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RADIANT HEATING SYSTEMS

**SETPOINT 500 SERIES
CONTROLLERS**

USER MANUAL

**SetPoint 500 Series
Controllers User Manual**

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SetPoint 501, SetPoint 501s, SetPoint 511s and SetPoint 512

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SetPoint 500 Series Controllers User Manual

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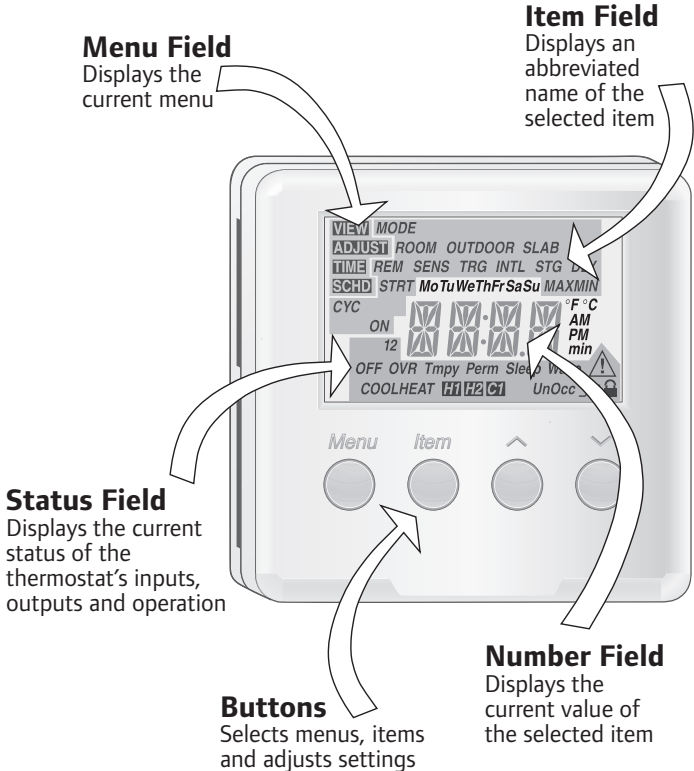
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SetPoint 501, SetPoint 501s, SetPoint 511s and SetPoint 512

Introduction

Thank you for choosing an Uponor SetPoint 500 Series Controller. These controllers are designed with state-of-the-art technology and packaged in a compact and attractive enclosure. The large display and selection buttons make the controllers extremely user friendly. They are designed to increase the comfort level of your home, as well as increase the energy efficiency of your heating or cooling system.

The SetPoint 500 Series Controllers have a display that contains four fields: Menu, Item, Status and Number. The controllers also feature four buttons on the keypad: Menu, Item, Up Arrow (∧) and Down Arrow (∨).



Display Symbols



Warning

Displays when an error exists



Access Level (501s, 511s and 512 Only)

Displays when in the User Access Level



Early Start (511s and 512 Only)

Displays when in Early Start



Heat 1

Displays when the Heat 1 contact is on



Heat 2 (512 Only)

Displays when the Heat 2 contact is on



Cool 1 (512 Only)

Displays when the Cool 1 contact is on

Viewing the Current Temperature (501s, 511s and 512 Only)

The View menu displays the current temperature sensed by the controller and its auxiliary sensor. To view the various temperatures, begin by selecting the View menu using the Menu button. Then use the Item button to view the available temperatures.

Room

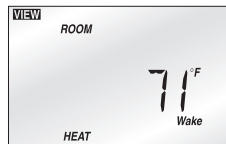
This is the current air temperature of the room that is being controlled. At least one air sensor must be active for this temperature to be displayed.

Outdoor

This is the current outdoor air temperature. This is only available if the auxiliary sensor is set to sense the outdoor air temperature.

Slab

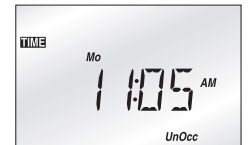
This is the current slab or floor temperature. This is only available if the auxiliary sensor is set to sense the slab or floor temperature.



Setting the Display

The 511s and 512 controllers allow the user to change the display to show either the current time or any of the settings from the View menu. Follow the steps below to select which setting is displayed.

1. Press the Menu button to select the Time if you want the time to display.
2. Press the Menu button again to select the View menu.
3. Once in the View menu, use the Item button to select the desired item to display.



Setting the Temperature (501 and 501s)

To set the desired temperature, simply press the up or down arrow buttons to adjust the temperature.

Note: The Adjust menu automatically appears.

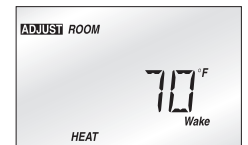
Setting the Temperature (511 and 512)

Follow the steps below to set the desired air and slab or floor temperatures.

Note: Slab or floor temperatures are only available when a slab or floor sensor is used.

1. Press and release the Menu button until the Adjust menu displays.
2. Press and release the Item button until the desired event displays (Wake, UnOcc, Occ and Sleep).

3. Use the up or down arrow buttons to set the desired temperature. Record the temperature in the schedule tables found on **pages 8 and 9** for future reference.



Repeat steps 2 and 3 for each additional event.

Setting the Time and Day (511s and 512 Only)

Follow the steps below to set the time and day.

1. Press and release the Menu button until the Time menu displays.
2. Press the Item button to change the minute setting. While the minute field is flashing, use the up or down arrow buttons to set the proper minutes.
3. Press and release the Item button again to change the hour setting. While the hour field is flashing, use the arrow or down arrow buttons to set the proper hour.

- Press and release the Item button again to change the day setting. While the day field is flashing, use the up or down arrow buttons to set the proper day.

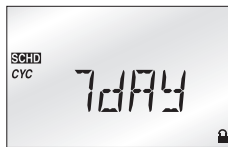
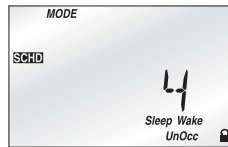


Setting the Schedule (511s and 512 Only)

A schedule allows the controller to automatically change between several preset temperatures based on the time of day. The schedule divides the day into either two or four events. For each event, a different temperature can be set. This allows the room and floor to remain warm during the day and cooler during the evening and night.

Note: Refer to the Setting the Time and Day procedure mentioned previously to set the time of day for each event to begin.

- Press and release the Menu button until the Schedule (SCHD) menu displays.
- Press and release the Item button. Use the up or down arrow buttons to select the desired schedule mode. (None = one temperature per day; 2 = two temperatures per day; 4 = four temperatures per day)
- Press and release the Item button again to set the schedule cycle. Use the up or down arrow buttons to select either 7 day or 24 hour.
- Press and release the Item button again. Use the up or down arrow buttons to set the event's beginning time. If the event does not have a time, select the "--:--" time. This time is found between 11:50 p.m. and 12:00 a.m. Record the event time in the schedule tables found on **pages 8 and 9** for future reference.



Repeat step 4 until all events are programmed.

Overriding the Schedule

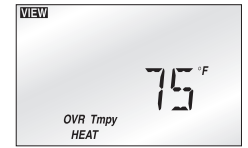
Temporary Override (511s and 512 Only)

Follow the steps below to temporarily override the schedule.

Note: A temporary override lasts for three hours and does not permanently change the existing schedule.

- Press and release the Menu button until the View menu displays.
- Press and release the Item button until the Room temperature displays.

- Press and release either the up or down arrow buttons once.



- Use the Item button to select between the heating temperature and the cooling temperature (512 only).

- Press the up arrow button to increase the temperature to the desired setting and use the down arrow to decrease the temperature to the desired setting.

A three-hour temporary override is now in effect.

Canceling a Temporary Override

To cancel a temporary override, press the Menu button once or twice if the backlight is not lit.

Permanent Override (511s and 512 Only)

Follow the steps below to permanently override the schedule.

Note: A permanent override stays in effect until a new override is selected. A permanent override does not change the existing schedule.



- Press and release the Menu button until the Schedule (SCHD) menu displays.
- Use the up or down arrow buttons to select the desired permanent override.

Canceling a Permanent Override

Follow the steps below to cancel a permanent override.

- Press and release the Menu button until the Schedule (SCHD) menu displays.
- Use the up or down arrow buttons to select the None setting.

Away Override (501s, 511s and 512 Only)

An away override is a quick override that does not change the existing temperature settings. Use the away override during long periods of absence. When the away override is selected, the heating temperature is automatically set to 62°F (16.5°C) and the cooling temperature (for the 512 in Heat/Cool mode only) is set to 82°F (28°C). If a slab or floor sensor is used with the controller, the minimum slab or floor temperature is also ignored. This operation continues as long as the away override is selected.

Follow the steps below to select the away override.

1. Press and release the Menu button until the Schedule (SCHD) menu displays.
2. Use the up or down arrow buttons to select the away override.

Canceling the Away Override (501s, 511s and 512 Only)

Follow the steps below to cancel the away override.

1. Press and release the Menu button until the Schedule (SCHD) menu displays.
2. Use the up or down arrow buttons to select the None setting.

Display Lighting (511s and 512 Only)

The display on the controller has a backlight setting. The backlighting can be turned on, turned off or set to operate temporarily for 60 seconds after any button is pressed. Follow the steps below to set the display lighting.

1. Press and release the Menu button until the Adjust menu displays.
2. Press and release the Item button until the word LITE displays.
3. Use the up or down arrow buttons to select On, Tmpy (temporary) On or Off.

Note: If the backlight setting is temporary, the first press of a button turns on the backlight.



Setting the Units of Temperature

Follow the steps below to select between Fahrenheit and Celsius.

1. Press and release the Menu button until the Adjust menu displays.
2. Press and release the Item button until the current temperature unit begins to flash.
3. Use the up or down arrow buttons to select between Fahrenheit and Celsius.



Setting the Mode of Operation

There are several modes of operation available depending on the type of controller installed and its setup. Follow the steps below to select the mode of operation.

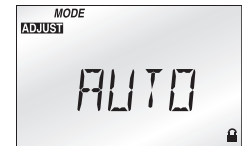
1. Press and release the Menu button until the Adjust menu displays.
2. Use the up or down arrow buttons to select between the Off, Heat, Cool (512 only) and Auto (512 only) settings.

Off — In the Off mode, the controller does not operate the heating device.

Heat — In the Heat mode, the controller operates to maintain the room at the required heating temperature.

Cool — This mode is only available with the SetPoint 512 that is set up for heating and cooling. In the cool mode, the SetPoint 512 operates to maintain the room at the required cooling temperature and ensures that the heating does not turn on.

Auto — This mode is only available with the Setpoint 512 that has been set up for heating and cooling. This mode allows the SetPoint 512 to automatically switch between heating and cooling the room as the air temperature requires. If a slab or floor sensor is installed, the floor maintains the minimum slab or floor temperature even during cooling.



Schedule Tables

Two-Event User Program

Event	Heat	Cool	Slab Min.	24-hour Schedule	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Occ	70°F (21.0°C)	78°F (25.5°C)	70°F (21.0°C)	6:00 AM							
UnOcc	62°F (16.5°C)	82°F (28.0°C)	OFF	10:00 PM							

Four-Event User Program

Event	Heat	Cool	Slab Min.	24-hour Schedule	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Wake	70°F (21.0°C)	78°F (25.5°C)	70°F (21.0°C)								
UnOcc	62°F (16.5°C)	85°F (29.5°C)	OFF								
Occ	70°F (21.0°C)	78°F (25.5°C)	70°F (21.0°C)								
Sleep	62°F (16.5°C)	82°F (28.0°C)	OFF								

Two-Event User Program

Event	Heat	Cool	Slab Min.	24-hour Schedule	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Occ	70°F (21.0°C)	78°F (25.5°C)	70°F (21.0°C)	6:00 AM							
UnOcc	62°F (16.5°C)	82°F (28.0°C)	OFF	10:00 PM							

Four-Event User Program

Event	Heat	Cool	Slab Min.	24-hour Schedule	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Wake	70°F (21.0°C)	78°F (25.5°C)	70°F (21.0°C)								
UnOcc	62°F (16.5°C)	85°F (29.5°C)	OFF								
Occ	70°F (21.0°C)	78°F (25.5°C)	70°F (21.0°C)								
Sleep	62°F (16.5°C)	82°F (28.0°C)	OFF								

Notes