VT8000 Room Controllers

VZ8250 User Interface Guide

Variable Air Volume (VAV) Unit

Firmware Revision 2.5.1

VICONICS
Beyond Comfort

Version 3

Table of Contents

Safety Information

IMPORTANT INFORMATION

Read these instructions carefully and inspect the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ 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 or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this signal word.

PLEASE NOTE

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Before You Begin

LOSS OF CONTROL

⚠ WARNING

LOSS OF CONTROL

- The designer of any control scheme must consider the potential failure modes of control paths and, for certain critical control functions, provide a means to achieve a safe state during and after a path failure. Examples of critical control functions are emergency stop and over travel stop.
- Separate or redundant control paths must be provided for critical control functions.
- System control paths may include communication links. Consideration must be given to the implications of anticipated transmission delays or failures of the link.[1]
- Each implementation of equipment utilizing communication links must be individually and thoroughly tested for proper operation before being placed into service.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

ELECTROSTATIC DISCHARGE

NOTICE

STATIC SENSITIVE COMPONENTS

Circuit boards and option cards can be damaged by static electricity. Observe the electrostatic precautions below when handling controller circuit boards or testing components.

Failure to follow these instructions can result in equipment damage.

Observe the following precautions for handling static-sensitive components:

- Keep static-producing material such as plastic, upholstery, and carpeting out of the immediate work area.
- Store static-sensitive components in protective packaging when they are not installed in the drive.
- When handling a static-sensitive component, wear a conductive wrist strap connected to the component or drive through a minimum of 1 megohm resistance.
- Avoid touching exposed conductors and components leads with skin or clothing.

1 For additional information about anticipated transmission delays or failures of the link, refer to NEMA ICS 1.1 (latest edition), *Safety Guidelines for the Application , Installation, and Maintenance of Solid State Control* or its equivalent

SECTION 1

Introduction

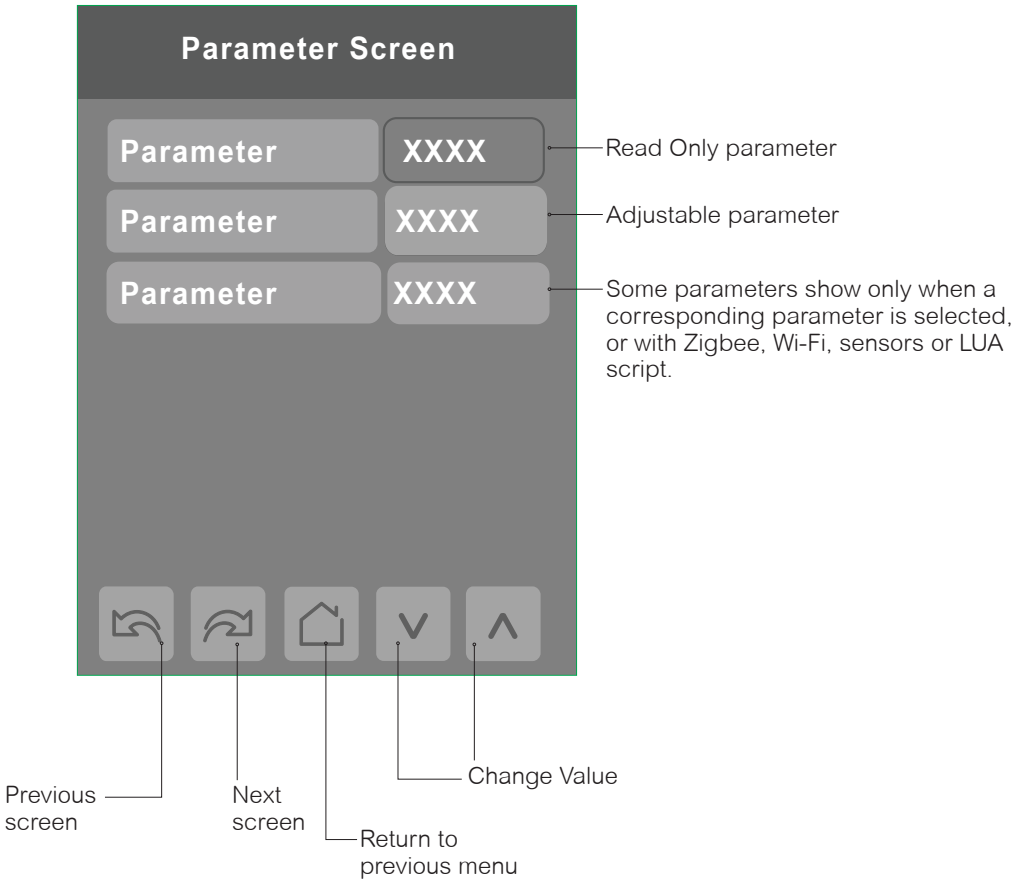
Introduction

This guide shows the User Interface instructions for the VZ8250 Room Controller (RC) firmware revision 2.5.1 for users and integrators.

User and Integrator Screens

The VZ8250 Room Controller has dynamic screens that show adjustable parameters and read-only status information. Some screens and parameters show only when a corresponding parameter is selected. Some screens show only on models with onboard Zigbee, optional Zigbee add-on module (VCM8000), optional Wi-Fi module (VCM8002) or paired Zigbee wireless sensor end devices (SED). The LUA selection on the Setup screen shows only if a LUA script is uploaded to the Room Controller.

See below legend screen details.



Note: When any change is made to a parameter, the value is automatically saved in memory when the next parameter is selected or another screen is opened. This event is true only if a parameter was changed locally on the RC. Making changes through BACnet will not have the same outcome. If changes need to be done remotely through BACnet, use priority 1, 2 or 3, or write to relinquish default (priority 17).

Disclaimer

Standby screen: The Room Controller incorporates TFT-type LCD technology, and therefore, necessary precautions are required to prevent the phenomenon of image retention (residual image) from occurring.

Image retention may occur when a static image is displayed on the screen for a prolonged period of time. This can cause a faint outline of the image to remain visible on the screen when the screen is changed via the user menu, or a different image is uploaded and selected to be displayed. To minimize and prevent image retention, it is recommended to select the **Screen Save** setting on the **Standby** screen selection from the setup menu **Display 1/2**. This setting switches the display during periods of inactivity from the Home Screen.

It is recommended to use a black or medium gray image, or one with light color contrasts as the screen saver to prevent this phenomenon from occurring. If the display still exhibits this phenomenon, loading an all-black or all-medium gray image as the screen saver and displaying it for upwards of 5 hours continuously minimizes this effect.

Note: Avoid placing the Room Controller in poorly ventilated areas, or in areas that may create excess heat around the display.

HMI Display

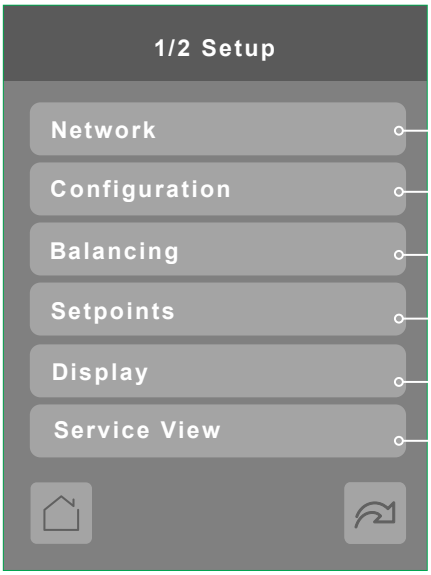
The User Human Machine Interface (HMI) is configurable and allows display functions such as Date, Time, Humidity, CO2 levels, Outdoor Temperature and Setpoint to be enabled or disabled by setting various parameters.

Enter Setup Screen

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

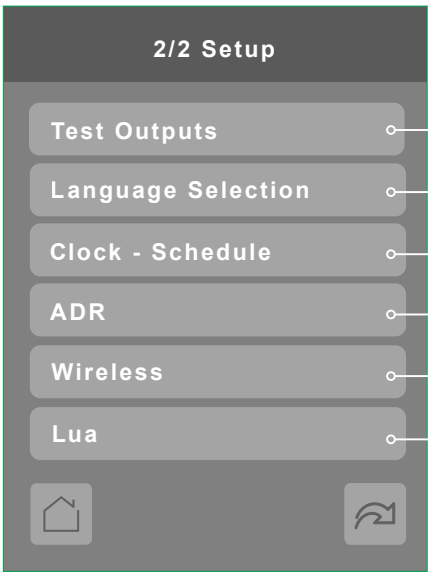
Note: If a configuration/installer password is activated to prevent unauthorised access to the configuration menu parameters, you will be prompted to enter your password before proceeding.

SETUP 1/2



- **Network** — BACnet MS/TP, Modbus, Zigbee and Wi-Fi network settings (Zigbee network settings appear only if Zigbee feature is available)
- **Configuration** — Enter parameter configuration menu
- **Balancing** — Enter balancing settings
- **Setpoints** — Enter setpoint settings
- **Display** — Enter display settings
- **Service View** — Enter status and service view

SETUP 2/2



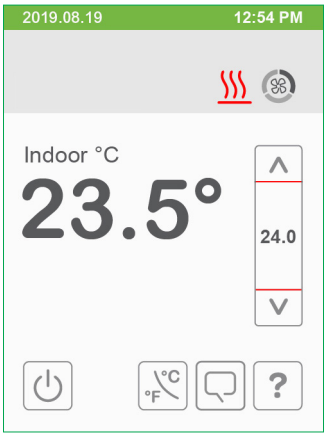
- **Test Outputs** — Test output settings
- **Language Selection** — Select language
- **Clock - Schedule** — Set clock, schedule and occupancy
- **ADR** — Automatic Demand Response
- **Wireless** — Wireless Ecosystem settings (shows only if Zigbee feature is available)
- **Lua** — LUA scripting (shows only if LUA script uploaded)

SECTION 2

Customized User HMI Display

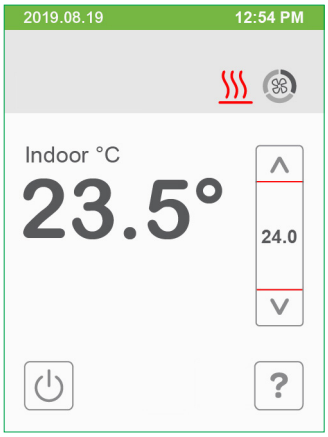
User HMI for Hospitality

Hospitality 0



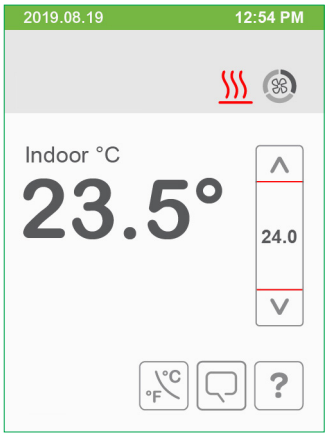
- Setpoint adjustment
- System mode setting
- Local unit scale adjustment
- Local user language
- User help menu

Hospitality 1



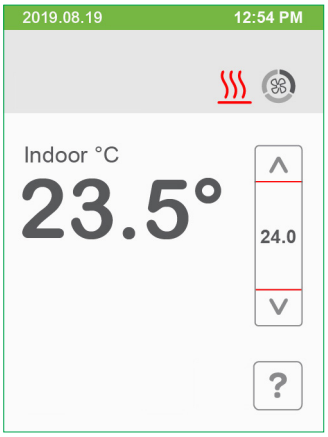
- Setpoint adjustment
- System mode setting
- User help menu

Hospitality 2



- Setpoint adjustment
- Local unit scale adjustment
- Local user language
- User help menu

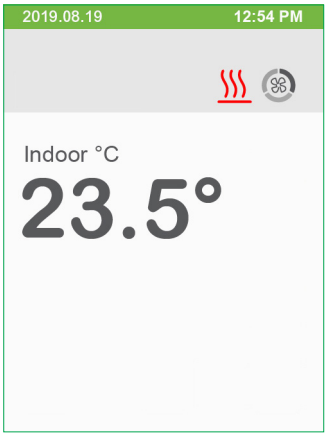
Hospitality 3



- Setpoint adjustment
- User help menu

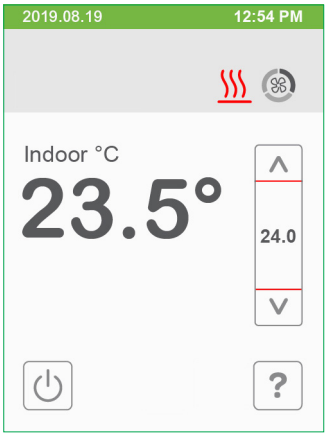
Note: Parameters are model dependent and may not appear on certain models.

Hospitality 4



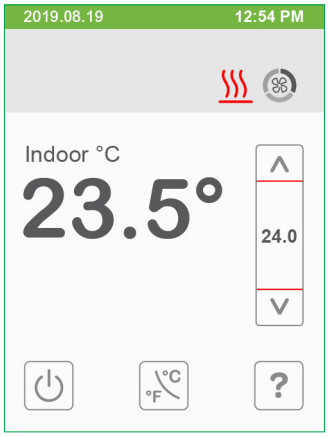
- Fully locked interface with no user settings

Hospitality 5



- Setpoint adjustment
- System mode setting
- User help menu

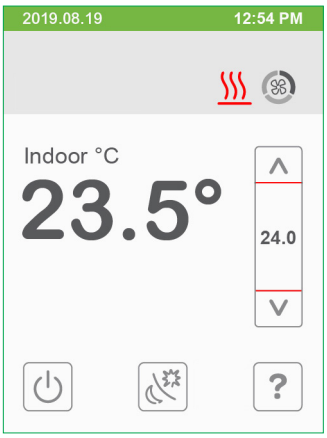
Hospitality 6



- Setpoint adjustment
- System mode setting
- Local unit scale adjustment
- User help menu

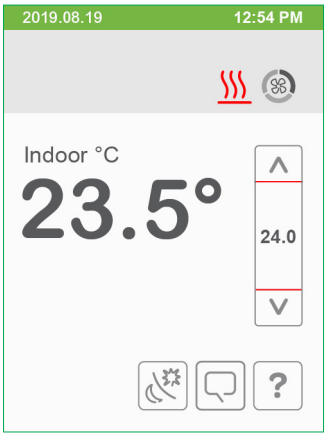
User HMI for Commercial

Commercial 7



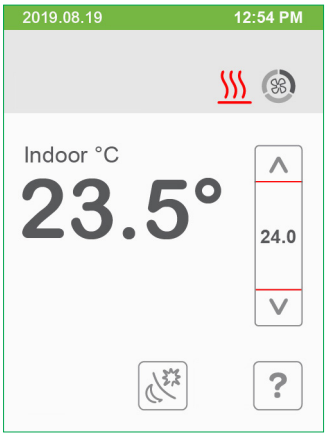
- Setpoint adjustment
- System mode setting
- Unoccupied mode override
- User help menu

Commercial 8



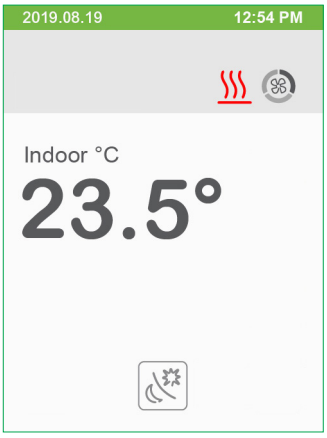
- Setpoint adjustment
- Unoccupied mode override
- Local user language
- User help menu

Commercial 9



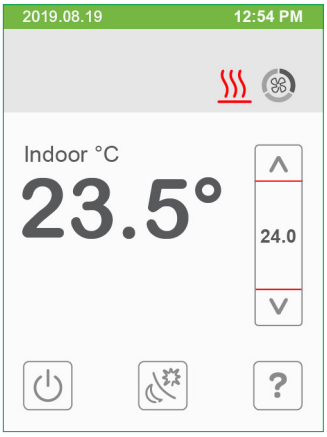
- Setpoint adjustment
- Unoccupied mode override
- User help menu

Commercial 10



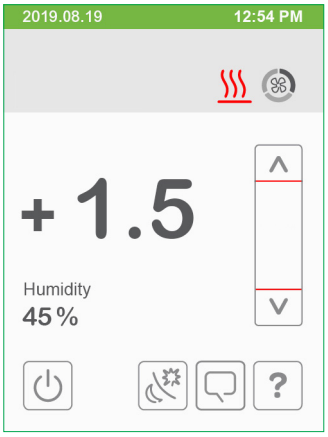
- Unoccupied mode override

Commercial 11



- Setpoint adjustment
- System mode setting
- Unoccupied mode override
- User help menu

Commercial 12



- Offset setpoints adjustment
- System mode setting
- Local user language
- Fan mode setting
- User help menu

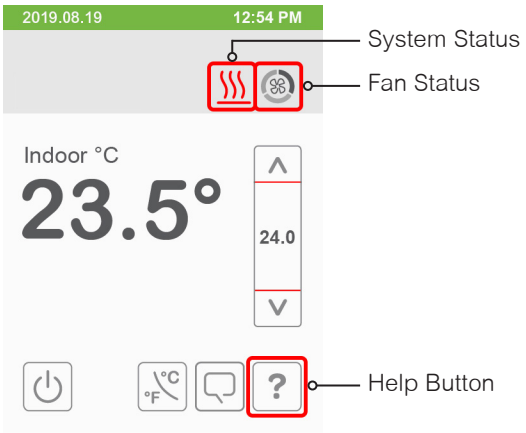
Note: The day/night setback button appears only in unoccupied mode in the Commercial HMIs 7 to 11. If UI17 input is configured as "override", the day/night setback button does not show.

Note: Parameters are model dependent and may not appear on certain models.

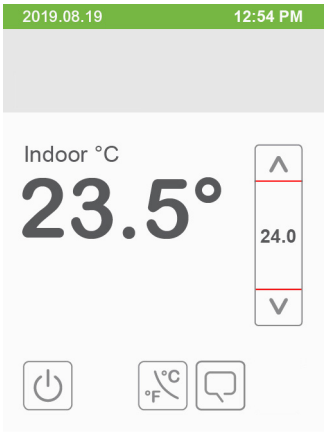
User HMI Show/Hide Options

User HMI displays can be customized further by hiding the system status, fan status or help button. Each show/hide option is applicable to all User HMI configurations where the option is shown. To hide the option, select disabled for each display setup screen parameter. Refer to Display Screens in Section 3.

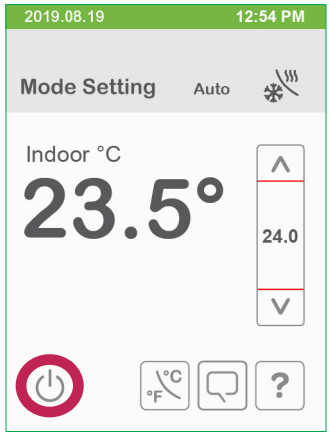
Options Enabled



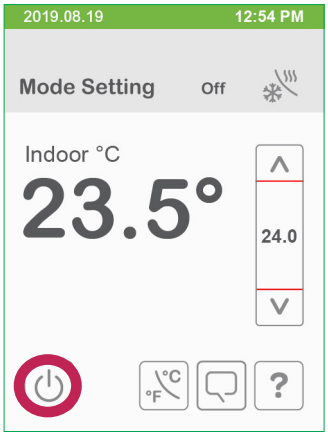
Options Disabled



System Mode



System Mode Auto



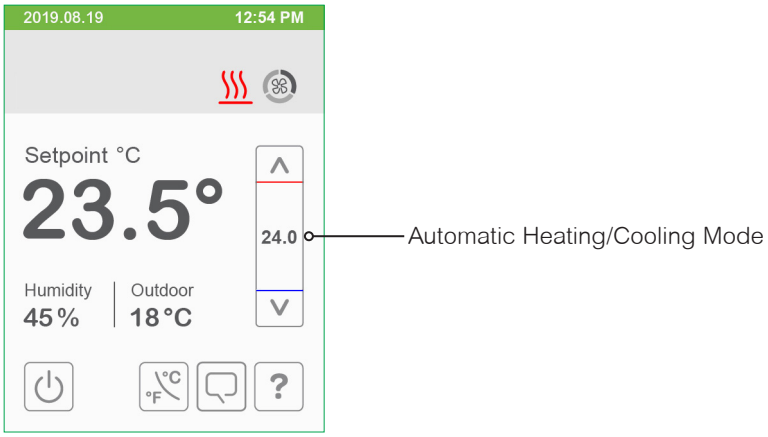
System Mode Off

The following apply in System Mode.

Mode	Significance and Adjustments
System mode **Off**	**Off** Heating, Cooling demands are ignored.
System mode **Auto**	**Auto** Room Controller automatically toggles between Heating and Cooling modes to satisfy both Heating and Cooling demands.

Setpoint Adjustment

During occupied setpoint adjustment, large digits are temporarily used to display the occupied setpoint. Use the up and down arrows to select the setpoint. Normal temperature display resumes after the adjustment and the new value is displayed in the setpoint bar.

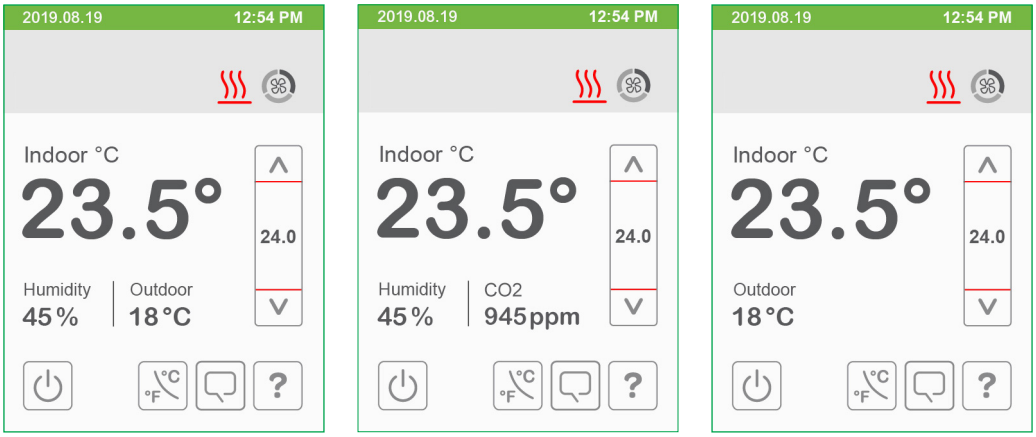


Other Functions

Local humidity shows when RH display is enabled on the setup display screen, from either the internal onboard sensor or a wireless sensor end device selected by the RH sensor parameter on the setup configuration screen.

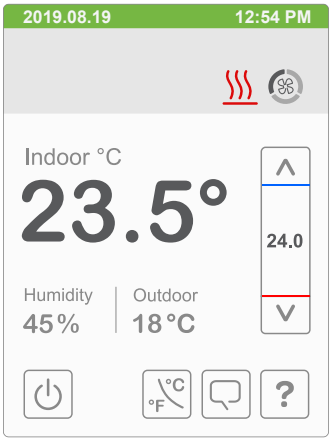
CO2 shows when CO2 display is enabled on the setup display screen, from either the optional CO2 detection sensor module or a wireless sensor end device selected by the CO2 source parameter on the setup configuration screen.

Outdoor temperature shows when receiving a valid networked outdoor temperature value or a temperature sensor connected to UI23.

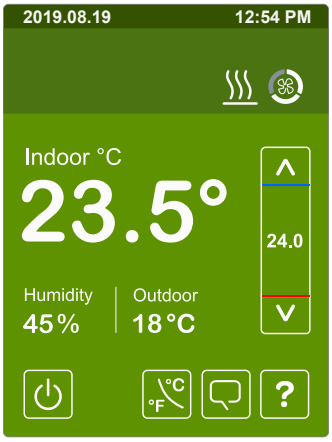


Customizable Color Options

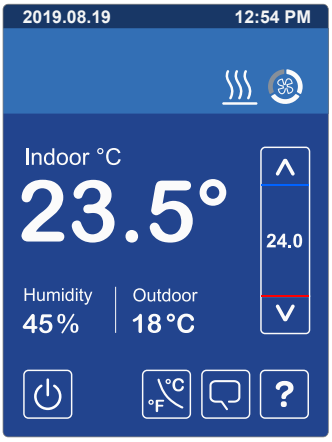
White



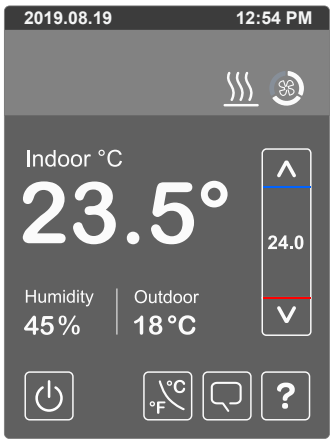
Green



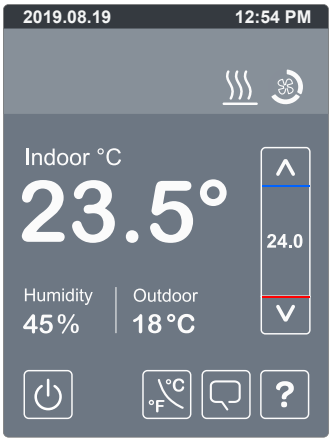
Blue



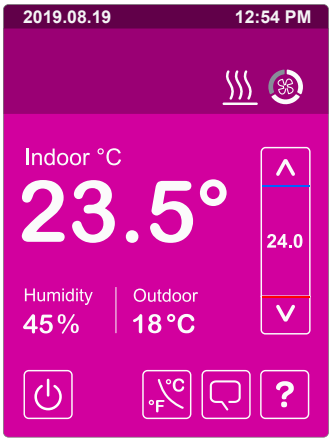
Dark Gray



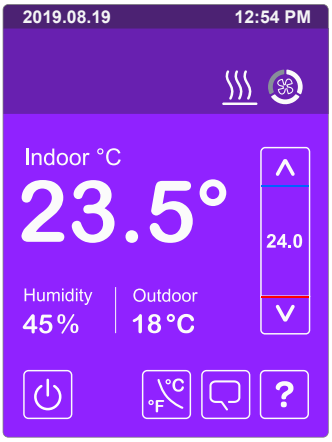
Grey



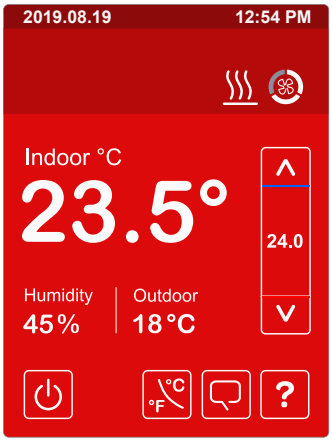
Pink



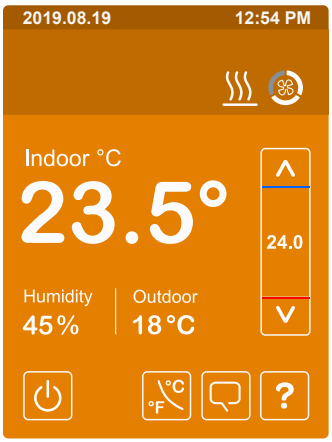
Purple



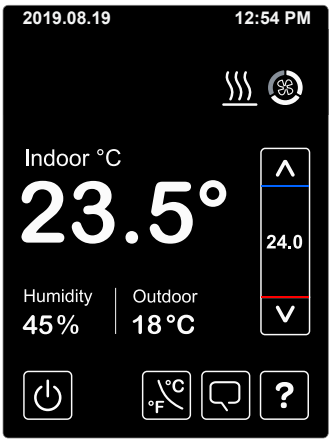
Red



Orange



Black



SECTION 3

Integrator Setup Screens

Network Screens

User can select wired BACnet / Modbus / Zigbee wireless protocol (when Zigbee feature is available).

NOTICE

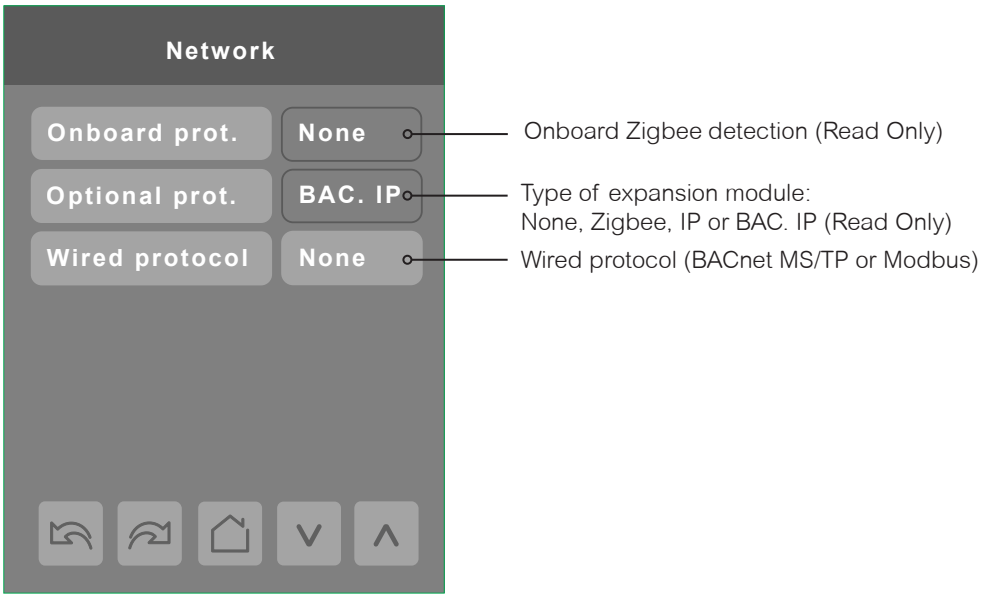
UPGRADE OF ZIGBEE 24 TO 30

The upgrade from Zigbee 24 to 30 will **not** support the Green Power Sensor (SED-CO2-G-5045 or SED-TRH-G-5045). It will therefore need to be recommissioned.

There is also a new "Security Levels" parameter for the Zigbee network (see page 19):

- **Low** (default value) is fully backwards compatible with Zigbee Home Automation 1.2 devices, and therefore compatible with all of our sensors.
- **Normal** (needs to be selected by user) is only compatible with Green Power and Zigbee 30 (Leedarson sensors). If the Normal Security Level is selected with old NYCE or Centralite sensors, they will be removed from the network.

Failure to follow these instructions can result in equipment being disconnected from the network.



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Onboard prot. Read Only	Onboard Protocol Onboard Zigbee detection Display Readings: None, Zigbee
Optional prot. Read Only	Optional Protocol Requires onboard Zigbee add-on module (VCM8000) or Wi-Fi module (VCM8002). None: No Zigbee detected Zigbee: Zigbee detected IP: Wi-Fi module detected BAC. IP: Wi-Fi module detected and BACnet/IP enabled Display Readings: None, Zigbee, IP or BAC. IP

Config. Parameters Default Value	Significance and Adjustments
Wired protocol Default value: BACnet	Wired Protocol None: No wired protocol configured BAC MSTP: BACnet MS/TP network protocol Modbus: Modbus network protocol Choices: None, BACnet or Modbus

ZIGBEE NETWORK 1/3

The Zigbee Network screen shows only in models with onboard Zigbee or optional Zigbee add-on module.

When creating a Zigbee network, there must be one and only one device with its Node Type set to Coordinator.
For a Zigbee network with a single Room Controller (RC), the RC is set as Coordinator to pair with the Sensor End Devices (SED). Setting the RC back to Router will remove the paired SEDs.
For a Zigbee network with a Multi-Purpose Manager (MPM) paired to multiple RCs, the MPM is set as Coordinator and the RCs are set as Router. The Coordinator MPM controls the pairing of the Router RCs to the SEDs

Note: Before pairing any Zigbee devices, the network must first be created by the Coordinator.

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Node type Default: Router	Node Type Sets device to act as Router or Coordinator in a network. Coord.: Creates the network and manages the binding of wireless devices. Router: Joins a network created by a coordinator (Coordinator permit join must be set to 'ON'). Choices: Coord. or Router
PAN ID Default value: 0	Zigbee Pan ID Personal Area Network Identification that links specific Room Controllers to specific Zigbee coordinators. For every Room Controller reporting to a coordinator, set the SAME PAN ID value both on the coordinator and the Room Controller. Note: The default value of 0 is NOT a valid PAN ID and causes Zigbee to be disabled. Range: 1 to 65535

Config. Parameters Default Value	Significance and Adjustments
Channel Default value: 10	Zigbee Channel The channel (wireless frequency) on which the Zigbee network transmits and receives data. The channel of the Coordinator must match that of the routers to exchange data. The default value of 10 is NOT a valid channel and causes Zigbee to be disabled. The valid range of available channels is from 11 to 25. Using channels 15, 20, and 25 is recommended. Channel 25 is considered as being the best one because it is furthest from the Wi-Fi channels. Range: 10 to 25
Security Default value: Low	Security Levels Note: Changing between Zigbee Security levels does not require re-creating the Zigbee network, or re-commissioning sensors. Low: Disables new security features in Zigbee 3.0 to be fully backwards compatible with Zigbee Home Automation 1.2 devices, and therefore compatible with all of our sensors. Normal: Enables the typical new features of Zigbee 3.0. This means that legacy Zigbee Home Automation 1.x devices cannot join a Normal security network. Compatible with the following sensors: • SED-WDS-P-5045 • SED-WDC-G-5045 • SED-CMS-P-5045 • SED-WMS-P-5045 • SED-MTH-G-5045 • SED-TRH-G-5045 • SED-C02-G-5045 **Important!** Selecting the Normal Security option will result in the removal of legacy sensors from the network. Choices: Low or Normal
Network Status Read Only	Zigbee Network Status Shows the current status of the Zigbee network. No NWK: Zigbee configured but no network joined Joined: Zigbee network joined Online: Communicating (Exchanging data) Display Readings: No NWK, Joined, Online
Permit join Default value: Off	Permit Join Changing this value to “Off” on the Coordinator prevents any new Zigbee devices from joining the network. Permit join can be On/Off when the Room Controller is a Coordinator, however the parameter is read only when the Room Controller is a router. If not set to off manually the Permit join will stay On for 3 hours. Choices: On or Off

ZIGBEE NETWORK 2/3

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
COM address Default value: 254	COM Address Room Controller networking address. 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 an MPM. It is Mandatory for BACnet. Range: 0 to 254
Short address Default value: 0 Read Only	Zigbee Short Address The unique Zigbee short address is generated once a wireless device joins a Zigbee network.
IEEE address Read Only	IEEE Address The extended IEEE address (MAC address) is a unique worldwide identifier of the onboard Zigbee or optional Zigbee add-on module.
Zigbee revision Read Only	Communication Module Revision Number Shows the Zigbee firmware revision number.

ZIGBEE NETWORK 3/3

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
COM address Default value: 254	COM Address Room Controller networking address. 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 an MPM. It is Mandatory for BACnet. Range: 0 to 254
Short address Default value: 0 Read Only	Zigbee Short Address The unique Zigbee short address is generated once a wireless device joins a Zigbee network.
IEEE address Read Only	IEEE Address The extended IEEE address (MAC address) is a unique worldwide identifier of the onboard Zigbee or optional Zigbee add-on module.
Zigbee revision Read Only	Communication Module Revision Number Shows the Zigbee firmware revision number.

BACNET NETWORK SETTINGS

BACnet network screen shows when BACnet MS/TP is selected in wired protocol parameter.

PARAMETER DETAILS

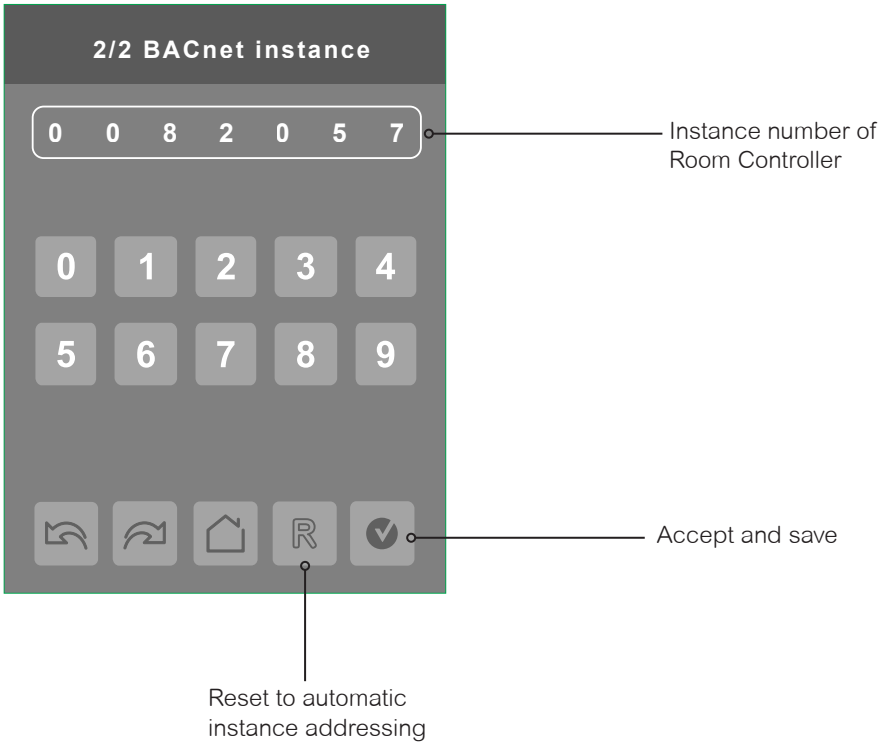
Config. Parameters Default Value	Significance and Adjustments
Comm address Default value: 254	Communication Address Room Controller networking address. Default value of 254 disables BACnet communication for the Room Controller. Range: 0 to 254
Network units Default value: SI	Measurement Units Network units transmitted over the BACnet network. Note: Use the Temperature scale parameter to change the display units locally on the Room Controller. Imperial: Network units shown as Imperial units. SI: Network units shown as International Metric units. Choices: Imperial or SI
Network lang Default value: English	Network Language Network language/object names transmitted over network. Choices: English, French or Spanish
Baud rate Default value: Auto	BACnet Baud Rate Leave the value at Auto unless instructed otherwise as this automatically detects BACnet baud rate. Choices: Auto, 115200, 76800, 57600, 38400, 19200, and 9600
BACnet status Read Only	BACnet Status Read Only value shows if a BACnet Network is detected or not. Display Readings: Online or Offline
BACnet PRate Default value: 4	BACnet Poll Rate Rate at which a BACnet stack is processed, in milliseconds. Range: 1 to 5.

BACNET INSTANCE NUMBER

The default BACnet instance number is generated by the model number and COM address of the Room Controller. For example, the instance number of a VZ8250U5B00 with a COM address of 57 is generated as “82057”.

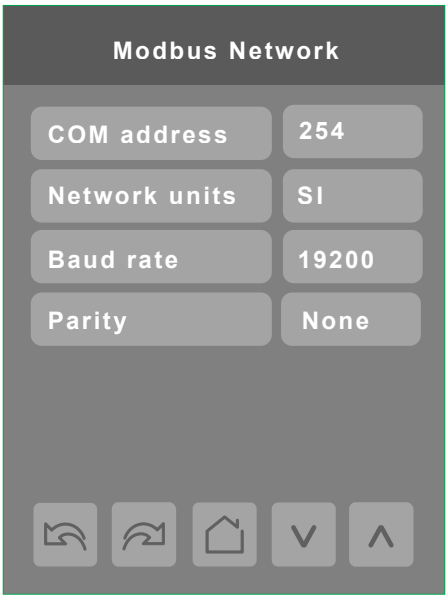
The default instance number appears first. To change the instance number, use number pad and press **Accept** and **Save**.

Tap “R” icon to reset to automatic instance addressing.



MODBUS NETWORK SETTINGS

Modbus network screen shows when Modbus is selected in wired protocol parameter.

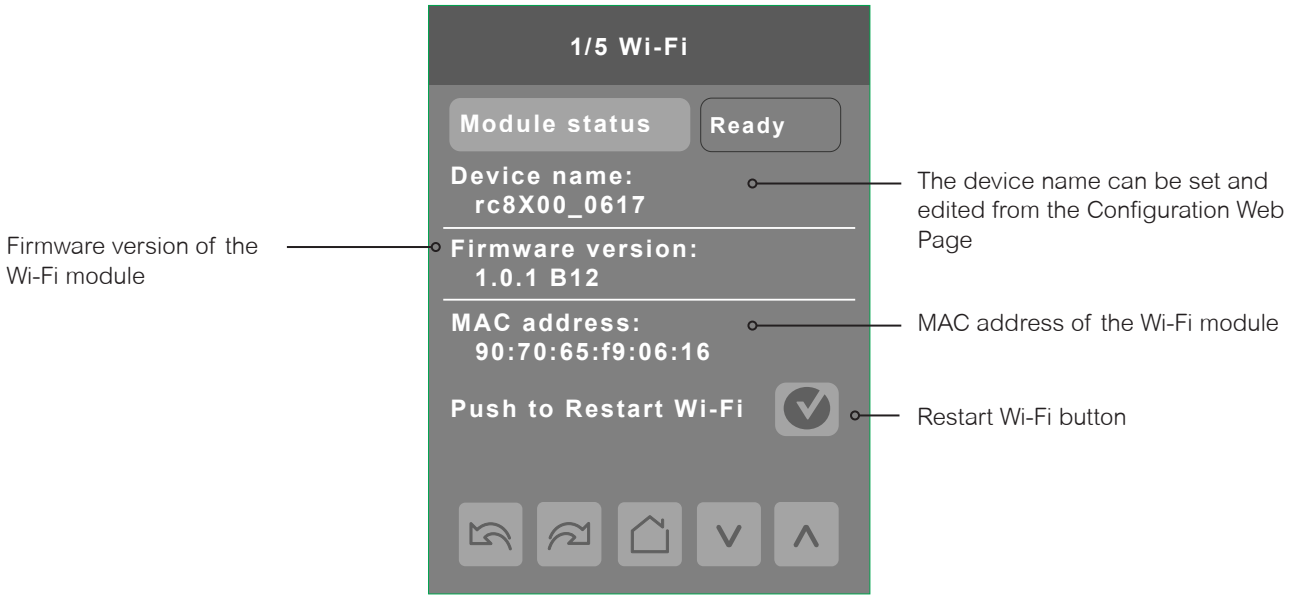


PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Comm address Default value: 254	Communication Address Valid address range is set at 1 to 247 and each Modbus device must have a unique address. Other values not recommended for Modbus. Default value of 254 disables Modbus communication for the Room Controller. Range: 0 to 254
Network units Default value: SI	Measurement Units Network units transmitted over the BACnet network. Note: Use the Temperature scale parameter to change the display units locally on the Room Controller. Imperial: network units shown as Imperial units. SI: network units shown as International Metric units. Choices: Imperial or SI
Baud rate Default value: 19200	Modbus Baud Rate Automatically detects Modbus baud rate. Choices: 57600, 38400, 19200, 9600, and 4800
Parity Default value: Even	Parity Determines how the parity bit of the character's data frame is set to detect any errors in the sent/receives frame. Choices: None, Odd and Even

WI-FI 1/5

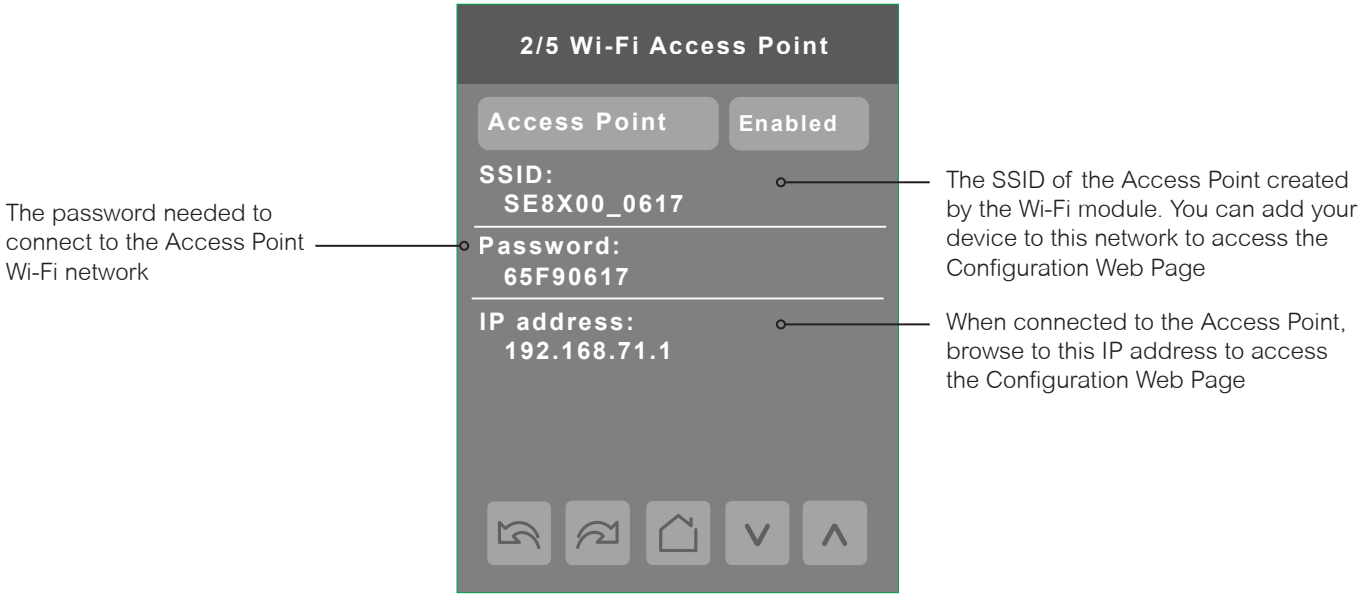
The Wi-Fi Network screen shows only in models with optional Wi-Fi module (VCM8002).



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Module status Read Only	Module Status Displays the current status of the Wi-Fi module. It would normally display Ready when the Wi-Fi module is operational. Status value: Offline, Booting, Initializing, Ready, Fail

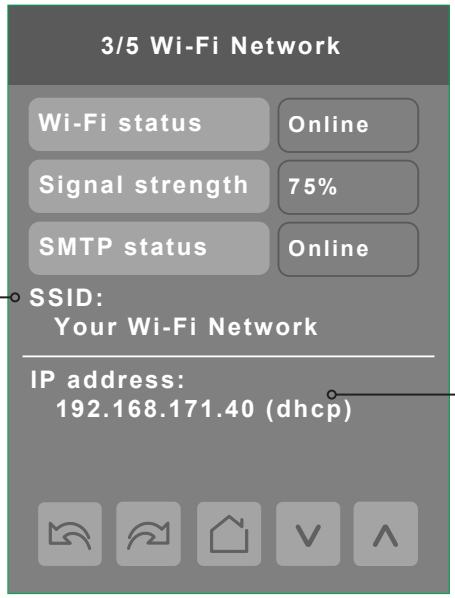
WI-FI 2/5



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Access point Default value: Disabled	Access Point On this screen the access point can be enabled or disabled as needed. Choices: Enabled or Disabled

WI-FI 3/5



SSID of the building Wi-Fi network that the device is connected to

When connected to the building Wi-Fi network shown above, browse to this IP address to access the Configuration Web Page

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Wi-Fi status Read Only	Wi-Fi Status When not connected to a Wi-Fi network the status remains Idle. Once the RC is on your preferred Wi-Fi network, the status will be displayed as Ready, or Online if it has an internet connection. Status value: Idle, Connected, Associate, Config, Ready, Online, Disconn, Failure
Signal strength Read Only	Signal Strength Signal strength of the Wi-Fi network. Range: 0 to 100%
SMTP status Read Only	SMTP Status Status of the email SMTP server Status value: Disabled, Offline, Online

WI-FI 4/5

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Facility Expert Read Only	Facility Expert Shows whether the Facility Expert system is Disabled or Enabled. Status value: Disabled or Enabled
Status Read Only	Status Shows the current status of the Facility Expert system. Range: Disabled, Offline, Connect., Online, Failure, Unknown.

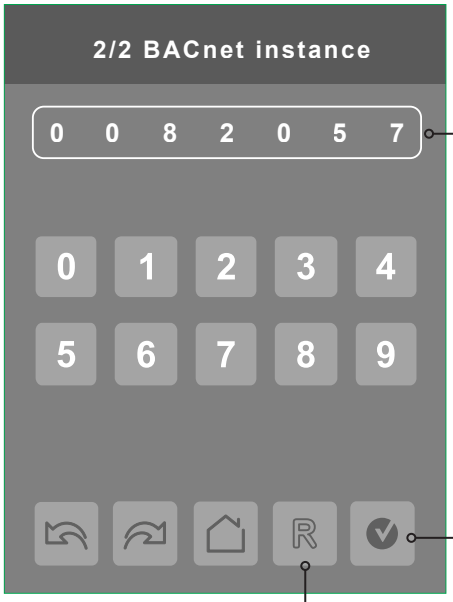
WI-FI 5/5

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Factory reset? Default value: No	Erase All Accepting Yes for both and then tapping 'Push to accept' will restore the Wi-Fi module to the factory settings, erase all configuration data and revert the Wi-Fi Module Firmware to the factory firmware version. Notes: • If you lose or forget your password for the Configuration Web Page, you must do a Factory Reset of the Wi-Fi module. • If your Wi-Fi module was connected to Facility Expert, you will need to contact your Facility Expert Administrator before the device can be reconnected after a Factory Reset.
Are you sure? Default value: No	

WI-FI BACNET NETWORK SETTINGS

BACnet network screens are shown when the wired protocol is set to BACnet or a Wi-Fi module is installed with BACnet/IP enabled. Only one BACnet protocol can be used at a time, either the wired protocol BACnet MS/TP (BACnet Network screens), or the Wi-Fi BACnet IP (Wi-Fi screens).



Instance number of Room Controller

Accept and save

Reset to automatic instance addressing

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Network units Default value: SI	Measurement Units Network units transmitted over the BACnet network. Note: Use the Temperature scale parameter to change the display units locally on the Room Controller. Imperial: Network units shown as Imperial units. SI: Network units shown as International Metric units. Choices: Imperial or SI
Network lang Default value: English	Network Language Network language/object names transmitted over network. Choices: English, French or Spanish
Port Default value: 0 Read Only	Port The unique short address of Wi-Fi BACnet IP

BACNET INSTANCE NUMBER

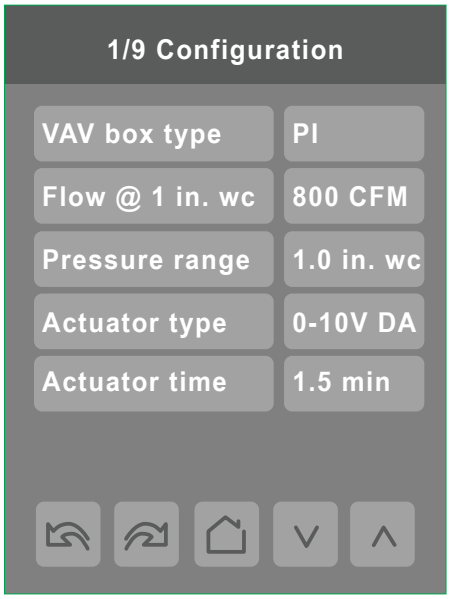
The default BACnet instance number is generated by the model number and COM address of the Room Controller. For example, the instance number of a VZ8250U5B00 with a COM address of 57 is generated as “82057”.

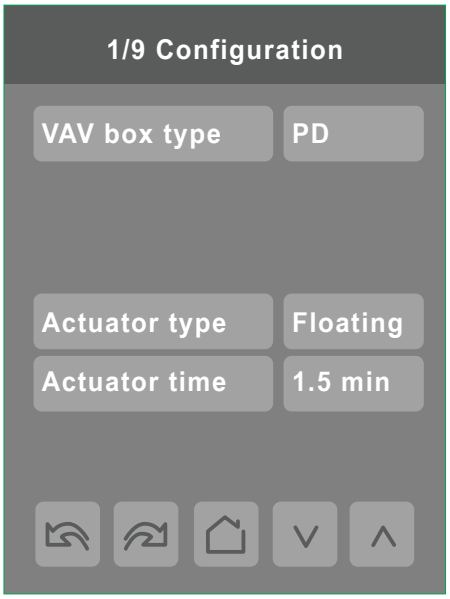
The default instance number appears first. To change the instance number, use number pad and press **Accept** and **Save**.

Tap “R” icon to reset to automatic instance addressing.

Configuration Screens

CONFIGURATION 1/9



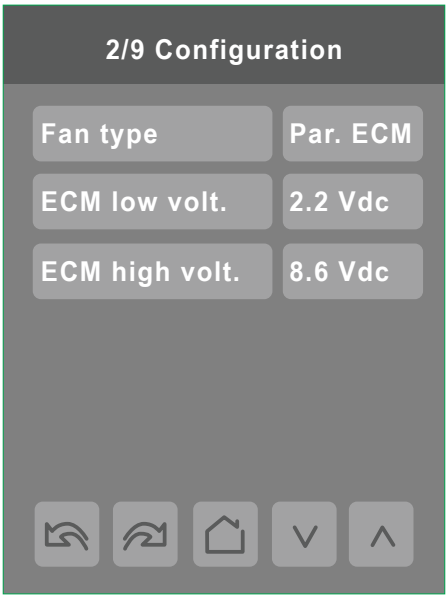


Note: See "Display 2/3" on page 52 for information on how to switch between the SI and Imperial measurement system.

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
VAV box type Default value: PI	VAV Box Type PI: Pressure Independent PD: Pressure Dependent Choices: PI, PD
Flow @ 1 in. wc Default value: 800 CFM (377 l/s)	Flow at 1-inch Water Column Displayed when PI VAV box type is selected. Range: 150 CFM (71 l/s) to 7500 CFM (3540 l/s), using 10 CFM (5 l/s) increments
Pressure range Default value: 1.0 in. wc (250.0 Pa)	Pressure Range Displayed when PI VAV box type is selected. Range: 0.5 in. wc (125 Pa) to 5.0 in. wc (1250 Pa), using 0.5 in wc (125 Pa) increments
Actuator type Default value: 0-10V DA	Actuator Type Output type used to control the damper actuator Choices: 0-10V DA, 0-10V RA, 2-10V DA, 2-10V RA, Floating
Actuator time Default value: 1.5 min	Actuator Time Displayed when PI VAV box type is selected, or when PD VAV box type and Floating Actuator type are selected. Time for floating actuator to transition between fully closed and fully open. Range: 0.5 min to 9.0 min, using 0.5 min increments

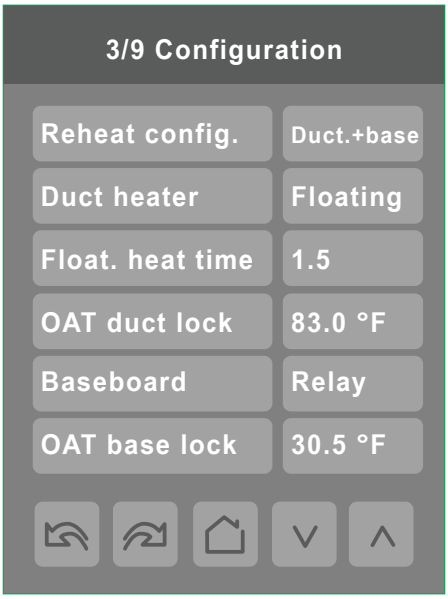
CONFIGURATION 2/9



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Fan type Default value: None	Fan Type Fan type configuration determines the fan control method. Choices: None, Par. on/off, Ser. on/off, Par. ECM, Ser. ECM
ECM low volt. Default value: 2.2 Vdc	ECM Low Voltage Displayed when the Parallel ECM or Serial ECM fan type is selected. Range: 2.0 Vdc to 4.0 Vdc, using 0.1 Vdc increments
ECM high volt. Default value: 8.6 Vdc	ECM High Voltage Displayed when the Parallel ECM or Serial ECM fan type is selected. Range: 7.1 Vdc ato 10.0 Vdc, using 0.1 Vdc increments

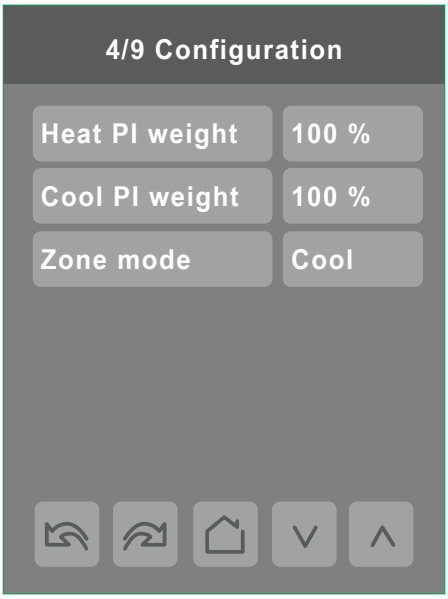
CONFIGURATION 3/9



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Reheat config. Default value: None	Reheat Configuration Reheat configuration for the zone, using the duct, baseboard or both. Choices: None, Duct only, Base only, Duct+base, Base+duct
Duct heater Default value: On/Off	Duct Heater Control Displayed when Duct only, Duct+base or Base+duct is selected. Floating is available when Fan type is not Par./Ser. ECM. Choices: On/Off, PWM Vac, Valve NC, Valve NO, 0-10V DA, 0-10V RA, 2-10V DA, 2-10V RA, Floating
Float. heat time Default value: 1.5 min	Floating Heat Time Displayed when Floating Duct heater is selected. Range: 0.5 min to 9.0 min, using 0.5 min increments.
OAT duct lock Default value: 60.0 °F (15.5 °C)	OAT Duct Lock Outside air temperature above which duct reheat will be disabled. Displayed when Duct only, Duct+base or Base+duct is selected. Range: 30.0 °F (-1.0 °C) to 90.0 °F (32.0 °C) using 0.5 °F (0.5 °C) increments.
Baseboard Default value: Relay	Baseboard Control Output type used for baseboard control. Displayed when Base only, Duct+base or Base+duct is selected. Choices: Relay, PWM Vac, Valve NC, Valve NO
OAT base lock Default value: 60.0 °F (15.5 °C)	OAT Base Lock Outside air temperature above which baseboard reheat will be disabled. Displayed when Base only, Duct+base or Base+duct is selected. Range: 30.0 °F (-1.0 °C) to 90.0 °F (32.0 °C) using 0.5 °F (0.5 °C) increments.

CONFIGURATION 4/9



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Heat PI weight Default value: 100%	Heat Proportional Integral Weight Zone weight for heating system demand management. Range: 0% to 100% using 25% increments.
Cool PI weight Default value: 100%	Cool Proportional Integral Weight Zone weight for cooling system demand management. Range: 0% and 100% using 25% increments.
Zone mode Default value: Cool	Zone Mode Type of air being delivered to the zone by the VAV system. May be manually configured or automatically managed with a Changeover temperature sensor. Choices: Cool, Heat

CONFIGURATION 5/9

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
UI16 config Default value: None	Universal Input Configuration No. 1 None: No function will be associated with the input. Input can be used for remote network monitoring. Rem NSB: Remote night setback (NSB) timer clock input. The scheduling gets set as per the binary input and provides low cost setback operation via a dry contact. Motion NO and Motion NC: Advanced PIR occupancy functions using a Normally Open (NO) or Normally Closed (NC) remote PIR motion sensor. Window: Forces system to disable any current heating or cooling action by Room Controller when window is open. Choices: None, Rem NSB, Motion NO, Motion NC, Window
UI17 config Default value: None	Universal Input Configuration No. 2 None: No function associated with input Door Dry: Room Controller goes to standby mode when door is opened then closed followed by no presence detection for the next 10 seconds if the local PIR is used in this application. The “Occupancy command” (see “Options” on page 70 for “Occupancy cmd“) must be set to “Local Occupancy” and “Occupancy Source” (see next page for “Occupancy src“) must be set to “Motion”. Override: A closed contact forces the Room Controller to go in occupied mode. An open contact keeps the current occupancy mode. Filter: Backlit flashing filter alarm shows on the Room Controller screen when input is energized Service: Backlit flashing Service alarm shows on Room Controller screen when input is energized. Choices: None, Door Dry, Override, Filter, Service

<table>
<tr><th>Config. Parameters Default Value</th><th>Significance and Adjustments</th></tr>
<tr><td>UI19 config
Default value: None</td><td>Universal Input Configuration No. 3

None: no function associated with input though input can be used for remote network monitoring.
COC/NH: change over dry contact normally heat. Used to automatically change the Zone Mode between heat/cool based on temperature of incoming air.
COC/NC: change over dry contact normally cool. Used to automatically change the Zone Mode between heat/cool based on temperature of incoming air.
COS: change over sensor. Used to automatically change the Zone Mode between heat/cool based on temperature of incoming air.

Choices: None, COC/NH, COC/NC and COS</td></tr>
<tr><td>Occupancy src
Default value: Motion</td><td>Occupancy Source

Motion: Occupancy status received from motion sensor.
Schedule: Occupancy status configured in the Setup/Schedule menu. Refer to “Configuration 7/9” on page 38.
Mot. Occ: Occupied when scheduled occupied AND when motion is detected.
Mot. Unoc: Occupied when scheduled occupied OR when motion is detected.

Choices: Motion, Schedule, Mot. Occ., Mot. Unoc.</td></tr>
<tr><td>Smart recovery
Default value: Off</td><td>Enable Smart Recovery

Off: No smart recovery. The occupied schedule time is the time at which the occupancy change will be applied, therefore the desired occupied temperature will not be attained until some minutes after the scheduled time.
On: Smart recovery active. The occupied schedule time is the time at which the desired occupied temperature will be attained. The Room Controller automatically optimizes the equipment start time. In any case, the latest a system will restart is 10 minutes prior to the occupied period time.

Smart recovery is automatically disabled if UI16 is configured to remote NSB.

Choices: Off or On</td></tr>
<tr><td>Prop. band
Default value: 3.0</td><td>Proportional Band Setting

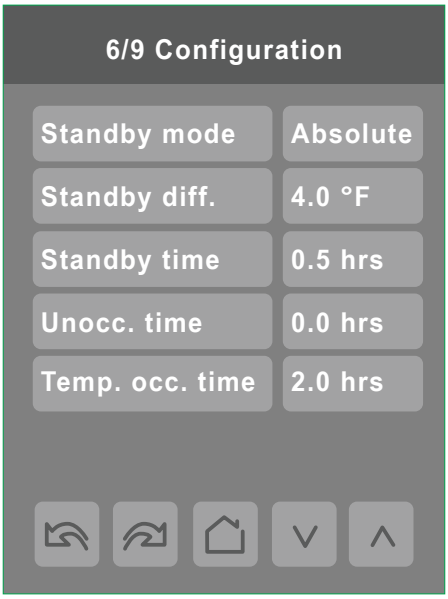
Adjusts proportional band used by Room Controller PI control loop.

Note: Default value of 3 gives satisfactory operation in most normal installation cases. The use of a superior proportional band different than the factory value is normally needed in applications where Room Controller location is problematic and leads to unwanted cycling of the unit. A typical example is a wall mounted Room Controller installed between return and supply air feeds and is directly influenced by the supply air stream of unit.

Range: 3 to 10

<table>
<tr><th>Value</th><th colspan="2">Effective Proportional Band</th></tr>
<tr><td>3.0</td><td>3 °F</td><td>1.2 °C</td></tr>
<tr><td>4.0</td><td>4 °F</td><td>1.7 °C</td></tr>
<tr><td>5.0</td><td>5 °F</td><td>2.2 °C</td></tr>
<tr><td>6.0</td><td>6 °F</td><td>2.8 °C</td></tr>
<tr><td>7.0</td><td>7 °F</td><td>3.3 °C</td></tr>
<tr><td>8.0</td><td>8 °F</td><td>3.9 °C</td></tr>
<tr><td>9.0</td><td>9 °F</td><td>5.0 °C</td></tr>
<tr><td>10.0</td><td>10 °F</td><td>5.6 °C</td></tr>
</table>
</td></tr>
</table>

CONFIGURATION 6/9

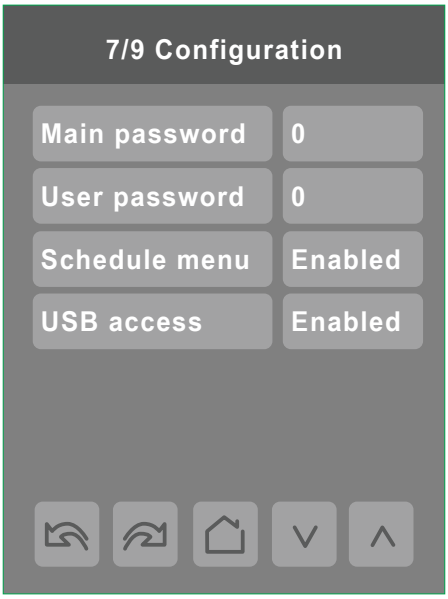


PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Standby mode Default value: Absolute	Standby Mode Configuration Standby setpoints used for control. Absolute: Standby entered values are used for standby mode. Offset: Occupied setpoints +/- Standby diff. used for standby mode. Refer to “Setpoints Screens” on page 49 to define Standby cool and Standby heat values. Choices: Absolute or Offset
Standby diff. Default value: 4.0 °F (2.0 °C)	Standby Temperature Differential When Standby mode is set to ‘offset’, standby setpoints are calculated as follows: Standby cool: Cool setpoint + Standby diff. Standby heat: Heat setpoint - Standby diff. Refer to “Setpoints Screens” on page 49 to define Standby cool and Standby heat values. Range: 1.0 °F (0.5 °C) to 5.0 °F (2.5 °C), using 1.0 °F (0.5 °C) increments.
Standby time Default: 0.5 hours	Standby Time Time between the moment where the motion sensor detects last movement in the area, and the time which the Room Controller stand-by setpoints become active. Note: This parameter is not active when the “Door” function is used (wired or wireless). Range: 0.5 to 24.0 hours, using 0.5 hour increments.

Config. Parameters Default Value	Significance and Adjustments
Unocc. time Default: 0.0 hours	Unoccupied Time Time between the moment where the Room Controller toggles to stand-by mode, and the time which the Room Controller unoccupied mode and setpoints become active. Note: Default value of 0.0 hours disables the unoccupied timer. This prevents the Room Controller from being able to switch from stand-by mode to unoccupied mode when PIR functions are used. Range: 0.0 to 24.0 hours (0.5 hour increments)
Temp. occ. time Default value: 2 hours	Temporary Occupancy Time The time the Room Controller stays in override mode before reverting back to unoccupied mode. When the Room Controller is in unoccupied mode, pressing the on-screen Override icon or closing the contact on UI17, configured as “Remote Override”, sets the Room Controller to Override mode for defined time period, and uses the Occupied Cooling and Heating setpoints. Range: 0.0 to 24.0 hours

CONFIGURATION 7/9



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Main password Default value: 0	Main Password Sets a protective access password to prevent unauthorized access to configuration menu parameters. A default value of “0” will not prompt for a password or lock access to the configuration menu. Range: 0 to 9999.
User password Default value: 0	User Password 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: 0 to 9999.
Schedule menu Default value: Enabled	Schedule Menu Toggles activation of schedule menu direct access. Enabled: Schedule Menu is directly accessible from the main screen via a touch in the upper corner. Disabled: Schedule Menu can only be accessed through the Setup Menu screens. En.no.clk: Schedule Menu is directly accessible from the main screen via a touch in the upper corner. Clock does not show. Dis.no.clk: Schedule Menu can only be accessed through the Setup Menu screens. Clock does not show. Choices: Ensabled, Disabled, En.no.clk and Dis.no.clk

Config. Parameters Default Value	Significance and Adjustments
USB access Default value: Enabled	USB access Enables/disables USB communication with the SE8000. Enabled: USB communication with the SE8000 is enabled, so the Uploader tool can be used to upgrade firmware, standby images, LUA script etc. Disabled: USB communication with the SE8000 is disabled, so the Uploader tool cannot be used with the device. it is recommended to disable USB access once the Room Controller has been commissioned to prevent unauthorized access. Choices: Ensabled and Disabled

NOTICE

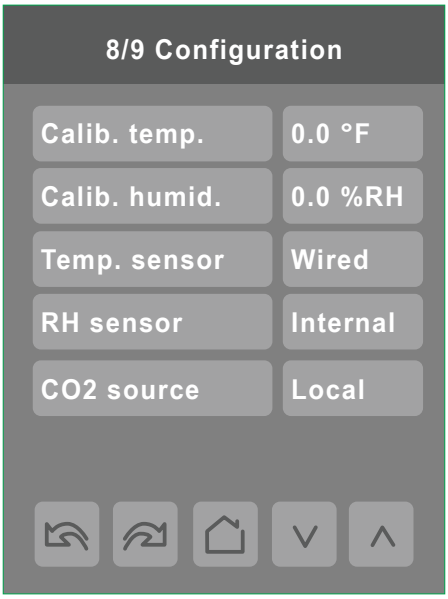
UNAUTHORIZED USB ACCESS

To prevent unauthorized access to the Room Controller via USB, it is recommended that:

- ”USB access” is set to “Disabled” to prevent changing of firmware, standby image, configuration or LUA scripts via USB.
- ”Main password” is set to a non-zero value to limit configuration menu access to authorized users only.

Failure to follow these instructions may lead to unauthorized users modifying the firmware or the configuration of the Room Controller.

CONFIGURATION 8/9

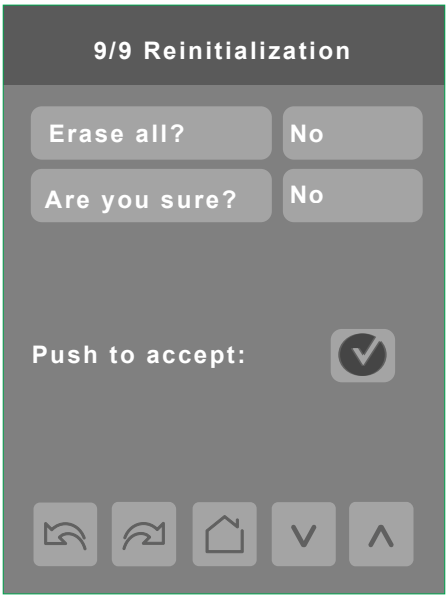


PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Calib. temp. Default value: 0°F (0°C)	Calibration Room Temperature Sensor Room temperature sensor calibration. Offset can be added or subtracted to actual displayed room temperature. Range: ± 5.0 °F (± 2.5 °C)
Calib. humid. Default value: 0.0 %RH	Calibrate Humidity Sensor Offset that can be added or subtracted to actual displayed humidity. Range: ± 15.0 %RH
Temp. sensor Default value: Wired	Room Temperature Sensor Sets the source of the indoor room temperature. This parameter allows the user to designate either the Room Controller or any of the paired wireless devices that support temperature to act as the source for the room temperature. Wired: sets the thermistor connected to UI20 (RS) as the source to report room temperature. Internal: sets the Room Controller as the source for the room temperature. WL 1 to WL 20: sets the selected Zigbee wireless device as the source for the room temperature. Only one device can be selected. Note: The Room Controller uses the internal temperature sensor only if UI20 (RS) terminal is empty. If a valid temperature sensor is connected to UI20 terminal, the Room Controller will use the sensor as the control point. Disconnecting the sensor, or if the sensor is faulty, the Room Controller will automatically revert to its internal temperature sensor. Choices: Wired, Internal and WL 1 to WL 20

Config. Parameters Default Value	Significance and Adjustments
RH sensor Default value: Internal	Relative Humidity Sensor Sets the source of the indoor room humidity. This parameter allows the user to designate either the Room Controller or any of the paired wireless devices that support humidity to act as the source for the room humidity. Internal: Sets the Room Controller as the source for the room humidity. WL 1 to WL 20: Sets the selected Zigbee wireless device as the source for the room humidity. Only one device can be selected. Choices: Internal and WL 1 to WL 20
CO2 source Default value: Local	CO2 Sensor Source Sets the source of the indoor CO2. This parameter allows the user to designate either the optional CO2 detection sensor module (VCM8001) or any of the paired wireless devices that support CO2 to act as the source for the room CO2. None: CO2 source disabled. Local: Sets the optional CO2 detection sensor module as the source for the room CO2. WL 1 to WL 20: Sets the selected Zigbee wireless device as the source for the room CO2. Only one device can be selected. Choices: None, Local and WL 1 to WL 20

CONFIGURATION 9/9



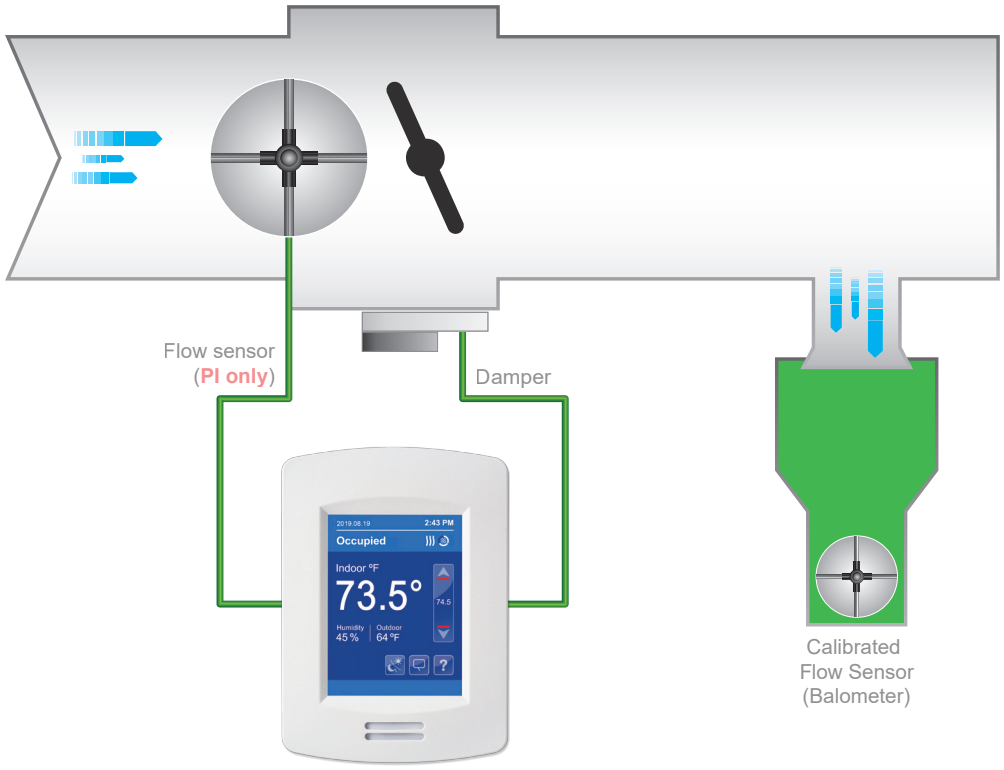
PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Erase all? Default value: No	Erase All Accepting Yes for both and then tapping 'Push to accept' returns all values to the factory default settings with the exception of the following: • COM address • Network Units • Network Language • Baud Rate • BACnet Instance • Device Name • Screen Contrast • Lua Script Note: Node type in Zigbee Nwtwork screen returns to default value (Router).
Are you sure? Default value: No	

Balancing

During balancing, a technician will install a calibrated flow sensor (Balometer) over the outlet in each room and use this to calibrate the VZ8250 Room Controller:

- **Pressure Independent**:
  - True air flow will be measured using the Balometer and compared to the airflow calculated by the Room Controller at various setpoints.
  - Room Controller calibration parameters will be adjusted to ensure the calculated air flow matches the true air flow.
- **Pressure Dependent**:
  - True air flow at various damper position percentages will be measured and used to set the appropriate damper percentages for the air flow required for the zone.



Note: Balancing menus will timeout after 8 hours and any Damper Override will be removed, returning the zone to normal operation.

PRESSURE INDEPENDENT

Before starting to Balance the system, check the following parameters are correctly configured in the Configuration menu:

- VAV Box Type
- Flow at 1-inch water column
- Airflow Sensor Pressure Range
- Actuator Type
- Floating Actuator Time

Airflow Balancing settings can be found on the Balancing page of the Setup menu.

The recommended process for Balancing the system is:

1. On page “1/2 Balancing (PI)”, check the Minimum, Maximum Cooling, Maximum Heating and Reheat airflow setpoints are correctly configured for the zone.
2. Check airflow sensor is correctly calibrated at zero:
    a. On page “2/2 Balancing (PI)”, set Damper Override to Close.
    b. Wait for measured “Airflow level” to stabilize and confirm the value is less than the desired Minimum Airflow. If not, confirm damper is closed and auto-calibrated at zero the airflow sensor.
3. Before setting the Minimum and Maximum Cooling airflow, make sure that when fully open, the airflow is at least 40-60 CFM higher than the planned Maximum Cooling airflow. Otherwise, the control will be erratic.
4. Calibrate sensor at Minimum airflow:
    a. On page “2/2 Balancing (PI)”, set the Damper Override to Minimum Flow. The displayed Airflow Setpoint will use the value of Minimum Airflow.
    b. Wait for the RC8000 measured “Airflow level” to stabilize.
    c. Take a reading of the actual airflow using a calibrated Balometer.
    d. Enter the actual airflow as the “Balometer” value on “2/2 Balancing (PI)”. The RC8000 will calculate and display a new Minimum Flow Offset.
    e. Wait for the measured “Airflow level” to stabilize again. The Airflow level should now match the Airflow setpoint. Repeat if necessary.
5. Calibrate sensor at Maximum Cooling airflow:
    a. On page “2/2 Balancing (PI)”, set the Damper Override to Maximum Cooling. The displayed Airflow Setpoint will use the value of Maximum Cooling Airflow.
    b. Wait for RC8000 measured “Airflow level” to stabilize.
    c. Take reading of actual airflow using a calibrated Balometer.
    d. Enter the actual airflow as the “Balometer” value on “2/2 Balancing (PI)”.
    e. The RC8000 will calculate and display a new Maximum Flow Offset.
    f. Wait for the measured “Airflow level” to stabilize again. Airflow level should now match the Airflow setpoint. Repeat if necessary.
6. On page “2/2 Balancing”, revert the Damper Override to None allowing the system to return to normal operation.

Balancing (PI) 1/2

Pressure Independent		
Configuration parameter	**BACnet**	**Function description**
Airflow level Read Only	AV110 (R)	Airflow Level Measured (calibrated) airflow. Range: 0 to 20000 CFM (0 to 9440 l/s)
Airflow setpoint Read Only	AI350 (R)	Airflow Setpoint Current active airflow setpoint. Airflow Setpoint is not displayed when Damper Override is Open or Closed. Range: 0 to 10000 CFM (0 to 4720 l/s)
Min. flow Default value: 340 CFM (160 l/s)	AV250 (R/W)	Minimum Airflow Minimum airflow supplied to the zone. Range: 40 to 800 CFM (19 to 377 l/s)
Max. cool flow Default value: 340 CFM (160 l/s)	AV252 (R/W)	Maximum Cooling Airflow Maximum airflow supplied to the zone when cooling. Range: 40 to 800 CFM (19 to 377 l/s)
Max. heat flow Default value: 340 CFM (160 l/s)	AV251 (R/W)	Maximum Heating Airflow Maximum airflow supplied to the zone when heating. Range: 40 to 800 CFM (19 to 377 l/s)
Reheat flow Default value: 340 CFM (160 l/s)	AV253 (R/W)	Maximum Reheat Airflow Maximum airflow supplied to the zone with duct reheat. Range: 40 to 800 CFM (19 to 377 l/s)

Balancing (PI) 2/2

Pressure Independent		
Configuration parameter	**BACnet**	**Function description**
Airflow level Read Only	AV110 (R)	Airflow Level Measured (calibrated) airflow: Range: 0 to 20000 CFM (0 to 9440 l/s)
Airflow setpoint Read Only	AI350 (R)	Airflow Setpoint Current active airflow setpoint. Airflow Setpoint is not displayed when Damper Override is Open or Closed. Range: 0 to 10000 CFM (0 to 4720 l/s)
Damp. override Default value: None	MV172 (R/W)	Damper Override Force damper to selected position during balancing. **0 - None**: No damper override. Damper under normal control **1 - Minimum**: Force damper to maintain minimum airflow setpoint **2 - Max. cool**: Force damper to maintain maximum cooling airflow setpoint **3 - Close**: Force damper closed **4 - Reheat**: Force damper to maintain maximum reheat airflow setpoint **5 - Open**: Force damper fully open Choices: None, Minimum, Max. cool, Close, Reheat and Open
Balometer Default value: 0 CFM (0 l/s)		Measured airflow from Balometer: Measured value will be used to update calibration Offset and ensure measured Airflow level matches Balometer reading. Balometer is displayed when Damper Override is Minimum or Max. cool. Range: 0 to 20000 CFM (0 to 9440 l/s)
Minflow offset Default value: 0 CFM (0 l/s)	AV258	Minimum Airflow Calibration Offset Calibration offset applied to Airflow Level at Minimum flow. Min flow offset is displayed when Damper Override is Minimum. Range: -5000 to 5000 CFM (0 to 30932 l/s)

Pressure Independent		
Configuration parameter	**BACnet**	**Function description**
Max flow offset Default value: 0 CFM (0 l/s)	AV259	Maximum Airflow Calibration Offset Calibration offset applied to Airflow Level at Maximum flow. Max flow offset is displayed when Damper Override is Max. cool. Range: -5000 to 5000 CFM (0 to 30932 l/s)

PRESSURE DEPENDENT

Before starting to Balance the system, check the following parameters are correctly configured in the Configuration menu:

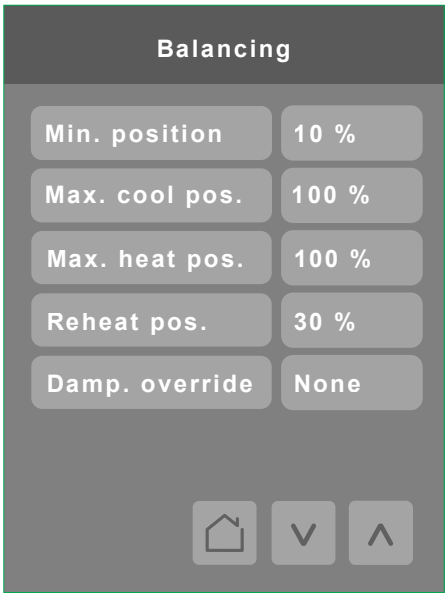
- VAV Box Type
- Actuator Type
- Floating Actuator Time

Air Flow Balancing settings can be found on the Balancing page of the Setup menu.

The recommended process for Balancing the system is:

1. On page “Balancing (PD)”, set the approximate damper positions for Minimum, Maximum Cooling, Maximum Heating, Damper override.
2. For each position, repeat the following process:
   a. Set the Damper Override to the desired position (Minimum, Maximum Cooling, Maximum Heating or Maximum Reheat).
   b. Allow time for damper to reach defined position.
   c. Take reading of actual air flow using a calibrated Balometer.
   d. Compare actual airflow to desired airflow and modify the Damper Position accordingly by adjusting the % value of the position options on the Balancing (PD) page (see below).
   e. Repeat until measured airflow at the damper position matches the desired airflow.
3. On page “Balancing (PD)”, revert the Damper Override to None to allow the system to return to normal operation.

Balancing (PD)



Pressure Dependent		
Configuration parameter	**BACnet**	**Function description**
Min. position Default value: 10 %	AV250 (R/W)	Minimum Damper Position: Range: 0 to 100 %
Max. cool pos. Default value: 100 %	AV251 (R/W)	Maximum Damper Position During Cooling: Range: 0 to 100 %
Max. heat pos. Default value: 100 %	AV252 (R/W)	Maximum Damper Position During Heating: Range: 0 to 100 %
Reheat pos. Default value: 30 %	AV253 (R/W)	Damper Position During Reheating Range: 0 to 100 %
Damp. override Default value: None	MV172 (R/W)	Damper Override Force damper to selected position during balancing. **0 - None**: No damper override. Damper under normal control **1 - Minimum**: Force damper to maintain minimum airflow setpoint **2 - Max. cool**: Force damper to maintain maximum cooling airflow setpoint **3 - Close**: Force damper closed **4 - Reheat**: Force damper to maintain maximum reheat airflow setpoint **5 - Open**: Force damper fully open Choices: None, Minimum, Max. cool, Close, Reheat and Open

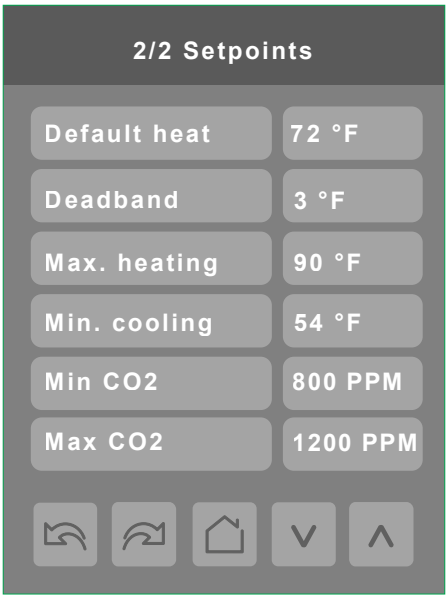
Setpoints Screens

SETPOINTS 1/2

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Unocc. cool Default value: 80.0 °F (27.0 °C)	Unoccupied Cool Setpoint Cooling Temperature setpoint used by the Room Controller when in Unoccupied mode. Range: 54 to 100°F (12.0 to 37.5°C)
Standby cool. Default value: 78.0 °F (25.5 °C)	Standby Cooling Setpoint Cooling Temperature setpoint used by the Room Controller when in Standby mode. Range: 54 to 100°F (12.0 to 37.5°C)
Occ. cool Default value: 74.5 °F (24.0 °C)	Occupied Cool Setpoint Cooling Temperature setpoint used by the Room Controller when in Occupied or Override mode. Range: 54 to 100°F (12.0 to 37.5°C)
Occ. heat. Default value: 71.5 °F (22.0 °C)	Occupied Heating Setpoint Heating Temperature setpoint used by the Room Controller when in Occupied mode. Range: 40 to 90°F (4.5 to 32.0°C)
Standby heat. Default value: 69.0 °F (20.5 °C)	Standby Heating Setpoint Heating Temperature setpoint used by the Room Controller when in Standby mode. Range: 40 to 90°F (4.5 to 32.0°C)
Unocc. heat. Default value: 62.0 °F (17 °C)	Unoccupied Heating Heating Temperature setpoint used by the Room Controller when in Occupied or Override mode. Range: 40 to 90°F (4.5 to 32.0°C)

SETPOINTS 2/2

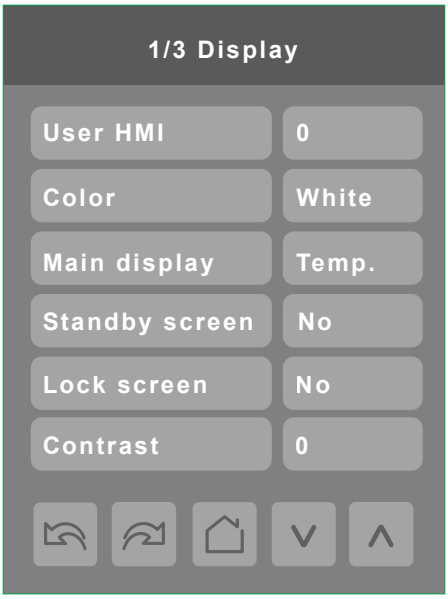


PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Default heat Default value: 72°F (22°C)	Default Heating Setpoint Used for hospitality applications in stand-alone mode only to reset the occupied setpoints when a new guest enters the room. When the Room Controller is in unoccupied mode, any movement detected by a wired, wireless or local PIR sensor changes the occupancy mode to occupied modes and uses the “Default Heating Setpoint” as the new occupied setpoints. Note: This functionality is only valid when Standby mode = Offset. Refer to “Configuration 6/9” on page 36 to configure Standby mode. Range: 65 to 80°F (18.5 to 26.5°C)
Deadband Default value: 3°F (1.5°C)	Deadband Temperature offset between the Cooling and Heating setpoints to ensure that Cooling setpoint is always warmer than the Heating setpoint Cooling setpoint ≥ (Heating setpoint + Deadband) Range: 2 to 5°F (1.0 to 2.5°C)
Max. heating Default value: 90°F (32°C)	Heating Setpoint Limit Maximum Occupied, Unoccupied, Standby and Override Heating setpoints maximum limit. Range: 40 to 90°F (4.5 to 32.0°C)
Min. cooling Default value: 54°F (12°C)	Cooling Setpoint Limit Maximum Occupied, Unoccupied, Standby and Override Cooling setpoint adjustment. Range: 54 to 100°F (12.0 to 37.5°C)
Min CO2 Default value: 800 PPM	Minimum CO2 Range: 0 and 4800 PPM, using increments of 10 PPM
Max CO2 Default value: 1200 PPM	Maximum CO2 Range: 200 and 5000 PPM, using increments of 10 PPM

Display Screens

DISPLAY 1/3



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
User HMI Default value: 0	User HMI Sets layout of icons on the home screen for various applications. Refer to “Customized User HMI Display” on page 10 for more information. Range: 0 to 12
Color Default value: White	HMI Color Change background color of the display screen. Choices: White, Green, Blue, Grey, Dark grey, Pink, Purple, Red, Orange, Black
Main display Default value: Temp.	Main Display Shows temperature or setpoint on main display. Choices: Temp., Setpoint, T. + set.
Standby screen Default value: No	Standby Screen When the device is left unattended for 150 seconds, the standby image will appear. A custom image can be uploaded using the Uploader Tool. No: No Stand by image (Screen dims when no motion is detected) Yes: Stand by Image is displayed after 150 seconds Occ. Only: Standby image displays after 150 seconds. Screen turns off after 30 minutes only in occupied or override mode. Screen: Standby image displays after 150 seconds. Screen turns off after 30 minutes only in unoccupied or standby mode Choices: No, Yes, Occ. Only or Screen

Config. Parameters Default Value	Significance and Adjustments
Lock screen Default value: No	Lock Screen Prevents the user from accessing the Room Controller until a password is entered. Screen lockout starts 150 seconds after no activity on the Room Controller (when standby image appears). This functionality is enabled only if the below conditions are met: • Standby image loaded • Standby Screen = “Yes” or “Screen Saver” • User Password = not 0 Choices: No or Yes
Contrast Default value: 0	Contrast Control screen contrast and brightness. Range: -5 to 5

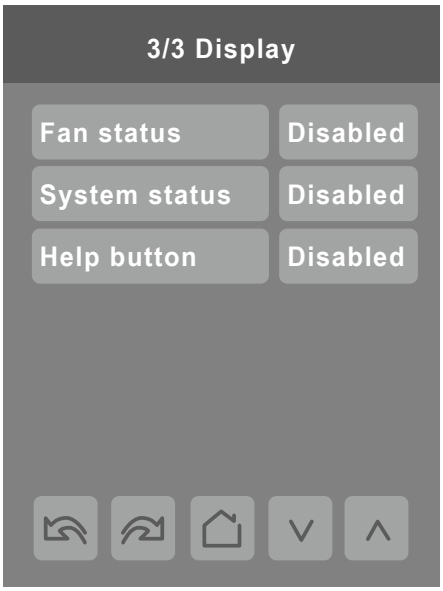
DISPLAY 2/3

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Language Default value: English	Display Language Select language for main display. Choices: English, French, Spanish, Chinese, Russian, Arabic, Bulgarian, Czech, Danish, Dutch, Finnish, German, Hebrew, Hungarian, Indonesian, Italian, Japanese, Norwegian, Polish, Portuguese, Slovak, Swedish and Turkish
Units Default value: °C	Temperature Scale Changes the local display units. Refer to Network Units to change the network units broadcasted over the network. Choices: °C for SI or °F for Imperial.

Config. Parameters Default Value	Significance and Adjustments
Low backlight Default value: 60%	Low Backlight Sets display backlight intensity. This feature is activated (screen dims) 150 seconds after no activity on the Room Controller. Adjustable: 0 to 100%.
Night backlight Default value: 5%	Night Backlight Sets backlight display intensity. 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. Adjustable: 0 to 100%.
RH display Default value: Disabled	Relative Humidity Shows humidity level in room in %RH. On: Display %RH Off: Do not display %RH Choices: Enabled or Disabled
CO2 display Default value: Disabled	CO2 Levels Display Shows carbon dioxide level in room in ppm. On: Display CO2 level Off: Do not display CO2 level Note: The CO2 value will only be displayed on the Room Controller home screen if an optional CO2 detection sensor module is installed or a Zigbee wireless CO2 device is paired, and if there is a valid value. Choices: Enabled or Disabled

DISPLAY 3/3



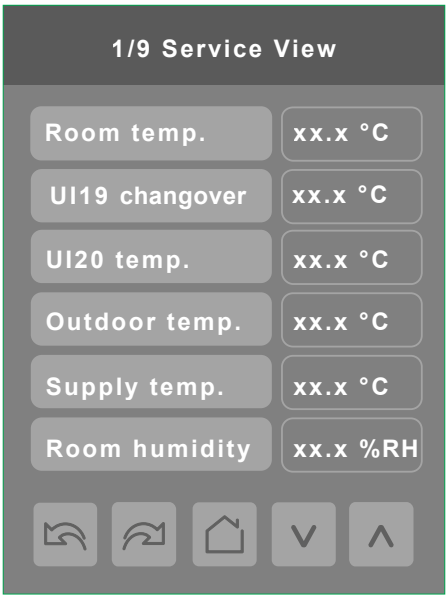
PARAMETER DETAILS

Conf. Parameters Default Value	Significance and Adjustments
Fan status Default value: Enabled	Fan Status Display Hides the fan status in the upper right corner of the User HMI display. Applicable to all User HMI configurations where the fan status is shown. Refer to the User HMI Show/Hide Options in Section 2. Choices: Enabled or Disabled
System status Default value: Enabled	Systen Status Display Hides the system status in the upper right corner of the User HMI display. Applicable to all User HMI configurations where the system status is shown. Refer to the User HMI Show/Hide Options in Section 2. Choices: Enabled or Disabled
Help button Default value: Enabled	Help Button Display Hides the help button in the lower right corner of the User HMI display. Applicable to all User HMI configurations where the help button is shown. Refer to the User HMI Show/Hide Options in Section 2. Choices: Enabled or Disabled.

Service View Screens

The service view screens show the current status of certain points locally on the Room Controller. These points can also be viewed through the network. Service view values are **Read Only** values but allow a service contractor to visualize the status of key functionality to correctly diagnose operational system issues.

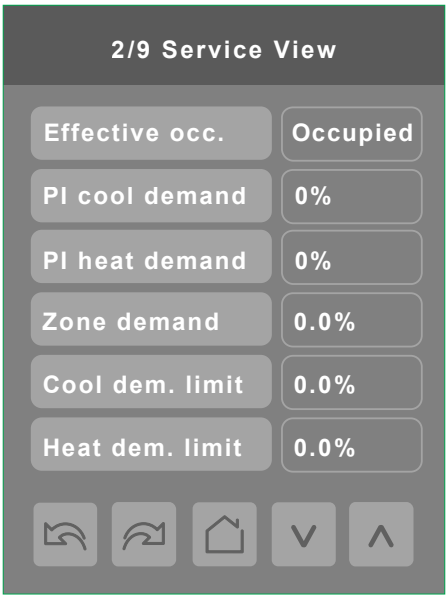
SERVICE VIEW 1/9



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Room temp. Read Only	Room Temperature Shows the current room temperature from the configured temperature source.
UI19 changeover| Read Only	Changeover Temperature Sensor Shows the temperature of the changeover sensor connected to UI19 terminal.
UI20 Temp Read Only	Room Temperature Sensor Shows the temperature of the sensor connected to UI20 (RS) terminal.
Outdoor temp. Read Only	Outdoor Temperature Shows the outdoor temperature on the main screen.
Supply temp. Read Only	Supply Temperature Shows supply air temperature as measured by the sensor.
Room humidity Read Only	Room Humidity Shows the current room humidity percentage from the configured humidity source. Refer to RH sensor parameter in “Configuration 8/9” on page 40 to select RH source.

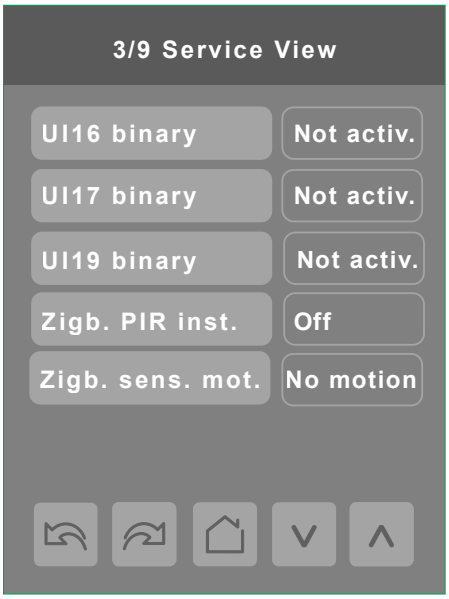
SERVICE VIEW 2/9



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Effective occ. Read Only	Effective Occupancy Shows as occupied, unoccupied, standby or override. Display Readings: Occupied, Unoccupied, Override and Standby
PI cool demand Read Only	Proportional Integral Cooling Demand Percentage of cooling capacity demanded by the zone. Display Readings: 0-100%
PI heat demand Read Only	Proportional Integral Heat Demand Percentage of heating capacity demanded by the zone. Display Readings: 0-100%
Zone demand Read Only	Zone Demand Combined and weighted heating/cooling demand for the zone, where positive values indicate weighted heating demands, and negative values indicate weighted cooling demands. Display Readings: between -100% and +100%
Cool dem. limit Read Only	Cooling Demand Limit Display Readings: 0-100%
Heat dem. limit Read Only	Heating Demand Limit Display Readings: 0-100%

SERVICE VIEW 3/9



★ Only for models with onboard Zigbee or optional Zigbee add-on module

PARAMETER DETAILS

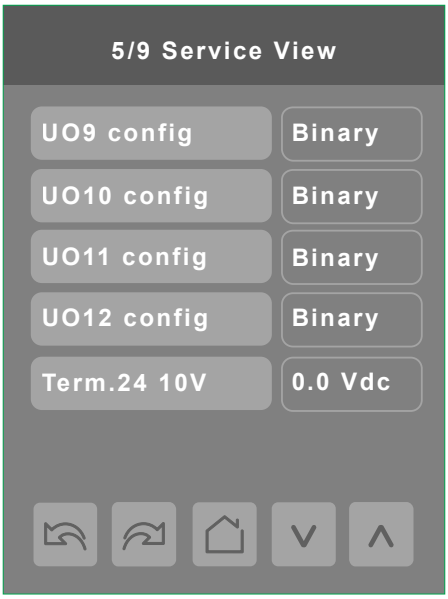
Config. Parameters Default Value	Significance and Adjustments
UI16 binary Read Only	Universal Input Configuration No. 1 Shows status of input. Display Readings: Activated or Not Activated
UI17 binary Read Only	Universal Input Configuration No. 2 Shows status of input. Display Readings: Activated or Not Activated
UI19 binary Read Only	Universal Input Configuration No. 3 Shows status of input. Display Readings: Activated or Not Activated
Zigb. PIR inst. Read Only	Zigbee Passive Infrared Sensor Installed Shows if Zigbee wireless motion sensor is paired to a Room Controller or not. Note: This parameter is for Zigbee wireless motion sensors only. Display Readings: Off or On
Zigb. sens. mot. Read Only	Zigbee Sensor Motion Shows if motion is detected by any of the Zigbee wireless motion sensors. Note: This parameter is for Zigbee wireless motion sensors only. Display Readings: Motion or No Motion

SERVICE VIEW 4/9

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Window alarm Read Only	Window Alarm Shows On if there is a Window alarm and shows Off if there is no Window alarm. This feature is for both wired and wireless sensors. Display Readings: On or Off
Service alarm Read Only	Service Alarm Shows On if there is a Service alarm and shows Off if there is no Service alarm. Display Readings: On or Off
Filter alarm Read Only	Filter Alarm Shows On if there is a Filter alarm and shows Off if there is no Filter alarm. Display Readings: On or Off
Recovery Read Only	Recovery Status Shows if Smart Recovery is active or not. Display Readings: On or Off
Local motion Read Only	Local Motion Shows if Motion alarm is active or not. Display Readings: Motion or No Motion

SERVICE VIEW 5/9



PARAMETER DETAILS

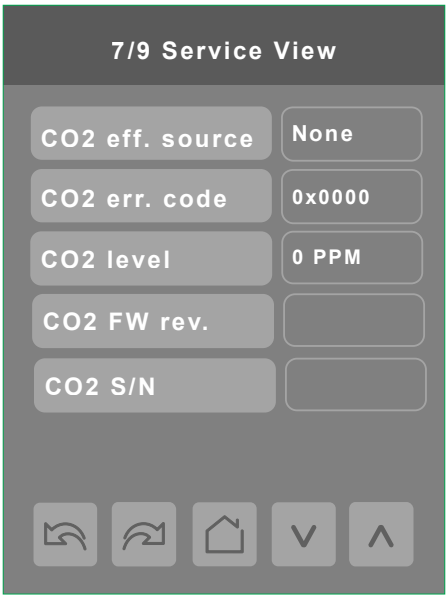
Config. Parameters Default Value	Significance and Adjustments
UO9 config Read Only	UO9 Configuration Display Readings: Analog, Binary, Relay RC or Relay RH
UO10 config Read Only	UO10 Configuration Display Readings: Analog, Binary or Relay RC
UO11 config Read Only	UO11 Configuration Display Readings: Analog or Binary
UO12 config Read Only	UO12 Configuration Display Readings: Analog or Binary
Term. 24 10V Read Only	Terminal 24 10V Shows the analog value of the UI24 generic Universal Input (in Volts)

SERVICE VIEW 6/9

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
UI19 type Read Only	UI19 Input Type Display Readings: Thermistor, Binary or Voltage
UI20 type Read Only	UI20 Input Type Display Readings: Thermistor, Binary or Voltage
UI22 type Read Only	UI22 Input Type Display Readings: Thermistor, Binary or Voltage
UI23 type Read Only	UI23 Input Type Display Readings: Thermistor, Binary or Voltage
UI24 type Read Only	UI24 Input Type Display Readings: Thermistor, Binary, Voltage or Reserved

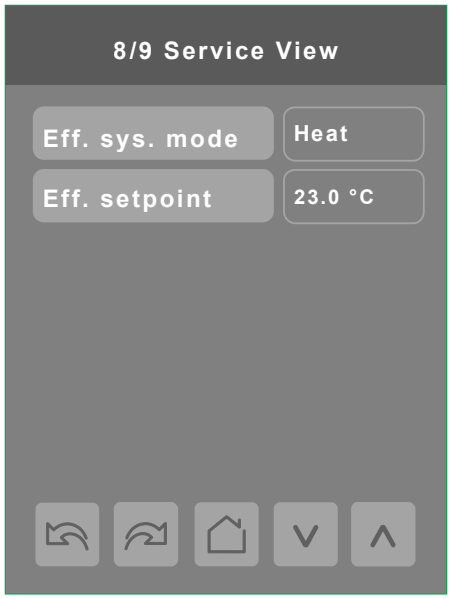
SERVICE VIEW 7/9



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
CO2 eff. source Read Only	CO2 Module Shows the configured source of the indoor CO2. Display Readings: None, Local or WL 1 to WL 20
CO2 err. code Default value: 0 Read Only	CO2 Error Code Error code 0x0001 shows if there is an error with the sensor.
CO2 level Read Only	CO2 Level Shows CO2 level in PPM. Display Readings: 0 to 5000 PPM
CO2 FW rev. Read Only	CO2 Firmware Revision Shows the Firmware version of the installed CO2 sensor module.
CO2 S/N Read Only	CO2 Serial Number Shows the serial number of the installed CO2 sensor module.

SERVICE VIEW 8/9



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Eff. sys. mode Read Only	Effective System Mode Shows the current operating mode of the system. For example, when the system is in Auto mode, this parameter shows whether it is currently heating or cooling. Displayed Readings: Cool or Heat
Eff. setpoint Read Only	Effective Temperature Setpoint Shows the tempertature setpoint value currently in use by the system.

SERVICE VIEW 9/9

The Device Name (BACnet name) consists of the model number followed by the COM address (MAC address). The BACnet name can be changed via the BACnet front end and the new name appears on the above screen.

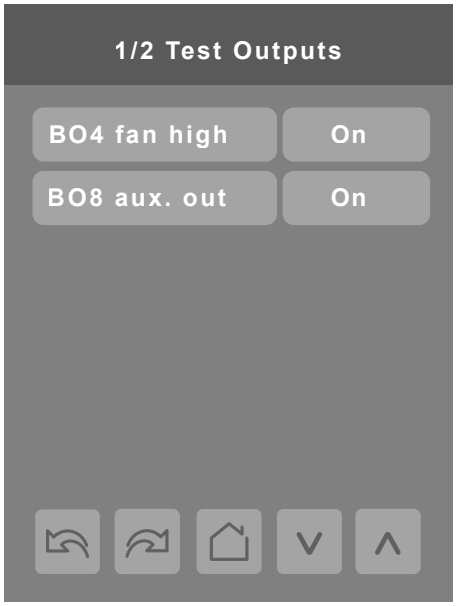
For example, when a VZ8250U5B00 Room Controller with a MAC address of 41 is connected to a network, its default Device Name is VZ8250U5B00-41 and its default BACnet Device ID is 82041.

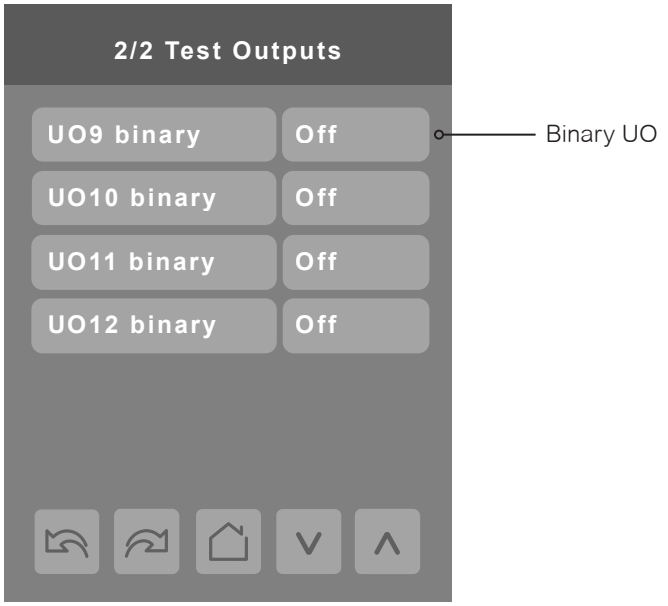
Firmware Revision shows the Firmware version currently installed on the Room Controller. Upgrading to a newer Firmware version deletes the previous Firmware version, however it is possible to set the Room Controller to an earlier Firmware version with the Uploader Tool.

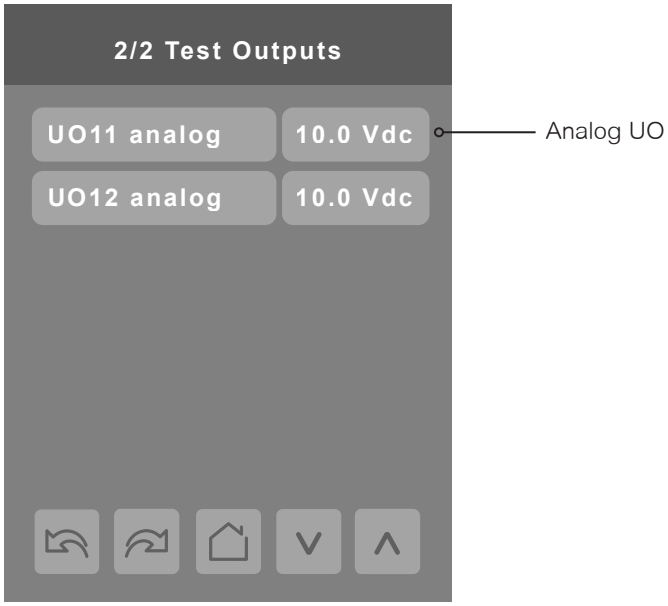
Zigbee Revision shows the Firmware version of an onboard Zigbee or optional Zigbee add-on module.

Test Outputs Screens

TEST OUTPUTS







NOTICE

SAFE OPERATION ENVIRONMENT

Use high caution when manually enabling outputs so as to not cause damage to equipment. It is the responsibility of the Installer or Service Contractor to maintain a safe operation environment during usage.

Failure to follow these instructions can result in equipment damage.

Note 1: The Test Outputs screen allows manual override of specified outputs. After any output state is overridden, the command is cancelled after 1 minute of screen inactivity (auto exit to main screen) or when page is exited.

Note 2: These parameters can also be changed via BACnet and the changed parameter background will turn red to indicate the parameter's value had been overridden. The overridden value remains even if the user exits the main screen

Note 3: Test Outputs values are LIVE. Any output gets displayed immediately for any value change according to the following:

1. If any BACnet priority array (1 - 16) includes a value, the displayed state background shows in red.
2. When toggling a value on the screen, the output directly energizes according to the selected value.
3. After any output state gets modified, all overrides get cancelled after 1 minute of button inactivity, or if you scroll from one screen to another screen.

Note 4: Test Outputs UO9 to UO12 are dependent on control type configuration. Analog or Binary options may be shown depending on the configuration of Actuator type, Fan type, Reheat config and Duct heater outputs.

Language Selection Screens

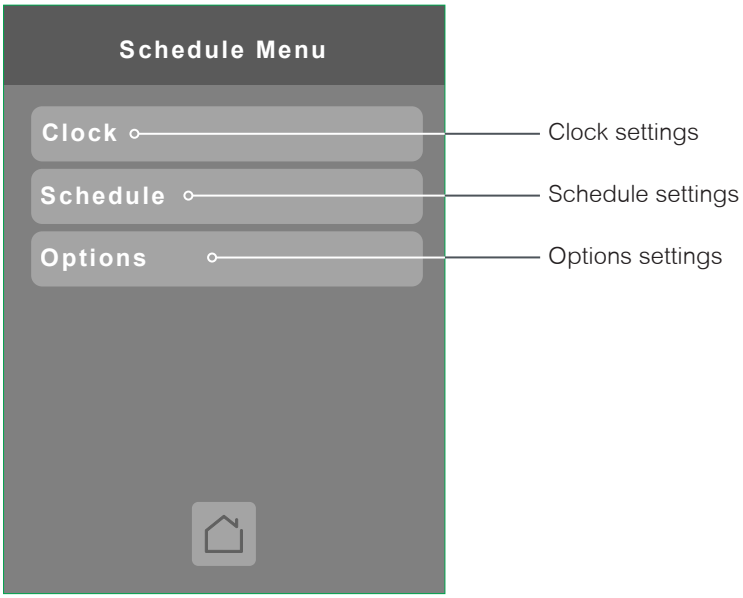
LANGUAGE SELECTION

Only English, French, Spanish, Chinese, and Russian are enabled by default and are accessible to users cycling through languages on the display settings menu screen. To change the language selection settings, tap a language on the screen and then use the arrow buttons to disable or enable it.

Note: English is always enabled.

Clock - Schedule Screens

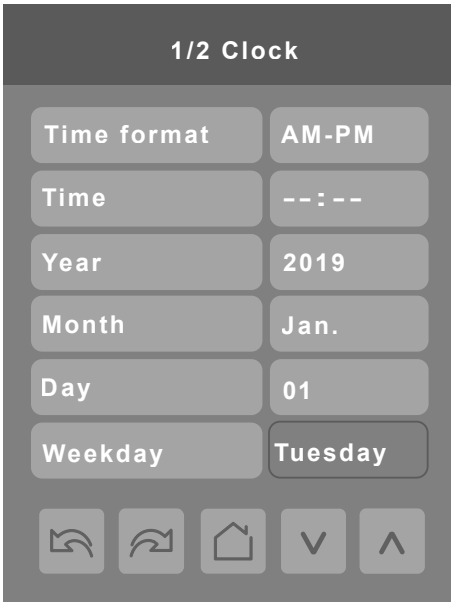
SCHEDULE MENU



Note: The Clock- Schedule Menu screen is directly accessible from the main setup screen.

CLOCK

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

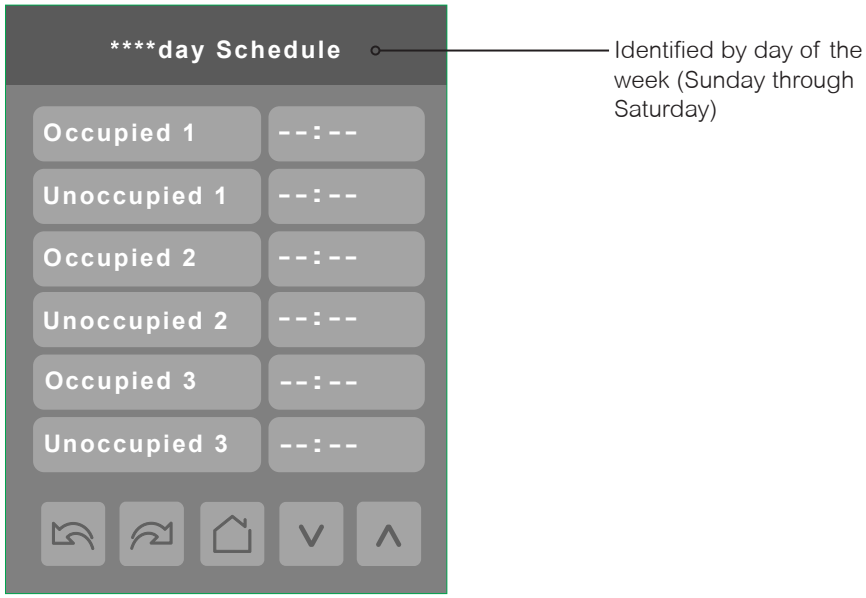


PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Time Format Default value: AM-PM	Time Format Current time display format. Choice between 12 hour (AM - PM) time format or 24 hour time format. Note: Changing the value of this parameter automatically changes the format of the displayed value of the time parameter. Choices: AM-PM or 24 Hours
Time Default value: current time at power up	Time Standard time display, 12 hour AM-PM or 24 hour format determined by the Time Format parameter value.
Year Default value: 2019	Year Current year Range: 2000 - 2100
Month Default value: Jan.	Month Current month Range: Jan. - Dec.
Day Default value: 1	Date Current date Range: 1 - 31
Weekday Default value: Monday Read Only	Current Day Automatically set based on data received from Year/Month parameters. Range: Monday - Sunday
Time source Default value: Local Read Only	Time Source Shows the source that most recently set the time on the Room Controller. Display Readings: None, Local, BACnet, NTP or Cloud

SCHEDULE

There are seven different schedule setting screens, one for each day of the week. Each day can have different scheduled events where the Room Controller is set to Occupied status or back to Unoccupied status. The Room Controller can use the appropriate setpoints (back and forth) up to three times per day.

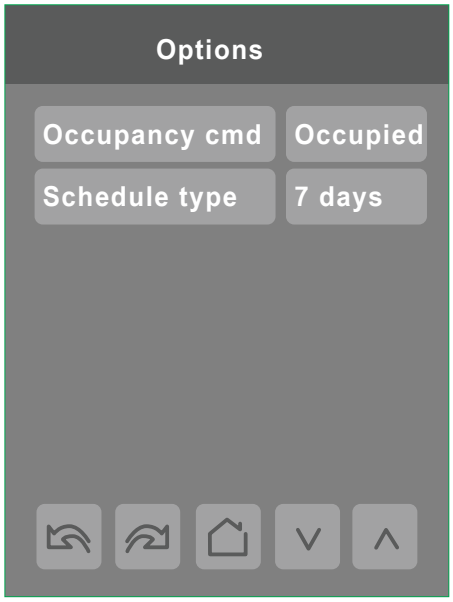


PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Occupied 1 - 3 Default value: None	Occupied 1 - 3 Defines a time when the Room Controller is automatically set to use the Occupied setpoint. Note: There are 3 separate Occupied parameter entries Range: 00:00 - 23:59
Unoccupied 1 - 3 Default value: None	Unoccupied 1 - 3 Defines a time when the Room Controller is automatically set to use the Unoccupied setpoint. Note: There are 3 separate Occupied parameter entries Range: 00:00 - 23:59

OPTIONS

The options settings allow the Room Controller to function in Occupied or Unoccupied mode following a defined Schedule type set by the user.

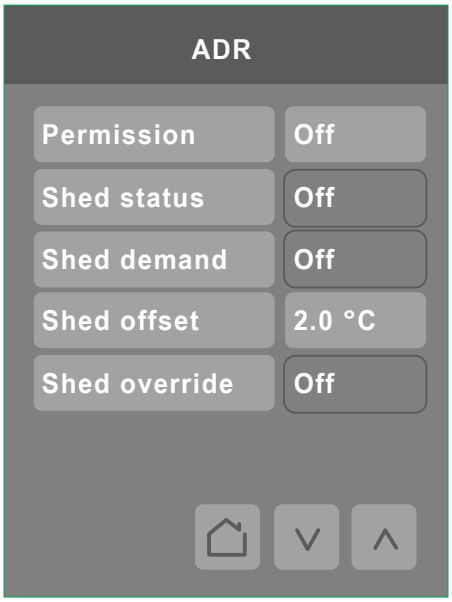


PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Occupancy cmd Default value: Occupied	Occupancy Command Loc occ: occupancy is determined by local sequences (either PIR or schedule, as configured under Occ. source). Occupied: force occupied mode. Unoccup: force unoccupied mode. Choices: Loc occ, Occupied or Unocc.
Schedule type Default value: 7 days	Schedule Type 7 days: Independent scheduling identified by day of the week (Sunday - Saturday) 5+1+1 days: Weekdays scheduling and Independent Weekend scheduling identified as Weekdays, Saturday and Sunday 5+2 days: Weekdays scheduling and Weekend scheduling identified as Weekdays and Weekend Choices: 7 days, 5+2 days or 5+1+1

Automatic Demand Response (ADR) Screen

Automatic Demand Response (ADR) feature is used to reduce energy load when electric grid contingencies threaten supply-demand balance.



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Permission Default value: Off	Automatic Demand Response Permission Used to permit the ADR to be applicable or not to change the Room Controller setpoints setting or not. Off: The Load Shedding Demand will not be permitted. On: The Load Shedding Demand will be permitted. Choices: On or Off
Shed status Default value: Off Read Only	Load Shedding Status Displays the status of the Load Shedding Demand, whether it is active (On) or not (Off). The Load Shedding status is On when the Permission is On, Shed demand is On, and the Shed Override is Off. Off: Load Shedding Demand is not activated. On: Load Shedding Demand is activated. Display Readings: On or Off
Shed demand Default value: Off Read Only	Load Shedding Demand Sets the request to initiate Load Shedding. This demand can only be set through BACnet by the local Utility company, using the “Load Shedding Demand” Binary Object Value Properties. Off: No Load Shedding Demand is received or the Shedding demand is disabled. On: Received the Load Shedding Demand or received the signal to activate Load shedding. Display Readings: On or Off

Config. Parameters Default Value	Significance and Adjustments
Shed offset Default value: 4°F (2°C)	Load Shedding Offset Used to change the effective setpoints in occupied, standby and unoccupied modes. For example, when “Shed status” is On and Room Controller is in occupied mode: The cooling setpoint is calculated as follows: Occupied cooling setpoint = occupied cooling setpoint + Load shedding offset. The heating setpoint is calculated as follows: Occupied heating setpoint = occupied heating setpoint - Load shedding offset. Choices: 4°F to 10°F (2°C to 5.5°C)
Shed override Default value: Off Read Only	Load Shedding Override Displays whether the user disabled the ADR request by the utility company. When the demand shed is applied, the user can override the ADR settings from its original setpoints settings. On: Rejects or cancels shed load demand request from utility company (setpoints remain the same). Off: Allows shed load demand request from utility company (setpoint will change according to shed offset) Display Readings: On or Off

Wireless Screens

WIRELESS MENU

The Wireless screen shows only in models with onboard Zigbee or optional Zigbee add-on module.

ECOSYSTEM SETTINGS

The Ecosystem Settings screens show the network status, the number of paired devices as well as information for each paired device. A maximum of 20 Zigbee wireless devices can be paired to each Room Controller. Tap forward arrow to obtain information on each paired Zigbee device.

PARAMETER DETAILS

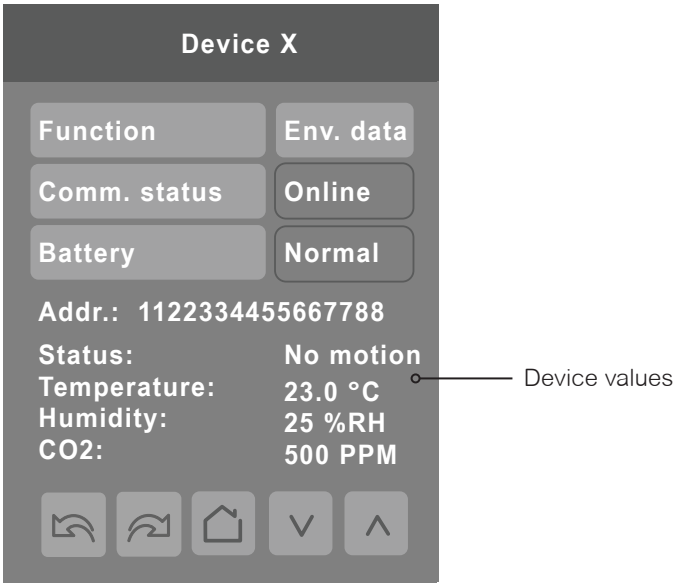
Config. Parameters Default Value	Significance and Adjustments
Network status Default value: Not det. Read Only	Zigbee Network Status Shows current status of Zigbee network. Pwr on: Zigbee module detected but not configured No NWK: Zigbee configured but no network joined Joined: Zigbee network joined Online: Communicating Display Readings: Pwr on, No NWK, Joined and Online
Permit join Default value: Off	Permit Join Setting to 'On' allows the Room Controller to pair with a Zigbee device. Value must be set to 'On' to pair with initial device and then set to 'Off' if user wants to prevent additional Zigbee devices from joining the network. Changing this value to "Off" on the Coordinator prevents any new Zigbee devices from joining the network. Permit join can be On/Off when the Room Controller is a coordinator, however the parameter is read only when the Room Controller is a router. Permit join stays On for 3 hours. On: Allows Room Controller to pair with wireless Zigbee device Off: Prevents Room Controller from pairing with wireless Zigbee device, or prevent any additional Zigbee devices from joining network. Choices: On or Off

Config. Parameters Default Value	Significance and Adjustments
Permit timeout Default value: 0 Read Only	Permit Join Timeout Allows devices to join the Coordinator Room Controller for 180 minutes from the moment it is set to ON. Once the timer elapses, no devices will be able to join the network. Note: Permit Join parameter must be set to 'On' to enable this feature. Range: 0 or 180 minutes
Paired devices Default value: 0 Read Only	Paired Zigbee Devices Shows the number of Zigbee wireless devices currently paired with the Room Controller. A maximum of 20 Zigbee wireless devices can be paired with each Room Controller. Display Readings: 0 to 20 devices

DEVICE 1-20

This screen is a subset of the Ecosystems screen and shows data for each paired Zigbee device. The Status, Temperature, Humidity and CO2 values will only be visible if they are supported by the device.

Note: Device X pages will only show up once devices have been paired.



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Function Default value: None	Zigbee Wireless Device Function Shows status of installed Zigbee wireless device. None: No status reported to Room Controller Window: Window sensor installed Door: Door sensor installed Motion: Device set to detect motion Env. data: Temperature, Humidity, CO2 sensor installed Remove: Removes device from Device list Water: Water leak sensor installed Refrig.: Refrigerator temperature sensor installed Freezer: Freezer temperature sensor installed Choices: None, Window, Door, Motion, Env. data, Remove, Water, Refrig. and Freezer

Config. Parameters Default Value	Significance and Adjustments
Comm. status Default value: Offline Read Only	Communication Status Shows if device is communicating with Room Controller Not paired: Device not paired Online: Device paired and online Offline: Device paired but offline Invalid: Device was paired and Room controller detected a communication error (selected function does not match paired sensor functionality). Display Readings: Not paired, Online, Offline and Invalid
Battery Default value: None Read Only	Wireless Device Battery Shows current status of battery in wireless device. Display Readings: None, Normal or Low
Address Read Only	Wireless Device Address Shows unique IEEE (MAC) address of Zigbee wireless device
Device values Read Only	Device Values Shows the Zigbee wireless device values. Values displayed will be different depending on type of device: • Door and Window Sensors: Closed or Open • Motion Sensor: No Motion or Motion • Water Leak Sensor: Normal or Leak • Temperature Sensor: XX.X °C • Humidity Sensor: XX %RH • CO2 Sensor: XXX PPM

DEVICE GROUPS

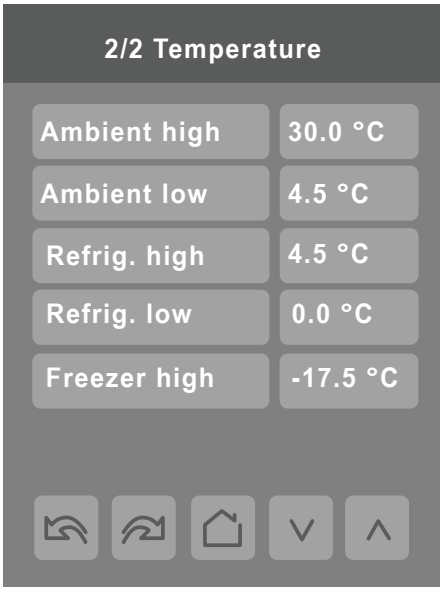
The Device Groups screen shows if a particular Zigbee wireless sensor is paired with the Room Controller.

PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Door installed Default value: No Read Only	Door Contact Installed Shows if Door sensor is installed. Display Readings: Yes or No
Win. installed Default value: No Read Only	Window Contact Installed Shows if Window sensor is installed. Display Readings: Yes or No
Water installed Default value: No Read Only	Water Leak Sensor Installed Shows if Water Leak sensor is installed. Display Readings: Yes or No

TEMPERATURE ALARMS CONFIGURATION

The Temperature Alarms Configuration screens show the values that trigger an alarm only for Zigbee wireless sensors with temperature measurement.

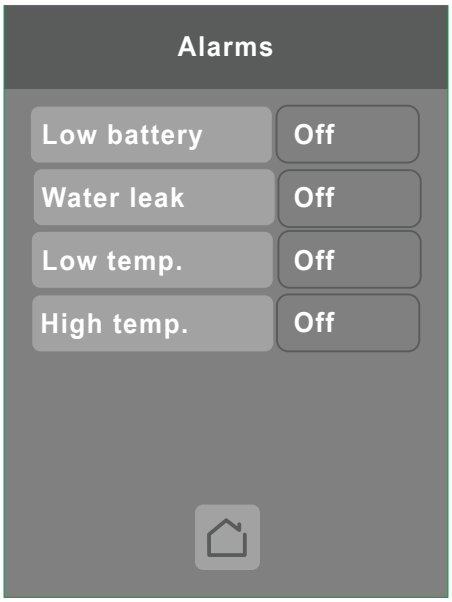


PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Enable Default value: Off	Temperature Alarm Enabled Enables wireless device to alert Room Controller if temperature value reaches defined value in a particular paired device. Choices: On or Off
Hysteresis Default value: 2.0 °F (1.0 °C)	Temperature Alarm Hysteresis Choices: 0 to 10°F (0 to 5.5 °C)
Ambient high Default value: 86.0 °F (30.0 °C)	Temperature Alarm Ambient High Range: 75 to 122 °F (24 to 50 °C)
Ambient low Default value: 40.0 °F (4.5 °C)	Temperature Alarm Ambient Low Range: 32 to 45 °F (0 to 7 °C)
Refrig. high Default value: 40.0 °F (4.5 °C)	Temperature Alarm Refrigerator High (only present if a refrigeration sensor is installed) Range: 32 to 50 °F (0 to 10 °C)
Refrig. low Default value: 32.0 °F (0.0 °C)	Temperature Alarm Refrigerator Low (only present if a refrigeration sensor is installed) Range: 32 to 50 °F (0 to 10 °C)
Freezer high Default value: 0.0 °F (-17.5 °C)	Temperature Alarm Freezer High (only present if a freezer sensor is installed) Range: -40 to 32 °F (-40 to 0 °C)

ALARMS

The Alarms screen shows data for paired Zigbee wireless devices.

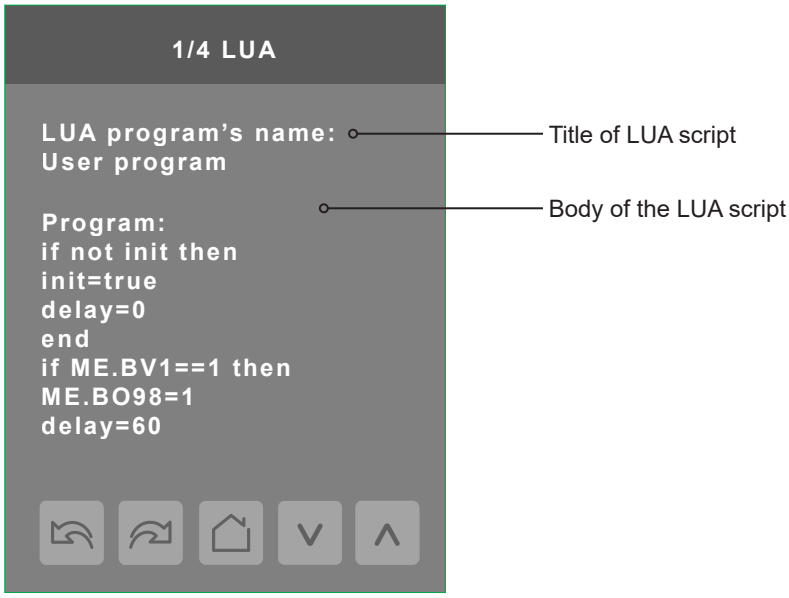


PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Low battery Default value: Off Read Only	Low Battery Alarm Shows if any wireless paired device has a low battery status (On) or no paired device has low battery (Off). Display Readings: On or Off
Water leak Default value: Off Read Only	Water Leak Sensor Status Shows if any water sensor paired device has detected a water leak (On) or no leak detected in any of the water sensor paired devices (Off). Display Readings: On or Off
Low temp. Default value: Off Read Only	Low Temperature Alarm Shows if any temperature sensor paired device has detected a low temperature (On) or no low temperature detected in any of the temperature sensor paired devices (Off). Display Readings: On or Off
High temp. Default value: Off Read Only	High Temperature Alarm Shows if any temperature sensor paired device has detected a high temperature (On) or no high temperature detected in any of the temperature sensor paired devices (Off). Display Readings: On or Off

Lua Screens

The LUA settings screens show information about any custom LUA script uploaded to the Room Controller. LUA scripts are not programmable on the Room Controllers. LUA scripts can be uploaded to the Room Controller via the Uploader Tool or via BACnet.

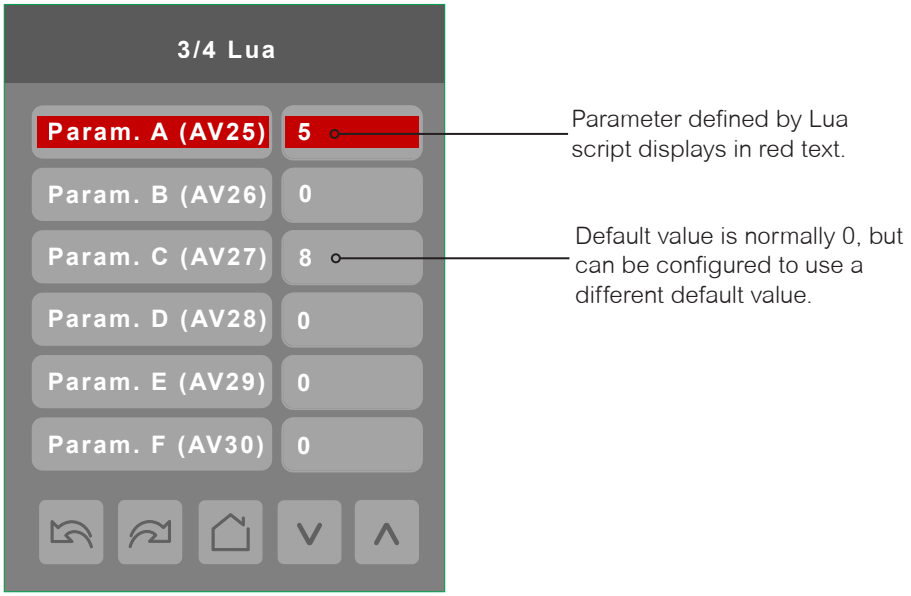


PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Program cmd Default value: Run	Program Command Run: LUA script activated and runs continuously until deactivated Stop: LUA script deactivated Choices: Stop or Run
Program status Default value: Idle Read Only	Program Status Running: LUA script active Halted: LUA script stopped and not active Idle: LUA script is running but not currently performing any actions Waiting: LUA script running and waiting for a response Uploading: LUA script currently unloading from Room Controller Loading: LUA script currently loading to Room Controller Display Readings: Idle, Loading, Running, Waiting, Halted, Unloading
Program error Default value: No error Read Only	Program Error No error: No errors in LUA script Syntax: Syntax error in LUA script detected Runtime: Runtime error occurred while running LUA script Memory: Device has run out of memory for the script Display Readings No error, Syntax, Runtime, Memory

LUA GENERIC PARAMETERS

The LUA settings include twelve generic parameters that do not have a specific function or pre-configured functions. These parameters can be used in custom Lua scripts to store a value. They are also user configurable in their default state, but when assigned a value via a LUA script or via BACnet (Priority 1-16), they become read only (not configurable locally by the user) and the display color of the parameter changes to red. These parameters can also be configured via Zigbee, however they can still be modified locally by the user.



PARAMETER DETAILS

Config. Parameters Default Value	Significance and Adjustments
Parameter A Default value: 0	AV25 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.
Parameter B Default value: 0	AV26 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.
Parameter C Default value: 0	AV27 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.
Parameter D Default value: 0	AV28 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.
Parameter E Default value: 0	AV29 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.
Parameter F Default value: 0	AV30 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.
Parameter G Default value: 0	AV225 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.
Parameter H Default value: 0	AV226 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.
Parameter I Default value: 0	AV227 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.
Parameter J Default value: 0	AV228 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.

Config. Parameters Default Value	Significance and Adjustments
Parameter K Default value: 0	AV229 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.
Parameter L Default value: 0	AV230 BACnet Analog Object Value Properties. The value of this parameter depends on what is assigned to it from a BAS or LUA script.