# 1963-1987 C10 Front Coil Kit w/ QA1's

#### FRONT SUSPENSION

If your IHC Suspension product has a damaged or missing part, please contact customer service directly and a new replacement part will be sent to you immediately. For warranty issues, please return to the place of installation and contact IHC Suspension.

(956) 424-6901

Monday-Friday 8AM-6PM CST

Or

Customer Service: Sales@ihcsuspension.com

Tech Support: Tech@ihcsuspension.com

#### LIMITED LIFETIME WARRANTY

This unique product warranty proves our commitment to the quality and reliability of every product that IHC Suspension manufactures. The IHC Suspension product warranty only extends to the original purchaser of any IHC Suspension product, if it breaks, we will give you a new part. Warranty does not apply to discontinued parts.

Our Limited Lifetime Warranty excludes the following IHC Suspension items, bushings, bump stops, ball joints, and shock absorbers. These parts are subject to wear and are not considered defective when worn. They are warranted for 12 months from the date of purchase for defects in workmanship.

This product warranty is voided if the vehicle is not aligned after kit installation and proper maintenance is routinely done.

Product purchased directly from IHC Suspension has a 30-day return policy on uninstalled products from the date of purchase (may be subject to restocking fee). Uninstalled product returns must be in the original IHC Suspension packaging. Please call 956-424-6901 to get an RMA# for any return. Customer is responsible for shipping costs back to IHC Suspension. **Returns without RMA# will be refused.** Contact IHC Suspension directly about any potentially defective parts prior to removal from vehicle.

IHC Suspension products are **NOT** intended for off-road abuse. Any damage or failure as a result of abuse voids the warranty of the IHC Suspension product. IHC Suspension is **NOT** responsible for any subsequent damages to any related vehicle parts due to misuse, abuse, improper installation, or lack of maintenance. Furthermore, IHC Suspension reserves the right to change, modify or cancel this warranty without prior notice.



READ INSTRUCTIONS THOROUGHLY AND COMPLETELY BEFORE BEGINNING INSTALLATION.

INSTALLATION BY A **CERTIFIED PROFESSIONAL TECHNICIAN** IS HIGHLY RECOMMENDED.

IHC Suspension IS **NOT** RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.

#### **Safety Warning**

MISUSE OF THIS PRODUCT COULD LEAD TO INJURY OR DEATH.

Suspension systems or components that enhance the on and off-road performance of your vehicle may cause it to handle differently than it did from the factory. Extreme care must be used to prevent loss of control during abrupt maneuvers.

Always operate your vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Failure to drive safely may result in serious injury or death to driver and passengers.

Drivers and passengers must ALWAYS wear your seat belts, avoid quick sharp turns and other sudden maneuvers. IHC Suspension does not recommend the combined use of suspension drop spindles, drop struts, drop springs or other lowering devices.

You should never operate your vehicle under the influence of alcohol or drugs.

Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every drag race/race use.

It is the responsibility of the retailer and/or the installer to review all state and local laws, with the end user of this product, related to bumper height laws and the lowering of their vehicle before the purchase and installation of any IHC Suspension products.

It is the responsibility of the driver/s to check their surrounding area for obstructions, people, and animals before moving the vehicle.

All lowered vehicles may have increased blind spots; damage, injury and/or death can occur if these instructions are not followed.

#### **Installation Warning**

All steps and procedures described in these instructions were performed while the vehicle was properly supported on a two-post vehicle lift with safety jacks.

Use caution during all disassembly and assembly steps to ensure suspension components are not over extended causing damage to any vehicle components and parts included in this kit.

Included instructions are guidelines only for recommended procedures and are not meant to be definitive. Installer is responsible to insure a safe and controllable vehicle after performing modifications.

IHC Suspension recommends the use of an OE Service Manual for model/year of vehicle when disassembly and assembly of factory and related components. Unless otherwise specified, tighten all bolts and fasteners to standard torque specifications listed within the OE Service Manual.

Suspension components that use rubber or urethane bushings should be tightened with the vehicle at normal ride height. This will prevent premature wear or failure of the bushing and maintain ride comfort.

Larger tire and wheel combinations may increase leverage on suspension, steering, and related components. Due to payload options and initial ride height variances, the amount of drop is a base figure. Final ride height dimensions may vary in accordance with original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.

# PRE-INSTALLATION MEASUREMENTS

It is imperative that you record the following measurements and factory components in the tables below. IHC Suspension tests and records as much data from each application as available at the time of product development. Vehicle manufacturers may change components or add models with different options. Recording and not exceeding the fender-to-hub-center IHC Suspension calls out will ensure the drop on the vehicle is correct.

These measurements will affect the performance of this lowering kit. Failure to ensure proper stock conditions may result in over lowering, causing premature failure on ball joints, if 4wd, axles, CV boots and drivetrain. Over lowering a vehicle will also result in an incorrect wheel alignment. This will wear tires incorrectly. Incorrect alignment will cause poor vehicle handling issues including but not limited to under steer. Over lowering the vehicle will also cause incorrect suspension geometry resulting in poor ride quality accompanied by pops and clunks which are symptoms of prematurely wearing components.

Failure to adjust head lamps may cause dangerous driving conditions for you and other drivers on the road. Record the head lamp position before the installation of this lowering kit and adjust to original factory position after the completion to ensure a safe and enjoyable experience. Refer to Owner's Manual.

### **VEHICLE HEIGHT MEASURMENTS**

	DRIVER BEFORE	DRIVER AFTER	PASS BEFORE	PASS AFTER
FRONT				

\*\*MEASUREMENT IS TO BE PERFORMED FROM CENTER OF HUB TO FENDER EDGE STRAIGHT UP FROM HUB \*\*



# **INSTALLATION WARNING**

IHC Suspension recommends all steps and procedures described in these instructions be performed while the vehicle is properly supported on a two-post vehicle lift with safety jacks.

Otherwise, park vehicle on a clean flat surface and block the rear wheels for safety. Engage the parking brake.

Disconnect the vehicle power source at the ground terminal on the battery. Lock the steering wheel in the straightforward position with the column lock or steering wheel locking device.

Raise the front of the vehicle and support with safety jack stands at each frame rail behind the lower control arms.

## **Before starting installation**

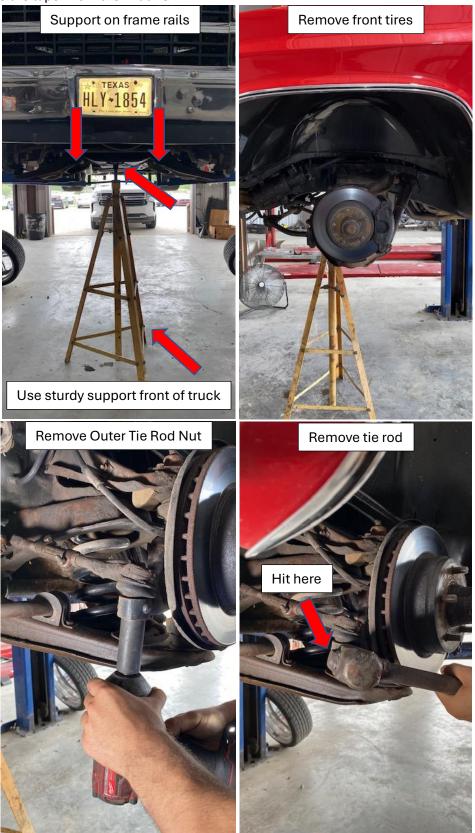
IHC Suspension highly recommends that the installation of this product be performed by a professional technician with experience working on and installing suspension products. Professional knowledge and skill will typically yield the best installation results. If you need an installer in your area, please contact IHC Suspension Customer Service to find one of our IHC Suspension Authorized dealers.

#### INSTALLATION BY A PROFESSIONAL IS HIGHLY RECOMMENDED

- A Factory Service Manual for your specific Year / Make / Model is highly recommended for reference during installation.
- All lifted vehicles may require additional driveline modifications and / or balancing.
- A vehicle alignment is REQUIRED after installation of this product.
- Speedometer / Computer recalibration is required if changing +/- 10% from factory tire diameter.
- A vehicle lift or hoist greatly reduces installation time.
- Installation time estimates are based on an available vehicle hoist.

Vehicle must be in excellent operating condition. Repair or replace any and all worn or damaged components prior to installation of lowering kit

- 1. Disconnect the negative terminal on the battery. Jack up the front end of the truck and support the frame rails with jack stands. NEVER WORK UNDER AN UNSUPPORTED VEHICLE! Remove the front tires.
- **2.** Remove the tie rods from the knuckle. Strike the tie rod boss on the knuckle with a dead blow hammer to dislodge the taper from the knuckle.



- 3. Remove brake line mounts. **NOTE: Remove carefully without damaging or extending the brake** lines.
- 4. Remove brake caliper and secure caliper assembly. **NOTE: DO NOT let caliper hang, damage to brake lines may occur.**

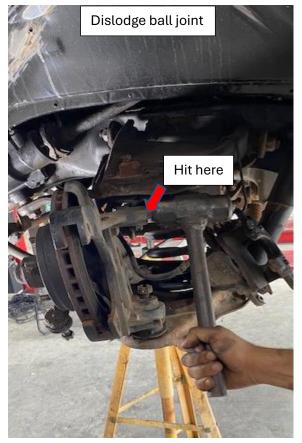




5. Loosen upper and lower ball joint nut. **NOTE: DO NOT remove nut** 



**6.** With a dead blow hammer, you will dislodge the ball joint taper.





7. Remove spindle assembly.



**8.** Apply upward pressure to LCA before removing shocks and sway bar links, then slightly remove pressure from LCA and remove springs/shocks. **NOTE: Spring may still be under load. Please be cautious when removing.** 

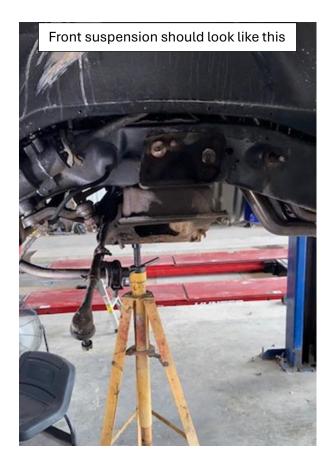


9. Remove front coil spring from the LCA. **NOTE: Spring may still be under load. Please be cautious when removing.** 



10. Remove upper and lower control arms. NOTE: In some cases, LCA hardware may need to be cut off.





# **DISCLAIMER – MUST READ**

Prior to cutting/grinding/welding anything please make sure to practice and use safety procedures.

Make sure to CLEAR THE AREA of any FLAMMABLE liquids, materials, or cable lines. Use proper safety gear when CUTTING/GRINDING/WELDING on or near the vehicle.

**SAFETY REMINDER:** Proper use of safety equipment and eye/face/hand protection is absolutely necessary when performing the following procedures!

Check the backside of the frame rail to be sure that all lines, electrical wiring, control cables and other components are cleared from this area to avoid damaging them in the following steps. Careful not to damage any lines or other components located behind the frame rail.

Be sure to wear proper safety protection when using power tools! **DO NOT** create sparks near flammable or explosive materials.

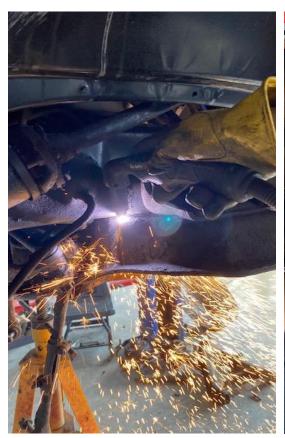
Be careful when cutting the frame rail. **DO NOT** remove any material from the frame rail that is not shown/described here.

Avoid creating any sharp corners or other defects that may cause unnecessary stress concentrated areas on the frame rail.

Avoid **OVERHEATING** frame rail.

**Safety Recommendation:** Due to the proximity of fuel/brake lines to this area, we recommend using a protection barrier when performing these operations with a plasma cutter/torch. Do note that excess heat can easily damage the frame rail and other adjoining components.

**11.** With a plasma torch, you will cut the UCA mounting bolts and stock coil spring pocket flush to the frame rail. Please refer to pictures.

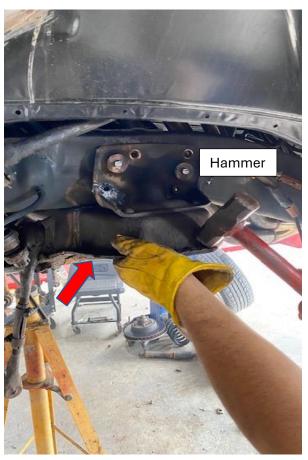


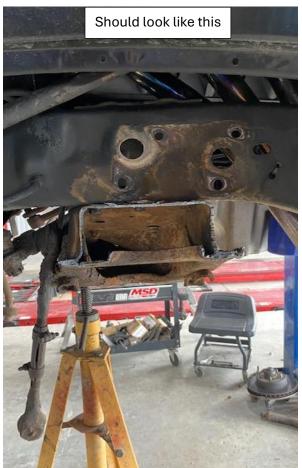




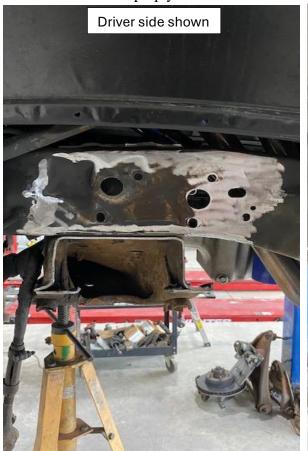


## 12. With a hammer, knock off the stock coil pocket.

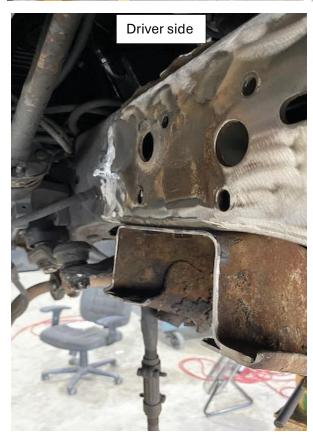




13. With a grinder and flap disc, you will grind off the excess material as well as any rust/painted surfaces to a flush finish and to prep your area for the new IHC UCA bracket. Please refer to the pictures below:









# **Assembly**

- 14. Install IHC lower control arm. Have support stand under the LCA. DO NOT TIGHTEN
- 15. Install the QA1 coil over with the IHC plate, mockup, and center on frame rail. Please refer below.

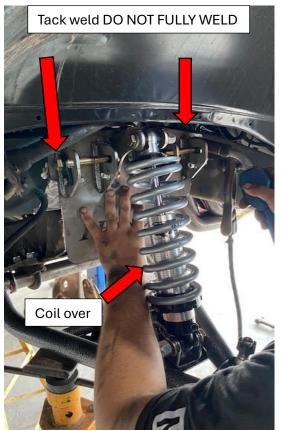


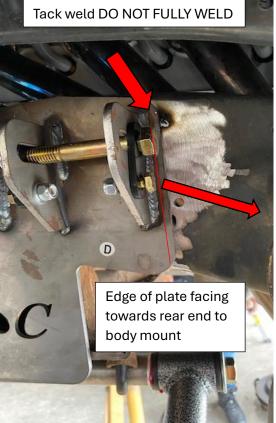






**HOW TO CENTER:** With the LCA and coil over mocked up you will place the upper IHC bracket with coil over as square as possible, tack IHC plate, then measure from the edge of the plate facing towards rear of the truck to the center of the body mount. That measurement will be your center reference for the other side as well.









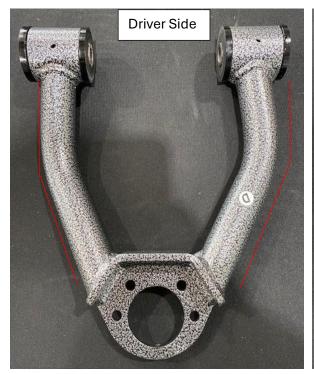
Passenger Side Shown

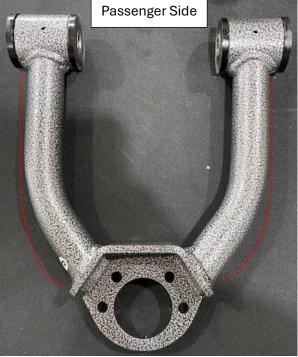
- **16.** Remove the coil over, hardware, and fully weld the plate where you prepped once you have it centered. NOTE: Use safe welding practices. Make sure to clear the area of any flammable liquids/materials and use proper safety gear.
- 17. Let bracket plate cool down and spray paint to prevent rusting. Let the paint fully dry.





**NOTE:** Driver side UCA is bent differently to allow more room for the power steering box when installed.





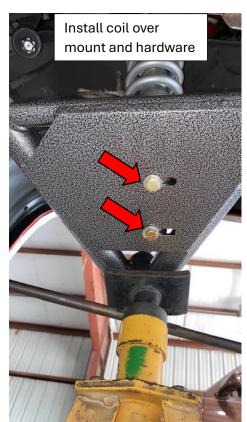
**18.** Once paint is dry, grease all mounting points on the upper IHC bracket and install lower and upper control arms. DO NOT TIGHTEN!







19. Install LCA coil over mount and coil over to IHC bracket. Please refer to picture.







20. Grease all zerk fittings and ball joints. You should be at this step. Please refer to picture:





PLEASE READ IMPORTANT NOTE: IHC front coil over is already assembled. Thread lower collar down to apply ANTI-SIEZE on threads. Failure to do so will result in damage to coil over and VOID warranty.



APPLY ANTI-SIEZE

IF STEP IS SKIPPED IT

WILL VOID WARRANTY

21. Firmly tighten coil over to lower control arm and upper IHC bracket. **NOTE:** The ¼ inch gap before tightening the top coil over mount is within tolerance. Tighten firmly to close gap.



22. Install spindle, lightly torque down upper and lower ball joints with castle nut and install cotter pin.

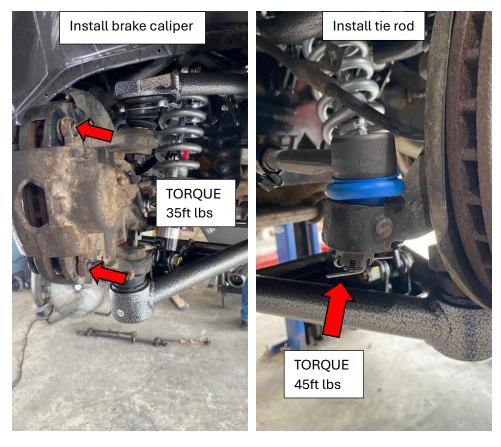
**TORQUE:** Upper Ball Joint: 65ft lbs | Lower Ball Joint: 110ft lbs (STEP 27)



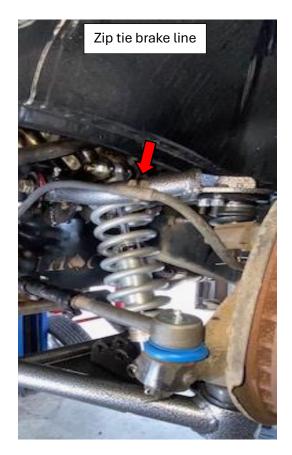




- 23. Add loc-tite and install brake caliper. TORQUE: 35ft lbs
- 24. Install tie rod. TORQUE: 45ft lbs



**25.** Zip tie brake line to upper control arm.

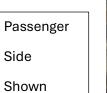


**26.** Tighten thread collar for preferred ride height and jounce the suspension of the vehicle to settle the front. Torque UCA to 65ft lbs. Torque LCA to 95ft lbs. (FINAL TORQUE TO BE SET BY ALIGNMENT TECH) Step 27





Front suspension will look like this:









Passenger Side

Shown



Driver Side Shown







Driver Side Shown



27. Prior to installing the wheels, make sure to complete all installation steps on the opposite side. Install the wheels/tires and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacturers specs. Jounce the vehicle to settle the suspension to the new ride height. Torque upper control arms 65 ft-lbs and the lower control arm hardware to 95 ft-lbs. FINAL TORQUE TO BE DONE BY THE ALIGNMENT TECH. Reconnect the battery ground terminal. Start the vehicle and turn the steering wheel lock to lock and verify all clearances between tire, body, and suspension components. Adjust as necessary.

**NOTE:** Have a reputable alignment shop set the alignment to the recommended specs. If driving a vehicle to an alignment shop, adjust the toe prior to vehicle operation. Recheck that all hardware is of proper torque values and all electrical connections are hooked up. Start the vehicle and verify that all dash warning lights are off. Cycle the steering wheel from lock to lock to check for any interference of wheels, tires, brake lines, hoses, wires, etc. and ensure adequate clearance throughout the suspension cycle. Adjust as necessary.

**NOTE:** The camber and toe are the most important alignment angles that need to be in green. Caster will be N/A due to the vehicle losing the stock OE coil pocket and installing the IHC upper bracket mount and coil over. Attached below is a sheet used for reference from an actual alignment that was performed on this truck.

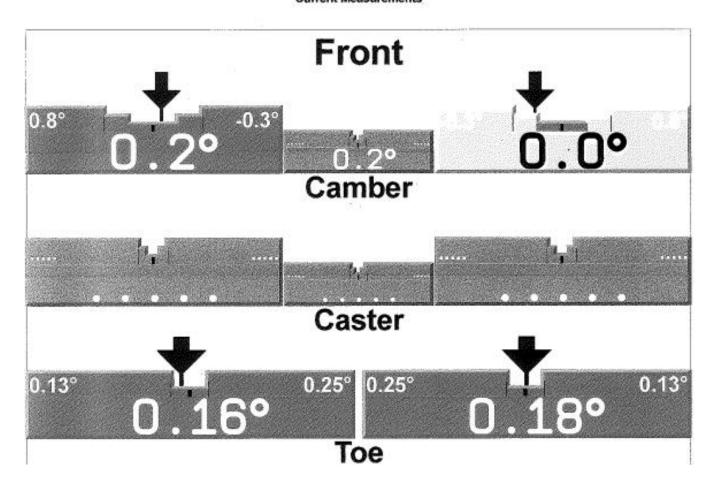
# RECOMMENDED ALIGNMENT SPECIFICATION

# RECOMMENDE ALIGNMENT

	DRIVER	<b>PASSENGER</b>	TOLORANCE	SPLIT
CAMBER	0.0	0.0	+/- 0.5	0.0
CASTER	N/A	N/A	N/A	N/A
TOE	0.15	0.15	+/- 0.05	+.25

# Attached is a sheet reference for actual alignment that was performed on the truck.

Chevrolet : Pickup (Full Size) 1947-1998 : 4X2 : 1974-78 : C10 ExpressAlign Total Alignment Current Measurements





# FAILURE TO PERFORM THE POST INSPECTION CHECKS MAY RESULT IN VEHICLE COMPONENT DAMAGE AND/OR PERSONAL INJURY OR DEATH TO THE DRIVER AND/OR OTHERS.

#### Final Checks & Adjustments

Once the vehicle is lowered to the ground, check all parts which have rubber, Delrin or urethane components to ensure proper torque. Torque lug nuts to the wheel manufacturer specs. Move vehicle backwards and forwards a short distance to allow suspension components to adjust. Turn the front wheels completely left then right and verify adequate tire, wheel, brake line, and ABS wire clearance. Test and inspect steering, brake and suspension components for tightness and proper operation. Inspect brakes hoses and ABS lines for adequate slack at full extension, adjust, as necessary.

#### **MAINTANCE**

RECHECK ALL HARDWARE FOR PROPER TORQUE VALUES AFTER 500 MILES AND THEN PERIODICALLY AT EACH SERVICE INTERVAL THERAFTER.

RECOMMENDED TO PERFORM MAINTAINCE ON ALL BALL JOINTS AND CONTROL ARMS. ADD GREASE EVERY 6 MONTHS OR EVERY 5K MILES. FAILURE TO PERFORM MAINTANCE WILL CAUSE PREMATURE WEAR ON BALL JOINTS AND BUSHING.

#### **Vehicle Handling Warning**

Lowering the height of your vehicle lowers the center of gravity and can affect stability and control. Use caution on turns and when making steering corrections. Vehicles with larger tires and wheels will handle differently than stock vehicles. Take time to familiarize yourself with the handling of your vehicle.

#### Wheel Alignment/Headlamp Adjustment

It is necessary to have a proper and professional wheel alignment performed by a certified alignment technician. Align the vehicle to IHC Recommended specifications. It is recommended that your vehicle alignment be checked after any race/drag race driving. In addition to your vehicle alignment, for your safety and others, it is necessary to check and adjust your vehicle headlamps for proper aim and alignment. If the vehicle is equipped with active or passive safety/collision monitoring and/or avoidance systems including, but not limited to, camera- or radar-based systems, check and adjust your vehicle's systems for proper aim and function.

IMPORTANT NOTE: Due to the nature of vehicle lane keeping/lane departure features, it may be necessary to have the vehicle's camera and sensors recalibrated to ensure these systems function as they did prior to installation. Please contact your local dealership to set up an appointment.