LOGIQ™
AIR SUSPENSION SOLUTIONS

Installation Instructions *Rev.02*

DRW HARDWARE KIT

88-23XXX-DRW FORD F-350/F-450 (2017+)

WARNING! – READ BEFORE USE

READ INSTRUCTIONS THOROUGHLY AND COMPLETELY BEFORE INSTALLATION.

INSTALLATION BY A CERTIFIED PROFESSIONAL MECHANIC IS HIGHLY RECOMMENDED.

LOGIQ™ IS NOT RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.

5 PSI MINIMUM — **5 PSI MINIMUM AIR SPRING OPERATING PRESSURE**

150 PSI MAX AIR SPRING PRESSURE

GVWR — **NEVER EXCEED MANUFACTURER'S MAXIMUM PAYLOAD OR GVWR**

PROP 65 — **CALIFORNIA RESIDENTS - PROP 65**

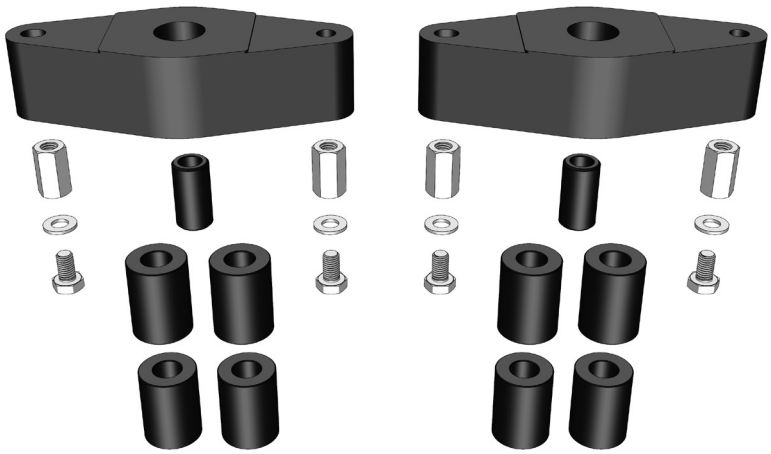
WARNING: This product can expose you to chemicals including Di(2-ethylhexyl) phthalate (DEHP), which is known to the State of California to cause cancer, and birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov/product.

WARRANTY

LOGIQ™ provides a limited lifetime warranty to the original purchaser of products, that the product be free from defects in workmanship and materials when used on cars and trucks as specified by LOGIQ™ and under normal operating conditions. This warranty is subject to the requirements and exclusions set forth in the full Limited Warranty and Return Policy that is available at logiqair.com/warranty. Air compressors are a wearing component and are covered by a 2-year warranty from the date of purchase. The warranty does not provide coverage for abuse, operation in a manner not consistent with the product's design, or damage resulting from exposure to the elements.

⚠ WARNING & DISCLAIMERS

By installing this product you acknowledge that the suspension of this vehicle has been modified. As a result, this vehicle may handle differently than that of factory-equipped vehicles. As with any vehicle, extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts, and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive this vehicle safely may result in serious injury or death. Do not drive this vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Some modifications (and combinations of modifications) are not recommended and may not be permitted in your state. Consult your owner's manual, the instructions accompanying this product, and state laws before undertaking these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.



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TOOLS REQUIRED
SAFETY GLASSES
FLOOR JACK
JACK STANDS (2X)
TORQUE WRENCH
SOCKET DRIVER
11/16" SOCKET
3/4" SOCKET
15MM DEEP SOCKET
17MM SOCKET
24MM DEEP SOCKET
C -CLAMPS (2X)

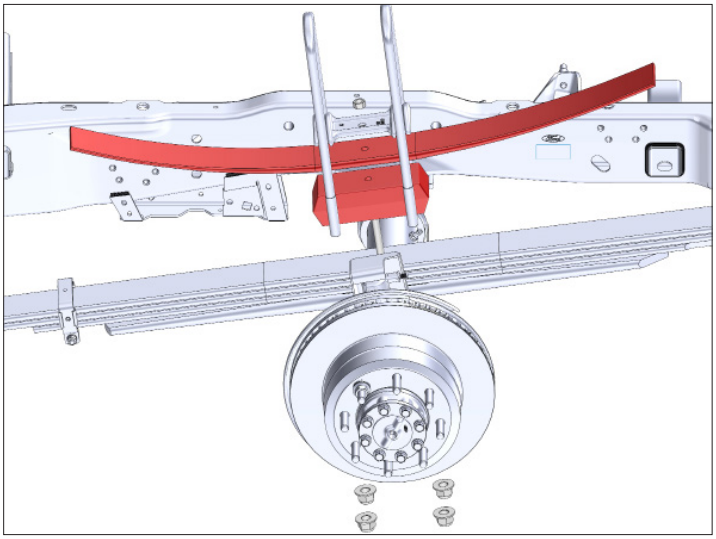
QTY	PARTS INCLUDED
2	DRW BUMPSTOP SPACERS
4	M10 - 1.5 X 30MM HEX COUPLING NUT
4	M10 - 1.5 X 18MM HEX HEAD BOLTS
4	M10 FLAT WASHERS
1	2ML RED TREADLOCKER PACKET
2	FORD DRW CENTER PIN SPACERS
8	M18 AXLE U-BOLT SPACERS

STEP 1 PREPARE TRUCK

Note original ride height measurement from center of rear fender arch to ground.

Safely lift truck and support with jack stands under axle. Remove the rear wheels.

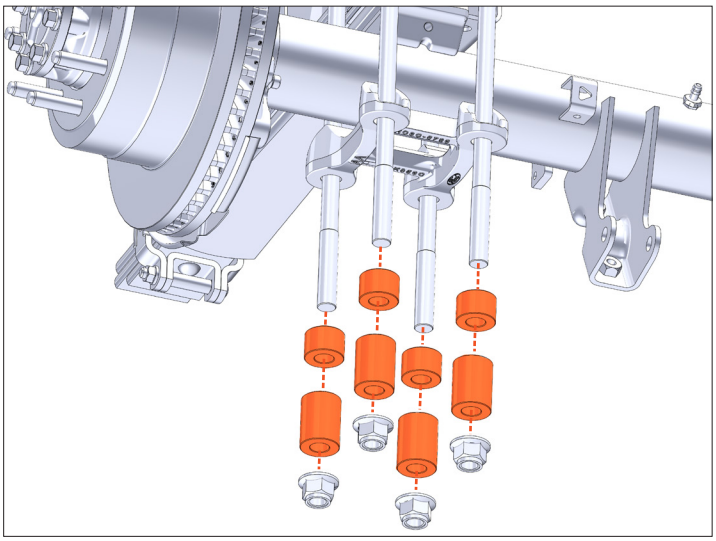
STEP 2 REMOVE OVERLOAD SPRINGS & INSTALL SPACERS



Spray the factory center pin nuts and axle U-bolt nuts with penetrating oil.

One side at a time, remove the center pin nut and factory axle U-bolts.

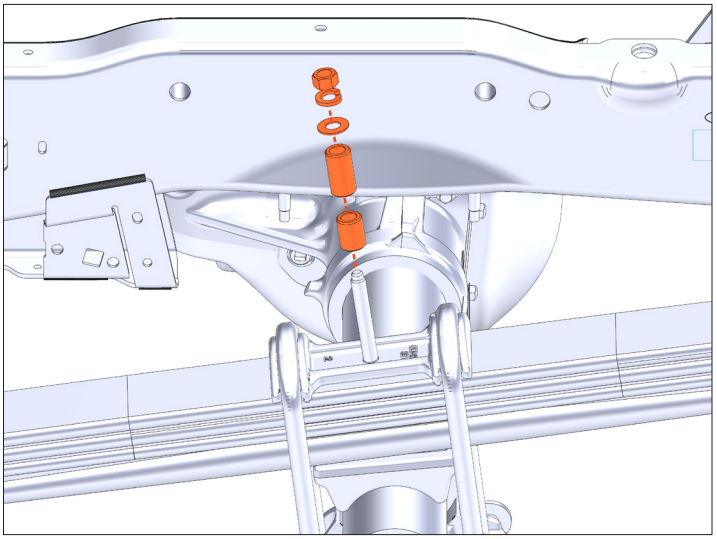
Remove the overload spring and overload spacer block.



Install the supplied **2"** long U-bolt spacers on top of the **1"** long U-bolt spacers supplied in you LOGIQ Air Spring Kit. Ensure they are between the axle cradle and the U-bolt nuts as shown.

Torque the U-bolt nuts in a cross pattern in 4 stages to the specifications shown in **TABLE 1**.

If your factory center pin got damaged during the overload spring removal process refer to the *Alternate Overload Step* in your LOGIQ Air Spring Kit instructions.

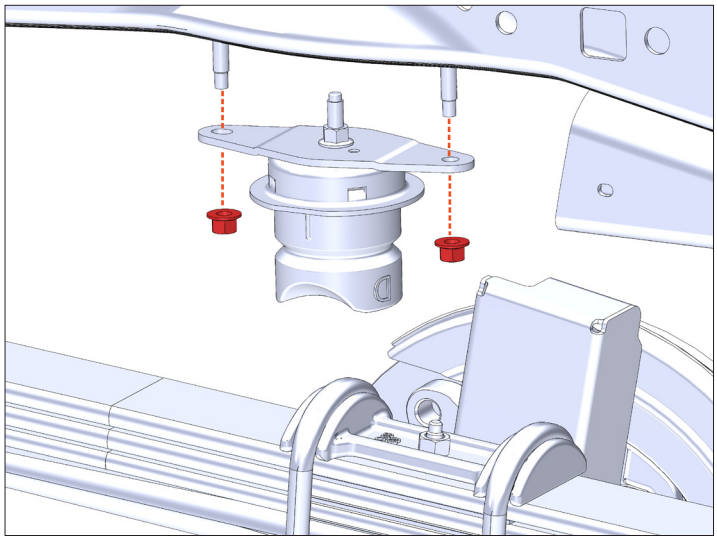


Reinstall the factory U-bolt saddle with U-bolts. Install the supplied **1.63"** long center pin spacer on top of the **1.13"** long center pin spacer supplied in your **88-23230 or 88-23170** Air Spring Kit along with the supplied flat washer & split washer, and factory center pin nut.

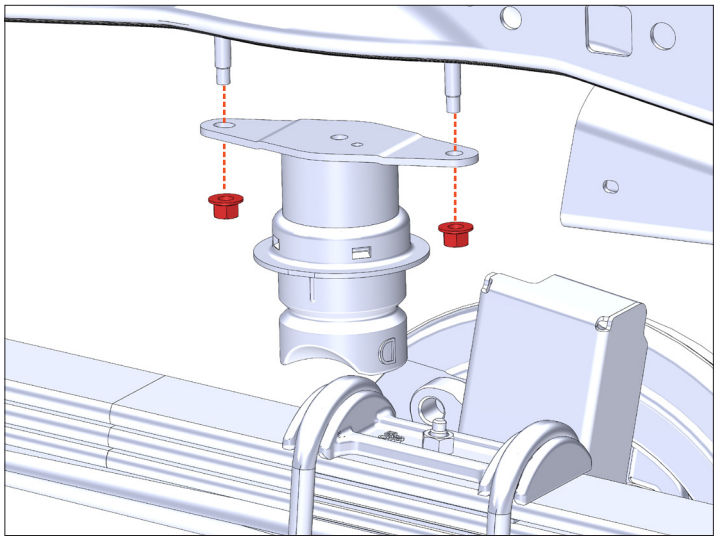
Torque the center pin nut to **35 FT. LB.**

TABLE 1	
DRW VEHICLES	
STAGE 1	74 FT. LB. (100 NM)
STAGE 2	148 FT. LB. (200 NM)
STAGE 3	221 FT. LB. (300 NM)
STAGE 4	295 FT. LB. (400 NM)

STEP 3 INSTALL BUMPSTOP SPACER

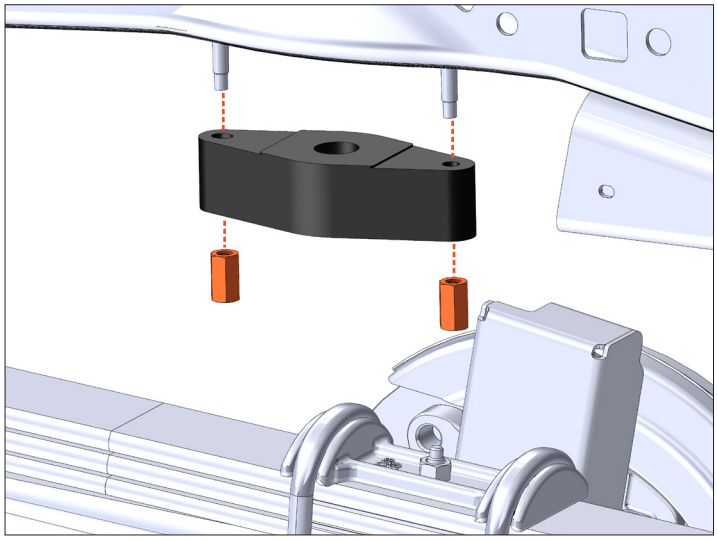


Remove factory bumpstop using a 15MM socket. Discard nuts.

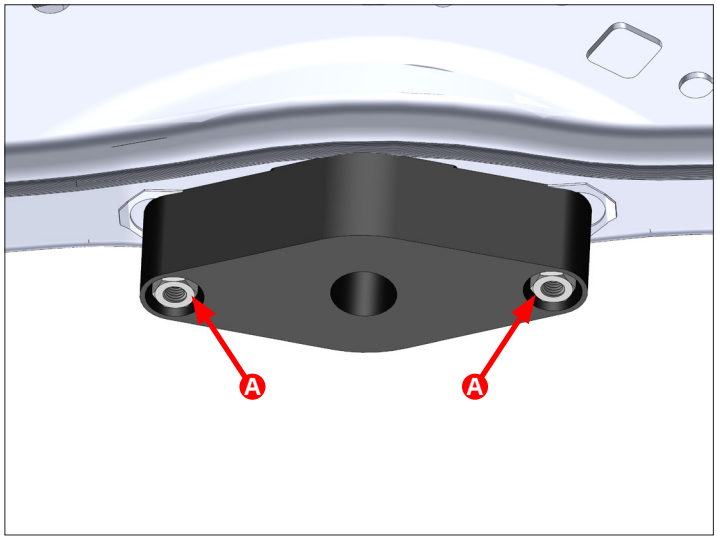


Removal is the same for both styles of bumpstop.

STEP 4 INSTALL BUMPSTOP SPACER



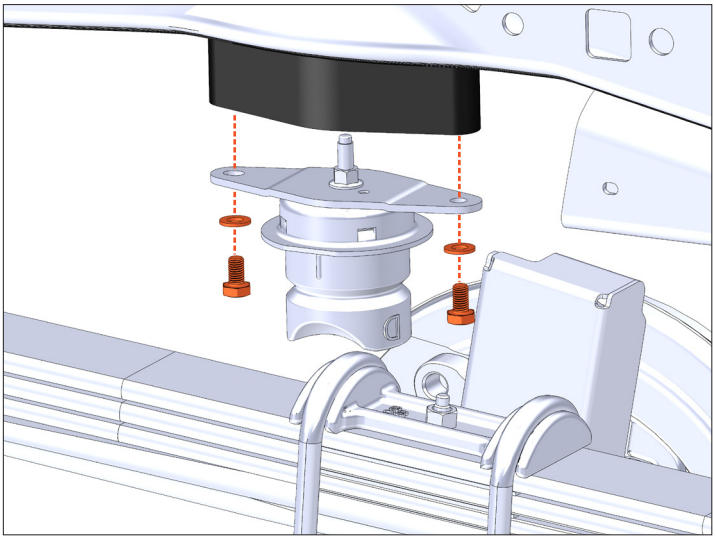
Install the aluminum bumpstop spacer using the provided hex coupling nuts.



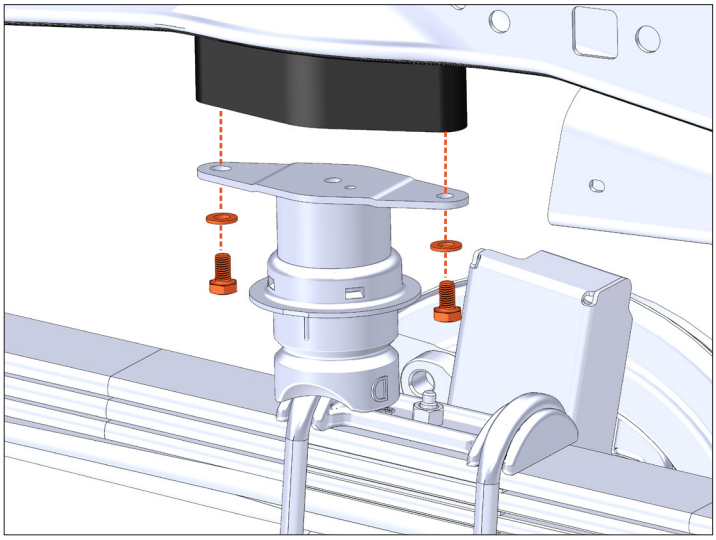
A Torque the coupling nuts to **35 FT. LB.**

Repeat for passenger side.

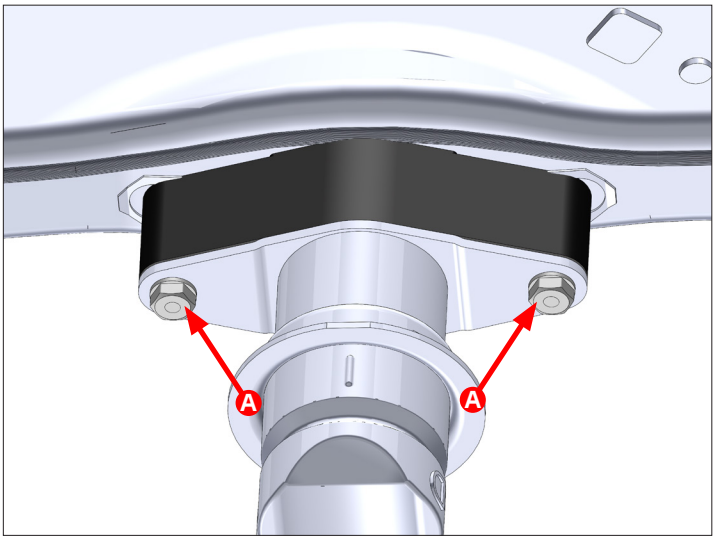
STEP 5 RE-INSTALL BUMPSTOP



Use the supplied M10 bolts, with flat washers, to attach the bump stop to the bump stop spacer.



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A Torque the M10 hardware to **35 FT. LB.**

Repeat for passenger side.

Refer to your LOQIG Air Spring Kit installation instructions to continue with the rest of the installation process.

⚠ WARNING & DISCLAIMERS CONTINUED

Safety Warnings

MISUSE OF THIS PRODUCT COULD LEAD TO INJURY OR DEATH.

FOR SAFETY AND TO PREVENT POSSIBLE DAMAGE TO THE VEHICLE, DO NOT EXCEED MAXIMUM GROSS VEHICLE WEIGHT RATING (GVWR), MAXIMUM GROSS COMBINED VEHICLE WEIGHT RATING (GCVWR), MAXIMUM GROSS AXLE RATINGS (GAWR), OR MAXIMUM PAYLOAD RATING AS INDICATED BY THE VEHICLE MANUFACTURER.

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.

Driver and passengers must **ALWAYS** wear seat belts, avoid quick sharp turns and other sudden maneuvers. LOGIQ™ does not recommend the combined use of suspension lifts, body lifts, or other lifting 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 off-road 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 lifting of their vehicle before the purchase and installation of any LOGIQ™ products.

Raised vehicles have altered viewing angles than stock vehicles. This can lead to larger or different blind spots than the driver is accustomed. It is the responsibility of the driver to be aware of this and check their surroundings at all times while the vehicle is in motion and immediately prior to operating vehicle. Failure to do so can lead to damages, injury, or death.

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.

LOGIQ™ 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 lift/lower is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.

⚠ WARNING & DISCLAIMERS

SAEJ2492 Warning

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Headlamp Warning

A lifted or lowered vehicle may have different headlight aim performance. LOGIQ™ recommends marking and recording the headlight beam position before kit installation and then adjusting, if necessary, the headlamps to the same height settings after kit installation. Set the vehicle on a level surface 10' to 15' from a solid wall or garage door. (This is a general distance with some manufacturers requiring different distances.) Note the top height of the low beam's bright spot, the top of the most intense part of the beam, for driver and passenger side. Height may vary from side to side. Repeat this procedure and adjust after lift kit is installed. Adjust if the aim is off by turning the adjusters gradually (a quarter of a turn) and looking to see where the new alignment falls. It may be easier to block one headlamp while adjusting the other. Consult the owner operation manual for procedures to adjust headlights - many automakers offer headlight aiming specs. Some states have their own specifications when it comes to headlight aim, so it's best to follow those rules when aligning headlights.

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 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.

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

Vehicle Handling Warning

Increasing the height of your vehicle raises 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 factory specifications. It is recommended that your vehicle alignment be checked after any off-road 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.

On-board Scale Compatibility

Some trucks may be equipped with on-board scale functionality which uses height sensors in the suspension to approximate the amount of payload in the vehicle. These systems measure the amount of suspension compression and estimate the amount of payload in the vehicle based on the known suspension stiffness. When using LOGIQ™ products (or any load leveling product), it is important to understand that the on-board scales will not provide accurate weight measurements and could indicate "zero" payload after the air suspension has been inflated even though there could be significant payload in the vehicle.

WARNING: AFTER INSTALLING LOGIQ™ PRODUCTS, DO NOT USE ON-BOARD SCALE FUNCTIONALITY IF EQUIPPED. SUCH SYSTEMS WILL NOT CORRECTLY MEASURE THE VEHICLE LOAD IF THE AIR SUSPENSION IS INFLATED.