VT7600F Series

User Interface Guide

November 2015

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CONFIGURING AND STATUS DISPLAY INSTRUCTIONS

Status display

The Room Controller features a two-line, eight-character display. There is a low level backlight that is always active and can only be seen at night.

When left unattended, the Room Controller has an auto scrolling display that shows the current status of the system.

Each item is scrolled sequentially with the back lighting in low level mode. Pressing any key will cause the back light to come on to high level.

Manual scrolling of each menu item is achieved by pressing the Yes (scroll) key repetitively. The last item viewed will be shown on the display for 30 seconds before returning to automatic scrolling. Temperature is automatically updated when scrolling is held.

Sequence of auto-scroll status display:

CLOCK STATUS	SYSTEM MODE	SCHEDULE STATUS	OUTDOOR TEMPERATURE	ALARMS
Monday 12:00 AM	Sys mode auto	Occupied	Outdoor x.x °C or° F	Service
	Sys mode off	Occupied hold		Frost ON
	Sys mode heat	Unoccup		SetClock
	Sys mode cool			Filter
				Fan lock
				DAS Alrm

Outdoor air temperature

Outdoor air temperature display is only enabled when outdoor air temperature sensor is connected.

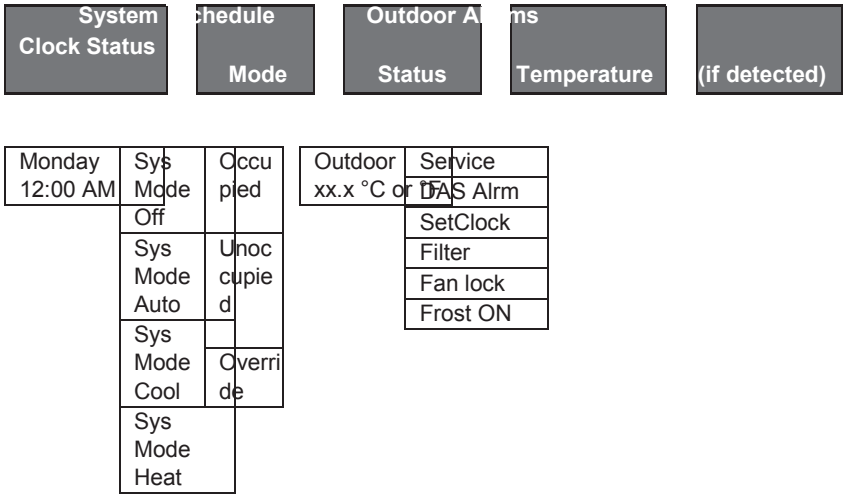
- A maximum range status display of 50 °C (122 °F) indicates a shorted sensor. Associated functions, such as mode lockouts and economizer function are automatically disabled.
- A minimum range status -40 °C (-40 °F) is not displayed and indicates an opened sensor or a sensor not connected. Associated functions, such as mode lockouts and economizer function are automatically disabled.

Alarms

- If alarms are detected, they will automatically be displayed at the end of the status display scroll.
- During an alarm message display, the back lit screen will light up at the same time as the message and shut off during the rest of the status display.
- Two alarms maximum can appear at any given time.
- The priority for the alarms is as follows:

Sequence of manual-scroll status display:

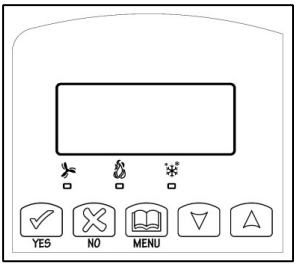
Manual scroll of each menu item is achieved by pressing the Yes (scroll) key repetitively. The last item viewed will be shown on the display for 30 seconds before returning to automatic scrolling. Temperature is automatically updated when scrolling is held.


System
Clock Status
Schedule
Mode
Outdoor Alarms
Status
Temperature
(if detected)
Monday
12:00 AM
Sys Mode Off
Sys Mode Auto
Sys Mode Cool
Sys Mode Heat
Occupied
Unoccupied
Override
Outdoor
xx.x °C or °F
Service
DAS Alrm
SetClock
Filter
Fan lock
Frost ON

Frost ON	Indicates that the heating is energized by the low limit frost protection room temperature setpoint 5.6 °C (42 °F)
SetClock	Indicates that the clock needs to be reset. There has been a power failure which has lasted longer than 6 hours
Service	Indicates that there is a service alarm as per one of the configurable digital input (DI1 or DI2)
Filter	Indicates that the filters are dirty as per one of the configurable digital input (DI1 or DI2)
Fan lock	Indicates that the heating and cooling action are locked out due to a defective fan operation
DAS Alarm	Indicates that the discharge air temperature is either too low or too high.

When any of the **fan** is **ON**, the **FAN LED will illuminate**	
When **heating** is **ON**, the **HEAT LED will illuminate**	
When **cooling** is **ON**, the **COOL LED will illuminate**	

User configuring instructions menu



The VT76X6FX series of controllers feature an intuitive, menu-driven, back-lit LCD display that walks users and installers through the configuring steps, making the configuring process extremely simple. This menu is typically accessed by the user to set the parameters such as the clock time set, the schedule time events and the system mode.

It is possible to bring up the user menu at any time by depressing the MENU key. The status display automatically resumes after exiting the user-configuring menu.

If the user pauses at any given time during configuring, **Auto Help** text is displayed to help and guide the user through the usage and configuring of the controller.

Press yes key to change cooling temperature setpoint Ex.: Use the up or down arrow to adjust cooling setpoint

Each of the sections in the menu is accessed and configured using 5 keys on the controller cover. The priority for the alarms is as follows:

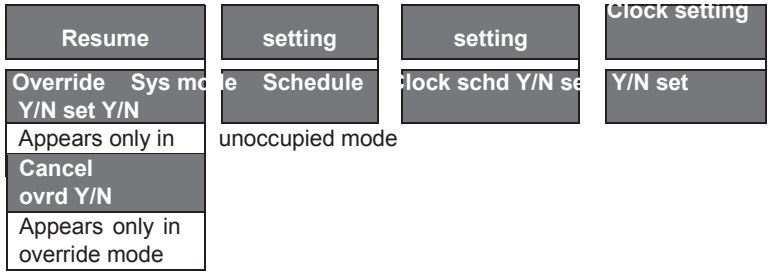
Local keypad interface

	The YES key is used to confirm a selection, to move onto the next menu item and to manually scroll through the displayed information.
	The NO key is used when you do not desire a parameter change, and to advance to the next menu item. Can also be used to toggle between heating and cooling setpoints.
	The MENU key is used to access the Main User Menu or exit the menu.
	The down arrow key is used to decrease temperature setpoint and to adjust the desired values when configuring the Room Controller.
	The up arrow key is used to increase temperature setpoint and to adjust the desired values when configuring the Room Controller.

When left unattended for 45 seconds, the display will resume automatic status display scrolling.

To turn on the back light, press any key on the front panel. The back lit display will turn off automatically after 45 seconds.

Sequence of user menu:



A) Override an unoccupied period

This menu will appear only when the Room Controller is in unoccupied mode. The unoccupied mode is enabled either by the internal timer scheduling or by a remote NSB contact via DI1 or DI2.

If DI1 or DI2 is configured to operate as a remote temporary override contact, this menu will be disabled.

Answering yes to this prompt will cause the Room Controller to go into occupied mode for an amount of time equal to the parameter “TOccTime” (1 to 12 hours).

B) Resume regular scheduling

Cancel ovrd Y/N

This menu does not appear in regular operation. It will appear only when the Room Controller is in Unoccupied override mode.

Answering "Yes" to this question will cause the Room Controller to resume the regular setpoints & scheduling.

C) Temperature setpoints

Permanent setpoint changes

Temperat set Y/N

This menu permits the adjustment of all permanent temperature setpoints (occupied and unoccupied) as well as the desired temperature units (°F or °C). Permanent setpoints are written to RAM and EEPROM.

COOLING SETPOINT OCCUPIED MODE		HEATING SETPOINT OCCUPIED MODE		COOLING SETPOINT UNOCCUPIED MODE		HEATING SETPOINT UNOCCUPIED MODE		°F OR °C DISPLAY SETTING	
Cooling set? Y/N	No next □ Yes down □	Heating set? Y/N	No next □ Yes down □	Unocc CL set? Y/N	No next □ Yes down □	Unocc HT set? Y/N	No next □ Yes down □	°F or °C set? Y/N	No next □ Yes down □

Use keys to set value, Yes key to confirm

Cooling 70.0 °F	Use To set value	Heating 68.00 °F	Use To set value	Unocc CL 80.0 °F	Use To set value	Unocc HT 60.0 °F	Use To set value	Units °F	Use To set value

Temporary setpoint changes

Temporary setpoints can be modified through the Up arrow key ( ) and the Down arrow keys ( ).
User will be prompted with the present mode (Heating or Cooling) of the Room Controller and its setpoint.
The Up ( ) arrow key will increment the setpoint by 0.5 degree (F or C).
The Down ( ) arrow key will decrement the setpoint by 0.5 degree (F or C). Press the Yes key to accept the new setpoint.

Local changes to the heating or cooling setpoints made by the user directly using the up or down arrow are temporary.
They will remain effective for the duration specified by ToccTime.
Setpoints will revert back to their default value after internal timer ToccTime expires. If a permanent change to the setpoints is required, use the Temperat set ? menu

D) System mode setting

Sys mode set Y/N

This menu is accessed to set system mode operation
Use to set value, Yes key to confirm

Sys mode auto	**Automatic mode** Automatic changeover mode between heating and cooling operation
Sys mode cooling	**Cooling mode** Cooling operation mode only
Sys mode heating	**Heating mode** Heating operation mode only
Sys mode emergency	**Emergency heat mode** (heat pump models only) Forced auxiliary heat operation mode only
Sys mode off	**Off mode** Normal cooling or heating operation disabled If enabled in installer parameters, only the automatic heating frost protection at 50 °F (10 °C) is enabled

E) Fan mode setting

Fan mode set Y/N

This section of the menu is permits the setting of the fan mode operation.
Use to set value, Yes key to confirm

Fan mode On	**On fan mode** Fan is on continuously, even when system mode is OFF.
Fan mode Auto	**Automatic fan mode** Fan cycles on a call for heating or cooling for both occupied & unoccupied periods.
Fan mode Smart	**Smart fan mode** During occupied periods, fan is on continuously. In unoccupied mode, fan cycles on a call for heating or cooling. This selection is available on all models with a communication module, on all stand-alone (Network Ready) scheduling models or if DI1 or DI2 is set to RemNSB on stand-alone non-scheduling models.

F) Schedule set (2 events)

Scheduling can have 2 or 4 events per day. This is set in the configuration menu as per parameter (2/4event)

Schedule set Y/N

This section of the menu permits the user to set the whether 2 or 4 events is needed. Each day can be tailored to specific schedules if needed.

- 2 events can be scheduled per day.
- Occupied & unoccupied periods can be set for each day.

MONDAY TIMER SCHEDULE SET		TUESDAY TIMER SCHEDULE SET		WEDNESDAY TIMER SCHEDULE SET		OTHER DAYS ARE IDENTICAL
Monday set? Y/N	No next □ Yes down □	Tuesday set? Y/N	No next □ Yes down □	Wednesday set? Y/N	No next □ Yes down □	Selects the day to be scheduled or modified

Yes key to access day scheduling, No key to jump to next day

Occupied Day? Y/N	No next □ Yes down □	Occupied Day? Y/N	No next □ Yes down □	Occupied Day? Y/N	No next □ Yes down □	Yes = Daily schedules will be accessed No = Unoccupied mode all day

Yes key to access day scheduling, No key to jump to next day

Copy Y/N Previous	Yes next □ No down □	Copy Y/N Previous	Yes next □ No down □	Yes = Will copy previous day schedule No = Daily schedules will be accessed	

Yes key to copy previous day, No key to set new time value for each day

Occupied 00:00 AM	Use To set value	Occupied 00:00 AM	Use To set value	Occupied 00:00 AM	Use To set value	Sets Event # 1 Occupied time Will activate occupied setpoints

Use to set value, Yes key to confirm

Unoccup 00:00 AM	Use To set value	Unoccup 00:00 AM	Use To set value	Unoccup 00:00 AM	Use To set value	Sets Event # 2 Unoccupied time Will activate unoccupied setpoints

Use to set value, Yes key to confirm

Typical examples of a 2 event office schedule:

Ex. #1 Office building closed all weekend

Event	Period #1 - Event #1		Period #1 - Event #2		Daily Occupancy
	Occupied		Unoccupied		
Setpoint	Cool 72 °F	Heat 70 °F	Cool 80 °F	Heat 62 °F	
Monday	7.00 AM		6.00 PM		Day time only
Tuesday	7.00 AM		6.00 PM		Day time only
Wednesday	7.00 AM		6.00 PM		Day time only
Thursday	7.00 AM		Unoccupied		Day time only
Friday	7.00 AM		Unoccupied		Day time only
Saturday	12.00 PM *		12.00 PM *		Occupied
Sunday	12.00 PM *		12.00 PM *		Occupied

* Scheduling consecutive events to the same time will cause the Room Controller to choose the last event as the time at which it will set its schedule. In the above example, the Room Controller will control to the unoccupied set point until 7:00 AM Monday.

Ex. #2 Commercial building which is occupied all weekend

Event	Period #1 - Event #1		Period #1 - Event #2		Daily Occupancy
	Occupied		Unoccupied		
Setpoint	Cool 72 °F	Heat 70 °F	Cool 80 °F	Heat 62 °F	
Monday	8.00 AM		5.00 PM		Day time only
Tuesday	8.00 AM		5.00 PM		Day time only
Wednesday	8.00 AM		5.00 PM		Day time only
Thursday	8.00 AM		5.00 PM		Day time only
Friday	8.00 AM		5.00 PM		Day time only
Saturday	12.00 AM **		11.59 PM **		Occupied
Sunday	12.00 AM **		11.59 PM **		Occupied

** To schedule a day as occupied for 24 hours, set that day occupied time to 12:00 AM and Unoccupied time to 11:59 PM There will be a 1 minute unoccupied period every night at 11:59 PM with this schedule configuration.

Note: 12:00 PM = Noon
12:00 AM = Midnight

G) Schedule set (4 events)

Schedule set Y/N

This section of the menu permits the user to set the whether 2 or 4 events is needed. Each day can be tailored to specific schedules if needed.

- 4 events can be scheduled per day.
- Occupied & Unoccupied periods can be set for each day.
- Scheduling the 3rd. & 4th. Events to the same time will cancel the last period.

Monday timer Schedule set	Tuesday timer Schedule set	Wednesday timer Schedule set	Other days are identical

Monday set? Y/N	No next □ Yes down □	Tuesday set? Y/N	No next □ Yes down □	Wednesday set? Y/N	No next □ Yes down □	Selects the day to be scheduled or modified

Yes key to access day scheduling, No key to jump to next day

Occupied Day? Y/N	**No next □ Yes down □**	Occupied Day? Y/N	**No next □ Yes down □**	Occupied Day? Y/N	**No next □ Yes down □**	**Yes = Daily schedules will be accessed No = Unoccupied mode all day**

Yes key to access day scheduling, No key to jump to next day

		Copy Y/N Previous	**Yes next □ No down □**	Copy Y/N Previous	**Yes next □ No down □**	**Yes = Will copy previous day schedule No = Daily schedules will be accessed**

Yes key to copy previous day, No key to set new time value for each day

Occupied 00:00 AM	Use **To set value**	Occupied 00:00 AM	Use **To set value**	Occupied 00:00 AM	Use **To set value**	**Sets Event # 1 Occupied time Will activate occupied setpoints**

Use to set value, Yes key to confirm

Unoccup 00:00 AM	Use **To set value**	Unoccup 00:00 AM	Use **To set value**	Unoccup 00:00 AM	Use **To set value**	**Sets Event # 2 Unoccupied time Will activate unoccupied setpoints**

Use to set value, Yes key to confirm

Occupie2 00:00 AM	Use **To set value**	Occupie2 00:00 AM	Use **To set value**	Occupie2 00:00 AM	Use **To set value**	**Sets Event # 3 Occupied time Will activate occupied setpoints**

Use to set value, Yes key to confirm

Unoccup2 00:00 AM	Use **To set value**	Unoccup2 00:00 AM	Use **To set value**	Unoccup2 00:00 AM	Use **To set value**	**Sets Event # 4 Unoccupied time Will activate unoccupied setpoints**

Use to set value, Yes key to confirm

Ex. #1 Four event retail establishment schedule

Event	Period 1 - Event 1	Period 1 - Event 2	Period 2 - Event 3	Period 2 - Event 4	
Setpoint	**Occupied**	**Unoccupied**	**Occupied**	**Unoccupied**	
	Cool 72°F **Heat** 70°F	**Cool** 80°F **Heat** 62°F	**Cool** 72°F **Heat** 70°F	**Cool** 80°F **Heat** 62 °F	**Daily Occupancy**
Monday	7.00 AM	5.00 PM	12.00 PM *	12.00 PM *	Day time only
Tuesday	7.00 AM	5.00 PM	12.00 PM *	12.00 PM *	Day time only
Wednesday	7.00 AM	5.00 PM	12.00 PM *	12.00 PM *	Day time only
Thursday	7.00 AM	5.00 PM	7.00 PM	10.30 PM	Day/evening time only
Friday	7.00 AM	5.00 PM	7.00 PM	10.30 PM	Day/evening time only
Saturday	12.00 PM *	12.00 PM *	12.00 PM *	12.00 PM *	Unoccupied
Sunday	12.00 PM *	12.00 PM *	12.00 PM *	12.00 PM *	Unoccupied

* Scheduling events to the same time will cancel the last period and leave the Terminal Equipment Controller in unoccupied mode

Ex. #2 Residential

Event	Period 1 - Event 1		Period 1 - Event 2		Period 2 - Event 3		Period 2 - Event 4		
Setpoint	**Occupied**		**Unoccupied**		**Occupied**		**Unoccupied**		
	Cool 72°F	**Heat** 70°F	**Cool** 80°F	**Heat** 62°F	**Cool** 72°F	**Heat** 70°F	**Cool** 80°F	**Heat** 62°F	**Daily Occupancy**
Monday	6:00 AM		8:00 AM		4:00 PM		10:00 PM		Day/evening time only
Tuesday	6:00 AM		8:00 AM		4:00 PM		10:00 PM		Day/evening time only
Wednesday	6:00 AM		8:00 AM		4:00 PM		10:00 PM		Day/evening time only
Thursday	6:00 AM		8:00 AM		4:00 PM		10:00 PM		Day/evening time only
Friday	6:00 AM		8:00 AM		4:00 PM		11:30 PM		Day/evening time only
Saturday	8:00 AM *		8:00 AM *		8:00 AM *		11:59 PM *		Day time only
Sunday	12:00 AM *		12:00 AM *		12:00 AM *		11:59 PM *		Occupied all day

* Scheduling consecutive events to the same time will cause the Room Controller to choose the last event as the time at which it will set its schedule. In the above example for Saturday, the Room Controller will control to the occupied set point from 8:00 AM until 11:59 PM. Since it is desired to be in occupied mode throughout the night, then it is necessary to schedule the first event on Sunday at 12:00 AM. The Room Controller will force a one minute unoccupied period for a one minute period (between 11:59 PM and 12:00 AM on Saturday).

H) Clock/Day Settings

Clock set Y/N

This section of the menu permits the user to set the time and day.

Time setting	Day setting	Time format setting

Time set? Y/N	No next □ Yes down □	**Day set? Y/N**	No next □ Yes down □	**12/24hrs set? Y/N**	No = exit Yes down □
Time 0:00	Use To set value	**Day Monday**	Use To set value	**12/24hrs 12 hrs**	Use To set value

J) Schedule hold

Schedule hold Y/N

- This menu will only appear on stand-alone (Network Ready) Room Controller, i.e. without a BACnet™ / Echelon™ module.
- This section of the menu permits the user to set a permanent schedule hold, which bypasses the internal Room Controller scheduling.
- The permanent schedule hold function is typically used for nonscheduled events that extend for various periods of time.
- Enabling a permanent occupied or permanent unoccupied schedule hold will cancel any active override.
- The use of temporary setpoints during permanent hold is permitted. The duration of the temporary setpoint is as set per the TOccTime parameter. Ex. 3 hours

Use to set value, yes key to confirm

CONFIGURATION PARAMETERS DEFAULT VALUE	SIGNIFICANCE AND ADJUSTMENTS
PswrdSet Configuration parameters menu access password Default value = **0** No password prompted	This parameter sets a password access 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. Range is: 0 to 1000
Com addr Thermostat networking address Default value = **254** Range is: **0 to 254**	**Conditional parameter to BACnet MS-TP models (VT76xxX5x00B)** **Conditional parameter to Wireless models (VT76xxX5x00W)** This parameter will only appear when a BACnet or wireless network adapter is present. If the thermostat is installed as a stand-alone unit or with an Echelon adapter, this parameter will not be used or displayed - For BACnet MS-TP models valid range to use is from 1 to 127. Default value of 254 disables BACnet communication for the thermostat. - For wireless models valid range is 0 to 254 with a maximum of 30 thermostat per VWG
PAN ID Personal Area Network Identification Default value = **0** Range is: 0 to 1000	**Conditional parameter to Wireless models (VT76xxX5x00W)** This parameter will only appear when a wireless network adapter is present. If the Room Controller is installed as a stand-alone (Network Ready) unit or with a BACnet™ or Echelon™ adapter, this parameter will not be used or displayed This parameter (Personal Area Network Identification) is used to link specific Room Controllers to a single specific Viconics wireless gateway (VWG) For every Room Controller reporting to a gateway (maximum of 30 Room Controllers per gateway), be sure you set the SAME PAN ID value both at the gateway and the Room Controller(s). The default value of 0 is NOT a valid PAN ID.

Channel Channel selection Default value = **10** Range is: **10 to 26**	**Conditional parameter to Wireless models (VT76xxX5x00W)** This parameter will only appear when a wireless network adapter is present. If the Room Controller is installed as a stand-alone (Network Ready) unit or with a BACnet™ or Echelon™ adapter, this parameter will not be used or displayed This parameter (Channel) is used to link specific Room Controllers to specific Viconics wireless gateway(s) (VWG) For every Terminal Equipment Controller reporting to a gateway (maximum of 30 Room Controllers per gateway), be sure you set the SAME channel value both at the gateway and the Room Controller(s). ***Viconics recommends using only the usage of channels 15 and 25 only.*** The default value of 10 is ***NOT*** a valid channel. The valid range of available channel is from 11 to 26

DI 1 Digital input no.1 configuration Open contact input = function not energized Closed contact input = function energized Default value = **None**	**None**, No function will be associated with the input **Rem NSB**, remote NSB timer clock input. Will disable the internal scheduling of the thermostat. The scheduling will now be set as per the digital input. The time is still displayed as information, but the menu part related to scheduling is disabled and no longer accessible. Open contact = occupied setpoints Closed contacts = unoccupied setpoints **RemOVR** Temporary override remote contact. Disables all override menu function of the thermostat. The override function is now controlled by a manual remote momentarily closed contact. When configured in this mode, the input operates in a toggle mode. With this function enabled it is now possible to toggle between unoccupied & occupied setpoints for the amount of time set by parameter (TOccTime) temporary occupancy time. When Override is enabled, an Override status message will be displayed Filter, **a back-lit flashing** Filter **alarm will be displayed on the thermostat LCD screen when the input is energized** Service, **a back-lit flashing** Service **alarm will be displayed on the thermostat LCD screen when the input is energized** **Fan lock,** a back-lit flashing **Fan lock** alarm will be displayed on the thermostat LCD screen when the input is not energized. Used in conjunction with a local airflow sensor connected to the input. Locks out the thermostat heating and cooling action if no airflow is detected 10 seconds after the fan (G terminal) is energized. Open contact = no airflow Closed contacts = airflow present
DI 2 Digital input no.2 configuration Open contact input = function not energized Closed contact input = function energized Default value = **None**	Same as above. It is possible to configure both inputs to have the same function.

MenuScro Menu scroll Default value = **On =** Scroll active	Removes the scrolling display and only present the room temperature/humidity to the user. With this option enabled, no status is given of mode, schedule and outdoor temperature. **On = Scroll active** **Off = Scroll not active**

Lockout Keypad lockout levels Default value = **0 No lock**	0 = No lock 1 = Low level 2 = High level

USER KEY FUNCTIONS

LEVEL	Resume/ Override scheduling	Permanent Occupied and Unoccupied Setpoints	Temporary setpoints using arrows	System mode setting	Fan mode setting	Schedules setting	Clock setting	Permanent hold
0								
1	■	■	■	■	■	■	■	■
2	■	■	■	■	■	■	■	■

pwr del Power-up delay Default value = **10 seconds**	On initial power up of the Room Controller (each time 24 VAC power supply is removed & re-applied) there is a delay before any operation is authorized (fan, cooling or heating). This can be used to sequence start up multiple units / Room Controller in one location. **10 to 120 seconds**

<table>
<tr><td>Frost pr
Frost protection enabled
Default value = Off</td><td>Off: no room frost protection
On: room frost protection enabled in all system mode at: 42 °F (5.6 °C)
Frost protection is enabled even in system Off mode
Off or On

On heat pump models the system mode will be forced to EMERGENCY mode if frost protection is activated</td></tr>
<tr><td>heat max
Maximum heating setpoint limit
Default value = 90 °F (32 °C)</td><td>Maximum occupied & unoccupied heating setpoint adjustment. Heating setpoint range is: 40 to 90 °F (4.5 to 32.0 °C)</td></tr>
<tr><td>cool min
Minimum cooling setpoint limit
Default value = 54 °F (2 °C)</td><td>Minimum occupied & unoccupied cooling setpoint adjustment. Cooling setpoint range is: 54 to 100 °F (12.0 to 37.5 °C)</td></tr>
<tr><td>Pband
Proportional Band setting
Default value 2 = 2.0 °F (0.6 °C)</td><td>Adjust the proportional band used by the Room Controller PI control loop.

Note that the default value of 2.0 °F (1.1 °C) gives satisfactory operation in most normal installation cases. The use of a superior proportional band different than the factory one is normally warranted in applications where the Room Controller location is problematic and leads to unwanted cycling of the unit. A typical example is a wall mounted unit where the Room Controller is installed between the return and supply air feeds and is directly influenced by the supply air stream of the unit.

<table>
<tr><th>Value</th><th>F scale Pband</th><th>C scale Pband</th></tr>
<tr><td>2</td><td>2 F</td><td>1.1 C</td></tr>
<tr><td>3</td><td>3 F</td><td>1.7 C</td></tr>
<tr><td>4</td><td>4 F</td><td>2.2 C</td></tr>
<tr><td>5</td><td>5 F</td><td>2.8 C</td></tr>
<tr><td>6</td><td>6 F</td><td>3.3 C</td></tr>
<tr><td>7</td><td>7 F</td><td>3.9 C</td></tr>
<tr><td>8</td><td>8 F</td><td>4.4 C</td></tr>
</table>
</td></tr>
</table>

Anticycle Minimum on/off operation time for stages Default value = **2 minutes**	Minimum On/Off operation time of cooling & heating stages. ***IMPORTANT,*** *anti-short cycling can be set to 0 minutes for equipment that possess their own anti cycling timer. Do <u>not</u> use this value unless the equipment is equipped with such internal timer. Failure to do so can damage the equipment.* **0, 1, 2, 3, 4 & 5 minutes** Anti-short cycling can be set to 0 minutes for equipment that possess their own anti cycling timer. Do not use that value unless the equipment is equipped with such internal timer. Failure to do so can damage the equipment.
Min SH Minimum supply heat temperature setpoint Default value = **64 °F (18 °C)**	Sets the minimum supply heat to be maintained by the controller during occupied periods (Occupied or Temporary Override). **From 50 °F up to 72 °F (10 °C up to 22 °C)** (increments: 0.5° or 5°)

cool cph Cooling stages cycles per hour Default value = **4 C.P.H.**	Will set the maximum number of cooling stage cycles per hour under normal control operation. It represents the maximum number of cycles that the equipment will turned on and off in one hour. Note that a higher C.P.H will represent a higher accuracy of control at the expense of wearing mechanical components faster. **3 or 4 C.P.H.** **For multi stage models, cool cph applies to Y1 & Y2** **For heat pump models, cool cph applies to Y1 & Y2 in cooling and heating independently of the reversing valve position**
deadband Minimum deadband Default value = **2.0 °F (1.1 °C)**	Minimum deadband value between the heating and cooling setpoints. If modified, it will be applied only when any of the setpoints are modified. **2, 3 or 4 °F (1.0 to 2.0 °C)**

fan cont Fan control Default value = **On**	Fan control in heating mode. When selecting **On**; the Room Controller in all cases will always control the fan (terminal G). Valid for On or Auto fan mode When selecting **Off**; the fan (terminal G), when heating stages (terminals W1 & W2) are solicited, will not be energized. The fan in this case will be controlled by the equipment fan limit control. Valid only for Auto fan mode. On fan mode will leave the fan always on. *ON OR OFF* **For multi stage models, fan control applies to W1 & W2** **For heat pump models, fan control applies to W1 only (Emergency heat)**
fan del Fan delay Default value = **Off**	Fan delay extends fan operation by 60 seconds after the call for heating or cooling ends. Valid only for Auto fan mode. "On" fan mode will leave the fan always on. **Off or On**
ToccTime Temporary occupancy time Default value = **3 hours**	Temporary occupancy time with occupied mode setpoints when override function is enabled When the Room Controller is in unoccupied mode, function is enabled with either the menu or DI1 or DI2 configured as remote override input. **0,1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 12 hours**
Cal RS Room air temperature sensor calibration Default value = **0.0 °F or °C**	Offset that can be added/subtracted to actual displayed room temperature **± 5.0 °F (± 2.5 °C)**

Cal OS Outside air temperature sensor calibration Default value = **0.0 °F or °C**	Offset that can be added/subtracted to actual displayed outside air temperature **± 5.0 °F (± 2.5 °C)**

SH lock Outside air temperature supply heat lockout Default value = **32 °F (0 °C)**	Disables heating operation based on outdoor air temperature. Please refer to the Viconics Zoning System Guide for recommended settings. **From –15 °F up to 120 °F (-26 °C up to 49 °C)** (increments: 5° or 50°)
C stage Number of cooling stages Default value = **2 stages**	Will revert the operation of 2 stage Room Controller to single stage operation only when the second cooling step is not needed. **1 or 2 stages**
H lock Outside air temperature heating lockout Default value = **120 °F (49 °C)**	Disables heating stage operation based on outdoor air temperature. Function will only be enabled if OS (outside air temperature sensor) is connected. **From -15 °F up to 120 °F (-26 °C up to 49 °C)**
C lock Outside air temperature mechanical cooling lockout. Default value = **-40 °F (-40 °C)**	Disables cooling stage operation based on outdoor air temperature. On economizer model, free cooling will not be disabled by this function. Function will only be enabled if OS (outside air temperature sensor) is connected. **From -40 °F up to 95 °F (-40 °C up to 35 °C)**
Unocc TM Unoccupied Timer value Default **0.5 hours**	Time delay between the moment where the Room Controller toggles from occupied to unoccupied after the last movement has been detected by the PIR. Range is: **0.5 to 24.0 hours** in 0.5 hour increments
2/4event Number of events configuration Default value = **2 event**	**2 events**, will set up scheduling for the following Event 1 is for Occupied setpoints Event 2 is for Unoccupied setpoints **4 events**, will set up scheduling for the following Event 1 is for Occupied setpoints Event 2 is for Unoccupied setpoints Event 3 is for Occupied setpoints Event 4 is for Unoccupied setpoints

<table>
<tr><td>aux cont
Auxiliary contact configuration
Default value = N.O. normally open</td><td>This contact can be used to energize peripheral devices such as: lighting equipment, exhaust fans, economizers, etc.
This contact will operate in parallel with the internal occupied/unoccupied schedule of the Terminal Equipment Controller or the remote NSB contact if DI1 or DI2 is used.
When the system is in OFF mode, the contact will remain in its unoccupied status independently of the occupied / unoccupied schedule.
<table><tr><th>Configured</th><th>Contact occupied status</th><th>Contact unoccupied status</th></tr><tr><td>N.O.</td><td>Closed</td><td>Opened</td></tr><tr><td>N.C.</td><td>opened</td><td>Closed</td></tr></table></td></tr>
<tr><td>Prog rec
Progressive recovery enabled
Default value = Off Progressive recovery is automatically disabled if DI 1 and / or DI 2 are configured remote NSB</td><td>Off, = no progressive recovery
The occupied schedule time is the time at which the system will restart.

On, = progressive recovery active.
The occupied schedule time is the time at which the desired occupied temperature will be attained. The Room Controller will automatically optimize the equipment start time.

In any case, the latest a system will restart is 10 minutes prior to the occupied period time.</td></tr>
<tr><td>Dis HL
Discharge air temperature high limit
Default: 120°F</td><td>Discharge air high temperature value at which the heating output will be locked out.
70°F to 150°F (21°C to 65°C) increments:
(0.5° or 5°)</td></tr>
<tr><td>Dis LL
Discharge air temperature low limit
Default: 45°F</td><td>Discharge air low temperature value at which the cooling stages will be locked out.
35°F to 65°F (2.0°C to 19.0°C) increments:
(0.5° or 5°)</td></tr>
<tr><td>MS dis
Display mixed air temperature
Economizer model only, only if sensor is installed</td><td>Used as diagnostic / service help to troubleshoot and diagnose economizer operation.</td></tr>
</table>

Viconics Technologies Inc.