

## COLE-PARMER #1503-00

### INSTALLATION AND OPERATING INSTRUCTIONS

#### MODEL AD-1400 MONOBED DEMINERALIZER

Maximum operating pressure: 125 PSI  
Maximum operating temperature: 90 degrees F

The AD-1400 Demineralizer will work with either bulk resin (#RR-1400) **or** the resin cartridges (#NGDI-20). The resin refill or the resin cartridges are not supplied with the basic unit and must be ordered separately and loaded into the unit prior to use.

The system consists of the blue filter housing assembly with a tapped head, a 200,000 Ohm test light, mounting bracket, 2 wall mounting screws, 2 hose elbow fittings (3/4" NPT x 3/8" hose barb), and a distribution tube assembly.

#### INSTALLATION

The unit must be installed with a shutoff valve on the inlet to facilitate the changing of the exhausted resin. Locate the unit in a place where it will be convenient to service, allowing at least 6" below the unit to remove the housing sump.

Install the test light into the hole on the top of the black filter cap. Please be sure to use ptfе tape to prevent water leakage.

The mounting bracket should be securely fastened to the wall for support with the 2 mounting screws. Attach the black filter head to the wall bracket with two 3/8<sup>th</sup> hose barb connectors. Use ptfе tape on the threaded side of the connectors to prevent leaks.

Run either plastic tubing or rigid plastic piping to the inlet supply to the inlet side of the filter cap. Run either plastic or rigid plastic piping from the outlet side of the filter cap to the supply source. **The plumbing line must be able to withstand the full line pressure of the supply feed.**

#### LOADING BULK RESIN

After the unit is completely installed, turn on the water supply to check for leaks. When satisfied that there are no leaks, turn off the inlet valve and open the out let valve to relieve the pressure in the unit. Grasp the housing and turn counter-clockwise to loosen and remove the sump. Remove the housing carefully so as not to damage the distributor tube inside the unit. The o-ring may lift out of the groove or stick to the cap; it should be free of debris and re-installed in the groove.

Before loading, make sure the bottom strainer of the distributor tube is inserted into the socket at the bottom of the sump.

Carefully pour in the resin from one jar into the sump; the distributor should be installed in the sump at this time. After loading, clean the threads, and the o-ring to be sure there is no resin present. If the resin beads are not properly cleaned off, a leak may occur. Screw the housing onto the cap until tight. **Do not over tighten-should be hand tightened only.**

## LOADING RESIN CARTRIDGE

After checking for leaks, grasp the housing and turn counter-clockwise to loosen and remove the sump. ***Remove the center distributor tube inside the sump; this part is only needed for the bulk resin.*** Install the resin cartridge into the sump with the larger black cap up. Re-install the sump onto the cap until tight. **Do not over tighten-should be hand tightened only.**

**IMPORTANT:** ***DO NOT DISTURB the RED plug located inside the top cap of the cartridge. It will damage the cartridge and render it unusable.***

## PLACING UNIT INTO SERVICE

Plug the electrical cord from the test light into a wall outlet. Slowly open the inlet water supply until water flows freely out of the faucet and the air is purged from the unit. The conductivity light will turn on and your unit is now ready to provide high quality water.

## WHEN TO CHANGE BULK RESIN OR CARTRIDGE

**When the conductivity light goes out with water running**, this is an indication the quality of the water has dropped below 200,000 Ohms (above 5 microhos). You will need to replace either your bulk resin or the resin cartridge. Follow the above procedures to replace the resin in your current unit. The exhausted resin can be disposed of into any waste container, as there is no danger or any hazard.

## TEST LIGHT

The unit should be monitored while the water sample is flowing to obtain the greatest accuracy. In sensitive applications it is recommended that the unit be periodically cleaned and tested for accuracy with a standard solution of known resistivity equivalent to the specified threshold value. The electrodes should appear clean; shiny; free of deposits and microbiological growth.

**THIS MONITORING DEVICE SHOULD NOT BE USED AS THE PRIMARY INDICATOR FOR CRITICAL OR MEDICAL APPLICATIONS.**

## REPLACEMENT COMPONENTS

Bulk Resin: # RR-1400  
Resin Cartridge: # NGDI-20  
Test Light 110 volt: # R7016P-200K  
Test Light 220 volt: HLA200k-220V  
Center Distributor: # RD-1400  
Sump O-ring: # 241  
Spanner Wrench: # SW-2

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