

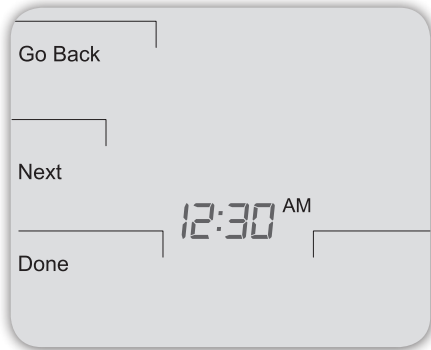


QUICK START GUIDE

T85320CC MULTI-FAN OCCUPANCY THERMOSTAT

1 SET CLOCK, YEAR, MONTH, DAY

NOTE:
Display of Clock is not available when configured for non-programmable operation.

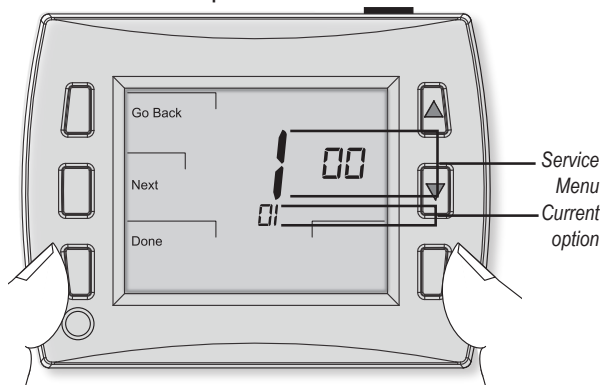


1. Press ▲/▼ to select 12 / 24 HR mode, then press Next.
2. Press ▲/▼ to select hour, then press Next.
3. Press ▲/▼ to select minutes, then press Next.
4. Press ▲/▼ to select current year, then press Next.
5. Press ▲/▼ to select current month, press Next.
6. Press ▲/▼ to select the calendar day number.
7. Press Done to complete operation.

Note: Clock adjustment must be made in programmable mode after initial set up. See SM100.

2 ACCESS SERVICE MENUS

1. Hold lower right and left keys for five seconds.
2. Hold lower right and left keys for five seconds.
3. Press Next or Go Back to select a Service Menu.
4. Press ▲/▼ to select option.
5. Press Done when complete.



3 CONFIGURE SERVICE MENUS

The following Service Menus (SM) commonly require configuration. Please verify that these are set for your specific application. Additional configuration may be required. Refer to Table 2 for all available Service Menus.

- SM 100 = Programmable or Nonprogrammable
- SM 110 = System Type
- SM 121 = Number of Fan Speeds
- SM 130 = Reversing Valve
- SM 135 = W1 heat output NO or NC
- SM 170 = Remote Sensors
- SM 265 = Single or Dual Setpoint Operation
- SM 328 = Night Lock On

4 WIRE TERMINAL DESIGNATIONS

1. Connect wires for appropriate system type (Table 1).

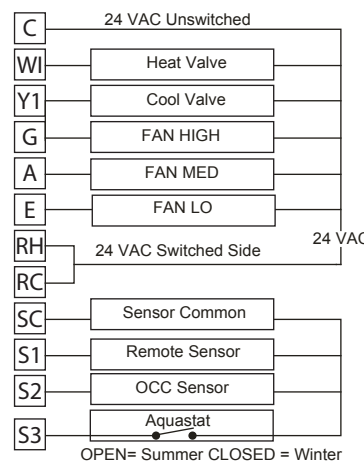


- WARNING: DISCONNECT POWER BEFORE BEGINNING INSTALLATION.**
- CAUTION: Use copper wire only. Insulate or wire-nut all unused leads.
 - Use care to avoid electrostatic discharge to thermostat
 - CAUTION: Do not connect unused wires together
 - ALL ELECTRICAL LOADS MUST BE CONNECTED TO TERMINAL C (24 VAC).

TABLE 1. TERMINAL BLOCK

Fan Coil (Conventional)		Heat Pump	
C	24 VAC, Unswitched side	C	24 VAC, Unswitched side
W1	Stage 1 Heat	B/O	Reversing Valve
W2	Stage 2 Heat	AUX	Auxiliary Heat (Stage 2 or 3)
G	FAN High	G	FAN High
A	FAN Medium	A	FAN Medium
E	FAN Low	E	FAN Low
Y1	Stage 1 Cool	Y1	Compressor Stage 1
Y2	Stage 2 Cool	Y2	Compressor Stage 2
RH	24 VAC Power for heating, switched side	RH	24 VAC Power for heating, switched side
RC	24 VAC Power for cooling, switched side	RC	24 VAC Power for cooling, switched side
SC	Sensor Common	SC	Sensor Common
S1	Indoor Remote Sensor	S1	Indoor Remote Sensor
S2	Occupancy Sensor	S2	Occupancy Sensor
S3	Seasonal Changeover Switch OPEN=Cooling in Summer CLOSED=Heating in Winter	S3	NA

5 TYPICAL FAN COIL WIRING DIAGRAM



6 FAN SPEED SELECTION

1. Press the Fan button to select speed/operation.
2. Press Done when complete.

Fan Speed is noted as follows:

ON = Continuous Fan Operation
AUTO = Fan Cycles with Heating and Cooling

- F₃ FAN HIGH
- F₂ FAN MED
- F₁ FAN LOW

SETBACK OPERATION NOTES

The T8532OCC Thermostat has an onboard occupancy sensor that will setback operation when a room becomes vacant. Service Menu **325 Occupied Sensor Operation** is turned on to enable this operation.

Occupied Timer (SM 326) - Sets the amount of time that must pass without a detection before the control goes to Setback and starts the Ramping process.

Setback Ramping (SM 327) - Determines how the control will ramp to setback values. Economy setting goes directly to setback values. Comfort 1 setting will allow a 1°F per hour setback of the control set point. Comfort 2 sets back at 2°F per hour until the selected setback value is reached.

Setback Values (SM 310 and SM 320) - Set the HEAT and COOL set points for setback. Values can be set to OFF or 50-90F. Selection of OFF will result in a set point of OFF.

Night Lock ON Protection (SM 328) – When enabled the control holds the user set point between 10 PM and 8 AM, anytime occupancy is detected during that time period. Note: This control has Low/ High Temp Protection. Freeze protection on this control is set at 40°F (heat). Over temp protection is set at 110°F (cool).

Occupancy Sensor Detection Performance

Detection Distance: 16.4 Ft (5 meters)

Detection Range: 94° Horizontal x 82° Vertical


Specifications	
Input Power:	24 VAC (20-30 VAC) 50/60 Hz and/or 2 AA Batteries
Output Rating	Terminal W,Y,A - 20-30 VAC 0.02-1.0 A Terminal G - 20-30 VAC 0.02-0.6 A Total Load not to Exceed 2.5 A
Temperature Control Range:	50° to 90°F (10° to 32°C)
Operating Temperature Range:	0° to 120°F (-18° to 49°C)
Occupancy Sensor Type:	Passive Infra-Red

TABLE 2. ADVANCED CONFIGURATION: SERVICE MENUS

Some Service Menus may not be available, depending on system type (SM 110).

MENU	FEATURE	OPTIONS	STD. DEFAULT	DESCRIPTION / COMMENTS
100	Schedule Format	0-3	0	Select the schedule format on the T8000 Series. (Menu not available on non-programmable thermostats.) NOTE: Set the clock before changing to non-programmable. 0 = nonprogrammable 1 = programmable 2 = 5-1-1 schedule 3 = 5-2 schedule
101	Daylight-Saving Time	0,1	1	Select daylight-saving time as it follows standard format in U.S.: It begins second Sunday of March at 2:00 AM and ends on the first Sunday of November at 2:00 AM. 0 = Disabled 1 = Enabled (2007 U.S. Format)
110	System Type	1-13	1	Select the appropriate system configuration (determines available Service Menus). 1 = 1 Heat/1 Cool conventional 2 = 1 Heat/1 Cool heat pump 3 = Heat only without fan (2-wire systems) 4 = Heat only with fan 5 = Cool only 6 = 2 Heat/1 Cool heat pump (with auxiliary heat) and Emergency (Em) heat 7 = 2 Heat/2 Cool multistage conventional 8 = 2 Heat/ 1 Cool multistage conventional 9 = 1 Heat/ 2 Cool multistage conventional 10 = 2 Heat/ 2 Cool heat pump (no auxiliary heat) 11 = 3 Heat/ 2 Cool heat pump (with auxiliary heat) and Emergency (Em) heat 12 = NA 13 = NA
120	Fan Control (heating)	0,1	1	0 = Fossil Fuel; Gas/Oil/Propane heat (equipment controls heating fan) 1 = Electric Furnace (thermostat controls heating fan)
121	Fan Speeds	1, 2, 3, 4	3	Allows selection of multiple fan speeds. 1 = Single speed Fan (G terminal) 2 = 2-speed Fan (G and E Terminals) 3 = 3-speed Fan (G,A and E Terminals) 4 = 3-speed Staged Fan
130	O/B Reversing valve	0,1	0	When 0, output is active for cooling. When 1, output is active for heating. 0 = (O) Active with cooling 1 = (B) Active with heating
135	W1 Output Configuration	0,1	0	Changes operation of W1 for Active to Open (NC Normally Closed) to Active to Close (NO Normally Open). Must be 0 for heat pump operation. 0 = NC Operation 1 = NO Operation
150	Backlight	0,1	0	0 = Backlight temporarily on 1 = Backlight always on (low intensity, 24V only)

MENU	FEATURE	OPTIONS	STD. DEFAULT	DESCRIPTION / COMMENTS
170	Remote Sensor	0-8	0	Select sensor if used. Contact PECO for information on the T8000 Series Indoor Remote Zone Sensor. 0 = No Remote Sensors 1 = Remote Indoor Sensor Only 2 = Not Used 3 = Not Used 4 = Not Used 5 = Not Used 6 = S3 Input with Aquastat Only 7 = S3 Input with Aquastat and S1 with Remote Indoor Sensor 8 = Not Used
171	Sensor Average Remote & Local	0 – Local/Remote 1 – Average Local/Remote	0	This feature allows both local and remote sensing. SM 170 must be set to either 01 or 07.
240	Number of Program Periods	2; 4 events	4	2 = 2 events per day (Selections OCC1 and UnOcc1) 4 = 4 events per day (Selections Occ1-UnOcc1-Occ2- UnOcc2)
250	Clock Format	12 or 24 Hours	12	12 = 12-hour clock mode 24 = 24-hour clock mode
260	Temperature Format (°F or °C)	0,1	1	0 = Celsius 1 = Fahrenheit
265	Single/Dual Setpoint	0,1	1	Determines if single user override setpoint is used, or if user sets heat and cool setpoints independently. 0 = Dual Setpoint (Heat and Cool) 1 = Single Override Setpoint (Single Setpoint with auto changeover algorithm)
290	Range Low	50-90°F or 10-32°C	50°F	Choose the <u>lowest</u> selectable temperature setpoint value.
300	Range High	50-90°F or 10-32°C	90°F	Choose the <u>highest</u> selectable temperature setpoint value.
310	Setback Low	Off; 50-82°F	67°F	Temperature setpoint thermostat will Heat to when in Setback mode (Off sets Heating to ~45F Setback). 0 = Off; 50-82°F (11-27°C)
320	Setback High	Off; 58-90°F	78°F	Temperature setpoint thermostat will Cool to when in Setback mode. (Off sets Cooling to ~150F in Setback). 0 = Off (disabled) 58-90°F (11-32°C)
325	Occupied Sensor Operation	0-1	1	0 = Disabled 1 = Occupancy Operation ON
326	Occupied Timer Duration	30 min; 1, 2, 4, 6, 8, 16, 20, 24 hrs	2 hrs	Sets the time required to go into setback after last detection.
327	Setback Ramping	0, 1, 2	1	Determines how fast the control will setback. 0 = Economy (No delay) 1 = Comfort 1° (1°F per hour) 2 = Comfort 2° (2°F per hour)
328	Nighttime Lock On	0-1	1	Locks the thermostat to Occupied mode after 10:00pm. Thermostat resets at 08:00am. NOTE: This feature requires the clock time to be set. 0 = Disabled (For Schools and Commercial Applications) 1 = ON (For Hospitality and Dorms)
330	Zone Temp Offset	+/-9°F or +/-4.5°C	0°F	Adjusts the sensed Zone Temperature displayed, allowing calibration in the field.
340	Keypad Lockout	0-3	0	Restricts access to certain features of device; Service Menu still available if keypad lockout is enabled. 0 = No key pad lockout (Default) 1 = Disables Schedule and System keys 2 = Disables Schedule, System, and Fan keys 3 = Disables all keys
341	Enable Pin Access	0,1	0	Applies a 3 digit access code to enter Service Menu 342 0 = Disable 1 = Enable
342	Set PIN	000-999	000	Choose a 3-digit PIN access code.
350	Fan Mode	1-3	3	1 = ON: Fan is always on, regardless of demand 2 = Auto: Fan is only on with heating or cooling demand 3 = ON or Auto: Occupant can choose either selection
360	System Mode	0-3	0	Allows ability to determine which system modes the occupant can select. 0 = OFF, Auto 1 = OFF, Heat, Cool, Auto 2 = OFF, Heat, Cool 3 = Heat, Cool, Auto

MENU	FEATURE	OPTIONS	STD. DEFAULT	DESCRIPTION / COMMENTS
375	Purge Enable	0-3	0	<p>0 = No Purge</p> <p>1 = W1 purge</p> <p>2 = Y1 Purge</p> <p>3 = W1 & Y1 purge</p> <p> WARNING: Service Menu 375 may disable fan operation during valve purge. This feature should be set to 0 (zero) unless outputs are connected to hydronic heating or cooling valves. Failure to follow this instruction can result in damage to equipment and/or property.</p>
376	Purge Duration	1-3	1	Defines how long to open the valve to perform the purge function. 1 to 3 minutes
377	Purge Frequency	0-2	0	Defines how long to open the valve to perform the purge function. 0 = Every 24 Hours 1 = Every 12 Hours 2 = Every 6 Hours
380	Minimum Deadband Adjustment	1-10°F, 0.5-5°C	3°F	A changeover deadband value prevents short cycling between heating and cooling modes. The value is adjustable to meet various HVAC system requirements.
395	Temporary Occupied Duration Limit	0-4 hours	0	The temporary User Override is limited by the time defined in this service menu. 0 = Remainder of time until the next scheduled event. 1 = 1 Hour 2 = 2 Hours 3 = 3 Hours 4 = 4 Hours
480	Minimum Off Time	Range: 0-10 Minutes	4	Sets the minimum off time for both the heat and cool output.
500	Programmable/ Intermittent Fan	0-2	0	In programmable mode, fan will operate continuously during occupied periods or with demand during unoccupied periods. In intermittent mode, fan will operate based on the on and off times set in menus 501 and 502 whenever there is no call for fan. 0 = Disable 1 = Programmable Fan: Fan operates continuously in occupied periods or with demand in unoccupied periods. 2 = Intermittent Fan: Fan operates based on the on and off times set in menus 501 and 502.
501	Intermittent Fan On Time	1-60 minutes	5 minutes	Defines the duration in which fan low will be on. Fan On will be activated after Fan Off time has passed.
502	Intermittent Fan Off Time	0-60 minutes	25 minutes	Defines the duration in which fan low will be off. Fan Off will be activated after Fan On time has passed. A selection of 0 will result in continuous Fan.
520	Default Display Icons	0-4	3	Select icons that will be displayed in the Default Display screen. 0 = Time, Temp, SP 1 = Time, Temp 2 = Time only 3 = Temp only 4 = No Display
530	Revision	—	—	Upon menu selection the firmware revision, firmware checksum and configuration checksum is displayed.
540	Factory Default Reset	0,1	0	When Enable is selected the device will return to factory default settings. 0 = Disable 1 = Enable Note: Press "Done" key to complete process.
600	System Test Main Output (Cool)	0-2	0	If either stage is enabled it will activate the associated output for 10 minutes. The Fan output will automatically turn on. If a different service menu is selected the output will be disabled. 0 = Disable 1 = Cool Stage 1 2 = Cool Stage 2
610	System Test Main Output (Heat)	0-3	0	If either stage is enabled it will activate the associated output for 10 minutes. The Fan output will automatically turn on if configured to do so. If a different service menu is selected the output will be disabled. (Note: Aux heat could be stage 2 or stage 3 based on configuration) 0 = Disable (Default) 1 = Heat Stage 1 2 = Heat Stage 2 3 = Heat Stage 3
620	System Fan Test Output	0-3	0	0 = Disabled 1 = Low Speed 2 = Medium Speed 3 = High Speed
900	Factory Use Only	--	--	Factory Use Only
901	Factory Use Only	--	--	Factory Use Only
902	Factory Use Only	--	--	Factory Use Only