MultiSITE CRC1 Series Controllers
USER INTERFACE GUIDE

PREMTBVC0 – MultiSITE CRC1

PREMTBVC1 – MultiSITE CRC1+

PROPRIETARY DATA NOTICE

This document, as well as all reports, illustrations, data, information, and other materials are the property of LG Electronics U.S.A., Inc., and are disclosed by LG Electronics U.S.A., Inc., only in confidence.

⃠ ***Do not throw away, destroy, or lose this manual.***

Please read carefully and store in a safe place for future reference.
Content familiarity required for proper installation and operation.

The instructions included in this manual must be followed to prevent product malfunction, property damage, injury, or death to the user or other people. Incorrect operation due to ignoring any instructions will cause harm or damage. A summary of safety precautions begins on page 4.

For more technical materials such as submittals, engineering databooks, and catalogs, visit www.lghvac.com.

UM_CRC1_Series_Controllers_05_17

TABLE OF CONTENTS

SAFETY INSTRUCTIONS

The instructions below must be followed to prevent product malfunction, property damage, injury or death to the user or other people. Incorrect operation due to ignoring any instructions will cause harm or damage. The level of seriousness is classified by the symbols below.

TABLE OF SYMBOLS

⚠ **DANGER**	*This symbol indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.*
⚠ **WARNING**	*This symbol indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.*
⚠ **CAUTION**	*This symbol indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.*
Note:	*This symbol indicates situations that may result in equipment or property damage accidents only.*
⃠	*This symbol indicates an action that should not be performed.*

⚠ DANGER

⃠ **Do not touch any exposed outdoor unit wiring, terminals, or other electrical components with tools or exposed skin. Only qualified technicians should install, use or remove this unit.**

Improper installation or use may result in fire, explosion, electric shock, physical injury and/or death.

⃠ **Don't use or store flammable gas or combustibles near an outdoor or indoor unit.**

There is risk of fire, explosion, and physical injury or death.

⚠ WARNING

The information in this manual is intended for use by a trained technician familiar with the U.S. National Electric Code (NEC) who is equipped with the proper tools and test instruments.

Failure to carefully read and follow all instructions in this manual may result in equipment malfunction, property damage, personal injury and/or death.

⃠ **Risk of electric shock. Disconnect all power before servicing.**

⃠ **Do not install the MultiSITE Controller unit if it will be exposed to rain or other precipitation.**

⃠ **Do not install the unit in a location exposed to open flame or extreme heat.**

⃠ **Do not touch the unit with wet hands.**

There is risk of fire, electric shock, physical injury and/or death.

Replace all control box and panel covers.

If cover panels are not installed securely, dust, water and animals may enter the unit, causing fire, electric shock, and physical injury or death.

Wear protective gloves when handling equipment.

Sharp edges may cause personal injury.

Dispose of any packing materials safely.

- *Packing materials, such as nails and other metal or wooden parts may cause puncture wounds or other injuries.*
- *Tear apart and throw away plastic packaging bags so that children may not play with them and risk suffocation and death.*

⃠ **Do not change the settings of the protection devices.**

If the pressure switch, thermal switch, or other protection device is shorted and forced to operate improperly, or parts other than those specified by LG are used, there is risk of fire, electric shock, explosion, and physical injury or death.

If the air conditioner is installed in a small space, take measures to prevent the refrigerant concentration from exceeding safety limits in the event of a refrigerant leak.

Consult the latest edition of ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers) Standard 15. If the refrigerant leaks and safety limits are exceeded, it could result in personal injuries or death from oxygen depletion.

SAFETY INSTRUCTIONS

MultiSITE Controller is for use with select LG commercial air conditioning systems only.
⃠ Do not attempt to use MultiSITE Controller with any other type of system. Refer to the compatible equipment list in this manual.
There is risk of equipment damage or degraded performance

⃠ Do not cut, lengthen or shorten the cable between the MultiSITE Controller unit and the indoor unit.
⃠ Do not install the MultiSITE Controller unit in a location where the cable cannot be safely and easily connected between the two units.
⃠ Do not allow strain on this cable.
There is risk of equipment damage.

Clean up the site after all procedures are finished, and check that no metal scraps, screws, or bits of wiring have been left inside or surrounding the controller or indoor units.

Provide power to the outdoor unit compressor crankcase heaters at least six (6) hours before operation begins.
Starting operation with a cold compressor sump(s) may result in severe bearing damage to the compressor(s). Keep the power switch on during the operational season.

⃠ Do not block the indoor unit inlet or outlet.
Unit may malfunction.

Securely attach the electrical cover to the indoor unit. Non-secured covers can result in fire due to dust or water in the service panel.
⃠ Do not allow water, dirt, or animals to enter the unit.
There is risk of unit failure or degraded performance.

⃠ Do not spill water or other liquid on the inside of the indoor unit, especially on electrical components.
⃠ Do not drop the MultiSITE Controller unit into water. If the unit is immersed in water or other liquid, contact your local authorized LG distributor for support.
There is risk of unit failure or degraded performance.

MultiSITE CRC1 Series Controllers

This manual describes how to use the LG MultiSITE Commercial Remote Controllers (CRC) 1. There are two models of this controller:

- MultiSITE CRC1 (Model PREMTBVC0)
- MultiSITE CRC1+ (Model PREMTBVC1)

The two models are identical with the exception of two functions included in the MultiSITE CRC1+ only:

- Motion sensor
- Humidity sensor

Compatible Equipment

MultiSITE CRC1 Controllers are compatible with LG Commercial Air Conditioning indoor units (except PTAC units).
⃠ Do not attempt to use a MultiSITE CRC1 controller with any other equipment.

Accessories

These accessories are available for MultiSITE CRC1 controllers:

- ZigBee® Pro wireless card — Model ZVRCZPWC1
- Door and window switch — Model ZVRCZDWS1
- Wall mounted occupancy sensor — Model ZVRCZWOC1
- Ceiling mounted occupancy sensor — Model ZVRCZCOC1

The ZigBee® Pro wireless card is required for communication between the controller and the other accessories.

Safety

Safety of personnel is the primary concern during all procedures. Read and understand the safety summary at the front of this manual. Ensure the controller is installed in accordance with the appropriate LG installation manual.

⚠WARNING

If troubleshooting is required, it must be performed by trained personnel and in accordance with national wiring standards and all local or other applicable codes. Improper troubleshooting and repair/replacement of equipment can result in fire, electric shock, physical injury, or death.

Note:

Improper troubleshooting and repair/replacement of equipment can result in damaged equipment or degraded operation.

Typical MultiSITE CRC1 Controller

MultiSITE CRC1 Controller Accessories

ZigBee® Pro Wireless Card

Door/Window Switch

Wall Mounted Occupancy Sensor

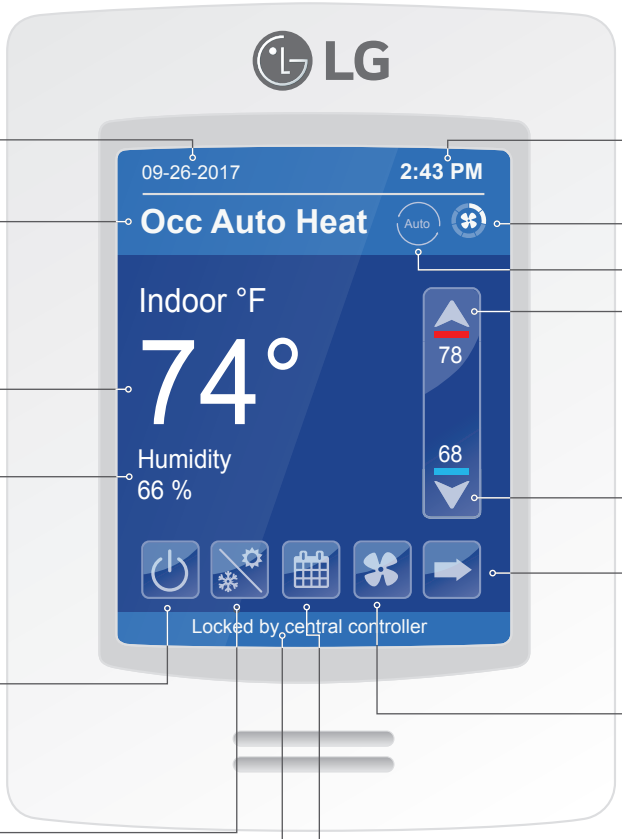
Ceiling Mounted Occupancy Sensor

*ZigBee is a registered trademark of the ZigBee Alliance.

CONTROLLER OVERVIEW

Home Screen

The controller home screen is shown and described below.



Current Date

Current Time

Occupancy Status
Occupied (Occ) or Unoccupied (Unocc)

Current Fan Speed Setting

Operation Mode Status

Up Arrow
Raise Temperature Setpoint

Room Indoor Temperature

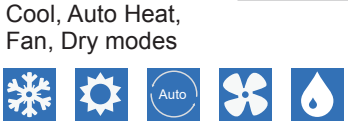
Room Indoor Humidity

Down Arrow
Lower Temperature Setpoint

More
Provides end user with access to less often used functions.

On/Off
Turn the display on or off

Fan Speed
Set fan to Slow, Low, Low-Med, Medium, Med-High, High, Power, Auto. (Available options depend on IDU model.)



Operation Mode
Set Cool, Heat, Auto Cool, Auto Heat, Fan, Dry modes

Note: Pressing and holding the Operation Mode icon takes the user to the Operation Mode page.

Schedule
Set weekly schedule

Short Network Message

Note: Long-press of the Fan Speed button when in cooling mode triggers Power Cooling mode. If in Power Cooling mode, last airflow segment on top is lit in purple and the text changes from “Fan” to “Power Cool”. This mode lasts for 30 minutes and then reverts back to the previous fan speed.

Note:

Available functions/features may differ based on the connected system.

When any change is made to a parameter, the value is automatically saved in memory when the next parameter is selected or another page is opened.

Arrows auto-increment/decrement at higher speed when holding button for more than 2.5 seconds.

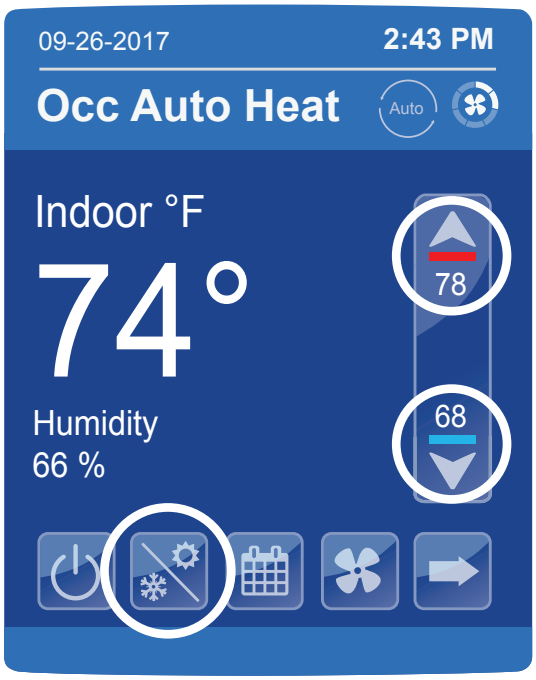
Operation Mode

Selecting modes available on this screen places the IDU in that mode and then the user will be returned to the home screen. Selecting the mode that is currently highlighted will maintain the current mode and return the user to the home screen.

CONTROLLER OVERVIEW

Adjusting Setpoints in Auto Mode

Setpoints can be modified in three different ways when in Auto Mode: Cooling Setpoint change, Heating Setpoint change, or Cooling/Heating Setpoint change.



Auto Mode, Cooling Cycle, Cooling Setpoint (Dual Setpoint setting)

When in cooling cycle of Auto Mode, use the up and down arrows to raise or lower the cooling setpoint. When the setpoint is modified it will increase or decrease the difference between the cooling and heating setpoint values. The minimum difference allowed between cooling and heating setpoints is determined by the Deadband control value setting (found in the Setpoint Config screen). "Cooling Setpoint" shows as indicated on the screen to the left.

Auto Mode, Cooling Cycle, Heating Setpoint (Dual Setpoint setting)

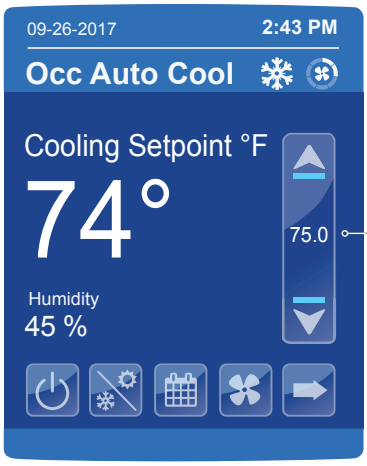
To change the heating setpoint when in Auto Mode, cooling cycle, tap the up or down arrows to place the controller into set point configuration mode and then immediately tap the Mode button once to change to heating set point mode. "Heating Setpoint" shows when this parameter is set. Immediately move back to the set point up or down arrows to change the heating set point.

Auto Mode, Cooling Cycle, Cooling/Heating Setpoint (Dual Setpoint setting)

To change the cooling and heating setpoints simultaneously, a third option is available for adjusting setpoints. If in Auto Mode (either cooling or heating cycle), tap either the up or down set point buttons, then immediately tap the Mode button until “Cool/Heat” shows, indicating that the controller is in the correct set point mode. Immediately move back to the up or down set point buttons to change the set points as desired.

Setpoint Adjustment

Setpoints can be modified in three different ways when in Auto Mode; Cooling Setpoint change, Heating Setpoint change or Cooling/Heating Setpoint change.

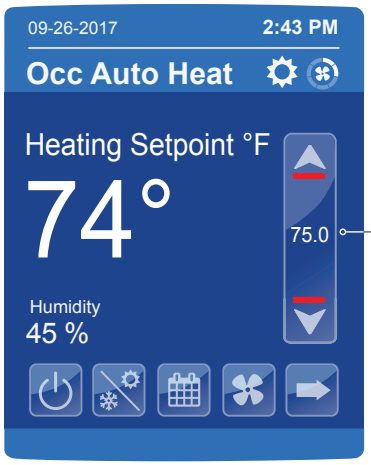


Cooling mode or cooling only sequence of operation

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

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

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

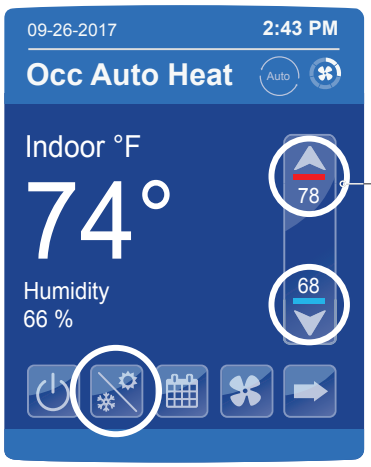


Heating mode or heating only sequence of operation

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

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

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



Automatic Heating / Cooling mode

In automatic mode, the setpoint displayed at the top of the set point bar represents the actual occupied cooling setpoint.

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

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

CONTROLLER OVERVIEW

Using the Controller Configuration Screens

Some of the buttons on the Home screen display configuration screens. Controller operating parameters can be set as necessary for your system. The figure below describes how to use the configuration screens.

Controls

The left side of the screen lists controls and monitored parameters.

Control Values

The right side of the screen is a button you can tap to change the value of the control or parameter displayed to its left.

Read Only

Dark gray buttons are read only. These values can't be changed by the user.

Back Button

Tapping this button goes back one level in the screen hierarchy.

Left/Right Arrows

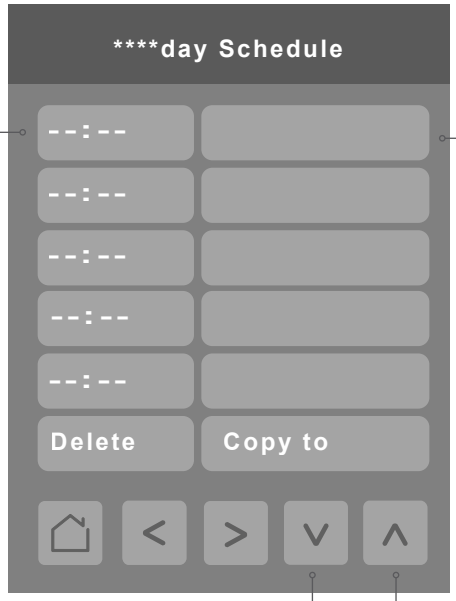
The left and right arrows move between screens on the same level as the currently-displayed screen.

Up/Down Arrows

The up and down arrows are used to change the value of the active (highlighted) control.

Schedule Screen

Press the Schedule button  on the Home screen to display the Schedule Screen. There are different schedule setting screens, one for each day of the week (7 days) titled accordingly. Each can have different scheduled events where the room controller is set for set point, system mode, fan speed and occupancy status. Five (5) separate events can be configured per day.



Tap the left-hand button to set the time for scheduled event. When the time for a new event is configured, the default system mode of "Off" will appear in the event overview portion of the control on the right side.

Tap the right-hand side button to enter the next screen.

Adjust the time in the left column by pressing on the Up and Down arrows. To configure the System mode for the time selected tap on the right column.

This typical schedule screen shows the parameters that can be adjusted for a specific time and day in a week.

Up to 5 separate events per day can be configured. User can set cooling and heating set points, system mode (Off, Dry, Cool, Heat, Fan and Auto), fan speed and Occupied/Unoccupied status.

Once the event has been fully configured, press the left arrow to be returned to the daily schedule overview screen.

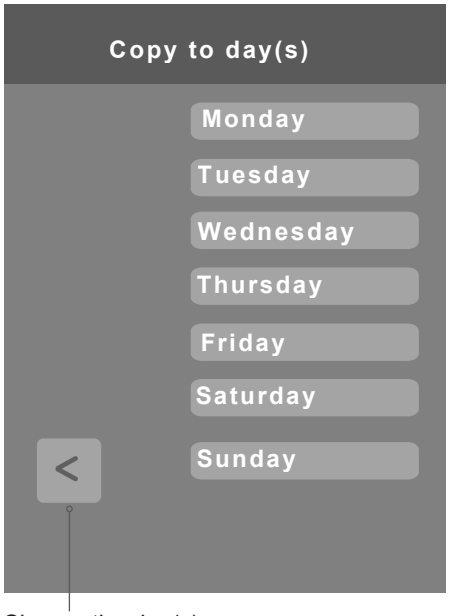
CONFIGURATION SCREENS

Daily Schedule Screens – continued

To modify an existing event, tap either the left side control to edit the time or tap the right-hand side of the control to re-enter the event screen and make your desired changes.

If desired, use the 'Copy to' button to copy the schedule to another day of the week. First choose the time of the event you want to copy and then choose 'Copy to'.

To delete an event, tap the time of the event and then tap the Delete button.



Choose the day(s) you want to copy the event to and then press the left arrow.

Event Overview Display	Parameter Meaning
First Letter	Mode (O=off, C=cool, H=heat, F=fan, A=auto, D=dry)
Second Number(s)	Set Point(s)
Third Letter	Occupancy Status (U=unoccupied, O=Occupied)
Example: H: 74 / 70: O = Heating Mode, Upper setpoint of 74, Lower setpoint of 70, Occupied	

Configuration Parameters Default Value	Parameter Settings
Setpoint cool Default value: 78°F	Range: 52-99 °F
Setpoint heat Default value: 68°F	Range: 40-90 °F
System mode Default value: OFF	Choices: Off, Cool, Heat, Fan, Auto, Dry
Fan Speed Default value: Low	Choices: Slow, Low, Low-Med, Medium, Med-High, High, Power, Auto
Occ./Unocc. Default value: Unoccupied	Choice: Unoccupied, Occupied

More Screens

Press the More button  on the Home screen to display the More screen.

Language
Use the up and down arrows to switch between English, French and Spanish

Temp Units
Allows you to switch between Celsius and Fahrenheit

Configuration Parameters Default Value	Parameter Settings
Language Default value: **English**	Choices: English, French, Spanish
Temp Units - °F/°C (12) Default value: °**F**	Choices: 0 = "°C (0)", 1 = "°F (1)"
Aux Heat Default value: **Off**	Choices: 0 = "Off", 1 = "On"
Outside Air - Vent. Default value: **Off**	Choices: 0 = "Off", 1 = "On"
Plasma Purifier Default value: **Off**	Choices: 0 = "Off", 1 = "On"

CONFIGURATION SCREENS

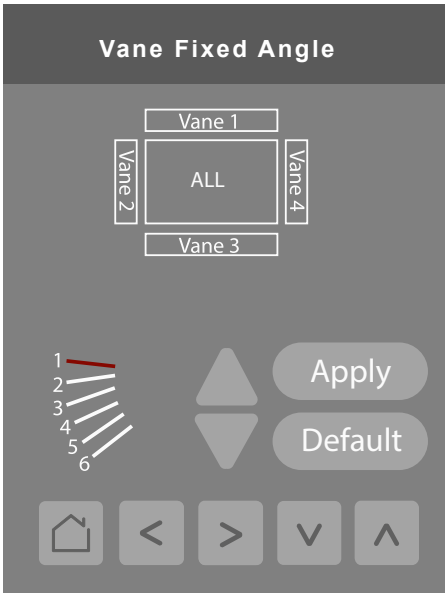
More Screens – continued

Press the right arrow button to display these screens. To adjust vane angle, user selects vane(s) by tapping vane icon at the top of the screen, adjusts vane angle by using up/down arrows and then selects Apply button.

Note:

Vane fixed angle control for multi-vane systems occurs in pairs. Refer to the Vane Fixed Angle screen. If a 4-louver device is identified, when the user chooses Vane 1 or Vane 3 control, the opposite vane (Vane 3 or Vane 1) will be controlled at the same time. If Vane 2 or Vane 4 is selected, Vane 4 or Vane 2 will be controlled in lockstep with its matching pair as well. The same control behavior holds for a 2-louver device.

Airflow Up / Down and **Airflow Left / Right** controls can both be "On" at the same time. However, when **Airflow Circular** control is "On," both of the other two controls will be set to "Off."

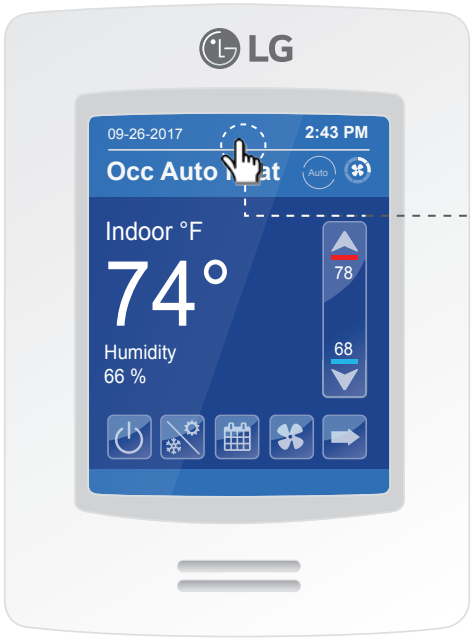


Configuration Parameters Default Value	Parameter Settings
Airflow Up / Down Default value: **Off**	Choices: 0 = "Off", 1 = "On"
Airflow Left / Right Default value: **Off**	Choices: 0 = "Off", 1 = "On"
Airflow Circular Default value: **Off**	Choices: 0 = "Off", 1 = "On"

Installer Configuration Screens

These screens are more commonly used during installation, system configuration, or troubleshooting than by an end user. There is no icon on the Home screen to access these configuration screens. You must press and hold the area of the screen indicated on the diagram below to access the first screen.

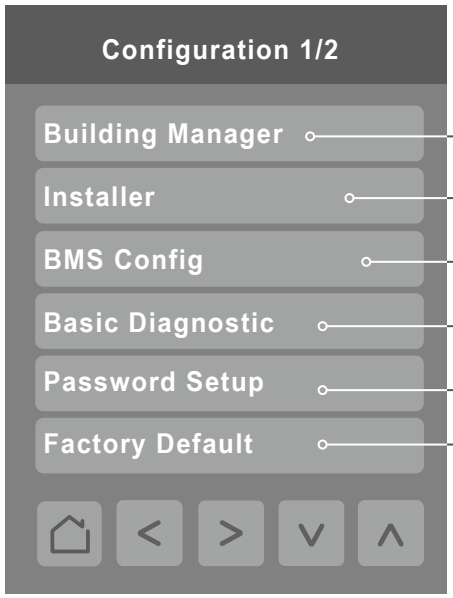
If a configuration / installer password is activated to prevent unauthorized access to the configuration menu parameters, a password entry prompt will appear to prevent access to the device configuration components.



CONFIGURATION SCREENS

Configuration Main Screens

There are two main configuration screens as shown below. Press the left and right arrow buttons to move between these two screens. Press a button on a screen to display the parameter selections for that item.



Enter Display, Date & Time, Filter, Setpoints, Override, Setback and Outdoor Unit configuration

Enter General, Temperature, Fan and Heat settings and Accessories configuration

Enter BACnet settings

View Diagnostic parameters

Setup a password to restrict/allow access to the thermostat

Reverts all controller control settings back to default values.

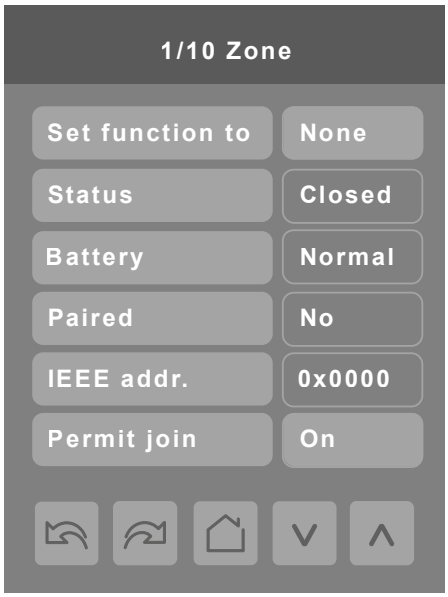
Note: *User will be given the option to confirm that they wish to proceed. Once in the Factory Default screen, if user proceeds with this step, all schedules and current controller settings, along with time and date will be cleared. There is no way to recover settings once a Factory Default has been performed.*

Enter ZigBee wireless zone configuration settings.

ZigBee Wireless System

When ZigBee wireless sensors are set up to communicate with the controller, the functioning of each such sensor is described in a separate Zone screen, up to a maximum of 10 Zones. Press the left and right arrow keys to move between Zone screens. Select the appropriate type of sensor using the up and down arrow keys.

Enter ZigBee wireless Zone configuration settings.



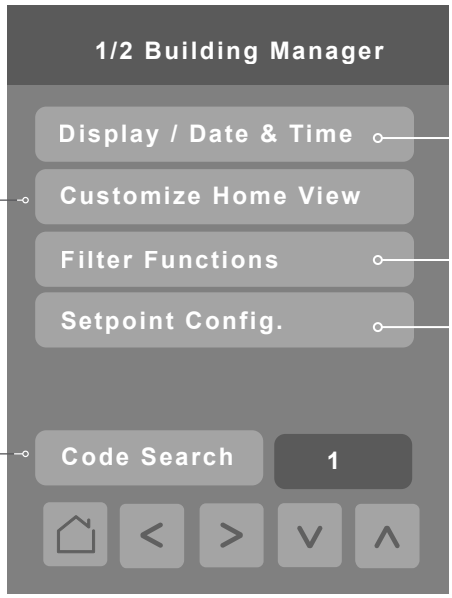
Up to 10 separate wireless sensors can be configured, each with its own Zone screen

Only last 4 digits in HEX shown

CONFIGURATION SCREENS

Building Manager Screens

There are two main configuration screens as shown below. Press the left and right arrow buttons to move between these two screens. Press a button on a screen to display the parameter selections for that item.



Customize Home View
Hide On/Off, Mode, Schedule, More, Set Temp, Space Temp, Fan and Humidity options on home screen.

Code Search
Use the Up and Down arrows to choose an available Function Code and select the Code Search button to navigate to the screen where that function code resides.

Codes can be found in brackets next to a parameter throughout all menus. This function is used for quicker menu navigation.

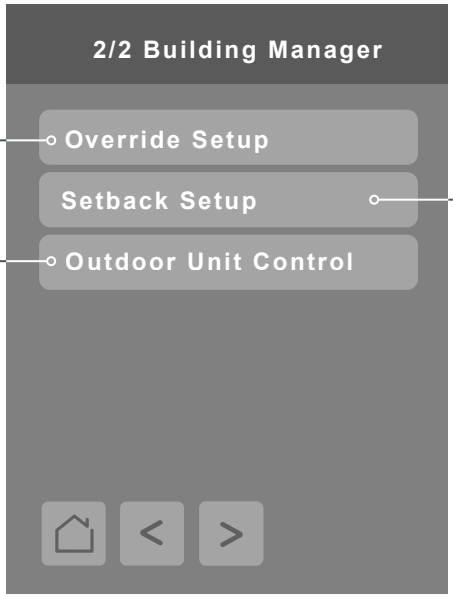
Display Basic Settings – Date / Time, Display Color, Standby Brightness (and delay timing), Night Backlight level, Standby Screen).

Filter Functions – Clear Filter Alarm, Remaining Time, Lower/Raise Grill, Robot Cleaning

Setpoint Config.
Choose between Single/Dual set point(s) and configure set point max/min limits and deadband.
Note: *Available functions/features may differ based on the connected system.*

Override Setup
If controller is in the unoccupied mode then the controller enters Override mode as soon as the user taps the screen the first time.
Select this control to configure settings for Override, including set points, system mode, fan speed and duration of override.

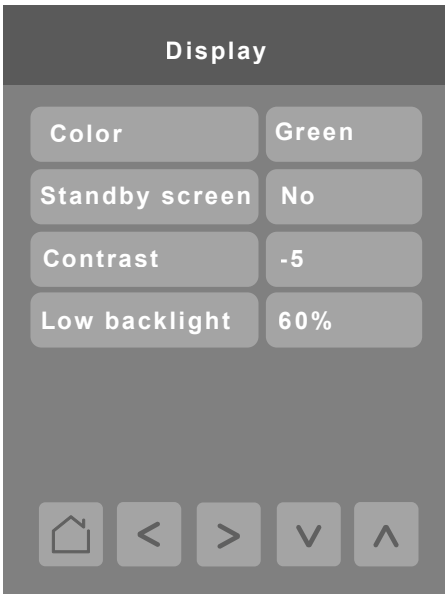
Outdoor Unit Control
Manage outdoor unit functions through the Controller's interface.



Setback Setup
Setback settings are configurable with this control including set points, system mode and fan speed.

Display/Date and Time Settings

Press the Display / Date & Time button on the Building Manager screen to show the Display menu screen.
Press the right arrow button on the Display menu screen to show the Date & Time screen.

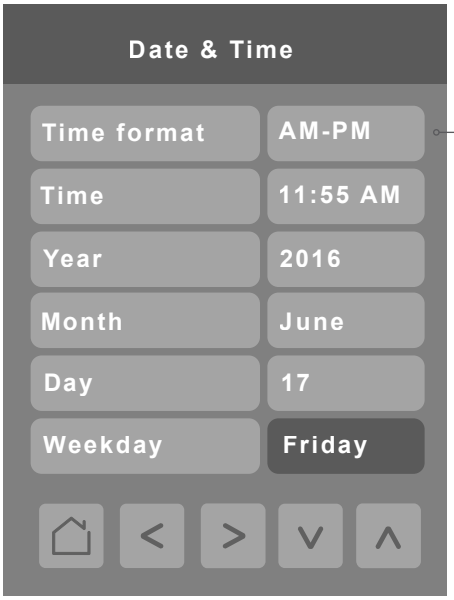


Configuration Parameters Default Value	Parameter Settings
Color Default value: **White**	Choices: Blue, Green, Grey, Dark Grey, White
Standby Screen Default value: **No**	N/A
Contrast Default value: **-5**	**Display Contrast** Set contrast of display by using the up and down arrows. Adjustable: -5 to 5.
Low backlight Default value: **60%**	**Backlight Display** Set display backlight intensity after 2 minutes of keyboard inactivity. Adjustable: 0 to 100%.

CONFIGURATION SCREENS

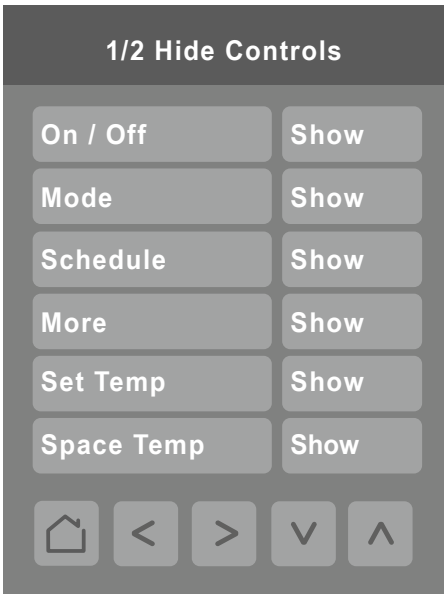
Display/Date and Time Settings – continued

Press the right arrow button on the Display screen to show the screen below. The Clock settings screen allows the device's internal time settings to be changed, including current time, standard day, month, year and weekday options, as well as the choice between a 12 hour AM / PM display or a 24 hour display. Using the Up and Down arrows adjust the Time, Year, Month and Day parameters. The Weekday is automatically filled by the system and it cannot be adjusted.



Customize Home View

Press the Customize Home View button on the Building Manager Screen to select the Hide Controls menu screen. The Hide Controls menu is used to select which parameters are displayed on the home screen of the thermostat. You can select which parameter to show or hide by tapping it and then using the Up and Down arrows. By default, all parameters are shown on the main screen.



Filter Functions

Press the Filter Functions button on the Building Manager screen to display the Filter Functions screen. The Filter Functions menu displays the time and alarm parameters. These cannot be adjusted by the user.

The time is measured in hours. Maximum value is 2400.

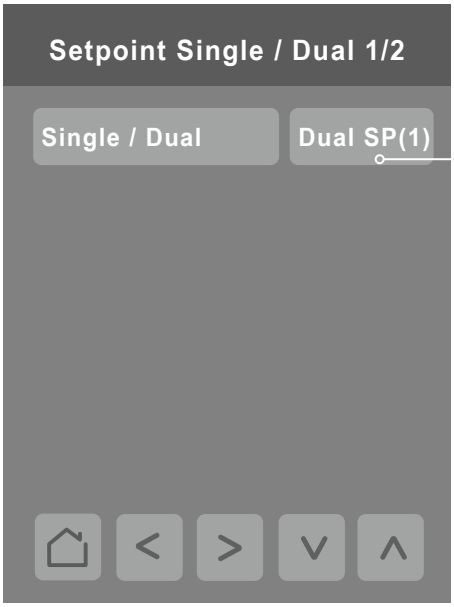
Configuration Parameters Default Value	Parameter Settings
Filter Remain (Hrs) Default value = N/A	Range is: 2400 - 0
Filter Alarm Default value = N/A	“Filter OK” “Service Fltr!”

CONFIGURATION SCREENS

Setpoints Configuration

Press the Setpoint Config button on the Building Manager Screen to display the Setpoints Configuration screen. Press the Single/Dual button to select single or dual setpoint operation.

Note: *If changes are made to Deadband and Setpoint Min/Max values after scheduled events have already been added to the Schedule Event table, the new rules will be enforced only when the user enters back into the Schedule Editor.*

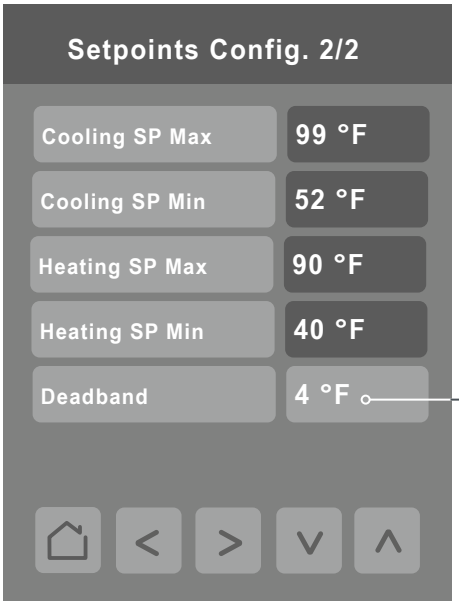


Press up or down arrow keys below to select between Single our Dual set point modes.

Note: *Available functions/ features may differ based on the connected system.*

Single Setpoint Mode

Dual Setpoint Mode



Minimum deadband value between the heating and cooling setpoints. Applied only when any of the setpoints are modified. Range is 1 °F - 10 °F

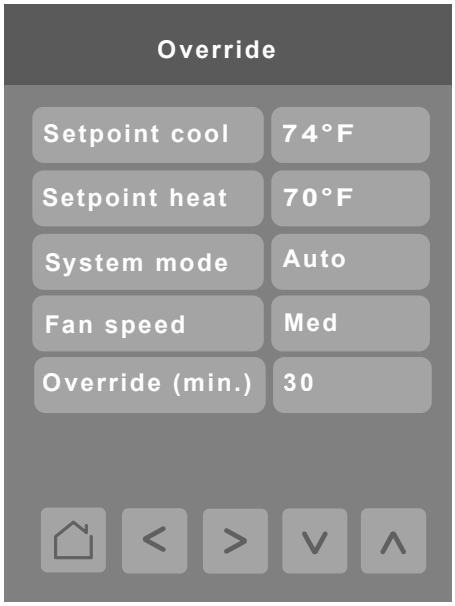
Configuration Parameters Default Value	Parameter Settings
Single/Dual Default value: Dual SP(1) Default value can be changed by user	**Single SP** (Single Setpoint Adjustment) Setpoint Maximum is 86 °F Setpoint Minimum is 60 °F
	Dual SP (Dual Setpoints Adjustment) Maximum upper cooling temperature is 99 °F Minimum lower cooling temperature is 52 °F Maximum upper heating temperature is 90 °F Minimum lower heating temperature is 40°F Deadband range is 1 °F - 10 °F

Override Setup

Press the Override Setup button on the Building Manager screen to display the Override Setup screen. The user can configure override settings including set points, system mode, fan speed and override duration.

Override Operation

Override mode can only be activated if the current system status is Unoccupied. If this condition is met, the controller will enter Override mode as soon as the user taps the screen the first time (from dim state). If the user makes any changes to the settings, those are accepted and the controller stays in Override mode. When the override timer expires, the controller returns to the original settings (Mode, Fan Speed, Set Points) in effect prior to entering Override. If a scheduled event starts during Override mode, the controller accepts the scheduled event and exits Override mode.



Configuration Parameters Default Value	Parameter Settings
Setpoint (Single Setpoint) Default value: **72°F**	Range: Heating Mode: 60-86 °F Cooling Mode: 64-86 °F
Setpoint cool (Dual Setpoint) Default value: **78°F**	Range: 52-99 °F
Setpoint heat (Dual Setpoint) Default value: **68**°F	Range: 40-90 °F
System mode Default value: **Auto**	Choices: Slow, Low, Low-Med, Medium, Med-High, High, Power, Auto
Fan Speed Default value: **Medium**	Choices: Low, Medium, High, Auto
Override Default value = 30 minutes	Temporary occupancy override for controller Adjustable: 30 to 240 minutes

Default Parameters are dependent on if the controller is in Single Setpoint Mode or Dual Setpoint Mode.

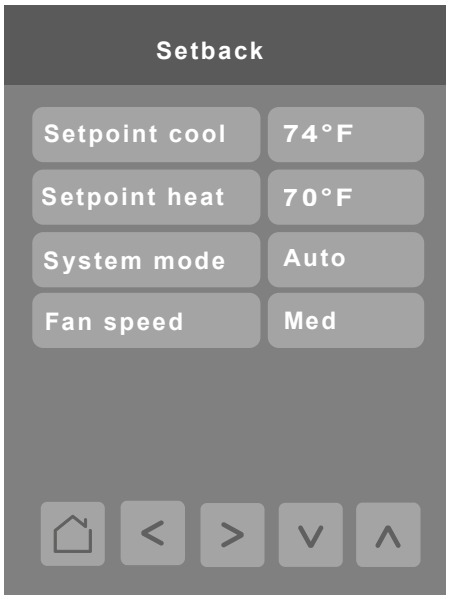
CONFIGURATION SCREENS

Setback Setup

Press the Setback Setup button on the Building Manager screen to display the Setback Setup screen. Setback parameters including set points, system mode, and fan speed are configured on this screen.

Setback Operation

If the controller is in Setback mode and the user changes the Mode, Fan Speed or Set Points, the controller exits Setback mode and keeps settings as applied by the user until the next scheduled event occurs. Setback mode can also be exited if the user presses the Setback mode button again from the Operation Mode screen while in Setback mode. The setback icon on the Operation Mode screen will indicate if that mode is active or not.

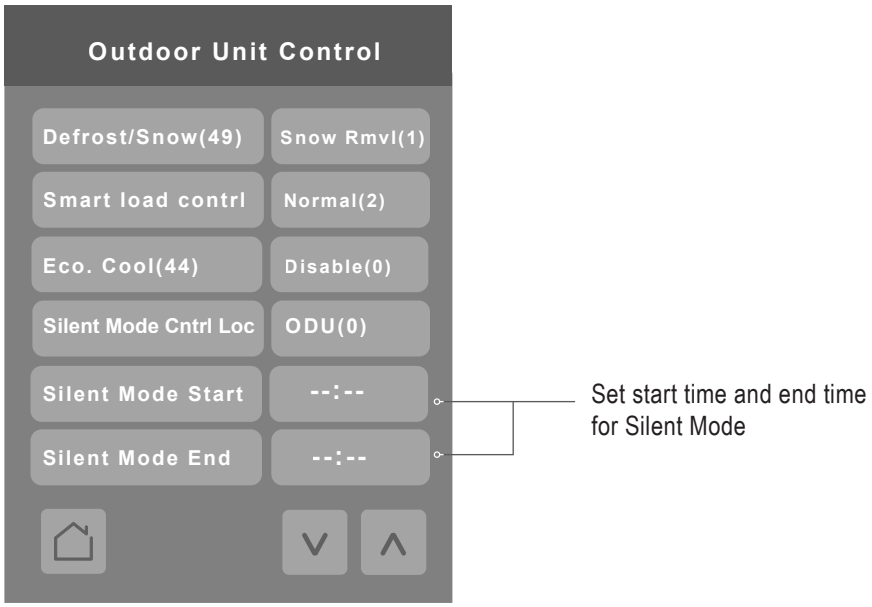


Configuration Parameters Default Value	Parameter Settings
Setpoint (Single Setpoint) Default value: **72°F**	Range: Heating Mode: 60-86 °F Cooling Mode: 64-86 °F
Setpoint cool (Dual Setpoint) Default value: **78°F**	Range: 52-99 °F
Setpoint heat (Dual Setpoint) Default value: **68**°F	Range: 40-90 °F
System mode Default value: **Auto**	Choices: Auto, Dry, Off, Cool, Heat, Fan
Fan Speed Default value: **Medium**	Choices: Slow, Low, Low-Med, Medium, Med-High, High, Power, Auto

Default Parameters are dependent on if the controller is in Single Setpoint Mode or Dual Setpoint Mode.

Outdoor Unit Control

Press the Outdoor Unit Control button on the Building Manager screen to display the Outdoor Unit Control screen. The Outdoor Unit Control lets you manage outdoor units through the controller interface.

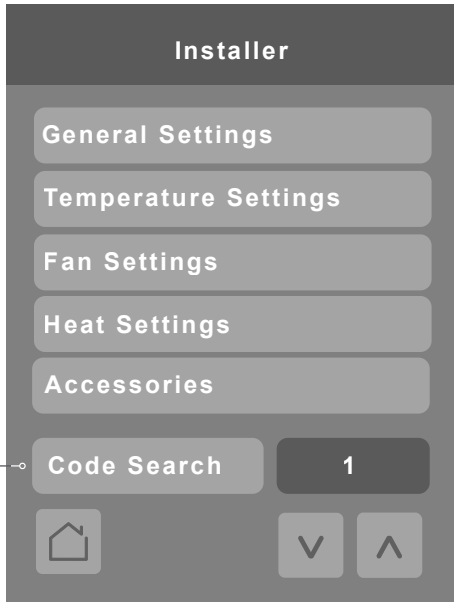


Configuration Parameters Default Value	Parameter Settings
Defrost/Snow(49) Default value = Disable(0)	0 = “Disable (0)” 1 = “Snow Rmvl (1)” 2 = “Fast Dfrst (2)” 3 = “Both (3)”
Smart load contrl Default value = Disable(0)	0 = “Disable (0)” 1 = “Efficient (1)” 2 = “Normal (2)” 3 = “Power (3)”
Eco. Cool(44) Default value = Disable(0)	0 = “Disable (0)” 1 = “Low-Savings (1)” 2 = “Mid-Savings (2)” 3 = “Hi-Savings (3)”
Silent Mode Cntrl Loc Default value = ODU(0)	Choices: ODU(0) Remote(1)
Silent Mode Start/End Default value = “--:--”	Time of day in either AM/PM or 24 hr. format (depending on control setting in Display / Date & Time section)

CONFIGURATION SCREENS

Installer

Press the Installer button on the Configuration screen to display the Installer screen. The Installer menu lists the controller's setup parameters and the accessories menu.



Code Search

Use the Up and Down arrows to choose an available Function Code and select the Code Search button to navigate to the screen where that function code resides.

Codes can be found in brackets next to a parameter throughout all menus. This function is used for quicker menu navigation.

General Settings

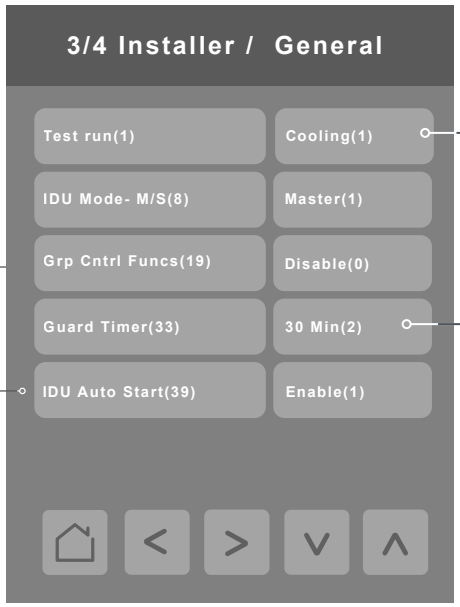
There are four Installer / General Settings screens. Press General Settings on the Installer screen to display the first General Settings screen. Press the right arrow on the screen to display screens 2, 3, and 4.

This value will be used to decide if Auto mode appears in the Operation Mode screen and whether to show “Auto” text at the top of the Home screen during Auto operation mode.

Configuration Parameters Default Value	Parameter Settings
Central Controller Add. Group(2) Default value = 0	Choices: 0 - F
Central Controller Add. Unit(2) Default value = 0	Choices: 0 - F
Auto mode Default value = Disable	Choices: Enable, Disable

Configuration Parameters Default Value	Parameter Settings
ODU Mode - M/S (47) Default value = Slave (0)	0 = “Slave (0)” 1 = “Master (1)”

CONFIGURATION SCREENS



Use this function to enable or disable Group Control for the system.

Use this function to enable or disable Indoor Unit Auto Start.

Using the Up and Down arrows select between Heating, Cooling or Off modes. The Test run will end after 18 minutes and then turn system off. Test mode can be interrupted by changing fan speed, set point, or turning off the IDU from the home screen.

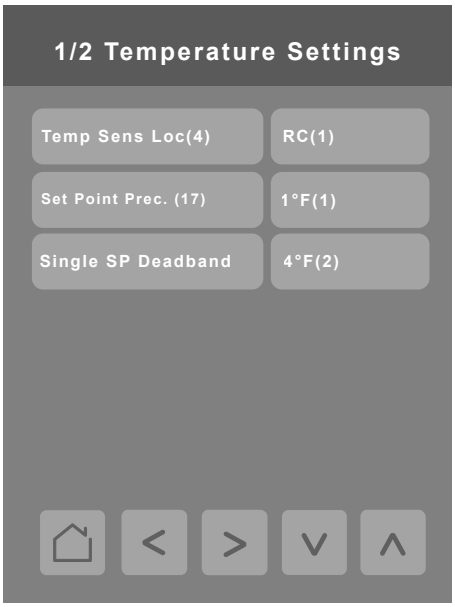
Using the Up and Down arrows select a guard time of 0, 15, 30, 45 or 60 minutes.

Configuration Parameters Default Value	Parameter Settings
Test run(1) Default value = Off	Choices: Off(0), Cooling(1), Heating(2)
IDU Mode - M/S(8) Default value = Slave(0)	Choices: Slave(0), Master(1)
Grp Cntrl Funcs(19) Default value = Disable(0)	Choices: Disable(0), Enable(1)
Guard Timer(33) Default value = 15 min(1)	Choices in minutes: 0 min(0), 15 min(1), 30 min(2), 45 min(3), 60 min(4)
IDU Auto Start(39) Default value = Enable(1)	Choices: Enable(0), Disable(1)

Configuration Parameters Default Value	Parameter Settings
Refrig Noise Red. (48) Default value = Disable(0)	Choices: 0 = "Disable(0)" 1 = "Mode1(1)" 2 = "Mode 2(2)

Temperature Settings

Press the Temperature Settings button on the Installer screen to display the Temperature Settings screen. Press the right arrow button to display the second page of the Temperature Settings screen.



Configuration Parameters Default Value	Parameter Settings
Temp Sens Loc (4) Default value = 2TH(3)	1 = “RC” (1)”, 2 = “IDU (2)”, 3 = “2TH (3)”
Setpoint °C Prec. (17) Default value = 0.5°C(1)	1°C(0), 0.5°C(1)
Single SP Deadband Default value = Dual SP (when supported)	1 = “2°F (1)” 5 = “9°F (5)” 2 = “4°F (2)” 6 = “11°F (6)” 3 = “5°F (3)” 7 = “13°F (7)” 4 = “7°F (4)”
Heat Therm(15) Default value = Default(0)	0 = “Default (0)” 1 = “7°F/11°F (1)” 2 = “4°F/7°F (2)” 3 = “-2°F/2°F (3)” 4 = “-1°F/1°F (4)”
Cool Therm(27) Default value = Default(0)	0 = “Default (0)” 1 = “11°F/7°F (1)” 2 = “7°F/4°F (2)” 3 = “2°F/-2°F (3)”

CONFIGURATION SCREENS

Fan Settings

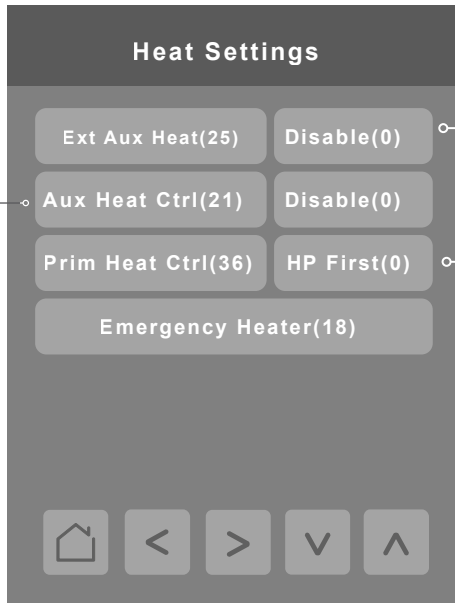
Press the Fan Settings button on the Installer screen to display the Fan Settings screen. Press the right arrow button to display the second page of the Fan Settings screen.

Configuration Parameters Default Value	Parameter Settings
Fxd Fan Speed(11) Default value = IDU Cntrl(0)	Choices: IDU Cntrl (0), No Chng (1)
Fan/Vnt inter(38) Default value = Fan Off(0)	Choices: Fan Off (0), Fan Slow (1)
Cool Therm Off(35) Default value = Low(0)	Choices: Fan Low (0), Fan Off (1), No Chng (2)
Ceiling height(5) Default value = 8.8-10.6'(2)	Choices: 1= "< 8.8' (1) - Low" 2 = "8.8-10.6' (2) - Stndrd" 3 = "10.5 – 11.8' -High (3)" 4 = "11.9-13.8' - Very High (4)" 5= > 13.8' - Extremely High (5)
Static pressure(6) Default value = Fixed H(2)	Choices: 1 = "Var. H (1)", 2 = "Fixed H (2)", 3 = "Var. L (3)", 4 = "Fixed L (4)"
Sta Pres Step(32) Default value = Use SP(0)	Choices: 0 = "Use SP (0)" 1 = "SPS 1 (1)" 2 = "SPS 2 (2)" 3 = "SPS 3 (3)" 4 = "SPS 4 (4)" 5 = "SPS 5 (5)" 6 = "SPS 6 (6)" 7 = "SPS 7 (7)" 8 = "SPS 8 (8)" 9 = "SPS 9 (9)" 10 = "SPS 10 (10)" 11 = "SPS 11 (11)"
Fan Auto Therm Off Default value = Disable(0)	Choices: 0 = "Disable (0)", 1 = "Enable (1)"
IDU Auto Dry Default value = Disable(0)	Choices: 0 = "Disable (0)", 1 = "Enable (1)"
Delay Fan Off(46) Default value = Disable(0)	Choices: 0 = "Disable (0)", 1 = "Enable (1)"
Speed By Temp(51) Default value = Disable(0)	Choices: 0 = "Disable (0)", 1 = "Enable (1)"

Heat Settings

Press the Heat Settings button on the Installer screen to display the Heat Settings screen.

Use this function to enable or disable auxiliary heat control.



Using the Up and Down arrows select between Disable, Non-Ducted and Ducted.

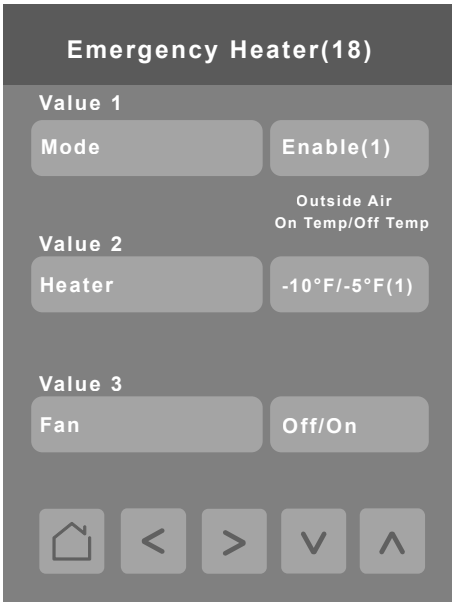
Select between Primary Heat First and Primary Heat Last.

Configuration Parameters Default Value	Parameter Settings
Ext Aux Heat (25) Default value = Disabled(0)	Choices: 0 = 'Disable (0)", 1 = "Non-Duct (0)" , 2 = "Ducted (1)"
Aux Heat Cntrl(21) Default value = Disabled(0)	This control is used to enable related control on MODE screen that actually turns the Aux Heat on or off Choices: 0 = "Disable (0)" , 1 = "Enable (1)"
Primary Heat Cntrl(36) Default value = HP First(0)	Choices: HP First (0), HP Last (1)
Emergency Heater(18) Default value = Disabled(0)	Use this function to enable or disable emergency heating. Choices: 0 = "Disable (0)" , 1 = "Enable (1)"

CONFIGURATION SCREENS

Emergency Heater Settings

Press the Emergency Heater button on the Heat Settings screen to display the Emergency Heater Settings screen.



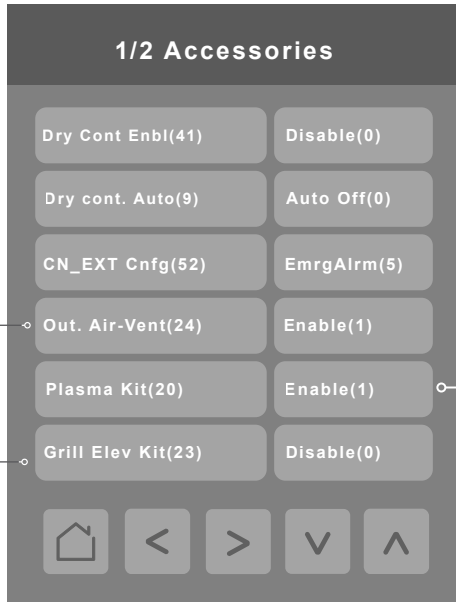
Configuration Parameters Default Value	Parameter Settings	
Value 1 (Mode) Default value = Disabled(0)	Choices: Disable (0), Enable (1)	
Value 2 (Outside Air On/Off Temp) Default value = Disabled(0)	Choices: Column 1 or Column 2 Only Column 1 is available on Gen. 2 equipment. Column 2 values are available on Gen. 4 and newer equipment.	
	Column 1 1– "-10°F / -4°F (1)" 2 – "-6°F / 0°F (2)" 3 – "0°F / 4°F (3)"	**Column 2** 1– "-10°F / -4°F (1)" 2 – "-6°F / 0°F (2)" 3 – "0°F / 4°F (3)" 4 – "4°F / 10°F (4)" 5 – "10°F / 16°F (5)" 6 – "16°F / 20°F (6)" 7 – "20°F / 24°F (7)" 8 – "24°F / 30°F (8)" 9 – "30°F / 36°F (9)" 10 – "36°F / 40°F (10)" 11 – "40°F / 44°F (11)" 12 – "44°F / 50°F (12)" 13 – "50°F / 56°F (13)" 14 – "56°F / 60°F (14)" 15 – "60°F / 64°F (15)"
Value 3 (Fan) Default value = Off(0)	Off (0), On (1)	

Accessories

Press the Accessories button on the Installer screen to display the Accessories screen. Press the right arrow to display the second page of the Accessories screen.

This option enables the related control on the MORE screen that turns the Vent kit on or off.

This option enables the related control on the Filter Functions screen that controls Raise/Lower Grill functions.



This option enables the related control on the MORE screen that turns the Plasma Purifier on or off.

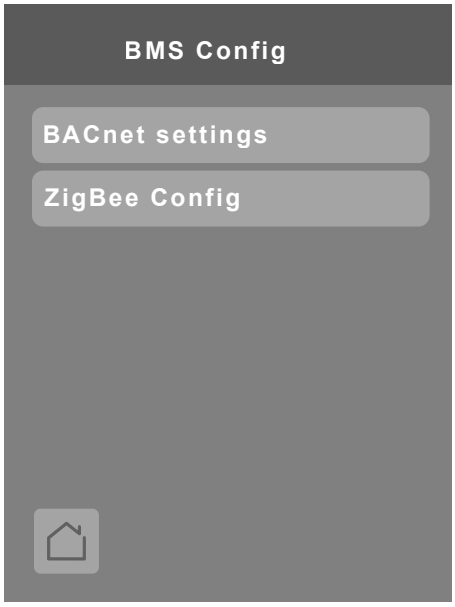
Global setting which applies to both the onboard PIR sensor as well as any installed ZigBee motion sensors.

Accessories – continued

Configuration Parameters Default Value	Parameter Settings
Dry Cont Enbl(41) Default value = Disabled(0)	Choices: 0 = “Disable (0)” 1 = “Not Used (1)” 2 = “Enabled (2)” 3 = “Use CN_EXT (3)”
Dry cont. Auto(9) Default value = Disabled(0)	Choices: 0 = “Auto Off (0)”, 1 = “Auto On (1)”
CN_EXT Cnfg (52) Default value = Disabled(0)	Choices: 0 = “Disable (0)” 1 = “On/Off (1)” 2 = “DryCntct (2)” 3 = “Stp1IDU (3)” 4 = Reserved 5 = “StpIDUs (5)”
Out. Air – Vent (24) Default value = Disabled(0)	Choices: 0 = “Disable (0)”, 1 = “Enable (1)”
Plasma Kit (20) Default value = Disabled(0)	Choices: 0 = “Disable (0)”, 1 = “Enable (1)”
Grill Elev. Kit (23) Default value = Disabled(0)	Choices: 0 = “Disable (0)”, 1 = “Enable (1)”
Refrig Leak Sns(29) Default value = Disabled(0)	Choices: 0 = “Disable (0)” , 1 = “Enable (1)”
Cntrlr Occ Sensor Default value = Disabled(0)	Choices: 0 = “Disable”, 1 = “Enable”
Cntrlr Min Occ On Default value = 10 min (0)	Choices: 0 = “10 min (0)” 1 = “30 min (1)” 2 = “60 min (2)”

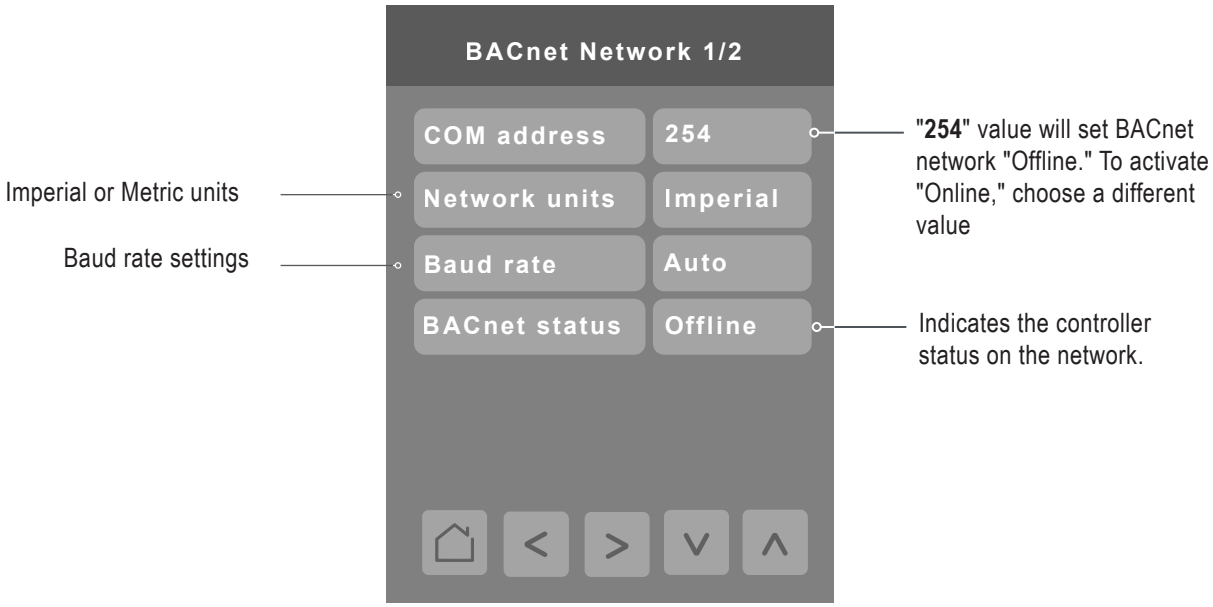
BMS Configuration

Press the BMS Config button on the Configuration screen to display the BMS Config screen.



BACnet Settings

Press the BACnet* settings button on the BMS Config screen to display the BACnet Network screen. Press the right arrow to display the BACnet Instance screen.



BACnet is a registered trademark of ASHRAE

CONFIGURATION SCREENS

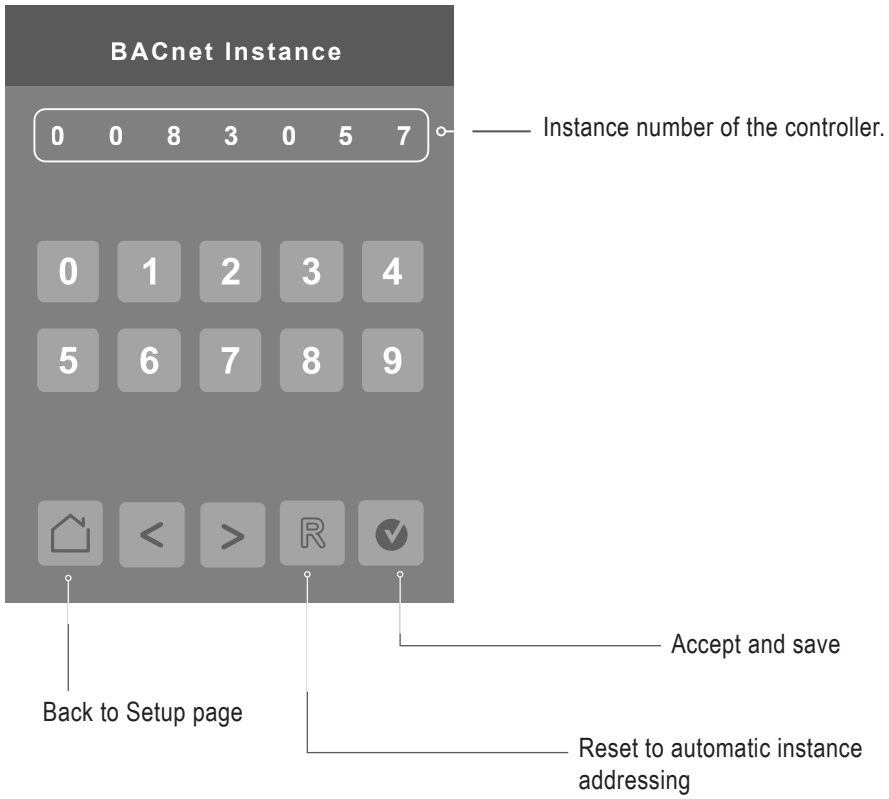
BACnet Settings – continued

Configuration Parameters Default Value	Parameter Settings
COM address Terminal Equipment Controller Networking address Default value = 254 Range is: 0 to 254	**Communications Address** For BACnet MS/TP models, the valid range is from 0 to 253. Default value of **254** disables BACnet communication for the Controller.
Network units Default value = SI	**Measurement Units** **Imperial:** Network units shown as “imperial” units. **SI:** Network units shown as “international metric” units.
Baud rate Default value = Auto	**Baud Rate** Auto: Will automatically detect the BACnet MS/TP baud rate. Other choices: (115200) (76800) (57600) (38400) (19200) (9600) Leave the value at auto unless instructed otherwise.

The default BACnet instance number is generated by the model number and COM address of the controller. For example, the instance number of a MultiSITE CRC1 Series with a COM address of 57 is generated as “83057”.

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

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



ZigBee Configuration

Press the ZigBee* Config button on the BMS Config screen to display the ZigBee Configuration screen.

Status of controller detecting a ZigBee network. Will display Online when connected successfully to network.

ZigBee Pro short address. The address is generated once the device joins a ZigBee network.

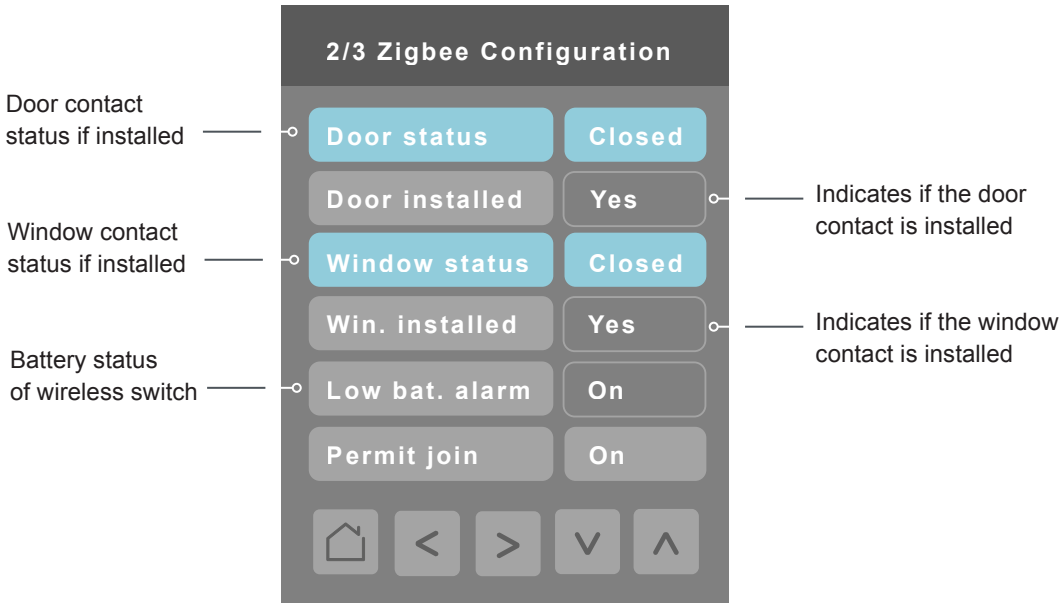
Configuration Parameters Default Value	Parameter Settings
COM address Terminal Equipment Controller networking address Default value = 254 Range is: 0 to 254	For wireless models, the use of the COM address is not mandatory. COM address is an optional way to identify a device on the network and is recommended if used with an MPM. It is Mandatory for BACnet.
Node type Coord; Router	Set Node type to Coord if controller will be responsible for controlling Zigbee sensor network.
ZigBee Pan ID Personal Area Network Identification Default value = 0 Range is: 1 to 1000	This parameter (PAN ID) links specific Controllers to specific ZigBee coordinators. For every Controller reporting to a coordinator, make sure to set the SAME channel value both on the coordinator and the Controllers. The default value of 0 is NOT a valid PAN ID. The valid range of available PAN ID is from 1 to 1000.
ZigBee channel Channel selection Default value = 10 Range is: 10 to 25	This parameter (Channel) is used to link specific Controllers to specific ZigBee coordinators. For every Controller reporting to a coordinator, be sure you set the SAME channel value both on the coordinator and the Controller(s). **Using channels 15 and 25 is recommended.** The default value of 10 is NOT a valid channel. The valid range of available channels is from 11 to 25.
ZigBee status (read only)	**ZigBee status** The following read only messages show in this field: • (Not Det): ZigBee Pro module not detected • (Pwr On): ZigBee Pro module detected but not configured • (No NWK): ZigBee Pro configured but no network joined • (Joined): ZigBee Pro network joined • (Online): Communicating

**ZigBee is a registered trademark of the ZigBee Alliance.*

CONFIGURATION SCREENS

ZigBee Configuration – continued

Press the right arrow on the ZigBee Configuration screen to display the second page of the ZigBee Configuration screen. The blue fields indicate the controller is paired with a sensor.



Configuration Parameters Default Value	Parameter Settings
Permit join Default value = On	Changing this value to "Off" will lockout any new ZigBee devices from joining the network through this controller.

ZigBee Configuration – continued

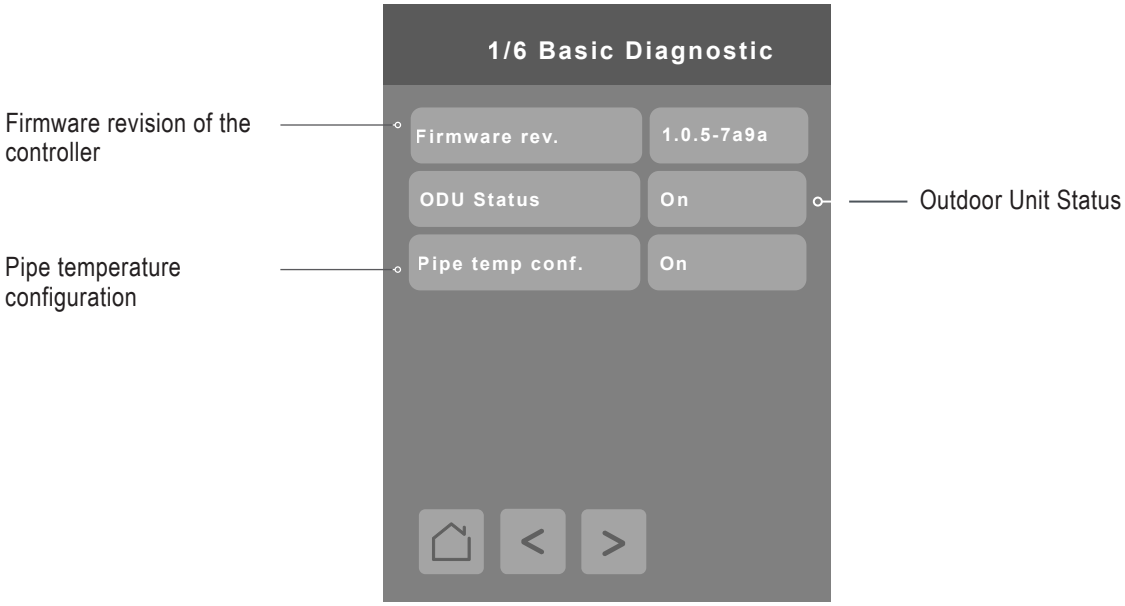
Press the right arrow on the ZigBee Configuration screen to display the third page of the ZigBee Configuration screen.

Configuration Parameters Default Value	Parameter Settings
IEEE address Default value = 0x0000	The extended IEEE ZigBee node address is used to identify the device on the network.

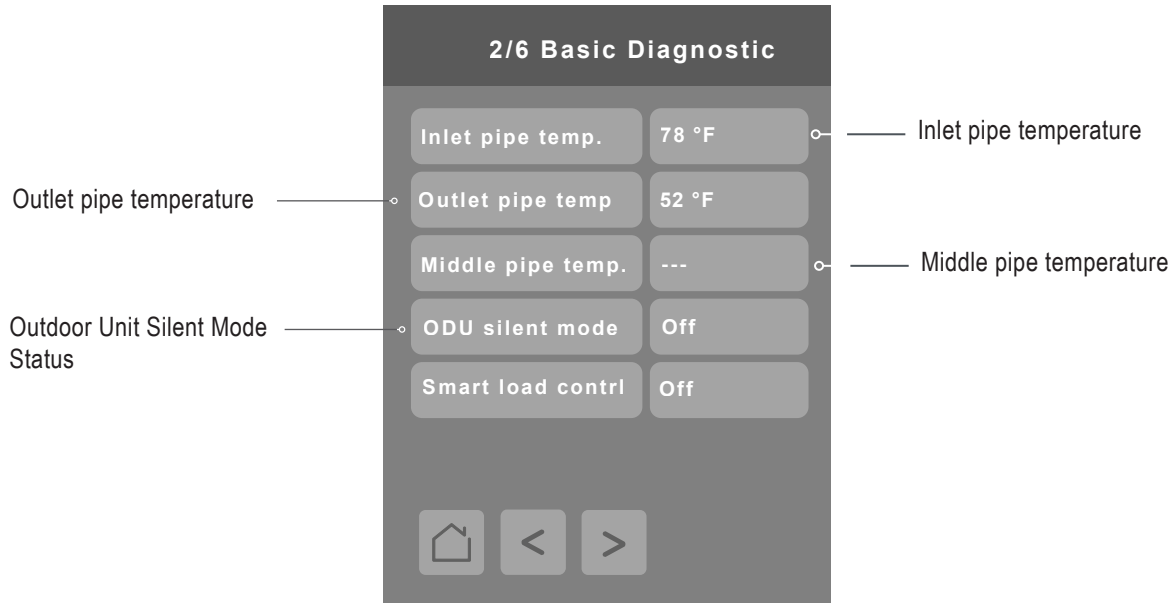
CONFIGURATION SCREENS

Basic Diagnostic

Press the Basic Diagnostic Button on the Configuration screen to display the Basic Diagnostic screen.



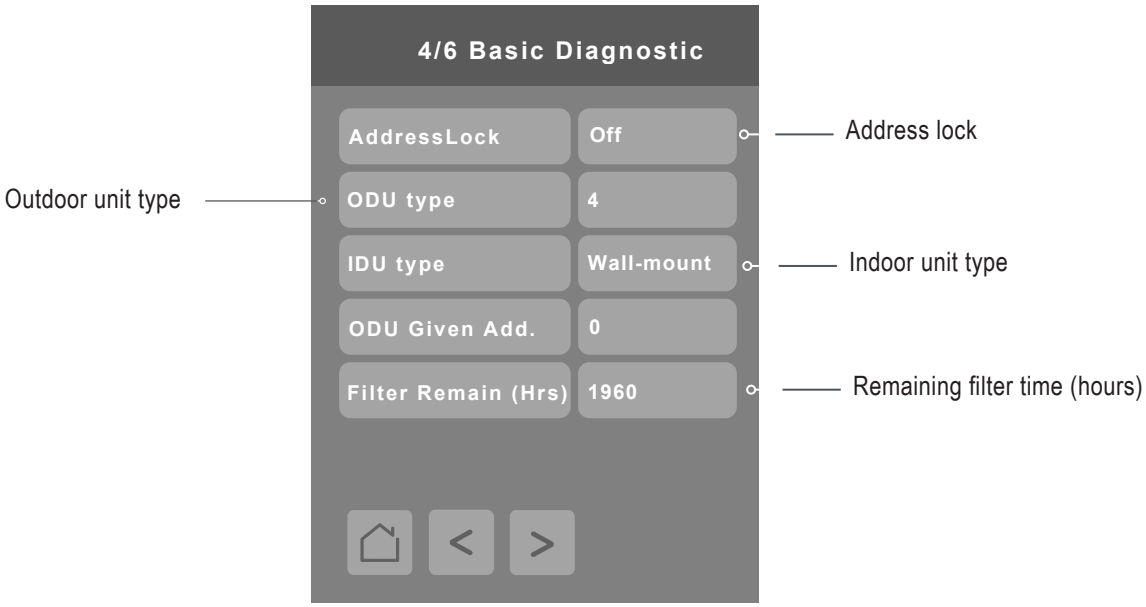
Press the right arrow on the Basic Diagnostic screen to display the next Basic Diagnostic screen.



Basic Diagnostic – continued

Press the right arrow on the Basic Diagnostic screen to display the next Basic Diagnostic screen.

Press the right arrow on the Basic Diagnostic screen to display the next Basic Diagnostic screen.

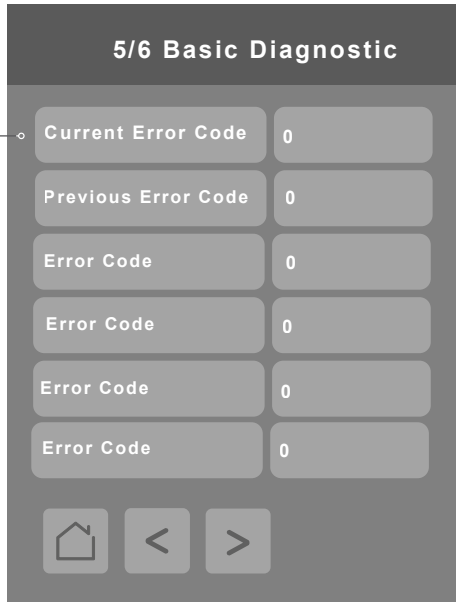


CONFIGURATION SCREENS

Basic Diagnostic – continued

Press the right arrow on the Basic Diagnostic screen to display the next Basic Diagnostic screen.

Screens 5/6 Basic Diagnostic and 6/6 Basic Diagnostic display a historical list of the 10 most recent error codes generated by the Indoor Unit. The most recent error code appears at the top of the list.



Press the right arrow on the Basic Diagnostic screen to display the Basic Diagnostic screen.

Password Setup

Press the Password Setup button on the Configuration screen to display the Password Setup screen.

Configuration Parameters Default Value	Parameter Settings
Config password Default value = 0	**Config password** This parameter sets a protective access password to prevent unauthorized access to the configuration menu parameters. A default value of “0” will not prompt a password or lock the access to the configuration menu. User must include any leading “0” if anything less than a 4-digit code is selected for a password. A default value of “0” will not prompt for a password. Range is: 0 to 9999.
User password Default value = 0	**User password** This parameter sets a protective access password to prevent user unauthorized access to main screen adjustments. A default value of “0” will not prompt for a password. Range is: 0 to 9999.

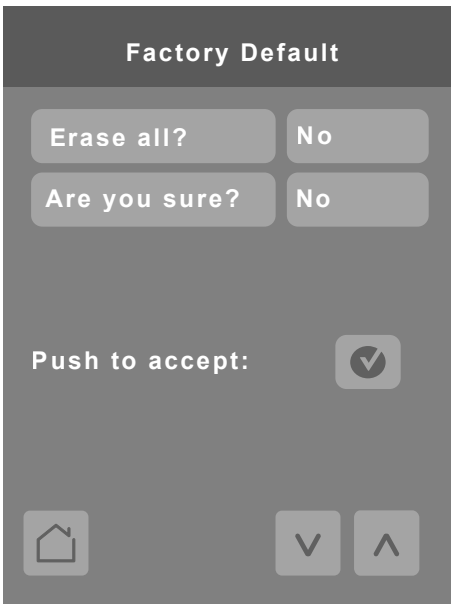
CONFIGURATION SCREENS

Factory Default

Answering Yes to both parameters and tapping 'push to accept' erases all values and sets the controller to factory default values.

Note:

Once in the Factory Default screen, if user proceeds with this step, all schedules and current controller settings, along with time and date will be cleared. There is no way to recover settings once a Factory Default has been performed.

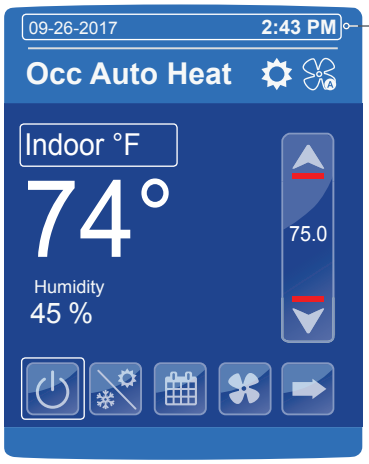


Relative Humidity Display

Relative humidity is displayed on the MultiSITE CRC1+ controller only. Apart from the visual indication of relative humidity, this data is also available as a monitoring point via MSTP BACnet to be used by the user as desired.

Time and Date

Time and date are displayed at the top of the home screen.



Time and Date will display when updated in display settings. Time and Date must be reset if Controller is set to factory default values.

PIR (Motion Sensor)

The MultiSITE CRC1+ version of the controller comes with an onboard PIR style motion sensor. If the sensor is enabled (installer configuration under Accessories), status from the PIR sensor will be used to control the operation of the IDU as follows:

If the IDU status is currently Occupied and the onboard PIR goes Unoccupied, the IDU will operate according to the Setback values of the controller and will change its status to Unoccupied.

If the IDU status is currently Unoccupied and the onboard PIR goes Occupied, the IDU will operate according to the settings in use during the last Occupied status and will change its status to Occupied.

If the IDU is currently in Setback or Override modes, information from the PIR sensor will be ignored.

Who to call for assistance

Freight Damage and Unit Replacements	Your LG Manufacturer Representative
Missing Parts	Your LG Manufacturer Representative
Freight Damage and Unit Replacements	Your LG Manufacturer Representative
Received Wrong Indoor Unit Model	Your LG Manufacturer Representative
Installation, Startup, and Commissioning Technical Assistance	1-888-865-3026

For warranty information, visit www.lghvac.com.

LG Electronics
Commercial Air Conditioning Division
4300 Northpoint Parkway
Alpharetta, Georgia 30022
www.lghvac.com

LG Customer Information Center, Commercial Products

1-888-865-3026 USA

Follow the prompts for commercial A/C products and parts.

UM_CRC1_Series_Controllers_05_17
Supercedes: UM_CRC1_Series_Controllers_3_17
Supercedes: UM_CRC1_Series_Controllers_10_16