



# System Manager TS II For GPC-XP Technical Guide

GPC-XP Controller Code: YS102432 Revision 4.0 and up



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Form: OR-SMTSII-GPCXP-TGD-01A  
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## Features

The OE392-10-GPCXP System Manager TS II (Touch Screen) for the GPC-XP Controller provides a direct, graphic-enhanced, menu-driven link to enable you to view the status, perform force modes, and set schedules for your GPC-XP Controller. (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 easy-to-understand menu trees and icons and non-cryptic, plain English language messages
- Makes entering data quick and easy with instructions on each screen
- Graphic status screens provide easy monitoring of the GPC-XP without 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 for flush wall mounting. 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 for GPC-XP only communicates with the GPC-XP Controller

**NOTE:** Initial programming of the GPC-XP must first be done with a personal computer using our Prism 2 software. The Prism 2 software can be downloaded from our website—[orioncontrols.com](http://orioncontrols.com). See the *GPC-XP Controller Technical Guide* for detailed instructions. The GPC-XP contains an on-board CommLink, allowing you to directly connect to a computer using a USB cable.



**Figure 1: System Manager TS II for the GPC-XP**

## 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, page 5**) or on a concrete, brick, or other solid wall surface with the surface mount version (shown in **Figure 4, page 6**).

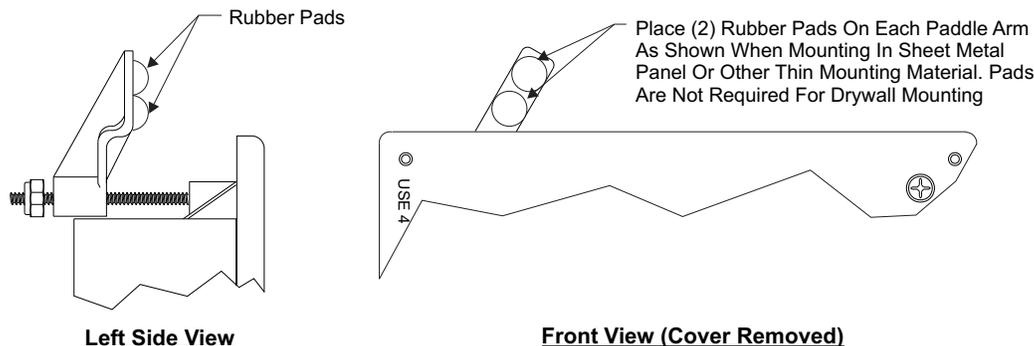
The flush wall mount version has integral wingnut paddles that are tightened after installation to grip the drywall and hold the System Manager TS II in place. For mounting in a control panel cover or other thin material, (4) adhesive backed rubber pads are provided to assist in securing the System Manager 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, below**, 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.

### 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 19** for details.



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

### 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 **Figure 5, page 7** for wiring details. This wiring diagram depicts wiring the System Manager TS II to the GPC-XP 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 **Figure 5, page 7**.

### Dipswitch and Jumper Settings

If the GPC-XP Controller is set at high speed, Dipswitch OPT1 should be set to ON. Otherwise, it should be set to OFF. As of April 2014, Dipswitch OPT4 should be set to ON by default. 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 **Figure 5, page 7** 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 **Figure 5, page 7** 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.

Flush Wall Mount Dimensions and Components

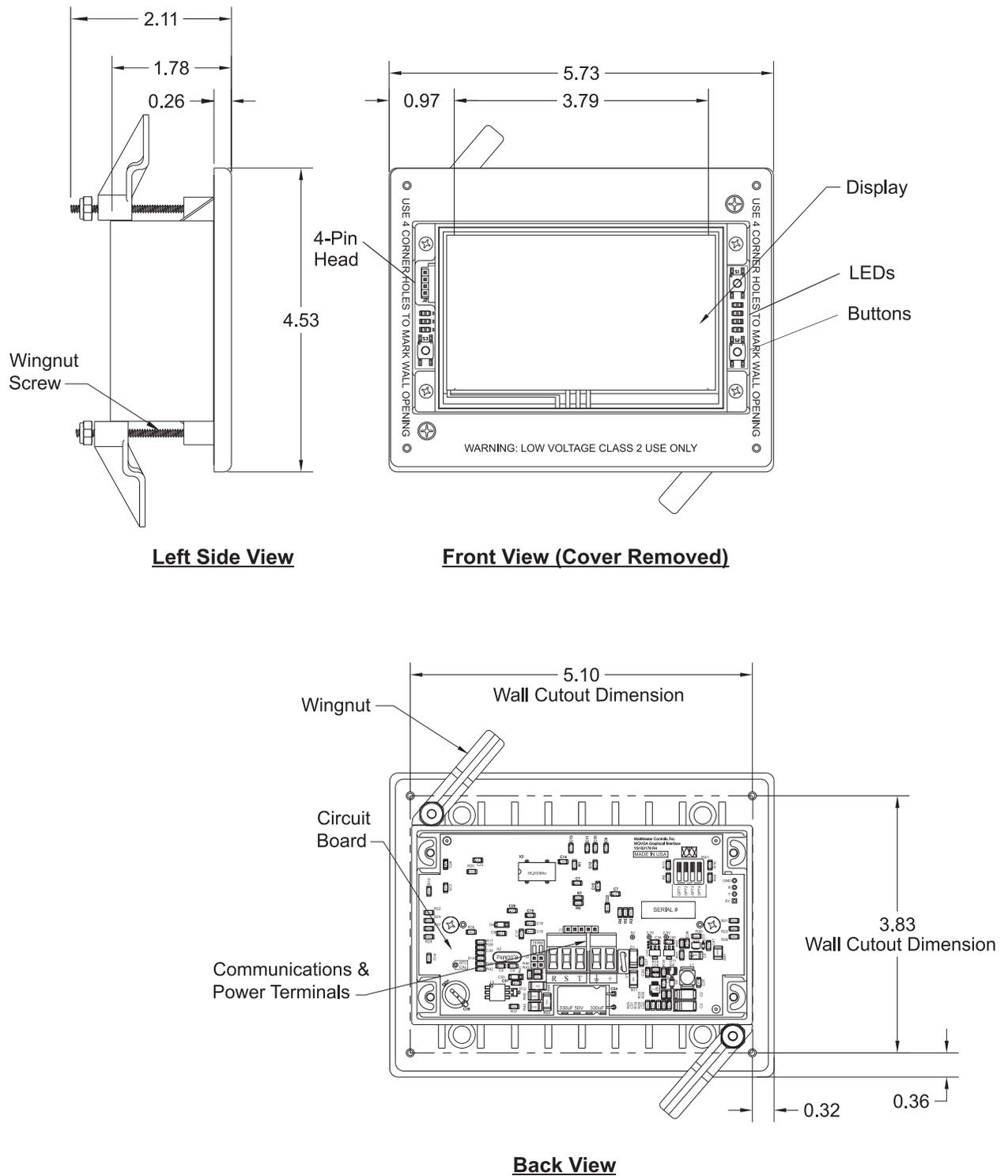
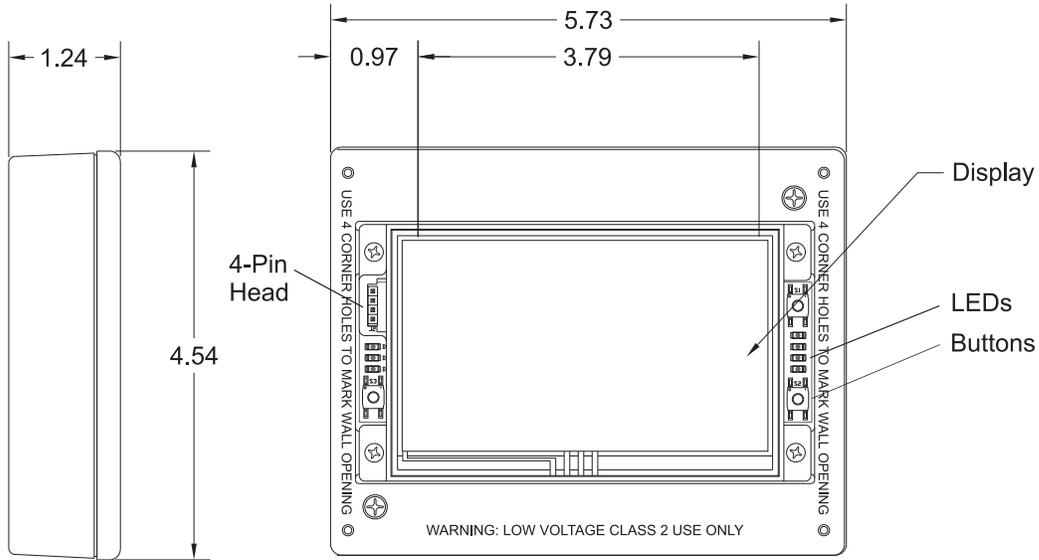


Figure 3: System Manager TS II Dimensions and Components (Flush Wall Mount)

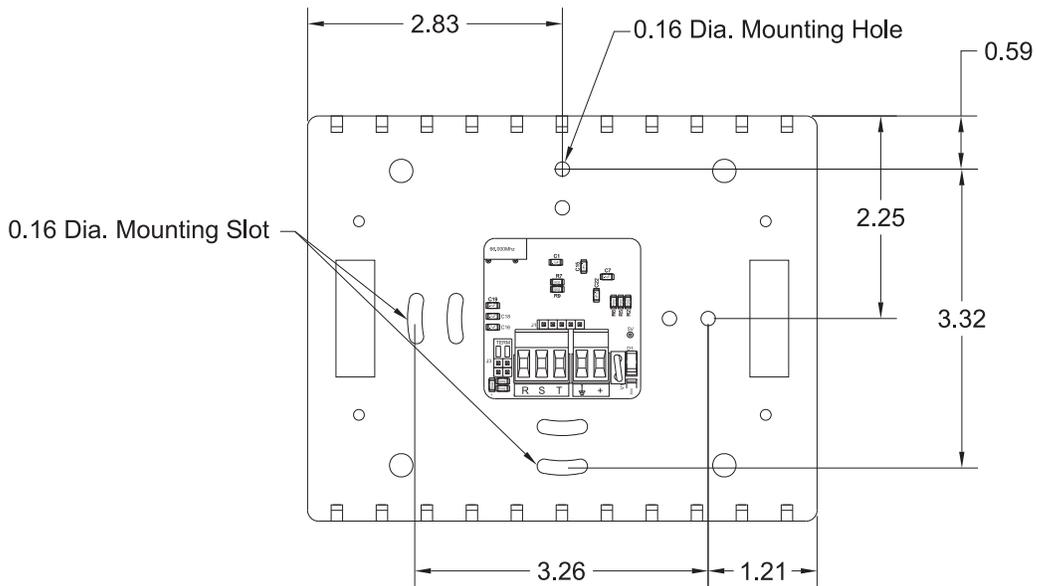
# COMPONENTS & WIRING

## Surface Mount Dimensions and Components



**Left Side View**

**Front View (Cover Removed)**



**Back View**

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

SMTS II to GPC-XP Controller Wiring

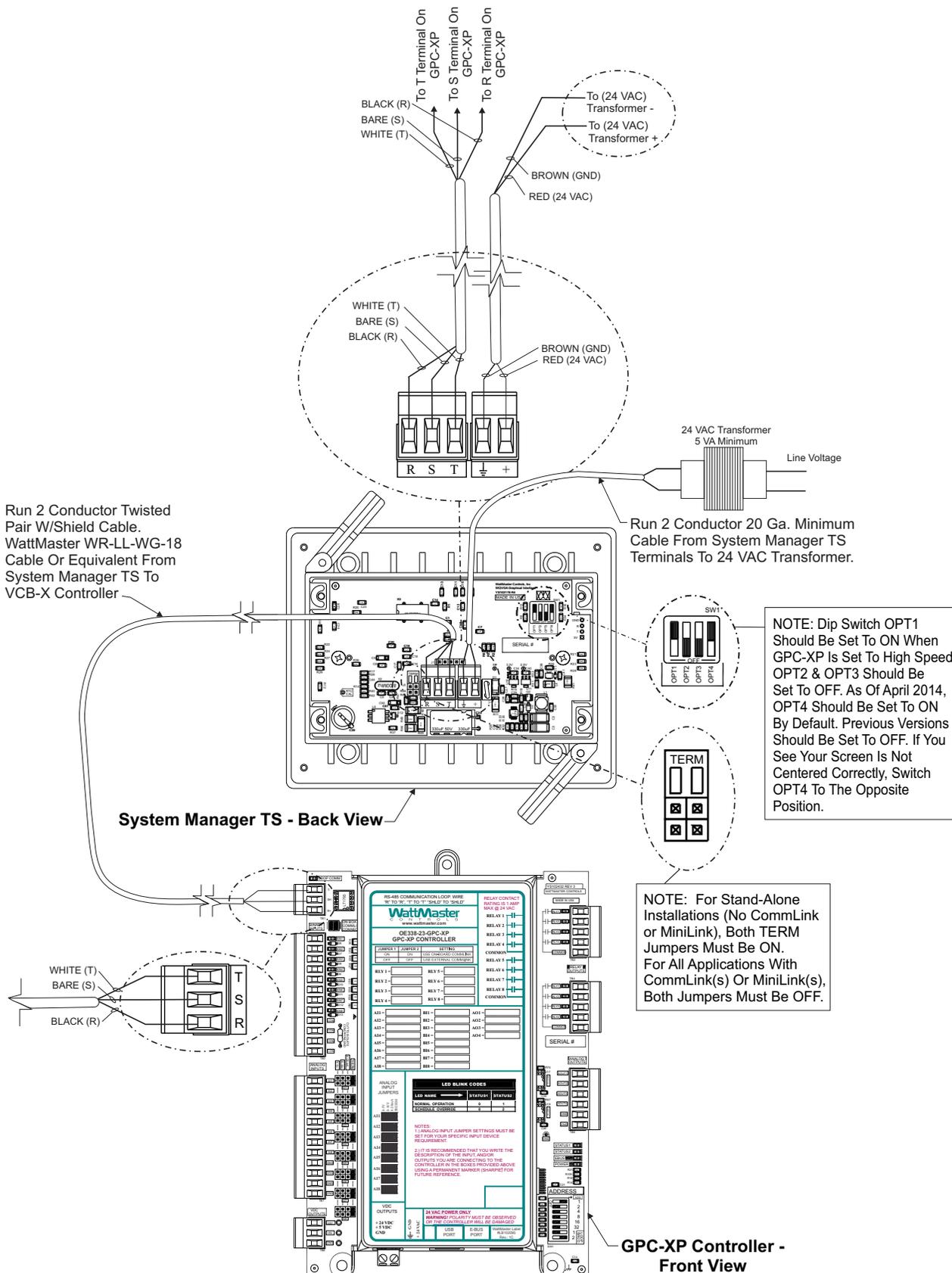


Figure 5: System Manager TS II to GPC-XP Controller Wiring

## Main Screen Icons and Button Functions

### Icons and Button Functions

System settings and screens are easily accessible by simply *touching* one of the five icons on the *Main Screen*. The subscreens contain green outlined 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 GPC-XP is initializing. This can cause programming errors.

### Main Screen Icons

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

Icon	Main Screen Icons
	The <Login> icon takes you to the <i>Login Screen</i> where you enter your passcode.
	In a networked system, the <My System> icon takes you to a <i>Unit Selection Screen</i> which takes you directly to the GPC-XP Controller's <i>Status Screen</i> . In a stand-alone system, the <My System> icon takes you directly to the <i>Status Screen</i> .
	The <User Passcodes> icon takes you to the <i>System Manager Passcode Levels Screen</i> if you are a Level 3 user.
	The <Settings> icon takes you to the <i>System Settings Screen</i> where you can change the Backlight settings, set the System Manager address, or choose One to One Unit Connection (stand-alone connection). System settings are only accessible to a Level 3 user.
	The <Set Time & Date> icon takes you to the <i>Set Time and Date Screen</i> . 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
	Use the <Back> button while in a <i>Data Entry Screen</i> to return to the <i>Status Screen</i> . Use the <Back> button while in a <i>Status Screen</i> to return to the <i>Main Screen</i> .
	Use the <+> key to step to the next screen.
	Use the <-> key to step to the previous screen.

**Table 2: Navigation Button Functions**

### Data Entry, Selection, and Alarm Buttons

See **Table 3** for a list of data entry, selection, and alarm buttons and their functions.

Button	Function
	Use the <Esc> (Escape) key to exit from data entry without saving any new data.
	Use the <OK> key to save the data you just selected or entered.
	<i>Touch</i> the gray 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 gray square to make your selection. A white square will designate that the item is selected. You can select more than one square per list of items.
 	The <No Alarms> or <ALARM> button, appearing on each <i>Status Screen</i> , takes you directly to the <i>GPC-XP Alarm Status Screen</i> where you can program alarms and view active alarms. If red, alarm(s) are present. If black, no alarm(s) are present.

**Table 3: Configuration Selection Buttons**

## First Things First

The first thing you need to do when setting up your Touch Screen is to log in. 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 GPC-XP status screens, change schedules, and perform force modes.

NOTE: Do not attempt to make changes to the Touch Screen while the GPC-XP 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 6**.



**Figure 6: Main Screen**

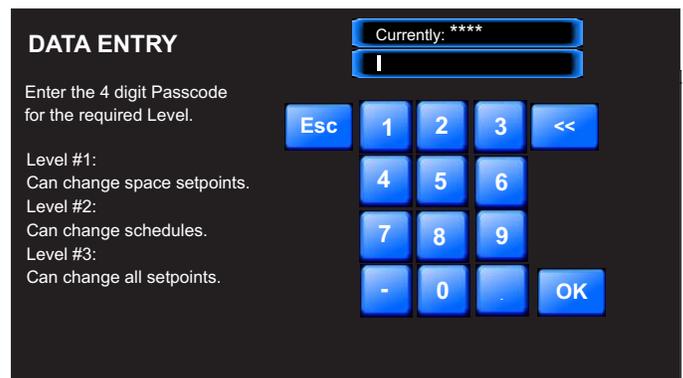
## Entering Your System Manager Passcode

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 under the time display at the upper right 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 7**.



**Figure 7: 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>. 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 under the time display at the upper right of the *Main Screen*.

NOTE: System Access will automatically default to System Secured after the time set for **Backlight Timeout** in the *System Manager Settings Screen* (see **Figure 12, page 12**). If timeout is set to zero, the passcode will timeout after two minutes.

## 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 status screens. They can also change the system date and time. No other changes can be made at this level.

#### Level 1—Default: 1111

Level 1 users can view status screens. They can also change the system date and time. A level 1 user can also temporarily override a schedule.

#### Level 2—Default: 2222

Level 2 users can view status screens. They can also change the system date and time. Level 2 users can also set schedules and holidays and temporarily override a schedule.

#### Level 3—Default: 3333

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

### Edit Passcodes

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**WARNING: MAKE SURE YOU CHANGE ALL PASSCODES AS SOON AS POSSIBLE TO SECURE THE SYSTEM!**

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

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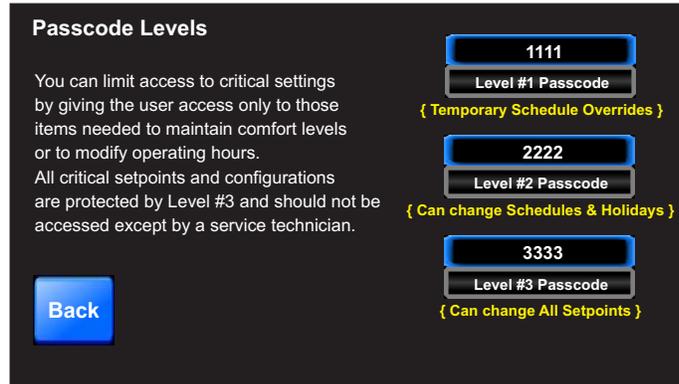
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**NOTE:** Do not use the same passcode for all 3 levels. If you do, each passcode will default to Level 1.

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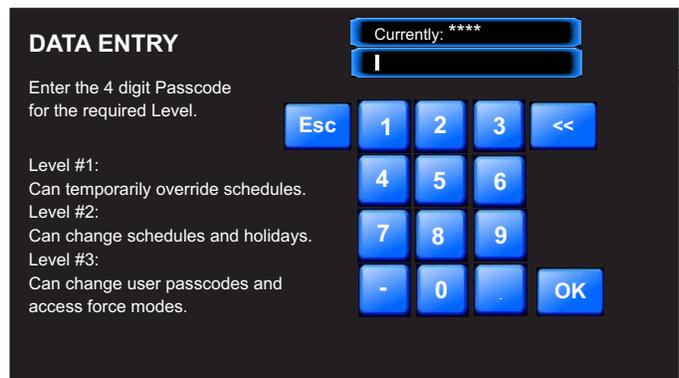


From the *Main Screen*, touch the <User Passcodes> icon. The *System Manager Passcode Levels Screen* will appear. See **Figure 8**.



**Figure 8: 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 9**.



**Figure 9: 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 now display the passcode that you entered.

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**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.

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

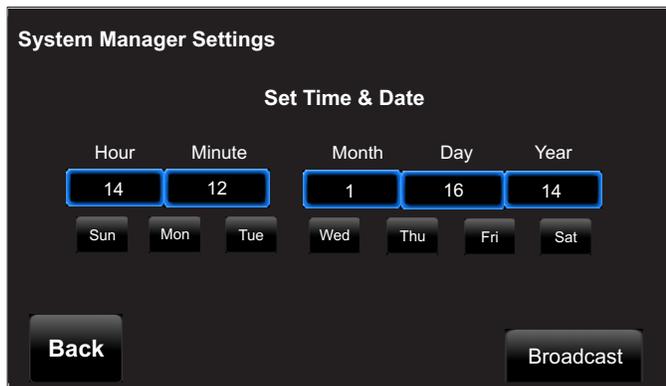
### Set Time and Date

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 6, page 9**.



From the *Main Screen*, touch the <Set Time & Date> icon. The *Set Time & Date Screen* will appear. See **Figure 10**.



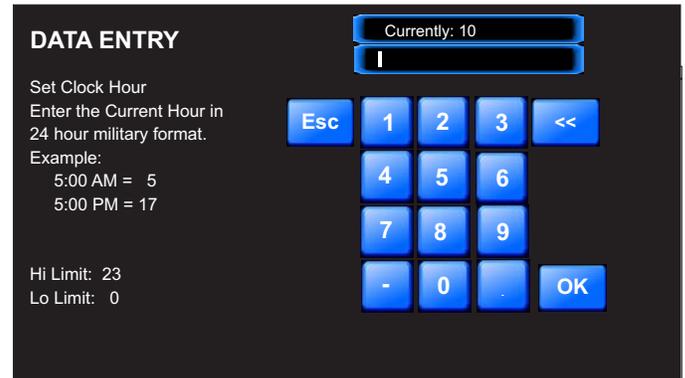
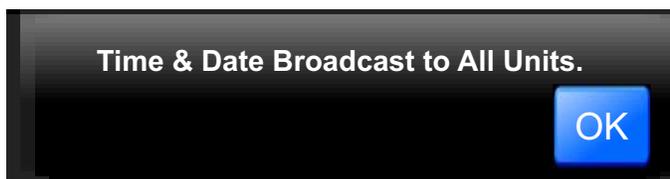
**Figure 10: Set Time & Date Screen**

In the example above, the current time and date is 2:12 PM, January 16, 2014. 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 high-lighted box to have each selection screen appear. See **Figures 10 & 11**. 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 11: 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 on page 20** for a 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, 14 = 2014. If you enter more than two digits, e.g. 2014, the system will not recognize your entry.

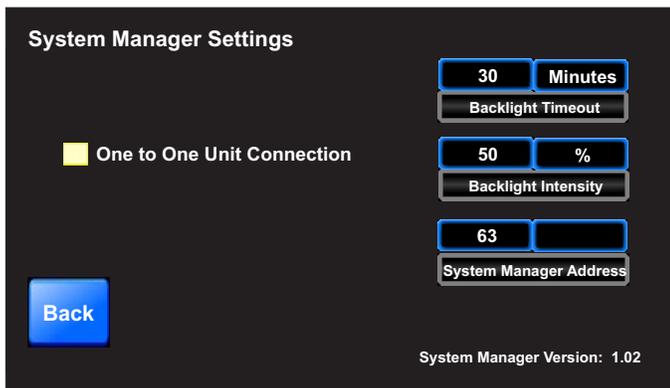
## System Manager Settings

### 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, and One to One Unit Connection.



From the *Main Screen*, touch the <Settings> icon. The *System Manager Settings Screen* will appear. See **Figure 12**.



**Figure 12: 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.

**One to One Unit Connection:** If your System Manager TS II is directly connected to the GPC-XP Controller, 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.

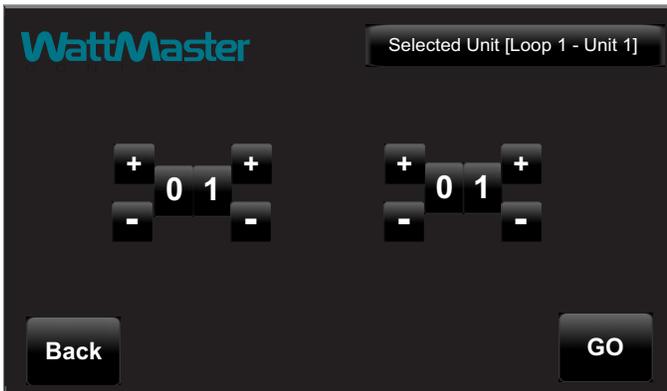
**System Manager Version:** The version number of the System Manager software appears on the bottom menu bar. This version number is important to know for troubleshooting purposes.

### My System Unit Selection



From the *Main Screen*, touch the <My System> icon. The *Selected Unit Screen* will appear. See **Figure 13**.

NOTE: If you have chosen the **One to One Unit Connection** in the *System Manager Settings Screen*, this screen (**Figure 13**) will not appear. Instead, the unit's first *Status Screen* will appear.



**Figure 13: Unit Selection Screen**

In **Figure 13**, 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*.

### Viewing / Configuring GPC-XP Status Screens

**Figures 14-27** depict the *GPC-XP Status Screens* and corresponding *data entry screens* associated with them. Notice that the controller is identified by loop number and unit number - in this case, 0001 represents Unit 1 with a stand-alone connection.

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



**Figure 14: Analog Inputs Screen**

**Analog Inputs:** Thermistor sensors can be calibrated and all readings can be overridden to specific values by Level 3 users. To do this, while in the *Analog Input Screen*, touch the value field for the sensor you would like to calibrate or override.

In this example below (**Figure 15**), Analog Input #1 - OSA Temperature Sensor is selected.



**Figure 15: Analog Input Details Screen**

**Calibrate Sensor:** To calibrate a thermistor sensor, touch the Calibrate Sensor value field. The *Data Entry Screen* will appear. Type a positive value to increase the reading or a negative value to decrease the reading. High Limit: +100. Low Limit: -100. Press <OK> to save.



**Figure 16: Calibrate Sensor Data Entry Screen**

# GPC-XP CONTROLLER SCREENS

## Analog Inputs, Binary Inputs, and Relay Outputs

**Override Reading:** To override a reading for a thermistor sensor, *touch* the Override Reading value field. The *Data Entry Screen* will appear. (Figure 17) *Type* a value that will override the actual sensor reading and *press* <OK> to save. High Limit: 3000. Low Limit: -80.

**Clear Sensor Override:** To clear an override for a thermistor sensor, *touch* the Override Reading value field. The *Data Entry Screen* will appear. (Figure 17) *Type* -90 to clear a sensor override that was entered. *Press* <OK> to save.



Figure 17: Sensor Override Data Entry Screen



Figure 18: Binary Inputs Screen

**Binary Inputs:** Level 3 users can force a binary input on or off or to return it back to normal operation. To do this, while in the *Binary Inputs Screen* (Figure 18), *touch* the value field for the binary input you would like to force on or off.

In this example that follows (Figure 19), Binary Input #1 - Chilled Water Flow - is selected.

You can now *select* the radio button for the force mode—Normal Operation, Force Input Active, or Force Input Off.



Figure 19: Binary Input Force Mode Screen



Figure 20: Relay Outputs Screen

**Relay Outputs:** Level 3 users can force a relay on or off or to return it back to normal operation. To do this, while in the *Relay Outputs Screen* (Figure 20), *touch* the value field for the Relay you would like to force on or off.

In the example below (Figure 21), Relay Output #5 - Tower Fan - is selected. *Touch* the Tower Fan's data field. The *Relay Output Force Mode Screen* will appear (Figure 22).



Figure 21: Relay Output Details Screen



**Figure 22: Relay Output Force Mode Screen**

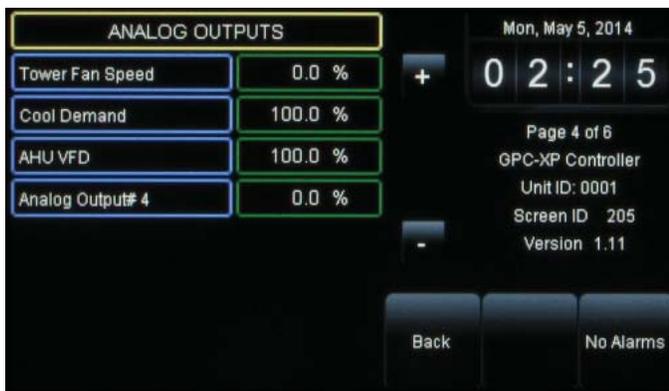
**Relay Force:** You can now *select* the radio button for the force mode—Normal Operation, Force Relay On, or Force Relay Off.

**Runtime Reset:** You can also *touch* the Runtime Hrs and Runtime Minutes data field to reset Runtimes (**Figure 21**).



**Figure 25: Analog Output Force Screen**

**Force Analog Output:** From the *Analog Output Detail Screen* (**Figure 24**), you can access the *Force Screen* (**Figure 25** above) by *selecting* the Force Value data field. *Enter* a percentage between 0 and 100. *Enter* -1 to Cancel the Force Mode.



**Figure 23: Analog Outputs Screen**

**Analog Outputs:** From the *Analog Outputs Screen* (**Figure 23**) you can access the detail screen by *selecting* one of the data fields. In the example below (**Figure 24**), Tower Fan Speed is selected.

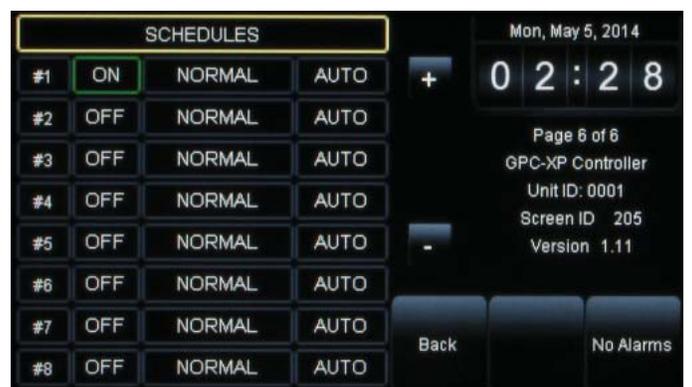


**Figure 26: Outdoor and AVC Status Screen**

**Outdoor and AVC Status:** This screen (**Figure 26**) is for viewing only.



**Figure 24: Analog Output Detail Screen**



**Figure 27: Schedules and Holidays Screen**

**Schedules & Holidays:** Refer to the next section for instructions.

## Viewing and Setting Schedules

### Viewing and Setting Schedules

You can view and set schedules from *GPC-XP Status Screen #6*. You can set up to 8 different schedules. See **Figure 28** below.



**Figure 28: Status Screen #6 - Schedules**

To set a schedule, *touch* the <ON> or <OFF> button to the right of the Schedule #. The *Week Schedules Screen* will appear. See **Figure 29**.

The default day will be Sunday and the default event start/stop times will be midnight.

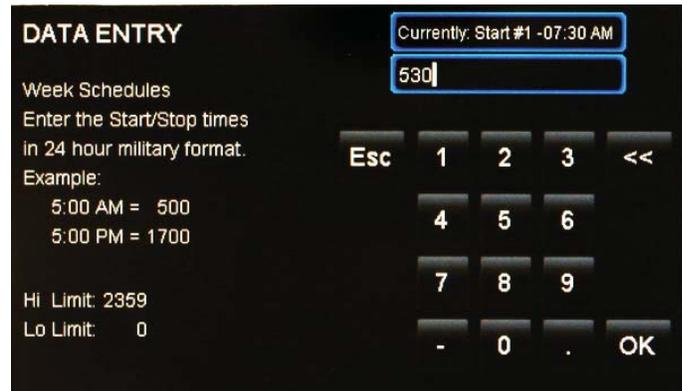


**Figure 29: Week Schedules Screen**

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 29**. All times must be entered in military time format. See the Military Time Table in the **Appendix, page 20**.



**Figure 30: 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 *Week Schedules Screen* (**Figure 29**).

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 *Week 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 & Schedule Override

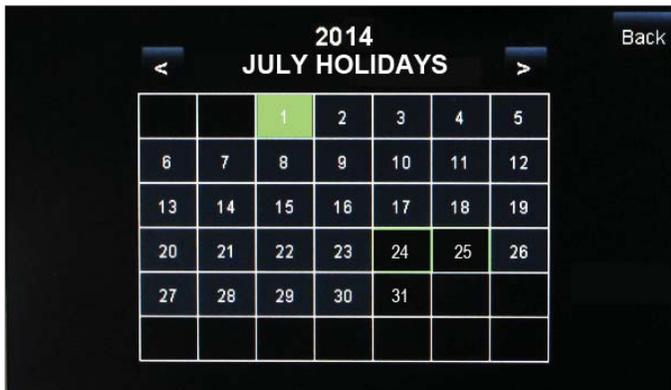
### Viewing and Setting Holidays

You can set holidays from *Status Screen #6*. See **Figure 31** below. You can set up to 8 different holiday schedules. You must be a Level 2 user in order to set holidays.



**Figure 31: Status Screen #6 - Schedules**

To view and set holidays, touch the <NORMAL> button for the desired Schedule #. The *Holidays Schedule Screen* will appear, starting with the current month and year. See **Figure 32**.



**Figure 32: Holidays Schedule Screen**

The holidays in the screen will initially not be set. You can only set holidays for the current year. 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.

### Schedule Override

Level 1, 2, and 3 users can override schedules. To override a schedule, while at *Status Screen #6* (**Figure 31**), touch the <AUTO>, <ON>, or <OFF> button next to the <NORMAL> button. The *Schedule Override Screen* will appear (**Figure 33** below):



**Figure 33: Schedule Override Screen**

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 operation.
- 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.

# ALARMS

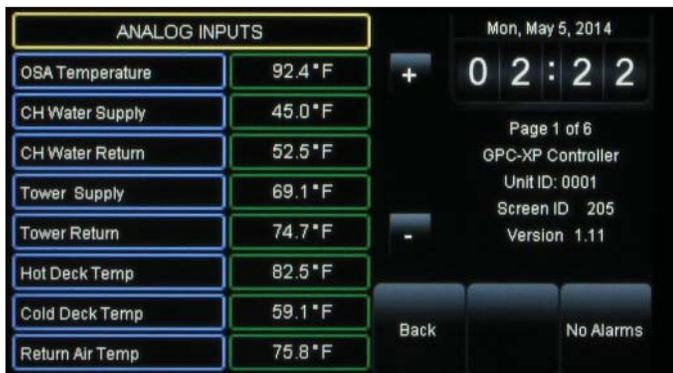
## Viewing and Enabling/Disabling Alarms

### Viewing/Enabling/Disabling Alarms

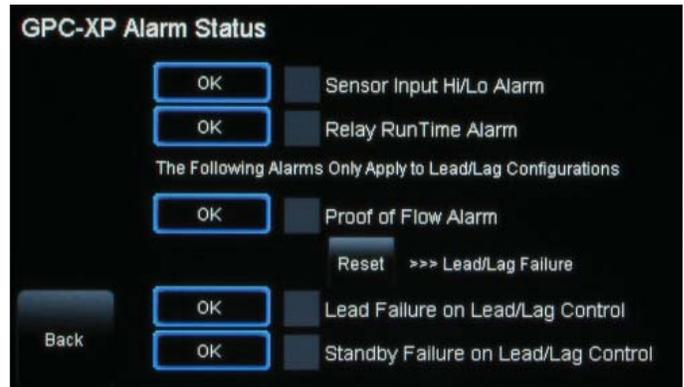
To view or configure alarms, *touch* the <No Alarms> or <ALARM> button on any of the *Status Screens*. See **Figure 34**. The *GPC-XP Alarm Status Screen* will display. See **Figure 35**.



NOTE: The <ALARM> button only appears red 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 34: GPC-XP Status Screen 1**



**Figure 35: GPC-XP Controller 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. 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 the *Alarm Status Screen* 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 gray square next to each alarm. A white box designates that the alarm is enabled. To disable the alarm, simply *touch* the square again. A gray box designates that the alarm category is disabled.

When an alarm is enabled and there is no alarm condition, the word OK appears in a box next to the type of alarm. When an alarm occurs, this box will turn red and will read ALARM.

## 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 36** 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

OPT1 Dipswitch should be ON if the GPC-XP is set to High Speed. This Dipswitch is located on the back of the System Manager TS. See **Figure 5, page 7** 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 **Figure 5, page 7** 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 **Figure 5, page 7** for location.



**Figure 36: System Manager TS II LEDs and Buttons**

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

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Printed in the USA

May 2014  
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