

# HMRC10 CARTRIDGE REPLACEMENT FOR HMX-1 & ARS-1

## SECTION I. INTRODUCTION

Congratulations, you have just purchased the replacement filter for the HMX-1 and ARS-1 heavy metal reduction systems.

Your new Heavy Metal Reduction Drinking Water cartridge (HMRC10) uses a non-leaching material to reduce unwanted arsenic 3, arsenic 5, lead, cadmium, copper, antimony, mercury, zinc, nickel and selenium in a water supply. The HMRC10 cartridge should only be used with the HMX-1 or ARS-1 drinking water systems. This filter is not to be used with any other system due to heavy metal contaminant bleed through that could occur. Have your water checked periodically to verify heavy metal reduction.

## LIABILITY

All information and recommendations appearing in this manual concerning the use of products described herein are based on information contained in good faith but makes no representation as to its comprehensiveness or accuracy. However, it is the user's responsibility to determine the suitability for his own use of such products. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Franklin Electric Co., Inc. as to the effects of such use or the results to be obtained. Franklin Electric Co., Inc. assumes no liability arising out of the use by others of such products. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

### Recommended Filter Change Schedule\*

ARSENIC:	
<=60ppb	1,800 gallons
<=70ppb	1,500 gallons
<=90ppb	1,200 gallons
<=100ppb	1,000 gallons
>100ppb	Not Recommended
LEAD:	
<=100ppb	1,800 gallons
>100ppb	Not Recommended

**Periodically test treated water for contaminant level!**

## SECTION II. SPECIFICATIONS

TABLE A – RECOMMENDED OPERATING LIMITS FOR FEED WATER

Specifications	HMRC10
Water Pressure	40-100 psig
Temperature	40-100°F
pH	5.0-8.0 (lower pH is favorable for arsenic reduction)
Hardness	More than 5 gpg*
Iron	Less than 0.1 ppm (also mg/l)
Manganese	Less than 0.01 ppm (also mg/l)
Total Heavy Metal Contaminant	Less than or equal to 100 ppb (0.10 ppm or mg/l)
Silica	Less than 30 ppm (also mg/l)
Bacteria	Must be potable**

**IMPORTANT:** The HMRC10 may be installed on waters containing heavy metals listed in Section I.; however, the total heavy metal concentration of the incoming water supply must be less than or equal to 100.0 ppb. Installing this unit on water with greater than 100.0 ppb of heavy metals may result in harmful heavy metal bleed through in excess of the MCL established by the EPA. I.E. arsenic MCL = 10 ppb, lead MCL = 15 ppb.

**Have your water checked periodically to avoid harmful levels of heavy metal bleed through!  
Satisfactory test results will be less than or equal to the MCL established by the EPA!**

\*Does not require softened water. Calcium aids in the adsorption of heavy metal on the filter material and protects it from being fouled by silica. The HMRC10 works with softened water, but if silica is present performance and life of cartridge will be significantly reduced. If the water is soft, preceding the unit with a reverse osmosis system provides the ideal water quality to ensure optimal performance.

\*\*DO NOT USE WITH WATER THAT IS MICROBIOLOGICALLY UNSAFE OR OF UNKNOWN QUALITY.

## SECTION III. OPERATION & MAINTENANCE

### A. Changing Filter

**NOTE: THE HMX-1 and ARS-1 SYSTEM CONTAINS A FILTER WHICH MUST BE REPLACED AT REGULAR INTERVALS TO MAINTAIN PROPER PERFORMANCE. USE ONLY FACTORY APPROVED FILTERS.**

Please see Page 1 for the recommended interval for changing the filters. Local conditions may dictate more frequent changes.

Use a drip pan to catch any water that may spill when the filter housings are removed:

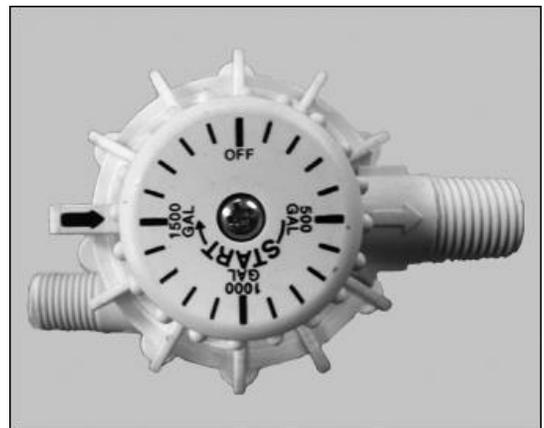
- 1) Close the ball valve on the INLET of the housing and push the red button on top of the housing to relieve the operating pressure.
- 2) Loosen and remove the filter housing with the provided wrench. Discard the cartridge.  
**NOTE:** Exhausted filter cartridge may be disposed by normal means, due to non-leaching material. Dispose as nonhazardous solid waste.
- 3) Wash the inside of the housing(s) using a mild detergent and a soft cloth. Do not use abrasive cleaners or pads. Thoroughly rinse all soap from the housing before reassembly.
- 4) Add one cap full of household bleach (this is 2 tsp. or 10 ml) to the filter housing. Use a good quality unscented 5-1/4% liquid bleach.
- 5) Install the new HMRC10 filter cartridge with the flow arrow pointing upward toward the opening of the housing.
- 6) Screw the filter housing back into the head and tighten with the provided wrench.
- 7) Reset the automatic shut-off meter to the recommended number of gallons shown on page 1.
- 8) With the dispensing faucet open, slowly open the ball valve on the feed water line.
- 9) As soon as water begins to drip out of the dispensing faucet, close the faucet.
- 10) Let the system stand for 15 minutes.
- 11) At the end of the 15 minutes, open the dispensing faucet and allow the water to run to drain until it runs clear and free of any chlorine odor.
- 12) Check for leaks.

## SECTION IV. AUTOMATIC WATER METER

### Setting the Shut-off Meter

**IMPORTANT:** Before starting this procedure, make sure a complete heavy metal water test has been done and those numbers provided.

The HMRC10 may be installed on water containing arsenic 3, arsenic 5, lead, cadmium, copper, antimony, mercury, zinc, nickel and selenium; however, the total heavy metal concentration of the incoming water supply should be less than 100.0 ppb. Water containing a heavy metal concentration greater than 100.0 ppb will greatly reduce the cartridge capacity and leave potential of harmful levels of heavy metal bleed through. Desired level of heavy metal should be less than or equal to the MCL established by the EPA.



Turn the setting dial clockwise to the recommended gallon setting (see page 1). After the gallons are used the automatic shut-off meter will shut off the OUTLET flow of water and no more water will be allowed to pass through the system until the cartridge is changed and the meter reset.



## **HMRC10 HEAVY METAL REDUCTION CARTRIDGE LIMITED WARRANTY**

### **What Does This Warranty Cover?**

*This warranty covers any defects in materials and workmanship of the HMRC10 when installed and operated within recommended parameters, with the exceptions stated below.*

### **How Long Does The Coverage Last?**

*The manufacturer will warrant its HMRC10, for a period of one year from the date of purchase. All implied warranties including merchantability and fitness for a particular purpose are limited to one year from the date of purchase for the HMRC10. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.*

### **What Will The Manufacturer Do?**

*The manufacturer will repair or replace at its discretion any defective component. You must pay any labor charges. You must also pay for shipping or travel charges to return the defective part(s).*

### **What Does This Warranty Not Cover?**

*The above warranty will not apply to any part of the HMRC10 that is damaged because of neglect, misuse, alterations, accident, misapplication, physical damage, or damage caused by fire, acts of God, freezing or hot waters or similar causes. Consequential and incidental damages are not recoverable under this warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.*

*We recommend that you use only the manufacturer's replacement parts since improper parts or incorrectly performed maintenance or repair voids this warranty.*

### **How Do You Get Service?**

*In order to be eligible for service under this warranty you must (a) contact your local dealer who supplied the unit.*

### **How Does State Law Apply?**

*This warranty gives you specific legal rights and you may also have other rights which vary from state to state.*

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