



## User's Manual

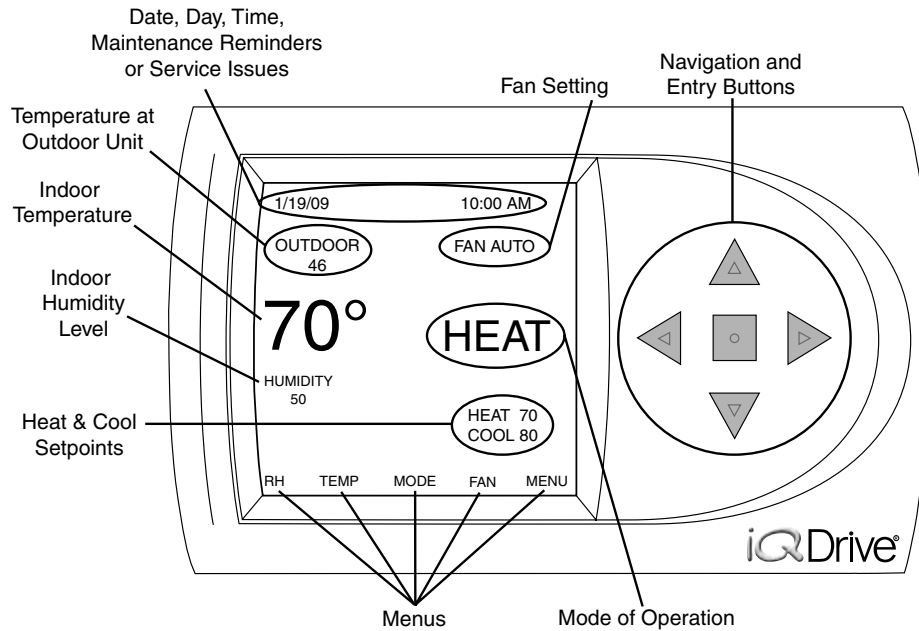
### ELITE PROGRAMMABLE THERMOSTAT WITH MENU DRIVEN DISPLAY



#### FEATURES:

- Customizable programming options for every day, weekdays, weekends, or individual days.
- Smart recovery gradually adjusts indoor temperatures for greater comfort.
- Communicates to various components within the iQ Drive® system.
- Auto changeover automatically switches the thermostat from heating to cooling or vice versa, based on programmed setpoints.
- Serves as the primary controller for an iQ Zone system.
- No batteries required. Settings are stored internally in the event of power failure.
- On-board diagnostics alert when service or maintenance is needed.
- Two color backlight for easy viewing of the display at night time or in poorly lit rooms.
- Energy saving features (temperature setbacks, heat pump/electric heat or furnace changeover) are customizable.
- Senses and controls temperature and humidity.
- Provides system maintenance reminders.

DO NOT DESTROY THIS MANUAL. KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.



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## ABOUT THE IQ DRIVE THERMOSTAT

- The iQ Drive Thermostat is a wall mounted controller that accurately maintains room temperature by controlling conventional or iQ Drive compatible components in a heating and air conditioning system. Easy-to-use operating modes activate cooling equipment (heat pump or air conditioner) during warm seasons and heating equipment (heat pump, electric heater, gas furnace or heat pump/ electric heat combination) when the temperature gets colder. For operating mode setup instructions, See page 6.
- The iQ Drive Thermostat serves as the primary controller for homes equipped with the iQ Zone system. In such systems there will be a separate zone thermostat in each of the zones set up, in addition to this controller. See the iQ Zone System Zone Thermostat User's Manual for information on how to operate the local zone thermostats. See the Zone Control section (page 13) for a description of operation and features which only apply to iQ Zone systems.
- Dehumidification mode quickly removes moisture from the air and regulates humidity levels throughout the home. Control output for optional humidifier is also provided. See page 12.
- The blue backlight feature makes viewing the screen easier at night or in poorly lit rooms. The backlight turns on for a certain amount of time when any one of the five buttons is pressed. The duration that the backlight stays on can be programmed for 30, 60, 90, 120 seconds, or ON. See page 5.
- Complete system monitoring alerts the homeowner when service is needed.

## Navigation

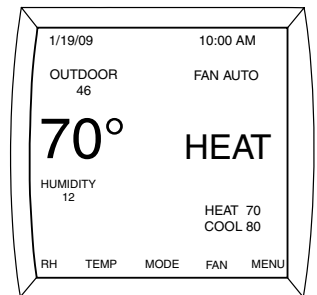
- Navigation between display screens or changing operating commands can easily be made by using the five keys to the right of the screen (see page 2). **NOTE:** Selecting an item means that its name or value appears in a highlighted band on the screen. Another button will need to be pressed afterwards to access another menu or to select or change a value.
- The ▲ ▼ buttons navigate up or down in a screen, within a list of choices, or to increase/decrease a number. **NOTE:** On some screens holding these buttons down for several seconds will adjust the value in larger increments.

\* Outdoor temperature can only be displayed if a heat pump or iQ Drive AC is installed outside.

- The ◀▶ buttons navigate right or left in a screen, or move to the previous or next screen within a screen sequence.
- The ■ button selects an option category or value so that it can change or save a modified entry. **NOTE:** When a value is selected, the dark band will blink in most screens.

## Main Screen

- The main screen of the iQ Drive Thermostat displays normal system information including: *indoor temperature, outdoor air temperature\**, *heating and cooling setpoints, fan setting, relative humidity*, and the system's current operating mode (See page 2).
- The top line of the Main Screen alternates between showing: *date and time, day of the week, service alerts such as: change air filter, change UV lamp, service air cleaner, or service humidifier, Status info such as: hold until, perm hold, smart recovery on, intermittent fan on, and locked.* In the event of an equipment issue, a one-line description of the issue will also display. In response to an extended or repeated problem, the screen will flash red indicating service is needed. See page 2.



**IMPORTANT!** If the Main Screen flashes red or displays CONFIGURATION NEEDED with a message at the top of the screen, contact an authorized installer immediately with a detailed description of the message. Only iQ Drive certified technicians can correct these conditions.

- The bottom line of the Main Screen displays five menus [RH, TEMP, MODE, FAN and MENU] that are entry points to other submenus (see page 2). To access these screens, select the menu with the ◀▶ buttons and then the ■ button. To return to the Main Screen, press the ◀ button repeatedly from any screen. If no buttons are pressed for 3 minutes, the thermostat will automatically revert back to the Main Screen. If a service alert appears at the top of the Main Screen, CANCEL ALERT will also be displayed at the bottom. To cancel the alert, use the ◀ or ▶ buttons and then the ■ button.
- The Main Screen will appear different for iQ Zone systems when Zone Control is enabled (normal operation). For Zone Control, see page 13.

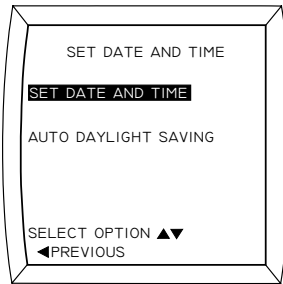
## SCREEN SETTINGS

Many items that are displayed on the main screen can be easily changed by the homeowner. Some of these items include: Setting the date and time, 12 or 24 hour clock, auto daylight saving, temperature readings in Fahrenheit or Celsius scales and backlight on timer.

### Date & Time

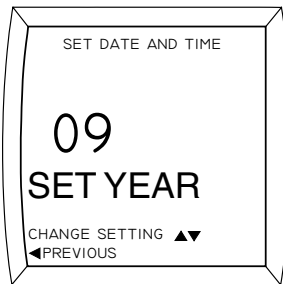
The SET DATE and TIME screen contains the setup menus for changing the current date and time that is displayed on the Main Screen.

1. Select MENU on the Main Screen using the ◀ or ▶ button.



2. Press the [ ] button.
3. Select SET DATE AND TIME using the ▲ or ▼ button.

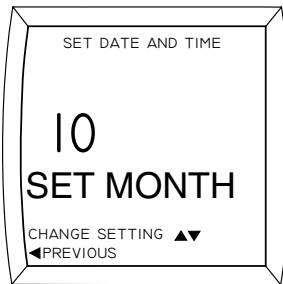
4. Press the [ ] button.
5. Select SET DATE AND TIME using the ▲ or ▼ button.



6. Press the [ ] button.
7. Set the YEAR.
  - ① The ▲ button adjusts the year forward and the ▼ button adjusts the year backward.

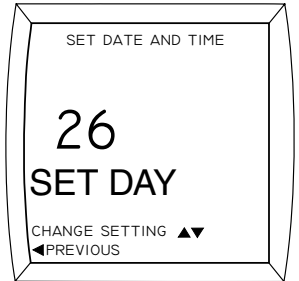
8. Press the [ ] button to save the setting.

9. Set the MONTH:
  - ① The ▲ button adjusts the month forward and the ▼ button adjusts the month backward.



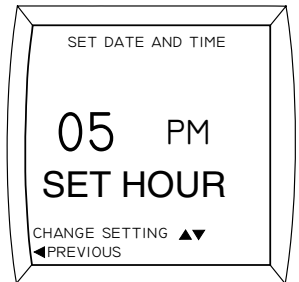
10. Press the [ ] button to save the setting.

11. Set the DAY:
  - ① The ▲ button adjusts the day forward and the ▼ button adjusts the day backward.



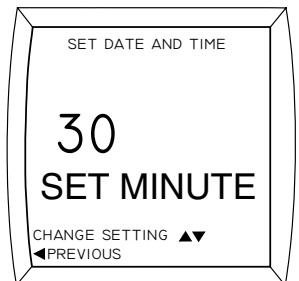
12. Press the [ ] button to save the setting.

13. Set the HOUR:
  - ① The ▲ button adjusts the hour forward and the ▼ button adjusts the hour backward.



14. Press the [ ] button to save the setting.

15. Set the MINUTE:
  - ① The ▲ button adjusts the minutes forward and the ▼ button adjusts the minutes backward.



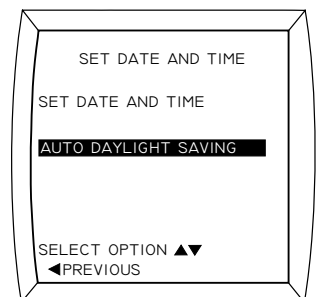
- ① Holding the ▲ or ▼ button down for several seconds will adjust the value in larger increments.

16. Press the [ ] button to save the setting.

### Auto Daylight Saving

This thermostat can be set to automatically observe the new daylight saving hours established in 2007: between the second Sunday of March to the first Sunday in November.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the [ ] button.
3. Select SET DATE AND TIME using the ▲ or ▼ button.

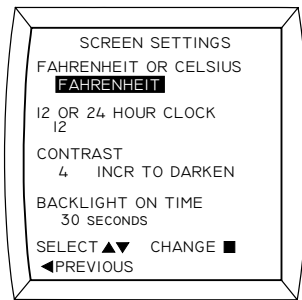


2. Press the [ ] button.
4. Select AUTO DAYLIGHT SAVING using the ▲ or ▼ button.
5. Press the [ ] button.
6. Select ON or OFF using the ▲ or ▼ button.
7. Press the [ ] button to save the setting.

## Fahrenheit or Celsius

The indoor and outdoor temperatures displayed on the main screen of the thermostat can be changed to the Fahrenheit or Celsius scale.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the □ button. The SETTINGS MENU will appear in the display with SCREEN SETTINGS already selected.
5. Press the □ button. The SCREEN SETTINGS MENU will appear in the display with the temperature scale already selected.

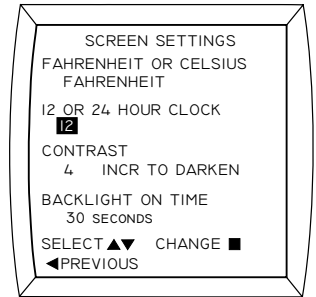


6. Press the □ button.
7. Change the temperature scale.
- ① Use the ▲ button to change the scale to Celsius or the ▼ button to Fahrenheit.
8. Press the □ button to save the setting.

## 12 or 24 Hour Clock

The time displayed on the main screen of the thermostat can be set to display the clock in 12 hour (standard) time or 24 hour (military) time.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the □ button.
5. Select SCREEN SETTINGS using the ▲ or ▼ button.
6. Press the □ button.
7. Select the option beneath 12 or 24 HOUR CLOCK using the ▲ or ▼ button.
8. Press the □ button.

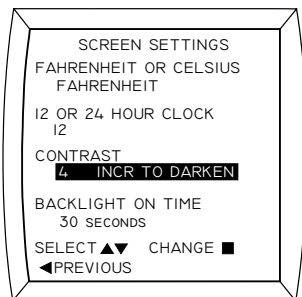


9. Change the clock type:
  - ① The ▲ button changes the time to 24 hour and the ▼ button changes the time to 12 hour.
10. Press the □ button to save the setting.

## Contrast

The contrast level of the screen can be changed from 1 (lightest) to 15 (darkest). The level is adjustable in increments of 1. **NOTE:** If power to the thermostat is shut off, the contrast level will return to the default setting (4) when power is restored.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the □ button.
5. Select SCREEN SETTINGS using the ▲ or ▼ button.
6. Press the □ button.
7. Select the option beneath CONTRAST using the ▲ or ▼ button.
8. Press the □ button.

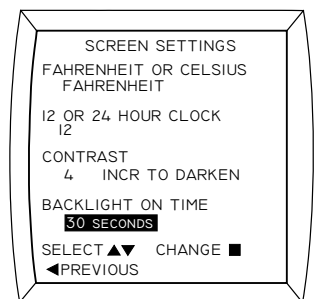


9. Change the contrast level.
  - ① Use the ▲ button to darken the contrast or the ▼ button to lighten the contrast.
10. Press the □ button to save the setting.

## Backlight ON Time

The blue backlight feature makes viewing the screen easier at night or in poorly lit rooms. The backlight turns on for a certain amount of time when any one of the five buttons are pressed. The duration that the backlight stays on can be programmed for 30, 60, 90, 120 seconds, or ON (all the time).

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the □ button.
5. Select SCREEN SETTINGS using the ▲ or ▼ button.
6. Press the □ button.
7. Select the option beneath BACKLIGHT ON TIME using the ▲ or ▼ button.



8. Press the □ button.
9. Change the value to 30, 60, 90, 120 seconds, or ON (all the time) using the ▲ or ▼ button.
10. Press the □ button to save the setting.

## OPERATING THE THERMOSTAT

The iQ Drive Thermostat can control conventional or iQ Drive compatible equipment in the heating or cooling system. Before the heating or cooling system can be activated, an operating mode such as AUTO, COOL, HEAT, or E HEAT must be selected. Many of the features described below are not used with an iQ Zone system when Zone Control is enabled. For Zone Control, see page 13.

### Selecting an Operating Mode

**OFF MODE:** Deactivates all equipment in the heating/cooling system. The furnace, air conditioner, or heat pump will not operate when in this mode. However, the fan can be set to operate in off mode. See Fan Operation (pages 7 - 8).

**AUTO MODE:** The thermostat chooses the appropriate mode (HEAT or COOL) for maintaining the desired temperature between the configured heating and cooling setpoints. To prevent the system from jumping back and forth, the controller waits for the auto changeover time to end before changing modes. See page 12 for more information.

**COOL MODE:** Activates cooling equipment (Heat Pump or Air Conditioner) during warmer seasons.

**HEAT MODE:** Activates heating equipment (Heat Pump, Electric Heater, Gas Furnace, etc.) during cold seasons.

**E-HEAT MODE:** For systems with Heat Pumps, this mode will heat only using separate gas or electric heat. This will disable heat pump operation.

1. Select MODE on the Main Screen using the ◀ or ▶ button. **NOTE:** The MODE MENU can also be accessed through MENU on the Main Screen.
2. Press the ◻ button.
3. Select AUTO, COOL, HEAT, E HEAT, or OFF using the ▲ or ▼ button.
4. Press the ◻ button.

**NOTE:** When changing modes, the system may continue in the previous mode for a few minutes to avoid sudden changes.

### Temperature Holds

By default, the iQ Drive Thermostat operates by controlling temperature to a timed schedule; however, if desired, you can override the current temperature setpoint in the Program Menu. Temperature holds can be used for quick temperature changes without having to modify the thermostat's Program Menu. This function is not available when the thermostat is set to the nonprogrammable option. **NOTE:** Holding the ▲ or ▼ button down for several seconds will adjust some of the values in larger increments.

### Temporary Hold

Temporary Holds change the temperature setpoint until the next programmed event and can be set using any of these two methods:

**METHOD 1:** Change the temperature setting by pressing the ▲ or ▼ button anytime the main screen is displayed during system operation. When the desired temperature is displayed, press the ◻ button to save the setting.

**METHOD 2:** Select TEMP on the Main Screen using the ◀ or ▶ button and then the ◻ button. Change the temperature setting using the ▲ or ▼ button. When the desired temperature is displayed on the screen, press the ◻ button to save the setting.

**NOTE:** CANCEL HOLD will appear at the bottom of the Main Screen. The hold can be canceled using the steps on page 7 or allowed to expire at the time shown in the HOLD THIS TEMPERATURE screen.

### Permanent Hold

A permanent hold can be used to override the temperature setpoints in the timed program. Just set the temperature to a desired setting and the thermostat permanently maintains the temperature until the hold is cancelled on the Main screen. **NOTE:** This option is only used when the thermostat is in programmable operation.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the ◻ button.
3. Select HOLD using the ▲ or ▼ button.
4. Press the ◻ button.
5. Select PERMANENT using the ▲ or ▼ button.
6. Press the ◻ button.
7. Change the temperature setting:
  - ① The ▲ button raises the temperature and the ▼ button lowers the temperature.
8. Press the ◻ button to save the setting.

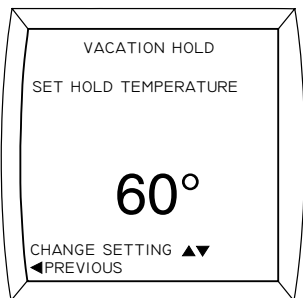
#### NOTES:

- CANCEL HOLD will appear at the bottom of the Main screen. To cancel the hold, see page 7.
- A permanent hold can be modified by simply pressing the ▲ or ▼ button when the Main screen is displayed.

## Vacation Hold

A vacation hold can be used to control the heating/cooling system when away from home for an extended amount of time. Just set the temperature to hold the house at, and the date and time when you want the hold to expire. The thermostat will maintain the temperature until the hold is cancelled or expires.

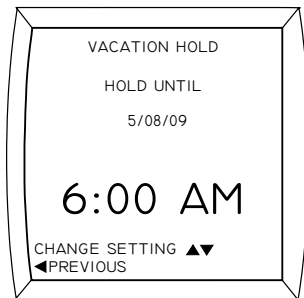
1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select HOLD using the ▲ or ▼ button.
4. Press the □ button.
5. Select VACATION using the ▲ or ▼ button.
6. Press the □ button.
7. Change the temperature setting:
  - ① The ▲ button raises the temperature and the ▼ button lowers the temperature.



8. Press the □ button to save the setting.
9. Change the date:
  - ① The ▲ button adjusts the day forward and the ▼ button adjusts the day backward.



10. Press the □ button to save the setting.
11. Change the time:
  - ① The ▲ button adjusts the minutes forward and the ▼ button adjusts the minutes backward.



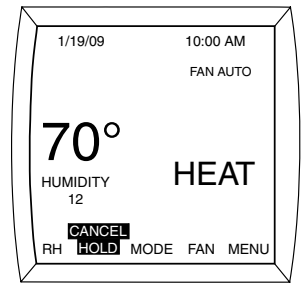
12. Press the □ button to save the setting. CANCEL HOLD will appear at the bottom of the Main screen.
 

**NOTE:** A vacation hold temperature setting can be modified by pressing the ▲ or ▼ button when the Main screen is displayed.

## Canceling a Hold

1. Select CANCEL HOLD on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
 

**NOTE:** The CANCEL HOLD disappears from the Main screen and the setpoints revert to the programmed schedule.

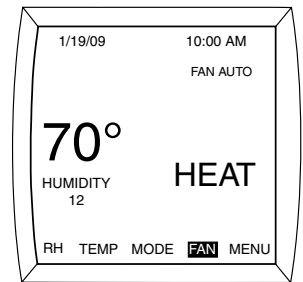


## Fan Operation

Multiple fan options are available when running the heating/cooling system. The default setting for the iQ thermostat is AUTO.

1. Select FAN on the Main Screen using the ◀ or ▶ button.
 

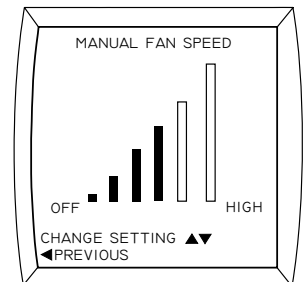
**NOTE:** The FAN MENU can also be accessed through MENU on the Main Screen.
2. Press the □ button.
3. Select AUTO, ON or PROGRAMMED FAN using the ▲ or ▼ button.
4. Press the □ button to save the setting.



## On

The fan will run continuously without operating any heating or cooling equipment (including OFF mode). The fan speed is manually set to different speeds using the ▲ or ▼ buttons and is indicated by the bar graph in the Manual Fan Speed screen. When heating or cooling is needed, the fan speed changes as needed.
 

**NOTE:** In fan mode, the humidification option is turned on by default.



## Ventilation Speed

This screen looks similar to the screen above, with the bar graph for speed selection. It is for use with iQ Zone control only.

## Auto

The fan switches on when the thermostat senses the need for heating or cooling and will run for the duration of the operation. When the heating/cooling equipment has shut off, the fan will continue to run for a short period of time afterwards.

## Programmed Fan

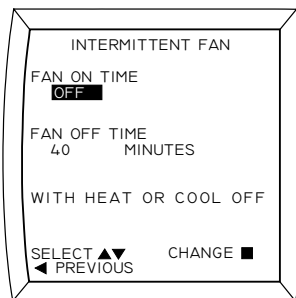
The fan will operate based on the fan setting (ON or AUTO) in the Program Schedule. Setup instructions are shown on page 10.

## Intermittent Fan

The fan will run for up to 20 minutes and then turn off for up to 40 minutes if the thermostat doesn't sense a need for cool or heat for at least one hour. This option is typically used when running the heating/cooling system in a vacation or permanent hold setting. Setting the FAN ON time to OFF disables this feature. See page 6 or 7 for HOLD setup instructions.

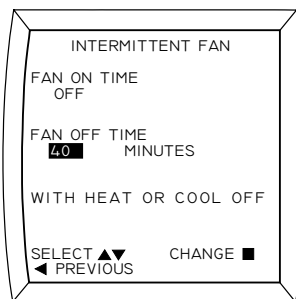
1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ buttons.
4. Press the □ button.
5. Select INTERMITTENT FAN using the ▲ or ▼ button.
6. Press the □ button. **NOTE:** The INTERMITTENT FAN menu will appear in the display with the value beneath FAN ON TIME already selected.
7. Press the □ button.
8. Change the FAN ON TIME to OFF or between 5 - 20 minutes.

- ① The ▲ button adjusts the time 5 minutes forward and the ▼ button adjusts the time 5 minutes backward.



9. Press the □ button to save the setting.
10. Select FAN OFF TIME using the ▲ or ▼ button.
11. Press the □ button.
12. Change the FAN OFF TIME between 5 - 40 minutes.

- ① The ▲ button adjusts the time 5 minutes forward and the ▼ button adjusts the time 5 minutes backward.



13. Press the □ button to save the setting.

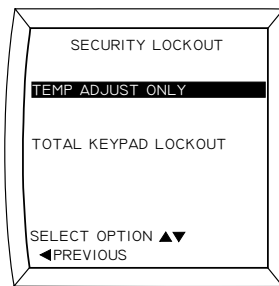
**NOTE:** The fan ON & OFF cycles will continue until the fan has been called for heating or cooling.

## Security Lockout

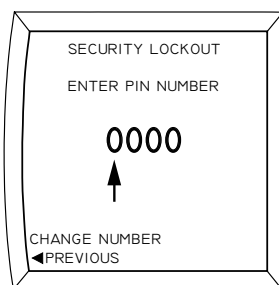
Security Lockout prevents accidental or unauthorized changing of the thermostat settings. This feature allows either the total lockout of the keypad or lockout of everything but the temperature setpoint adjustment. Both options require a 4 digit PIN number to be entered and saved. **NOTE:** Security lockout will not prevent changing settings in local zone thermostats in an iQ Zone system.

### How to Lock the Thermostat:

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SECURITY LOCKOUT using the ▲ or ▼ button.
4. Press the □ button.
5. Select the type of lockout using the ▲ or ▼ button.
6. Press the □ button.



7. Enter the first digit of the PIN number using the ▲ or ▼ button. When the desired number is displayed, press the ▶ button to jump to the next digit. Repeat this process until the final digit is entered.



8. Press the □ button after the last digit has been entered. The PIN number is saved internally until the thermostat is unlocked.

**IMPORTANT!** Write your PIN number down on page 16 and store this manual in a safe place for future reference.

### How to Unlock the Thermostat:

1. Press the □ button to access the PIN logon screen.
2. Enter the first digit of the lockout number using the ▲ or ▼ button. When the desired number is displayed, press the ▶ button to jump to the next digit. Repeat this process until the final digit is entered.
3. Press the □ button after the last digit has been entered. The thermostat is now unlocked and will remain unlocked until PIN is re-entered.

### What to Do If You Forget Your PIN Number:

Return to the PIN logon screen and type in the code 9999. This will clear out the lock and reset all values back to 0000.



## PROGRAMMING THE THERMOSTAT

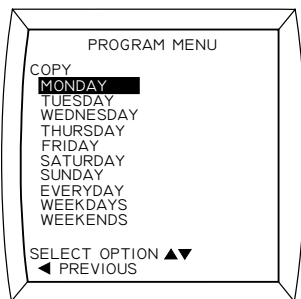
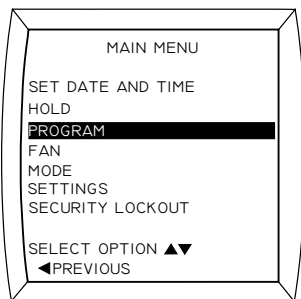
The iQ Drive Thermostat is factory programmed with default schedules based on typical usages. Modification of the program schedules is not required, but can still be customized to adjust the heating/cooling system on individual days, a combination of days, weekdays, weekends, every day, or an entire week. The instructions below do not apply to iQ Zone Systems with zone control enabled. **Before the heating or cooling system can be activated, the thermostat must be placed in an operating mode (AUTO, HEAT, COOL, or E HEAT). See Page 6 for mode setup instructions.**

Other features include a nonprogrammable option that manually controls the heating or cooling equipment by disabling the usage of all programming schedules, Smart Recovery, and temperature holds. In nonprogrammable operation, the thermostat requires less user setup. If this option is desired, see page 11 for setup instructions.

### Changing Program Schedules

Each day in the PROGRAM MENU contains 2 or 4 customizable schedules (also called events) that display the TIME an event begins, temperature setpoints (HEAT and COOL), and FAN setting (AUTO or ON). The default setting for this thermostat is 4 *Schedule Events/Day*, but can be changed by performing the setup instructions on page 11. The thermostat requires that the COOL setpoint must be at least 2° (F) above the HEAT setpoint. This minimum difference is automatically maintained by the thermostat. **NOTE:** Holding the ▲ or ▼ button down for several seconds will adjust some of the values in larger increments.

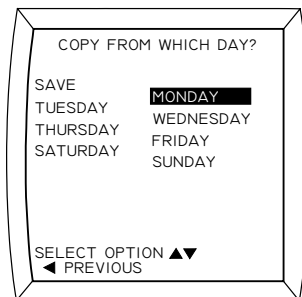
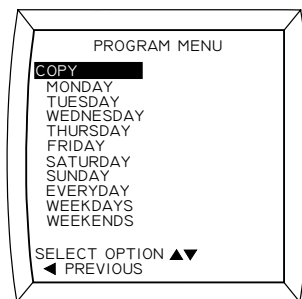
1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select PROGRAM using the ▲ or ▼ button.
4. Press the □ button.
5. Select an option from the list in the PROGRAM MENU using the ▲ or ▼ button.
6. Press the □ button.
7. See page 10 to change the time of an EVENT, the HEAT/COOL setpoints, or FAN setting.



### Copying a program:

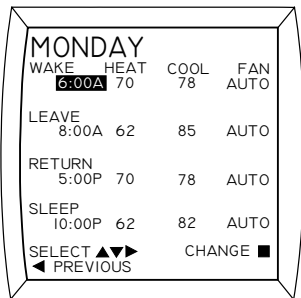
The COPY option is displayed at the top of the PROGRAM MENU and can be used to copy a schedule from one day to many other days without having to perform redundant programming of the thermostat. This feature can be used after a schedule has been set in one of the days.

1. Select COPY at the top of the PROGRAM MENU using the ▲ or ▼ button.
2. Press the □ button. The thermostat will display a list of days to copy from.
3. Select a day in the COPY FROM list using the ▲ or ▼ button.
4. Press the □ button. The thermostat will display a list of days to copy your program to.
5. Select a day in the COPY TO list using the ▲ or ▼ button.
6. Press the □ button to save the setting. **NOTE:** To schedule additional days, repeat steps 3 - 6.

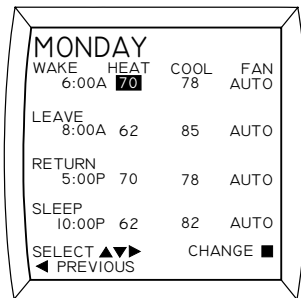


## Changing the Time of an EVENT:

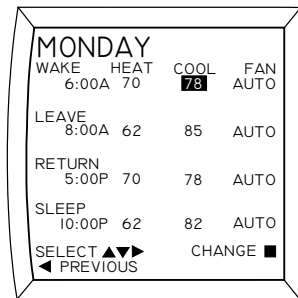
- Select the starting time for the EVENT using the ▲ or ▼ button.
- Press the □ button.
- Change the time of the event:
  - The ▲ button adjusts the minutes forward and the ▼ button adjusts the minutes backward.
- Press the □ button to save the setting or press the ► button to jump to another column.



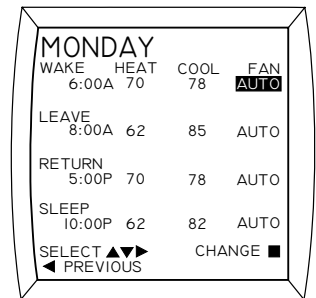
4 Schedule Events/Day



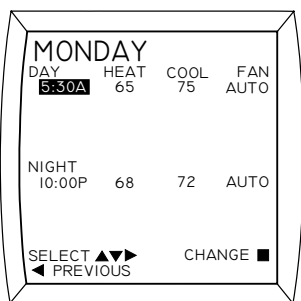
4 Schedule Events/Day



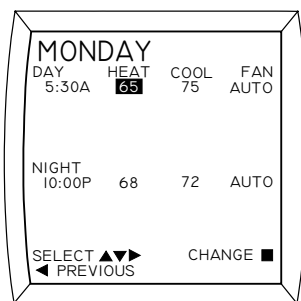
4 Schedule Events/Day



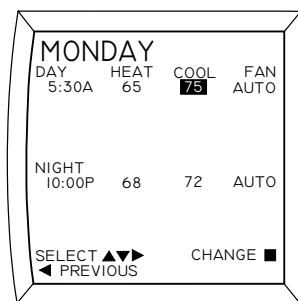
4 Schedule Events/Day



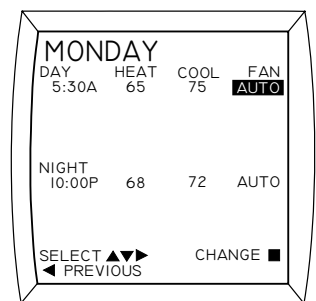
2 Schedule Events/Day



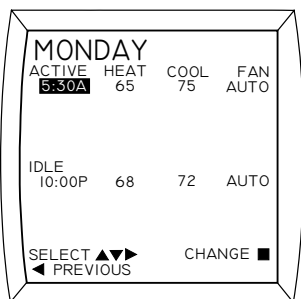
2 Schedule Events/Day



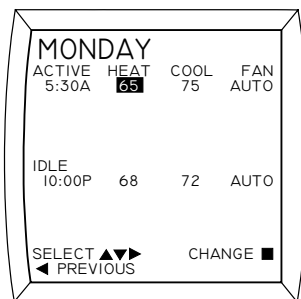
2 Schedule Events/Day



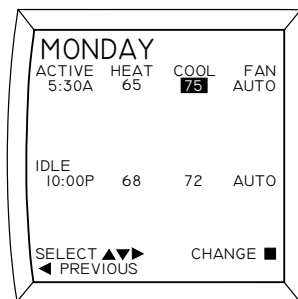
2 Schedule Events/Day



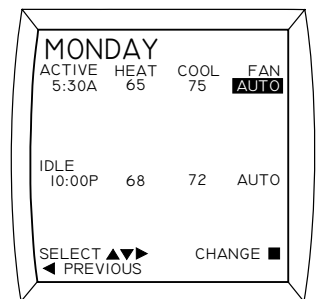
2 Events/Day Business



2 Events/Day Business



2 Events/Day Business



2 Events/Day Business

## Changing the HEAT Setpoint:

- Select the temperature to be changed in the HEAT column using the ▲ ▼ ► buttons.
- Press the □ button.
- Change the HEAT setpoint:
  - The ▲ button raises the temperature and the ▼ button lowers the temperature.
- Press the □ button to save the setting or press the ► button to jump to another column.

## Changing the COOL Setpoint:

- Select the temperature to be changed in the COOL column using the ▲ ▼ ► buttons.
- Press the □ button.
- Change the COOL setpoint:
  - The ▲ button raises the temperature and the ▼ button lowers the temperature.
- Press the □ button to save the setting or press the ► button to jump to another column.

## Changing the FAN Setting:






- Select the FAN setting using the ▲ ▼ ► buttons.
- Press the □ button.
- Change the FAN setting:
  - The ▲ button changes the fan to ON and the ▼ button changes the fan to AUTO.
- Press the □ button to save the setting or press the ► button to jump to another column.

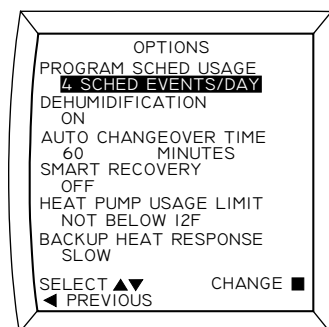
## ADVANCED THERMOSTAT SETTINGS

The iQ Drive Thermostat features additional fine-tuning options that can increase comfort, save energy, and maximize the performance of the heating and cooling system. These settings are optional and do not require modification for the heating/cooling system to operate. However, some of these settings may require the consultation of an installer for determining which settings will achieve peak performance.

### Program Schedule Usage

This thermostat contains customizable energy-saving schedules (also called events) that can adjust the heating/cooling system 2 or 4 times a day on individual days, every day, just weekdays, just weekends, an entire week or a combination of days. Residential systems can be setup for a 2 event or 4 event per day schedule. Companies can set their schedule to 2 events per day using the business option. By default, this thermostat is factory set to a 4 Schedule Events/Day. If the nonprogrammable option or other event schedule is desired, then this setting must be changed before programming the thermostat. NOTE: Full programmable operation may be resumed by performing steps 1 - 9 below and selecting a programmable option in the program schedule usage menu. Programmable and nonprogrammable options in this thermostat do not apply to iQ Zone systems with zone control enabled.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the  button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the  button.
5. Select OPTIONS using the ▲ or ▼ button.
6. Press the  button.  
**NOTE:** The OPTIONS menu will appear in the display with an event beneath EVENTS PER DAY already selected.
7. Press the  button.
8. Change the event using the ▲ or ▼ buttons.
9. Press the  button to save the setting.



#### Programmable Options

##### *4 Schedule Events/Day*

- WAKE: The temperature setting in the morning when everyone wakes up.
- LEAVE: The temperature setting for the time away from home and energy savings are wanted.
- RETURN: The temperature setting in the evening when everyone returns home.
- SLEEP: The temperature setting at night when everyone is asleep.

##### *2 Schedule Events/Day*


- DAY: The temperature setting during daylight hours.
- NIGHT: The temperature setting during night time hours.

##### *2 Events/D Business*

- ACTIVE: The temperature setting during business hours.
- IDLE: The temperature setting when business is closed.

#### Nonprogrammable Option

The nonprogrammable option disables the usage of all programming schedules, Smart Recovery, and temperature holds. It requires no programming and is as basic as operating an old manual style rotary thermostat.

To use this option, perform steps 1 - 9 below and select NONPROGRAMMABLE in step 8. To activate an air conditioner, furnace, or heat pump, place the thermostat in an operating mode as described on page 6. Adjust the temperature by simply pressing the ▲ or ▼ buttons anywhere on the Main Screen (or by accessing the TEMP menu on the Main Screen). When the desired temperature setting is displayed, press the  button to save the setting.

## Auto Changeover Time

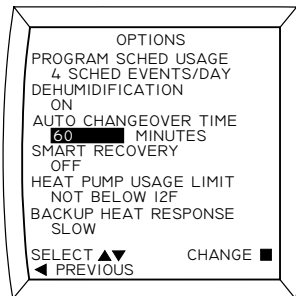
Auto Changeover Time sets the minimum time off before the thermostat can change from heat to cool or vice versa when in auto mode. This prevents the system from jumping back and forth between heating and cooling equipment. The time can be set between 15 - 120 minutes (in 15 minute increments) or DISABLE. Setting auto changeover time to DISABLE removes AUTO from the operating mode menu. To select an operating mode see page 6.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the □ button.
5. Select OPTIONS using the ▲ or ▼ button.
6. Press the □ button.
7. Select the option beneath AUTO CHANGEOVER TIME using the ▲ or ▼ button.

8. Press the □ button.
9. Change the Auto Changeover Time:

- ① The ▲ button adjusts the time 15 minutes forward and the ▼ button adjusts the time 15 minutes backward.

10. Press the □ button to save the setting.

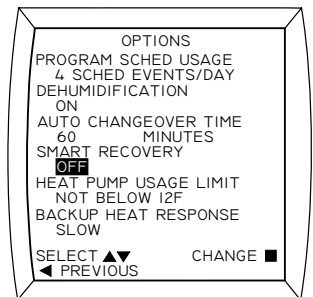


## Smart Recovery

The Smart Recovery option (disabled by default) can enhance comfort by modifying heating and cooling setpoints to ease the transition from one program schedule to the next. During the time prior to a program schedule change (which will call for higher heating setpoint or lower cooling setpoint), Smart Recovery gradually adjusts the setpoint in 1 degree increments to anticipate this change. Thus room temperature will be at or close to the setpoint for the next time block when that time block begins. Actual results depend on home system characteristics. This function is not available when the thermostat is in nonprogrammable mode. Smart Recovery does not apply to iQ Zone systems with zone control enabled.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the □ button.
5. Select OPTIONS using the ▲ or ▼ button.
6. Press the □ button.
7. Select the option beneath SMART RECOVERY using the ▲ or ▼ button.

8. Press the □ button.
9. Change the SMART RECOVERY setting:
  - ① The ▲ button changes the setting to ON and the ▼ button changes the setting to OFF.
10. Press the □ button to save the setting.

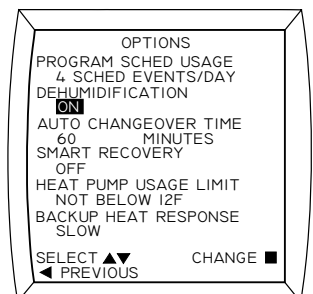


## Dehumidification

Dehumidification is the process of reducing the level of humidity in the air. The system can only provide dehumidification when an air conditioner or heat pump is connected to the heating/cooling system. The default setting is ON.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the □ button.
5. Select OPTIONS using the ▲ or ▼ button.
6. Press the □ button.
7. Select the option beneath DEHUMIDIFICATION using the ▲ or ▼ button.

8. Press the □ button.
9. Change the DEHUMIDIFICATION setting:
  - ① The ▲ button changes the setting to ON and the ▼ button changes the setting to OFF.
10. Press the □ button to save the setting.



## Minimum Heat Pump Usage Temperature

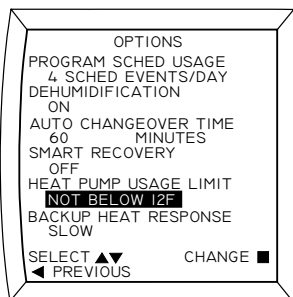
Under most circumstances, the iQ Drive system uses a heat pump (if available) as the primary source of heating because it is usually less expensive to run than the gas furnace or electric heat. The Heat Pump Usage Temperature limit can be adjusted so that the heat pump will not operate below this temperature and switches the system to the furnace or electric heater for heat. **The system will not allow the heat pump to operate below an outdoor temperature of 12° F (-11° C).** Some reasons for choosing to increase this temperature above the default limit of 12° (F) include:

- If the cost of electricity is high compared to gas in the area, it may be cheaper to run the furnace at higher temperatures. Consult the local dealer or utility for recommendations.
- Comfort levels created by the gas furnace during cold weather may be preferred.

### IMPORTANT:

Changing the Minimum Heat Pump Usage Temperature affects when and how much the furnace will be used instead of the heat pump for heating. This will change the total cost of heating your residence. In some areas, the total cost will decrease if the temperature is chosen correctly. However, this can only be determined by consulting with an iQ Drive trained, licensed dealer. **Please do not alter this setting without first obtaining proper information specific to your area.**

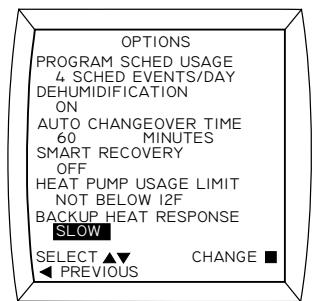
1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the □ button.
5. Select OPTIONS using the ▲ or ▼ button.
6. Press the □ button.
7. Select the option beneath HEAT PUMP USAGE LIMIT using the ▲ or ▼ button.
8. Press the □ button.
9. Change the HEAT PUMP USAGE LIMIT:
  - ① The ▲ button raises the temperature and the ▼ button lowers the temperature.
10. Press the □ button to save the setting.



## Backup Heat Response

The system will switch automatically from the heat pump to the furnace (when needed) to heat the room more quickly. If the system uses an iQ Drive modulating furnace with a conventional heat pump, there is some control over this response. If the "Fast" response is selected, the furnace will take over if the room temperature is 4° (F) lower than the setpoint after 10 minutes. "Slow" response will act after 20 minutes. **NOTE:** This option is only available when a one or two stage heat pump is installed with an iQ Drive furnace.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the □ button.
5. Select OPTIONS using the ▲ or ▼ button.
6. Press the □ button.
7. Select the option beneath BACKUP HEAT RESPONSE using the ▲ or ▼ button.
8. Press the □ button.
9. Change the BACKUP HEAT RESPONSE to fast or slow using the ▲ or ▼ buttons:
10. Press the □ button to save the setting.

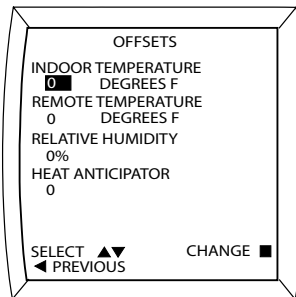


## Offsets

Many factors such as a room's air flow, direct sunlight on the thermostat, positioning of the thermostat near windows, doors, etc. can cause the temperature or relative humidity on the Main Screen to vary from the actual value. Offsets can be used to balance out these fluctuations so that the temperature on the Main Screen more closely reflects the temperature of the living space. Temperature offsets can be changed to  $\pm 5$  degrees. The relative humidity has a range of  $\pm 10\%$ . The default setting for all the offsets is 0.

- **INDOOR TEMPERATURE:** The temperature of the living space and is the largest number displayed on the Main Screen.
- **REMOTE TEMPERATURE:** This offset is not used with standard system equipment.
- **RELATIVE HUMIDITY:** The humidity level measured at the thermostat and shown on the Main Screen.
- **HEAT ANTICIPATOR:** The heat anticipator tells the furnace when to shut off as the room reaches the desired temperature. This also affects how much temperature swing will occur in the room. The heat anticipator function operates similar to the anticipator found in older thermostats and is only used with 1 or 2 stage conventional furnaces. This setting should only be changed after consulting with your dealer.

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the □ button.
5. Select OFFSETS using the ▲ or ▼ button.
6. Press the □ button.
7. Select an offset from the list using the ▲ or ▼ button.
8. Press the □ button. The option will blink in the display indicating the offset can be changed.
9. Change the offset:
  - ① The ▲ button raises the offset and the ▼ button lowers the offset.
10. Press the □ button to save the setting.
11. Repeat steps 7-10 for additional offsets.



## Humidity Control

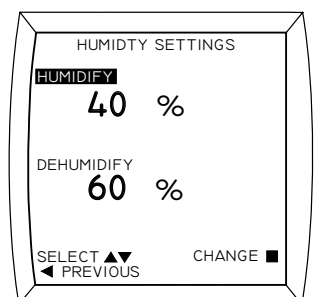
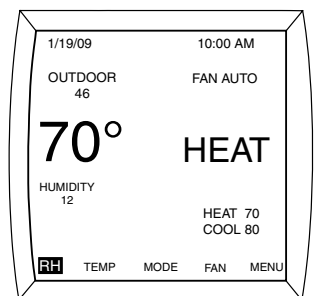
Relative Humidity (RH) is the ratio of water vapor in the air compared to the maximum amount of water vapor the air can hold at the same temperature. RH is typically expressed as a percentage and is closely related to personal comfort. When humidity is high we tend to feel hotter than the actual temperature and when humidity is low, the air is drier and we feel cooler.

While the iQ Drive compatible indoor furnace or air handler will always provide a humidifier control output, actual humidification equipment is optional and not provided with the heating units.

A limited capability for dehumidification control is provided with all iQ Drive air conditioning and heat pump systems and in iQ Drive modulating furnace systems coupled with any compatible air conditioner or heat pump. Dehumidification is not the primary function of an iQ Drive component. It may not be able to fully dehumidify under all conditions. Dehumidification may be enabled or disabled by changing the setting in the OPTIONS screen. See page 12.

### Humidify / Dehumidify

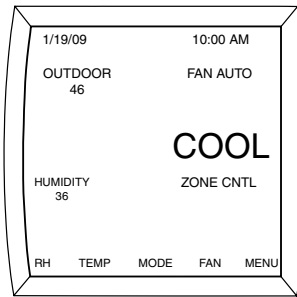
1. Select RH on the Main Screen using the ◀ or ▶ button.
2. Press the □ button.
3. Press the ▶ button to access the humidity settings.
4. Select HUMIDIFY or DEHUMIDIFY using the ▲ or ▼ button.
5. Press the □ button.
6. Change the HUMIDIFY/DEHUMIDIFY setpoint: (5% increments only)
  - ① The ▲ button raises the humidity and the ▼ button lowers the humidity.
7. Press the □ button to save the setting.
8. Press the ◀ button to exit the Humidity Settings screen.



## ZONE CONTROL OPERATION

iQ Zone is a special variation of the iQ Drive system which combines the features of an iQ Drive heating and cooling system with that of zoning. Zoning subdivides the home into two to eight separate rooms or groups of rooms (zones) which can be individually controlled for heating, ventilation, and air conditioning. An iQ Zone system is controlled through a combination of the iQ Drive thermostat/controller and local zone thermostats, whose operation is described in detail in the iQ Zone System Zone Thermostat User's Manual.





When zone control is in effect, the Main Screen of the iQ controller will appear slightly different from that shown on page 3, which is for non-zoning operation. No temperature will be displayed, and ZONE CNTL appears beneath the operating mode.

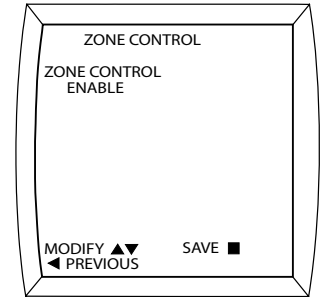


For zoning operation, the Operating Mode (COOL, HEAT, AUTO, E-HEAT, or OFF) must be selected from the iQ Drive thermostat/controller as with non-zoning systems. However, the temperature setpoints that will be used are entered and stored at the local zone thermostats. With iQ Zone systems, all settings made in the iQ thermostat/controller relevant to a temperature setpoint (temporary hold, vacation hold, permanent hold, time schedule, smart recovery) do not apply unless zone control is disabled. Similar features are provided and controlled at each zone independently from the local zone thermostats. For example, Manual Setpoint Control replaces Temporary Hold, Automatic Setpoint Control replaces time schedules, and Sleep Mode replaces Smart Recovery. See the iQ Zone System Zone Thermostat User's Manual for information on these alternative features. **NOTE:** iQ Zone systems with Version 1.0.0 zone thermostats use a single setpoint for both heating and cooling. iQ Zone systems with Version 2.0.x thermostats use separate setpoints for heating and cooling (as with the standard non-zoning control), with the cooling setpoint always being at least 2°F higher.

Zone Control is enabled by default if your system is equipped with and wired for iQ Zone. This is the normal operating situation. However, zone control operation can be disabled by choice or it may be automatically disabled if a problem is detected. When zone control is disabled, the thermostat operates as explained in this manual, and the Main Screen will revert to displaying the temperature value.

To manually disable zone control when zoning is already enabled:

1. Select MENU on the Main Screen using the ◀ or ▶ button.
2. Press the  button.
3. Select SETTINGS using the ▲ or ▼ button.
4. Press the  button.
5. Select ZONE CONTROL using the ▲ or ▼ button.
6. Press the  button.
7. Press the ▲ or ▼ button to change ENABLE to DISABLE.
8. Press the  button to save the setting.



**NOTE:** To restore zone control, follow steps 1-8 above, but in step 7 change DISABLE to ENABLE.

Current date and time must be set in the iQ thermostat/controller as described on page 4. Date and time will be transmitted to and continually updated in the local zone thermostats.

iQ Zone offers two types of ventilation that can be turned on when the cooling or heating systems are not running:

- If you wish to use the fan to deliver air to some but not all zones when not heating or cooling, use the zone ventilation feature that is set up at the individual zone thermostats. See the iQ Zone System Zone Thermostat User's Manual for information on how to set up zone-by-zone ventilation. From the FAN MENU, enter the VENTILATION SPEED screen in the iQ thermostat/controller to select or modify the relative speed to be used when this type of ventilation is operating.
- If you wish to use the fan to deliver air to all zones when not heating or cooling, set the Fan Mode to ON as described earlier in this guide. The Intermittent Fan feature described earlier will also operate, serving all zones.

Temperature units can be changed to Fahrenheit or Celsius, but should be converted by an installer trained and certified in iQ systems.

The Security Lockout feature described on page 8 will not prevent changing settings in local zone thermostats in an iQ Zone system. **NOTE:** When changes are made with iQ Zone, the system may appear to have a delayed response. Generally this is due to extra time needed for zones to open or shut in preparation for the change.

## MAIN SCREEN DIAGNOSTIC MESSAGES

The purpose of this section is to provide additional information regarding messages which may appear on the top line of the iQ controller's main screen.

The top line of the main screen will display date and time, day of the week, service alerts, and status messages. In addition, messages related to unusual conditions and system or component faults will be displayed while the condition persists. Please note that many of these conditions are temporary and do not necessarily require a service call.

Any time the screen backlight is red and "SERVICE NEEDED" appears, a service visit should be scheduled promptly. Otherwise, follow the general guidelines below.

- In systems which include an iQ modulating gas furnace, messages that include "FURN" or "FURNACE" usually indicate operation in which more than one attempt to start has been required, which may not be an unusual condition. If "FURNACE 1 HOUR LOCKOUT" or "FURNACE IGNITION FLT" is displayed, the furnace will not attempt to restart for one hour. In that case a service call may be required.
- In iQ heat pump systems, if an unusual condition is detected with the outdoor equipment, the indoor furnace or electric heat will operate as a backup. A service technician should be consulted when it is convenient.
- Any messages that include "COMM" indicate a communication interruption between devices. Request service only if such messages are frequent and persistent. (Allow at least 5 minutes for the indication to clear.)
- Messages which include the word "SENSOR" and which do not result in the red backlit screen being displayed require eventual but not immediate service attention.
- If in doubt, or if the equipment does not (re)start after 1 hour, consult your serviceperson and report the message displayed on the screen.





## IQ DRIVE THERMOSTAT SETTINGS

	MENU /OPTION	RANGE	UNITS	DEFAULT SETTING
<b>SCREEN SETTINGS</b>	Auto Daylight Savings	OFF or ON		ON
	Fahrenheit or Celsius	Fahrenheit or Celsius		Fahrenheit
	12 or 24 Hour Clock	12 or 24		12
	Contrast	1 to 15	Increments of 1	4
	Backlight On Time	30 to 120 seconds or Continuously ON	30 second increments	30
<b>THERMOSTAT OPERATION</b>	Holds (all)	OFF or ON		OFF
	Intermittent Fan On Time	Off or 5 to 20 minutes	5 minute increments	OFF
	Intermittent Fan Off Time	5 to 40 minutes	5 minute increments	40
	Security Lockout	Total keypad or Temp adjust only	Write PIN number here: _____	OFF
<b>PROGRAMMING THE THERMOSTAT</b>	<b>EVENTS</b>			
	TIME	24 Hours	10 minute increments	6:00 a.m. 8:00 a.m. 5:00 p.m. 10:00 p.m.
	HEAT	40° F to 90° F 4° C to 32° C	Increments of 1°	70° F (21° C) 62° F (16° C) 70° F (21° C) 62° F (16° C)
	COOL	40° F to 90° F 4° C to 32° C	Increments of 1°	78° F (25° C) 85° F (29° C) 78° F (25° C) 82° F (27° C)
	FAN	AUTO or ON		AUTO
<b>ADVANCED THERMOSTAT SETTINGS</b>	Program Schedule Usage	4 Schedule Events/Day 2 Schedule Events/Day 2 Events/D Business Nonprogrammable		4 Schedule Events/Day
	Auto Changeover Time	0 to 120 Minutes	15 minute increments	60 Minutes
	Smart Recovery	OFF or ON		OFF
	Dehumidification	OFF or ON		ON
	Minimum Heat Pump Usage	12° F to 74° F	Increments of 1°	12° F
	Backup Heat Response	Fast (10 Minutes) Slow (20 Minutes)		Slow
	<b>OFFSETS</b>			
	Indoor Temperature	to 5° F to + 5° F	Increments of 1° F	0
	Remote Temperature	Not Used		
	Relative Humidity	to 10% to + 10%	Increments of 1%	0
	Heat Anticipator (conventional furnaces only)	0 to 9	Increments of 1	0



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**709063B** (Replaces 709063A)