Strut Air Management System
Kit No. 27741

www.airliftcompany.com

MN-515
(05401)
ECN 4462

Please read these instructions completely before proceeding with installation

Hardware

Item	P/N	Description	Qty.	Item	P/N	Description	Qty.
A	16380	Continuous Duty Compressor	1	U	24532	Butt Connector 18-22 Gauge	17
B	10991	5 Gallon Air Tank	1	V	17132	1/2" Screw	9
C	20966	1/2" Nylon Hose	40 ft.	W	24594	16 Gauge 1/4" Insulated Wire	17
D	24415	10mm 3/8" Valve	8	X	24649	Butt Connector 12 Gauge	2
E	26228	Double Needle 150 p.s.i. Gauge Assy.	2	Y	24595	12 Gauge 1/4" Push On Terminal	2
F	20946	1/4" Nylon Tube (Black)	50 ft.	Z	24525	Rocker Switch	4
G	21754	Drain Valve 1/4" MNPT	1	AA	24539	Fuse Holder	2
H	21366	Tank Valve	1	AB	24547	30 amp. Spade Fuse	1
I	21190	1/2" MNPT Plug	1	AC	24652	15 amp. Spade Fuse	1
J	24575	145/175 p.s.i. Pressure Switch	1	AD	24542	1/4" Fuse Tap	2
K	21391	1/2" Street Tee	1	AE	24537	Quick Splice 18-22 Gauge	24
L	21247	1/2" MNPT x 1/4" FNPT Bushing	2	AF	24643	16 Gauge Wire (Red)	106
M	21385	1/4" NPTM x 1/2" Tube	4	AG	24524	3/16" Female Insulated Connector	2
N	21869	1/4" FNPT x 1/4" Tube Straight	4	AH	24561	Mini Fuse Adapter	2
O	21637	3/8" MNPT x 1/2" NPT Tube Elbow	4	AI	21251	1/2" MNPT to 1/8" FNPT Bushing	2
P	21508	3/8" Brass Hex Nipple	8	AJ	23586	Thread Sealing Compound	2
Q	21732	3/8" FNPT x 1/2" MNPT Bushing	4	AK	24647	12 Gauge Wire (Red)	12
R	21507	3/8" Brass Street Tee	4	AL	21261	1/2" x 1/4" NPT Straight Fitting	4
S	21368	3/8" NPTM x 1/2" Straight Tube	4	AM	24568	18 Gauge Ring Terminal	2
T	24553	16 Gauge Ring Terminal	10	AN	24644	16 Gauge Wire (Black)	16

This kit is designed to be used in conjunction with an Air Lift air suspension system or equivalent. It includes a 12V compressor, an air storage tank, electrically actuated solenoids, gauges and switches for operating the system. It is designed with 1/2" pneumatic tubing to give the best response for inflating and deflating the air suspension. It does not include the actual air struts for the vehicle. You should contact your dealer or Air Lift directly, or visit the Easy Street section of the Air Lift web site (www.airliftcompany.com) to find the right air strut components for your vehicle.

This instruction manual will give general guidelines for installing the system. Since this kit will be used primarily on custom vehicles, the instructions will cover the components involved, their general operating principles, suggestions for mounting locations, suggestions for routing, etc. It will not give specific instructions on how to install your particular system.

The System

The system consists of five subsystems: air compressor, air storage tank, solenoids for inflation and deflation, gauges and switches, and the tubing and fittings for connecting everything together both pneumatically and electrically.

When installed on your vehicle, you will have the capability of increasing or decreasing the inflation pressures in your air suspension rapidly, using the switches on the gauge panels. The gauge will provide a reading of the air pressure in each individual air strut, front and rear. The air supply system (compressor and tank) will maintain a high pressure so that rapid inflation will be available whenever you hit the switch.

Following are some installation points/guidelines:

- We recommend installing the air compressor and air tank in a locaton that is out of the way. Once the system is installed, these components will not need much attention.
- The gauges can be placed anywhere you want to put them. Air Lift offers gauge panels that mount to the “A” pillar. Order part #10893 for the ‘94-’00 Acura Integra, or part #10891 for the ‘92-’95 Honda Civic, or part # 10890 for the ‘94-’97 Honda Accord.
- The solenoid valves will mount to the air tank. Refer to the schematic in Figure 1 to determine the correct sequences of valves.
- The remainder of the system, primarily pneumatic tubing and electrical wiring, needs to be routed, taped and tie-wrapped to be as “invisible” as possible.

Setting Up the Tank

NOTE: Use thread sealant provided to install all fittings.

1. Install a 1/2" x 1/8" bushing to the top of the air tank. Install the fill valve to the 1/2" x 1/8" bushing. (Figure 2).

2. Assemble a 1/2" x 1/4" bushing to the side of the street tee provided. Install the 145/175 p.s.i. pressure switch and a 3/8" to 1/8" reducer to the top of the tee. Install this assembly to the port on one end of the air tank (Figure 1).

3. Install the supplied plug to the other end of the air tank (Figure 1).

4. Install a 1/2" to 1/4" reducer bushing to the bottom port and attach the drain valve to the bushing.

5. Attach a 1/2" x 3/8" reducer bushing to a 3/8" pipe nipple. Attach the 10mm fill valve to the nipple (Figure 2).

   NOTE: Make sure the “In” port faces the tank.

   Attach a 3/8" nipple to the street tee facing down. Attach the dump valve with the “In” port facing the street tee. Attach a 3/8" x 1/2" tube fitting to the other side of the dump valve. Install a 2”-3” piece of 1/2" hose to this fitting. Attach a 3/8" x 1/2" tube 90° fitting to the last port on the street tee. This port goes to the air strut (Figure 2). Assemble the valve assemblies this way for the two outer most ports on the tank (Figure 1).

6. Attach the two assemblies to the outer ports on the air tank, leaving the two inside ports empty for the other assemblies (Figure 1).

7. Assemble the inner valve assemblies in the same manner as detailed above, but leave the 3/8" street tee and the dump valve off for now. In order to install the assemblies to the tank, the fill valves will need to be disassembled (Figure 2). Once the fill valve is taken apart, install the assemblies to the inner ports on the tank.

8. Install the tank assembly in an appropriate location and complete the installation by routing the air lines to the existing air management system (Figure 3).

Connecting the system

This kit should be installed after the air struts are in place.

1. Assemble the compressor by attaching the air filter to the inlet side as shown in Figure 3. *IMPORTANT: If the compressor is mounted inside the vehicle, use caution. The compressor gets very hot and will burn or melt components.*

2. The tank must be mounted so that the drain port is on the bottom of the tank.

    - Run the steel-braided line from the compressor to the pressure switch assembly mounted on the air tank (Figure 3). Attach using the provided thread sealant.
    - Plumb the rest of the system as shown in Figure 3. Route the lines as appropriate for your vehicle.

    IMPORTANT NOTE: When attaching the air fittings, be sure that a flat edge of the air fitting is facing downward as shown in figure 3A. If a point is facing downward, it may contact the sleeve and failure may result.

3. For wiring the solenoids, connect the appropriate wire from the switch on the gauge panel to one of the red solenoid wires and insure that the black solenoid lead is connected to a suitable chassis ground. Refer to Figure 4 to hook up solenoids and the sending unit and gauges.

    - The inflate solenoids are the ones mounted towards the top of the tank. The hot lead for these valves comes from the top terminal on the switches.
    - The deflate solenoids are the ones mounted towards the bottom of the tank. The hot lead for these valves comes from the bottom terminal on the switches.
    - Ground the black wire on the back of the gauge.
    - The white wire, is for the gauge light. Connect this wire to an appropriate dash light wire if you want the gauge light to operate in sync with the dash lights (on, off, dimming), or connect it to a keyed terminal on the fuse box if you want the light on continuously.

4. Wire the compressor as shown in Figure 4, connecting the red wire to one side of the pressure switch on the tank, and the black wire to a suitable ground.

5. Run a power wire for the system from an accessory terminal on the fuse box.

    NOTE: If using two compressors, add relays and connect to the positive side of the battery.

    Using an in-line fuse (30 amp), connect power to the remaining terminal on the pressure switch. Connect a 15 amp fuse from the accessory terminal on the fuse box to the middle terminal on all four gauge switches.

6. If connecting to an existing fuse, be sure to connect to the power side if the fuse in the fuse box.

7. IMPORTANT: This compressor is continuous duty, but in the event that the compressor stops running, allow the compressor to cool down and provide adequate time for the thermal breaker to reset before starting the compressor again.

After the system is properly installed, it is ready to go. Insure that there is power to the system, let the pressure build in the system, and inflate your air suspension.

To improve recovery time in the tank, we recommend using two 16450 air compressors.

If the tank is mounted inside the vehicle and you wish to drain it, put a rag under the drain valve and open the drain valve until the water has been cleared.

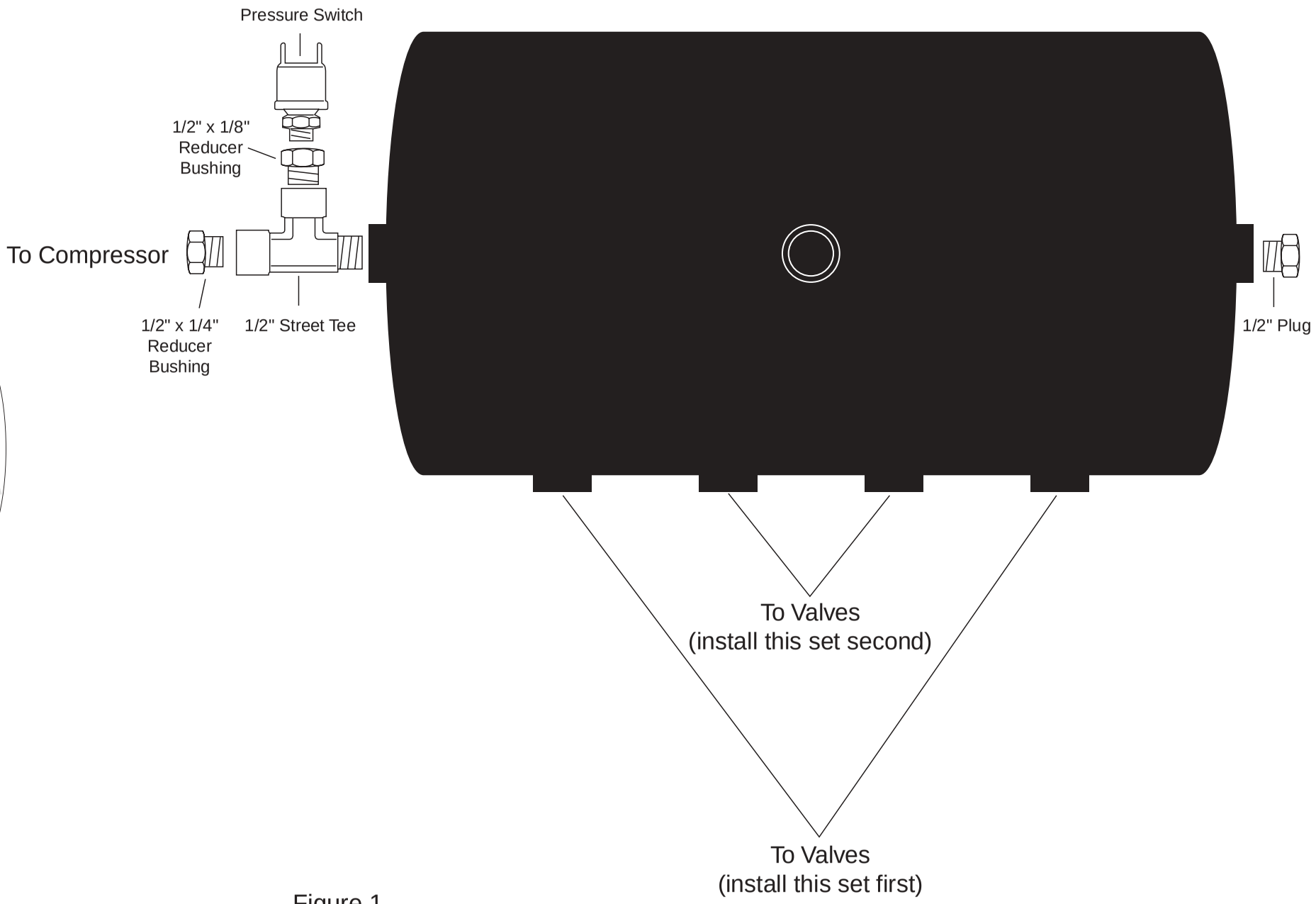


Figure 1

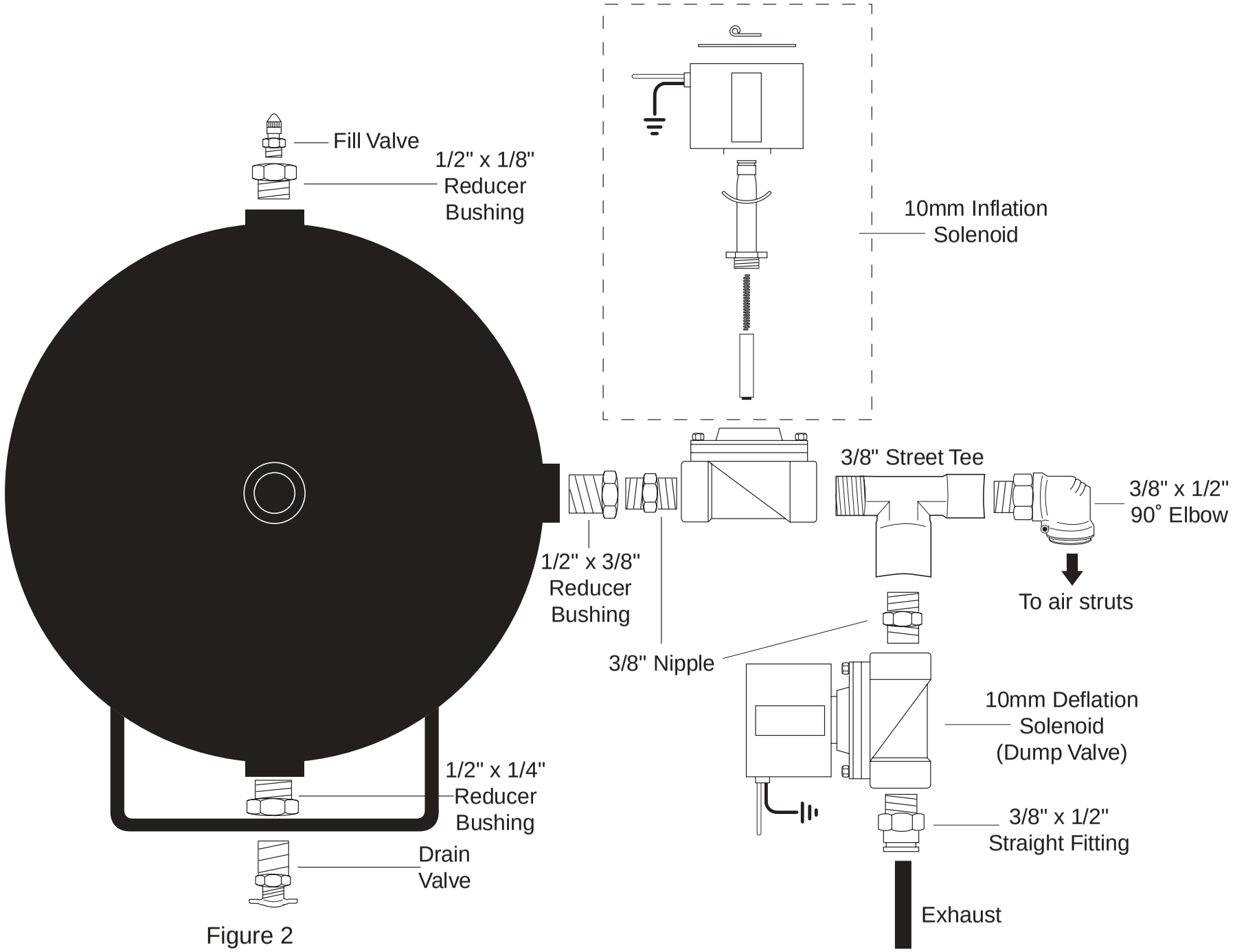


Figure 2

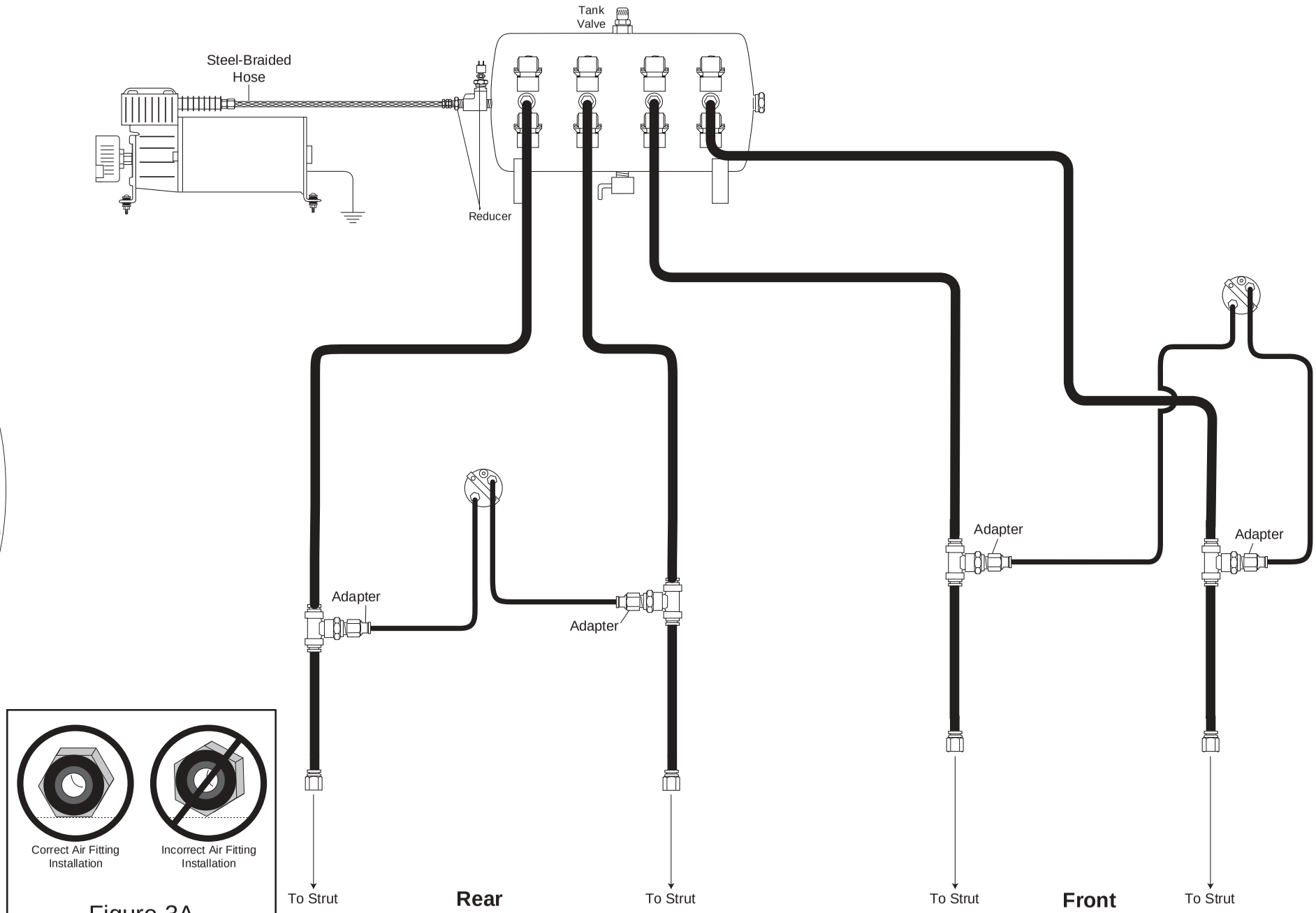
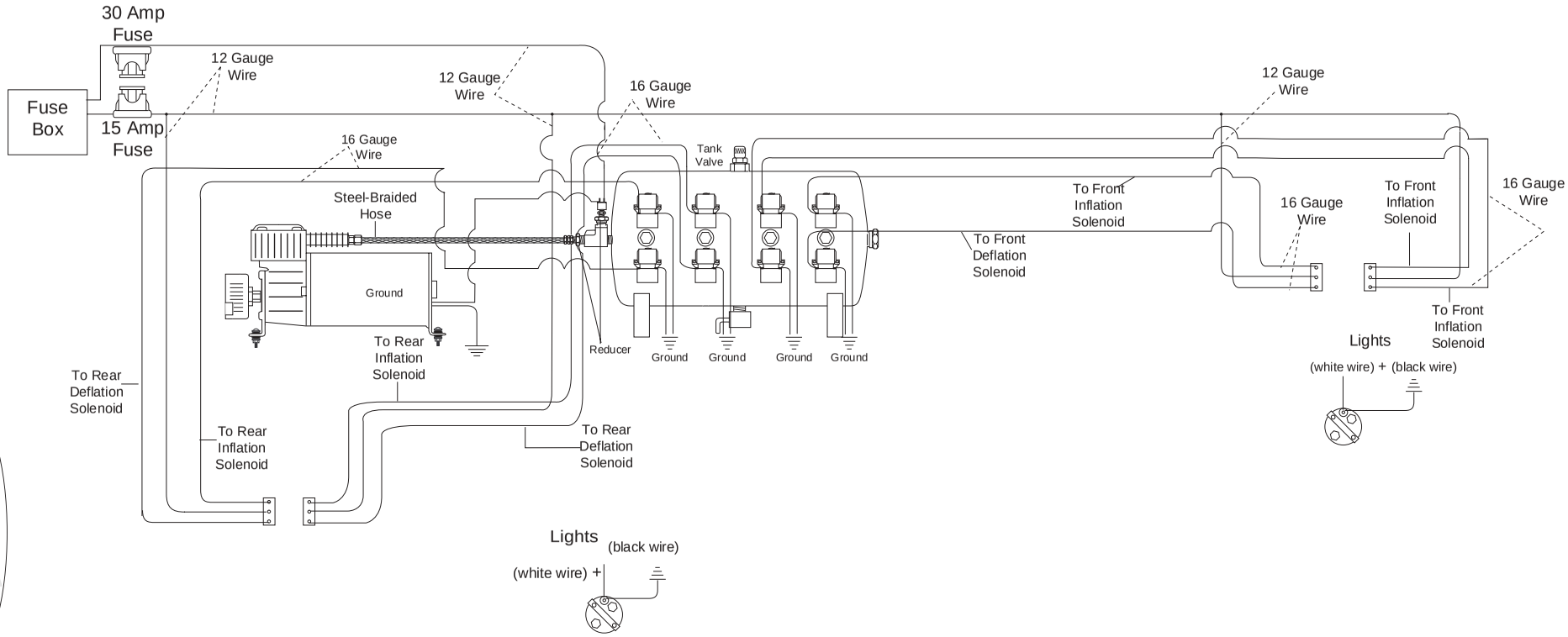


Figure 3

Figure 3A



(Air Struts not included in kit)

Figure 4

Thank you for purchasing Air Lift Products

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