

Installation Manual  
THM-0200 Programmable Thermostat  
Version 1.07



THM-0200

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HBX Control Systems Inc.

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## INTRODUCTION

This manual will help with the installation, parameter setting, troubleshooting and general maintenance requirements for the Controller. To guarantee the safe and reliable operation of this Control, you must first read this manual in detail and take particular note to any and all warnings or caution directives prior to connecting to AC power.

Only suitably qualified individuals with formal training in electrical and HVAC 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.

The HBX THM-0200 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.



## SAFETY SYMBOLS AND WARNINGS

### DRAWING REFERENCE

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



### PRECAUTION

A measure taken in advance to prevent dangerous or an unpleasant event



**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](http://www.P65Warnings.ca.gov).

# 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 Universal sensor (Part #029-0045)
- 1 x Thermostat THM-0200
- Instruction Manual

# DESCRIPTION

The HBX THM-0200 is a programmable thermostat designed for dual stage heating or cooling incorporating a sophisticated P.I.D. algorithm. The thermostat has four daily, automatic settings (wake, day, evening and sleep) and weekend settings.

The THM-0200 has two external sensor inputs, and multiple heating and cooling modes and can function as a single boiler reset control.

Some features of the THM-0200 are:

- Backlit graphic display
- Push button keypad control
- User-friendly programming features
- Includes external sensor
- Integrated 2 Amp dry contacts

# TECHNICAL DATA AND DIMENSIONS

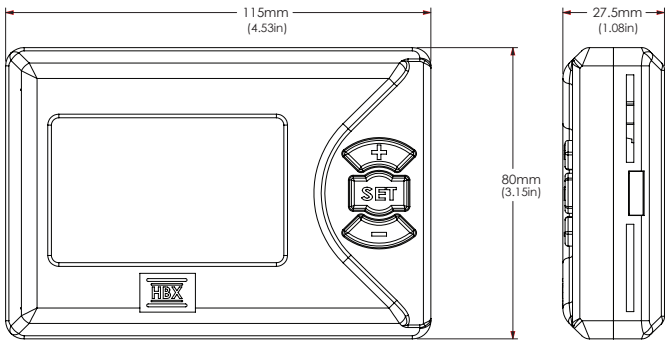
## Technical Data

3 x Contact Output  
(120VAC 2 Amp Max)  
2 x External Thermistor Input  
1 x Power Contact: 24VAC

**Storage:** +10C to +40C

**Languages:** English

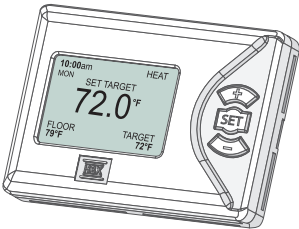
**Dimensions:** 115 x 80 x 27.5mm



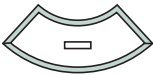
# PROGRAMMING THM-0200

## NAVIGATING THE THERMOSTAT

All programming steps within the thermostat are achieved by using the three buttons (and combinations thereof) located on the right-hand side of the thermostat.

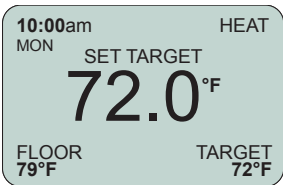


The + button is used to scroll up in menu screens and increase a value within specific options.



The - button is used to scroll down in menu screens and decrease a value within specific options.

Pressing the + or - button on their own for 2 seconds while viewing the main “**Status Screen**” will allow you to quickly adjust your target temperature. Once you have reached the desired target temperature by using the + and - buttons, waiting five seconds will return the thermostat to the initial “**Status Screen**” mode.



## SETTING THE THERMOSTAT

### Special Functions

Enter the “**Special Functions**” screen by holding down the + and - buttons simultaneously for 5 seconds (from the “**Status Screen**”). To select the desired option, use the + and - buttons to toggle and the **set** button to select.

**1) Type** - Select between Heating, Cooling, Boiler, and a variety of combined modes.

SPECIAL FUNCTIONS	
► 1) TYPE	HEAT ONLY
2) C OR F	°F
3) VIEW ALL	YES
4) VIEW AUTO	YES
5) SETBACK	YES
6) ROOM OFFSET	0°F



### Heat Only Function

Select the “Heat Only Function” for applications using a single heating source.



See diagram 1 or 2 for wiring examples.

SPECIAL FUNCTIONS	
► 1) TYPE	COOL ONLY
2) C OR F	°F
3) VIEW ALL	YES
4) VIEW AUTO	YES
5) SETBACK	YES
6) ROOM OFFSET	0°F



### Cool Only Function

Select the “Cool Only Function” for applications using a single cooling source.



See diagram 3 for wiring example.

SPECIAL FUNCTIONS	
► 1) TYPE	HEAT/COOL
2) C OR F	°F
3) VIEW ALL	YES
4) VIEW AUTO	YES
5) SETBACK	YES
6) ROOM OFFSET	0°F



### Heat/Cool Function

Select the “Heat/Cool Function” for applications using a single heating source and a single cooling source.



See diagram 4 for wiring example.

**SPECIAL FUNCTIONS**

- 1) TYPE HEAT/HEAT  
 2) C OR F °F  
 3) VIEW ALL YES  
 4) VIEW AUTO YES  
 5) SETBACK YES  
 6) ROOM OFFSET 0°F

**► Heat/Heat Function**

Select the "Heat/Heat Function" for applications using 2 stage heating.



See diagram 5 for wiring example.

**SPECIAL FUNCTIONS**

- 1) TYPE COOL/COOL  
 2) C OR F °F  
 3) VIEW ALL YES  
 4) VIEW AUTO YES  
 5) SETBACK YES  
 6) ROOM OFFSET 0°F

**► Cool/Cool Function**

Select the "Cool/Cool Function" for applications using 2 stage cooling.



See diagram 6 for wiring example.

**SPECIAL FUNCTIONS**

- 1) TYPE 2HEAT/COOL  
 2) C OR F °F  
 3) VIEW ALL YES  
 4) VIEW AUTO YES  
 5) SETBACK YES  
 6) ROOM OFFSET 0°F

**► 2 Heat/Cool Function**

Select the "2 Heat/Cool Function" for applications using 2 stage heating and 1 stage cooling.



See diagram 7 for wiring example.

**SPECIAL FUNCTIONS**

- 1) TYPE 2COOL/HEAT  
 2) C OR F °F  
 3) VIEW ALL YES  
 4) VIEW AUTO YES  
 5) SETBACK YES  
 6) ROOM OFFSET 0°F

**► 2 Cool/Heat Function**

Select the "2 Cool/Heat Function" for applications using 2 stage cooling and 1 stage heating.



See diagram 8 for wiring example.

**SPECIAL FUNCTIONS**

- 1) TYPE BOILER  
 2) C OR F °F  
 3) VIEW ALL YES  
 4) VIEW AUTO YES  
 5) SETBACK YES  
 6) ROOM OFFSET 0°F

**► Boiler Function**

Select the "Boiler Function" for applications using a single boiler control. See page 8 for boiler options.



See diagram 9 for wiring example.



**When the thermostat is in a 2 stage mode, the second stage will come on 15 minutes after the first stage comes on if the demand has not been satisfied.**

**SPECIAL FUNCTIONS**

- 1) TYPE HEAT ONLY  
 ► 2) C OR F °F  
 3) VIEW ALL YES  
 4) VIEW AUTO YES  
 5) SETBACK YES  
 6) ROOM OFFSET 0°F

**► Celsius or Fahrenheit**

Change the values in the thermostat to display either the Celsius or Fahrenheit scale.

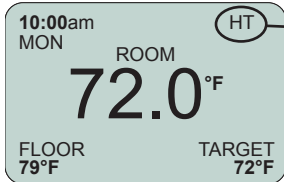
#### SPECIAL FUNCTIONS

- 1) TYPE HEAT ONLY
- 2) C OR F °F
- ▶ 3) VIEW ALL YES
- 4) VIEW AUTO YES
- 5) SETBACK YES
- 6) ROOM OFFSET 0°F

### ► View All/Hide All

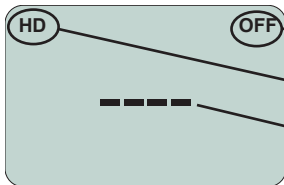
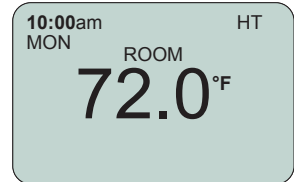
Select **"No"** to turn off **"Status Screen"** information and provide a simplified information readout of the **"Status Screen"**. This option turns off any extra sensor readings on the control.

"View All" = Yes



**HT** = Heat On  
**HT2** = Stage 2 Heat On  
**CL** = Cool On  
**CL2** = Stage 2 Cool On  
**FN** = Fan On

"View All" = No



**ON/OFF** = displays the activity status of the boiler (off or on) in boiler mode  
**HD** = shows a heat demand in boiler mode  
**----** = displays when no sensors are connected

#### SPECIAL FUNCTIONS

- 1) TYPE HEAT ONLY
- 2) C OR F °F
- 3) VIEW ALL YES
- ▶ 4) VIEW AUTO YES
- 5) SETBACK YES
- 6) ROOM OFFSET 0°F

### ► View Auto

This feature allow you automatic changeover or manual changeover. Changeover refers to the thermostat being switched from heat to cool as the air crosses a certain temperature. Auto changeover switches from heat to cool automatically while manual changeover thermostats must be changed by hand. If you select **"NO"**, changeover is not going to appear in the Adjustment screen.



Applicable to: Heat/Cool, 2Heat/Cool and 2Cool/Heat modes.

#### SPECIAL FUNCTIONS

- 1) TYPE HEAT ONLY
- 2) C OR F °F
- 3) VIEW ALL YES
- 4) VIEW AUTO YES
- ▶ 5) SETBACK YES
- 6) ROOM OFFSET 0°F

### ► Setback

Allows you to program a setback. A setback can be programmed to maximize energy during time frames where the zone may be vacant. When you select **"YES"** you can program up to 4 setback time period.

#### SPECIAL FUNCTIONS

- 1) TYPE HEAT ONLY
- 2) C OR F °F
- 3) VIEW ALL YES
- 4) VIEW AUTO YES
- 5) SETBACK YES
- ▶ 6) ROOM OFFSET -1°F

### ► 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. This setting allows the used to offset the temperature showing on the thermostat.

eg. Actual Room Temperature 72 °

Thermostat Shows 73 °

The user can put an offset of -1 ° to get the tempratures to match.

## THE ADJUSTMENT SCREEN

Holding down the **set** button for 2 seconds while viewing the **"Status Screen"** will take you into the **"Adjustment Screen"** for the respective thermostat modes.



Once you are in the desired options screen, use the **+** and **-** button to scroll up and down. Press down the **set** button to choose the option (the arrow to the left of your chosen option will turn black when you have selected a specific step), then the **+** and **-** buttons to adjust the value.

### ADJUSTMENTS

- 1) WEEKDAY
- 2) WEEKEND
- 3) HOLD TEMP **76°F**
- 4) MODE FLOOR
- 5) SENSOR1 NONE
- 6) SENSOR2 NONE

### ▶ Adjustments

Up/down arrows on the upper left hand corner of the display signify additional screen options either above or below the scroll menu.

### WEEKDAY PROGRAMS

- |            | START | HEAT |
|------------|-------|------|
| ▶ 1) 6:00A | 74°F  |      |
| 2) 8:00A   | 64°F  |      |
| 3) 4:30P   | 72°F  |      |
| 4) 9:00P   | 90°F  |      |
| 5) BACK    |       |      |

### ▶ Weekday Programs

Adjust four time periods within the five weekday program menu. The "Back" option allows the user to return to the previous screen.

### WEEKEND PROGRAMS

- |            | START | HEAT |
|------------|-------|------|
| ▶ 1) 9:00A | 74°F  |      |
| 2) 9:00A   | 74°F  |      |
| 3) 9:00P   | 64°F  |      |
| 4) 9:00P   | 64°F  |      |
| 5) BACK    |       |      |

### ▶ Weekend Programs

Adjust four time periods within the two weekend program menu. The "Back" option allows the user to return to the previous screen.

### WEEKEND PROGRAMS

- |            | START | HEAT | COOL |
|------------|-------|------|------|
| ▶ 1) 9:00A | 74°F  | 79°F |      |
| 2) 9:00A   | 74°F  | 79°F |      |
| 3) 9:00P   | 64°F  | 69°F |      |
| 4) 9:00P   | 64°F  | 69°F |      |
| 5) BACK    |       |      |      |

### ▶ Cooling Programs

A cooling setpoint is available when the thermostat has been chosen to have any cooling function.



**There must be a minimum of 5°F differential between hot and cold settings.**

### ADJUSTMENTS

- 1) WEEKDAY
- 2) WEEKEND AUTO
- ▶ 3) CHANGEOVER AUTO
- 4) MODE ROOM
- 5) SENSOR 1 NONE

### ▶ Changeover

Auto: this option allows you to change automatically from heat mode to cool mode or vice versa  
 Heat: Allows the user to be only in heat mode  
 Cool: Allows the user to be only in cool mode



**This option is only available when you select "YES" in View Auto options in the Special Functions screen.**

ADJUSTMENTS	
1) WEEKDAY	
2) WEEKEND	
▶ 3) HOLD TEMP	76°F
4) MODE	ROOM
5) DIFF	OUTDOOR
6) SENSOR1	NONE



**Not applicable to 2 Heat/Cool, 2 Cool/Heat, Heat/Cool and Boiler modes.**

## MODE OPTIONS

This option allows you to select between Room, Floor and Dual

### ROOM MODE OPTION

ADJUSTMENTS	
1) WEEKDAY	
2) WEEKEND	
3) HOLD TEMP	76°F
▶ 4) MODE	ROOM
5) SENSOR1	NONE
6) SENSOR2	NONE

### ► Hold Temperature

Allows the user to set a constant temperature which acts to override a setback temperature. This option must be manually turned off for the system to reinstate pre-set setback periods.

### ► Room Mode

Sensor temperature providing feedback for the specific room or zone being controlled by the thermostat.

ADJUSTMENTS	
1) WEEKDAY	
2) WEEKEND	
3) HOLD TEMP	76°F
4) MODE	ROOM
▶ 5) SENSOR1	NONE
6) SENSOR2	NONE

### ► Room Mode: Sensor 1

**Room** - disregards internal sensor, uses external 1.  
**RM/Ave** – averages external 1 and internal sensor.  
**Floor** – displays the floor temperature using external 1 sensor.

ADJUSTMENTS	
1) WEEKDAY	
2) WEEKEND	
3) HOLD TEMP	76°F
4) MODE	ROOM
5) SENSOR1	NONE
▶ 6) SENSOR2	NONE

### ► Room Mode: Sensor 2

**RM/Ave** - Averages external 1 + external 2 + internal.  
**FL/Ave** - Averages external 1 + 2 using floor temperature.  
**Outdoor** - Will use external 2 sensor to display outdoor temperature.

ADJUSTMENTS	
5) SENSOR 1	ROOM
6) SENSOR 2	ROOM
▶ 7) CONT FAN	INT
8) INT FAN OFF	2H
9) INT FAN ON	15M
10) TIME	10:20

### ► Room Mode: Continuous Fan

**ON:** Enables the fan to run continuously, regardless of whether the thermostat is calling for heat or cooling

**Int Fan ON/OFF:** This setting will set the ON/OFF Time for the intermittent fan

Ex: The fan will come on for 15min every 2h. Set (Int Fan ON: 15min) & (Int Fan OFF: 2h)




**This option is not applicable to 2 Heat/Cool, 2 Cool/Heat, or Boiler Modes.**



# FLOOR MODE OPTION

ADJUSTMENTS	
↓	
1) WEEKDAY	
2) WEEKEND	
3) HOLD TEMP	OFF
▶ 4) MODE	FLOOR
5) DIFF	6°F
6) SENSOR1	FLOOR

► **Floor Mode**  
Sensor temperature providing feedback from the floor surface to the thermostat. This mode will run the thermostat on floor temperature only.

 **Only available when heating modes are the primary function.**

ADJUSTMENTS	
↓	
1) WEEKDAY	
2) WEEKEND	
3) HOLD TEMP	OFF
4) MODE	FLOOR
▶ 5) DIFF	6°F
6) SENSOR1	FLOOR

► **Floor Mode: Differential**  
When in floor mode, the differential option is set to allow a differential around the target to lessen the chances of short cycling.

ADJUSTMENTS	
↓	
1) WEEKDAY	
2) WEEKEND	
3) HOLD TEMP	OFF
4) MODE	FLOOR
5) DIFF	6°F
▶ 6) SENSOR1	FLOOR


► **Floor Mode: Sensor 1**  
This option will be automatically set to floor sensor.

ADJUSTMENTS	
↕	
2) WEEKEND	
3) HOLD TEMP	OFF
4) MODE	FLOOR
5) DIFF	6°F
6) SENSOR1	FLOOR
▶ 7) SENSOR2	OUTDOOR

► **Floor Mode: Sensor 2**  
**FL/Ave** - Averages external 1 + 2 sensors using floor temperature.  
**Outdoor** - will use external 2 sensor to display outdoor temperature.

ADJUSTMENTS	
5) SENSOR 1	ROOM
6) SENSOR 2	ROOM
▶ 7) CONT FAN	INT
8) INT FAN OFF	2H
9) INT FAN ON	15M
10) TIME	10:20


► **Room Mode: Continuous Fan**  
ON: Enables the fan to run continuously, regardless of whether the thermostat is calling for heat or cooling  
Int Fan ON/OFF: This setting will set the ON/OFF Time for the intermittent fan  
Ex: The fan will come on for 15min every 2h. Set (Int Fan ON: 15min) & (Int Fan OFF: 2h)

 **This option is not applicable to 2 Heat/Cool, 2 Cool/Heat, or Boiler Modes.**

# DUAL MODE OPTIONS

ADJUSTMENTS	
↓	
1) WEEKDAY	
2) WEEKEND	
3) HOLD TEMP	OFF
▶ 4) MODE	DUAL
5) FLOOR MAX	78°F
6) FLOOR MIN	69°F

► **Dual Mode**  
Sensor temperature providing feedback for both the air temperature and floor sensor temperatures.

 **Only available when heating modes are the primary function.**

#### ADJUSTMENTS

- ↓
- 1) WEEKDAY
- 2) WEEKEND
- 3) HOLD TEMP OFF
- 4) MODE DUAL
- ▶ 5) FLOOR MAX 78°F
- 6) FLOOR MIN 69°F

#### ► Dual Mode: Floor Maximum

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

#### ADJUSTMENTS

- ↓
- 1) WEEKDAY
- 2) WEEKEND
- 3) HOLD TEMP OFF
- 4) MODE DUAL
- 5) FLOOR MAX 78°F
- ▶ 6) FLOOR MIN 69°F

#### ► Dual Mode: Floor Minimum

The thermostat will not allow the temperature in the floor to go below this value, protecting the integrity of the floor covering. If in a 2 stage heating mode, only the radiant heating contact is turned off.

#### ADJUSTMENTS

- ↑↓
- 4) MODE DUAL
- 5) FLOOR MAX 78°F
- 6) FLOOR MIN 69°F
- ▶ 7) SENSOR 1 FLOOR
- 8) SENSOR 2 NONE
- 9) TIME 5:18AM

#### ► Dual Mode: Sensor 1

This option will be automatically set to floor sensor.

#### ADJUSTMENTS

- ↑↓
- 4) MODE DUAL
- 5) FLOOR MAX 78°F
- 6) FLOOR MIN 69°F
- 7) SENSOR 1 FLOOR
- ▶ 8) SENSOR 2 NONE
- 9) TIME 5:18AM

#### ► Dual Mode: Sensor 2

**FL/Ave** - Averages external 1 + 2 using floor temperature.

**Outdoor** - Will use external 2 sensor to display outdoor temperature.

**Room** - Disregards internal sensor, uses external sensor 2.

#### ADJUSTMENTS

- 5) SENSOR 1 ROOM
- 6) SENSOR 2 ROOM
- ▶ 7) CONT FAN INT
- 8) INT FAN OFF 2H
- 9) INT FAN ON 15M
- 10) TIME 10:20

#### Dual Mode: Continuous Fan

**ON:** Enables the fan to run continuously, regardless of whether the thermostat is calling for heat or cooling

**Int Fan ON/OFF:** This setting will set the ON/OFF Time for the intermittent fan

Ex: The fan will come on for 15min every 2h. Set (Int Fan ON: 15min) & (Int Fan OFF: 2h)



**This option is not applicable to 2 Heat/Cool, 2 Cool/Heat or Boiler Modes.**



**If the floor temperature goes above its max when in 2 stage heating mode, but the room temperature is not satisfied, stage 1 heat will turn off**

#### ADJUSTMENTS

- ↑↓
- 3) HOLD TEMP 76°F
- 4) MODE ROOM
- 5) SENSOR1 NONE
- 6) SENSOR2 NONE
- 7) CONT FAN OFF
- ▶ 8) TIME 5:53am

#### ► Time

Set the time for your appropriate time zone.

#### ADJUSTMENTS

- ↑↓
- 4) MODE ROOM
- 5) SENSOR1 NONE
- 6) SENSOR2 NONE
- 7) CONT FAN OFF
- 8) TIME 5:53am
- ▶ 9) DAY MON

#### ► Day

Setting the appropriate day is important in regards to the programmable features. Setback features rely on the applicable day being set.

ADJUSTMENTS	
↑ ↓	
5) SENSOR1	NONE
6) SENSOR2	NONE
7) CONT FAN	OFF
8) TIME	5:53am
9) DAY	MON
▶ 10) BACKLIGHT	ON

### ▶ Backlight

Toggleing this option will turn the backlight feature either on or off. Allow approximately 60 seconds for the backlight to power off.

## BOILER ADJUSTMENTS

BOILER ADJUSTMENTS	
▷ 1) MAX BOILER	190°F
2) MIN BOILER	120°F
3) OUT DESIGN	-10°F
4) DIFF	6°F
5) WWSD	72°F
6) DHW PRTY	OFF

### Boiler Adjustments

The "Boiler Adjustments" screen is applicable to the "Boiler" option which is selected within the "Special Functions" screen, enter the "Boiler Adjustments" screen by holding down the set button after selecting "Boiler".

BOILER ADJUSTMENTS	
▷ 1) MAX BOILER	190°F
2) MIN BOILER	120°F
3) OUT DESIGN	-10°F
4) DIFF	10°F
5) WWSD	72°F
6) DHW PRTY	OFF

### ▶ Maximum Boiler Temperature

"Maximum Boiler Temperature" is used in the outdoor reset design calculation, and also serves as the maximum setting for the boiler.

BOILER ADJUSTMENTS	
1) MAX BOILER	190°F
▷ 2) MIN BOILER	120°F
3) OUT DESIGN	-10°F
4) DIFF	10°F
5) WWSD	72°F
6) DHW PRTY	OFF

### ▶ Minimum Boiler Temperature

Reduces the risk of condensing flue gases. It can run with both condensing, and non-condensing boilers. Setup as per boiler manufacturers recommendation.

BOILER ADJUSTMENTS	
1) MAX BOILER	190°F
2) MIN BOILER	120°F
▷ 3) OUT DESIGN	-10°F
4) DIFF	10°F
5) WWSD	72°F
6) DHW PRTY	OFF

### ▶ Outdoor Design Temperature

The "Outdoor Design Temperature" option should be set to reflect your specific city or region. It factors into the outdoor reset curve calculation.

BOILER ADJUSTMENTS	
1) MAX BOILER	190°F
2) MIN BOILER	120°F
3) OUT DESIGN	-10°F
▷ 4) DIFF	10°F
5) WWSD	72°F
6) DHW PRTY	OFF

### ▶ Differential

A differential of 10° is 5° above setpoint and 5° below setpoint. *Range from 2°F to 60°F.*

BOILER ADJUSTMENTS	
1) MAX BOILER	190°F
2) MIN BOILER	120°F
3) OUT DESIGN	-10°F
4) DIFF	10°F
▷ 5) WWSD	72°F
6) DHW PRTY	OFF

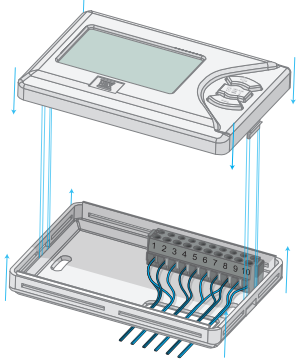
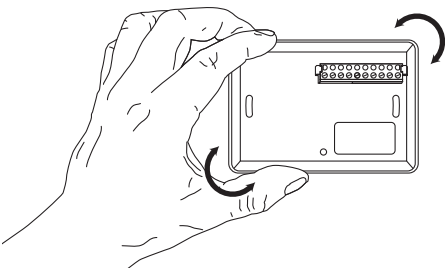
### ▶ Warm Weather Shutdown

"Warm Weather Shutdown" is the outdoor temperature that must be reached for the control to enter an energy-saving hibernation mode.

# INSTALLATION AND WIRING

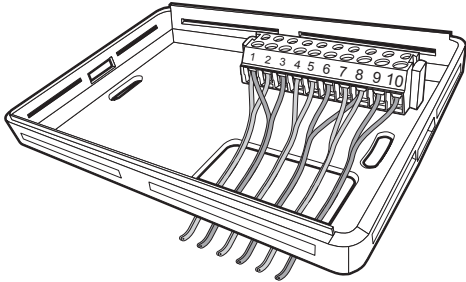
## MOUNTING INSTRUCTIONS


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.



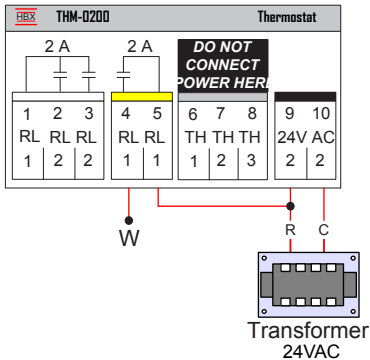
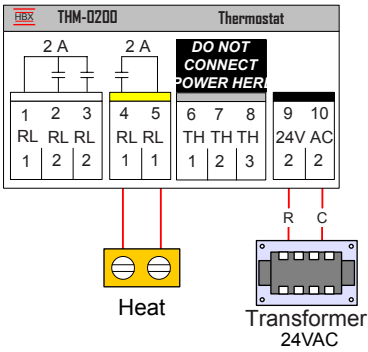
## WIRING EXAMPLES

- 1, 2, 3: Output 1 and 2  
4, 5: Dry Contact Output  
6, 7, 8: External Therm 1 and 2  
9, 10: Power

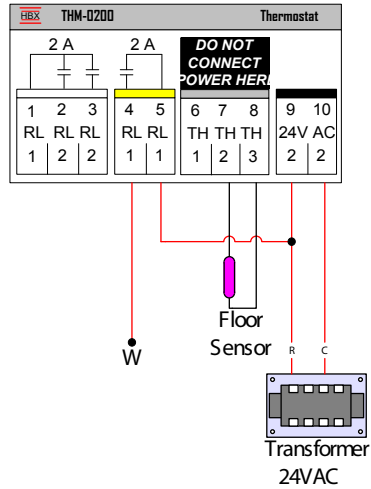
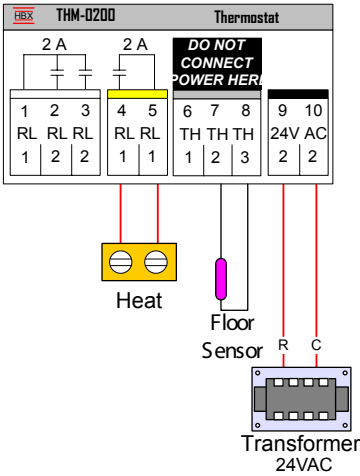


 In the following examples, extra thermistors are not needed on pins 6,8 and 7,8. These are only needed if you are using floor sensing or sensor averaging modes.

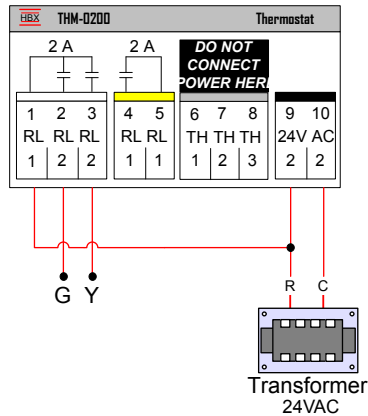
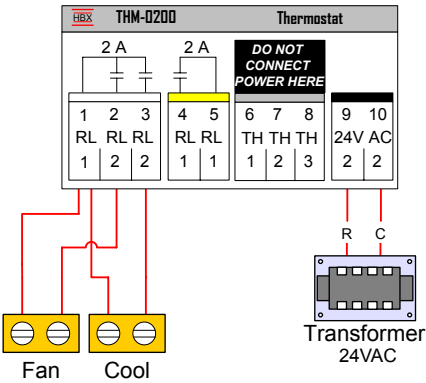
### 1. ROOM ONLY



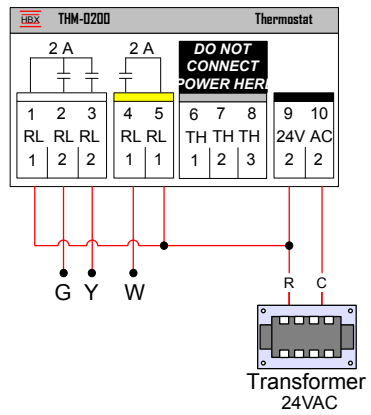
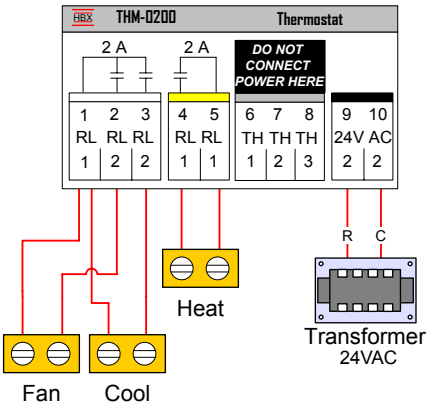
## 2. FLOOR ONLY/DUAL



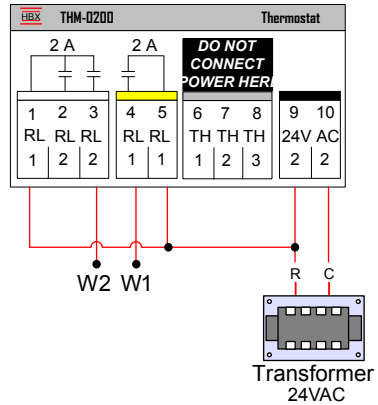
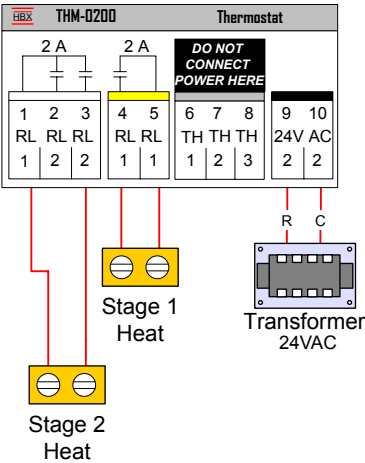
## 3. ROOM ONLY - COOLING + FAN



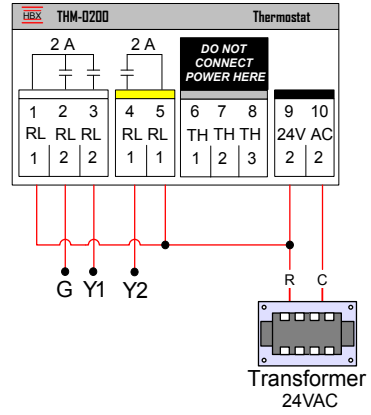
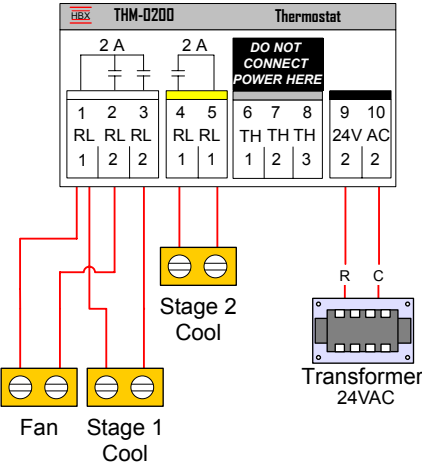
4. HEATING AND COOLING + FAN



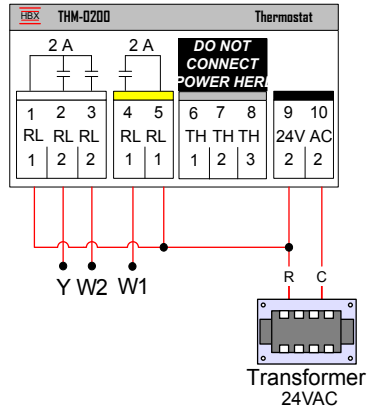
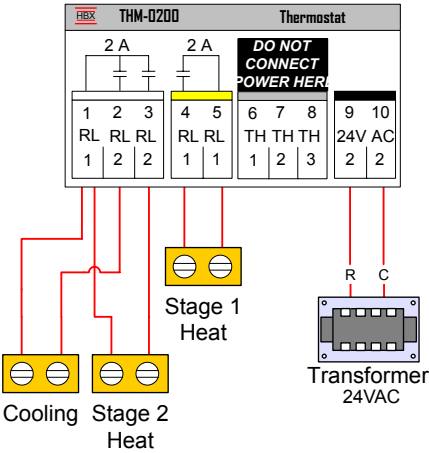
5. 2 STAGE HEATING



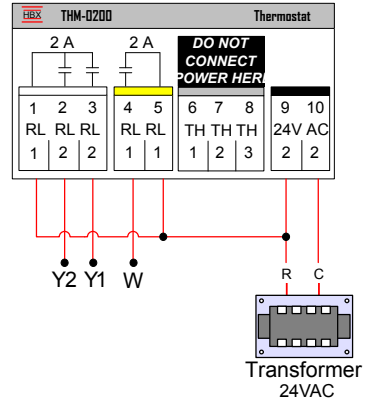
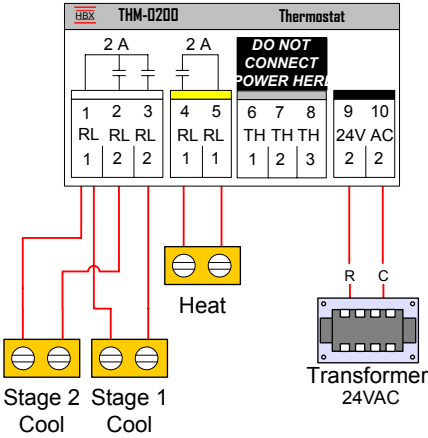
# 6. 2 STAGE COOLING + FAN



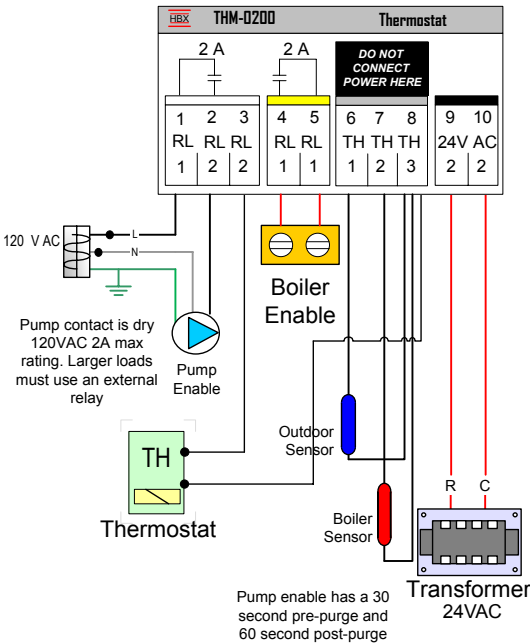
# 7. 2 STAGE HEAT + COOL



# 8. 2 STAGE COOL + HEAT



# 9. BOILER





## NOTES

[illegible]

## This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## 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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