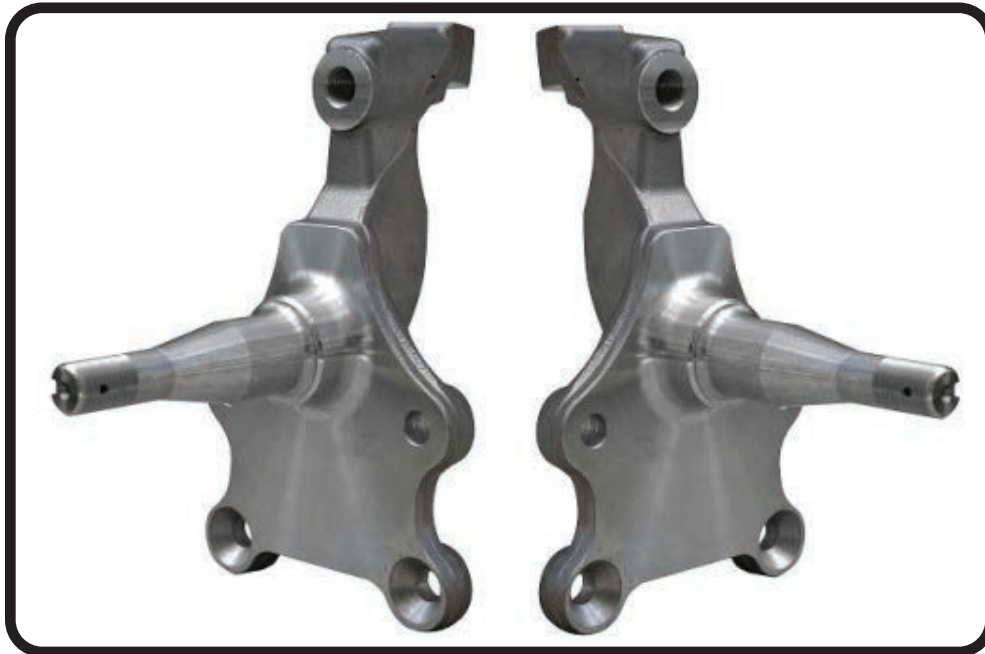
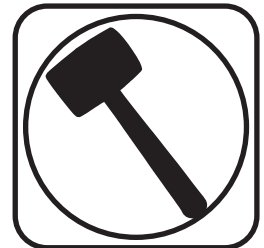




Part # 11009303 - A/F/X Tall Spindle Kit



Recommended Tools



A/F/X Tall Spindle Kit

Installation Instructions

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THIS SPINDLE IS DESIGNED TO FIT 64-72 GM A-BODY, 67-69 GM F-BODY, AND 68-74 GM X-BODY. THESE SPINDLES ARE SYMMETRICAL, THEY AREN'T SIDE SPECIFIC UNTIL THE STEERING ARM IS BOLTED ON.

THESE SPINDLES ARE A DIRECT REPLACEMENT FOR OEM DISC BRAKE SPINDLES. IF YOUR CAR HAS DRUM BRAKES, YOU WILL HAVE TO CONVERT IT TO DISC BRAKES. THEY WILL ACCEPT ANY BRAKE KIT THAT IS DESIGNED FOR THE OEM DISC BRAKES SPINDLES.



Major ComponentsIn the box

Part #	Description	QTY
11009304	Spindles (Pair)	1 pair
90002743	3/4"-20 Spindle Nut Kit	1 kit

Part #	Description	QTY
Hardware KIT # 99010174		
99621001	5/8"-18 X 1" BOLT	2
99501071	1/2"-20 x 3" FSCS	4
99501054	1/2"-20 x 2 1/2" FSCS	2
99502002	1/2"-20 Nylok Nut	6
99502005	1/2"-20 x 2" Bolt	2
99952003	1/8" x 1 1/2" Cotter Pins	4

Getting Started.....

These spindles will fit '67-69 Camaro, '64-'72 Chevelle, and '68-'74 Nova. They will provide a 2" drop, and are taller than stock to improve the car's cornering ability. The raised upper ball joint induces negative camber gain and positive caster gain. This helps keep the tires flat on the pavement when cornering. This camber action change also raises the roll center for less body roll, and transfer the car's center of gravity inboard in the turn as well. You will see an appreciable improvement in handling.

These spindles are designed around stock disc brake spindles and will accept any disc brake set up designed for those. **The only modification we discovered to be necessary, was a small trim on the bottom of the stamped 1/4" steel caliper bracket that holds the caliper. SEE IMAGE 13.** It is an area that is not stressed and will not cause any loss of strength. Trim only enough to make the caliper bracket clear the spindle. If you are using the factory dust shields, they will also require trimming. If your car came with drum brakes, be sure to swap to the appropriate disc brake master cylinder and valving.

Disassembly

1. Set the parking brake and chock the rear wheels.
2. Raise the front of the vehicle and place floor stands under the lift points. Do not place the floor stands under the lower control arms because spring tension is needed to assist in breaking loose the ball joint studs. If you are just replacing the spindle, leave the shock in place to help prevent the coil spring from coming out.
3. Remove wheel and tire assembly.
4. Remove brake caliper. If it's a drum brake car, the drum will need to be removed to access the steering arm hardware.
- ! CAUTION: When the brake caliper is removed, do not allow it to hang unsupported from the brake hose. Use a piece of wire or zip tie to support the caliper to prevent damage to the brake line.**
5. Remove tie rod end from knuckle.
6. Remove hub-disc assembly.



Disassembly

7. Remove ball joint studs from knuckle using the following procedure.

a. Place floor jack under the control arm spring seat and raise it until it supports the control arm.

! CAUTION: Floor jack must remain under the control arm spring seat during removal and installation of the spindle to retain the spring and control arm in position.

b. Remove cotter pins from upper and lower ball joint studs.

c. Loosen ball joint nuts two turns

d. Gently tap knuckle with mallet to free ball joints or use ball joint separator.

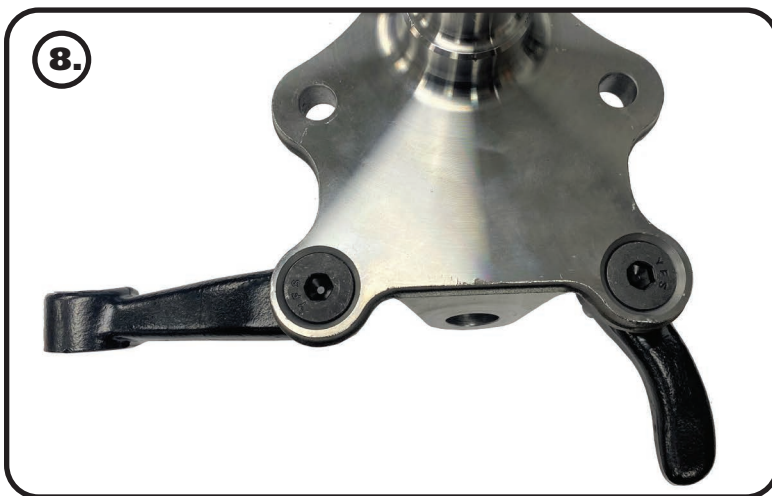
e. Remove ball joint nuts on upper and lower ball joints.

f. Raise the upper control arm by hand and disengage the ball joint stud from the knuckle.

g. Remove the knuckle from the lower ball joint stud.

h. Inspect ball joint and tie rod ends for wear or damage. Replace if necessary.

Installation



8. The steering arm will bolt to the BOTTOM set of holes in the Ridetech spindle using the supplied 1/2" hardware. The mounting bosses of the steering arm are 2 different thicknesses. The uses a 1/2"-20 x 3" flat socket cap screw. The thin boss will use a 1/2"-20 x 2 1/2" flat socket cap screw.

NOTE: Some steering arms have 7/16" mounting holes, they will need to be drilled out using a 1/2" drill bit.



9. Line up the steering arm mounting holes with the bottom 2 holes of the spindle. Insert the 3" long bolt through the thick boss and the 2 1/2" long bolt through the thin boss, inserting the bolts from the front of the spindle. Slip the steering arm onto the bolts. Install a 1/2"-20 nylok nut on each bolt. The steering arm hardware will need to be torqued to 100 ftlbs, but it is easier to torque with the spindle installed on the car.



Installation

10. Attach the spindles to the control arms. Torque the ball joints and tie rods end using the torque specs below.

Torque Specs:

- Lower Ball Joint - 65 ftlbs and tighten to line up cotter pin.
- Upper Ball Joint - 50 ftlbs and tighten to line up cotter pin.
- Tie Rod End - 35 ftlbs and tighten to line up cotter pin.

11. If installing a new disc brake kit, refer to the brake kit manufacturer's instructions.

12. If reinstalling the OEM disc brakes, torque the upper 5/8" -18 bolt to 120 ftlbs and the lower 1/2" -20 bolt to 100 ftlbs.



13. Again, you may need to trim the bottom corner of the OEM bracket to clear the spindle.

The Finish

Wheel Bearing Tightening:

While turning the rotor, tighten the nut to 12 ftlbs with a torque wrench. Back off the nut one flat and insert the cotter pin. If the slot and pin hole don't line up, back off the nut an additional half flat or less as required to insert the pin. Note: Bearings should have zero preload and .001" to .008" of end movement. Bend the ends of the cotter pin, replace the dust cap. On a disc brake with the caliper removed, it's normal to have a slight amount of play detectable in the bearing.

Suggested Alignment Specs:

- Camber: Street: -.5 degrees
- Caster: Street: +3.0 to + 5.0 degrees
- Toe: Street: 1/16" to 1/8" toe in

14. Recheck all hardware before driving.

15. PUMP THE BRAKE PEDAL BEFORE DRIVING TO RESET THE BRAKE PADS TO THE ROTOR. IF YOU HAD THE CALIPERS REMOVED, BLEED THE BRAKE SYSTEM.