

# System Manager TS II Quick Start Technical Guide

VCB-X Controller Code: SS1051 Version 2.0 and up VCM-X Controller: SS1026 & Y200920 Version 2.0 and up; VCM-X Modular Controller: Tulsa - SS1030; Coil - SS1034 VCM-X WSHP Controller: Tulsa - SS1032; Coil - SS1033 VAV/Zone Controller: SS1001, SS1005, SS1025 VCM Controller: SS1016



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## Features

The OE392-10 System Manager TS II (Touch Screen) provides a direct, graphic-enhanced, menu-driven link to enable you to view the status and adjust the setpoints of most controllers on the Orion Controls System. (See **Figure 1**.)

The System Manager TS II provides the following useful functions:

- Provides a 4.3" 480 x 272 WQVGA RGB TFT LCD Graphical Touch Screen LCD display with 16 million colors
- Utilizes a graphical touch screen menu system with easyto-understand menu trees and icons and non-cryptic, plain English language messages
- Makes entering data quick and easy with instructions on each configuration and setpoint screen
- Graphic programming and status screens provide easy setup and operation without the need for specialized training
- Provides protection from unauthorized users through integral multi-level passcode authorization programming
- Comes equipped with real-time clock backup power supply for short power losses
- · Provides icons to indicate alarm conditions
- LEDs behind plastic panel indicate power, communications, and operation
- Plastic enclosure allows for easy flush wall mounting in hollow drywall or surface mounting on solid wall surface

## **System Requirements**

- The System Manager TS II is packaged and assembled as flush wall mount. Surface mount components are also included for your convenience.
- If using the surface mount version, you will need a double duplex outlet box (by others).
- The System Manager TS II only works with the following VAV/Zone Controller EPROMs: SS1001, SS1005, SS1025
- The System Manager TS II only works with the following VCM, VCM-X, VCM-X Modular, VCM-X WSHP, and VCB-X Controller EPROMs: All standard SS1016, SS1026, SS1030, SS1032, SS1033, SS1034, SS1051 and later
- \*• USB-Link, CommLink, or MiniLink Polling Device
- \*NOTE: Alarm polling must first be set up in Prism 2. This requires a personal computer with Prism 2 software and a USB-Link or CommLink and a MiniLink Polling Device. See **page 27** for details. Ongoing alarm polling on the *System Manager TS II Main Screen* requires a MiniLink to be connected to the system.
- **NOTE:** Screens in this manual referring to VCM-X also apply to VCM controllers.



Figure 1: System Manager TS II

# Mounting, Wiring, Initializing, and Updating

## **Environmental Requirements**

The System Manager TS II needs to be installed in an environment that can maintain a temperature range between 14°F and 158°F with less than 90% RH levels (non-condensing).

## Mounting

The System Manager TS II is housed in a plastic enclosure designed for mounting in hollow drywall construction or a control panel cover with the flush wall mount version (shown in **Figure 3**) or on a concrete, brick, or other solid wall surface with the surface mount version (shown in **Figure 4**).

The flush wall mount version has integral wingnut paddles that are tightened after installation to grip the drywall and hold the System Manager TS II in place. For mounting in a control panel cover or other thin material, (4) adhesive backed rubber pads are provided to assist in securing the System Manager TS II into the cutout in the panel. These pads are applied to the wingnut paddles to provide a non-slip mounting against the panel's sheet metal surface. See **Figure 2** for pad placement details.

The surface mount version is designed to be installed in a double duplex outlet box (by others). Both mounting styles of the System Manager TS II feature an integral, magnetically-secured face plate which can be easily removed for reset of the display when required.

The System Manager TS II should be mounted at approximately eye level to allow for ease of programming and reading of the display. The System Manager TS II is typically mounted in the building manager's or superintendent's office or in an equipment room, but is also quite suitable for mounting in any location or with most decors.

## Care

The System Manager TS II should be cleaned with a soft, dust-free cloth. Do not use any liquid to clean your System Manager TS II. You should *press* the **Suspend>** button located behind the cover to temporarily freeze the touch pad before you attempt to clean your screen. See the Troubleshooting section on **page 26** for details.

## Wiring

The System Manager TS II is connected to the local communications loop of the Orion system via 18 AWG 2-conductor, twisted pair with shield wire connected to the T, SHLD & R communication terminals on the back of the System Manager TS II. The communications wire used can be either our WattMaster #WR-LL-WG-18 communications wire or Belden #82760 wire or its equivalent.

The System Manager TS II also requires that 24 VAC (6 VA) power be supplied (by others) to its + and - wiring terminal located on the back of the System Manager TS II.

See **Figures 5-8**, **pages 7-10** for wiring details. These wiring diagrams depict wiring the System Manager TS II to the VCM-X Controller, VCM Controller, VCB-X Controller and VAV/Zone Controller. The System Manager TS II can also be wired to the local loop terminals on the MiniLink PD, Power Comm Board, or any other add-on controller's local loop terminals. It will still require a transformer to be wired as shown in **Figures 5, 6 & 7, pages 7-9**.

## **Dipswitch and Jumper Settings**

If you are using a VCB-X Controller set at high speed, Dipswitch OPT1 should be set to ON; in all other instances, it should be set to OFF. As of April 2014, Dipswitch OPT4 should be set to ON by default. Previous versions should be set to OFF. If you see your screen is not centered correctly, switch OPT4 to the opposite position. Dipswitches OPT2 and OPT3 should always be set to OFF. See **Figures 5-8, pages 7-10** for details.

If you have a Stand-Alone system (no CommLink or MiniLink, the TERM Jumpers must be ON. For applications with CommLink(s) and/ or MiniLink(s), the TERM Jumpers must be OFF. See **Figures 5-8**, **pages 7-10** for details.

## **Technical Support**

Call (866) 918-1100 to talk to a WattMaster Controls Technical Support Representative. Support is available Monday through Friday, 7:00 AM to 5:00 PM central standard time.



#### Figure 2: System Manager TS II - Control Panel Mounting Pad Placement Detail (Flush Wall Mount)

# Wall Mount Dimensions and Components



### Figure 3: System Manager TS II Dimensions and Components (Flush Wall Mount)

# **Surface Mount Components and Dimensions**





Front View (Cover Removed)



**Back View** 

#### Figure 4: System Manager TS II Dimensions and Components (Surface Mount)

# SMTS II to VCM Controller Wiring



#### Figure 5: System Manager TS II to VCM Controller Wiring

# SMTS II to VCM-X Controller Wiring



Figure 6: System Manager TS II to VCM-X Controller Wiring

# SMTS II to VCB-X Controller Wiring



VCB-X Controller - Front View

Figure 7: System Manager TS II to VCB-X Controller Wiring

# SMTS II to VAV/Zone Controller Actuator Package Wiring



Figure 8: System Manager TS II Wiring to Power/Comm Distribution Board or VAV/Zone Actuator Package Wiring

# **Main Screen Icons and Button Functions**

## **Icons and Button Functions**

System settings and screens are easily accessible by simply *touching* one of the six icons on the *Main Screen*. The subscreens contain yellow highlighted data entry boxes with accessible number keypads for data entry and screen maneuvering buttons such as **<Esc>**, **<Back>**, and **<OK>**.

**NOTE:** Do not attempt to make changes to the Touch Screen while the Unit Controller is initializing. This can cause programming errors.

#### Main Screen Icons

There are six *Main Screen* icons. See **Table 1** for a list of the *Main Screen* icons and their functions.

lcon	Main Screen Icons
My System	The <b><my system=""></my></b> icon takes you to a <i>Unit</i> Selection Screen which takes you directly to the selected controller's <i>Status Screen</i> .
Active Alarms	When bright red, the <b><alarms></alarms></b> icon takes you to the <i>Alarms Screen</i> . When bright green, no alarms are present. This icon is only useful when your SMTS II is set for multiple managers or network mode and you have configured alarm polling using Prism 2 software.
Login	The <b><login></login></b> icon takes you to the <i>Login Screen</i> where you enter your passcode.
User Passcodes	The <b><user passcodes=""></user></b> icon takes you to the <i>System Manager Passcode Levels Screen</i> if you are a Level 3 user.
Settings	The <b>Settings</b> > icon takes you to the <i>System</i> <i>Settings Screen</i> where you can change the Back- light settings, set the System Manager address, and enable alarm polling. System settings are only accessible to a Level 3 user.
Set Time & Date	The <b><set &="" date="" time=""></set></b> icon takes you to the Set Time and Date Screen. Any level of user can set the time and date.

#### Table 1: Main Screen Icon Functions

#### **Navigation Buttons**

See Table 2 for a list of Navigation buttons and their functions.

Button	Function
Esc	Use the <b><esc></esc></b> (Escape) key to exit from data entry without saving any new data.
Back Back	Use the small <b><back></back></b> button located in the top right corner of a <i>Data Entry Screen</i> to return to the controller's <i>Status Screen</i> . Use the large <b><back></back></b> button located at the bottom left of other screens to return to the previous screen.
+	Use the <+> key to step to the next screen.
-	Use the <-> key to step to the previous screen.

**Table 2: Navigation Button Functions** 

### Selection, Configuration, and Setpoint Buttons

See **Table 3** for a list of Selection, Configuration, and Setpoint buttons and their functions.

Button	Function
ок	Use the <b><ok></ok></b> key to save the data you just se- lected or entered.
	<i>Touch</i> the grey radio button to make your selection. A white circle will designate that the item is selected. You can only select one radio button item per screen.
	<i>Touch</i> the grey square selection box to make your selection. A white square will designate that the item is selected. You can make numerous square box item selections per screen.
Setpoints	The <b>Setpoints</b> > button, appearing on the control- ler's <i>Status Screen</i> , takes you directly to the control- ler's <i>Temperature Setpoint Screen</i> .
Overrides	The <b><overrides></overrides></b> button, appearing on various controllers' <i>Status Screens</i> , takes you directly to the controller's <i>Force Schedules Screen</i> .
Schedules	The <b><schedules></schedules></b> button, appearing on various controllers' <i>Status Screens,</i> takes you directly to the controller's <i>Schedule Screen.</i>
Holidays	The <b><holidays></holidays></b> button, appearing on various controllers' <i>Status Screens</i> , takes you directly to the controller's <i>Holidays Screen</i> .
ALARM	The <b><alarm></alarm></b> button, appearing on the controller's <i>Status Screen</i> , takes you directly to the controller's <i>Alarms Screen</i> . If red, alarm(s) are present. If black, no alarm(s) are present.

#### **Table 3: Configuration Selection Buttons**

# Navigation

# **Main Screen Icons and Button Functions**

### VCM, VCM-X & VCB-X Setpoint Buttons

The VCM, VCM-X & VCB-X Setpoint Buttons are located at the bottom of each controller's *Setpoints Screen*. See **Table 4** for a list of the Setpoint buttons and their functions. Level 1 and Level 2 users can view these screens and change occupied heating and cooling setpoints, but only a Level 3 user can make changes to all setpoints.

#### **VAV/Zone Setpoint Buttons**

The VAV/Zone Setpoint Buttons are located at the bottom of the VAV/ Zone Setpoints Screen. See **Table 5** for a list of the Setpoint buttons and their functions. Level 1 and Level 2 users can view these screens and change occupied heating and cooling setpoints, but only a Level 3 user can change all setpoints.

Button	Function	Button	Function
Temps	The <b><temps></temps></b> button, located at the bottom of the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Temperature</i> <i>Setpoints Screens</i> .	Temps	The <b><temps></temps></b> button, located at the bottom the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Temperature Setpoints</i> <i>Screens</i> .
Static	The <b><static></static></b> button, located at the bottom of the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Static &amp; Air Setpoints</i> <i>Screens</i> .	Damper	The <b><damper airflow=""></damper></b> button, located at the bottom of the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Damper/Airflow Setpoints Screens</i> .
Staging	The <b><staging></staging></b> button, located at the bottom of the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Staging Delays Screens</i> .	Alarms	The <b><alarms></alarms></b> button, located at the bottom of the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Alarm Settings Screen</i> .
Misc	The <b><misc></misc></b> button, located at the controller's Setpoints Screen, takes you directly to the controller's <i>Miscellaneous Set-</i> points Screens.	Misc	The <b><misc></misc></b> button, located at the bottom of the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Miscellaneous</i> <i>Setpoints Screen</i> .
Relays	The <b><relays></relays></b> button, located at the bottom of the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Outputs Screens</i> .	Calibrate	The <b><calibrate></calibrate></b> button, located at the bottom of the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Calibration Setpoints Screen</i> .
Config	The <b><config></config></b> button, located at the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Configuration Screens</i> .	Config	The <b><config></config></b> button, located at the bottom of the controller's <i>Setpoints Screen</i> , takes you directly to the controller's <i>Configuration Setpoints</i> <i>Screens</i> .

Table 4: VCM, VCM-X & VCB-X Setpoint Icons

Table 5: VAV/Zone Setpoint Icons

# First Things First

The first thing you need to do when setting up your Touch Screen is to Login. The second thing you need to do is establish user passcodes. The third thing you need to do is set the clock. After you complete these simple tasks, you are ready to set your system's settings, view controller status screens, and change schedules and setpoints.

**NOTE:** Do not attempt to make changes to the Touch Screen while the Unit Controller is initializing. This can cause programming errors.

# Main Screen

Once you have connected your System Manager TS II to a controller and have powered it up with the proper power supply, the *Main Screen* will appear. See **Figure 9**.



Figure 9: Main Screen

## Entering Your System Manager Passcode

**NOTE:** There are three available passcode levels. Level 1 defaults to 1111, Level 2 defaults to 2222, and Level 3 defaults to 3333. These defaults can be changed by anyone who logs in at Level 3.

When you power-up your System Manager TS II, the message **System Secured** is displayed on the bottom left corner of the *Main Screen*.



*Touch* the **<Login>** icon found on bottom left of the *Main Screen* and *type* the default Level 3 passcode of **"3333"** using the number keypad to gain access to all setpoint and configuration items. See **Figure 10**.

DATA ENTRY		Curre	ently: ***	*	
Enter the 4 digit Passcode for the required Level.	Esc	1	2	3	~
Level #1: Can change space setpoints. Level #2 <sup>.</sup>		4	5	6	
Can change schedules. Level #3:		7	8	9	
Can change all setpoints.		-	0		ОК

#### Figure 10: Login Screen

**NOTE:** For security reasons, the current passcode characters displayed at the top of the screen are never shown and appear as asterisks.

*Touch* **<OK>***. Touch* **<Esc>** if you accessed this screen by mistake and do not wish to change the current access level.

The *Login Screen* will automatically close, and the passcode will be tested against all previously defined passcodes to determine the passcode's access level.

If 3333 is still the active Level 3 code, the status message **System Access Level 3** will now be displayed on the bottom left corner of the *Main Screen*.

NOTE: System Access will automatically default to System
Secured after time set for Backlight Timeout in the
System Manager Settings Screen (see Figure 15, page 17). If timeout is set to zero, the passcode will timeout after two minutes.

# **Main Screen Functions**

# Editing Passcodes

## Passcode Clearance Levels

Below is a list of the passcode levels, default codes, and actions that can be performed at the various levels.

# Level 0—No Passcode Needed, System Secured

Level 0 users can view temperatures and status points. They can also change the system date and time, but no changes to any controller setpoints can be made.

#### Level 1-Default: 1111

Level 1 users can view temperatures and change space temperature setpoints. No changes to schedules or other settings can be made.

#### Level 2-Default: 2222

Level 2 users can change space temperature setpoints and operating schedules but not configuration settings.

#### Level 3—Default: 3333

Level 3 users have system manager access and can change all setpoints and configurations, including default passcodes. Level 3 users can also access force modes. This Level is normally reserved for qualified HVAC service personnel.

## **Edit Passcodes**

WARNING: MAKE SURE YOU CHANGE ALL PASS-CODES AS SOON AS POSSIBLE TO SECURE THE SYSTEM!

**NOTE:** Only a Level 3 user (system manager level) can change Level 1, 2, and 3 passcodes.

**NOTE:** Do not use the same passcode for all 3 levels. If you do, each passcode will default to Level 1.



From the *Main Screen*, *touch* the **<User Passcodes>** icon. The *System Manager Passcode Levels Screen* will appear. See **Figure 11**.



#### Figure 11: System Manager Passcode Levels Screen

To change a passcode, *touch* the blue highlighted box containing the current passcode. The keypad will appear with instructions for changing the passcode. See **Figure 12**.

DATA ENTRY		Curre	ently: 111	1	8
Enter the 4 digit Passcode for Level 1.	Esc	1	2	3	~
Level #1: Can change space setpoints.		4	5	6	
Level #2: Can change schedules.		7	8	9	
Level #3: Can change all setpoints.		-	0		ОК

#### Figure 12: Change Passcode Screen

The current passcode will appear on the top menu bar. *Type* in the new four-digit passcode. You cannot use the period or minus characters in your passcode. Use the <<<> key if you make a mistake. *Touch* <**Esc**> to return to the previous screen without changing the passcode. When you have typed in the new passcode, *touch* <**OK**>. The *System Manager Passcode Levels Screen* should display the passcode you entered.

**NOTE:** If you change the Level 3 passcode, make sure to write it down. If you should happen to forget the Level 3 passcode, contact WattMaster Technical Support.

Touch **<Back>** to return to the Main Screen.

## Set Time and Date

When you first power up your System Manager TS II, you will need to change the day of the week, the time, and the month, day, and year to the current time and date. If your system has been turned off or has been down for a long time, you may have to do the same, although the time and date can maintain itself for several days. Any level of user can change the time and date settings.

The day of the week, the time, and the date appear at the top right on the *Main Screen*. See **Figure 9**.



From the *Main Screen*, *touch* the **<Set Time & Date>** icon. The *Set Time & Date Screen* will appear. See **Figure 13**.





In the example above, the current time and date is 2:12 PM, January 16, 2012. There is no day of the week selected yet.

**Set Day of the Week:** Select the day of the week by simply *touching* your selection. The day of the week text will change from white to blue.

**Set Hour, Minute, Month, Day, and Year:** *Touch* the blue highlighted box to have each selection screen appear. See **Figures 13 & 14**. Read the instructions on each screen for entering data.

**Broadcast:** When you are finished setting the clock, *touch* the **<Broadcast>** button to broadcast the Time and Date to all Units. The following message will appear:





Figure 14: Set Clock Hour

**Set Clock Hour:** *Touch* the number buttons to enter the current hour in 24 hour military format. Valid entries are from 0-23. *Press* **<OK>**.

**NOTE:** See **Appendix** for Military Time Conversion table.

**Set Clock Minute:** *Touch* the number buttons to enter the current minutes. Valid entries are from 0-59. *Press* **<OK>**.

**Set Clock Month:** *Touch* the number buttons to enter the current month. Valid entries are from 1-12. *Press* **<OK>**.

**Set Clock Day:** *Touch* the number buttons to enter the current day of the month. Valid entries are from 1-31. *Touch* **<OK>**.

**Set Clock Year:** *Touch* the number buttons to enter the current year. Valid entries are from 0-99. *Touch* **<OK>**. **Note:** The year is based on the current century; therefore, 12 = 2012. If you enter more than two digits, e.g. 2012, the system will not recognize your entry.

# Main Screen Functions

System Manager Settings

## System Manager Settings

Additional system settings are available under the **<Settings>** icon. These include setting the Backlight Timeout, the Backlight Intensity Percentage, the System Manager Address, Alarm Polling, and One to One Unit Connection.



From the *Main Screen*, *touch* the **<Settings>** icon. The *System Manager Settings Screen* will appear. See **Figure 15**.



Figure 15: System Manager Settings Screen

**Backlight Timeout:** This setting is actually a setting for three separate functions—Backlight Timeout, *Main Screen* Timeout, and Passcode Timeout. To set the Backlight Timeout, *enter* the amount of time you wish the screen to maintain the active intensity level after the last touch pad activity occurs. The High limit is 30 and the Low limit is 0.0 = No Timeout. The System Manager TS II will return to the *Main Screen* display at the same rate as the Backlight Timeout, except that if set to 0, the *Main Screen* will display after 2 minutes. The Passcode will timeout at the same rate as the Backlight Timeout, except that if set to 0, the Passcode will timeout after 2 minutes and will return to System Secured Setting.

**Backlight Intensity Percentage:** *Enter* the percentage of light level you wish to maintain whenever touch pad activity occurs. The High limit is 100 and the Low limit is 0.

**System Manager Address:** *Enter* the address of the System Manager TS II. 0 = Stand Alone Mode. 63 = Network System. 1-60 = Multiple Managers based on the following definitions:

- Stand Alone—If your System Manager TS II is connected to one controller and you are not using a CommLink or MiniLink anywhere on the loop, your system is Stand Alone. If your System Manager TS II is connected to more than one controller daisy-chained together and you are not using a CommLink or MiniLink anywhere on the loop, your system is Interconnected. If you have either a Stand Alone or Interconnected system, you must *enter* <0> for Stand Alone Mode. In order to view all controllers on an Interconnected System, make sure that One to One Unit Connection, described below, is not selected.
- **Network**—If you are using this System Manager TS II on a communications loop that has a MiniLink or CommLink installed and you have a single System Manager TS II for your entire system, you must *enter* **<63>** for **Network System**.
- Multiple Managers—If you are using this System Manager TS II on a communications loop, have a MiniLink or CommLink installed, and have more than one System Manager TS II, then you need to operate in Multiple Managers Mode. *Enter* the address <1-60> at which you want this particular System Manager TS II to be set. When more than one System Manager TS II is used on a local loop, each must be set with a unique address different from any other device on that loop. If you want one of the System Manager TS II's to be able to indicate alarms for the entire system, you must *enter* <63> for Network System for that particular System Manager TS II.

**Alarm Polling Enabled:** If you wish for the system to poll for alarms, *touch* the black box to the left of this item to select it. The box will turn white and the system will immediately check all loops for alarms. *Touch* **<Cancel>** to stop the process. If you wish to have Alarm Polling Disabled, you must now *touch* the white box to deselect this option. The box will return to its previously fully black state.

**NOTE:** For the System Manager TS II to poll for alarms, you must also configure the unit(s) to poll for alarms on the *MiniLink Polling Device Setpoints Screen* using Prism 2. See the Appendix in this guide for more information.

**One to One Unit Connection:** If your System Manager TS II is directly connected to only one unit, you may wish to select this option to bypass the *Unit Selection Screen* and go directly to the unit's *Status Screen*. The controller must be set to address #1 for this to work. *Touch* the black box to the left of this item on the screen to select it. The box will turn white. If you wish to deselect this option, simply *touch* the box again.

**System Manager Version:** The version number of the System Manager software appears on the bottom menu bar. This version number is important to know for troubleshooting purposes.

## Alarm Polling

In order for Alarm Polling to appear on the *Main Screen*, you must have the following items in place:

- 1. Alarm Polling Enabled must be selected in the *Systems Settings Screen* (see Figure 15, page 16).
- 2. You must have a MiniLink connected to your system and have your System Manager TS II set to Network Mode.
- You must configure each unit to poll for alarms on the MiniLink Polling Device Setpoint Screen using Prism 2. See page 27 in this guide for more information.

The **<Alarms**> icon on the *Main Screen* allows you to check for alarms, review alarms, and clear alarms. Only a Level 3 user can clear the alarm log.



A green **<No Alarms>** icon appears on the Main Screen when no alarms are present. This icon changes to a red **<Active Alarms>** icon when alarms are present.



To check for alarms, review alarms, or clear alarms, from the *Main Screen*, *touch* the **<Active Alarms>** icon. The *System Alarm Status Screen* will appear. See **Figure 16**.

**NOTE:** Even if you don't set up Alarm Polling using Prism 2, a controller's first status screen will still alert you of an active alarm.



### Figure 16: System Alarm Status Screen

Next Unit: Touch <Next Unit> to access the next unit's alarms.

**Clear All:** *Touch* **<Clear All>** to clear all alarms logs. Active alarms will remain. You must be a Level 3 user to access this option. When all alarms have cleared, the following message will appear on the screen:



NOTE: You can also view alarms while in individual controller's status screens. For more information, see pages 19, 20 & 24.

# VCM, VCM-X & VCB-X Controllers

# Selecting Units and Viewing VCM, VCM-X & VCB-X Status Screens

## **My System Unit Selection**



NOTE:

From the *Main Screen*, *touch* the **<My System>** icon. The *Selected Unit Screen* will appear. See **Figure 17**.

If you have chosen the One to One Unit Connection

in the System Manager Settings Screen, this screen will

not appear. Instead, the unit's Status Screen will appear.

## Viewing VCM, VCM-X & VCB-X Status Screens

Figures 18 & 19 depict the first *Controller Status Screens*. Notice that the controller is identified by loop number and unit number - in this case, 0102 represents Loop 1, Unit 2. Images vary based on controller type.

While in the *Status Screen*, *touch* the <+> and <-> buttons to view more status screens displaying relays and operating setpoints. These screens roll back to the first *Status Screen*.





In **Figure 17**, Loop 1 and Unit 1 are selected as indicated in the figure with white text. They also appear in the *Top Menu Bar* in brackets.

Use the **<+>** and **<->** buttons to move up and down through the loops and units. *Enter* the desired **Loop** # and **Unit** # and then *touch* **<GO>** to access the unit's *Status Screen*.



Figure 18: VCM-X & VCM-X Modular Controller Status Screen 1

OCCUPIED		VCB	X VAV Control	Fri, F	Februar	/ 24, 2	012
OFF MODE		U Scr	nit ID: 0001 reen ID 179	1	0:	5	8
Supply Tempera 76.8 Supply SP 7 Mode Enable 7	nture <b>3°F</b> 2.5°F 6.8°F	+	ersion 2.03 Space Temp Cooling SP Heating SP Slide Adjust		Page	1 of 18 76.9 75.0 70.0 0.0	FFF
Back Setpo	ints (	Overrides	Schedules	Holida	ays	No Ala	70 arms

Figure 19: VCB-X Controller Status Screen 1

# Viewing and Enabling/Disabling VCM, VCM-X & Module Alarms

## Viewing VCM, VCM-X & Module Alarm Status

ALARM

To view alarm status, *touch* the **<ALARM>** button on the unit's first *Status Screen*. See **Figure 20**. The *Alarm Status Screen* will display. See **Figure 21**.

**NOTE:** The **<ALARM>** button only appears on the screen if the unit has an active alarm condition. Only a Level 3 user has the option to enable or disable each type of alarm.



#### Figure 20: VCM-X Controller Status Screen 1



Figure 21: VCM-X Controller Alarm Status Screen

Touch the **<Next>** button to go to the next Alarm Status Screen. Touch the **<Modules>** button to go to the Head Pressure Module Alarms Screen, Dual/Full Digital Module Alarms Screen, and Heat Pump Module Alarms Screen.

**NOTE:** Even if you don't set up Alarm Polling using Prism 2, a controller's first status screen will still alert you of an active alarm.

# Enabling/Disabling VCM, VCM-X & Module Alarms

Alarm configuration is accessed by *touching* the **<ALARM>** button on the lower right of the unit's first *Status Screen*. See **Figure 20**. Only a Level 3 user can configure alarms. *Touch* the **<Next>** button to go to the next *Alarm Status Screen*.

In addition to simply viewing alarms, the *Alarm Status Screen* can also be used for enabling and disabling alarms that will be emailed or texted. The emailing and texting feature will only work if Prism 2 is running and has emailing capability.

The alarms must first be configured using Prism 2 software. See the Appendix in this guide for instructions.

Once the alarm settings have been established in Prism 2, the settings you choose in the *Alarm Status Screen* will be stored in the controller so that you will not have to reconfigure the alarms for that controller in Prism 2. Once configuration is complete, Prism 2 does not have to be running in order to view alarms on individual *Alarm Status Screens* in the System Manager TS II. However, as mentioned previously, Prism 2 does have to be running for emailing or texting alarms to occur.

To enable an alarm category—Sensors, Mechanical, Fail Modes—simply *touch* the black square next to Group 1, Group 2, and/or Group 3. A white box designates that the alarm category is enabled. To disable an alarm category, simply *touch* the square again. A grey box designates that the alarm category is disabled. See **Figure 21** for an example.





In the example above (**Figure 22**), there is an ALARM (designated by the word ALARM in red.) There is a red box in front of Dirty Filter, designating the alarm. If there is no alarm condition, the word OK appears in a box below the Group Number (as shown in **Figure 21**).

Touch the **<Next>** button to go to the next Alarm Status Screen. Touch the **<Modules>** button to go to the Head Pressure Module Alarms Screen, Dual/Full Digital Module Alarm Screen, and Heat Pump Module Alarms Screen.

# VCM, VCM-X & VCB-X Controllers

# Viewing and Enabling/Disabling VCB-X Alarms

## Viewing VCB-X Alarm Status



To view alarm status, *touch* the **<ALARM>** button on the unit's first *Status Screen*. See **Figure 23**. The *Alarm Status Screen* will display. See **Figure 24**.

**NOTE:** The **<ALARM>** button only appears on the screen if the unit has an active alarm condition. Only a Level 3 user has the option to enable or disable each type of alarm.

OCCUPIED	VCBX VAV Control	Fri, February 24, 2012
OFF MODE	Unit ID: 0001 Screen ID 179	10:58
Supply Temperature	Version 2.03	Page 1 of 18
7 6.8°F	+ Space Temp Cooling SP	76.9°F 75.0°F
Supply SP 72.5 °F	Heating SP	70.0 °F
Mode Enable 76.8 ° F	Slide Adjust Indoor Humidity	0.0°F 0.0 %
Back Setnoints (	)verrides Schedules	Holidays No Alarma
Danie Cerpoints C		No Alamis





Figure 24: VCB-X Controller Alarm Status Screen

**NOTE:** Even if you don't set up Alarm Polling using Prism 2, a controller's first status screen will still alert you of an active alarm.

*Touch* the **<Next>** button to go to the next *Alarm Status Screen*.

## **Enabling/Disabling VCB-X Alarms**

Alarm configuration is accessed by *touching* the **<ALARM>** button on the lower right of the unit's first *Status Screen*. See **Figure 23**. Only a Level 3 user can configure alarms.

In addition to simply viewing alarms, the *Alarm Status Screen* can also be used for enabling and disabling alarms that will be emailed or texted. The emailing and texting feature will only work if Prism 2 is running and has emailing capability.

The alarms must first be configured using Prism 2 software. See the Appendix in this guide for instructions.

Once the alarm settings have been established in Prism 2, the settings you choose in the *Alarm Status Screen* will be stored in the controller so that you will not have to reconfigure the alarms for that controller in Prism 2. Once configuration is complete, Prism 2 does not have to be running in order to view alarms on individual *Alarm Status Screens* in the System Manager TS II. However, as mentioned previously, Prism 2 does have to be running for emailing or texting alarms to occur.

To enable an alarm category—Sensors, Mechanical, Fail Modes—simply *touch* the black square next to Group 1, Group 2, and/or Group 3. A white box designates that the alarm category is enabled. To disable an alarm category, simply *touch* the square again. A grey box designates that the alarm category is disabled. See **Figure 24** for an example.



#### Figure 25: VCB-X Controller Alarm Screen

In the example above (**Figure 25**), there is an ALARM (designated by the word ALARM in red.) There is a red box in front of  $CO_2$  Sensor, designating the alarm. If there is no alarm condition, the word OK appears in a box below the Group Number (as shown in **Figure 24**).

*Touch* the **<Next>** button to go to the next *Alarm Status Screen*.

# Viewing and Setting Schedules & Holidays

## Viewing and Setting Schedules

To view and set schedules for VCM, VCM-X, and VCB-X controllers, *touch* the **<Schedules>** button found at the bottom of the *Status Screen* (**Figure 20 & 23**). The *Schedules Screen* will appear. See **Figure 26**. The default day will be Sunday and the default event start/stop times will be midnight.

Week Schedules		s						Back
Sun	Mon	Tue	Wed	ł	Thu	Fri	Sat	Hol
	EN Start	vent #	l Stop		Star	Eveni	#2 Stop	
	12:00 AM		2:00 AM		12:00 A	M	12:00 AM	
	SEND TO	o s	END TO		CLEA	R	SET	
	All Days	M	/eekdays		ALL		24 Hr Mode	

#### Figure 26: VCM/VCM-X/VCB-X Controller Schedules

A Level 2 user can set two schedules per day for individual days of the week, all weekdays, weekends, and holidays. All times are entered in military time format.

If you wish to enter a schedule for a certain day of the week, first *touch* the day of the week at the top of the screen. Otherwise, the day defaults to Sunday. *Touch* the start and stop time for each Event and enter the desired times. See **Figure 27**. All times must be entered in military time format. See the Military Time Table in the Appendix.

DATA ENTRY	C	urrently:	Start #1	-07:30 AM	٨
Week Schedules	5	30			]
in 24 hour military format. Example:	Esc	1	2	3	<<
5:00 AM = 500 5:00 PM = 1700		4	5	6	
Hi Limit: 2359		7	8	9	
Lo Limit: 0		-	0		ок

#### Figure 27: Schedule Times Screen

*Touch* **<OK>** to save the time you entered or *touch* **<Esc>** to exit the *Schedule Times Screen* without changing the time and return to the *Schedules Screen* (**Figure 26**).

To eliminate a schedule from any event, simply enter a zero for the Start and Stop time for that day. The screen will display 12:00 am for both the Start and Stop times, indicating that the equipment will not activate on that day.

Once back at the *Schedules Screen*, you can continue setting schedules day by day or use following options:

**SEND TO <All Days>** - *Touch* this button to send the schedule appearing on the screen to all days of the week, except for holidays.

**SEND TO <Weekdays>** - *Touch* this button to send the schedule to weekdays only. You will need to set up a separate schedule for Saturday and Sunday when selecting this option.

CLEAR <All Schedules> - Touch this button to clear all schedules.

**SET** <**24 Hr Mode**> - *Touch* this button to have the system run continuously, 24 hours a day, 7 days a week including holidays. All event times will display 11:59 PM.

## **Viewing and Setting Holidays**

To view and set holidays for a VCM/VCM-X/VCB-X controller, *touch* the **<Holidays>** button found at the bottom of the Status Screen (**Figures 20 & 23**). The *Holidays Schedule Screen* will appear. See **Figure 28**. The holidays in the screen will initially not be set. You can only set holidays for the current year. You must be a Level 2 user in order to set holidays.

<	NO/	/EMB	ERH	IOLID	AYS	>
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

#### Figure 28: Holidays Schedule Screen

Simply *touch* the day(s) of the month to select holidays. *Touch* the <<> button to go back one month and the <>> button to go forward one month.

There are 14 holiday periods available for each year. These holiday periods can be a single day or they can span days, weeks, or even months.

For example, if you want to schedule a summer break, you need only schedule one holiday period to define a two or three month break from operating in the occupied mode.

Every defined holiday uses the Holiday operating schedule programmed in the controller's *Schedules Screen*.

Holidays can only be programmed for the current year. You cannot program holidays before the next year occurs. Holidays do not automatically adjust for the new year, so you will need to access this screen after the new year and make necessary adjustments to the days that float, such as Memorial Day.

# Forcing Schedules & Accessing & Entering VCM-X Setpoints

## Schedule Override

To Force Schedules, from the *VCM*, *VCM-X* or *VCB-X Main Status Screen*, touch the Occupied/Unoccupied wording located at the top left of the screen. The following options will appear:

#### Schedule Auto Mode

*Touch* the radio button to select the schedule option. Default is Schedule AUTO Mode. This selection will remain in effect unless it is changed again on this screen. Schedule overrides do not automatically time out after a certain period of time.

- Schedule AUTO Mode—Select this to restore normal schedule operations.
- Schedule FORCED ON—Select this to Force the unit into continuous Occupied Mode operation.
- Schedule FORCED OFF—Select this to Force the unit into continuous Unoccupied Mode operation.

## Accessing and Entering VCM & VCM-X Setpoints

While in the VCM-X Status Screen (see **Figure 29**), *touch* the **<Set-points>** button found on the bottom menu bar. The VCM-X Controller's *Temperature Setpoints Screen* will appear. See **Figure 30**. Level 1 and Level 2 users can change occupied space temperature setpoints, but only Level 3 users can change all setpoints.







Figure 30: VCM-X Controller Temperature Setpoints

Individual setpoint and configuration buttons are located at the bottom of the *Setpoint Screens*. See **Figure 31**. Simply *touch* a specific button to access that category.





Within each Setpoint Screen, *touch* the **<Status>** button to return to the *Status Screen* or *touch* **<Home>** to return to the *Main Screen*.

Use the <+> and <-> buttons to scroll through the setpoints and configurations. Simply *touch* the blue highlighted box to change the setpoint. Each setpoint data entry screen will provide a definition of the setpoint and specific instructions for entering the setpoint and will include the setpoint range as in the example below, **Figure 32**.



# Figure 32: VCM-X Cooling Mode Setpoint Data Entry Screen

*Touch* **<OK>** to have the system accept the new value. If you enter a setpoint that is not in the valid range, the setpoint will remain as is and will not change.

Each setpoint data entry screen is self-explanatory; however, each setpoint and configuration is explained in the full version of the manual for the SMTS II which can be downloaded from our website, www. orioncontrols.com.

# Accessing and Entering VCB-X Setpoints

# Accessing and Entering VCB-X Setpoints

While in the VCB-X Status Screen (see **Figure 33**), *touch* the **<Setpoints>** button found on the bottom menu bar. The VCB-X Controller's *Temperature Setpoints Screen* will appear. See **Figure 34**.

Level 1 and Level 2 users can change occupied space temperature setpoints, but only Level 3 users can change all setpoints.



#### Figure 33: VCB-X Controller Status Screen

Setpoints	for Unit 0001	Page 1 of 9	)	Temperatures	Back
Cooling Mode Enable Setpoint			75.0	Degrees	+
Heating Mod	Heating Mode Enable Setpoint			Degrees	
Unoccupied Cooling Offset			30.0	Degrees	
Unoccupied Heating Offset			30.0	Degrees	
Mode Selection Deadband			1.0	Degrees	-
Temps	Static Sta	ging Mi	sc	Relays C	onfig

Figure 34: VCB-X Controller Temperature Setpoints Screen

Individual setpoint and configuration buttons are located at the bottom of the *Setpoint Screens*. See **Figure 35**. Simply *touch* a specific button to access that category.



#### Figure 35: VCB-X Setpoint Buttons

Within each Setpoint Screen, *touch* the **<Status>** button to return to the *Status Screen* or *touch* **<Home>** to return to the *Main Screen*.

Use the <+> and <-> buttons to scroll through the setpoints and configurations. Simply *touch* the blue highlighted box to change the setpoint. Each setpoint data entry screen will provide a definition of the setpoint and specific instructions for entering the setpoint and will include the setpoint range as in the example below, **Figure 36**.

		urrently:	75		
When the temperature at the controlling sensor is above this setpoint plus the	Esc	1	2	3	~~
deadband, the unit will enter the Cooling Mode.		4	5	6	
Hi Limit: 99 Deg		7	8	9	
Lo Limit: 1 Deg		-,	0		ок

#### Figure 36: VCB-X Cooling Mode Setpoint Data Entry Screen

*Touch* **<OK>** to have the system accept the new value. If you enter a setpoint that is not in the valid range, the setpoint will remain as is and will not change.

Each setpoint data entry screen is self-explanatory; however, each setpoint and configuration is explained in the full version of the manual for the SMTS II which can be downloaded from our website, www. orioncontrols.com.

# **VAV/Zone Controllers**

# Viewing VAV/Zone Status Screens and Enabling Alarms

## Viewing VAV/Zone Status Screens

**Figure 37** depicts a *VAV/Zone Controller Status Screen*. Notice that the controller is identified by loop number and unit number - in this case, 0101 represents Loop 1, Unit 1.



Figure 37: VAV/Zone Controller Status Screen

## Viewing Alarm Status

- To view alarm status, *touch* the **<ALARM>** button on the unit's *Status Screen* located at the right of the temperature display. See **Figure 38**. The *Alarm Status Screen* will display. See **Figure 39**. Only a Level 3 user has the option to enable or disable each type of alarm.
- **NOTE:** The red **<ALARM>** button only appears on the screen if the unit has an active alarm condition.

Alarm Status	Co	oling Only Box Jnit ID: 0002
	ок	Space Sensor Failure
	ок	Airflow Sensor Failure
	ок	Damper Failed to Drive Open
	ок	Damper Failed to Drive Closed
	ок	High Space Temperature Alarm
	ок	Low Space Temperature Alarm
Васк	ALARM	Damper Feedback Failure

Figure 38: VAV/Zone Controller Alarm Status Screen

## Enabling/Disabling VAV/Zone Alarms

Alarm configuration is accessed by *touching* the **<ALARM>** button located at the far right bottom of the *Status Screen*. Only a Level 3 user can configure alarms.

In addition to simply viewing alarms, the *Alarm Status Screen* can also be used for enabling and disabling alarms that will be emailed or texted. The emailing and texting feature will only work if Prism 2 is running and has emailing capability.

The alarms must first be configured using Prism 2 software. See the Appendix in this guide for instructions.

Once the alarm settings have been established in Prism 2, the settings you choose in the *Alarm Status Screen* will be stored in the controller so that you will not have to reconfigure the alarms for that controller in Prism 2. Once configuration is complete, Prism 2 does not have to be running in order to view alarms on individual *Alarm Status Screens* in the System Manager TS II. However, as mentioned previously, Prism 2 does have to be running for emailing or texting alarms to occur.

To enable an alarm, simply *touch* the grey square to the left of the alarm. A white box designates that the alarm is enabled. To disable the alarm, simply *touch* the square again.

Alarm Status	Cooling Only Box Unit ID: 0002		
	ОК	Space Sensor Failure	
	ок	Airflow Sensor Failure	
	ок	Damper Failed to Drive Open	
	ок	Damper Failed to Drive Closed	
	ок	High Space Temperature Alarm	
Back	ок	Low Space Temperature Alarm	
Dack	ALARM	Damper Feedback Failure	

#### Figure 39: VAV/Zone Controller Alarm Screen

In the example above (**Figure 39**), there is an ALARM, designated by the word ALARM in red linear to Damper Feedback Failure. If there is no alarm condition, the word OK appears in a box linear to each alarm.

# Accessing and Entering VAV/Zone Setpoints

# Accessing and Entering VAV/Zone Setpoints

While in the *VAV/Box Status Screen* (see **Figure 40**), *touch* the **<Setpoints>** button found on the bottom menu bar.

**NOTE:** Level 1 and Level 2 users can change occupied space temperature setpoints, but only Level 3 users can change all setpoints.



#### Figure 40: VAV/Zone Controller Status Screen

The Setpoint Screen that first appears will always be the Temperature Setpoints Screen. Figure 41 depicts a VAV/Zone Controller Temperature Setpoint Screen.

	JUU2 Page	1 of 2 1	remperatures	Back
Occupied Cooling Setpoin	74	Degrees	+	
Occupied Heating Setpoin	70	Degrees		
Unoccupied Cooling Offse	10	Degrees		
Unoccupied Heating Offse	-10	Degrees		
Maximum Sensor Slide Ad	0	Degrees	-	

Figure 41: VAV/Zone Controller Temperature Setpoint Screen

Individual setpoint and configuration buttons are located at the bottom of the *Setpoint Screens*. See **Figure 42**. Simply *touch* a specific button to access that category.



#### Figure 42: VAV/Zone Setpoint Buttons

Within each *Setpoint Screen*, *touch* the **<Status>** button to return to the *Status Screen*, or *touch* **<Home>** to return to the *Main Screen*.

Use the **<+>** and **<->** buttons to scroll through the setpoints and configurations. Simply *touch* the blue highlighted box to change the setpoint. Each setpoint data entry screen will provide a definition of the setpoint and specific instructions for entering the setpoint and will include the setpoint range as in the example below, **Figure 43**.

DATA ENTRY	C	urrently:	74		
Occupied Cooling Setpoint This is the Cooling Mode Space					
Temperature maintained during Occupied Hours or Override	Esc	1	2	3	<<
Periods.		. 4	5	6	
Hi Limit: 90 Deg		7	8	9	
Lo Limit: 50 Deg		-	0	•	ок

# Figure 43: Occupied Cooling Setpoint Data Entry Screen

*Touch* **<OK>** to have the system accept the new value. If you enter a setpoint that is not in the valid range, the setpoint will remain as is and will not change.

Each setpoint data entry screen is self-explanatory; however, each setpoint and configuration is explained in the full version of the manual for the SMTS II which can be downloaded from our website, www. orioncontrols.com.

## System Manager TS II LEDs, Buttons, Dipswitches & Jumpers

LEDs and system function buttons are located behind your System Manager TS II's cover. See **Figure 44** for locations. Dipswitches and jumpers are located on the back of your System Manager TS.

### Power LED

This LED will light up and stay on as long as power is supplied to your TS.

## **Operation LED**

This LED will blink once a second to indicate that the system is alive.

#### Update LED

This LED will turn on when the Update program is running.

#### Screen Refresh LED

This LED will turn on when the screen refreshes.

#### **Communications LED**

This LED will light up and blink when there is a connection with the CommLink and/or network. If you are using your TS in stand-alone mode, this LED will not light up.

#### **Reset Button**

*Press* this button to reset the screen. The screen should refresh itself to the *Main Screen* within 2 minutes.

#### **Diagnostics Button**

Under the direction of WattMaster Controls Technical Support, you may have to perform diagnostics on your System Manager TS II. *Press* this button to do so.

#### **Touch Screen Suspend Button**

*Press* this button to temporarily freeze the touch screen function of your System Manager TS II in order to clean the screen. Always use a dry, dust -free cloth to clean the screen.

#### **OPT1** Dipswitch

For High Speed applications, the OPT1 Dipswitch should be ON. For all other applications, it should be OFF. This Dipswitch is located on the back of the System Manager TS. See **Figures 5-8**, **pages 7-10** for location.

#### **OPT4 Dipswitch**

As of April 2014, Dipswitch OPT4 should be set to ON by default. Previous versions should be set to OFF. If you see your screen is not centered correctly, switch OPT4 to the opposite position. This Dipswitch is located on the back of the System Manager TS. See **Figures 5-8**, **pages 7-10** for location.

#### **TERM Jumpers**

Both TERM Jumpers must be ON for Stand-Alone applications (No CommLink or MiniLink). Both TERM Jumpers must be OFF for applications with CommLink(s) and/or MiniLink(s). See **Figures 5-8**, pages **8-11** for location.



#### Figure 44: System Manager TS II LEDs and Buttons

# Alarm Polling Setup Using Prism 2

# Setting Up Alarm Polling for Controllers

In order to set up Alarm Polling to work with the System Manager TS II, you must have a CommLink and MiniLink Polling Device installed on your system. The following procedure must be done for the MiniLink Polling Device on each loop.



In the *Loop Selection Window* of the *Prism 2 Main Screen, select* the loop where your Mini-Link Polling Device is located. Then, in the *Unit Selection Window scroll down* to Address 60 - MiniLink PD and click once on your selection. (**Figure 45**)

🔛 Polling Device Setpoints	
Egit Save Bestore CopytoALL Configure IenantLogging Alarm Polling	
Selected Unit on Loop 1 Address 60 MiniLink PD	
Configuration	
Type Of System	
This Polling Device is Installed on a Zoned Voting System	
This Polling Device is Installed on a VAV System	
3 Address of Last VAV/Zone Controller on Local Loop	
Optimal Start Target Zone [-1 = Average All Zones 0 = No Optimal Start Zones 1-58 = Target Zone 1	
Ready	

#### Figure 47: Polling Device Setpoints Window

*Click* the **<Alarm Polling>** option at the top far right of the *Polling Device Setpoints Window*. The *Alarm / Override Polling Window* will appear. (**Figure 48**)

Egit Save Restore Copy to ALL	Configure Tenant Logging	Alarm Poling				
Selected Unit on Loop 1 Address 60	MinLink PD					
Alarm / Override Polling	Alarm / Override Polling					
A Checkmark Indicates the Unit Will Be Polled for Alarms and Push-Button Overrides						
#01: -VAV/ Zone Control	#16: -	#31: -	#46: -			
Ø02: -VAV/ Zone Control	#17: -	#32: -	🗖 Ø47: -			
Ø03: -VAV Box Controller	#18: -	F #33: -	<b>#48:</b> -			
E #04: -	#19: -	#34: -	🔽 #49: -			
#05: -GPC-X	#20: -	#35: -	<b>#</b> 50: -			
📕 #06: -	#21: -	#36: -	<b>#</b> 51: -			
F #07: -	#22: -	#37: -	#52: -			
/08: -MUA II	/23: -	#38: -	F #53: -			
<b>#</b> 09: -	#24: -	#39: -	#54: -			
#10:-	#25: -	#40: -	#55: -			
F #11:-	#26: -	#41: -	<b>#</b> 56: -			
#12:-	#27: -	#42: -	#57: -			
F #13:-	#28: -	#43: -	#58: -VCM Air Handler			
T #14: -	#29: -	<b>#11:</b>	#59: -VCMX Air Handler			
#15: -VAV/CAV	#30: -	#45: -	/ #60: -MiniLink PD			
Ready						

#### Figure 48: Alarm / Override Polling Window

In the *Alarm / Override Polling Window, click* the box to the left of each controller to choose alarm polling and push-button overrides for that controller. A check mark in the box designates alarm polling/push-button override.

#### Figure 45: Loop & Unit Selection Windows

The *Polling Device Window* will appear. (Figure 46)



#### Figure 46: Polling Device Window

*Click* **<Setpoints>** at the top of the screen. The Polling Device Setpoints Window will appear. (Figure 47)

# **Military Time Conversion**

## **Military Time Conversion**

The main difference between regular and military time is how hours are expressed. Regular time uses numbers 1 to 12 and a.m. and p.m. to identify each of the 24 hours in a day. In military time, the hours are numbered from 0000 to 2300.

Military time is based on a 24-hour day. Hours are numbered 0000 through 2300 and are recorded first. The last two digits indicate the minute after the hour. Military time does not exceed 2359 hours. For example, midnight is recorded as 0000; one minute past midnight is 0001; 1 a.m. is 0100, 1 p.m. is 1300, and so on.

Regular and military time express minutes and seconds in exactly the same way. When converting from regular to military time and vice versa, the minutes and seconds do not change.

Regular time requires the use of a.m. and p.m. to clearly identify the time of day. Since military time uses a unique two-digit number to identify each of the 24 hours in a day, a.m. and p.m. are unnecessary.

The following table summarizes the relationship between regular and military time.

Regular Time	Military Time
12:00 a.m.	0000
12:30 a.m.	0030
1:00 a.m.	0100
1:30 a.m.	0130
2:00 a.m.	0200
2:30 a.m.	0230
3:00 a.m.	0300
3:30 a.m.	0330
4:00 a.m.	0400
4:30 a.m.	0430
5:00 a.m.	0500
5:30 a.m.	0530
6:00 a.m.	0600
6:30 a.m.	0630
7:00 a.m.	0700
7:30 a.m.	0730
8:00 a.m.	0800
8:30 a.m.	0830
9:00 a.m.	0900
9:30 a.m.	0930
10:00 a.m.	1000
10:30 a.m.	1030
11:00 a.m.	1100

Table 6: Military Time Conversion

Regular Time	Military Time
11:30 a.m.	1130
12:00 p.m.	1200
12:30 p.m.	1230
1:00 p.m.	1300
1:30 p.m.	1330
2:00 p.m.	1400
2:30 p.m.	1430
3:00 p.m.	1500
3:30 p.m.	1530
4:00 p.m.	1600
4:30 p.m.	1630
5:00 p.m.	1700
5:30 p.m.	1730
6:00 p.m.	1800
6:30 p.m.	1830
7:00 p.m.	1900
7:30 p.m.	1930
8:00 p.m.	2000
8:30 p.m.	2030
9:00 p.m.	2100
9:30 p.m.	2130
10:00 p.m.	2200
10:30 p.m.	2230
11:00 p.m.	2300
11:30 p.m.	2330

#### Table 6, cont.: Military Time Conversion

24-Hour Military Format......28 1111......13 2222......13 3333......13

# A

Active Alarms.......17 Address.......16 Alarm Button......19, 20, 24 Function......11 Alarm Categories......19, 20 Alarm Polling Enabled......16 Alarm Settings......19, 20 Alarms Icon......17 Description......11 Alarm Status Screen......20 VAV/Zone......24 VCM-X......19 Arrow Keys Defined......11 Asterisks.......13

## В

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