

# Installation Manual

KIT # 9002-AL-B  
FOR 2002-05 (ALL MODELS)  
2006 (NOT INCLUDING SCREAMING EAGLE®)  
HARLEY-DAVIDSON®  
V-ROD SERIES



Congratulations on your purchase of an Arnett® Motorcycle Air Suspension system. This system provides you with the ability to maintain your bike at a constant level regardless of load, resulting in enhanced vehicle ride, handling, and performance. We at Arnett Incorporated are proud to offer a high quality product at the industry's most competitive pricing. Thank you for your confidence in us and our product.

Proper installation is essential to experience and appreciate the benefits of this system. Please take a moment to review these installation instructions before you begin to install these components on your motorcycle. The removal and installation of air suspension products should only be performed by a fully qualified, ASE Certified, professional.

It is equally important to be aware of all necessary safety measures while installing your new Air Suspension System. This includes proper lifting and immobilizing of the motorcycle and isolation of any stored energy to prevent personal injury or property damage.

## "Engineered to Ride, Built to Last®"



**WARNING:** *DO NOT* inflate the air suspension system until it is installed. Inflation of the air suspension system before both ends are supported by the motorcycle's frame and/or appropriate suspension components may result in serious personal injury and/or damage to the air suspension system. The maximum recommended air spring inflation pressure is 100 psi.

Arnett® is committed to the quality of its products. If you have a question or problem with any Arnett product, please contact Arnett by calling [800-251-8993](tel:800-251-8993) during normal business hours or email [techassistance@arnottinc.com](mailto:techassistance@arnottinc.com).

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## 21-7848 ARNOTT AIR SHOCK KIT CONTAINS:

### PARTS LIST

P/N	QTY	DESCRIPTION
21-2883-012	1	13" BLACK ALDAN MOTORCYCLE AIR SHOCK, LEFT
21-2882-012	1	13" BLACK ALDAN MOTORCYCLE AIR SHOCK, RIGHT

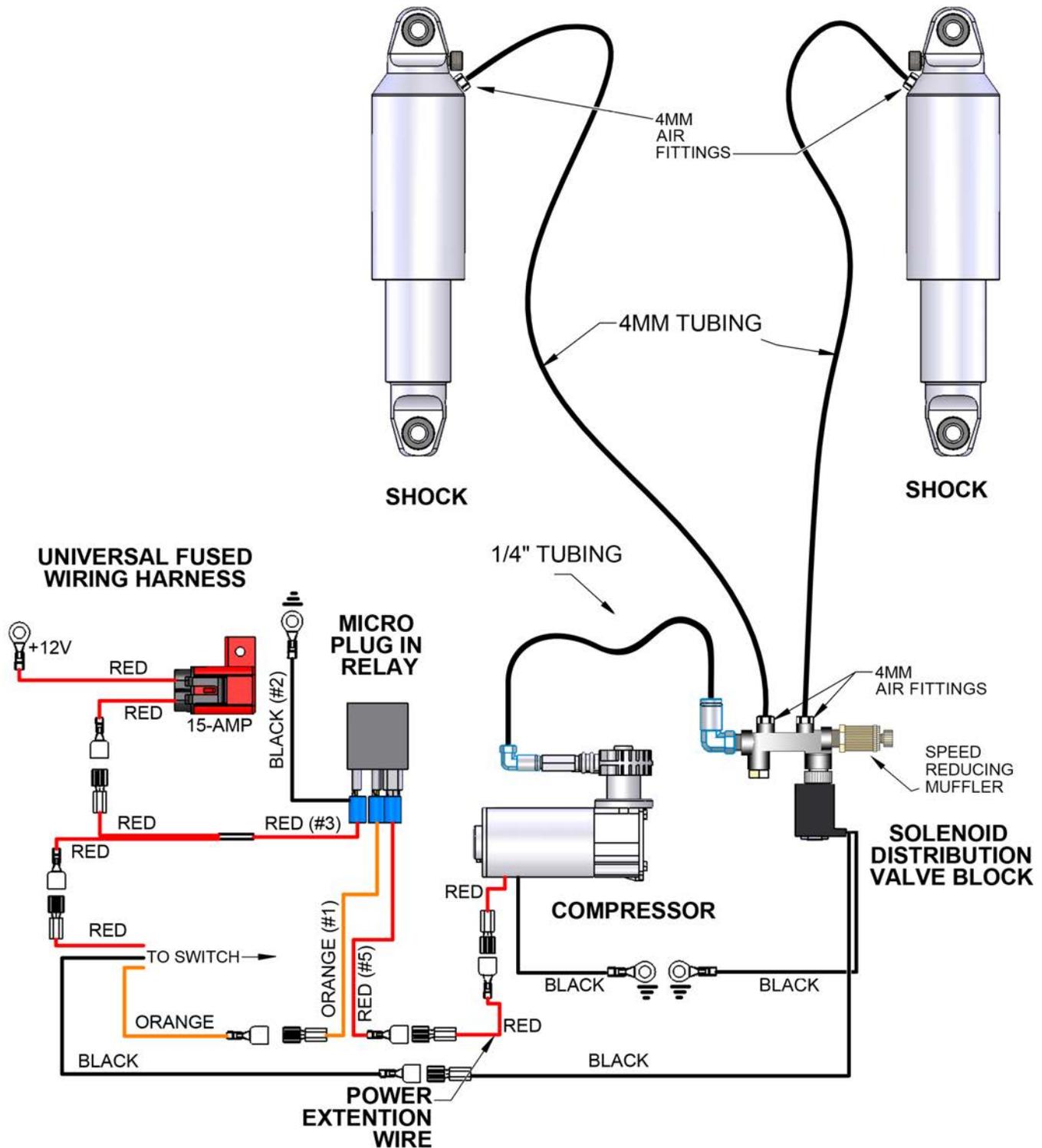
## 20-7708 ARNOTT INFLATION KIT CONTAINS:

### PARTS LIST

P/N	QTY	DESCRIPTION
11-9002-AL-B	1	INSTALLATION MANUAL FOR 9002-AL-C
21-2698	1	UNIVERSAL FUSE HOLDER
21-2866	1	MANIFOLD ASSEMBLY WITH VALVE
21-3110	1	MICRO RELAY ASSEMBLY WITH HARNESS
21-2918	1	VROD HD COMPRESSOR WITH BRACKET
21-7261	1	SPEED REDUCING MUFFLER
21-7262	1	MANIFOLD BRACKET WITH FASTENER
21-7266	1	BLACK BOLT COVERS
21-7267	1	1/4" NYLON TUBING
21-7268	1	4MM NYLON TUBING
21-7269	1	4MM AIR FITTING
21-7271	1	HARNESS CABLE TIES
21-7272	1	SPLIT LOOM
21-7275	1	TOGGLE SWITCH ASSEMBLY
21-7327	1	UNIVERSAL TOP BUSHING - BLACK - LARGE
21-7704	1	UPPER SHOCK BUSHING - BLACK - LARGE
21-7338	1	HARDWARE KIT - HD V-ROD
21-7336	1	TOGGLE SWITCH BRACKET - BLACK

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## GENERAL INFORMATION:

Reading this manual signifies your agreement to the terms of the general release, waiver of liability, and hold harmless agreement, the full text of which is available at [www.arnottcycles.com](http://www.arnottcycles.com).

- Avoid damage to air lines and electrical components.
- Removal and installation is only to be performed by fully qualified personnel.

**CAUTION:** Damage to the motorcycle and air suspension system can be incurred if work is carried out in a manner other than specified in the instructions or in a different sequence.

**Each owner or installer is unique, therefore installation of this system can be done many different ways. The mounting locations of the compressor and inflation switch are suggestions by our engineers. If proper wiring guidelines and instructions are followed, relocation of the compressor or switch will neither affect the system operation nor void your warranty.**

**Adjust air shock pressure as required for desired ride quality to maximize the benefits of your system. Excess pressure will result in a firmer ride, too little pressure will allow the suspension to bottom out.**



To avoid the possibility of short circuits while working with electric components consult your owner's manual on how to disconnect your battery.



Refer to the Owner's Manual for the bike and instructions for the motorcycle lift for all correct lifting procedures. It is also recommended that you protect any chrome or painted surfaces that may be damaged during lifting, removal or installation process.

## FACTORY SHOCKS REMOVAL

Use a solid, level surface to position the bike on a motorcycle lift and use all recommended safety techniques. Lift the bike so the rear wheel is just slightly off the ground.

1. Loosen and remove the upper and lower shock bolts.



2. Carefully remove factory shock absorbers from the rear suspension.



## AIR SHOCKS INSTALLATION



*Tighten all nuts and bolts to manufacturer's specifications during the installation process.*

1. Locate the ½"-13 X 2.5" socket head bolts and washers from the kit. Before installing, apply two or three drops of blue threadlock to the threads of the new shock bolts.



2. Locate and remove the upper and lower spacers from your hardware package. The longer spacer is used on the top.



3. Install the new air suspension shocks and spacers one at a time. You may find it necessary to lower or raise the suspension to line up the shock bolts.

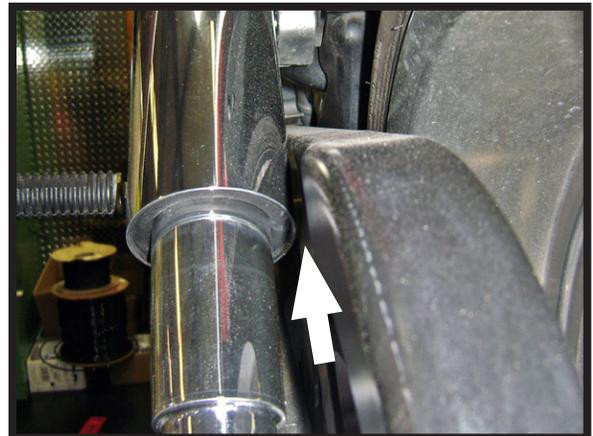


4. Tighten the upper and lower shock bolts to 30-35 ft-lbs.



4. Install the bolt covers onto the shock absorber bolts. Lubricate the o-ring inside with an appropriate lube. Gently press the cover on with a slight twisting motion until you feel the caps drawn solidly onto the bolt head and firmly seated.

 **NOTE:** Visually inspect the clearance between the left shock and the belt guard. If touching, place 1/2" washers between the shock and the frame rail.



5. Installation complete.

## INFLATION SYSTEM INSTALLATION



*Tighten all nuts and bolts to manufacturer's specifications during the installation process.*

**NOTE:** The inflation system consists of a compressor with a separate distribution manifold along with an inflation switch and compressor relay. Pump locations may be affected by emissions control components. If equipped, an alternate pump location will need to be found.

**NOTE:** Split loom is provided to protect the 1/4" air hose from the heat of the engine as well as cover any exposed wiring.

1. Flip up the seat and remove the retaining clip for the engine intake cover. Lift the cover and pull backward to remove.

2. Unplug the sensor located at the front of the black inner intake cover by first pushing down on the metal clip and then pulling outward. Disconnect the battery, negative cable first.



3. Unsnap the clips on the black cover. After you unsnap all the clip, remove the cover.



4. Remove the air intake filter.

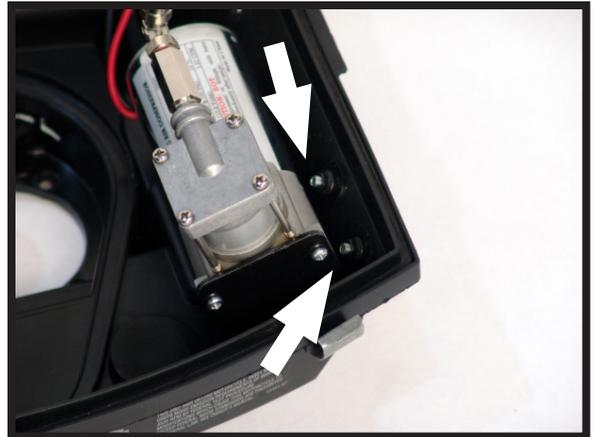


***FOLLOWING INSTRUCTION IS FOR USE WITH 21-3711 PUMP CONFIGURATION. (W/ GUARDS)***

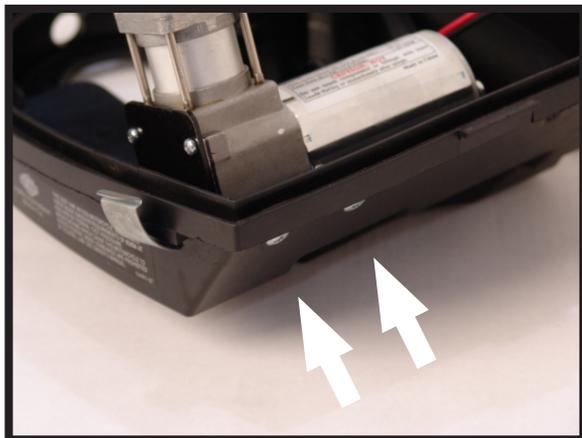
5. Remove the screws from the base of the velocity stacks, on the bottom of the air intake box. **Take extreme care in removing these screws. Do not drop them into the two intake ports!**



6. Using the pump bracket as a template, mark and drill two 3/16" holes on the front right side of the air cleaner box. Position the compressor about 1" from the corner of the box to allow clearance for the cover to be re-installed.



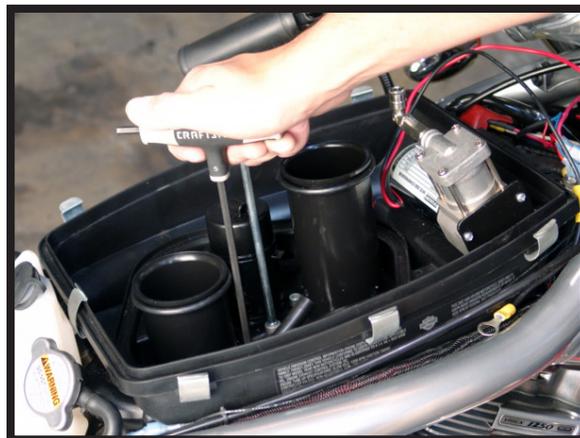
7. Fasten the pump assembly to the air cleaner box using the two 10-32 screws supplied with the kit.



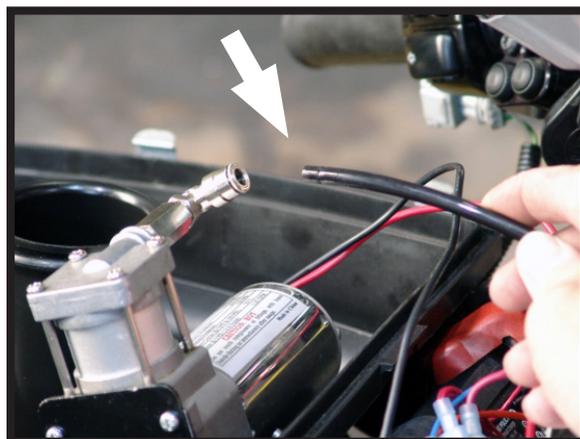
9. Replace the air filter element.



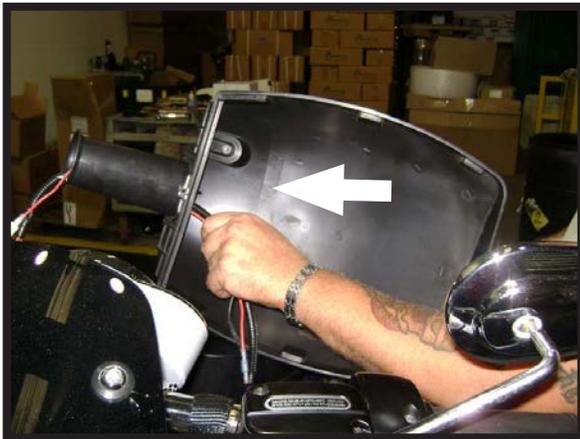
8. Reassemble the intake box to the engine. Align the index marks on the velocity stacks and tighten mounting screws to 53 in-lbs (6 Nm). Make sure the retention o-ring is in place just above the screws.



10. Connect the 1/4" air hose to the elbow push-to-connect fitting. Be sure to trim the hose square as a slanted cut could cause a leak.



11. While holding the intake cover, run the wires and hose through the intake hole to exit the intake box. Route the hose to the area where you will connect to the distribution manifold., preferably under the seat.



12. Replace the black air intake cover. Take a close look at all of the air hose after reinstalling the cover. Make sure not to kink the air line.



13. The preferred location for the distribution manifold is under the left side cover below the seat. Connect the ¼" air line leading from the compressor to the 90° push to connect fitting installed in the end of the manifold.



**NOTE:** If installing the upgrade handlebar mounted control switch, follow the wiring instructions included with upgrade switch.

14. Use the supplied air fittings and 4mm air line to connect the shock absorbers with the distribution manifold. Instructions for assembly of the 4mm air fittings are enclosed in the kit.



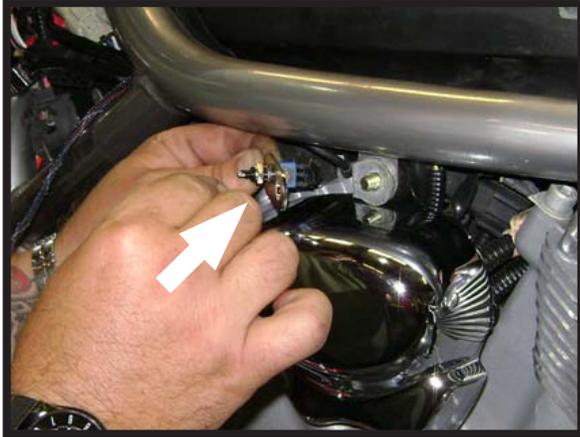
**NOTE:** Air fittings seal with an o-ring. DO NOT OVERTIGHTEN!

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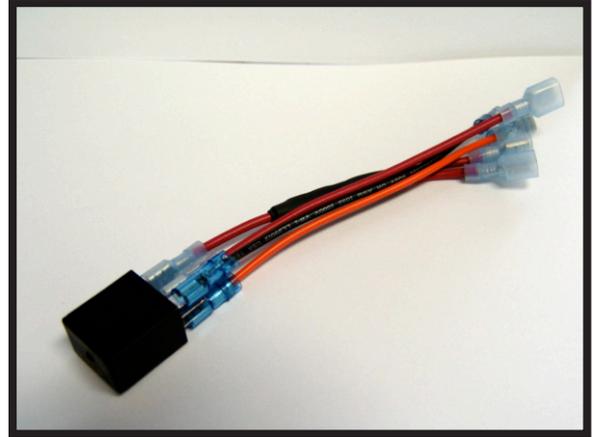
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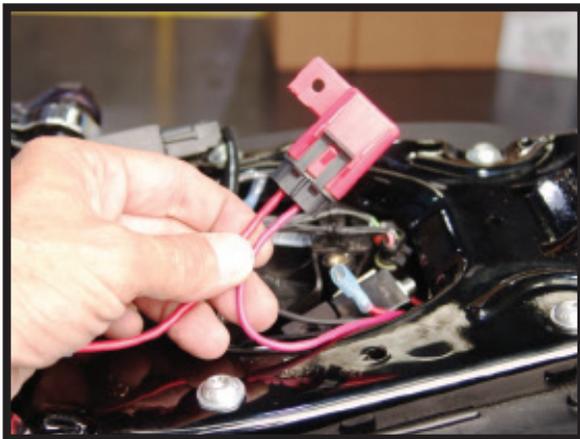
15. Included in the kit is a bracket that can be used to mount the toggle switch onto the horn bracket as shown. If an alternate location for the switch is chosen, be sure that it will provide ease of access but not interfere with normal operation.



16. Included in the kit is a system relay, refer to the schematic on page 3 for a wiring diagram.



17. Only after all electrical connections are made, attach the ring terminal end of the fused wire harness to the positive(+) battery terminal and reconnect the battery, positive side first.



18. Replace air box cover. After all connections have been made and the system is operational, air up the system and use a soap and water solution to check for leaks.



**NOTE:** A system schematic is included for reference.



*Never make adjustments to the air suspension system while the motorcycle is in motion. Adjusting the air suspension while vehicle is in motion can affect the stability and handling, which could result in death or serious injury.*

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