ELEVATE YOUR RIDE.
CONGRATULATIONS ON YOUR PURCHASE OF AN ARNOTT® 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.

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

#### 20-17892 INFLATION KIT
**MC-3905/MC-3906**

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<tr>
<td>21-17468</td>
<td>INDIAN CHALLENGER COMPRESSOR ASSEMBLY</td>
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<tr>
<td>21-11617</td>
<td>90 DEGREE PUSH CONNECT MANIFOLD ASSY</td>
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<tr>
<td>29-13435</td>
<td>POTTED RELAY</td>
<td>1</td>
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<tr>
<td>21-7267</td>
<td>1/4&quot; NYLON TUBING ACCESSORY KIT</td>
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<tr>
<td>21-7268</td>
<td>4MM AIRLINE X 6FT ACCESSORY KIT</td>
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</tr>
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<td>21-7715</td>
<td>4MM VOSS FITTING ACCESSORY KIT</td>
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<tr>
<td>21-7271</td>
<td>HARNESS CABLE TIES ACCESSORY KIT</td>
<td>2</td>
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<tr>
<td>21-7272</td>
<td>SPLIT LOOM - 1FT LENGTHS ACCESSORY KIT</td>
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<tr>
<td>21-2698</td>
<td>UNIVERSAL FUSE HOLDER ASSEMBLY KIT</td>
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<tr>
<td>21-7282</td>
<td>COMPRESSOR WIRE EXTENSION ACCESSORY KIT</td>
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<td>11-MC-CHAL</td>
<td>11-MC-CHALLENGER INSTALL MANUAL</td>
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<td>20-17560</td>
<td>INDIAN CHALLENGER MOUNTING KIT, BLACK</td>
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#### SHOCK KIT
**MC-3905/MC-3906**

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#### HANDLE BAR SWITCH
**MC-3905/MC-3906**

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<th>PART NO.</th>
<th>DESCRIPTION</th>
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<td>29-9749</td>
<td>HANDLE BAR SWITCH, BLACK</td>
<td>29-9750</td>
<td>HANDLE BAR SWITCH, CHROME</td>
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</table>
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. Use a scissor jack to lift and support the bike so the rear wheel is just slightly off the ground to aid in ease of shock removal and install. (Figure 1)
2. Remove the left and right side covers, then remove both saddle bags. Ensure that all electrical connections to the bags are disconnected if applicable. (Figures 2, 3, 4, 5, 6)
3. Remove the seat bracket bolts on both sides and remove the seat. (Figures 7, 8)
4. Remove the left passenger foot peg and lower left side cover. (Figures 9, 10, 11, 12)
5. Remove the three (3) coolant reservoir bolts in order to move the reservoir out of the way to access and remove the lower shock mounting bolt. (Figures 13, 14, 15, 16)
6. Remove the two (2) mounting bolts holding the shock preload adjuster. (Figures 17, 18, 19, 20)
7. Remove the upper linkage snap ring and pull out the linkage pin. (Figures 21, 22, 23, 24)
8. Remove the bottom shock mount bolt and nut. The hardware will be reused. (Figures 25, 26)

9. Remove the top shock mount bolt and nut. (Figures 27, 28)
**NOTE:** It is recommended to carefully grind down a side of the flange on the shock’s top mount bolt for ease of removal and later installation of the new shock. The hardware will be reused. (Figure 29)

10. Remove the shock and shock preload adjuster. (Figure 30)
11. Reinstall the three (3) coolant reservoir bolts to secure the coolant reservoir. (Figures 31, 32, 33)
12. Install the new shock on the motorcycle with the VOSS fitting for the air line facing towards the right. (Figure 34)

13. Install the shock mount bolts and nuts and tighten. (Figures 35, 36)
14. Reinstall the linkage and linkage snap ring. (Figures 37, 38)

15. Remove the two bolts securing the tail of the exhaust pipe to the frame, located left of the rear tire. Discard these bolts. (Figures 39, 40, 41)
16. Install the compressor with the bracket sliding between the frame and the exhaust. The pump faces in towards the wheel. Use the supplied bolts to mount the compressor and tighten. (Figures 42, 43, 44, 45)
17. Connect the supplied compressor extension wire to the compressor as shown. (Figure 46)
18. Bundle the wires of the compressor in the supplied split loom. (Figures 47, 48)

19. Insert the supplied 1/4” air line into the compressor. Press in until firmly seated in the fitting. (Figures 49, 50)
20. Prepare the rear fender with the supplied adhesives and zip ties. Route the split loom and the air line towards the center of the frame. Do not over tighten zip ties and clip the excess from the zip ties when finished. (Figures 51, 52, 53, 54)
21. Route the relay wires down through the frame, connect the relay to the compressor, and ground both the relay and compressor to the frame in the location shown, reusing the bolt from the previous shock. (Figures 55, 56, 57, 58, 59)
22. Route the 1/4” air line from the compressor up through the frame. (Figures 60, 61)
23. Secure the air line and compressor relay wires to the frame with a zip tie through the old shock adjuster bracket hole. Do not over tighten and clip the excess from the zip tie when finished. (Figures 62, 63)

24. Connect the 1/4” air line to the supplied manifold. Press in the air line until it is seated firmly. (Figure 64)
25. Screw a VOSS fitting into the air shock, finger tight. Then remove the white shipping pin. Insert the 4mm air line into the fitting until you feel it seat. Remove the fitting from the shock and confirm the keeper is on the air line. Reinstall the fitting on the shock and tighten snugly with a wrench. (Figures 65, 66, 67)
26. Screw a VOSS fitting into the manifold, finger tight and pull out the white shipping pin. Insert the other end of the 4mm air line into the fitting until you feel it seat. Remove the fitting from the manifold and confirm the keeper is on the air line. Reinstall the fitting on the manifold and tighten snugly with a wrench. (Figures 68, 69, 70)
27. Remove the battery cover to access the battery and connect the supplied fuse harness. Connect the supplied wire extension to the fuse harness and bundle in the split loom. (Figures 71, 72, 73, 74)
28. Remove the lower clutch perch bolt and reuse the hardware to mount the handle bar switch to the perch. (Figures 75, 76, 77)
29. Route and secure both the handlebar switch wire and the fuse harness loom along the frame and under the tank towards the center of the motorcycle. (Figures 78, 79, 80)
30. Follow the wiring diagram on Pages 30 and 31 of this manual to complete the electrical connections.

31. The clocking of the shock eyes relative to the air inlet 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 81, 82)
In MC-3905 & MC-3906 kits with rebound adjustable shocks, the rebound damping force can be increased or decreased to suit the rider’s preference. Increasing the rebound damping will slow the speed at which the shock extends after it is compressed. This is usually desirable when running higher air pressures than normal for a single rider. For example, riding 1 up would require lower air pressure and less rebound damping than riding 2 up with a fully loaded motorcycle. The increased air pressure is trying to extend the shock faster. This can lead to an uncontrolled bouncy feeling in the rear of the motorcycle. Increasing the rebound damping will help slow down the extension and make a more controlled feeling. (Figures 83, 84)
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.
Arnott US Business Office:
www.arnottinc.com
100 Sea Ray Drive
Merritt Island, FL 32953
Call: 800.251.8993
321.868.3016
Fax: 321.868.3703
Email: techassistance@arnottinc.com

Arnott Europe Business Office:
www.arnotteurope.com
Docterskampstraat 1E/1F, 3
5222 AM ’s-Hertogenbosch (NL)
NL Phone: +31 73 7850 580
DE Phone: +31 85 2087 438
UK Phone: +44 203 3186 124
BE Phone: +32 258 846 90
ES Phone: +34 91 901 10 56
FR Phone: +32 78 48 46 93
Email: info@arnotteurope.com

Exceptional Ride Comfort
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Rigorously Tested
Prevent Dangerous Tire Wear
Prevent Extra Drivetrain Stress
Global, Multilingual Tech Support