### Design Specifications
- Service Flow Rate (15 psig): 13 gpm
- Pressure Range: 20 – 120 psig
- Temperature Range: 35 – 110°F
- Free Chlorine: ≤ 2 mg/L
- Compensated Hardness: ≤ 100 mg/L
- Iron: If > 10 mg/L, consult Technical Service

### System Components
- Media Vessel (dry) Size: (1) 13” x 54”
- Media Vessel Construction: Wrapped Polyethylene
- Empty Bed Volume: 3.68 ft³
- Media Type: High Capacity Cation Resin
- Media Volume (per tank): 2.5 ft³
- Under Bedding Volume: none
- Total Bed Depth: 40”
- Free Board: 21.375”
- Riser Tube: 1.05” ABS
- Upper Distributor: 0.012” Slots, Engineered Plastic
- Lower Distributor: 0.012” Slots, ABS
- Regeneration Control: Metered
- Regeneration Type: Co-current, 4 Stage
- By-pass During Regeneration: Yes
- Water Used for Regeneration: Raw Water
- Recommended Brine Tank: 18” x 40”
- Salt Capacity: 250 pounds
- Maximum Brine Dosing: 15 pounds per cubic foot
  * Freeboard may vary due to settling.

### Connections
- Inlet / Outlet Connections: 3/4” – 1” In/Out Adapters
- Drain Connection: 1/2” FNPT
- Brine Line Connection: 3/8” Tubing
- Power, Valve: 120 VAC

### Regeneration Specifications
- Sequence: Flow...Time...Volume
- Backwash: 4.00 gpm...10 minutes...40 gallons
- Brine/Slow Rinse: 0.60 gpm...83 minutes...49.8 gallons
- Rapid Rinse: 4.00 gpm...6 minutes...24 gallons
- Brine Tank Refill: 0.25 gpm...34 minutes...8.5 gallons
- Total: 133 minutes...122.3 gallons
- Salt Dose Setting: 3 lbs/ft³...10 lbs/ft³...15 lbs/ft³
- System Capacity: 31.8 Kgr...67.6 Kgr...79.6 Kgr
- Salt Used: 8 pounds...27.1 pounds...39.8 pounds
  ** Times are adjustable.

### Dimensions and Weight System
- Overall Height: 63”
- Overall Width: 33”
- Overall Depth: 14”
- Tank Width: 13”
- Brine Tank Width: 18”
- Brine Tank Height: 40”
- Shipping Weight: 188 pounds
- Operating Weight: 253 pounds

### Valve
- Height: 9”
- Width: 12.5”
- Depth: 12”
- Tank Thread: 2.5” UN
- Riser Tube (OD): 1.05”
- Valve Weight: 10 pounds

### System Part Numbers
- PS3900M: 15621

### In / Out Adapters
- 1/2” Male NPT, Plastic: 13120
- 1/2” Female NPT, SS: 13121
- 3/4” Male NPT, Plastic (included with system PN): 13123
- 1” Male NPT, Plastic (included with system PN): 13124
- 1” Female NPT, SS: 13125

### System Accessories
- Brine Tank (included with system PN): 13500
- PL By-pass Valve (included with system PN): 13119
Operating Profile
The softener removes hardness to less than 2 grains per gallon when operated in accordance with the operating instructions. The system provides soft water using a simplex (single tank) configuration. System regenerations are initiated based on the time of day and water usage. The programmable timer allows regenerations to be programmed over a 12-day period.

Regeneration Control Valve
The regeneration control valve is top mounted (top of media tank), and manufactured from non-corrosive materials. The control valve does not weigh more than 10 lbs. and operates using a minimum pressure of 20 psi. The control valve incorporates four regeneration cycles including: backwash, brine/slow rinse, rapid rinse and brine tank refill. The service cycle operates in a downflow direction and the brine cycle flows in downflow, providing co-current regeneration. The control valve contains a fixed orifice eductor nozzle and a backwash flow control. The control valve allows the by-pass of hard water to service during the regeneration cycle.

Media Tanks
The tanks are designed for a maximum working pressure of 120 psi and are hydrostatically tested at 300 psi. Tanks are made of polyethylene and reinforced with a fiberglass wrapping. Tanks have a 2.5” threaded top opening. The upper and lower distribution systems are a slotted design. The distribution system provides even distribution of regeneration water and the collection of processed water.

Conditioning Media
Each softener uses strong acid, high capacity cation resin with a minimum exchange capacity of 30,000 grains removed per cubic foot of media when regenerated with a dose of 15 lbs. of salt per cubic foot of media. The media is solid, of a proper particle size and doesn’t contain plates, shells, agglomerates or other shapes that might interfere with the normal function of the water softener.

Brine System
A combination salt storage and brine production tank are manufactured of corrosion resistant, rigid polyethylene. The brine tank has an internal brine well chamber to house the brine valve assembly. The brine tank includes a safety overflow connection that can be plumbed to a suitable drain.