

# Kit 75572

Scion xA & xB

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.

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## Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Scion xA & xB. Read these installation instructions to correctly and safely set up the vehicle for a #lifeonair.

Air Lift assumes that the installer has the mechanical knowledge and ability to work on vehicle suspension systems and has basic tools necessary to complete the project. Special tools needed to complete the installation are noted on the Installation Diagram page.

Air Lift reserves the right to make changes and improvements to its products and publications at any time. For the latest version of this manual, contact Air Lift Performance at **(800) 248-0892** or visit **www.airliftperformance.com**.

An Air Lift Performance air management system is highly recommended for this product. Learn more at air-lift.co/productlines.

### 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.



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



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



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**



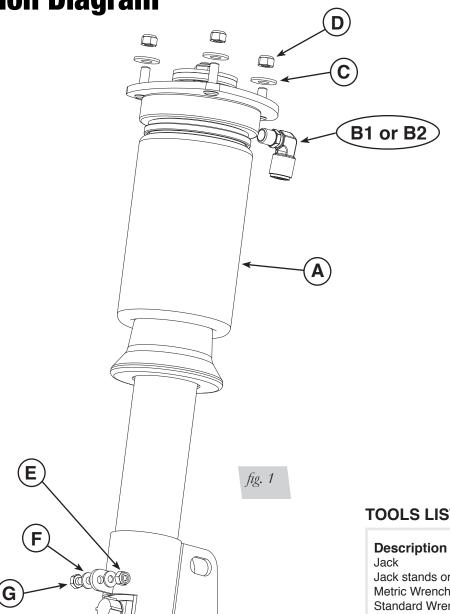
DO NOT INFLATE AIR SPRINGS WHILE OFF OF THE VEHICLE. DAMAGE TO ASSEMBLY MAY RESULT AND VOID WARRANTY.



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



**Installation Diagram** 



#### **TOOLS LIST**

Jack stands or hoist Metric Wrenches Standard Wrenches Flat-head Screwdriver Torque Wrench

#### **HARDWARE LIST**

Item A B1 B2	Part # 35377 21779 21851	Description         Qty           Gen II front strut         2           Fitting - 1/4"NPT X 1/4"PTC Elbow         2           Fitting - 1/4"NPT X 3/8"PTC Elbow         2
С	18206	5/16" Flat Washer6
D	18438	5/16"-18 Nylon Lock Nut6
E	18425	1/4"-20 Nylon Lock Nut2
F	18419	#12 Flat Washer4
G	17175	1/4" - 20 x .75 Bolt2

Missing or damaged parts? Call Air Lift customer service at (800) 248-0892 for a replacement part.



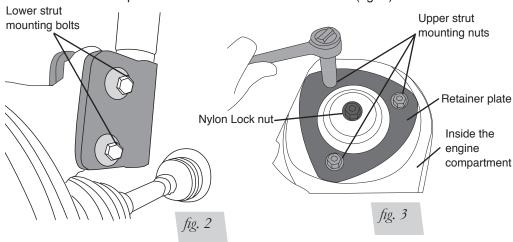
## **Installing the Air Suspension**

#### PREPARING THE VEHICLE

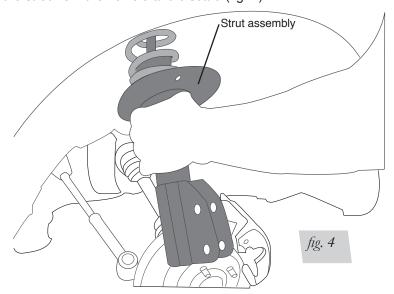
- 1. Elevate the vehicle and support the body with a hoist or jack stands.
- 2. Remove the front wheels.

#### **REMOVING THE STRUT**

- 1. Remove the brake line and ABS retainer bolt and discard.
- 2. Using a screwdriver, unclip the ABS line from the retainer.
- 3. Remove the two lower retaining bolts from the spindle and save for later reinstallation (fig. 2).
- 4. Remove the three upper retaining nuts and discard (fig. 3).
- 5. Remove the retainer plate and save it for later reinstallation (fig. 3).



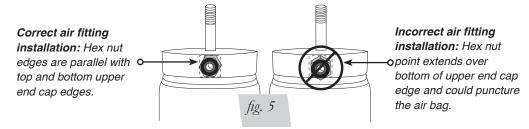
6. Remove the strut from the vehicle and discard (fig. 4).



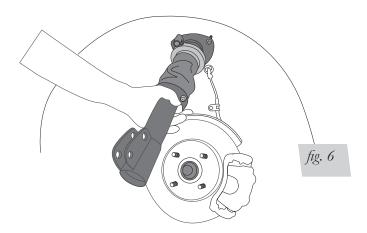


## **Installing the New Strut Assembly**

1. Prior to installing the strut, attach the provided air fitting to the threaded port at the top of the air spring (fig. 5). Seal with thread sealant.



- 2. In each strut pocket, check for any screws longer than 6.4mm (1/4"). Grind these screws down to less than 6.4mm (1/4").
- 3. Insert the new strut into the vehicle's strut pocket (fig. 6).

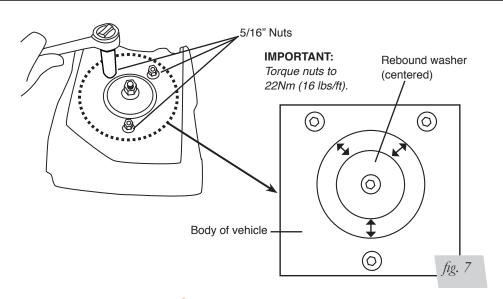


4. Reinstall the stock retainer plate and secure the strut in place using the 8mm (5/16") nuts and washers provided.

**IMPORTANT:** Torque to 22 Nm (16 lb.-ft.).

#### **NOTE**

Be sure to center the rebound washer in the strut mount (body) hole before torquing the upper bracket 8mm (5/16") nuts (fig. 7).



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fig. 8



5. Raise the suspension to align the lower strut mount holes with the spindle. Reattach using the previously removed factory bolts, torque to 132Nm (97 lbs/ft).

#### **NOTE**

Use of Loctite Red or a similar thread sealant on the nylon lock nut is recommended.

- 6. Reattach the ABS and brake lines.
- 7. Attach the air hose to the air fitting at the top of the strut.
- 8. Tighten all mounting hardware securely to manufacturer's torque specifications.

## **Tips for Installing the Air Lines**

#### **CUTTING AIR LINES**

When cutting air lines, use a sharp knife or a hose cutter and make clean, square cuts (Fig. 8). Do not use scissors or wire cutters because these tools will deform the air line, causing it to leak around fittings. Do not cut the lines at an angle.

The minimum bend radius for 1/4" air line is 25mm (1"). The minimum bend radius for 3/8" air line is 38mm (1 1/2"). Do not bend the air line less than the minimum bend radius or side load the fitting connections. Air lines are to be installed straight into fittings.

Inspect the air line for scratches that run lengthwise prior to installation. Contact Air Lift customer service at (800) 248-0892 if the air line is damaged.



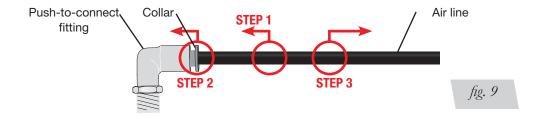
To watch a video demonstrating proper air line cutting, go to air-lift.co/cuttingairline



Air lines should be pushed into the push-to-connect fittings firmly, with a slight side-to-side rotational twist. Check the connection by pulling on each line to verify a robust connection.

#### NOTE

To release the air line from the connection (Fig.9), first release all air from the system. Push in on the air line (step 1), push the collar in (step 2), and with the collar depressed, pull the air line out of the fitting (step 3).





### AFTER INITIAL INSTALLATION OF SLEEVE-STYLE DAMPERS



DO NOT CYCLE THE SUSPENSION WITH THE AIR LINE CONNECTED TO THE LEADER HOSE WITHOUT FIRST ADDING AIR SPRING PRESSURE. DOING SO MAY CAUSE THE AIR SPRING TO IMPROPERLY INFLATE (FIG. 10). IT IS SAFE TO CYCLE THE SUSPENSION TO CHECK FOR CLEARANCES ETC. WITH THE LEADER HOSE OPEN TO ATMOSPHERE (DISCONNECTED FROM AIR LINE).



BEFORE SETTING VEHICLE ON THE GROUND FOR THE FIRST TIME, IT IS VERY IMPORTANT TO INFLATE THE AIR SPRINGS TO AT LEAST 3.5BAR (50 PSI). THIS WILL PREVENT ANY POSSIBILITY OF THE AIR SPRING KICKING OUT AND CAUSING A LEAK (FIGS. 10, 11 & 12).







fig. 10

Shows what spring looks like after lowering car to ground

fig. 11

fig. 12

Caused by cycling with air line attached without pressure. Remove air-line from spring to release vacuum and re-attach. Inflate to more than (3.5BAR) 50 PSI before lowering car to ground.

Do NOT drive!

with less than (3.5BAR) 50 PSI and raising it with air pressure.

Do NOT drive!

Shows what spring looks like when installed correctly.



### **CHECKING FOR LEAKS**

- 1. Inflate the air spring to 5.2-6.2BAR (75-90 PSI).
- 2. Spray all connections with a solution of liquid dish soap and water. Spot leaks easily by looking for bubbles in the soapy water.
- 3. After the test, deflate the springs to the minimum pressure required to restore the system to normal ride height.
- 4. Check the air pressure again after 24 hours. A .14-.28BAR (2-4 PSI) loss after initial installation is normal. Retest for leaks if the loss is more than .34BAR (5 PSI).

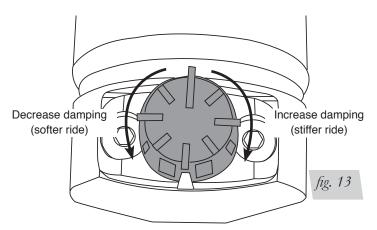
### FIXING LEAKS

- If there is a problem with the push-to-connect fitting, remove the air line as described above. Trim 25mm (1") off the end of the air line. Be sure the cut is clean and square (see Fig. 8).
- 2. Reinsert the air line into the push-to-connect fitting as described above.

## **Before Operating**

1. Some struts for this vehicle come with a nine-position damping dial for added adjustability (fig. 10). If not, proceed to 2.

Before driving the vehicle, set the new struts to their highest setting by turning the black dial on the shaft of the strut as far as it will go to the right (position 9).



Next, completely deflate and reinflate the air springs 2-3 times. This procedure will purge any trapped air in the dampers and allow for maximum performance. For ride performance and the most versatility, Air Lift Performance recommends setting the strut dial (if equipped) to position 6 or higher.



MAKE SURE THE FRONT WHEELS ARE STRAIGHT WHEN DEFLATING AND REINFLATING AIR BAGS.

- Inflate and deflate the system (do not exceed 8.6BAR [125PSI]) to check for clearance or binding issues. With the air springs deflated, check clearances on everything so as not to pinch brake lines, vent tubes, etc. Clear lines if necessary.
- 4. Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and check all connections for leaks.
- 5. Continue by reading the Product Use, Maintenance and Servicing section.



## INSTALLATION CHECKLIST

	<b>Clearance</b> — Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and make sure there is at least 1/2" (12mm) clearance from anything that might rub against the air spring. This should be checked with the air spring fully inflated and fully deflated.
	<b>Heat</b> — Be sure there is sufficient clearance from heat sources, at least 152mm (6") from air springs and air lines. If a heat shield was included in the kit, install it. If there is no heat shield, but one is required, call Air Lift customer service at <b>(800)</b> 248-0892.
	Fastener — Recheck all bolts for proper torque.
	<b>Road</b> — Inflate the springs to recommended driving pressures (Table 2). Drive the vehicle 16km (10 miles) and recheck for clearance, loose fasteners and air leaks.
	<b>Operating instructions</b> — If professionally installed, the installer should review the operating instructions with the owner. Be sure to provide the owner with all paperwork that came with the kit.
F	POST-INSTALLATION CHECKLIST
	$ \begin{tabular}{ll} \textbf{Overnight leak down test} - \textbf{Recheck air pressure 24 hours after installation and driving of the vehicle. If the pressure has dropped more than .34BAR (5 PSI), there is a leak that must be fixed. \\ \end{tabular} $
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	<b>Thirty-day or 800km (500-mile) test</b> — Recheck the air spring system after 30 days or 800km (500 miles), whichever comes first. If any part shows signs of rubbing or abrasion, the source should be identified and moved, if possible. If it is not possible to relocate the cause of the abrasion, the air spring may need to be remounted. If professionally installed, the installer should be consulted. Check all fasteners for tightness.

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## **Use, Maintenance and Servicing**

- An Air Lift air management system is strongly recommended for this product, but it is
  possible to operate without one. The air lines can be routed to Schrader valves for use
  with a separate air compressor. Air lines and Schrader valves are not included with Air
  Lift Performance kits and would need to be purchased separately. To learn more about
  Air Lift air management systems visit air-lift.co/productlines.
- 2. Check the air pressure before driving.



BEFORE SERVICING THE VEHICLE, MAKE SURE TO TURN OFF "RISE ON START" AND "PRESET MAINTAIN." THIS WILL ELIMINATE ANY UNINTENDED SUSPENSION CYCLING IF YOU NEED TO TURN THE KEY ON IN THE VEHICLE FOR ANY REASON.

### **TUNING THE AIR PRESSURE**

Pressure determination comes down to three things — level vehicle, ride comfort and stability.

#### 1. Level vehicle

Depending on load, it is possible one side will need more pressure than the other to level the vehicle.

#### 2. Ride comfort

If the vehicle has a harsh ride, it may be due to either too much pressure or not enough causing frequent bottoming out. Also, riding the vehicle at the top, or close to the top of the available stroke will cause an uncomfortable ride due to a lack of rebound travel. This situation should be avoided for driving any significant distance. Try different pressures to determine the best ride comfort. See the Air Lift suggested driving air pressure for this vehicle (Table 2).

#### 3. Stability

Stability translates into safety and should be the priority, meaning the driver may need to sacrifice a perfectly level and comfortable ride. Stability issues include roll control, bounce, dive during braking and sponginess. Tuning out these problems usually requires additional air pressure, damping or both.

TROUBLESHOOTING GUIDE			
PROBLEM	CAUSE	SOLUTION	
Air spring won't maintain pressure.	Leak at fitting, air line not cut properly or damage to air line during installation.	Find location of leak by spraying listed components with soapy water solution and look for bubbles. Tighten air fitting, re-cut air line or replace damaged components.	
	Leak at lower O-ring on damper if air spring is over the damper.	Spray bottom of air spring with soapy water solution and look for bubbles. Contact Air Lift customer service at (800) 248-0892 to determine if component should be replaced.	
Knocking noise when hitting bumps.	Loose suspension component such as locking collar on damper.	Tighten lower locking collar with significant force, check and tighten suspension components to factory specs at desired ride height.	
	Driving vehicle too close to maximum extension.	Check current ride height and compare to maximum height. If there is less than 25mm (1") difference, reduce air pressure to lower ride height.	
		Lengthen strut or shock to increase available up travel.	
Suspension bottoms out.	Air pressure is too low, causing air springs to bottom out.	Raise air pressure.	
The ride is too bouncy.	Air pressure is too high, causing air springs to be too stiff.	Lower air pressure and adjust damper length if necessary to achieve proper ride height.	
	Damping is inadequate.	Increase damping with adjusters.	
The ride is too soft or floaty.	Damping is inadequate.		
The ride is too harsh.	Excessive damping.	Reduce damping with adjusters.	



## **NOTES**



## **NOTES**



## **Limited Warranty and Return Policy**

Air Lift Company provides a 1-year limited warranty to the original purchaser of Air Lift Performance damper kits from the date of original purchase, that the products will be free from defects in workmanship and materials when used on vehicles as specified by Air Lift Company and under normal operating conditions, subject to the requirements and exclusions set forth in the full Limited Warranty and Return Policy that is available online at www.airliftperformance.com/warranty.

For additional warranty information contact Air Lift Company customer service.

## **Replacement Part Information**

If replacement parts are needed, call Air Lift customer service. Most parts are immediately available and can be shipped the same day.

#### Contact Air Lift Company customer service at (800) 248-0892 first if:

- · Parts are missing from the kit.
- Need technical assistance on installation or operation.
- Broken or defective parts in the kit.
- Wrong parts in the kit.
- Have a warranty claim or question.

#### Contact the retailer where the kit was purchased:

- If it is necessary to return or exchange the kit for any reason.
- If there is a problem with shipping if shipped from the retailer.
- If there is a problem with the price.

## **Contact Information**

Mailing address P.O. Box 80167

Lansing, MI 48908-0167

**Shipping address** 2727 Snow Road for returns Lansing, MI 48917

**Phone** Toll free: (800) 248-0892

International: (517) 322-2144

**Email** service@airliftcompany.com

Web address www.airliftcompany.com

Air Lift Company reserves the right to make changes and improvements to its products and publications at any time. For the latest version of this manual, contact Air Lift Company at **(800) 248-0892** or visit **www.airliftperformance.com**.

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## **Need Help?**

Contact Air Lift Company customer service department by calling (800) 248-0892. For calls from outside the USA or Canada, dial (517) 322-2144.







Connect by searching for Air Lift Performance #LifeonAir



Thank you for purchasing Air Lift Performance products!



### 2004-2006 Scion xA & xB Rear Kit Part No. 75672

www.airliftperformance.com

Please read these instructions completely before proceeding with installation



#### Warranty Information

- 1. All goods come with a one year manufacturers warranty against defects.
- 2. Warranty will be void if the strut is altered for any reason and/or adapted to applications other than those suggested.
- 3. Any abrasions or rub marks on the spring will not be covered under warranty. The customer is responsible for all repair charges.
- 4. Driving at low PSI can cause the spring to bottom out. Repeated bottoming out can cause the spring to fail. Failure resulting from repeated bottoming out is not covered under warranty.
- 5. The customer is responsible for all shipping costs to Air Lift Company for all warranty claims.
- 6. Please call tech support at 1-800-248-0892 before shipping a product to Air Lift Company.



Figure 1



Figure 2



Figure 3



Figure 4

Hardware			
<u>Item</u>	P/N	Description	Qty.
Α	58517	Rear Bag Assembly	2
В	17218	Hex Cap Screw 3/8"-24 x 1.25 G8	2
С	17267	Self Tap Screw 5/16"-18 x 1.5	8
D	17234	Hex Cap Screw 3/8"-24 x .75 G5	4
E1	21779	Fitting - 1/4NPT X 1/4PTC, Elbow	2
E2	21866	Fitting - 1/2NPT X 3/8PTC, Elbow	2
F	21247	1/2MNPT X 1/4FNPT Bushing	2
G	07981	Upper Bracket Left	1
Н	07894	Upper Bracket Right	1
I	03984	Lower Bracket	2
J	18207	Flat Washer 2" dia.	6
K	18444	Flat Washer 3/8"	6
L	11801	Roll Plate	2

#### Tools Used:

3/8" drive 1/2" x 3/8" socket

14mm socket & ratchetpry bar17mm wrenchcut off wheel

floor jacks or other lifting device drill

1/4" drill bit

IMPORTANT: Always keep safety in mind when working on your vehicle. Completely read these instructions before installing the kit.

### I. Preparing the Vehicle

- 1. Raise the vehicle and support the body with a hoist or jackstands.
- 2. Remove the rear wheels.

### II. Removing the Strut

1. Remove the section of interior trim blocking access to the upper shock mount (Figure 1).

NOTE: This is located behind the seats in the trunk compartment above the strut pocket.

2. Remove the two upper retaining nuts, washer, and bushing from the upper shock mount and save for reinstallation (Figure 2).

NOTE: Remove the upper retaining hardware from both sides of the vehicle before proceeding with instructions.

- 3. Remove the nut and washer from the axle assembly and save for reinstallation (Figure 3).
- 4. Remove the shock from the vehicle and save for reinstallation (Figure 4).

NOTE: Remove the shocks from both sides of the vehicle before proceeding with instructions.

5. Elevate the rear of the vehicle and remove the coil spring. Discard the coil spring and rubber protectors (Figure 5).

CAUTION: Use extreme caution.

### III. Removing Exhaust Components

- 1. On the passenger side of the vehicle, it will be necessary to remove the exhaust system and muffler heat shield.
- 2. Remove the exhaust clamp (Figure 6). Using a pry bar, remove the rubber hangers from the muffler (Figure 7).

NOTE: One rubber hanger is located at the front end of the muffler and one is located at the back. Remove both.

- 3. Remove the muffler and save for reinstallation (Figure 8).
- 4. Remove the two bolts from the muffler heat shield and save for reinstallation. Remove the heat shield and save for reinstallation (Figure 9).



Figure 5



Figure 6



Figure 7



Figure 9



Figure 8

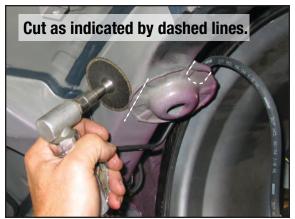


Figure 10

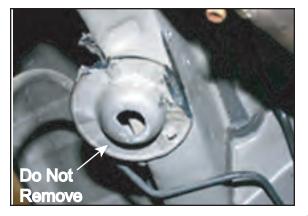


Figure 11



Figure 12



Figure 13

### IV. Preparing the Spring Perches

1. Using a die grinder or other appropriate cutting device, cut off the protruding portion of the upper spring perch as marked by the dashed line in Figure 10.

NOTE: DO NOT remove the OEM spring mount (Figure 11).

### V. Install Bag Assembly

- 1. Place Roll Plate (L) on bag (Figure 12).
- 2. Attach the upper mount (G or H) to the bag using the supplied bolts(D)and washers (K). (Figure 12).
- 3. Install supplied air fitting (E1 or E2) (Figure 12).

**NOTE:** Use teflon tape or thread sealant.

- 4. Place lower mounting plate (I) on axle (Figure 13).
- 5. Place bag assembly on top of lower mounting plate (Figure 14).
- 6. Using supplied bolts (B) and supplied washers(K),(J), thread bolt into bottom of bag assembly and snug up (Figure 16).

**NOTE:** Make sure small washer is below large washer.

### VI. Attaching Upper Mount

- 1. Use jack to raise axle so that upper mount comes in contact with the frame.
- 2. Position upper mount so that the lower tab is on the edge of the hole in the frame.

NOTE: Hole may have a rubber plug over it.

- 3. Using the tab as a template, mark this hole and drill with 1/4" bit.
- 4. Install supplied self-threading bolts (C) and snug up (Figure 15).

NOTE: Do not overtighten self-threading bolts..

- 5. Once the bracket is snug, drill the three remaining holes with 1/4" bit (Figure 17).
- 6. Install supplied self-threading bolts (C) in the holes and snug up (Figure 19).



Figure 14



Figure 15



Figure 16



Figure 18



Figure 17



Figure 19



Figure 20



Figure 21



Figure 22



Figure 23

### VII. Reinstalling OEM Components

- 1. Remove the jounce bumper from the dust shield on the OEM shock (Figure 20).
- 2. With an exacto knife, cut the jounce bumper in half and save the upper portion (Figure 21).
- 3. Reinstall the upper portion of the jounce bumper inside the dust shield.
- 4. Reattach the dust shield assembly to the OEM shock using retained OEM hardware (Figure 22).
- 5. Reinstall the previously removed muffler and heat shield by following the removal steps in reverse (Figures 6-9).
- 6. Reinstall the modified shock assembly into its stock location using retained OEM upper and lower mounting hardware (Figures 2-4).
- 7. Reinstall the section of interior trim previously removed to gain access to the shock upper mount. Attach with retained OEM hardware (Figure 1).
- 8. Repeat steps 1-8 for the other side of the vehicle.
- 9. Finished Installation as shown (Figure 23).

### VIII. Before Operating

- 1. Tighten and visually inspect all hardware after 100 miles.
- 2. Air Lift part #27669 or #27671, AutoPilot V2 Air Management System, is highly recommended for this product.
- 3. Please continue by reading the Maintenance and Operation section.

<u>Notes</u>

### XI. Maintenance and Operation:

Minimum Pressure	Maximum Pressure	
10 p.s.i.	150 p.s.i.	
lure to maintain correct minimum pressure (or pressure proportional to load).		

bottoming out, overextension, or rubbing against another component will void the

By following these steps, vehicle owners should obtain the longest life and best results from their air-struts.

- 1. Always maintain Ride Height.
- 2. Always adjust the air pressure to maintain Ride Height. Increase or decrease pressure from the system as necessary to attain Ride Height for optimal ride and handling.
- 3. Should it become necessary to raise the vehicle by the frame or do any service work, make sure the system is at minimum pressure (10 p.s.i.) for safety and to reduce the tension on the suspension/brake components.

### Thank you for purchasing Air Lift Performance Products



Mailing Address: AIR LIFT COMPANY P.O. Box 80167 Lansing, MI 48908-0167 Street Address: AIR LIFT COMPANY 2727 Snow Rd. Lansing, MI 48917

Local Phone: (517) 322-2144 Fax: (517) 322-0240

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