

ELITE PROGRAMMABLE THERMOSTAT WITH MENU DRIVEN DISPLAY



FEATURES:

- Customizable programming options for every
 No batteries required. Settings are stored 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.
- Provides system maintenance reminders.

- 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.



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ABOUT THE IQ DRIVE THERMOSTAT

- The iQ Drive Thermostat is a wall mounted, low voltage controller that accurately maintains room temperature by controlling conventional or iQ Drive compatible components within the heating and air conditioning system. Easy-to-use operating modes (HEAT, COOL, AUTO, or E HEAT) 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. See page 6 for operating mode setup instructions.
- 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 ▲ and ▼ buttons are used to 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.
- The *◄* and *▶* buttons are used to navigate right or left in a screen, or move to the previous or next screen within a screen sequence.
- The button is used to select an option category or value so that it can be changed 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 mode of operation (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 AIRFILTER, CHANGE UV LAMP,
 HVAC SERVICE AIR CLEANER, or SERVICE HUMIDIFIER, Status info such
 as: HOLD UNTIL, PERM HOLD, SMART RECOVERY ON, INTERMITTENT FAN
 ON, and LOCKED and in the case of an equipment issue, a one-line description
 of the issue (see page 2). In response to an extended or repeated problem, the
 screen will flash red indicating service is needed. IMPORTANT NOTE: If the Main
 Screen displays CONFIGURATION NEEDED or flashes red 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.



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

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 and 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 11. Set the DAY: SET DATE AND TIME Main Screen using the SET DATE AND TIME The 🛆 button adjusts • \triangleleft or \triangleright button. the day forward. SET DATE AND TIME 26 2. Press the button. The *▼* button adjusts AUTO DAYLIGHT SAVING the day backward. 3. Select SET DATE SET DAY AND TIME using the 12. Press the button to CHANGE SETTING SELECT OPTION \triangle or ∇ button. save the setting. PREVIOUS PREVIOUS 4. Press the button. 13. Set the HOUR: 5. Select SET DATE The *A* button adjusts the hour forward. AND TIME using the SET DATE AND TIME \land or ∇ button. The *▼* button adjusts SET DATE AND TIME 6. Press the button. the hour backward. 09 14. Press the button to 7. Set the YEAR: 05PM save the setting. • The A button adjusts SET YEAR SET HOUR the year forward. 15. Set the MINUTE: CHANGE SETTING The ▼ button adjusts PREVIOUS The 🛆 button adjusts CHANGE SETTING the minute forward. the year backward. The *▼* button adjusts 8. Press the button to • the minute backward. save the setting. SET DATE AND TIME **NOTE:** Holding the SET DATE AND TIME 9. Set the MONTH: ▲ or ▼ button down The A button adjusts • 30 for several seconds the month forward. 10 will adjust the value in • The ▼ button adjusts SET MINUTE SET MONTH larger increments. the month backward. CHANGE SETTING 16. Press the button to 10. Press the button to CHANGE SETTING AV PREVIOUS PREVIOUS save the setting. 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 \triangleleft or \triangleright button.
- 2. Press the Dutton.
- 3. Select SET DATE AND TIME using the \triangle or $\overline{\vee}$ button.
- 2. Press the Dutton.
- 4. Select AUTO DAYLIGHT SAVING using the \triangle or $\overline{\mathbb{V}}$ button.
- 5. Press the Dutton.

- 6. Select ON or OFF using the \triangle or $\overline{\nabla}$ 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.

- 2. Press the Dutton.
- Select SETTINGS using the ▲ or ▼ button.
- Press the button. The SETTINGS MENU will appear in the display with SCREENSETTINGS already selected.
- 5. Press the button. The SCREEN SETTINGS MENU will appear in the display with the temperature scale already selected.

SCREEN SETTINGS FAHRENHEIT OR CELSIUS FAHRENHEIT 12 OR 24 HOUR CLOCK 12 CONTRAST 4 INCR TO DARKEN BACKLIGHT ON TIME 30 SECONDS SELECT V CHANGE PREVIOUS

- 6. Press the ∎ button. 7. Change the
- temperature scale:
 The button changes the scale to Celsius.
- The ▼ button changes the scale 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.

- Select MENU on the Main Screen using the I or ▶ button.
- 2. Press the button.
- Select SETTINGS using the ▲ or ▼ button.
- 4. Press the 🖻 button.
- 6. Press the Dutton.
- Select the option beneath 12 or 24 HOUR CLOCK using the ▲ or ▼ button.
- 8. Press the 🖸 button.



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

Backlight ON Time

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.

- 2. Press the Dutton.
- Select SETTINGS using the ▲ or ▼ button.
- 4. Press the Dutton.
- 6. Press the Dutton.
- Select the option beneath CONTRAST using the ▲ or ▼ button.
- 8. Press the 🖻 button.



- 9. Change the contrast level:
 - The \triangle button darkens the contrast.
- The $\overline{\nabla}$ button lightens the contrast.
- 10. Press the 🖻 button to save the setting.

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).

- 2. Press the Dutton.
- Select SETTINGS using the ▲ or ▼ button.
- 4. Press the 🖻 button.
- 5. Select SCREEN SETTINGS using the ▲ or ♥ button.
- 6. Press the 🖸 button.
- Select the option beneath BACKLIGHT ON TIME using the ▲ or ▼ button.



- 8. Press the Dutton.
- 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.

Selecting an Operating Mode

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

- <u>OFF MODE:</u> This setting deactivates all equipment in the heating/cooling system. The furnace, air conditioner, or heat pump will not operate when in this mode. The fan, however, can be set to operate in off mode. See fan operation on pages 7 - 8.
- <u>AUTO MODE</u>: This setting lets the thermostat choose 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 (see page 12) before changing modes.
- <u>COOL MODE</u>: This mode activates cooling equipment such as a heat pump or air conditioner during warmer seasons.
- <u>HEAT MODE</u>: This mode activates heating equipment such as heat pump, electric heater, gas furnace or a heat pump/electric heat combination during cold seasons.
- <u>E-HEAT MODE:</u> For systems with heat pumps, this mode will heat only using separate gas or electric heat. This will disable heat pump operation.
- Select MODE on the Main Screen using the
 Image or ▶ button. NOTE: The MODE MENU can
 also be accessed through MENU on the Main
 Screen.
- 2. Press the Dutton.
- 3. Select AUTO, COOL, HEAT, E HEAT, or OFF using the ▲ or ▼ button.
- 4. Press the 🖻 button.

Controlling Temperature with 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 \triangle or ∇ button down for several seconds will adjust some of the values in larger increments.

Temporary Hold

A temporary hold changes 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 \triangle 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 \triangleleft or \triangleright button and then the \square button. Change the temperature setting using the \triangle or ∇ button. When the desired temperature is displayed on the screen, press the \square 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 \triangleleft or \triangleright button.
- 2. Press the 🖻 button.
- 3. Select HOLD using the \triangle or ∇ button.
- 4. Press the 🖻 button.
- 5. Select PERMANENT using the \triangle or $\overline{\nabla}$ button.
- 6. Press the 🖻 button.
- 7. Change the temperature setting:
- The \triangle button raises the temperature.
- The $\overline{\mathbb{V}}$ 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.

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



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



- 10. Press the 🖻 button to save the setting.
- 11. Change the time:
- The button adjusts the minutes forward.
- The V button adjusts the minutes backward.



10. 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 \triangle or ∇ button when the Main screen is displayed.

Canceling a Hold

- 2. Press the button. NOTE: This immediately removes CANCEL HOLD from the Main screen and reverts the setpoints to the programmed schedule.



Fan Operation

Listed below are available fan options when running the heating/cooling system. The default setting for this thermostat is AUTO.

- Select FAN on the Main Screen using the I or ▷ button. NOTE: The FAN MENU can also be accessed through MENU on the Main Screen.
- 2. Press the Dutton.
- Select AUTO, ON or PROGRAMMED FAN using the ▲ or ♥ button.

4. Press the button to save the setting.





This will run the fan continuously without operating any heating or cooling equipment, including in OFF mode. The fan speed is manually set to

different speeds by 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.



<u>Auto</u>

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

This option will run the fan for up to 20 minutes and then turn it 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.

- Main Screen using the \triangleleft or \triangleright button.
- 2. Press the button.
- 3. Select SETTINGS using the \triangle or ∇ buttons.
- 4. Press the button.
- 5. Select INTERMIT-TENT FAN using the \triangle 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.
- The \triangle button adjusts the time 5 minutes forward.
- The $\overline{\nabla}$ button adjusts the time 5 minutes backward.



- 1. Select MENU on the 9. Press the button to save the setting.
 - 10. Select FAN OFF TIME using the \triangle or ∇ button.
 - 11. Press the button.
 - 12. Change the FANOFF TIME between 5 - 40 minutes.
 - The \triangle button adjusts the time 5 minutes forward.
 - The *▼* button adjusts the time 5 minutes backward.



13. Press the button to save the setting.

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

Security Lockout

The 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.

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 \land or ∇ button.
- 4. Press the button.
- 5. Select the type of lockout using the \triangle or ∇ button.
- 6. Press the button.



7. Enter the first digit of the PIN number using the \triangle 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 NOTE: 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 \triangle 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. 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.

This thermostat also features a nonprogrammable option to manually control 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 \triangle or ∇ button down for several seconds will adjust some of the values in larger increments.

- Select MENU on the Main Screen using the ✓ or ▶ button.
- 2. Press the 🖻 button.
- Select PROGRAM using the ▲ or ▼ button.
- 4. Press the Dutton.
- Select an option from the list in the PROGRAM MENU using the ▲ or ▼ button.
- 6. Press the Dutton.
- See Page to change the time of an EVENT, the HEAT/COOL setpoints, or FAN setting.

| SET DATE AND TIME HOLD PROGRAM |
|--------------------------------------|
| PROGRAM |
| |
| FAN |
| MODE |
| SETTINGS |
| SECURITY LOCKOUT |
| |
| SELECT OPTION |
| <pre>PREVIOUS</pre> |
| |



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.

- 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.
- 4. Press the button. The thermostat will display a list of days to copy your program to.
- 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.
- 2. Press the Dutton.
- 3. Change the time of the event:
- The 🛦 button adjusts the minutes forward.
- The ▼ button adjusts the minutes backward.
- Press the button to save the setting or press the button to jump to another column.

| | | | 7 |
|----------------------|--------------|-------------|--------------|
| MONDAY | , | | |
| WAKE HEA 6:00A 70 | F COOL 78 | FAN AUTO | |
| LEAVE 8:00A 62 | 85 | AUTO | |
| RETURN 5:00P 70 | 78 | AUTO | |
| SLEEP 10:00P 62 | 82 | AUTO | |
| SELECT | CH | ANGE 📕 | |
| | | | \mathbf{i} |

4 Schedule Events/Day

| | MON _{DAY} 5:30A | | COOL 75 | FAN AUTO | |
|---|--------------------------------|----|------------|-------------|--|
| | NIGHT I0:00P | 68 | 72 | AUTO | |
| V | SELECT | | СНА | NGE 🔳 | |

2 Schedule Events/Day



2 Events/Day Business

Changing the HEAT Setpoint:

- 1. Select the temperature to be changed in the HEAT column using the $\bigtriangleup \nabla \triangleright$ buttons.
- 2. Press the 🖻 button.
- 3. Change the HEAT setpoint:
- The A button raises the temperature.
- The ▼ button lowers the temperature.
- Press the button to save the setting or press the button to jump to another column.

COOL

FAN AUTO

MONDAY

WAKE HEAT 6:00A 70

Changing the COOL Setpoint:

- Select the temperature to be changed in the COOL column using the ▲ ▼ ▶ buttons.
- 2. Press the 🖻 button.
- 3. Change the COOL setpoint:
- The 🛦 button raises the temperature.
- 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.
- 2. Press the 🖸 button.
- 3. Change the FAN setting:
- The ▲ button changes the fan to ON.
- The ▼ button changes the fan to AUTO.
- Press the button to save the setting or press the button to jump to another column.

| MONDAY | | (|
|-----------------------|------------|-------------|
| WAKE HEAT 6:00A 70 | COOL 78 | FAN AUTO |
| LEAVE 8:00A 62 | 85 | AUTO |
| RETURN 5:00P 70 | 78 | Αυτο |
| SLEEP 10:00P 62 | 82 | AUTO |
| SELECT | CHA | ANGE 🔳 |
| \/ | | (|

4 Schedule Events/Day

COOL 75

72

72

2 Events/Day Business

FAN AUTO

AUTO

FAN AUTO

ΔΠΤΟ

CHANGE

CHANGE

MONDAY

DAY HEAT 5:30A 65

68

2 Schedule Events/Day

NIGHT 10:00P

SELECT AVE

MONDAY

ACTIVE HEAT 5:30A 65

IDLE 10:00P 68

| | / |
|---------------------------------|----------|
| MONDAY WAKE HEAT 6:00A 70 | |
| LEAVE 8:00A 62 | 85 AUTO |
| RETURN 5:00P 70 | 78 AUTO |
| SLEEP 10:00P 62 | 82 AUTO |
| SELECT ▲▼► ◀ PREVIOUS | CHANGE 🔳 |

4 Schedule Events/Day



2 Schedule Events/Day

| MON ACTIVE 5:30A | | C00L 75 | FAN AUTO | |
|------------------------|----|------------|-------------|--|
| IDLE I0:00P | 68 | 72 | AUTO | |
| SELECT | | CHA | ANGE 🔳 | |

2 Events/Day Business

| | LEAVE 8:00A | 62 | 85 | AUTO | |
|----------|----------------------|------------------|------------|-------------|----------|
| | RETURN 5:00P | 70 | 78 | AUTO | |
| | SLEEP I0:00P | 62 | 82 | AUTO | |
| | SELECT A PREVIC | V US | СНА | NGE 🔳 | |
| И Л | Sched | | Evon | te/Da | <u> </u> |
| 4 | Scheu | ule | Even | 15/02 | ı y |
| r | | | | | 7 |
| | MOND DAY 5:30A | АҮ 1ЕАТ 65 | COOL 75 | FAN AUTO | |
| | NIGHT 10:00P | 68 | 72 | AUTO | |
| | SELECT ▲ ◀ PREVIO | | СНА | NGE 🔳 | |
| V | <u>/</u> | | _ | . / D | 7 |
| 2 | Sched | ule | Even | ts/Da | ły |
| $ [\]$ | \ | | | | 7 |
| | ACTIVE F 5:30A | | C00L 75 | FAN AUTO | |



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 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.

- Select MENU on the Main Screen using the I or ▶ button.
- 2. Press the Dutton.
- 3. Select SETTINGS using the \triangle or ∇ button.
- 4. Press the Dutton.
- Select OPTIONS using the ▲ or ▼ button.
- Press the button.
 NOTE: The OPTIONS menu will appear in the display with an event beneath EVENTS PER DAY already selected.
- OPTIONS PROGRAM SCHED USAGE <u>A SCHED EVENTS/DAY</u> DEHUMIDIFICATION ON AUTO CHANGEOVER TIME 60 MINUTES 0FF HEAT PUMP USAGE LIMIT NOT BELOW I2F BACKUP HEAT RESPONSE SLOW SELECT ↓ CHANGE ■
- 7. Press the Dutton.
- 8. Change the event using the \triangle or ∇ buttons.
- 9. 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 \triangleleft or \triangleright button.

OPTIONS

OFTIONS PROGRAM SCHED USAGE 4 SCHED EVENTS/DAY DEHUMIDIFICATION ON AUTO CHANGEOVER TIME 60 MINUTES SMART RECOVERY

OFF HEAT PUMP USAGE LIMIT NOT BELOW 12F

BACKUP HEAT RESPONSE SLOW

CHANGE

SELECT AV

- 2. Press the 🖻 button.
- 3. Select SETTINGS using the \triangle or ∇ button.
- 4. Press the Dutton.
- 5. Select OPTIONS using the \triangle or $\overline{\nabla}$ button.
- 6. Press the Dutton.
- Select the option beneath AUTO CHANGEOVER TIME using the▲ or ▼ button.
- 8. Press the 🖻 button.
- 9. Change the Auto Changeover Time:
- The ▲ button adjusts the time 15 minutes forward.
- The $\overline{\mathbb{V}}$ button adjusts the time 15 minutes backward.
- 10. Press the 🖻 button to save the setting.



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.

- 1. Select MENU on the Main Screen using the \triangleleft or \triangleright button.
- 2. Press the 🖻 button.
- 3. Select SETTINGS using the \triangle or ∇ button.
- 4. Press the button.
- Select OPTIONS using the ▲ or ▼ button.
- 6. Press the 🖸 button.
- Select the option beneath SMART RECOVERY using the ▲ or ▼ button.



- 8. Press the 🖻 button.
- 9. Change the SMART RECOVERY setting:
- The \triangle button changes the setting to ON.
- The $\overline{\nabla}$ 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.

- Select MENU on the Main Screen using the I or ▶ button.
- 2. Press the Dutton.
- 3. Select SETTINGS using the \triangle or $\overline{\nabla}$ button.
- 4. Press the Dutton.
- 5. Select OPTIONS using the \triangle or $\overline{\nabla}$ button.
- 6. Press the 🖻 button.
- 7. Select the option beneath DEHUMIDIFICATION using the \triangle or $\overline{\mathbb{V}}$ button.

- 8. Press the 🖻 button.
- 9. Change the DEHUMIDI-FICATION setting:
- The ▲ button changes the setting to ON.
- 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 \triangleleft or \triangleright button.
- 2. Press the 🖻 button.
- 3. Select SETTINGS using the \triangle or $\overline{\nabla}$ button.
- 4. Press the Dutton.
- 5. Select OPTIONS using the \triangle or $\overline{\nabla}$ button.
- 6. Press the 🖻 button.
- Select the option beneath HEAT PUMP USAGE LIMIT using the ▲ or ▼ button.
- OPTIONS PROGRAM SCHED USAGE 4 SCHED EVENTS/DAY DEHUMIDIFICATION ON AUTO CHANGEOVER TIME 6 0 MINUTES SMART RECOVERY OFF HEAT PUMP USAGE LIMIT NOT BELOW 12F BACKUP HEAT RESPONSE SLOW SELECT ▲ CHANGE
- 8. Press the Dutton.
- 9. Change the HEAT PUMP USAGE LIMIT:
- The \triangle button raises the temperature.
- The \triangledown 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 \triangleleft or \triangleright button.
- 2. Press the 🖻 button.
- 3. Select SETTINGS using the \triangle or $\overline{\nabla}$ button.
- 4. Press the 🖻 button.
- 5. Select OPTIONS using the \triangle or $\overline{\nabla}$ button.
- 6. Press the 🖻 button.
- Select the option beneath BACKUP HEAT RESPONSE using the ▲ or ▼ button.



- 8. Press the button.
- 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 ± 5 degrees. The relative humidity has a range of $\pm 10\%$. The default setting for all the offsets is 0.

- <u>INDOOR TEMPERATURE</u>: the temperature of the living space and is the largest number displayed on the Main Screen.
- <u>REMOTE TEMPERATURE</u>: this offset is not used with standard system equipment.
- <u>OUTDOOR TEMPERATURE</u>: the measured temperature at the outdoor unit (heat pump or air conditioner) and is displayed on the Main Screen.
- <u>RELATIVE HUMIDITY:</u> the humidity level measured at the thermostat and shown on the Main Screen.
- <u>HEAT ANTICIPATOR</u>: 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 \triangleleft or \triangleright button.
- 2. Press the 🖻 button.
- Select SETTINGS using the ▲ or ▼ button.
- 4. Press the 🖻 button.
- Select OFFSETS using the ▲ or ▼ button.
- 6. Press the button.
- 7. Select an offset from the list using the \triangle or $\overline{\mathbb{V}}$ button.
- 8. Press the button. The option will blink in the display indicating the offset can be changed.
- 9. Change the offset:
- The \triangle button raises 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 \triangleleft or \triangleright button.
- 2. Press the button.
- 3. Press the ▶ button to access the humidity settings.
- Select HUMIDIFY or DEHUMIDIFY using the ▲ or ▼ button.
- 5. Press the Dutton.
- Change the HUMIDIFY/ DEHUMIDIFY setpoint: (5% increments only)
- The ▲ button raises the humidity.
- The ▼ button lowers the humidity.
- 7. Press the button to save the setting.



| \cap | \ | | | Δ |
|---------------|-------------------------|-----|--------|--------|
| | HUMIDTY | SET | TINGS | |
| | HUMIDIEY 40 | % | | |
| | DEHUMIDIFY | % | | |
| | SELECT ▲▼ ◀ PREVIOUS | | CHANGE | |
| \mathcal{V} | / | | | \sim |

IQ DRIVE® THERMOSTAT SITE MAP



| | iQ DRIVE THERMOSTAT SETTINGS | | | |
|----------------------------------|--|--|------------------------|--|
| | MENU /OPTION | RANGE | UNITS | DEFAULT SETTING |
| | Auto Daylight Savings | OFF or ON | | ON |
| | Fahrenheit or Celsius | Fahrenheit or Celsius | | Fahrenheit |
| SCREEN SETTINGS | 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 |
| | Holds (all) | OFF or ON | | OFF |
| THERMOSTAT | Intermittent Fan On Time | Off or 5 to 20 minutes | 5 minute increments | OFF |
| OPERATION | 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 |
| | | EVENTS | · | |
| | TIME | 24 Hours | 10 minute increments | 6:00 a.m. 8:00 a.m. 5:00 p.m. 10:00 p.m. |
| PROGRAMMING THE THERMOSTAT | 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 |
| | 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 |
| ADVANCED | Minimum Heat Pump Usage | 12° F to 74° F | Increments of 1° | 12° F |
| THERMOSTAT | Backup Heat Response | Fast (10 Minutes) Slow (20 Minutes) | | Slow |
| | OFFSETS | | | |
| | Indoor Temperature | to 5° F to + 5° F | Increments of 1° F | 0 |
| | Remote Temperature | | Not Used | |
| | Outdoor Temperature | to 5° F to + 5° F | Increments of 1° F | 0 |
| | 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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