



Detroit Speed
G-Body Rear Coilover Conversion Kit
1978-1988 G-Body
P/N: 042420DS & 042422DS

The Detroit Speed G-body Rear Coilover Conversion Kit is a terrific way to upgrade the rear suspension in your G-Body vehicle. The kit replaces the existing coil spring and shock combination with a “Detroit Tuned” coilover shock and spring package. The kit is a complete bolt-on package and includes all necessary parts to complete the conversion.



P/N: 042420DS Shown

Item	Description	Quantity
1	Detroit Speed Coilover Shock	2
2	Coilover Spring	2
3	RH Upper Coilover Shock Mounting Plate	1
4	LH Upper Coilover Shock Mounting Plate	1
5	RH Lower Coilover Shock Mounting Bracket	1
6	LH Lower Coilover Shock Mounting Bracket	1
7	Torrington Bearing Set	1
8	Hardware Kit	1
9	Instructions	1

NOTE: This kit will not work with the 1978-88 G-Body Wagon applications.

PN	Description	Quantity
9304134	Lower Bracket Hardware Kit (P/N: 042420)	1
980056FS	M12 x 1.75 x 110mm Hex Head Bolt	2
980057FS	M12 x 1.75 x 35mm Hex Head Bolt	2
960055FS	M12 x 1.75 Nylock Nut	4
970026FS	M12 Flat Washer	8
980058FS	1/2"-20 x 3" L Hex Head Bolt	2
960004FS	1/2"-20 Nylock Nut	2
970037FS	1/2" SAE Washer	2
9304228	3/4" OD x 3/4" L Spacer	2
9304379	Upper Bracket Hardware Kit	1
980058FS	1/2"-20 x 3" L Hex Head Bolt	2
960004FS	1/2"-20 Nylock Nut	2
970037FS	1/2" SAE Washer	2
980059FS	3/8"-24 x 1" L Hex Head Bolt	6
960032FS	3/8"-24 Nylock Nut	6
970023FS	3/8" SAE Flat Washer	12
970042FS	7/16" SAE Flat Washer	2
9304228	3/4" OD x 3/4" L Spacer	2
9304411	Lower Bracket Hardware Kit (P/N: 042422)	1
980056FS	M12 x 1.75 x 110mm Hex Head Bolt	2
980057FS	M12 x 1.75 x 35mm Hex Head Bolt	2
960055FS	M12 x 1.75 Nylock Nut	4
970026FS	M12 Flat Washer	10
980002FS	1/2"-20 x 2-3/4" L Hex Head Bolt	2
960004FS	1/2"-20 Nylock Nut	2
970037FS	1/2" SAE Washer	2
99030321	3/4" OD x 5/8" L Spacer	2

Fastener Torque Specifications - G-Body Rear Coilover Kit	
Application	Torque (ft.-lbs.)
Upper Coilover Bracket Mounting Bolts	30
Upper Shock Mounting Bolts	60
Lower Coilover Bracket Mounting Bolts	75
Lower Shock Mounting Bolts	60

1. To begin installation, chock the front wheels and loosen the rear lug nuts. Raise the rear of the vehicle and support the vehicle with jack stands under the frame. Remove the rear wheels.
2. Support the rear axle and remove the shocks and springs from the vehicle. **CAUTION:** The springs may be under pressure and may require the use of a spring compressor.

Lower Coilover Bracket Installation

3. Remove the lower suspension link bolts from the rear axle.

4. Position the lower coilover mounting brackets on the axle. There are two mounting positions for the lower mounting brackets to allow for different final ride heights—using the upper mounting holes will result in a lower final ride height. Insert the provided M12-1.75 x 110mm hex head bolt through the brackets and lower suspension links. Install the M12 flat washer on the bolt along with the M12-1.75 Nylock nut. Do not tighten at this point.
5. Install the M12-1.75 x 35mm hex head bolts through the rear holes in the brackets and fasten using an M12 flat washer on the bolt along with an M12-1.75 Nylock nut (Figure 1). Do not torque at this point. **NOTE:** If you are installing P/N: 042422DS, there are extra M12 flat washers that can be installed between the lower coilover bracket and the aftermarket axle bracket to take up any gap between the brackets if needed.



Figure 1 - Installed Lower Coilover Bracket (P/N: 042420DS Shown)

Upper Coilover Bracket Installation

6. Install the upper coilover shock mount. In the larger, outboard holes, use the included 7/16" SAE flat washers in addition to the included 3/8" SAE flat washers with the 3/8"-24 x 1" L hex head bolts and 3/8"-24 Nylock nuts. In the two remaining holes, insert two 3/8"-24 x 1" L hex head bolts through the doubler plate and thread the provided 3/8" Nylock nuts onto the bolts along with the 3/8" AN washers. Torque all of the hardware at this time to 30 ft-lbs. (Figure 2).



Figure 2 - Installed Upper Coilover Bracket

7. Assemble the coilover shock at this time. Remove the upper spring seat from the retaining ring using a rubber hammer and moving it down off the upper shock mount (Figure 3). Remove the retaining ring from the upper shock mount and pass the upper spring seat over the upper shock mount (Figure 4).



Figure 3 - Removing the Upper Spring Seat Figure 4 - Upper Spring Seat & Retaining Ring

Thread the spanner nut all the way to the bottom of the coilover shock and install the Torrington bearing set (Figure 5) on each shock by installing one thrust washer, followed by the roller bearing and then another thrust washer. DSE recommends using high pressure grease between the roller bearings and thrust washer.



Figure 5 - Torrington Bearing Set

8. Slide the coilover spring over the top of the upper shock mount. Install the upper spring seat back over the top of the upper shock mount and re-install the retaining ring back onto the upper shock mount. Press the upper spring seat up onto the retaining ring so it locks in place. Make sure the spring centers on the coilover nut.
9. Attach the coilover shock assembly to the upper shock mount. Insert a 1/2"-20 x 3" L hex head bolt along with a 3/4" OD x 3/4" L shock spacer through the mounting bracket and the upper coilover shock monoball. **NOTE:** The shock monoball should be in between the welded tube on the bracketry and the floating spacer. If applicable, install the shocks so that the shock adjustment knobs face inboard. Once the bolt is installed, install a 1/2" SAE washer and thread a 1/2" Nylock Nut onto the bolt using anti-seize on the threads. Torque the bolt to 60 ft-lbs. (Figure 6).



Figure 6 - Install Upper Shock Mount

Final Installation Procedures

10. With all of the coilover shock mounting brackets installed and the coilover shocks mounted at the upper mount, raise the rear axle of the vehicle to line up the coilover shock with holes in the lower mounting bracket. **CAUTION:** Be sure the coilover shocks are out of the way when raising the rear axle.
11. Insert a 1/2"-20 x 3" L hex head bolt along with a 3/4"OD x 3/4" L shock spacer through the mounting bracket and the lower coilover shock monoball if you have purchased P/N: 042420DS. Insert a 1/2"-20 x 2-3/4" L hex head bolt along with a 3/4" OD x 5/8" L shock spacer through the mounting bracket and the lower coilover shock monoball if you have purchased P/N: 042422DS. **NOTE:** The shock monoball should be in between the welded tube on the bracketry and the floating spacer.
12. Once the bolt is installed, install a 1/2" SAE Washer and thread a 1/2" Nylock nut onto the bolt using anti-seize on the threads (Figure 7). Torque the bolt to 60 ft-lbs.



Figure 7 – Install Lower Shock Mount

13. At this point, set the rear axle at ride height and torque all four of the lower bracket bolts to 75 ft-lbs. Repeat the two previous steps for the opposite side.
14. Thread the coilover adjusting nut up until there is some tension on the spring (Figure 8 on the next page). Once tension is reached, turn the nut an additional three to four turns. Ride height will be adjusted later as this is simply a starting point. DSE recommends cleaning the threads of the shock. Once the threads are clean, DSE recommends applying dry bicycle chain lube to the threads of the shock body before adjusting the spanner nut and compressing the coilover spring. Allow the chain lube to dry before adjusting the spanner nut.



Figure 8 - Completed Coilover Installation

15. Once the vehicle is set on the ground, settle the suspension by jouncing both the front and rear by hand by pressing down on the body. Check the ride height at this point and adjust as necessary by turning the coilover adjusting nut. Detroit Speed does include a spanner tool (P/N: 031060DS) to adjust ride height. A picture of the spanner tool can be seen in Figure 9.



Figure 9 - Spanner Tool

16. Once the vehicle is adjusted to the desired ride height, tighten the set screw on the spanner nut in place as there are two slots through the threads on the shock body 180° apart. One of these two slots is where the set screw should be, so you don't damage the threads on the shock body.
17. The installation is now complete

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