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FEATURES

Thermostat

- Compatible with central heating/air conditioning systems for automatic temperature control
- Automatic change-over for HEATING/COOLING programs
- Connects to humidifier for automatic humidity control
- Displays temperature (°C / °F)
- Remote temperature control via remote sensor / transmitter
- Extra-large LCD display with backlight
- Clock display (12 or 24 hour format)
- Temperature can be set in half degrees
- Automatic, manual and fan modes
- Selectable cycle rates for furnace ON/OFF intervals
- Usage monitor
- Filter change reminder
- Compatible with millivolt & 24V heating systems
- Includes mounting hardware and 3 "AA" batteries

Remote Sensor / Transmitter

- Displays current temperature and humidity
- Adjusts temperature with remote RF transmission
- Temperature can be set in half degrees
- Includes mounting hardware and 2 "AAA" batteries



Installation Guide

Installation Guide

Introduction

This thermostat can replace common residential thermostats. It is designed for use with most central heating and air conditioning systems that use **low voltage (24V or millivolt) system control**. Please see compatibility chart on the next page for more details.

Warning

We recommend consulting a licenced HVAC contractor to ensure the correct installation of the thermostat. The only way to guarantee proper wiring is to have a qualified professional on site.

*** NOT COMPATIBLE WITH ANY HIGH VOLTAGE 120/240 VOLT CIRCUIT.**

Compatibility

Generally, equipment with **low voltage (24V or millivolt) system control** is compatible with heating/cooling programmable thermostats.

System Type	Compatible with Thermostat
Gas - Standing Pilot	Yes
Gas - Electronic Ignition	Yes
Gas - Fire Boiler	Some models
Gas - Millivolt System	Yes
Oil - Fire Boiler	Some models
Oil - Fire Furnace	Yes
Electric Furnace	Yes
Electric Air Conditioner	Yes
Baseboard Electric Heater (120/240V)	No
Heat Pump/Single-Stage	No
Heat Pump/Multi-Stage	No

*** NOT COMPATIBLE WITH ANY HIGH VOLTAGE 120/240 VOLT CIRCUIT**

Installation

The following tools may be required for installation:

(⊕) **Screwdriver**



Masking Tape

(To wrap the exposed wires temporarily and to label the disconnected wires)



Wire Stripper/Cutter

(If necessary, to strip the wires)



Power drill with a 3/16" bit

(If necessary, to drill holes on the wall)



Level

(If necessary, to level the thermostat)



Batteries (included)

Choosing a location for the thermostat

Thermostat should be mounted:

- Approximately 5' (1.5 m) from floor.
- Near or in a frequently used room, preferably on an inside partitioning wall.
- On a section of wall without pipes or duct-work.

Thermostat should NOT be mounted:

- Near a window, on an outside wall, or next to a door leading outside.
- Exposed to direct light or heat from a lamp, sun, fireplace, or other temperature-radiating objects which may cause false readings.
- Near or in direct airflow from heat registers and air conditioners.
- Near concealed pipes and chimneys.
- In areas with poor air circulation, such as behind a door or in an alcove.

Replacing the Old Thermostat

- Test the system to make sure that your heating and cooling systems are working properly before installation (If either does not work, contact a heating/air conditioning service person to fix the problem before installation)
- TURN OFF POWER to system at the furnace, or at the fuse/circuit breaker panel
- Carefully unpack your new thermostat and mounting plate; save package of screws, instructions and receipt

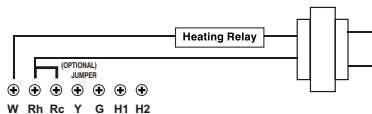
Wiring

NOTE: WIRING COLORS ARE NOT ALWAYS STANDARDIZED, SO IT IS VERY IMPORTANT TO LABEL ALL WIRES ACCORDING THE LETTER DESIGNATION ON YOUR OLD THERMOSTAT

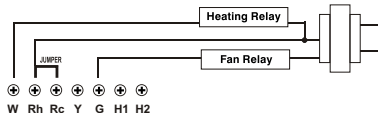
(The wires are usually designated 'W', 'Y', 'G', 'RH', 'RC', 'W', 'B', 'O' or humidistat wires)

- Disconnect wires from old thermostat or sub-base
- As you disconnect each wire, label it with the old terminal designation
- Take care not to let the wires fall back into the wall or let the ends of the wires touch one another
- If there is an extra wire that is not connected to your old thermostat, then you won't need to connect it to the new thermostat

2-WIRE HEATING



3-WIRE HEATING



Wiring Key

Regular Wiring

G - Fan output

Y - Cool output

H1 / H2 - Humidifier control

Rc - Common for Cooling and Fan

Rh - Common for Heating

W - Heat output

2 Wire Heating

Rc / Rh - Common

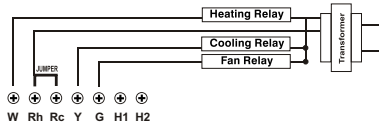
(Rc and Rh jumper is optional)

3 Wire Heating

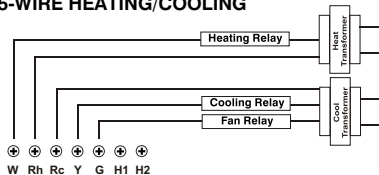
Rc / Rh - Common (Rc and Rh must be connected with jumper)

Wiring Diagrams

4-WIRE HEATING/COOLING



5-WIRE HEATING/COOLING



Wiring Key

Regular Wiring

G - Fan output

Y - Cool output

H1 / H2 - Humidifier control

Rc - Common for Cooling and Fan

Rh - Common for Heating

W - Heat output

4 Wire Heating

Rc / Rh - Common (Rc and Rh must be connected with jumper)

5 Wire Heating

2 separate transformers (Heat / Cool)

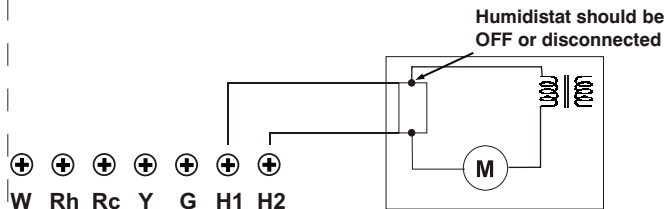
Rc / Rh - Common (wire separately, jumper must not be installed)

Humidifier Wiring

- To wire a humidifier, the 2 wires connecting the original humidistat need to be connected to the 2 terminals marked 'H1' and 'H2' on the thermostat.
- The original humidistat should be removed or set to 'OFF' position.

Note: The 2 humidifier control terminals 'H1' and 'H2' are electrically isolated from the Heat/Cool terminals.

Note: H1 and H2 terminals are non polarized and there is no function difference between H1 and H2.



Connecting the Wires to the Terminals



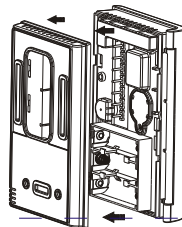
Connect the previously labeled wires to the corresponding terminals, matching the designations. Use a screwdriver to loosen the terminal, wrap the wires around the terminal then tighten to securely fasten the wires. Make sure the wires do not touch or short-circuit with other terminals.

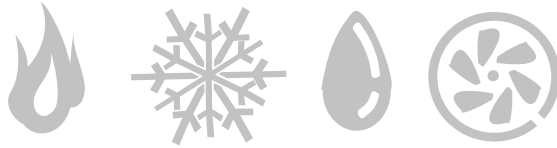
- Depending on your heating/cooling equipment, you may need to connect between 2 to 7 wires
- If you have two 'R' wires, then connect each wire to its corresponding terminal and remove the JUMPER between the RC and RH terminals
- If you are unsure of the connections please consult a certified HVAC contractor for the correct installation of your thermostat.

Mounting the back cover of the thermostat

- The back cover should be mounted vertically with the terminals on the top
- Thread the existing wiring through the big center hole from the back and set the back cover vertically on the wall
- Select two appropriate mounting holes and mark the locations with a pencil (If necessary, use a level to make sure the thermostat is positioned straight)
- Remove the back cover from the wall and drill two 3/16" inch holes in the marked screw positions
- Insert the wall anchors into the holes completely (If necessary, use a hammer to tap-in lightly)
- Mount the back cover to the wall using the two screws (Make sure the metal terminals are on the top)
- Attach the thermostat body to the back cover (that is already mounted on the wall) by carefully aligning the two pieces and pressing firmly until they snap together

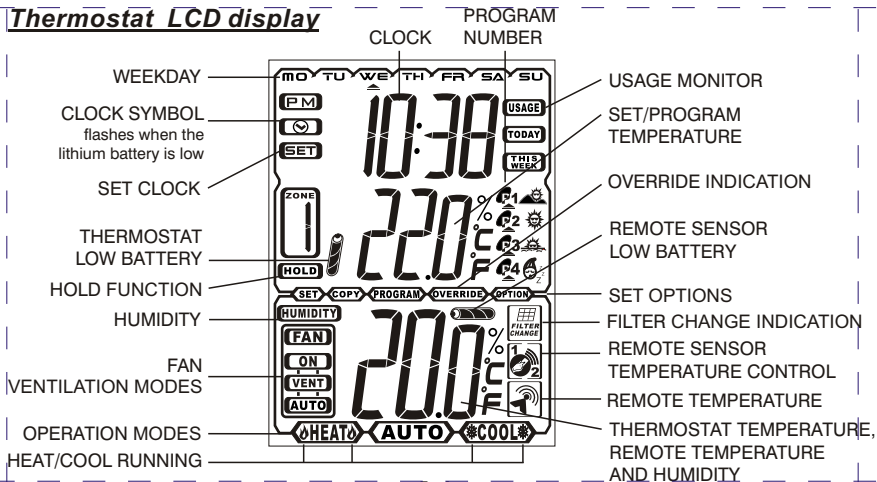
First attach to backplate to the wall,
then press the faceplate into place



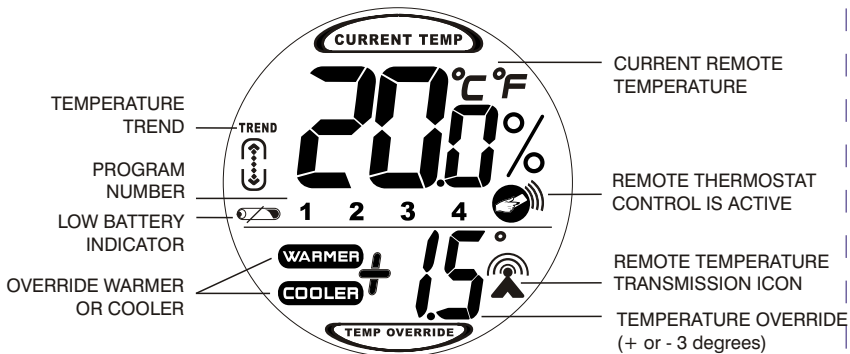


Diagrams and Operation

Thermostat LCD display

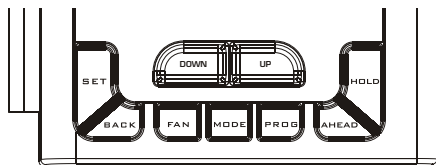


Remote Sensor / Transmitter LCD display

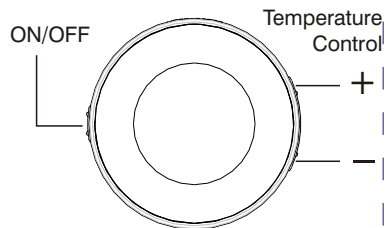


BUTTON LOCATION

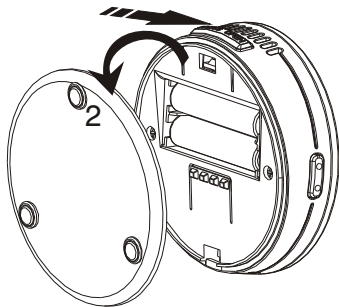
THERMOSTAT



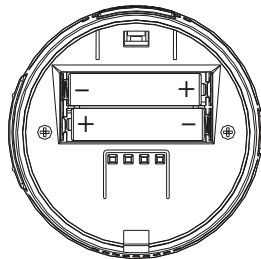
REMOTE CONTROLLER / SENSOR



INSERT BATTERIES - REMOTE CONTROL / SENSOR



Press and hold the button on the top of the unit,
then gently but firmly remove the back cover
(DO NOT pry open with a screwdriver)



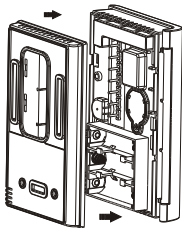
Insert 2 "AAA"
batteries

**** IMPORTANT - (°C or °F) ****

CELSIUS DEFAULT: Since Celsius (°C) is the default mode no action is required to use the thermostat in this mode. However, if you wish to choose Fahrenheit (°F) you must do so before you begin using the thermostat. If you proceed to set the clock and program settings with the default Celsius(°C)and THEN change to Fahrenheit (°F); the clock, programs and all system settings will be deleted. To change the temperature scale see the “Optional Settings” section.

REMOVE BACK COVER / INSERT BATTERIES / PRESS RESET / ACCESS BUTTONS

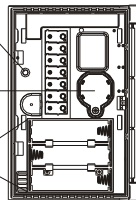
To prepare for wiring, gently pull off the back cover, DO NOT pry open



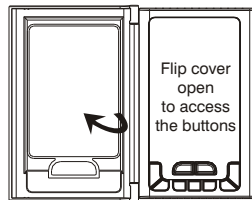
RESET (R) key

Lithium battery for memory backup

Insert 3 "AA" batteries



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Thermostat LCD display

Check Programs

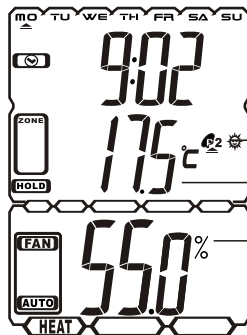
- Press PROGRAM at any time to scroll through and check all other programs
- The current program setting is displayed in the middle of the LCD screen
- Press PROGRAM repeatedly to return to the normal display

Local/Remote Temperature

- The local/remote temperature is displayed on the bottom of the LCD screen

Relative Humidity

- Relative humidity is displayed on the bottom of the LCD screen
- It is shown alternatively with current (room) temperature (The display alternates: 2 seconds humidity display , 4 seconds temperature display)



Current program period

Program temperature

Current (room) temperature display, alternating with the relative humidity display

Set clock

- Press SET to begin setting the time (the TIME symbol will appear)
- Press AHEAD or BACK to set the current time
- Press SET again (the DAY symbol will appear)
- Use AHEAD or BACK to set the current day
- Press SET again to exit

Set 12 or 24 hour format

12 hour mode is the default, so no action is required to use the thermostat in this mode

To select 12 or 24 hour format:

- Press SET for 3 seconds to enter the optional setting mode
- Press UP/DOWN to select 12 or 24 hour format
- Press SET to confirm
- Press SET repeatedly to exit the optional setting mode

Program Heating and Cooling

This thermostat is equipped with 5+1+1 DAY PROGRAMMING. Program Monday-Friday as a group + Saturday + Sunday, with 4 settings per day. This thermostat is pre-programmed for your convenience or you can set your own programs as desired.

- P1: MORNING** : In the morning period, when you wake up, you may prefer a warmer temperature.
- P2: DAY** : The daytime period is an energy-savings mode for the time you are away from home. The settings can be adjusted to minimize energy consumption.
- P3: EVENING** : The evening period is for when you return home and want the house at a comfortable temperature, typically set warmer during the winter and cooler during the summer.
- P4: NIGHT** : The night period is the time when you are usually asleep. You may choose to lower the temperature for energy savings and comfort.

DEFAULT PRE-PROGRAMMED TIME AND TEMPERATURE SETTINGS

PERIOD	P	TIME	HEAT SETPOINT	COOL SETPOINT
MORNING	P1	6:00am	69.0°F (20.5°C)	77.0°F (25.0°C)
DAY	P2	8:00am	63.5°F (17.5°C)	84.0°F (29.0°C)
EVENING	P3	5:00pm	70.0°F (21.0°C)	77.0°F (25.0°C)
NIGHT	P4	10:00pm	62.5°F (17.0°C)	79.0°F (26.0°C)

(SEE OPTIONAL SETTINGS SECTION)

Note: Program periods can be set to different or the same temperatures.

For example: Period 1, 2, or 3 can all be set to (22°C) if you are home all day and want the temperature to stay warm, but at night it can be set cooler. (17°C)

Heating Program

- 1 Press MODE until the HEAT symbol appears
- 2 Press PROGRAM once (P1 and the PROGRAM symbol will appear on the display)
- 3 Press PROGRAM again to scroll through the day(s) you wish to program
(Monday - Friday mode will display first, then Saturday, then Sunday)
- 4 Press AHEAD or BACK to scroll to the desired start time for Period 1 (displayed as P1)
- 5 Press UP or DOWN to set the desired temperature for P1
- 6 After setting the desired time and temperature for P1, press PROGRAM again to advance to P2
- 7 Repeat the steps above to set the times and temperatures for P2, P3 and P4
- 8 After Sunday P4 is set, press PROGRAM again to exit the programming mode

- The heating and cooling programs are linked, so same program start times (chosen for either heating or cooling) will automatically be applied to the other
- The HEAT temperature setting will always be **at least 3°C (6°F) lower** than the COOL temperature setting, to prevent a mistake or overlap in temperature settings
- The PROGRAM button can also be used at any time to review all the set programs
- Tip: Press and hold down the AHEAD/BACK or UP/DOWN buttons to scroll through the numbers quickly
- Program times can be set in increments of 10 minutes
- Temperature can be set in increments of 0.5°
- The temperature range for heating is 5°C to 32°C (41°F to 89°F)

Cooling Program

Setting the cooling program is nearly identical to setting the heating program

- ① Press MODE until the COOL symbol appears
- ② Press PROGRAM once (P1 and the PROGRAM symbol will appear on the display)
- ③ Press PROGRAM again to scroll through the day(s) you wish to program
(Monday - Friday mode will display first, then Saturday, then Sunday)
- ④ Press AHEAD or BACK to scroll to the desired start time for Period 1 (Displayed as P1)
- ⑤ Press UP or DOWN to set the desired temperature for P1
- ⑥ After setting the desired time and temperature for P1, press PROGRAM again to advance to P2
- ⑦ Repeat above steps to set the times and temperatures for P2, P3 and P4
- ⑧ After Sunday P4 is set, press PROGRAM again to exit the programming mode

The heating and cooling programs are linked, so same program start times (chosen for either heating or cooling) will automatically be applied to the other

The COOL temperature setting will always be **at least** 3°C (6°F) higher than the HEAT temperature setting, to prevent a mistake or overlap in temperature settings (For example, if the initial COOL program temperature was set at 24°C (75°F) and you decide to adjust the HEAT program temperature to 24°C (75°F), the thermostat will automatically push the COOL program temperature up to 27°C (81°F))

The temperature range is 8°C to 35°C (48°F to 95°F) for cooling

Humidifier Control

- ① Verify the humidifier is correctly wired to the thermostat. (see installation guide or contact an electrician)
- ② Ensure the thermostat is in HEAT mode
- ③ Press PROGRAM until the HUMIDITY icon displays
- ④ Set the humidity level using the UP / DOWN buttons

Note:

- The humidifier will automatically turn on if the relative humidity is lower than the humidity setting
- Humidity is set in increments of 5%
- The humidity level can be set from 20% to 70%
- The humidifier setting only functions when thermostat is in HEAT mode
- Humidity is not pre-programmable, it must be set manually
- When the humidifier is on, the HUMIDITY symbol will appear
- To de-activate the humidifier, scroll DOWN to it's lowest setting

Fan Control / Ventilation

- For automatic control of the fan, press FAN until the AUTO symbol appears
 - In cooling mode, the fan starts/stops with the cooling equipment
 - In heating mode, the fan is controlled by the heating equipment
 - There may be a few minutes of delay between the fan setting selection and the fan becoming activated
- For the fan to run continuously, press FAN until the ON symbol appears
- For the Automatic Ventilation feature - where the thermostat will turn the fan on periodically for better ventilation press FAN until the VENT symbol appears

System Mode: HEAT / COOL / OFF

- Press MODE to toggle between the modes
 - HEAT - The system is in HEAT mode and furnace or heating system is activated
 - COOL - The system is in COOL mode and air conditioner or cooling system is activated
 - OFF - If the thermostat is in the OFF mode, both the heating and cooling systems will be turned off, and all programs will be disabled

When the heating or cooling systems are ON, the following symbols will display:

- 🔥 will flash when the heating system is running
- ❄️ will flash when the cooling system is running

Temporary OVERRIDE

This function will change the temperature temporarily until the next program period starts

- ① Press the UP / DOWN buttons to set the desired temperature
 - The OVERRIDE icon will display, to indicate the OVERRIDE function is active
 - If the system is in AUTO mode, only the currently active mode (heat or cool) setting will be changed
 - The thermostat has an automatic delay function to protect the heating and cooling systems from irregular on/off sequences, so there may be a delay of several minutes before the override setting will activate the heating/cooling system

HOLD Function

This function will maintain a constant temperature until it is turned off by pressing HOLD again

- ① Press the HOLD button
- ② Press the UP / DOWN buttons to change the temperature
- ③ Press HOLD again to release the hold function
 - The HOLD symbol will display when the HOLD function is activated
 - The HEAT/COOL system mode cannot be changed while HOLD is on
 - The HOLD function disables all program settings, and new temperature will then remain the same, until the HOLD button is pressed again

Pre-comfort Recovery

- This thermostat is equipped with a 'Pre-comfort Recovery' system that will activate the heating or cooling in advance of the actual set program time, so that the room will be at the desired temperature at the start of the program time
- When the thermostat is in 'recovery', the OVERRIDE symbol will be flashing
- It is normal for the system to be activated earlier than the actual set program time (up to one hour)
- The Pre-comfort Recovery can be disabled if desired. (See "Optional Settings")

Usage Monitor

- The thermostat tracks the system "ON" time; the time the heating/cooling equipment is running
Press BACK once to view USAGE TODAY
Press BACK again to view USAGE THIS WEEK
 - *USAGE TODAY automatically resets itself daily at midnight*
 - *USAGE THIS WEEK automatically resets itself at midnight on Sunday*
 - *A new week begins Monday morning*

Filter Change



- The FILTER CHANGE indicator will display on the LCD screen when the system "ON" time (HEAT, COOL or FAN) has accumulated to approximately 500 hours. It is an indication that the filter should be changed at this time
- To reset the FILTER CHANGE counter:
 - Press and hold FAN for 3 seconds until the buzzer beeps, this will bring the counter back to zero

REMOTE SENSOR / TRANSMITTER

This thermostat is equipped with a remote sensor, which monitors the temperature in a remote location and can control the thermostat by sending a radio signal.

Controlling the thermostat with the remote sensor / transmitter:

Note: If you wish to use the remote sensor make sure the RF option is set to RF1 (see optional settings)

The remote sensor is capable of doing three things:

- Transmitting the room temperature from a remote location to display on the thermostat LCD screen
- The thermostat will heat or cool your home based on the temperature transmitted by the remote instead of the temperature of the thermostat.
- Overriding the current temperature setting to raise or lower the temperature up to 3°C (Celsius) or 6 °F (Fahrenheit).

REMOTE SENSOR / TRANSMITTER

SYMBOLS:



- REMOTE TEMPERATURE CONTROL



- REMOTE TEMPERATURE DISPLAY

THE LEARN PROCEDURE

The learn procedure initiates a radio signal connection between the transmitter and thermostat
To begin:

- Bring the remote transmitter near to the thermostat
- Press and hold the BACK button on the thermostat for 3 seconds
(until the remote temperature display symbol begins to flash on the thermostat's LCD screen)
- Release the BACK button
- Press and hold the ON/OFF button on the remote transmitter
(The remote temperature control will flash on the remote's LCD screen after 3 seconds)
- When the LEARN signal is received by the thermostat, the thermostat will beep and you can release the ON/OFF button on the remote transmitter
- A second beep will sound within 30 seconds, to indicate that the temperature data has been received (after the 2nd beep, the remote data should display on the thermostat LCD screen)

REMOTE SENSOR / TRANSMITTER

Viewing the temperature of the remote transmitter:

The local and remote temperatures display alternates every 8 seconds on the thermostat LCD screen. To view the remote transmitter temperature, press AHEAD on the thermostat. The temperature will be shown on the bottom pane and the Remote Temperature Display symbol (antenna) will appear indicating the temperature displayed is from the remote transmitter. If the bottom pane is already showing remote temperature (the Remote Temperature Display symbol already on), pressing AHEAD key will show the local temperature of the thermostat.

Controlling the thermostat based on the remote transmitter temperature (Heating or Cooling):

The thermostat can heat or cool your home based on the temperature transmitted by the remote, instead of the thermostat's own temperature. To begin, place the remote sensor in the part of the house you wish to use for temperature control. Press the ON/OFF button on the remote transmitter until the Remote Temperature Control symbol displays. The thermostat will now control the heating and cooling based on the temperature as sensed by the remote transmitter. (**Note:** If the local temperature on the thermostat and remote vary by more than 4 degrees, or either remote transmitter or thermostat battery is low, the remote function will be cancelled.)

Remote Override:

Although the remote cannot permanently change the thermostat's program settings, it can temporarily override the current program to raise or lower the set temperature by up to 3 °C or 6 °F. Press the UP or DOWN buttons on the remote to change the temperature in half degree increments. The override value will be displayed as a plus or minus value on the LCD screen of the remote. It will also appear on the thermostat LCD screen, alternating with the regular temperature set on the thermostat.

OPTIONAL SETTINGS

The thermostat has a number of OPTIONS which the user can change. (*NOTE: Adjust these settings before programming the thermostat, because changing certain options will erase all programming)

There are 9 OPTIONS. To begin, press SET for 3 seconds to enter the optional settings mode, then press UP or DOWN to select the VALUE. Once the correct value is displayed, press SET again to confirm the setting and to advance to next option. The optional settings are explained in detail on the next few pages.

OPTIONAL SETTINGS:

- 1) 12/24 - hour display format**
- 2) CR - Cycle Rate setting (select cycle rate to match the heating equipment)**
- 3) RE - Pre-comfort Recovery ON or OFF**
- 4) BL - Backlight setting**
- 5) RF - Remote Control ON or OFF**
- 6) FN - Additional fan control settings for the humidifier and the HE/HG setting**
- 7) SY - System (heat pump option)**
- 8) PG - Default programs**
- 9) C/F - (Celsius/Fahrenheit)**

OPTIONAL SETTINGS

1) 12/24 hour display format

- Press and hold SET 3 seconds

- The SET OPTION symbol will appear and either 12hr or 24hr will appear

- Select your preference of 12hr or 24hr by pressing UP or DOWN

- Press SET to confirm the setting and to advance to the next option

2) CR - Cycle Rate setting (select cycle rate to match the heating equipment)

- Choose from Cr-0 to Cr-5 by pressing UP or DOWN (See Chart 1)

- Press SET to confirm the setting and to advance to the next option

Note: The default setting is Cr-4 for gas or oil forced air. Cr-0 is a fixed span operation (no cycle rate) for heating and cooling. Choosing the correct cycle rate for your system promotes energy efficiency and a more stable temperature.

Cr	System	Cycles per hour
Cr-0	-	+/- 0.5 °C fixed span
Cr-1	-	+/- 0.3 °C fixed span
Cr-2	Hydronic heat, condensing gas furnaces	2
Cr-3	Commercial Unit	3
Cr-4	Gas or oil forced air (default)	5
Cr-5	Electric Heat	7

Chart 1

OPTIONAL SETTINGS

3) RE- Pre-comfort Recovery ON or OFF

- Select the setting by pressing UP or DOWN

RE1 = ON (default)

RE0 = OFF

- Press SET to confirm the setting and to advance to the next option

4) BL - Backlight setting

- Select the setting by pressing UP or DOWN

BL1 = ON (default) (If the backlight is enabled, pressing any button will turn the backlight on for 8 seconds)

BL0 = OFF

- Press SET to confirm the setting and to advance to the next option

5) RF - Remote Control ON or OFF

- Select the setting by pressing UP or DOWN

RF1 = ON (default)

RF0 = OFF (if OFF is selected all remote control features will be disabled)

- Press SET to confirm the setting and to advance to the next option

OPTIONAL SETTINGS

6) FN - Additional fan control settings for the humidifier

- Press SET to advance to the next setting
- Select the setting by pressing UP or DOWN
- Press SET to confirm the setting and to advance to the next option

HE: Use this setting for electric furnaces. With this setting, the thermostat will turn the fan on immediately with the heating system.

HG: Use this setting for gas or oil-fired furnaces. This setting allows the fan operation to be controlled by the heating system; not the thermostat. This is the correct setting for most systems.

Additional fan control setting for the humidifier:

Fn	HE/HG	Fan operation for humidifier
Fn-0	HG	(default) Humidifier on will not activate the FAN
Fn-1	HE	Humidifier on will not activate the FAN
Fn-2	HG	Humidifier on will turn on FAN
Fn-3	HE	Humidifier on will turn on FAN

7) SY - System (heat pump)

- Select the setting by pressing UP or DOWN
- SY0 = NON HEAT PUMP (default) recommended
- SY1 = HEAT PUMP (single-stage) not recommended with most systems
- SY2 = HEAT PUMP (multi-stage) not recommended
- Press SET to confirm the setting and to advance to the next option

OPTIONAL SETTINGS

8) Default programs

This thermostat offers 9 weekly heating / cooling programs built-in for your convenience. The first setting (PG1) is the main factory default which will auto-activate when you first install the thermostat.

Note: If you do not wish to change your current program settings, selecting PG0 will maintain the existing program. (See chart 1 on the next page for a list of all program options)

9) C/F Selection

Since Celsius (°C) is the default mode, no action is required to use the thermostat in this mode

To change the temperature scale display:

└ Select the setting by pressing UP or DOWN

C = Celsius (default)

F = Fahrenheit

- Press SET to confirm the setting and to exit the optional settings mode

OPTIONAL SETTINGS

Chart 1. - Default Program Options

Program name	PG	Type	PG 1		PG 2		PG 3		PG 4		PG 5		PG 6		PG 7		PG 8		PG 9	
			Temp	Time	Temp	Time	Temp	Time	Temp	Time	Temp	Time	Temp	Time	Temp	Time	Temp	Time	Temp	Time
Heated	PG1	Heating	21.5	00	21.5	00	21.5	00	21.5	00	21.5	00	21.5	00	21.5	00	21.5	00	21.5	00
Heated	PG2	Heating	22	00	22	00	22	00	22	00	22	00	22	00	22	00	22	00	22	00
Heated	PG3	Heating	22.5	00	22.5	00	22.5	00	22.5	00	22.5	00	22.5	00	22.5	00	22.5	00	22.5	00
Heated	PG4	Heating	23	00	23	00	23	00	23	00	23	00	23	00	23	00	23	00	23	00
Heated	PG5	Heating	23.5	00	23.5	00	23.5	00	23.5	00	23.5	00	23.5	00	23.5	00	23.5	00	23.5	00
Heated	PG6	Heating	24	00	24	00	24	00	24	00	24	00	24	00	24	00	24	00	24	00
Heated	PG7	Heating	24.5	00	24.5	00	24.5	00	24.5	00	24.5	00	24.5	00	24.5	00	24.5	00	24.5	00
Heated	PG8	Heating	25	00	25	00	25	00	25	00	25	00	25	00	25	00	25	00	25	00
Heated	PG9	Heating	25.5	00	25.5	00	25.5	00	25.5	00	25.5	00	25.5	00	25.5	00	25.5	00	25.5	00
Energy Save	PG1	Heating	12.5	00	12.5	00	12.5	00	12.5	00	12.5	00	12.5	00	12.5	00	12.5	00	12.5	00
Energy Save	PG2	Heating	13	00	13	00	13	00	13	00	13	00	13	00	13	00	13	00	13	00
Energy Save	PG3	Heating	13.5	00	13.5	00	13.5	00	13.5	00	13.5	00	13.5	00	13.5	00	13.5	00	13.5	00
Energy Save	PG4	Heating	14	00	14	00	14	00	14	00	14	00	14	00	14	00	14	00	14	00
Energy Save	PG5	Heating	14.5	00	14.5	00	14.5	00	14.5	00	14.5	00	14.5	00	14.5	00	14.5	00	14.5	00
Energy Save	PG6	Heating	15	00	15	00	15	00	15	00	15	00	15	00	15	00	15	00	15	00
Energy Save	PG7	Heating	15.5	00	15.5	00	15.5	00	15.5	00	15.5	00	15.5	00	15.5	00	15.5	00	15.5	00
Energy Save	PG8	Heating	16	00	16	00	16	00	16	00	16	00	16	00	16	00	16	00	16	00
Energy Save	PG9	Heating	16.5	00	16.5	00	16.5	00	16.5	00	16.5	00	16.5	00	16.5	00	16.5	00	16.5	00
Auto Change	PG1	Heating	20	00	20	00	20	00	20	00	20	00	20	00	20	00	20	00	20	00
Auto Change	PG2	Heating	20.5	00	20.5	00	20.5	00	20.5	00	20.5	00	20.5	00	20.5	00	20.5	00	20.5	00
Auto Change	PG3	Heating	21	00	21	00	21	00	21	00	21	00	21	00	21	00	21	00	21	00
Auto Change	PG4	Heating	21.5	00	21.5	00	21.5	00	21.5	00	21.5	00	21.5	00	21.5	00	21.5	00	21.5	00
Auto Change	PG5	Heating	22	00	22	00	22	00	22	00	22	00	22	00	22	00	22	00	22	00
Auto Change	PG6	Heating	22.5	00	22.5	00	22.5	00	22.5	00	22.5	00	22.5	00	22.5	00	22.5	00	22.5	00
Auto Change	PG7	Heating	23	00	23	00	23	00	23	00	23	00	23	00	23	00	23	00	23	00
Auto Change	PG8	Heating	23.5	00	23.5	00	23.5	00	23.5	00	23.5	00	23.5	00	23.5	00	23.5	00	23.5	00
Auto Change	PG9	Heating	24	00	24	00	24	00	24	00	24	00	24	00	24	00	24	00	24	00

- Select the setting by pressing UP or DOWN to choose between 9 program selections PG1-PG9
 Note: If you do not wish to change your current program settings, selecting PG0 will maintain the existing program.

Changing Batteries

When the AA batteries are low and need to be replaced the low battery symbol will appear on the LCD screen and a beep will sound every hour. However, it is recommended that the batteries be replaced every year, even if the battery symbol does not appear.

To replace the batteries:

- Select OFF to change the thermostat to OFF mode
- Remove the thermostat from its mounting plate (back cover) carefully
- Remove the old AA batteries and install new ones
- Place the thermostat back into its original position

Note: If the batteries are low the backlight will not turn on and the remote control feature will not work. After changing the batteries, complete the LEARN PROCEDURE again to connect the thermostat and remote sensor / transmitter. (see the remote sensor/transmitter section)

Backlight

The backlight helps you to clearly see the thermostat display at night. However, frequent backlight use will reduce your battery life. To disable the backlight see the “Optional Settings” section.

Memory backup for the Programs and Thermostat Settings

In case of power outages, this thermostat has a memory backup powered by a lithium battery. The lithium battery will typically last for several years. Memory storage includes all set programs and thermostat settings. Do not remove the Lithium battery and the AA batteries at the same time, otherwise all memory and settings will be lost.

RESET

SOFT RESET - If the thermostat has an abnormal display, press the RESET (R) button located at the back of the thermostat. The programs and thermostat settings will remain stored in memory but the clock will have to be set again.

HARD RESET - To clear the permanent memory (including all stored programs and settings) or to change the temperature scale (°C or °F), a hard reset must be performed. Press and hold the HOLD button, and at the same time press and release the RESET (R) key located on the back of the thermostat. The LCD screen will blank out momentarily. When the display reappears, release the HOLD key. The thermostat will be back to its default settings.

Specifications:

Number of programs: 5+1+1 day programming, with 4 settings per day

Temperature setting range: 5 – 35°C (41 – 95°F)



Temperature display range: 0 – 55°C (34 – 99.5°F)

Humidity setting range: 20 to 70%




Humidity display range: 20 to 95%

Battery: 3 x "AA" size batteries

TROUBLESHOOTING GUIDE

PROBLEM	SOLUTION
LCD screen is blank.	<ul style="list-style-type: none">- Check if the batteries are installed correctly.- Check if the batteries are fresh and of the correct type.- Select RESET button on the back of the unit.
Battery symbol () is flashing.	<ul style="list-style-type: none">- This is an indication that the batteries are running low. Replace with fresh alkaline batteries. <p>Note: We recommend replacing the batteries at least once a year even if the battery symbol is not flashing.</p>
Heat will not come on.	<ol style="list-style-type: none">1) Check and ensure that the thermostat is set to the HEAT or AUTO mode.2) Check and ensure that the set temperature is higher than the current (room) temperature.3) You may have to wait up to 5 minutes before the heat will turn on. The thermostat has a built-in time delay to prevent undesirable on/off sequences.4) After a 5-minute wait, the heat should now be on. Whenever the heating system is running, the  symbol will be animated.

PROBLEM**SOLUTION**

Heat will not come on but the  symbol is animated.	<ol style="list-style-type: none">1) Check if the furnace switch and/or pilot flame is turned on, as it may have been turned off.2) Allow several minutes for the heating system to heat up and the fan to activate. Most heaters will heat up the system for a short while before warm air can be ventilated by the fan. Also check that the HE/HG setting is set correctly. (see optional settings)3) If the heat still does not come on, check the wiring installation again.
Air conditioning will not come on.	<ol style="list-style-type: none">1) Check and ensure that the thermostat is set to the COOL or AUTO mode.2) Check and ensure that the set temperature is lower than the current (room) temperature.3) You may have to wait up to 5 minutes before the air conditioning will turn on. The thermostat has a built-in time delay to protect the air conditioner compressor from undesirable on/off sequences.4) After a 5-minute wait, the air conditioning should now be on. Whenever the cooling system is running, the  symbol will be animated.
Air conditioning will not come on but the  symbol is animated.	<ol style="list-style-type: none">1) Check if the air conditioning system's main switch is turned on, as it may have been turned off.2) Wait several minutes for the air conditioning system to activate. If the air conditioning still does not come on, check the wiring installation again.
The thermostat turns the heating or cooling systems on before my programmed set times.	This is normal if the Pre-comfort Recovery system is enabled. The Pre-comfort Recovery will activate the heating/cooling in advance of the actual programmed set time so that the room will be at the desired temperature at the start of the program time. See the "optional settings" section.
Heating system seems to cycle too often.	Check and ensure that you have selected a Cycle Rate that matches your particular heating system. If you find it still cycling too often, you may wish to try a slower cycle rate or disable the cycling. When disabled, the thermostat will operate at a fixed span of (plus or minus) $\pm 0.5^{\circ}\text{C}$ ($\pm 1.0^{\circ}\text{F}$). For example, if the programmed temperature is set at 20°C (68°F), the thermostat will turn the heat on if the current (room) temperature falls below 19.5°C (67°F) and turn the heat off when the current (room) temperature reaches 20.5°C (69°F). See the "optional settings" section.

PROBLEM**SOLUTION**

Thermostat is set on AUTO mode, but the thermostat does not seem to automatically change-over from HEAT to COOL or vice-versa.	The thermostat has a built-in safeguard time delay of 30 minutes to prevent undesirable change-over sequences from HEAT to COOL or COOL to HEAT. For example, if the thermostat was just running the cooling system, it will take at least 30 minutes before it changes to heating. You may override this manually by pressing MODE to change the operation to HEAT or COOL only.
While adjusting the program temperature or program times in the HEAT mode, you notice the changes affect the settings in the COOL mode; and/or vice-versa	The heating and cooling program times are linked, so same program start times (chosen for either heating or cooling) will automatically be applied to the other. When you set the HEAT and COOL program temperatures fairly close to one another, the thermostat automatically restricts the two temperature settings from getting within 3°C (6°F) of one another. The COOL temperature setting will always be at least 3°C (6°F) higher than the HEAT temperature setting. For example, if the initial COOL program temperature was set at 24°C (75°F) and you decide to adjust the HEAT program temperature to 24°C (75°F), the thermostat will automatically push the COOL program temperature up to 27°C (81°F) to prevent overlapping.
Cannot change the thermostat scale from °C to °F or vice-versa.	Selecting the temperature scales is a one-time start-up process. After the first battery installation, you must HARD reset the thermostat and choose the desired display in °C or °F. Otherwise, you CANNOT change the temperature scale (°C or °F) later on unless you perform another HARD reset which will clear all the programs and thermostat settings. To perform a HARD reset and select °C or °F, first press and hold the HOLD, while at the same time press and release the RESET button on the back of the thermostat. The LCD screen will blank out momentarily. To select °F, select see the "optional settings" section.
The thermostat is not receiving a signal from the remote transmitter.	Re-do the "Lean Procedure" to ensure an RF signal is being transmitted from the remote sensor to the thermostat. (See "Remote transmitter" section)
The clock symbol is flashing	This indicates that the 3V (CR2025) lithium battery is low. This will not affect the normal operation of the thermostat, but it should be replaced to ensure memory backup is maintained. Replace the lithium battery with a screwdriver. (See diagrams for the location of the lithium battery)

FCC Statement

The statement required by 15.105 is as follows:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Statement required by 15.19 and RSS210

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Manual Requirements according 15.21

NOTICE:

Changes or modifications made to this equipment not expressly approved by UPM may void the FCC authorization to operate this equipment.

ICES - 003

The statement required by ICES - 003 is as follows:

NOTICE:

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.