Installation Manual

KIT # MC-2911, MC-2923
FOR ALL YEAR
SUZUKI® M-109R 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.*

BILL OF MATERIALS
MC-2911 - SUZUKI M109R SUSPENSION SYSTEM, BLACK

20-9784 - INFLATION KIT

PARTS LIST		
QTY	PART NO.	DESCRIPTION
1	21-3110	MICRO RELAY ASSEMBLY W/ HARNESS
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	21-7272	SPLIT LOOM- 1 FT LENGTHS ACCESSORY KIT
1	21-2698	UNIVERSAL FUSE HOLDER ASSEMBLY KIT
1	21-7262	MANIFOLD BRACKET W/ FASTENER ACCESSORY KIT
1	21-11617	90 DEGREE PUSH CONNECT MANIFOLD ASSEMBLY, MONO SHOCK
1	21-7267	1/4" NYLON TUBING ACCESSORY KIT
1	21-9745	SUZUKI M109R PUMP ASSEMBLY
1	11-MC-2911	INSTALLATION MANUAL FOR MC-2911
1	20-9747	MOUNTING KIT

21-9785-B - SHOCK KIT

PARTS LIST		
QTY	PART NO.	DESCRIPTION
1	21-9264	AIR SHOCK

HANDLE BAR SWITCH

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

BILL OF MATERIALS
MC-2923 - SUZUKI M109R SUSPENSION SYSTEM, CHROME

20-9784 - INFLATION KIT

PARTS LIST		
QTY	PART NO.	DESCRIPTION
1	21-3110	MICRO RELAY ASSEMBLY W/ HARNESS
1	21-7268	4MM AIRLINE X 6FT. ACCESSORY KIT
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21-9785-B - SHOCK KIT

PARTS LIST		
QTY	PART NO.	DESCRIPTION
1	21-9264	AIR SHOCK

HANDLE BAR SWITCH

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

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.

- 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 SEAT AND BOTH BATTERY BOX SIDE COVERS. (FIGURES 1, 2, 3, 4)

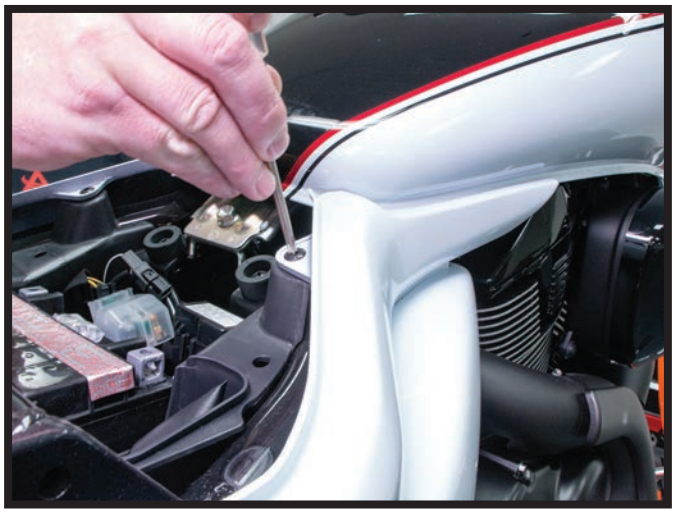


FIGURE 1

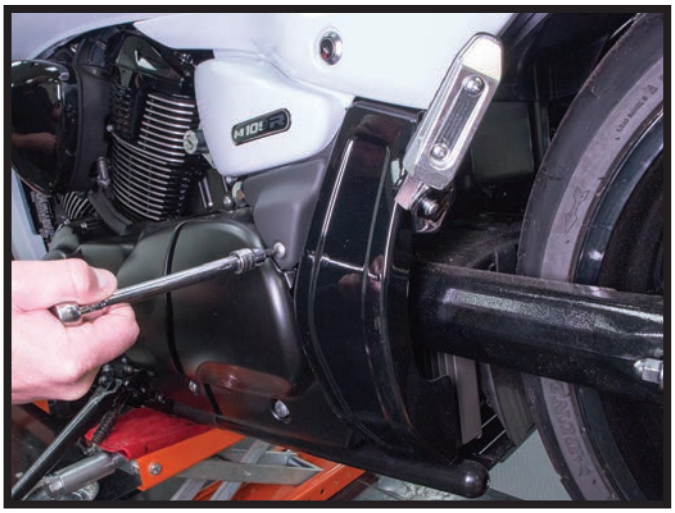


FIGURE 2

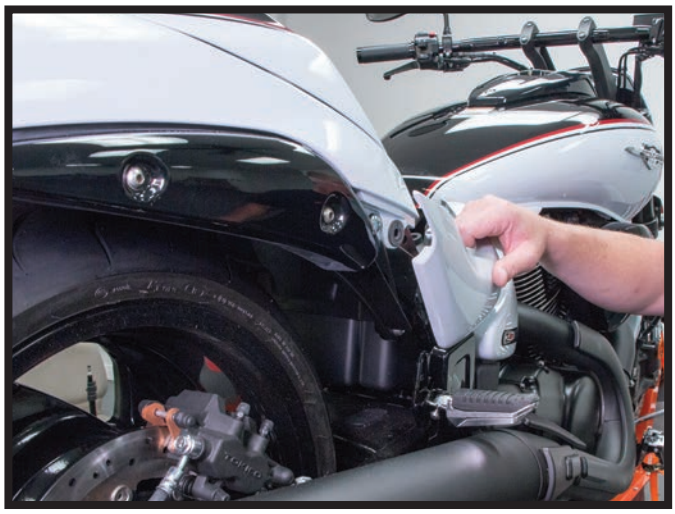


FIGURE 3

FIGURE 4

2. REMOVE THE TWO COVERS ON THE LEFT SIDE OF THE MOTOR. (FIGURES 5, 6)

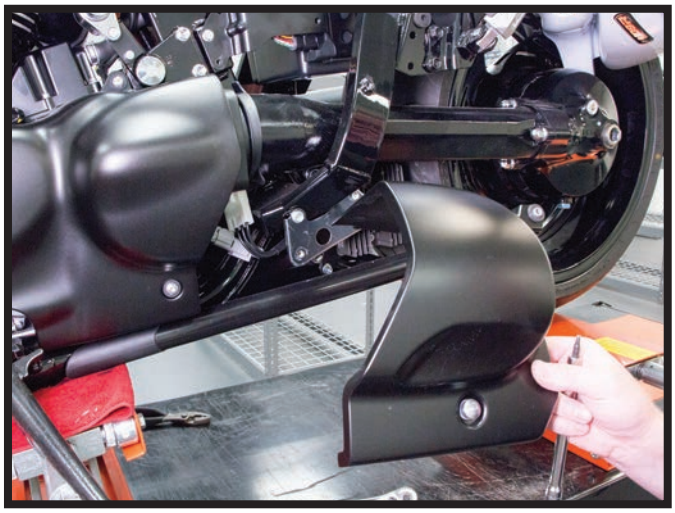


FIGURE 5

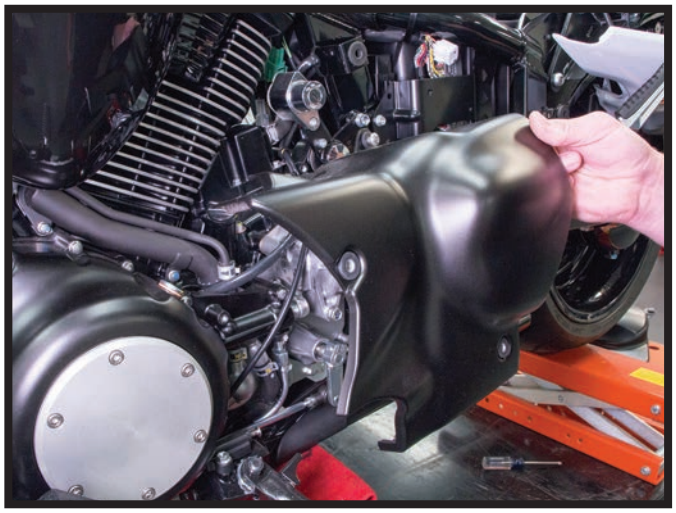


FIGURE 6

3. REMOVE THE TWO SCREWS CIRCLED IN IMAGE 7 AND THE SWING ARM PIVOT COVER. REMOVE THE SCREW CIRCLED IN IMAGE 8 AND DISCARD. THIS SCREW WILL NOT BE REUSED. (FIGURES 7, 8)

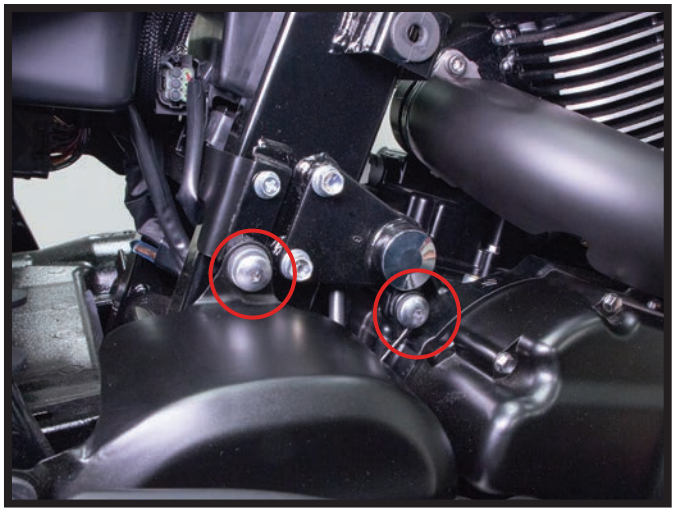


FIGURE 7

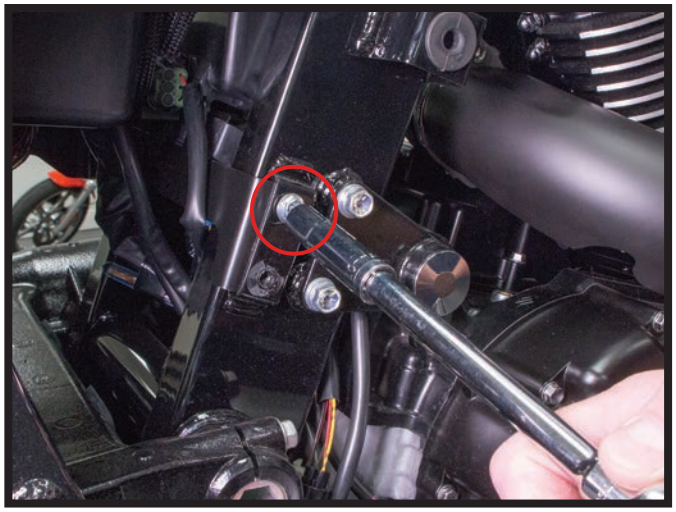


FIGURE 8

4. WITH A 5MM BIT, DRILL THROUGH THE UPPER HOLE INTO THE FRAME. THEN TAP THE HOLE WITH A M6 X 1.0 TAP. (FIGURES 9, 10)

FIGURE 9

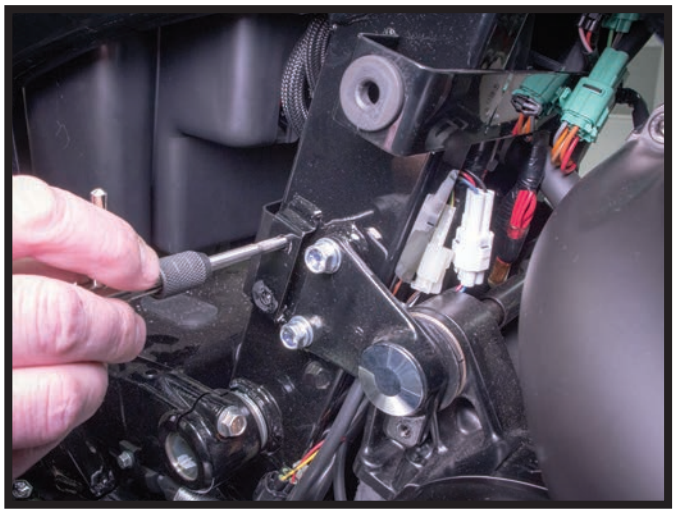


FIGURE 10

5. INSERT THE ¼ INCH HOSE INTO THE PUMP ASSEMBLY. (FIGURES 11, 12)

FIGURE 11

FIGURE 12

6. FEED THE HOSE AND THE PUMP WIRES FROM THE RIGHT SIDE OF THE MOTORCYCLE TO THE LEFT SIDE BEHIND THE BATTERY BOX. (FIGURES 13, 14)

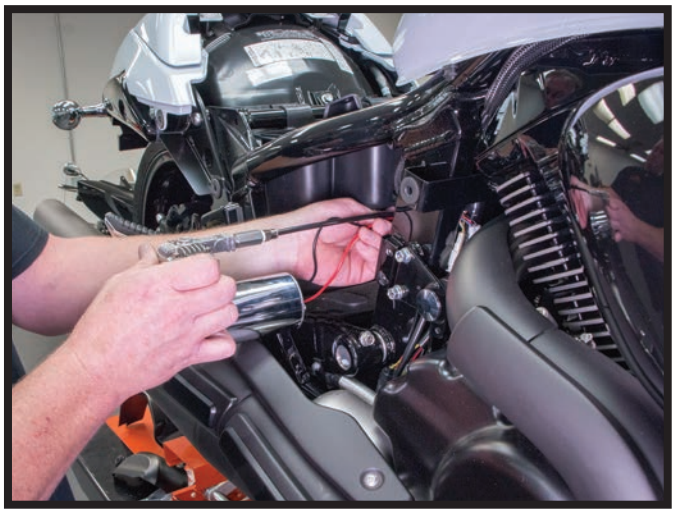


FIGURE 13

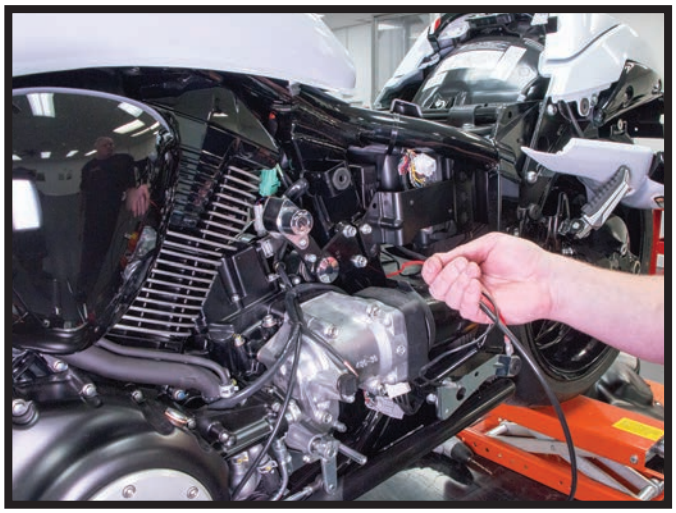


FIGURE 14

7. USING THE SUPPLIED SCREW AND WASHER SCREW THE PUMP ASSEMBLY TO THE HOLE JUST TAPPED INTO THE FRAME. MOUNT THE SWING ARM PIVOT COVER BACK ON THE MOTORCYCLE USING THE ORIGINAL HARDWARE. (FIGURES 15, 16)

FIGURE 15

FIGURE 16

8. REMOVE THE LOWER FRAME COVER. (FIGURES 17, 18)

FIGURE 17

FIGURE 18

9. REMOVE THE FRONT SHOCK BOLT. (FIGURES 19, 20)

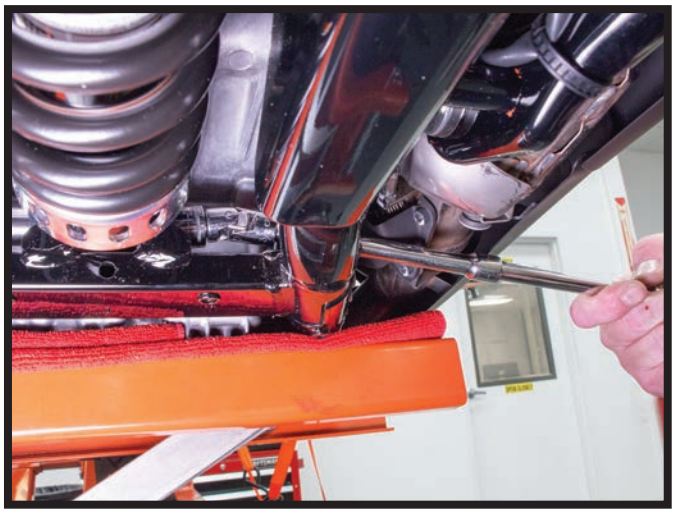


FIGURE 19

FIGURE 20

10. REMOVE THE REAR SHOCK BOLT AND THE OE SHOCK ASSEMBLY. (FIGURES 21, 22)

FIGURE 21

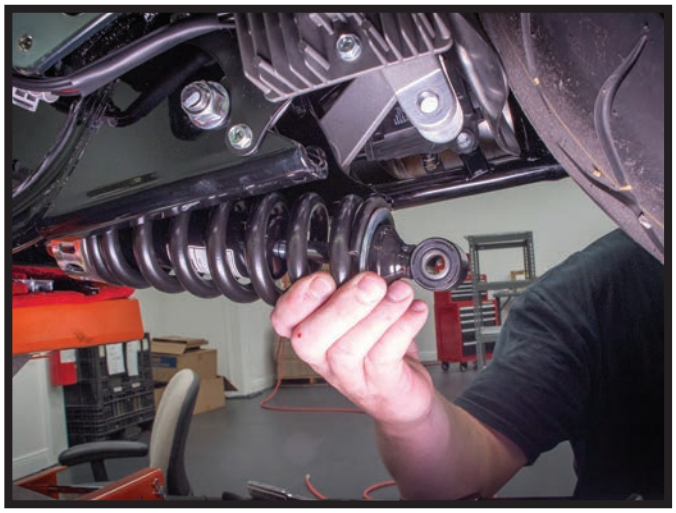


FIGURE 22

11. THREAD THE VOSS FITTING INTO THE AIR SHOCK UNTIL THE O-RING SEATS. PULL OUT THE WHITE PLUG. INSERT THE 4MM HOSE UNTIL YOU FEEL IT SEAT. REMOVE THE FITTING FROM THE SHOCK AND CONFIRM THE KEEPER IS ATTACHED TO THE HOSE. REINSTALL THE FITTING INTO THE SHOCK AND SNUG TIGHT WITH A 10MM WRENCH. (FIGURES 23, 24, 25, 26)

FIGURE 23

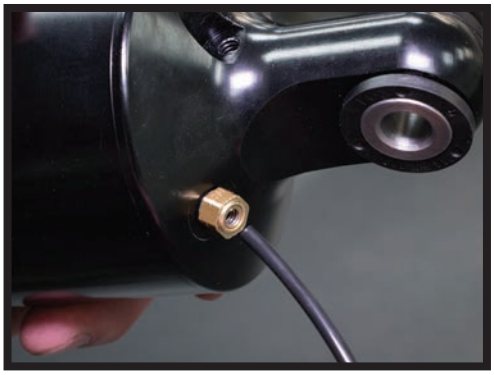


FIGURE 24

FIGURE 25

FIGURE 26

12. PULL THE OTHER END OF THE 4MM HOSE THROUGH THE FRAME BETWEEN THE SWING ARM AND DRIVE SHAFT. (FIGURES 27, 28)

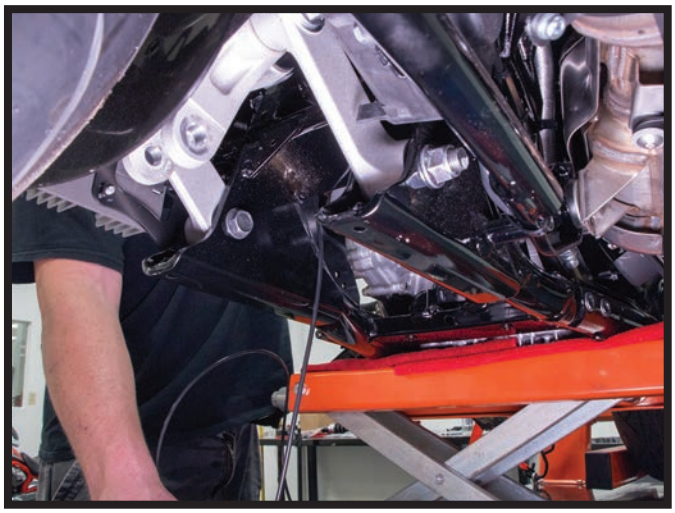


FIGURE 27

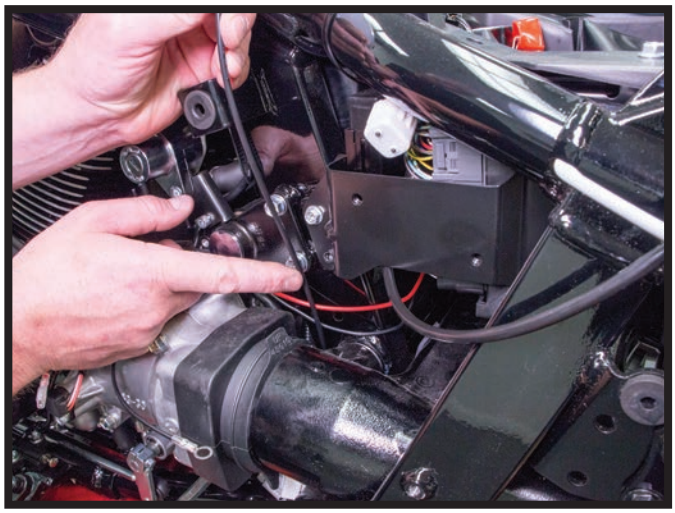


FIGURE 28

13. INSTALL THE AIR SHOCK INTO THE FRAME WITH THE VOSS FITTING POINTING TO THE LEFT SIDE OF THE MOTORCYCLE. INSERT THE FRONT BOLT FOLLOWED BY THE REAR BOLT. TIGHTEN ALL THE NUTS AND BOLTS TO THE FACTORY RECOMMENDED TORQUE SPEC. REPLACE THE LOWER FRAME COVER AND THE TWO LEFT SIDE ENGINE COVERS. (FIGURES 29, 30)

FIGURE 29

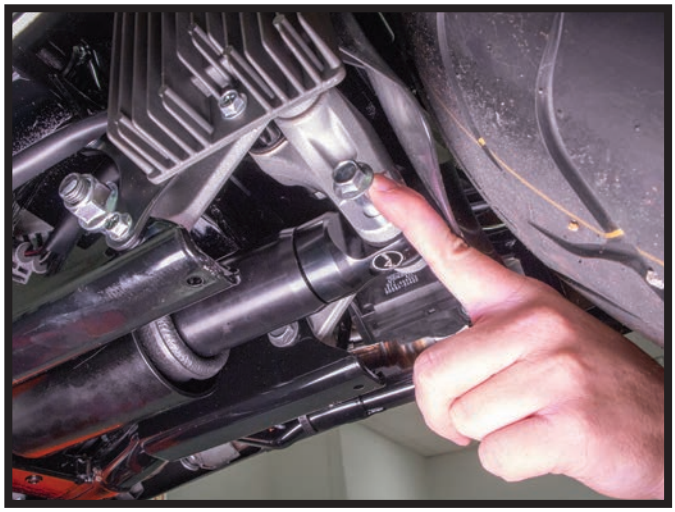


FIGURE 30

14. MOUNT THE MANIFOLD BRACKET TO THE MANIFOLD. CUT THE ¼ INCH HOSE TO LENGTH THEN INSERT IT INTO THE MANIFOLD. USING THE SUPPLIED SCREW AND WASHER MOUNT THE MANIFOLD TO THE SIDE OF THE BATTERY BOX. (FIGURES 31, 32)

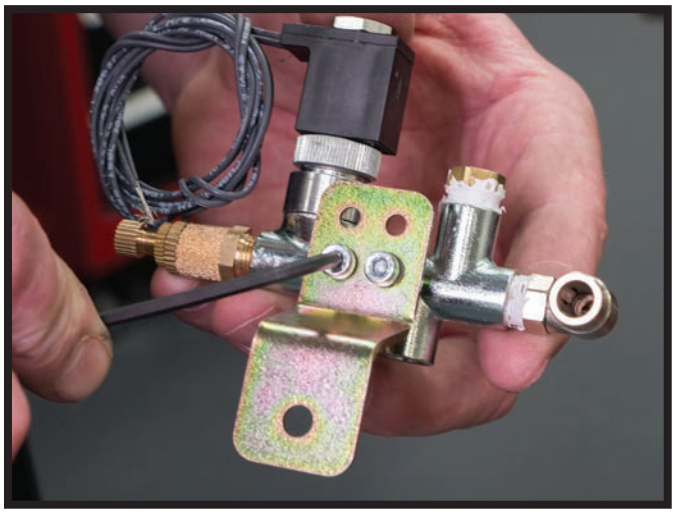


FIGURE 31

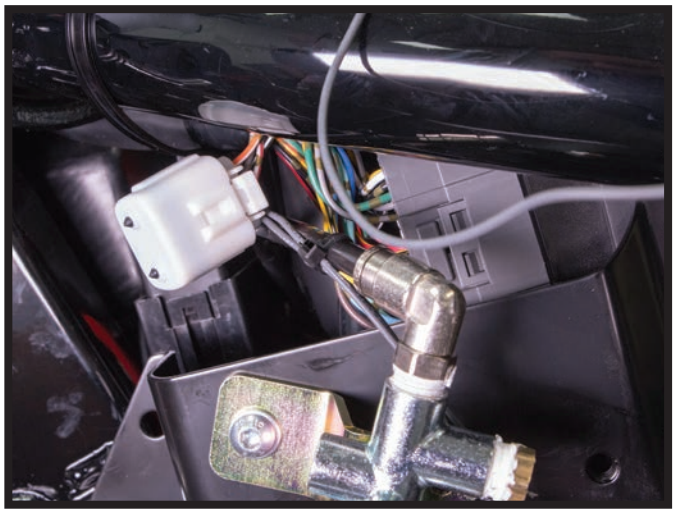


FIGURE 32

15. SCREW THE SUPPLIED PLUG AND O-RING INTO THE MANIFOLD. THEN SNUG IT TIGHT. (FIGURES 33, 34)

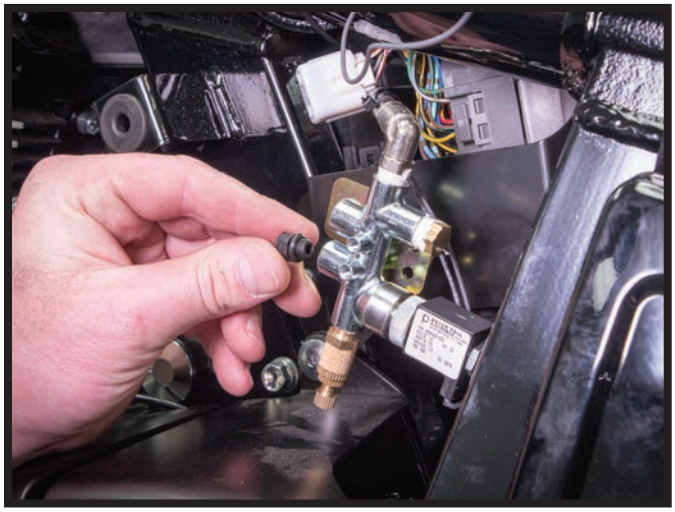


FIGURE 33

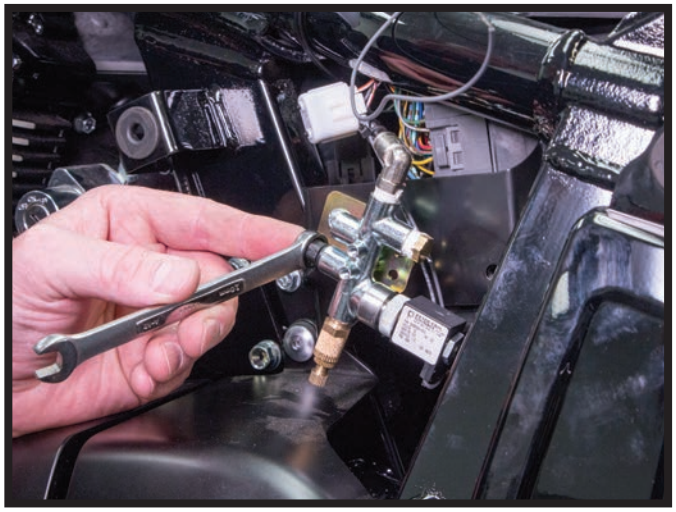


FIGURE 34

16. TRIM THE 4MM HOSE TO LENGTH. USING THE SAME PROCEDURE AS IN STEP #11 SCREW THE VOSS FITTING INTO THE AIR MANIFOLD. (FIGURES 35, 36)

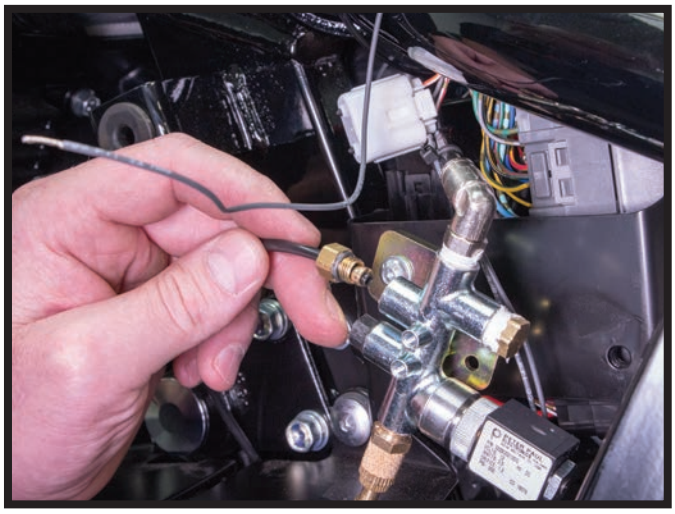


FIGURE 35

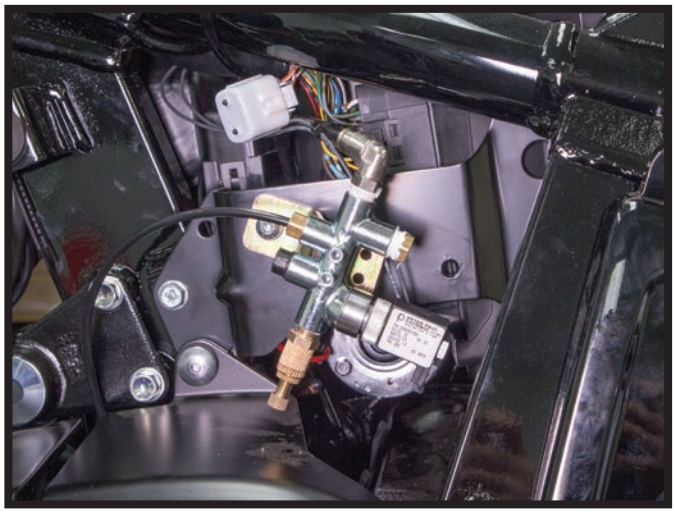


FIGURE 36

17. REMOVE THE INSTRUMENT CLUSTER FROM THE FUEL TANK. THEN REMOVE THE REAR TANK BOLT. (FIGURES 37, 38)

FIGURE 37

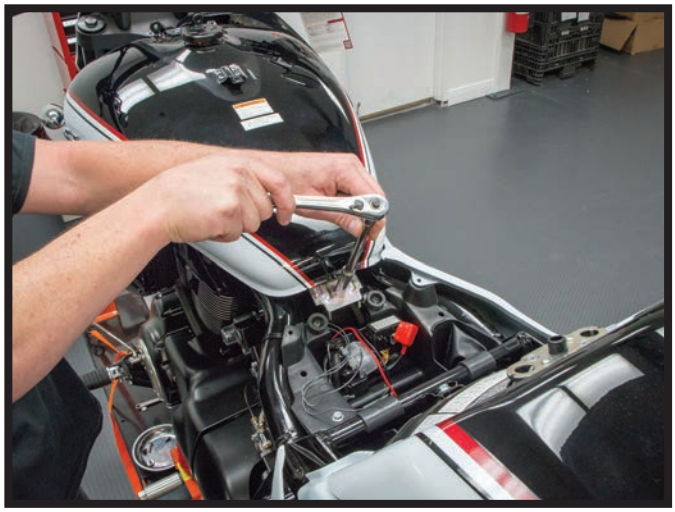


FIGURE 38

18. REMOVE THE PINCH BOLT FROM THE CLUTCH PERCH AND DISCARD. USING THE SUPPLIED SCREW AND SPACER ATTACH THE HANDLE BAR SWITCH. (FIGURES 39, 40)

FIGURE 39

FIGURE 40

19. RUN THE HANDLE BAR SWITCH WIRE UNDER THE FUEL TANK TOWARD THE BATTERY BOX. REINSTALL THE FUEL TANK THEN FOLLOW THE WIRING DIAGRAMS IN THE BACK OF THIS MANUAL TO COMPLETE THE ELECTRICAL CONNECTIONS. (FIGURES 41, 42, 43, 44)

FIGURE 41

FIGURE 42

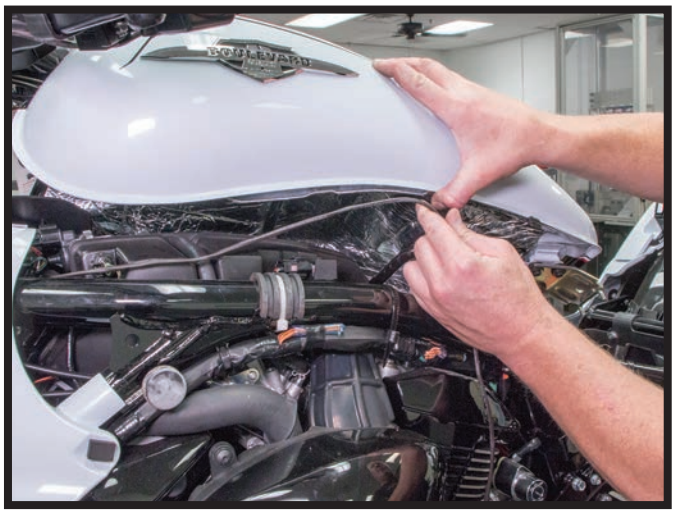


FIGURE 43

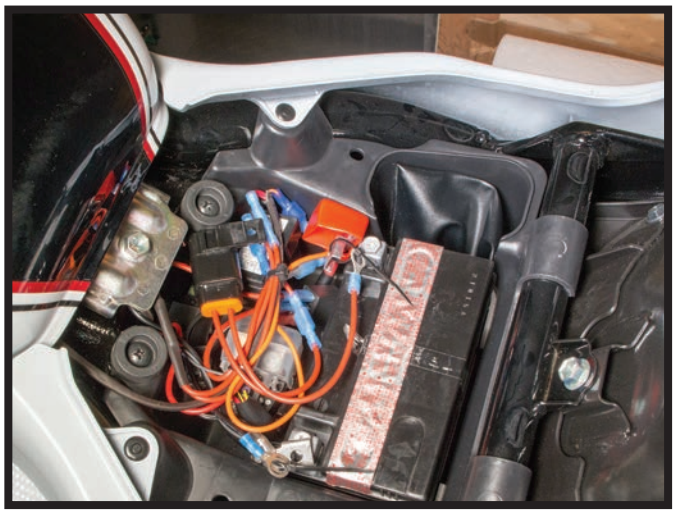


FIGURE 44

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 45, 46)

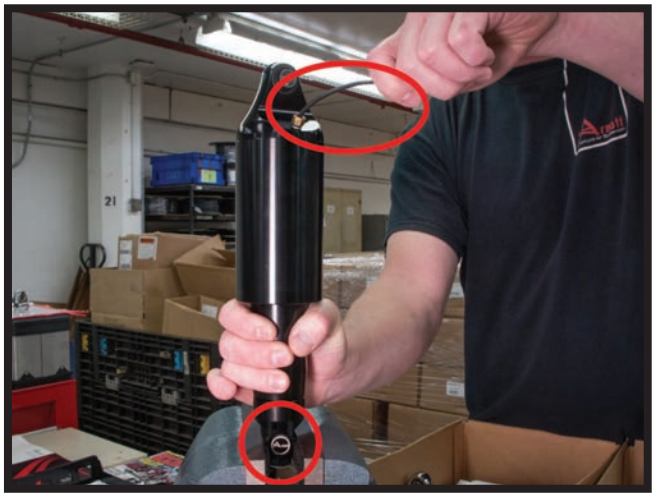
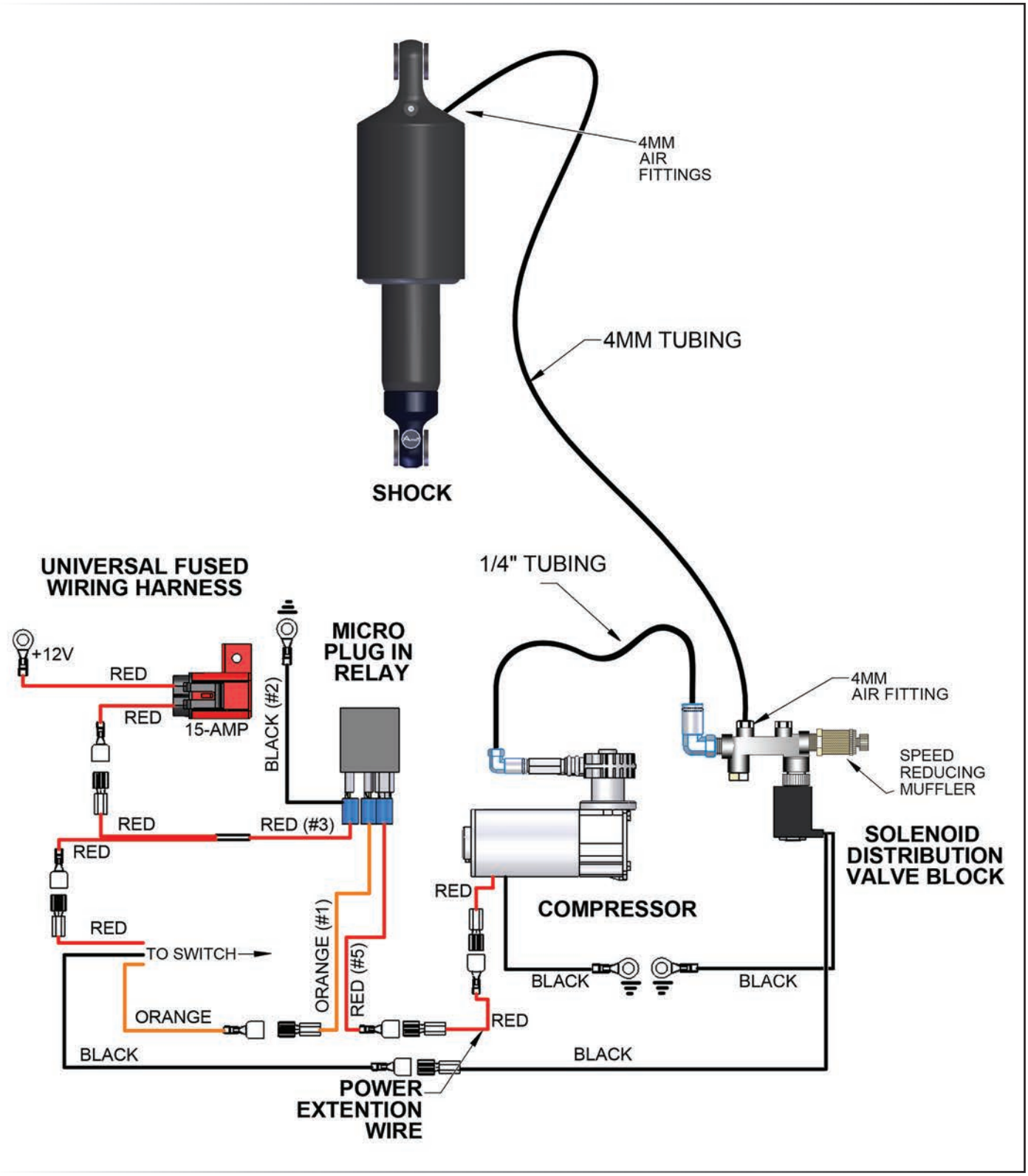
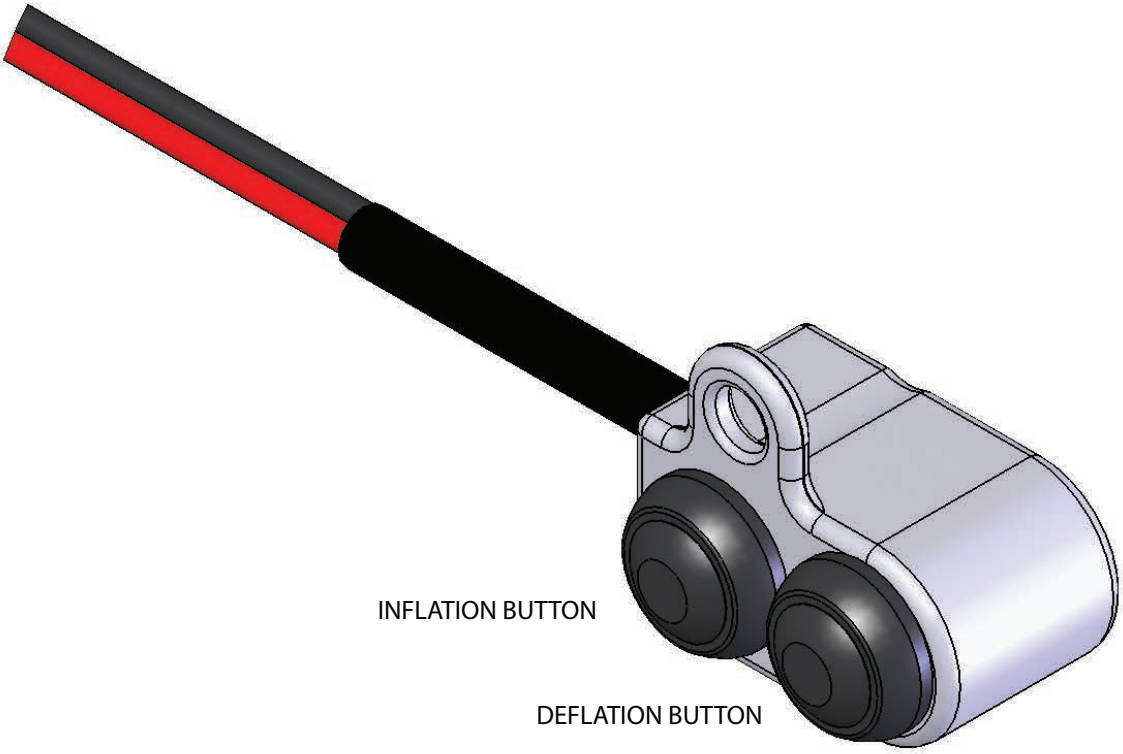
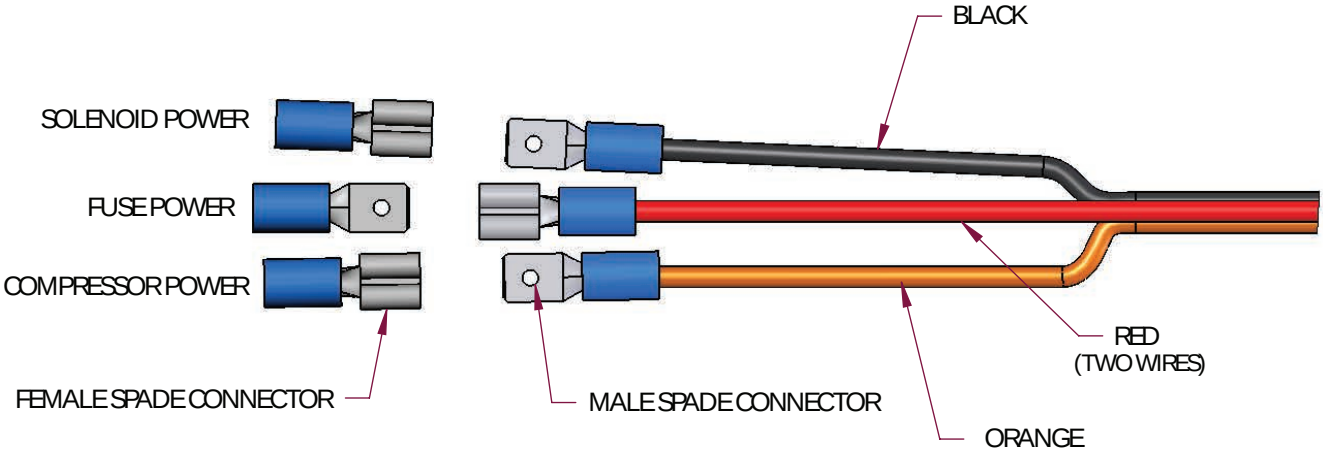


FIGURE 45

FIGURE 46


4MM
AIR
FITTINGS
4MM TUBING
SHOCK
UNIVERSAL FUSED
WIRING HARNESS
1/4" TUBING
MICRO
PLUG IN
RELAY
+12V
RED
RED
15-AMP
BLACK (#2)
4MM
AIR FITTING
SPEED
REDUCING
MUFFLER
RED
RED (#3)
RED
SOLENOID
DISTRIBUTION
VALVE BLOCK
RED
COMPRESSOR
RED
TO SWITCH
ORANGE (#1)
RED (#5)
BLACK
BLACK
ORANGE
RED
BLACK
BLACK
POWER
EXTENTION
WIRE





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.

Learn more about suspension parts on our website.