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Hours:
Mon-Thurs 10:00am - 10:00pm
Fri & Sat 9:00am - 10:00pm
Sunday 9:00am - 9:00pm

These instructions cover:

- Benefits of kegging
- Carbonation techniques
- Kegging tips, tricks and hacks
- Clarifying and Dry-hopping

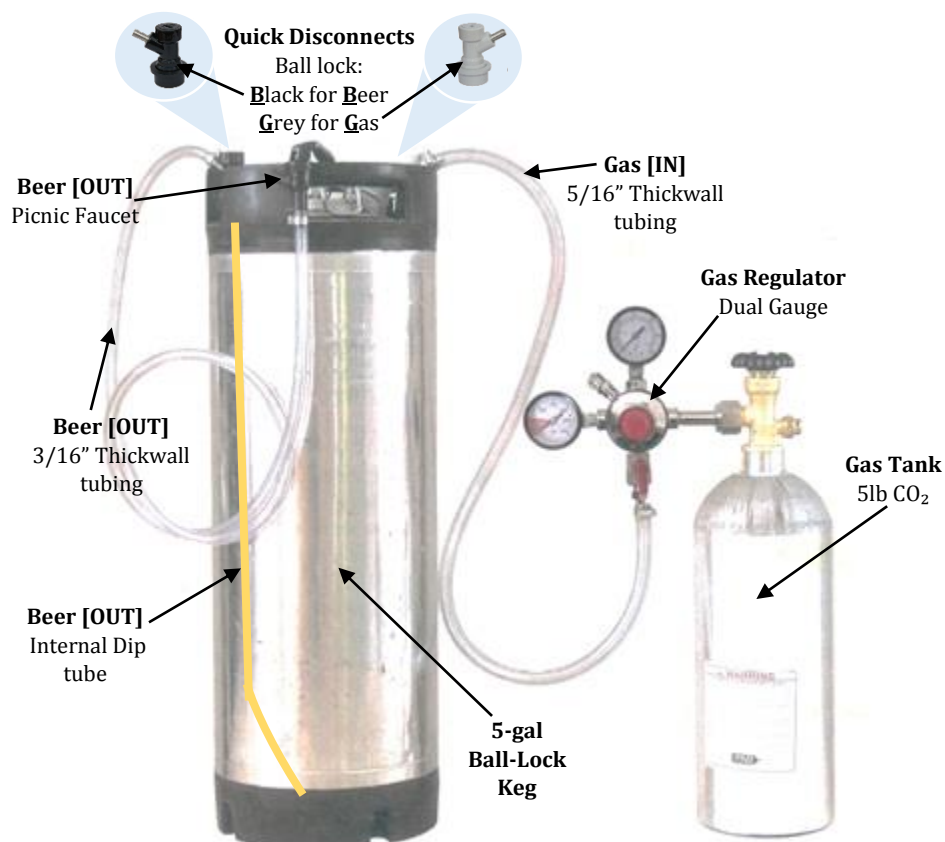


Kegging Instructions

Welcome to the world of home-brewed beer on tap! What follows are instructions for upgrading your brewing, packaging, and serving methods to include a draft system. These instructions assume that you are already familiar with boiling wort, sanitizing equipment, fermentation, and bottling. If it's been awhile, or you're new to brewing, we suggest you also pick up our "Beginning Brewer's Instructions" which cover these topics. Like the "Beginning Instructions," the methods outlined below are drawn from decades of home-brewing experience, as well as published sources such as Charlie Papazian's *The Joy of Homebrewing* and John Palmer's *How to Brew*, and *Brew Your Own Magazine*.

THE DRAFT SYSTEM

Before the 20th century, beer that was "on draft" was traditionally drawn from a cask using a beer engine. But after artificial carbonation was introduced in 1936, "draft beer" came to refer to beer poured from pressurized containers made of stainless steel. Instead of using a hand pump to draw cask ale from beneath the bar, a tank filled with compressed carbon dioxide and controlled by a regulator, would be attached to stainless steel keg. The pressure in the head space pushes the beer out through the dip tube to the serving faucet.



Kegging Your Home brew

There are many benefits to kegging your home brew: not only is your beer ready to drink *much* more quickly, but your beer is better protected against light and oxygen, it's easier to add extra flavor and clarify your finished beer, and with the accessories available today, it is just as easy to bring to an event or party!

1. **Cold Crash:** Before your beer is ready to be force-carbonated, it must be cold (ideally around 35F). The colder the beer is, the more readily carbon dioxide will dissolve into solution. So, put your fermentor into the fridge overnight.
2. **Sanitize and Purge your Keg:** The best way to protect your beer from dissolved oxygen, which causes stale, wet cardboard flavors in beer, is to push all of the oxygen out of the keg before filling it with beer. After sanitizing your keg, set your regulator to low pressure (3-5 psi) and connect it to your sealed keg. Once the pressure equalizes (the hissing/groaning stops), briefly open the pressure release at the top of the keg. Since carbon dioxide is a heavier gas than oxygen, as you fill the keg with gas, the CO₂ will sink to the bottom and the O₂ will rise to the top. Wait a minute or so between purges, and after 3 or 4, your keg should be reasonably free of oxygen. And if you fill it with beer from the bottom, the remaining oxygen will be forced out through the pressure release at the top of the keg before coming into contact with the beer.
3. **Rack your Beer:** Use a siphon to rack your beer into the keg. You can open the lid and run the end of your tube physically to the bottom of the keg, or you can keep the keg sealed and connect it via liquid disconnect to the "Beer Out" of your keg. If you choose the latter, the beer will flow through the liquid dip tube and the keg will fill from the bottom; just be sure to vent your keg by opening the pressure release on the lid.
 - a. **Sterile Siphon Starter**¹ (Optional): Now that you have a CO₂ tank, you have the option of racking via sterile siphon starter. This method works the same way as serving draft beer, the headspace of your fermentor will be pressurized so that the beer will flow out through your racking cane.
 - i. Insert a sanitized racking cane through the middle port of a carboy cap and attach to your fermentor so that your racking cane reaches into the middle of your beer.
 - ii. With your gas lines purged and your regulator turned all the way down to "0", connect your gas line to the smaller port of your carboy cap ideally via a sanitary air filter.
 - iii. Release any residual pressure from your keg by opening the pressure release on the lid. Run a liquid line from your racking cane to the liquid (OUT) post of your corny keg.
 - iv. With all lines connected, use the pressure control knob on your regulator to slowly increase pressure to begin flow into the keg.

CLARIFYING AGENTS

It is also easier to clarify your beer once it's in a keg:

Gelatin:

- Bring a pint of water to 190F to sanitize it
- Let it cool to 160F and add 1 tsp gelatin, stir until dissolved
- Add to keg of *cold*, finished beer, shake to disperse gelatin, let sit undisturbed for 24 hrs.
- Once settled, the first pint or two should be full of sediment. The rest should be clarified beer!

Biofine

- Mix 0.025oz Biofine with 5oz cold water.
- Stir for 30 min
- Do not allow solution to exceed 60F
- Refrigerate for 2-4 hrs
- Stir for 15 min
- Add to 5 gallons of finished beer

¹ **WARNING.** If you have a glass carboy, you must be especially careful: an over-pressurized carboy presents a potential explosion hazard. Be absolutely sure to (i) set the CO₂ regulator to zero and (ii) release all pressure from your keg and all gas lines before connecting them to your carboy. NEVER EXCEED 2 PSI WHEN RACKING BEER FROM A GLASS CARBOY. Failure to follow these instructions may increase the risk of serious injury. If you set your keg well below your carboy, only a minimal amount of pressure will be necessary to achieve flow. If 1-2 psi does not generate flow, shut off the pressure, double-check your connections and check your lines for obstructions.

4. **Carbonate:** Now that you have cold beer in your keg, it's time to carbonate. You have two basic approaches: the "Crank and Shake" or the "Sit and Wait"². The difference between the two, to put it simply, is that the first is the faster, the second is the more precise.

Crank and Shake	Sit and Wait
Hook up your CO ₂ to your keg	Measure the temperature of your beer
"Crank" your regulator to 20 psi	Decide on the carbonation level of your beer (typically around 2.5 volumes CO ₂ , but will vary according to style)
"Shake" the keg back and forth for about 20 min	Consult the carbonation chart below and set your PSI to the appropriate pressure
While you're shaking, you should hear your regulator hissing or groaning as it works to equalize the changing pressures between the CO ₂ tank and the churning liquid	Sit and wait for 3-4 days ...Probably a good time to drink some beer from last batch
After about 20 min, release enough pressure off your keg to serve yourself a sip (without it's being entirely foam).	Taste it. If it's carbonated, drink it.
If it's carbonated, drink it.	If not, wait another day or so. Double check the temperature of your fridge and the gauge on your regulator.
If it's not, "Crank" it again to 25 psi and shake it some more	

Carbonation Chart

Regulator Setting (PSI)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
30°F	1.82	1.92	2.03	2.14	2.23	2.36	2.48	2.60	2.70	2.82	2.93	3.02	3.13	3.24	3.35	3.46	3.57	3.67
31°F	1.78	1.88	2.00	2.10	2.20	2.31	2.42	2.54	2.65	2.76	2.86	2.96	3.07	3.17	3.28	3.39	3.50	3.60
32°F	1.75	1.85	1.95	2.05	2.15	2.27	2.38	2.48	2.59	2.70	2.80	2.90	3.00	3.11	3.21	3.31	3.42	3.52
33°F	1.71	1.81	1.91	2.01	2.10	2.23	2.33	2.43	2.53	2.63	2.74	2.84	2.96	3.06	3.15	3.25	3.35	3.46
34°F	1.68	1.78	1.86	1.97	2.06	2.18	2.28	2.38	2.48	2.58	2.69	2.79	2.90	3.00	3.09	3.19	3.29	3.39
35°F	1.63	1.73	1.83	1.93	2.02	2.14	2.24	2.34	2.43	2.52	2.63	2.73	2.83	2.93	3.02	3.12	3.22	3.32
36°F	1.60	1.69	1.79	1.88	1.98	2.09	2.19	2.29	2.38	2.47	2.57	2.67	2.77	2.86	2.96	3.05	3.15	3.24
37°F	1.55	1.65	1.74	1.84	1.94	2.04	2.14	2.24	2.33	2.42	2.52	2.62	2.71	2.80	2.90	3.00	3.09	3.18
38°F	1.52	1.61	1.71	1.80	1.90	2.00	2.10	2.20	2.29	2.38	2.48	2.57	2.66	2.75	2.85	2.94	3.03	3.12
39°F	1.49	1.58	1.67	1.77	1.86	1.96	2.06	2.15	2.25	2.34	2.43	2.52	2.61	2.70	2.80	2.89	2.98	3.07
40°F	1.47	1.56	1.65	1.74	1.83	1.92	2.01	2.10	2.20	2.30	2.39	2.47	2.56	2.65	2.75	2.84	2.93	3.01
41°F	1.43	1.52	1.61	1.70	1.79	1.88	1.97	2.06	2.16	2.25	2.34	2.43	2.52	2.60	2.70	2.79	2.88	2.96
42°F	1.39	1.48	1.57	1.66	1.75	1.85	1.94	2.02	2.12	2.21	2.30	2.39	2.48	2.56	2.65	2.74	2.83	2.91
43°F	1.37	1.46	1.54	1.63	1.72	1.81	1.90	1.99	2.08	2.17	2.25	2.34	2.43	2.52	2.61	2.69	2.78	2.86
44°F	1.35	1.43	1.52	1.60	1.69	1.78	1.87	1.95	2.04	2.13	2.22	2.30	2.39	2.47	2.56	2.64	2.73	2.81
45°F	1.32	1.41	1.49	1.58	1.66	1.75	1.84	1.91	2.00	2.08	2.17	2.26	2.34	2.42	2.51	2.60	2.69	2.77
46°F	1.28	1.37	1.45	1.54	1.62	1.71	1.80	1.88	1.96	2.04	2.13	2.22	2.30	2.38	2.47	2.55	2.64	2.72
47°F	1.26	1.34	1.42	1.51	1.59	1.68	1.76	1.84	1.92	2.00	2.09	2.18	2.26	2.34	2.42	2.50	2.59	2.67
48°F	1.23	1.31	1.39	1.48	1.56	1.65	1.73	1.81	1.89	1.96	2.05	2.14	2.22	2.30	2.38	2.46	2.54	2.62
49°F	1.21	1.29	1.37	1.45	1.53	1.62	1.70	1.79	1.86	1.93	2.01	2.10	2.18	2.25	2.34	2.42	2.50	2.58

Table Key:

Blue	Under-carbonated	0 – 1.40 volumes CO ₂
Gray	Stouts and Porters	1.50 – 2.20 volumes CO ₂
Green	Lagers, Ales, Ambers, most beers	2.20 – 2.60 volumes CO ₂
Yellow	Highly carbonated ales, Lambics, Wheat beers	2.60 – 4.0 volumes CO ₂

² The "Crank and Shake" and "Sit and Wait" methods were drawn from *BYO Magazine: Kegging Edition*

Just for fun, here are some awesome keg hacks to help nudge you into that draft system you've always wanted...



A **faucet adapter** allows you to connect a faucet directly to your beer quick disconnect. This negates the need for a picnic faucet and looks at least 75% cooler.



Anyone who has taken their keg anywhere will be painfully aware of the burden it is to drag your CO₂ tank and regulator to an event. A **keg charger** will allow you to push your beer without all that hassle. Just be aware that it doesn't have a regulator and that when pulling the trigger to serve your beer, less is more.



If you already have a draft system, and hate having to switch out your Sanke coupler for ball-lock disconnects when you're tapping a home brew keg, here's your quick fix. A **Sanke-to-ball-lock conversion** kit will allow you to keep your ball-lock disconnects attached to your gas and liquid lines at all times, instead of having to disconnect them every time you bring a keg home from your favorite local brewery. There is also a **90° adapter** for the beer side, if this construction is too tall for your kegerator.



Assuming it doesn't achieve consciousness and decide to destroy humanity, this Decepticon-like combination of **Sanke-to-ball-lock conversion + faucet adapter + keg charger** will allow you to take a Sanke keg anywhere and never have to deal with a pump tap. This means if you don't finish the keg at the party, you'll still be able to drink it the next day.

...and, you know, kegging isn't just for beer right? If you have a CO₂ tank, regulator, and a corny keg, you can carbonate any beverage!

Club Soda	Sparkling Juice	Extract Sodas	Cocktails	
Fill keg with water	Fill keg with 2 gal water	Boil 3-4 gal water	Ratio	Ingredients
Refrigerate	Add 2-3 gal of desired juice (taste this ratio in a glass first)	Add Sugar & Extract	1 : 5	Add 750ml btl spirit for every 4 liters mixer
Carbonate	Refrigerate	Pour into keg	1 : 3	Add 750 ml btls spirit for every 2 liters mixer
Consume with abandon	Carbonate	Refrigerate	1 : 5 Fill	Add two 1.75l btls (four and a half 750ml btls) spirit, fill with mixer
	Quaff at leisure	Carbonate	1 : 3 Fill	Add three 1.75l btls (nine 750ml btls) spirit, fill with mixer
		Delight in the sticky flavor of childhood	Refrigerate	
			Carbonate	
			Drink responsibly...and with friends.	