# SOFT, Clean & Clear

SOFTENERS, FILTERS & SPECIALTY SYSTEMS

#### **UNIQUE FEATURES DESIGNED WITH THE PLUMBER IN MIND** 12V Low Power **Quick Connect Consumption Motor** Drain Line **Optional Mixing Valve Electronic Piston Unique Bypass** Sensors with Integrated Audible Cycle Space Saving **Time Saving Quick** Advance Alarm **Turbine Meter** Connections 48 Hour Self **Charging Capacitator** Back-up **Compact Low Profile Drive Structure Quick Connect** 1/2", 3/4", 1" NPT Brine Line **Exclusive NSF Certified Control Precision Brining** Connectors Valve with Reliable Piston, Seal and Injector System Spacer Design

### QUICK CONNECT FEATURES FOR ULTIMATE CONVENIENCE



All units include pre-installed bypass

The quick connect bypass comes installed on every unit with both 90° 3/4 " elbows and straight 1" NPT connectors. Optional quick connect adaptors include 3/4 " straight shark bite and 3/4" straight NPT connectors.



**Standard QC Fittings** 



**Optional Fittings** 



**New Quick Connect Stainless Steel Flexi-Connector Kits** Two 18" flexible water connectors with 3/4" John Guest© Quick Connect fittings and proprietary bypass valve connection for all Canature WaterGroup manufactured water softeners and whole-house filters. Excludes 89 1" Control Valve Series.

## SPACE SAVING IMPROVED DESIGN

Eliminate 4" and unnecessary connections for neat, quick installations. Bypass with integrated meter avoids 'meter jamming' which is caused from weight of pipes creating torque on turbines causing them to bind and stop metering.



integrated meter in bypass



#### **QC Power Cable**

- Simplifies installation or removal of the valve from the tank
- No tangled or wrapped up power cords!

### HIGH QUALITY BRINE Components

- Closed bottom brine well reduced intrusion of unwanted impurities
- Injection molded brine grids reduce bridging
- Solvent free distributor tube with spun weld collector avoids glue and solvents
- Injection molded reliable brine valve



**1** Connection Comes pre-installed



## HEAVY DUTY PACKAGING

Novo uses only durable double-walled high impact cardboard with carrying straps to ensure you do not have to deal with the headache of receiving damaged products.



"Our focus is to build the highest quality water conditioning products in the industry... so when it comes to protecting them from damage during shipping & handling we don't 'cheap out'!"

Toby Hughes, P.Eng Chief Operations Officer



### WATER SOFTENER SIZING GUIDE

### **Choosing the Right Size Softener**

					Total Hardne	ss (Grains per G	iallon)			
# of People	10	15	20	25	30	40	50	60	70	75
1	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-100 EFT30	NVO485-100 EFT30	NVO485-150 EFT40	NVO485-150 EFT40	NVO485-150 EFT40
2	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-100 EFT30	NVO485-100 EFT30	NVO485-150 EFT40	NVO485-150 EFT40	NVO485-150 EFT60
3	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-100 EFT30	NVO485-150 EFT60	NVO485-150 EFT60	NVO485-200 EFT60	NVO485-200 EFT60
4	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-75 EFT30	NVO485-100 EFT30	NVO485-150 EFT60	NVO485-150 EFT60	NVO485-200 EFT90	NVO485-300 EFT90	NVO485-300 EFT90
5	NVO485-75 EFT20	NVO485-75 EFT20	NVO485-100 EFT30	NVO485-100 EFT40	NVO485-150 EFT60	NVO485-150 EFT60	NVO485-200 EFT90	NVO485-300 EFT90	NVO485-300 EFT90	NVO485-300
6	NVO485-75 EFT20	NVO485-75 EFT30	NVO485-100 EFT40	NVO485-150 EFT60	NVO485-150 EFT60	NVO485-200 EFT90	NVO485-300 EFT90	NVO485-300 EFT90	NVOHEDP-300	Call for Sizing
7	NVO485-75 EFT20	NVO485-75 EFT30	NVO485-150 EFT40	NVO485-150 EFT60	NVO485-200 EFT60	NVO485-200 EFT90	NVO485-300 EFT90	NVOHEDP-300	Call for Sizing	Call for Sizing
8	NVO485-75 EFT20	NVO485-100 EFT30	NVO485-150 EFT60	NVO485-200 EFT60	NVO485-200 EFT60	NVO485-300 EFT90	NVO485-300	Call for Sizing	Call for Sizing	Call for Sizing
9	NVO485-75 EFT30	NVO485-150 EFT40	NVO485-150 EFT60	NVO485-200 EFT60	NVO485-300 EFT90	NVO485-300 EFT90	NVOHEDP-300	Call for Sizing	Call for Sizing	Call for Sizing
10	NVO 485-100 EFT30	NVO485-150 EFT60	NVO485-200 EFT60	NVO485-200 EFT90	NVO485-300 EFT90	NVOHEDP-300	Call for Sizing	Call for Sizing	Call for Sizing	Call for Sizing

#### Notes:

We recommend contacting Novo Water Customer Service for any hardness levels above 75 gpg for proper recommendations.

Cabinet models are available for all 75 and 100 models.

## WATER SOFTENERS

### Novosoft 485HE Series Water Softener

Novo's premier high-efficiency softener sets the new standard for high performance while offering more features designed to make installations faster & easier than ever!



**Cabinet model** 

#### Twin tank model







Control Valve



#### Two piece cabinet design

Lifetime Warranty Pressure tank

#### Features:

- Reverse Flow regeneration preserves unused portion of softening bed from unnecessary exchange saving salt
- Precision Brining calculates the exact amount of brine required to regenerate saving up to 30% more salt
- Automatic Backwash Frequency Preset for clean municipal water saves water by matching back wash to water quality need
- Soft Water Brine Tank Refill keeps tank & injectors clean
- Smart Clean mode flushes stagnant water after 7 days of non-use preventing bacteria growth
- Soft Water Recharge Mode ensures soft water during unusually heavy water usage
- Compact two-piece cabinet or traditional twin tank
- Condensation tank jacket (8", 9" & 10" twin tank models)
- NSF Certified fibreglass pressure tank
- IAPMO R & T Certified cation resin
- IAPMO R & T Certified against CSA B483.1
- User-friendly backlit LCD display
- "No Touch" information display rotates key info like last regeneration date and volume remaining
- Unique bypass with integrated turbine meter saves space, eliminates connections and is more durable
- Time saving quick connect fittings on bypass, drain & brine line. Power cord even has quick connect for easier installations.
- Drain line o-ring eliminates the need for Teflon
- Brine safety valve for added overflow protection
- Plastic salt grid prevents bridging (twin tank only)
- ➡ 48 hour self charging battery back-up
- Includes hose clamp and 10' of drain tubing



## **HIGH PERFORMANCE FEATURES:**

### **Reverse Flow Regeneration** with Precision Brining

Traditional 'downflow' softeners deplete the unused portion of the resin bed with every regeneration. It is like draining the gas tank in your car every time before filling it up!





**'Reverse Flow Regen'** - drives the hardness minerals up through the already depleted resin and out to drain - saving both salt and the unused portion of the resin for future use.

**Soft Water Recharge** - If total capacity goes below 3%, a short 15 minute 'recharge' will restore additional capacity so the softener can soften until the regular 2:00 a.m. regeneration time. **Precision Brining** - saves additional salt by pre-making only 70% of the brine. Just before regeneration, the computer calculates the precise amount of brine top-up needed to regenerate only the depleted resin saving up to 30% more salt!

#### Soft Water Brine Tank Refill

- Conserve capacity and keep brine tank cleaner by adding only treated soft water to brine tank rather than raw untreated hard water.



Smart Clean Mode – If no water is used for seven days, the system will perform an automatic refresh preventing bacteria growth.

#### Automatic Backwash

Override - On clean municipal water supply there is no need to backwash and clean the bed every regeneration. Save water each regeneration by skipping up to 10 backwash cycles.



#### **ULTIMATE SALT & WATER SAVINGS!**

#### Use 75% Less Salt & 64% Less Water! It's good for you & good for the environment!







## **485HE WATER SOFTENER**

### **Specifications**

Model Number	485HE-75C	485HE-100C	485HE-75	485HE-100	485HE-150	485HE-200	485HE-300
Item Number	15010450	15010451	15010452	15010453	15010454	15010455	15010456
Optional Settings - High Efficiency							
Salt Used - Per Regeneration	2.3 lbs	3.0 lbs	2.3 lbs	3.0 lbs	4.5 lbs	6.0 lbs	9.0 lbs
Water Used - Regeneration	22.7 gal	28.3 gal	22.6 gal	31.6 gal	44.3 gal	60.9 gal	102.2 gal
Hardness Removal - Grains	11,250	15,000	11,250	15,000	22,500	30,000	45,000
Factory Settings - Standard Capacity							
Salt Used - Per Regeneration	4.5 lbs	6.0 lbs	4.5 lbs	6.0 lbs	9.0 lbs	12.0 lbs	18.0 lbs
Water Used - Regeneration	40.5 gal	48.6 gal	34.0 gal	43.4 gal	62.7 gal	87.1 gal	139.2 gal
Hardness Removal - Grains	18,750	25,000	18,750	25,000	37,500	50,000	75,000
Optional - High Capacity							
Salt Used - Per Regeneration	7.5 lbs	10.0 lbs	7.5 lbs	10.0 lbs	15.0 lbs	20.0 lbs	30.0 lbs
Water Used - Regeneration	56.1 gal	69.5 gal	49.6 gal	64.3 gal	90.3 gal	124.6 gal	196.2 gal
Hardness Removal - Grains	22,500	30,000	22,500	30,000	45,000	60,000	90,000
Resin Quantity - Cubic Feet	0.75 ft	1.0 ft	0.75 ft	1.0 ft	1.5 ft	2.0 ft	3.0 ft
Tank Size	9x35	10x35	8x44	9x48	10x54	12x52	14x65
Tank Jacket / Media Loaded	Yes	Yes	Yes	Yes	Yes	No	No
Brine Tank / Cabinet Size (Inches)	16.5 x 19.3 x 43.3	16.5 x 19.3 x 43.3	18.1 x 34.5	18.1 x 34.5	18.1 x 34.5	20.3 x 37.4	23.0 x 40.5
Salt Storage Capacity	175 lbs	175 lbs	240 lbs	240 lbs	240 lbs	350 lbs	420 lbs
Flow Rate @ 15 psi Pressure Drop	11.6 gpm	12.0 gpm	10.4 gpm	11.0 gpm	11.2 gpm	12.2 gpm	12.6 gpm
Flow Rate @ 25 psi Pressure Drop	15.6 gpm	16.0 gpm	14.3 gpm	15.0 gpm	15.1 gpm	16.2 gpm	16.6 gpm
Back Wash Flow Rate	2.0 gpm	2.4 gpm	1.5 gpm	2.0 gpm	2.4 gpm	3.5 gpm	5.0 gpm
Shipping Weight	93 lbs	110 lbs	105 lbs	122 lbs	155 lbs	172 lbs	244 lbs
Regeneration Type			Cour	nter Current / Up	Flow		
Maximum Efficiency			5	,060 grains /lb sa	lt		
Plumbing Connections			3/4"	and 1" connection	ons		
Resin Type			Aquafine 8% H	igh Capacity Ion I	xchange Resin		
Electrical Requirements			Input 120	' 60 Hz - Output 1	2V 650mA		
Water Temperature			Min 39 - N	1ax. 100 degrees	Fahrenheit		
Water Pressure			Mi	n. 20 - Max. 125	osi		





## **ECONOFLO SERIES WATER SOFTENER**

The economical and reliable EconoFlo Series Water Softener offers simple electronics for the same price as mechanical metered units. Offer your customers more for less. Manually index cycle position for easier, faster installation and service.

#### **All Systems Include:**

- NSF Certified pressure tank NSE
- NSF Certified control valve NSF
- IAPMO approved cation exchange resin
- 48 hour self charging battery back-up
- Pre-installed bypass
- Injection molded brine grids (twin tanks only)

#### TO CHANGE SETTINGS:

- Press SETTINGS key to advance to TIME OF DAY. TIME OF DAY will flash.
- Press the UP or DOWN key to adjust the TIME OF DAY. Press & hold the UP or DOWN key to quickly advance the hour & minutes.
   When desired time is displayed press SELECT to advance to the HARDNESS setting. HARDNESS will flash.
- Press the UP or DOWN key to adjust the HARDNESS (Min 1 / Max 199). When desired hardness is displayed press SELECT to advance to the PEOPLE setting (Min 1 / Max 9), PEOPLE will flash.
- When desired number of people is displayed press SELECT to complete programming.

#### FOR MANUAL REGENERATION:

 Turn knob clockwise to 'Backwash' position. Unit will complete a regeneration and return to 'Service' position

## Uses 50% Less Salt 28% Less Water\*

\*Compared to conventional calendar clock models



#### Simpler than setting your alarm clock!



			Capacity - Grains		Flow	Rate	Mineral	Total	Cabinet or Brine	Salt	Shipping
Model Number	ltem Number	@ 10 lbs/ cu ft	@ 6 lbs/cu ft Factory Setting	@ 3 lbs/ cu ft	Service USGPM	Backwash USGPM		Resin (cu. ft.)	Tank Size Inches (WXDXH)	Capacity (lbs)	Weight (lbs)
EFC20	2117	19,875	16,500	10,500	8	2	9 X 35	0.75	13.8 X 23.6 X 34.5	225	93
EFC30	2118	26,500	22,000	14,000	10	2.4	10 X 35	1	13.8 X 23.6 X 34.5	225	110
EFT20	2119	19,875	16,500	10,500	8	2	9 X 35	0.75	18.1 X 34.5	230	93
EFT30	2120	26,500	22,000	14,000	10	2.4	10 X 35	1	18.1 X 34.5	230	110
EFT40	2121	33,125	27,500	17,500	12	2.4	10 X 47	1.25	18.1 X 34.5	230	141
EFT60	2122	53,000	44,000	28,000	13	3.5	12 X 52	2	20.3 X 37.4	270	158
EFT90	2123	79,500	66,000	42,000	15	5	14 X 65	3	23.0 X 40.5	700	244
Regeneratio	on Type					Co current /	Down Flow	N			
Plumbing Co	onnections				Includes	3/4" 90°Elbo	ows & 1" St	raight NPT			
Resin Type					Aquafine 89	% High Capa	city lon Ex	change Res	in		
Electrical Requirements					Input 1	20V 60 Hz -	Output 12	/ 650mA			
Water Temp	oerature				Min 39	- Max. 100	degrees Fa	hrenheit			
Water Press	sure					Min. 20 - N	1ax. 125 ps	i			



## **85 TA 1" SERIES WATER SOFTENER**

Our **85 TA 1" (Twin Alternating) Series** softeners provide up to 16.6 gpm of continuous soft water 24 hours a day. They are engineered and thoroughly tested to provide years of reliable, trouble free performance with minimal maintenance.

#### **Operating Parameters**

- Operating pressure: 20 100 psi
- Operating temperature: 39 100° F
- Electrical: Input 120V 60 Hz Output 12VAC 650mA

#### **Materials of Construction**

- Control Valve: Plastic PPO (Noryl)
- Resin Tanks: Corrosion resistant fibreglass reinforced polyethylene NSF 44 Certified
- Brine Tank: High density polyethylene (includes plastic salt plate, brine well & cap, air check, and safety float)
- Ion Exchange Resin: High Capacity IAPMO certified 8% Canature resin
- Internal Distributors
- Optional: Stainless steel piping manifold

#### **Standard Features**

- Up-flow: Provides high efficiency and ultra low hardness leakage
- Master Controller: Fully programmable electronic controller with adjustable cycles
- Alternating Flow: One tank is always off-line for regeneration or ready in stand by.
- Advanced Diagnostic Information: Easily trouble shoot and access system information displayed in real time
- Back Wash Override: Reduces regeneration water usage by skipping pre set number of back wash cycles
- Softwater Refill: Adds treated water to the brine tank to keep brine clean and reduces maintenance
- Optional: Stainless steel piping manifold
- Optional: Aux output closed during full regeneration cycle



85 TA 1" Valve

## **85 TA 1" SERIES WATER SOFTENER**



							Flow Rates	per Tank			
		Capacity	Resin per Tank	Salt U	Salt Usage		85T.	A	Max Flow	Dimen	sions
Model	Item	@15 lbs/Ft3	Ft³	@15 lbs/Ft3	@10 lbs/Ft3	Flow	@ 15 PSI	@ 25 PSI	To Drain	Mineral Tank	Brine Tank
	Number	@10 lbs/Ft3	M <sup>3</sup>	Lbs (Kg)	Lbs (Kg)	USGPM	USGPM	USGPM	USGPM	in	in
						l/s	l/s	l/s	l/s	mm	mm
85TA-23	97002305	23,000	0.77	11.5 (5.2)	6.75 (3.1)	3.75	10.4	14.3	1.5	8 x 44	18 x 35
		20,000	0.02			0.24	0.66	0.9	0.09	203 x 1118	460 x 876
85TA-30	97002306	30,000	1	15 (6.8)	10 (4.5)	5.0	11	15	2	9 x 48	18 x 35
		27,000	0.03			0.32	0.69	0.95	0.13	229 x 1219	460 x 876
85TA-45	97002307	45,000	1.5	23 (10.2)	15 (6.8)	7.5	11.2	15.1	2.4	10 x 54	18 x 35
		40,500	0.04			0.47	0.71	0.95	0.15	254 x 1372	460 x 876
85TA-60	97002308	60,000	2	30 (13.6)	20 (9.1)	10	12.2	16.2	3.5	12 x 52	20 x 37
		54,000	0.06			0.63	0.77	1.02	0.22	305 x 1321	516 x 950
85TA-90	97002309	90,000	3	45 (20.5)	30 (13.6)	15	12.6	16.6	5	14 x 65	23 x 41
		81,000	0.08			0.95	0.79	1.05	0.32	356 x 1651	584 x 1029



### **EcoSmart Series Water Softener**





#### **Features:**

- Engineered for ultimate efficiency on clean municipal water applications
- S Compact design for small spaces
- Uses up to 60% less salt & water than conventional water softeners
- SecoSmart™ Intelligent electronic control:
  - Simple intuitive electronics. No confusing codes or symbols!
  - Rotating performance information display!
  - Adjustable cycles for peak efficiency!

- High-efficiency fine mesh cation resin
- Quality injection & blow molded cabinet
- Push release hinged salt lid for easy salt refill
- Brine safety valve provides additional overflow protection
- ECS-34 model not only softens but also filters out bad tastes & odors caused by chlorine & organics
- Removes up to 10 ppm ferrous iron



### **Eco-Friendly Efficiency**



Water Usage Per Regeneration Annual Cost Salt Usage of Electricity Per Regeneration

### **Quality & Warranty**

EcoSmart<sup>™</sup> Water Softeners are built to last! All softeners are third party certified to meet the industry's most exacting standards and backed by one of the industries strongest warranties:

- Seven Year System Warranty
- Lifetime Pressure Tank & Cabinet
  Warranty



IAPINO R & I Certified	
against NSF/ANSI 44 and	
CSA B483.1	





7 Year Warranty Control Valve

Lifetime Warranty Pressure tank



EcoSmart<sup>™</sup> control valve & pressure tanks are NSF Certified

### **Compact Design**

Super compact design is perfect for main floor laundry or where space is at a premium!



### **Easy Installation**

Complete installation kit including bypass, plumbing fittings & drain tubing. Quick connect fittings for simple installation. Includes easy to follow installation guide.

3/4" 90 degree elbows & 1" straight NPT quick connect adapators



Installation Kit (Included) - 3/4" Male Quick Connects - 10 ft Drain Line

- Drain Line Clamp

	ECS-20	FCS-24	ECS-34	ECS-39
Specifications	Item #15010410	Item #15010411	Item #15010412	Item #15010414
Maximum Hardness Removal	19,500 grains	24,180 grains	34,320 grains	39,000 grains
Factory Settings - High Efficiency				
Salt Used	1.5 lbs	2.1 lbs	2.4 lbs	3.0 lbs
Water Used	9.6 gal	11.7 gal	15.8 gal	17.9 gal
System Capacity	7,300 grains	10,200 grains	11,700 grains	15,400 grains
High Capacity Settings				
Salt Used	3.0 lbs	3.7 lbs	5.3 lbs	6.0 lbs
Regeneration Water Used	16.9 gal	21.4 gal 32.5 gal		34.6 gal
System Capacity	12,000 grains	16,800 grains	19,200 grains	25,000 grains
Coconut Activated Carbon	No	No	Yes	No
Integrated Meter in Bypass	Yes	Yes	Yes	Yes
Plumbing Connections	3/4" or 1"	3/4" or 1"	3/4" or 1"	3/4" or 1"
Flow Rate @ 15 psi Pressure Drop	10.9 gpm	10.2 gpm	10.0 gpm	10.0 gpm
Salt Storage Capacity	80 lbs	120 lbs	170 lbs	170 lbs
Shipping Weight	58.5 lb	68.3 lb	84.3 lb	87.5 lb
Maximum Efficiency		5,600 grai	ns /lb salt	
Electrical Requirements		120V 50	0/60 Hz	
Maximum Water Temperature		120 degrees	Fahrenheit	
Water Pressure		min. 20 - m	nax. 120 psi	
Foot Print		13 inches wide	x 18 inches long	

## SHOWER SOFTENER

Just want soft water for your shower? This compact waterproof shower unit requires no electricity. The one-step manual regeneration is easy to operate. Small portable design makes it perfect for non-winterized cottages.



lter	n #	Model	Mineral Tank Size (IN)	Resin Cu Ft	Brine Tank / Cabinet Size Inches (WxDxH)	Ship Weight (Lbs)
1518	0001	SHOWER SOFTENER	7 x 13	0.22	8.7 x 14.2 x 19.2	20

## NEW QUICK CONNECT STAINLESS STEEL Flexi-Connector Kits

We are pleased to introduce our new **Quick Connect Stainless Steel Flexi-Connector Kits** designed specifically for Canature WaterGroup control valves.

The connectors are not only affordable, they provide for faster, easier installations while eliminating two connection points.

### Each kit consists of:

- Two 18" long flexible water connectors with John Guest© Quick Connect fittings on one end and proprietary Canature WaterGroup control ¾" valve bypass connection\* on the other
- Polybag with merchandising header

Simply push to connect to any 3/4" or 1" copper, CPVC or PEX piping with no tools!



60010618 3/4" J6 x 3/4 Canature WaterGroup Bypass 60010619 1" J6 x 3/4 Canature WaterGroup Bypass

## WHOLE-HOUSE AUTOMATIC WATER FILTERS

### **Protect Your Plumbing From Bad Taste and Odor Caused by Chlorine and Other Chemicals.**

#### **Remove Disinfectants From Your Water**

Once water arrives safely at your home there is no further need for disinfectants. In fact they are undesirable!

- Taste and bad odor
- Dry skin
- Damage plumbing
- Can produce potentially harmful by-products

#### Leaky Faucet or Toilet?

Chlorine is a strong oxidant that quickly **destroys plastic** & rubber seals & gaskets in appliances & plumbing causing leaks.

#### **Pin Hole Leaks in Pipes!**

Chloramines are **corrosive** by nature and will eventually cause costly damage to plumbing – causing pitting & pin hole leaks.

## NOVOCLEAR 485HE SERIES WATER FILTERS

Problem water is no problem with our full line of Novo-Clear 485 Water Filters. Eliminate iron, sediment, bad tastes, stains and odors, as well as, color caused by organics. The high-efficiency control valve monitors water usage and flushes the system automatically, readying it for operation again.

- Taste & Odor Filters: Chlorine and organic matter can make your water smell and taste terrible. The Novo Clear 485 Taste & Odor filter uses high-quality granular activated carbon to absorb the problemcausing substances.
- Chloramine removal Filters: Chloramines are now commonly used to disinfect municipal water supplies causing taste & odor problems. To remove chloramines a special catalytically enhanced carbon is required.
- Multi Media Filters: Cloudy water means you likely have suspended silt: or sediment. Restore your water to crystal clear as the NovoClear 485 Multi-Media filter traps particulate matter as small as 20 microns.
- Nexsand Turbidity Filters: Remove suspended solids, Ferric Hydroxide (Red Water Iron) or Sediment from your well or water system down to 5 Microns. Nexsand has proven extremely effective and will double the service flow of Multi Media or Sand Filters.
- Neutralizing Filters: The NovoClear 485 Neutralizing filters raise the pH of acidic water to neutralize corrosiveness protecting fixtures, pipes and appliances.
- Iron & Sulfur Filters: Water comes in contact with manganese greensand causing oxidization into solids which can be trapped in the filter bed

### Features:

- Exclusive NSF Certified control valve with reliable electronic sensors, adjustable cycle time and proven piston, seal & spacer design
- NSF Certified fibreglass pressure tank
- Tank jackets reduce condensation. Standard on 8", 9" & 10" tanks
- User-friendly backlit LCD display
- Simple set up and programming with no confusing codes or symbols to remember
- Automatic Vacation Mode prevents media cementing
- "No Touch" LCD information display rotates key info like last regeneration date, current flow rate & peak flow rate



- Unique, compact one piece bypass with integrated turbine meter
- Time saving quick connect fittings on bypass, drain & brine line. Even the power cord has quick connects
- Drain line o-ring. No need for Teflon
- Audible Cycle Advance Alarm
- 48 hour self charging battery back-up
- Meter with Day Over ride
- Includes hose clamp and 10' of drain tubing



## **FILTER SPECIFICATIONS**

Specifications	NVO485MM-75	NVO485MM-100	NVO485MM-150	NVO485MM-200	NVO485MM-300	<u></u>		
•	15054001	15054002	15054003	15054004	15054005			
Normal Service Flow Rate	4.0 gpm	5.0 gpm	7.0 gpm	10.0 gpm	12.0 gpm			
Peak Service Flow Rate	5.0 gpm	7.0 gpm	10.0 gpm	12.0 gpm	15.0 gpm			
Micron Rating	15-20 micron	15-20 micron	15-20 micron	15-20 micron	15-20 micron			
Backwash Flow Rate	4.0 gpm	5.0 gpm	7.0 gpm	10.0 gpm	14.0 gpm			
Filter Media Volume - Cubic Feet	0.75 ft <sup>3</sup>	1.0 ft	1.5 ft	2.0 ft	3.0 ft			
Filter Tank Size	8x44	9x48	10x54	12x52	14x65	-		
						_		
Tank Jacket / Media Loaded	Yes	Yes	Yes	No	No	_		
Shipping Weight	79 lbs	118 lbs	144 lbs	198 lbs	342 lbs			
	NVO485TO-75	NVO485TO-100	NVO485TO-150	NVO485TO-200	NVO485TO-300			
Specifications	15054006	15054007	15054008	15054009	15054010	-		
Normal Service Flow Rate						-		
	4.0 gpm	5.0 gpm	7.0 gpm	10 gpm	12.0 gpm	-		
Peak Service Flow Rate	5.0 gpm	7.0 gpm	10.0 gpm	12.0 gpm	15.0 gpm	_		
Backwash Flow Rate	3.5 gpm	4.0 gpm	5.0 gpm	7.0 gpm	10.0 gpm			
Filter Media Volume - Cubic Feet	0.75 ft <sup>3</sup>	1.0 ft	1.5 ft	2.0 ft	3.0 ft			
Filter Tank Size	8x44	9x48	10x54	12x52	14x65			
Tank Jacket / Media Loaded	Yes	Yes	Yes	No	No			
Shipping Weight	50 lbs	60 lbs	78 lbs	95 lbs	138 lbs	1		
		50.05		55.05	I			
Specifications	NVO485NU-75	NVO485NU-100	NVO485NU-150	NVO485NU-200	NVO485NU-300	NVO485NUCA	LC-100	NVO485NUCALC-15
specifications	15054011	15054012	15054013	15054014	15054015	1505404	10	15054041
Normal Service Flow Rate	2.0 gpm	3.0 gpm	5.0 gpm	6.0 gpm	7.0 gpm	3.0 gpm	1	5.0 gpm
Peak Service Flow Rate	3.5 gpm	5.0 gpm	8.0 gpm	10.0 gpm	12.0 gpm	5.0 gpm		8.0 gpm
pH Correction Range	6.0 - 6.9 TDS >200	6.0 - 6.9 TDS >200	6.0 - 6.9 TDS >200	6.0 - 6.9 TDS >200	6.0 - 6.9 TDS >20			6.0 - 6.9 TDS <200
, <sub>0</sub>					1			
Backwash Flow Rate	3.5 gpm	4.0 gpm	5.0 gpm	7.0 gpm	10.0 gpm	4.0 gpm	1	5.0 gpm
Filter Media Volume - Cubic Feet	0.75 ft <sup>3</sup>	1.0 ft	1.5 ft	2.0 ft	3.0 ft	1.0 ft		1.5 ft
Filter Tank Size	8x44	9x48	10x54	12x52	14x65	9x48		10x54
Tank Jacket / Media Loaded	Yes	Yes	Yes	No	No	Yes		Yes
Shipping Weight	93 lbs	120 lbs	164 lbs	207 lbs	330 lbs	120 lbs		164 lbs
					, T			
Specifications	NVO485IS-75	NVO485IS-100	NVO485IS-150	NVO485IS-200	NVO485IS-300			
opeometricit	15054016	15054017	15054018	15054019	15054020			
Normal Service Flow Rate	3.0 gpm	3.0 gpm	4.0 gpm	5.0 gpm	6.0 gpm			
Peak Service Flow Rate	4.0 gpm	5.0 gpm	8.0 gpm	10.0 gpm	12.0 gpm			
Backwash Flow Rate	3.5 gpm	4.0 gpm	5.0 gpm	7.0 gpm	10.0 gpm			
Compensated Iron Removal			8P	8 p		_		
Capacity	4,500 ppm	6,000 ppm	9,000 ppm	12,000 ppm	18,000 ppm			
KMn04 per Regen	4 oz	4 oz	4 oz	8 oz	8 oz	-		
Filter Media Volume - Cubic Feet	0.75 ft <sup>3</sup>	1.0 ft	1.5 ft	2.0 ft	3.0 ft	-		
Filter Tank Size					1	_		
	8x44	9x48	10x54	12x52	14x65	_		
Tank Jacket / Media Loaded	Yes	Yes	Yes	No	No	_		
Shipping Weight	113 lbs	129 lbs	179 lbs	233 lbs	352 lbs			
Maximum Combination of Iron X 1	, Manganese X 2,	10.0 ppm						
H <sub>2</sub> S X3		10:0 ppm	Maximum Hydroge	en Sulfide	3.0 ppm			
Maximum Iron (Ferrous)		7.0 ppm	Maximum Mangar	nese	5.0 ppm			
Bacterial Iron		0.0 ppm	Minimum pH		7.0			
					1			
Specifications	NVO485NEX-75	NVO485NEX-100	NVO485NEX-150	NVO485NEX-200				
	15054029	15054030	15054033	15044034				
Normal Service Flow Rate	4.0 gpm	5.0 gpm	8.0 gpm	10.0 gpm				
Peak Service Flow Rate	7.0 gpm	8.0 gpm	10.0 gpm	12 gpm				
Micron Rating	3-5 micron	3-5 micron	3-5 micron	3-5 micron				
Backwash Flow Rate	5.0 gpm	7.0 gpm	10.0 gpm	14.0 gpm	1			
				<b>e</b> .	1			
Filter Media Volume - Cubic Feet	0.75 ft <sup>3</sup>	1.0 ft	1.5 ft	2.0 ft				
Filter Tank Size	8x44	9x48	10x54	12x52	-			
Tank Jacket	Yes	Yes	Yes	No				
Shipping Weight	90 lbs	135 lbs	205 lbs	255 lbs	J			
	NVO485CLA-75	NVO485CLA-100	NVO485CLA-150	NVO485CLA-200	1			
Specifications								
	15054035	15054036	15054037	15054038		All Filters		
Recommended Flow Rates	4.0 gpm	5.0 gpm	7.5 gpm	10.0 gpm		Plumbing		
Backwash Flow Rate	3.5 gpm	4.0 gpm	5.0 gpm	7.0 gpm		Connections	3/4"	and 1" connections
Filter Media Volume - Cubic Feet	1.5 ft <sup>3</sup>	2.0 ft	3.0 ft	4.0 ft		Electrical		120V 60 Hz - Output
Filter Tank Size (qty 2)	8x44	9x48	10x54	12x52		Requirements	mput	120V 60 H2 - Output 12V 650mA
	Yes	Yes	Yes	No	1 –	Water	Min 2	9 - Max. 100 degrees
Tank Jacket		100	1 100			**4101	171111.3	<ul> <li>may too neglees</li> </ul>
Tank Jacket		120 lbc	155 lbc	100 lbc	·	Temperature		Fahrenheit
Tank Jacket Shipping Weight Carbon Type	100 lbs	120 lbs	155 lbs alytic Carbon	190 lbs	. –	Temperature Water Pressure	Min	Fahrenheit . 20 - Max. 125 psi

## NOVOCLEAR 465 BIF CHEMICAL FREE IRON FILTER



#### **Features:**

- Natural oxidation removes iron, manganese and hydrogen sulfide without chemicals, air pumps or a venturi
- Low maintenance two tank system
- Regenerates less frequently than traditional iron filters using up to 50% less water than manganese greensand filters
- NSF Certified electronic control valve
- NSF Certified fibreglass pressure tanks
- Meter Immediate, Meter Delayed, Meter with Day Override, Vacation and Calendar Clock mode
- Adjustable cycle times
- Unique bypass with an integrated space saving turbine meter and sample port on the inlet. One-piece design avoids meter jamming
- Time saving quick connect fittings on bypass
- Quick connect drain line o-ring eliminates need for Teflon
- Power cord even has quick connect for easy valve spin on
- Hose clamp and 10' of drain tubing included



Included with all systems





7 Year Warranty Control Valve

Lifetime Warranty Pressure tank

DPC ®	IAPMO R & T Certified against NSF/ANSI 42
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		Media	Flow	Rate U	SGPM	Mineral	Air	Pipe Size	Ship
ltem #	Model	Cu Ft	Service	Peak	Backwash		Contact Tank	Inches	Weight Lbs
15050051-1	NVO465BIF-100	1.0	3.0	6.0	5.0	10 x 44	10 x 44	3/4" and 1"	150
15050067-1	NVO465BIF-150	1.5	4.0	10.0	5.0	10 x 54	10 x 54	3/4" and 1"	188
15050071-1	NVO465BIFMN-100	1.0	3.0	6.0	5.0	10 x 44	10 x 44	3/4" and 1"	150
15050072-1	NVO465BIFMN-150	1.5	4.0	10.0	5.0	10 x 54	10 x 54	3/4" and 1"	188
15050141-1	NVO465BIF-100 with Multi Media	1.0	3.0	6.0	5.0	10 x 44	10 x 44	3/4" and 1"	150
15050142-1	NVO465BIF-150 with Multi-Media	1.5	4.0	10.0	7.0	10 x 54	10 x 54	3/4" and 1"	188
940364-1	NVO465BIF-100 with Catalytic Carbon	1.0	3.0	6.0	5.0	10 x 44	10 x 44	3/4" and 1"	150
940360-1	NVO465BIF-150 with Catalytic Carbon	1.5	4.0	10.0	5.0	10 x 54	10 x 54	3/4" and 1"	188
DIE MANUAL I				and the second			1.2		

- BIF MN Models for low pH and/or high manganese applications

- BIF Iron and Hydrogen Sulfide Filter With Multi Media For Use on Tannin Bearing Water

- BIF Hydrogen Sulfide Removal With Catalytic Carbon For Higher Than Normal H2S Removal (up to 5.0 ppm)

Contact Customer Service or Your Sales Representative for Application Guidelines

Maximum Iron	BIF and BIFMN models 30.0 ppm / BIF Multi Media models 10.0 ppm / BIF Catalytic Carbon models 0.0 ppm
Hydrogen Sulfide	BIF, BIFMN and BIF Multi Media 3.0 ppm / BIF Catalytic Carbon 5.0 ppm
Manganese	BIF, BIF Multi Media and BIF Catalytic Carbon 0.0 ppm / BIFMN models 1.0 ppm
Iron Bacteria Removal	No
рН	BIF, BIF Multi Media and BIF catalytic Carbon pH 7.0 - 8.5 / BIFMN models pH 6.5 - 6.9



## **AIO CHEM FREE IRON FILTER**

The AIO Chemical Free Iron filter is intended to be an effective and economical way to remove iron from water without the use of messy and dangerous chemicals or expensive pumps or an external venturi. The AIO valve creates an air bubble at the upper portion of the tank to oxidize any ferrous iron prior to being filtered by the media. It can also be used to remove low concentrations of dissolved hydrogen sulfide and manganese from water.

### How does the AIO (Air Induction Oxidization) filter work?

This filter works by adding oxygen to the incoming water by passing it through a bubble of compressed air. The water is then passed through a special filter bed. The special media not only increases the pH of the water to enhance iron removal but also acts as a physical barrier to trap iron precipitate.

As more water passes through this iron filter, the oxygen in the unit is used up, and the media gets loaded with iron. The regeneration process then begins in order to replenish the supply of oxygen, and to backwash the precipitated iron trapped in the media bed. The iron removal efficiency will be more effective with high pH water. The filter is fitted with an inlet check valve to prevent any air from flowing backwards out of the filter tank.



				-	v Rate USO	βPM	Mineral	Pipe Size	Ship
	Item #	Model	Media Cu Ft	Service	Peak	Backwash		Inches	Weight
				Service	reak	Backwash			Lbs
AIO (Air Induction Oxidizer) Chemical Free Iron Filter (Single Tank)									
	15010670	FILTER, NVO665FAIO75	0.75	2	4	3.5	8 x 44	3/4" and 1"	110
	15010671	FILTER, NVO665FAIO10	1.0	3	6	4	9 x 48	3/4" and 1"	145
	15010672	FILTER, NVO665FAIO15	1.5	4	10	5	10 x 54	3/4" and 1"	250
	15010674	FILTER, NVO665FAIO75M	0.75	2	4	3.5	8 x 44	3/4" and 1"	110
	15010675	FILTER, NVO665FAIO10M	1.0	3	6	4	9 x 48	3/4" and 1"	145
-	15010676	FILTER, NVO665FAIO15M	1.5	4	10	5	10 x 54	3/4" and 1"	250

Application Parameter					
	Bed Type	Iron (ppm)	Manganese (ppm)	Hydrogen Sulfide (ppm)	pH Range
	AIO Chem Free	0.0 - 10.0	0.0	0.0 - 1.0	7.0 - 8.5
ſ	AIOM Chem Free	0.0 - 10.0	0.0 - 1.0	0.0 - 1.0	6.5 to 6.9

IAPMO R & T Certified against NSF/ANSI 42



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

## HYDROGEN SULFIDE REDUCTION AIO FILTER

#### **Does Your Water Stink?**

Hydrogen sulfide (H2S) is a nuisance. It adds an objectionable sulfur-like taste and "rotten egg" odor to drinking water. Left untreated, it can also lead to corrosion in plumbing pipes and fixtures.

#### **Features:**

- Combines aeration with catalytic carbon technology to effectively reduce sulfur from water.
- No more bad taste or odor.
- So Chemicals to buy, mix or add
- No weekly water tests to perform
- Simple, Fully Automatic regeneration with Air

IAPMO R & T Certified against NSF/ANSI 42

		Cat Carbon	Flow Rate USGPM			Mineral	Pipe Size	Ship		
Item #	Model	Cu Ft	Service	Peak	Backwash		Inches	Weight Lbs		
AIO (Air Ind	AIO (Air Induction Oxidizer) Filter For Hydrogen Sulfide Reduction (Single Tank)									
15010677	FILTER, NVO665FAIOC75	0.75	2	4	3.5	8 x 44	3/4" and 1"	110		
15010678	FILTER, NVO665FAIOC10	1.0	3	6	4	9 x 48	3/4" and 1"	145		
15010679	FILTER, NVO665FAIOC15	1.5	4	10	5	10 x 54	3/4" and 1"	250		

	Application Parameters					
Bed Type	lron (ppm)	Manganese (ppm)	Hydrogen Sulfide (ppm)	pH Range		
AIOC Catalytic Carbon	0.0	0.0	0.0 - 3.0	7.0 - 8.5		



## NOVO NRV (NON-REGENERATING Valve) Whole House Carbon Filter

### **Economical Reduction of Chlorine, Chloramines** and Other Bad Taste & Odors

Once water arrives safely at your home there is no further need for disinfectants. In fact they are undesirable! Disinfectants cause taste and bad odor, dry skin, damage plumbing, and can produce potentially harmful by-products.

### Clean, Clear Odor Free Water



## NOVO NRV (NON-REGENERATING Valve) Whole House Carbon Filter

### **Features:**

- Economical whole-house carbon filtration solution for reducing chlorine and other bad tastes and odors. TOK models reduce chlorine plus hydrogen sulfide (H2S) caused by sulphate reducing bacteria common in warmer climates.
- Includes factory installed one-piece bypass
- Time saving quick connect fittings (90° ¾" NPT Elbows and 1" Straight NPT) included for faster, easier installation. Optional quick connect SharkBite® fittings also available.

IAPMO R & T Certified against NSF/ANSI 42

- Five year warranty on Distribution Head.
- Ten Year Warranty on NSF Certified tank.





1" Straight NPT

Economical non-backwashing distribution head with convenient quick connect fittings

Specifications	NRV TO-100 15054073	NRV TO-150 15054074	NRV TOK-100 15054075	NRV TOK-150 15054076	
Peak Flow Rates	4.0 gpm	5.0 gpm	4.0 gpm	5.0 gpm	
Filter Media Volume - Cubic Feet	1.0 ft <sup>3</sup>	1.5 ft <sup>3</sup>	1.0 ft <sup>3</sup>	1.5 ft <sup>3</sup>	
Filter Tank Size	9 x 48	10 x 54	9 x 48	10 x 54	
Media Type	Coconut Carbon	Coconut Carbon	Coconut Carbon With KDF Distributor	Coconut Carbon With KDF Distributor	
Media Loaded	Yes	Yes	Yes	Yes	
KDF Protector	No	No	Yes	Yes	
Tank Jacket	No	No	No	No	
Shipping Weight	60 lbs	78 lbs	60 lbs	78 lbs	
Plumbing Connections	Includes 3/	4" 90°Elbows & 1"	Straight NPT. Bypa	ss Included	
Electrical Requirements	None				
Water Temperature	Min 39 - Max. 100 degrees Fahrenheit				
Water Pressure	Max. 125 psi				

The life expectancy of the carbon media bed in these units will be reduced as compared to a back washing style carbon filter. The actual media bed life will vary depending on water consumption, chlorine/chloramines concentration and flow rate. Exceeding the peak flow rate listed above will drastically reduce the life expectancy of the carbon media.



## **SPECIALTY SYSTEMS: SIMTAN PLUS SERIES**

### Soften & Filter Problems From Your Water

Many ground water supplies often have multiple problems that are not only an issue from an aesthetic standpoint but in terms of cost when pipes become clogged, fixtures stained and laundry discolored.

Combination units provide one solution for multiple problems saving you space and money

### **NovoClear 485 Series Specialty Combination Systems**

Novo offers a variety of specialty systems to fix a variety of water problems commonly found in combination in one water supply.

### **SIMTAN PLUS Series**

#### Hardness, Iron, Manganese, Natural Organic Matter (including Tannins) and Ammonium Removal

Rid your water of hardness minerals (calcium and magnesium) and enjoy soft skin, silky hair, spot free dishes and brighter laundry while protecting your plumbing and water using appliances from scale build-up.

Removing iron and manganese will keep fixtures from getting stained as well as removing the taste and smell.

Tannins, caused by decaying organic matter, are normally found in surface water systems and cause a yellow or brown color in the water that does not settle and will stain laundry.

Ammonium, often found as a by-product in water disinfected with chloramines, is undesirable and can cause bad taste and odor.

Specifications	SIMTANPLUS-150 15010481-P	SIMTANPLUS-200 15010482-P	SIMTANPLUS-250 15010502-P	SIMTANPLUS-300 15010483-P	
Salt Used - Per Regeneration	9.0 lbs	12.0 lbs	15.0 lbs	18.0 lbs	
Water Used - Regeneration	74.6 gal	98.9 gal	126.6 gal	153.0 gal	
Hardness Removal - Grains	17,100	22,800	28,500	34,200	
Advanced Exchange Media (ft3)	1.32ft	1.76 ft	2.20 ft3	2.64 ft	
Tank Size	10x54	12x52	13x54	14x65	
Top Cone	Yes	Yes	Yes	Yes	
Tank Jacket / Media Loaded	Yes	No	No	No	
Brine Tank (Inches)	20.3 x 37.4	20.3 x 37.4	20.3 x 37.4	23.0 x 40.5	
Salt Storage Capacity	350 lbs	350 lbs	350 lbs	420 lbs	
Critical Service Flow Rate	4-6 gpm	6-8 gpm	8-10 gpm	10-12 gpm	
Back Wash Flow Rate	2.4 gpm	4.0 gpm	5.0 gpm	7.0 gpm	
Shipping Weight	141 lbs	158 lbs	198 lbs	244 lbs	
рН		5	-9		
Other		Free Chlorine < 1 p	om, TDS < 4000 ppm	1	
Regeneration Type		Dowr	1 Flow		
Plumbing Connections	Includes 3/4" 90°Elbows & 1" Straight NPT				
Electrical Requirements	Input 120V 60 Hz - Output 12V 650mA				
Water Temperature	Min 39 - Max. 100° F				
Water Pressure		Min. 20 - N	lax. 125 psi		



Lifetime Warranty Pressure tank

Do NOT use Pro Res

Care or other media

cleaners with these units as it will damage

the media



The SIMTAN PLUS needs to be used on well water where the well is greater than 140 feet deep. CALL CUSTOMER SERVICE TO DETERMINE CORRECT MODEL. WATER TEST RESULTS REQUIRED.

**Raw Water Quality Requirements and Efficiency of Purification** 

Parameters	Influent limitations	Max. Efficiency, %				
Hardness	45 gpg	97				
Iron*	4 ppm	98				
Manganese	2 ppm	98				
TOC** (including tannins)	3 ppm	98				
Ammonium	4 ppm	90				

\*All installations require 5 micron pre-filter to be installed prior to this unit. We recommend our 10" or 20" Big Value filter housings with a 5 micron cartridge. If ferric iron levels exceed 3ppm, or high volumes of sediment/turbidity is also present, a regenerating nexsand or multi-media filter should be installed prior to this unit.

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\*\*TOC (total organic carbon) is used as a measure of natural organic matter content

## **NOVOCLEAR 485 SIMTAN SERIES**

### Soften & Filter Problems From Your Water

Many ground water supplies often have multiple problems that are not only an issue from an aesthetic standpoint but in terms of cost when pipes become clogged, fixtures stained and laundry discolored.

Combination units provide one solution for multiple problems saving you space and money.

### **SIMTAN Series**

### Hardness, Iron, Manganese, Natural Organic Matter (including Tannins)

Rid your water of hardness minerals (calcium and magnesium) and enjoy soft skin, silky hair, spot free dishes and brighter laundry while protecting your plumbing and water using appliances from scale build-up.

Removing iron and manganese will keep fixtures from getting stained as well as removing the taste and smell.

Tannins, caused by decaying organic matter, are normally found in surface water systems and cause a yellow or brown color in the water that does not settle and will stain laundry.

Specifications	485SIMTAN-100	485SIMTAN-150	485SIMTAN-200	485SIMTAN-300	
Purolite 850 Models*	15010480-1	15010481-1	15010482-1	15010483-1	
Purolite 860 Models*	15011480-1	15011481-1	15011482-1	15011483-1	
Factory Settings - High Capacity					
Salt Used - Per Regeneration	12.0 lbs	18.0 lbs	24.0 lbs	36.0 lbs	
Water Used - Regeneration	64.3 gal	90.3 gal	124.6 gal	196.2 gal	
Hardness Removal - Grains	30,000	45,000	60,000	90,000	
Tannins Removal	2000 ppm	3000 ppm	4000 ppm	6000 ppm	
Tank #1 Resin Quantity - Cubic Feet	1.0 ft	1.5 ft	2.0 ft	3.0 ft	
Tank #2 Resin Quantity - Cubic Feet	1.0 ft	1.5 ft	2.0 ft	3.0 ft	
Tank Size	9x48	10x54	12x52	14x65	
Tank Jacket / Media Loaded	Yes	Yes	No	No	
Brine Tank / Cabinet Size (Inches)	18.1 x 34.5	20.3 x 37.4	20.3 x 37.4	23.0 x 40.5	
Salt Storage Capacity	240 lbs	350 lbs	350 lbs	420 lbs	
Recommended Service Flow Rate	3.0 gpm	4.5 gpm	6.0 gpm	9.0 gpm	
Flow Rate @ 15 psi Pressure Drop	7.3 gpm	7.5 gpm	8.3 gpm	9.3 gpm	
Flow Rate @ 25 psi Pressure Drop	10.0 gpm	10.1 gpm	11.1 gpm	11.4 gpm	
Back Wash Flow Rate	2.0 gpm	2.4 gpm	3.5 gpm	5.0 gpm	
Shipping Weight	125 lbs	158 lbs	161 lbs	247 lbs	
Regeneration Type		Counter-Curr	ent / Up Flow		
Maximum Hardness	75 Grains Per Gallon				
Maximum Tannins	3.0 ppm (Contact Customer Service for higher levels)				
Maximum Iron (Ferrous)	1.5 ppm				
Maximum Manganese		.75	ppm		
Resin Type		SST 60 Cation / 850	or 860 Anion Resin		

\* CALL CUSTOMER SERVICE TO DETERMINE CORRECT MODEL. WATER TEST RESULTS REQUIRED







7 Year Warranty Control Valve

1

Lifetime Warranty Pressure tank



All systems include Easy Feeder plus 64 oz bottle of Res Care.



## **SPECIALTY SYSTEMS: SIM SERIES**

### **SIM Series**

#### Softener, Ferrous Iron and Manganese Combination Removal

Combining proven water softener capabilities with the ability to remove clear water iron, the SIM Series system provides an effective and economical solution to hard and iron contaminated water. In addition, the system, is specially designed for application in low pH (acidic) water. Hard water contains dissolved calcium and magnesium which build up inside your water heater, plumbing fixtures and appliances. The minerals also react with soap to form a scum which appears as bathtub ring, greys your laundry and leaves your hair dull and your skin itchy. Iron water leaves yellow, orange or brown stains on your laundry, sinks, tubs and toilets.

The SIM Series system contains a bed of fine mesh ion exchange resin beads. As water passes through the bed, calcium and magnesium, the hardness minerals, and any clear water iron are removed and held by the resin.

Eventually, the resin beads become saturated and must be regenerated. A brine solution is drawn into the bed to drive out the accumulated minerals. This process is called ion exchange. After the minerals and brine are rinsed out with fresh water, the regenerated resin is ready to soften your water again. The demand regeneration control valve includes a metering system which monitors your soft water use, regenerating only when necessary based on your water usage. Consequently, you save salt, water and money.

	485SIM-100	485SIM-150	485SIM-200	485SIM-300	
Specifications	15010460	15010461	15010462	15010463	
Factory Settings - Iron & Manganese					
Salt Used - Per Regeneration	12.0 lbs	18.0 lbs	24.0 lbs	36.0 lbs	
Water Used - Regeneration	52.2 gal	74.4 gal	101.4 gal	166 gal	
Hardness Removal - Grains	30,000	45,000	60,000	90,000	
Resin Quantity - Cubic Feet	1.0 ft	1.5 ft	2.0 ft	3.0 ft	
Tank Size	9x48	10x54	12x52	14x65	
Tank Jacket / Media Loaded	Yes	Yes	No	No	
Brine Tank / Cabinet Size (Inches)	18.1 x 34.5	20.3 x 37.4	20.3 x 37.4	23.0 x 40.5	
Salt Storage Capacity	240 lbs	350 lbs	350 lbs	420 lbs	
Flow Rate @ 15 psi Pressure Drop	11.0 gpm	11.2 gpm	12.2 gpm	12.6 gpm	
Flow Rate @ 25 psi Pressure Drop	15.0 gpm	15.1 gpm	16.2 gpm	16.6 gpm	
Back Wash Flow Rate	2.1 gpm	2.4 gpm	3.5 gpm	5.0 gpm	
Shipping Weight	125 lbs	158 lbs	175 lbs	247 lbs	
Regeneration Type	Co-Current / Down Flow				
Maximum Hardness	75 Grains Per Gallon				
Maximum Iron (Ferrous)	10 ppm				
Maximum Manganese	5 ppm				
Resin Type		Purolite	® SST-60		







SIM Series includes Pro Easy Feeder Starter Kit.

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2V 650mA
ahrenheit





### SPECIALTY SYSTEMS: NOVO TAN SERIES TANNIN REMOVAL

This system uses Anion exchange resin to remove color caused by organic decay - greatly improving aesthetics and preventing costly staining.



Specifications	485TAN-100	485TAN-150	485TAN-200	485TAN-300			
Purolite 850 Models*	15010489	15010490	15010491	15010492			
Purolite 860 Models*	15011489	15011490	15011491	15011492			
Factory Settings - High Capacity							
Salt Used - Per Regeneration	12.0 lbs	18.0 lbs	24.0 lbs	36.0 lbs			
Water Used - Regeneration	64.3 gal	90.3 gal	124.6 gal	196.2 gal			
Tannins Removal	2000 ppm	3000 ppm	4000 ppm	6000 ppm			
Resin Quantity - Cubic Feet	1.0 ft	1.5 ft	2.0 ft	3.0 ft			
Tank Size	9x48	10x54	12x52	14x65			
Tank Jacket / Media Loaded	Yes	Yes	No	No			
Brine Tank / Cabinet Size (Inches)	18.1 x 34.5	20.3 x 37.4	20.3 x 37.4	23.0 x 40.5			
Salt Storage Capacity	240 lbs	350 lbs	350 lbs	420 lbs			
Recommended Service Flow Rate	3.0 gpm	4.5 gpm	6.0 gpm	9.0 gpm			
Flow Rate @ 15 psi Pressure Drop	11.0 gpm	11.2 gpm	12.2 gpm	12.6 gpm			
Flow Rate @ 25 psi Pressure Drop	15.0 gpm	15.1 gpm	16.2 gpm	16.6 gpm			
Back Wash Flow Rate	2.0 gpm	2.4 gpm	3.5 gpm	5.0 gpm			
Shipping Weight	122 lbs	155 lbs	158 lbs	244 lbs			
Regeneration Type		Co-Current /	Down Flow				
Maximum Tannins	3.0 ppm	(Contact Custome	er Service for high	er levels)			
Plumbing Connections		¾" and 1" c	onnections				
Resin Type	Purolite <sup>®</sup> A850 and A860 anion resin						
Electrical Requirements	Input 120V 60 Hz - Output 12V 550mA						
Water Temperature	M	in 39 - Max. 100	degrees Fahrenhe	eit			
Water Pressure		Min. 20 - N	lax. 125 psi				

CALL CUSTOMER SERVICE TO DETERMINE CORRECT MODEL. WATER TEST RESULTS REQUIRED

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

IAPMO R & T Certified

CSA B483.1

N20

against NSF/ANSI 44 and

UPC

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### SPECIALTY SYSTEMS: NOVOCLEAR 485 HTO HARDNESS, TASTE & ODOR REMOVAL

### Rid your water of hardness & bad tastes and odor caused by chlorine, chloramines or organic matter.

The unique two tank system keeps the two media beds separate and allows for more carbon contact improving chlorine, chloramines and organic removal.

A Because the carbon may need to be replaced before the softening resin, the two tank system allows for replacement without having to change the resin bed unlike many traditional mixed bed systems. Same benefit as separate systems but with cost of only one control valve.



#### **Features:**

- Dedicated softening & carbon filtration tanks provide truly refined water
- NSF Certified control valve with electronic sensors, adjustable cycles & proven piston, seal & spacer design
- Reverse Flow regeneration preserves unused portion of softening bed from unnecessary exchange saving salt
- Precision brining calculates the exact amount of brine required to regenerate saving up to 30% more salt
- Backwash Frequency Preset for clean municipal water saves water by matching backwash to water quality need
- Soft Water brine tank refill keeps tank & injectors clean
- Automatic system refresh flushes stagnant water
- NSF Certified fibreglass pressure tank
- WQA Gold Seal Certified cation resin
- User-friendly backlit LCD display
- "No Touch" rotating information display
- Unique bypass with integrated turbine meter saves space, eliminates connections
- Time saving quick connect fittings on bypass, drain line, brine line & power cord
- Drain line o-ring. No need for Teflon
- Brine safety valve provides added overflow protection
- Plastic salt grid prevents bridging
- 48 hour self charging battery back-up
- Includes hose clamp & 10' of drain tubing

Specifications	485HTO-100	485HTO-150	485HTO-200	485HTO-300			
Specifications	15010484-1	15010485-1	15010486-1	15010487-1			
Factory Settings							
Salt Used - Per Regeneration	6.0 lbs	9.0 lbs	12.0 lbs	18.0 lbs			
Water Used - Regeneration	86.4 gal	148 gal	162.4 gal	224.8 gal			
Hardness Removal - Grains	25,000	37,500	50,000	75,000			
Tank #1 Carbon Quantity - Cubic Feet	1.0 ft	1.50 ft	2.0 ft	3.0 ft			
Tank #2 Resin Quantity - Cubic Feet	1.0 ft	1.50 ft	2.0 ft	3.0 ft			
Tank Size	9x48	10x54	12x52	14x65			
Tank Jacket / Media Loaded	Yes	Yes	No	No			
Brine Tank / Cabinet Size (Inches)	18.1 x 34.5	18.1 x 34.5	20.3 x 37.4	23.0 x 40.5			
Salt Storage Capacity	240 lbs	240 lbs	350 lbs	420 lbs			
Flow Rate @ 15 psi Pressure Drop	7.2 gpm	7.4 gpm	9.0 gpm	9.2 gpm			
Flow Rate @ 25 psi Pressure Drop	10.0 gpm	10.1 gpm	11.9 gpm	12.1 gpm			
Back Wash Flow Rate	2.4 gpm	3.5 gpm	4.0 gpm	5.0 gpm			
Shipping Weight	154 lbs	171 lbs	214 lbs	232 lbs			
Regeneration Type		Counter Cur	rent / Up Flow				
Plumbing Connections		3/4"	or 1"				
Resin Type	AquaFine 8% High Capacity Ion Exchange Resin						
Carbon Type	AquaFine Catalytic Carbon						
Electrical Requirements	Input 120V 60 Hz - Output 12V 650mA						
Water Temperature		Min 39 - Max. 100 degrees Fahrenheit					
Water Pressure		Min. 20 - Max. 125 psi					



7 Year Warranty Control Valve



Lifetime Warranty Pressure tank

46 Specialty Systems

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

## SPECIALTY SYSTEMS: NOVO 485 HEDP DUAL PASS SOFTENING SYSTEM

On very hard water supplies (> 75 gpg), a common problem with single tank water softeners is the extreme hardness requires extra media bed depth to complete the exchange process.

The Novo High-Efficiency Dual Pass (HEDP) Water Softener uses a two tank system to prevent this problem. The first tank acts as the workhorse by significantly reducing the water hardness. The second tank acts as a 'polisher' and prevents slippage as the overpowering high hardness condition has been significantly reduced. This also increases the contact time with the softening resin meaning more consistent, softer water.

Salt efficiency is even more important on high hardness situations. The Novo HEDP offers salt-efficient reverse flow regeneration with precision brining for ultimate salt savings.

#### Features:

- Two tank system provides softer, more consistent water quality and prevents hardness slippage which can occur in single tank systems
- Perfect for high hardness (typically > 75 gpg) residential and light commercial applications such as boiler feed systems
- More cost effective than larger single tank systems
- Reverse Flow Regeneration preserves unused portion of softening bed from unnecessary exchange saving salt



- Precision Brining calculates the exact amount of brine required to regenerate saving up to 30% more salt
- Backwash Frequency Preset for clean municipal water saves water by matching backwash to water quality need
- Soft Water Brine Tank Refill keeps tank & injectors clean
- Automatic Vacation Mode flushes stagnant water



**Reverse flow regeneration** saves salt by pushing the hardness minerals up & out to drain instead of down through the sodium-charged portion of the softener bed needlessly depleting it.

Constituent	485HEDP-100	485HEDP-150	485HEDP-200	485HEDP-250	
Specifications	15010495-1	15010496-1	15010497-1	15010498-1	
Factory Settings					
Salt Used - Per Regeneration	12.0 lbs	18.0 lbs	24.0 lbs	30.0 lbs	
Water Used - Regeneration	86.4 gal	148 gal	162.4 gal	224.8 gal	
Hardness Removal - Grains	30,000	45,000	60,000	75,000	
Tank #1 Resin Quantity - Cubic Feet	1.0 ft	1.50 ft	2.0 ft	2.5 ft	
Tank #2 Resin Quantity - Cubic Feet	1.0 ft	1.50 ft	2.0 ft	2.5 ft	
Tank Size	9x48	10x54	12x52	13x54	
Tank Jacket / Media Loaded	Yes	Yes	No	No	
Brine Tank / Cabinet Size (Inches)	23.0 x 40.5	23.0 x 40.5	23.0 x 40.5	23.0 x 40.5	
Salt Storage Capacity	420 lbs	420 lbs	420 lbs	420 lbs	
Flow Rate @ 15 psi Pressure Drop	7.2 gpm	7.4 gpm	9.0 gpm	9.2 gpm	
Flow Rate @ 25 psi Pressure Drop	10.0 gpm	10.1 gpm	11.9 gpm	12.1 gpm	
Back Wash Flow Rate	2.0 gpm	2.4 gpm	3.5 gpm	4.0 gpm	
Shipping Weight	184 lbs	201 lbs	244 lbs	262 lbs	
Regeneration Type		Counter Curr	ent / Up Flow		
Plumbing Connections		3/4"	& 1″		
Resin Type	Canature 8% High Capacity Ion Exchange Resin				
Electrical Requirements	Input 120V 60 Hz - Output 12V 650mA				
Water Temperature	Min 39 - Max. 100 degrees Fahrenheit				
Water Pressure		Min. 20 - N	lax. 125 psi		



## **SPECIALTY SYSTEMS: NOVO 485 NEUTRASOFT TWO TANK WATER CONDITIONING SYSTEM**

#### Neutralize Corrosiveness & Remove Hardness to **Protect Fixtures, Pipes & Appliances**

Acidic waters on contact slowly dissolve the Calcite media contained in the first tank to raise the pH which reduces the potential leaching of copper, lead and other metals typically found in plumbing systems.

As the Calcite neutralizes the water, it will increase the hardness of the water. The second tank contains cation exchange resin to remove the hardness leaving you with pH balanced, luxuriously soft water.

#### Features:

- Economical two tank system is operated using one control valve. Simplifies installation and lowers cost.
- Dome hole neutralizing tank allows for easy replenishment of consumable calcite media
- Exclusive Novo 485 Series control valve with reliable electronic sensors, piston, seals and spacer technology
- High-efficiency upflow regeneration for ultimate salt savings and softer water
- Time saving quick connect fittings for faster, easier installation
- Factory installed one-piece bypass with incorporated meter
- Fully adjustable cycle times
- Meter Delayed
- Integrated turbine meter



- 48 hour self charging battery back-up keeps time-of-day stored while program settings are kept in permanent memory
- Large user friendly color display shows time of day, total remaining capacity, and flow indication
- Simple electronics and programming.
- Lifetime Warranty on NSF Certified tank
- Seven year warranty on NSF Certified control valve



COMPONENT



Dome hole port on tank allows for easy replenishment of Calcite neutralizing media



Specifications	485 HNU-150
	15010499-1
Service Flow Rates	
Normal	5.0 gpm
Peak	8.0 gpm
Backwash Flow Rate	5.0 gpm
Filter Media Volume - Cubic Feet	1.5 ft
Resin Quantity - Cubic Feet	1.5 ft
Tank Size	10x54
Tank Jacket / Media Loaded	No
Brine Tank / Cabinet Size (Inches)	18.1 x 34.5
Salt Storage Capacity	240 lbs

IAPMO R & T Certified

CSA B483.1

311 lbs

Counter Current / Up Flow Includes 3/4" 90°Elbows & 1" Straight NPT

Aquafine 8% High Capacity Ion Exchange Resin

**Canature Calcite** 

Input 120V 60 Hz - Output 12V 650mA

Min 39 - Max. 100 degrees Fahrenheit

Min. 20 - Max. 125 psi

against NSF/ANSI 44 and

Shipping Weight

Resin Type

**Regeneration Type** 

**Plumbing Connections** 

pH Adjustment Media

Water Temperature

Water Pressure

**Electrical Requirements**