

ENCAPSULATED WATER TREATMENT SYSTEMA COMPUTER-IMPLEMENTED
METHOD OF MONITORING THE PERFORMANCE OF A REVERSE OSMOSIS
MEMBRANE IN A DRINKING WATER SUPPLY SYSTEM

ABSTRACT

A water treatment system is provided having an encapsulate manifold with a
5 reverse osmosis cartridge and one or more filter cartridges. The filter cartridge
includes a detent for being received within a slot in the manifold head for secure
locking engagement. The water treatment system further includes a single probe
conductivity monitoring system for monitoring the performance of a reverse osmosis
membrane. The water treatment system is also provided in a modular arrangement
10 wherein manifold heads are physically and fluidly coupled together via a clip which
interfaces with the modular manifold heads. The water treatment system also allows
for a retrofit application to include a permeate pump. The cartridges are also designed
to provide a minimum annular inlet gap to minimize spillage during changing of the
cartridges.

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Fig. 1