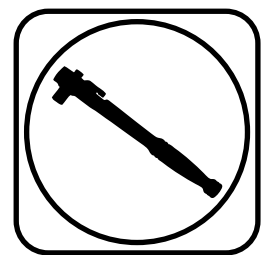




### Part # 11009312 - GM Hub Bearing Spindle



#### Recommended Tools



## GM Hub 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.  
THIS KNUCKLE IS ALSO DESIGNED TO BE USED ON SOME RIDETECH SUSPENSION KITS.  
THESE SPINDLES ARE SYMMETRICAL, THEY AREN'T SIDE SPECIFIC UNTIL THE STEERING ARM AND CALIPER BRACKET ARE BOLTED ON.



### Major Components .....In the box

Item #	Part #	Description	QTY
1	70015750	Spindle	2
2	90003535	Steering Arm Threaded Insert	4

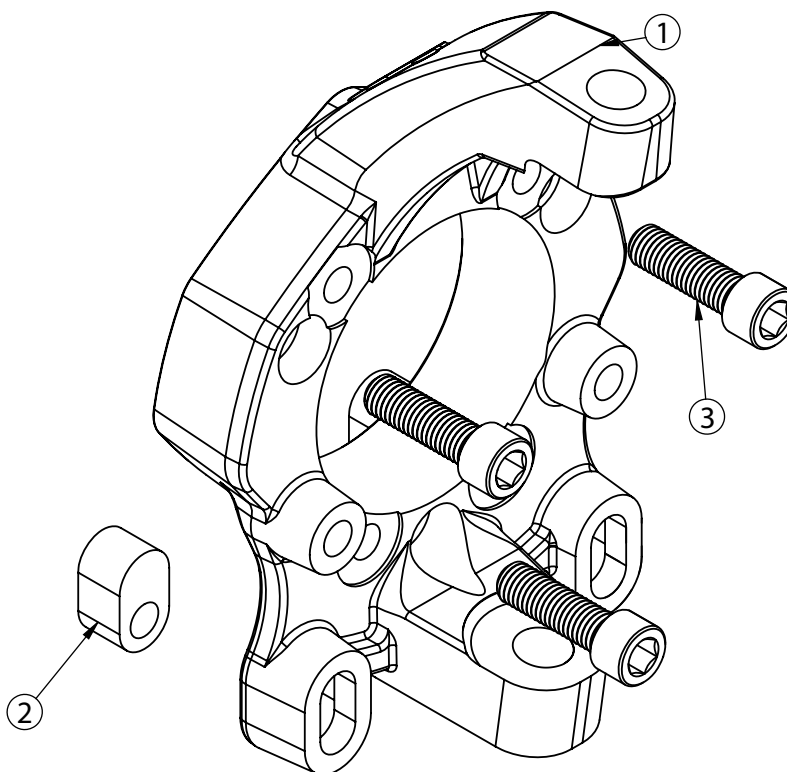


Figure 1

### Hardware List .....In the box (Kit # 99010230)

Item #	Part Number	Description	QTY	Item #	Part Number	Description	QTY
<b>SPINDLE TO HUB</b>				<b>STEERING ARMS</b>			
3	99121020	M12-1.75 X 40mm SHCS	6	not shown	99501043	1/2"-13 x 2" Hex Bolt	2
	90002263	Red Loctite	1	not shown	99501026	1/2"-13 x 2 1/4" Hex Bolt	2
				not shown	99503014	1/2" SAE Flat Washer	4

### Getting Started.....

These spindles will fit '67-69 Camaro, '64-'72 Chevelle, and '68-'74 Nova. They are also designed to fit some Ridetech suspensions. 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.



### Notes

These spindles are designed around 1997-2013 Corvette (C5/C6) or 2014-2019 Corvette (C7). C5 & C6 will have wheel speed sensors built into the bearing. C7 hubs are preferred, they are stronger and more cost effective as they don't have a wheel speed sensor (Moog 513378).

Ridetech offers bracket kits to adapt C5/C6 Corvette brake kits:

C5/C6 Caliper Brackets - 11009546

The C5/C6 caliper bracket kit is designed around OEM C5, & C6 Corvette brakes. Aftermarket brakes that are designed for these cars will also fit this bracket kit.

These spindles have are setup with multiple positions for the steering arm to help with bumpsteer. The instructions will give you a recommendation of what position to install the steering arms based off the vehicle you are installing them on.

### 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.
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 spindle.
  - 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.



### Hub Bearing & Spindle Installation



**8.** The Hub is attached to the spindle using (3) M12-1.75 x 40 SHCS. Apply RED Loctite to each of the mounting bolts. Insert them into the correct holes and Torque to 99 ftlbs.



**9.** Attach the spindles to the control arms. Torque the ball joints 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.

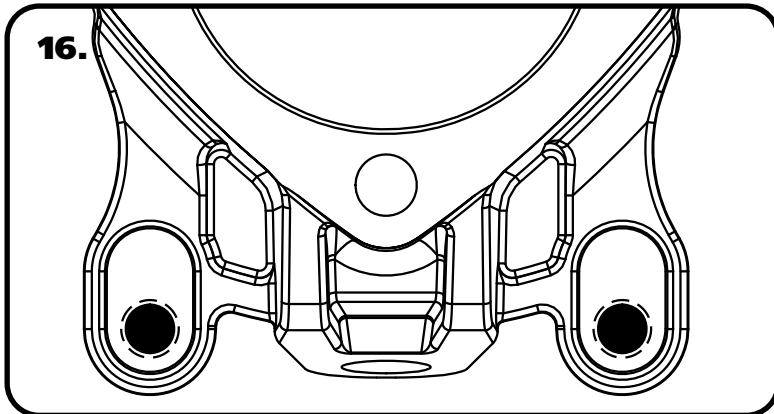
**Note:** The steering arms will **NOT** get attached to the knuckle until the brakes are attached.

Install the caliper brackets at this time.

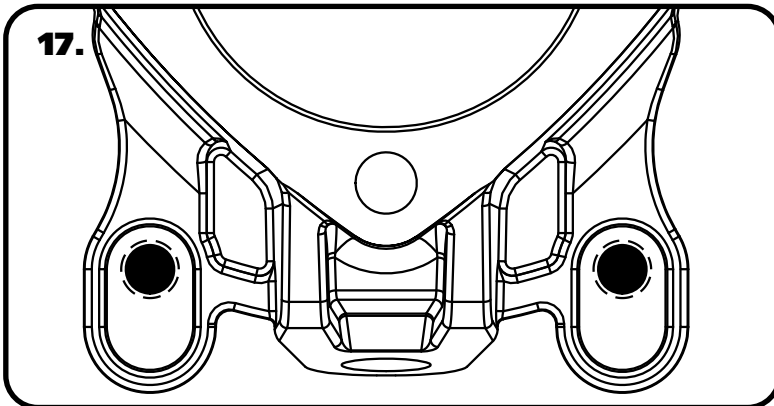


### Steering Arm Installation

The threaded steering arm inserts can be mounted in 2 different positions. **Images 16 & 17** will help you determine the correct position for the installation on your vehicle. These positions are what we determined to be the best with Ridetech suspension. If you have another brand of suspension, we recommend measuring the bumpsteer on your car to help determine the best position.



- 16.** Bottom Position:  
62-67 Nova Ridetech Kit  
67-69 Camaro Ridetech Subframe  
68-74 Nova Ridetech Subframe



- 17.** Top Position:  
67-69 GM F-Body  
68-74 GM X-Body  
64-72 GM A-body  
63-81 Corvette Ridetech Kit



- 18.** Insert the steering arm inserts into the spindle using the correct orientation from the details above.



### Steering Arm & Caliper Installation



**19.** The steering arm will bolt to the Ridetech spindle using the supplied 1/2" hardware. The mounting bosses of the steering arm are 2 different thicknesses. The thicker boss uses a 1/2"-13 x 2 1/4" hex bolt. The thin boss will use a 1/2"-13 x 2" bolt. Install a 1/2" SAE flat washer on each bolt. Apply red loctite on the threads of the bolt and install them in the correct location. Torque the hardware to 80 ft-lbs. Verify that the bolts are sticking through the slugs.

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



**20.** Install the brake pads and caliper.

**21.** Install the outer tie rod end in the steering arm.

**Torque Specs:**

Tie Rod End - 35 ftlbs and tighten to line up cotter pin.

**22. FINISH PLUMBING THE BRAKE SYSTEM AND BLEED THE SYSTEM.**

### The Finish

**Suggested Alignment Specs:**

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

**23.** Recheck all hardware before driving.