

**Newsletter of Air 'Vair, the CORSA Chapter for Air Conditioned Corvairs  
Winter 2007**

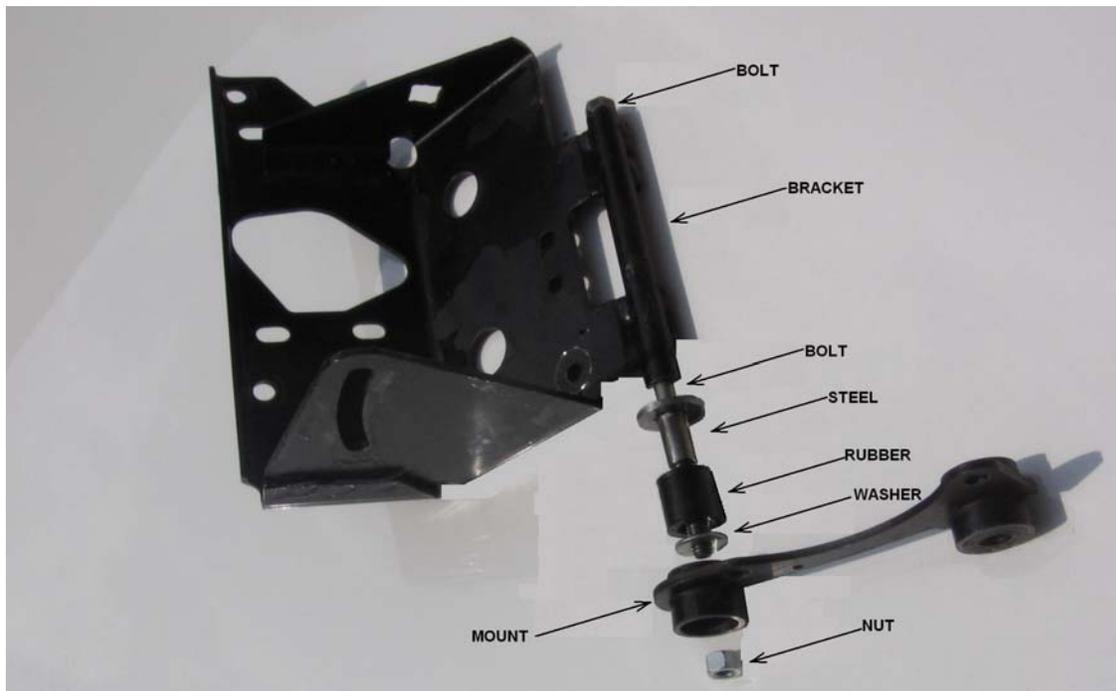
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## **Anti-Vibration Compressor Mounting**

In my quest to eliminate whatever is causing the chronic oil leakage of my A-6, I devoted a lot of attention to the antivibration provisions of the factory mounting system. All the Frigidaire/Delco A-6 compressors I've seen on Corvairs are mounted via three bushings made of rubber and steel, many of which have deteriorated over 40 years or more of use, along with various misfortunes that attend removal and installation of A/C systems. I ended up replacing mine, and this is what I learned (and guessed) in the process of doing so.

## **Renewing Bushings**

First of all, the bushing is a *part* supplied with new air conditioning systems and supported in the General Motors parts system. It happens to be Part No. 3828944 in Group 9.171, although I expect it has been decades since anyone found, much less ordered, one as such through the parts system. Clark's Corvair Parts shows it as their #CX4219 in their catalogs, but they don't have any. It's shown both in the Corvair Assembly Manual and in the instructions for dealer installation of the A/C option.



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A used bushing, if it isn't already falling out, is typically easily removed with mere thumb pressure, despite the appearance that the bushing is pressed in like a suspension bushing. The actual bushing is a steel end flange with a perpendicular tube plus a rubber sleeve surrounding the tube in its bore. In the picture above, the two parts are labelled "steel" and "rubber."

So, if your bushings are hardened, off-center, or pulverized, what to do? If you have some 1/2" refrigerant hose, the solution may be ready to your hand. After removing the original bushing, I merely applied some silicone grease to the outside of a piece of 1/2" barrier hose, forced it into the compressor mount from the chamfered side, cut it off square with a knife using the mount as a guide, and finally inserted the steel from the same side. A photo of the result is below. Three of these are in my mounts now.

There's one rub: I have two different brands of 1/2" hose, and one fit (obviously) and one was too big. The one that fit was barrier hose labelled Parker Futura. The difference between my two brands is very slight, so make sure the hose fits before throwing your old bushings away.



### **Installing the Mounts**

Another of the many mistakes I made with my compressor mounting was my naive assumption that "a 3/8" flat washer is a 3/8" flat washer." The instructions specify a 3/8" flat washer at the rubber end of the

bushing. The kind of washer you get at the hardware store, however, is so big that it actually *spans* the rubber end and rests on the steel mount, essentially short-circuiting the bushing's anti-vibration function with a steel-to-steel connection between the compressor and the engine (see "USS" in the drawing).

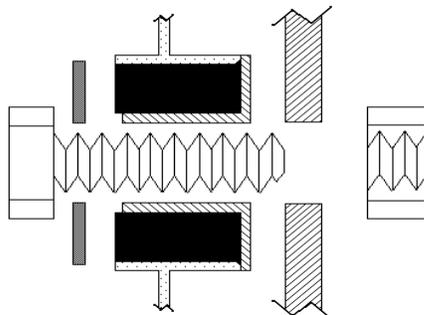
So, I noted that the washer is shown as Part No. 120394 in the Assembly Manual, and looked this part up in my GM Standard Parts Catalog, where its dimensions are given. The dimensions were critically smaller than those of the hardware-store variety: the ID went down from 7/16" to 13/32", but more important, the OD went down from 7/8" to 13/16", which fits *into* the mount without touching it (see "SAE" in the drawing). It turns out the correct washer is what is called an SAE washer in the hardware trade, and this is what was used in vehicles before the adoption of metric dimensioning. The wrong washer is what is called a USS washer, and that is what you get in hardware stores.



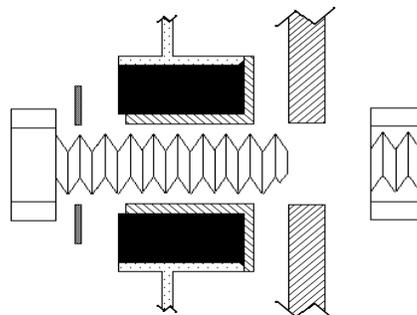
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**USS WASHER (WRONG)**



**SAE WASHER (RIGHT)**



■ THE WASHER    ▨ BUSHING STEEL    ▤ COMPRESSOR MOUNT    ■ BUSHING RUBBER    ▩ COMPRESSOR BRACKET

Now, since we're being so precise, we will want to use the right kind of nut *and* torque it down properly over our fine, renewed bushings. The correct nut is a locknut, and the one you've been using, even if it's the right kind, is worn out, so you'll have to replace that, too. The best replacement I've been able to find for this seemingly generic item (Part No. 3816622) was No. 67300087 from [mscdirect.com](http://mscdirect.com), although there should be many other sources. Finally, the torque specified on the nut is 15-20 lbs.-ft.

### **Resealed A-6 Needs Good Home**

In the course of developing a future article on resealing Frigidaire/Delco A-6 compressors, I resealed the one that served (leaking oil) in my 1966 Corsa for five years ending last month. It was still compressing just fine at that time—I just couldn't stand the mess anymore. If the resealed compressor works well, we have a good story. If it doesn't, that may be a good story, too.

But my Corsa has a new compressor already, and I can't bring myself to open that working system up, so I'm looking for someone who wants this compressor delivered to his door free for nothing, to keep—on a couple of conditions.

First, it'll have to go into a Corvair that is driven regularly, and it'll have to be used with Freon R-12 because that's the kind of lubricant that is in it. Finally, it'll have to be installed by May 1, because that's when I want a report on whether it worked initially. And if it does (I expect it to), I want another report three months after installation as to whether it is still working (I expect it to), and whether it leaks oil.

I'll evaluate applications by promptness and description of your present situation that leads you to want this compressor (installation into a car that's never been air conditioned before doesn't qualify, because the rest of the system isn't proven), and whether you have the skills and equipment (e.g., vacuum pump) to give it a fighting chance. It comes with a freshly resurfaced clutch and new pulley bearing, too. Applications (ASAP) to [pottsf@msn.com](mailto:pottsf@msn.com).

# **COOL AIR**

**Air 'Vair, CORSA Chapter 004**

**5474 State Route 19**

**Galion, OH 44833**

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## Air 'Vair/CORSA Membership Application

First Name, Initial \_\_\_\_\_ Last Name \_\_\_\_\_

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One-year membership and subscription (all amounts in US dollars):

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Address in Canada	\$6	\$54
Address elsewhere	\$7	\$55

Checks (payable to AirVair) must be in US funds drawn on a US bank.