



Motorcycle Air Suspension

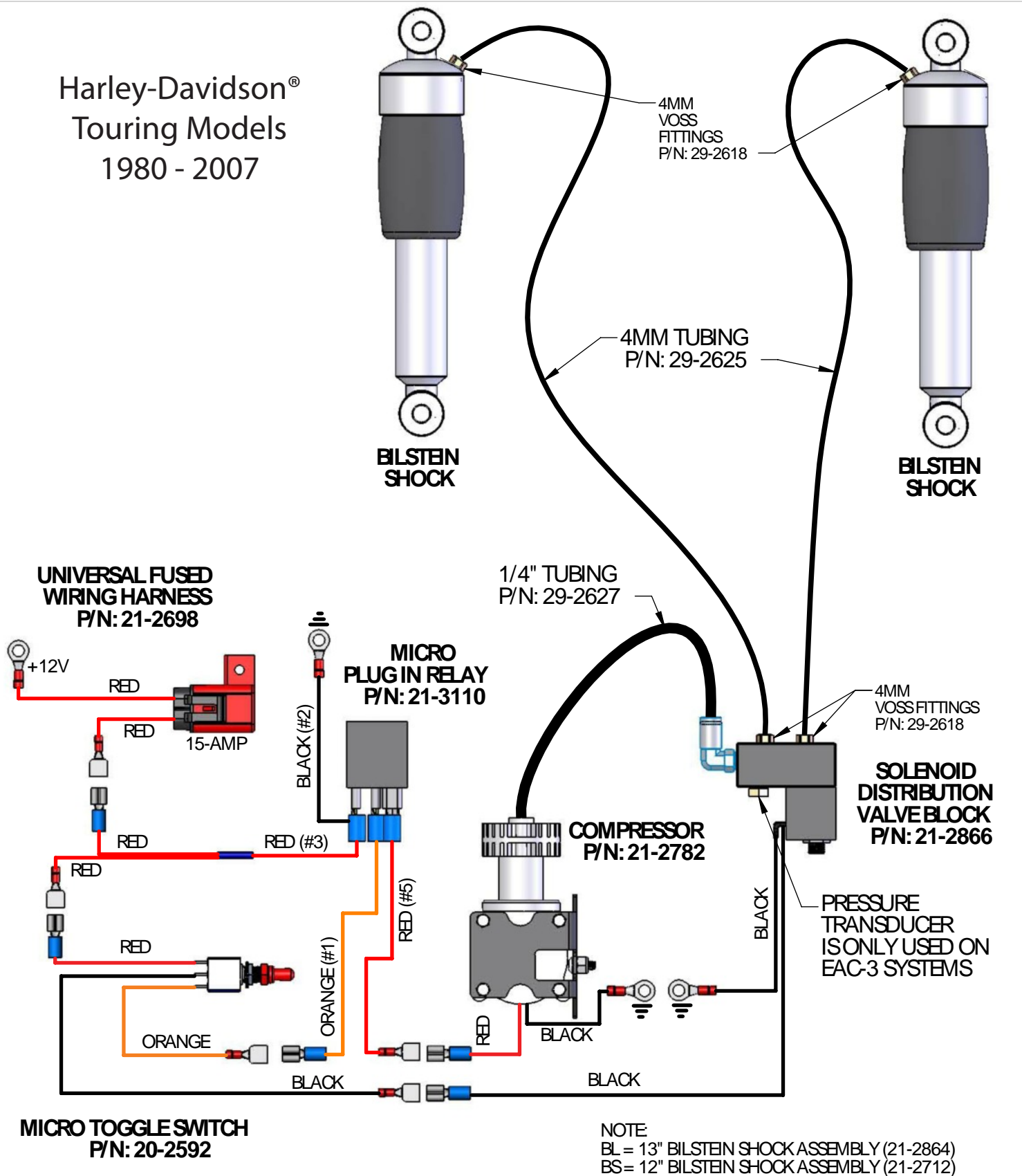
Kit # 9010-BS/BL
Harley-Davidson®
Touring Models
1980 - 2007



“Engineered to Ride, Built to Last”

PARTS LIST	PART NUMBER	PART NUMBER	QUANTITY
REAR AIR SUSPENSION SHOCKS	(BS) 21-2712	(BL) 21-2864	2
VIAIR COMPRESSOR W/BACKET ASSEMBLY	21-2782		1
TOGGLE SWITCH ASSEMBLY	20-2592		1
DISTRIBUTION VALVE BLOCK	21-2866		1
SPEED REDUCING MUFFLER	21-2710		1
MANIFOLD BRACKET W/FASTENERS	14-2849		1
FUSED WIRING HARNESS	21-2698		1
RELAY ASSEMBLY	21-3110		1
½" X 2.5" SOCKET HEAD BOLTS	29-2735		4
½" S.S. FLAT WASHERS	29-2631		4
SPACER WASHERS	14-3235		4
CHROME BOLT COVERS	14-2680		4
¼" NYLON TUBING	29-2627		6-FT
4mm NYLON TUBING	29-2625		6-FT
4mm VOSS® AIR FITTINGS	29-2618		5
HARNESS CABLE TIES	29-2617		8
SPLIT LOOM	29-3000		3-FT

Harley-Davidson® Touring Models 1980 - 2007



PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ARNOTT, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ARNOTT, INC. IS PROHIBITED.

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±

MATERIAL

FINISH

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	KMD	03/12/08
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

9010-BL/BS
TOURING BIKE
1980 - 2007

SIZE	DWG. NO.	REV.
A	35-2889	0
SCALE: NONE	WEIGHT:	SHEET 1 OF 1



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 below 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 manufacturer.



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 air hose from the factory shocks. To disconnect the air line, push down on the red plastic ring while pulling out on the air line at the same time.



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



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



4. Remove factory air line and air valve.

(C.) INSTALLING THE REAR AIR SHOCKS:



1. Locate and remove the ½" x 2.5" socket head bolts and flat washers from the kit. Before installing, apply two or three drops of Loctite® 242 (blue) to the threads of new shock bolts.



2. Install the new air ride shocks one at a time. Start the lower bolts first. Then adjust the height of the bike to line up the upper bolt holes.

NOTE:

If a quick disconnect backrest is installed, use the spacer washers included to shim the top of the shock outward.



3. Use a ⅜" Allen head driver and torque wrench to tighten the upper and lower shock bolts to 35-40 ft-lbs (45-48 Nm).



4. 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.

(D.) INSTALLING THE INFLATION SYSTEM:

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.

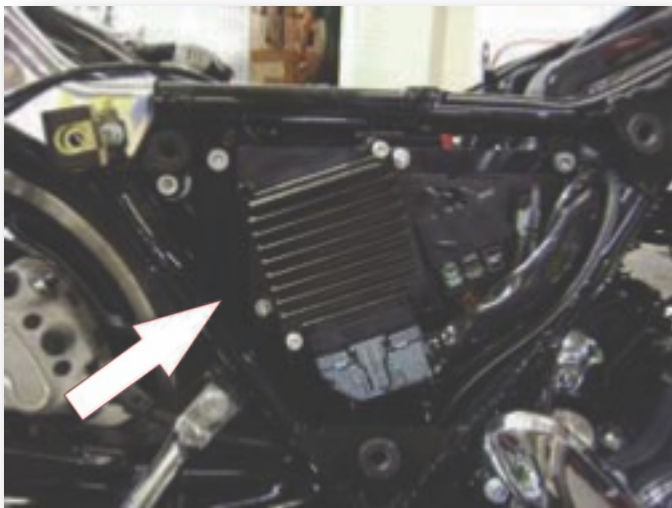
Split loom is provided to cover the air hose as well as protect and hide any exposed wiring.



1. Remove the seat.



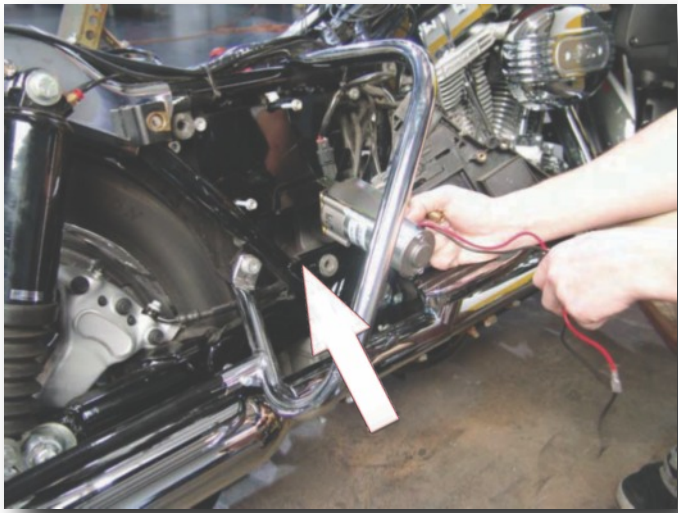
2. Disconnect and remove the battery. (Always remove the negative (-) cable first)



3. Remove both side cover panels.



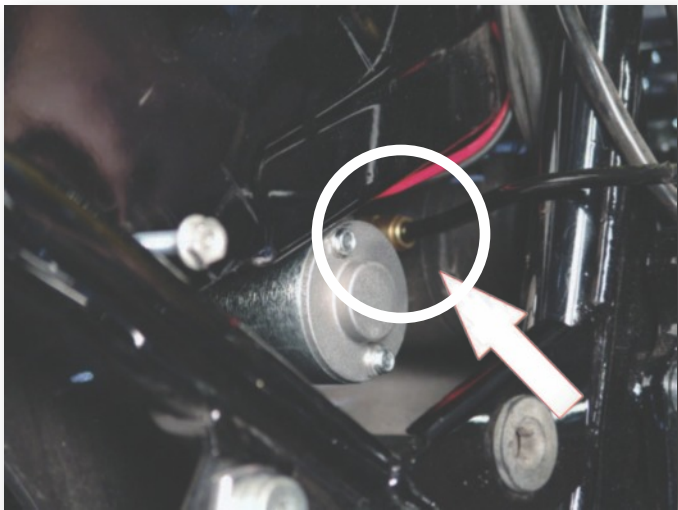
4. Using a thin wall 7/16" socket, remove the two nuts holding the control module located on the right side of the bike. Make sure you have complete access to the hole located under the battery box.



5. Carefully slide the compressor assembly into the hole located under the battery box. Push the compressor bracket through the stamped, wedge-shaped holes on the bottom of the battery box. You may find it necessary to clean the bottom side of the battery box before inserting the bracket.



6. Slide the compressor towards you until the hole in the compressor bracket lines up with the stamped hole in the bottom of the battery box. Fasten in place using the 10-32 button head screw and lock nut supplied with the compressor. The lock nut should be on the under side of the battery box.

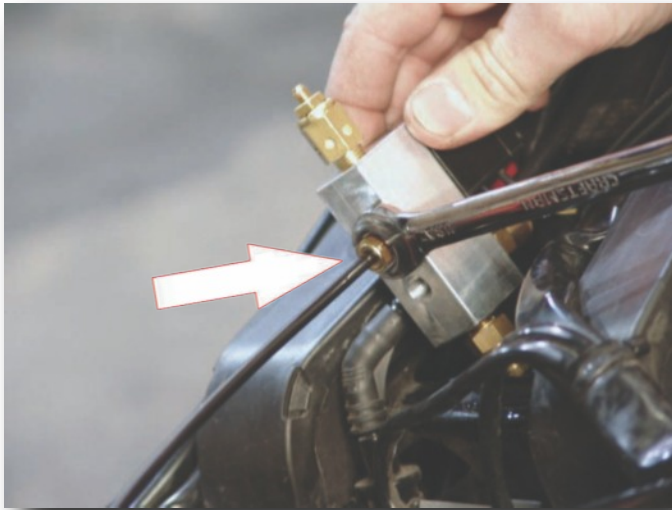


7. Connect the larger 1/4" line from the kit to the compressor using the "push to connect" fitting. Route the air line up and in front of the battery box. Exit the air line into the open cavity located directly behind the gas tank.



8. Behind the fuel tank and under the seat is a preferred location for the solenoid/distribution valve block assembly. Connect the 1/4" air line leading from the compressor to the "push to connect" fitting on the distribution valve block.

NOTE: Make sure 1/4" air line is cut square on the ends to ensure a good seal in the fitting.



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



10. Assemble the VOSS® air fittings onto the other end of the 4mm air tubing and screw the fittings into the shocks.

NOTE: VOSS® fittings seal with O-Rings, Do not overtighten!



11. Locate a suitable mounting location for your toggle switch. Mount in a location that will provide ease of access. Such as behind the rear cylinder on the front of the battery box.

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



12. Included in the kit is a system relay, refer to the schematic on the back of the cover for a wiring diagram. 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.



13. Using a soap and water solution, spray all hose connections to ensure no leaks. Replace the control module and side panels.



14. Replace the seat and saddlebags. Be sure to check clearances around the tire and fender with no air in the system.

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.



DO NOT ADJUST THE AIR RIDE SYSTEM WHILE THE BIKE IS IN MOTION, DOING SO CAN AFFECT STABILITY AND HANDLING, THIS COULD RESULT IN DEATH OR SERIOUS INJURY.

DISCLAIMER

The terms Harley-Davidson®, Harley®, H-D®, Buell®, Softail®, Dyna®, V-Rod® and Sportster® are used for reference only. Arnott Air Suspension products are in no way authorized by nor associated with the Harley-Davidson Motor Company. All references to Harley-Davidson terms and models 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 Harley-Davidson® 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.

