

LOWER ASSEMBLY INSTALLATION INSTRUCTIONS

1. PREPARE THE CAR

Make sure you have the car on a flat even surface with plenty of room to work. Next, set the parking brake and chock the rear wheels so the car will not roll. Now raise the front end of the car off the ground approximately 12-inches and secure it with heavy-duty jack stands placed under the frame. You can now remove the front wheels to gain access to the brake system.

2. REMOVING THE BRAKE DRUM / HUB ASSEMBLY

Remove the dust cap from the center of the hub. Next remove the cotter pin that locks the large castle nut. Now remove the castle nut and washer. You can now slide the Brake Drum / Hub Assembly off the spindle, allowing you access to the brake shoes.

3. REMOVING BRAKE SHOES AND BRAKE BACKING PLATE

Remove the brake shoes and hardware to allow access to the steering arm bolts. Once they are out of the way you can now loosen the two steering arm bolts and remove them. Save the steering arm for re-assembly. Early Novas with 4 lug hubs require later model 5 lug steering arms, DBSA02. Next remove the large anchor pin at the top of the backing plate and then remove the entire backing plate assembly from the spindle.



*F/X Body
Steering Arm*

4. INSTALLING THE CALIPER BRACKETS



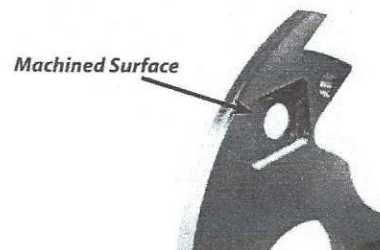
Passenger Side Front

Note: Some spindles have a 1/2" bolt, others used a 5/8" bolt, both sizes are provided with the kit. Remember to apply Loctite to these bolts.



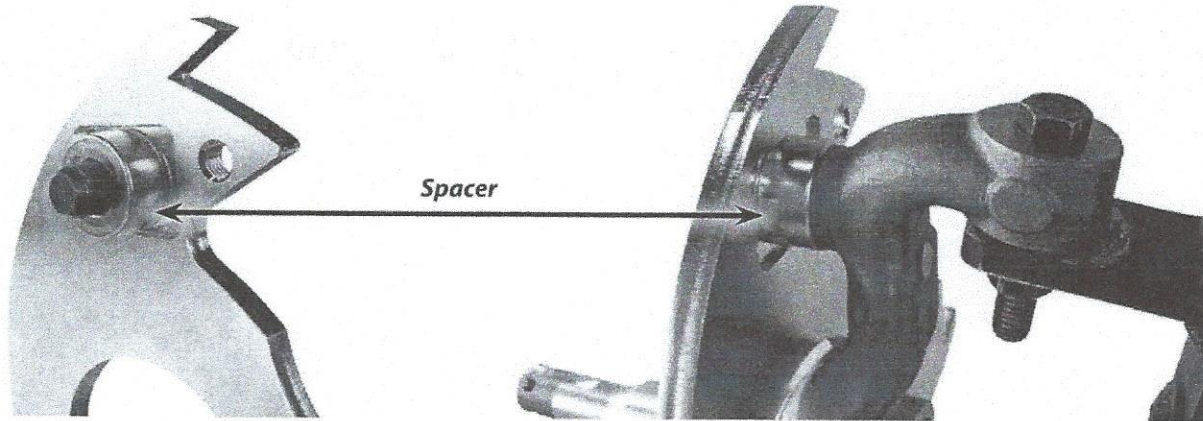
- **Drum Brake Spindles**

Install the appropriate caliper bracket onto the spindle with the caliper opening of the bracket towards the rear of the car. Be sure the machined surface faces the spindle. Using the special bolt provided, apply Loctite to the threads and insert it into the top of the spindle.

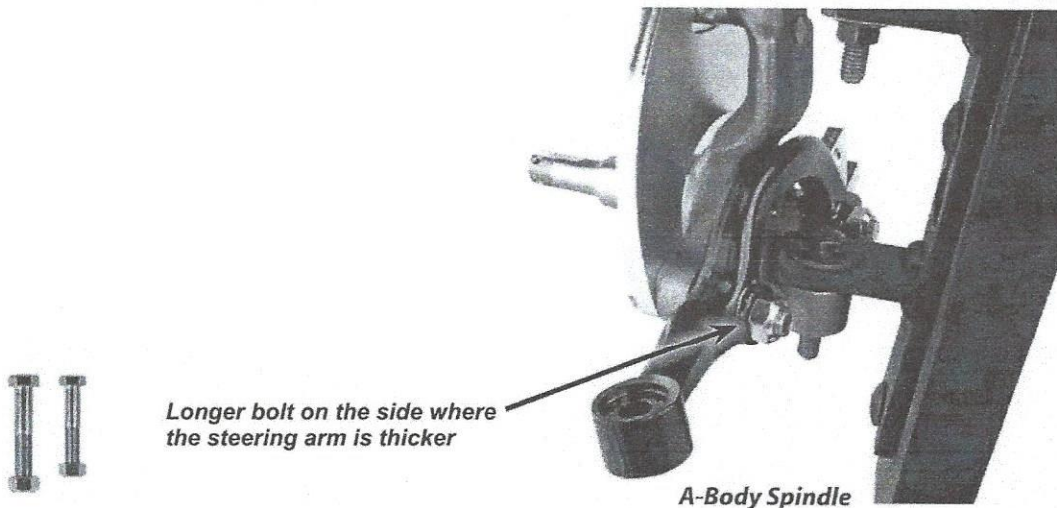


- **Disc Brake Spindles**

Same as the drum brake spindle installation except you must use the spacer provided on the top caliper bracket mounting bolt.



Attach the bottom of the caliper bracket thru the rear steering arm bolt hole, with the new 1/2-inch bolts provided. Now put the steering arm back onto the spindle, then torque these two bolts to 85 ft. lbs., then Loctite and tighten the top bolt to 120 ft. lbs.



Note: Some pre '67 cars used 7/16-inch bolts. You will need to drill the spindle and steering arm holes out to 1/2-inch for the new hardware.

5. BEARINGS / INSTALLING THE BEARINGS & GREASE SEAL INTO THE ROTORS

First inspect the rotor inner cavity and bearing race surfaces for any machining debris and clean / remove as necessary. Now apply a generous amount of high temp wheel bearing grease to the bearing race found inside the hub area on the front and back of the rotor. Next you will need to pack the new wheel bearing with the high temp grease as well. To do this you

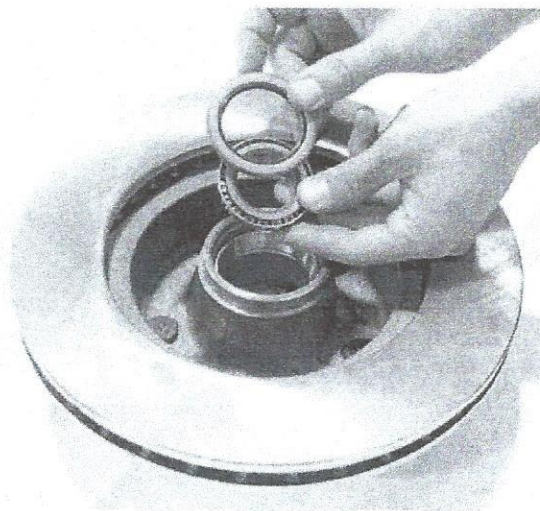
can use a tool that is available at most auto parts stores, along with a grease gun, and really gets the bearing packed nice and is a lot cleaner on your hands!

The other, old fashioned way, filling the palm of your hand with wheel bearing grease and then forcing it "into" the bearing a little bit at a time can be done, but you must get the grease **COMPLETELY** inside the cage and on all surfaces of the rollers. It is **NOT** good enough to just smear grease on the outer part of the wheel bearings, they must be **PACKED**! Failure to do so could result in pre-mature wheel bearing failure.

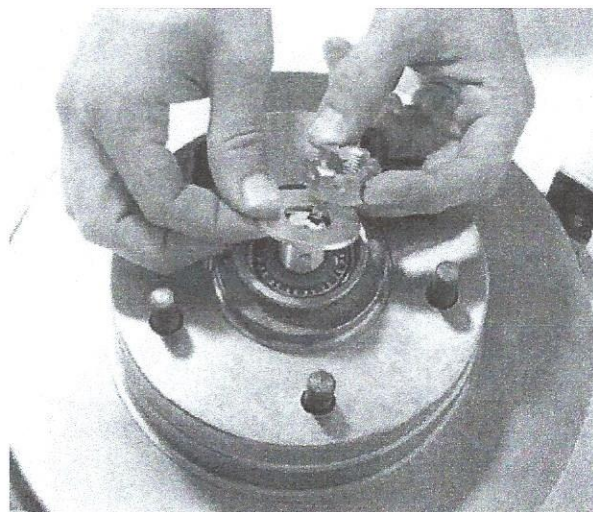
Once you have the wheel bearings packed, insert the larger of the two bearings into the backside of the rotor, and then install the new grease seal provided by tapping it into place with a small hammer, taking care to not damage the inner rubber part of the seal.

**Using a small block of wood between the hammer and seal works well to avoid damaging it during installation.*

Now slide the rotor onto the spindle and then slide the smaller bearing on, followed by the keyed washer and castle nut. Make certain that they keyed washer is flush up against the outer bearing.



Inner Bearing Assembly



Outer Bearing Assembly

6. ADJUSTING THE FRONT WHEEL BEARINGS

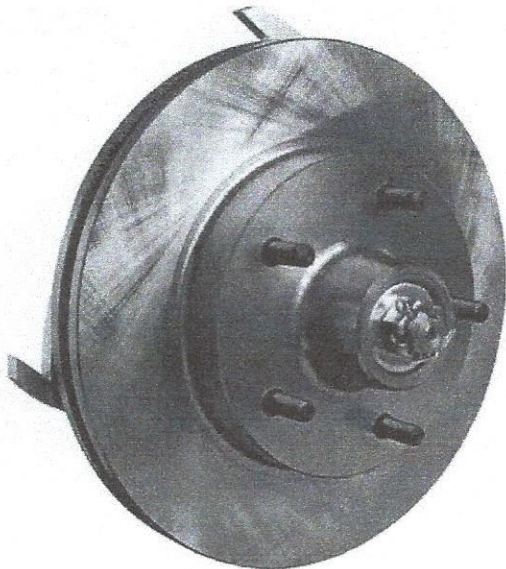
While rotating the rotor, tighten the spindle castle nut to 12 ft. lbs. **Basically just tight enough to "seat" the bearings*

Now back off the spindle castle nut one flat and insert the cotter pin. If slot in the castle nut and the pin hole in the spindle do not line up, back off the castle nut an additional ½ flat or less as required to insert the cotter pin.

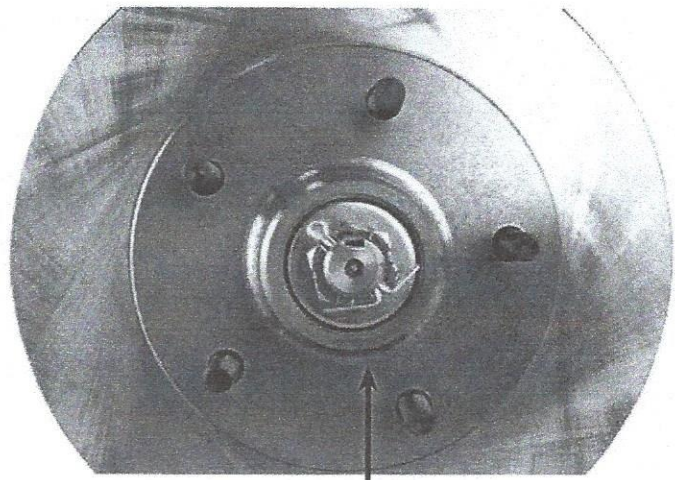
**A flat refers to one of the flat sides of the castle nut*

Note: Bearings should have ZERO preload and .001-inch to .008-inch end movement when properly adjusted. You can check this by grabbing the rotor on either side and move it back and forth laterally. There should be no lateral movement in the rotor.

Spin the rotor to check that it rolls freely and then lock the castle nut in place by spreading the end of the cotter pin apart and bending it over. Next install the new dust cap. You can do this with a large socket placed over the top of the cap so that the edges of the socket are catching the edge of the dust cap, and then use a large mallet to drive it into the rotor snout. A small hammer and flat punch can also be used to install it, going from one side to the other a little at a time.



Note: Spin the Rotor to check that it rolls freely.



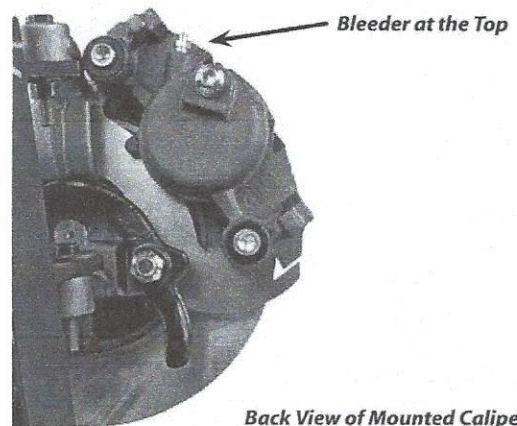
Note: Bend the ends of the cotter pin.

7. MOUNTING THE CALIPERS

Note: There is a left and right caliper, when installed correctly the bleeder screws will be at the top. If the bleeder screws are at the bottom you will not get the system to bleed properly.

Your new calipers come fully loaded with pads, bolts and copper washers. Start by removing the caliper bolts and position the caliper in the bracket **with the bleeder screw at approximately the 12 o'clock position**. Insert the caliper pins/bolts and torque/tighten to 30 ft. lbs.

If the caliper won't install in the brackets with the bleeder pointed up, you probably have the opposite side caliper.



8. MOUNTING THE FLEX HOSES

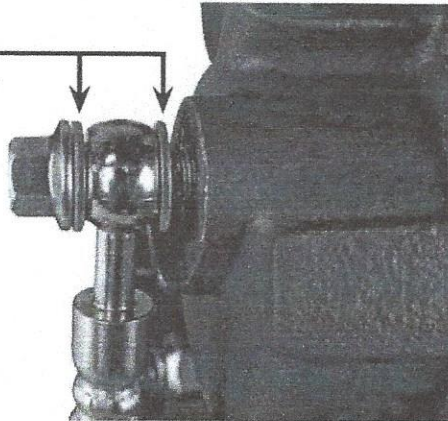
Next remove the banjo bolt and copper washers from the caliper. Place one copper washer on the banjo bolt and insert it thru the flex hose, then put the other copper washer over the banjo bolt on the other side of the flex hose. Now bolt the flex hose onto the caliper and torque/tighten the banjo bolt to 45-65+ ft. lbs.

****If you find that fluid is seeping around the copper washers, do not be afraid to put a little more torque on the banjo bolts to seat them! Do not go over 80 ft. lbs. though.***

Insert the other end of the flex hose into your original frame bracket and insert the new retaining clip supplied in your kit. In some cases, you may need to file the opening in the original bracket on the frame to accommodate the new flex hose. The flex hose might seem a little tight when you turn the wheels lock to lock. This is normal in most cases, as the suspension is flexed to the absolute limits of its travel. If after hooking up the flex hose, you feel that it is under too much tension, change the position and or direction that the hose is routed to alleviate some of the tension on the hose.

At this time, you can hook up your hard line to the brake hose and this will complete the installation of the 14-inch wheel disc brake conversion assembly.

Note: Make sure the copper washer is on both sides.



9. A FEW RECOMMENDATIONS AFTER INSTALLATION

- Go over these instructions carefully and double check that you have followed them correctly and that everything is tightened and adjusted properly.
- It may be necessary to have your alignment checked after the installation. It is possible for the tie rod adjusting sleeve to come out of adjustment.
- Once you have bled the brake system be sure to check for leaks.
- Before operating the vehicle on a public roadway, confirm that you have a working emergency brake and that you have a firm operating brake pedal.