

Residential Smart Wi-Fi Thermostat

PSP2111 Up to 2-heat / 1-cool
OPTIONAL Wi-Fi and Local API with module

Read all instructions before proceeding.

Store this manual for future reference



CAUTION

Follow the [Installation Instructions](#) before proceeding. Set the thermostat mode to “OFF” prior to changing settings in setup or restoring Factory Defaults.

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for an intentional radiator, pursuant to Part 15, subpart C 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 in radio communications. However, there is no guarantee that the 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 of the receiver.
- Consult the dealer or an experienced radio or TV technician for help.

Notice: Only peripherals complying with FCC limits may be attached to this equipment. Operation with noncompliant peripherals or peripherals not recommended by **ProStat+™**, is likely to result in interference to radio and TV reception. Changes or modifications to the product, not expressly approved by **ProStat+** could void the user's authority to operate the equipment.

FCC - INDOOR Mobile Radio Information:

To comply with FCC/IC RF exposure limits for general population / uncontrolled exposure, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

This Device complies with Industry Canada License-exempt RSS standard(s). Operation is subject to the following two conditions: 1) this device may not cause interference, and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Cet appareil est conforme avec Industrie Canada, exempts de licence standard RSS(s). Son fonctionnement est soumis aux deux conditions suivantes: 1) ce dispositif ne doit pas causer d'interférences, et 2) ce dispositif doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

En vertu des règlements d'Industrie Canada, cet émetteur de radio ne peut fonctionner en utilisant une antenne d'un type et maximale (ou moins) Gain approuvé pour l'émetteur par Industrie Canada. Pour réduire les interférences radio potentielles aux autres utilisateurs, le type d'antenne et son gain doivent être choisis afin que la puissance isotrope rayonnée équivalente (PIRE) ne est pas plus de ce qui est nécessaire pour une communication réussie.

We, **ProStat+**, declare under our sole responsibility that the device to which this declaration relates: Complies with Part 15 of the FCC Rules. 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.

This thermostat has the ability to receive updates to its firmware. Periodically firmware updates are released by the manufacturer to add features and/or performance enhancements. This manual was produced reflecting the most current firmware/feature set at the time of publication, firmware rev. 1.0. Firmware releases after rev. 1.0 may not be adequately depicted in this manual. Please refer to the appropriate website or contact your place of purchase to learn about changes to the thermostat after firmware release 1.0.



Innovation, Science and Economic Development Canada
ICES-003 Compliance Label: CAN ICES-3 (B)/NM8-3(B)

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IMPORTANT

Follow Installation Instructions carefully. Disconnect Power to the Heater/Air Conditioner before removing the old thermostat and installing the new thermostat.

Congratulations and thank you for purchasing your new **ProStat+** Smart Wi-Fi thermostat. This guide is intended to help you install and setup the basic features of your thermostat.

Features

- Geofencing for automatic Home and Away settings using the **ProStat+** app location services on your mobile device
- Choose 7-Day, 5/1/1 Day or 1-Day Programming
- 365-Day Vacation Programming (When Connected to **ProStat+** Web Portal)
- Adjustable first stage deadband (1° - 6° F)
- Fixed 2° Second Stage Deadband
- Keypad Lock
- Choice of English, Spanish or French for Scrolling Display
- FDD (Equipment Fault Protection) Notification
- Outdoor Sensor Ready with Hi/Low Readouts For the Day
- Condensate Overflow Warning System
- Bi-color LED Indicates Heating or Cooling
- Backlit, Color Coded Buttons and Legends
- Adjustable Backlight Intensity
- Can Be Used to Comply with 2016 Title 24, Part 6 Thermostat Requirements
- OEM-Branded Equipment Badges Included

Terms

Auto-Changeover: A mode in which the thermostat will turn on the heating or cooling based on room temperature demand.

Cool Setpoint: The warmest temperature that the space should rise to before cooling is turned on (without regard to deadband).

Deadband: The number of degrees the thermostat will wait, once a setpoint has been reached, before energizing heating or cooling.

Differential: The forced temperature difference between the heat setpoint and the cool setpoint.

Heat Setpoint: The coolest temperature that the space should drop to before heating is turned on (without regard to deadband).

Icon: The word or symbol that appears on the thermostat display.

Mode: The current operating condition of the thermostat (i.e. Off, Heat, Cool, Auto, Program On).

Non-Programmable Thermostat: A thermostat that does not have the capability of running Time Period Programming.

Programmable Thermostat: A thermostat that has the capability of running Time Period Programming.

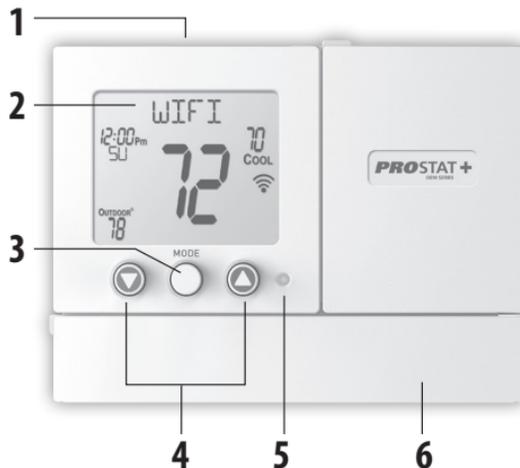
Temperature Swing: Same as Deadband.

Time Period Programming: A program that allows the thermostat to automatically adjust the heat setpoint and/or the cool setpoint based on the time of the day.

1 About Your Thermostat

Front Display

- 1 Ambient Light Sensor
- 2 Backlit, Scrolling LCD Display
- 3 MODE Button
- 4 Warmer & Cooler Buttons
- 5 Heat or Cool Indicator
Heat = Red, Cool = Green
- 6 Setup Buttons behind door



**Table for button presses
that are required for
entering various menus**

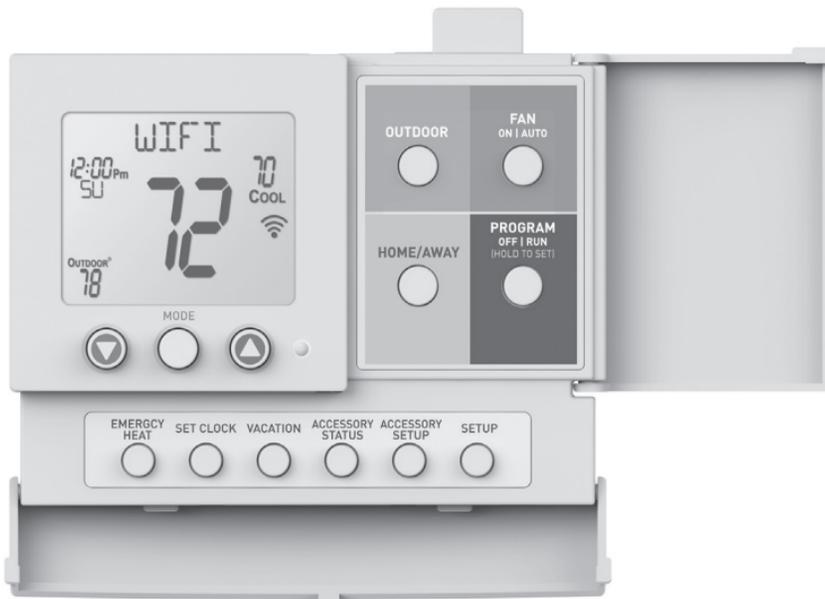
TO ENTER MENU

Setup Steps
Time Schedule
Emergency Heat
Lockout Buttons
Calibration
Wireless Setup

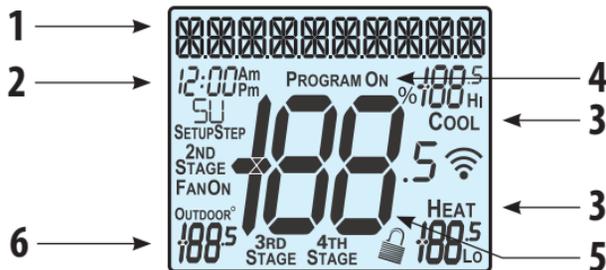
BUTTON PRESS

Press SETUP button
Press SET CLOCK button
Press EMERGENCY HEAT button
MODE, Up & Down for 2 seconds
Press SETUP for 10 seconds
Press ACCESSRY SETUP button

Button Callouts Inside Doors

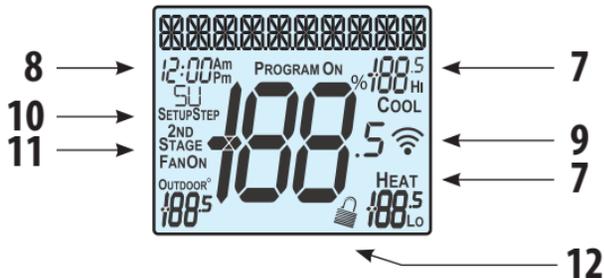


Display Features



- 1** The **scrolling display** will be used to help you easily navigate the setup screens in the thermostat.
- 2 Clock with Day of the Week**
Indicates the current time and day. This clock is also used to program the time period schedules.
- 3 Mode Indicators** Selects the operational mode of the equipment.
 - HEAT** - Indicates the heating mode.
 - COOL** - Indicates the air conditioning mode.
 - HEAT & COOL** - Indicates the system will automatically change-over between heat and cool modes as the temperature varies.
 - Neither Heat or Cool** - Indicates heating and cooling is turned off.
- 4 Program ON** icon
Indicates that Time Period Programming is running or is enabled to be set.
- 5 Room Temperature Display**
Indicates the current room temperature and displays the outdoor temperature when selected.
- 6 Outdoor** icon
Indicates the temperature displayed is from the optional outdoor sensor or the **ProStat+** Web Portal.

Display Features



- 7** Desired Set Temperature
Indicates desired room temperature(s). Also displays the highest and lowest temperatures for the day.
- 8** **Morning, Day, Evening & Night** icons
Indicates the day part of the time period program.
- 9** **Wi-Fi** icons
One dot indicates the thermostat recognizes the wireless module. The “full” icon indicates the thermostat is currently connected to the Local access point, via the optional Wi-Fi Module.
- 10** **Setup Step** icon
Indicates the step number when the thermostat is in the setup mode.
- 11** **2nd Stage** icons
Indicates what stage of heating is currently energized.
- 12**  icon
Indicates the keypad has been locked.

2 Basic Operation

During Setup and Programming:

Press the WARMER or COOLER buttons to modify the selection. Press the MODE button to advance and confirm through the setup steps.

Setting the Clock and Day*

*Not available when connected to a ProStat+ Account

Press the SET CLOCK button. Adjust the clock using the WARMER or COOLER buttons. Press MODE to advance to the day setting. Adjust the day using the WARMER or COOLER buttons. Press the SET CLOCK button to confirm settings.

TIP: To adjust the time by hours press and hold the FAN button while pressing the WARMER or COOLER buttons.



Selecting the Heat or Cool Mode

Select mode by pressing the MODE button.

Heating Only - Only the heating operation will be controlled by the thermostat in this mode.

Cooling Only - Only the cooling operation will be controlled by the thermostat in this mode.

Heating or Cooling (Auto-Changeover) - AUTO will automatically select heat or cool based on room temperature demand.

Neither Heat or Cool (OFF) - OFF indicates heating and cooling is turned off.

Tip : When changing MODE, the new mode will temporarily be shown on the scrolling display

Selecting Your Desired Temperature (adjusting the setpoints)

Auto-Changeover Mode

Pressing the WARMER or COOLER buttons in Auto mode will adjust both the heat and cool setpoints simultaneously. To adjust the heat and cool setpoints individually, choose HEAT mode to adjust the heat setpoint, and COOL mode to adjust the cool setpoint, then return to AUTO mode.



Adjust the desired set temperature with these buttons

Heat or Cool Mode

Pressing the WARMER or COOLER buttons in Heat or Cool mode will adjust only the heat or cool set temperature.

Using the Fan Button

Fan On indicates constant fan operation. Fan On is not allowed when the thermostat is in the OFF mode. Pressing the FAN button toggles this feature on or off. Fan auto will allow the fan to run only when there is a heat or cool demand.



Viewing the Temperature Sensors

OUTDOOR TEMP - Press the **OUTDOOR** button to view the current outdoor temperature. The high and low temperatures for the day will also be displayed. The high and low temperatures reset at 12:00 am. Press the **OUTDOOR** button again to return to normal operation.



If the thermostat is connected to Skyport; upon pressing the **OUTDOOR** button the scrolling display will read "Forecast". The forecasted high and low temperatures for the day will be displayed.

Note: If no outdoor sensor is connected, and there isn't outdoor temperature via Wi-Fi, then 2 dashes [- -] will appear with the first button press.

REMOTE/SUPPLY TEMP - Press the **Accessory Status** button to view linked accessories. Press the **Accessory Status** button to return to the main screen.



3 Setup Step Table

Step#	Description	Pg#	Range	FD
1	Prog Mode	17	Non, 1 Day, 5/2 Day, 7 Day	7
2	Available Modes	17	Heat/Cool/Auto/Off, Heat/Cool/Off, Heat/Off, Cool/Off	Heat/Cool/Auto/Off
3	Backlight	20	On, Off	Off
4	Backlight Level	20	Off thru 7 levels of brightness	Level 5
5	Night Dimmer	20	On/Off	Off
6	Night Dimmer Brightness	20	Off thru 7 levels of brightness	2 (20%)
7	Night Dimmer Start Time	20	12A-12A	8:00P
8	Night Dimmer Stop Time	20	12A-12A	6:00A
9	Current Service Filter Runtime Hours		0-1999 Hours	0
10	Current Service Filter Calendar Days		0-720 Days	0
11	Current UV Lamp Calendar Days		0-720 Days	0
12	Set Service Filter Runtime Hours		0-1950 hours	0
13	Set Service Filter Calendar Days		0-720 Days	0
14	Set UV Lamp Calendar Days		0-720 Days	0
15	Language		English, Espanol, Francais	English
16	Scrolling Method		"L-R Slow, L-R Fast, Word L-R Slow, Word L-R Fast, Whole Word L Slow, Whole Word R Slow, Whole Word Ctr. Fast, Whole Word Ctr. Slow"	"Whole Words Center Fast"
17	Cycles Per Hour		No Limit, 2, 3, 4, 5, 6	6
18	Compressor Minimum Off Minutes		0, 3, 5 Minutes	5
19	Min. Heat/Cool Setpoint Difference		0 - 6 Degrees	2
20	Number of Heat Stages		0 - 3	2
21	Number of Cool Stages		0 - 2	1
22	Number of Aux Stages		0, 1, 2	0
23	1st Stage Deadband		1 - 6 Degrees	2
24	F/C		Fahrenheit (F), Celsius (C)	F

FD = Factory Default Setting

Installer
Setup Steps

(see Installer
Manual for
more details)

Step#	Description	Pg#	Range	FD
25	Dry Contact Polarity		Open, Closed	Open
26	Dry Contact Use		Condensate, Vacation, FDD	Vacation
27	Skyport		On, Off	On
28	Local API		On, Off	Off
29	ADR		On, Off	On
30	Price Dependant Action		Observe Setpoint Offset, Observe Static Setpoints	Observe set- point offsets
31	Event Max Cool Setpoint		65 - 90	90
32	Event Min Heat Setpoint		50 - 85	50
33	Static Cool Setpoint		65 - 85	82
34	Static Heat Setpoint		65 - 85	60
35	Cool Setpoint Offset		1 to 10	4
36	Heat Setpoint Offset		-1 to -10	-4
37	Press Fan To Clear All Messages			

Installer
Setup Steps
(see Installer
Manual for
more details)

4 Programming a Daily Schedule

To enter Setup screens, press the **SETUP** button, then press **MODE**.

Use the **WARMER** or **COOLER** buttons to adjust the value of your selection. Press **MODE** to advance to the next setup step.

Press **SETUP** again to leave the setup screens.



Selecting Your Time Period Schedule (setup step 1) : Press the Setup button

This thermostat may be configured to be programmable or non programmable.

7 Day Program - Allows all seven days to be programmed independently.

Non Program - No advanced time period programming available.

1 Day Program - Allows one 24 hour day to be programmed. This same schedule will be repeated every day the program is set to run.

5/1/1 Day Program - Allows weekdays, Saturday, and Sunday to be programmed independently.

Selecting Your Available Modes (setup step 2)

Auto-Changeover - Allows the thermostat to turn on heating or cooling based on room temperature demand. Also allows the manual selection of **HEAT** only or **COOL** only and **OFF**.

Heat and Cool - Allows the thermostat to turn on heating or cooling depending on which one has been manually selected. Auto-Changeover is not available when this is selected.

Heat Only - Allows the thermostat to only turn on **HEAT** or **OFF** modes.

Cool Only - Allows the thermostat to only turn on **COOL** or **OFF** modes.

continued next page

Time Period Programming

To enable (RUN) or turn ON the Time Period Schedule press the Program button momentarily.

To turn Off the Time Period Schedule press this button again.

To alter the Time Period Schedule settings; press & hold this button for 5 seconds until the SET PROGRAM prompt appears. Modify the settings with the Warmer and Cooler buttons. Use the **MODE** button to advance through the steps. Press the Program button again to leave the setup screens.



Once the Set Program prompt appears the Mode button will step you through the settings as follows:

This thermostat features four programmable time periods per 24 hour day: Morning, Day, Evening, and Night. The start time for each time period is adjustable. The stop time for each time period is the start time for the next period. Each time period, or day part may be individually disabled.

Select the Day to Program - Press the WARMER or COOLER to select the desired Day or Week Part in the case of 5-2 (weekday – weekend) programming.

Enable/Disable Morning Period - Press the WARMER or COOLER to select ON or OFF. If the default ON is selected, then the Morning period will run complete with the Mode and Set Points selected. If OFF is selected then the Morning day part will be skipped and the thermostat will use the next day part that is enabled.

Select Morning Mode - Press the WARMER or COOLER to select the desired mode, which includes OFF. You may be limited by the available modes in advanced Installer setup step#2. Press **MODE** to advance to the next step.

Select Morning Start Time - Press the WARMER or COOLER buttons to adjust the time of day desired. Press **MODE** to advance to the next step.

Select Morning Cool Setpoint - Press the WARMER or COOLER buttons to adjust the cool setpoint desired. This step will appear if Cool or Auto Mode was selected in the step where the Morning mode is specified. Press **MODE** to advance to the next step.

Select Morning Heat Setpoint - Press the WARMER or COOLER buttons to adjust the heat setpoint desired. This step will appear if Heat or Auto Mode was selected in the step where the Morning mode is specified. Press **MODE** to advance to the next step.

Repeat Enable, Mode, Start Time and Setpoint programming for Day, Evening, and Night.

“**Copy Current Day to Next Day**” is available - Press the UP button to Copy the current day’s program to the next day. Press **MODE** again to continue copying the following day.

Press the **PROGRAM** Button to exit Time Period Programming at any time.

5 Advanced Features & Operation

Backlight (Setup Steps 3-8): Press Setup and then Mode over and over to advance to step #3

Backlight (Setup Step 3)

Off - Backlight turns on only with a button press and turns off after 8 seconds.

On - Backlight is on continuously.

Backlight Intensity Level (Setup Step 4) - The backlight can be adjusted between Off and seven levels of brightness

Night Dimmer (setup step 5) - Selecting On allows for automatic dimming of the display at night.

Night Dimmer Brightness (setup step 6) - Off through seven levels of brightness

Night Dimmer Start Time (setup step 7)

Night Dimmer Stop Time (setup step 8)

Emergency Heat

Only available if you have a Heat Pump installed. To initiate the Emergency Heat feature, press the EMERGENCY HEAT button. During Emergency Heat operation the thermostat will turn on the fan and auxiliary stages of heat when there is a demand for heat. The 1st stage of heating and all stages of cooling will be unavailable. To exit Emergency Heat, press the EMERGENCY HEAT button.



Please follow the instructions included with the PSPAC-PWF Wi-Fi module to connect to an Access Point or view status. The general instructions are below.

Wi-Fi Module

If the  is present on the display then the thermostat is connected to the Wi-Fi Access Point. If just the “dot” of this icon appears, then just the Wi-Fi module is recognized.

Press the **Accessory Status** button, then press either the Cooler button to view connected Wi-Fi sensors, OR press the Warmer button to view the Wi-Fi status and settings.

Press the **MODE** button to step through the connected sensors or the Wi-Fi status screens listed below.

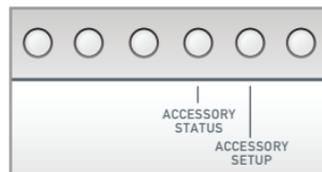
- a. Wi-Fi status (connecting, connected with duration of connection, etc.)
- b. Signal strength
- c. Access point name
- d. IP address
- e. MAC address
- f. **ProStat+** Skyport status (connecting, connected with duration of connection, etc.)
- g. Local API status (Enabled, Disabled)
- h. Module version

At any time press the **Accessory Status** button to leave the status screens.

Press the **Accessory Setup** button to enter Wi-Fi or **ProStat+** Skyport setup:
Press the Cooler button to configure Wi-Fi settings.

Press the Warmer button to join this thermostat to a **ProStat+** account. If the thermostat is connected to Wi-Fi and the Internet, a Device ID will appear on the scrolling display of the thermostat. You will enter this code to add this thermostat to your **ProStat+** account via a browser or the **ProStat+** mobile app.

Note: To connect to ProStat+ Skyport, Setup Step #27 must be set to on.

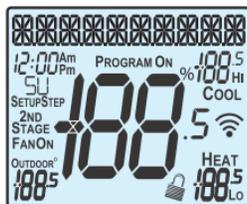


Resetting the thermostat to Factory Defaults (for default values see Advanced Setup Table)

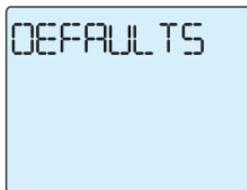
If, for any reason, you desire to return all the stored settings back to the factory default settings, follow the instructions below.

WARNING: This will reset all Time Period and Advanced Programming to the default settings. Any information entered prior to this reset will be permanently lost.

- 1 Press and hold **SETUP** for 10 seconds. All icons will appear on the display. Keep pressing the **SETUP** button until you see this screen.



- 2 After all the icons appear, release **SETUP**. Press and hold **FAN** for 5 seconds. **DEFAULTS** will appear on the display. Keep Pressing the **FAN** button until you see this screen.



- 3 After **DEFAULTS** appears, release **FAN**. Press **SETUP** to return to normal operation.



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PROSTAT™+
OEM SERIES

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