

Z-1 Z-brane Replacement

Warning: The Z-brane operates at high voltage. Shock Hazard. High voltage is present in the z-brane when it is powered up. This voltage may persist for up to 30 minutes after power is shut off. Do not disconnect the Z-brane harness from the power supply, or open the power supply box, until power has been removed for at least 30 minutes. Because of the high voltage, field repairs should not be attempted. Unplug the green DC power connector before servicing the Z-Brane.

The z-brane consists of two components, the Power Supply, and the Z-rod Harness. Two versions of the Z-brane power supply have been produced. Early models have a white power supply box, later versions have a black power supply box. In the early models the harness and power supply are hard wired together and must be replaced as a unit. In later models the harness connects to the power supply with a twist lock connector and the harness and power supply can be replaced individually.

The harness may have up to three “Z-rods” depending on the number of membrane housings on the watermaker. Two styles of Z-rod have been produced. The early style threads into the membrane endcap and seals with Teflon tape; the later style pushes into the endcap, seals with an O-ring, and is held in with a stainless steel Clip. When ordering replacement harnesses, specify whether you need threads or o-ring Z-rods. A limited supply of threaded replacement parts still exist, upgrading your components may be necessary.

To remove threaded Z-rods the endcaps should be removed from the membrane housing. Disconnect the harness shield wire from the power supply. Disconnect the high pressure tubes from the compression fittings. Unscrew the Aluminum retaining rings using a strap wrench or block of wood and a mallet. Pull the endcaps out of the pressure vessel and unscrew the Z-rods. Put 5 wraps of Teflon tape on the new rods and reassemble the membrane system.

To remove O-ring seal Z-rods the endcaps can remain in place. Disconnect the harness shield wire from the power supply. Remove the screw that holds, the Z-rod retaining clip in place and remove the clip. Pull out the rod. Ensure that there is an o-ring in the o-ring groove of the endcap, lightly grease the o-ring, and insert the Z-rod into the cap. Reinstall the clip.

Hook up the cathode cable and Z-rod harness shield to the ground stud on the power supply. Connect and lock the high voltage connector. Plug in the DC power connector. **Take care to connect with the correct polarity.**

07/07/06