

# **INSTALLATION MANUAL**

## MC-3585/MC-3586 Arnott Ultimate Ride Kit 18-Current Harley-Davidson® Softail®/FXDR Series



## **ELEVATE YOUR RIDE.**<sup>®</sup>

## CONGRATULATIONS ON YOUR PURCHASE OF AN ARNOTT<sup>®</sup> MOTORCYCLE 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 LLC are proud to offer a high quality product with all the technical support you need. Thank you for your confidence in us and our product.



### Download your TÜV certification here:

### WWW. ARNOTTCYCLES. EU/PAGES/TUV-CERTIFICATES

According to TÜV regulation, an air pressure gauge must be installed together with the Arnott Motorcycle kit. Arnott recommends using their digital pressure gauge K-3114 or K-3115 with motorcycle kits that have been certified for this purpose.

### **GENERAL INFORMATION**

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, certified motorcycle 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.

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 and www. arnottcycles. eu.



#### 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.

- Avoid damage to air lines and electrical components.
- Removal and installation is only to be performed by fully qualified personnel.

#### CAUTION:

This manual is meant to provide basic installation guidelines which can help prevent damage to the motorcycle and air suspension system. 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.

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.

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.

## COMPONENTS

### MC-3585 — 18-CURRENT HARLEY-DAVIDSON SOFTAIL/FXDR SERIES — BLACK

| 20-15878 INFLATION KIT |                                    |     |
|------------------------|------------------------------------|-----|
| PART NO.               | DESCRIPTION                        | QTY |
| 29-13435               | POTTED RELAY                       | 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    | 1   |

| 21-15824-B SHOCK KIT |                   |     |
|----------------------|-------------------|-----|
| PART NO.             | DESCRIPTION       | QTY |
| 21-15820             | SHOCK ASSY, BLACK | 1   |

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

The use and installation of any Arnott Air Suspension product or kit may adversely affect or void your 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.

## COMPONENTS

### MC-3586 — 18-CURRENT HARLEY-DAVIDSON SOFTAIL/FXDR SERIES — CHROME

| 20-15878 INFLATION KIT |                                    |     |
|------------------------|------------------------------------|-----|
| PART NO.               | DESCRIPTION                        | QTY |
| 29-13435               | POTTED RELAY                       | 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    | 1   |

| 21-15824-B SHOCK KIT |                   |     |
|----------------------|-------------------|-----|
| PART NO.             | DESCRIPTION       | QTY |
| 21-15820             | SHOCK ASSY, BLACK | 1   |

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

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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 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

### Arnott Ultimate Ride Kit <u>18-Cur</u>rent Harley-Davidson<sup>®</sup> Softail<sup>®</sup>/FXDR Series



**FIGURE 7** 

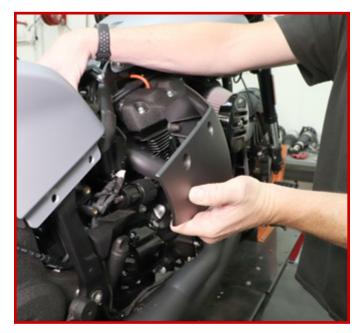


FIGURE 8

4. Remove rear sub-frame & fender. (Figures 9, 10, 11, 12)

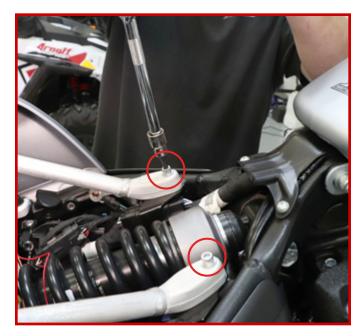


FIGURE 9



**FIGURE 10** 

### Arnott Ultimate Ride Kit 18-Current Harley-Davidson<sup>®</sup> Softail<sup>®</sup>/FXDR Series

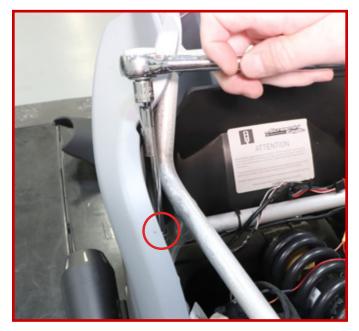


FIGURE 11



FIGURE 12

5. Place and raise a center stand mid-frame to relieve pressure on the shock. (Figure 13)



**FIGURE 13** 

Arnott Ultimate Ride Kit 18-Current Harley-Davidson<sup>®</sup> Softail<sup>®</sup>/FXDR Series

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)



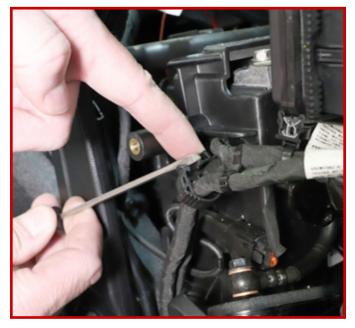
**FIGURE 16** 



**FIGURE 17** 

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### Arnott Ultimate Ride Kit Installation Manual 18-Current Harley-Davidson<sup>®</sup> Softail<sup>®</sup>/FXDR Series



**FIGURE 18** 



**FIGURE 19** 



FIGURE 20



FIGURE 21

8. Loosen pinch bolt and remove lower shock bolt. (Figures 22, 23)

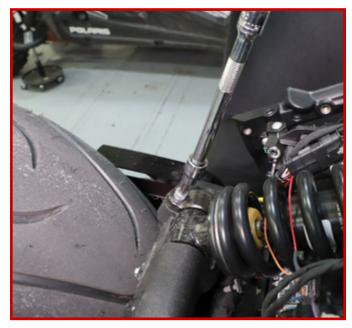


FIGURE 22

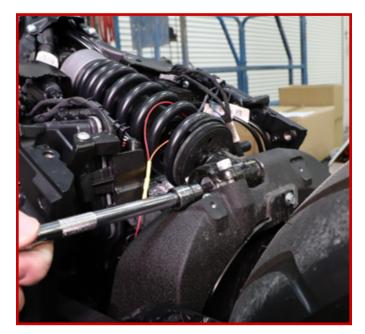


FIGURE 23



FIGURE 25

FIGURE

9. Remove upper shock bolt and remove shock. (Figures 24, 25)

FIGURE 24

### Arnott Ultimate Ride Kit 18-Current Harley-Davidson<sup>®</sup> Softail<sup>®</sup>/FXDR Series

### 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

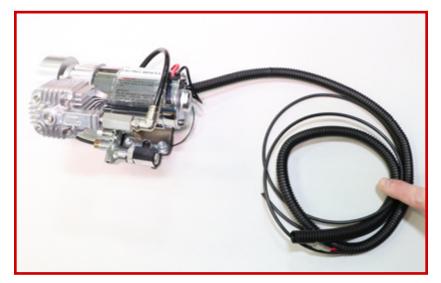


FIGURE 27

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

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

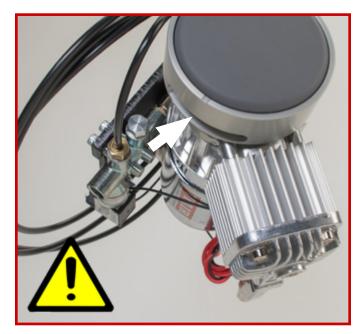


FIGURE 31

12. Run bundled split loom and 4mm air line up the right side of frame. (Figure 32)

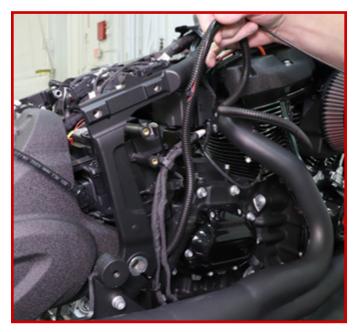


FIGURE 32

13. 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

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FIGURE 35

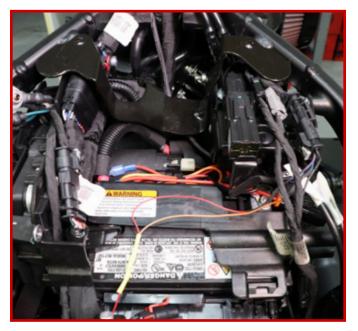


FIGURE 36



14. 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

15. 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

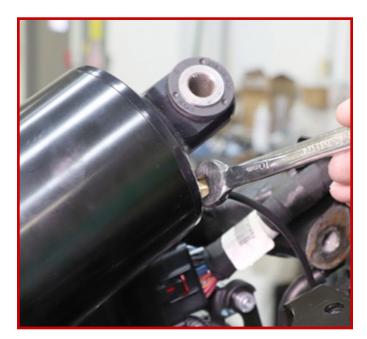


FIGURE 41

16. Install the shock in the motorcycle with the air line facing down towards the engine. (Figure 42)



FIGURE 42

17. Tighten the upper and lower shock bolts. (Figures 43, 44, 45)



FIGURE 43

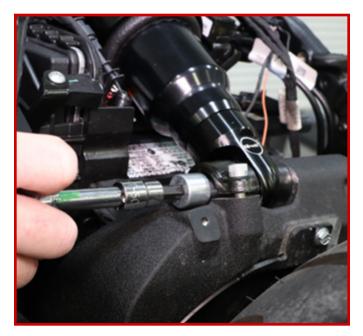


FIGURE 44

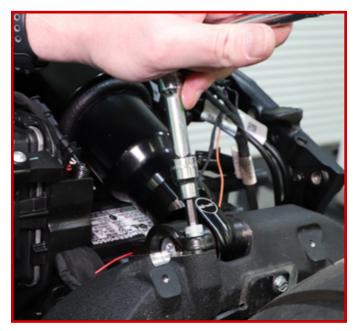


FIGURE 45

18. Reinstall the seat bracket, rear sub-frame/fender, and side panels. (Figures 46, 47)



FIGURE 46

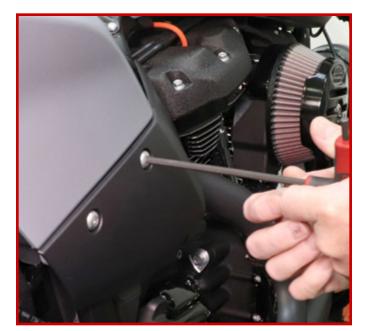


FIGURE 47

### Arnott Ultimate Ride Kit 18-Current Harley-Davidson<sup>®</sup> Softail<sup>®</sup>/FXDR Series

19. The clocking of the shock eyes can be adjusted. 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)

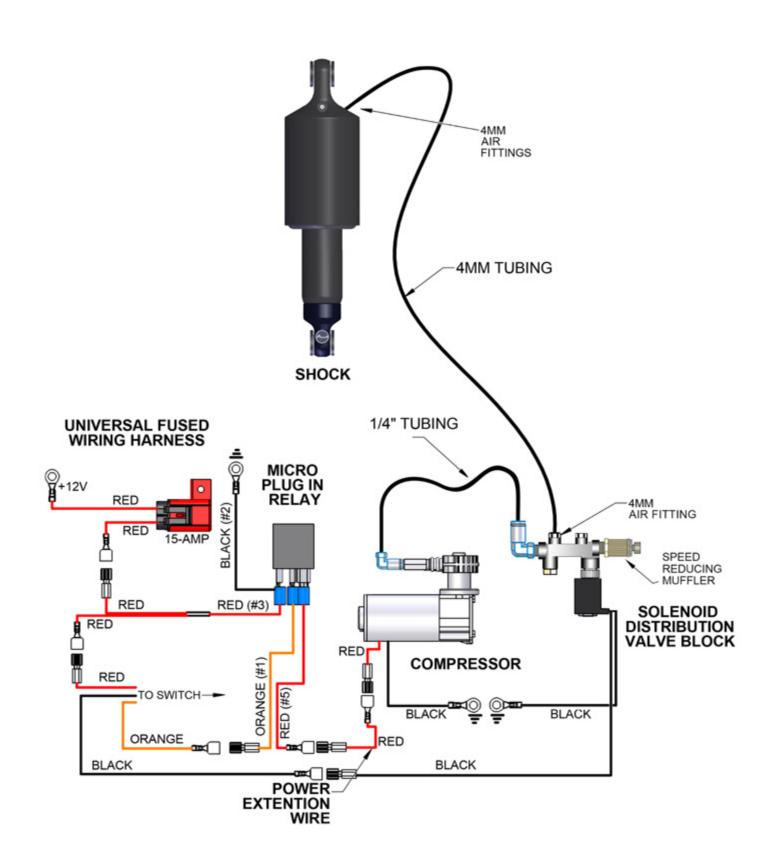


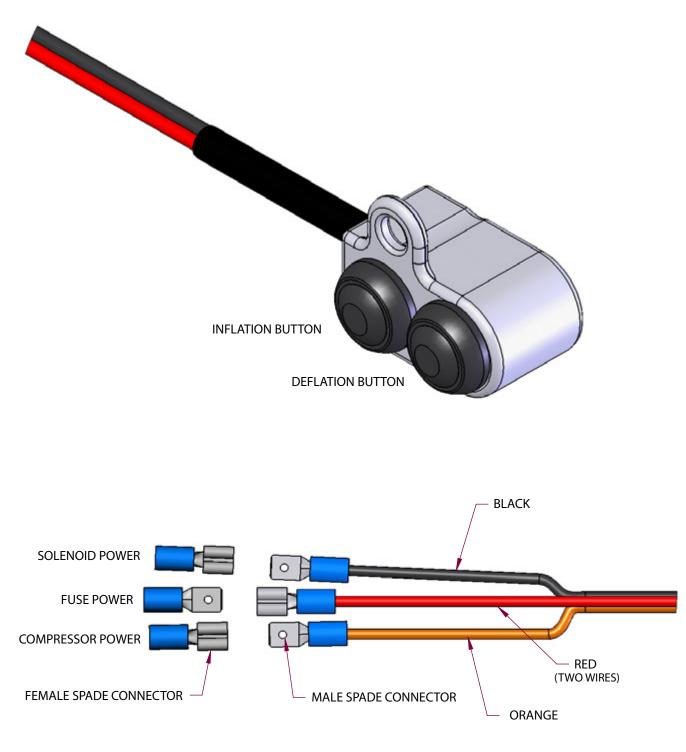
**FIGURE 48** 



FIGURE 49

The terms Harley-Davidson<sup>®</sup>, Harley<sup>®</sup>, H-D<sup>®</sup>, Buell<sup>®</sup>, Softail<sup>®</sup>, Dyna<sup>®</sup>, V-Rod<sup>®</sup>, Tri-Glide<sup>®</sup>, and Sportster<sup>®</sup> 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<sup>®</sup> 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.





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.



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