



# INSTALLATION INSTRUCTIONS

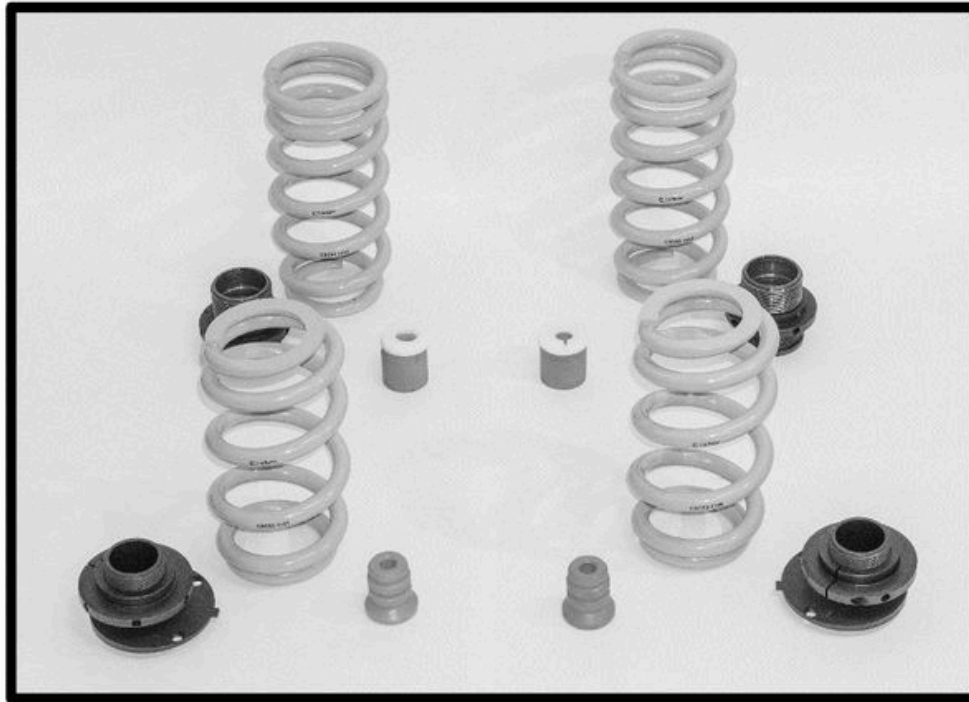
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**Mercedes-AMG C63/C63s Coupe/Convertible Coilover Kit**

**CARBAHN PART #:  
CBC63-3141**



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**Mercedes-AMG C63/C63s Coupe/Convertible**  
**Coil Over Kit**

**CarBahn Part# CBC63-3141**

Parts List:

QTY	DESCRIPTION	CARBAHN PART #
2	FRONT SPRING	CBC63-3142
2	FRONT LOWER PERCH COLLAR	CBC63-3118
2	FRONT LOWER PERCH	CBC63-3120
2	FRONT BUMP RUBBER	CBHRD-3023
6	3MM PACKER	CBHRD-3025
4	M5 X 0.8MM SCREWS	
2	SPRING RUBBER	CBHRD-3049
2	REAR SPRING	CBC63-3108
2	REAR UPPER PERCH	CBC63-3113
2	REAR UPPER PERCH COLLAR	CBC63-3114
2	REAR BUMP RUBBER 14MM	CBHRD-3024


# Info


**Kit ID:** CBC63-3141


**Version:** 1.1.3

**Date Published:** December 10<sup>th</sup>, 2020


# Warnings

 If not used and installed properly this component can significantly affect the performance and drivability of the vehicle.

 Use secure jack stands, do not work on vehicles supported by a jack only.

 Re-aligning the car after installation is required to fully utilize the kit and not affect drivability, only use the CarBahn recommended alignment.

 Please only use recommended Mercedes procedure for working on the car and installing these parts.

 Due to the extensive lowering possible, the installer must carefully evaluate tire clearance under all situations:

- During and after installation of this kit
- After any ride height changes
- After any alteration to the original tire/wheel package

If you determine there is insufficient clearance, the vehicle must be raised, safety will be compromised if all precautions are not taken. CarBahn is not responsible for any property damage or injury.

# Installation Notes

CarBahn's target bump stop gap measurements are as follows:

	Comfort	Sport	Track
Front	6 mm	5 mm	4 mm

The above values were developed for a vehicle with the following specifications:

- ⊕ 2017 Mercedes-AMG C63S Coupe
- ⊕ Forgeline 20" x 9.5" front wheels with 285 x 30 x 20 Michelin Pilot Sport Cup 2 R compound tires
- ⊕ Forgeline 20" x 10.5" rear wheels with 305 x 30 x 20 Michelin Pilot Sport Cup 2 R compound tires
- ⊕ CarBahn Caster Adjuster kit.
- ⊕ CarBahn Front Camber Adjuster kit.
- ⊕ Rear Camber Adjuster Shims.
- ⊕ CarBahn Adjustable Toe Links.

If your vehicle has been configured differently, you may alter the target values as required per your situation.

Best performance was generated using the set up below

CarBahn's test vehicle camber angle, caster angle and toe angle measurements:

Set up for a front tire that is 20mm smaller than the rear:

- ⊕ Toe: 0.2° Total Toe IN for front and 0.4° Total Toe IN for rear.
- ⊕ Camber: -2.2° for front and -2.7° for rear.
- ⊕ Caster: 10.0° for front.
- ⊕ Front Packer Gap 6mm
- ⊕ Install front spring rubbers
- ⊕ Front bar stiff
- ⊕ Tire pressure 33 psi front and 34 psi rear cold 40 psi hot front and rear

- ⊕ Note settling will occur and the ride height should be set 2mm high and reset after 1,000 miles
- ⊕ This is an aggressive alignment if you do not drive very fast around corners you will wear tires on the inside edge
- ⊕ Most drivers will require less negative camber.

Set up for a front tire that is 30mm smaller than the rear:

- ⊕ Toe: 0.2° Total Toe IN for front and 0.4° Total Toe IN for rear.
- ⊕ Camber: -2.0° for front and -2.3° for rear.
- ⊕ Caster: 10.0° for front.
- ⊕ Front Packer Gap 6mm
- ⊕ Install front spring rubbers
- ⊕ bar soft
- ⊕ Tire pressure 33 psi front and 34 psi rear cold 40 psi hot front and rear
- ⊕ Note settling will occur and the ride height should be set 2mm high and reset after 1,000 miles
- ⊕ This is an aggressive alignment if you do not drive very fast around corners you will wear tires on the inside edge
- ⊕ Most drivers will require less negative camber.

Set up for a front tire that is 40mm smaller than the rear:

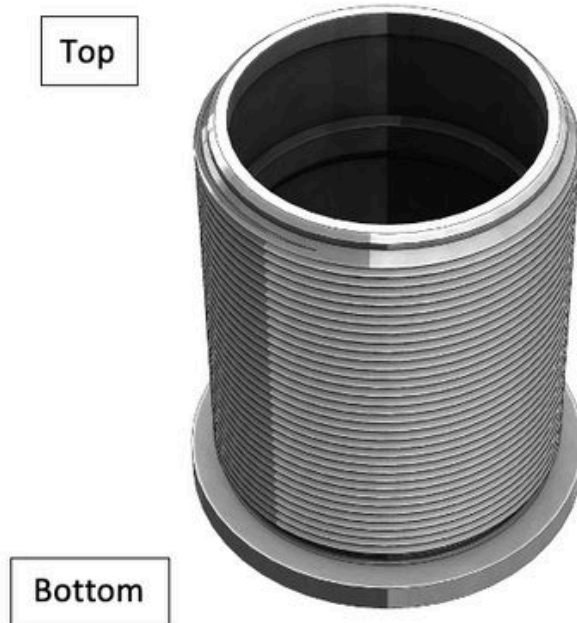
- ⊕ Toe: 0.2° Total Toe IN for front and 0.4° Total Toe IN for rear.
- ⊕ Camber: -2.0° for front and -2.0° for rear.
- ⊕ Caster: 10.0° for front.
- ⊕ Front Packer Gap 6mm
- ⊕ NO front spring rubbers
- ⊕ bar stiff
- ⊕ Tire pressure 33 psi front and 34 psi rear cold 40 psi hot front and rear
- ⊕ Note settling will occur and the ride height should be set 2mm high and reset after 1,000 miles

⊕ This is an aggressive alignment if you do not drive very fast around corners you will wear tires on the inside edge

Most drivers will require less negative camber.

# Front Installation

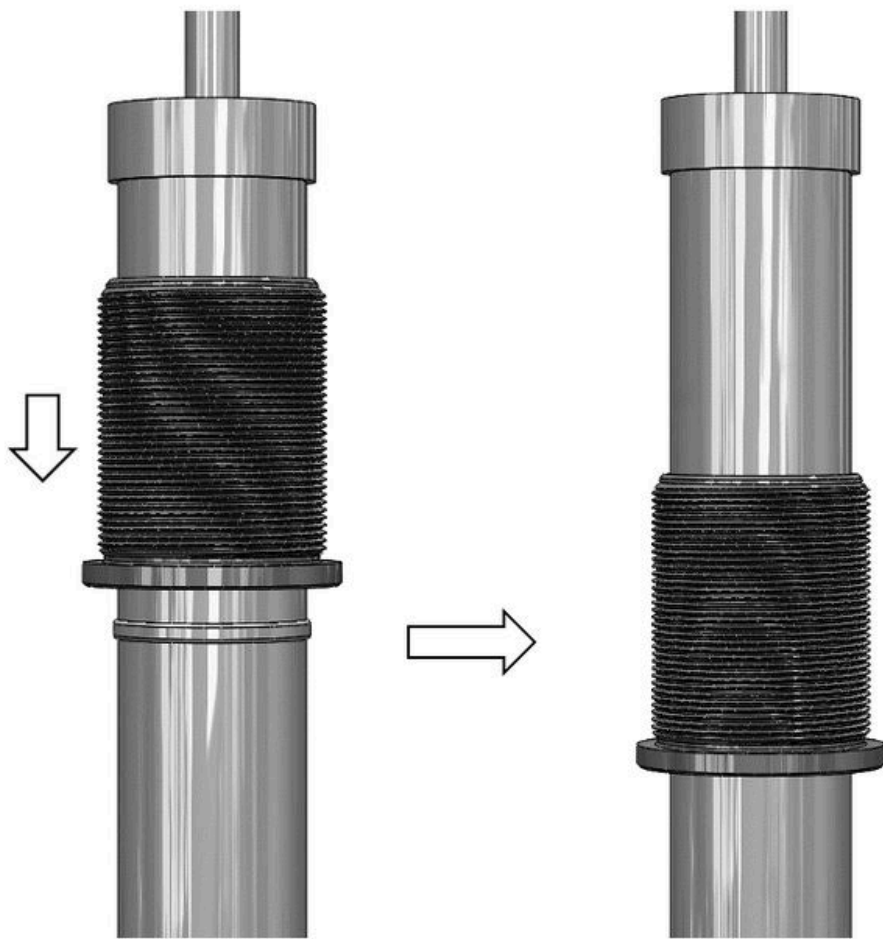
1. Remove front shocks from vehicle per Mercedes procedure. Mark the shocks with a "L" (Left) or "R" (Right) so they will not get mixed up when they are reinstalled.
2. Disassemble the shock assemblies and set aside the dust boots, springs, and lower spring pads. These will not be reused.
3. Locate the two Front Perches, orientation of the part is as shown:



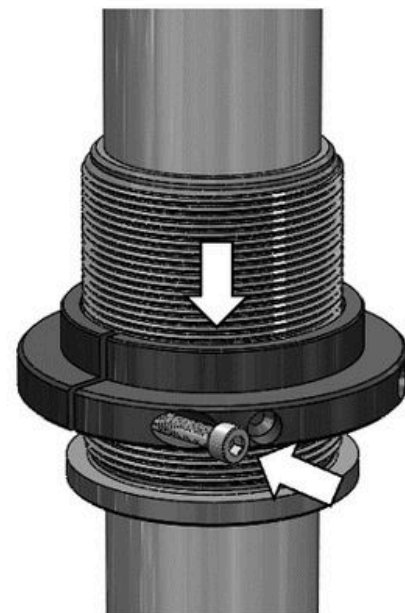
Front Perch (CBC63-3120)

4. Slide the threaded front perches onto the shocks as shown. Push the perch down until it moves no further down and is seated onto the shock groove. If the perches don't slide on, heating the perch might be required. See figure below.


**⚠ Warning:** Make sure to use safety precautions while heating the perches. CarBahn is not responsible for any property damage or injury.



5. Install the spring perch collar as shown. Adjust the perch collar to its middle setting. This will be the starting ride height setting and should get you very close to CarBahn's target bump stop gap measurement. Screw the 5mm screw to lock the perch into place.



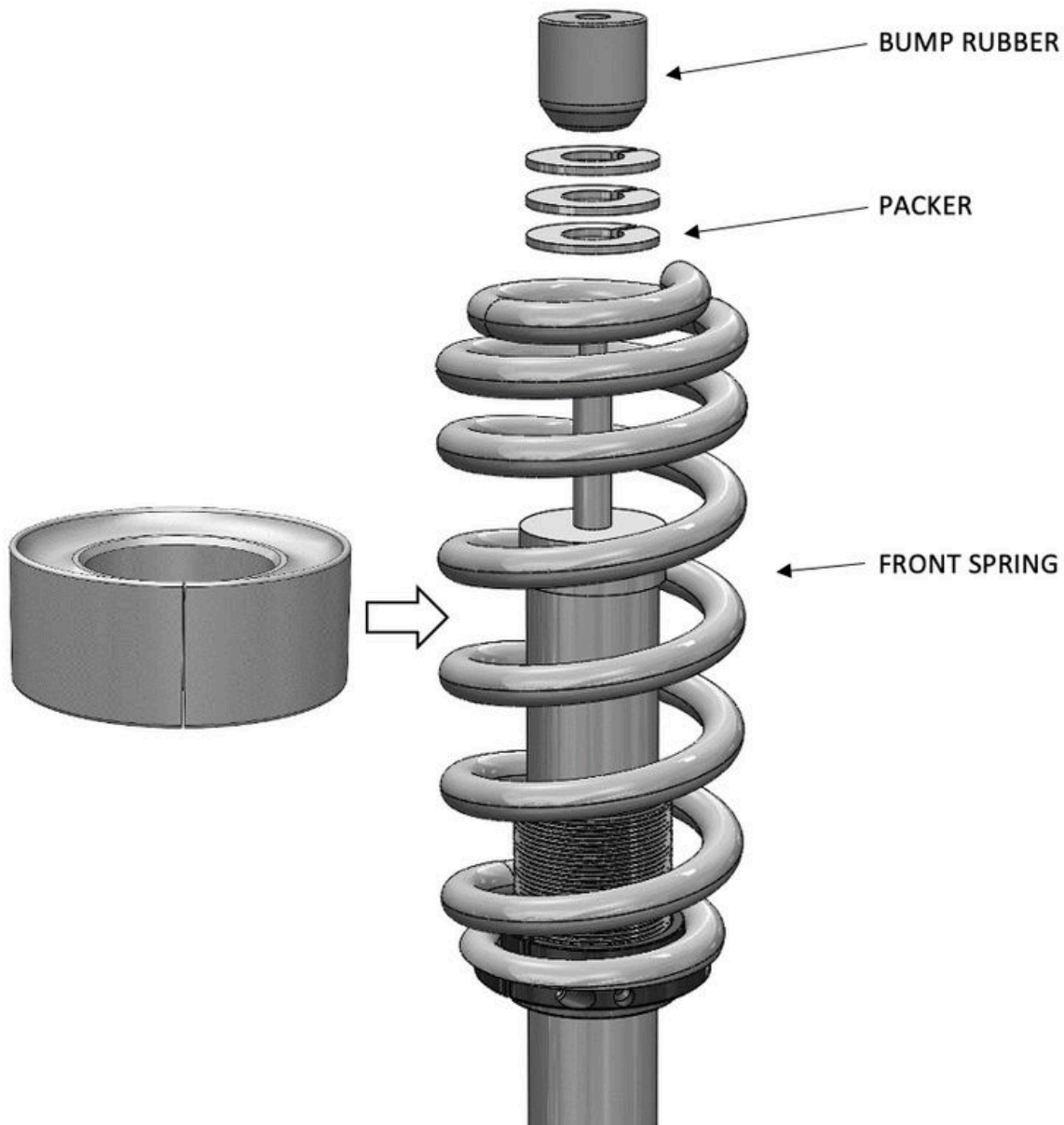
6. Install the rest of the front shock components as shown. Please note:

 The front bump rubbers have a smaller 12mm hole compared to the 14mm shaft size. The height of the bump rubber is also shorter compared to the rear bump rubber.



⊕ Front packers have the larger 23mm hole.

⊕ Adjust the quantity of packers as required, depending on your bump stop gap measurements (please refer to installation notes at the beginning of the instruction manual).



7. Refer to Anti-Roll Bar Modification Instructions on page 11 before proceeding to the next step

8. Install the shock assemblies into the vehicle per Mercedes recommended procedure, make sure the 5mm screw is tightened.

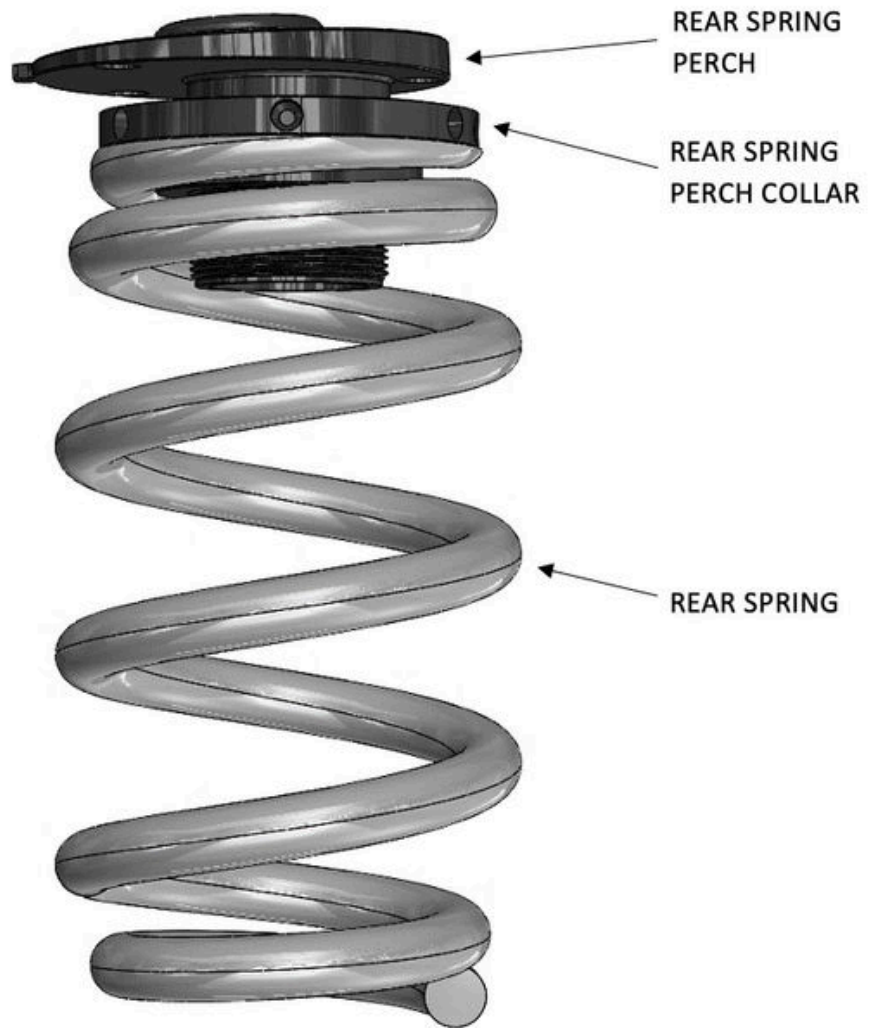
# Rear Installation

1. Remove rear stock coil springs, top coil spring shim and top centering ring as per Mercedes procedure. These will not be reused. Keep the white plastic clip and then remove the rubber isolator from the top centering ring, it will be reused.
2. Locate the two Rear Perches, orientation of the part is as shown. Left and right perches are identical. Affix the isolator rubber on top of the spring perch using the 3 indexing holes. See figure below



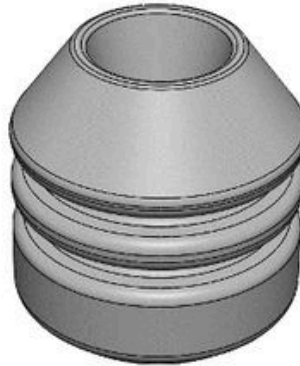
3. Make sure the white plastic clip is put back in place on the chassis side of assembly.
4. Use the indexing tab to align the rear perch with chassis. See figure above.

5. Install the rest of the rear coil over components as shown. Start at the lowest ride height setting, this setting should get you very close to CarBahn's target bump stop gap measurement See figure below.



6. Make sure the 5mm screw is tightened.
7. Remove rear shocks from vehicle per Mercedes procedure. Mark the shocks with a "L" (Left) or "R" (Right) so they will not get mixed up when they are reinstalled.
9. Disassemble the shock assemblies and set aside the dust boots. These will not be reused.

10. Replace the stock bump rubbers with CarBahn rear bump rubbers.



Rear Bump Rubber (CBHRD-3024)

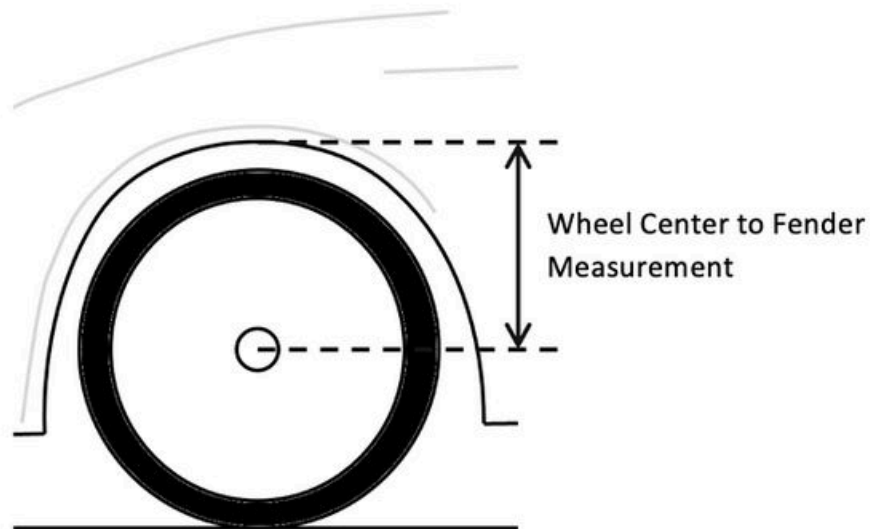
11. Install the shock assemblies into the vehicle per Mercedes recommended procedure.

# Adjusting Ride Height & Bump Stop Gap

1. Align and test drive the vehicle to settle the suspension.
2. Measure the ride height using the center of wheel to fender measurements and adjust the spring perches as necessary to obtain your target ride height, see installation notes. Tighten the spring perch screws once you obtain your target ride height.


**⚠ Warning:** Make sure you roll the car forward & backward after each adjustment to settle the suspension.

**⚠ Warning:** Carefully evaluate tire clearance after any ride height changes. If you determine there is insufficient clearance, the vehicle must be raised, safety will be compromised if all precautions are not taken. CarBahn is not responsible for any property damage or injury.



3. Lift the vehicle on jack stands. Slide the bump rubbers all the way up.
4. Tie a zip tie around one front and one rear shock shaft. Trim the zip tie such that it does not interfere with the springs or any other part.
5. Slide the zip ties all the way down until they contact the top of the shock absorbers.

6. Lower the vehicle back onto the ground and roll it forward and backward to settle the suspension again.

 **Warning:** Do not bounce the car! This can result in an incorrect bump stop gap measurement.

7. Lift the vehicle back again. Take a note of the zip tie positions. The new positions will show the bump stop gap at ride height.

8. Measure the gap from the top of the bump rubber to the bottom of the zip tie at all four corners. Packers can be removed and added as required.

9. An alignment must be performed after installation of this kit.