READ AND SAVE THESE INSTRUCTIONS



Model 60-Series High-Capacity Steam Humidifiers

(Models 60-1, F60-1, 60-2 and F60-2)

- ✓ Warranty
- ✓ Installation Instructions
- Operating and Maintenance Instructions

CONTRACTOR: Read these instructions before installing or servicing humidifier.

HOMEOWNER: Save this manual for future reference.

Model No._____

Mfg. Date (see label on unit) _____

Installation Date: _____



Thank you for purchasing a Skuttle whole-house Steam Humidifier. We appreciate your business and consider you a valued customer. We sincerely hope you are satisfied with our product and its performance.

Skuttle is the oldest manufacturer of residential humidifiers, having been in business since 1917. Our longevity and dedication to our customers has resulted in products that are unsurpassed in quality and ease of operation. Features such as automatic controls, high-quality materials and superior workmanship make this Skuttle Steam Humidifier a valuable enhancement to your home's HVAC system. In addition to humidifiers, we manufacture air filters, make-up air controls and indoor air quality (IAQ) accessories to improve the comfort and healthfulness of your home.

As always, quality, performance and customer satisfaction are our highest priorities. The information contained in this manual will aid you and your HVAC contractor with the installation and periodic maintenance necessary to keep your humidifier operating at peak efficiency. If, at some point, you need parts or service, follow these simple procedures:

- First, try calling the heating and air conditioning dealer who installed your humidifier. This information may be located on the back of this booklet, or the dealer may have placed a reference label on your heating system.
- If you cannot locate your original installer, check the Yellow Pages under "Heating & Air Conditioning Contractors".
- If these attempts fail, email Skuttle Indoor Air Quality Products at customerservice@skuttle.com, or call us toll-free at (800) 848-9786. We'll be glad to assist you.

For further information regarding the benefits, operation and maintenance of your new Skuttle steam humidifier, refer to the applicable sections of this manual.

IMPORTANT: WARRANTY VALIDATION

The completion and return of the Warranty Registration Card (enclosed separately in your Skuttle humidifier carton) is required for warranty coverage.

The warranty described herein is not valid unless the Warranty Card is completed and mailed to Skuttle Manufacturing Company within 15 days of equipment installation.

Skuttle[®] Limited One-Year Product Warranty

This limited one-year warranty covers this Skuttle product as designated on the return portion of the Warranty Registration Card, excluding wiring, plumbing and installation.

Skuttle Manufacturing Company warrants that this product is free from defects in material and workmanship under normal, non-commercial use and service. Skuttle 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 SKUTTLE MANUFACTURING COMPANY, 101 Margaret Street, Marietta, OH 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, this product or any component requires service, it must be performed by a competent heating and/or plumbing contractor (preferably the installing contractor). Skuttle will not pay shipping 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 either be repaired or exchanged, free of charge, at Skuttle's option, and returned freight collect.
- 6. In order to obtain the benefits of this limited one-year warranty, the owner must notify the dealer or distributor in writing of any defects within thirty (30) days of the discovery. If after reasonable time, the owner has not received an adequate response from the dealer or distributor, he/she should notify in writing: Skuttle Manufacturing Company, 101 Margaret Street, Marietta, Ohio 45750. (SKUTTLE 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 Skuttle's instructions; has been operated beyond the factory-rated

capacity; or has been altered in any such way that its performance is affected. There is no warranty due to neglect, alteration or ordinary wear and tear. Skuttle'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. Skuttle will not be responsible for loss of use by 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 EX-CLUSION IN THE PRECEDING SENTENCE MAY NOT APPLY TO YOU.)
- 9. THIS WARRANTY GIVES THE OWNER 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 Skuttle factory, subject to delays beyond the manufacturer's control.
- 11. Any warranty by Skuttle of merchantability, fitness for use or any other warranty (express, implied or statutory), representation or guarantee other than what was set forth herein, shall expire at the expiration date of this limited warranty. (SOME STATES DO NOT ALLOW LIMITATION OF HOW LONG AN IMPLIED WARRANTY LASTS, SO THE LIMITATION IN THE PRECEDING SENTENCE MAY NOT APPLY TO YOU.)
- 12. Skuttle 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 prior to the effective date of such change.

How Your Humidifier Works

Your Skuttle Steam Humidifier supplies moist air to your home much the same way as outdoor air is humidified. On a warm summer day, the sun's heat evaporates water from puddles, streams, rivers, oceans, etc., turning it into vapor. The amount of water vapor *(humidity)* that rises into the air is determined by the amount of time the water is exposed to the heat source.

If you were to look inside your humidifier's reservoir, you would see an immersed, tubular heater and two floats. When your home is too dry, the humidistat (humidity control device) installed with your system activates the humidifier heater. A built-in thermostat senses the water temperature and, when the water is warm enough, turns on a relay to activate the blower on your furnace. The blower, independent of your home's heating system, disperses humidified air throughout the house. In other words, the heat necessary for evaporation is supplied by the humidifier itself, rather than by your furnace.

Once the selected level of humidity is reached, the humidifier heater turns off automatically. However, the furnace blower continues to replenish the moisture in your home until the water in the humidifier's reservoir is cooled and ceases to produce steam. All this takes place without disruption to your heating system's normal operation. When the indoor humidity drops below the desired level, the process begins again.

As water is evaporated from the humidifier reservoir and replaced by fresh water, the larger of the two float valves prevents overflow by shutting off the water at the designated level. The smaller float acts as an additional safety device, automatically shutting off the humidifier heater if, for any reason, the water level drops below the heating element.

Because water evaporated from the humidifier leaves behind all its impurities (calcium, iron, lime, bacteria, etc.), the resulting humidification doesn't pollute your indoor air. Instead, your home is freer from these contaminants, creating a healthier, more comfortable environment for you and your family.

How To Extend the Life of Your Humidifier

Mineral buildup on the humidifier's heating element is harmful to the unit. Therefore, routine maintenance is vital to the effectiveness and longevity of your humidifier.

The normal service interval will vary from one-to-three months (i.e., one or two cleanings during a typical humidification season, plus a thorough cleaning at the end of the season). The hardness of your water, your humidistat setting, weather conditions, home construction and the number of occupants in the home all affect the amount of time between cleanings.

<u>NOTES:</u> Due to the complexity of your Skuttle Steam Humidifier, we strongly recommend that you make arrangements with your preferred HVAC or plumbing contractor to clean and service the unit at regular intervals.

Some 60-series models (F60-1 and F60-2) are equipped with a Skuttle Automatic Flushing Timer, which can reduce maintenance significantly (see page 35). Nevertheless, it is wise to check humidifier for mineral buildup every two months or so during the humidification season, and to contact an HVAC dealer if necessary.)

Do not leave water in the humidifier over the warm-weather months.

If the home is left unattended for an extended period of time (e.g., when you are on vacation), turn the humidistat and the water supply to the humidifier off.

FAQs about IAQ (Frequently Asked Questions about Indoor Air Quality)

Why do I need a humidifier?

More and more homeowners are realizing that, during the winter months, they live in a "sick house". Family members suffer from dry, itchy skin, parched throats and annoying coughs. Furniture creaks, floors moan, the piano slips out of tune and static electricity zaps the cat. In general, everyone feels miserable because they're living in an environment that can be drier than the Sahara Desert!

Proper home humidification reduces static electricity, revitalizes dry skin and soothes scratchy throats. It adds moisture to dry, cracked furniture and wilting houseplants. It protects valuable artwork, antiques and musical instruments. It even saves money on winter heating bills. That's because properly humidified air feels warmer, allowing you to turn your thermostat down a few degrees.

Why should I lower my humidistat setting when the outside temperature drops?

This practice may seem illogical at first. After all, you increase the temperature on your thermostat as the weather becomes colder. Why not do the same with your humidistat?

The answer is that the *relative humidity* (RH) must be reduced in extreme cold weather to prevent condensation on windows and interior surfaces. Otherwise, the excess moisture will eventually cause damage to your home. RH refers to the percentage of water vapor in the air at a specific temperature. Because air expands when heated, the relative humidity decreases unless moisture is added. Conversely, air that is cooled contracts, causing relative humidity to increase until it reaches *dew point* – the temperature at which the air becomes saturated and water condenses (just as it does on a glass of ice water on a warm, humid day). For recommended humidistat settings, refer to the humidistat instructions contained in your humidifier carton.

I just installed a Skuttle humidifier in my house. Why don't I feel any difference?

The period of adjustment can take up to three weeks – the time needed for your furniture, woodwork, floor coverings, plaster and houseplants to absorb their natural levels of moisture.

Should I run my humidifier during the summer months?

Because, in most areas of the country, summer air is naturally more humid, it's not necessary to humidify your home until colder weather sets in.

NOTE: For additional answers to your questions, visit our website at www.skuttle.com.

Skuttle[®] Automatic Flushing Timer Flushes Drum and Reservoir Type Humidifiers Every 12 Hours



The Skuttle Flushing Timer . . .

- Automatically flushes the humidifier water pan with fresh, clean water twice daily
- Reduces buildup of minerals and dissolved solids in evaporative media and reservoirs; helps maintain the efficiency of your humidifier
- Reduces or eliminates servicing during the humidification season
- Uses minimal electricity, and uses 80 percent less water than conventional flow-thru humidifiers
- Is approved by Underwriters Laboratories
- Installs easily (by an HVAC contractor) usually within 20 minutes



Skuttle[®] Model 216 Make-Up Air Control Provides Year-Round, Filtered Fresh Air



The Skuttle Make-Up Air Control ...

- Draws outside air into the furnace, where it is filtered, heated or cooled, and circulated through your home's duct system
- Combats interior air pollution created by today's tightly constructed homes
- Reduces drafts and uncontrolled air infiltration to provide year-round comfort
- · Improves furnace efficiency by providing proper combustion air
- · Adjusts automatically; uses no electricity
- · Is made from corrosion-resistant, stainless steel to ensure long life

Skuttle[®] High-Efficiency Air Cleaners Help Homeowners Breathe Easier



Skuttle Air Cleaners . . .

- Trap most of the in-home, airborne contaminants that are potentially harmful to your health
- Provide high-efficiency, high-capacity filtration with minimal airflow resistance
- Feature deep-pleated filter media to permit extended, high-volume service up to 12 months
- Are housed in sturdy, 20-gauge, zinc-coated steel cabinets (protected by a 10-year warranty) to support up to 500 pounds of HVAC equipment and accessories
- Have an easy-lock door for an extra-tight seal and fast, easy filter cartridge replacement
- · Are available in three sizes to fit virtually any furnace installation

The Skuttle[®] "Happy House" – Your Assurance of Enhanced IAQ



Healthful indoor air (often called *indoor air quality* or *IAQ*) is significantly cleaner than the air in many of today's homes. It also contains appropriate levels of moisture and fresh outside air to aid the health and comfort of residents.

Humidification

In cold weather, dry indoor air often makes homes drier than a desert. Acting like a sponge, the parched air absorbs moisture wherever it can find it – furniture, plants, pets . . . even people. The result is a variety of discomforts and problems, including dry skin, stuffy noses, hacky coughs, sore throats, allergies, damage to furniture and woodwork, wilted plants and static electricity.

Too much or too little humidity in a home promotes an increase in bacteria, viruses, fungi, respiratory ailments and other unhealthy conditions. Skuttle humidifiers restore a home's relative humidity to a balanced, healthier, more comfortable 30-to-50 percent range. And Skuttle makes humidifiers to fit more furnace systems, floor plans and water types than any other manufacturer.

Filtration

Your body's respiratory system is designed to filter out airborne particles that are three-to-five microns in diameter. Smaller particles can be inhaled, potentially causing serious health problems. The smallest contaminants (a single micron or less) are dispersed through HVAC ductwork and make up about 99 percent of the particles circulating throughout a typical home.

Skuttle duct-mounted air cleaners capture most of these contaminants in a deep-pleated filter which traps far more particulates over a longer period than standard, flat-filter designs. The results are cleaner indoor air, longer filter life, longer furnace life and a healthier living environment.

Ventilation

A primary cause of "sick house syndrome" is a negative air pressure buildup, resulting from a lack of fresh-air exchanges throughout the home. Negative air pressure can also contribute to mold growth.

To help eliminate these problems, Skuttle manufactures two ventilation products:

- The Make-Up Air Diffuser supplies additional combustion air to appliances that have inadequate combustible air sources.
- The Model 216 Make-Up Air Control automatically draws fresh, outside air into the furnace, where it is filtered, heated or cooled, and circulated through your home's duct system. As a result, a slight pressure builds up in the home, keeping untreated air from seeping in around the doors and windows.

No wonder we call a home protected by Skuttle Indoor Air Quality Products a "Happy House". For more information, call us toll-free at (800) 848-9786, or visit us on the web at www.skuttle.com.

If you have questions about your Skuttle humidifier, or to learn which Skuttle IAQ products are right for your home, contact your local heating and air conditioning contractor:





Skuttle[®] **Indoor Air Quality Products** 101 Margaret Street, Marietta, OH 45750

Phone: (800) 848-9786; Fax: (740) 373-9565 Email: customerservice@skuttle.com; Web: www.skuttle.com

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