



# Jackknife Pale Ale

⚠ If your kit has **liquid yeast**, put it in the refrigerator as soon as possible.

Sort of our “house pale ale,” the Jackknife is one of our most popular recipes. This kit comes with Centennial and Citra hops to give the beer plenty of bitterness and a very distinct citrus aroma. If you haven’t tried Citra hops yet, by the end of a few of these beers, you’ll be hooked. The Special Roast malt imparts a maltiness fairly unique to pale ales, but one that really works. The American Ale yeast should finish clean and let the hops shine.

And if you want a special treat, try adding ½ oz of bourbon-soaked oak chips after a week of fermentation. Enjoy!

**Calculated Approximate: O.G.: 1.052 F.G.: 1.013 ABV: 5.1% IBU: 59 SRM: 11**

## Kit Ingredients

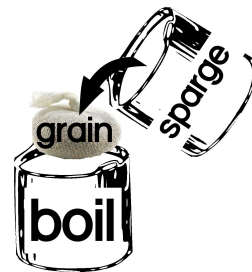
- 1 lb Golden Light dry malt extract
- 3 oz Special Roast malt
- 2 oz Caramel 40L malt
- 4 oz 2-Row Brewers malt
- 1 oz. Citra hop pellets (.25 oz @ 11, .25 oz dry)
- 1 oz. Centennial hop pellets (.25 oz @ 25, .25 @ 0, .25 oz dry)
- 10 Carb Tabs (for bottling)
- Small muslin steeping bag
- Safale US-05 dry or Wyeast 1056 or WLP001 liquid yeast

⚠ Please make sure that your kit contains these items. Please call us at 608-257-0099 before brewing if any item is missing. Thanks!

## Directions

**Sanitize everything well! Remember to stir periodically throughout the boil!**

0. Fill your kettle with 2 quarts of water and heat it to 160F. Pour crushed **grain** into the grain sack, tie it closed, and place it into your kettle. Mash the grains for 45 minutes.
1. While your grains are mashing, heat 2.5 quarts of water to 170F in a separate pot. After the mash, **remove the grains** from the mixture and sparge (rinse) the grains with the 2.5 quarts of hot water, collecting the runnings in your boil kettle.
2. Add 2.5 quarts of water to your boil kettle and turn on the heat and bring the mixture to a boil.
3. Turn the heat off, add the **Golden Light dry malt extract**, and mix the extract into the water. Turn the heat back on and bring the mixture to a boil. You will be boiling the mixture, called wort, for a total of 45 minutes. However, keep reading, because you’ll be adding hops during that time.
4. Upon initial boil, the wort may foam up (called a “hot break”). If this happens, reduce the heat until the foam recedes, then turn up the heat, bring back to a boil, and maintain a rolling boil. Start your 45 minute timer at this point in the brewing process and boil for 20 minutes.



5. After 20 minutes, add **¼ oz of Centennial** hop pellets and boil the wort for 14 more minutes (34 minutes total). This hop addition will impart most of the bitterness to your beer.
6. After 34 minutes, add **¼ oz Citra** hop pellets and boil the wort for 11 minutes more (45 total minutes).
7. After 45 minutes total, turn off the heat and add **¼ oz of Centennial** hop pellets.
8. Allow to rest for 5-15 minutes before cooling (this step is called a hopstand, and it will help retain more hop flavor and aroma but also continue to add bitterness to the wort).
9. Sanitize fermentor, stopper, and airlock with sanitizing material according to its directions.
10. Cool your hot wort down to around 65-70F and add the wort to the fermenter. You should have around 4/5ths gallon to a gallon of liquid in the fermenter (just at or below the “One Gallon” raised lettering on your glass jug). Top up with cold water if you are a little short.
11. Aerate the wort as best you can. If you have an oxygen system, that’s best, otherwise give the wort a good shake or a good stir with a sanitized metal or plastic spoon. This is also a good time to take a hydrometer reading. The number from this reading is your starting gravity. Add **½ of the beer yeast packet**.
12. Seal your fermentor. Attach the fermentation lock half filled with water. Ferment at 60°-72°F for around 14 days. Note that it can take up to 48 hours for active fermentation to be visible. If you don’t see any activity in the air lock or foam on the surface of beer after 48 hours, call us at 608-257-0099.
13. If foam, called krausen, is going up into the airlock during fermentation, carefully remove the airlock and replace it with a short length of 5/16” tubing that leads to a container ½ filled with water or sanitizer (sanitize the tubing, called “blow-off tubing”). Make sure that the tip of the tubing in the overflow container is submerged. When fermentation slows down, replace the blow-off tube with the airlock. Sanitize the airlock before putting it back in the stopper.
14. After 7-14 days of fermentation, add **¼ oz Citra and ¼ oz Centennial** pellet hops. Wait another 4-7 days. If you want a VERY aromatic beer, add the rest of the hop pellets here. Otherwise, seal them in a ziplock bag (squeezing as much of the air out as you can) and store them in the freezer for a future brew.
15. After 14+ days, now you can go ahead and bottle or keg your beer. Whether you bottle or keg, sanitize everything that will contact the beer during packaging, including bottles, caps, kegs, siphon tubing, bottle filler, etc. Also, now is a good time to take a hydrometer reading. This would be your beer’s final gravity.
16. **Bottling**, Siphon beer into sanitized bottles. Add one carbonation drop into each bottle and cap.
17. Store upright at room temperature (~70F) for 14 days to carbonate. Beer may then be stored at cooler temperatures to age. Beer may be consumed at any time, though it will continue to improve for several weeks.