



Dallas, Texas, USA





iComfort Wi-Fi<sup>®</sup> Thermostat

#### THIS MANUAL MUST BE LEFT WITH THE HOMEOWNER FOR FUTURE REFERENCE

# NOTICE

Use this thermostat only as described in this manual.

# HOMEOWNER'S MANUAL

# iComfort Wi-Fi®Thermostat

Touch-Screen Programmable Communicating Thermostat

CONTROLS
507342-01
5/2017
Supersedes 507342-01



# General

Congratulations on choosing the iComfort Wi-Fi<sup>®</sup> touch-screen, programmable thermostat! The state-of-the-art technology built into this device makes it easy for you to adjust your home's comfort settings while at home or from a remote location (via Internet access)!

Help screens are just a touch away. Use this manual as an introduction to a whole new world of home comfort.



Do not switch system to cool if the outdoor temperature is below  $45^{\circ}$ F (7°C). This can damage the cooling system.

# WARNING

This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

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#### Precise Comfort<sup>™</sup> Technology

When the iComfort Wi-Fi<sup>®</sup> thermostat is used with a Lennox indoor or outdoor unit which includes a compatible communicating control, it becomes part of a **Precise Comfort**<sup>™</sup> system.

- Precise Comfort<sup>™</sup> Cooling (XC/XP25) This feature keeps the room temperature within 1/2 degree of the desired cooling setpoint. The airflow is adjusted in increments as small as 1% to provide ultimate temperature control.
- Precise Comfort<sup>™</sup> Heating (SLP98V) This feature keeps the room temperature within 1/2 degree of the desired heating setpoint. The airflow

is adjusted in increments as small as 1% to provide ultimate temperature control.

#### iComfort Wi-Fi<sup>®</sup> Thermostat

The communicating iComfort Wi-Fi<sup>®</sup> thermostat is an electronic 7-day programmable touch-screen thermostat with a color display. It also offers enhanced capabilities which include: humidification measurement and control, dew point adjustment control, dehumidification measurement and control, Humiditrol® Enhanced Dehumidification Accessory (EDA) compatibility, and equipment maintenance reminders. The thermostat's autochangeover mode permits control of heating, cooling, humidification, and dehumidification without user involvement.

The iComfort Wi-Fi<sup>®</sup> thermostat can connect to the internet using your home's Wi-Fi access point. After online registration has been completed, weather information is automatically sent to the thermostat. You also will have full access to the thermostat from any remote location using an internet connection via computer, smartphone, Android<sup>™</sup> device, iPhone<sup>®</sup> or iPad<sup>®</sup>.

The thermostat stores system parameters in nonvolatile memory to retain data and settings when electrical power fails or is turned off. The thermostat also includes on-board help screens.

Indoor Air Quality accessories are supported with time-based maintenance notifications which remind you when to check or replace media filters, UVC bulbs, humidifier pads and PureAir™ catalytic inserts.

#### **Thermostat Lock-Out**

A lock icon at the bottom center of the screen (shown in the picture), indicates the thermostat is either partially or fully locked.



When the thermostat is partially

locked, any user can adjust the temperature up or down to hold a setting for a selectable time period. To lock the thermostat, access "Screen lockout" through the FEATURES screen "display settings" described on Page 8.

When the thermostat is fully locked, no one can make any changes to the thermostat's settings. To unlock the thermostat, touch and hold the lock icon for 5 to 6 seconds.

# Start -Up

In event of power failure — The thermostat will reboot after power is restored. When the reboot is complete, the HOME screen will return.

#### WHAT THE HOME SCREEN TELLS YOU ...

After the thermostat and the system have been fully connected and powered on, the thermostat's Home screen is displayed. Figure 1 shows a display and describes what the thermostat is telling you.

When the system mode is set to heat or cool, the system is operating in *manual* mode; When a particular program has been selected, program name will be displayed on the system mode button (e.g., summer program is on).

#### OTHER INFORMATION...

The system will run until the indoor temperature is within the range specified by the selected cooling and heating setpoints (70 to 75 degrees in this example).

The "Wi-Fi" button in the bottom left corner provides access to the Wi-Fi setting screen. Wi-Fi with a **A** beneath it indicates a prior connection to the server has been lost. When the Wi-Fi connection is re-established, the triangle goes away.

Away Mode sets the thermostat for energy-saving system operation while you are gone for an extended period of time. In this mode, the system will only come on if the indoor temperature falls below 62 degrees (for heating), or if the indoor temperature rises above 85 degrees (for cooling).



If the installer has activated the indoor humidity feature, you will be able to set the desired humidity level in your home even if no physical humidifier or dehumidifier is present. See Page 17 for details on humidity control.

The Home Screen provides you with convenient access to adjust heating and cooling setpoints, as well as humidity levels in your home.





Figure 1. Home Screen (Typical)

# WHAT YOU CAN DO FROM THE HOME SCREEN...

User Preference Quick Reference Chart (Use tools shown on page 5 to make changes)							
User Setting	Feature Button	Default	Page Tools		Available Settings		
Set up a program	edit programs	save energy	See details Page 6		—		
Heating mode	system settings	COMFORT toggle		toggle	Normal, Comfort (heat pump only)		
Humidification settings	system settings	ON	8 toggle toggle		OFF, ON (only visible if humidifier is installed)		
Dehumidification settings	system settings	MODERATE			ClimatelQ = Dry, Moderate, Humid (communicating outdoor unit only) de-humidifier = Off, Medium, High (non-communicating outdoor unit only)		
Humidity display	system settings	OFF			OFF, ON		
Background theme		cobalt			cobalt, cotton, carbon		
Temp scale is	-	(F)	16 toggle		(F) Fahrenheit, (C) Celsius		
Screen saver	-	ON			ON, OFF		
Screen lockout	-	Unlocked			Unlocked, partially (locked), (fully) locked		
Language s	display settings	English			ENGLISH, FRANÇAIS, ESPAŇOL		
Outdoor temp display	-	OFF			Off, internet, sensor		
Backlight Intensity	-	80%		arrows	20 to 100% (in 20% increments)		
Press to CLEAN SCREEN		_		(view only)	Deactivates touchscreen for 30 seconds to allow cleaning. Use damp cloth to clean.		
Zoning is ON		ON	Not applicable		ON, OFF (only visible if zoning installed)		
Sensor screen ALWAYS ON	Zoning settings	ON			ALWAYS ON, POWER SAVE		
View alerts	alerts	_	See details Page 10		_		
Replace filter 1							
Replace filter 2							
Replace humidifier pad							
Replace UV bulb	reminders	Disabled	See de	tails Page 12	Disabled, 3 Months, 6 Months, 12 Months, 24 Months, Custom Time		
Maintenance reminder							
PureAir <sup>™</sup> maintenance required							
Dealer name							
Dealer address	-	(These may					
Dealer phone	-	show install-	See details Page 14		(keyboard)		
Dealer email	service	er input data;					
Dealer website		but owner					
Dealer number		may change)					
System desc							
Thermostat info	service	Display only			Model Number, Serial Number, Hardware Revision, Software Revision and Wi-Fi Revision.		



Figure 2. User Preference Change Tools

# User Features and Help (?) Screens

From the Home screen, touch the D button to access the Features screen. The Features screen (figure 3) allows you access to edit programs, system settings, display settings, zoning settings, alerts, reminders, service and help (?).





#### EDIT PROGRAMS (SCHEDULE)

Touch edit programs button (see fig. 3). Figure 4 shows the EDIT PROGRAMS screen.

Edit the "season programs" to reflect your preferences. (The **Save energy** program uses high-efficiency Energy Star settings to promote energy conservation.)

- select programs Select a preset program; or touch and hold any button to enable the keyboard to change program names to suit your preferences.
- select days Select week/weekend, individual days, all 7 days.
- time Use up/down arrows to change time in 15 minute increments.
- cool- and heat-to Use up/down arrows to change temperature in 1 degree increments.
- fan mode Select on, auto, or circulate.

In the example in Figure 4, the evening time has been disabled by touching and holding the time button for that time period un time is replaced with **add setting**. To re-enable, touch **add setting** that time period. Use the **restore** button to restore defaults for the preset programs. It no additional adjustment are made to any programs, touch "X" button to exit. If changes are made to any programs then touch the **save** button and then touch X to exit this screen and return to the FEATURES screen.



#### Figure 4. EDIT PROGRAMS Screen

#### TURN PROGRAMMING ON

If the programming is OFF, touch the system mode button (shown in figure 5, labeled **heat or cool**) to open the manual settings menu. **Programs** is the final selection in this menu. Select **programs** to display the program settings menu. (The menu will disappear if you don't make a selection within a few seconds). Select an option (e.g. **spring/fall**). The system mode button will display the selected program (e.g. **spring...program is ON**).

#### TURN PROGRAMMING OFF

If the programming is ON, touch the system mode button (e.g. **spring...program is ON**) to return to manual mode. The program settings menu includes an option for manual. Select **manual** to display the manual settings. Select one of the manual settings (e.g. **heat only**). After the selection is made, the system mode button will display the selected manual option (e.g. **heat only**).



Figure 5. Turning on the Program

# Adjust temperature when program is ON — Program HOLD

When the program is ON, the system mode button (shown in figure 6, labeled **spring...program is ON**) indicates which program is running. In this mode, touch a **set temp** button to trigger the appearance of an up/down arrow. Use the arrows to adjust the temperature setting for the "cool to" (or "heat to") value (see figure 6).

While changing the temperature setting, the **other options** menu appears (see figure 23). This menu provides options for the length of time that you may choose to hold a temperature setting.



# Figure 6. Adjusting Temperature with Program Running (cool-to and heat-to)

#### SYSTEM SETTINGS

For more information concerning humidification and dehumidification, go to page 19.

- Touch system settings button from the FEATURES screen. Figure 7 shows the SYSTEM SETTINGS screen with its defaults. Figure 8 shows how the devices can be configured.
- Touch set to heating mode button (XP25 only). (button may read: COMFORT or NORMAL). Select and change by touching heating mode icon: COMFORT or NORMAL.
- Touch buttons under appropriate humidification or dehumidification setting titles to select preferences.

Humidifier display is visible on the **SYSTEM SETTINGS** screen and can be changed to **OFF** from this screen. The resulting display shows the default values for **humidifier** and **ClimatelQ**. Use the arrows to change either.

When **humidity display** is **ON**, text near the screen bottom shows the current humidity. Touch the **"X"** button to return to **FEATURES** screen or touch the Home icon **1** to return to the Home screen.



Figure 7. SYSTEM SETTINGS Screen (Example Only) -Communicating Indoor Unit



Figure 8. SYSTEM SETTINGS Screen - Making Adjustments

#### DISPLAY SETTINGS

Touch **display settings** from the **FEATURES** screen (see figure 3). Figure 9 shows the **DISPLAY SETTINGS** screen and defaults.

- Touch Temp scale button to toggle between °F and °C options.
- Touch Background theme, screen saver, screen lockout, language, outdoor temp display buttons to select options from pop-up menus (figure 10).
- Touch **backlight intensity** button and use up/down arrows to change the intensity of backlighting in 20% increments.

Touch the **press to CLEAN SCREEN** button to enable a 30-second touchscreen lock to allow screen cleaning. Use a damp cloth to clean the screen.



Figure 9. Display Settings (defaults)



# Figure 10. Display Settings (Adjusting)

### ZONE SETTINGS

Touch **display settings** button (see figure 3). Figure 11 shows the *zone settings* screen and defaults.

- Touch the Zoning button to toggle this option ON or OFF.
- Touch the Sensor Screen button to toggle this option ALWAYS ON or POWER SAVE.





Figure 13 shows how an alert appears when it occurs after the system has been put into operation. Use information on this screen to contact your HVAC serviceman. Use the X to close the alert message and return to the previous screen.

A *red alert* (red icon) identifies a problem that could prevent the system from working properly or from working at all. If the system is allowed to run after a red alert has been issued, damage to the system may be caused. A red alert is your signal to call for service immediately.

alerts (1) of (1) 9:39 am May 23, 2012 Service Alert Code 290 indoor unit reports: Heat Problem service info: Lennox 1-800-9-LENNOX www.lennox.com X

#### Figure 12. Typical Red Alert

A service alert (yellow icon) tells you to perform routine service, or to call the dealer to service one or more of the following: Filters, Humidifier Pad, UV Light, PureAir<sup>™</sup> Air Purification system and Maintenance. These alerts will appear based on elapsed time set per the reminders. For information on clearing a service alert or setting the alert to remind you later, see reminders on page 12.



#### Figure 13. Typical Service Alert

### ACCESS ALERTS THROUGH THE FEATURES SCREEN

Touch the Home screen alert icon  $(\triangle)$  or the **alerts** button on the **FEATURES** screen (see figure 3). Any alerts will appear similar to those shown in figure 14. Touch the **select alert time period for viewing** button to view alerts that occurred in the last 24 hours, last 30 days, or last 12 months. Contact your HVAC serviceman to report the alerts and related problems.



Figure 14. Alerts Viewed from FEATURES Screen Option

Navigate to different screens (see figure 15). You can clear alerts and set new reminders after routine service. You may also select **remind later** to be reminded at a time that is more convenient for performing the service. If a red alert (red  $\triangle$ ) is present, contact the party identified under **service info**.



Figure 15. Alerts

#### SERVICE ALERT CODES

Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
3000	Filter 1	3002	Humidifier Pad	3004	Maintenance	4000	User Wi-Fi state change, disable	4002	Image file download failed
3001	Filter 2	3003	UV Light	3005	PureAir Maintenance	4001	Firmware download failed		

#### REMINDERS

Reminders alert you to perform routine maintenance, such as replacing filters. Access the reminders from the FEATURES screen reminders button.

# SETTING REMINDERS

NOTE - A previously set service time can be changed using the "custom time" option.

Use one of the "month" reminders to be reminded when routine service is due.

Use **custom** to access the time/date screen (figure 17) to set an exact date and time for a reminder to appear. Use the arrows to select a month; then, select the desired day of the month. Touch **save** when finished.



Figure 16. Set New Alert Date

Figure 17. Setting Custom Time

Service reminders can be cleared or the date can be revised by using the service alert's clear and remind later buttons on the right side of the screen.



Figure 18. Viewing, Clearing and Changing Reminder Time

#### SERVICE INFORMATION

Service information is normally completed by the installer at time of initial installation.

Should you wish to change this information, proceed to the consumer portal. Select My Account, then My Dealer tab and touch **change dealer** button.



Figure 19. Service Information

# HELP (?)

When you touch the help icon (?) at the bottom, right-hand corner of the screen, an array of (?) icons are displayed on the screen. When you touch one of these help (?) icons, a pop-up describes the function of the nearest active button(s). Figure 20 shows an example of the **HELP** screen and a pop-up.



Figure 20. Typical Help (?) Screen

### Adjusting Room Temperature, Away Mode, Clock and Weather

Adjust temperature when programming is OFF — When the programming is OFF, the system mode button (shown in figure 21, labeled heat or cool) indicates a manual mode (no mention of "program"). In this mode, touch one of the two set temp buttons to change the temperature setting. The up/down arrows appear, allowing you to adjust the "cool to" (or "heat to") values to the desired temperature setting.

This setting will remain until you decide to change it again. (The inset shows an alternate configuration of button layout in non-program mode.)



Figure 21. Adjusting Temperature with NO Program Running

Away Mode (Vacation) — The enter away mode button on the home screen (upper right-hand corner) sets the system for manual operation and allows you to set the thermostat for energy-saving operation while you are gone for an extended period of time. In this mode, the system will only come on if the indoor temperature falls below a set value in the heating mode (62° F default), or if the indoor temperature rises above a set value in the cooling mode (85° F default). You may adjust these settings as desired (see figure 22). To exit the away mode, touch cancel away mode.



# Figure 22. Adjusting Temperature with Program Running (Away Mode)



# Figure 23. Adjusting Temperature with Program Running (other options)

You may select one of the hour buttons (1, 2, 8, or 24) if desired. If you select **custom**, a time/date screen appears and you have the option of setting the hold for any length of time (see figure 24).

After a hold is set, the **other options** menu disappears and a message will state when the hold expires, along with a **cancel** option should you choose to revert to the original program.

If you do not choose one of the "other options" the setting will be held until the next period (default).



# Figure 24. Adjusting Temperature with Program Running (program hold)

#### **CLOCK SETTINGS**

- 1. Touch the **clock display** on the Home screen (see figure 1 on page 3). Figure 25 shows the **CLOCK SETTINGS** screen.
- 2. Use the horizontal arrows to scroll to the desired month and year. Touch a day of the month to select it.
- Touch time format and daylight saving to toggle these options (if desired).
- 4. Use the up/down arrows to change time.
- Touch am/pm to select morning or afternoon (am/pm does not appear if 24HR format is selected).



#### Figure 25. Set Current Time and Date

#### WEATHER

- 1. Touch the **weather icon** on the Home screen (see figure 1 on page 3) to view the **WEATHER** screen. Figure 26 shows a typical 5-day forecast screen.
- 2. Use "X" button to return to the Home screen.



Figure 26. Typical Weather Screen

# **Setting Zoning Controls**

When a zone control system has been installed and enabled by the installer, the homeowner has the option to control temperature or set away mode for each enabled zone. Touch the **zone location** button as shown below to display the **AVAILABLE ZONES** screen.



Figure 27 shows the AVAILABLE ZONES screen. This screen displays the current temperature, as well as the heating / cooling settings for each zone.

#### **RENAMING ZONES**

Touch the zone number of the zone you wish to rename. An on-screen keyboard will appear to allow you to rename a specific zone. Touch the **save** button when you are through.



#### Figure 27. Home Screen - Selecting Available Zones Screen ADJUSTING ZONE TEMPERATURES

Touch the current temperature reading of any zone that you wish to adjust. This will trigger the appearance of the temperature adjustment screen. Make desired adjustments for the particular zone as outlined beginning on page 14.



Figure 28. Selecting Available Zones



Figure 29. Adjusting Temperature

# SETTING AWAY MODE PER ZONE



Figure 30. Home Screen - Selecting Away Mode for Individual Zones

The Zone 1 thermostat becomes the system master thermostat. If the Zone 1 thermostat is set for Away Mode (on the Home Screen), the away mode is enabled for the whole system (all zones) until canceled.

If zones 2, 3, or 4 are set for Away Mode on the Home Screen, the Away Mode icon appears at the lower-right of each zone button on the AVAILABLE ZONES screen.

# ADJUSTING AWAY MODE TEMPERATURE OR CANCEL AWAY MODE PER ZONE

To adjust the Away Mode zone temperature setting or to cancel Away Mode for a specific zone, enter the Home Screen, select the desired zone and touch the **Cancel Away** icon located in the upper right-hand corner of the screen.



Figure 31. Adjusting Temperature or Canceling Away Mode with Program Running (Away Mode)

# HOW TO DISABLE ZONING

From the Home screen, select the right arrow to proceed to the **FEATURES** screen. Select **zone settings** and then select **zoning is ON**. This will toggle zoning to OFF. Once disabled, zoning information disappears from the status bar along the bottom of the home screen. When zoning has been disabled, the master thermostat controls the entire system in single comfort mode.

NOTE - When Zoning is disabled, the in-zone thermostats are also disabled; however, each of the zone thermostats continues to display the current temperature for that zone. The iComfort<sup>®</sup> logo is also displayed to indicate that zoning is off.

Setting Humidity Controls

# NOTICE

Humidifier and dehumidifier controls must be set up by the installer or these controls will not be visible. If your system has one or both of these features and the controls are not visible, contact your Lennox dealer for proper setup.

If the controls have been set up, they will appear and will be ON.

Heating Mode: When an XP25 heat pump is installed, the heating mode option is displayed. To adjust heating mode settings, touch the D button to go to the FEATURES screen; then touch the system settings button. Touch the heating mode icon to toggle between NORMAL and COMFORT. Default is NORMAL.

- Normal Standard system operation
- Comfort The system adjusts compressor operation to increase air temperature.

Humidification and Dehumidification Settings: To adjust humidification settings, touch the D button to go to the FEATURES screen; then select the system settings button. Some systems may have a humidifier and some may have a dehumidifier. Some systems will have both (as shown in figure 32). You can control either or both from this screen.

Humidification Settings: Touch the humidifier setting button you want to adjust. If it says humidifier is OFF, one touch will change it to ON and bring on the **set-to** button. When you touch the **set-to** button, the arrows appear, allowing you to change the humidity setting to the desired value.

**Dehumidification Controls (iComfort<sup>®</sup> Outdoor Unit)**: Touch the humidifier setting button you want to adjust. If it says ClimatelQ<sup>™</sup> setting DRY (off), one touch will display a selection for DRY, MODERATE and HUMID. Select MODERATE or HUMID to trigger the **set-to** button.

Which one you chose depends on the region of the country you live in. For example:

- if you live in a humid location like Miami, FL select Humid
- if you live in a moderate location like Denver, CO select Moderate
- if you live in a dry location like Phoenix, AZ select Dry.

Touch the **set-to** button to bring up the up/down arrows. Use these arrows to adjust the humidity level to the desired setting.

Three climate settings are available for  $iComfort^{\scriptsize (\! R \!\!)}$  equipment: dry, moderate and humid.

- **Dry** The system supplies higher indoor airflow at all compressor capacities. This will increase efficiency by operating at a higher sensible-to-total ratio.
- Moderate The system controls indoor airflow to ensure balanced efficiency and comfort.
- Humid The system lowers the indoor airflow at all compressor capacities. This setting improves humidity removal by operating at a lower sensible-to total-ratio.





Figure 32. Humidification Settings (iComfort® Outdoor Unit)

Dehumidification Controls (Non-Communicating Outdoor Unit): Touch the humidifier setting button you want to adjust. If it says de-humidifier OFF, one touch will display a selection for OFF, MEDIUM and HIGH. Select MEDIUM or HIGH to bring on the set-to button. When you touch the set-to button, the arrows appear, allowing you to change to the desired humidity setting.

Three climate settings are available for non-communicating equipment:

- OFF The system supplies higher indoor airflow at all compressor capacities. This will increase efficiency by operating at a higher sensible-to-total ratio.
- **MEDIUM** The system controls indoor airflow to ensure balanced efficiency and comfort.
- **HIGH** The system lowers the indoor airflow at all compressor capacities. This setting improves humidity removal by operating at a lower sensible-to total-ratio.

Remember that the humidification controls are only active while the system is in the heating mode. The dehumidification controls are only active while in the cooling mode.



Figure 33. Humidifier Controls (Non-Communicating Outdoor Unit)

# Connecting to a Home Wi-Fi Router

**Check the router utility program or contact service provider for help.** The Wi-Fi thermostat must be close enough to the Wi-Fi router to ensure a good communications signal between the thermostat and the router. (**Hint:** use a smart phone with Wi-Fi and Wi-Fi finder application to locate and determine signal strength.)

NOTE - The thermostat will not be able to reliably connect to the router if the received signal strength indicator (RSSI) shows a larger negative number than -70 i.e. -75, etc.

Secure Connection Recommended! Verify that the router is compatible with and set to operate in either 802.11b, 802.11g or 802.11n wireless network modes. Check router utility program or contact service provider for assistance.

Below are some possible conditions that will cause wireless interference with the thermostat resulting in poor signal reception.

- Portable phones and bases
- Baby monitors
- · Wireless speakers
- Bluetooth devices
- Garage door openers
- Neighbors' wireless devices.

To eliminate a possible source of interference, temporarily disable any devices and see if Wi-Fi performance has improved.

# ENABLING WI-FI

To enable the Wi-Fi feature to communicate with a wireless router



1. Press and release Wi-Fi in the lower left corner of the HOME screen

#### Figure 34. Press Wi-FI

2. Press the Wi-Fi disable button to enable Wi-Fi.



#### Figure 35. Enable Wi-FI

 The User Agreement screens will appear next. Press next as many times as necessary; then press accept after reading the User Agreement.

#### **ESTABLISHING A WI-FI CONNECTIONS**

There are two methods to setup your Wi-Fi connection. Select either NETWORK SETTINGS or connection status.

#### Method 1 — Network Settings Method

 Press NETWORK SETTINGS; this screen shows a graphical view of buttons representing OPEN and SECURE Wi-Fi networks and a button for adding a network.



#### Figure 36. Enable Wi-FI

- Open connection which which requires no password.
- Secure connection which requires Wi-Fi password (security key).
- Add a network is required when Wi-Fi identification (SSID) is being hidden (not broadcasting). You will need to know the Wi-Fi network name (SSID), security encryption type (if enabled), and security password (if security encryption is enabled).
- 2. When selecting a:
  - **unsecured** connection a screen will appear with two options, **connect** and **router info**. Press **connect** to continue.
  - secured connection a screen will appear requesting the Wi-Fi network password (security key). There are two options to select from which are connect and router info. Using the on-screen keyboard, enter the password (security key) and then press connect to continue.



#### Figure 37. Typical Connection Type and Signal Strength

NOTE - The **router info** button provides information concerning the home Wi-fi connection (i.e, RSSI, IP address, MAC address and wait state) all of which may be helpful in troubleshooting network connection issues).

 If connection is successful the screen will return to the available networks screens. Press X to return to the previous screen. If the connection was successful it will be listed connected as exampled below.



#### Figure 38. Network Connected

# ESTABLISHING A WI-FI CONNECTIONS TO A HIDDEN NETWORK

- 1. When connecting to a hidden network, press the **add new network** icon to continue.
- 2. Enter the **network name (SSID)** using the onscreen keyboard and press the **save** button.
- By default security is set to none. To enable the security option, press the security is none icon and select the security used for the Wi-Fi network (WEP, WPA or WPA2).
- 4. Press the connect icon to continue.
- Using the on-screen keyboard, enter the password (security key). If the network name or security key combination is incorrect or incorrectly type, and access to the specified network failed, a message will alert you to retry.



#### Figure 39. Network Manual Setup (Hidden Network)

 If connection is successful the screen will return to the available networks screens. The network successfully connected will be listed and shown as connected as exampled in figure 38.

#### Method 2 — Connection Status Method

1. Press connection status; this screen shows a graphical view of the current connection status.



- 2. Select the router icon to choose the desire W-Fi network. When selecting a:
  - **unsecured** connection a screen will appear with two options, **connect** and **router info**. Press **connect** to continue.
  - secured connection a screen will appear requesting the Wi-Fi
    network password (security key). There are two options to select
    from which are connect and router info. Using the on-screen
    keyboard, enter the password (security key) and then press
    connect to continue.
- If connection is successful the screen will return to the available networks screens. Press AP3 as exampled in figure 40 to return to the previous screen. If the connection was successful it will be listed connected as exampled below.



#### Figure 40. Network Connected

 Select X to return to the WI-FI SETTINGS screen. Select connection status again to verify that connection to the *router* and *Internet* is active. Both the *router* and *Internet* icons will have green backgrounds if connections are successful.



# **Troubleshooting Wi-Fi Connection**

The following terminology is used in this troubleshooting section:

- Router Signal Strength (RSSI). RSSI is an indication of the signal strength of the Wi-Fi router being received by the scanning device (i.e., smart phone). Therefore, the higher the RSSI number (or less negative in some devices), the stronger the signal.
- **802.11b, g and n** are wireless networking specification that extends throughput up to 130mbps using the 2.4 GHz band.
- Internet Protocol Address (IP address). This is a numerical label assigned to each device (e.g., computer, printer, thermostat) participating in a computer network that uses the Internet Protocol for communication. An IP address serves two principal functions: host or network interface identification and location addressing.

#### Electromagnetic Interference Causing Poor Connectivity

Locate both the thermostat and router away from other devices that could possibility interfere with wireless communications. Some examples of other devices that could interfere are:

- Microwave ovens
- Wireless Cameras
- Portable phones and bases
- · Baby monitors
- Wireless speakers
- Bluetooth devices
- Garage door openers
- Neighbor's wireless devices.

To eliminate a possible source of interference, temporally disable any devices and see if Wi-FI performance has improved.

#### **Router Signal Strength (RSSI)**

The ideal signal strength range for the iComfort Wi-Fi^® thermostat is -1 to -69 RSSI. The signal strength can be viewed from the thermostat interface. Use steps 1

1. Press NETWORK SETTINGS; this screen shows a graphical view of buttons representing Wi-Fi options OPEN and SECURE wireless networks and a button for adding a network.

2. Select the access point that has already been establish and connected too. There are two options to select from which are connect and Router info. Select Router Info and verify the RSSI strength. If the signal is anywhere between -1 to -69, then the signal strength is sufficient. If outside this range, the either locate the router closer to the thermostat or add a signal repeater.

Remember that walls, appliances, equipment and other various barriers will reduce signal strength.

#### **Router Signal Strength (RSSI)**

The signal strength can be viewed from the thermostat interface. Use the following procedure to discover the Wi-FI router signal strength at the installation location of the thermostat.

1. Touch NETWORK SETTINGS to display your Wi-Fi connection.



#### Figure 41. Network Settings

2. Select an access point that has already been established and connected. There are two options to select from: connect and Router info. Select Router info and verify the RSSI strength. If the signal is between -1 and -69, then the signal strength is sufficient. If the signal strength is outside of this range, install the router closer to the thermostat or add a repeater.

#### Rebooting the Thermostat to To Establish Connection to the Server

If, after successfully connecting the thermostat to your wireless router, the following message appears on the screen:

# Connection to server has not been established or it has been lost. Please wait until the connection is established,

wait five minutes. Perform the following procedure, if the server connection is still not established.

- 1. From the home screen, touch the **Lennox** logo (bottom right-hand corner of screen) and **hold** for 5 seconds.
- 2. A message screen stating *qualified Lennox equipment installers only* warning screen appears (figure 42).



#### Figure 42. Qualified Lennox Equipment Installer Warning

- Touch the reset button. The thermostat will reboot itself. The screen will go blank for two or three seconds. Then, the home screen will appear.
- 4. From the Home screen, touch and release Wi-Fi in the lower left corner of the HOME screen.
- 5. If the message Connection to server has not been established or it has been lost, it may take 10 to 15 more seconds to make connection to server. If connection is established continue to the next section. If connection fails, then contact Lennox Customer Care Department at 1-800-9-LENNOX (1-800-953-6669) for further assistance.

# **Registering the Thermostat**

#### **REGISTRATION FOR ONLINE ACCESS**

1. From the WI-FI SETTINGS screen, press either the **thermostat not** registered icon or the **connection status** icon and select the **server** icon.



2. Enter homeowner email address and press the register button.

Register with iComfort Wi-Fi thermostat to enable remote access and online weather information	
enter your email	
System Desc	
register	

3. A pop-up screen will appear asking if the email address below is correct? Verify the email address is correct and press **yes**.

4. Another pop-up screen will appear notifying the user to check their email.

An email has been sent to xxxxxxxx@lennoxind.com with instructions on how to register your thermostat. If you haven't received the email, please check your spam folder and make sure that your email address is correct.

NOTE - If the email address originally entered is incorrect, return to the **thermostat registered** screen and reenter the correct information and press register.

After the server sends the email with the network link, registration and account creation must be completed from the homeowners personal computer.

NOTE - Time from pushing the registration button on the thermostat and receiving the consumer portal register link from your email on your computer is normally from 5 to 15 minutes depending on Internet speed and traffic.

NOTE - Registration cannot be completed from any mobile device.

6. After registration has been completed, press the connection status icon to verify the connection was successful. If the connection is successful the server icon background will be green.



7. After successful connection to the server is completed, the *firmware update* button will appear. The default setting is set to auto. If any firmware updates are available they will immediately start downloading and update the thermostat. The thermostat will reboot itself after the update is completed. Updates are done in the background and will not impair normal thermostat operations.

This auto update feature can be disabled by pressing the firmware update button to toggle to OFF however this is not recommended.

NOTE - Firmware updates will not affect installer or user thermostat settings. Both will be retained after the update.



If any downloads are available for the thermostat they will start downloading right away. After the new firmware has been downloaded and the thermostat is ready to update itself, the thermostat screen will temporarily go blank and running units may cease operation while the system is being reset to accommodate the new changes. This is normal and can last a couple minutes.

#### Figure 43. Registration for Online Access

# Using the Secure Web Portal

Access all the great Wi-Fi enabled features on your  $iComfort^{\textcircled{s}}$  thermostat from our secure web portal.

#### www.myicomfort.com

After signing in, you'll be able to view your iComfort system settings, adjust the temperature and view reminders and alerts – just as you would on your iComfort thermostat at home. With a familiar look and settings this simple, you should feel right at home. Don't forget to check out the available Apps and skins.

From the web portal welcome page, you may also click on links to launch an interactive demo or learn more about iComfort.

#### Skins

By adding a skin and matching skin image screen-saver to your iComfort Wi-Fi, you can coordinate it with the decor in any room. Skins are available in many colors, patterns and designs.

Skins can be ordered from nuvango.com

#### Go to Shop > All Products and scroll down to EVERYTHING ELSE and select LENNOX ICOMFORT

After ordering the skin, the company will email the image file (.jpg) to you. The frame skin will be mailed to you as well. The skin image can be uploaded to the iComfort Wi-Fi thermostat from the consumer portal site (www.myicomfort.com) under the tab "skins".

#### **Screen-Saver**

You can also customize the screen-saver by uploading your own photo onwww.myicomfort.com under the tab "skins". Image must be 800x480 DPI in JPG format.

#### HOW DO I TURN ON SCREEN-SAVER

- 1. From the thermostat **Home** screen, press **D**.
- 2. Press the display setting button.
- 3. Press the screen saver button.
- From the pop-up menu, select either on for the default screen-saver or skins for your custom uploaded image. The skin picture will appear after 30 seconds of inactivity.
  - When set to off, the screen stays on.
  - When set to on, after 30 seconds of inactivity the screen will go blank
  - When set to skins and no skin or custom image has been uploaded, the screen will display LENNOX after 30 seconds of inactivity. If a skin or custom image has been uploaded, after 30 seconds of inactivity, the image will be displayed.