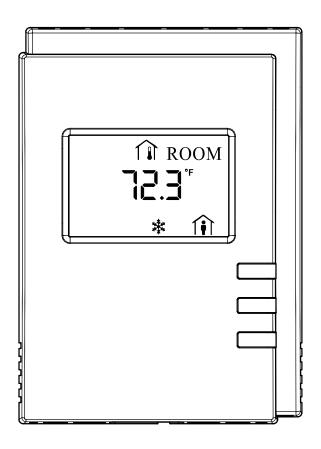


## IOM - BACnet® UNI2-VAV Diffuser Assembly

## **TNB Interface:**





#### TBN BACnet Thermostat • Network Configuration

## **Button Navigation Guide:**

		riangle and $ riangle$
Advanced Menu	<ul> <li>Enters Advanced Menu, when held for 5 sec</li> <li>Navigates between parameters</li> <li>Submits a modified parameter</li> <li>Goes up one level, when held for 5 sec</li> <li>Cancels a modified parameter, when held for 5 sec</li> </ul>	<ul> <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>

## **Setting up the Network Parameters**

From the TBN General Configuration submenu, the controller's network parameters can be set.

How to enter the General Configuration submenu

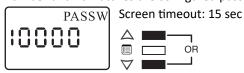
To enter the General Configuration submenu:

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



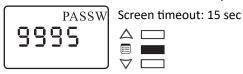
The password field appears.

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.

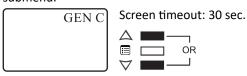


Upon submitting the correct password, the Advanced Menu is entered and the Setpoints submenu is displayed.

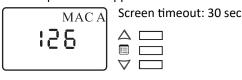
4. Press the **Menu** button several times until **GEN CFG** appears on the display.



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



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

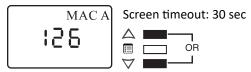


# How to set up the BACnet® MS/TP communication network parameters

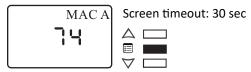
The TBN can be used to set the controller's BACnet® MAC address and baud rate. In doing so, the TBN must have a subnet ID of 1.

To set up the network parameters:

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

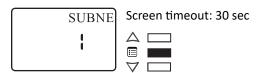


2. Press the Menu button to submit the MAC address.



The TBN 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.



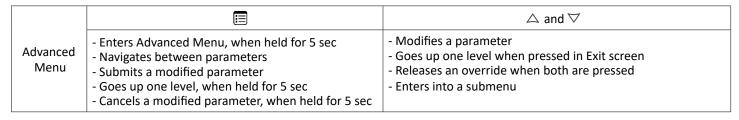
Keep in mind that all the devices on the data bus must be set to the same baud rate. Typically, the baud rate is set at the router level. Therefore, it is recommended to set the baud rate to AUTO so that the baud rate being used on the data bus is automatically detected and applied to the controller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

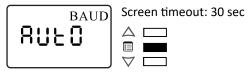
5. Press the **Menu** button to submit the baud rate.



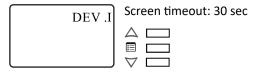
#### TBN BACnet Thermostat • Network Configuration

## **Button Navigation Guide:**





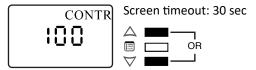
The TBN hardware information appears on the display.



The TBN's hardware information may be required by Nailor Technical Support for troubleshooting purposes.

#### How to adjust the screen contrast

- 1. Navigate to the contrast parameter.
- 2. 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.

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

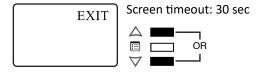


The screen contrast changes according to the new value submitted.

#### How to exit the General Configuration submenu

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

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



2. Press and hold the Menu button for 5 seconds.



#### TBN BACnet Thermostat • General Configuration

## **Button Navigation Guide:**

		riangle and $ riangle$
Advanced Menu	<ul> <li>Enters Advanced Menu, when held for 5 sec</li> <li>Navigates between parameters</li> <li>Submits a modified parameter</li> <li>Goes up one level, when held for 5 sec</li> <li>Cancels a modified parameter, when held for 5 sec</li> </ul>	- Modifies a parameter - Goes up one level when pressed in Exit screen - Releases an override when both are pressed - Enters into a submenu

## How to enter the Configuration submenu

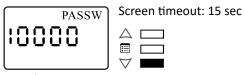
#### To enter the Configuration submenu:

1. Hold the Menu button for five seconds.



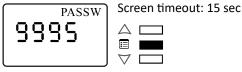
The password field appears.

2. Use the down arrow key to decrease the display number until it matches the configured password.

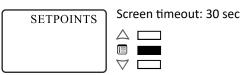


By default, the password is 9995.

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



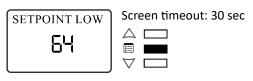
4. Once the password is accepted, press the **Menu** button again and SETPOINT will appear on the screen.



5. Press the up or down arrow key and the Bypass Time will appear. The default setting is 60 minutes. To change the default setting, use the arrow keys.



6. Press the **Menu** button again and the Setpoint Low Limit will appear. The default setting is 64°F. To change the default setting, use the arrow keys.



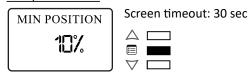
7. Press the **Menu** button again and the Setpoint High Limit will appear. The default setting is 74°F. To change the default setting, use the arrow keys.



8. Press the **Menu** button again an Reheat Config will appear. The default setting is No Heat. To change the default setting, use the arrow keys.



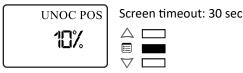
9. Press the **Menu** button again and Min Position Heat will appear only if 1 or 2 stage heating or 0-10/2-10 volts was selected on the previous screen. The default setting is 10%. Use the arrow keys to change the default setting. This screen will be skipped if no reheat is selected and the next screen to appear will be Min Damper Position.



10. Press the **Menu** button again and the Minimum Damper Position will appear. The default setting is 100%. To change the default setting, use the arrow keys.



11. Press the **Menu** button again and the Maximum Damper Position will appear. The default setting is 100%. To change the default setting, use the arrow keys.



12. Press the **Menu** button again and the Unoccupied Damper Position will appear. The default setting is 10%. To change the default setting, use the arrow keys.

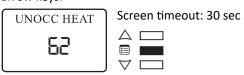


#### TBN BACnet Thermostat • General Configuration

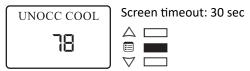
## **Button Navigation Guide:**

		riangle and $ riangle$
Advanced Menu	<ul> <li>Enters Advanced Menu, when held for 5 sec</li> <li>Navigates between parameters</li> <li>Submits a modified parameter</li> <li>Goes up one level, when held for 5 sec</li> <li>Cancels a modified parameter, when held for 5 sec</li> </ul>	- Modifies a parameter - Goes up one level when pressed in Exit screen - Releases an override when both are pressed - Enters into a submenu

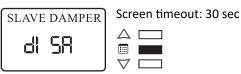
13. Press the **Menu** button again the Unocc Heat Setpoint will appear. The default setting is 62°F. To change the default, use the arrow keys.



14. Press the **Menu** button again the Unocc Cool Setpoint will appear. The default setting is 78°F. To change the default, use the arrow keys.

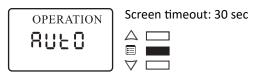


- 15. Press the **Menu** button again and the Max Duct Temp will appear if either 1 or 2 stage reheat or 0-10/2-10 volts was enabled. The default setting is 80°F. To change the default setting, use the arrow keys. This screen will be skipped if no reheat is selected.
- 16. Press the **Menu** button again and the Max Duct Discharge will appear if either 1 or 2 stage reheat or 0-10/2-10 volts was enabled. The default setting is 120°F. To change the default setting, use the arrow keys. This screen will be skipped if no reheat is selected.
- 17. Press the **Menu** button again and the Slave Damper Enable will appear. The default setting is Disable. To change the default, use the arrow keys.



- 18. Press the **Menu** button again and Motion Bypass will appear if the TBN has a motion detector on board. The default setting is Enable. To change the default setting, use the arrow keys.
- 19. Press the **Menu** button again and Motion Bypass Time will appear if the TBN has a motion detector on board. The default setting is 60 Minutes. To change the default setting, use the arrow keys.
- 20. Press the **Menu** button again and  $CO_2$  Setpoint will appear if the TBN has  $CO_2$  detection on board. The default setting is 800 ppm. To change the default setting, use the arrow keys.

21. Press the **Menu** button again and Operation - Auto will appear. This is the default for automatic damper operation.

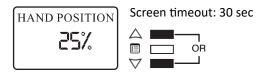


22. To use Hand Positions, press the UP arrow button until the display reads Operation - Hand. This allows Hand Position to be active.

If the UP arrow button is pressed again, the display will toggle back to Auto. Press **Menu** to advance to next screen.



23. When in Hand Position, use the arrow buttons to increase or decrease the damper position value. The default percentage is 25% which is the fixed position the damper will open.

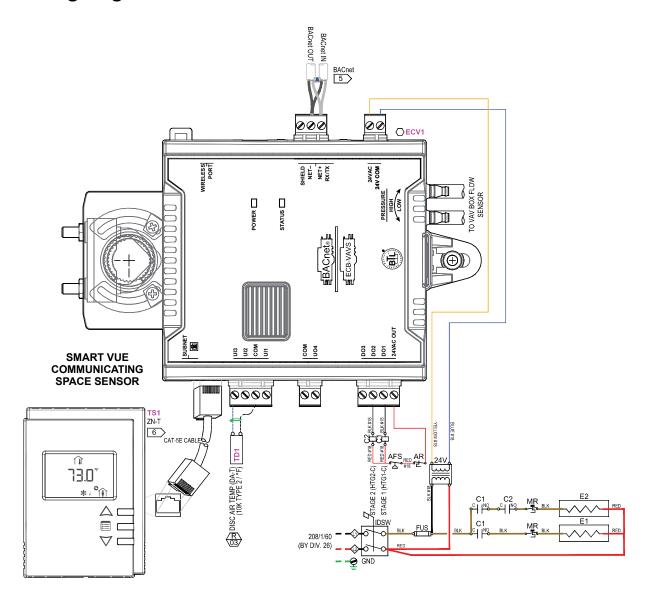


24. Exit the submenu via the arrow keys or let stat timeout.



#### IOM • BACnet® UNI2-VAV Diffuser Assembly

### **TBN** Wiring Diagram:



#### NOTE:

- 1. Dashed lines indicate new field wiring. Sold lines indicate existing wiring to remain or new field wiring by others.
- 2. All field wiring must meet or exceed the requirements of the National Electrical Code (NEC) and the Sate Local requirements.
- 3. For inputs and outputs, the shield wire is grounded at the controller end only.
- 4. Wiring for inputs and outputs is 18 AWG, shielded, twisted pair with stranded tinned copper conductors.
- 5. The BACnet® MS/TP network wire is 24 AWG (0.65 mm) stranded, twisted shield pair (Jackson system part#: 24/2 BACnet®). The BACnet® MS/TP communication wire is polarity sensitive and the only acceptable topology is to Daisy-chain the cable from one controller to the next.
- 6. Mount space temperature sensor per ADA requirements. Field verify location and coordinate with other trades.