

Two-Post Lift Operating Procedure

When using a lift have a partner direct you into the lifting area. **Warning: Stand to one side, not in front of the vehicle.** Line the center of gravity of the vehicle with the posts or as required by the lift manufacturer. On rear-wheel drive vehicles the center of gravity is usually directly below the driver's seat. However, on front-wheel drive vehicles, it is usually slightly in front of the driver's seat. Make sure the lift arms are contacting the vehicle's lift points. When vehicles still had full frames, the lifting points were easy – the frame. Today many automobiles do not have full frames, but unibodies. The frames on unibody vehicles are integrated with the body. When lifting a vehicle, use a manual to identify the correct lift points. Lift the vehicle about a foot off the ground. Then gently push on the front and rear bumper to make sure the vehicle is stable. Visually recheck the lift point connections. Raise the vehicle to the desired height and inspect the

lift points again. **Warning: Some two-post lifts have overhead devices.** Do not lift the vehicle so that the roof of the vehicle comes in contact with overhead devices. Once at the desired height lower the lift onto the load holding device (safety locks). After work is completed remove everything from under the vehicle. First raise the vehicle off the load holding device to disengage the latches, then lower it to the ground. Always refer to the lift manufacturer instructions for specific lifting procedures.

Four-Post Lift Operating Procedure

Drive the vehicle on the runways, centering the weight of the vehicle on the lift. Apply the parking brake and chock both sides of at least one wheel. Raise the vehicle to the desired height. Once at the desired height lower the lift onto the load holding device (safety locks). After work is completed remove everything from under the vehicle. First raise the vehicle off the load holding device to disengage the latches, then lower it to the ground. Always refer to the lift manufacturer instructions for specific lifting procedures. The Automotive Lift Institute has up-to-date manuals, videos, CD-Roms, DVDs, and other materials to safely operate automotive lifts (*Figure 5.17*).

Web Links

Automotive Lift Sites

Automotive Lift Institute
www.autolift.org

Bend-Pak, Inc.
www.bendpak.com

Challenger Lifts
www.challengerlifts.com

Forward Lift
www.forwardmfg.com

Hennessy Industries, Inc. (Ammco Lifts)
www.ammcoats.com/auto-lifts

Hunter Engineering Company
www.hunter.com

Mohawk Lifts
www.mohawklifts.com

Rotary Lift
www.rotary-lift.com

Snap-on Equipment
www.snaponequipment.com

Western Hoist, Inc.
www.westernhoist.com

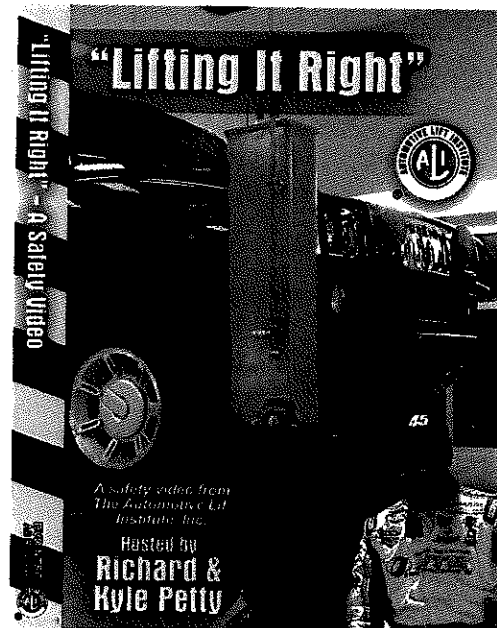


Figure 5.17 **Lifting It Right Safety DVD**
 Courtesy of Automotive Lift Institute, Inc. - www.autolift.org

Using Jacks and Jack Stands

You should never go under a jacked-up vehicle unless it is supported by jack stands. Safety jack stands are inexpensive and a must when completing repairs or service procedures under a vehicle. The following are the steps for jacking up a vehicle (*Figure 5.18*). **Warning: Never use concrete blocks or other inadequate devices for supporting a vehicle.**

Jacking a Vehicle Procedure	
STEP 1	Chock the wheels that will be on the ground. Wheel chocks are used to minimize the risk of the vehicle rolling and falling off the jack.



Figure 5.18a Chocked Wheel

STEP 2	Position the floor jack so that it comes in contact with the frame or another solid chassis component. Do not use the oil pan, body, or other fragile component as lifting points when jacking up the vehicle. Serious damage could result. Check the owner's manual for specific lift points.
STEP 3	Slowly pump the jack and lift the vehicle.
STEP 4	Once at the desired height, position the jack stands under the frame or specified jacking points. Ratchet the jack stands to the desired height.
STEP 5	Slowly lower the vehicle onto the jack stands and remove the floor jack.

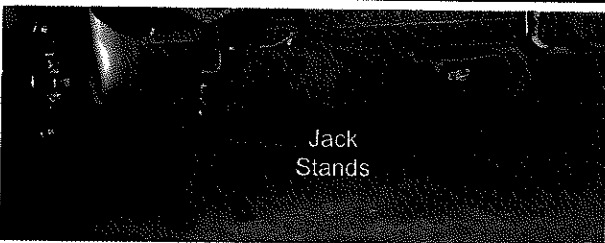


Figure 5.18b Jack Stands in Position

STEP 6	Reposition the floor jack, lift the vehicle off the jack stands, remove the jack stands from under the vehicle, lower the jack, and remove chocks.
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Figure 5.18 Jacking a Vehicle

Safety Around Airbags

Since 1998, dual frontal airbags for the driver and front passenger have been standard equipment for all passenger cars sold in the United States. Since 1999, all light trucks, vans, and SUVs were also required to have dual airbags. Over the years, airbag improvements have been made. Advanced frontal airbags were required in all new vehicles manufactured since September 1st, 2006 (2007 model year vehicles). Advanced systems use various sensors to minimize the risk of being injured by an airbag deployment during an accident, especially for children and small adults. These sensors commonly detect the size of the person sitting in the seat, the severity of the crash, the position of the seat, and whether or not the occupant is wearing a seat belt. The advanced systems inflate according to the sensor input. This section focuses on:

- Working on Airbag Systems
- Working Near Airbag Components

Working on Airbag Systems

Do not attempt to work on airbags, part of the Supplemental Restraint System (SRS), without professional training. Do not disturb, hit, or tamper with airbag system components when working on a vehicle (*Figure 5.19*). **Warning: Airbags may deploy rapidly without warning causing serious injury or death.**

SUPPLEMENTAL RESTRAINT SYSTEM (SRS) (A9)

This vehicle is equipped with front airbags, side airbags in the front seats, front seatbelt tensioners, and side curtain airbags. All SRS electrical wiring and connectors are colored yellow. Tampering with, disconnecting or using test equipment on the SRS wiring can make the system inoperative or cause accidental deployment.

⚠ WARNING

Accidental deployment can seriously hurt or kill you. Follow Service Manual instructions carefully.

Figure 5.19

SRS Warning Label