

VTR8300 User Interface Guide

Commercial and Hotel/Lodging HVAC Fan Coil Applications



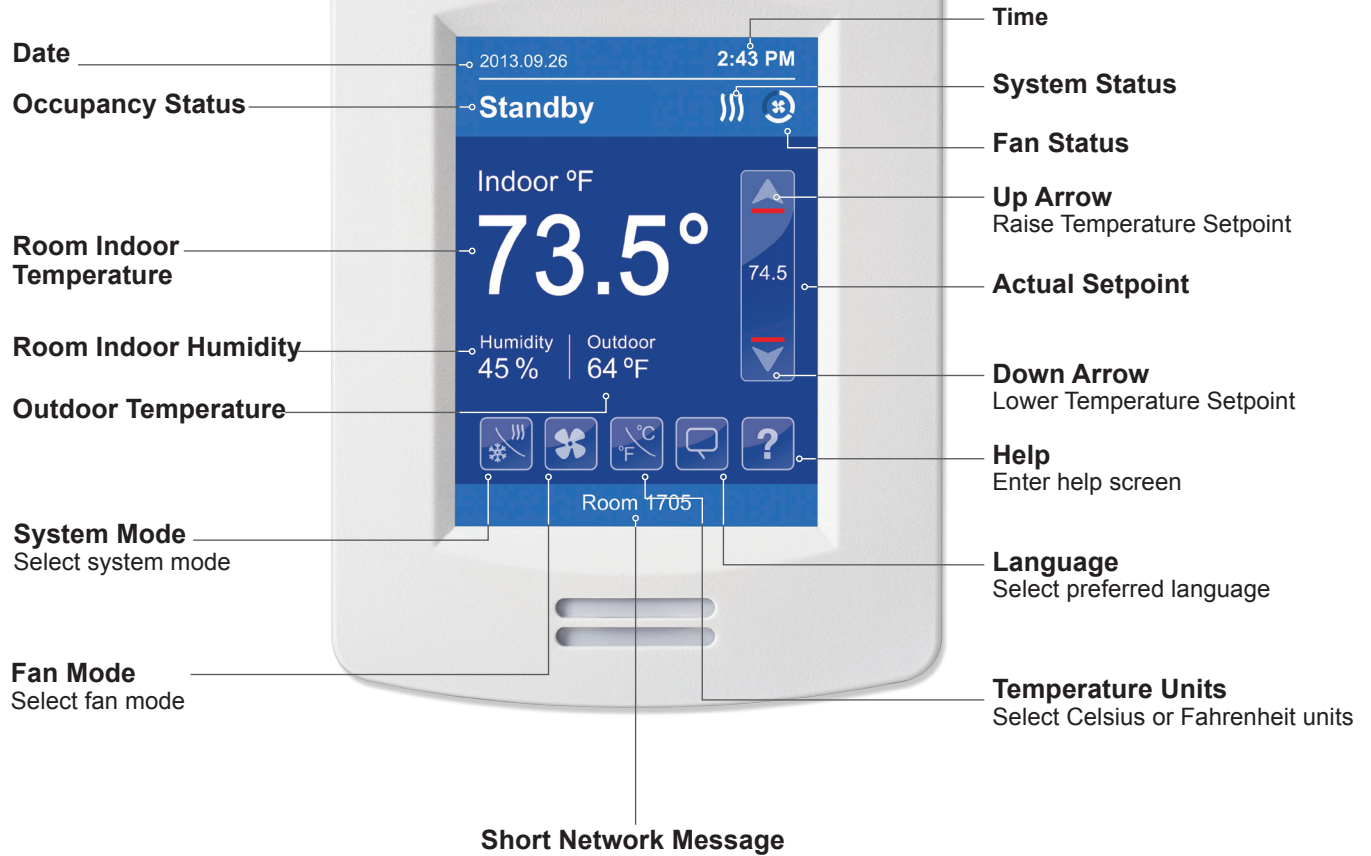
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HOME SCREEN DISPLAY

Hospitality user interface shown



General Notes

1. When any change is made to a parameter, the value is automatically saved in memory when the next parameter is selected or another page is opened.
2. Arrows auto-increment/decrement at higher speed when holding button for more than 2.5 seconds.
3. All objects related to humidity do not display on HMI when Controller is ordered without built-in humidity sensor.

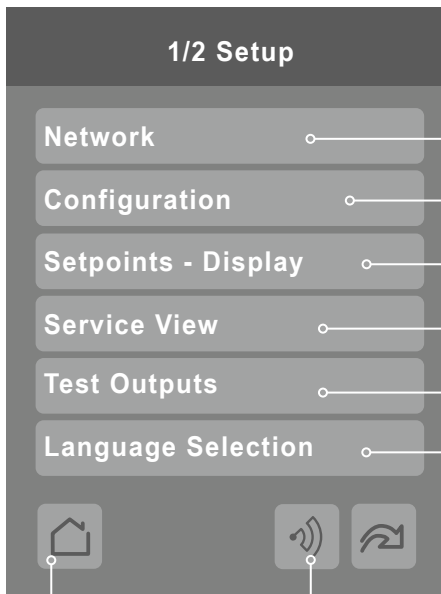
HOW TO ENTER SETUP SCREEN



Touch and hold this point for 3 seconds to enter setup mode

Note: If a configuration / installer password is activated to prevent unauthorised access to the configuration menu parameters, a password entry prompt will appear to prevent access to the device configuration components.

SETUP SCREEN DISPLAY



Enter BACnet® & ZigBee® network settings (only if ZigBee is detected)

Enter parameter configuration menu

Enter setpoint and display settings

Enter status and service view

Enter output testing mode

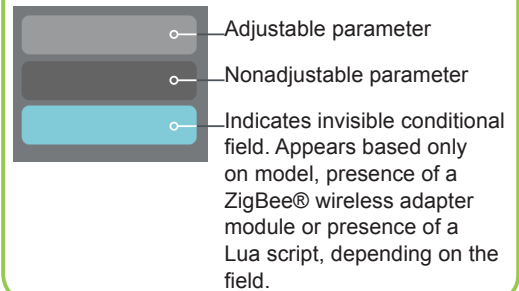
Enable selected language(s)*

Return to home screen

Discover Mode The Controller becomes discoverable on the wireless ZigBee® network for 1 minute (this button is hidden if ZigBee® settings are not configured)

*only available in recent versions of firmware

General Note:



SET-UP SCREEN DISPLAY 2/2

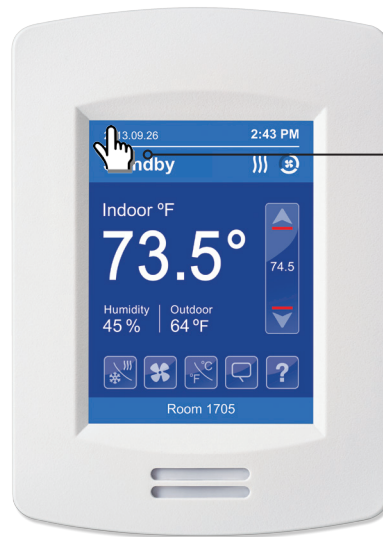


- Enter Schedule menu screen
- Enter Wireless Ecosystem menu screen (ZigBee wireless adapter module required)
- Enter Lua script settings (Lua script required)

SCHEDULE MENU SCREEN



- Enter Clock settings
- Enter Schedule settings
- Enter Occupancy settings

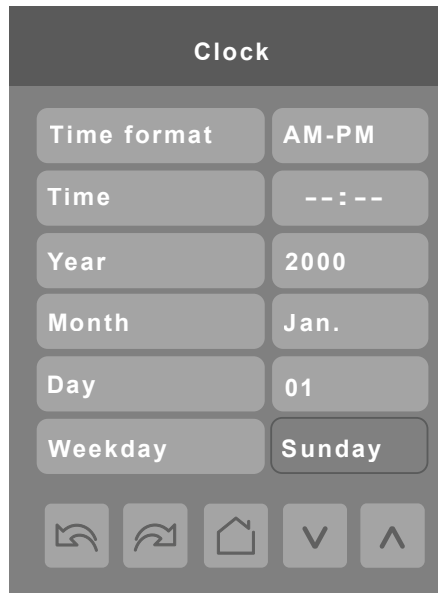


Touch and hold this point for 3 seconds to enter the Schedule Menu screen.

Note: The Schedule menu screen is directly accessible from the main display if the Schedule Menu configuration parameter is enabled. See Configuration Parameters Screen 6/7 on page 26 for more information.

CLOCK SETTINGS

The Clock settings screen allows the device's internal time settings to be changed, including current time, standard day, month, year and weekday options, as well as choice between a 12 hour AM / PM display or a 24 hour display.



PARAMETER DETAILS

Configuration parameters default value	Significance and Adjustments
Time Format Current time display format Default value: AM-PM	Choice between 12 hour AM - PM time format or 24 hour time format. AM-PM 24 Hours Note: Changing the value of this parameter automatically changes the format of the displayed value of the Time parameter directly below.
Time Current time display setting Default value: Begins at 12:00 AM at initial power up.	Standard time display, 12 hour AM-PM or 24 hour; format is determined by the Time Format parameter value.
Year Default value: 2000	Current year
Month Default value: Jan.	Current month
Day Default value: 01	Current day
Weekday Default value: Sunday	Current day of the week

SCHEDULE SETTINGS

There are 7 different schedule setting screens, one for each day of the week, titled accordingly. Each day can have different scheduled events where the room controller is set to Occupied status or back to Unoccupied status and use the appropriate setpoints, back and forth up to 3 times per day.



Screen title is identified by day of the week (Sunday through Saturday)

PARAMETER DETAILS

Configuration parameters default value	Significance and Adjustments
Occupied Default value: None	Defines a time when the room controller is automatically set to use the Occupied setpoint. Note: There are 3 separate Occupied parameter entries
Unoccupied Default value: None	Defines a time when the room controller is automatically set to use the Unoccupied setpoint. Note: There are 3 separate Unoccupied parameter entries

OCCUPANCY SETTINGS

The occupancy settings screen allows you to determine how the Room Controller will determine whether it is functioning in Occupied or Unoccupied mode.

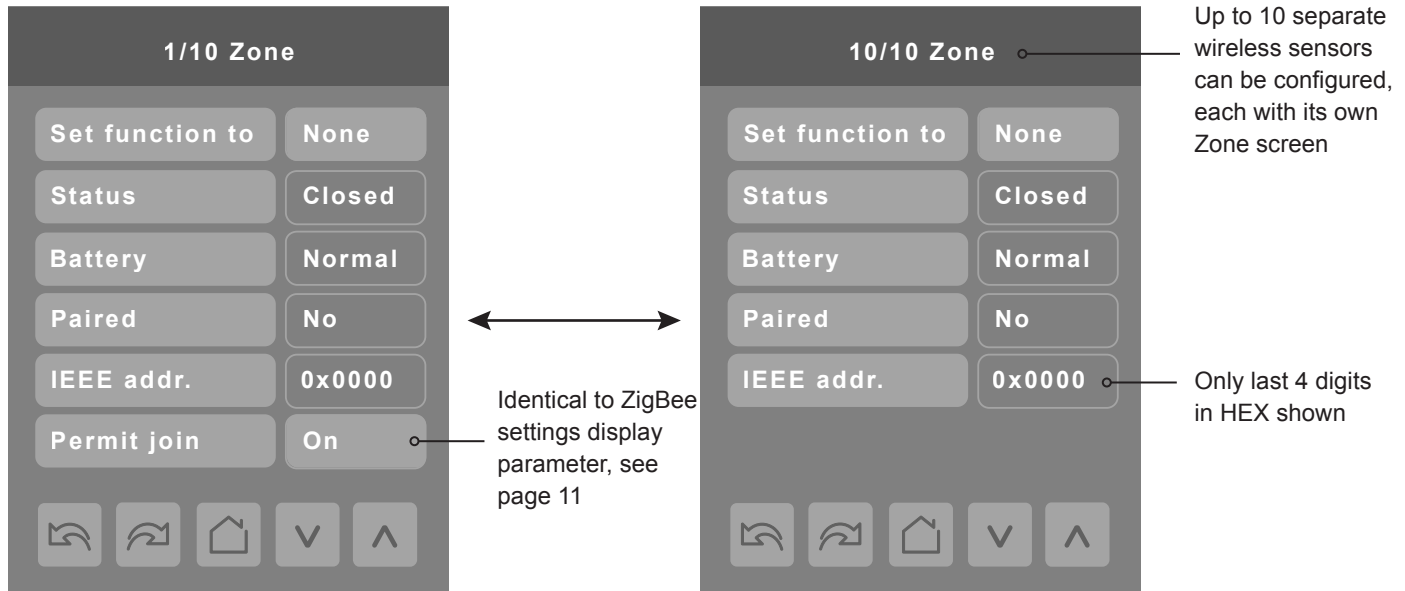


PARAMETER DETAILS

Configuration parameters default value	Significance and Adjustments
<p>Occupancy cmd Default value: Local occ</p>	<p>Occupancy Command</p> <p>Loc occ: occupancy is determined by local sequences (PIR or Schedule as configured under Occ. source).</p> <p>Occupied: force occupied mode.</p> <p>Unoccup: force unoccupied mode.</p>

WIRELESS ECOSYSTEM

When ZigBee wireless sensors are set up to communicate with a Room Controller, the functioning of each such sensor is described in a separate Zone screen, up to a maximum of 10 Zones. Select the appropriate type of sensor based on the required functioning using the up and down arrow keys.



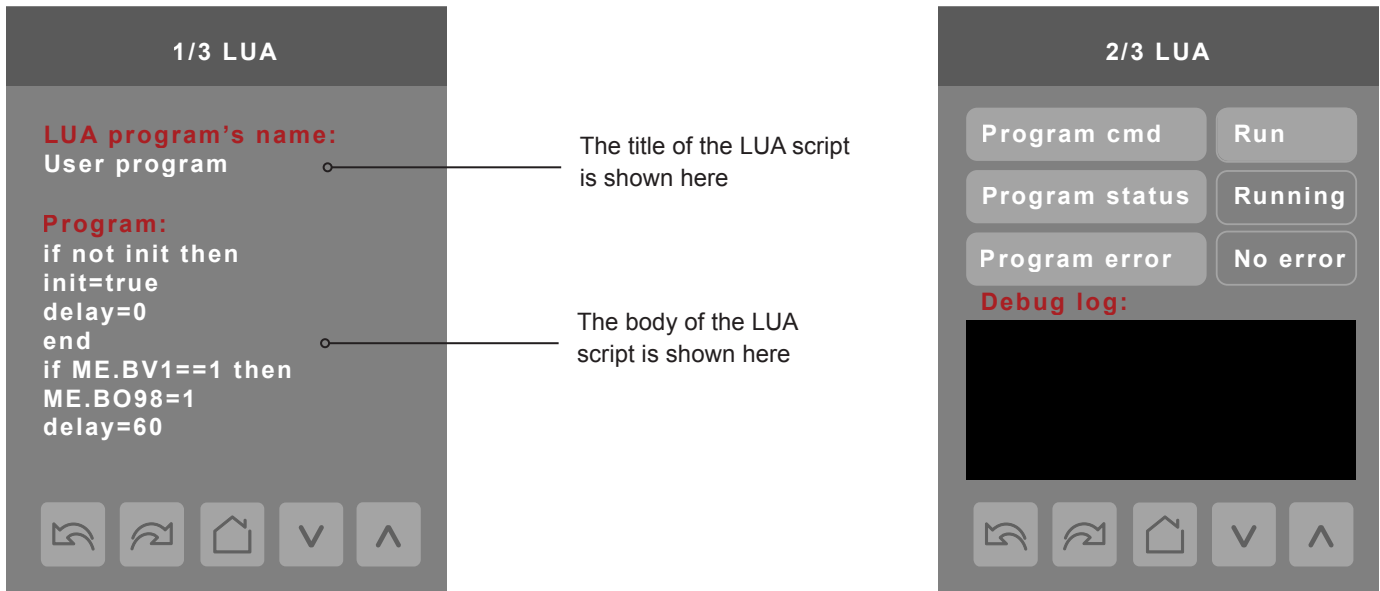
PARAMETER DETAILS

Configuration parameters default value	Significance and Adjustments
<p>Set function to Describe function of specified wireless sensor Default value: None</p>	<p>None: No sensor function configured for this zone Door: Sensor is a door contact switch Window: Sensor is a window contact switch Motion: Sensor is a motion sensor Status: Updates the BACnet status of the sensor, but no action is taken by the internal logic of the controller. Remove: Selecting this function clears the zone of the settings for the attached sensor. However, the sensor will automatically try to reconnect with the room controller unless it is manually reset as well.</p>
<p>Status Current status of information received from the sensor Read only</p>	<p>Close: Sensor in closed state (door/window only) Open: Sensor in opened state (door/window only) No motion: Sensor detects no motion (motion sensor only) Motion: Sensor detects motion (motion sensor only) None: No status information received from sensor.</p>
<p>Battery Current status of sensor battery, if any. Read only</p>	<p>Low: Battery power level is low, replacement or recharge will be needed soon Normal: Battery power level is in the normal range, replacement or recharge is not currently needed. None: Sensor does not use a battery</p>
<p>Paired Sensor pairing state Read only</p>	<p>No: Sensor is not paired with the room controller Yes: Sensor is paired with the room controller Invalid: Incorrect type of sensor (win/door or motion)</p>

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LUA SETTINGS

The LUA settings screens show information about any custom LUA script uploaded to the controller. LUA scripts are not programmable on the controllers, and so must be uploaded to the controllers.

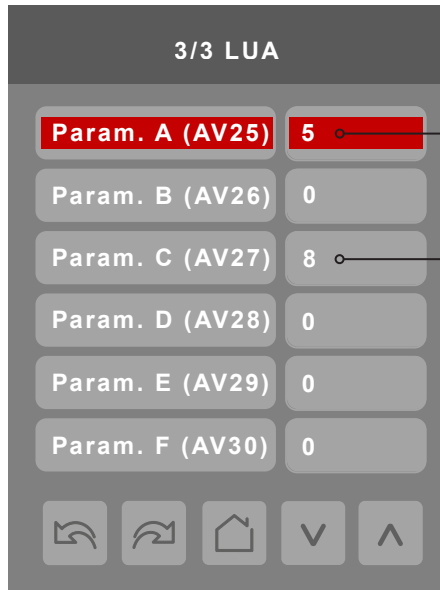


PARAMETER DETAILS

Configuration parameters default value	Significance and Adjustments
Program cmd Default value: Run	Run: The LUA script is activated and will run continuously until deactivated. Stop: The LUA script is deactivated
Program status Read only	Running: The LUA script is current active Halted: The LUA script has been stopped and is not active. Idle: The LUA script is running but is not currently taking any actions Waiting: The LUA script is running and waiting for a response.
Program error Read only	No error: No errors in the LUA script are detected. Syntax: A syntax error in the LUA script is detected Runtime: A runtime error has occurred while running the LUA script. Memory: The device has run out of memory for the script

LUA GENERIC PARAMETERS

The LUA settings include six generic parameters that do not have predefined values. These can be used to represent LUA script variables. They are user configurable in their default state, but when they are assigned a value by a LUA script they become read only, and the display colour of the parameter changes to red. These parameters are also modifiable through BACnet as Analog Values (AVs). These parameters can be configured to receive information from ZigBee sensors.



A parameter defined by a LUA script displays in red text.

The default value is normally 0, but it can be user-configured to use a different default value.

PARAMETER DETAILS

Configuration parameters default value	Significance and Adjustments
Parameter A Default value: 0 Default value can be changed by user	AV25 The value(s) of this parameter depends on what is assigned to it using the LUA script function
Parameter B Default value: 0 Default value can be changed by user	AV26 The value(s) of this parameter depends on what is assigned to it using the LUA script function
Parameter C Default value: 0 Default value can be changed by user	AV27 The value(s) of this parameter depends on what is assigned to it using the LUA script function
Parameter D Default value: 0 Default value can be changed by user	AV28 The value(s) of this parameter depends on what is assigned to it using the LUA script function
Parameter E Default value: 0 Default value can be changed by user	AV29 The value(s) of this parameter depends on what is assigned to it using the LUA script function
Parameter F Default value: 0 Default value can be changed by user	AV30 The value(s) of this parameter depends on what is assigned to it using the LUA script function

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ZIGBEE PRO NETWORK SETTINGS

ZigBee Pro set-up screen shows when a ZigBee wireless adapter module is detected in the model. Select the desired parameter and use the up or down arrow to set the parameter to the desired value.

Note: To change the value of a parameter, simply press on the parameter name or value and then use the arrow keys to change the value.

1/3 Zigbee network

- COM address: 254
- Node type: Router
- ZigBee PAN ID: 25
- ZigBee channel: 15
- ZigBee short: 0x0000
- ZigBee status: No NWK

Navigation: Previous Page, Next Page, Back to Setup Page, Change Value (see note)

Callouts:
 - ZigBee® Pro short address. The address is generated once the device joins a ZigBee® network.
 - Status of controller detecting a ZigBee® network. Will display Online when connected successfully to network.

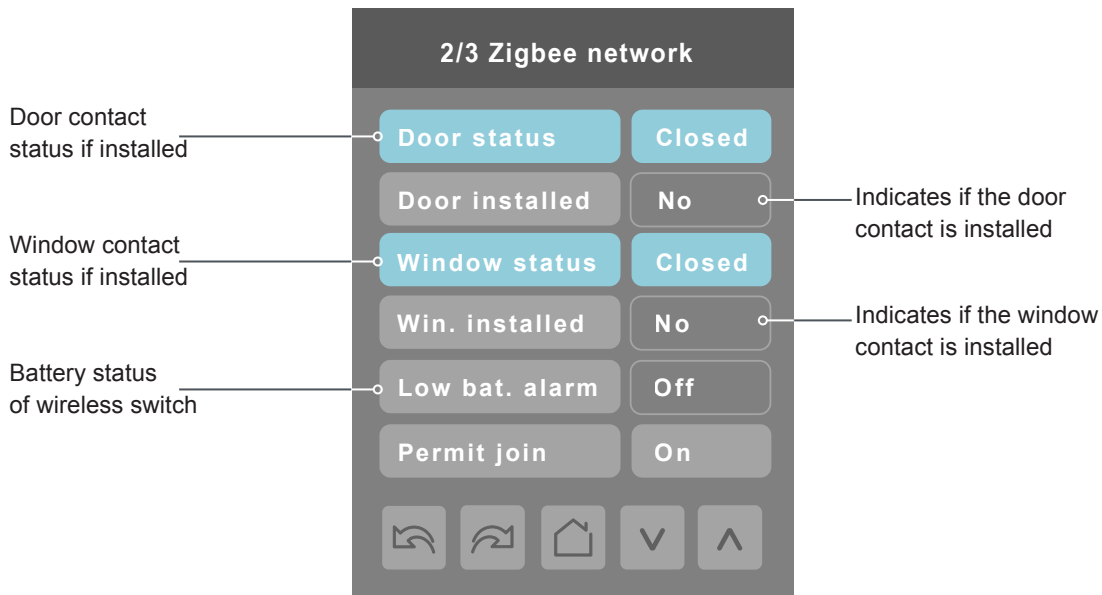
PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
<p>COM address Terminal Equipment Controller networking address Default value = 254 Range is: 0 to 254</p>	<p>For wireless models, the use of the COM address is not mandatory. The COM address is an optional way to identify a device on the network and is recommended if used with a MPM.</p> <p>It is Mandatory for BACnet.</p>
<p>ZigBee® Pan ID Personal Area Network Identification Default value = 0 Range is: 1 to 1000</p>	<p>This parameter (PAN ID) links specific Terminal Equipment Controllers to specific ZigBee® coordinators. For every Terminal Equipment Controller reporting to a coordinator, make sure you set the SAME channel value both on the coordinator and the Terminal Equipment Controller(s).</p> <p>The default value of 0 is NOT a valid PAN ID. The valid range of available PAN ID is from 1 to 1000.</p> <p>Range 1 to 500 for centralized networked applications using a ZigBee® Coordinator.</p> <p>Range 501 to 1000 is for stand-alone applications where each controller is its own coordinator for stand alone installation of wireless door and window switches.</p>

PARAMETER DETAILS (CONTINUED)

Configuration parameters default value	Significance and adjustments
<p>ZigBee® channel Channel selection Default value = 10 Range is: 10 to 25</p>	<p>This parameter (Channel) is used to link specific Terminal Equipment Controllers to specific ZigBee® coordinators. For every Terminal Equipment Controller reporting to a coordinator, be sure you set the SAME channel value both on the coordinator and the Terminal Equipment Controller(s).</p> <p>Using channels 15 and 25 is recommended.</p> <p>The default value of 10 is <i>NOT</i> a valid channel. The valid range of available channel is from 11 to 25.</p>
<p>ZigBee® status (read only)</p>	<p>ZigBee status</p> <p>The following read only messages show in this field:</p> <ul style="list-style-type: none"> • (Not Det): ZigBee® Pro module not detected • (Pwr On): ZigBee® Pro module detected but not configured • (No NWK): ZigBee® Pro configured but no network joined • (Joined): ZigBee® Pro network joined • (Online): Communicating

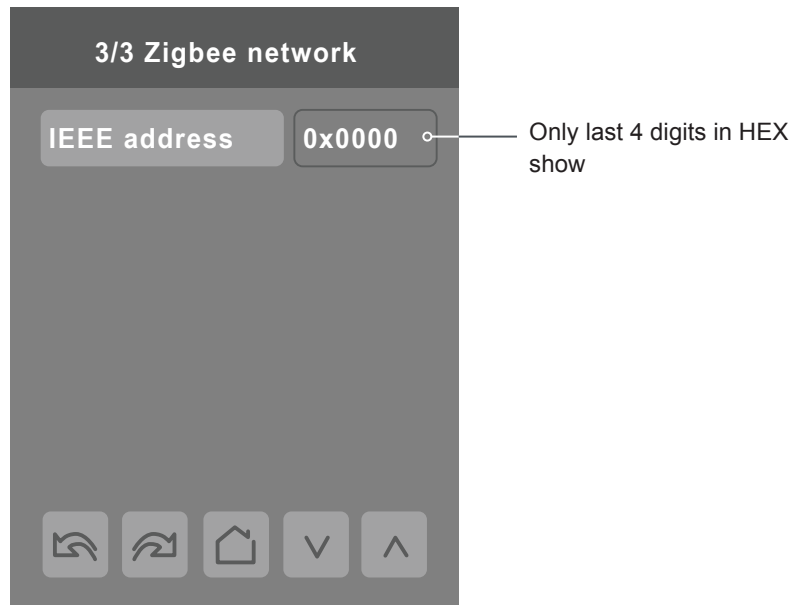
ZIGBEE SETTINGS 2/2



Note: The display will return to the home screen when no activity is detected for 1 minute.

PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
<p>Permit join Default value = On</p>	<p>Changing this value to "Off" will lockout any new ZigBee® devices from joining the network through this controller.</p>

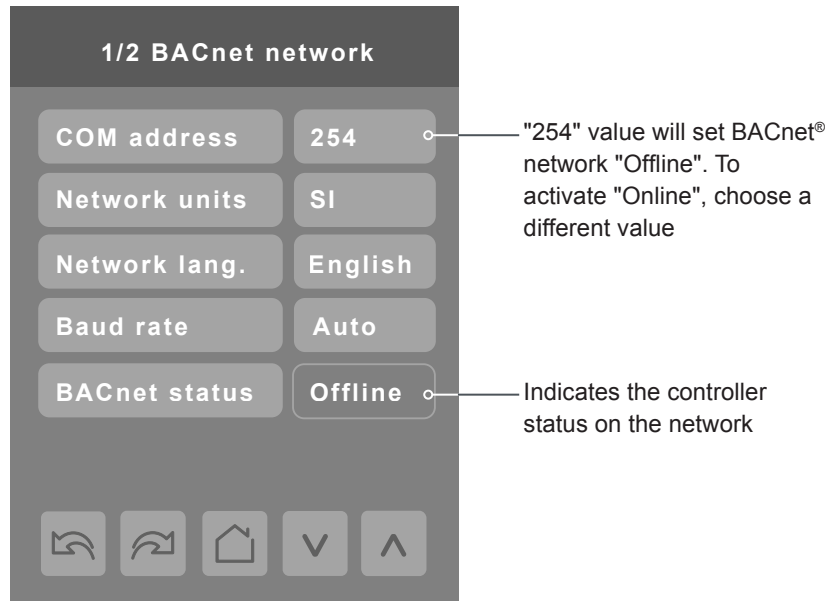


Note: The display will return to the home screen when no activity is detected for 1 minute.

PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
IEEE address Default value = 0x0000	The extended IEEE ZigBee® node address is used to identify the device on the network.

BACNET NETWORK SETTINGS



PARAMETER DETAILS

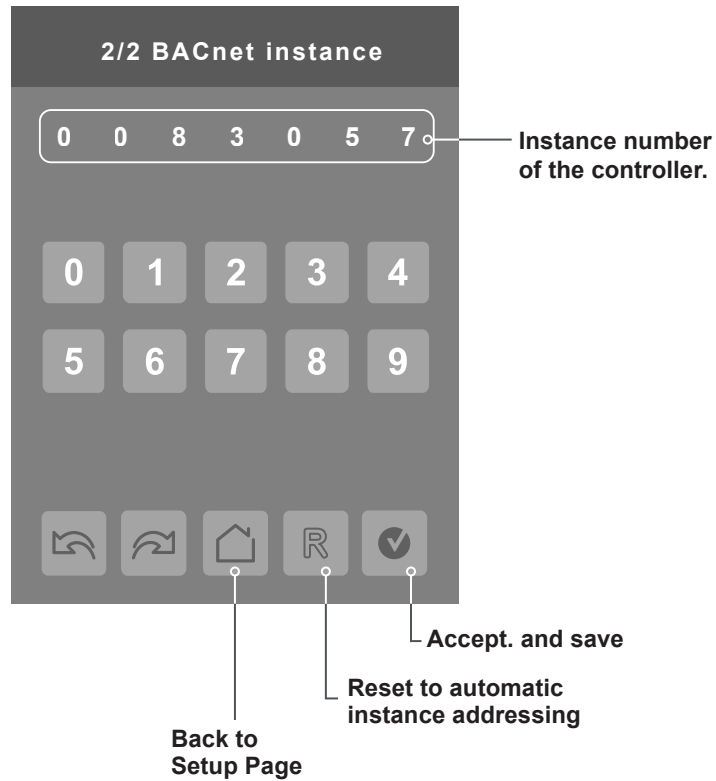
Configuration parameters default value	Significance and adjustments
COM address Terminal Equipment Controller networking address Default value = 254 Range is: 0 to 254	Communications Address For BACnet® MS-TP models, the valid range is from 1 to 127. Default value of 254 disables BACnet® communication for the Terminal Equipment Controller.
Network units Default value = Imperial	Measurement Units (Imperial): Network units shown as "imperial" units. (Si): Network units shown as "international metric" units.
Network lang. Default value = English	Language Settings Choice of network language / object names that will be transmitted over the network. All available choices: (English, French, and Spanish).
Baud rate Default value = Auto	Baud Rate (Auto): Will automatically detect the BACnet® MS/TP baud rate. Other choices: (115200) (76800) (57600) (38400) (19200) (9600) Leave the value at auto unless instructed otherwise..

BACNET INSTANCE NUMBER

The default BACnet® instance number is generated by the model number and COM address of the controller. For example, the instance number of a VT8300A5500B with a COM address of 57 is generated as “83057”.

The default instance number appears first. To change the instance number, use number pad and press **Accept and save**.

Press Reset to automatic instance addressing to reset to automatic instance addressing.



CONFIGURATION PARAMETERS 1/7



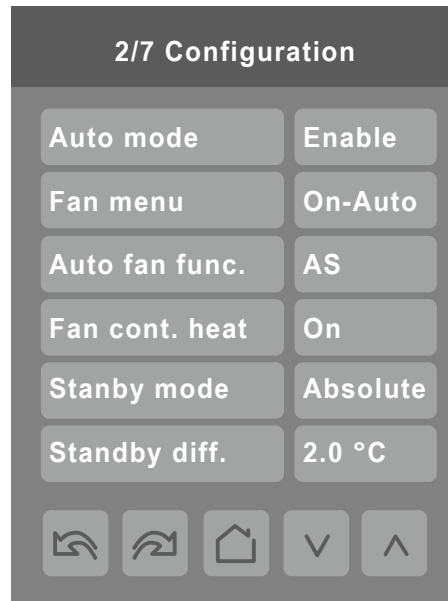
PARAMETER DETAILS SCREEN 1/7

Configuration parameters default value	Significance and adjustments
<p>BI1 config Binary input no.1 configuration Default value = None</p>	<p>Binary Input No. 1</p> <p>None: no function associated with input</p> <p>Rem NSB: remote NSB timer clock input. The scheduling gets set as per the binary input and provides low cost setback operation via a dry contact.</p> <p>Motion NO and Motion NC: advanced PIR occupancy functions using a Normally Open (NO) or Normally Closed (NC) remote PIR motion sensor.</p> <p>Window EMS: forces system to disable any current heating or cooling action by Terminal Equipment Controller.</p>
<p>BI 2 configuration Binary input no.2 configuration Default value = None</p>	<p>Binary Input No. 2</p> <p>None: no function associated with input.</p> <p>Door Dry: door contact and motion detector.</p> <p>Override: temporary occupancy remote override contact.</p>

PARAMETER DETAILS SCREEN 1/7

Configuration parameters default value	Significance and adjustments
<p>RUI1 config Remote Universal input no.1 configuration Default value = None</p>	<p>Remote Universal Input No. 1</p> <p>None: No function will be associated with the input. Input can be used for remote network monitoring.</p> <p>Filter: "Filter alarm" will be displayed on the Terminal Equipment Controller LCD screen when the input is energized.</p> <p>Service: "Service alarm" will be displayed on the Terminal Equipment Controller LCD screen when the input is energized.</p> <p>COC/NH: change over dry contact; normally heat. Used for hot/ cold water or air change over switching in 2 pipe systems.</p> <p>COC/NC: change over dry contact; normally cool. Used for hot/ cold water or air change over switching in 2 pipe systems.</p> <p>COS: change over sensor. Used for hot/cold water or air changeover switching in 2 pipe systems.</p>
<p>RBI 2 config Remote Binary input no.2 configuration Default value = None</p>	<p>None: No function will be associated with the input. Input can be used for remote network monitoring.</p> <p>Filter: "Filter alarm" will be displayed on the Terminal Equipment Controller LCD screen when the input is energized.</p> <p>Service: "Service alarm" will be displayed on the Terminal Equipment Controller LCD screen when the input is energized.</p>
<p>Occupancy src Default value: Motion</p>	<p>Occupancy Source</p> <p>Motion: occupancy status is received from a motion sensor.</p> <p>Schedule: occupancy status is determined by the schedule.</p>
<p>Smart recovery Smart recovery enabled Default value: Off Smart recovery is automatically disabled if UI 16 and / or UI 17 are configured remote NSB</p>	<p>Off = no smart recovery The occupied schedule time is the time at which the system will restart.</p> <p>On = smart recovery active. The occupied schedule time is the time at which the desired occupied temperature will be attained. The controller will automatically optimize the equipment start time.</p> <p>In any case, the latest a system will restart is 10 minutes prior to the occupied period time.</p>

CONFIGURATION PARAMETERS 2/7



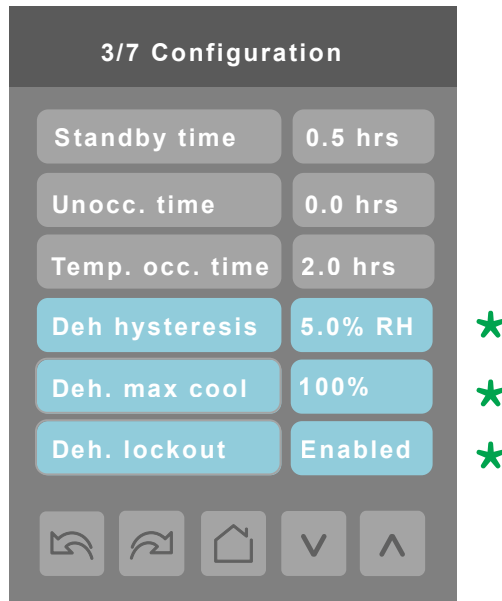
PARAMETER DETAILS SCREEN 2/7

Configuration parameters default value	Significance and adjustments
<p>Auto mode Default value: On</p>	<p>Auto Mode Enables auto function for the mode button For sequences 2, 4, and 5 only On: auto active (Off-Cool-Heat-Auto) Off: auto not active (Off-Cool-Heat)</p>
<p>Fan menu Default value = Local</p>	<p>Fan Speeds User fan menu presented is dependent on selected fan sequence of operation for the fan coil. L-M-H: 3 Speed configuration using 3 fan relays. L-H: 2 Speed configuration using 2 fan relays. L-M-H-A: 3 Speed configuration with Auto fan speed mode using 3 fan relays. Auto Mode operation is dependent on Auto Fan parameter. L-H-A: 2 Speed configuration with Auto fan speed mode using 2 fan relays. Auto Mode operation is dependent on Auto Fan parameter. On-Auto: single Speed configuration. Auto is for Fan on demand/On is On all the time.</p>
<p>Auto fan func. Auto Fan Function Default value: AS</p>	<p>Automatic Fan Function Auto Speed Fan Mode operation for Fan Menu (L-M-H-A) or (L-H-A). AS: auto speed during occupied periods. Fan is always on during occupied periods. AS/AD: auto Speed/Auto Demand during occupied periods.</p>
Configuration parameters default value	Significance and adjustments

PARAMETER DETAILS SCREEN 2/7

<p>Fan cont. heat Default is: On</p>	<p>Fan control in heating mode</p> <p>On: the controller in all cases will always control the fan (terminals Low-Med—Hi Fan Speed). Valid in any fan sequences and all the available fan modes.</p> <p>Off-Auto: the controller in all cases will disable the fan (any terminals Low-Med—Hi Fan Speed). ONLY when the local fan mode is set to Auto. Valid in all fan sequences with auto mode.</p> <p>Off-All: the controller in all cases will disable the fan (any terminals Low-Med—Hi Fan Speed). When the local fan mode is set to ANY mode. Valid in all fan sequences and all local fan modes.</p>
<p>Standby mode Default value: Abs</p>	<p>Standby Mode</p> <p>Choose which standby setpoints are used for control.</p> <p>Abs: absolute; Standby entered values are used for standby mode.</p> <p>Offset: offset; Occupied setpoints +/- Standby diff. used for standby mode.</p>
<p>Standby diff. Default value: 2 °C (3 °F)</p>	<p>Standby Difference</p> <p>When Standby mode is Relative, standby setpoints are calculated as:</p> <p>Standby cool = Cool setpoint + Standby diff.</p> <p>Standby heat”= Heat setpoint - Standby diff.</p> <p>Adjustable from 0.5 a 2.5 °C (1 - 5 °F)</p>

CONFIGURATION PARAMETERS 3/7



* These parameters are only displayed on models with built in humidity sensor

PARAMETER DETAILS SCREEN 3/7

Configuration parameters default value	Significance and adjustments
<p>Standby time Default 0.5 hours</p>	<p>Standby Time Time delay between the moment where the PIR cover detects last movement in the area, and the time which the Terminal Equipment Controller stand-by setpoints become active. Range: 0.5 to 24.0 hours in 0.5 hours increments.</p>
<p>Unocc. time Default 0.0 hours</p>	<p>Unoccupied Time Time delay between the moment where the Terminal Equipment Controller toggles to stand-by mode, and the time which the Terminal Equipment Controller unoccupied mode and setpoints become active. Factory value 0.0 hours: Setting this parameter to its default value of 0.0 hours disables the unoccupied timer. This prevents the Terminal Equipment Controller to drift from stand-by mode to unoccupied mode when PIR functions are used. Range: 0.0 to 24.0 hours in 0.5 hours increments.</p>
<p>Temp. occ. time Default value = 2 hours</p>	<p>Temporary Occupancy Time Temporary occupancy time with occupied mode setpoints when override function is enabled. When Terminal Equipment Controller is in unoccupied mode, function is enabled with either the menu or BI2 configured as remote override input. Range: 0 - 24 hours.</p>

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PARAMETER DETAILS SCREEN 3/7

Configuration parameters default value	Significance and adjustments
<p>Deh. hysteresis Default value = 5 % RH</p>	<p>Humidity Control Hysteresis Used only if dehumidification sequence is enabled: Range: 2 to 20% RH Models with humidity sensor only.</p>
<p>Deh. max. cool. Default value = 100 %</p>	<p>Maximum Dehumidification Cooling Maximum cooling valve position when dehumidification is enabled. This can be used to balance smaller reheat loads installed in regards to the capacity of the cooling coil. Range: 20 to 100 % Models with humidity sensor only.</p>
<p>Deh. lockout Default value: Enabled</p>	<p>Dehumidification Lockout Typically toggled through the network. This variable enables or disables dehumidification based on central network requirements from the BAS front end. Enabled = Dehumidification Authorized Disabled = Dehumidification Not Authorized Models with humidity sensor only.</p>

CONFIGURATION PARAMETERS 4/7

4/7 Configuration

Cooling CPH	4
Heating CPH	4
Cooling valve	NC
Heating valve	NC
Setpoint func.	Attach SP
Mode button	Normal



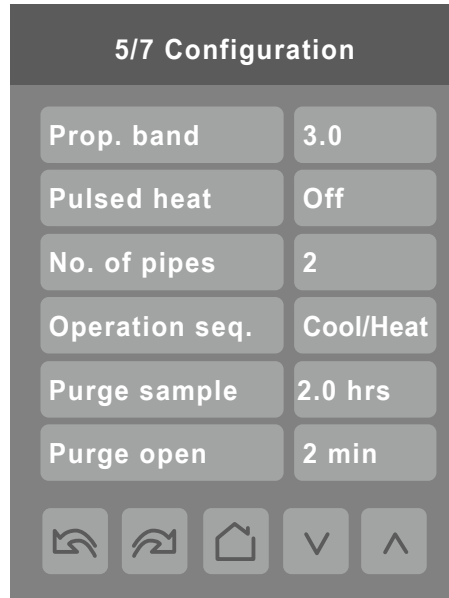
PARAMETER DETAILS SCREEN 4/7

Configuration parameters default value	Significance and adjustments
Cool CPH Default value = 4 C.P.H.	Cooling output cycles per hour Will set the maximum number cycles per hour under normal control operation. It represents the maximum number of cycles that the equipment will turn ON and OFF in one hour. Note that a higher C.P.H will represent a higher accuracy of control at the expense of wearing mechanical components faster. Range is: 3, 4, 5, 6,7 & 8 C.P.H.
Heat CPH Default value = 4 C.P.H.	Heating output cycles per hour Sets the maximum number cycles per hour under normal control operation. It represents the maximum number of cycles that the equipment will turn ON and OFF in one hour. Note that a higher C.P.H will represent a higher accuracy of control at the expense of wearing mechanical components faster. Range is: 3, 4, 5, 6,7 & 8 C.P.H.
Cooling valve Default value = NC	Sets the type of valve used for cooling NC = Valve is normally closed when no power is present. NO = Valve is normally opened when no power is present.
Heating valve Default value = NC	Sets the type of valve used for heating. NC = Valve is normally closed when no power is present. NO = Valve is normally opened when no power is present.

PARAMETER DETAILS SCREEN 4/7

Configuration parameters default value	Significance and adjustments
<p>Setpoint func. Local setpoint settings Default value: Dual SP</p>	<p>Setpoint function Sets the local setpoint interface for the user Dual SP (Dual Occupied Setpoints Adjustment) Attach SP (Single Occupied Setpoint Adjustment)</p>
<p>Mode button Default value: Normal</p>	<p>Mode button Determines whether all HVAC functions are available to user control. Normal: All HVAC functions available based on current application can be accessed through cycling Mode button functions Off-Auto: Only Auto and Off settings are available by cycling the Mode button.</p>

CONFIGURATION PARAMETERS 5/7



PARAMETER DETAILS SCREEN 5/7

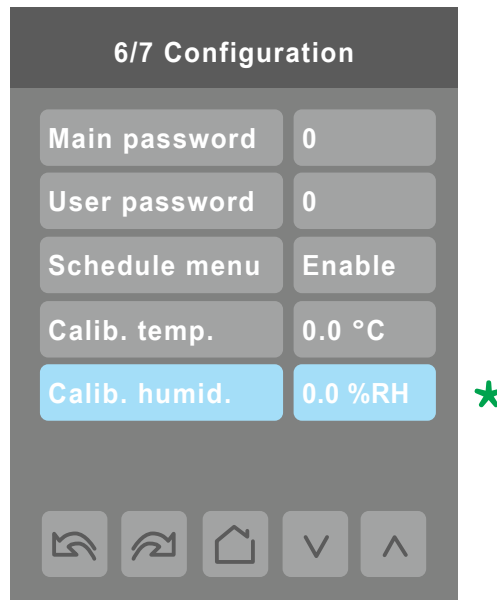
Configuration parameters default value	Significance and adjustments																														
<p>Prop. band Default value= 3</p>	<p>Proportional Band Setting</p> <p>Adjusts proportional band used by the Terminal Equipment Controller PI control loop.</p> <p>Note: default value of 3.0 gives satisfactory operation in most normal installation cases. The use of a superior proportional band different than the factory one is normally warranted in applications where Terminal Equipment Controller location is problematic and leads to unwanted cycling of the unit. A typical example is a wall mounted unit where Terminal Equipment Controller is installed between return and supply air feeds and is directly influenced by the supply air stream of unit.</p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="background-color: #008000; color: white;">Value</th> <th colspan="2" style="background-color: #008000; color: white;">Effective Proportional Band</th> </tr> <tr> <td></td> <th style="background-color: #008000; color: white;">Fahrenheit</th> <th style="background-color: #008000; color: white;">Celsius</th> </tr> </thead> <tbody> <tr><td>3</td><td>3</td><td>1.2</td></tr> <tr><td>4</td><td>4</td><td>1.7</td></tr> <tr><td>5</td><td>5</td><td>2.2</td></tr> <tr><td>6</td><td>6</td><td>2.8</td></tr> <tr><td>7</td><td>7</td><td>3.3</td></tr> <tr><td>8</td><td>8</td><td>3.9</td></tr> <tr><td>9</td><td>9</td><td>5.0</td></tr> <tr><td>10</td><td>10</td><td>5.6</td></tr> </tbody> </table>	Value	Effective Proportional Band			Fahrenheit	Celsius	3	3	1.2	4	4	1.7	5	5	2.2	6	6	2.8	7	7	3.3	8	8	3.9	9	9	5.0	10	10	5.6
Value	Effective Proportional Band																														
	Fahrenheit	Celsius																													
3	3	1.2																													
4	4	1.7																													
5	5	2.2																													
6	6	2.8																													
7	7	3.3																													
8	8	3.9																													
9	9	5.0																													
10	10	5.6																													

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PARAMETER DETAILS SCREEN 5/7

Configuration parameters default value	Significance and adjustments	
Pulsed heating Default value = Off	VDC output configuration. VC3000 series model dependent. Off = Regular On-Off control for VC350xE models only. Can be used with 2 & 4 pipes applications. On = VDC SSR electric heat 10 second pulsed time base modulation for VC340xE models only. Can only be used with 2 pipes system only. Occ Out = VDC Occupancy output follows local device occupancy for VC3514E model only. <ul style="list-style-type: none"> • Occupied & Temporary Occupied = Contact closed • Stand-By & Unoccupied = Contact opened 	
No. of pipes Default is: 2 Pipes	Number of pipes Defines the type of system installed.	
Operation seq. Default is: Heating only	Operation sequence Selects the initial sequence of operation required by the installation type and the application.	
	2 Pipes	4 Pipes
Cool	Cooling only	Cooling only
Heat	Heating only	Heating only
Ht-CI	Cooling with electric reheat	Heating / Cooling
Ht-Rht	Heating with electric reheat	---
Reheat	Electric reheat only	---
	For 2 Pipe output applications, the system access is limited if RUI 1 is configured for local changeover COS, COC/NC or COC/NC. The current water temperature detected by the RUI 1 then limits the system mode available for the local configuration or network write. For sequence "electric reheat", set PulsedHt to "On" to enable pulsed electric reheat applications with VC3400E & VC3404E.	
Purge sample Default is: 2 hrs	Time interval between valve samples. Will open valve for a short period adjusted by "Purge open" parameter in order to sample pipe temperature to decide between heating or cooling mode. Adjustable from 0 to 4 hrs. (0 = disable this function).	
Purge open Default is: 2 min	Time the valve will open to sample pipe temperature (to decide between heating or cooling mode). Adjustable from 1 to 3 min.	

CONFIGURATION PARAMETERS 6/7



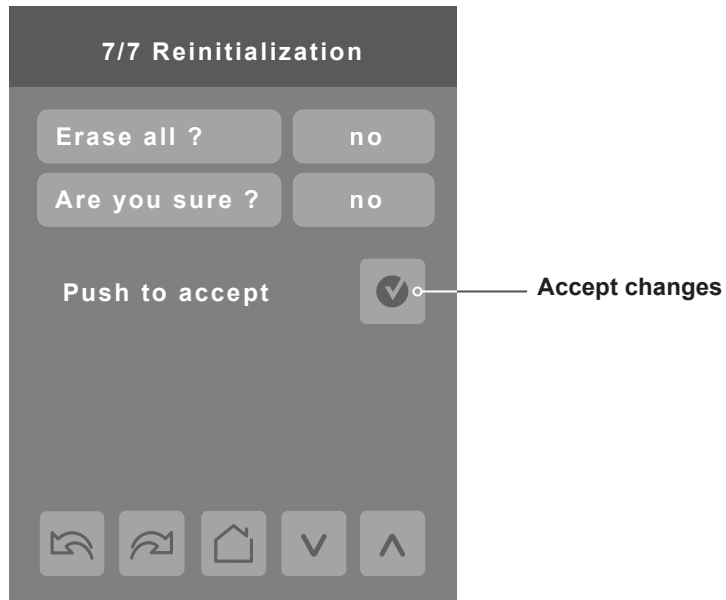
* This parameter is only displayed on models with built in humidity sensor

PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
<p>Main password Default value = 0</p>	<p>Installer password This parameter sets a protective access password to prevent unauthorized access to the configuration menu parameters. A default value of “0” will not prompt a password or lock the access to the configuration menu. Range is: 0 to 9999.</p>
<p>User password Default value = 0</p>	<p>User password This parameter sets a protective access password to prevent user unauthorized access to main screen adjustments. A default value of “0” will not prompt for a password. Range is: 0 to 9999.</p>
<p>Calib. temp. Default value = 0.0 °C or °F</p>	<p>Room temperature sensor calibration Offset that can be added/subtracted to actual displayed room temperature. Range is: ± 2.5 °C, 0.1 °C increments (± 5.0 °F, 0.1 °F increments).</p>
<p>Calib. humid. Default value = 0 %RH</p>	<p>Humidity sensor calibration Offset that can be added/subtracted to actual displayed humidity. Range is : ± 15.0 %RH. Models with humidity sensor only.</p>

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CONFIGURATION PARAMETERS 7/7



PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
Erase all ? Are you sure ? Default values = No	Answering “Yes” to these two questions and pressing the “Accept” button, will erase all values to factory’s default values except the following network-related values: COM address, ZigBee® Pan ID, ZigBee® channel, Network units, Network lang., Baud rate, BACnet® instance, Device name.

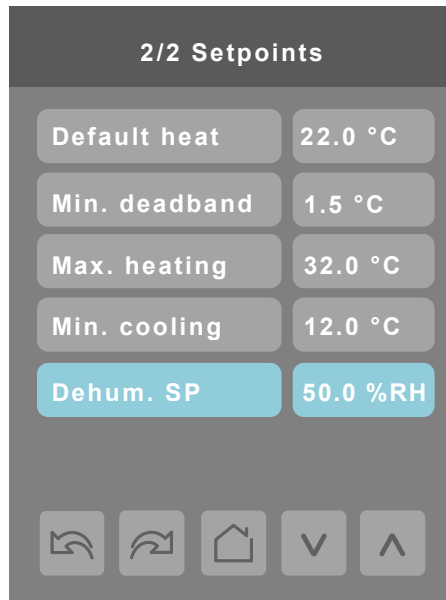
SETPOINT SETTINGS 1/2



PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
Unocc. cool Default value = 26.5 °C (80 °F)	Unoccupied cooling setpoint Range is: 12.0 to 37.5 °C (54 to 100 °F)
Standby cool Default value = 25.5 °C (78 °F)	Standby cooling setpoint The value of this parameter should be set between the occupied and unoccupied cooling setpoints. Make sure that the difference between the stand-by and occupied value can be recovered in a timely fashion when movement is detected in the zone. Stand-by cooling setpoint range is: 12.0 to 37.5 °C (54 to 100 °F).
Occ. cool Default value = 24.0 °C (74 °F)	Occupied cooling setpoint Range is: 12.0 to 37.5 °C (54 to 100 °F).
Occ. heat Default value = 22.0 °C (72 °F)	Occupied heating setpoint Range is: 12.0 to 37.5 °C (54 to 100 °F).
Standby heat Default value = 20.5 °C (69 °F)	Stand-by heating setpoint The value of this parameter should be set between the occupied and unoccupied heating setpoints. Make sure that the difference between the stand-by and occupied value can be recovered in a timely fashion when movement is detected in the zone. Stand-by heating setpoint range is: 4.5 to 32.0 °C (40 to 90 °F).
Unocc. heat Default value = 16.5 °C (62 °F)	Unoccupied heating setpoint Range is: 4.5 to 32.0 °C (40 to 90 °F).

SETPOINT SETTINGS 2/2



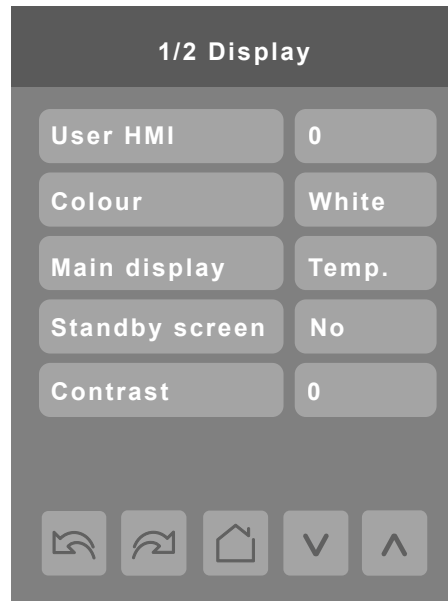
* This parameter is only displayed on models with built in humidity sensor

PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
<p>Default heat Default value = 22.0 °C (73 °F)</p>	<p>Default Heat Used for hospitality applications in stand-alone mode only. When devices are in deep unoccupied mode, any movement detected by PIR resets actual occupied set points to fresh room default setting. Default setpoint is used to write to Heating setpoint when the Room Controller goes to Unoccupied mode. Cooling setpoint is set according to Min. deadband; 18.5 to 26.5 °C (65 to 80 °F). This parameter is only used when Stand-by mode = Offset.</p>
<p>Min. deadband Default value = 1.5 °C (3.0 °F)</p>	<p>Minimum deadband value between the heating and cooling setpoints. Applied only when any of the setpoints are modified. Range is: 1.0 to 2.5 °C, 0.5 °C increments (2, 3, 4 or 5 °F, 1.0 °F increments).</p>
<p>Max heating Default value = 32.0 °C (90.0 °F)</p>	<p>Maximum occupied & unoccupied heating setpoint adjustment. Range: 4.5 to 32.0 °C (40 to 90 °F).</p>
<p>Min. cooling Default value = 12.0 °C (54.0 °F)</p>	<p>Minimum occupied & unoccupied cooling setpoint adjustment. Range: 12.0 to 37.5 °C (54 to 100 °F).</p>
<p>Dehum. SP Default value: 50% RH</p>	<p>Dehumidification Setpoint Used only if dehumidification sequence is enabled: Range is: 30-95% RH (models with humidity sensor only).</p>

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DISPLAY SETTINGS 1/2



PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
User HMI Default value = 0	Select user HMI type. Range: 0 to 11.

User HMI - Hospitality

0 (Hospitality)

1 (Hospitality)

2 (Hospitality)

3 (Hospitality)



These parameters are model dependent and may not appear on certain models.

User HMI - Hospitality

4 (Hospitality)



5 (Hospitality)



6 (Hospitality)



User HMI - Commercial

7 (Commercial)



8 (Commercial)



9 (Commercial)




10 (Commercial)



11 (Commercial)



Note: The day/night setback button  appears only in **unoccupied mode** from 7 to 11 in HMI Commercial. If BI2 input is configured as "override", then the day night setback button won't appear.

These parameters are model dependent and may not appear on certain models.

Other functions

26.09.2012 2:43 PM
Standby
Indoor °C
23.5°
Humidity 45% | Outdoor 18 °C
Room 1705

26.09.2012 2:43 PM
Standby
Indoor °C
23.5°
Humidity 45%
Room 1705

26.09.2012 2:43 PM
Standby
Indoor °C
23.5°
Outdoor 18 °C
Room 1705

RH Display = Configuration + model dependent
Outdoor Temp = When set by network

Heating only configuration

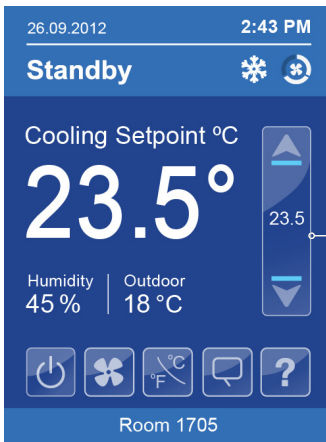
If main display parameter is set to "setpoint", the **setpoint value** will display as shown:

On/Off will display when the sequence of operation is set to heating or cooling only

26.09.2012 2:43 PM
Standby
Setpoint °C
23.5°
Humidity 45% | Outdoor 18 °C
Room 1705

Time and Date will display only if it has been properly set

Setpoint Adjustment



Cooling mode or cooling only sequence of operation

In Cooling mode, the setpoint displayed in the bar is the current occupied cooling setpoint.

During occupied setpoint adjustment, the large digits are temporarily used to display the occupied cooling setpoint while it is adjusted.

Normal temperature display resumes after the setpoint is adjusted and the actual occupied cooling setpoint is displayed in the setpoint bar.

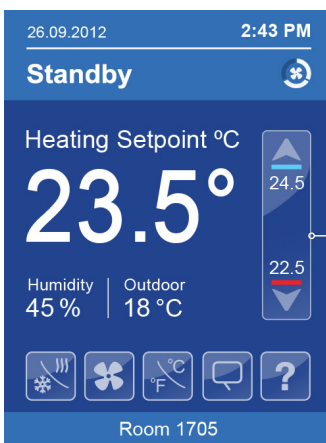


Heating mode or heating only sequence of operation

In Heating mode, the setpoint displayed in the bar is the current occupied heating setpoint.

During occupied setpoint adjustment, the large digits are temporarily used to display the occupied heating setpoint.

Normal temperature display resumes after the setpoint is adjusted and the actual occupied heating setpoint is displayed in the setpoint bar.



Automatic Heating / Cooling mode

In automatic mode, the setpoint displayed at the top of the set point bar located directly under the blue line represent the actual occupied cooling setpoint.

During occupied setpoints adjustment, the large digits are temporarily used to display the occupied "Cooling Setpoint" or occupied "Heating Setpoint". The actual setpoint is dependent on the last effective demand (heating or cooling).

Normal temperature display resumes after the setpoints are adjusted and the actual occupied heating and cooling setpoints are displayed in the setpoint bar.

PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
Color Default value = Blue	Select user HMI color. Other choices: Green, Brown, Grey and White.
Main display Default value = Temp.	Select default value displayed on main display: Temperature or setpoint. Choices: Temperature or setpoint.
Disp. cust. img. Default value = No	Selecting "Yes" will display a custom image after 2 minutes of touch screen inactivity.
Contrast Default value: 0	Controls the screen contrast and brightness. 0 is least bright, most contrast; 5 is most bright, least contrast. Range: 0 to 5

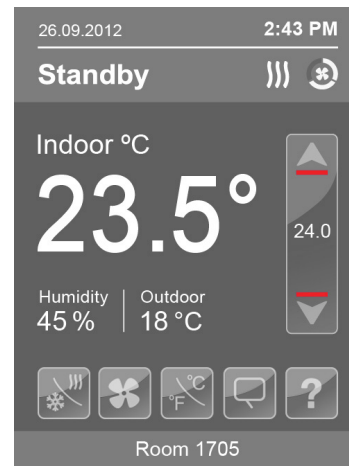
Customisable colour options



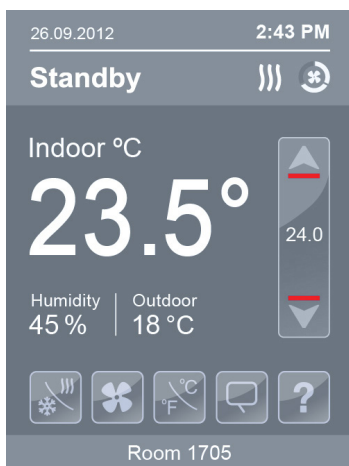
Blue



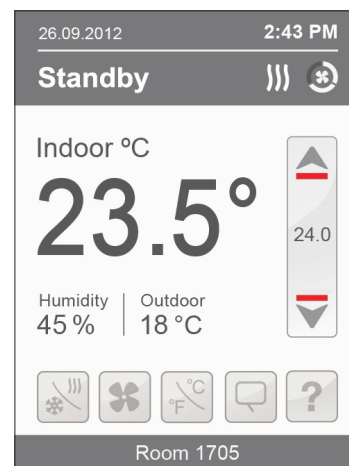
Green



Brown

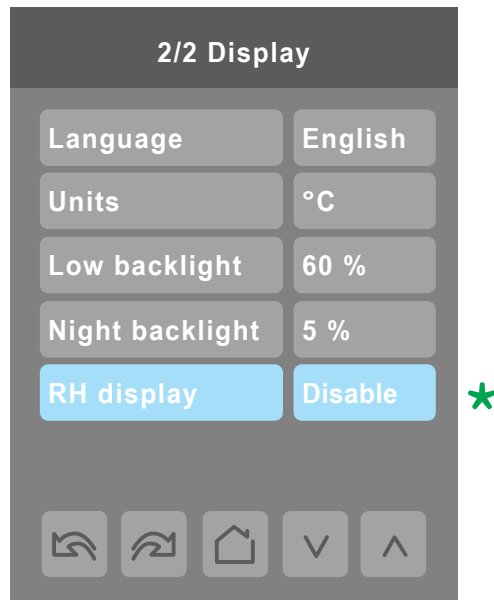


Grey



White

DISPLAY SETTINGS 2/2



* This parameter is only displayed on models with built in humidity sensor

PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
Network lang Default value: English EN, FR, SP for BACnet models only	Language Settings Choices: English, French, Spanish, Chinese, Russian, Arabic, Bulgarian, Czech, Danish, Dutch, Finnish, German, Hungarian, Indonesian, Italian, Norwegian, Polish, Portuguese, Slovak, Swedish, Turkish
Units Default value = °C	Temperature Units Sets default local scale value when Terminal Equipment Controller powers up. °C for Celsius. °F for Fahrenheit.
Low backlight Default value is 60%	Backlight Display Set display backlight intensity after 2 minutes of keyboard inactivity. Adjustable: 0 to 100%.

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PARAMETER DETAILS

Configuration parameters default value	Significance and adjustments
<p>Night backlight Default value = 5%</p>	<p>Night Backlight Display</p> <p>Set display backlight intensity after 2 minutes of keyboard inactivity.</p> <p>Adjustable: 0 to 100%.</p> <p>Parameter only available for models with motion/light detectors. The screen backlight progressively decreases down to this setting when room is dark. This feature is used mostly in hospitality applications when a darker non obtrusive lighting level is desired when room is dark.</p>
<p>RH display Default value = Disabled</p>	<p>Relative Humidity Display</p> <p>Enables display of humidity below room temperature on the display</p> <p>(On): Display %RH. (Off): Do not display %RH.</p> <p>Models with humidity sensor only</p>

SERVICE VIEWS

The service view screens show the current status of certain points locally at the controller. These points can also be viewed through the network.

1/5 Service view

Firmware revision of the controller	Firmware rev.	1.0	
	Room temp.	xx.x °C	Room temperature
Changeover temperature	Changeover	xx.x °C	
	Supply temp.	xx.x °C	Supply temperature
Outdoor temperature	Outdoor temp.	xx.x °C	
	Room humidity	xx.x %RH	Room Humidity

* This parameter is only displayed on models with built in humidity sensor

Navigation icons: Back, Home, Down, Up

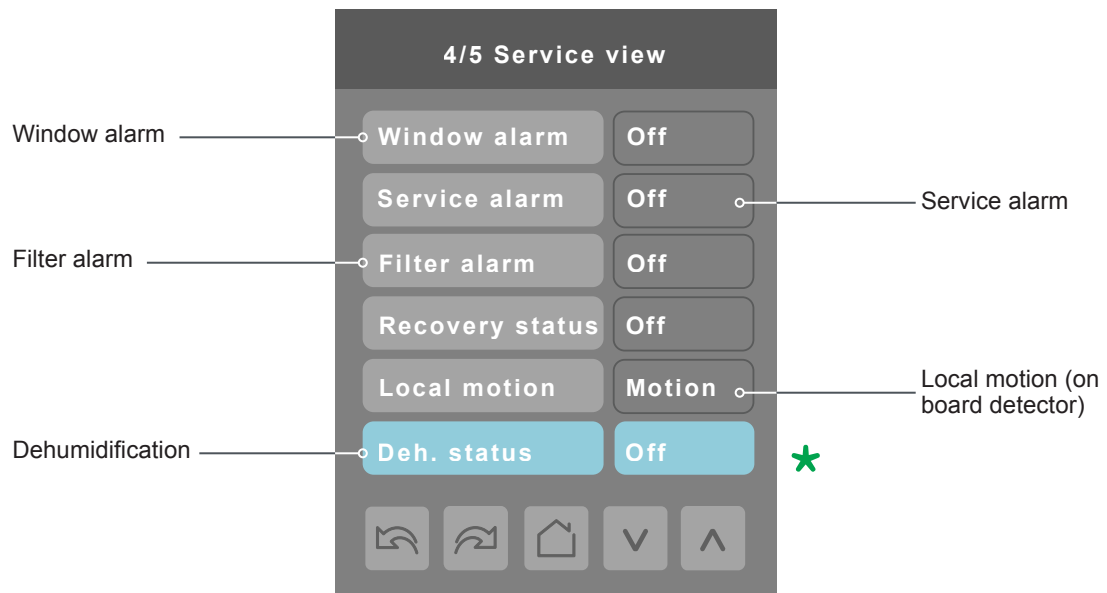
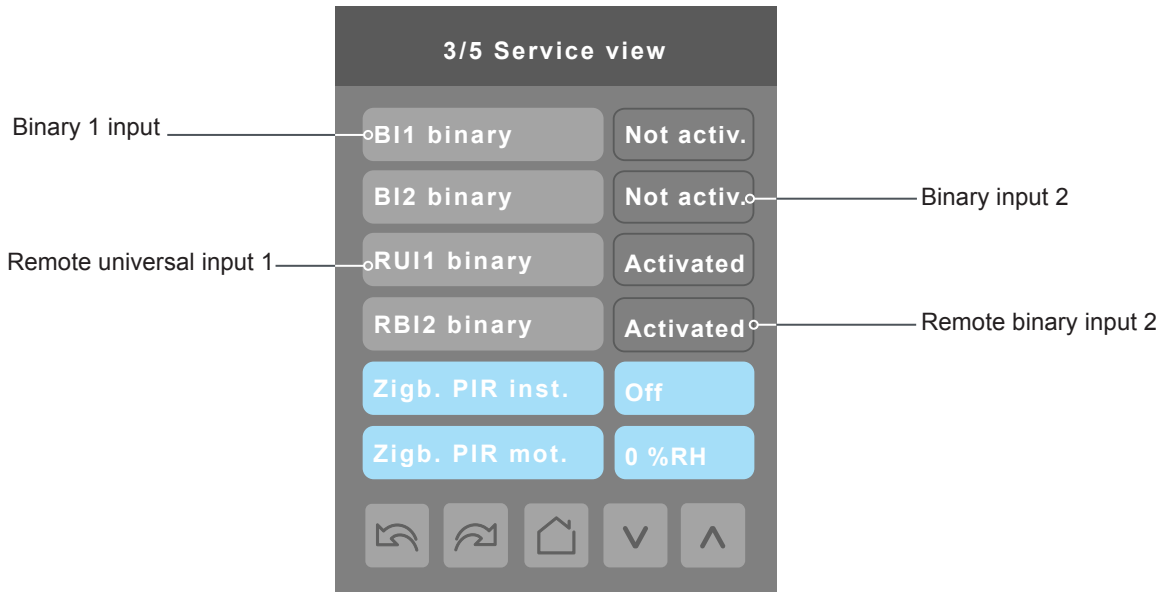
2/5 Service view


Effective occupancy	Effective occ.	Occupied	
	PI cool demand	0 %	PI cooling demand
PI heating demand	PI heat demand	0 %	
	Cool dem. limit	0 %	Cooling demand limit
Heating demand limit	Heat dem. limit	0 %	

Navigation icons: Back, Home, Down, Up

* This parameter is only displayed on models with built in humidity sensor

SERVICE VIEWS



 This parameter is only displayed on models with built in humidity sensor

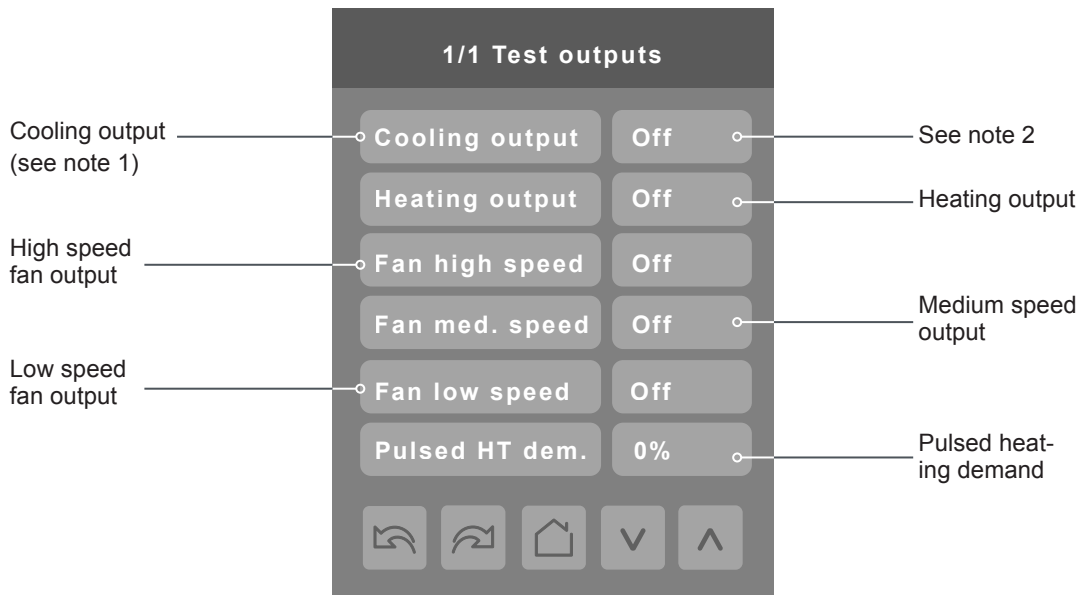
SERVICE VIEWS

Note: This represents the BACnet® device name automatically assigned using the current BACnet® MAC address.

The network can update and change the device BACnet® name. If changed, the new updated BACnet® device name will be shown



TEST OUTPUTS SCREEN



Note 1: Cooling output can also be used for heating on two pipes systems.

Note 2: The test output screen allows manual override of specified outputs. When any BACnet® network priority array includes a value, the status background is shown in red. After any output state is overridden, the command is cancelled after 1 min of screen inactivity (auto exit to main screen) or when page is exited. Please refer to the BACnet® integration guide for more details.

LANGUAGE SELECTION



Only English, French, Spanish, Chinese and Russian are enabled by default, which means that they will be accessible to users cycling through languages on the display settings menu screen. To change the language selection settings, touch a language on the screen and then use the arrow buttons to disable or enable it. The English language is always enabled.