Chalkboard Kegerator

Bring life back to an old fridge

The first-time homebrewer usually finds the entire beer-making process new and enjoyable. The second time around, bottling is usually seen as tedious, yet still rewarding. Every time after that scraping labels and sanitizing all those bottles is seen as the chore it truly is. A few years ago a beat-up old refrigerator fell into my lap. Converting it into a kegerator was the only logical thing to do.

For the first iteration of my kegerator I just pulled all the shelves out of the spare fridge and put three kegs and a 5-lb. CO_2 tank in the fridge with picnic taps attached — you would open the fridge, find the tap line you wanted, pour your beverage of choice, then close the fridge.

After looking around at other projects on homebrewing forums and mailing lists, I realized that I could have a fully functional kegerator with only minimal equipment and a few hours work. Since I already had the draft system built, all I needed were the shanks (the metal piece that goes through the fridge door), the faucets, and a few yards of tubing. And while I was at it, I figured it was a good time to do some cosmetic work on the

rusty old icebox.

A few notes on the draft system itself: Everyone's fridge is a little different, as is everyone's draft system. My setup allowed me to fit three kegs and a gas tank with only slight modification to the fridge. I used ball-lock kegs, which are taller and skinnier than pin-lock kegs. The bottom backside of my fridge has space taken up by the refrigeration system that pre-

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vents kegs from sitting directly on the bottom. I'm by no means skilled at woodworking, but I was able to hack together a platform in about 30 minutes by nailing some plywood on 2x4s cut to length, then spray painting and applying a coat of polyurethane to keep it dry. This platform allowed me to fit three kegs and a gas tank, with room for a few 22 oz. (650 mL) bottles underneath. Each fridge is different. You'll have to measure yours to figure out how many kegs you can fit and what kind of platform (if any) you'll need. There's one gas tank in the fridge with a dual-gauge regulator. One gauge I keep at 10 PSI, and I split that with a tee to pressurize two kegs of beer. The second regulator is set to 12 PSI and is dedicated to a cider.

Assuming you already have a spare fridge and a functioning draft system, the entire project should set you back around $250. You can save money by getting cheaper chrome-plated components instead of stainless steel, but I wouldn't recommend it. You should set aside a weekend for the entire project. However, most of that time is spent watching paint dry (while sipping a homebrew, of course). If you're skipping the paint, the entire conversion should only take a couple of hours.

Materials & Tools:

Spare refrigerator
30 feet (9 m) of $\frac{3}{16}$-inch I.D. beverage tubing (plus more tubing for CO_2 distribution)
Worm gear clamps
3 faucet/shank combo kits
Painting supplies: Sandpaper, masking tape, paintbrushes, small paint roller and rolling pan, 1 quart plain latex primer, 1–2 quarts blackboard paint.
Shelf-building materials (optional): plywood, 10 feet (3 m) of 2x4, nails, paint, polyurethane.
Drill
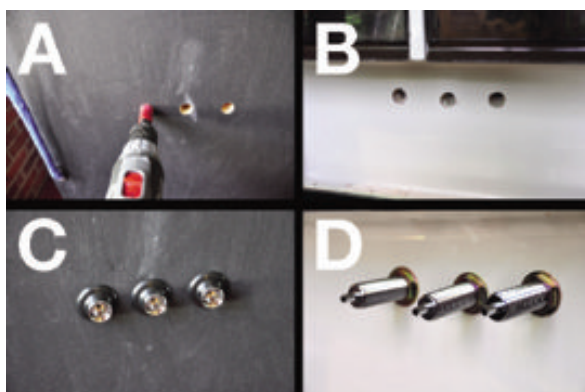$\frac{15}{16}$-inch hole saw bit
Faucet wrench

projects
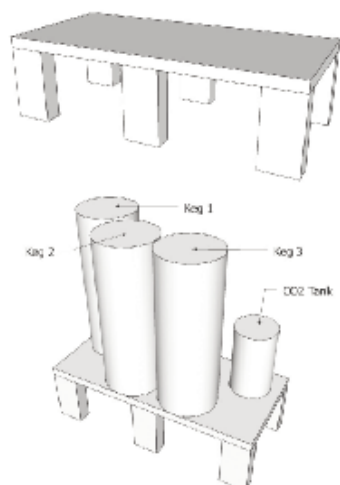
1. PLAN THE DRAFT SYSTEM ARRANGEMENTS

Every fridge is a little different inside. However, they all need space for the compressor and other components of the refrigeration system. This space is typically behind your crisper drawers on the bottom, and usually cuts into the front-to-back space available. If you want to fit three kegs and a gas tank you might need to construct a small platform to support them all. Maybe you'll need to cut away parts of the shelves on the inside of the fridge door. In any case, detailed planning is key. Take measurements of the internal dimensions of your fridge. Measure your kegs and gas tank. Don't forget you'll need space for the regulator to stick out from the tank as well as space for 30 feet (9 m) of tap line excess (see step #5). Make sure everything will fit and the door will close before you proceed. This diagram shows my layout, but yours may be different.

2. SAND, PRIME, AND PAINT FRIDGE

First, turn off and unplug your fridge, and open the doors. Allow any moisture to condense and dry off. Give the fridge a thorough cleaning inside and out, then sand every surface of the fridge that you plan to paint. Sanding is important to scuff the surface enough for the primer to stick, and is especially important if your spare fridge was rusty like mine. Use masking tape to protect any parts you don't want painted. Apply one coat of primer to every surface that will be painted. After letting this dry completely, apply a coat of blackboard paint. Allow to dry, then cover with a second coat of blackboard paint. One quart (1 L) can of paint was just enough for two full coats on the front, both sides, and the top (you may need two cans if you apply a third coat).

3. INSTALL SHANKS

Here comes the important part. Once you start drilling holes through your fridge you're committed, so make sure you put them where you want them. Use a $^{15}/_{16}$-inch hole saw bit to drill the holes (panel A). Make sure you put the holes low enough so you can open your freezer without hitting the tap handles that will eventually be on the faucets. Also, look at the inside of the door and make sure you're not drilling into a compartment or a shelf (panel B). Slide the shanks barb-end first through the holes with the black plastic flange facing out (panel C). Secure the flange in place using a brass lock nut (panel D).

4. INSTALL FAUCETS

It gets easier from here. Once you've secured the shank using the lock nut, attach the faucet to the shank using a faucet wrench. You can pick up a faucet wrench at most homebrewing stores. I recommend against improvising with pliers or other tools to make sure you get a tight seal and avoid scratching your faucets. Attach your tap handles; making sure you can still open the freezer without hitting them. We'll be connecting the kegs in the next step, so make sure your faucets are off (tap handle pushed back).

5. CONNECT BEER LINES TO FAUCETS

The length of the beer line running from the keg to the tap, the width of the tubing, and the elevation change from keg to faucet all affect the pressure balance at the tap, and an imbalance can cause your beer to be too foamy or too flat. Longer tap lines and a smaller internal tube diameter will increase resistance and decrease foam. For this setup, I used 10 feet (3 m) of ³⁄₁₆-inch tubing to connect each keg to the tap. When pressurized at 10-12 PSI, I get fizzy beer with zero foam. Hook one end of the 10-foot (3 m) tube to your keg quick disconnect and secure the other end to the shank barb using a worm gear clamp. It will be tough to get the ³⁄₁₆-inch tubing to slide onto the ¼-inch barb, so dip the end of the tubing into boiling water for a few seconds to make this easier.

6. PUT IT ALL TOGETHER

Connect the gas lines to the "in" posts and the tap lines to the "out" posts. If you followed step #5, you'll have 30 feet of tubing to cram in there somewhere (my CO_2 tank and tap lines are sitting behind the two kegs on the right). Use chalk to label what's being served on each tap. If you have an artistically talented friend, offer some homebrew in exchange for drawing some cool artwork on the sides. Sample one (or two or three?) pints from each tap to make sure everything is functioning correctly, and revel in your glorious new creation. Finally, make sure to regularly clean your tap lines by running sanitizer through as soon as a keg is kicked — nothing spoils a great brew like poor sanitation and dirty tap lines. BYO