

Durastill Automatic Drain Valve

Model DV-2

The Automatic Drain Valve, Model DV-2, is used with the Durastill Model 42-C to insure that minerals and sediment do not build up excessively in the evaporator tank thus hindering the distiller's performance. The Model DV-2 consists of a twenty-four hour timer, 110 VAC drive motor, and drain valve.

How It Works

The drain valve will automatically rotate, drain the evaporator tank, and interrupt the distiller's operation when the motorized valve assembly is activated by the timer. This requires the timer dial to be programmed (see installation instructions, item #5). After approximately seven minutes the drain valve will rotate again, close the drain, and enable the distiller to continue operation.

Maintenance

The Durastill Automatic Drain Valve should require little maintenance. Periodic inspection of the drain valve should, however, be part of the distiller maintenance procedure.

If the Drain Valve fails to drain the evaporator completely in the allotted time, check to see if there is sediment clogging the line. If so, a thorough cleaning of the evaporator and drain valve is needed. If no sediment is found, check that the valve is in the proper position when open and when closed. Valve should be completely open in the draining position and completely closed when shut off. Valve adjustments can be made by loosening shaft cams and rotating slightly. Check that the valve locknut is not too tight and that the valve can turn freely.

Note: The Drain Valve uses a different power source than the distiller.
Be sure to disconnect both power sources before attempting any maintenance.

DURASTILL

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Installation

The Durastill Automatic Drain Valve, Model DV-2, as shipped requires the user to supply the drain line from the distiller to the drain valve inlet, and the drain line from the valve outlet. Metal tubing, or standard hot water inlet hoses, such as those used to connect washing machines with 3/4 garden hose fittings on each end, can be used.

Caution: Drain water can be extremely hot!

To Install the Automatic Drain Valve:

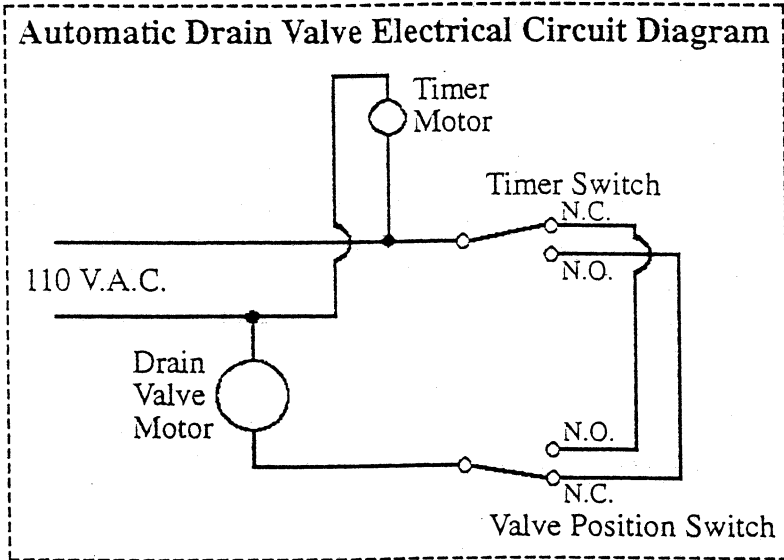
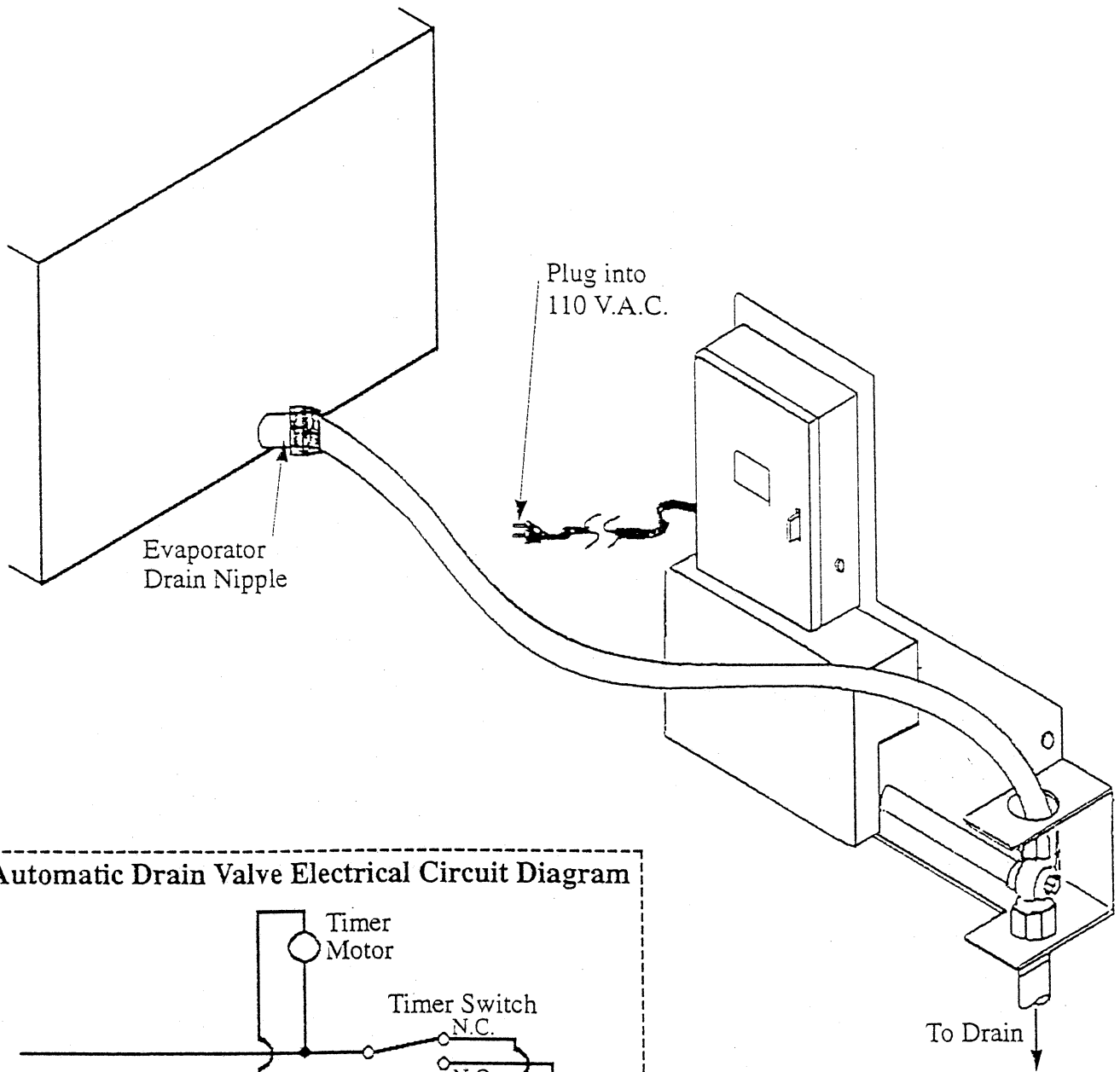
1. Unpack the Automatic Drain Valve assembly.
2. Turn off the main power switch on the distiller, and drain the evaporator tank.
3. Mount the Drain Valve Assembly on a nearby wall or supporting structure. Make sure the valve is vertical and is below the level of the evaporator drain outlet as shown in Figure 1.
4. Connect the evaporator drain outlet to the Automatic Drain Valve inlet as shown.
5. Set the timer for the number of automatic drain operations per twenty-four hour period by depressing timer pins for each draining. The frequency of draining depends upon the impurity content of your water supply. Start by draining the evaporator tank once every twelve hours of distiller operation. If no excessive scaling occurs, the frequency can be decreased. If scaling is excessive, drain more often. Failure to drain the evaporator periodically will result in excessive scaling which may cause heating element failure. In addition, a large concentration of residue may encourage a foaming action to occur within the evaporator tank. Eventually the foam will rise to the level of the condenser tubing and contaminate the output.
6. Set the timer to the correct time by turning the timer dial in a clockwise direction and aligning "time" arrow on insulator with the desired time of day.
7. Connect the timer to 110 VAC source.

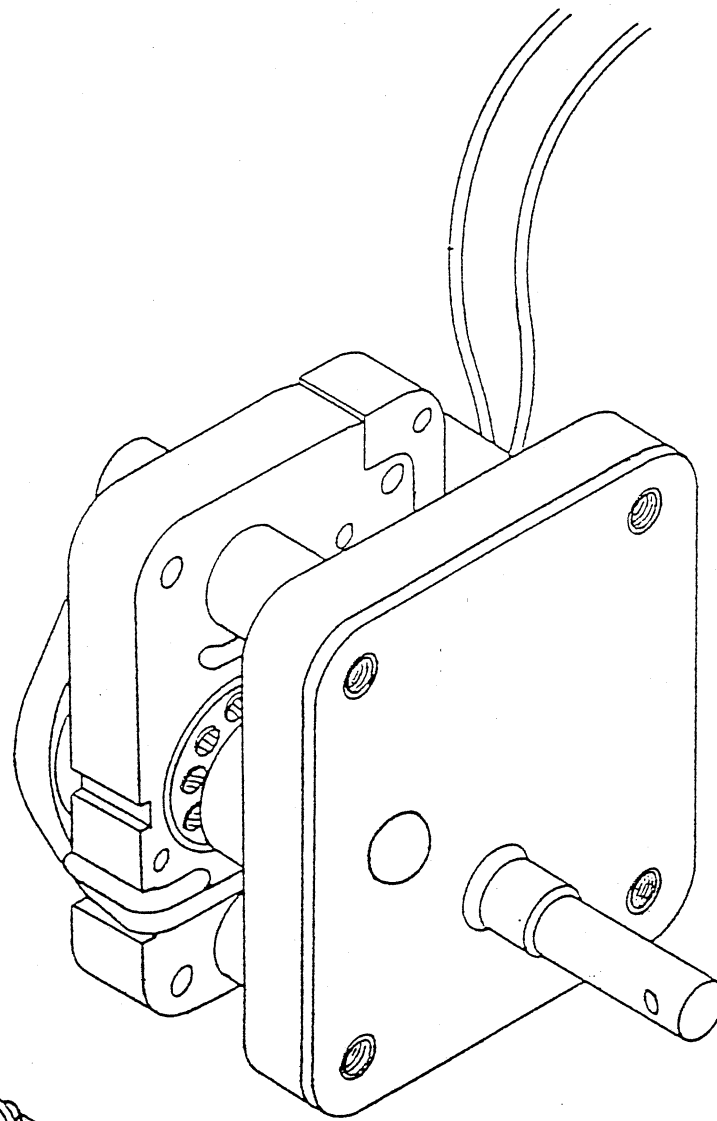
Note: To check valve operation, raise the manual lever on the timer, and the drain valve should rotate to the open position. Lower the lever, and valve should rotate closed.

Figure 1

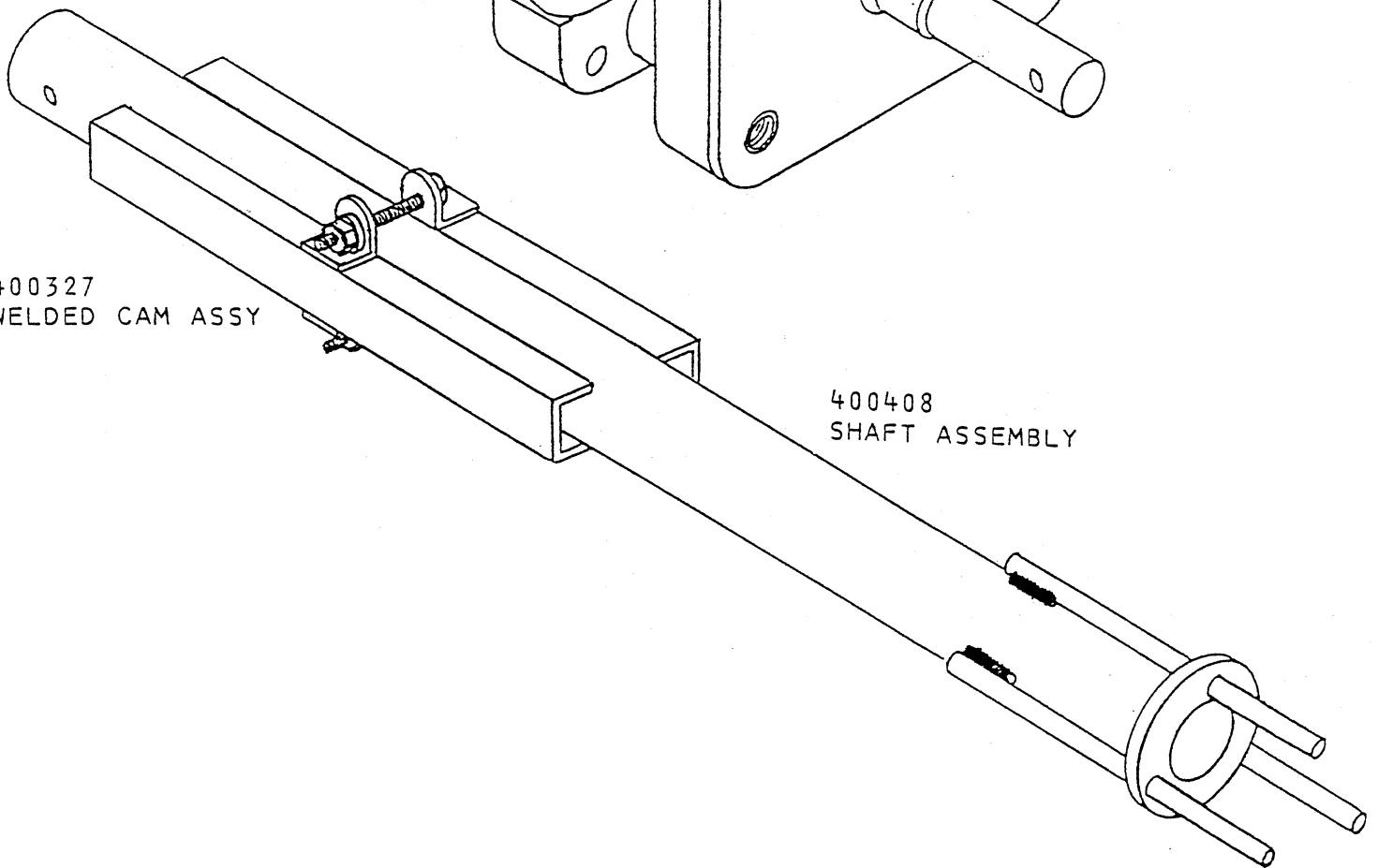
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