INDIVIDUAL UNIT SERVICE—MODELS 445, 445A & 448

WARNING: **1. 120 VOLTS may cause serious injury from electrical shock. Disconnect power and shut off water supply before servicing or troubleshooting this unit.**

2. Rotating or electrical components may cause serious injury from contact. Keep hands and face clear when checking operation.

I. LACK OF HUMIDITY

- **Check The Home** — See Pages 2 and 3.
- **Check Furnace Operation** — See Page 3.
- **Check The Humidity Control** — See Page 4.
- **General Maintenance** — See Pages 4 and 5.

1. WATER SUPPLY PROBLEMS

a. Disconnect electrical power. Remove the motor board cover. Lubricate self-aligning motor bearings at the yellow hole on top and inside the yellow mark on the side of the motor. After lubrication, **carefully** remove reservoir and pump cap. Remove any deposits present in the pump column, impeller area or pump cap. Clean out pump cap outlet. Hold shaft at impeller and rotate slowly while working shaft up and down. Check operation.

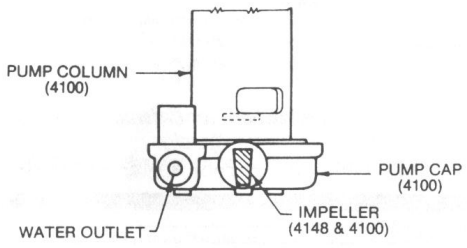


Fig. 1

b. Water level in reservoir should be 1/2" from top of black reservoir liner. If necessary, bend float arm up slightly to adjust water level.

c. Position the impeller properly in the center of the pump cap. The impeller must have the black marking up towards the motor. (Fig. 1)

d. Open water outlet in the pump cap with 5/32" drill bit. (Fig. 1)

e. Remove feed tube. Flex to remove deposits and flush with water under pressure. Reattach feed tube and remove any sharp bends.

f. Check operation. If motor does not operate, check for pump motor cooling fan obstructions. Pump motor cooling fan must not be pushed too far down on shaft or it will obstruct shaft rotation. If motor still does not operate, replace motor.

2. AIR FLOW — Be sure the damper in the duct between the two plenums is open! Air Flow is based on a 0.2 total static pressure difference between the supply and return plenums. The static pressure can be determined with a U-Tube Manometer calibrated in inches of water. Adjust the damper to obtain proper air flow at pressures greater than 0.2 inches of water.

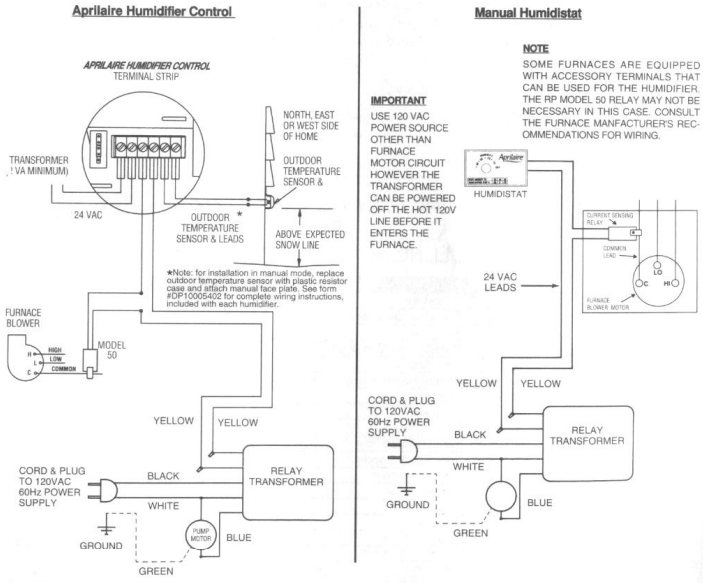
3. ELECTRICAL COMPONENTS — All components should be tested in place making sure all electrical connections are secure and there are no breaks in the service. If the pump motor isn't working with the humidistat circuit closed (see diagram) and the furnace blower running, disconnect electrical power and connect the blue motor lead directly to the black power cord lead and check. If the pump runs, replace the relay/transformer or 120 volt humidifier control (after Serial No. 337,941). If the pump doesn't run, or water flow does not reach outlet feed nozzle, replace the pump motor.

II. EXCESS HUMIDITY — See Page 4.

III. LEAKING WATER

- **Reservoir and Pump Section**

The Model 445, 445A and 448 are circulating units which **will require maintenance every 30 days.** Complete servicing instructions for both the water reservoir and circulating pump are located in the homeowners manual.



IV. NOISE

- **Pump Motor**

a. Disconnect electrical power. Remove the motor board cover.

b. Check fan blade.

c. Oil with two drops SAE #20 oil in the yellow hole on top and inside the yellow mark on the side of the motor.