NOTICE:
If your package is missing parts or you are having issues with assembly, please call us directly at (949)-344-2588. Our customer service team will address any questions or concerns you may have. Please have this manual open and ready for reference.

CUSTOMER SERVICE:
(949)-344-2588
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SAFETY

To reduce the risk of fire or injury when using your distiller follow these precautions:

• If the Arksen Water/Alcohol Distiller is to be used for making distilled alcoholic beverages, it must be used only by adults of legal drinking age. Never attempt to operate distiller while under the influence of alcohol, etc.
• Consult federal and state laws and obtain any permits required for distilling alcohol.
• Distilling outdoors is always preferred.
• Never use distiller over an open-flame heat source indoors. An electric heat source is preferred.
• Never leave hot or boiling liquids on a heat source unattended.
• Keep distiller and any heating unit out of reach and away from children.
• Use caution when removing Boiler Lid while heating any liquid within the Boiler.
• Do not heat or boil liquids in the distiller if all openings are blocked or closed. **Steam and heat must be allowed to escape through the condenser unit or one of the holes in the Boiler Lid for safe operation.** Failure to do so may result high pressure and explosion.
• Prevent alcohol vapor from leaking from the Distiller. Alcohol vapor is highly explosive. Always check for, and address any leaks during the alcohol distilling process.
• To prevent liquid/mash contents of the boiler pot from overflowing or being forced up into the condenser copper tube or into the bubble airlock, always leave approximately 4” of air space above the top of contents of the boiler pot.
• **RISK OF METHANOL POISONING:** Avoid consumption of Methanol (Methyl Alcohol)! Methanol can cause blindness and be fatal. Carefully follow precautions in recipes for distilled beverages. **Discard the first 4-7 oz (100-200ml) of liquid as it comes out of the Condenser Distillate Outlet, for each 5 gallons (20L) of fermented “mash”**. These first ounces are often referred to as “heads” or “foreshots”. DO NOT CONSUME THEM.

OTHER ITEMS YOU WILL NEED (not included)

1. A continuous source of cool water. This can be achieved by one of two ways:
   a) A hose connector for attaching a silicone tube to a home faucet or hose bib.

   OR

   b) A large container for use as a cool water reservoir and a submersible pump.

2. Containers (glass is best, avoid plastic) to collect your distilled product.

3. Large container for fermenting if you’d like to keep your Arksen Distiller available for distilling only.

4. Small wrench for loosening and tightening fittings.

5. White Vinegar to perform a “Vinegar Run” after assembling your Distiller. (Instructions on page 7)
PARTS & FEATURES

A. Boiler
B. Boiler Lid
C. Stopper
D. Thermometer
E. Lid Latches (4)
F. Silicone Sealing Ring
G. Boiler Pot
H. Condenser
I. Distillate Outlet
J. Copper Coil
K. Roll of Teflon Tape
L. Short Silicone Tube
M. Distillate Extension Copper Tube
N. Bubble Airlock
O. Silicone hoses (2)
USING YOUR ARKSEN WATER/ALCOHOL DISTILLER

Before making your first fermented and distilled beverages, or distilling water, perform the following:

• Wash all parts of your distiller with hot water and dish soap and dry completely.
• Perform a “Vinegar Run” described in the Distilling section (page 12).
• If distilling water only, perform a “Water Run” by distilling 1 gallon or more of clean water, which will be discarded.
• Your Arksen Distiller can be used for the fermentation process, and then used for the distillation process.
• For fermenting, use the Fermenting Configuration, for Distilling use the Distilling Configuration.
• This product manual is not a complete guide to fermenting and distilling. In order to produce a satisfying and safe product suitable for adult consumption, please consult books, recipes, and how-to resources and videos on-line, in book stores and libraries.
• Caution: RISK OF METHANOL POISONING
  Avoid consumption of Methanol (Methyl Alcohol)! Methanol can cause blindness and be fatal. Carefully follow precautions in recipes for distilled beverages. Discard the first 4-7 oz (100-200ml) of liquid as it comes out of the Condenser Distillate Outlet, for of each 5 gallons (20L) of fermented “mash”. These first ounces are often referred to as “heads” or “foreshots”. DO NOT CONSUME THEM.

MAKING DISTILLED SPIRITS:

A 2 Stage Process: Fermenting & Distilling

STAGE 1: FERMENTATION

• Fermenting beverages into wine or beer is the first step to then producing brandy, whiskey or gin. The next step is distilling the results of fermentation, resulting in greater concentrations of alcohol, and refinement of color and flavors. Distilling the result a second time further concentrates alcohol and clarity.
• Fermentation is the process of microorganisms, usually yeast, converting (metabolizing) sugars into carbon dioxide and alcohol. The carbon dioxide bubbles out of the beverage, leaving behind alcohol. Beer, Ale and Wine are fermented beverages which are complete at this stage. They do not need to go through the second stage: distillation.
• A wide variety of foods can be fermented. Grains such as corn, wheat, barley, or rye, are used for many beverages, such as beer and whiskey. Fruits, sugars, rice, and molasses are most often used to make wine, brandy, rum, and other spirits. Potatoes are used to create vodka.
• Specific steps for fermenting can be found in the recipes on pages 14 -17.
• Use the Fermenting Configuration on pages 6 and 7.
  OR
• You can use a separate large container for fermenting. The fermentation process happens over several days or weeks. You may wish to keep your Arksen Distiller available for distilling only. Use clean glass, stainless steel or food-safe ceramic or plastic containers. It’s helpful to have 2 or more containers available.
SETTING UP FOR FERMENTING

- Wash all parts with dish soap and hot water before assembling.

Parts needed

- Bubble Airlock
- Stopper
- Thermometer
- Boiler Pot
- Silicone Sealing Ring

ATTACH THERMOMETER TO BOILER LID

- Slide silicone washer onto thermometer stem. Slide thermometer into either hole in boiler lid.

Step 1.

- Thread brass nut on thermometer stem under the boiler lid. Firmly tighten. (avoid over-tightening)

Step 2.
Preparing the Bubble Airlock

Step 1. Insert bottom end of Bubble Airlock into stopper.

Step 2. Add a small amount of water or sanitizing solution to half fill the bubble airlock cavities.

Fermenting Configuration

Step 3. Insert the Bubble Airlock & stopper into the available hole in the boiler lid.
STAGE 2: DISTILLING

Distillation of fermented beverages is the process of concentrating the alcoholic content by separating much of the alcohol from the fermented product. Slowly heating the fermented beverage in the Arksen Distiller causes the alcohol to vaporize, rise into the Copper Coil and then be cooled as it travels through the condenser. The alcohol in the fermented beverage turns to vapor at about 173°F, before the water content of the beverage turns to steam at 212°F. As the alcohol cools, it drips from the Condenser Distillate Outlet. This more pure form of alcohol dripping from the Distillate Outlet (after the initial 4 - 7 oz) is ethanol. Read the caution about methanol on page 3. See Distillation Configuration, page 10)

SETTING UP FOR DISTILLING

- Wash all parts with dish soap and hot water before assembling.

Parts needed

- Thermometer
- Condenser
- Boiler Lid
- Silicon Sealing Ring
- Teflon Tape
- 2 Silicone Tubes
- Copper Extension Tube
- Short Silicone Tube
- Boiler Pot

Attach Silicone Tubes to Condenser

**Step 4.** Slide one silicone tube onto the upper fitting of the condenser. Twist tube until it fits snuggly.

**Step 5.** Slide the other tube onto the lower fitting of the condenser.
Step 1. Remove the brass nut and silicone washer.

Step 2. To ensure a complete seal, wrap Teflon Tape tightly around the threaded end of the connector a few times.

Step 3. Slide the silicone washer up to the fixed-in-place nut. Then insert the connector in the Boiler Lid. The silicone washer remains above the Boiler Lid.

Step 4. Thread brass nut onto threads and tighten (avoid over-tightening). The brass nut will be on the underside of the boiler lid.
SET UP WATER FLOW TO CONDENSER

Provide a continuous source of cold water to the Condenser Pot. The cold water flowing into the Condenser Pot cools the distillate flowing through the Copper Coil. There are two methods:

Method 1. Home faucet method:
   - Locate loose end of the Condenser’s “Water Out” Tube.
   - Attach a hose connector (not included) to it.
   - Attach hose connector your home faucet.
   - Place the loose end of the “Water Out” Tube to drain into sink basin.

Distilling Configuration
Method 1: Faucet cooling method

Extending the Distillate Outlet:
Add Small Silicone Tube + Copper Extension Tube
Method 2. Water reservoir method:
Recirculate cold water from a cold-water reservoir:
Fill a large container with cold water.
Place a submersible pump (not included) into the container.
Connect the pump to the “Water In Tube”, which is connected to the Condenser.
The Condenser’s “Water Out Tube” will drain into the container.
BEFORE DISTILLING:

The Preliminary Runs

Vinegar Run (using the Distilling Configuration, page 8)
• The Vinegar Run cleans the parts of the distiller more thoroughly than soap and water. Perform this before your first use of your Arksen Distiller.

Step 1. Combine 1/2 gallon white vinegar and 1/2 gallon tap water in the Boiler Pot.

Step 2. Latch in place the Distiller Lid with the Condenser and Thermometer attached.

Step 3. Start cold water flow to the Condenser.

Step 4. Heat on medium to high heat until steaming, and liquid drips out of the distillate outlet.

Step 5. Turn off heat, allow to cool. Dispose of the distilled vinegar and water mixture.

Step 6. Follow this by performing the following “Sacrificial Run”.

Sacrificial Run (Final Cleaning Run & Christening of your still)
• The Sacrificial Run clears the distiller parts of anything which might affect the purity of flavors of your distilled beverages or distilled water. This stage is considered a “rite of passage”.
• Follow instructions for making your first batch of a distilled beverage. Distill the first batch, **but discard and do not drink it**.

Caution about the output of Distilled Beverages:
• **RISK OF METHANOL POISONING**
  Avoid consumption of Methanol (Methyl Alcohol)! Methanol can cause blindness and be fatal. Carefully follow precautions in recipes for distilled beverages. **Discard the first 4-7 oz (100-200ml) of liquid as it comes out of the Condenser Distillate Outlet, for of each 5 gallons (20L) of fermented “mash”.** These first ounces are often referred to as “heads” or “foreshots”. **DO NOT CONSUME THEM.**

DISTILLING

Distilling Water

Producing your own clean distilled water is easy with the Arksen Distiller. Before beginning, make sure all parts of the distiller are clean and dry, as well as your containers for collecting the distilled water.

If distilling water only, perform a “Water Run” by distilling 1 gallon or more of clean water, which will be discarded.

Pour up to 4 gallons of water into the Boiler Pot. Heat until steaming, and water drips out of the Distillate Outlet, and into the container you’ve placed below.
Distilling Alcoholic Beverages

Step 1. Following a recipe, use the Distilling Configurations on pages 9 - 10.

Step 2. Pour your fermented product into the Boiler Pot.
(The fermented stage product for moonshine is called “mash”)

Step 3. Latch in place the Boiler Lid with the condenser and thermometer attached.
• **Always check for, and address any leaks during the alcohol distilling process.**
  Frequently check the seal of the Condenser connection to the Boiler Lid for vapor/steam escaping.
  Prevent alcohol vapor from leaking from the Distiller. **Alcohol vapor is highly explosive.**
  Use caution to avoid burns - **STEAM IS EXTREMELY HOT AND CAN CAUSE SEVERE BURNS.**

Improve the seal of the Condenser Connector to the Boiler Lid
• Apply a thick mixture of flour and water around the connection as a sealant. OR
• Disconnect the Condenser from the Boiler Lid.
  Remove the existing Teflon Tape.
  Apply new Teflon Tape, tightly wrapping the threaded end more times.
  Reconnect the Condenser to the Boiler Lid and secure the Boiler Latches.
  Begin heating your mash again, and check for leaks.

Regulating Temperature at the Condenser Connector
• Carefully monitor temperature to maintain an even temperature between 174° F and 190° F at the Condenser Connector. A hand-held temperature scanner can be helpful for this. Allowing the temperature to rise above this can result in the water content vaporizing, resulting in diluted, unsatisfactory output, which might need to be distilled again.

• Drips and short intermittent streams are desirable coming from the Distillate Outlet but a constant stream indicates the heating temperature is too high.

Maintain Cool/Cold water in the Condenser
• Use one of the two methods described in the section Set Up Water Flow to the Condenser on page 8.
• Frequently monitor the temperature of the water in the Condenser. Maintain cool or cold water. If the water is warming to lukewarm, you should use colder water, add ice, or reduce the heat and refer to your recipe or instructions before continuing.

Ending the Run
• After the temperature has become fairly constant without needing much manipulation, the distilling run may be near it’s end. At the end of the run, the temperature at the Condenser Connector will drop quickly, and liquid coming from the Distillate Outlet will quickly reduce or stop. These are signs the run is finished.

• Turn off heat and allow all parts of the Arksen Distiller to cool completely before cleaning all parts.

Cutting
• Clean, pure water may be added to water down or “cut” the concentration of alcohol in the distilled spirits you have produced. This primarily adds volume, while still yielding a very satisfactory product. For example: 1 quart of 160 proof moonshine may be cut to produce 2 quarts of a still very potent 80 proof moonshine by adding 1 quart of water.
Re-Distilling
• A finished distilled product may be distilled a second time to further increase the proof (concentration) of your distilled product.

Carbon Filtering
• Carbon filters may be used to remove unpleasant flavors and contaminants. However, this process will also remove the pleasant and possibly distinctive flavors present. This process results in a neutral moonshine that may then be mixed with fruits or wines, etc.

Flavoring
• An endless variety of flavorings and sugars may be introduced to create a very distinct beverage. Flavorings may remain in the product for days or weeks to achieve the desired intensity. The beverage may then be strained through coffee filters or similar filters to remove solids and improve clarity.

Aging
• Aging can further enhance flavors and other qualities which define many kinds of liquor and spirits, such as Whiskey and Scotch. Storing the final product in charred oak barrels, etc. for prolonged periods is a time-honored technique. For the home distiller, aging may be achieved by placing a piece of carefully charred white oak in a container with some moonshine for a prolonged time. This can enhance the color and flavor and become a basic beginner's Whiskey.

MEAD RECIPE

A Fermented Beverage

Mead, also called honey wine is often regarded as the ancestor of all fermented drinks. It is produced by fermenting a solution of honey and water.

Ingredients:
3.5 pounds of honey (any variety)
1 1/2 teaspoons of yeast
2 teaspoons of citrus juice (lemon, lime, or orange juice)
20 raisins
1 quarter teaspoon of cinnamon
1 whole clove

Equipment you’ll need:
Arksen Distiller Boiler Pot, Lid, Thermometer and Bubble Airlock
Funnel
Coffee filters
2 Sterilized 1 gallon food safe plastic jugs (such as from spring water or milk)
Sterilized glass bottles
Hydrometer to determine alcohol content of the mash and judge when fermentation is complete. How to use a hydrometer is not addressed in this product manual.
Directions: Preparing the “Mash/Wash”

Step 1. Pour 10 cups of plain water into the Boiler Pot

Step 2. Add the honey + citrus juice + raisins + cinnamon + whole clove.

Step 3. Heat on low to medium, stirring, until ingredients are dissolved and well incorporated.

Step 4. Add enough warm water to equal about one gallon of mixture.

Step 5. Let mixture cool to room temperature in uncovered Boiler Pot.

Step 6. When cooled, pour into another pot, back and forth to Boiler Pot to aerate the mixture. Return it to the Boiler Pot.

Fermenting

Step 1. Add 1 teaspoon yeast The mixture will begin to bubble. Fermentation has started.

Step 2. Latch the Boiler Lid in place with Thermometer and Bubble Airlock and Stopper in place.

Step 3. Wrap Boiler Pot with towel or blanket to maintain warmth. Do not block the Bubble Airlock.

Step 4. Store in a warm, dark place. Give the Boiler Pot a few swirls each day for 1 week.

Step 5. After one week, open Lid and add remaining 1/2 teaspoon yeast. Latch Boiler Lid back in place.

Step 6. Wrap Boiler Pot again, return to warm, dark place and leave, undisturbed for 10 days.

Step 7. Bubbling will have likely stopped coming out of the Bubble Airlock at 10 days, if not, allow Fermentation to continue until bubbling has stopped and fermentation is complete.

Step 8. Place in refrigerator for 24 hours to kill the yeast.

Step 9. Slowly pour the mixture into a 1 gallon jug, leaving sediment/residue in Boiler Pot. Wash Boiler Pot.

Step 10. Allow jug to sit for a few days, allowing any remaining sediment to settle to bottom.

Step 11. Pour Mead through coffee filters as necessary to get a clear beverage.

Distilling

Mead is typically consumed after fermentation without continuing to the distillation process. However, it may be distilled with the result sometimes referred to as “Honey Moonshine” or “Honeyshine”.

For Distilling, follow instructions in the Distilling Alcoholic Beverages, pages 12 -14 & refer to the Distilling Configurations on pages 9 - 10.
WATERMELON-PEACH MOONSHINE BRANDY

A Fermented & Distilled Beverage

This delicious moonshine, made with simple ingredients, results in a beverage full of complex flavors. It’s worth the wait of five weeks’ fermentation time.

Fermentation time: 5 weeks
Makes approximately 5 gallons

Ingredients:
1 and 1/4 large watermelons
10 peaches
1 and 1/4 cup chopped golden raisins
The juice of 15 limes (juice only)
25 cups sugar
5 gallons clean, pure water free of chlorine and contaminants
1/2 oz Bread yeast, Wine yeast or distillers’ yeast

Equipment Needed:
Arksen 5 gallon Boiler Pot, Lid, Bubble Airlock and Thermometer, or
Optional 5 gallon food safe bucket or other container
Large bowl
Wire mesh strainer or cheesecloth for straining cooked pulp
Nylon mesh straining bag for straining juice
Hydrometer to determine alcohol content of the mash and judge when fermentation is complete.
How to use a hydrometer is not addressed in this product manual.

Directions:                  Juicing and Cooking

**Step 1.** Cut the watermelon and peaches into medium size chunks. Discard the rind and seeds.

**Step 2.** Blend (or smash very well) the cut up watermelon and peaches to get the juice.

**Step 3.** Squeeze the juice from the blended fruit using a nylon straining bag or a fine mesh strainer.

**Step 4.** Save this strained juice to add in step 12.

**Step 5.** Save the pulp for step 6.

**Step 6.** Place the pulp from step 5 in the Arksen Boiler Pot or other large stock pot.

**Step 7.** Add 5 quarts water and bring to a boil. Boil for about 30 minutes.
Step 8. Strain pulp from boiled mixture using a fine mesh strainer or cheesecloth. Discard the pulp.

Step 9. Allow the boiled, pulp-free mixture to cool until lukewarm.

Step 10. Keep cooled mixture in the Boiler Pot or pour into your chosen fermentation container.

Preparing for Fermenting

Step 11. Add enough water to the strained, pulp-free liquid to result in 5 gallons total.

Step 12. Add the reserved juice (from step 4) + raisins + lime juice + sugar to the fermentation container.

Step 13. Stir together well.

Step 14. Cover the fermentation container with a cloth and let stand for 24 hours.

Fermenting

Step 15. Add 1/2 oz (4 1/2 teaspoons) yeast and stir well.

Step 16. Seal the fermentation container with a properly fitted lid, and a Bubble Airlock. (See Fermentation Configuration, page 6)

Step 17. Add water to the airlock according to the assembly instructions.

Step 18. Fermentation will take place and is evident by bubbles traveling up through the Bubble Airlock.

Step 19. Daily for 1 week, open and stir contents, close again and continue fermentation.

Step 20. Strain the raisins out of the fermenting mixture.

Resting

Step 21. Keep in the fermentation container fitted with the lid and Bubble Airlock

Step 22. Let rest for 4 weeks (adding water to the Bubble Airlock as needed).

Distilling

To become Brandy, distillation is necessary.

For Distilling, follow instructions in the Distilling Alcoholic Beverages, pages 12 -14 & refer to the Distilling Configurations on pages 9 - 10.
5 GALLON WATER/ALCOHOL DISTILLER

Model# 048-GM-48371

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