

Model 600D Under-the-Duct Humidifier

INSTALLATION, OPERATION, AND MAINTENANCE INSTRUCTIONS

READ ENTIRE INSTRUCTIONS CAREFULLY BEFORE INSTALLING

1. This is intended for use on forced warm air circulation furnaces, as well as multi-fuel furnaces where the temperatures do not exceed 200 degrees Fahrenheit. 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 surrounding temperatures may be 32F or colder. Freezing water will damage your Humidifier and burst the supply pipe, resulting in home damage.
3. The installation, wiring and plumbing of the humidifier must comply with local, state, and federal codes, ordinances, and regulations.
4. Do not cut or drill into any air conditioning or electrical accessories during installation.
5. Make sure all water connections are properly installed or water damage could occur.
6. 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.
7. Do not allow the Drain Tubing (if used) or Water Supply Tubing to touch any heated surface or sharp edges.
8. Below are the recommended settings for your humidity control. Setting your humidistat higher than the listed setting could cause condensation that would damage your home. If excessive moisture appears on windows or walls, reduce the humidity setting enough to eliminate condensation. If the situation continues, turn off water valve until condensation is gone.

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

Outside Temp	Recommended Setting	Outside Temp	Recommended Setting
(-20F)	15	(+10F)	30
(-10F)	20	(+20F)	35
(0F)	25	Above 20F	40

TOOLS AND MATERIALS NEEDED

Safety Goggles	Hammer
Tin Snips	Small Adjustable Wrench
Electric or Hand Drill	Center Punch
1/8" drill bit	Knife
Screwdriver	Straight Edge Ruler
Pliers	Level
Pencil	1/4" Copper Tubing (Optional)



GENERAL INFORMATION

The Model 600D "Whole House Humidifier" operates as a typical drum humidifier and wastes no water. When the humidity level drops below the set point on the humidistat and the furnace is running, warm air passes over the moist pad that is rotated by a 3 watt motor. The humidified air is then circulated through the entire home. As the water level in the reservoir drops, the float valve automatically adds fresh water. Once the selected humidity level is reached, the humidifier stops. The humidistat automatically turns the humidifier on and off to maintain the selected humidity level. The humidifier should be serviced every 3-8 weeks to remove any mineral build-up from the water pan and pad. The service interval is determined by water hardness.

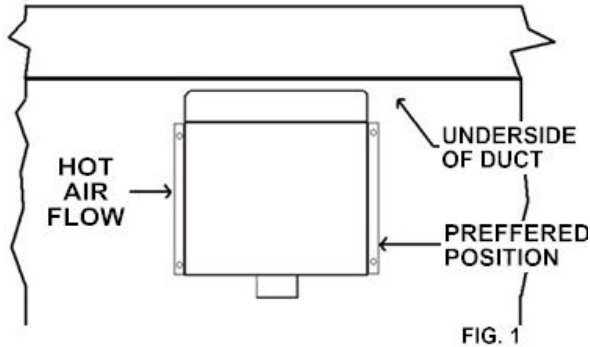
SERVICING TIPS

(Unplug transformer and turn off water supply before servicing the humidifier.)

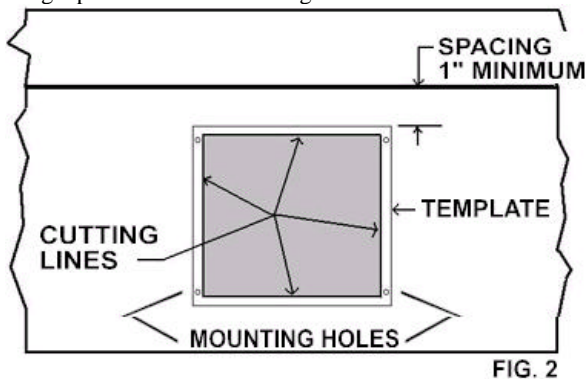
1. Regular draining of the humidifier is important, especially during the first 2 weeks of operation when the unit's output is extremely high. A considerable amount of lime and other residue is left suspended in the water in the reservoir. After 2 weeks, remove the drain cap on the bottom of the unit and drain approximately one bucketful of water.
2. Periodically check the humidifier for signs of mineral and lime build-up and drain if needed. Amount of draining depends upon water hardness.
3. Before the start of each new heating season, remove the humidifier from its mounting and clean the water reservoir of any mineral and lime build-up. Keep the drum free of any build-up that might hinder its rotation.
4. Before the start of each new heating season, check the evaporative pad for excess mineral and lime build-up. The evaporative pad should be changed at least once a year or more, depending on water hardness. Replace the pad with a Hamilton EP 034 evaporative pad.
5. A plastic window is installed on the side of the humidifier to visually check the rotating drum pad for mineral and lime build-up.

HUMIDIFIER INSTALLATION

Step One: The humidifier is designed for installation in any horizontal HOT AIR DUCT of your forced air furnace. Examine the ductwork leading horizontally from your furnace and select a hot air duct at least 12 inches wide and as close to the furnace as you can conveniently work. Recirculation by the furnace blower will keep an even humidity level throughout your home regardless of the duct. Fig. 1 illustrates a view of the duct from beneath it, looking up. Position at right angle to the direction of the hot air flow.



Step Two: Attach the paper template, supplied with this unit, to the duct by duct tape, masking tape or other suitable material. Position the template at the right angle position as shown in Fig. 2.



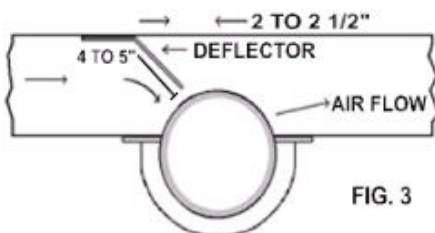
Step Three: Center Punch and drill the 4 mounting holes as indicated in Fig. 2. A 1/4" or larger drill bit is required. Holes can be as large as 1/2" diameter.

Step Four: If they are available, use both left and right hand tin snips to cut the rectangular opening in the duct. The opening may be cut with regular snips, but it's easier to use the right and left hand snips. To start cutting, drill a hole in the corner of the rectangular shape indicated by the dotted line. This hole should be large enough to accept of the snips inside. Proceed by cutting on the dotted line.

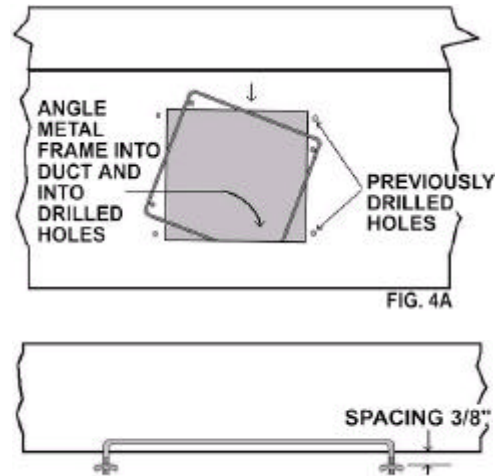
Save this the piece of metal for use in the next step.

You are now at the most important point of the installation!

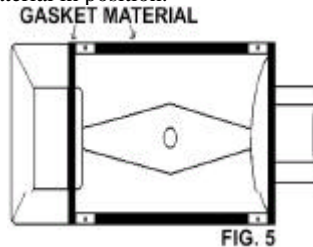
Step Five: Because of the uneven airflow in some parts of a furnace duct, it is very important to place the deflector in the roof of the duct, 2 to 2 1/2 inches upstream of the humidifier as in Fig. 3. Use the two sheet metal screws (packed with the fasteners) to mount such a deflector. Use the metal removed from the duct for such a deflector. The deflector should be at least as wide as the humidifier and about 4 to 5 inches long. Mount the deflector at a right angle to the airflow in the duct.



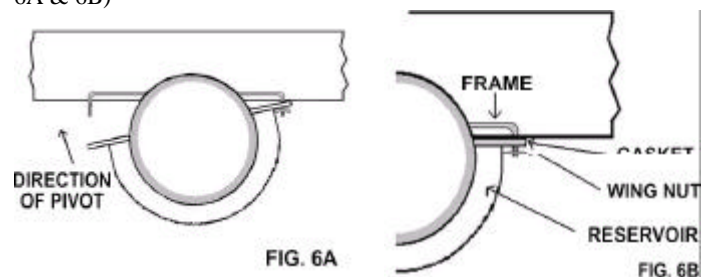
Step Six: As shown in Fig. 4A, angle the metal frame that fits around the top of your humidifier into the opening and lower it so that the bolts stick down through the 4 holes drilled previously. Thread on two of the wing nuts (included in the parts bag) to one side of the frame. Leave a space of about 3/8" between the wing nut and furnace duct (See Fig. 4B). The metal frame will not only support the water reservoir, but will strengthen the ductwork.



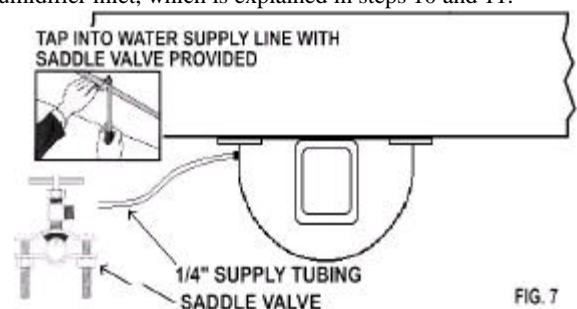
Step Seven: Four lengths of special gasket material are provided. After the frame is in place, fit each length of gasket material to the flange of the humidifier (see Fig. 5). Note that the gasket has a backing, which covers pressure sensitive adhesive. Peel off this backing and place each length of gasket material in position.



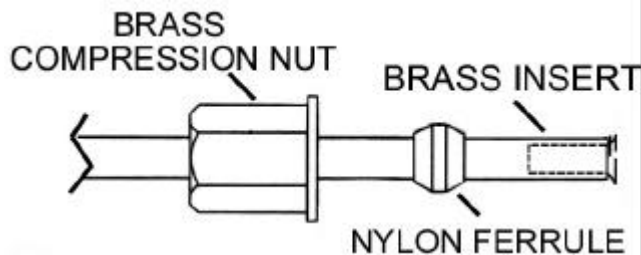
Step Eight: Carefully lift the humidifier flange into the space between the wing nuts (which were previously threaded on) and the duct. Now pivot the reservoir into its final position and tighten the wing nuts. (Fig. 6A & 6B)



Step Nine: Follow the instructions on the Saddle Valve package and make the connection to the nearest cold water pipe available. Make sure that the valve is securely fastened and that the turncock is completely backed out. Fig. 7 below also shows the water supply tubing going to the humidifier inlet, which is explained in steps 10 and 11.

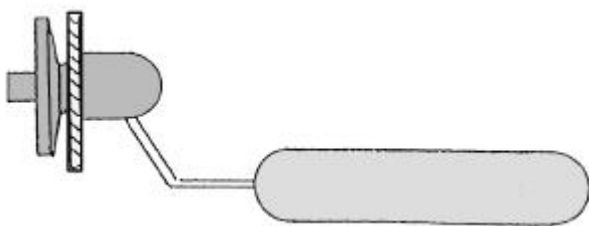


Step Ten: For your convenience, plastic water tubing has been included in making the water supply connection to the humidifier. If copper tubing is required, use 1/4" copper tubing. With the water supply OFF, assemble the plastic water supply tubing, brass insert, nylon ferrule and brass compression nut as shown. (See diagram below) Then, insert this assembled end of the tubing directly into the saddle valve and tighten down the brass compression nut.



Now assemble the other end of the plastic water supply tubing at the inlet of the humidifier. Tighten down the brass compression nut.

Step Eleven: First, make sure the plastic drain cap on the bottom of the humidifier is tightened and secure. Then the Turncock should be tightened until it bottoms out. The water line should now be pierced. Back the turncock all the way out to turn water on. Do this slowly and check for leaks. Stop any leaks by further tightening fittings. The water flow should be slow.



FLOAT VALVE ASSEMBLY

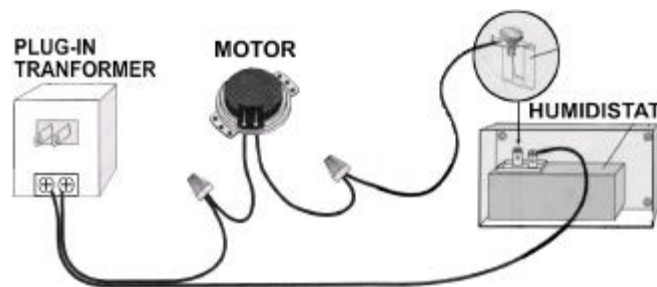
Note: There is an overflow drain tube located on one corner of the humidifier. It is recommended that a drain hose be secured to the overflow drain tube, using the hose clamp included, and run to a floor drain or other type of drain.

Step Twelve: This humidifier is supplied with a duct mount humidistat which must be located on the return (cold) air plenum or ductwork.

CAUTION: Do not install humidistat on supply (hot) air plenum. Permanent damage will result to the humidistat and improper control will result.

Follow installation instructions found in Humidistat package and mount the Humidistat.

Step Thirteen: Using the low voltage wiring included, cut three lengths and make the appropriate connections as shown below.



WIRING DIAGRAM:

Make the following connections:

- 1) One that reaches from the humidistat to the humidifier motor wire.
- 2) One that reaches from the humidistat to the plug-in transformer location. (Do not plug in at this time).
- 3) One that reaches from the humidifier motor wire to the plug-in transformer location. NOTE: Some installations may require the purchase of additional two-conductor low voltage wire. After all connections are completed, plug transformer into outlet selected.

OPERATION OF THE HUMIDIFIER:

- 1) Make sure to back the saddle valve turncock all the way out so the water is turned ON.
 - 2) Make sure the water level is adjusted correctly by adjusting the float valve assembly.
 - 3) Make sure the transformer is plugged in and the outlet is powered.
 - 4) Turn the humidistat to its highest setting. The motor should turn the drum very slowly. The motor is non directional to prolong the life of the motor: consequently, it will turn in both directions at random.
 - 5) Now set the humidistat control for automatic operation by selecting the desired humidity level. Re-adjust the humidistat control as outdoor temperature changes occur. Because relative humidity affects everyone differently, these settings can be raised or lowered to suit you personal comfort level.
- CAUTION:** Setting your humidity control higher than the listed setting could cause condensation that could cause damage to your home. If this situation occurs, turn off the water valve until condensation is gone.
- 6) See "Servicing Tips" for further information.

Congratulations

We, the employees at Hamilton thank you for your recent purchase of a Hamilton Humidifier.

With a little care, it will provide you with years of comfort.

If you have any questions about installing, servicing, or obtaining parts for your Hamilton Humidifier, feel

free to contact us at: **1-800-879-0123**

Or at: www.HamiltonHomeProducts.com

MODEL 600D
Limited One-Year Product Warranty

This limited one-year warranty covers this Hamilton Humidifier 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 Humidifiers are free from defects in material and workmanship under normal, non-commercial use and service. Hamilton will remedy any such defects as they appear within 12 months from the date of 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.- PO Box 12039, Columbus, Ohio 43212.
2. This warranty shall extend only to any non-commercial owner who has purchased this residential product other than purpose 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 15 days of equipment installation.
4. All components are covered by this limited warranty except expendable items. This warranty only applies if the unit is properly installed and operating according to the manufacturer's instructions provided with this product.
5. If within the warranty period any Hamilton product requires service, Hamilton will not pay shipping charges or, 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 or workmanship, it will be either repaired or exchanged, free of charge, at Hamilton'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 30 days of discovery. If after reasonable time you have not received a satisfactory response, notify in writing, Hamilton Home Products, Inc. PO Box 12309, Columbus, Ohio 43212. **HAMILTON WILL RECEIVE, FREIGHT PREPAID, ONLY REMOVABLE PARTS OR COMPONENTS OF SUCH DEFECTIVE PRODUCTS.**
7. This limited one-year 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's instructions; has been operated beyond factory rated capacity; altered in any such way that its performance is affected. There is no warranty due to neglect, alteration, or ordinary wear and tear. Hamilton's liability is limited to replacement of defective parts or components and does not include payment of the cost of labor charges to remove or replace such defective components or parts.
8. Hamilton 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 caused directly or indirectly by the product, 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 GIVS YOU SPECIFIC RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VERY, FROM STATE TO STATE.**
10. Any warranty work will be performed within a reasonable time, usually within 120 days after notice of defect and delivery to Hamilton's factory, subject to delays beyond the manufacturer's control.
11. Any warranty by Hamilton 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 one-year 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 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.

Hamilton Home Products, Inc.

PO Box 12039, Columbus, Ohio 43212

1-800-879-0123

www.HamiltonHomeProducts.com