HPInc. Hamilton Home Products, Inc.

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THE ONLY NUMBER YOU NEED TO KNOW WHEN IT COMES TO HEATING AND AIR CONDITIONING PRODUCTS FOR YOUR HOME

Hamilton Home Products, Inc.
PO BOX 12039
COLUMBUS, OHIO 43212

HPInc.

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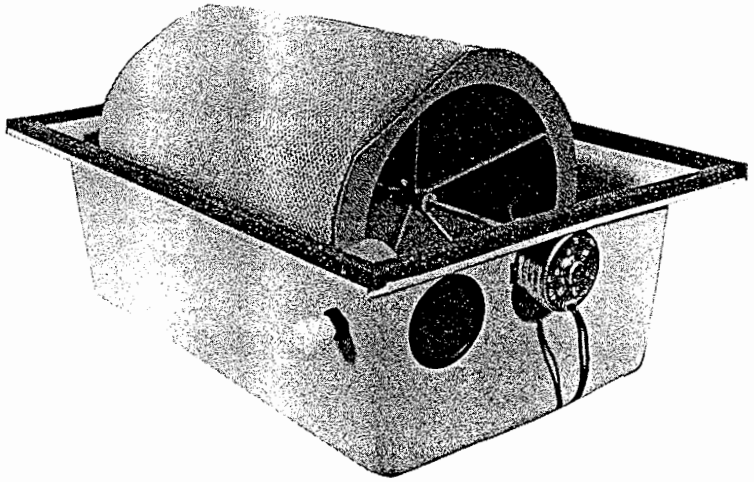
6 HP
WHOLEHOUSE CENTRAL HUMIDIFIER



CAUTION: READ THESE INSTRUCTIONS THOROUGHLY BEFORE STARTING INSTALLATION

Humidifies homes up to 2,500 sq.ft. on heat pump systems.
Humidifies homes up to 4,500 sq.ft. on warm air furnaces.

FILL IN FOR FUTURE REFERENCE:

Model No. _____

Serial No. _____

Installation Date _____

SAVE THIS MANUAL FOR FUTURE REFERENCE

HUMIDIMATIC®
LIMITED ONE-YEAR PRODUCT WARRANTY

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

Humidimatic® warrants that all new Humidimatic® products are free from defects in material and workmanship under normal, non-commercial use and service. Humidimatic® 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 HUMIDIMATIC® , HADLEY PRODUCTS DIVISION, 100 PRODUCTS LANE, MARIETTA, OHIO 45750.
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 Humidimatic® residential product requires service, Humidimatic® 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 Humidimatic'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, Humidimatic® , Hadley Products Division, 100 Products Lane, Marietta, Ohio 45750.

HUMIDIMATIC® WILL RECEIVE, FREIGHT PREPAID, ONLY REMOVABLE PARTS OR COMPONENTS OF SUCH DEFECTIVE PRODUCTS.

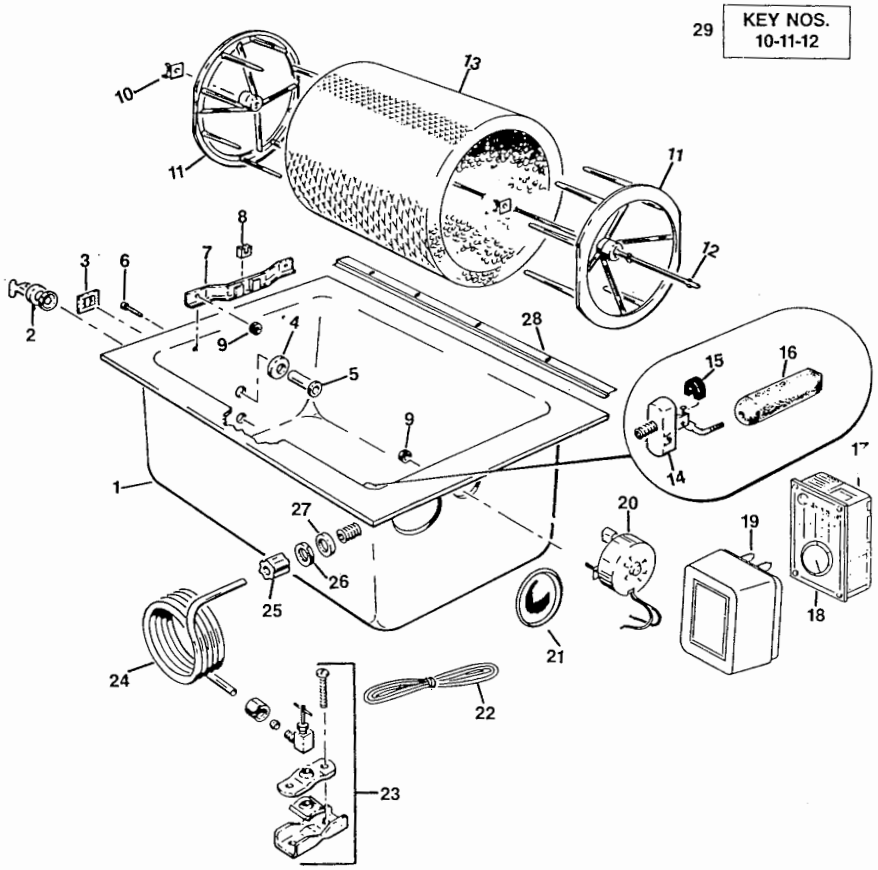
7. This limited warranty does not apply to any part or component that is: damaged in transit or handling has been subject to abuse, neglect or accident; has not been installed, operated and serviced according to Humidimatic's® instructions, has been operated beyond the factory rated capacity; or altered in any such way that its performance is affected. There is no warranty due to neglect, alteration or ordinary wear and tear. Humidimatic'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. Humidimatic® 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 Humidimatic® factory, subject to delays beyond the manufacturer's control.
11. Any warranty by Humidimatic® 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. Humidimatic® 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.

CONTENTS

MODEL 385-7

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	A05-0602-044	Pan Assembly	1
2	000-1317-047	Adjustable Plug	1
3	000-0692-001	Push Type Speed Nut	1
4	000-0693-001	Rubber Washer	1
5	000-0691-001	Tubular Grommet	1
6	000-0426-027	Bearing Bracket Attach Screw	2
7	000-1707-058	Bearing Bracket	1
8	000-1318-010	Drum Shaft Bearing	1
9	000-0427-006	Nut	4
10	000-0692-029	Drum Clip	2
11	000-1722-019	Drum End	2
12	000-1526-058	Drum Shaft	1
13	A03-1725-039	Evaporator Pad	1
14	B48-0000-000	Replacement Valve Ass'y (Includes Key Nos. 14; 15; 25; 26; 27)	1
15	000-1708-002	Valve Seat	1
16	000-1309-005	Float	1
17	A11-0431-011	Duct Humidistat	1
18	A00-0431-011	Humidity Control Only	1
19	000-0814-113	24 Volt Transformer; Plug-in	1
20	A05-1721-042	Motor (Includes mounting hardware)	1
21	000-1317-084	Removable Window	1
22	000-0811-007	Low Voltage Wire (10 Feet)	1
23	A00-1128-005	Self Piercing Valve	1
24	000-1175-009	Plastic Tubing	1
25	000-1080-002	Nylon Tube Fitting Nut	1
26	000-1114-001	Valve Attach Nut	1
27	000-1110-000	Valve Attach Washer	1
28	000-1704-018	Mounting Bracket	2
29	A05-1722-019	Drum Ass'y (Includes Key Nos. 10; 11; 12)	1

Due to Humidimatic's® continuing research and development program, specifications are subject to change without notice. Parts may vary from illustrations.



MODEL 385-7

Parts may be purchased at your local Humidimatic® outlet.
WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:
1.Model Number 2.Serial Number (if possible) 3.Part Number 4.Part Name
Be sure to use the correct parts list.
Due to Humidimatic's® continuing research and development program, specifications are subject to change without notice. Parts may vary from illustrations.

Parts may vary from illustrations.

SAFETY PRECAUTIONS

PLEASE READ BEFORE INSTALLING HUMIDIFIER

1. Do not install a humidifier where the heating temperatures will exceed 200°F. Excessive temperatures will damage your humidifier and possibly cause an overflow condition and water damage to your home.

2. Do not install a humidifier where the surrounding temperature may be 32°F or colder. Freezing water will damage your humidifier and burst the supply pipe, resulting in home damage.

3. Do not cut or drill into any air conditioning or electrical accessories during humidifier installation. Fatal electrocution is possible if you come into contact with a live electrical wire. Blindness can occur if freon contacts your eyes.

4. When the humidifier is in a finished basement or any area that water damage could occur, always connect the overflow provision of the humidifier to a suitable drain.

5. For above ceiling installation, always install a drain pan plumbed to a suitable drain.

6. Below are listed the initial 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

7. The installation, wiring and plumbing of the humidifier must comply with local codes, ordinances and regulations.

8. Read all installation instructions before installing humidifier.

9. Manufacturer assumes no responsibility under warranty if user does not follow stated precautions.

TOOLS & MATERIALS NEEDED

1. Safety Goggles
2. Tin snips or aviation snips
3. Electric drill or hand drill
4. Drill bits 3/8" and 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)

FOR SOME INSTALLATIONS

14. Additional 1/4" water line
15. Additional 2 conductor low voltage wire

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, moistur is not added and the relative humidity decreases.

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

MAINTENANCE RECORD

DATE	HUMIDIFIER CLEANED	AQUAPILL INSERTED	EVAPORATOR PAD REPLACED	OTHER

Humidifier Overflows	9. High water level	8. A. Inspect valve seat for defects. Valve seat is reversible. B. Inspect valve nozzle for cracks or erosion. C. Turn adjustment screw clockwise to lower water level. D. Humidifier must be level.

Outdoor Relative Humidity	−20°	−10°	0°	+10°	+20°	+30°	+40°	+50°
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%

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

1. 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

2. 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.
3. 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 that 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.

HOW THE HUMIDIFIER WORKS

Warm dry air is forced across the evaporator pad by the furnace blower. When the home is dryer than the selected humidity, the humidistat turns on the low voltage drum motor. The drum motor rotates a polyurethane foam evaporator pad that lifts water into the dry air stream out of the water pan. The moist air is then circulated throughout the home by the heating system. Once the selected humidity is reached, the humidifier automatically stops. The amount of humidity is easily adjusted by the homeowner at the humidistat. The humidistat automatically turns the humidifier off and on to maintain the selected humidity. As water is evaporated by the warm dry air, it is replaced automatically by the float valve. Because this humidifier is designed to supply mineral free water vapor into the air, the humidifier should be serviced every three to eight weeks to remove the mineral build-up from the water pan and evaporator pad. The service interval is determined by the water hardness; hard water will require more frequent cleaning than soft water.

SELECTING A LOCATION

Review the typical installations shown in figures 1 through 4 and match the installation that best represents your situation. Familiarize yourself with the heating unit before installing the humidifier.

Select a spot on the warm air ductwork near the heating unit where the humidifier can be mounted. For ducts with a width of 17" or larger, the humidifier must be mounted with the humidifier long dimension across the width of the duct. For ducts 12" to 16" wide, the humidifier must be mounted with the long dimension parallel to the duct.

		B. Plug in transformer to powered outlet. C. Check all wiring connections. D. Check output voltage of transformer (24 to 29 V.A.C.). E. To test motor, connect good transformer directly to motor leads. **NOTE**: Completely disconnect humidistat from circuit. F. Check the humidistat switch for continuity. G. Check to see that the drum shaft is engaged with motor drive coupling. H. Clean excessive mineral deposits off of drum.
	4. Heavy mineral build up	4. A. Mineral build up on pad closes off pores in pad and restricts air flow. Clean the evaporator pad per the routine maintenance instructions.
	5. Short blower cycles	5. A. Call a professional heating contractor. By derating the furnace, the furnance runs longer on less fuel and the humidifier produces more moisture.
	6. Rapid air changes (drafts)	6. A. Keep doors and windows closed. B. Close fireplace damper when not in use. C. Keep exhaust fan running time to a minimum. D. Cold air is dry and is an added load to the humidifier. Seal around doors and windows.
High Humidity	7. Condensation on walls	7. A. Turn humidistat off and turn water off until condensation is completely evaporated.
	8. Heavy condensation on windows	A. Turn humidistat down enough to eliminate condensation. B. This may be a temporary condition caused by moisture from bathing, mopping, cooking, etc.

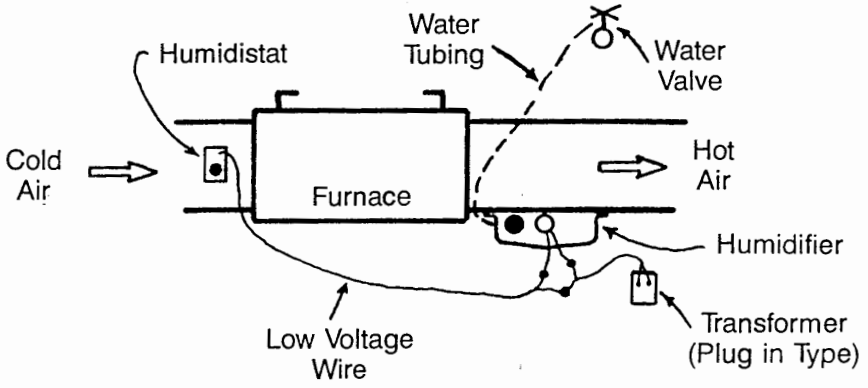
ROUTINE MAINTENANCE

1. Use care in removing the drum assembly from the humidifier. DO NOT TWIST THE DRUM BACK and FORTH. This forces the motor into motion which could damage the motor gear train.
2. Lift the bearing end of the drum one-half inch and slide drum from motor bushing.
3. Remove evaporator pad from drum by squeezing finger prongs on clip, holding the drum end in place and pulling. Each time the humidifier is serviced, it is recommended all parts be cleaned thoroughly with a 50% solution of vinegar and water. Following cleaning, rinse all parts thoroughly with fresh water before putting unit back into operation. It is recommended the pad be replaced at least once during the heating season with an identical evaporator pad to maintain the high evaporating efficiency.
4. When cleaning evaporator pad, discard water in water pan and remove mineral deposits from bottom of pan. Clean mineral deposits from aroun water valve. The rubber valve seat is reversible. When replacing the valve seat, be sure the rubber is facing the valve jet opening. TURN CLOCKWISE TO LOWER OR TURN COUNTERCLOCKWISE TO INCREASE WATER LEVEL.
5. Cleaning may be required every three (3) to four (4) weeks in hard water areas and every four (4) to eight (8) weeks in a soft water area.
6. NEVER OIL ANY PART OF THE HUMIDIFIER.
7. At the end of each humidification season, which is approximately the same period as the heating season, this humidifier should be thoroughly cleaned and the water and electric turned off until the next season. DO NOT leave water in the pan over the summer season.
8. If the home is left unattended for any length of time, turn the humidistat and water supply to humidifier "OFF".
9. A proper maintenance program will prolong the life of your humidifier and provide better humidity in your home.

TROUBLE SHOOTING

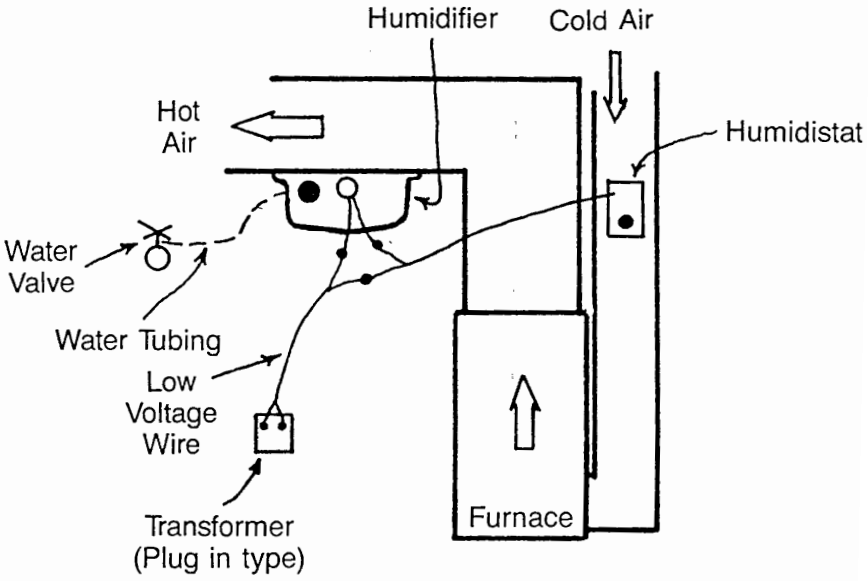
PROBLEM	WHAT TO LOOK FOR	WHAT TO DO
Low Humidity	1. Low water level (Less than 1⅜" deep at the center)	1. A. Turn adjustment screw (**counterclockwise**) to raise water level.
	2. No water in reservior	2. A. Turn water on at saddle valve. B. Turn off water main and check for possible obstruction in saddle valve or float valve.
	3. Drum not rotating	3. A. Set humidistat higher.

Locate a cold water pipe within 10 feet of the humidifier. Locate a 115 volt convenience outlet within 5 feet of the humidifier. If distances are greater, additional parts are required.



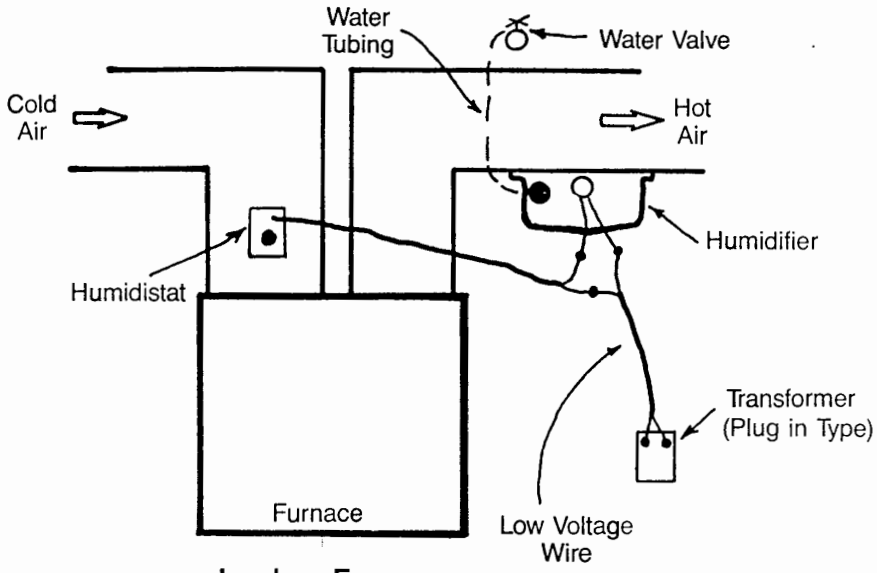
Horizontal Furnace

Figure 1



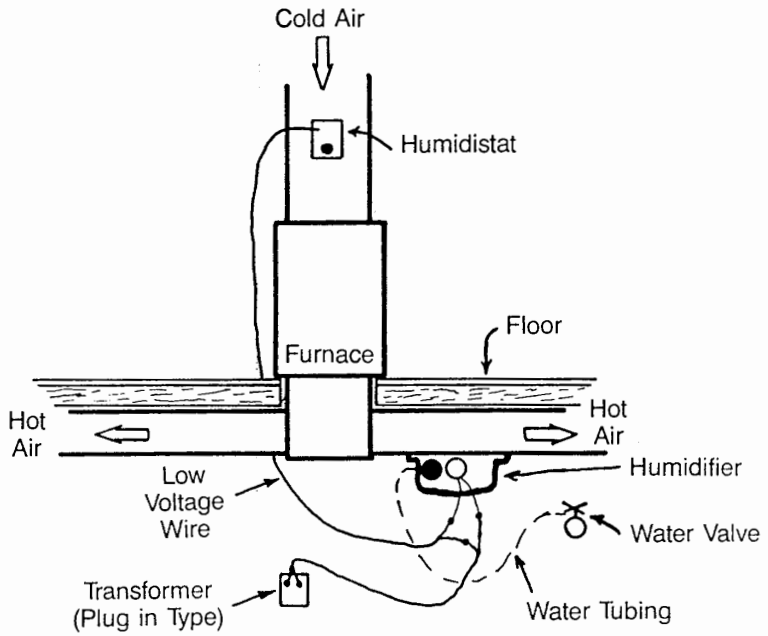
Highboy Furnace

Figure 2



Lowboy Furnace

Figure 3



Counter Flow Furnace

Figure 4

13. With the wire cut to reach from the transformer to the drum motor, on one end connect one wire to motor with a wire nut. Connect the other wire on the same end to the wire coming from the humidistat with a wire nut. **See wiring diagram.**
14. Connect the remaining end of the low voltage wire to the two screw terminals on the 24 volt transformer. **See wiring diagram.**
15. Plug the transformer in a powered outlet.
16. Turn the humidistat setting to "100" and observe that the evaporator drum turns slowly.
17. Turn the humidistat setting to "off" and observe that the drum has stopped.
18. Read the operations section and set control for automatic operation.

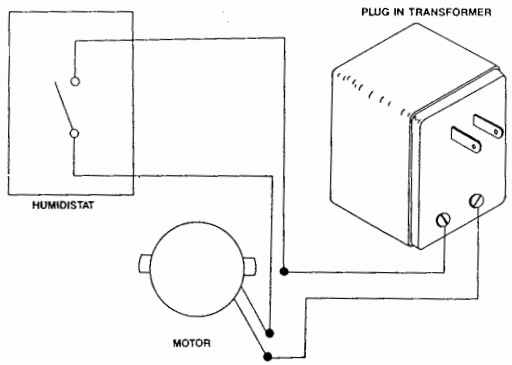
OPERATION

1. Turn water to humidifier on. Make sure that the water level is adjusted correctly. See the plumbing section step No. 8.
2. Make sure the transformer is plugged in and the outlet is powered.
3. Turn the humidistat to its highest setting. The motor should turn the drum very slowly (one revolution per minute). The motor is non-directional to prolong the life of the motor; consequently, it will run in both directions at random.
4. Set the humidistat control for automatic operation. Readjust the humidistat control as outdoor temperature changes occur. (See below.)
   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

5. See routine maintenance for further information.

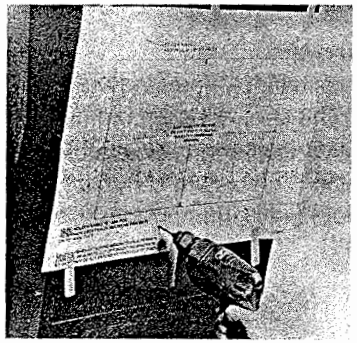
2. The humidistat mounts in a vertical (long dimension up and down) position. (See figures 1 through 4.) Tape template to return (cold) air plenum in the proper location, keeping the template level.
3. Center punch and drill the two mounting holes with a 7/64" drill.
4. Drill a 3/8" hole within the center portion of the template.
5. Starting at the 3/8" 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 motor wires and easily reach from the plug-in transformer to the motor wires. **NOTE:** Some installations may require the purchase of additional two-conductor low voltage wire.
8. Strip the plastic insulation 1/4" to expose the copper conductor on both wires. (Eight (8) ends, four (4) wires.)
9. Take two brass terminal adapters and press on to the humidistat terminals. Start two machine screws (6-32 x 5/16) into the terminal adapters.
10. Place one end of the correct (see step 7) wire through the 3/8" diameter hole in the humidistat mounting plate. Fasten one wire to each terminal. See wiring diagram.
11. Mount humidistat to the return (cold) air plenum with two self tapping sheet metal screws.
12. Route the wire coming from the humidistat to the drum motor. **Do not allow the wiring to contact any heated surface**. Use a wire nut to connect one of the wires from the humidistat to one of the motor wires. Do not pre-twist wires. Set wire nut over conductors and turn clockwise until tight.



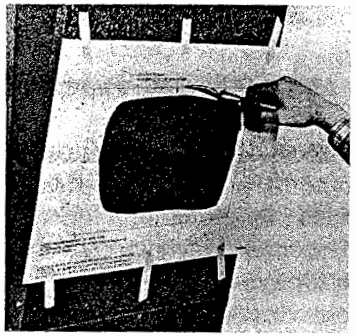
WIRING DIAGRAM

INSTALLATION

1. At the selected spot, tape the humidifier mounting template to the bottom side of the warm air duct. Be sure that the template is squared and that the rectangular hole will leave at least 3/4" of metal to any edge.
2. **Wear Safety Glasses When Cutting or Drilling!**
3. **DANGER:** Do not cut into any air conditioning or electrical accessories during installation. Fatal electrocution is possible if you come into contact with a live electrical wire. Blindness can occur if freon contacts your eyes.
4. Center punch the eight mounting holes.
5. Drill the eight mounting holes with a 7/64" drill. A 1/8" drill may be substituted if necessary.

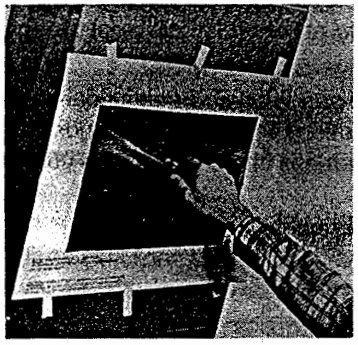


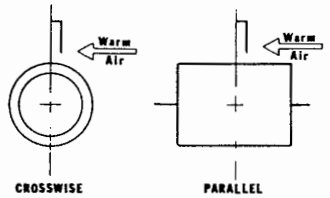
6. Drill a 3/8" hole inside the marked rectangle. Use this hole as a starting point for cutting opening.
7. Using tin snips or aviation snips, start cutting out the rectangular opening. For best results and ease in cutting, make the first cut roughly two (2) inches inside the lines. Make the final cut on the line. The final cut should be smooth without jagged edges. Use pliers to hold sheet metal during cutting to help avoid injury.



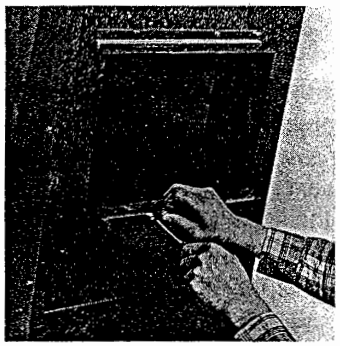
8. Attach the baffle to the top of the supply duct with two (2) No. 8 sheet metal screws provided. Locate the baffle so that the edge of the 1" leg

will be directly over the center line of the drum and the 3" leg is on the furnace side of the drum. See Fig. "A". This will locate the baffle with downward leg 1" in front of centerline.





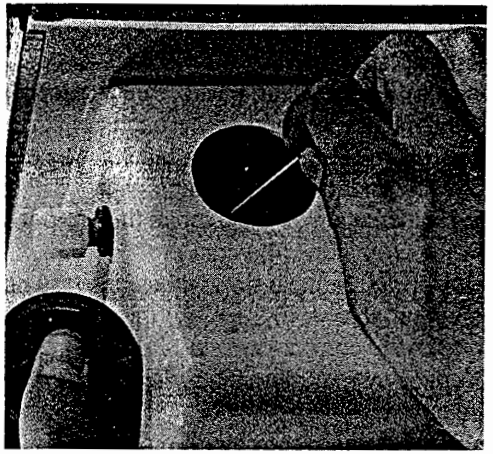
9. Remove the template.
10. The humidifier has two (2) mounting brackets. One end of each bracket has a small tab. The tabs will keep the humidifier from sliding out of the mounting brackets. Install the brackets but do not tighten screws until you mount humidifier. The picture shows a typical installation. The mounting brackets should only be shortened when they extend beyond the edge of the duct.



ASSEMBLE THE HUMIDIFIER

1. Assemble the evaporator drum by sliding the stainless steel drum shaft into the first drum end. Slide the drum shaft so that the metal tabs engage in the slot provided in the drum end. (See Fig. "B").
2. Squeeze the "Tinnerman" style clip, then slide it over the drum shaft and snug against the drum end.
3. Place the evaporator pad over the fingers of the first drum end, butting the pad against the drum end.
4. Slide the last drum end over the drum shaft with the drum fingers inside the evaporator pad.

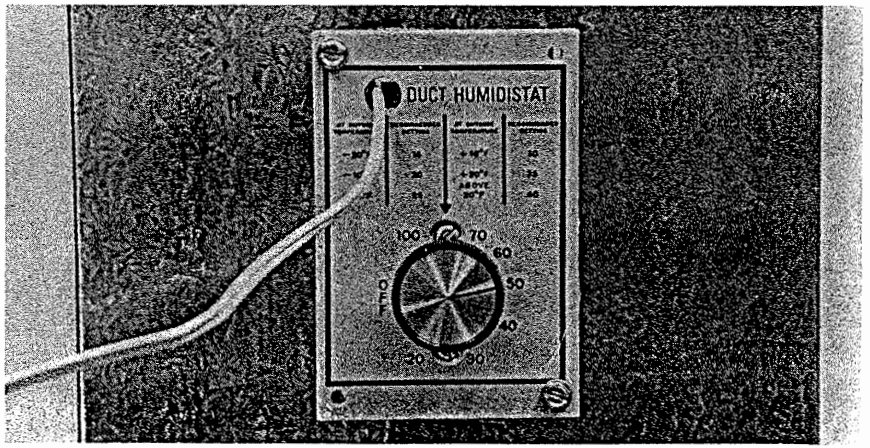
When viewed from the top, turn the adjustment screw clockwise to lower or turn counterclockwise to raise water level. If the adjustments made were clockwise, (lowering the water level) drain enough water to allow float valve to automatically fill and shut off water. This will verify adjustments.



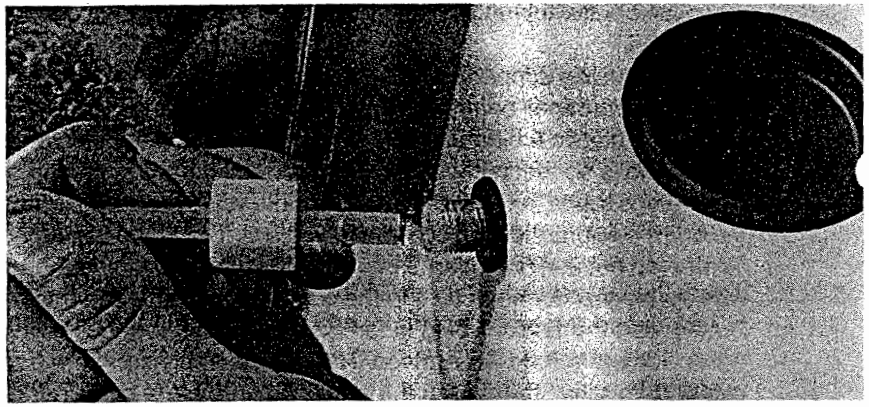
9. Check the two compression fittings, one at the saddle valve, one at the float valve. Stop any leakage by slightly tightening fitting.
10. **Double check the water level.** See step 8 for instructions.

HUMIDITY CONTROL & TRANSFORMER

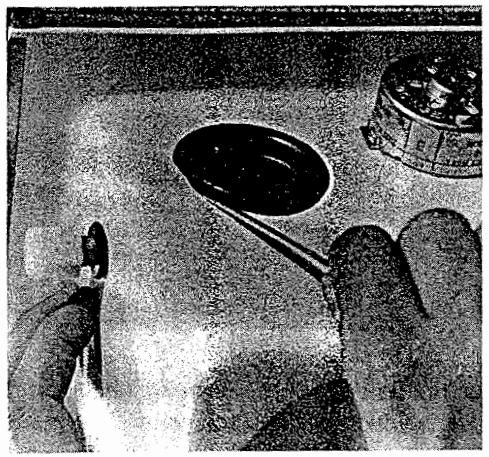
1. This humidifier is supplied with a duct humidistat which must be located on the return (cold) air plenum or duct work. **CAUTION**: Do not install humidistat on supply (hot) air plenum. Permanent damage will result to the humidistat and improper control will result.



5. Route the plastic tubing to the humidifier float valve. Be sure to keep the tubing off of hot surfaces and away from sharp edges.
6. A. Now connect the remaining end of the plastic tubing to the humidifier float valve. First, slide the white plastic integral ferrule compression nut on the tubing. Then insert brass tubing insert as described previously. **NOTE**: If using copper tubing, you still use the plastic compression nut but without the brass insert.
   B. Fully insert the tubing into the float valve and tighten the compression nut finger tight. If a wrench is used, ¼ additional turn is usually sufficient.



7. Open the saddle valve so that the water flows gently into the water pan. The water flow should be slow.
8. Remove the round plastic plug, located next to the drum motor by gently pushing the rounded end of the wrench (provided) under the plug edge and into the humidifier. Then slide the wrench along the edge of the plug for easy removal. Adjust the water level with the wrench provided so the water just wets the inside of the evaporator pad.



5. Butt the drum end up against the evaporator pad so that the evaporator pad touches both drum ends.
6. Secure the open drum end with "Tinnerman" style clip.

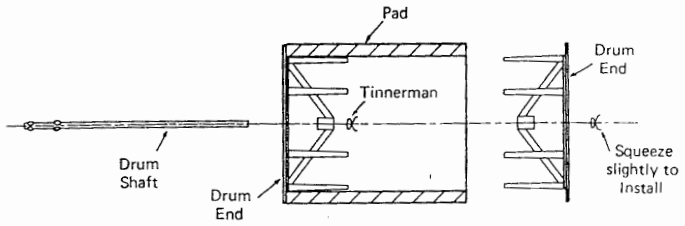
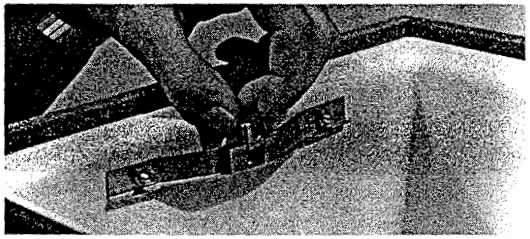


Figure B

7. Check to make sure that the humidifier float valve is securely attached to the humidifier side wall.
8. Check to make sure that the drain plug is properly installed in the drain hole. The drain plug is adjustable by turning the locking handle clockwise to expand it and counterclockwise to reduce the size. Press the locking handle forward to seal the drainhole. **CAUTION:** Overtightening causes difficult removal.
9. Snap the drum shaft bearing (key No. 8) into the bearing bracket (key No. 7) as shown in the exploded view drawing. If the bearing is loose, carefully push the two tabs in to provide tension.



10. Packed with the unit are four (4) gasket strips — two short (A) and two long (B). Peel removable backing from two short strips and install one at the motor end and one at the bearing end. Peel the backing from the two long strips and place them along either side, making sure they fit inside of the short strips. See Fig. "C".

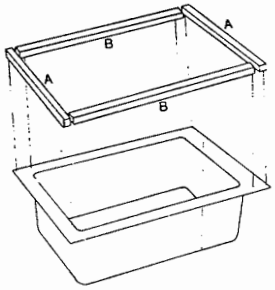
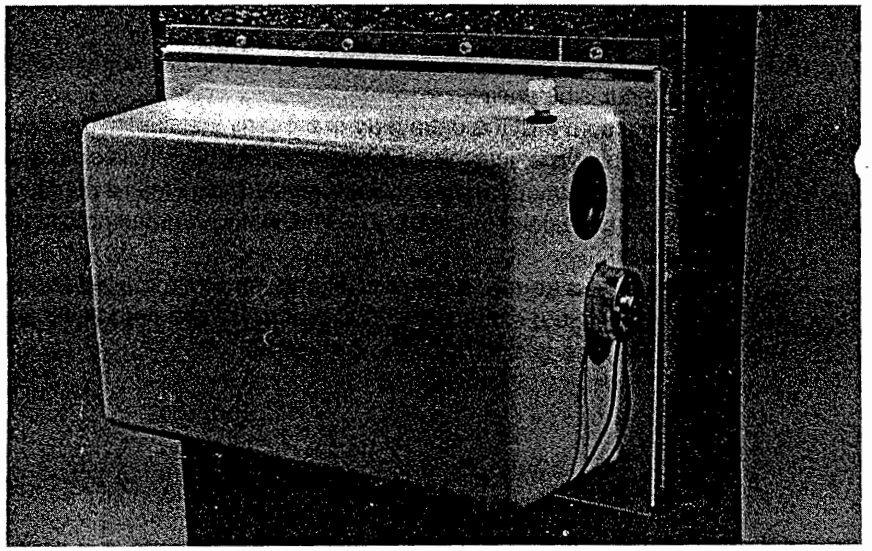


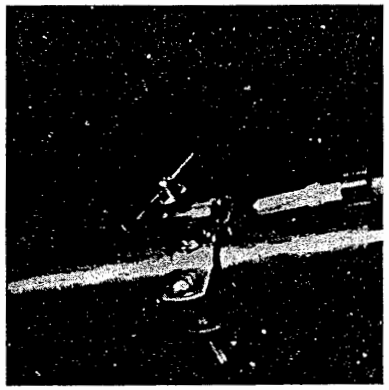
Figure C

11. Set the drum assembly down into the humidifier pan. Then, slide the metal tabs on the drum shaft into the drum motor coupling. Finally, firmly set the other end of the drum shaft into the drum shaft bearing. **CAUTION:** Do not twist drum back and forth while in place. This will cause considerable damage to the motor and the motor gear train.
12. Mount the humidifier on to the ductwork. Slide the mounting brackets over the flat edge of the unit and tighten the screws to secure the humidifier between the brackets. The slots will allow you to remove the humidifier for cleaning by loosening the screws rather than removing the bracket.



PLUMBING

1. Select the nearest cold water pipe and install saddle connector and needle valve supplied with this unit. Mount valve so water will come from top or side. This will reduce the chance of minerals, etc. from clogging the valve. It is a self-piercing unit when installed on copper pipe. Follow the instructions that are supplied with the valve. Either hard or soft water may be used. However, soft water will require more frequent maintenance but the cleaning will be easier. **ATTENTION**: Do not use any line connected to an air conditioner.
2. **PLEASE READ**:
   COMPRESSION PLUMBING TIPS
   a) When installing plastic tubing, it must not come in contact with the flue pipe, warm air plenum or heating branches.
   b) Make sure that the tubing is fully inserted into fitting before tightening compression nut.
   c) Use a plastic ferrule with plastic tubing and a brass ferrule with copper tubing.
   d) When using a plastic ferrule, the long taper goes into the compression fitting and the short taper goes toward the compression nut.
   e) When using plastic tubing, always support the inside of the tubing with a brass tubing insert.
   f) In some areas, local plumbing codes may prohibit the use of plastic water tubing. When this condition exists, use ¼" copper tubing.
   g) When using copper tubing, lightly clean the tubing ends with fine sandpaper before making any connections.
3. A. Uncoil the plastic tubing and connect one end to the saddle valve. The tubing is connected to the saddle valve by means of compression fittings found in the self-piercing saddle valve parts bag. Place the brass compression nut over the tubing first. Then slide the plastic ferrule (do not use brass ferrule with plastic tubing) over the tubing with the largest diameter next to the compression nut. (See photo.) Then insert the brass tubing insert into the end of the tubing and press against a hard flat surface. **NOTE:** Assembly can be made easier by placing the end of the plastic tubing into a container of hot tap water until the tubing is more flexible, usually about 1-2 minutes.
   B. Fully insert the tubing into the saddle valve fitting and tighten the compression nut. Do not over-tighten. Moderate tightness should prevent leaking.



4. **Thoroughly flush supply tubing** after attaching to saddle valve to clear line of debris which could block water flow at the float valve.