



## Berkey PF-2™ Fluoride and Arsenic Reduction Elements

**Berkey PF-2™** reduction elements are designed for use in conjunction with **Black Berkey™** water purification elements to adsorb the following unwanted elements found in drinking water.

- Fluoride
- Arsenic V and pre oxidized Arsenic III
- Other residual heavy metal ions

### TECHNICAL INFORMATION:

**FLUORIDE:** Testing for fluoride was based on 20-30ppm of the ion in the influent aqueous solution at a flow rate of no more than 3 gpm per cubic foot of media. Results of < 1ppm of the fluoride ion in the effluent were typical for the media (*>95% reduction*). Under optimum conditions, effluent concentrations of less than 50 ppb were readily achieved (*>99.75% reduction*).

**ARSENIC:** This product uniquely targets the entire family of arsenic oxide anions as well as the arsenic cations.

### REPLACEMENT:

Under normal conditions it is recommended that each set of two **Berkey PF-2™** elements be replaced after 1,000 gallons (*The **Berkey Light®** system is about 2.75 gallons therefore the **Berkey PF-2™** filters should be replaced after 363 refills. If the system is refilled about one time per day, the **Berkey PF-2™** elements should be replaced annually, if the system is refilled about twice per day, the **Berkey PF-2™** elements should be replaced about every six months*).

### GENERAL WARRANTY INFORMATION

New Millennium Concepts, Ltd. warrants this product to be free from defects in materials and workmanship for a period of 6 months from date of purchase. New Millennium Concepts, Ltd. will replace or repair any product that it deems is not properly functioning during the stated warranty period. Relief under this warranty is limited to the replacement or repair of defective materials or workmanship only. 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. No warranty will apply to units which have been used for purposes not intended, which have been altered so as, in the manufacturer's judgment, to affect adversely its performance. This warranty is for the original retail purchaser only, and cannot be transferred. Repair or replacement of parts will be made upon delivery to manufacturer's plant or authorized service dealer at customer's expense. 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.

*\*For maximum removal efficiency, maintain the water being treated between a PH level of 5 and 8. Actual capacity is dependent on the level of contamination of arsenic, fluoride and other competing heavy metal ions. Unusually high levels of these contaminants may reduce the capacity and efficiency of the elements.*

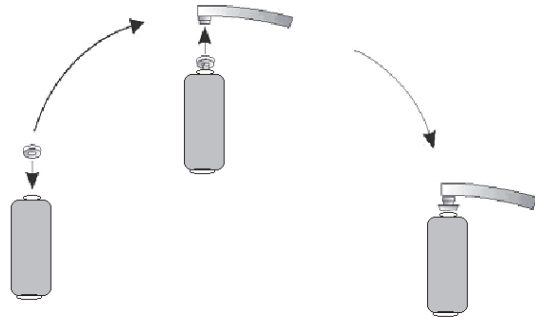
# CAUTION:

**FILTERS MUST BE PRIMED PRIOR TO USE.** Do not install before reading installation procedures - Do not screw on the **Berkey PF-2™** elements more than eight revolutions.

## PRIMING PROCEDURE

The media within your **Berkey PF-2™** elements contains micro fine process dust that can cause the purified water to have a bitter taste. To dislodge the process dust from the **Berkey PF-2™** elements, it is necessary to prime each element. To prime your filters, use the following procedure:

- 1) With blue caps in place remove the stickers and wash the exterior of each **Berkey PF-2™** element with mild dish soap.
- 2) With clean hands, remove both blue caps from each end of each **Berkey PF-2™** filter element.
- 3) Place the rubber-priming button (tan colored) onto one end of a **Berkey PF-2™** element and align the hole in the button with the hole in the **Berkey PF-2™** element.
- 4) Press the priming button up against a sink faucet so that the priming button creates a seal between the faucet and the **Berkey PF-2™** element.
- 5) While holding priming button against faucet, turn on the COLD water gently, allowing water to fill the cavity of the **Berkey PF-2™** element and discharge from the opposite end. Allow water to discharge for at least 20 seconds or until water runs clear whichever is longer. If residue is still present, please repeat the process until the water runs clear. *Hint: Place thumb on top of faucet to apply pressure and create a better seal.*
- 6) Turn the **Berkey PF-2™** element the other direction and prime the other end repeating steps 3-5. The element has now been successfully primed.
- 7) Prime each additional **Berkey PF-2™** element repeating steps 3-6.



## INSTALLATION PROCEDURE

- 1) Remove upper chamber from filtration system and place it upside down on a counter so that the stems of the **Black Berkey™** purification elements are facing upward.
- 2) With the water flow-arrow pointing away from the upper chamber (*the **Berkey PF-2™** elements have threads on one end only*) screw the **Berkey PF-2™** elements onto the stems of each (already primed) **Black Berkey™** element **eight full revolutions**. Notes: a) **Do not screw on more than eight revolutions as this may damage the internal media screen.** b) *The flow arrow should point away from upper reservoir.*
- 3) Replace the upper reservoir onto the lower reservoir (*the **Berkey PF-2™**'s should now be hanging inside the lower reservoir*). Fill the upper reservoir with water and let it drain into the lower reservoir. When the lower reservoir is full, discard the first batch of water, which may contain residual process dust. Your purification system is now ready for use.

## Notes:

- 1) Do not boil this element.
- 2) The water temperature will rise during the priming process. Therefore use only COLD water to prime elements as the use of hot water may result in uncomfortable or unsafe water temperatures.
- 3) **Berkey PF-2™** elements reduce filtration flow rate by 15-20%.
- 4) When lower reservoir is full of water, the **Berkey PF-2™** filters will be immersed.
- 5) When water level in lower reservoir rises above the bottom of the **Berkey PF-2™** elements, it is normal for small amounts of water to burp through threads connecting **Berkey PF-2™** elements to **Black Berkey™** purification elements.
- 6) If residual process dust is still visible after priming, repeat the priming and installation process as described above.
- 7) If/when you conduct the "Red Food Color Test" for the **Black Berkey™** purification elements, you must remove the **Berkey PF-2™** elements first. Failure to do so may result in the voiding of the **Berkey PF-2™** element warranty.
- 8) The lower reservoir in most gravity purification systems has a two to three gallon capacity and a typical household uses about one refill per day. We recommend that the upper reservoir be filled at night. The water from upper reservoir should be purified by morning. It is normal for the purification process to slow down significantly when water level in lower reservoir rises above the bottom of the **Berkey PF-2™** elements. Households requiring more water can speed up the flow rate by drawing off the purified water into a water pitcher or other container when water level in lower reservoir rises above the bottom of the **Berkey PF-2™** elements.

*\*For maximum removal efficiency, maintain the water being treated between a PH level of 5 and 8. Actual capacity is dependent on the level of contamination of arsenic, fluoride and other competing heavy metal ions. Unusually high levels of these contaminants may reduce the capacity and efficiency of the elements.*