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HOME BREW BEER STARTER KIT DELUXE / PREMIUM & ULTRA INSTRUCTION MANUAL

Congratulations on the purchase of your new Home Brew Beer Starter Kit from Aussie Brewmakers. You will now be able to make beer to suit your own taste, save heaps of money and enjoy a great hobby.

This Instruction Manual is for use with the following Starter Kits:

Model 10250 Beer Starter Kit – DELUXE

Includes: 1 x 30 litre Fermenter (fitted with O ring, Tap, Sediment Reducer, Volume Scales on side of fermenter, Stick on Thermometer, Grommet and Airlock), 1 x Hydrometer, 1 x Little Bottler, 1 x large Bottlebrush, 1 x 480mm Paddle, 1 x Twin Lever 'Emily' Hand Held Capper, 1 x packet Carbonation Drops, 1Kg Dextrose, 1 x Morgan's Lo'Suds 250ml, 1 x Morgan's Sanitize 250ml, 100 x Crown Seals, 1 x Beer Kit and Manual.

Model 10350 Beer Starter Kit – PREMIUM

Includes: As per the DELUXE model less the 1Kg Dextrose less the Twin Lever 'Emily' Hand Held Capper plus 1Kg Beer Improver plus a Bench Capper plus a 30W Heat Belt

Model 10375 Beer Starter Kit – ULTRA

Includes: As per the PREMIUM model plus an 85mm Stainless Steel Weldless Thermowell plus a Mk2 Heat & Cool Temperature Controller.

Note for Ultra Kit Users – Please also refer to the Ultra Instruction Manual Supplement provided for guidance on the thermowell installation.

Other Home Brew Beer Starter Kits available:

Model 10100 Beer Starter Kit - Basic

Includes: 1 x 30 litre Fermenter (fitted with O ring, Tap, Sediment Reducer, Volume Scales on side of fermenter, Stick on Thermometer, Grommet and Airlock), 1 x Hydrometer, 1 x Little Bottler, 1 x large Bottlebrush, 1 x 480mm Spoon, 1 x Hand Capper, 1 x packet Carbonation Drops, 1Kg Dextrose, 1 x packet 250g Sodium Percarbonate, 100 x Crown Seals, 1 x Beer Kit and Manual.

INTRODUCTION TO HOME BREWING

Before starting please keep in mind the 3 basic requisites for making the perfect beer:

- a. Ingredients: Always use good quality products, including the best quality water available.
- b. Cleaning and sterilisation: Always clean, sterilise and rinse every piece of equipment that comes into contact with the brew. Don't cut corners and don't use the dishwasher!
- c. Temperature: Initial and secondary fermentation temperatures are absolutely critical.

MAKING BEER - 5 EASY STEPS

Step 1 - Preparation of Equipment

- ✓ Add 90ml of Morgan's Low Suds to the fermenter, and then add 3L of warm water to the fermenter (circa. 30 degrees).
- ✓ Using the bottlebrush, brush the walls of the fermenter and the inside of the lid with the solution.
- ✓ Using the bottlebrush wash the airlock, grommet, paddle, can opener inside the fermenter ensuring all are well coated with the solution.
- ✓ Remove all items then drain the fermenter. The 3L cleaning solution can be stored in a sealed container for use later when cleaning the bottles.
- ✓ Refill the fermenter with 10 litres of hot water and thoroughly rinse everything.
- ✓ Empty the fermenter, then sterilize by one of the following methods:
 - Preferred method: Add 30ml of Morgan's Sanitize to 1L of water in a spray / misting trigger bottle and spray / mist the inside of all surfaces of the fermenter and all of the equipment (airlock, grommet, paddle, can opener etc).
 - Add 60ml of Morgan's Sanitize to the fermenter then add 2L of cold water. Using the bottlebrush ensure the solution comes into contact with all surfaces of the fermenter and all of the equipment (airlock, grommet, paddle, can opener etc).
- ✓ Morgan's Sanitize when diluted / mixed to the above ratios will sterilize all equipment on contact and is 'no rinse' – DO NOT rinse the fermenter / equipment after application.

Step 2 - Making the Brew or Wort (pronounced *wert*)

- ✓ Remove the sachet of yeast and brewing record (if supplied) from the top of the beer kit and put aside for use later.
- ✓ Place the beer kit can in a saucepan full of very hot water for 10 minutes to soften the contents (do not boil the can though!).
- ✓ While the beer kit can is heating, boil the kettle and fill out the brewing record (copies can be downloaded from the 'Home Brew Cellar' section of our website).
- ✓ After 10 minutes, open the beer kit can and pour into the fermenter. Half fill the can with boiling water from the kettle and use the paddle to dissolve the residue. Pour this with the rest of the water from the kettle into the fermenter.
- ✓ Add 1Kg of Dextrose (Deluxe Kit inclusion) or 1Kg Beer Improver (Premium & Ultra Kit Inclusion) to the fermenter and stir thoroughly until all the ingredients have dissolved.

- ✓ Fill the fermenter to the 20 litre mark with cold water. Stir thoroughly using your paddle and check temperature is within 18-26°C.
- ✓ Top up fermenter and stir again to the 23 litre mark with hot/cold (even ice) to achieve 18-26°C. If you are unsure of the quantities of hot and cold water required, try filling the fermenter with hot and cold water minus the ingredients to get a feel for what is needed to achieve 18-26°C.
- ✓ Using your hydrometer, take a specific gravity reading and record it. This is your Original Specific Gravity (OSG). It allows you to calculate your final alcohol content and also can be used as a diagnostic tool. It gives you a known starting point to check if fermentation is happening and it determines when it has finished. This measure is the relative density of the fluid to distilled water. Distilled water has a specific gravity of 1.000. Your wort with malts and sugars dissolved in it will have a reading between 1.038 to 1.044 or more (depending on what you have put in). As fermentation progresses heavy sugars are used up and lighter alcohol is produced. The specific gravity will drop to between 1.005 and 1.012.
- ✓ Pitch the yeast and stir it in gently with the paddle, screw the lid on, and fit the grommet and airlock then fill it with water to the line (approximately half full).
- ✓ Check the fermenter has an air tight seal by placing a thumb on the centre of the lid and pushing downwards. If there is movement in the airlock, the fermenter is sealed.
- ✓ Leave the fermenter in a warm place, ideally 23°C for circa. 7 to 10 days.
- ✓ If you have a heat belt and live in a colder climate install it and monitor the temperatures carefully – you don't want to overheat the wort!

Step 3 – Fermentation

Fermentation can take up to 48 hours to visibly commence and will usually take from 7-10 days to complete. Fermentation can be observed by bubbling through the airlock and a dark brown "crust" (called the Krausen) forming above the fluid line inside the fermenter.

- ✓ During this stage, check the temperature and airlock activity on a daily basis. Try to keep the temperature as stable as possible and always ensure the airlock has some water to seal the fermenter.
- ✓ After Day 7, if the airlock has stopped bubbling, take a hydrometer reading and record it.
- ✓ The next day take another hydrometer reading. If the reading is the same then fermentation has finished. If not, continue to take daily readings until you have two the same.
- ✓ After two identical readings, this is your Final Specific Gravity (FSG) and you can now calculate the alcohol content.

To measure the specific gravity you need to take a small sample of beer from your fermenter taking care not to suck fluid through from the airlock (remove it if necessary). At the end of fermentation the first fluid through will be cloudy with yeast. Discard this before putting enough fluid in the test flask to ensure the hydrometer floats. The reading is taken at the bottom of the meniscus (the bottom of the curve where the fluid lips up the side of the hydrometer and flask).

To calculate your alcohol content you will need to have measured the starting or Original Specific Gravity (O.S.G.) and the end or Final Specific Gravity (F.S.G.). For example, if your brew starts off with an O.S.G. of 1.040 and an F.S.G. of 1.010 then use this simple formula:

1. Remove the decimal point to make life easier.
 2. Subtract the F.S.G. from the O.S.G. i.e. $1040 - 1010 = 30$
 3. Divide the result by a factor of 7.36 i.e. $30 / 7.36 = 4.1$
- (4.1% is the alcohol content generated in the primary fermentation in your fermenter).

4. Because the next step adds sugar to each bottle to carbonate the beer you need to add a factor of 0.5 for the alcohol generated by the secondary fermentation.

i.e. $4.1 + 0.5 = 4.6\%$

In this example the final alcohol content in the bottles will be approximately 4.6%.

- ✓ Remove the heat belt (if fitted), then wait another 48 hours for the brew to clear thoroughly before proceeding to the next step. It will clear quicker in a cool environment.

Step 4 – Bottling

- ✓ The 23L brew will require circa. 30 x 750ml bottles or 60 x 375ml stubbies.
- ✓ Mix 30ml of Morgan's Lo Suds in 1L of warm water and pour some of the solution into a beer bottle until $\frac{3}{4}$ full. If needed use the bottlebrush to scrub the inside of the bottle. Once done pour the solution into the next bottle and repeat until all bottles have been cleaned. If you have stored cleaning solution from when you cleaned the fermenter initially you can use the solution for this step and then discard it when done.
- ✓ Thoroughly rinse all bottles and invert them to drain.
- ✓ Sterilize the bottles and crown seals via one of the following methods
 - Preferred method: Add 30ml of Morgan's Sanitize to 1L of water in a spray / misting trigger bottle and spray / mist the inside of all bottles and the crown seals then allow to drain – DO NOT rinse with water.
 - Add 30ml of Morgan's Sanitize to 1L of cold water. Pour the solution into a bottle until $\frac{3}{4}$ full. Shake and then pour into the next bottle. Repeat until all bottles have been wet with the solution. After the last bottle pour the solution over the crown seals. Invert the bottles to drain – DO NOT rinse with water

Warning. Do not put more carbonation drops than is recommended in the bottles as this could result in exploding bottles.

- ✓ Put 2 carbonation drops into each (750 ml) bottle or 1 carbonation drop per (375 ml) stubbie.

This small amount of sugar in the carbonation drops will activate a secondary fermentation. In this, the yeast still in the beer will re-activate and generate some more alcohol and CO₂. The CO₂ cannot escape the sealed bottles and hence will carbonate the beer.

- ✓ Push the "Little Bottler" into the tap of the fermenter and turn the tap on. Push each bottle up over the bottler until the valve hits the bottom of the bottle and releases the beer. When the bottle is full and about to overflow lower the bottle to shut of the valve.
- ✓ Note the Little Bottler may drip and leak small amounts of wort in between bottle fills. This is perfectly normal.
- ✓ Push the crown seals onto the bottles Twin Lever 'Emily Capper (Deluxe Kit Inclusion) or the Bench Capper (Premium & Ultra Kit Inclusion) until you feel the crown seal crimp and seal. Do not use excessive force or bottle breakages can occur! Once the bottles are capped, gently shake each bottle, turning each bottle upside down twice to ensure they are sealed.
- ✓ With a permanent marking pen, write on the cap the batch number and type of beer made using L = Lager, B = Bitter, D = Draught, P = Pilsner. For example; if your first batch was a Lager then write 1L on the cap.
- ✓ Store the bottles out of direct sunlight and in a warm place (about 20 to 24°C) for at least 7 to 10 days. After this you can move the bottles to a cooler place for at least another 7 days before sampling. The beer does mature with aging up to 12 months. So, if you can manage to hold off drinking it for at least 3 months or more, then it will taste even better. Homebrew beer can last much longer in the bottle than commercial beers so it is very

worthwhile building up your stockpile. Always store your beer in the dark. Light spoils beer very quickly giving it a “ropey” taste. Amber bottles provide enough protection but if you are using clear or green bottles, they must be kept in a closed carton or a dark storage area.

Step 5 – Serving

After secondary fermentation and storage / maturation, the beer will be ready for sampling. Enjoy!

Drinking direct from the stubbie is fine for most home brewers. However, if a clear beer is required we recommend the beer be decanted from the bottle to a jug and from there to glasses. Pouring the beer direct from the bottle to the glass will also result in a clear beer if done slowly in one smooth pouring motion, leaving circa 30ml in the bottle with the sediment.

The sediment in the beer is quite harmless and is in fact rich in vitamin B. The presence of the yeast (sediment) is actually one of the reasons why homebrewers don't suffer from hangovers the way those who drink commercial beer do.

WE ARE HERE TO HELP!

We are available 24/7 to assist you with your home brewing. If you have any questions on the process or need to troubleshoot an issue please call Kerry on 0412 784 745.

Remember – it is easier to fix something before it goes wrong than to try and rectify an issue ... and ... there is no such thing as a stupid question!

FURTHER INFORMATION

For further information on home brewing, trouble shooting, and other useful tips or to re-order consumables, please visit www.aussiebrewmakers.com.au or telephone (03) 5779 1075.

