

Detroit Speed
Front Speed Kits
1967-87 GM C10 Truck
P/N: 032084DS, 032085DS, 032086DS, 032087DS, 032088DS,
032089DS, 032090DS, 032091DS & 032092DS

The Detroit Speed Front Speed Kits are designed to improve the handling and performance of your 1967-87 GM C10 Truck while lowering the front ride height by 4-1/2". Speed Kit 1 and 2 includes 2" drop coil springs and shocks as well as forged aluminum 2-1/2" drop spindles with forged steel steer arms. The uprights include hub packs with a dual bolt pattern offering a 5 x 5" or 5 x 4-3/4" bolt pattern. The 1971-72 truck Speed Kit 1 applications include new upper ball joints and outer tie rods. The 1967-70 truck Speed Kit 1 applications includes new upper and lower ball joints, outer tie rod ends and billet steel tubular tie rod adjusters. 1967-87 truck Speed Kit 2 kits include everything in the Speed Kit 1 adding in a tubular 1-7/16" diameter sway bar along with new upper and lower ball joints, inner and outer tie rod ends and billet steel tubular tie rod adjusters.



PN: 032086DS - 1967-70 C10 Truck Speed Kit 1

Item #	Description	Quantity
1	Forged Aluminum Upright Assemblies, LH and RH	2
2	2" Drop Coil Springs (Speed Kit 1 & 2 only)	2
3	Front Shocks (Speed Kit 1 & 2 only)	2
4	Inner Tie Rod End (Speed Kit 2 only)	2
5	Outer Tie Rod End (Speed Kit 2 or 1967-72 applications only)	2
6	Upper Ball Joints (Speed Kit 2 or 1967-72 applications only)	2
7	Lower Ball Joints (Speed Kit 2 or 1967-70 applications only)	2
8	Tubular Tie Rod Adjusters (Speed Kit 2 or 1967-70 applications only)	2
9	Instructions	1

IMPORTANT:

All work should be performed by a qualified technician. Please read the entire set of instructions and fully understand all of the steps involved before beginning the project. Always make sure to wear the appropriate safety equipment for the job and properly support the vehicle. If you have any questions before, during, or after the installation, feel free to contact Detroit Speed by phone at (704) 662-3272 or by email at tech@detroitsspeed.com.

1973-87 C10 Wheel & Tire Fitment Suggestions					
Diameter (in.)	Width (in.)	Backspacing (in.)	Lug Nut Thread Pitch	Recommended Tire Size	Comments
Stock Inner Fender					
18	9	5.50	1/2"-20	275/45R18	Deep Lug Nuts Required
19				275/40R19	
20				275/35R20	
Modified or No Inner Fender					
18	11	6.50	1/2"-20	295/45R18	Deep Lug Nuts Required
19				295/40R19	
20				305/35R20	

NOTE: Minimum wheel diameter of 17" with an inside wheel diameter of at least 16.250" will be required.

Caution: Some brake applications will not work with 17" wheels. Flush mount valve stems may also be required on wheels with a behind the center valve stem location.

NOTE: New front brakes are required parts for the C10 front suspension. OE-style GMT800 truck new front brake upgrades are recommended below. Aftermarket front brake systems are also available through Baer and Wilwood for the C10 front suspension.

OE-style Brake Recommendations:

Front Caliper, RF	Raybestos FRC11713N or AC Delco 18FR2246N
Front Caliper, LF	Raybestos FRC11714N or AC Delco 18FR2247N
Front Brake Pads	Raybestos EHT1363H or AC Delco 17D1363CHF1

Brake Hose	Raybestos BH38102 (Use on 1967-72 applications)
Brake Hose, RF	Raybestos BH 38065 (Use on 1973-87 applications)
Brake Hose, LF	Raybestos BH 38066 (Use on 1973-87 applications)
Brake Rotor, 13"	Detroit Speed 050403DS

Baer Brake System Part Numbers:

4301586	Pro+ 13" rotor (R, B, or S for caliper color)
4301587	Pro+ 14" rotor (R, B, or S for caliper color)
4301588	Extreme+ 14" rotor (R, B, or S caliper color)

Wilwood Brake System Part Numbers:

140-16781	Superlite 6 piston caliper, 13.06" slotted rotor, black powder coat
140-16781-D	Superlite 6 piston caliper, 13.06" drilled & slotted rotor, black powder coat
140-16781-DR	Superlite 6 piston caliper, 13.06" drilled & slotted rotor, black powder coat
140-16781-R	Superlite 6 piston caliper, 13.06" slotted rotor, red powder coat
140-16780	Aerolite 6 piston caliper, 14.25" slotted rotor, black powder coat
140-16780-D	Aerolite 6 piston caliper, 14.25" drilled & slotted rotor, black powder coat
140-16780-DR	Aerolite 6 piston caliper, 14.25" drilled & slotted rotor, red powder coat
140-16780-R	Aerolite 6 piston caliper, 14.25" slotted rotor, red powder coat

Installation:

1. Raise the vehicle on jack stands so that the frame is level with the ground. Remove the front wheels from the vehicle.
2. Disconnect the front sway bar from the lower control arms if equipped, by removing the factory 3/8" hardware (Figure 1). If installing the Speed Kit 2, remove the front sway bar if equipped. Remove the outer tie rods from the steer arms.



Figure 1 - Disconnect Sway Bar

3. Remove the brake hose from the brake caliper on both sides of the vehicle. **NOTE:** Push a piece of rubber hose in the brake hose fitting to keep it from leaking (Figure 2).



Figure 2 - Remove Brake Hose

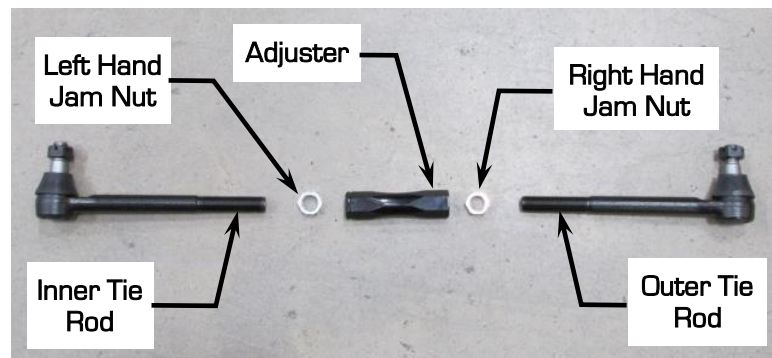
4. Place a floor jack under the lower control arm and remove the shocks from the vehicle (Figure 3). Lower the floor jack so the upper control arm sits on the jounce bumper on the frame. **NOTE:** If you are installing the drop spindle kit, just remove the lower shock bolt.



Figure 3 - Remove Shocks

5. Remove the cotter pins from the upper and lower ball joint castle nuts. Loosen both ball joint castle nuts.

6. Place a floor jack under the lower control arm and thread the upper and lower ball joint castle nut so they are at the end of the threads on the ball joint. Lower the floor jack slowly to see if the spindle will loosen from the ball joints and rest on the castle nuts. If not, you may need to try and shock the ball joints loose from the spindle with a soft hammer or use a ball joint separator.
7. Once the upper ball joint is separated from the spindle, lower the floor jack so the lower control arm and spindle drop all the way down out of the upper ball joint stud. **CAUTION:** The coil spring will be under pressure.
8. The coil spring can be removed from the vehicle at this point. Remove the lower ball joint castle nut and remove the spindle and brake assembly from the lower control arm.
9. For PN: 032090DS, skip to **Step 17**. For 1973-87 Speed Kit 1 applications, skip to **Step 16**. For 1971-72 Speed Kit 1 applications, skip to **Step 14**. For 1967-70 Speed Kit 1 and all 1967-87 Speed Kit 2 applications, continue to the next step.
10. Remove the inner tie rod cotter pin and castle nut. Remove the inner tie rod from the center link. Remove the outer tie rod from the tie rod adjuster sleeve.
11. For Speed Kit 1, install the outer tie rod into the center link where the inner tie rod was removed. **NOTE:** Your outer tie rod will now be your inner tie rod. For Speed Kit 2, Install the provided inner tie rod into the center link. Torque the castle nut to 35 ft-lbs. for 1967-72 trucks and 45 ft-lbs. for 1973-87 trucks plus additional torque to align and install the cotter pin. Trim the cotter pin as needed.
12. Thread the provided tie rod adjuster and jam nut onto the inner tie rod (Figure 4). **NOTE:** For 1967-70 applications, the smaller thread diameter on the tie rod adjuster adapter, will be installed onto the inner tie rod.



Application	Inner Tie Rod	Jam Nut	Adjuster	Jam Nut	Outer Tie Rod
1973-87 Speed Kit 2	1973-87 Inner Tie Rod (092341DS/ 104-10361)	11/16"-18 LH (Thin)	090102BDS (4.25" L)	11/16"-18 RH (Thick)	1973-87 Outer Tie Rod (092340DS/ 104-10362)
1971-72 Speed Kit 1	Use Factory Inner Tie Rod	Use Factory Jam Nuts	Use Factory Adjuster	Use Factory Jam Nuts	
1971-72 Speed Kit 2	1971-72 Inner Tie Rod (99030607/ES403L)	11/16"-18 LH (Thin)	090102BDS (4.25" L)	11/16"-18 RH (Thick)	
1967-70 Speed Kit 1	Use Factory <u>Outer</u> Tie Rod	5/8"-18 LH (Yellow)	99090001 (5.25" L)	11/16"-18 RH (Clear)	
1967-70 Speed Kit 2	1967-70 Inner Tie Rod (104-10260)				

Figure 4 – Tie Rods & Adjuster

13. The lower control arm ball joint is pressed into the control arm so you may want to remove the lower control arm from the vehicle in order to remove the ball joint. Once the old ball joint is pressed out, press the new provided ball joint into the lower control arm. Re-install the lower control arm if removed. Torque the lower control arm U-bolts to 85 ft-lbs.
14. Remove the upper ball joint from the upper control arm by removing the four bolts. Install the provided ball joint with the new hardware into the upper control arm and tighten (Figure 5).



Figure 5 – Replace Upper Ball Joint

15. Thread the provided outer tie rod and jam nut into the tie rod adjuster so you have a similar thread length showing on the inner and outer tie rod on both sides of the vehicle.
16. Install the provided shock onto the upper shock mount stud on the frame. **NOTE:** A new upper shock mount stud is provided if you need to replace the one in your frame. Install the provided hardware to hold the shock in place. Do not torque the upper shock mount hardware.
17. With a floor jack under the lower control arm, place the correct upright assembly onto the lower control arm ball joint. **NOTE:** If you have purchased the DSE brake hose bracket kit (PN: 050402) install the brackets on the uprights before installing the uprights into the truck. Thread the castle nut and washer onto the lower ball joint to keep the upright assembly in place (Figure 6). **NOTE:** The steer arm on the corner assembly will be pointing towards the front of the vehicle.



Figure 6 – Install Upright Assembly

18. Place the provided coil spring or position your coil spring into the lower control arm coil spring pocket. Orientate the spring so the tail of the spring lands between the two small holes or half way over the single hole in the coil spring pocket (Figure 7).



Figure 7 – Locate Coil Spring

19. Slowly raise the lower control arm with the floor jack so the coil spring fits up into the upper spring pocket in the frame (Figure 8). The upright assembly will also need to line up with the upper ball joint stud.

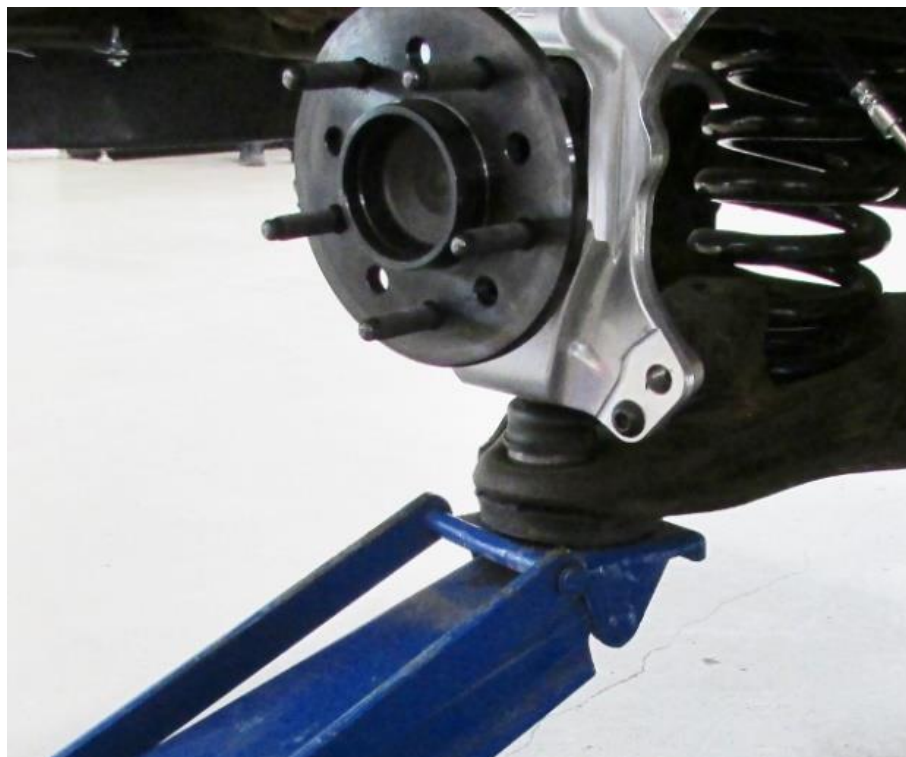


Figure 8 – Install Upright to Upper Ball Joint

20. As you raise the lower control arm, position the shock so it fits between the two tabs on the lower control arm. Once the shock mounting hole lines up with the tabs, install the lower shock bolt through the shock and mounting tabs. Install the hex nut and washer onto the bolt however do not torque the fasteners at this time.
21. Verify that the coil spring has fit into the upper spring pocket and raise the floor jack up until you can fit the upper ball joint stud into the upright. Thread the castle nut and washer onto the ball joint to hold it in place.

22. Confirm the coil spring is correctly located in the upper and lower spring pockets. Then, tighten the upper and lower ball joint nuts. Torque the lower ball joint nut to 90 ft-lbs. and the upper ball joint nut to 50 ft-lbs. Apply additional torque to the castle nut to align and install the cotter pin in the upper and lower ball joints. Split the cotter pin and bend one half around the top side of the castle nut and the other half around the bottom side of the castle nut. Trim the cotter pin as needed (Figure 9).

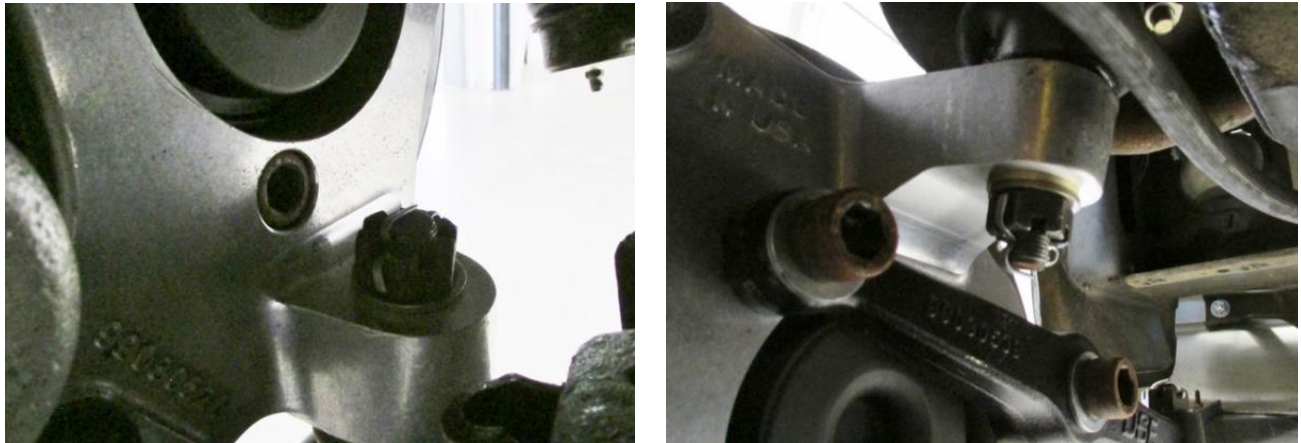


Figure 9 – Install Ball Joint Castle Nuts and Cotter Pins

23. Install the outer tie rod into the steer arm on the upright and tighten the castle nut. Torque the castle nut to 35 ft-lbs. plus additional torque to align and install the cotter pin. Trim the cotter pin as needed (Figure 10).



Figure 10 – Install Outer Tie Rod

24. Torque the upper and lower shock mount to 60 ft-lbs. Repeat Steps 5 through 23 for the opposite side of the vehicle.

25. Detroit Speed offers 13" front brake rotors with a 5 x 5" and 5 x 4-3/4" dual bolt pattern if you plan on running OE style brake calipers and pads. Use Detroit Speed part number 050403DS for the rotor kit (Figure 11). Detroit Speed also offers a 9" dual diaphragm brake booster and master cylinder kit, PN 050110DS for the 1967-72 truck applications (Figure 12).



Figure 11 – Brake Rotor Kit



Figure 12 – Brake Booster/Master Cylinder Kit

26. Install your front brake kit per the manufacturers' instructions. Attach the brake hoses and bleed the brake system.

27. Re-install the factory sway bar end links to the lower control arms if equipped. Torque the fasteners to 25 ft-lbs. on both sides of the vehicle (Figure 13). For Speed Kit 2 installations, follow the Detroit Speed sway bar (PN: 031419DS) instructions to install your front sway bar.



Figure 13 – Speed Kit 2 with DSE Rotor Kit

28. Re-install your wheels and tires back onto the vehicle. Lower the vehicle to the ground. Jounce the front end of the vehicle while rolling the vehicle back and forth to settle the suspension.

29. Inspect the clearance between the jounce bumper on the lower control arm and the frame. You may need to trim the jounce bumper to give you about 2" of gap between the bumper and the frame with your lowered ride height (Figure 14).



Figure 14 – Trim Jounce Bumper

30. The Detroit Speed uprights include adjustable steer stops on the backside of the uprights that can be adjusted depending on your wheel size and backspace. If you have enough wheel/tire clearance at full steering lock, you can remove the M12 steer stop bolt and remove the washers as needed to increase your turning radius (Figure 15). **NOTE:** If you are using 20" diameter wheels, you may need to manipulate the lower control arm if the wheel is interfering with the lower control arm at full steering lock.



Figure 15 – Steer Stop Adjustment

31. Torque the front wheels to the manufacturers' specifications. Adjust your tie rod adjusters so you have slight toe-in on both sides of the vehicle. Detroit Speed recommends having your alignment set at a professional alignment shop so you have 0 to 1/16" of toe-in.

If you have any questions before or during the installation of this product, please contact Detroit Speed at tech@detroitsspeed.com or 704.662.3272

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