

SODA BOTTLE CARBONATOR LIDS

by Brett Schneider

During my recent internet search for the commercial product called 'the Carbonator' I received several comments from Wortnet (Thanks Randy et al) about making them rather than buying them. Included were basic comments about what to use and how to do it, but not the specifics. Since I was having trouble finding the commercial one, I decided to make my own and found it to be a truly simple task.

The basic use of a carbonator is to allow a freshly re-filled plastic soda beverage container to be charged with CO2 to add or maintain carbonation. This is a great way to take from your bulk keg and become easily mobile. The commercial version I know of has the same shape as the inlet fitting of ball lock Cornelius kegs and sells for about \$10 to \$12. The simple thing about it is that the normal fitting on your CO2 system will work with it directly.

I instead went to CAP Auto Parts and Home Depot to get the supplies required to make my own. Once I narrowed down what I needed, there was nothing to the actual assembly and installation. From CAP I bought loose parts made by the Milton company:

- 1 X air chuck #s690 (\$5.99)
- 1 X hose end fitting 1/4 NPT to 1/4 hose #s600 (\$1.49) 3 X high performance tire valve for mag style wheels [all metal with rubber grommets] #s409 (\$3.99 ea)
- 1/4" hose clamps at \$.69 (enough to splice into the CO2 lines and add the chuck).

From Home Depot I bought 1 nylon 1/4" barb end hose tee and 1/4" I.D. tubing at \$.12 per foot. These items were not high pressure rated. But since they are used on the outlet side of my regulator and will never see more than 30 PSI (which is less than they are rated for) it was a cheap solution. The nice stainless-steel tee like Len sells are harder to find and cost more money.

I removed my current CO2 line and added a short length of hose, then the tee, then put the original line back on. I then added another length of new tubing and finally the new air chuck with the hose end fitting screwed in. At all tubing ends I used the hose clamps for added security. All I needed was a sharp knife to cut the tubing, and a flat bladed screwdriver for the clamps. Turned on the gas and checked for leaks.

Next the actual carbonator cap was assembled. I used lids from Polar Orange liter bottles, which have a gasket permanently installed. Coke product lids have a loose gasket which will come out and need to be punched or have a small hole cut into it with an X-Acto knife. Based on the valve stem you buy, drill a hole slightly larger than the base diameter in the center of the cap, going all the way through the gasket. The Milton stems come with two different sized grommets, a retaining washer and nut, and a cool chromed valve cap. I used the smallest grommet and cut off the collar, making it a flat rubber washer. I pushed the stem through the drilled hole from the inside with the washer in place, then tightened the retaining nut and washer hard to the outside of the cap. That's it - all ready to test.

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No leaks, no mess, no fuss. Total shopping time 20 minutes. Total CO2 line modification time 5 minutes. Total cap drilling and assembly time 10 minutes. Total cost for three units and all the fittings about \$25. Plus, the chromed valves can be used over and over again if the caps crack, and they clear and sterilize better than rubber stems. I am not sure about long term storage, but for club meetings, picnics, and parties they will see a lot of use.