod End Set Up:

- 2 DDB 1 1/4-12
- 2 1.25"-12 Jam Nuts 2 LHT
- 2 Large Poly Rod End
- 2 1.25"-12 Jam Nuts 2 RHT



Thread the LH 1.25"-12 Jam Nuts onto the 1 1/4-12 DDB Ends. Then thread the DDB ends into the Left Hand end of the lower link bars. The left hand side is distinguished by a groove on the end of the link. Do not tighten all the way. Repeat these steps for the Right Hand side using the Large Poly Ends. Using a tape measure make sure the bar is 38.5" inches from center of LH to RH mounting point (eye to eye).

Attach the DDB end of the lower links to the Rear Axle Truss and let the lower links hang freely. Hardware order; Bolt, washer, bracket, rod end, bracket, washer, nyloc nut.

To attach the lower links to the axle truss & frame mount:

- 2 5/8-11 x 4.5" GR8 Bolts to Frame Brackets
- 2 5/8 x 5" GR8 Bolts to Axle Truss
- 4 5/8 GR8 Nyloc Nuts
- 8 5/8 SAE Yellow Zinc Washers

UPPER LINKS Rod End Set Up

- 2 Dual Durometer Bushings 3/4-16
- 2 3/4"-16 Jam Nuts LHT
- 2 Small Poly Rod End Black
- 2 3/4"-16 Jam Nuts RHT

To attach the upper links to the axle truss & frame mount:

- 4 5/8-11 x 3" GR8 Bolts to Frame Brackets
- 4 5/8 GR5 Thin Nyloc Nuts
- 8 5/8 SAE Yellow Zinc Washers



Thread the LH 3/4"-16 Jam Nuts onto the 3/4-16 DDB Ends. Then thread the DDB ends into the Left Hand end of the upper link bars. The left hand side is distinguished by a groove on the end of the link. Do not tighten all the way. Repeat these steps for the Right Hand side using the small Poly Ends. Using a tape measure make sure the bar is 40.25" inches from center of LH to RH mounting point (eye to eye).

Note: Mount the DDB end of the upper links into the axle truss. The order: bolt, washer, bracket, rod end, bracket, washer, thin nyloc nut.

STEP 3: FRAME BRACKETS

Note: Installation may require you to remove and/or modify your exhaust system. If you have not removed it yet this may be a good time to take off the muffler and exhaust at the collector to gain work space for the frame brackets. You may also want to disconnect your e-Brake cables from the frame at this time, along with fuel lines or anything else that may be on the back side of the frame. Note that emergency brakes are an important safety feature of your vehicle. If you need a longer replacement, use our #3756.

The frame brackets will attach to the inside of the frame rails. Using the picture above identify the right and left side frame mounts. Starting with the driver side (DS) locate the DS lower link bar and attach it to the DS 4 link frame mount, then locate the DS upper link bar and attach it to the DS 4 link frame mount Then clamp frame mount to the frame or tack weld. Repeat this process on the passenger side (PS). With the Lower and upper links attached to the frame brackets. Now you can verify frame brackets are square to each other then mark the frame to prep for welding. This is also a good time to set up frame & axle at ride height & verify your pinion angle is set correctly. If it needs to be adjusted be sure to detach links or frame bracket 1st then set angle, check for squareness then reattach links, See below for proper set up to check pinion angle. You will need to clamp or tack weld the frame brackets to the frame so they cannot move. You can now verify that your axle is square to your frame and dial in your pinion angle as described below.

Make sure your Bronco is setup at desired ride height, wheel base, and that your axle is at the height it would be with wheels & tires mounted. It is important that your drivetrain is in place so you can install your driveshaft. Optimal driveshaft angle is 2° more than the pinion angle. For example if your driveshaft is 15° you would want your pinion angle at 13°.

It is at this time that you want to verify that your axle is in the desired location for your build. If you are not planning on stretching your wheelbase the stock wheel base of a '66-'77 Bronco is 92". Keep in mind if you want to stretch your rear wheelbase the furthest you can go without any crossmember or gas tank modifications is 2".

***Note: Have you factored how much extra weight you will be carrying on the street? We recommend setting the ride height with the weight of 4 people! We recommend that you load the vehicle with extra weight during prep if you are going to be carrying other equipment in the rear of the vehicle. Every 200-250 lbs on the rear or the front of the vehicle will drop or raise your ride height approximately 1/2". This is very important as coil springs are not as forgiving as leaf springs for load carrying capacities. Note that the springs will also take a short period of time to settle in with use.**

Figure 1 -



Keep in mind the coil springs ride height can fluctuate more than leaf springs. For example if you decide to run a hard top in the winter and remove it in the summer you could see up to an inch in change of ride height. Also the coil springs may settle anywhere from a 1/4" to 1/2" over time so a bit higher ride in the rear is recommended or use the James Duff shim kit if you for-see your needs changing through the year or down the road.

STEP 4 COIL RETAINERS & COIL TOWERS

Mount the driver and passenger heavy duty lower coil spring retainers #5120 onto the axle truss with the 7/16" supplied hardware bag. Note: These parts are stamped D and P for driver and passenger sides. Refer to figure 1 for reference.

Next you are going to mount your coil buckets. This will require the use of 2 plumbobs used at the same time. If you do not have a couple of plumbobs you can buy them at the hardware store or make them yourself. Once your desired wheelbase is decided with your axle and frame at ride height and square to each other secure the plumbobs to the frame to find true center of your lower coil spring retainers. Make sure the plumbobs are secured to the frame the same way on both sides. Next, place a coil bucket #5111 on the frame directly above the lower coil spring retainer on the truss. Use the plumbob and a tape measure to verify the coil bucket is centered on the plumbob string. Mark the frame on each side of the coil bucket. Next, you may have to remove a small amount of material from the body where the coil bucket spring retainer might make contact when mounted. Use a marker to outline the part of the body that needs to be cut and removed. Now, Remove the coil buckets from the frame, extend the marks to the bottom side of the frame then prep the frame to weld the coil buckets on.



Note: The coil towers' placement on the frame will vary based on the ride height or overall lift size of your vehicle, as well as the weight of the vehicle and its compression on the springs. Once ideal height placement is achieved and the springs are vertically aligned, we suggest to 'Tack weld' coil towers in place on both frame rails. We say 'Tack weld' so the towers are secure but not over welded in the event of misalignment and need to reposition either side.

Now you are ready to weld the coil buckets to the frame. This can be done one of two ways. 1. You can simply weld the coil bucket so that the bottom of the bucket is flush with the bottom of the frame. Then use the James Duff leveling blocks to dial in your ride height. Or 2. you can tack weld the buckets to the frame, install your coil springs, mount your wheels and tires, and assemble your Bronco complete for road trip with 3/4 tank of gas. Then measure your ride height. If the height is too low, move your coil bucket down, if it's too high move your coil bucket up. Whatever the amount is too low or too high it is half that of which you will move your coil bucket. If you run out of clearance between the body and the tower or if there's not at least 75% of the bucket's weld surface making contact with the frame we recommend you use our shim packs to dial in your ride height.

Twist the coil springs into the retainers. Fastening both side coil springs in their Spring towers with the #5100 Upper Coil Retainer tabs and attached 3/8" hardware.

Once you are certain of the proper alignment, proper height, and positioning of your coil towers go back and properly weld both sides to the frame.

Once you are sure the proper alignment has been achieved, remove the weight from the axle and properly weld the Rear Axle truss and both Frame Brackets. **We recommend welding small sections at a time, moving from side to side to allow everything to cool in order to minimize warping of the brackets, truss, axle, and over heating of the axle bearings.**

STEP 5 SHOCK MOUNTS

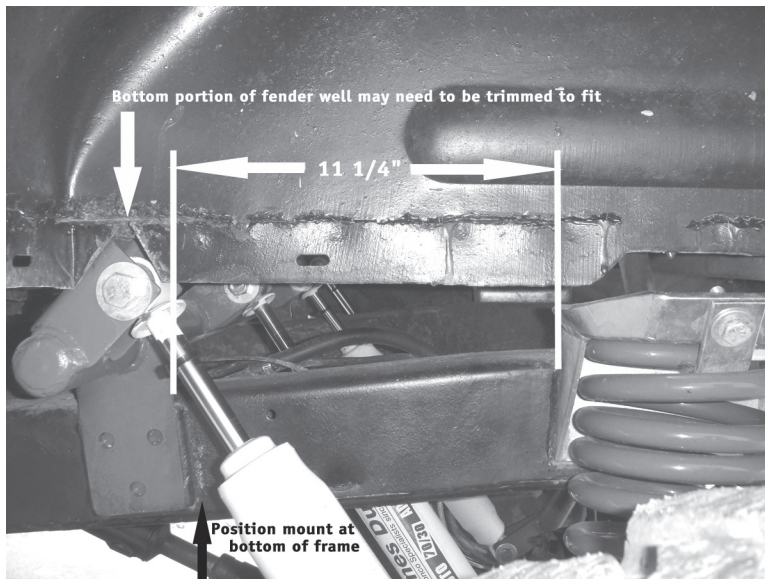
Note: If you are using Eibach MS2020 shocks read all the way through before starting your install.

Be certain that your support structure is safe and sturdy. You will be required to crawl under your Bronco for this step. Locate the upper shock mount bar and install the black plastic tube caps on each end. In order to install this piece on the frame you will need to place your body under the vehicle and slide the shock mount up and over the frame directly above the four link bars. It will be a tight fit so go slow and take your time. Use the picture to the right to place the bar in the correct orientation.

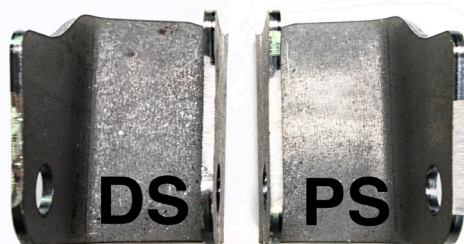
Now, using the picture to the right, measure forward from the front edge of the HD Coil Spring Tower, make a mark 11.25" from the top part of the frame. This will mark the rear edge for mounting the shock bar. Repeat for other side.

Note: the lower wheel tub lip may need trimmed to clear the mount. Before permanently securing the upper shock mount bar to the frame you will want to test fit your shocks use a C-Clamp on both sides of the frame to secure the upper shock mount. **Note:** Use a couple layers of tape to protect the powder coat on the upper shock mount.

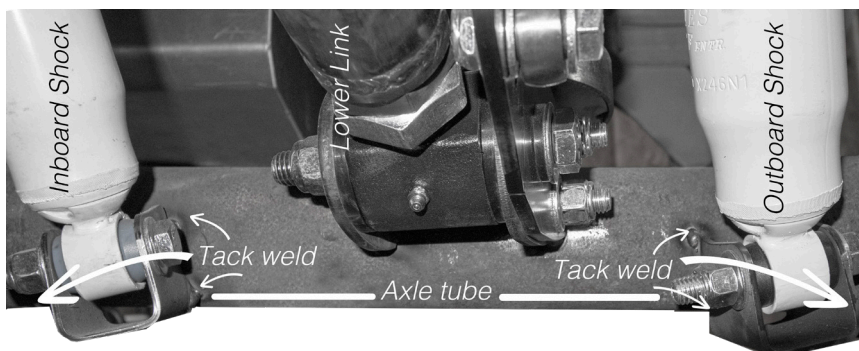
Before test fitting the shocks be sure that your Bronco and axles are at ride height. Hang the shocks from the upper shock mount. Next, you will want to use the supplied lower shock tabs that mount to the axle part #5505. **Note:** there is a driver and passenger side mount. Look at the picture below for reference. Attach the lower mount to the bottom end of the shock using a 1/2" x 3" NC GR5 Hex Bolt. Extend the shock so that 4" to 4 1/4" of shock shaft is exposed. Next, place the lower mount against the axle tube. The rule of thumb for shocks on the outside of the frame is to place the lower mount as far outboard as possible. Be aware of brake components and wheels with deep offsets. Tack weld it in 3 places. Repeat on the other side. The rule of thumb for the shocks placed on the inside of the frame is to mount them as straight side to side as possible. If you must deviate side to side favor the outside. Do not finish weld the shock mounts yet!



Note: position the mount at the bottom of frame as shown.
Note: Mount can be welded instead of bolted onto frame.



#5505 = 1 Pair



Note: For customers using Eibach MS2020 shocks, it is almost impossible to install as instructed above due to the gas charge. We recommend using our supplied measurement of x. You can install a bolt through the lower shock mount and draw a measuring tape from center to center of bolt from upper and lower shock mount. Then using the picture provided place the lower shock mount on your axle tube like you see in the picture and tack it in 3 places. Repeat this process for the other side. Then let the axle droop and mount the MS2020 shocks. After the shocks are mounted bring the axle back to ride height. Verify you have 4 to 4 1/4" of shock shaft exposed.

Now the shocks are test fitted. Are you are happy with where they are mounted? If you plan on installing the JDI rear 4 link sway bar kit #5310 you will want to stop here and install that next. Refer to the instructions included with the sway bar, then return to this page to continue.

Reducer Bushing Install
2 - 1" TO 5/8" REDUCER

THESE ARE REQUIRED WHEN USING PART# 5310 SWAY BAR LINK BRACKETS. THE BRACKET IS NOT SUPPLIED IN THIS KIT. IT HAS 3 HOLES IN IT. 2 - 1/2" HOLES AND 1 - 1" HOLE. THE 1" HOLE NEEDS TO BE REDUCED TO 5/8 TO PROPERLY BOLT THIS BRACKET TO THE OUTSIDE OF THE LOWER LINK MOUNT USING THE SUPPLIED 5" LONG 5/8 BOLT. THAT 5/8 BOLT AND SUPPLIED 5/8 WASHER WONT MOUNT PROPERLY WITHOUT THIS REDUCER. THIS IS THE SAME BOLT THAT MOUNTS THE LOWER LINK ROD END TO THE AXLE TRUSS.

Now you will want to continue with a clearance test before completely welding up shock mounts. To accomplish this have the swaybar installed and hooked up, remove the coil springs, then cycle the entire suspension independently up and down on the DS and PS, check for any clearance problems between the swaybar and shocks. Next install the wheels and tires and check for clearance between the tires and the sheet metal. If you installed the MS2020 shocks you may have to use a jack to assist in compressing the shocks.

Go back to the upper shock mount you can either weld it in place or center punch the three frame mounting holes for drilling. Repeat for other side. Remove the shocks and shock mount. Using a 1/2" drill bit, drill through both sides of frame. Repeat for other side. With shock mount in place, attach with:

6 1/2" x 4.5" GR5 Hex Bolts
12 1/2" USS Flat Washers
6 1/2" NC Nyloc Nuts

Now finish welding your shock mount tabs to the axle tube. You only need to weld the sides of the mount. Do not weld the bottom so water and dirt do not accumulate.

Depending on whether you mounted 2 or 4 shocks, mount them with:

8 or 4 1/2" x 3" NC Grade 5 Hex Bolts
16 or 8 1/2" USS Flat Washers
8 or 4 1/2" NC Nyloc Nuts

Go back and check all your work, all welds are finished, hardware is tight, prep and paint any bare metal.

Check emergency brake lines. Install extended e-brake cables #3756 x3 if needed. Reattach axle to frame brake lines and axle brake lines. If you need longer axle to frame brake lines check out part #3931 at dufftuff.com, You will notice that there are holes cut into the truss to allow you to run the brake lines as factory as possible. Bleed Brakes. Replace or modify the exhaust.

Check all your work:

Test your new suspension. Reminder to check bolts and nuts periodically after use for loosening. Remember that the springs will settle in after a few road trips. Do not panic if it is sitting high in the rear, give it time to settle before making changes.

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LIMITED WARRANTY

James Duff Inc. warrants our products to the original purchaser to be free from defects in materials and workmanship. Warranty periods begin at the date of purchase and varies by product. Shocks have a limited lifetime warranty. Headers, Radiators and Suspension Products, Power Brake Boosters and Master Cylinders have a one year warranty. Adapters and soft goods such as Canvas tops, upholstery, vinyl and rubber products have a 90 day warranty. All warranties are to the original purchaser with proof of purchase only. Such obligations under this warranty shall be limited to the repair or replacement, at JDI's discretion, of any assembly or part which upon examination by JDI proves to be defective. Any costs of removal, installation, reinstallation or freight charges are expressly excluded from this warranty. This warranty covers only manufacturers defects, and does not cover product finish or damage resulting from abuse, misuse, negligence, racing, alteration, accident or damage in transit.

All returns must be pre-authorized by JDI and accompanied with a Return Goods Authorization Number (RGA) and a dated proof of purchase. Returns must be made within 90 days of purchase, packaged sufficiently to prevent damage in shipment and shipped prepaid to JDI, 6609 Bronco Ln., Knoxville, TN 37921 Returns without an RGA# will be refused.

This warranty is expressly in lieu of all other warranties, expressed or implied, including the implied warranties of merchantability and fitness for use. This warranty gives you specific legal rights including other rights that vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusion of limitation of incidental or consequential damages, so the above limitations and/or exclusions may not apply to you.

SUSPENSION PRODUCT INFORMATION

Modifying your vehicle with JDI products to improve off road performance may result in the vehicle handling differently than a factory equipped vehicle. Taller tires will cause the vehicle's speedometer to read slow, so recalibration is required. Use of oversize tires, suspension lifts, body lifts, and other modifications may raise your vehicle's center of gravity, resulting in an increased tendency for the vehicle to pitch and roll during sudden turns or abrupt maneuvering. Failure to drive with extreme care to prevent loss of control or vehicle roll over may result in injury or death. Drive at a reduced speed to ensure your ability to maintain control of the vehicle under all driving conditions. We recommend installing functional roll bars and cages as well as double shocking all vehicles for more safety and stability on or off road. Always wear seat belts when in a vehicle. Consult your owners manual for recommended tire sizes, safety instruction and warnings unique to your vehicle. It is your responsibility to check state and local laws restricting vehicle height to ensure that modifications to your vehicle are legal.