Professional Grade Suspension

Installation *(X-0015)*
Instructions – ALD-50; One Piece Spring Retainer

***NOTES:**
- DO NOT OVERTIGHTEN SET SCREW.
- SET SCREW HAS PRE-APPLIED THREAD LOCKER APPLIED ON THREADS.

Step 1. Remove retainer and supplied set screw from bag (If not already installed).

Step 2. Install your coil spring on your Aldan shock.

Step 3. With anti-seize applied on your spring retainer threads, set screw installed (hand tight at this point); thread the retainer onto the coilover shock body.

Step 4. With the spring preload set at a baseline setting (We recommend starting at 1.0" of pre-load on our coil-springs). With the spring retainer installed; anti-seize applied on threads and set screw installed, you can now move to Step 5.

Step 5. With the set screw hand tight in the retainer, use a 5/32” Allen wrench and turn an additional 1/4 turn by hand.
(*Do not over tighten)

Step 6. Retainer should be tight on the shock body with zero movement or play once installed. Your spring and spring retainer installation is now complete.

Step 7. You may need to re-adjust the retainer further using a spanner wrench to get your final ride-height once the coilover is installed on your chassis. Loosen the set screw and repeat steps if additional pre-load and height adjustments are needed for your application.

Visit www.aldanamerican.com for additional guides, video and installs updated regularly.

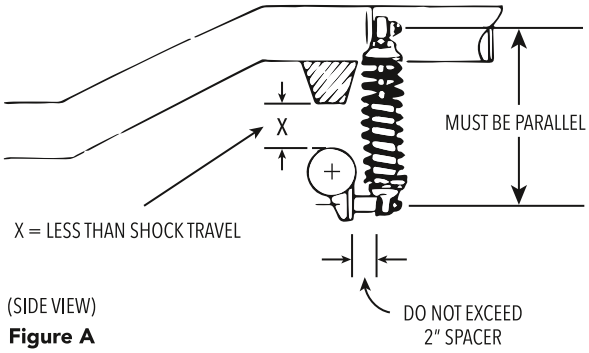
WARNING: Cancer and Reproductive Harm - **www.P65Warnings.ca.gov**

(X-0016) SHOCK ABSORBER INSTALLATION GUIDE

There are four common basic causes of service problems:

- **Misalignment**
- **Bottoming**
- **Incorrect angularity**
- **Insufficient clearance**

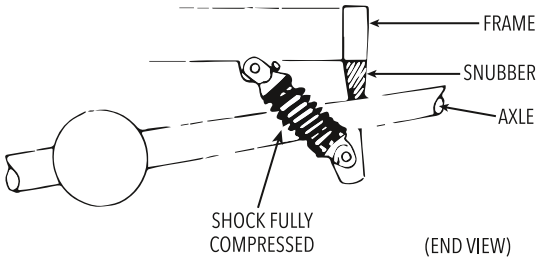
If you will pay particular attention to these problem areas as you follow the installation procedures described below, you will ensure maximum performance and prolong the life of your Aldan American adjustable shock absorbers.



(SIDE VIEW)
Figure A

ALIGNMENT

The centerlines of shock mounting studs must be parallel to each other (Figure A). If shocks are installed on misaligned mounting studs, excessive shock bushing wear will result; in cases of extreme misalignment, shocks may break or suffer other permanent damage. This is the most common cause of shock absorber failure.



(END VIEW)
Figure B

SHOCK TRAVEL

Suspension components must bottom out before the shock absorber bottoms. This means the axle must contact the frame snubber before the shock is fully compressed (Figure B). If the shock absorber bottoms first, damage to the shock or mounting bracket may occur.

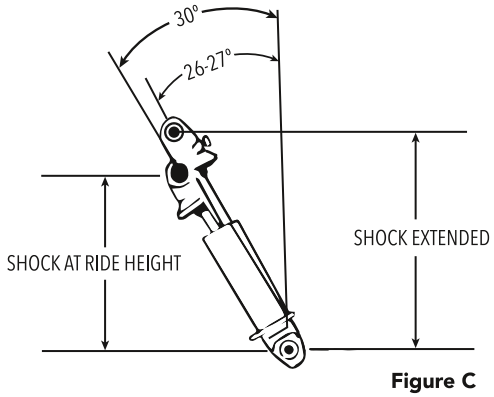


Figure C

MOUNTING ANGLE

The more vertical the shock, the firmer the ride; the less vertical, the softer the ride (but less support, especially on cornering). We recommend a mounting angle of 30 degrees from true vertical at ride height. Generally speaking, the weight of the car will collapse the shock 1-1/4 to 1-1/2 inches at ride height. Using this rule of thumb, you will achieve a 30 degree angle at ride height if the shock is mounted at 26 to 27 degrees when it is fully extended (Figure C). When designing your suspension mounting points, extend the shock to 2/3 at ride height; i.e.. if stroke is 3 inches, set the car up so that at ride height, the shock has room for 2 inches compression and 1 inch rebound. Do not design your suspension with the shock fully extended and the car at rest—allow it to sag, otherwise damage from excessive rebound force may occur.

CLEARANCE

When mounting coil-over shocks, be sure to allow adequate clearance between coil springs, spring retainer rings and frame or body components. If coil springs or retainer rings contact moving frame or body components, breakage of shock absorber. springs or retainer rings may occur.

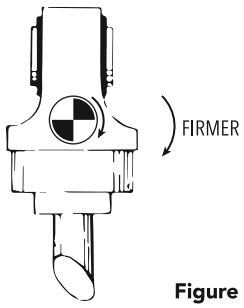


Figure D

SHOCK ADJUSTMENT

The Aldan American adjustable shock has six valve damping positions, so you may dial in the ride you like. To increase firmness, rotate the adjusting knob (located at the top of the shock absorber) clockwise. When the knob is rotated all the way out (counterclockwise), the shock camping is at its softest setting (Figure D).