

Arnott™

Motorcycle Air Suspension

Kits 9027/9031/9032
Boss Hoss® ZZ4®, LS2® and
Super Sport® Models



“Engineered to Ride, Built to Last”

PARTS LIST	PART NUMBER	PART NUMBER	PART NUMBER	QTY
	BHC-3 ZZ4	BHC-3 LS2	BHC-3 SUPER SPORT®	
LEFT REAR AIR SUSPENSION SHOCK	21-2598 (13.0")	21-3078 (13.0")	21-3079 (11.6")	1
RIGHT REAR AIR SUSPENSION SHOCK	21-2597 (13.0")	21-3077 (13.0")	21-3080 (11.6")	1
COMPRESSOR ASSEMBLY	21-2969			1
UNIVERSAL BRACKET	14-3013			1
DISTRIBUTION MANIFOLD	21-2866			1
SPEED REDUCING MUFFLER	29-2710			1
MANIFOLD BRACKET	14-2849			1
TOGGLE SWITCH	21-3229			1
RELAY ASSEMBLY	21-3110			1
FUSED WIRING HARNESS	21-2698			1
½" X 3.0" SOCKET HEAD BOLTS	29-2736			2
½" X 2.5" SOCKET HEAD BOLTS	29-2735			2
BOLT COVERS	14-2680			4
¼" NYLON TUBING	29-2627			3-FT
4mm NYLON TUBING	29-2625			6-FT
4mm VOSS® AIR FITTINGS	29-2618			5
VELCRO®	29-3020			6"
HARNESS CABLE TIES	29-2617			8
SPLIT LOOM	29-3000			3-FT



THANK YOU!

Thank you for purchasing the Arnott Cycle Air 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.

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 this system on your bike. Reviewing the components and the parts list on the front cover will familiarize you with the system.

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



SAFETY WARNING:

Do not inflate the air spring assembly unless it is supported on both ends by the vehicle frame and suspension system, or by another adequate means. Doing so may result in serious injury and damage to the air spring assembly and surrounding environment.

The maximum recommended inflation pressure of the air spring is 100 psi. Over-inflation of the air spring, as well as improper use or installation of the assembly, may result in serious injury and damage to the air spring assembly and the surrounding environment.

Take precautions not to exceed the Gross Vehicle Weight Rating (GVWR, or the maximum load) recommended by the manufacturer. The air springs are rated for a maximum pressure of 100 psi. This pressure may, however, allow too great a load to be carried on most vehicles. For best results, load the vehicle and have it weighed, then compare the vehicle weight with the maximum allowed. Consult your recommended load. It is important that all vehicle's Owner Manual recommendations are followed for your own safety and to prevent damage to the vehicle. Air Springs DO NOT increase the GVWR set by the manufacture.



WARNING

NEVER MAKE ADJUSTMENTS TO THE AIR RIDE SYSTEM WHILE THE VEHICLE 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.



(A.) PREPARING THE BIKE:

On a solid level surface, position the bike on a motorcycle lift and use all the recommended safety techniques. Lift the bike so the rear wheel is just slightly off the ground. Be sure to refer to the Owner's Manual for the bike and the motorcycle lift for all correct lifting instructions. It is also recommended that you protect any chrome or painted surfaces that may be damaged during lifting or installation procedure.

REMOVE THE SEAT BEFORE STARTING THE INSTALLATION

(B.) REMOVING THE FACTORY SHOCKS:



1. Remove the upper mounting hardware from the factory shock. Use an open end wrench on the back to prevent the assembly from turning.



2. Loosen and remove the lower shock bolts.

NOTE: Be sure to retain any factory washers installed behind factory shocks and reuse them when installing the new air suspension shocks.



3. Carefully remove factory shock absorbers from each side of the rear suspension.

(C.) INSTALLING THE REAR AIR SHOCKS:



1. Install the new air suspension shocks one at a time. Reinstall any factory washers that were removed previously in their original position behind the shocks. The Rebound knobs should face forward with the air inlet on the inside of the shock.



2. Locate and remove the 1/2" x 3.0" socket head bolts for the top mount of the shock absorber.. Before installing, apply two or three drops of Loctite® 243 (blue) to the threads of all shock bolts.



3. Locate and remove the 1/2" x 2.5" socket head bolts for the bottom shock mount. Use a 3/8" Allen head driver and torque wrench to tighten. Use an open-end wrench to hold the nut stationary while tightening. Torque hardware to 30-35 ft-lbs (40.6 - 47.4 Nm).

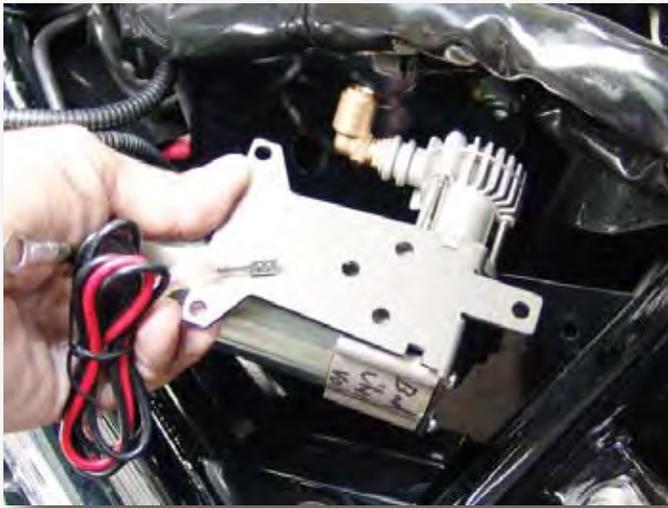


4. Tighten the upper shock hardware to 30-35 ft-lbs (40.6-47.4 Nm). Use the same method to tighten the hardware as outlined in Step # 3, previously.

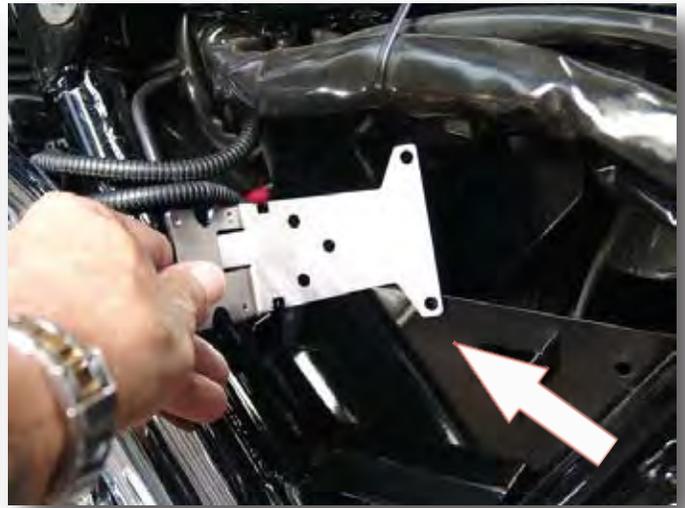
(D.) INSTALLING THE INFLATION SYSTEM:

The inflation system consists of an on board compressor with a remote solenoid/distribution vent valve. The basic system comes with a micro toggle switch which can be easily mounted on several areas on the bike.

Split loom is provided to cover the air hose as well as protect and hide any exposed wiring.



1. There are several areas on the bike where the compressor can be mounted. One of which is under the bike's left side cover. Ultimately the location of the compressor is up to the installer.



2. A universal bracket, cable ties and heavy duty Velcro® are provided in the kit. This gives the installer several options for location and method of mounting the compressor.



3. Connect the larger diameter, ¼" tubing to the "push to connect" fitting on the compressor and route it to the area where you plan to mount the distribution manifold. Route the line under the bodywork, along the frame so that it is not likely to kink or come in contact with hot or moving parts.



4. Mount the distribution valve block as close to the compressor as possible. Trim away the excess ¼" line, (cut the tubing straight across, no angles! This ensures a good seal in the "push to connect" fittings), and connect it to the 90° fitting on the valve block.



5. Locate the smaller 4mm tubing from the kit. Measure and cut the air hoses leading from the valve block to the air shocks. Assemble the VOSS® air fittings onto the air hose and route both air lines to the rear air shocks. (***Assembly instructions are included with VOSS® air fittings***) Note: the air fittings seal with O-Rings, Do not overtighten.



6. Use an appropriately sized drill bit and drill motor to fabricate a hole for mounting the toggle switch. There are several location on the bike the toggle switch can be located. In this case the starter switch plate was utilized.



7. The toggle switch has 3-black wire pigtails, 2-male terminals and 1-female. Note that the female spade connects to the fuse assembly. The remaining 2 male spades connect to the solenoid and compressors female spades. Orientation is not important, simply rotate the switch if upside down. Also included is a system relay, refer to the included schematic for a wiring diagram.



8. Locate the universal fuse wiring harness in an area near the battery. Connect the red wire, (with the ring terminal), to 12 volt battery positive. Connect the other red wire from the fuse to the center wire to the switch. Reconnect the battery cables, positive (+) cable first, then the negative (-) cable. Torque the battery terminals to 60-96 in-lbs. (6.8-10.9 Nm).

NOTE: A system schematic is included for reference.

NOTE: Many Boss Hoss® Models come with thick washers installed between the shock eyelet and the frame mounting points. These washers help maintain the clearance between the shock and the belt or chain of the final drive system. Make sure to reinstall any factory washers that may have been removed from this point during disassembly process.



9. Check that there is adequate clearance on the inside of each shock absorber, this is especially critical between the final drive (belt/chain) and the inside of the left shock absorber.



10. Install the bolt covers onto the shock absorber bolts. Lubricate the inside with a lube appropriate for O-rings. Gently press the cover on with a slight twisting motion until you feel it drawn solidly onto the bolt head and firmly seated.



11. The air suspension shocks in the kit have an adjustment knob on the upper front of the assembly. This knob controls the rebound action of the shock absorber. To set this knob initially, turn the knob counter clockwise until it stops. This is the base setting. Turn the knob one click at a time, clockwise, to stiffen the rebound action of the shock.



12. Make sure that there is adequate tire to rear fender clearance. Check both the center of the tire and the sides with the system in the lowered position, with zero air pressure.

13. Power up the system, check for leaks and reinstall the seat. Make sure the seat is properly secured to the frame and experience what it's like to "Ride on Air!"

Thank you for purchasing an Arnott Air Ride Suspension Product!

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 spring 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.



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DISCLAIMER

The terms Boss Hoss, Z4®, LS2® and Super Sport® Models are used for reference only. Arnott Air Suspension products are in no way authorized by nor associated with Boss Hoss Motorcycles, Inc. Model names are for reference and identification purposes only.

The use and installation of any Arnott Air Suspension product or kit may adversely affect or void your Boss Hoss® factory warranty. It is the responsibility of the motorcycle owner to check federal, state and local laws and ordinances before modifying or customizing his or her motorcycle. It is the exclusive and total responsibility of the motorcycle owner to determine the suitability of this product for his or her use. The user shall assume all legal obligations, personal injury risk and all liability duties and risk associated with the use of this product. Arnott Air Suspension products are designed and intended for the experienced off-road motorcyclists only and intended for closed course operation.

Arnott Air Suspension products and kits are designed exclusively for OEM manufactured and equipped motorcycles with no modifications. Any installation of aftermarket or customized components may adversely affect the operation and performance of Arnott Air suspension kits and components and may void the manufacturers warranty. These directions are accurate at time of publication. Arnott Inc. reserves the right to revise specifications without notice.

