



Berkey®

WATER SYSTEMS

Instructions for Big Berkey®, Crown Berkey™, Imperial Berkey®, Royal Berkey® and Travel Berkey® water filtration systems

System Parts List

Parts shown for illustration only and are not to scale.

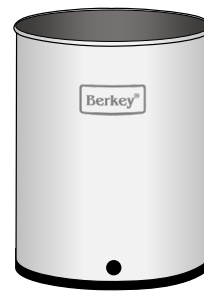
Berkey® Stainless Steel System



Illustration of assembled system



(A) Upper System Chamber



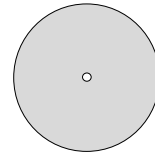
(B) Lower System Chamber with rubber ring attached



(D) Small Metal Washer



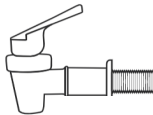
(E) Knob Screw



(F) Knob

(C) System Lid

Spigot



(G) Standard Spigot



(H) Spigot Hex Nut or Wing Nut (style may vary)



(I) Spigot Flat Washer (x2)

Elements and Other Included Parts



(J) Black Berkey® Elements (x2) (quantity varies by system)



(K) Tan Priming Button



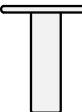
(L) Sealing Washer (1 per element)



(M) Wing Nut (1 per element)



(N) Blocking Plugs (style and quantity varies by system)



(P) Universal Primer

(R) Vapor Lock Clip



(O) Two Vials of Red Food Coloring



(Q) Fluoride Element Adapter

Failure to read, thoroughly understand, and follow all instructions may result in injury, water damage, or voiding of the warranty! It is the assembler's responsibility to make sure all components are properly assembled and installed using the instructions provided. While your Berkey® System should not have any leaking problems, there is always the chance that a leak might occur due to being improperly assembled or perhaps a faulty part. In an overabundance of caution, we recommend that for the first 24 hours the filled system be placed in an area wherein if such a leak were to occur, the resulting spillage would not damage anything.

System Assembly

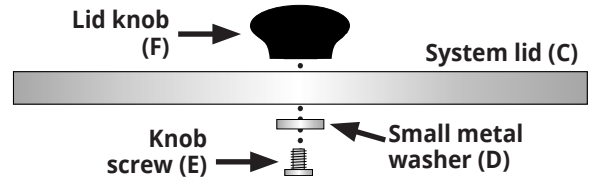
Tools you'll need: standard screwdriver (not included).

We recommend setting up your system on a countertop or other waterproof surface.

- Wash your hands, stainless steel chambers and spigot before assembly to reduce the chances of contaminating the system's components.
- Be sure to keep all parts and original packaging in the unlikely event that your system needs to be returned to the manufacturer.

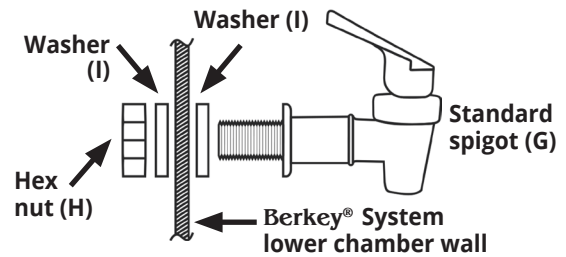
1. Attach Knob to Lid

Fit knob onto lid by inserting the knob screw up through the washer into hole in the underside of lid, then screw on the knob.



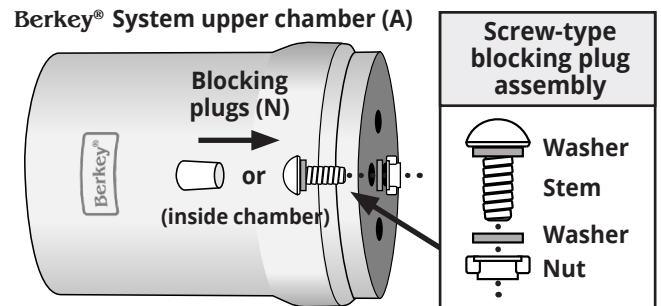
2. Assemble Spigot

To assure a proper seal, place one washer on stem of spigot. Insert spigot into system and turn spigot counterclockwise to the 9 o'clock position. Then, place the other washer on stem inside of the system, then the nut, and hand-turn nut until it is tight while holding spigot at the 9 o'clock position. Then, hold nut in place and rotate spigot clockwise until spigot is upright.



3. Insert Blocking Plugs

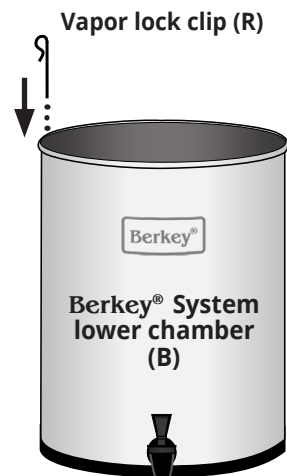
Use blocking plugs to fill remaining open holes in the upper chamber where you will not be installing **Black Berkey®** Elements. **For push-in blocking plugs**, simply press plugs into holes from inside the upper chamber (smaller end first). **For screw-type blocking plugs**, place one washer on threaded stem, and insert plug (stem) through one of the holes inside the system's upper chamber. Place other washer on the threaded stem outside of system, then the nut. Hold plug securely with one hand inside system, and hand-turn nut on outside of system until snug. Do not over-tighten. Repeat for remaining plugs.



4. Install Vapor Lock Clip

Climate, elevation and other factors can create a tighter fit, preventing air flow between chambers, which slows down or prevents water flow (a natural phenomenon known as vapor lock). To prevent vapor lock, create air flow by placing clip on edge of lower chamber, making sure that the long portion of the airlock clip is hanging inside of the lower chamber.

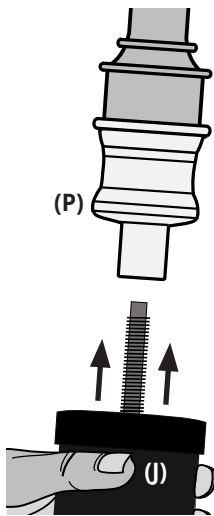
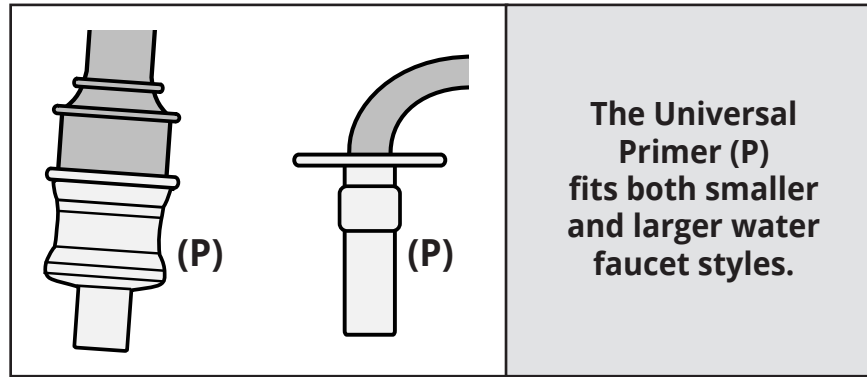
Note: All systems may not include a vapor lock clip. If you experience vapor lock issues, contact an authorized **Berkey®** dealer to obtain a vapor lock clip.



5. Prime the Black Berkey® Elements

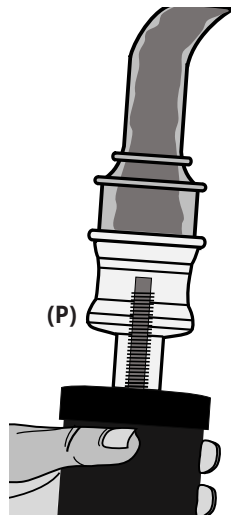
Priming uses water to displace air out of the elements' pores, ensuring that water can flow freely. **Elements will not operate properly if they are not primed.** We recommend setting up your system on a countertop or other waterproof surface. If process dust is present, wipe it off with a Scotch-Brite® pad under cold running water.

Priming Method 1: Using the Included Universal Primer



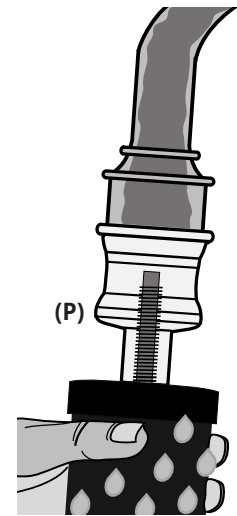
1. Attach blue Universal Primer (P) to faucet by stretching primer up and over the end of faucet head to create a tight seal.

2. Hold **Black Berkey®** Element (J) in one hand, and gently push element's stem into primer.



3. Keep one hand on element and use other hand to slowly turn on faucet. Use only **cold** water. **Do not allow element to dangle unsecured.**

4. **Gradually increase water pressure** until a moderate flow is reached. **If primer inflates like a bulb, immediately reduce water pressure.**



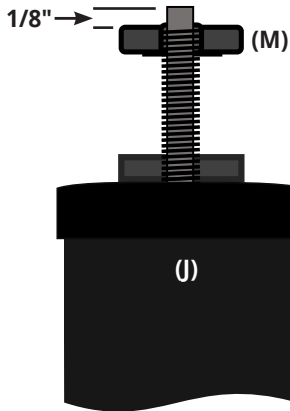
5. Allow element to sweat beads of water for **1 minute**. Water may be discolored at first, as excess media exits element. Continue running water until it runs clear, and the entire element appears to be saturated.

Element is now primed and ready for installation. Repeat steps 1-5 for remaining elements.

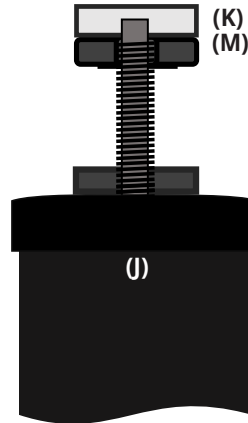
Tip: Your **Black Berkey®** Elements will be wet after priming them. We recommend placing your primed elements in a clean bowl or sink while priming and installing your other remaining **Black Berkey®** Elements.

Priming the Black Berkey® Elements (continued)

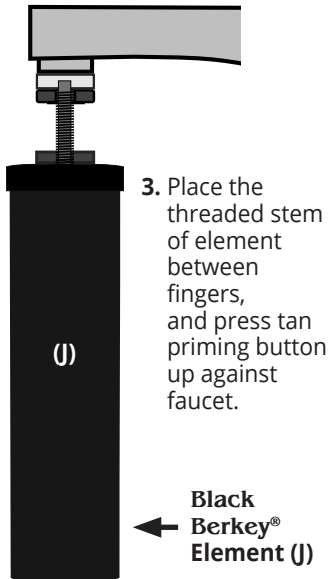
Priming Method 2: Traditional Method Using Tan Priming Button



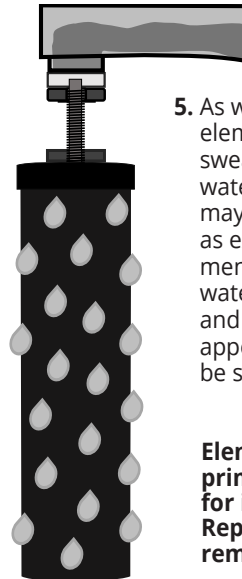
1. Loosen wing nut (M) on Black Berkey® Element (J) stem until the top of wing nut (M) reaches the top of stem's threads (about 1/8" from top end of stem).



2. Place tan priming button (K) on top of wing nut. Top of tan priming button should be slightly higher than the top of the stem.



4. Slowly turn on cold water (gradually increasing water pressure) while holding element and tan priming button firmly against faucet to create a seal, allowing water to saturate element.



Tip: Your Black Berkey® Elements will be wet after priming them—we recommend placing your elements in a clean bowl or sink while assembling the rest of your system.

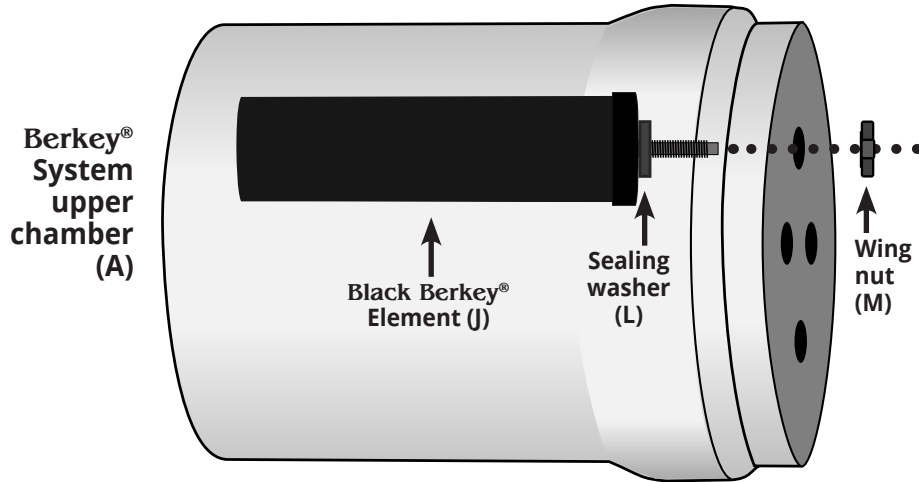
Priming Method 3: Without Pressurized Faucet / Alternative Priming Options

We strongly recommend using the **Berkey Primer™** (sold separately), a handheld priming pump that makes the elements easy to prime without the need for faucets or hose connections. **Berkey Primer™** are available from Authorized **Berkey®** Dealers worldwide.

Black Berkey® Elements may also be primed using a bottle of filtered water. Have one person hold the element, with the priming button attached and facing upward. Have a second person press the mouth of the bottled water against the priming button and squeeze until water is forced through entire exterior wall of element and it begins to sweat beads of water.

6. Install Primed Black Berkey® Elements In Your System

1. Remove wing nut from threaded stem while leaving sealing washer on **Black Berkey®** Element.
2. Place threaded stem, with sealing washer attached, into the hole in the interior base of your system's upper chamber.
3. Secure element in the base of the chamber by screwing wing nut onto threaded mount until hand-tight. **Caution: hand tighten only. Over-tightening wing nut can strip the nut's threads, which could cause the system to leak.** Repeat these 3 steps for remaining elements.
4. With elements in place, carefully place upper chamber onto lower chamber. Your system is now assembled and ready to use.



Using Your System

Use of softened water or salt water can clog the filter's pores and will void your warranty.

Avoid placing your system in direct sunlight or near a heat source such as a stove, indoor heater, etc.

1. Fill upper chamber with cold or room temperature water. **DO NOT use hot or boiling water.**
2. Place lid on system. Allow water to filter into lower chamber.
3. Open the spigot to completely empty the lower chamber, and discard water. If water is slightly discolored due to any remaining particulate, do not be concerned—simply repeat steps 1-3 in this section as many times as needed until dispensed water is clear.
4. Your system is now ready to use. Refill upper chamber with water.

Notes:

- Depending on how well elements are primed, elements may start dripping immediately. Or, it may take up to 15 minutes for elements to start dripping water into lower chamber.
- Maximum flow rate will be achieved after the initial 12-24 hours of use as micro air pockets within the elements are replaced with water.
- It is normal to have a few inches of water left in the upper chamber when using the system, as it is gravity fed and the water cannot process through the bottom of the element.

Assembly Verification* (Red Food Coloring Test)

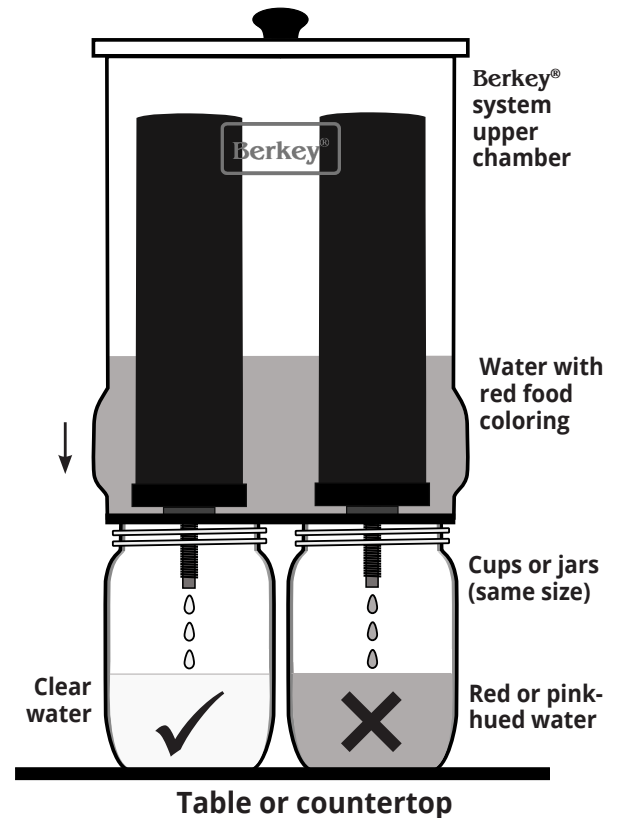
This simple test verifies that your system has been assembled correctly, and that there are no internal leaks in your system. We recommend this test be done after the first assembly of this system, after removal or replacement of **Black Berkey®** Elements, or the first use after drying and storing the elements for an extended period of time. **Ensure that you do not have Berkey PF-2™ Fluoride and Arsenic Reduction Elements installed in the system when performing this test.**

1. Add up to 1/8 teaspoon (10 drops) of the included red food coloring (listed as part "O" on the first page of these instructions) or artificial **red** food coloring (such as McCormick's) for every gallon that your **Berkey®** System can hold into the upper chamber. Acceptable red food coloring ingredients include water, propylene glycol, FD&C Red 40 and FD&C Red 3, and propylparaben. **Avoid using food coloring that is not red, or contains citric acid, sodium benzoate or natural ingredients such as beet juice, turmeric, etc. Using organic food colorings will result in a false failed test (stating that your system is not sealed correctly).**
2. Place cup under spigot and drain water. If dispensed water is clear or does not have a red or pink hue, this indicates that elements are sealed and system is assembled correctly.

***Note: This test is meant to confirm that the system was assembled as intended.**

If water drained from system has a red or pink hue during the assembly verification test, repeat the procedure again in this manner to determine the source of the leak:

1. Place the upper system chamber only (with **Black Berkey®** Elements installed) on top of same-sized cups or jars, each positioned so that an element can drip water into it. This will help you identify which blocking plug or element may be leaking.
2. Fill upper chamber with water and red food coloring as directed above.
3. Allow system to filter water. Check color of water expelled from the elements. If water is clear, the system is ready to use. If red food coloring is still present, reinstall element(s) or blocking plug(s) where leaking occurs and re-run test.
4. If system continues to fail the test, contact our Customer Service department for assistance.



Maintaining Your System

We recommend performing maintenance every 30 days as needed:

Clean the lower chamber and spigot

1. Remove upper chamber (be sure to drain any water and remove optional **Berkey PF-2™** Fluoride and Arsenic Reduction Elements, if attached).
2. With the **Black Berkey®** Elements remaining installed in the upper chamber, place upper chamber upside down or securely on its side to ensure it will not roll off of your counter or other work surface. **Caution: breaking an element's stem will void its warranty.**
3. Clean lower chamber with mild dish soap or a 1:1 mixture of water and vinegar, and rinse thoroughly.
4. Remove spigot and soak it in a 1:1 mixture of clean water and vinegar for 5-10 minutes to help remove any mineral deposits. Rinse spigot thoroughly.
5. Reattach spigot. Reinstall any optional **Berkey PF-2™** Fluoride and Arsenic Reduction Elements to the stems of the system's **Black Berkey®** Elements. With elements in place, carefully place upper chamber onto lower chamber.

Precautions

- **Avoid placing your system in direct sunlight or near a heat source such as a stove, indoor heater, etc.** Excessive heat can create conditions that facilitate microbiological growth inside the upper chamber.
- **When lower chamber is partially filled, be cautious not to overfill upper chamber,** as this could cause lower chamber to overflow. *For example: if the lower chamber is 1/3 full, the upper chamber can be refilled by 2/3. If the lower chamber is 1/2 full, the upper chamber can be refilled by 1/2, etc.*
- **Never allow wet Black Berkey® Elements to freeze**—exposure to freezing temperatures can expand the water into ice, which may damage the elements and cause them to crack or break. Allowing elements to freeze will void your warranty.

Black Berkey® Element Storage

If you are going to be leaving the system unattended for 4-15 days and want to reduce the necessity of re-priming the elements, remove the elements from your system and place them in a sealable plastic bag (gallon-size or larger) while elements are still damp (this allows the elements to stay wet, making priming unnecessary). Then, place the elements in your refrigerator where they will not freeze. When ready, thoroughly rinse elements under cold water, then reinstall them in your system.

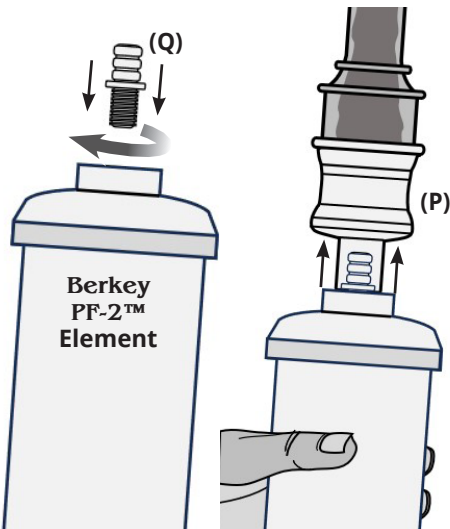
For longer-term storage, we recommend completely drying the elements first.

Ensure they are bone-dry (zero moisture) before storing them long-term. Shake excess water from elements, then air-dry by leaving them on a windowsill or other sunny location for 1-3 days until completely dry.

Once elements are bone-dry (zero moisture), store them in a sealable plastic bag (gallon-size or larger)—this prevents elements from absorbing odors. When you are ready to re-use your elements, clean them by scrubbing the outside with a stiff brush or a Scotch-Brite® pad under cold running water. Then re-prime the elements before putting them back in your system.

Alternatively, you can use a **Berkey Primer™** (sold separately) which assists in both priming and purging. Purging speeds up the drying process by pushing water out of the element before you place them in the sun or air dry to complete the process. Note: when purging, valves on the **Berkey Primer™** must be reversed.

Priming Optional Berkey PF-2™ Fluoride and Arsenic Reduction Elements (Sold separately)



1. Attach blue Universal Primer (P) to faucet by stretching primer up and over the end of faucet head to create a tight seal.
2. Screw Fluoride Element Adapter (Q) into threaded end of **Berkey PF-2™** Fluoride and Arsenic Reduction Element. Gently press other ends of Fluoride Element Adapter into primer.
3. Keep one hand on element and use other hand to slowly turn on faucet. Use only **cold water**. **Do not allow element to dangle unsecured.** Gradually increase water pressure until moderate flow is reached. **If primer inflates like a bulb, immediately reduce water pressure.**
4. Cover bottom end of element with finger (or provided blue cap) and let water fill element for approximately 30 seconds, then turn water off. Remove element from primer. Cover both ends of element with fingers (or blue caps). **Shake element vigorously for 1 minute.**
5. Reattach element to primer and turn on cold water at low pressure once again. Slowly increase pressure until there is a steady stream of water flowing out from bottom of element. Allow water to flow until it runs clear (about 2-3 minutes). Repeat steps 3-6 as necessary.
6. **Element is now primed and ready for installation. Repeat steps 1-5 for remaining elements.**
7. Note: in some cases, the flat priming button may work better depending on the size/shape of your specific faucet. Refer to instructions included with your **Berkey PF-2™** Fluoride and Arsenic Reduction Elements for more information.

System Troubleshooting

After prolonged use, flow rate may decrease significantly. To improve flow rate:

1. Slow flow rate could be caused by vapor lock. Insert vapor lock clip, if supplied. See page 2, assembly step #4.
2. Carefully remove the elements from the upper chamber and gently scrub them with a stiff brush or Scotch-Brite® pad under cold running water (never apply soap or other cleaning agents to your **Black Berkey®** Elements). Re-prime elements, and reinstall them inside the upper chamber.
3. Place upper chamber back onto lower chamber, then perform the Assembly Verification process (Red Food Coloring Test). Your system is ready to use.
4. Repeat this cleaning operation for your **Black Berkey®** filters every 2 to 3 months or as needed to prevent the build-up of minerals and other contaminants which could clog the microporous surface.

New Millennium Concepts, Ltd. Limited Warranty

New Millennium Concepts, Ltd. warrants their product against defects in materials or workmanship during ordinary consumer use. This Limited Warranty does not cover product issues caused by any other reason, for the time periods and conditions set forth below when purchased directly from an Authorized **Berkey®** Dealer. New Millennium Concepts, Ltd. shall not be held liable for incidental or consequential damage to personal property from, but not limited to, a defective unit, improper use, abuse, accident, or neglect, etc. It is the customer's responsibility to prevent misuse of the system and to replace parts, when, due to the natural course of wear and tear, they must be replaced. To obtain warranty service, you must provide a dated receipt for the product and may be responsible to pay for any shipping charges incurred to return the product to New Millennium Concepts, Ltd. when required. This warranty will not apply to units which have been used for purposes not intended, which have been altered so as, in the manufacturer's judgment, to adversely affect its performance. This warranty is for the original retail purchaser only, and cannot be transferred. For a period not to exceed the specified warranty coverage from the date of receipt of the product by the original purchaser on the original invoice, New Millennium Concepts, Ltd. will, solely at its discretion, replace said product or component that New Millennium Concepts, Ltd. deems is not functioning properly during the stated warranty period. The laws of the state of Texas, USA will govern any disputes regarding this warranty or claim made. This warranty, which is given expressly in lieu of all warranties, expressed or implied, or merchantability and fitness for a particular purpose, constitutes the only warranty made by New Millennium Concepts, Ltd. This warranty applies only to products manufactured or exclusively distributed by New Millennium Concepts, Ltd. and its Authorized **Berkey®** Dealers, and does not apply to extended warranties offered by some Authorized **Berkey®** Dealers. **Berkey® System Housing:** **Berkey®** System upper and lower chambers including lids, excluding orders for factory-blemished systems, are covered under a one-year warranty. The warranty period begins from the date of receipt of the product by the original purchaser on the original invoice. **Black Berkey® Elements:** **Black Berkey®** Elements are covered under a two year limited prorated warranty, calculated in six-month intervals. Warranty period begins from the date of receipt of the product by the original purchaser on the original invoice. **Included spigot and accessories that are sold separately** are covered under a six-month warranty. The warranty period begins from the date of receipt of the product by the original purchaser on the original invoice.



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