

Aprilaire®

Model 8476W Thermostat with Wi-Fi and Event-Based™ Air Cleaning



Owner's Manual

Includes
Operating Instructions and
Warranty Information

READ AND SAVE THESE INSTRUCTIONS

TABLE OF CONTENTS

ABOUT YOUR NEW THERMOSTAT

Thermostat features	3
Controls & display overview	4

WI-FI SETUP & REMOTE ACCESS

Wi-Fi setup & remote access	5
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OPERATION & PROGRAMMING

Select system mode (OFF/HEAT/EM-HEAT/COOL/AUTO).	6
Change temperature setting	6
Select Event-Based™ air cleaning setting	7
Reset service reminder messages.	7
Set time and day	8
Understanding program schedules	8-9
Progressive recovery	9
Changing program schedules	10
Program schedule overrides (temporary, permanent)	11-12

WI-FI MAINTENANCE AND TROUBLESHOOTING

Accessing Wi-Fi settings menu.	13-14
Clearing Router Settings	14
Removing the thermostat from a my.aprilaire.com account.	15
Disabling the Wi-Fi radio.	15
Troubleshooting Wi-Fi connection.	16

WARRANTY

Limited warranty and registration.	17
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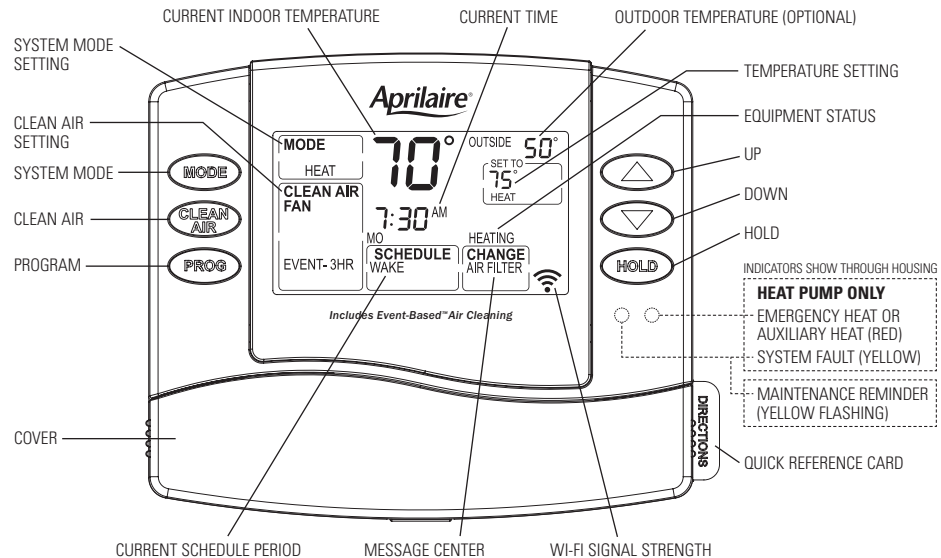
ABOUT YOUR NEW THERMOSTAT

THERMOSTAT FEATURES

- Remote access and control over Wi-Fi.
- Event-Based™ Air Cleaning.
- Large, clear, backlit display is easy to read – even in the dark.
- Displays room temperature, temperature setting, and optional outdoor temperature.
- Built in compressor protection.
- Air filter and humidifier service indicators.
- Auto backlight (activated with first button press).
- 7 day programmability.
- Easy to use temperature control can override program schedule at any time.
- Progressive recovery.

ABOUT YOUR NEW THERMOSTAT

CONTROLS & DISPLAY OVERVIEW



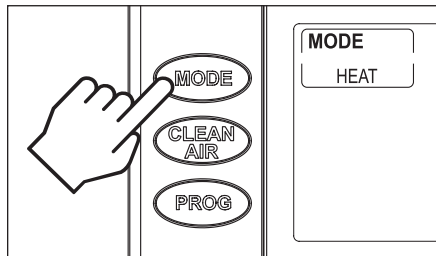
NOTE: BACKLIGHT IS ACTIVATED WITH FIRST BUTTON PRESS AND AUTOMATICALLY TURNS OFF.

WI-FI SETUP & REMOTE ACCESS

For detailed instructions for connecting the thermostat to a Wi-Fi network and registering it to an Aprilaire account, refer to the Wi-Fi Quick Start Guide included in the box. Visit my.aprilaire.com for instructions about using the Aprilaire web and mobile apps.

OPERATION & PROGRAMMING

SELECT SYSTEM MODE (OFF/HEAT/EM-HEAT/COOL/AUTO)



Press **MODE** to select:

AUTO: Thermostat automatically selects heating or cooling depending on the indoor temperature.

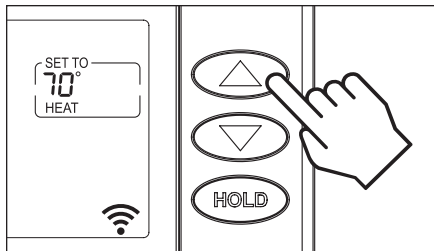
OFF: Heating and cooling systems are off.

HEAT: Thermostat controls only the heating system.

COOL: Thermostat controls only the cooling system.

EM-HEAT: Thermostat controls emergency/auxiliary heat. Heat pump will not operate. (Only for heat pumps with auxiliary heat.)

CHANGE TEMPERATURE SETTING

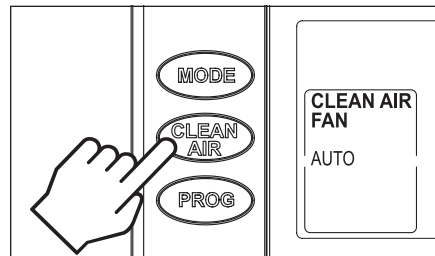


Press **▲** or **▼** to adjust the current setting.

In AUTO use **MODE** to switch between the HEAT and COOL setting.

OPERATION & PROGRAMMING

SELECT EVENT-BASED™ AIR CLEANING SETTING



Press **CLEAN AIR** to select:

ON-24/7: This option will provide the maximum amount of air cleaning available. The air cleaner will be active for 24 hours a day seven days a week.

AUTO: Air cleaning will not occur for the sole purpose of air cleaning, but will occur during fan operation for heating and cooling.

CIRC-30/HR: The air cleaner will run a minimum of 30 minutes every hour. The air cleaner will monitor the amount of time your heating and cooling system runs; if 30 minutes is not reached the air cleaner will automatically turn on. This will maximize the amount of air cleaning while minimizing energy consumption.

EVENT-3HR: When selected, the air cleaner will run continuously and then return to the most recent mode of AUTO, CIRC-30/HR, or ON-24/7. Use this option when the air needs cleaning; an example would be after vacuuming.

ALLERGY-24HR: When seasonal allergies spike and outside air quality is at its worst, choose this option. Your air cleaner will run continuously for 24 hours and then return to the most recent mode of AUTO, CIRC-30/HR, or ON-24/7.

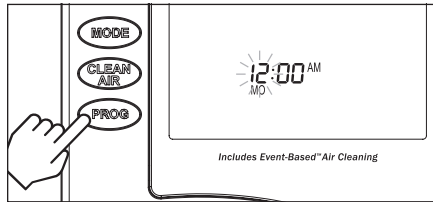
RESET SERVICE REMINDER MESSAGES

Press and hold **▲** and **▼** together for three seconds to reset a service reminder message.

OPERATION & PROGRAMMING

SET TIME AND DAY

1. Press **PROG** to enter time setting mode. The hour is flashing.



2. Press **▲** or **▼** to adjust the hour.
3. Press **MODE**, the minutes flash. Press **▲** or **▼** to adjust the minutes.
4. Press **MODE**, the day flashes. Press **▲** or **▼** to adjust day.
5. Press **MODE** to end. "DONE" will display.

The thermostat will return to normal mode if no key is pressed within 3 seconds.

Note: Once the thermostat connects to the cloud, the time and date will be updated periodically. The thermostat will automatically update for daylight savings.

UNDERSTANDING PROGRAM SCHEDULES

The daily schedule is split into four sections:

WAKE: 6am-8am – Temperature you would prefer to wake up to, until you leave for the day.

LEAVE: 8am-5pm – Temperature when you are away from the house during the day.

RETURN: 5pm-10pm – Temperature you would prefer to return to, until bedtime.

SLEEP: 10pm-6am – Temperature you would prefer during the night.

The times shown are the defaults. The start time and temperature of each section can be changed to fit your schedule (see page 10).

OPERATION & PROGRAMMING

UNDERSTANDING PROGRAM SCHEDULES (CONTINUED)

Event	Event designator	Start time	Set temps	
			Heat	Cool
1	WAKE	6:00AM	70°F (21°C)	78°F (25.5°C)
2	LEAVE	8:00AM	62°F (16.5°C)	85°F (29.5°C)
3	RETURN	5:00PM	70°F (21°C)	78°F (25.5°C)
4	SLEEP	10:00PM	62°F (16.5°C)	82°F (27.5°C)

PROGRESSIVE RECOVERY

The Progressive Recovery feature allows the thermostat to activate the heating and cooling equipment prior to an event in order to reach the desired temperature at the start of the next scheduled event.

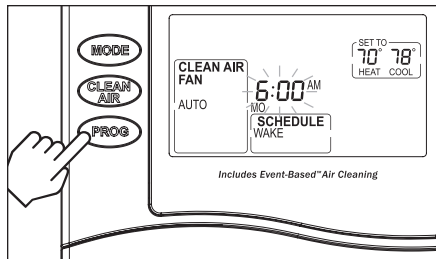
Example:

Set the Wake time to 6 am, and the temperature to 70°F. The heat will come on before 6 am, so the temperature is 70°F by the time you wake at 6 am.

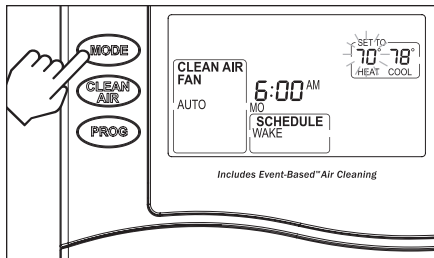
OPERATION & PROGRAMMING

CHANGING PROGRAM SCHEDULES

1. Press **PROG** twice to enter program setting mode. Start time of the WAKE event is flashing.



2. Press **▲** or **▼** to adjust the start time
3. Press **MODE**, HEAT setting flashes. Press **▲** or **▼** to adjust the heat setting.



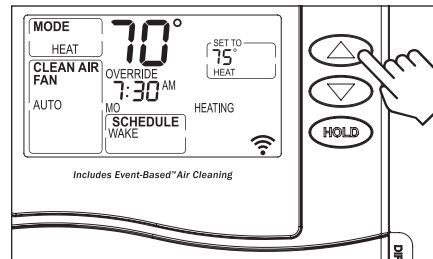
4. Press **MODE**, COOL setting flashes. Press **▲** or **▼** to adjust the cool setting.
5. Press **MODE**, CLEAN AIR/FAN setting flashes. Press **▲** or **▼** to adjust the clean air/fan setting.
6. Press **MODE** to advance the next event, and repeat steps 2-6 for LEAVE, RETURN and SLEEP events.
7. Press **MODE** to advance to the next day. Repeat steps 2-6 for each day of the week.
8. Press **MODE** to end. "DONE" will display.

The thermostat will return to normal mode if no button is pressed in 3 seconds.

OPERATION & PROGRAMMING

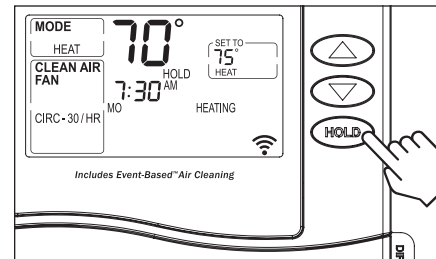
PROGRAM SCHEDULE OVERRIDES (TEMPORARY, PERMANENT, AWAY, HEAT BLAST)

Temporary program override



Press **▲** or **▼** to immediately adjust the temperature. This will temporarily override the temperature setting for the current programmed time period. The new temperature setting will be maintained until the next time period of the programmed schedule. To cancel the temporary override, press **HOLD** twice.

Permanent hold



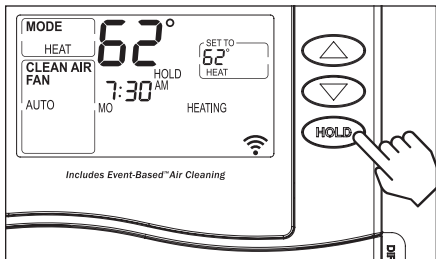
Press **HOLD** to permanently hold the temperature at its current setting. This will override the temperature settings for all time periods of the programmed schedule. With the thermostat in permanent hold, the thermostat temperature can be manually adjusted and will stay at that setting until the hold is cancelled.

To cancel the permanent hold press **HOLD**.

OPERATION & PROGRAMMING

PROGRAM SCHEDULE OVERRIDES (TEMPORARY, PERMANENT, AWAY, HEAT BLAST)

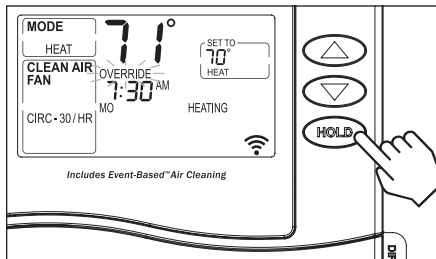
Away



The Away feature, if enabled, allows the thermostat to be set to a predefined setpoint(s) by simply pressing the Away button in your App. By default the cooling setpoint is 85°F (29.5°C), the default heating setpoint is 62°F (16.5°C) and the default clean air/fan mode is Auto. The default settings can be modified in the App.

To cancel Away at the thermostat **press** **HOLD**.

Heat Blast®



The Heat Blast® feature will raise the current room temperature by 3°F to 5°F based on the installer set-up, and then resume normal operation. To activate a Heat Blast, press the Heat Blast button in the App.

Note: Heat Blast can only be activated in the App, and is only available in the App if it is enabled in the Installer Setup and the thermostat is in Heat or Emergency Heat mode.

To cancel Heat Blast at the thermostat **press** **HOLD**, or the **▲** or **▼** buttons.

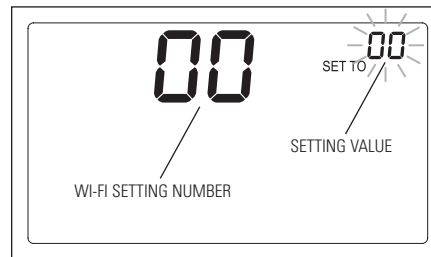
WI-FI MAINTENANCE AND TROUBLESHOOTING

ACCESSING WI-FI SETTINGS MENU

The following instructions show how to enter the Wi-Fi Setting menu and change settings. The table below lists the settings and their detail. Default settings are shown in bold.

How to enter the Wi-Fi settings menu to change settings.

Press and hold **CLEAN AIR** and **▼** for three seconds. The screen will display the first setting.



Press **▲** or **▼** to change the setting.

Press **MODE** to change to the next option.

Press **MODE** after the last setting. "DONE" will be displayed.

The thermostat will return to Normal mode if no button is pressed in 60 seconds.

WI-FI MAINTENANCE AND TROUBLESHOOTING

ACCESSING WI-FI SETTINGS MENU

Wi-Fi setting	Description	Factory default setting (bold) and setting range
47. WiFi Disconnect and Clear Settings	Disconnects the Thermostat from the router and clears the Wi-Fi settings. Use this to set the thermostat back to provisioning mode so it can be connected to a new Wi-Fi router.	0: No 1: Yes
48. Turn WiFi Radio On/Off	Use to turn the Wi-Fi radio on or off. Wi-Fi settings will be maintained if the radio is set to Off.	0: Off 1: On
49. Unregister the Thermostat	Unregisters the thermostat from an Aprilaire account. Use this when the thermostat needs to be registered to a new Aprilaire account. For instance, if you have purchased a home with the thermostat already installed, this setting would allow you to clear the previous registration so that you can register the thermostat to your account.	0: No 1: Yes

CLEARING ROUTER SETTINGS

If you purchase a new Wi-Fi router or change the security settings on your existing router the router settings in the thermostat need to be cleared so the new Wi-Fi router settings can be entered. To do this, enter the Wi-Fi settings menu as described in the Accessing Wi-Fi Settings Menu section. Change the setting for WiFi Disconnect and Clear Settings to Yes then press **MODE** three times, "DONE" will be displayed. This will remove all of the previous Wi-Fi settings. Refer to the **Wi-Fi Quick Start Guide** for instructions on connecting to the thermostat to your Wi-Fi network.

WI-FI MAINTENANCE AND TROUBLESHOOTING

REMOVING THE THERMOSTAT FROM A my.aprilaire.com ACCOUNT

The thermostat can only be registered to one **my.aprilaire.com** account. If you need to remove the thermostat from an existing account so it can be registered to a new account, it can be done at the thermostat. This may need to be done for instance if you have purchased a home with the thermostat and need to remove the thermostat from the previous owner's account and register it to your account. To do this, enter the Wi-Fi settings menu as described in the Accessing Wi-Fi Settings Menu section on page 14. Change the setting for Unregister the Thermostat to Yes and then press **MODE** twice, "DONE" will be displayed. This will remove the thermostat from any account that it is currently registered to. Refer to the **Wi-Fi Quick Start Guide** for instructions on registering the thermostat to a new **my.aprilaire.com** account.






DISABLING THE WI-FI RADIO

To turn off the Wi-Fi radio on the thermostat, enter the Wi-Fi settings menu as described in the Accessing Wi-Fi Settings Menu section. Change the setting for Turn WiFi Radio On/Off to Off and then press **MODE**, "DONE" will be displayed. This will turn off the Wi-Fi radio, but maintain all network settings. To turn the Wi-Fi radio back on simply enter the Wi-Fi setting menu and change the setting for Turn WiFi Radio On/Off to On and then press **MODE**, "DONE" will be displayed.

WI-FI MAINTENANCE AND TROUBLESHOOTING

TROUBLESHOOTING WI-FI CONNECTION

The Wi-Fi connection status is communicated through the use of the radio strength indicator. The following table describes the various statuses and the corresponding radio bar display.

Wi-Fi connection status	Radio status indicator
Normal Operation.	Wi-Fi signal strength is indicated by the appropriate number of bars. 
The thermostat Wi-Fi settings have not been entered. Refer to the Wi-Fi Quick Start Guide for instructions for entering the Wi-Fi settings.	The frame is displayed and the bars cycle from 0 to 4. 
The thermostat cannot connect to the Wi-Fi router.	The frame and all bars flash on and off. 
The thermostat cannot connect the internet.	The display will alternate between displaying the frame and all bars. 
There is an internal error with the thermostat Wi-Fi radio.	The frame will flash on and off. 
Wi-Fi radio turned off.	Not displayed.

ELECTRONIC THERMOSTAT FIVE YEAR LIMITED WARRANTY

Your Research Products Corporation Aprilaire® Thermostat unit is expressly warranted for five (5) years from date of installation to be free from defects in materials or workmanship.

Research Products Corporation's exclusive obligation under this warranty shall be to supply, without charge, a replacement for any thermostat which is found to be defective within such five (5) year period and which is returned, together with the date of installation, no later than thirty (30) days after said five (5) year period by you to either your original supplier or to Research Products Corporation, Madison, Wisconsin 53701.

THIS WARRANTY SHALL NOT OBLIGATE RESEARCH PRODUCTS CORPORATION FOR ANY LABOR COSTS AND SHALL NOT APPLY TO DEFECTS IN WORKMANSHIP OR MATERIALS FURNISHED BY YOUR INSTALLER AS CONTRASTED TO DEFECTS IN THE THERMOSTAT ITSELF.

IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE AFORESAID FIVE YEAR PERIOD. RESEARCH PRODUCTS CORPORATION'S LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, OTHER THAN DAMAGES FOR PERSONAL INJURIES, RESULTING FROM ANY BREACH OF THE AFORESAID IMPLIED WARRANTIES OR THE ABOVE LIMITED WARRANTY IS EXPRESSLY EXCLUDED. THIS LIMITED WARRANTY IS VOID IF DEFECT(S) RESULT FROM FAILURE TO HAVE THIS THERMOSTAT INSTALLED BY A QUALIFIED HEATING AND AIR CONDITIONING CONTRACTOR. IF THE LIMITED WARRANTY IS VOID DUE TO FAILURE TO USE A QUALIFIED CONTRACTOR, ALL DISCLAIMERS OF IMPLIED WARRANTIES SHALL BE EFFECTIVE UPON INSTALLATION.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

WARRANTY REGISTRATION

Visit us on-line at www.aprilaire.com to register your Aprilaire product. If you do not have on-line access, please mail a postcard with your name, address, phone number, product purchased and date of purchase to: Research Products Corporation, P.O. BOX 1467, Madison, WI 53701.

Your Warranty Registration information will not be sold or shared outside of this company.

FCC DECLARATION

Compliance Statement (Part 15.19)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Warning (Part 15.21)

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Interference Statement (Part 15.105 (b))

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC RF Radiation Exposure statement

To comply with FCC/IC RF exposure limits for general population / uncontrolled exposure, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

IC STATEMENT

RSS-GEN, Sec. 7.1.2

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

RSS-GEN, Sec. 7.1.3

Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.



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www.aprilaire.com

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U.S. Patent Numbers 8,146,376, 8,596,078 and other patents pending.
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