



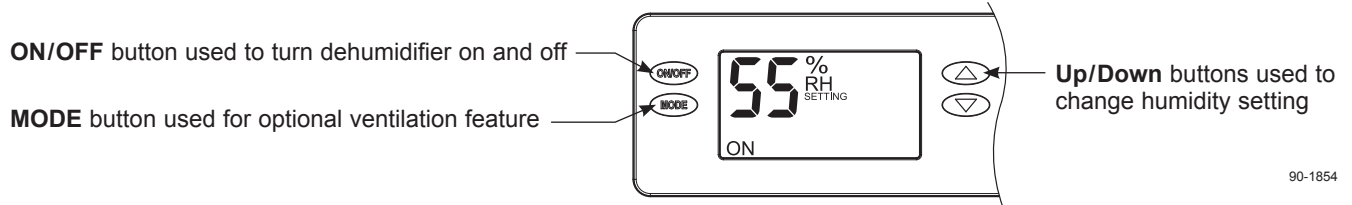
DEHUMIDIFIERS

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HEALTHY CLIMATE® DEHUMIDIFIERS

OWNER'S MANUAL FOR HEALTHY CLIMATE® DEHUMIDIFIER MODELS HCWHD5-080, HCWHD5-100 AND HCWHD5-130

THIS MANUAL MUST BE LEFT WITH THE HOMEOWNER FOR FUTURE REFERENCE



Whole Home Dehumidification

The Healthy Climate® Dehumidifier controls the humidity level in your entire home. A powerful blower inside the dehumidifier draws air into the cabinet where it is filtered before having moisture removed. A sealed refrigeration system removes moisture by moving the air through a series of tubes and fins that are kept colder than the dew point of the incoming air. The dew point is the temperature at which moisture in the air will condense, much like what occurs on the outside of a cold glass on a hot summer day. The condensed moisture drips into the dehumidifier drain pan to a drain tube routed to the nearest floor drain or condensate pump. After the moisture is removed, the air moves through a second coil where it is reheated before being sent back into the home. The air leaving the dehumidifier will be warmer and drier than the air entering the dehumidifier.

You can reduce the amount of humidity that enters the home by closing windows, doors and fireplace flues when outdoor humidity is high, and by drying clothes outside. Direct exhaust from kitchen vents and bath fans is the best means of controlling humidity due to cooking and showers/baths. The dehumidifier is not designed to prevent window condensation in winter. Use ventilation to lower indoor humidity levels in the winter.



Operating the Dehumidifier

Plug the dehumidifier into an outlet to supply power.

NOTE: The unit can remain plugged in, unless the unit will not be used for an extended period. Use the ON/OFF button on the user interface to turn the unit off for short durations. When the unit is idle (neither the fan nor the compressor running) the unit will use less than 3W of power.

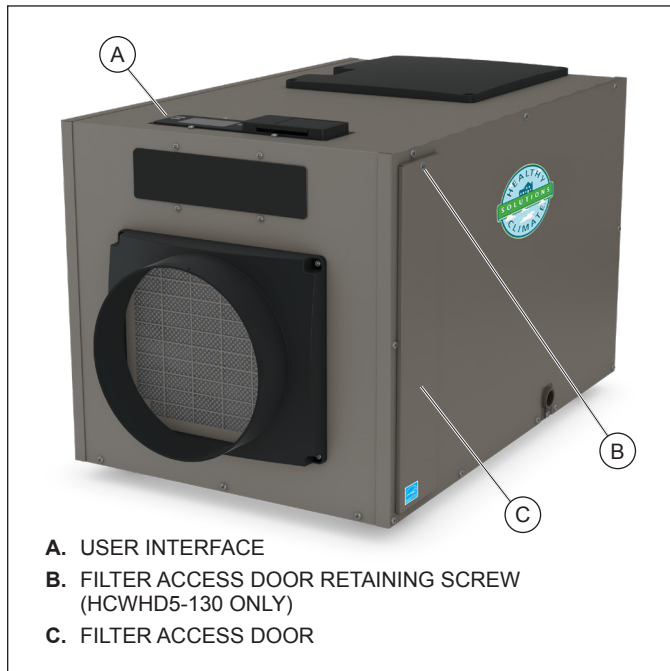


Figure 1: Exterior Components of the Dehumidifier (Model HCWHD5-130 shown)

Use the ON/OFF button (see **Figure 2**) on the user interface to turn the dehumidifier ON. **The first press of a button will turn on the display light**, so if the display was dark, you might need to press it again. Once ON, the display will show the current dehumidifier setting.

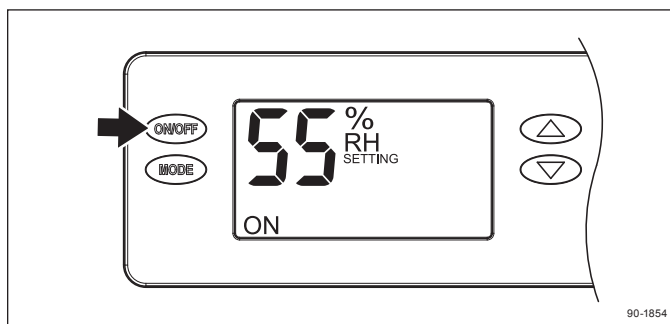


Figure 2: Turning Dehumidifier On

The dehumidifier blower will turn on, **SETTING** disappears from the display, and **AIR SAMPLING** appears (see **Figure 3**). This indicates that the dehumidifier is sampling the air to determine if dehumidification is needed and shows the measured humidity level.

If the control is already ON, lowering the setting will initiate air sampling.

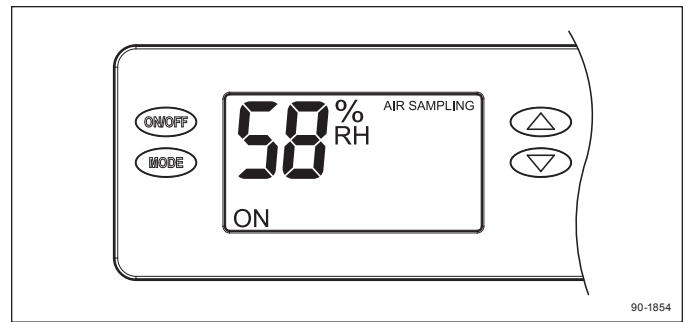


Figure 3: Air Sampling

After sampling the air for 3 minutes, if the Relative Humidity (RH) is above the setting, the compressor turns on to dehumidify the space. **DEHUMIDIFYING** appears when the compressor is turned on (see **Figure 4**).

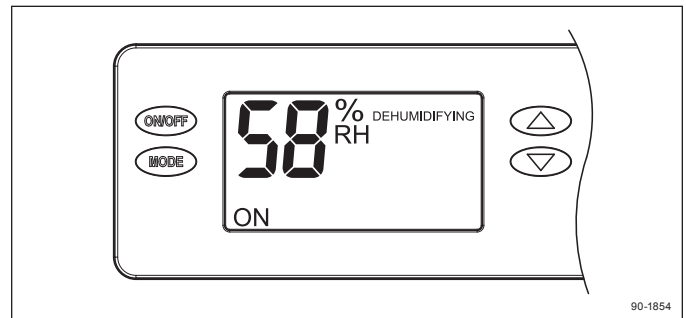


Figure 4: Dehumidifying

OPTIONAL – HEATING AND COOLING SYSTEM BLOWER OPERATION

Your installing contractor may have configured the dehumidifier to turn on the heating and cooling system blower when the dehumidifier turns on to allow for improved circulation of the dry air.

ENERGY SAVINGS TIPS

Energy Savings Tip #1:

Adjust the humidity setting to be as high as is comfortable to reduce dehumidifier run time. If it feels clammy or “smells musty,” lower the humidity setting. To save energy, turn the dehumidifier to OFF when you open your windows, just as you would with air conditioning.

Energy Savings Tip #2:

If vacating your home for an extended period in the summer, set the RH at 55% and set your thermostat as high as you are comfortable setting it to in the cooling mode. This will keep the humidity at a controlled level while minimizing the amount of cooling energy used.

External Control Options

Your dehumidifier can be controlled with a Lennox Smart Thermostat, iComfort® Thermostat, a ComfortSense® Thermostat, or an optional external control that is conveniently located in the living space. The Lennox Smart Thermostat, iComfort®, ComfortSense® Thermostats can be used to control your whole home dehumidifier by using the dehumidification features in the thermostat. The Y6456 is a dedicated dehumidifier control.

The Y6456 can also act as a remote control if the dehumidifier is located in a crawl space. Install the Y6456 in your living space and make changes to the dehumidifier setting or find out what the humidity level is in the crawl space from the comfort and convenience of the living space.

When an external control is installed, please refer to the owner's manuals for operating instructions.

If you are interested in having an external control installed, please consult your installing contractor.

How Does the Optional Ventilation Work?

If you had your contractor install the optional ventilation feature, they calculated how much fresh air was needed based on various factors (i.e. home size, number of occupants, local building codes, etc.). Knowing how much is needed and the rate at which fresh air will be brought into your home, the contractor set up the dehumidifier control to operate ventilation a certain amount of time per hour to provide the needed fresh air. When ventilation operates, a damper in a duct that brings air in from the outside opens, and your heating and cooling system blower will run to distribute the fresh air.

If you need to change the amount of time to operate ventilation, press the MODE button twice to display the ventilation time setting. Use the ▲ or ▼ button to adjust the number of minutes per hour (0–60, set to zero to turn it off) that ventilation is to run. The control will return to the dehumidifier setting display automatically.



Lennox® S40
Smart Thermostat



iComfort® E30
Smart Thermostat



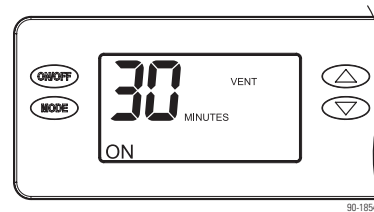
iComfort® M30
Smart Thermostat



ComfortSense®
7500 Touchscreen
Thermostat



Y6456 Control



90-1854

Maintenance

CLEANING THE FILTER

After initial installation, the air filter and drain should be checked and cleaned every 6 months.

1. Press the ON/OFF button on the user interface to turn the unit OFF.
2. Remove the filter access door (see **Figure 1**) from the drain side of the dehumidifier by unscrewing the retaining screw (HCWHD5-130) or pulling on the handle (HCWHD5-080 and HCWHD5-100).
3. Slide the filter out of the dehumidifier.
4. Rinse the filter with water to remove dust and collected particles from the filter.
5. Shake off excess water from the filter.
6. Clean the drain as described in the **CLEANING THE DRAIN** section that follows.
7. Reinstall the filter. An arrow on the filter frame shows the direction of airflow and it should point into the dehumidifier.
8. **HCWHD5-080 and HCWHD5-100 only:** If the filter does not slide back in, make sure the drain insert (see **Figure 6**) has been properly installed.
9. Replace the filter access door. Ensure retaining screw is tightened, or snap fit doors are securely installed on either side of the unit.
10. Press the ON/OFF button to turn the dehumidifier back ON.

The **CLEAN FILTER** service reminder (see **Figure 5**) will display on the control every 6 months. **To clear the service message, press the ▲ and ▼ buttons simultaneously for 3 seconds.**

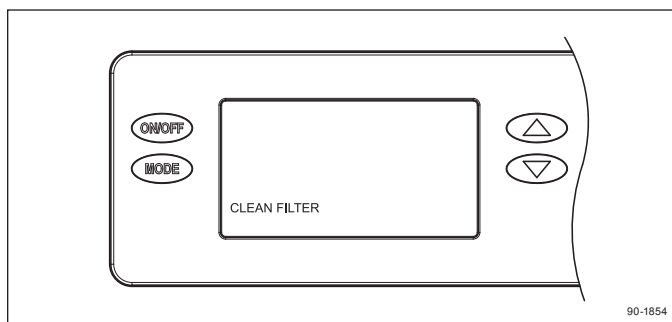


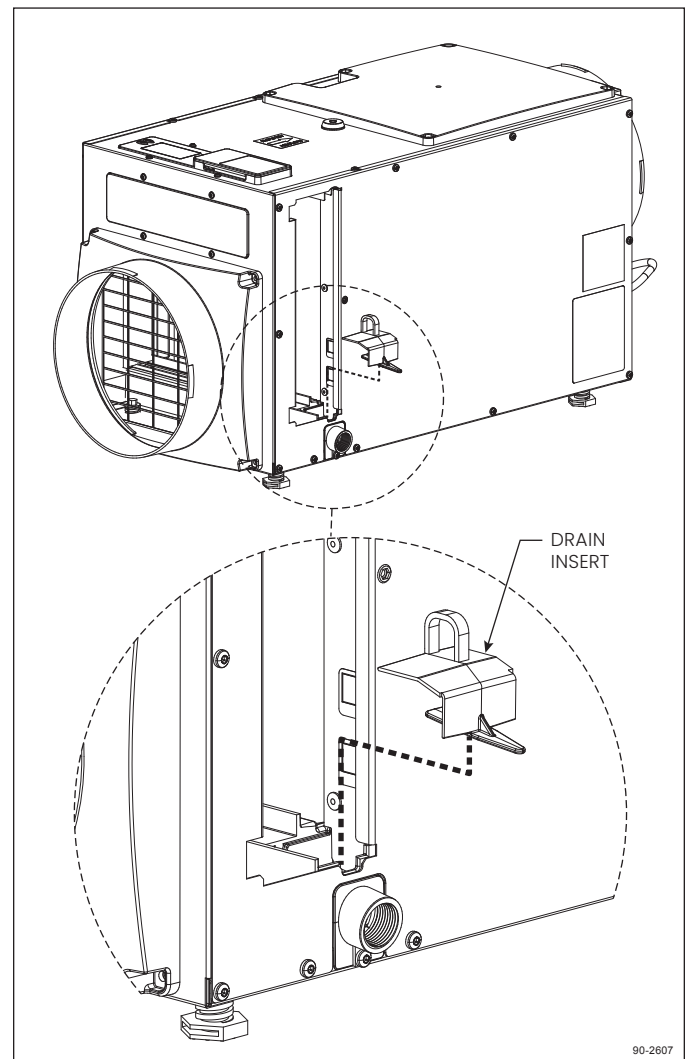
Figure 5: Clean Filter Service Reminder

CLEANING THE DRAIN

1. With the filter door on the drain side of the dehumidifier removed, reach in and pull out the drain insert (HCWHD5-080 and HCWHD5-100 only) using the finger loop (see **Figure 6**).

NOTE: Drain insert must be installed before operating.

2. Clean the accessible portion of the drain pan and the drain insert using a mild detergent.
3. If the drain has a capped tee or elbow to allow cleaner to be poured directly in the drain, remove the cap and pour approximately one cup of white vinegar into the tube (see **Figure 7**). If there is no visible access to the drain line from outside of the dehumidifier, pour approximately one cup of vinegar into the drain pan of the dehumidifier.



**FIGURE 6: Drain Cleaning
(HCWHD5-080 and HCWHD5-100 only)**

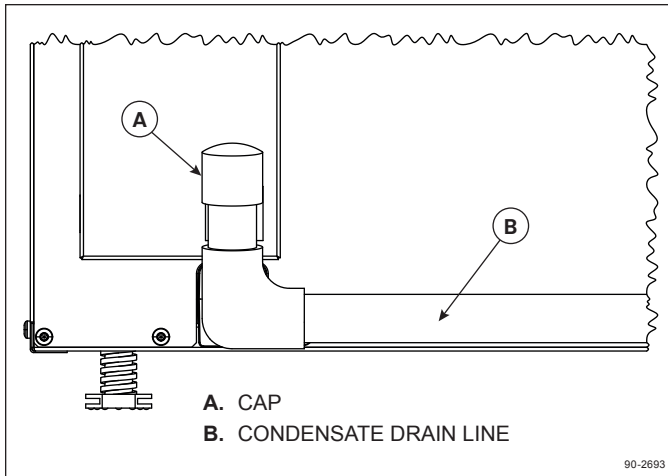


FIGURE 7: Capped Drain Access for Cleaning Process

4. **HCWHD5-080 and HCWHD5-100 only:** Reinstall the drain insert by gently placing the tip into the drain opening and rocking the insert downwards into place (see **Figure 6**). When inserted properly, the top of the drain insert will be at the same height as the filter guide channel.
5. If the dehumidifier has clear flexible drain tubing, look for excess buildup in the drain line that might prevent water flow, and replace as needed. Clear, smooth, flexible 3/4" Inside Diameter (ID) drain tubing is available in most hardware stores or Do-It-Yourself (DIY) retail stores.

CHECK THE DRAIN

The drain should be checked annually to ensure there are no blockages or air lock in the drain system. If the unit is not draining properly, have it checked by a qualified service professional.

IMPORTANT

The drain insert is a critical feature of the dehumidifier drain management system. This component is required for the dehumidifier to run properly. The air filter cannot be reinstalled if the drain insert is not in place. The air filter is equipped with a safety mechanism that prevents the insertion of the filter if the drain insert is not installed.

IMPORTANT

Running the HCWHD5-080 or HCWHD5-100 dehumidifier without the drain insert can lead to condensate leaks.

CAUTION

Do not use spray solvents or cleaners on or near the inlet side of the dehumidifier. If desired, apply cleaner to a cloth and use to clean the cabinet.

Starting Up the Unit and Sequence of Operation

Ensure unit is plugged in and power is supplied to the dehumidifier.

USING THE DEHUMIDIFIER CONTROL ONLY

1. Press the ON/OFF button to turn the dehumidifier control ON. The display will show the current humidity setting, and the dehumidifier blower will turn on to start sampling. The setting will be replaced by the measured humidity and **AIR SAMPLING** appears on the display.
 2. Use the ▲ or ▼ button to adjust the humidity setting as desired. The recommended initial setting is between **55%** and **59% RH**.
 3. After three (3) minutes of sampling, the measured humidity will be compared to the setting:
 - a. If the humidity is above the setting, the dehumidifier compressor turns on and **AIR SAMPLING** will be replaced by **DEHUMIDIFYING**. The compressor remains on until the measured humidity falls 3% RH below the setting.
 - b. If the measured humidity is below the setting, the blowers turn off and the display returns to showing the RH setting.
 4. The dehumidifier will sample again every 60 minutes, or at any time if the humidity setting is lowered.

USING A Y6456 CONTROL AS A REMOTE CONTROL

1. Press the ON/OFF button to turn the dehumidifier control ON. The display will show **REMOTE** to indicate that a remote control is to be used to control the dehumidifier.
2. At the Y6456 Control, press the ON button; the Y6456 Control will display the RH measured at the dehumidifier, and the dehumidifier blower will turn on to start sampling the air.
3. Use the ▲ or ▼ button on the Y6456 Control to adjust the dryness level as desired. The dryness levels range from **1** to **7**, with **1** being least dry and **7** being most dry; the recommended initial setting is **3**.
4. After three (3) minutes of sampling, the measured humidity will be compared to the setting:
 - a. If the humidity is above the setting, the dehumidifier compressor turns on and **ON** flashes on the Y6456 Control display.
 - b. If the measured humidity is below the setting, the dehumidifier blower turns off.
5. The dehumidifier will sample again every 60 minutes, or at any time if the dryness level is increased.

