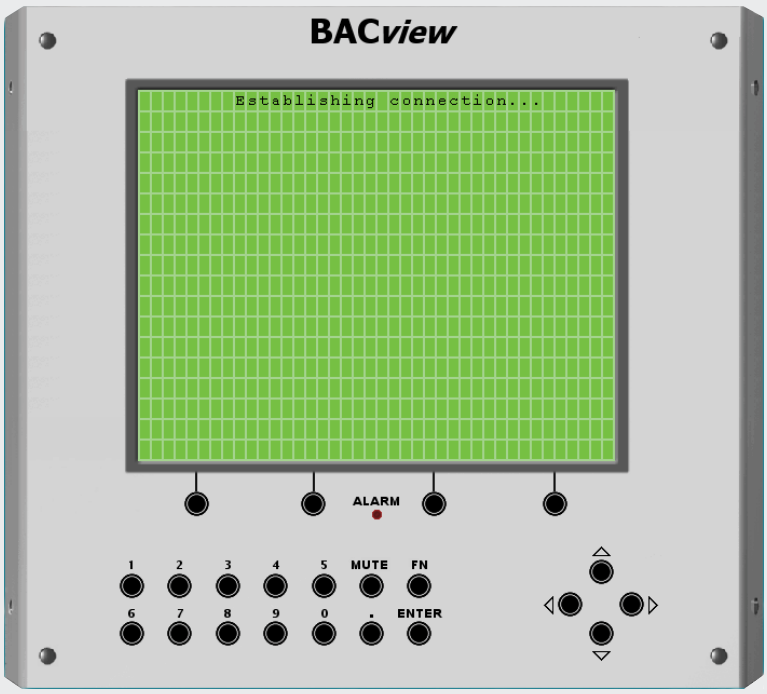
BOSCH

Installation and Operating Instructions

Local User Interface
BACview®



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1 Key to Symbols and Safety Instructions

1.1 Key to Symbols

Warnings

In warnings, signal words at the beginning of a warning are used to indicate the type and seriousness of the ensuing risk if measures for minimizing danger are not taken.

The following keywords are defined and can be used in this document:

DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor to moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

Important information

The info symbol indicates important information where there is no risk to people or property.

2 Introduction

The Virtual BACview® application simulates the BACview®6 Handheld keypad/ display device.

Virtual BACview® software running on a laptop can be used as a local user interface to an OEMCtrl® controller.

Connecting to the controller's Local Access port* allows for a temporary user interface to access the controller information, read sensor values, test the controller, system startup, servicing and troubleshooting.

**Requires a USB Link*

These are accessory items that do not come with the controller.

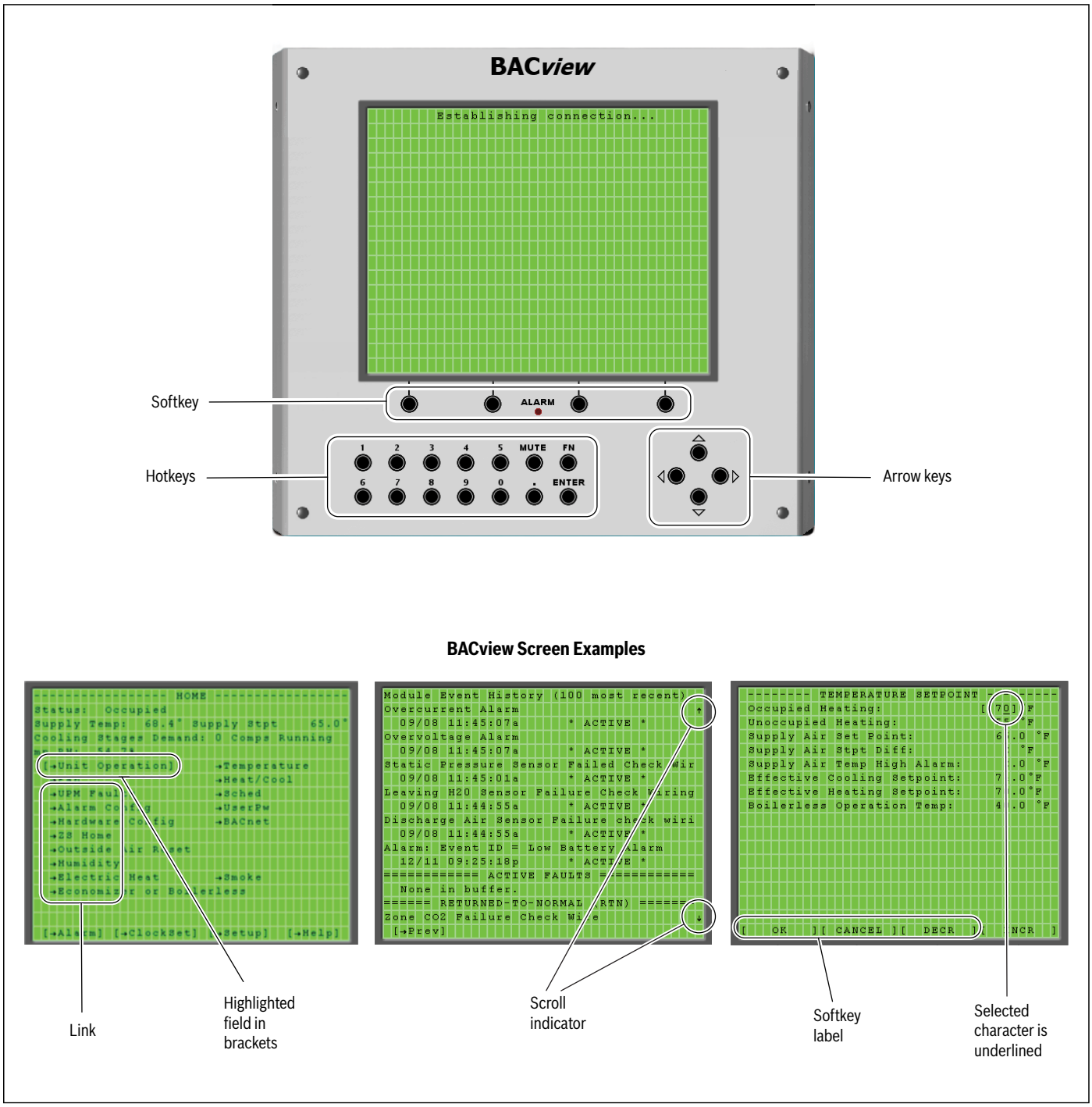

Figure 1

3 Connecting with the Virtual BACview® Application

3.1 To Download the Virtual BACview® Application

To put the application on your laptop:

1. Go to the website https://www.bosch-homecomfort.com/us/en/residential/technical-documentation/software/
2. Scroll down to Virtual BACview Software.
3. Select Download.

3.2 To Connect a Laptop to the Controller

NOTICE

Product damage!

Maintain polarity when controllers share power.

Failure to maintain polarity while using the USB Link on a computer that is grounded via its AC adapter may damage the USB Link and the controller.

Prerequisites

- The controller must have been downloaded by the manufacturer
- Laptop with USB port
- USB Link

Using a USB Link

1. If your computer does not already have the USB Link driver installed, install it before you connect the USB Link to your computer.

Get the latest driver from https://www.silabs.com/software-and-tools/usb-to-uart-bridge-vcp-drivers?tab=downloads

a. Download the correct driver based on the computer's operating system.
b. Run the .exe to install the driver. Accept all of the wizard's default settings.

2. Connect the USB Link to the computer and to the controller's Local Access port.

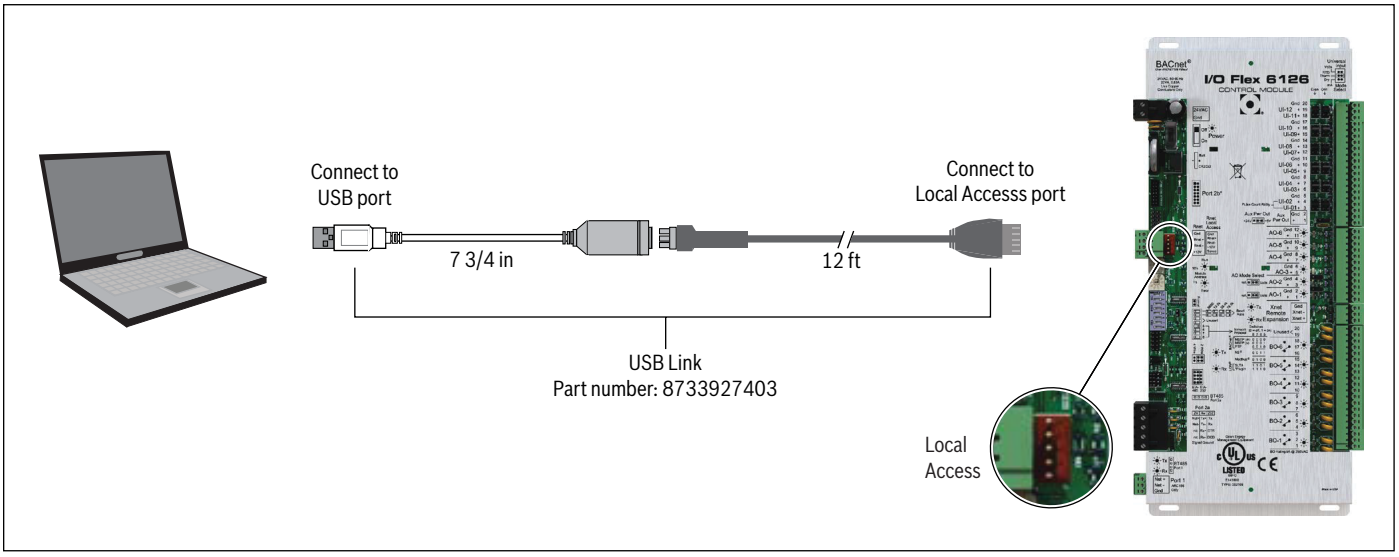

Figure 2

3. Start the Virtual BACview® application.
4. In the ***Row Count*** field, enter the number of screen rows you want displayed (100 maximum).

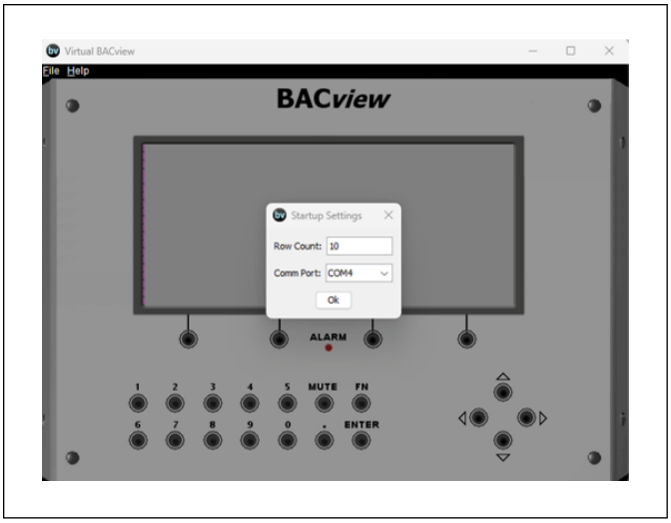

Figure 3

5. In the ***Comm Port*** field, select the laptop's comm port that the USB Link is connected to. To find the port number, select **Start > Control Panel > System > Hardware > Device Manager > Ports (Com & LPT)**. The COM port number is beside **CP210x USB to UART Bridge**.

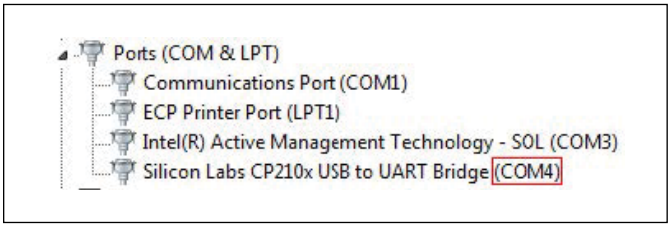

Figure 4

6. Click **OK**.
7. Once communication is established the standby screen will be displayed.

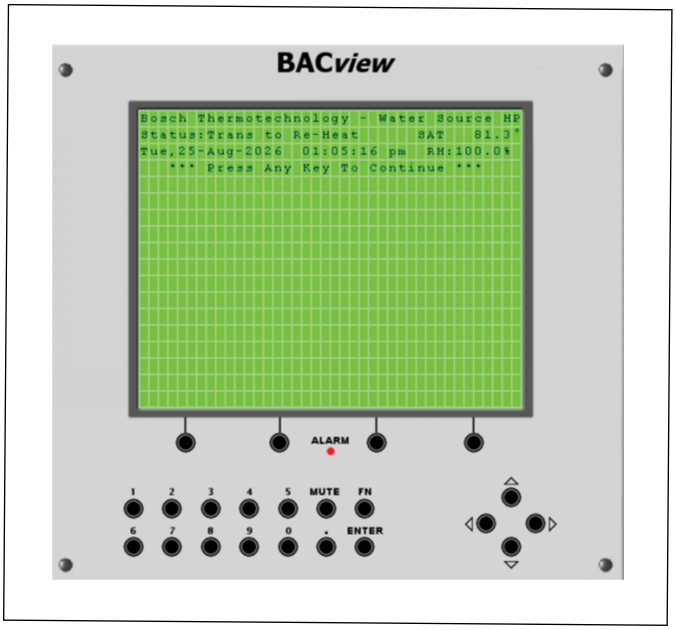

Figure 5

8. Click any key except **MUTE** or **FN**, to activate and enter to the **Home** screen.

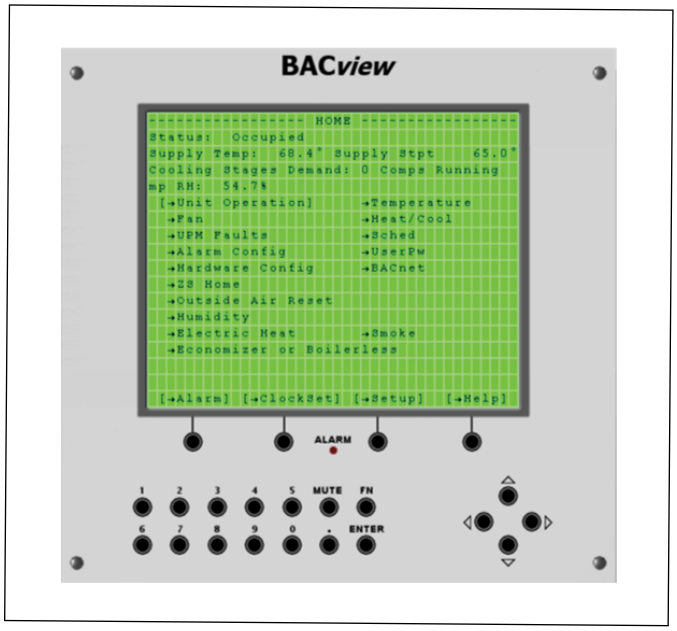

Figure 6

4 Using the Virtual BACview® Application

To perform actions, you can click the keys on the Virtual BACview® interface or you can use their keyboard equivalents. Hover your cursor over a key to see its keyboard equivalent.

For information on the BACview® screens for a specific controller, see the manufacturer's documentation. For information on system screens that are common to most controllers, see BACview® system screens.

4.1 To Activate the Application

The Virtual BACview® application displays the standby screen after initial startup or due to a period of inactivity. Click any key except **MUTE** or **FN**, to activate and enter to the Home screen.

You can change the length of inactivity on the **KEYPAD** screen.

4.2 To Log In

A BACview® screen is programmed with one of the following password levels.

A screen with this password level...	Default Password...	Can be accessed by...	For...
None		Anyone	Viewing only
User	0000	An operator logged in with the User or Admin password*	Viewing or editing
Admin	1408**	An operator logged in with the Admin password*	Viewing or editing
	1111***		

Table 1

** User and Admin passwords are defined by the manufacturer. However, someone with the Admin password can change the User password on the User password screen.*

*** This password works with WAF 1.01 and up.*

**** This password works with FLEX 9.01.12 and earlier.*

When you are prompted to log in:

1. Use the numeric keys to enter the 4-digit password.
2. Press the ***OK*** softkey.

4.3 To Navigate

A highlighted field is shown in brackets [.....].

To move within a screen, click the arrow keys.

To jump to another screen, do one of the following:

- Click the arrow keys to highlight a link, then click ***ENTER***.

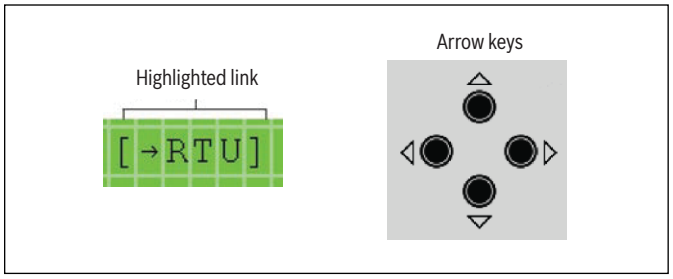

Figure 7

- Click a softkey.

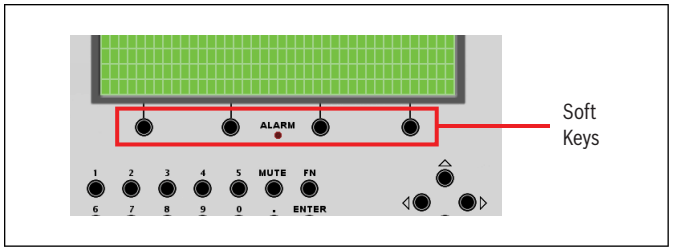

Figure 8

A **[Prev]** link jumps to the previous screen.

4.4 To Change a Property

1. Use the arrow keys to highlight the property value you want to edit.

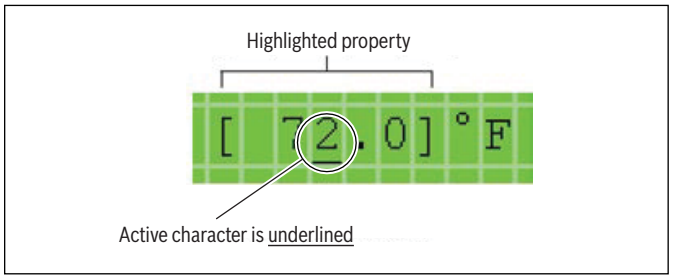

Figure 9

2. Press ***ENTER***.

If you have not previously logged in, you will be prompted for your password. See "4.2 To Log In" on page 8.

3. Press the left or right arrow key to move the cursor under the character you want to change.
4. Do one of the following:
   - Press a number key.
   - Press the ***DECR*** or ***INCR*** softkey to cycle through binary or multi-state options or to decrease or increase a number.
   - Press the ***CANCEL*** softkey to restore the original value.
5. Optional: To edit another property in this same screen, repeat steps 1 through 4.
6. Press the ***OK*** softkey to save all changes to the screen.

4.5 To Obtain a Modstat Report

To obtain a Modstat report that shows the status of the connected controller, hold down ***Ctrl*** and click . (the period key). Use the arrow keys to scroll through the report.

4.6 To Handle Alarms

If the alarm features are set up, the Virtual BACview® application does the following when it receives an alarm from the controller:

- Turn on the Alarm LED
- Turn on the audible alarm
- List the alarm in the **Active Alarms** list on the **Alarms** screen

When the Virtual BACview® application receives the alarm's return-to-normal, it moves the alarm from the **Active Alarms** list to the **Returned-To-Normal** list. The audible alarm and LED turn off after all active alarms have returned to normal. To manually turn off alarms before the Virtual BACview® application receives the return-to-normal, you can:

- Click ***MUTE*** to silence the alarm.
- Hold down ***Ctrl*** and click ***MUTE*** to silence the alarm, turn off the LED, and move all alarms in the **Active Alarms** list to the **Manually Cleared** list.

4.7 To Change the Number of Screen Rows

1. Select ***File*** > ***Restart***.
2. Type the number of rows in the **Row Count** field.

5 BACview Home Screen Paths

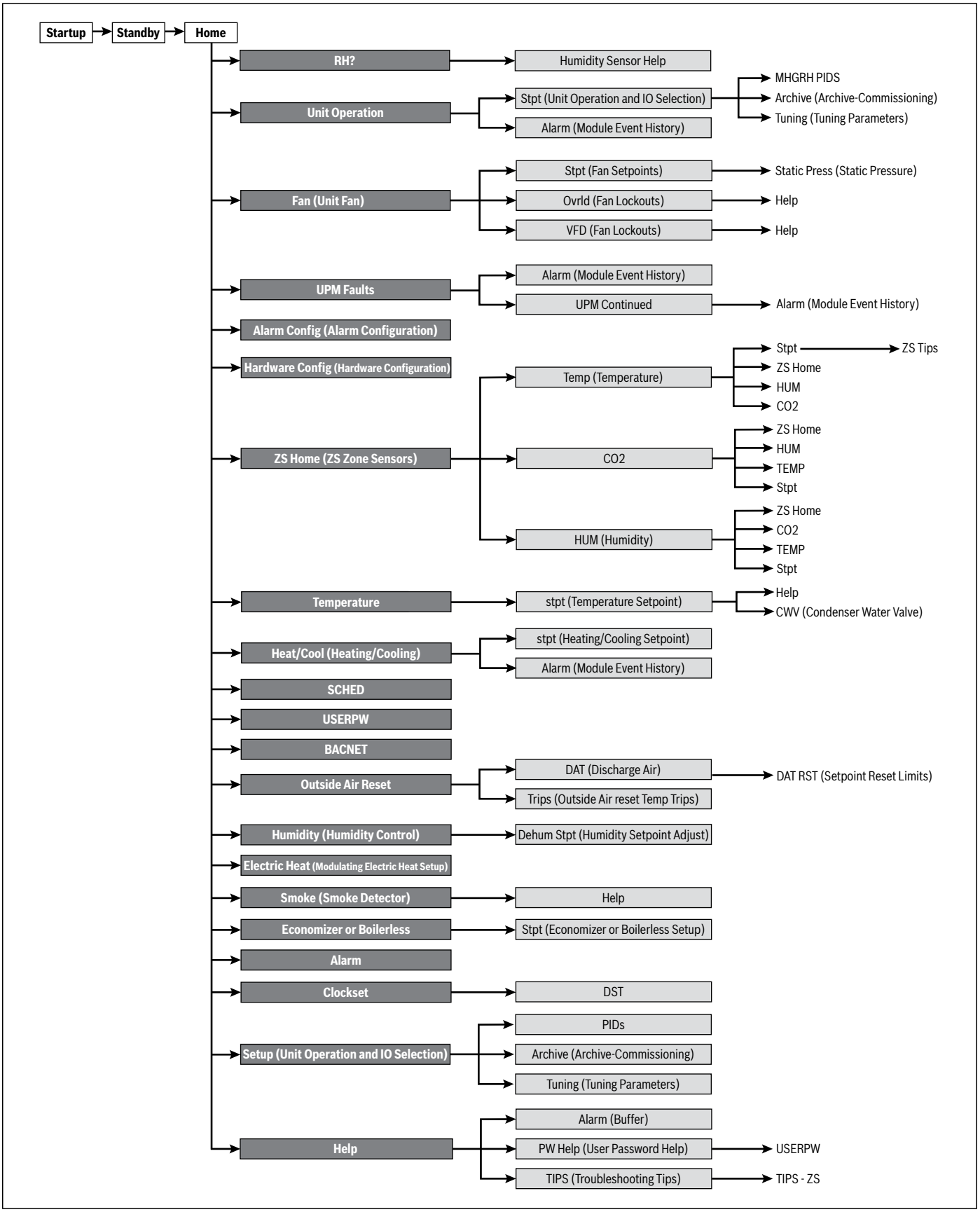

Figure 10

6 BACview Home Screen - Main Menu

The Home screen provides overall system status and the main menu. Menu items appear based on I/O Selection Configuration.

Path: Startup settings ▶ Startup Screen ▶ Home

Home Screen				
Parameter	Value	R/W	User Level	Show when Configured
Status	Unoccupied Occupied Fan Only Heating Cooling Transition to Cool Transition to Heat Manual Cool Manual Heat Aux Heat Re-Heat Manual Re-Heat Trans to Re-Heat Unit locked Economizer	Read	None	Not Applicable
Zone	Num Temp	Read	None	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
Supply Temp	Num Temp	Read	None	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control **OR** Zone (BAS) **OR** Zone (Remote)]
Supply Stpt	Num Temp	Read	None	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control **OR** Zone (BAS) **OR** Zone (Remote)]
Cooling Stages Demand	Num	Read	None	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control **OR** Zone (BAS) **OR** Zone (Remote)]
Relative Humidity	Num %	Read	None	(Setup) Unit Operation and I/O Selection -> Unit Configuration [HP+HGRH **OR** Cooling+HGRH **OR** HP+HGRH+AUXHT] **AND** (UI-5 Options [RH Probe Sensor] **OR** Humidity Sensor [BAS RH Sensor) **OR** ZS RH Sensor]
Unit Operation	Link to Screen	Link to Screen	None	Not Applicable
Fan	Link to Screen	Link to Screen	None	Not Applicable
UPM Faults	Link to Screen	Link to Screen	None	Not Applicable
Alarm Config	Link to Screen	Link to Screen	User	Not Applicable
Hardware Config	Link to Screen	Link to Screen	User	Not Applicable
ZS Home	Link to Screen	Link to Screen	None	Not Applicable
Temperature	Link to Screen	Link to Screen	None	Not Applicable
Heat/Cool	Link to Screen	Link to Screen	None	Not Applicable
SCHED	Link to Screen	Link to Screen	Admin	Not Applicable
USERPW	Link to Screen	Link to Screen	Admin	Not Applicable
BACNET	Link to Screen	Link to Screen	None	Not Applicable
Outside Air Reset	Link to Screen	Link to Screen	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
Humidity	Link to Screen	Link to Screen	None	(Setup) Unit Operation and I/O Selection -> Unit Configuration [HP+HGRH **OR** Cooling+HGRH **OR** HP+HGRH+AUXHT] **AND** (UI-5 Options [RH Probe Sensor] **OR** Humidity Sensor [BAS RH Sensor) **OR** ZS RH Sensor]
Electric Heat	Link to Screen	Link to Screen	User	Not Applicable
Smoke	Link to Screen	Link to Screen	None	Not Applicable
Economizer or Boilerless	Link to Screen	Link to Screen	None	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer OR Boilerless]
Alarm	Link to Screen	Link to Screen	None	Not Applicable
Clockset	Link to Screen	Link to Screen	Admin	Not Applicable
Setup	Link to Screen	Link to Screen	User	Not Applicable
Help	Link to Screen	Link to Screen	None	Not Applicable

Table 2

7 BACview Home Screen Operation and Selection

7.1 Humidity Sensor Help

This screen is used for troubleshooting the Relative Humidity Sensor if status is not displaying correctly.

Path: Home ► mp RH ► ? Help (Humidity Sensor Help)

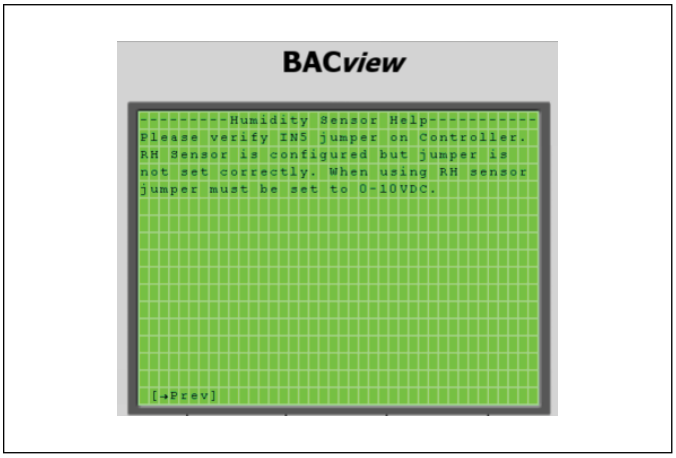

Figure 11

Humidity Sensor Help Screen				
Parameter	Value	R/W	User Level	Show when Configured
Previous [Prev]	Link to Screen	Link to Screen	None	(Setup) Unit Operation and I/O Selection -> Unit Configuration [HP+HGRH OR Cooling+HGRH OR HP+HGRH+AUXHT] AND (UI-5 Options [RH Probe Sensor] OR Humidity Sensor [BAS RH Sensor) OR ZS RH Sensor]

Table 3

7.2 (Alarm) Module Event History

This screen displays a history of active alarms and faults.

Path: Home ► Alarm (Module Event History)

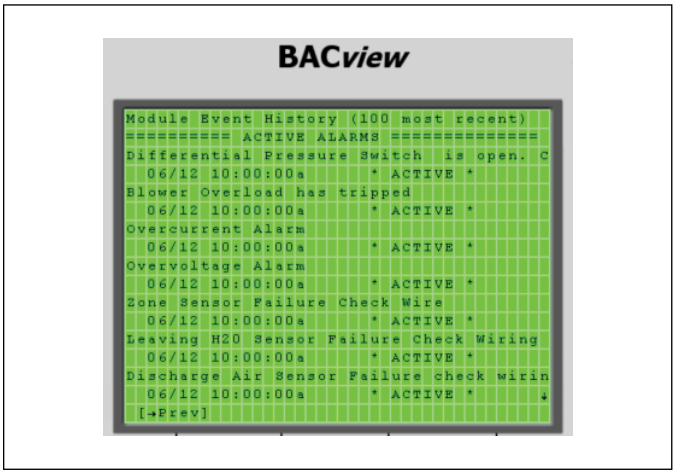

Figure 12

(Alarm) Module Event History Screen				
Parameter	Value	R/W	User Level	Show when Configured
Active Alarms	Message Buffer	Read	None	Not Applicable
Active Faults	Message Buffer	Read	None	Not Applicable
Returned-To-Normal (RTN)	Message Buffer	Read	None	Not Applicable
Manually Cleared (CLR)	Message Buffer	Read	None	Not Applicable

Table 4

7.3 (Clockset) Set Current Date/Time

This screen sets date, time and Daylight Savings Time.

Path: Home ▶ Clockset

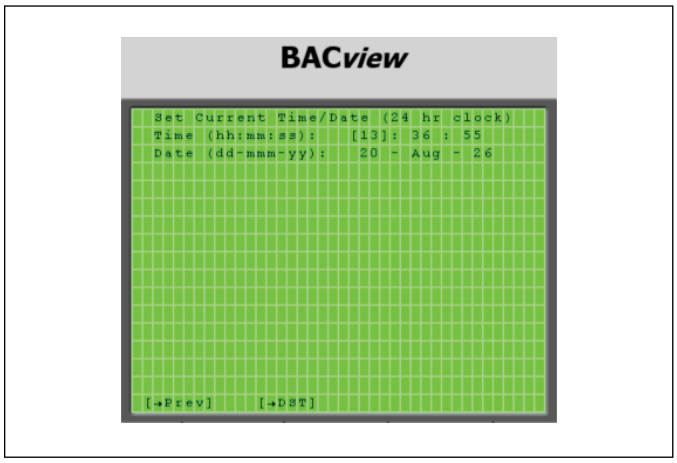

Figure 13

(Clockset) Set Current Date/Time Screen				
Parameter	Value	R/W	User Level	Show when Configured
Date	Num	Write	Admin	Not Applicable
Time	Num	Write	Admin	Not Applicable

Table 5

7.4 (Clockset) DST

This screen allows DST start dates to be manually configured.

Path: Home ▶ Clockset ▶ DST

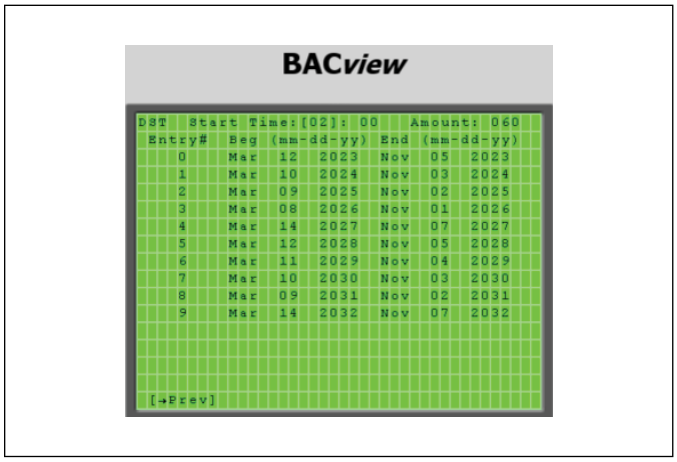

Figure 14

(Clockset) DST Screen				
Parameter	Value	R/W	User Level	Show when Configured
DST start time	Num	Write	Admin	Not Applicable
Amount	Num	Write	Admin	Not Applicable

Table 6

7.5 (Help) User Password

This screen allows the User to change their password.

Path: Home ▶ Help ▶ PW Help (User Password Help) ▶ USERPW Home ▶ USERPW

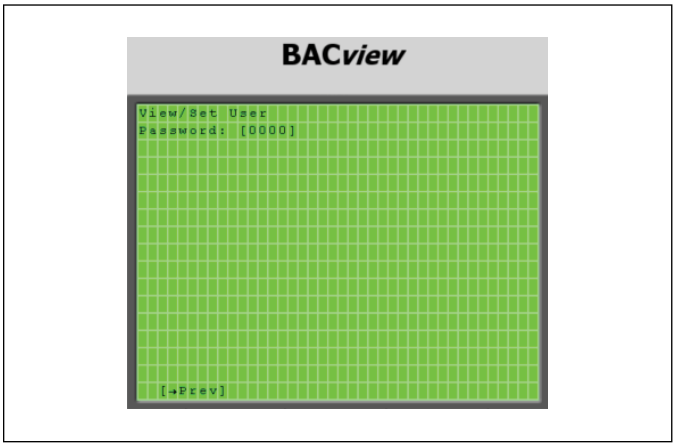

Figure 15

(Help) User Password Screen				
Parameter	Value	R/W	User Level	Show when Configured
Password	Num	Write	None	Not Applicable

Table 7

7.6 (Setup) Unit Operation and IO Selection

Options chosen in the Unit Operation screen will affect what options are available in other menus.

Path: Home ▶ Unit Operation ▶ Stpt (Unit Operation and IO Selection)

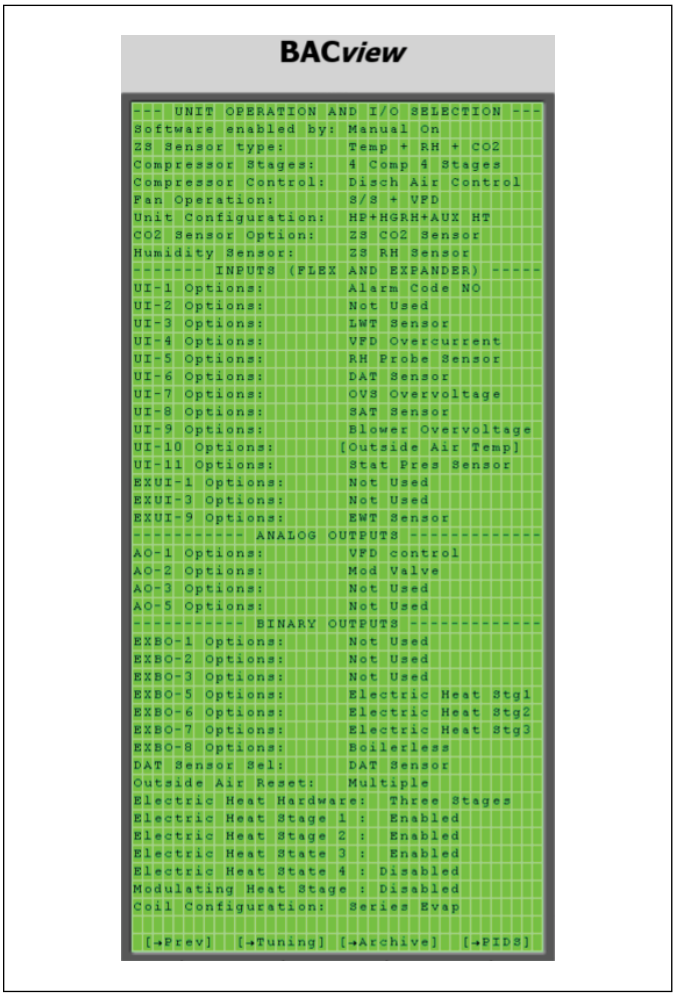

Figure 16

(Setup) Unit Operation and I/O Selection Screen				
Parameter	Value	R/W	User Level	Show when Configured
Software enabled by:	Digital Input	Write	User	Not Applicable
	Keypad Schedule			
	BAS Command			
	Manual On			
ZS Sensor Type	Temp Only	Write	User	Not Applicable
	RH Only			
	CO2 Only			
	Temp + RH			
	Temp + CO2			
	RH + CO2			
	Temp + RH + CO2			
	No ZS Sensor*			

Table 8

** This value does not disable the ZS Sensor Feature. An alarm will still be generated when no ZS sensor is wired to the controller with the value set "No ZS Sensor."*

(Setup) Unit Operation and I/O Selection Screen				
Parameter	Value	R/W	User Level	Show when Configured
Compressor Stages	1 Comp 1 Stage	Write	User	Not Applicable
	2 Comp 2 Stages			
	1 Comp 2 Stages			
	3 Comp 3 Stages			
	4 Comp 4 Stages			
Compressor Control	Zone Control	Write	User	Not Applicable
	Disch Air Control			
	Zone (BAS)			
	Zone (Remote)			
Fan Operation	Start/Stop	Write	User	Not Applicable
	S/S + VFD			
Unit Configuration	Heat Pump	Write	User	Not Applicable
	Straight Cool			
	HP + HGRH			
	Cooling + HGRH			
	Cooling + EH			
	HP + EH			
	HP + HGRH + AUX HT			
CO2 Sensor Option	BAS_CO2	Write	User	Not Applicable
	Wired CO2 Sensor			
	ZS CO2 Sensor			
Humidity Sensor	HW RH Sensor	Write	User	Not Applicable
	BAS RH Sensor			
	ZS RH Sensor			
UI-1 Options	Not Used	Write	User	Not Applicable
	Alarm Code NC			
	Alarm Code NO			
	Digital Input			
UI-2 Options	Not Used	Write	User	Not Applicable
	Alarm Code NO			
	Alarm Code NC			
UI-3 Options	Not Used	Write	User	Not Applicable
	LWT Sensor			
UI-4 Options	Not Used	Write	User	Not Applicable
	CWV Feedback			
	CO2 HW			
	VFD Overcurrent			
UI-5 Options	Not Used	Write	User	Not Applicable
	RH Probe Sensor			
UI-6 Options	Not Used	Write	User	Not Applicable
	DAT Sensor			
UI-7 Options	Not Used	Write	User	Not Applicable
	OVS Overvoltage			
UI-8 Options	Not Used	Write	User	Not Applicable
	Zone Rem Temp			
	SAT Sensor			

Table 9

(Setup) Unit Operation and I/O Selection Screen				
Parameter	Value	R/W	User Level	Show when Configured
UI-9 Options	Not Used	Write	User	Not Applicable
	Blower Overvoltage			
UI-10 Options	Not Used	Write	User	Not Applicable
	Diff Pres Switch			
	Filter Switch			
	Outside Air Temp			
UI-11 Options	Not Used	Write	User	Not Applicable
	Stat Pres Sensor*			
EXUI-1 Options**	Not Used	Write	User	Not Applicable
	EX Comm			
EXUI-3 Options**	Not Used	Write	User	Not Applicable
	CWV			
EXUI-9 Options**	Not Used	Write	User	Not Applicable
	EWT Sensor			
AO-1 Options	Not Used	Write	User	Not Applicable
	VFD Control***			
AO-2 Options	Not Used	Write	User	Not Applicable
	Mod Valve			
AO-3 Options	Not Used	Write	User	Not Applicable
	BKHT			
AO-5 Options	Not Used	Write	User	Not Applicable
	CWV			
EXBO-1 Options**	Not Used	Write	User	Not Applicable
	VFD Control			
EXBO-2 Options**	Not Used	Write	User	Not Applicable
	HGRH			
EXBO-3 Options**	Not Used	Write	User	Not Applicable
	Damper			
EXBO-5 Options**	Not Used	Write	User	Not Applicable
	Electric Heat Stg 1			
EXBO-6 Options**	Not Used	Write	User	Not Applicable
	Electric Heat Stg 2			
EXBO-7 Options**	Not Used	Write	User	Not Applicable
	Electric Heat Stg 3			
EXBO-8 Options**	Not Used	Write	User	Not Applicable
	Electric Heat Stg 4			
	Boilerless			
	Economizer			
DAT Sensor Sel	Zone DAT	Write	User	Not Applicable
	DAT sensor			
	SAT Sensor			
	BAS DAT			
Outside Air Reset	Single	Write	User	Not Applicable
	Multiple			

Table 10

** Static Pressure sensor is required if AO-1 is configured for VFD Control.*

*** IO Located on Expansion Card.*

**** VFD Control requires a static pressure sensor installed on UI-11. If no Static sensor is installed then an alarm will be generated that holds out unit operation.*

(Setup) Unit Operation and I/O Selection Screen				
Parameter	Value	R/W	User Level	Show when Configured
Electric Heat Hardware	Not Installed Single Stage Two Stages Three Stages Four Stages MOD EH	Write	User	Hardware Config -> Hardware Status [Flex+Expander]
Electric Heat Stg 1	Disabled/Enabled	Read	User	Hardware Config -> Hardware Status [Flex+Expander]
Electric Heat Stg 2	Disabled/Enabled	Read	User	Hardware Config -> Hardware Status [Flex+Expander]
Electric Heat Stg 3	Disabled/Enabled	Read	User	Hardware Config -> Hardware Status [Flex+Expander]
Electric Heat Stg 4	Disabled/Enabled	Read	User	Hardware Config -> Hardware Status [Flex+Expander]
Modulating Heat Stage	Disabled/Enabled	Read	User	Hardware Config -> Hardware Status [Flex+Expander]
Coil Configuration	Parallel/Series	Write	User	Not Applicable

Table 11

7.7 (Setup) Tuning Parameters

This screen manages Heating/Cooling Demand Parameters to which Fan, Compressor, and Aux Heat will engage operation.

Path: Home ► Unit Operation ► Stpt (Unit Operation and IO Selection) ► Tuning (Tuning Parameters)

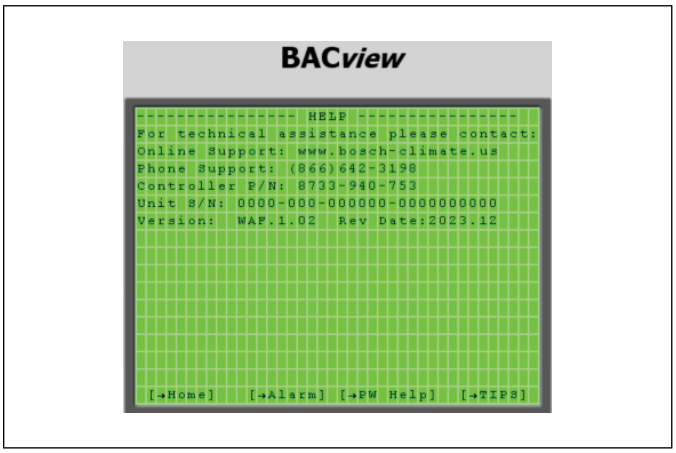

Figure 17

(Setup) Tuning Parameters Screen				
Parameter	Value	R/W	User Level	Show when Configured
Fan Enable	Heating %	Write	User	Not Applicable
	Cooling %			Not Applicable
Compressor 1 Enable	Heating %	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
	Cooling %			
Compressor 2 Enable	Heating %	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
	Cooling %			
Aux. Heat Enable	Heating %	Write	User	(Setup) Unit Operation and I/O Selection -> Unit Configuration [Cooling + EH OR HP + EH]

Table 12

7.8 (Setup) PIDS

This screen manages MHGRH Proportional (P), Integral (I), Derivative (D), Loop Deadband, and Ramp Interval Parameters.

- **Sample Time** - how frequently controller measures DAT and calculates new valve positioning
- **Proportional Gain** - dictates how aggressive the valve opens
- **Integral Gain** - dictates how aggressive controller eliminates temperature gap from setpoint
- **Derivative Gain** - dictates how aggressive controller prevents temperature overshoot ***Keep at 0 to prevent valve "Chatter" ***
- **Deadband** - prevents valve contantly adjusting which wears out components prematurely
- **Ramp Interval** - maximum speed at which valve can increase/decrease position over time

Path: Home ▶ Unit Operation ▶ Stpt (Unit Operation and IO Selection) ▶ PIDS

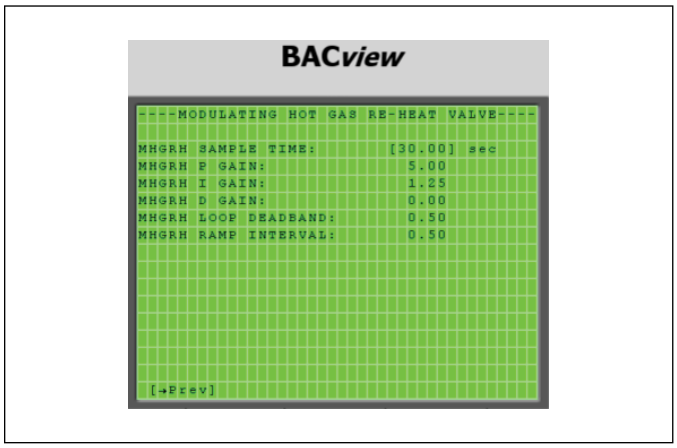

Figure 18

(Setup) Tuning Parameters Screen				
Parameter	Value	R/W	User Level	Show when Configured
MHGRH Sample Time	Seconds	Write	User	Not Applicable
MHGRH P Gain	Num	Write	User	Not Applicable
MHGRH I Gain	Num	Write	User	Not Applicable
MHGRH D Gain	Num	Write	User	Not Applicable
MHGRH Loop Deadband	Num	Write	User	Not Applicable
MHGRH Ramp Interval	Num	Write	User	Not Applicable

Table 13

7.9 (Setup) Archive-Commissioning

This screen allows for checking the status of and managing Field Archives.

Path: Home ► Unit Operation ► Stpt (Unit Operation and IO Selection) ► Archive (Archive-Commissioning)

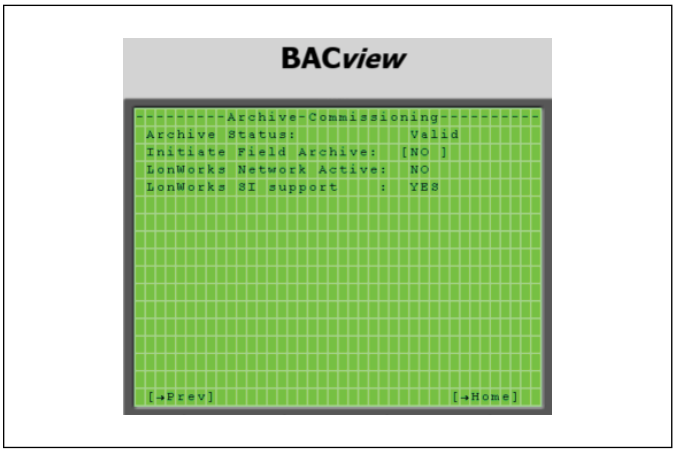

Figure 19

(Setup) Archive-Commissioning Screen				
Parameter	Value	R/W	User Level	Show when Configured
Archive Status	Unsupported	Read	None	Not Applicable
	Invalid			Not Applicable
	Valid			Not Applicable
Initiate Field Archive	No/Yes	Write	None	Not Applicable
LonWorks Network Active	No/Yes	Read	None	Not Applicable
LonWorks SI support	No/Yes	Write	None	Not Applicable

Table 14

7.10 Unit Operation

This screen provides a high level status of operation and basic parameters.

Path: Home ▶ Unit Operation

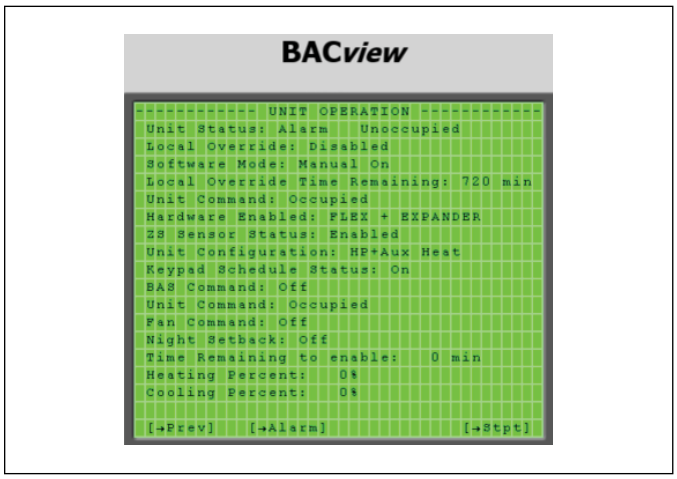

Figure 20

Unit Operation Screen				
Parameter	Value	R/W	User Level	Show when Configured
Unit Status	Unoccupied	Read	None	Not Applicable
	Occupied			
	Fan Only			
	Heating			
	Cooling			
	Transition to Cool			
	Transition to Heat			
	Manual Cool			
	Manual Heat			
	Aux Heat			
	Re-Heat			
	Manual Re-Heat			
	Trans to Re-Heat			
	Unit locked			
	Economizer			
Local Override	Disabled/Enabled	Read	None	Not Applicable
Software Mode	Digital Input	Read	None	Not Applicable
	Keypad Schedule			
	BAS Command			
	Manual On			
Local Override Time Remaining	Num Min	Read	None	Not Applicable
Unit Command	Unoccupied/Occupied	Read	None	Not Applicable
Hardware Enabled	Flex/+Expander	Read	None	Not Applicable
ZS Sensor Status	Disabled/Enabled	Read	None	Not Applicable

Table 15

Unit Operation Screen				
Parameter	Value	R/W	User Level	Show when Configured
Unit Configuration	Cooling Only Aux Heat HP HP+ Aux Heat HP+HGRH Cooling+HGRH HP+HGRH+Aux Heat	Read	None	Not Applicable
Keypad Schedule Status	Off/on	Read	None	Not Applicable
BAS Command	Off/on	Read	None	Not Applicable
Unit Command	Unoccupied/Occupied	Read	None	Not Applicable
Fan Command	Off/on	Read	None	Not Applicable
Night Setback	Off/on	Read	None	Not Applicable
Time Remaining to Enable	Num Min	Read	None	Not Applicable

Table 16

7.11 Fan

This screen allows for checking the high level status of fan operation and basic parameters.

Path: Home ► Fan (Unit Fan)

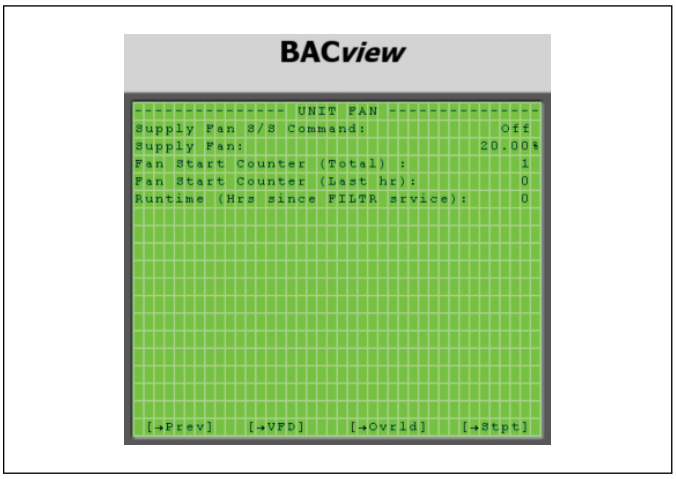

Figure 21

Fan Screen				
Parameter	Value	R/W	User Level	Show when Configured
Supply Fan S/S Command	Off/on	Read	None	Not Applicable
Supply Fan	Num %	Read	None	Not Applicable
Fan Start Counter (Total)	Num	Read	None	Not Applicable
Fan Start Counter (Last Hr)	Num	Read	None	Not Applicable
Runtime (Hrs since Filtr Srvice)	Num	Read	None	Not Applicable

Table 17

7.12 Overload VFD

This screen provides overall status of fan lockout alarms including overload, high static, over current, and over voltage.

Path: Home ► Fan (Unit Fan) ► Ovrld (Fan Lockouts)
Path: Home ► Fan (Unit Fan) ► VFD (Fan Lockouts)

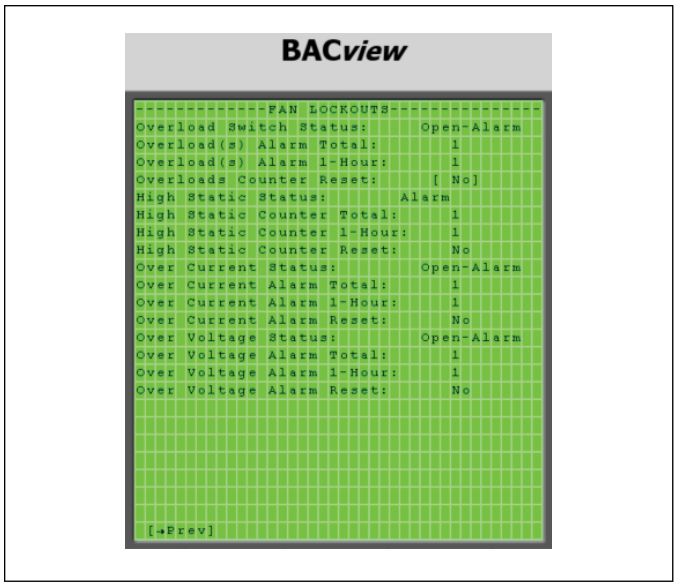

Figure 22

Overload (Fan lockouts) VFD (Fan lockouts) Screen				
Parameter	Value	R/W	User Level	Show when Configured
Overload Switch Status	Normal-Closed	Read	None	(Setup) Unit Operation and I/O Selection -> UI-9 Options [BLWR Overvoltage]
	Open-Alarm	Read	None	(Setup) Unit Operation and I/O Selection -> UI-9 Options [BLWR Overvoltage]
Overload(s) Alarm Total	Num	Read	None	(Setup) Unit Operation and I/O Selection -> UI-9 Options [BLWR Overvoltage]
Overload(s) Alarm 1-Hour	Num	Read	None	(Setup) Unit Operation and I/O Selection -> UI-9 Options [BLWR Overvoltage]
Overloads Counter Reset	No/yes	Write	None	(Setup) Unit Operation and I/O Selection -> UI-9 Options [BLWR Overvoltage]
High Static Status	Normal/Alarm	Read	None	(Setup) Unit Operation and I/O Selection -> Fan Operation [S/S + VFD]
High Static Counter Total	Num	Read	None	(Setup) Unit Operation and I/O Selection -> Fan Operation [S/S + VFD]
High Static Counter 1-Hour	Num	Read	None	(Setup) Unit Operation and I/O Selection -> Fan Operation [S/S + VFD]
High Static Counter Reset	No/Yes	Write	None	(Setup) Unit Operation and I/O Selection -> Fan Operation [S/S + VFD]
Over Current Status	Normal-Closed	Read	None	(Setup) Unit Operation and I/O Selection -> UI-4 Options [Overcurrent HW]
	Open-Alarm	Read	None	(Setup) Unit Operation and I/O Selection -> UI-4 Options [Overcurrent HW]
Over Current Alarm Total	Num	Read	None	(Setup) Unit Operation and I/O Selection -> UI-4 Options [Overcurrent HW]
Over Current Alarm 1-Hour	Num	Read	None	(Setup) Unit Operation and I/O Selection -> UI-4 Options [Overcurrent HW]
Over Current Alarm Reset	No/yes	Write	None	(Setup) Unit Operation and I/O Selection -> UI-4 Options [Overcurrent HW]
Over Voltage Status	Normal-Closed	Read	None	(Setup) Unit Operation and I/O Selection -> UI-7 Options [OVS Overvoltage SHUTDOWN]
Over Voltage Status	Open-Alarm	Read	None	(Setup) Unit Operation and I/O Selection -> UI-7 Options [OVS Overvoltage SHUTDOWN]
Over Voltage Alarm Total	Num	Read	None	(Setup) Unit Operation and I/O Selection -> UI-7 Options [OVS Overvoltage SHUTDOWN]
Over Voltage Alarm 1-Hour	Num	Read	None	(Setup) Unit Operation and I/O Selection -> UI-7 Options [OVS Overvoltage SHUTDOWN]
Over Voltage Alarm Reset	No/yes	Write	None	(Setup) Unit Operation and I/O Selection -> UI-7 Options [OVS Overvoltage SHUTDOWN]

Table 18

7.13 Fan Setpoints

This screen allows for the management of fan parameters.

Path: Home ▶ Fan (Unit Fan) ▶ Stpt (Fan Setpoints)

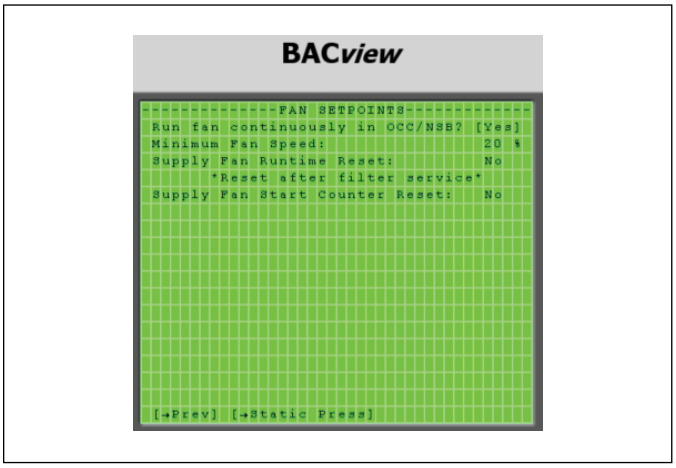

Figure 23

Fan Setpoints Screen				
Parameter	Value	R/W	User Level	Show when Configured
Run Fan Continuously in OCC/NSB	No/yes	Write	User	Not Applicable
Minimum Fan Speed	Num %	Write	User	Not Applicable
Supply Fan Runtime Reset	No/yes	Write	User	Not Applicable
Supply Fan Start Counter Reset	No/yes	Write	User	Not Applicable

Table 19

7.14 Static Pressure

This screen allows for the management of static pressure parameters.

Path: Home ▶ Fan (Unit Fan) ▶ Stpt (Fan Setpoints) ▶ Static Press (Static Pressure)

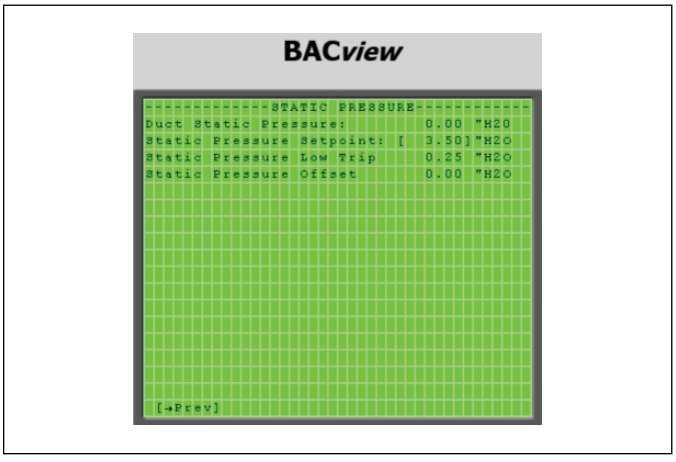

Figure 24

Static Pressure Screen				
Parameter	Value	R/W	User Level	Show when Configured
Duct Static Pressure	Num H20	Read	User	(Setup) Unit Operation and I/O Selection -> Fan Operation [S/S + VFD]
Static Pressure Setpoint	Num H20	Write	User	(Setup) Unit Operation and I/O Selection -> Fan Operation [S/S + VFD]
Static Pressure Low Trip	Num H20	Write	User	(Setup) Unit Operation and I/O Selection -> Fan Operation [S/S + VFD]
Static Pressure offset	Num H20	Write	User	(Setup) Unit Operation and I/O Selection -> Fan Operation [S/S + VFD]

Table 20

7.15 UPM Faults

This screen allows for the enabling and resetting of UPM faults.

Path: Home ▶ UPM Faults

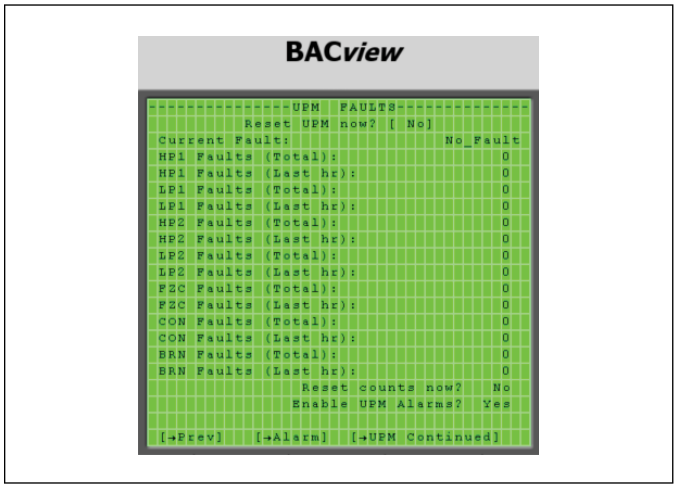

Figure 25

UPM Faults Screen				
Parameter	Value	R/W	User Level	Show when Configured
Reset UPM now	No/yes	Write	None	Not Applicable
Current Fault	No Fault	Read	None	Not Applicable
	HP1			
	LP1			
	HP2			
	LP2			
	FZC			
	CON			
	BRN			
	Alarm-Open			
	FZE			
	FZC2			
	FZE2			
	A2L			
	COMM			
HP1 Faults (Total)	Num	Read	None	Not Applicable
HP1 Faults (Last hr)	Num	Read	None	Not Applicable
LP1 Faults (Total)	Num	Read	None	Not Applicable
LP1 Faults (Last hr)	Num	Read	None	Not Applicable
HP2 Faults (Total)	Num	Read	None	(Setup) Unit Operation and I/O Selection ->
HP2 Faults (Last hr)	Num	Read	None	(Setup) Unit Operation and I/O Selection ->
LP2 Faults (Total)	Num	Read	None	(Setup) Unit Operation and I/O Selection ->
LP2 Faults (Last hr)	Num	Read	None	(Setup) Unit Operation and I/O Selection ->
FZC Faults (Total)	Num	Read	None	Not Applicable
FZC Faults (Last hr)	Num	Read	None	Not Applicable
CON Faults (Total)	Num	Read	None	Not Applicable
CON Faults (Last hr)	Num	Read	None	Not Applicable
BRN Faults (Total)	Num	Read	None	Not Applicable
BRN Faults (Last hr)	Num	Read	None	Not Applicable
Reset Counts now	No/yes	Write	None	Not Applicable
Enable UPM Alarms	No/yes	Write	None	Not Applicable

Table 21

7.16 UPM Faults Continued

This screen allows for the enabling and resetting UPM faults.

Path: Home ► UPM Faults ► UPM Continued (UPM Faults)

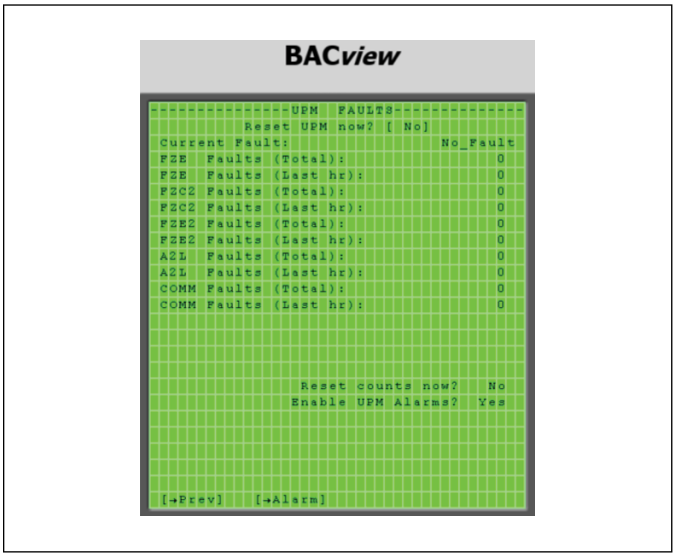

Figure 26

UPM Faults Continued Screen				
Parameter	Value	R/W	User Level	Show when Configured
Reset UPM now	No/yes	Write	None	Not Applicable
Current Fault	No Fault	Read	None	Not Applicable
	HP1			
	LP1			
	HP2			
	LP2			
	FZC			
	CON			
	BRN			
	Alarm-Open			
	FZE			
	FZC2			
	FZE2			
	A2L			
	COMM			
FZE Faults (Total)	Num	Read	None	Not Applicable
FZE Faults (Last hr)	Num	Read	None	Not Applicable
FZC2 Faults (Total)	Num	Read	None	Not Applicable
FZC2 Faults (Last hr)	Num	Read	None	Not Applicable
FZE2 Faults (Total)	Num	Read	None	(Setup) Unit Operation and I/O Selection ->
FZE2 Faults (Last hr)	Num	Read	None	(Setup) Unit Operation and I/O Selection ->
A2L Faults (Total)	Num	Read	None	(Setup) Unit Operation and I/O Selection ->
A2L Faults (Last hr)	Num	Read	None	(Setup) Unit Operation and I/O Selection ->
COMM Faults (Total)	Num	Read	None	Not Applicable
COMM Faults (Last hr)	Num	Read	None	Not Applicable
Reset Counts now	No/yes	Write	None	Not Applicable
Enable UPM Alarms	No/yes	Write	None	Not Applicable

Table 22

7.17 Alarm Configuration

This screen allows the user to set differentials, temps limits, and air filter alarms.

Path: Home ▶ Alarm Config (Alarm Configuration)

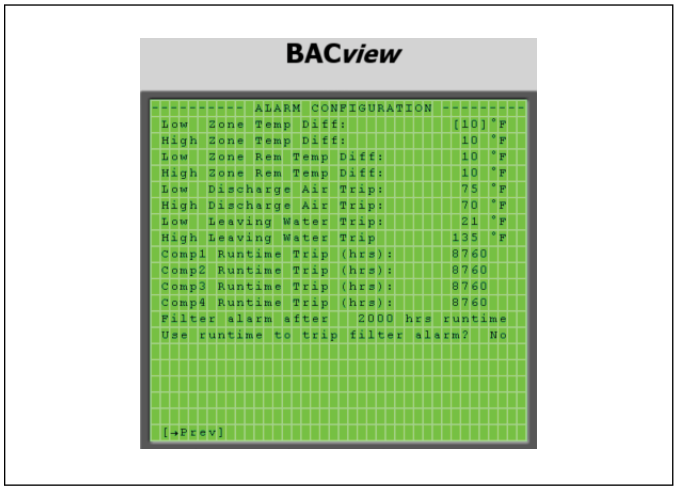

Figure 27

Alarm Configuration Screen				
Parameter	Value	R/W	User Level	Show when Configured
Low Zone Temp Diff	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
High Zone Temp Diff	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
Low Zone Rem Temp Diff	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
High Zone Rem Temp Diff	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
Low Discharge Air Trip	Num Temp	Write	User	Not Applicable
High Discharge Air Trip	Num Temp	Write	User	Not Applicable
Low Leaving Water Trip	Num Temp	Write	User	Not Applicable
High Leaving Water Trip	Num Temp	Write	User	Not Applicable
Comp1 Runtime Trip (hrs)	Num hrs	Write	User	Not Applicable
Comp2 Runtime Trip (hrs)	Num hrs	Write	User	(Setup) Unit Operation and I/O Selection ->
Comp3 Runtime Trip (hrs)	Num hrs	Write	User	Not Applicable
Comp4 Runtime Trip (hrs)	Num hrs	Write	User	Not Applicable
Filter alarm after hrs runtime	Num hrs	Write	User	Not Applicable
User runtime to trip filter alarm	No/yes	Write	User	Not Applicable

Table 23

7.18 Hardware Configuration

This screen allows for configuration of physical controller combinations.

Path: Home ▶ Hardware Config (hardware Configuration)

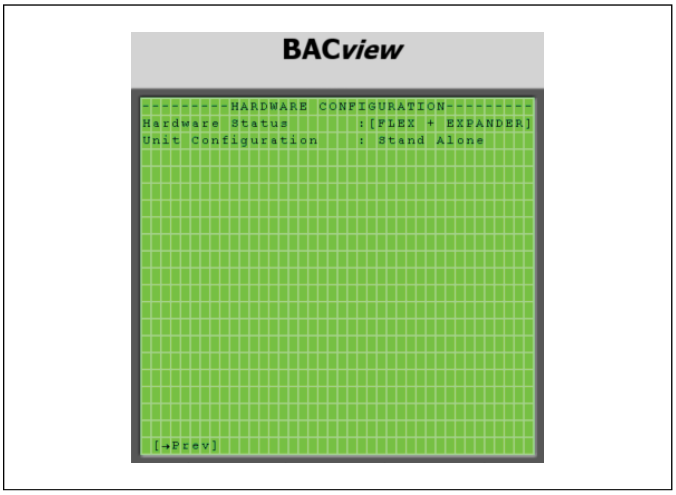

Figure 28

Hardware Config Screen				
Parameter	Value	R/W	User Level	Show when Configured
Hardware Status	Flex/+Expander	Write	User	Not Applicable
Unit Configuration	Stand Alone	Write	User	Not Applicable
	Master			
	Slave			

Table 24

7.19 Temperature

This screen provides a high level status of temperature parameters.

Path: Home ▶ Temperature

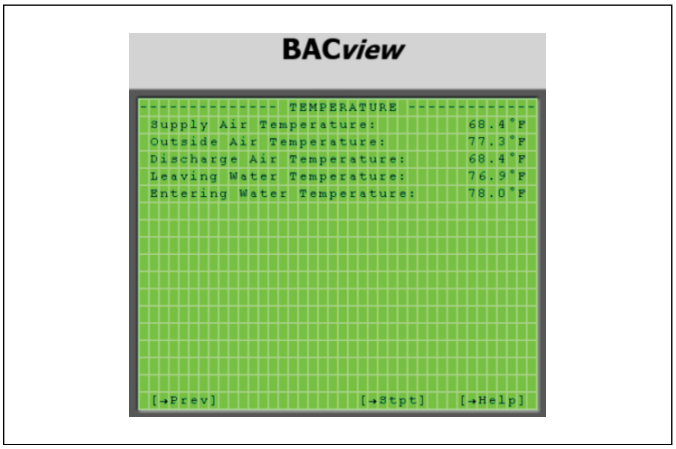

Figure 29

Temperature Screen				
Parameter	Value	R/W	User Level	Show when Configured
Zone Temperature	Num Temp	Read	None	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
Supply Air Temperature	Num Temp	Read	None	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control **OR** Zone (BAS) **OR** Zone (Remote)]
Outside Air Temperature	Num Temp	Read	None	Not Applicable
Discharge Air Temperature	Num Temp	Read	None	Not Applicable
Leaving Air Temperature	Num Temp	Read	None	Not Applicable
Entering Air Temperature	Num Temp	Read	None	Not Applicable

Table 25

7.20 Temperature Stpt

This screen allows for the management of Temperature Setpoints based on the I/O Selection Confguration

Path: Home ▶Temperature ▶ Stpt (Temperature Setpoint)

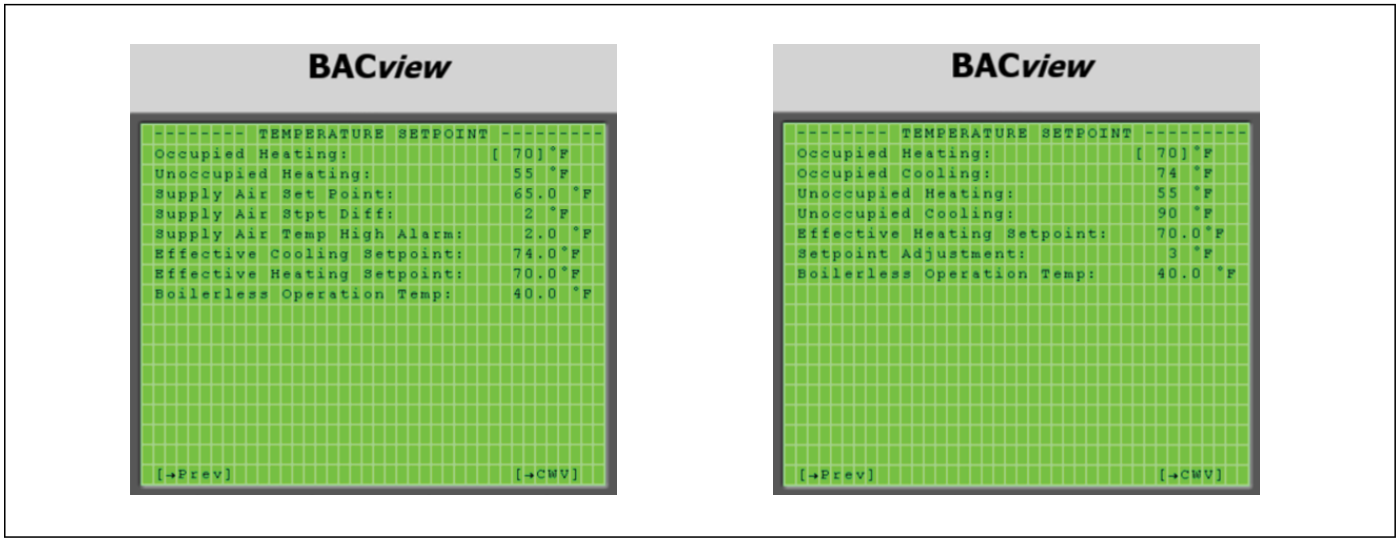

Figure 30

Temperature Stpt Screen				
Parameter	Value	R/W	User Level	Show when Configured
Occupied Heating	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Unit Configuration [NOT Straight Cool]
Occupied Cooling	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
Unoccupied Heating	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Unit Configuration [NOT Straight Cool]
Unoccupied Cooling	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
Supply Air Set Point	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control **OR** Zone (BAS) **OR** Zone (Remote)]
Supply Air Stp Diff	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control **OR** Zone (BAS) **OR** Zone (Remote)]
Supply Air Temp High Alarm	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control **OR** Zone (BAS) **OR** Zone (Remote)]
Effective Cooling Setpoint	Num Temp	Read	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control **OR** Zone (BAS) **OR** Zone (Remote)]
Effective Heating Setpoint	Num Temp	Read	User	(Setup) Unit Operation and I/O Selection -> Unit Configuration [NOT Straight Cool]
Setpoint Adjustment	Num Temp	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [zone control]
Boilerless Operation Temp	Num Temp	Write	User	Not Applicable

Table 26

7.21 Temperature Sensor Help

This is a help screen for temperature sensor issues.

Path: Home ► Temperature ► Help

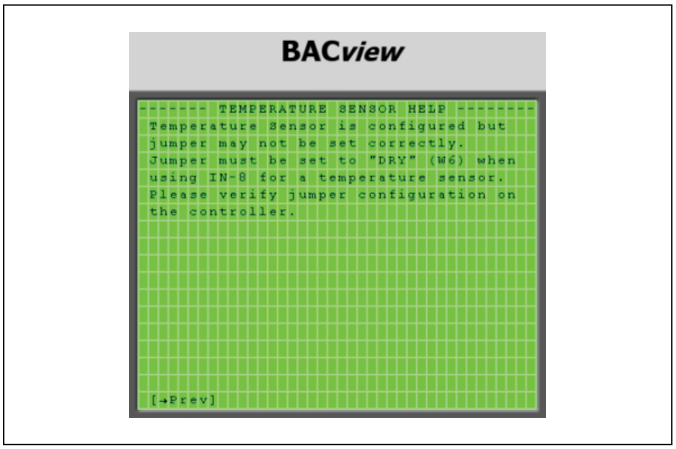

Figure 31

7.22 CWV

This screen provides status and management of condenser water valve parameters.

This option uses a factory-installed condenser water valve to control water flow through the condenser coil. The normally closed valve includes an auxiliary end switch that is wired to the controller to determine the status of the valve. When the Control Air 6120 is configured for this option, compressor operation is disabled until valve-open status from the valve end switch is verified.

Path: Home ► Temperature ► Stpt (Temperature Setpoint) ► CWV (Condenser Water Valve)

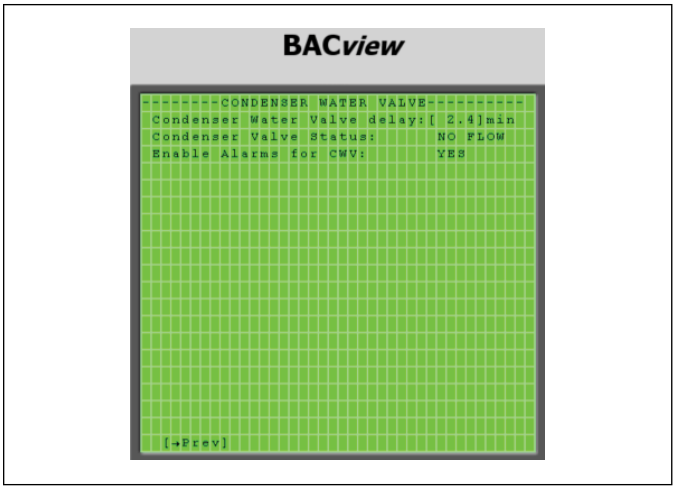

Figure 32

CWV Screen				
Parameter	Value	R/W	User Level	Show when Configured
Condenser Water Valve Delay	Num Min	Write	(User) None	Not Applicable
Condenser Valve Status	No Flow/Flow	Read	(User) None	Not Applicable
Enable Alarms for CWV	No/yes	Write	(User) None	Not Applicable

Table 27

7.23 Heating/Cooling

This screen provides the overall status of heating/cooling operations.

The set points are compared to the effective zone temperature from the selected source.

Demand, based on a PID Algorithm, is used to determine when to energize the unit in either heating or cooling mode. The PID algorithm calculates the demand value as a percentage (%) based on the difference between the zone temperature and the Heat/Cool set points.

Path: Home ▶ Heat/Cool (Heating/Cooling)

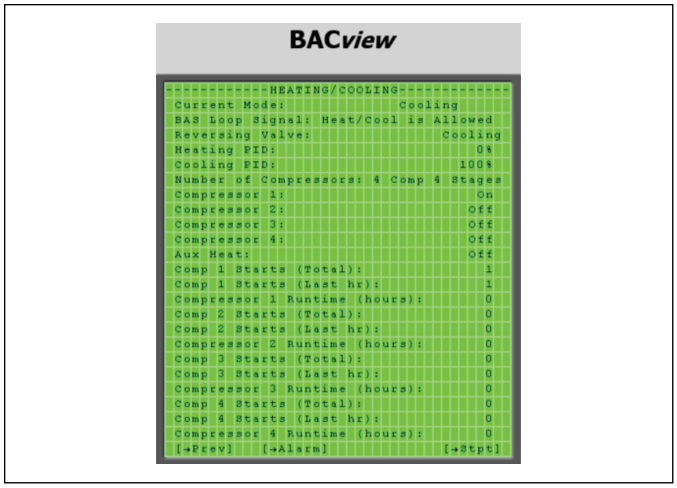

Figure 33

Heating/Cooling Screen				
Parameter	Value	R/W	User Level	Show when Configured
Current Mode	Neutral/Transition	Read	None	Not Applicable
	Heating			
	Cooling			
	Re-Heat			
BAS Loop Signal	Disabled/Allowed	Read	None	Not Applicable
Reversing Valve	Heating/Cooling	Read	None	(Setup) Unit Operation and I/O Selection -> Unit Configuration [NOT Straight Cool]
Heating PID	Num %	Read	None	(Setup) Unit Operation and I/O Selection -> Unit Configuration [NOT Straight Cool]
Cooling PID	Num %	Read	None	Not Applicable
Number of Compressors	1 Comp 1 Stages	Read	None	Not Applicable
	2 Comp 2 Stages			
	3 Comp 3 Stages			
	4 Comp 4 Stages			
	1 Comp 2 Stages			
Compressor 1	On/off	Read	None	Not Applicable
Compressor 2	On/off	Read	None	(Setup) Unit Operation and I/O Selection -> Compressor Stages [2 Comp 2 Stages OR 3 Comp 3 Stages or 4 Comp 4 Stages]
Compressor 3	On/off	Read	None	Not Applicable
Compressor 4	On/off	Read	None	Not Applicable
Aux Heat	On/off	Read	None	(Setup) Unit Operation and I/O Selection -> Unit Configuration [Cooling + EH OR HP + EH]
Comp 1 Starts (Total)	Num	Read	None	Not Applicable
Comp 1 Starts (Last hr)	Num	Read	None	Not Applicable
Compressor 1 Runtime (hours)	Num	Read	None	Not Applicable
Comp 2 Starts (Total)	Num	Read	None	(Setup) Unit Operation and I/O Selection -> Compressor Stages [2 Comp 2 Stages OR 3 Comp 3 Stages or 4 Comp 4 Stages]
Comp 2 Starts (Last hr)	Num	Read	None	(Setup) Unit Operation and I/O Selection -> Compressor Stages [2 Comp 2 Stages OR 3 Comp 3 Stages or 4 Comp 4 Stages]
Compressor 2 Runtime (hours)	Num	Read	None	(Setup) Unit Operation and I/O Selection -> Compressor Stages [2 Comp 2 Stages OR 3 Comp 3 Stages or 4 Comp 4 Stages]
Comp 3 Starts (Total)	Num	Read	None	Not Applicable
Comp 3 Starts (Last hr)	Num	Read	None	Not Applicable
Compressor 3 Runtime (hours)	Num	Read	None	Not Applicable
Comp 4 Starts (Total)	Num	Read	None	Not Applicable
Comp 4 Starts (Last hr)	Num	Read	None	Not Applicable
Compressor 4 Runtime (hours)	Num	Read	None	Not Applicable

Table 28

7.24 Heating/Cooling Setpoint

This screen allows for the compressor start counts and runtimes to be reset.

Path: Home ► Heat/Cool (Heating/Cooling) ► Stpt (Heating/Cooling Setpoint)

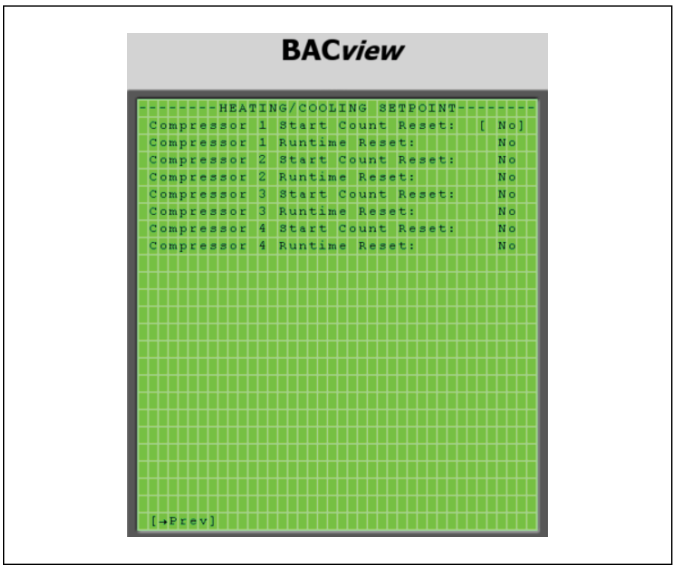

Figure 34

Heating/Cooling Setpoint Screen				
Parameter	Value	R/W	User Level	Show when Configured
Compressor 1 Start Count Reset	No/yes	Write	User	Not Applicable
Compressor 1 Runtime Reset	No/yes	Write	User	Not Applicable
Compressor 2 Start Count Reset	No/yes	Write	User	(Setup) Unit Operation and I/O Selection ->
Compressor 2 Runtime Reset	No/yes	Write	User	(Setup) Unit Operation and I/O Selection ->
Compressor 3 Start Count Reset	No/yes	Write	User	Not Applicable
Compressor 3 Runtime Reset	No/yes	Write	User	Not Applicable
Compressor 4 Start Count Reset	No/yes	Write	User	Not Applicable
Compressor 4 Runtime Reset	No/yes	Write	User	Not Applicable

Table 29

7.25 BACnet Instance/ID

This screen provides the status and management of Bacnet Instance and ID parameters.

Path: Home ▶ BACNET

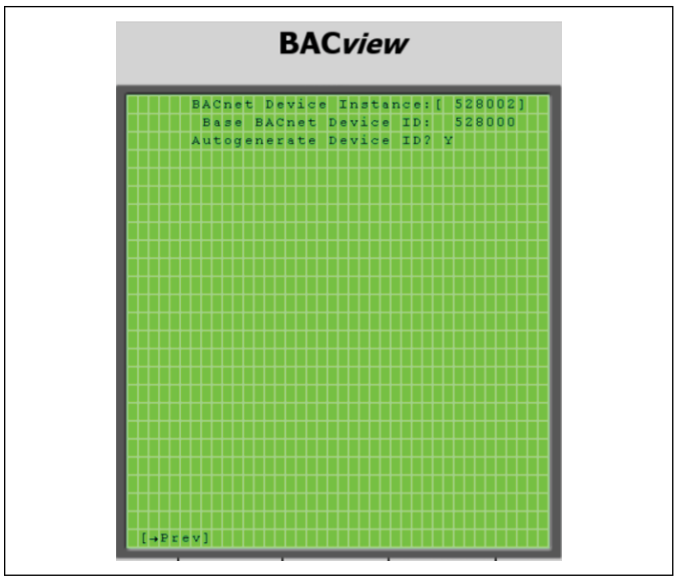

Figure 35

BACnet Instance/ID Screen				
Parameter	Value	R/W	User Level	Show when Configured
BACnet Device Instance	Num	Read	None	Not Applicable
Base BACnet Device ID	Num	Read	None	Not Applicable
Autogenerate Device ID	N/Y	Write	None	Not Applicable

Table 30

7.26 ZS Home

This screen provides the overall physical ZS Sensor status parameters.

Path: Home ► ZS Home (ZS Zone Sensors)

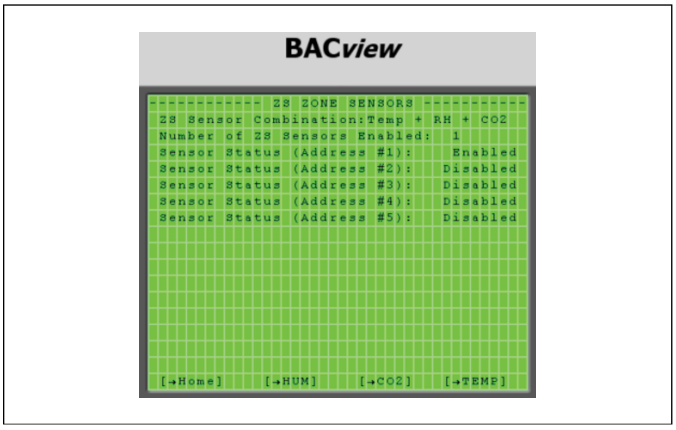

Figure 36

ZS Home Screen				
Parameter	Value	R/W	User Level	Show when Configured
ZS Sensor Combination	Temp Only RH Only CO2 Only Temp + RH Temp + CO2 RH + CO2 Temp + RH + CO2	Read	None	Not Applicable
Number of ZS Sensors Enabled	Num	Read	None	Not Applicable
Sensor status Address 1	Disabled/Enabled	Read	None	Not Applicable
Sensor status Address 2	Disabled/Enabled	Read	None	Not Applicable
Sensor status Address 3	Disabled/Enabled	Read	None	Not Applicable
Sensor status Address 4	Disabled/Enabled	Read	None	Not Applicable
Sensor status Address 5	Disabled/Enabled	Read	None	Not Applicable

Table 31

7.27 ZS HUM

This screen provides the overall ZS sensor humidity status.

Path: Home ▶ ZS Home (ZS Zone Sensors) ▶ HUM (Humidity)

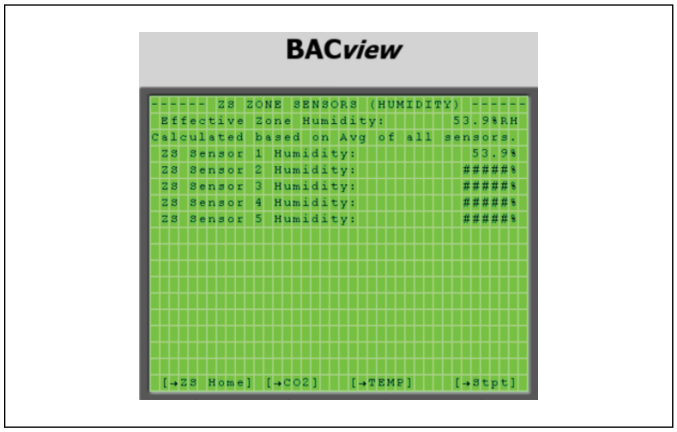

Figure 37

ZS HUM Screen				
Parameter	Value	R/W	User Level	Show when Configured
Effective Zone Humidity	Num %	Read	None	Not Applicable
ZS Sensor 1 Humidity	Num %	Read	None	Not Applicable
ZS Sensor 2 Humidity	Num %	Read	None	Not Applicable
ZS Sensor 3 Humidity	Num %	Read	None	Not Applicable
ZS Sensor 4 Humidity	Num %	Read	None	Not Applicable
ZS Sensor 5 Humidity	Num %	Read	None	Not Applicable

Table 32

7.28 ZS CO2

This screen provides the overall ZS sensor CO2 status.

Path: Home ▶ ZS Home (ZS Zone Sensors) ▶ CO2

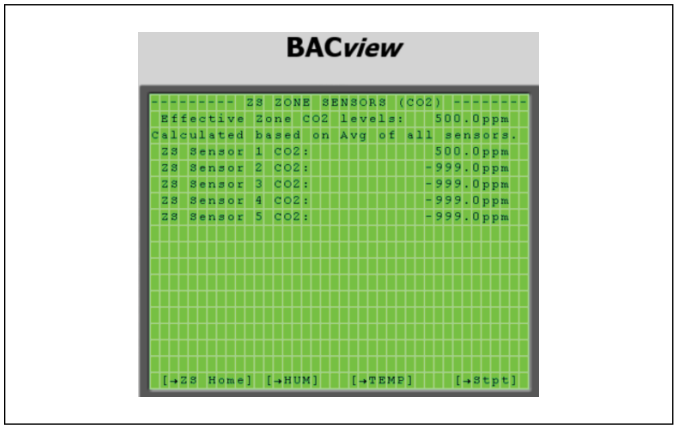

Figure 38

ZS HUM Screen				
Parameter	Value	R/W	User Level	Show when Configured
Effective CO2 Levels	Num	Read	None	Not Applicable
ZS Sensor 1 CO2	Num	Read	None	Not Applicable
ZS Sensor 2 CO2	Num	Read	None	Not Applicable
ZS Sensor 3 CO2	Num	Read	None	Not Applicable
ZS Sensor 4 CO2	Num	Read	None	Not Applicable
ZS Sensor 5 CO2	Num	Read	None	Not Applicable

Table 33

7.29 ZS Temp

This screen provides the overall ZS sensor temperature status.

Path: Home ► ZS Home (ZS Zone Sensors) ► Temp (Temperature)

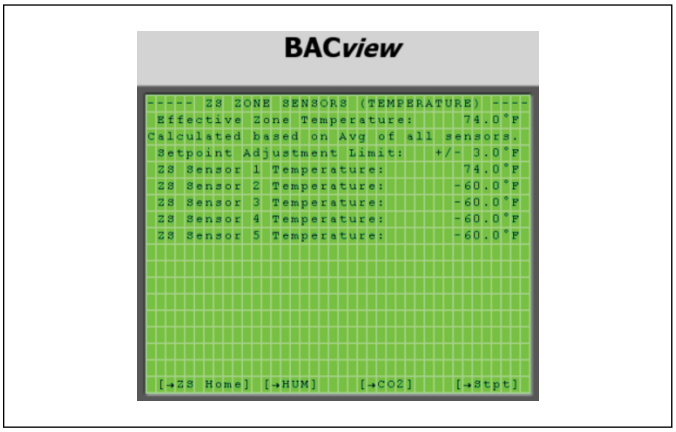

Figure 39

ZS Temp Screen				
Parameter	Value	R/W	User Level	Show when Configured
Effective Zone Temperature	Num	Read	None	Not Applicable
Set Point Adjustment Limit	Num	Read	None	Not Applicable
ZS Sensor 1 Temperature	Num	Read	None	Not Applicable
ZS Sensor 2 Temperature	Num	Read	None	Not Applicable
ZS Sensor 3 Temperature	Num	Read	None	Not Applicable
ZS Sensor 4 Temperature	Num	Read	None	Not Applicable
ZS Sensor 5 Temperature	Num	Read	None	Not Applicable

Table 34

7.30 Zone ZS Setpoints

This screen allows for the management of ZS sensor parameters.

Path: Home ► ZS Home (ZS Zone Sensors) ► Temp (Temperature) ► Stpt

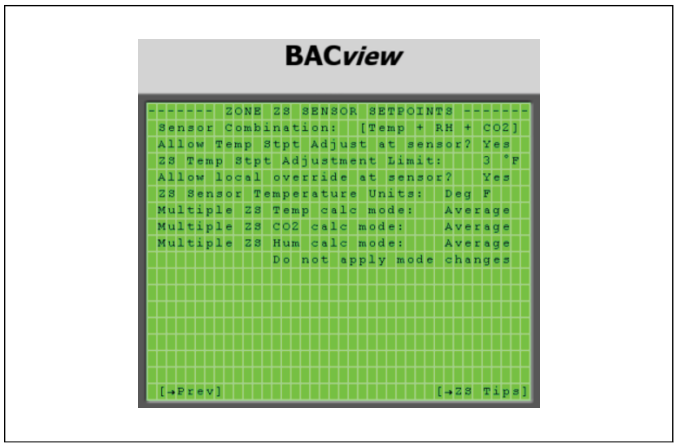

Figure 40

Zone ZS Setpoints Screen				
Parameter	Value	R/W	User Level	Show when Configured
Sensor Combination	Temp Only	Write	None	Not Applicable
	RH Only			
	CO2 Only			
	Temp + RH			
	Temp + CO2			
	RH + CO2			
	Temp + RH + CO2			
Allow Temp Stpt Adjust at sensor	No/yes	Write	None	Not Applicable
ZS temp stpt Adjustment Limit	Num	Write	None	Not Applicable
Allow Local override at sensor	No/yes	Write	None	Not Applicable
ZS sensor Temperature Units	Deg F/Deg C	Write	None	Not Applicable
Multiple ZS Temp Calc mode	Average	Write	None	Not Applicable
	Maximum			
	Minimum			
Multiple ZS CO2 calc mode	Average	Write	None	Not Applicable
	Maximum			
	Minimum			
Multiple ZS Hum calc mode	Average	Write	None	Not Applicable
	Maximum			
	Minimum			
	Do not apply mode changes	Write	None	Not Applicable
	Apply Mode changes*	Write	None	Not Applicable

Table 35

** This will push Temp/CO2/HUM calc mode Values to the Controller Program.*

7.31 ZS Tips

This screen offers help tips on ZS sensor issues.

Path: Home ▶ ZS Home (ZS Zone Sensors) ▶ Temp (Temperature) ▶ Stpt ▶ ZS Tips

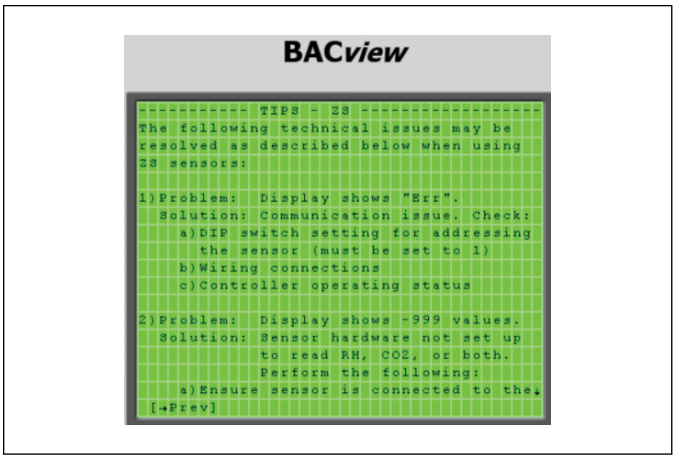

Figure 41

7.32 Outside Air Reset

This screen allows user to check status and manage Outside Air Sensor Parameters based on I/O Selection Configuration.

Path: Home ▶ Outside Air Reset

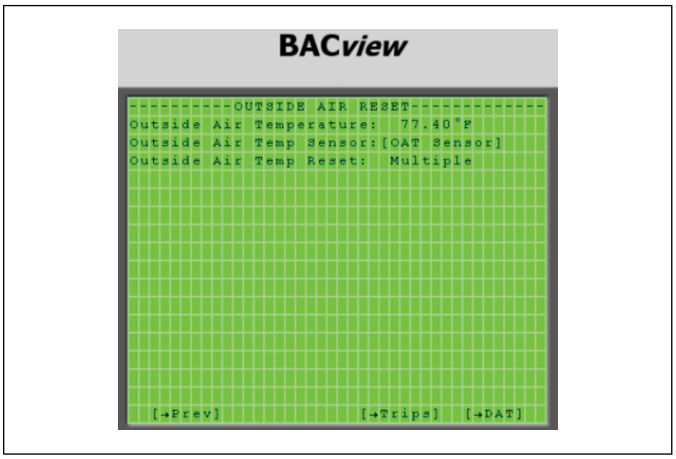

Figure 42

Outside Air Reset Screen				
Parameter	Value	R/W	User Level	Show when Configured
Outside Air Temperature	num	Read	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
Outside Air Temp Sensor	BAS OAT	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
	OAT Sensor			
Outside Air Temp Reset	Single	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
	Multiple			

Table 36

7.33 Outside Air Reset Trips

This screen allows user to manage Outside Air Trip Points based on I/O Selection Configuration.

Path: Home ▶ Outside Air Reset ▶ Trips (Outside Air reset Temp Trips)

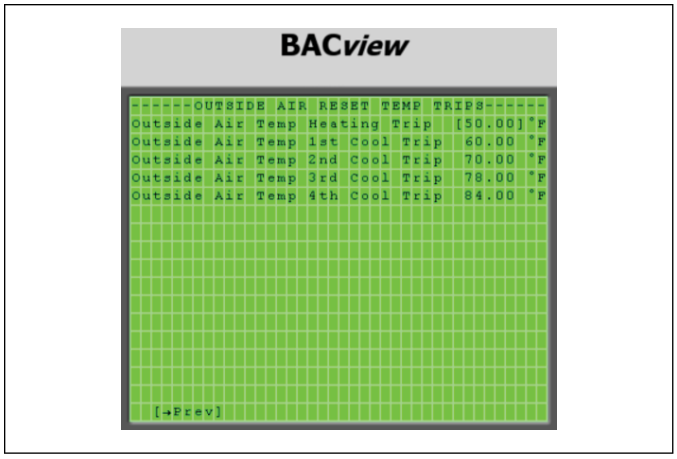

Figure 43

Outside Air Reset Trips Screen				
Parameter	Value	R/W	User Level	Show when Configured
Outside Air Temp Reset Temp	Num	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control] **AND** (Setup) Unit Operation and I/O Selection -> Outside Air Reset [Single]
Outside Air Temp Heating Trip	Num	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control] **AND** (Setup) Unit Operation and I/O Selection -> Outside Air Reset [Multi]
Outside Air Temp 1st Cool Trip	Num	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control] **AND** (Setup) Unit Operation and I/O Selection -> Outside Air Reset [Multi]
Outside Air Temp 2nd Cool Trip	Num	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control] **AND** (Setup) Unit Operation and I/O Selection -> Outside Air Reset [Multi]
Outside Air Temp 3rd Cool Trip	Num	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control] **AND** (Setup) Unit Operation and I/O Selection -> Outside Air Reset [Multi]
Outside Air Temp 4th Cool Trip	Num	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control] **AND** (Setup) Unit Operation and I/O Selection -> Outside Air Reset [Multi]

Table 37

7.34 Discharge Air

This screen allows user to check status and manage MHGRH - Discharge Air Control Parameters based on I/O selection configuration

Use modulating hot gas re-heat valve to maintain discharge air temperature at set point. An outside air temperature (OAT) source (factory provided and field installed outside, or BAS supplied) is used for staging. It is recommended that the factory mounted discharge air temperature sensor be replaced with a duct probe temperature sensor about 3ft downstream of the supply air duct inlet for best results. Only the cooling capacity is modulated during discharge air control operation. There is no provision for discharge air temperature control in heating mode. This screen allows the user to view, modify and configure any parameters related to Discharge Air Control. These values should only be adjusted if Disch Air Control is selected for Compressor Control.

Path: Home ▶ Outside Air Reset ▶ DAT (Discharge Air)

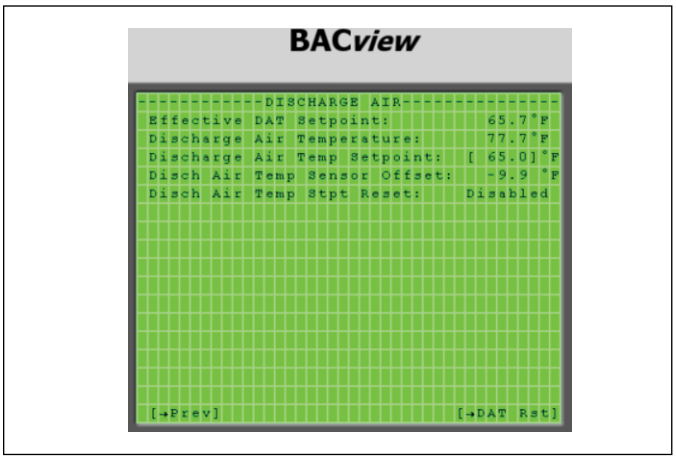

Figure 44

Discharge Air Screen				
Parameter	Value	R/W	User Level	Show when Configured
Effective DAT Setpoint	Num	Read	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
Discharge Air Temperature	Num	Read	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
Discharge Air Temp Setpoint	Num	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
Disch Air Temp Sensor Offset	Num	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
Disch Air Temp Stpt Reset	Disabled/Enabled	Write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]

Table 38

7.35 DAT RST Setpoint Limits

This screen allows user to manage Discharge Air Temp Reset Limits.

Path: Home ▶ Outside Air Reset ▶ DAT (Discharge Air) ▶ DAT RST (Setpoint Reset Limits)

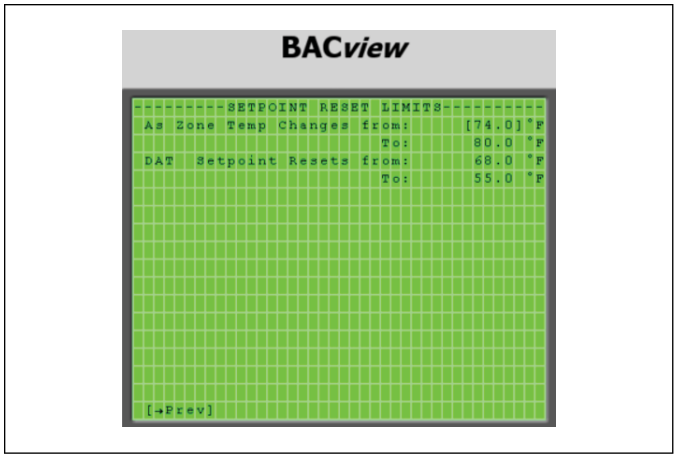

Figure 45

DAT RST Setpoint Limits Screen				
Parameter	Value	R/W	User Level	Show when Configured
As Zone Temp Changes from	num	write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
To	num	write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
DAT Setpoint Resets from	num	write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]
To	num	write	User	(Setup) Unit Operation and I/O Selection -> Compressor Control [Discharge Air Control]

Table 39

7.36 Humidity Control

This screen displays the overall status of Hot Gas Reheat for humidity control.

Hot gas reheat actively controls humidity by reheating cooled and dehumidified air back to a neutral temperature using waste heat from the compressor. Doing this allows the unit to continue to operate and remove moisture from the space even after the sensible cooling set point has been satisfied. Hot gas reheat is well suited for conditioning outside ventilation air and for maintaining ideal humidity levels in schools, commercial buildings and even homes. A binary output on the Control Air 6120 controller is used to provide the signal for activating the reheat valve when the necessary conditions are met. Relative humidity readings may be acquired from a wall-mounted ZS combo sensor, a third-party hard wired 0-5V humidity sensor, or from RH values pushed to the Control Air 6120 over a network.

Path: Home ▶ Humidity (Humidity Control)

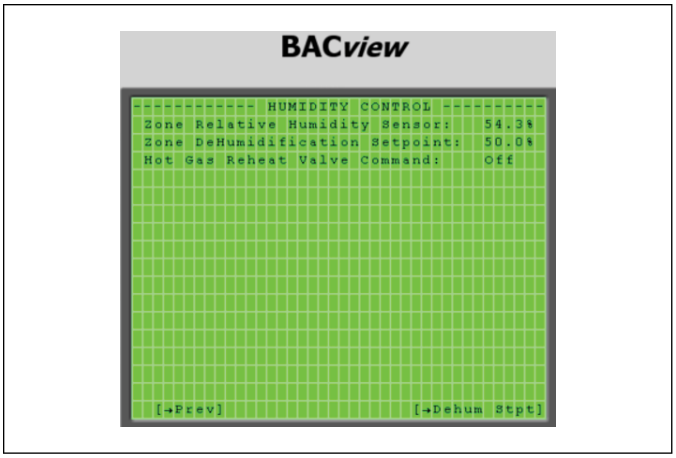

Figure 46

Humidity Control Screen				
Parameter	Value	R/W	User Level	Show when Configured
Zone Relative Humidity Sensor	Num %	Read	None	(Setup) Unit Operation and I/O Selection -> Unit Configuration [HP+HGRH **OR** Cooling+HGRH **OR** HP+HGRH+AUXHT] **AND** (UI-5 Options [RH Probe Sensor] **OR** Humidity Sensor [BAS RH Sensor) **OR** ZS RH Sensor]
Zone Dehumidification Setpoint	Num %	Read	None	(Setup) Unit Operation and I/O Selection -> Unit Configuration [HP+HGRH **OR** Cooling+HGRH **OR** HP+HGRH+AUXHT] **AND** (UI-5 Options [RH Probe Sensor] **OR** Humidity Sensor [BAS RH Sensor) **OR** ZS RH Sensor]
Hot Gas Reheat Valve Command	Off/on	Read	None	(Setup) Unit Operation and I/O Selection -> Unit Configuration [HP+HGRH **OR** Cooling+HGRH **OR** HP+HGRH+AUXHT] **AND** (UI-5 Options [RH Probe Sensor] **OR** Humidity Sensor [BAS RH Sensor) **OR** ZS RH Sensor]

Table 40

7.37 Humidity Setpoint Adjust

This screen allows user to manage Setpoint Parameters for HGRH humidity control.

Path: Home ▶ Humidity (Humidity Control) ▶ Dehum Stpt (Humidity Setpoint Adjust)

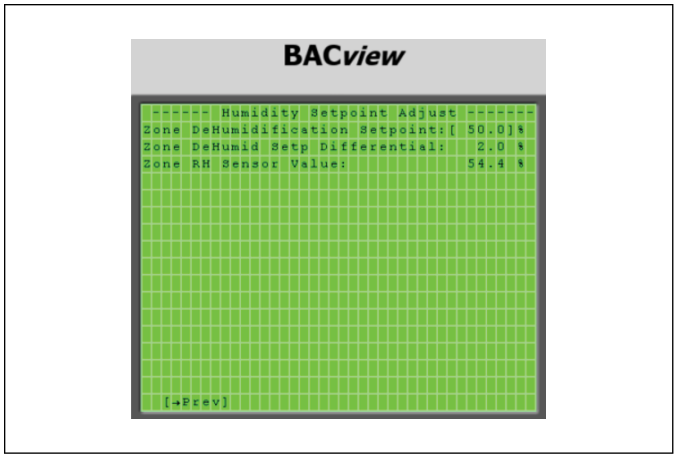

Figure 47

Humidity Setpoint Adjust Screen				
Parameter	Value	R/W	User Level	Show when Configured
Zone DeHumidification Setpoint	Num %	Write	User	(Setup) Unit Operation and I/O Selection ->Unit Configuration [HP+HGRH **OR** Cooling+HGRH **OR** HP+HGRH+AUXHT] **AND** (UI-5 Options [RH Probe Sensor] **OR** Humidity Sensor [BAS RH Sensor) **OR** ZS RH Sensor]
Zone DeHumidification Setpoint Differential	Num %	Write	User	(Setup) Unit Operation and I/O Selection ->Unit Configuration [HP+HGRH OR Cooling+HGRH **OR** HP+HGRH+AUXHT] **AND** (UI-5 Options [RH Probe Sensor] **OR** Humidity Sensor [BAS RH Sensor) **OR** ZS RH Sensor]
Zone RH Sensor Value	Num %	Read	User	(Setup) Unit Operation and I/O Selection ->Unit Configuration [HP+HGRH **OR** Cooling+HGRH OR HP+HGRH+AUXHT] **AND** (UI-5 Options [RH Probe Sensor] **OR** Humidity Sensor [BAS RH Sensor) **OR** ZS RH Sensor]

Table 41

7.38 Modulating Electric Heat Setup

This screen allows user to check status and manage Modulating Electric Heat Parameter based on I/O selection configuration.

Path: Home ► Electric Heat (Modulating Electric Heat Setup)

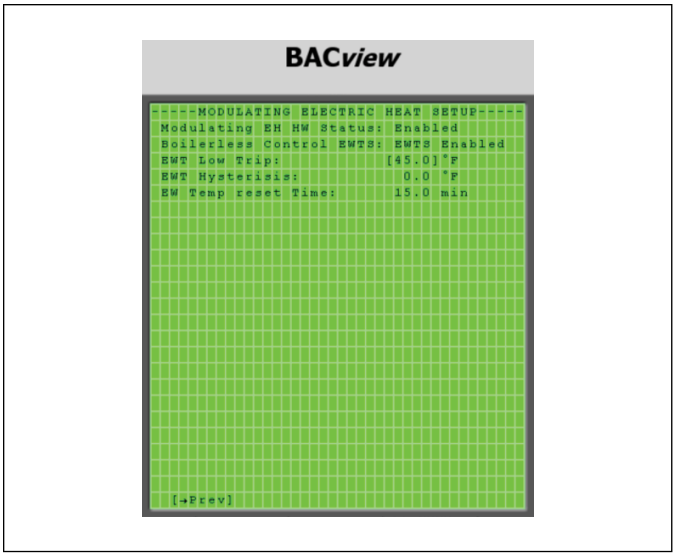

Figure 48

Modulating Electric Heat Setup Screen				
Parameter	Value	R/W	User Level	Show when Configured
Modulating EH HW Status	Enabled	Read	User	Not Applicable
Boilerless Control EWTS	Not Installed/EWTS Enabled	Read	User	Not Applicable
EWT Low Trip	Num	Write	User	Not Applicable
EWT Hysterisis	Num	Write	User	Not Applicable
EW Temp Reset Time	Num Min	Write	User	Not Applicable

Table 42

7.39 Economizer or Boilerless

This screen displays the overall status of Water-Side Economizer and Boilerless Control Parameters.

Water-Side Economizer
Consisting of a water-to-air heat exchanger (economizer coil), a thermistor (EWT sensor), and a 3-way diverting valve. When there is a call for cooling, the EWT sensor connected to the Control Air 6120 will monitor the entering water temperature to the unit and determine if the compressor should be used for cooling or if the water temperature is low enough to cool the entering air with the economizer coil. If the entering water temperature is below a selected user adjustable set point, the diverting valve will be indexed by the Control Air 6120 to divert the entering water through the economizer coil to cool the air stream.

Boilerless Control
Allows a water source heat pump to be operated in heating safely when installed in a system that has no means of heating the water loop. A factory installed Entering Water Temperature (EWT) sensor (thermistor) is connected to the Control Air 6120 controller and used with this option. During a call for heating, if the EWT sensor detects a drop in water temperature below a pre-set limit (adjustable in the software), the Control Air 6120 will disengage the compressor output(s) and provide a 24VAC signal to divert unit operation from compressor heating to an alternate heat source (generally field-installed electric heat). The option is also used to proactively prevent coils from freezing.

Path: Home ▶ Economizer or Boilerless

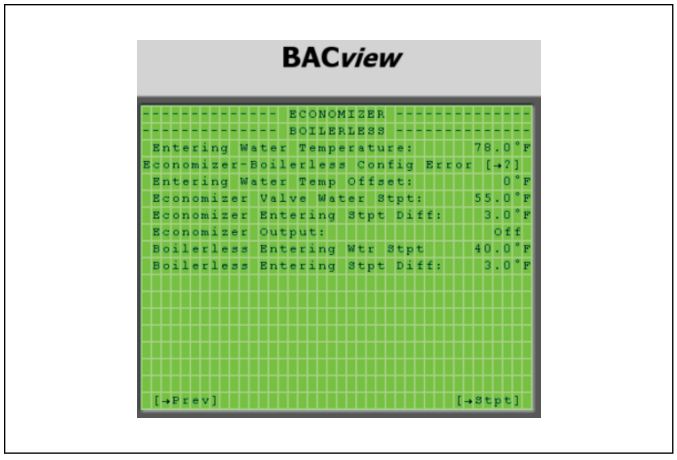

Figure 49

Economizer or Boilerless Screen				
Parameter	Value	R/W	User Level	Show when Configured
Entering Water Temperature	Num	Read	None	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]
Entering Water Temp Offset	Num	Read	None	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]
Economizer Valve Water Setpoint	Num	Read	None	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]
Econimizer Entering Stpt/Diff	Num	Read	None	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]
Econimizer Output	Off/on	Read	None	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]
Boilerless Entering Wtr Stpt	Num	Read	None	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]
Boilerless Entering Stpt Diff	Num	Read	None	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]

Table 43

7.40 Economizer/Boilerless Setup (stpt)

This screen allows user to manage Economizer and Boilerless Control Parameters based on I/O Selection Configuration

Path: Home ► Economizer or Boilerless ► Stpt (Econimizer or Boilerless Setup)

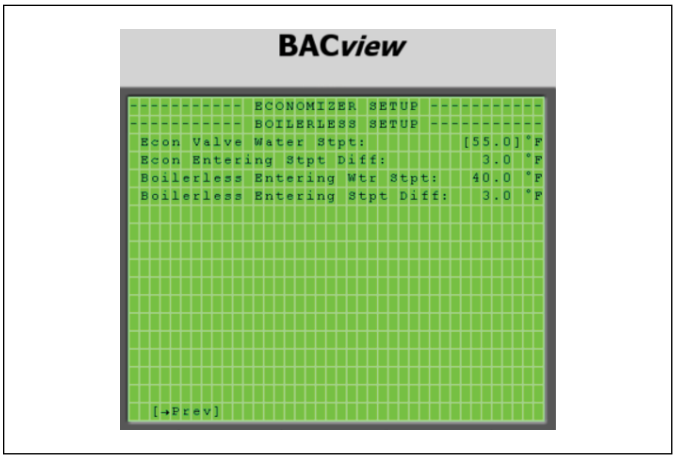

Figure 50

Economizer/Boilerless Setup (stpt) Screen				
Parameter	Value	R/W	User Level	Show when Configured
Econ Valve Water Stpt	Num	Write	User	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]
Econ Entering Stpt Diff	Num	Write	User	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]
Boilerless Entering Wtr Stpt	Num	Write	User	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]
Boilerless Entering Stpt Diff	Num	Write	User	(Setup) Unit Operation and I/O Selection -> EXBO-8 Options [Economizer **OR** Boilerless]

Table 44

7.41 Smoke

This screen displays status and Manage Smoke Detector Status (SDS) Parameters.

The unit may be setup to receive a smoke event via a contact closure. The smoke detector status input is located on the Control Air 6120 Point Expander. The response to a smoke event must be determined by safety regulations and jurisdiction of the local governing body. The smoke detector response must be enabled and setup by the system integrator and safety personnel. The default behavior for a smoke event will terminate the operation of the unit (fan and compressor). The unit may be configured for operation during a smoke event for specific safety applications, and the safety integrator must determine the appropriate behavior during a smoke event. Variable Frequency Drive configured units can be configured for a specific air flow during a smoke event. A Smoke Detector contact closure will produce a Smoke Alert.

Path: Home ▶ Smoke (Smoke Detector)

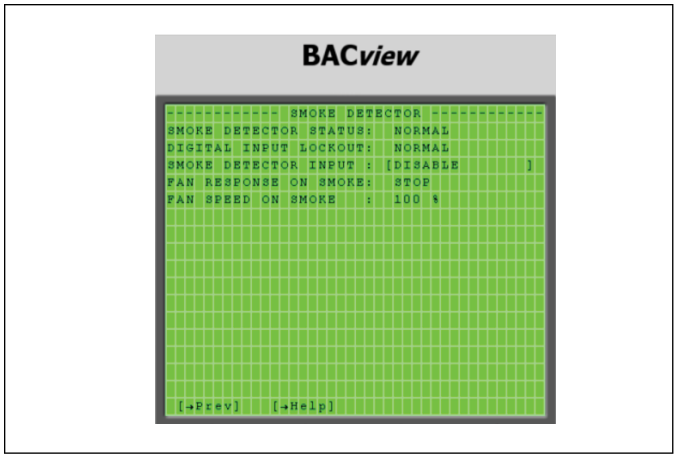

Figure 51

Smoke Screen				
Parameter	Value	R/W	User Level	Show when Configured
Smoke Detector Status	Normal/Alarm	Read	None	Not Applicable
Digital Input Lockout	Normal/Config Error	Read	None	Not Applicable
Smoke Detector Input	Disable	Write	None	Not Applicable
	HW SD			
	BAS SD			
	BAS SD + HW SD			
Fan Response on Smoke	Stop/Run	Write	None	Not Applicable
Fan Speed on Smoke	Num %	Write	None	Not Applicable

Table 45

8 Setting Local Schedules

Using a BACview® device, you can set local occupancy schedules directly in a controller. These schedules can be used in a stand-alone controller or used to start up of a network controller.

To set up schedules in a BACview® device, first define a schedule for each day of the week and then define schedules for the exceptions, such as holidays.

To set schedules in a BACview® device, you must select the **Keypad Schedules** value in **Software enabled by:** property on the **Unit Operation and I/O Selection** screen. From the **Home** screen, go to **Unit Operation > Stpt.**

A network schedule will overwrite a local schedule that was set up in a BACview® device.

8.1 To Set Up a Weekly Schedule

You can set up a schedule and apply it to different days of the week. For example, you could set up one schedule for Monday through Thursday, a second schedule for Friday, and a third schedule for Saturday and Sunday.

To set up a schedule:

1. From the **Home** screen, navigate to **Sched > schedule_schedule > Weekly schedule > Mon** (or any day of the week), then press **Enter**.
2. Define the time of each transition during the day from off (unoccupied) to on (occupied) and vice versa:
   a. Highlight **Add/Del**, then press **Enter.**
   b. Use the **INCR** softkey to change the value to **Add**, then press **Enter**.
   c. The 12:00 am state is always the first transition. Change the 12:00 am state if it should be On.
   d. Highlight **Add/Del,** then press **Enter**.
   e. Use the **INCR** softkey to change the value to **Add,** then press **Enter**.
   f. Change the time and state of the new transition.
   g. Repeat steps d through f until you have added all transitions for the day.

To delete a transition, highlight **Add/Del** in that row, press **Enter**, use the **DECR** softkey to change the value to Delete, then press Enter.

To create a 24-hour off or on schedule, define only the 12:00 am state.

3. Press the **Continue** softkey.
4. If the schedule applies to another day of the week, highlight the field below the day, press **Enter**, use the **INCR** softkey to change the value to **X**, then press **Enter**.
5. Press the **Save** softkey.

8.2 To Set Up Exception Schedules

You can set up exception schedules that will override the regular schedules. For example, you can set up a schedule for the January 1, 2014 holiday that will override the regular Friday schedule.

To set up an exception schedule:

1. From the **Home** screen, navigate to **Sched > schedule_schedule > Exceptions**.

The screen shows any existing exceptions. To delete an exception, highlight **Del**, press **Enter,** use the **INCR** softkey to change the field to **Yes**, then press **Enter**.

2. Press the **Add** softkey.
3. Highlight the type of exception you want.

Exception	Defines an Exception Schedule for...
Date	A specific date such as a holiday, or a recurring date such as the first day of every month.
Date Range	A specific date range such as January 1, 2013 through January 5, 2013, or a recurring date range such as the 1st through the 5th of every month.
Week-N-Day	A specific week in a month such as the third week in January, and/or a specific day of the week such as Tuesdays in January.
Calendar Reference	For future use.

Table 46

4. Press **Enter.**
   a. Set each field (Year, Month, etc.) as needed. See table below. For help, see To change a property in aBACview®6 device (page 4) or To change a property in the Virtual BACview® application (page 9).

For a Date Range exception, you must define the beginning and end of the range.

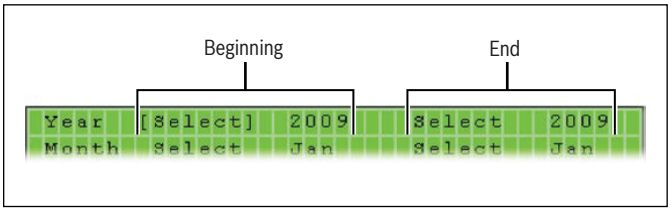

Figure 52

5. Press the **Continue** softkey.
6. The default priority is 16. If 2 exception schedules will be used on the same day and have any time periods with conflicting states, assign a higher priority to the schedule that should be followed during the conflicting periods. To do this, change 16 to a lower value.

7. Define the time of each transition during the day from off (unoccupied) to on (occupied) and vice versa:
   a. Highlight **Add/Del**, then press **Enter**.
   b. Use the **INCR** softkey to change the value to **Add**, then press **Enter**.
   c. The 12:00 am state is always the first transition. Change the 12:00 am state if it should be On.
   d. Highlight **Add/Del**, then press **Enter.**
   e. Use the **INCR** softkey to change the value to **Add**, then press **Enter**.
   f. Change the time and state of the new transition.
   g. Repeat steps d through f until you have added all transitions for the day.

TTo delete a transition, highlight **Add/Del** in that row, press **Enter**, use the **DECR** softkey to change the value to **Delete,** then press **Enter**.

To create a 24-hour off or on schedule, define only the 12:00 am state.

8. Press the **Save** softkey.

To set the...	To...	Do the following...
Year	**Any** year	1. Highlight **Select**, then press **Enter**. 2. Use **INCR** to change the field to **Any**, then press **Enter**.
	A specific year	1. Highlight **2009**, then press **Enter.** 2. Change the date, then press **Enter.**
Month	**Even, Odd, or Any**	1. Highlight **Select**, then press **Enter.** 2. Use **INCR** to change the field to **Even, Odd**, or **Any**, then press **Enter.**
	A specific month	1. Highlight **Jan**, then press **Enter.** 2. Use **INCR** to change the month, then press **Enter.**
Day	**Last** or **Any**	1. Highlight **Select**, then press **Enter**. 2. Use **INCR** to change the field to **Last** or **Any,** then press **Enter**.
	A specific date	1. Highlight **1**, then press **Enter**. 2. Change 1 to the number you want, then press **Enter.**
DOW (day of week)	**Any**	Leave the default.
	A specific day of the week	1. Highlight **Any**, then press **Enter**. 2. Use **INCR** to change the field to **Select**, then press **Enter**. 3. Highlight **Mon**, then press **Enter.** 4. Use **INCR** to change the day of the week, then press **Enter**.
Week	**Any**	Leave the default.
	Last	1. Highlight **Any**, then press **Enter**. 2. Use **INCR** to change the field to **Last**. 3. Press **Enter**.
	A week number (Ex: 2nd week of the month)	1. Highlight **Any**, then press **Enter.** 2. Use **INCR** to change the field to **Select**, then press **Enter.** 3. Highlight **1**, press **Enter**, use **INCR** to change the week number, then press **Enter.**

Table 47

Online Help Resources

Alternatively, please visit our Service & Support webpage to find FAQs, videos, service bulletins, and more; bosch-homecomfort.us/service or use your cellphone to scan the code below.

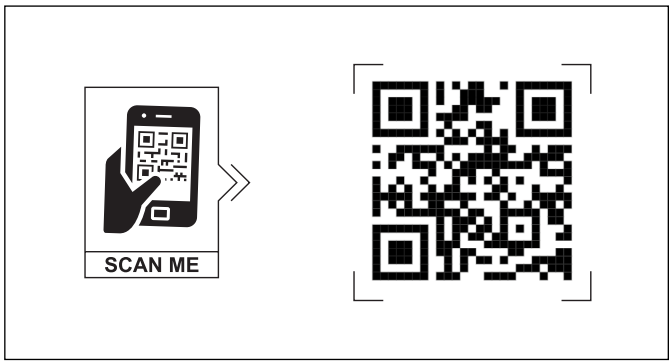

Figure 53

NOTES:

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