Installation Manual THM-0300 Programmable Thermostat Version 1.21



THM-0300

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-0300 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

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
- 1 x Thermostat THM-0300
- Instruction Manual

DESCRIPTION

The THM-0300 is a programmable thermostat designed to be used with the ZON-0550 Zone Control, optional Wi-Fi™ ThermoLinx™ Module, and HBX Wi-Fi mobile app. The thermostat has four daily, automatic settings (wake, day, evening, sleep) and weekend settings. It is normal for the THM-0300 screen to blink upon startup.

The THM-0300 has two external sensor inputs, multiple heating/cooling modes and can function as a digital setpoint/aquastat.

Some features of the THM-0300 are:

- Dual stage heating or cooling
- P.I.D. algorithm.
- Large backlit graphic display
- Push button keypad control
- User-friendly programming features
- Includes external sensor
- 2 wire thermostat (power and communication)



The THM-0300 is only compatible with the ZON-0550 Zone Control

TECHNICAL DATA AND DIMENSIONS

Technical Data

2 x External Thermistor Input 1 x Power and Communication: 5VDC

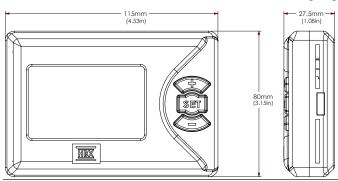
Dimensions: 115 x 80 x 27.5mm

ETL Listings:

Only used with ZON-0550 ETL Control No. 3068143

Storage: +10C to +40C

Languages: English



PROGRAMMING THM-0300

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

<u>Special Functions</u>

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, and a variety of combined modes.

SPECIAL FUNCTIONS

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

▶ Heat Only Function

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

SPECIAL FUNCTIONS

- ▶ 1) TYPE COOL ONLY
 2) VIEW ALL YES
 3) VIEW AUTO YES
 4) SETBACK YES
 - 5) ROOM OFFSET 0°F 6) GEO MODE N

SPECIAL FUNCTIONS

HEAT AND COOL

2) VIEW ALL YES
3) VIEW AUTO YES
4) SETBACK YES
5) ROOM OFFSET 0°F
6) GEO MODE N

Cool Only Function

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

Heat/Cool Function

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

▶ 1) TYPE

SPECIAL FUNCTIONS

- ▶ 1) TYPE 2 STAGE HEAT 2) VIEW ALL YES
- 3) VIEW AUTO YES
- 4) SETBACK YES
- 5) ROOM OFFSET 0°F 6) GEO MODE Ν
- using 2 stage heating.

SPECIAL FUNCTIONS

- 2 STAGE COOL
 - 2) VIEW ALL YES 3) VIEW AUTO YES
 - YES 4) SETBACK
 - 5) ROOM OFFSET 0°F
 - 6) GEO MODE

Cool/Cool Function

Heat/Heat Function

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

Select the "Heat/Heat Function" for applications

SPECIAL FUNCTIONS

- ▶ 1) TYPE 2 HEAT WITH COOL
- 2) VIEW ALL YES
- 3) VIEW AUTO YES
- 4) SETBACK YES 5) ROOM OFFSET 0°F
- 6) GEO MODE

2 Heat/Cool Function

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

SPECIAL FUNCTIONS

- 1) TYPE 2 COOL WITH HEAT
 - 2) VIEW ALL YES
 - 3) VIEW AUTO YES
 - 4) SETBACK YES
 - 5) ROOM OFFSET 0°F
 - 6) GEO MODE

2 Cool/Heat Function

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

SPECIAL FUNCTIONS

- ▶ 1) TYPE 2 HEAT AND 2 COOL
 - YES 2) VIEW ALL
 - 3) VIEW AUTO YES 4) SETBACK YES

 - 5) ROOM OFFSET 0°F 6) GEO MODE

Geo Mode: 2 Heat & 2 Cool

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

This option is only available in Geo Mode.

SPECIAL FUNCTIONS

- **HEAT ONLY** 1) TYPE YES
- 2) VIEW ALL 3) VIEW AUTO YES
 - 4) SETBACK YES
 - 5) ROOM OFFSET 0°F
 - 6) GEO MODE

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

79°F

10:00am (HT MON ROOM **TARGET FLOOR**

72°F

·LT = Low Temp

View All/Hide All

= High Temp

DHW= Domestic Hot Water

FN = Fan

FHT = Fancoil Heat

FCL = Fancoil Cool

CL = Cool

HD = Heat Demand

CD = Cold Demand

"View All" = No

10:00am HT MON **ROOM**

SPECIAL FUNCTIONS

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

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, 2Cool/Heat and 2Heat/2Cool modes.

SPECIAL FUNCTIONS

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

Setback

Offset

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 ONL' 2) VIEW ALL YES
- 3) VIEW AUTO YES 4) SETBACK YES
- ▶ 5) ROOM OFFSET 0°F 6) GEO MODE N
- 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 °F

Direct Sunlight causes Thermostat to show 73 °F

The user can put an offset of -1 $^{\circ}$ F to get the temperatures to match.

SPECIAL FUNCTIONS

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

Geo Mode

This feature allows you to control 2 or 4 pipe systems for geothermal applications.

This mode can only be turned on/off using the first THM-0300 thermostat on the zone module.

Default: 2 pipe system. To change to a 4 pipe system, go to zone setup options (page 8).

THE SETUP MENU SCREEN

Holding down the set button for 2 seconds while viewing the "Status Screen" will take you into the "System Setup 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.

SETUP MENU

- ▶ 1) SCHEDULE
 - 2) MODE
 - 3) SYSTEM SETUP
 - 4) TIME

Setback Schedule

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
- 90°F 5) BACK
- 4) 9:00P

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

- 74°F ▶ 1) 9:00A
 - 2) 9:00A 74°F
 - 64°F 3) 9:00P 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 ▶ 1) 9:00A 74°F 79°F 74°F 2) 9:00A 79°F 3) 9:00P 64°F 69°F 64°F

4) 9:00P 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 2°F differential between hot and cold settings.

SCHEDULE

69°F

- 1) WEEKDAY
- 2) WEEKEND
- **37**°F ▶ 3) AWAY TEMP OFF

4) SET AWAY

Away Temperature

Set the temperature for when the zone is in Away Mode



Away Mode can only be set on the thermostat is setbacks are enabled.

SCHEDULE

- 1) WEEKDAY
- 2) WEEKEND
- 3) AWAY TEMP **37**°F
- ▶ 4) SET AWAY OFF

Set Away

Set the zone to Away Mode

SETUP MENU

- ▶ 1) TARGET TEMP **78**°F
 - 2) MODE
 - 3) SYSTEM SETUP
 - 4) TIME

- SETUP MENU ▶ 1) HEATING TEMP **70°**F

 - 2) COOLING TEMP 75°F
 - 3) CHANGEOVER AUTO
 - 4) MODE
 - 5) SYSTEM SETUP
 - 6) TIME

SETUP MENU

- 1) HEATING TEMP **70°**F
- ▶ 2) COOLING TEMP
 - 3) CHANGEOVER
 - 4) MODE
 - 5) SYSTEM SETUP
 - 6) TIME

▶ Target Temperature

When Setbacks are set to OFF, use this to change the minimum/maximum temperature for your zone depending on if your zone is set up for heating or cooling. If the temperature in the zone falls below/ rises above this temperature, heating or cooling will come on.

Heating Temperature

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

Cooling Temperature

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

SETUP MENU

- 1) HEATING TEMP **70**°F
- 2) COOLING TEMP 75°F
- ALITO
- ▶ 3) CHANGEOVER 4) MODE
 - 5) SYSTEM SETUP
 - 6) TIME

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.



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

MODE OPTIONS

This option allows you to select between Room, Floor and Dual sensor modes. If you are setting your Thermostat as a DHW Zone, see Zone Demand on page 9. Selecting **DHW** will automatically configure your sensor.



If you are using an external room thermistor, see page 13 for thermistor switch settings.

SETUP MENU

1) SCHEDULE

- ▶ 2) MODE
 - 3) SYSTEM SETUP
- 4) TIME

Mode Setup

This setting takes you to the Mode Setup menu, and allows you to select the thermostat mode.

ROOM MODE OPTION

MODE SETUP ▶ 1) MODE ROOM 2) SENSOR 1 FLOOR

Room Mode

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

MODE SETUP 1) MODE ROOM ▶ 2) SENSOR 1 FLOOR

Room Mode: Sensor 1

None – No external thermistor attached.

RM/Ave – averages external 1 and internal sensor, or optional external room sensor (see page 13 for instructions).

Outdoor – Uses external sensor to display outdoor temperature.

Room - disregards internal sensor, uses external 1. **Floor** – displays the floor temperature using external 1 sensor.

DUAL MODE OPTION

MODE SETUP

- ▶ 1) MODE DUAL 2) FLOOR MAX 80°F
 - 3) FLOOR MIN
 4) SENSOR 1
 FLOOR

Dual Mode

Sensor temperature providing feedback for both the air temperature and floor sensor temperatures.



Only available when heating modes are the primary function.

MODE SETUP

- 1) MODE DUAL
- ▶ 2) FLOOR MAX 80°F
- 3) FLOOR MIN 70°F 4) SENSOR 1 FLOOR

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.

MODE SETUP

- 1) MODE DUAL
 2) FLOOR MAX 80°F
 3) FLOOR MIN 70°F
- ▶ 3) FLOOR MIN **70**°F 4) SENSOR 1 FLOOR

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.

MODE SETUP

1) MODE DUAL
2) FLOOR MAX 80°F
3) FLOOR MIN 70°F
4) SENSOR 1 FLOOR

Dual Mode: Sensor 1

This option will be automatically set to floor sensor.

FLOOR MODE OPTION

MODE :	SETUP
▶ 1) MODE	FLOOR
2) DIFF	5 °F
3) SENSOR 1	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.

MODE SETUP		
1) MODE	FLOOR	
▶ 2) DIFF	5 °F	
3) SENSOR 1	FLOOR	

Floor Mode: Differential

When in floor mode, the differential option is set to allow a differential around the target to lesson the chances of short cycling.

MODE SETUP 1) MODE FLOOR ▶ 2) DIFF **5**°F 3) SENSOR 1 FLOOR

Floor Mode: Sensor 1

This option will be automatically set to floor sensor.

SYSTEM SETUP OPTIONS

This selection allows you to access the System Setup menu.

SETUP MENU

- 1) SCHEDULE 2) MODE
- ▶ 3) SYSTEM SETUP
 - 4) TIME

System Setup

This setting takes you to the System Setup Menu.

ZONE SETUP OPTIONS

SYSTEM SETUP

- ▶ 1) ZONE SETUP
 2) FANCOIL SETUP
 - 3) °C OR °F
 - 4) STAGE DELAY **15**m
 - SYNC CODE: ABCD-1234

Zone Setup

This setting takes you to the Zone Setup Menu.

ZONE SETUP

- ▶ 1) SEQUENCE 1 42) DEMAND LOW
 - 3) PRIORITY NONE
 - 4) PASSWORD AB12
 - 5) MASTER ID:A2
 - 6) DAMPER ZONE NO

Zone Setup: Sequence

This option allows the user to set the zone module sequence order. Select the sequence you would like to set up for the module (1-4, 5-8, 9-12,13-16, 17-20). Adjusting the sequence order can only be done using the first THM-0300 (zone 1) thermostat that is connected to the zone module.



Selecting sequence order (1-4) will set the zone module as the "master".

ZONE SETUP

- 1) SEQUENCE
- 2) DEMAND
- 3) PRIORITY
- 4) PASSWORD
- 4) PASSVV
- 5) MASTER ID:A2 6) DAMPER ZONE NO

Zone Setup: Demand

1 - 4

LOW

NONE

AB12

This option allows the user to determine what happens when the thermostat makes a call.

Low - Low Temperature Demand

High - High Temperature Demand

DHW - Domestic Hot Water (Digital Aquastat)

Fan - Fancoil Demand

ZONE SETUP

- 1) SEQUENCE 1 4 2) DEMAND LOW
- ▶ 3) PRIORITY NONE 4) PASSWORD AB12
 - 5) MASTER ID:A2
 - 6) DAMPER ZONE NO

Zone Setup: Priority

This option allows the user to set a priority on a zone(s) over other zone(s). Priorities range from 1 (highest) to 7 (lowest). Higher priorities will lock out lower priorities until the demand has been satisfied. Multiple zones can be given the same numbered priority. The Priority Shield option allows a zone to ignore other priorities from other zones.



Priority 1 is a timed priority of 60 minutes, generally used for DHW.

ZONE SETUP

- 1) SEQUENCE
- 2) DEMAND LOW 3) PRIORITY NONE
- ▶ 4) PASSWORD
- 5) MASTER ID:A2 6) DAMPER ZONE

Zone Setup: Password

This option allows the user to see or change the password to connect to the Zoning App.

ZONE SETUP

- 1) SEQUENCE 2) DEMAND
- 1 4 LOW NONE

1 - 4

AB12

NO

- 3) PRIORITY NONE 4) PASSWORD AB12
- ▶ 5) MASTER ID:A2
 - 6) DAMPER ZONE NO

Zone Setup: Master ID

With this option, if the thermostat is connected to the first zone module it will display the master ID. If selected it will put the module into "Discovery mode". If the thermostat is connected to additional zone modules, it will indicate the ID of the master module it is paired to. If selected it will put the module into pairing mode.

ZONE SETUP

- 1) SEQUENCE 2) DEMAND
- LOW
- 3) PRIORITY 4) PASSWORD
- NONE AB12
- 5) MASTER ID:A2
- ▶ 6) DAMPER ZONE NO

Zone Setup: Damper Zone

This option allows you to set the zone as a damper zone. 2 zones and 2 dampers can be set up per zone module.



Zones (1 and 3) are zones and (2 and 4) are dampers. No thermostats are needed for dampers. THM-0300 thermostats must be only wired in THM1 and THM3 terminals when using dampers.

Default: No

ZONE SETUP

1) SEQUENCE 1 - 4 2) DEMAND

LOW 3) PRIORITY NONE

4) PASSWORD AB12

5) MASTER ID:A2 ▶ 6) 4 PIPE ZONE NO Zone Setup: 4 Pipe Zone

This option allows you to control a 4 pipe system in a geothermal application.

Default: No

FANCOIL SETUP OPTIONS

SYSTEM SETUP

- 1) ZONE SETUP
- 2) FANCOIL SETUP
 - 3) °C OR °F
 - 4) STAGE DELAY **15**m

SYNC CODE: ABCD-1234

Fancoil Setup

This setting takes you to the Fancoil Setup Menu.

FANCOIL SETUP

- 1) FAN ON DMD
 - 2) ZONE ON DMD NO
 - 3) TEMP AVE NONE
 - 4) FAN MODE **OFF**

Fancoil Setup: Fan On Demand

This option will turn the fan on with any fancoil demand

FANCOIL SETUP

- 1) FAN ON DMD NO
- ▶ 2) ZONE ON DMD NO
- 3) TEMP AVE NONE
- 4) FAN MODE OFF

Fancoil Setup: Zone On Demand

This option will turn the zone pump on with any fancoil demand

FANCOIL SETUP

- 1) FAN ON DMD NO
- 2) ZONE ON DMD NO
- 3) TEMP AVE 4) FAN MODE **OFF**
- NONE

Fancoil Setup: Temperature Averaging

This option will average the temperature between thermostats (User Selectable), when that average falls below or above the setpoint, depending on if it's in heating or cooling, then the thermostat will make a call for heating or cooling on the fancoil.

FANCOIL SETUP

- 1) FAN ON DMD NO
- 2) ZONE ON DMD NO
- 3) TEMP AVE NONE
- 4) FAN MODE OFF

Fancoil Setup: Fan Mode

OFF: Indicated Fan is off

ON: Enables the fan to run constantly, regardless of whether the thermostat is calling for heating or coolina

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)

FANCOIL SETUP

- 1) FAN ON DMD NO
- 2) ZONE ON DMD NO
- 3) TEMP AVE NONE
- 4) FAN MODE INT
- ▶ 5) INT FAN ON **2**m
- 6) INT FAN OFF

Fan Mode INT: Intermittent Fan On

Sets the amount of time the fan will operate. Only applicable when Fan Mode is set to INT.

FANCOIL SETUP

- 1) FAN ON DMD NO 2) ZONE ON DMD NO
- 3) TEMP AVE NONE
- 4) FAN MODE INT 5) INT FAN ON **2**m
- ▶ 6) INT FAN OFF **1**H

Fan Mode INT: Intermittent Fan Off

Sets the amount of time that must pass before the fan can come on again. Only applicable when Fan Mode is set to INT.

CELSIUS OR FARENHEIT

SYSTEM SETUP

- 1) ZONE SETUP 2) FANCOIL SETUP
- ▶ 3) °C OR °F
 - 4) STAGE DELAY **15**m

SYNC CODE: ABCD-1234

Celsius or Farenheit

This option will change the thermostat temperature to either Celsius or Farenheit.

STAGE DELAY OPTION

SYSTEM SETUP

- 1) ZONE SETUP
- 2) FANCOIL SETUP
- 3) °C OR °F
- ▶ 4) STAGE DELAY **15**m

SYNC CODE: ABCD-1234

Stage Delay

Use this setting to adjust the lagtime between stage 1 and stage 2 coming on.

Default: 15m



This option is only available in 2 stage applications.

SYNC CODE

SYSTEM SETUP

- 1) ZONE SETUP
- 2) FANCOIL SETUP
- 3) °C OR °F
- **15**m

SYNC CODE: ABCD-1234

۰F

Sync Code

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

TIME OPTIONS

This selection allows you to access the Time Setup menu.

SETUP MENU

- 1) SCHEDULE
- 2) MODE
- 3) SYSTEM SETUP
- ▶ 4) TIME

Time Setup

This setting takes you to the Time Setup Menu.

TIME SETUP ▶ 1) TIME 1:00pm

- 2) DAY OF WEEK MON
 3) TIME ZONE CENTRAL
- 3) TIME ZONE CENTRAL
 4) AUTO TIME ON

Time Setup: Time

Set the time for your appropriate time zone.

TIME SETUP

- 1) TIME 1:00pm
- ▶ 2) DAY OF WEEK MON
 - 3) TIME ZONE CENTRAL 4) AUTO TIME ON

Time Setup: Day of Week

Set the current day of the week.

TIME SETUP

- 1) TIME 1:00pm 2) DAY OF WEEK MON
- ▶ 3) TIME ZONE CENTRAL
 - 4) AUTO TIME ON

Time Setup: Time Zone

Set the appropriate time zone for your area.

TIME SETUP

- 1) TIME 1:00pm 2) DAY OF WEEK MON
- 3) TIME ZONE CENTRAL
- ▶ 4) AUTO TIME ON

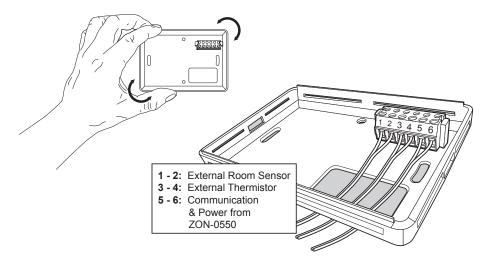
Time Setup: Auto Time

Use this setting to allow the network to automatically update your time when WiFi is enabled on your system.

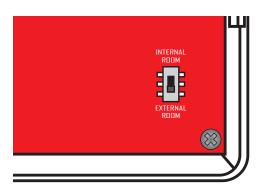
INSTALLATION AND WIRING

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.



EXTERNAL ROOM THERMISTOR

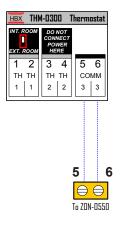


On the THM-0300, the room thermistor switch is located on the bottom right corner of the thermostat.

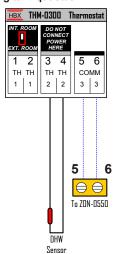
Toggling this switch will allow the user to alternate between the built in room thermistor on the THM-0300, or an external room thermistor connected to pins 1 and 2 on the THM-0300.

WIRING EXAMPLES

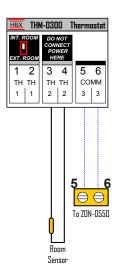
THM-0300 using Internal Sensor



THM-0300 using DHW Sensor as a Digital Aquastat

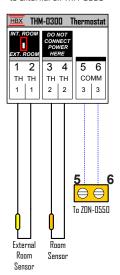


THM-0300 using Room Sensor



THM-0300 Room averaging using 2 External Room Sensors

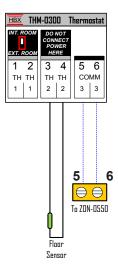
To use external room thermistor, toggle dispswitch from Internal to External on THM-0300

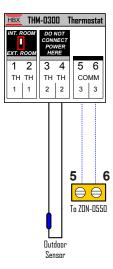


*Sensor input can be used for DHW, Room, Floor, and Outdoor Sensors

THM-0300 using Floor Sensor

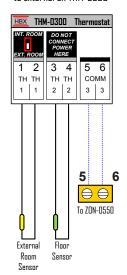
THM-0300 using Outdoor Sensor





THM-0300 Dual Mode using External Room Sensor and Floor Sensor

to use external room thermistor, toggle dispswitch from Internal to External on THM-0300



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.

NOTES:	

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