



Breathe easy.

AIRVANTAGE®

Demand Control Ventilation System

MODEL “DCV-AV”

&

“DCV-AVND” Series

Operators Manual

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About this Manual

The purpose of this manual is to provide the kitchen operator complete information for operating the Gaylord AirVantage Demand Control Ventilation System Model Series DCV-AV and DCV-AVND in conjunction with Gaylord Ventilators Model Series EL, ELX and ELXC. Model DCV-AV is used to control exhaust airflow on ventilators that have modulating dampers, and model DCV-AVND is used to control exhaust airflow on ventilators without dampers. The “ND” portion of the model number stands for No Dampers.

The manual is divided into chapters for easy reference to a particular subject. The pages in the chapters are numbered with the Chapter number, then a dash, and then the Page number. So for example pages in Chapter 2 are numbered 2-1, 2-2, 2-3 etc. Figures and Tables are numbered in a similar manner. For example Figure 3-3-2 is on Page 3-3 and is the second figure. Please keep your manual in a convenient location for so it can be accessed easily.

If you have any questions regarding the Gaylord AirVantage System, please contact Gaylord Industries.

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This manual and other Gaylord product manuals may be downloaded from the Gaylord website: www.gaylordventilation.com or be obtained by calling Gaylord Industries.

Safety

Please read this manual in its entirety before operating the AirVantage system. Some portions of the control circuitry operate on 120 volts. One of the following **Warning** statements precedes any instructions or guidance where contact with 120 volts could occur:

Warning: 120 volt circuit. Opening the access door and working on this equipment may result in electrical shock.

Warning: 120 volt circuit. This equipment can only be serviced by a Gaylord Certified Service Agency. Accessing and working on this equipment may result in electrical shock.

AirVantage System Overview

The exhaust fans of traditional kitchen exhaust systems are sized to exhaust the effluent produced by the cooking appliances running at full load with the fan running at a constant speed throughout the cooking day. Air removed from the kitchen space must be replaced by a dedicated makeup air system, and this air must be heated and cooled as required to maintain a comfortable kitchen. Operating the exhaust fan at 100% capacity and heating/cooling the required Makeup Air for 10 to 18 hours a day wastes a tremendous amount of energy. Just a 20% reduction in airflow volume can yield approximately 45-50% in fan energy savings and a 20% reduction of heating and cooling costs.

The AirVantage Demand Control Ventilation System has been designed to reduce overall ventilation rates by tying the cooking appliance's sensible heat output to the required airflow rates. It monitors the sensible heat produced by the cooking appliances using Resistance Temperature Detectors (RTDs) mounted in the ventilator to automatically increase and decrease the exhaust and makeup air airflow, saving a substantial amount of money each year on energy costs. If for example all the cooking appliances are not in use, or they are turned down, the RTDs sense the lower temperature and the system automatically reduces the exhaust and makeup air airflow to a level required to maintain optimum capture performance. As the appliance temperatures go up and cooking increases, the exhaust and makeup air airflows increase to maintain optimum capture of the smoke, grease, and heat generated by cooking. The AirVantage System can generate overall airflow savings of 10%-50% and reduce fan energies from 25%-70%.

The DCV Series systems include an Autostart feature that automatically turns on the exhaust fan(s) when cooking operations are detected. This allows the operator to turn on the cooking equipment without manually starting the fan. Conversely, the exhaust fans will stop automatically when the cooking equipment has cooled. The Gaylord Autostart feature complies with the Uniform Mechanical Code, paragraph 507.2.1.1 that requires all hood exhaust fans to automatically start when cooking appliances are turned on.

How the AirVantage System Works – The Basics

The AirVantage System is made up of six major components as illustrated in Figure 2-1-1 and 2-2-1 on the following pages. They are 1) Command Center, 2) Variable Frequency Drives (VFDs), 3) Hood Control Enclosure (AVHC), 4) Modulating Dampers (when equipped), 5) hood-mounted Override Buttons, and 6) Resistance Temperature Detectors (RTDs). Systems with modulating dampers also have pressure transducers to measure air flow on each hood. The Command Center is mounted in the kitchen area. It houses the touchscreen interface and the Fan Controller. Through the touchscreen the user may control the Start/Stop of the exhaust fan, ventilator lights, and all the other functions of the system. Up to four RTDs are mounted in each ventilator section (Refer to Figure 2-1-1 and 2-2-1). There is one VFD for each exhaust fan and one for each makeup air fan. The VFDs can be mounted remotely or optionally in a cabinet on the end of the ventilator, as shown on Figure 2-1-1. The controls are programmed to correlate the temperature at each individual RTD to the heat load generated by the cooking appliance(s). This information is then used to modulate the airflow between a minimum and maximum based on the activity under each hood. On a damperless system, DCV-AVND Series, the airflow is varied by modulating each exhaust fan corresponding to the greatest demand amongst the hoods each fan serves. On a system with modulating dampers, DCV-AV Series, the airflow is controlled at each individual hood and the fan is modulated to meet the total demand.

How the AirVantage System Works – The Basics (Cont.)

During a cooking day, as the sensible heat created by the cooking appliances increases or decreases, the RTDs detect the change which is interpreted at the Command Center. A signal is then sent to the Modulating Dampers, (when equipped) and VFDs to modulate the exhaust volume for that particular ventilator section, or section(s). To reduce the risk of smoke spillage, the system will respond to temperature changes of five degrees or more, up or down, in any 40 second period by going to 100% for a five minute period. This feature allows the system to quickly recognize and respond to rapid changes in the cooking process.

Typically the exhaust volume will modulate up and down throughout the day based on the operation and use of the cooking appliances. If ever needed, the Override Button, located on each ventilator section, can be pushed to ramp the exhaust volume to 100% for that section or ramp the exhaust fan to 100% on hoods without dampers. The override of the exhaust volume will last 5 minutes, and then the system reverts back to normal control.

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Model DCV-AV Series

The Gaylord AirVantage Demand Control Ventilation System for Ventilators with dampers is made up of several primary components. Figure 2-1-1 illustrates a typical installation with the primary components identified.

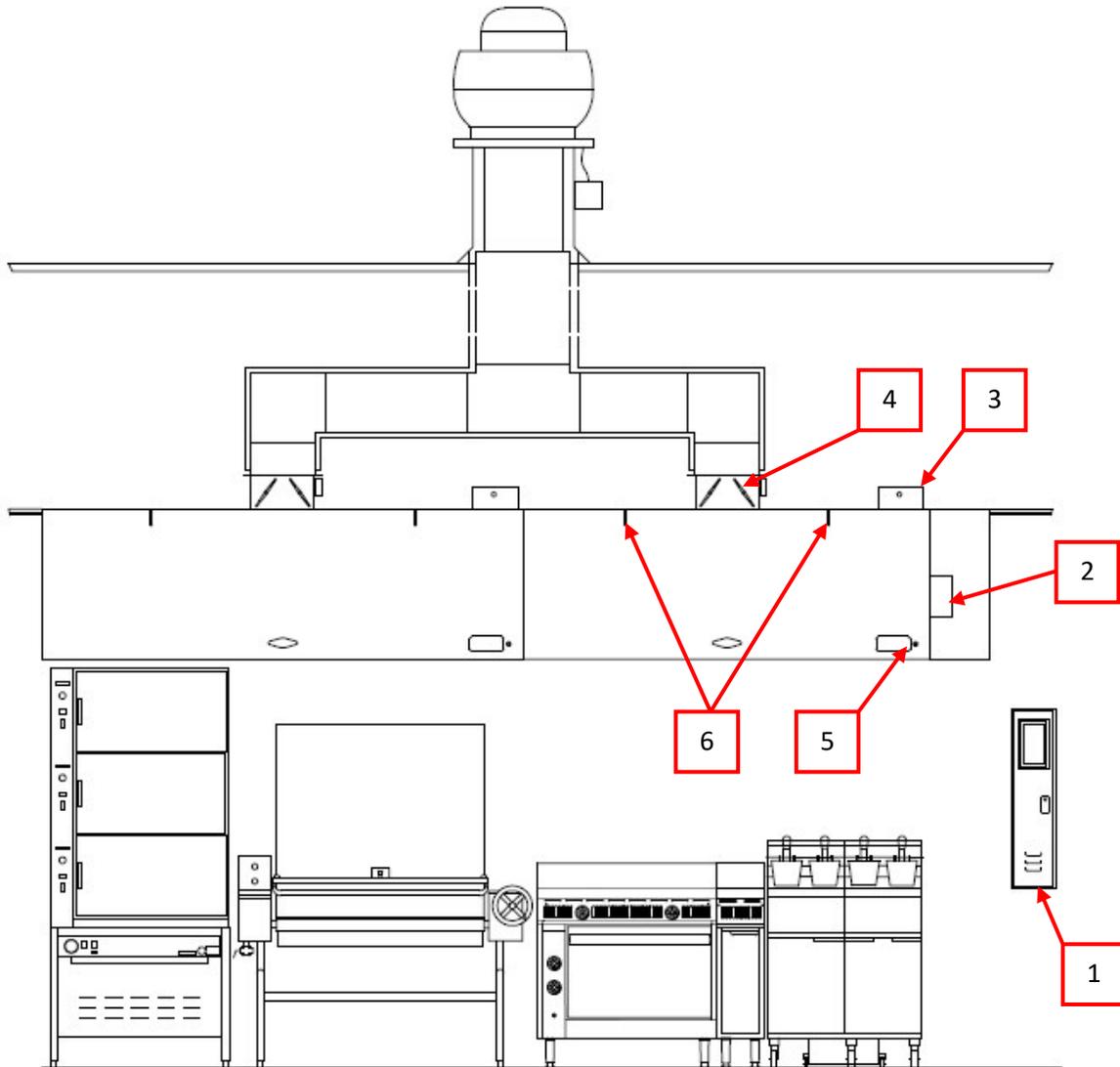


Figure 2-1-1
Typical Model DCV-AV
(With Dampers)

1. DCV-AV Command Center
2. Variable Frequency Drives shown mounted in an optional Hood End Cabinet
3. Hood Control Enclosure (AVHC)
4. Modulating Dampers (Where equipped)
5. Override Button
6. Resistance Temperature Detectors (RTD)

Model DCV-AVND Series

The Gaylord AirVantage Demand Control Ventilation System for Ventilators without dampers is made up of several primary components. Figure 2-2-1 illustrates a typical installation with the primary components identified.

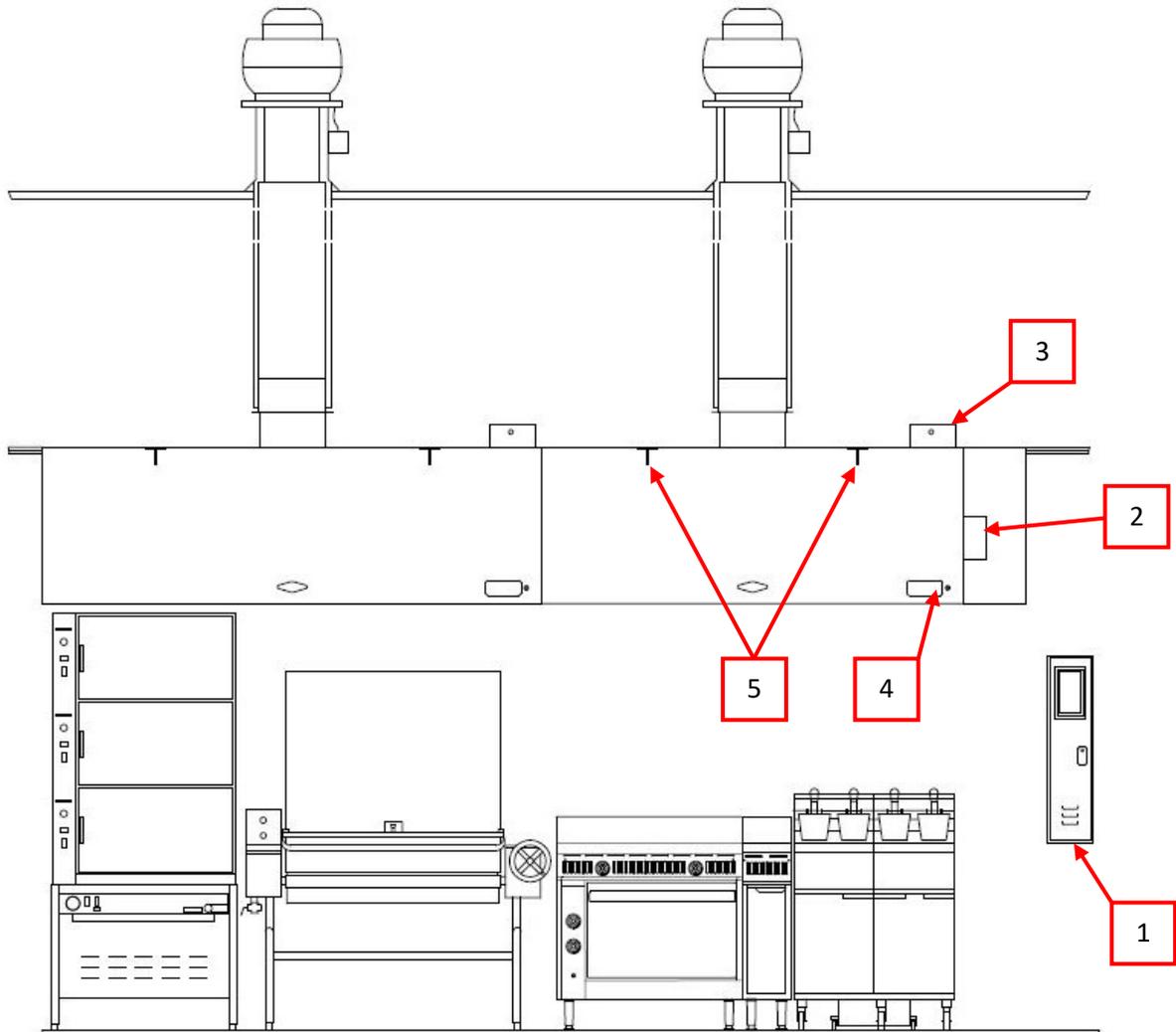


Figure 2-2-1
Typical Model DCV-AVND
(Without Dampers)

1. DCV-AV Command Center
2. Variable Frequency Drives shown mounted in an optional Hood End Cabinet
3. Hood Control Enclosure (AVHC)
4. Override Button
5. Resistance Temperature Detectors (RTD)

AirVantage Command Center

The Command Center, Figure 2-3-1, is a stainless steel cabinet that houses the touchscreen interface and fan controller. The Command Center is the heart of the system with direct control over the exhaust and makeup air fan VFDs and indirect control of the ventilator lighting through the Hood Control Enclosures (AVHC). Interfaces with external systems such as the BMS and the Fire Protection System are also provided in the Command Center. The DCV Command Center is typically located in the kitchen area in a convenient location, within 50 feet of the ventilator. If the distance is greater than 50 feet please contact Gaylord Industries for location review.

Warning: 120 volt circuit. Opening the access door and working on this equipment may result in electrical shock.



Figure 2-3-1
Command Center

Variable Frequency Drives (VFD)

One variable frequency drive is required for each exhaust and makeup air fan. They are typically located in close proximity to the fans they serve but as an option can be mounted in an end of hood cabinet. VFDs are used to vary the exhaust and makeup fan speeds and are interfaced with the Command Center.

WARNING: High Voltage circuit. This equipment can only be serviced by a Gaylord Certified Service Agency or licensed electrician. Accessing and working on this equipment may result in electrical shock.



Figure 2-4-1
Typical Variable Frequency Drive (VFD)

Hood Control Enclosure (AVHC)

A Hood Control Enclosure is mounted on the top of each ventilator section. The AVHC houses hood mounted controls and, on hoods with a Modulating Damper, a pressure transducer to measure airflow. The Override Button, RTDs, ventilator lighting fixtures, and Modulating Damper are connected to and controlled by the AVHC. Access to the enclosure is found inside the hood canopy, typically on the front right side of the hood.

Warning: HIGH Voltage circuit. This equipment can only be serviced by a Gaylord Certified Service Agency. Accessing and working on this equipment may result in electrical shock.

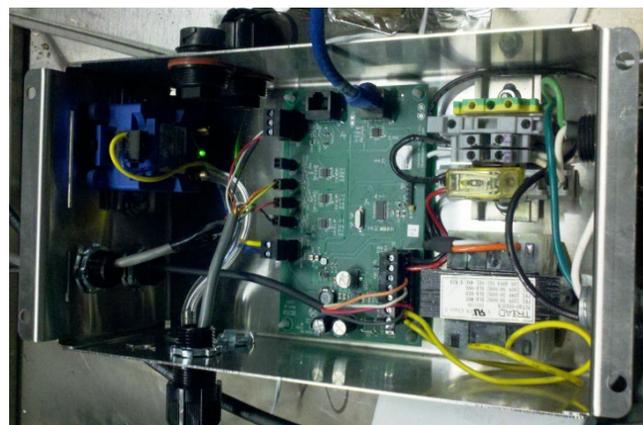


Figure 2-4-2
Hood Control Enclosure

Modulating Dampers (DCV-AV Only)

A set of Modulating Dampers are mounted in the exhaust duct collar of each ventilator section. An electric actuator modulates the damper position to increase or decrease the exhaust airflow.



Figure 2-5-1
Modulating Dampers

Override Button

One Override Button is mounted on the face of each ventilator section. Pushing a ventilator's override button will override exhaust airflow to 100%. The override expires after 5 minutes, and the ventilator reverts to normal control.



Figure 2-5-2
Override Button

Resistance Temperature Detectors (RTD)

A ventilator section may have as few as one and as many as four RTDs in a ventilator section. Two RTDs mounted in each ventilator section are illustrated in Figure 2-1-1 and 2-2-1. The RTDs read sensible heat from the cooking appliances. This information is communicated to the AVHC and to the Command Center.



Figure 2-6-1
**Resistance Temperature
Detector (RTD)**

Operating the System - Overview

All functions of the system are controlled by the Command Center (Refer to Figure 3-1-1). The touchscreen is used by the operator to initiate the following functions:

- Start and Stop the exhaust fan manually.
- Turn on the ventilator lights.
- Set the date and time.
- Program a scheduled start or 100% override of the system.
- View Alerts and corrective actions.
- View exhaust fan speed.
- View current hood state of and sensor values.
- View rolling 24-hour chart of fan and hood data.

The touchscreen has many other functions for set up and service of the system that are only accessible by a Gaylord Certified Service Agency.

For instructions on operating the system proceed to the next page.

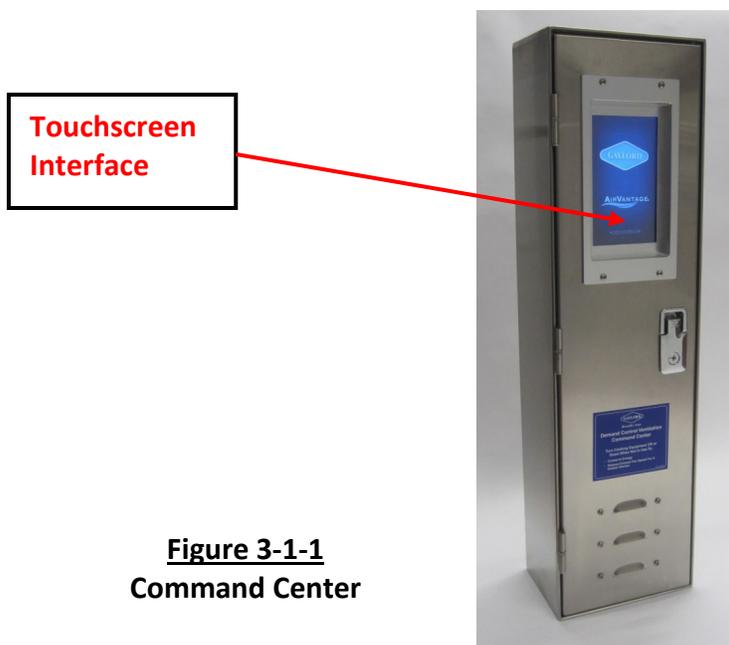


Figure 3-1-1
Command Center

Operating the System - Overview (Cont.)

When the touchscreen appears as shown in Figure 3-2-1, the screen is called the Ready Screen, and the Gaylord logo will be rotating. To access all the functions of the system touch the Ready Screen anywhere and the Home Screen will come up. (Refer to Figure 3-3-1).



Figure 3-2-1
Ready Screen

Operating the System – Overview (Cont.)

Home Screen Overview. The Home Screen allows access to all functions of the system.

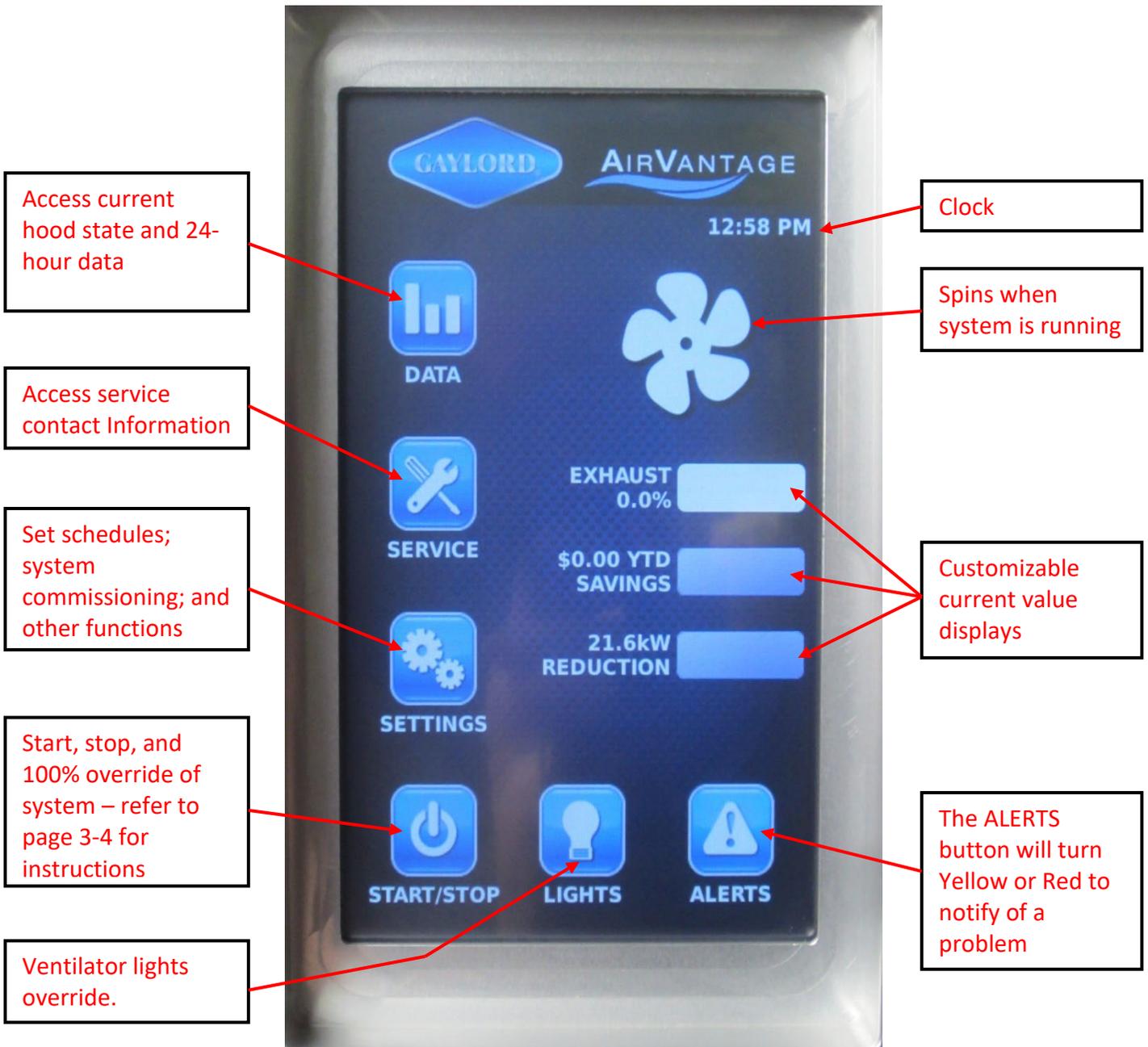


Figure 3-3-1
Home Screen

Starting the System Manually

Important Note: The AirVantage system is designed to start automatically based on demand as indicated by the heat generated by active appliances.

To start the exhaust fan manually proceed as follows:

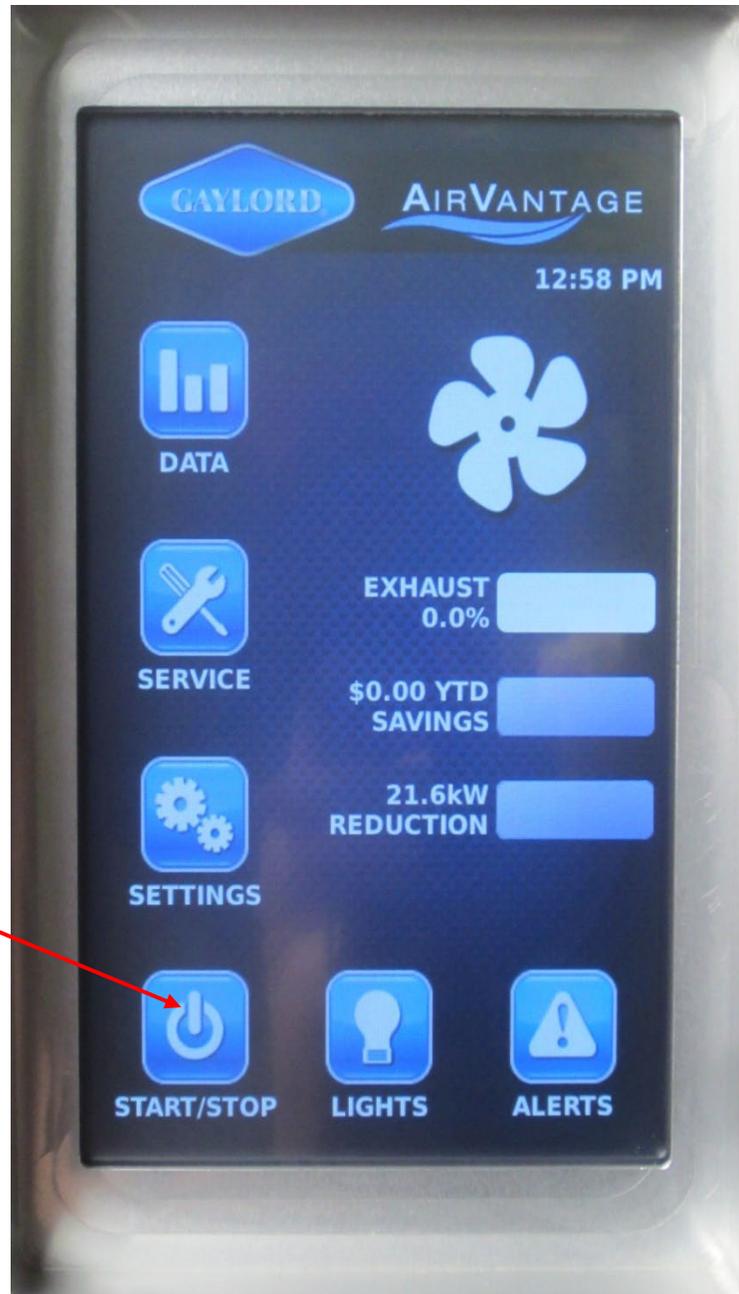
Step 1 – Touch the Ready Screen anywhere. This will take you to the Home Screen Figure 3-5-1.



Figure 3-4-1
Ready Screen

Starting the System Manually (Cont.)

Step 2 – Press START/STOP button in lower left. The button will turn green and the fan(s) will start in 5 seconds, (See Figure 3-6-1).



Push to start the system

Figure 3-5-1
Home Screen
Starting the system

Starting the System Manually (Cont.)

Step 3 – Once the STOP/START button is pushed, the button will turn green and the system will start in 5 seconds. The fan blade on the touchscreen spins to indicate the system is running.



Figure 3-6-1
Home Screen
System Running

Turning on the Ventilator Lights

Press the LIGHTS button. This will turn on the lights in all the ventilators on the system for 1 hour. (NOTE: Lights will automatically turn on when heat is detected at any ventilator section. Once heat is not detected the lights will go off after 1 hour.) Each subsequent press of the LIGHTS button will reset the 1-hour timer. The lighting for all ventilators can be LOCKED on by pressing and holding the light button for 3 seconds. When the lighting is locked on, the threads on the light bulb graphic will be illuminated orange rather than blue. A momentary press of the LIGHTS button will release the lock and start the 1-hour shutdown timer for the lights.



Figure 3-7-1
Home Screen
Turning on Lights

Override Button

On each ventilator section, normally in the lower right hand corner, there is an exhaust 100% Override Button (Refer to Figure 3-8-1). In the event the ventilator's canopy becomes overrun with smoke, the operator can push the Override Button on that ventilator section to increase the exhaust volume to 100%. The following will occur when the button is pushed.

1. Exhaust volume will increase to 100% for that ventilator section only on DCV-AV systems, and the exhaust fan for that ventilator section will increase to 100% on DCV-AVND Series systems.
2. The light around the Override Button will flash constantly indicating the exhaust volume for the ventilator is at 100%.
3. The exhaust will stay at 100% for 5 minutes and then slow back down to its previous level. The light around the button will then pulse at a rate based on the exhaust volume.

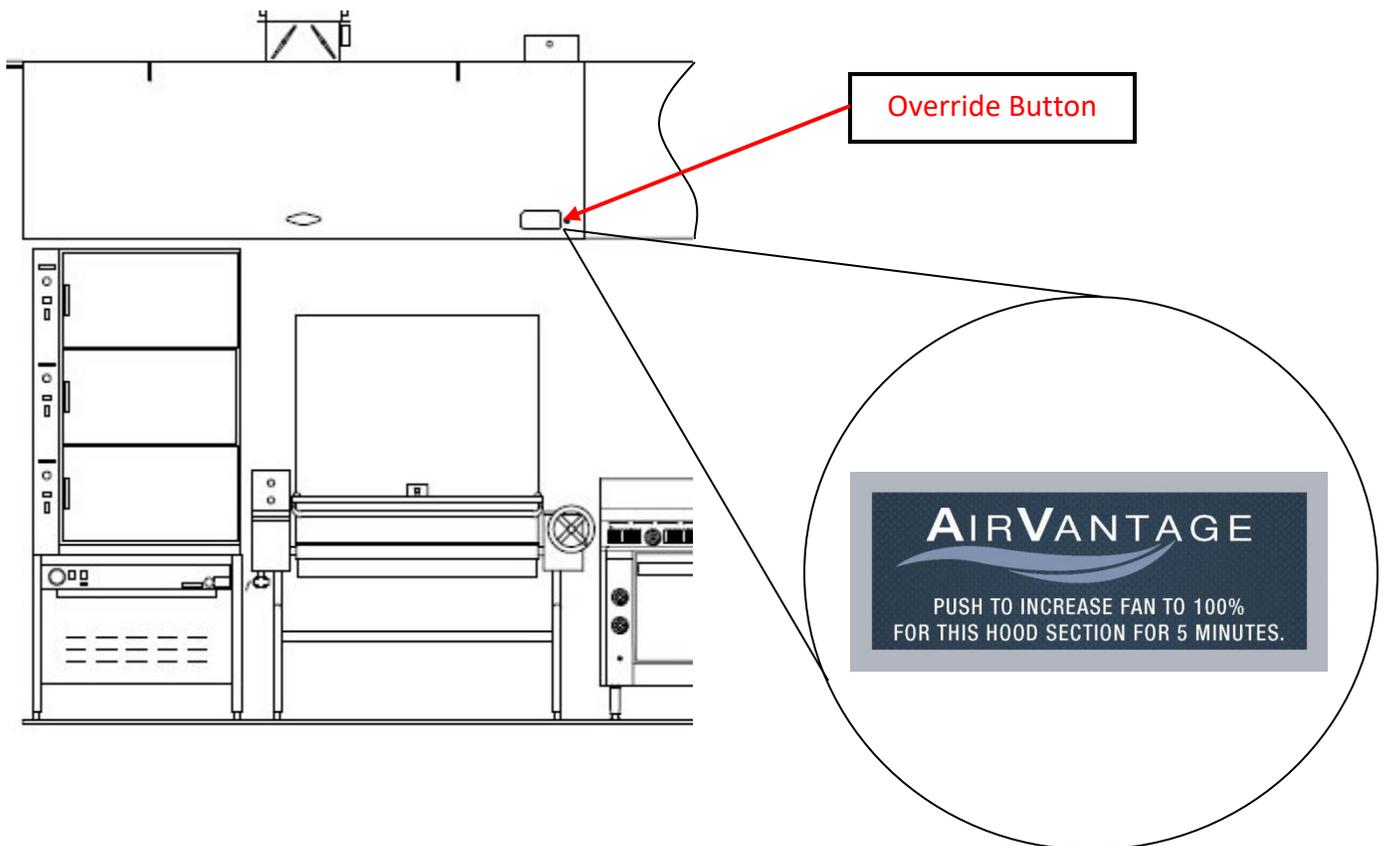


Figure 3-8-1
Front View of Ventilator
Showing Override Button

Turning off the System

Turning off the System can be done by one of three methods:

1. **Automatically** - Letting all the equipment cool down and, once all of the RTD temperatures drop below set point, the system will automatically shut down after 15 minutes.
2. **Manually** - Letting the equipment cool down, and then pressing the START/STOP button. The green START/STOP button will go from green to blue.
3. **Emergency** - For emergency stop press and hold the START/STOP button for 5 seconds or until the button changes to RED. Once the button turns RED the fans will be disabled regardless of temperatures in the hoods. **CAUTION:** This operation can set off the Fire Extinguishing System if improperly used. Confirm that the cooking equipment is OFF and COOL prior to hard stopping the system.



Figure 3-9-1
Home Screen
Turning off the Exhaust Fan

Yellow and Red Alerts

The AirVantage Command Center includes a monitoring system that notifies of dirty ventilator filters and other failures. The ALERTS button turns from blue to either yellow or red to indicate a problem. Push the button to display the alert(s) and instructions for corrective action.

YELLOW Button = Hood filters are dirty and need to be cleaned (Refer to Figure 3-11-1).

RED Button = Communication Failure, Component failure or the hood filters are very dirty or other failure (Refer to 3-12-1).



Figure 3-10-1
Yellow or Red Alerts

Yellow and Red Alerts (Cont.)

Yellow Alert - The ALERTS Button turns yellow when the hood filters become dirty and will provide a notification as displayed on the screen as shown in Figure 3-11-1 below. To remove the alert, clean and replace the filters and then press the Remove button on the alert window. If the corrective action was successful the yellow ALERTS button will change back to blue.

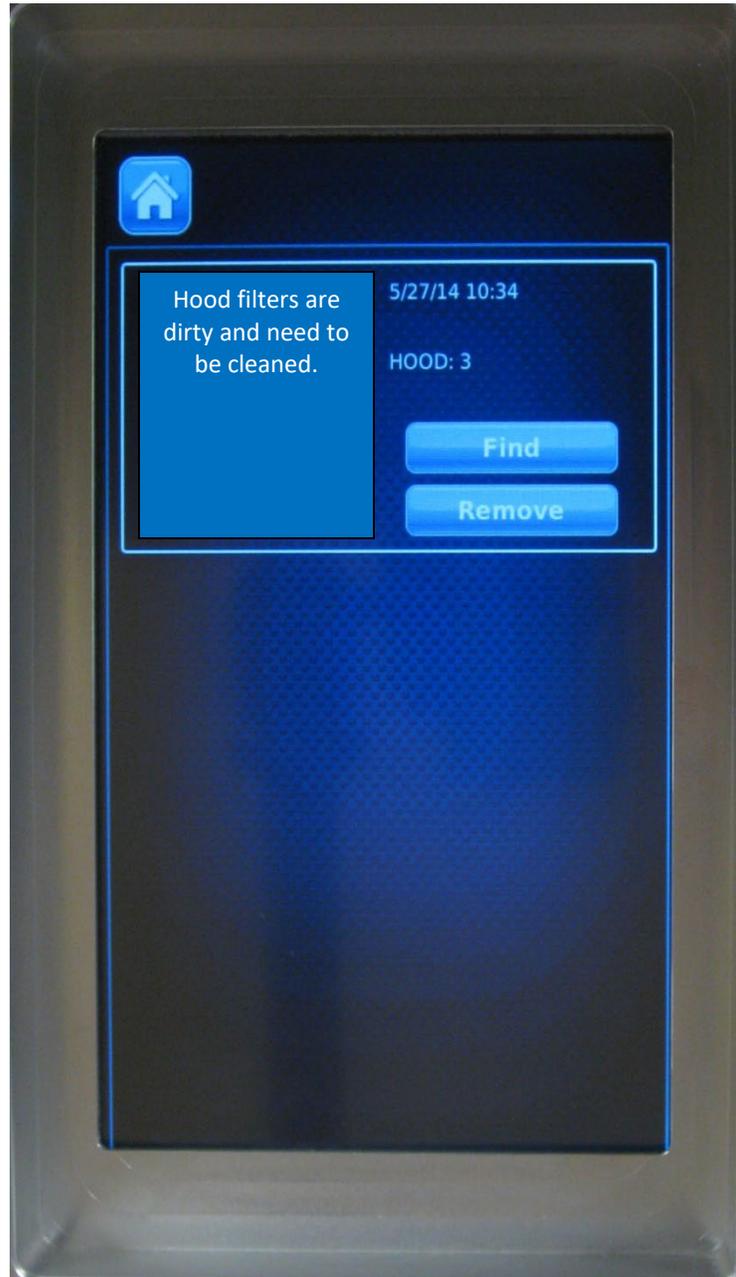


Figure 3-11-1
Yellow Alert Condition

Yellow and Red Alert (Cont.)

Red Alert - When the ALERTS button turns red, push the ALERTS Button and the problem and corrective action will display on the screen. Figure 3-12-1 below shows a typical problem. To remove alert, follow instructions and press the Remove Button on the alert window. If the corrective action was successful the red ALERTS button will change back to blue.

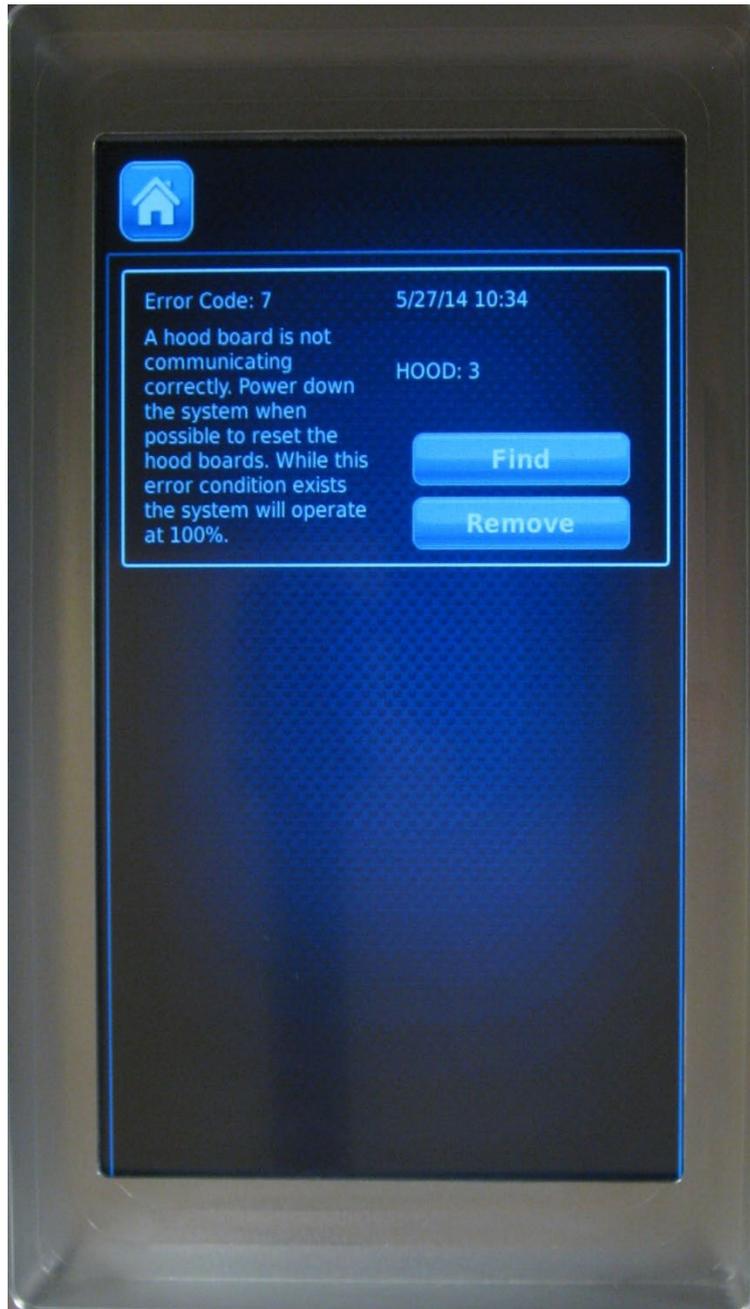


Figure 3-12-1
Red Alerts Condition

Fire Alert

In the event of the Hood Fire Extinguishing System discharging, the AirVantage System goes into a FIRE ALERT condition and the following occurs:

1. The FIRE ALERT indicator will display on the screen directly above the ALERT button (Refer to Figure 3-13-1).
2. The Modulating Dampers on each ventilator section, (if equipped) open to the “Home” position so that the airflow is balanced across all ventilators.
3. Exhaust fan(s) ramp up to 100%.
4. Makeup air fan(s) shut off.



Figure 3-13-1
Fire Alert Condition

Fire Alert (Cont.)

After a discharge, the Fire Extinguishing System must be recharged and certified by a fire systems contractor. Once this is completed the AirVantage Command Center must be reset. To reset proceed as follows:

Warning: 120 volt circuit. Accessing and working on this equipment may result in electrical shock.

1. Open the door to the Command Center.
2. Push the Reset button.
3. Close and latch the door.
4. When the system has completed the Reset sequence the Gaylord diamond will spin. The system is now in standard operating mode.
5. If gas valves are electrically interlocked to the system, turn off all burners, then reset the system. Note: Depending on the severity of the fire additional repair may be required to the controls. Consult your service manual or contact a Gaylord Certified Service agent.

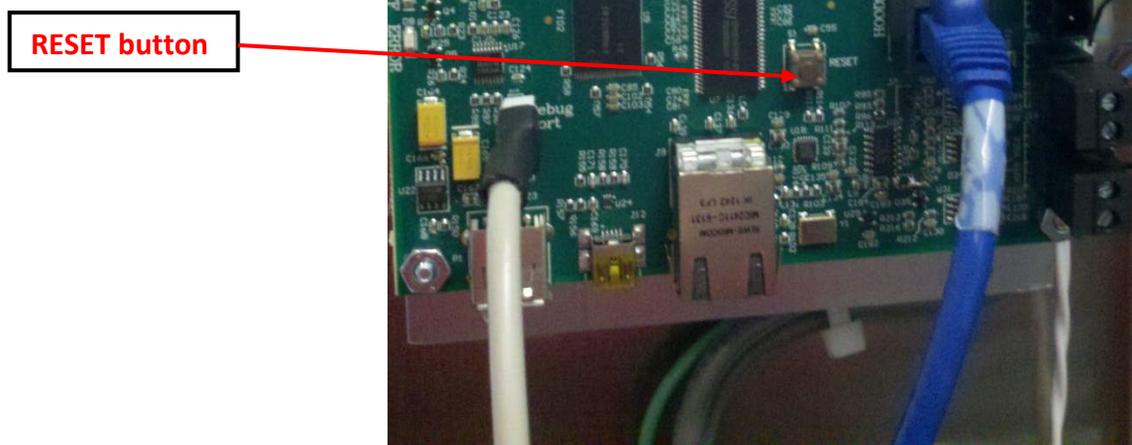


Figure 3-14-1
Command Center Control Board

Service Mode

Overview

The Service Mode allows for the removal of filters and other system components without degrading the performance of the system. During Service Mode the Modulating Dampers (if equipped) stay in a fixed position and the exhaust and supply will run at 85%. This allows the Ventilator to operate while removing and replacing filters.

To place the system into Service Mode proceed as follows:

Step 1 – From the Home Screen push the SERVICE Button. The Service Screen will appear as in 3-16-1.

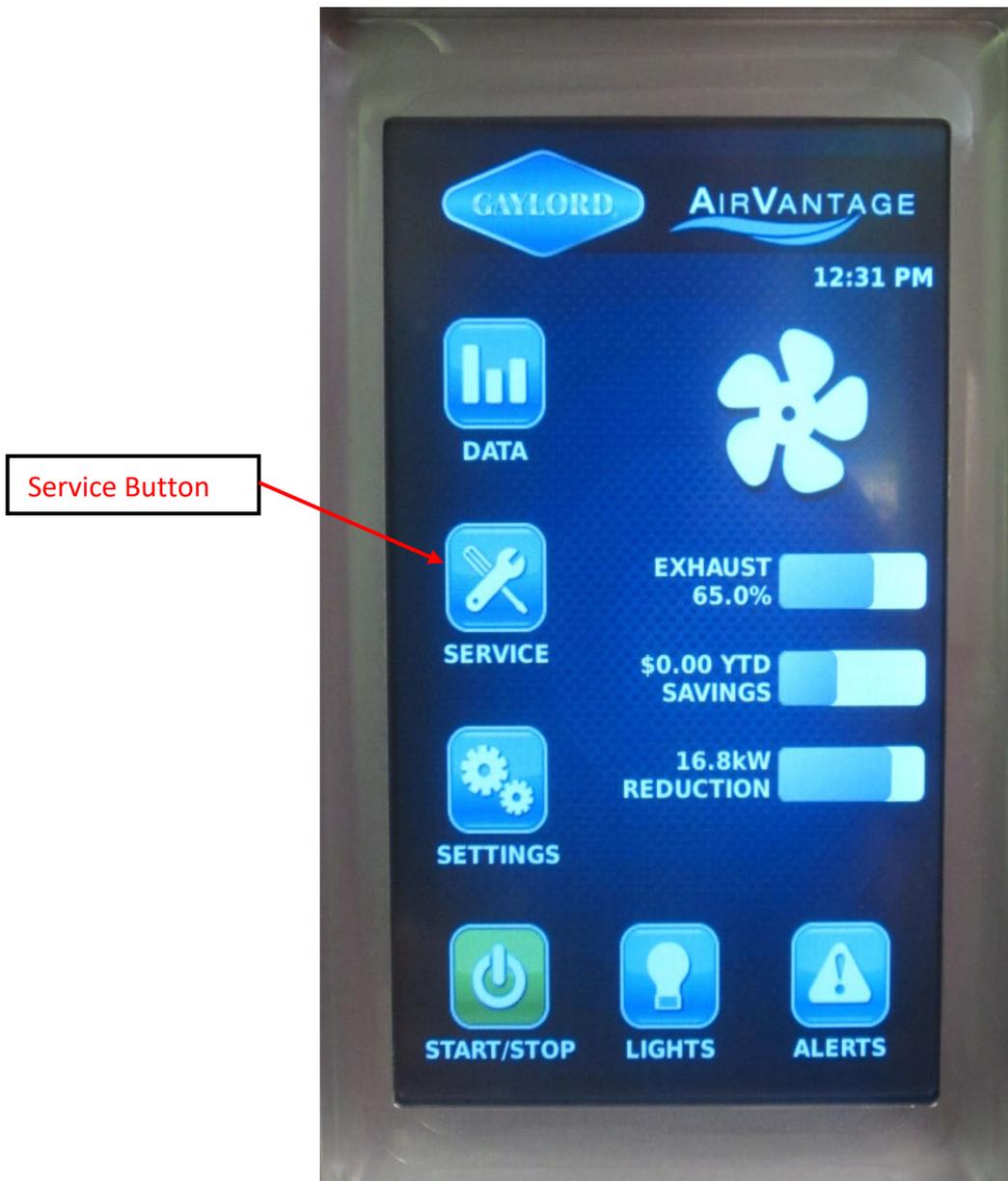


Figure 3-15-1
Home Screen

Service Mode (Cont.)

Step 2 – Press the Service Mode Button. The Service Mode window will appear as in Figure 3-17-1.



Figure 3-16-1
Service Screen

Service Mode (Cont.)

Step 3 –Press the “OK” Button. The Service Screen window comes back up and the system is now in a Service Mode reducing the exhaust and supply fans to 85%. Note: The system will stay in Service Mode until it is turned off. **To deactivate:** Repeat steps 1 and 2, then press Cancel instead of OK.



Figure 3-17-1
Service Mode Screen

Manual Bypass

There is a manual bypass button inside the AirVantage Command Center that can be activated to run the fans at 100%. Pressing this button once overrides all of the fans to 100%. Pressing the button again releases the override. The manual bypass will function whether there is power to the Command Center or not. When the touchscreen is active it will display REMOTE START when the bypass is activated.

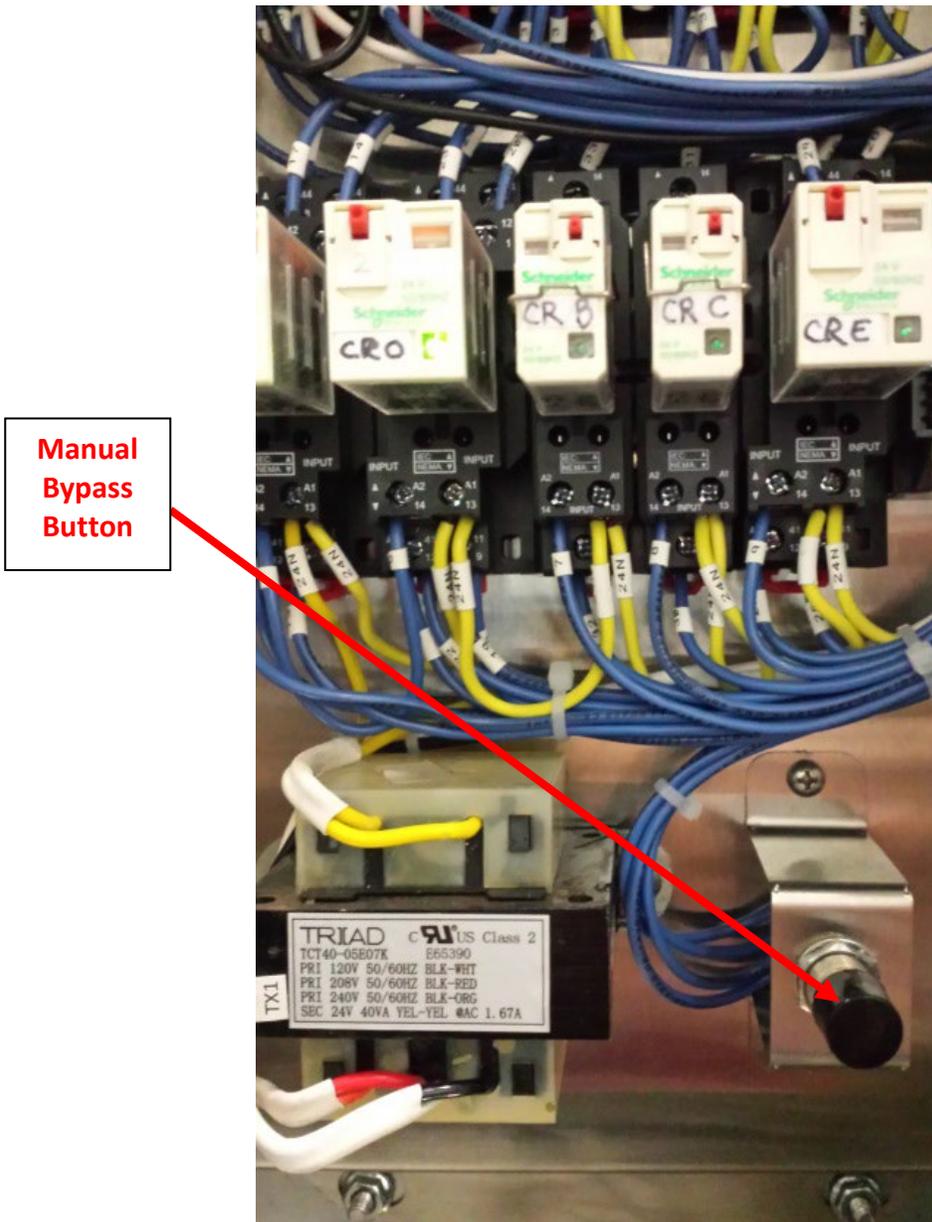


Figure 5-1-2
Manual Fan Override

Settings Functions - Overview

The Settings functions include setting time and date, programming schedules, and data retrieval. There are also commissioning functions that may only be accessed by an authorized Gaylord Certified Service Agency.

To access the Settings functions push the SETTINGS button and the Settings Screen will appear (Refer to Figure 4-2-1).



Figure 4-1-1
Home Screen
Going to Settings

Settings Functions – Overview (Cont.)

The Settings Screen accesses many functions of the AirVantage system. Some functions can only be accessed by password and some can be accessed by the Operator as shown in Figure 4-2-1 below.

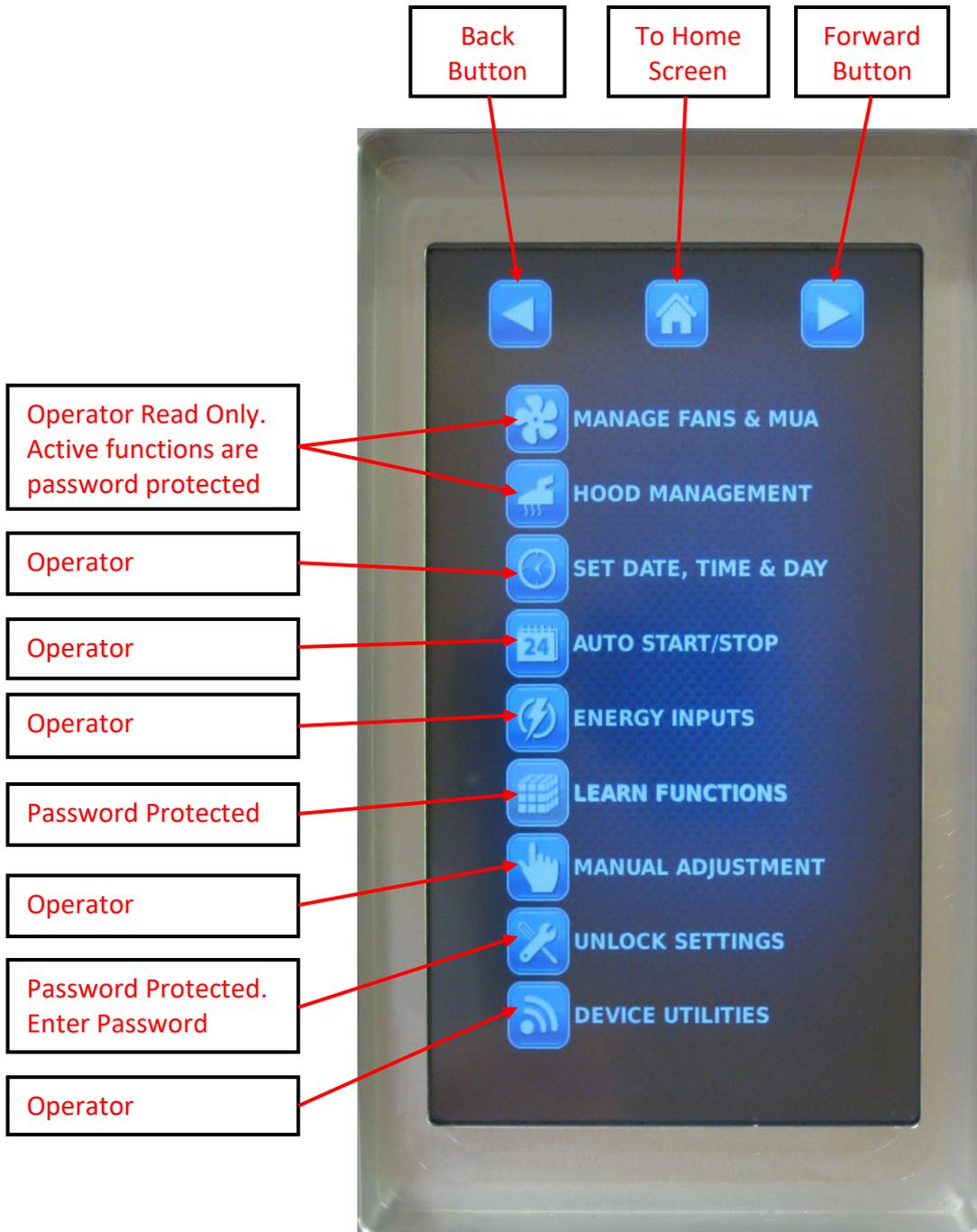


Figure 4-2-1
Settings Screen

Setting Date and Time

Step 1 – From the Home Screen push the SETTINGS button. The Settings Screen will display (Refer to Figure 4-3-1).

Step 2 – Push the SET DATE, TIME & DAY Button. The SET DATE & TIME Screen will display (Refer to Figure 4-4-1).

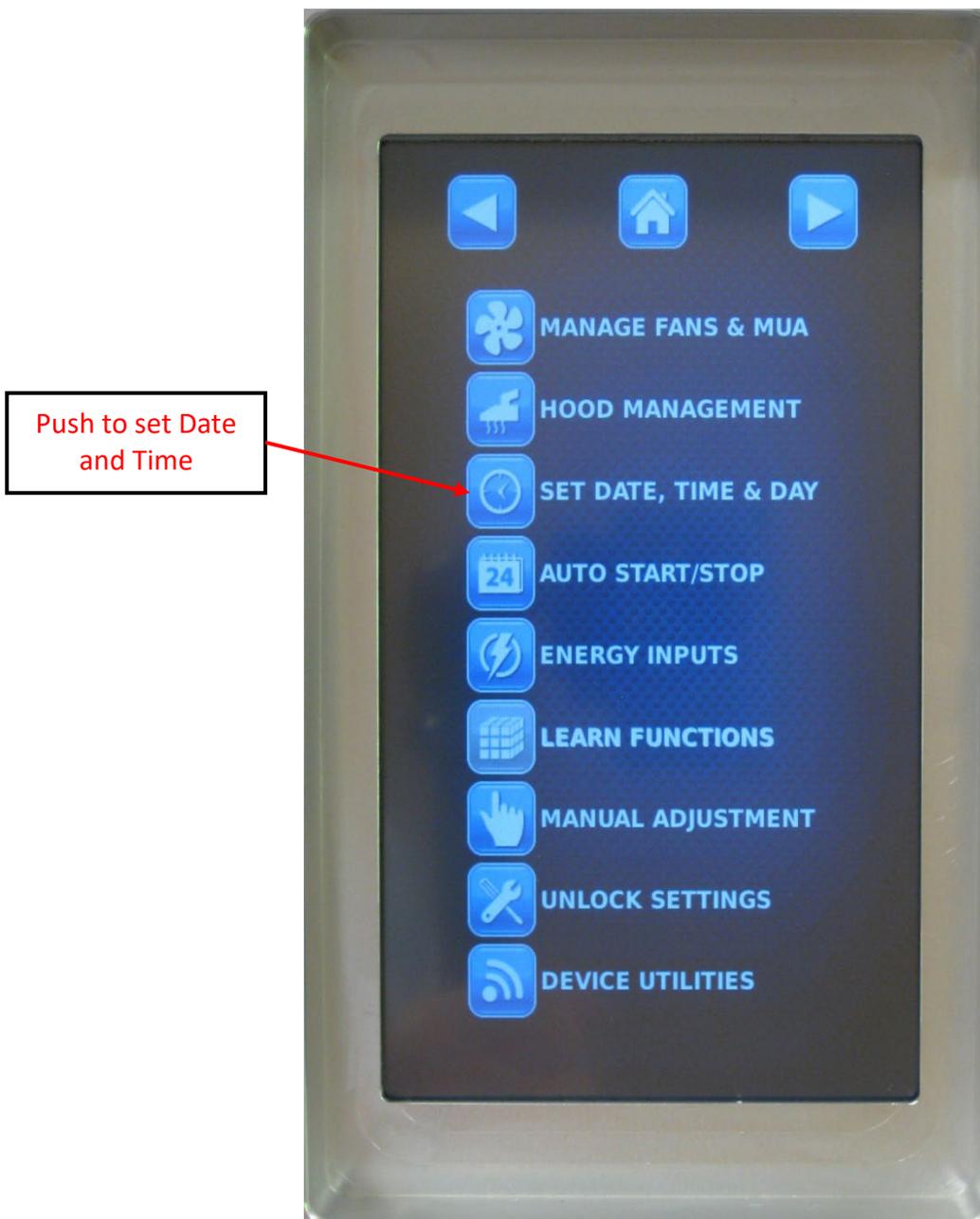


Figure 4-3-1
Settings Screen

Setting Date and Time (Cont.)

To Set Date and Time proceed to Page 4-5.



Figure 4-4-1
Set Date & Time Screen

Setting Date and Time (Cont.)

Step 3 – Push the Month (M) window in the Date row. The current number will highlight and a keyboard at the bottom will come up. Proceed as follows:

- a) Using the keyboard, enter the month of the year.
- b) Push the Day (D) window and using the keyboard enter the day of the month.
- c) If necessary, push the Year (Y) button and using the keyboard enter the year.
- d) Push the Hour (H) button and using the keyboard enter the hour of the day.
- e) Push the Minute (M) button and using the keyboard enter the minute of the day.
- f) If the AM/PM needs to be changed, push the AM/PM Button and the screen will display the AM/PM screen as shown in Figure 3-15-1



Figure 4-5-1
Setting Date and Time

Setting Date and Time (Cont.)

Step 4 - Push either the AM or PM Button as Required. Once either the AM or PM button is pushed, the screen reverts back to the display as shown on Figure 4-7-1.

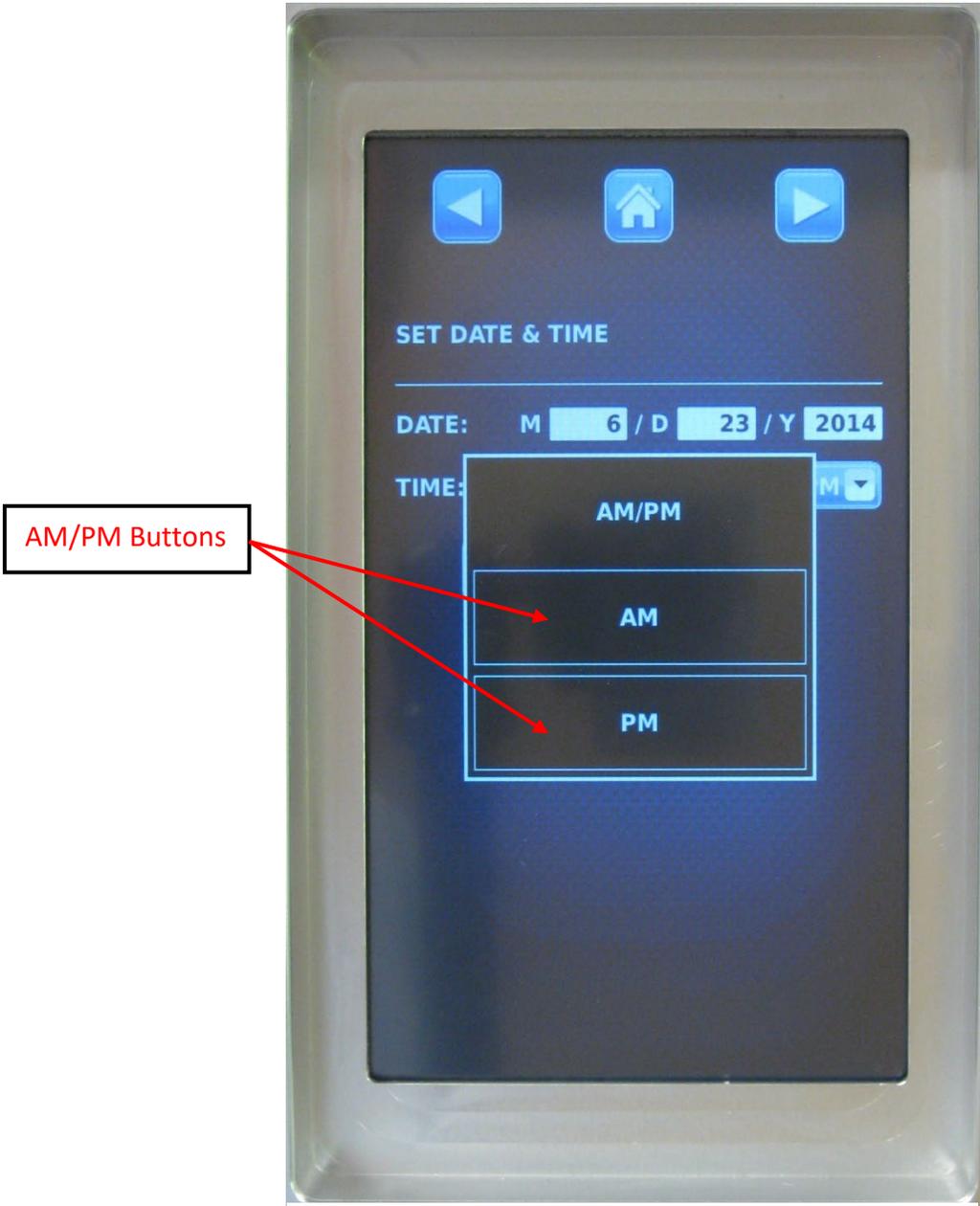


Figure 4-6-1
AM/PM Screen

Setting Date and Time (Cont.)

Step 5 – Once the Month, Day, Year, Hour, Minute and AM or PM have been entered push the SET DATE, TIME & DAY Button to enter. A window will come up on the screen that says “Clock set to (the month, day, year, hour, minute and AM/PM) you entered. If it is correct push the OK Button. The control is now programmed.

Push the Home button to return to the Settings Screen.



Figure 4-7-1
Set Date & Time Screen

System Scheduling

The AirVantage has three built in scheduling functions: *Autostart*, *Autostop*, and *Override*. Each of the scheduling functions is optional and not required for normal function of the AirVantage system.

The *Autostart* scheduling function starts the system at minimum airflow on all ventilator sections for the scheduled duration. The system will modulate if there is any demand, but will not stop during the scheduled period. At the end of the scheduled duration of Autostart, the system will return to normal demand control, and will shut down after 15 minutes if there is no demand. This function might be used to activate the system prior to the arrival of the staff each morning.

The *Autostop* scheduling function does not “stop” the system, but rather modifies the conditions under which the system will stop. When the temperature at each RTD is below its normal threshold temperature, TL, the system’s 15 minute shutdown timer will start. When the Autostop schedule is active the threshold temperature is raised by 25° F. This allows the system to shut down before all equipment has completely cooled, while still allowing the system to run if cooking equipment is still active. This function might be used where equipment has many open gas pilots to prevent the system from cycling on due to heat buildup during non-working hours.

The *Override* scheduling function runs the system at 100% exhaust airflow during the scheduled period. The system then returns to normal control at the end of the period. This function might be used to speed cooling at the end of the day in preparation for cleaning and maintenance.

System Scheduling (Cont.)

Step 1 – Push the SETTINGS button. The Setting Screen will display (Refer to Figure 4-10-1).



Figure 4-9-1
Home Screen

System Scheduling (Cont.)

Step 2 – Push the AUTO START/STOP button. The AUTO START AND STOP MENU will display (Refer to Figures 4-10-1 and 4-11-1).



Figure 4-10-1
Pushing Auto Start/Stop Button

System Scheduling (Cont.)

Step 3 – Set the schedule. Figures 4-11-1 through 4-15-1 show setting the *Autostart* scheduling function for Monday 6:30 a.m. to Thursday 6:30 a.m. This setting will cause the system to run regardless of demand during the scheduled period. To set the schedule as follows:

- First make sure TYPE: is set to AUTOSTART. Pressing the dropdown will bring up the SCHEDULE TYPE window (Refer to Figure 4-12-1). Then push AUTOSTART.
- Enter the schedule start day.. Push the dropdown menu under BEGIN:, and the DAY OF THE WEEK window will come up (Refer to Figure 4-13-1). Push the desired day, for this example push MONDAY.
- Enter the schedule end day. Push the dropdown menu under END:, and the DAY OF THE WEEK window will come up. Push the desired day, for this example push THURSDAY.



Figure 4-11-1
Auto Start And Stop Menu Screen

System Scheduling (Cont.)

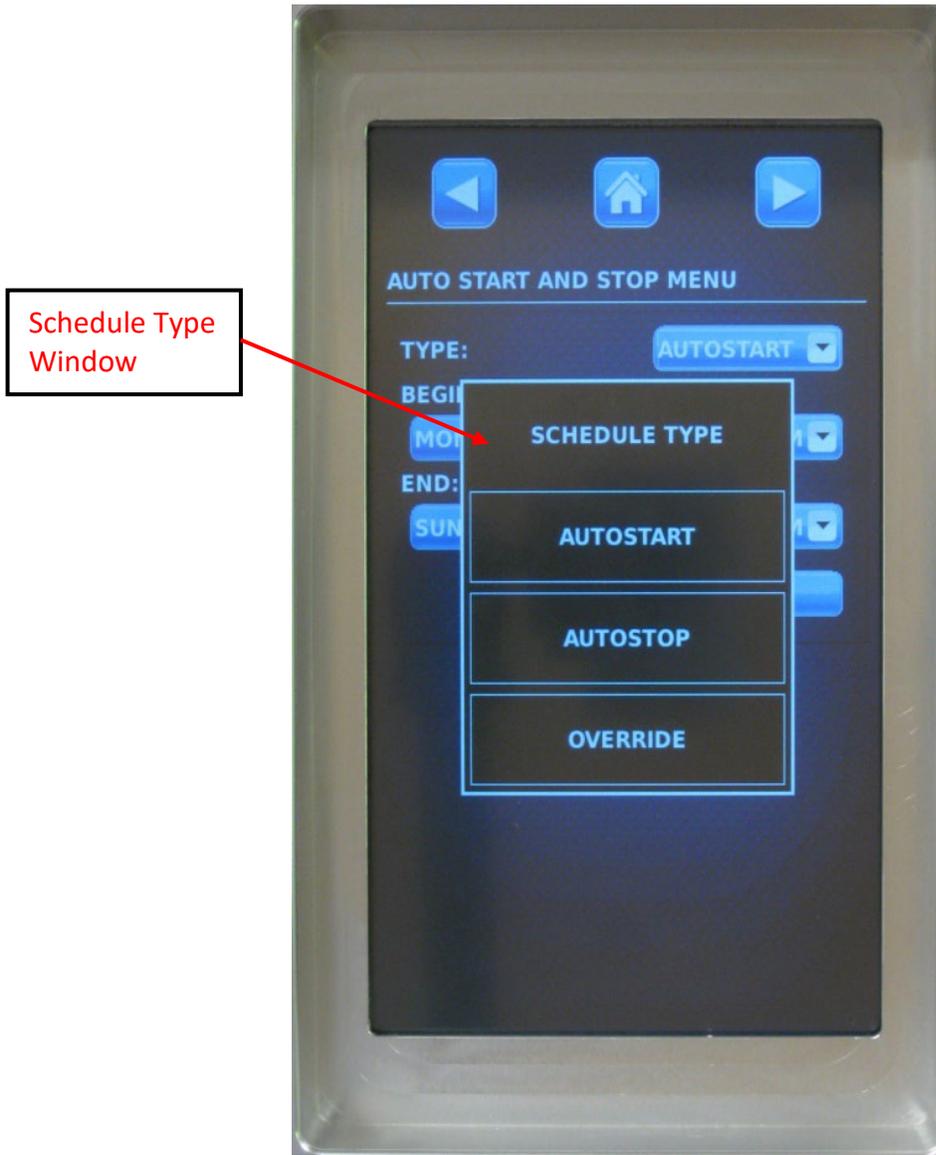


Figure 4-12-1
Auto Start and Stop Screen
With Schedule Type Window

System Scheduling (Cont.)



Figure 4-13-1
Day of Week Window

System Scheduling (Cont.)

Step 3 – Cont.

- d) Next the beginning start time for Monday is entered. Across from MONDAY, push and hold the hour window until a blue cursor appears and a key pad will come up at the bottom of the screen (Refer to Figure 4-14-1). Using the keypad, enter the desired hour, for this example enter 6. Then push and hold the minute window until a blue cursor flashes. Entered the desired minute, for this example enter 30.
- e) Repeat step d) for the end time across from THURSDAY.
- f) Push the ADD Button. The system will now start automatically and run continuously every Monday at 6:30 am until Thursday at 6:30 a.m. Multiple schedules may be programmed and will display at the bottom of the screen (Refer to Figure 4-15-1).



Figure 4-14-1
Auto Start and Stop Menu
With Keypad

System Scheduling (Cont.)

- g) To modify an existing schedule, push the EDIT Button. To delete one of the schedules push the DEL Button.



Figure 4-15-1
Auto Stop and Start Menu
With Times Programmed

Manual Control of the System

During system balancing or routine maintenance it may be necessary to manually control the system. This is called "Manual Mode". To place the system into Manual Mode proceed as follows:

Step 1 – From the Home Screen push the SETTINGS Button. The Settings Screen will come up.

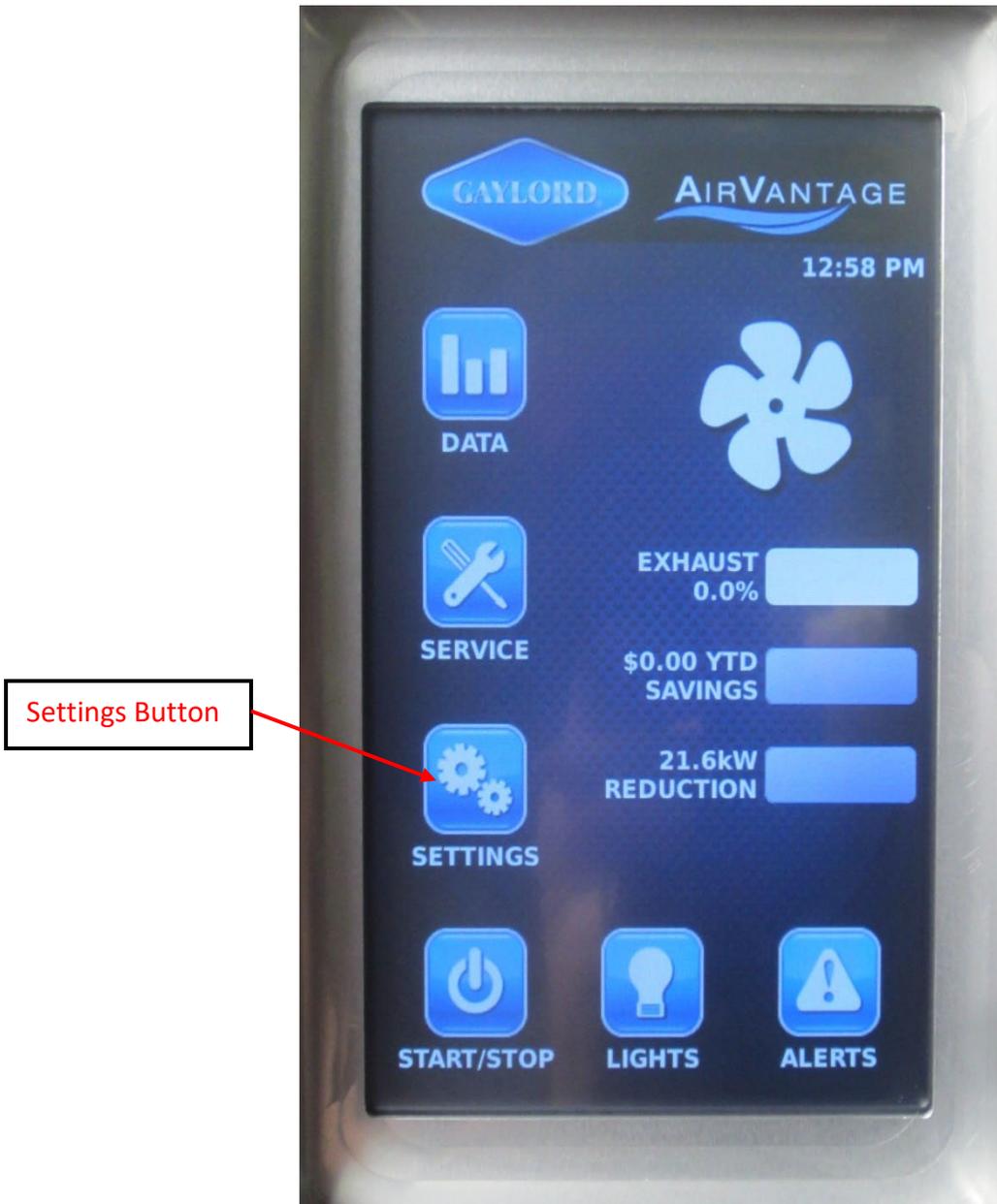


Figure 4-16-1
Home Screen

Manual Control of the System (Cont.)

Step 2 – Press the MANUAL ADJUSTMENT Button. The MANUAL CONTROL Screen will come up.



Figure 4-17-1
Settings Screen

Manual Control of the System (Cont.)

Step 3 - Press the MANUAL CONTROL Button. The Manual Control Screen will come up.



Figure 4-18-1
Manual Control Screen

Manual Control of the System (Cont.)

Step 4 - Press the Enable Button. The button will change from OFF to ON.

Step 5 - Prior to Manual Mode starting you will see the ALERT window in Figure 4-20-1. Press "OK". The system is now in Manual Mode.

Step 6 – Place your finger on the gray Slide Bar and slide the bar to the desired speed.

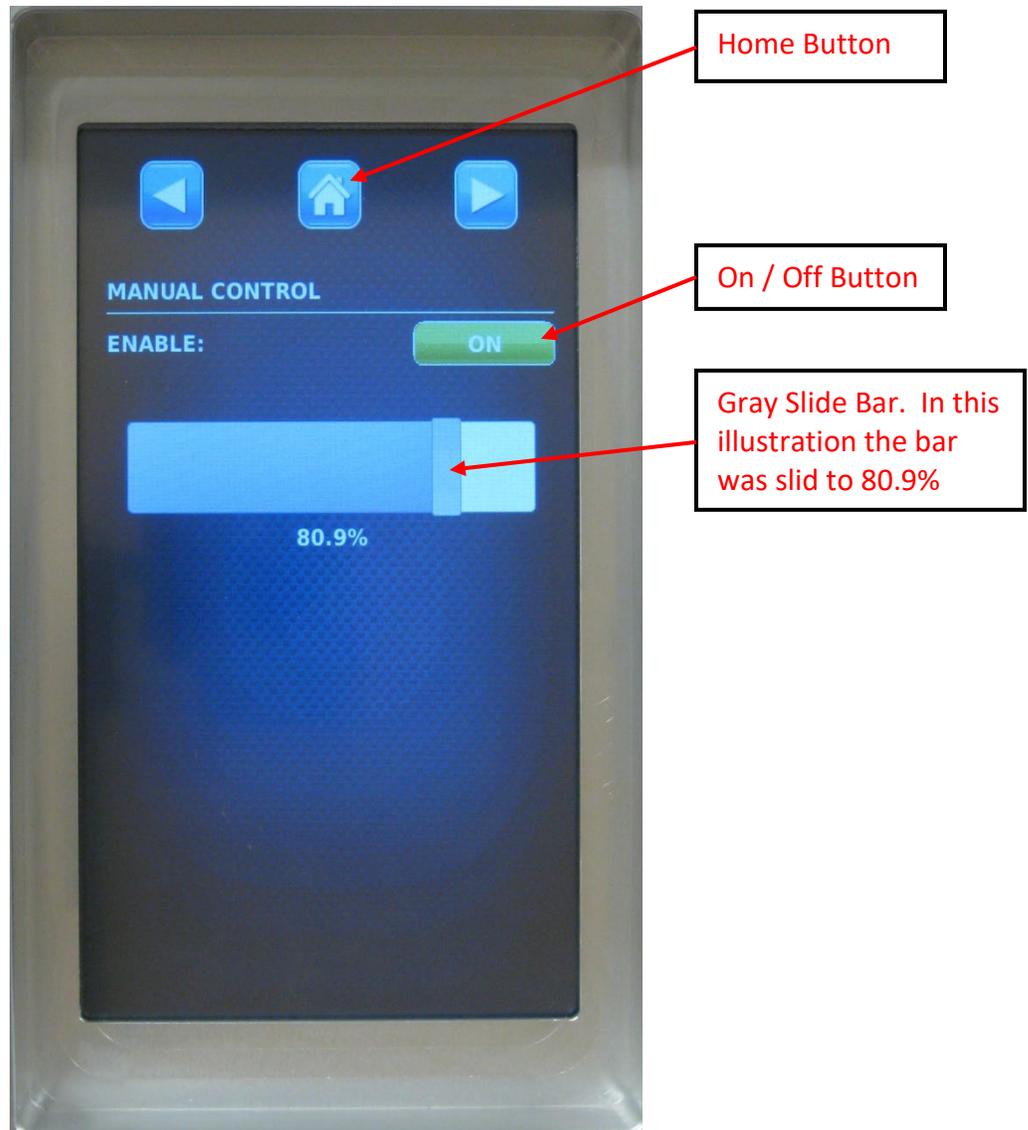


Figure 4-19-1
Manual Control Screen

Manual Control of the System (Cont.)

Step 7 - IMPORTANT: When manual control is no longer required return to the MANUAL CONTROL screen and press the Enable Button to change it from ON to OFF. The System will return to normal control.

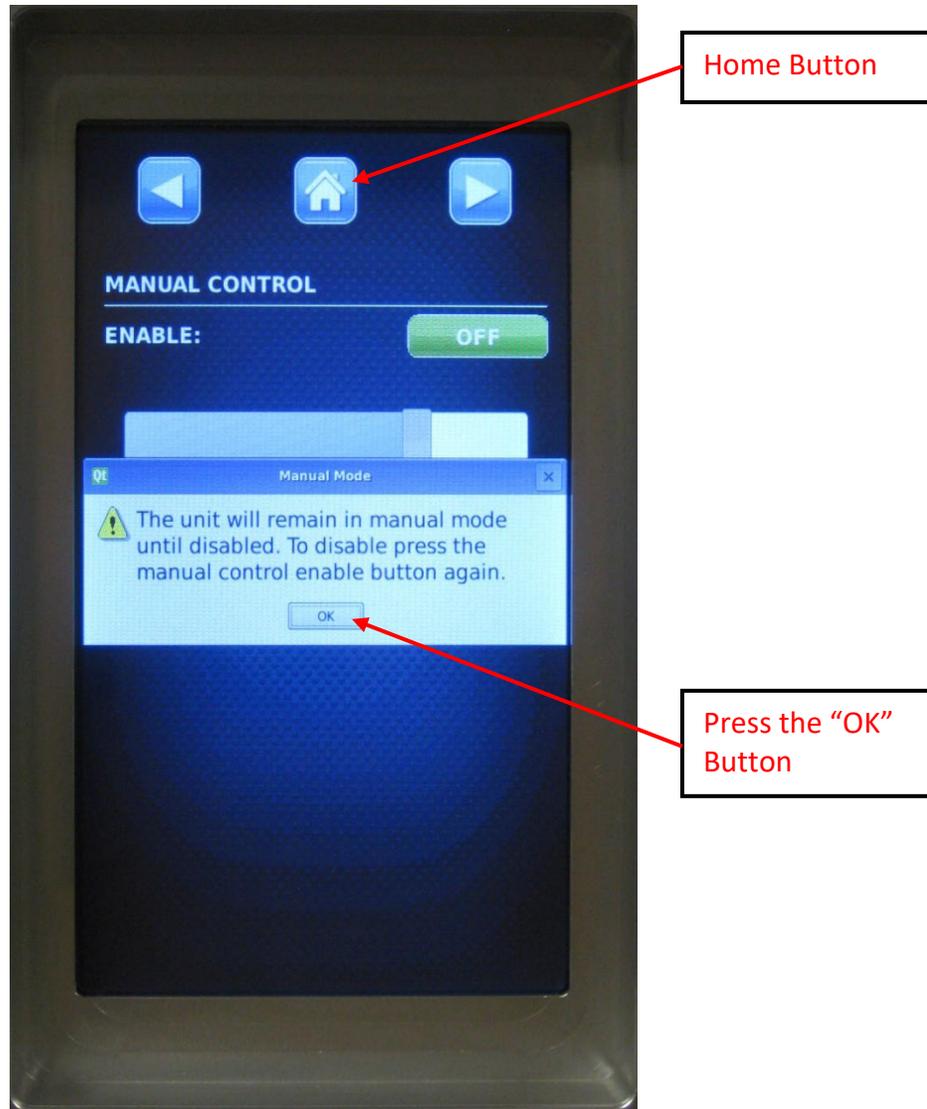


Figure 4-20-1
Manual Control Screen

Manual Control of the System (Cont.)

Important Note: While the system is in Manual Mode, the Home Screen will display “MANUAL MODE” above the ALERTS button.

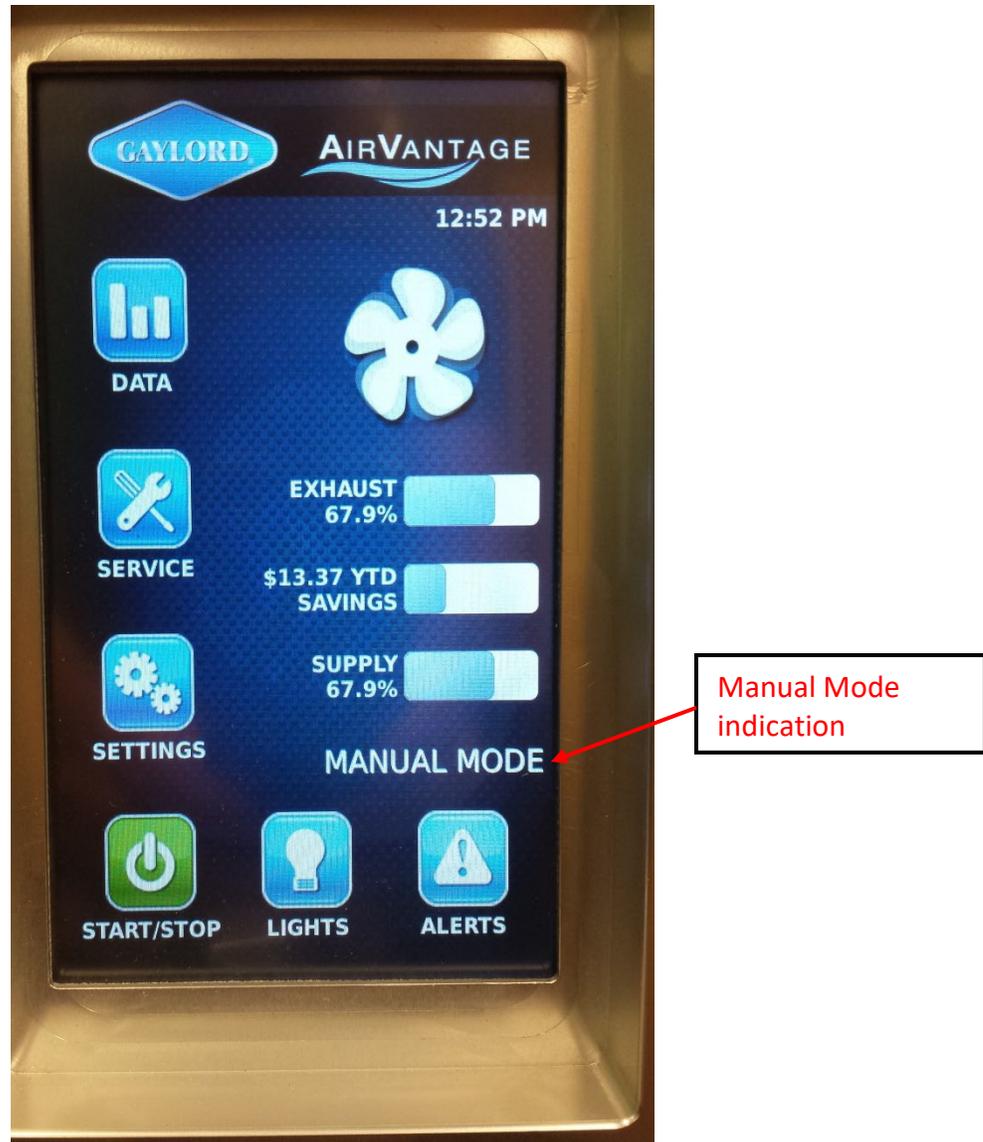


Figure 4-21-1
Home Screen – Manual Mode

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Service Information

Gaylord Certified Service Agency (CSA) name and contact information can be accessed by pushing the SERVICE button. The contact information will display on the Service Contact screen (Refer to Figure 5-2-1)



Figure 5-1-1
Accessing Service Information

Service Information (Cont.)



Figure 5-2-1
Service Contact Screen

Hood Cleaning Precautions

NFPA-96, National Fire Protection Association Standard for Ventilation Control and fire Protection of Commercial Cooking Operations, require that Hoods (Ventilators), ducts and exhaust fans must be inspected and by a properly trained, qualified and certified company or person(s) in accordance with the following table.

Table T-5-3-1

Exhaust System Inspection Schedule	
Systems serving solid fuel cooking operations	Monthly
Systems serving high-volume cooking operations such as 24-hour cook, charbroiling or wok cooking	Quarterly
Systems serving moderate-volume cooking operations	Semi-annually
Systems serving low-volume cooking operations	Annually

Upon inspection, if found to be contaminated with deposits of grease, the entire system must be cleaned by a properly trained, qualified, and certified company or person(s) acceptable to the authority having jurisdiction.

When a vent cleaning service is used, a certificate showing date of inspection or cleaning shall be maintained on the premises. After cleaning is completed, the vent cleaning contractor shall place or display within the kitchen area a label indicating the date cleaned and the name of the servicing company. It shall also indicate the area not cleaned.

Caution: Hood cleaners must shut off power to the hood exhaust fan, at the disconnect switch, to prevent the exhaust fan from automatically starting by the hot water, used for cleaning, heating up the RTDs (Resistance Temperature Detectors). Prior to turning the disconnect the AirVantage System must be “Hardstopped”. See Chapter 3 “turning off the exhaust fan / Hardstopping the system”

Exhaust Fan Service Precautions

Caution 1: When performing any service on the exhaust fan, the power must be shut off at the disconnect switch to prevent the exhaust fan from automatically starting in the event a cooking appliance is turned on and heats up an RTD.

Caution 2: When performing any service on the exhaust fan, the power must be shut off at the disconnect switch as the Command Center may be programmed to automatically start the exhaust fan at a particular time.

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Data Bars

The AirVantage Command Center Home Screen displays three customizable “bars” of data. The current fan speed, the year to date energy savings the system is providing, and the kW reduction of fan power use on the system are shown in Figure 6-1-1. The Operator can modify these data displays.



Figure 6-1-1
Home Screen Data

Data Bars (Cont.)

The bars displayed on the Home Screen may be modified through the Home Screen Settings Screen. This screen is reached from the Home Screen by clicking on SETTINGS -> DEVICE UTILITIES -> HOME SCREEN SETTINGS (see Figure 6-2-1 below).



Figure 6-2-1
Path to Home Screen Settings

Data Bars (Cont.)

On the HOME SCREEN SETTINGS screen, clicking on any button to the right of the “BAR” number reveals the menu on the far right. After making selections, click on the disk button to save changes (see Figure 6-3-1 below).

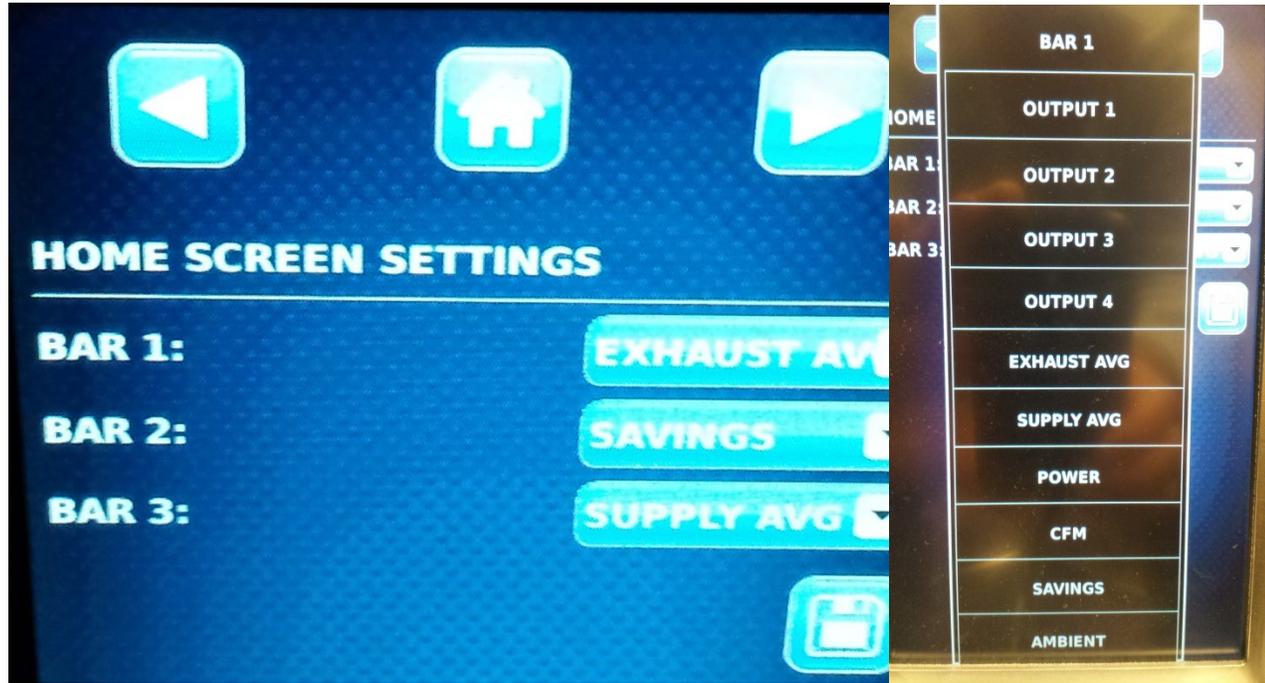


Figure 6-3-1
Home Screen Settings

Data Button

Real-time data and rolling 24-hour data from the DATA button on the Home Screen (see Figure 6-4-1) The initial Data Screen shows the four Outputs with Output 1 always corresponding to an exhaust fan while the other Outputs vary based on the system configuration. The current data for the first five hoods is also displayed on the initial Data Screen. Pressing the right arrow once will reveal additional hoods or if there are no additional hoods, the 24-hour data screen will display.

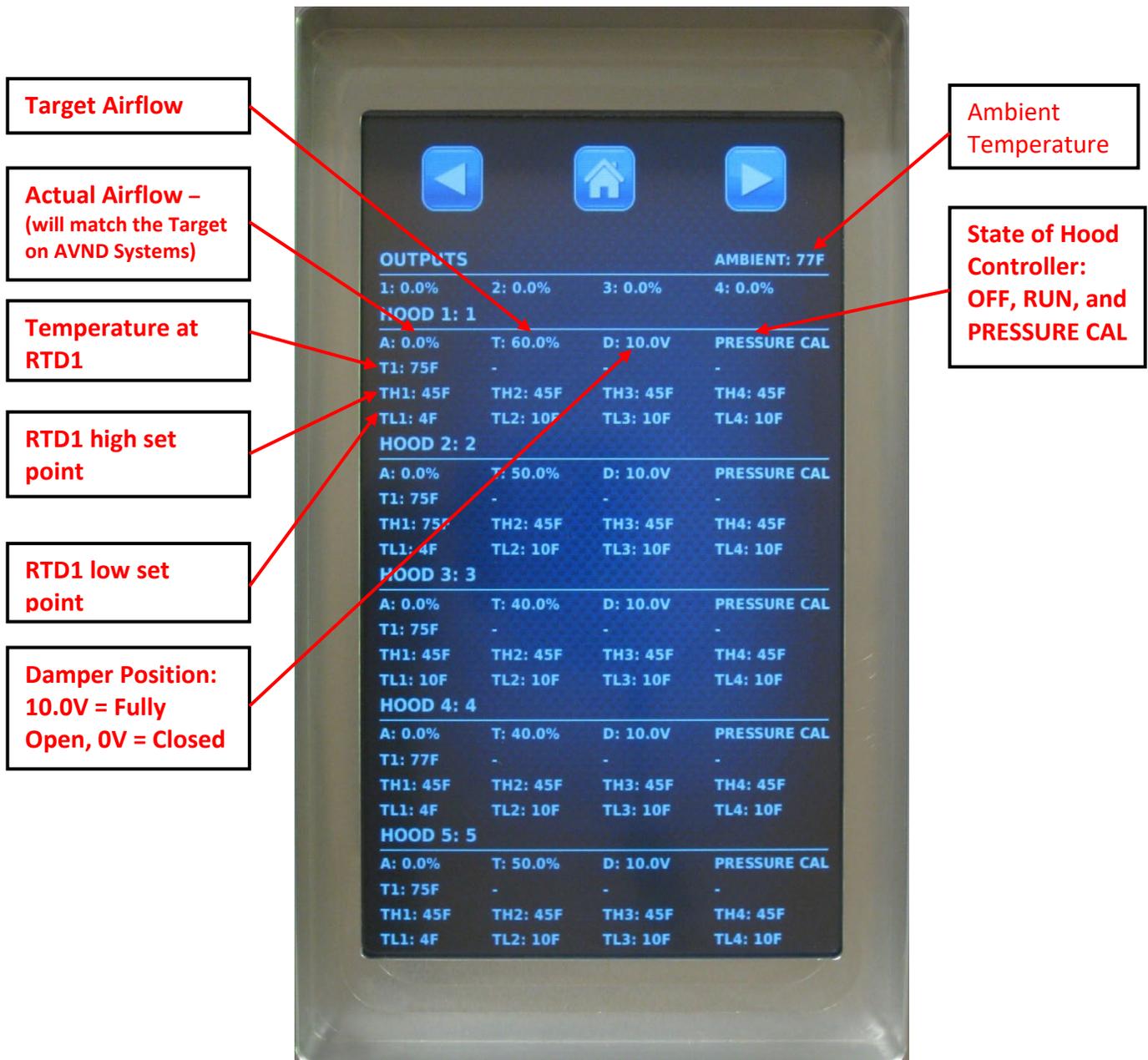


Figure 6-4-1
Data Screen

Data Log File

A data log may also be downloaded to a USB thumb drive as a comma separated value file (CSV) Approximately 4 weeks of data can be downloaded. To download the log file, press SETTINGS -> DEVICE UTILITIES. Insert a USB thumb drive. When the message appears that the drive is loaded, press OK. Select EXPORT LOG FILE. Wait “patiently” as some log files are large and take a long time to download. After download is complete remove drive from USB port.

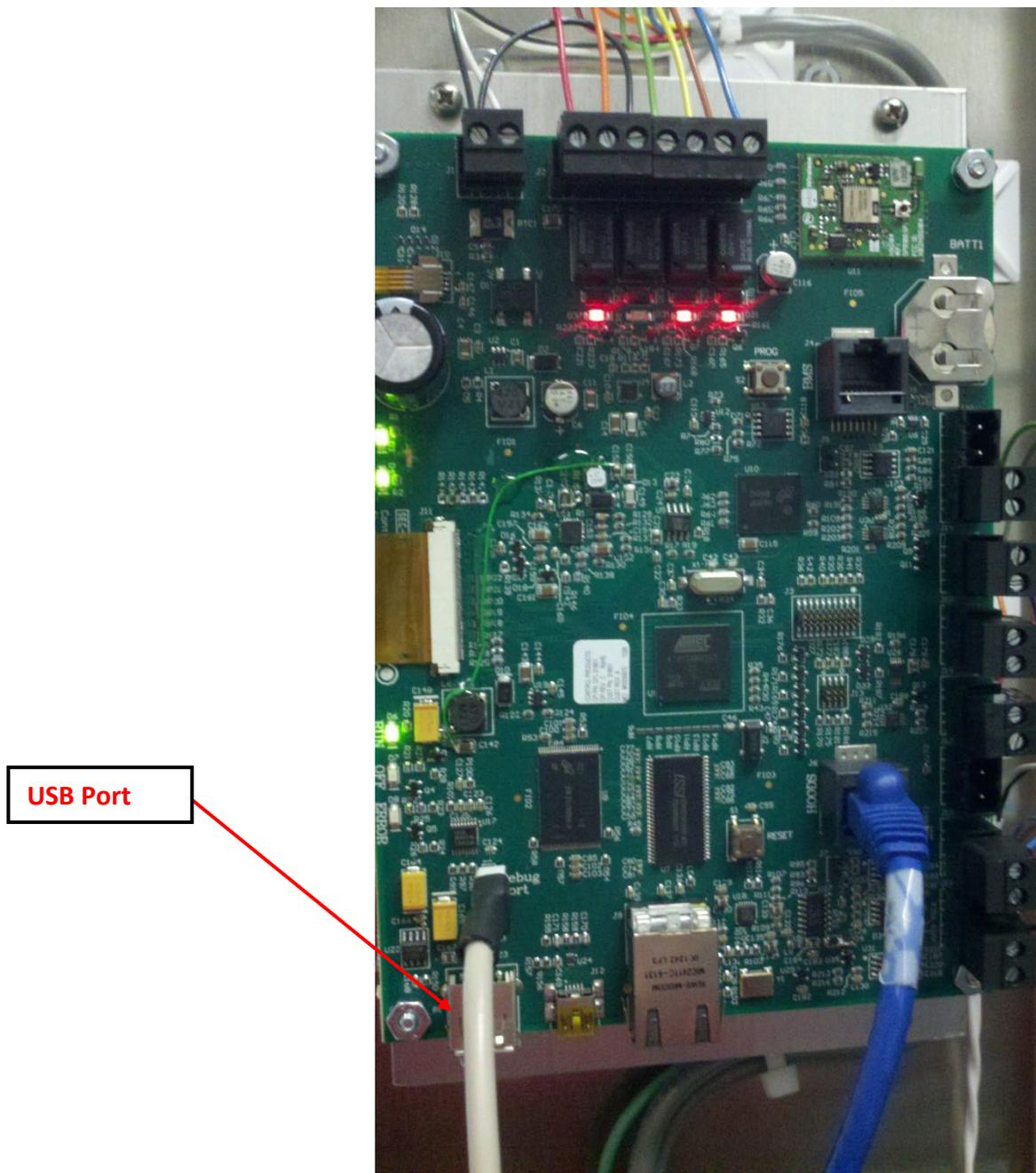


Figure 6-5-1

Command Center Control Board – USB Port

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AirVantage Demand Control Ventilation System MODEL “DCV-AV” & “DCV-AVND” Series

Gaylord Industries Product Warranty Effective July 6, 2020

Gaylord Industries products and component parts furnished with the Gaylord products are warranted to be free from defects of material and workmanship under normal use when installed, operated and serviced in accordance with factory recommendation.

For additional information, please view our warranties at www.gaylordventilation.com

Gaylord Industries Food Service Market – Limited Warranty

<https://www.gaylordventilation.com/notices-and-policies-gaylord/food-service-warranty>

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