



ROADTAMER™

ULTIMATE SUSPENSION UPGRADE

MN-652
(08610)
ERN 5849



*Please read these instructions completely
before proceeding with installation*

Failure to read these instructions can result in mis-installation

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Read all maintenance guidelines on page 19 before operating the vehicle.

What You Need to Know About RoadTamer

About RoadTamer

The RoadTamer suspension system and your vehicle's original equipment steel spring suspension operate differently. RoadTamer allows your vehicle to ride "on air." It lowers air pressure for lighter loads, meaning you will have a softer ride when you don't need the heavy factory springs.

RoadTamer lowers your vehicle to be approximately level with the front suspension. The result is a vehicle altitude very similar to that of a fully loaded vehicle. The air management system then maintains that rear suspension height regardless of the load you carry.

Ride Height

RoadTamer gives you optimum ride performance, regardless of the load. RoadTamer's air management system will maintain the vehicle's ride height within $\frac{1}{2}$ ". You will enjoy a much more comfortable, controllable and safer ride. The design of RoadTamer is carefully considered to give you "The Ultimate Suspension Upgrade."

Vehicle Leveling, Side-to-Side

Vehicles are not always level when they are delivered from the factory. Installing RoadTamer on your vehicle does not correct this non-level condition. Before you install RoadTamer, measure for vehicle levelness on a flat surface. After the factory springs have been removed, use a level to verify that the axle spring perches are level from side-to-side. If the perches are not level, you will need to apply a wedge shim to one side or the other to correct this condition. The wedge shim is provided with each RoadTamer kit. More information is provided later in the instruction manual.

Install your RoadTamer kit and make sure the axle is level and square with the vehicle frame. Snug, but **DO NOT TORQUE**, all fasteners per the directions provided in this installation manual. Check again to see if the vehicle is level. If it is not close to as level as its factory levelness, re-read the installation manual concerning the use of the wedge shim. You may also have to loosen all beam connecting bolts, u-bolts, etc. Re-level the axle to the frame before re-torquing all fasteners.

Driveline Angles

Driveline angles are factory-set to cancel vibrations caused by the u-joints. RoadTamer takes this into consideration when lowering the vehicle to a level height. However, the factory does not set up all vehicles to be identical. Many different axle, suspension, and wheelbase combinations are possible. You will need to measure the driveline angles and make a calculation to verify that the driveline cancels correctly. See the section *Checking Driveline Angles* toward the back of the installation manual.

Vehicle Requirements

Vehicle Type

Ford F-450 & F-550

Vehicle Years

See the application guide for specific years.

5th Wheel Hitch

This installation of this RoadTamer kit will fit most vehicles with fifth wheel hitches. Some fifth wheel hitches may need modifications so that the kit will fit properly.

See page 5 for further instructions.

Muffler Modifications

Because a wide variety of exhaust systems are available, your particular system may require modifications in order to properly fit the RoadTamer kit. If your exhaust exits behind the passenger-side tire, removing the rear section of the tailpipe as shown on the next page should be the only modification necessary.

If you have a stock exhaust system, follow the modifications specified on the next page.

Gross Vehicle Weight Rating (GVWR)

IMPORTANT: The installation of this kit does not alter the 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 truck is designed to carry. It is GVWR minus the Base Curb Weight.

RoadTamer Warranty and Return Policy

Air Lift Company warrants its RoadTamer product against quality and workmanship defects to the original retail purchaser as follows; Main Structural components defined as; beams, brackets, and links for 24 months or 24,000 miles, whichever occurs first. All other components for 12 months or 12,000 miles, whichever occurs first. Air Lift Company provides no warranty on the vehicle's original equipment or other aftermarket products. This warranty does not apply to products that have been improperly applied, installed, used in racing applications or maintained in accordance with installation instructions furnished with

the product. A \$10.00 minimum shipping and handling charge will apply to all warranty claims. Before returning any defective product, you must call Air Lift Company (800) 248-0892 ext 2 for an RGA (Returned Goods Authorization) number. Product failures resulting from abnormal use or misuse are excluded from this warranty. The loss of use of the product, loss of time, inconvenience, commercial loss, or consequential damages is not covered. The Air Lift Company reserves the right to change the design of any product without assuming any obligation to modify any product previously manufactured. Dated proof of purchase is required.

Getting Started

DANGER: Compressed air can cause injury and damage to the vehicle and parts if it is not handled properly. For your safety, do not try to inflate the air springs until they have been properly secured to the vehicle.

IMPORTANT: Measure and record the driveline angles in the chassis as first received (Figure 20).

1. Elevate the rear of the vehicle and secure the frame with jack stands or frame-contact hoist. Secure and position the axle to simulate ride height using a second set of jack stands (Figure 1).
2. Remove both leaf springs, and the rear frame contact overload brackets, if equipped, and both rear spring hangers from the frame (Figure 2).

NOTE: Retain the front spring eye bolts and nuts for later use.

NOTE: After removing the factory steel springs, check the axle spring perches for side-to-side angle uniformity. Refer to the Inspecting Axle Spring Perch Uniformity section for information on installing the supplied 1° wedge shim.

3. Cut off the tailpipe behind the muffler and remove (Figure 3). Leave enough room on the muffler to install a replacement pipe (Figure 4).

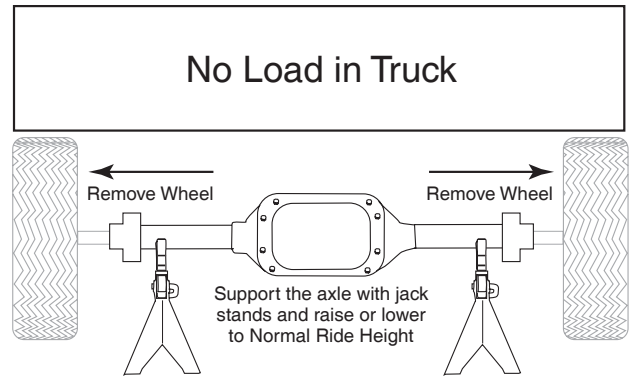


Figure 1

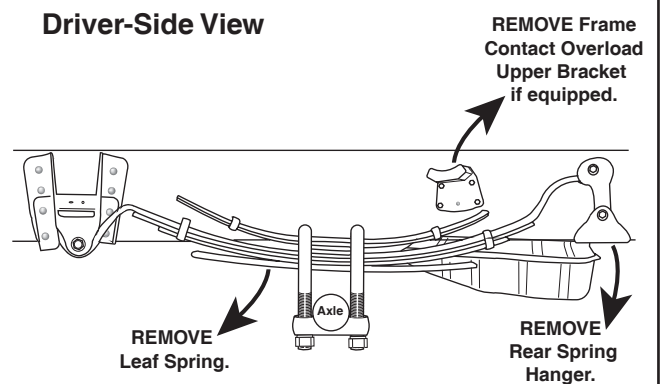


Figure 2

Exhaust Modification (if necessary)

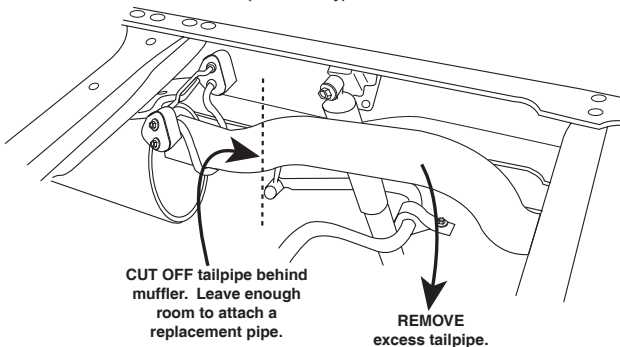


Figure 3

View of Exhaust After Modification

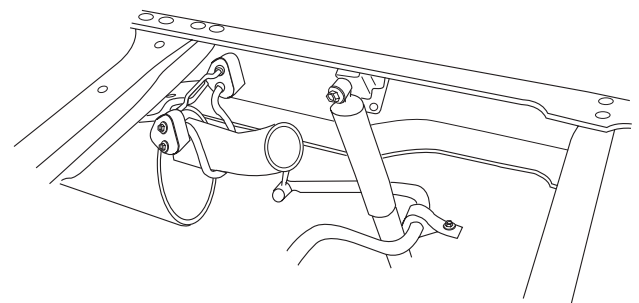


Figure 4

Inspecting Axle Spring Perch Uniformity

1. After removing the factory steel springs, check the axle spring perches for side-to-side angle uniformity. Without disturbing the axle position, place a magnetic angle protractor on one perch and note the angle. Next, place the angle protractor on the other perch and note the angle there as well. A difference of less than 1° is normal and does not require a shim. If the difference between the two angles exceeds 1°, use the supplied 1° wedge shim to correct the difference.
2. Place the 1° wedge shim on one axle spring perch and re-measure the angles to verify that they equal less than 1°. Use the centering pin to attach the wedge to the correct beam and install the beams as directed in the section titled *Attaching the Axle Beams*. DO NOT TIGHTEN FASTENERS until you have checked the driveline angles as instructed in the section dealing with that topic toward the back of this manual.

NOTE: You must check the driveline angles for cancellation before completing the installation (see the *Driveline Angles* section toward the back of the manual). It may be necessary to reverse the shim and place it on the opposite side to maintain correct driveline angles.

3. Measure from the top of each frame rail (at the rear of the frame) to the ground. The measurement must be made at vehicle ride height with the vehicle on level ground and with equal tire pressures. The vehicle levelness is acceptable if the two measurements from side-to-side are within $\frac{3}{8}$ ". If the vehicle is not level within $\frac{3}{8}$ ", check that the 1° shim is placed properly.

Attaching the Axle Beams

1. Grind or drill out the center hole in the stock upper spring retainer so the new centering pin fits through the hole (Figure 5).
2. Attach the upper spring retainer to the beam using the new centering pins supplied (Figure 6).
3. Attach the left and right beam assemblies to the front spring eye hangers using previously removed stock hardware (Figure 5). Leave loose at this time.
4. Attach the axle to the beam using the new u-bolts. Tighten the u-bolt nuts evenly until snug, but do not fully tighten at this time.

NOTE: Reinstall any previously removed stock spacers located between the leaf spring and

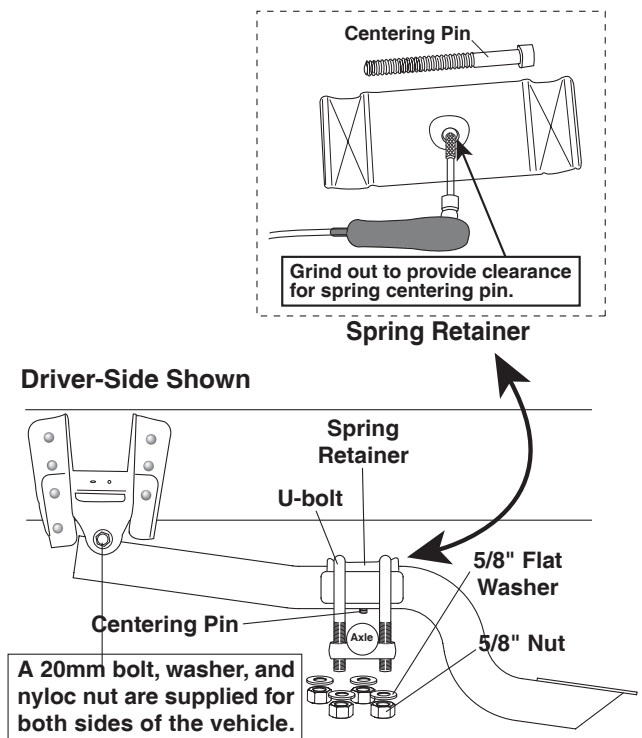
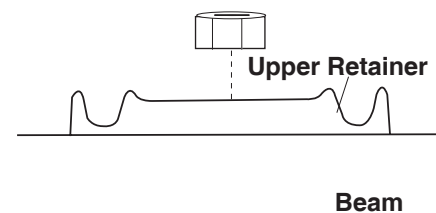


Figure 5



Top View

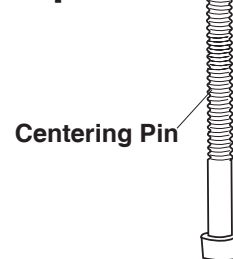


Figure 6

Attaching the Frame Brackets

1. Attach the upper brackets to the side of the frame using the existing holes and the supplied $\frac{1}{2}$ " bolts, washers, and nyloc nuts (Figure 7). Tighten securely.

NOTE: Although the bracket holes line up with the existing frame holes, it will be necessary to drill some of the frame holes out to $\frac{1}{2}$ " (Figure

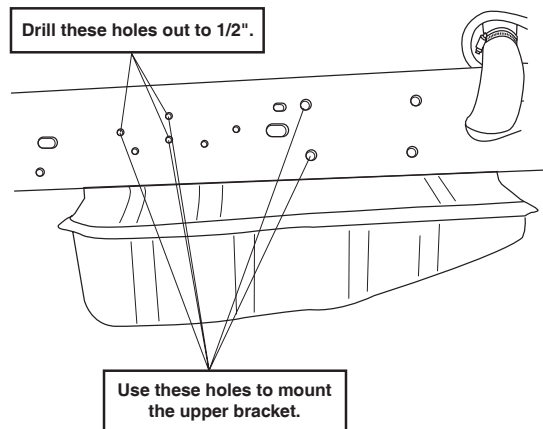


Figure 7

Attaching the Panhard Rod Bracket

1. Clamp the panhard rod bracket to the passenger-side frame rail behind the jounce bumper bracket.
2. Line the bracket holes up with the existing holes in the frame (Figure 8).

NOTE: It will be necessary to drill the two forward holes out to 1/2".

3. Drill two 1/2" holes in the flange using the bracket as a template (Figure 9).
4. Attach the bracket to the frame using the supplied 1/2" bolts, washers, and nyloc nuts (Figure 10a). Tighten securely at this time.

NOTE: The bolt must go up through the bottom of the frame to provide clearance for the panhard rod.

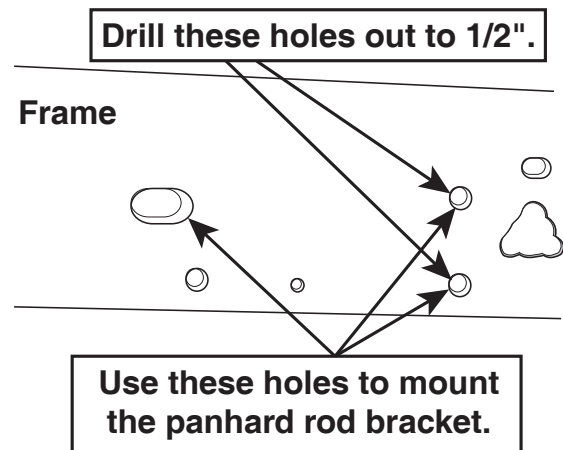


Figure 8

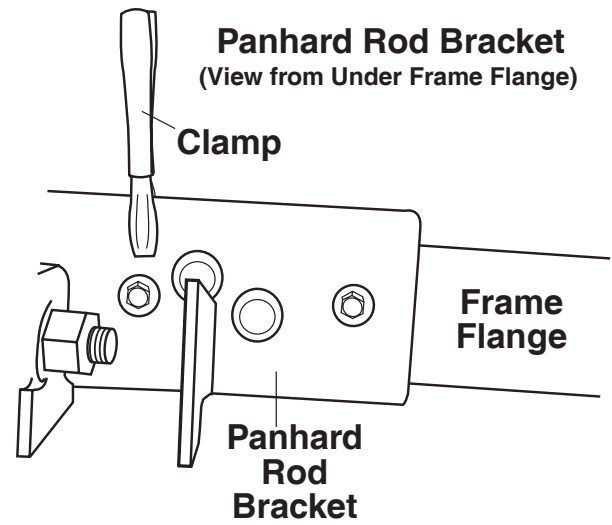


Figure 9

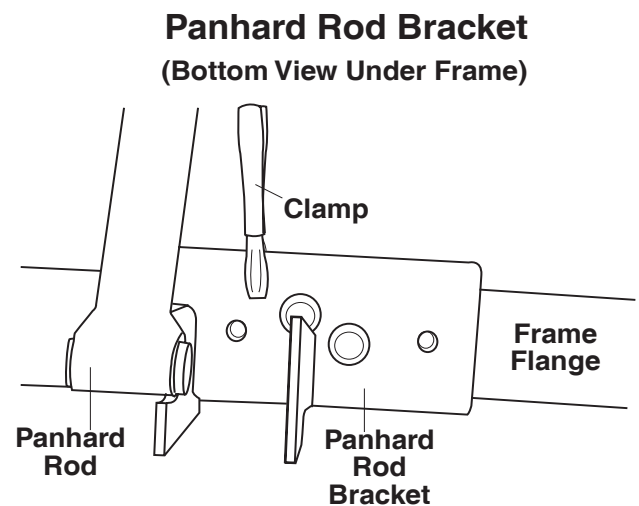


Figure 10a

Attaching and Adjusting the Panhard Rod

1. Raise or lower the axle to create a space of 11.5 inches between the rolling lobe upper and lower mounting brackets (Figure 13).
2. Attach the bushing end of the panhard rod to the beam using the supplied $\frac{9}{16}$ " bolt, washers, and nyloc nut (Figure 11a, Figure 12).

NOTE: It may be necessary to raise or lower the axle to properly align the bolt for insertion into the panhard rod bushing.

3. By twisting the heim in or out of the panhard rod, adjust the rear end so the frame-to-beam distance is equal on both the driver and passenger side.

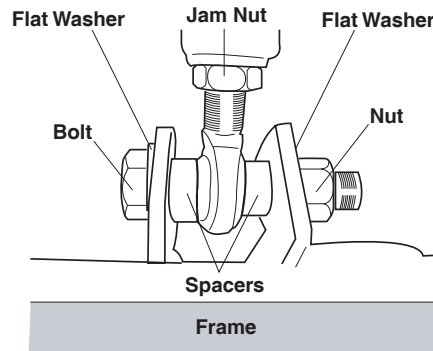
CAUTION: There must be no more than $1\frac{1}{2}$ " of thread showing on the heim joint (Figure 11b).

4. Attach the heim end of the panhard rod to the previously installed passenger-side frame bracket using the supplied $\frac{3}{4}$ " bolt, washers, and nyloc nut (Figure 10b, Figure 12).

5. Tighten both ends of the panhard rod securely. Turn the heim joint so the cage is parallel to the brackets to prevent suspension travel from interfering. Tighten the jam nut on the heim.

6. Grease the heim joint at this time.

7. Refer to Figure 20 and the Checking Driveline Angles section of the manual at this time. If driveline angles are acceptable, proceed to the next section.



Bottom View Passenger-Side

Figure 10b

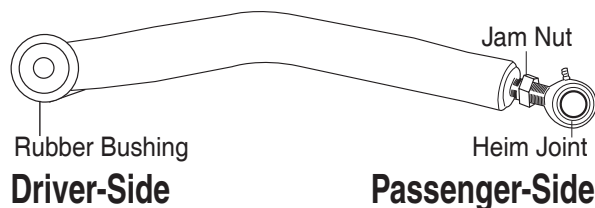


Figure 11a

No more than $1\frac{1}{2}$ " of thread showing on heim joint

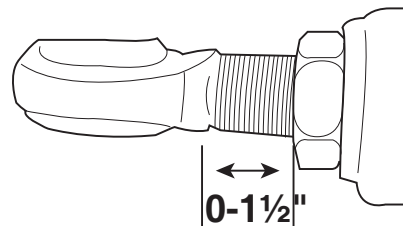


Figure 11b

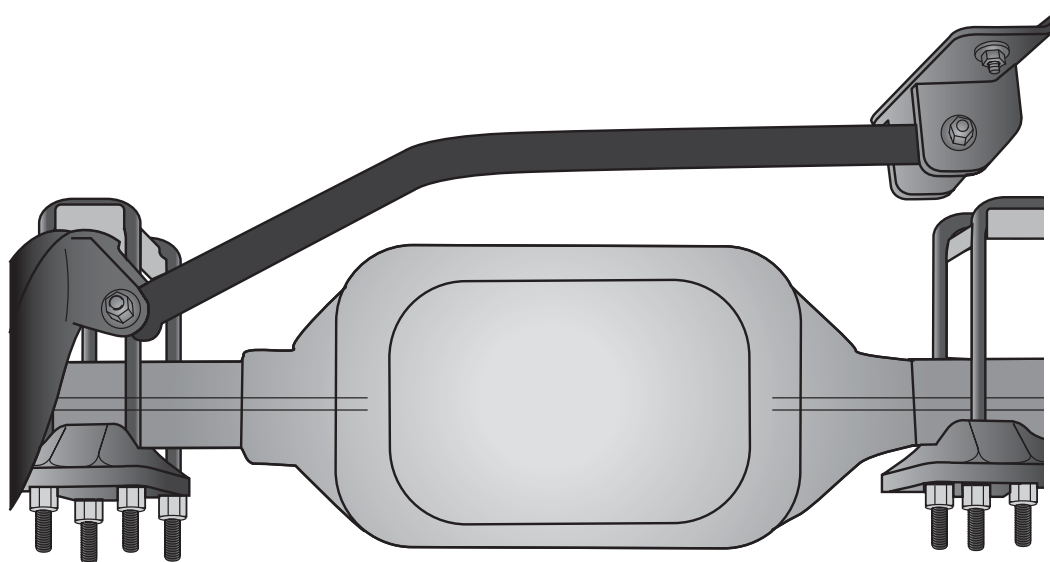


Figure 12

Installing the Rolling Lobe Air Sleeves

Refer to Figure 13 for the following instructions.

1. Install the fitting into the large top stud of the rolling lobe air sleeve. Tighten the fitting finger-tight plus 1½ turns, being careful to tighten on the metal hex nut only.

NOTE: It may be necessary to raise the chassis to provide adequate space to install the rolling lobe air sleeves.

2. Insert the studs of both rolling lobe air sleeves into the bottom mounting hole of the beam assemblies on both sides of the vehicle. Attach finger-tight using a ½" lock washer and nut.

3. Lower the frame while guiding both studs on top of the rolling lobe air sleeves through the holes in the upper mounting bracket.

4. Attach the air sleeves using a ¾" jam nut on the large stud. Use a lock washer and ½" nut on the smaller stud.

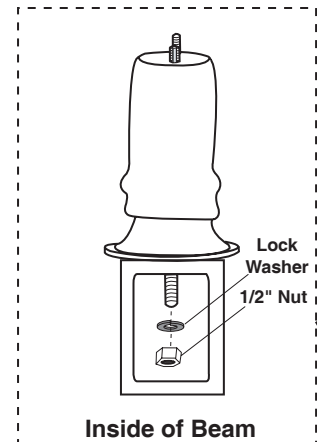
5. If the suspension was dropped, raise the suspension back up to 11.5". Adjust the rolling lobe position in the lower mount holes as far outboard as possible. Adjust the rolling lobe position in the slots at the top of the air spring, so the rolling lobe is perpendicular to the upper and lower bracket. Tighten the top mounts securely. Leave the bottom loose at this time.

6. Refer to Figure 20 and the *Checking Driveline Angles* section at this time. If angles are acceptable, proceed with torquing the U-bolts and pivot bolts.

7. Torque the front control arm pivot bolts to 290 ft./lbs. at this time.

8. Tighten both ends of the panhard rod securely at this time.

9. Torque the U-bolts to 300 ft.lbs. (Figure 14).



GUIDE rolling lobe bottom stud through hole in center of beam. Attach with hardware shown.

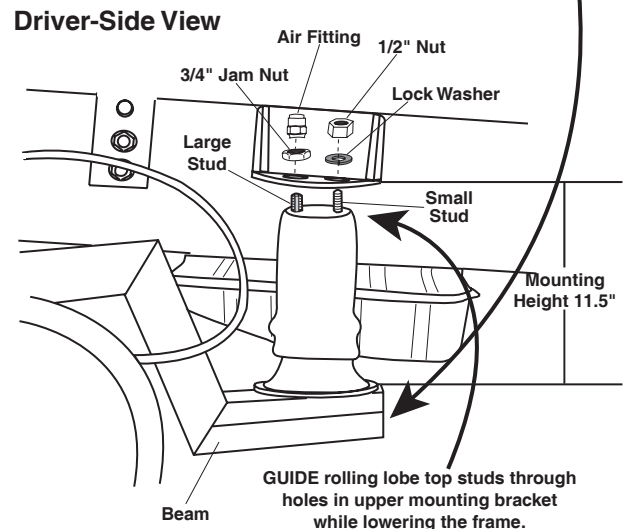
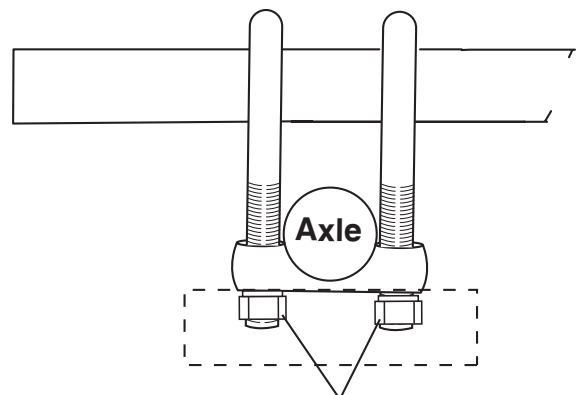


Figure 13



Torque to 300 ft/lbs.

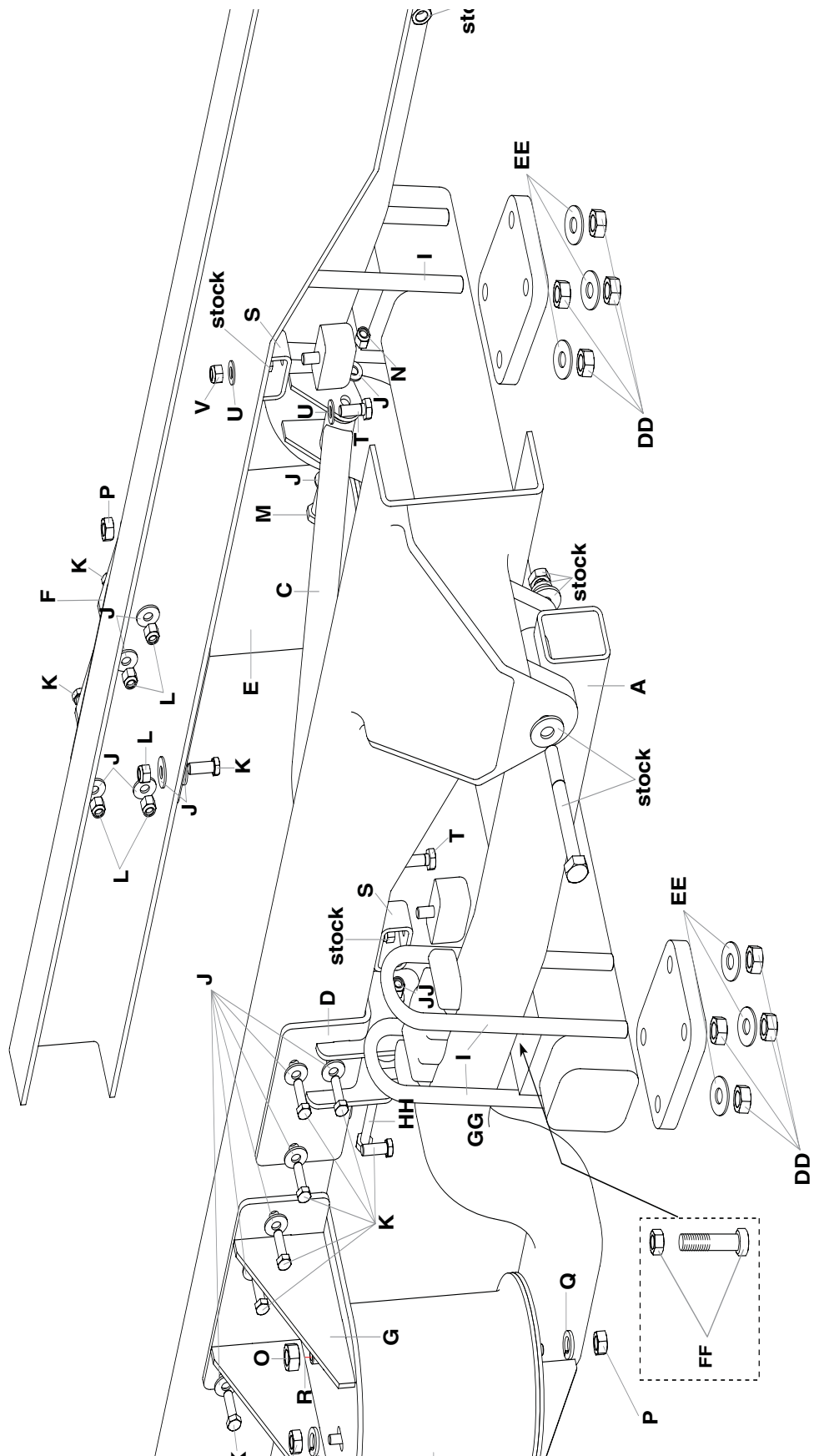
Figure 14

Hardware List

Hardware List

Item	Part No.	Description	Quantity
A	26462	Passenger-Side Beam Assembly	1
B	26507	Driver-Side Beam Assembly	1
C	26386	Panhard Rod Assembly (39211, 39235)	1
	26382	Panhard Rod Assembly (39014)	1
D	10511	Panhard Rod Bracket	1
E	58213	Rolling Lobe Sleeve (39211, 39235)	2
	58201	Rolling Lobe Sleeve (39014)	2
F	07507	Driver-Side Frame Bracket	1
G	07606	Passenger-Side Frame Bracket	1
H	20086	Air Line Assembly (not shown)	16 ft.
I	10568	3/4" U-Bolt	4
J	18485	1/2" Flat Washer	38
K	17247	1/2"-13 x 1.75 Bolt	17
L	18460	1/2"-13 Nyloc Nut	17
M	17219	9/16"-12 x 5 Bolt	1
N	18480	9/16"-12 Nyloc Nut	1
O	18451	3/4"-16 Jam Nut	2
P	18484	1/2"-20 Hex Nut	6
Q	18506	1/2" Lock Washer	6
R	21779	Air Fitting (39211, 39235)	2
	21807	Air Fitting (39014)	2
S	10034	Jounce Bumper Spacer	2
T	17202	3/8"-16 x 1.25 Bolt	2
U	18468	3/8" Flat Washer	4
V	18435	3/8"-16 Nyloc Nut	2
X	10466	8" Black Zip Tie (not shown)	6
Y	18405	5/16" Flat Washer (not shown)	2
Z	18411	5/16" Lock Washer (not shown)	2
AA	21230	Poly Cap (not shown)	2
BB	21233	Hex Nut (not shown)	4
CC	21234	Round Washer (not shown)	2
DD	18204	3/4"-16 Deep Nut	8
EE	18527	3/4" Flat Washer for U-Bolt	8
FF	17322	Centering Pin	2
GG	13392	Spacer	2
HH	10317	3/4"-10 x 5 Bolt	1
II	18470	3/4"-10 Hex Nut	1

Kit Diagram



Installing the Air Lines

1. Choose a convenient location for mounting the inflation valves. Popular locations for the inflation valve are: the wheel well flanges, the license plate recess in the bumper, under the gas cap access door, or through the license plate itself.

NOTE: Whatever the chosen location is, make sure there is enough clearance for an air chuck around the inflation valves.

2. Drill a $\frac{5}{16}$ " hole to install the inflation valves.
3. Cut the air line assembly in two equal lengths.

CAUTION: When cutting or trimming the air line, use a razor blade or a very sharp knife. A clean, square cut will ensure against leaks. DO NOT USE WIRE CUTTERS OR SCISSORS TO CUT THE AIR LINE. These tools may flatten or crimp the air line, causing it to leak around the O-ring seal inside the elbow fitting (Figure 15).

4. Refer to Figure 16 to assist with air valve installation.
5. Route the air line along the frame to the air fitting on the air spring. Keep at least 6" of clearance between the air line and heat sources, such as the exhaust pipes, muffler, or catalytic converter (Figure 17). Avoid sharp bends and edges. Use the plastic tie straps to secure the air line to fixed, non-moving points along the chassis. Be sure that the tie straps are tight, but do not pinch the air line. Leave at least 2" of slack to allow for any movement that might pull on the air line.

6. Cut off air line leaving approximately 12" of extra air line. A clean square cut will ensure against leaks. Insert the air line into the air fitting. This is a push-to-connect fitting. Simply push the air line into the straight fitting until it bottoms out ($\frac{9}{16}$ " of air line

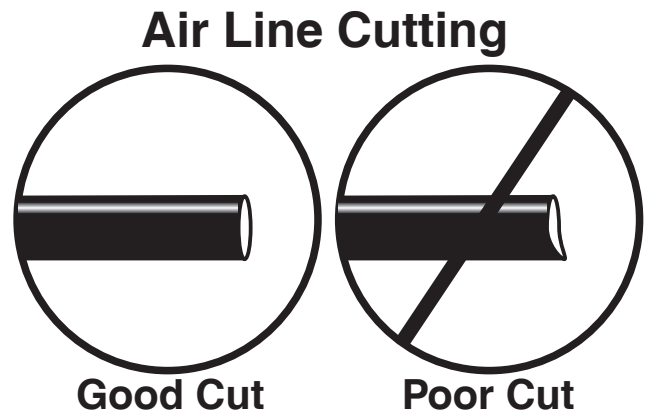


Figure 15

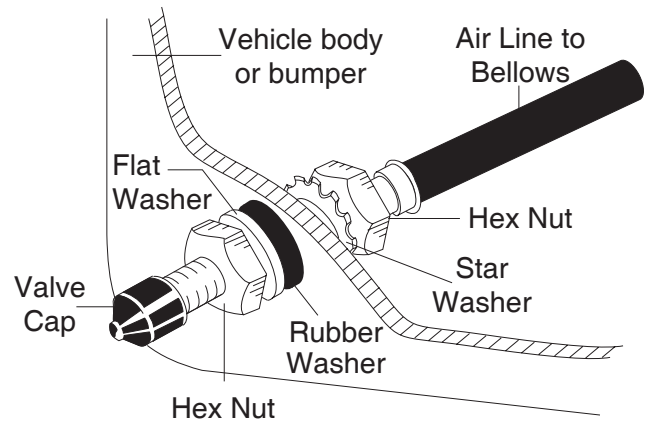


Figure 16

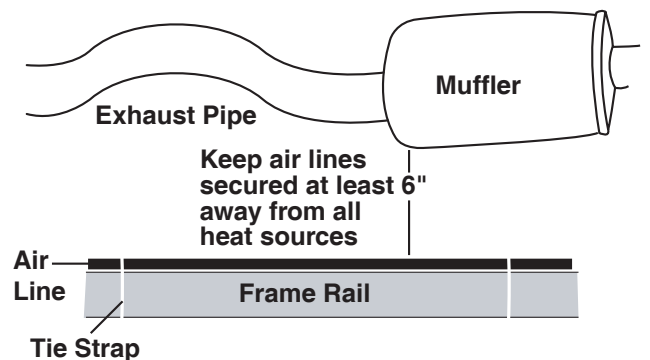


Figure 17

Attaching the Jounce Bumper Spacer

1. Remove the stock jounce bumper from the frame.
2. Attach the jounce bumper to the jounce bumper spacer using stock hardware.

NOTE: The small indexing tab on the jounce bumper should be inserted into the hole in the spacer.

3. Attach the assembly using the supplied $\frac{3}{8}$ " hardware (Figure 18).

NOTE: The jounce bumper will be offset to the front of the stock mounted position. Tighten securely.

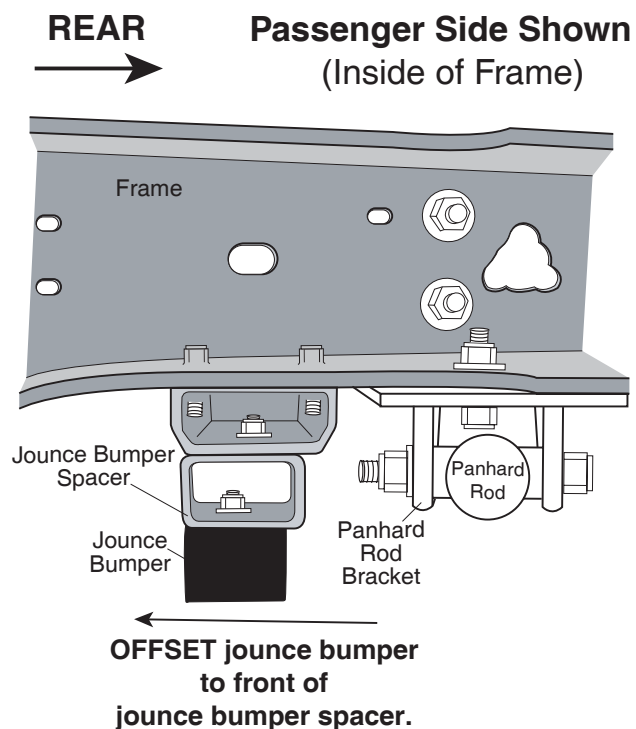


Figure 18

Final Adjustments

1. Inflate both rolling lobe air sleeves to 20 p.s.i and check for leaks.
2. Tighten both bottom rolling lobe mounts securely at this time. Torque to 50 ft/lbs.
3. You are now ready to install the Automatic Leveling System. Refer to the leveling system instruction manual to proceed with the installation.

Once the leveling system is installed it will automatically maintain the rolling lobe air springs' installed height of 11 - 12 inches within their mounts (Figure 19).

4. Routing the exhaust out of the side of the vehicle in front of the rear wheel on the passenger side is recommended.

NOTE: It may be necessary to have a custom bent pipe made if routing the exhaust out the back behind the rear wheels is desired.

5. If the vehicle has auxilliary leveling jacks, inspect the air springs before the vehicle is shipped. If the air springs appear distorted when inflated, apply

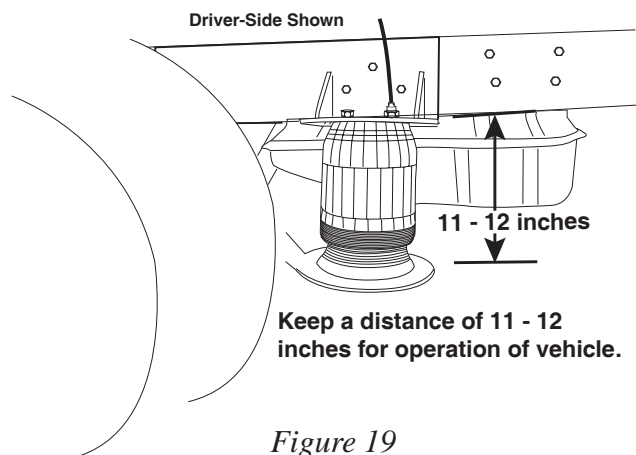


Figure 19

140 p.s.i. at each emergency fill valve to raise the spring to full height. Turn on the key to engage the automatic leveling system and the vehicle will return to normal ride height. Inspect the air springs again to ensure they have regained a normal shape, as in figure 19.

6. **IMPORTANT:** Check and re-torque all mounting hardware, especially the beam U-bolts, after 100 and 3,000 miles.

Checking Driveline Angles

1. After the RoadTamer kit is installed, the following conditions must be true for the driveline angles, both at unloaded and fully loaded ride heights:
 - a. Condition #1: The operating angle at any individual joint must be between 0.1° and 4°. The preferred maximum angle is 2°.
 - b. Condition #2: When added together, the operating angles throughout the driveline **MUST** cancel. The operating angles at either end of a shaft should be within 1° of each other or at least satisfy the following formula in order to provide adequate cancellation (Figure 20).
2. Wedge shims may be placed between the beams and axle to correct driveline angles that fall outside this requirement. Re-check all driveline angles after installing the shims.
3. A minimum operating angle of 0.1° at each universal joint is required to prevent dents from forming on the bearing surfaces.

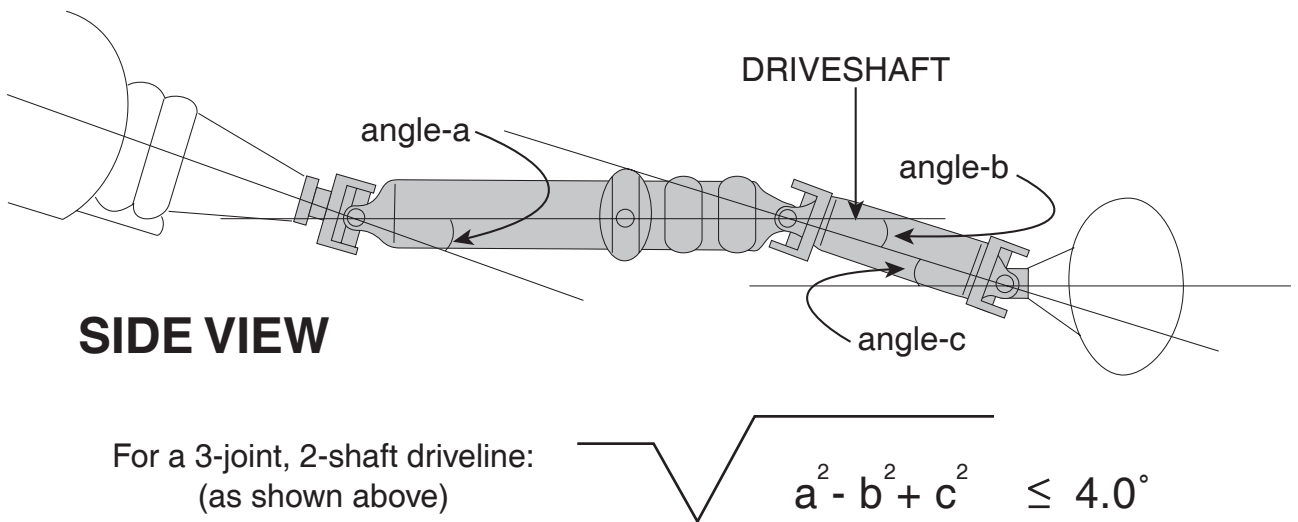


Figure 20

Checking Angles in Various Conditions

1. Measure and record the driveline angles in each of the following conditions for later comparison:
 - a. The chassis as first received (note that the driveline angles may not conform exactly to this bulletin in this incomplete condition).
 - b. The completed vehicle, unloaded.
 - c. The completed vehicle loaded to Gross Vehicle Weight Rating (GVWR) with maximum front Gross Axle Weight Requirement (GAWR).
 - d. The completed vehicle loaded to GVWR with maximum rear GAWR.

Installation Checklist

This Installation Checklist must be completely filled out to ensure proper installation:

- Have you checked the mounted height of the air springs and is it correct?
- Have the axle U-bolts been torqued per the specification?
- Have the beam pivot bolts been torqued per the specification?
- Was the suspension at ride height and even from side-to-side when the fasteners were torqued?
- Have the upper bracket bolts been torqued per the specification?
- Does the heim joint have the proper amount of thread showing?
- Have you tightened the heim joint jam nut?
- Was the axle centered in the chassis within $\frac{3}{8}$ "?
- Have all remaining fasteners and fittings been torqued per the specification?
- Have the pinion angles been checked and are they within specification?
- Has the panhard bar heim joint been properly greased?
- Is there adequate clearance around all parts of the panhard bar?
- Is there a minimum clearance of $\frac{1}{2}$ " around all parts of the air spring?
- Has the system been leak checked and found free of leaks?
- Are all wires and hoses routed correctly and away from heat sources?
- Has the vehicle been road tested?
- Has the owner been informed of the maintenance requirements?
- Has the owner been informed of the operation of the system?

Technician's Signature _____

Troubleshooting Guide

Problem	Possible Problem	Check Procedure	Solution
Air System leaks.	<ul style="list-style-type: none"> leaky airbag leaky pneumatic fittings (i.e.: drain valve, Height Control Valve [HCV]) cut or pinched air line 	<ul style="list-style-type: none"> Spray air bag with a soapy water solution. Spray fittings with a soapy water solution. Conduct visual inspection. 	<ul style="list-style-type: none"> If leaking, replace air bag. Tighten fittings. Repair or replace as necessary.
Vehicle is not level side-to-side within 3/8".	<ul style="list-style-type: none"> OEM axle perch is not level side-to-side. 	<ul style="list-style-type: none"> Refer to <i>Inspecting Axle Spring Perch Uniformity</i> in the manual. 	<ul style="list-style-type: none"> Add a 1" shim per the <i>Inspecting Axle Spring Perch Uniformity</i> section.
Truck sits too low or too high.	<ul style="list-style-type: none"> Air spring mounting height is not correct. 	<ul style="list-style-type: none"> Measure the distance between the upper and lower air bag mounting surfaces. 	<ul style="list-style-type: none"> Change the ride height as necessary to within specifications given in the manual for rolling lobe mounting heights.
Suspension rides rough.	<ul style="list-style-type: none"> Air bag is mounted too high or too low. OE shocks are too stiff or worn out. 	<ul style="list-style-type: none"> Measure the mounted height. Bounce the rear of the truck. If there are more than two oscillations, the shocks are too worn. If less than two oscillations, shocks are too stiff. 	<ul style="list-style-type: none"> Adjust mounted height as necessary. Install Air Lift Select-A-Ride shocks.
Rear end "jacks" when vehicle is accelerated.	<ul style="list-style-type: none"> Shocks are not compatible with air suspension. 	<ul style="list-style-type: none"> Truck lurches when accelerating. 	<ul style="list-style-type: none"> Install Air Lift Select-A-Ride shocks.
Pneumatic Control System			
Problem	Possible Problem	Check Procedure	Solution
Compressor doesn't run.	<ul style="list-style-type: none"> blown fuse loose wire or ground bad pressure switch 	<ul style="list-style-type: none"> Check fuse. Inspect wiring connections. Jumper pressure switch. 	<ul style="list-style-type: none"> Replace fuse. Tighten loose wires or grounds. If compressor runs, replace switch. If compressor does not run, replace compressor.
Compressor runs all the time.	<ul style="list-style-type: none"> HCV or height sensor is mounted incorrectly. Bad pressure switch 	<ul style="list-style-type: none"> Check manual for mounting location and adjustment instructions. Disconnect switch. 	<ul style="list-style-type: none"> Move HCV or height sensor further towards the pivot bushing. If compressor stops, replace switch.
System will not kneel.	<ul style="list-style-type: none"> Stuck or clogged solenoid Damaged or improperly connected switch. 	<ul style="list-style-type: none"> Inspect the exhaust port or energize the solenoid. Ensure that switch wiring is correct by referencing the wiring diagram in the Smart-Air manual. 	<ul style="list-style-type: none"> Replace solenoid. Replace switch if found faulty.
SmartAir Control System			
Problem	Possible Problem	Check Procedure	Solution
Compressor doesn't run.	<ul style="list-style-type: none"> blown fuse loose wire or ground Relay/ECU Magnet to ECU distance Magnet direction/180° off 	<ul style="list-style-type: none"> Check fuse. Inspect wiring connections. Ground terminals #85 if compressor runs. Magnet may be too close or too far from ECU Magnet not facing ECU properly. 	<ul style="list-style-type: none"> Replace fuse. Tighten loose wires or grounds. If compressor runs, replace ECU If compressor does not run, replace compressor. Refer to SmartAir manual for proper distance between magnet and ECU Make sure dot on magnet points towards the ECU
Compressor runs all the time.	<ul style="list-style-type: none"> Possible major leak. 	<ul style="list-style-type: none"> Check system for leaks. 	<ul style="list-style-type: none"> Repair as necessary.
System will not kneel.	<ul style="list-style-type: none"> Stuck or clogged solenoid Damaged or improperly connected switch. 	<ul style="list-style-type: none"> Inspect the exhaust port or energize the solenoid. Ensure that switch wiring is correct by referencing the wiring diagram in the Smart-Air manual. 	<ul style="list-style-type: none"> Replace solenoid. Replace switch if found faulty.

Checking for Leaks

1. Spray all connections and the inflation valves with a solution of $\frac{1}{5}$ liquid dish soap and $\frac{4}{5}$ water to check for leaks. You should be able to spot leaks easily by looking for bubbles in the soapy water.
2. After the test, deflate the springs to the minimum pressure required to restore the Normal Ride Height, but not less than 10 p.s.i.
3. **IMPORTANT:** Check the air pressure again after 24 hours. A 2 to 4 p.s.i. loss after initial installation is normal. Retest for leaks if the loss is more than 5 lbs.

Fixing Leaks

1. If there is a problem with the air fitting:
 - a. Check the air line connection by deflating the spring and removing the line by pulling the collar against the fitting and pulling firmly on the air line. Trim 1" off the end of the air line. Be sure the cut is clean and square. Reinsert the air line into the push-to-connect fitting.
 - b. Check the threaded connection by tightening the swivel fitting another $\frac{1}{2}$ turn. If it still leaks, deflate the air spring, remove the fitting, and re-coat the threads with thread sealant. Reinstall by hand tightening as much as possible, then use a wrench for an additional two turns.
2. If there is a problem with the inflation valve:
 - a. Check the valve core by tightening it with a valve core tool.
 - b. Check the air line connection by removing the air line from the barbed fitting. **CAUTION: Do not cut it off. This will usually nick the barb and render the fitting useless.** Cut air line off a few inches in front of the fitting and use a pair of pliers or vise-grips to pull/twist the air line off the fitting.
3. If the preceding steps have not resolved the problem, call Air Lift Technical Service at 1-800-248-0892 for assistance.

Maintenance Guidelines

By following the steps below, vehicle owners will obtain the longest life and best results from their air springs.

1. Fulfill all Installer Responsibilities:

The installer is solely responsible for checking the installation for safe operation before the vehicle is placed in service. This includes all fastener torques, proper control system operation, and driveline angles.

This instruction manual includes specifications for fastener torques. Tighten fastening hardware as instructed by the specifications.

Retorque the fasteners in intervals as specified below under "Servicing the RoadTamer System."

Check driveline angles as shown in the section titled "Checking Driveline Angles."

2. If you develop an air leak in the system, use a soapy water solution to check all air line connections and the inflation valve core before deflating and removing the air spring.

Servicing the RoadTamer System

1. At 150 miles and every 10,000 miles thereafter, check and retorque (per the fastener torques specified in this manual): the beam front hardware and pivot bolts, the axle U-bolts, and the panhard rod pivot bolts.

Grease the panhard rod end fitting.

Check the compressor air filter and replace as necessary.

2. Every 3,000 miles:

Check the air spring install height and adjust the height control valve as necessary.

Check all fittings for air leaks and reseal if necessary.

3. Perform DAILY maintenance by releasing the moisture from the air tank. To do this, pull on the release cable attached to the drain valve. Excess moisture in the system can lead to component



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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

www.airliftcompany.com

For Technical Assistance call 1-800-248-0892

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