

0TH5007P

Instruction and installation guide Programmable thermostat

Description

The OTH5007P thermostat is designed to control an electric heating system such as a baseboard heater, radiant ceiling, radiant floor (without floor sensor), convector (short cycle) and fan-forced convector (long cycle).





This thermostat cannot be used with :

- a resistive load under 1.25 A
- a resistive load over 14.4 A
- a system driven by a contactor or a relay (inductive load)
- a central heating system

Supplied parts :

- One (1) thermostat
- Two (2) 6-32 mounting screws
- Two (2) solderless connectors
- One (1) adaptor with two (2) 6-32 flat head mounting screws

Installation

The thermostat must be installed by a certified electrician according to the applicable local and national electrical codes.

Unscrew the screw by one quarter of a turn and separate thermostat cover. Use a *Robertson #* 1 (square) or *Phillips #* 2 (cross) screwdriver.



Make the connections using solderless connectors for copper wires. The thermostat wires are non-polarized; this means either wire can be connected to either terminal.



Warning: This thermostat has tinned copper wires for line and load connections. Special CO/ALR solderless connectors must be used when connecting with aluminum conductors.





- 1 Press the **Pgm** button during 5 seconds to access the configuration menu.
- 2 Press the \blacktriangle or \blacktriangledown button to set the displayed parameter.
- 3 Press the **Pgm** button to display the next parameter.

Note: The thermostat will automatically save any changes made and return to its normal display if you do not press any button for one minute.

Display order	Parameters & settings	Display
1	Temperature format: °C or °F (default : °C)	TEMP
2	Time format: 24H or 12H (default : 24H)	24H TIME
3	Automatic Daylight Saving time*: OFF / ON (default : OFF)	DF F JS7
3.1	Year**: 00-99	YERR
3.2	Month**: 1-12	I MON TH
3.3	Day**: 1-31]AY
4	Schedule programming format: 5-2 / 7 (default : 5-2)	5-2 5CHEd

Display order	Parameters & settings	Display
5	Early Start***: OFF / ON	<u>OF</u> F
	(default : OFF)	Ε 5
6	Minimum setpoint: 5°C - 30°C (41°F - 86°F)	<u> </u>
	(default : 5 °C)	MIN
7	Maximum setpoint: 5°C - 30°C (41°F - 86°F)	<u> </u>
	(default : 30°C)	MRX
8	Cycle length: SHRT (short cycle for electric baseboard) / FAN (long	<u>Shrī</u>
	cycle for fan-forced neater) (default : SHRT)	CYCLE
	Keypad lock:	OFF
9	OFF / ON (default : OFF)	

* When Automatic Daylight Saving Time is enabled (ON), the thermostat automatically switches to daylight saving time on the second Sunday of March and to normal time on the first Sunday of November.

** Must be set if Daylight Saving Time is enabled (ON).

*** Early Start works in Automatic mode only. When this fonction is enabled, the thermostat determines when to start heating in order to obtain the desired temperature by the set time.

Time and day setting

Clock setting:

- 1 Press the **Time** button to select the clock.
- 2 Press the \blacktriangle or \checkmark button to set the time.
- \bigcirc Press the \leftarrow button to confirm the time and return to normal display.

Setting the day if the automatic switch to Daylight Savings Time is disabled:

- 1 Press the **Day** button to select the day.
- 2 Press the \blacktriangle or \checkmark button to set the day.
- 3 Press the 🔶 button to confirm the day and return to normal display.

Setting the date when the automatic switch to Daylight Saving Time is enabled:

- Press the Day button to select the YEAR.
 Press the ▲ or ▼ button to set the year.
 Press the Day button to select the MONTH.
 Press the ▲ or ▼ button to set the month.
 Press the Day button to select the DAY.
 Press the ▲ or ▼ button to set the day.
- (7) Press the \leftarrow button to return to normal display.

Note: The thermostat will automatically save any changes made and return to its normal display if you do not press any button for one minute.

emperature display and setting

The thermostat normally displays the ambient (measured) temperature.

- IO:30 • To change the setpoint, press the \blacktriangle or \checkmark button repeatedly until the desired 20.0° setpoint is displayed.
- To confirm the temperature, press the \leftarrow button or wait 5 seconds.

Note: The setpoint change is temporary if the thermostat is in Automatic or Economy mode.

lodes of operation

The thermostat has 5 modes of operation :

6.1 Automatic mode

To use the Automatic mode, press the Mode button until Auto is selected on the screen.

In this mode, the thermostat will automatically change its temperature settings according to the period of the day (wake, leave, return and sleep).

You can program up to 4 periods per day. The thermostat offers two different schedule programming methods:

- 5-2 : a program for the week (Monday to Friday) and one for the weekend (Saturday and Sunday).
- 7 : a different program for each day of the week.

Note: To select the schedule format see Section 3.

Default schedule:							
Period			Mo	nday to Friday	Sat	urday & Sunday	7
			Start time	Temperature	Start time	Temperature	
Ċ,	1	Wake	6:00	21 °C (70 °F)	6:00	21 °C (70 °F)	
*	2	Leave	8:00	16 °C (61 °F)			
Å ÷	3	Return	18:00	21 °C (70 °F)			
	4	Sleep	22:00	16 °C (61 °F)	22:00	16 °C (61 °F))

To temporarily override the schedule:

To temporarily override the current setpoint, set the desired temperature using the \blacktriangle or \blacktriangledown button. The new setpoint will be used until the beginning of the next period.

To modify the schedule:

- 1 Press the Mode button until Auto is displayed on the screen.
- 2 Press the **Pgm** button.
- (3) Press the **Day** button to select the day
- (4) Press the \blacktriangle or \checkmark button to set the day.
- 5 Press the **Pgm** button to select the period.
- Press the \blacktriangle or \blacktriangledown button to set the period. (6)
- 7 Press the **Time** button to select the time.
- 8 Press the \blacktriangle or \checkmark button to set the time.
- 9 Press the **Set** button to select the setpoint.
- (10) Press the \blacktriangle ou ∇ to set the setpoint.
- (11) Repeat steps 3 to10 for each remaining periods.
- (12) Press the button to return to normal display.

- To copy a period to every day, hold **Day** for 3 seconds.
- To delete a period, lower the setpoint below the minimum or place the time between 23:45 and 00:00.

Note: The thermostat will automatically save any changes made and return to its normal display if you do not press any button for one minute.

6.2 Manual mode

To use this mode, press the Mode button until Man is selected on the screen. | <u>- 8:∩</u>∩ Then, set the desired temperature using the \blacktriangle or \checkmark button.

In this mode, any modification to the temperature setpoint must be done manual

	<u> </u>
ally.	Man
	[™] 15.0°
	set 16.0°

(6.3 Economy mode)

To use this mode, press the Mode button until Econo is selected on the screen. 5:08 This mode is ideal for second homes or cottages as it can be used as follows: 2 I.O° The temperature is kept at an economy level during most of your absence and Cono Econo raised to a comfortable level by your usual arrival time. If you do not show up, the 62 temperature returns to the economy level until next weekend. 16.0°

The economy mode has two periods which should be set as follows:

Period	Temperature	Start time setting
1	Raise to a comfortable level	Set the day and time that you want the temperature to start rising so that a comfortable level is attained by the time you arrive.
2	Lower to an economy level	Set the day and time that you want the temperature to start dropping to an economy level if you do not show up.

The economy mode should be used as follows:

- Place the thermostat in economy mode during your absence.
- When you arrive, place the thermostat in automatic mode or in manuel mode before the temperature drops back to the economy level.
- When you leave, switch the thermostat back to economy mode.

To program the two periods of the economy mode:

Press the **Mode** button until **Econo** is displayed on the screen.

- 2 Press the **Pgm** button to select the period.
- 3 Press the \blacktriangle or \checkmark button to choose period 1 or 2.
- (4)Press the Day button to select the day
- (5) Press the \blacktriangle or \checkmark button to set the day.
- 6 Press the **Time** button to select the time.
- $\overline{\mathcal{T}}$ Press the \blacktriangle or \checkmark button to set the time.
- 8 Press the Set button to select the setpoint.
- 9 Press the \blacktriangle or \checkmark to set the setpoint.
- (10) Repeat steps 2 to 9 for the second period.
- 1) Press the 🗲 button to return to normal display.

Note: The thermostat will automatically save any changes made and return to its normal display if you do not press any button for one minute.

6.4 Freeze protect mode

To use this mode, press the **Mode** button until $\frac{1}{2}$ is selected on the screen. In this mode the thermostat keeps a setpoint of 5°C (41°F).



6.5 Standby mode

When heating is not required (ex.: summer, cottage, etc..) It is possible to set the thermosta to Standby. Note that when this mode is enabled, the unit will not heat, no matter the room temperature and the setpoint.

WARNING! The Standby mode does not cut power to the device.

For any maintenance, turn the heating off from the electric panel to avoid any risk of electric shock.

To place the thermostat in Standby mode, reduce the setpoint to the minimum and hold the **v** button for 3 seconds.

In this mode the thermostat keeps all settings in memory, but ceases operation. To exit the Standby mode, press the

Set	

Power outage

Note : The following description applies only if the thermostat was turned on for at least 2 hours before the power outage.

During a power outage, the LP indicator appears during the first 5 minutes, and the thermostat buttons are locked. Then the screen goes blank. The settings are stored in memory. However, if the outage exceeds 8 hours, only the clock, day and / or date will need to be set. When power returns, the thermostat will return to the previous mode of operation.

Froubleshootin

Problems	Solutions
Wrong temperature is displayed.	 Rectify if any the following conditions applies: The thermostat is exposed to an air draft. The thermostat is located near or above a heat source such as a light dimmer.
Temperature does not change according to the programmed schedule.	 Ensure the thermostat is in Automatic mode. Check the clock and the schedule. If the thermostat is configured for 12-hour format, ensure that pm appears on the screen when afternoon times are displayed.
LP appears on the screen and disappears after a few minutes.	The thermal protection device on the heater has temporarily opened. This can happen if the heater is obstructed by furniture or curtain and has overheated, or if the heater's thermal protec- tion device is too sensitive.
HH or LL is displayed on the screen	The measured temperature is outside the setpoint range, either too hot or too cold (see specifications table).



Auto PY

16.0°

8:00

3	
D°	
]°	
	_

а	ıt	

_	0	-	
-	_	-	

Problems	Solutions
HH or LL is displayed on the screen	The measured temperature is outside the setpoint range, either too hot or too cold (see specifications table).
OL is displayed on the screen	The internal temperature of the thermostat is too high (over- load). Check that the connected load does not exceed the maximum allowed (see specifications table).
The thermostat's housing is hot.	This is normal. When the thermostat is running at full capacity, its housing can reach 40 °C (104 °F).

Specifications

	OTH5007P
Power supply :	277 / 347 VAC, 50/60 Hz
Minimum load :	1.25 A / 346 W @ 277 VAC, 50/60 Hz 1.25 A / 434 W @ 347 VAC, 50/60 Hz
Maximum load :	14.4 A / 4000 W @ 277 VAC, 50/60 Hz 14.4 A / 5000 W @ 347 VAC, 50/60 Hz
Setpoint range:	5 °C to 30 °C (41 °F to 86 °F)
Display range:	0 °C to 70 °C (32 °F to 158 °F)
Resolution:	\pm 0.5 °C (\pm 1 °F)
Storage:	-20 °C to 50 °C (-4 °F to 122 °F)



Warrant

Three (3) years limited warranty

OUELLET CANADA INC, warrants the components of the OTH5007P against defects in material and workmanship for a three (3) year period from the date of purchase, under normal use and service, when proof of purchase of such is provided to the manufacturer. The obligation of Ouellet Canada Inc., under the terms of this warranty, will be to supply a new unit and this releases the manufacturer from paying the installation costs or other secondary charges linked to replacing the unit or the components.

Customer assistance

If you have any questions on the product, call our technical support team at:



180. 3^e Avenue, L' Islet (Quebec) GOR 2C0 CANADA Phone : 1 800 463-7043 · (418) 247-3947 Fax: 1 800 662-7801 · (418) 247-7801 www.ouellet.com · info@ouellet.com