

Air Lift[™]
PERFORMANCE

Kit 78619

Ford Mustang SN95

Rear Application



AIR LIFT
PERFORMANCE[™]

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 Ford Mustang SN95 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/SHOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.

Installation Diagram

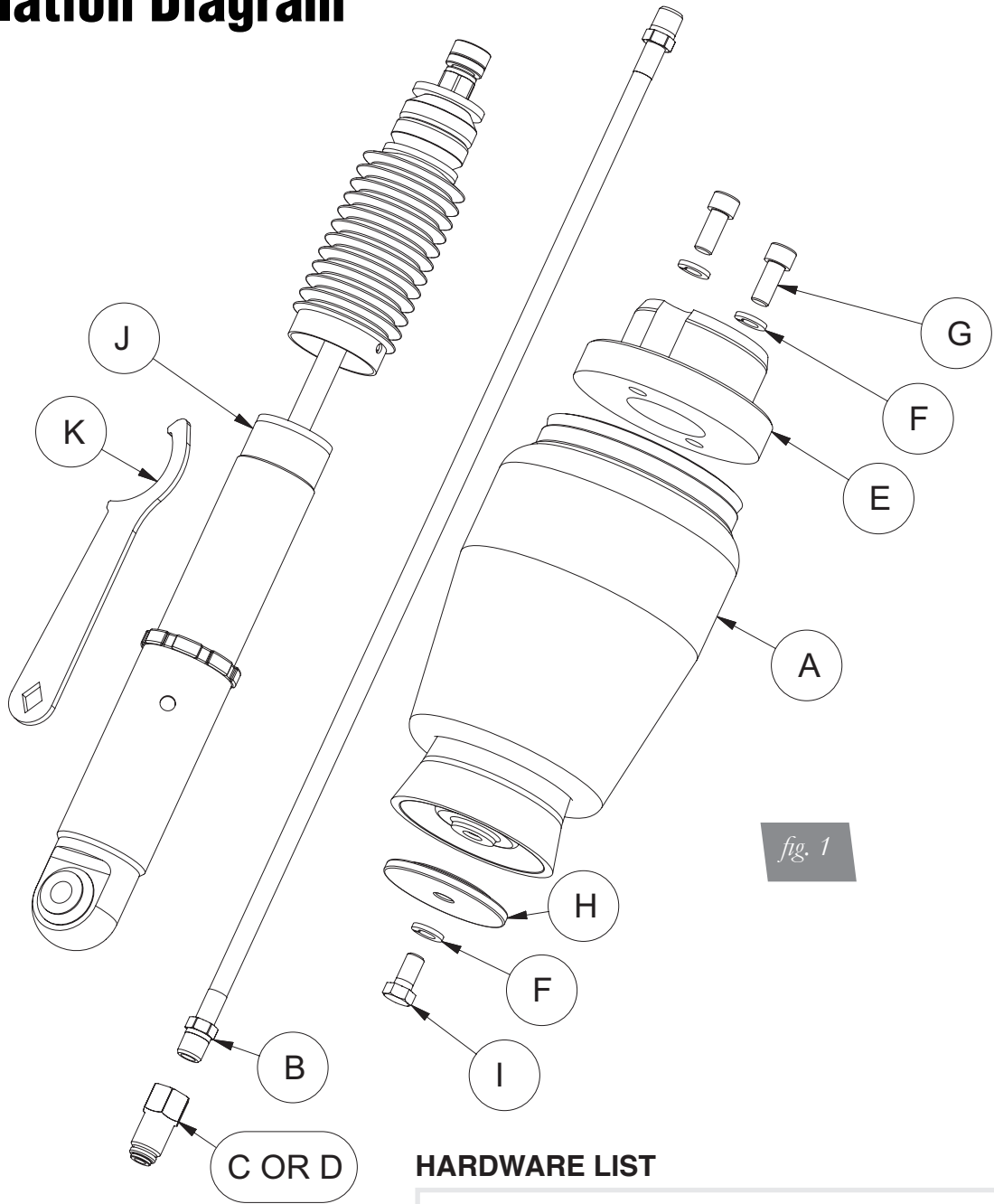


fig. 1

HARDWARE LIST

Item	Part #	Description	Qty
A	58543	Tapered Sleeve, Center Air Port	2
B	20997	Leader Hose, 1/4" ID	2
C	21810	Union, 1/4"FNPT X 1/4" PTC, DOT	2
D	21987	Union, 1/4"FNPT X 3/8" PTC, DOT	2
E	13315	Spacer, SN95 Upper Bracket, Rear.....	2
F	18427	3/8" Lock Washer.....	6
G	17445	3/8-24 X 7/8" Bolt.....	4
H	13316	Spacer, Centering, SN95.....	2
I	17101	3/8-16 X 3/4" Hex Bolt	2
J	26768	Shock, SN95 Rear	2
K		Spanner Wrench.....	1

Installing the Air Suspension

PREPARING THE VEHICLE

1. Elevate and support the vehicle from approved lifting points.
2. Remove the rear wheels (fig. 2).



REMOVING THE STOCK SUSPENSION

1. Unbolt the stabilizer bar from the lower control arms (figs. 3 and 4).



2. Support the lower control arm and remove the bolt attaching it to the axle. Lower the control arm down and remove the coil spring. (figs. 5 and 6).



THE COIL SPRING IS UNDER PRESSURE, DO NOT UNBOLT THE CONTROL ARM WITHOUT SECURELY SUPPORTING THE ARM.

3. Reattach the lower control arm to the axle. Do not torque the bolt at this time (fig. 7).



4. Reinstall the stabilizer bar (figs. 8 and 9). Torque bolts to 47 Nm (35 ft-lbs.).



5. Unbolt the lower shock mount (figs. 10 and 11).



6. Within the trunk, remove the carpet, unthread the rod nut and remove the shock from the vehicle (figs. 12 and 13).



fig. 12



fig. 13

AIR SUSPENSION INSTALLATION

1. Install the leader hose into the air spring. Apply thread sealant to the threads of the leader hose. Tighten the appropriate fitting to the air line (one and three-quarter turns beyond hand-tight). Tighten the leader line into the air spring (one and three-quarter turns beyond hand-tight) (fig. 14).

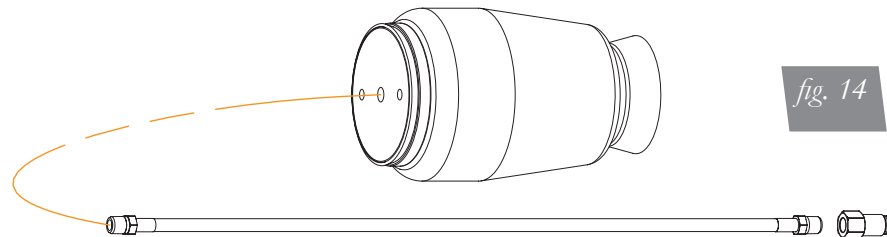


fig. 14

2. Attach the upper mount spacer to the air spring upper end cap with the supplied bolts and lock washers (fig. 15). Torque bolts to 27 Nm (20 ft-lbs.).

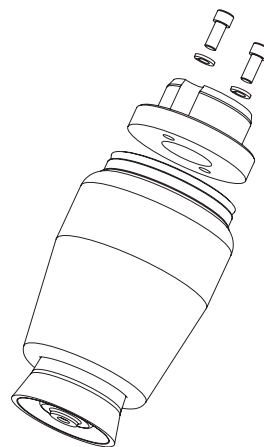


fig. 15

3. Route the leader hose through the hole in the center of the upper spring perch and out the windowed area facing the rear of the vehicle (fig. 16).



NOTE

Braided hose is not shown but routes in the same manner.

4. Insert the upper mount spacer into the upper coil spring seat (fig.17). Install the lower end cap over the lower coil spring seat (fig.18).



5. Reinstall the lower centering spacer with the supplied lock washer and bolt (figs. 19 and 20). Torque to 27 Nm (20 ft-lbs.).



6. Remove the shock rod nut, upper washer and bushing from the new shock. Insert the shock into the shock tower, aligning the lower mount hole with the shock mounting bracket and insert the lower shock bolt through the mount (figs. 21-23). Do not torque at this time.



7. Apply the upper bushing, washer and shock rod nut (fig. 24). Torque the rod nut to 27 Nm (20 ft-lbs.) (fig. 25). Thread the damping adjuster onto the rod (fig. 26).



8. 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 compress without kinking or pulling the line tight or rubbing on other components. Check clearances to all other components.
9. With the suspension fully compressed, take a measurement from the fender to some reference point – typically the center of the axle. Record this measurement as Max Compression.
10. Cycle the suspension to Max Extension and record the measurement from the same reference points.
11. Add ME and MC then divide by 2. Set the suspension to this point. This position will give 50% stroke in either direction and is a starting point for ride height (fig. 27).

Formula for Calculating Ride Height

$$(ME+MC)\div 2=MID\ STROKE$$

fig. 27

- With the suspension at this position, loosen, then re-torque the upper and lower control arm bolts and lower shock bolts to manufacturer's specifications (Table 1).

NOTE

Re-clocking the control arm bushings is critical to good ride quality, handling and bushing life. Do not skip this step!

Torque Specifications		
Location	Nm	ft-lbs.
Upper & lower air spring bolts	27	20
Upper and lower trailing link	98-132	73-97
Stabilizer end link nuts	47	35
Shock rod nut	27	20
Shock lower mounting bolt	72-103	57-75
Wheel lugs	115	85
Air fitting (use thread sealant)	1-and-3/4 turns beyond hand-tight	

Table 1

DAMPING ADJUSTMENT

The dampers in this kit have 30 settings, or “clicks”, of adjustable compression and rebound damping characteristics. Damping is changed through the damper rod using the supplied adjuster (figs. 28 and 29) or a 3mm allen 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 “-25 clicks”. This means that the damper is adjusted 25 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 2002 Mustang GT and may need to be adjusted to different vehicles and driving characteristics.



fig. 28

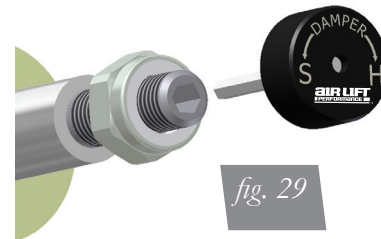


fig. 29

ALIGNING THE VEHICLE

- Using the control system, set the vehicle height to the new custom ride height.
- 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.

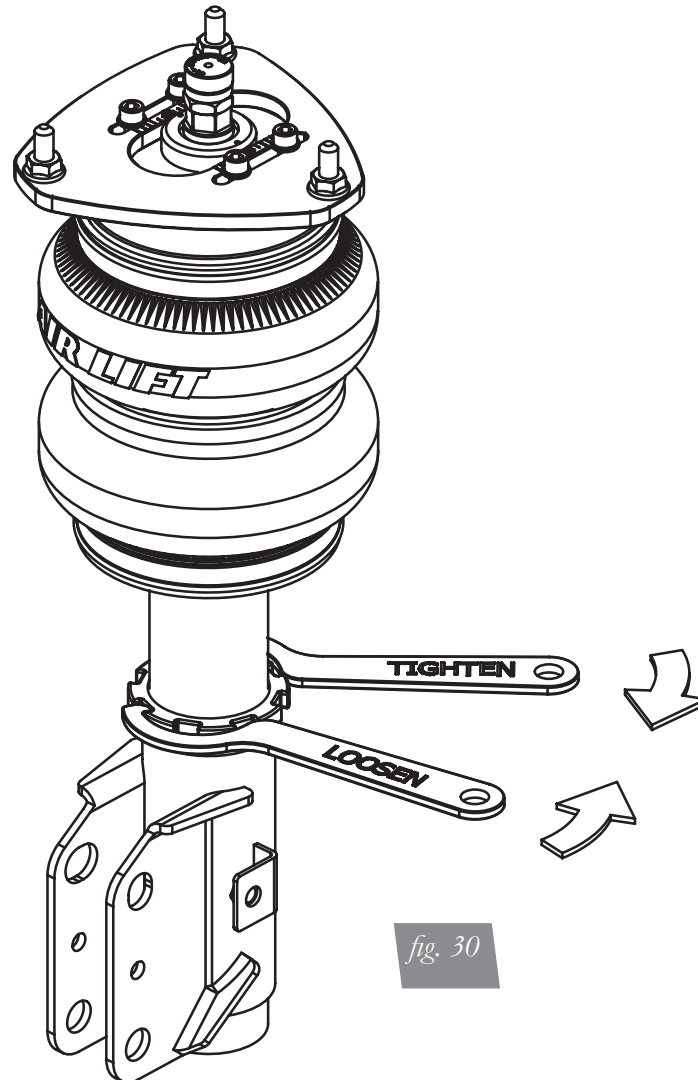
NOTE

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 and increase life of the bushings based on the custom ride height.

ADJUSTING EXTENDED OR DROP HEIGHT USING LOWER MOUNT

Your dampers 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. 30).



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 DAMPER BODY ENGAGES ALL THE THREADS OF THE LOWER MOUNT (FIG. 31). 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 DAMPER! DOING SO MAY CAUSE AN AIR LEAK AND COMPROMISE THE ASSEMBLY.

FOR STRUTS:

FOR SHOCKS:

