Installation Manual

KIT # MC-3104
FOR 2008-2017
HARLEY DAVIDSON DYNA SERIES

Arnott MOTORCYCLE AIR SUSPENSION

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 100 psi.*

Arnott® is committed to the quality of its products. If you have a question or problem with any Arnott product, please contact Arnott.

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BILL OF MATERIALS
MC-3104 - HARLEY-DAVIDSON DYNA, 2008-2017, BLACK

20-12502 - DYNA INFLATION KIT, 2008 - 2017, SMOOTH RIDE

PARTS LIST

QTY	PART NO.	DESCRIPTION
1	21-2698	UNIVERSAL FUSE HOLDER ASSEMBLY KIT
1	21-2770	DYNA COMPRESSOR ASSY
1	21-3110	MICRO RELAY ASSEMBLY W/ HARNESS
1	21-7262	MANIFOLD BRACKET W/ FASTENER ACCY KIT
1	21-7266	BLACK BOLT COVERS ACCESSORY KIT
1	21-7267	1/4" NYLON TUBING ACCESSORY KIT
1	21-7268	4MM AIRLINE X 6FT. ACCESSORY KIT
1	21-7269	4MM VOSS AIR FITTING ACCESSORY KIT
1	21-7271	HARNESS CABLE TIES ACCESSORY KIT
1	21-7272	SPLIT LOOM ACCESSORY KIT
1	21-7324	DYNA SPACER KIT
1	21-7343	MOUNTING HARDWARE KIT
1	11-MC-DYNA-SR	INSTALLATION MANUAL FOR MC-3104
1	21-9761	90 DEGREE PUSH CONNECT MANIFOLD ASSY
1	21-9913	WIRE AND TERMINAL KIT
1	21-7275	TOGGLE SWITCH ACCESSORY KIT

21-10551 - SHOCK KIT

PARTS LIST

QTY	PART NO.	DESCRIPTION
2	21-9334	SHOCK ASSY, BLACK, SMOOTH RIDE

GENERAL INFORMATION:

Reading this manual signifies your agreement to the terms of the general release, waiver of liability, and hold harmless agreement.

- 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 THE BATTERY COVER AND SEAT. (FIGURES 1, 2)

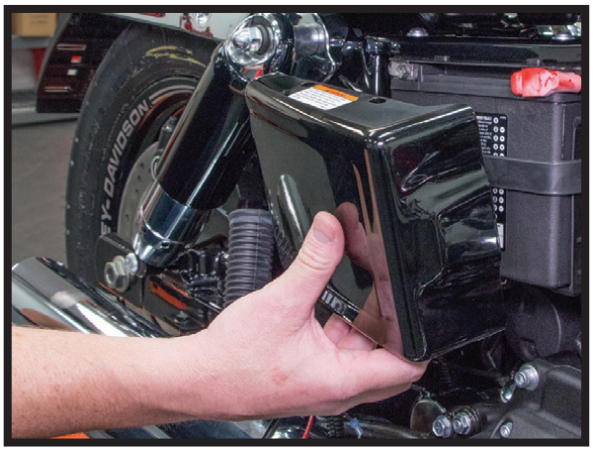

FIGURE 1

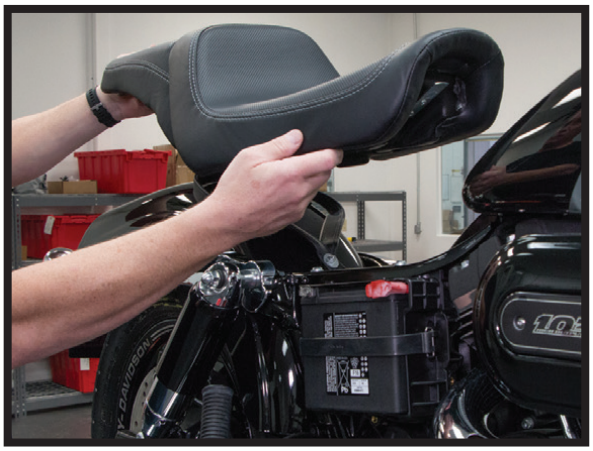

FIGURE 2

2. REMOVE THE BATTERY AND THE BATTERY BOX FROM THE FRAME. (FIGURES 3, 4)

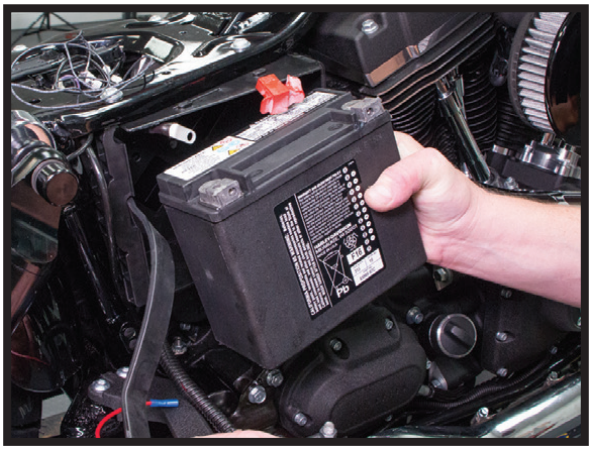

FIGURE 3

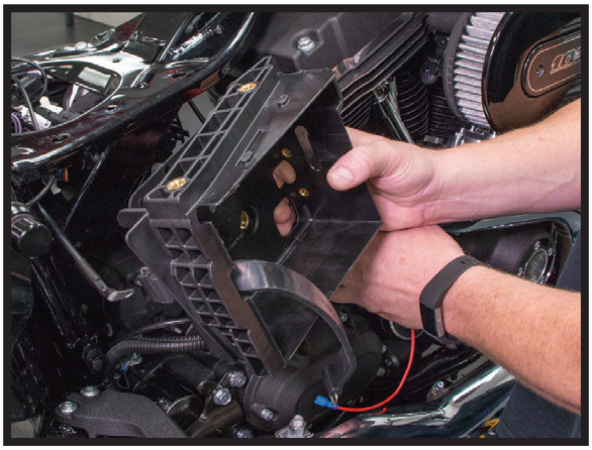

FIGURE 4

3. SUPPORT THE MOTORCYCLE UNDER THE MOTOR UNTIL THE REAR TIRE ALMOST LEAVES THE GROUND. REMOVE THE LOWER FRONT MOTOR MOUNT BOLT AND SET IT ASIDE. LOOSEN THE UPPER FRONT MOUNT BOLT JUST ENOUGH SO THAT THE PUMP BRACKET CAN EASILY SLIDE BETWEEN IT AND THE FRAME; DO NOT REMOVE THE BOLT COMPLETELY. (FIGURES 5, 6)

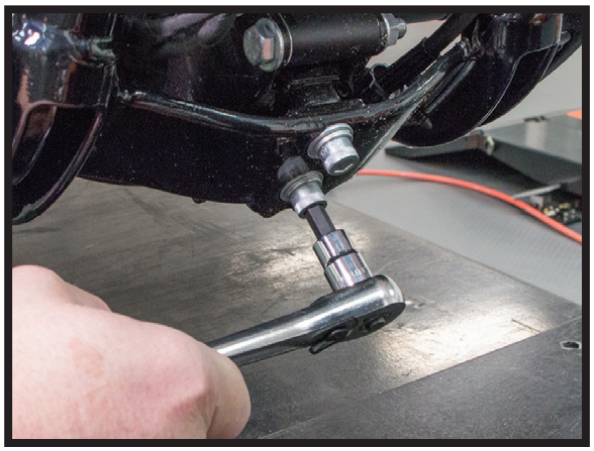

FIGURE 5

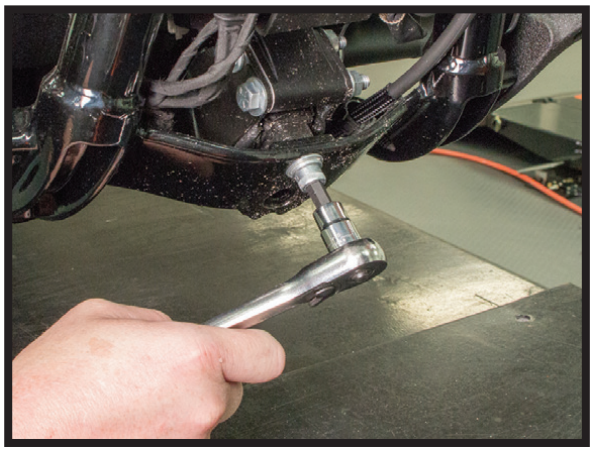

FIGURE 6

4. INSERT THE 1/4" AIR LINE INTO THE PUMP ASSEMBLY. THEN, WHILE PULLING THE HOSE AND THE PUMP WIRES BETWEEN THE FRAME AND THE MOTOR, GUIDE THE PUMP ASSEMBLY UP BETWEEN THE MOTOR AND THE FRAME RAIL AS DEPICTED BELOW. (FIGURES 7, 8)

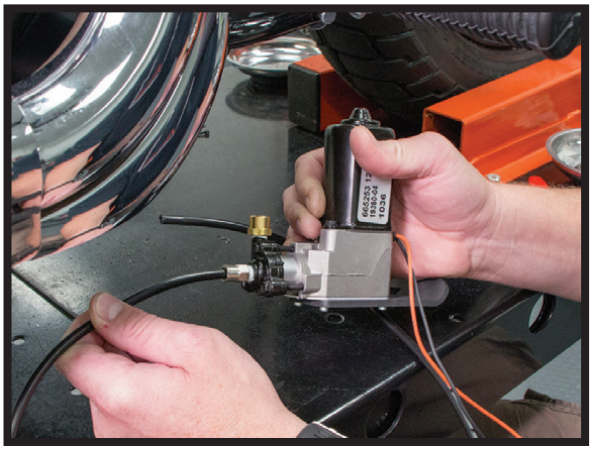

FIGURE 7

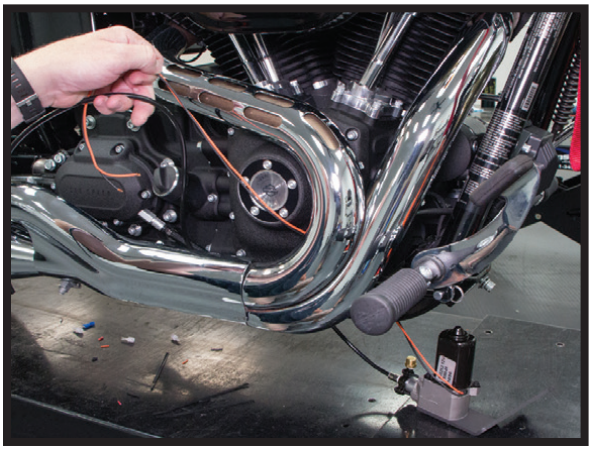

FIGURE 8

5. SECURE THE PUMP ASSEMBLY TO THE FRAME USING THE MOTOR MOUNT BOLTS AS DEPICTED BELOW. (FIGURES 9, 10)

FIGURE 9

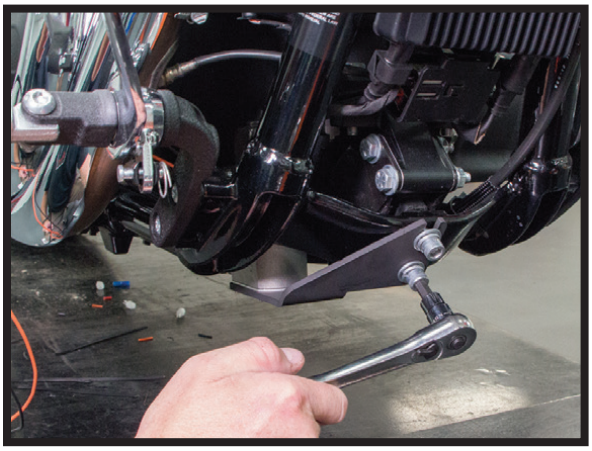

FIGURE 10

6. WRAP THE PUMP WIRES WITH THE SPLIT LOOM AND ZIP TIES. CUT THE RING TERMINAL OFF OF THE BLACK PUMP WIRE. USING THE INCLUDED WIRES AND TERMINALS, MAKE EXTENSIONS FOR BOTH THE RED AND BLACK PUMP WIRES. (FIGURES 11, 12)

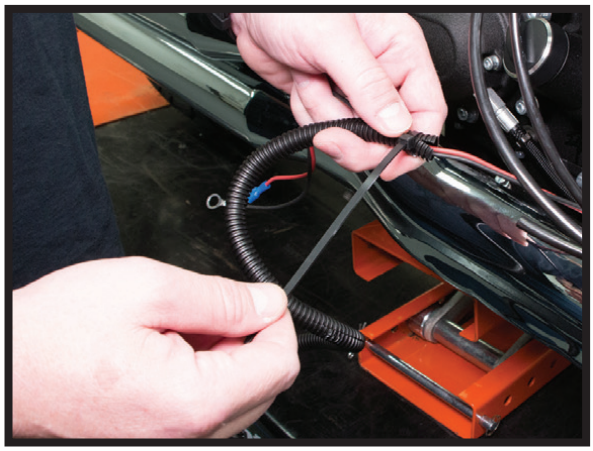

FIGURE 11

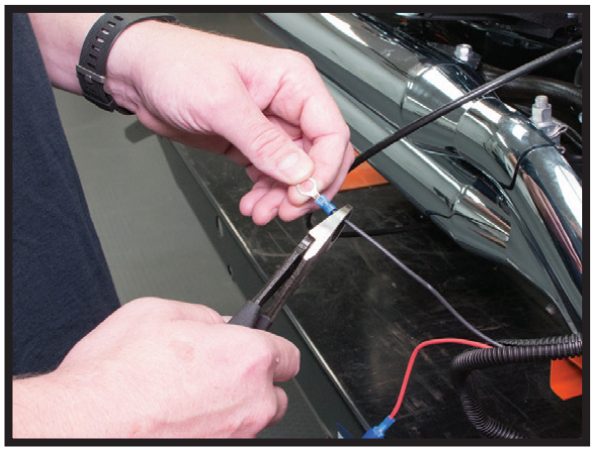

FIGURE 12

7. TRIM THE BLACK PUMP WIRE EXTENSION TO LENGTH. CRIMP A RING TERMINAL TO THE END AND GROUND TO THE LOCATION SHOWN BELOW. (FIGURES 13, 14)

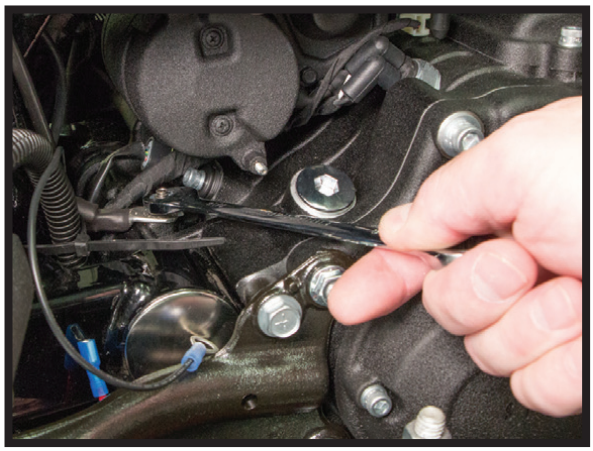

FIGURE 13

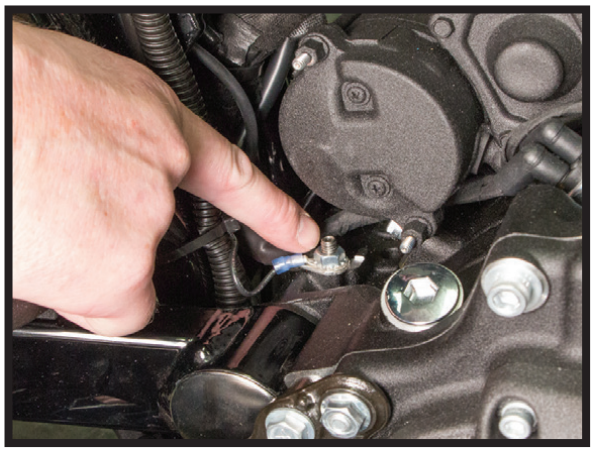

FIGURE 14

8. ROUTE THE RED PUMP WIRE AND THE 1/4" HOSE UP BEHIND THE BATTERY BOX. THEN, REINSTALL THE BATTERY BOX BACK INTO THE FRAME. REFER TO THE WIRING DIAGRAM IN THE BACK OF THIS MANUAL. YOU WILL WANT TO ROUTE THE POSITIVE AND GROUND WIRES THROUGH THE BACK OF THE BOX BEFORE REINSTALLING THE BATTERY. (FIGURES 15, 16)

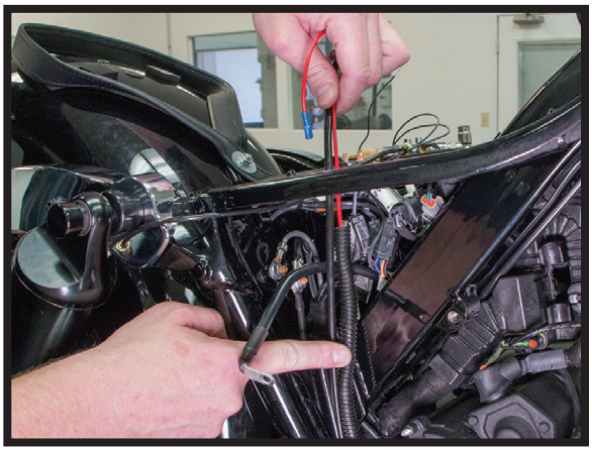

FIGURE 15

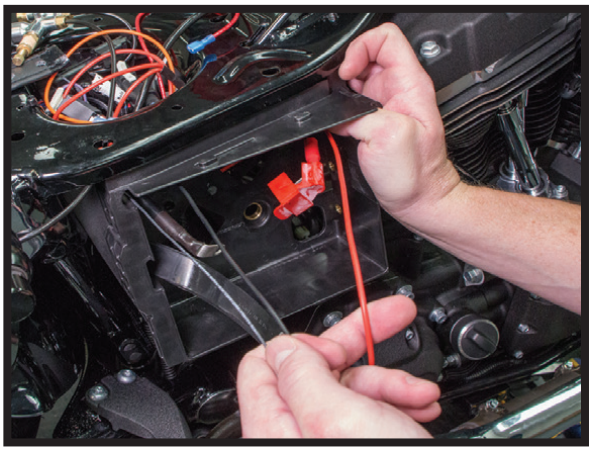

FIGURE 16

9. REMOVE THE OE SHOCKS AND THE UPPER SHOCK MOUNT POSTS. SAVE THE NUT AND WASHER FROM THE POST; YOU WILL NEED TO REUSE THESE. (FIGURES 17, 18)

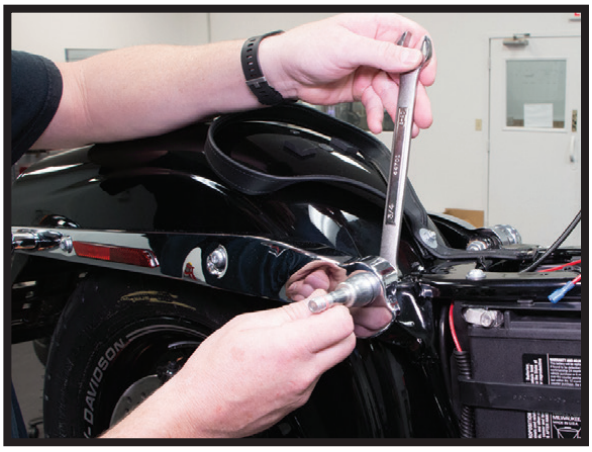

FIGURE 17

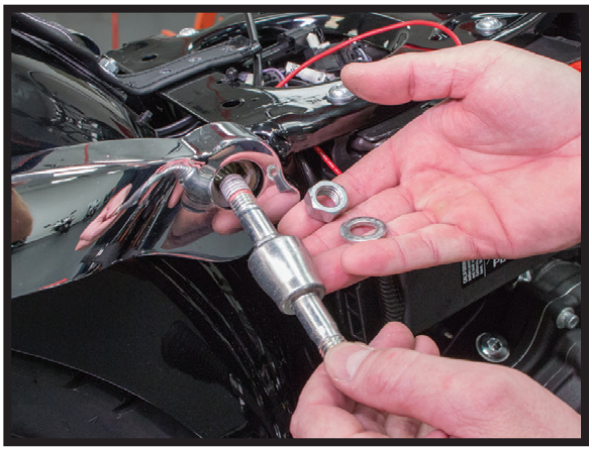

FIGURE 18

10. CUT THE LENGTH OF THE 4MM AIR HOSE IN HALF. SCREW A VOSS FITTING INTO THE RIGHT AIR SHOCK. REMOVE THE WHITE PLUG. INSERT ONE OF THE LENGTHS OF 4MM AIR HOSE UNTIL YOU FEEL IT SEAT. REMOVE THE FITTING FROM THE SHOCK AND CONFIRM THAT THE KEEPER IS ON THE HOSE. SCREW THE FITTING BACK INTO THE SHOCK AND SNUG TIGHT WITH A 10MM WRENCH. (FIGURES 19, 20, 21)

FIGURE 19

FIGURE 20

FIGURE 21

11. DEPENDING ON YOUR EXHAUST CONFIGURATION, YOU MAY NEED TO MOUNT THE RIGHT SHOCK TO THE MOTORCYCLE FIRST. START WITH THE LOWER BOLT. APPLY BLUE LOCK-TITE TO THE INCLUDED BOLT. LINE UP THE SHOCK WITH THE UPPER SHOCK MOUNTING HOLE AND TIGHTEN THE LOWER SHOCK BOLT TO THE FACTORY RECOMMENDED TORQUE. (FIGURES 22, 23)

FIGURE 22

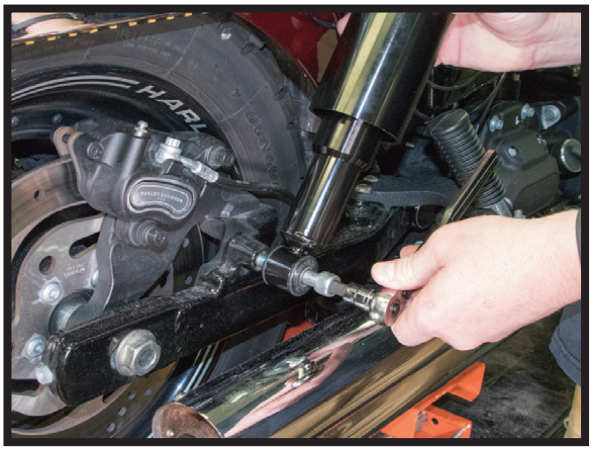

FIGURE 23

12. PUT THE INCLUDED BOLT CAP ON THE BOLT. YOU MAY NEED TO LUBRICATE THE INTERNAL O-RING WITH WATER TO ALLOW THE CAP TO SLIDE ON EASILY. (FIGURES 24, 25)

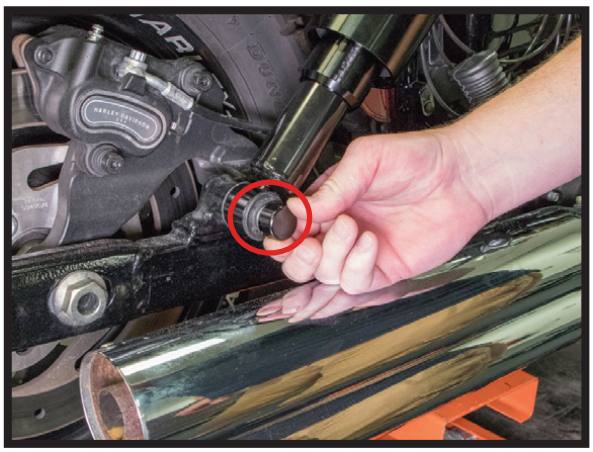

FIGURE 24

FIGURE 25

13. JACK THE MOTORCYCLE UP TO ALIGN THE UPPER SHOCK EYE TO THE MOUNT HOLE IN THE FRAME. USING THE INCLUDED LONGER BOLT AND SPACER, ATTACH THE UPPER SHOCK EYE TO THE FRAME AS SHOWN BELOW. APPLY BLUE LOCK-TITE TO THE BOLT BEFORE TIGHTENING THE NUT TO THE FACTORY RECOMMENDED TORQUE. (FIGURES 26, 27)

FIGURE 26

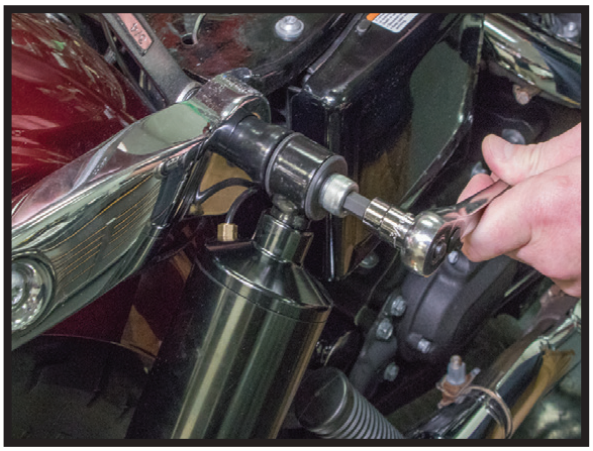

FIGURE 27

14. TRIM THE 1/4" HOSE TO LENGTH AND INSERT INTO THE AIR MANIFOLD. TRIM THE 4MM LINES TO LENGTH. FOLLOWING THE SAME PROCEDURES AS IN STEP 10, ATTACH THE AIR LINES TO THE MANIFOLD. (FIGURES 28, 29)

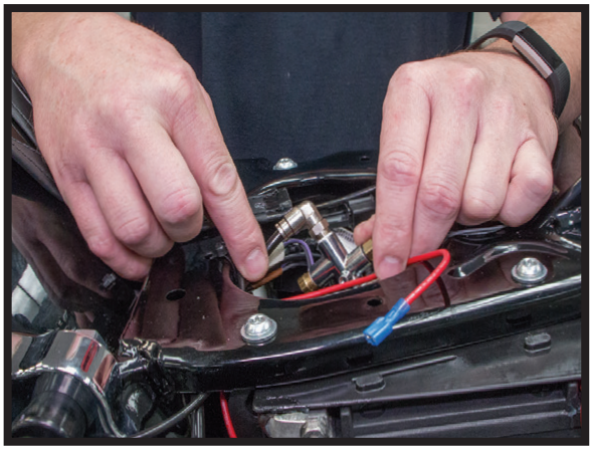

FIGURE 28

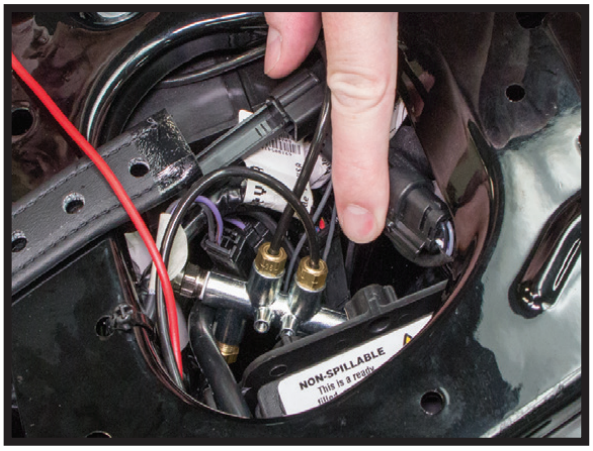

FIGURE 29

15. LOCATE A SUITABLE MOUNTING LOCATION FOR THE INCLUDED TOGGLE SWITCH. MOUNT IN A LOCATION THAT WILL PROVIDE EASE OF ACCESS. SUCH AS BEHIND OF THE REAR CYLINDER ON THE LEFT SIDE COVER. ROUTE THE SWITCH WIRES TO THE MANIFOLD. USING THE WIRING DIAGRAM IN THE BACK OF THIS MANUAL COMPLETE THE ELECTRICAL CONNECTIONS. (FIGURE 30)

FIGURE 30

16. BEFORE PUTTING THE MOTORCYCLE COMPLETELY BACK TOGETHER, IT IS RECOMMENDED THAT YOU AIR UP THE SYSTEM. SPRAY ALL THE HOSE CONNECTIONS AND FITTINGS WITH SOAPY WATER. IF THERE ARE ANY AIR LEAKS IN THE SYSTEM BUBBLES WILL FORM AT THESE LOCATIONS.

17. THE ORIENTATION OF THE VOSS FILL PORT CAN BE CHANGED IN RELATION TO THE SHOCK MOUNTING EYELETS. UNSCREW AND REMOVE THE SHOCK CAN. SNUG THE LOWER SHOCK EYE IN A VISE. GRASPING THE LOWER PORTION OF THE AIR SPRING AND TWIST IT ON THE SHOCK BODY UNTIL THE DESIRED CLOCKING IS REACHED. FLIP THE SHOCK IN THE VISE. THIS TIME GRIPPING THE OTHER END OF THE AIR SPRING. TWIST TO REALIGN THE SHOCK EYES. (FIGURES 31, 32, 33, 34)

FIGURE 31

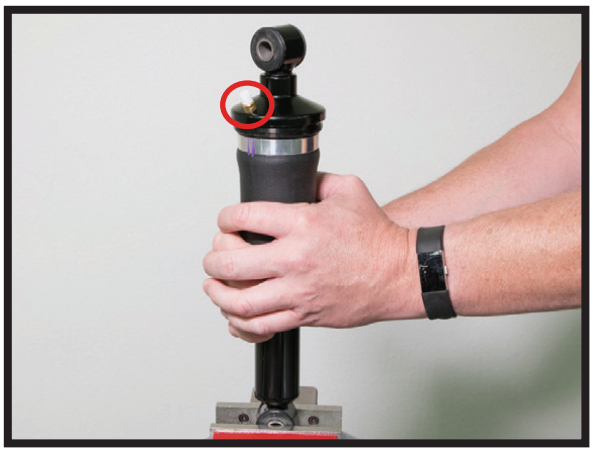

FIGURE 32

FIGURE 33

FIGURE 34

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