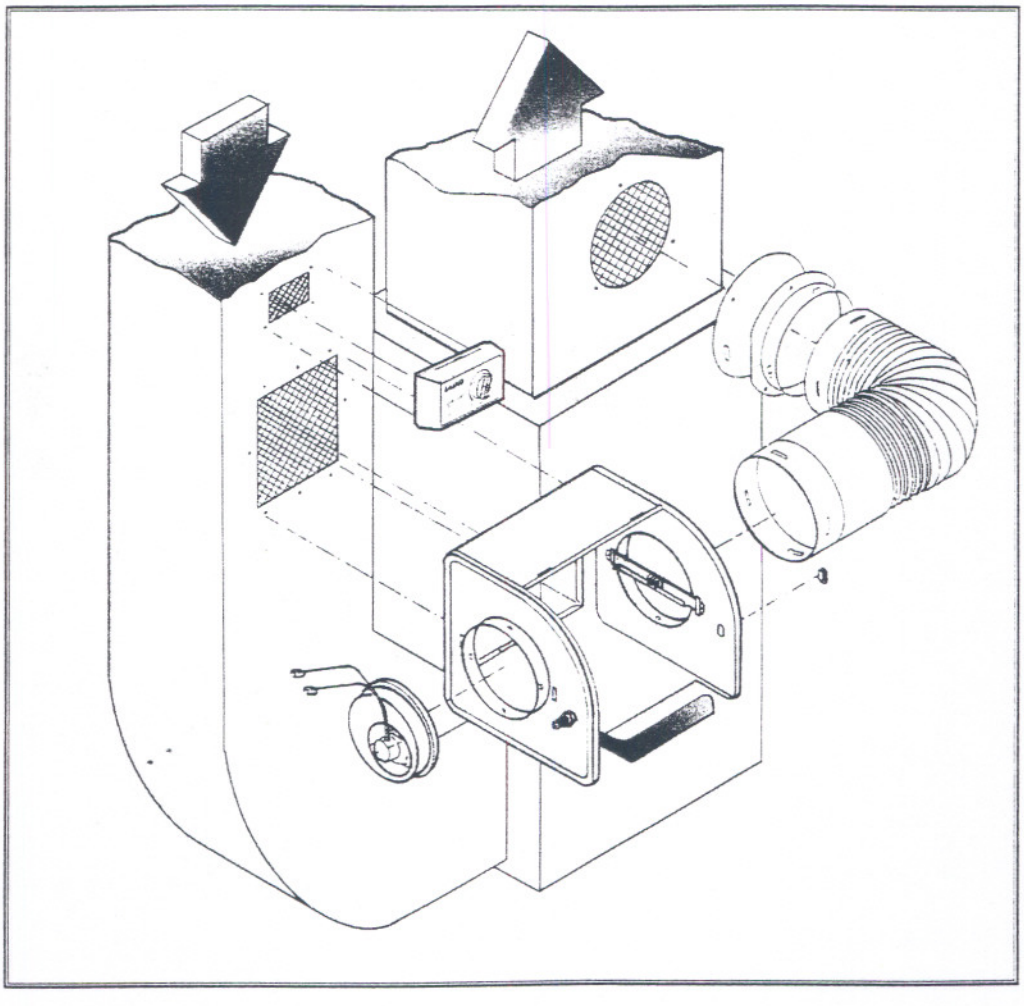
LASKO™

Innovators in Home Comfort.

FURNACE HUMIDIFIER INSTALLATION AND MAINTENANCE OWNERS MANUAL



WARRANTY • INSTALLATION • ROUTINE MAINTENANCE

INTRODUCTION

Dear Customer,

Congratulations! You have just purchased one of the best furnace humidifiers available. This humidifier is intended for use only on forced circulation warm air furnaces. Please read the instructions before you install and use your humidifier. This will help you obtain its full value.

Please keep this manual in a safe place for future reference.

CONTENTS

WARRANTY

LASKO FURNACE HUMIDIFIER
LIMITED WARRANTY

To maintain warranty use only manufacturers brandname replacement evaporator pads and replacement parts. If your furnace humidifier has a stainless steel cabinet, the cabinet is guaranteed by the manufacturer for (10) years. If your furnace humidifier has a Galvalume™ cabinet, the cabinet is guaranteed by the manufacturer for (5) years. Should electrical or mechanical repair become necessary during the warranty period, send your complete product, postage or freight pre-paid to our factory. This warranty does not apply if the damage occurs because of accident, improper handling or operation, shipping damage, abuse, misuse, unauthorized repairs made or attempted, or the use of the product for commercial service.

All other parts of this product are guaranteed by the manufacturer for one year from the date of purchase against defects in workmanship and/or materials. Should accessory parts be needed, or if a part needs replacement, contact the manufacturer for in-warranty replacement parts. A copy of proof-of-purchase must be included along with the type and style, which is located on the cover of your appliance. Send to LASKO METAL PRODUCTS, 820 Lincoln Ave.,West Chester, PA 19380. DO NOT RETURN PRODUCT TO STORE WHERE PURCHASED.

ALL ABOVE WARRANTIES, EXPRESSED OR IMPLIED, DO NOT COVER LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR ANY CAUSE WHATSOEVER. Some states do not allow limitations on how long any implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so that the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

Lasko Metal Products Inc.,820 Lincoln Ave.,West Chester, PA 19380

INSTALLATION

BEFORE YOU START...

Take precaution when handling any fabricated metal, sharp edges can cause serious injury. The following preparation should be done before you start your new furnace humidifier installation.

A. CHECK THE CONTENTS OF THE CARTON

Please refer to the **repair parts illustration** on page 10 for parts identification.

In the carton, you should find the following items:

- ☐ 1 - 6" flexible by-pass tube (item 20)
  NOTE: On model 900L, metal collars are constructed on the flexible tube for quick locking connections.
  On model 400L, two plastic ties are supplied for the flexible tube to connect to the collars (item 21)
- ☐ 1 - air shutter (item 19)
- ☐ 1 - by-pass tube collar (item 18)
- ☐ 1 - motor & plastic cap assembly (item 29 & 6)
- ☐ 1 - humidifier cabinet assembly (item 1, 4, 10 & 26)
- ☐ 1 - drum cage with evaporator pad (item 2 & 5)
- ☐ 1 - humidistat assembly (item 8)
- ☐ 1 - 120V/24V transformer (item 7)
- ☐ 1 - low voltage wire (20 FT. long) (item 30)
- ☐ 1 - 1/4" plastic water tubing (10 FT. long) (item 17)
- ☐ 1 - water pan (item 3)
- ☐ 1 - installation instruction †
- ☐ 1 - plenum and humidistat opening template †
- ☐ 1 - by-pass collar opening template †
- ☐ 1 - polybag contains the following hardware and accessories
  - 1 - saddle valve assembly (item 9)
  - 1 - nylon compression nut (item 11)
  - 1 - overflow drain fitting (item 25)
  - 1 - rubber hole plug (item 27)
  - 1 - humidifier conditioner †
  - 1 - conditioner's instruction †
  - 1 - black rubber ferrule (item 12)
  - 5 - electrical wire fastening staples †
  - 11 - sheet metal screws †
  - 1 - nylon ferrule (item 16)
  - 2 - brass insert (item 13)

NOTE: 1. "†" - Parts are not shown on parts illustration.
2. If parts are damaged or missing, please call our parts dept. toll free at 1-800-966-2028, Mon. thru Fri. between the hours of 8am and 4pm EST. please do not return product to place of purchase. Please quote model number of product when you call.
3. For questions on installation please call our toll-free hot line at 1-800-465-7300.

B. READ THE RULES FOR SAFE INSTALLATION AND OPERATION

1. Always shut the power OFF before working on electric devices.
2. Shut OFF the water supply before working on the humidifier.
3. All wiring and accessories (wire size, insulation etc.) must satisfy national and local electrical codes.
4. Be cautious of sharp edges during installation.

C. CHECK FOR REQUIRED TOOLS

- tin snips
- utility knife
- adhesive tape
- pliers
- electric drill
- drill bits (1/4", 1/8" and .104")
- medium sandpaper
- screwdrivers
- adjustable wrench
- hammer
- ruler or measuring tape
- level

D. TYPICAL INSTALLATION

Here are three frequently encountered types of installation.

1. LO-BOY FURNACE (Fig.1) 2. HI-BOY FURNACE (Fig.2)

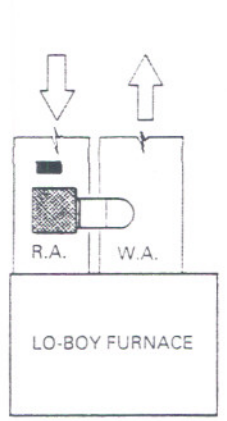


FIG.1

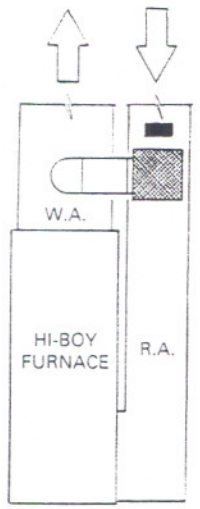


FIG.2

3. HORIZONTAL FURNACE (Fig.3)

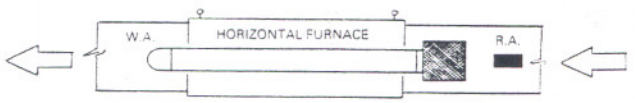


FIG.3

R.A.: Return (cold) air plenum ▬ : Humidistat
W.A.: Warm air plenum ▩ : Humidifier

IMPORTANT: Humidistat must be upsteam of the furnace humidifier and a minimum of 6 inches distance must be maintained for humidity sensing and control.

E. DECIDE THE HUMIDIFIER MOUNTING LOCATION

NOTE:

1. **The humidifier should be mounted on the return air plenum** with the by-pass tube connected to the warm air plenum. This is a safeguard only, it can be mounted on either side, but you must make sure that the evaporator pad

does not sight **radiant heat** from the combustion chamber of the furnace. Radiant heat will cause the evaporator pad to deteriorate. Available space and ease of installation will determine which location to use. This humidifier can be mounted on a minimum of 8" wide plenum or duct.

2. The center of the by-pass tube collar opening must be approximately 13 inches from the humidifier cabinet side panel (Fig.4). However, if the distance has to be more than 13 inches for your installation, an additional length of galvanized pipe (not included)may be used to extend the by-pass tube length.

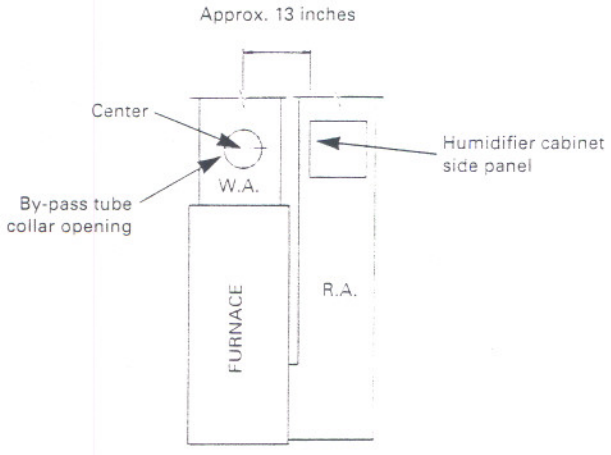


FIG.4

3. Do not mount the air by-pass tube and the plastic cap assembly to the cabinet, until you know if it is going to be a left or right side installation.
4. In order to prevent furnace or property damage, the humidifier must be installed according to the manufacturer's installation instructions. If damage occurs due to improper installation, the manufacturer's warranty is null and void.

F. CONVERTING RIGHT HAND MODEL INTO LEFT HAND UNIT

As shipped, the humidifier is a **right hand model** (By-pass tube connected to the right side of the humidifier).
If the humidifier mounting location dictates that the by-pass air tube must be on the left side of the humidifier, then proceed with the following:

1. Remove the **float valve assembly** from the cabinet.
2. The **bearing support bracket** must be relocated to the left side. Using the **nylon bearing** as a pushing point, slide the bracket towards the front of the cabinet until the bracket disengages from the rear tab. Pull the bracket forward until the front of it is free of the front tab. (Fig.5)

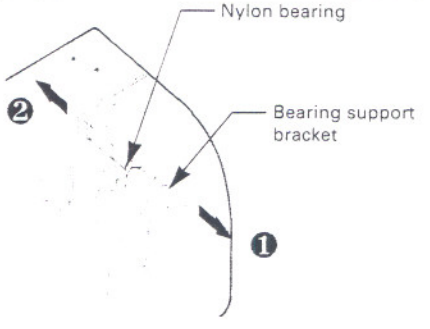


FIG.5

3. Position the bearing bracket over to the left side with the open portion of the "U" shaped **nylon bearing** in the **up** position and insert the rear end of the bracket into the rear tab to its limit. Next slide the front end of the bracket into the front tab until the small circular boss snaps into the nest hole. This locks and registers the correct position of the nylon bearing.
4. Relocate the float valve assembly over to the right side of the cabinet. **Be sure to register the double "D" plastic raised portion into the hole** then secure it with the nylon hex nut. (Fig.6)

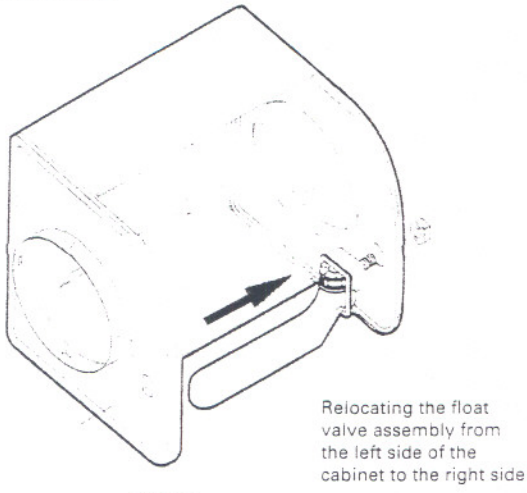


FIG.6

5. From the parts bag, take out the double "D" **rubber hole plug** and insert it into the left side double "D" hole to prevent air leakage.
The humidifier is now ready for a left hand installation (By-pass tube connect to the left side of the humidifier).

G. PREPARING THE HUMIDIFIER FOR INSTALLATION

1. Mount the **motor & plastic cap assembly** onto the humidifier cabinet.
Note: Be certain that this sub-assembly is mounted to the proper side of the cabinet for your specific installation.
2. Mount the **overflow drain fitting** onto the bottom of the humidifier cover by inserting the tail of the fitting into the double "D" shaped hole in the **cover** bottom. Using a coin or a screwdriver, turn the fitting one quarter turn (90°) in either direction to bind it onto the cover. (Fig.7)

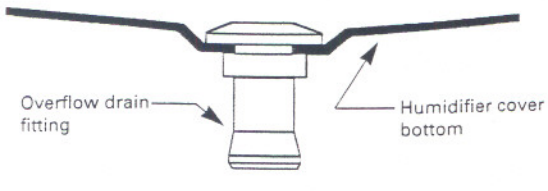


FIG.7

MOUNTING THE HUMIDIFIER CABINET

For your convenience and simplicity of installation, a combination **plenum opening template**, which includes the location of the humidistat control, is supplied. To install the humidifier cabinet:

CAUTION: If you have central air-conditioning take precautions not to damage the evaporator coil while drilling and cutting. The evaporator coil is generally installed just above the furnace in the warm air plenum.

1. Use **adhesive tape** (not supplied) to affix the template on the plenum.
2. Drill the marked holes on the template.
3. Drill a 3/8" hole inside the marked rectangle. Use this hole as a starting point for cutting opening.
4. Mount the humidifier cabinet on the plenum with (8) **sheet metal screws** supplied.

NOTE: 1. The humidifier should be level from side to side and from front to back.
2. Existing air conditioning coil or electronic air cleaner may dictate the template location.

BY-PASS AIR TUBE INSTALLATION

A. INSTALLING THE BY-PASS COLLAR AND AIR SHUTTER

1. Attach the **by-pass tube opening template** to the other plenum. The center of the by-pass tube opening must be approximately 13 inches from the humidifier cabinet side panel.
   Note: Leveling of the by-pass tube is not necessary but preferred.
2. Drill 3 holes and cut the circular opening according to the template.
3. Mount the **by-pass tube collar** and the **air shutter** to the plenum with **3 sheet** metal screws supplied.
   Note: Air shutter should be mounted in the **open**

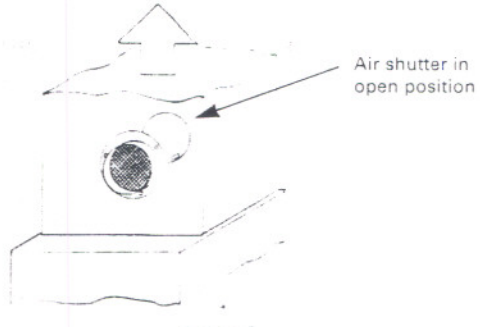


FIG.8

position. (Fig.8)

B. INSTALLING THE BY-PASS AIR TUBE

For Model 900L:

1. Line up the 4 **lugs** on the collars with the 4 matching **slots** on the by-pass tube ends.
2. Slide and clip the by-pass tube ends onto the flanged collars.

For Model 400L:

1. Slide the by-pass tube over the flanged collars of the humidifier and the by-pass tube collar.
2. Use the two **plastic ties** provided to tighten the by-pass tube onto the collars.

Note: The mounted by-pass tube should be straight - not sagging.

WATER SUPPLY INSTALLATION

IMPORTANT:
Connect the tubing to the humidifier FIRST before connecting to the saddle valve.

A. CONNECTING THE PLASTIC WATER TUBING TO THE HUMIDIFIER

1. **Sand the plastic water tubing end (Approx.1-1/4") with medium sandpaper (not provided) in a rotating motion.** This assures a

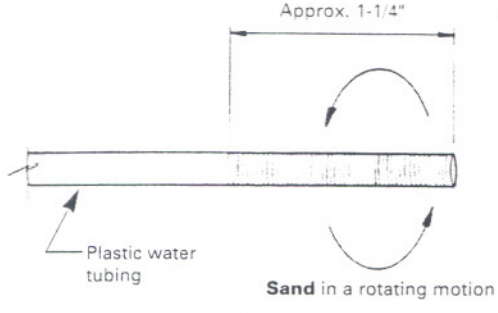


FIG.9

non-slipping, trouble free connection. (Fig.9)

2. Slide the **nylon compression nut** and the **black rubber ferrule** onto the sanded plastic tubing and then fit the **brass insert** into the end of the plastic tubing. (Fig.10)

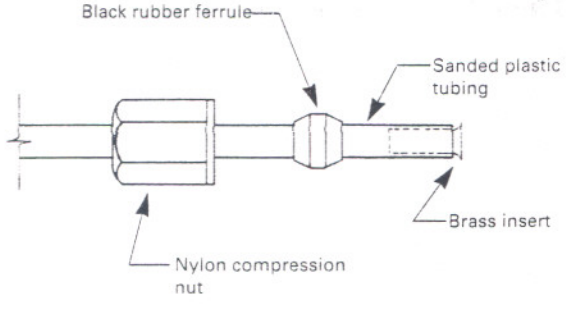


FIG.10

3. Push the plastic tubing firmly into the humidifier **float valve** threaded water inlet. Carefully begin tightening the threads by hand. Use an adjustable wrench to finish tightening the nylon compression nut onto the float valve. **Do not over-tighten.**

   Note: The optimum tightness of the nylon compression nut will leave a gap of approximately 3/16" between the nylon compression nut and the nylon hex nut. (Fig.11)

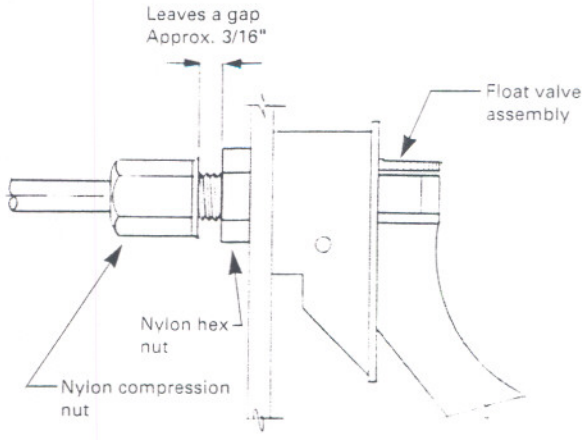


FIG.11

B. INSTALLING THE SADDLE VALVE TO THE WATER PIPE

The water supply for the humidifier is provided from an existing **cold** water pipe by using a self-piercing **saddle valve.** In order for you to use the supplied plastic tubing, select the nearest cold water pipe suitable for saddle valve installation.

1. Turn the main water supply **off**.
2. Rotate the valve handle so that the piercing pin does not protrude down beyond the top clamp.
3. With the rubber gasket in the fixed position, clamp the saddle valve on the selected location of the cold water pipe and mount the bolts and nuts to the saddle clamps.
   Note: Make sure that the bolts and nuts are not in the way of handle operation.
4. To pierce the copper pipe, simply turn valve handle clockwise until you feel that it is firmly seated. (Fig.12)
   Note: **Do not open the valve now**. Proceed with the mounting of the plastic tubing to the saddle valve **first.**

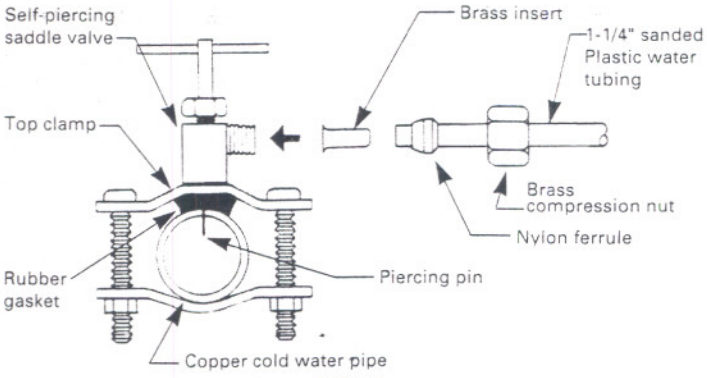


FIG.12

C. CONNECTING THE PLASTIC TUBING TO THE SADDLE VALVE

1. Cut the plastic tubing with a sharp knife to the proper length to fit between the humidifier and the saddle valve.
2. **Sand the plastic water tubing end (Approx.1-1/4") with medium sandpaper in a rotating motion.** (Fig.9)
3. Slide the **brass compression nut and nylon ferrule** onto the sanded plastic tube and fit the **brass insert** in the end of the tubing. (Fig.12)
4. Push the tubing firmly into the saddle valve threaded water outlet, carefully begin tightening comperession nut by hand (**Be careful not to cross the threads).** Use an adjustable wrench to finish tightening the brass compression nut. **Do not over-tighten.**

D. OVERFLOW DRAIN CONNECTION

We strongly recommend you install a drain pipe to protect your property in case of water leakage. This overflow fitting should be connected to a drain by pushing an inside diameter of 1/2" hose over it or an ouside diameter of 1/4" plastic tubing into it (Fig.13). Make sure the hose has the proper slope for drainage when you finish the installation.

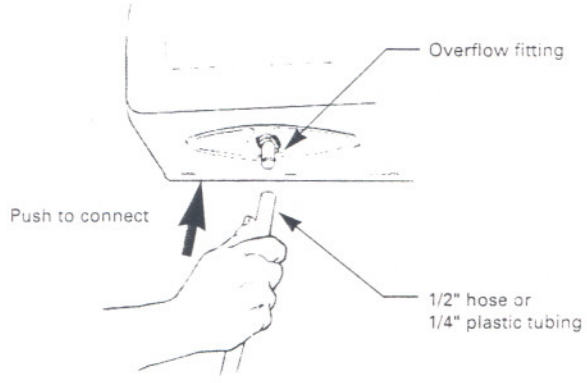


FIG.13

Note: The drain hose is not supplied with the unit, you may purchase the hose from a local plumbing supply store.

ELECTRICAL INSTALLATION

A. INSTALLING THE TRANSFORMER

CAUTION: Turn the electric power OFF at the main electric panel before you work on the transformer installation.

The step down transformer (120V to 24V) can be mounted on any conveniently located **electrical outlet box** which has a **CONSTANT** 120V power supply. (i.e.,power can not be switched OFF by any other switch such as lighting, fans etc.)

1. Select a conveniently located electric outlet box.
2. Open the outlet box cover and remove one of the **knock-outs** on the outlet box by using a screwdriver or pliers.
3. Remove the **locknut** of the transformer and then insert the wire leads and threaded portion of the transformer into the knockout of the electrical outlet box. (Fig.14)
4. Install the locknut to lock the transformer onto the electrical outlet box.
5. Connect the transformer lead wires to the power source. (One lead connects to the **black** wire and another lead connects to the **white** wire.)
6. Replace the cover of the electrical outlet box.

Note: Some transformer models are grounded by the transformer body & transformer lock nut & electrical box outlet, other transformer models have a green wire.

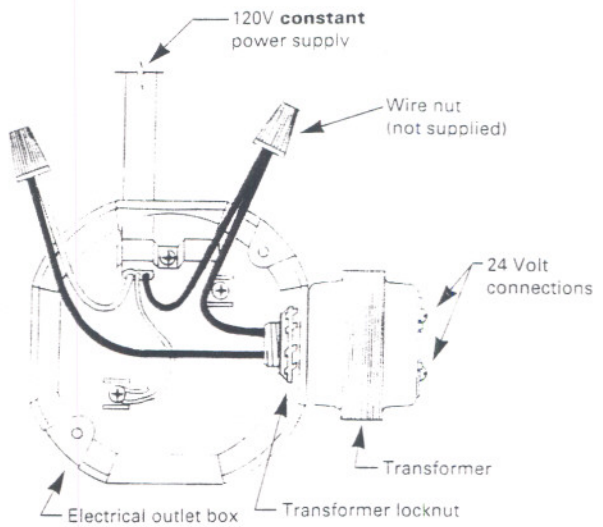


FIG.14

B. INSTALLING THE HUMIDISTAT

Caution: Turn the electric power OFF at the main electric panel before beginning humidistat installation.

This humidifier is equipped with an exclusive **universal humidistat** which can be either wall mounted as furnished or, with a few minor changes, be mounted on the return (cold) air plenum or duct.

Either **wall mounting or plenum (duct) mounting** works equally well for humidity sensing and control. Wall mounting provides easy access to adjust the humidistat setting since it is located in the living area. Plenum (duct) mounting provides a simple installation (you do not have to fish the low voltage wire through the wall. In some cases, it may be difficult to fish the wire thru the wall).

Select either wall mounting or duct mounting for your humidistat. If you decide to mount your humidistat in the living area (wall mounting), then proceed with the following:

Wall mounting:

1. Your humidistat is furnished in the "wall mounting" mode , no changes to the humidistat are necessary. because the circuit is low voltage (24V), no switch box is required.
2. Select a location about five (5) feet above the floor on an inside wall where "normal" air circulation exists. (In most residential installations, the humidistat is installed near the heating thermostat for easy adjustment and wiring).
3. Drill a small hole in the wall and then fish the low voltage wire out thru the hole. Leave approximately **6 inches** of the low voltage wire leads outside the hole for humidistat connection.
4. Remove the cover plate from the humidistat and you will see four holes at the corners of the base plate.

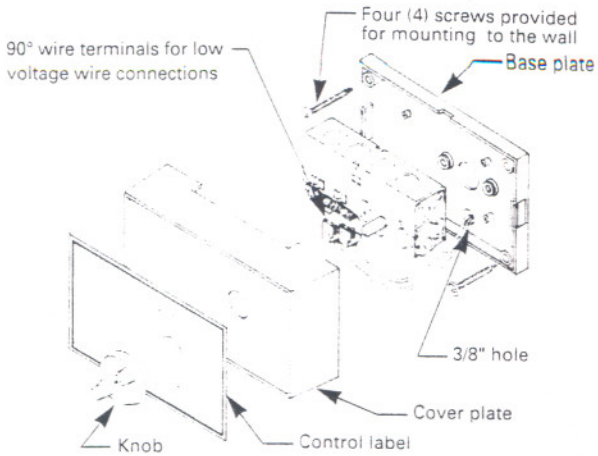


FIG.15

Mount the humidistat on the wall using the four (4) 1" long screws provided. Make sure it is level and the low voltage wire is coming out thru the 3/8" hole on the base plate. (Fig.15)

5. Strip the low voltage wires and make connections to the humidistat using the two 90° wire terminals provided. Replace the cover plate.
6. Remove the paper backing from the control label and apply the label onto the face of the plate.
7. Install the knob onto the humidistat control shaft.

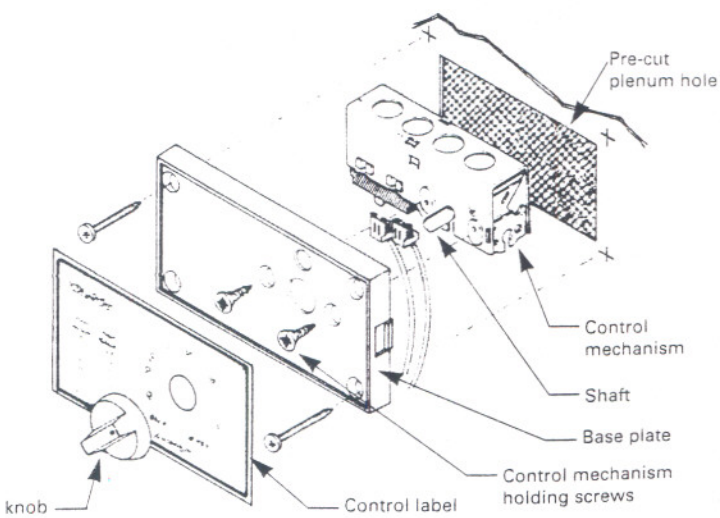
Plenum (duct) mounting:

1. As shipped, the humidistat is ready for wall mounting. **You must first convert the humidistat from wall mounting to plenum (duct) mounting.** The control mechanism must be in the air stream in order to sense and control the humidity.

   To convert to plenum (duct) mount:

   (a) Remove the cover plate and discard it.

   (b) Remove the **control mechanism** from the base plate by removing the two **holding screws** at the



Note: 1. Discard the cover plate.
2. Control mechanism must be in the air stream to sense and control the humidity.

FIG.16

back, and then, turning the control mechanism **180° upside down** to allow the shaft to protrude out through the **1/2" hole** on the **base plate** (Note: base plate remains in the same position and **only** the control mechanism is turned). (Fig.16)

(c) Replace the two screws to hold the control mechanism to the base plate.

2. Use **adhesive tape** (not provided) to affix the humidistat opening template to the pre-selected location and then drill four holes and cut the plenum as outlined on the template.
3. Connect the **low voltage wire** to the humidistat by using the two (2) **90° wire terminals** provided.
4. Mount the humidistat onto the return (cold) air plenum by using the four (4) 1" long sheet metal screws provided. (Note: a small **rectangular notch** at the bottom of the base plate is provided for the access of the low voltage wire to the humidistat wiring terminals.)
5. Remove the paper backing from the control label and apply the label onto the face of the base plate.
6. Install the knob onto the humidistat control shaft.

IMPORTANT: The humidistat must be **upstream** of the humidifier and a minimum distance of **6** inches must be maintained. (Refer toTypical Installation, Fig.1,2 & 3.)

C. LOW VOLTAGE WIRING DIAGRAM

This humidifier uses a 24 Volt **drum motor** to turn the **evaporator pad** in the cabinet. The motor is controlled (ON or OFF) by the humidistat. The power source for turning the motor is the 24 volt side of the transformer. Once you have mounted the transformer and the humidistat in place, the low voltage wire connection is accomplished as follows:

1. The humidifier motor lead wire has two(2) push-on **female connectors** and the 20 foot low voltage wire has two(2) push-on **male connectors**. Connect the female to the male connectors first and then run the low voltage wire to the transformer.
2. At the transformer, carefully cut the insulation between the two conductors and separate them approx. **3"**. (Fig.17)

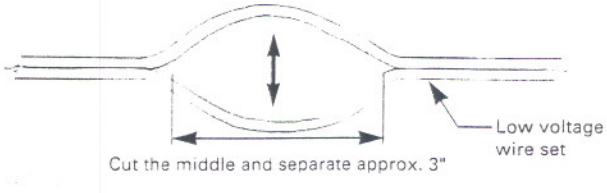


FIG.17

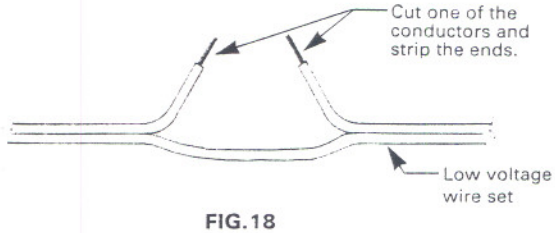


FIG.18

3. Cut one of the conductors and strip the insulation from both ends (Fig.18)
4. Connect the newly stripped ends to the transformer low voltage **LOAD** terminals. (Fig.19)

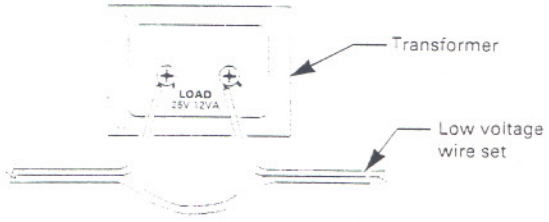


FIG.19

5. Run the low voltage wire to the humidistat. Separate the ends of the conductors, strip them and connect to the humidistat terminals. (Fig.20)

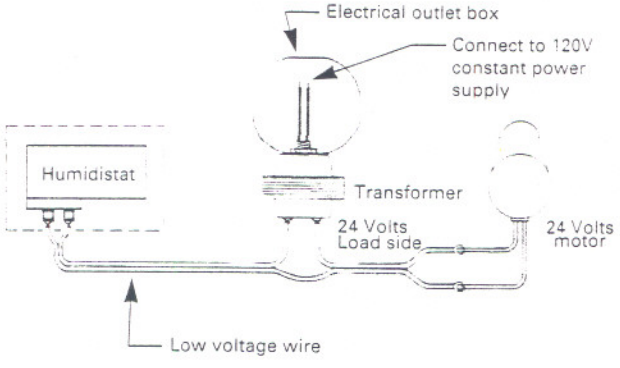


FIG.20

HUMIDIFIER START UP

Caution: 1. Make sure that all the components are securely installed before you start up your humidifier.

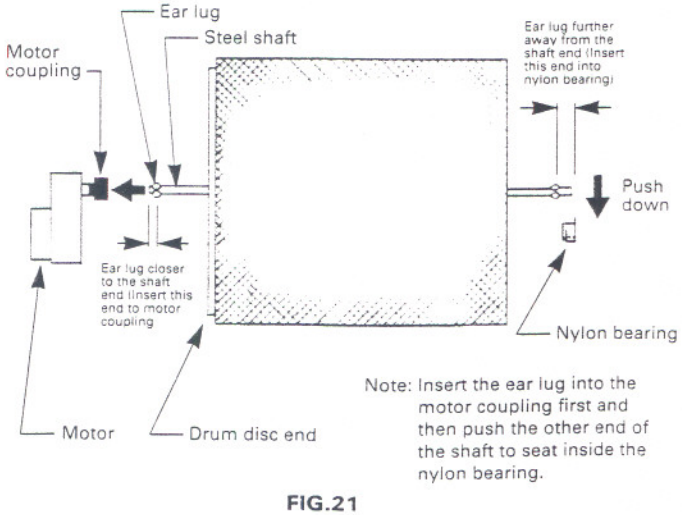


FIG.21

2. Remember to replace the **water pan** before you open the water supply. A small arrow on the water pan shows how it should be inserted.

A. INSTALLING THE DRUM AND EVAPORATOR PAD

A steel **shaft** in the center of the drum & evaporator pad assembly is used to connect to the **motor coupling** and the **nylon bearing** (Fig.21). The **ear lug** that is closer to the shaft end is the end to be inserted into the motor coupling. Connect to motor coupling **first** and then push the other end of the shaft down to seat inside the nylon bearing.

Caution: Do not rotate the drum by hand once it is seated inside the motor coupling. This may damage the gears in the motor.

B. ADJUSTING THE WATER LEVEL

Turn on the water supply at both the main water supply and the self-piercing saddle valve. Check to see if water leaks at any joints. If there is a leakage, tighten the com pression nut to correct the problem. **Water should flow gently into the water pan.** If it flows too slow or too fast, adjust the self-piercing saddle valve. The water level is adjusted by altering the height of the float. This is done by rotating the knob of the valve seat. Adjusting the float in such a way that it closes the automatic valve when the selected water level has been reached. The maximum water level in the pan should not exceed 1/2" from the top of the water pan. (Fig.22)

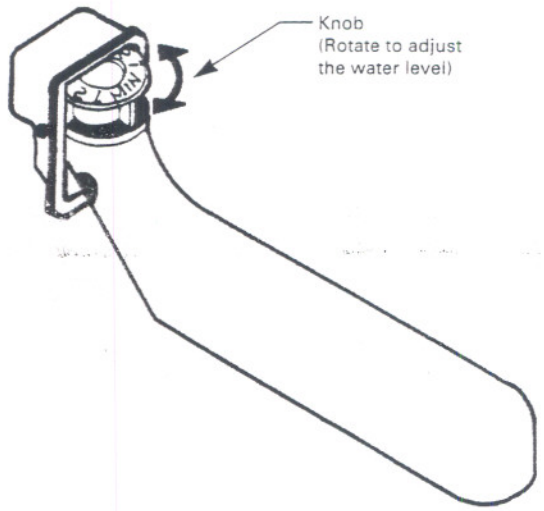


FIG.22

C. ADJUSTING THE BY-PASS AIR FLOW

Sometimes there can be a static pressure differential that may cause an excess of air to by-pass from one plenum to the other through the humidifier ,causing less airflow through the distant heat outlets in the house. It may also blow water off the evaporator pad. In either case the shuttershould be gradually closed until the condition is corrected.To close the shutter, simply loosen one screw and slide the shutter under the collar flange and replace the screw. (Fig.23)

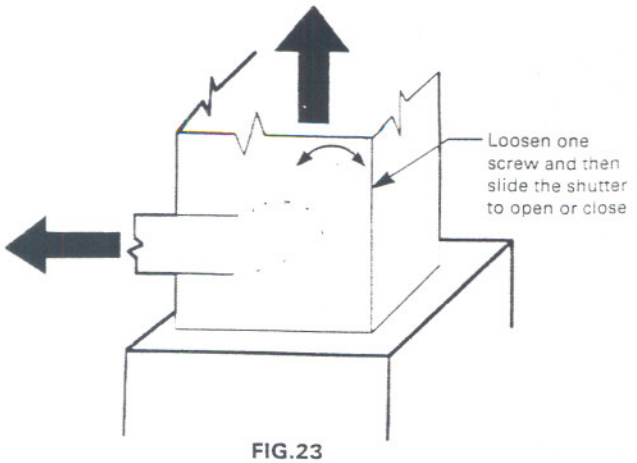


FIG.23

D. HUMIDISTAT DIAL SETTING

Although a **relative humidity** environment of 45-50% may be desirable, setting your humidistat at this point when the outside temperature is below 30°F can cause condensation on windows and walls. Continued condensation for extended periods of time may result in structural damage. Use the following chart, or the one on the humidistat as a guide for maximum dial settings for various outdoor temperatures. If condensation forms at these suggested settings, reduce the humidistat setting by successive 5% increments. After each reduction in setting allow 6 hours for equilibrium to be reached before further re-adjustment. If condensation persists with progressively lower settings made during a 3 day period, turn off water supply at saddle valve, turn humidistat to "OFF" and consult your heating dealer.

When your house is unoccupied for longer than 3 days during the winter always set the humidistat down to 15% so that severe weather during your absence will not result in condensation which might cause damage in your home.

AT OUTSIDE TEMPERATURE °F	-20	-10	0	+10	+20	ABOVE +32
SET YOUR HUMIDI-STAT AT	15%	20%	25%	30%	35%	40%

FINAL CHECK-UP BEFORE COMMENCING OPERATION

1. Carefully check that both ends of the water tubing are firmly held in place in the compression fittings. Pull slightly on

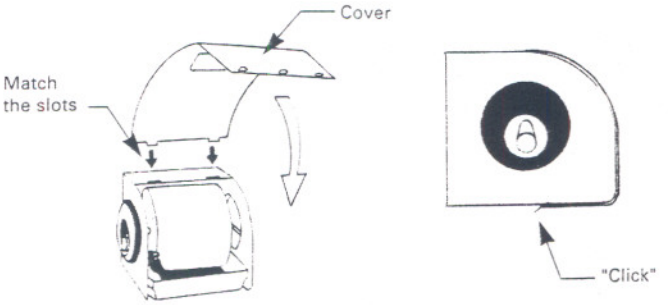


FIG.24

both ends of tubing. **The tubing should not move at all.**
2. Check to see that the water level in the water pan is at the right level and the float closes the valve completely.
3. Make sure that there is no water leakage before leaving the installation unattended.
4. Put the cover back on the humidifier. (Fig.24)

Note: The humidifier drum will turn very slowly.(1 revolution per minute)

MISCELLANEOUS INFORMATION

A. UNDERSTANDING HUMIDITY

1. Measuring the humidity level is possible with a device called a **hygrometer**. However, only a precision hygrometer can give you an accurate reading.
2. The humidity level goes down if the air in the house is frequently replenished. There can be many causes of air leaks such as fireplace damper left open, operation of kitchen or bathroom fan or a constantly running heat recovery ventilator etc.
3. Humidifying all of the air in a house may take some time, depending on the original dryness level in the house. Some parts of the house such as carpet or furniture will absorb the humidity before a measurable result is reached.
4. An approximate measure of humidity level, during the winter can be done by **examining your windows.** If your windows are misted or fogged up and there is nothing obvious causing it (for example: bath, shower, cooking), then there is too much humidity in the house. No mist at all could indicate a lack of humidity. A slight mist around or in the corners of the windows indicates that the humidity level is about right for your comfort. (Note: Mist may never form on thermopane windows or when storm windows are used. This is because the inside pane is "insulated". In this case look at the corners or the edges.)

B. USING COPPER TUBING INSTEAD OF PLASTIC TUBING

You may wish to use copper tubing instead of plastic tubing for the water line connection. To do so, you will have to replace the nylon ferrule with a **brass ferrule** in the saddle valve. Furthermore, it is not necessary to fit the brass insert into the ends of the copper tubing for the humidifier and saddle valve connections and **do not** sand the ends of the copper tubing. (Fig.25)

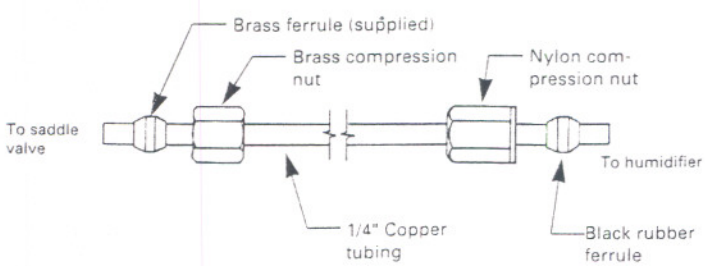


FIG.25

C. CONNECTING THE TRANSFORMER TO INTERLOCK WITH THE FURNACE BLOWER

You may wish to **interlock** the operation of the humidifier motor to the **furnace blower**. The wiring diagram shown on Fig.26 is applicable **only** if your furnace is equipped with a **single speed motor**. **DO NOT** connect to a furnace with a two or three speed blower motor, otherwise, the transformer will short out in a very short period of time.

Caution: The transformer may only be wired to a blower motor operating at 120V. The transformer will short out if wired to a 220V circuit.
If you are not familar with the furnace wiring diagram, DO NOT use this method.

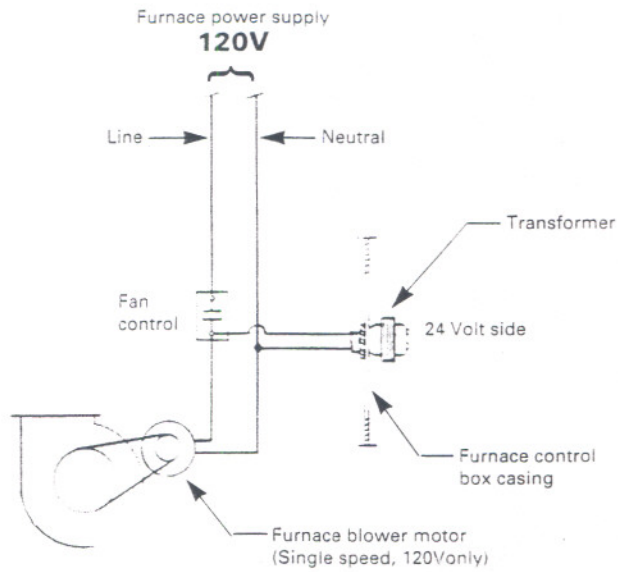


FIG.26

ROUTINE MAINTENANCE

NORMAL HUMIDIFIER MAINTENANCE

Caution: 1. Turn **off** the water supply and electrical power before you do any maintenance work.

2. Do not try to stop or rotate the drum by hand. This may cause permanent damage to the drum motor.

The **evaporator pad** should be **replaced** at least **once per heating season**. The **water pan** and the **float valve** should be thoroughly **cleaned** at least **once a year**. Depending on the mineral concentration in your water, a more frequent cleaning may be necessary.

Special **water treatment conditioners** are available at your store. They prevent the mineral contents in the water from depositing on the humidifier parts. This will make the cleaning process much easier. We highly recommend the use of such product.

A. CLEANING OR REPLACING THE EVAPORATOR PAD

Use only manufacturer brandname replacement evaporator pads or you will void your warranty.

This new drum design features an instant release and locking action for replacing and servicing of the evaporator pad. **To remove the evaporator pad** from the drum, proceed as follows:

1. Hold the **drum assembly** in a **horizontal** position and **pull** the **bushing** out with your fingers. (Fig.27)

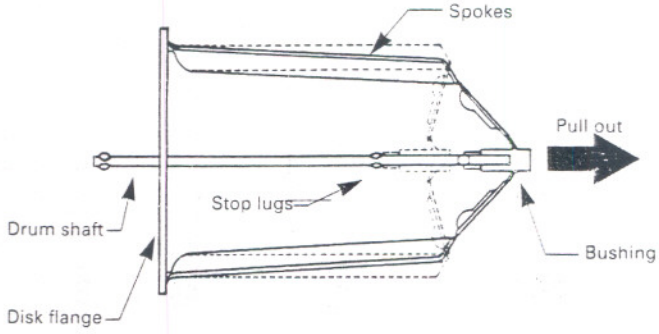


FIG.27

2. Slide the evaporator pad off the drum cage.

To replace the pad:

a. Keep the bushing in the **extended** position and slide the evaporator pad over the spokes until it is against the disc flange.

b. Push the bushing back along the shaft to the **stop lugs**.The evaporator pad is now locked into position.

B. CLEANING THE FLOAT VALVE ASSEMBLY AND WATER PAN

The float valve assembly and the water pan can be cleaned by using a solution of 50/50 **water** and **vinegar**.

To remove the float from the valve jet shield, proceed as follows:

1. Turn **off** the water supply.
2. Place your thumb and forefinger around the **neck** of the float as shown in Fig.28
3. Squeeze firmly. This will disengage the two **pivot pins** from the holes at the sides of the **valve jet shield** and release the float.
4. The **valve seat** and the **knob** can then be pulled off the spigot.
5. When replacing the seat be sure that it is pushed down as far as it will go onto the float.

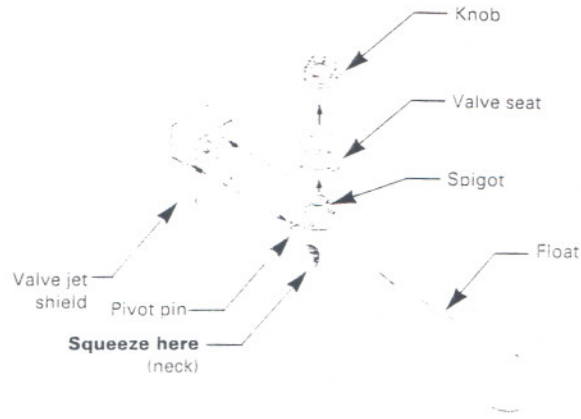


FIG.28

C. SUMMER SHUT DOWN

Normally during summer season, the humidity level in the air is quite high. Therefore it is advisable to shut off the humidifier system. **To prepare for the summer shut down**, proceed with the following:

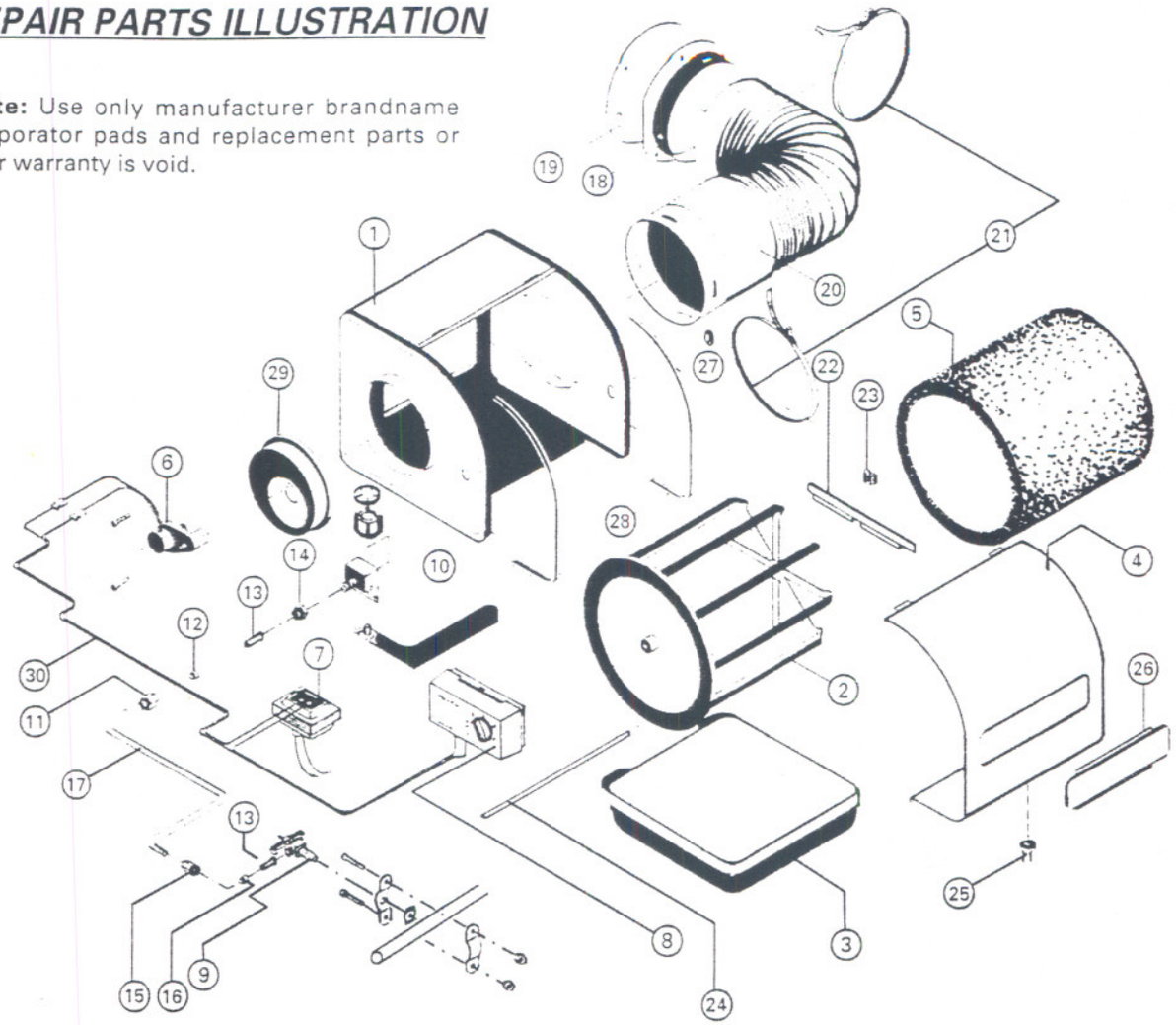
1. Close the water supply at saddle valve.
2. Turn the humidistat knob to the "OFF" poisition.
3. Empty and clean the water pan.

Note: The water pan can be taken out without removing the float valve or even if water is inside the water pan. Simply move the water pan forward and take it out from the bottom of the humidifier.

4. Close the air shutter.

REPAIR PARTS ILLUSTRATION

Note: Use only manufacturer brandname evaporator pads and replacement parts or your warranty is void.



ITEM	PART NO.	DESCRIPTION
1	01A900939	CABINET
2	01A900914	DRUM CAGE
3	01A060214	WATER PAN
4	01A900163	COVER
5	01A017256	EVAPORATOR PAD 90'S-L
6	01A172134	DRUM MOTOR 111788
7	01A000201	TRANSFORMER
8	01A000806	HUMIDISTAT
9	0PB132055	SADDLE VALVE
10	02A900905	FLOAT VALVE ASSEMBLY
11	060010801	NYLON COMPRESSION NUT
12	01A010816	RUBBER FERRULE
13	01A930041	BRASS INSERT
14	060011142	NYLON HEX NUT
15	*	BRASS COMPRESSION NUT

ITEM	PART NO.	DESCRIPTION
16	*	NYLON FERRULE
17	01A930040	1/4" PLASTIC WATER TUBING (10 FT.LONG)
18	01A172107	BY-PASS TUBE COLLAR
19	01A170929	AIR SHUTTER
20	01A118810	6" FLEXIBLE BY-PASS TUBE
† 21	010798000	PLASTIC TIE
22	01A170925	BEARING SUPPORT BRACKET
23	01A131810	NYLON BEARING
24	01A900911	DRUM SHAFT
25	01A006911	OVERFLOW DRAIN FITTING
26	01A131725	WINDOW
27	01A131720	RUBBER HOLE PLUG
28	20221	FOAM SEAL
29	01A900902	PLASTIC MOTOR MOUNTING CAP
30	01A008116	LOW VOLTAGE WIRE (20 FT. LONG)

NOTES: 1. THIS IS A PARTS LIST, **NOT A PACKING LIST**. IT IS FOR THE PURPOSE FOR ORDERING THE REPAIR PARTS.
2. * PART NO. NOT AVAILABLE, USE THE "DESCRIPTION" TO ORDER.
3. † SOME MODELS HAVE A METAL CONNECTION COLLAR, HENCE THE PLASTIC TIES ARE NOT SUPPLIED.

PART NO. 060900018
ISSUED: May/24/1994