

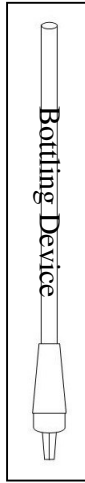
Bottling Continued

- Fit the Bottling device into the tap and turn tap on. Fill bottles to the very top (when removed from the Brewers bottler the beer will be at the right level), fix crown seal & store upright for 2 to 4 weeks. (The longer the better)

8) Calculating Alcohol

- There is a simple formula used to calculate the alcohol content of your brew using the readings you have recorded with your hydrometer. It is a good habit to keep records of all the brews you make so you may refer to them at a later date. The readings you require are the Start S.G. & the Final S.G. using the following formula: -

$$\begin{aligned} \text{Start S.G.} - \text{Final S.G.} &= \\ &\text{Divided by } 7.36 = \\ &\quad + 0.5 = \text{Alcohol \%} \\ \text{Eg. } 1040 - 1006 &= 34 \\ 34 \text{ divided by } 7.36 &= 4.62 \\ 4.62 + 0.5 &= \mathbf{5.1\%} \end{aligned}$$



Below is a chart based on the above formula. The chart does not make allowances for bottle priming, so a further 0.5% must be added to these figures if you are bottling.

Start Gravity

	1.030	1.036	1.038	1.040	1.042	1.044	1.046	1.048
0.990	5.43	6.25	6.52	6.79	7.07	7.34	7.61	7.88
1.000	4.08	4.89	5.16	5.43	5.71	5.98	6.25	6.52
1.002	3.80	4.62	4.89	5.16	5.43	5.71	5.98	6.25
1.004	3.53	4.35	4.62	4.89	5.16	5.43	5.71	5.98
1.006	3.26	4.08	4.35	4.62	4.89	5.16	5.43	5.71
1.008	2.99	3.80	4.08	4.35	4.62	4.89	5.16	5.43
1.010	2.72	3.53	3.80	4.08	4.35	4.62	4.89	5.16
1.012	2.45	3.26	3.53	3.80	4.08	4.35	4.62	4.89
1.014	2.17	2.99	3.26	3.53	3.80	4.08	4.35	4.62
1.016	1.90	2.72	2.99	3.26	3.53	3.80	4.08	4.35
1.018	1.63	2.45	2.72	2.99	3.26	3.53	3.80	4.08
1.020	1.36	2.17	2.45	2.72	2.99	3.26	3.53	3.80
1.022	1.09	1.90	2.17	2.45	2.72	2.99	3.26	3.53
1.024	0.82	1.63	1.90	2.17	2.45	2.72	2.99	3.26
1.026	0.54	1.36	1.63	1.90	2.17	2.45	2.72	2.99

**Add 0.5% to these readings if you are bottle priming

You can control the alcohol content of your brew by increasing or decreasing the amount of brewing sugar you use. For a light beer you may use 500g of sugar instead of 1 kg & will end up with an alcohol % of around 3.3%.

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**BASIC STARTER KIT
 INSTRUCTION MANUAL**

Congratulations on your decision to become a home brewer. Within this starter kit is all the basic equipment to enable you to make your own Beer, Cider, Soft drinks or even Wine. Brewing at home can be a great hobby, creating beverages as good (if not better) as those you buy, as well as saving you lots of \$\$\$\$. Supplied are all the ingredients needed to make your first 30 bottle batch of quality beer...so let's go!

1) **Make sure all the equipment has been provided.**

- This Kit should contain: -
- 1.7kg Country Brewer "Wal's" Concentrate
 - Brewing Sugar - Country Brewer Dextrose 1kg
 - Finings Clearing Agent (under lid of can)
 - Standard Tap & Sediment Reducer
 - Digital Thermometer 0 - 30 degree
 - 25lt Fermenter (Pail or Carboy)
 - So2 Sterilising powder 500g
 - Vintage Airlock & Grommet
 - Hydrometer & Test Jar
 - Wooden Hand Capper
 - 200 Crown Seals
 - Bottling Device
 - Bottle Brush
 - Instructions

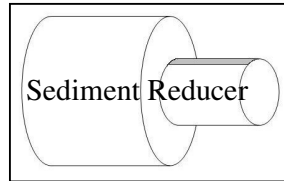
If anything is missing, contact the store from where you purchased immediately on the above numbers.

****Franchise Opportunities Available****

2) Assembly & Sterilising.

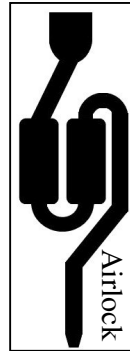
Using the SO₂ sterilising powder supplied, wash & sterilise all the equipment and assemble your fermenter as follows:

- Fit sediment reducer into back of tap with slot facing upwards & screw into fermenter.
- Fit small grommet into lid and insert airlock
- Peel back off digital thermometer and stick onto outside of fermenter approx in the middle.



3) Making Your Brew.

- Remove the cap from the can & set the yeast and finings aside.
- Stand can in hot water for 5-10 mins to soften contents.
- Dissolve contents of can & 1 kg of Dextrose (or other brewing sugar) in 2 litres of hot water in your fermenter. Add approx. 17 litres of cold water and mix thoroughly
- Fill to 22 litres with either hot or cold water to give you a final temperature of approx 25 degrees.
(If using Country Brewer Finishing hops add these before pitching the yeast.)
- Stir in yeast & affix the lid & airlock (half filled with water).



4) Fermentation.

- Fermentation will be apparent within 6 to 24 hours after adding the yeast.
- Fermentation will be complete in 4 to 9 days depending on the temperature maintained.
- If using the finings clearing agent (provided under the cap of your Wal's concentrate), add just before fermentation ceases (approx. S.G.1020). Dissolve the sachet of finings in 250ml of boiling water, mix until dissolved and then gently pour over the beer.
- Fermentation is noted as being complete if you have established 2 identical hydrometer readings over a 24hr period. **see "Using Hydrometer"
- *Please note that the addition of finings into your brew is not an absolute necessity to complete the brewing process. Your beer will clear naturally without the use of this product*

5) Brewing Temperatures.

Ale Yeast (16-25° Celsius)

- The optimum temperature for ales is 20 to 24 degrees. Your brew (if using ale yeast provided) will still ferment at temperatures down to as low as 16 degrees.
- We would recommend trying to keep a constant lower temperature rather than temperature fluctuating. Lower temps will lead to a longer fermentation period.
- Brewing too hot (over 25°C) can lead to clarity & poor head retention problems.

Lager Yeast (25-12° Celsius)

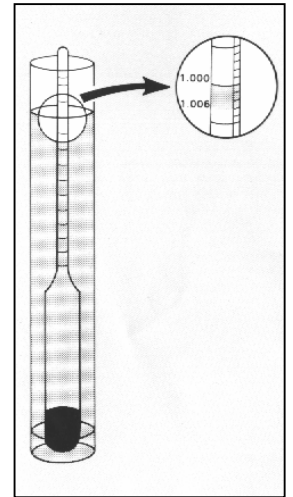
- If using the lager yeast that is supplied with our lagers and pilsners in the Wal's range you will notice that the appearance of fermentation takes a little longer. Temperatures should be maintained within the same range as ale yeast until

fermentation is visible. Once fermentation is established the temperature of your brew can be maintained as low as 12 degrees. Making this yeast ideal for using in winter. This will increase the time it takes to ferment, sometimes up to 2 weeks! However, you will notice dramatic improvements in clarity, head retention and crisper flavours on your lagers and pilsners.

For more information about lager brewing refer to The Country Brewer "Winter Brewing" info sheet.

6) Using the Hydrometer

- The Hydrometer measures the density of the brew in specific gravity (S.G.). As fermentation "kicks off" the sugars in the can of concentrate and brewing sugar are converted into alcohol, decreasing the density of the brew.
- It is important to make sure that the beer has fermented as far as it will go before you bottle. If unfermented sugars still remain when you bottle you can end up with over carbonated beer or even exploding bottles. It goes without saying... this is an important tool & should be used religiously. Be careful however, as hydrometers are delicate and seem to break just from looking at them!
- Using the hydrometer supplied, monitor the progress of your brew to establish that it has completed. Your brew should finish with a final S.G. of approx. 1010 but this will depend on the brewing sugar you have used and the total volume of your batch of beer. Sugars designed to increase body will give a higher final S.G. Please read the "approx final gravity" on the label of the brewing sugar being used. Reducing the amount of water will also increase the final gravity.
- Draw off ¼ to ½ cup of liquid through the tap & discard. (This will clear the sediment out of tap)
- Fill the test jar with beer from the tap. While holding over the sink, drop the hydrometer into the test jar.
- The Specific Gravity (S.G.) will be the mark showing exactly on the **surface** of the liquid.
- Discard the Beer... do not return it to the fermenter.
- At the start of fermentation the average brew will read approx. 1.038 – 1.048 S.G. Over time your hydrometer readings "drop" (e.g. 1.048 to 1.028) after about 12-36hrs of fermentation starting, depending on the brew, yeast, temperature and activity. Fermentation is considered complete once you have established 2 identical readings over a 24hr period.



7) Bottling

- Clean & sterilise your bottles, then add one teaspoon (6g) of white sugar to each 750ml bottle (half a teaspoon (3g) for 375ml).

(If you are using glass bottles it is important not to add more sugar than what's recommended per bottle as this will result in your bottles breaking due to excessive amounts of carbon dioxide being produced which can lead to serious injuries.)