

# CONGRATULATIONS

On your recent purchase of a Hamilton Humidifier. With a little care it will provide years of comfort. We the employees of Hamilton thank you and look forward to serving you again.

## HUMIDITY HELP LINE

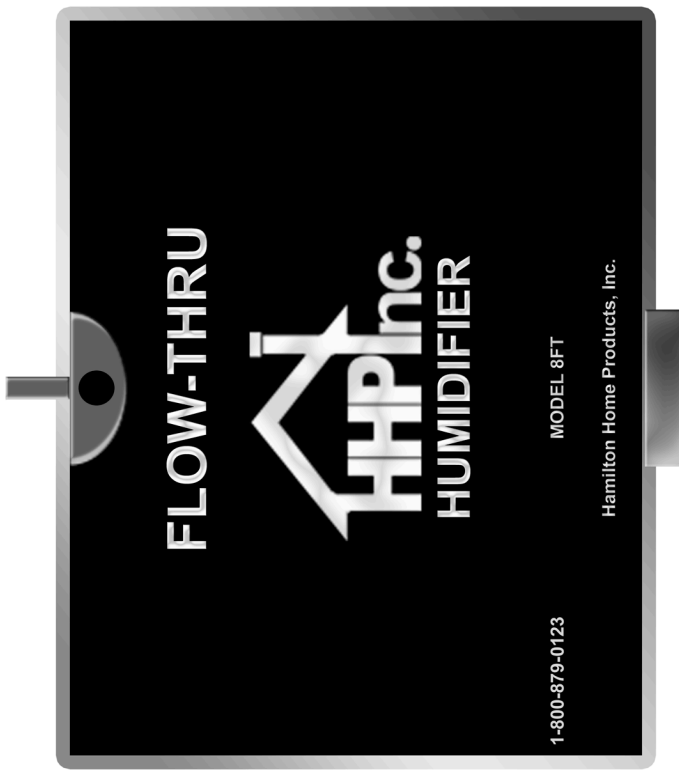
If after reading this manual you have questions about installing, operating or servicing Hamilton Humidifiers, call 1-800-879-0123.

Hamilton Home Products, Inc.  
P.O. Box 12039  
Columbus, OH 43212  
Customer Service: 1-800-879-0123  
Fax: 614-837-1427  
[www.HamiltonHomeProducts.com](http://www.HamiltonHomeProducts.com)

# HAMILTON®

**MODEL 8FT**  
17 gallons/day

Side Entrance Flow-Thru Humidifier



**CAUTION: READ THESE INSTRUCTIONS THOROUGHLY  
BEFORE STARTING INSTALLATION**

FILL IN FOR FUTURE REFERENCE

Model No. \_\_\_\_\_

Installation Date: \_\_\_\_\_

**SAVE THIS MANUAL FOR FUTURE REFERENCE**

**HAMILTON® HOME PRODUCTS  
LIMITED ONE-YEAR PRODUCT WARRANTY**

This limited one-year warranty covers this Hamilton® product as designated on the return portion of the warranty registration card, excluding wiring, plumbing and installation.

Hamilton Home Products, Inc. warrants that all new Hamilton® products are free from defects in material and workmanship under normal, non-commercial use and service. Hamilton® will remedy any such defects if they appear within 12 months from the date of the original installation as evidenced by receipt of the warranty registration card, subject to the terms and conditions of this limited one-year warranty stated below:

1. **THIS LIMITED ONE-YEAR WARRANTY IS GRANTED BY HAMILTON HOME PRODUCTS, INC., P.O. BOX 12039, COLUMBUS, OH 43212.**
2. This warranty shall extend only to any non-commercial owner who has purchased this residential product other than for purposes of resale.
3. The completion and return of the warranty registration card is a condition precedent to warranty coverage and performance. Warranty is not valid unless this card is completed and mailed to the factory within fifteen(15) days of equipment installation.
4. All components are covered by this limited warranty except expendable items.
5. If within the warranty period any Hamilton® residential product requires service, Hamilton Home Products, Inc. will not pay shipping charges, or labor charges to remove or replace such defective parts or components. If the part or component is found by inspection to contain such defective material and/or workmanship, it will be either repaired or exchanged, free of charge, at Hamilton Home Products, Inc.'s option, and returned freight collect.
6. In order to obtain the benefits of this limited one-year warranty, the owner must notify the seller of any defects within thirty (30) days of the discovery. If after reasonable time you have not received a satisfactory response, notify in writing, Hamilton Home Products Inc., P.O. Box 12039, Columbus, OH 43212

**HAMILTON HOME PRODUCTS, INC. WILL RECEIVE, FREIGHT PREPAID, ONLY REMOVABLE PARTS OR COMPONENTS OF SUCH DEFECTIVE PRODUCTS.**

7. This limited warranty does not apply to any part or component that is damaged in transit or handling; has been subject to abuse, neglect or accident; has not been installed, operated and serviced according to Hamilton Home Products Inc.'s instructions; has been operated beyond the factory rated capacity; or altered in any such way that its performance is affected. There is no warranty due to neglect, alteration or ordinary wear and tear. Hamilton Home Products Inc.'s liability is limited to replacement of defective parts or components and does not include the payment of the cost of labor charges to remove or replace such defective components or parts.
8. Hamilton Home Products, Inc. will not be responsible for loss of use of any product: loss of time, inconvenience, or any other indirect, incidental or consequential damages with respect to person or property, whether as a result of breach of contract, neglect or otherwise. **SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE LIMITATION OF EXCLUSION IN THE PRECEDING SENTENCE MAY NOT APPLY TO YOU.**

**9. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.**

10. Any warranty work will be performed within a reasonable time, usually within one hundred twenty (120) days after notice of defect and delivery to the Hamilton Home Products factory, subject to delays beyond the manufacturer's control.

11. Any warranty by Hamilton Home Products, Inc. of merchantability, fitness for use or any other warranty (expressed, implied or statutory), representation or guarantee other than what is set forth herein shall expire at the expiration date of this limited warranty. **SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE LIMITATION IN THE PRECEDING SENTENCE MAY NOT APPLY TO YOU.**

12. Hamilton Home Products, Inc. reserves the right to make changes in the design and material of its products without incurring any obligation to incorporate such changes in the units completed on the effective date of such change.

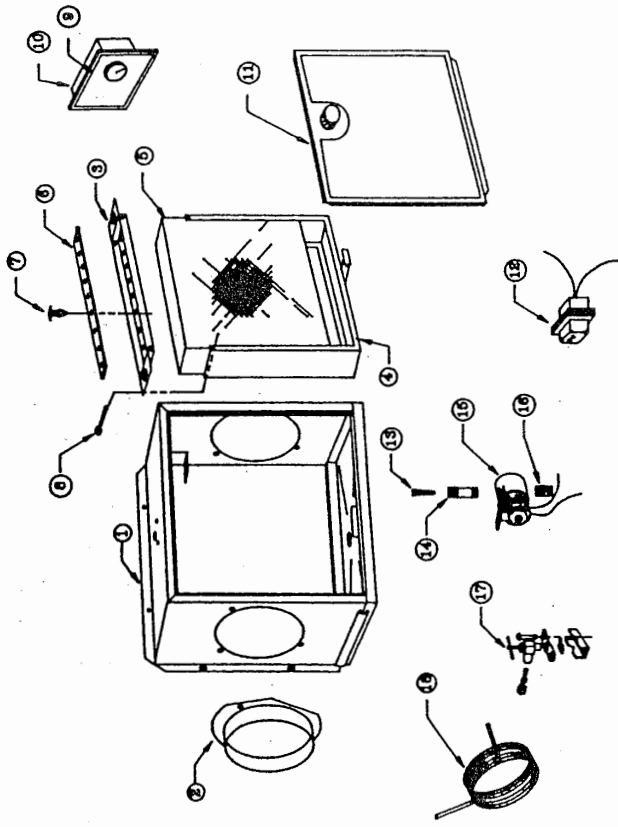
MODEL 8-FT

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|---------|--------------|-------------------------------------|
| 1       | A00-1730-087 | CABINET ASSEMBLY                    |
| 2       | 000-1726-031 | 5" DIA. BY-PASS COLLAR              |
| 3       | A00-0602-054 | DRIP TRAY ASSEMBLY                  |
| 4       | A00-1715-026 | PAD FRAME ASSEMBLY                  |
| 5       | EP-035       | EVAPORATOR PAD INCLUDES KEY #6&7    |
| 6       | 000-1317-086 | DRIP TRAY WICK                      |
| 7       | 000-1123-054 | KEY HOLE CLIP                       |
| 8       | 000-1114-007 | PUSH IN FASTENER                    |
| 9       | A11-0431-011 | HUMIDISTAT ASSEMBLY                 |
| 10      | 000-0431-011 | HUMIDISTAT CONTROL ONLY             |
| 11      | A01-0641-168 | COVER ASSEMBLY                      |
| 12      | 000-0814-008 | TRANSFORMER 24V, 10VA, 120V PRIMARY |
| 13      | 000-1319-051 | IN-LINE FILTER                      |
| 14      | 000-1106-030 | ORIFICE .020DIA.                    |
| 15      | 000-0814-098 | SOLENOID VALVE 24V                  |
| 16      | 000-1154-000 | 1/8" NPT to 1/4" TUBE COMPRESSION   |
| 17      | A00-1128-005 | SADDLE VALVE ASSEMBLY               |
| 18      | A00-1175-009 | PLASTIC TUBING 1/4" O.D. X 10'      |

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**MODEL 8-FT**

Parts may be purchased at your local Hamilton® Products outlet.  
**WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:**

- 1. Model Number    2. Part Number    3. Part Name

Be sure to use the correct parts list.

Due to Hamilton® Products' continuing research and development program, specifications are subject to change without notice.



## TOOLS & MATERIALS NEEDED

1. Safety Goggles
2. Tin snips or aviation snips
3. Electric drill or hand drill
4. Drill bits  $\frac{3}{16}$ " and  $\frac{7}{64}$ "
5. Pliers
6. Screwdriver (flat point, medium size)
7. Pencil or grease pencil
8. Level
9. Hammer
10. Small Adjustable Wrench
11. Center punch
12. Knife
13. Straight edge ruler (yardstick)
14. Galvanized Duct (5" Dia.)
15. Duct Tape
16. Additional  $\frac{1}{4}$ " water line
17. Additional 2 conductor low voltage wire

### FOR SOME INSTALLATIONS

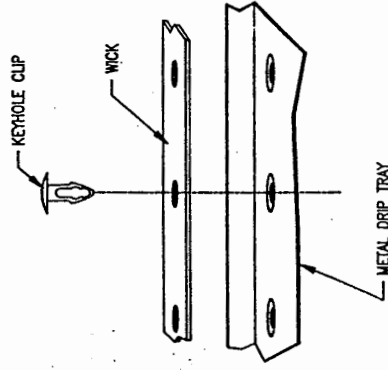
## WHAT IS RELATIVE HUMIDITY

You've heard the term, "Relative Humidity"? Usually, it is used in connection with local weather reports. Relative humidity refers to the percentage of water vapor present in the atmosphere at any given temperature, compared to the amount of vapor that the air can fully absorb at the same temperature. In other words, 50% humidity means the air is presently holding one half of the moisture it is capable of holding at the existing temperature. Naturally, complete filling of the air with water vapor is designated as 100% humidity.

When air is heated by your central heating system, the warmer air now has the ability to hold more water than before. Without a central humidifier, moisture is not added and the relative humidity decreases.

The following table shows the drastic humidity changes when outside air is heated to 72°F.

6. To replace evaporator media remove the two plastic push pins by squeezing the tabs on the end. **(CAUTION: WHEN REINSTALLING THE PINS THEY MUST BE INSTALLED IN THE SAME DIRECTION AS BEFORE REMOVAL WITH THE HEAD OF THE PIN TOWARD THE BACK OF THE UNIT WHEN THE ASSEMBLY IS IN THE CABINET.)** Now slide the media out and replace with new and reassemble. Also replace the Distribution wick by pulling out the keyhole clip as shown below.



7. Evaporative media should be replaced at least once a year (once each heating season).
8. Wipe any loose sediment from the water tray (make certain no particles are allowed to plug the drain hole).

## HOMEOWNER TIPS

- A. In a home that has had little or no humidification, a new humidifier will take approximately three weeks to attain the desired relative humidity setting. This is understandable since furniture, woodwork, carpeting, plaster and house plants will absorb the newly produced moisture to reach normal levels.
- B. Fireplace dampers should be closed when not in use to eliminate natural drafts which allow heat and humidified air to escape from the home.
- C. If excessive moisture appears on windows or walls, reduce humidity setting on humidity control enough to eliminate condensation. If situation continues, turn off water valve and consult your dealer.

## OPERATION CHECK

- With the furnace blower "OFF", the solenoid valve should be closed.
- When the furnace blower is turned "ON" and the humidistat set to 100%, the solenoid valve should open.
- The flow of water from the solenoid should fall directly into the deep portion of the distribution tray.
- The solenoid valve will limit the flow of water of the distribution tray to approximately 4.0 gallons per hour at a line pressure of 60 P.S.I.

E. Run humidifier long enough to be sure that the drain tubing is carrying water to the waste line so than an overflow condition will not occur.  
**WARNING: DO NOT set Humidity Control TOO HIGH. Use recommended settings shown on humidistat nameplate.**

## IMPORTANT MAINTENANCE INSTRUCTIONS

### DANGER

**HAZARD OF ELECTRICAL SHOCK OR BURN.  
 TURN OFF POWER SUPPLYING THIS EQUIPMENT  
 BEFORE SERVICING.**

- Shut off water supply.
- Remove plenum by-pass tube.
- Remove humidifier door by turning the knob counter clockwise at the top center of the door and pulling the door out toward you. Now remove the door.
- Lift out the distribution tray and evaporator pad assembly.
- All plastic and metal parts (except electrical parts and components) can be washed in humidifier cleaner or a 50% solution of vinegar and water.

| Outdoor Relative Humidity | 2%   | 3%   | 6% | 9%   | 14%  | 21%  | 31%  | 46%  |
|---------------------------|------|------|----|------|------|------|------|------|
| 100%                      | 2%   | 3%   | 6% | 9%   | 14%  | 21%  | 31%  | 46%  |
| 90%                       | 2%   | 2%   | 5% | 8%   | 12%  | 19%  | 28%  | 41%  |
| 80%                       | 2%   | 2%   | 5% | 7%   | 11%  | 17%  | 25%  | 37%  |
| 70%                       | 1%   | 2%   | 4% | 6%   | 10%  | 15%  | 22%  | 32%  |
| 60%                       | 1%   | 2%   | 3% | 5%   | 8%   | 13%  | 19%  | 28%  |
| 50%                       | 1%   | 1%   | 3% | 4%   | 7%   | 10%  | 16%  | 23%  |
| 40%                       | 1%   | 1%   | 2% | 4%   | 6%   | 8%   | 12%  | 18%  |
| 30%                       | 1%   | 1%   | 2% | 3%   | 4%   | 6%   | 9%   | 14%  |
| 20%                       | + %  | 1%   | 1% | 2%   | 3%   | 4%   | 6%   | 10%  |
| 10%                       | + %  | + %  | 1% | 1%   | 1%   | 2%   | 3%   | 5%   |
| 0%                        | 0%   | 0%   | 0% | 0%   | 0%   | 0%   | 0%   | 0%   |
|                           | -20° | -10° | 0° | +10° | +20° | +30° | +40° | +50° |

## Outdoor Temperature

Compare the above dry conditions to famous dry places in the world such as the Sahara Desert and Death Valley, whose humidity is approximately 20%. As you can see, desert dry conditions can be created in homes without a central humidifier.

## HUMIDITY QUESTIONS & ANSWERS

- What is the safe humidity level for my home?  
 Below are listed the recommended settings for your humidity control. Because relative humidity affects everyone differently, these settings can be raised or lowered to suit your personal comfort. **WARNING:** Setting your humidity control higher than the listed setting could cause condensation that would damage your home. If excessive moisture appears on windows or walls, reduce humidity setting at humidistat enough to eliminate condensation. If the situation continues, turn off water valve until condensation is gone.

| At Outside Temperature | Recommended Setting | At Outside Temperature | Recommended Setting |
|------------------------|---------------------|------------------------|---------------------|
| -20°F                  | 15                  | +10°F                  | 30                  |
| -10°F                  | 20                  | +20°F                  | 35                  |
| 0°F                    | 25                  | Above 20°              | 40                  |

- How long will it take my humidifier to build up the humidity in my home?  
 The period of adjustment can take up to three weeks. This is understandable since furniture, woodwork, carpeting, plaster and house plants will absorb the newly produced moisture until they reach normal levels.
- Is it true that a humidifier can save me money on my heating bill?  
 Not only does a dry indoor temperature affect you, but it also has a decided influence on how much fuel you use to heat your home.

Engineering reports show it takes more fuel to make you feel comfortable in a dry atmosphere than it does when the air is properly moisturized or humidified. Dry air absorbs or evaporates moisture from your skin. This evaporation process draws heat from the surrounding atmosphere, automatically lowering the temperature at the surface of your skin. You feel cooler. With adequate moisture in the air, evaporation is slowed. Even at a lower temperature, you feel more comfortable.

4. What else causes static shock besides low humidity? Some fabrics and carpets produce extreme amounts of static electricity. Proper humidity can reduce the static level but it cannot eliminate it entirely.
5. Should my humidifier be connected to softened water? Either hard or soft water may be used. If installed on softened water, maintenance will be easier because the mineral build-up will be softer and easier to remove.

**ATTENTION:** This humidifier is intended for use on forced circulation furnaces as well as multi fuel furnaces where temperatures do not exceed 200°F.

#### GENERAL

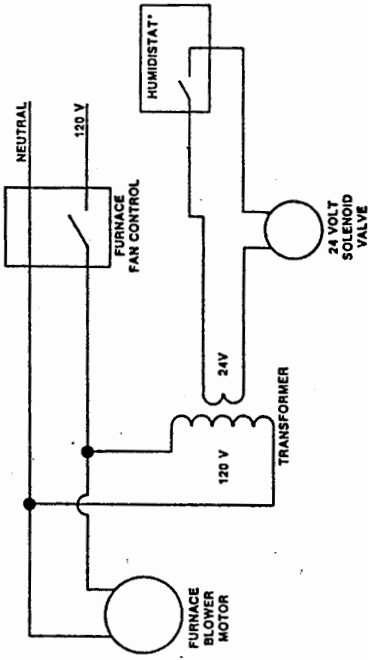
1. This humidifier can be mounted on the vertical wall of either the return air or warm air plenum with 5" round pipe connected to the other plenum.
2. The installation, wiring, and plumbing of this unit must comply with local codes, ordinances and regulations.

#### HOW THE HUMIDIFIER WORKS

Warm dry air is forced through the humidifier cabinet by the furnace blower. When the home is dryer than the selected humidity, the humidistat turns on the low voltage solenoid allowing water to flow across the units media. The warm dry air then evaporates some of this water. The moist air is then circulated throughout the home by the heating system.

#### SELECTING A LOCATION

The humidifier can be mounted on either the warm air plenum or the (cold) air plenum with the by-pass tube connected to the other plenum. Review the typical installations below, this should help familiarize you with the installation of the humidifier.

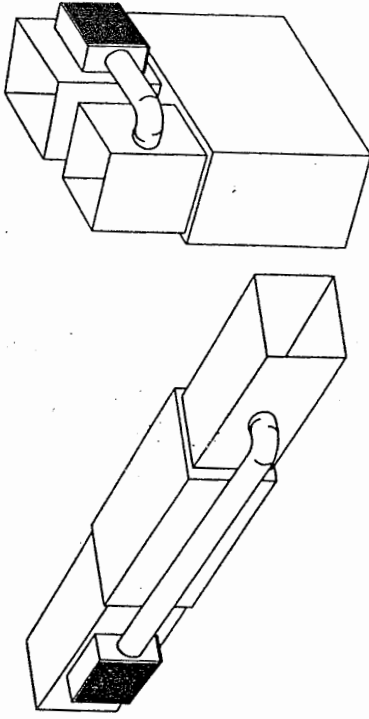


11. Mount humidistat to the return (cold) air plenum with two self tapping sheet metal screws.
12. Route the wiring coming from the humidistat to the humidifier.
13. Do not allow the wiring to contact any heated surface or sharp edges. Connect one of wires from the humidistat to one solenoid wire.
14. With the other wire cut to reach from the transformer to the humidifier, on one end connect one wire to a solenoid wire. Connect the other wire on the same end to the wire coming from the humidistat with a wire nut. See wiring diagram.
15. Connect the remaining wire to the low voltage wire to the two screw terminals on the 24 volt transformer. See wiring diagram.



## MOUNTING HUMIDITY CONTROL 24 Volt

1. The duct humidistat must be located on the return (cold) air plenum or duct work. **CAUTION: DO NOT** install humidistat on supply (hot) air plenum. Permanent damage will occur to the humidistat and improper control will result.
2. The humidistat mounts in a vertical (long dimension up and down) position. Remove the template backing and attach template to return (cold) air plenum in the proper location, keeping the template level.
3. Center punch and drill the two mounting holes with a  $\frac{7}{64}$ " drill.
4. Drill a hole within the center portion of the template.
5. Starting at the hole, cut out the center opening with tin snips or aviation snips.
6. Remove the template.
7. Cut two lengths of low voltage wire that will easily reach from the humidistat to the humidifier and easily reach from the 24 volt transformer to the humidifier.
8. Strip the plastic insulation  $\frac{1}{4}$ " to expose the copper conductor on both wires. (Four (4) wires, eight (8) ends.)
9. Take two terminal adapters and press onto the humidistat terminals. Start two machine screws (6-32 x  $\frac{7}{16}$ ) into the terminal adapters.
10. Place one end of the correct wire through the  $\frac{3}{8}$ " diameter hole in the humidistat mounting plate. Fasten one wire to each terminal. See wiring diagram.



## INSTALLING THE HUMIDIFIER

1. By holding the humidifier against the plenum wall, determine the best location for the unit. Be sure to allow adequate clearance to attach both the water supply tubing and the drain tubing, also clearance for the humidifier by-pass tubing must be allowed.
2. After determining the best location for the humidifier, securely tape the humidifier mounting template to the selected location. **CAUTION: THE HUMIDIFIER MUST BE LEVEL FORM SIDE TO SIDE AND FRONT TO BACK!**
3. **DANGER: MAKE SURE YOU ARE NOT CUTTING OR DRILLING INTO ANY AIR CONDITIONING OR ELECTRICAL ACCESSORIES.** Drill the four side holes  $\frac{7}{64}$ " DIA. and start 4 sheet metal screws.
4. Hang the humidifier on the four side screws and inserts the evaporator pad assembly.
5. Tighten the 4 side screws so that the distribution tray is level. Check the alignment of the two holes along the top of the humidifier, if necessary remark these holes.
6. Now remove the humidifier and drill the two remaining holes.

7. Drill a  $\frac{3}{8}$ " DIA. hole within the center portion of the template. Start at this point and cut the plenum opening as indicated on the template.

8. Extend the by-pass center line to the other plenum to locate the by-pass opening.

9. Now position the by-pass collar then mark the mounting holes and the inner circular opening with a pencil.

10. Center punch then drill the mounting holes  $\frac{7}{64}$ " DIA.

11. Drill a  $\frac{3}{8}$ " DIA. hole inside the marked circular opening.

12. Now cut out the center section.

13. Attach the collar to the plenum with sheet metal screws.

14. Remove the humidifier mounting template.

15. Now remount the humidifier cabinet using 6 screws and make sure the humidifier remains level.

16. Reinsert the evaporator pad assembly. **CAUTION: MAKE CERTAIN THAT THE ASSEMBLY IS INSTALLED CORRECTLY AND THE DISTRIBUTION TRAY RESTS SOLIDLY UPON THE TWO STEEL BRACKETS.**

17. Attach the cover to the unit by turning the latch clockwise.

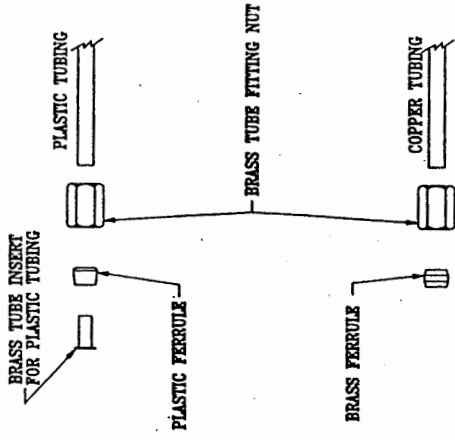
18. To attach the by-pass tube drill  $\frac{7}{64}$ " DIA. holes and fasten in place with 4 screws, one at the top and one at the bottom. Two additional screws are provided, use these where most needed.

19. Attach drain tubing ( $\frac{1}{8}$ " ID. NOT SUPPLIED) with a suitable clamp. Run drain tubing continuously downward with no restrictions to a suitable waste drain. **CAUTION: DO NOT ALLOW THE DRAIN TUBING TO TOUCH ANY HEATED SURFACE OR SHARP EDGES.**

#### COMPRESSION PLUMBING TIPS

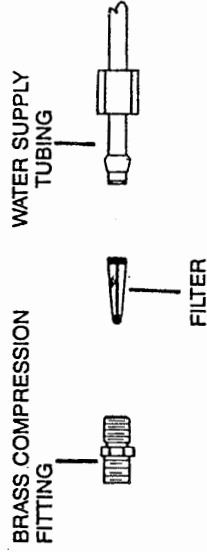
A. Install the saddle valve (using the instructions on the bag) on the nearest cold water pipe. Connect the plastic tubing and route it to the humidifier making sure to avoid contact with hot surfaces and sharp edges. Make connection to the humidifier valve as shown and tighten.

#### TUBING CONNECTION



B. **IMPORTANT!** Thoroughly flush tubing after attaching to saddle valve to clear line of debris which could block the water flow.

C. The Inline Filter in this humidifier is assembled as shown below. Pay close attention to the proper orientation of parts for assembly and disassembly, this will assist you when cleaning.



D. Now connect the supply tubing to the Inline Filter.

E. Turn water on and check for leaks. Stop leaks by further tightening fittings.