

# **Installation / Operation Manual**

## **Fully Automatic Water Filter**

### **Isobar Control Valve**

**For Model Numbers :**

- ☐ **G9**
- ☐ **G10**
- ☐ **G12**
- ☐ **G13**



*Ashland, Ohio*

General Specifications	Series			
	G9	G10	G12	G13
Filtration (See "Filter Media" section for application)	Less Filter Media and Gravel			
Filter Media Capacity (cu. ft.)	1.00	1.50	2.00	2.50
Mineral Tank (Vortech)	9 x 48	10 x 54	13 x 48	13 x 54
Service Flow Rate - Continuous (gpm)	4	5	6	8
Service Flow Rate - Intermittent (gpm)	6	7	8	10
Backwash Flow Rate (gpm)	5.0	5.0	7.0	7.0
Gallons Used / Backwash	130	130	156	182
Space Required	9 x 9 x 56	10 x 10 x 62	13 x 13 x 56	13 x 13 x 62
Approximate Shipping Weight	27	32	35	40

### Filter Media Selection Guide

Media	Description	Handles
Neutralizer	Granular / White / Sacrificial to water with pH < 7.0 / Max pH correction to 7.2 / Lowest pH application 5.8 / Must be replenished about every 3 - 6 months	Sediment pH Correction
Granular Activated Carbon	Granular / Black / Wide application for removal of organic and some inorganic / Must be replenished on a regular basis / Life expectancy varies based on use	Sediment Taste / Odor / Color Chlorine / Iodine
Birm™	Granular / Gray / Must not be used on waters with a pH < 6.8 / Must have dissolved oxygen present at a level of at least 15% of Iron & Manganese ppm / Max Iron & Manganese level 10 ppm / Estimated life about 8 - 10 years	Sediment Iron (clear & red) Manganese (clear & red)
Filter Ag™	Granular / Off-White / Wide application for removal of sediment / Life expectancy is unlimited	Sediment
ChemSorb	Light Greenish in color / Mesh size 14 x 40 / 55 lb/ft³ / The ChemSorb filter beds operate at less than half the hydraulic loading rate vs. 20 x 40 mesh sand and 50% of sand / anthracite or multi-media	Enhanced Particle Removal (down to 5 microns)

## Installation Requirements

A level floor position ahead of piping into water heater

Unit must be installed at least 10 feet ahead of the inlet to a water heater to prevent damage due to back-up hot water.

DO NOT install the unit in an area of direct sunlight or where freezing temperatures may occur!

Locate the unit near an unswitched, 120 volt / 60 Hz grounded electrical outlet.

Check for distance and proper drain installation (e.g. floor drain, washing machine standpipe).

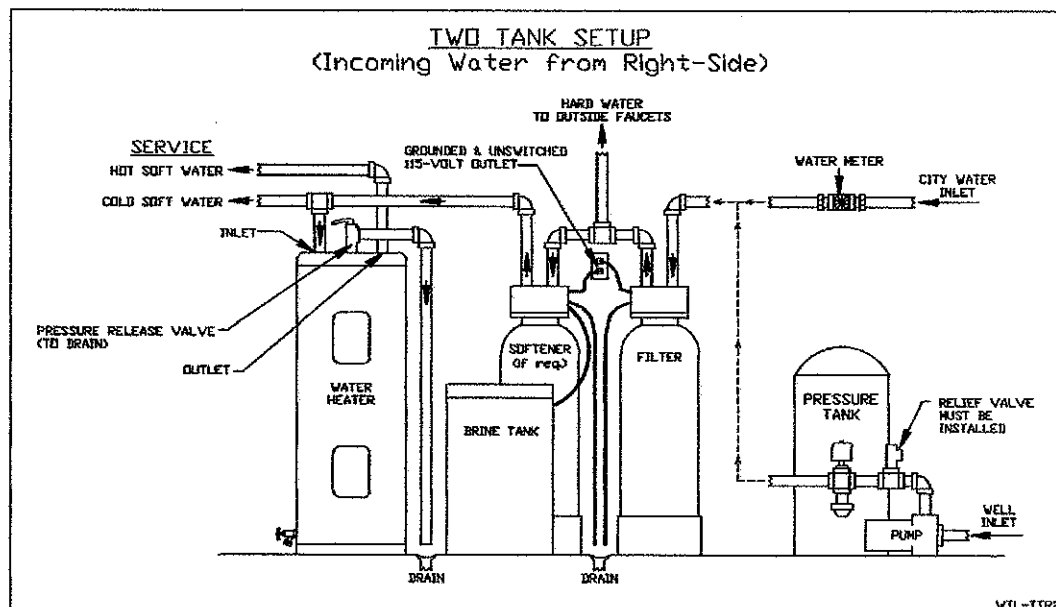
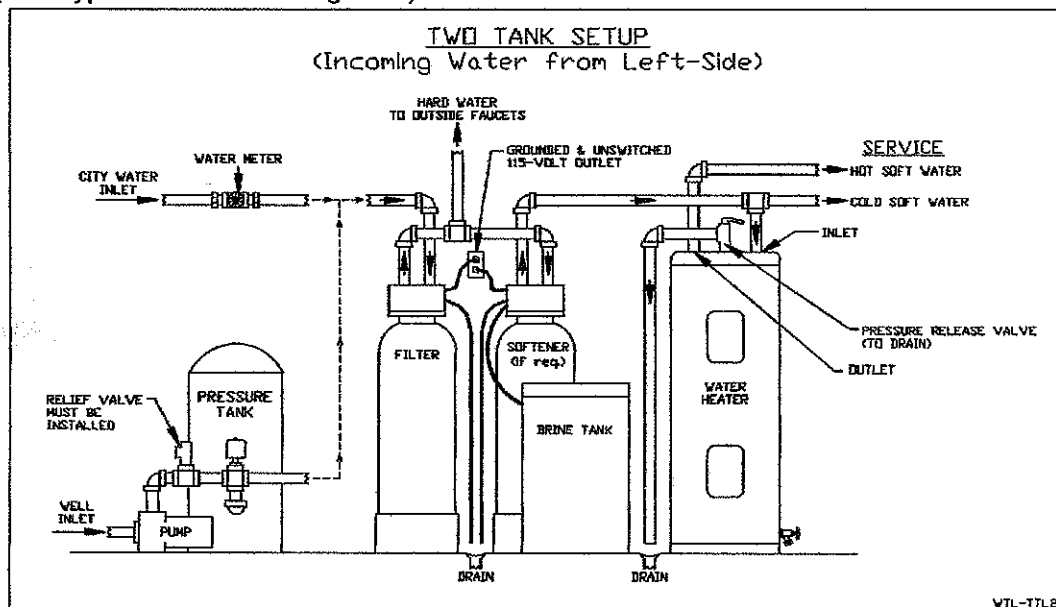
Determine type and size of piping required for filter connection (e.g. copper, galvanized, PVC plastic).

**Note :** If household plumbing is galvanized and you intend to make the installation with copper (or vice versa), obtain di-electric unions to prevent dissimilar metal corrosion.

**Note :** Where the drain line is elevated above the control valve or exceeds 20 feet in length to reach the drain, use 3/4" I.D. drain line tubing instead of 1/2" I.D. Drain line tubing is not included.

**Caution :** If sweat soldering copper pipe (remember to always use lead free solder and flux), cover yoke and bypass valve with wet rags to prevent heat damage to connections and control valve. If using PVC or plastic pipe, primers and solvent cements specifically recommended for use with potable water are required.

**Note :** All plumbing lines not requiring "soft" water should be connected "upstream" of the softener, if installed. (See Typical Installation Diagrams.)



## Installation Procedure

### - Water Supply Connection and Bypass Valve -

To allow for filter servicing, swimming pool filling or lawn sprinkling, a manual Bypass Valve has been installed at the factory. The Bypass allows raw water to be manually routed around the filter.

1. Position filter at desired location for installation. If a water softener is to be installed, the filter should be positioned first and then the softener. (See Installation Diagrams.)
2. The filter material is shipped separately from the mineral tank. The tank must be loaded with material after tank has been placed at the desired location.
  - A. Remove the control valve by unscrewing from the tank.
  - B. Use a cork or tape to place over top of distributor tube to prevent material from entering tube while filling.
  - C. Place media funnel in hole on top of tank.
  - D. Pour several gallons of water in the tank. (Fill tank about 1/3 full.)
  - E. Pour in the required filter media. **No gravel is required.** The required quantity of media is listed in the filter specifications.

**Note :** If rebedding an existing unit and the system utilizes a standard tube & basket style distributor, a "D" gravel underbedding will be required.
  - F. After filling the tank with material, use a garden hose or several buckets to fill the tank with water.

**Note :** This will permit the filtering media to become soaked while preparing the installation and will prevent the control valve from being plugged with floating material on initial backwash.
  - G. Remove funnel and clean filter media from tank threads.
  - H. Remove cork or tape from distributor tube.
  - I. Replace control valve on mineral tank.

**Caution :** Be extremely careful to position distributor tube into control valve distributor tube pilot hole.
3. Turn **OFF** main water supply and **OPEN** nearest faucet to relieve pressure.
4. Cut main line and install appropriate elbows and extensions.

**Caution :** Raised arrows located on the sides of control valve body and bypass valve indicate proper direction of water flow. Install inlet and outlet piping in direction of arrows.

### - Drain Line Connection -

1. Pull out clip and remove drain line assembly located on the left side of control valve. Remove drain line hose barb and wrap threads with Teflon tape. Reinstall drain line hose barb. Replace drain line assembly and reinstall clip.

**Caution :** Hand tighten only!

2. Install 1/2" I.D. drain line tubing (not included) from hose barb to an open drain. A 4" gap between end of the drain line and the open drain is required to prevent waste water backflow. Keep the drain line as short as possible. An overhead drain line can be used if necessary, but should discharge below the control valve. A syphon trap (taped loop) at the outlet of the drain line is advisable to keep the drain line full and assure correct flow during backwash. Elbows or other fittings must be kept at a bare minimum.

**Note :** Where the drain line is elevated above the control valve or exceeds 20 feet in length, 3/4" I.D. drain line tubing should be used.

### - Electrical Connection -

1. Connect the power cord and plug into a 115 volt / 60 Hz receptacle.

**Note :** Do not plug into an outlet controlled by a wall switch or pull chain that could inadvertently be turned off

## Installation Procedures

1. Move the bypass valve slowly to the **Service** position or open the main valve and allow water to flow to the mineral tank.
2. When the water stops flowing into the tank, open a treated water tap and allow air to be released from the lines. Then close the tap. Open the bypass valve or main valve completely.
3. Rotate the manual regeneration knob clockwise to the **"backwash"** position. On all units except a carbon filter (see note below), allow to backwash the factory preset time of 10 minutes or until water becomes clear at the drain. This will wash out the fine material from the mineral. Check water at drain to be certain large quantities of mineral are not being lost. If mineral is still flowing out return the controls to **"Service"** position and allow mineral to soak longer before being backwashed.

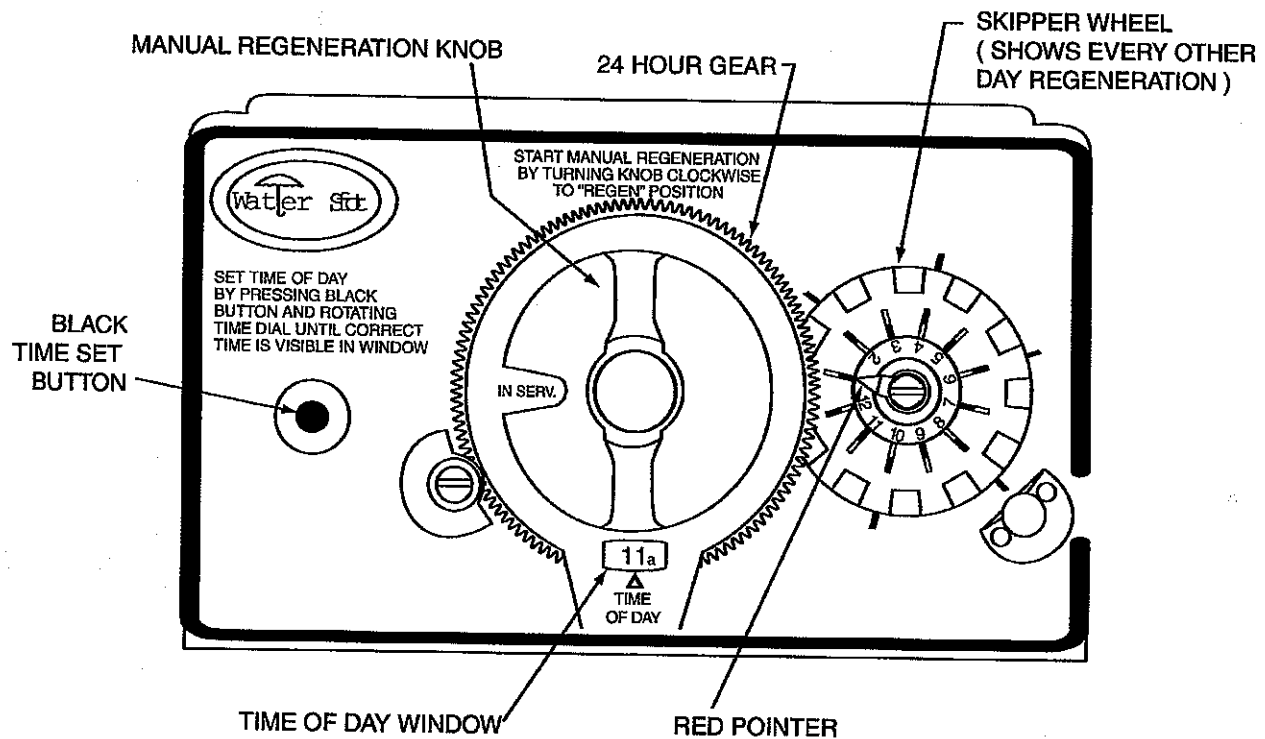
Anytime media - other than very fine mineral on initial startup - is apparent in the service lines, it usually indicates one of the following problems :

- A. The unit is plumbed in backward allowing the media to be carried in the service line.
  - B. The distributor tube inside the tank is not seated inside the valve or is damaged in some way. If the media continues to flow to the drain during backwash after a reasonable period of soaking, check the drain line flow control to be sure that excessive water is not going to the drain allowing mineral to siphon out of the tank.
4. Set the days of backwash desired and the time of day as follows :

**How to set the day on which the water filter is to backwash :** Rotate the skipper wheel until the number "1" is at the red pointer. Set the days that the backwash is to occur on by sliding tabs on the skipper wheel outward to expose trip fingers. Each tab is one day. Finger at red pointer is tonight. Moving clockwise from the red pointer, extend or retract fingers to obtain the desired backwash schedule. (See diagram.) If you want to backwash every day, you would slide all the tabs out. Every other day would extend out tab numbers 2, 4, 6, 8, 12 (or 6 tabs). Every three days would extend tab numbers 3, 6, 9, 12 (or 3 tabs). Every 6 days would extend tab numbers 6 & 12 (or 2 tabs). Every 12 days would extend tab number 12 only.

**How to set the time of day :** Press and hold the black button on the left side of the control valve in to disengage the drive gear. Turn the large gear (not the knob) in the center until the actual time of day appears in the "Time of Day" window at the bottom. Release the black button to again engage the drive gear. Make sure the "AM" and "PM" is correct for your situation. The starting time for backwash is preset to be about 1:00 a.m. the backwash and rinse cycles are also preset. (See diagram.)

**How to manually backwash your water filter at any time :** Turn the manual backwash knob clockwise until you can read **"Start Cycle"**. The unit will automatically continue through the backwash cycle and then return to the **"In Serv"** position when complete.



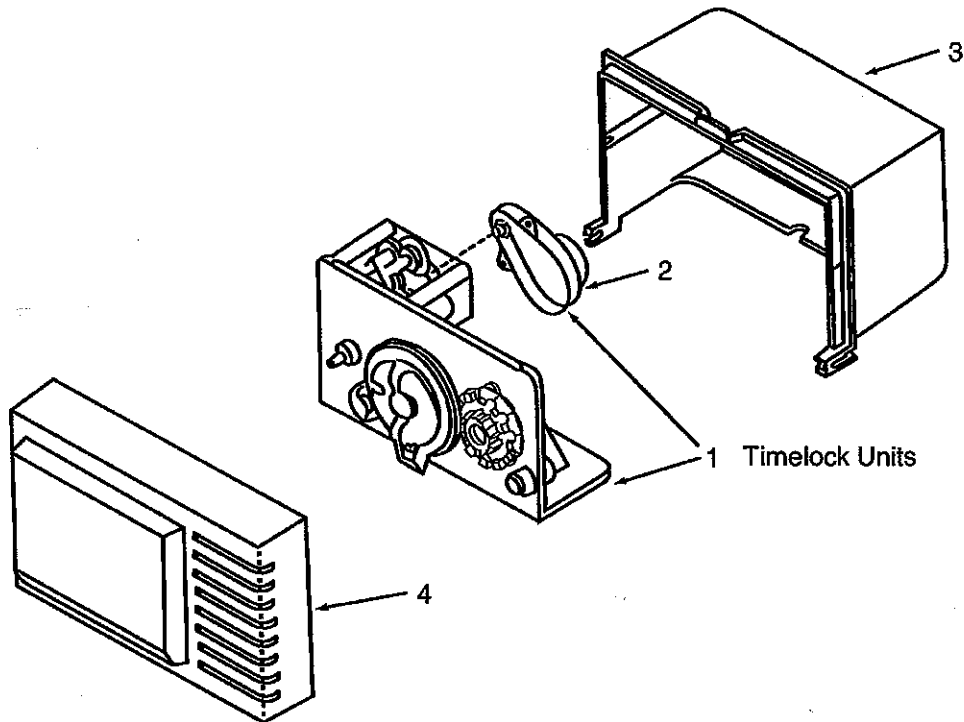
#### **- Final Checkout -**

1. Be certain that the bypass valve is in **Service** position or main valve is completely on.
2. Check electrical supply to be certain the cord is connected to an uninterrupted 115 volt outlet.
3. Be certain the warranty card is filled out and mailed in.
4. Leave this manual with the homeowner.

**Important Notice -** The plumbing system, piping, pressure tank, hot water tanks, softeners, etc. that have been exposed to iron bearing water may need to be cleaned of the precipitated iron that has been collected in them or iron bleed thru may be a problem. We suggest all tanks be drained and flushed thoroughly.

## Parts Diagrams

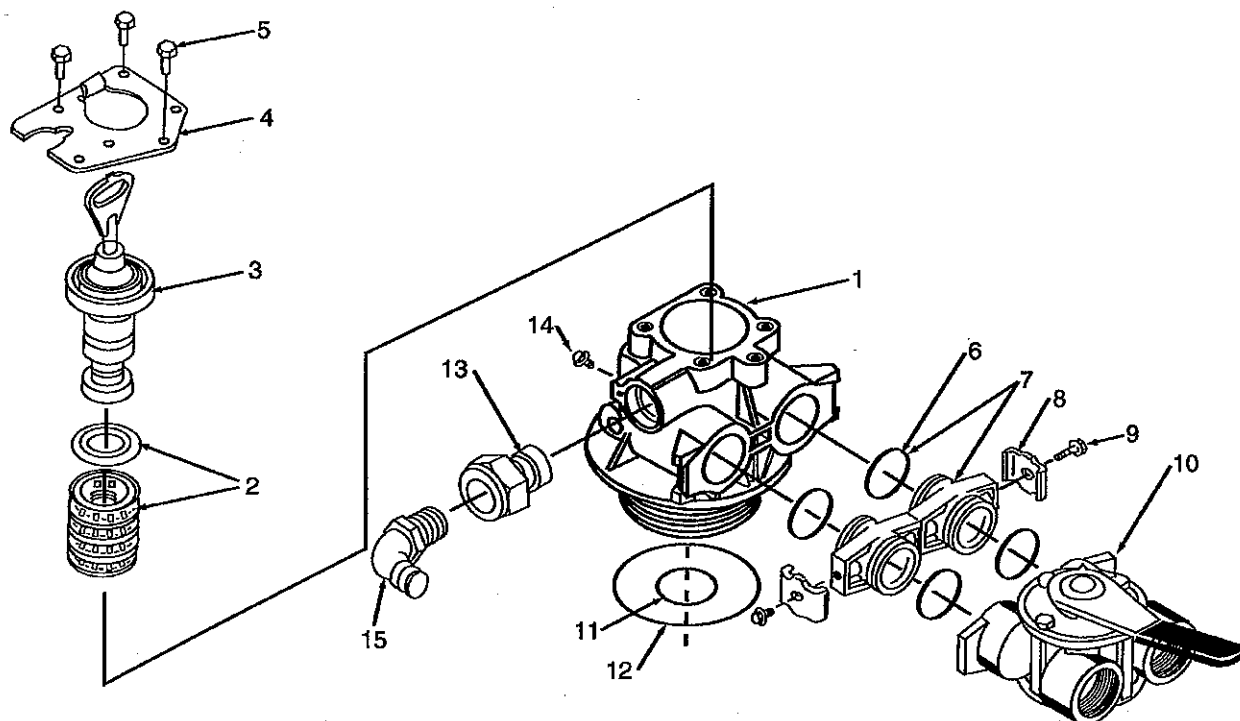
### "2092" Powerhead



Ref. #	Part #	Description
1	20922C201	Powerhead - Filter
2	20921C203	Motor - Clock 115 VAC 60 Hz
4	20921C204	Cover - Front
3	20921C205	Cover - Rear

## Parts Diagrams

### "2092" Control Valves Filter Bodies



Ref #	Part #	Description
1	20922C202	Body Filter
2	20922C204	Seal & Spacer Kit
3	20922C203	Piston & End Plug Assy.
4	20561X249	Retainer End Plug
5	20561X250	Screw Hex HD 10-24 x 1/2" - 3 Req'd.
6	20561C216	O Ring - 4 Req'd.
7	20561X215	Adaptor - 2 Req'd.
8	20561X201	Clip Adaptor - 2 Req'd.
9	20561X217	Screw Gex GD 8-18 x 5/8" - 2 Req'd.

Ref. #	Part #	Description
10	20561X270	Bypass 3/4" NPT
	20561X283	Bypass 1" NPT
11	20561X204	O Ring
12	20561X205	O Ring
13	20251X262	Control Flow 5.0 GPM
	20561X264	Control Flow 7.0 GPM - Include Button & O Ring
	20251X272	Button 5.0 GPM
	20251X273	Button 7.0 GPM
	20251X254	O Ring
14	N / A	Screw 6-32 x 1/2"
15	20251X255	Elbow 1/2" NPT x 1/2" Barb





## Limited Warranty Water Treatment Equipment

This warranty cannot be transferred - it is extended only to the original purchaser or first user of the product. By accepting and keeping this product, you agree to all of the warranty terms and limitations of liability described below.

(Mail your product registration card within 30 days of purchase to ensure your warranty coverage or proof of purchase will be required.)

**Important Warning :** Read carefully the WaterSoft Water Treatment Equipment Installation, Operating and Maintenance Instructions Manual to avoid serious personal injury and property HAZARDS and to ensure safe and proper care of this product.

### Model Numbers Covered

Water Softeners, Media Filters, Upflow Filters, PROTECTR's, UV, RO, Filters, Chemical Feed

\*FOR AS LONG AS YOU OWN AND LIVE IN YOUR SINGLE FAMILY HOME, this warranty covers your water treatment equipment, if you are the first user of this WaterSoft water treatment equipment and purchased it for single family home use - subject to all of the conditions, limitations and exclusions listed below. Purchasers who buy the WaterSoft water treatment equipment for other purposes, and other component parts are subject to more limited warranties and you should read all of the terms included in this form to make sure you understand your warranty.

### What is covered by this warranty?

WaterSoft warrants that at the time of manufacture, the water treatment equipment shall be free from defects in material and workmanship as follows :

Thermoplastic Mineral Tanks.....	10 years
Softener/Filter Control Valves.....	5 years
Brine Tank Assemblies.....	3 years
Chemical Feed Pumps.....	1 year
Reverse Osmosis System.....	1 year
Other Accessories & Parts.....	1 year

\* This warranty does not include media and/or cartridge filter elements.

### Additional Terms & Conditions

**What WaterSoft will do if you have a covered warranty claim**  
WaterSoft will at its option either make repairs to correct any defect in material or workmanship or supply and ship either new or used replacement parts or products. WaterSoft will not accept any claims for labor or other costs.

### Additional Exclusions and Limitations

This warranty is non-transferable and does not cover any failure or problem unless it was caused solely by a defect in material or workmanship. In addition, this warranty shall not apply :

- if the water treatment equipment is not correctly installed, operated, repaired and maintained as described in the Installation, Operating & Maintenance Instructions Manual provided with the product.
- if the tank is not the size indicated for the supply line size of the installation, as described in the manual.
- if the unit has not always been operated within the factory calibrated temperature limits, and at a water pressure not

exceeding 125 psi.

- to any failure or malfunction resulting from abuse (including freezing), improper or negligent handling, shipping (by anyone other than WaterSoft), storage, use, operation, accident; or alteration, lightning, flooding or other environmental conditions;
- to any failure or malfunction resulting from failure to keep the unit full of potable water, free to circulate at all times; and with the tank free of damaging water sediment or scale deposits;
- this warranty does not cover labor costs, shipping charges, service charges, delivery expenses, property damage, administrative fees or any costs incurred by the purchaser in removing or reinstalling the water treatment equipment.
- the warranty does not cover any claims submitted to WaterSoft more than 30 days after expiration of the applicable warranty, and does not apply unless prompt notice of any claim is given to an authorized WaterSoft distributor or to WaterSoft or a designated contractor is provided access to the installation and to the water treatment equipment.

THESE WARRANTIES ARE GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. NO WATER SOFT REPRESENTATIVE OR ANY OTHER PARTY IS AUTHORIZED TO MAKE ANY WARRANTY OTHER THAN THOSE EXPRESSLY CONTAINED IN THIS WARRANTY AGREEMENT.

### Additional Warranty Limitations

ANY IMPLIED WARRANTIES THE PURCHASER MAY HAVE, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE APPLICABLE TIME PERIODS SPECIFIED ABOVE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

### Limitations of Remedies

The remedies contained in this warranty are the purchaser's exclusive remedies. In no circumstances will WaterSoft or the seller of the product be liable for more than, and purchaser-user's remedies shall not exceed, the price paid for the product. In no case shall WaterSoft or seller be liable for any special, incidental, contingent or consequential damages. Special, incidental, contingent and consequential damages for which WaterSoft is not liable include, but are not limited to, inconvenience, loss or damage to property, consequential mold damage, loss of profits, loss of savings or revenue, loss of use of the products or any associated equipment, facilities, buildings or services, downtime, and the claims of third parties including customers. Some states do not allow the exclusion or the limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you.

### What to do if you have a problem covered by this warranty

Any warranty coverage must be authorized by WaterSoft. Contact the person from whom you purchased the product, who **must** receive authorization from a WaterSoft distributor or WaterSoft. If you do not receive a prompt response, call WaterSoft directly at 800-462-3790. Notice of a warranty claim relating to replacement parts or products should be submitted by the authorized distributor to WaterSoft at the following address :

**WaterSoft Inc., Warranty Claim Dept., 710 Orange St., Ashland, OH 44805**

If your product is new and not used and you wish to return it, contact your WaterSoft distributor.