

Detroit Speed
Rear Coilover Kit
2010-15 Camaro
P/N: 042430DS, 042430-DDS

The Detroit Speed 2010-15 Camaro rear coilover kit is a direct bolt-on assembly that completely replaces the OEM rear strut assembly. The kit uses a Detroit Speed/JRI all aluminum shock with "Detroit Tuned" valving. The kit allows ride adjustment and easy rear spring changes and lowers the car 1" to 2" from stock.



Item	Description	Quantity
1	Rear Coilover Shock Assembly	2
2	Tapered Spacer	4
3	Reservoir Mounting Bracket with hardware	2
4	Spanner Tool	1
5	Instructions	1

1. With the car safely up on jack stands remove the rear wheels.
2. Remove the rear sway bar assembly.
3. Disconnect the rear brake line from the tab on the upper control arm.

4. Support the lower control arm with a floor jack. Remove the lower shock bolt and the upper control arm bolt at the spindle. **CAUTION: Be aware that the upper control arm is usually under some preload and can spring upward once the bolt is removed.** (Figure 1)

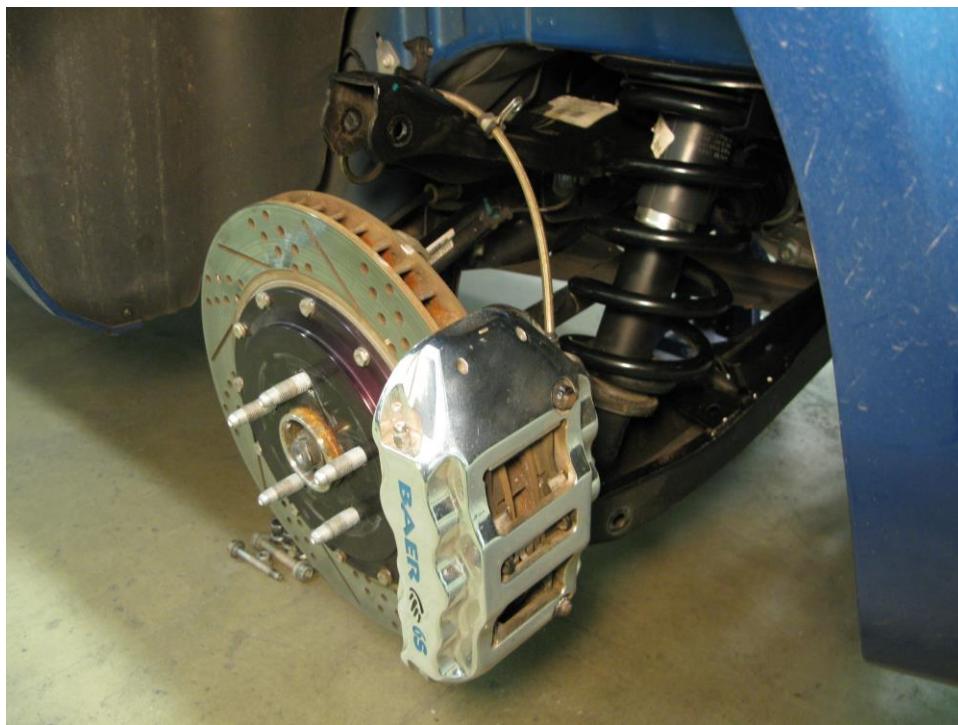


Figure 1

5. Release the floor jack to allow the lower control arm to droop down. Remove the four bolts that attach the upper strut to the rear frame rail. The OEM strut assembly can now be dropped down out of the car. Push down on the lower control arm assembly to allow the lower strut out of the lower control arm. The strut assembly will now drop down out of the upper frame rail pocket and out of the car. (Figure 2)

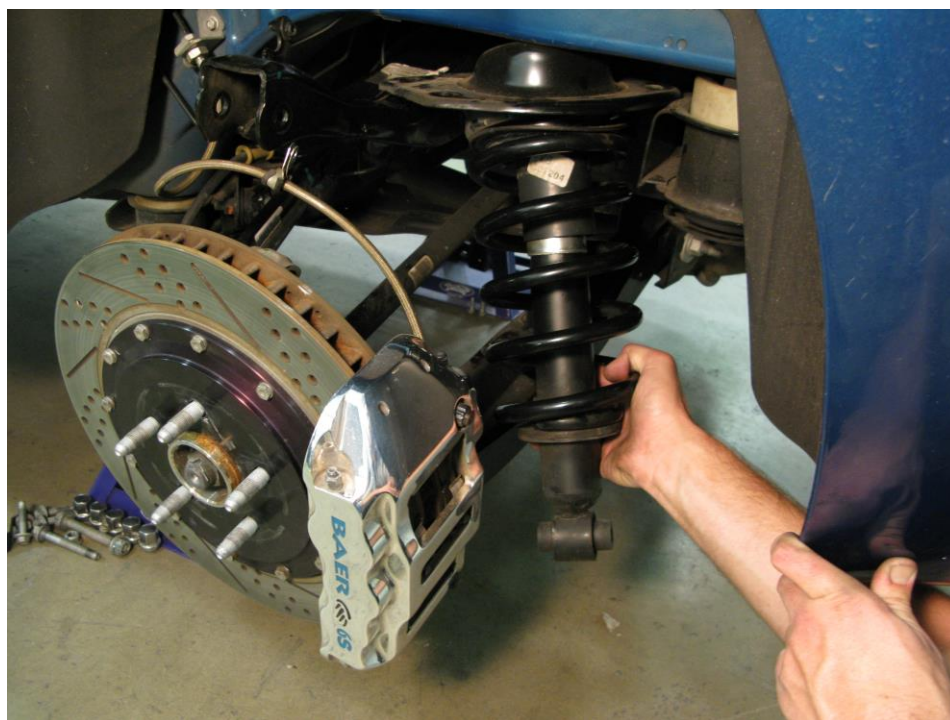


Figure 2

- Note that you have the correct coilover assembly for the side of the vehicle you are installing. Position the Detroit Speed rear shock assembly up into the frame rail cavity. The reservoir hose should be on the outboard side of the frame rail. Re-use the original OEM bolts and torque to 43 ft/lbs. Medium strength blue Loctite 242 is recommended on these bolts. (Figure 3)

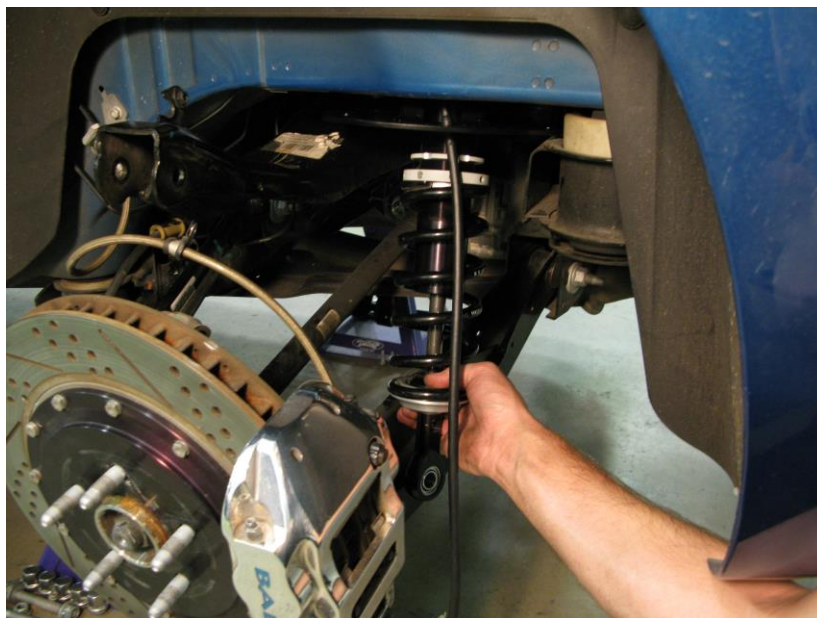


Figure 3

- Use a floor jack to bring the lower control into position on the lower shock eyelet. Make sure the two tapered spacers are in position and the adjustment window is facing rearward. Re-use the original OEM bolt and nut. Torque the nut to 59 ft/lbs. +120°. (Figure 4)



Figure 4

- Re-attach the upper control arm at the spindle and torque to 44 ft/lbs. +90°.
- Re-attach the rear brake line to the tab on the upper control arm.

10. The shock reservoir can now be mounted to the rear lower control arm using the included bracket and hardware. If you have stock control arms, a $13/64$ " hole needs to be drilled in the rear flange. Drill the hole $8-1/2$ " from the CL of the lower spindle bolt as shown in (Figure 5). If you have Detroit Speed control arms a hole is already provided. (Figure 6)



Figure 5



Figure 6

WARNING: Do not over-tighten the set screw in the remote canister mount. If the set screw is over-tightened it could result in permanent damage to the remote canister.

11. Repeat these steps for the other side of the vehicle.
12. Re-install the rear sway bar assembly using the OEM procedure and torques.
13. Put the rear wheels back on and torque the lug nuts to proper OEM specs.
14. Set the final ride heights using the coilover nuts. Lock the coilover jam nut when finished.

WARNING: When setting your ride height, do not allow there to be less than 1-1/8" of exposed threads on the shock body above the spanner nut. Failure to leave enough clearance between the spanner nut and the upper shock mount bracket will cause permanent damage to the shock.

- a. With the vehicle assembled with all components installed, adjust the vehicle ride height. Before adjusting the ride height, Detroit Speed 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. If you have the non-adjustable shocks, the spanner nut has a soft tip set screw that will need to be tightened before the vehicle is driven.
- b. Detroit Speed does include a Spanner Tool (P/N: 031060DS) to adjust ride height however if you have the double adjustable coilover shocks (P/N: 042430-DDS), Detroit Speed does offer an Adjustment Tool available as P/N: 031061DS if needed. A photo can be seen in Figure 7.



Figure 7 - Detroit Speed Spanner & Adjustment tools

Figure 8 below shows recommended alignment settings for performance street use.

Alignment Specifications	
Rear	
Camber	-0.50° (-0.25° to -0.75°)
Toe	0 (+/- .030")

Figure 8 - Specifications are listed as nominal with a range in parentheses

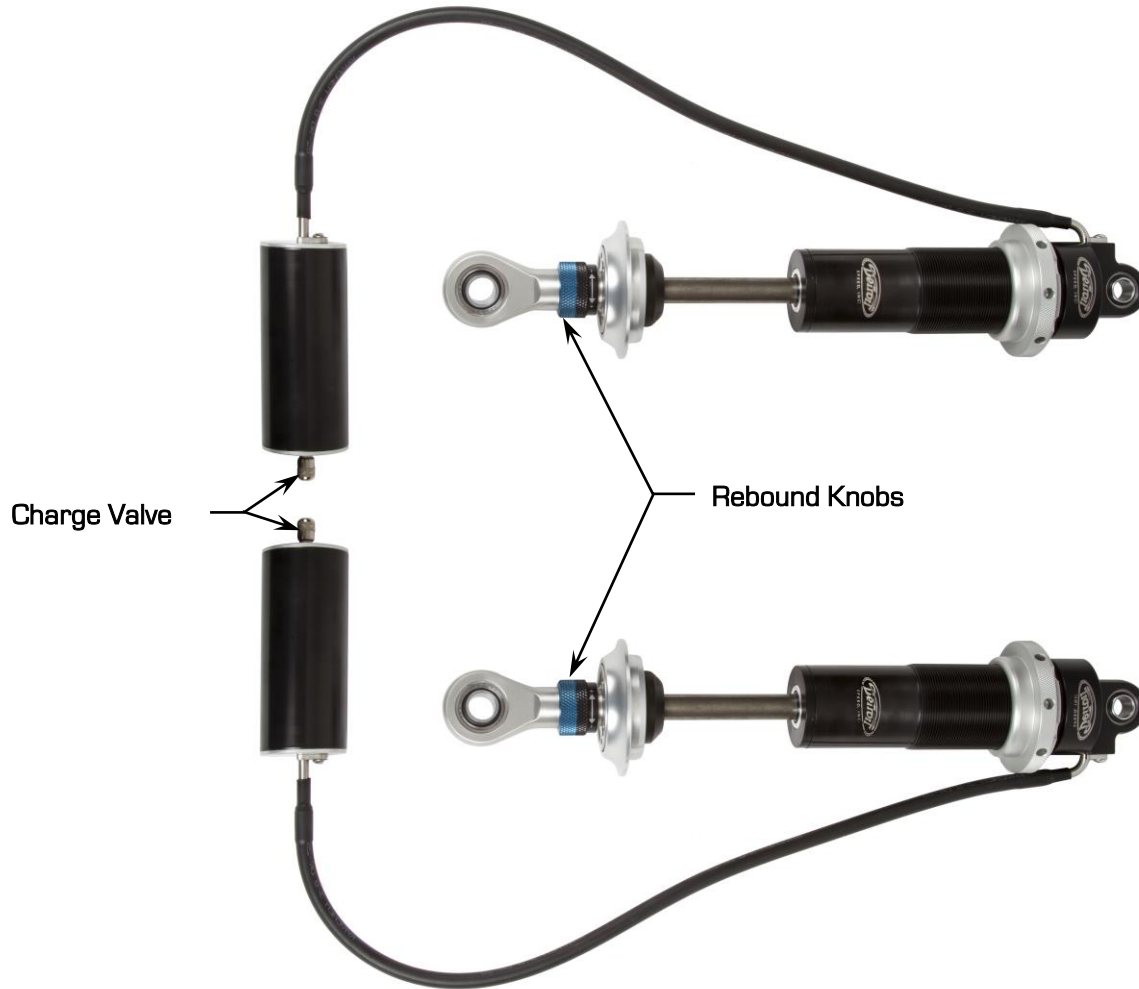
Figure 9 below shows recommended alignment settings for track use on street tire.
(Increase negative camber for non-DOT racing tires)

Alignment Specifications	
Rear	
Camber	-0.75° (-0.5° to -1.0°)
Toe	0 (+/- .030")

Figure 9 - Specifications are listed as nominal with a range in parentheses

Single Adjustable Shock Adjustment Procedure

To change from the recommended "Detroit Tuned" valving, adjustments can be made independently to the rebound setting. The rebound is controlled by the knob at the lower shock mount (Shock is mounted body side up). The knob rotates clockwise (+) to increase the damping and counterclockwise (-) to decrease the damping.



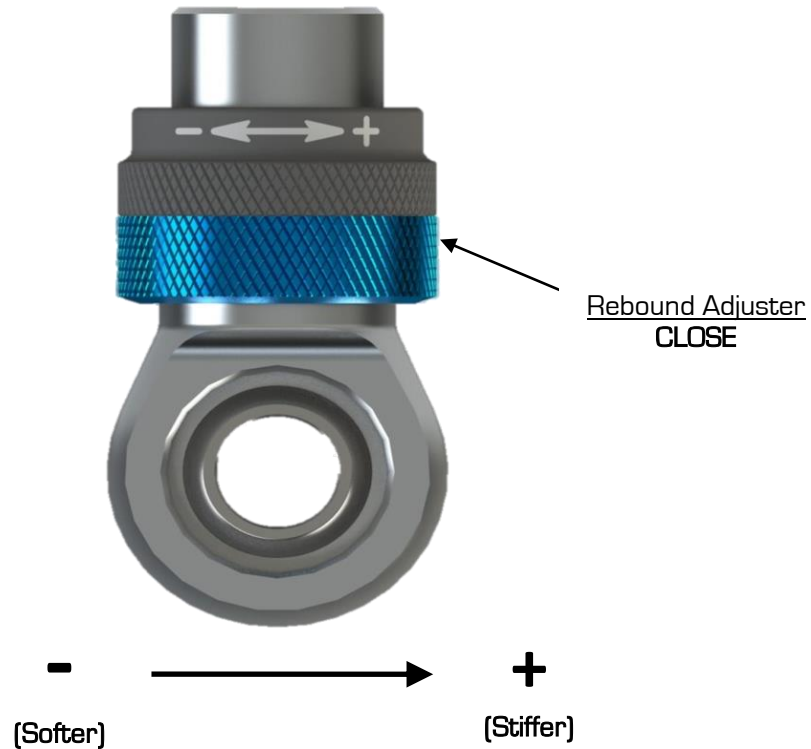
Detroit Speed Single Adjustable Shock w/remote canister

To return to the Detroit Speed recommended settings, turn the knob clockwise (+) to full damping. Once at full damping, turn counterclockwise (-) to reach the recommended settings. Refer to Figure 10 for the recommended starting setting.

Rebound (Shaft Knob) 20 Open (counterclockwise, -)

Figure 10 - Detroit Speed Recommended Settings

Adjuster Operation



- **Adjuster (60-64 Clicks)**

The low-speed adjuster is a “clicker” style adjuster meaning that its adjustment is measured by detents located inside the blue adjuster knob. There are 16 clicks per 1 revolution of the knob. It uses a right-hand thread in its operation which means as you increase low-speed, the adjuster will move up on the eyelet. The recommended change for an adjustment is 8 clicks at a time. The low-speed adjuster’s reference position is **full stiff** (closed, or all the way up) and referred to -0 (-0 = full stiff, -64 = full soft).

- **Tuning Notes**

- **Racetrack**

- For more grip, soften the damping.
- For increased platform control, stiffen the damping.

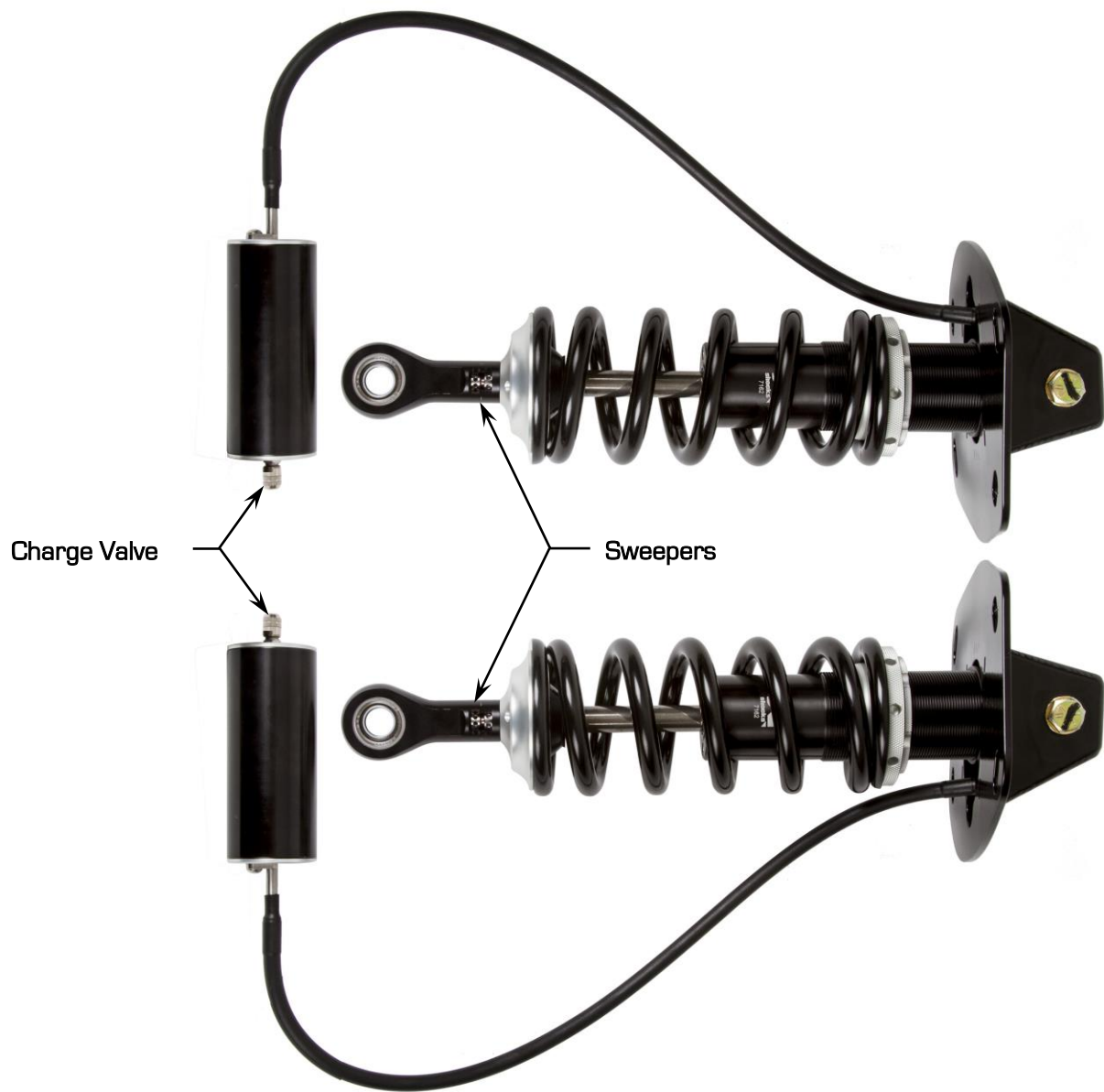
- **Street**

- For a more comfortable ride, soften the damping

***DO NOT FORCE KNOB WHEN IT STOPS TURNING, YOU MAY DAMAGE THE ADJUSTER AND INTERNAL HARDWARE**

Double Adjustable Shock Adjustment Procedure

To change from the recommended “Detroit Tuned” valving, adjustments can be made independently to both the high and low speed settings. The rebound is controlled by the sweepers at the lower shock mount. The sweepers rotate clockwise (+) to increase the damping and counterclockwise (-) to decrease the damping.



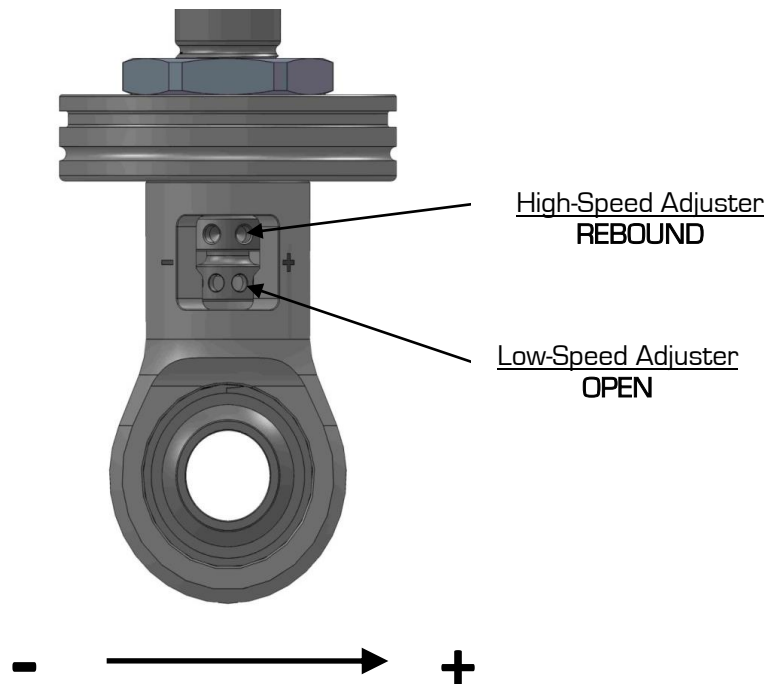
Detroit Speed Double Adjustable Shock with remote canister

When adjusting the low speed rebound start at full (+) position, when adjusting the high speed rebound start at full (-) position. To return to the Detroit Speed recommended settings turn the sweeper clockwise (+) to full damping for the low-speed setting, and counterclockwise (-) to full damping for the high-speed setting. Once at full damping, turn counterclockwise (-) for the low-speed setting, and clockwise (+) for the high-speed setting to reach the recommended settings. Refer to Figure 11 for recommended starting settings.

Low-Speed Rebound (Sweeper)..... 20 sweeps (counterclockwise)[-]
 High-Speed Rebound (Sweeper)..... 2 sweeps(clockwise)[+]

Figure 11 - Detroit Speed Recommended Settings

Adjuster Operation



- **High-Speed Adjuster (12 Sweeps)**

The high-speed adjuster is a “sweep” style adjuster meaning that its adjustment is measured by the location of the adjuster in the eyelet window. It uses a left-hand thread in its operation which means; as you increase high-speed, the adjuster will move down in the window*. The high-speed adjuster’s reference position is **full soft** and referred to as +0 (+0 = full soft, +12 = full stiff).

- **Low-Speed Adjuster (25 Clicks)**

The low-speed adjuster is a “clicker” style adjuster meaning that its adjustment is measured by detent grooves located inside the high-speed shaft. It uses a right-hand thread in its operation which means; as you increase low-speed, the adjuster will move up in the window. The low-speed adjuster’s reference position is **full stiff** and referred to -0 (-0 = full stiff, -25 = full soft).

**The low-speed adjustment does not change when adjusting the high-speed.*

Once again, we appreciate your business.

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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