

Air to Coil Spring Conversion Kit

2005-2011 Cadillac STS (AWD)



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 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 Suspension System. This includes proper lifting and immobilizing of the vehicle and isolation of any stored energy to prevent personal injury or property damage.





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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.



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FRONT STRUT REMOVAL INSTRUCTIONS

- 1. RAISE VEHICLE AND OPEN THE HOOD.
- 2. REMOVE FRONT WHEEL.
- 3. UNDER THE HOOD, LOCATE THE ELECTRONIC CONNECTOR ONTOP OF THE STRUT. REMOVE THE CLIPPED MALE CONNECTOR. (FIGURE 1)



FIGURE 1

4. ON THE FEMALE CONNECTOR BASE, PRESS IN THE METAL WIRE RETAINER CLIP AND REMOVE THE REST OF THE CONNECTOR. (FIGURE 2)



FIGURE 2



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5. BELOW THE CONNECTOR IS A THREADED STEEL CONNECTOR NUT. UNTHREAD THIS NUT FROM THE STRUT. DO NOT LOOSEN THE NUT BELOW THIS CONNECTOR NUT. (FIGURE 3)



FIGURE 3

6. REMOVE THE STRUT TOWER BRACE TO EXPOSE THE STRUT MOUNT STUDS. (FIGURE 4)



FIGURE4



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7. REMOVE THE RIDE HEIGHT SENSOR LINKAE GROM THE UPPER CONTROL ARM (FIGURE 5)



FIGURE 5

8. SUPPORT THE LOWER CONTROL ARM WITH A FLOOR OR SCREW JACK AND DISCONNECT THE KNUCKLE FROM THE UPPER CONTROL ARM (FIGURE 6)



FIGURE 6



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9. REMOVE THE STRUT TO LOWER CONTROL ARM BOLT. (FIGURE 7)



FIGURE 7

10. REMOVE THE PINCH BOLT FROM THE STRUT CLEVIS/YOKE. REMOVE THE YOKE FROM THE STRUT. (FIGURE 8)



FIGURE 8



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11. REMOVE THE TOP MOUNT BOLTS FROM THE STRUT AND REMOVE THE STRUT FROM THE VEHICLE. (FIGURE 9,10)



FIGURE 9



FIGURE 10

12. PLACE A SET OF COIL SPRING COMPRESSORS ON THE REMOVED STRUT. COMPRESS THE STRUT UNTIL THE TOP MOUNT IS LOOSE FROM THE SPRING. (FIGURE 11)



FIGURE 11

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13. REMOVE THE STRUT ROD NUT FROM THE STRUT. REMOVE THE STRUT MOUNT AND SPRING ISOLATOR. (FIGURE 12,13)



FIGURE 12



FIGURE 13

FRONT STRUT REMOVAL COMPLETE

FRONT STRUT REMOVAL INSTRUCTIONS



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

1. FROM YOUR NEW STRUT, REMOVE THE NUT AND FIRST CUP WASHER. (FIGURE 14). THERE SHOULD STILL BE ONE CUP WASHER AND A SMALL FLAT WASHER UNDERNEATH THE SECOND CUP WASHER.



FIGURE 14

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2. INSTALL YOUR NEW SPRING WITH THE LARGE OPEN END UP ONTO THENEW STRUT. PLACE THE INCLUDED SPRING ISOLATOR ON THE TOP OF THE SPRING (FIGURE 15,16). COMPRESS THE SPRING. (FIGURE 17)



FIGURE 15



FIGURE 16



FIGURE 17

3. REINSTALL THE TOP MOUNT FROM YOUR VEHICLE ONTO THE STRUT ROD, ENSURING THERE IS A CUP WASHER AND FLAT WASHER UNDERNEATH. (FIGURE 18) NOTE: IF YOUR KIT INCLUDED A NEW MOUNT ISOLATOR IT CAN BE INSTALLED NOW AS WELL.



FIGURE 18



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4. INSTALL THE PREVIOUSLY REMOVED CUP WASHER ONTO THE TOP MOUNT. TIGHTEN DOWN THE NUT. (FIGURE 19)



FIGURE 19

- 5. RELEASE THE SPRING COMPRESSOR TENSION AND REMOVE THEM FROM THE STRUT.
- 6 INSERT THE NEW STRUT INTO THE VEHICLE, AND REINSTALL THE TOP MOUNT BOLTS.
- 7. REINSTALL THE STRUT CLEVIS/YOKE ONTO THE BOTTOM OF THE NEW STRUT. ONCE ALIGNED, REINSTALL AND TIGHTEN THE PINCH BOLT.
- 8. REINSTALL THE LOWER STRUT TO LOWER CONTROL ARM BOLT.
- 9. USING A FLOOR JACK OR SCREW JACK, LIFT THE LOWER CONTROL ARM UP TILL YOU CAN USE A PRY BAR TO HELP YOU REINSTALL THE UPPER CONTROL ARM INTO THE KNUCKLE.
- 10. REINSTALL THE RIDE HEIGHT CONTROL SENSOR LINKAGE.
- 11. REINSTALL THE STRUT TOWER BRACE.
- 12. ENSURE THE DISCONNECTED ELECTRICAL CONNECTORS ARE SECURED IN A PLACE THAT AVOIDS ALL HOT SURFACES AND MOVING PARTS.

FRONT STRUT INSTALL COMPLETE



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Strutmasters is a company founded in 1999 that specializes in Air to Non-Air Suspension Conversion kits and suspension components, Strutmasters has become an industry leader in the world of suspension. What began as a personal project to repair a family's only vehicle, Strutmasters has grown into a nationwide provider of suspension solutions and has truly earned the title "The Suspension Experts®".



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