

# CHAPTER 4

## ALLURE EC-SMART-VUE SCREEN-BY-SCREEN GUIDE

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This chapter provides a detailed screen-by-screen guide on how to perform various functions using the Allure EC-Smart-Vue's basic and advanced menus. These functions include how to set up a controller's network parameters as well as how to configure it with one of its preloaded applications.

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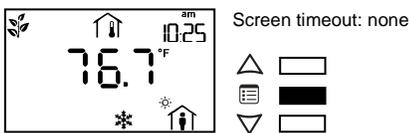
Button Navigation Guide		
Advanced Menu		
	<ul style="list-style-type: none"> <li>- Enters Advanced menu, when held for 5 sec</li> <li>- Navigates between parameters</li> <li>- Submits a modified parameter</li> </ul>	<ul style="list-style-type: none"> <li>- Goes up one level, when held for 5 sec</li> <li>- Cancels a modified parameter, when held for 5 sec</li> </ul>
		<ul style="list-style-type: none"> <li>- Modifies a parameter</li> <li>- Goes up one level when pressed in Exit screen</li> <li>- Releases an override when both are pressed</li> <li>- Enters into a submenu</li> </ul>

## Adjusting the Setpoints and Display Units

When a controller is in occupied or bypass mode, the active setpoint can be adjusted using the Allure EC-Smart-Vue's arrow keys. Alternatively, the heating and cooling setpoints can be adjusted from the sensor's User menu. The User menu also allows modifying the display units. The User menu is not password protected.

To enter into the User menu and make changes to the setpoints or display units:

1. Press the **Menu** button once.

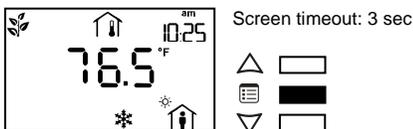


The cooling setpoint starts blinking.

2. Use the arrow keys to increase or decrease the cooling setpoint.

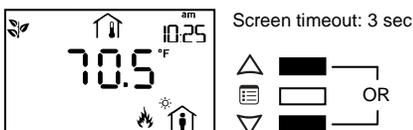


3. Press the **Menu** button to submit the new cooling setpoint.

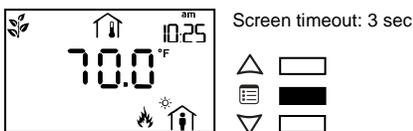


The heating setpoint starts blinking.

4. Use the arrow keys to increase or decrease the heating setpoint.



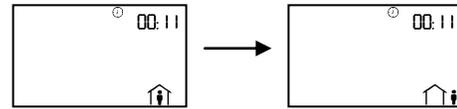
5. Press the **Menu** button to submit the new heating setpoint.



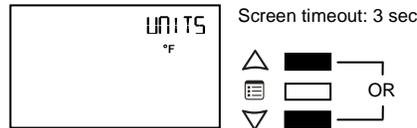
If the controller is in occupied mode, the Units submenu appears. Otherwise, the Bypass submenu appears with the option to manually end the bypass mode. After the Bypass submenu, the Units submenu appears.



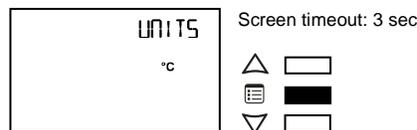
To manually end the bypass mode, press on one of the arrow keys to modify the occupancy icon on the screen. Then press the **Menu** button.



6. Use the arrow keys to select the temperature display units.



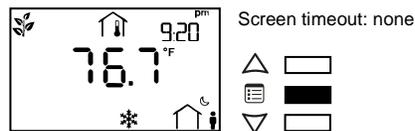
7. Press the **Menu** button to submit the selected display unit.



### How to put a controller into bypass mode

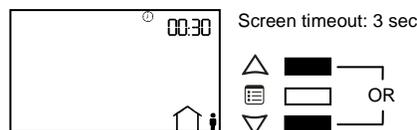
To change a controller's occupancy mode from standby or unoccupied to bypass mode:

1. Press the **Menu** button once.

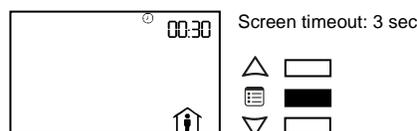


The Bypass submenu appears.

2. Press on one of the arrow keys to modify the occupancy icon on the screen.



3. Press the **Menu** button.



The controller goes into bypass mode. When in bypass mode, the Allure EC-Smart-Vue screen displays the current time and also the remaining bypass time.

Button Navigation Guide		
Advanced Menu		- Enters Advanced menu, when held for 5 sec - Navigates between parameters - Submits a modified parameter
	 - Goes up one level, when held for 5 sec  - Cancels a modified parameter, when held for 5 sec	
	 and 	- Modifies a parameter - Goes up one level when pressed in Exit screen - Releases an override when both are pressed - Enters into a submenu

# Setting up the Network Parameters and Calibrating the Temperature Sensor

From the Allure EC-Smart-Vue's General Configuration submenu, the controller's network parameters can be set. In addition, other functions can be carried out such as calibrating the Allure EC-Smart-Vue's space temperature sensor as well as adjusting the screen contrast.



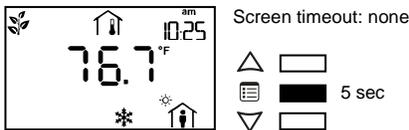
This procedure also allows you to calibrate the humidity sensor if your Allure EC-Smart-Vue is equipped with this option.

For detailed information on BACnet<sup>®</sup> MS/TP network basics and commissioning controllers using the Allure EC-Smart-Vue, see Distech Controls' *Network Guide*, available on the Distech Controls website.

## How to enter the General Configuration submenu

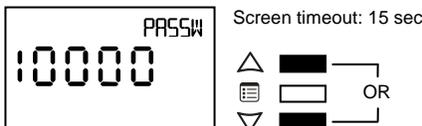
To enter the General Configuration submenu:

1. Hold the **Menu** button for five seconds.



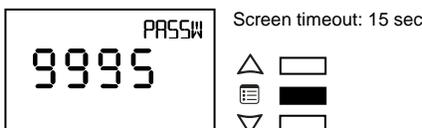
The password field appears.

2. Use the arrow keys to increase or decrease the displayed number until it matches the configured password.



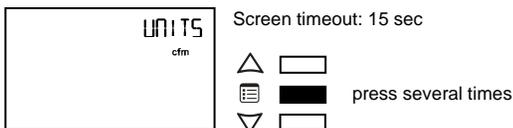
By default, the password is 9995.

3. Press the **Menu** button to submit the password.

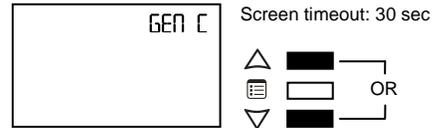


Upon submitting the correct password, the Advanced menu is entered and the Units submenu is displayed.

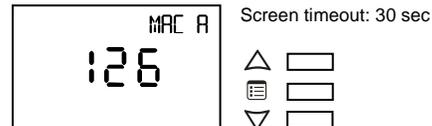
4. Press the **Menu** button several times until *GEN CFG* appears on the display.



5. Press either of the arrow keys to enter the General Configuration submenu.



Upon entering the General Configuration submenu, the MAC Address parameter appears.

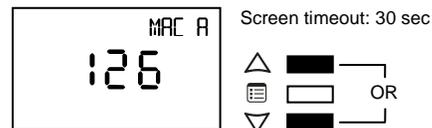


## How to set up the BACnet MS/TP communication network parameters

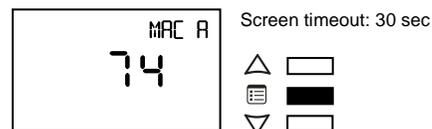
The Allure EC-Smart-Vue can be used to set the controller's BACnet MAC address and baud rate. In doing so, the Allure EC-Smart-Vue must have a subnet ID of 1.

To set up the network parameters:

1. Use the arrow keys to enter the controller's MAC address.

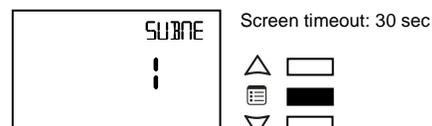


2. Press the **Menu** button to submit the MAC address.



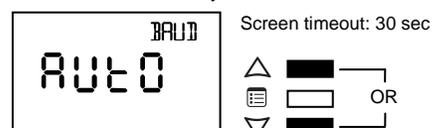
The Allure EC-Smart-Vue's subnet ID of 1 appears on the display.

3. Press the **Menu** button once to move onto the next parameter.



The Baud Rate parameter appears on the display.

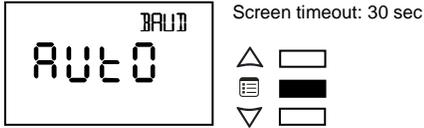
4. Use the arrow keys to set the baud rate.



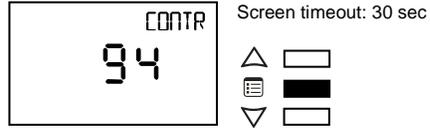
Keep in mind that the all devices on the data bus must be set to the same baud rate. Typically, the baud rate is set at the router level. Therefore, it is recommended to set the baud rate to AUTO so that the baud rate being used on the data bus is automatically detected and applied to the controller accordingly.

5. Press the **Menu** button to submit the baud rate.

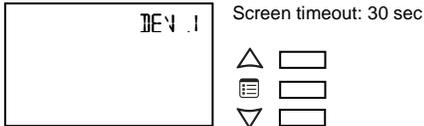
Button Navigation Guide		
Advanced Menu	☰	△ and ▽
	<ul style="list-style-type: none"> <li>- Enters Advanced menu, when held for 5 sec</li> <li>- Navigates between parameters</li> <li>- Submits a modified parameter</li> </ul>	<ul style="list-style-type: none"> <li>- Goes up one level, when held for 5 sec</li> <li>- Cancels a modified parameter, when held for 5 sec</li> </ul>



The Allure EC-Smart-Vue hardware information appears on the display.



The screen contrast changes according to the new value submitted.

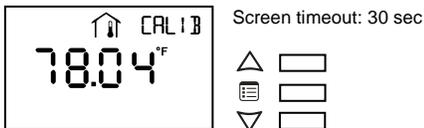


The Allure EC-Smart-Vue's hardware information may be required by Distech Controls Technical Support for troubleshooting purposes.

### How to calibrate the temperature sensor and adjust the screen contrast

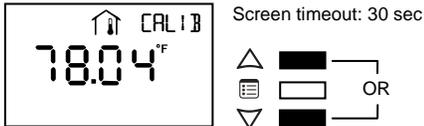
In addition to setting up the network parameters, the General Configuration submenu also allows the calibration of the Allure EC-Smart-Vue's space temperature sensor and adjustment of the screen contrast. To perform these two functions:

1. Navigate to the Calibration parameter.

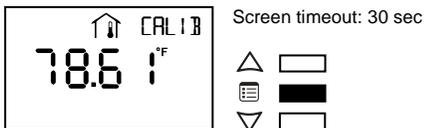


The screen displays the current indoor space temperature.

2. Use the arrow keys to modify this reading to make it match that measured by the reference temperature sensor.

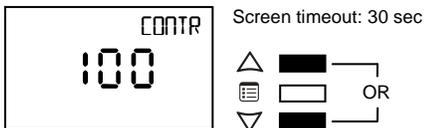


3. Press the **Menu** button to submit the calibrated temperature reading.



The Contrast parameter appears.

4. Use the arrow keys to adjust the screen contrast.



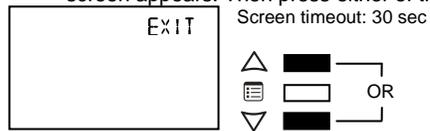
The Contrast parameter ranges from 0 to 100, where smaller values give a dimmer contrast than larger ones.

5. Press the **Menu** button to submit the new contrast level.

### How to exit the General Configuration submenu

To exit the General Configuration submenu and go up one level, do one of the following:

- Press the **Menu** button several times until the Exit screen appears. Then press either of the arrow keys.



- Press and hold the **Menu** button for 5 seconds.

Button Navigation Guide		
Advanced Menu		
	<ul style="list-style-type: none"> <li>- Enters Advanced menu, when held for 5 sec</li> <li>- Navigates between parameters</li> <li>- Submits a modified parameter</li> </ul>	<ul style="list-style-type: none"> <li>- Goes up one level, when held for 5 sec</li> <li>- Cancels a modified parameter, when held for 5 sec</li> </ul>

## Configuring the VAV

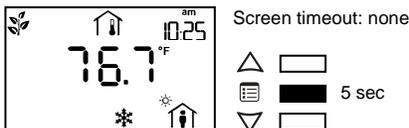
The VAV configuration parameters of an ECB-VAV Series controller can be found in the VAV Configuration submenu of the Advanced menu. Through this submenu, various selections can be made, such as a controller's fan powered box type, number of duct heater reheat stages, and VVT operation mode.

The following instructions explain how to configure a controller's VAV parameters one by one. For instructions on how to configure them all at once using configuration codes, see [Procedure for Submitting New Configuration Codes using an Allure EC-Smart-Vue](#) on page 60.

### How to enter the VAV Configuration submenu and select a controller's VAV parameters

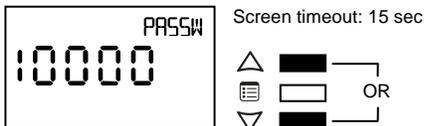
To select a controller's VAV parameters using an Allure EC-Smart-Vue:

1. Hold the **Menu** button for five seconds.



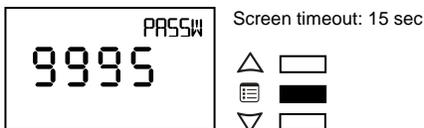
The password field appears.

2. Use the arrow keys to increase or decrease the displayed number until it matches the configured password.

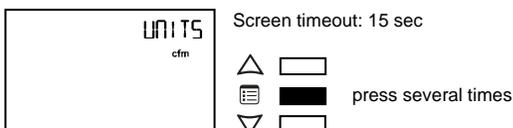


By default, the password is 9995.

3. Press the **Menu** button to submit the password.



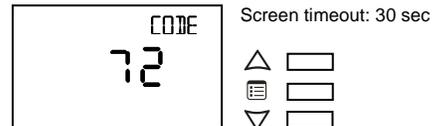
Upon submitting the correct password, the Advanced menu is entered and the Units submenu is displayed.



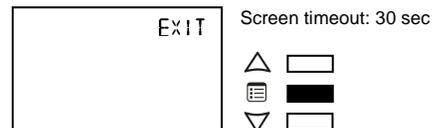
4. Press the **Menu** button several times until **VAV CFG** appears on the display.



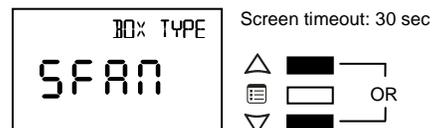
Upon entering the VAV Configuration submenu, the Code parameter appears.



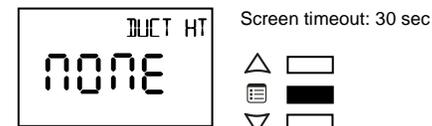
5. To scroll between the different parameters in the VAV Configuration submenu, press the **Menu** button.



6. To modify a parameter, use the arrow keys.



7. To submit a modified parameter, press the **Menu** button. The next VAV Configuration submenu parameter is displayed.



Refer to the table on page 46 for a list of all the [Configuration parameters for the VAV series](#):

Button Navigation Guide			
Advanced Menu			 and 
	- Enters Advanced menu, when held for 5 sec	- Goes up one level, when held for 5 sec	- Modifies a parameter
	- Navigates between parameters	- Cancels a modified parameter, when held for 5 sec	- Goes up one level when pressed in Exit screen
	- Submits a modified parameter		- Releases an override when both are pressed
			- Enters into a submenu

### Configuration parameters for the VAV series:

Parameter		Valid Choices		Descriptions	
BOX TYPE <sup>1</sup>	Box Type	1	SDUC	SDUC	Single Duct VAV
		2	SFAN	SFAN	Series Fan Single Duct VAV
		3	PFAN	PFAN	Parallel Fan Single Duct VAV
DUCT HT	Duct Heater Stages	1	NONE	NONE	No Duct Heater Reheat
		2	1 St	1 St	Duct Heater Reheat on Heat Source 1
		3	2 St	2 St	Duct Heater Reheat on Heat Sources 1 & 2
		4	3 St	3 St	Duct Heater Reheat on Heat Sources 1, 2, & 3 (for ECB-VAV only)
HTPRIO	Heat Priority	1	DUCT	DUCT	Duct Heating 1st
		2	PERI	PERI	Perimeter Heating 1st
		3	BOTH	BOTH	Both Heating Simultaneously
DUAL MAX <sup>2</sup>	Dual Maximum Flow Control	0	NO	NO	Box is not using Dual Maximum Control Settings
		1	YES	YES	Box is using Dual Maximum Control Settings
HWREHEAT	Hot Water Reheat	0	NO	NO	Duct Heater is not Hot Water Coil
		1	YES	YES	Duct Heater Reheat by Hot Water Coil
VVTMODE <sup>3</sup>	VVT Mode	0	NO	NO	Box is using Flow Input
		1	YES	YES	Box is not Using Flow Input
FLOATVLPER	Floating Valve Drive Time		EDIT	Edit	
		1	95 S		95 seconds drive time
		2	125 S		125 seconds drive time
		3	150 S		150 seconds drive time
		4	25 S		25 seconds drive time
		5	30 S		30 seconds drive time
		6	50 S		50 seconds drive time
		7	60 S		60 seconds drive time
8	CUSTOM		Drive time controlled by CustomFloatTime (AV64)		
PWMVLPER	Pulse Width Modulation Valve Period	1	25.5	25.5	0.1 to 25.5 seconds
		2	5.2	5.2	0.1 to 5.2 seconds

1. Only applicable to ECB-VAV and ECB-VAV-N
2. Does not apply to ECB-VAVS-O model
3. Does not apply to ECB-VVTS model

Button Navigation Guide		
Advanced Menu		- Enters Advanced menu, when held for 5 sec - Navigates between parameters - Submits a modified parameter
	 and 	- Goes up one level, when held for 5 sec - Cancels a modified parameter, when held for 5 sec
		- Modifies a parameter - Goes up one level when pressed in Exit screen - Releases an override when both are pressed - Enters into a submenu

## Setting up Inputs

A controller's inputs can be configured through the Input Configuration submenu of the Advanced menu. The table below shows how many universal inputs each controller model has.

Model	Universal Inputs
ECB-VAVS-O	0
ECB-VAVS	2
ECB-VAV	4
ECB-VVTS	2
ECB-VAV-N	4

The following procedure explains how to configure the inputs one by one. For instructions on how to configure them all at once using configuration codes, see [Procedure for Submitting New Configuration Codes using an Allure EC-Smart-Vue](#) on page 60.

### How to enter the Input Configuration submenu and configure the inputs

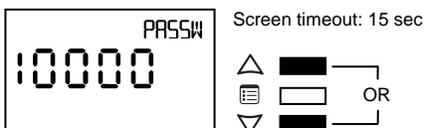
To configure the inputs of a controller using an Allure EC-Smart-Vue:

1. Hold the **Menu** button for five seconds.



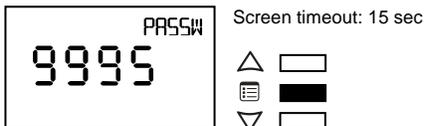
The password field appears.

2. Use the arrow keys to increase or decrease the displayed number until it matches the configured password.

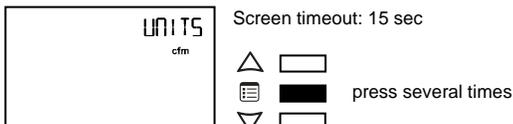


By default, the password is 9995.

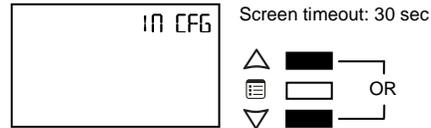
3. Press the **Menu** button to submit the password.



Upon submitting the correct password, the Advanced menu is entered and the Units submenu is displayed.

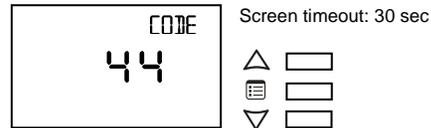


4. Press the **Menu** button several times until *IN CFG* appears on the display.

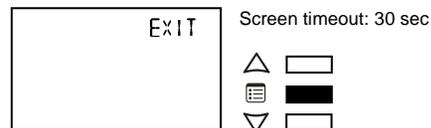


5. Press either of the arrow keys to enter the Input Configuration submenu.

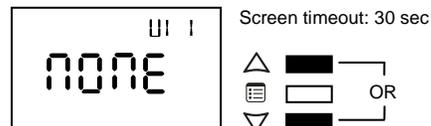
Upon entering the Input Configuration submenu, the Code parameter appears.



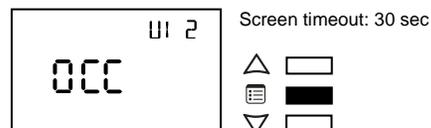
6. To scroll between the different parameters in the Input Configuration submenu, press the **Menu** button.



7. To modify a parameter, use the arrow keys.



8. To submit a modified parameter, press the **Menu** button. The next Input Configuration submenu parameter is displayed.

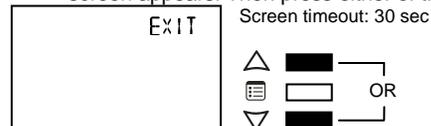


There are between three to five parameters to be configured, depending on the controller model. The [Input Configuration for the VAV series](#) table on page 48 shows all the available input types for each controller input.

### How to exit the Input Configuration submenu

To exit the Input Configuration submenu and go up one level, do one of the following:

- Press the **Menu** button several times until the Exit screen appears. Then press either of the arrow keys.



- Press and hold the **Menu** button for 5 seconds.

Button Navigation Guide		
Advanced Menu		
	<ul style="list-style-type: none"> <li>- Enters Advanced menu, when held for 5 sec</li> <li>- Navigates between parameters</li> <li>- Submits a modified parameter</li> </ul>	<ul style="list-style-type: none"> <li>- Goes up one level, when held for 5 sec</li> <li>- Cancels a modified parameter, when held for 5 sec</li> </ul>

### Input Configuration for the VAV series

Input		Input Types		Descriptions	
UI1	Universal Input 1	1	NONE	NONE	Not Configured
		2	SPAC	SPAC	Room Temperature Sensor
		3	OCC	OCC	Occupancy Detection
		4	CONT	CONT	Window Contact
UI2	Universal Input 2	1	NONE	NONE	Not Configured
		2	DISC	DISC	Discharge Air Temperature Sensor
		3	CONT	CONT	Window Contact
		4	OCC	OCC	Occupancy Detection
		5	SETP	SETP	Room Temperature Setpoint Offset
UI3 <sup>1</sup>	Universal Input 3	1	NONE	NONE	Not Configured
		2	DISC	DISC	Discharge Air Temperature Sensor
		3	OCC	OCC	Occupancy Detection
		4	CONT	CONT	Window Contact
		5	FAN	FAN	Fan Powered Box Status
UI4 <sup>1</sup>	Universal Input 4	1	NONE	NONE	Not Configured
		2	CO24	CO24	4-20mA CO2 Sensor (0-2000 ppm)
		3	CO25	CO25	0-5V CO2 Sensor (0-2000 ppm)
COMSENS SP	EC-Smart-Vue User Setpoint Control	1	DUAL	DUAL	Cooling and Heating Setpoint via EC-Smart-Vue
		2	OFFS	OFFS	Room Temperature Setpoint Offset
SENSORS TYPE	Discharge and Space Temp Sensors Type	1	10-2	10-2	Sensors are 10K Type II
		2	10-3	10-3	Sensors are 10K Type III
		3	1000	1000	Sensors are PT 1000
		4	NI0C	NI0C	Sensors are NI 1000 @0°C
		5	NI22	NI22	Sensors are NI 1000 @22°C

1. Only applicable to ECB-VAV and ECB-VAV-N

Button Navigation Guide		
Advanced Menu		- Enters Advanced menu, when held for 5 sec - Navigates between parameters - Submits a modified parameter
		- Goes up one level, when held for 5 sec
		- Cancels a modified parameter, when held for 5 sec
	 and 	- Modifies a parameter - Goes up one level when pressed in Exit screen - Releases an override when both are pressed - Enters into a submenu

## Setting up Outputs

A controller's outputs can be configured through the Output Configuration submenu of the Advanced menu. The table below shows how many universal outputs and digital outputs each controller has.

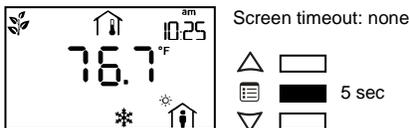
Model	Universal Outputs	Digital Outputs
ECB-VAVS-O	1	2
ECB-VAVS	1	2
ECB-VAV	2	4
ECB-VVTS	1	2
ECB-VAV-N	2	4

The following procedure explains how to configure the outputs one by one. For instructions on how to configure them all at once using configuration codes, see [Procedure for Submitting New Configuration Codes using an Allure EC-Smart-View](#) on page 60.

### How to enter the Output Configuration submenu and configure the outputs

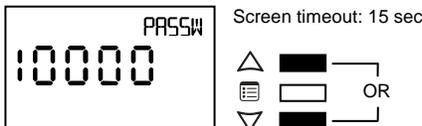
To configure the outputs of a controller using an Allure EC-Smart-View:

1. Hold the **Menu** button for five seconds.



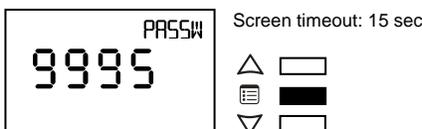
The password field appears.

2. Use the arrow keys to increase or decrease the displayed number until it matches the configured password.

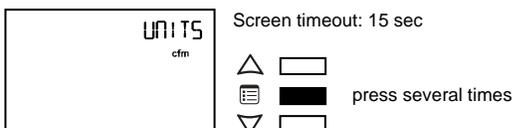


By default, the password is 9995.

3. Press the **Menu** button to submit the password.

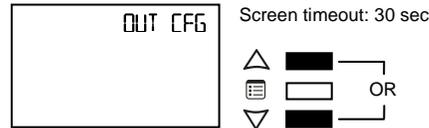


Upon submitting the correct password, the Advanced menu is entered and the Units submenu is displayed.

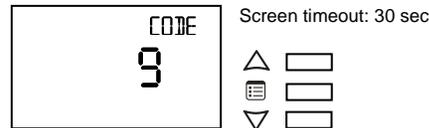


4. Press the **Menu** button several times until **OUT CFG** appears on the display.

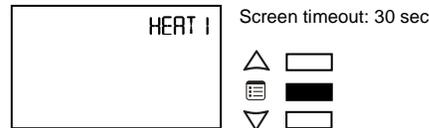
5. Press either of the arrow keys to enter the Output Configuration submenu.



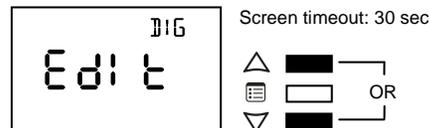
Upon entering the Output Configuration submenu, the Code parameter appears.



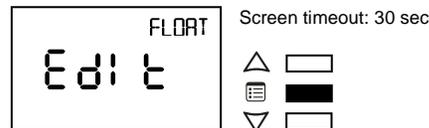
6. To scroll between the different parameters in the Output Configuration submenu, press the **Menu** button.



7. To modify a parameter, use the arrow keys.



8. To submit a modified parameter, press the **Menu** button.



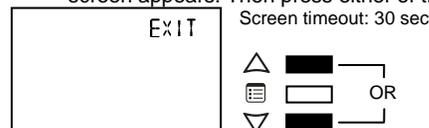
The first two or three parameters of the Output Configuration submenu allow the selection of the types of control signals used to drive the heating sources. The remaining parameters allow configuring the normally open or normally closed option for each heating source.

For details on the available control signal types per heating source and the output wiring guidelines, see the [Output Wiring](#) sections starting on page 50. For a list of the configurable actuator drive times of an ECB-VAV-N, see [Configurable Actuator Damper Drive Times](#) on page 53.

### How to exit the Output Configuration submenu

To exit the Output Configuration submenu and go up one level, do one of the following:

- Press the **Menu** button several times until the Exit screen appears. Then press either of the arrow keys.



- Press and hold the **Menu** button for 5 seconds.

Button Navigation Guide		
Advanced Menu		
	<ul style="list-style-type: none"> <li>- Enters Advanced menu, when held for 5 sec</li> <li>- Navigates between parameters</li> <li>- Submits a modified parameter</li> </ul>	<ul style="list-style-type: none"> <li>- Goes up one level, when held for 5 sec</li> <li>- Cancels a modified parameter, when held for 5 sec</li> </ul>

## Output Wiring (ECB-VAV)

### Heat 1 Configuration

Heat1 Type	
None	No Reheat
Pwm Triac	Modulating PWM on DO1 & AO5
Digital	Digital Reheat on DO1
Pwm Valve	PWM Valve on DO1
Thermal Valve	Thermal Valve on DO1
0-10V	Modulating 0-10V on AO5
2-10V	Modulating 2-10V on AO6
Floating Valve	Floating Valve on DO1 and DO2

### Heat 2 Configuration (Depends on Heat 1 Configuration)

Heat2 Type	Heat1 Type			
	Heat 1 not configured	Heat1 not floating	Heat1 floating	Heat 1 Floating and Fan Powered Box
None	n/a			
Pwm Triac	Cannot configure	DO2 & AO6	DO3 & AO6	
Digital		DO2	DO3	
Pwm Valve				
Thermal Valve				
0-10V		AO6		
2-10V		DO2 - Open	DO3 - Open	n/a
Floating Valve			DO3 - Close	DO4 - Close

### Heat 3 Configuration (Depends on Heat 1 and Heat 2 Configuration)

Heat3Type	Heat 1 and Heat2 Type			
	Heat 1 and Heat 2 not configured	Heat 1 and Heat 2 not floating	Heat 1 or Heat 2 floating	Heat 1 and Heat 2 floating OR Heat 1 or Heat 2 floating and Fan Powered Box
None	n/a			
Digital	Cannot configure	DO3	DO4	n/a
Pwm Triac				
Pwm Valve				
Thermal Valve				

Example:

Suppose Heat 1 Type is a floating valve, and both Heat 2 and Heat 3 Types are PWM Triac. In this case, Digital Outputs 1 and 2 of the controller are used to control heat source 1, Digital output 3 or Analog Output 6 can be used to control heat source 2, and Digital output 4 is used to control heat source 3.

In general, a heat type uses the next available digital output in sequence. For example, Heat 3 Type uses DO3 unless Heat 1 Type or Heat 2 Type is a floating valve, in which case DO4 is used instead of DO3.

Button Navigation Guide			
Advanced Menu			
	- Enters Advanced menu, when held for 5 sec - Navigates between parameters - Submits a modified parameter	- Goes up one level, when held for 5 sec - Cancels a modified parameter, when held for 5 sec	- Modifies a parameter - Goes up one level when pressed in Exit screen - Releases an override when both are pressed - Enters into a submenu

## Output Wiring (ECB-VAVS-O, ECB-VAVS, and ECB-VVTS)

### Heat 1 Configuration

Heat1Type	
None	No Reheat
Pwm Triac <sup>1</sup>	Modulating PWM on DO1 & AO3
Digital	Digital Reheat on DO1
Pwm Valve	PWM Valve on DO1
Thermal Valve	Thermal Valve on DO1
0-10V	Modulating 0-10V on AO3
2-10V	Modulating 2-10V on AO3
Floating Valve	Floating Valve on DO1 and DO2

1. Outputs only on DO1 if Heat2 is 0-10V or 2-10V

### Heat 2 Configuration (Depends on Heat 1 Configuration)

Heat2Type	Heat1 Type			
	Heat 1 not configured	Heat1 not floating	Heat1 analog	Heat1 floating
None	n/a			
Digital	Cannot configure	DO2		n/a
Pwm Triac				
Pwm Valve				
Thermal Valve				
0-10V		AO3	n/a	AO3
2-10V				

Example:

Suppose Heat 1 Type is an analog 0-10V signal and Heat 2 Type is PWM Triac. In this case, Analog output 3 of the controller is used to control heat source 1 and Digital output 2 of the controller is used to control heat source 2.

Button Navigation Guide		
Advanced Menu		
	<ul style="list-style-type: none"> <li>- Enters Advanced menu, when held for 5 sec</li> <li>- Navigates between parameters</li> <li>- Submits a modified parameter</li> </ul>	<ul style="list-style-type: none"> <li>- Goes up one level, when held for 5 sec</li> <li>- Cancels a modified parameter, when held for 5 sec</li> </ul>

## Output Wiring (ECB-VAV-N)

### Heat 1 Configuration

Heat1Type	
None	No Reheat
Pwm Triac	Modulating PWM on DO1 and AO5
Digital	Digital Reheat on DO1
Pwm Valve	PWM Valve on DO1
Thermal Valve	Thermal Valve on DO1
0-10V	Modulating 0-10V on AO5
2-10V	Modulating 2-10V on AO5
Floating Valve	Floating Valve on DO1 and DO2

### Heat 2 Configuration

Use this configuration when BoxType is single duct.

Heat1 and External Damper Type					
Heat2Type	None	Heat1 not floating		Heat1 floating	
		External Damper floating	External Damper analog	External Damper floating	External Damper analog
None	n/a	n/a	n/a	n/a	n/a
Pwm Triac	Cannot configure	DO2 & AO6		n/a	DO3
Digital		DO2	DO2		
Pwm Valve				AO6	n/a
Thermal Valve					
Analog 0-10V					
Analog 2-10V					

Use this configuration when BoxType is either Series Fan or Parallel Fan.

Heat1 and External Damper Type				
Heat2Type	None	Heat1 not floating	Heat1 floating	
			External Damper floating	External Damper analog
None	n/a			
Pwm Triac	Cannot configure	DO2	n/a	DO3
Digital				
Pwm Valve		n/a		n/a
Thermal Valve				
Analog 0-10V				
Analog 2-10V		n/a	n/a	

Button Navigation Guide			
Advanced Menu			
	- Enters Advanced menu, when held for 5 sec - Navigates between parameters - Submits a modified parameter	- Goes up one level, when held for 5 sec - Cancels a modified parameter, when held for 5 sec	- Modifies a parameter - Goes up one level when pressed in Exit screen - Releases an override when both are pressed - Enters into a submenu

### Fan Command Configuration

Fan (BoxType)	External Damper Type	
	Floating	Analog
Single Duct	n/a	n/a
Series Fan	AO6	DO4
Parallel Fan		

### External Damper Configuration

ExtDamperType	
Floating	External Actuator Floating Type on DO3 and DO4
0-10V	External Actuator 0-10V on AO6
2-10V	External Actuator 2-10V on AO6
10-0V	External Actuator 10-0V on AO6
10-2V	External Actuator 10-2V on AO6

Example:

Suppose External Damper Type and Heat 1 Type are floating valves, Heat 2 Type is an analog 0-10V signal and box type is a single duct. In this case, Digital Outputs 1 and 2 of the controller are used to control heat source 1, Digital Outputs 3 and 4 are used to control the damper, and Analog output 6 is used to control heat source 2.

### Configurable Actuator Damper Drive Times

Valid Choices	Descriptions
95 S	95 sec drive time
45 S	45 sec drive time
60 S	60 sec drive time
90 S	90 sec drive time
108 S	108 sec drive time
125 S	125 sec drive time
150 S	150 sec drive time
Custom	Custom Damper Drive Time (AV63)

Button Navigation Guide		
Advanced Menu		
	- Enters Advanced menu, when held for 5 sec - Navigates between parameters - Submits a modified parameter	- Goes up one level, when held for 5 sec - Cancels a modified parameter, when held for 5 sec
		- Modifies a parameter - Goes up one level when pressed in Exit screen - Releases an override when both are pressed - Enters into a submenu

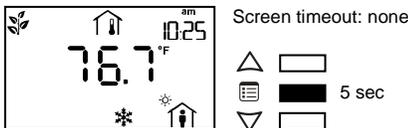
## Configuring the Flow Setpoint parameters

The flow setpoint parameters of the controller can be set in the Flow Setpoint submenu, which is part of the Advanced Menu of the Allure EC-Smart-Vue.

### How to enter the Flow Setpoint submenu and configure a parameter

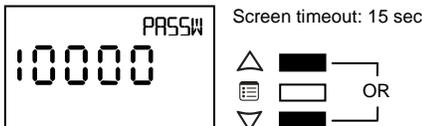
The Flow Setpoint submenu has several configurable parameters. To enter this submenu and configure a parameter:

1. Hold the **Menu** button for five seconds.



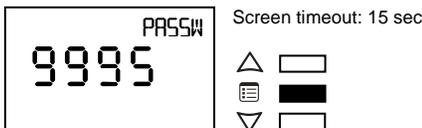
The password field appears.

2. Use the arrow keys to increase or decrease the displayed number until it matches the configured password.



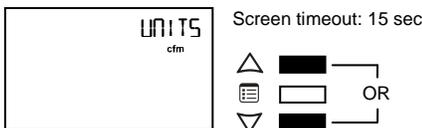
By default, the password is 9995.

3. Press the **Menu** button to submit the password.

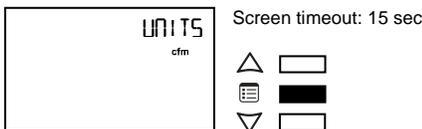


Upon submitting the correct password, the Advanced menu is entered and the Units submenu is displayed.

4. Use the arrow keys to select the display units of the flow setpoint parameters.

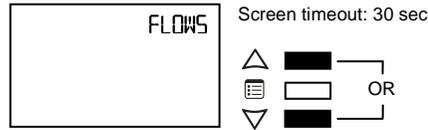


5. Press the **Menu** button to submit the display units type.

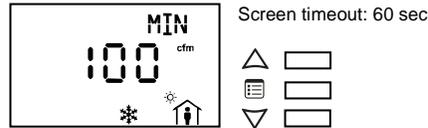


The *FLOWSP* menu then appears on the display.

6. Press either of the arrow keys to enter the Flow Setpoint submenu.



The minimum flow (MIN) parameter appears.



7. To scroll between the different parameters in the Flow Setpoint submenu, press the **Menu** button.
8. To modify a parameter, use the arrow keys. To enter a new parameter value, press the **Menu** button.

The table below shows all the parameters under the Flow Setpoint submenu.

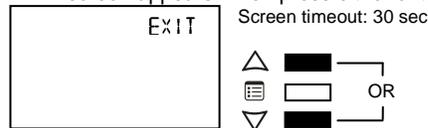
Name on Screen	Full Name	Screen Timeout
MIN	Minimum flow	60 sec
MAX	Maximum flow	60 sec
MINHT	Minimum flow in Heating mode	60 sec
MAXHT	Maximum flow in Heating mode	60 sec
STBY	Minimum flow in Standby mode	60 sec
UNOCC	Minimum flow in Unoccupied mode	60 sec
PFANFLOWSP <sup>1</sup>	Parallel fan flow setpoint	60 sec

1. Applicable to a parallel fan powered VAV

### How to exit the Flow Setpoint submenu

To exit the Flow Setpoint submenu and go up one level, do one of the following:

- Press the **Menu** button several times until the Exit screen appears. Then press either of the arrow keys.



- Press and hold the **Menu** button for 5 seconds.

Advanced Menu	Button Navigation Guide		
	<ul style="list-style-type: none"> <li>- Enters Advanced menu, when held for 5 sec</li> <li>- Navigates between parameters</li> <li>- Submits a modified parameter</li> </ul>	<ul style="list-style-type: none"> <li>- Goes up one level, when held for 5 sec</li> <li>- Cancels a modified parameter, when held for 5 sec</li> </ul>	<ul style="list-style-type: none"> <li>- Modifies a parameter</li> <li>- Goes up one level when pressed in Exit screen</li> <li>- Releases an override when both are pressed</li> <li>- Enters into a submenu</li> </ul>

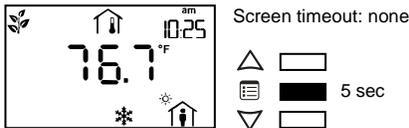
# Performing VAV Airflow Balancing

The airflow balancing procedure can be carried out from the Balancing submenu, which is part of the Advanced Menu of the Allure EC-Smart-Vue.

## How to enter the Balancing submenu

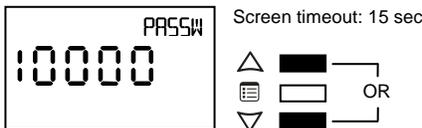
To enter the Balancing submenu:

1. Hold the **Menu** button for five seconds.



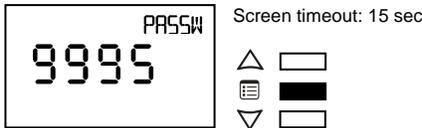
The password field appears.

2. Use the arrow keys to increase or decrease the displayed number until it matches the configured password.



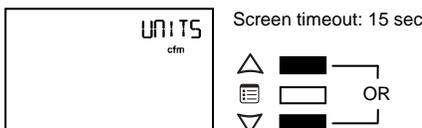
By default, the password is 9995.

3. Press the **Menu** button to submit the password.

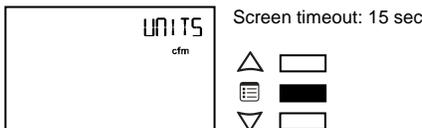


Upon submitting the correct password, the Advanced menu is entered and the Units submenu is displayed.

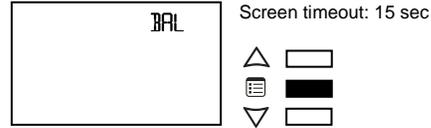
4. Use the arrow keys to select which display units are to be used in the Balancing submenu.



5. Press the **Menu** button to submit the selected display units type.

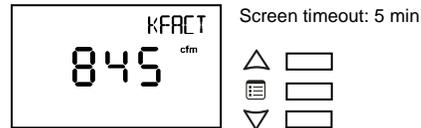


6. Press the **Menu** button several times until the Balancing (BAL) menu appears on the display.



7. Press either of the arrow keys to enter the Balancing submenu.

Upon entering the Balancing submenu, the K-Factor parameter appears.



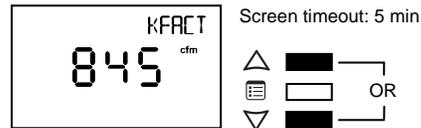
## How to perform airflow balancing

The K-Factor can be acquired from the VAV box manufacturer. The table below shows what the K-Factor represents in both Imperial and SI Units.

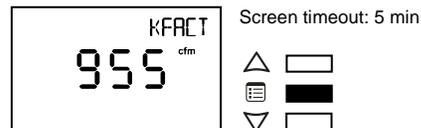
	Imperial Units	SI Units	
<b>What the K-Factor is</b>	Airflow (in cfm) at 1" WC	Airflow (L/s) at 1 Pa	Airflow (m3/h) at 1 Pa

To perform the airflow balancing procedure:

1. Use the arrow keys to enter the K-Factor.

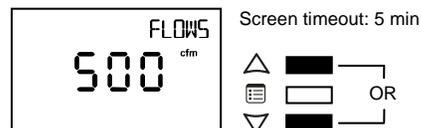


2. Press the **Menu** button to submit the K-Factor.

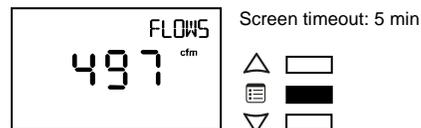


The Flow Setpoint parameter appears.

3. Use the arrow keys to override the flow setpoint. Choose a relatively high setpoint.



4. Press the **Menu** button to submit the new flow setpoint.



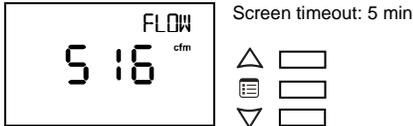
When the flow setpoint is modified, the icon appears, indicating that this parameter has been overridden. For information on removing overrides, see [How to release overrides](#).

Button Navigation Guide		
Advanced Menu		
	- Enters Advanced menu, when held for 5 sec - Navigates between parameters - Submits a modified parameter	- Goes up one level, when held for 5 sec - Cancels a modified parameter, when held for 5 sec

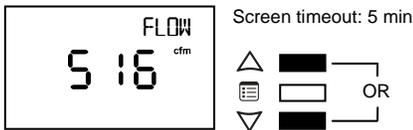


The Flow parameter appears. This parameter represents the airflow as measured by the controller.

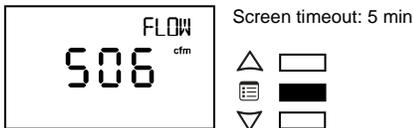
5. Monitor the Flow parameter until it stabilizes.



6. Using a flow hood, measure the actual airflow. Use the arrow keys to enter this measurement into the Flow parameter.



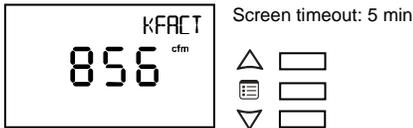
7. Press the **Menu** button to submit the actual airflow.



The Damper parameter appears.

Note that at this point, the K-Factor gets adjusted based on the airflow value just entered.

8. Press the **Menu** button several times until the K-Factor parameter reappears. This value can be included in the balancing report.



The VAV controller is now balanced.

### How to initialize the damper

If the mechanical stops on the actuator have been moved to limit the range of movement of the damper, then the damper must be initialized. Damper initialization resets the damper position and calculates the total number of steps between the stops.



The actuator mechanical stops should be moved only to limit damper movement from going under 0% or over 100%.

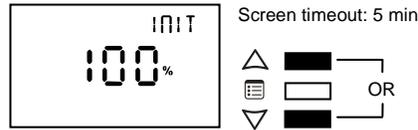
To initialize the damper using the Allure EC-Smart-Vue:

1. Navigate to the Initialize Damper parameter.



The screen displays the current damper position.

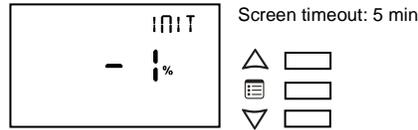
2. Press one of the arrow keys to change the displayed value to 1.



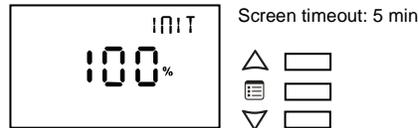
3. Press the **Menu** button.



The damper begins the initialization process. During this process, the screen displays -1.



After a few minutes, the screen redisplay the damper's current position.

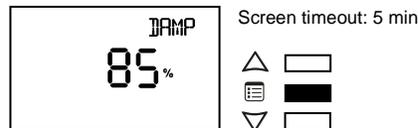
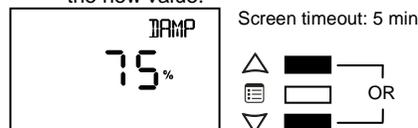


The damper is now initialized.

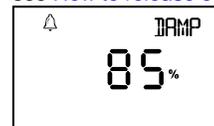
### Other functions in the Balancing menu

The Balancing submenu contains three other parameters that complement those mentioned above.

- To override the damper position, navigate to the Damper parameter and then use the arrow keys to change the displayed value. Then press the **Menu** button to submit the new value.



When the damper position is modified, the icon  appears, indicating that this parameter has been overridden. For information on removing overrides, see [How to release overrides](#).



- To change the direction in which the actuator rotates to open the damper, navigate to the Direction parameter (*dir*) and then use the arrow keys to change the rotation

Button Navigation Guide		
Advanced Menu	☰	△ and ▽
	<ul style="list-style-type: none"> <li>- Enters Advanced menu, when held for 5 sec</li> <li>- Navigates between parameters</li> <li>- Submits a modified parameter</li> </ul>	<ul style="list-style-type: none"> <li>- Goes up one level, when held for 5 sec</li> <li>- Cancels a modified parameter, when held for 5 sec</li> </ul>

direction from clockwise to counter clockwise or vice versa. Then press the **Menu** button to submit the new rotation direction.

Screen timeout: 5 min

Screen timeout: 5 min

- To view the current differential pressure reading, navigate to the Pressure parameter.

Screen timeout: 5 min

### How to release overrides

The presence of the icon  in the display screens of the Flow Setpoint or Damper parameters indicates that either of them is overridden. An override normally times out after two hours. However, it should be released manually when airflow balancing is complete. Also note that both the Flow Setpoint and Damper parameters cannot be overridden at the same time, so overriding one parameter automatically releases the other.

To manually release an override:

1. Press and hold both arrow keys simultaneously.

Screen timeout: 5 min

The screen displays three dashes.

2. Press the **Menu** button.

Screen timeout: 5 min

### How to exit the Balancing submenu

To exit the Balancing submenu and go up one level, do one of the following:

- Press the **Menu** button several times until the Exit screen appears. Then press either of the arrow keys.

Screen timeout: 30 sec

- Press and hold the **Menu** button for 5 seconds.

Advanced Menu	Button Navigation Guide		
		 and 	
- Enters Advanced menu, when held for 5 sec - Navigates between parameters - Submits a modified parameter	- Goes up one level, when held for 5 sec - Cancels a modified parameter, when held for 5 sec	- Modifies a parameter - Goes up one level when pressed in Exit screen - Releases an override when both are pressed - Enters into a submenu	

## Performing Overrides

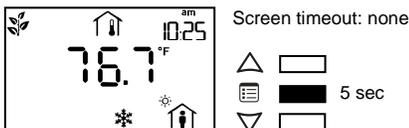
The Overrides submenu of the Allure EC-Smart-Vue's Advanced menu allows performing damper overrides as well as output overrides.

Output overrides range from 0 – 100% in increments of 1%. For digital outputs, any value different from 0 represents On.

### How to perform an override

To perform a damper or output override:

1. Hold the **Menu** button for five seconds.



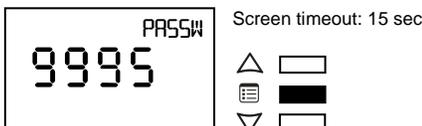
The password field appears.

2. Use the arrow keys to increase or decrease the displayed number until it matches the configured password.

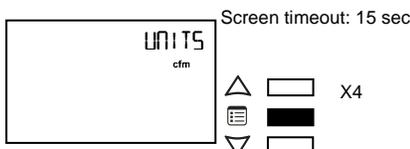


By default, the password is 9995.

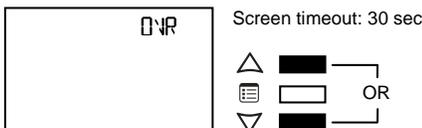
3. Press the **Menu** button to submit the password.



4. Upon submitting the correct password, the Advanced menu is entered and the Units submenu is displayed.

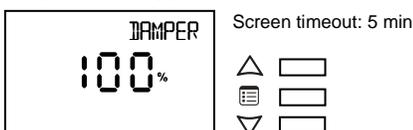


5. Press the **Menu** button several times until **OVR** appears on the display.

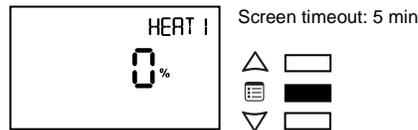


6. Press either of the arrow keys to enter the Overrides submenu.

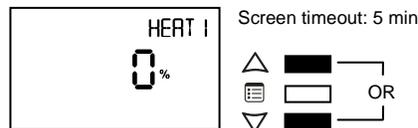
Upon entering the Overrides submenu, the Damper parameter appears.



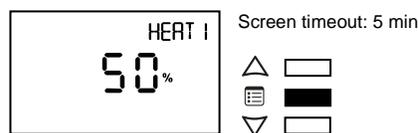
7. To scroll between the different parameters in the Overrides submenu, press the **Menu** button.



8. To override a parameter, use the arrow keys to modify the displayed percentage value.



9. Press the **Menu** button to put the override into effect.

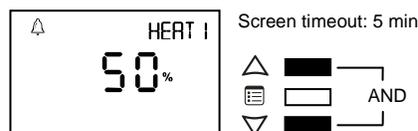


### How to release overrides

The presence of the  in the display screen of a parameter in the Overrides submenu indicates that it is overridden. An override normally times out after two hours. However, it should be released manually when there is no use for it any more.

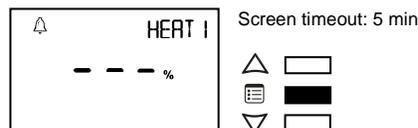
To manually release an override:

1. Press and hold both arrow keys simultaneously.



The screen displays three dashes.

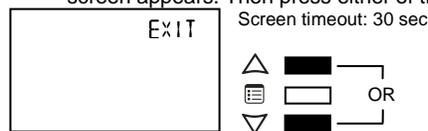
2. Press the **Menu** button.



### How to exit the Overrides submenu

To exit the Overrides submenu and go up one level, do one of the following:

- Press the **Menu** button several times until the Exit screen appears. Then press either of the arrow keys.



- Press and hold the **Menu** button for 5 seconds.