

Installation Instructions: #3778

Early Bronco Budget Disc Brake Install



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6609 Bronco Ln.
Knoxville, TN 37921

1/4 7/21

Parts Included:

2 Rotors	10 Lug Studs, 1/2"-20
2 Calipers	4 Copper Washers
2 Caliper Mounting Brackets	2 Banjo Bolts for Calipers
2 Dust Shields	12 3/8" 24-1.5" Spindle Attachment Bolts
4 Brake Pads	12 3/8" Split Washers
2 Caliper Brake Lines	

Tools Required:

Flat Head Screw Driver	Cutting/Grinding Wheel	9/16" Socket & Wrench	Impact Gun
Flash Light	Large Chisel	Block of Wood	3/4" Deep Impact Socket
Brake Spoon	3/8"-11/16" & 6-12mm Line Wrench	Seal & Race Tool	
Brass Hammer	1/8"-3/8" & 4-10mm Small Allen Set	1/2" Torque Wrench	
Brass Punch	Small 90° Pick	5/16" to 3/4" Wrenches	
Large Drift Punch	1/2" Breaker Bar	Vise Grips	
CRC Knock'r Loose Penetrating Oil	Spindle Nut Socket	Regular Hammer	

IMPORTANT, this kit requires you to use your original drum spindles and hub assemblies. This upgrade allows you to upgrade your stock Dana 30/44 drum brakes to front disc brakes. Always refer to your vehicles service manual for correct torque specifications, when installing this kit. Before starting please watch the Bronco Garage video located here: <https://bit.ly/2X0xany>

INSTALLATION INSTRUCTIONS:

BEFORE GETTING STARTED, USE A PENETRATE LIKE KNOCKER LOOSE ON THE FRONT DRUM & HUB ASSEMBLY TO ASSIST IN REMOVING THE FACTORY COMPONENTS LISTED BELOW.

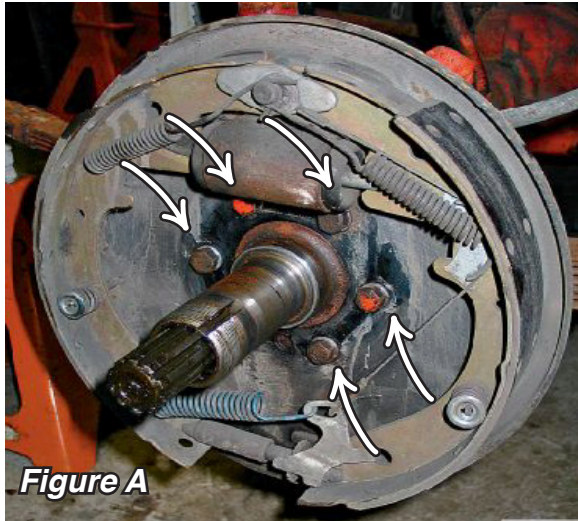
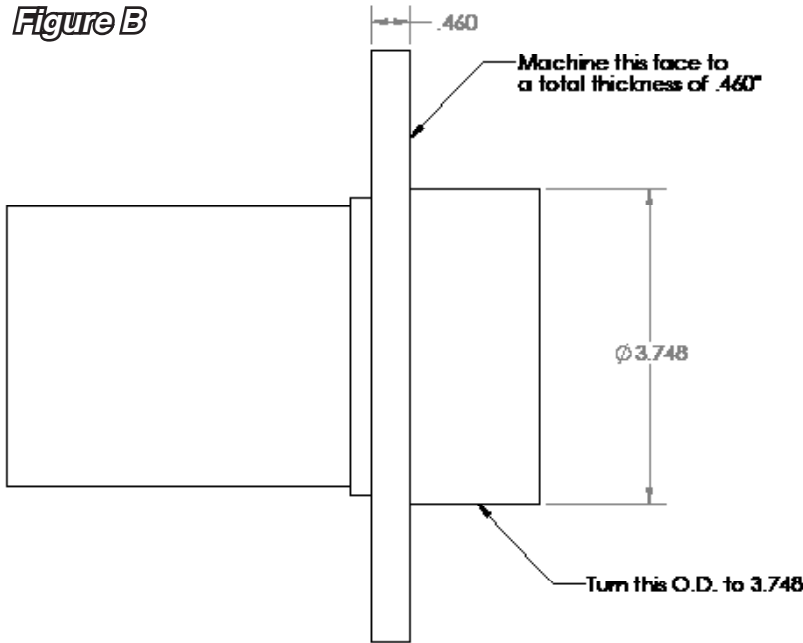


Figure A

1. Put Bronco in park/gear and chock front and back of rear tires.
2. Using floor jack, lift the front of the vehicle and place 2 jack stands under the front axle tube as far apart from each other as possible. **WARNING: BE SURE THE JACK STANDS ARE STABLE AND NOT DEFECTIVE!**
3. Before removing the front wheel/tire assembly, check Ball Joints and wheel bearings for excessive wear. Watch this video for more info: <https://bit.ly/32YE5RZ>
4. Remove the front wheel/tire assemblies.
5. Place catch pan below & behind the front wheels and disconnect the front flex brake hoses to the wheel cylinders.
6. If you purchased the complete kit, cap off brake lines at Axle using plug caps supplied in kit.
7. As shown in the video, relieve tension on the front drum shoe assembly to remove the front drums.
8. Remove the locking hub mechanism and use a spindle nut socket, available @ dufftuff.com #5900 to remove the hub.
9. Remove the original drum studs out of the hubs and discard them. Clean, & inspect for damage. Turn the back of the hubs on a lathe then prep and paint them, follow the diagram on page 2, **FIGURE B**. Maintain a tolerance of .005". If you can't turn your hubs, consider JDI's hub turning service or consult your local machine shop.
10. Remove the drum backing plates by removing the 6 bolts, Then remove the spindle, clean & inspect

Figure B

Maintain tolerance of .005"

before proceeding to the next step.

15. The caliper brackets in this kit are not side specific. Mount the caliper bracket, dust shield and your original Ford spindle to your original Ford knuckle with the six 3/8"-24 bolts and lock washers provided on the knuckle face.

16. The bracket should be positioned so the caliper is in the trailing position, **Driver Side** - For D44 approximately the 2 o'clock position / D30 3 o'clock, **Passenger side** - For D44 10 o'clock position / D30 9 o'clock. As shown in **Figure C**.

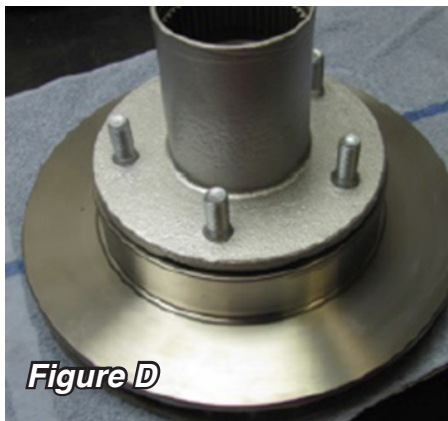
Assembling the Hub

First watch this video on Bronco Garage for a good visual explanation on hub assembly.

Video here: <https://bit.ly/32Y28As>

17. Be sure new races (if needed) are installed into the hub.

18. Pack the new wheel bearings (not included) and install the rear wheel bearing into the hub and install a new wheel seal.

**Figure D**

19. With the hub upside down, place it on a piece of wood and place one of the new rotors on top of it like shown in the video. Insert the 5 new wheel studs through the rotor and drive them in with a hammer and brass or steel dowel. Flip the rotor hub assembly over. Stack 3 half inch washers over each wheel stud and run a nut down the threads to suck the wheels stud tight against the hub and rotor assembly. **FIGURE D**

20. With a light coat of wheel bearing grease on the spindle, carefully slide

shown in **FIGURE A**.

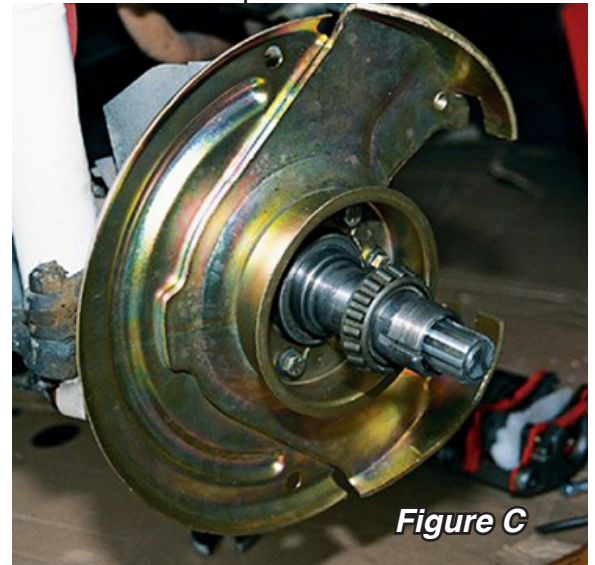
11. Consider replacing the bearings and seals if there are any signs of damage or if you are experiencing road noise, a shimmy in the steering wheel or death wobble.

Video here: <https://bit.ly/32Y28As>

12. This would be a good time to remove the knuckles and replace worn out ball joints / king pins if needed. Clean, inspect, and paint before installing.

13. Clean the face of the drum spindle, inspect for damage and excessive wear and make sure the through holes are clear of debris. Inspect and re-grease or replace the bushing in the back of the spindle if needed.

14. Run a 3/8"-24 tap into the 6 threaded holes in the outside knuckle face where the spindle mounts and blow out any debris. Verify there is no damage to the threads and prep and paint the knuckle

**Figure C**

the hub & rotor assembly over it. Then slide the freshly grease packed outer wheel bearing over the spindle and seat it into position. Using your original spindle nuts and washer or new ones supplied by James Duff. **Watch this video <https://bit.ly/32Y28As>** to correctly reinstall them.

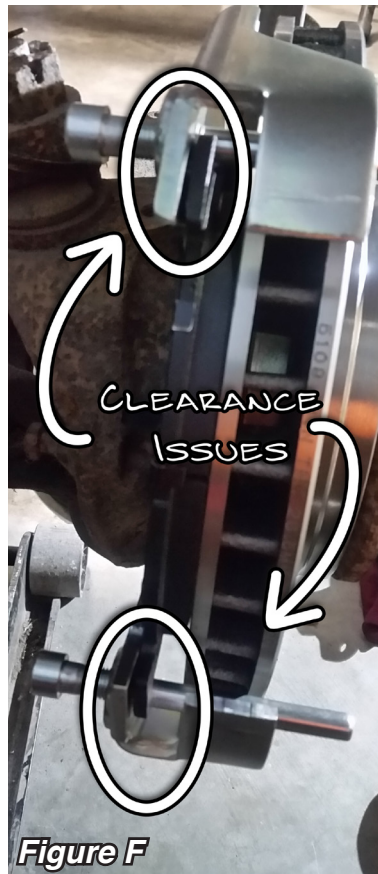
21. Locate the calipers, sleeves and caliper slide pins that will mount the caliper onto the brackets.

22. Mount the calipers (without pads installed) with the bleeder screws facing up.

23. Push the caliper back and forth onto the slides to check for unwanted contact between the knuckle and the caliper body.

24. Grind the knuckle for additional clearance. This step could take several attempts. **FIGURE E**

25. Be patient and only grind the material off the knuckle needed to allow the caliper the full range of motion on the slide pin.



26. Attempt to install the inside pad closest to the knuckle. (You do not need the brake caliper for this) You may find that you need to use a brass punch, or the drift punch from earlier, and move the caliper mount farther to the inside to gain the clearance you need to install the brake pad. It should turn freely and not grab the rotor. **FIGURE F & G**

27. Prep and paint calipers.

28. Install Calipers.

28. Insert pads and lube the caliper slide pins.

29. If you already have the new master cylinder and proportioning valve installed it is time to bleed the brakes. Check out this link <https://bit.ly/2YwqDBZ> for a quick guide for how to bleed your brakes.

30. Using the videos provided at [youtube.com/broncogarage](https://www.youtube.com/broncogarage), Install Power Booster, Master Cylinder, and Proportioning Valve. Connect brake hoses and bleed brakes. Proceed to test brakes. Be sure to bed pads after you have confirmed you have a firm brake pedal and control of the vehicle.

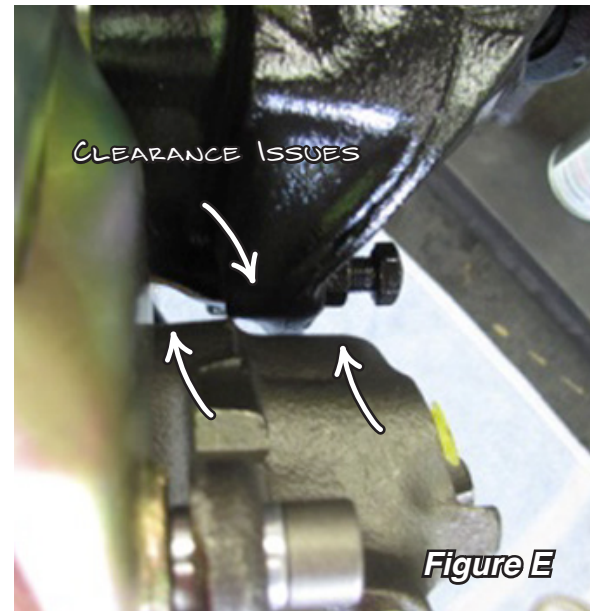


Figure E



Figure G

For More Add-ons and Links to Our videos see the back page ->

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All returns must be pre-authorized by JDEI 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.

Bronco Garage Brake install play list:

Budget disc brake unbox <https://bit.ly/324XwGO>

Budget disc brake install <https://bit.ly/2X0xany>

Wheel bearing and knuckle inspection video <https://bit.ly/32YE5RZ>

Wheel bearing and seal replacement <https://bit.ly/32Y28As>

Brake bleeding <https://bit.ly/2YwqDBZ>

Master Cylinder bench bleeding <https://bit.ly/2E9UHfr>

How to install a brake booster & prop valve <https://bit.ly/3kZi9wz>

Is my brake booster working? <https://bit.ly/3hd4xLM>

How to install knuckles & ball joints <https://bit.ly/2YhmUb5>

Add-Ons to Consider @ DuffTuff.com:

*Bronco
Garage*



Brake Booster Assembly #3706



Proportioning Valve #3746



**Master Cylinder to Prop Valve
Brake Line Kit #3742**



Wheel Bearing Seal Kit #3840/3841



**Inner Spindle Bearing and Seal Kit
#3842**



Ball Joints - Dana 44 #3825



Spindle Nut Socket #5900



**Dana 44 Ball Joint Adjustment Socket
#5901**



**James Duff Premium Hydroboost
#3786/3787**