

The Professionals' Choice

## North Star <br> WATER CONDITIONING

# North Star ${ }^{0}$ Water Softeners <br> <br> The Professionals' Choice 

 <br> <br> The Professionals' Choice}


## Water softeners

make your life better
and your pipes and appliances
last longer.

## North Star Water Softeners:

The Professionals' Choice
Water is your home's most precious resource. You rely on it every day for drinking, cooking, cleaning, washing and bathing. Your water heater, washer, dishwasher, and other appliances all need the best water to work smoothly and efficiently. That's why a quality water softener is so important.

## Why Do You Need a Water Softener?

Removing minerals like calcium and magnesium from your water will protect the investment you've made in your home, add to your quality of life and save you time and money. That's because soft water:

- Protects your plumbing, dishwasher, clothes washer, water heater, faucets and fixtures and washbasins from damaging hard water deposits.
- Leaves less soap residue so your showers, tubs and sinks are easier to clean.
- Gives you cleaner dishes with less spotting.
- Provides softer, cleaner, brighter clothes-using $1 / 3$ less detergent.
- Helps your clothes last longer.
- Increases the heating efficiency of your water heater up to $29 \%$.
- Makes your skin feel smoother.
- Pays for itself through savings on energy, water, salt, and soaps and detergents.

In short, water softeners make your life better and your pipes and appliances last longer.

## Your home is most likely your largest investment. <br> Protect that investment

 with softened water.
## How a Water Softener <br> Protects Your Investment:

- Protects your plumbing, dishwasher, clothes washer, water heater, faucets and fixtures and washbasins from
- Better lathering of shampoos and soaps.
- Makes your skin feel smoother.
- Makes cleaning the shower easy.

- Leaves less soap residue so your showers, tubs and sinks are easier to clean.

- Provides softer, cleaner, brighter clothes—using $1 / 3$ less detergent.
- Helps your clothes last longer.
- Less spotting on glassware.
- Can improve ice quality.


Example of mineral buildup in an unprotected water heater.

## North Star ${ }^{\ominus}$ Water Softeners

## The Professionals' Choice



Water is your home's most precious resource.

## Why Choose North Star?

North Star is the choice of professionals for four reasons: Experience, quality, innovation and service.

## Experience

North Star is an established company with a reputation for quality, reliability and service. The company has been manufacturing quality water treatment products since 1925. Today, we're one of the world's largest manufacturers of residential water treatment systems. That's experience.

## Quality

Quality is built into every North Star water softener. North Star manufactures $95 \%$ of every water softener part, including salt tanks, mineral tanks, valves and controls. North Star's manufacturing facility is IS0 9001-2008 certified to ensure the highest level of quality. In addition, North Star water softeners are designed and built with fewer moving parts—and no metallic parts to become rusted or corroded. The result is a solidly constructed, reliable water softener that gives you precisely conditioned water day after day. That's quality.

## Innovation

North Star uses advanced filtration technology and state-of-the-art computer controls to give you uniformly consistent softened water-together with the greatest salt and water savings possible. That's innovation.

## Service

North Star water softeners are The Professionals' Choice and are sold exclusively through professional contractors so you know the job will be done right the first time. Also, each North Star water softener is backed by an industryleading warranty ensuring quality and reliability. If there's a problem with the water softener, they will fix it. That's service.

## Up To 60\% Less Salt \& Water Usage With Patented North Star "Look Ahead" Technology

 Our softeners have a maximum efficiency of about $\mathbf{5 0 0 0}$ grains removed per pound of salt used.Many mechanical timer units use over twice the amount of salt that a North Star unit uses.


## Why Choose North Star Water Softeners?

## Learn How It Works

Go to www.northstar.conditioning.com to see an animated water softener.

North Star water softeners are the professionals' choice. Here's why.
Turbine Water Meter: Accurately measures the amount of water being softened down to 0.2 gallons per minute.

28 Volt Electrical System: Reduces electrical hazards.

High Impact Salt Storage Tank: The high-density polyethylene tank is designed to withstand impacts and retains its shape even when full of salt.

Heavy-Duty Valve: Has fewer moving parts than other valves-so there's less to go wrong. With our proven valve design there are over 2 million systems in operation today.
"Look Ahead" Technology: The brains of the softener! Our patented programming monitors your water use and determines when a regeneration of the softener is needed. The system learns your water use patterns and actually gets more efficient as it learns. "Look Ahead" also calculates the precise amount of salt and water to use to regenerate only the portion of the resin beads that have been used (depleted). This saves you salt and water and is why North Star softeners lead the industry in rated efficiencies.
Super Cap ${ }^{\circledR}$ Time Keeper: In the event of a loss of power, North Star water softeners maintain accurate time for up to 72 hours-without batteries. For longer power outages, only the current time needs to be re-entered, the system remembers the rest.
Environseal ${ }^{\text {TM }}$ Circuitry Protection: North Star water softeners are securely sealed to protect circuitry from salt corrosion and high humidity so your water softener lasts longer.
No-Worry Setting: No vacation setting is required. If you're not using water, it does not regenerate. That saves salt and water.
Counter-Current Regeneration: North Star pioneered this method where brine water is drawn into the bottom of our resin tanks which enhances the regeneration process. This is the preferred method but practiced by only select manufacturers.

## Resin Bed Agitator:

North Star water softeners use water pressure to constantly agitate the resin bed. This keeps the bed free of iron, dirt and other solids so the softener runs at peak efficiency and capacity.

Double-Lined, Reinforced Mineral Tank: All North Star water softeners are double-lined for strength and durability.

## North Star ${ }^{0}$ Water Softeners

## The Professionals' Choice



North Star is the choice of professionals

## Which North Star Water Softener is Right for You?

All North Star water softeners are built with the same quality and efficiency and are designed to save you time and money. Which model is right for you? Use the steps below to help guide you in your decision.

## Step 1—Capacity

Determine the grain capacity of the unit for you. Family size, peak flow rate needs, hardness and iron minerals in water, and desired regeneration frequency, are some of the considerations to use when sizing the proper system. The chart below is a general reference.

## MINIMUM CAPACITY NEEDED

| Number of People in House |  Grains of Hardness in Water  <br> $3-6$ $5-11$ $10-21$ |  |  |  | 21+ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 15,000-30,000 |  |  |  |  |
| 3 | 25,000-30,000 |  |  |  |  |
| 4 |  |  |  |  |  |
| 5+ |  |  | 40,000+ |  |  |

## Step 2—Style

Choose between the space saving cabinet models or the versatile two-tank models.

## Step 3—Electronics

With some models you can choose the electronic package.

Ultra Demand-UD

- Backlit LCD Display-Easier to read.

(Ultra Demand-UD)

(Electronic Demand-ED)
- Perfect for basement or poorly lit locations.
- Features patented "Look Ahead" technology for peak performance.
- Quick Set-up. Set the time and hardness and you are done.
- Display shows:

Time, Hardness, Regeneration Time \% Remaining Capacity, Current Flow Total Daily Usage and Average Daily Usage

- Efficiency Selector-Choose either normal or high efficiency mode.
- Diagnostics:

Electronic Self Diagnosis, Days in Service Total Number of Regenerations, Turbine Check and Switches Check

- Gallons/Liters choice
- 12 or 24 hour choice
- Selectable Fixed Recharge Frequency
- Adjustable Backwash Setting


## Electronic Demand-ED

- Standard LCD Display.
- Features patented "Look Ahead" technology for peak performance.
- Quick Set-up. Set the time and hardness and you are done.
- Display shows:

Time, Hardness and Regeneration Time

- Efficiency Selector-Choose either normal or high efficiency mode.


## Specifications

CABINET MODELS（All－in－one construction）

| Model | Max Capacity （Grains） | Resin <br> （ft ${ }^{3}$ ） | Standard Connection Size | Valve | Rated Service Flow Rate （gpm） | Intermittent <br> Flow Rate（gpm <br> ＠ 15 psi drop） | Rated Clearwater Iron Removal （ppm） | Electronics | Efficiency （grains removed per lb of salt） |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NSC15ED | 15，700 | 0.55 | $1 "$ | Standard | 5.3 | 10.1 | 4 | ED | 4160 |
| NSC25ED | 26，600 | 0.7 | $1 "$ | Standard | 6 | 7.5 | 7 | ED | 5000 |
| NSC30UD | 30，200 | 0.78 | $1 "$ | Standard | 7.3 | 7.3 | 8 | UD | 5120 |
| NSC30UD1 | 34，300 | 0.97 | $1 "$ | High Flow | 7.5 | 11.0 | 5 | UD | 5030 |
| NSC40UD1 | 39，000 | 1.08 | $1 "$ | High Flow | 10 | 10.2 | 5 | UD | 5100 |
| NSR17CS | 18，900 | 0.62 | $1 "$ | Standard | 6 | 8.2 | － | UD | 5075 |

TWO－TANK MODELS（Separate resin tank and brine tank，Versatile installation options）

| Model | Max Capacity （Grains） | Resin <br> （ft ${ }^{3}$ ） | Standard Connection Size | Valve | Rated Service Flow Rate （gpm） | Intermittent Flow Rate（gpm ＠ 15 psi drop） | Rated Clearwater Iron Removal （ppm） | Electronics | Efficiency （grains removed per lb of salt） |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NST25ED $\ddagger$ | 26，600 | 0.7 | $1 "$ | Standard | 6 | 7.5 | 7 | ED | 5000 |
| NST30UD | 30，200 | 0.78 | $1 "$ | Standard | 7.3 | 7.3 | 8 | UD | 5120 |
| NST45UD1 | 45，400 | 1.26 | $1 "$ | High Flow | 10 | 12.1 | 12 | UD | 5120 |
| NST70UD1 | 70，000 | 1.94 | $1 "$ | High Flow | 13．5才才 | 13.5 | 19 | UD | 5110 |

$\ddagger$ Comes with Clear－Vu ${ }^{\text {TM }}$ tank wrap in place of resin tank shroud
抹 Peak flow is 22.7 ＠ 30 psi drop

## Dimensions

| Model | A | B | C | D | E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cabinet Models |  |  |  |  |  |
| NSC15ED | 32＂ | 271／4＂ | 111／2＂ | 183／4＂ | － |
| NSC25ED | 483／4＂ | $411 / 4{ }^{\prime \prime}$ | 181／4＂ | － | － |
| NSC30UD | 483／4＂ | $411 / 4{ }^{\prime \prime}$ | 181／4＂ | － | － |
| NSC30UD1 | 503／8＂ | $415 / 8{ }^{\prime \prime}$ | 181／4＂ | － | － |
| NSC40UD1 | 503／8＂ | $415 / 8{ }^{\prime \prime}$ | 181／4＂ | － | － |
| NSR17CS | 42 | $37{ }^{\prime \prime}$ | $117 / 8^{\prime \prime}$ | 183／8＂ | － |
| Two－Tank Models |  |  |  |  |  |
| NST25ED | 483／4＂ | 411／4＂ | 111／2＂ | 39＂ | 18＂ |
| NST30UD | 483／4＂ | $411 / 4^{\prime \prime}$ | $111 / 2{ }^{1}$ | 39＂ | 18＂ |
| NST45UD1 | $503 / 8{ }^{\prime \prime}$ | $415 / 8{ }^{\prime \prime}$ | $14^{\prime \prime}$ | 39＂ | 18＂ |
| NST70UD1 | $64 "$ | $551 / 2^{\prime \prime}$ | $14^{\prime \prime}$ | 39＂ | 18＂ |

Note：All models include by－pass valve，manual，transformer，drain tubing and installation parts bag．

## SAMPLE NORTH STAR MODEL NUMBER BREAKDOWN：



SPACE SAVER MODEL （NSC15ED）


CABINET MODEL


TWO－TANK MODEL


## North Star ${ }^{\circledR}$ Reverse Osmosis System <br> The Professionals' Choice



## North Star Reverse Osmosis Features and Benefits:

- Easy-to-change filters
- Auto shutoff valve to prevent waste
- NSF tested and certified
- Long-reach, ceramic disc design with adjustable flow rate faucet in chrome is included
- Brushed Nickel faucet finish is also available
- Water quality monitor indicates R0 performance and when it's time to change filters
- No electricity required
- 18 gallons of water per day
- 2.4 gallon storage tank provides plenty of water when needed
- Reduces Lead, Cysts, Sodium, Nitrates, Radium, Selenium, TDS and more
- Ultimate drinking water right at your sink
- Provides clear ice cubes, more flavorful beverages, and easier baby formula mixing
- Use for drinking, cooking, washing produce, pet water, watering indoor plants, aquariums and irons
- Water the way it is meant to be...from North Star


## Specifications

| Model | NSRO42C4 |
| :--- | :--- |
| Daily Production Rate | 18 gallons |
| Storage Tank Size/Capacity | $4 / 2.4$ gallons |
| Flow Rate at Faucet | Up to 1.0 gpm |
| Pre/Post Carbon Filter Life | 750 gal./6 months |
| Membrane Life | $1-3$ years |

## Warranty (See owners's manual for specifics)

1 year on parts
90 days on membrane

## Designer Faucet Finishes

Ceramic disc design with adjustable flow rate.
Polished Chrome (comes standard)
Brushed Nickel (purchased separately)

## Water Quality Monitor

When the faucet is IN USE indicator lights show RO performance and when to change filters.

## North Star Drinking Water Systems



PRE/POST FILTERS O.K.


CHANGE PRE/POST FILTERS


CHANGE MEMBRANE

## The Professionals' Choice

## WHOLE HOME CENTRAL WATER SYSTEM <br> Model \# EPWHCW

## A PROVEN SYSTEM FOR REMOVING CHLORINE TASTE AND ODOR

- Delivers clean, filtered premium water to every faucet in your home, including your shower!
- Removes unpleasant chlorine taste and odor, leaving great-tasting water
- Eco-friendly
- No salt is used
- Low energy usage, 28 V power supply
- No plastic bottles in the landfill
- Designed for high performance and maximum efficiency
- Sediment, chlorine taste and other adverse contaminants that affect taste and odor are removed
- Automatically cleans itself, no filter cartridges to change or replace, saving you time and money
- High flow rate of 9.6 gpm
- High-tech LED display with push button controls
- Space-saver, less than 1 sq. ft. footprint



## WHOLE HOME AUTOMATIC SEDIMENT FILTER Model \# EPASF15



## PRODUCT FEATURES

- Point of Entry
- Intended to filter water for entire home
- Rated 35 gpm
- Self-Cleaning
- Effectively rinses loose particulate from the filter screen
- Minimal pressure drop due to dirty/plugged filters
- Programmable cleaning
- Backlit LCD display shows number of days until next clean cycle
- Battery Operated - 9V
- Optional 24 volt transformer
- Low battery indicator
- 1" NPT Connections
- Quick Insert/Clip System
- $90^{\circ}$ Elbows for easy up or down installation
- Large Capacity Filter Screen
- More screen area for less pressure drop
- Longer interval between cleaning
- Filter can be manually cleaned by using the Clean Now button
- Filter Screens
- Heavy-duty stainless steel screen
- Three mesh sizes available to fit all applications
- 60 micron standard
- Clear Sump
- Allows viewing flow, sediment removal and auto clean feature
- Includes All Necessary Insallation Equipment
- Drain Line - 3/8" I.D. x 10 ft.
- Battery
- Bracket



## North Star ${ }^{\ominus}$ Whole Home Filtration

## The Professionals' Choice



EPW4

## WHOLE HOME FILTRATION

## 3/4" WHOLE HOME FILTER HOUSING

- Protects your home and appliances from sediment build-up
- Pressure relief vent make filter changes easy


## 3/4" WHOLE HOME FILTER HOUSING WITH BYPASS VALVE

- Protects your home and appliances from sediment build-up
- Built in by-pass valve and pressure relief vent make filter changes easy
- Includes sediment filter and wrench
- 20 micron rating


## HEAVY-DUTY WHOLE HOME FILTER HOUSING

- Heavy-duty construction for larger homes
- Protects your home and appliances from sediment build-up
- High flow sized for $3 / 4$ " or 1" plumbing
- Metal thread inserts for plumbing connections
- Includes sediment filter, (30 Micron, EPW4P) wrench and mounting bracket


## WHOLE HOME REPLACEMENT FILTERS



EPW4C


EPW4P

## HEAVY-DUTY CARBON WHOLE HOME REPLACEMENT FILTER

- Carbon construction
- Guaranteed to fit all major brands
- 25 micron rating
- 10 gpm


## HEAVY-DUTY PLEATED WHOLE HOME REPLACEMENT FILTER

- Pleated construction
- Guaranteed to fit all major brands
- 30 micron rating
- 20 gpm

CARBON WHOLE HOME REPLACEMENT FILTERS

- Carbon construction
- Guaranteed to fit all major brands
- 5 micron rating
- 5 gpm



EPW2S

## WHOLE HOME REPLACEMENT FILTERS (Cont'd)

## MELT BLOWN WHOLE HOME REPLACEMENT FILTERS

- Melt blown construction
- Graded depth technology means longer filter life
- Guaranteed to fit all major brands
- 5 micron rating
- 10 gpm


## STRING WOUND WHOLE HOME REPLACEMENT FILTERS

- String wound construction
- Guaranteed to fit all major brands
- 10 micron rating
- 10 gpm

PLEATED WHOLE HOME REPLACEMENT FILTERS

- Pleated construction
- Guaranteed to fit all major brands
- 30 micron rating
- 12 gpm


## ADDITIONAL WATER FILTRATION

IN-LINE REFRIGERATOR FILTER

- Better tasting water and ice cubes
- Simple to install $1 / 4$ " push connect fittings
- 6 month life


## IN-LINE REFRIGERATOR FILTER

- Great tasting water and ice cubes
- Heavy duty compression and push fitting connections
- 5 year life


## UNDERSINK FILTRATION



ECOP20

## DUAL-STAGE DRINKING WATER FILTRATION SYSTEM

- Convenient twist and pull encapsulated filters
- Sleek space-saving design
- Includes chrome faucet with filter change reminder light
- Uses replacement filters ECODWF
- 1 micron rating
- Reduces VOCs*


## MAIN FAUCET DRINKING WATER FILTRATION SYSTEM

- Full flow design, 2 gpm
- Convenient twist and pull encapsulated filter
- No need for separate faucet
- Reduces chlorine taste and odor, cysts
- Uses replacement filters EPWURF1


## GRANULAR CARBON REPLACEMENT FILTER

- Granular carbon construction
- Guaranteed to fit all major brands
- 20 micron rating
*Volatile Organic Compounds


# City Softener Model NSR17CS (2-in-1 Hybrid Softener and Whole Home Filter) 

## Softens and filters water throughout the home

## Features \& Benefits

- Large capacity whole-home softening and filtration Great for most homes and family sizes
- No filters to change - Saving you time and money
- Space-saving compact design - Two products in one compact system for easier installation
- High capacity resin - Special long-life resin for efficient use of salt and water
- Coconut-grade activated carbon - Eliminates chlorine taste \& odor
- "Look Ahead" technology - Patented programming monitors and learns your water use to optimize regeneration, saving you salt and water
- Custom blending valve - Allows you to select how soft you want your water
- Bypass valve - Provides ease of servicing and cleaning
- Ultra demand controller - Includes backlit display, with fully programmable settings and diagnostics
- Heavy duty valve - Has fewer moving parts for reliable operation
- Super Cap ${ }^{\circledR}$ time keeper - Maintains accurate time and settings in the event of a power loss
- Counter-current regeneration - Optimized regeneration process that minimizes the use of salt and water
- Resin bed agitator - Keeps the bed free of iron, dirt and other solids for maximum efficiency
- Double-lined, reinforced mineral tank - Providing added strength and durability
- Low voltage system - 24 V electrical system reduced chance of electrical hazards
- Installation kit included



Designed, Engineered 8 Assembled in the U.S.A

## North Star ${ }^{0}$ Scale Management Systems

 The Professionals' Choice
## Scale Management System NSAS Series

- Helps prevent scale buildup
- Protects plumbing
- Chemical free


## Features \& Benefits

- Eco-friendly
- Clean and easy-to-use
- Compact installation
- Easy to maintain
- Inhibits scale build-up (mineral)
- No electricity needed
- No drain required
- No corrosive citric acid
- No poly-phosphates added
- Extends plumbing life
- SMS media - Patent pending



# NoXS Scale Manager Models NSSM10 (sacle Mongeser) \& NSSM1OC (sale Manoger + Carbon) 

## Environmental choices for water treatment

## Features \& Benefits

- SMS anti-scale media - Reduces hard water scale from forming in plumbing and appliances.
- Up-flow design - Increases contact time with media for improved scale reduction and higher flow rates.
- By-pass valve - Allows for easy maintenance and servicing.
- Coconut-shell carbon* - Filters the water throughout the home without compromising water flow. Removes chlorine taste and odor and eliminates the need for separate carbon filter changes.
- Multi-wrap fiberglass reinforced tank - Durable; doesn't deteriorate, rust, or corrode.
- Self-cleaning distributors - Distributors exhibit excellent flow rates and are cleaned automatically by counter-current water pressure.
- No electricity - Simplifies installation, maintenance and reduces electrical hazards.
- No salt or added chemicals needed - Uses environmentally friendly "green" technology for areas with water or brine-discharge restrictions.
- Zero waste water - No backwashing required and zero discharge.
- Sediment filter - 50 micron sediment filter included with both systems.
- Standard plumbing connection - 1" NPT Male connection for easy installation. Larger 1-1/4" and 1-1/2" plumbing adapters available.
*Available on NSCU10 only


Assembled in the U.S.A

## "OH2-Iron" Iron Filter <br> Model NSAIV (Air Aspirated Chemical-Free Iron Filter)

## Removes up to 10 ppm Clear or Red Iron

## Features \& Benefits

- No bleach, no potassium permanganate, no chemicals
- Naturally aspirated air used to oxidize contaminants, zeolite media filters contaminants out and backwashes them to the drain
- No pumps, air is aspirated into system after the backwash cycle
- One inch plumbing connections
- Easy-to-use 28 -volt controller - just plug transformer into wall outlet
- Full one-inch diameter riser tube for increased flow rate
- Multi-wrap ${ }^{\text {TM }}$ fiberglass reinforced resin tank
- Multi-cycle valve with easy-clamp ring and patented coated disc
- Zeolite with washed quartz underbedding
- Includes bypass valve and installation kit



## "NSCC" Chloramine Reduction System Model NSCCTOSSA (Chloramines, Chlorine Taste \& Odor Filter)

- Greatly reduces chloramines from city water
- Greatly reduces chlorine taste and odor from city water
- Backwashing for extended media life


## Features \& Benefits

- Clean and easy-to-use
- Chemical free
- High flow rate - 14 gpm
- Suitable for most homes
- Multiple parallel units can be used for maximum flows
- Self-flushing
- Skin protection from chlorine and and chloramines
- Large 1" connections
- Coconut shell, high activity catalytic carbon
- Reduces some hydrogen sulfide when present


## How It Works:

Water is passed through a bed of catalytic carbon, trapping chloramines, chlorine taste \& odor.
Occasionally, the system needs to be backwashed to flush any trapped particles from the system.
Catalytic carbon eventually loses its ability to trap tastes and odors, and the bed must be replaced. The carbon life is dependent on the amount of water used and the severity of the problem.


## North Star ${ }^{0}$ Commercial Systems

 The Professionals' Choice
## Commercial Heavy Duty Water Softening System with 1" High Molecular Weight (HM) Plastic Valve

All systems are available in single, duplex, triplex, and quadplex operation.

Models: PA071, PA101, PA131, PA191, PA251, and PA321

## Features

- Electronic Demand Control Module
- Six-Cycle HM Plastic Valve with Easy-Clamp Ring
- Counter-Current Brining
- Washed Quartz Underbedding
- Automatic Bypass during Regeneration
- Easy Install Bypass Prevention Kits for Multiple Units
- Fiberglass Reinforced Resin Tank
- Water Usage is Metered by Turbine
- 24-Volt Transformer
- Self-Cleaning Upper and Lower Distributors
- High-Density Salt Storage Tank
- Exceptional Flow Rates
- Water Totalizer to Keep Track of Volume History
- Control Lockout Feature Protects Control Settings from Accidental Changes
- NSF Certified to NSF/ANSI 61 for Materials Safety and NSF/ANSI 372 Lead Free


Designed, Engineered \& Assembled in the U.S.A.


## NSF:

Cortified to NSFIANS1 61
Cortifind to NSFANSIr
and NSF 372 Lead Free

## Commercial Heavy Duty Water Softening System With 2" High Molecular Weight (HM) Plastic Valve

All systems are available in single, duplex, triplex, and quadplex operation.

Models: PA102, PA132, PA162, PA192, PA252, PA322, PA362, PA452 and PA602

(2) Screened Top Distributor
(3) Brine Make-Up Flow Control
(4) Pin Quick Disconnect Injector Housing
(5) 2" NPT Union Connections

6 Adjustable Backwash Flow Control

2" HM Plastic Valve Another North Star Innovation
(7) Full 2" Ported Flow Passage In Valve Housing
(8) High Torque 24 V-DC Motor
(9) Valve Tank Adaptor Allows Easy Access Into Tank With Clamp Ring Connector
(10) High-Strength Non-Corrosive Piston

## Features



Designed, Engineered \&
Assembled in the U.S.A.


NSF:
ResIn Tanks Certifled
to NSF/ANSI 61

- Innovative 2" HM Plastic Valve
- Fully Programmable
- Electronic Demand Control Module
- Selectable for Parallel, Parallel Delayed, Alternating, and Peak Flow Demand
- Counter-Current Brining
- Washed Quartz Underbedding
- Water Usage is Metered by Turbine
- Lead-free
- Safe 24-Volt Electronics
- Self-Cleaning Upper and Lower Distributors
- High-Density Salt Storage Tank
- Exceptional Flow Rates
- SPA Diagnostic Capabilities
- Non-Volatile Memory
- Non-Corrosive Plastic Piston
- Water Totalizer for Tracking Volume History
- Control Lockout Feature Protects Control Settings from Accidental Changes
- NSF 61 Certified Resin Tank

The Professionals' Choice

## Want to Know More?

Additional information and detailed specifications about North Star water softeners are available online at www.northstarconditioning.com.

## Warranty:

Our industry leading warranty demonstrates how North Star backs the quality and dependability of each softener. From date of installation:

- 1 year on complete unit
- 3 years on electronic control board
- 3 years on valve body
- 10 years on salt storage tank
- 10 years on mineral tank


## North Star' <br> WATER CONDITIONING

A Marmon Water/Berkshire Hathaway Company

## Dear Valued Customer,

Thank you for considering North Star products. As one of the world's largest manufacturers of water treatment products - manufactured in the United States - our goal is to get it right the first time by offering innovative, efficient, reliable and affordable equipment. Since 1925, North Star has been driven by a desire to provide our customers quality products and leading-edge performance. The same holds true today.

MEMBER
Water
$\underset{\text { Association }}{\text { Quality, }}$


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## For further information contact:



