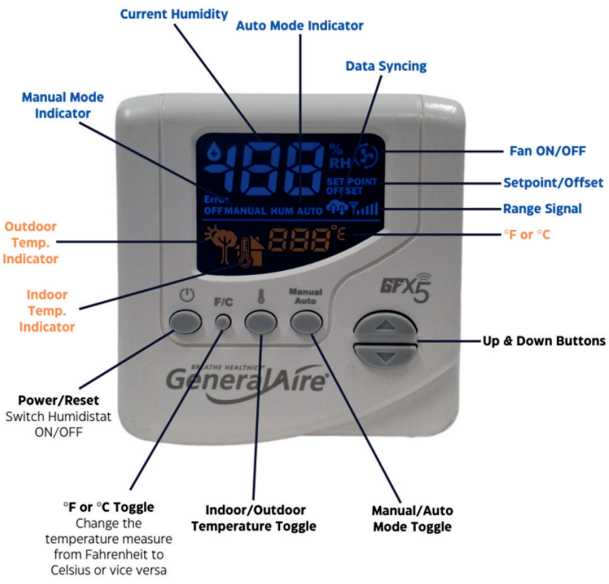
For GeneralAire Humidification App Manual

GFX5 Humidistat Installation and Operating Instructions

WARNING!

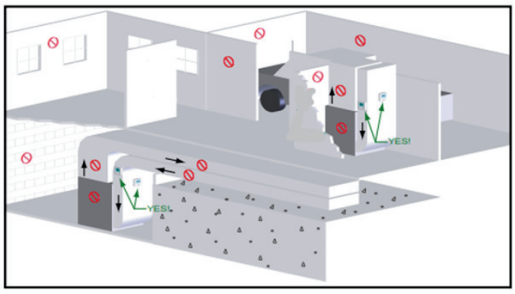
Read these instructions carefully. This Humidistat must be installed by a Qualified Technician. Always TURN OFF POWER TO THE HVAC SYSTEM PRIOR TO INSTALLING OR SERVICING the Humidifier or Humidistat. Improper operation can result in over or under humidification. Both conditions can be harmful to human health, to the structure of the house, and to many of its valued assets. Older and poorly insulated structures cannot withstand the same humidity levels as newer, well insulated buildings. This humidistat requires a 24 VAC power supply. Improper voltage can cause malfunction or damage to the control. Do not run outdoor sensor wires on or near line voltage wires. The technical specs for this product and the contents of the user manual are subject to change without notice.



About the GFX5 Digital Humidistat with Wi-Fi and Furnace Blower Motor Control

When in Automatic Mode, the GFX5 will adjust the humidity in your home based on the outdoor temperature, lowering the humidity in cold weather to reduce condensation. The GFX5 can operate in Manual Mode to control humidity to a specific Relative Humidity. In most homes, Automatic operation is preferred to reduce condensation on windows and within the structure. Manual mode is necessary where the outdoor temperature sensor cannot be installed. Manual mode may be desirable where valuable artwork, instruments or woodwork demand constant humidity. The GFX5 has the capability for HVAC blower control. The Display is easy to read. Operation and Installation are simple. The GFX5 can be mounted on the return duct of the HVAC System. For the instructions to install and operate GFX5 using your mobile device, kindly follow the steps in this manual first and then refer to the GeneralAire Humidification App connection manual.

GFX5 Locations



Technical Support

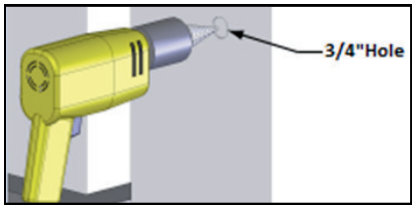
General Filters, Inc.
43800 Grand River Novi, MI 48375
www.GeneralFilters.com
Tel 248-476-5100

Canadian General Filters, Ltd.
400 Midwest Road Toronto, ON M1P 3A9
www.GeneralAire.ca
Tel 416-757-3691

Outdoor Sensor Locations

YES!	NO!
North Wall East Wall Over Snow Line Inlet of Air Intake Less than 200' from Humidistat.	South Wall West Wall Below Snow Deep in Intake More than 200' from Humidistat.

Duct Installation



Specifications

Voltage: 20-30 VAC, 60HZ
Switching Load: 1 amp max. 30 Volt
Outdoor Sensor: max. 200 ft. (61m.)

Auto Mode
Control Range: 10%-60% RH
Outdoor Temp: -10°F (-23°C) min.

Manual Mode
Control Range: 10%-75% RH

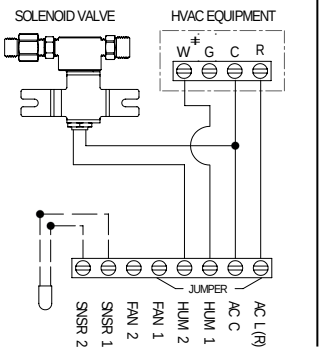
Accuracy RH
@77°F (25°C) 20%-80% ±4% RH
Accuracy Drift Per Year ±0.5% RH
Accuracy Indoor Temp ±2°F (±1°C)
Accuracy Outdoor Temp ±2°F (±1°C)

Resolution Temp. or RH 1° or 1%
Relay Close: Setting - 1% RH
Relay Open: Setting +1% RH

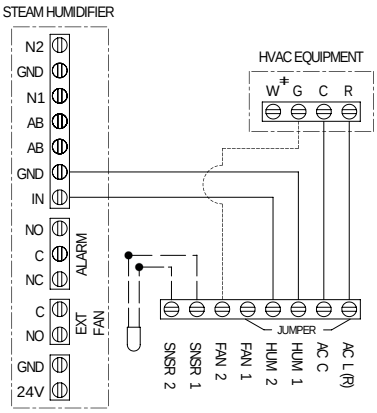
Wiring

TRANSFORMER AND PRIMARY THERMOSTAT MUST SUPPORT AN ADDITIONAL 1A OR 28VA

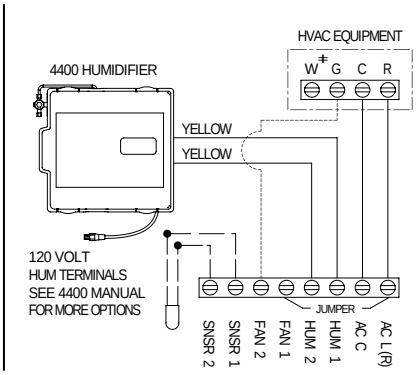
24V HUMIDIFIER
SOLENOID VALVE OR DRUM MOTOR



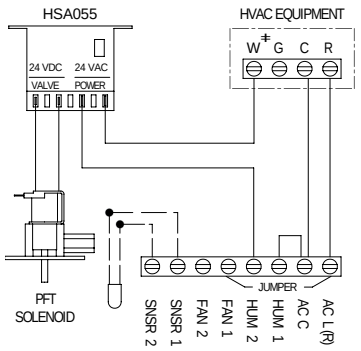
STEAM HUMIDIFIER



FAN POWER HUMIDIFIER



PFT (PULSE FLOW THROUGH) HUMIDIFIER



Wiring Note:
1. Manufacturer installed jumper is required for HVAC blower control.
2. Separate sensor leads from line voltage wires by at least 4 inches; sensor wire length 200 feet max.

≠ FURNACE CONTROL BOARD TRANSFORMER AND PRIMARY THERMOSTAT MUST SUPPORT AN ADDITIONAL 1A OR 28VA
TEMPERATURE PROBE, OPTIONAL
WIRE CONNECTION
CONNECTION FOR FURNACE BLOWER ACTIVATION, OPTIONAL

Operating Modes

Press any button to light the display.
Press the "Manual Auto" button to select the Operating Mode. (Manual Mode or Auto Mode.)

Manual Mode (Press Manual Auto Button to toggle between modes)

- The GFX5 will work to maintain the humidity selected.
- You can set your desired humidity level by pressing "UP" or "DOWN".
- The humidifier will turn ON or OFF according to your manual setting.
- The humidifier will operate when the measured relative humidity falls more than 1% below the set point until the measured relative humidity is 1% above the set point.
- Humidity may have to be lowered when weather is colder or if condensation is expected.
- The settings table to the right or a similar table may be used to compensate for cold outside temperatures.

Outdoor Temperature		Suggested Setting
°F	°C	RH%
-20°F	-29°C	15%
-10°F	-23°C	20%
0°F	-18°C	25%
10°F	-12°C	30%
20°F	-7°C	35%
30°F	-1°C	40%

Auto Mode (Press Manual Auto Button to toggle between modes)

- The GFX5 will automatically raise the humidity as the outdoor temperature increases. This provides the greatest possible humidity. The GFX5 will automatically lower the humidity as temperatures drop. This minimizes the risk of condensation on cold surfaces like windows.
- The Auto Humidity Index Set Point may be changed from 1 (low) to 10 (high) by pressing "UP" or "DOWN". The Humidity Index (Hum Index) is based on the outdoor temperature and indoor humidity. The humidifier will switch ON/OFF according to the calculated auto humidity index set point. Lower Index settings are for older homes with less insulation and poor vapor barriers. Higher Index settings are for newer homes with high R value insulation, complete vapor barriers and energy efficient windows.

See chart at right.

> 1-2 Older than 1950, no vapor barrier, little insulation.
> 3-4 Built 1950-1965, no vapor barrier, R6 insulation.
> 5-6 Built 1965-1975, craft vapor barrier, R11 insulation.
> 7-8 Built 1980-1990, craft vapor barrier, R19, energy efficient windows.
> 9-10 Built after 1990, poly vapor barrier, R38 insulation, foam exterior cladding, energy efficient windows.

- If condensation is seen, reduce index by 2 until condensation stops. The level bars indicate the humidity index; one bar for two index points.

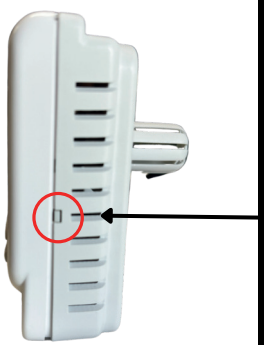
Hum Index	Outdoor Temperature °F							
	-20	-10	0	10	20	30	40	50
1	0	5	10	15	20	25	30	35
2	3	8	13	18	23	28	33	38
3	6	11	16	21	26	31	36	41
4	9	14	19	24	29	34	39	44
5	12	17	22	27	32	37	42	47
6	15	20	25	30	35	40	45	50
7	18	23	28	33	38	43	48	53
8	21	26	31	36	41	46	51	56
9	24	29	34	39	44	49	54	59
10	27	32	37	42	47	52	57	62

Limited Warranty

This humidistat is warranted to the consumer against defects in materials and workmanship for a period of one year from the date of installation. Defective parts will be repaired without charge except for removal, reinstallation and transportation costs. To obtain repair service under this limited warranty, the consumer must send the defective part to the manufacturer.

There are no express warranties covering this humidistat other than set forth above. The implied warranties of merchantability and fitness for a particular purpose are limited in duration to one year. The manufacturer assumes no liability in connection with the installation or use of this product, except as stated in this limited warranty. The manufacturer will in no event be liable for incidental or consequential damages.

Any questions pertaining to this limited warranty should be addressed to the manufacturer. USA: The manufacturer has elected not to make available the informal dispute settlement mechanism which is specified in the Magnuson-Moss Warranty Act



Display the Temperature

(Press F/C Button to toggle between Temperature Scale settings)

Press the "THERMOMETER" button to move between displaying indoor and outdoor temperature. "Tree" symbol will be displayed when showing outdoor temperature. (Outdoor Sensor is to be connected to get the outdoor temperature reading or else it will show an error message. If GFX5 is connected to the Wi-Fi app, then outdoor sensor is not required as the outdoor temperature data will be pulled from the cloud. If both the outdoor sensor and the Wi-Fi app are connected, then the primary measurement of outdoor temperature would be from the connected outdoor sensor). "House" symbol will be displayed when showing indoor temperature. To change between °F and °C units, press the small "F/C" button.

Troubleshooting

Humidifier Runs Continuously

1. If humidifier operates while HVAC system is off, check that power to humidifier is switched to HVAC operation.

Humidifier Does Not Run

1. Check wiring to/from GFX5 control. Verify 18-30 VAC.
2. If this is undesirable, change wiring to be powered only in heating periods.

Humidity Not High Enough

1. Check humidifier, water supply, electrical connections.
2. HVAC operating time too short.
3. Humidifier undersized (Review humidity load and humidifier capacity).

Humidity Too High

1. Wiring fault. Set GFX5 to "OFF" mode and check that operation ceases.
2. Outdoor sensor is being kept warm. Check that sensor is not buried in snow on south or west side of house, warmed by sun, or is too far inside of air intake

Restart Button

The location of Restart Button is on the Right side of your GFX5. Look for a small notch. (Please see the picture on the left to locate it.)

The function of Restart button is to restart the device. If your device is already connected to WIFI and APP, it will reconnect again automatically in a few seconds.