

INSTALL/REMOVAL INSTRUCTIONS: AIR SUSPENSION CONVERSION KIT

ATTENTION: Refer to the appropriate shop manual for your vehicle to obtain specific service procedures for this part. If you do not have a service manual or lack the skill to install this part, it is recommended that you seek the services of a qualified technician. Pay special attention to all cautions and warnings included in the shop manual. Read and follow all instructions carefully.

Air Suspension Conversion Kit

General Installation Instructions

When servicing any vehicle be sure to follow all safety procedures. First, make sure that when lifting the vehicle that you use an appropriate jack with a proper weight rating. Before going underneath any vehicle, make sure that it is properly supported with sturdy jack stands and on level ground so that the vehicle doesn't fall or slide off of the jack and onto you. As with any automotive repair, make sure you have the appropriate tools to do the job so you don't damage any parts on the vehicle. Safety glasses and mechanic's gloves should also be worn for your protection.

Take care not to exceed the Gross Vehicle Weight Rating (GVWR), or the maximum load recommended by the manufacturer. It is important that all the vehicle owner manuals recommendations are followed for your own safety and to prevent damage to the vehicle.

Once you are ready to disable the ride light, you will need to disconnect the negative battery cable (-) to prevent electrical shock/malfunction.

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Front Strut Instructions

Tools Needed For Installation

- Metric socket set
- Metric wrench set
- Screw drivers(Phillips and flat head)
- Wire cutters/strippers/crimping tool
- Allen wrenches
- Level work surface
- Floor jack or automotive lift
- Jack stands

Cadillac Suspension Warning Light Disarming Check List

- Remove negative cable from battery before installing kit.
- Follow kit installation instructions, ensuring all steps have been successfully completed.
- Install electronic components as instructed.
- Ensure height sensors remain connected.
- Reattach battery cable.
- Clear all present & past OBD codes. See owner's manual about clearing codes. This process may require a scan tool.
- If installing a rear kit, pull the compressor fuse (30 to 50 amp) located in the engine or trunk compartments.

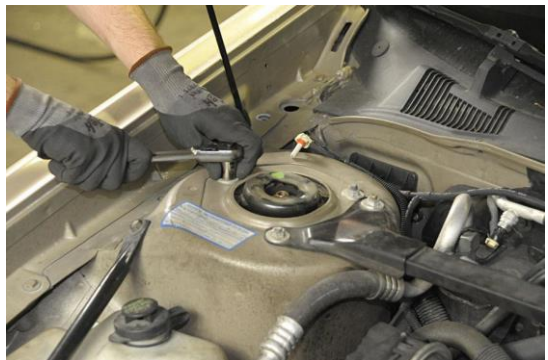
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Removal Instructions

- Lift and support the vehicle by frame.
- Remove the wheels.
- Remove the three nuts that secure the strut to the body.
- Support the knuckle mount.



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Removal Instructions

Note: Whenever working near the drive axles, care must be taken to prevent inner tri-pot joints from being overextended. Overextension of the joint could result in separation of internal components which could go undetected and result in failure of the joint. Care should be taken to avoid scratching or cracking the spring coating when handling the front suspension coil spring. Damage can cause premature failure.

- Disconnect the electronic suspension electrical connectors leading to the struts. Depending on the model, this may be located on either the top of the strut, or inside the inner fender apron.



- Disconnect link rod at lower control arm for road sensing suspension (if equipped).
- Mark strut in relation to steering knuckle for installation. (On some models the lower strut to the steering knuckle bolt serves as the camber (alignment) set point).
- Mark old strut here, try to match new strut as closely as possible.



Note: A four wheel alignment is recommended upon completion.

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Removal Instructions

- Remove brake line bracket and ABS bracket from the strut assembly



- Remove the stabilizer link from strut (if equipped).



- Assure that the steering knuckle remains supported to prevent damage to drive shaft joints.



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Removal Instructions

- Remove the fasteners securing the strut to the knuckle assembly. Support the knuckle assembly to prevent the drive shaft joint from separating.



- While pulling towards you and pushing on the strut, remove the bottom strut mount from the steering knuckle.



- Remove the old strut from the vehicle.



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Installation Instructions

- Install the new strut by placing the bottom through first in order to clear the fender.



- Push the mount studs up through the strut tower. Hand start the nuts onto the studs. Do not fully tighten.



- Install and tighten the bolts connecting the strut to the knuckle assembly.
- Completely tighten the upper stud nuts.
- Follow the suspension light disarm instructions on the next page.



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Note: Read all instructions carefully before attempting installation.

- The bypass resistors are designed to connect to the factory vehicle harness at each wheel which controlled the strut dampening solenoids.
- The supplied bypass resistor may be equipped with a plug connector which can simply be plugged into the vehicle's harness for installation.
- If the connector does not match the factory harness connector, both connectors may be cut off and the two wires from factory harness connected to the bypass resistor wires using butt connectors.
- The connection is not polarity specific. Either wire from the factory harness may be connected to either wire on the bypass resistor.
- Also, these resistors are only meant to simulate the dampening solenoids of the factory strut units, not to disable the entire system. Check the vehicles OBD suspension codes to ensure that no other faults exist or a suspension error message may be displayed.

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Rear Shock & Coil Spring Removal

- Raise and support vehicle.
- Remove rear seat cushion and seat back to gain access to shock mounting nuts. (Fig. 1)
- Remove tire and wheel assembly.
- Disconnect air line from shock.
-
- Support lower control arm with suitable jack stand.
- Remove the two upper shock mounting nuts. (Fig. 2)
-
- Remove the two lower shock anchoring bolts, washers and nuts from the knuckle, then the knuckle bracket. (Fig. 3)
- Remove strut from vehicle.

Repeat this procedure on the other side before proceeding.

Fig. 1



Fig. 2



Fig. 3



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Rear Shock & Coil Spring Removal Continued

- Disconnect the one ride height sensor rod. (Fig. 4)
- With both shocks removed, raise the sway bar up to gain access to the coil spring.
- Place coil spring compressor on the spring and tighten.

Fig. 4



- Slowly lower the jack stand to remove spring. Do not over stretch the brake line!
Note: If unable to remove the spring, raise jack stand back up and further tighten the compressor. Remove spring. (Fig. 5)
- Measure the old spring while it is compressed and take note of this measurement.

Fig. 5



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New Coil Spring & Shock Installation

- Place coil spring compressor on the new spring and compress until it has reached the same dimension as the old spring once compressed. (Fig. 1)
- Place rubber spring isolator from the old spring on top of the new spring and install on the vehicle.
- Raise control arm up enough to hold spring in place. Remove spring compressor.
- Place new shock onto the lower wheel mount using the factory bolts and make sure to reconnect the sway bar brackets before installing nuts. Do not tighten bolts yet! (Fig. 2)
- With the jack, raise the control arm while aligning the upper shock to go through the upper mounting hole behind the rear seat. Install the upper shock nuts and tighten. (Fig. 3)

Fig. 1



Fig. 2

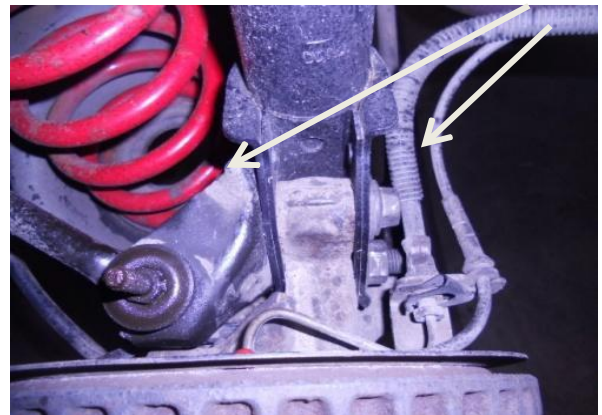


Fig. 3



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New Coil Spring & Shock Installation Continued

- Tighten the lower shock mounting bolts.

Repeat the same procedures for the other side

- Reinstall the height sensor rod on the one side.
- Reinstall the rear wheels and tighten to factory spec.
- Replace rear seat.

Caution: Perform a rear wheel alignment to ensure safe vehicle driving.

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Leave the compressor connected to the power source but pull the fuse.

If electrical connection to the old strut dampener solenoid and the vehicle is not present and a suspension warning code is not displayed the dash, ignore the electronic disarming instructions.

The electronic dampener solenoid should be removed from the old strut and then secured to the vehicle with a tie strap. This will negate the need for any procedure to disarm alarm code. If the solenoid is damaged or cannot be removed, use the resistors sent with the kit.

Notes:

Tighten all mounting hardware to the manufacturer's torque specifications. Replace any suspect hardware.

Inspect the upper mounts before reinstalling on the vehicle. Replace if needed.

The electronic dampener solenoid can be removed from the old strut and secured to the underside of the vehicle with a tie strap. This will negate the need to install the resistors supplied with the kit. If the solenoid is damaged or inoperative then follow the instructions included to install the resistors.

Some models have a thicker upper mount. If you cannot get the nut started, pull the upper mount and trim off about $\frac{1}{4}$ " of the top rubber mount to ease installation.

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IPC over-ride to disable service ride control light

1991 to 1993 Deville

- Locate the CCR control module attached to the floor pan below the left front seat.
- Locate and cut circuit 1300 (dark green wire).
- Tape the wires back into the harness to prevent shorting to the other components.