CONFUSED SEA
by Ned Kahn

MAINTENANCE INSTRUCTIONS

GENERAL INFORMATION:

Air blowing over the surface of water inside a large Plexiglas hemisphere mimics the action of the wind over the ocean by generating waves. The waves slowly change and build until the entire volume of water is circulating as one wave. Viewers can adjust the speed of the air blower and influence the building of the waves.

Initial Set up:

The piece should first be positioned in its final location before filling with water. The top must first be removed by loosening the button-head fasteners. Open the electrical box and disconnect the motor lead. Fill the Plexiglas bowl with approximately 13 gallons (50 liters) of de-ionized or distilled water, or to a height of 8" (20 cm) measured from the bottom of the bowl. Replace the top.

Shipped separately is a piece of curved steel pipe. This pipe supports the middle of the Plexiglas top. Four 1/4-20 (or 6mm) cap screws hold it in place. There is a cable attached to the center of the Plexiglas top. Pass the threaded end of the cable up through the steel pipe and then thread a nut on. Tension the nut just enough to eliminate any sag in the Plexiglas.

General Cleaning:

Clean the painted surfaces of the exhibit with a mild soap solution. Clean the Plexiglas hemisphere and graphics panel with a plastic cleaner and a soft wipe that will not leave scratches, (we suggest Wype-All™).

Potentiometer replacement:

Switch the power is off by locating the circuit breaker switch in the side of the electrical box on top of the exhibit. Loosen the two fasteners that secure the knob mount. Remove the potentiometer by loosening the two white nylon thumb-nuts. Pull on the potentiometer firmly but slowly until it releases.

To reassemble, turn the pot shaft and the knob both completely clockwise. This will avoid a 'spongy' feel at the knob stops. Align the plate with the threaded studs and push the pot shaft into the rubber coupling. Replace the nylon thumb-nuts hand tight and reinstall into the exhibit.

Motor & Control:

The exhibit uses a DC motor. The electrical box located on top of the exhibit houses the motor control. With the user control turned all the way up, set the controller to 70V maximum. (When rotating in the "forward curve" direction, the impeller loads the motor to its full load current rating of .48A at approximately 70-75 Vdc.)

The brushes in the motor will wear after approximately one year of normal operation. It is recommended to change the brushes at a scheduled interval, rather than waiting until the motor stops working. This will save the armature from being damaged and the expense of replacing the motor.