



VT7300/ VT7300F5X00B-2572 Series

User Interface Guide

November 2015

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INSTALLATION

Remove the security screw on the bottom of the Fan Coil Terminal Equipment Controller cover.

- Open unit by pulling on the bottom side of Fan Coil Terminal Equipment Controller (Fig. 1).
- Remove wiring terminals from sticker.
- Please read the FCC ID and IC label installed in the cover upon removal of cover for the wireless products.

Location

1. Should not be installed on an outside wall.
2. Must be installed away from any direct heat source.
3. Should not be installed near an air discharge grill.
4. Should not be affected by direct sun radiation.
5. Nothing should restrict vertical air circulation to the Fan Coil Terminal Equipment Controller.

Installation

1. Swing open the Fan Coil Terminal Equipment Controller PCB to the left by pressing the PCB locking tabs (Fig. 2).
2. Pull out cables 6" out from the wall.
3. Wall surface must be flat and clean.
4. Insert cable in the central hole of the base.
5. Align the base and mark the location of the two mounting holes on the wall. Install proper side of base up.
6. Install anchors in the wall.
7. Insert screws in mounting holes on each side of the base (Fig. 2).
8. Gently swing back the circuit board on the base and push on it until the tabs lock it.
9. Strip each wire 1/4 inch from end.
10. Insert each wire according to wiring diagram.
11. Gently push excess wiring back into hole (Fig. 3).
12. Re-Install wiring terminals in their correct locations (Fig. 3).
13. Re-install the cover (top side first) and gently push extra wire length back into the hole in the wall.
14. Install security screw.

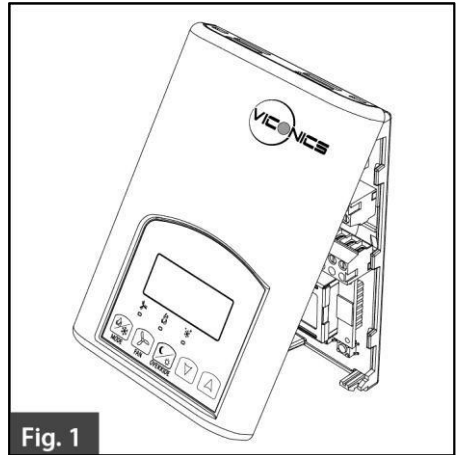


Fig. 1

Location of PCB retaining tabs

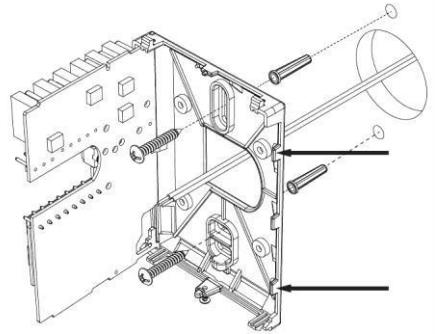


Fig. 2

Re-install terminal blocks

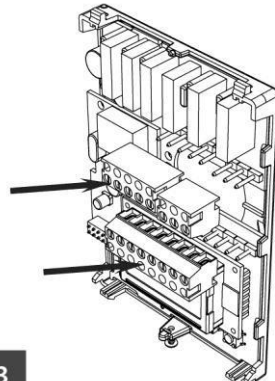


Fig. 3



- If replacing an old Terminal Equipment Controller, label the wires before removal of the old Terminal Equipment Controller.
- Electronic controls are static sensitive devices. Discharge yourself properly before manipulation and installing the Terminal Equipment Controller.
- Short circuit or wrong wiring may permanently damage the Terminal Equipment Controller or the equipment.
- Anti-short cycling can be set to 0 minutes for equipment that posses 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.
All VT7000 series Terminal Equipment Controllers are to be used only as operating controls. Whenever a control failure could lead to personal injury and/or loss of property, it becomes the responsibility of the user to add safety devices and/or alarm system to protect against such catastrophic failures.

CONFIGURABLE BI/UI INPUTS OVERVIEW VT7300

Binary input #1 can be configured for the following functions:

1. **(None): No function will be associated with the input**
2. **(Rem NSB):** remote NSB timer clock input. The scheduling will now be set as per the binary input. It provides low cost setback operation via a dry contact
Contact opened = Occupied
Contact closed = Unoccupied
3. **(Motion NO) and (Motion NC):** Advanced PIR occupancy functions using a normally open (NO) or normally closed (NC) remote PIR motion sensor. Occupancy mode is now set as per applied PIR function and configuration. Application information and examples are available on document: *APP-PIRGuide-Exx*. This document will provide the installers and system designers with detailed examples on applications, parameter configuration information, sequence of operation, troubleshooting and diagnostic help required for the proper usage of the PIR accessory covers
4. **(Window) EMS:** Forces the system to disable any current heating or cooling action by the Terminal Equipment Controller. The mode stays the same and the current setpoints are the same occupied setpoints. Only the outputs are disabled. There is a Door/Window alarm displayed on the Terminal Equipment Controller to indicate to the local tenant that the door/window needs to be closed for cooling or heating to resume. Use NC contact.
Contact opened = System disabled with local Window alarm Contact closed = System enabled

Binary input #2 can be configured for the following functions:

1. **(None):** No function will be associated with the input
2. **(Door Dry) Door contact & Motion detector:** This configuration is only functional if binary input #1 is set to **Motion NO** or **Motion NC** or a **PIR accessory cover** is used. With this sequence enabled, the occupancy is now dictated through those 2 inputs. Any motion detected will set the zone to occupied status. The zone will remain permanently in occupied mode until the door contact switch opens momentarily. The Terminal Equipment Controller will then go in stand-by mode. If more movements are detected, the occupied mode will resume. While the door is opened, any movements detected by the remote PIR sensor or the PIR accessory cover will be ignored. Use a Normally Closed contact switching device.
Contact opened = Door opened
Contact closed = Door closed
3. **(RemOVR):** temporary occupancy remote override contact. This function disables the central button override function on the Terminal Equipment Controller. 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. It is now possible to toggle between unoccupied & occupied setpoints for the amount of time set by parameter (TOccTime) temporary occupancy time.
4. **(Filter):** a backlit flashing Filter alarm will be displayed on the Terminal Equipment Controller LCD screen when the input is energized. It can be tied to a differential pressure switch that monitor filters
Contact opened = No alarm
Contact closed = Alarm displayed
5. **(Service):** a backlit flashing Service alarm will be displayed on the Terminal Equipment Controller LCD screen when the input is energized. It can be tied in to the AC unit control card, which provides an alarm in case of malfunction.
Contact opened = No alarm
Contact closed = Alarm displayed

Universal input #3 can be configured for the following functions:

1. **(None):** No function will be associated with the input
2. **(COC/NH) Change over dry contact. Normally Heat:** Used for hot / cold air / water change over switching in 2 pipe systems.
Contact closed = Cold air / water present
Contact opened = Hot air / water present
Only used and valid if system is setup as 2.0. Parameter (Out1Conf) set as 2.0.
3. **(COC/NC) Change over dry contact. Normally Cool:** Used for hot / cold air / water change over switching in 2 pipe systems.
Contact closed = Hot air / water present
Contact opened = Cold air / water present
Only used and valid if system is setup as 2.0. Parameter (Out1Conf) set as 2.0.

4. **(COS) Change over analog sensor:** Used for hot / cold air / water change over switching in 2 pipe systems.
Only used and valid if system is setup as 2.0. Parameter (Out1Conf) set as 2.0.
 If temperature is > 77 °F = Hot air / water present
 If temperature is < 75 °F = Cold air / water present
5. **(SS) Supply air sensor monitoring:** Used for supply air temperature monitoring.
 Only used for network reporting of the supply air temperature. Has no internal function in the Terminal Equipment Controller.

TERMINAL, IDENTIFICATION AND FUNCTION

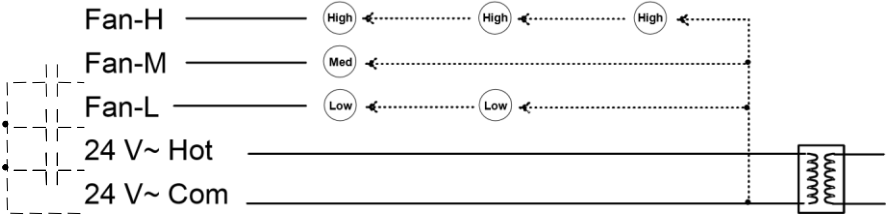
Terminal identification

	2 & 4 Pipe Floating	Description / Application	2 & 4 Pipe Analog
	2 & 4 Pipe On/Off		
Internal Temperature	X	Internal Temperature	X
Internal Humidity	Model Dependent	Internal Humidity	Model Dependent
1- High Fan Speed	Fan-H	1- High Fan Speed	Fan-H
2- Medium Fan Speed	Fan-M	2- Medium Fan Speed	Fan-M
3- Low Fan Speed	Fan-L	3- Low Fan Speed	Fan-L
4- 24 V~ Hot	24 V~ Hot	4- 24 V~ Hot	24 V~ Hot
5- 24 V~ Com	24 V~ Com	5- 24 V~ Com	24 V~ Com
6- Aux BO 5	BO 5-Aux	6- Aux BO 5	BO 5-Aux
7- Aux BO 5	BO 5-Aux	7- Aux BO 5	BO 5-Aux
8- BO 3 Open Heat	BO 3		
9- BO 4 Close Heat	BO 4	9- AO 2 Heat	AO 2
10- BO 1 Open Cool	BO 1	10- AO 1 Cool	AO 1
11- BO 2 Close Cool	BO 2	Not used Blank	<i>Blank</i>
12- BI #1	BI 1	12- BI #1	BI 1
13- RS	RS	13- RS	RS
14- Scom	Scom	14- Scom	Scom
15- BI #2	BI 2	15- BI #2	BI 2
16- UI #3 COS / COC /SS	UI 3	16- UI #3 COS / COC /SS	UI 3

Wiring

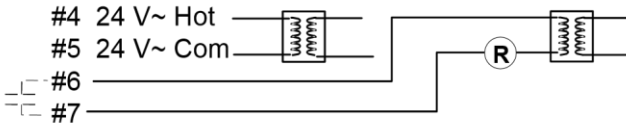
Power & Fan (All models)

24 V~ transformer relay pack 3 speed 2 speed Single speed

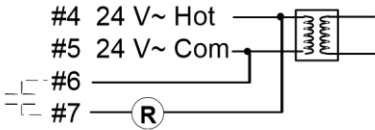


Auxiliary output (All models)

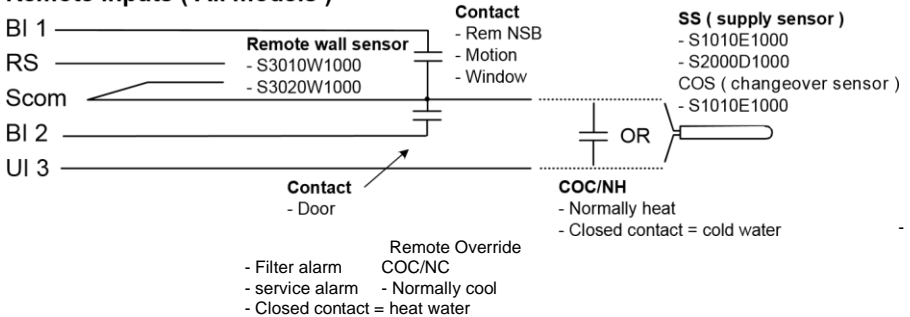
- Dry contact to end device 24 V~ maximum



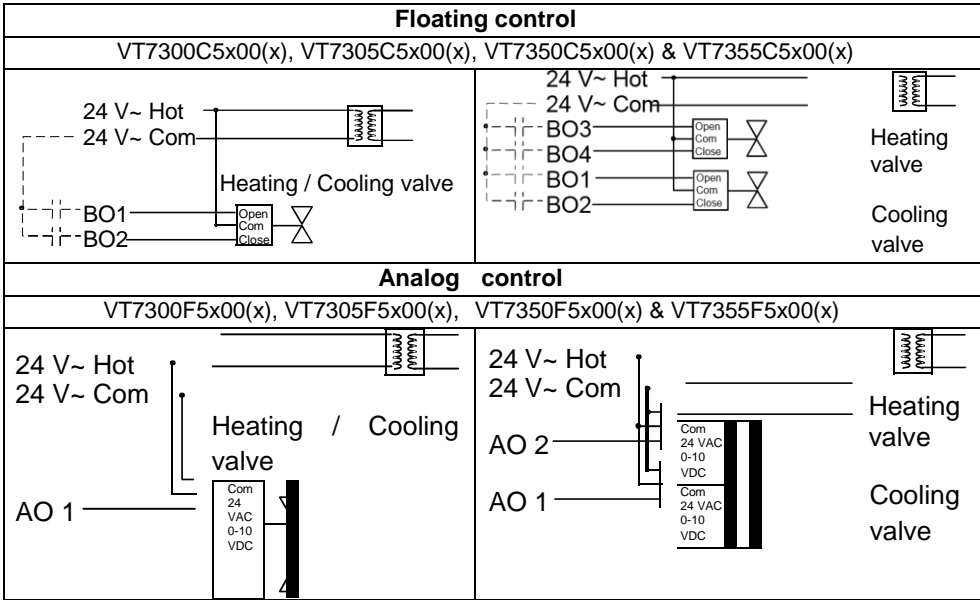
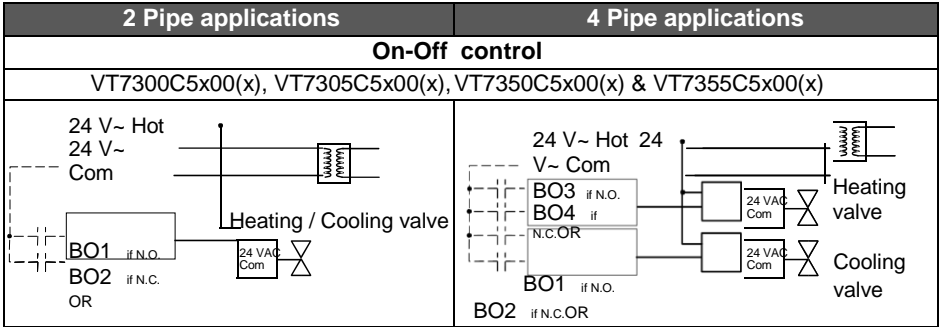
- 24 VAC power to relay



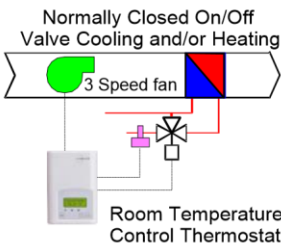
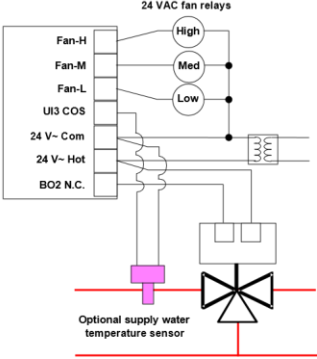
Remote inputs (All models)



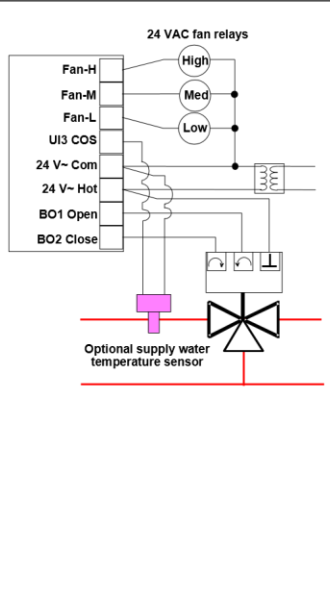
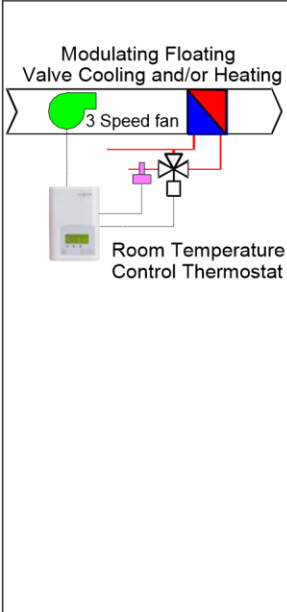
Main outputs wiring



Typical applications

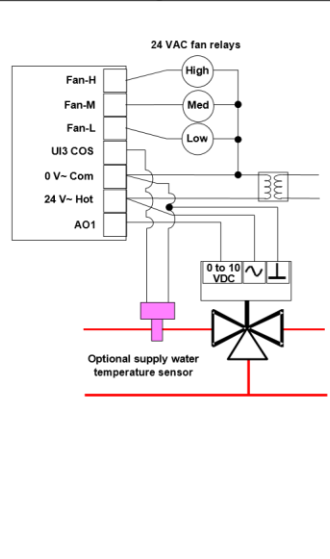
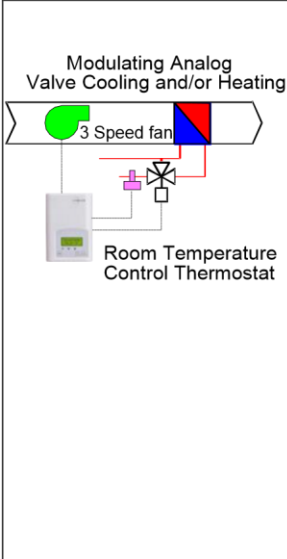
Schematic	Wiring	Settings
2 pipe system cooling and/or heating: VT7300C5x00(x) & VT7305C5x00(x) On / Off N.C. actuator		
<p>Normally Closed On/Off Valve Cooling and/or Heating</p>  <p>3 Speed fan</p> <p>Room Temperature Control Thermostat</p>	 <p>24 VAC fan relays</p> <p>Fan-H High</p> <p>Fan-M Med</p> <p>Fan-L Low</p> <p>UI3 COS</p> <p>24 V- Com</p> <p>24 V- Hot</p> <p>BO2 N.C.</p> <p>Optional supply water temperature sensor</p>	<p>Mandatory</p> <ul style="list-style-type: none"> • Pipe no = 2 pipes • CntrlTyp = On/Off • Fan Menu = 0 (L-M-H) • FL time = <i>as per actuator</i> <p>If cooling only set::</p> <ul style="list-style-type: none"> • SeqOpera = 0 Cooling only <p>If heating only set::</p> <ul style="list-style-type: none"> • SeqOpera = 1 Heating only <p>If heat / cool auto-changeover with a local water temperature sensor set:</p> <ul style="list-style-type: none"> • SeqOpera = 0 Cooling only • UI3 = COS

2 pipe system cooling and/or heating: VT7300C5x00(x) & VT7305C5x00(x) Floating actuator



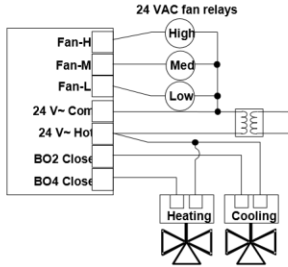
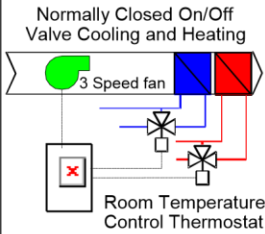
- Mandatory**
- Pipe no = 2 pipes
 - CntrlTyp = Floating
 - Fan Menu = 0 (L-M-H)
 - FL time = *as per actuator*
- If cooling only set::**
- SeqOpera = 0 Cooling only
- If heating only set::**
- SeqOpera = 1 Heating only
- If heat / cool auto-changeover with a local water temperature sensor set:**
- SeqOpera = 0 Cooling only
 - UI3 = COS

2 pipe system cooling and/or heating: VT7300F5x00(x) & VT7305F5x00(x) Analog actuator



- Mandatory**
- Pipe no = 2 pipes
 - Fan Menu = 0 (L-M-H)
 - RA/DA = *as per actuator*
- If cooling only set::**
- SeqOpera = 0 Cooling only
- If heating only set::**
- SeqOpera = 1 Heating only
- If heat / cool auto-changeover with a local water temperature sensor set:**
- SeqOpera = 0 Cooling only
 - UI3 = COS

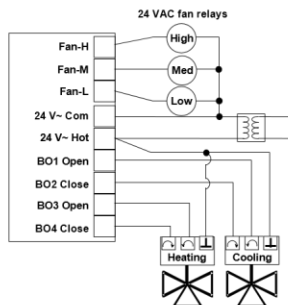
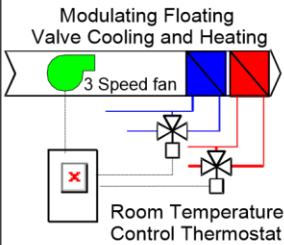
4 pipe system cooling and heating: VT7300C5x00(x) & VT7305C5x00(x) On / Off N.C. actuators



Mandatory

- Pipe no = 4 pipes
- CntrlTyp = On/Off
- Fan Menu = 0 (L-M-H)
- FL time = *as per actuator*
- SeqOpera = 4 Cool/Heat

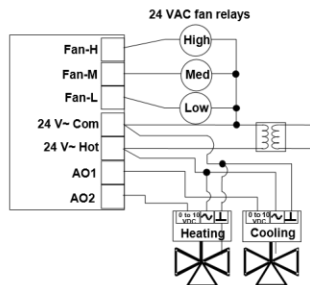
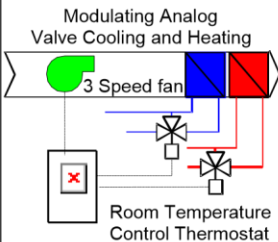
4 pipe system cooling and heating: VT7300C5x00(x) & VT7305C5x00(x) Floating actuators



Mandatory

- Pipe no = 4 pipes
- CntrlTyp = Floating
- Fan Menu = 0 (L-M-H)
- FL time = *as per actuator*
- SeqOpera = 4 Cool/Heat

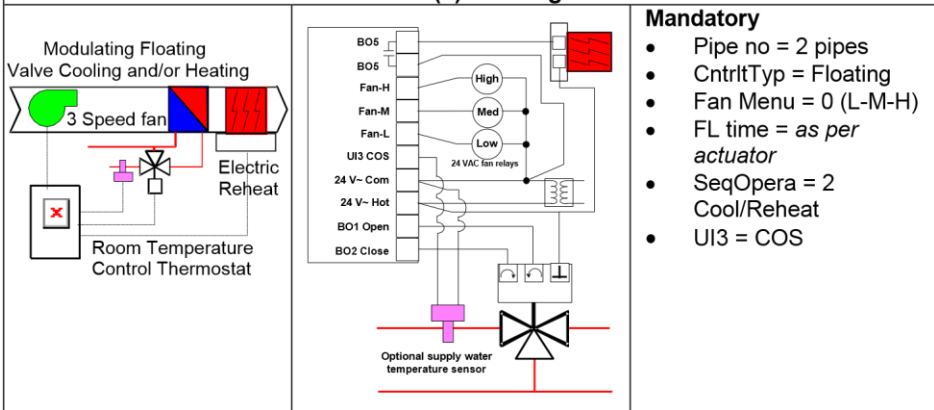
4 pipe system cooling and heating: VT7300F5x00(x) & VT7305F5x00(x) Analog actuators



Mandatory

- Pipe no = 4 pipes
- Fan Menu = 0 (L-M-H)
- RA/DA = *as per actuator*
- SeqOpera = 4 Cool/Heat

2 pipe system cooling or heating with reheat: VT7300C5x00(x) & VT7305C5x00(x) Floating actuator



Remote sensor accessories

Model no.	Description
S3010W1000	Wall mounted temperature sensor
S3020W1000	Wall mounted temperature sensor with override button and occupancy status LED
S2060A1000	Averaging temperature sensor
S2000D1000	Duct mounted temperature sensor



S3020W1000 WALL

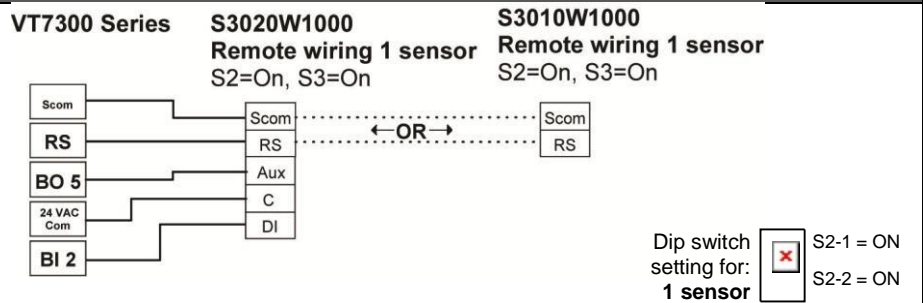
MOUNTED SENSOR

Remote mount temperature sensors use 10K type 2 NTC thermistors.

Features:

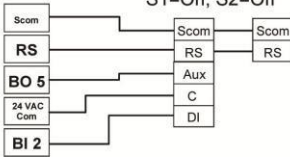
- Each sensor can be configured for various averaging combinations
- Optional occupancy led
- Optional override key

Wiring example of single remote room sensor:

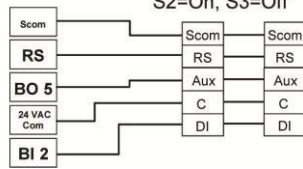


Wiring examples of 2 remote room sensors for averaging applications:

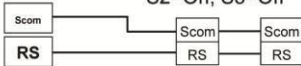
VT7300 Series 1 x S3010W1000 and 1 x S3020W1000
Remote wiring 2 sensors
 S1=On, S2=Off



VT7300 Series 2 x S3020W1000
Remote wiring 2 sensors
 S2=On, S3=Off




VT7300 Series 2 x S3010W1000
Remote wiring 2 sensors
 S2=On, S3=Off



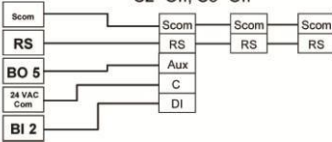
Notes for averaging applications:

- S3010W1000 and S3020W1000 can be mixed matched.
- S3010W1000 and S3020W1000 are to be wired in parallel.
- Respect the dip switch setting in each remote sensor.

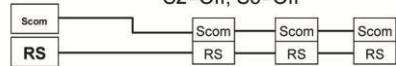
Dip switch setting for:  S2-1 = OFF
 S2-2 = ON
2 sensors


Wiring examples of 3 remote room sensors for averaging applications:

VT7300 Series 2x S3010W1000 and 1 x S3020W1000
Remote wiring 3 sensors
 S2=Off, S3=Off



VT7300 Series 3x S3010W1000
Remote wiring 3 sensors
 S2=Off, S3=Off



Dip switch setting for:  S2-1 = OFF
 S2-2 = OFF
3 sensors

Temperature vs. resistance chart for 10 Kohm NTC thermistor ($R_{25^{\circ}\text{C}} = 10\text{K}\pm 3\%$, $B_{25/85^{\circ}\text{C}} = 3975\text{K}\pm 1.5\%$) _____

°C	°F	Kohm	°C	°F	Kohm	°C	°F	Kohm	°C	°F	Kohm	°C	°F	Kohm
-40	-40	324.3197	-20	-4	94.5149	0	32	32.1910	20	68	12.4601	40	104	5.3467
-35	-31	234.4009	-15	5	71.2430	5	41	25.1119	25	77	10.0000	45	113	4.3881
-30	-22	171.3474	-10	14	54.1988	10	50	19.7390	30	86	8.0694	50	122	3.6202
-25	-13	126.6109	-5	23	41.5956	15	59	15.6286	35	95	6.5499	55	131	3.0016

Status display

The VT7300 series wall-mount Terminal Equipment Controller features a two-line, eightcharacter display. There is a low level backlight level that is always active and can only be seen at night.

When left unattended, the Terminal Equipment Controller has an auto scrolling display that shows the actual status of the system. There is an option in the configuration menu to lockout the scrolling display and to only present the room temperature and conditional outdoor temperature to the user. With this option enabled, no local status is given of mode, occupancy and relative humidity.

Each item is scrolled one by one with the back lighting in low level mode. Pressing any key will cause the back light to come on to high level. When left unattended for 10 seconds after changes are made, the display will resume automatic status display scrolling.

To turn on the back light to high level, press any key on the front panel. The back lit display will return to low level when the Terminal Equipment Controller is left unattended for 45 seconds.

Sequence of auto-scroll status display:

ROOM & HUMIDITY	SYSTEM MODE	SCHEDULE STATUS	OUTDOOR TEMPERATURE	ALARMS
x.x °C or °F XX % RH	Sys mode auto	Occupied	Outdoor x.x °C or °F	Service
If humidity display enabled	Sys mode cool	Stand-By	Network value only	Filter
RoomTemp x.x °C or °F	Sys mode heat	Unoccup	n/a	Window
If humidity display is not enabled	Sys mode off	Override	n/a	

% RH display is conditional to:

(Humidity display is model and configuration dependent)

- Model with RH sensor built in
- Display function can be enabled with RH display parameter. Displayed range is 10 to 90 % RH

Outdoor air temperature

- Display is only enabled when outdoor air temperature network variable is received.

Occupancy status

- Occupied, Stand-By, Unoccupied and Override status are displayed on the scrolling display.




Alarms

- If alarms are detected, they will automatically be displayed at the end of the scrolling status display.
- When an alarm message is displayed, the backlit screen will illuminate at the same time as the message and shut off during the rest of the status display.
- A maximum of two alarms can appear at any given time. The priority for the alarms are as follows:

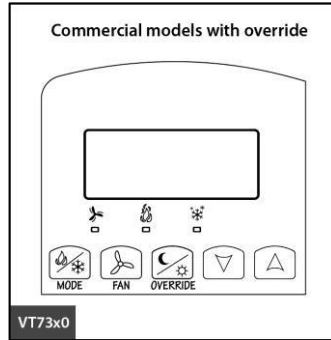
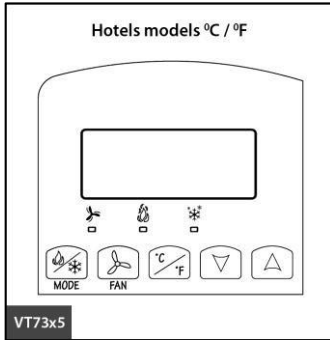
Service	Indicates that there is a service alarm as per one of the configured binary inputs (BI2)
Filter	Indicates that the filters are dirty as per one of the configured binary inputs (BI2)
Window	Indicates that the outside window or door is opened and that the Terminal Equipment Controller has cancelled any cooling or heating action (BI1)

Three status LED's on the Terminal Equipment Controller cover are used to indicate the status of the fan (any speed), a call for heat, or a call for cooling.

Fan coil models

When any of the fan speeds are ON , the FAN LED will illuminate	
When heating & reheat is ON , the HEAT LED will illuminate	
When cooling is ON , the COOL LED will illuminate	







USER INTERFACE



Unoccupied mode override

An Override can be made on commercial models during an unoccupied period. If the Override option is enabled in the lockout configuration, pressing the middle override button will resume occupied setpoints for a time specified by the parameter "ToccTime".

Local keypad interface

 <p>MODE</p>	<ul style="list-style-type: none"> Is used to toggle between the different system modes available as per sequence and menu selected. Repetitively pressing the button will toggle between all the available modes. Available menus are dependent on selected sequence of operation.
 <p>FAN</p>	<ul style="list-style-type: none"> Is used to toggle between the different fan modes available as per the sequence and menu selected Repetitively pressing the button will toggle between all the available modes Available menus are dependent on selected sequence of operation and menu selected for Fan
	<ul style="list-style-type: none"> Hotel and lodging applications. Toggles the local user temperature scale between °F and °C
 <p>OVERRIDE</p>	<ul style="list-style-type: none"> Commercial and institutional applications. Set a local unoccupied timed override to occupied mode
	<ul style="list-style-type: none"> In cooling mode only the cooling setpoint is displayed, In heating mode only the heating setpoint is displayed In auto mode, (See below)
	<ul style="list-style-type: none"> In cooling mode only the cooling setpoint is displayed, In heating mode only the heating setpoint is displayed In auto mode, (See below)

Dual occupied setpoints adjustment

(Local occupied setpoint adjustment when “Stp Func” = *Dual Stp*)

COOLING MODE	HEATING MODE	OFF MODE	AUTO MODE
Cool XX.X °F or °C	Heat XX.X °F or °C	No access to setpoint	<ul style="list-style-type: none"> Setpoint presented to user is the setpoint from the last action taken by the Terminal Equipment Controller or the one currently in use. If the other setpoint is the one desired, then the MODE button is used to toggle between the current displayed one and the other.
Cool XX.X °F or °C	Heat XX.X °F or °C	No access to setpoint	Cool XX.X °F or °C or Heat XX.X °F or °C Toggle to (Heat or Cool)with MODE button

- Heat/Cool setpoint toggle with MODE button to be active only in AUTO mode. If cooling, heating or off mode is active, function is disabled.

Single occupied setpoints adjustment

(Local occupied setpoint adjustment when “Stp Func” = *Attch Stp*)

COOLING MODE	HEATING MODE	OFF MODE	AUTO MODE
Cool XX.X °F or °C	Heat XX.X °F or °C	No access to setpoint	<ul style="list-style-type: none"> Setpoint presented to user is the setpoint from the last action taken by the Terminal Equipment Controller or the one currently in use. Both heating and cooling setpoints are changed simultaneously while respecting the minimum configured deadband If the other setpoint is the one desired, then the MODE button is used to toggle between the current displayed one and the other.
Cool XX.X °F or °C	Heat XX.X °F or °C	No access to setpoint	Cool XX.X °F or °C and Heat XX.X °F or °C Both heating & cooling setpoints change simultaneously Toggle from (Heat or Cool) using the system MODE button

Unoccupied and stand-by setpoints adjustments

Setting of the stand-by and unoccupied setpoints is done through the network or through configuration setup only.

Mode button menu sequence

Modes presented to the user are dependent on the sequence of operation selected.

Default mode is shown in bold when sequence of operation parameter is changed.

The available mode can only be changed through the network since there is no local mode access

Sequence of operations

SEQUENCE SELECTED	MODE MENU
0 = Cooling Only	Off - Cool
1 = Heating Only	Off - Heat
2 = Cooling With Electric Reheat	Off – Auto – Heat – Cool
3 = Heating With Electric Reheat	Off - Heat
4 = Cooling and Heating (2 modulating outputs)	Off – Auto – Heat – Cool
5 = Cooling / Heating (2 modulating outputs) with reheat	Off – Auto – Heat – Cool

Available fan button menu sequences

FAN BUTTON MENU CONFIGURATION	MENU PRESENTED ARE DEPENDENT ON MODEL USED AND SEQUENCE OF OPERATION SELECTED	DEFAULT VALUE WHEN SEQUENCE TOGGLED
0 Low-Med-High	3 Speed configuration using 3 fan relays (L-M-H)	High
1 Low-High	2 Speed configuration using 2 fan relays (L-H)	High
2 Low-Med-High-Auto	3 Speed configuration with Auto fan speed mode using 3 fan relays (L-M-H-A)	High
3 Low-High-Auto	2 Speed configuration with Auto fan speed mode using 2 fan relays (L-H-A)	High
4 On-Auto	Single Speed configuration. Auto is for Fan on demand / On is On all the time	Auto

Auto speed fan mode is also offered in heating mode applications; it will not have any effect on dehumidification. It will strictly be used for noise comfort issues.

Auto Speed Fan Mode operation for sequences 2 and 3 is dependent on Auto Fan parameter. When Auto Fan is set to:






- AS (Default) = Auto Speed during occupied periods. Fan is always on during occupied periods. Low, medium and high speeds operate on temperature offset from set point.
- AS AD = Auto Speed / Auto Demand during occupied periods.
 - Medium and high speeds operate on temperature offset from set point. Low speed operates on demand and will shut down when no demand is present.

INSTALLER CONFIGURATION PARAMETER MENU

Configuration can be done through the network or locally at the Terminal Equipment Controller.

- To enter configuration, press and hold the middle button (°C/°F or Override) for 8 seconds.
- If a password lockout is active, "Password" is prompted. Enter password value using the "up" and "down" arrows and press the middle button again to gain access to all configuration properties of the Terminal Equipment Controller. Entering a wrong password will prevent local access to the configuration menu.
- Press the same middle button repetitively to scroll between all the available parameters.
- Use the up and down key to change the parameter to the desired value.
- To acknowledge and save the new value, press the middle button again.
- The next parameter will now be displayed.

Configuration interface

 FAN	Re-starts the configuration parameter list from the beginning
	Enters the configuration mode. Press and hold for 8 seconds
 OVERRIDE	Pressing repetitively will individually scroll all the available parameters
	Adjust / rotate parameter value down
	Adjust / rotate parameter value up

CONFIGURATION PARAMETERS DEFAULT VALUE	SIGNIFICANCE AND ADJUSTMENTS
PswrdSet Configuration parameters menu access password Default value = 0 Range is: 0 to 1000	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 Terminal Equipment Controller networking address Default value = 254 Range is: 0 to 254	Conditional parameter to BACnet™ MS-TP models VT73xxX5x00B Conditional parameter to Wireless models VT73xxX5x00W <ul style="list-style-type: none"> ▪ For BACnet™ MS-TP models, the valid range is from 1 to 127. Default value of 254 disables BACnet™ communication for the Terminal Equipment Controller. ▪ For wireless models, the valid range is 0 to 254 with a maximum of 30 Terminal Equipment Controller per VWG

<p>PAN ID Personal Area Network Identification Default value = 0 Range is: 0 to 500</p>	<p>Conditional parameter to Wireless models VT73xxX5x00W</p> <p>This parameter will only appear when a wireless network adapter is present. If the Terminal Equipment 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.</p> <p>This parameter (Personal Area Network Identification) is used to link specific Terminal Equipment Controllers to a single specific Viconics wireless gateway (VWG). For every Terminal Equipment Controller reporting to a gateway (maximum of 30 Terminal Equipment Controllers per gateway), be sure you set the <i>SAME</i> PAN ID value both on the gateway and the Terminal Equipment Controller(s).</p> <p>The default value of 0 is <i>NOT</i> a valid PAN ID. The valid range of available PAN ID is from 1 to 500.</p> <p>Range 1 to 250 for centralized networked applications using a VWG or a Jace with the wireless stat driver</p> <p>Range 251 to 500 is for stand-alone (Network Ready) applications where no VWG or Jace with the wireless stat driver is used.</p>
<p>Channel Channel selection Default value = 10 Range is: 10 to 26</p>	<p>Conditional parameter to Wireless models VT73xxX5x00W</p> <p>This parameter will only appear when a wireless network adapter is present. If the Terminal Equipment 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.</p> <p>This parameter (Channel) is used to link specific Terminal Equipment Terminal Equipment Controllers to specific Viconics wireless gateway(s) (VWG). For every Terminal Equipment Terminal Equipment Controller reporting to a gateway (maximum of 30 Terminal Equipment Controllers per gateway), be sure you set the <i>SAME</i> channel value both on the gateway and the Terminal Equipment Controller(s).</p> <p><i>Viconics recommends using only the usage of channels 15 and 25 only.</i></p> <p>The default value of 10 is <i>NOT</i> a valid channel. The valid range of available channel is from 11 to 26</p>

Get From

Terminal Equipment
Controller Get From another
device configuration utility
Default value = **0**
Range is: 0 to 254

Conditional parameter to Wireless models**VT73xxX5x00W**

Entering a MAC address enables an automatic routine that automatically fetches all the required configuration properties of the current device from another already configured device and copies the same required configured property values.

If a value other than the default value of 255 is entered, user will then be prompted to exit the Configuration Menu thus leaving all other parameter configuration to be copied from the referenced Terminal Equipment Controller MAC address.

Ex.: If you are currently configuring MAC12 and the settings matches exactly the settings of ZN MAC5, then enter 5 as the current parameter value.

- If the process is successful and all required configuration properties have been copied, the value will revert back to 255
- If the process is *NOT* successful and all required configuration properties have *NOT* been copied (either the reference device is *NOT* the same model number or is offline or does not exists) the value will revert back to 254 to indicate the failure of the process

Leaving the Get From parameter to 255 means that every configuration parameters will be set manually.

BI 1

Binary input no.1 configuration
Default value = **None**

(None): No function will be associated with the input. Input can be used for remote network monitoring.

(Rem NSB): remote NSB timer clock input. The scheduling will now be set as per the binary input. It provides low cost setback operation via a dry contact

- Contact opened = Occupied
- Contact closed = Unoccupied

(Motion NO) or (Motion NC): Advanced PIR occupancy functions using a Normally Open (NO) or Normally Closed (NC) remote PIR motion sensor. Occupancy mode is now set as per applied PIR function and configuration. Application information and examples are available in document: *APP-PIR-Guide-Exx*. This document will provide the installers and system designers with detailed examples on applications, parameter configuration information, sequence of operation, troubleshooting and diagnostic help required for the proper usage of the PIR accessory covers

(Window) EMS: Forces the system to disable any current heating or cooling action by the Terminal Equipment Controller. The mode stays the same and the current setpoints are the same Occupied setpoints. Only the outputs are disabled. There is a Door/Window alarm displayed on the Terminal Equipment Controller to indicate to the local tenant that the door/window needs to be closed for cooling or heating to resume.

- Contact opened = Window Opened
- Contact closed = Window Closed

*These settings will disable the local override function on the Terminal Equipment Controller

BI 2

Binary input no.2 configuration

Default value = **None**

(None): No function will be associated with the input
(Door Dry) Door contact & Motion detector: This configuration is only functional if binary input #1 is set to **Motion NO** or **Motion NC** or a **PIR accessory cover** is used.

With this sequence enabled, the occupancy is now dictated through those 2 inputs. Any motion detected will set the zone to occupied status. The zone will remain permanently in occupied mode until the door contact switch opens momentarily. The Terminal Equipment Controller will then go in stand-by mode. If more movements are detected, the occupied mode will resume. While the door is opened, any movements detected by the remote PIR sensor or the PIR accessory cover will be ignored. Use a Normally Closed contact switching device. Contact opened = Door opened
Contact closed = Door closed

(RemOVR): temporary occupancy remote override contact. This function disables the central button override function on the Terminal Equipment Controller. 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.

It is now possible to toggle between unoccupied & occupied setpoints for the amount of time set by parameter (TOccTime) temporary occupancy time.

(Filter): a backlit flashing **Filter** alarm will be displayed on the Terminal Equipment Controller LCD screen when the input is energized. It can be tied to a differential pressure switch that monitor filters Contact opened = No alarm
Contact closed = Alarm displayed






























(Service): a backlit flashing **Service** alarm will be displayed on the Terminal Equipment Controller LCD screen when the input is energized. It can be tied in to the AC unit control card, which provides an alarm in case of malfunction.

- Contact opened = No alarm
- Contact closed = Alarm displayed

<p>UI3 Universal input no.3 configuration Default value = None</p>	<p>(None): No function will be associated with the input</p> <p>(COC/NH) Change over dry contact. Normally Heat: Used for hot / cold water or air change over switching in 2 pipe systems. Contact closed = Cold water or air present Contact opened = Hot water or air present Only used and valid if system is setup as 2 pipes. Parameter (Pipe No) set as 2 pipes.</p> <p>(COC/NC) Change over dry contact. Normally Cool: Used for hot / cold water or air change over switching in 2 pipe systems. Contact closed = Hot water present Contact opened = Cold water present Only used and valid if system is setup as 2 pipes. Parameter (Pipe No) set as 2 pipes.</p> <p>(COS) Change over analog sensor: Used for hot / cold water or air change over switching in 2 pipe systems. Only used and valid if system is setup as 2 pipes. Parameter (Pipe No) set as 2 pipes. If water temperature is > 78 °F = Hot water present If water temperature is < 75 °F = Cold water present</p> <p>(SS) Supply air sensor monitoring: Used for supply air temperature monitoring. Only used for network reporting of the supply air temperature. Has no internal function in the Terminal Equipment Controller.</p>
<p>MenuScro Menu scroll Default value = On = Scroll active</p>	<p>Removes the scrolling display and displays the room temperature/humidity to the user. With this option enabled, no mode, schedule and outdoor temperature status is given.</p> <ul style="list-style-type: none"> ▪ On = Scroll active ▪ Off = Scroll not active
<p>AutoMode Enables Auto menu for Mode button Default value = On</p>	<p>Enables Auto function for the mode button For sequences 2, 4 & 5 only</p> <ul style="list-style-type: none"> ▪ On = Auto active (Off-Cool-Heat-Auto) ▪ Off = auto not active (Off-Cool-Heat)

<p>C or F Sets scale of the Terminal Equipment Controller Default value = °F</p>	<ul style="list-style-type: none"> ▪ °F for Fahrenheit scale ▪ °C for Celsius scale <p>On hotel models, this sets the default value when the Terminal Equipment Controller powers up</p>
<p>%RH disp Local %RH Display Default value = Off</p> <p>Models with Humidity sensor only</p>	<p>Conditional parameter to Humidity models VT735xX5x00(X)</p> <p>Enables the display of humidity value below the room temperature value on the display</p> <ul style="list-style-type: none"> ▪ On = Display %RH ▪ Off = No display of %RH
<p>Lockout Keypad lockout levels Default value = 0 No lock</p>	

USER KEY FUNCTIONS

LEVEL	 MODE	 FAN	 OVERRIDE	 
0				
1				
2				
3				
4				
5				

<p>Pipe No System type installation Number of pipes Default is: 4.0 Pipes</p>	<p>Defines the type of system installed</p> <p>2.0 Pipes, will limit the number of sequences of operation available from 0 to 4</p> <p>Will enable heat/cool operation from the same output</p> <p>4.0 Pipes, can access all the sequences of operation from 0 to 2</p> <p>Will enable heat/cool operation from different output</p>
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<p>CntrlTyp Control type for Triac models Default is: Floating</p>	<p>Defines the type of control output for the type of valves installed VT7350C10xx, VT7300C10xx, VT7355C10xx and VT7305C10xx only On/Off is for normally opened or normally closed 24 VAC 2 position valves Floating is for modulating 3 wires control of 24 VAC floating valves</p>
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<p>SeqOpera Sequence of operation Default is: Sequence #1</p>	<p>Selects the initial sequence of operation required by the installation type and the application</p>
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	SYSTEM = 2 PIPES	SYSTEM = 4 PIPES
0 = Cooling Only	Off - Cool	0 = Cooling Only
1 = Heating Only	Off - Heat	1 = Heating Only
2 = Cooling With Electric Reheat	Off – Auto – Heat – Cool	2 = Cooling With Electric Reheat
3 = Heating With Electric Reheat	Off - Heat	3 = Heating With Electric Reheat
4 = Cooling and Heating (2 modulating outputs)	Off – Auto – Heat – Cool	4 = Cooling and Heating (2 modulating outputs)
5 = Cooling / Heating (2 modulating outputs) with reheat	Off – Auto – Heat – Cool	5 = Cooling / Heating (2 modulating outputs) with reheat

	<p>For 2 Pipe output applications, the system access is limited if RUI 1 is configured for local changeover COS, COC/NC or COC/NC. The current water temperature detected by the RUI 1 then limits the system mode available for the local configuration or network write.</p> <p>For sequence 2 & 3, set PulsedHt to On to enable pulsed electric reheat applications with VR7300B & E</p>
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<p>Fan Menu Mode button menu configuration Default is: Menu #4</p>	<p>Menu displayed are dependent on model used and sequence of operation selected Auto Mode operation for sequences 2 and 3 is dependent on Auto Fan parameter</p> <hr/> <p>3 Speed configuration using 3 fan relays (L-M-H)</p>
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0 = Low-Med-High	2 Speed configuration using 2 fan relays (L-H)
1 = Low-High	3 Speed configuration with Auto fan speed mode using 3 fan relays (L-M-H-A)
2 = Low-Med-High-Auto	2 Speed configuration with Auto fan speed mode using 2 fan relays (L-H-A)
3 = Low-High-Auto	Single Speed configuration. Auto is for Fan on demand / On is On all the time
4 = On-Auto	
DHumiLCK Dehumidification lockout Default value: On = Authorized	Conditional parameter to Humidity models VT735xX5x00(X) Typically toggled via the network. This variable enables or disables dehumidification based on central network requirements from the BAS front end <ul style="list-style-type: none"> ▪ On = Dehumidification Authorized ▪ Off = Dehumidification Not Authorized
%RH set Dehumidification setpoint Default is 50 % RH	Conditional parameter to Humidity models VT735xX5x00(X) Used only if dehumidification sequence is enabled: Range is: 30-95% RH
DehuHyst Dehumidification Hysteresys Default = 5 % RH	Conditional parameter to Humidity models VT735xX5x00(X) Humidity control hysteresis. Used only if dehumidification sequence is enabled: Range is: 2 to 20% RH
DehuCool Maximum Dehumidification Cooling output Default = 100 %	Conditional parameter to Humidity models VT735xX5x00(X) Maximum cooling valve position when dehumidification is enabled. This can be used to balance smaller reheat loads installed relative to the capacity of the cooling coil. Range is: 20 to 100 %
St-By TM Stand-by Timer value Default = 0.5 hours	Time delay between the moment when the PIR sensor detected the last movement in the area and the time when the Terminal Equipment Controller stand-by mode and setpoints become active. Range is: 0.5 to 24.0 hours in 0.5hr increments

<p>Unocc TM Unoccupied Timer value Default = 0.0 hours</p>	<p>Time delay between the moment when the Terminal Equipment Controller toggles to stand-by mode and the time when the Terminal Equipment Controller unoccupied mode and setpoints become active. The factory value is 0.0 hours: Setting this parameter to its default value of 0.0 hours disables the unoccupied timer. This prevents the Terminal Equipment Controller to drift from standby mode to unoccupied mode when PIR functions are used Range is: 0.0 to 24.0 hours in 0.5hr increments</p>
<p>St-By HT Stand-by heating setpoint Default value = 69 °F</p>	<p>The value of this parameter should reside between the occupied and unoccupied heating setpoints and make sure that the difference between the stand-by and occupied value can be recovered in a timely fashion when movement is detected in the zone. Stand-by heating setpoint range is: 40 to 90 °F (4.5 to 32.0 °C)</p>
<p>St-By CL Stand-by cooling setpoint limit Default value = 78 °F</p>	<p>The value of this parameter should reside between the occupied and unoccupied cooling setpoints and make sure that the difference between the stand-by and occupied value can be recovered in a timely fashion when movement is detected in the zone. Stand-by cooling setpoint range is: 54 to 100 °F (12.0 to 37.5 °C)</p>
<p>Unocc HT Unoccupied heating setpoint Default value = 62 °F</p>	<p>Unoccupied heating setpoint range is: 40 to 90 °F (4.5 to 32.0 °C)</p>
<p>Unocc CL Unoccupied cooling setpoint limit Default value = 80 °F</p>	<p>Unoccupied cooling setpoint range is: 54 to 100 °F (12.0 to 37.5 °C)</p>
<p>Heat max Maximum heating setpoint limit Default value = 90 °F (32 °C)</p>	<p>Maximum occupied & unoccupied heating setpoint adjustment. Heating setpoint range is: 40 to 90 °F (4.5 to 32.0 °C)</p>
<p>Cool min Minimum cooling setpoint limit Default value = 54 °F (12 °C)</p>	<p>Minimum occupied & unoccupied cooling setpoint adjustment. Cooling setpoint range is: 54 to 100 °F (12.0 to 37.5 °C)</p>

<p>Pband Proportional band setting Default = 3</p>	<p>Adjust the proportional band used by the Terminal Equipment Controller PI control loop.</p> <p> Note that the default value of 3.0 °F (1.2 °C) gives satisfactory operation in most normal installation cases. The use of a proportional band different than the factory one is normally warranted in applications where the Terminal Equipment Controller location is problematic and leads to unwanted cycling of the unit. A typical example is a wall mounted unit where the Terminal Equipment Controller is installed between the return and supply air feeds and is directly influenced by the supply air stream of the unit.</p>																													
	<table border="1"> <thead> <tr> <th>VALUE</th> <th>°F SCALE PBAND</th> <th>°C SCALE PBAND</th> </tr> </thead> <tbody> <tr><td>3</td><td>3 F</td><td>1.2 C</td></tr> <tr><td>4</td><td>4 F</td><td>1.7 C</td></tr> <tr><td>5</td><td>5 F</td><td>2.2 C</td></tr> <tr><td>6</td><td>6 F</td><td>2.8 C</td></tr> <tr><td>7</td><td>7 F</td><td>3.3 C</td></tr> <tr><td>8</td><td>8 F</td><td>3.9 C</td></tr> <tr><td>9</td><td>9 F</td><td>5.0 C</td></tr> <tr><td>10</td><td>10 F</td><td>5.6 C</td></tr> </tbody> </table>	VALUE	°F SCALE PBAND	°C SCALE PBAND	3	3 F	1.2 C	4	4 F	1.7 C	5	5 F	2.2 C	6	6 F	2.8 C	7	7 F	3.3 C	8	8 F	3.9 C	9	9 F	5.0 C	10	10 F	5.6 C		
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10	10 F	5.6 C																												

<p>Set Type Temporary setpoint enable Default is : Permnet</p> <p>Enables temporary setpoints feature to any change of occupied or unoccupied setpoint.</p>	<p>Temporar: (temporary) Local changes to the heating or cooling setpoints by the user are temporary. They will remain effective for the duration specified by “ToccTime”. Setpoints will then revert back to their default value after internal timer “ToccTime” expires.</p> <p>To change setpoints permanently, revert this variable to No or write setpoints through the network. Any setpoints written through the network will be permanent and saved to EEPROM.</p> <p>Permnet: (permanent) Any change of occupied or unoccupied setpoints through the keypad by the user are permanent and saved to & EEPROM</p>
<p>SptFunc Local setpoint settings Default value = Dual Stp</p>	<p>Set the local setpoint interface for the user</p> <ul style="list-style-type: none"> ▪ Dual Stp (Dual Occupied Setpoints Adjustment) ▪ AttchStp (Single Occupied Setpoint Adjustment)

<p>TOccTime Temporary occupancy time Default value = 2 hours</p>	<p>Temporary occupancy time with occupied mode setpoints when override function is enabled.</p> <p>When the Terminal Equipment Controller is in unoccupied mode, function is enabled with either the menu or UI2 configured as remote override input.</p> <p>Range is: 0,1, 2, 3, 4, 5, 6, 7, 8, 9, 10, & up to 24 hours</p>
<p>Deadband Minimum deadband Default value = 2.0 °F (1.0 °C)</p>	<p>The minimum deadband value between the heating and cooling setpoints. When modified, it will take effect only when any of the setpoints are modified again.</p> <p>Range is: 2, 3, 4 or 5 °F, 1.0 °F increments (1.0 to 2.5 °C, 0.5 °C increments)</p>
<p>Cal RS Room temperature sensor calibration Default value = 0.0 °F or °C</p>	<p>Offset that can be added/subtracted to the actual displayed room temperature</p> <p>Range is: ± 5.0 °F, 1.0 °F increments (± 2.5 °C, 0.5 °C increments)</p>
<p>Cal RH Humidity sensor calibration Default value = 0 %RH</p>	<p>Offset that can be added/subtracted to the actual displayed humidity by ± 15.0 %RH.</p> <p>Range is : ± 15.0 %RH</p>
<p>aux cont Auxiliary contact function & configuration</p>	<p>0 Aux contact function used for reheat <i>IF SEQUENCE IS SET TO REHEAT THROUGH NETWORK OR LOCAL, ignore this parameter.</i></p>

<p>Default value = 0 Not Used</p>	<p>The output will directly follow the occupancy of the Terminal Equipment Controller</p> <p>1 Auxiliary NO, Occ or St-By = Contact Closed / Unoccupied = Contact Opened</p> <p>2 Auxiliary NC, Occ or St-By = Contact Opened / Unoccupied = Contact Closed</p> <p>Output to follow directly main occupancy and Fan on command</p> <p>Typically used for 2 position fresh air damper applications.</p> <p>3 Auxiliary NO, Occ or St-By & Fan On = Contact Closed / Unoccupied & Fan On or Off = Contact Opened</p> <p>4 Auxiliary NC, Occ or St-By & Fan On = Contact Opened / Unoccupied & Fan On or Off = Contact Closed</p> <p>Output to follow secondary network occupancy command</p> <p>5 Auxiliary On/Off Control through auxiliary network command. The output can be commanded through the network for any required auxiliary functions through a separate & dedicated network variable.</p>
<p>Auto Fan Auto Fan Function Default value: AS</p>	<p>Auto Speed Fan Mode operation for Fan Sequences 2 and 3 AS = Auto Speed during occupied periods. Fan is always on during occupied periods.</p> <p>AS AD = Auto Speed / Auto Demand during occupied periods.</p>
<p>FL time For floating models VT73xxC5x00(x) only Default value: 1.5 minutes</p>	<p>Floating actuator timing</p> <p>Maximum stroke time of floating valve actuator.</p> <p>Range is: 0.5 to 9.0 minutes in 0.5 minutes increment</p>
<p>cph On/Off devices cycles per hour For On/Off models & sequences VT73xxC5x00(x) only Default value = 4 C.P.H.</p>	<p>Will set the maximum number cycles per hour under normal control operation. It represents the maximum number of cycles that the equipment will turn 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.</p> <p>Range is: 3, 4, 5, 6, 7 & 8 C.P.H.</p>

<p>RA/DA For Analog models VT73xxF5x00(x) only Default value: DA signal</p>	<p>Reverse acting or Direct acting signal for Analog output signals DA = Direct acting, 0 to 100 % = 0 to 10 VDC RA = Reverse acting, 0 to 100 % = 10 to 0 VDC</p>
<p>Reheat Default value: 0 = 15 minute</p>	<p>Sets the reheat output time base Valid only if reheat sequences are enabled 0 = 15 minutes 1 = 10 seconds for Solid state relays</p>
<p>UI3 dis Display UI3 value.</p>	<p>Used as diagnostic / service help to troubleshoot and diagnose sensor operation Supply or change over temperature when UI3 is configured as an analog input (SS or COS)</p>

CONFIGURABLE BI/UI INPUTS OVERVIEW

VT7300F5X00B-2572

Binary input #1 can be configured for the following functions:

1. **(None): No function will be associated with the input**
2. **(Rem NSB):** remote NSB timer clock input. The scheduling will now be set as per the binary input. It provides low cost setback operation via a dry contact
Contact opened = Occupied
Contact closed = Unoccupied
3. **(Motion NO) and (Motion NC):** Advanced PIR occupancy functions using a normally open (NO) or normally closed (NC) remote PIR motion sensor. Occupancy mode is now set as per applied PIR function and configuration. Application information and examples are available on document: *APP-PIRGuide-Exx*. This document will provide the installers and system designers with detailed examples on applications, parameter configuration information, sequence of operation, troubleshooting and diagnostic help required for the proper usage of the PIR accessory covers
4. **(Window) EMS:** Forces the system to disable any current heating or cooling action by the Terminal Equipment Controller. The mode stays the same and the current setpoints are the same occupied setpoints. Only the outputs are disabled. There is a Door/Window alarm displayed on the Terminal Equipment Controller to indicate to the local tenant that the door/window needs to be closed for cooling or heating to resume. Use NC contact.
Contact opened = System disabled with local Window alarm Contact closed = System enabled

Binary input #2 can be configured for the following functions:

1. **(None):** No function will be associated with the input
2. **(Door Dry) Door contact & Motion detector:** This configuration is only functional if binary input #1 is set to **Motion NO** or **Motion NC** or a **PIR accessory cover** is used. With this sequence enabled, the occupancy is now dictated through those 2 inputs. Any motion detected will set the zone to occupied status. The zone will remain permanently in occupied mode until the door contact switch opens momentarily. The Terminal Equipment Controller will then go in stand-by mode. If more movements are detected, the occupied mode will resume. While the door is opened, any movements detected by the remote PIR sensor or the PIR accessory cover will be ignored. Use a Normally Closed contact switching device.
Contact opened = Door opened
Contact closed = Door closed
3. **(RemOVR):** temporary occupancy remote override contact. This function disables the central button override function on the Terminal Equipment Controller. 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. It is now possible to toggle between unoccupied & occupied setpoints for the amount of time set by parameter (TOccTime) temporary occupancy time.
4. **(Filter):** a backlit flashing Filter alarm will be displayed on the Terminal

Equipment Controller LCD screen when the input is energized. It can be tied to a differential pressure switch that monitor filters

Contact opened = No alarm

Contact closed = Alarm displayed

5. **(Service):** a backlit flashing Service alarm will be displayed on the Terminal Equipment Controller LCD screen when the input is energized. It can be tied in to the AC unit control card, which provides an alarm in case of malfunction.

Contact opened = No alarm

Contact closed = Alarm displayed

Universal input #3 can be configured for the following functions:

1. **(None):** No function will be associated with the input
2. **(COC/NH) Change over dry contact. Normally Heat:** Used for hot / cold air / water change over switching in 2 pipe systems.
Contact closed = Cold air / water present
Contact opened = Hot air / water present
Only used and valid if system is setup as 2.0. Parameter (Out1Conf) set as 2.0.
3. **(COC/NC) Change over dry contact. Normally Cool:** Used for hot / cold air / water change over switching in 2 pipe systems.
Contact closed = Hot air / water present
Contact opened = Cold air / water present
Only used and valid if system is setup as 2.0. Parameter (Out1Conf) set as 2.0.
4. **(COS) Change over analog sensor:** Used for hot / cold air / water change over switching in 2 pipe systems.
Only used and valid if system is setup as 2.0. Parameter (Out1Conf) set as 2.0.
If temperature is > 77 °F = Hot air / water present
If temperature is < 75 °F = Cold air / water present
5. **(SS) Supply air sensor monitoring:** Used for supply air temperature monitoring.
Only used for network reporting of the supply air temperature. Has no internal function in the Terminal Equipment Controller.

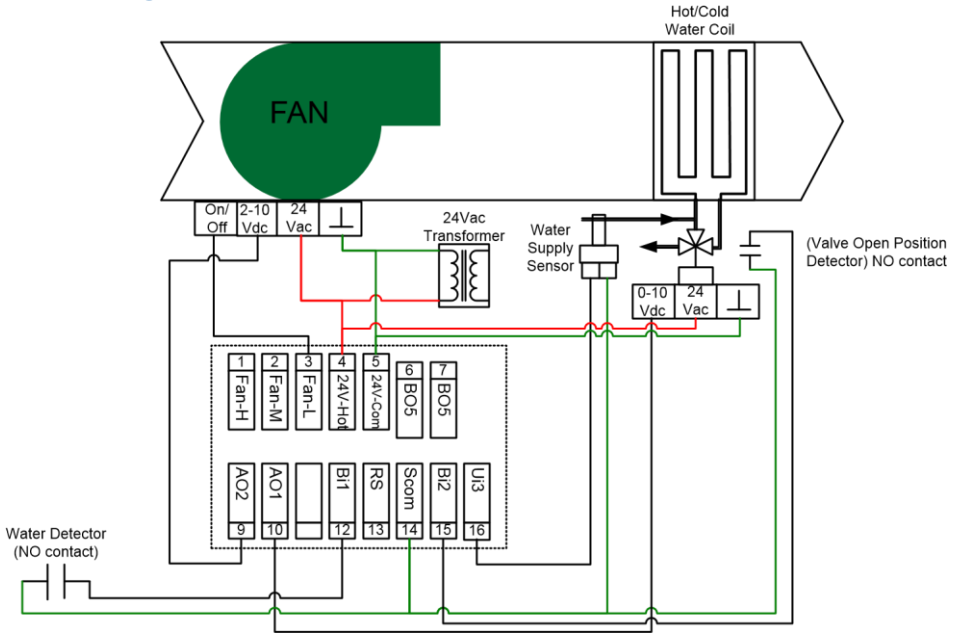
1- Not used
2- Not used
3- Fan Enable/disable
4- 24 V~ Hot
5- 24 V~ Com

TERMINAL, IDENTIFICATION AND FUNCTION

6- Aux BO 5
7- Aux BO 5
8- Blank
9- ECM Output
10-Valve Output
11- Not used
12- BI #1
13- RS
14- Scom
15- BI #2
16- UI #3 COS / COC /SS

AO 2
AO 1
Blank
BI 1
RS
Scom
BI 2
UI 3

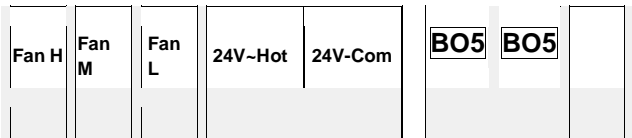
Wiring



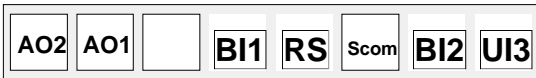
Screw terminal arrangement

5 pole left top connector

3 pole left top connector



8 pole bottom connector



Main outputs wiring

Wiring notes:

Note 1: Electromechanical contacts are to be used with the digital inputs. Electronic triacs cannot be used as means of switching for the input. The switched leg to the input for the input to activate is terminal C (common).

Note 2: The transformer of the unit provides power to the Terminal Equipment Controller and the additional loads that will be wired to the Terminal Equipment Controller.

Remote sensor accessories

Model no.	Description
S3010W1000	Wall mounted temperature sensor
S3020W1000	Wall mounted temperature sensor with override button and occupancy status LED
S2060A1000	Averaging temperature sensor
S2000D1000	Duct mounted temperature sensor



MOUNTED SENSORS3020W1000 WALL

Remote mount temperature sensors use 10K type 2 NTC thermistors.

Features:

- Each sensor can be configured for various averaging combinations
- Optional occupancy led
- Optional override key

Wiring example of single remote room sensor:

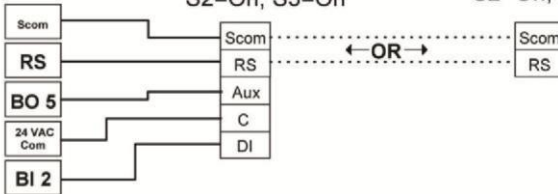
VT7300 Series

S3020W1000

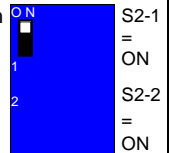
Remote wiring 1 sensor
S2=On, S3=On

S3010W1000

Remote wiring 1 sensor
S2=On, S3=On



Dip switch
setting for:
1 sensor



Wiring examples of 2 remote room sensors for averaging applications:

VT7300 Series 1 x S3010W1000 and 1 x S3020W1000
Remote wiring 2 sensors
S1=On, S2=Off

VT7300 Series 2 x S3020W1000
Remote wiring 2 sensors
S2=On, S3=Off

VT7300 Series 2 x S3010W1000
Remote wiring 2 sensors
S2=On, S3=Off

Notes for averaging applications:

- S3010W1000 and S3020W1000 can be mixed matched.
- S3010W1000 and S3020W1000 are to be wired in parallel.
- Respect the dip switch setting in each remote sensor.

Dip switch setting for: **2 sensors**

S2-1 = OFF
S2-2 = ON

Wiring examples of 3 remote room sensors for averaging applications:

VT7300 Series 2x S3010W1000 and 1 x S3020W1000
Remote wiring 3 sensors
S2=Off, S3=Off

VT7300 Series 3x S3010W1000
Remote wiring 3 sensors
S2=Off, S3=Off

Dip switch setting for: **3 sensors**

S2-1 = OFF
S2-2 = OFF

Temperature vs. resistance chart for 10 Kohm NTC thermistor

°C	°F	Kohm
-40	-40	324.3197
-39	-38	303.6427

°C	°F	Kohm
-20	-4	94.5149
-19	-2	89.2521

°C	°F	Kohm
0	32	32.1910
1	34	30.6120

°C	°F	Kohm
20	68	12.4601
21	70	11.9177

°C	°F	Kohm
40	104	5.3467
41	106	5.1373

-38	-36	284.4189
-37	-35	266.5373
-36	-33	249.8958
-35	-31	234.4009
-34	-29	219.9666
-33	-27	206.5140
-32	-26	193.9703
-31	-24	182.2686
-30	-22	171.3474
-29	-20	161.1499
-28	-18	151.6239
-27	-17	142.7211
-26	-15	134.3971
-25	-13	126.6109
-24	-11	119.3244
-23	-9	112.5028
-22	-8	106.1135

-18	0	84.3147
-17	1	79.6808
-16	3	75.3299
-15	5	71.2430
-14	7	67.4028
-13	9	63.7928
-12	10	60.3980
-11	12	57.2044
-10	14	54.1988
-9	16	51.3692
-8	18	48.7042
-7	19	46.1933
-6	21	43.8268
-5	23	41.5956
-4	25	39.4921
-3	27	37.5056
-2	28	35.6316

2	3	29.1197
3	3	27.7088
4	3	26.3744
5	4	25.1119
6	4	23.9172
7	4	22.7861
8	4	21.7151
9	4	20.7004
10	5	19.7390
11	5	18.8277
12	5	17.9636
13	5	17.1440
14	5	16.3665
15	5	15.6286
16	6	14.9280
17	6	14.2629
18	6	13.6310

2	72	11.4018
2	73	10.9112
2	75	10.4443
2	77	10.0000
2	79	9.5754
2	81	9.1711
2	82	8.7860
2	84	8.4190
3	86	8.0694
3	88	7.7360
3	90	7.4182
3	91	7.1150
3	93	6.8259
3	95	6.5499
3	97	6.2866
3	99	6.0351
3	100	5.7950

42	10	4.9373
43	10	4.7460
44	11	4.5631
45	11	4.3881
46	11	4.2208
47	11	4.0607
48	11	3.9074
49	12	3.7607
50	12	3.6202
51	12	3.4857
52	12	3.3568
53	12	3.2333
54	12	3.1150
55	13	3.0016
56	13	2.8928
57	13	2.7886
58	13	2.6886

-	-6	100.12
2		68
1		

-1	3	33.86
	0	22

1	6	13.03
9	6	07

3	10	5.56
9	2	57

59	13	2.59
	8	26

CONFIGURING AND STATUS DISPLAY INSTRUCTIONS

Status display

The Terminal Equipment 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 Terminal Equipment 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:

ROOM & HUMIDITY	SYSTEM MODE	SCHEDULE STATUS	OUTDOOR TEMPERATURE	ALARMS
RoomTemp x.x °C or °F	Sys mode auto	Occupied	Outdoor x.x °C or °F	Service
	Sys mode cool	Stand-By	Network value only	Filter
	Sys mode heat	Unoccup		Window
	Sys mode off	Override		

Outdoor air temperature

- Display is only enabled when outdoor air temperature network variable is received.

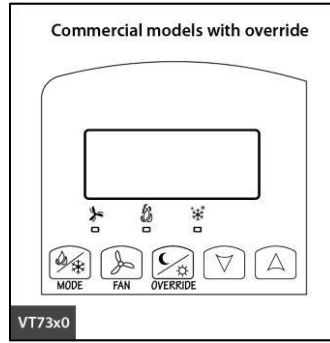
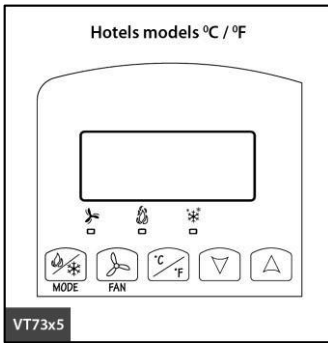
Occupancy status

- Occupied, Stand-By, Unoccupied and Override status are displayed on the scrolling display. **Alarms**
- If alarms are detected, they will automatically be displayed at the end of the scrolling status display.
- When an alarm message is displayed, the backlit screen will illuminate at the same time as the message and shut off during the rest of the status display.
- A maximum of two alarms can appear at any given time. The priority for the alarms are as follows:

Service	Indicates that there is a service alarm as per one of the configurable digital input.
Filter	Indicates that the filters are dirty as per one of the configurable digital input.
Window	Indicates that the outside window or door is opened and that the terminal equipment controller has cancelled any cooling or heating action.






Three status LED's on the Terminal Equipment Controller cover are used to indicate the status of the fan (any speed), a call for heat, or a call for cooling.

USER INTERFACE



Local keypad interface

Each of the sections in the menu is accessed and configured using 5 keys on the Terminal Equipment Controller cover.

 <p>MODE</p>	<ul style="list-style-type: none"> Is used to toggle between the different system modes available as per sequence and menu selected. Repetitively pressing the button will toggle between all the available modes. Available menus are dependent on selected sequence of operation.
 <p>FAN</p>	<ul style="list-style-type: none"> Is used to toggle between the different fan modes available as per the sequence and menu selected Repetitively pressing the button will toggle between all the available modes Available menus are dependent on selected sequence of operation and menu selected for Fan
 <p>°C / °F</p>	<ul style="list-style-type: none"> Hotel and lodging applications. Toggles the local user temperature scale between °F and °C
 <p>OVERRIDE</p>	<ul style="list-style-type: none"> Commercial and institutional applications. Set a local unoccupied timed override to occupied mode
	<ul style="list-style-type: none"> In cooling mode only the cooling setpoint is displayed, In heating mode only the heating setpoint is displayed In auto mode, (See below)
	<ul style="list-style-type: none"> In cooling mode only the cooling setpoint is displayed,



- In heating mode only the heating setpoint is displayed
- In auto mode, (See below)

- Any setpoint change can be permanent or temporary based on configuration parameter (Setpoint Type)
- Any setpoint written through the network, will be permanent and cancel any active temporary setpoints
- Lockouts of access to certain functions is made with configuration parameter (lockout)

Dual occupied setpoints adjustment

(Local occupied setpoint adjustment when “Stp Func” = *Dual Stp*)

COOLING MODE	HEATING MODE	OFF MODE	AUTO MODE
Cool XX.X °F or °C	Heat XX.X °F or °C	No access to setpoint	<ul style="list-style-type: none"> ▪ Setpoint presented to user is the setpoint from the last action taken by the Terminal Equipment Controller or the one currently in use. ▪ If the other setpoint is the one desired, then the MODE button is used to toggle between the current displayed one and the other.
			Cool XX.X °F or °C or Heat XX.X °F or °C Toggle to (Heat or Cool)with MODE button

- Heat/Cool setpoint toggle with MODE button to be active only in AUTO mode. ▪
If cooling, heating or off mode is active, function is disabled.

Single occupied setpoints adjustment

(Local occupied setpoint adjustment when “Stp Func” = *Attch Stp*)

COOLING MODE	HEATING MODE	OFF MODE	AUTO MODE
Cool XX.X °F or °C	Heat XX.X °F or °C	No access to setpoint	<ul style="list-style-type: none"> ▪ Setpoint presented to user is the setpoint from the last action taken by the Terminal Equipment Controller or the one currently in use. ▪ Both heating and cooling setpoints are changed simultaneously while respecting the minimum configured deadband ▪ If the other setpoint is the one desired, then the MODE button is used to toggle between the current displayed one and the other.
			Cool XX.X °F or °C and Heat XX.X °F or °C Both heating & cooling setpoints change simultaneously Toggle from (Heat or Cool) using the system MODE button

Unoccupied and stand-by setpoints adjustments

Setting of the stand-by and unoccupied setpoints is done through the network or through configuration setup only.

Mode button menu sequence

Modes presented to the user are dependent on the sequence of operation selected. Default mode is shown in bold when sequence of operation parameter is changed.

The available mode can only be changed through the network since there is no local mode access

Sequence of operations

AutoMode set to **ON = Auto system mode active**

SEQUENCE SELECTED	MODE MENU
0 = Cooling Only	Off - Cool
1 = Heating Only	Off - Heat
2 = Cooling With Electric Reheat	Off – Auto – Heat – Cool
3 = Heating With Electric Reheat	Off - Heat

AutoMode set to **OFF = Auto system mode NOT active**

SEQUENCE SELECTED	MODE MENU
0 = Cooling Only	Off - Cool
1 = Heating Only	Off - Heat
2 = Cooling With Electric Reheat	Off – Heat – Cool
3 = Heating With Electric Reheat	Off - Heat

Available fan button menu sequences

Fan button menu configuration	Menu presented are dependent on model used and sequence of operation selected	Default value when sequence toggled
0 Low-Med-High	3 Speed configuration (2.0Vdc, 6.0Vdc, 10.0Vdc)	High
1 Low-High	2 Speed configuration (2.0Vdc, 10.0Vdc)	High
2 Low-Med-High-Auto	3 Speed configuration with Auto fan speed mode (2.0Vdc, 6.0Vdc, 10.0Vdc or modulating 2.0 to High AO2 Parameter)	High

3 Low-High-Auto	2 Speed configuration with Auto fan speed mode (2.0Vdc, 10.0Vdc or modulating 2.0 to High AO2 Parameter)	High
4 Auto	Auto fan from 2.0Vdc to 10.0Vdc as a second stage	Auto

Auto speed fan mode is also offered in heating mode applications; it will not have any effect on dehumidification. It will strictly be used for noise comfort issues.

Auto Speed Fan Mode operation for sequences 2 and 3 is dependent on Auto Fan parameter. When Auto Fan is set to:

- AS (Default) = Auto Speed during occupied periods. Fan is always on during occupied periods. Low, medium and high speeds operate on temperature offset from set point.
- AS AD = Auto Speed / Auto Demand during occupied periods.
 - Medium and high speeds operate on temperature offset from set point. Low speed operates on demand and will shut down when no demand is present.

INSTALLER CONFIGURATION PARAMETER MENU

- Configuration can be done through the network or locally at the Terminal Equipment Controller.
- To enter configuration, press and hold the middle button “Menu” for 8 seconds
- If a password lockout is active, “Password” is prompted. Enter password value using the “up” and “down” arrows and press “Yes” to gain access to all configuration properties of the Terminal Equipment Controller. A wrong password entered will prevent local access to the configuration menu.
- Once in the configuration menu, press the “No” button repetitively to scroll between all the available parameters.
- When the desired parameter is displayed, press “Yes” to adjust it to the desired value using “up” and “down” arrows. Once set, press “Yes” to scroll to the next parameter.

CONFIGURATION PARAMETERS DEFAULT VALUE	SIGNIFICANCE AND ADJUSTMENTS
<p>PswrdSet Configuration parameters menu access password Default value = 0 Range is: 0 to 1000</p>	<p>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</p>
<p>Com Addr Terminal Equipment Controller networking address Default value = 254 Range is: 0 to 254</p>	<ul style="list-style-type: none"> ▪ For BACnet™ MS-TP models, the valid range is from 1 to 127. Default value of 254 disables BACnet™ communication for the Terminal Equipment Controller. ▪ For wireless models, the valid range is 0 to 254 with a maximum of 30 Terminal Equipment Controller per VWG

<p>BI 1 Binary input no.1 configuration Default value = None</p>	<p>(None): No function will be associated with the input. Input can be used for remote network monitoring.</p> <p>(Rem NSB): remote NSB timer clock input. The scheduling will now be set as per the binary input. It provides low cost setback operation via a dry contact</p> <ul style="list-style-type: none"> ▪ Contact opened = Occupied ▪ Contact closed = Unoccupied <p>(Motion NO) or (Motion NC): Advanced PIR occupancy functions using a Normally Open (NO) or Normally Closed (NC) remote PIR motion sensor. Occupancy mode is now set as per applied PIR function and configuration. Application information and examples are available in document: <i>APP-PIR-Guide-Exx</i>. This document will provide the installers and system designers with detailed examples on applications, parameter configuration information, sequence of operation, troubleshooting and diagnostic help required for the proper usage of the PIR accessory covers</p> <p>(Window) EMS: Forces the system to disable any current heating or cooling action by the Terminal Equipment Controller. The mode stays the same and the current setpoints are the same Occupied setpoints. Only the outputs are disabled. There is a Door/Window alarm displayed on the Terminal Equipment Controller to indicate to the local tenant that the door/window needs to be closed for cooling or heating to resume.</p> <ul style="list-style-type: none"> ▪ Contact opened = Window Opened ▪ Contact closed = Window Closed <p>*These settings will disable the local override function on the Terminal Equipment Controller</p>
--	---

BI 2

Binary input no.2 configuration

Default value = **None**

(None): No function will be associated with the input
(Door Dry) Door contact & Motion detector: This configuration is only functional if binary input #1 is set to **Motion NO** or **Motion NC** or a **PIR accessory cover** is used.

With this sequence enabled, the occupancy is now dictated through those 2 inputs. Any motion detected will set the zone to occupied status. The zone will remain permanently in occupied mode until the door contact switch opens momentarily. The Terminal Equipment Controller will then go in stand-by mode. If more movements are detected, the occupied mode will resume. While the door is opened, any movements detected by the remote PIR sensor or the PIR accessory cover will be ignored. Use a Normally Closed contact switching device. Contact opened = Door opened
Contact closed = Door closed

(RemOVR): temporary occupancy remote override contact. This function disables the central button override function on the Terminal Equipment Controller. 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.

It is now possible to toggle between unoccupied & occupied setpoints for the amount of time set by parameter (TOccTime) temporary occupancy time.

(Filter): a backlit flashing **Filter** alarm will be displayed on the Terminal Equipment Controller LCD screen when the input is energized. It can be tied to a differential pressure switch that monitor filters Contact opened = No alarm
Contact closed = Alarm displayed

(Service): a backlit flashing **Service** alarm will be displayed on the Terminal Equipment Controller LCD screen when the input is energized. It can be tied in to the AC unit control card, which provides an alarm in case of malfunction.






























- Contact opened = No alarm
- Contact closed = Alarm displayed

<p>UI3 Universal input no.3 configuration Default value = None</p>	<p>(None): No function will be associated with the input</p> <p>(COC/NH) Change over dry contact. Normally Heat: Used for hot / cold water or air change over switching in 2 pipe systems. Contact closed = Cold water or air present Contact opened = Hot water or air present Only used and valid if system is setup as 2 pipes. Parameter (Pipe No) set as 2 pipes.</p> <p>(COC/NC) Change over dry contact. Normally Cool: Used for hot / cold water or air change over switching in 2 pipe systems. Contact closed = Hot water present Contact opened = Cold water present Only used and valid if system is setup as 2 pipes. Parameter (Pipe No) set as 2 pipes.</p> <p>(COS) Change over analog sensor: Used for hot / cold water or air change over switching in 2 pipe systems. Only used and valid if system is setup as 2 pipes. Parameter (Pipe No) set as 2 pipes. If water temperature is > 78 °F = Hot water present If water temperature is < 75 °F = Cold water present</p> <p>(SS) Supply air sensor monitoring: Used for supply air temperature monitoring. Only used for network reporting of the supply air temperature. Has no internal function in the Terminal Equipment Controller.</p>
<p>MenuScro Menu scroll Default value = On = Scroll active</p>	<p>Removes the scrolling display and displays the room temperature/humidity to the user. With this option enabled, no mode, schedule and outdoor temperature status is given.</p> <ul style="list-style-type: none"> ▪ On = Scroll active ▪ Off = Scroll not active
<p>AutoMode Enables Auto menu for Mode button Default value = On</p>	<p>Enables Auto function for the mode button For sequences 2, 4 & 5 only</p> <ul style="list-style-type: none"> ▪ On = Auto active (Off-Cool-Heat-Auto) ▪ Off = auto not active (Off-Cool-Heat)

C or F Sets scale of the Terminal Equipment Controller Default value = °F	<ul style="list-style-type: none"> ▪ °F for Fahrenheit scale ▪ °C for Celsius scale <p>On hotel models, this sets the default value when the Terminal Equipment Controller powers up</p>
--	--

Lockout Keypad lockout levels Default value = 0 No lock	
---	--


USER KEY FUNCTIONS

LEVEL	 MODE	 FAN	 OVERRIDE	 
0				
1				
2				
3				
4				
5				

SeqOpera Sequence of operation Default is: Sequence #1	Selects the initial sequence of operation required by the installation type and the application
---	---

0 = Cooling Only	Off - Cool	0 = Cooling Only
1 = Heating Only	Off - Heat	1 = Heating Only
2 = Cooling With Electric Reheat	Off – Auto – Heat – Cool	2 = Cooling With Electric Reheat
3 = Heating With Electric Reheat	Off - Heat	3 = Heating With Electric Reheat

<p>Fan Menu Mode button menu configuration Default is: Menu #4</p> <p>0 = Low-Med-High</p> <p>1 = Low-High</p> <p>2 = Low-Med-High-Auto</p> <p>3 = Low-High-Auto</p> <p>4 = Auto</p>	<p>Menu displayed are dependent on model used and sequence of operation selected. Auto Mode operation for sequences 2 and 3 is dependent on Auto Fan parameter.</p> <p>3 Speed configuration (2.0Vdc, 6.0Vdc, 10.0Vdc)</p> <p>2 Speed configuration (2.0Vdc, 10.0Vdc)</p> <p>3 Speed configuration with Auto fan speed mode (2.0Vdc, 6.0Vdc, 10.0Vdc or modulating 2.0 to High AO2 Parameter)</p> <p>2 Speed configuration with Auto fan speed mode (2.0Vdc, 10.0Vdc or modulating 2.0 to High AO2 Parameter)</p> <p>Fan modulating 2.0Vdc to 10.0Vdc</p>
<p>St-By TM Stand-by Timer value Default = 0.5 hours</p>	<p>Time delay between the moment when the PIR sensor detected the last movement in the area and the time when the Terminal Equipment Controller stand-by mode and setpoints become active. Range is: 0.5 to 24.0 hours in 0.5hr increments</p>
<p>Unocc TM Unoccupied Timer value Default = 0.0 hours</p>	<p>Time delay between the moment when the Terminal Equipment Controller toggles to stand-by mode and the time when the Terminal Equipment Controller unoccupied mode and setpoints become active. The factory value or 0.0 hours: Setting this parameter to its default value of 0.0 hours disables the unoccupied timer. This prevents the Terminal Equipment Controller to drift from stand-by mode to unoccupied mode when PIR functions are used Range is: 0.0 to 24.0 hours in 0.5hr increments</p>
<p>St-By HT Stand-by heating setpoint Default value = 69 °F</p>	<p>The value of this parameter should reside between the occupied and unoccupied heating setpoints and make sure that the difference between the stand-by and occupied value can be recovered in a timely fashion when movement is detected in the zone. Stand-by heating setpoint range is: 40 to 90 °F (4.5 to 32.0 °C)</p>

<p>St-By CL Stand-by cooling setpoint limit Default value = 78 °F</p>	<p>The value of this parameter should reside between the occupied and unoccupied cooling setpoints and make sure that the difference between the stand-by and occupied value can be recovered in a timely fashion when movement is detected in the zone. Stand-by cooling setpoint range is: 54 to 100 °F (12.0 to 37.5 °C)</p>												
<p>Unocc HT Unoccupied heating setpoint Default value = 62 °F</p>	<p>Unoccupied heating setpoint range is: 40 to 90 °F (4.5 to 32.0 °C)</p>												
<p>Unocc CL Unoccupied cooling setpoint limit Default value = 80 °F</p>	<p>Unoccupied cooling setpoint range is: 54 to 100 °F (12.0 to 37.5 °C)</p>												
<p>Heat max Maximum heating setpoint limit Default value = 90 °F (32 °C)</p>	<p>Maximum occupied & unoccupied heating setpoint adjustment. Heating setpoint range is: 40 to 90 °F (4.5 to 32.0 °C)</p>												
<p>Cool min Minimum cooling setpoint limit Default value = 54 °F (12 °C)</p>	<p>Minimum occupied & unoccupied cooling setpoint adjustment. Cooling setpoint range is: 54 to 100 °F (12.0 to 37.5 °C)</p>												
<p>Pband Proportional band setting Default = 3</p>	<p>Adjust the proportional band used by the Terminal Equipment Controller PI control loop.</p> <p> Note that the default value of 3.0 °F (1.2 °C) gives satisfactory operation in most normal installation cases. The use of a proportional band different than the factory one is normally warranted in applications where the Terminal Equipment Controller location is problematic and leads to unwanted cycling of the unit. A typical example is a wall mounted unit where the Terminal Equipment Controller is installed between the return and supply air feeds and is directly influenced by the supply air stream of the unit.</p> <table border="1" data-bbox="420 1299 941 1451"> <thead> <tr> <th>VALUE</th> <th>°F SCALE PBAND</th> <th>°C SCALE PBAND</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3 F</td> <td>1.2 C</td> </tr> <tr> <td>4</td> <td>4 F</td> <td>1.7 C</td> </tr> <tr> <td>5</td> <td>5 F</td> <td>2.2 C</td> </tr> </tbody> </table>	VALUE	°F SCALE PBAND	°C SCALE PBAND	3	3 F	1.2 C	4	4 F	1.7 C	5	5 F	2.2 C
VALUE	°F SCALE PBAND	°C SCALE PBAND											
3	3 F	1.2 C											
4	4 F	1.7 C											
5	5 F	2.2 C											

6	6 F	2.8 C
7	7 F	3.3 C
8	8 F	3.9 C
9	9 F	5.0 C
10	10 F	5.6 C

<p>Set Type Temporary setpoint enable Default is : Permanent</p> <p>Enables temporary setpoints feature to any change of occupied or unoccupied setpoint.</p>	<p>Temporar: (temporary) Local changes to the heating or cooling setpoints by the user are temporary. They will remain effective for the duration specified by "ToccTime". Setpoints will then revert back to their default value after internal timer "ToccTime" expires.</p> <p>To change setpoints permanently, revert this variable to No or write setpoints through the network. Any setpoints written through the network will be permanent and saved to EEPROM.</p> <p>Permanent: (permanent) Any change of occupied or unoccupied setpoints through the keypad by the user are permanent and saved to & EEPROM</p>
<p>SptFunc Local setpoint settings Default value = Dual Stp</p>	<p>Set the local setpoint interface for the user</p> <ul style="list-style-type: none"> ▪ Dual Stp (Dual Occupied Setpoints Adjustment) ▪ AttchStp (Single Occupied Setpoint Adjustment)
<p>ToccTime Temporary occupancy time Default value = 2 hours</p>	<p>Temporary occupancy time with occupied mode setpoints when override function is enabled.</p> <p>When the Terminal Equipment Controller is in unoccupied mode, function is enabled with either the menu or UI2 configured as remote override input.</p> <p>Range is: 0,1, 2, 3, 4, 5, 6, 7, 8, 9, 10, & up to 24 hours</p>
<p>Deadband Minimum deadband Default value = 2.0 °F (1.0 °C)</p>	<p>The minimum deadband value between the heating and cooling setpoints. When modified, it will take effect only when any of the setpoints are modified again.</p> <p>Range is: 2, 3, 4 or 5 °F, 1.0 °F increments (1.0 to 2.5 °C, 0.5 °C increments)</p>

<p>Cal RS Room temperature sensor calibration Default value = 0.0 °F or °C</p>	<p>Offset that can be added/subtracted to the actual displayed room temperature</p> <p>Range is: ± 5.0 °F, 1.0 °F increments (± 2.5 °C, 0.5 °C increments)</p>
<p>aux cont Auxiliary contact function & configuration Default value = 0 Not Used</p>	<p>0 Aux contact function used for reheat <i>IF SEQUENCE IS SET TO REHEAT THROUGH NETWORK</i> <i>OR LOCAL, Ignore this parameter.</i></p> <p>The output will directly follow the occupancy of the Terminal Equipment Controller 1 Auxiliary NO, Occ or St-By = Contact Closed / Unoccupied = Contact Opened 2 Auxiliary NC, Occ or St-By = Contact Opened / Unoccupied = Contact Closed</p> <p>Output to follow directly main occupancy and Fan on command Typically used for 2 position fresh air damper applications. 3 Auxiliary NO, Occ or St-By & Fan On = Contact Closed / Unoccupied & Fan On or Off = Contact Opened 4 Auxiliary NC, Occ or St-By & Fan On = Contact Opened / Unoccupied & Fan On or Off = Contact Closed</p> <p>Output to follow secondary network occupancy command 5 Auxiliary On/Off Control through auxiliary network command. The output can be commanded through the network for any required auxiliary functions through a separate & dedicated network variable.</p>
<p>Auto Fan Auto Fan Function Default value: AS</p>	<p>Auto Speed Fan Mode operation for Fan Sequences 2 and 3 AS = Auto Speed during occupied periods. Fan is always on during occupied periods.</p> <p>AS AD = Auto Speed / Auto Demand during occupied periods.</p>
<p>RA/DA For Analog models VT73xxF5x00(x) only Default value: DA signal</p>	<p>Reverse acting or Direct acting signal for Analog output signals DA = Direct acting, 0 to 100 % = 0 to 10 VDC RA = Reverse acting, 0 to 100 % = 10 to 0 VDC</p>

<p>Reheat Default value: 0 = 15 minute</p>	<p>Sets the reheat output time base Valid only if reheat sequences are enabled 0 = 15 minutes 1 = 10 seconds for Solid state relays</p>
<p>Low AO2 Default value: 2.2 V</p>	<p>The minimum AO2 fan output value when the fan is enabled. This value is used if the fan mode is set to Low and as a minimum output if the fan output is set to auto. 2.0 to 4.0 V</p>
<p>Med AO2 Default value: 6.0 V</p>	<p>The middle speed AO2 fan output value when the fan is enabled. This value is used only if the fan mode is set to Med. 4.1 to 7.0 V</p>
<p>High AO2 Default value: 8.6 V</p>	<p>The maximum AO2 fan output value when the fan is enabled. This value is used if the fan mode is set to High and as a maximum output if the fan output is set to auto. 7.1 to 10.0 V</p>
<p>UI3 dis Display UI3 value.</p>	<p>Used as diagnostic / service help to troubleshoot and diagnose sensor operation Supply or change over temperature when UI3 is configured as an analog input (SS or COS)</p>



Viconics Technologies Inc.
9245 Langelier Blvd. | St-Leonard | Quebec | Canada | H1P 3K9
Tel.: (514) 321.5660 | Fax: (514) 321.4150 Toll free: 1 800.563.5660
sales@viconics.com | www.viconics.com