

Installation Manual

KIT # MC-2970, MC-2971
FOR 2009-PRESENT
HONDA VT1300 SERIES



Congratulations on your purchase of an Arnott® 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 Arnott 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.

"Elevate Your Ride"



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 200 psi.

Arnott® is committed to the quality of its products. If you have a question or problem with any Arnott product, please contact Arnott by calling **800-251-8993** during normal business hours or email techassistance@arnottinc.com. (In the EU please call +31 (0)73 7850 580 or email info@arnotteurope.com).

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KIT # MC-2970, MC-2971
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BILL OF MATERIALS MC-2970 - VT1300 SERIES, 2009-PRESENT, BLACK

20-10495 - INFLATION KIT, HONDA VT1300 SERIES, 2009-PRESENT

PARTS LIST

QTY	PART NO.	DESCRIPTION
1	21-3110	MICRO RELAY ASSEMBLY W/ HARNESS
1	21-7268	4MM AIRLINE X 6FT. ACCESSORY KIT
1	21-7715	4MM VOSS AIR FITTING ACCESSORY KIT
1	21-7271	HARNESS CABLE TIES ACCESSORY KIT
1	21-7272	SPLIT LOOM- 1 FT LENGTHS ACCESSORY KIT
1	21-2698	UNIVERSAL FUSE HOLDER ASSEMBLY KIT
1	21-7262	MANIFOLD BRACKET W/ FASTENER ACCESSORY KIT
1	21-11617	90 DEGREE PUSH CONNECT MANIFOLD ASSEMBLY, MONO SHOCK
1	21-7267	1/4" NYLON TUBING ACCESSORY KIT
1	11-MC-VT1300	INSTALLATION MANUAL FOR MC-2970 & MC-2971
1	21-10494	2009-PRESENT HONDA VT1300 SERIES, PUMP ASSY
1	20-10493	2009-PRESENT HONDA VT1300 SERIES, MOUNTING KIT

21-10496-B - SHOCK KIT

PARTS LIST

QTY	PART NO.	DESCRIPTION
1	21-9274	SHOCK ASSY, BLACK

HANDLE BAR SWITCH

PARTS LIST

QTY	PART NO.	DESCRIPTION
1	29-9749	HANDLE BAR SWITCH, BLACK

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BILL OF MATERIALS MC-2971 - VT1300 SERIES, 2009-PRESENT, CHROME

20-10495 - INFLATION KIT, HONDA VT1300 SERIES, 2009-PRESENT

PARTS LIST

QTY	PART NO.	DESCRIPTION
1	21-3110	MICRO RELAY ASSEMBLY W/ HARNESS
1	21-7268	4MM AIRLINE X 6FT. ACCESSORY KIT
1	21-7715	4MM VOSS AIR FITTING ACCESSORY KIT
1	21-7271	HARNESS CABLE TIES ACCESSORY KIT
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1	21-10494	2009-PRESENT HONDA VT1300 SERIES, PUMP ASSY
1	20-10493	2009-PRESENT HONDA VT1300 SERIES, MOUNTING KIT

21-10496-B - SHOCK KIT

PARTS LIST

QTY	PART NO.	DESCRIPTION
2	21-9274	SHOCK ASSY, BLACK

HANDLE BAR SWITCH

PARTS LIST

QTY	PART NO.	DESCRIPTION
1	29-9750	HANDLE BAR SWITCH, CHROME

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.

- Not to be stored below 5°F (-15°C) or above 122°F (50°C).
- 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.

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. REMOVE BOTH SIDE COVERS AND THE SEAT. (FIGURES 1, 2, 3, 4)



FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4

2. REMOVE THE REAR FUEL TANK BOLT AND SUPPORT THE TANK OFF THE REAR OF THE FRAME. (FIGURES 5, 6)



FIGURE 5



FIGURE 6

3. REMOVE THE LEFT SIDE ENGINE COVER AND THEN REMOVE THE TWO SCREWS AT THE BOTTOM OF THE BATTERY BOX. PULL THE BATTERY BOX OUT TO THE LEFT SIDE OF THE FRAME AND LET HANG. (FIGURES 7, 8)

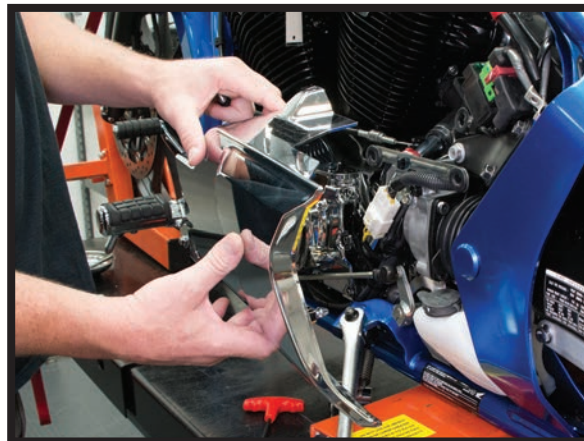


FIGURE 7



FIGURE 8

4. REMOVE THE REAR FENDER. (9, 10, 11)



FIGURE 9



FIGURE 10



FIGURE 11

5. REMOVE THE TOP SHOCK NUT, THE LOWER SHOCK NUT AND BOLT, AND THE TWO BOLTS MOUNTING THE HYDRAULIC PRE-LOAD ADJUSTER TO THE FRAME. REMOVE THE SHOCK FROM THE FRAME. (FIGURES 12, 13, 14, 15)



FIGURE 12



FIGURE 13



FIGURE 14



FIGURE 15

6. SCREW A VOSS FITTING INTO THE AIR SHOCK. REMOVE THE WHITE PLUG THEN INSERT THE 4MM AIR LINE UNTIL YOU FEEL IT SEAT. REMOVE THE FITTING FROM THE SHOCK AND CONFIRM THAT THE KEEPER IS ON THE AIR LINE. SCREW THE FITTING BACK INTO THE SHOCK THEN SNUG IT TIGHT WITH 10MM WRENCH. (FIGURES 16, 17, 18, 19)



FIGURE 16



FIGURE 17



FIGURE 18



FIGURE 19

7. REMOVE THE TWO SCREWS SHOWN BELOW. INSERT THE AIR SHOCK INTO THE FRAME THROUGH THE LEFT SIDE AND MOUNT THE UPPER CLEVIS TO THE FRAME. (FIGURES 20, 21, 22, 23)

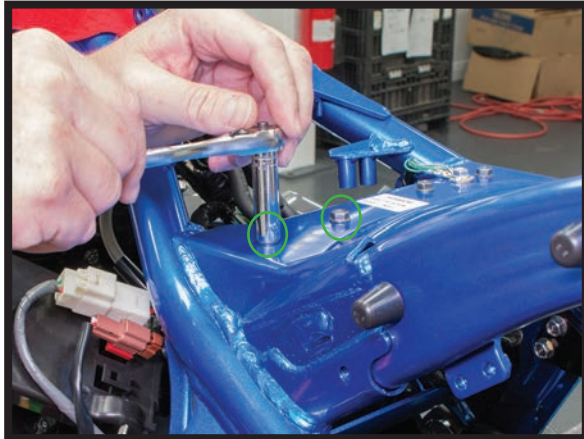


FIGURE 20



FIGURE 21



FIGURE 22

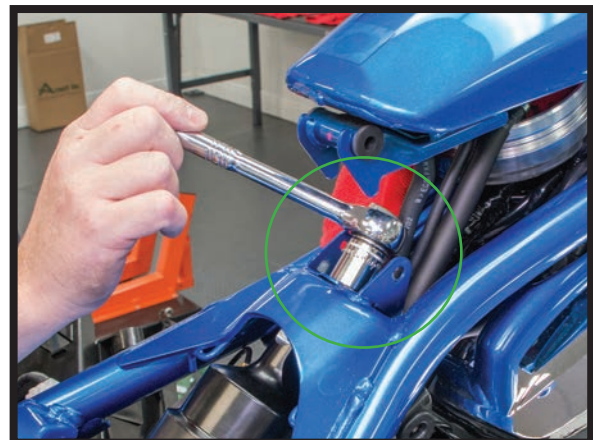


FIGURE 23

8. MOUNT THE LOWER SHOCK CLEVIS TO THE SWING ARM AND TIGHTEN THE NUT AND BOLT. (FIGURE 24)



FIGURE 24

9. REMOVE THE TWO BOLTS MOUNTING THE REGULATOR/RECTIFIER TO THE FRAME AND DISCARD. PLACE THE PUMP MOUNTING BRACKET BETWEEN THE REGULATOR/RECTIFIER AND THE FRAME. USING THE SUPPLIED BOLTS, MOUNT THE PUMP ASSEMBLY AND REGULATOR/RECTIFIER TO THE FRAME. (FIGURES 25, 26)



FIGURE 25



FIGURE 26

10. WRAP THE INCLUDED SPLIT LOOM AROUND THE AIR COMPRESSOR WIRES AND SECURE WITH THE INCLUDED ZIP TIES. FEED THE WIRES UP IN FRONT OF THE SWING ARM TO BEHIND THE BATTERY BOX AREA. FEED THE 1/4" AIR LINE DOWN THE SAME ROUTE TO THE COMPRESSOR ASSEMBLY AND INSERT INTO THE AIR FITTING. (FIGURES 27, 28, 29)



FIGURE 27

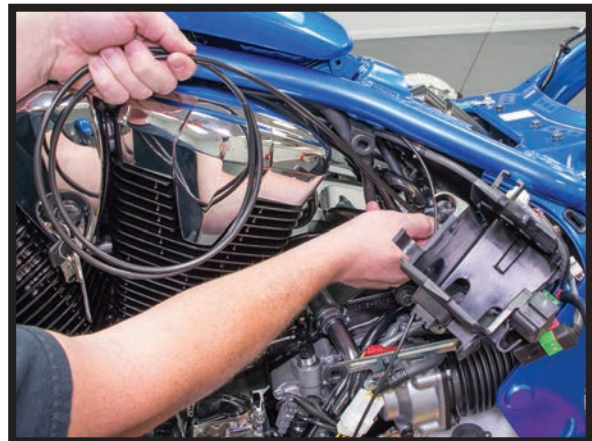


FIGURE 28



FIGURE 29

11. PLUG THE SINGLE RED WIRE ON THE REALY INTO THE RED AIR COMPRESSOR WIRE. THEN, REINSTALL THE BATTERY BOX BACK INTO THE FRAME AND TIGHTEN THE SCREWS. PLACE THE BATTERY IN THE BOX AND ATTACH THE BLACK GROUND WIRE. (FIGURED 30, 31)



FIGURE 30



FIGURE 31

12. REMOVE THE LOWER CLUTCH PERCH BOLT AND DISCARD. MOUNT THE HANDLE BAR SWITCH USING THE INCLUDED BUTTON HEAD CAP SCREW AND SPACER. ROUTE THE WIRE DOWN THE HANDLE BAR AND UNDER THE FUEL TANK TOWARD THE BATTERY BOX. INSERT AND TIGHTEN THE REAR TANK BOLT/NUT. (FIGURES 32, 33, 34, 35)



FIGURE 32



FIGURE 33



FIGURE 34

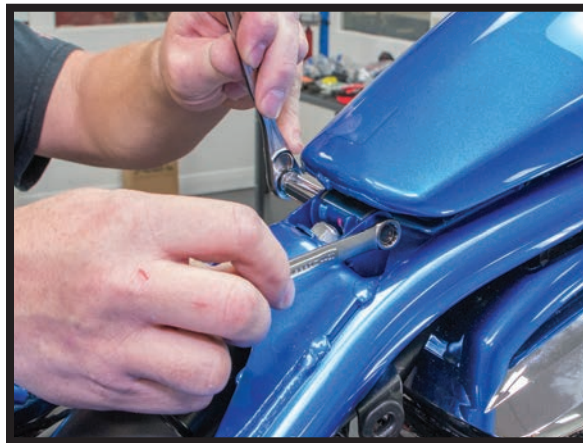


FIGURE 35

13. TRIM THE AIR LINES TO LENGTH. INSERT AND SNUG TIGHT THE INCLUDED BLACK VOSS PLUG INTO ONE OF THE AIR MANIFOLD PORTS. INSERT A VOSS FITTING INTO THE OTHER PORT AND, FOLLOWING THE PROCESS IN STEP #6, INSERT THE 4MM AIR LINE. INSERT THE 1/4" HOSE INTO THE MANIFOLD. STRAP THE MANIFOLD ASSEMBLY TO THE BATTERY AS SHOWN BELOW. (FIGURES 36, 37)

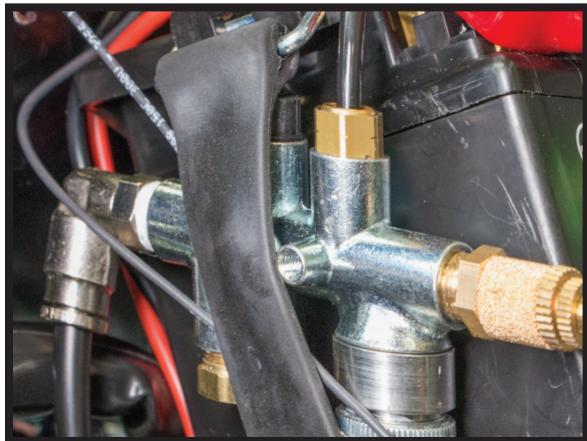


FIGURE 36

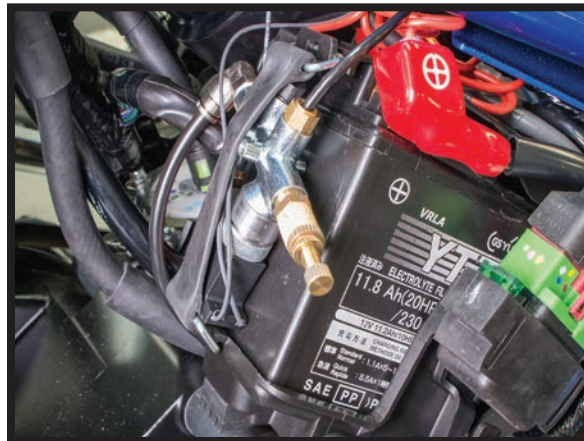


FIGURE 37

14. FOLLOWING THE WIRING DIAGRAM IN THE BACK OF THIS MANUAL, COMPLETE THE REST OF THE WIRE CONNECTIONS. ATTACH THE GROUND WIRES FROM THE AIR COMPRESSOR, AIR MANIFOLD SOLENOID, AND COMPRESSOR RELAY TO THE GROUND BOLT ON THE FRAME AS SHOWN BELOW. (FIGURE 38)

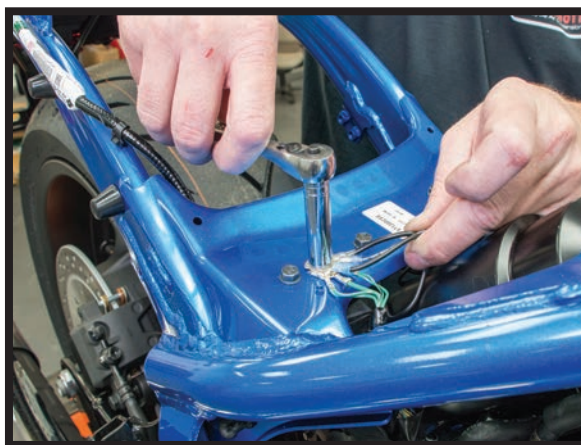


FIGURE 38

15. THE CLOCKING OF THE SHOCK EYES CAN BE CHANGED TO SUIT THE OWNER'S TASTES. SIMPLY FIX THE LOWER EYE IN A VISE TO KEEP IT FROM MOVING. THEN GRASP THE DAMPER SLEEVE AS SHOWN BELOW. TWIST THE SLEEVE ON THE SHOCK BODY. (FIGURES 39, 40)



FIGURE 39

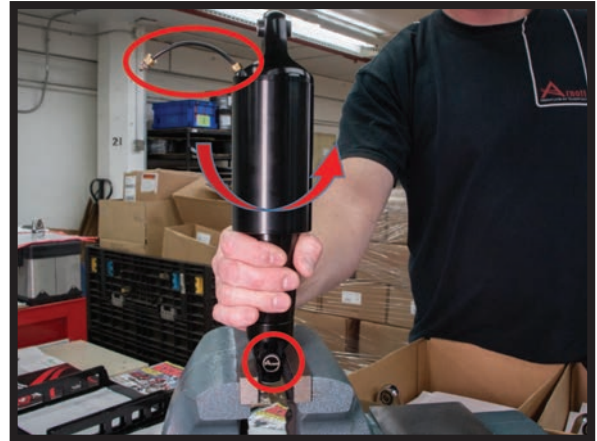
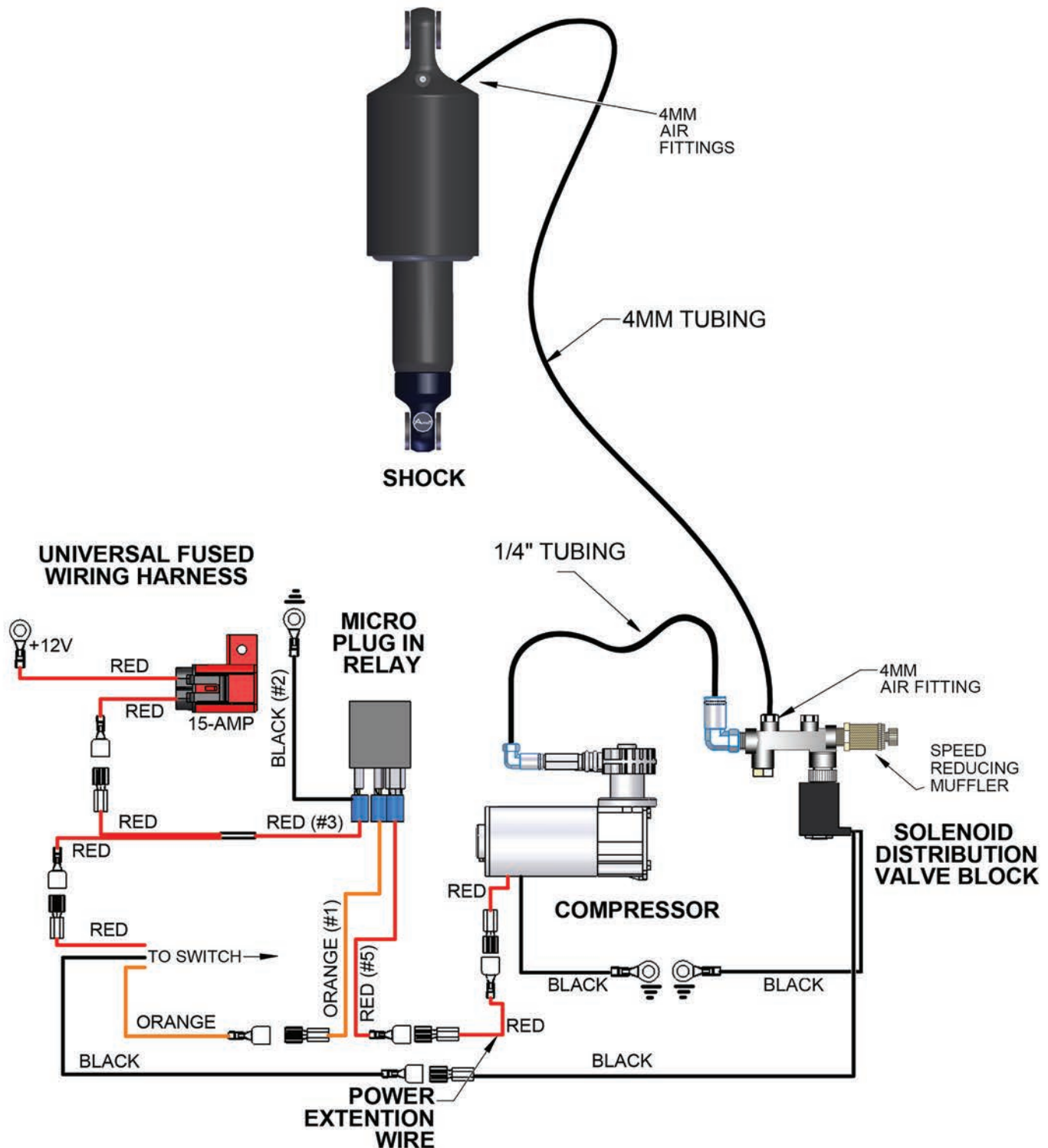


FIGURE 40

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 o-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.

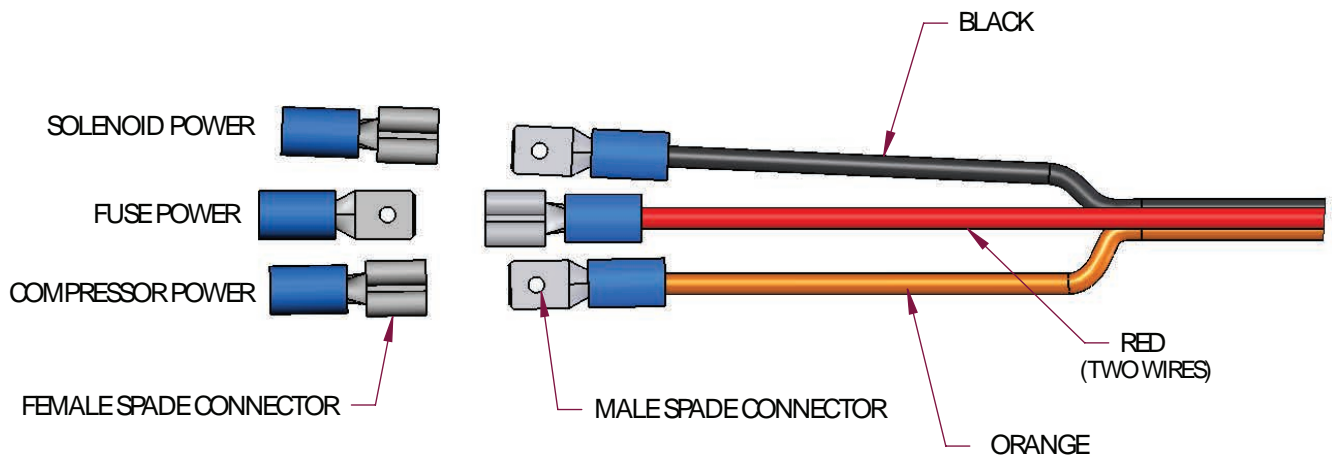
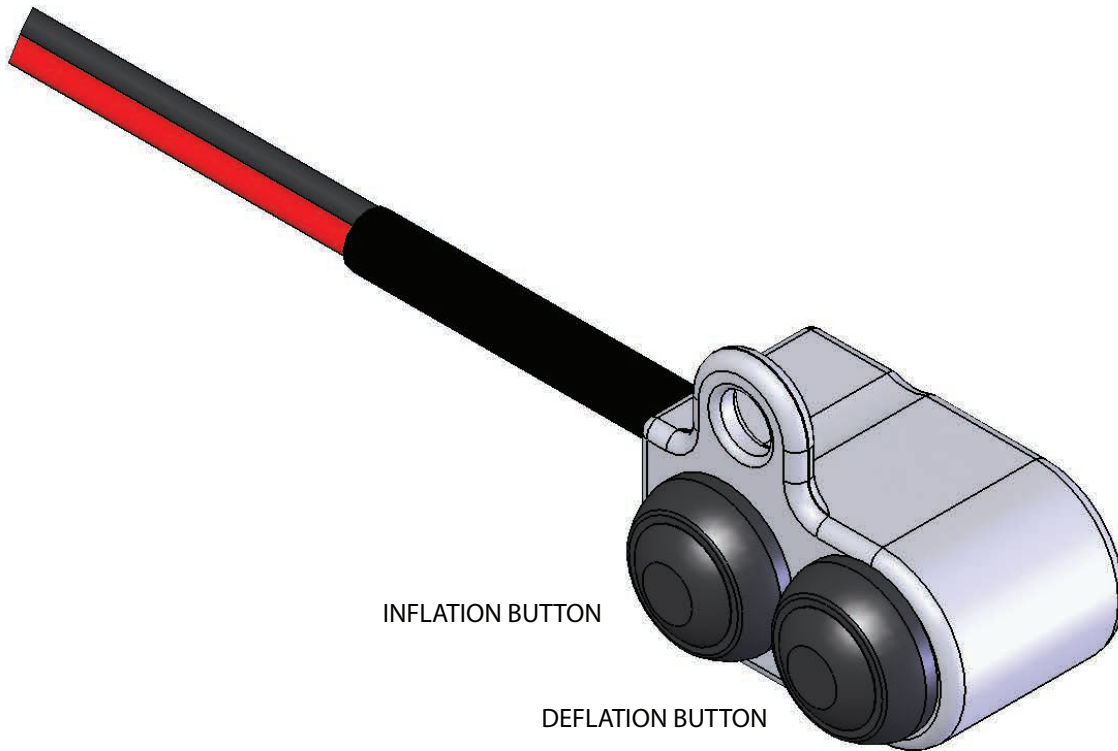
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- AS SHOWN IN ILLUSTRATION ABOVE:
1. CUT SWITCH WIRING TO APPROPRIATE LENGTH.
 2. CRIMP THE TWO MALE SPADE CONNECTORS TO THE ORANGE WIRE AND TO THE BLACK WIRE.
 3. CRIMP THE FEMALE SPADE CONNECTOR TO THE DOUBLE RED WIRE.