

# Installation Manual

KIT # MC-3585, MC-3586  
2018-CURRENT  
HARLEY-DAVIDSON®  
SOFTAIL/FXDR 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](mailto:techassistance@arnottinc.com). (In the EU please call +31 (0)73 7850 580 or email [info@arnotteurope.com](mailto:info@arnotteurope.com))

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## BILL OF MATERIALS MC-3585 - HARLEY-DAVIDSON SOFTAIL, BLACK

### 20-15878 - INFLATION KIT, HARLEY-DAVIDSON SOFTAIL CONTAINS:

#### PARTS LIST

| QTY | PART NO.       | DESCRIPTION                        |
|-----|----------------|------------------------------------|
| 1   | 21-3110        | MICRO RELAY ASSEMBLY W/ HARNESS    |
| 1   | 21-7715        | 4MM VOSS FITTING ACCESSORY KIT     |
| 1   | 21-7271        | HARNESS CABLE TIES ACCESSORY KIT   |
| 1   | 21-7272        | SPLIT LOOM                         |
| 1   | 21-2698        | UNIVERSAL FUSE HOLDER ASSEMBLY KIT |
| 1   | 21-12062       | SOFTAIL COMPRESSOR ASSEMBLY        |
| 1   | 20-12211       | SOFTAIL MOUNT KIT                  |
| 1   | 11-MC-SOFTAIL3 | MC-3585 & 3586 - INSTALL MANUAL    |

### 21-15824-B - SOFTAIL SHOCK KIT CONTAINS:

#### PARTS LIST

| QTY | PART NO. | DESCRIPTION       |
|-----|----------|-------------------|
| 1   | 21-15820 | SHOCK ASSY, BLACK |

### HANDLE BAR SWITCH KIT CONTAINS:

#### PARTS LIST

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

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## BILL OF MATERIALS MC-3586 - HARLEY-DAVIDSON SOFTAIL, CHROME

### 20-15878 - INFLATION KIT, HARLEY-DAVIDSON SOFTAIL CONTAINS:

#### PARTS LIST

| QTY | PART NO.       | DESCRIPTION                        |
|-----|----------------|------------------------------------|
| 1   | 21-3110        | MICRO RELAY ASSEMBLY W/ HARNESS    |
| 1   | 21-7715        | 4MM VOSS FITTING ACCESSORY KIT     |
| 1   | 21-7271        | HARNESS CABLE TIES ACCESSORY KIT   |
| 1   | 21-7272        | SPLIT LOOM                         |
| 1   | 21-2698        | UNIVERSAL FUSE HOLDER ASSEMBLY KIT |
| 1   | 21-12062       | SOFTAIL COMPRESSOR ASSEMBLY        |
| 1   | 20-12211       | SOFTAIL MOUNT KIT                  |
| 1   | 11-MC-SOFTAIL3 | MC-3585 & 3586 - INSTALL MANUAL    |

### 21-15824-B - SOFTAIL SHOCK KIT CONTAINS:

#### PARTS LIST

| QTY | PART NO. | DESCRIPTION       |
|-----|----------|-------------------|
| 1   | 21-15820 | SHOCK ASSY, BLACK |

### HANDLE BAR SWITCH KIT CONTAINS:

#### PARTS LIST

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

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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.*

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 REAR FENDER PANEL TO ACCESS SEAT MOUNT BOLTS. REMOVE THE SEAT MOUNT BOLTS. REMOVE THE SEAT. (FIGURES 1, 2, 3)



FIGURE 1



FIGURE 2



FIGURE 3

2. DISCONNECT AND CLEAR ANY WIRING HARNESS LEADS ATTACHED TO THE REAR SUB-FRAME AND FENDER. (FIGURE 4)

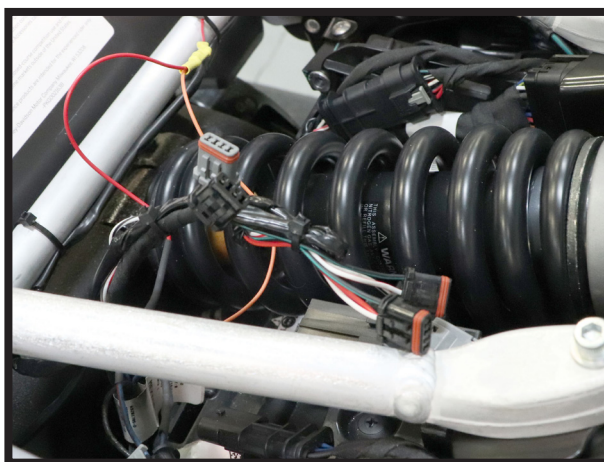


FIGURE 4

3. REMOVE LEFT AND RIGHT SIDE REAR FENDER PANELS (FIGURES 5, 6, 7, 8)



FIGURE 5



FIGURE 6



FIGURE 7

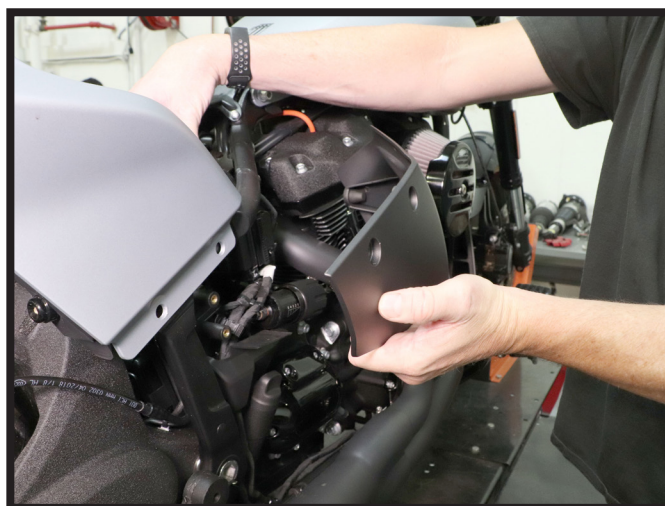


FIGURE 8

4. REMOVE REAR SUB-FRAME & FENDER. (FIGURES 9, 10, 11, 12)

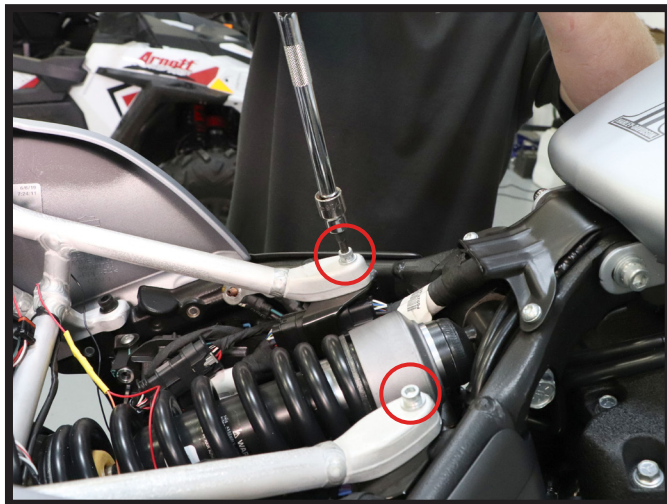


FIGURE 9

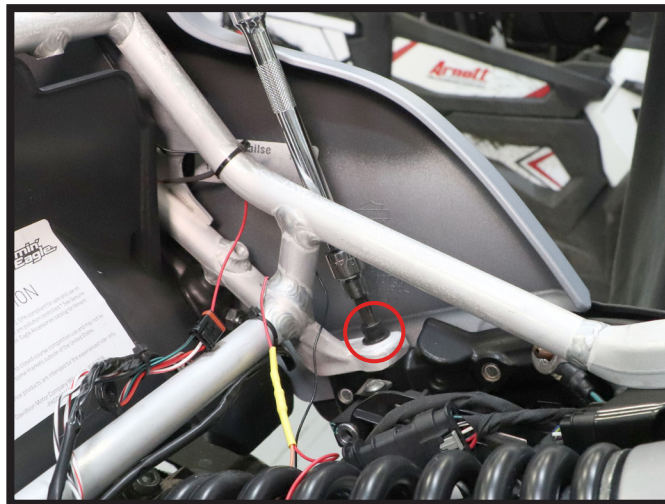


FIGURE 10

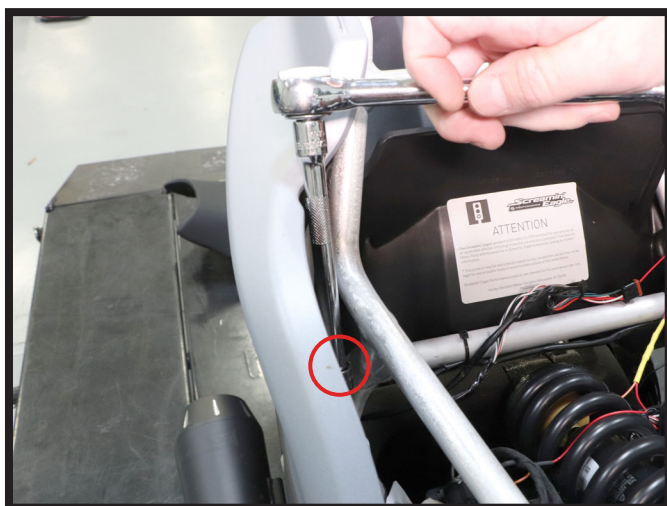


FIGURE 11



FIGURE 12

5. PLACE AND RAISE A CENTER STAND MID-FRAME TO RELIEVE PRESSURE ON THE SHOCK. (FIGURE 13)

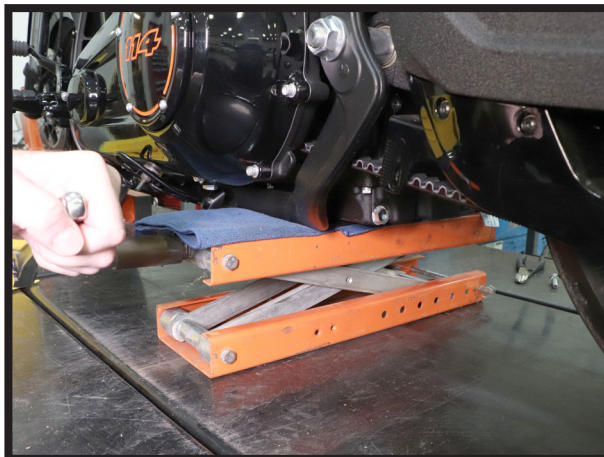


FIGURE 13

6. REMOVE THE ABS BRACKET. (FIGURES 14, 15)

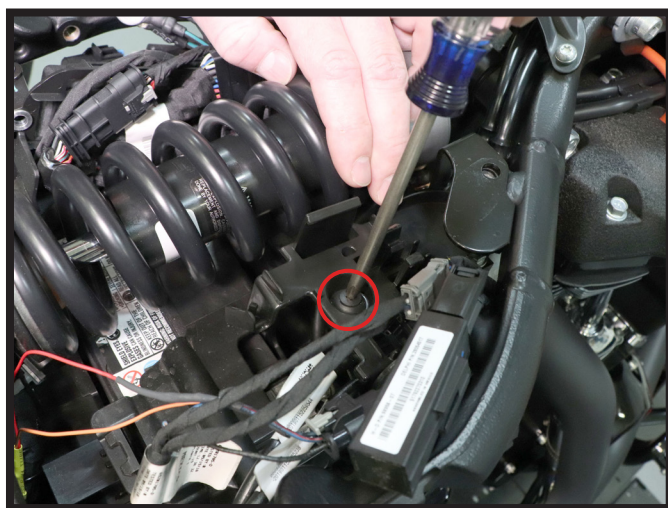


FIGURE 14

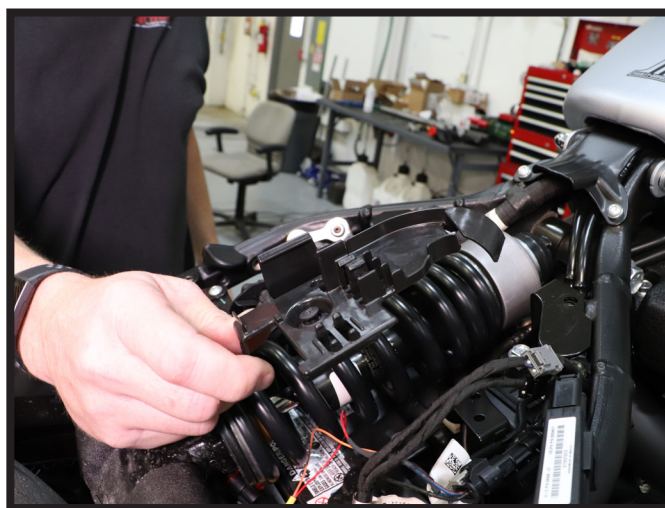


FIGURE 15

7. UNROUTE THE PRE-LOAD ADJUSTER FOR REMOVAL. (FIGURES 16, 17, 18, 19, 20, 21)



FIGURE 16



FIGURE 17

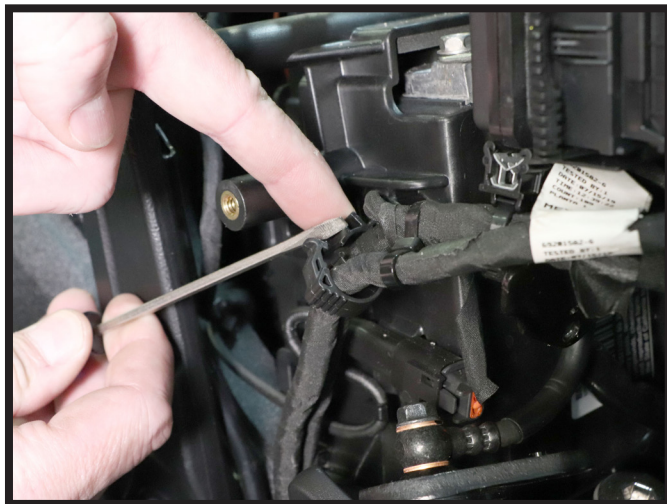


FIGURE 18



FIGURE 19



FIGURE 20

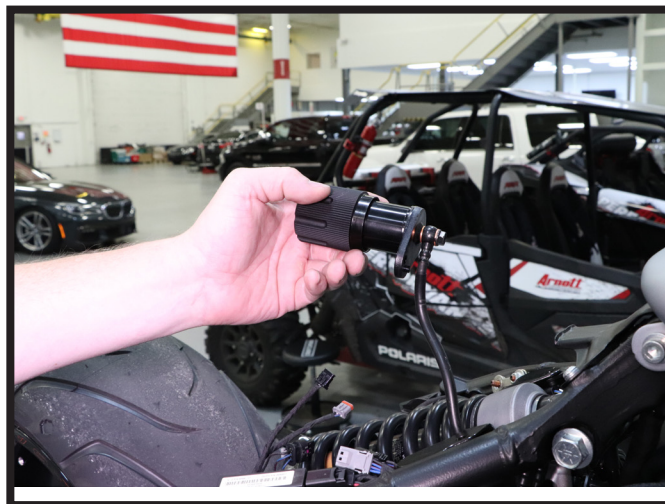


FIGURE 21

8. LOOSEN PINCH BOLT AND REMOVE LOWER SHOCK BOLT. (FIGURES 22, 23)

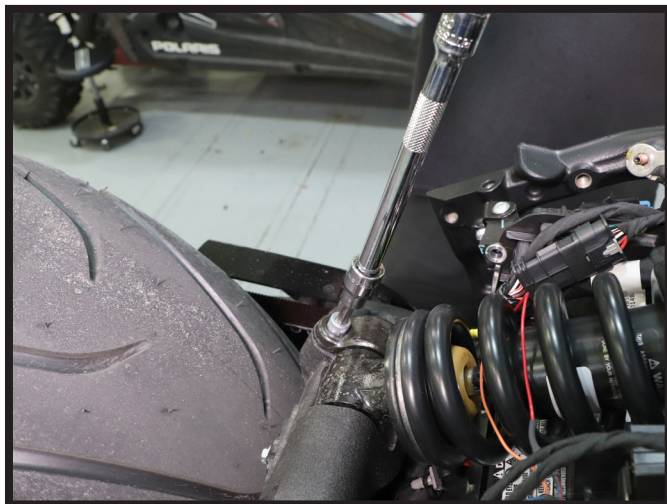


FIGURE 22

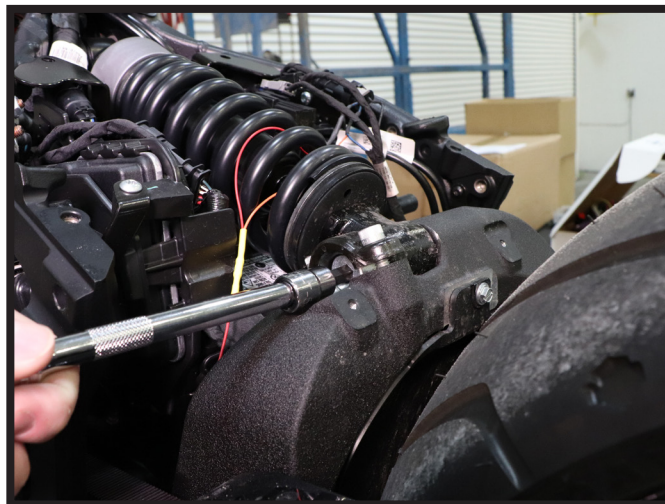


FIGURE 23

9. REMOVE UPPER SHOCK BOLT AND REMOVE SHOCK. (FIGURES 24, 25)



FIGURE 24



FIGURE 25

10. LIFT REAR TIRE UNTIL SWINGARM IS BARLEY TOUCHING FRAME.  
BUNDLE THE COMPRESSOR WIRES IN THE SPLIT LOOM TO PREPARE FOR INSTALL. (FIGURES 26, 27)



FIGURE 26

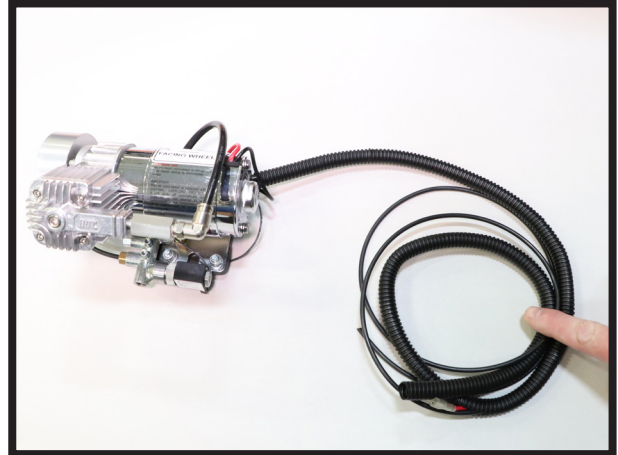


FIGURE 27

11. LOCATE THE EXISTING THREADED HOLES. APPLY BLUE LOCK TIGHT TO PROVIDED MOUNT BOLTS.  
MOUNT THE COMPRESSOR ASSEMBLY TO THE THREADED HOLES. (FIGURES 28, 29, 30)

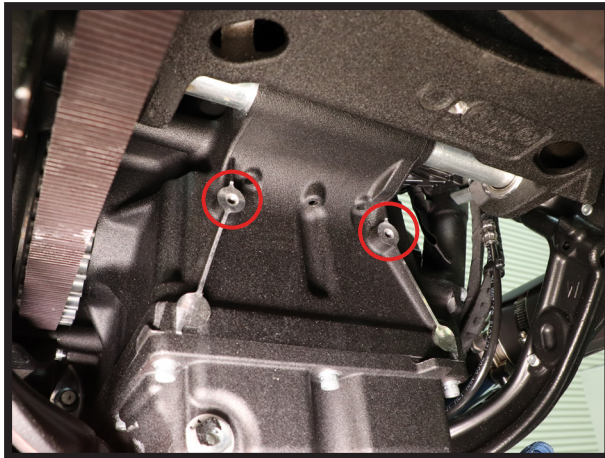


FIGURE 28



FIGURE 29



FIGURE 30

12. **NOTE: WHEN MOUNTED ON MOTORCYCLE, AIR FILTER VENT MUST BE POINTING TOWARD THE GROUND.**  
(FIGURE 31)

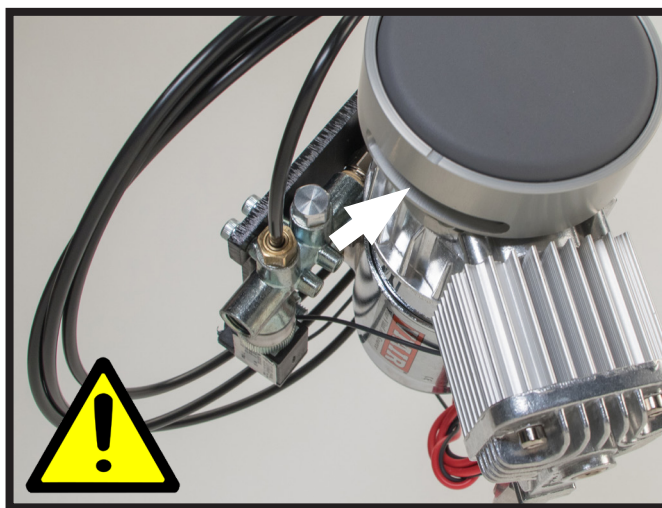


FIGURE 31

13. RUN BUNDLED SPLIT LOOM AND 4MM AIR LINE UP THE RIGHT SIDE OF FRAME. (FIGURE 32)

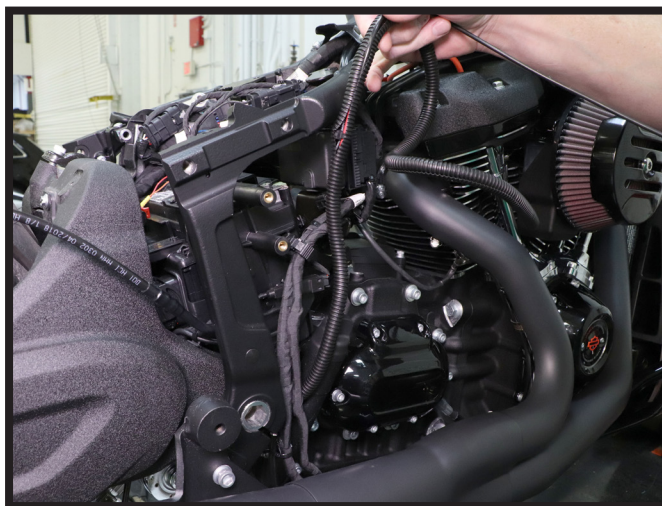


FIGURE 32

14. REMOVE THE LOWER CLUTCH PERCH BOLT. REUSING THE SCREW AND WASHER, ATTACH THE HANDLEBAR SWITCH TO THE PERCH WITH THE WASHER BETWEEN THE SWITCH MOUNT AND PERCH. ROUTE THE WIRES DOWN THE HANDLEBARS OR THE CLUTCH CABLE, UNDER THE FUEL TANK BACK TOWARDS THE BATTERY. FOLLOWING THE WIRING DIAGRAM IN THE BACK OF THIS MANUAL, COMPLETE THE ELECTRICAL CONNECTIONS. BUNDLE & TUCK ELECTRICAL COMPONENTS IN FRONT OF THE BATTERY. (FIGURES 33, 34, 35, 36)



FIGURE 33



FIGURE 34



FIGURE 35

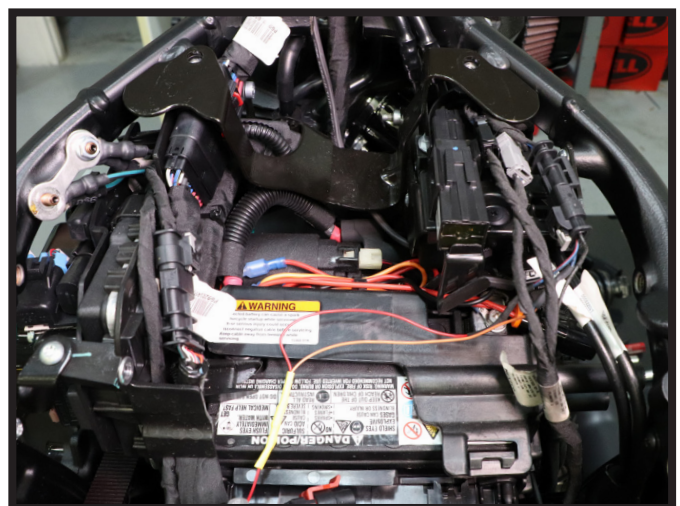


FIGURE 36

15. SECURE WIRE LOOM TO WIRE HARNESS USING SUPPLIED ZIP TIES, RUN AIR HOSE TOWARDS UPPER SHOCK MOUNTING BOLT. TRIM THE AIR HOSE TO LENGTH. (FIGURE 37)



FIGURE 37

16. SCREW A VOSS FITTING INTO THE AIR SHOCK, FINGER TIGHT. THEN REMOVE THE WHITE PIN. INSERT THE 4MM AIR HOSE INTO THE FITTING UNTIL YOU FEEL IT SEAT. REMOVE THE FITTING FROM THE SHOCK AND CONFIRM THE KEEPER IS ON THE HOSE. REINSERT THE FITTING INTO THE SHOCK AND SNUG TIGHT WITH A WRENCH. (FIGURES 38, 39, 40, 41)



FIGURE 38



FIGURE 39



FIGURE 40

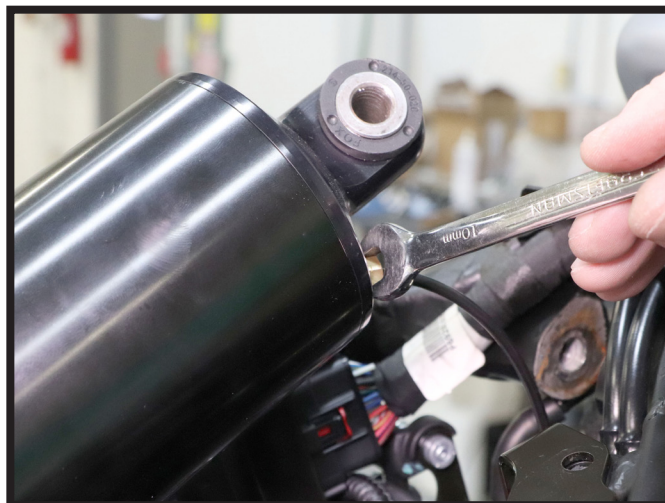


FIGURE 41

17. INSTALL THE SHOCK IN THE MOTORCYCLE WITH THE AIR LINE FACING DOWN TOWARDS THE ENGINE (FIGURE 42)



FIGURE 42

18. TIGHTEN THE UPPER AND LOWER SHOCK BOLTS. (FIGURES 43, 44, 45)



FIGURE 43

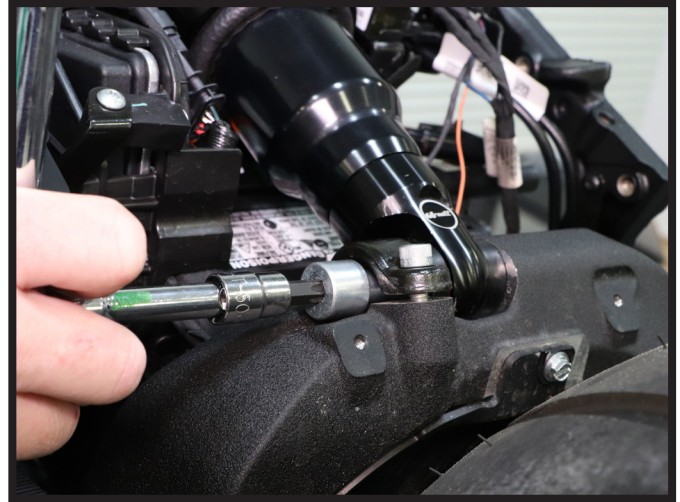


FIGURE 44

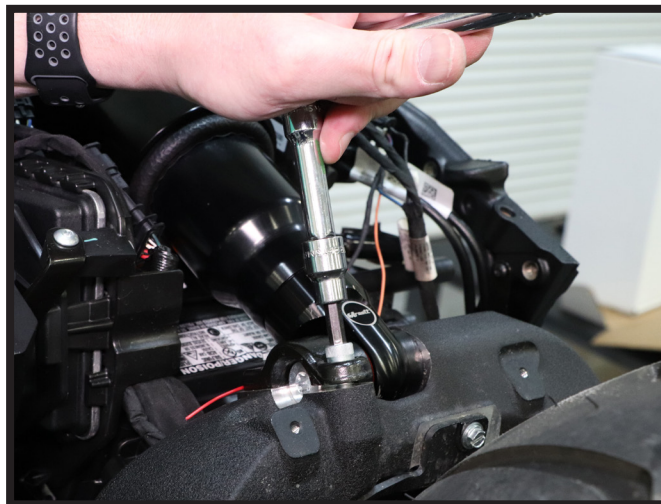


FIGURE 45

19. REINSTALL THE SEAT BRACKET, REAR SUB-FRAME/FENDER, AND SIDE PANELS (FIGURES 46, 47)



FIGURE 46

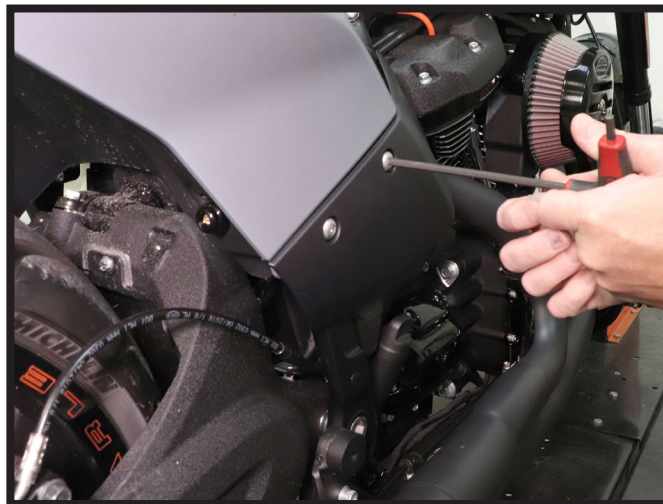


FIGURE 47

20. THE CLOCKING OF THE SHOCK EYES CAN BE CHANGED TO SUIT THE OWNER'S PREFERENCE. 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 48, 49)

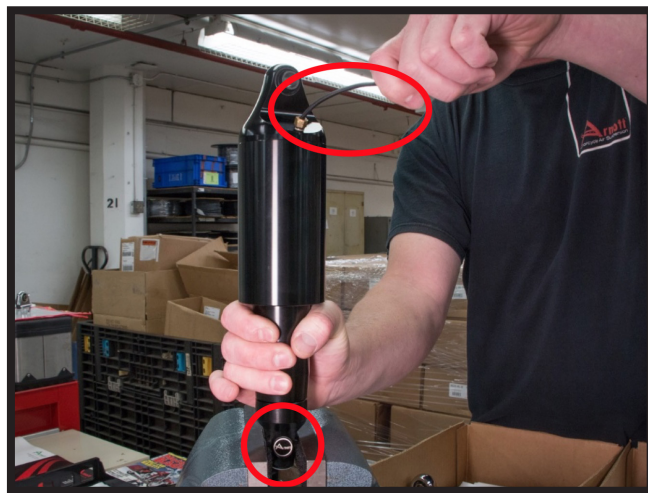


FIGURE 48

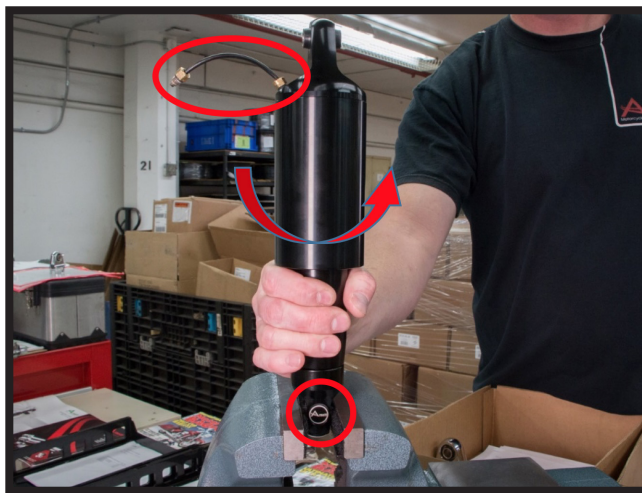
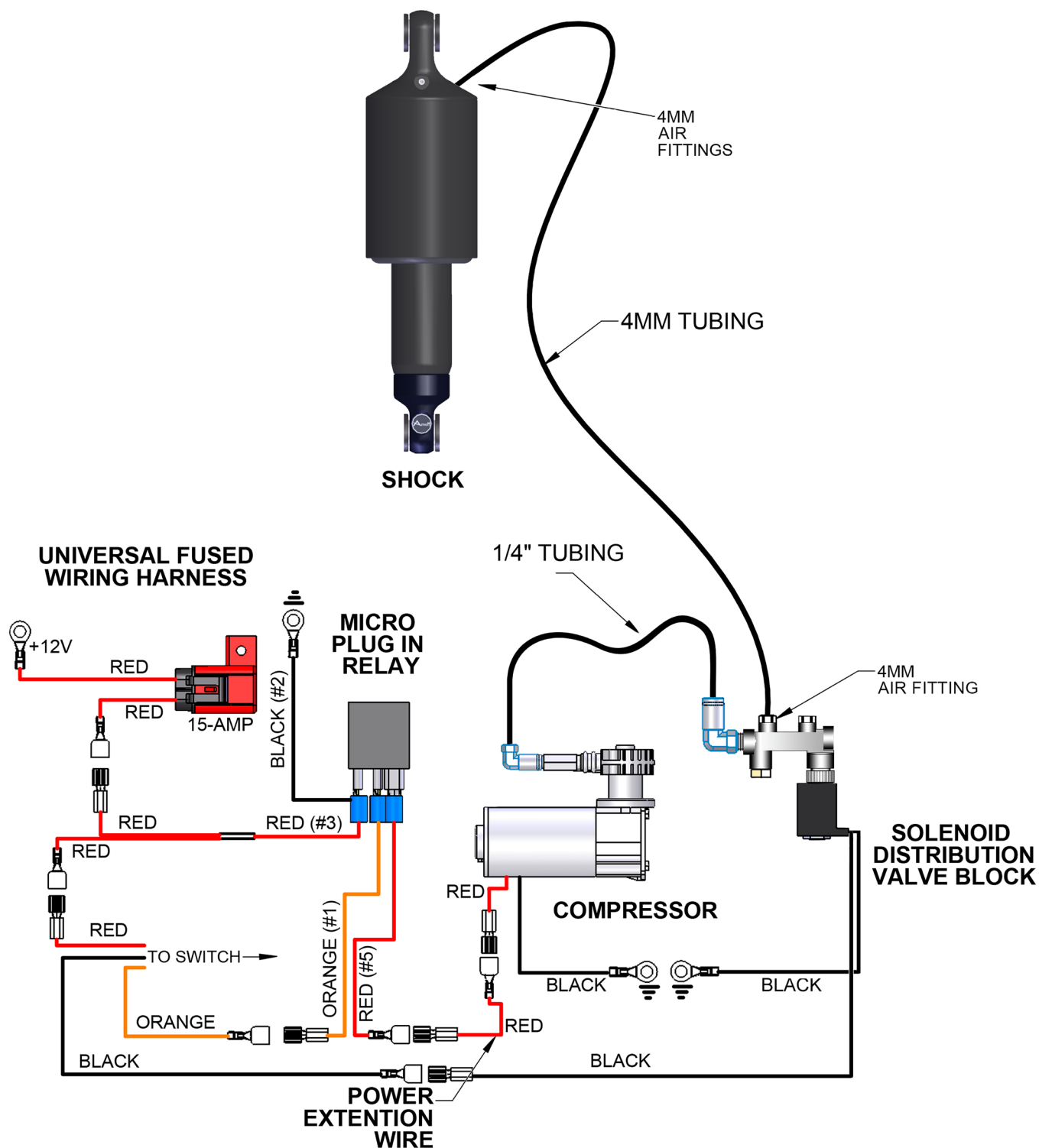


FIGURE 49

The terms Harley-Davidson®, Harley®, H-D®, Buell®, Softail®, Dyna®, V-Rod®, Tri-Glide®, 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 on-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 manufacturer's warranty. These directions are accurate at time of publication. Arnott Inc. reserves the right to revise specifications without notice.

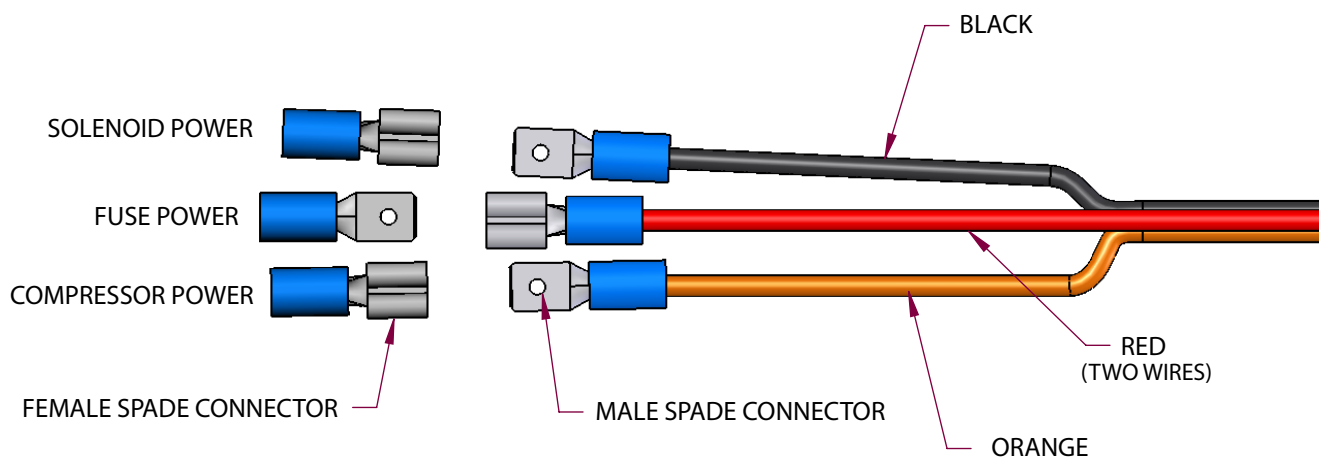
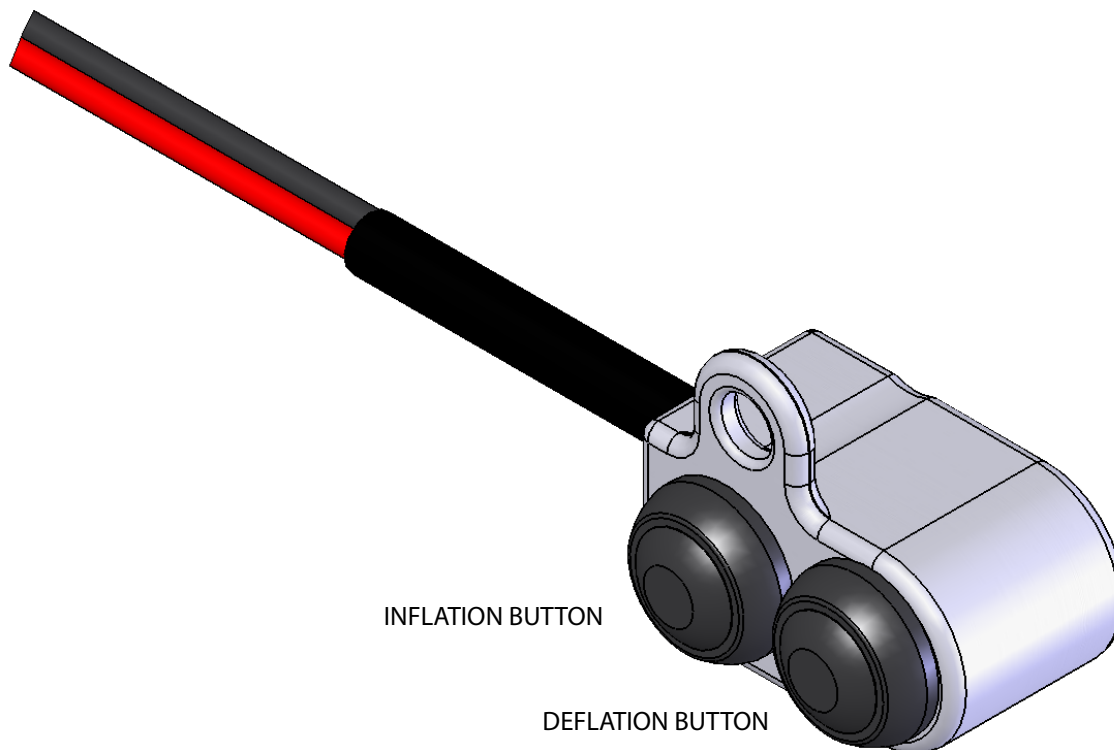
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- AS SHOWN IN ILLUSTRATION ABOVE;
1. CUT SWITCH WIRING TO APPROPRIATE LENGTH.
  2. CRIMP THE TWO MALE SPADE CONNECTORS TO THE ORANGE WIRE AND TO THE BLACK WIRE.
  3. CRIMP THE FEMALE SPADE CONNECTOR TO THE DOUBLE RED WIRE.