VT7682S5000W
Wireless Central Manager

Installation Guide

For Commercial HVAC Applications
December 4th 2012 / 028-0366-R1

CONTENTS

INSTALLATION

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

- Open unit by pulling on the bottom side of 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 Terminal Equipment Controller.

Installation

1. Swing open the 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 base in proper orientation. Arrow on base should be facing 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.

Fig. 1

Location of PCB retaining tabs

Fig. 2

Re-install terminal blocks
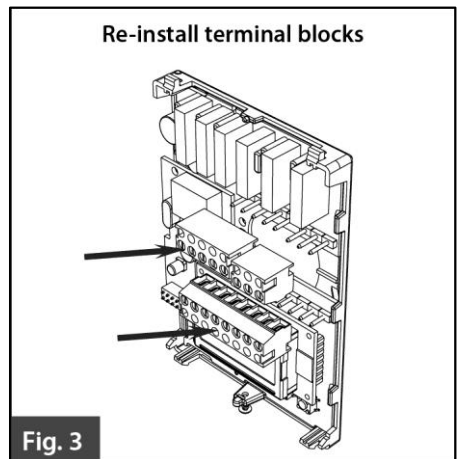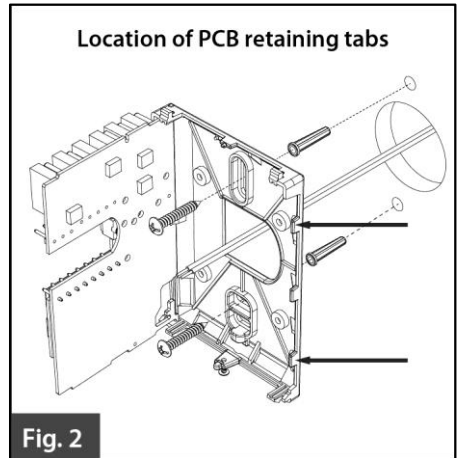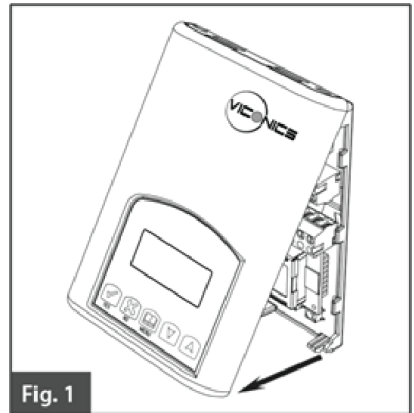
Fig. 3

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.

> - When replacing an existing Terminal Equipment Controller, label the wires before removal of the Terminal Equipment Controller.
> - Electronic controls are static sensitive devices. Discharge yourself properly before manipulating and installing the Terminal Equipment Controller.
> - A short circuit or wrong wiring may permanently damage the Terminal Equipment Controller or the equipment.
> - All VT7000 series Terminal Equipment Controllers are designed for use as operating controls only and are not safety devices. These instruments have undergone rigorous tests and verification prior to shipping to ensure proper and reliable operation in the field. Whenever a control failure could lead to personal injury and or loss of property, it becomes the responsibility of the user / installer / electrical system designer to incorporate safety devices (such as relays, flow switch, thermal protections, etc…) and or an alarm system to protect the entire system against such catastrophic failures. Tampering with the devices or unintended application of the devices will result in a void of warranty.

Features overview

- 7 day schedule (2 or 4 events).
- Remote outdoor sensing capability for added flexibility.
- System efficiency feedback.
- Lockable keypads for tamper proofing. No need for Terminal Equipment Controller guards.
- Local occupied setpoints.
- Sends occupancy status of building to all wireless controllers on same channel and Pan ID.
- Administer 60 controller units with one central master.
- Displays which zones are in alarm mode.
- Allows for setting of central occupied heating and cooling setpoints
- Provides alarm monitoring of all zones

.

MODEL NUMBER

Part number	Description
VT7682S5000W	Wireless Central Manager

TERMINAL, IDENTIFICATION AND FUNCTION

Wiring

Terminal Use	Terminal Identification	Description
4 – RC 24Vac hot	24 V ~ Hot	Power supply of controller (hot side)
5 – C 24Vac com	0 V ~ Com	Power supply of controller (com side)

14 – Scom	**Scom**	Reference input for OS
15 – OS	**OS**	Outside air temperature sensor input

Screw terminal arrangement

Left top connector

24 V ~ Hot	0 V ~ Com

Bottom connector

Scom	OS
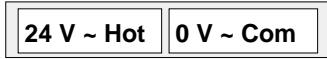
Outdoor sensor accessories

MODEL NO.	DESCRIPTION
S2020E1000	Outdoor temperature sensor (NEMA 4 Enclosure)
S1010E1000	Outdoor temperature sensor

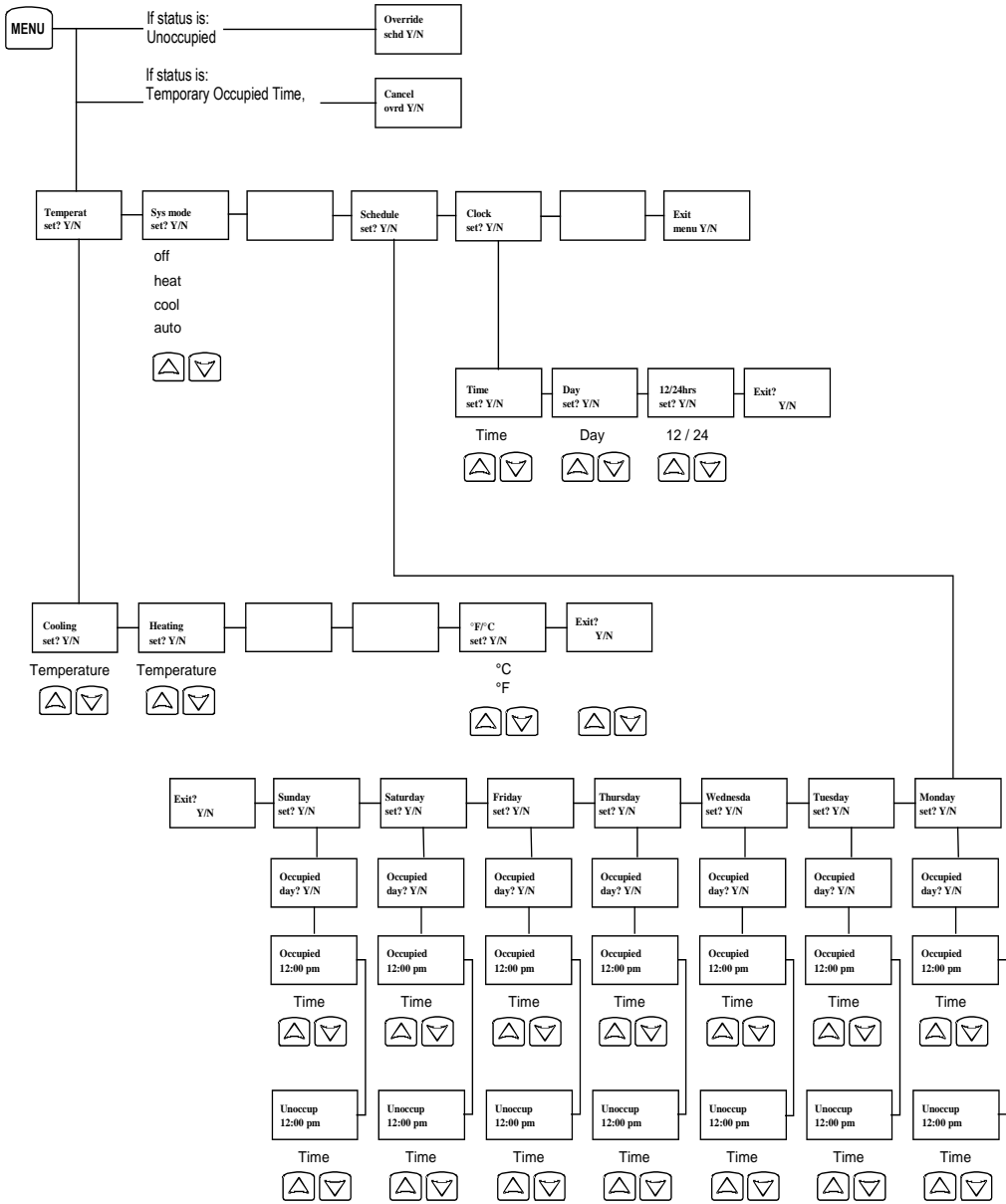**Outdoor temperature sensors use 10K NTC thermistor.**

S2020E1000

S1010E1000

Temperature vs. resistance chart for 10 Kohm NTC thermistor

ºC	ºF	Kohm	ºC	ºF	Kohm	ºC	ºF	Kohm	ºC	ºF	Kohm	ºC	ºF	Kohm
-40	-40	324.3197	-20	-4	94.5149	0	32	32.1910	20	68	12.4601	40	104	5.3467
-39	-38	303.6427	-19	-2	89.2521	1	34	30.6120	21	70	11.9177	41	106	5.1373
-38	-36	284.4189	-18	0	84.3147	2	36	29.1197	22	72	11.4018	42	108	4.9373
-37	-35	266.5373	-17	1	79.6808	3	37	27.7088	23	73	10.9112	43	109	4.7460
-36	-33	249.8958	-16	3	75.3299	4	39	26.3744	24	75	10.4443	44	111	4.5631
-35	-31	234.4009	-15	5	71.2430	5	41	25.1119	25	77	10.0000	45	113	4.3881
-34	-29	219.9666	-14	7	67.4028	6	43	23.9172	26	79	9.5754	46	115	4.2208
-33	-27	206.5140	-13	9	63.7928	7	45	22.7861	27	81	9.1711	47	117	4.0607
-32	-26	193.9703	-12	10	60.3980	8	46	21.7151	28	82	8.7860	48	118	3.9074
-31	-24	182.2686	-11	12	57.2044	9	48	20.7004	29	84	8.4190	49	120	3.7607
-30	-22	171.3474	-10	14	54.1988	10	50	19.7390	30	86	8.0694	50	122	3.6202
-29	-20	161.1499	-9	16	51.3692	11	52	18.8277	31	88	7.7360	51	124	3.4857
-28	-18	151.6239	-8	18	48.7042	12	54	17.9636	32	90	7.4182	52	126	3.3568
-27	-17	142.7211	-7	19	46.1933	13	55	17.1440	33	91	7.1150	53	127	3.2333
-26	-15	134.3971	-6	21	43.8268	14	57	16.3665	34	93	6.8259	54	129	3.1150
-25	-13	126.6109	-5	23	41.5956	15	59	15.6286	35	95	6.5499	55	131	3.0016
-24	-11	119.3244	-4	25	39.4921	16	61	14.9280	36	97	6.2866	56	133	2.8928
-23	-9	112.5028	-3	27	37.5056	17	63	14.2629	37	99	6.0351	57	135	2.7886
-22	-8	106.1135	-2	28	35.6316	18	64	13.6310	38	100	5.7950	58	136	2.6886
-21	-6	100.1268	-1	30	33.8622	19	66	13.0307	39	102	5.5657	59	138	2.5926

User menu flow chart:

NOTE: Prompts may not all be present depending on model selected

MENU

If status is:
Unoccupied
→ Override sched Y/N

If status is:
Temporary Occupied Time,
→ Cancel ovrd Y/N

Temperat set? Y/N | Sys mode set? Y/N | | Schedule set? Y/N | Clock set? Y/N | | Exit menu Y/N

off
heat
cool
auto
△▽

Time set? Y/N | Day set? Y/N | 12/24hrs set? Y/N | Exit? Y/N

Time △▽ | Day △▽ | 12 / 24 △▽

Cooling set? Y/N | Heating set? Y/N | | | °F/°C set? Y/N | Exit? Y/N

Temperature △▽ | Temperature △▽ | | °C °F △▽ △▽

Exit? Y/N | Sunday set? Y/N | Saturday set? Y/N | Friday set? Y/N | Thursday set? Y/N | Wednesda set? Y/N | Tuesday set? Y/N | Monday set? Y/N

Occupied day? Y/N (×7, for Sunday through Monday)

Occupied 12:00 pm (×7)
Time △▽ (×7)

Unoccup 12:00 pm (×7)
Time △▽ (×7)

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:

CLOCK STATUS	SCHEDULE STATUS	OUTDOOR TEMPERATURE *IF CONNECTED*	ALARMS
Monday 12:00 AM	Occupied	Outdoor x.x °C or°F	SetClock
	Unoccupied		Zone X**
	Override		Zone Y**
			Zone Z**
			Dup Zig(Duplicate Zigbee Address)***

** X, Y, Z is the MAC address of the zone that has the alarm.

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

| SetClock	Indicates that the clock needs to be reset. There has been a power failure which has lasted longer than 6 hours
Dup Zig (Duplicate Zigbee Address)***	Two or more devices hold identical Zigbee addresses

*** Restart the network by changing the PAN ID.

- 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 range of zones that can be in alarm is 1 to 253.

USER INTERFACE

User configuring instructions menu

The VT7682S series Terminal Equipment Controller feature an intuitive, menu-driven, back-lit LCD display that walks users through the configuring steps, making the configuring process extremely simple. This menu is typically accessed by the user to set the parameters such as temperature and time events, system mode etc...
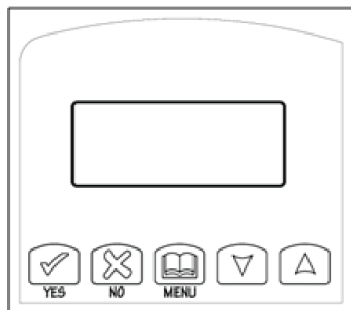
It is possible to bring up the user menu at any time by depressing the MENU key. The status display automatically resumes after exiting the user-configuring menu.

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 Terminal Equipment Controller.

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

Local keypad interface

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

The priority for the alarms is as follows:

YES	The YES key is used to confirm a selection, to move onto the next menu item and to manually scroll through the displayed information.
NO	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.
MENU	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 Terminal Equipment Controller.
△	The up arrow key is used to increase temperature setpoint and to adjust the desired values when configuring the Terminal Equipment 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 when the Terminal Equipment Controller is left unattended for 45 seconds

Sequence of user menu:

OVERRIDE RESUME	TEMPERATURE SETPOINTS	SYSTEM MODE SETTING	SCHEDULES SETTING	CLOCK SETTING
Override schd Y/N	**Temperat Set Y/N**	**Sys mode set Y/N**	**Schedule set Y/N**	**Clock set Y/N**
Appears only in unoccupied mode				
Cancel ovrd Y/N				
Appears only in override mode				

Occupied setpoints adjustments

There is a default profile set in the Terminal Equipment Controller from the factory.

DEFAULT TEMPERATURE SETPOINTS:	DEFAULT MODES:
Occupied cooling setpoint = 24 °C (75 °F)	System mode = Auto
Occupied heating setpoint = 22 °C (72 °F)	Monday through Sunday
Fahrenheit scale	Occupied time is : 12:00 AM
	Unoccupied time is: 11:59 PM

There will be a 1 minute unoccupied period every night at 11:59 PM with this default configuration.

A) Override an unoccupied period

**Override
schd Y/N**

This menu will appear only when the Terminal Equipment Controller is in unoccupied mode. Answering yes to this prompt will cause the Terminal Equipment 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 Terminal Equipment Controller is in Unoccupied override mode.

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

C) Temperature setpoints

```
Temperat
set    Y/N
```

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

Cooling setpoint Occupied mode		Heating setpoint Occupied mode		°F or °C display setting	
Cooling set? Y/N	No next → Yes down ↓	**Heating 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	**Units °F**	Use ▲▼ To set value

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 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) 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 ↓	Wednesda 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			
	Occupied		Unoccupied			
Setpoint	Cool 72 °F	Heat 70 °F	Cool 80 °F	Heat 62 °F		Daily Occupancy
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		6.00 PM			Day time only
Friday	7.00 AM		6.00 PM			Day time only
Saturday	12.00 PM *		12.00 PM *			Unoccupied
Sunday	12.00 PM *		12.00 PM *			Unoccupied

* Scheduling consecutive events to the same time will cause the Terminal Equipment Controller to choose the last event as the time at which it will set its schedule. In the above example, the Terminal Equipment 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	Heat	Cool	Heat		
	72 °F	70 °F	80 °F	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 ↓	Wednesda 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	Heat	Cool	Heat	Cool	Heat	Cool	Heat	Daily Occupancy
	72°F	70°F	80°F	62°F	72°F	70 °F	80°F	62 °F	
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	Heat	Cool	Heat	Cool	Heat	Cool	Heat	Daily Occupancy
	72°F	70°F	80°F	62°F	72°F	70°F	80°F	62°F	
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 Terminal Equipment Controller to choose the last event as the time at which it will set its schedule. In the above example for Saturday, the Terminal Equipment 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 Terminal Equipment 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

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
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 Terminal Equipment Terminal Equipment Controller networking address Default value = **254**	This parameter is used to set the MAC address. Range is: 0 to 254
PAN ID Personal Area Network Identification Default value = **0**	This parameter (Personal Area Network Identification) is used to link specific Terminal Equipment Controllers to a single specific Viconics VT7682S Wireless Central Manager. A maximum of 120 Terminal Equipment Controller can be linked to a single VT7682S Wireless Central Manager. Be sure you set the SAME PAN ID value both at the Wireless Central Manager and the Terminal Equipment Controller(s). The default value of 0 is NOT a valid PAN ID. Range is: 0 to 500
Channel Channel selection Default value = **10** Range is: **10 to 25**	This parameter (Channel) is used to link specific thermostats to specific Terminal Equipment Controllers to a single specific Viconics VT7682S Wireless Central Manager. A maximum of 120 Terminal Equipment Controller can be linked to a single VT7682S Wireless Central Manager. Be sure you set the SAME PAN ID value both at the Wireless Central Manager and the Terminal Equipment Controller(s). ***Viconics recommends using only the 2 last channels (24- @ 2470MHz and 25- @ 2475MHz)*** The default value of 10 is ***NOT*** a valid channel. The valid range of available channel is from 11 to 25

	lockout Keypad lockout levels Default value = **0 No lock**	0 = No lock 1 = Low level 2 = Medium level 3 = High Level

USER KEY FUNCTIONS

LEVEL	Resume/ Override scheduling	Occupied Setpoints	System Mode Setting	Schedule Setting	Clock Setting	Permanent Hold
0	🔓	🔓	🔓	🔓	🔓	🔓
1	🔒	🔒	🔓	🔓	🔓	🔓
2	🔒	🔒	🔒	🔓	🔓	🔓
3	🔒	🔒	🔒	🔒	🔓	🔒

ToccTime Temporary occupancy time Default value = **3 hours**	Temporary occupancy time with occupied mode setpoints when override function is enabled When the Terminal Equipment 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 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)**
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

TROUBLESHOOTING GUIDE

All models

Symptom	Possible Cause	Corrective Action
No display on the Terminal Equipment Controller	Absent or incorrect supply voltage	1. Check power supply voltage between C & RC to be from 19-30 VAC 2. Check for tripped fuse or circuit breaker
	Overloaded power transformer	Verify that the transformer used is powerful enough (enough VA's) to supply all controlled devices including the Terminal Equipment Controller
Keyboard menu does not access all functions	Keyboard locked	Change configuration parameter LOCKOUT to value "0" to access all levels of the menu
Digital display shows missing digits or erratic segments	Defective display	Replace Terminal Equipment Controller

SPECIFICATIONS

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Terminal Equipment Controller power requirements:	19-30 VAC 50 or 60 Hz; 2 VA Class 2
Operating conditions:	0 °C to 50 °C (32 °F to 122 °F) 0% to 95% R.H. non-condensing
Storage conditions:	-30 °C to 50 °C (-22 °F to 122 °F) 0% to 95% R.H. non-condensing
Outdoor air Temperature sensor	-40 °C to 50 °C (-40 °F to 122 °F)
Wire gauge:	18 gauge maximum, 22 gauge
Approximate shipping weight:	0.75 lb (0.34 kg)
Agency Approvals all models:	**UL:** UL 873 (US) and CSA C22.2 No. 24 (Canada), File E27734 with CCN XAPX (US) and XAPX7 (Canada) **Industry Canada:** ICES-003 (Canada)
Agency Approvals all models:	**FCC:** Compliant to CFR 47, Part 15, Subpart B, Class A (US) **CE :** EMC Directive 89/336/EEC (Europe Union) **C-Tick:** AS/NZS CISPR 22 Compliant (Australia / New Zealand) Supplier Code Number N10696
Agency Approvals Wireless models:	**FCC:** Compliant to: Part 15, Subpart C

FCC Certification Requirements:
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION

Please check with your local government for instruction on disposal of this product

Drawing & Dimensions

Front

4.98 inch
(125.171 mm)

Back

1.117 inch
(28.38 mm)

3.405 inch
(86.49 mm)

Bottom

Side
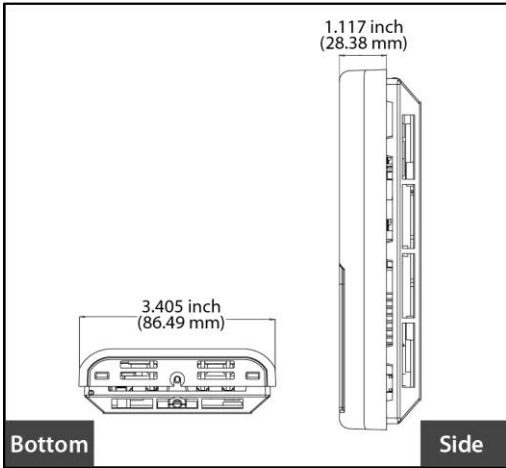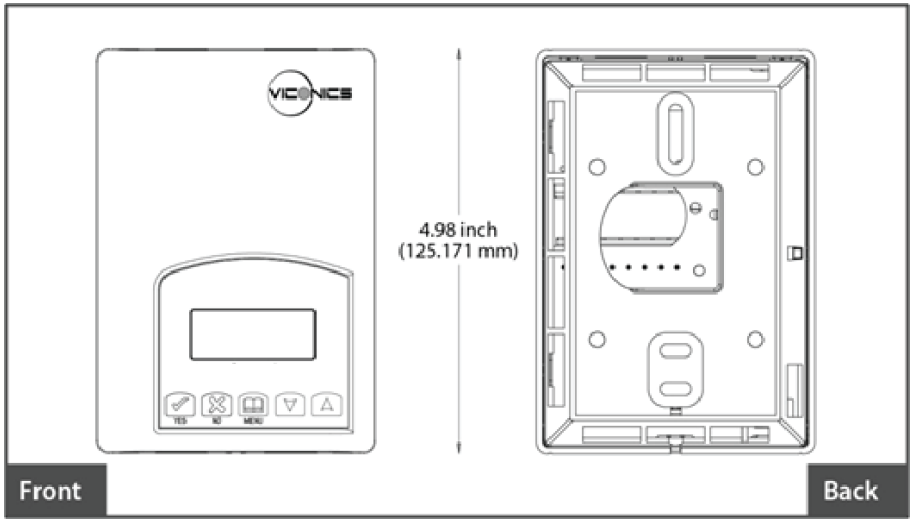
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