

Installation Manual
SGL-0600
Version 1.0.0



- Single Zone Control

SGL-0600

HBX Control Systems Inc.



TABLE OF CONTENTS

Introduction	1-3
Description	1
Safety Symbols & Warnings	2
Receipt & Inspection	2
Technical Data and Dimensions	3
 Wiring & Installation	 4-25
Wiring	4
Installation	5
Navigating the THM-0600.....	6
Setting the THM-0600.....	7-19
Application Drawings	19-20
 Warranty Information	 21

Table of Contents

HBX SGL-0600 SINGLE ZONE MODULE

The HBX Single Zone (SGL-0600) is designed to control most common HVAC systems and provides flexibility to integrate Heating or cooling systems with multiple devices including forced air heating and cooling, infloor heating/cooling, heat pumps, fancoils and humidifier/dehumidifier.

The Single Zone includes a Wi-Fi Enabled Full-Colour touchscreen thermostat (THM-0600) and relay box to control your heating and cooling equipment. The THM-0600 thermostat is a 2 wire (power and communication) thermostat which makes it ideal for retrofits by re-using the existing 2 wire electrical to solve the issue of not having enough wires to upgrade systems.

The single zone relay box allows user to control up to 2 stages of heating and 2 stages cooling with the ability to control humidity and fan control. The zone box also allows for 2 dry demand outputs to heating and cooling devices. Wiring the relay box only requires 24V (low voltage) to power the unit.



This control can also function as a stand alone system without WiFi capabilities.

FEATURES

- App for Android or Apple Smartphone/tablet device for remote access with alarm email notification
- 2 wire communication thermostat
- Humidity and Fan Control
- Up to 2 stage heating and 2 stage cooling
- Two (2) dry demands outputs
- Can be added with the SGL-0600 for additional fancoil output

SAFETY SYMBOLS



Extreme Hazard

This action poses a serious threat that could result in personal injury or death, as well as permanent damage to the equipment. Proceed with caution.



Point of Interest

This point clarifies pertinent information, or brings your attention to an action that may have adverse effects on the installation process.



Moderate Hazard

This action may cause personal injury or have adverse effects on the installation process if handled incorrectly.



Drawing Reference

Refer to the specified electrical or mechanical drawing at the back of the manual.



Disconnect Power Source

The presence of low voltage (24VAC) or high voltage (120VAC) could result in personal injury or permanent damage to components or equipment.

SAFETY WARNINGS



WARNING: Non-serviceable product. Send to HBX Controls Inc. only for service.



WARNING: Only suitably qualified individuals with formal training in electrical and hydronic controls should attempt the installation of this equipment. Incorrect wiring and installation will affect the warranty provided with this unit. Wiring must be completed in accordance with the codes and practices applicable to the jurisdiction for the actual installation.



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



EXTREME HAZARD: The **HBX SGL-0600** is a microprocessor based controller and as such is not to be regarded as a safety (limit) control. Please consult and install the heating or cooling appliance in accordance with the manufacturer's recommendations.



WARNING: Use only copper conductor supply wire suitable for at least 105 °C



WARNING: a) Use copper conductors only if the terminal is acceptable only for connections to copper wire; b) Use aluminum conductors only or use aluminum or copper-clad aluminum conductors only if the terminal is acceptable only for connection to aluminum wire; or c) use copper or aluminum conductors or use copper, copper-clad aluminum, or aluminum conductors if the terminal is acceptable for connection to either copper or aluminum wire.



WARNING: All circuits must have a common disconnect and be connected to the same pole of the disconnect.



WARNING: THM-0600 only for use with SGL-0600

RECEIPT & INSPECTION

After receiving, inspect the unit for any possible physical damage that may have occurred during transportation. After unpacking the unit make sure the box contains:

- 1 x Thermostat THM-0600
- 1 x Thermostat Wall Cutout Template
- 1 x SGL-0600
- 1 x Terminal Screwdriver (2.5 mm)

TECHNICAL DATA AND DIMENSIONS

SGL-0600 TECHNICAL DATA



Specifications:

7 x Triac Outputs 0.500mA max
2 x Dry Contact Demand Relays 24VAC 0.5A Max
1x Input 24VAC +/- 10% 50/60Hz 2A Max
1x Modulation Output 0-10Vdc

Combined relay power should not exceed 2A

Weight:

0.220 Kg

Dimensions:

100mm W x 120mm H x 38mm
3.9in W x 4.7in H x 1.5in

Listings:

FCC ID:

2AHMRESP125

Storage:

50°F to 104°F (10°C to 40°C)

2.4GHz Network Only

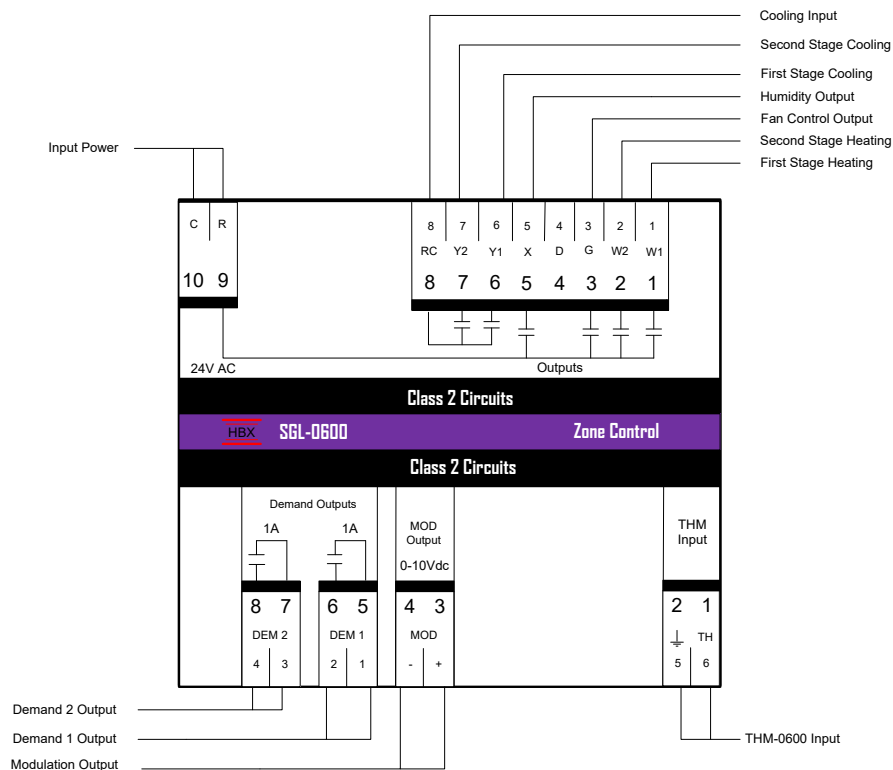
DIMENSIONS



WIRING AND INSTALLATION

WIRING

We recommend all signal wiring to be a minimum of 18AWG shielded wire at a maximum of 500ft.



1. THERMOSTAT INPUTS

1, 2: Input for THM-0600

1. MOD OUTPUT

3, 4: Modulation output 0-10Vdc

2. DEMAND OUTPUTS

5, 6: Demand 1: closes during calls for either heating or cooling depending on the Type

7, 8: Demand 2: closes during calls for either heating or cooling depending on the Type

3. INPUTS

8: RC: 24VAC input for Y1 and Y2

9, 10: R,C: input power for SGL-0600 and 24VAC input for W1, W2, G and X.

4. OUTPUTS

1: W1: first stage heating

2: W2: second stage heating

3: G: Fan control output

4: D: Turns on with W1 or Y1

5: X: Humidity control output

6: Y1: first stage cooling

7: Y2: second stage cooling



WARNING: Class 2 circuits only

INSTALLATION

SGL-0600 Installation

The SGL-0600 is designed to be wall mounted or installed in a separate electrical enclosure. The unit should be installed indoors and protected from falling water and high humidity conditions. With all the covers in place, it is designed to protect any individual from accidental electrical shock. It is not suitable for installation in hazardous locations and should not be close to any electromagnetic fields.

- Identify the four mounting holes on the SGL-0600, mark on the wall the desired location of mounting
- Pre-drill, anchor and fasten the two bottom screws for mounting
- Hang SGL-0600 and fasten the top two screws then tighten the bottom screws
- Complete wiring connections in accordance with local area electrical codes



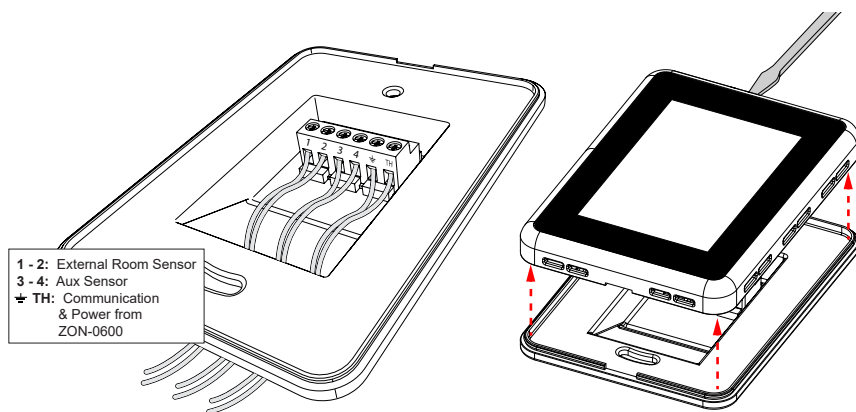
The THM-0600 is the only approved thermostat to be used with the SGL-0600. Do not supply external power to the thermostat.



Wiring polarity is important. Match the ground and TH on the THM-0600 to the SGL-0600 control.

Thermostat field signal wiring installation

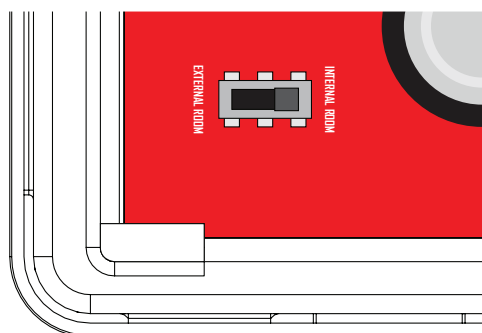
The signal wiring that connects the SGL-0600 to each thermostat should not run parallel for any lengths with any other wires. If this is a retrofit installation and the thermostat signal wiring installation can not be verified it is recommended that the thermostats be installed in the mechanical room with remote room (029-0022, not provided) and/or floor sensors (029-0045) [not provided].



In order to assure proper room temperature, it is important to identify the ideal location of the thermostat. It should be approximately 5 feet from the floor and at least 1 foot from door openings on an interior wall. Avoid exposing the thermostat to direct sunlight, to air flows (doors, windows, etc.) as well as to heat sources. Ensure the cavity that the thermostat will be installed in is well insulated.

Use a screwdriver to gently pop the front cover off from the top of the thermostat, and then remove the front to expose wiring terminals.

Do not use the screwdriver on the bottom of the thermostat. This can cause damage to the THM-0600



External Room Thermistor


On the THM-0600, the room thermistor switch is located on the bottom left corner of the thermostat.

Toggling this switch will allow the user to alternate between the built in room thermistor on the THM-0600, or an external room thermistor connected to pins 1 and 2 on the THM-0600.

PROGRAMMING THM-0600

Navigating the Thermostat


The touchscreen of this thermostat makes it easy to change used settings. Touch any item to adjust its setting excluding the time on the home screen.

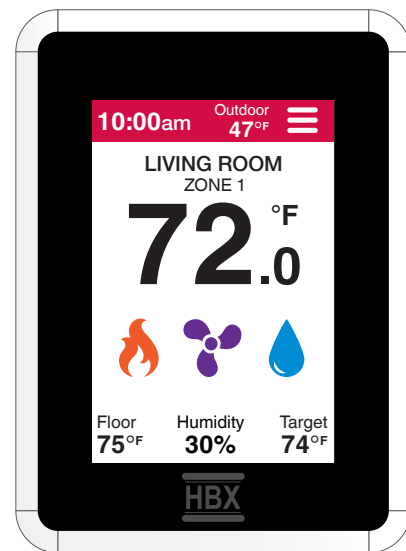
Simply touch the temperature to adjust your desired target temperature. Pressing the  menu icon on top right corner allows you to view the main "Setup Menu" options. Pressing the back icon allows you to return to the home screen or setup menu.

Touching the area below the current temperature allows you to see what current demands are present.

Setting the Thermostat

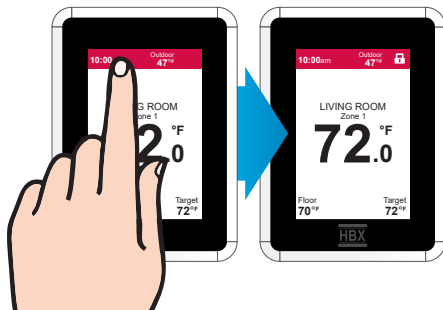
Special Functions

Enter the "Special Functions" screen by touching and holding down the  menu icon for 5 seconds (from the status screen). To select the desired option, simply touch any item to adjust its setting.




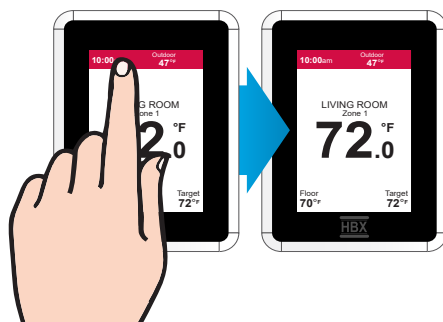
Lockout Thermostat

On the main screen press and hold the time (clock) for 20 seconds. The lock icon  will appear in the top right corner.



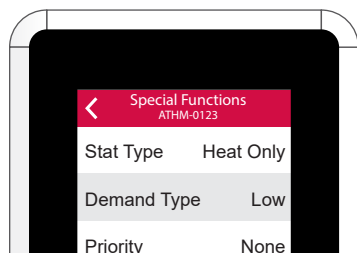
Unlock Thermostat

Repeat the same process as locking the thermostat. Press and hold the time (clock) on the top left corner on the main screen for 20 seconds. The lock icon  on the screen will go away.



Sync Code

This number is the identifier used in the HBX ThermoLinx App to connect to your thermostat.



No settings will be able to be changed when the thermostat is locked. Only on the ThermoLinx mobile app you will have the ability to still make changes. When the Thermostat is locked, only minimal temperature target adjustment can be made. 2°C/3°F above/under.

Type - Select between Heating, Cooling, and a variety of combined modes.

Special Functions ATHM-0000	
Stat Type	Heat Only
THM Mode	Air
Aux Sensor	Floor
Room Offset	0"
Fancoil Setup	>

Heat Only Function

Select the "Heat Only Function" for applications using a single heating source. This type will turn on W1 and Demand 1 and 2. Turns on D.

Special Functions ATHM-0000	
Stat Type	Cool Only
THM Mode	Air
Aux Sensor	Floor
Room Offset	0"
Fancoil Setup	>

Cool Only Function

Select the "Cool Only Function" for applications using a single cooling source. This type will turn on Y1 and Demand 1 and 2. Turns on D.

Special Functions ATHM-0000	
Stat Type	Heat and Cool
THM Mode	Air
Aux Sensor	Floor
Room Offset	0"
Fancoil Setup	>

Heat and Cool Function

Select the "Heat and Cool Function" for applications using a single heating source and a single cooling source. This type will turn on W1 and Demand 1 for heat and Y2 Demand 2 for cool. D will come on when W1 comes on.

Special Functions ATHM-0000	
Stat Type	2 Stage Heat
THM Mode	Air
Aux Sensor	Floor
Room Offset	0"
Fancoil Setup	>

2 Stage Heat Function

Select the "2 Stage Heat Function" for applications using 2 stage heating. This type will turn on W1, W2 and Demand 1 and 2. This will also turn on D when W1 comes on.

Special Functions ATHM-0000	
Stat Type	2 Stage Cool
THM Mode	Air
Aux Sensor	Floor
Room Offset	0"
Fancoil Setup	>

2 Stage Cool Function

Select the "2 Stage Cool Function" for applications using 2 stage cooling. This type will turn on Y1, Y2 and Demand 1 and 2. This will also turn on D when Y1 comes on.

Special Functions ATHM-0000	
Stat Type	2 Heat with Cool
THM Mode	Air
Aux Sensor	Floor
Room Offset	0°
Fancoil Setup	>

2 Heat with Cool Function

Select the "2 Heat with Cool Function" for applications using 2 stage heating and 1 stage cooling. This type will turn on W1, W2 and Demand 1 for heat and Y2 and Demand 2 for cool. D will turn on when W1 comes on.

Special Functions ATHM-0000	
Stat Type	2 Cool with Heat
THM Mode	Air
Aux Sensor	Floor
Room Offset	0°
Fancoil Setup	>

2 Cool with Heat Function

Select the "2 Cool with Heat Function" for applications using 2 stage cooling and 1 stage heating. This type will turn on Y1, Y2 and Demand 2 for cool and W1 and Demand 1 for heat. D will turn on when Y1 comes on.

Special Functions ATHM-0000	
Stat Type	2 Heat and 2 Cool
THM Mode	Air
Aux Sensor	Floor
Room Offset	0°
Fancoil Setup	>

2 Heat and 2 Cool Function

Select the "2 Heat and 2 Cool Function" for applications using 2 stage heating and 2 stage cooling. This type will turn on W1, W2 and Demand 1 for heat and Y1, Y2 and Demand 2 for cool. D will come on when either Y1 or W1 comes on.



Mode - This option allows you to select between Air, Floor and Dual sensor modes

Special Functions ATHM-0000		
THM Mode	Air	
Aux Sensor	Floor	
Room Offset	0°	
Fancoil Setup		>
Room Name Setup		>
Default Setup		>

Air

Thermistor within the thermostat sensing temperature providing feedback for the specific room or zone being controlled by the thermostat

Special Functions ATHM-0000		
THM Mode	Floor	
Aux Sensor	Floor	
Differential	6°	
Room Offset	0°	
Fancoil Setup		>
Room Name Setup		>

Floor

Sensor temperature providing feedback from the floor surface to the thermostat. This mode will run the thermostat on floor temperature only. Aux sensor will automatically be set to floor.



Only available when heating modes are the primary function. Must have floor sensor connected.

Special Functions ATHM-0000		
THM Mode	Floor	
Aux Sensor	Floor	
Differential	6°	
Room Offset	0°	
Fancoil Setup		>
Room Name Setup		>

Floor Mode: Differential

When in floor mode, the differential option is set to allow a differential around the target to reduce the chances of short cycling. Ex. A differential of 4°F is 2°F above the setpoint and 2°F below the setpoint.

Ex. A differential of 4°F is 2°F above the setpoint and 2°F below the setpoint.

Special Functions ATHM-0000	
THM Mode	Dual
Aux Sensor	Floor
Floor Min	70°
Floor Max	80°
Room Offset	-20°
Fancoil Setup	>

Dual

Sensor temperature providing feedback for both the air temperature and floor sensor temperatures. Aux sensor will automatically be set to floor



Only available when heating modes are the primary function. Must have floor sensor connected.

Special Functions ATHM-0000	
THM Mode	Dual
Aux Sensor	Floor
Floor Min	70°
Floor Max	80°
Room Offset	-20°
Fancoil Setup	>

Dual Mode: Floor Min/Max

Floor Max - The thermostat will not allow the floor temperature to go above this value, protecting the integrity of the floor covering.

Floor Min - The thermostat will not allow the floor temperature to go below this value

Aux Sensor - Auxiliary thermistor

Special Functions ATHM-0000	
Stat Type	Heat Only
Demand Type	Low
Priority	None
THM Mode	Air
Aux Sensor	Floor
Room Offset	0°
Fancoil Setup	>

None – No external thermistor attached.

Floor – Displays the floor temperature using external 1 sensor

Room - Disregards internal sensor, uses external

Outdoor – Uses external sensor to display outdoor temperature

RM/Ave – Averages auxiliary sensor and internal sensor, or optional external room sensor

Floor Ave – Averages auxiliary and optional external floor sensor in lieu of room sensor



When using the external room/floor sensor on pins 1 and 2 ensure the dipswitch is set to external.

Room Offset - This feature allows you to program an offset. In the case that the thermostat is not reading the same temperature as the actual temperature in the room.

Special Functions ATHM-0000	
Stat Type	Heat Only
Demand Type	Low
Priority	None
THM Mode	Air
Aux Sensor	Floor
Room Offset	0"
Fancoil Setup	>

Example Actual Room Temperature 72 °F.
Direct Sunlight causes Thermostat to show 78 °F.
The user can put an offset of -6 °F to get the temperatures to match.

Minimum value -20°F
Maximum value 20°F

Fancoil Setup - This setting takes you to the Fancoil Setup Menu.

Special Functions ATHM-0000	
THM Mode	Air
Aux Sensor	Floor
Room Offset	0"
Fancoil Setup	>
Default Setup	>
Password	>

If you are utilizing a fancoil, you will have access to the following settings:

Fan On Demand

Stage Delay

Stage 1 Fan: Range OFF, ON

Out Switch Temp: Range OFF, -39F-120F

Stage 1 Off: Range OFF, ON

Fancoil Setup	
Fan ON Demand	OFF
Stage Delay	15 mins

Fancoil Setup: Fan On Demand

This option will turn the fan on with any fancoil demand. Turns G on with either W2 or Y2

Stage 1 Fan: this will turn G on when either W1 or Y1 comes on.

Out Switch Temp: stage 2 will turn on immediately and override the Stage Delay time when the outdoor temperature goes below this setting. Only available on version 1.32 and higher. Only applicable in heat mode.

Stage 1 Off: If set to ON when the Out Switch Temp is satisfied to bring the 2 stage immediately it will also lock out the 1 stage. When set to OFF normal staging will occur. This is applicable on version 1.32. On Version 1.42 and higher this will turn OFF Stage 1 (Y1 or W1) when Y2 or W2 comes on regardless of Out Switch Temp.

Fancoil Setup	
Fan ON Demand	OFF
Stage Delay	15 mins

Fancoil Setup: Stage Delay

Use this setting to adjust the lagtime between stage 1 and stage 2. This option is only available when 2 heating or cooling stages are selected.

Default - 15m **Range** - 1m - 240m

Fan Speed W1: the percent for the modulation output when W1 is called On

Fan Speed W2: the percent for the modulation output when W2 is called On

Fan Speed Y1: the percent for the modulation output when Y1 is called On

Fan Speed Y2: the percent for the modulation output when Y2 is called On

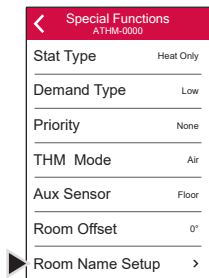
Fan Speed G: the percent for the modulation output when G is called On

Note: Range is 0%-100%. 0% corresponds to 0Vdc and 100% to 10Vdc.

Note: If multiple Fan speeds are set above 0% and multiple outputs are turned on at once then the highest percent one will be the percent selected for the MOD output. For example if W1 and W2 are both on and W1 is set to 50% and W2 set to 60% the percent selected for the MOD output will be 60% (6Vdc)

Note: these options are only available on version 1.37 and higher.

Room Name Setup - This menu allows for the option to select preset names for the THM-0600.

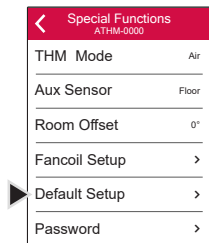


Room Number - sets the number associated with the name. Range 0-9

Name - sets the name of the thermostat. Kitchen, Living Room, Bathroom, Bedroom, Basement, Guest Room, Main Floor, Office, Upstairs, DHW Tank.

Press To Save Name - once the number and name is set hit this option to save the information.

Default Setup - Restores the thermostat to factory default settings or previously saved settings.



Save Current Settings - This option will save the current settings in the event the settings get changed in the future.

Load Current Settings - This options will load the last saved current settings.

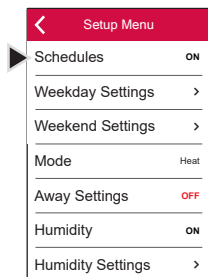
Factory Reset - Reset all settings back to default.



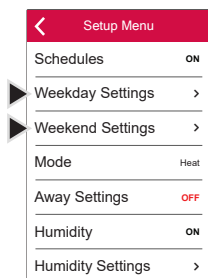
Setup Menu

Enter the “**Setup Menu**” screen by touching the  menu icon. To select the desired option, simply touch any item to adjust it's setting.

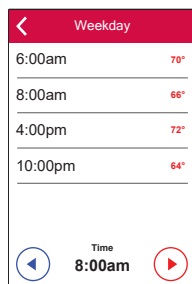
Schedules - Allows thermostat temperatures to be scheduled up to 4 time periods for weekdays and weekends.



OFF - Disables scheduling
ON - Enables scheduling



Weekday Settings (Monday to Friday) - Adjust four time periods within the weekday program menu.
Weekend Settings (Saturday to Sunday) - Adjust four time periods within the weekend program menu.



Setting a schedule

Time - Select the time for the schedule to be started by pressing the time on the desired schedule event.

Cooling Temperature (Blue) - Select the cooling temperature and adjust accordingly for each schedule event.

Heating Temperature (Red) - Select the heating temperature and adjust accordingly for each schedule event.



Heating/Cooling temperatures will only be displayed if thermostat has a heating/cooling type selected.



The cooling setting must be a minimum of 2°F (or 1°C) higher than the heating setting.

Heating/Cooling Target - The chosen setpoint for heating and cooling zones. Targets will be accessible in relation to the thermostat type chosen.

Weekend		
6:00am	70°	70°
8:00am	66°	66°
4:00pm	72°	72°
10:00pm	64°	64°

Heating Target - Change the minimum temperature for your zone. If the temperature in the zone falls below this temperature, heating will come on.

Cooling Target - Change the maximum temperature for your zone. If the temperature in the zone increases above this temperature, cooling will come on.



This feature is unavailable if schedules are enabled.

Mode - This option allows setting of the thermostat mode to auto, heat, cool or off.

Setup Menu	
Schedules	ON
Weekday Settings	>
Weekend Settings	>
Mode	Heat
Away Settings	OFF
Humidity	ON
Humidity Settings	>

Auto - The thermostat maintains cooling and heating as needed

Heat - Overrides the thermostat to heat only mode

Cool - Overrides the thermostat to cool only mode

Off - Disable heating and cooling on the thermostat

Away Settings - Set the temperature for when the zone is in Away Mode. Away mode will override the schedule to a lower/higher temperature.

Setup Menu	
Schedules	ON
Weekday Settings	>
Weekend Settings	>
Mode	Heat
Away Settings	OFF
Humidity	ON
Humidity Settings	>

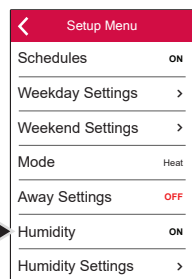
Heat Target - This allows the end user to select a heat target when away mode is enabled.

Cool Target - This allows the end user to select a cool target when away mode is enabled.



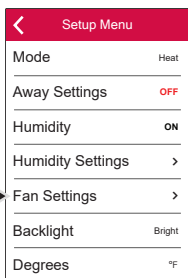
Away heat target must never exceed thermostat target. Away cool target must never be below thermostat target.

Humidity Settings - Configure humidity settings on the thermostat.



Fan w/ Humidity - This option will turn on your fan when there is a humidity demand.
Target - When humidity is set to ON, use this setting to manually adjust your humidity target.
Type - This option allows you to set the thermostat to humidify or dehumidify.

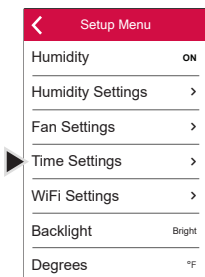
Fan Settings - Enable or disable fan settings on the thermostat.



Fan Settings: Fan Mode

OFF - Fan is off
ON - Enables the fan to run constantly, regardless of whether the thermostat is calling for heating or cooling
INT - This setting will set the ON/OFF time for the intermittent fan
*Ex: The fan will come on for **15 min** every **2H**. Set (Int Fan On: **15 min**) & (Int Fan Off: **2H**)*

Time Settings



Auto Time - When connected to a 2.4 GHz Network the time displayed on the THM-0600's will be associated with the time zone you have chosen.
Time - EManual time input (24 hour clock)
Day of the Week - Manual day input (Mon, Tue, Wed, Thu, Fri, Sat, Sun)
Timezone - Select the time zone for your area.

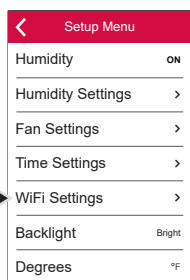
STANDARD TIMEZONES

Atlantic Standard Time	AST	GMT-4
Eastern Standard Time	EST	GMT-5
Central Standard Time	CST	GMT-6
Mountain Standard Time	MST	GMT-7
Pacific Standard Time	PST	GMT-8
Alaskan Standard Time	AST	GMT-9
Hawaiian Standard Time	HST	GMT-10

DAYLIGHT SAVINGS

Atlantic Daylight Time	ADT	GMT-3
Eastern Daylight Time	EDT	GMT-4
Central Daylight Time	CDT	GMT-5
Mountain Daylight Time	MDT	GMT-6
Pacific Daylight Time	PDT	GMT-7

WIFI Settings - Once you have selected the appropriate network and you have entered the correct password for that 2.4GHz network, pressing Ready will establish a connection to the Wi-Fi network. Attempting to connect to Wi-Fi the display will say Updating Settings, before showing Connecting to Wi-Fi, Please Wait. The controller is now trying to connect to Wi-Fi and it may take upwards of 120 seconds. If the controller backs out of the Wi-Fi Settings then just re-enter the page and wait. After it has counted down it will display either Now Connected to, Server. It is now connected to its 2.4GHz network and the Wi-Fi symbol on the Main Screen will appear soon after. If the connection was unsuccessful it will display Press to Connect, Ready. Click on Ready and begin the connection process again.



Wi-Fi Password - Input the password for the 2.4 GHz SSID network that you are connecting to. (capital letters, special characters, numbers and lower case characters all available).

Wi-Fi SSID Manual Entry – This is where you can manually input the 2.4GHz SSID network that you want to connect to, use this method if the network does not auto populate when you perform the Wi-Fi SSID Scan. Ensure that you input this network exactly how it would appear, including spaces, numbers, capital or lowercase letters and or special characters.

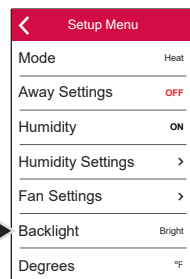
Wi-Fi SSID Scan – Pressing this will allow the SGL-0600 to actively scan for all available networks that you can choose from, and then you may select the 2.4 GHz network that you wish to connect to.

Press to Connect - Once you have selected the appropriate network and you have entered the correct password for that 2.4GHz network, pressing Connect Now will establish a connection to the Wi-Fi network.



If the connection is successful the option will display "Server". If the connection is not successful the option will display ready. If it displays "Wi-Fi" you may need to open port 2200 and 1355 on your network router.

Backlight - This option adjusts the brightness of the thermostat screen during idle.

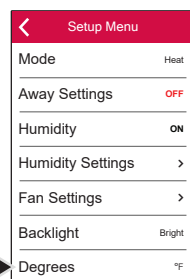


OFF - Screen backlight is off during idle

BRIGHT - Screen backlight is at 100%

DIM - Screen backlight is at 50%

Degrees - This option will change the thermostat temperature to either Celsius (°C) or Fahrenheit (°F).



°C - Display temperatures in Celsius

°F - Display temperatures in Fahrenheit



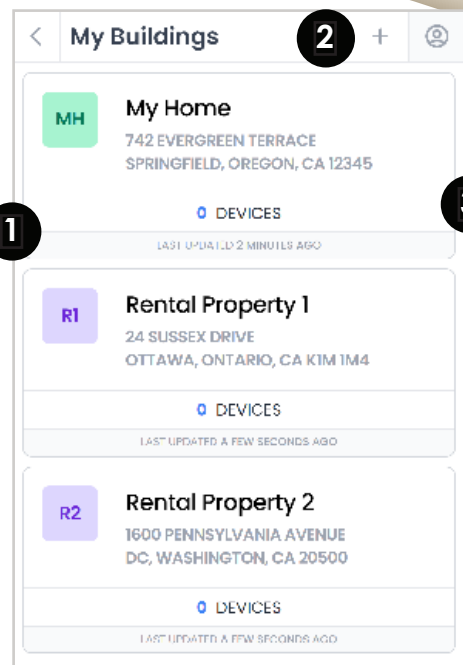
SensorLinX™ Mobile App

The Sensorlinx™ mobile app is available for Apple iOS (APP Store) and Android® devices (Google Play). The mobile app allows for remote monitoring and control for HBX Controls devices.



Now available on the Apple App Store and Google Play

For detailed instructions on setting up the SensorLinX mobile app please refer to the SensorLinX app manual



Creating & Managing Buildings

Under My Buildings will be a list of the available Building locations to choose from. Each building will have the total number of HBX devices linked to that building, name, and address.

To add a Building, go to the Plus Symbol on the right of My Buildings and this will go to the Create Building page. Each of the fields under Create Building must be filled out to proceed, but they can be altered later under the Building Icon. Pressing Cancel or hitting the back button will delete the previous information on the page and will go back to My Buildings.

Once a Building has been created you will be redirected to the Devices page. This page will show all the devices linked to the Building as well as the outside temperature and current forecast based on the address information you've entered. If no devices have been added yet it will say No devices and provide a button to Link Devices.

Creating & Managing Devices

Link Devices will go to a page that will say Scan Device QR Code, Enter Manually and Finished. The QR Code on the physical device can be scanned under this screen to enter in the device's information or it can be entered in manually by using the Sync Code and Device PIN. Both the Sync Code and Device PIN will be on the device itself. Once the information has been added click Add Device and then Finish. The device added and any devices linked together will populate under Devices. If any of the devices do not appear under this page then go to the Plus Symbol next to the outside weather to add further devices.

Each device will have its targets, sensor readings and demands displayed on this page. Clicking on any device will allow for these targets and demands to be changed.

The name and type of the device

A green dot next to the device name will indicate that the device is connected and communicating to the network. A caution symbol next to the device name will indicate that the device is no longer communicating to the network.

This will bring up with the Create Building page or the Link Device page to add additional buildings and devices.

This shows the outdoor temperature.

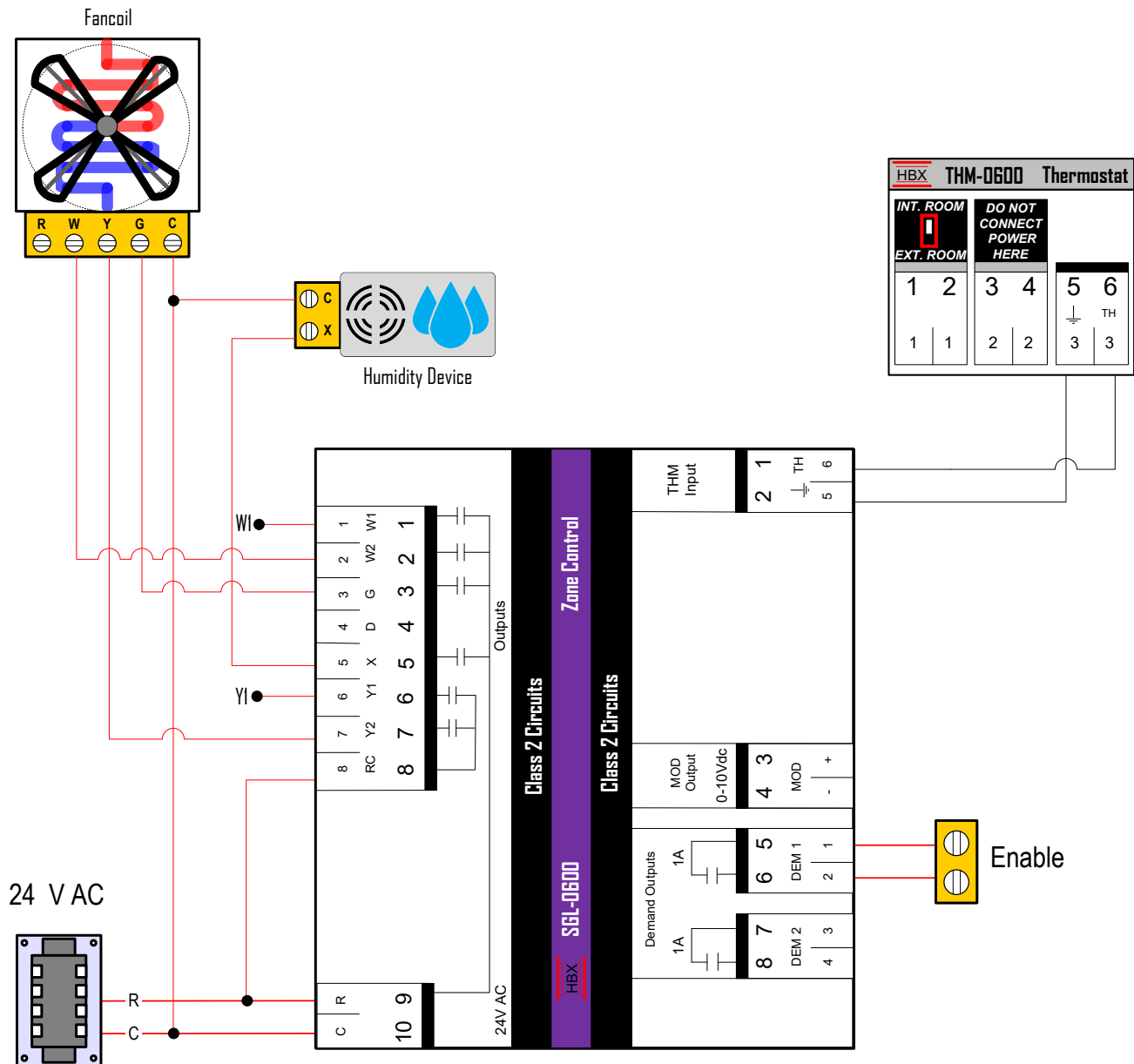
Goes to Account Settings. Changes to a user's account are made here.

The screenshot displays the app's interface for adding and managing devices. The top section, labeled '1', shows the 'SYNC CODE' as 'AZON-0000' and a 'DEVICE PIN' field with four digits (0, 0, 0, 0) and a decimal point. Below this is an 'Add Device' button. The bottom section, labeled '2', shows a list of devices under the heading 'Devices' for 'Matthew's Desk'. The list includes:

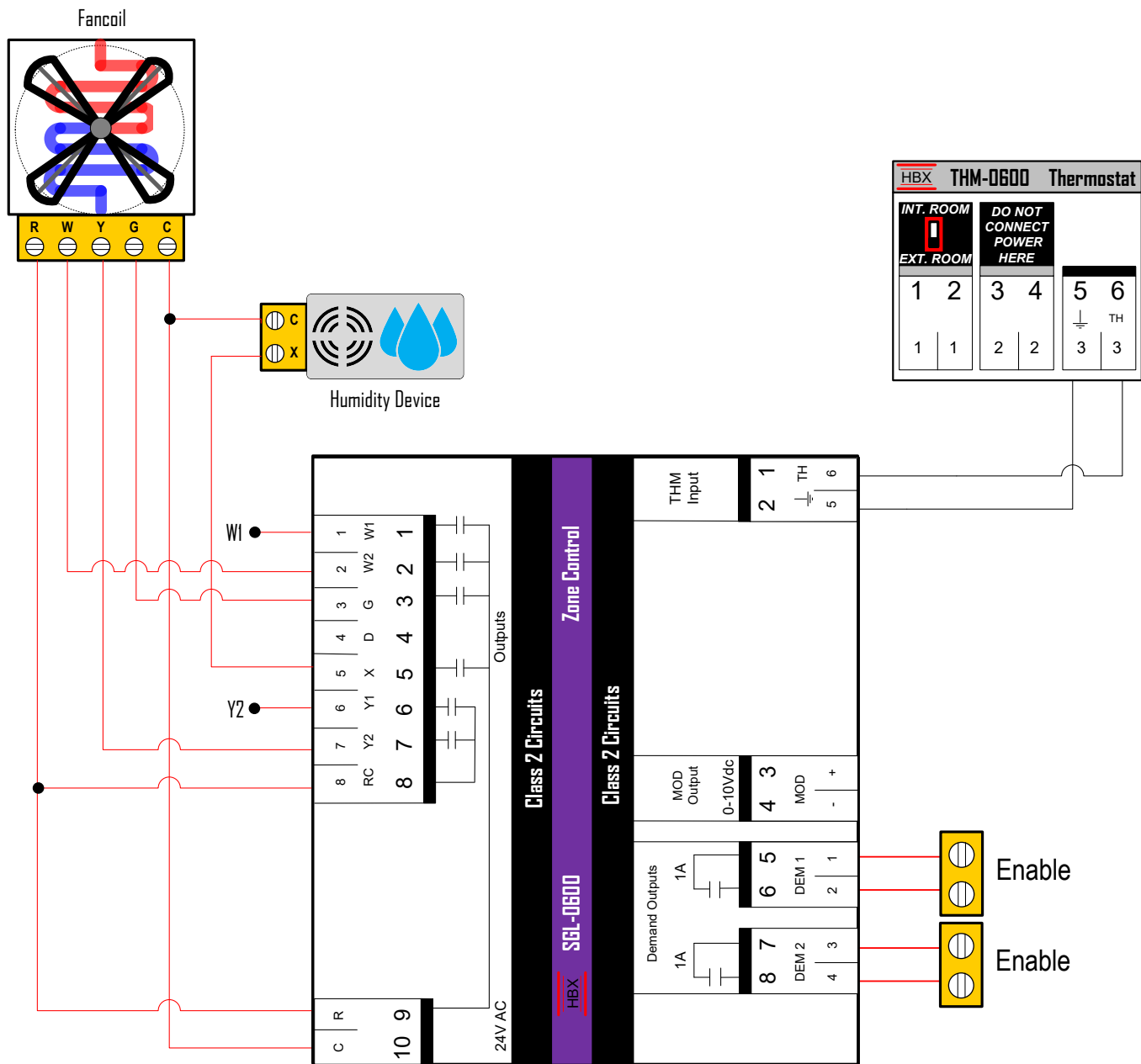
- Device 1:** ZON AZON 0002 (green dot), ZONES 5-8, ACTUAL --, TARGET 29°, 1 Zones.
- Device 2:** ZON AZON-0007 (green dot), ZONFS 1-4, ACTUAL --, TARGET 59°, 1 Zones.
- Device 3:** THM Front Hall (green dot), PRIORITY 1, ZONL 1, 29° Target, 23° Room.
- Device 4:** THM Front Hall (green dot), NO PRIORITY, ZONE 6, 25° Target, 22° Room.
- Device 5:** ECO AECO-9996! (green dot), 18° Hot Tank, 148° Cold Tank.
- Device 6:** ECO AECO-9997 (yellow triangle), 37° Hot Tank, 31° Cold Tank.

The bottom navigation bar has two tabs: 'BUILDING' and 'DEVICES'.

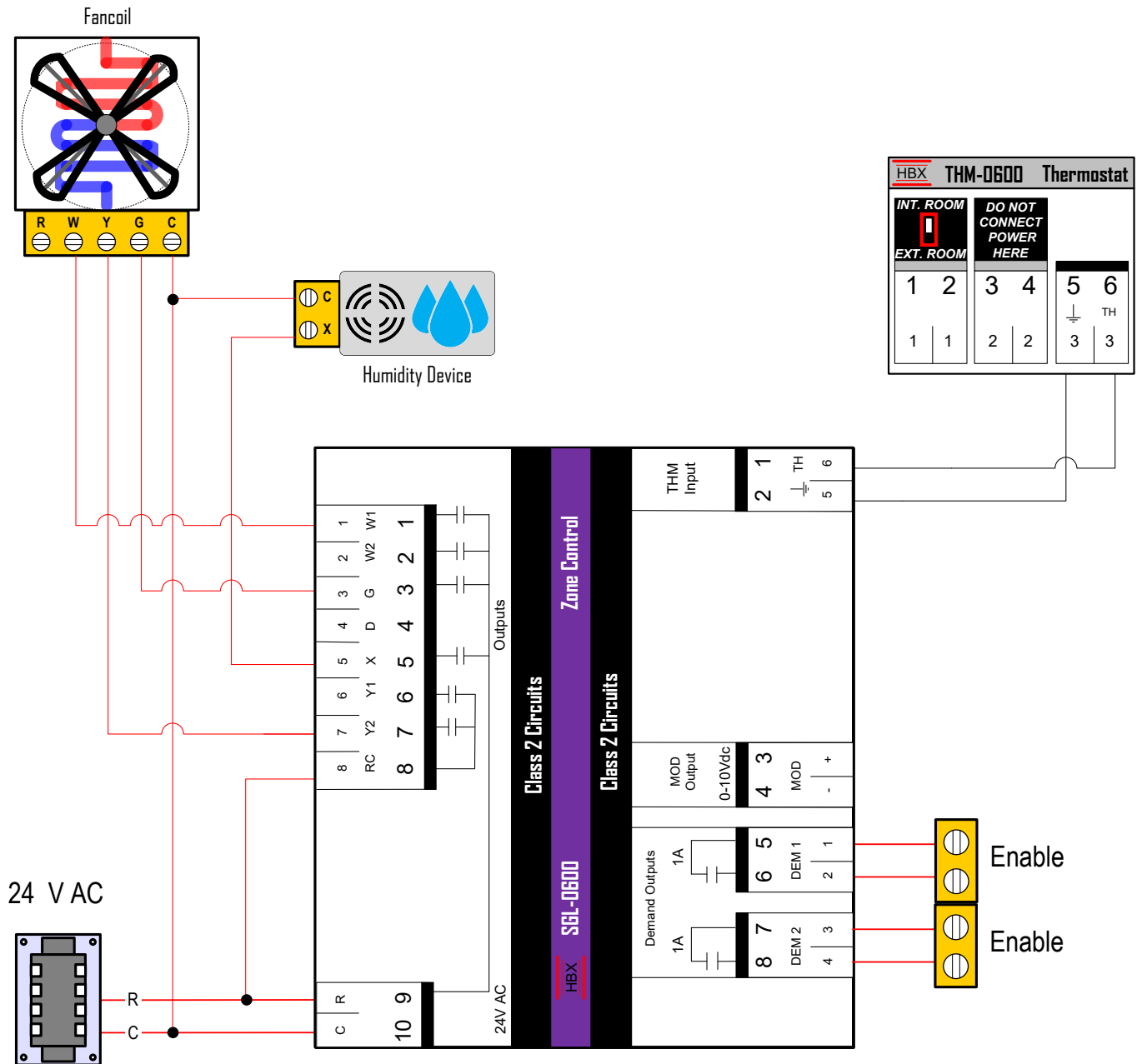
2 Stage Heating and 2 Stage Cooling with External 24VAC



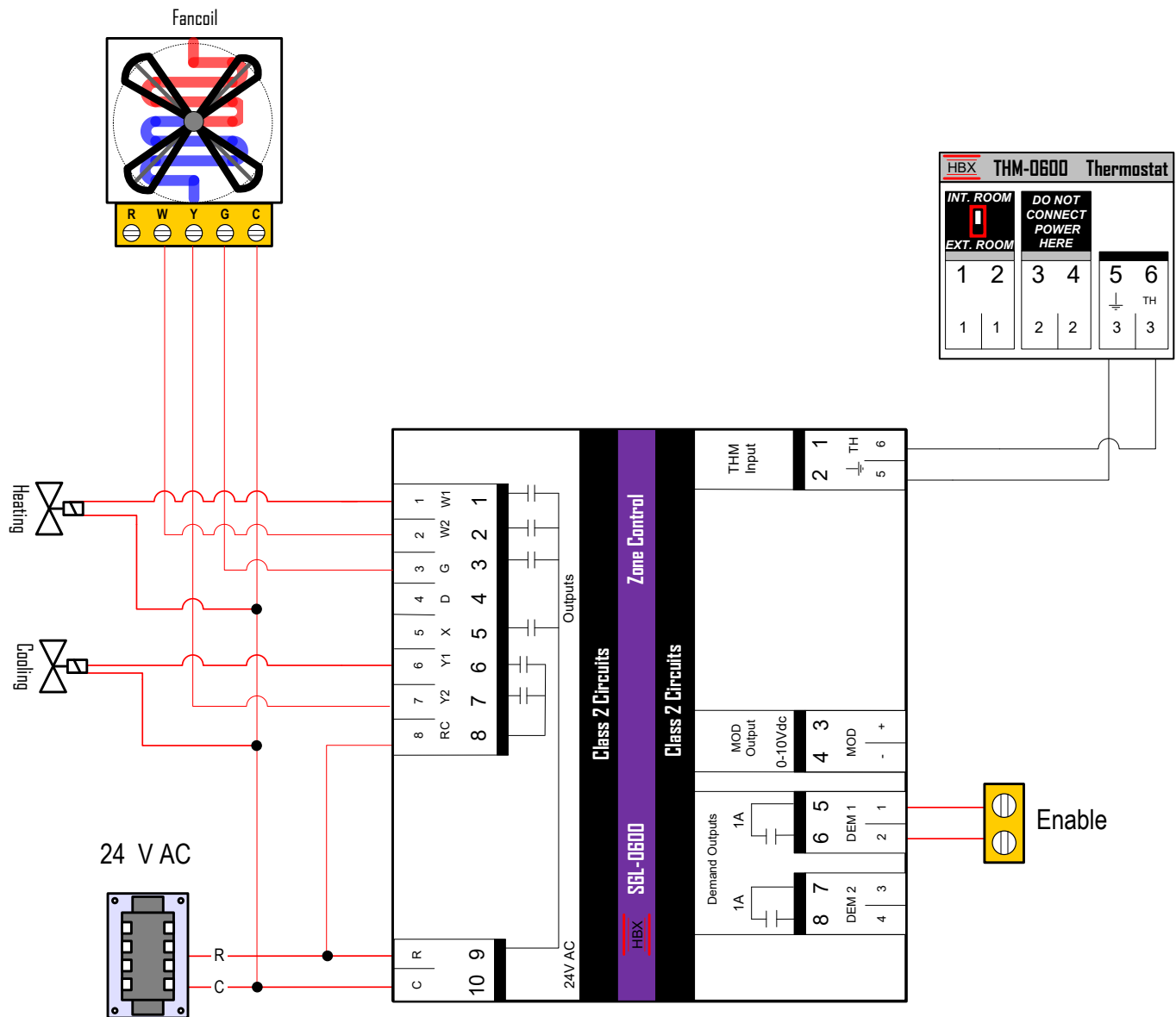
2 Stage Heating and 2 Stage Cooling



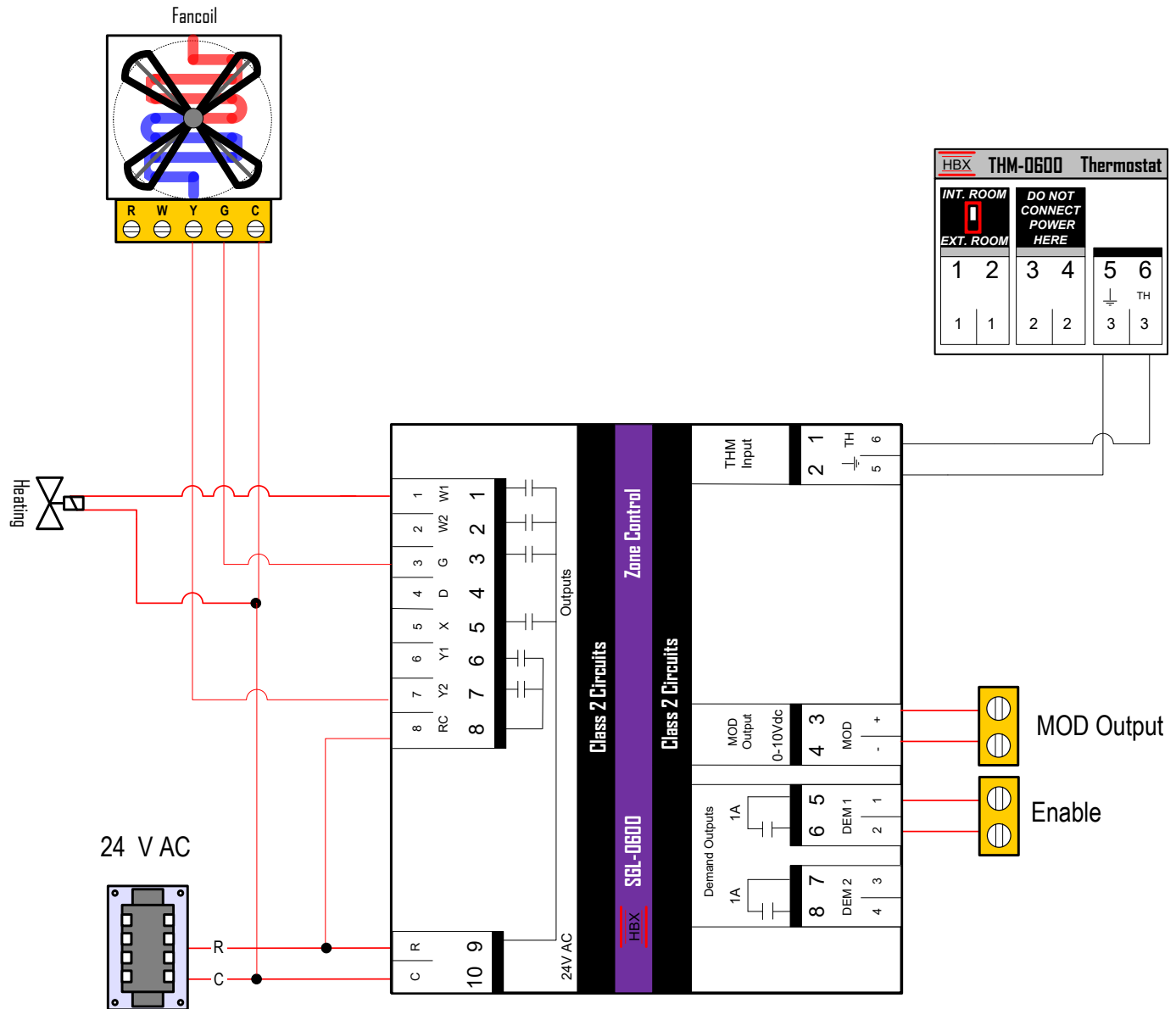
Single Stage Heating and Cooling



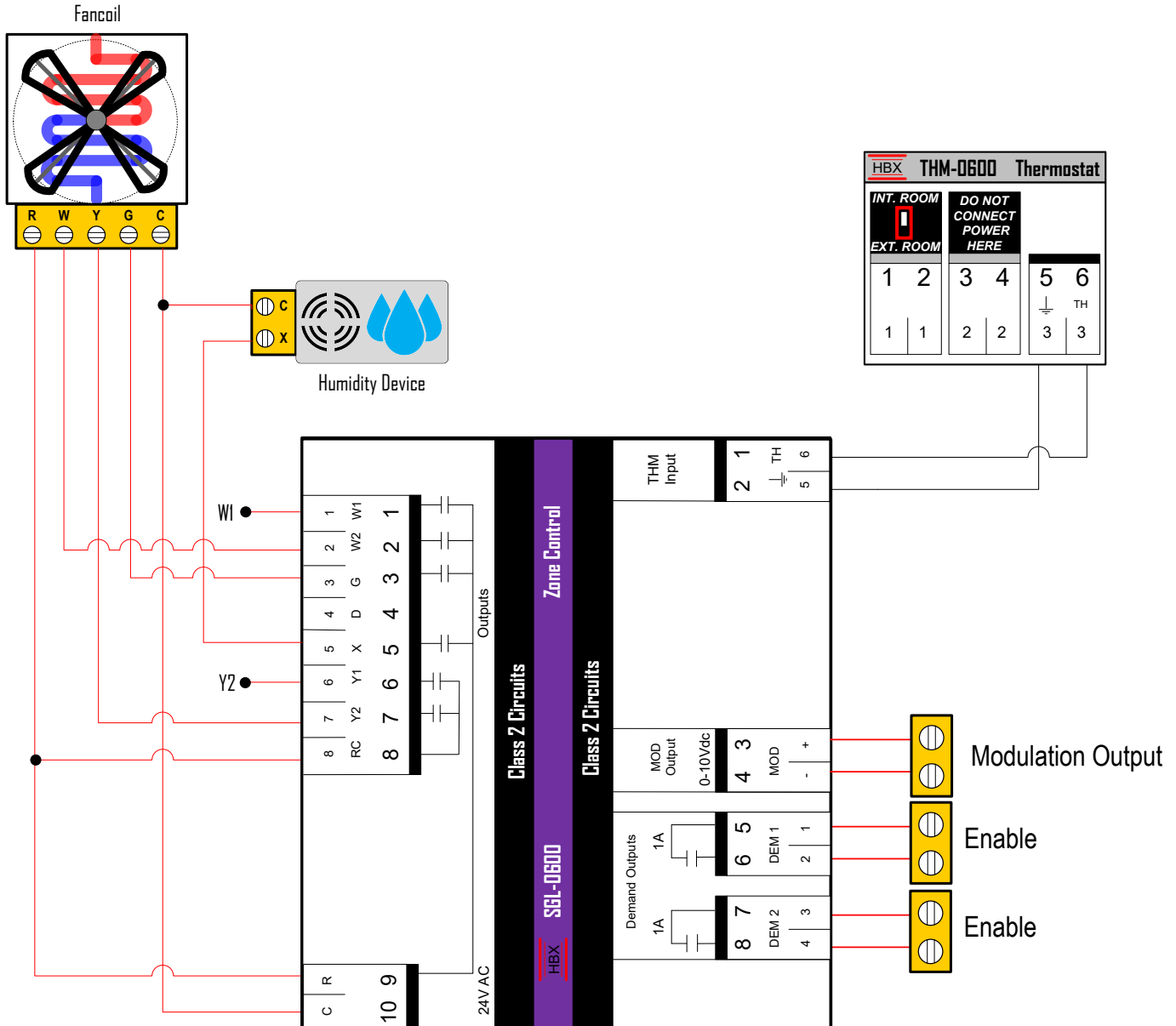
2 Stage Heating and 2 Stage Cooling with External 24VAC



Single Stage Heat and Cool with Modulation Output on External 24VAC



2 Stage Heat and Cool with Modulation Output



Limited Warranty

HBX Controls warrants each of its products to be free from defects in workmanship and materials under normal use and service for a period of 24 months from date of manufacture or 12 months from date of purchase from an HBX Authorized Dealer, if within the above documented period after date of manufacture.

If the product proves to be defective within the applicable warranty period, HBX on its sole discretion will repair or replace said product. Replacement product may be new or refurbished of equivalent or better specifications, relative to the defective product. Replacement product need not be of identical design or model. Any repair or replacement product pursuant to this warranty shall be warranted for not less than 90 days from date of such repair, irrespective of any earlier expiration of original warranty period. When HBX provides replacement, the defective product becomes the property of HBX Controls.

Warranty Service, within the applicable warranty period, may be obtained by contacting your nearest HBX Controls office via the original Authorized Agent and requesting a Return Material Authorization Number (RMA #). Proof of purchase in the form a dated invoice/receipt must be provided to expedite the issuance of a Factory RMA.

After an RMA number has been issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit. The RMA number must be visible on the outside of the package and a copy included inside the package. The package must be mailed or otherwise shipped back to HBX with all costs of mailing/shipping/insurance prepaid by the warranty claimant.

Any package/s returned to HBX without an approved and visible RMA number will be rejected and shipped back to purchaser at purchaser's expense. HBX reserves the right, if deemed necessary, to charge a reasonable levy for costs incurred, additional to mailing or shipping costs.

Limitation of Warranties

If the HBX product does not operate as warranted above the purchasers sole remedy shall be, at HBX's option, repair or replacement. The foregoing warranties and remedies are exclusive and in lieu of all other warranties, expressed or implied, either in fact or by operation of law, statutory or otherwise, including warranties of merchantability and fitness for a particular purpose/application. HBX neither assumes nor authorizes any other person to assume for it any other liability in connection with the sale, installation maintenance or use of HBX Controls products.

HBX shall not be liable under this warranty; if its testing and examination discloses that the alleged defect in the product does not exist or was caused by the purchasers or third persons misuse, neglect, improper installation or testing, unauthorized attempts to repair or any other cause beyond the range of intended use, or by accident, fire, lightning or other hazard.

Limitation of Liability

In no event will HBX be liable for any damages, including loss of data, loss of profits, costs of cover or other incidental, consequential or indirect damages arising out of the installation, maintenance, commissioning, performance, failure or interruption of an HBX product, however caused and on any theory of liability. This limitation will apply even if HBX has been advised of the possibility of such damage.

Local Law

This limited warranty statement gives the purchaser specific legal rights. The purchaser may also have other rights which vary from state to state in the United States, from Province to Province in Canada and from Country to Country elsewhere in the world.

To the extent this Limited Warranty Statement is inconsistent with local law, this statement shall be deemed modified to be consistent with such local law. Under such local law, certain disclaimers and limitations of this statement may not apply to the purchaser. For example, some states in the United States, as well as some governments outside the United States (including Canadian Provinces), may:

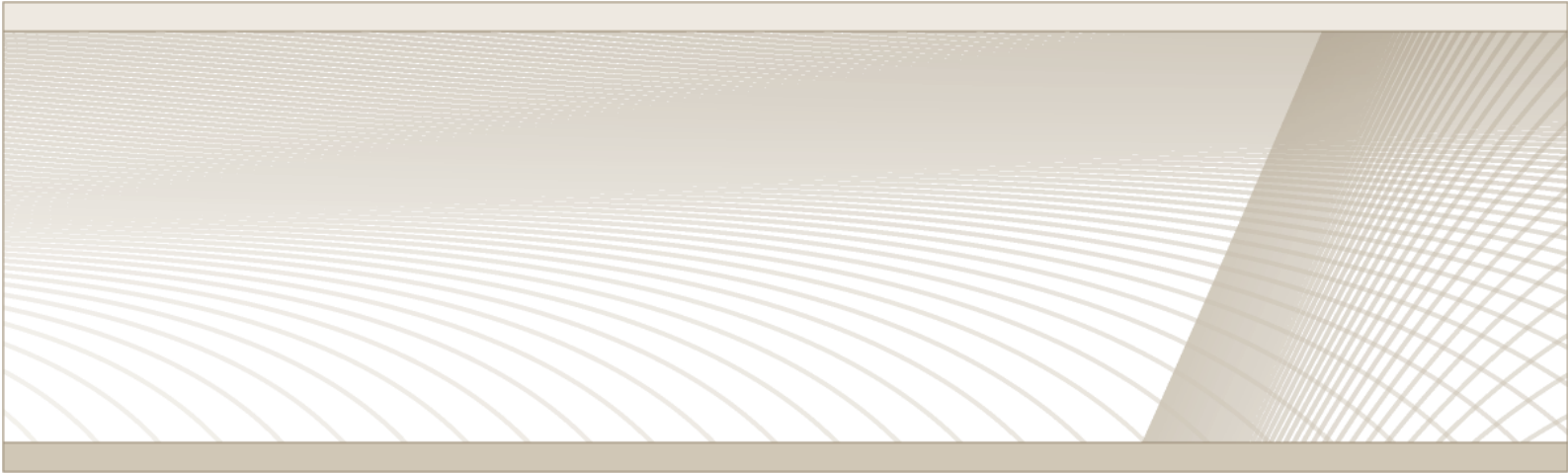
Preclude the disclaimers and limitations in this statement from limiting the statutory rights of a consumer (e.g. United Kingdom);

Otherwise restrict the ability of a manufacturer to enforce such disclaimers or limitations; or

Grant the purchaser additional warranty rights which the manufacturer cannot disclaim, or not allow limitations on the duration of implied warranties.

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