AERO

by Powered Aire

AERO CONNECT

OPERATING AND MAINTENANCE MANUAL

POWERED AIRE Inc.
AIRE CURTAINS

POWERED AIRE INC.
109 MORTENSEN ROAD
GREENVILLE, PA 16125

IMPORTANT INFORMATION FOR INSTALLERS AND FINAL USERS

This controller should be:

- Installed only by qualified personnel in accordance with local and national regulations.
- Mounted properly as described in the manual, so the casing or enclosure is only accessible to the end user and protection against electric shock is assured.
- Proper installation is intended to care of the Class II requirements (reinforced insulation) to prevent electric shock hazard.

1. **CONTACT INFORMATION**

   For questions or service information, please contact Powered Aire at TechnicalSupport@PoweredAire.com or call 1-888-321-AIRE (2473)

2. **WIRING**

   CAUTION: Before attempting any installation, ensure that AERO air curtain (being a power supply source for this controller) is disconnected from electric power supply.

   Connect the AERO Connect to the air curtain by using the supplied wiring diagram located in the packing slip.

3. **INSTALLATION**

   Flush Mounting Controller:

   - Install the flush mounted junction box (min depth: 1-1.5") (1)
   - Cross all cables through the junction box and plug wires into the controller's terminal block according to the supplied wiring diagram. Ensure the cables are properly plugged and are not loose.
   - Install the rear power part of the controller in the flush mounted junction box and tight both sides screws (2)
   - Plug the strip cable to the terminal in the front part of controller (3)
   - Mount the front part of the controller on the rear one (4)
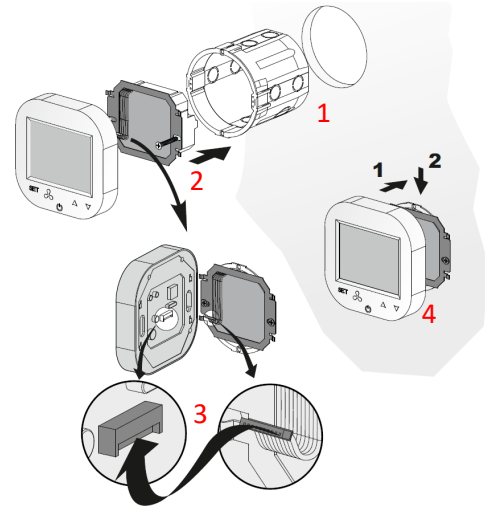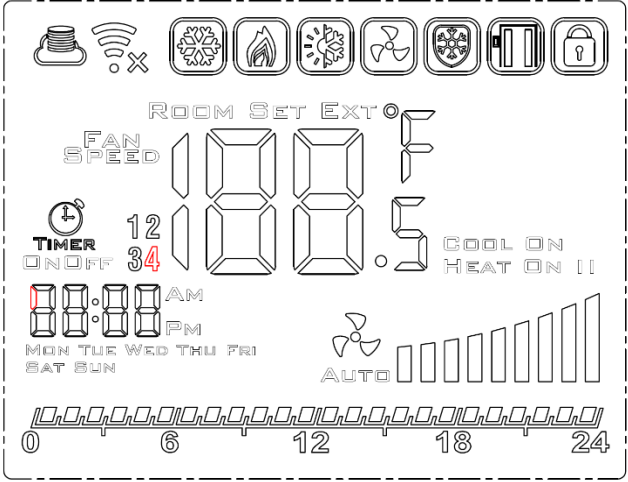
4. **OPERATIONS ON THE AERO CONNECT**
   - SET – approval of selected function of parameter
   - Fan Button – for easy toggling between off, low, medium & high speed
   - On-Off Button – press to turn on, hold 3 seconds to turn off
   - Arrow Up – raises set temperature
   - Arrow Down – lowers set temperature
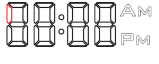
5. DISPLAY

The display of the Aero Connect consists of the following Aero elements

Note: Some of the display elements are not in use for Aero Air Curtains. Table below show only elements specific for Aero Connect system.

Heating mode indicator	
Ventilation mode indicator	
Air temperature indicator	
Timer mode indicator	
Time indicator	
Day of the week indicator (hold set and down to enter time/day setting mode)	
Door status indicator (open/close)	
Keyboard lock indicator (hold down arrow to lock/unlock)	
Fan status indicator (press fan button to toggle speeds)	
Schedule chart	

6. SCHEDULE SETTINGS

- Hold Set button for 5 seconds to enter weekly schedule settings mode
- Use Set button to toggle between schedule functions, use Up and Down buttons to change values
- The weekly schedule can be set for each day of the week at 4-time intervals each day
- Your schedule settings will be demonstrated on the schedule chart

7. **PROGRAMMING ADVANCED SETTINGS**
   - With AERO Connect wired and powered correctly, hold power buttons for 3 seconds to turn off controller
   - Hold Fan button for 5 seconds to enter advanced settings programming mode A&B OR hold Set button for 5 seconds to ender advanced settings programming mode C
   - Using the Set button to cycle through functions. Use the Up and Down arrows to change values based on the advanced settings chart
       i. Go to hyperlink for a video walkthrough of the advance settings
   - Leave advanced setting programming mode by pressing the Power button, your settings will automatically be saved

No.	Function	Set Point
	Advanced Settings A & B	
A0	Modes of Automatic Operation: Room [0], Door [1], Door + Room [2]	Selection [0, 1, 2]
A1	Regulation of the Heating Power Level: Without heating [0], first level [1], second level [2], third level [3]	Selection [0, 1, 2, 3]
A2	Temp. Sensor Calibration	Max. ±8°C with the step of 0.5°C
A3	Heating Mode: Heating [0], Ventilation [1], Heating+Ventilation [2]	Selection [0, 1, 2]
A4	Hysteresis of Differential Adjuster	0.5/1/2
A5	First Speed Value	15-80%
A6	Second Speed Value	15-90%
A7	Third Speed Value	15-100%
A8	Fan Speed Delay	30...200s
A9	Backlight Time	5...600s
AA	Door Optimum (increase fan speed level when door is open)	0, +1, +2, +3
AB	Door Sensor Logic	NO [0], NC [1]
AC	Min. Fan Speed during Cooling Down	45-100%
AD	Min. Fan Speed	Only Display
AE	Calendar-based Work	No [0], Yes [1]
AF	Time Mode	12h [1], 24h [0]
B0	Buttons Blockade	Selection
B1	Extra Heating Time	0...90s
Bo	Default Settings	Hold Fan Button
	Advanced Settings C	
B0	Temperature Units	°C/°F
B1	Min. Temperature	41 … 104 °F (5….15 °C)
B2	Max. Temperature	61 … 104 °F (16….40 °C)

8. **WI-FI CONFIGURATION WITH MOBILE APP**
- • The controller works with an application for Android and IOS. Tuya Smart application is available for free download on Play Store and App Store. The connection is made over a 2.4GHz network

Tuya Smart

First Connection:
When configuring the application with the controller, make sure that both the smartphone and the HMI controller are within range of the same network. To make the connection easier and faster, run the GPS on your phone.

In the Tuya application we find "Thermostat(Wifi)" in the category of small devices.
Hold down the "ventilator" and "set" buttons on the controller until the following Aero icons appear on the display and start blinking:

Each further connection is made in the same way as described for the first connection.
In the Tuya application, confirm the connection attempt and enter the password for the Wi-Fi network. The connection may take up to several minutes. When the above icons stop blinking, you will be connected to the application.

Control:
With the Tuya Smart application, the user has the possibility to view and change the operating parameters of individual functions available in the controller HMI.
To change the advanced settings (Set) it is necessary to enter the **password: 123456**.
Configuring the controller with the Tuya application does not mean that the devices cannot be controlled from the controller position. Changes in the operating parameters can be made both from the position of the application and from the position of the controller.

9. **TECHNICAL SPECIFICATIONS**

Power Supply	(1)120-230 VAC 60 Hz	Communication	Relay Output: Dual – NO, 250A, 5 A: 105 cycles, AgNi @ 85°C; 5 x 104 cycles, AgSn02 @ 85°C
Power Consumption	1.5 VA		
			Analog Output: 0-10V (8 bit, Imax = 20 mA)
Features of the automatic Action	Type 1 Action, Type 1.B Action (UL 60730-1)	Working Conditions Limits	Temperature Range: 32°F…122°F (0°C…50°C) Relative Humidity: 10-90% with no condensation
Maximum Current on Relay Outputs	5 A (max 2.5 A on each circuit)	Ingress Protection	IP20
Load Type	Resistive, PF ≥ 0.95	Pollution Degree	2
RS485 Port Voltage / Current Limitation	-7… +12V / ±250 mA	Max Working Altitude	6,000 ft AMSL
Temperature Sensor Type	NTC, 10 kΩ @ 77 °F (25 °C)	Dimension	3-3/8" x 3-3/8" x 1-7/8"
Temperature Measurements Precision	±0.9 °F (±0.5 °C)	Weight	5.3 oz