

Cappin' It Off

PUTTING A SOLID SEAL BETWEEN THE ELEMENTS AND YOUR CORVETTE'S INTERIOR
BY TOM BENFORD



When we got our convertible several months ago, summer was upon us and the ragtop was down much of the time. When fall came, however, the top was up constantly.

As the weather grew steadily colder, we began to look wistfully at other Corvette owners in their coupes. Many Corvette owners experience the same dilemma, but a removable hardtop would keep their convertible's cabin toasty warm and make it a bit quieter, too. Fortunately, Smooth Line High Performance Composites had just what the doctor ordered. Their hardtop, when installed, makes a C5 convertible look like a Z06's fixed-roof coupe – what's not to love there?

Smooth Line offers removable hardtops for all Corvettes from C1s through C5s, and their C5 hardtops can be ordered primed, ready for paint, or with an optional vinyl covering for a slight additional cost. Smooth Line also offers both standard and deluxe finishes for the interior of the top as well as a glass window with an integrated defroster. Our installed top was with the deluxe interior and the rear window defroster, since that's what the car came equipped with from the factory, but our top was painted instead of having the vinyl-clad option.

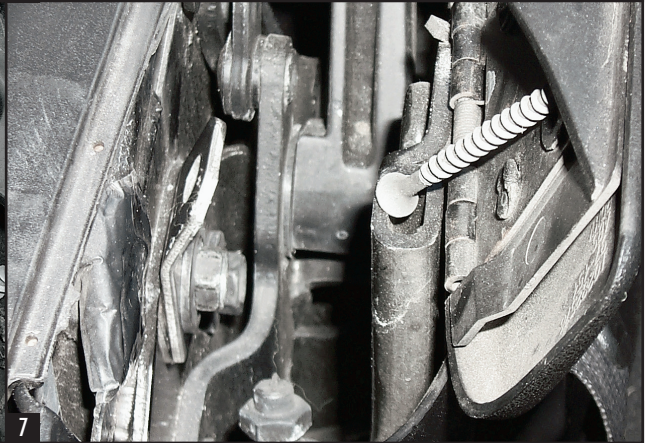
The top arrived in a couple of weeks (they're individually made to order) via a private freight carrier, and it was very well packed. The top was ready to paint since it had received a couple of coats of urethane primer at the factory. Smooth Line suggests fitting the top prior to painting to make adjustments to achieve the best fit, so that's where we got started.



1 We took an interior noise level reading at idle and at 2,000 rpm using a Martel Instruments 322 Sound Level Meter to get a handle on what effect the hardtop would have on cabin noise. The meter registered 62.2 decibels at idle (900 rpm) and 65.6 at 2,000 rpm.

2 Installation begins by stowing the convertible top in the trunk compartment and closing the waterfall panel. The new hardtop doesn't interfere with the ragtop at all, and the convertible top continues to function as normal. If you have a rear defroster, now is the time to do a little electrical work. First, you'll have to locate the electrical wire on each side of the car that attaches to the convertible top bow near the pivot point. Cut these wires approximately 3" above the original connector toward the window end of the wire (the upper end), and crimp a spade terminal to the cut window end of the wire. Next, crimp the bullet end of the hardtop's wiring loom to the other end (the lower end) of the GM factory wire. Repeat the process for the other side of the car, and that's all. You simply attach and detach the wiring by plugging spade terminals together.

3 Clean the top of the windshield frame and the rear deck area rubber with some denatured alcohol. You can use petroleum jelly or a silicone lubricant to lubricate the bottom rubber of the hardtop and the side window rubber. Keep the lubricant away from the surface to be painted.



4 The rear adapter plates are installed next, and they are held in place with the front uppermost bolts on each side of the convertible top pivot point (see arrow). These bolts are located beneath the two small plastic doors that hide the convertible top bow pivot points.

5 Stuff a shop rag into the opening to avoid losing the bolt and use either a 13mm or ½" wrench to remove the bolt. As is often the case when working on Corvettes, a gear wrench makes the going faster and easier. I used a 2.5" decking screw to keep the doors of the compartment open while working on it.

6 The adapter plate bracket gets mounted with the angle on the top facing the inside of the car. Push the bolt through the bracket and tighten it with the hole in the angle facing upward. Repeat this procedure for the other side of the car.

7 Here's the adapter plate bracket mounted on the passenger side of the car – note

that the angle is facing inward toward the interior of the car. The driver side orientation of the bracket is just the opposite. Once these adapter plate brackets are installed, be sure to raise the convertible top to make sure they aren't interfering with its normal operation. Depending on the build tolerances of your particular C5, it may be necessary to straighten the angle of the adapter plate brackets to achieve non-interfering operation for the ragtop. In a subsequent conversation with the folks at Smooth Line, we inquired if it would be OK to mount these plates with the bend facing the outside of the car in certain circumstances and they indicated that it wouldn't do any harm.

8 Here's what the hold-down "J" hooks and the tightening knobs look like and how they attach to the adapter plate brackets (driver-side orientation shown here).

9 The front securing latches are very similar to the factory latches on the convertible, both in appearance and operation. These come pre-adjusted and normally don't require any additional attention.



▲ The upright "T" and the "toes" of the carrier snap into position using spring-loaded buttons — no tools are required and it sets up or breaks down in a matter of seconds. All the areas that come into contact with the hardtop are cushioned with soft foam rubber. The casters permit moving the hardtop and carrier easily, and the casters can be locked to prevent movement while stored. When folded, the Smooth Line Hardtop Carrier nestles unobtrusively in the trunk of the C5 so you can take it with you.

◀ A heavy-duty "breathable" fabric cover is supplied with the hardtop carrier to protect the headliner and exterior of the hardtop from dust and scratches — a nice bonus. Everything about the hardtop carrier and the fabric cover is top-drawer, just as you'd expect from the folks at Smooth Line.



11 Here's what the top looks like when it's in place, prior to painting. The gap at the rear between the top and the deck is necessary for air to escape when the doors are shut with the windows rolled up, but it is watertight due to gaskets that seal the top to the deck.

5 & 6 SPEED OVERDRIVE KITS

As seen in June 2004 Vette Magazine

Corvette 1955-1996

Starting At
\$2995

- LOW RPM CRUISING FINAL GEAR
- FAST ACCELERATION 1st GEAR
- COMPLETE BOLT IN KIT
- NEW TRANSMISSION



STOCK SHIFTER LOCATION
No Modification Required



COMPLETE AUTOMATIC TO 5 SPEED CONVERSIONS

550 HP 5-SPEED CORVETTE KIT SHOWN



CALL NOW
865-609-8187

ON-LINE ORDERING www.keislerauto.com

VISA, MASTERCARD & CHECKS ACCEPTED



CORVETTE WEBSITE

www.muskegonbrake.com

- | | | |
|--------------------|----------------------------|--------------------------------|
| • Calipers | • Parking Brake Components | • Slave Cylinders |
| • Pads | • Power Steering Pumps | • TRW Design Composite Springs |
| • Brake Lines | • Control Valves | • HD Rear End Covers |
| • Master Cylinders | • Front & Rear Suspension | And Much More! |
| • Rotors | | |
| • Shocks | | |
| • Leaf Springs | | |

See a complete list of parts on the web or order your **FREE** catalog today!

Make No Mistake
MUSKEGON
BRAKE
Precision Rebuilders
BRAKE AND SUSPENSION SPECIALISTS

848 E. Broadway
Muskegon, MI 49444
(231) 733-0874 TECH LINE
FAX (231) 733-0635
TOLL FREE 800-442-0335



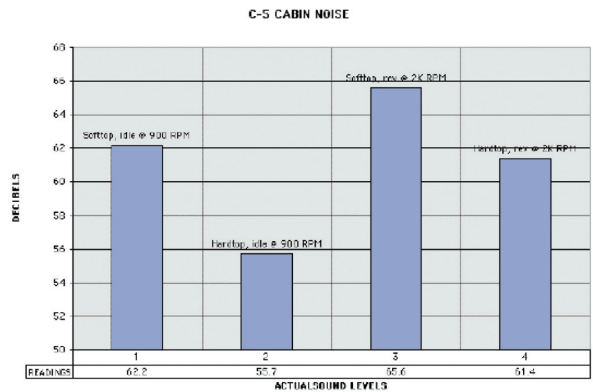
**THE
OPEN
AUTOMOBILE
TRAILER
LIKE NO OTHER**



Canfield, OH
Toll Free: 1-800-282-5042
www.trailex.com



12



13

12 After the top is painted and you're satisfied with the front-to-back and side-to-side fit, it's time to finish installing the side window weather seal. It's a good idea to clean the bonding surface of the top with denatured alcohol first. Then remove the red tape backing from the adhesive on the weather seal. By stretching or compressing the rubber as required, position the front of the side window seal tight against the windshield weather seal pocket to achieve a perfect fit; if you don't do this, you'll wind up with rain dripping in. The adhesive on the weather seal doesn't form a permanent bond for about 48 hours, so this gives you some time for repositioning if required. You can hit the car with a hose on both sides to see if further adjustment to prevent leaks would be required. Ours was tight as a drum!

13 As you can see from this chart, done with the soft top and then again with the hardtop in place, cabin noise was reduced by over four decibels both at idle and at 2,000 rpm — a very noticeable difference! ■

SOURCE

Smooth Line High Performance Composites
 (877) 368-4533
 www.smoothline.com

Martel Electronics Corporation
 (800) 821-0023
 www.marteltesttools.com