

Honeywell



T7350 **Programmable Thermostat** FOR CONVENTIONAL/HEAT PUMP SYSTEMS

User's Guide



63-2604-01

FEATURES

- Typically used in buildings (including: restaurants, shopping malls, office buildings and banks) under 55,000 square feet.
- For single zone rooftop units, split systems, heat pumps or hot/chilled water systems.
- 7-day programming.
- Two Occupied and two Not Occupied periods per day.
- Keypad multi-level lockout available with all models.
- Individual heat and cool setpoints available for Occupied and Not Occupied periods.
- Convenient overrides allow temporary setpoint changes.
- Intelligent Fan™ feature energizes fan continuously in the Occupied periods. Fan can also be configured for conventional heat or electric heat fan operation.
- Remote sensor capability for temperature (including outdoor air and discharge air) and humidity sensors.
- P+I+D control minimizes temperature fluctuations.
- Recovery ramping control automatically optimizes equipment start times based on building load.
- Thermostat Interface Module (TIM) connections to thermostat from PDA for advanced configuration, programming, etc.
- Universal Versaguard™ Thermostat guards available.
- Auxiliary subbase contact typically interface with a Honeywell Economizer System (for total rooftop control integration) or act as dehumidification output.

Features Available via PDA Configuration

- 365 day clock with holiday programming.
- Automatic Daylight Saving Time adjustments.
- Selectable dehumidification limit control.
- Modulating output configuration.
- Occupancy input to control standby setpoint.
- Additional standby period used in low traffic areas.
- Sequential start option.
- Discharge air high/low limits.
- Selectable recovery ramp.
- Ambient lockout (with outdoor sensor).

SETTINGS

Using Thermostat Keys

The thermostat keys are used to:

- set current time and day,
- program times and setpoints for heating and cooling,
- override the program temperatures,
- display present setting,
- set system and fan operation,
- perform simple configuration.

NOTE: See Fig. 1 for keypad information.

Setting Temperature

Refer to Table 1 for default temperature setpoints. See Programming section for complete instructions on changing these.

Table 1. Default Setpoints.

Control	Occupied	Not Occupied	Standby
Heating	70°F (21°C)	55°F (13°C)	67°F (19°C)
Cooling	75°F (24°C)	85°F (29°C)	78°F (26°C)

Setting System and Fan

System default setting is Auto. The fan default is set so the fan operates continuously during:

- Occupied periods,
- Heating and cooling equipment stages in Not Occupied and recovery periods.

NOTE: Use *System* and *Fan* keys to change settings.

System Settings

- Auto: Thermostat automatically changes between heating and cooling based on sensed indoor temperature.
- Cool: Thermostat controls cooling.
- Off: Heating, cooling, and fan are all off.
- Heat: Thermostat controls heating.
- Em Heat: Auxiliary heat serves as first stage. Compressor stages are locked off.

Fan Settings

- On: Fan operates continuously in occupied and standby periods. Fan cycles with call for heat or cool during not occupied periods.
- Auto: Fan cycles with call for heating or cooling during occupied, standby, and not occupied periods.

NOTE: This is further modified by selection of conventional or electric heat.

PROGRAMMING

The thermostat operates at the Occupied temperature setting unless the thermostat is programmed. The program has four settings:

- Occupied heat.
- Occupied cool.
- Not Occupied heat.
- Not Occupied cool.

The thermostat can be set for two Occupied and two Not Occupied times for each day of the week (28 independent time settings). The Temporary Occupied key provides quick setpoint changes for increased comfort during Not Occupied periods. The Temporary Not Occupied key provides energy efficient operation for extended periods of time.

IMPORTANT

Programming the thermostat with the keypad requires 24 Vac (turn on system power). The keyboard lockout feature must be disabled.

NOTE: Before starting programming, use Table 2 to organize the program schedule.

Setting Current Day/Time

This can be done using the keypad.

IMPORTANT

Once you set the day/time once, you should not need to set it again. As a result, if you use a PDA to set the day based upon the calendar (MM/DD/YYYY), the device will not allow the keypad to change the day.

Table 2. Occupied and Not Occupied Period Start Times.

Day	Occupied Period 1	Not Occupied Period 1	Occupied Period 2	Not Occupied Period 2
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

NOTE: 12:00 PM is noon, and 12:00 AM is midnight.

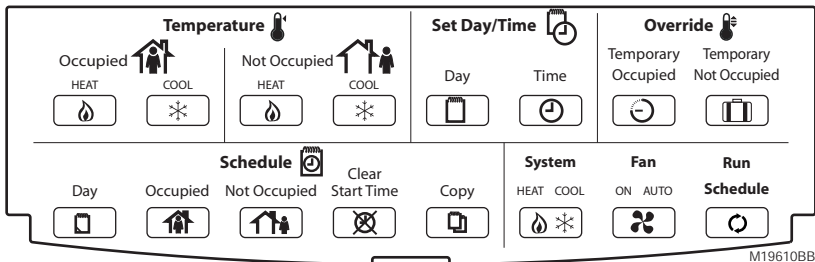


Fig. 1. Thermostat key locations.

When using the keypad to change the day/time:

1. Press *Set Day* until the current day is displayed.

NOTE: Sun = Sunday, Mon = Monday,
 Tue = Tuesday,
 Wed = Wednesday,
 Thu = Thursday, Fri = Friday,
 Sat = Saturday.

2. Press *Set Time*.
3. Press up ▲ or down ▼ until the current time is displayed.

NOTE: Tapping *Set Time* changes the time in one hour increments.

4. Press *Run Schedule*.

Setting Schedule Times

Use the keys in the “Schedule” area of the keypad for this procedure.

1. Press *Occupied*.

NOTE: Anytime a start time is not required, press *Clear Start Time*.

2. Press *Day* until desired day is displayed.
3. Press *Occupied* or *Not Occupied* until the proper period is displayed.
4. Press up ▲ or down ▼ until the desired start time is displayed.
5. Repeat steps 3 and 4 for a given day.
6. Repeat steps 2 through 5 until finished.

Copying a Day

Use the keys in the “Schedule” area of the keypad for this procedure.

NOTE: The thermostat must be in program mode to use the copy feature. If the thermostat is already in program mode, skip step 1.

1. Press *Occupied*.
2. Press *Day* to select the day to be copied.
3. Press *Copy*.
4. Press *Copy* again.
5. Press *Day* until the day to receive the copy is displayed.
6. Press *Copy*.

NOTE: DONE displays for two seconds then the program display reappears.

7. Repeat steps 2 through 6 for all the days desired.
8. Press *Run Schedule*.

Clearing Program Start Times

1. Press *Occupied* or *Not Occupied* until the start period to be cleared is displayed.
2. Press *Day* until desired day is displayed.
3. Press *Clear Start Time*.
4. Repeat steps 1 through 3 for all the start times to be cleared.
5. Press *Run Schedule*.

Temperature Setpoints

Setpoint Limits

The setpoint temperature range is 40°F to 90°F (4°C to 32°C) for heating and 45°F to 99°F (7°C to 37°C) for cooling.

NOTES: The ranges mentioned can be limited based upon setpoints and stops:

1. The greater of the Minimum Heat Stop and the Not Occupied Heat setpoints determines the lowest setting to which the occupied heat setpoint can be adjusted: $\text{Stop/NotOcc} \leq \text{OccHeat} \leq (\text{OccCool} - 2)$.
2. The lesser of Maximum Cool Stop and Not Occupied Cool setpoints determines the highest setting to which the occupied cool setpoint can be adjusted: $\text{Stop/NotOcc} \geq \text{OccCool} \geq (\text{OccHeat} + 2)$.
3. The Maximum Occupied Heat Setpoint is limited by Occupied Cool Setpoint - 2.
4. The Minimum Occupied Cool Setpoint is limited by the Occupied Heat Setpoint + 2.

Programming Temperature Setpoints

1. Press *Occupied Heat*.
2. Press up ▲ or down ▼ until the desired temperature is displayed.
3. Press *Occupied Cool*.
4. Press up ▲ or down ▼ until the desired temperature is displayed.
5. Press *Not Occupied Heat*.
6. Press up ▲ or down ▼ until the desired temperature is displayed.
7. Press *Not Occupied Cool*.
8. Press up ▲ or down ▼ until the desired temperature is displayed.
9. Press *Run Schedule*.

Temperature Setpoint Overrides

IMPORTANT

- *Setup determines Occupied override duration.*
- *Default duration is three hours.*

NOTE: To cancel Override and immediately return to the program, press *Run Schedule*.

TR23 Setpoint Knob

A TR23 setpoint knob can remotely adjust the T7350 setpoint. This adjustment can be made when the sensor is in override.

NOTES:

- During override, only occupied and standby heat setpoints, and cool setpoints are adjusted.
- The maximum adjustment is $\pm 5^{\circ}\text{F}$.

- With a disconnected or failed TR23, or a T7350 set for local temperature sensing, offset is zero.

Using Temporary Occupied Override

The Temporary Occupied Override can be used when the T7350 is in Not Occupied or Standby mode. It switches to the Occupied mode for a fixed number of hours.

1. To use the default occupied override, press *Temporary Occupied*.

NOTE: The default temperature setting is the Occupied setpoint.

2. To select a temperature setting other than the default, press up ▲ or down ▼ until desired temperature offset displays (range is 0°F to 3°F).

Using Temporary Not Occupied Override

The Temporary Not Occupied Override fixes the device to operate in Not Occupied mode for a number of days (between 1 and 99) without changing the programming saved in memory.

NOTES:

- If the number of days is set to zero, no temporary change takes effect.
- If the number of days is set just below zero, the display for days is “---” (an indefinite override).
- To turn off this override, you must press *Run Schedule*.

1. Press *Temporary Not Occupied*.
2. Press up ▲ or down ▼ to change the duration of the Not Occupied period (in days).

NOTE: The default temperature setting is the Not Occupied setpoint.

3. Press **i** to display the default setpoint.

NOTE: The only way to change this setpoint is to change the Not Occupied setpoint.

Changing Temperature Setpoint Until Next Program Period

1. Press up ▲ or down ▼ until the desired temperature is displayed.
2. The temporary temperature appears for approximately ten seconds, then the room temperature is displayed.

Automation and Control Solutions

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