

AprilAire® Thermostat

SPECIFICATION SHEET

8900 Series IAQ Controls



PROGRAMMABLE



8910

Universal 3H/3C or 4H/2C HP
Event-Based™ Air Cleaning
Humidity and Ventilation
2 Part – 3-Wire design
Touch Screen



8910W

Universal 3H/3C or 4H/2C HP
Event-Based™ Air Cleaning
Humidity and Ventilation
2 Part – 3-Wire design
Wi-Fi
Touch screen



8920W

Universal 3H/3C or 4H/2C HP
Event-Based™ Air Cleaning
Humidity and Ventilation
2 Part – 3-Wire design
Full Color
Wi-Fi
Touch screen

APRILAIRE ADVANTAGE: TOTAL IAQ CONTROL

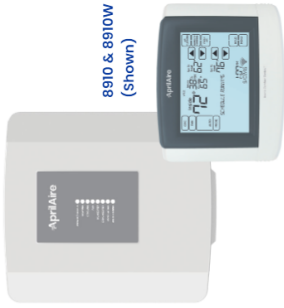
- Wi-Fi with IAQ Control:
Models 8910W, 8920W
- Event-Based™ Air Cleaning
- Fresh air ventilation:
timed or ASHRAE
- Color touch screen: **Model 8920W**
- 3-wire design
- Maintenance reminders
- Heat Blast™ schedule override
- Free custom imprintable
cover: **Models 8910, 8910W**
- Dealer info displayed on
screen: **Model 8920W**



Equipment Control Module

APRILAIRE 8900 SERIES IAQ CONTROL

The Aprilaire 8900 Series IAQ Control Thermostats consist of two components, the User Interface and the Equipment Control Module. The User Interface, located in the living space, integrates all indoor air quality functions – heating/cooling, humidification/dehumidification, air cleaning and ventilation in one attractive, easy-to-use, touch screen control. The User Interface offers homeowners the ability to easily set all of their IAQ and HVAC products from one location in the living space. The primary screen indicates how to easily activate and control set points. In addition, the display provides the homeowner with confirmation that the equipment is operating at the desired control settings.



8910 & 8910W (Shown)

Intuitive User Interface 8920W



3-Wire Connection Between User Interface and Equipment Control Module

Optional Return Air Temperature Sensor (RAT) provides protection with heating and cooling back-up control if connection is lost.

Optional Leaving Air Temperature Sensor (LAT) provides the supply air temperature during the installer test.

Included – **Wired Outdoor Temperature Sensor 8052 (ODT)**

IAQ Control Features

TEMPERATURE CONTROL

- Universal Programmable Thermostat- 3H/3C Conventional or 4H/2C Heat Pump
- Selectable, 7 day, 5/2, 5/1 or non programmable 2 or 4 events/day
- **Model 8910**
 - 7 day or non-programmable 4 events/day, **Models 8910W, 8920W**
- Dual fuel operation
- High and low balance points (must use ODT)
- Screen lock-out to prevent unauthorized adjustments
- Adjustable differential for all stages
- Stage rate control uses equipment run time to control HVAC equipment staging
- Progressive Recovery feature ensures that the setpoint is reached by the scheduled time
- Heat Blast™ allows one touch control of heating to raise room temperature 3°F to 8°F

HUMIDITY CONTROL

Humidifier

- Displays indoor RH on User Interface
- Notifies when humidifier is active
- Automatic humidity setpoint adjustment (must use ODT) or Manual Control
- Water Panel® replacement reminder

Dehumidifier

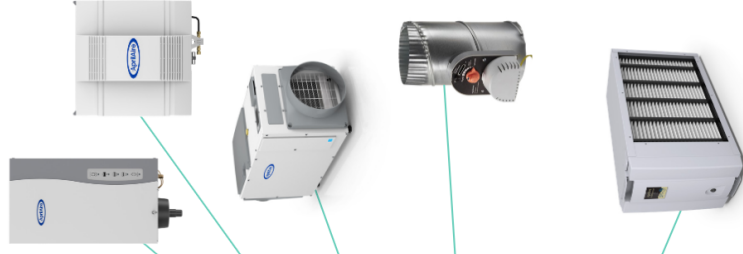
- Displays indoor RH on User Interface
- Notifies when dehumidifier is active
- Operates whole-home dehumidifier or air conditioner to dehumidify
- Dehumidifier service reminder
- Energizes HVAC blower when dehumidifying

FRESH AIR VENTILATION

- Provides fresh air with a motorized damper or an ERV/HRV
- Notifies when ventilation is active
- Control limits based upon outdoor temperature and RH
- Can be set up to use ASHRAE 62.2 guidelines or timed ventilation

AIR CLEANING

- Event Based™ Air Cleaning – 4 selectable air cleaning events
 - Constant Cleaning (24/7)
 - Automatic (30 Min/Hr)
 - Event Clean (3 Hr Cycle)
 - Allergy (24 Hr Cycle)
- Notifies when air cleaning is active
- Media replacement reminder
- Controls EAC with dedicated 24 VAC dry contact



8 LEDs indicate HVAC Equipment and IAQ Accessory Status

8900 Series IAQ Control Thermostats

EASY TO INSTALL & MAINTAIN

- 24 VAC powered with battery backup for user interface **Model 8910** only
- Dual fuel operation (auto lockout of compressor w/call for back-up heat)
- Programmable (or non-programmable)
- Remote indoor temperature available with optional 8051 flush mount or 8053 surface mount sensors
- Temperature offset $\pm 4^{\circ}\text{F}$
- High and low balance point control (requires 8052 outdoor temperature sensor, included)
- 3H/3C conventional and 4H/2C heat pump
- Configurable manual heat/cool or auto changeover modes
- Configurable for heating only or cooling only operation
- Large, easy-to-wire terminal block
- Adjustable differential for 1st, 2nd, 3rd and 4th stages
- Service reminders
 - Humidifier, Air Cleaner, Dehumidifier, HVAC **Model 8910**
 - Humidifier, Air Cleaner, Dehumidifier, Ventilation, HVAC **Models 8910W, 8920W**

ENGINEERED FOR EXCELLENCE

- Circulate fan mode
- Programmable fan
- Progressive recovery
- Built-in equipment protection
- Equipment stage indication
- Multiple hold options maximizes comfort and energy savings
 - Vacation hold
 - Customizable timed hold
 - Permanent hold
- Permanent memory — programming and custom schedules are not lost during a power outage. Time and date are restored with Wi-Fi connection.
- Heat Blast™ allows one touch control of heating to raise room temperature 3°F to 5°F
- 5-year warranty

EASY & CONVENIENT TO USE

- Large 4.5" touch screen **Model 8910, 8910W**
- Large 7.0" touch screen **Model 8920W**
- Large font size
- Fully back lit w/ constant low intensity light option
- Exclusive message center (provides feedback and real language instructions)
- Displays outdoor temperature (w/included 8052 sensor)
- Real language programming/set up — no manual needed, no codes to memorize
- Full or limited screen lockout
- "Copy" function for quick and easy programming
- Real time clock automatically adjusts for daylight savings time

DIMENSIONS

User interface

6.00" x 4.85" x 1.25" Models 8910, 8910W
7.1" x 4.4" x 1.0" Model 8920W

Equipment control module

8.6" x 9.6" x 1.9"

Accessories

- 8052 Outdoor Temperature Sensor (included)
- 8051 Flush Mount Indoor Temperature Sensor (optional)
- 8053 Surface Mount Indoor Temperature Sensor (optional)
- Return Air Temperature Sensor (RAT) (optional) sensor provides protection with heating and cooling back-up control if connection is lost
- Leaving Air Temperature Sensor (LAT) (optional) sensor provides the supply air temperature during the installer test

THERMAL SPECIFICATIONS

Control range

40° to 99°F (4° to 32°C)

Display range

32° to 99°F (0° to 40°C)

Accuracy

$\pm 1^{\circ}\text{F}$ ($\pm .5^{\circ}\text{C}$)

Storage temperature

-30° to 140°F (-34.4° to 60°C)

Operating humidity

5% to 90% relative humidity non condensing

Operating ambient temperature of user interface

32° to 120°F (0° to 48.9°C)

Operating ambient temperature of ECM

32° to 158°F (0° to 70°C)

Shipping temperature range

-30° to 140°F (-34.4° to 60°C)

ELECTRICAL SPECIFICATIONS

- 24 VAC powered (18-30 VAC)
- 1 amp maximum load per terminal
- 2.5 amp total maximum load (all terminals)

Terminal Designations

- User interface: I, 2, 3, T₁, T₂
- Equipment control module: I, 2, 3, RAT, LAT, ODT, C, R, RC, RH, W, W2, W3/B, Y, Y2, Y3/O, G, L, CEQ, HUM, DHNO, DHNC, DHCOM, VENT, EAC

