

Intelligent Room Control Display

For CBT12iVAV

The CBT-STAT and CBT-STAT-H provide dedicated visually appealing room control display for use with the CBT12iVAV unitary controller, and allows the user to view and adjust selected parameters within the controller to which it is connected. Each unit features a temperature sensor, while the CBT-STAT-H additionally includes an integrated humidity sensor.

Use of the CBT-STAT avoids the need for any special tools or software to fully configure and commission a VAV controller. The configuration and commissioning is password protected to prevent unauthorized changes. The CBT12iVAV controller will automatically detect the presence of the CBT-STAT, and self-configure to utilize the CBT-STAT as the control interface. In Engineering Mode, the display can be used as the setup and commissioning tool. The CBT-STAT can be used to setup the communications parameters, all the default settings and do complete balancing of the VAV box.

While the display can be used for local control, the CBT-STAT can be easily integrated into the American Auto-Matrix BACnet system architecture. Pairing the CBT-STAT with the CBT12iVAV controller can significantly reduce setup and commissioning time, resulting in overall reduced installation cost.



FEATURES

- Remote access to controller state, setpoints and commands
- Fast VAV commissioning : no special hardware needed
- Password Protected
- Sleek, modern and nonintrusive design
- Visual indication of system status
- Backlit LCD display
- Access to configuration parameters
- Local Alarming
- Internal temperature sensor
- Optional Internal humidity sensor (CBT-STAT-H)
- Fits in a standard junction box or drywall mountable

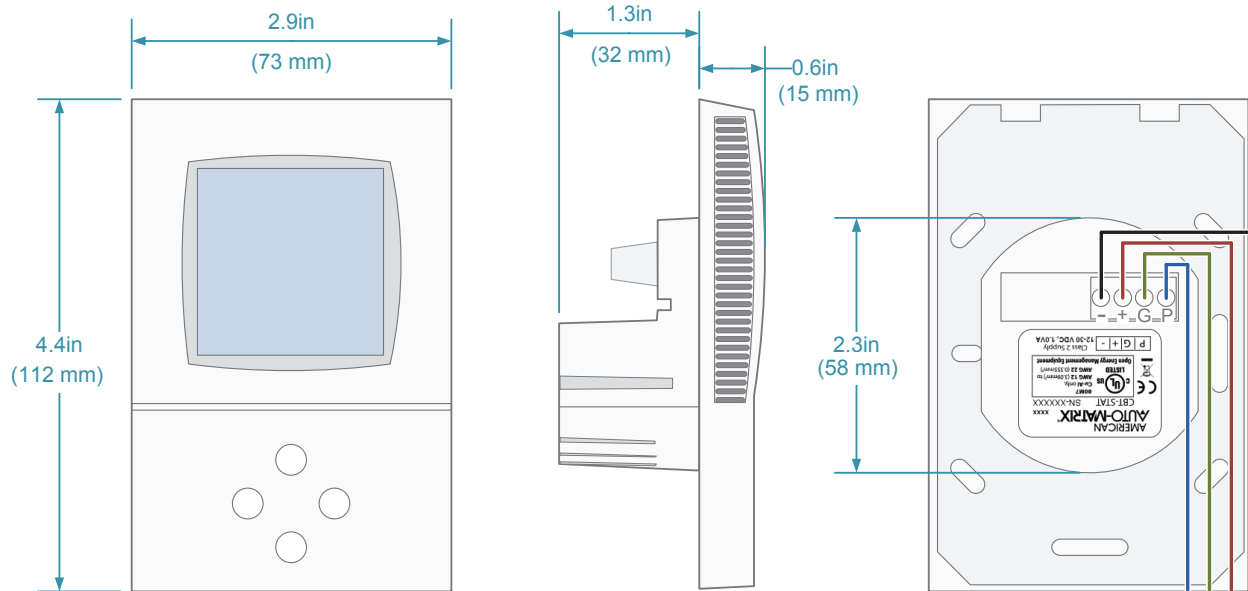
MOUNTING

- Install the CBT-STAT or CBT-STAT-H on an easily accessible interior wall, approximately 60" (1.5 m) above the floor in an area of average temperature
- Avoid direct sunlight or other heat sources (e.g. the area above radiators or other heat-emitting equipment)
- Avoid locations behind doors, on outside walls and above or below air discharge grills and diffusers

INSTALLATION

1. Connect the CBT12iVAV controller to the terminals of the power case according to the wiring diagram.
2. Attach the mounting plate to the flush-mounting box. Make sure that the nipple with the front-holding screw is facing to the ground. Make sure the mounting screw heads do not stand out more than 0.2" (5mm) off the surface of the mounting plate.
3. Slide the two latches located on the top of the front part into the hooks at the upper side of the mounting plate.
4. Carefully lower the front part until the interconnector reaches the mounting plate. Continue pressing gently until the front part is fully connected. NOTE: while inserting the connectors, a slight resistance can be felt. This is normal, do not use excessive force.
5. With a Phillips-type screwdriver (size #2), carefully tighten the front holding screw to secure the front part to the mounting plate. This screw is located on the front lower-side of the unit.

DIMENSIONS & WIRING



SPECIFICATIONS

POWER SUPPLY

Operating Voltage	10 to 28 VDC
Power Consumption	Max 0.5 VA
Terminal Connectors	AWG 24 - 12 (wire 0.2 - 3.3 mm ²)

TEMPERATURE INPUT

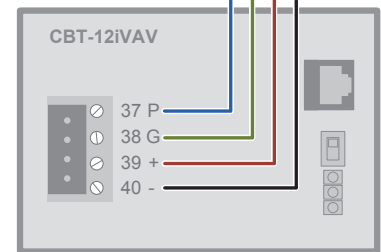
Type	NTC 10 K Ω @ 77° F (25° C)
Range	32 to 122° F (0° to 50° C)
Accuracy	0.5 K

HUMIDITY SENSOR INPUT (OPTIONAL)

Type	Polymer-based Capacity Sensor
Range	0 to 100% RH
Accuracy	3%

ENVIRONMENT

Operation	To IEC 721-3-3
Climatic Conditions	Class 3 K5
Temperature	32° to 122° F (0° to 50° C)
Humidity	< 95% RH non-condensing
Transport & Storage	To IEC 721-3-2 and IEC 721-3-1
Climatic Conditions	Class 3 K3 and Class 1 K3
Temperature	-13° to 158° F (-25° to 70° C)
Humidity	< 95% RH non-condensing
Mechanical Conditions	Class 2M2



COMMUNICATION

Communication Type	EIA-485 : MAX 1,600 ft. (500 m)
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STANDARDS

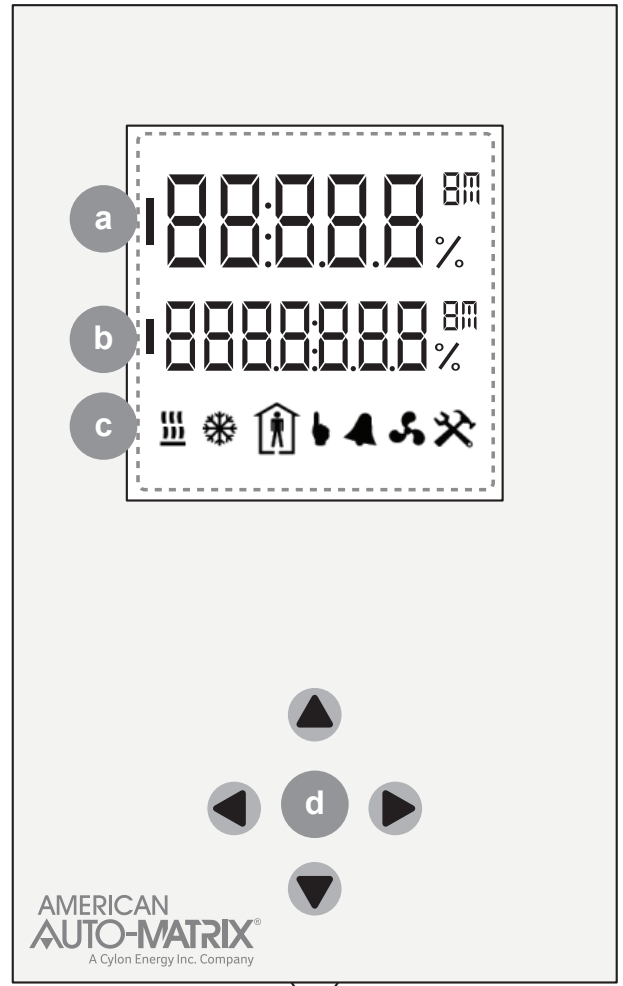
Conforms according to	UL 916 (UL File Number E95642) EMC Standard 89/336/EEC EN 61 000-6-1 / EN 61 000-6-3 EMEI Standard 73/23/EEC
Pollution Class	Normal according to EN 60 730
Degree of Protection	IP30 to EN 60 529
Safety Class	III

GENERAL

OPA Dimensions (H x W x D)	Front: 4.4 x 2.9 x 0.6 in. (112 x 73 x 15 mm) Power Case: \varnothing 2.3 x 1.3 in. (\varnothing 58 x 32 mm)
Housing Material	Fireproof ABS Plastic
Mounting Plate	Zinc-coated Steel
Standard Color	White RAL 9003
Weight (including package)	8.8 oz (250 g)

OPERATION OF THE DISPLAY





<p>a</p>	<p>1st Line (large digits) In User Mode, this displays the current temperature reading In Engineering Mode, this displays menu text</p>
<p>b</p>	<p>2nd Line (small digits) In User Mode, this displays one of the following:</p> <ul style="list-style-type: none"> • Humidity (CBT-STAT-H) • Temperature Setpoint (CBT-STAT) <p>In Engineering Mode, this displays menu text</p>
<p>c OPERATION MODE INDICATORS</p>	
	<p>Indicates that the controller is operating in "heating" mode</p>
	<p>Indicates that the controller is operating in "cooling" mode</p>
	<p>Indicates that the controller strategy is currently operating in "occupancy" mode</p>
	<p>Indicates whether the occupancy mode is controlled by a time schedule, or is manually overridden</p>
	<p>Indicated that an alarm state is detected in the controller strategy</p>
	<p>Indicates that the fan is operating</p>
	<p>Indicates that the keypad is operating in Engineering Mode</p>



IMPORTANT NOTICE AND SAFETY ADVICE

This device is for use as an operating control. It is NOT a safety device. Where a device failure endangers human life and/or property, it is the responsibility of the client, installer and system designer to add additional safety devices to prevent a system failure caused by such a device failure.




Ignoring specifications and local regulations may cause equipment damage and endangers life and property. Tampering with the device or misapplication will void warranty.

<p>d KEYPAD</p>	
	<p>Left Button User Mode: No function Engineering Mode: Change menu page</p>
	<p>Up Button User Mode: Increase setpoint Engineering Mode: Change menu line, increase value</p>
	<p>Right Button User Mode: Toggle occupancy mode (if "Permit Occupancy Override" is enabled) Engineering Mode: Change menu page, start parameter editing, accept changes</p>
	<p>Down Button User Mode: Decrease setpoint Engineering Mode: Change menu line, decrease value</p>

USER & ENGINEERING MODES








USER MODE

If the CBT12iVAV strategy has been configured to permit it, the user can adjust the temperature setpoint or occupancy status. Enter the User Mode by pressing any button until the temperature setpoint is displayed on the second line with a flashing unit symbol

- When in User Mode, press the up button  or down button  to adjust the setpoint value by the span defined in the CBT12iVAV configuration until the desired temperature setpoint is displayed.
- When in User Mode, the right button  can also be used to request the Strategy to override the schedule and force occupancy mode. "Permit Occupancy Override" must be enabled in the controller configuration.

ENGINEERING MODE

In Engineering Mode, the keypad can be used as a commissioning tool; adjusting preconfigured parameters within the controller strategy. To enter Engineering Mode:

- Hold both the up button  and down button  for 3 seconds, until the text **PASS** is displayed on the top line (large text).
- Enter the password (a series of digits) using the left  and right  buttons to select each digit, and then the up  and down  buttons to increment or decrement the selected digit. The default password is **9999**, which can be changed over the network.
- When the password is complete, press and hold the right button  for 3 seconds. If the password is accepted, the Engineering menu will be displayed.

For additional information, please see MAN0120US CBT-STAT and CBT-STAT-H for CBT12iVAV User Manual.

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