

Suggested Installation Instructions for Part #'s 600-107 315#, 600-109 340#, 600-111 355# Composite Spring With Hardware

Installation Kit Contents:	
1	Heat Shield
4	Rubber Bushings
4	Large Washers
2	Retaining Cups
2	End Link Bolts
2	Nylock Washers
2	Cotter Pins
4	Mount Bolts
4	Lock Washers

Thank you for purchasing the TRW designed composite transverse leaf spring for your C3 Corvette. This state-of-the-art suspension component is designed to improve the ride quality of your vehicle while preserving the handling you expect. Each of our composite springs includes the necessary mounting hardware and requires no fabrication or alteration to the vehicle to be properly installed.

Because of the advanced single leaf design, the spring is more able to respond to irregularities in the driving surface than a metal spring. Please use a high-quality gas shock absorber with your spring to achieve the proper balance and ride quality.

P/N	Rate
600-107	315#
600-109	340#
600-111	355#

If you are unsure about the condition of your shock absorbers after inspection we recommend that they be replaced with a quality shock absorber.

Caution: Improper installation may result in suspension failure and will void the manufacturer's warranty. To ensure proper installation use all parts provided and follow the installation instructions.

Please read all installation instructions completely before beginning the installation.

Important Note: Please check your differential cover and confirm the mounting bolt size. OEM covers for 1978-1979 Corvettes used a 7/16" thread size bolt and were often used to replaced 1963-1977 covers after a failure.

Before attempting installation confirm that you have a 7/16" bolt holding your current spring to the differential cover. The spring and included installation kit WILL NOT FIT the 1963-1977 differential covers.

Removal Of Existing Spring

1. Chock the front wheels
2. Raise the rear of the vehicle, placing jack stands at the ends of the frame rails in front of the rear wheels. Removal of the rear wheels is not necessary, but will make the job easier.
3. Remove the cotter pin from the spring end link bolt (see Figure 1). Carefully loosen the castle nut approximately one (1) turn.
4. Clamp vise grips on the spring (Figure 1)
5. Using a floor jack, carefully lift the spring just enough at the vise grip point (Figure 2) to relieve pressure from the castle nut.

CAUTION: In this depressed state the spring is supporting the rear of the vehicle. DO NOT lift the spring to where the vehicle lifts off the jack stand as this will create a dangerous working condition in which the vehicle could slip off the jack stands.

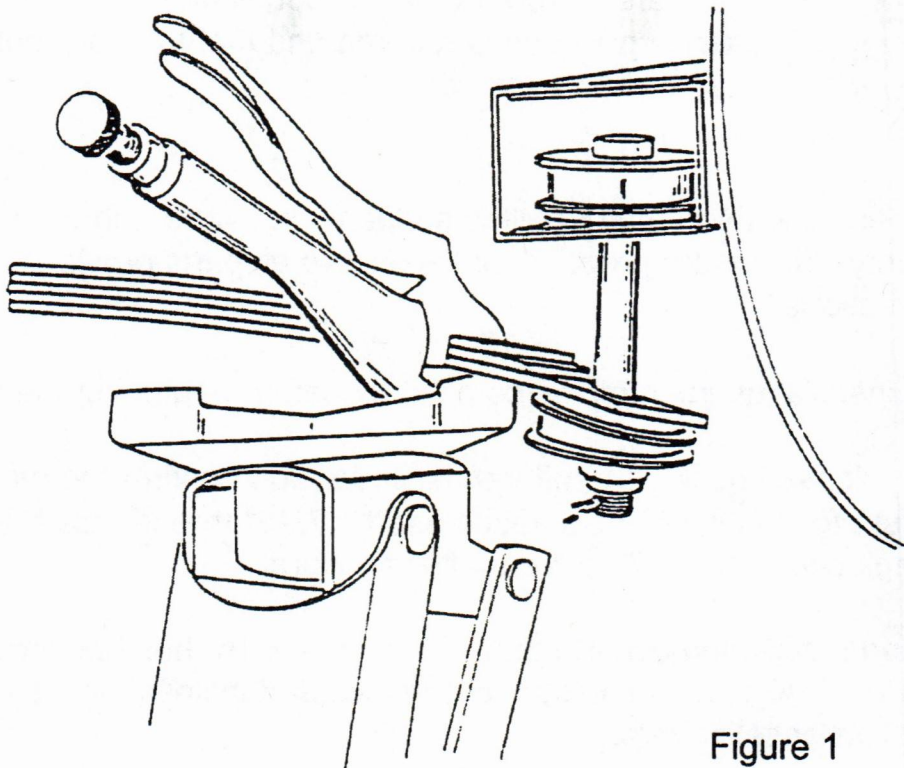
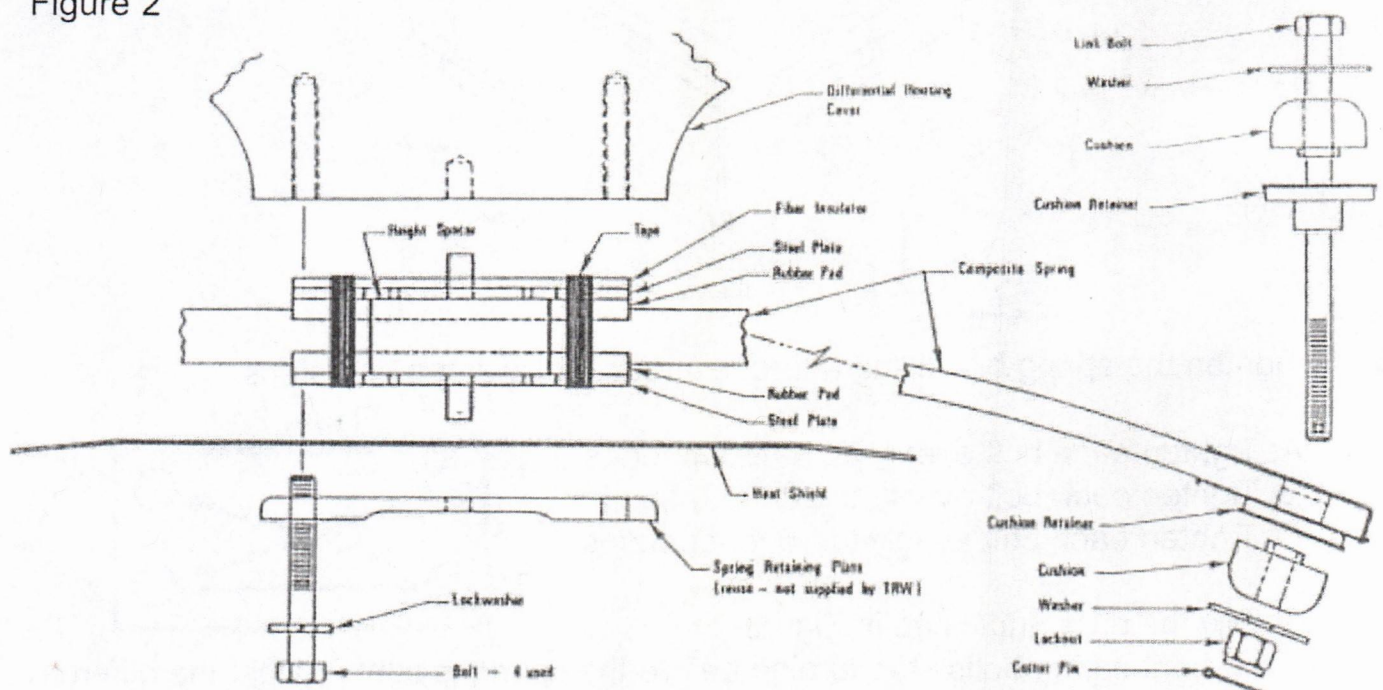


Figure 1

Spring Removal Cont.

- Remove castle nut, washer, and cushion from link bolt and slowly release the jack. Remove the link bolt, washer, and cushion retainer from the trailing arm
- Repeat steps 2-6 for the other side of the spring
- Loosen or remove the rear exhaust to allow removal of the spring. For most cars, disconnection of the rear hangers will allow the exhaust system to drop enough to provide room to remove the spring. Some late model Corvettes are equipped with an aluminum heat shield covering the center of the spring and differential. Remove this shield.
- Remove the four (4) center spring bolts (Figure 2). When using a breaker bar on stubborn bolts take care that the car does not shift on the jack stands.
- Remove the spring retaining plate and spring. **CAUTION** Steel spring weight is approximately 40 pounds. Take care when removing the spring. Check the threads in the differential cover for damage. Installation is easier and tightening procedure is improved if the threads are clean.

Figure 2

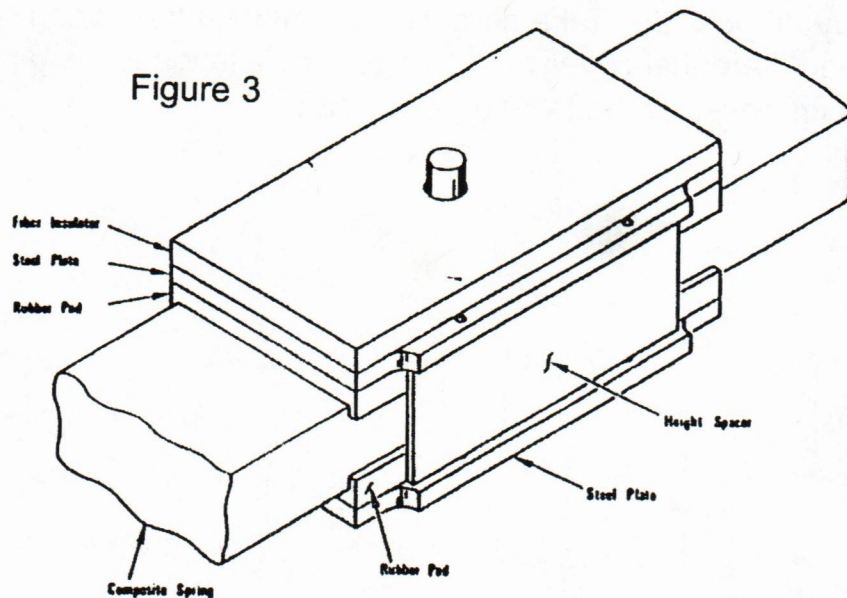


Installation Of New Composite Spring

1. Remove the spring assembly from the box. Check the position of the rubber pad, steel plates, height spacer and fiber insulator. Check that the two tanks on each edge of the two spacers are started into the holes in the two steel plates. They must be as shown (Figure 3). Do not remove the assembly tape holding the plates, spacers, pads and insulator to the spring.

IMPORTANT: Installing the spring assembly other than as shown could damage the spring and void the manufacturer's warranty.

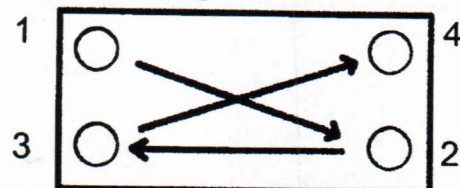
2. Locate the composite spring to the differential cover, making sure that the pilot in the center of the spring sets into the hole in the differential cover.
3. Insert the new spring bolts (provided) through the lock washers, spring retaining plate, and heat shield (Figure 2) and tighten finger tight



4. Tighten the spring bolt using a torque wrench following these steps:

- A. Tighten each bolt evenly to 10 foot pounds
- B. Tighten each bolt evenly to 20 foot pounds
- C. Tighten each bolt evenly to 35 foot pounds

Figure 3a



Follow the order indicated in Figure 3a

If the front spring bolts stop turning before the spring is tight against the differential cover remove the bolt and check to see if it is bottoming out in the tapped hole. If necessary shim the bolt with additional washers under the bolt head.

Installation Of New Composite Spring Cont.

5. Insert new link bolt, cushions, cushion retainers, and washers into each trailing arm as shown (Figure 2).
6. Carefully position the floor jack as show in Figure 4

NOTE: The jack must only contact the composite spring on the metal end fitting. Applying direct pressure to the composite material will damage the spring, could potentially cause suspension failure, and will void the manufacturer warranty.

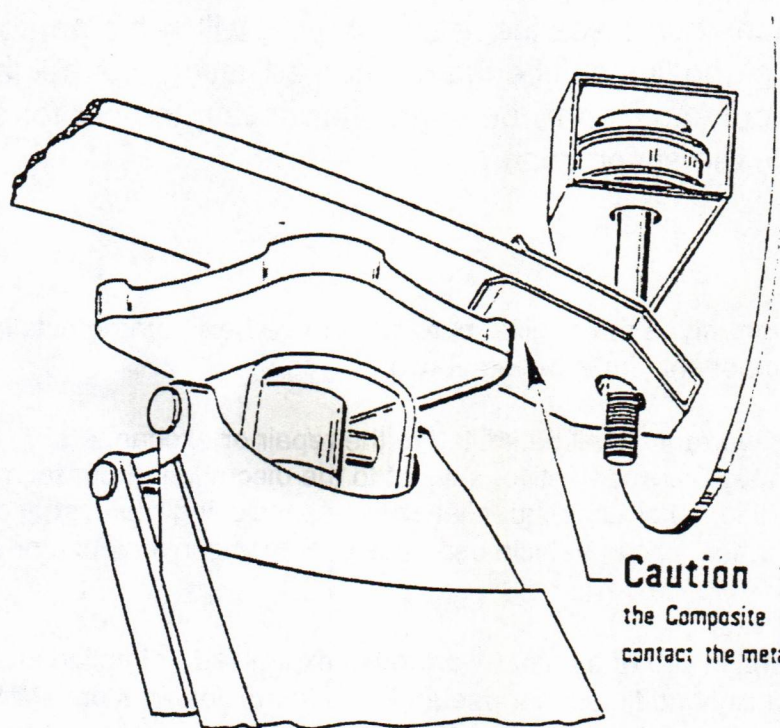


Figure 4

Caution To prevent damage to the Composite Spring, the jack must contact the metal end fittings only

7. Jack the spring up so that a cushion, washer, and lock nut may be installed on the link bolt. Run the lock nut onto the link bolt until it clears the cotter pin hole and install the cotter pin. Repeat for the other side of the spring.
8. Reattach the exhaust system. Check that the spring clears the exhaust pipes and muffler clamps by at least 1/4" for the entire length of the spring
9. Remove the jack stands and lower the car to the ground
10. Recheck the spring bolt torque. Check that the heat shield clears the composite spring by 1/4"

Installation Of New Composite Spring Cont.

11. If your Corvette is equipped with wider-than-stock tires and/or rims check that there is adequate clearance between the wheel/tire and the end of the spring
12. Check that all installation instructions have been followed.
13. Check front and rear alignment after installation.

NOTE: The link bolts in the kit are made with extra thread so that adjustment can be made to the ride height of the car. Further tightening of the lock nuts on the end link bolts will raise the height of the rear of the car. Keep in mind that as the new rubber cushions compress the rear of the car will settle approximately 3/8". Be sure to adjust the link bolts equally when adjusting ride height. Adjusting the ride height should only be done after driving the car for a short period of time to settle the suspension.

Warranty Information

Under normal use, we warranty to the original purchaser to be free from defects in workmanship including rubber components for a period of two (2) years.

Our obligation under this warranty shall be limited to the repair or exchange of any part or parts, which may prove defective, subject to the discretion of our technicians. We assume no liability for incidental or consequential damages including the cost of diagnosis, removal and installation labor, loss of vehicle use, loss of time, inconvenience or any other such expenses.

This warranty is expressed in lieu of all other warranties expressed or implied including the warranties of merchantability and fitness for use and all other obligations or liabilities on our part. We neither assume, nor authorize any other person to assume for us, any other liability in connection with the sale of this composite spring. This warranty shall not apply to this composite spring or any part thereof which has been subject to accident, negligence, alteration, abuse or misuse. We make no warranty whatsoever in respect to accessories or parts not supplied by us.

The term "original purchaser" as used in this warranty shall be deemed to mean that person whom the composite spring is originally installed. This warranty shall apply world wide. Any warranty composite spring(s) returned to us must be postage paid. Replacement composite spring(s) subject to return shipping charges.