

# Installation Manual

**C-3184  
ARNOTT  
COIL SPRING CONVERSION KIT  
FOR 2007-2014  
VARIOUS SHORT WHEELBASE GM SUVs**



Congratulations on your purchase of an Arnett® air suspension product. We at Arnett 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 vehicle. 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 vehicle and isolation of any stored energy to prevent personal injury or property damage.

**"Engineered to Ride, Built to Last®"**



**WARNING:** *The air suspension system is under pressure (up to 10 bar, or 150 lbf/in). Verify pressure has been relieved and disconnect power to the air suspension system prior to disassembly. Do not allow dirt or grease to enter the system. Always wear standard hand, ear, and eye protection when servicing the air suspension system.*

Arnett® is committed to the quality of its products. If you have a question or problem with any Arnett product, please contact Arnett 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))

## 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.arnottinc.com](http://www.arnottinc.com).

- Not to be stored below 5°F (-15°C) or above 122°F (50°C).
- Avoid damage to air lines and cables.
- Removal and installation is only to be performed by fully qualified personnel.
- Use car manufacturer's diagnostic software.

**CAUTION:** Damage to the vehicle 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.



To avoid the possibility of short circuits while working with electric components consult your owner's manual on how to disconnect your battery.



Consult your vehicle owner's manual, service manual, or car dealer for the correct jacking points on your vehicle and for additional care, safety and maintenance instructions. Under no circumstances should any work be completed underneath the vehicle if it is not adequately supported, as serious injuries and death can occur.

## COIL STRUT REMOVAL

1. RAISE VEHICLE AND REMOVE FRONT WHEELS TO EXPOSE THE FRONT COIL STRUTS.  
(FIGURES 1, 2)



FIGURE 1

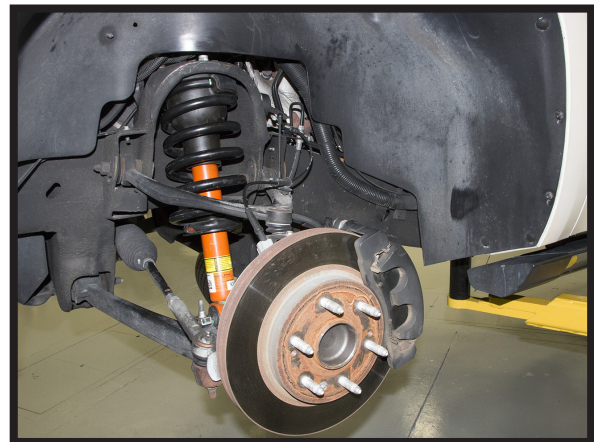


FIGURE 2

2. LIFT THE HOOD TO EXPOSE THE TOP OF THE COIL STRUTS. LOCATE AND DISCONNECT THE ELECTRICAL CONNECTORS. SECURE THE HARNESS IN A WAY NOT TO INTERFERE WITH ANY MOVING PARTS OR COMPONENTS WITH EXCESSIVE HEAT. (FIGURES 3, 4)

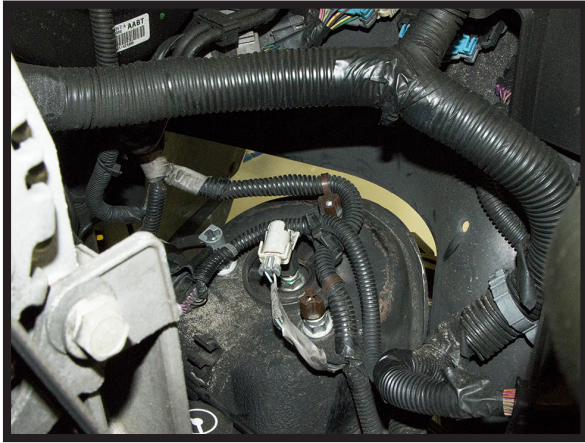


FIGURE 3



FIGURE 4

3. REMOVE THE WIRE CLIPS AND TOP MOUNTING NUTS. (FIGURES 5, 6, 7)

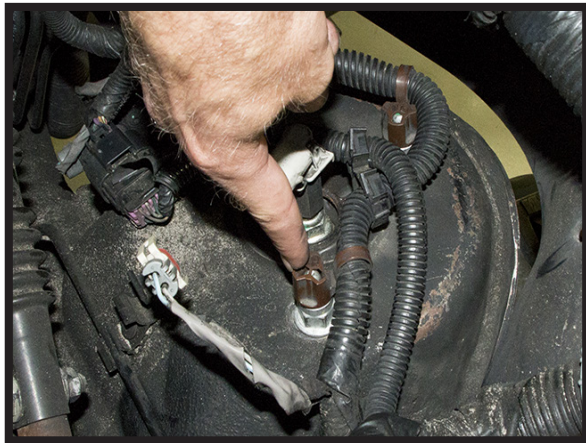


FIGURE 5

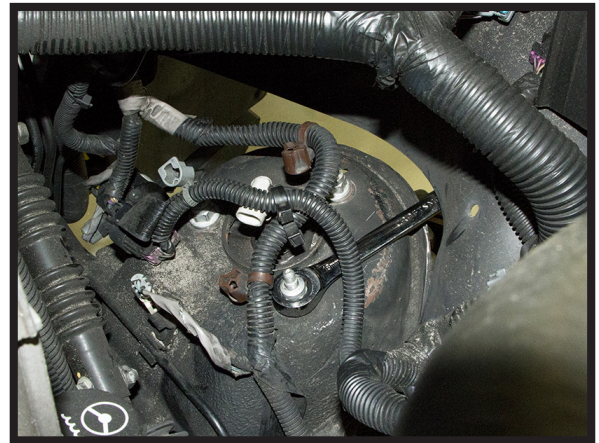


FIGURE 6

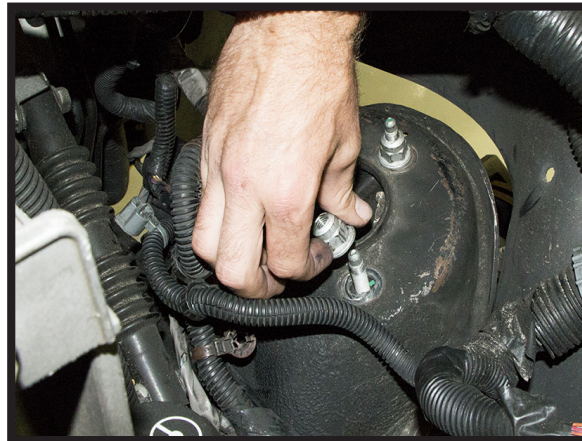


FIGURE 7

4. REMOVE THE LOWER MOUNTING BOLTS. (FIGURES 8, 9)



FIGURE 8



FIGURE 9

5. LOOSEN, DO NOT REMOVE, THE SWAY BAR END LINK HARDWARE. (FIGURE 10)



FIGURE 10

6. CAREFULLY REMOVE COIL STRUTS FROM THE VEHICLE. (FIGURE 11)

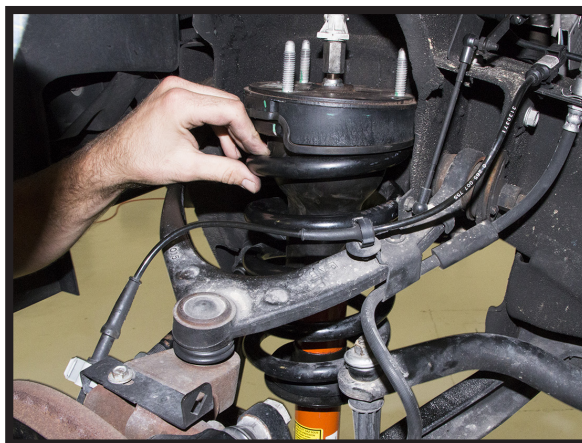


FIGURE 11



*Use a spring compressor tool for the following removal steps.*

## COIL STRUT DISASSEMBLY

1. RELEASE CLIP AND REMOVE THE TOP ELECTRICAL CONNECTOR AND SHOCK ROD STEM.  
(FIGURES 12, 13, 14 ,15)



FIGURE 12

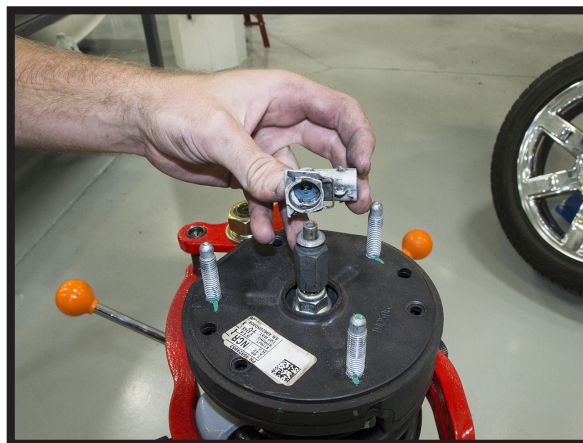


FIGURE 13

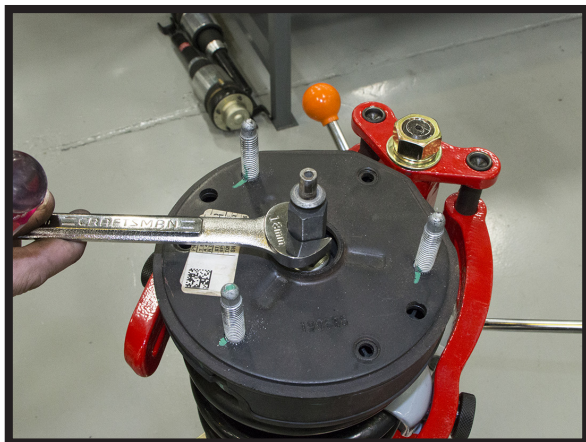


FIGURE 14



FIGURE 15

2. COMPRESS THE COIL SPRING AND REMOVE THE TOP SHOCK ROD NUT. (FIGURES 16, 17)



FIGURE 16

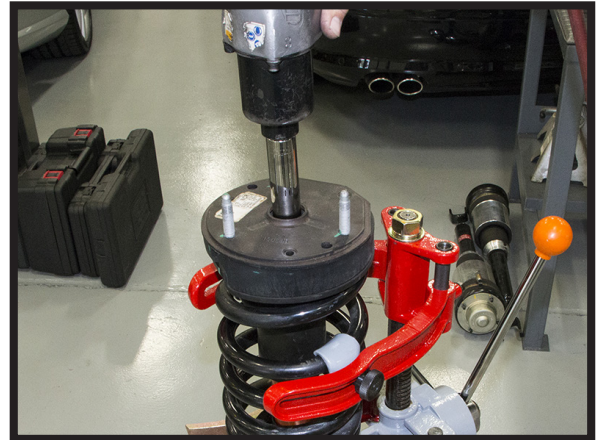


FIGURE 17

3. REMOVE TOP MOUNT PLATE, OFFSET PLATE AND RUBBER ISOLATOR. (FIGURES 18, 19)



FIGURE 18



FIGURE 19

4. CAREFULLY RELEASE SPRING PRESSURE AND REMOVE THE COIL SPRING, SPACER WASHER, BUMP STOP, BUMP STOP CAP, AND SPRING SEAT. (FIGURES 20, 21)



FIGURE 20

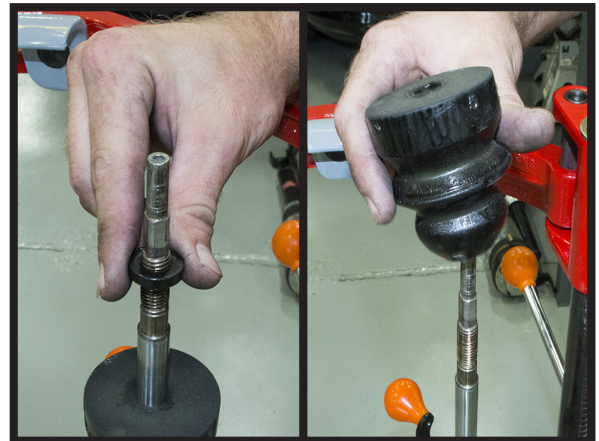


FIGURE 21

5. CAREFULLY REMOVE THE BOTTOM MOUNT CLIPS FROM THE STRUT AND SAVE FOR REASSEMBLY. (FIGURES 22, 23)



FIGURE 22



FIGURE 23

6. DISSASSEMBLY COMPLETE.

## COIL STRUT REASSEMBLY



*Tighten all nuts and bolts to manufacturer's specifications during the installation process.*

**NOTE:** THIS ASSEMBLY WILL UTILIZE THE SAVED HARDWARE TAKEN FROM PREVIOUS STRUT.

1. REMOVE THE UPPER MOUNT HARDWARE FROM THE SHOCK SHAFT (AS SHIPPED). (FIGURE 24)

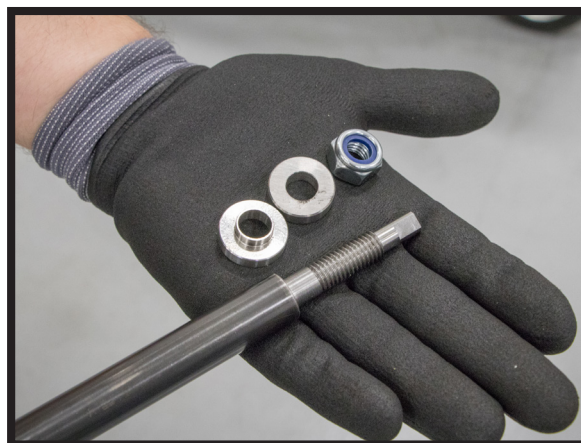


FIGURE 24

2. CAREFULLY INSTALL THE SPRING SEAT ONTO THE STRUT. (FIGURE 25)

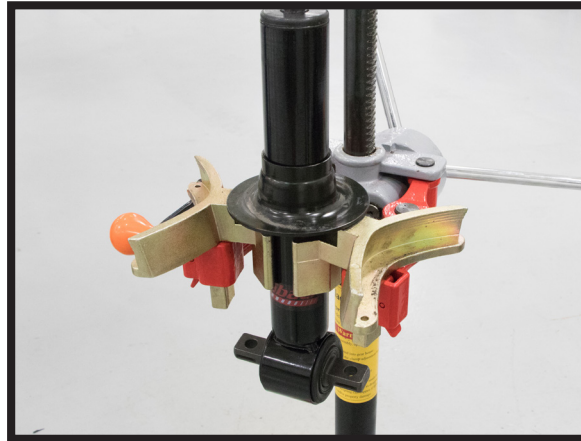


FIGURE 25

3. INSTALL THE BUMP STOP FOLLOWED BY THE LOWER MOUNT SPACER IN THE ORIENTATION SHOWN BELOW. (FIGURES 26, 27)



FIGURE 26



FIGURE 27



4. INSTALL THE COIL SPRING ONTO THE STRUT AND CAREFULLY COMPRESS THE COIL SPRING. (FIGURES 28, 29)



FIGURE 28



FIGURE 29

5. INSTALL RUBBER ISOLATOR, OFFSET PLATE, AND TOP MOUNT PLATE. (FIGURES 30, 31)



FIGURE 30



FIGURE 31

6. INSTALL THE SPACER WASHER AND TOP SHOCK ROD NUT AND TIGHTEN TO MANUFACTURER'S SPECIFICATIONS. (FIGURES 32, 33)



FIGURE 32



FIGURE 33

7. PROPERLY ALIGN THE STRUT BEFORE INSTALLING IT ON THE VEHICLE, MAKING SURE THE BOLT MOUNTS ARE FACING DOWNWARD AS SHOWN BELOW. (FIGURES 34, 35)

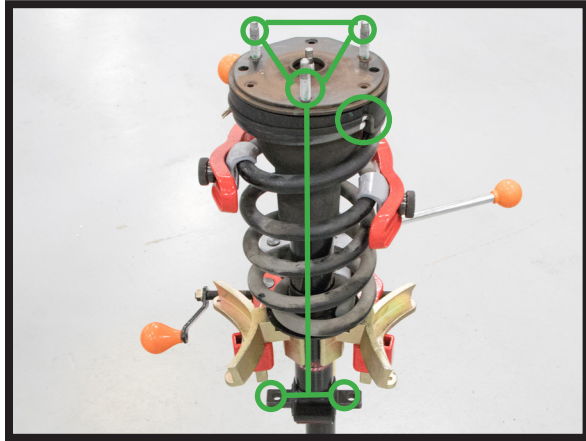


FIGURE 34

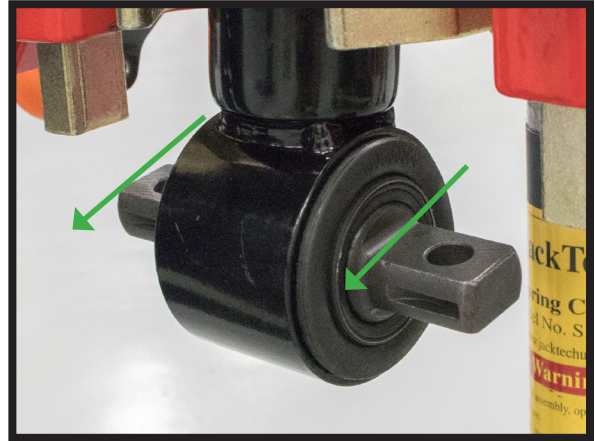


FIGURE 35

8. INSTALL THE SAVED BOTTOM MOUNT CLIPS ONTO THE STRUT. (FIGURES 36, 37)

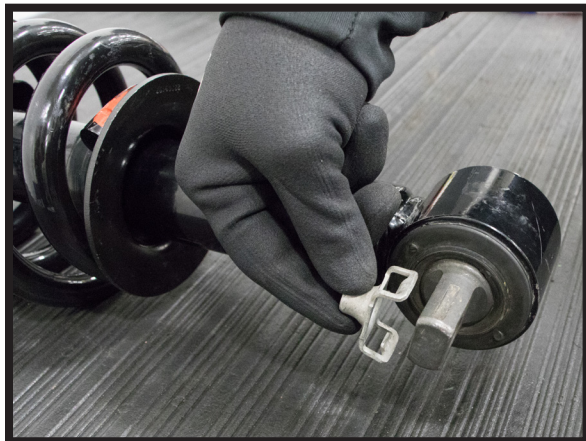


FIGURE 36

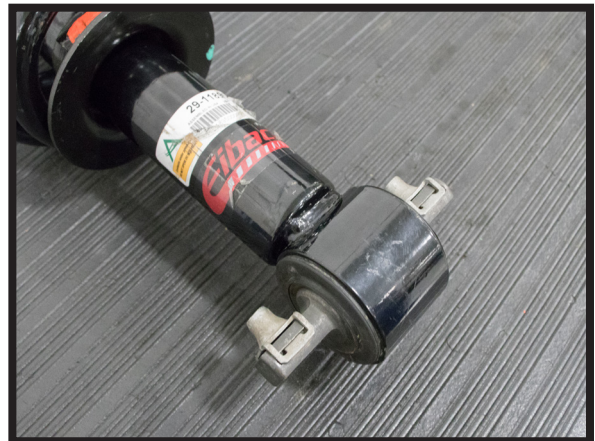


FIGURE 37

9. COIL STRUT REASSEMBLY COMPLETE.

## COIL STRUT INSTALLATION



*Tighten all nuts and bolts to manufacturer's specifications during the installation process.*

1. INSTALL THE COIL STRUT INTO THE VEHICLE. (FIGURE 38)



FIGURE 38

2. BE SURE TO POSITION THE T-BAR ON TOP OF THE CONTROL ARM TO ENSURE PROPER MOUNTING. (FIGURE 39)

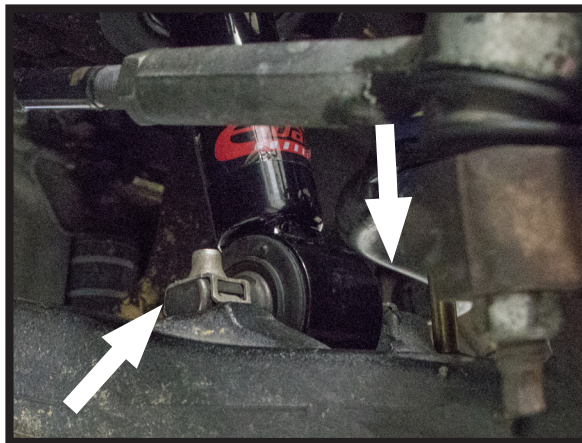


FIGURE 39

3. REINSTALL THE BOTTOM MOUNTING BOLTS AND NUTS AND TIGHTEN TO MANUFACTURER'S SPECIFICATIONS. (FIGURES 40, 41)



FIGURE 40



FIGURE 41

4. INSTALL THE THREE TOP MOUNTING NUTS AND TIGHTEN TO MANUFACTURER'S SPECIFICATIONS. (FIGURE 42)

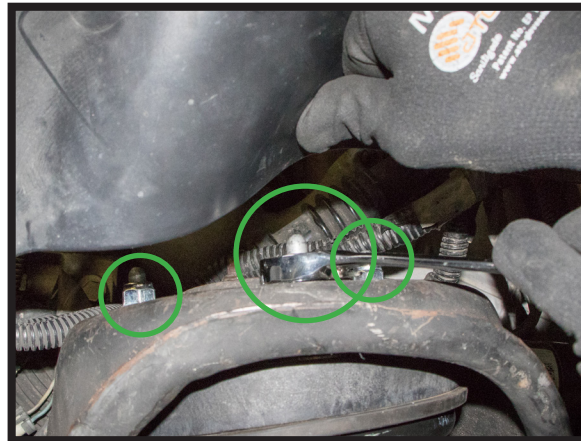


FIGURE 42

5. TIGHTEN THE SWAY BAR END LINK HARDWARE TO MANUFACTURER'S SPECIFICATIONS. (FIGURE 43)



FIGURE 43

6. REINSTALL THE WIRE CLIPS AND RECONNECT THE ELECTRICAL CONNECTOR, BEING SURE TO SECURE THE HARNESS IN A WAY NOT TO INTERFERE WITH ANY MOVING PARTS OR COMPONENTS WITH EXCESSIVE HEAT. (FIGURES 44, 45)



FIGURE 44



FIGURE 45

7. INSTALLATION COMPLETE.

## REAR AIR SHOCK/COIL SPRING REMOVAL

1. SET STEERING TO STRAIGHT.
2. RAISE VEHICLE.
3. REMOVE THE REAR WHEELS. (FIGURE 46)



FIGURE 46

4. LOCATE AND REMOVE THE AIR LINES TO DEFLATE THE AIR SHOCKS. TURN THE METAL CLIP APPROXIMATELY 90° TO REMOVE THE AIR LINE FITTING FROM THE AIR SHOCK. (FIGURE 47)



FIGURE 47

5. LOCATE AND REMOVE THE ELECTRICAL CONNECTORS FROM THE TOP OF THE AIR SHOCKS. (FIGURE 48)



FIGURE 48

6. LOOSEN AND REMOVE THE UPPER AND LOWER SHOCK MOUNTING NUTS. (FIGURES 49, 50)



FIGURE 49



FIGURE 50

7. SUPPORT THE AXLE TO RELIEVE PRESSURE FROM THE AIR SHOCKS MOUNTING POINTS. REMOVE THE UPPER AND LOWER AIR SHOCK MOUNTING BOLTS. (FIGURE 51)

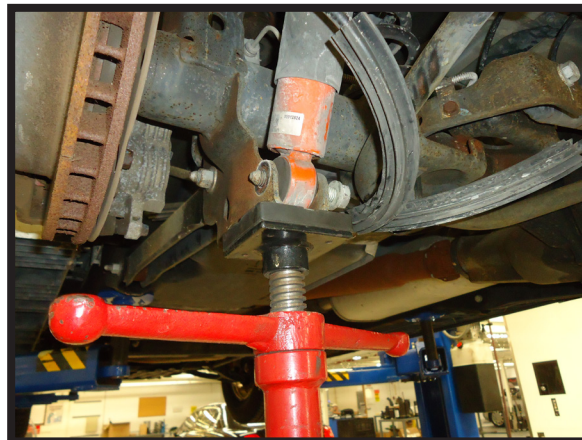


FIGURE 51

8. REMOVE THE AIR SHOCKS FROM THE VEHICLE. (FIGURE 52)



FIGURE 52

9. REMOVE THE BOLTS AND RIDE HEIGHT SENSORS FROM THE UPPER CONTROL ARMS. (FIGURES 53, 54)



FIGURE 53



FIGURE 54

10. REMOVE THE BOLT AND BRACKET HOLDING THE BRAKE LINE TO THE REAR DIFFERENTIAL. (FIGURES 55, 56)



FIGURE 55

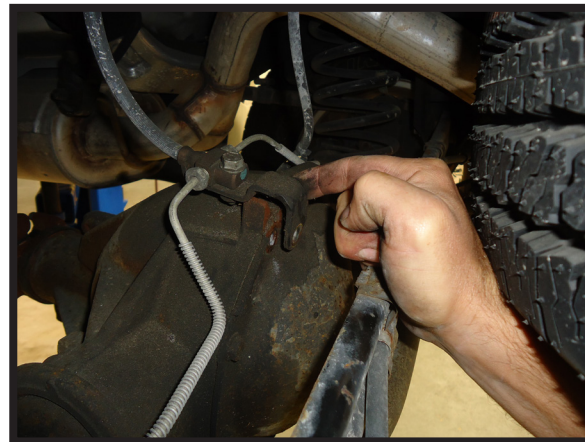


FIGURE 56



11. REMOVE THE NUTS ON THE UPPER SWAY BAR END LINKS. (FIGURE 57)



FIGURE 57

12. USING A JACK OR OTHER SUITABLE DEVICE, SUPPORT THE AXLE TO RELEASE PRESSURE FROM THE SWAY BAR END LINKS. REMOVE THE SWAY BAR END LINK BOLTS. (FIGURES 58, 59)



FIGURE 58



FIGURE 59

13. SLOWLY LOWER THE AXLE AND REMOVE THE COIL SPRINGS. (FIGURE 60)



FIGURE 60

14. REMOVAL COMPLETE.

## REAR COIL SPRING INSTALLATION



*Tighten all nuts and bolts to manufacturer's specifications during the installation process.*

### **NOTE:**

*Secure the air lines and electrical connectors in suitable locations as they are not used for this kit.*

1. PLACE THE RUBBER ISOLATOR ONTO THE AXLE AND INSTALL THE COIL SPRING INTO THE VEHICLE. BE SURE TO KEEP THE ISOLATOR PROPERLY ALIGNED WITH THE COIL STRUT. (FIGURES 61, 62)

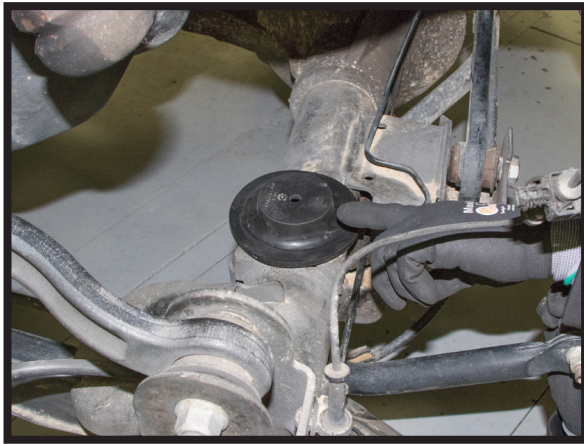


FIGURE 61



FIGURE 62

2. USING A JACK OR OTHER SUITABLE DEVICE, RAISE THE AXLE UNTIL THE SWAY BAR END LINK IS REALIGNED WITH THE BOLT HOLES. REINSTALL THE SWAY BAR END LINK BOLTS. (FIGURES 63, 64)

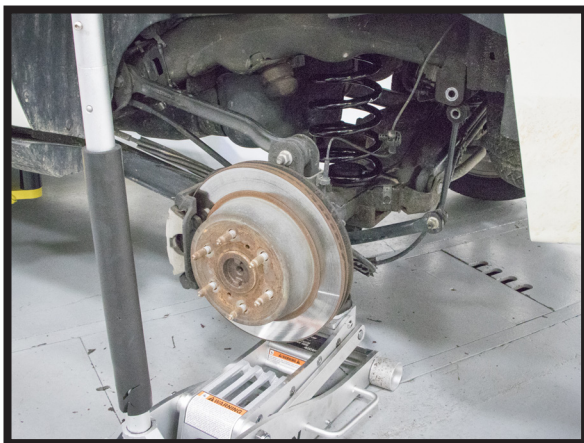


FIGURE 63

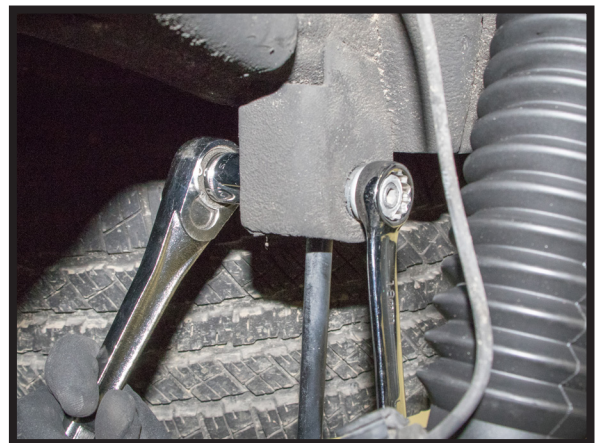


FIGURE 64

3. INSTALL THE SHOCK INTO THE VEHICLE. (FIGURE 65)

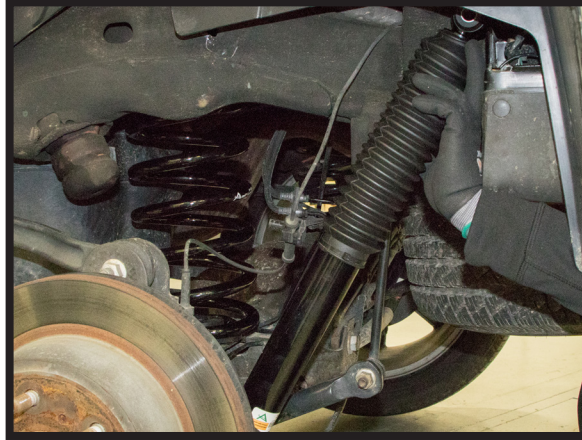


FIGURE 65

4. INSTALL THE UPPER AND LOWER SHOCK MOUNTING HARDWARE AND TIGHTEN TO MANUFACTURER'S SPECIFICATIONS. (FIGURES 66, 67)



FIGURE 66



FIGURE 67

5. REINSTALL THE BRAKE LINE BRACKET AND RIDE HEIGHT SENSORS, TIGHTENING TO MANUFACTURER'S SPECIFICATIONS. (FIGURES 68, 69, 70)



FIGURE 68

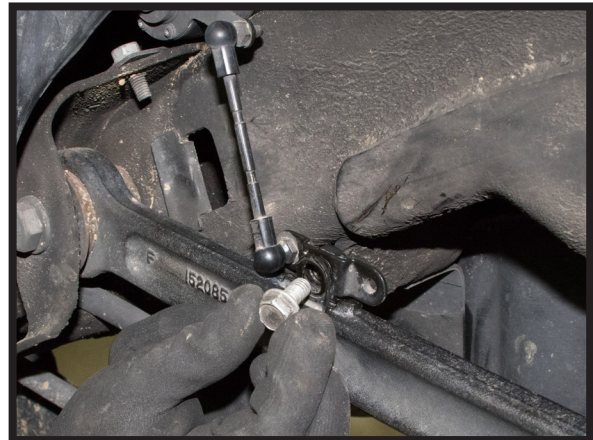


FIGURE 69



FIGURE 70

6. REINSTALL THE WHEEL.
7. LOWER THE VEHICLE.
8. INSTALLATION COMPLETE.



To avoid the possibility of short circuits while working with electric components consult your owner's manual on how to disconnect your battery.



Consult your vehicle owner's manual, service manual, or car dealer for the correct jacking points on your vehicle and for additional care, safety and maintenance instructions. Under no circumstances should any work be completed underneath the vehicle if it is not adequately supported, as serious injuries and death can occur.

## ELECTRONIC BYPASS MODULE INSTALLATION

1. REMOVE SIDE FUSE BOX COVER. (FIGURE 76)



FIGURE 71

2. REMOVE LOWER DASH HARDWARE AND REMOVE LOWER DASH COVER. (FIGURES 72, 73, 74, 75, 76)



FIGURE 72



FIGURE 73

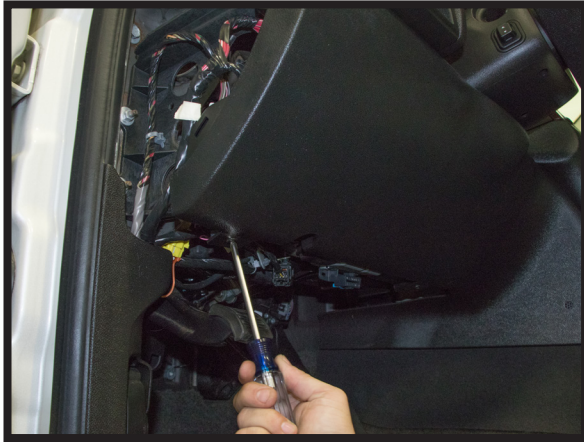


FIGURE 74



FIGURE 75



FIGURE 76

3. REMOVE OBD MOUNTING SCREW AND DROP THE PLUG DOWN. (FIGURES 77, 78)

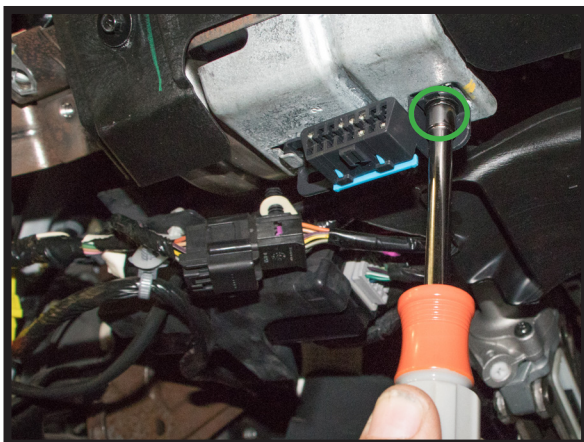


FIGURE 77

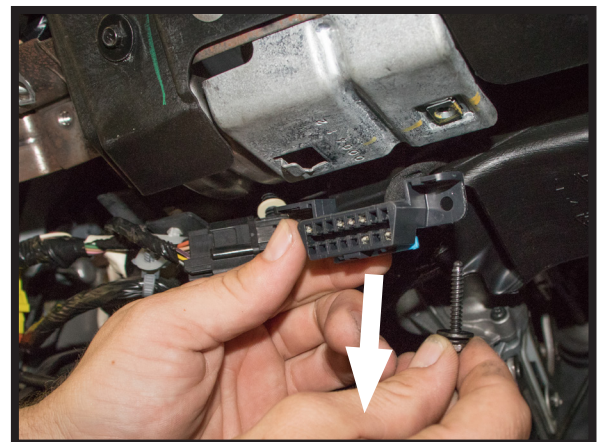


FIGURE 78

4. REMOVE AIR CONDITIONING DUCT. (FIGURE 79)



FIGURE 79

5. TRIM BACK THE PLUG HARNESS SHEATH. (FIGURE 80)

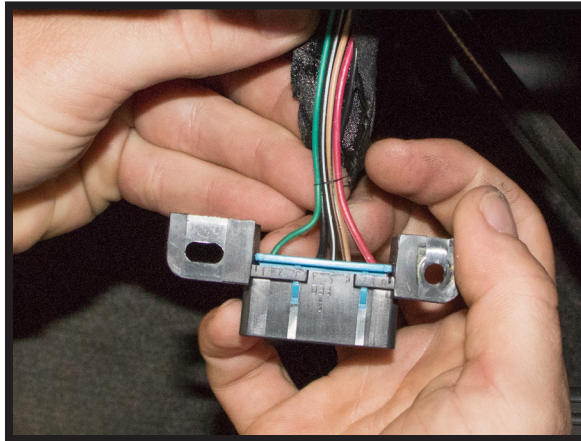


FIGURE 80

6. USING THE WIRING DIAGRAM, MATCH UP THE WIRES AND SPLICE THEM TOGETHER WITH THE T-TAP CONNECTORS. (FIGURES 81, 82, 83, 84, 85, 86, 87, 88)

ELECTRONIC BYPASS MODULE	FROM	PIN#	WIRE/COLOR	VEHICLE'S WIRING HARNESS
	BLUE	6	TAN/BLACK	
	RED	16	RED/WHITE	
	GREEN	14	TAN	
	BLACK	4	BLACK	

FIGURE 81

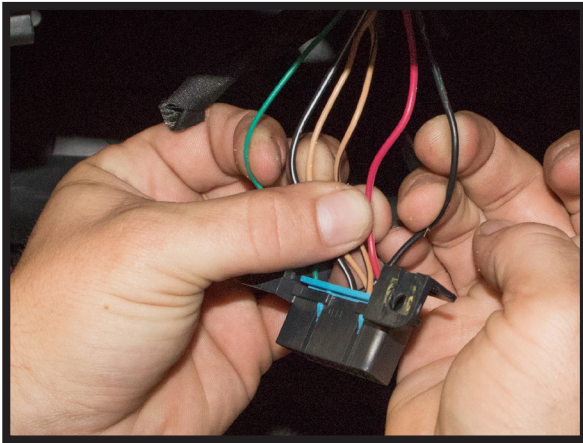


FIGURE 82

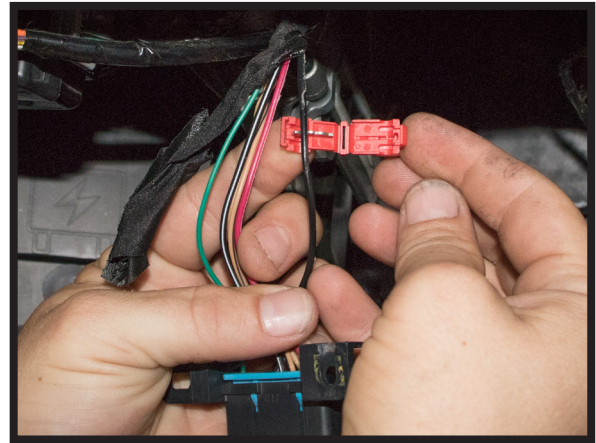


FIGURE 83



FIGURE 84





FIGURE 85

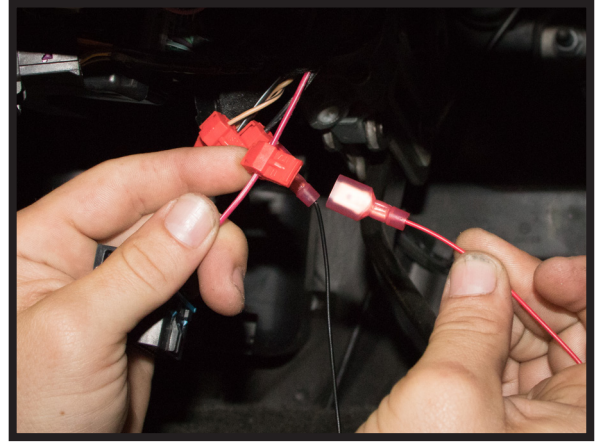


FIGURE 86

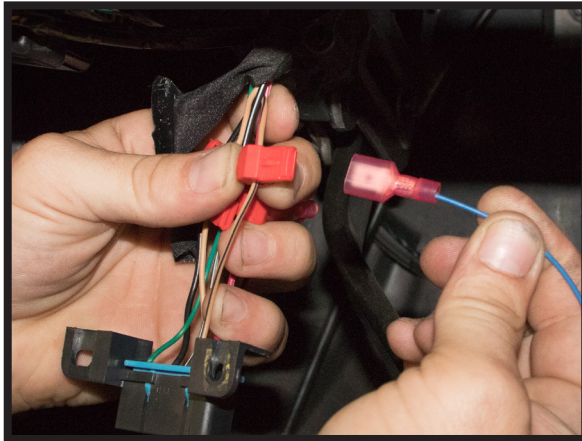


FIGURE 87

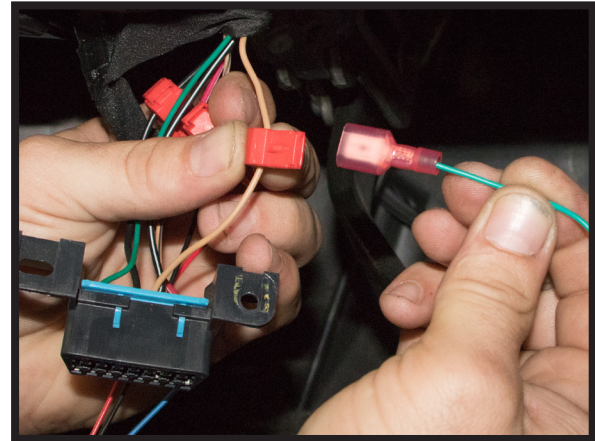


FIGURE 88

7. ONCE ALL THE WIRES HAVE BEEN CONNECTED YOU WILL NEED TO SECURE THE EBM UNDER THE DASH AND AWAY FROM ANY SOURCE OF HEAT AND/OR ANY MOVING PARTS. (FIGURE 89)

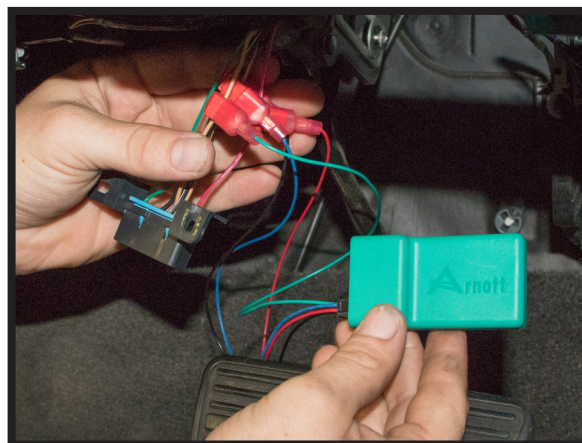


FIGURE 89

8. REASSEMBLE THE DASH BY REINSTALLING THE AIR CONDITIONING DUCT, LOWER DASH COVER, LOWER DASH HARDWARE, AND SIDE FUSE BOX COVER.
9. EBM INSTALLATION COMPLETE.

8. REMOVE THE COVER FROM THE FUSE BOX IN THE ENGINE COMPARTMENT. (FIGURE 90)



FIGURE 90

9. REMOVE THE 30-AMP FUSE IN LOCATION #2 LABELED AS "ESC/ALC EXH". (FIGURES 91, 92)

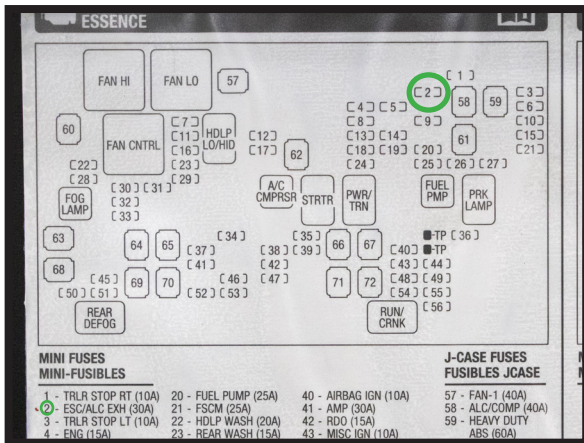


FIGURE 91



FIGURE 92

## **NOTE:**

*If the fuse is not removed a warning light will be displayed in the instrument cluster.*

10. REINSTALL THE FUSE BOX COVER.
11. INSTALLATION COMPLETE.