

Air Lift[™]
PERFORMANCE

Kit 78501
Chevrolet Camaro
5th GEN Track Pack
Front Application



INSTALLATION GUIDE

For maximum effectiveness and safety,
please read these instructions completely
before proceeding with installation.

*Failure to read these instructions can result in an
incorrect installation.*

PERFORMANCE SUSPENSION PARTS

Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of this Chevrolet Camaro Performance kit.

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair. The information includes a hardware list, step-by-step installation information, maintenance tips, safety information and a troubleshooting guide.

NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information which is highlighted by one of these notations must be observed to help minimize risk of personal injury or possible improper installation which may render the vehicle unsafe. Notes are used to help emphasize areas of procedural importance and provide helpful suggestions. The following definitions explain the use of these notations as they appear throughout this guide.

 **DANGER**

INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.

 **WARNING**

INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

 **CAUTION**

INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE MACHINE OR MINOR PERSONAL INJURY.

NOTE

Indicates a procedure, practice or hint which is important to highlight.

IMPORTANT SAFETY NOTICES

The installation of this kit does not alter the Gross Vehicle Weight Rating (GVWR) or payload of the vehicle. Check your vehicle's owner's manual and do not exceed the maximum load listed for your vehicle.

Gross Vehicle Weight Rating: The maximum allowable weight of the fully loaded vehicle (including passengers and cargo). This number — along with other weight limits, as well as tire, rim size and inflation pressure data — is shown on the vehicle's Safety Compliance Certification Label.

Payload: The combined, maximum allowable weight of cargo and passengers that the vehicle is designed to carry. Payload is GVWR minus the Base Curb Weight.

 **WARNING**

DO NOT INFLATE AIR SPRINGS WHILE OFF OF THE VEHICLE. DAMAGE TO ASSEMBLY MAY RESULT AND VOID WARRANTY.

 **CAUTION**

DO NOT WELD TO, OR MODIFY PERFORMANCE STRUTS/SOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.

Installation Diagram

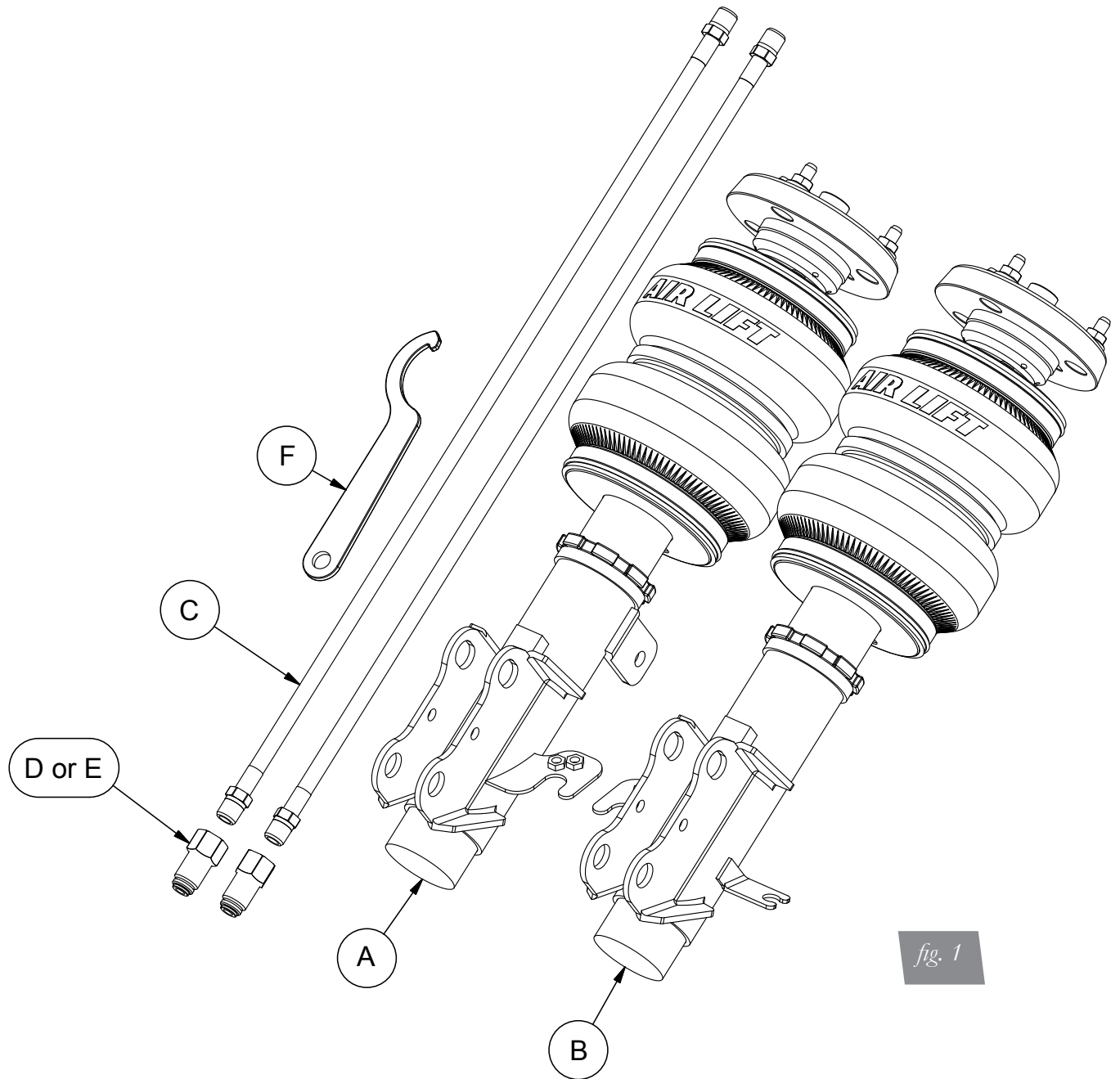


fig. 1

HARDWARE LIST

Item	Part #	Description.....	Qty
A	35265	Strut, Chevrolet Camaro Track Pack Front Left.....	1
B	35266	Strut, Chevrolet Camaro Track Pack Front Right ...	1
C	20997	Leader Hose, 1/4" ID.....	2
D	21810	Union, 1/4"FNPT X 1/4" PTC, DOT.....	2
E	21987	Union, 1/4"FNPT X 3/8" PTC, DOT.....	2
F		Spanner Wrench.....	1

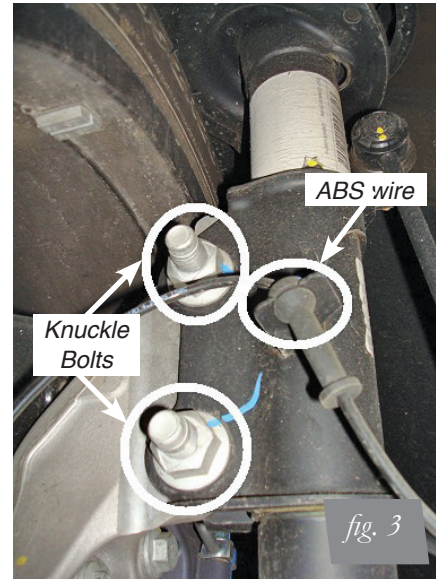
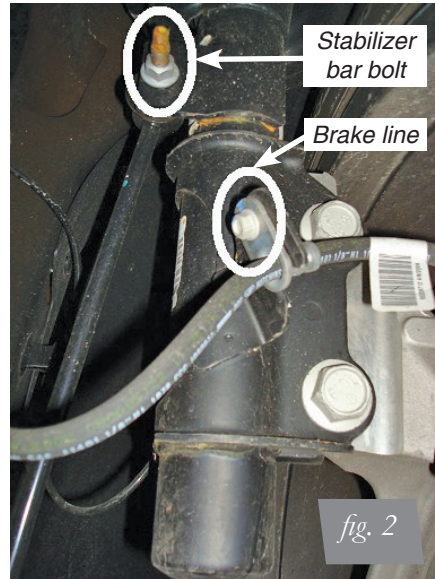
Installing the Air Suspension

PREPARING THE VEHICLE

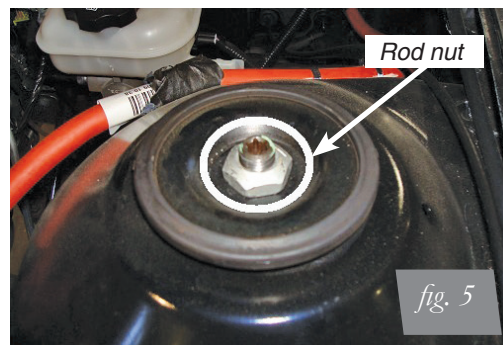
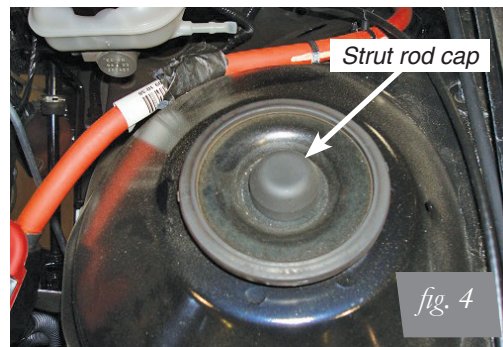
1. Elevate and support the vehicle with a hoist or jack stands.
2. Remove the front tire and support the hub assembly.

REMOVING THE FRONT STRUT

1. Disconnect the brake line, stabilizer bar, ABS sensor wire, and knuckle bolts from the strut assembly (figs. 2 & 3).

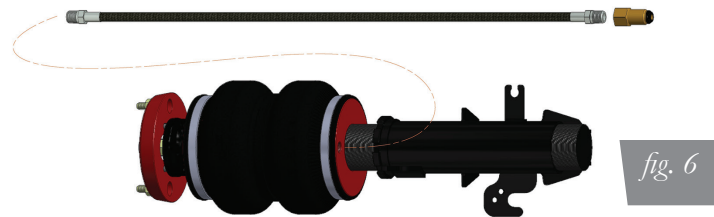


2. With the hub supported, remove the strut rod cap (fig. 4) and unthread the rod nut (fig. 5). Remove the strut from the vehicle.



PREPARING THE AIR SUSPENSION

1. Begin by installing the leader line into the air spring (fig. 6). Wrap the threads of the leader hose with Teflon tape or thread sealant. Tighten the appropriate fitting to the airline $1\frac{3}{4}$ turns beyond hand tight. Tighten the leader line into the air spring $1\frac{3}{4}$ turns beyond hand tight.

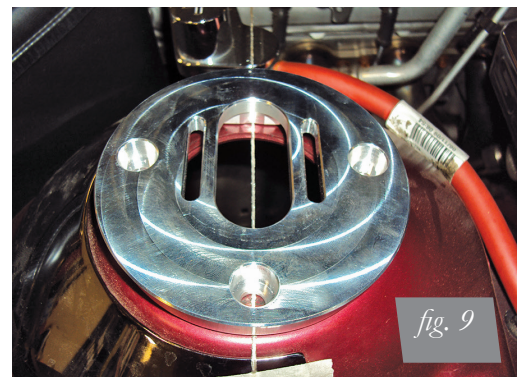


PREPARING FOR THE CAMBER PLATE

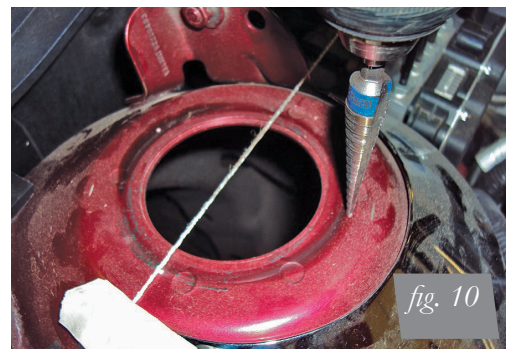
1. Remove the four internal hex head bolts attaching the slotted camber plate from the pillowball bearing (fig. 7). Remove the studs and nuts if attached already (studs and nuts may be in the supplied bag part).



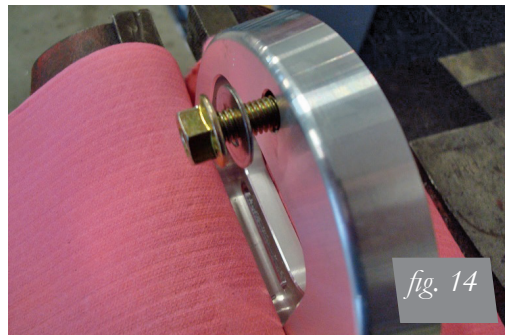
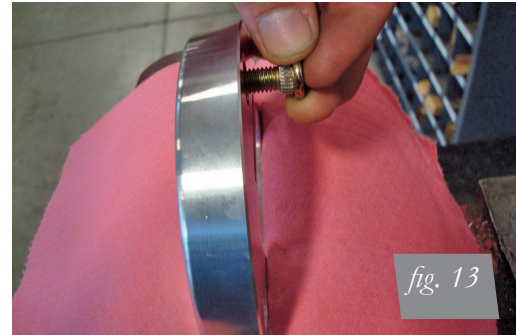
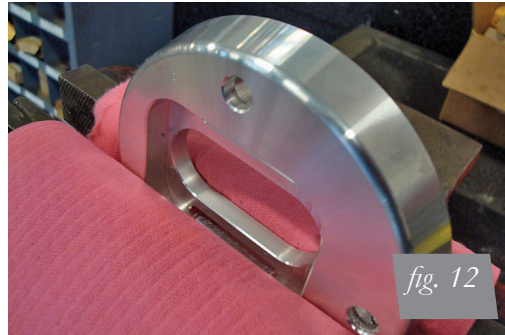
2. Place and center the camber plate on top of the strut tower with the slots directed perpendicular to centerline of vehicle, toward the engine compartment and one hole on the outboard side. It may be useful to place a string from strut tower to strut tower through the centers and tape in place to help reference the center of the tower (fig. 8). Place the camber plate with hole and slot centers on top of the string (fig. 9).



3. Mark the hole centers on the strut tower (fig. 10), center punch each hole location and drill an $1\frac{1}{32}$ " hole at each point (fig. 11).



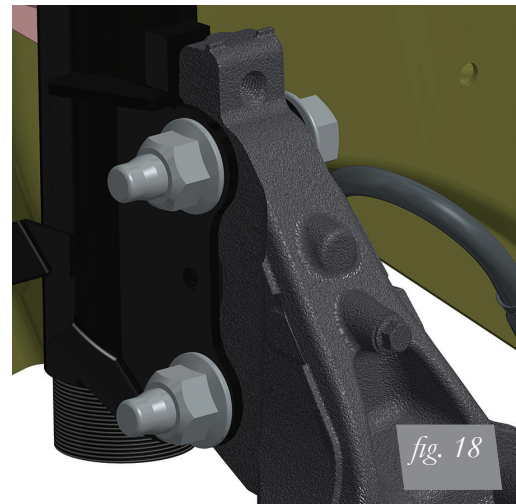
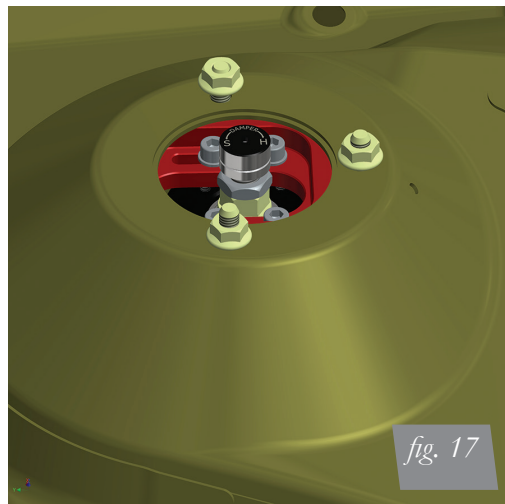
- Take the supplied studs and assemble into the camber plate (fig. 12). Using the supplied washer and nut, thread the nut onto the stud until finger tight against the washer and camber plate (figs. 13 & 14). Now torque the nut between 1 and 1½ turns beyond hand tight (fig. 15). Remove the nut and washer.



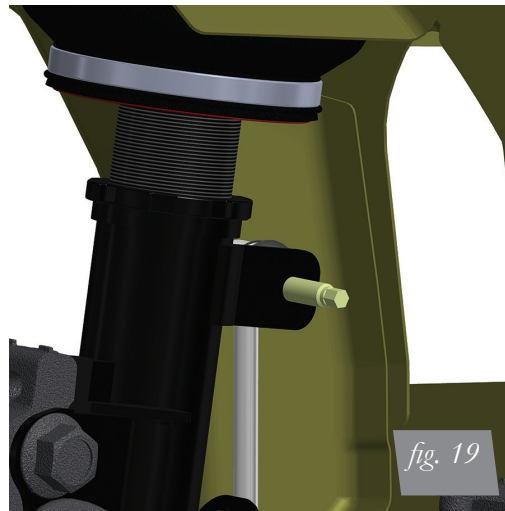
- Reassemble the camber plate to the strut assembly (fig. 16). Torque the bolts to 15Nm (10lb-ft).



- Insert the strut into the strut pocket while aligning the camber plate studs with the newly drilled holes (fig. 17) and attach the camber plate to the chassis with the supplied washer and nut (fig. 18). Torque the camber plate nuts to 20Nm (15lb-ft).



7. Lift the hub assembly and attach the assembly to the new strut. Torque the lower mount bolts to 80Nm + 180° (59lb ft + 180°).
8. Attach the stabilizer end link to the strut (fig. 19). Torque the nut to 50Nm (37lb-ft) (fig. 20).



9. Attach the brake line and ABS sensor wire to the strut (fig. 20). Torque the brake line bracket bolt to 9Nm (80lbs in).
10. Fully compress the suspension using a jack. With the suspension compressed, review the best routing for the leader hose that is clear of all suspension components. Routing should also allow for the suspension to extend and steer without kinking the line or rubbing on other components. Check clearances to all other components.
11. With the suspension fully compressed, take a measurement from the fender to some reference point – typically the center of the hub bearing. Record this measurement as Max Compression.
12. Cycle the suspension to Max Extension and record the measurement from the same reference points.
13. Take the difference between the two numbers and divide by two. Add that value to the original Max Compression number. Set the suspension to this point. This position will give 50% stroke in either direction and is a starting point for ride height (fig. 21).
14. With the suspension at this position, torque the lower shock bolt and upper and lower control arm bolts to manufacturer’s specifications (Table 1).

Formula for calculating ride height (fig. 21):

Step 1: Step 2: Step 3: Answer:

$$\frac{ME - MC}{X} \quad \frac{X}{2} = Y \quad \frac{Y + MC}{Z} \quad Z = \text{DESIGN HEIGHT}$$

fig. 21

Table 1

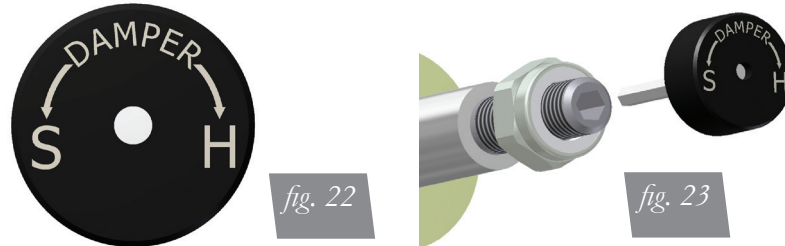
Torque Specifications		
Location	Nm	lb-ft
Camber plate to chassis	24	18
Lower strut mount to knuckle	80 + 180°	59 + 180°
Stabilizer link nut	50	37
Control arm to chassis	50 + 120°	37 + 120°
Brake line bracket bolt	9	-
Wheels	190	140

DAMPING ADJUSTMENT

The struts in this kit have 30 settings, or “clicks”, of adjustable compression and rebound damping characteristics. Damping is changed through the strut rod using the supplied adjuster (figs. 22 & 23) or a 3mm hex wrench.

Turn the adjuster clockwise and the damping settings are hardened. Turn the adjuster counterclockwise and the damping is softened.

Each strut is preset to “-15 clicks”. This means that the strut is adjusted 15 clicks away from full stiff. Counting down from full stiff is the preferred method of keeping track of, or setting, damping. This setting was developed on a 2010 Chevrolet Camaro SS and may need to be adjusted to different vehicles and driving characteristics.



ALIGNING THE VEHICLE

1. Using the control system, set the vehicle height to the new custom ride height.
2. If the custom ride height is lower than stock, we recommend loosening all pivot points (bolts, nuts) on any control arm, strut arm or radius rod that contains bushings. Once they have been loosened, re-torque to stock specifications.

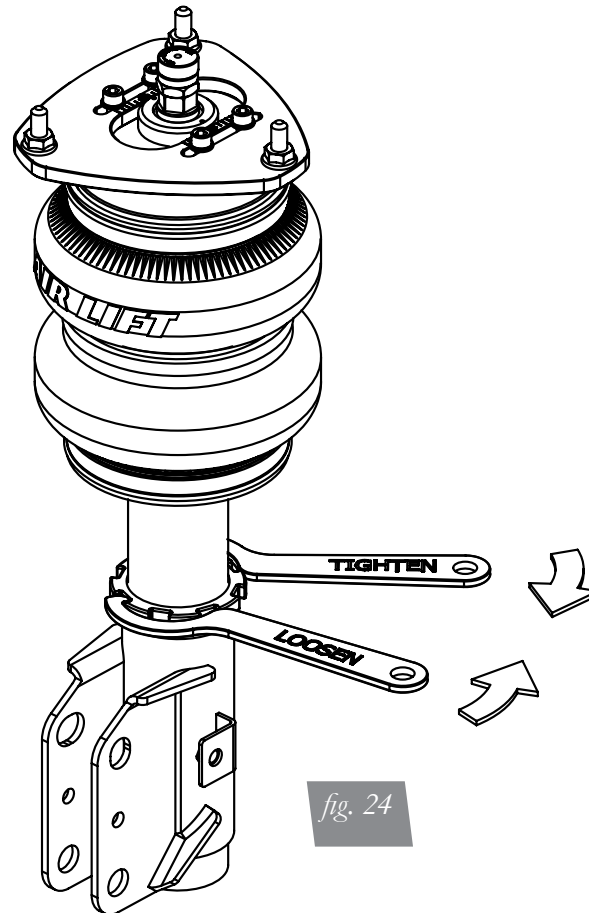
NOTE

It may be necessary to cycle the suspension to loosen the bushing up from its mount. This will help re-orient the bushing at its new position based on the custom ride height.

ADJUSTING EXTENDED OR DROP HEIGHT USING LOWER MOUNT

Your struts have been pre-set at the factory to provide maximum drop height while maintaining adequate tire clearance to the air spring. If you wish to gain more extended height (lift), which is the same as reducing drop height, or want to lower the chassis further and there is still adjustment available at the lower mount, please use the following procedure:

1. Support the vehicle with jack stands or a hoist at approved lifting points.
2. Remove the wheel.
3. Using the supplied spanner wrench, loosen the lower locking collar (fig. 24).



4. Deflate the air spring to 0 PSI on the corner you are adjusting.
5. Disconnect lower mount from suspension.
6. Spin the lower mount to the desired location.

NOTE

Not all models will have further drop height available.

7. Re-install lower mount to suspension and torque fasteners.
8. Tighten the lower locking collar to the lower mount using significant force.

CAUTION

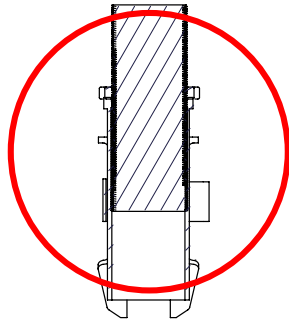
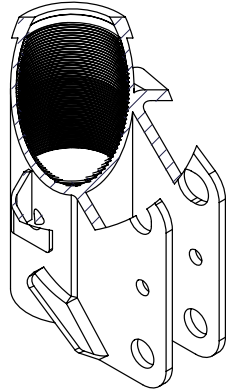
WHEN ADJUSTING HEIGHT UPWARDS, MAKE SURE THAT THE STRUT BODY ENGAGES ALL THE THREADS OF THE LOWER MOUNT (FIG. 25). WHEN ADJUSTING DOWNWARDS, MAKE SURE THERE IS ADEQUATE AIR SPRING CLEARANCE TO THE TIRE/WHEEL ASSEMBLY. CLEARANCE MUST BE CHECKED WITH SYSTEM FULLY DEFLATED AS WELL AS FULLY INFLATED TO ENSURE THAT NO RUBBING

OCCURS. FAILURE TO MAINTAIN ADEQUATE CLEARANCE CAN RESULT IN AIR SPRING FAILURE AND WILL NOT BE COVERED UNDER WARRANTY.

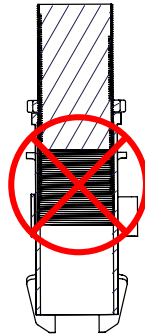
CAUTION

DO NOT ADJUST HEIGHT BY SPINNING AIR SPRING ON STRUT! DOING SO MAY CAUSE AN AIR LEAK AND COMPROMISE THE ASSEMBLY.

FOR STRUTS:

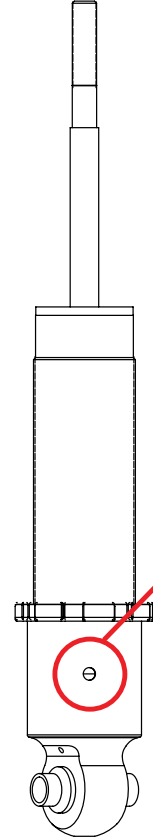


OK, no threads showing.



Not OK, threads are showing.

FOR SHOCKS:



Thread MUST be showing in window.

fig. 25