homebrew supplies
ALL THINGS BREWING

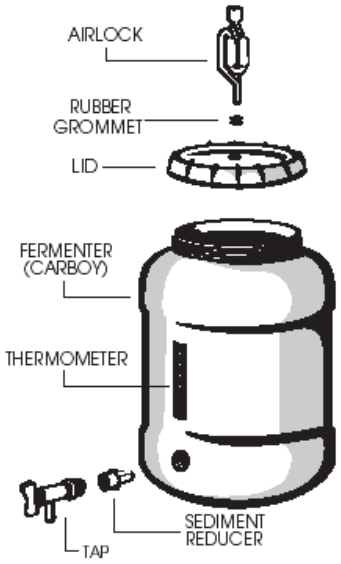
BREWING INSTRUCTIONS

Producing good beer takes not only the finest ingredients, but good brewing practices as well. We have summarised these into a set of easy to follows steps.

STEP 1 – FERMENTER ASSEMBLY

Follow the diagram shown to put together your micro brewery. Ensure you firmly screw your tap to your fermenter before moving on to sterilising in step 2.

AIRLOCK & GROMMET
The Airlock allows carbon dioxide brewing gas to escape during the brewing process.
Fit the small rubber grommet (which creates an airtight seal) to the fermenter lid and insert the airlock into the lid.



FERMENTER (Carboy)
This is your brewing vessel. It is designed to make up to 23 litres of beer.

THERMOMETER
Remove backing strip from the digital thermometer and affix half way up the outside of the fermenter. This will let you know the temperature of your brew.

TAP &
SEDIMENT REDUCER
Screw the tap into the fermenter and then, inside the fermenter, fit the sediment reducer to the back of the tap so that the opening faces upwards. When bottling, this will avoid sucking sediment off the bottom of the fermenter into your bottles, delivering a clearer beer.

STEP 2 – BREWING PREPARATION

Cleaning and sterilising is a very important factor in successful brewing. It helps to avoid infections which can lead to poor tasting beer. We recommend using Washing and Sterilising Powder to sterilise your fermenter and all separate components that will come in to contact with the brew, such as your stirring spoon, bottling device, etc.
Mix steriliser in your fermenter using a total of 3 litres for this stage. Soak all the equipment (including the inside of the lid) in the solution for a minimum of 10 minutes.

Swirl the solution around to make sure the whole inside comes into contact with the solution and also run a little through the fermenter tap. Thoroughly rinse all equipment with lots of fresh water.

STEP 3 – BREWING INSTRUCTIONS

To make beer there are four essential ingredients required: water, fermentable sugars (traditionally extracted from malted barley), hops and yeast. The brewing kits provide the malted extract and hops already processed and combined according to our brewers recipes. The yeast is provided under the lid of the brewing kit. It requires only the water and some extra brewing sugar to be added by you.

1. Take brewing kit; remove the label and plastic cap. Find yeast enclosed under the cap and put aside for the moment.
2. Stand can in hot water for 10 minutes to soften contents.
3. Dissolve contents of can and 1kg of brewing sugar in 2 litres of hot water in your fermenter. Then add 17 litres of cold water. Mix thoroughly.
Add 2.5 litres of either hot or cold water so as to give a final temperature of approximately 18-26°C, to avoid damaging the yeast.
5. Sprinkle yeast from the sachet over the liquid surface (Stir gently) and affix lid and airlock (half fill the airlock with water).
6. Airlock bubbling shows fermentation has started (6-12 hours after adding yeast). Keep brew at between 18-26°C until specific gravity reaches 1006 (in approximately 4-7 days). At this time the airlock will have stopped bubbling.

STEP 4 – FERMENTATION MONITORING

You can monitor how your brew is coming along using your thermometer and hydrometer. Do not remove the fermenter lid during fermentation as this may introduce an infection.

Watch the thermometer on the side of the fermenter and ensure the temperature remains between 18 and 26°C. If your brew drops under 18°C, then fermentation may slow down or even stop. In winter you may need to use a heater pad or heater belt to keep a constant temperature above 18°C.

The hydrometer measures the density (specific gravity) of liquids. For brewing purposes it measures the amount of sugars (malt and dextrose) in the brew. The original gravity of the brew will be approx. 1035-1040. As fermentation proceeds the sugars are converted into alcohol and carbon dioxide (CO_2). The CO_2 can be observed bubbling through the airlock during fermentation.

Shop 1, Regal Heights Shopping Centre
7 Sophia Street, ALBION PARK 2527
PH: (02) 4257 4851 **Web: www.allthingsbrewing.com**

Located at Budget Produce
10/44 Deering Street Ulladulla
PH: (02) 44541373 **Web: www.allthingsbrewing.com**

homebrew supplies
ALL THINGS BREWING

BREWING INSTRUCTIONS
continued

When fermentation is complete a standard can of concentrate and 1kg of dextrose brewing sugar will usually finish at a specific gravity of 1006. If using a liquid brewing sugar or malt extract instead of sugar, then the reading is usually higher at 1012.

To take a reading, use the tap on the fermenter and fill the test jar approximately 3 /4 full until the hydrometer floats. Give the hydrometer a quick spin to remove any gas bubbles as this will interfere with the reading. Where the beer cuts across the hydrometer, is where you get the reading on the scale of the hydrometer. Do not put the beer back in the fermenter.

If using a clearing agent (finings), add the clearing agent just before fermentation stops (at approx 1010 specific gravity).

When the hydrometer reading remains constant for 24 hours the brew is ready for bottling.

STEP 5 – BOTTLING AND CONDITIONING

1. Once fermentation is complete you are ready for bottling and bottle conditioning the beer. Sterilise 30 x 750ml bottles, crown seals and all bottling equipment. To do this, wash away any visible dirt with a bottle brush. Then, mix Sterilising Powder with warm water, and soak the bottles for 30 minutes. You don't need to fill the bottles, 1 /4 or 1 /2 fill is fine but you will need to swirl it around so that the whole inside surface has been covered. After soaking, rinse thoroughly with fresh water.

2. Add one teaspoon (slightly heaped) of normal sugar to the bottom of each bottle. If using stubbies, halve the amount of sugar in each bottle.

3. Remove the airlock before opening the tap to prevent water from the airlock being drawn into your brew.

3. Remove the airlock before opening the tap to prevent water from the airlock being drawn into your brew.

4. Fit the Brewers Bottling Valve to the tap. Fill each bottle to within 40mm from the top by lifting the bottle up so the valve presses on the base of the bottle and opens, allowing the beer to flow.

5. Cap each bottle using crown seals and a capper.

6. Gently tip each bottle 4 times to dissolve the sugar.

7. Date and label each bottle.

8. Store the bottles upright in a warm place (approx 18 - 25ºC) for five days to allow for secondary fermentation (bottle conditioning) which charges the beer with CO 2 bubbles. After the 5 day period, move your bottles to a cooler place (approx 8 - 12ºC) and leave for a further two (2) weeks or longer for the beer flavours to mature before consuming.

Bottle conditioned beer continues to improve with age, the longer you leave your bottles the better the beer will taste. We recommend you try your brew at 3 weeks, 3 months and 6 months.

BREWER'S BOTTLER

This device allows you to fill your bottles from the bottom, thus avoiding the introduction of air (oxygen) into the beer. It has a shut off valve on one end so there is no need to turn the tap on and off for each bottle. Simply push the plain end into the tap outlet and turn the tap on. The pressure of the flow will close the valve until such time as it is opened by the upward pressure of pushing against the bottom of the bottle. When the bottle is full to the brim, lower it and the flow will stop. The displacement of the stem will leave the correct head space in the bottle irrespective of size. It is a good idea to put a container under the bottler while filling to catch any drips you don't want on the floor.

CROWN SEALS (Bottle Tops)

Crown seals are in fact a 'duo' seal, that is, they will work on both twist top and conventional bottles. **CAUTION:** If using twist tops, invest in a bench capper for safety's sake. Do not use the a twin lever hand capper on twist top bottles.

One question we get quite often is how to work out the approximate alcohol level you will get by changing the amount of brewing sugar. Use the following table as a guide when working out how much sugar to add to your 1.7kg brewing kit.

Amount of Brewing sugar	250 grams	500 grams	750grams	1kg
Alcohol by volume	2.8%	3.3%	3.9%	4.4%

Please ensure when brewing that you use Brewing Sugars, as opposed to regular sugars. Brewing Sugars are designed to deliver superior body & head retention in your brew.

To pour a clearer beer, try to avoid pouring out any sediment. It helps to use one continuous pour into a jug, stopping just before the sediment leaves the bottle.

TIPS

Dextrose

Use instead of regular sugar in beer making, derived from wheat starch. Ferments faster reducing the risk of "off" flavours. Gives beer a cleaner and drier finish. Dextrose also tends to create less sediment.

Maltodextrin

Made from wheat starch. Add 250-500g to improve body, mouthfeel and head retantion in kit beers without unduly altering flavour. If using 500g a final gravity up to 1012 can be expected.

Malt

Malt is the prime ingredient of beer. The addition of malt to your brew will give better flavour. It will also add more body and improve head retention 250g or more will greatly enhance kit beers. If using 500g in a brew a final gravity of around 1010 can be expected. Malt should be used instead of brewing suger and we recommend you don't use in excess of 1.5kgs.

Shop 1, Regal Heights Shopping Centre
7 Sophia Street, ALBION PARK 2527
PH: (02) 4257 4851 **Web: www.allthingsbrewing.com**

Located at Budget Produce
10/44 Deering Street Ulladulla
PH: (02) 44541373 **Web: www.allthingsbrewing.com**