

# **INSTALLATION MANUAL**

## MC-2976/MC-2977 Arnott Ultimate Ride Kit 06-Current Kawasaki® Ninja® ZX™-14 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.

### **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-2976 — 06-CURRENT KAWASAKI NINJA ZX-14 SERIES — BLACK

20-18622 INFLATION KIT		
PART NO.	DESCRIPTION	QTY
29-13435	POTTED RELAY	1
21-7268	4MM AIRLINE X 6FT. ACCESSORY KIT	1
21-7715	4MM VOSS FITTING ACCESSORY KIT	1
21-7271	HARNESS CABLE TIES ACCESSORY KIT	1
21-2698	UNIVERSAL FUSE HOLDER ASSEMBLY KIT	1
11-MC-ZX14	INSTALLATION MANUAL FOR MC-2976 & MC-2977	1
21-10685	2006-PRESENT KAWASAKI ZX14, PUMP ASSEMBLY	1
20-10688	MOUNTING KIT	1
21-7272	SPLIT LOOM- 1 FT LENGTHS ACCESSORY KIT	1
21-7267	1/4" NYLON TUBING ACCESSORY KIT	1
21-11617	90 DEGREE PUSH CONNECT MANIFOLD ASSY, MONO SHOCK	1

21-18621 SHOCK KIT		
PART NO.	DESCRIPTION	QTY
21-10656	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-2977 — 06-CURRENT KAWASAKI NINJA ZX-14 SERIES — CHROME

20-18622 INFLATION KIT		
PART NO.	DESCRIPTION	QTY
29-13435	POTTED RELAY	1
21-7268	4MM AIRLINE X 6FT. ACCESSORY KIT	1
21-7715	4MM VOSS FITTING ACCESSORY KIT	1
21-7271	HARNESS CABLE TIES ACCESSORY KIT	1
21-2698	UNIVERSAL FUSE HOLDER ASSEMBLY KIT	1
11-MC-ZX14	INSTALLATION MANUAL FOR MC-2976 & MC-2977	1
21-10685	2006-PRESENT KAWASAKI ZX14, PUMP ASSEMBLY	1
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21-11617	90 DEGREE PUSH CONNECT MANIFOLD ASSY, MONO SHOCK	1

21-18621 SHOCK KIT		
PART NO.	DESCRIPTION	QTY
21-10656	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 the right side fairing. (Figures 1, 2, 3, 4)



FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4

2. Remove both left and right fairing tops. (Figures 5, 6)



FIGURE 5



**FIGURE 6** 



FIGURE 7



FIGURE 8

3. Remove the fuel tank cover, remove the three screws, then pull away from the tank to pop the studs out of the grommets. (Figures 7, 8, 9)

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FIGURE 9

4. Remove the front wind dam. (Figures 10, 11, 12)



**FIGURE 10** 



**FIGURE 11** 



FIGURE 12

5. On motorcycles equipped with ABS you will need to remove and discard the ABS wire bracket attached to the front brake line. Zip tie the wire to the brake line. (Figures 13, 14, 15)





FIGURE 14

FIGURE 13



**FIGURE 15** 

6. Remove the lower fairing. (Figures 16, 17)



**FIGURE 16** 



**FIGURE 17** 

7. Remove the upper shock bolt and nut. (Figure 18)



**FIGURE 18** 

8. Jack the motorcycle up to gain access of the lower linkage nuts and bolts. Remove the bolts shown below and pull the shock out from the frame. (Figures 19, 20, 21)



**FIGURE 19** 





FIGURE 21

9. Feed the 4mm air hose through the frame as shown below. (Figures 22, 23)



FIGURE 22



FIGURE 23

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10. Screw a VOSS fitting into the air shock. Pull out the white plug and insert the 4mm air line from the bottom of the motorcycle into the fitting until you feel it seat. Remove the fitting from the shock and confirm that the keeper is attached to the air line. Screw the fitting into the shock and snug tight with a 10mm wrench. (Figures 24, 25, 26, 27)



FIGURE 24



**FIGURE 25** 



**FIGURE 26** 



FIGURE 27

11. Place the air shock into the frame with the VOSS fitting on the left side of the motorcycle. Tighten the lower linkage bolts first then tighten the upper shock bolt. Feed the airline toward the front of the motorcycle between the fuel tank and left fairing. (28, 29, 30, 31)



FIGURE 28



FIGURE 29



FIGURE 30



FIGURE 31

12. Remove the upper front fairing frame bolt. Feed the pump assembly up through the front of the motorcycle and attach the pump assembly as shown below with the bolt that was just removed. (Figures 32, 33, 34)



FIGURE 32



FIGURE 33



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13. Plug the 1/4" air house into the pump assembly and route the pump wires and hose as shown below. Wrap the wires with the included split loom and zip ties. Cut the hose to length and plug it into the air manifold fitting. Somewhere between the pump and manifold you will need to cut the 1/4" hose and insert the included check valve with the arrow pointing toward the manifold. (Figures 35, 36, 37)





FIGURE 35



FIGURE 37

14. Trim the 4mm air line to length and following the same procedure as in step 10, attach to the air manifold. Plug the other hole with the included black plastic plug. Tuck the manifold assembly down into the fairing. (Figure 38)



FIGURE 38

15. Remove the upper clutch perch bolt and discard. Attach the handlebar switch with the included button head bolt and spacer. (Figures 39, 40)



FIGURE 39



16. Following the wiring diagram in the back of this manual complete the electrical connections. Route the positive wire from the battery over the fuel tank. Ground all of the negative connections to the bolt shown below. (Figures 41, 42)



FIGURE 41



FIGURE 42

17. 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 43, 44)



FIGURE 43







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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