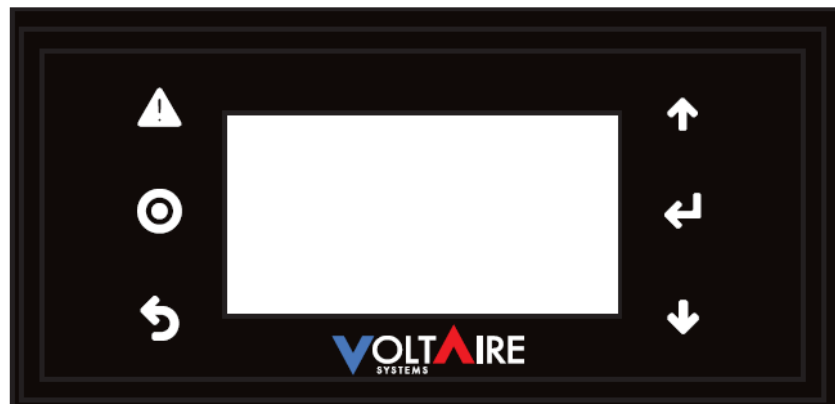# Ethernet Controller Operations Manual

**Read the Manual prior to installing and maintaining the VoltAire Systems Ethernet Controller. Do not install or perform maintenance if you do not understand all of the instructions. **

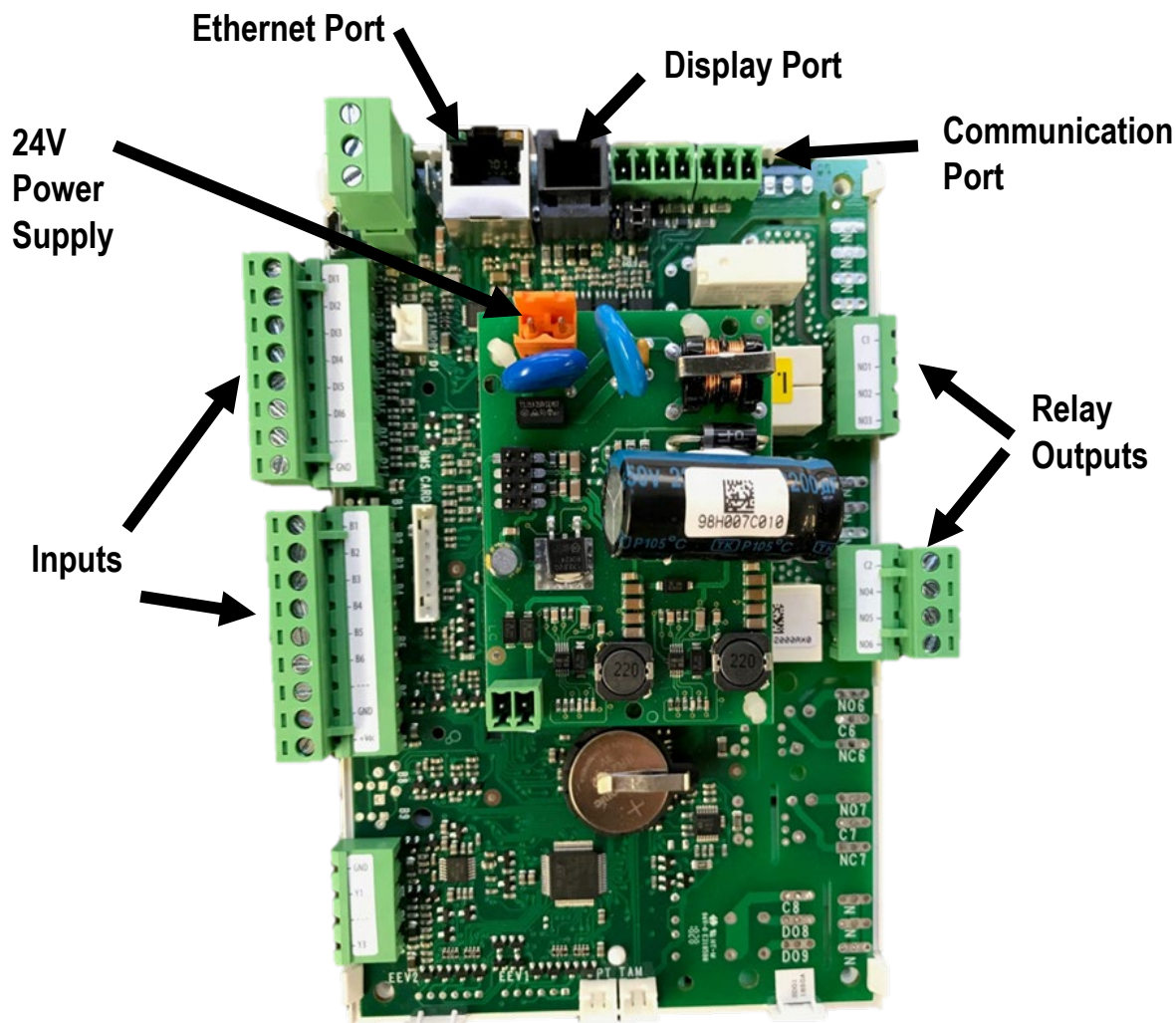Screenshots shown in this manual reflect settings (when applicable)

A more recent revision may be available at www.voltairesys.com

AN, AS, AT Series
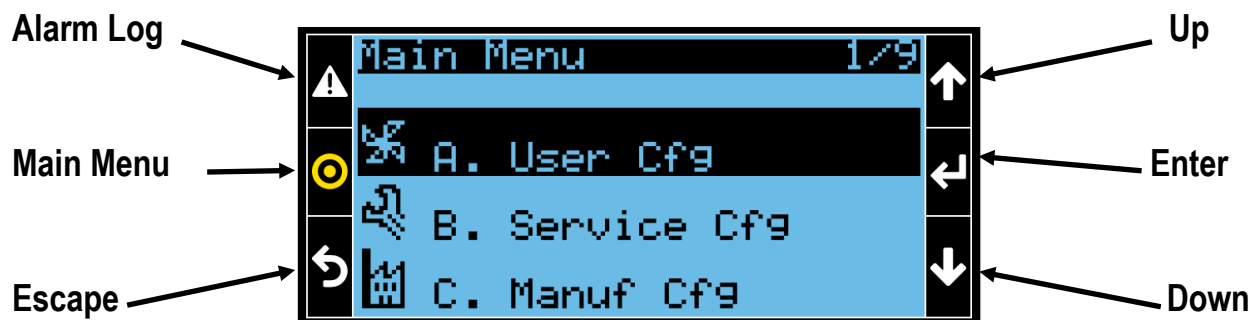Voltaire Ethernet Controller
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Board

User Interface

Unit Status

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Unit Status has four pages total and allows the user to see current status/operations in real-time. Items are only viewable with no editing or configuration available from the status pages.

- o Date and Time
- o Unit Mode (Cooling, Heating, Off)
- o Fan Status (On or Off)
- o Active Alarm Status (High Temp, Low Temp, High Pressure, Low Pressure, Door/ Remote, Lead/Lag, Communication Failure)
- o Inactive Alarm, but active in previous 100 hours (High Temp, Low Temp, High Pressure, Low Pressure, Door/Remote, Lead/Lag, Communication Failure)
- o Lead-Lag Configuration
- o Active Lead Unit (Units must be in Lead-Lag mode)
- o Unit Temperature Readings
  - ▪ Unit Temperature (Standard)
  - ▪ Remote Air Temperature Sensor (Optional)
  - ▪ Leaving Air Temperature Sensor (Optional)
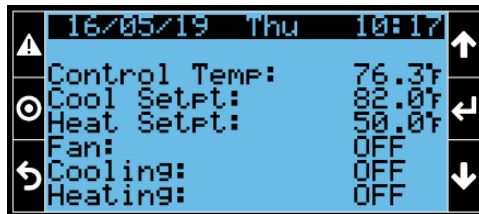 - ▪ Ambient Air Temperature Sensor (Optional)

Figure 3

There are multiple pages within the Unit Status view, each page can be observed by simply pressing the **DOWN** and **UP** arrows to scroll through pages. (Page 1 is shown in Figure 1)

Configure Level Summary + Password Accessibility

The VoltAire Ethernet Controller is equipped with different configuration levels. A **PASSWORD** has been designated to each level and will need to be entered into the controller for access to those configuration options.

- • **User Level Configuration (Password: 0000)**
  - o Ability to view main menu pages
  - o Change Cool / Heat set points
  - o View I/O Configurations / Status
  - o View Alarm Log / Data Logger
  - o Info tab – IP address, Board temp, Memory, Work hours, Blackout Info

- • **Service Level Configuration (Password: 2016)**
  - o Above listed **"User "** level
  - o Date & Time
  - o No-Timer mode, Log frequency, Heat option, Door shut down, Unit of measure, Fan control, Alarm options, Hysteresis, Head pressure control, Temp sensor options, and Test mode
  - o Lead – Lag Configuration
  - o Change Alarm Set Points

- • **Manufacturer Level Configurations**
  - o Not Used

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User Configuration (Password: 0000)

Temperature Set Point Adjustment

The board will energize cooling operation immediately upon the temperature sensor reading a temperature 1°F above the cooling set point, as long as the board is not in a cooling delay (5 min). The cooling delay is used to prevent short cycling, which may cause premature unit failure. The cooling operation will terminate when the temperature sensor reads a temperature equal to the set point less the hysteresis (Default 4°). To change the hysteresis, please refer to hysteresis settings on page 9.

The board will energize heating operation immediately upon the temperature sensor reading a temperature 1°F below the heating set point as long as the board is not in a heating delay (Default 2 min) during initial startup or following the previous heating operation. Heating operation will stop when the temperature is 1°F above the heating set point.

Figure 4

Press the **MAIN MENU** button. Enter Password 0000. Select **USER CONFIGURATION**, refer to figure 4.

Figure 5

Change the desired set point by pressing the **ENTER** button once for cool set point and twice for heat set point. The **UP** and **DOWN** arrows allow for change in value, refer to figure 5. Press **ENTER** to confirm value change and then **ESCAPE** to return to **MAIN MENU**.

Installer/Service Configurations (Password: 2016)

Date & Time Adjustment

Change the Date & Time by clicking on the **MAIN MENU** button and selecting **Date&Time**, shown in Figure 6. Press the **ENTER** button and then change date and hour as needed by continuing to press the **ENTER** button to move down the list and the **UP** and **DOWN** arrows to select the proper values (Figure 7). Press **ENTER** and then the **ESCAPE** button once changes are complete.
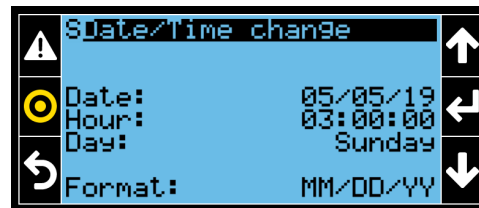

Figure 6

Figure 7

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No-Timer (Mode for Timer Bypass During Unit Testing and Troubleshooting)

The cooling and heating delays are active upon initial startup, power cycling, and following the termination of the previous cooling/heating operation. This delay may be temporarily bypassed, as discussed below with **No-Timer Mode**. When this mode is **ON** the unit will bypass the heating and cooling delays. This mode is designed for unit testing, should heating or cooling mode need to be quickly analyzed. No-timer mode will automatically be disabled after the **No-Timer Time** (Default 10 Min) to protect to unit from short cycling.
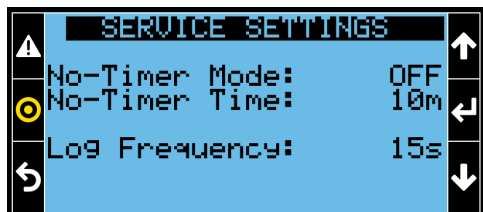

Figure 8

From **MAIN MENU**, select **SERVICE CFG** to view figure 8. Press **ENTER** to select No-timer mode and use the **UP** or **DOWN** arrow to turn on. Press **ENTER** again to select the time to be enabled. Press the **ESCAPE** button to get back to the main menu.

Heater Option (Optional)

The unit may include a heater to provide heat during low temperatures and this function may be turned **ON** (Default) or **OFF**. A heater must be installed in the unit for this to function.
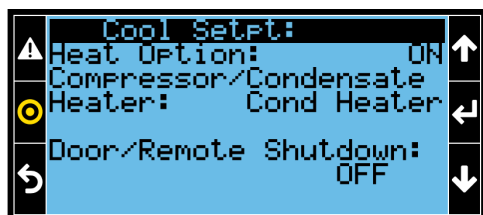

Figure 9

To change heater option settings press the **MAIN MENU** button. Select **SERVICE CFG**, press the **DOWN** arrow once to get to the heater option screen, see figure 9. Use the **ENTER** key and the **UP** and **DOWN** arrows to change Heat Option **ON/OFF**. Press the **ESCAPE** button to get back to the main menu.

Compressor Heater/Condensate Heater (Optional)

If a compressor heater or condensate heater is installed and not wired to operate continuously when the unit is powered, these heaters can be controlled by the control board (plus additional relays which are optional). To change Condensate/Compressor Heater settings press the **MAIN MENU** button, select **SERVICE CFG**, press the **DOWN** arrow once to get to compressor/condensate heater selection, see figure 9 (above). Use the **ENTER** key until the cursor is on the **Condensate/Compressor** heater selection and the **UP** and **DOWN** arrows to change between **Compressor, Condensate, or Off**. Press **ENTER** to confirm selection then the **ESCAPE** button to get back to the main menu.

Modes:

- **Off (Default) –**No compressor heater or condensate heater control
- **Compressor Heater -** If the compressor heater is installed in the unit, the heater will be on at all times except with an active call for cooling. It is designed to prevent refrigerant migration during low ambient temperatures.
- **Condensate Heater -** If the condensate heater is installed in the unit, the heater will be on during an active call for cooling, plus an additional **Cond Heater Delay** (Default 2 min), see the following page. It is designed to evaporate condensate created by the evaporator coil while the unit is in cooling mode.

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Door or Remote Shutdown (Optional)

The Door/Remote Shutdown may be used to shut down the unit either via remote command or a door is open. A field supplied switch is required to be provided by the installer for this to function. To change Door/Remote shutdown settings press the **MAIN MENU** button, select **SERVICE CFG**, press the **DOWN** arrow once to get to the Door/Remote Shutdown settings, see figure 9 (page 6). Use the **ENTER** key until the cursor is on the **Door/Remote Shutdown** selection and the **UP** and **DOWN** arrows to change between **DOOR OPEN SHUTDOWN, REMOTE SHUTDOWN, or OFF** . Press the **ESCAPE** button to get back to the main menu.

- **Door Shut down -** Unit will shut down if the door contacts open for a period greater than the **Door Bypass Period** (Default 30 min).
- **Remote Shut down -** Unit will shut down immediately when the remote switch is open.

A Door/Remote shut down alarm is generated upon shutdown of the unit.

Heater Delay Settings (Optional)

Heater delay is designed to stop the unit heater from short cycling. The heater delay (Default 2 min) is active upon initial startup, power cycling, and following the termination of the previous heating operation.
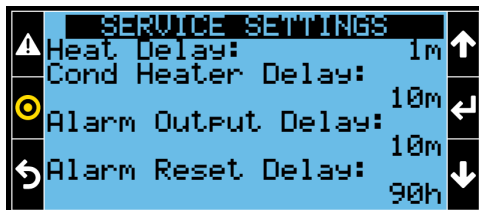
To change Heat delay settings press the **MAIN MENU** button, select **SERVICE CFG**, press the **DOWN** arrow four times to get to the heater delay settings screen, see Figure 10.

Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

Figure 10

Condensate Heater Delay Settings (Optional)

The Condensate Heater delay (Default 10 min) allows the user to configure the condensate heater to continue to run for a period of time after the unit has satisfied cooling temperature set point to insure the condensation is being evaporated properly.

To change Condensate delay settings press the **MAIN MENU** button, select **SERVICE CFG**, press the **DOWN** arrow four times to get to the condensate heater delay settings screen, see Figure 10 (above). Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

Change Unit of Measure
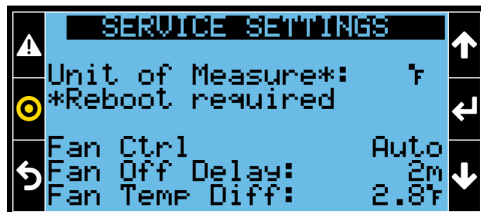
To change unit of measure press the **MAIN MENU** button, select **SERVICE CFG**, press the **DOWN** arrow twice to get to the change of measure screen, see figure 11.

Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

o Fahrenheit (F°) or Celsius (C°) - **Default** Fahrenheit

Figure 11

Note – Reboot of the controller will be required when changing the unit of measure**

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Fan Control

To change Fan Control type press the **MAIN MENU** button, select **SERVICE CFG**, press the **DOWN** arrow twice to get to the fan control screen, see figure 11 (Page 7). Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu

Modes:

- o **Auto (Default) –** Fan will run when heat mode or cool mode is active, and run for an additional (default 2 minutes) after heat/cool mode have ended
- o **Continuous –** The fan will continuously run while the unit is powered on
- o **Lead Continuous** (Lead-Lag settings must be configured ON) **–** If the unit is in lead mode, the fan will continuously run while the unit is on. If the unit is in lag mode the fan will operate in Auto mode
- o **Temperature Dependent** (requires optional remote sensor)**-** Unit will run per Auto mode, however if there is a fan temp differential (Default 5°F) between the unit temp and the remote temp the fan will run.

The **Fan Off Delay** (Default 2 min) additional time the evaporator fan will run after cool mode or heat mode has been satisfied. This is designed to utilize all cooling or heating as the calls become inactive to prevent hot/cold spots in the cabinet.

Per above, **Fan Temp Differential** (Default 5°F) allows the fan to run continuously based upon a difference in remote sensor and unit sensor temperature.

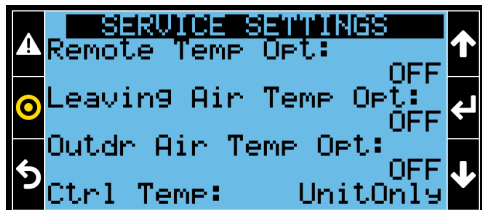## Temperature Sensor Configuration

Figure 12

To change the temperature sensor configuration press the **MAIN MENU** button, select **SERVICE CFG**, and press the **UP** arrow two times to get to the temperature sensor controls screen, see Figure 12.

Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

Sensor Options:

- o **Unit Temperature Sensor (Default) –** measure the return air temperature at the unit
- o **Remote Temperature Sensor** (optional) – placed at user's discretion
- o **Outdoor Temperature Sensor** (optional) – Measures outdoor/ambient air temperature
- o **Leaving Air Temperature** (optional) – Measures the leaving air from the evaporator coil

The **Control Temp** is utilized by the controller to determine cooling and heating operation.

Control Options:

- o **Unit Only (Default)** - Only unit temperature is used
- o **Average** (Optional remote sensor needed) – Average between remote and unit temperatures
- o **Highest** (Optional remote sensor needed) – Highest between remote and unit temperatures
- o **Remote Only** (Optional remote sensor needed) – Only remote temperature is used

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Hysteresis

Hysteresis is the difference in the temperature when the unit will turn off and when it will turn back on again. **Example** – A 72° cooling set point w/ a 3° hysteresis, the unit would turn off at 69° and turn back on at 72°. Hysteresis settings available for cooling and heating.
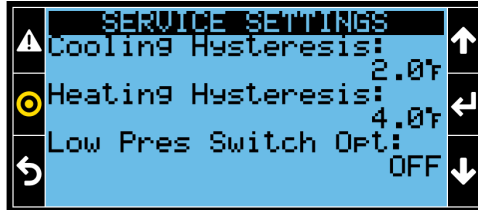

Figure 13

To change Hysteresis press the **MAIN MENU** button, select **SERVICE CFG**, press the **DOWN** arrow five times to get to the hysteresis screen, see Figure 13.

Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

Hysteresis Options:

- **Cooling Hysteresis:** 2-20°F; **Default** 4°F
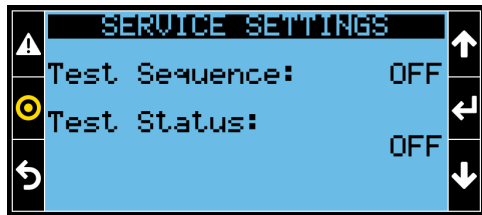- **Heating Hysteresis:** 2-20°F; **Default** 4°F

Test Mode

Figure 14

To run the unit in test Mode press the **MAIN MENU** button, select **SERVICE CFG**, and press the **UP** arrow once to get to the test mode screen, see Figure 14.

Press the **ENTER** key once to move the cursor to the test sequence selection. Press either the **UP** or **DOWN** arrow then press **ENTER** to turn on **Test Mode**.

This will run the following test:

- From 0-60 seconds: **Cool test**
- From 61-90 seconds: **Heating test (if applicable)**
- From 91-100 seconds: **Low-Pressure switch test**
- From 101-110 seconds: **High Pressure switch test**
- From 91-120 seconds: **Alarm test**

Note - Test Status will show each step of the process as it is happening****

Note – Condenser fan may not turn on in cooling operation if LAC is in use as pressure needs to get above 200 PSI.****

Lead-Lag Configuration and Alarm

The VoltAire Ethernet controller allows two units to communicate and provide a lead-lag operation with two stages of cooling/heating and/or for the purpose of backup redundancy. The lead-lag control sequence will provide approximate equal run time for the two units serving the same cabinet, while also providing a sequence of backup cooling/heating and alarming in the event of a failure of one of the units. Utilizing communication wiring and the user interface, the units can be configured to allow the lead-lag and redundancy operation. With both units configured and properly communicating, the units will cycle on and off to maintain set points, and rotate the lead and lag units accordingly for equal run time.

Please note that configuration of lead-lag shall only occur in the field at the units as configuration requires the manual reset of both units for proper addressing.

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Lead-Lag Wiring

Depending on the distance between units, it is recommended to use, either a 2-wire, 18-gauge, unshielded cable for units less than 10 feet apart or a shielded cable with a drain line for units greater than 10 feet apart. Any color may be used. Note that the board has "+" and "-"clearly marked, these connection are **POLARITY SENSITIVE.**
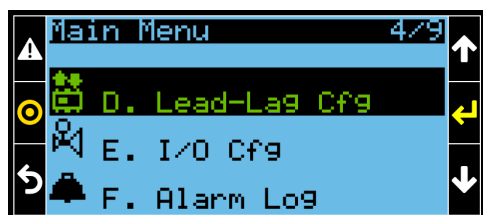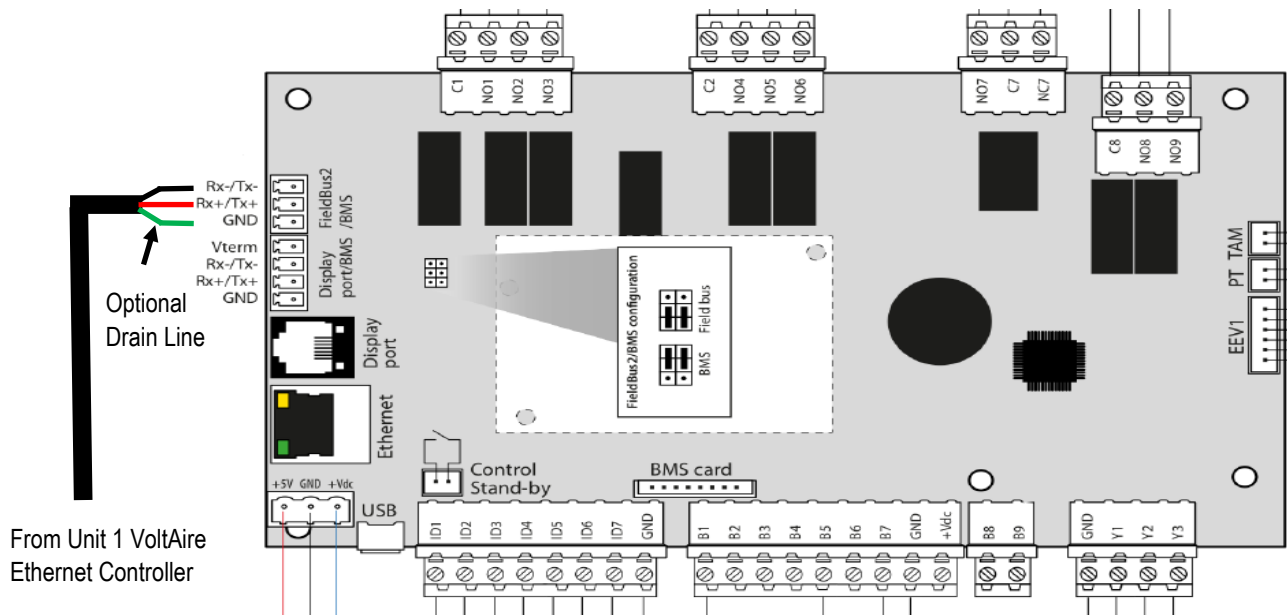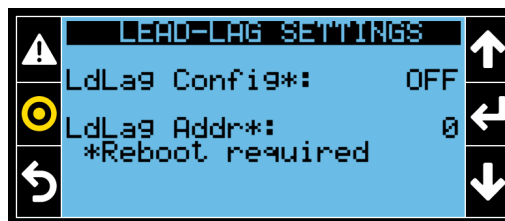

Figure 15

Figure 16

To configure Lead-Lag, press the **MAIN MENU** button and select **LEAD-LAG CFG**, as shown in figure 15.

In order to use Lead-Lag, **BOTH** units must have the Lead-Lag configuration **ON** and the units must be addressed (Default 0). Address one unit to **1** and address the other to **2**. To do so, press **ENTER** once, press the **UP** or **DOWN** arrow once and then press **ENTER** to complete selections, as shown in figure 16. Press **ESCAPE** to return back to main menu.

** **Note** - The units will need to be rebooted to update address settings. **

When both units are configured for Lead-Lag **ON**, cooling/heating set points, and hysteresis settings will be shared between unit 1 and unit 2. Making a change to the set point of unit 1 will apply set point changes to unit 2. If one or both units a configured for Lead-Lag **OFF**, configuration options will not be shared between units.

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The lead unit will operate as Stage 1 at the cooling/heating set point, with the lag unit providing Stage 2 cooling/heating at the stage 1 set points plus/minus the Lead-Lag temp differential (Default 4°). See Stage 2 cooling operation below. The units will alternate as lead and lag every Change – Over period (Default 1 day).

- o Stage 2 Cool Set Point = Stage 1 Cool Set Point + Lead-Lag Differential (LdLag Diff)
- o Stage 2 Heat Set Point = Stage 1 Heat Set Point – Lead-Lag Differential (LdLag Diff)

Note that the lag unit will operate at the stage two set point regardless of operation of the lead unit. The units' temperature sensors may be located such that they read different cabinet temperatures, and if the lag unit is located in a hot spot, it may operate more frequently than the lead unit. An optional remote temperature sensor may be used with one or both units to allow the unit control temperatures to be taken from the same or similar locations within the cabinet (see Temp Sensor Configuration).

Figure 17
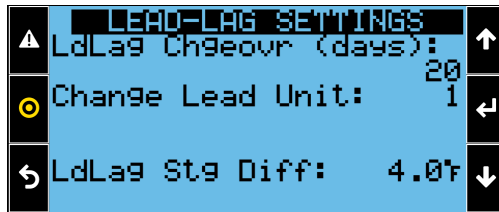
Lead-Lag Temperate Differential: The difference in Stage 1 and Stage 2 temperature set points utilized by the lead and lag units; 2-10°F Degrees (Default 4°F). To change Lead-Lag Temperature Differential press the **MAIN MENU** button, select **LEAD-LAG CFG**, press the **DOWN** arrow two times to get to the Lead-Lag Temperature differential, see Figure 17. Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

Lead-Lag Change Over: is the frequency (# of days) of rotating the lead and lag units to allow equal run time; 1-30 Days (Default 1 Day). To change Lead-Lag Temperature Differential press the **MAIN MENU** button, select **LEAD-LAG CFG**, press the **DOWN** arrow two times to get to the Lead-Lag Change-over settings, see Figure 17. Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

Figure 18
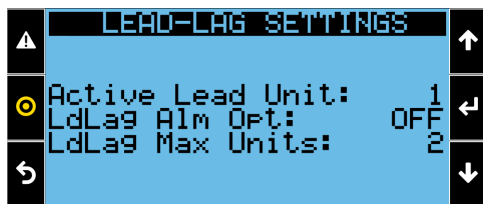
Max No. of Units: This option may be selected by the user to only allow one of two units to operate at any given time. If the max number of units is set to **1** and a high temp or low temp alarm is active, the lead unit will shut down and the lag unit will immediately operate as the lead unit. A Lead-Lag alarm will be provided and the lag unit will continue to operate as the lead regardless of current and future alarms. A manual reset is required to clear the Alarm and to allow the units to lead-lag in accordance with the normal sequence.

Lead-Lag Options:

- **Lead-Lag Configuration (LdLag Config):** ON or OFF**; Default** OFF
- **Lead-Lag Address (LdLag Addr):** 0, 1 or 2**; Default** 0
- **Lead-Lag Change Over (LdLag Chgeovr):** 1-30 Days**; Default** 1 Day
- **Lead-Lag Temperature Differential (LdLag :** 2-10°F**; Default** 4°F
- **Active Lead Unit: Default** Unit 1
- **Lead-Lag Maximum Active Units (LdLag Max Units):** 1 – 2**; Default** 2

Lead-Lag Alarm: This alarm can be utilized to identify service required if the design is such that only one of the units is required to meet the load of the cabinet, with the second unit being provided strictly for the purpose of redundancy. Under this design scenario both units are not designed to operate simultaneously during normal conditions, therefore Stage 2 (Lag unit) should not operate while the Lead unit is active. Therefore the lead-lag alarm option can be set to **ON** and the alarm will be immediately activated if the lag unit stage 2 Cooling or Heating activates. The alarm will be cleared following a manual reset.

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To turn Lead-Lag alarm **ON,** press the **MAIN MENU** button and select **LEAD-LAG CFG**. Press the **DOWN** arrow once to show the Lead-Lag alarm settings, see figure 18.

- **Lead-Lag Alarm (LdLag Alm):** ON or OFF**; Default** OFF

Communication Failure Alarm: This alarm is generated if only 1 of 2 units is configured for Lead-Lag operation <u>or</u> if the units are properly configured for lead-lag operation but communication is lost between the two controllers. This alarm will result in both units operating independently until issue is resolved and alarm is manually reset.

Alarm Log

Figure 19

To view alarms, press the **ALARM LOG** button (triangle) in the top left corner, see figure 19 for alarm screen with no active alarms.
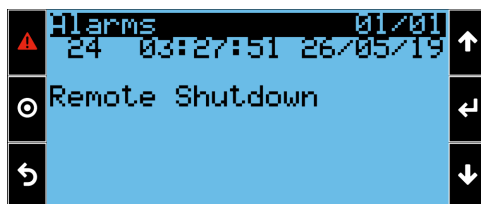

Figure 20

To view active alarms, press the **ALARM LOG** button (triangle) in the top left corner of the display and cycle the alarm views by pressing the **UP** and **DOWN** arrows, see figure 20 for an example of an active alarm.

Low Pressure Switch Settings and Alarm (Optional)

The low pressure switch is an optional feature that monitors the refrigeration system for a loss of refrigerant charge, and may also be helpful in stopping the evaporator (indoor) coil from freezing up due to low airflow through the coil (dirty coil).
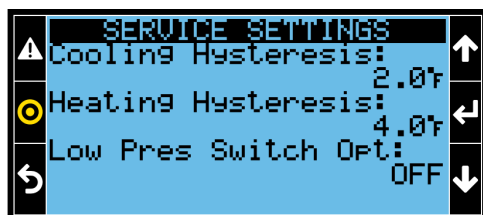

Figure 21

To change Low Pressure Switch settings press the **MAIN MENU** button, select **SERVICE CFG**, press the **DOWN** arrow five times to get to the low pressure switch settings screen, see Figure 21.Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

Low Pressure Alarm: Low Pressure monitoring will only begin after the compressor contactor output has been consistently energized for the low pressure bypass period of (Default 2 Min) and only if Low Pressure Alarm is set to **ON**. The Alarm relay output will stay closed during normal operation and open when alarm is active. Following the Bypass, if DI2 is open, the compressor and head pressure switch will be disabled (open) for a duration of 5 minutes (Soft Lockout). The alarm output will be inactive while the unit is in soft lockout. At the end of the soft lockout duration the unit will attempt cooling operations for the low pressure bypass period, even if the low pressure switch is open. If the low pressure switch stays open for longer than the low pressure bypass period, an additional soft lockout will be triggered. If the board experiences 3 soft lockouts within 90 minutes, the compressor and head pressure control will enter a hard lockout and will require to be reset. Upon the hard lockout the alarm output will be active and the fan operation will continue to operate as configured. **Low Pressure Alarm:** On – Off**; Default** Off

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High Pressure Alarm

High Pressure Alarm: Upon cooling operation, if the high pressure status input is closed, the compressor and head pressure control will enter a 5 minute soft lockout. Following the 5 minute delay, if the high pressure status input is open the unit will begin cooling operations. The high pressure status input will be monitored and if closed the unit will enter a soft lockout. If (3) soft lockouts occur in within 90 minutes the compressor and head pressure control will enter a hard lockout and will require to be reset. Upon hard lockout alarm output will be active and the fan operation will continue to operate as configured.

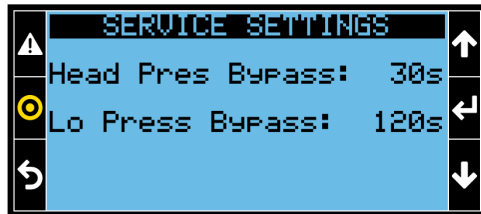## Head / Low Pressure Bypass Period (Optional)

Figure 22

The Head/Low pressure bypass period, applicable with head pressure or low pressure output options installed, allow the unit pressure to get to normal operation before processing alarms. To change the head/low pressure bypass periods press the **MAIN MENU** button, select **SERVICE CFG**, press the **UP** arrow three times to get to the head/low pressure bypass screen, see Figure 22.Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

Bypass Period Options:

- **Head Pressure Bypass Period:** 30 Seconds to 5 Minutes**; Default** 2 Minutes
- **Low Pressure Bypass Period:** 30 Seconds- 5 Minutes; **Default** 2 Minutes

High and Low Temperature Alarm Settings

High Temperature Alarm: If Control Temp is above Alarm set point (Default 90°F) for (Default 10 min) a High Temperature Alarm will become active. Alarm will be cleared after temperature drops below Alarm set point and Alarm Auto Reset (Default 100 hours) has passed. Alarm may be manually cleared by going to the Alarm screen (triangle top left corner) and holding the Alarm Log button (triangle top left corner) for 3 seconds. Unit will continue to operate as normal for the duration of this alarm.

Low Temperature Alarm: If Control temp is below Alarm Set point (Default 34°) for (Default 10 Min) a Low Temperature Alarm will become active. Alarm will be cleared after temperature rises above low temp alarm and Alarm Auto reset (default 100 hours) has passed. Alarm may be manually cleared by going to the Alarm screen (triangle top left corner) and holding the Alarm Log button (triangle top left corner) for 3 seconds. Unit will continue to operate as normal for the duration of this alarm.

Figure 23

To change High and Low Temperature Alarm settings press the **MAIN MENU** button, select **SERVICE CFG**, press the **DOWN** arrow key three times to get to the high and low temperature alarm settings screen, see Figure 23.

Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

Temp Alarm Options:

- **High Temp Alarm Set Point:** 80 – 131°F**; Default** 90°F
- **Low Temp Alarm Set Point:** 0-66°F**; Default** 34°F

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Alarm Delay Settings
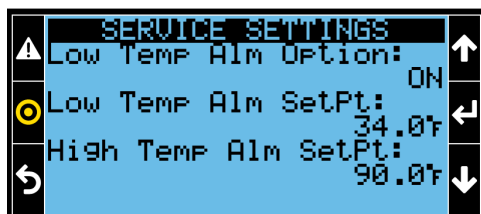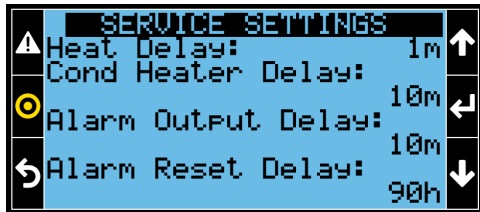

Figure 24

To change delay settings press the **MAIN MENU** button, select **SERVICE CFG**, press the **DOWN** arrow four times to get to Figure 24.

Use the **ENTER** key and the **UP** and **DOWN** arrows to make the selections applicable. Press the **ESCAPE** button to get back to the main menu.

- **Alarm Output Delay:** 0-60 Minutes**; Default** 10 Minutes
- **Alarm Auto Reset Delay:** 0-500 Hours**; Default** 100 Hours; 0 Hours = No reset Delay

Remote Access

To access units remotely, plug Cat 5 Ethernet cable into electronic device and control board, as seen in Figure 25 and 26

Ethernet Connection

****Note –** Make sure the electronic device has internet access

and 24V is applied to the control board**

Figure 25

Figure 26

The next step is to get the IP address from the control board. To do so, press the **MAIN MENU** button on the VoltAire display and scroll down by using the **DOWN** arrow until the **INFO** tab is highlighted, then press **ENTER**, see figure 27.
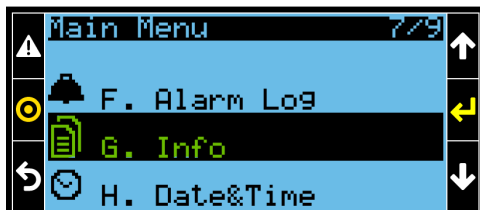
Figure 27
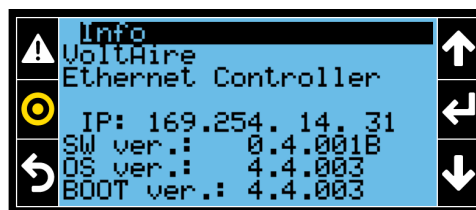
Figure 28

Once the control board has internet access via Ethernet connection the IP address will pop up on the VoltAire display, as seen in Figure 28 (every controller has a different IP address). It may take a minute to populate the IP address on the display.

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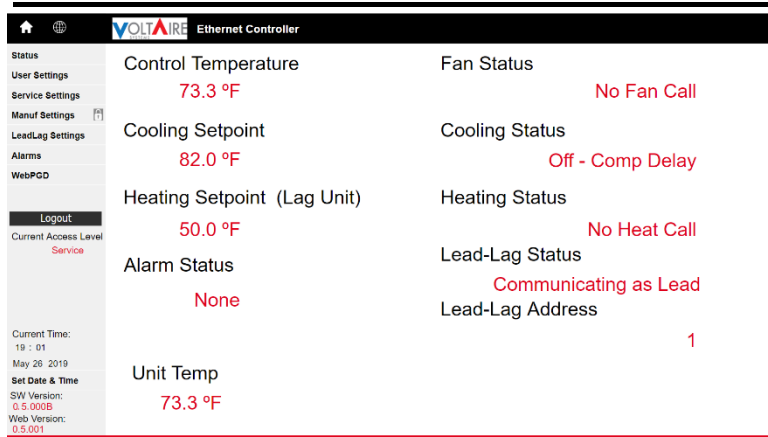
Figure 29

Take the IP address and enter it into a web browser. The following should appear, see Figure 29. This page shows the status of the unit.

Entering Password
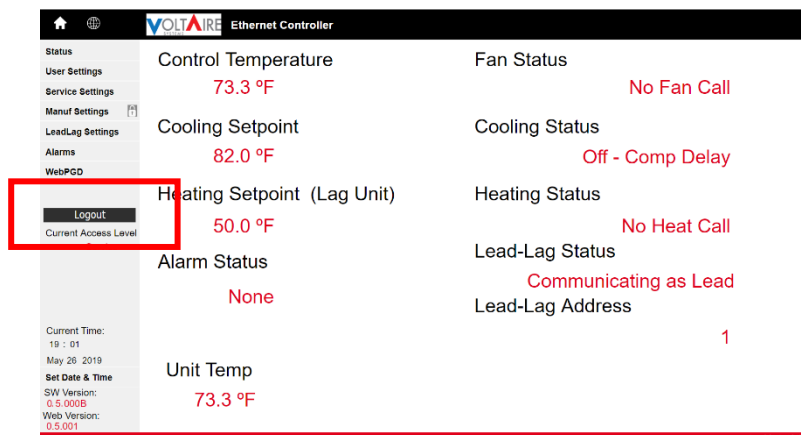
Figure 30

Status and Alarms are the only tabs viewable without a password. To **LOGIN** press the Login button on the left side of the page, as seen in Figure 30.

Passwords

User Settings: 0000

Service Settings: 2016

** **Note –** Click on the black box labeled Login, not the white box above it. **

Enter Password in the pop up box then press **ENTER**. This should unlock the settings applicable to the password given. Current Access Level will show below Login box, see figure 31.

Figure 31

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User Settings

The User settings tab will allow access to change Cooling and Heating set points, as shown in figure 32. (Refer to page 14 for Remote Access set-up)

To change set point values, simply click on the value that needs to be adjusted, once the value is correct press **ENTER** and the new set point will be updated.

** Note- set point will not be updated until the **ENTER** button is pressed**

Figure 32

Service Settings

To change service settings simply click on the **SERVICE SETTINGS** tab on the left side of the web page, see figure 33. (Refer to pages 14 for Remote Access set-up)
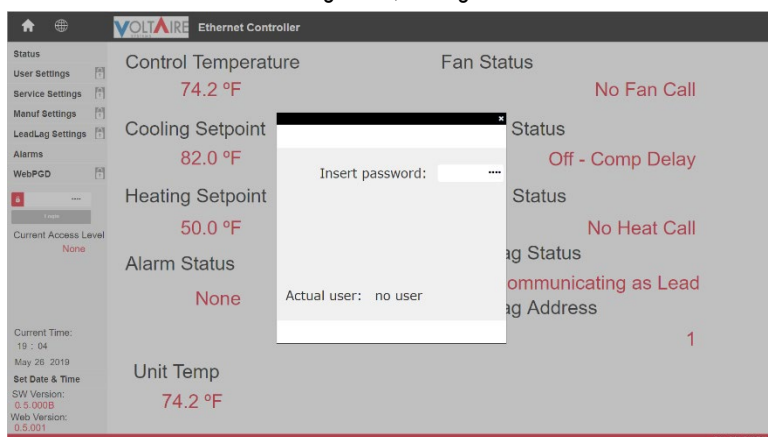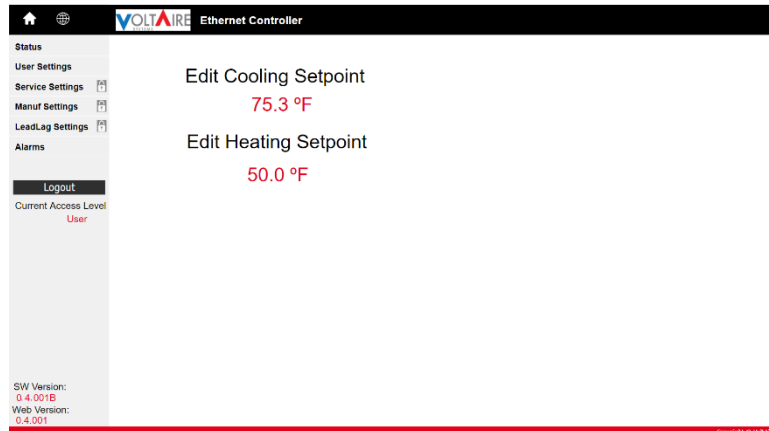

Figure 33

Click on the option that needs to be altered. If it is a switch, press on the grey circle to move the switch back and forth, if the switch is green the option is ON. If the switch is grey the option is OFF. If a numeric value needs to be changed, click on the value, a grey box will appear around the value selected. Clear the value box by pressing the backspace button on your keyboard, enter the value requested then press **ENTER**. The value should automatically update, if the value entered is out of range the closest value in range will be entered. To view setting ranges, use the table of contents to view applicable section. Figure 34 shows how the Lead-Lag webpage should look. If you need to alter an option showing a dropdown menu, click on the arrow next to the drop down menu and select option requested.

** Note – Numeric values will not be updated until the **ENTER** button is pressed. **

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Lead-Lag Settings

For Lead-Lag descriptions and settings see page 9. To change Lead-Lag options select the **LEAD – LAG SETTINGS** tab in the menu on the left side of the web page. (Refer to page 14 for web browser set-up)
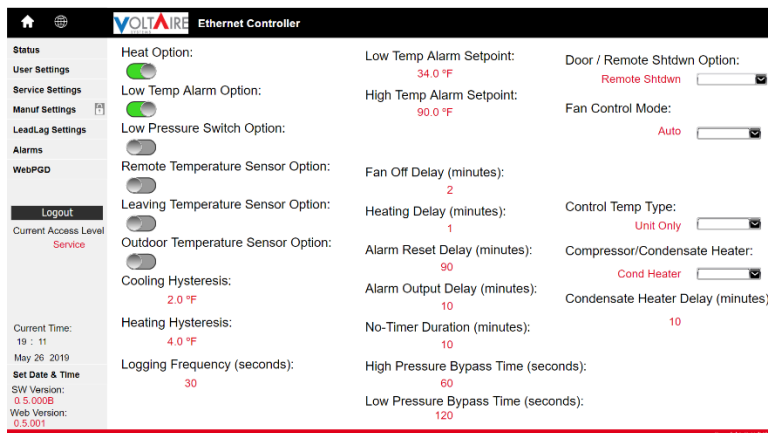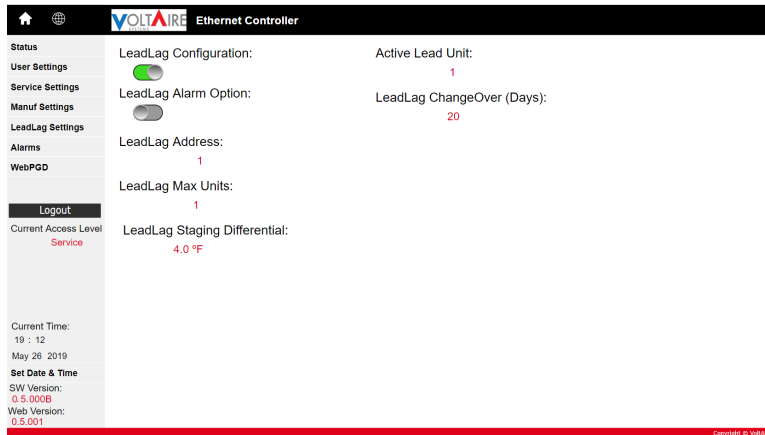

Figure 34

Click on the option that needs to be altered. If it is a switch, press on the grey circle to move the switch back and forth, if the switch is green the option is ON. If the switch is grey, the option is OFF. If a numeric value needs to be changed, click on the value, a grey box will appear around the value selected. Clear the value box by pressing the backspace button on your keyboard, enter the value requested then hit enter. The value should automatically update, if the value entered is out of range the closest value in range will be entered. To view Lead-Lag ranges turn to page 9. Figure 34 shows how the Lead-Lag webpage should look.

** **Note –** Both Unit 1 and Unit 2 need to have Lead lag configuration ON for Lead-Lag to be active**

Alarms

Active Alarm = Red

Normal operation = Grey

** **Note –** As alarm options are changed there may be alarms added or subtracted from this page**

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VOLTAIRE AT SERIES WITH ETHERNET CONTROLLER (WITH HARD START)

NOTES:
(1) SEE COMMUNICATION WIRING DIAGRAM
(2) SEE AUX. RELAY OUTPUTS ADDENDUM IF HEAD PRESSURE CONTROL, ALARM AND/OR IF CONDENSATE/COMPRESSOR HEATER OPTION ARE SELECTED
(3) EXTERNAL SWITCH CAN BE FIELD SUPPLIED AND CONFIGURED FOR DOOR SHUTDOWN OR REMOTE SHUTDOWN

SUPPLY VOLTAGE 115VAC OR 230VAC

COMPRESSOR

COMPRESSOR OR CONDENSATE HEATER (OPT.)

HARD START

RUN CAPACITOR

START CAPACITOR

HEAD PRESSURE CONTROL RELAY (OPT.)

LOW PRESSURE SWITCH (OPT.)

HIGH PRESSURE SWITCH

DOOR/REMOTE SHUTDOWN SWITCH (NOTE 3) (FIELD SUPPLIED & WIRED)

DIGITAL DISPLAY

COMM FIELDBUS (NOTE 1)

ETHERNET PORT

DISPLAY PORT

MICRO USB

INPUTS

RELAY OUTPUTS

POWER

RELAY OUTPUTS (NOTE 2)

UNIT AIR TEMP SENSOR

TEMP SENSORS

LEAVE AIR TEMP SENSOR

OUTSIDE AIR TEMP SENSOR (OPT.)

REMOTE TEMP SENSOR (OPT.)

VOLTAIRE PLC ETHERNET CONTROL BOARD

TRANSFORMER 24VAC T1 115/230VAC

HEAT RELAY (OPT.)

FAN RELAY (OPT.)

TS-2 MANUAL TS-1 AUTO

HEATER (OPT.)

LOW AMBIENT CONTROL (OPT.)

DUAL FAN CAPACITOR

OUTDOOR FAN (CONDENSER)

INDOOR FAN (EVAPORATOR)

CR1

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