



# Installation & Owner's Manual

## English

This Manual Covers the Following Models

(Basement)

HCS-BS-HDEX myHome

(Crawl Space)

HCS-CS-HDEX myHome

(BoosterFan)

HCS-BSF-HDEX myHome

(Apartment/Slab)

HCS-APT-HDEX myHome

HCS-APTHC-HDEX myHome (Hard Connect)

### **Manufactured by:**

ClairiTech Innovations Inc.

1095 Ohio Rd.

Boudreau-Ouest, NB

Canada E4P 6N4

**READ AND SAVE THESE INSTRUCTIONS**

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### Introduction

Congratulations on the purchase of your new Humidex system which will provide you with year-round moisture control and improved air quality for a healthy fresh and drier indoor environment. Please take note the following safety information:

**CAUTION** For general ventilating use only. Do not use to exhaust hazardous or explosive material and vapours

**WARNING!!** The carbon monoxide sensor integral to the product is not intended to be used as a life safety device and additional approved detectors are required.

**WARNING!!** To reduce the risk of fire, electric shock, or injury to persons, observe the following:

- Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction. (APTHC Only)
- When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- Unplug or disconnect the appliance from the power supply before servicing.
  - a. For permanently connected systems, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag to the service panel.
- Do not use this appliance with any solid-state speed control device.
- Do not operate any fan with a damaged cord or plug. Discard fan or return to an authorized service facility for examination and/or repair.
- Do not run cord under carpeting. Do not cover cord with throw rugs, runners, or similar coverings. Do not route cord under furniture or appliances. Arrange cord away from traffic area and where it will not be tripped over.

### Combustion Appliance Present in Dwelling

With the presence of appliances evacuating air outside the building envelope (such as range hood, bathroom fan, dryer, Humidex, etc.) there should be an adequate air supply reentering the building envelope design. If the air pressure inside the building gets lower than the barometric pressure outside air may be drawn in from any point of entry which may include a chimney. The smoke and gases from any combustion appliance (oil furnace, gas/wood stove, fireplace, etc.) **may be drawn into the building rather than go out the chimney.**

This can be prevented by lowering the maximum ventilation rate of the Humidex system or by introducing more make-up air inside the building. A fresh air kit (Air Supply Ventilator) is available from you Humidex dealer, to introduce additional air supply if needed.

**The Humidex installation includes allowing for replenishment air coming into the basement and crawl space either passively via a vent upstairs, open stairwell or with a mechanical booster fan, thereby avoiding a depressurization in the lower areas.**

## Service and Warranty

### For Customer Assistance

To aid in answering questions if you call for service or warranty purposes, please record below the model and serial number located on the side of the unit.

Product Name:
Model #:
Date of Manufacturing:
Date of Purchase:
Serial #:
Dealer Name (If Any):

**Please Note** the above information before contacting us.

#### For the Following Inquiries:

- Service
- Parts
- Accessories
- Additional Customer Information

#### Please contact us by:

Phone: 1-888-533-1348

Email: [support@clairitech.com](mailto:support@clairitech.com)

Website: [www.humidex.com](http://www.humidex.com)

### **IMPORTANT**

To properly validate your warranty, you must fill out and return the warranty card as soon as possible. If your unit is not registered, a proof of purchase will be necessary should it require any services. You can also register your warranty online <http://www.clairitech.com/register>.

## Consumer Limited Warranty

ClairiTech Innovations Inc. warrants to the first consumer that this product, when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, at its discretion, either repair the defect or replace the defective Product or part thereof with a new or remanufactured equivalent at no charge to the purchaser for the period(s) set forth below. The defective part must be returned to the manufacturer ClairiTech Innovations Inc. All transportation charges are the sole responsibility of the purchaser.

This warranty does not cover any appearance items of the product nor if the items or product have been damaged, defaced, subjected to improper voltage, abnormal service or handling, has been altered or modified in design or construction or was installed and has been rendered inoperable for an extended period of time.

In order to enforce the rights under this limited warranty, the purchaser must fill out and return the warranty card as soon as possible. If your unit is not registered, a proof of purchase will be necessary should it require any services.

Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described herein, or to extend the duration of any warranties beyond the time period described herein on behalf of ClairiTech Innovations Inc.

The warranties described herein shall be the sole and exclusive warranties granted by ClairiTech and shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period described herein, shall constitute complete fulfillment of all liabilities and responsibilities of ClairiTech to the purchaser with respect to the Product, and shall constitute full satisfaction of all claims, whether based on contract, negligence, and strict liability or otherwise. In no event shall ClairiTech be liable, or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than an authorized servicer, unless approved by ClairiTech in writing. Nor shall ClairiTech be liable or in any way responsible for any incidental or consequential economic or property damage.

Warranty Period for this product:	Five (5) years on all electrical components (excluding the wireless control) Two (2) years on the wireless control.
Additional Items Excluded from Warranty Coverage (If Any):	Appearance items of the product, Exterior vent and any printed material.
Where to obtain service:	From the Manufacturer. (Refer to Page 4)

**myHome Limited Warranty:**

ClairiTech Innovations Inc. offers a one-year limited functionality warranty for myHome system.

**Liability Limitation:**

ClairiTech Innovations inc. cannot be held responsible for any changes, modifications, **or** updates made by third parties (platforms, operators, etc.) which could alter the proper functioning of the system and the myHome application.

**This warranty is non-transferable and applies to residential use only.**

To obtain supply, accessory, or product information, contact us.

**Refer to Page 4 for Contact Information.**

## Humidex

### Pre-Installation

#### Included Components

Before installing your Humidex, be sure that you have the right model and accessories. The following items should be included in the accessory box. If parts are missing, contact our customer service at US 1-888-533-1348, Can. 1-800-416-9111.

Accessories will vary on which unit was purchased.

HCS Basement unit and HCS Crawlspace unit		
1x Owner's Manual	2x Cable Ties	1x Checklist
1x Warranty Card	1x Cover plate	1x Aluminum tape
1x Vinyl Flex 6" x 24"	4x Plastic Anchors	4x Truss screws #8 x 1 1/4
1x Exhaust Vent 6"	4x #8 x 2" Screws	6x #8 x 1/2" Screws
1x DC Power block	1x Control	1x Stand for control
1x Pipe 6" x 8"		

HCS Apartment Unit	
1x Owner's Manual	2x Cable Ties
1x Warranty Card	1x Aluminum Tape
1x Vinyl Flex 6" x 24"	4x Plastic Anchors
1x Exhaust Vent 6"	8x #8 x 2" Screws
1x Checklist	6x #8 x 9/16" Screws
1x Pipe 6" x 8"	

HCS Booster Unit	
1x Owner's Manual	6x #8 x 9/16" Screws
1x Warranty Card	4x #8 x 2" Screws
1x Universal Boot	4x #8 x 1 1/4" Truss Screws
6Ft. 6" Insulated Flex	1x 4" x 10" Toe Space Grill
8x Cable Ties	4x Plastic Anchors
1x 6" Damper	25ft 6" non-Insulated Flex
1x 6" by 6" by 6" Galvanized T	

Additional grilles for replenishment air and interior rooms not included.



### Tools Required for Installation

- Electric reciprocal or hole saw 6¼"
- Drill with a ¼" concrete bit
- Phillips or Robinson Screw Driver
- Measuring Tape
- Hammer
- Pencil

For concrete, cinderblock or brick installation, use a hammer drill with chiseling ability ½" x 16" long and a chisel bit 1" thick.

### Key Installation Facts

- 1) Unit must be installed at floor level – up to 3" off the floor.
- 2) Unit should be installed as far away as possible from the source of replenishment air.
- 3) Outside duct must be no less than 6" and dedicated for the HCS Unit only.
- 4) A sufficient replenish air passage must be provided between the location where the unit is installed and the remaining part of the house or apartment.
- 5) The area within a radius of 4 feet around the unit should be clear to allow the air to be pulled into the vents.
- 6) Unit should not be installed within 8 feet of combustion appliance.

### IMPORTANT – What Not to Do

- 1) DO NOT install the unit more than approx. 3 inches off the floor.
- 2) DO NOT make more than one turn with the duct and the ductwork should not be longer than 3 feet in total, unless rigid ducting is used - see "Ducting", Page 11.
- 3) DO NOT crush the vinyl Pipe.
- 4) DO NOT install the unit next to a replenishment air supply.
- 5) DO NOT install the unit within 8 feet of a heat source (Radiator, heater, etc...).
- 6) DO NOT install in remote closed off areas or where there are obstructions to the airflow.

## Humidex

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### **Ideal location installation locations**

#### For HCS-BS or HCS-CS

Air drawn in by Humidex pulls moisture off the surface floors and walls. To maximize the effectiveness;

- A) Install unit in dampest, coolest, and lowest part of basement.
- B) If possible, without hindering point “A”, install the Humidex as far away as possible from the source of replenishment air (i.e. stairwell) from upstairs or from replenishment air grill in crawl space area. This will allow for the unit to draw in the maximum moisture across the greatest surface distance before the upstairs replenishment air is pulled into the unit.

#### For HCS-BSF

The booster fan unit should be installed no further than 20 feet from the HCS exhaust for optimal performance. The air exhausted from the booster should also be directed away from the HCS exhaust unit by using the non-insulated flex provided.

#### For HCS-APT or HCS-APTHC

To determine the best location, examine the dwelling for an outside wall where you could install the HCS-APT or HCS-APTHC. This location should be as far as possible from sources of replenishment air such as windows, hallways and doors. Try to find a location where no electrical wires or pipes are present inside the wall. The unit must be installed on an outside wall.

### Installation HCS-BS / HCS-CS

#### Replenishment air to Basement from Upstairs

The damp air exhausted by the Humidex must be replaced by the warmer/drier air from the upper levels. If there is no open stairwell, the airflow is restricted from coming down, then install a passive return grille with 100 sq. inches either in the door, in the wall, or in the floor to allow unobstructed air downstairs. Alternatively, you can shave down the door leading to the basement by 2"-3". For the HCS-CS with BSF, a replenishment grille is provided with the booster fan.



When the flow is limited or inaccessible between rooms downstairs (if there are walls or partitions), then install a grille 10" x 14" (or other grill configuration, having total area of not less than 100 sq. in.) in the bottom of the door or wall to avoid having stagnant air in those areas. Otherwise interior doors must remain open. This insures that all the air drawn into the Humidex comes from all areas of the basement.

Generally, for improved performance, it is best to keep all exterior basement/crawlspace doors, windows and vents closed. This will assure that the air is replenished with the air from upstairs and not with the humid air from outside.

Please check to make sure there are no openings/leaks around windows, doors, vents or other places, where outside humid air can enter the basement/crawlspace. Make sure that A/C Ducts are properly sealed and that all A/C Leads to the basement are closed. Sump Pumps holes should be properly covered.



**The replenishment air area must have a minimum size of 100 sq.in.**

### Selecting the Duct Location

Now that you've decided where to install the unit, you must select a location for a 6¼" duct hole in the outside wall. This hole is needed to pass a duct through the outside wall. Make sure that the hole's location is above ground level. Also make sure that the hole doesn't line up with a stud, electrical wires, or pipe.

For an interior wall installation: The distance between the Humidex back and the exterior wall should not be more than 12 feet. For this application the flex has to be replaced with rigid piping. Optional: The bottom cap may be removed for added airflow.

### Ducting

The HCS-BS comes in two sections that allow for flexibility in positioning the duct at the most convenient height. For both models you can duct from the back of the unit, or from the top of the unit by removing the top cover. The duct can go through an outside wall, the floor joist or window. The duct should be vented above ground level to the outside or below ground into a window well that is open and not sealed off to the outdoors. The outside louver should be high enough to avoid infiltration of snow, flooding and rodents, etc. All necessary parts and outside louvers are included.

In cases where the basement height clearance is too low, the top portion of the bottom section can be cut down by a maximum of 40 inches with a cutter, leaving the vents at the bottom intact, for a minimum unit height of 62 inches. For extra high ceilings, an extension piece of 24 inches is available which can be added at the top of the unit.

When ducting the unit outside, no more than 3 feet of Vinyl Flex should be used. When circumstances require a longer span, rigid ducting can be used from the inside of the unit to the wall. The rigid duct will improve the airflow to compensate for the additional distance the air has to flow to reach the outside.

When replacing a pane for a window installation, use pressurized wood or similar water/rot proof material.

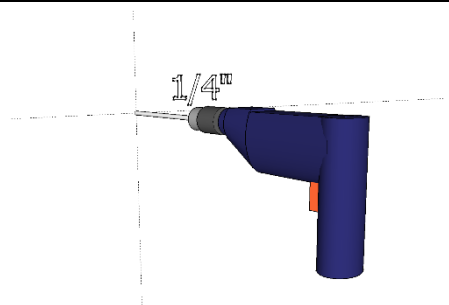
Make sure that no pipes, studs or wires are in the way.

The duct has to be dedicated and not combined with any other existing ductwork in operation. Seal well around the outside opening.

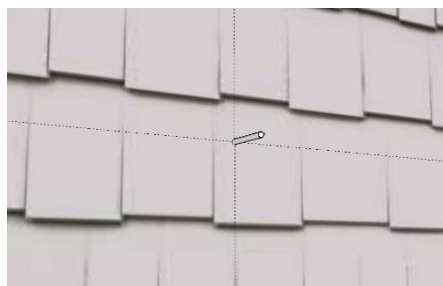
## Preparing the Humidex for Installation

Now that an installation location has been chosen a hole must be made for the vent. Start by measuring the required Unit height and mark the location of the hole. Remember that the units cannot be higher than 3" off the ground.

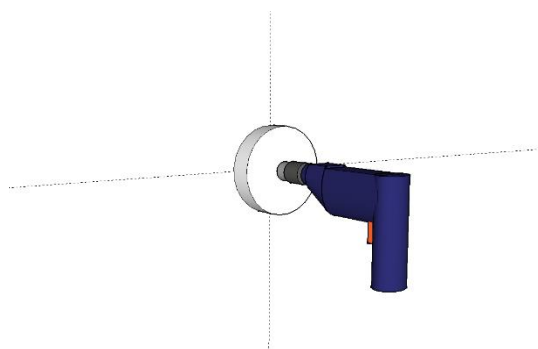
From the inside, drill a pilot hole of approximately  $\frac{1}{4}$ " wide at the center of the proposed  $6\frac{1}{4}$ " hole.



Outside the building, find the pilot hole.



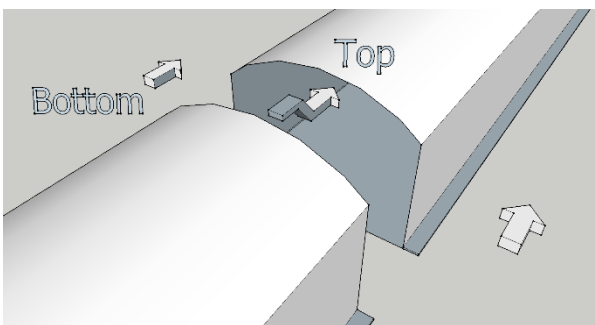
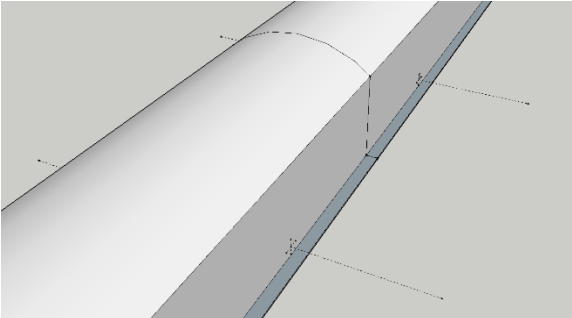
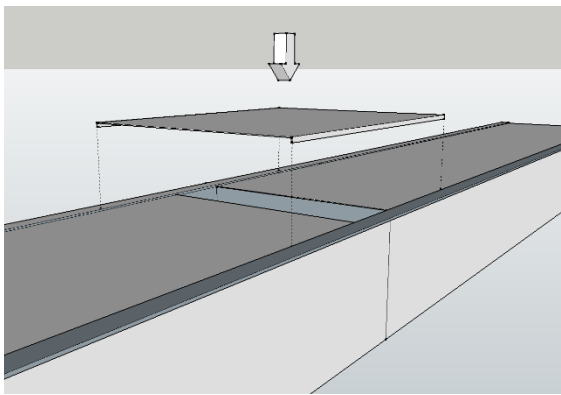
Now using a hole-saw, with the pilot hole as a guide, drill a  $6\frac{1}{4}$ " hole.



**Brick or Concrete Wall:** There are two ways of going through brick or concrete. The first method consists of using a hammer drill. Make holes (approximately  $\frac{5}{8}$ " ) with the hammer drill 1" apart through the brick in a circular shape outlining the  $6\frac{1}{4}$ " hole. Finish cutting the outer edge of the hole using a chisel. If a hammer drill is not available, a chisel can be used. As brick is brittle chiseling from the center of the pilot hole will chip the brick easily. Continue chiseling until you reach the outer edge of the  $6\frac{1}{4}$ " hole.

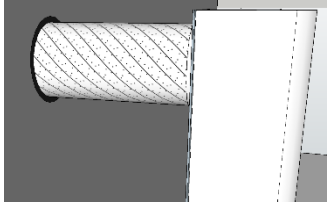
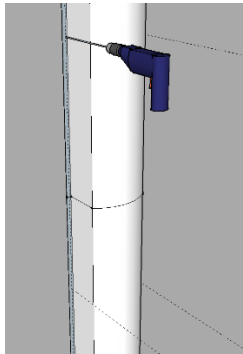
## Putting the unit together

### For HCS-BS Only

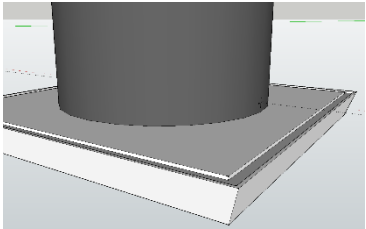
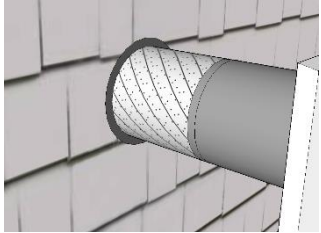
<p>Join the two halves (Bottom section must fit inside Top section) of the HCS-BS casing together, overlapping the two pieces such as the desired height is obtained. Remove screws if necessary.</p> <p><b>NOTE:</b> If the unit has to be shorter than 85" cut the top of the bottom part.</p>	
<p>Secure the two halves together using 1/2" metal fastening screws.</p>	
<p>A cover plate can be used to close the gap between both halves if necessary. Using aluminum tape or duct tape seal the seam in the back where the two halves join together.</p>	
<p><b>Note:</b> When installing the <b>optional</b> 24" extension, remove top cap and straighten the 90° elbow. Use the 6" galvanized pipe to extend the length needed. Cut the pipe to the proper length before snapping it together. Attach the top cap to the extension cover with the 4 screws provided. Add exterior cover to the base and fasten securely with the provided screws.</p>	

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### Fasten the unit to the wall

<p>With the help of a tie wrap attach the flex pipe to the collar on the back of the unit before attaching the unit to the wall. Insert the other end of the flex pipe inside the hole in the wall.</p> <p>(a few Small 9/16" Screw can be used to affix the flex to the mount)</p>	
<p>Leaving a 1-inch gap between the top of the unit and the ceiling, drill 1/4" pilot holes through the lips of the unit and the wall.</p>	
<p>Insert the four plastics anchors in the wall with the help of a hammer.</p>	
<p>Secure the HCS-BS or HCS-CS Unit to the wall using the four 1 1/4 inch screws provided.</p>	

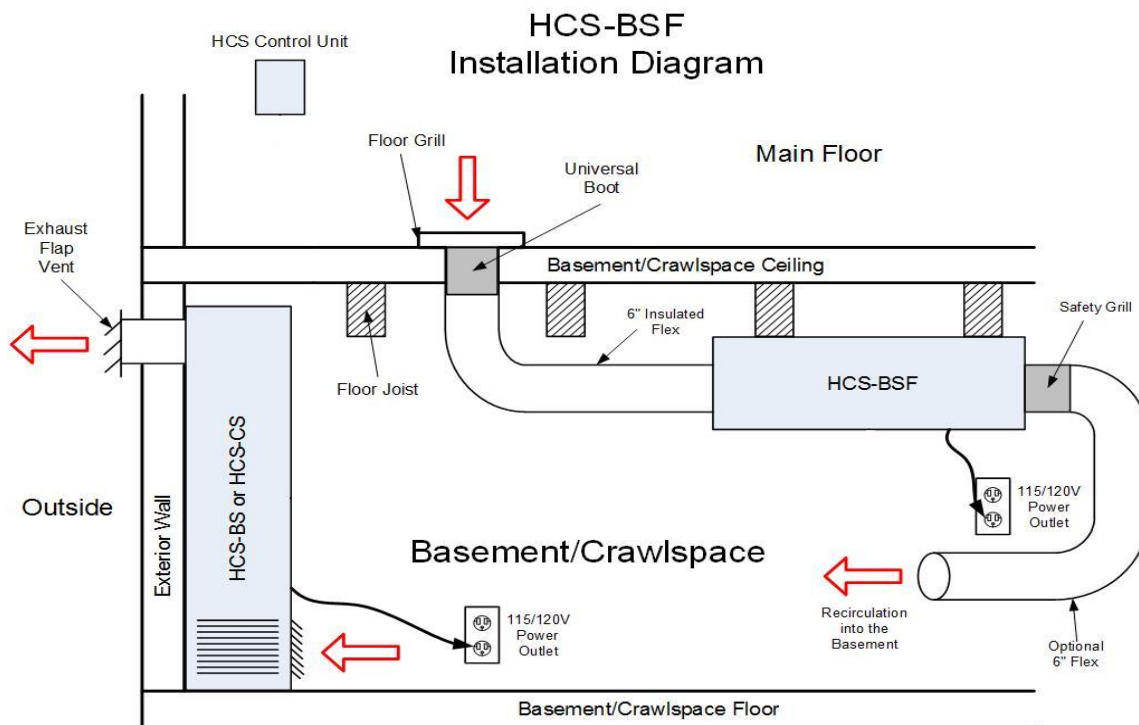
### Attaching the Flex and Outside Vent

<p>Roll the flat metal plate into a cylinder and interlock both ends.</p> <p>Attach the vent to the newly formed 6" pipe with the 1/2 inch screws provided.</p> <p>From the outside, pull the flex pipe through the 6 1/4" hole onto the 6" pipe and attach it with a 24" cable tie.</p>	
<p>Insert four 2-inch screws to secure the vent to the outside wall. Make sure the vent is not twisted by inserting the screws too tight and that the flaps are working properly.</p>	
<p><b>NOTE:</b> If high winds are often present in the location of the vent, they may cause a wind noise inside the house. If this is the case, an <b>anti-gust hood</b> (AGH-990) is available from your Humidex dealer.</p>	

## Installation HCS-BSF

1. To minimize noise propagation, install at least 6 ft. of 6 in. insulated flex between the universal duct boot (connected to the floor register) and the HCS-BSF.
2. To further decrease noise propagation, 6 ft. of insulated flex can be used on the exhaust side of the unit. (Not Included)
3. Flex to pipe the HCS-BSF away from the exhaust system. Note the airflow arrow directions
4. If the building codes in your area require a backdraft damper to be installed, it must be placed on the exhaust side of the booster fan to limit the impact on the total airflow through the unit.
5. This unit is typically sold with an HCS exhaust system. If this is the case, then the HCS-BSF system is made to replace your Replenishment vent required in other HCS exhaust systems.

## Typical Installation Diagram





## Installing and Wiring the Booster Fan

To allow the booster fan to draw air from the upper levels, a universal boot must be installed. First locate a safe place to cut out a hole to fit the universal boot. Once a safe and adequate area had been found, proceed by cutting the hole.

With the hole cut, install the universal boot which will allow the unit to pull the air down.

Once the boot has been installed, the HCS-BSF can be mounted on a floor joist a minimum of 6 ft. away from the universal boot to reduce noise. Connect the universal boot to the booster fan with the 6 in. insulated flex provided.

If the building codes in your area require a backdraft damper to be installed, it must be placed on the exhaust side of the HCS-BSF to limit the impact on the total airflow through the unit.

**Note:** A T-junction duct and flex can be added to the exhaust side of the HCS-BSF to direct air into all areas of the crawl space

Now that the booster fan has been installed, it must be connected to the rest of the system. Run the white cable from the booster to the main exhaust.

**Note:** These steps must be completed before plugging in the booster fan.

After the white cable has been run it must be connected to the system. Make sure the main HCS exhaust unit is unplugged before connecting the booster fan.

### Wiring Guide:

Yellow Wire – B

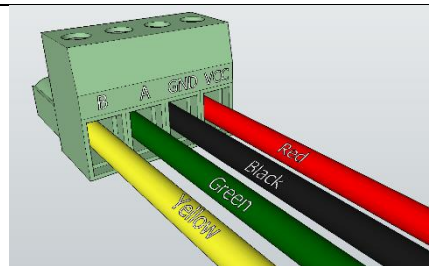
Green Wire – A

Black Wire – GND

Red Wire – VCC

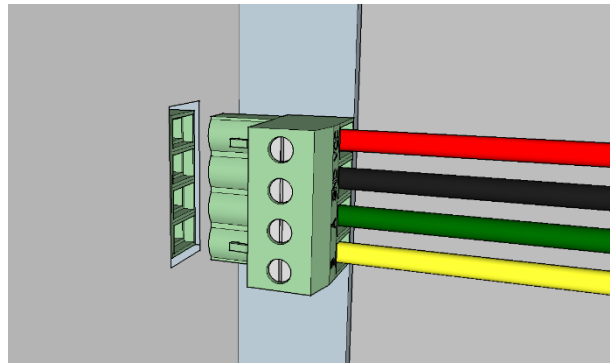
**Note:** The main exhaust unit must remain unplugged until the booster fan installation is complete.

On the booster fan's end of the cable attach the black connector with the wiring matching the following wiring guide.



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Now that the connector has been wired, insert it into the booster fan unit.



Now that the booster fan has been installed and connected to the main exhaust unit, it can be plugged into any 115V outlet. Afterwards, the main exhaust unit can be plugged in.

**Note:** A grounded extension cord with a maximum length of 10 feet may be used if necessary.

## Installation HCS-APT/HCS-APTHC

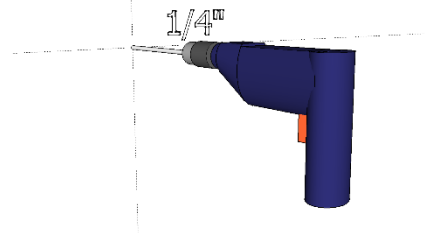
### Selecting the Duct Location

Now that you've decided where to install the unit, you must select a location for a 6 1/4" duct hole in the outside wall. This hole is needed to pass a duct through the outside wall. Make sure that the hole doesn't line up with a stud, electrical wires, or pipe.

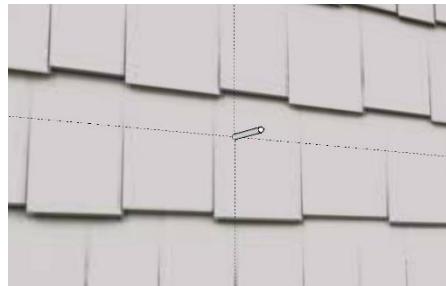
### Preparing the Humidex for Installation

Now that an installation location has been chosen a hole must be made for the vent. Start by measuring the required Unit height and mark the location of the hole. Remember that the units cannot be higher than 3" to 6" off the ground.

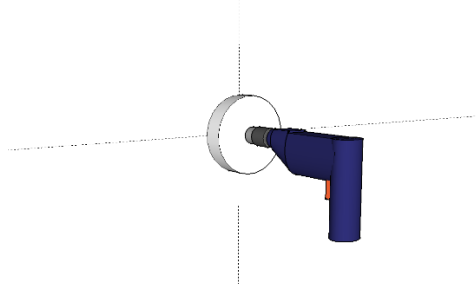
From the inside, drill a pilot hole of approximately 1/4" wide at the center of the proposed 6 1/4" hole.



Outside the building, find the pilot hole.



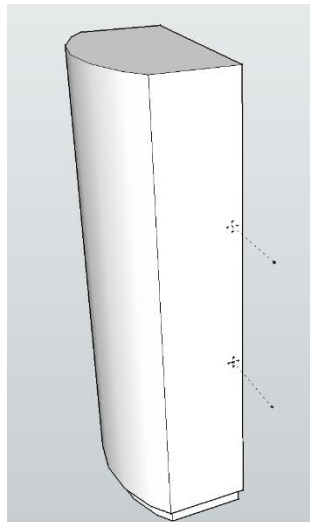
Now using a hole-saw, with the pilot hole as a guide, drill a 6 1/4" hole.



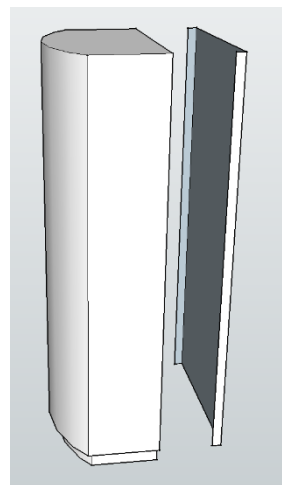
**Brick or Concrete Wall:** There are two ways of going through brick or concrete. The first method consists of using a hammer drill. Make holes (approximately 5/8") with the hammer drill 1" apart through the brick in a circular shape outlining the 6 1/4" hole. Finish cutting the outer edge of the hole using a chisel. If a hammer drill is not available, a chisel can be used. As brick is brittle chiseling from the center of the pilot hole will chip the brick easily. Continue chiseling until you reach the outer edge of the 6 1/4" hole.

## Mounting and installing the unit

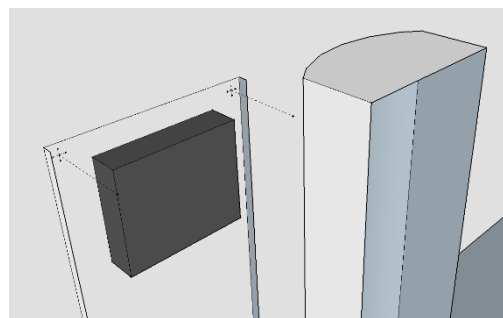
Remove the 4 white screws on the side of the unit. (These are along the back edge of the unit and are holding the back piece)



Separate the front aluminum piece (Front Cover) from the back galvanized piece (Back Plate).



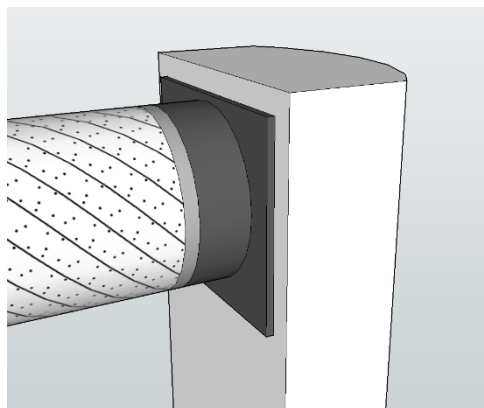
Place the unit at its chosen location. Now scribe the four holes on the wall where the rubber grommets are installed. Remove the machine and drill four 1/4" holes where previously scribed. Apply anchors in the holes using a hammer.



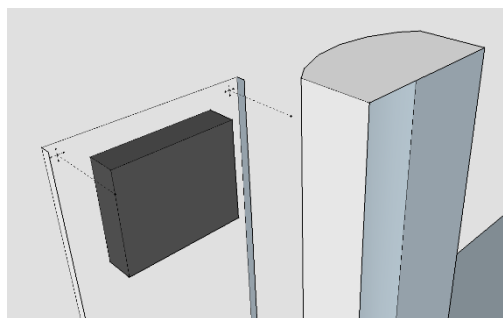
## Humidex

Before mounting the unit's back plate to the wall, attach the flex pipe to the collar on the back of the unit and insert the other end of the flex pipe inside the hole in the wall. (A 24" cable tie or a few small 9/16" screws can be used to affix the flex to the collar)

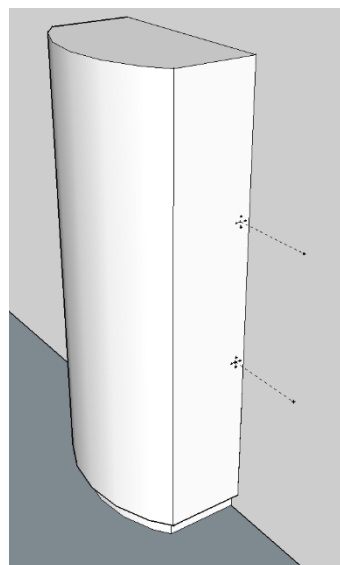
**NOTE:** For instructions on permanently connected model (APTHC), please see Page 10 for Wiring Instructions. Please note that this model requires a qualified person for installation.



Now fasten the unit to the wall using the 4 x 2" screws provided.

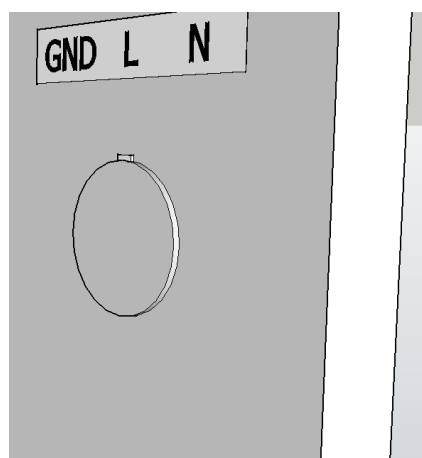


Replace the front of the unit using the 4 screw caps with the 4 original screws.



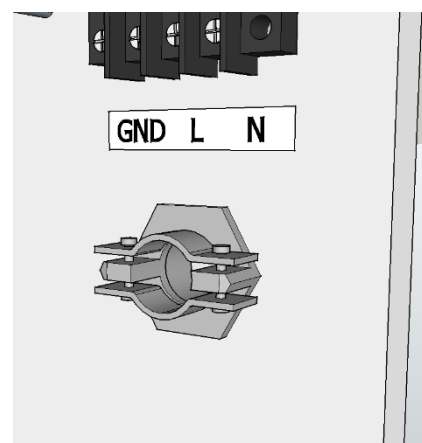
## Steps for the HCS-APTHC only

Before the wiring can be completed, the EKO punch must be removed from the back plate

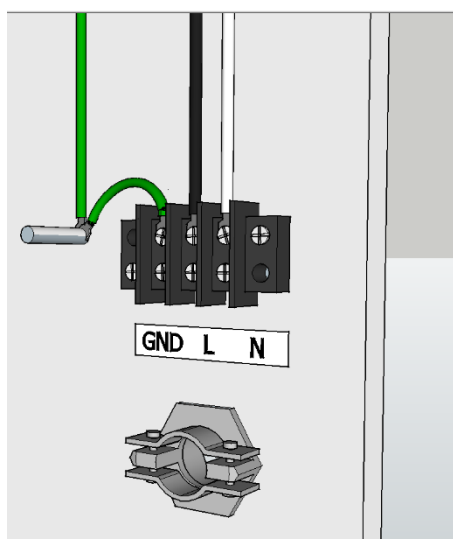


An electrical fitting needs to be installed. With the fitting installed the wire can be inserted inside the unit and connected.

**Note: Fitting not included**



Once the wire has been run through the plate, you must connect the wire to the unit matching the colors of the inside wires. After the wiring has been completed return to the original installation procedures.

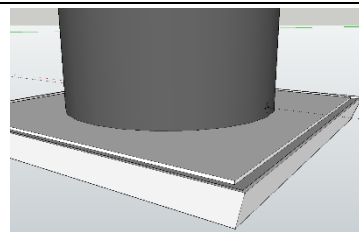


## Attaching the Flex and Outside Vent

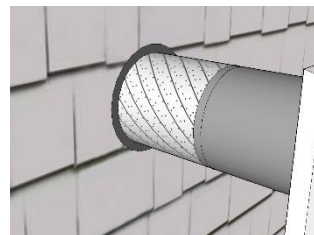
Roll the flat metal plate into a cylinder and interlock both ends.

Attach the vent to the newly formed 6" pipe with the 1/2 inch screws provided.

From the outside, pull the flex pipe through the 6 1/4" hole onto the 6" pipe and attach it with a 24" cable tie.



Insert four 2-inch screws to secure the vent to the outside wall. Make sure the vent is not twisted by inserting the screws too tight and that the flaps are working properly.



**NOTE:** If high winds are often present in the location of the vent, they may cause a wind noise inside the house. If this is the case, an **anti-gust hood** (AGH-990) is available from your Humidex dealer.

Now that the system has been mounted the HCS can be plugged into any 115V outlet.

Note: A grounded extension cord with a maximum length of 10 feet may be used if necessary

### Unit Operations

**Note:** The unit will operate with all of its features without the need to connect it to your home's Wi-Fi (Internet). Wi-Fi is only necessary when the mobile app is being used for controlling and monitoring the system.

#### **The first time running the unit...**

When the unit is first turned on, it will run at medium speed for 6 hours. During this initial 6-hour period, it is important to allow it to run uninterrupted, since the unit will take readings that will be important to determine the best operating speed that will, over time, get the most energy efficient ventilation for the entire home and maximum reduction of relative humidity.

The HCS myHome are programmed to a default humidity setting of 55%.

The relative humidity level will vary constantly, and the unit will adjust the ventilation rate in relation to the prevailing conditions and settings. By default, the Relative Humidity is set at 55% as a target level. In the winter you can lower it to 45%.

After power outages or whenever the unit is powered down (unplugged) and powered up again (plugged into the wall again), the unit reads the last recorded settings and will return to its regular operation mode.

**Note:** For the unit to function properly and to allow the unit to provide the best energy efficient ventilation and humidity control, all windows, doors with access to the outdoor and vents to the outdoor should be closed to prevent an excessive amount of outdoor air from entering directly into the house.

#### **Carbon Monoxide**

The HCS myHome unit also contains a Carbon Monoxide (CO) sensor which allows the unit to monitor CO levels in your basement/crawl space. If the unit detects an elevated level of CO, the HCS will automatically begin a high rate of air expulsion to exhaust the air mass, until the levels subside and will send a notification to the mobile app (if configured). However, due to the unknown nature of the source of CO, the system cannot guarantee that it will be able to evacuate the CO from your home. The sensor needs to perform an initial 48-hour burn to clean itself upon first installation to accurately detect CO. During that time the unit will not be able to monitor CO.

**Warning! - It should also be noted that the Humidex device cannot replace a certified Carbon Monoxide (CO) detector or alarm.**



### **Vacant Homes**

Performance results are maximized when the building is occupied. If home is vacant for a prolonged period, then the unit should be set to operate at low speed.

### **Maintaining your HCS**

The HCS Products do not require any internal maintenance. The only maintenance needed for your HCS is a periodic vacuuming of the dust accumulation at the intake grilles or louvers located at the bottom of the unit. For proper functionality do not store anything within a radius of 4 feet around the base of the Humidex.

### **What is the dew point?**

The dew point is one of the three important variables when discussing the conditions in your home. Understanding the dew point will help you understand how the HCS unit operates and how it will help to reduce the relative humidity (RH%) level infiltrating your home and reduce excess humidity, while providing energy efficient ventilation for your home. The dew point is defined as the temperature at which the water vapor contained in a given volume of air will condense into water. This is best illustrated by an example:

Assume the following measurements are taken by the unit:

Temperature = 68°F

Relative Humidity = 60%

Using the temperature and RH% values measured, the unit would calculate that the dew point in your home is 54°F. As the temperature of surfaces in your dwelling (these tend to reflect the floor temperature, which is generally cooler than the ceiling air temperature) approaches the value of the dew point, you risk having condensation on those colder surfaces (as well as un-insulated water pipes). This condensation can lead to problem situations that might produce unhealthy living conditions in your home (odors, molds, etc.)

### **New Installations in the Summer**

Moisture has saturated in the structure over the years, more so when there was inadequate ventilation and humidity control. Basement and crawl spaces are generally colder and damper which results in high relative humidity. The Humidex ventilation will over time extract moisture, and lower relative humidity by raising temperature and extracting moisture. The results and timeframe will vary for each depending on conditions. If installed in the summertime the surfaces and structure may still be cold and saturated, which may cause some condensation, until conditions have improved. It may require some heat or a dehumidifier to operate for a temporary period of time to be able to raise the temperature and lower relative humidity.

If an air conditioner is present in the house, close all AC vents/leads/ducts to the basement.

## Humidex

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### COLD SURFACE FACTS – IMPORTANT

Before the Humidex is installed, cold ducts and pipes should be insulated as per proper HVAC protocols to reduce possible condensation.

### **Control Set-up and Location**

Once the exhaust unit has been mounted and powered, the control will need to be paired. To complete the pairing process, the control should be powered next to the exhaust using the provided DC power block. The following steps will allow your control to be paired to your exhaust.

- 1) Power the myHome control unit next to HCS exhaust. (Keep the HCS Exhaust Unplugged)
- 2) The control will prompt you to unplug your HCS exhaust unit, once done confirm on control
- 3) The control will prompt you to plug your HCS exhaust, once done confirm on control
- 4) Control and Exhaust should now be paired, if pairing process did not work, power off both unit and repeat the pairing process.
- 5) If a Booster was purchased, it can then be plugged in and will automatically pair with your exhaust.

Note: Steps 2 and 3 can take upwards to a minute to complete.

Once the control is configured and the system has been paired, you must now find a location for the control. The HCS myHome control must be located on the main floor and above the exhaust unit as much as possible while trying to stay away direct sunlight and other sources of heat.

**DO NOT mount the control to the wall until setup is completed.**

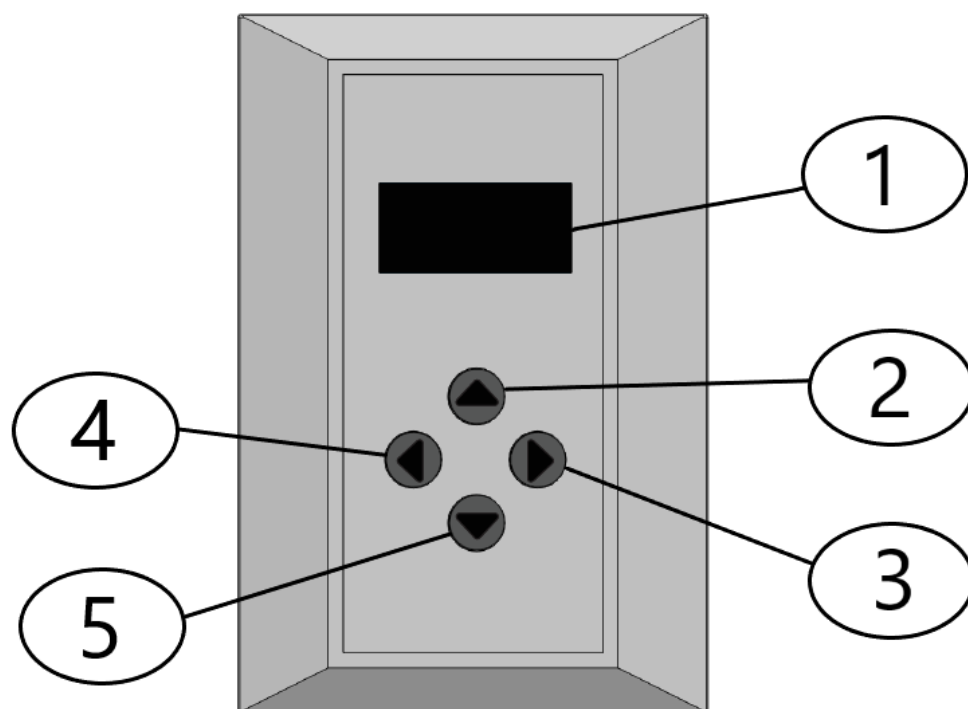
The control can either be placed on a flat surface by using the Desk Stand that is provided or can be mounted to the wall if desired. A mounting template is provided to assist in placing the mounting anchors and screws at the appropriate location.

2 USB power ports are located on the Control to allow multiple installation configurations, either one can be used to power the control.

**DO NOT plug 2 separate power supplies in these ports.**

## OLED Display and Control Layout

The following sections of this operating manual refer to the user interface presented below:



The user interface consists of:

- 1- OLED Display
- 2- Up Arrow Button
- 3- Ok Button
- 4- Cancel Button
- 5- Down Arrow Button

### Navigating the OLED Menu

The HCS has an OLED screen that allows the unit to display information about its operation and its environment. This information can be accessed by pressing the UP or Down arrow keys on the control which will cycle through the different main screen options. The following sections will explain the main screens of the control, as well as how to navigate the OLED menu and change the settings and set an override timer.

### Conditions Screen

The Conditions screen is used to indicate the indoor air quality measured by your system. These readings are used by the system to optimize its performance. That's why it's important to select the proper location for this device to ensure the temperature and humidity readings are exact.



**Note:** Readings can have a variance of up to  $\pm 1$  °C ( $\pm 2$  °F) and  $\pm 5\%$  Relative Humidity in addition to the variance of other sensors.

### System Settings Screen

The System Settings screen allows users to visualize the current settings that the exhaust unit is operating with. On this screen the control will show the desired humidity level, the max fan speed as well as the signal strength of the wireless connection. The signal type is also displayed on the screen to differentiate between internet connected (W) and directly connected (D). When the system does not have an internet connection some of its features could be limited (like remote access or weather information).

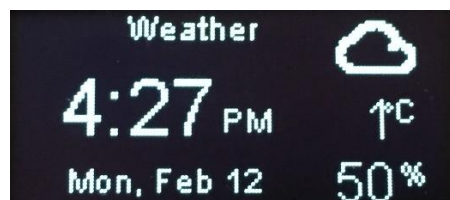


The OLED Settings display consists of:

1. Signal Strength and Connection Type
2. Operating Fan Speed
3. Desired Humidity Level

### Weather Screen

The Weather screen allows users to monitor the outside weather conditions of your house. It will also display the current date and time. All this data is automatically updated online which means that this feature is only available if the Wi-Fi internet connection is configured.



## Humidex

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### Main Menu

The OLED display also has a menu interface that allows users to change settings such as the desired humidity setting, maximum operating speed of the unit, the unit's built in override mode, as well as preferences. The menu page can be accessed by pressing the OK button on any of the Main screens, and if at any time you want to go back one screen, the cancel button may be used to do so.



To select one of these menus, press the OK button. To return to the main screens press the cancel button.

### Desired Relative Humidity (RH) Menu

Once the “Set Desired RH” menu has been selected, the screen will change to allow the user to change the desired humidity level. Pressing the arrow keys will allow you to increase or decrease the desired RH value in increments of 5%. To accept a new value, press the OK Button or to return to the main menu press the Cancel button. If the wrong level is entered, repeat this procedure.



\*\* Recommended humidity level for summer season is 55% and 45% for the winter season. Please note that this does not show current humidity level, but rather the desired humidity level.

### Changing Max Fan Speed

The default and recommended setting are set to High for optimal performance. The unit will self-adjust its speed automatically based on real-time conditions.

However, if you chose to change the maximum fan speed, simply select “Set Max Fan Speed” from the main menu. Once the display has changed to the Max Fan Speed menu screen, you can use the Up/Down arrow buttons to cycle through the different maximum fan speeds. You can select the speed by pressing the Ok Button or to return to the main menu press the Cancel button. If the wrong speed is entered, repeat this procedure.



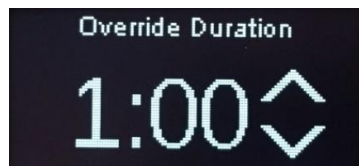
Maximum Operating Speed	Airflow (CFM)
	HCS-BS HCS-CS
High	230
Intermediate	150
Medium	90
Low1/Low2	35/65

*\*These speeds may vary depending on installation*

\*\* Please note the unit will not exceed the maximum user set fan speed, unless the override mode is running. However, to maximize efficiency, the system will choose the proper fan speed depending on humidity, temperature, and dew point conditions. This can result in the system running at a lower fan speed than set.

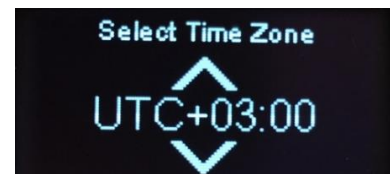
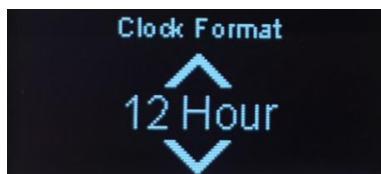
### Override Timer Menu

The override function allows you to provide maximum ventilation for a predetermined amount of time, regardless of the fan speed chosen by the computerized/sensor control, to alleviate certain conditions such as fumes from new paint, flooring, furniture or excess moisture from hot showers, cooking, etc. To set an override timer, select Set Override from the main menu. Once this is done the following screen will be displayed. Use the Up/Down arrow buttons to cycle through the different override timer options and once the desired override time is chosen, press the OK button to begin the override or the Cancel button to return to the main menu. You can cancel the override at anytime by returning to the main menu. The main menu's "Set Override" option will have changed to "Cancel Override". By pressing the OK button on the option and accepting the prompt it will immediately cancel the override that has been previously set. The override system is limited to a maximum of 2 hours.



### Preferences

The preferences menu allows users to change certain display settings of the control. These settings include time format (12h/24h), language (English, French, Spanish), time zone, temperature unit (F°, C°), and daylight savings. The preferences can be changed by selecting the desired setting to change with the Ok Button and using the arrow key to cycle through the different options. Once the desired setting is selected press the OK Button to accept it or to return to the main menu press the Cancel button. If the wrong setting is entered, repeat this procedure.





### **Enable Pairing**

The Enable Pairing allows users to turn on the pairing feature to connect to the system. The system has a built-in auto-hide feature for security purpose 6 hours after the initial setup. This feature is used to connect the myHome Mobile application to the exhaust (see page 33). To enable pairing, press the OK button once the Enable Pairing is selected in the Menu.

### **System Reboot**

The System Reboot allows user to manually reboot the system. This will reboot the entire system. To reboot the system, press OK once the System Reboot is selected in the Menu. Select YES to confirm.

**Note:** If for some reason the controller is not connected to the exhaust, a secondary prompt will appear advising you that a reboot of the exhaust will not occur.

### myHome Mobile Application

The myHome Humidex line can be directly controlled from the myHome application available on the Google play store for android devices and the App Store for Apple devices. Once installed, the application will walk you through its different features and show you how to link your HCS myHome unit to your mobile device. The application will provide you with the ability to monitor conditions, modify settings of your unit as well as notifying you of potential problems or updates.

**Note:** The unit will operate with all of its features without the need to connect it to your home's Wi-Fi (Internet). Wi-Fi is only necessary when the mobile app is being used for controlling and monitoring the system. Consider a Wi-Fi booster if the signal is weak.

### Wi-Fi internet connection and mobile application

The HCS myHome possesses many cool and new features that allows you to monitor your home's air quality, view outside conditions, receive notifications and software updates regarding your system, and more... To have access to these features, the HCS unit must be connected to the internet. Provided you have Wi-Fi internet connection in the home, this can be done by downloading the myHome mobile application and configuring your system with it. This is a one-time process that will allow your system to connect to your internet and access all the necessary information needed.

You can use the QR Code below to go directly to the mobile app's download page. Or you can search within the app store using keywords such as "ClairiTech" and "myHome"

Once installed, the application will walk you through its different features and show you how to link your HCS myHome unit to your mobile device. The application will provide you with the ability to monitor conditions, modify settings of your unit as well as notifying you of potential problems or updates.

**Note:** For security reasons, your system will not allow itself to be set up after 6 hours of continuous operation. If your system was installed and/or has been operational for over 6 hours, selecting the Enable Pairing option in the Menu of the control will allow mobile pairing. Alternatively, to obtain similar results, a reboot can be done by unplugging the unit for 15 seconds and then plugging it back in.



## Most Common Issues

### Mold, Mildew and Musty Smell

If mold or mildew is present prior to installing a Humidex, please have the contaminated area cleaned. Not doing so could cause the Humidex to spread that mold to other locations in the basement or crawlspace.

To avoid Mold, Mildew or Musty Smells:

- Follow the Recommendations on **Page 22** (Concerning New Installations in the summer).

To reduce moisture levels and ensure the proper benefits of the Humidex system:

- Verify that the replenishment air is flowing from the upstairs to the downstairs.
- Increase ventilation in remote areas with a portable fan.
- Make sure there are no obstructions of airflow.
- Any exposed pipes and ducts should be insulated.
- Dirt floor in crawl space or basement should be covered with vapor barrier.
- Sump pump should be equipped with a cover.
- Leaks and cracks should be repaired.
- Rainwater from the roof should be directed away from the basement or foundation.
- Landscaping should slope away from foundations.

Do not attempt to service the Humidex yourself. If you are not sure about certain functions, **please refer to Page 3 for Contact Information.**

## Humidex

### Troubleshooting

If the system is not functioning as intended, please follow the instructions below. If a system reboot is required: Power down (Unplug) all components of the system. Proceed with plugging in the components in the following order while waiting roughly 1 minute in between each: Exhaust, Booster, Control.

Problem	Possible Causes	Possible Solutions
Unable to detect an exhaust	<ul style="list-style-type: none"><li>Exhaust not powered</li><li>Exhaust out of range</li></ul>	<ul style="list-style-type: none"><li>Verify if outlet has power and make sure the cord is correctly plugged in.</li><li>Bring control closer to exhaust and power cycle the control and the exhaust</li></ul>
No exhaust available	<ul style="list-style-type: none"><li>Exhaust not powered</li><li>Exhaust out of range</li><li>Exhaust already paired</li></ul>	<ul style="list-style-type: none"><li>Verify if outlet has power and make sure the cord is correctly plugged in.</li><li>Bring control closer to exhaust and power cycle the control and the exhaust</li></ul>
Unable to detect your exhaust	<ul style="list-style-type: none"><li>Exhaust not powered</li><li>Exhaust out of range</li></ul>	<ul style="list-style-type: none"><li>Verify if outlet has power and make sure the cord is correctly plugged in.</li><li>Bring control closer to exhaust and power cycle the control and the exhaust</li></ul>
Exhaust connection failure	<ul style="list-style-type: none"><li>Poor Wi-Fi signal Strength</li></ul>	<ul style="list-style-type: none"><li>Bring control closer to exhaust and power cycle the control and the unit</li></ul>
Weather screen not displaying	<ul style="list-style-type: none"><li>System is not connected to Internet</li><li>Wi-Fi has no internet connection</li><li>Wi-Fi credential changed</li><li>Weather service unavailable</li></ul>	<ul style="list-style-type: none"><li>Update Wi-Fi credentials with myHome mobile application</li><li>Verify internet connection</li><li>Weather service should automatically restart when available</li></ul>

## Humidex

Unit not running on desired fan speed	<ul style="list-style-type: none"> <li>• Humidity is below desired level</li> <li>• Smart logic override</li> <li>• Override timer enabled</li> <li>• Fan not engaging</li> </ul>	<ul style="list-style-type: none"> <li>• Due to the system's complex logic, the fan might be running at a different speed than the max desired fan speed. If you suspect something is at fault, please contact our service dept.</li> </ul>
Incorrect date and time	<ul style="list-style-type: none"> <li>• Incorrect profile information in myHome mobile application.</li> <li>• Incorrect Time Zone</li> <li>• Incorrect daylight-saving time (DST)</li> </ul>	<ul style="list-style-type: none"> <li>• Update profile information on myHome mobile application</li> <li>• Change Time Zone on the myHome mobile application or on the control in the preference menu</li> <li>• Change DST on myHome mobile application or on the control in the preference menu</li> </ul>
Missing data on condition screen	<ul style="list-style-type: none"> <li>• Invalid conditions received by control</li> </ul>	<ul style="list-style-type: none"> <li>• Reboot system (Control and Exhaust)</li> </ul>

If your problem is still not resolved after executing all the troubleshooting techniques and rebooting the system, please call Customer service at 1-888-533-1348.

## Humidex

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### Specifications

#### HCS-BS myHome/HCS-CS myHome (Basement or Crawls Space)

##### Technical Data

Model	Amps (A)	Watts (W)	Airflow (CFM)	Capacity (Sq.Ft.)
HCS-BS-HDEX myHome	0.30	34	230	2,400
HCS-CS- HDEX myHome	0.30	34	230	3,000

All Units require a 115 VAC electrical outlet

##### Dimensions

Model	Height (In.)	Width (In.)	Depth (In.)
HCS-BS- HDEX myHome	*85 - 96	11.5	8.5
HCS-CS- HDEX myHome	*32	11.5	8.5

\*A 24 Inch extension section is available if extra height is required

#### HCS-BSF myHome (Booster Fan)

##### Technical Data

Model	Amps (A)	Watts (W)	Airflow (CFM)	Capacity (Sq.Ft.)
HCS-BSF- HDEX myHome	0.30	34	40-230*	2,400

All Units require a 115 VAC electrical outlet

\*Synched with the exhaust airflow rate

##### Dimensions

Model	Height (In.)	Width (In.)	Depth (In.)
HCS-BSF- HDEX myHome	10.75	11.5	8.5

## HCS-APT myHome/HCS-APTHC myHome (Apartment/Slab)

### Technical Data

Model	Amps (A)	Watts (W)	Airflow (CFM)	Capacity (Sq.Ft.)
HCS-APT- HDEX myHome	0.30	34	130	2,000
HCS-APTHC- HDEX myHome	0.30	34	130	2,000

All Units require a 115 VAC electrical outlet

### Dimensions

Model	Height (In.)	Width (In.)	Depth (In.)
HCS-APT- HDEX myHome	23	9.5	5.5
HCS-APTHC- HDEX myHome	23	9.5	5.5

### Electrical Box Wiring for APTHC Models

