

Ford Bronco

Tibus Portal Instructions

Install Video available on our YouTube Channel: [BroncBustertx](#)

Before Assembly, please double check the Master's Parts List to ensure you received all the parts in your package.

Part One

Disassembly

1) Put vehicle in 'Brake Maintenance Mode'

(note: if you fail to do this you can cause damage to the brake system EBB)

- a) Engine Off + Ignition on
- b) Release the EPB
- c) Press the accelerator
- d) Push in EPB and Release the Brake Pedal
- e) Turn Ignition off and pause for a few moments
- f) Turn engine back on
- g) Turn Key Off and then turn Key On

2) Elevate Bronco (on Jack Stand or Elevated Lift) and Remove Wheels



3) Remove and Suspend the Brake Calipers

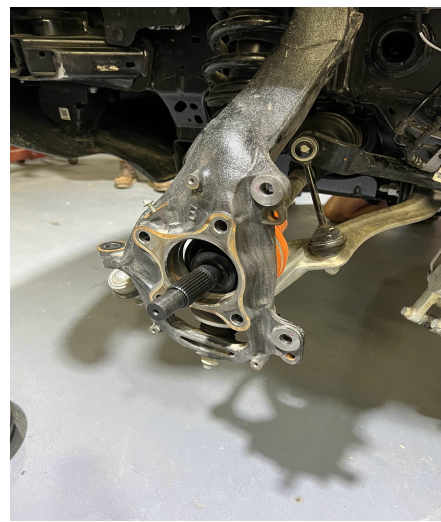
Use 18mm for Rear Bolts

Note: We recommend waiting to unhook any brake lines until later in the reassembly process

4) Remove the Rotor, Main Hub Assembly, Dust Cover, and Wheel Bearing Nut.

Note: Remove the eight 14mm Bolts from the main Hub Assembly and set aside to be shortened later

5) Remove wheel speed sensor from knuckle, place cable to side with caliper.



Front Dissassembly Complete

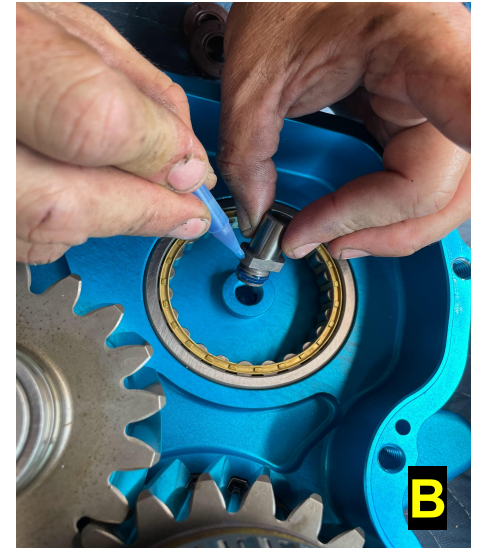


Rear Dissassembly Complete

Part Two

Preparation

- 1) Remove Bearing Race
- 2) Clean Axle Housing Mount with brake cleaner and wire brush
- 3) Remove Bolts and pull Portals apart (see photo A)
 - a) Apply Blue Loctite on CTIS Pin. Insert and tighten CTIS pin with a 15mm wrench (see photo B)
 - b) Grease CTIS Seals liberally and insert into the Drive Gear (see photo C)

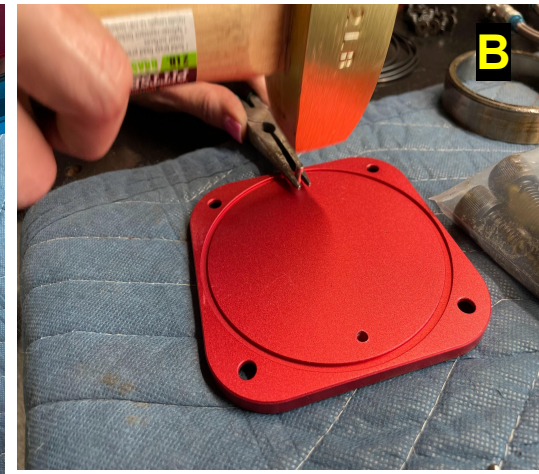
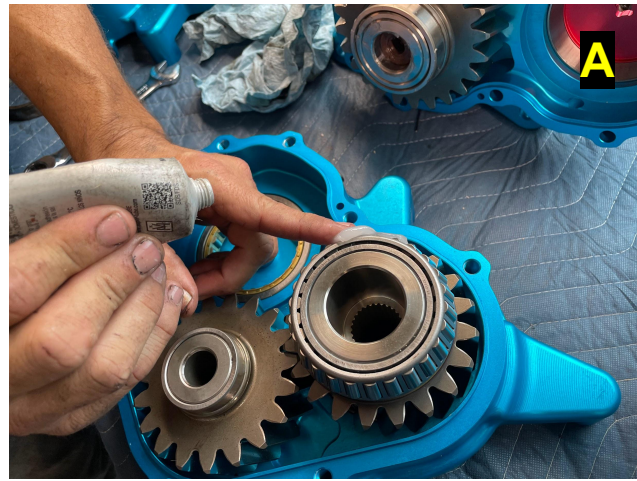


4) Apply Grease on all 3 Bearings

(see photo A)

5) Remove Red Dust Covers, install Alignment Pins (see photo B) and Grease O Rings (see photo C)

6) Cut (about 8mm) off of Front CV Axle to measure 33mm. (See photo D) Then Re-Thread with Axle Nut.



7) Shorten the eight Hub Assembly bolts saved from earlier (see photos A and B)

- Cut 6 of the Bolts to 54mm
- Cut 2 of the Bolts to 48MM

8) Press ABS Tone Ring onto both Rear Axle Shafts (see photo C)

9) Install Axle Shaft (see photo D)

- a. Note: Be careful not to damage the ABS Sensor



10) Cut off Preform Tabs from the Front Calipers only (see photo A)



11) Apply Red Loctite on Wheel Studs (see photo B)

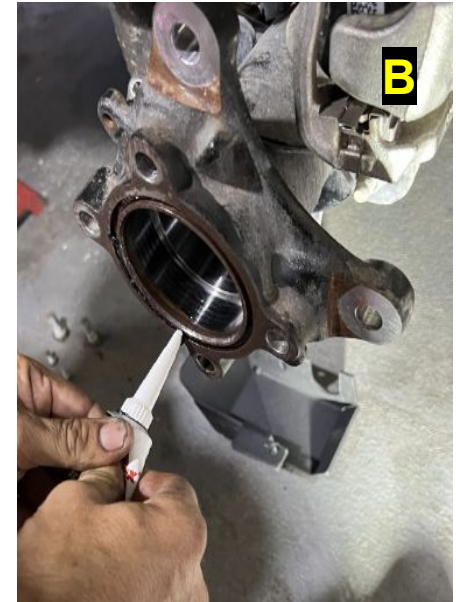


Part Three

Mount Portal Housings to Vehicle

- 1) Line up the 4 bolts and set aside Gear
- 2) Mount Housing, Apply Red Loctite and Insert Bolts (see photo A)
 - a) Install two 54mm bolts to the back and one 54mm bolt to the front top
 - b) Install one 48mm bolts to the front bottom
 - c) Install the provided two bolts to fasten the portal to the old caliper mounting location.
- 3) Torque all six Bolts to 110ft/lbs

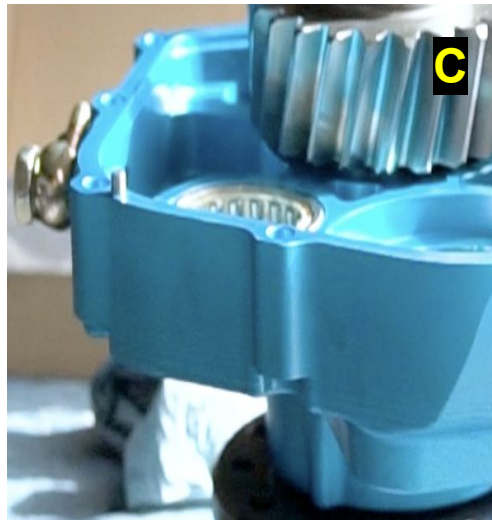
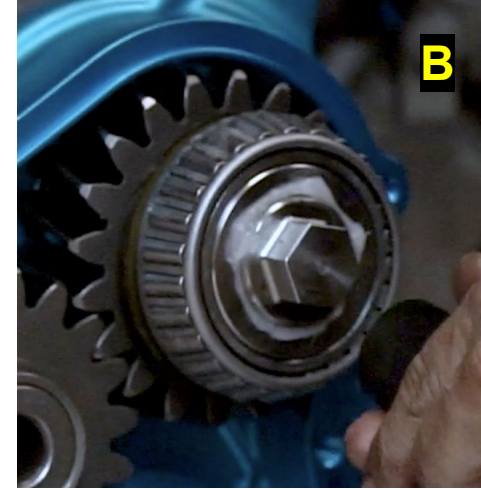
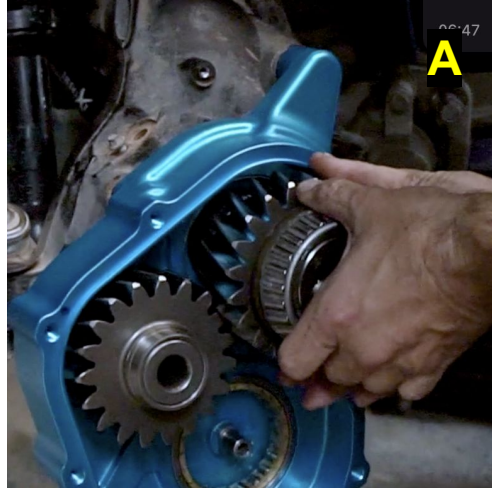
Note: When Installing Rear Portal - Apply Flange sealant between housing and axle. (see photo C) and use the six provided bolts.



Part Four

Finish Portal Assembly

1. Install Axle Nuts (see photo A)
 - a. Grease O Ring and slide in place (see photo B)
 - b. Using a socket, get it started by hand, then torque to 110 ft/lbs
2. Clean Housing to prepare for Fillange Sealant and Assembly
 - a. Ensure you've torqued all bolts, CTIS pins and seals are in place. Do one final clean of the interior and exterior of portal.
3. Install Dowel Pins into Portal Housing (see photo C)
 - a. Set aside 9 Flange Bolts by each housing
4. Apply Fillange Sealant (see photo D)



5) Line up second half of Portal onto the housing (see photo A)

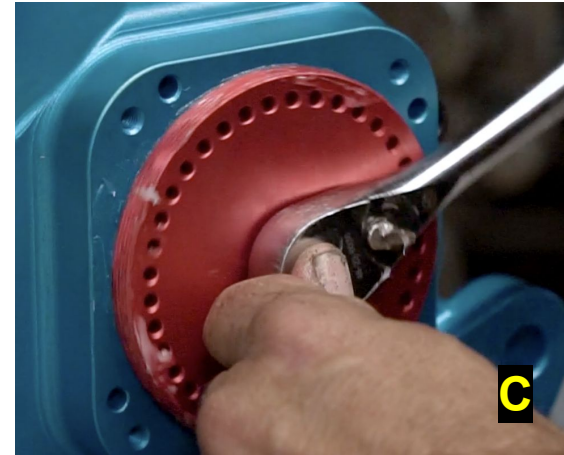
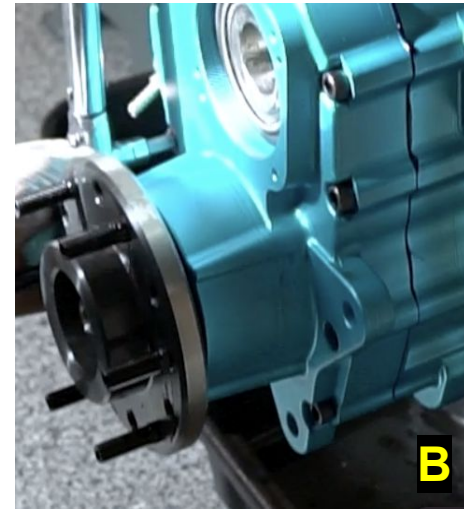
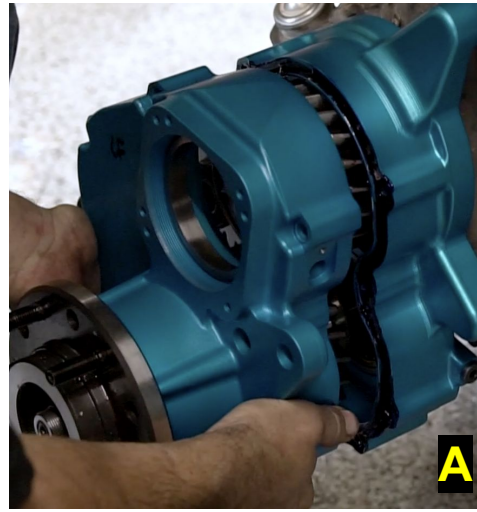
a. Once set in place, apply Blue LocTite on each bolt and screw into place by hand. Torque Flange bolts to 65ft/lbs (see photo B)

b. NOTE: When tightening Flange Bolts - tighten in a star pattern first and then go around in a circle to ensure all bolts are torqued. It is important when setting the preload to not go past 70 ft/lbs. You are essentially going too tight then backing off slightly until pins align.

6) Apply thin coat of grease to preload screw and hand tighten

7) Tighten preload screw to between 65-70 ft/lbs then adjust slightly until guide pins line up and dust cover screws line up. (See photo C)

a. May require slightly backing off preload screw until pins align on dust cover



8) Install Dust Cover with O Ring and apply grease (see photo A)

- a. Do not overtighten the Allen Screws

9) Install ABS Sensor on Front Portals (see photo B)

- a. Apply sealant on both sides

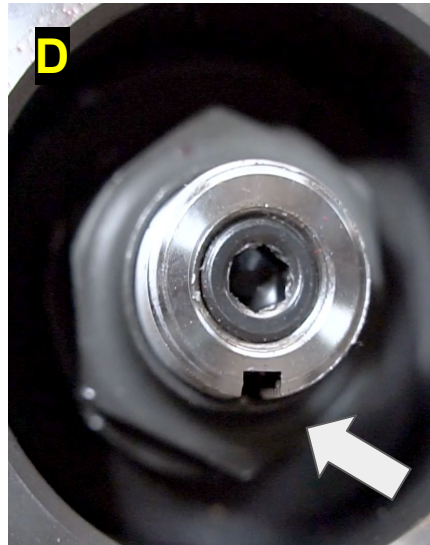
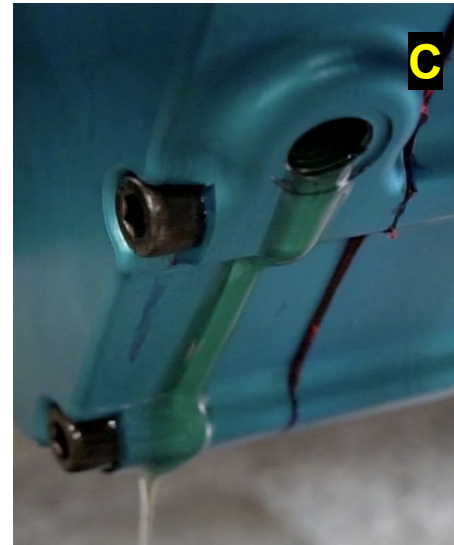
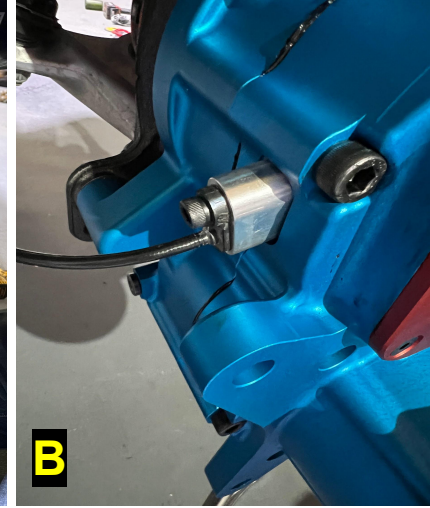
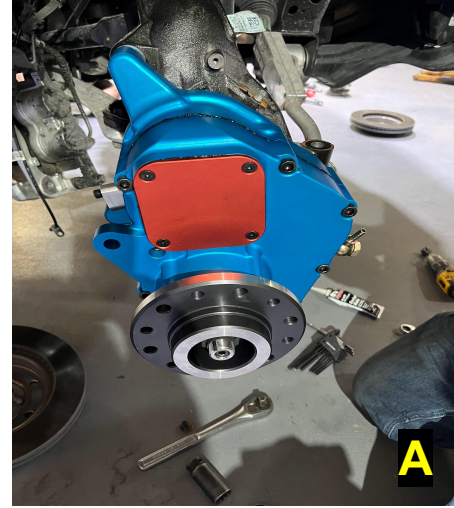
10) Ensure all Drain Plugs are tightened

11) Remove Banjo Fitting and fill it with 80/90 Gear Oil until Oil starts to drain out (see photo C) then put Banjo Fitting back on.

12) Go around and tighten all of the Allen Screws and Hubs

13) Using a 38mm Impact, double check that all the Axle Nuts are tightened.

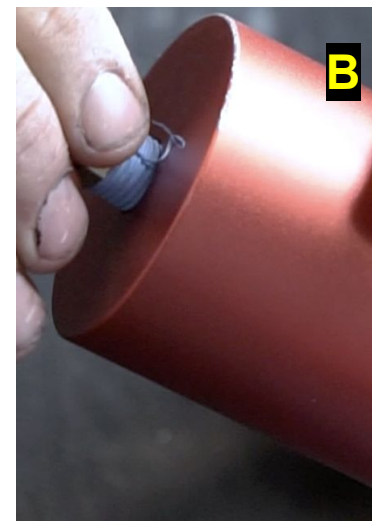
14) Add a notch into axle nut using a hammer and screwdriver, (see photo D)



Part Five

Mount Oil Overflow Reservoirs

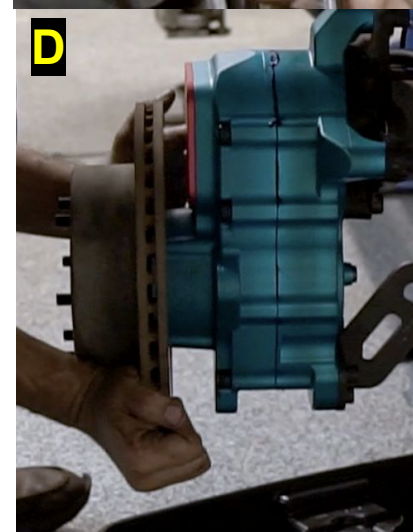
1. Install Oil Reservoir Brackets (See photo A)
2. Wrap Teflon Tape around Barbed Fitting and screw into the bottom of the oil reservoir can (See photo B)
3. Mount Oil Reservoirs onto Brackets and secure with zip ties
 - a. Note: if high water is anticipated, it is recommended to add the small tube provided and run to a higher spot in the Engine Bay to make sure no water can get into the Oil Reservoirs.
4. Run provided line through Banjo fitting (See photo C)



Part Six

Brakes (Phase One)

- 1) Install Front Extended Brake Lines (see photos A and B)
 - a. Remove old brake line and cap ends to reduce fluid loss.
 - b. Install extended brake line to caliper and hard line from master cylinder. (see photo C)
 - i. Note: Check for leaks both front and back before starting the brake bleed portion.
 - c. Apply Blue Loctite on Caliper Bolts and Reinstall Caliper - We recommend replacing your Brake Pads at this point if needed
 - d. Reinstall Rotors (see photo D)



2) Install Rear Extended Brake Lines

- a. Crimp lines first before removing old brake lines. (see photo A)
- b. Remove portion of tape and extend wires to electric brake module. (see photo B)
- c. Remove old brake line from caliper
- d. Install new brake line (see photo C)
- e. Reinstall Caliper (see photo D)

