1 SET CLOCK, YEAR, MONTH, DAY

Go Back

Next

12:30 AM
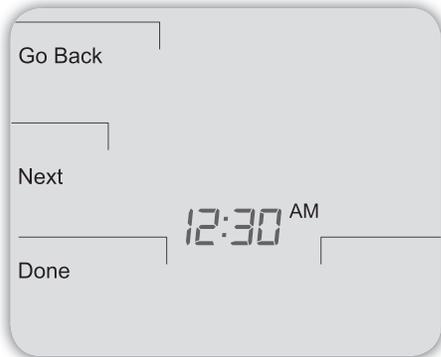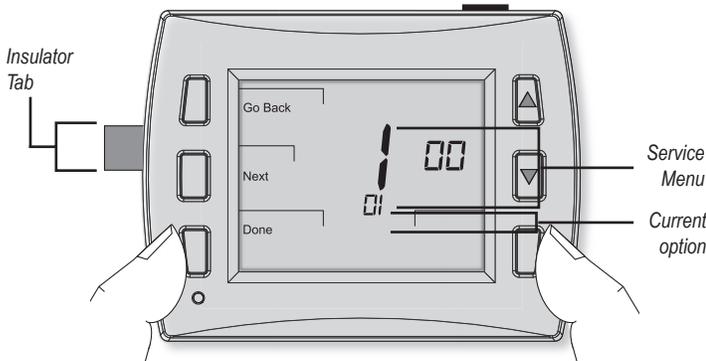
Done

1. Press ▲/ ▼ to select 12 or 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: Select **More > Clock**, to access after setup.

2 ACCESS SERVICE MENUS

Insulator Tab

Go Back

Next

1 00
01

Done

Service Menu

Current option

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

Note: Upon completion of installation, remove the plastic insulator tab from the back side of the thermostat.

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 120 = Fan Control
- SM 130 = Reversing Valve
- SM 240 = Number of Program Periods
- SM 260 = Temperature Format (°F or °C)
- SM 340 = Keypad Lockout

4 WIRING: 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 DESIGNATIONS

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 3)
G	FAN	G	FAN
A	Economizer/Damper/Humidity	A	Economizer/Damper/Humidity
E	Stage 3 Heat	E	Emergency Heat
Y1	Stage 1 Cool	Y1	Compressor Stage 1/Heat/Cool 1
Y2	Stage 2 Cool (or Dehumidify)	Y2	Compressor Stage 2/Heat/Cool 2 (or Dehumidify)
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 Setback Input*	S2	Occupancy Setback Input
S3	Outdoor Remote Sensor	S3	Outdoor Remote Sensor

*Contact PECO to learn more about Occupancy Setback Input sensor applications.

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	1	Select the schedule format on the T8000 Series. (Menu not available on non-programmable thermostats.) 0 = nonprogrammable 1 = programmable 2 = 5-1-1 schedule 3 = 5-2 schedule
101	Daylight-Saving Time	0,1	0	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 = 3 Heat/ 1 Cool conventional 13= 3 Heat/ 2 Cool conventional
120	Fan Control (heating)	0,1	0	0 = Fossil Fuel: Gas/Oil/Propane heat (equipment controls heating fan) 1 = Electric Furnace (thermostat controls heating fan)
130	Changeover valve (B/O terminal)	0,1	0	0 = B/O terminal controls valve in cooling 1 = B/O terminal controls valve in heating
140	Auxiliary Heat	0,1	0	0 = Electric backup heat 1 = Fossil fuel backup heat
150	Backlight	0,1	0	0 = Backlight temporarily on 1 = Backlight always on (low intensity, 24V only)
170	Remote Sensor	0-5	0	Select sensor if used. Contact PECO for information on the T8000 Series Indoor Remote Zone Sensor. 0 = No Sensor 1 = Indoor Sensor 2 = Outdoor Sensor display only 3 = Outdoor Sensor display and lockout control 4 = Indoor, Outdoor Sensor display only 5 = Indoor, Outdoor Sensor display and lockout control
180	Heat Pump Compressor Lockout	0-45°F (-18°C - 7°C)	0	If an outside sensor is used, the compressor will be locked out when the outside air temp is below the value selected. 0 = None 15°F(-9°C); 20°F (-7°C); 25°F (-4°C); 30°F (-1°C); 35°F (2°C); 40°F (4°C); 45°F (7°C)
190	Heat Pump Auxiliary Lockout	0- 60°F (-18°C - 15°C)	0	If an outside sensor is used, the auxiliary heat will be locked out when the outside air temperature is above the value selected. 0 = None 40°F (4°C); 45°F (7°C); 50°F (10°C); 55°F (13°C); 60°F (16°C)
230	Furnace Filter Change Reminder	0; 30; 60; 90; 120; 365	0	Set a filter reminder timer; appears on digital display when timer expires (if programmed). 0 = Off 10 days; 30 days; 60 days; 90 days; 120 days; 365 days
240	Number of Program Periods	2; 4 events	4	2 = 2 events per day 4 = 4 events per day
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
270	Fan Off Delay Heat	0-99 Seconds	0	Select the amount of time (in seconds) that the fan will run after the thermostat heat outputs are turned off.
280	Fan Off Delay Cool	0-99 Seconds	0	Select the amount of time (in seconds) that the fan will run after the thermostat cool outputs are turned off.

TABLE 2. ADVANCED CONFIGURATION SERVICE MENUS (CONT.)

MENU	FEATURE	OPTIONS	STD. DEFAULT	DESCRIPTION / COMMENTS
290	Range Low	50-90 °F or 10-32°C	50°F (10°C)	Choose the <u>lowest</u> selectable temperature setpoint value.
300	Range High	50-90 °F or 10-32°C	90°F (32°C)	Choose the <u>highest</u> selectable temperature setpoint value.
310	Setback Low	Off; 50-82°F or 11-27°C	55°F (13°C)	Select the heat setpoint for setback mode. 0 = Off 50-82°F (11-27°C)
320	Setback High	Off; 58-90°F or 11-32°C	90°F (32°C)	Select the cool setpoint for setback mode. 0 = Off 58-90°F (11-32°C)
330	Zone Temp Offset	+/-9°F or +/-4.5°C	0°F (18 °C)	Adjusts the displayed value; may differ from actual zone temperature.
340	Keypad Lockout	0-3	0	Restricts access to certain features of device; Service Menu still available if 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 Access Code	000-999	000	Choose a 3-digit code.
350	Fan Mode Enable	1-3	3	1 = ON: Fan is turned on regardless of demand. 2 = Auto: Fan is turned on according to heating or cooling demand. 3 = ON or Auto: Allows occupant to select either 1 or 2 above.
360	System Mode Enable	0-3	1	Allows ability to determine which system modes the occupant can select. 0 = OFF, Auto (0 is <u>NOT</u> valid for following configurations: Heat Only; Cool Only.) 1 = OFF, Heat, Cool, Auto 2 = OFF, Heat, Cool 3 = Heat, Cool, Auto
370	Economizer/Outside Air Damper	0-4	0	0 = Off 1 = Time Based Output 2 = Economizer 3 = Continuous Outside Air Damper 4 = Cycled Outside Air Damper
380	Minimum Deadband Adjustment	3-10°F, 1.5-5°C	3°F	Select a changeover deadband value to prevent short cycling between heating and cooling modes. The value is adjustable to meet various HVAC system requirements.
390	Pre-Occupancy Purge	0-3 hours	0 hours	Select to energize fan for selected number of hours (0-3) prior to all occupied events.
395	Maximum Override Time Limit	0=Time until next event; or 1-4 hours	3	Restricts the duration that a temporary hold can be set. The temporary hold is limited by the maximum amount of time as 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
400	Cycles Per Hour (CPH) Cooling Stage 1	0-6 CPH	0 CPH	Defines the number of cycles per hour for cooling (Stage 1). Select 0 to enable ON-OFF control for Stage 1 cooling.
410	Cycles Per Hour (CPH) Cooling Stage 2	0-6 CPH	0 CPH	Defines the number of cycles per hour for cooling (Stage 2). Select 0 to enable ON-OFF control for Stage 2 cooling.
420	Cycles Per Hour (CPH) Heating Stage 1	0-12 CPH	0 CPH	Defines the number of cycles per hour for heating (Stage 1). Select 0 to enable ON-OFF control for Stage 1 heating.
430	Cycles Per Hour (CPH) Heating Stage 2	0-12 CPH	0 CPH	Defines the number of cycles per hour for heating (Stage 2). Select 0 to enable ON-OFF control for Stage 2 heating.
450	Cycles Per Hour (CPH) Emergency Heating & Stage 3 Heat	0-12 CPH	0 CPH	Defines the number of cycles per hour for heating. Select 0 to enable ON-OFF control for Emergency Heating & Stage 3 Heat.

TABLE 2. ADVANCED CONFIGURATION SERVICE MENUS (CONT.)

MENU	FEATURE	OPTIONS	STD.MODEL DEFAULT	DESCRIPTION / COMMENTS
460	Heat Recovery Rate	0-18°F/Hr 0-10°C/Hr	0°F/Hr	Defines the rate at which the device achieves the <u>heat</u> comfort setpoint. Select 0 to disable ramp recovery.
470	Cool Recovery Rate	0-18°F/Hr 0-10°C/Hr	0°F/Hr	Defines the rate at which the device achieves the <u>cool</u> comfort setpoint. Select 0 to disable ramp recovery.
480	Minimum Off Time	1-10 minutes	4 minutes	Sets the minimum off time for both the heat and cool output.
490	Humidity Control Enable (Select models only)	0-3	0	Selects how humidity will be controlled. When dehumidify control is enabled, the Y2 terminal becomes dehumidify. Note: If option 3 is selected, Service Menu 491 becomes available. 0 = Disabled 1 = Dehumidify Control 2 = Humidify Control 3 = Dehumidify and Humidify Control
491	Humidity Deadband	10-50	30% relative humidity (RH)	Selects the deadband in %RH between the humidify and dehumidify setpoints. Note: If option 3 is selected in Service Menu 490, Service Menu 491 becomes available. 10; 20; 30; 40; 50
500	Programmable/ Intermittent Fan	0-2	0	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 on time for the Intermittent Fan.
502	Intermittent Fan Off Time	0-60 minutes	25 minutes	Defines the off time for the Intermittent Fan. Select 0 for continuous fan.
510	Power Harvesting Enable (For use on systems in which a Common "C" power wire is unavailable)	0-3	0	Options 1-3 draw a small amount of current from load wire indicated to supplement battery supply. 0 = No power harvesting is available. 1 = Use Y1 as the battery supplement. 2 = Use W1 as the battery supplement. 3 = Use both Y1 and W1 as the battery supplement **Warning:** Power Harvesting is intended to be used only as a battery supplement. If enabled, the feature preserves battery life. If Power Harvesting is not compatible with your system, select "0" (default) to disable. If thermostat is powered from AC, select only "0" or off. Consult a technician if you have questions.
520	Default Display Icons	0-4	0	Select icons that will be displayed in the Default Display screen. 0 = Time, Temp, SP 1 = Time, Temp 2 = Time 3 = Temp 4 = None
530	Revision	—	—	Displays firmware revision information (for technician); not adjustable.
540	Factory Default Reset	0,1	0	Select 1 (enable) to restore factory default settings for thermostat. Select 0 to disable. 0 = Disable 1 = Enable Note: Press "Done" key to complete process.
600	System Test Main Output (Cool)	0-2	0	Select an option to activate the fan output for 10 minutes; select 0, Done or a different Service Menu to disable. 0 = Disable 1 = Cool Stage 1 2 = Cool Stage 2
610	System Test Main Output (Heat)	0-3	0	Select an option to activate the fan output for 10 minutes; select 0, Done or a different Service Menu to disable. **Note**: Outputs will be activated based upon the system configuration. 0 = Disable (Default) 1 = Heat Stage 1 2 = Heat Stage 2 3 = Heat Stage 3
620	System Test Fan Output	0,1	0	Select 0 or 1 to activate the fan output for 10 minutes; select 0, Done or a different Service Menu to disable. 0 = Disable Fan Output 1 = Enable Fan Output **Note**: Outputs will be activated based upon the system configuration.
630	System Test Emergency Output	0,1	0	Select 0 or 1 to activate the Emergency output for 10 minutes; select 0, Done or a different Service Menu to disable. 0 = Disable Emergency Output 1 = Enable Emergency Output
640	System Test Economizer	0,1	0	Select 1 to activate the Economizer output for 10 minutes; select 0, Done or a different Service Menu to disable. 0 = Disable Economizer Output 1 = Enable Economizer Output