



May all your fermentations be Great Fermentations!

## Transmission IPL — An India Pale Lager based on the Flying Dog/AHA collaboration recipe!

Transmission IPL is a tropical, hoppy India Pale Lager that is based off the Flying Dog/American Homebrewer's Association's collaboration recipe, released as the commemorative beer of the 2016 Homebrew Con. We have adjusted it slightly to be more accessible for actual home brewing systems, but the spirit of this excellent and clean beer remains the same!

### BEER SPECS

**Original Gravity:** 1.059—1.062

**Final Gravity:** 1.014—1.017

**IBU:** 39-44

**ABV%:** 5.5% - 6.3%

**Yield:** 5 Gallons

### NOT INCLUDED IN KIT

Irish Moss (*for clarity, optional*)

Yeast

Bottle Caps (*53 caps needed*)

Priming Sugar (*5oz or 3/4 cup*)

### LAGER FERMENTATIONS NOTES

If doing a traditional lager fermentation (using the Czech Pilsner, Urkel or Saflager yeast), we recommend a primary fermentation of two to three weeks at 48° - 56°F. The temperature should be raised by 10°F once the gravity is 2/3 to 3/4 of the way to the projected final gravity for a diacetyl rest, followed by a secondary fermentation for three weeks at 32°F. **If using the California lager or CableCar strains**, we recommend a primary fermentation of two to three weeks at 58° - 68°F. A secondary fermentation in a secondary vessel for one to two weeks can be used to improve clarity and reduce sedimentation.

### RECIPE DETAILS

**7.0 lbs.** Light dried malt extract

### FERMENTABLES

**1.0 lbs.** Maris Otter Malt

### SPECIALTY GRAINS

#### 60 MINUTE BOIL

**1.0 oz.** Centennial hops, added 30 min from the end of the boil

**1.0 tsp.** Irish moss (*optional*), added 20 min from the end of the boil

**0.5 oz.** Centennial hops, added 5 min from the end of the boil

**0.5 oz.** Citra hops, added 5 min from the end of the boil

**0.5 oz.** Galaxy hops, added at the end of the boil

**0.5 oz.** Mosaic hops, added at the end of the boil

**2.0 oz.** Galaxy hops, added as a dry hop

**2.0 oz.** Mosaic hops, added as a dry hop

### BOIL SCHEDULE

**YEAST SUGGESTIONS:** Wyeast #2278 Czech Pilsner, Wyeast 2112 California Lager, Imperial Organic Yeast L28 Urkel, Imperial Organic Yeast L05 Cablecar, or Saflager 34/70 Dry Yeast.

**A starter or two to three standard packs of yeast are highly recommended.**

### EQUIPMENT

#### REQUIRED EQUIPMENT

- 3 gal or larger Brew Pot
- 6.5 gal Primary Fermenter
- Siphon Hose/Racking Cane
- Large Spoon or Paddle
- Air Lock
- Hydrometer
- Thermometer
- Cleanser
- Sanitizer
- Bottles or Kegging System

#### RECOMMENDED EQUIPMENT

- 7.5 gal Brew Pot
- Wort Chiller
- 5 gal Secondary Fermenter
- Thief
- Oxygen Cylinder
- Aeration Stone
- Auto Siphon



# Brewing Instructions: Transmission IPL

## PRIOR TO BREWING

1. **Clean and Sanitize** all equipment, tubing, etc.
2. If using a Wyeast Activator pack, remove package(s) from fridge, 'smack' the pack to release the nutrients and allow the pack to swell for 4-8 hours at room temperature. If making a starter, prepare it 1 to 3 days before pitching.

## BREWING DAY

1. Fill kettle with water and heat to 160F.
  - Partial boil method: fill kettle with as much water as possible while leaving room for grains, malt extract, and boil volume.
  - Full boil method: fill kettle to approximately 6.5 gal water for a volume of 5 gal post-boil.
2. Rehydrate Irish moss in 1/2 cup warm water. Set aside (*optional, for clarity*).
3. Turn off burner (remove kettle from heating element if using an electric stove). Place crushed specialty grains in a muslin bag and soak in **150-155F water for 30 minutes**. Remove bag, and allow remaining water in grains to drain into kettle. Do not squeeze the grains.
4. While stirring, add malt extracts until fully dissolved.
5. Turn the heat on and bring wort to a boil. **WATCH OUT!** Just before the boil, the wort rapidly rises.
6. Follow **Boil Schedule** on opposite page under 'Recipe Details'
7. At end of boil, chill wort as quickly as possible to **60-70F** with a wort chiller or an ice bath. Place lid on kettle while chilling.
8. Siphon or pour cooled wort into fermenter leaving as much sediment behind as possible:
  - Partial Boil: Add sterile water (packaged drinking water) to fermenter to reach 5.25 gal
  - Full Boil: Siphon entire volume of wort into fermenter.
9. **Aerate wort** well by stirring, shaking or oxygenating.
10. Sanitize yeast package and use sanitized scissors to open package. Pitch yeast and attach airlock. If using a yeast starter, pitch entire contents of yeast starter into wort.
11. Move fermenter to a fermentation chamber or place with a steady temperature of **48-56F (58-68F** if using the California Lager or CableCar yeast)

## FERMENTATION

1. Primary/Secondary Fermentation: Allow beer to ferment for 14-21 days, following the "Lager Fermentation Notes" section on front page, then proceed to STEP 2.
2. Add **DRY HOPS** in small muslin bags and allow 4 to 7 days contact time, then proceed to STEP 3.
3. Check gravity prior to proceeding with bottling to ensure fermentation is complete. (Reference *Final Gravity* under 'Recipe Details')

## BOTTLING

1. Ensure there is no bubbling in the airlock, and that your beer has reached final gravity.
2. **Clean and sanitize** all bottles, caps, bottling equipment and bottling bucket.
3. Dissolve **3/4 cup (5 oz) priming sugar** in 2 cups boiling water. Boil for 5 min then chill to 70-80F and add to bottling bucket.
4. Siphon beer from fermenter into bottling bucket, being careful not to rouse up sediment on bottom of fermenter.
5. Stir thoroughly but gently to avoid introducing oxygen.
6. Using the bottle filler, fill bottles and cap them.
7. Store bottles at room temperature for **2 weeks** or until carbonated

## TIPS FOR SUCCESS

1. Clean AND Sanitize!
2. Avoid using softened water or Reverse Osmosis water.
3. Make sure the specialty grains are loose inside the muslin bag to ensure water reaches the grain in the middle of the bag.
4. Tie muslin bag to handle of kettle to prevent potential scorching on bottom of kettle.
5. Be sure not to exceed 155F while steeping grains to avoid unwanted flavors.
6. Turn off heat source and stir well while adding malt extract to avoid scorching on the bottom of the kettle.
7. Keep a spray bottle of water at hand to spray top of wort if it nears a boil over.
8. While racking, be sure not to introduce oxygen into your beer by splashing or shaking.
9. Maintain a constant temperature during fermentation.
10. Elevate carboy a few days before racking to allow sediment to settle.
11. Visit [www.greatfermentations.com](http://www.greatfermentations.com) for more brewing tips and tricks.

