



'91-'96 Chevy Caprice/Impala/ Buick Roadmaster

Front Kit Part No. 75545

www.airliftcompany.com

MN-501
(04401)
NPR 4372

Please read these instructions completely before proceeding with installation



Figure 1

Warranty Information

1. All goods come with a one year manufacturer's warranty against defects.
2. Warranty will be void if the kit is altered for any reason and/or adapted to applications other than those suggested.
3. Any abrasions or rub marks on the air spring portion of the kit will not be covered under warranty. The customer is responsible for all repair charges.
4. Driving at a low PSI can cause the air spring to bottom out. Repeated bottoming out can cause the air 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.

Hardware

Item	P/N	Description	Qty.	Item	P/N	Description	Qty.
A	58507	Air Springs	2	N	21370	1/2" MNPT x 1/2" Tube Elbow	2
B	11917	Roll Plates	4	O	10121	L.H. Upper Shock Mount	1
C	03232	R.H. Lower Bracket	1	P	10122	R.H Upper Shock Mount	1
D	03233	L.H. Lower Bracket	1	Q	17115	1/2"-13 x 1.5" Bolt	6
E	07117	L.H. Upper Bracket	1	R	18485	1/2" Flat Washer	12
F	07118	R.H. Upper Bracket	1	S	18460	1/2"-13 Nylock Nut	6
G	17201	5/8"-11 x 6.5" Full Thread Stud	2	T	10489	Shock Mounting Pin	2
H	18477	5/8" Flat Washer	2	U	18449	5/8" Flat Washer	6
I	18461	5/8"-11 Nylock Nut	2	V	18461	5/8"-11 Nylock Nut	2
J	17206	3/8"-16 x 1.5" Cap Screw	4	W	17241	5/8"-11 x 3.00" Bolt	2
K	18476	3/8"-16 Nylock Nut	4	X	17203	3/8"-24 x 7/8" Bolt	8
L	18468	3/8" Flat Washer	4	Y	18427	3/8" Lock Washer	8
M	18469	1/8" x 1.75" Cotter Pin	4	Z	18444	3/8" Flat Washer	8
				AA	50633	Shock	2

IMPORTANT: Always keep safety in mind when working on your vehicle.

I. Preparing the Vehicle

1. Elevate the car and place the frame securely on jack stands.
2. Remove the wheels.
3. Disconnect the sway bar links from each lower control arm.
4. Remove the shock absorbers.

II. Removing the Spindle

NOTE: Although complete removal of the spindle is not necessary, it will make the frame more assessable for trimming.

1. Work on one side at a time. Put a jack under the A-arm securely.
2. Elevate the A-arm so that the spring is compressed.
3. To gain access to the spring and frame, we completely remove the spindle from the vehicle. This is done by:
 - a. Remove the steering rod from the spindle.
 - b. Remove the brake caliper from the spindle and completely remove from the work area.

NOTE: It should not be necessary to disconnect the brake line.

- c. If equipped with ABS brakes, disconnect sensor from wiring harness.
- d. Remove the cotter pins on the upper and lower ball joints.

CAUTION: It is highly recommended that a spring compressor is used in order to contain and remove the spring.

NOTE: Use extreme caution. Follow directions and safety guidelines.

- e. If a spring compressor is used, tighten the spring compressor, as necessary, to create enough free play for removal.
- f. Tie a strap around the spring to keep it from falling out of the vehicle during removal.
- g. Loosen top and bottom ball joints nuts. Leave them on the stud, flush to the top. Using a Pickle fork or hammer, tap the side of the spindle. Loosen the spindle from the ball joints.
- h. Remove the nuts and spindle with the spring still compressed by the jack under the A-arm.

III. Removing the Coil Spring

CAUTION: Please follow basic safety guidelines during this step. Use a spring compressor if possible.

1. Drop A-arm all the way down until it hangs free.
2. If a spring compressor was not used, then lightly pry spring from the A-arm pocket with the strap still intact.
4. Remove the strap and coil spring when free from the pocket.

IV. Assembling the Air Spring

1. Set roll plates (B) on the top and the bottom of the air spring (A). (Figure 2)
2. Install the elbow fitting (N) to the bellow. Tighten finger tight plus 1 1/2" turns (Figure 3).
3. Attach the top bracket (E or F) to the air spring.
NOTE: There are left and right hand units.
Attach using two bolts (X), two lock washers (Y), and two flat washers (Z). Tighten securely.
4. Attach the lower plate (C or D) to the bellow, the small end goes towards the fitting. (Figure 4) Attach using two bolts (X), two lock washers (Y), and two flat washers (Z). (Figure 4) Leave loose at this time.
NOTE: The tapered holes go towards the air spring.
5. Attach the stud (G) into the upper bracket (Figure 4).

V. Removing the Frame Section

1. Prepare the frame for trimming.
 - a. Clean the outer frame area surrounding the spring seat pocket, including the underside of the frame.
 - b. Pull the upper control arm up and block out of the way.
2. Mark the frame for cutting by using masking tape or a good permanent marker.
 - a. From the center of the spring pocket measure forward and back 4.00" and strike a vertical mark. (Total 8.00")
 - b. Measure up from the bottom of the frame, forward of the spring pocket 2.75" and strike mark from previous marks made. (Figure 5) Measure up from the bottom of the frame, rearward of the spring pocket, 3.25" and strike a mark from the previous mark made. (Figure 5)
 - c. The underside of the frame has a flange towards the engine side of the inside pocket. This has to be removed from the bottom of the frame where the previous marks were started. Strike a line to the inside edge of the flange. (Figure 6)

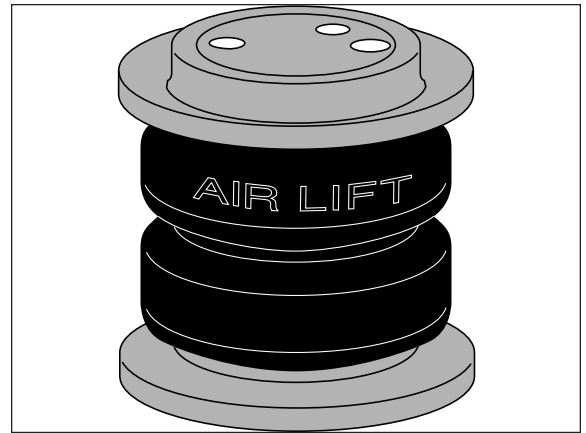


Figure 2

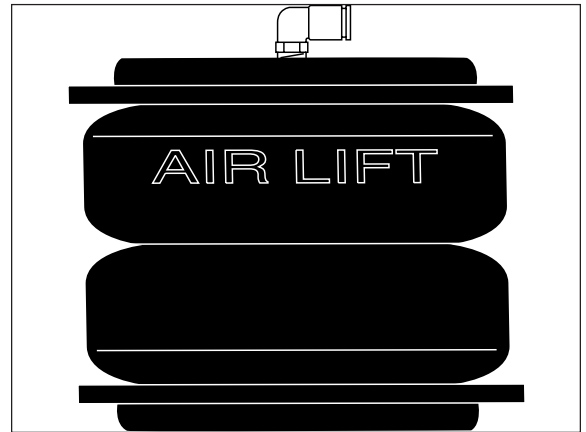


Figure 3



Figure 4

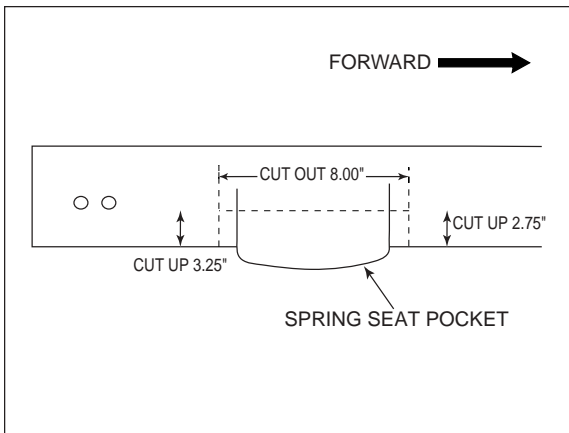


Figure 5

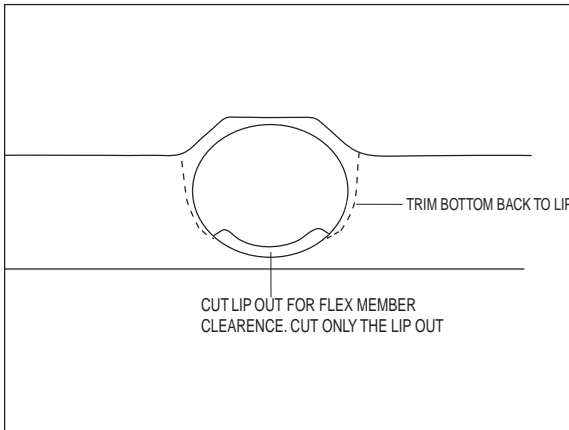


Figure 6

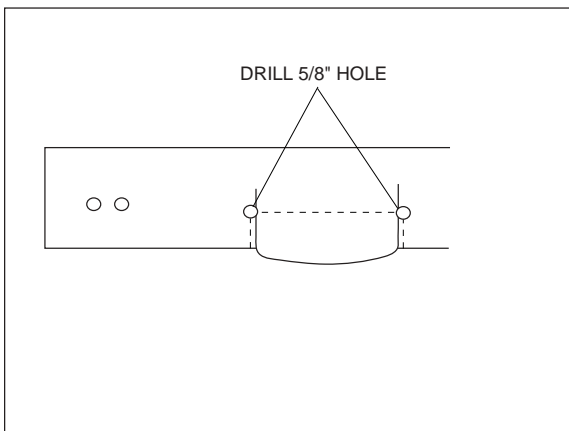


Figure 7

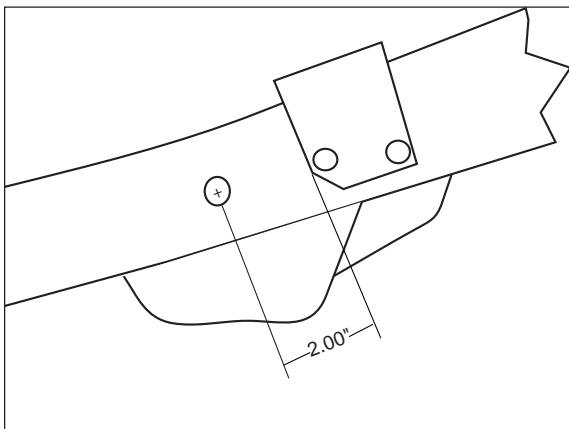


Figure 8

3. Locate and center punch the corners of the radius to be trimmed. (Figure 7)
4. Drill a $\frac{5}{8}$ " hole in both corners.
5. Using a cut off wheel, trim the marked location.

NOTE: We used a plasma cutter to save in the removal time.

6. Remove the flange on the bottom of the spring pocket.

NOTE: Cut out only the lip. Do not cut past any welds.

7. Set proper side Air Spring assembly into the upper spring pocket and check for Air Spring to frame clearance. If the frame contacts roll plate it will be necessary to trim for clearance.
8. Use a small grinder to smooth the edges. Remove all sharp edges of the cut out area.
9. Clean and paint exposed area.
10. Set air spring unit aside for next step.

VI. Installing Shock Brackets

1. Measure in from the stop block on the back side of the A-arm 2.00".
2. Center punch and drill a $\frac{1}{2}$ " hole for the lower shock pin.

NOTE: Pay attention to the inside, underneath of the A-arm. You will have to drill the hole low on the arm to leave clearance for the nut and washer of the shock pin (T). (Figure 8)

3. The upper brackets (O and P) are left and right hand units. Attach a shock (AA) to each bracket using a $\frac{5}{8}$ " bolt (W), three washers (U) and nut (V). (Figure 9) Install the washers on both sides of the shock eye, and on the back behind the nut.
4. Set shock assembly up against the frame. Insert a shock pin through the bottom of the shock. Then add the spacer and insert pin through A-arm hole previously drilled. Attach with washer and nut supplied with shock pin, then tighten finger tight only. (Figure 10)
5. Set the upper bracket against the frame. The forward hole will set 1.00" above the back existing hole that is in the frame. (Figure 11)
6. Set shock bracket up so as to minimize stress on the bushing. Do this by raising and lowering A-arm.

NOTE: Position and proceed with the next step.

7. Mark one hole, center punch and drill a 1/2" hole. Attach the upper bracket using a 1/2" bolt (Q), two washers (R), and a nylock nut (S). Adjust the upper bracket so shock can travel up and down with minimum stress to shock bushings. Tighten bolt securely.
8. Center punch and drill the remaining two holes. Attach with remaining 1/2" hardware.
9. Disconnect the lower shock pin to install the air spring assembly.



Figure 9

VII. Installing the Air Spring Assembly

1. Set the bellows assembly into position with the air fitting towards the wheel. The taper of the lower bracket should conform to the A-arm.
2. Push the assembly up and insert the stud into the upper shock hole. Attach with one 5/8" washer (H), and one 5/8" nylock nut (I). Leave loose at this time.
3. Raise lower A-arm up so it contacts the lower bracket. Adjust lower bracket on A-arm so bellows is perpendicular to the top and bottom bracket.
4. Clamp lower bracket to A-arm, remove the mounting hardware attaching the air spring to the lower bracket. Push A-arm down for access to the tapered holes in the lower bracket. Drill two 9/16" holes using the lower bracket as a template.
5. Attach lower bracket to the A-arm using two flat head bolts (J), two flat washers (L), and nylock nuts (K). Tighten Securely.
6. Raise lower A-arm up and reattach air spring to the lower bracket using hardware previously removed.
7. Tighten the top 5/8" nut previously installed securely.

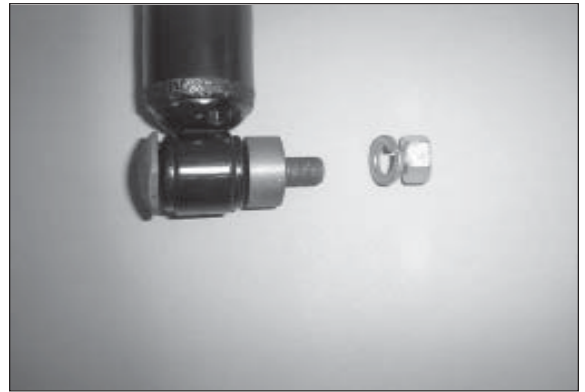


Figure 10

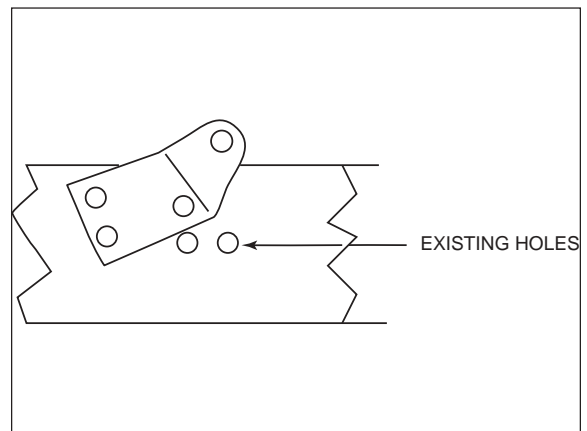


Figure 11

VIII. Installing the Spindle

1. Reattach spindle to the upper and lower control arm. Torque nuts to stock specifications and insert new cotter pins (M).
2. Using the standard installation procedures, reinstall caliper, steering and ABS if removed.
3. Repeat the entire installation for the opposite side.
4. Attach sway bar links and tighten securely.
5. Attach the shock to the A-arm and tighten securely.

IX. Checking Tire/Wheel to Shock clearance

1. Check tire to shock clearance by cranking the wheel side to side. If tire/wheel hits on shock, then it will be necessary to space the steering stops out until the tire clears the shock by 1.00".
2. You can do this by welding a small wedge to the stop bracket on the lower A-arm.

X. Before Operating

1. Depending on the custom wheels/tires used, be sure to note the tire to fender, tire to fender well, or body to ground clearance. *TIP: Do not have the steering cranked one way the first time dropping the suspension! Keep tires straight!*
2. Inflate and deflate system (do not exceed 180 p.s.i.) to check for clearance or binding issues. With air springs deflated, check clearances on everything so as not to pinch brake lines, vent tubes, etc. Clear lines if necessary.
3. Tighten and visually inspect all hardware after 100 miles.
4. Air Lift part number 27541CD is highly recommended for this product.
5. Please continue by reading the Maintenance and Operation section.

XI. Maintenance and Operation:

Minimum Pressure	Maximum Pressure
10 p.s.i.	180 p.s.i.
<i>Failure to maintain correct minimum pressure (or pressure proportional to load), bottoming out, overextension, or rubbing against another component will void the warranty.</i>	

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

1. Always maintain Ride Height. Never inflate beyond 180 p.s.i.
2. **IMPORTANT:** For your safety and to prevent possible damage to your vehicle, *do not exceed Maximum Gross Vehicle Weight Rating (GVWR), as indicated by the vehicle manufacturer.* Although your air springs are rated at a maximum inflation pressure of 180 p.s.i. The air pressure actually needed is dependant on your load and GVWR, which may be less than 180 p.s.i. Check your vehicle owners manual and do not exceed the maximum load listed for your vehicle.
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. Check that the front lower brackets nest properly in the lower A-arm when servicing is complete. Do this before operating the vehicle.

	Thank you for purchasing Air Lift 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	
		
For Technical Assistance call 1-800-248-0892		

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